FORT BEND ISD
BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

STEPHEN F. AUSTIN HIGH SCHOOL

100% CONSTRUCTION DOCUMENTS

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SCOPE OF WORK

SID12507 - RENOVATE LOCKER ROOMS (GYM)
- REPAINTING WALLS
- REPLACING SIGNAGE
- REPLACE DRINKING FOUNTAINS WITH BOTTLE FILLERS
- REPLACE HAND DRYERS
- INSTALLING NEW SHOWERS
- NEW EPOXY FLOORING
- NEW BENCHES
- NEW LOCKERS
- NEW SIGNAGES

SID12512 - RENOVATE FIELD EVENTS. RENOVATE FOOTBALL PRESS BOX.
- INCLUDES REPAIRING TRACK CURB ALONG NORTH EDGE
- IRRIGATION AROUND TRACK PERIMETER
- NEW CONCRETE VAULT PAD
- REPLACING PRESSBOX WINDOWS FOOTBALL PRESSBOX
- NEW STORAGE BUILDING FOR FOOTBALL

SID12529 - RENOVATE BASEBALL PRESS BOX
- REPLACING PRESSBOX WINDOWS BASEBALL PRESSBOX

SID12530 - TENNIS COURTS IMPROVEMENTS
- CONCRETE PAVING UNDER BLEACHERS

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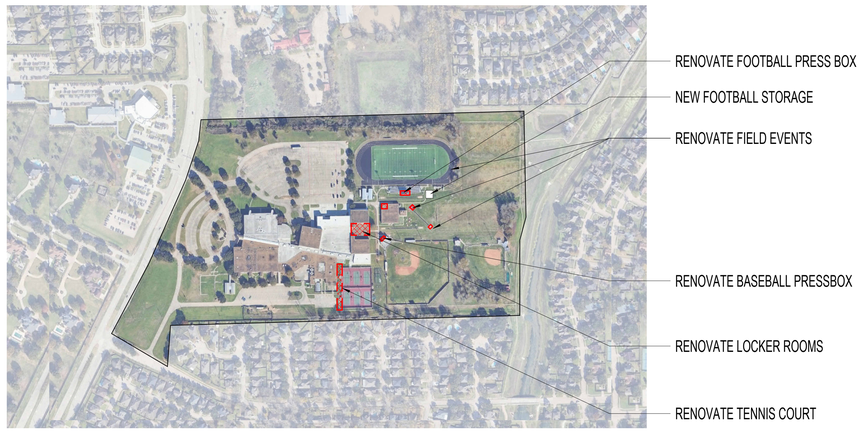
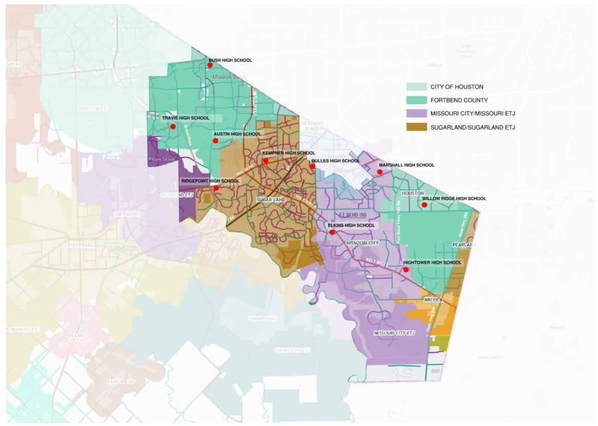
AUSTIN HIGH SCHOOL CAMPUS KEY PLAN



LOCATION MAP



CIVIL

TEXAS SPORTS AND CIVIL ENGINEERING
11767 Katy Freeway, Suite 1112
Houston, TX 77079
P: 346.204.4854

MEPT

SALAS O'BRIEN
10930 W. San Houston Pkwy N. Suite 900
Houston, TX 77064
P: (866) 768 4625

STRUCTURAL

MATRIX STRUCTURAL
5177 Richmond Ave Ste 670
Houston, TX 77056
P: (713) 664-0130

PFLUGER ARCHITECTS

PFLUGER ARCHITECTS
2 GREENWAY PLAZA #460
HOUSTON, TX 77046
P:(713) 222-1141
WWW.PFLUGERARCHITECTS.COM

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498
STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAMS
30113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CKP CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

G0.00-A
COVER

AUSTIN HIGH SCHOOL

12/4/2025 9:52:03 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_ARCH_AUSTIN_FBISD ATHLETIC RENOVATIONS BP012-A_R25.rvt

THE FOLLOWING SECTION OF DETAILS PROVIDES INFORMATION ON REQUIREMENTS FOR DISABLED ACCESSIBILITY. THE REQUIREMENTS COMBINE MINIMUM REQUIREMENTS OF STATE AND FEDERAL AGENCIES. THE PURPOSE OF THIS SECTION IS TO HELP AVOID INSTALLATION OF MATERIALS ON CONSTRUCTION PROJECTS THAT WOULD LIMIT ACCESSIBILITY. THE SCOPE OF THIS SECTION IS LIMITED AND THE INDIVIDUALS WORKING ON THE PROJECT SHOULD FAMILIARIZE THEMSELVES WITH TEXAS ACCESSIBILITY STANDARD (TAS) AND AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COPIES OF THESE DOCUMENTS MAY BE OBTAINED BY CONTACTING THE FOLLOWING:

TAS:
TEXAS DEPT. OF LICENSING & REGULATION
P.O. BOX 12157
AUSTIN, TEXAS 78711
(800) 803-9202
TDD (800) 735-2989
WWW.LICENSE.STATE.TX.US

ADAAG:
SOUTHWEST DISABILITY AND BUSINESS
TECHNICAL ASSISTANCE CENTER FOR
REGION VI.
2323 S. SHEPERD, SUITE 1000
HOUSTON, TEXAS 77019
ADA HOTLINE: (800) 949-4232
TDD: (713) 520-5136 -OR- (713) 520-0232
FAX: (713) 520-5785

IN THE EVENT THE INFORMATION ON THE PLAN SHEETS DOES NOT MEET THE MINIMUM REQUIREMENTS OF THE SECTION, THEN THE INFORMATION SHALL BE PRESENTED TO THE ARCHITECT FOR CLARIFICATION PRIOR TO CONSTRUCTION OF SPECIFIC AREA OF WORK.

ELIMINATION OF ARCHITECTURAL BARRIERS
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (ADA)

IN ACCORDANCE WITH ACCESSIBILITY REQUIREMENTS, THE FOLLOWING STANDARDS SHALL BE INCLUDED WHEN BIDDING ON PROJECTS INVOLVING RENOVATION OF OR NEW FACILITIES FOR PUBLIC ACCOMMODATION OR COMMERCIAL FACILITIES. ANY ITEMS NOT CONFORMING TO THESE OR ANY OTHER STANDARDS, CODES, OR ORDINANCES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT FOR HIS INTERPRETATION. IN THE EVENT THE INFORMATION LISTED IN THIS DOCUMENT CONFLICTS WITH ANY PORTION OF THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT, IN WRITING, OF HIS NEED FOR A SOLUTION TO RESOLVE THE CONFLICT. THE MOUNTING HEIGHTS INDICATED ARE FOR ITEMS THAT REQUIRE ACCESSIBILITY BY DISABLED INDIVIDUALS. WHERE TWO OR MORE ITEMS ARE GROUPED IN ONE AREA (MIRRORS, SINKS, TOILETS, DRINKING FOUNTAINS, URINALS, SHELVES, TELEPHONES, ETC.) NOT ALL ITEMS IN THE AREA HAVE TO BE MOUNTED AT HANDICAP HEIGHT. CONTRACTOR TO COORDINATE THESE INSTALLATION HEIGHTS WITH OTHER MATERIALS FOR NEAT, TRIMMED OUT AND FINISHED APPEARANCE. ITEMS FOR DISABLED INDIVIDUAL USE SHALL BE MOUNTED AT HEIGHT INDICATED FOR AGE LEVEL AS NOTED.

CHAPTER 1: APPLICATION AND ADMINISTRATION

TAS SECTION 104 - CONVENTIONS
A. ALL DIMENSIONS ARE SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES EXCEPT WHERE THE REQUIREMENT IS STATED AS A RANGE WITH SPECIFIC MINIMUM AND MAXIMUM POINTS.
B. UNLESS SPECIFICALLY STATED OTHERWISE, FIGURES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

CHAPTER 2: SCOPING REQUIREMENTS

TAS SECTION 201.1 - SCOPE
A. ALL AREAS OF NEWLY DESIGNED AND NEWLY CONSTRUCTED BUILDINGS AND FACILITIES AN ALTERED PORTIONS OF EXISTING BUILDINGS AND FACILITIES SHALL COMPLY WITH THESE REQUIREMENTS.

TAS SECTION 202 - EXISTING BUILDINGS AND FACILITIES
A. EACH ADDITION TO AN EXISTING BUILDING OR FACILITY SHALL COMPLY WITH THE REQUIREMENTS FOR NEW CONSTRUCTION. EACH ADDITION THAT AFFECTS OR COULD EFFECT THE USABILITY OF OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL COMPLY WITH 202.4.
B. WHERE EXISTING ELEMENTS, SPACES, OR COMMON USE AREAS ARE ALTERED, EACH ALTERED ELEMENT, SPACE, OR COMMON USE AREA SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 2.
C. AN ALTERATION THAT DECREASES THE ACCESSIBILITY OF A BUILDING OR FACILITY BELOW THE REQUIREMENTS FOR NEW CONSTRUCTION AT THE TIME OF THE ALTERATION IS PROHIBITED.
D. AN ALTERATION OF AN EXISTING ELEMENT, SPACE, OR AREA OF A BUILDING OR FACILITY SHALL NOT IMPOSE A REQUIREMENT FOR ACCESSIBILITY GREATER THAN REQUIRED FOR NEW CONSTRUCTION.
E. ALTERATIONS THAT AFFECT THE USABILITY OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL BE MADE SO AS TO ENSURE USAGE BY INDIVIDUALS WITH DISABILITIES.

TAS SECTION 204 - PROTRUDING OBJECTS
A. WITHIN AREAS OF ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOM AND SPACES SHALL COMPLY WITH 309.
B. WITHIN AREAS OF SPORTS ACTIVITY, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307.
C. WITHIN PLAY AREAS, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307 PROVIDED THAT GROUND LEVEL ACCESSIBLE ROUTES PROVIDE VERTICAL CLEARANCE IN COMPLIANCE WITH 1008.2.

TAS SECTION 205 - OPERABLE PARTS
A. OPERABLE PARTS ON ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOMS AND SPACES SHALL COMPLY WITH 309.
B. OPERABLE PARTS INTENDED FOR USE ONLY BY SERVICE OR MAINTENANCE PERSONNEL SHALL NOT BE REQUIRED TO COMPLY WITH 309.
C. ELECTRICAL OR COMMUNICATION RECEPTACLES SERVING A DEDICATED USE SHALL NOT BE REQUIRED TO COMPLY WITH 309.

TAS SECTION 206 - ACCESSIBLE ROUTES
A. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
B. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE
C. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH STORY AND MEZZANINE IN MULTI-STORY BUILDINGS AND FACILITIES.
D. IN RESTAURANTS AND CAFETERIAS, AN ACCESSIBLE ROUTE SHALL BE PROVIDED TO ALL DINING AREAS, INCLUDING RAISED OR SUNKEN DINING AREAS, AND OUTDOOR DINING AREAS.
E. WHERE A CIRCULATION PATH DIRECTLY CONNECTS A PERFORMANCE AREA TO AN ASSEMBLY AREA, AN ACCESSIBLE ROUTE SHALL DIRECTLY CONNECT THE ASSEMBLY SEATING AREA WITH THE PERFORMANCE AREA. AN ACCESSIBLE ROUTE SHALL BE PROVIDED FROM PERFORMANCE AREAS TO ANCILLARY AREAS OR FACILITIES USED BY PERFORMERS.

TAS SECTION 207 - ACCESSIBLE MEANS OF EGRESS
A. MEANS OF EGRESS SHALL COMPLY WITH SECTION 1003.2.13 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION.)
B. STANDBY POWER SHALL BE PROVIDED FOR PLATFORM LIFTS PERMITTED BY SECTION 1003.2.13.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007.5 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO SERVE AS A PART OF AN ACCESSIBLE MEANS OF EGRESS.

TAS SECTION 208 - PARKING SPACES
A. PARKING SPACES SHALL COMPLY WITH 502 AND SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 208.2 EXCEPT REQUIRED BY 208.2.1, 208.2.2, AND 208.2.3. WHERE MORE THAN ONE PARKING FACILITY IS PROVIDED ON A SITE, THE NUMBER OF ACCESSIBLE SPACES PROVIDED ON THE SITE SHALL BE CALCULATED ACCORDING TO THE NUMBER OF SPACES REQUIRED FOR EACH PARKING FACILITY.

TABLE 208.2 PARKING SPACES

TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES	TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES
1 TO 25	1	201 TO 300	7
26 TO 50	2	301 TO 400	8
51 TO 75	3	401 TO 500	9
76 TO 100	4	501 TO 1000	2 PERCENT OF TOTAL
101 TO 150	5	1000 AND OVER	20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000
151 TO 200	6		

TAS SECTION 208.2.4 - VAN PARKING SPACES
A. FOR EVERY SIX OR FRACTION OF SIX PARKING SPACES REQUIRED BY 208.2 TO COMPLY WITH 502, AT LEAST ONE SHALL BE A VAN PARKING SPACE COMPLYING WITH 502.

TAS SECTION 208.3 - LOCATION
A. PARKING SPACES COMPLYING WITH 502 THAT SERVE A PARTICULAR BUILDING OR FACILITY SHALL BE LOCATED ON THE SHORTEST POSSIBLE ACCESSIBLE ROUTE FROM PARKING LOT TO AN ENTRANCE. WHERE PARKING SERVES MORE THAN ONE ACCESSIBLE ENTRANCE, PARKING SPACES COMPLYING WITH 502 SHALL BE DISPERSED AND LOCATED AT THE SHORTEST ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCES.

TAS SECTION 209 - PASSENGER LOADING ZONES AND BUS STOPS
A. PASSENGER LOADING ZONES, EXCEPT THOSE REQUIRED TO COMPLY WITH 209.2.2 AND 209.2.3, SHALL PROVIDE AT LEAST ONE PASSENGER LOADING ZONE COMPLYING WITH 503 IN EVERY CONTINUOUS 100 LINEAR FEET (30M) OF LOADING ZONE SPACE, OR FRACTION THEREOF.
B. IN BUS LOADING ZONES RESTRICTED TO USE BY DESIGNATED OR SPECIFIED PUBLIC TRANSPORTATION VEHICLES, EACH BUS BAY, BUS STOP, OR OTHER AREA DESIGNATED FOR LIFT OR RAMP DEPLOYMENT SHALL COMPLY WITH 810.2

TAS SECTION 210 - STAIRWAYS
A. INTERIOR AND EXTERIOR STAIRS THAT ARE PART OF A MEANS OF EGRESS SHALL COMPLY WITH 504. ALTHOUGH HANDRAILS ON STAIRS THAT ARE NOT PART OF A MEANS OF EGRESS, STATE OR LOCAL BUILDING CODES MAY REQUIRE HANDRAILS OR GUARDS.

TAS SECTION 211 - DRINKING FOUNTAINS
A. NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED.
B. MORE THAN THE MINIMUM NUMBER OF DRINKING FOUNTAINS SPECIFIED IN 211.2 ARE PROVIDED, 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.1 THROUGH 602.6, AND 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.7

TAS SECTION 212 - KITCHENS, KITCHENETTES, AND SINKS
A. KITCHENS AND KITCHENETTES SHALL COMPLY WITH 804.
B. WHERE SINKS ARE PROVIDED, AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE, OF EACH TYPE PROVIDED IN EACH ACCESSIBLE ROOM OR SPACE SHALL COMPLY WITH 606.

TAS SECTION 213 - TOILET FACILITIES AND BATHING FACILITIES
A. WHERE TOILET FACILITIES AND BATHING FACILITIES ARE PROVIDED, THEY SHALL COMPLY WITH 213. TOILET FACILITIES AND BATHING FACILITIES SHALL BE PROVIDED ON A STORY CONNECTED BY AN ACCESSIBLE ROUTE TO AN ACCESSIBLE ENTRANCE.
B. TOILET RESTROOMS AND BATHING ROOMS SHALL COMPLY WITH 603.
C. WHERE MULTIPLE SINGLE USER TOILET ROOMS ARE CLUSTERED AT A SINGLE LOCATION, NO MORE THAN 50% OF THE SINGLE USER TOILET ROOMS FOR EACH USE AT EACH CLUSTER SHALL BE REQUIRED TO COMPLY WITH 603.
D. UNISEX TOILET ROOMS AND UNISEX BATHING ROOMS SHALL CONTAIN NOT MORE THAN ONE LAVATORY, AND TWO WATER CLOSETS WITHOUT URINALS OR ONE WATER CLOSET AND ONE URINAL. UNISEX BATHING ROOMS CONTAIN ONE SHOWER OR ONE SHOWER AND ONE BATHTUB, ONE LAVATORY, AND ONE WATER CLOSET. DOORS TO UNISEX RESTROOMS AND BATHING ROOMS SHALL HAVE PRIVACY LATCHES.

TAS SECTION 214 - WASHING MACHINES AND CLOTHES DRYERS
A. WHERE 3 OR FEWER WASHING MACHINES ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 WASHING MACHINES ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
B. WHERE 3 OR FEWER CLOTHES DRYERS ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 CLOTHES DRYERS ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.

TAS SECTION 215 - FIRE ALARM SYSTEMS
A. ALARMS IN PUBLIC USE AREAS AND COMMON USE AREAS SHALL COMPLY WITH 702.
B. WHERE EMPLOYEE WORK AREAS HAVE AUDIBLE ALARM COVERAGE, THE WIRING SYSTEM SHALL BE DESIGNED SO THAT THE VISIBLE ALARMS COMPLYING WITH 702 CAN BE INTEGRATED INTO THE ALARM SYSTEM.

TAS SECTION 216 - SIGNS
A. SIGNS SHALL COMPLY WITH 703. BUILDING DIRECTORIES, MENUS, SEAT AND ROW DESIGNATIONS IN ASSEMBLY AREAS, OCCUPANT NAMES, BUILDING ADDRESSES, AND COMPANY NAMES AND LOGOS SHALL NOT BE REQUIRED TO COMPLY WITH 216.
B. SIGNS REQUIRED BY SECTION 1003.2.13.5.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 1007.6.4 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE INSTRUCTIONS IN AREAS OF REFUGE SHALL COMPLY WITH 703.5.
C. DIRECTIONAL SIGNS REQUIRED BY SECTION 1003.2.13.6 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 707.7 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE DIRECTIONS TO ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 703.5.
D. WHERE NOT ALL ENTRANCES COMPLY WITH 404, ENTRANCES COMPLYING WITH 404 SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1. DIRECTIONAL SIGNS COMPLYING WITH 703.5 THAT INDICATE THE LOCATION OF THE NEAREST ENTRANCE COMPLYING WITH 404 SHALL BE PROVIDED AT ENTRANCES THAT DO NOT COMPLY WITH 404.

TAS SECTION 217 - TELEPHONES
A. WHERE PUBLIC TELEPHONE ARE PROVIDED, WHEELCHAIR ACCESSIBLE TELEPHONES COMPLYING WITH 704.2 SHALL BE PROVIDED.

CHAPTER 2: SCOPING REQUIREMENTS (CONTINUED)

TAS SECTION 219 - ASSISTIVE LISTENING SYSTEMS
A. IN EACH ASSEMBLY AREA WHERE AUDIBLE COMMUNICATION IS INTEGRAL TO THE USE OF THE SPACE, AN ASSISTIVE LISTENING SYSTEM SHALL BE PROVIDED.
B. WHERE ALL SEATS IN AN ASSEMBLY AREA ARE SERVED BY AN INTRODUCTION LOOP ASSISTIVE LEARNING SYSTEM, THE MINIMUM NUMBER OF RECEIVERS REQUIRED BY TABLE 219.3 TO BE HEARING-AID COMPATIBLE SHALL NOT BE REQUIRED TO BE PROVIDED.

TAS SECTION 220 - AUTOMATIC TELLER MACHINES AND FARE MACHINES
A. WHERE AUTOMATIC TELLER MACHINES OR SELF-SERVICE FARE VENDING, COLLECTION, OR ADJUSTMENT MACHINES ARE PROVIDED, AT LEAST ONE OF EACH TYPE PROVIDED AT EACH LOCATION SHALL COMPLY WITH 707. WHERE BINS ARE PROVIDED FOR ENVELOPES, WASTE PAPER, OR OTHER PURPOSES, AT LEAST ONE OF EACH SHALL COMPLY WITH 811.

TAS SECTION 221 - ASSEMBLY AREAS
A. ASSEMBLY AREAS SHALL PROVIDE WHEELCHAIR SPACES, COMPANION SEATS, AND DESIGNATED AISLE SEATS COMPLYING WITH 221 AND 802.
B. WHEELCHAIR SPACES COMPLYING WITH 802.1 SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 221.2.1.1.
C. WHEELCHAIR SPACES SHALL BE AN INTEGRAL PART OF THE SEATING PLAN.
D. WHEELCHAIR SPACES SHALL PROVIDE LINES OF SIGHT COMPLYING WITH 802.2. IN PROVIDING LINES OF SIGHT, WHEELCHAIR SPACES SHALL BE DISPERSED. WHEELCHAIR SPACES SHALL PROVIDE SPECTATORS WITH CHOICES OF SEATING LOCATIONS OR VIEWING ANGLES EQUAL TO OR BETTER THAN SEATING LOCATIONS AND VIEWING ANGLES OF OTHER SPECTATORS.
E. AT LEAST 5% OF THE TOTAL NUMBER OF AISLE SEATS PROVIDED SHALL COMPLY WITH 802.4 AND SHALL BE THE AISLE SEATS LOCATED CLOSEST TO THE ACCESSIBLE ROUTES.

TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES	NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES
4 TO 25	1	301 TO 500	6
26 TO 50	2	501 TO 5000	6, PLUS 1 FOR EACH 150, OR FRACTION THEREOF, BETWEEN 501 THROUGH 5000
51 TO 150	4	5001 AND OVER	36, PLUS 1 FOR EACH 200, OR FRACTION THEREOF, OVER 5000
151 TO 300	5		

TAS SECTION 222 - DRESSING, FITTING, AND LOCKER ROOMS
A. WHERE DRESSING ROOMS, FITTING ROOMS, OR LOCKER ROOMS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE, OF EACH TYPE OF USE IN EACH CLUSTER PROVIDED SHALL COMPLY WITH 803.
B. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN DRESSING FITTING OR LOCKER ROOMS W/O INDIVIDUAL COMPARTMENTS, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 803.5. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN INDIVIDUAL COMPARTMENTS AT LEAST ONE OF EACH TYPE SHALL BE PROVIDED IN ACCORDANCE WITH 223.

TAS SECTION 223 - MEDICAL CARE AND LONG-TERM CARE FACILITIES
A. IN LICENSED MEDICAL CARE FACILITIES AND LICENSED LONG-TERM CARE FACILITIES WHERE THE PERIOD OF STAY EXCEEDS TWENTY-FOUR HOURS, PATIENT OR RESIDENT SLEEPING ROOMS SHALL BE PROVIDED IN ACCORDANCE WITH 223. TOILET ROOMS PART OF CRITICAL OR INTENSIVE CARE PATIENT SLEEPING ROOMS SHALL NOT BE REQUIRED TO COMPLY WITH 603.

TAS SECTION 224 - TRANSIENT LODGING FACILITIES AND GUEST ROOMS
A. TRANSIENT LODGING FACILITIES SHALL PROVIDE GUEST ROOMS IN ACCORDANCE WITH 224. PLACES OF LODGING AND HOUSING AT A PLACE OF EDUCATION SHALL COMPLY WITH THE PROVISIONS APPLICABLE TO TRANSIENT LODGING, INCLUDING, BUT NOT LIMITED TO, THE REQUIREMENTS FOR TRANSIENT LODGING GUEST ROOMS IN SECTIONS 224 AND 806.
B. ENTRANCES, DOORS, AND DOORWAYS PROVIDING USER PASSAGE INTO AND WITHIN THE GUEST ROOMS THAT ARE NOT REQUIRED TO PROVIDE MOBILITY FEATURES COMPLYING WITH 806.2 SHALL COMPLY WITH 404.2.3.
C. IN GUEST ROOMS HAVING MORE THAN 25 BEDS, 5% MINIMUM OF THE BEDS SHALL HAVE CLEAR FLOOR SPACE COMPLYING WITH 806.2.3.

TAS SECTION 225 - STORAGE
A. WHERE STORAGE IS PROVIDED, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 811.
B. WHERE LOCKERS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE, SHALL COMPLY WITH 811.

TAS SECTION 226 - DINING SURFACES AND WORK SURFACES
A. WHERE DINING SURFACES ARE PROVIDED FOR THE CONSUMPTION OF FOOD OR DRINK, AT LEAST 5% OF THE SEATING SPACES AND STANDING SPACES AT THE DINING SURFACES SHALL COMPLY WITH 902. IN ADDITION, WHERE WORK SURFACES ARE PROVIDED FOR USE BY OTHER THAN EMPLOYEES, AT LEAST 5% SHALL COMPLY WITH 902.

TAS SECTION 227 - SALES AND SERVICE
A. WHERE PROVIDED, CHECK-OUT AISLES, SALES COUNTERS, SERVICE COUNTERS, FOOD SERVICE LINES, QUEUES, AND WAITING LINES SHALL COMPLY WITH 227 AND 904.
B. WHERE COUNTERS ARE PROVIDED, AT LEAST ONE OF EACH TYPE OF SALES COUNTER AND SERVICE COUNTER SHALL COMPLY WITH 904.4. WHERE COUNTERS ARE DISPERSED THROUGHOUT THE FACILITY, COUNTERS COMPLYING WITH 904.4 SHALL ALSO BE DISPERSED.
C. QUEUES AND WAITING LINES SERVICING COUNTERS OR CHECK-OUT AISLES REQUIRED TO COMPLY WITH 904.3 OR 904.4 SHALL COMPLY WITH 403.

TAS SECTION 228 - DEPOSITORIES, VENDING MACHINES, CHANGE MACHINES, MAIL BOXES
A. WHERE PROVIDED, AT LEAST ONE OF EACH TYPE OF DEPOSITORY, VENDING MACHINE, CHANGE MACHINE, AND FUEL DISPENSER SHALL COMPLY WITH 309.
B. WHERE MAIL BOXES ARE PROVIDED IN AN INTERIOR LOCATION, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE SHALL COMPLY WITH 309.

TAS SECTION 229 - WINDOWS
A. WHERE GLAZED OPENINGS ARE PROVIDED IN ACCESSIBLE ROOMS OR SPACES FOR OPERATION BY OCCUPANTS, AT LEAST ONE MUST OPENING SHALL COMPLY WITH 309. EACH GLAZED OPENING REQUIRED BY AN ADMINISTRATIVE AUTHORITY TO BE OPERABLE SHALL COMPLY WITH 309.

TAS SECTION 230 - TWO-WAY COMMUNICATION SYSTEMS
A. WHERE A TWO-WAY COMMUNICATION SYSTEM IS PROVIDED TO GAIN ADMITTANCE TO A BUILDING OR FACILITY OR TO BE RESTRICTED AREAS WITHIN A BUILDING OR FACILITY, THE SYSTEM SHALL COMPLY WITH 708.

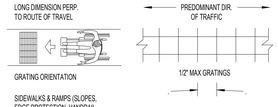
TAS SECTION 240 - PLAY AREAS
A. WHERE GROUND LEVEL PLAY COMPONENTS ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
B. WHEN ELEVATED PLAY COMPONENTS ARE PROVIDED, AT LEAST 50% SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4

TAS SECTION 242 - SWIMMING POOLS, WADING POOLS, AND SPAS
A. AT LEAST TWO ACCESSIBLE MEANS OF ENTRY SHALL BE PROVIDED FOR SWIMMING POOLS.
B. AT LEAST ONE ACCESSIBLE MEANS FOR ENTRY FOR WADING POOLS AND SPAS.

TAS SECTION 243 - SHOOTING FACILITIES WITH FIRING POSITIONS
A. WHERE SHOOTING FACILITIES WITH FIRING POSITIONS ARE DESIGNED AND CONSTRUCTED AT A SITE, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE OF FIRING POSITION SHALL COMPLY WITH 1010.

CHAPTER 3: BUILDING BLOCKS

TAS SECTION 302 - FLOOR OR GROUND SURFACES
A. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
B. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE.
C. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3, AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.



TAS SECTION 303 - CHANGES IN LEVEL
A. CHANGES IN LEVEL OF 1/4" HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL. (FIG. 303)
B. CHANGES IN LEVEL BETWEEN 1/4"-1/2" MAXIMUM SHALL BE BEVELED AT A SLOPE NOT STEEPER THAN 1:2 (FIG. 303)
C. CHANGES IN LEVEL GREATER THAN 1/2" HIGH SHALL BE RAMPED AND COMPLY WITH 405 OR 406



FIGURE 303

TAS SECTION 304 - TURNING SPACE
A. THE TURNING SPACE SHALL BE A SPACE 60" DIAMETER MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306.
B. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. DOORS SHALL BE PERMITTED TO SWING INTO TURNING SPACES.
D. THE T-SHAPED TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60" SQUARE MINIMUM WITH ARMS AND BASE 36" WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12" MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24" MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM. (FIG. 304.3.2)

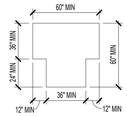


FIGURE 304.3.2
T-SHAPED
TURNING SPACE

TAS SECTION 305 - CLEAR FLOOR OR GROUND SPACE
A. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM.
B. FLOOR OF GROUND SURFACES OF A CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM. (FIG. 305.3)
D. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCES COMPLYING WITH 306.
E. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT. (FIG. 305.5)
F. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE.
G. WHERE A CLEAR FLOOR OR GROUND SPACE IS LOCATED IN AN ALCOVE OR OTHERWISE CONFINED ON ALL OR PART OF 3 SIDES, ADDITIONAL MANEUVERING CLEARANCE SHALL BE PROVIDED IN ACCORDANCE WITH BELOW:
1. ALCOVES SHALL BE 36" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24" FOR FORWARD APPROACH (FIG. 315.7.1)
2. ALCOVES SHALL BE 60" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15" FOR PARALLEL APPROACH (FIG. 305.7.2)

CHAPTER 3: SCOPING REQUIREMENTS (CONTINUED)


FIGURE 305.3
CLEAR FLOOR OR GROUND SPACE

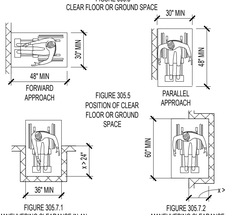


FIGURE 306.1
MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH
FIGURE 305.2
MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

TAS SECTION 306 - KNEE AND TOE CLEARANCE
A. WHERE SPACE BENEATH AN ELEMENT IS INCLUDED AS PART OF CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE, THE SPACE SHALL COMPLY WITH 306. ADDITIONAL SPACE SHALL NOT BE PROHIBITED BENEATH AN ELEMENT BUT SHALL NOT BE CONSIDERED AS PART OF THE CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE.

TAS SECTION 306.2 - TOE CLEARANCE
A. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9" ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE.
B. TOE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT
C. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17" MINIMUM UNDER THE ELEMENT.
D. SPACE EXTENDING GREATER THAN 9" BEYOND THE AVAILABLE KNEE CLEARANCE AT 9" ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.
E. TOE CLEARANCE SHALL BE 30" WIDE MINIMUM.

TAS SECTION 306.3 - KNEE CLEARANCE
A. SPACE UNDER AN ELEMENT 9"-27" ABOVE THE FINISH FLOOR SHALL BE CONSIDERED KNEE CLEARANCE.
B. KNEE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT AT 9" ABOVE THE FINISH FLOOR.
C. WHERE KNEE CLEARANCE IS REQUIRED UNDER AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE KNEE CLEARANCE SHALL BE 11" DEEP MINIMUM AT 9" ABOVE THE FINISH FLOOR

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

TAS SECTION 502 - PARKING SPACES (REFERENCE FIGURE 502.3)

A. ACCESSIBLE CAR PARKING SPACES SHALL BE AT LEAST 96" MINIMUM WIDE AND VAN ACCESSIBLE PARKING SHALL BE 132" MINIMUM WIDE.
   1. VAN PARKING SPACES MAY BE 96" WIDE MINIMUM WHERE THERE IS AN ACCESS AISLE 96" WIDE MINIMUM.
   2. ACCESS AISLES SERVING CAR AND VAN PARKING SHALL BE A MINIMUM 60" WIDE AND SHALL ADJOIN AN ACCESSIBLE ROUTE.
   3. ACCESS AISLES SHOULD BE MARKED TO DISCOURAGE PEOPLE FROM PARKING IN THEM AND EXTEND THE FULL LENGTH OF THE PARKING SPACE.

B. SURFACE SLOPE SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS (NOTE: NO BUILT UP CURB RAMP MAY BE LOCATED IN AN ACCESSIBLE PARKING ACCESS AISLE.)

C. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY.

D. ACCESS AISLES SHALL BE PERIMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES, WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACE.

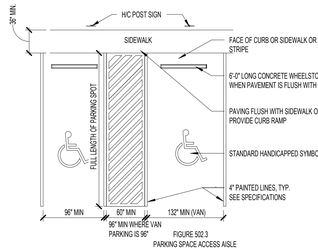
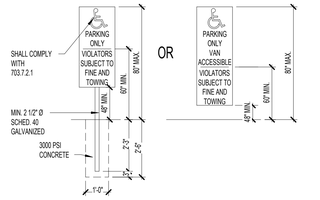


FIGURE 502.3
PARKING SPACE ACCESS AISLE

68.104: ACCESSIBLE PARKING SPACES

(A) A PAVED ACCESSIBLE PARKING SPACE MUST INCLUDE:
   (1) THE INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED CONSPICUOUSLY ON THE SURFACE IN A COLOR THAT CONTRASTS THE PAVEMENT;
   (2) THE WORDS "NO PARKING" PAINTED ON ANY ACCESS AISLE ADJACENT TO THE PARKING SPACE. THE WORDS MUST BE PAINTED:
      (A) IN ALL CAPITAL LETTERS;
      (B) WITH A LETTER HEIGHT OF AT LEAST TWELVE INCHES, AND A STROKE WIDTH OF AT LEAST TWO INCHES; AND
      (C) CENTERED WITHIN EACH ACCESS AISLE ADJACENT TO THE PARKING SPACE; AND
   (3) A SIGN IDENTIFYING THE CONSEQUENCES OF PARKING ILLEGALLY IN A PAVED ACCESSIBLE PARKING SPACE. THE SIGN MUST:
      (A) AT A MINIMUM STATE "VIOLATORS SUBJECT TO FINE AND TOWING " IN A LETTER HEIGHT OF AT LEAST ONE INCH;
      (B) BE MOUNTED ON A POLE, POST, WALL OR FREESTANDING BOARD;
      (C) BE NO MORE THAN EIGHT INCHES BELOW A SIGN REQUIRED BY TEXAS ACCESSIBILITY STANDARDS, 502.6; AND
      (D) BE INSTALLED SO THAT THE BOTTOM EDGE OF THE SIGN IS NO LOWER THAN 48 INCHES AND NO HIGHER THAN 80 INCHES ABOVE GROUND LEVEL.

(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).

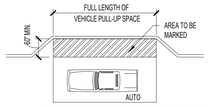


NOTE: PROVIDE ONE SIGN AT EACH DISABLED (DESIGNATED) PARKING SPACE

TAS SECTION 503 - PASSENGER LOADING ZONES
A. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96" WIDE MINIMUM AND 20' LONG MINIMUM.

TAS SECTION 503.3 - ACCESS AISLE (REFERENCE FIGURE 503.3)
A. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 503 ADJACENT TO THE VEHICLE PULL UP SPACE. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.
   1. ACCESS AISLES SERVING VEHICULAR PULL-UP SPACES SHALL BE 60" WIDE MINIMUM AND EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE
   2. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED. CHANGES IN LEVEL OF THE FLOOR AND GROUND SURFACE ARE NOT PERMITTED.

B. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 144" MINIMUM.



ACCESS AISLE AT AUTOMOBILE PASSENGER LOADING ZONES

FIGURE 503.3
PASSENGER LOADING ZONE ACCESS AISLE

TAS SECTION 504 - STAIRWAYS

TAS SECTIONS 504.2 - TREADS AND RISERS
A. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND TREAD WIDTHS
   1. MINIMUM TREAD DEPTH SHALL BE 11". MEASURED FROM RISER TO RISER (NOT INCLUDING NOSING)
   2. OPEN RISERS ARE NOT PERMITTED
   3. RISERS SHALL BE 4" HIGH MIN. - 7" HIGH MAX.

TAS SECTIONS 504.5 - NOSINGS (REFERENCE FIGURE 504.5)
A. RADIUS OF THE CURVATURE AT THE LEADING EDGE SHALL BE 1/2" MAXIMUM. RISERS SHALL BE PERMITTED TO SLOPE UNDER THE TREAD AT AN ANGLE OF 30 DEGREES MAXIMUM FROM VERTICAL. THE PERMITTED PROJECTION OF THE NOSING SHALL EXTEND 1 1/2" MAXIMUM OVER THE TREAD BELOW.

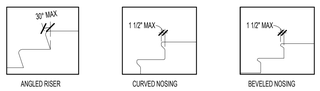


FIGURE 504.5
STAIR NOSINGS

TAS SECTION 505 - HANDRAILS (REFERENCE FIGURES 505.10.1, 505.10.2, 3)
A. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS. NON-CONTINUOUS STAIR HANDRAILS SHALL EXTEND 12" BEYOND THE TOP RISER AND THE WIDTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT THE TOP, THE EXTENSION SHALL BE PARALLEL TO THE FLOOR. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF ONE TREAD WIDTH. NON CONTINUOUS RAMP HANDRAILS SHALL EXTEND 12" MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS.
B. HEIGHT: 34"-38", MEASURED FROM THE STAIR NOSING.
C. CLEARANCE BETWEEN HANDRAIL AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM.
D. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
E. HANDRAILS ARE REQUIRED ON RAMP RUNS GREATER THAN 6" IN RISE.

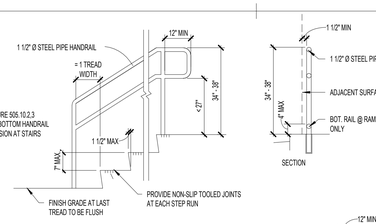


FIGURE 505.10.2,3
TOP AND BOTTOM HANDRAIL EXTENSION AT STAIRS

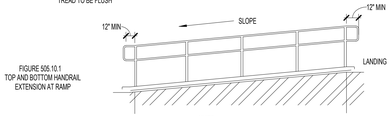


FIGURE 505.10.1
TOP AND BOTTOM HANDRAIL EXTENSION AT RAMP

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

TAS SECTION 602 - DRINKING FOUNTAINS
A. DRINKING FOUNTAINS SHALL COMPLY WITH 307 (PROTRUDING OBJECTS) AND 602.
B. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCES MUST COMPLY WITH 306. OPERABLE PARTS SHALL COMPLY WITH 309. (FIG. 602.5)

TAS SECTION 602.4 - SPOUT HEIGHT (REFERENCE FIGURE 602.4 FOR ACCESSIBLE UNIT)
A. ACCESSIBLE SPOUTS SHALL BE A MAXIMUM 36" ABOVE THE FINISH FLOOR OR GROUND.

TAS SECTION 602.5 - SPOUT LOCATION (REFERENCE FIGURE 602.5)
A. THE SPOUT SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.
B. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4" HIGH AND SHALL BE LOCATED 5" MAXIMUMFROM THE FRONT OF THE UNIT.
C. WHERE SPOUTS ARE LOCATED LESS THAN 3" FROM THE FRONT OF THE UNIT, THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE THE SPOUT IS LOCATED BETWEEN 3"-5" MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.

TAS SECTION 602.7 - DRINKING FOUNTAINS FOR STANDING PERSONS
A. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. (FIG. 602.4)

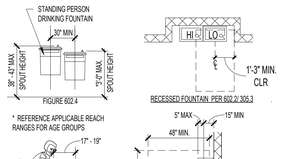


FIGURE 602.4

* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS

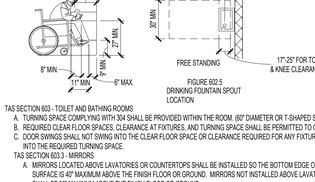


FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION

TAS SECTION 603 - TOILET AND BATHING ROOMS
A. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM. (60" DIAMETER OR T-SHAPED SPACE PER 304.3.2)
B. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP.
C. DOOR SWING SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS CAN SWING INTO THE REQUIRED TURNING SPACE.

TAS SECTION 603.3 - MIRRORS
A. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED SO THE BOTTOM EDGE OF THE REFLECTING SURFACE IS 40" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT INSTALLED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE 35" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

TAS SECTION 603.4 - COAT HOOKS AND SHELVES
A. COAT HOOKS SHALL BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" ABOVE THE FINISH FLOOR.

TAS SECTION 604 - WATER CLOSETS AND TOILET COMPARTMENTS
A. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16" MINIMUM AND 18" MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT IN AN AMBULATORY ACCESSIBLE TOILET COMPARTMENT WHERE THE CENTERLINE OF THE WATER CLOSET MAY BE 17" MINIMUM AND 19" MAXIMUM FROM THE SIDE WALL OR PARTITION. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT-HAND OR RIGHT-HAND APPROACH. (FIG. 604.3.1, 604.8.2)

TAS SECTION 604.3 - CLEARANCE
A. CLEARANCES AROUND WATER CLOSETS AND IN TOILET COMPARTMENTS SHALL COMPLY WITH FIGURE 604.3.1

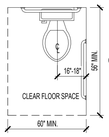


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

TAS SECTION 604.3.2 - OVERLAP
A. THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.

TAS SECTION 604.4 - SEATS (REFERENCE FIGURE 604.4)
A. THE SEAT HEIGHT OF A WATER CLOSET ABOVE FINISH FLOOR SHALL BE 17"-19" MAXIMUM MEASURED TO THE TOP OF SEAT.
   1. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION

TAS SECTION 604.5 - GRAB BARS (REFERENCE FIGURES 604.4, 604.5.2)
A. GRAB BARS SHALL COMPLY WITH 609 AND BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL.
   1. GRAB BARS SHALL NOT BE REQUIRED IN A TOILET ROOM FOR A SINGLE USE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON OR PUBLIC USE PROVIDED THAT REINFORCEMENT HAS BEEN INSTALLED IN WALLS AND LOCATED SO AS TO PERMIT THE INSTALLATION OF GRAB BARS COMPLYING WITH 604.5
B. FOR WATER CLOSETS NOT LOCATED IN TOILET STALLS, THE FOLLOWING GRAB BARS SHALL BE PROVIDED, 33"-36" ABOVE THE FINISH FLOOR"
   1. SIDE WALL: 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM BACK WALL. NOTE: INCLUDE 18" VERTICAL GRAB BAR PER ICC A117.1.
   2. REAR WALL: 36" LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON ONE SIDE AND 24" MINIMUM ON THE OTHER SIDE. REFER TO 609 GRAB BARS FOR SIZE AND STRUCTURAL ELEMENTS.

TAS SECTION 604.5.2 - REAR WALL
A. THE REAR GRAB BAR SHALL BE PERMITTED TO BE 24 INCHES LONG MINIMUM, CENTERED ON THE WATER CLOSET WHERE WALL SPACE DOES NOT PERMIT A LENGTH OF 36 INCHES MINIMUM DUE TO THE LOCATION OF A RECESSED FIXTURE ADJACENT TO THE WATER CLOSET.
B. WHERE AN ADMINISTRATIVE AUTHORITY REQUIRES FLUSH CONTROLS FOR FLUSH VALVES TO BE LOCATED IN A POSITION THAT CONFLICTS WITH THE LOCATION OF THE REAR GRAB BAR, THEN THE REAR GRAB BAR SHALL BE PERMITTED TO BE SPLIT OR SHIFTED TO THE OPEN SIDE OF THE TOILET AREA.

TAS SECTION 604.6 - FLUSH CONTROLS (REFERENCE FIGURE 604.5.2)
A. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.

TAS SECTION 604.7 - DISPENSERS (REFERENCE FIGURE 604.4)
A. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7" MINIMUM AND 9" MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS THAT CONTROL DELIVERY OR DO NOT PERMIT CONTINUOUS PAPER FLOW SHALL NOT BE USED.

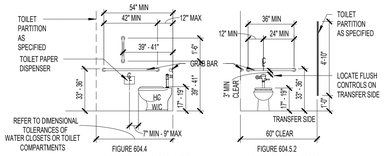


FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

TAS SECTION 604.8 - TOILET COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.

TAS SECTION 604.8.1 - WHEELCHAIR ACCESSIBLE COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1
B. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL AND 56" DEEP MINIMUM FOR WALL-HUNG WATER CLOSETS AND 59" DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDREN'S USE SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE WALL AND 59" DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.

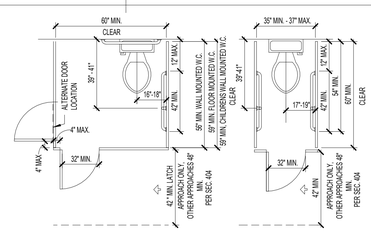


FIGURE 604.8.2
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

FIGURE 604.8.2
AMBULATORY ACCESSIBLE TOILET COMPARTMENTS

CLEARANCES INDICATED ARE MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REFER TO TOILET ROOMS AND LAVATORY DETAILS FOR MOUNTING HEIGHTS.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES (CONTINUED)

TAS SECTION 604.8.1.2 - DOORS (REFERENCE FIGURES 604.8.1.2, 604.8.2)
A. TOILET COMPARTMENTS DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42" MINIMUM. DOORS SHALL BE LOCATED IN THE FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE FRONT PARTITION. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.
B. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET.

TAS SECTION 604.8.1.4 - TOE CLEARANCE
A. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9" MINIMUM ABOVE FINISH FLOOR AND 6" DEEP MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDRENS USE SHALL PROVIDE 12" MINIMUM TOE CLEARANCE ABOVE FINISH FLOOR.

TAS SECTION 604.8.2 - AMBULATORY ACCESSIBLE COMPARTMENTS
A. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH FIGURE 604.8.2
B. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60" MINIMUM AND A WIDTH OF 35"-37" MAXIMUM.
C. GRAB BARS IN AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR THAT IS 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM THE REAR WALL AND EXTENDING 54" MINIMUM FROM THE REAR WALL SHALL BE LOCATED ON BOTH SIDES OF COMPARTMENT.
D. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" MAXIMUM ABOVE THE FINISH FLOOR.

TAS SECTION 605 - URINALS
A. URINALS SHALL BE STALL-TYPE OR WALL-HUNG WITH THE RIM 17" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13 1/2" DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK SIDE OF THE FIXTURE. (FIG. 605.2)
B. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.

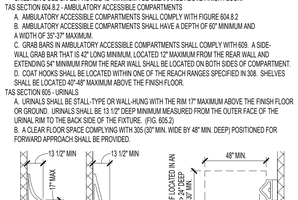
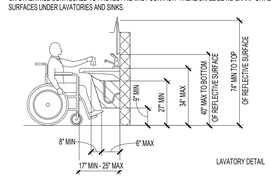
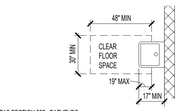


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

TAS SECTION 606 - LAVATORIES AND SINKS
A. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP), POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCES COMPLYING WITH 306 SHALL BE PROVIDED.
   1. SOAP AND TOWEL DISPENSERS MUST ALSO BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. LOCATE SOAP AND TOWEL DISPENSERS SO THEY ARE EASY TO USE BY A PERSON AT THE ACCESSIBLE LAVATORY.
B. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER RIM OR COUNTER SURFACE 34" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
C. CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND-OPERATED METERING FAUCETS SHALL REMAIN FOR 10 SECONDS MINIMUM.
D. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.



LAVATORY DETAIL



TAS SECTION 607 - BATHTUBS
A. CLEARANCE IN FRONT OF BATHTUBS SHALL EXTEND THE LENGTH OF THE BATHTUB AND SHALL BE 30 INCHES WIDE MINIMUM. A LAVATORY COMPLYING WITH 606 SHALL BE PERMITTED AT THE CONTROL END OF THE CLEARANCE. WHERE A PERMANENT SEAT IS PROVIDED AT THE HEAD END OF THE BATHTUB, THE CLEARANCE SHALL EXTEND 12" MINIMUM BEYOND THE WALL AT THE HEAD END OF THE BATHTUB.
B. A PERMANENT SEAT AT THE HEAD END OF THE BATHTUB OR A REMOVABLE IN-TUB SEAT SHALL BE PROVIDED. SEATS SHALL COMPLY WITH 610.
C. GRAB BARS FOR BATHTUBS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH FIGURES 607.4.1

TAS SECTION 608 - SHOWER COMPARTMENTS
A. SHOWER STALLS SHALL BE 36" X 36" CLEAR INSIDE DIMENSION AT TRANSFER TYPE SHOWER COMPARTMENTS AND HAVE A 36" MINIMUM WIDE BY 48" MINIMUM LONG CLEARANCE MEASURED FROM THE CONTROL WALL. ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 30" MINIMUM WIDE BY 60" MINIMUM LONG AND SHALL HAVE A 30" MIN WIDE X 60" MIN LONG ENTRY ON THE FACE OF THE SHOWER COMPARTMENT. ALTERNATE ROLL-IN SHOWER TYPE COMPARTMENTS SHALL BE 36" MINIMUM WIDE AND 60" MINIMUM DEEP CLEAR INSIDE DIMENSIONS WITH A 36" WIDE MINIMUM ENTRY PROVIDED AT ONE END OF THE LONG SIDE OF THE COMPARTMENT.

TAS SECTION 608.3.1 - TRANSFER TYPE SHOWER COMPARTMENT
A. IN TRANSFER TYPE COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND BACK WALL TO A POINT 18" FROM THE CONTROL WALL.
B. A FOLDING OR NON-FOLDING SEAT SHALL BE PROVIDED IN TRANSFER TYPE SHOWER COMPARTMENTS.
C. CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS SHALL COMPLY WITH 309.4

TAS SECTION 608.7 - THRESHOLDS
A. THRESHOLDS IN ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 1/2" HIGH MAXIMUM IN ACCORDANCE WITH 308. IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" HIGH SHALL BE BEVELED, ROUNDED, OR VERTICAL.

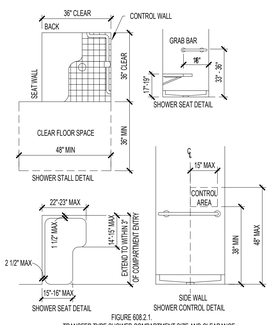


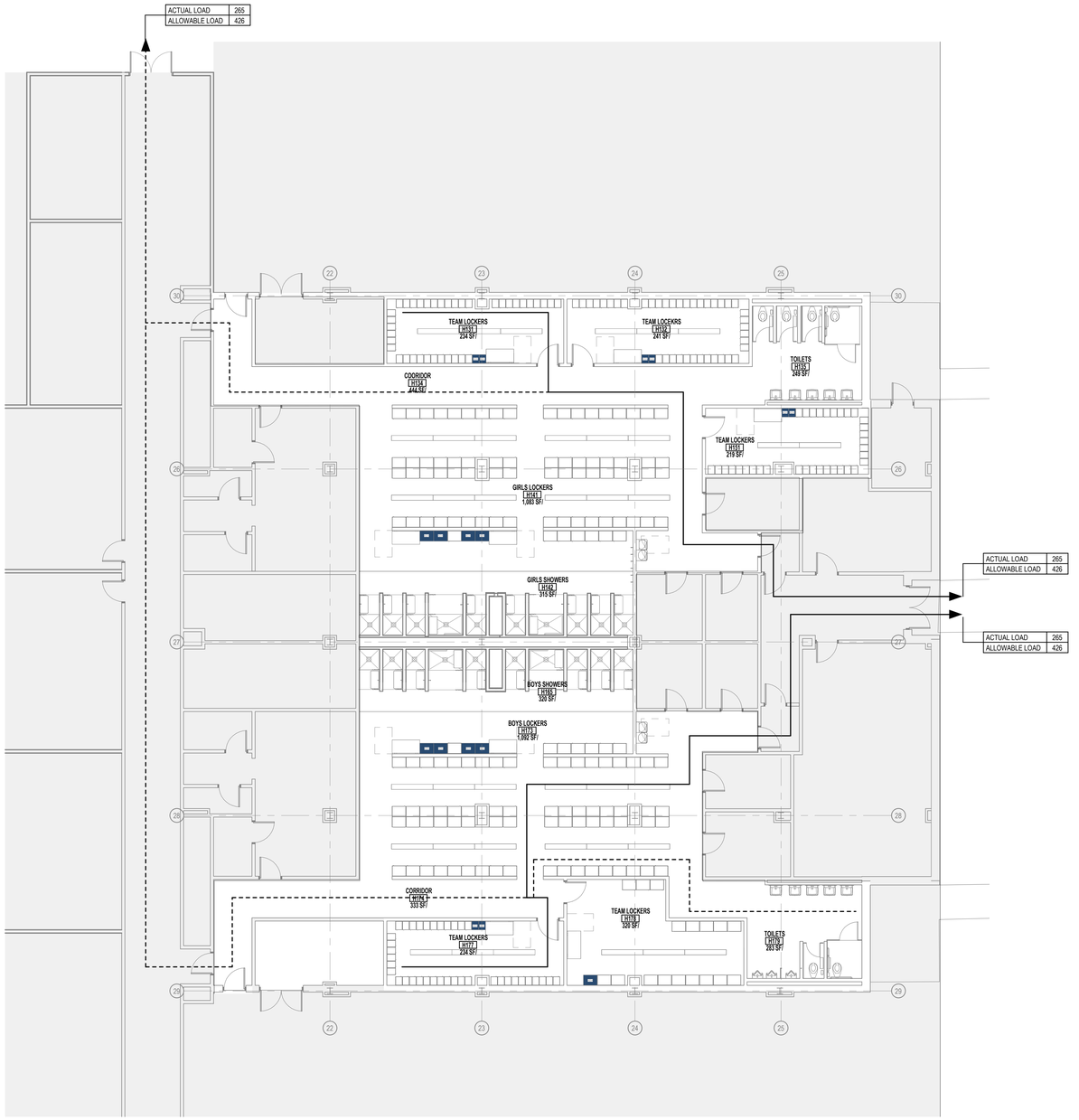
FIGURE 608.2.1
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

TAS SECTION 609 - GRAB BARS
A. GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2" MAXIMUM AND A PERIMETER DIMENSION OF 4" MINIMUM AND 4.8" MAXIMUM.
B. THE SPACE BETWEEN THE WALL AND GRAB BAR SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW SHALL BE 1 1/2" MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12" MINIMUM.
C. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33" MINIMUM AND 36" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. REFER TO CHART FOR CHILDREN ACCESSIBLE HEIGHTS FOR EXCEPTIONS.
D. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A HORIZONTAL OR VERTICAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT OF THE GRAB BAR OR ANY OF ITS COMPONENTS.

TAS SECTION 610.2 - BATHTUB SEATS
A. SEAT SHALL BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 POUNDS AND SHALL HAVE THE FOLLOWING FEATURES:
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. REMOVABLE SEATS SHALL BE 15"-16" DEEP AND CAPABLE OF SECURE PLACEMENT.
   3. PERMANENT SEATS SHALL BE 15" DEEP MINIMUM AND EXTEND FROM THE BACK WALL TO OR BEYOND THE OUTER EDGE OF THE BATHTUB.

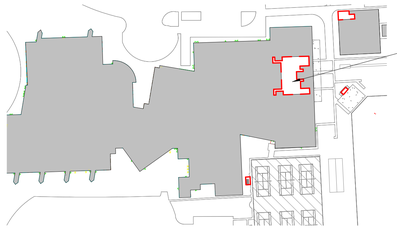
TAS SECTION 610.3 - SHOWER SEATS
A. SEATS SHALL BE L-SHAPED WITH THE REAR EDGE 2 1/2" MAXIMUM FROM THE WALL AND 15"-16" MAXIMUM FROM THE SEAT WALL. THE REAR EDGE OF THE "L" PORTION SHALL BE 1 1/2" MAXIMUM FROM THE WALL AND THE FRONT EDGE SHALL BE 14"-15" FROM THE WALL. THE END OF THE "L" SHALL BE 22"-23" FROM THE MAIN SEAT WALL. SEATS SHALL HAVE BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 LBS.
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. WHERE A SEAT IS PROVIDED IN A ROLL IN TYPE SHOWER IT MUST BE THE FOLD-UP TYPE.

TAS SECTION 611 - WASHING MACHINES AND CLOTHES DRYERS
A. TOP LOADING MACHINES SHALL HAVE THE DOOR TO THE LAUNDRY COMPARTMENT LOCATED 36" MAXIMUM ABOVE THE FINISH FLOOR. FRONT LOADING MACHINES SHALL



GYM LOCKER ROOM CODE PLAN-A 2

SCALE: 1/8" = 1'-0"



BUILDING KEY PLAN
N.T.S

LEGEND

- 1 HOUR FIRE-RESISTANCE RATING
- 2 HOUR FIRE-RESISTANCE RATING
- RATED DOOR/ WINDOW REF. DOOR SCHEDULE FOR MORE INFO.
- NON RATED ELEMENT
- RATED EXIT ENCLOSURE
- LONGEST EXIT ROUTE PER LEVEL
- EXIT ROUTE
- EXIT POINT WITH WIDTH INDICATED IN INCHES (RS P 36" R 36") OCCUPANT LOAD SHOWN VERTICAL P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER - SURFACE MOUNTED

CODE REVIEW: IBC 2015 - EXISTING BUILDING

CHAPTER 6 - REPAIRS

NEW AND REPLACEMENT MATERIALS (SEC 602.2)
EXCEPT AS OTHERWISE REQUIRED OR PERMITTED BY THIS CODE, MATERIALS PERMITTED BY THE APPLICABLE CODE FOR NEW CONSTRUCTION SHALL BE USED. LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS, PROVIDED NO DANGEROUS OR UNSAFE CONDITION, AS DEFINED IN CHAPTER 2, IS CREATED. HAZARDOUS MATERIALS, SUCH AS ASBESTOS AND LEAD-BASED PAINT, SHALL NOT BE USED WHERE THE CODE FOR NEW CONSTRUCTION WOULD NOT PERMIT THEIR USE IN BUILDINGS OF SIMILAR OCCUPANCY, PURPOSE AND LOCATION.

GENERAL ACCESSIBILITY (SEC 605.1)
REPAIRS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF ACCESSIBILITY PROVIDED.

CHAPTER 7 - ALTERATIONS - LEVEL 1

CONFORMANCE (SEC 701.2)
AN EXISTING BUILDING OR PORTION THEREOF SHALL NOT BE ALTERED SUCH THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITION.
EXCEPTION: WHERE THE CURRENT LEVEL OF SAFETY OR SANITATION IS PROPOSED TO BE REDUCED, THE PORTION ALTERED SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

INTERIOR FINISHES (SEC 702.2)
NEW INTERIOR FLOOR FINISH, INCLUDING NEW CARPETING USED AS AN INTERIOR FLOOR FINISH MATERIAL, SHALL COMPLY WITH SECTION 804 OF THE INTERNATIONAL BUILDING CODE.

CHAPTER 8 - ALTERATIONS - LEVEL 2

COMPLIANCE (SEC 801.3)
ALL NEW CONSTRUCTION ELEMENTS, COMPONENTS, SYSTEMS, AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

EXCEPTIONS:
WINDOWS MAY BE ADDED WITHOUT REQUIRING COMPLIANCE WITH THE LIGHT AND VENTILATION REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.
NEWLY INSTALLED ELECTRICAL EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 806.
THE LENGTH OF DEAD-END CORRIDORS IN NEWLY CONSTRUCTED SPACES SHALL ONLY BE REQUIRED TO COMPLY WITH THE PROVISIONS OF SECTION 805.6.
THE MINIMUM CEILING HEIGHT OF THE NEWLY CREATED HABITABLE AND OCCUPIABLE SPACES AND CORRIDORS SHALL BE 7 FEET (2134 MM).

FIRE ALARM AND DETECTION (SEC 804.4)
AN APPROVED FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH SECTIONS 804.4.1 THROUGH 804.4.3..

GROUP E OCCUPANCY (SEC 804.4.1.1)
A FIRE ALARM SYSTEM SHALL BE INSTALLED IN WORK AREAS OF GROUP E OCCUPANCIES AS REQUIRED BY THE INTERNATIONAL FIRE CODE FOR EXISTING GROUP E OCCUPANCIES.

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00 A FOR DOOR SCHEDULE IDENTIFING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL.
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES - FORTBEND COUNTY

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2014 NFPA (NATIONAL FIRE PROTECTION AGENCY) 70 NATIONAL ELECTRICAL CODE
2013 ASHRAE STANDARD 90.01 - ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)
2021 INTERNATIONAL FIRE CODE
CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

2021 IBC COMPLIANCE DATA

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS
TABLE 504.3 & 504.4 & 506.2
GROUP E, TYPE I FIRE RESISTIVE CONSTRUCTION , UNSPRINKLED (EXCEPT STAGE)
BUILDING HEIGHT: 75' ALLOWED; **40' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 3 STORIES ALLOWED; **1 STORIES ACTUAL**

BUILDING AREA ACTUAL : 294,662 SQUARE FEET
BUILDING AREA RENOVATION: 8235 SQUARE FEET

SECTION 508 - MIXED USE AND OCCUPANCY
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 – FOR CONSTRUCTION TYPE I-B: FIRE-RESISTANCE RATING REQUIREMENTS APPLY TO PRIMARY STRUCTURAL FRAME, INTERIOR AND EXTERIOR BEARING WALLS, FLOOR CONSTRUCTION, AND ROOF CONSTRUCTION AS LISTED IN TABLE 601.

SECTION 602 - CONSTRUCTION CLASSIFICATION
- EXTERIOR BEARING WALLS – 2 HOUR RATING
- INTERIOR BEARING WALLS – 2 HOUR RATING
- EXTERIOR NON-BEARING WALLS – 0 HOUR RATING (BASED ON FIRE SEPARATION DISTANCE PER SECTION 602)
- INTERIOR NON-BEARING WALLS & PARTITIONS – 0 HOUR RATING
- STRUCTURAL FRAME – 2 HOUR RATING
- FLOOR CONSTRUCTION – 2 HOUR RATING
- ROOF CONSTRUCTION – 1 HOUR RATING

EXIT ACCESS TRAVEL DISTANCE: 200 FT.(TABLE 1017.2), PROVIDED <131 FT

CHAPTER 6 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE 2B - PER TABLES 601 & 602:
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED: PRIMARY STRUCTURE, BEARING & NONBEARING WALLS: PARTITIONS (INTERIOR & EXTERIOR), FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTABLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL
TABLE 706.4 - FIRE WALL FIRE-RESISTANCE RATINGS: 2 HOUR IN IIB CONSTRUCTION, GROUP E

SECTION 707 - FIRE BARRIERS
707.3.1 - SHAFT ENCLOSURES (INCLUDING ELEVATOR HOISTWAY): 1 HOUR FIRE BARRIER
707.3.3 - ENCLOSURES FOR EXIT ACCESS STAIRWAY ENCLOSURES: 1 HOUR BARRIER
PER SECTION 1019 EXIT ACCESS STAIRWAYS ARE NOT REQUIRED TO BE ENCLOSED FOR THIS BUILDING TYPE

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT)
ALL SHAFT ENCLOSURES SHALL BE CONSTRUCTED AS FIRE BARRIERS AND SHALL BE 1 HOUR FIRE RATED. SUPPORTING CONSTRUCTION SHALL BE RATED TO THE SAME DEGREE AS THE WALLS.

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS
FOR FIRE WALLS & FIRE BARRIERS WITH A 2 HR FIRE RATING, OPENINGS SHALL HAVE A 1.5 HR FIRE RATING, MAX. 100 SQ IN OF GLAZING
FOR FIRE BARRIERS AT EXIT COMPONENTS WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 1 HR FIRE RATING
FOR FIRE BARRIERS AT OTHER LOCATION WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 3/4 HR FIRE RATING

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES; NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES; BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE.

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS FULLY SPRINKLERED

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX. FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
1004.1.2 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

STORAGE, MECHANICAL	300 SQ. FT., GROSS
ASSEMBY WITH FIXED SEATS	18" PER OCCUPANT IN BLEACHERS
ASSEMBLY WITHOUT FIXED SEATS (TABLES AND CHAIRS)	15 SQ. FT. NET
BUSINESS	100 SQ. FT. GROSS
EDUCATION, CLASSROOM	20 SQ. FT. GROSS
EDUCATION, VOCATIONAL	50 SQ. FT. NET
LIBRARY (READING ROOMS)	50 SQ. FT. NET
(STACK AREAS)	100 SQ. FT. GROSS
STAGES & PLATFORMS	500 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.1 - FOR STAIRWAYS: 0.2 IN. PER OCCUPANT OCCUPANTS:2,436
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.1 - FOR OCCUPANT LOAD PER STORY:
BUILDING A / LEVEL 1: 3 EXITS REQUIRED, 3 EXITS PROVIDED
BUILDING B / LEVEL 1: 4 EXITS REQUIRED, 4 EXITS PROVIDED
BUILDING C / LEVEL 1: 3 EXITS REQUIRED, 3 EXITS PROVIDED
BUILDING A / LEVEL 2: 3 EXITS REQUIRED, 3 EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1009 - ACCESSIBLE MEANS OF EGRESS
1009.3 - FOR SPRINKLERED BUILDINGS, 48 IN. CLEAR HANDRAIL WIDTH IN EXIT STAIRS NOT REQUIRED.
1009.3 - FOR SPRINKLERED BUILDINGS, AREAS OF REFUGE IN EXIT STAIRS NOT REQUIRED

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.8 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1011 - STAIRWAYS
1011.2 - MINIMUM STAIRWAY WIDTH OF 44 IN.
1011.3 - MINIMUM STAIRWAY HEADROOM CLEARANCE OF 80 IN.
1011.5.2 - MAXIMUM RISER HEIGHT OF 7 IN., MINIMUM TREAD DEPTH OF 11 IN.
1011.6 - WIDTH OF LANDINGS SHALL BE NOT LESS THAN THE WIDTH OF STAIRWAY SERVED
1011.6 - LANDING DEPTH NEED NOT EXCEED 48 IN. FOR STRAIGHT-RUN STAIRS
1011.8 - A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE GREATER THAN 12 FT. BETWEEN FLOOR LEVELS AND LANDINGS

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
1017.2 - FOR GROUP E W/ SPRINKLER SYSTEM: EXIT TRAVEL DISTANCE IS 250 FT.

SECTION 1020 - CORRIDORS
1020.1 - FOR GROUP E W/ SPRINKLER SYSTEM: NO REQUIRED FIRE-RESISTANCE RATING
1020.2 - FOR GROUP E W/ OCCUPANT LOAD OF 100 OR MORE: MINIMUM WIDTH OF 72 IN.
1020.2 - FOR AN OCCUPANT LOAD LESS THAN 50: MINIMUM WIDTH OF 36 IN.
1020.2 - FOR ACCESS TO AND UTILIZATION OF MECHANICAL, PLUMBING, OR ELECTRICAL SYSTEMS OR EQUIPMENT: MINIMUM WIDTH OF 24 IN.
1020.2 - FOR ALL OTHER CONDITIONS: MINIMUM WIDTH OF 44 IN.
1020.4 - FOR GROUP E W/ SPRINKLER SYSTEM: DEAD ENDS MAY BE 50 FT. IN LENGTH

2021 IECC COMPLIANCE DATA

CHAPTER 3 - GENERAL REQUIREMENTS

SECTION C301.1 - GENERAL
C301.1 - CLIMATE ZONE 2A

CHAPTER 4 - COMMERCIAL ENERGY EFFICIENCY

SECTION C402 - BUILDING ENVELOPE REQUIREMENTS
C402.1.3 - FOR ROOFS WITH INSULATION ENTIRELY ABOVE DECK : R-25CI, **R-27CI PROVIDED**
C402.1.3 - FOR ABOVE GRADE, METAL-FRAMED WALLS: R-13 + R-5CI, **R-19 + R-10 CI PROVIDED**
C402.1.3 - FOR JOIST/FRAME FLOORS: R-30, **R-30 PROVIDED**
C402.1.3 - FOR UNHEATED SLAB-ON-GRADE FLOORS: NR
C402.1.3 - FOR NONSWINGING OPAQUE DOORS: R-4.75
C402.1.4.1 - EFFECTIVE R-VALUES FOR STEEL STUD WALL ASSEMBLIES

NOMINAL DEPTH	FRAMING SPACING	CAVITY R-VALUE	EFF. R-VALUE
3 1/2	16	13 / 15	5.96 / 6.45
3 1/2	24	13 / 15	7.15 / 7.80
6	16	19 / 21	7.03 / 7.35
6	24	19 / 21	8.55 / 9.03
8	16 / 24	25	7.75 / 9.50

C402.3 - EITHER THREE-YEAR AGED SOLAR REFLECTANCE OF 0.55 AND 3-YEAR AGED
THERMAL EMITTANCE OF 0.75 OR THREE-YEAR AGED SOLAR REFLECTANCE INDEX OF 64
C402.4 - FOR CLIMATE ZONE 2 AND FIXED FENESTRATION: U-FACTOR OF 0.5
C402.4 - SOLAR HEAT GAIN COEFFICIENT REQUIREMENTS

PROJECTION FACTOR	SEW	N
PF <0.2	0.25	0.33
0.2 <= PF < 0.5	0.30	0.37
PF >= 0.5	0.40	0.40

SHGC OF SPECIFIED GLAZING = 0.25
U-VALUE OF SPECIFIED GLAZING = 0.33

C402.4.1 VERTICAL FENESTRATION SHALL NOT BE GREATER THAN 30 PERCENT OF GROSS
ABOVE-GRADE WALL AREA.

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498

STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

	Date	Description
1		

100% CD

G0.03-A

LEVEL 01 - CODE PLAN

AUSTIN HIGH SCHOOL

12/4/2025 2:47:13 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_ARCH_AUSTIN_FBISD ATHLETIC RENOVATIONS BP012-A_R25.rvt

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL SIZES, LOCATIONS AND ELEVATIONS NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS PRIOR TO SUBMITTING PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR FROM PERFORMING THE WORK REQUIRED UNDER THIS CONTRACT. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE OWNER/ENGINEER.
2. SOME UTILITIES MAY NOT BE SHOWN ON THE PLANS. FIELD VERIFY AND IDENTIFY LOCATIONS OF PIPING AND ALL UTILITIES NOT NOTED ON THE PLANS. NOTIFY THE OWNER/ENGINEER OF ANY POTENTIAL CONFLICTS PRIOR TO STARTING CONSTRUCTION.
3. ALL GENERAL AND SUB-CONTRACTORS ARE ENCOURAGED TO VISIT AND INSPECT THE SITE PRIOR TO SUBMITTING A PROPOSAL TO COMPLETE.
4. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES, TRAFFIC CONTROL DEVICES AND PAVING. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITY'S ENGINEERING STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAWINGS, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR AND MAKE SURE THE CORRECT BENCHMARK IS USED.
7. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
9. CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
10. CONTRACTOR SHALL MAINTAIN A SHEET OF REDLINE DRAWINGS RECORDING AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINES MARKED DRAWINGS WILL BE SUBMITTED TO THE ENGINEER WHO WILL MAKE THE CHANGES ON THE ORIGINAL DRAWINGS. LABELING EACH SHEET IN THE SET AS "RECORD DRAWINGS".
11. CONTRACTORS SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
12. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICAS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
13. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALK, ETC.) SHALL BE STABILIZED WITH PLANTINGS OR OTHERWISE RECEIVE 6 INCHES OF MULCH OR LOAM AND SEED AS DIRECTED BY THE ENGINEER.
14. CONTRACTOR SHALL PREVENT DUST, SEDIMENT AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
15. SAFETY - NEITHER THE OWNER NOR THE ENGINEER OF RECORD WILL BE RESPONSIBLE FOR COMPLIANCE WITH SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, FEDERAL, AND CONTRACTUAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ANY SCHOOL CHILDREN OUT OF THE WORK AREA.
17. STANDARD SPECIFICATIONS - ALL CONSTRUCTION WORK AND INSTALLATION SHALL CONFORM TO THE PROJECT SPECIFICATIONS PROVIDED WITH THE CONTRACT DOCUMENTS AND ANY STANDARD SPECIFICATIONS AS INDICATED ON THESE PLANS.
18. INSPECTIONS - THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR REQUIRED INSPECTIONS. THE PRESENCE OR ABSENCE OF AN INSPECTOR WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE PROPER PERFORMANCE OF WORK.
19. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVE OR ANY OTHER AGENCY HAVING JURISDICTION FOR ALL ACTIVITIES ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH OSHA PERFORMANCE CRITERIA.
20. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS.

SITEWORK GENERAL NOTES:

1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D698:
   A. UNDER STRUCTURES: SCARIFY AND RE COMPACT 12 INCHES OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   B. UNDER WALKWAYS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   C. UNDER TURF OR UNPAVED AREAS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 90% SPD.
   D. UTILITY TRENCHES: BACKFILL SHALL BE IN 8 INCHES LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS ON EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% SPD IN PAVED AREAS AND 90% SPD IN UNPAVED AREAS OR AS INDICATED IN THE DRAWINGS.
2. DIMENSIONS IN THE DOCUMENTS SHALL GOVERN.

CIVIL GRADING NOTES:

1. CLEAR AND GRUB WITHIN THE GRADING LIMITS SHOWN IN THE CIVIL DRAWINGS. REMOVE STUMPS AND ROOTS 3 INCHES IN DIAMETER AND LARGER AND NONPERISHABLE SOLID OBJECTS A MINIMUM 3 FEET BELOW SUBGRADE OR FINISHED EMBANKMENT.
2. STRIP AND STOCKPILE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES WITHIN THE LIMITS OF EARTHWORK OPERATIONS.
3. STRUCTURAL EXCAVATION: EXCAVATE TO INDICATE ELEVATIONS WITHIN A TOLERANCE OF 1 INCH. EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORM WORK AND FOR INSPECTIONS.

UTILITIES:

1. THE LOCATIONS, SIZES AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATE CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN IN THE PLANS. PRIOR TO ORDERING MATERIAL AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZED AND ELEVATIONS OF THE POINT OF CONNECTIONS TO EXISTING UTILITIES AND SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND PROPOSED UTILITY ROUTES. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 1-800-245-4545 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.

PAVING NOTES:

1. RIM ELEVATIONS FOR MANHOLES AND SEWER CLEANOUTS, WATER VALVE COVERS, ELECTRIC AND TELEPHONE PULL BOXES AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: 1 INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.

STORM SEWER CONSTRUCTION NOTES:

1. STORM SEWERS SHALL BE INSTALLED, BEDDED, AND BACKFILLED ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
2. STORM SEWERS LOCATED WITHIN PUBLIC R.O.W. OR SIDE LOT EASEMENTS SHALL BE REINFORCED CONCRETE PIPE (24-INCH AND LARGER) (C-76. CLASS III). AND SHALL BE INSTALLED, BEDDED, AND BACKFILLED IN ACCORDANCE WITH THE GOVERNING ENTITIES STANDARD DETAILS AND SPECIFICATIONS. UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
3. ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABILIZED SAND TO ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH ALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
4. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
5. ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES AND INLETS ARE TO PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL PROVIDE 18" MINIMUM CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
7. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF LOCAL GOVERNING ENTITY STANDARDS AND SPECIFICATIONS FOR JUSTING MANHOLES, INLETS AND VALVE BOXES TO GRADE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACKSLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF HIS WORK.
9. ALL DITCHES SHALL BE REGRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.

SWPPP CONSTRUCTION NOTES:

1. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG THE ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPPP) PLANS TO KEEP SILT AND/ OR EXCAVATIONS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM SEWER.
2. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.
3. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK, TRACKED FROM THE EXCAVATED AREA.
4. CONTRACTOR SHALL FOLLOW GOOD HOUSE KEEPING PRACTICES DURING THE CONSTRUCTION PHASE OF THE PROJECT ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
5. CONTRACTOR IS TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5-INCHES OR GREATER:
   A. DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
   B. AREAS USED FOR STORAGE THAT ARE EXPOSED TO PRECIPITATION.
   C. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
6. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS, AND CORRECTIVE ACTION IF SUCH OCCURS.

TRAFFIC NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. ALL TRAFFIC CLOSURES SHALL BE SCHEDULED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITIES APPROPRIATE HOURS.
3. NO LANES ON MAJOR THOROUGHFARES MAY BE BLOCKED FROM 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM UNLESS APPROVED BY THE LOCAL GOVERNING ENTITY.
4. NO TRAFFIC LANES SHALL BE CLOSED IN ALL RESIDENTIAL AREAS FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS.
6. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND OPEN THE LANES FOR NORMAL TRAFFIC FLOW.
7. OFF-DUTY UNIFORMED POLICE OFFICER(S)/FLAGGER(S) ARE REQUIRED TO DIRECT TRAFFIC WHEN THE LANES ARE BLOCKED.
8. IN THE EVEN THAT NO "TRAFFIC CONTROL PLANS" EXIST AS PART OF CONTRACT DRAWINGS. CONTRACT MAY PREPARE PLANS AND SUBMIT TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN-DAYS (10) PRIOR TO IMPLEMENTATION.
9. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS. HE/SHE SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING AN ALTERNATE SET OF PLANS* TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN (10) WORKING DAYS PRIOR TO IMPLEMENTATION.
10. APPROVED COPIES OF THE TRAFFIC CONTROL PLANS AND REQUIRED PERMITS SHALL BE MADE AVAILABLE FOR INSPECTION AT THE JOB SITE AT ALL TIMES. CONTRACTORS MUST SECURE REQUIRED PERMITS FROM THE LOCAL GOVERNING ENTITY'S TRAFFIC MANAGEMENT AND MAINTENANCE BRANCH BEFORE CLOSING A LANE/SIDEWALK. THE REQUEST MUST BE MADE AT LEAST TEN (10) DAYS IN ADVANCE OF THE CLOSURE. NOTE THAT WORKING HOURS MAY BE RESTRICTED OR THE REQUEST MAY BE DENIED.
    A. THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLAR AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME PART OF THE CONTRACT DRAWINGS.

WARNING: OVERHEAD ELECTRICAL LINES:

1. OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:
   A. ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
   B. OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
2. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222. ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-6248 OR (713) 207-5769.

CENTERPOINT ENERGY:
CAUTION: UNDERGROUND GAS FACILITIES:

1. LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, LLC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 OR 1-800-669-8344 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
   A. WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 945-8036 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
   B. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
   C. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
   D. FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3522 OR (713) 207-4200.
   E. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

AT&T TEXAS/SBC FACILITIES:

1. THE LOCATIONS OF AT&T TEXAS/SBC FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SBC FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANICAL EXCAVATION PROCEDURES. WHEN BORING THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SBC FACILITIES.
4. WHEN AT&T TEXAS/SBC FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SBC UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURY CABLES OR OTHER CABLES IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713)456-4552 OR EMAIL HIM AT rl7259@att.com, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR AT&T TEXAS/SWBT FACILITIES.

SANITARY SEWER NOTES:

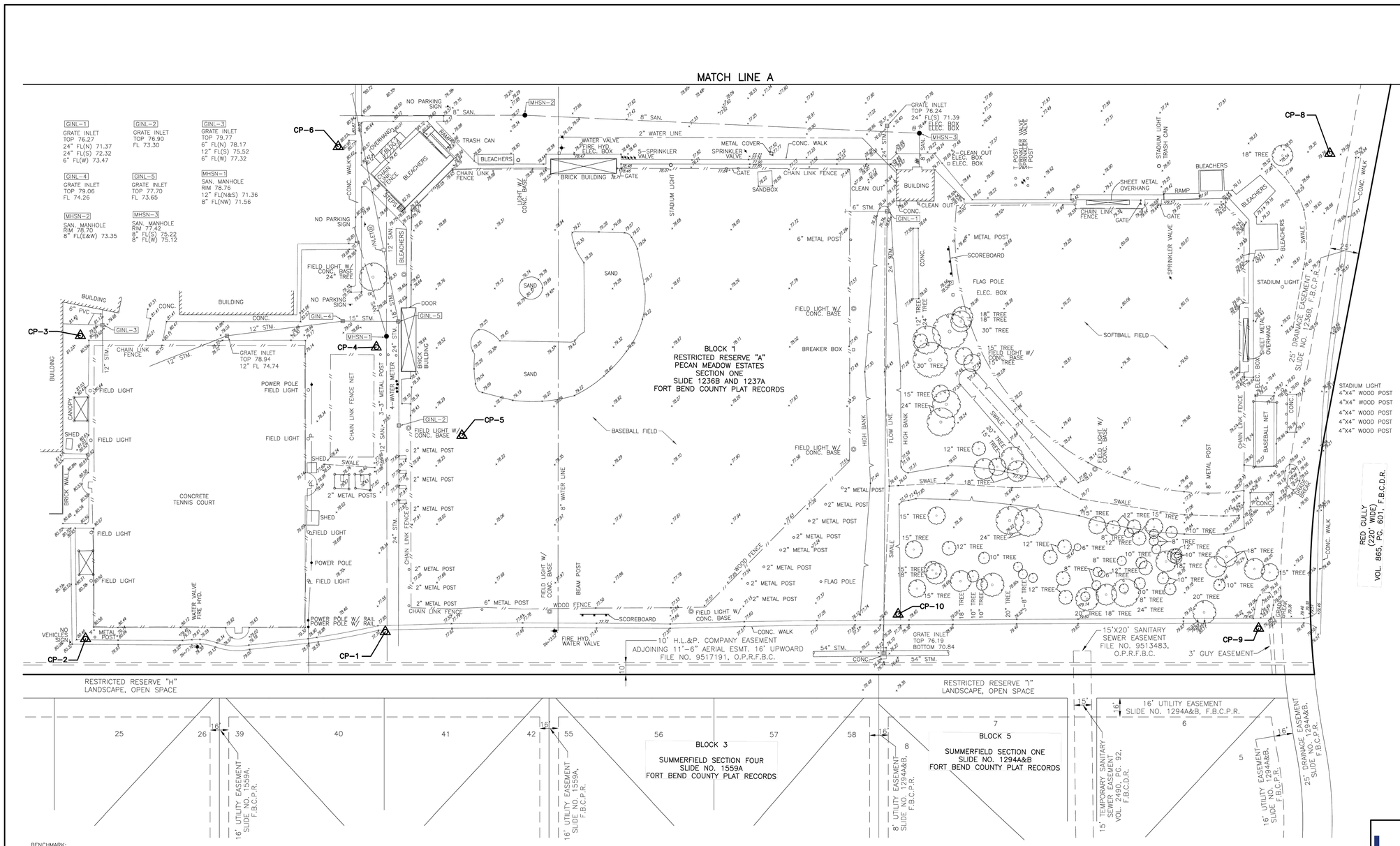
1. ALL SEWERS SHALL BE TESTED FOR EXCESS DEFLECTION IN PIPE CROSS SECTION, FOR LATERAL AND VERTICAL PIPE OBSTRUCTION, AND FOR JOINT OFFSETS, BY PULLING A MANDREL THROUGH THE PIPE BY HAND. THE MANDREL SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILLING HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. OBSTRUCTIONS ENCOUNTERED SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. MANDREL AND TEST EQUIPMENT SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONDUCTING THE TEST.
2. USE BEDDING AND BACKFILL PER DETAILS PROVIDED IN THE CONTRACT DRAWINGS UNLESS FIELD CONDITIONS DICTATE OTHERWISE. CONTRACTOR TO NOTIFY ENGINEER OF WET TRENCH CONDITIONS PRIOR TO LAYING PIPE. USE CEMENT STABILIZED SAND AND BACKFILL TO WITHIN 1 FOOT OF PROPOSED OR EXISTING PAVEMENT SUBGRADE. BEDDING, CEMENT STABILIZED SAND AND/OR BACKFILL SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM FOR PIPE AND SHALL NOT BE PAID FOR DIRECTLY.
3. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 24 INCHES OF VERTICAL CLEARANCE AND 9 FEET HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND WATER LINES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 12 INCHES OF VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND STORM SEWER LINES.
4. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM THE MANHOLE RIM PER ASTM F477.
5. UNLESS OTHERWISE NOTED, ALL SANITARY SEWERS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE (PVC) SCH 40, CONFORMING TO ASTM D1785, OR APPROVED EQUAL. ALL SANITARY SEWERS SHALL HAVE RUBBER GASKET BELL AND SPIGOT CONNECTIONS.
6. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES SHALL BE PRECAST CONCRETE MANHOLES.
7. NO CONNECTIONS SHALL BE MADE TO EXISTING SANITARY SEWER LINES UNTIL ALL PROPOSED SEWER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED AND APPROVED BY THE LOCAL GOVERNING ENTITY.
8. WHENEVER THE MANHOLE COVERS ARE LOCATED BELOW THE 100 YEAR FLOOD PLAIN ELEVATION THEY SHALL BE GASKETED AND BOLTED AS DESCRIBED IN 317.2. OF THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES.
9. LOW-PRESSURE AIR TEST. THIS TEST SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM C-828, ASTM C-924 OR OTHER APPROPRIATE PROCEDURES. FOR SAFETY REASONS, AIR TESTING OF SECTIONS OF PIPE SHALL BE LIMITED TO LINES LESS THAN 36-INCH AVERAGE INSIDE DIAMETER. LINES 36-INCH AVERAGE INSIDE DIAMETER AND LARGER MAY BE AIR TESTED AT EACH JOINT. THE MAXIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE DURING A JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE SHALL BE COMPUTED BY THE FOLLOWING EQUATIONS:

   T = 0.0850(D)(K)/(Q) WHERE T = TIME FOR PRESSURE TO DROP 1.0 POUNDS PER SQUARE INCH GAUGE IN SECONDS
   K = 0.000419(D)(L), BUT NOT LESS THAN 1.0
   D = AVERAGE INSIDE DIAMETER IN INCHES
   L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET
   Q = RATE OF LOSS, ASSUME 0.0015 CU FT/MIN/SQ FT INTERNAL SURFACE

10. SDR-26 PVC PIPE TO USE "FULL BODIED" SDR-26 FITTINGS.
11. ALL PVC PIPE TO HAVE CELL CLASS 12454 A OR B AS PER ASTM D1784.
12. NO MORE THAN 2 HOURS SHALL ELAPSE BETWEEN MIXING AND PLACEMENT OF CEMENT STABILIZED SAND.
13. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% SPD, ±2% OF OPTIMUM MOISTURE CONTENT, IN MAXIMUM 8-INCH LIFTS.

WATER SYSTEM CONSTRUCTION NOTES:

1. METERS AND BACKFLOW BOXES SHALL BE SET A MINIMUM OF 3 INCHES ABOVE FINISHED GRADE WITH SLOPED BACKFILL TO DIRECT STORM WATER AWAY FROM BOX. BOXES SHALL BE BACKFILLED WITH A MINIMUM 12 INCHES OF CEMENT STABILIZED SAND AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. FIRE SPRINKLER LINES SHALL BE INSTALLED AND TESTED BY A CONTRACTOR LICENSED BY THE STATE TO PERFORM SUCH WORK UNDER SECTION 4(A) & (B) OF ARTICLE 5.43-3 OF THE TEXAS INSURANCE CODE. CONTRACTOR SHALL FURNISH OWN CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING AS REQUIRED BY THE TEXAS COMMISSION ON FIRE PROTECTION.
3. ALL PVC PIPE USED IN WATER SYSTEMS SHALL BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL.
4. WATER LINE PIPE AND FITTING MATERIALS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:
   A. LESS THAN 4 INCH POTABLE WATER LINE SHALL BE SCHEDULE 40, PVC 1120, PER ASTM D-1785, EXCEPT THAT THREADED PIPE SHALL BE SCHEDULE 80. 3 INCH POTABLE WATER MAY BE SDR 21 PVC (200 P.S.I.) WITH GASKETED JOINTS.
   B. SITE 4 INCH AND LARGER POTABLE WATER LINE SHALL BE AWWA C900, DR 18, CLASS 235 PVC.
   C. FIRE SPRINKLER LINE SHALL BE AWWA C900, DR 14, CLASS 305 PVC.
   D. FITTINGS FOR LESS THAN 3 INCH AND LARGER WATER LINE SHALL BE ASTM D-2466 SCHEDULE 40 PVC. THREADED FITTINGS SHALL BE SCHEDULE 80 PER ASTM D-2467.
   E. FITTINGS FOR 3 INCH AND LARGER WATER LINE SHALL BE ALL-BELL, PUSH-ON, DUCTILE IRON MECHANICAL JOINT FITTINGS WITH MEGA-LUG.
5. VALVES:
   A. 1 1/2 INCH AND SMALLER SHALL BE 125 P.S.I.G., BRONZE, RISING STEM, SINGLE-WEDGE, DISC TYPE, SCREWED ENDS, CRANE NO. 428 OR APPROVED EQUAL.
   B. 2 INCH THRU 2 1/2 INCH VALVES SHALL BE IRON BODY, DOUBLE GATE, NON-RISING STEM, 150 P.S.I.G. TEST; 2 INCH SQUARE NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
   C. 3 INCH AND LARGER VALVES SHALL BE 200 P.S.I.G. GATE VALVES PER AWWA C500 OR C509, PUSH-ON BELL ENDS WITH RUBBER JOINT RINGS; 2 INCH NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
6. POLYETHYLENE WRAP ALL CAST AND DUCTILE IRON PIPE AND FITTINGS PER SPECIFICATIONS.
7. WATER LINES SHALL HAVE A MINIMUM COVER OF 4 FEET BELOW NATURAL GROUND, FINISH GRADE, OR MEAN ELEVATION OF NEARBY DITCH, WHICHEVER IS LOWER. ALL WATER LINES SHALL MAINTAIN A MINIMUM 12 INCH CLEARANCE TO OTHER UTILITIES AT CROSSINGS UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINES INSTALLED OVER 8 FEET DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS. CONTRACTOR SHALL PROVIDE THRUST BLOCKING TO WITHSTAND 125% OF TEST PRESSURES.
8. SEPARATION DISTANCE FOR ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS CHAPTER 290.44, HARRIS COUNTY, AND TCEQ REQUIREMENTS, LATEST PRINTING.
9. WHERE A DOMESTIC WATERLINE CROSSES A SANITARY SEWER, INSTALL ONE JOINT (MINIMUM 18 FOOT LENGTH) OF WATERLINE PIP CENTERED ON THE SEWER.
10. CONTRACTOR SHALL TAKE SANITARY PRECAUTIONS DURING WATERLINE CONSTRUCTION AS CALLED FOR BY AWWA STANDARDS. PRECAUTIONS SHALL INCLUDE KEEPING PIPE CLEAN AND CAPPING, OR OTHERWISE EFF



BENCHMARK:

CITY OF SUGAR LAND MONUMENT NO. SGR-RM031: BRASS DISK LOCATED ON THE WEST SIDE OF STATE HIGHWAY 6 BRIDGE OVER OYSTER CREEK.
ELEVATION = 80.60' (NAVD88/GEOID18)

SURVEY CONTROL MONUMENTS

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
CP-1	13,796,944.10	3,024,735.54	76.93'	SET 3/8" W/ CAP STAMPED "LANDTECH"
CP-2	13,796,926.19	3,024,481.48	80.17'	SET 3/8" W/ CAP STAMPED "LANDTECH"
CP-3	13,797,183.07	3,024,464.98	80.92'	SET 3/8" W/ CAP STAMPED "LANDTECH"
CP-4	13,797,185.22	3,024,716.42	78.23'	SET 3/8" W/ CAP STAMPED "LANDTECH"
CP-5	13,797,113.60	3,024,792.59	—	SET 3/8" W/ CAP STAMPED "LANDTECH"
CP-6	13,797,353.69	3,024,676.19	81.03'	SET 3/8" W/ CAP STAMPED "LANDTECH"
CP-8	13,797,387.68	3,025,517.50	79.88'	SET 3/8" W/ CAP STAMPED "LANDTECH"
CP-9	13,796,982.02	3,025,476.10	78.97'	SET 3/8" W/ CAP STAMPED "LANDTECH"
CP-10	13,796,979.55	3,025,169.75	77.56'	SET 3/8" W/ CAP STAMPED "LANDTECH"

TOPOGRAPHIC SURVEY
AUSTIN HIGH SCHOOL
FORT BEND COUNTY, TEXAS

S:\2025\2520139\CADD\Austin HS Topo.dwg

LANDTECH
1315 W Sam Houston Parkway N, Suite 100
Houston, Texas 77043
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

DATE: OCTOBER 2025
SCALE: 1" = 40'
DRAWING No.: -D-
JOB No.: 2520139.00
SHEET No. : 1 OF 2

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1312
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

AUSTIN HIGH SCHOOL
Project Info Additional Text Line
3434 Pheasant Creek DR, Sugar Land, TX 77498

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INSPIRE • EQUIP • IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
SURVEYOR
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
1 Date Description

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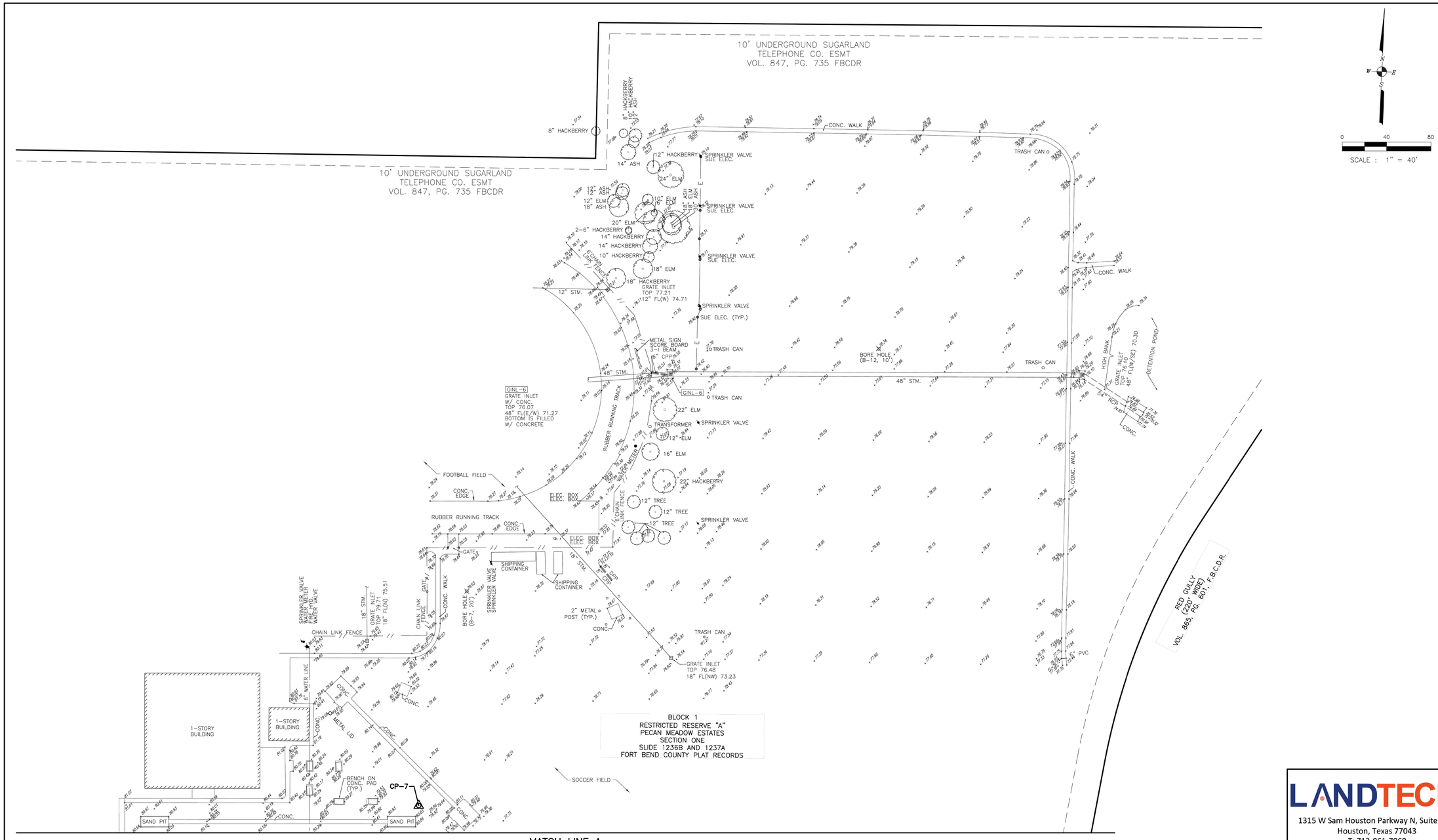
C 0.02-A
CIVIL SPORTS SURVEY
REFERENCE ONLY



SURVEY CONTROL MONUMENTS

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
CP-7	13,797,444.66	3,024,957.83	79.18'	SET 3/8" W/ CAP STAMPED "LANDTECH"

TOPOGRAPHIC SURVEY
AUSTIN HIGH SCHOOL
FORT BEND COUNTY, TEXAS

S:\2025\2520139\CADD\Austin HS Topo.dwg

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Houston, Texas 77043
T: 713-861-7068
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SHEET No. : 2 OF 2

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

AUSTIN HIGH SCHOOL

Project Info Additional Text Line

3434 Pheasant Creek DR, Sugar Land, TX 77498

FBISD INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED STATE OF TEXAS

12/04/2025

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DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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CIVIL SPORTS SURVEY
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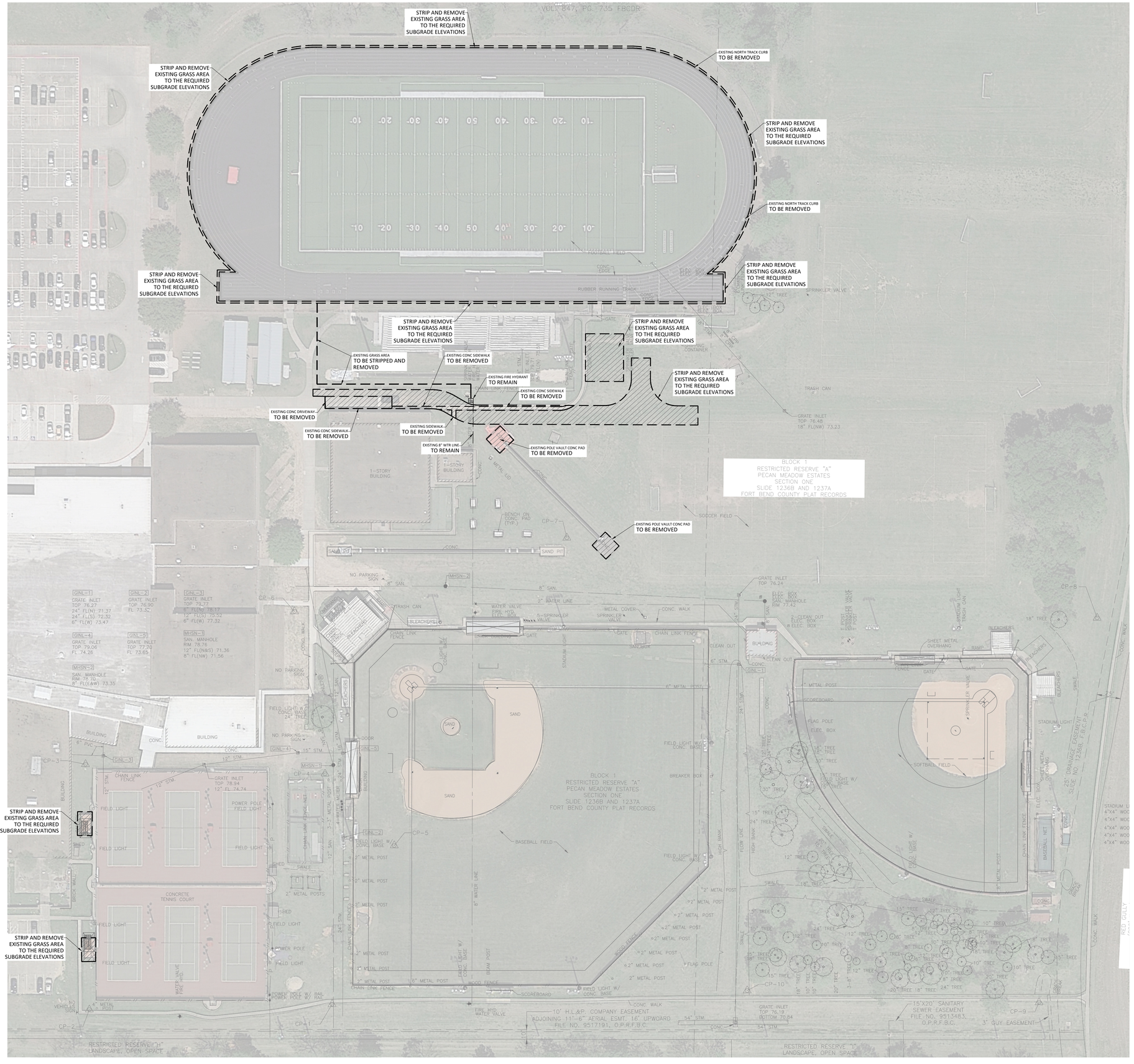

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

AUSTIN HIGH SCHOOL

Project Info Additional Text Line

3434 Pheasant Creek DR, Sugar Land, TX 77498

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

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C 0.04-A
CIVIL SPORTS
DEMOLITION PLAN

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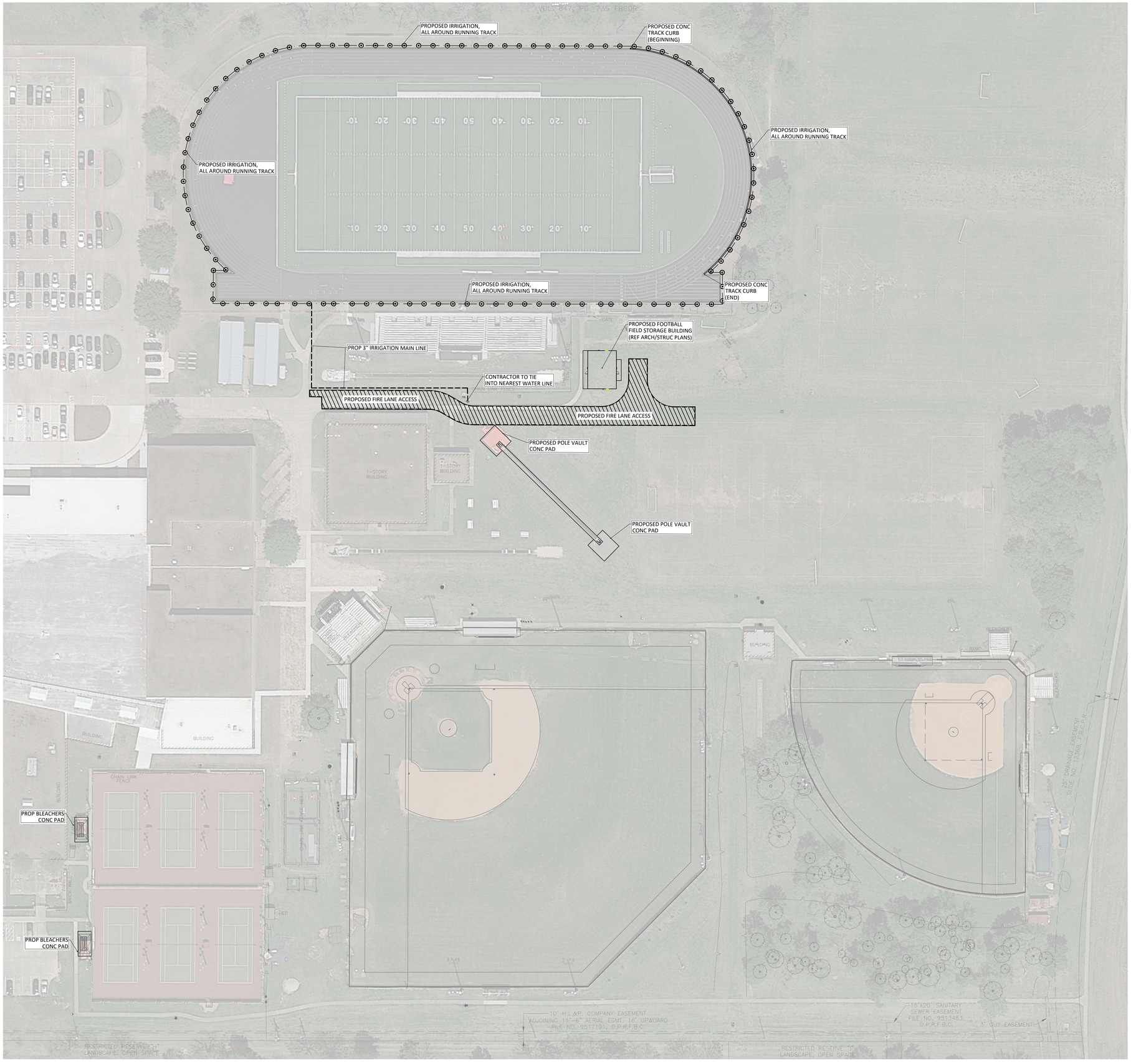

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WARNING - BURIED UTILITIES

CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF BURIED DRY UTILITIES. EXISTING SBC BURIED CABLES, COMCAST CABLES, CENTERPOINT GAS LINES AND UNDERGROUND ELECTRIC LINES ARE SHOWN AT APPROX. LOCATION & DEPTH BASED ON THE BEST INFORMATION AVAILABLE. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL EXISTING BURIED CABLES PRIOR TO COMMENCING CONSTRUCTION. SEE PRIVATE UTILITY NOTES. (SHT. F 0.01)

WARNING - UNDERGROUND PIPELINE

CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND PIPELINES. EXISTING CENTER POINT UNDERGROUND PIPELINES ARE SHOWN AT APPROX. LOCATION & DEPTH BASED ON THE BEST INFORMATION AVAILABLE. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. CONTACT WITH CENTER POINT @ (811 or 713-207-2222) AT LEAST 72 HOURS PRIOR TO CONSTRUCTION IN THE AREA.

WARNING - OVERHEAD POWER LINES

CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF OVERHEAD POWER LINES.

NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS AND GROUND ELEVATIONS.
2. CONTRACTOR TO SEE SHEET C5.01 & C5.02 FOR DETAILS.
3. REFER TO LANDSCAPE PLANS FOR PLANTING IRRIGATION.
4. REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
5. ALL DISTURBED AREAS TO BE HYDROMULCHED. AREAS WITH SLOPE GREATER THAN 3:1 SLOPE TO BE SODDED.

NOTE TO CONTRACTOR:

1. REFER TO THE CIVIL / LANDSCAPE DRAWINGS FOR ALL INFORMATION OUTSIDE THE SPORTS DESIGN SCOPE.

20' 40'
40' 0 80'

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11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

AUSTIN HIGH SCHOOL

Project Info Additional Text Line

3434 Pheasant Creek DR, Sugar Land, TX 77498

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

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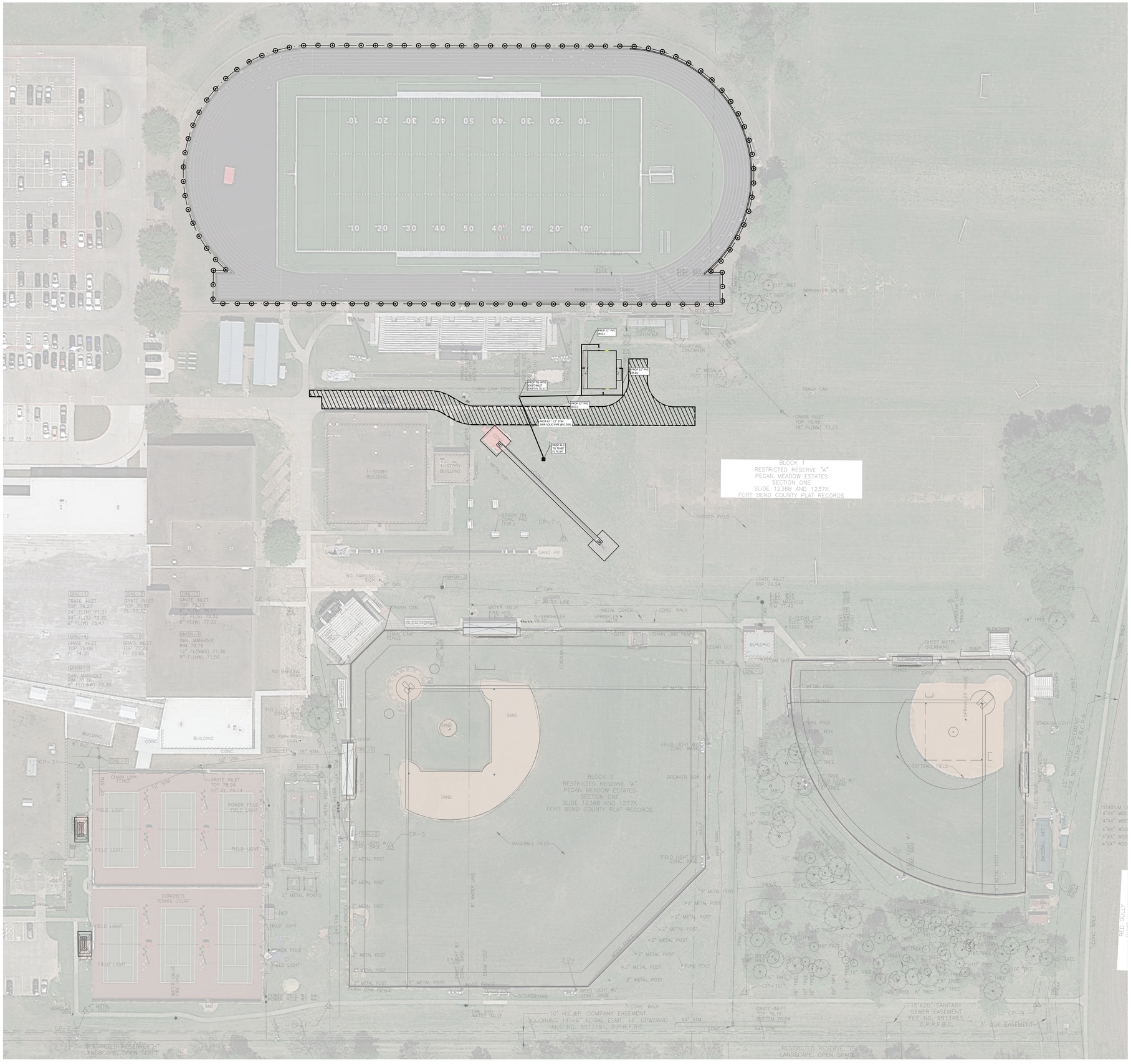
C 1.01-A
CIVIL SPORTS SITE PLAN



NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

20' 40'
40' 0 80'

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11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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Project Info Additional Text Line

3434 Pheasant Creek DR, Sugar Land, TX 77498

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

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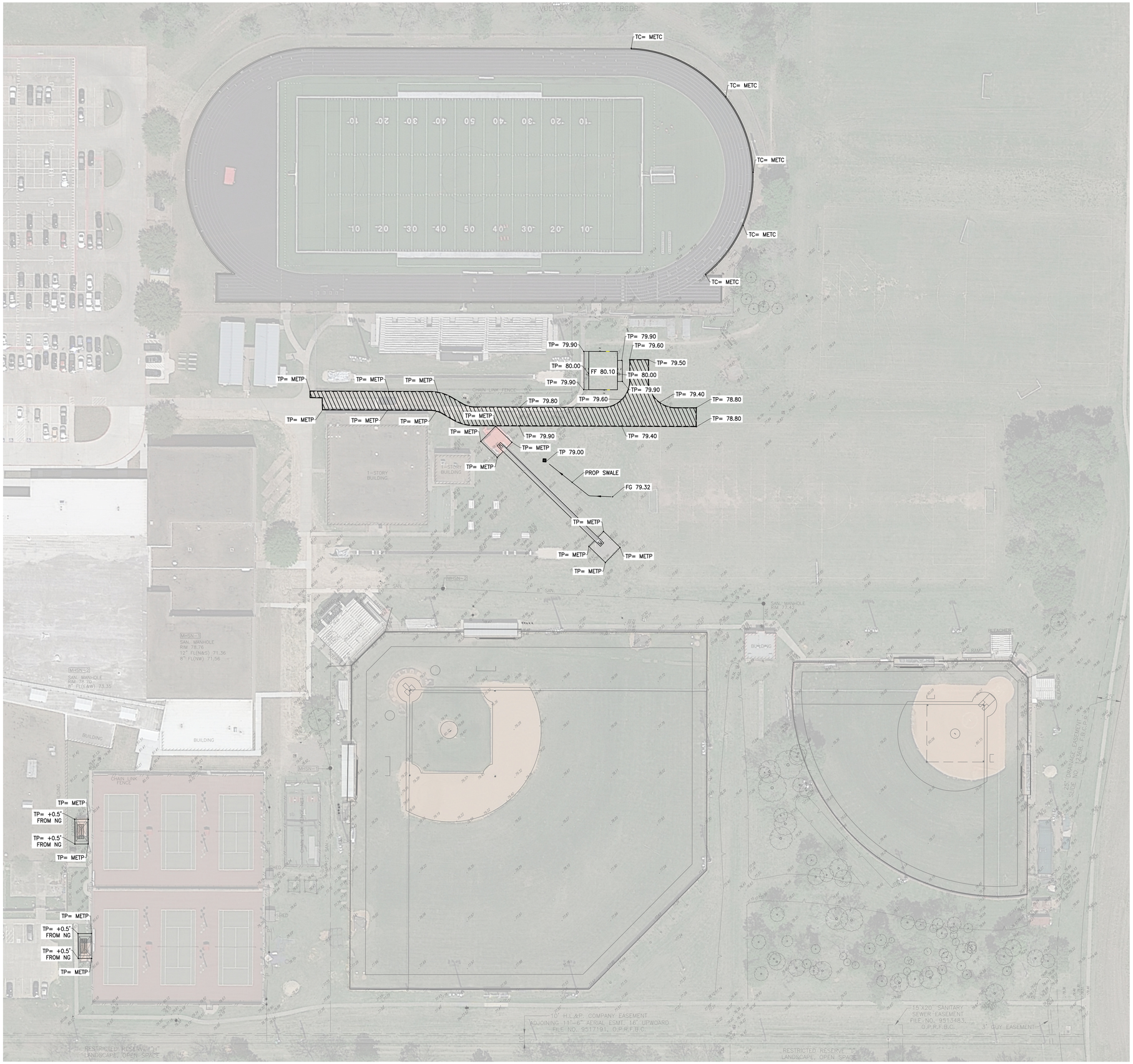
C 2.01-A
CIVIL SPORTS DRAINAGE PLAN



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NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.

LEGEND:

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	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

20' 40'
40' 0 80'

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HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

AUSTIN HIGH SCHOOL

Project Info Additional Text Line

3434 Pheasant Creek DR, Sugar Land, TX 77498

FBISD INSPIRE+EQUIP+IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

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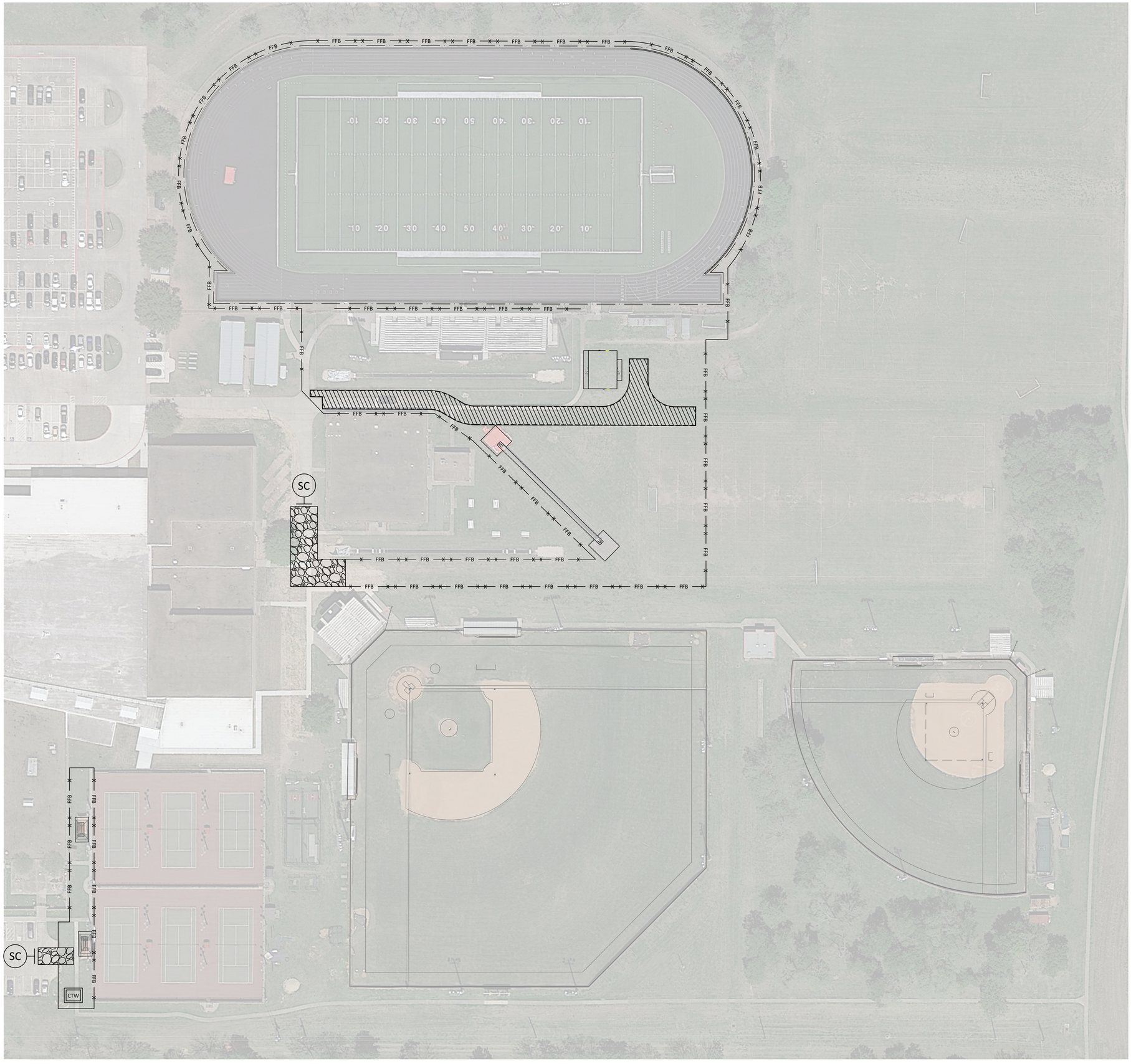
C 3.01-A
CIVIL SPORTS GRADING PLAN



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NOTES:

1. CONTRACTOR TO PLACE "IPB" IN ALL SURROUNDING INLETS.

LEGEND:

- IPB — INLET PROTECTION BARRIER STAGE I
- IPB — INLET PROTECTION BARRIER STAGE II
- SC — STABILIZED CONSTRUCTION ACCESS
- CTW — CONCRETE TRUCK WASHOUT AREA
- FFB — FILTER FABRIC BARRIER

15' 30' 30' 0 60'

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HOUSTON, TEXAS 77079
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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Project Info Additional Text Line

3434 Pheasant Creek DR, Sugar Land, TX 77498

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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

12/04/2025

PROJECT NO. BP012
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

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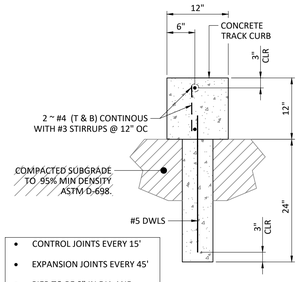
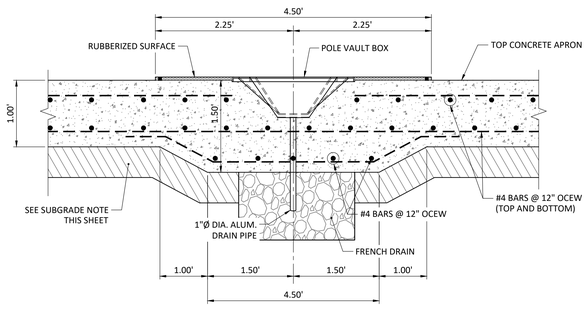
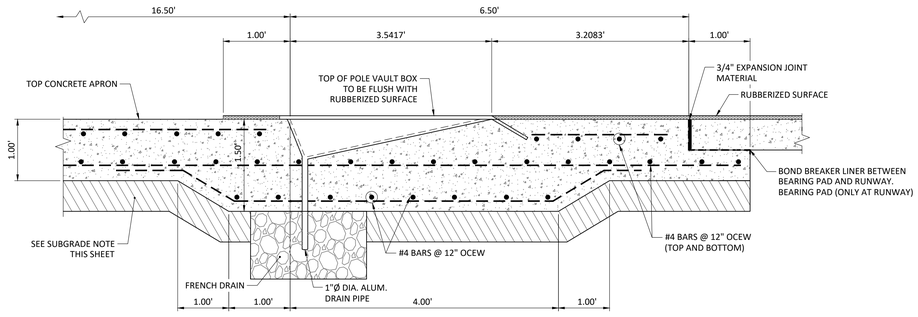
C 4.01-A
CIVIL SPORTS
SWPP PLAN



1 N.T.S. TRACK CURB SECTION



POLE BOX FRONT SECTION

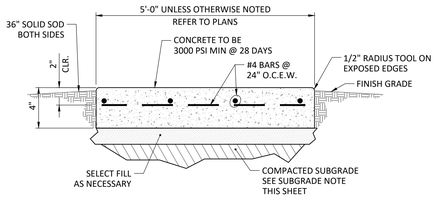


POLE BOX SIDE SECTION

2 N.T.S. POLE VAULT CONCRETE PAD DETAILS

SUBGRADE TREATMENT NOTE:

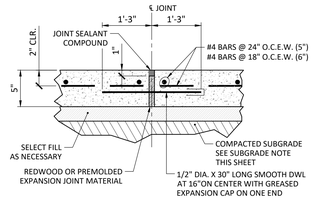
1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.



NOTES:

1. PROVIDE GROOVED JOINT AT 4' ON CENTER.
2. PROVIDE 1/2" EXPANSION JOINT AT 15' ON CENTER.
3. PROVIDE CONTROL JOINTS AT 5' MAXIMUM.

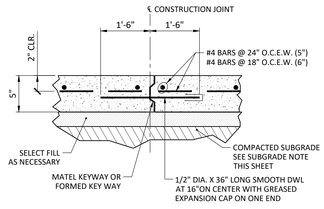
3 N.T.S. CONCRETE SIDEWALK DETAIL



NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

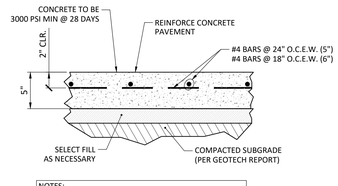
4 N.T.S. EXPANSION JOINT DETAIL



NOTES:

1. CONSTRUCTION JOINT SHALL BE PLACED AT THE END OF EACH DAYS POUR AND IN BETWEEN POURS AS SPECIFIED.

5 N.T.S. CONSTRUCTION JOINT DETAIL

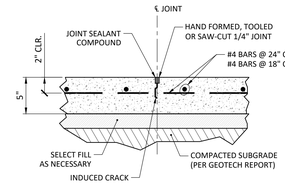


NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.
2. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

6 N.T.S. CONCRETE PAVEMENT DETAIL

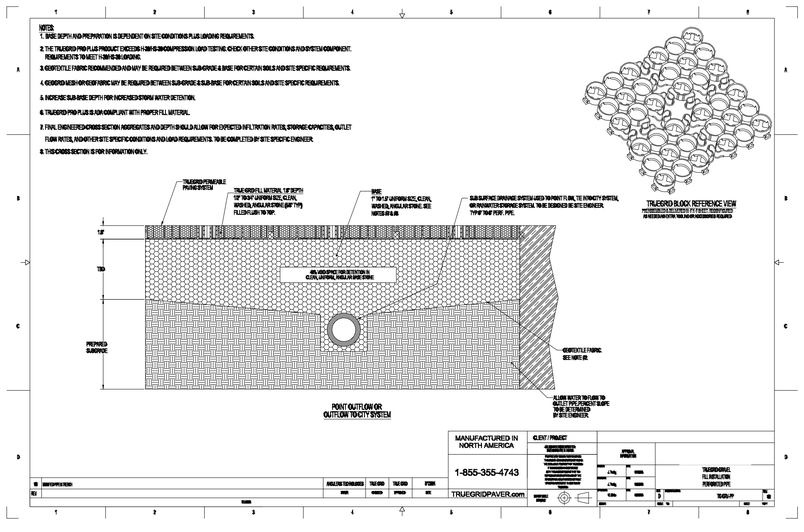
NOTE: SEE GEOTECH REPORT FOR REFERENCE



NOTES:

1. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

7 N.T.S. CONTROL JOINT DETAIL



8 N.T.S. TRUEGRID DETAIL

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

AUSTIN HIGH SCHOOL
Project Info Additional Text Line
3434 Pheasant Creek DR, Sugar Land, TX 77498

FBISD INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. BP012
DATE NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS
Date Description

100% CD
C 5.01-A
CIVIL SPORTS DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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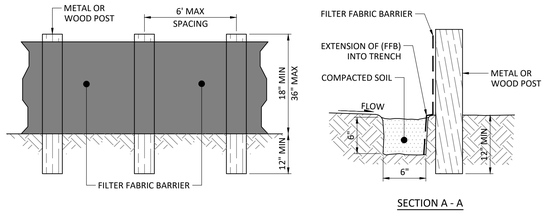
TSCE PROJECT # 2508



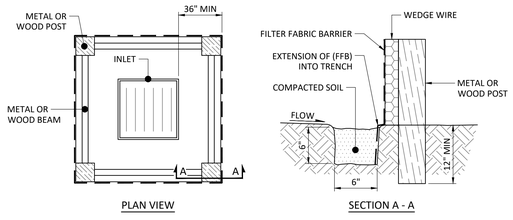
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

X — FFB — X

1 FILTER FABRIC BARRIER
N.T.S.



PLAN VIEW

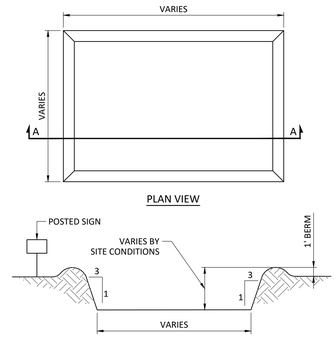
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

IPB

2 INLET PROTECTION BARRIER
N.T.S.



PLAN VIEW

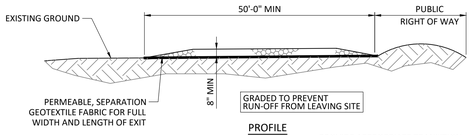
SECTION A - A

CTW

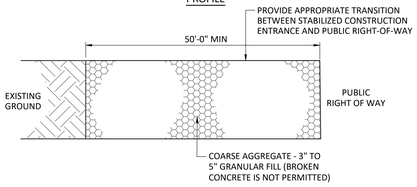
3 CONCRETE TRUCK WASHOUT AREA
N.T.S.

GENERAL NOTES:

1. POST A SIGN READING "CONCRETE WASH OUT PIT" NEXT TO THE PIT.
2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.
3. UNPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.



PROFILE



PLAN VIEW

SC

4 STABILIZED CONSTRUCTION ACCESS
N.T.S.

GENERAL NOTES:

1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
2. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
3. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
4. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
5. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
6. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
7. ALTERNATIVE METHODS OF CONSTRUCTION INCLUDE:
   - CEMENT STABILIZED SOIL: COMPACTED CEMENT STABILIZED SOIL, LIMESTONE AGGREGATE, OR OTHER FILL MATERIAL IN AN APPLICATION OF THICKNESS OF 8 INCHES.
   - WOOD MATS: OAK OR OTHER HARDWOOD TIMBERS PLACED EDGE TO EDGE AND ACROSS SUPPORT WOODEN BEAMS WHICH ARE PLACED ON TOP OF EXISTING SOIL IN AN APPLICATION THICKNESS OF 6 INCHES.
   - STEEL MATS: PERFORATED MATS PLACED ACROSS PERPENDICULAR SUPPORT MEMBERS.

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

AUSTIN HIGH SCHOOL
Project Info Additional Text Line
3434 Pheasant Creek DR, Sugar Land, TX 77498

FBISD
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KENNETH I. JURADO
119993
12/04/2025

PROJECT NO. BP012
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 5.02-A
CIVIL SPORTS DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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TSCE PROJECT # 2598

GENERAL

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES. THE CODES LISTED SHALL INCLUDE ALL AMENDMENTS AND ADDENDA IN FORCE AT THE DATE OF THE CONTRACT DOCUMENTS.

   2021 EDITION OF THE INTERNATIONAL BUILDING CODE

2. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL AND ARCHITECTURAL CONTRACT DOCUMENTS THE STRICTEST REQUIREMENTS SHALL GOVERN.

3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE AND REPORT ANY DISCREPANCIES OR INCONSISTENCIES FROM ASSUMED CONDITIONS TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.

4. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT THEY ARE CUT AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER.

5. DO NOT SCALE THE DRAWINGS.

6. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

7. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, AND CONSTRUCTION EQUIPMENT. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE.

10. IT IS THE DESIGN INTENT FOR ALL CONCRETE POURS TO HAPPEN IN SEQUENTIAL ORDER FROM FOUNDATIONS THROUGH ROOF. THE GENERAL CONTRACTOR SHALL DISCUSS WITH THE A/E TEAM THE FEASIBILITY OF NON-SEQUENTIAL POURING OF CONCRETE AND ITS IMPACT ON THE DESIGN INTENT AND ALLOW SUFFICIENT TIME FOR SUCH SCHEME TO BE INVESTIGATED OR REVIEWED.

11. PERIODIC SITE OBSERVATION BY THE ENGINEER IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

12. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBERS.

13. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, WALLS, SLABS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF STRUCTURAL ENGINEER.

14. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

15. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

    SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS,
    SIZE AND LOCATION OF INTERIOR AND EXTERIOR NON-LOAD BEARING PARTITIONS, SIZE AND LOCATION OF CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHAMFERS, GROOVES, INSERTS, ETC., SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS, FLOOR AND ROOF FINISHES,
    STAIR FRAMING AND DETAILS. DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, CEILING AND EXTERIOR WALL ASSEMBLIES.

16. SEE THE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

    PIPES, SLEEVES, HANGERS, TRENCHES, WALL, FLOOR AND ROOF OPENINGS, DUCT PENETRATIONS, ETC., EXCEPT AS SHOWN OR NOTED OTHERWISE
    ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS, CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL, OR PLUMBING FIXTURES, SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES AND ANCHOR BOLTS FOR MOUNTS.

DESIGN CRITERIA

1. DEAD LOAD MATERIALS ASSUMED IN THE DESIGN ARE SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

2. AN ALLOWANCE OF 15 PSF HAS BEEN MADE FOR PARTITIONS AS A UNIFORMLY DISTRIBUTED LIVE LOAD, WHEREVER PARTITIONS ARE USED AND LOCATION SUBJECT TO CHANGE EXCLUDING PUBLIC LOBBIES, CORRIDORS, RESTROOMS, AND PLACES OF PUBLIC ASSEMBLY.

3. LIVE LOADS:

LOCATION	UNIFORM LOAD	CONCENTRATED LOAD
ROOF	20 PSF REDUCIBLE	300 LBS
GROUND FLR, COMMON AREAS	100 PSF REDUCIBLE	
HANDRAILS AND GUARDRAILS	50 PLF OR 200 LBS APPLIED AT TOP RAIL IN ANY DIRECTION. 50 LBS IN ANY DIRECTION APPLIED AT INTERMEDIATE RAILS.	
GRAB BARS		250 LBS ANY DIRECTION

4. WIND LOADS

ULTIMATE WIND SPEED	134 MPH (3-SEC GUST)
NOMINAL WIND SPEED	104 MPH (3-SEC GUST)
RISK CATEGORY	II
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFF.	+/- 0.18
COMPONENTS & CLADDING	SEE DIAGRAM

5. SEISMIC LOADS

RISK CATEGORY	II
SITE CLASS	1.00
MAPPED ACCELERATION PARAMETERS	
SS	0.065
S1	0.037
SPECTRAL RESPONSE COEFFICIENTS	
SDS	0.07
SD1	0.06
SEISMIC DESIGN CATEGORY	A

6. HANDRAILS, GUARDRAILS AND GRAB BARS (INCLUDING ATTACHMENT TO STRUCTURE) SHALL BE DESIGNED BY THE FABRICATOR FOR THE LOADS INDICATED IN THE REFERENCED BUILDING CODE. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF WHERE THE PROJECT IS LOCATED, REPRESENTING THE FABRICATOR.

FOUNDATION

1. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT (AND ANY ADDENDA) PREPARED BY THE FOLLOWING COMPANY:

   COMPANY — AVILES ENGINEERING CORP.
   REPORT NO. — G136-23D
   DATED — OCTOBER 2025

   ALL RECOMMENDATIONS THEREIN THAT RELATE TO THE WORK SHOWN ON THESE DRAWINGS SHALL BE FOLLOWED.

2. THE FOUNDATION SYSTEM IS DESIGNED BASED ON THE FOLLOWING

   ALLOWABLE BEARING PRESSURE
   SUSTAINED LOADS 3000 PSF
   TOTAL LOADS 4500 PSF

3. THE GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR FOR REVIEW OF FOUNDATION BEARING SURFACE, INSPECTION OF FOUNDATION INSTALLATION, AND PLACEMENT OF REINFORCING STEEL. THE CONTRACTOR SHALL NOT PLACE CONCRETE WITHOUT INSPECTOR'S APPROVAL.

4. THE CONTRACTOR SHALL NOTIFY THE AUTHORIZED INSPECTOR 48 HOURS IN ADVANCE OF ANY MAJOR FOUNDATION POUR.

5. FORM EXPOSED FACES OF GRADE BEAMS.

6. GRADE BEAM BOTTOM STEEL SHALL BE CHAIRED AT 5 FOOT MAXIMUM CENTERS USING BEAM BOLSTERS PROVIDING 3 INCH BOTTOM COVER TO REINFORCING STEEL. BEAM BOLSTERS USED SHALL BE INTENDED FOR SUPPORT ON SOIL.

7. BOTTOM BARS OF GRADE BEAM SHALL BE SPLICED (WHERE REQUIRED) AT THE PIERS ONLY. TOP BARS SHALL BE SPLICED (WHERE REQUIRED) AT THE MIDSPAN OF THE GRADE BEAMS. LAP LENGTH SHALL BE 44 TIMES BAR DIAMETER UNLESS SPECIFIED OTHERWISE. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

8. ALL REINFORCING STEEL FOR SLABS SHALL BE CHAIRED WITH SLAB BOLSTERS FOR SUPPORT ON SOIL AT 4'-0" MAXIMUM CENTERS EACH WAY FOR REINFORCING FOR SLABS. DEPTH OF CHAIRS SHALL PROVIDE COVER TO REINFORCING AS NOTED ON PLANS/DETAILS.

9. SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R. PROVIDE (3) #3 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

10. SUBGRADE PREPARATION SHALL CONFORM TO THE SOILS REPORT NOTED ABOVE. IF REPORT DOES NOT SPECIFY THE AMOUNT OF SELECT FILL, PROVIDE FILL AS REQUIRED ABOVE TO REDUCE PVR TO 1 INCH.

11. VAPOR RETARDER SHALL HAVE NO MORE THAN 0.01 PERMS AS TESTED BEFORE AND AFTER MANDATORY CONDITIONING (ASTM E 1745 SECTION 7.1 AND SUB-PARAGRAPHS 7.1.2-5). MEET OR EXCEED THE REQUIREMENTS OF ASTM E 1745 CLASS A AND BE NO LESS THAN 15 MILS THICK.

12. ALL VAPOR RETARDER SEAMS SHALL BE OVERLAPPED A MINIMUM OF 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE. ALL PENETRATIONS, BLOCK-OUTS, AND OPENINGS SHALL BE SEALED USING A COMBINATION OF THE VAPOR RETARDER, MASTIC AND MANUFACTURERS TAPE. DO NOT PENETRATE VAPOR RETARDER WITH FORMWORK STAKES. USE STEGO BEAST FORM STAKES OR EQUIVALENT WHERE REQUIRED.

13. THE BEARING STRATUM OF EACH DRILLED PIER SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR PRIOR TO POURING OF CONCRETE.

14. THE BOTTOM ELEVATION OF PIERS IS SHOWN ON THE DRAWINGS FOR BID PURPOSES. THE ACTUAL REQUIRED BEARING ELEVATION MAY VARY AS REQUIRED TO PROVIDE PROPER CAPACITY AS DETERMINED BY THE GEOTECHNICAL ENGINEER. FOOTINGS SHALL BE POURED IMMEDIATELY AFTER EXCAVATION.

15. PROVIDE AND INSTALL 1/8 INCH STEEL TEMPLATES TO ACCURATELY SET VERTICAL PIER REINFORCING STEEL, AND ANCHOR BOLTS FOR STEEL COLUMNS.

16. THE PRESENCE OF SAND SEAMS AND SLICKENSIDES IN THE LAYERS MAY CAUSE SLOUGHING DURING PIER EXCAVATION. THIS MAY REQUIRE THE USE OF TEMPORARY STEEL CASING.

17. REDUCING THE POTENTIAL FOR CAVING OF THE BELL CAN BE ACHIEVED BY LIMITING THE BELL TO SHAFT DIAMETER RATIO TO 2:1 OR INSTALLING STRAIGHT SHAFT FOOTINGS.

18. THE GROUNDWATER LEVELS MAY FLUCTUATE SEASONALLY AND WITH CLIMATIC CHANGES. SEEPAGE OF GROUNDWATER INTO THE EXCAVATIONS IS POSSIBLE AND SEEPAGE FROM "PERCHED" WATER TRAPPED IN THE SOILS MAY ALSO OCCUR. THE CONTRACTOR SHALL MAKE PROVISIONS FOR DEWATERING THE FOOTING EXCAVATION IF GROUNDWATER IS ENCOUNTERED.

19. CONCRETE SHALL BE PLACED AS SOON AS POSSIBLE AFTER THE FOOTING EXCAVATIONS ARE COMPLETED TO REDUCE THE POTENTIAL FOR WATER SEEPAGE AND TO MINIMIZE THE DISTURBANCE TO THE BEARING AREA. IN NO CASE, SHOULD AN EXCAVATION BE LEFT OPEN OVERNIGHT.

STRUCTURAL STEEL

1. ALL ASPECTS OF WORK RELATING TO THE DESIGN, FABRICATION, DETAILING, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF THE AISC STEEL CONSTRUCTION MANUAL LATEST EDITION OF THE ANSI/AWS D1.1

2. STRUCTURAL STEEL MATERIALS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

WIDE FLANGE	ASTM A992
ANGLES, PLATES, BARS, CHANNELS	ASTM A36 U.N.O.
PIPES	ASTM A53 GR B
HSS (RECTANGULAR OR SQUARE)	ASTM A500 GR B (Fy = 46 KSI) OR GR C (Fy = 50 KSI)
HSS (ROUND)	ASTM A500 GR B (Fy = 42 KSI) OR GR C (Fy = 46 KSI)
ANCHOR RODS	ASTM F1554-36 U.N.O
HIGH STRENGTH BOLTS	ASTM F3125 GR A325 OR GR F1852 U.N.O.
HEADED STUD ANCHORS (HSA)	ASTM A108
DEFORMED BAR ANCHORS (DBA)	ASTM A496

3. THE DESIGN OF ALL STEEL CONNECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED, EMPLOYED BY THE FABRICATOR. CALCULATIONS SEALED BY THE FABRICATOR'S PROFESSIONAL ENGINEER MUST BE SUBMITTED IF REQUESTED.

4. SURFACES WHICH ARE TO BE FIREPROOFED WITH SPRAY-ON FIREPROOFING OR EMBEDDED IN CONCRETE SHALL NOT BE SHOP PAINTED. DO NOT PAINT TOP FLANGES OF COMPOSITE BEAMS NOR SURFACES OF MEMBERS WHERE WELDING OR HIGH STRENGTH FRICTION BOLTING WILL OCCUR. COORDINATE ALL SHOP PAINTING OF STRUCTURAL STEEL WITH ARCHITECT'S PAINTING REQUIREMENTS AS SPECIFIED ON THE ARCHITECTURAL DRAWINGS AND IN THE SPECIFICATIONS.

5. IT IS THE INTENTION OF THE PLANS AND SPECIFICATIONS THAT SHOP CONNECTIONS BE WELDED OR BOLTED AND THAT FIELD CONNECTIONS BE BOLTED, UNLESS DETAILED OTHERWISE ON THE DRAWINGS.

6. ALL WELDING SHALL COMPLY TO THE AMERICAN WELDING SOCIETY STANDARD (AWS D1.1). ALL WELDED JOINTS SHALL BE DETAILED AS INDICATED BY THE PREQUALIFIED JOINT DETAILS IN THE STRUCTURAL WELDING CODE. WELD LENGTHS CALLED FOR ON THE PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED. ALL WELDS SHALL USE MINIMUM E70XX ELECTRODES.

7. ALL WELDING SHALL BE PERFORMED BY A WELDER CERTIFIED IN ACCORDANCE WITH THE AWS STANDARDS.

8. MISCELLANEOUS STEEL CONNECTIONS SHALL BE WELDED ALL AROUND WITH AISC MINIMUM FILLET WELD UNLESS A LARGER WELD IS SPECIFIED. STEEL MEMBERS CONTINUOUSLY ATTACHED SHALL BE STITCH WELDED TOGETHER WITH AISC MINIMUM 2" LONG FILLET WELD AT 12" O.C. UNLESS A LARGER WELD OR DIFFERENT GAGE IS SPECIFIED.

9. ALL BOLTS SHALL BE DESIGNED AS BEARING BOLTS WITH THREADS INCLUDED IN THE SHEAR PLANE. ALL BOLTS SHALL BE NEW AND NOT RE-USED. BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER THAN NOMINAL SIZE OF BOLT USED, EXCEPT ANCHOR ROD HOLES. MINIMUM BOLT DIAMETER SHALL BE 3/4 INCH. ALL BOLTS SHALL BE TIGHTENED TO A SNUG-TIGHT POSITION, EXCEPT AT BRACES, MOMENT CONNECTIONS AND CONNECTIONS MARKED AS SLIP CRITICAL (SC) SHALL BE TIGHTENED USING LOAD INDICATING WASHERS OR TENSION BOLTS.

10. ALL STEEL EXPOSED TO WEATHER OR OUTSIDE THE BUILDING'S WATERPROOFING, SUCH AS BRICK SHELF ANGLES, SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION AS SPECIFIED BY THE STEEL STRUCTURES PAINTING COUNCIL (SSPC). THE ZINC COATING FOR STEEL SHAPES AND PLATES SHALL AVERAGE NOT LESS THAN 2.3 OZ. WITH NO INDIVIDUAL THICKNESS LESS THAN 2.0 OZ.

11. GALVANIZE ALL NUTS, BOLTS, AND WASHERS USED IN THE CONNECTION OF GALVANIZED STEEL.

12. GALVANIZED MEMBERS SHALL HAVE "Z.R.C. COLD GALVANIZING COMPOUND OR APPROVED EQUIVALENT APPLIED TO FIELD WELDED CONNECTIONS. SURFACE AREAS TO RECEIVE COLD GALVANIZING COMPOUND SHALL BE CLEAN OF DIRT AND DEBRIS PRIOR TO COMPOUND APPLICATION. SEE MANUFACTURER'S LITERATURE FOR ADDITIONAL RECOMMENDATIONS.

13. THE APPLICATION OF THE FIREPROOFING TO THE STEEL MEMBERS AND STEEL DECK IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST ENFORCE THE REQUIREMENTS OF THE MANUFACTURER AND NOT IMPOSE ADDITIONAL LOADS, INCLUDING CONSTRUCTION LIVE LOADS, DURING THE APPLICATION AND CURING OF THE FIREPROOFING.

14. IN ADDITION TO ALL OF THE STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF STEEL TO BE FURNISHED, FABRICATED, DETAILED, AND ERECTED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

15. THE CONTRACTOR SHALL MAKE AN ALLOWANCE FOR THE ADJUSTMENT AND DETAILING OF STEEL DURING THE SHOP DRAWING REVIEW PROCESS.

CONCRETE

1. ALL ASPECTS OF WORK RELATING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CURRENT EDITION OF ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
   CRSI MANUAL OF STANDARD PRACTICE

2. STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTHS AND TYPES ARE AS FOLLOWS:

LOCATION	STRENGTH	TYPE	AGGREGATE SIZE	EXPOSURE CLASS
FOUNDATIONS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0
GRADE BEAMS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0
SLAB-ON-GRADE	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0

3. THERE SHALL BE NO HORIZONTAL COLD JOINT IN ANY CONCRETE POUR.

4. ADMIXTURES USED SHALL BE COMPATIBLE WITH FLOOR TREATMENTS. FINISH APPLICATOR SHALL APPROVE ADMIXTURES AND CURING COMPOUNDS PRIOR TO USE.

5. EXPOSURE CLASSES FOR FREEZING AND THAWING (F), SULFATE (S), WATER (W), AND CORROSION PROTECTION (C) HAVE BEEN PROVIDED. CONCRETE MIXES SHALL CONFORM TO ALL ACI 318 REQUIREMENTS BASED ON EXPSURE CLASS, INCLUDING, BUT NOT LIMITED TO WATER CEMENT RATIO, COMPRESSION STRENGTH, AIR CONTENT, CEMENTITIOUS MATERIALS, CALCIUM CLORIDE ADMIXTURES, AND WATER-SOLUABLE CHLORIDE ION CONTENT.

6. CONCRETE FOR SLAB-ON-GRADE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.45. ALL OTHER CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.50. ADJUST CONCRETE STRENGTH BEYOND MINIMUM SPECIFIED ABOVE TO MAINTAIN MAXIMUM WATER-CEMENT RATIO.

7. CONCRETE FOR SLAB-ON-GRADE AND METAL DECK SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.04% (400 MICROSTATIONS) AT 28 DAYS OF DRYING. LENGTH CHANGE SHALL BE MEASURED IN ACCORDANCE WITH ASTM C157.

8. FLY ASH CONFORMING TO ASTM C618, MAY BE USED UNLESS NOTED OTHERWISE. THE MAXIMUM AMOUNT OF FLY ASH SHALL BE 25% OF THE TOTAL CEMENTITIOUS MATERIAL BY WEIGHT.

9. AT POLISHED OR STAINED CONCRETE THE FLOOR FLATNESS (FF) SHALL BE 40 OR BETTER AND THE FLOOR LEVELNESS (FL) SHALL BE 30 OR BETTER UNLESS MORE STRINGENT REQUIREMENTS ARE PROVIDED IN THE SPECIFICATIONS.

10. CONCRETE FORMS SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS INDICATED ON THE STRUCTURAL DRAWINGS.

11. CONCRETE FOR SLABS TO RECEIVE A HARD-TROWELED FINISH SHALL NOT CONTAIN AIR-ENTRAINING ADMIXTURES OR HAVE A TOTAL AIR CONTENT GREATER THAN 3 PERCENT.

12. SUBMIT SHOP DRAWINGS TO ARCHITECT AND ENGINEER INDICATING LOCATIONS OF CONCRETE JOINTS TO REVIEW PRIOR TO PLACING CONCRETE. PLACE JOINTS AT LOCATIONS TO MINIMIZE THE EFFECTS OF SHRINKAGE AS WELL AS BEING PLACED AT POINTS OF LOW STRESS.

13. ROUGHEN CONCRETE SURFACES TO 1/4 INCH AMPLITUDE WHERE MASONRY WALLS INTERFACE CONCRETE OR WHERE NEW CONCRETE INTERFACES WITH EXISTING CONCRETE.

14. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB-ON-GRADE, CONCRETE ON METAL DECK, FRAMED CONCRETE FLOORS, AND WALLS DO NOT REQUIRE SLEEVES UNLESS NOTED OTHERWISE ON THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE ARCHITECT AND ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH CONCRETE BEAMS OR COLUMNS UNLESS SPECIFICALLY DETAILED.

15. WITH THE EXCEPTION OF SLABS ON GRADE AND CONCRETE ON METAL DECK, THE OUTSIDE DIAMETER OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS (OTHER THAN THOSE PASSING THROUGH) SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS AND SHALL BE CENTERED BETWEEN THE TOP AND BOTTOM REINFORCING UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED. CONDUIT AND PIPE SHALL BE SPACED AT 3" OR 3 DIAMETERS ON CENTER, WHICHEVER IS GREATER.

16. FOR SLABS ON GRADE AND METAL DECK SLABS NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB UNLESS SPECIFICALLY DETAILED OTHERWISE.

17. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING WHEN TEMPORARY SUPPORTS, SHORES, BACKSHORES, AND OTHER BRACING MAY BE SAFELY REMOVED.

REINFORCING STEEL

1. ALL ASPECTS OF WORK RELATING TO THE REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CRSI MANUAL OF STANDARD PRACTICE

2. DEFORMED BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.

3. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185, YIELD STRENGTH 65,000 PSI. WELDED DEFORMED WIRE FABRIC FOR ASTM A497, YIELD STRENGTH 70,000 PSI. ALL WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS ONLY. WHEREVER WELDED WIRE FABRIC IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED ONE CROSS WIRE SPACING PLUS 2 INCHES.

4. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ONE HALF, WHICHEVER IS GREATER.

5. WELDING OF REINFORCING IS PERMITTED ONLY WHERE SHOWN ON THE DRAWINGS OR WHEN APPROVED BY THE ENGINEER OF RECORD. WELDING OF REINFORCING BARS SHALL BE WITH LOW HYDROGEN ELECTRODES IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF AWS D1.4.

6. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.

7. REINFORCING DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME NUMBER, SIZE, SPACING, AND GRADE AS THE SPECIFIED VERTICAL REINFORCING, UNO.

8. IN ADDITION TO ALL OF THE REINFORCING STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF REINFORCING BARS TO BE FURNISHED, FABRICATED, AND PLACED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

9. CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS SHALL BE AS FOLLOWS:

LOCATION OF CONCRETE	MINIMUM COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #18 BAR	2"
#5 BAR AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND	
SLABS, WALLS, JOISTS	3/4"
BEAMS, COLUMNS (INCLUDING TIES)	1 1/2"
SLAB ON GRADE	SEE DETAILS
PRESTRESSED CONCRETE	SEE IBC 1907.7.3

PRE-ENGINEERED METAL BUILDING (PEMB)

1. ALL ROOF COMPONENTS INCLUDING PURLINS AND BUILDING FRAME SHALL BE DESIGNED BY METAL FRAME SUPPLIER. ALL OTHER STEEL MEMBERS SHALL BE DESIGNED BY THE METAL BUILDING SUPPLIER.

2. ALL DESIGNS SHALL CONFORM TO AISC, AISI AND MBMA STANDARDS (LATEST EDITION).

3. ALL ROOF DECK SYSTEMS SHALL CONFORM TO THE UL WIND-UPLIFT RATING OF CLASS 90.

4. ALL BUILDING FRAMES SHALL BE DESIGNED FOR A MAXIMUM HORIZONTAL DEFLECTION OF H/240 UNDER LATERAL LOADS (H = HEIGHT OF BUILDING FRAME).

5. GIRTS SUPPORTING BRICK/CMU SHALL BE DESIGNED FOR A MAXIMUM HORIZONTAL DEFLECTION OF L/600 (L = SPAN OF GIRT). MEMBERS SUPPORTING BRICK/CMU SHALL HAVE A VERTICAL DEFLECTION OF L/600.

6. ALL PURLINS SHALL BE DESIGNED FOR DEAD LOADS SHOWN ON ARCHITECTURAL DRAWINGS, INCLUDING MISCELLANEOUS FRAMING TO CARRY SUPERIMPOSED DEAD LOADS.

7. BUILDING FRAMES SHALL BE DESIGNED FOR THE LATERAL STABILITY OF THE BUILDING IN BOTH DIRECTIONS. EXAMINE THE CONSTRUCTION DOCUMENTS TO DETERMINE THE PREFERRED LOCATIONS OF LATERAL FRAMES. NO X-BRACES OR ROD BRACES ARE ALLOWED IN THE VERTICAL PLANE AT ANY LOCATIONS IN THESE DOCUMENTS.

8. FOUNDATION DESIGN IS BASED ON THE ROOF LOADINGS SPECIFIED BY THE MBMA AND ANY OTHER ADDITIONAL LOADS IMPOSED BY THE BUILDING USE. SUBMIT REACTIONS FROM METAL BUILDING FRAME (AT LEAST 6 WEEKS PRIOR TO THE POURING OF THE FOUNDATION) TO CONFIRM THE DESIGN OF FOOTINGS. GENERAL CONTRACTOR SHALL CONFIRM FOOTING SIZES WITH THE STRUCTURAL ENGINEER AFTER ACTUAL REACTIONS ARE RECEIVED FROM THE METAL BUILDING FRAME SUPPLIER. MODIFICATIONS TO FOUNDATION AND/OR DETAILS RESULTING FROM SUCH REVIEW SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND HIS METAL BUILDING SUPPLIERS. NO ADDITIONAL COST PROPOSALS WILL BE ENTERTAINED.

9. SUBMIT SHOP DRAWINGS FOR BUILDING METAL BUILDING FRAMES, INCLUDING ALL CONNECTIONS. ALL SHOP DRAWINGS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

10. ALL WELDING SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF AWS.

11. THE FOUNDATION HAS BEEN DESIGNED ASSUMING THAT RIGID FRAMES ARE PINNED AT THE BASE. THE FOOTINGS HAVE NOT BEEN DESIGNED FOR MOMENTS DUE TO FIXITY AT THE BASE.

12. THE METAL BUILDING MANUFACTURER SHALL TAKE INTO ACCOUNT LATERAL LOADS FOR BRACING PERIMETER/INTERIOR WALLS. THE TOP OF ALL WALLS SHALL BE BRACED BY THE METAL BUILDING STRUCTURE. PROVIDE STEEL MEMBERS AS REQUIRED.

13. THE METAL BUILDING MANUFACTURER SHALL REVIEW ALL PLANS (ARCHITECTURAL, STRUCTURAL, MEP, ETC.) DETAILS AND SPECIFICATIONS AND MAKE PROVISIONS FOR THE SUPPORT OF ALL ELEMENTS DESIGNATED TO BE SUPPORTED OR BRACED BY THE STRUCTURE, INCLUDING ANY H

CONCRETE MASONRY

1. ALL MASONRY MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION AND THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF TMS-402 CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES

2. ALL CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C90. UNLESS SPECIFIED OTHERWISE, CMU SHALL BE LIGHTWEIGHT (LESS THAN 110 PCF, OVEN DRY UNIT WEIGHT). THE MINIMUM COMPRESSIVE STRENGTH OF MASONRY (F'M) SHALL BE 2000 PSI AS DETERMINED BY THE UNIT STRENGTH METHOD OR BY THE PRISM TEST METHOD.

3. UNLESS SPECIFIED OTHERWISE, ALL MORTARS AND THE MATERIALS THEREIN SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF MASONRY UNITS, ASTM C270, TYPE S EXCEPT FOR MASONRY IN CONTACT WITH THE EARTH SHALL BE TYPE M.

4. ALL GROUT SHALL BE FINE GROUT CONTAINING SAND, PORTLAND CEMENT, AND LIME (OPTIONAL) FOR GROUT SPACES LESS THAN 2 INCHES IN ANY HORIZONTAL DIRECTION, UNLESS SPECIFIED OTHERWISE. GROUT SHALL ATTAIN A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 2500 PSI TESTED ACCORDING TO ASTM C476.

5. CONTROL JOINTS SHALL BE LOCATED PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS OR AT A MAXIMUM SPACING OF 24 FEET ON CENTERS OR 3 TIMES THE WALL HEIGHT, WHICHEVER IS LESS. ALL MASONRY UNITS SHALL BE PLACED IN RUNNING BOND.

6. PROVIDE HORIZONTAL JOINT REINFORCING (TRUSS OR LADDER TYPE, 9 GAUGE) AT 16 INCHES ON CENTER FOR ALL CMU WALLS LAID IN A RUNNING BOND AND AT 8 INCHES ON CENTER FOR ALL CMU WALL NOT LAID IN A RUNNING BOND. HORIZONTAL JOINT REINFORCING SHALL BE LAPPED A MINIMUM OF 6". REINFORCEMENT SHALL CONFORM TO ASTM A951 AND SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.

7. ALL HORIZONTAL REINFORCING STEEL IN BOND BEAMS AND LINTEL BLOCK UNITS SHALL BE CONTINUOUS AND UNITS SHALL BE SOLID GROUTED. PROVIDE 48 TIMES BAR DIAMETER LAP FOR HORIZONTAL REINFORCING IN BOND BEAMS. NO SPLICES SHALL BE PROVIDED FOR HORIZONTAL REINFORCING IN BLOCK LINTELS.

8. GROUT CELLS SOLID WHERE VERTICAL BARS ARE SHOWN ON THE DRAWINGS. VERTICAL BARS SHALL EXTEND FROM BOTTOM TO THE TOP OF THE WALL. AT EACH VERTICAL BAR, PROVIDE MATCHING BAR SIZE DOWEL INTO FOUNDATIONS. PROVIDE MINIMUM 48 TIMES BAR DIAMETER SPLICE FOR VERTICAL BARS WHERE REQUIRED AND/OR SHOWN ON THE DRAWINGS UNLESS NOTED OTHERWISE.

9. GROUT LIFTS SHALL TERMINATE TO FORM A GROUT KEY A MINIMUM OF 1 1/2" BELOW MORTAR JOINTS WHEN SUBSEQUENT GROUT LIFTS WILL HAPPEN AFTER PREVIOUS GROUT LIFTS HAVE SET. GROUT KEYS IN BOND BEAMS OR LINTELS SHALL NOT BE PERMITTED.

10. MAXIMUM GROUT POUR HEIGHT SHALL BE 5' - 4" (8 BLOCK COURSES).

11. PROVIDE A BOND BEAM AT THE TOP OF ALL CMU WALLS AND REINFORCE WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE. UNLESS NOTED OTHERWISE, ALL EXTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #5 CONTINUOUS AND ALL INTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #4 CONTINUOUS. BOND BEAM REINFORCING SHALL NOT BE CONTINUED THROUGH CONTROL JOINT LOCATIONS.

12. PROVIDE BOND BEAMS AT A MAXIMUM OF 48 INCHES ON CENTER IN ALL EXTERIOR AND LOAD BEARING CMU WALLS NOT LAID IN A RUNNING BOND (E.G. STACK BOND) REINFORCED WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE BOND BEAM REINFORCEMENT SHALL BE DISCONTINUED AT CONTROL JOINTS.

13. AT THE END OF EACH DAY AND DURING INCLEMENT WEATHER, ALL UNFINISHED MASONRY WORK SHALL BE COVERED AT THE TOP OF WALL AND EXTEND DOWN ALL SIDES A MINIMUM OF 24".

14. SEE TYPICAL DETAILS FOR INTERIOR WALL HEIGHT, BRACING AND REINFORCING REQUIREMENTS.

15. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH MASONRY WALLS DO NOT REQUIRE SLEEVES, UNLESS NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE GROUTING. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN GROUTED MASONRY IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH MASONRY LINTELS UNLESS SPECIFICALLY DETAILED.

16. ALL REINFORCED MASONRY WALLS WITH OPENINGS UP TO THREE (3) FEET WIDE, SHALL HAVE ONE VERTICAL BAR MINIMUM AT EACH SIDE OF OPENINGS. FOR OPENINGS LARGER THAN 3 FEET WIDE, PROVIDE TWO (2) VERTICAL BARS AT EACH SIDE OF OPENINGS UNLESS NOTED OTHERWISE. REINFORCING AT EDGES OF OPENING SHALL MATCH TYPICAL VERTICAL WALL REINFORCING (UNLESS NOTED OTHERWISE) AND SHALL EXTEND TO THE TOP OF WALL.

17. ALL REINFORCED MASONRY WALL CORNERS AND INTERSECTIONS SHALL HAVE ONE VERTICAL BAR (MINIMUM) IN GROUTED CELL. REINFORCING SHALL MATCH TYPICAL WALL VERTICAL REINFORCEMENT.

18. PROVIDE ONE VERTICAL BAR (MINIMUM) IN THE FIRST CELL EACH SIDE OF CONTROL JOINTS. REINFORCING SHALL MATCH TYPICAL VERTICAL WALL REINFORCING (UNLESS NOTED OTHERWISE) AND SHALL EXTEND TO THE TOP OF WALL.

19. FOR ANCHORED MASONRY VENEER, THE DISTANCE BETWEEN THE INSIDE FACE OF THE VENEER AND THE COLD-FORMED STEEL, MASONRY, WOOD, OR CONCRETE BACKUP SHALL BE AS SPECIFIED BY THE ARCHITECT, BUT NOT GREATER THAN 4 1/2". A MINIMUM 1 INCH AIR SPACE SHALL BE PROVIDED.

20. ANCHORED MASONRY VENEER NOT LAID IN A RUNNING BOND SHALL HAVE A JOINT REINFORCEMENT OF AT LEAST ONE WIRE, OF SIZE W1.7, SPACED AT A MAXIMUM OF 18 INCHES ON CENTER VERTICALLY.

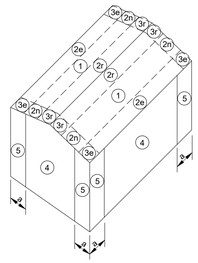
21. ALL CONCRETE MASONRY AND MASONRY VENEER SHALL HAVE A MINIMUM BEARING WIDTH OF 2/3 THE WIDTH OF THE MASONRY UNIT.

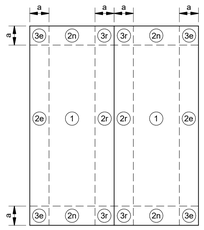
22. SPECIAL INSPECTION, IN ACCORDANCE WITH THE BUILDING CODE REFERENCED ABOVE, SHALL BE PROVIDED FOR ALL CMU WALLS.

ROOF PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	>100 SQ. FT.	>500 SQ. FT.	>1000 SQ. FT.
1	+26,-79	+23,-79	+20,-48	+17,-25	+17,-25	+17,-25
2n	+26,-115	+23,-99	+20,-79	+17,-63	+17,-43	+17,-43
2r	+26,-115	+23,-99	+20,-79	+17,-63	+17,-43	+17,-43
2e	+26,-79	+23,-79	+20,-48	+17,-25	+17,-25	+17,-25
3r	+26,-137	+23,-117	+20,-91	+17,-72	+17,-72	+17,-72
3e	+26,-115	+23,-99	+20,-79	+17,-63	+17,-43	+17,-43

WALL PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	>100 SQ. FT.	>500 SQ. FT.	>1000 SQ. FT.
4	+39,-42	+37,-41	+35,-38	+33,-37	+29,-33	+29,-33
5	+39,-52	+37,-49	+35,-44	+33,-41	+29,-33	+29,-33

ROOF OVERHANG PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	>100 SQ. FT.	>500 SQ. FT.	>1000 SQ. FT.
1	-90	-90	-70	-54	-54	-54
2n	-127	-115	-99	-88	-72	-72
2r	-127	-115	-99	-88	-72	-72
2e	-90	-90	-70	-54	-54	-54
3r	-170	-144	-109	-83	-83	-83
3e	-148	-128	-101	-81	-54	-54





PLAN

GABLE ROOF

NOTES:
1. (0-10 SQ. FT.) EXAMPLE DENOTES EFFECTIVE WIND AREA.
2. + AND - SIGNS SIGNIFY PRESSURES ACTING TOWARD OR AWAY FROM THE SURFACES, RESPECTIVELY. ALL VALUES SHOWN ARE IN PSF.
3. WIND PRESSURE FOR EFFECTIVE WIND AREAS BETWEEN THE SPECIFIED RANGES MAY BE DETERMINED BY INTERPOLATION, OTHERWISE, USE THE VALUE ASSOCIATED WITH THE LOWER EFFECTIVE AREA.
4. a = WIDTH OF EDGE STRIP EQUAL TO 10% OF THE LEAST HORIZONTAL DIMENSION (L or B) or 40% OF THE ROOF HEIGHT (h), WHICHEVER IS SMALLER, BUT NOT LESS THAN 4% OF THE LEAST HORIZONTAL DIMENSION OR 3 FT.
5. ELEMENTS WITH TRIBUTARY AREAS GREATER THAN 700 SQ. FEET MAY BE DESIGNED USING MWFRS PROVISIONS.
6. VALUES SHOWN ARE BASED ON IBC 2018 / ASCE 7-16 WIND CALCULATIONS FOR COMPONENTS AND CLADDING AND ARE ULTIMATE VALUES (LRFD). VALUES SHOWN ARE FOR USE IN ASCE 7-10 LOAD COMBINATIONS SHOWN IN SECTION 2.32 (1.0W). IF NOMINAL (ASD) WIND LOADS ARE DESIRED OR REQUIRED FOR COMPARISON TO LOAD CAPACITIES OF FENESTRATIONS, CLADDING OR OTHER SYSTEMS, MULTIPLY THE VALUE ON THE CHART BY 0.625
7. THE BUILDING LAYOUT SHOWN IS INTENDED TO BE SCHEMATIC, APPLY WIND PRESSURE PROVIDED SIMILARLY TO THE BUILDING(S) AT THIS PROJECT.
8. UNLESS OTHERWISE SPECIFIED, ROOF DEAD LOAD TO BE USED FOR NET UPLIFT CALCULATIONS SHALL NOT EXCEED 12 PSF. NET UPLIFT PRESSURE SHALL NOT BE LESS THAN 16 PSF.

COMPONENTS & CLADDING PRESSURES

ABBREVIATIONS

ABBR.	ABBREVIATION
A.F.F.	ABOVE FINISH FLOOR
ADDN'L	ADDITIONAL
AHU	AIR HANDLING UNIT
ALT.	ALTERNATE
ANCH.	ANCHOR
A.B.	ANCHOR BOLT
A.R.	ANCHOR ROD
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT(URAL)
BM.	BEAM
BRG.	BEARING
BTW	BETWEEN
BOT.	BOTTOM
B.F.B.	BOTTOM FLANGE BRACE
B.O.	BOTTOM OF
BRDG.	BRIDGING
BLDG	BUILDING
C	CAMBER
CANT.	CANTILEVER
C.I.P.	CAST IN PLACE
C/C	CENTER TO CENTER
CL	CENTERLINE
CH	CHANNEL
CLR.	CLEAR(ANCE)
CFMF	COLD FORMED METAL FRAMING
COL.	COLUMN
CJP	COMPLETE JOINT PENETRATION
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONST.	CONSTRUCTION
C.J.	CONSTRUCTION / CONTRACTION JOINT
CONT.	CONTINUOUS
COORD.	COORDINATE
DL	DEAD LOAD
DBA	DEFORM BAR ANCHOR
D	DEPTH
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
DWL	DOWEL
D.N.	DOWN
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
E.W.	EACH WAY
EL.	ELEVATION
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
ENGR.	ENGINEER
EOR	ENGINEER OF RECORD
EQ.	EQUAL
EQUIP.	EQUIPMENT
EQUIV.	EQUIVALENT
EXIST.	EXISTING
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
f'c=	28 DAY CONCRETE STRENGTH
FAB.	FABRICATE
F.S.	FAR SIDE
FIN	FINISH/FINISHED
FLR	FLOOR
F.D.	FLOOR DRAIN
FTG.	FOOTING
Fy=	YIELD STRENGTH
GALV.	GALVANIZED
GA.	GAUGE
GEN	GENERAL
G.C.	GENERAL CONTRACTOR
GFRC	GLASS FIBER REINFORCED CONCRETE
GR.	GRADE/GRADING
HGR.	HANGER
HSA	HEADED STUD ANCHOR
HI	HIGH
HSS	HOLLOW STRUCTURAL SECTION
HORIZ. OR (H)	HORIZONTAL
H	HORIZONTAL REACTION
IN	INCH
INFO.	INFORMATION
ID	INSIDE DIAMETER
I.F.	INSIDE FACE
INT.	INTERIOR
JT.	JOINT
JST.	JOIST
K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
Ld	DEVELOPMENT LENGTH
LWC	LIGHTWEIGHT CONCRETE
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLV	LONG LEG VERTICAL
LLH	LONG LGE HORIZONTAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LONG	LONGITUDINAL
LO	LOW
LBS	POUNDS
MFR. / MNFR.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM

MECH.	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M	MOMENT
M.C.	MOMENT CONNECTION
N.S.	NEAR SIDE
NWC	NORMAL WEIGHT CONCRETE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
O.C.	ON CENTER(S)
OPNG.	OPENING
OPP.	OPPOSITE
OPH.	OPPOSITE HAND
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OA	OVERALL
O.H.	OVERHEAD
OVS.	OVERSIZED HOLE
P	AXIAL LOAD
P.J.	PANEL JOINT
PAR.	PARALLEL
PRKG.	PARKING
PJP	PARTIAL JOINT PENETRATION
PVMT	PAVEMENT
PVG	PAVING
PERP.	PERPENDICULAR
PL.	PLATE
PLBG	PLUMBING
PT	POST-TENSION(ED)
PCF	POUNDS PER CUBIC FOOT/FEET
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT/FEET
PSI	POUNDS PER SQUARE INCH
P/C	PRECAST CONCRETE
PRELIM.	PRELIMINARY
P.L.	PROPERTY LINE
QTY	QUANTITY
R	RADIUS, REACTION, REMAINDER
REC.	RECESSED
RE:	REFER TO
REF.	REFERENCE
REINF.	REINFORCED / REINFORCING
REBAR	REINFORCING BAR
REQ'D	REQUIRED
REV.	REVISION
R.D.	ROOF DRAIN
RTU	ROOF TOP UNIT
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SLBB	SHORT LEG BACK TO BACK
SIM.	SIMILAR
SC	SLIP CRITICAL, SHEAR CONNECTOR
SPA.	SPACING
SPEC.	SPECIFICATION
SQ.	SQUARE
SF.	SQUARE FOOT/FEET
STD	STANDARD
STL	STEEL
STIFF.	STIFFENER
STIR.	STIRRUP
STRUCT.	STRUCTURE/STRUCTURAL
TEMP.	TEMPERED
THK	THICK(NESS)
t	THICKNESS, TREAD
THD	THREADED
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
VERT. OR (V)	VERTICAL
WT.	WEIGHT
WWR	WELD WIRE REINF.
WF	WIDE FLANGE
W	WIDTH
WL	WIND LOAD
W.P.	WORK POINT
XXS	DOUBLE EXTRA STRONG
XS	EXTRA STRONG
&	AND
≈	APPROXIMATELY EQUAL
@	AT
°	DEGREE
=	EQUAL
≥	GREATER THAN or EQUAL
≤	LESS THAN or EQUAL
#	NUMBER or POUNDS
/	PER
±	PLUS or MINUS
Ø	ROUND/DIAMETER

SYMBOLS LEGEND

SYMBOLS	DESCRIPTION
N	NORTH ARROW
XX S-X.XX	ENLARGE FLOOR PLAN REFERENCE OR ENLARGE DETAIL REFERENCE
XX S-X.XX	DETAIL SECTION (STRUCTURAL)
XX/SX.XX	BRACING ELEVATION
11 5/8" / 5"	DIMENSIONS
XX/S-X.XX / XX/S-X.XX	MATCHLINE
1	REVISION NUMBER & AFFECTED AREA
LEVEL NAME 0' - 0"	VERTICAL ELEVATION
EX: 152' - 6"	EXISTING ELEVATION
152' - 6"	NEW ELEVATION
	M.C. OR MOMENT CONNECTION
	DEPRESSION
	PANEL WALL TAG
12/36 (BELL DIAMETER (IN) / SHAFT DIAMETER (IN))	BELLED PIER
P1	PILE SHAFT
F3	FOOTING

STRUCTURAL SHEET INDEX

SHEET NUMBER	SHEET NAME	Current Revision
S1.01-A	GENERAL NOTES	
S1.02-A	GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX	
S2.01-A	FOUNDATION PLAN - FOOTBALL/FIELD STORAGE - NEW	
S2.02-A	EXISTING FOUNDATION PLAN - GYM LOCKER ROOMS	
S2.03-A	EXISTING ROOF FRAMING PLAN - GYM LOCKER ROOMS	
S3.01-A	TYPICAL FOUNDATION DETAILS	
S3.02-A	TYPICAL FOUNDATION DETAILS	
S3.03-A	TYPICAL FOUNDATION DETAILS	
S4.01-A	TYPICAL CMU WALL DETAILS	
S4.02-A	TYPICAL CMU WALL DETAILS	
Grand total: 10		

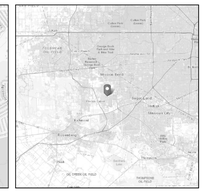
ASCE Hazards Report

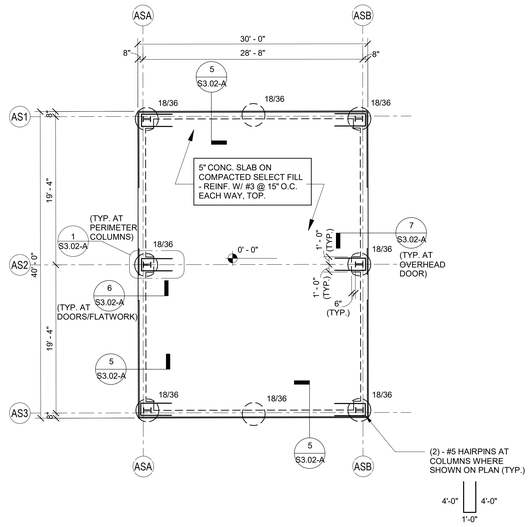
Address: 3434 Pheasant Creek Dr Sugar Land, Texas 77498

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)

Latitude: 29.640985
Longitude: -95.677177
Elevation: 82.27436824629676 ft (NAVD 88)




Pheasant Creek Dr
Sugar Land
Alkali Flat Creek
Pheasant Creek Park
Brand Rd
Lexington Blvd
Austin High School
Mission Bend
Mission Bend Park
Mission Bend Dr
Mission Bend Blvd



1 FOUNDATION PLAN - FOOTBALL/FIELD STORAGE - NEW
SCALE: 1/8" = 1'-0"

PEMB FOUNDATION PLAN NOTES:

1. ALL PIERS ARE CENTERED UNDER COLUMN CENTERLINES, U.N.O.
2. PIERS UNDER GRADE BEAM (WITHOUT COLUMNS) SHALL BE CENTERED UNDER GRADE BEAMS, U.N.O.
3. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
4. COORDINATE ALL BRICK LEDGES AND DEPTH WITH ARCHITECTURAL DRAWINGS.
5. LOCATIONS NOTED THUS: 0' - 0" INDICATES TOP OF SLAB ELEVATION.
6. SEE PEMB FOR BASE PLATE INFORMATION.
7. REFER TO PEMB FOR SIZE, LOCATION AND ORIENTATION OF ALL COLUMNS, ANCHOR BOLTS. NOTIFY ARCH. OF ANY DISCREPANCIES BETWEEN PLANS FOR RESOLUTION PRIOR TO FABRICATION AND INSTALLATION.
8. SEE 5/S3.03, 7/S3.03 & 10/S3.03 FOR ADDITIONAL REBAR AT OPENINGS, DISCONTINUOUS JOINTS, AND RE-ENTRANT CORNERS IN SLAB-ON-GRADE.
9. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
10. REFER TO MEP FOR SLOPE - INVERT ELEVATION (I.E.) AT DRAINS.
11. TYPICAL SLOPE AT FLOOR IS 1/8" PER FOOT, U.N.O. ON ARCH.
12. PROVIDE (2)-#4X4'-0" TOP & BOT. AT ALL RE-ENTRANT CORNERS AT SLAB ON GRADE. TOP REINFORCING SHALL BE PLACED AT 1 1/4" CLEAR FROM THE TOP OF THE SLAB.
13. ——► WHERE SHOWN ON PLAN INDICATES SLOPE DIRECTION. SEE ARCH. FOR INFORMATION.
14. ALL COLUMN LOCATIONS SHOWN AND ASSOCIATED FOUNDATIONS ARE PLACEHOLDERS IN THE ABSENCE OF A COMPLETE METAL BUILDING DESIGN SUBMITTAL. SEE GENERAL NOTES FOR SUBMITTAL REQUIREMENTS.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498

STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
127121
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S2.01-A
FOUNDATION PLAN - FOOTBALL/FIELD STORAGE - NEW

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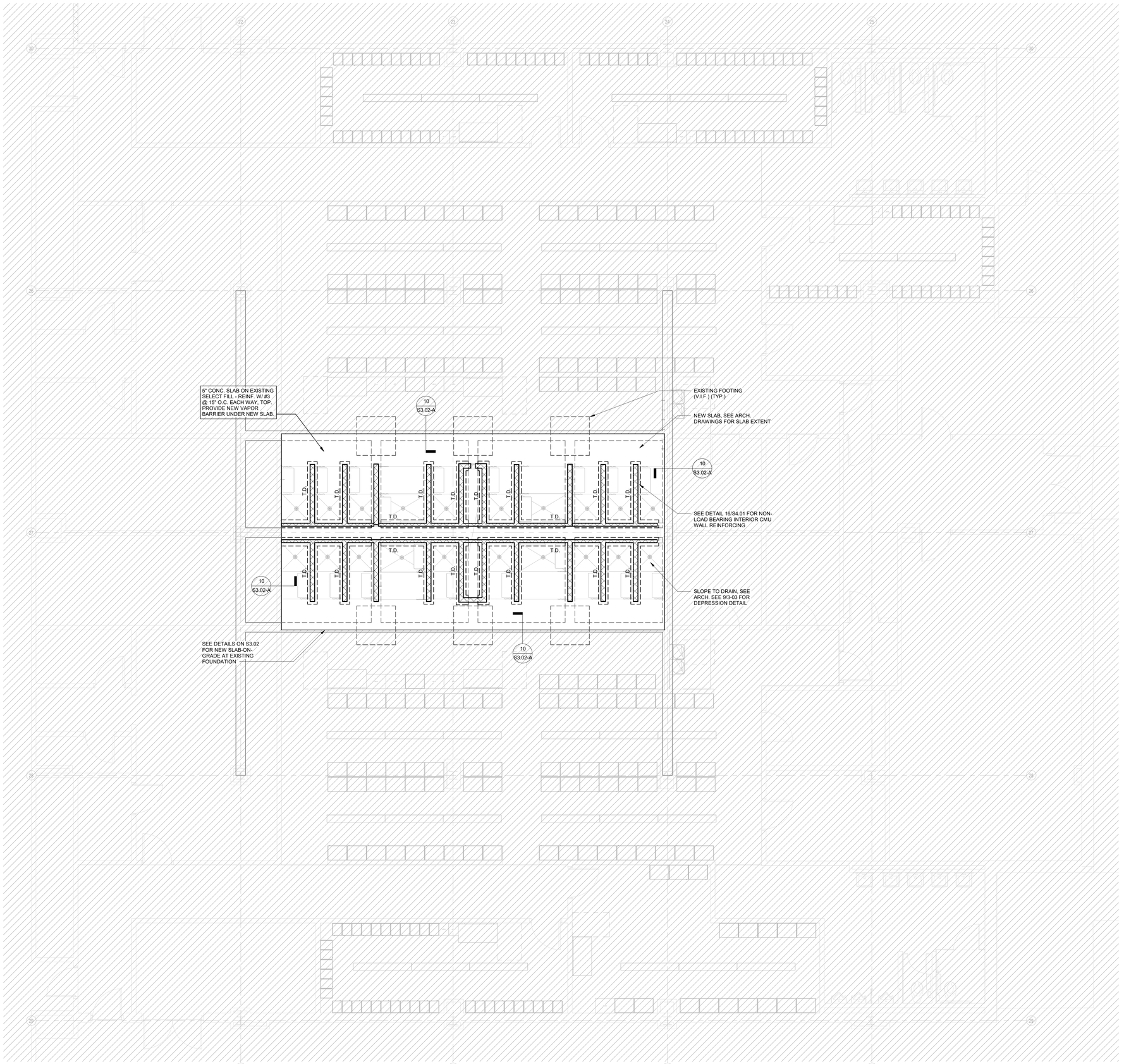

1 EXISTING FOUNDATION PLAN - GYM LOCKER ROOMS
SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATION.
2. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
3. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
4. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
5. T.D. INDICATES TURN DOWNS. SEE DETAIL 17/S4.01.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498

STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
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STATE OF TEXAS
KHALIL TABAJA
97777
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT

REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S2.02-A

EXISTING FOUNDATION PLAN - GYM LOCKER ROOMS

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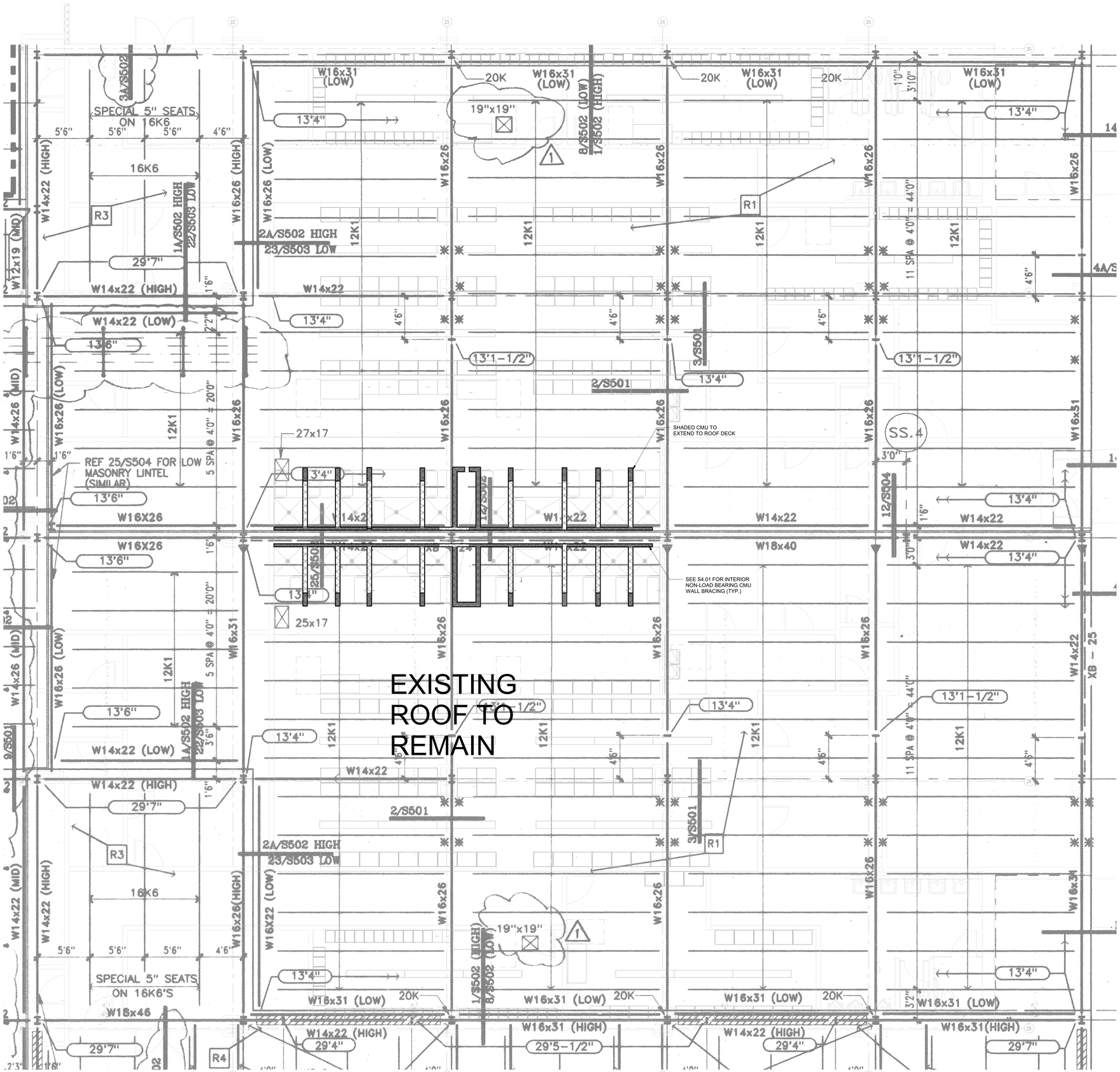
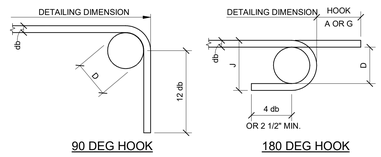

EXISTING
ROOF TO
REMAIN
W16x31 (LOW)
20K
19"x19"
13'4"
W16x26
W14x22
W14x22 (HIGH)
W14x22 (LOW)
W16x26 (LOW)
W16x26 (HIGH)
W14x22 (MID)
W12x19 (MID)
W14x26 (MID)
W16x26 (LOW)
W16x31
W18x40
W18x46
W16X26
W16x22 (LOW)
W16x31 (HIGH)
W14x22 (HIGH)
W16x31(HIGH)
W14x22 (LOW)
W14x22
W16x31 (LOW)
W16x31
W16x26
W16x26(HIGH)
W14x22 (HIGH)
W14x22 (MID)
W16x22 (LOW)
W16x22 (HIGH)
W16x31(HIGH)
W16x31 (LOW)
W14x22
W14x22 (HIGH)
W14x22 (LOW)
W16x31 (LOW)
W16x31



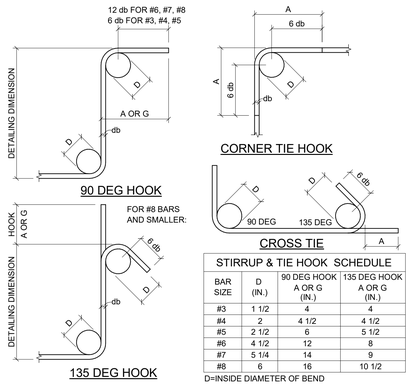
90 DEG HOOK 180 DEG HOOK

RECOMMENDED END HOOKS, ALL GRADES				
BAR SIZE	FINISHED BEND DIAMETER D, (IN.)	180 DEG HOOKS		90 DEG HOOKS
		A OR G, (IN.)	J, (IN.)	A OR G, (IN.)
#3	2 1/4	5	3	6
#4	3	6	4	8
#5	3 3/4	7	5	10
#6	4 1/2	8	6	12
#7	5 1/4	10	7	14
#8	6	11	8	16
#9	9 1/2	15	11 3/4	19
#10	10 3/4	17	13 1/4	22
#11	12	19	14 3/4	24
#14	18 1/4	27	21 3/4	31
#18	24	36	28 1/2	41

D = INSIDE DIAMETER OF BEND

END HOOK TYPES

20 SCALE: N.T.S.

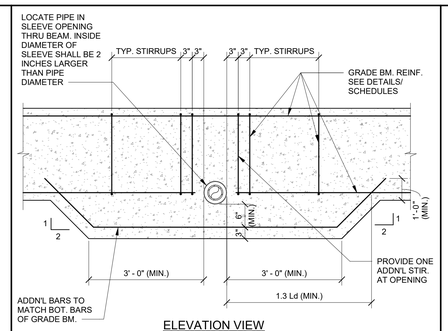


STIRRUP & TIE HOOK SCHEDULE			
BAR SIZE	D (IN.)	90 DEG HOOK A OR G (IN.)	135 DEG HOOK A OR G (IN.)
#3	1 1/2	4	4
#4	2	4 1/2	4 1/2
#5	2 1/2	6	5 1/2
#6	4 1/2	12	8
#7	5 1/4	14	9
#8	6	16	10 1/2

D=INSIDE DIAMETER OF BEND

STIRRUP AND TIE HOOK TYPES

16 SCALE: N.T.S.



ELEVATION VIEW

TYPICAL DETAIL OPENING THRU GRADE BEAM THAT CONFLICTS WITH BOTTOM REINFORCEMENT

8 SCALE: N.T.S.

DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb
#3	9	6	8	6	7	6	6	6	6	6	6	6	6	6	6	6
#4	11	8	10	7	9	6	8	6	8	6	7	6	7	6	6	6
#5	14	10	12	9	11	8	10	7	9	7	9	6	8	6	8	6
#6	17	12	15	10	13	9	12	9	11	8	11	8	10	7	9	7
#7	20	14	17	12	15	11	14	10	13	9	12	9	12	8	11	8
#8	22	16	19	14	17	12	16	11	15	11	14	10	13	9	12	9
#9	25	18	22	15	20	14	18	13	17	12	16	11	15	10	14	10
#10	28	20	25	17	22	16	20	14	19	13	18	12	17	12	16	11
#11	31	22	27	19	24	17	22	16	21	15	19	14	18	13	17	12

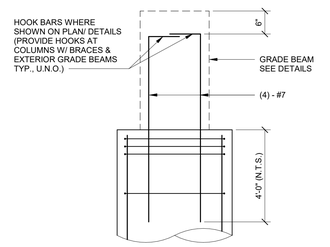
90° HOOKS 180° HOOKS



NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Lhb = TENSION DEVELOPMENT LENGTH.
3. Ldh = Lhb, UNLESS CONDITIONS OF ITEM 4 ARE SATISFIED.
4. Ldh = 0.7 Lhb, WHEN SIDE COVER NORMAL TO PLANE OF HOOK IS NOT LESS THAN 2 1/2 INCHES AND FOR 90° HOOK, COVER ON BAR EXTENSION BEYOND HOOK SHALL NOT BE LESS THAN 2 INCHES.
5. HOOKS SHALL NOT BE CONSIDERED EFFECTIVE IN DEVELOPING BARS IN COMPRESSION.

TYPICAL DETAIL DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (NORMAL WEIGHT CONCRETE)

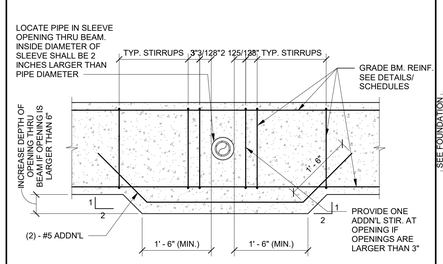
19 SCALE: N.T.S.



NOTES:
1. THIS DETAIL SHALL BE USED WHERE PIER REINFORCING STEEL CAN NOT BE ACCOMMODATED WITHIN WIDTH OF GRADE BEAMS.
2. SEE TYPICAL DRILLED PIER DETAIL FOR ADDITIONAL INFORMATION.

TYPICAL DETAIL SHAFT SIZE LARGER THAN GRADE BEAM WIDTH

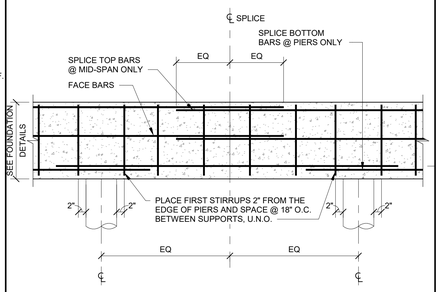
11 SCALE: N.T.S.



ELEVATION OF GRADE BEAM

TYPICAL DETAIL OPENING THRU GRADE BEAM

7 SCALE: N.T.S.



NOTES:
1. SLAB STEEL NOT SHOWN FOR CLARITY.
2. SEE TYPICAL DETAIL "TENSION DEVELOPMENT AND SPLICE LENGTH" FOR SPLICE DIMENSION.

TYPICAL DETAIL BEAM REINFORCING SPLICE DETAIL

3 SCALE:N.T.S.

COMPRESSION DEVELOPMENT LENGTHS
AND COMPRESSION LAP SPLICE LENGTHS
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c ≥ 5000		BAR SIZE
	Ldc	Splice	Ldc	Splice	Ldc	Splice	
#3	9	12	8	12	8	12	#3
#4	11	15	10	15	9	15	#4
#5	14	19	12	19	12	19	#5
#6	17	23	15	23	14	23	#6
#7	20	27	17	27	16	27	#7
#8	22	30	19	30	18	30	#8
#9	25	34	22	34	21	34	#9
#10	28	39	25	39	23	39	#10
#11	31	43	27	43	26	43	#11
#14	38	51	33	51	31	51	#14
#18	50	68	43	68	41	68	#18

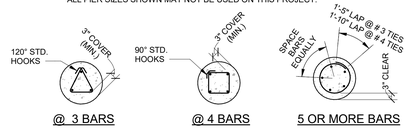
NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ldc = COMPRESSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN COMPRESSION, SPLICE LENGTH SHALL BE THE LARGER OF Ldc OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
5. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6 IN.

TYPICAL DETAIL COMPRESSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

18 SCALE: N.T.S.

DRILLED PIER VERTICAL REINFORCEMENT SCHEDULE		
SHAFT DIAMETER (INCHES)	VERTICAL REINFORCEMENT	TIES (USE #3 @ 12" U.N.O.)
12	3 - #5	#3 @ 10"
14, 16	4 - #5	#3 @ 10"
18, 20	4 - #6	

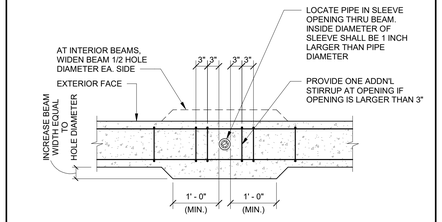
*ALL PIER SIZES SHOWN MAY NOT BE USED ON THIS PROJECT.



@ 3 BARS @ 4 BARS 5 OR MORE BARS

SHAFT BAR PLACEMENT PLANS

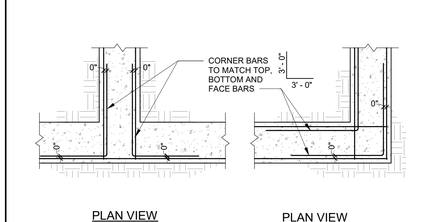
10 SCALE: N.T.S.



PLAN VIEW

TYPICAL DETAIL VERTICAL HOLE THRU GRADE BEAM LARGER THAN 3" DIAMETER

6 SCALE: N.T.S.



PLAN VIEW GRADE BEAM "T" INTERSECTION

PLAN VIEW GRADE BEAM CORNER

TYPICAL DETAIL GRADE BEAM REINFORCEMENT STEEL CORNER BARS

2 SCALE: N.T.S.

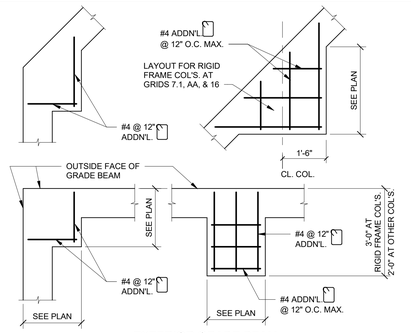
TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPLICE LENGTHS
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	A 1.0d	CLASS B 1.3d	A 1.0d	CLASS B 1.3d	A 1.0d	CLASS B 1.3d	A 1.0d	CLASS B 1.3d	A 1.0d	CLASS B 1.3d	A 1.0d	CLASS B 1.3d	A 1.0d	CLASS B 1.3d	A 1.0d	CLASS B 1.3d
#3	17	22	15	19	13	17	12	16	12	16	12	16	12	16	12	16
#4	22	29	19	25	17	23	16	21	15	19	14	18	13	17	12	16
#5	28	36	24	31	22	28	20	26	18	24	17	22	16	21	15	20
#6	33	43	29	37	26	34	24	31	22	28	21	27	19	25	18	24
#7	48	63	42	54	38	49	34	45	32	41	30	39	28	36	27	35
#8	55	72	48	62	43	56	39	51	36	47	34	44	32	42	30	39
#9	62	81	54	70	48	63	44	57	41	53	38	50	36	47	34	44
#10	70	91	61	79	54	71	50	64	46	60	43	56	41	53	39	50
#11	78	101	67	87	60	78	55	71	51	66	48	62	45	58	43	55

NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ld = TENSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. FOR TOP BARS, MULTIPLY THE SPLICE LENGTHS BY 1.30. TOP BARS REQUIRE A MINIMUM OF 12" OF FRESH CONCRETE BELOW BAR.
5. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN TENSION, SPLICE LENGTH SHALL BE THE LARGER OF Ld OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
6. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6

TYPICAL DETAIL TENSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

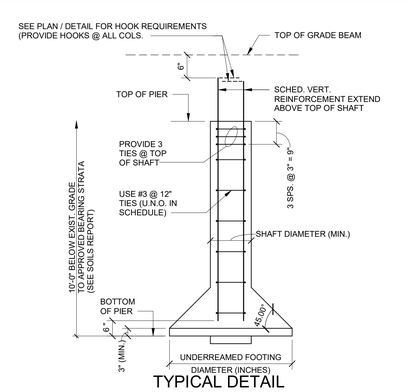
17 SCALE: N.T.S.



EXTERIOR GRADE BEAM

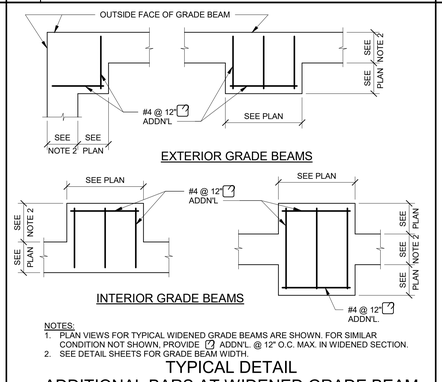
TYPICAL DETAIL ADDITIONAL BARS AT WIDENED GRADE BEAM (PLAN VIEW)

13 SCALE: N.T.S.



TYPICAL DETAIL DRILLED PIER

9 SCALE: N.T.S.

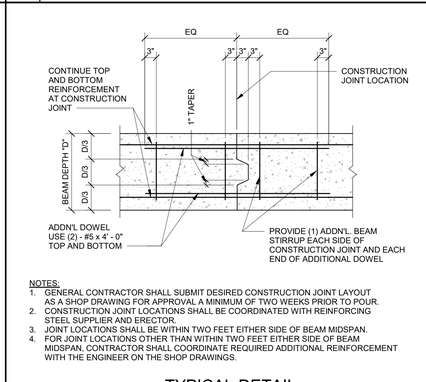


INTERIOR GRADE BEAMS

NOTES:
1. PLAN VIEWS FOR TYPICAL WIDENED GRADE BEAMS ARE SHOWN. FOR SIMILAR CONDITION NOT SHOWN, PROVIDE #4 ADDN'L. @ 12" O.C. MAX. IN WIDENED SECTION.
2. SEE DETAIL SHEETS FOR GRADE BEAM WIDTH.

TYPICAL DETAIL ADDITIONAL BARS AT WIDENED GRADE BEAM (PLAN VIEW)

5 SCALE: N.T.S.



NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT DESIRED CONSTRUCTION JOINT LAYOUT AS A SHOP DRAWING FOR APPROVAL A MINIMUM OF TWO WEEKS PRIOR TO POUR.
2. CONSTRUCTION JOINT LOCATIONS SHALL BE COORDINATED WITH REINFORCING STEEL SUPPLIER AND ERECTOR.
3. JOINT LOCATIONS SHALL BE WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN.
4. FOR JOINT LOCATIONS OTHER THAN WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE ENGINEER ON THE SHOP DRAWINGS.

TYPICAL DETAIL GRADE BEAM CONSTRUCTION JOINT

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498

STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
127127
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.01-A

TYPICAL FOUNDATION DETAILS

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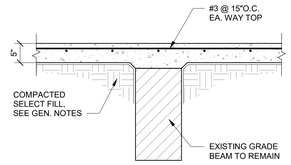
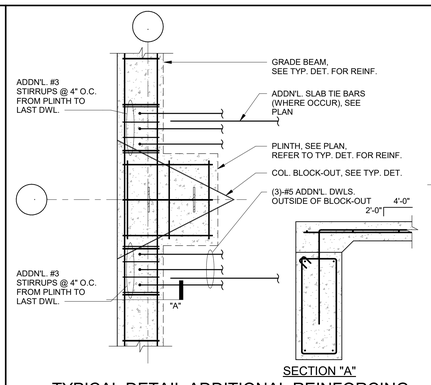


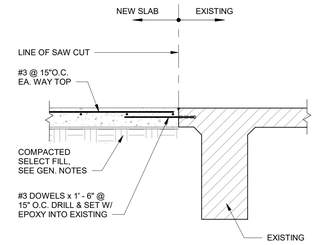
TYPICAL DETAIL
SLAB REPAIR OVER EXISTING BEAM

12 SCALE: 3/4" = 1'-0"



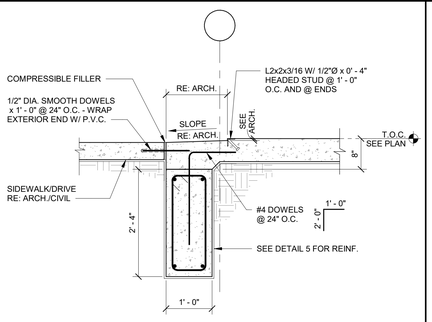
TYPICAL DETAIL ADDITIONAL REINFORCING
AT PERIMETER COLUMNS

4 SCALE: 3/4" = 1'-0"



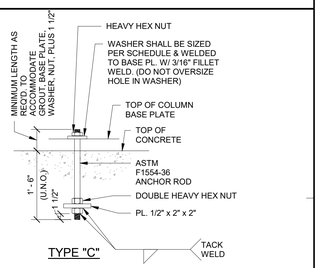
TYPICAL DETAIL
SLAB REPAIR NEAR BEAM

11 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM AT OVERHEAD DOOR

7 SCALE: 3/4" = 1'-0"



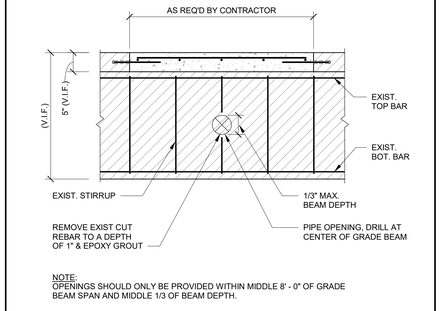
TYPE "B" WASHER SCHEDULE		
ANCHOR ROD DIA.	WASHER SIZE*	MIN. WASHER THICKNESS
3/4"	2"	1/4"
7/8"	2 1/2"	5/16"
1"	3"	3/8"
1 1/4"	3 1/2"	1/2"
1 1/2"	4"	1/2"
1 3/4"	4 1/2"	5/8"
2"	5"	3/4"
2 1/2"	5 1/2"	7/8"

NOTE:
USE TYPE "B" ANCHOR BOLTS AT COLUMNS WITH DIAGONAL BRACES, MOMENT CONNECTIONS, & AT CANOPY COLUMNS

*CIRCULAR OR SQUARE WASHERS MEETING WASHER SIZE ARE ACCEPTABLE

TYPICAL DETAIL ANCHOR BOLT

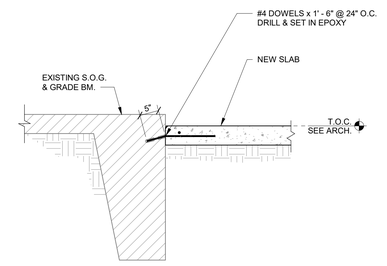
3 SCALE: N.T.S.



NOTE:
OPENINGS SHOULD ONLY BE PROVIDED WITHIN MIDDLE 8' - 0" OF GRADE BEAM SPAN AND MIDDLE 1/3 OF BEAM DEPTH.

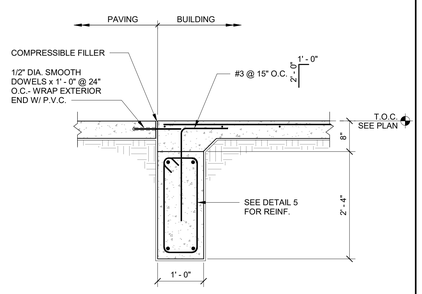
TYPICAL DETAIL
PIPE OPENING THROUGH EXIST GRADE BEAM

14 SCALE: 3/4" = 1'-0"



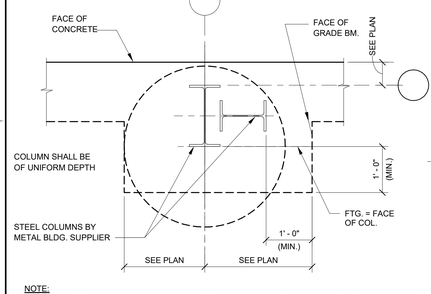
TYPICAL DETAIL
NEW SLAB-ON-GRADE AT EXISTING SLAB

10 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM
AT DOORS/FLATWORK

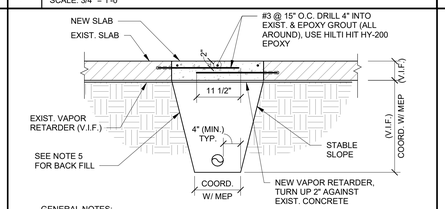
6 SCALE: 3/4" = 1'-0"



NOTE:
1. LOCATIONS OF PORTAL FRAMES ARE UNKNOWN UNTIL PEMB SHOP DRAWINGS ARE RECEIVED, G.C. TO COORDINATE LOCATIONS AND ADJUST PLINTH SIZES ACCORDINGLY

TYPICAL DETAIL
PLAN AT PORTAL FRAME

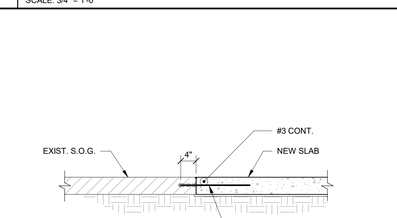
2 SCALE: 3/4" = 1'-0"



GENERAL NOTES:
1. COORDINATE LOCATION AND SIZE OF ALL TRENCHES WITH ARCH./MEP DRAWINGS.
2. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL HAVE 28 DAYS COMPRESSION STRENGTH OF MINIMUM 3,000 PSI (MAXIMUM AGGREGATE SIZE = 1 1/2"). MIX DESIGN SHALL CONFORM TO THE STANDARDS OF ACI 318 AND ACI 301.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
4. VAPOR RETARDER UNDER THE NEW SLAB SHALL BE 15 MIL STEGO VAPOR BARRIERS AS MANUFACTURED BY STEGO OR EQUIVALENT. ALL SEAMS SHALL BE OVERLAPPED MINIMUM 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE.
5. FILL UNDER THE NEW SLAB SHALL BE STRUCTURAL FILL (SANDY CLAY OR CLAYEY SAND) HAVING PLASTICITY INDEX BETWEEN 10 AND 20 AND LIQUID LIMIT NOT EXCEEDING 40. FILL MATERIAL SHALL BE PLACED IN 6 INCH LOOSE LIFTS AND COMPACTED TO AT LEAST 95% MAXIMUM DENSITY (ASTM D698). THE SELECT FILL SHALL BE MOISTURE ADJUSTED TO WITHIN 2% OF OPTIMUM MOISTURE CONTENT. AS AN ALTERNATE TO SELECT FILL, CONTRACTOR MAY UTILIZE CEMENT STABILIZED SAND FOR BACKFILLING TRENCHES. SAND SHALL BE CLEAN AND SHALL CONFORM TO ASTM C33 AND CEMENT SHALL CONFORM TO ASTM C150. SAND-CEMENT MIXTURE SHALL PROVIDE COMPRESSIVE STRENGTH OF MINIMUM 100 PSI WHEN COMPACTED TO MINIMUM 95% (ASTM D558). PLACE MATERIAL IN 8 INCH LOOSE LIFTS AND COMPACT TO MINIMUM 95% WITH MOISTURE CONTENT AT OPTIMUM OR BELOW OPTIMUM MOISTURE CONTENT.
6. V.I.F. - VERIFY IN FIELD.

TYPICAL DETAIL AT PLUMBING TRENCHES

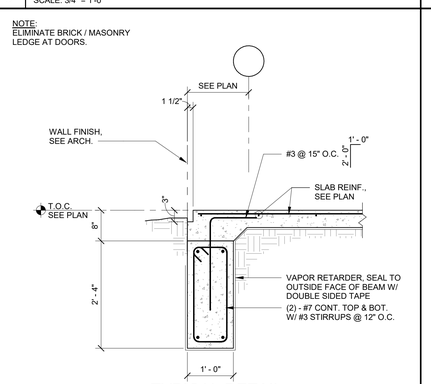
13 SCALE: 3/4" = 1'-0"



NOTE:
1. SAWCUT TOP 1" OF EXISTING SLAB PRIOR TO REMOVING EXISTING CONCRETE.

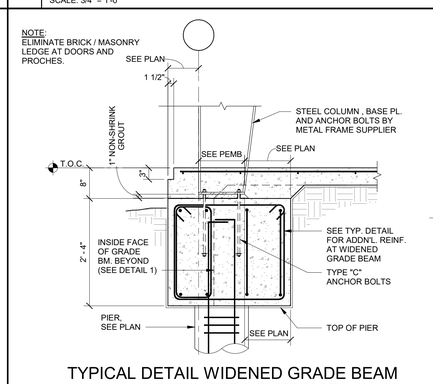
TYPICAL DETAIL
NEW SLAB-ON-GRADE AT EXISTING SLAB

9 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM

5 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL WIDENED GRADE BEAM
AT PERIMETER EXTERIOR
PRE-ENGINEERED METAL BUILDING COLUMN

1 SCALE: 3/4" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498

STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137122
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.02-A
TYPICAL FOUNDATION DETAILS

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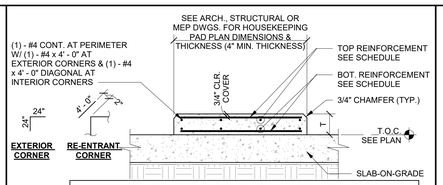
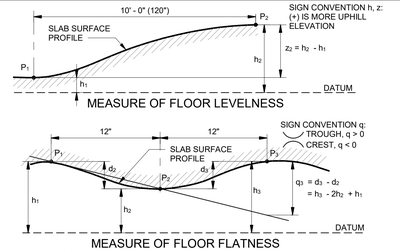


HOUSEKEEPING PAD REINF. SCHEDULE		
PAD THICKNESS	TOP REINFORCEMENT	BOTTOM REINF.
T ≤ 4"	WWR 4x4-W2.9xW2.9 OR #3 @12" E.W.	NONE
4" < T ≤ 6"	WWR 4x4-W4xW4 OR #4 @18" E.W.	NONE
6" < T ≤ 8"	WWR 4x4-W6xW6 OR #4 @12" E.W.	NONE
8" < T ≤ 12"	#4 @ 18" E.W.	#4 @ 18" E.W.
12" < T ≤ 16"	#4 @ 12" E.W.	#4 @ 12" E.W.

NOTES:
1. GENERAL CONTRACTOR TO COORDINATE WITH MECHANICAL DRAWINGS AND SPECIFICATIONS TO DETERMINE REQUIREMENTS FOR HOUSEKEEPING PADS OVER SLAB-ON-GRADE AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT. COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AS REQUIRED.
2. PAD SHALL NOT BE POURED UNTIL AFTER SLAB HAS REACHED ITS SPECIFIED 28 DAYS STRENGTH.
3. CONCRETE FOR HOUSEKEEPING PAD SHALL BE NORMAL WEIGHT CONCRETE WITH f'c = 3,000 PSI.

TYPICAL DETAIL
CONCRETE ISLAND OR HOUSEKEEPING PAD SLAB-ON-GRADE

8 SCALE: N.T.S.



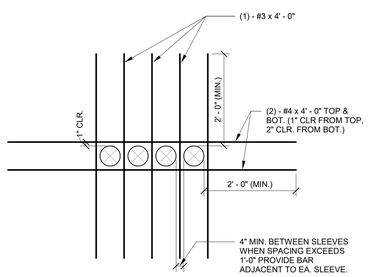
MEASURE OF FLOOR LEVELNESS

MEASURE OF FLOOR FLATNESS

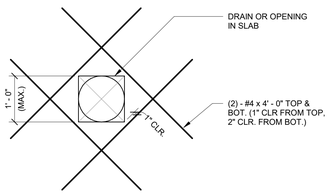
NOTES:
1. F_L = LEVELNESS F-NUMBER
   $F_L = \frac{12.5}{(3 \times S_Z) + z}$ WHERE z = MEAN VALUE OF ALL z FLOOR READINGS.
   S_z = STANDARD DEVIATION OF ALL z FLOOR READINGS.
2. F_F = LEVELNESS F-NUMBER
   $F_F = \frac{4.57}{(3 \times S_Q) + q}$ WHERE q = MEAN VALUE OF ALL z FLOOR READINGS.
   S_q = STANDARD DEVIATION OF ALL q FLOOR READINGS
3. F_L AND F_F SHALL BE STATISTICALLY DETERMINED ACCORDING TO ASTM E 1155 "STANDARD TEST METHOD FOR DETERMINING FLOOR FLATNESS AND LEVELNESS USING THE F-NUMBER SYSTEM."
4. REFER TO CONCRETE SPECIFICATIONS FOR REQUIRED F_F AND F_L VALUES.

TYPICAL DETAIL
SLAB SURFACE TOLERANCE

4 SCALE: N.T.S.



MULTIPLE OPENINGS (PIPE SLEEVES)

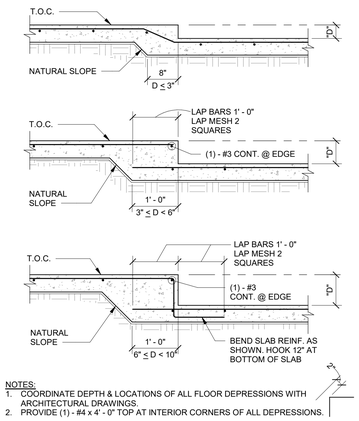


SINGLE DRAIN OR OPENING

NOTES:
1. COORDINATE OPENING SIZE AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONDUIT & PIPES OF ALUMINUM SHALL NOT BE PLACED IN CONCRETE UNLESS EFFECTIVELY COATED W/ PROTECTIVE MATERIAL TO PREVENT CHEMICAL REACTION.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT OPENINGS AT SLAB-ON-GRADE

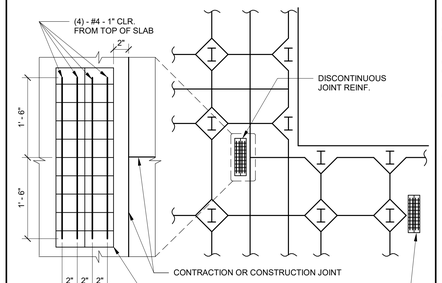
10 SCALE: N.T.S.



NOTES:
1. COORDINATE DEPTH & LOCATIONS OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE (1) - #4 x 4' - 0" TOP AT INTERIOR CORNERS OF ALL DEPRESSIONS.

TYPICAL DETAIL
AT FLOOR DEPRESSIONS

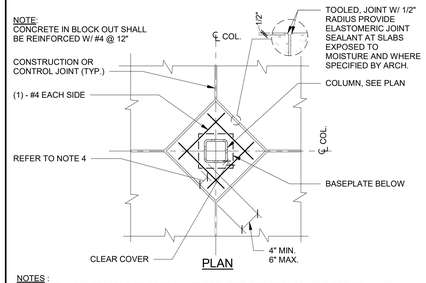
9 SCALE: N.T.S.



NOTE:
DISCONTINUOUS CONTRACTION OR CONSTRUCTION JOINTS SHOULD BE AVOIDED WHERE POSSIBLE.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT DISCONTINUOUS JOINT IN SLAB-ON-GRADE

7 SCALE: N.T.S.



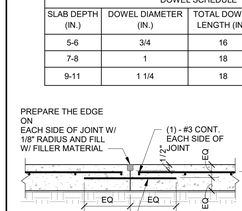
NOTES :
1. GENERAL CONTRACTOR TO COORDINATE REQUIRED SIZE OF BLOCK OUT FOR COLUMNS. SUBMIT THE DESIRED BLOCK OUT SIZE TO ARCHITECT FOR APPROVAL.
2. PROVIDE 3" MINIMUM CONCRETE COVER ALL AROUND COLUMN.
3. BLOCKOUT SHALL BE SIZED TO PROVIDE 3" MINIMUM CONCRETE COVER ALL AROUND COLUMN AND BASE PLATE.
4. GENERAL CONTRACTOR TO INCREASE COLUMN BLOCK-OUT DIMENSIONS AS REQUIRED TO ACCOMMODATE GUSSET PLATES AT BRACE FRAMES.

TYPICAL DETAIL
BLOCK-OUT AROUND COLUMN (SLAB-ON-GRADE)

3 SCALE: N.T.S.

DOWEL SCHEDULE			
SLAB DEPTH (IN.)	DOWEL DIAMETER (IN.)	TOTAL DOWEL LENGTH (IN.)	DOWEL SPACING CENTER TO CENTER (IN.)
5-6	3/4	16	12
7-8	1	18	12
9-11	1 1/4	18	12

CONTRACTION JOINT SPACING	
SLAB THK. (IN.)	JOINT SPACING (FT)
4	11
5	13
6	14
7	16
8	17
≥9	18

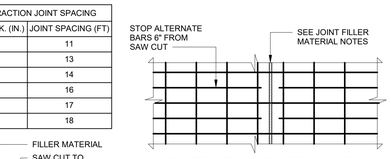


CONSTRUCTION JOINT

CONTRACTION JOINT

CONSTRUCTION JOINT NOTES:
1. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
2. BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDE WITH FORM OIL.
3. SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.
4. ALL DOWELS IN THIS DETAIL SHALL BE SMOOTH BAR DOWELS.

JOINT SPACING NOTE:
1. PROVIDE CONTRACTION AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN CENTERLINE AND AT A MAXIMUM SPACING AS SCHEDULED. ASPECT RATIOS OF SLAB PANELS ENCLOSED BY CONTROL JOINTS SHALL NOT EXCEED 1.5 TO 1.



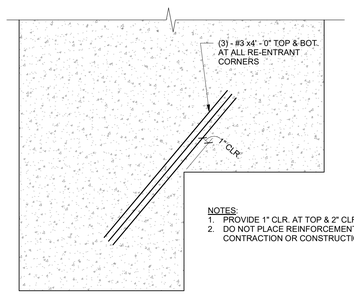
CONTRACTION JOINT (PLAN VIEW)

SAW CONTRACTION JOINT NOTES:
1. MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB.
2. ALL JOINTS SHALL BE CONTINUOUS. DO NOT OFFSET OR STAGGER JOINTS.
3. CLEAN JOINT PRIOR TO FILLING THE JOINT.

JOINT FILLER MATERIAL NOTES:
1. FILLER MATERIAL USED SHALL BE EPOXY RESINS WITH A MINIMUM SHORE "A" HARDNESS OF 80 AND SHALL CONFORM TO ASTM D2240. JOINT FILLER SHALL BE APPROVED BY ENGINEER PRIOR TO APPLICATION. INSTALL JOINT FILLER PER MANUFACTURER'S SPECIFICATIONS.
2. WHERE POSSIBLE, FILLER MATERIAL SHALL BE APPLIED WHEN BUILDING IS UNDER PERMANENT TEMPERATURE CONTROL. THIS SHALL BE EITHER AT THE END OF CONSTRUCTION OF THE COMPLETE BUILDING SHELL, OR A MINIMUM OF 90 DAYS AFTER SLAB CONSTRUCTION.
3. ALL EXPOSED SLAB JOINTS SHALL BE FILLED WITH FILLER MATERIAL.

TYPICAL DETAIL
CONSTRUCTION AND CONTRACTION JOINTS SLAB-ON-GRADE

6 SCALE: N.T.S.

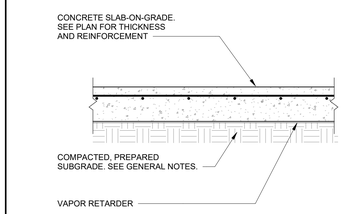


NOTES:
1. PROVIDE 1" CLR. AT TOP & 2" CLR. AT BOT.
2. DO NOT PLACE REINFORCEMENT ACROSS CONTRACTION OR CONSTRUCTION JOINTS.

SCHEMATIC SLAB-ON-GRADE

TYPICAL DETAIL
RE-ENTRANT CORNER BARS AT SLAB-ON-GRADE

5 SCALE: N.T.S.



NOTE:
1. UNLESS SPECIFIED ELSEWHERE, VAPOR RETARDER SHALL BE A MINIMUM OF 15 MILS THICK (UNLESS THICKER SPECIFIED IN SPECS/ARCH. DRAWINGS) MEETING OR EXCEEDING ASTM E-1745, CLASS C, AND HAVE NO MORE THAN 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E-96.

TYPICAL DETAIL
SLAB-ON-GRADE CONSTRUCTION SUBGRADE PREPARATION

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498
STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137122
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.03-A
TYPICAL FOUNDATION DETAILS

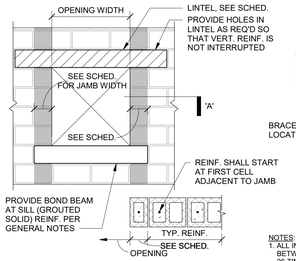
12/3/2025 10:17:20 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_AUSTIN_STRUCT_R25.rvt

INTERIOR NON-LOAD BEARING CMU WALL JAMB SCHEDULE							
WALL THICKNESS	SPANNING CMU HEIGHT	OPENING WIDTH					
		< 3' - 0"		< 6' - 0"		< 10' - 0"	
		# OF CELLS	REINF.	# OF CELLS	REINF.	# OF CELLS	REINF.
6"	14' - 0"	1	#4	1	#4	1	#4
6"	22' - 0"	1	#4	2	#4	2	#4
6"	33' - 0"	3	#5	4	#5	7	#5
6"	38' - 0"	5	#5	10	#5	NA	NA
8"	20' - 0"	1	#5	1	#5	1	#5
8"	37' - 6"	2	#5	2	(2)-#5	2	(2)-#5
8"	50' - 0"	3	(2)-#5	4	(2)-#6	5	(2)-#6
10"	24' - 0"	1	#5	1	#5	1	#5
10"	48' - 0"	1	(2)-#5	2	(2)-#5	2	(2)-#6
10"	58' - 0"	2	(2)-#5	3	(2)-#6	4	(2)-#6
12"	27' - 0"	1	#5	1	#5	1	#5
12"	52' - 0"	1	(2)-#5	2	(2)-#5	2	(2)-#6
12"	63' - 0"	2	(2)-#6	4	(2)-#6	6	(2)-#6

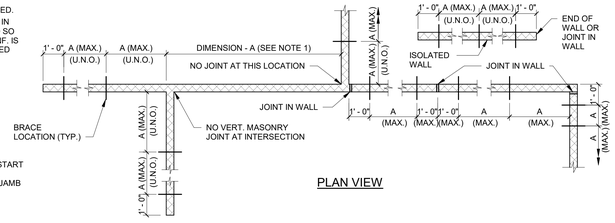
6" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
14' - 0"	NONE
15' - 6"	GROUT @ 48"
20' - 0"	(1)-#4 @ 56"
22' - 0"	(1)-#4 @ 48"
29' - 6"	(1)-#4 @ 24"
33' - 0"	(1)-#4 @ 16"
38' - 0"**	(1)-#4 @ 8"

8" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
20' - 0"	NONE
22' - 0"	GROUT @ 48"
27' - 0"	(1)-#5 @ 64"
33' - 6"	(1)-#5 @ 48"
37' - 6"	(1)-#5 @ 32"
43' - 0"	(2)-#5 @ 40"
50' - 0"	(2)-#5 @ 16"

** ONLY ALLOWED IF MAX OPENING IN WALL IS LESS THAN 6'-0" WITH 7'-0" JAMBS TO THE SIDE OF OPENING



NOTE:
NO CONTROL JOINTS ALLOWED WITHIN SHADED AREA OR ABOVE OR BELOW OPENING

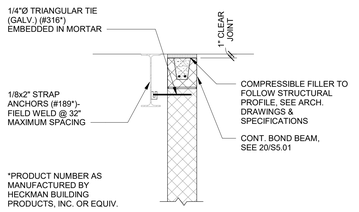


PLAN VIEW

NOTES:
1. ALL INTERIOR CMU WALLS SHALL BE BRACED AT TOP IF DISTANCE BETWEEN INTERSECTING WALLS (DIMENSION- A) IS MORE THAN 26 TIMES THE WALL NOMINAL THICKNESS. THERE SHALL BE NO JOINT BETWEEN WALLS AT THE INTERSECTIONS OR IN BETWEEN THE INTERSECTING WALLS. THERE SHALL BE NO DOORS OR ANY OTHER OPENINGS LARGER THAN 24 INCHES WITHOUT JAMB REINFORCING, SEE SCHEDULE FOR LARGER OPENINGS. MINIMUM LENGTH OF INTERSECTING WALLS SHALL BE 4 FEET.
2. REINFORCE VERTICALLY SPANNING CMU WALLS AS FOLLOWS:
3. AT FOUNDATION, PROVIDE DOWELS TO MATCH SIZE AND SPACING OF VERTICAL BARS.
4. SEE TYPICAL DETAILS ON STRUCTURAL/ARCHITECTURAL DRAWINGS FOR BRACING REQUIREMENTS AT THE TOP OF CMU WALLS. THIS DETAIL SHALL APPLY IF SPECIFIC REINFORCING AND BRACING DETAILS ARE NOT SHOWN ON ARCHITECTURAL/STRUCTURAL DRAWINGS.
5. CONSULT WITH ARCHITECT/ENGINEER WHEN HEIGHT OF WALL EXCEEDS THE HEIGHT SHOWN ABOVE.
6. PROVIDE CONTINUOUS BOND BEAM AT THE TOP OF WALLS. REINFORCE BOND BEAMS WITH (2) - #4 FOR 6" WALLS & (2)-#5 FOR 8" & 12" WALLS, UNLESS NOTED OTHERWISE.
7. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
8. CONTACT E.O.R. FOR CONDITIONS NOT LISTED ON SCHEDULE.

TYPICAL DETAIL - NON-LOAD BEARING INTERIOR/CMU WALLS BRACING AND REINFORCING STEEL

16 SCALE: N.T.S.



NOTE:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL SIDE CONNECTION TO STEEL BEAM

7 SCALE: 3/4" = 1'-0"

NOTES :
1. THIS DETAIL APPLIES AT ALL CMU WALL LOCATIONS WITHOUT GRADE BEAMS.
2. SEE PLAN FOR LOCATIONS MARKED "TURNDOWN", T.D. OR OTHERWISE NOTED.

AT UNREINFORCED WALLS

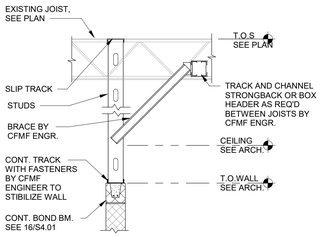


AT DOUBLE WALL

AT SINGLE WALL

TYPICAL DETAIL
TURNDOWN AT CMU WALL

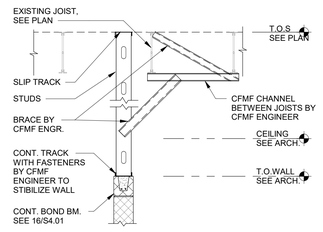
17 SCALE: 3/4" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERESECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 16/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. CFMF ENGINEER MAY DESIGN BRACES TO OCCUR AT MAX SPACING OR AT EACH PURLIN. IN EITHER SCENARIO DESIGN BRACE TO STABALIZE CMU AND LIGHT GAUGE WALL UNDER 5 PSF LOAD ALONG FULL HEIGHT.

TYPICAL DETAIL
BRACING AT ROOF STEEL JOISTS (ALTERNATIVE)

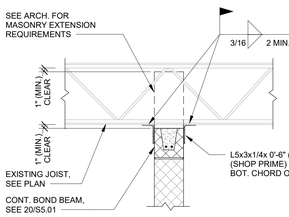
14 SCALE: 1/2" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERESECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 16/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. CFMF ENGINEER MAY DESIGN BRACES TO OCCUR AT MAX SPACING OR AT EACH PURLIN. IN EITHER SCENARIO DESIGN BRACE TO STABALIZE CMU AND LIGHT GAUGE WALL UNDER 5 PSF LOAD ALONG FULL HEIGHT.

TYPICAL DETAIL
BRACING AT ROOF STEEL JOISTS (ALTERNATIVE)

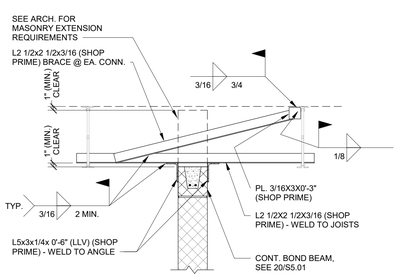
13 SCALE: 1/2" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S5.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL TOP CONNECTION PERPENDICULAR TO BAR JOISTS

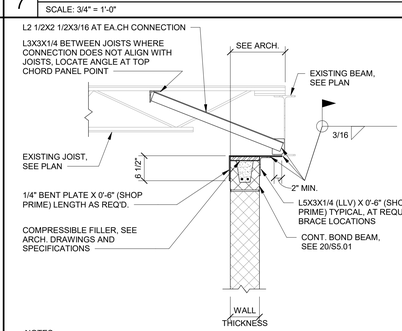
10 SCALE: 3/4" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S5.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL TOP CONNECTION PARALLEL TO BAR JOISTS

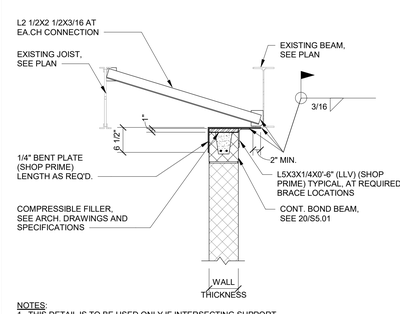
9 SCALE: 3/4" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S5.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL TOP CONNECTION TO STEEL BEAM

6 SCALE: 3/4" = 1'-0"

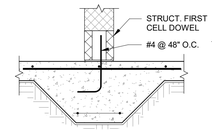


NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S5.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL TOP CONNECTION TO STEEL BEAM

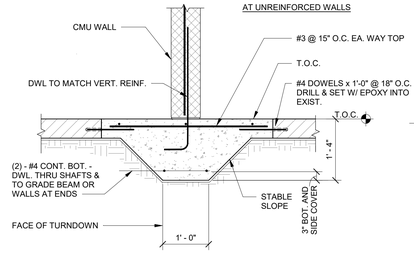
5 SCALE: 3/4" = 1'-0"

FOUNDATION TYPE							
	4" CMU	6" CMU			8" CMU		
GROUT	NONE	NONE	AT 48"	AT 24"	NONE	AT 48"	AT 24"
WALL HEIGHT (FT)							
0-10	1	1	1	1	1	1	1
12	1	1	1	1	1	1	2
14	1	1	1	2	1	2	2
16	1	1	2	2	2	2	2
18	1	2	2	2	2	2	2
20	2	2	2	2	2	2	2



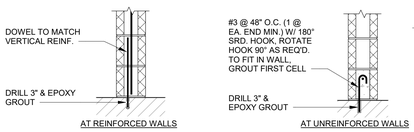
NOTE :
THIS DETAIL APPLIES AT ALL CMU WALL LOCATIONS WITHOUT GRADE BEAMS. SEE NOTES ON DETAIL 20/S5.01 FOR BRACING INFORMATION.

AT UNREINFORCED WALLS



NOTE:
SEE PLAN FOR LOCATIONS MARKED "TURNDOWN", T.D. OR OTHERWISE NOTED.

TYPE 2 DETAIL



AT REINFORCED WALLS AT UNREINFORCED WALLS

TYPE 1 DETAIL

TYPICAL DETAIL
EXISTING FOUNDATION AT NON-LOAD BEARING CMU WALL

1 SCALE: 3/4" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498

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FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS — KHALIL TABAJA — 137172 — LICENSED PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S4.01-A
TYPICAL CMU WALL DETAILS

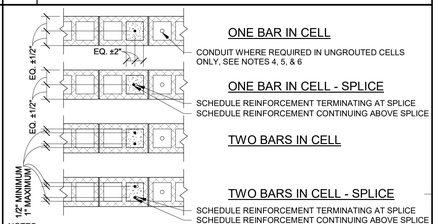
12/3/2025 10:17:21 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_AUSTIN_STRUCT_R25.rvt

BAR SIZE	MINIMUM LAP SPLICE LENGTH				REINFORCEMENT OFF CENTER	HOOKED BAR DEVELOPMENT LENGTH
	REINFORCEMENT AT CENTER OF WALL					
	6" CMU	8" CMU	10" CMU	12" CMU	ANY	ANY
3	12	12	12	12	17	5
4	18	13	12	12	29	7
5	28[4]	20	16	13	45	9
6	51[4]	37	29	24	54	10
7	NA[5]	50	39	32	63	12
8	NA[5]	72	58	48	72	13

NOTES:
1. TABLE FOR USE WITH GRADE 60 UNCOATED REINF. BARS IN CMU (fm = 2000 psi)
2. BARS SPLICED BY NON-CONTACT LAP SPLICE SHALL NOT BE SPACED FARTHER APART THAN ONE-FIFTH THE REQUIRED LAP LENGTH, OR 8".
3. LAP LENGTHS PER IBC 2018.
4. PERMITTED ONLY IF ALL MORTAR FINS ARE REMOVED ROM THE CELL TO BE GROUTED.
5. BAR EXCEEDS MAX. ALLOWABLE SIZE.
6. DEVELOPMENT LENGTH OF EPOXY COATED BARS SHALL BE TAKEN AS 1.5 TIMES THE VALUES IN THE CHART.

TYPICAL DETAIL
MASONRY TENSION LAP SPLICE (INCHES)

4 SCALE: N.T.S.



ONE BAR IN CELL

CONDUIT WHERE REQUIRED IN UNGROUTED CELLS ONLY, SEE NOTES 4, 5, & 6

ONE BAR IN CELL - SPLICE

SCHEDULE REINFORCEMENT TERMINATING AT SPLICE
SCHEDULE REINFORCEMENT CONTINUING ABOVE SPLICE

TWO BARS IN CELL

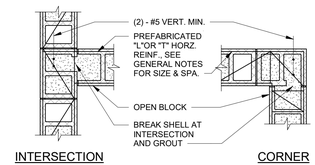
TWO BARS IN CELL - SPLICE

SCHEDULE REINFORCEMENT TERMINATING AT SPLICE
SCHEDULE REINFORCEMENT CONTINUING ABOVE SPLICE

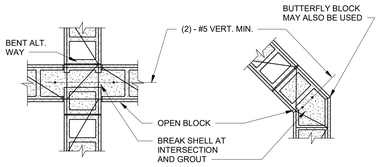
NOTES:
1. REINFORCEMENT MUST BE PLACED USING REINFORCING BAR POSITIONERS THAT LOCATE THE BAR AS SPECIFIED AND PREVENT MOVEMENT OF THE BAR DURING CONSTRUCTION.
2. SPLICED REINFORCEMENT MUST BE A CONTACT LAP SPLICE WITH SPLICED BARS ALIGNED PARALLEL TO THE WALL AS SHOWN.
3. THE ENGINEER MUST BE NOTIFIED PRIOR TO PLACEMENT OF REINFORCEMENT THAT IS REQUIRED TO BE PLACED OUTSIDE OF THE TOLERANCES OF THIS DETAIL SUCH AS TO AVOID INTERFERENCE WITH OTHER REINFORCEMENT, CONDUITS, OR EMBEDDED ITEMS.
4. CONDUIT, PIPES AND SLEEVES SHALL BE NO CLOSER THAN 3 DIAMETERS ON CENTER (USE LARGER DIAMETER WHERE MULTIPLE SIZES ARE USED).
5. ALUMINUM PIPES MAY NOT BE USED UNLESS EFFECTIVELY COATED TO PREVENT CHEMICAL REACTION.
6. PIPES SHALL NOT BE EMBEDDED IN MASONRY WHEN:
   (a) CONTAINING LIQUIDS, GAS, OR VAPORS AT A TEMPERATURE HIGHER THAN 150°F (66°C).
   (b) UNDER PRESSURE IN EXCESS OF 55 PSI (379 KPA).
   (c) CONTAINING WATER OR OTHER LIQUIDS SUBJECT TO FREEZING.

TYPICAL DETAIL
CMU VERTICAL BAR PLACEMENT

3 SCALE: N.T.S.



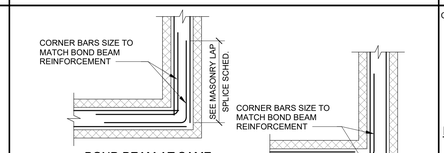
INTERSECTION CORNER



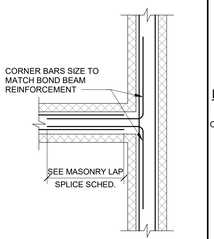
INTERSECTION CORNER

TYPICAL DETAIL CMU WALL INTERSECTIONS

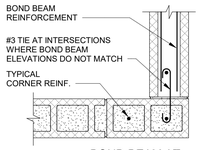
2 SCALE: N.T.S.



BOND BEAM AT SAME VERTICAL ELEV. (CORNER)



BOND BEAM AT SAME VERTICAL ELEV. (INTERSECTION)

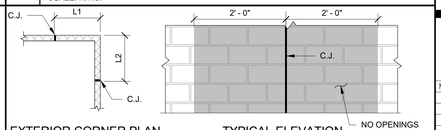


BOND BEAM AT DIFFERENT VERTICAL ELEV.

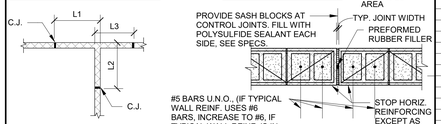
NOTE:
OMIT CORNER BARS AT CONTROL JOINT LOCATIONS AS INDICATED ON TYPICAL CMU ELEVATION.

TYPICAL DETAIL CMU BOND BEAM REINFORCEMENT

5 SCALE: N.T.S.



EXTERIOR CORNER PLAN TYPICAL ELEVATION



"T" INTERSECTION PLAN PLAN

NOTES:
1. CONTRACTOR SHALL OBTAIN ARCHITECT'S APPROVAL OF JOINT LOCATIONS, WHICH SHALL NOT EXCEED THE MINIMUM OF 1.5 TIMES THE WALL HEIGHT OR 20'-0".
2. HORIZONTAL REINFORCING AT FLOOR AND ROOF LINES SHALL BE CONTINUOUS THRU JOINT.
3. CONCRETE BLOCK SHOWN - BRICK SIMILAR.
4. SAWCUT BLOCK OR BRICK AS REQUIRED.
5. AT EXTERIOR CORNERS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0".
6. AT EXTERIOR "T" INTERSECTIONS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0" L2 + L3 ≤ 20' - 0" AND L1 + L3 - WALL THICKNESS ≤ 20' - 0"

TYPICAL DETAIL MASONRY WALL CONTROL JOINT

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498
STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
LICENSED
PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S4.02-A
TYPICAL CMU WALL DETAILS

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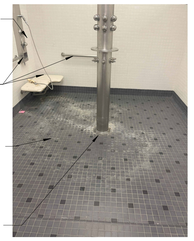
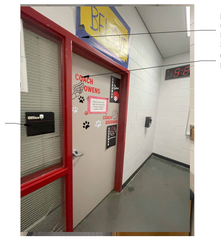


REMOVE WALL TILE AND MORTAR. REPAIR OR INSTALL NEW TILE BACKER BOARD ON EXISTING SHOWER WALLS TO REMAIN. PAINT UPPER WALL PER FINISH SCHEDULE.

REMOVE ALL EXISTING WALL-MOUNTED ACCESSORIES AS NOTED ON DRAWINGS.

REMOVE ALL EXISTING FLOOR TILE AND MORTAR BED AS NOTED ON DRAWINGS. REFER TO FLOOR SLAB DEMO NOTES TO INSTALL NEW DRAINS AND PLUMBING LINES. REFER TO PLUMBING DRAWINGS.

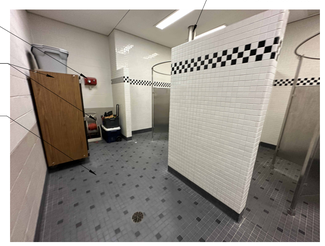
REMOVE EXISTING FLOOR DRAINS AND CAP/TERMINATE PLUMBING LINES AS INDICATED ON PLUMBING DRAWINGS.



REMOVE EXISTING ROOM SIGNAGE THROUGHOUT THE LOCKER ROOMS AND REPLACE WITH NEW SCHEDULED SIGNAGE

REMOVE ALL WALL MOUNTED SIGNS AND GRAPHICS. CLEAN, PATCH, AND REPAIR EXISTING WALLS. REPAINT PER FINISH SCHEDULE.

CLEAN AND REPAIR EXISTING METAL FRAME AND DOOR. REPAINT PER FINISH SCHEDULE.

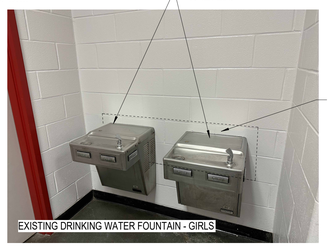


DEMOLISH HAND DRYER

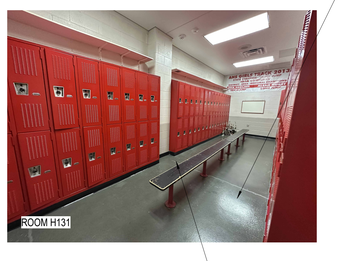
REMOVE ALL EXISTING MILLWORK, FURNITURE AND RETURN TO OWNER`S INVENTORY.

REMOVE ALL EXISTING TILE FLOOR AND MORTAR BED AS REQUIRED TO INSTALL NEW DRAINS AND PLUMBING LINES.

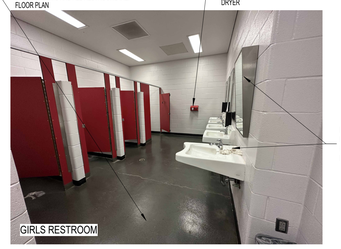
REMOVE EXISTING SHOWER COLUMN PLUMBING FIXTURE, REMOVE BASE PLATE AND ANCHORS AND GROMMET. REMOVE MINIMAL GYP CEILING TO ACCESS CEILING PLENUM ABOVE TO TERMINATE PLUMBING LINES AS NOTED IN PLUMBING DRAWINGS. REPAIR AND FILL IN GYP CEILING TO MATCH ADJACENT SURFACES. PAINT AS SCHEDULED.



DEMO DRINKING FOUNTAIN - REPLACE WITH BOTTLE FILLERS

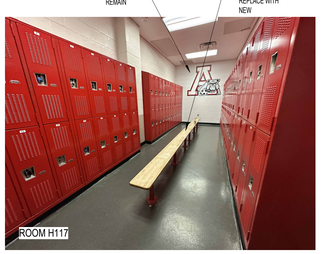


DEMO EXISTING EPOXY FLOORING IN ALL LOCKER ROOMS AND ALL RESTROOMS. REF FLOOR PLAN



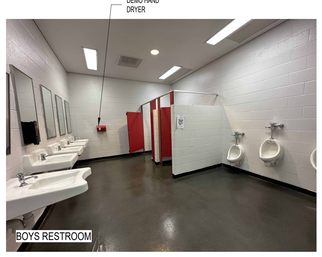
DEMO HAND DRYER

EXISTING PLUMBING FIXTURES TO REMAIN.

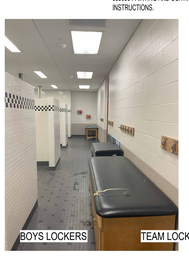


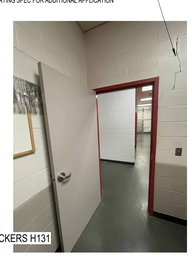
EXISTING GRAPHICS TO REMAIN

DEMO BENCHES IN LOCKER ROOM AND REPLACE WITH NEW



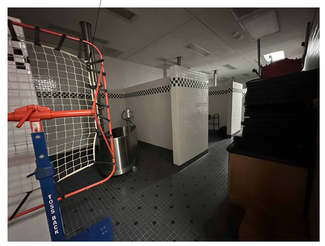
DEMO HAND DRYER



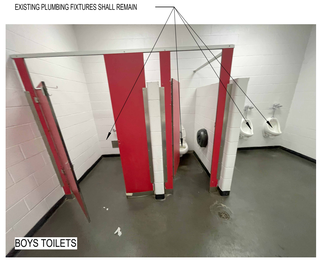


PATCH EXISTING CMU WALL CRACKS WITH EPOXY BLOCK FILLER TO MATCH EXISTING TEXTURE AND SURFACE PRIOR TO PAINTING. CONTRACTOR TO PAINT ENTIRE WALL. REFER TO SPEC SECTION 099000 PAINTING AND COATING SPEC FOR ADDITIONAL APPLICATION INSTRUCTIONS.

EXISTING COLUMN SHOWERS TO BE REMOVED. TERMINATE EXISTING PLUMBING LINES AND DRAINS. REFER TO PLUMBING DRAWINGS FOR DEMOLITIONS NOTES.



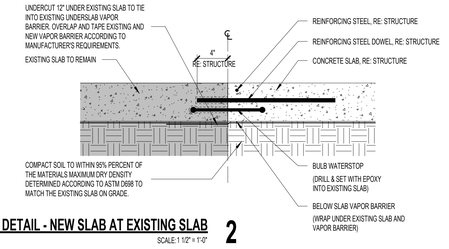
EXISTING PLUMBING FIXTURES SHALL REMAIN





DEMO FLOOR PLAN GYM LOCKERS 1

SCALE: 1/8" = 1'-0"



SECTION DETAIL - NEW SLAB AT EXISTING SLAB 2

SCALE: 1 1/2" = 1'-0"

GENERAL DEMOLITION NOTES

1. VISIT THE SITE TO UNDERSTAND THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. THE EXISTING BUILDING CONDITION SURVEY WAS COMPILED FROM DRAWINGS PROVIDED BY THE OWNER. THESE DRAWINGS WERE NOT AS-BUILT DRAWINGS & ACTUAL CONDITIONS / DIMENSIONS MAY VARY FROM WHAT IS INDICATED. REPORT DISCREPANCIES OR AMBIGUOUS ITEMS TO THE ARCHITECT PRIOR TO START OF FABRICATION. ANY OTHER DISCREPANCIES NOTED BY THE ARCHITECT FIELD INSPECTIONS UNCOVERED, OR DISCREPANCIES IN THE CONTRACT DOCUMENTS WHICH DO NOT COMPLY WITH THE INTENDED FINAL PRODUCT & REQUEST MODIFICATIONS TO THE LAYOUT.

2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION WORK. ALL DEMOLITION WORK TO BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE CODES, LAWS & REGULATIONS INCLUDING OWNER REQUIREMENTS.

3. REFER TO SPEC SECTIONS 024100 AND 024113 FOR ADDITIONAL DEMOLITION NOTES AND REQUIREMENTS.

4. COORDINATE DEMOLITION WORK WITH PLAN SHEETS AND DETAILS. REFER TO A200 SERIES FOR DOOR AND WINDOW FRAME TYPICALS AND DETAILS AT NEW OPENINGS IN EXISTING WALLS.

5. REFER TO CIVIL, STRUCTURAL, AND MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION REQUIREMENTS. PATCH ALL WHERE FIXTURES AND EQUIPMENT ARE DEMOLISHED TO MATCH EXISTING ADJACENT SURFACE.

6. THE OWNER HAS FIRST RIGHTS OF SALVAGE OF ALL FIXTURES, EQUIPMENT AND BUILDING MATERIALS REMOVED AS PART OF THE DEMOLITION AND NOT REUSED IN THE NEW CONSTRUCTION. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF CONSTRUCTION SCRAP IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

7. PRIOR TO START OF DEMOLITION, SECURE FROM THE OWNER A LIST OF ADDITIONAL EXISTING BUILDING COMPONENTS TO BE SALVAGED AND DELIVERED TO THE OWNER. EXERCISE SUFFICIENT CARE IN SALVAGE OPERATIONS SUCH THAT SALVAGED COMPONENTS ARE DELIVERED TO THE OWNER IN THEIR EXISTING UNDAMAGED CONDITION.

8. PROTECT ADJACENT AREAS FROM DUST, EXCESSIVE NOISE & / OR DISRUPTION OF OCCUPANCY. REMOVE ALL WORK THAT INTERFERES WITH THE OPERATION OF THE SURROUNDING AREAS & ANY INTERRUPTION OF SERVICES INCLUDING THE OPERATION OF UTILITIES SHALL BE PERFORMED AT A TIME APPROVED BY THE OWNER'S REPRESENTATIVE.

9. PROTECT EXISTING STRUCTURES, FINISHES, UTILITIES & OTHER ELEMENTS SCHEDULED TO REMAIN. PRIOR TO DEMOLITION, DOCUMENT SURROUNDING PROPERTIES WHICH COULD BE COMPROMISED AND DAMAGE RESULTING FROM DEMOLITION & FILE WITH OWNER`S REPRESENTATIVE. AREAS THAT ARE DAMAGED BY SELECTIVE DEMOLITION SHALL BE PATCHED, REPAIRED & FINISHED OR REPLACED TO MATCH EXISTING ADJACENT SURFACE AT NO EXPENSE TO THE OWNER.

10. ALL DEMOLITION WORK REQUIRED IS NOT LIMITED TO THAT INDICATED WITH THE CONTRACT DOCUMENTS. IF THE EXISTING CONSTRUCTION THAT INTERFERES WITH NEW WORK TO THE EXTENT OF THE INTERFERENCE, THEN THE ITEM IS TO BE DEMOLISHED. ALL NEW PLUMBING, ELECTRICAL & ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION. CUT & LATER PATCH ALL HOLES & OPENINGS IN EXISTING CONSTRUCTION NECESSARY FOR CONNECTION OF NEW WORK TO THE PASSAGE OF CONDUITS, PIPING, MECHANICAL, PLUMBING & ELECTRICAL UTILITIES & SERVICES.

11. PROVIDE TEMPORARY BARRICADES & OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNER`S PERSONNEL & GENERAL PUBLIC FROM INJURY DUE TO DEMOLITION. PROVIDE A PROPER MEANS OF EGRESS AS REQUIRED FOR OCCUPIED AREAS PER CODE THROUGH CONSTRUCTION. EGRESS MUST ALSO BE MAINTAINED WITH THE CONTRACTOR`S AREA.

12. IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY & INFORM THE OWNER `S REPRESENTATIVE & THE ARCHITECT FOR FURTHER DIRECTION.

STRUCTURAL DEMOLITION

13. PROVIDE SHORING, BRACING, AND SUPPORTS AS REQUIRED TO MAINTAIN THE INTEGRITY OF EXISTING OR NEWLY INSTALLED CONSTRUCTION AS REQUIRED TO REMOVE EXISTING LOAD-BEARING OR NON-LOAD BEARING WALL, FOOTING, OR ROOF CONSTRUCTION. ASSUME RESPONSIBILITY FOR ACTUAL CONDITION OF EXISTING STRUCTURE TO BE DEMOLISHED.

14. UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DOCUMENTS, MAINTAIN THE INTEGRITY OF EXISTING CONSTRUCTION ADJACENT TO NEW STRUCTURAL SYSTEMS. WHERE EXISTING LOAD-BEARING OR NON-LOAD-BEARING, WHEN DEMOLISHED, PROVIDE STRUCTURAL SYSTEMS PER NEW STRUCTURAL & ARCHITECTURAL DOCUMENTS. REFER TO A500 SERIES FOR NEW WORK.

CUTTING AND PATCHING

1. PROVIDE MATERIALS FOR CUTTING AND PATCHING WHICH WILL RESULT IN EQUAL-OR-BETTER WORK THAN BEING CUT OR PATCHED.

2. REMOVE EXISTING CONSTRUCTION SO AS NOT TO DAMAGE EXISTING CONSTRUCTION THAT IS TO REMAIN. PATCH FLOORS, WALLS AND CEILINGS IN A RECTANGULAR PATTERN TO SOUND EXISTING CONDITIONS AND MAKE THEM READY TO RECEIVE ANY NEW FINISHES INDICATED.

3. CAP PLUMBING LINES THAT ARE TO BE REMOVED BELOW FLOOR OR BEHIND WALL OR REMOVE THEM COMPLETELY. PATCH FLOORS AND WALLS TO MATCH EXISTING CONDITIONS. REFER PLUMBING DOCUMENTS FOR ADDITIONAL REQUIREMENTS.

6. WHERE EXISTING FLOORING, CEILINGS OR WALL FINISHES ARE TO BE REMOVED AND REPLACED WITH NEW FINISHES, SURFACES TO REMAIN SHALL BE STRIPPED CLEAN OF ALL EXISTING FINISHES AND MADE READY TO RECEIVE NEW FINISHES.

7. INSPECT FLOORS TO RECEIVE NEW FINISHES PRIOR TO BID. COMPLETELY REMOVE FLOOR FINISHES TO BE REPLACED AND, CLEAN AND PROPERLY PREPARE THE EXISTING SUBSTRATE PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. STRIP, PATCH, AND FILL TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF BURRS AND ADHESIVE AND SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. UNDER CUT OR ADJUST DOORS TO ACCOMMODATE NEW FLOOR FINISH WHERE NEW FINISH IS THICKER THAN ORIGINAL FINISH.

9. TOOTH IN MASONRY WHERE EXISTING MASONRY ABUTS NEW MASONRY IN THE SAME WALL PLANE. REFER TO ELEVATIONS ON A200 SERIES FOR NEW MASONRY COURSING AND BOND PATTERN.

10. PROVIDE A FINISHED EDGE BY TOOTHING IN NEW MASONRY TO MATCH EXISTING WHERE A PORTION OF AN EXISTING MASONRY WALL IS TO BE REMOVED (U/N).

13. REMOVE EXPANSION JOINT COVERS (FLOOR, WALL, AND CEILING) THAT ARE DAMAGED DURING DEMOLITION AND REPLACE WITH NEW COVERS OF THE SAME TYPE AND FINISH (U/N NEW AS DETAILED), WHERE INDICATED.

15. WHERE INDICATED, REMOVE TACKBOARDS, SMART BOARDS, CHALKBOARDS, MISCELLANEOUS DISPLAY RAILS, AND TOILET ROOM ACCESSORIES. SALVAGE REMOVED ITEMS FOR OWNER OR REINSTALL AS INDICATED IN DRAWINGS AND SPECIFICATIONS. CLEAN AND REPAIR ITEMS AS REQUIRED FOR NEW EQUIPMENT OR TO RECEIVE A NEW FINISH.

18.CONTRACTOR RESPONSIBLE FOR RELOCATING AND ADJUSTING HVAC MATERIALS AND EQUIPMENT IF REQUIRED TO INSTALL STRUCTURAL WALL SUPPORTS OR MATERIALS

19. REMOVE ALL EXISTING PAINT AND REPAINT ALL EXISTING WALLS PART IN SCOPE. REFER TO MATERIAL LEGEND FOR PAINT COLORS AND TYPE

20. REF ELEC AND IT DRAWINGS FOR LOCATIONS OF WALL OUTLETS.

21. PROTECT IN PLACE ALL EXISTING FINISHES NOT PART OF SCOPE DURING CONSTRUCTION. ANY DAMAGES TO EXISTING FINISHES WILL NEED TO BE REPLACED BY CONTRACTOR AT NO COST TO MEET REQUIREMENTS OF DISTRICT.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- FLOOR SLAB TO BE SAW CUT AND REMOVED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- (4) DEMO KEY NOTE

DEMOLITION KEY NOTES

TAG#	NOTE
1	DEMO WALL TILE ON EXISTING WALLS TO REMAIN FROM FINISH FLOOR TO CEILING. REPAIR WALL WITH BLOCK FILLER TO MATCH ADJACENT SURFACES. CLEAN AND PREPARE WALL FOR NEW SCHEDULED FINISH.
2	REMOVE AND SALVAGE EXISTING SIGNAGE, AND RETURN TO THE OWNER. REPAIR, REFINISH AND REPAINT EXISTING WALL
3	DEMO EXISTING DRINKING FOUNTAIN. REPAIR EXISTING CMU WALL, REFINISH AND REPAINT CMU WALL.
4	DEMO EXISTING HAND DRYER. REPAIR AND PATCH EXISTING CMU WALL, REFINISH AND REPAINT EXISTING WALL.
5	DEMO EXISTING INTERIOR CMU WALL. REPAIR FLOORS, CEILINGS AND WALLS TO REMAIN. PREPARE EXISTING WALLS AND CEILINGS TO RECEIVE NEW SCHEDULED FINISHES.
6	DEMO SHOWER DRAIN, REF. PLUMBING DEMO PLAN.
7	DEMO ALL EXISTING INTERIOR LOCKER ROOM EPOXY FLOORING AND ADHESIVE MATERIAL AND WALL BASE. SHOT BLAST CLEAN AND PREPARE FLOOR SURFACE PER MANUFACTURERS RECOMMENDATIONS TO INSTALL NEW FLOORING. REFER TO ROOM FINISH SCHEDULE AND MATERIAL SCHEDULE.
8	SAWCUT AND REMOVE EXISTING SLAB IN HATCHED AREAS NOTED ON DRAWING. REPLACE UNDERSLAB VAPOR BARRIER AND OVER LAP WITH EXISTING BARRIER ON ALL SIDES. TAPE BARRIER TO ENSURE CONTINUOUS BARRIER. REFERENCE SLAB REPAIR DETAIL 2/AD.00-A. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO REVIEW AND TO COORDINATE LIMITS OF SLAB DEMO WITH PLUMBING, ELECTRICAL, ARCHITECTURAL, STRUCTURAL DRAWINGS.
9	DEMO EXISTING LOCKERS. EXISTING LOCKER CONCRETE BASE TO REMAIN. RESIZE EXISTING BASE WITH CONCRETE FILL AS REQUIRED TO FIT NEW LOCKERS.
10	DEMO EXISTING BENCHES. REPAIR, CLEAN CONCRETE FLOOR AND PREP FOR NEW RESINOUS FLOOR
11	DEMO EXISTING TILE FLOORING. REPAIR, LEVEL, CLEAN, AND PREPARE FLOOR FOR NEW TILE FINISH.
12	DEMO EXISTING LOCKERS AND CONCRETE BASE. LEVEL CONCRETE FLOOR TO PREPARE FOR NEW FINISH
13	DEMO EXISTING CEILING. PROTECT ALL ABOVE CEILING ELEMENTS NOT BEING REMOVED PER MEP, TECHNOLOGY DRAWINGS. REFER TO AD.01 FOR ADDITIONAL REQUIREMENTS.
14	REFER TO PLUMBING DRAWINGS FOR TERMINATION AND DEMO. SPECIFICATIONS FOR PLUMBING LINES AND FIXTURES, RETURN ALL FIXTURES TO OWNERS INVENTORY.
15	DEMOLISH CONTRACTOR SHALL REMOVE AND RELOCATE RECESSED CEILING LIGHTS TO NEW LOCATIONS AS SHOWN ON DRAWINGS. REF. TO ELECTRICAL DRAWINGS.



BUILDING KEY PLAN

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498

STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

Date	Description

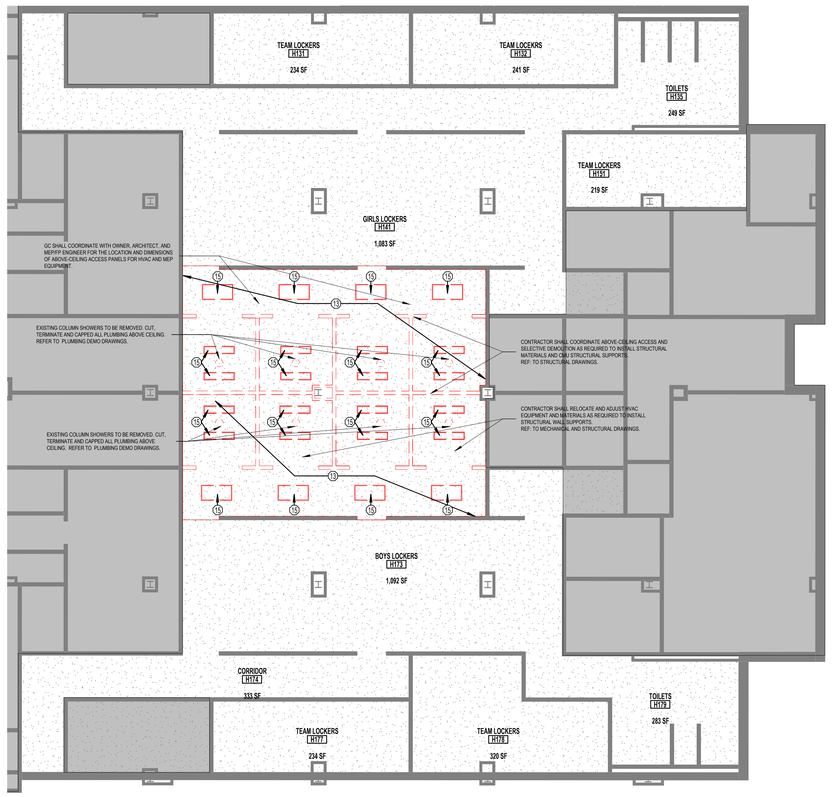
100% CD

AD.00-A

01 DEMO FLOOR PLAN - A

AUSTIN HIGH SCHOOL

12/4/2025 9:52:18 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_ARCH_AUSTIN_FBISD ATHLETIC RENOVATIONS BP012-A_R25.rvt

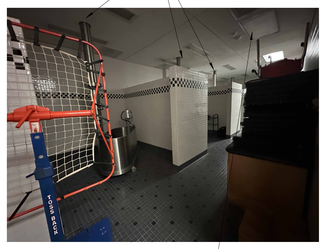


DEMOLITION RCP GYM LOCKER ROOM Copy 1 2
SCALE: 1/8" = 1'-0"

EXISTING COLUMN SHOWERS TO BE REMOVED. CUT, TERMINATE AND CAPPED ALL PLUMBING ABOVE CEILING. REFER TO PLUMBING DEMO DRAWINGS.



EXISTING COLUMN SHOWERS TO BE REMOVED. CUT, TERMINATE AND CAPPED ALL PLUMBING ABOVE CEILING. REFER TO PLUMBING DEMO DRAWINGS.



EXISTING LIGHTING TO REMOVED AND REPLACED WITH NEW FIXTURES.

GENERAL DEMOLITION NOTES

1. VISIT THE SITE TO UNDERSTAND THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. THE EXISTING BUILDING CONDITION SURVEY WAS COMPILED FROM DRAWINGS PROVIDED BY THE OWNER. THESE DRAWINGS WERE NOT AS-BUILT DRAWINGS & ACTUAL CONDITIONS / DIMENSIONS MAY VARY FROM WHAT IS INDICATED. REPORT DISCREPANCIES OR AMBIGUOUS ITEMS TO THE ARCHITECT PRIOR TO START OF FABRICATION. ANY OTHER DISCREPANCIES NOTED BY THE ARCHITECT FIELD INSPECTIONS UNCOVERED, OR DISCREPANCIES IN THE CONTRACT DOCUMENTS WHICH DO NOT COMPLY WITH THE INTENDED FINAL PRODUCT & REQUEST MODIFICATIONS TO THE LAYOUT.

2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION WORK. ALL DEMOLITION WORK TO BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE CODES, LAWS & REGULATIONS INCLUDING OWNER REQUIREMENTS.

3. REFER TO SPEC SECTIONS 024100 AND 024113 FOR ADDITIONAL DEMOLITION NOTES AND REQUIREMENTS.

4. COORDINATE DEMOLITION WORK WITH PLAN SHEETS AND DETAILS. REFER TO A200 SERIES FOR DOOR AND WINDOW FRAME TYPICALS AND DETAILS AT NEW OPENINGS IN EXISTING WALLS.

5. REFER TO CIVIL, STRUCTURAL, AND MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION REQUIREMENTS. PATCH ALL WHERE FIXTURES AND EQUIPMENT ARE DEMOLISHED TO MATCH EXISTING ADJACENT SURFACE.

6. THE OWNER HAS FIRST RIGHTS OF SALVAGE OF ALL FIXTURES, EQUIPMENT AND BUILDING MATERIALS REMOVED AS PART OF THE DEMOLITION AND NOT REUSED IN THE NEW CONSTRUCTION. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF CONSTRUCTION SCRAP IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

7. PRIOR TO START OF DEMOLITION, SECURE FROM THE OWNER A LIST OF ADDITIONAL EXISTING BUILDING COMPONENTS TO BE SALVAGED AND DELIVERED TO THE OWNER. EXERCISE SUFFICIENT CARE IN SALVAGE OPERATIONS SUCH THAT SALVAGED COMPONENTS ARE DELIVERED TO THE OWNER IN THEIR EXISTING UNDAMAGED CONDITION.

8. PROTECT ADJACENT AREAS FROM DUST, EXCESSIVE NOISE & / OR DISRUPTION OF OCCUPANCY. REMOVE ALL WORK THAT INTERFERES WITH THE OPERATION OF THE SURROUNDING AREAS & ANY INTERRUPTION OF SERVICES INCLUDING THE OPERATION OF UTILITIES SHALL BE PERFORMED AT A TIME APPROVED BY THE OWNER'S REPRESENTATIVE.

9. PROTECT EXISTING STRUCTURES, FINISHES, UTILITIES & OTHER ELEMENTS SCHEDULED TO REMAIN. PRIOR TO DEMOLITION, DOCUMENT SURROUNDING PROPERTIES WHICH COULD BE COMPROMISED AND DAMAGE RESULTING FROM DEMOLITION & FILE WITH OWNER'S REPRESENTATIVE. AREAS THAT ARE DAMAGED BY SELECTIVE DEMOLITION SHALL BE PATCHED, REPAIRED & FINISHED OR REPLACED TO MATCH EXISTING ADJACENT SURFACE AT NO EXPENSE TO THE OWNER.

10. ALL DEMOLITION WORK REQUIRED IS NOT LIMITED TO THAT INDICATED WITH THE CONTRACT DOCUMENTS. IF THE EXISTING CONSTRUCTION THAT INTERFERES WITH NEW WORK TO THE EXTENT OF THE INTERFERENCE, THEN THE ITEM IS TO BE DEMOLISHED. ALL NEW PLUMBING, ELECTRICAL & ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION. CUT & LATER PATCH ALL HOLES & OPENINGS IN EXISTING CONSTRUCTION NECESSARY FOR CONNECTION OF NEW WORK TO THE PASSAGE OF CONDUITS, PIPING, MECHANICAL PLUMBING & ELECTRICAL UTILITIES & SERVICES.

11. PROVIDE TEMPORARY BARRICADES & OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNER'S PERSONNEL & GENERAL PUBLIC FROM INJURY DUE TO DEMOLITION. PROVIDE A PROPER MEANS OF EGRESS AS REQUIRED FOR OCCUPIED AREAS PER CODE THROUGH CONSTRUCTION. EGRESS MUST ALSO BE MAINTAINED WITH THE CONTRACTOR'S AREA.

12. IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY & INFORM THE OWNER 'S REPRESENTATIVE & THE ARCHITECT FOR FURTHER DIRECTION.

STRUCTURAL DEMOLITION

13. PROVIDE SHORING, BRACING, AND SUPPORTS AS REQUIRED TO MAINTAIN THE INTEGRITY OF EXISTING OR NEWLY INSTALLED CONSTRUCTION AS REQUIRED TO REMOVE EXISTING LOAD-BEARING OR NON-LOAD BEARING WALL, FOOTING, OR ROOF CONSTRUCTION. ASSUME RESPONSIBILITY FOR ACTUAL CONDITION OF EXISTING STRUCTURE TO BE DEMOLISHED.

14. UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DOCUMENTS, MAINTAIN THE INTEGRITY OF EXISTING CONSTRUCTION ADJACENT TO NEW STRUCTURAL SYSTEMS. WHERE EXISTING LOAD-BEARING OR NON-LOAD-BEARING, WHEN DEMOLISHED, PROVIDE STRUCTURAL SYSTEMS PER NEW STRUCTURAL & ARCHITECTURAL DOCUMENTS. REFER TO A600 SERIES FOR NEW WORK.

CUTTING AND PATCHING

1. PROVIDE MATERIALS FOR CUTTING AND PATCHING WHICH WILL RESULT IN EQUAL-OR-BETTER WORK THAN BEING CUT OR PATCHED.

2. REMOVE EXISTING CONSTRUCTION SO AS NOT TO DAMAGE EXISTING CONSTRUCTION THAT IS TO REMAIN. PATCH FLOORS, WALLS AND CEILINGS IN A RECTANGULAR PATTERN TO SOUND EXISTING CONDITIONS AND MAKE THEM READY TO RECEIVE ANY NEW FINISHES INDICATED.

3. CAP PLUMBING LINES THAT ARE TO BE REMOVED BELOW FLOOR OR BEHIND WALL OR REMOVE THEM COMPLETELY. PATCH FLOORS AND WALLS TO MATCH EXISTING CONDITIONS. REFER PLUMBING DOCUMENTS FOR ADDITIONAL REQUIREMENTS.

6. WHERE EXISTING FLOORING, CEILINGS OR WALL FINISHES ARE TO BE REMOVED AND REPLACED WITH NEW FINISHES, SURFACES TO REMAIN SHALL BE STRIPPED CLEAN OF ALL EXISTING FINISHES AND MADE READY TO RECEIVE NEW FINISHES.

7. INSPECT FLOORS TO RECEIVE NEW FINISHES PRIOR TO BID. COMPLETELY REMOVE FLOOR FINISHES TO BE REPLACED AND, CLEAN AND PROPERLY PREPARE THE EXISTING SUBSTRATE PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. STRIP, PATCH, AND FILL TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF BURRS AND ADHESIVE AND SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. UNDER CUT OR ADJUST DOORS TO ACCOMMODATE NEW FLOOR FINISH WHERE NEW FINISH IS THICKER THAN ORIGINAL FINISH.

9. TOOTH IN MASONRY WHERE EXISTING MASONRY ABUTS NEW MASONRY IN THE SAME WALL PLANE. REFER TO ELEVATIONS ON A200 SERIES FOR NEW MASONRY COURSING AND BOND PATTERN.

10. PROVIDE A FINISHED EDGE BY TOOTHING IN NEW MASONRY TO MATCH EXISTING WHERE A PORTION OF AN EXISTING MASONRY WALL IS TO BE REMOVED (U.O.N).

13. REMOVE EXPANSION JOINT COVERS (FLOOR, WALL, AND CEILING) THAT ARE DAMAGED DURING DEMOLITION AND REPLACE WITH NEW COVERS OF THE SAME TYPE AND FINISH (OR NEW AS DETAILED), WHERE INDICATED.

16. WHERE INDICATED, REMOVE TACKBOARDS, SMART BOARDS, CHALKBOARDS, MISCELLANEOUS DISPLAY RAILS, AND TOILET ROOM ACCESSORIES. SALVAGE REMOVED ITEMS FOR OWNER OR REINSTALL AS INDICATED IN DRAWINGS AND SPECIFICATIONS. CLEAN AND REPAIR ITEMS AS REQUIRED FOR NEW EQUIPMENT OR TO RECEIVE A NEW FINISH.

18.CONTRACTOR RESPONSIBLE FOR RELOCATING AND ADJUSTING HVAC MATERIALS AND EQUIPMENT IF REQUIRED TO INSTALL STRUCTURAL WALL SUPPORTS OR MATERIALS

19. REMOVE ALL EXISTING PAINT AND REPAINT ALL EXISTING WALLS PART IN SCOPE. REFER TO MATERIAL LEGEND FOR PAINT COLORS AND TYPE

20. REF ELEC AND IT DRAWINGS FOR LOCATIONS OF WALL OUTLETS.

21. PROTECT IN PLACE ALL EXISTING FINISHES NOT PART OF SCOPE DURING CONSTRUCTION. ANY DAMAGES TO EXISTING FINISHES WILL NEED TO BE REPLACED BY CONTRACTOR AT NO COST TO MEET REQUIREMENTS OF DISTRICT.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- DEMO KEY NOTE

DEMOLITION KEY NOTES

TAG#	NOTE
1	DEMO WALL TILE ON EXISTING WALLS TO REMAIN FROM FINISH FLOOR TO CEILING. REPAIR WALL WITH BLOCK FILLER TO MATCH ADJACENT SURFACES. CLEAN AND PREPARE WALL FOR NEW SCHEDULED FINISH.
2	REMOVE AND SALVAGE EXISTING SIGNAGE, AND RETURN TO THE OWNER. REPAIR, REFINISH AND REPAINT EXISTING WALL.
3	DEMO EXISTING DRINKING FOUNTAIN. REPAIR EXISTING CMU WALL, REFINISH AND REPAINT CMU WALL.
4	DEMO EXISTING HAND DRYER. REPAIR AND PATCH EXISTING CMU WALL, REFINISH AND REPAINT EXISTING WALL.
5	DEMO EXISTING INTERIOR CMU WALL. REPAIR FLOORS, CEILINGS AND WALLS TO REMAIN. PREPARE EXISTING WALLS AND CEILINGS TO RECEIVE NEW SCHEDULED FINISHES.
6	DEMO SHOWER DRAIN, REF. PLUMBING DEMO PLAN.
7	DEMO ALL EXISTING INTERIOR LOCKER ROOM EPOXY FLOORING AND ADHESIVE MATERIAL AND WALL BASE, SHOT BLAST CLEAN AND PREPARE FLOOR SURFACE PER MANUFACTURERS RECOMMENDATIONS TO INSTALL NEW FLOORING. REFER TO ROOM FINISH SCHEDULE AND MATERIAL SCHEDULE.
8	SAWCUT AND REMOVE EXISTING SLAB IN HATCHED AREAS NOTED ON DRAWING. REPLACE UNDERSLAB VAPOR BARRIER AND OVER LAP WITH EXISTING BARRIER ON ALL SIDES. TAPE BARRIER TO ENSURE CONTINUOUS BARRIER. REFERENCE SLAB REPAIR DETAIL 2/AD.00-A. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO REVIEW AND TO COORDINATE LIMITS OF SLAB DEMO WITH PLUMBING, ELECTRICAL, ARCHITECTURAL, STRUCTURAL DRAWINGS.
9	DEMO EXISTING LOCKERS. EXISTING LOCKER CONCRETE BASE TO REMAIN. RESIZE EXISTING BASE WITH CONCRETE FILL AS REQUIRED TO FIT NEW LOCKERS.
10	DEMO EXISTING BENCHES, REPAIR, CLEAN CONCRETE FLOOR AND PREP FOR NEW RESINOUS FLOOR.
11	DEMO EXISTING TILE FLOORING. REPAIR, LEVEL, CLEAN, AND PREPARE FLOOR FOR NEW TILE FINISH.
12	DEMO EXISTING LOCKERS AND CONCRETE BASE. LEVEL CONCRETE FLOOR TO PREPARE FOR NEW FINISH
13	DEMO EXISTING CEILING. PROTECT ALL ABOVE CEILING ELEMENTS NOT BEING REMOVED PER MEP, TECHNOLOGY DRAWINGS. REFER TO AD.01 FOR ADDITIONAL REQUIREMENTS.
14	REFER TO PLUMBING DRAWINGS FOR TERMINATION AND DEMO SPECIFICATIONS FOR PLUMBING LINES AND FIXTURES, RETURN ALL FIXTURES TO OWNERS INVENTORY.
15	DEMOLISH CONTRACTOR SHALL REMOVE AND RELOCATE RECESSED CEILING LIGHTS TO NEW LOCATIONS AS SHOWN ON DRAWINGS. REF: TO ELECTRICAL DRAWINGS.



BUILDING KEY PLAN

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498
STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

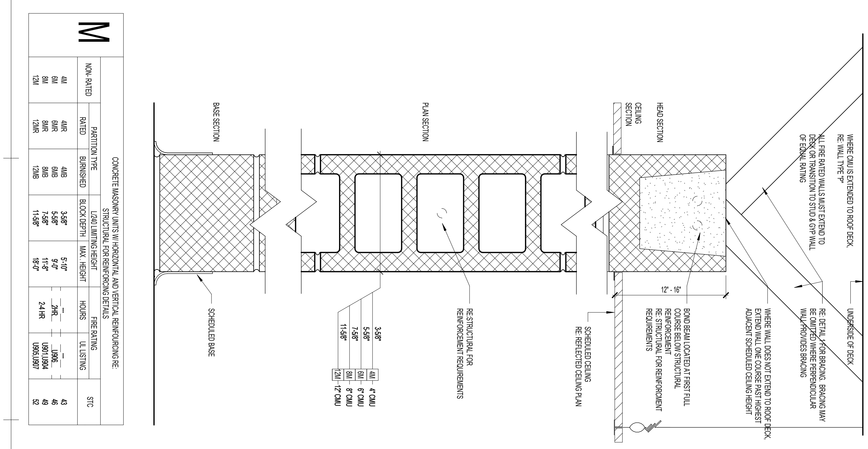
	Date	Description

100% CD

AD.01-A
01 DEMO REFLECTED CEILING PLAN - A

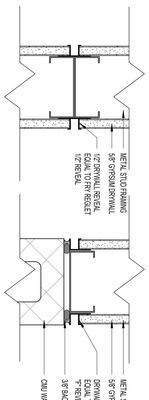
AUSTIN HIGH SCHOOL

12/4/2025 9:52:20 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_ARCH_AUSTIN_FBISD ATHLETIC RENOVATIONS BP012-A_R25.rvt

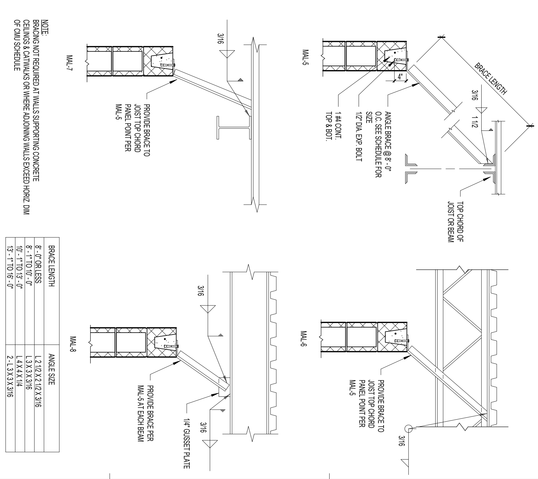


M	CONCRETE MASONRY UNITS W/ HORIZONTAL AND VERTICAL REINFORCING RE: STRUCTURAL FOR REINFORCING DETAILS								
	NON-RATED	PARTITION TYPE: BEARING	RATED	CMU WIDTH + GRADE: BLOCK DEPTH	MAX. HEIGHT	FIRE RATING: HOURS	UL LISTING	STC
4U		4MB	4MR	3-5/8"	9'-0"	2HR	U905,U907	49
6U		6MB	6MR	5-5/8"	9'-0"	2HR	U905,U907	49
8M		8MB	8MR	7-5/8"	11'-0"	2-4HR	U905,U907	49
12M		12MB	12MR	11-5/8"	18'-0"	4HR	U905,U907	52

GYPSUM TRANSITION DETAILS 1
SCALE 3" = 1'-0"



WALL BRACING 2
SCALE 3/4" = 1'-0"



FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

550 Dulles Ave, Sugarland, TX 77478

DULLES HIGH SCHOOL

pfluger
office: 512.476.4040 I fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

REGISTERED ARCHITECT
STATE OF TEXAS
2015
CHRISTOPHER S. DULLES

PROJECT NO. 25.006
DATE 12/4/2025
DRAWN BY DRH
CHECKED BY CHK

REVISIONS	Date	Description

100% CD

A0.01-A
PARTITION TYPES

AUSTIN HIGH SCHOOL

ABBREVIATIONS

A	
A.F.F.	ABOVE FINISH FLOOR
ACC.FL.	ACCESS FLOOR
A.P.	ACCESS PANEL
ACOUS.	ACOUSTICAL
ACT.	ACOUSTICAL CEILING TILE
ADD.	ADDENDUM
ADJNT.	ADJACENT
ADJ.	ADJUSTABLE
ADMIN.	ADMINISTRATION
AGG.	AGGREGATE
A/C	AIR CONDITIONING
ALT.	ALTERNATE, ALTERNATIVE
ALUM.	ALUMINUM
ANCH.	ANCHOR, ANCHORAGE
ANOD.	ANODIZED
APPROX.	APPROXIMATE
ARCH.	ARCHITECT
A.D.	AREA DRAIN
ASPH.	ASPHALT
AUTO.	AUTOMATIC
B	
BSMT.	BASEMENT
BM.	BENCH MARK
BTWN.	BETWEEN
BEV.	BEVEL
BIT.	BITUMINOUS
BLK.	BLOCKING
BD.	BOARD
B.S.	BOTH SIDES
B.W.	BOTH WAYS
B.O.D.	BOTTOM OF DECK
BRK.	BRACKET
BRZ.	BRONZE
BLDG.	BUILDING
BUR.	BUILT UP ROOFING
C	
CAB.	CABINET
CPT.	CARPET
CSMT.	CASEMENT
CIP.	CAST IN PLACE CONCRETE
C.B.	CATCH BASIN
CLG.	CEILING
CLG. HT.	CEILING HEIGHT
CEM.	CEMENT
CL	CENTERLINE
CT	CERAMIC TILE
C.O.	CLEAN OUT
CLR.	CLEAR(ANCE)
CLO.	CLOSET
COL.	COLUMN
COMPT.	COMPARTMENT
COMPR.	COMPRESS
COMP.	COMPUTER
CONC.	CONCRETE
CMU.	CONCRETE MASONRY UNIT
CONST.	CONSTRUCTION
CONT	CONTINUOUS
CONTR.	CONTRACT/CONTRACTOR
CFCI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
C.J.	CONTROL JOINT
CPR.	COPPER
CG.	CORNER GUARD
CORR.	CORRIDOR
CTR.	COUNTER
C. FL.	COUNTER FLASHING
CTR. SNK.	COUNTER SUNK
CRS.	COURSE
CU. FT.	CUBIC FEET
CU. YD.	CUBIC YARD
D	
D.P.	DAMP PROOFING
DPR.	DAMPER
DL.	DEAD LOAD
DEMO.	DEMOLISH, DEMOLITION
DEP.	DEPRESS
DTL.	DETAIL
DIAG.	DIAGONAL
DIAM.	DIAMETER
DW.	DISH WASHER
DISPR.	DISPENSER
DIV.	DIVISION
DR.	DOOR
DBL.	DOUBLE
DH.	DOUBLE HUNG
DN.	DOWN
DS.	DOWNSPOUT
DRN.	DRAIN
DRN. BD.	DRAIN BOARD
DRN. TL.	DRAIN TILE
DWR.	DRAWER
DWG.	DRAWING
DF	DRINKING FOUNTAIN
E	
EA	EACH
EA. FA.	EACH FACE
E.	EAST
ELEC.	ELECTRIC
EDF.	ELECTRIC DRINKING FOUNTAIN
EP.	ELECTRICAL PANEL
ELEV.	ELEVATION
EMERG.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EXCAV.	EXCAVATE
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EJ	EXPANSION JOINT
EXT.	EXTERIOR
EPS	EXTRUDED POLY STYRENE
F	
FAB	FABRICATED
FV.	FIELD VERIFY
FIN.	FINISH
FIN. FLR.	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FA.	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FE.	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHS.	FIRE HOSE CABINET
FPL.	FIRE PLACE
FP.	FIRE PROOFING
FRC.	FIRE RESISTANT COATING
F. RT.	FIRE RETARDANT
FLSHG.	FLASHING
FLEX	FLEXIBLE
FLR.	FLOOR
FLR. C.O.	FLOOR CLEAN OUT
FD.	FLOOR DRAIN
FLR. JT.	FLOOR JOINT
FLR. PLT.	FLOOR PLATE
FLOUR.	FLUORESCENT
FTG.	FOOTING
FRMG.	FRAMING
FBO	FURNISHED BY OWNER
FURR.	FURRED (ING)
FUT.	FUTURE
FRG.	REFRIGERATOR
G	
GALV.	GALVANIZED
GSKT.	GASKET
GA.	GAUGE
GC.	GENERAL CONTRACTOR
GLS.	GLASS
GL. BLK.	GLASS BLOCK
GL. CMU.	GLAZED CONCRETE MASONRY UNIT
GST.	GLAZED STRUCTURAL TILE
GB.	GRAB BAR
GBLK.	GREEN BLOCK
GRT.	GROUT
GYPCTE.	GYPCRETE
GYP. PL.	GYPSUM PLASTER
GYP. T.	GYPSUM TILE
GWB.	GYPSUM WALL BOARD
H	
HD. BD.	HARD BOARD
HD. JT.	HARD JOINT
HDW.	HARDWARE
HDWD.	HARDWOOD
HDR.	HEADER
HTG.	HEATING
HVAC.	HEATING, VENTILATION, AIR CONDITIONING
HVY. D.	HEAVY DUTY
HT.	HEIGHT
HC.	HOLLOW CORE
HM.	HOLLOW METAL
HORIZ.	HORIZONTAL
HB.	HOSE BIB
HWH.	HOT WATER HEATER
HR.	HOUR
I	
INCL.	INCLUDE
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INTERM.	INTERMEDIATE
INV.	INVERT
J	
JAN.	JANITOR
J.C.	JANITORS CLOSET
JT.	JOINT
JF.	JOINT FILLER
JST.	JOIST
K	
K. PL.	KICK PLATE
KIT.	KITCHEN
K.O.	KNOCK OUT
L	
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LH.	LEFT HAND
LC.	LIGHT CONTROL
LT. WT.	LIGHT WEIGHT
LT.	LIGHT, RE: ELECTRICAL
LT. CONC.	LIGHTWEIGHT CONCRETE
LMSTN	LIMESTONE
LTL.	LINTEL
LL.	LIVE LOAD
LB.	LOAD BEARING
LPT.	LOW POINT
M	
MH.	MAN HOLE
MFR.	MANUFACTURE
MRB.	MARBLE
MB	MARKER BOARD
MAS.	MASONRY
M.O.	MASONRY OPENING
MU	MASONRY UNIT
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP	MECHANICAL/ELECTRICAL/ PLUMBING
M.C.	MEDICINE CABINET
MEMB.	MEMBRANE
MTL.	METAL
MFD.	METAL FLOOR DECK
MRD.	METAL ROOF DECK
M. THR.	METAL THRESHOLD
MWK.	MILLWORK
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MOD.	MODULAR
MLDG.	MOLDING
MT.	MOUNT
MTD.	MOUNTED
MOV.	MOVE
MULL.	MULLION
N	
NAT.	NATURAL
NR.	NOISE REDUCTION
NOM.	NOMINAL
N.	NORTH
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
O	
OC.	ON CENTER
OCEW	ON CENTER EACH WAY
OPG.	OPENING
OPP.	OPPOSITE
OH	OPPOSITE HAND
OH.	OPPOSITE HAND
O.A.	OVER ALL
OVRHD.	OVER HEAD
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	
PNT.	PAINT
PTD.	PAINTED
PNL.	PANEL
PB.	PANIC BAR
PTDS.	PAPER TOWEL DISPENSER
PTR.	PAPER TOWEL RECEPTACLE
PAR.	PARALLEL
PKG.	PARKING
P. BD.	PARTICLE BOARD
PARTN.	PARTITION
PVT.	PAVEMENT
PERF.	PERFORATED
PERIM.	PERIMETER
PLAS.	PLASTER
PLAM	PLASTIC LAMINATE
PL.	PLATE
PLY.	PLYWOOD
PVC.	POLYVINYL CHLORIDE
PREFAB.	PREFABRICATED
PREFIN.	PREFINISHED
P.L.	PROPERTY LINE
Q	
QT.	QUARRY TILE
R	
RAD.	RADIUS
REF.	REFERENCE
RFL.	REFLECTED
REG.	REGISTRAR
REINF.	REINFORCING
REM.	REMOVE
REQ'D.	REQUIRED
RES.	RESILIENT
RET.	RETURN
RA.	RETURN AIR
RVS.	REVERSE
REV.	REVISION
RH.	RIGHT HAND
R.O.W.	RIGHT OF WAY
RD.	ROOF DRAIN
RF. HT.	ROOF HEIGHT
RFG.	ROOFING
RM.	ROOM
RO.	ROUGH OPENING
RB.	RUBBER BASE
S	
SF. GL.	SAFETY GLASS
SCHED.	SCHEDULE
SLNT.	SEALANT
STG.	SEATING
SCTN.	SECTION
SHTH.	SHEATHING
SHT.	SHEET
SH. GL.	SHEET GLASS
SHR.	SHORING
SIM.	SIMILAR
SKYLT.	SKYLIGHT
SLV.	SLEEVE
SC.	SOLID CORE
SCW	SOLID CORE WOOD
S.	SOUTH
SPCR.	SPACER
SPKR.	SPEAKER
SPEC.	SPECIFICATIONS
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STA.	STATION
STL.	STEEL
STN.	STONE
STOR.	STORAGE
SD.	STORM DRAIN
STRUCT.	STRUCTURE (TURAL)
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
SYN.	SYNTHETIC
SYS.	SYSTEM
T	
TB.	TACK BOARD
TK. STP.	TACK STRIP
TEL.	TELEPHONE
TV	TELEVISION
THK.	THICK
THR.	THRESHOLD
TO. COL.	TOP OF COLUMN
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.J.	TOP OF JOIST
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
TG.	TOUNG AND GROOVE
TR.	TREAD
TYP.	TYPICAL
U	
UC.	UNDER CUT
UNFIN.	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR.	URINAL
V	
VB.	VAPOR BARRIER
VAR.	VARIES
VNR.	VENEER
VIF.	VERIFY IN FIELD
VERT.	VERTICAL
VG.	VERTICAL GRAIN
VIN.	VINYL
VIN. B.	VINYL BASE
VCT	VINYL COMPOSITION TILE
VIN. F.	VINYL FABRIC
VIN. T.	VINYL TILE
W	
WSCT.	WAINSCOT
WH.	WALL HUNG
WC.	WATER CLOSET
WPRF.	WATER PROOFING
WRP.	WATER REPELLENT
WS.	WATER STOP
WWF.	WELDED WIRE FABRIC
WWM.	WELDED WIRE MESH
W.	WEST
WDW.	WINDOW
WGLS.	WIRE GLASS
WM.	WIRE MESH
W.	WITH
WO.	WITHOUT
WD.	WOOD
WD. B.	WOOD BASE
W. PT.	WORKING POINT

SYMBOLS & LEGENDS

ARCHITECTURAL DRAWING SYMBOLS

- Name 101 — ROOM TAG WITH ROOM FINISH
- 150 SF / Name 101 / XXX SF/ XXX(P) — ROOM TAG WITH OCCUPANCY SF=SQUARE FEET P=PEOPLE
- 101 — DOOR TAG
- XX — PARTITION TAG
- HOLLOW METAL FRAME TAG
- 1 — ALUMINUM FRAME TAG
- EXPANSION JOINT
- 21 / A101 SIM. — ENLARGED CALL OUT
- SIM / 1 / A101 — BUILDING SECTION TAG
- SIM / 1 / A101 — WALL SECTION TAG
- SIM / 1 / A101 — DETAIL SECTION TAG
- Ref / 20 / A101 — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- 15/ A 9.24 — VIEW REFERENCE DETAIL
- Elevation Name — ELEVATION/ LEVEL TAG
- AB — COLUMN GRID
- 5' DIAMETER ADA TURN AROUND
- 1 — REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC P. PROVIDED REQ'D — EXIT POINT WITH WIDTH INDICATED IN INCHES OCCUPANT LOAD SHOWN VERTICAL P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- CENTER LINE
- MATCH LINE
- ITEM SHOWN IS ABOVE/BELOW OR TO BE REMOVED(ON DEMO SHTS) U.N.O.
- PROPERTY LINE
- BREAK LINE
- LONGEST TRAVEL DISTANCE TO EXIT
- BUILDING EXIT

WALL LEGEND

- EXISTING WALL TO REMAIN
- METAL STUD PARTITION
- CMU PARTITION
- 1 HR. WALL CONSTRUCTION
- 1 HR CMU WALL CONSTRUCTION
- 2 HR. WALL CONSTRUCTION
- 2 HR CMU WALL CONSTRUCTION

MATERIALS LEGEND

- EARTH (COMPACTED)
- POUROUS FILL (STONE OR GRAVEL)
- CONCRETE
- PLASTER/SAND/CEMENT/ GROUT
- BRICK (COMMON OR FACE)
- CONCRETE MASONRY UNIT (CMU)
- METAL (LARGE SCALE)
- METAL (SMALL SCALE)
- BATT INSULATION
- RIGID BOARD OR SPRAY FOAM INSULATION
- ROUGH WOOD (CONTINUOUS)
- ROUGH WOOD (NON-CONTINUOUS)
- FINISH WOOD
- PLYWOOD

PROJECT GENERAL NOTES

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A WATERTIGHT & WEATHERTIGHT BUILDING
2. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A PLUM, LEVEL AND SQUARE STRUCTURE UNLESS OTHERWISE NOTED ANY DEVIATION FROM THIS GENERAL INTENT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
3. THE BUILDING SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL THE APPLICABLE CODES, ORDINANCES AND REGULATIONS AS WELL AS THE DRAWINGS & SPECIFICATION. ANY CODE DEFICIENCIES IN THE DRAWINGS RECOGNIZED BY THE CONTRACTOR SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
4. THE CONTRACTOR SHALL VISIT PROJECT SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ANY AMBIGUOUS ITEMS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO SUBMITTING PROPOSAL.
5. THE CONTRACTOR IS TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES REQUIREMENTS, AND COMPLETE TEXAS HEALTH DEPARTMENT NOTIFICATIONS AND SUBMIT FORMS AND REQUIRED INFORMATION TO MEET " TEXAS COMMISSION ON ENVIRONMENTAL QUALITY" (TCEQ) REQUIREMENTS PRIOR TO START OF PROJECT
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF THE BUILDING ON THE SITE AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE BIDDING THE PROJECT OR THE COMMENCEMENT OF WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR CHANGES TO THE WORK DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HIS/HER SELF WITH EXISTING CONDITIONS
7. DO NOT SCALE DRAWINGS: ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE AND SHALL BE FIELD VERIFIED AND COORDINATED WITH WORK OF ALL TRADES. IF NO DIMENSIONS ARE GIVEN OR DISCREPANCIES FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION BEFORE BIDDING OR COMMENCING THE WORK.
8. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, ALL INCLUDED AS PART OF THE WORK.
9. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
10. THE CONTRACTOR SHALL VERIFY THE SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS AND BASES, AS WELL AS POWER, WATER AND DRAIN REQUIREMENTS FOR SUCH EQUIPMENT WITH EQUIPMENT MFG. DEVIATION OF BEFORE MENTIONED REQUIREMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
11. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE WITH THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. REVIEW ALL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
12. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
13. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
14. PROVIDE FIRE STOPS WHEREVER INTERIOR AND EXTERIOR WALLS AND PARTITIONS INTERSECT FLOORS, CEILINGS, AND ROOFS. ALSO PROVIDE AT ALL OPENINGS AROUND PENETRATIONS TO PREVENT VERTICAL & HORIZONTAL COMMUNICATION OF FIRE ALONG LINES OF CORRIDORS, OCCUPANCY CHANGES, AND SIMILAR SEPARATIONS.
15. ALL WALL WIDTHS ARE SHOWN AND DIMENSIONED WITH ACTUAL DIMENSIONS. DIMENSIONS FOR FRAMED WALLS ARE SHOWN TO FACE OF STUDS AND/OR FACE OF BLOCK U.N.O.
16. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
17. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
18. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
19. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
20. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
21. DIFFUSERS, LIGHT FIXTURES, ETC., ARE INDICATED ON THE REFLECTED CEILING PLAN FOR LOCATION AND COORDINATION. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
22. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
23. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
24. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
25. CLASSROOM FURNITURE INDICATED ON THE FLOOR PLANS, NOT INDICATED AS "BUILT-IN", ARE NOT IN PROJECT CONTRACT. FURNITURE IS SHOWN FOR TYPICAL CLASSROOM ARRANGEMENT, ONLY.
26. GENERAL CONTRACTORS AND SUB-CONTRACTORS ARE TO SCHEDULE AND COMPLETE THEIR WORK SO AS TO KEEP MECHANICAL, ELECTRICAL, TELEPHONE, DATA, HVAC CONTROL, INTERCOM, AND OTHER EXISTING SYSTEMS OPERATIONAL IN AREAS OCCUPIED BY THE OWNER DURING THE RENOVATION AND CONSTRUCTION OF THE PROJECT
27. WHERE EXISTING OR NEW EXPANSION JOINTS ARE EXPOSED DUE TO NEW CONSTRUCTION OR RENOVATION, PROVIDE APPROVED FLOOR, WALL, AND/OR CEILING EXPANSION JOINT COVER ASSEMBLIES AS REQUIRED.
28. WHERE NEW FLOORING IS TO BE INSTALLED ON TOP OF EXISTING FLOOR SLAB, PROVIDE FLOOR LEVELING COMPOUND AS REQUIRED TO PROVIDE LEVEL WORKABLE SURFACE FOR NEW FINISHES
29. CONTRACTOR IS TO ENSURE THAT NEW AND/OR EXISTING MECHANICAL, ELECTRICAL, DATA, AND CONTROL SYSTEMS ARE CONCEALED TO THE GREATEST EXTENT AS POSSIBLE UNLESS OTHERWISE NOTED
30. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
31. ALL EXPOSED METALS EXCEPT GALVANIZED AND PRE-FINISHED ITEMS, SHALL BE FINISH PAINTED - COLOR TO BE SELECTED BY ARCHITECT. REF SPECS FOR FIELD WELDS AT GALV.
32. WHERE THE WORDS "PATCH", "MATCH", "REPAIR", "REPLACE", ARE USED,SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT COLORS, TEXTURES AND FINISH OF DISTURBED AREAS SHALL MATCH IN ALL RESPECTS. REPLACE IS DEFINED AS REMOVE EXISTING AND INSTALL NEW INCLUDING ALL APPROPRIATE ELECTRICAL CONNECTIONS AND WITH MATCHING OR COMPATIBLE EQUIPMENT OR MATERIALS AS SHOWN, SPECIFIED OR REQUIRED FOR COMPLETE INSTALLATION.

SHEET NAMING CONVENTION

A2-XX-A

- A2 — DRAWING SHEET DISCIPLINE
- XX — SCHOOL NAME PREFIX
- A — SHEET NUMBER IN DISCIPLINE

G	GENERAL	P	PLUMBING
C	CIVIL	E	ELECTRICAL
L	LANDSCAPE	FP	FIRE PROTECTION
S	STRUCTURAL	FA	FIRE ALARM
IR	IRRIGAITON	T	TECHNOLOGY
AD	ARCH DEMOLITION	TE	THEATRICAL
A	ARCHITECTURE	FS	FOOD SERVICES
M	MECHANICAL	AV	AUDIO VISUAL

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

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STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAMS
30113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

A0.00-A
SYMBOLS & ABBREVIATIONS

AUSTIN HIGH SCHOOL

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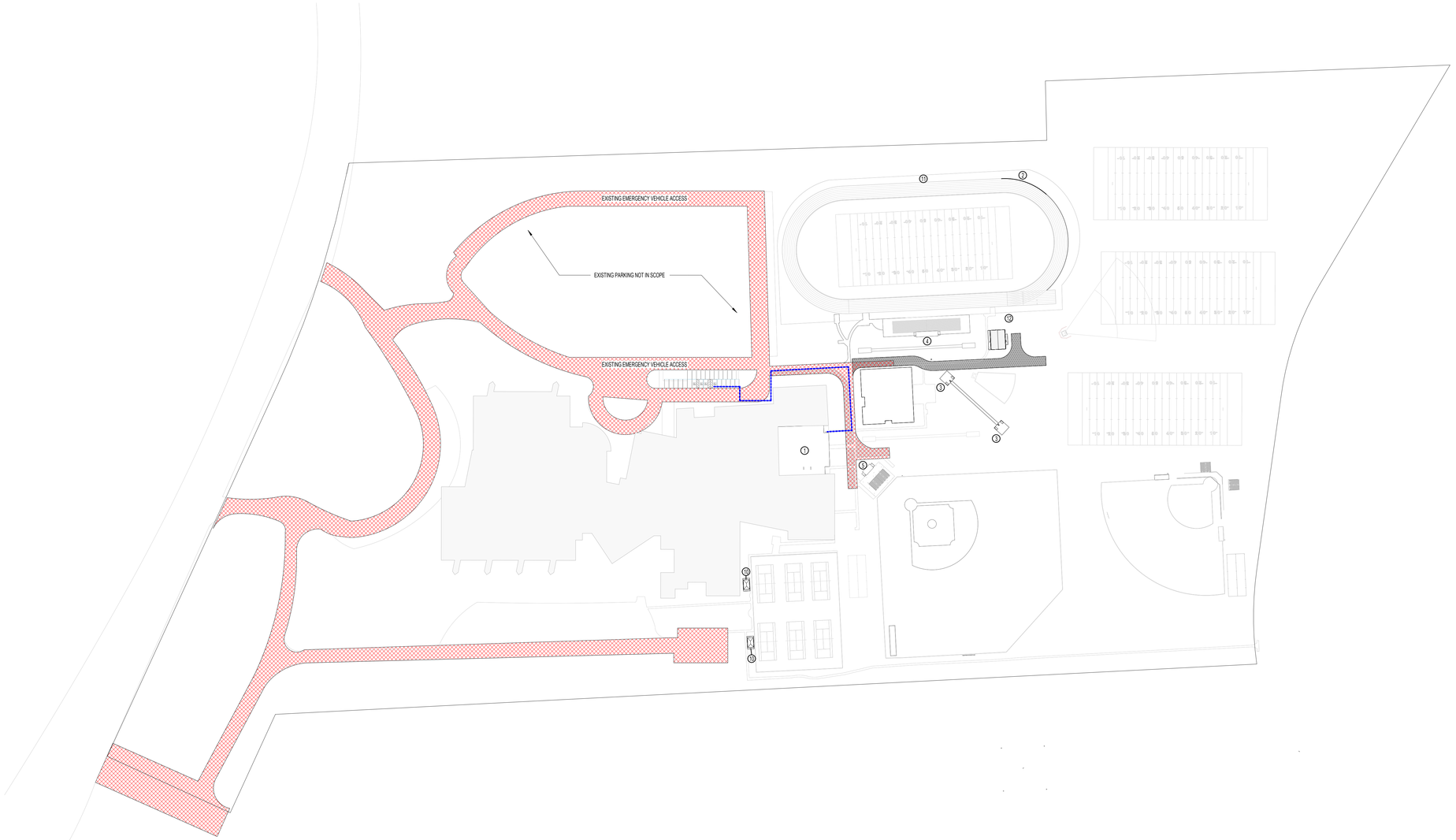

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A0.00-A FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01 & G0.02 FOR TAS REQUIREMENTS
3. RE: G0.03-A FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
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9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
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11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

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- VINYL COATED CHAIN LINK FENCE, 72" HIGH
- BUILDING SECTION TAG (1 / A101, SIM)
- WALL SECTION TAG (1 / A101, SIM)
- ENLARGED CALL OUT (2 1 / A101, SIM)
- EXISTING ACCESSIBLE ROUTE
- EXISTING PAVING
- NEW PAVING
- EXISTING PERVIOUS EMERGENCY ACCESS PATH
- NEW PERVIOUS EMERGENCY ACCESS PATH
- EXISTING EMERGENCY ACCESS PATH

SITE PLAN KEYNOTES

TAG #	NOTE
1	RENOVATE GYM LOCKER ROOM
2	REPAIR TRACK CURB ALONG NORTH EDGE
3	NEW CONCRETE PADS POLE VAULT PADS
4	REPLACE EXISTING FOOTBALL PRESS BOX WINDOWS
5	REPLACE EXISTING BASEBALL PRESS BOX WINDOWS
10	CONCRETE PADDING UNDER BLEACHERS
11	IRRIGATION AROUND TRACK PERIMETER
12	NEW FOOTBALL STORAGE BUILDING

OVERALL SITE PLAN- A 1
SCALE: 1" = 100'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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A1.00-A
OVERALL SITE PLAN-A

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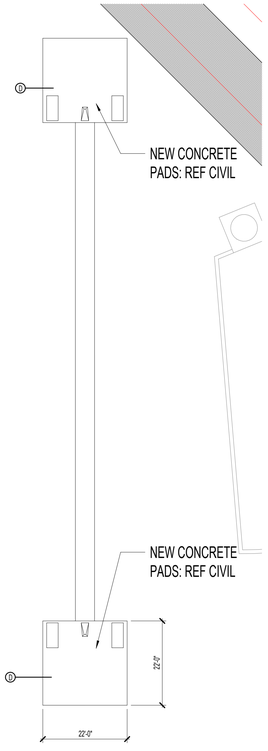
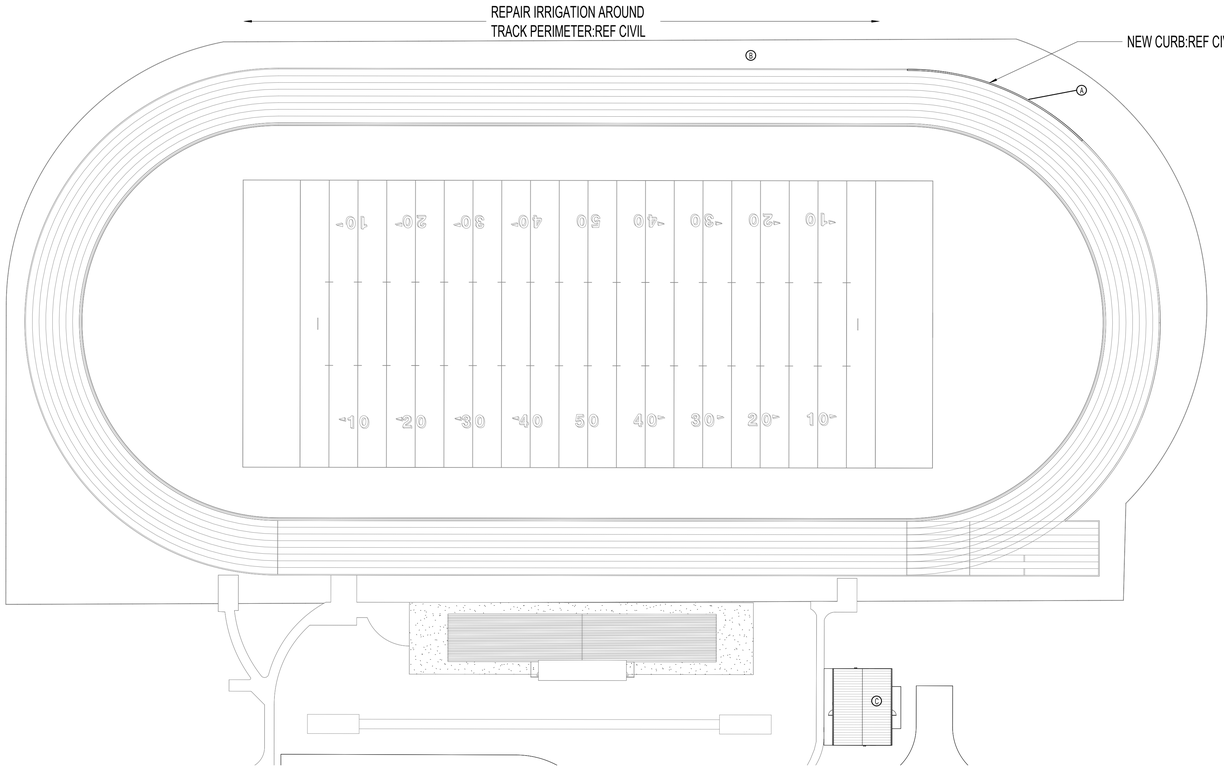


POLE VAULT PAD - A 2
SCALE: 1/16" = 1'-0"



TRACK -A 1
SCALE: 1/32" = 1'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A0.00-A FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01 & G0.02 FOR TAS REQUIREMENTS
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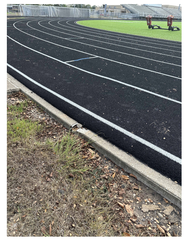
- WALL SECTION TAG (1 / A101, SIM)
- ENLARGED CALL OUT (21 / A101, SIM)
- EXISTING ACCESSIBLE ROUTE
- EXISTING PAVING
- NEW PAVING
- EXISTING PERVIOUS EMERGENCY ACCESS PATH
- NEW PERVIOUS EMERGENCY ACCESS PATH
- EXISTING EMERGENCY ACCESS PATH

SITE PLAN KEYNOTES

TAG #	NOTE
A	NEW CURB AT NORTH
B	REPAIR IRRIGATION AROUND TRACK PERIMETER
C	NEW FOOTBALL STORAGE BUILDING
D	NEW CONCRETE PADS POLE VAULT PADS

DEMO KEY NOTES

TAG #	NOTE
1	DEMO CURB AROUND TRACK: REF CIVIL
2	DEMO POLE VAULT CONCRETE PADS



① DEMO CURB AROUND TRACK: REF CIVIL





② DEMO EXISTING POLE VAULT CONCRETE PADS





SITE KEY PLAN
N.T.S

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

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MICHAEL ADAME
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STATE OF TEXAS

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DRAWN BY: Author CHECKED BY: Checker
REVISIONS:
1 Date Description

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A1.01-A
SITE DETAILS TRACK AND FIELD

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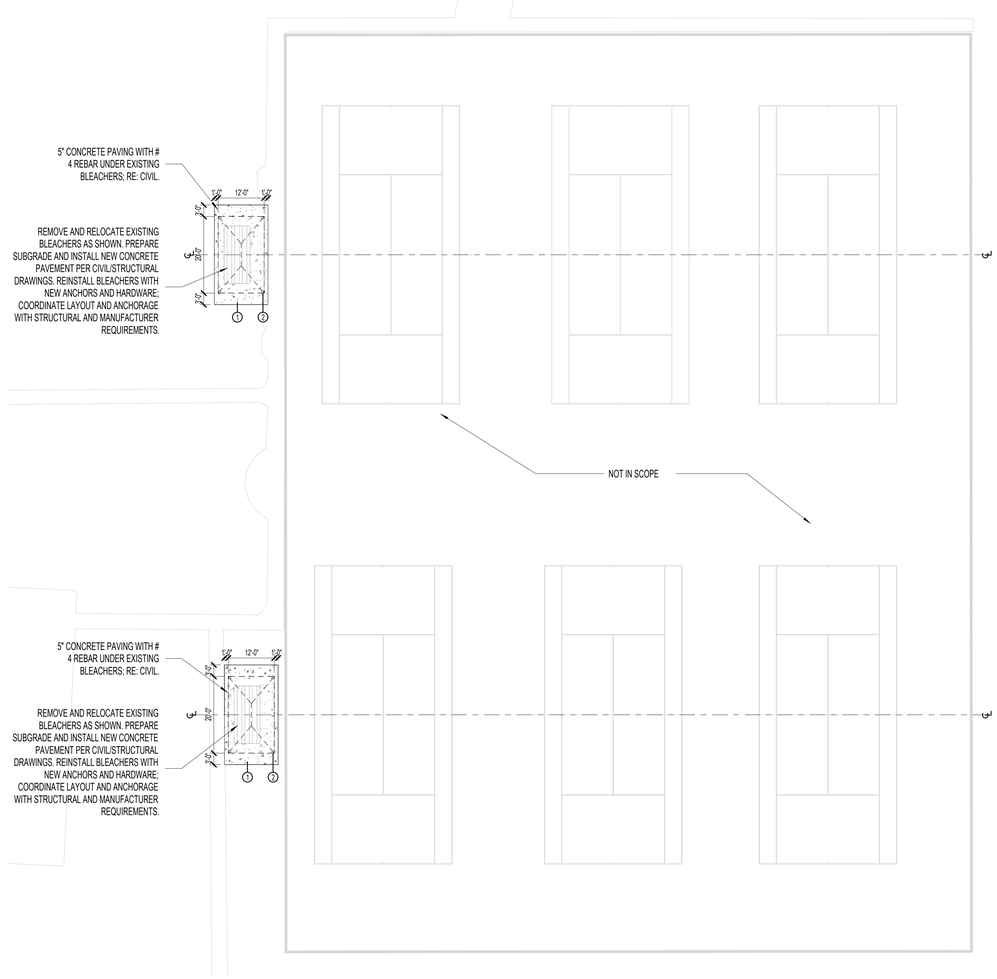
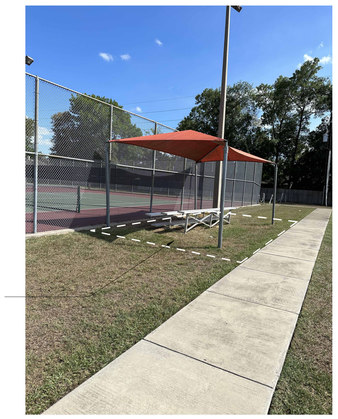


TENNIS COURT - A 2
SCALE: 1/16" = 1'-0"



5" CONCRETE PAVING WITH #4 BARS UNDER EXISTING BLEACHERS



SITE KEY PLAN
N.T.S

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A0.00-A FOR ADDITIONAL GENERAL NOTES.
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- ENLARGED CALL OUT (2 / A101 SIM.)
- EXISTING ACCESSIBLE ROUTE
- EXISTING PAVING
- NEW PAVING
- EXISTING PERVIOUS EMERGENCY ACCESS PATH
- NEW PERVIOUS EMERGENCY ACCESS PATH
- EXISTING EMERGENCY ACCESS PATH

SITE PLAN KEYNOTES

TAG #	NOTE
1	5" CONCRETE PAVING WITH #4 BARS UNDER BLEACHERS; RE: CIVIL.
2	BLEACHER CANOPY TO REMAIN. POUR NEW PAVING AROUND EXISTING POSTS LEAVING 3'-0" CLEAR AROUND STRUCTURE.

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REVISIONS:

	Date	Description

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A1.02-A
SITE DETAILS TENNIS COURT

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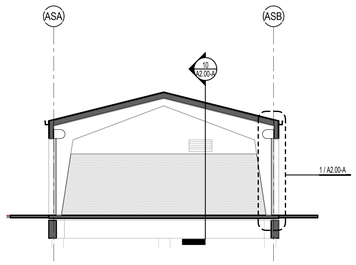


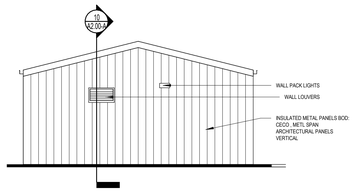
BUILDING SECTION A - FOOTBALL STORAGE - A 13
SCALE: 1/8" = 1'-0"



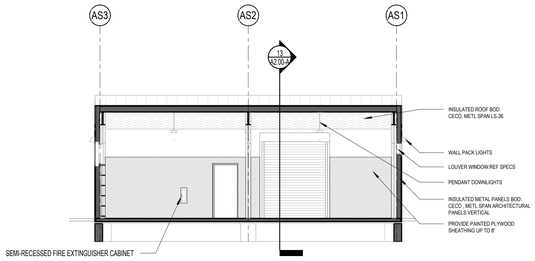
FOOTBALL STORAGE BUILDING SECTION 1
SCALE: 1/4" = 1'-0"



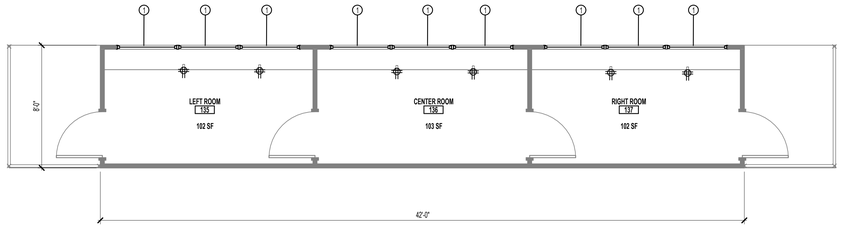




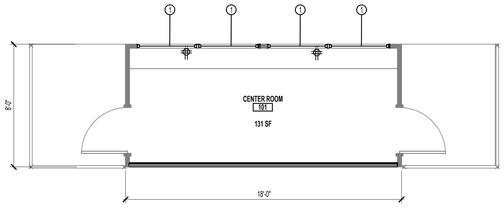
NORTH ELEVATION - FOOTBALL STORAGE - A 11
SCALE: 1/8" = 1'-0"



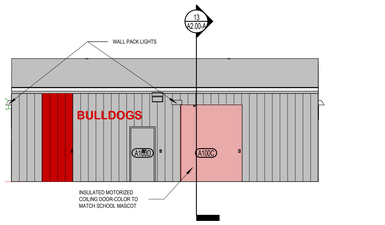
BUILDING SECTION B - FOOTBALL STORAGE - A 10
SCALE: 1/8" = 1'-0"



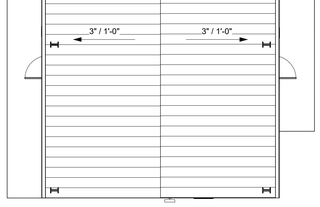
FOOTBALL PRESSBOX-A 9
SCALE: 1/4" = 1'-0"



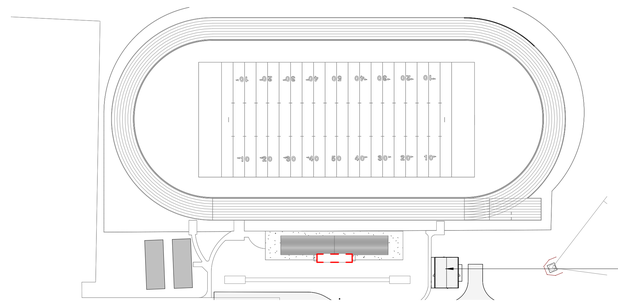
BASEBALL PRESSBOX- A 6
SCALE: 1/4" = 1'-0"



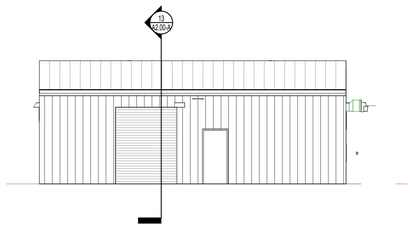
EAST ELEVATION - FOOTBALL STORAGE - A 8
SCALE: 1/8" = 1'-0"



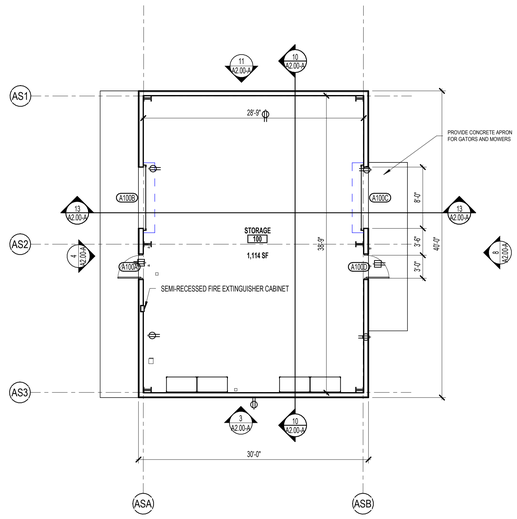
ROOF PLAN FOOTBALL STORAGE-A 7
SCALE: 1/8" = 1'-0"



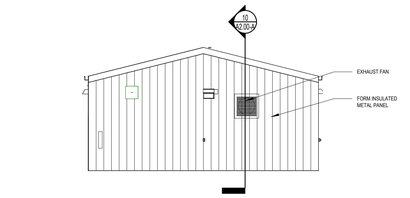
BUILDING KEY PLAN



WEST ELEVATION - FOOTBALL STORAGE - A 4
SCALE: 1/8" = 1'-0"



FOOTBALL/FIELD STORAGE-A 2
SCALE: 1/8" = 1'-0"



SOUTH ELEVATION - FOOTBALL STORAGE - A 3
SCALE: 1/8" = 1'-0"



SITE KEY PLAN
N.T.S

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-2" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS. TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- (AB) COLUMN GRID
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- 21 / A101 SIM — ENLARGED CALL OUT
- 101 — DOOR TAG
- EX — PARTITION TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN KEY NOTES:

TAG #	NOTE
1	NEW PRESSBOX WINDOWS

DEMOLITION KEY NOTES

TAG #	NOTE
A	DEMO EXISTING BASEBALL PRESSBOX WINDOWS
B	DEMO EXISTING FOOTBALL PRESSBOX WINDOWS

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498
STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CKP CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

A2.00-A
01 STORAGE FLOOR PLAN - A

AUSTIN HIGH SCHOOL

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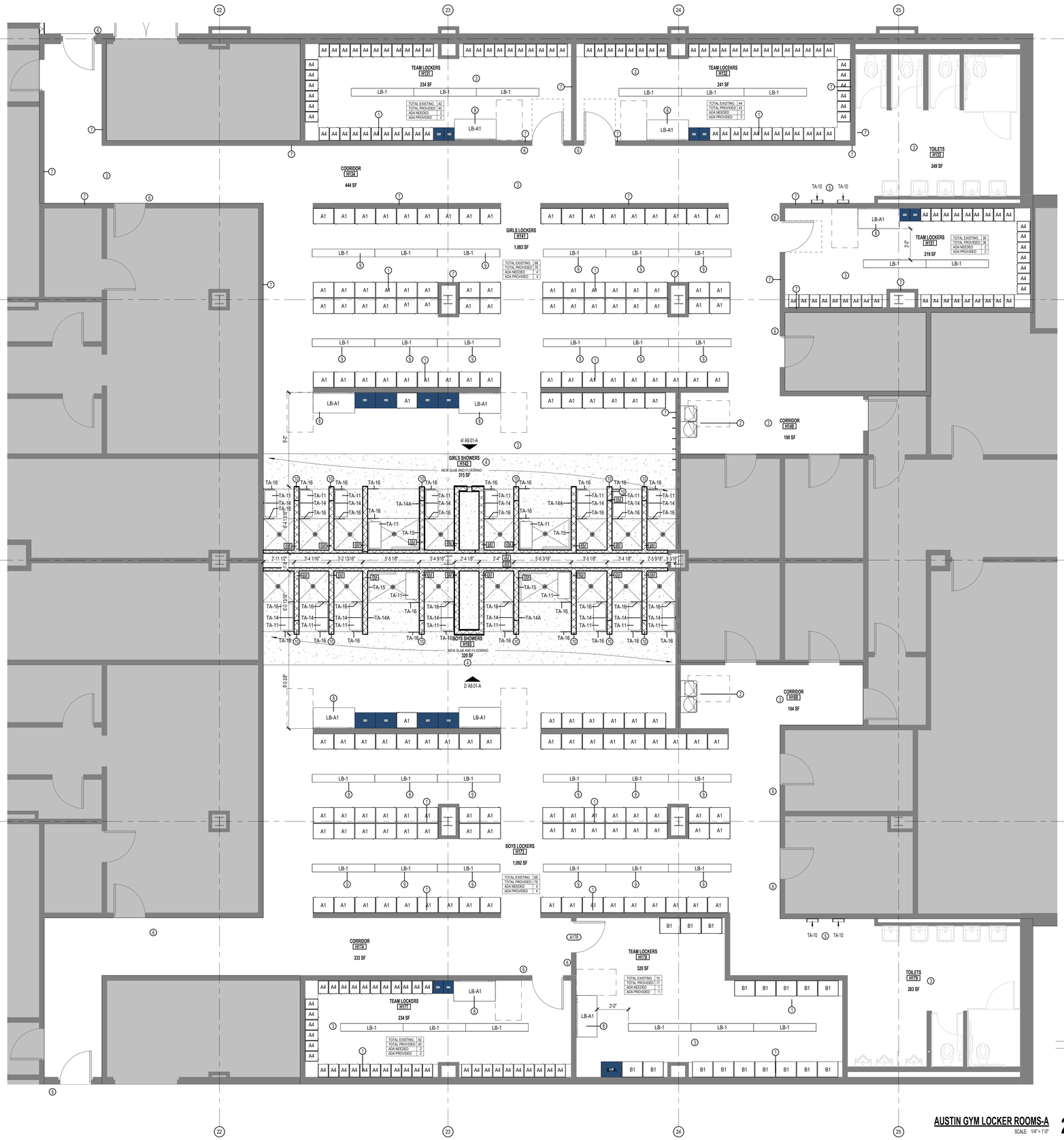
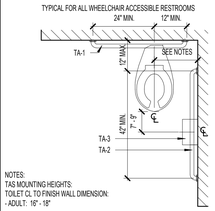
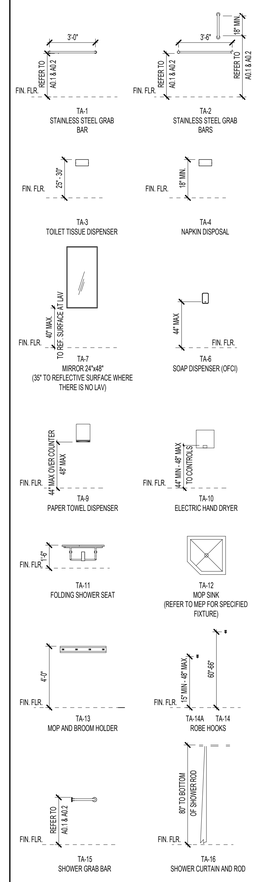


RESTROOM WHEELCHAIR ACCESS, TYPICAL



TYPICAL MOUNTING HEIGHTS, U.N.O.

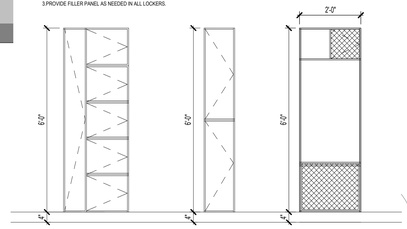


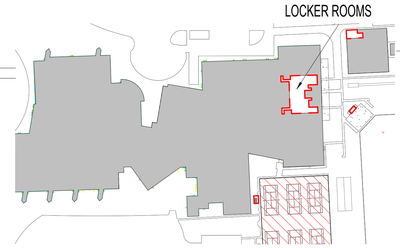
ENLARGED PLANS: GENERAL NOTES

1. ALL DIMENSIONS AT ENLARGED PLANS ARE TO OUTSIDE FACE OF GYP. BD. / FACE OF CMU/TILT WALL.

LOCKER SCHEDULE

1.PROVIDE SHOP APPLIED, BAKED EPOXY ENAMEL FINISH
2.REFER TO MATERIAL SCHEDULE FOR COLOR.
3.PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS.





FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- AB — COLUMN GRID
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- 21 / A101 SIM — ENLARGED CALL OUT
- 101 — DOOR TAG
- AX — PARTITION TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN KEY NOTES:

1. INSTALL NEW LOCKERS ON CONCRETE BASE. INSTALL CLOSER FILLER PANELS AT END WALLS AND CORNERS. REFER TO SPEC 10513 FOR ADDITIONAL INSTALLATION INSTRUCTIONS.
2. INSTALL WALL ELECTRONIC DRINKING FOUNTAIN WITH BOTTLE FILLER. PER MANUFACTURER'S INSTRUCTIONS. REFER TO PLUMBING DRAWINGS FOR FIXTURE TYPE AND CONNECT TO EXISTING UTILITIES. REFER TO ELECTRICAL DRAWINGS TO INSTALL NEW TAMPER RESISTANT RECEPTACLES. INSTALL HIGH/LO RECEPTACLES AT LOCATION AS PER MANUFACTURER'S INSTRUCTIONS.
3. INSTALL RESINOUS FLOORING AND INTEGRAL COVE BASE ACCORDING TO APPROVED MOCK-UP AND MANUFACTURER'S INSTRUCTIONS. PRIOR TO INSTALLATION SHOT-BLAST EXISTING SURFACES WITH AN APPARATUS THAT ABRADES THE CONCRETE SURFACE. REPAIR DAMAGED AND DETERIORATED CONCRETE ACCORDING TO RESINOUS FLOORING MANUFACTURER'S WRITTEN RECOMMENDATIONS. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROTECTING NEW FLOORING FROM CONSTRUCTION TRAFFIC.
4. INSTALL NEW TILE SHOWERS, ACCORDING TO APPROVED MOCKUPS ON EPOXY GROUT. REFER TO 093000 TILE SPEC FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND MOCKUP REQUIREMENTS.
5. INSTALL NEW 4" SLIM PROFILE SURFACE-MOUNTED AUTOMATIC HAND DRYER, ON CMU WALLS. ANCHOR DRYERS TO WALLS ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
6. INSTALL NEW ARCHITECTURAL SIGNAGE FOR ROOM IDENTIFICATION AT LOCATIONS NOTED ON DRAWINGS AND, TO BE INSTALLED AT ACCESSIBLE HEIGHTS AND TO COMPLY WITH TAS 703.
7. PREPARE AND PAINT ALL LOCKER ROOM CMU WALLS WITH HIGH PERFORMANCE EPOXY WITH BLOCK FILLERS ACCORDING TO 099000 PAINTING AND COATING. REFER TO ROOM FINISH SCHEDULE FOR ADDITIONAL FINISH INFORMATION.
8. INSTALL ALL NEW CMU WALLS AT 8'-0" UNLESS NOTED OTHERWISE. REFER TO STRUCTURAL DOCUMENTS FOR NON-LOAD BEARING WALLS BRACING AND REINFORCING STEEL. REQUEST INFORMATION FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND/OR REQUIREMENTS.
9. INSTALL NEW ADA BENCH WITH HARD WOOD SEAT ON METAL PEDESTALS AT LOCATIONS NOTED ON DRAWINGS. PROVIDE BENCHES BY SAME MANUFACTURER AS THE METAL LOCKERS. USE 3/8"X 2 1/2" METAL EXPANSION ANCHORS PER MANUFACTURER'S INSTRUCTIONS.
10. INSTALL NON - ADA BENCH WITH HARD WOOD SEAT AT LOCATIONS NOTED ON DRAWINGS BY SAME MANUFACTURER AS METAL LOCKERS. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
11. INSTALL NEW 6" CMU LOW-WALL PARTITION, WITH CERAMIC TILE ON ALL EXPOSED SURFACES INCLUDING PARTITION EXPOSED TOPS.

SPECIALTY EQUIPMENT

TAG	EQUIPMENT
A1	LOCKER - 24" W X 18" D X 72" H
A4	LOCKER - 12" W X 18" D X 72" H
B1	LOCKER - 24" W X 18" D X 72" H
LB-1	LOCKER BENCH - 72" L X 15" W
LB-2	LOCKER BENCH - 96" L X 15" W
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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100% CD

A2.01-A

01 GYM LOCKERS FLOOR PLAN - A

AUSTIN HIGH SCHOOL

AUSTIN GYM LOCKER ROOMS-A 2
SCALE: 1/4" = 1'-0"

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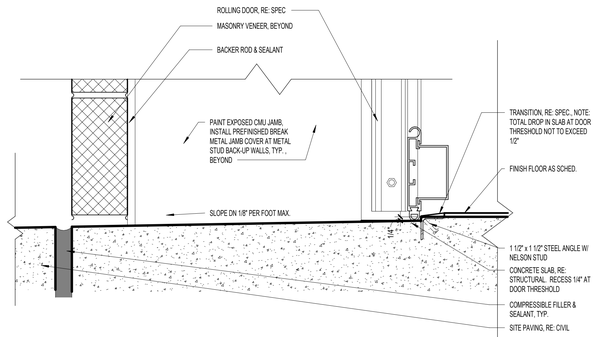
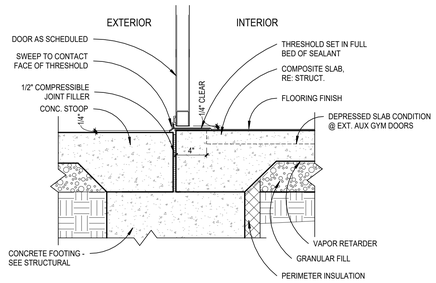


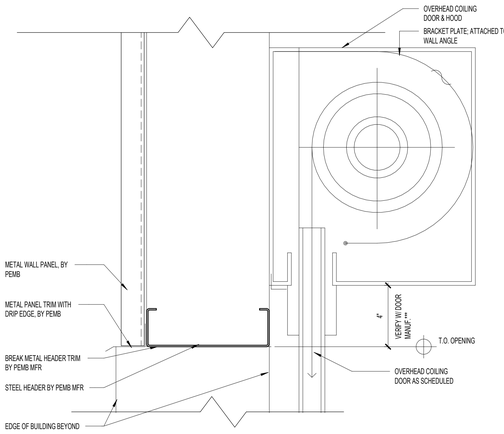
EXT. OH. THRESHOLD DETAIL 15

SCALE: 3" = 1'-0"



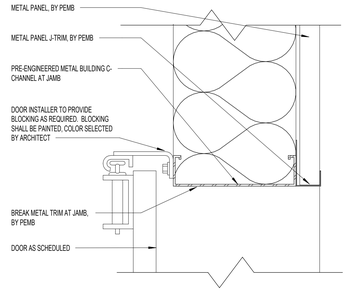
EXT. DOOR THRESHOLD 14

SCALE: 1 1/2" = 1'-0"



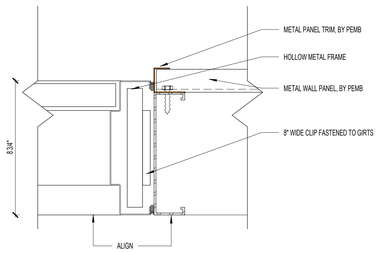
ROLL-UP DOOR HEAD - PEMB 9

SCALE: 3" = 1'-0"



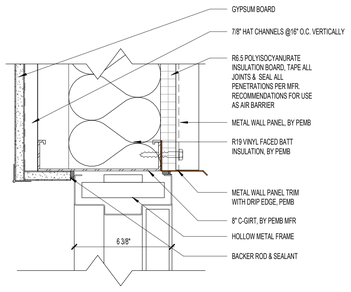
OVERHEAD DOOR JAMB - PEMB 8

SCALE: 3" = 1'-0"



HM JAMB - UNINSULATED PEMB 13

SCALE: 3" = 1'-0"



HM HEAD - INSULATED PEMB 12

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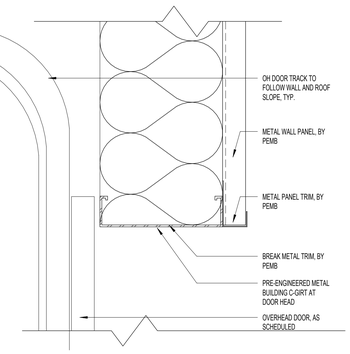
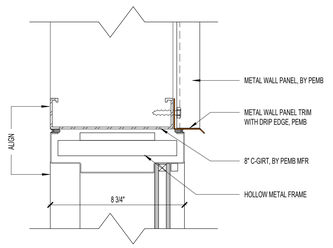


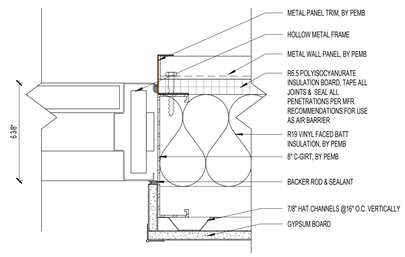
OVERHEAD DOOR HEAD - PEMB 7

SCALE: 3" = 1'-0"



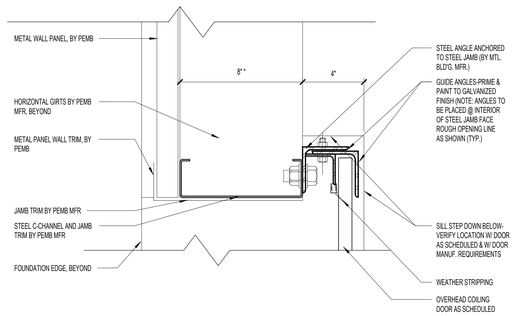
HM HEAD - UNINSULATED PEMB 6

SCALE: 3" = 1'-0"



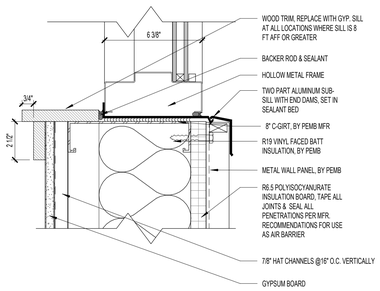
HM JAMB - INSULATED PEMB 11

SCALE: 3" = 1'-0"



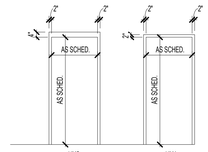
ROLL-UP DOOR JAMB - PEMB 10

SCALE: 3" = 1'-0"



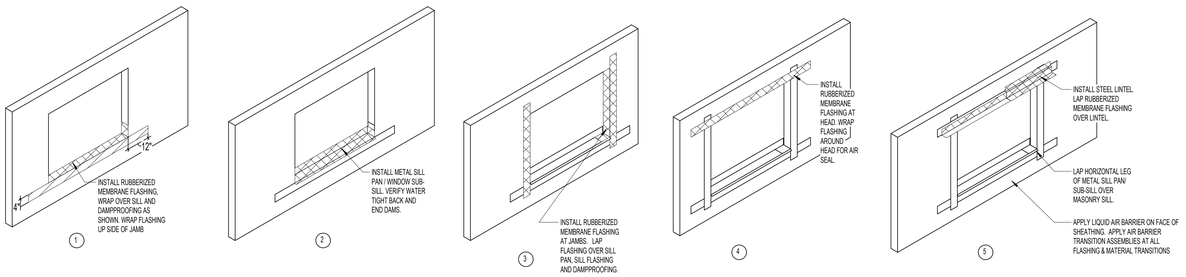
HM SILL - INSULATED PEMB 5

SCALE: 3" = 1'-0"



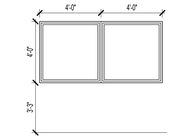
HOLLOW METAL FRAME TYPES 4

SCALE: 1/4" = 1'-0"



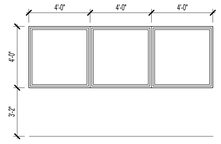
WINDOW FLASHING SEQUENCE 3

SCALE: 3/8" = 1'-0"



BASEBALL PRESS BOX WINDOWS 2

SCALE: 1/4" = 1'-0"



FOOTBALL PRESSBOX WINDOWS 1

SCALE: 1/4" = 1'-0"

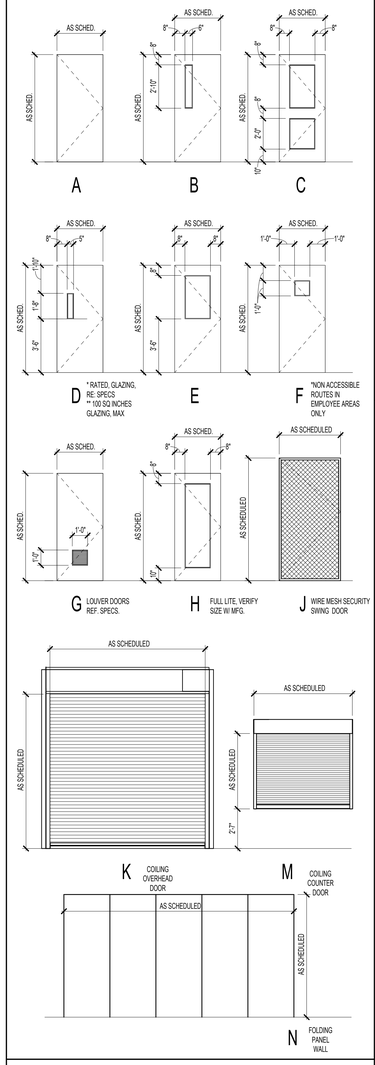
DOOR SCHEDULE

Level	BUILDING	NUMBER	PANEL PAIR	WIDTH	PANEL HEIGHT	PANEL TYPE	PANEL MATERIAL	FRAME TYPE	FRAME MATERIAL	FIRE RATING	HARDWARE	DETAILS HEAD	DETAILS JAMB	DETAILS THRESHOLD	COMMENTS
STORAGE															
Level 01	STORAGE	A100A		3'-0"	7'-0"	A	HM	HM1	HM		205	12/A8.00-A	11/A8.00-A	14/A8.00-A	
Level 01	STORAGE	A100B		8'-0"	10'-0"	K	GALV. STL.	-	GALV. STL.		001	7/A8.00-A	8/A8.00-A	15/A8.00-A	INSULATED OVERHEAD COILING DOOR
Level 01	STORAGE	A100C		8'-0"	10'-0"	K	GALV. STL.	-	GALV. STL.		001	7/A8.00-A	8/A8.00-A	15/A8.00-A	INSULATED OVERHEAD COILING DOOR
Level 01	STORAGE	A100D		3'-0"	7'-0"	A	HM	HM1	HM		205	12/A8.00-A	11/A8.00-A	14/A8.00-A	

DOOR SCHEDULE GENERAL NOTES

1. REFER TO THE SPECIFICATIONS FOR HARDWARE DESCRIPTIONS
2. REF. SPECIFICATIONS FOR GLAZING TYPES
3. ALL DOORS IN SMOKE RESISTANT PARTITIONS TO HAVE POSITIVE LATCHING AND BE SMOKE TIGHT (ST)
4. ALL DOORS TO HAVE BOXED HEADERS UNLESS STEEL CHANNELS ARE INDICATED IN THE COMMENT COLUMN OF THE DOOR SCHEDULE OR UNLESS OTHERWISE INDICATED BY HEAD DETAIL
5. ALL CLOSERS TO BE LOCATED ON THE ROOM SIDE OF THE DOOR WHERE INSTALLED AT CORRIDORS. IN NON CORRIDORS, CLOSERS TO BE INSTALLED AT THE ROOM SIDE FOR THE ROOM BEING SERVED BY THE OPENER
6. ALL FIRE RATINGS NOTED IN MINUTES

DOOR PANEL TYPES



DOOR SCHEDULE COMMENTS

MODIFY/DELETE ITEMS AS NEEDED

1. PANIC HARDWARE
2. VACANT/OCCUPIED LIGHT OVER DOOR
3. ADA DOOR OPERATOR
4. PACKAGED DOOR ASSEMBLY, RE: SPECS
5. AUTOMATIC CARD READER AT DOOR, RE: SECURITY
6. MAGNETIC HOLD OPEN DEVICE TIED TO FIRE ALARM
7. MAGNETIC HOLD OPEN DEVICE - CONVENIENCE
8. MAGNETIC HOLD OPEN DEVICE TIED TO SECURITY
9. REMOTE ACTIVATED LATCH
10. BALLISTISTICS FILM APPLIED TO ALL GLAZING

DOOR SCHEDULE ABREVIATIONS

MODIFY/DELETE ITEMS AS NEEDED

AL: ALUMINUM	RM: REFER TO MANUFACTURER	MIN: MINUTES
HM: HOLLOW METAL	ST: SMOKE TIGHT	HW: HARDWARE
MTL: METAL	SCW: SOLID CORE WOOD	
CL: CHAIN LINK	FBC: POLYMER CORE	

pfluger
office: 512.476.4040 | fax: 512.476.4289
205 E. Riverside Drive
Austin, Texas 78704
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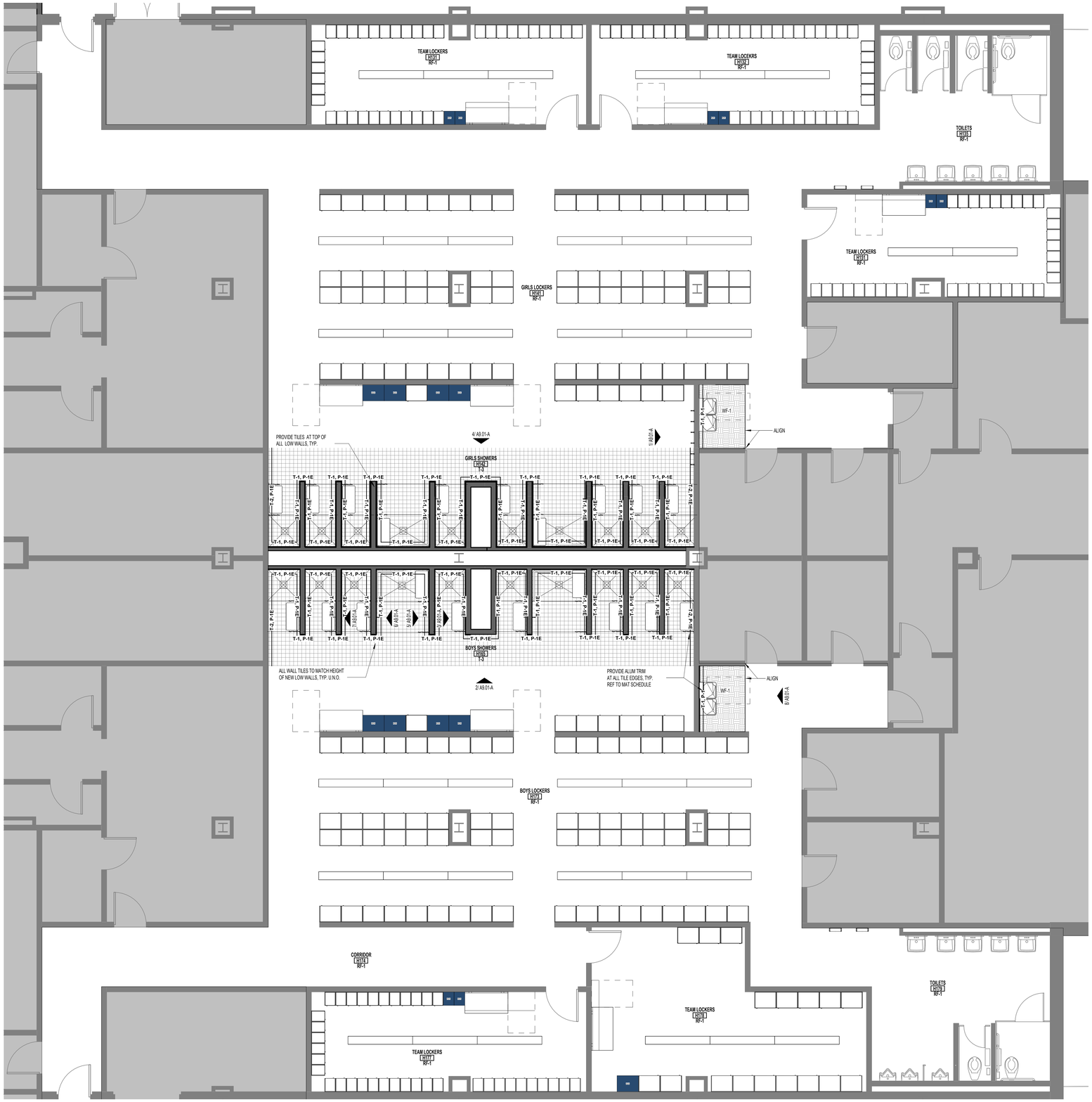
A8.00-A
DOOR SCHEDULE

AUSTIN HIGH SCHOOL



GYM LOCKERS FINISH FLOOR PLAN - A

SCALE: 1/4" = 1'-0"

2

MATERIAL FINISH LEGEND

T-3 (PORCELAIN TILE)

RF-1 (RESINOUS FLOORING)

PROVIDE CONTROL JOINTS (C.J.) AS SHOWN & AT COLOR CHANGES. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS

SYMBOLS

MW	MARKER WALL - DRY ERASE WALL-COVERING
CJ	CONTROL JOINT*
EJ	EXPANSION JOINT
CG	CORNER GUARD
HLB	HORIZONTAL LOUVER BLINDS
RS	ROLLER SHADES

CPT / VCT — FLOOR FINISH TRANSITION

INSTALL DIRECTION

ROOM 100 PCON — FLOOR FINISH

* PROVIDE CONTROL JOINTS AS SHOWN. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS. REFER TO STRUCTURAL DWGS FOR DIMENSIONS. AT COLOR TRANSITIONS, PROVIDE SCORE LINE U.N.O.

** REFER TO ROOM FINISH SCHEDULE FOR FULL LIST OF FINISH WITHIN ROOM

WALL FINISH TYPES

P-1	PAINT
P-1E	EPOXY PAINT
T-2	WALL TILE



RENOVATE GYM LOCKER ROOMS

BUILDING KEY PLAN

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498

STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAMS
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

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A9.00-A

FINISH FLOOR PLAN
GYM LOCKERS

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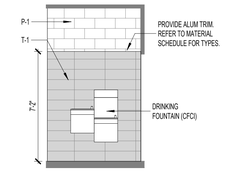
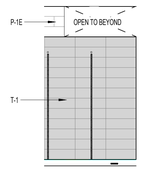
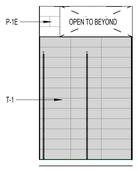


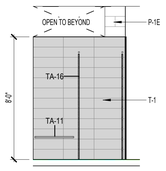
DRINKING FOUNTAIN, TYP 8
SCALE: 1/4" = 1'-0"



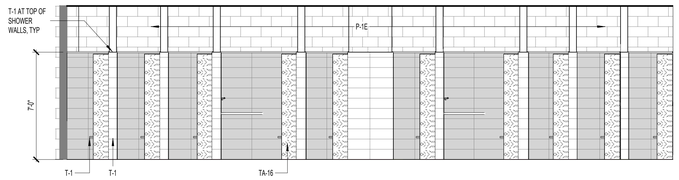
SHOWERS 7
SCALE: 1/4" = 1'-0"



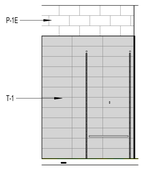
SHOWERS 6
SCALE: 1/4" = 1'-0"



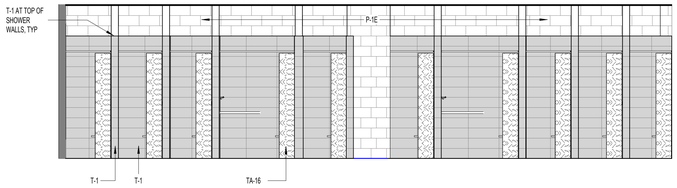
SHOWERS 5
SCALE: 1/4" = 1'-0"



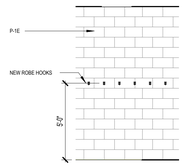
GIRLS SHOWERS 4
SCALE: 1/4" = 1'-0"



SHOWERS 3
SCALE: 1/4" = 1'-0"

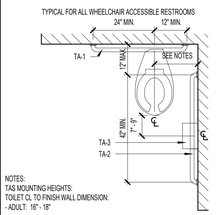


BOYS SHOWERS 2
SCALE: 1/4" = 1'-0"



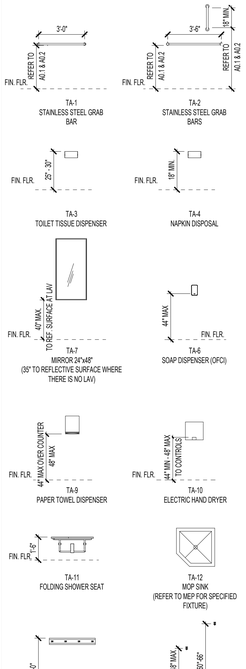
INTERIOR ELEVATION 1
SCALE: 1/4" = 1'-0"

RESTROOM WHEELCHAIR ACCESS, TYPICAL



NOTES:
TAS MOUNTING HEIGHTS:
TOILET CL TO FINISH WALL DIMENSION:
- ADULT: 16" - 18"

TYPICAL MOUNTING HEIGHTS, U.N.O.



NOTE: DIMENSIONS SHOWN ARE BASED ON ADULT MOUNTING HEIGHTS. REFER TO AGE BASED DIMENSIONAL INFORMATION TABLE FOR CHILDREN LOCATED ON SHEET G0.03-A FOR MOUNTING HEIGHTS FOR OTHER AGE RANGES

ENLARGED PLANS: GENERAL NOTES

1. ALL DIMENSIONS AT ENLARGED PLANS ARE TO OUTSIDE FACE OF GYP. BD. / FACE OF CMU/TILT WALL.

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2 Greenway Plaza, Suite 460
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A9.01-A
INTERIOR ELEVATIONS
GYM LOCKERS

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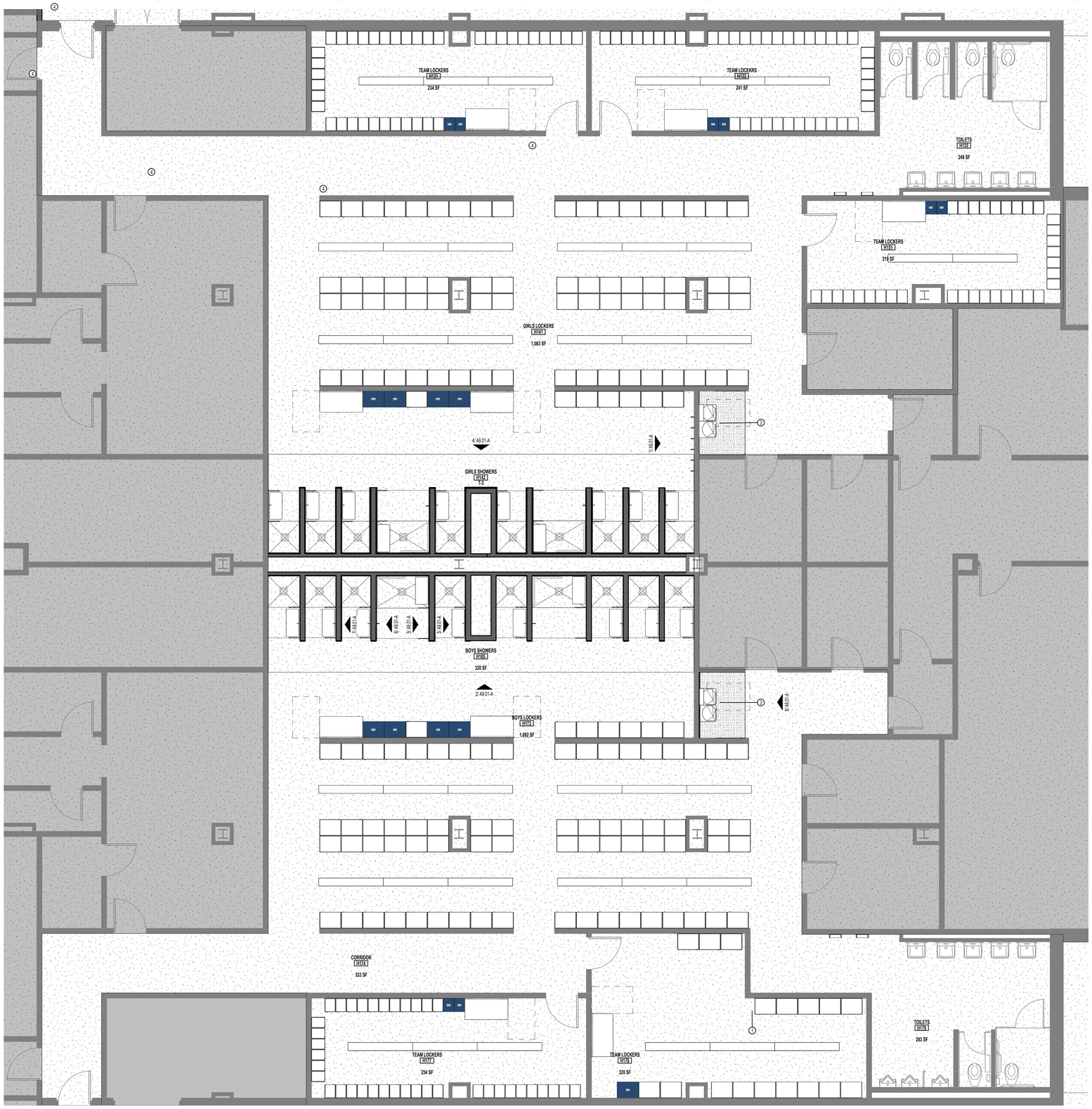


GYM LOCKERS FINISH FLOOR PLAN - A 2

SCALE: 1/4" = 1'-0"

ROOM SIGNAGE SCHEDULE			
CONSTRUCTION		SIGNAGE	
ROOM NO.	LOCATION	ROOM NO.	NAME/DESCRIPTION	TYPE
H131	TEAM LOCKERS			
H132	TEAM LOCEKRS			
H134	CORRIDOR			
H135	TOILETS			
H141	GIRLS LOCKERS			
H142	GIRLS SHOWERS			
H149	CORRIDOR			
H151	TEAM LOCKERS			
H165	BOYS SHOWERS			
H169	CORRIDOR			
H173	BOYS LOCKERS			
H174	CORRIDOR			
H177	TEAM LOCKERS			
H178	TEAM LOCKERS			
H179	TOILETS			



BUILDING KEY PLAN

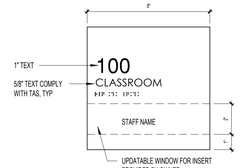
GENERAL NOTES

BASED ON ASI MODULEX ARCHITECTURAL SIGNAGE SOLUTIONS
WWW.ASIMODULEX.COM
1-800-274-7732

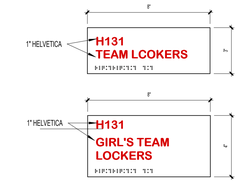
"INTOUCH," ADA READY 1/8" THICK CLEAR ACRYLIC SIGN FACE W/ COLOR ON BACK
FONT STYLE TO BE "SANS SERIF"
BACKGROUND COLOR TO BE DETERMINED AT A LATER DATE.
RAISED COPY TO BE WHITE.

ARCHITECT TO COORDINATE WITH OWNER FINAL NAMES AND NUMBERS FOR EACH ROOM.
SIGNAGE AT EXTERIOR WALLS ARE DESIGNATED WITH '*' AFTER SIGNAGE TYPE.

ADA SIGNAGE

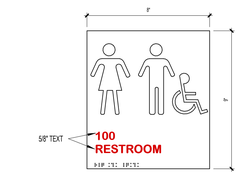


SIGN TYPE "A"

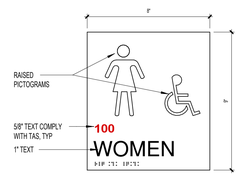


SIGN TYP "B" WHERE TEXT IS TOO LONG FOR SINGLE LINE

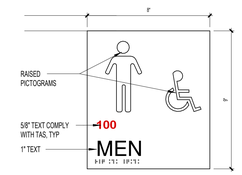
SIGN TYPE "B"



SIGN TYPE "C"



SIGN TYPE "D1"



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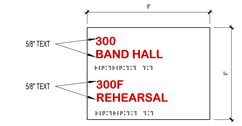

SIGN TYP "F" WHERE THERE ARE MULTIPLE ROOMS PER SIGN

SIGN TYPE "F"

NOTE: COMPLY WITH TEXAS ACCESSIBILITY STANDARDS (TAS) FOR SIGN DESIGN, MOUNTING HEIGHTS AND LOCATIONS. FONT SHOULD BE HELVETICA

INTERIOR SIGNAGE SCHEDULE

QUANTITY	TYPE	SIZE
102*	A	8" X 8"
206*	B	8" X 3" 8" X 4"
9	C	8" X 9"
13	D1	8" X 9"
12	D2	8" X 9"
3*	F	8" X 6"

ARCHITECT TO COORDINATE WITH OWNER FINAL NAMES AND NUMBERS FOR EACH ROOM.
*TYPES A, B & F INCLUDE 3 EXTRA SIGNS TO USE IF NECESSARY.

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2 Greenway Plaza, Suite 460
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REGISTERED ARCHITECT
MICHAEL ADAME
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STATE OF TEXAS

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A9.02-A
SIGNAGE FLOOR PLAN

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ROOM FINISH SCHEDULE - STORAGE BUILDING								
ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	COMMENTS
100	STORAGE	SCONC-1	RB-1	P-1, PLYWOOD PANEL	P-1, PLYWOOD PANEL	P-1, PLYWOOD PANEL	P-1, PLYWOOD PANEL	PLYWOOD PANEL 8' HEIGHT

ROOM FINISH SCHEDULE - GYM LOCKER ROOMS								
ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	REMARKS
H131	TEAM LOCKERS	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H132	TEAM LOCEKRS	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H135	TOILETS	RF-1	RFB-1	P-1E	P-1E	P-1E	P-1E	
H141	GIRLS LOCKERS	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H142	GIRLS SHOWERS	T-3	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	REF TO FINISH PLAN
H151	TEAM LOCKERS	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H165	BOYS SHOWERS	T-3	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	REF TO FINISH PLAN
H173	BOYS LOCKERS	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H174	CORRIDOR	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H177	TEAM LOCKERS	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H178	TEAM LOCKERS	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H179	TOILETS	RF-1	RFB-1	P-1E	P-1E	P-1E	P-1E	

MATERIAL SCHEDULE						
MARK	MATERIAL	MANUFACTURER	STYLE	COLOR	SPECS	REMARKS
01 FLOOR FINISH						
RF-1	RESINOUS FLOORING	STONHARD	STONSHIELD SLT	CUSTOM (GRAY BASE & ACCENT SCHOOL COLOR)		LOCKERS FLOORING AND BASE
SCONC-1	SEALED CONCRETE					NEW STORAGE BUILDING
T-3	PORCELAIN TILE	AMERICAN OLEAN	UNGLAZED MOSAICS	STORM GRAY	2"X2" MOSAIC	SHOWERS
WF-1	WALK-OFF CARPET	TARKETT	ABRASIVE ACTION II		POWERBOND, ROLL	AT DRINKING FOUNTAIN
02 BASE						
RFB-1	RESINOUS FLOORING BASE	STONHARD	STONSHIELD SLT	CUSTOM (GRAY BASE & ACCENT SCHOOL COLOR)	COVE BASE 4"	AT WALLS AND LOCKER BASE
TB-1	TILE BASE	AMERICAN OLEAN	UNGLAZED MOSAICS	STORM GRAY	COVE BASE 4"	SHOWERS
03 WALL FINISH						
P-1	PAINT	SHERWIN WILLIAMS		SW 9166 DRIFT OF MIST		FIELD PAINT
P-1E	EPOXY PAINT	SHERWIN WILLIAMS		MATCH FIELD PAINT, U.N.O.		EPOXY PAINT AT WET AREAS
P-2	PAINT	SHERWIN WILLIAMS		SW 6868 REAL RED		RED ACCENT SCHOOL COLOR
T-1	WALL TILE	AMERICAN OLEAN	COLOR STORY WALL	CALM	8"X24", GLOSSY	SHOWERS
T-2	WALL TILE	AMERICAN OLEAN	COLOR STORY WALL	SCARLET	8"X24", GLOSSY	SHOWERS
04 CEILING						
GYP-1	GYPSUM CEILING					SHOWERS
05 TRANSITION						
TR-1	ALUMINUM TRIM	SCHLUTER		ANODIZED	ADA COMPLIANT	RESINOUS FLOORING TO EXISTING FLOOR
TR-2	ALUMINUM TRIM	SCHLUTER	JOLLY	ANODIZED		AT TILE EDGES AND OUTSIDE CORNERS. PROVIDE END CAP
TR-3	ALUMINUM TRIM	SCHLUTER	RENO-TK	ANODIZED	ADA COMPLIANT	RESINOUS TO WF
TR-4	ALUMINUM TRIM	SCHLUTER	RENO-U	ANODIZED	ADA COMPLIANT	RESINOUS TO TILE
06 EQUIPMENT						
BENCHES				BLACK TOPS & STEEL PEDESTALS		AT LOCKER ROOMS
LOCKERS		LIST INDUSTRIES		721 RELAY RED		REF TO LOCKERS SCHEDULE
07 MISC FINISHES						
CURT-1	SHOWER CURTAIN	KR SPECIALITIES		WHITE	REF SPECS	AT SHOWERS
HOOKS	SHOWER CURTAIN HOOK	BRADLEY			STAINLESS STEEL	AT SHOWERS
ROD	SHOWER CURTAIN ROD	BRADLEY			STAINLESS STEEL	AT SHOWERS
08 EXTERIOR						
MP-1	INSULATED METAL WALL PANEL	RED DOT BUILDINGS	SIGNATURE 300	SLATE GRAY		PEMB
MP-2	INSULATED METAL WALL PANEL	RED DOT BUILDINGS	SIGNATURE 300	BRITE RED	ACCENT COLOR	PEMB

pfluger
office: 713.222.1141 | fax: 713.222.1174
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A9.03-A
MATERIAL & ROOM FINISH SCHEDULE

AUSTIN HIGH SCHOOL

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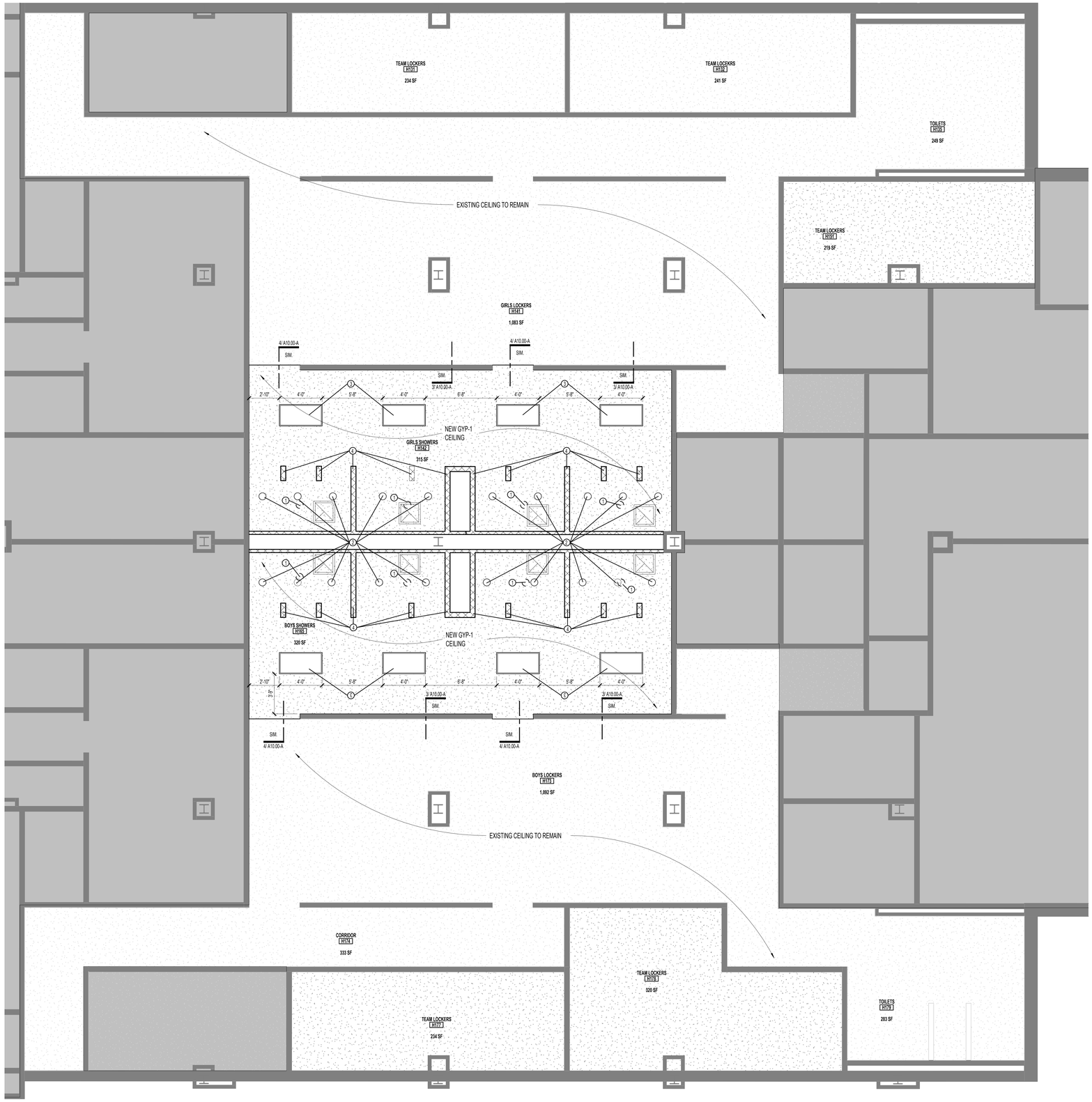


REFLECTED CEILING PLAN LEGEND

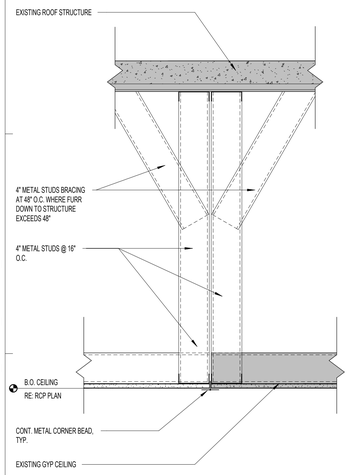
- 2' X 4' LED FIXTURE (RECESSED)
- RECESSED CAN FIXTURE
- CEILING FAN
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- SUSPENDED GYPSUM BOARD
- SUSPENDED CEILING SYSTEM WITH LAY-IN ACOUSTICAL PANELS
- SUSPENDED CEILING SYSTEM WITH LAY-IN VINYL FACED PANELS
- EXPOSED STRUCTURE

GENERAL NOTES

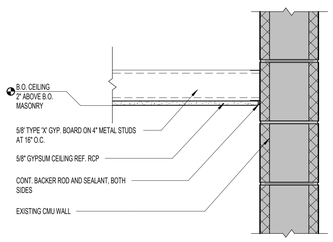
1. ALL CEILINGS TO BE 9'-0" UNLESS OTHERWISE NOTED.
2. REFER TO INTERIOR AND EXTERIOR ELEVATIONS FOR LIGHT FIXTURE MOUNTING HEIGHTS.
3. MEP & ARCHITECT TO REVIEW AND APPROVE SPRINKLER KEYOUT AND HEAD LOCATIONS PRIOR TO CONSTRUCTION. SUBMIT PLAN USING ARCHITECT'S RCPS.
4. AT AREAS WHERE CEILING IS EXPOSED - EXPOSED CONDUIT TO BE LOCATED NEATLY. ARCHITECT TO APPROVE LAYOUTS.
5. COORDINATE CEILING ACCESS PANELS WITH MEP CONTRACTOR. LOCATE WHERE NECESSARY.
6. PROJECTOR MOUNTS TO BE LOCATED BETWEEN 10'-0" TO 13'-0" FROM WALL, UNO.
8. REFER TO A9.01 FOR MORE INFO ON SIGNAGE TYPES.

FLOOR PLAN NOTES BY NUMBER

TAG#	NOTE
1	SHOWER TOWER TO BE CAPPED ABOVE CEILING
2	NEW RECESSED CAN LIGHT REF. MEP
3	NEW 2X4 RECESSED LIGHTING FIXTURE REF. MEP
4	NEW CMU BLOCK WALL. ENSURE WALL GOES TO DECK. GC RESPONSIBLE TO RELOCATE ALL MEP /IT INFRASTRUCTURE ABOVE CEILING CONFLICTING WITH NEW CMU PARTITIONS AND STRUCTURE FROM FLOOR TO DECK ABOVE

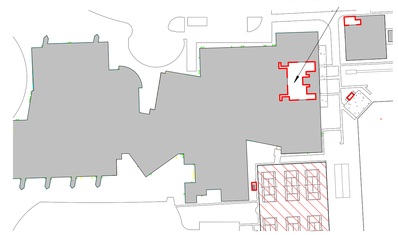


GYP CEILING TRANSITION 4
SCALE: 1 1/2" = 1'-0"



NEW GYP TO CMU CEILING DETAIL 3
SCALE: 1 1/2" = 1'-0"

REFLECTED CEILING PANEL GYM LOCKERS 1
SCALE: 1/4" = 1'-0"



BUILDING KEY PLAN
N.T.S

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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

100% CD

A10.00-A
01 REFLECTED CEILING PLAN

AUSTIN HIGH SCHOOL

Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_ARCH_AUSTIN_FBISD ATHLETIC RENOVATIONS BP012-A_R25.rvt
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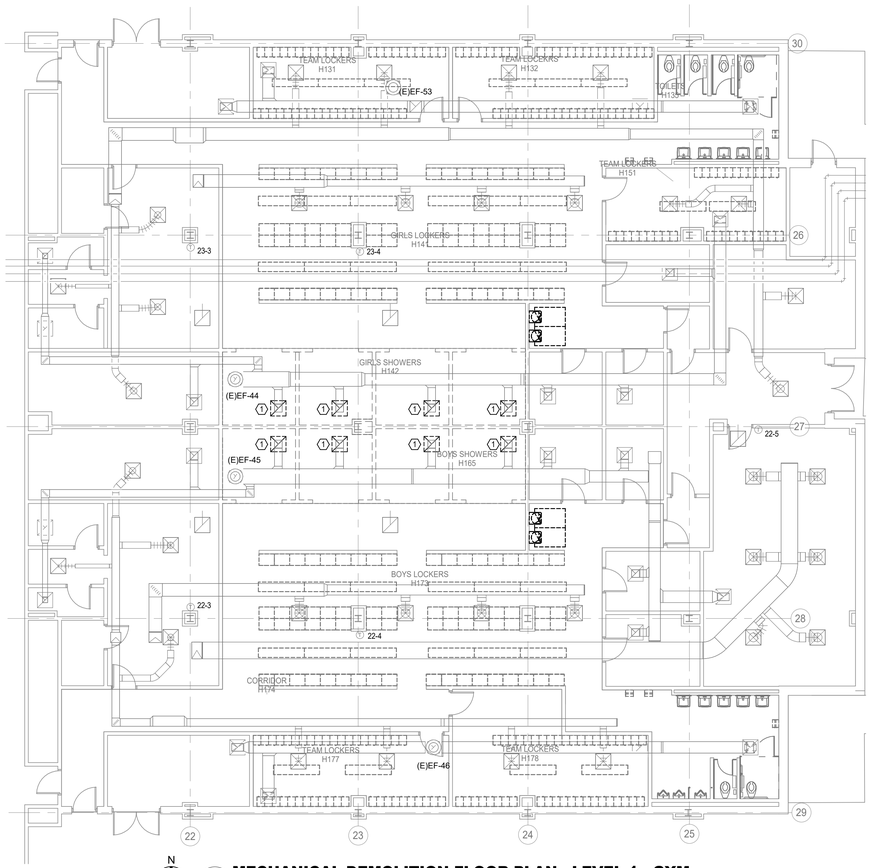
MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, DUST COLLECTORS, AND AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

MECHANICAL DEMOLITION KEYED NOTES

1 EXHAUST DIFFUSER SHALL BE REMOVED.

SYMBOL LEGEND	
⊕	POINT OF CONNECTION FROM NEW TO EXISTING
▭	ITEM TO REMAIN
▭	ITEM TO BE REMOVED



1 **MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - GYM**
Scale: 1/8" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1177
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498
STEPHEN F. AUSTIN HIGH SCHOOL

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Sugarland, TX 77479



PROJECT NO. 25-006
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DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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M0.01-A
MECHANICAL
DEMOLITION FLOOR
PLAN - LEVEL 1 - GYM
AUSTIN HIGH SCHOOL

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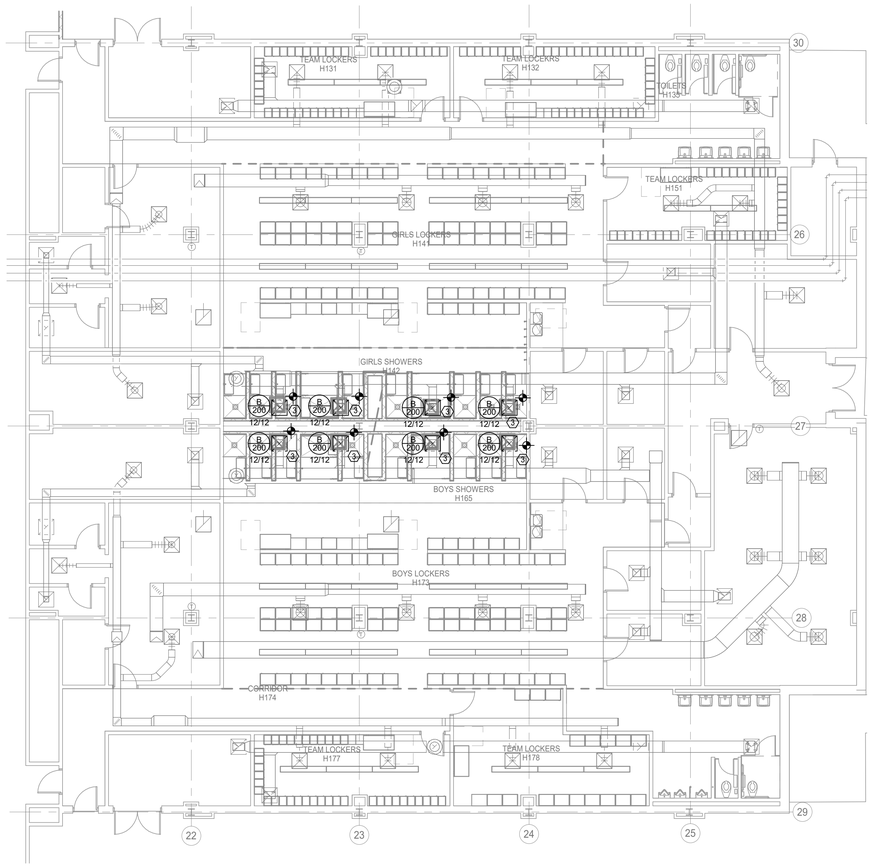
MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR), UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. MOTORIZED DAMPER SHALL BE ON SAME 120V CIRCUIT AS ASSOCIATED EXHAUST FAN. REEFER TO ELECTRICAL
2. MOTORIZED DAMPER TO BE INTERLOCKED WITH EF-1. INTERLOCK SHALL OPERATE AS FOLLOWS, WHEN EF-1 IS ENERGIZED THE DAMPER SHALL OPEN, WHEN EF-1 IS DE-ENERGIZED THE DAMPER SHALL CLOSE.
3. REPLACE EXHAUST AIR GRILLE AND CONNECT TO EXISTING DUCTWORK. ADD NEW EXHAUST HARD DUCTWORK IF NEEDED TO FINAL CONNECTION.
4. VERIFY SERVICE CLEARANCES WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADE NOT TO OBSTRUCT.
5. PROVIDE 18"X 18" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .87 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT.COORDINATE FINAL LOCATION WITH ARCHITECT.
6. PROVIDE 18"X 18" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT INTAKE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .87 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. COORDINATE FINAL LOCATION WITH ARCHITECT.



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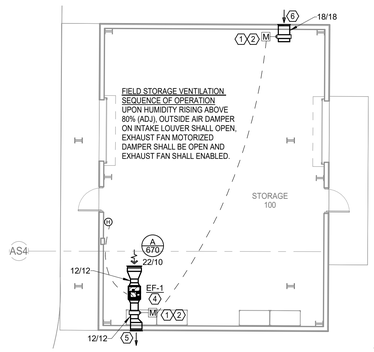
1 **MECHANICAL FLOOR PLAN - LEVEL 1 - GYM**
Scale: 1/8" = 1'-0"



N

2 **MECHANICAL FLOOR PLAN - LEVEL 1 - STORAGE**
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2 Greenway Plaza, Suite 460
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BRADLEY KALMANS
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M2.01-A
MECHANICAL FLOOR PLAN - LEVEL 1

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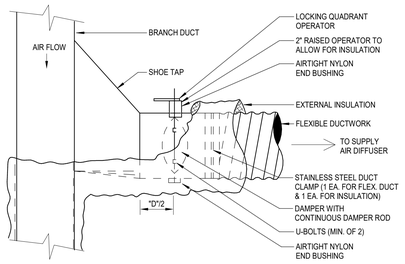
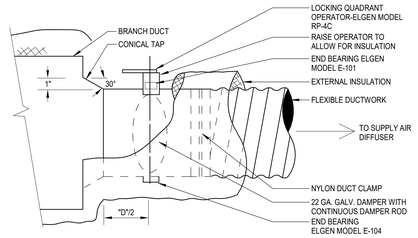
SYMBOL LEGEND

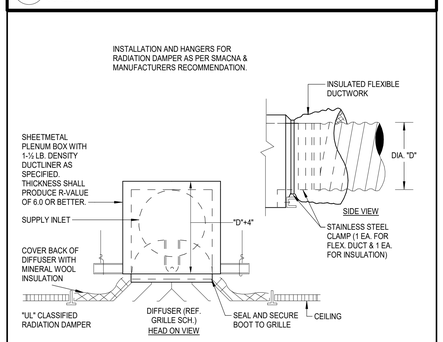
SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
GENERAL	
(#)	KEY NOTE TAG
/A\	REVISION TAG
	NEW EQUIPMENT
DUCTWORK	
	SUPPLY AIR DUCTWORK
	RETURN AIR AND OUTSIDE AIR DUCTWORK
	EXHAUST AIR DUCTWORK
	FLEXIBLE DUCTWORK
	SUPPLY AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	RETURN AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	EXHAUST AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	FIRE DAMPER (VERTICAL)
	FIRE DAMPER (HORIZONTAL)
SD	SMOKE DAMPER (VERTICAL)
SD	SMOKE DAMPER (HORIZONTAL)
FSD	COMBINATION FIRE & SMOKE DAMPER (VERTICAL)
FSD	COMBINATION FIRE & SMOKE DAMPER (HORIZONTAL)
	MANUAL BALANCING DAMPER (SEE DAMPER SCHEDULE)
M	MOTORIZED DAMPER (SEE DAMPER SCHEDULE)
SENSORS	
T	THERMOSTAT AND TEMPERATURE SENSOR
H	HUMIDISTAT
SD	SMOKE DETECTOR
HD	HEAT DETECTOR
AIR DEVICES	
	GRILLE SIZE TAG (REFER TO GRILLE SIZE LEGEND)
	SUPPLY AIR GRILLE WITH FOUR-WAY THROW
	SUPPLY AIR GRILLE WITH THREE-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY CORNER THROW
	SUPPLY AIR GRILLE WITH ONE-WAY THROW
	RETURN AIR GRILLE
	RETURN AIR GRILLE WITH SOUND BOOT
	EXHAUST AIR GRILLE
	SUPPLY AIR SIDEWALL GRILLE
	RETURN AIR SIDEWALL GRILLE
20X12	RETURN AIR OPENING ABOVE CEILING
SUBSCRIPTS AND ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
BBS	BELOW BOTTOM OF STRUCTURE
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
CA	COMBUSTION AIR
CFM	CUBIC FEET PER MINUTE
EA	EXHAUST AIR
FPM	FEET PER MINUTE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR



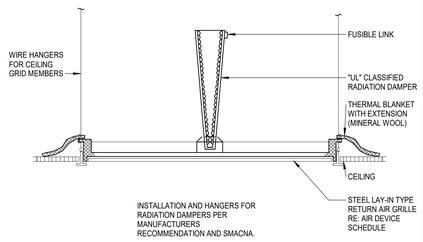
4 FLEXIBLE DUCT TAP - SHOE
SCALE: NONE



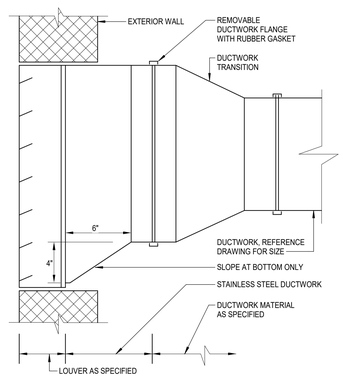
3 FLEXIBLE DUCT TAP - CONICAL
SCALE: NONE



2 "UL" CLASSIFIED CEILING RADIATION DAMPER WITH ADAPTER FOR FLEXIBLE DUCT
SCALE: NONE

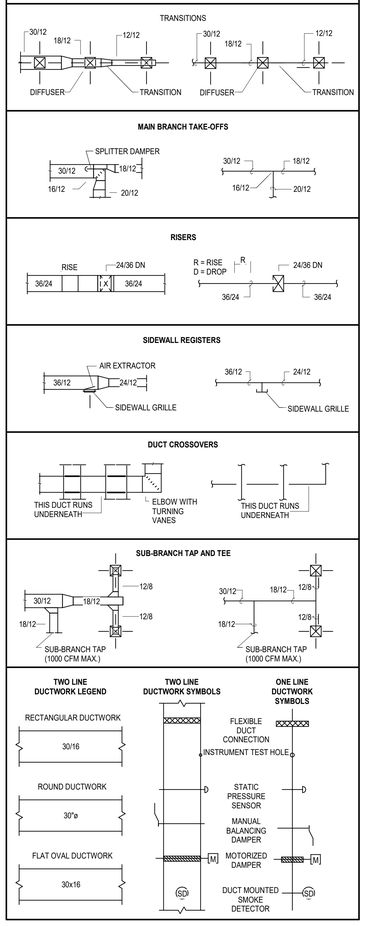


5 UL CLASSIFIED RADIATION DAMPER AT RETURN AIR GRILLE
SCALE: NONE



1 DUCTWORK AT LOUVER
SCALE: NONE

DUCTWORK SYMBOLS LEGEND



GRILLE

MARK	SERVICE	TYPE	DAMPER	CONSTRUCTION MATERIAL	FINISH COLOR	MANUFACTURER	MODEL NUMBER	DESCRIPTION
A	EXHAUST AIR	GRILLE	-	STEEL	-	TITUS	350RL	DOUBLE DEFLECTION SIDEWALL GRILLE WITH HORIZONTAL FRONT BARS. SURFACE MOUNTED (1)
B	EXHAUST AIR	GRILLE	UL	ALUMINUM	-	TITUS	PAR-AA	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" OR 12"X12" FACE. PERFORATED FACE.

GENERAL NOTES:
1. DAMPERS NOTED AS U.L. SHALLBE A 'U.L.' CLASSIFIED CEILING RADIATION DAMPER WITH THERMAL BLANKET.
2. COORDINATE FINAL AIR DEVICE LOCATION AND FINISH COLOR WITH ARCHITECT.

REMARKS:
1. N/A

DAMPER

MARK	ACTUATOR	DUTY	BLADE ACTION	MANUFACTURER	MODEL NUMBER	REMARKS
D-1	MANUAL BALANCING	UNDER 9" WIDE	N/A	N/A	N/A	SEE SMACNA CONSTRUCTION DETAILS REFERENCED "TYPICAL CONSTRUCTION DETAILS FOR LOW VELOCITY DUCTS."
D-2	MANUAL BALANCING	OVER 9" WIDE	OPPOSED	RUSKIN	MD-35	MANUAL DAMPER WITH STANDARD CONSTRUCTION FEATURES AND VENTLOCK #639 LOCKING REGULATOR.
D-3	MOTORIZED	OVER 9" WIDE	OPPOSED	RUSKIN	CD-60	LOW LEAKAGE DAMPER WITH BLADE SEALS

NOTES:
N/A - NOT APPLICABLE

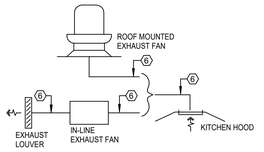
FAN SCHEDULE

TAG	LOCATION	CFM	EXT. STATIC PRESSURE (IN.W.C.)	MAX RPM	HORSE POWER	CURRENT CHAR V	CURRENT CHAR P	CURRENT CHAR F	LOCALLY SWITCHED	INTERLOCK WITH	FAN TYPE	DRIVE TYPE	MANUFACTURER	MODEL NUMBER	REMARKS
EF-1	STORAGE 100	670	0.30	1500	0.25	120	1	60	-	HUMIDITY STAT	INLINE	DIRECT	COOK	SQND	1,2,3,4,5

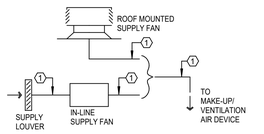
GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MINIMUM RECOMMENDED CLEARANCE AROUND UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH DISCONNECT.
2. PROVIDE WITH MOTORIZED DAMPER.
3. PROVIDE WITH SPEED CONTROLLER.
4. PROVIDE WITH EC MOTOR.
5. SUSPEND UNIT WITH FOUR THREADED HANGER RODS ATTACHED TO TWO UNISTRUT RUNNERS SECURED TO STRUCTURE. PROVIDE SPRING ISOLATION. REFER TO MANUFACTURER FOR MORE DETAILS.

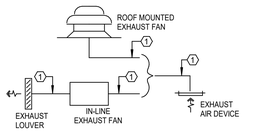
DUCT LINER AND INSULATION



KITCHEN HOOD EXHAUST AIR SYSTEMS



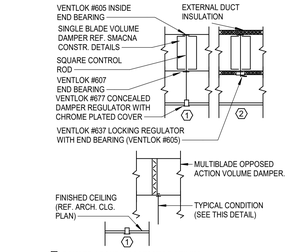
MAKE-UP/VENTILATION AIR SYSTEMS



EXHAUST AIR SYSTEMS

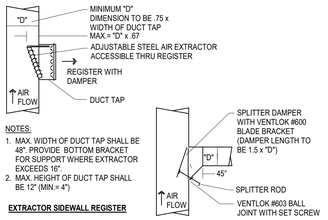
KEYED NOTES:
1. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
2. SHEETMETAL DUCTWORK RETURN AIR PLENUM WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
3. FLEXIBLE DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
4. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT DISCHARGE TO 10'-0" DOWNSTREAM.
5. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT INLET TO 10'-0" UPSTREAM.
6. EXHAUST DUCTWORK AS SPECIFIED WITH FIREBOARD INSULATION AS SPECIFIED.
7. SHEETMETAL DUCTWORK ONLY. NO INSULATION REQUIRED.

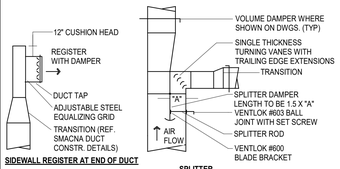
DUCTWORK CONSTRUCTION DETAILS



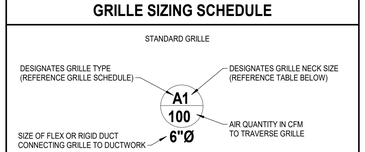
① DAMPER ABOVE INACCESSIBLE CEILING

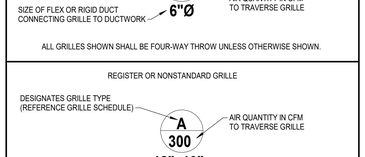
② DAMPER ABOVE LIFT-OUT CEILING





GRILLE SIZING SCHEDULE





GRILLE SIZE DESIGNATION	GRILLE NECK SIZE	GRILLE SIZE DESIGNATION	GRILLE NECK SIZE
1	6" x 6"	7	15" x 15"
2	8" x 8"	8	16" x 16"
3	9" x 9"	9	18" x 18"
4	10" x 10"	10	20" x 20"
5	12" x 12"	11	22" x 22"
6	14" x 14"	12	24" x 24"

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SCHEDULES DETAILS, AND LEGEND
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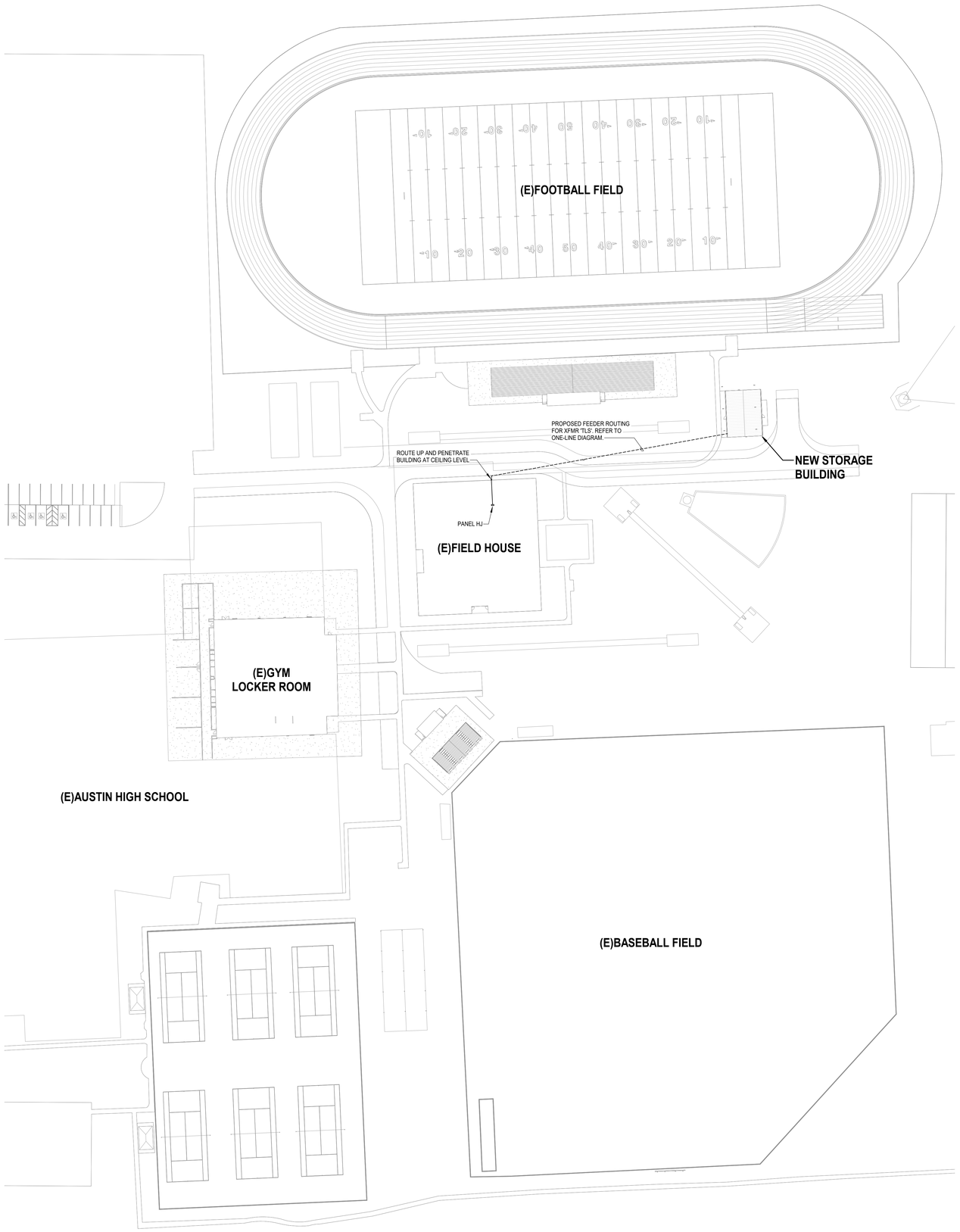

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1 **ELECTRICAL SITE PLAN**
Scale: 1" = 40'-0"

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF NEW CONDUITS WITH ALL OTHER TRADES PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO CIVIL DRAWINGS FOR FINAL ROUTING AND DEPTH OF ALL UNDERGROUND UTILITIES.
3. REFER TO TECHNOLOGY DRAWINGS, DIVISION 27 AND 28 FOR TELECOMMUNICATION PATHWAYS AND OTHER REQUIREMENTS TO PROVIDED BY DIVISION 26.
4. CONTRACTOR IS RESPONSIBLE OF CALLING 811 TO HAVE ALL EXISTING UTILITIES MARKED PRIOR TO DIGGING.

FIRE DETECTION AND ALARM SYSTEM:

- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

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PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

100% CD

E1.01-A
ELECTRICAL SITE PLAN

AUSTIN HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 5:15:25 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/AUSTIN_MEPT_R25.rvt

LINETYPE LEGEND	
————	EXISTING TO REMAIN
- - - - - - - -	DISCONNECT AND REMOVE

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

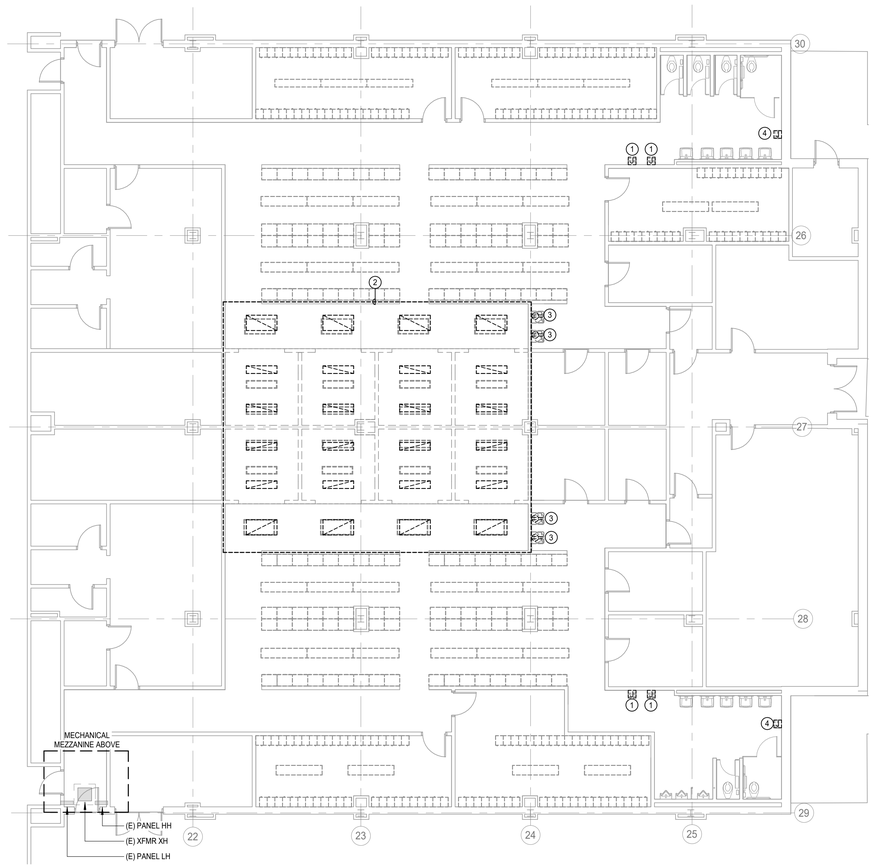
OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

1. DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
2. DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
3. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC...SHALL REMAIN.
4. DISCONNECT AND REMOVE ALL ELECTRICAL FROM WALLS SCHEDULED TO BE DEMOLISHED AND AS SHOWN. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT EXTENT OF WALL DEMOLITION.
5. EXCEPT AS OTHERWISE NOTED, ELECTRICAL WORK OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS. OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. ANY CONDUITS OUT OF MASONRY SURFACE SHALL BE CUT INTO SURFACE AND PATCHED.
6. CONTRACTOR TO FILL IN ALL HOLES LEFT BY THE DEMOLITION OF EXISTING CONDUIT PENETRATIONS.

ELECTRICAL KEYED NOTES:

1. DISCONNECT AND REMOVE ELECTRICAL TO EXISTING HAND DRYER. LEAVE CIRCUITRY INTACT FOR CONNECTION OF NEW HAND DRYER.
2. DISCONNECT AND REMOVE EXISTING RECESSED LIGHTING FIXTURES AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX ABOVE CEILING. ALL EXISTING LIGHTING BRANCH CIRCUITS (NORMAL/EMERGENCY) SHALL REMAIN AND BE RE-USED.
3. DISCONNECT AND REMOVE EXISTING WIRING DEVICE. EXISTING OUTLET BOX SHALL REMAIN AND SHALL BE RE-USED AS PRACTICAL FOR NEW WIRING DEVICE.
4. DISCONNECT AND REMOVE ELECTRICAL TO EXISTING HAND DRYER AND ASSOCIATED CONDUIT/WIRE BACK TO SOURCE. PATCH WALL TO MATCH EXISTING CONDITIONS



1 **ELECTRICAL DEMOLITION FLOOR PLAN - LEVEL 1 - GYM**
Scale: 1/8" = 1'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1177
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498

STEPHEN F. AUSTIN HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

STATE OF TEXAS
BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

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DEMOLITION FLOOR PLANS - LEVEL 1
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FIRE DETECTION AND ALARM SYSTEM:

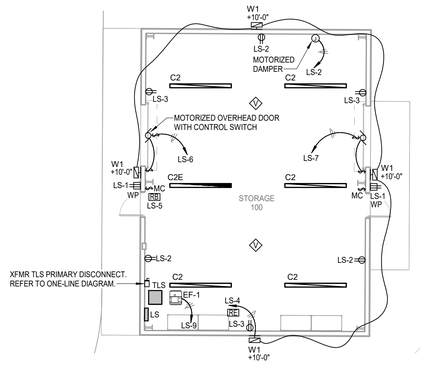
- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL KEYED NOTES:

1. CONNECT NEW LIGHT FIXTURES TO EXISTING NORMAL AND EMERGENCY CIRCUITS LEFT IN PLACE AFTER DEMOLITION OR NEW AS SHOWN. PROVIDE EMERGENCY CIRCUIT FOR HATCHED FIXTURES AND/OR EXIT SIGNS. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT TO EXISTING LOCATION AND/OR NEW FIXTURES. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 15-AMPERES.
2. EXISTING ELECTRIC HAND DRYER LOCATION; CONNECT REPLACEMENT HAND DRYER TO EXISTING CIRCUITRY PRESERVED DURING DEMOLITION. PROVIDE CIRCUIT BREAKER WITH NEW "LOCK-OFF" DEVICE.
3. PROVIDE NEW DUPLEX RECEPTACLE FOR DRINKING FOUNTAIN; PROVIDE CIRCUIT BREAKER WITH NEW 20A/1P GFCI.

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC... SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.
4. LOCATION OF NEW / REPLACEMENT LIGHT FIXTURES SHALL RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTURE WHIPS AS PRACTICAL. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT AND PROVIDE NEW J-BOX ABOVE ACCESSIBLE CEILING WITH ½-INCH FLEXIBLE STEEL CONDUIT OR STEEL MC CABLE, LENGTH NOT TO EXCEED 6-FEET. 'DAISY CHAINING'LIGHT FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS NOT ALLOWED. FOR NON-ACCESSIBLE CEILINGS, LIGHT FIXTURE WHIPS SHALL BE ½-INCH FLEXIBLE STEEL CONDUIT, LENGTH AS REQUIRED TO MAKE A TAP AT AN ACCESSIBLE J-BOX. RECESSED LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MAY BE DAISY CHAINED USING THE LIGHT FIXTURE'S INTEGRAL, UL LISTED J-BOX OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THROUGH FIXTURE FROM BELOW THE CEILING. REFER TO SPECIFICATION SECTION 26 05 33 CONDUIT SYSTEMS.
5. LIGHTING CONTROLS WHERE PROVIDED SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
6. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED POWER FOR EMERGENCY RELAYS, BATTERY PACKS AND / OR EXIT SIGNS.
7. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL. LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
8. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED, CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.



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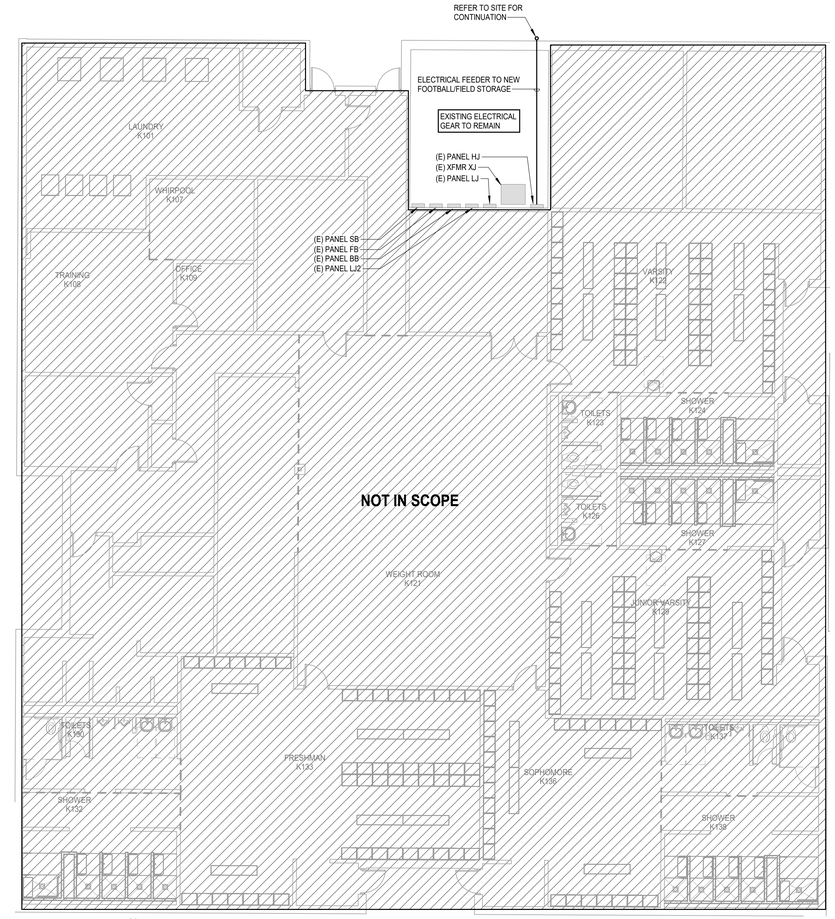
3 ELECTRICAL PLAN - LEVEL 1 - FOOTBALL/FIELD STORAGE

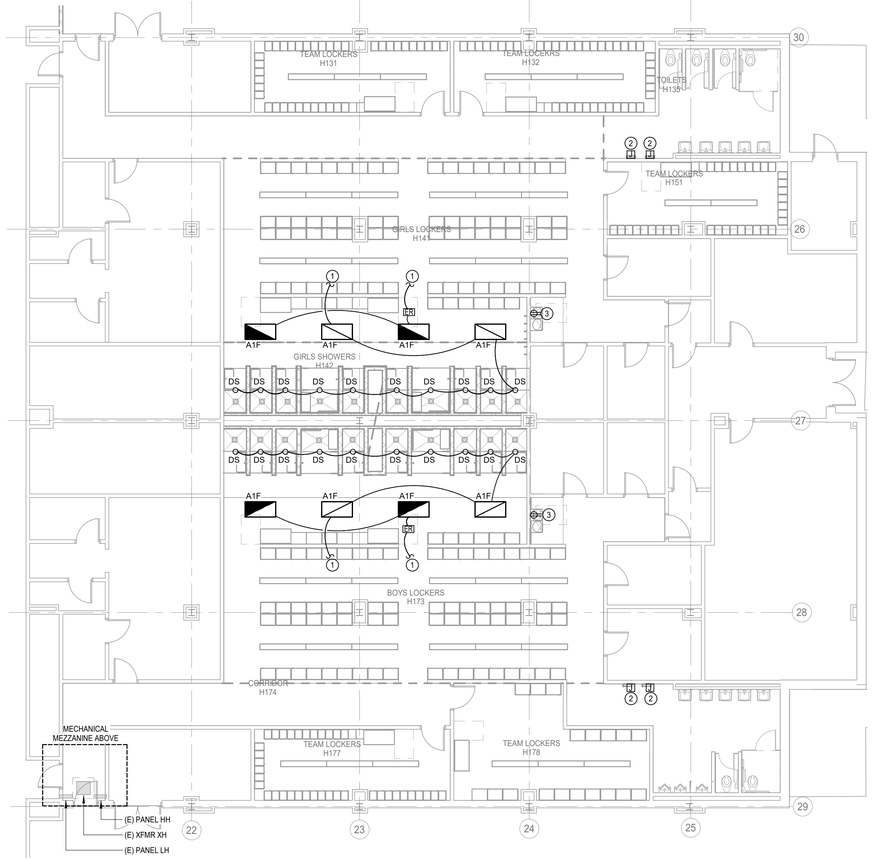
Scale: 1/8" = 1'-0"



N

2 ELECTRICAL FLOOR PLAN - LEVEL 1 - FIELD HOUSE

Scale: 1/8" = 1'-0"



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1 ELECTRICAL FLOOR PLAN - LEVEL 1 - GYM

Scale: 1/8" = 1'-0"

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ELECTRICAL FLOOR PLANS - LEVEL 1

AUSTIN HIGH SCHOOL

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Branch Panel: LS

Location: STORAGE 100 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 50A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Receptacles	#12	20 1	0.4 / 0.6			1 20	#12	Receptacles STORAGE 100	2	
	3	Receptacles STORAGE 100	#12	20 1		0.5 / 0.2		1 20	#12	Exterior Lighting	4	
	5	Lighting - Storage Bldg	#12	20 1			0.2 / 0.5	1 20	#12	Overhead Door	6	
	7	Overhead Door	#12	20 1	0.5 / 0.0			1 20	--	SPARE	8	--
	9	EF-1	#12	20 1		0.2 / 0.0		1 20	--	SPARE	10	--
--	11	SPACE	--	-- 1			0.0 / 0.0	1 20	--	SPARE	12	--
--	13	SPACE	--	-- 1	0.0 / 0.0			1 20	--	SPARE	14	--
--	15	SPACE	--	-- 1		0.0 / 0.0		1 20	--	SPARE	16	--
--	17	SPACE	--	-- 1			0.0 / 0.0	1 20	--	SPARE	18	--
--	19	SPACE	--	-- 1	0.0 / 0.0						20	
--	21	SPACE	--	-- 1		0.0 / 0.0		3 30	--	SPDL	22	--
--	23	SPACE	--	-- 1			0.0 / 0.0				24	
			Total Load:		1.5 kVA	1.0 kVA	0.7 kVA					
			Total Amps:		13 A	8 A	6 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	0.2 kVA	100.00%	0.2 kVA	
Lighting	0.4 kVA	125.00%	0.5 kVA	**Total Conn. Load:** 3.1 kVA
Miscellaneous	1.1 kVA	100.00%	1.1 kVA	**Total Est. Demand:** 3.2 kVA
Receptacles	1.4 kVA	100.00%	1.4 kVA	**Total Conn. Current:** 9 A
				Total Est. Demand Current: 9 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
M - PROVIDE METERING DEVICE

LIGHTING CONTROLS SCHEDULE

Type	Sensor Operation	# of Lighting Zones	Description
ER	-	-	UL924 LOAD CONTROL RELAY, PLENUM RATED, 0-10V COMPATIBLE, 16A MINIMUM
RB	VACANCY - MANUAL ON / AUTO OFF	1	ON/OFF MOMENTARY CONTACT SWITCH, NO DIMMING.
RE	NONE	1	CONTACTOR CONTROLLED WITH PHOTOCELL ON / TIMECLOCK OFF. EXTERIOR LIGHTING SHALL BE TURNED OFF FROM 12:00 AM TO 6:00 AM OR FROM 1 HOUR AFTER CLOSING TO 1 HOUR BEFORE OPENING.

LIGHTING FIXTURE SCHEDULE

Type Mark	CATALOG NUMBER MANUFACTURER	MODEL	MOUNTING	LAMP TYPE	CCT	CRI	VOLTAGE	LOAD	REMARKS
A1F	METALUX	24FP4740C + DF-24W-U	RECESSED	4700L LED	4000 K	80	277 V	42 W	2X4 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DRYWALL FLANGE KIT, DLC LISTED.
C2	METALUX	8SNX-96SL-LW-UNV-L840-CD1-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	9600L LED	4000 K	80	120 V	32 W	8-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED.
C2E	METALUX	8SNX-96SL-LW-UNV-L840-CD1EL14W(2)-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	9600L LED	4000 K	80	120 V	32 W	8-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
DS	HALO	HC620D010-HM60525840-61PSMDW	RECESSED	2000L LED	4000 K	80	277 V	21 W	6-INCH SHOWER DOWNLIGHT, MEDIUM BEAM. NON-CONDUCTIVE TRIM, ENERGY STAR RATED.
W1	McGRAW EDISON	IST-SA1E-740-U-T4FT-BZ-LCF	WALL	7099L LED	4000 K	70	120 V	58 W	ARCHITECTURAL WALL SCONCE, FORWARD THROW DISTRIBUTION, BRONZE FINISH.

APPROVED LIGHTING MANUFACTURERS:
- LED / FLUORESCENT: LITHONIA, COLUMBIA, METALUX, AXIS, DAYBRITE, HE WILLIAMS, LSI, CREE
- EXIT SIGNS: LITHONIA, CHLORIDE, EMERGI-LITE, DUAL-LITE, SURE LITES, H.E. WILLIAMS
- ARCHITECTURAL HIGH PERFORMANCE FLOOD LIGHTS: WIDE-LITE, HADCO, KIM, McGRAW EDISON, GARDCO, LSI
- INDUSTRIAL: METALUX, LITHONIA, EXCELINE, G.E., HUBBELL, LUMARK, STONCO
- DOWNTRACK LIGHTING: LIGHTOLIER, LITHONIA-GOTHAM, HALO ARCHITECTURAL, PRESCOLITE, HE WILLIAMS, INDY
- SECURITY (WALLPACKS): LITHONIA, McGRAW EDISON, G.E., LSI, HUBBELL, STONCO, GARDCO
- ARCHITECTURAL LINEAR: PEERLESS, LITECONTROL, ALERA, LAM, AMERICAN LINEAR LIGHTING, LEDALITE
- ARCHITECTURAL INDIRECT: INSIGHT, ORIGINAL CAST LIGHTING, SPI, LAM

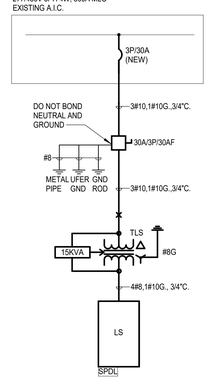
- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT INDICATED IN THE LIGHT FIXTURE SCHEDULE. WHERE THERE IS AN INCONSISTENCY BETWEEN THE LIGHT SCHEDULE AND THE SPECIFICATIONS, THE BETTER QUALITY OF WORK SHALL BE INCLUDED IN THE PROPOSAL.
- THE ABOVE LIGHTING MANUFACTURERS LIST DOES NOT IMPLY APPROVAL. APPROVAL WILL BE DETERMINED AFTER REVIEW OF SHOP DRAWING TO DETERMINE IF THE FIXTURE OR POLE SUBMITTED MEETS OR EXCEEDS THE DESIGN STANDARDS AND PERFORMANCE REQUIRED OF THE FIXTURE SPECIFIED IN THE LIGHT FIXTURE SCHEDULE OR SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE SPECIFIED LIGHT FIXTURE IF A SUBSTITUTION IS NOT APPROVED WITHOUT ANY ADDITIONAL COST TO THE OWNER. WHERE SPECIFIC OPTIONS/ACCESORIES ARE SPECIFIED OR REQUIRED, THEY SHALL BE PROVIDED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- DUE TO THE WIDE RANGE OF FIXTURE QUALITIES OFFERED BY EACH MANUFACTURER, THE APPROVED LIGHTING MANUFACTURERS SUBSTITUTION LIST IS NOT INTENDED TO INDICATE THAT ANY OR ALL MANUFACTURERS LISTED WILL HAVE SUITABLE SUBSTITUTIONS FOR THE LIGHT FIXTURES OR POLES SPECIFIED IN THE LIGHT FIXTURE SCHEDULE. SHOP DRAWING AND CONSTRUCTION DELAYS AS A RESULT OF INAPPROPRIATE SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT RESULT IN ANY ADDITIONAL COST TO THE OWNER.

ELECTRICAL LOAD ANALYSIS
277/480V. 3PH., 4W

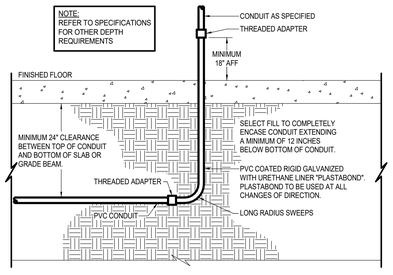
LOAD DESCRIPTION:	KVA
PEAK KVA @ 125%	1622.5
NEW LIGHTING LOAD @ 125%	0.5
NEW RECEPTACLE LOAD @ 100%	1.4
NEW MISCELLANEOUS LOAD @ 100%	1.3
TOTAL	1625.7

TOTAL / (480 X √3) = 1956.3 EXISTING 4000A SERVICE

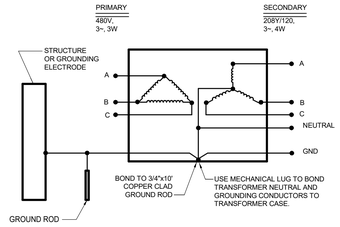
EXISTING DISTRIBUTION PANEL HJ
277/480V 3PH 4W, 800A MLO
EXISTING A.I.C.



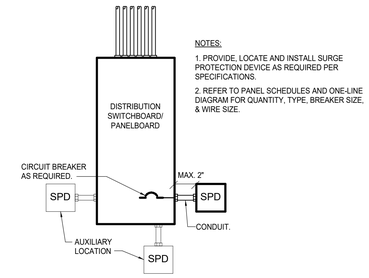
6 PARTIAL ONE-LINE DIAGRAM
Scale: NOT TO SCALE



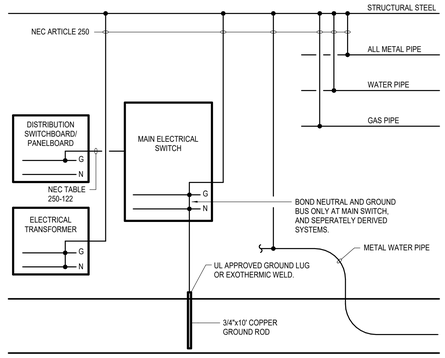
5 CONDUIT BELOW BUILDING SLAB
SCALE: NONE



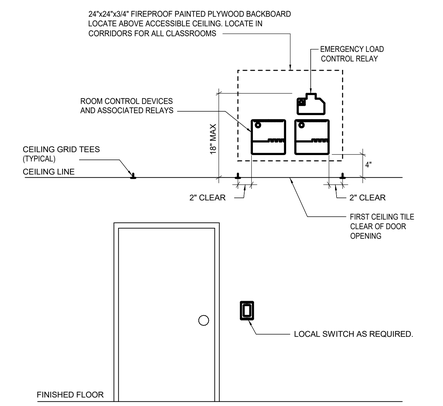
4 TRANSFORMER GROUNDING DETAIL
SCALE: NONE



3 SURGE PROTECTION DETAIL
SCALE: NONE



2 GROUNDING DETAIL
SCALE: NONE



1 TYPICAL LIGHTING CONTROLS ELEVATION
SCALE: NONE

SYMBOL SCHEDULE

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED ON EMERGENCY CIRCUIT
	DOWNLIGHT FIXTURE
	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
	LIGHT FIXTURE - WALL MOUNTED
	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - CEILING MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - WALL MOUNTED ON EMERGENCY CIRCUIT
LIGHTING CONTROLS & DEVICES	
$	LINE VOLTAGE SINGLE POLE SWITCH
$3	LINE VOLTAGE 3-WAY SWITCH
$4	LINE VOLTAGE 4-WAY SWITCH
$K	LINE VOLTAGE MOMENTARY DPST KEYED SWITCH
$D	LINE VOLTAGE DIMMER SWITCH, SIZE AND TYPE AS REQUIRED
$P	LINE VOLTAGE SWITCH WITH PILOT LIGHT
$T	6-HOUR ROTARY TIMER SWITCH WITH NO HOLD U.N.O.
	PUSH BUTTON EPO SWITCH WITH COVER
$MC	LOW VOLTAGE MOMENTARY CONTACT SWITCH
$R	LOW VOLTAGE DIGITAL KEYPAD
$B	LOW VOLTAGE BUILDING MANAGEMENT (BMCS) LOCAL OVERRIDE SWITCH
	OCCUPANCY SENSOR (AUTO ON / AUTO OFF WITHIN 20-MINUTES)
	VACANCY SENSOR (MANUAL ON / AUTO OFF WITHIN 20-MINUTES)
	PHOTOCELL SENSOR
RE	LIGHTING CONTROL SYSTEM. ('#' DENOTES TYPE - SEE LIGHTING CONTROLS SCHEDULE)
ER	EMERGENCY LOAD CONTROL RELAY. MINIMUM 16A AND 0-10V COMPATIBLE. PROVIDE U.L. 924 U.N.O.
RECEPTACLES AND OUTLETS	
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
U	DUPLEX RECEPTACLE WITH TWO USB CHARGING PORTS.
	125/250 VOLT, 1 PHASE, 3-WIRE, 20 AMPS UNLESS NOTED OTHERWISE
	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
U	DOUBLE DUPLEX WITH TWO USB CHARGING PORTS IN 2-GANG BOX WITH SINGLE COVER PLATE
	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	FLUSH FLOOR DUPLEX RECEPTACLE OUTLET
	FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE OUTLET
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	JUNCTION BOX
	FLUSH REMOTE GFCI DEVICE (LOCATE IN READILY ACCESSIBLE LOCATION)
MOTOR CONTROLLERS AND EQUIPMENT	
	MOTOR, MAKE FINAL MOTOR CONNECTION
$	MOTOR-RATED SWITCH. 20A UNLESS INDICATED OTHERWISE.
	DISCONNECT SWITCH AS REQUIRED
2	COMBINATION MOTOR STARTER/DISCONNECT SWITCH AS REQUIRED
	MOTOR STARTER
	PREWIRED DEVICE, MAKE ELECTRICAL FINAL CONNECTIONS
VFD	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
HF	HIGH EFFICIENCY HARMONIC FILTER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
T	LOW VOLTAGE TRANSFORMER, SIZE AND TYPE AS REQUIRED.
	CHIME/BUZZER
ELECTRICAL EQUIPMENT	
	ELECTRICAL PANELBOARD; REFER TO FLOOR PLANS FOR VOLTAGE.
	DRY TYPE TRANSFORMER
	PLYWOOD TELEPHONE BACKBOARD
CIRCUITING	
	CONDUIT
	CONDUIT BELOW FLOOR, SLAB, OR GRADE
	3/4"C. UNLESS OTHERWISE NOTED; LONG HATCH, NEUTRAL; SHORT HATCH, PHASE; LONG HATCH & HOOK, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN.
	PARTIAL ELECTRICAL HOME RUN
SUBSCRIPTS AND ABBREVIATIONS	
WP	INDICATES 'WEATHERPROOF'
H	INDICATES 'HORIZONTAL'
NL	INDICATES 'NIGHT LIGHT'.
TP	INDICATES 'TAMPER PROOF'
(KS)	INDICATES 'KNEE SPACE'. LOCATE WIRING DEVICE IN KNEESPACE
U.N.O.	INDICATES 'UNLESS NOTED OTHERWISE'
(E)	INDICATES EXISTING TO REMAIN
(R)	INDICATES REPLACE DEVICE AND COVERPLATE.
•	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL MILLWORK DRAWINGS AND OTHER TRADES

GENERAL NOTES:
-ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-4X MINIMUM.
-ALL EXTERIOR RECEPTACLES SHALL BE WATER RESISTANT TYPE.

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES.
2. ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
3. ALL EMPTY CONDUIT SHALL HAVE PULL STRING.
4. EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
5. VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 8" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
6. ALL FIRE ALARM DEVICES, RECEPTACLES, SWITCHES, AND WIRING DEVICES IN MECHANICAL AND ELECTRICAL ROOMS ARE TO BE RECESSED IN WALLS.
7. ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
10. CENTER ALL EXIT SIGNS OVER DOORS.

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

pfluger
office: 713.222.1141 | fax: 713.222.1177
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498
STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
ELECTRICAL
ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:
No. Date Description

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E4.01-A
ELECTRICAL SCHEDULES, DETAILS, AND LEGENDS
AUSTIN HIGH SCHOOL

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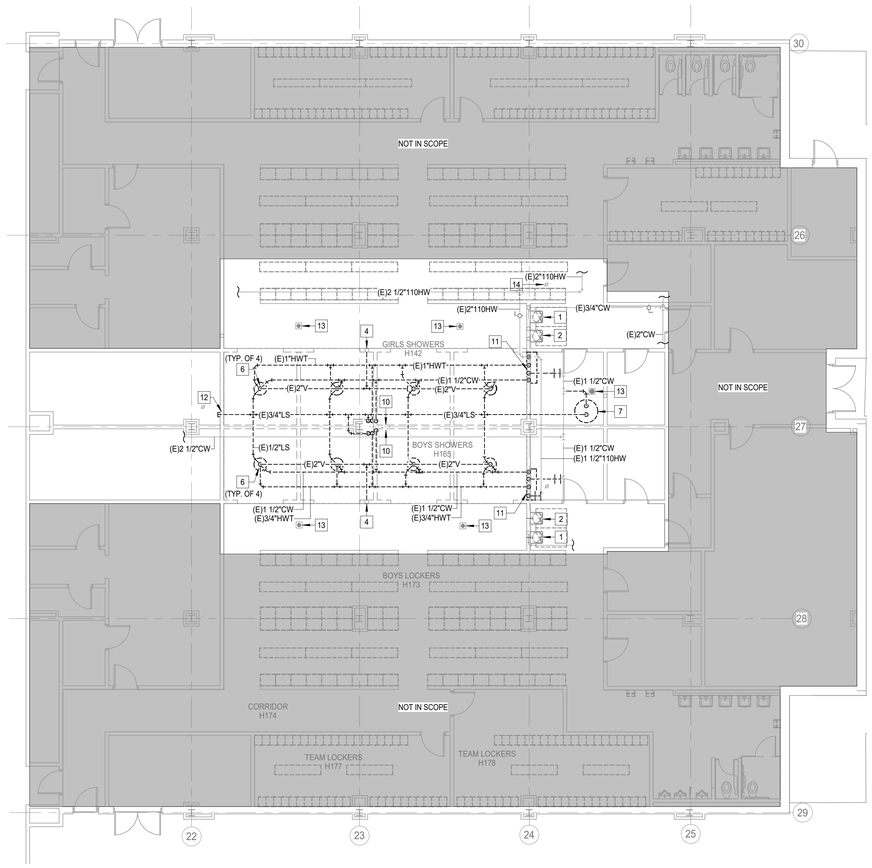
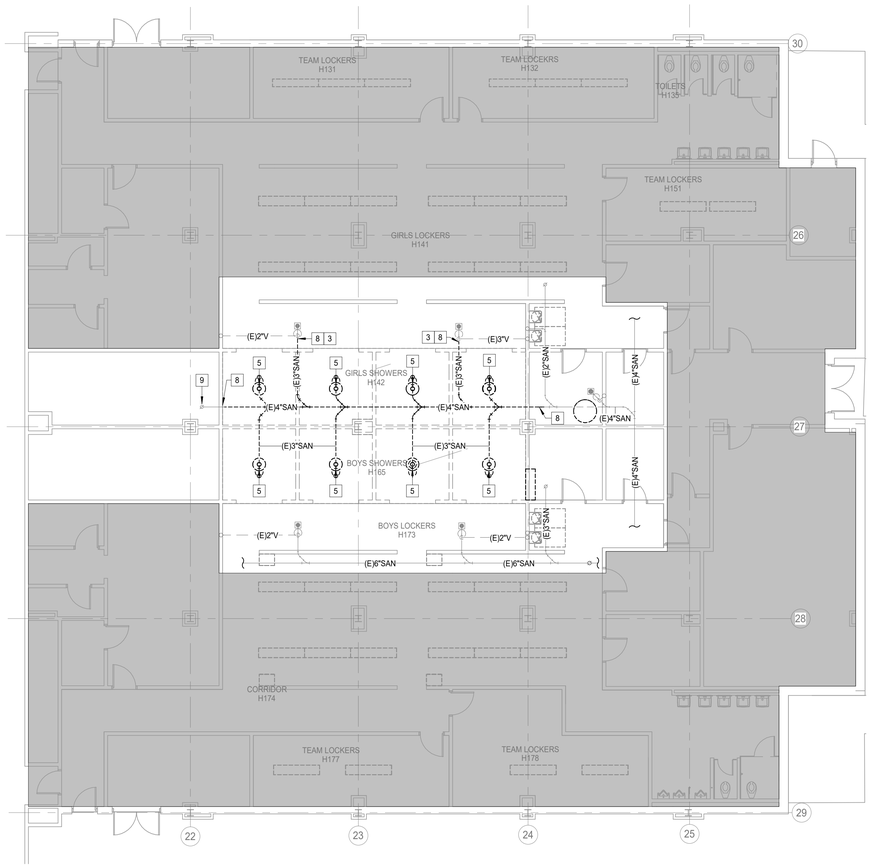
PLUMBING KEYED NOTES

1	EXISTING ELECTRONIC DRINKING FOUNTAIN TO BE REMOVED. REMOVE CW AND VENT PIPING BACK TO MAIN. CAP SANITARY BELOW SLAB.
2	EXISTING ELECTRONIC DRINKING FOUNTAIN TO BE REMOVED. REMOVE CW AND VENT PIPING BACK TO MAIN. EXISTING SANITARY RISER TO REMAIN FOR CONNECTION TO NEW DRINKING FOUNTAIN.
3	3" SANITARY FROM FLOOR DRAIN ABOVE.
4	EXISTING VTR TO REMAIN. REMOVE ALL VENT PIPING SERVING VTR. PREPARE VTR FOR CONNECTION OF NEW VENT PIPING.
5	EXISTING COLUMN SHOWERS TO BE REMOVED AND UTILITIES CUT AND CAPPED AT CEILING HEIGHTS.
6	EXISTING COLUMN SHOWER TO BE REMOVED CAP UTILITIES BACK TO POINT INDICATED FOR FUTURE CONNECTION.
7	EXISTING LIQUID SOAP TANK TO BE REMOVED. REMOVE CW BACK TO MAIN AND REMOVE ALL LS PIPING.
8	REMOVE EXISTING SANITARY BACK TO THIS POINT.
9	EXISTING FLOOR CLEANOUT AND SANITARY PIPE TO REMAIN.
10	EXISTING ADA SHOWER TO BE REMOVED CAP UTILITIES BACK TO POINT INDICATED FOR FUTURE CONNECTION.
11	REMOVE EXISTING SHOWER BLENDING VALVE SERVICING SHOWER COLUMNS AND REPLACE TO SERVICE NEW SHOWERS.
12	EXISTING LIQUID SOAP 3/4" PIPE AND WALL CLEANOUT TO BE REMOVED.
13	EXISTING FLOOR DRAIN TO REMAIN.
14	EXISTING FLOOR CLEANOUT TO REMAIN.



2 **PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - GYM - A**
Scale: 1/8" = 1'-0"



1 **PLUMBING DEMOLITION FLOOR PLAN - UNDERFLOOR - GYM - A**
Scale: 1/8" = 1'-0"

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498

STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
STATE OF TEXAS
80219
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REVISIONS:

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Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX. 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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PLUMBING DEMOLITION PLAN - GYM

AUSTIN HIGH SCHOOL

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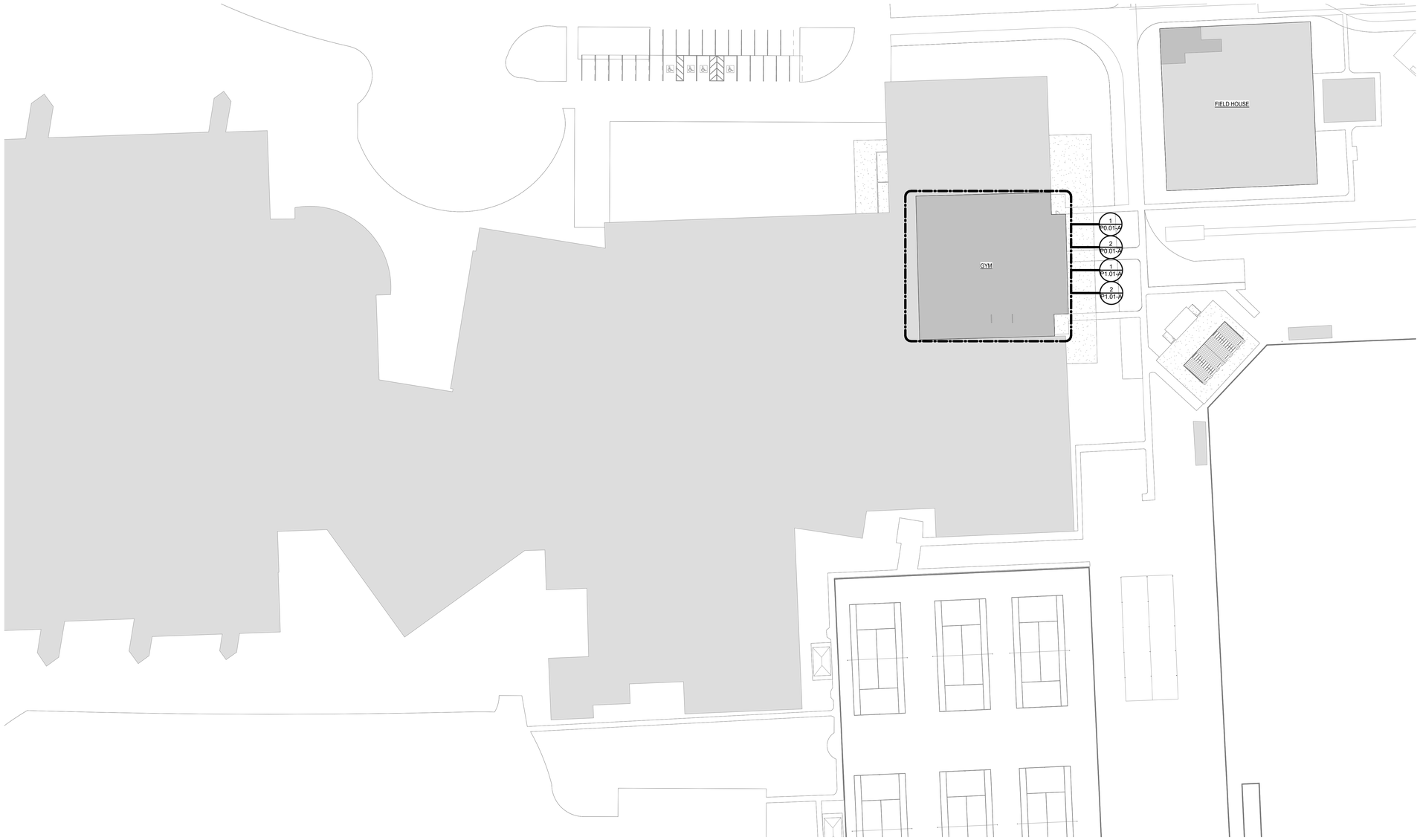

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1 **PLUMBING SITE PLAN - A**
Scale: 1/32" = 1'-0"

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Houston, Texas 77046
pflugerarchitects.com

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3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498

STEPHEN F. AUSTIN HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

STATE OF TEXAS
BRADLEY KALMANS
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PLUMBING SITE PLAN

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Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
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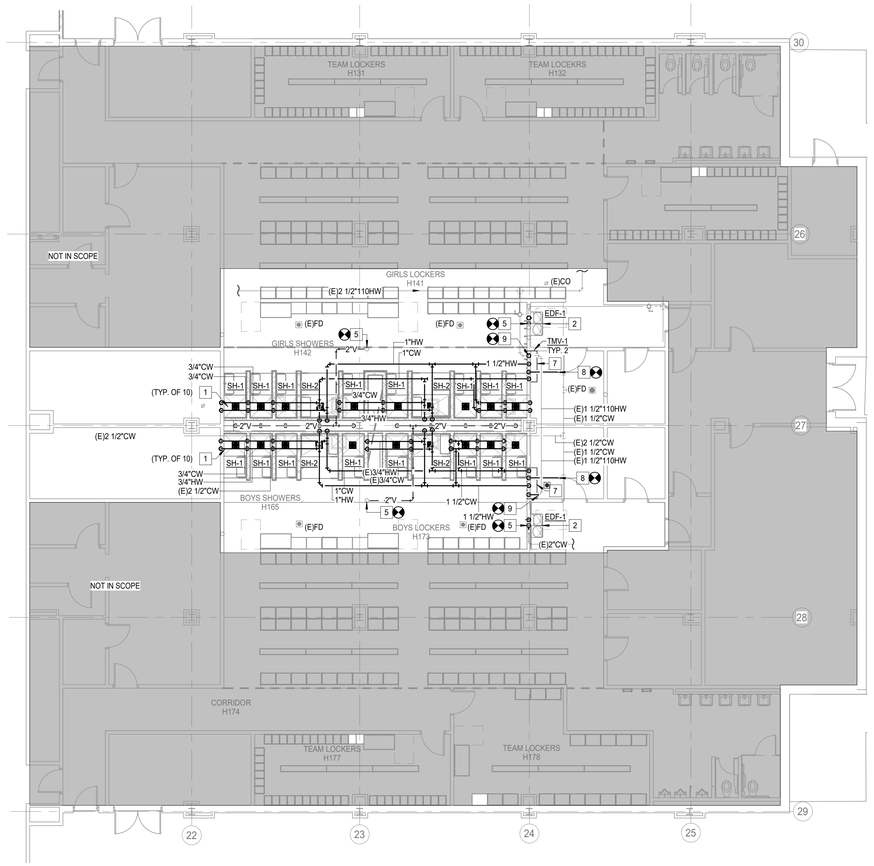
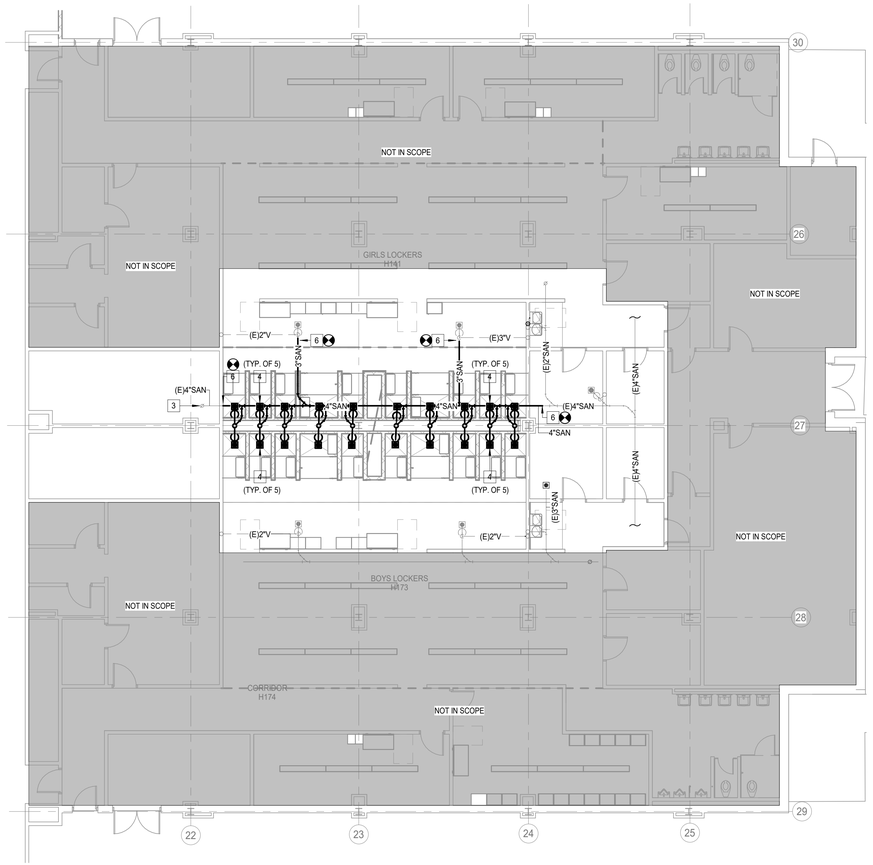
PLUMBING KEYED NOTES

1	PROVIDE AND INSTALL NEW SHOWER. CONNECT EXISTING UTILITIES (HW, CW, SANITARY, AND VENT.)
2	PROVIDE AND INSTALL NEW ELECTRONIC DRINKING FOUNTAIN. CONNECT EXISTING UTILITIES (CW, SANITARY AND VENT.)
3	EXISTING FLOOR CLEANOUT AND SANITARY PIPE TO REMAIN.
4	CONNECT NEW 3" SANITARY FROM SHOWER DRAIN ABOVE TO NEW MAIN.
5	2" VENT UP TO 2' VTR.
6	CONNECT NEW SANITARY TO EXISTING 4" SANITARY OR LARGER. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF CONNECTION.
7	PROVIDE NEW THERMOSTATIC MIXING VALVE TO SERVICE NEW SHOWERS.
8	ROUTE NEW 1-1/2" CW FROM EXISTING 1-1/2" CW TO THERMOSTATIC MIXING VALVE.
9	ROUTE NEW 1-1/2" HW FROM 1-1/2" HW EXISTING TO THERMOSTATIC MIXING VALVE.



2 PLUMBING FLOOR PLAN - LEVEL 1 - GYM - A

Scale: 1/8" = 1'-0"



1 PLUMBING FLOOR PLAN - UNDERFLOOR - GYM -- A

Scale: 1/8" = 1'-0"

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PLUMBING FLOOR PLAN - GYM

AUSTIN HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX. 77064
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PLUMBING PIPING LEGEND

SYMBOLS	DESCRIPTION
SAN	SANITARY OR WASTE PIPING ABOVE GRADE (SAN)
SAN	SANITARY OR WASTE PIPING BELOW GRADE (SAN)
GW	GREASE WASTE PIPING (GW)
GW	GREASE WASTE PIPING BELOW GRADE (GW)
SD	STORM DRAIN PIPING (SD)
SD	STORM DRAIN PIPING BELOW GRADE (GW)
SSD	SUB-SOIL DRAIN OR FOOTING DRAIN (SSD)
AW	ACID WASTE PIPING (AW)
AW	ACID WASTE PIPING BELOW GRADE (AW)
PD	PUMPED DISCHARGE (PD)
CD	CONDENSATE DRAIN PIPING (CD)
D	CONDENSATE - INDIRECT DRAIN PIPING (D)
	VENT PIPING (V)
CW	COLD WATER PIPING (CW)
HW	HOT WATER PIPING (HW)
HWR	HOT WATER RETURN PIPING (HWR)
SCW	SOFT COLD WATER PIPING (SCW)
CDW	CHILLED DRINKING WATER PIPING (CDW)
TP	TRAP PRIMER LINE (TP)
F	FIRE PROTECTION PIPING (F)
AS	AUTOMATIC SPRINKLER PIPING (AS)
GAS	NATURAL GAS PIPING (G)
GV	GAS VENT PIPING (GV)
AIR	COMPRESSED AIR PIPING (A)
	FLOW DIRECTIONAL ARROW
	SHUT-OFF VALVE
	BALANCING VALVE (BV)
	SOLENOID VALVE (SV)
	BALL VALVE (BV)
	BUTTERFLY VALVE
	LUBRICATED PACKED PLUG STOP STOP COCK (PC)
	HORIZONTAL SWING CHECK
	UNION
	HORIZONTAL SWING CHECK
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	REDUCED PRESSURE BACKFLOW PREVENTER (RPBFP)
	PIPING DOWN
	RISE OR DROP PIPING
	PIPING UP -OR- PIPING UP & DOWN
	CAP ON END OF PIPE
	CLEANOUT (WALL OR CEILING) (CO)
	FLOOR CLEANOUT (FCO)
	EXTERIOR CLEANOUT WITH 18"x18"x4" CONCRETE PAD (ECO)
	TWO-WAY CLEANOUT (PROVIDE 18"x24"x4" CONCRETE PAD OUTSIDE)
	FIRE DEPARTMENT VALVE AT RISER
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
	PRESSURE REDUCING VALVE (PRV)
	BRANCH CONNECTION OUT OF TOP
	BRANCH CONNECTION OUT OF BOTTOM
	BRANCH CONNECTION OUT OF SIDE
	WYE & 1/8TH BEND BRANCH CONNECTION
	WYE BRANCH CONNECTION
	HOSE BIBB
	PRESSURE GAUGE WITH COCK
	THERMOMETER
	GAS PRESSURE REGULATOR
	TEST COCK
	GAS METER
	WALL HYDRANT
	VALVE IN RISE
	ASME TEMPERATURE & PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE
	ANGLE VALVE
	OS&Y VALVE
	ROOF DRAIN
1	REFER TO KEYED NOTE
FS	FLOW SWITCH
	FLOOR SINK (FS)
	FLOOR DRAIN (FD)
	FLOOR DRAIN WITH P-TRAP (FD)
	FLOOR DRAIN WITH P-TRAP AT 45° ANGLE (FD)
	HUB DRAIN (HD)
	ACCESS PANEL FOR TRAP PRIMER OR SHOCK ABSORBER
AP	ACCESS PANEL LOCATION SYMBOL
A	SHOCK ABSORBER
	AIR CHAMBER
(E)	EXISTING
(N)	NEW
VTR	VENT THRU ROOF
B.F.F.	BELOW FINISHED FLOOR
A.F.F.	ABOVE FINISHED FLOOR
	NEW CONNECTION
IE=100.00'	INVERT ELEVATION
1	DELTA CHANGE SYMBOL
P 1	4" VTR RISER FLAG

PLUMBING FIXTURE SCHEDULE

TYPE:	SH-1 - INDIVIDUAL SHOWER STATION
DESCRIPTION:	SHOWER, JOB BUILT BASE INSTALLED PER ARCHITECTURAL DRAWINGS.
CONTROLS:	PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH INTEGRAL CHECKSTOPS. STAINLESS STEEL, ALUMINUM OR CHROME PLATED BRASS ESCUTCHEON. VANDAL RESISTANT 2.5 GPM SHOWER HEAD. ACORN 532-GX-P.
DRAIN:	FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. SEE FD-1 FOR ADDITIONAL INFORMATION.
TRAP SEAL:	PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN:	3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.
TYPE:	SH-2 (T.A.S. COMPLIANT) - INDIVIDUAL SHOWER STATION
DESCRIPTION:	SHOWER, JOB BUILT BASE INSTALLED PER ARCHITECTURAL DRAWINGS.
CONTROLS:	PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH LEVER HANDLE AND INTEGRAL CHECKSTOPS. STAINLESS STEEL, ALUMINUM OR CHROME PLATED BRASS ESCUTCHEON. 2.5 GPM HAND HELD SHOWER WITH 60" FLEXIBLE STAINLESS STEEL CLAD HOSE, VACUUM BREAKER, MOUNTING BRACKET, AND 24" SLIDE BAR. ACORN 532-GX-FX-SB-LVR.
DRAIN:	FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. SEE FD-1 FOR ADDITIONAL INFORMATION.
TRAP SEAL:	PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN:	3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.
TYPE:	EDF-1 (ADA COMPLIANT)
DESCRIPTION:	BOTTLE FILLING STATION & BI-LEVEL HIGH EFFICIENCY VANDAL RESISTANT COOLER FILTERED REFRIGERATED STAINLESS. CHILLING CAPACITY OF 8.0 GPH OF 50°F DRINKING WATER, BASED ON 80°F INLET WATER AND 90°F AMBIENT. INCLUDE ANTIMICROBIAL, FILTERED, GREEN TICKER, HANDS FREE. HIGH EFFICIENCY, LAMINAR FLOW, REAL DRAIN, VANDAL RESISTANT, VISUAL FILTER MONITOR. ELECTRONIC BOTTLE FILLER SENSOR WITH MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. ELKAY MODEL #LVRCGRNTLBWSK.
P-TRAP:	1-1/4" CHROME PLATED CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON. MCGUIRE 8872.
SUPPLIES:	1/2" I.P.S. X 3/8" O.D CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER:	RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE SLAB WITH (4) 1/2" BOLTS. ADJUSTABLE SLEEVE FOR CONNECTION TO HANGER PLATE PROVIDED BY FIXTURE MANUFACTURER. WADE 400.
ROUGH-IN:	2" WASTE, 2" VENT, 1/2" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.
TYPE:	FD-1
SERVICE:	GENERAL USE
DESCRIPTION:	FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. WADE 1100-MRS.
TRAP PRIMER:	SERVED BY ELECTRONIC PPP PRIME-TIME TRAP PRIMER. REFER TO DETAILS.
ROUGH-IN:	REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION AND INSTALLATION WITH ARCHITECTURAL DRAWINGS / FLOOR CONSTRUCTION.
TYPE:	FCO
DESCRIPTION:	FLOOR CLEANOUT, CAST IRON BODY AND ADJUSTABLE TOP ASSEMBLY WITH GASKET SEAL, AND ROUND SCORIATED STAINLESS STEEL COVER. WADE 6000-153. FOR CARPETED FLOORS PROVIDE WADE 6000-CM.

GENERAL NOTES

ALL LAVATORIES AND SINKS SHALL BE SUPPLIED WITH HOT AND COLD WATER (UNLESS NOTED TO BE COLD WATER ONLY) TO FAUCETS AS INDICATED ON PLANS AND FIXTURE SCHEDULE. PROVIDE CHROME PLATED BRASS SUPPLY STOPS WITH LOOSE KEYS AND WALL ESCUTCHEONS. PROVIDE CHROME PLATED FLEXIBLE RISERS OF SIZE REQUIRED TO PROPERLY CONNECT FIXTURES. PROVIDE 17 GAUGE CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON (UNLESS NOTED TO BE AN ACID WASTE FIXTURE). REFER TO FIXTURE SCHEDULE FOR MINIMUM SIZES OF PLUMBING FIXTURE ROUGH-INS.

INSULATION KITS AT ALL LAVATORIES AND SINKS REQUIRED TO BE T.A.S. ACCESSIBLE (MCGUIRE OR TRUEBRO). ALL SUCH FIXTURES AND FINAL INSTALLATIONS SHALL COMPLY WITH THE STATE ACCESSIBILITY STANDARDS REQUIREMENTS.

INSERT TRAP GUARDS AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS-TIGHT SEAL. FOR DRAIN RODDING AFTER INSTALLATION. INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

DISREGARD FIXTURES LISTED THAT ARE NOT ON THIS JOB.

GENERAL NOTES

1. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE AND INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.

2. THIS CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THIS CONTRACTOR SHALL NOTIFY THE ARCHITECT/ ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.

PLUMBING GENERAL NOTES

1. WITHIN THE EXISTING BUILDING, EXISTING WATER, WASTE AND VENT SERVICES ARE TO BE MODIFIED AS REQUIRED AND REUSED FOR THE INSTALLATION OF NEW AND/OR RELOCATED PLUMBING FIXTURES. REFER TO PLUMBING FLOOR PLANS FOR POINTS OF CONNECTION.

2. WITHIN THE EXISTING BUILDING, SAWCUT AND REMOVE EXISTING FLOOR SLAB AS REQUIRED TO PROVIDE NEW AND/OR RELOCATED PLUMBING FIXTURES, CLEANOUTS, AND UNDERSLAB WASTE AND VENT PIPING. PATCH AND REFINISH FLOOR TO MATCH EXISTING.

3. IN AREAS WHERE THE FLOOR SLAB IS REMOVED, CONTRACTOR SHALL ALSO REMOVE UNDERSLAB WASTE AND VENT PIPING WHICH SERVES FIXTURES DESIGNATED FOR REMOVAL PRIOR TO ANY REMOVAL, FIELD VERIFY THAT LINES TO BE REMOVED DO NOT SERVE ANY EXISTING FIXTURES TO REMAIN OR NEW FIXTURES TO BE INSTALLED.

4. IN AREAS WHERE THE FLOOR SLAB IS NOT REMOVED, CONTRACTOR SHALL ABANDON IN PLACE ANY UNDERSLAB WASTE AND VENT PIPING NO LONGER NEEDED, UNLESS THE PIPING MUST BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION. IF NEW WORK DOES NOT NECESSITATE THEIR REMOVAL, CUT AND PLUG SUCH LINES BELOW SLAB, AND PATCH FLOOR TO MATCH EXISTING.

5. FIELD VERIFY EXACT LOCATION, SIZE, DEPTH, DIRECTION OF FLOW, CAPACITY, PIPE MATERIAL AND CONDITION OF EXISTING WASTE PIPING PRIOR TO BEGINNING CONSTRUCTION. ENSURE THAT PROPER CONNECTIONS TO AND EXTENSION OF SUCH UTILITIES CAN BE MADE.

6. WASTE LINES TO BE RE-USED OR RECONNECTED TO SHALL BE THOROUGHLY RODDED OUT AND FLUSHED TO ENSURE THEY ARE FREE FROM BLOCKAGES.

7. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING BELOW SLAB WITH COLUMN FOOTINGS, GRADE BEAMS, UNDERGROUND PLUMBING AND ELECTRICAL UTILITIES, AND OTHER SUB-SURFACE BUILDING ELEMENTS.

8. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.

9. CONTRACTOR TO COORDINATE ALL REMODEL WORK WITH THE WORK OF OTHER TRADES TO AVOID CONFLICTS AND TO MINIMIZE INTERRUPTION OF SERVICES.

10. COORDINATE ALL FIXTURE AND EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS WITH LATEST ARCHITECTURAL DRAWINGS AND SPECIFICATIONS PRIOR TO ANY ROUGH-INS.

11. DO NOT ROUGH-IN FROM THESE DRAWINGS. REFER TO LATEST ARCHITECTURAL DRAWINGS FOR DIMENSIONED LOCATIONS.

12. CONTRACTOR TO FIELD VERIFY AS NECESSARY THE EXACT ROUTING AND SIZES OF ALL PIPING.

13. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE, INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.

14. THE PROPER INSTALLATION OF NEW FIXTURES AND THE PROPER CONTINUED OPERATION OF EXISTING FIXTURES TO REMAIN SHALL DETERMINE THE EXTENT AND NATURE OF PLUMBING REMODEL WORK.

15. EACH VENT SHALL TERMINATE VERTICALLY NOT LESS THAN 6" ABOVE ROOF, MAINTAIN MINIMUM 10'-0" DISTANCE BETWEEN VENT TERMINALS THROUGH ROOF AND ALL FRESH AIR INTAKES, AND A MINIMUM 5'-0" FROM ANY EXTERIOR WALL.

16. PRIOR TO BEGINNING CONSTRUCTION, COORDINATE BUILDING BACKFLOW PREVENTION REQUIREMENTS WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PROVIDE AS DIRECTED.

PLUMBING MATERIAL LIST

ABOVE GRADE, INSIDE BUILDING

SANITARY WASTE AND VENT PIPING SHALL BE

NO-HUB CAST IRON SYSTEM CONFORMING TO CISPI. STANDARD NO. 301-75. NEOPRENE GASKETS SHALL CONFORM TO ASTM STANDARD C564-75, OR,

STORM PIPING SHALL BE

SERVICE WEIGHT CAST IRON HUB AND SPIGOT PIPE AND FITTINGS WITH ELASTOMERIC GASKETS JOINTS.

DOMESTIC WATER PIPING SHALL BE

DRAWN (HARD) COPPER WATER TUBE, TYPE "L", ASTM B88, WITH WROUGHT COPPER FITTINGS, ANSI B16.22 AND 95-5 SOLDER JOINTS.

ACID WASTE AND VENT PIPING SHALL BE

CLASS- BOROSILICATE ACID RESISTANT GLASS PIPE AND FITTINGS WITH TFE SEAL RINGS OR FLANGES. SYSTEM SHALL COMPLY WITH FEDERAL SPECIFICATION DD-G-541-B. PROVIDE BEAD-END PIPING.

BELOW GRADE, INSIDE BUILDING

SANITARY WASTE AND VENT PIPING SHALL BE

SCHEDULE 40 DWV POLYVINYL CHLORIDE PIPE AND FITTINGS CONFORMING TO ASTM-2665 WITH SOLVENT WELDED JOINTS. DO NOT USE IN AIR SUPPLY OR RETURN PLENUMS, AND OR WHERE FIRE RATED WALLS, PARTITIONS, OR FLOORS ARE PENETRATED.

STORM PIPING SHALL BE

SCHEDULE 40 DWV POLYVINYL CHLORIDE PIPE AND FITTINGS CONFORMING TO ASTM-2665 WITH SOLVENT WELDED JOINTS.

DOMESTIC WATER PIPING SHALL BE

ANNEALED (SOFT) COPPER WATER TUBE, TYPE "K", ASTM B88, WITH NO JOINTS OR FITTINGS BELOW SLAB.

ACID WASTE AND VENT PIPING SHALL BE

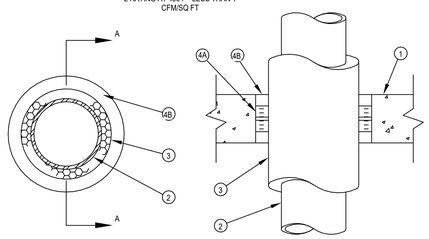
NON-FLAME RETARDANT POLYPROPYLENE PIPE WITH FUSION WELDED FITTINGS.

GAS PIPING SHALL BE

PIPE 2" AND SMALLER, PROVIDE SCHEDULE 40 ASTM A 53 BLACK STEEL WITH FACTORY FABRICATED SOCKET WELD FITTINGS.

PIPE LARGER THAN 2", USE SCHEDULE 40 ASTM A 53 BLACK STEEL PIPE WITH LONG RADIUS WELD FITTINGS.

SYSTEM NO. C-BJ-5002 FOR INSULATED PIPES SYSTEM NO. C-AJ-1557 FOR UNINSULATED PIPE SEPTEMBER 07, 2004 (FORMERLY SYSTEM NO. 91) F RATING - 4 HR T RATING - 1/2 HR L RATING AT AMBIENT - 2 CFM/SQ FT L RATING AT 400 F - LESS THAN 1 CFM/SQ FT



SECTION A-A

1. FLOOR OR WALL ASSEMBLY - MIN 5-1/2 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. DIAM OF OPENING TO BE 1 1/4 IN. TO 1-3/4 IN. LARGER THAN OUTSIDE DIAM OF INSULATED PIPE. MAX DIAM OF OPENING IS 12 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
2. PIPE - NOM 4 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER PIPE OR NOM 6 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE CENTERED IN THE OPENING AND RIGIDLY SUPPORTED ON BOTH SIDES OF THE FLOOR OR WALL ASSEMBLY.
3. PIPE COVERING* - NOM 1 OR 2 IN. THICK HOLLOW CYLINDRICAL HEAVY DENSITY GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. LONGITUDINAL JOINTS SEALED WITH METAL FASTENERS OR FACTORY-APPLIED SELF SEALING LAP TAPE. TRANSVERSE JOINTS SECURED WITH METAL FASTENERS OR WITH BUTT STRIP TAPE SUPPLIED WITH THE PRODUCT. SEE PIPE AND EQUIPMENT COVERING - MATERIALS* (BRGU) CATEGORY IN BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.
4. FIRESTOP SYSTEM - THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:

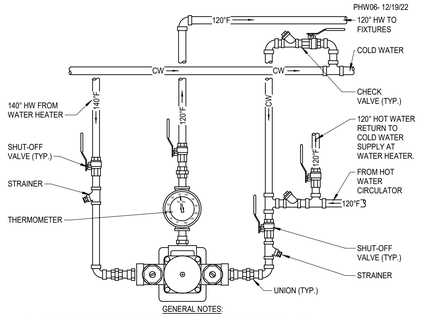
A. PACKING MATERIAL - MIN 1 IN. THICKNESS OF TIGHTLY-PACKED MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. PACKING MATERIAL TO BE RECESSED MIN 1 IN. FROM BOTH SURFACES OF FLOOR OR WALL ASSEMBLY.

B. FILL VOID OR CAVITY MATERIALS* - CAULK OR SEALANT - APPLIED TO FILL THE ANNULAR SPACE TO A MIN DEPTH OF 1 IN., FLUSH WITH BOTH SURFACES OF FLOOR OR WALL ASSEMBLY. 3M COMPANY - CP 25WB+ CAULK OR FB-3000 WT SEALANT. *BEARING THE UL CLASSIFICATION MARKING

3 INTERIOR FLOOR/WALL PENETRATION - INSULATED PIPE

SCALE: NONE

PHW/06- 12/19/22



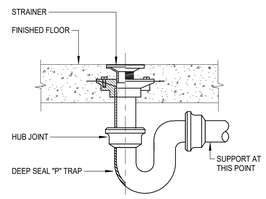
GENERAL NOTES:

1. MOUNT MIXING VALVE AT 48"-60" A.F.F. UNLESS NOTED OTHERWISE ON PLANS.
2. REFER TO PLANS FOR ALL PIPE SIZES. PROVIDE PIPE INCREASERS/DECREASERS AS REQUIRED.
3. REFER TO PLANS FOR ALL EQUIPMENT LOCATIONS.
4. MAKE ALL WATER CONNECTIONS TO THERMOSTATIC MIXING VALVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. ALL THERMOSTATIC MIXING VALVES MUST BE LEAD FREE.

2 THERMOSTATIC MIXING VALVE PIPING

SCALE: NONE

PSAN07- XX/XX/XX



1 FLOOR DRAIN

SCALE: NONE

THERMOSTATIC MIXING VALVE SCHEDULE

MARK	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	TEMP. IN (DEG. F)	TEMP. OUT (DEG. F)	MIN. FLOW GPM	DESIGN FLOW GPM	VALVE FINISH	THERMOMETER	UNION CONNECTION	PRESSURE DIFFERENTIAL	NOTES
TMV-1	POWERS	LFMM433	140	110	0.5	23.3	CP	YES	YES	5.0	1, 2, 3, 4
TMV-1	POWERS	LFMM433	140	110	0.5	23.3	CP	YES	YES	5.0	1, 2, 3, 4

NOTES:
1 MAKE WATER CONNECTIONS TO THERMOSTATIC MIXING VALVE(S) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2 PROVIDE PIPE INCREASERS AND/OR VALVES AS REQUIRED.
3 PROVIDE UNION CONNECTIONS AND OUTLET THERMOMETER UNLESS INDICATED OTHERWISE.
4 REFER TO DETAIL FOR MORE INFORMATION.

pfluger
office: 713.222.1141 | fax: 713.222.1177
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3434 PHEASANT CREEK DRIVE, SUGARLAND, TX 77498
STEPHEN F. AUSTIN HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS LICENSED PROFESSIONAL ENGINEER 80210 CENSED
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: JP CHECKED BY: DJ
REVISIONS:
No. Date Description

100% CD

P4.01-A
PLUMBING DETAILS & SCHEDULE

AUSTIN HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 5:15:45 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/AUSTIN_MEPT_R25.rvt

FORT BEND ISD
BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

BUSH HIGH SCHOOL

100% CONSTRUCTION DOCUMENTS

INDEX OF DRAWINGS

GENERAL
- G0.0-B COVER
- G0.01-B TAS 1 OF 2
- G0.02-B TAS 2 OF 2
- G0.03-B LEVEL 01 CODE PLAN

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- C 0.01-B CIVIL SPORTS GENERAL NOTES
- C 0.02-B CIVIL SPORTS SURVEY (REFERENCE ONLY)
- C 0.03-B CIVIL SPORTS SURVEY (REFERENCE ONLY)
- C 0.04-B CIVIL SPORTS DEMOLITION PLAN
- C 1.01-B CIVIL SPORTS SITE PLAN
- C 4.01-B CIVIL SPORTS SWPP PLAN BASEBALL
- C 5.01-B CIVIL SPORTS DETAILS

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- S1.02-B GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND SHEET INDEX
- S2.01-B FOUNDATION SITE DETAILS

ARCHITECTURE DEMOLITION
- A0.00-B DEMOLITION SITE PLAN

ARCHITECTURE
- A0.00-B SYMBOLS & ABBREVIATIONS
- A1.00-B ARCHITECTURAL SITE PLAN
- A1.01-B SITE DETAILS TENNIS COURT
- A1.02-B CONCRETE PAVEMENT DETAILS
- A2.00-B 01 FLOOR PLAN -FIELD HOUSE
- A9.00-B MATERIAL SCHEDULE & INTERIOR DETAILS
- A10.00-B 01 REFLECTED CEILING FLOOR PLAN FIELD HOUSE

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- P1.01-B PLUMBING SITE PLAN
- P3.01-B PLUMBING FLOOR PLAN - LEVEL 1 -FIELDHOUSE
- P5.01-B PLUMBING DETAIL & SCHEDULE

TECHNOLOGY
- T000-B TECHNOLOGY SYMBOLS & LEGEND
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- T100-B TECHNOLOGY SITE PLAN
- T201-B TECHNOLOGY LEVEL 01 FLOOR PLAN - FIELD HOUSE

SCOPE OF WORK

SID12524 - TENNIS COURTS IMPROVEMENTS
- FENCE GATES
- CANOPIES FOR EXISTING BLEACHERS
- NEW WINDSCREEN
- COURT BENCHES WITH CABANAS

SID12528 - RENOVATE WEIGHT ROOM
- INSTALLING RUBBER WEIGHT FLOORING IN WEIGHT ROOM
- DRINKING WATER FOUNTAIN - ADD BOTTLE FILLERS
- REPLACE TWO HOLLOW METAL DOORS PANELS (FRAME TO REMAIN)
- REPLACE EXISTING CEILING TILES IN WEIGHT ROOM

SID12536 - REPLACE WASHER AND DRYERS

SECTION 02- TRAINING ROOM RENOVATION
- INSTALLING RUBBER WEIGHT ROOM FLOORING IN TRAINING ROOM
- REPLACE EXISTING CEILING TILES IN TRAINING ROOM

SECTION 02- CONCRETE PAVEMENT UNDER BLEACHERS
- **ALTERNATE NO. 3** - CONCRETE PAVEMENT UNDER BLEACHERS FOR SOFTBALL, BASEBALL AND FOOTBALL

BOARD OF TRUSTEES

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BUSH HIGH SCHOOL CAMPUS KEY PLAN

ALTERNATE NO. 3 -
CONCRETE PAVEMENT UNDER BASEBALL BLEACHER

RENOVATE WEIGHT ROOM

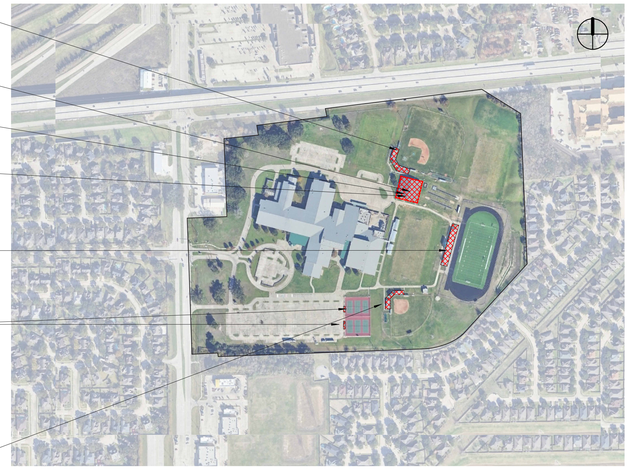
RENOVATE TRAINING ROOM

REPLACE WASHER/DRYER

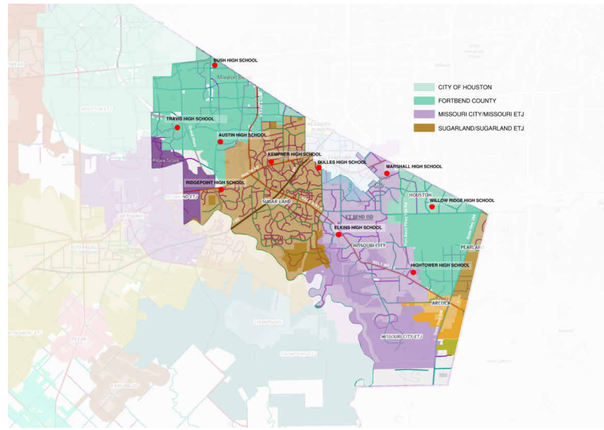
ALTERNATE NO. 3 -
CONCRETE PAVEMENT UNDER FOOTBALL BLEACHER

RENOVATE TENNIS COURT

ALTERNATE NO. 3 -
CONCRETE PAVEMENT UNDER SOFTBALL BLEACHER



LOCATION MAP



ALTERNATES:

ALTERNATE NO. 3 - BUSH HIGH SCHOOL: CONCRETE PAVEMENT UNDER THE BLEACHERS OF SOFTBALL, BASEBALL, AND FOOTBALL.

CIVIL

TEXAS SPORTS AND CIVIL ENGINEERING
11767 Katy Freeway, Suite 1112
Houston, TX 77079
P: 346.204.4854

MEPT

SALAS O'BRIEN
10930 W. San Houston Pkwy N. Suite 900
HOUSTON, TX 77064
P: (866) 768 4625

STRUCTURAL

MATRIX STRUCTURAL
5177 Richmond Ave Ste 670
HOUSTON, TX 77056
P: (713) 664-0130

PFLUGER ARCHITECTS

PFLUGER ARCHITECTS
2 GREENWAY PLAZA #460
HOUSTON, TX 77046
P:(713) 222-1141
WWW.PFLUGERARCHITECTS.COM

pfluger
office: 713.222.1141 | fax: 713.222.1177
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
6707 Fm 1464 Rd, Richmond, TX 77407
BUSH HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
2013
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

G0.00-B
COVER

BUSH HIGH SCHOOL

12/4/2025 10:04:10 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_BUSH_ARCH_FBISD ATHLETIC RENOVATIONS BP012-B_R25.rvt

THE FOLLOWING SECTION OF DETAILS PROVIDES INFORMATION ON REQUIREMENTS FOR DISABLED ACCESSIBILITY. THE REQUIREMENTS COMBINE MINIMUM REQUIREMENTS OF STATE AND FEDERAL AGENCIES. THE PURPOSE OF THIS SECTION IS TO HELP AVOID INSTALLATION OF MATERIALS ON CONSTRUCTION PROJECTS THAT WOULD LIMIT ACCESSIBILITY. THE SCOPE OF THIS SECTION IS LIMITED AND THE INDIVIDUALS WORKING ON THE PROJECT SHOULD FAMILIARIZE THEMSELVES WITH TEXAS ACCESSIBILITY STANDARD (TAS) AND AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COPIES OF THESE DOCUMENTS MAY BE OBTAINED BY CONTACTING THE FOLLOWING:

TAS:
TEXAS DEPT. OF LICENSING & REGULATION
P.O. BOX 12157
AUSTIN, TEXAS 78711
(800) 803-9202
TDD (800) 736-2989
WWW.LICENSE.STATE.TX.US

ADAAG:
SOUTHWEST DISABILITY AND BUSINESS
TECHNICAL ASSISTANCE CENTER FOR
REGION VI,
2323 S. SHEPERD, SUITE 1000
HOUSTON, TEXAS 77019
ADA HOTLINE: (800) 949-4232
TDD: (713) 520-5136 -OR- (713) 520-0232
FAX: (713) 520-5785

IN THE EVENT THE INFORMATION ON THE PLAN SHEETS DOES NOT MEET THE MINIMUM REQUIREMENTS OF THE SECTION, THEN THE INFORMATION SHALL BE PRESENTED TO THE ARCHITECT FOR CLARIFICATION PRIOR TO CONSTRUCTION OF SPECIFIC AREA OF WORK.

ELIMINATION OF ARCHITECTURAL BARRIERS
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (ADA)

IN ACCORDANCE WITH ACCESSIBILITY REQUIREMENTS, THE FOLLOWING STANDARDS SHALL BE INCLUDED WHEN BIDDING ON PROJECTS INVOLVING RENOVATION OF OR NEW FACILITIES FOR PUBLIC ACCOMMODATION OR COMMERCIAL FACILITIES. ANY ITEMS NOT CONFORMING TO THESE OR ANY OTHER STANDARDS, CODES, OR ORDINANCES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT FOR HIS INTERPRETATION. IN THE EVENT THE INFORMATION LISTED IN THIS DOCUMENT CONFLICTS WITH ANY PORTION OF THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT. IN WRITING, OF HIS NEED FOR A SOLUTION TO RESOLVE THE CONFLICT. THE MOUNTING HEIGHTS INDICATED ARE FOR ITEMS THAT REQUIRE ACCESSIBILITY BY DISABLED INDIVIDUALS. WHERE TWO OR MORE ITEMS ARE GROUPED IN ONE AREA (MIRRORS, SINKS, TOILETS, DRINKING FOUNTAINS, URINALS, SHELVES, TELEPHONES, ETC.) NOT ALL ITEMS IN THE AREA HAVE TO BE MOUNTED AT HANDICAP HEIGHT. CONTRACTOR TO COORDINATE THESE INSTALLATION HEIGHTS WITH OTHER MATERIALS FOR NEAT, TRIMMED OUT AND FINISHED APPEARANCE. ITEMS FOR DISABLED INDIVIDUAL USE SHALL BE MOUNTED AT HEIGHT INDICATED FOR AGE LEVEL AS NOTED.

CHAPTER 1: APPLICATION AND ADMINISTRATION

TAS SECTION 104 - CONVENTIONS
A. ALL DIMENSIONS ARE SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES EXCEPT WHERE THE REQUIREMENT IS STATED AS A RANGE WITH SPECIFIC MINIMUM AND MAXIMUM POINTS.
B. UNLESS SPECIFICALLY STATED OTHERWISE, FIGURES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

CHAPTER 2: SCOPING REQUIREMENTS

TAS SECTION 201.1 - SCOPE
A. ALL AREAS OF NEWLY DESIGNED AND NEWLY CONSTRUCTED BUILDINGS AND FACILITIES AN ALTERED PORTIONS OF EXISTING BUILDINGS AND FACILITIES SHALL COMPLY WITH THESE REQUIREMENTS.

TAS SECTION 202 - EXISTING BUILDINGS AND FACILITIES
A. EACH ADDITION TO AN EXISTING BUILDING OR FACILITY SHALL COMPLY WITH THE REQUIREMENTS FOR NEW CONSTRUCTION. EACH ADDITION THAT AFFECTS OR COULD EFFECT THE USABILITY OF OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL COMPLY WITH 202.4
B. WHERE EXISTING ELEMENTS, SPACES, OR COMMON USE AREAS ARE ALTERED, EACH ALTERED ELEMENT, SPACE, OR COMMON USE AREA SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 2.
C. AN ALTERATION THAT DECREASES THE ACCESSIBILITY OF A BUILDING OR FACILITY BELOW THE REQUIREMENTS FOR NEW CONSTRUCTION AT THE TIME OF THE ALTERATION IS PROHIBITED.
D. AN ALTERATION OF AN EXISTING ELEMENT, SPACE, OR AREA OF A BUILDING OR FACILITY SHALL NOT IMPOSE A REQUIREMENT FOR ACCESSIBILITY GREATER THAN REQUIRED FOR NEW CONSTRUCTION.
E. ALTERATIONS THAT AFFECT THE USABILITY OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL BE MADE SO AS TO ENSURE USAGE BY INDIVIDUALS WITH DISABILITIES.

TAS SECTION 204 - PROTRUDING OBJECTS
A. WITHIN AREAS OF ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOM AND SPACES SHALL COMPLY WITH 309.
B. WITHIN AREAS OF SPORTS ACTIVITY, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307.
C. WITHIN PLAY AREAS, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307 PROVIDED THAT GROUND LEVEL ACCESSIBLE ROUTES PROVIDE VERTICAL CLEARANCE IN COMPLIANCE WITH 1008.2.

TAS SECTION 205 - OPERABLE PARTS
A. OPERABLE PARTS ON ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOMS AND SPACES SHALL COMPLY WITH 309.
B. OPERABLE PARTS INTENDED FOR USE ONLY BY SERVICE OR MAINTENANCE PERSONNEL SHALL NOT BE REQUIRED TO COMPLY WITH 309.
C. ELECTRICAL OR COMMUNICATION RECEPTACLES SERVING A DEDICATED USE SHALL NOT BE REQUIRED TO COMPLY WITH 309.

TAS SECTION 206 - ACCESSIBLE ROUTES
A. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES, PUBLIC STREETS AND SIDEWALKS, AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
B. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE.
C. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH STORY AND MEZZANINE IN MULTI-STORY BUILDINGS AND FACILITIES.
D. IN RESTAURANTS AND CAFETERIAS, AN ACCESSIBLE ROUTE SHALL BE PROVIDED TO ALL DINING AREAS, INCLUDING RAISED OR SUNKEN DINING AREAS, AND OUTDOOR DINING AREAS.
E. WHERE A CIRCULATION PATH DIRECTLY CONNECTS A PERFORMANCE AREA TO AN ASSEMBLY AREA, AN ACCESSIBLE ROUTE SHALL DIRECTLY CONNECT THE ASSEMBLY SEATING AREA WITH THE PERFORMANCE AREA. AN ACCESSIBLE ROUTE SHALL BE PROVIDED FROM PERFORMANCE AREAS TO ANCILLARY AREAS OR FACILITIES USED BY PERFORMERS.

TAS SECTION 207 - ACCESSIBLE MEANS OF EGRESS
A. MEANS OF EGRESS SHALL COMPLY WITH SECTION 1003.2.13 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION.)
B. STANDBY POWER SHALL BE PROVIDED FOR PLATFORM LIFTS PERMITTED BY SECTION 1003.2.13.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007.5 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO SERVE AS A PART OF AN ACCESSIBLE MEANS OF EGRESS.

TAS SECTION 208 - PARKING SPACES
A. PARKING SPACES SHALL COMPLY WITH 502 AND SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 208.2 EXCEPT REQUIRED BY 208.2.1, 208.2.2, AND 208.2.3. WHERE MORE THAN ONE PARKING FACILITY IS PROVIDED ON A SITE, THE NUMBER OF ACCESSIBLE SPACES PROVIDED ON THE SITE SHALL BE CALCULATED ACCORDING TO THE NUMBER OF SPACES REQUIRED FOR EACH PARKING FACILITY.

TABLE 208.2 PARKING SPACES

TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES	TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES
1 TO 25	1	201 TO 300	7
26 TO 50	2	301 TO 400	8
51 TO 75	3	401 TO 500	9
76 TO 100	4	501 TO 1000	2 PERCENT OF TOTAL
101 TO 150	5	1000 AND OVER	20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000
151 TO 200	6		

TAS SECTION 208.2.4 - VAN PARKING SPACES
A. FOR EVERY SIX OR FRACTION OF SIX PARKING SPACES REQUIRED BY 208.2 TO COMPLY WITH 502, AT LEAST ONE SHALL BE A VAN PARKING SPACE COMPLYING WITH 502.

TAS SECTION 208.3 - LOCATION
A. PARKING SPACES COMPLYING WITH 502 THAT SERVE A PARTICULAR BUILDING OR FACILITY SHALL BE LOCATED ON THE SHORTEST POSSIBLE ACCESSIBLE ROUTE FROM PARKING LOT TO AN ENTRANCE. WHERE PARKING SERVES MORE THAN ONE ACCESSIBLE ENTRANCE, PARKING SPACES COMPLYING WITH 502 SHALL BE DISPERSED AND LOCATED AT THE SHORTEST ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCES.

TAS SECTION 209 - PASSENGER LOADING ZONES AND BUS STOPS
A. PASSENGER LOADING ZONES, EXCEPT THOSE REQUIRED TO COMPLY WITH 209.2.2 AND 209.2.3, SHALL PROVIDE AT LEAST ONE PASSENGER LOADING ZONE COMPLYING WITH 503 IN EVERY CONTINUOUS 100 LINEAR FEET (30M) OF LOADING ZONE SPACE, OR FRACTION THEREOF.
B. IN BUS LOADING ZONES RESTRICTED TO USE BY DESIGNATED OR SPECIFIED PUBLIC TRANSPORTATION VEHICLES, EACH BUS BAY, BUS STOP, OR OTHER AREA DESIGNATED FOR LIFT OR RAMP DEPLOYMENT SHALL COMPLY WITH 810.2

TAS SECTION 210 - STAIRWAYS
A. INTERIOR AND EXTERIOR STAIRS THAT ARE PART OF A MEANS OF EGRESS SHALL COMPLY WITH 504. ALTHOUGH HANDRAILS ON STAIRS THAT ARE NOT PART OF A MEANS OF EGRESS, STATE OR LOCAL BUILDING CODES MAY REQUIRE HANDRAILS OR GUARDS.

TAS SECTION 211 - DRINKING FOUNTAINS
A. NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED.
B. MORE THAN THE MINIMUM NUMBER OF DRINKING FOUNTAINS SPECIFIED IN 211.2 ARE PROVIDED, 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.1 THROUGH 602.6, AND 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.7

TAS SECTION 212 - KITCHENS, KITCHENETTES, AND SINKS
A. KITCHENS AND KITCHENETTES SHALL COMPLY WITH 804.
B. WHERE SINKS ARE PROVIDED, AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE, OF EACH TYPE PROVIDED IN EACH ACCESSIBLE ROOM OR SPACE SHALL COMPLY WITH 606.

TAS SECTION 213 - TOILET FACILITIES AND BATHING FACILITIES
A. WHERE TOILET FACILITIES AND BATHING FACILITIES ARE PROVIDED, THEY SHALL COMPLY WITH 213. TOILET FACILITIES AND BATHING FACILITIES SHALL BE PROVIDED ON A STORY CONNECTED BY AN ACCESSIBLE ROUTE TO AN ACCESSIBLE ENTRANCE.
B. TOILET RESTROOMS AND BATHING ROOMS SHALL COMPLY WITH 603.
C. WHERE MULTIPLE SINGLE USER TOILET ROOMS ARE CLUSTERED AT A SINGLE LOCATION, NO MORE THAN 50% OF THE SINGLE USER TOILET ROOMS FOR EACH USE AT EACH CLUSTER SHALL BE REQUIRED TO COMPLY WITH 603.
D. UNISEX TOILET ROOMS AND UNISEX BATHING ROOMS SHALL CONTAIN NOT MORE THAN ONE LAVATORY, AND TWO WATER CLOSETS WITHOUT URINALS OR ONE WATER CLOSET AND ONE URINAL. UNISEX BATHING ROOMS CONTAIN ONE SHOWER OR ONE SHOWER AND ONE BATHTUB, ONE LAVATORY, AND ONE WATER CLOSET. DOORS TO UNISEX RESTROOMS AND BATHING ROOMS SHALL HAVE PRIVACY LATCHES.

TAS SECTION 214 - WASHING MACHINES AND CLOTHES DRYERS
A. WHERE 3 OR FEWER WASHING MACHINES ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 WASHING MACHINES ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
B. WHERE 3 OR FEWER CLOTHES DRYERS ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 CLOTHES DRYERS ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.

TAS SECTION 215 - FIRE ALARM SYSTEMS
A. ALARMS IN PUBLIC USE AREAS AND COMMON USE AREAS SHALL COMPLY WITH 702.
B. WHERE EMPLOYEE WORK AREAS HAVE AUDIBLE ALARM COVERAGE, THE WIRING SYSTEM SHALL BE DESIGNED SO THAT THE VISIBLE ALARMS COMPLYING WITH 702 CAN BE INTEGRATED INTO THE ALARM SYSTEM.

TAS SECTION 216 - SIGNS
A. SIGNS SHALL COMPLY WITH 703. BUILDING DIRECTORIES, MENUS, SEAT AND ROW DESIGNATIONS IN ASSEMBLY AREAS, OCCUPANT NAMES, BUILDING ADDRESSES, AND COMPANY NAMES AND LOGOS SHALL NOT BE REQUIRED TO COMPLY WITH 216.
B. SIGNS REQUIRED BY SECTION 1003.2.13.5.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 1007.6.4 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE INSTRUCTIONS IN AREAS OF REFUGE SHALL COMPLY WITH 703.5.
C. DIRECTIONAL SIGNS REQUIRED BY SECTION 1003.2.13.6 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 707.7 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE DIRECTIONS TO ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 703.5
D. WHERE NOT ALL ENTRANCES COMPLY WITH 404, ENTRANCES COMPLYING WITH 404 SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1. DIRECTIONAL SIGNS COMPLYING WITH 703.5 THAT INDICATE THE LOCATION OF THE NEAREST ENTRANCE COMPLYING WITH 404 SHALL BE PROVIDED AT ENTRANCES THAT DO NOT COMPLY WITH 404.

TAS SECTION 217 - TELEPHONES
A. WHERE PUBLIC TELEPHONE ARE PROVIDED, WHEELCHAIR ACCESSIBLE TELEPHONES COMPLYING WITH 704.2 SHALL BE PROVIDED.

CHAPTER 2: SCOPING REQUIREMENTS (CONTINUED)

TAS SECTION 219 - ASSISTIVE LISTENING SYSTEMS
A. IN EACH ASSEMBLY AREA WHERE AUDIBLE COMMUNICATION IS INTEGRAL TO THE USE OF THE SPACE, AN ASSISTIVE LISTENING SYSTEM SHALL BE PROVIDED.
B. WHERE ALL SEATS IN AN ASSEMBLY AREA ARE SERVED BY AN INTRODUCTION LOOP ASSISTIVE LEARNING SYSTEM, THE MINIMUM NUMBER OF RECEIVERS REQUIRED BY TABLE 219.3 TO BE HEARING-AID COMPATIBLE SHALL NOT BE REQUIRED TO BE PROVIDED.

TAS SECTION 220 - AUTOMATIC TELLER MACHINES AND FARE MACHINES
A. WHERE AUTOMATIC TELLER MACHINES OR SELF-SERVICE FARE VENDING, COLLECTION, OR ADJUSTMENT MACHINES ARE PROVIDED, AT LEAST ONE OF EACH TYPE PROVIDED AT EACH LOCATION SHALL COMPLY WITH 707. WHERE BINS ARE PROVIDED FOR ENVELOPES, WASTE PAPER, OR OTHER PURPOSES, AT LEAST ONE OF EACH SHALL COMPLY WITH 811.

TAS SECTION 221 - ASSEMBLY AREAS
A. ASSEMBLY AREAS SHALL PROVIDE WHEELCHAIR SPACES, COMPANION SEATS, AND DESIGNATED AISLE SEATS COMPLYING WITH 221 AND 802.
B. WHEELCHAIR SPACES COMPLYING WITH 802.1 SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 221.2.1.1.
C. WHEELCHAIR SPACES SHALL BE AN INTEGRAL PART OF THE SEATING PLAN.
D. WHEELCHAIR SPACES SHALL PROVIDE LINES OF SIGHT COMPLYING WITH 802.2. IN PROVIDING LINES OF SIGHT, WHEELCHAIR SPACES SHALL BE DISPERSED. WHEELCHAIR SPACES SHALL PROVIDE SPECTATORS WITH CHOICES OF SEATING LOCATIONS OR VIEWING ANGLES EQUAL TO OR BETTER THAN SEATING LOCATIONS AND VIEWING ANGLES OF OTHER SPECTATORS.
E. AT LEAST 5% OF THE TOTAL NUMBER OF AISLE SEATS PROVIDED SHALL COMPLY WITH 802.4 AND SHALL BE THE AISLE SEATS LOCATED CLOSEST TO THE ACCESSIBLE ROUTES.

TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES	NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES
4 TO 25	1	301 TO 500	6
26 TO 50	2	501 TO 5000	6, PLUS 1 FOR EACH 150, OR FRACTION THEREOF, BETWEEN 501 THROUGH 5000
51 TO 150	4	5001 AND OVER	36, PLUS 1 FOR EACH 200, OR FRACTION THEREOF, OVER 5000
151 TO 300	5		

TAS SECTION 222 - DRESSING, FITTING, AND LOCKER ROOMS
A. WHERE DRESSING ROOMS, FITTING ROOMS, OR LOCKER ROOMS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE, OF EACH TYPE OF USE IN EACH CLUSTER PROVIDED SHALL COMPLY WITH 803.
B. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN DRESSING FITTING OR LOCKER ROOMS W/O INDIVIDUAL COMPARTMENTS, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 803.5. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN INDIVIDUAL COMPARTMENTS AT LEAST ONE OF EACH TYPE SHALL BE PROVIDED IN ACCORDANCE WITH 223.

TAS SECTION 223 - MEDICAL CARE AND LONG-TERM CARE FACILITIES
A. IN LICENSED MEDICAL CARE FACILITIES AND LICENSED LONG-TERM CARE FACILITIES WHERE THE PERIOD OF STAY EXCEEDS TWENTY-FOUR HOURS, PATIENT OR RESIDENT SLEEPING ROOMS SHALL BE PROVIDED IN ACCORDANCE WITH 223. TOILET ROOMS PART OF CRITICAL OR INTENSIVE CARE PATIENT SLEEPING ROOMS SHALL NOT BE REQUIRED TO COMPLY WITH 603.

TAS SECTION 224 - TRANSIENT LODGING FACILITIES AND GUEST ROOMS
A. TRANSIENT LODGING FACILITIES SHALL PROVIDE GUEST ROOMS IN ACCORDANCE WITH 224. PLACES OF LODGING AND HOUSING AT A PLACE OF EDUCATION SHALL COMPLY WITH THE PROVISIONS APPLICABLE TO TRANSIENT LODGING, INCLUDING, BUT NOT LIMITED TO, THE REQUIREMENTS FOR TRANSIENT LODGING GUEST ROOMS IN SECTIONS 224 AND 806.
B. ENTRANCES, DOORS, AND DOORWAYS PROVIDING USERS ACCESS INTO AND WITHIN THE GUEST ROOMS THAT ARE NOT REQUIRED TO PROVIDE MOBILITY FEATURES COMPLYING WITH 806.2 SHALL COMPLY WITH 404.2.3.
C. IN GUEST ROOMS HAVING MORE THAN 25 BEDS, 5% MINIMUM OF THE BEDS SHALL HAVE CLEAR FLOOR SPACE COMPLYING WITH 806.2.3.

TAS SECTION 225 - STORAGE
A. WHERE STORAGE IS PROVIDED, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 811.
B. WHERE LOCKERS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE, SHALL COMPLY WITH 811.

TAS SECTION 226 - DINING SURFACES AND WORK SURFACES
A. WHERE DINING SURFACES ARE PROVIDED FOR THE CONSUMPTION OF FOOD OR DRINK, AT LEAST 5% OF THE SEATING SPACES AND STANDING SPACES AT THE DINING SURFACES SHALL COMPLY WITH 902. IN ADDITION, WHERE WORK SURFACES ARE PROVIDED FOR USE BY OTHER THAN EMPLOYEES, AT LEAST 5% SHALL COMPLY WITH 902.

TAS SECTION 227 - SALES AND SERVICE
A. WHERE PROVIDED, CHECK-OUT AISLES, SALES COUNTERS, SERVICE COUNTERS, FOOD SERVICE LINES, QUEUES, AND WAITING LINES SHALL COMPLY WITH 227 AND 904.
B. WHERE COUNTERS ARE PROVIDED, AT LEAST ONE OF EACH TYPE OF SALES COUNTER AND SERVICE COUNTER SHALL COMPLY WITH 904.4. WHERE COUNTERS ARE DISPERSED THROUGHOUT THE FACILITY, COUNTERS COMPLYING WITH 904.4 SHALL ALSO BE DISPERSED.
C. QUEUES AND WAITING LINES SERVICING COUNTERS OR CHECK-OUT AISLES REQUIRED TO COMPLY WITH 904.3 OR 904.4 SHALL COMPLY WITH 403.

TAS SECTION 228 - DEPOSITORIES, VENDING MACHINES, CHANGE MACHINES, MAIL BOXES
A. WHERE PROVIDED, AT LEAST ONE OF EACH TYPE OF DEPOSITORY, VENDING MACHINE, CHANGE MACHINE, AND FUEL DISPENSER SHALL COMPLY WITH 309.
B. WHERE MAIL BOXES ARE PROVIDED IN AN INTERIOR LOCATION, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE SHALL COMPLY WITH 309.

TAS SECTION 229 - WINDOWS
A. WHERE GLAZED OPENINGS ARE PROVIDED IN ACCESSIBLE ROOMS OR SPACES FOR OPERATION BY OCCUPANTS, AT LEAST ONE MUST OPENING SHALL COMPLY WITH 309. EACH GLAZED OPENING REQUIRED BY AN ADMINISTRATIVE AUTHORITY TO BE OPERABLE SHALL COMPLY WITH 309.

TAS SECTION 230 - TWO-WAY COMMUNICATION SYSTEMS
A. WHERE A TWO-WAY COMMUNICATION SYSTEM IS PROVIDED TO GAIN ADMITTANCE TO A BUILDING OR FACILITY OR TO BE RESTRICTED AREAS WITHIN A BUILDING OR FACILITY, THE SYSTEM SHALL COMPLY WITH 708.

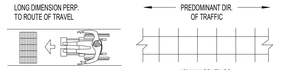
TAS SECTION 240 - PLAY AREAS
A. WHERE GROUND LEVEL PLAY COMPONENTS ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
B. WHEN ELEVATED PLAY COMPONENTS ARE PROVIDED, AT LEAST 50% SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4

TAS SECTION 242 - SWIMMING POOLS, WADING POOLS, AND SPAS
A. AT LEAST TWO ACCESSIBLE MEANS OF ENTRY SHALL BE PROVIDED FOR SWIMMING POOLS.
B. AT LEAST ONE ACCESSIBLE MEANS FOR ENTRY FOR WADING POOLS AND SPAS.

TAS SECTION 243 - SHOOTING FACILITIES WITH FIRING POSITIONS
A. WHERE SHOOTING FACILITIES WITH FIRING POSITIONS ARE DESIGNED AND CONSTRUCTED AT A SITE, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE OF FIRING POSITION SHALL COMPLY WITH 1010.

CHAPTER 3: BUILDING BLOCKS

TAS SECTION 302 - FLOOR OR GROUND SURFACES
A. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
B. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE.
C. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3, AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.



TAS SECTION 303 - CHANGES IN LEVEL
A. CHANGES IN LEVEL OF 1/4" HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL. (FIG. 303)
B. CHANGES IN LEVEL BETWEEN 1/4"-1/2" MAXIMUM SHALL BE BEVELED AT A SLOPE NOT STEEPER THAN 1:2 (FIG. 303)
C. CHANGES IN LEVEL GREATER THAN 1/2" HIGH SHALL BE RAMPED AND COMPLY WITH 405 OR 406

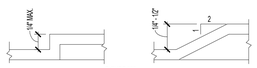


FIGURE 303

TAS SECTION 304 - TURNING SPACE
A. THE TURNING SPACE SHALL BE A SPACE 60" DIAMETER MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306
B. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. DOORS SHALL BE PERMITTED TO SWING INTO TURNING SPACES.
D. THE T-SHAPED TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60" SQUARE MINIMUM WITH ARMS AND BASE 36" WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12" MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24" MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM. (FIG. 304.3.2)

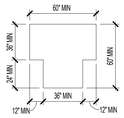


FIGURE 304.3.2
T-SHAPED
TURNING SPACE

TAS SECTION 305 - CLEAR FLOOR OR GROUND SPACE
A. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM.
B. FLOOR OF GROUND SURFACES OF A CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM. (FIG. 305.3)
D. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCES COMPLYING WITH 306.
E. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT. (FIG. 305.5)
F. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE.
G. WHERE A CLEAR FLOOR OR GROUND SPACE IS LOCATED IN AN ALCOVE OR OTHERWISE CONFINED ON ALL OR PART OF 3 SIDES, ADDITIONAL MANEUVERING CLEARANCE SHALL BE PROVIDED IN ACCORDANCE WITH BELOW
1. ALCOVES SHALL BE 36" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24" FOR FORWARD APPROACH (FIG. 315.7.1)
2. ALCOVES SHALL BE 60" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15" FOR PARALLEL APPROACH (FIG. 305.7.2)

CHAPTER 3: SCOPING REQUIREMENTS (CONTINUED)


FIGURE 305.3
CLEAR FLOOR OR GROUND SPACE

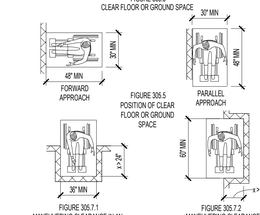


FIGURE 305.7.1
MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH
FIGURE 305.7.2
MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

TAS SECTION 306 - KNEE AND TOE CLEARANCE
A. WHERE SPACE BENEATH AN ELEMENT IS INCLUDED AS PART OF CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE, THE SPACE SHALL COMPLY WITH 306. ADDITIONAL SPACE SHALL NOT BE PROHIBITED BENEATH AN ELEMENT BUT SHALL NOT BE CONSIDERED AS PART OF THE CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE.

TAS SECTION 306.2 - TOE CLEARANCE
A. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9" ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE.
B. TOE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT
C. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17" MINIMUM UNDER THE ELEMENT.
D. SPACE EXTENDING GREATER THAN 6" BEYOND THE AVAILABLE KNEE CLEARANCE AT 9" ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.
E. TOE CLEARANCE SHALL BE 30" WIDE MINIMUM.

TAS SECTION 306.3 - KNEE CLEARANCE
A. SPACE UNDER AN ELEMENT 9"-27" ABOVE THE FINISH FLOOR SHALL BE CONSIDERED KNEE CLEARANCE.
B. KNEE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT AT 9" ABOVE THE FINISH FLOOR.
C. WHERE KNEE CLEARANCE IS REQUIRED UNDER AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE KNEE CLEARANCE SHALL BE 11" DEEP MINIMUM AT 9" ABOVE THE FINISH FLOOR OR

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

TAS SECTION 502 - PARKING SPACES (REFERENCE FIGURE 502.3)
A. ACCESSIBLE CAR PARKING SPACES SHALL BE AT LEAST 96" MINIMUM WIDE AND VAN ACCESSIBLE PARKING SHALL BE 132" MINIMUM WIDE.
   1. VAN PARKING SPACES MAY BE 96" WIDE MINIMUM WHERE THERE IS AN ACCESS AISLE 96" WIDE MINIMUM.
   2. ACCESS AISLES SERVING CAR AND VAN PARKING SHALL BE A MINIMUM 60" WIDE AND SHALL ADJOIN AN ACCESSIBLE ROUTE.
   3. ACCESS AISLES SHOULD BE MARKED TO DISCOURAGE PEOPLE FROM PARKING IN THEM AND EXTEND THE FULL LENGTH OF THE PARKING SPACE.
B. SURFACE SLOPE SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS (NOTE: NO BUILT UP CURB RAMP MAY BE LOCATED IN AN ACCESSIBLE PARKING ACCESS AISLE.)
C. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY.
D. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES. WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACE.

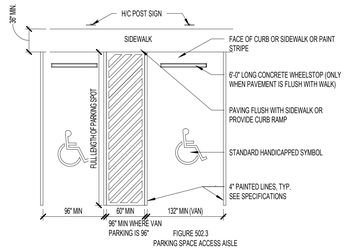
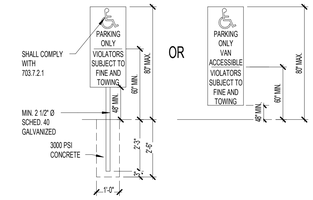


FIGURE 502.3
PARKING SPACE ACCESS AISLE

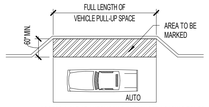
68.104: ACCESSIBLE PARKING SPACES

(A) A PAVED ACCESSIBLE PARKING SPACE MUST INCLUDE:
   (1) THE INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED CONSPICUOUSLY ON THE SURFACE IN A COLOR THAT CONTRASTS THE PAVEMENT;
   (2) THE WORDS "NO PARKING" PAINTED ON ANY ACCESS AISLE ADJACENT TO THE PARKING SPACE. THE WORDS MUST BE PAINTED:
      (A) IN ALL CAPITAL LETTERS;
      (B) WITH A LETTER HEIGHT OF AT LEAST TWELVE INCHES, AND A STROKE WIDTH OF AT LEAST TWO INCHES; AND
      (C) CENTERED WITHIN EACH ACCESS AISLE ADJACENT TO THE PARKING SPACE; AND
   (3) A SIGN IDENTIFYING THE CONSEQUENCES OF PARKING ILLEGALLY IN A PAVED ACCESSIBLE PARKING SPACE. THE SIGN MUST:
      (A) AT A MINIMUM STATE "VIOLATORS SUBJECT TO FINE AND TOWING" IN A LETTER HEIGHT OF AT LEAST ONE INCH;
      (B) BE MOUNTED ON A POLE, POST, WALL OR FREESTANDING BOARD;
      (C) BE NO MORE THAN EIGHT INCHES BELOW A SIGN REQUIRED BY TEXAS ACCESSIBILITY STANDARDS, 502.6; AND
      (D) BE INSTALLED SO THAT THE BOTTOM EDGE OF THE SIGN IS NO LOWER THAN 48 INCHES AND NO HIGHER THAN 80 INCHES ABOVE GROUND LEVEL.
(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).



NOTE: PROVIDE ONE SIGN AT EACH DISABLED (DESIGNATED) PARKING SPACE

TAS SECTION 503 - PASSENGER LOADING ZONES
A. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96" WIDE MINIMUM AND 20' LONG MINIMUM.
TAS SECTION 503.3 - ACCESS AISLE (REFERENCE FIGURE 503.3)
A. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 503 ADJACENT TO THE VEHICLE PULL UP SPACE. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.
   1. ACCESS AISLES SERVING VEHICULAR PULL-UP SPACES SHALL BE 60" WIDE MINIMUM AND EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE
   2. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED. CHANGES IN LEVEL OF THE FLOOR AND GROUND SURFACE ARE NOT PERMITTED.
B. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 144" MINIMUM.



ACCESS AISLE AT AUTOMOBILE PASSENGER LOADING ZONES
FIGURE 503.3
PASSENGER LOADING ZONE ACCESS AISLE

TAS SECTION 504 - STAIRWAYS
TAS SECTIONS 504.2 - TREADS AND RISERS
A. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND TREAD WIDTHS
   1. MINIMUM TREAD DEPTH SHALL BE 11", MEASURED FROM RISER TO RISER (NOT INCLUDING NOSING)
   2. OPEN RISERS ARE NOT PERMITTED
   3. RISERS SHALL BE 4" HIGH MIN. – 7" HIGH MAX.
TAS SECTIONS 504.5 - NOSINGS (REFERENCE FIGURE 504.5)
A. RADIUS OF THE CURVATURE AT THE LEADING EDGE SHALL BE 1/2" MAXIMUM. RISERS SHALL BE PERMITTED TO SLOPE UNDER THE TREAD AT AN ANGLE OF 30 DEGREES MAXIMUM FROM VERTICAL. THE PERMITTED PROJECTION OF THE NOSING SHALL EXTEND 1 1/2" MAXIMUM OVER THE TREAD BELOW.

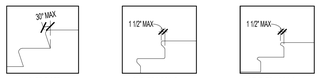
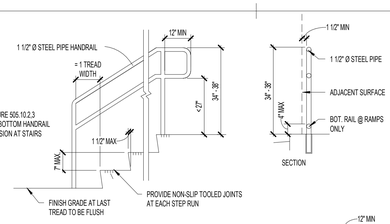
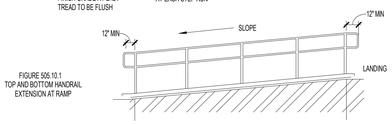


FIGURE 504.5
STAIR NOSINGS

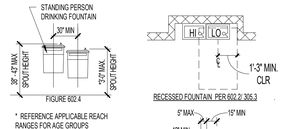
TAS SECTION 505 - HANDRAILS (REFERENCE FIGURES 505.10.1, 505.10.2, 3)
A. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS. NON-CONTINUOUS STAIR HANDRAILS SHALL EXTEND 12" BEYOND THE TOP RISER AND THE WIDTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT THE TOP, THE EXTENSION SHALL BE PARALLEL TO THE FLOOR. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF ONE TREAD WIDTH. NON CONTINUOUS RAMP HANDRAILS SHALL EXTEND 12" MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS.
B. HEIGHT: 34"-38", MEASURED FROM THE STAIR NOSING.
C. CLEARANCE BETWEEN HANDRAIL AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM.
D. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
E. HANDRAILS ARE REQUIRED ON RAMP RUNS GREATER THAN 6" IN RISE.

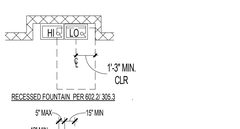




CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

TAS SECTION 602 - DRINKING FOUNTAINS
A. DRINKING FOUNTAINS SHALL COMPLY WITH 307 (PROTRUDING OBJECTS) AND 602.
B. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCES MUST COMPLY WITH 306. OPERABLE PARTS SHALL COMPLY WITH 309. (FIG. 602.5)
TAS SECTION 602.4 - SPOUT HEIGHT (REFERENCE FIGURE 602.4 FOR ACCESSIBLE UNIT)
A. ACCESSIBLE SPOUTS SHALL BE A MAXIMUM 36" ABOVE THE FINISH FLOOR OR GROUND.
TAS SECTION 602.5 - SPOUT LOCATION (REFERENCE FIGURE 602.5)
A. THE SPOUT SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.
B. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4" HIGH AND SHALL BE LOCATED 5" MAXIMUMFROM THE FRONT OF THE UNIT.
C. WHERE SPOUTS ARE LOCATED LESS THAN 3" FROM THE FRONT OF THE UNIT, THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE THE SPOUT IS LOCATED BETWEEN 3"-5" MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.
TAS SECTION 602.7 - DRINKING FOUNTAINS FOR STANDING PERSONS
A. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. (FIG. 602.4)





* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS

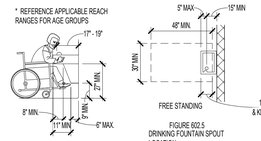


FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION

TAS SECTION 603 - TOILET AND BATHING ROOMS
A. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM. (60" DIAMETER OR T-SHAPED SPACE PER 304.3.2)
B. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP.
C. DOOR SWINGS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS CAN SWING INTO THE REQUIRED TURNING SPACE.
TAS SECTION 603.3 - MIRRORS
A. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED SO THE BOTTOM EDGE OF THE REFLECTING SURFACE IS 40" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT INSTALLED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE 35" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
TAS SECTION 603.4 - COAT HOOKS AND SHELVES
A. COAT HOOKS SHALL BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" ABOVE THE FINISH FLOOR.
TAS SECTION 604 - WATER CLOSETS AND TOILET COMPARTMENTS
A. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16" MINIMUM AND 18" MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT IN AN AMBULATORY ACCESSIBLE TOILET COMPARTMENT WHERE THE CENTERLINE OF THE WATER CLOSET MAY BE 17" MINIMUM AND 18" MAXIMUM FROM THE SIDE WALL OR PARTITION. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT-HAND OR RIGHT-HAND APPROACH. (FIG. 604.3.1, 604.8.2)
TAS SECTION 604.3 - CLEARANCE
A. CLEARANCES AROUND WATER CLOSETS AND IN TOILET COMPARTMENTS SHALL COMPLY WITH FIGURE 604.3.1

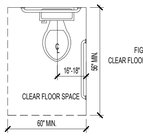


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

TAS SECTION 604.3.2 - OVERLAP
A. THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.
TAS SECTION 604.4 - SEATS (REFERENCE FIGURE 604.4)
A. THE SEAT HEIGHT OF A WATER CLOSET ABOVE FINISH FLOOR SHALL BE 17"-19" MAXIMUM MEASURED TO THE TOP OF SEAT.
   1. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION
TAS SECTION 604.5 - GRAB BARS (REFERENCE FIGURES 604.4, 604.5.2)
A. GRAB BARS SHALL COMPLY WITH 609 AND BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL.
   1. GRAB BARS SHALL NOT BE REQUIRED IN A TOILET ROOM FOR A SINGLE USE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON OR PUBLIC USE PROVIDED THAT REINFORCEMENT HAS BEEN INSTALLED IN WALLS AND LOCATED SO AS TO PERMIT THE INSTALLATION OF GRAB BARS COMPLYING WITH 604.5
B. FOR WATER CLOSETS NOT LOCATED IN TOILET STALLS, THE FOLLOWING GRAB BARS SHALL BE PROVIDED, 33"-36" ABOVE THE FINISH FLOOR:
   1. SIDE WALL: 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM BACK WALL. NOTE: INCLUDE 18" VERTICAL GRAB BAR PER ICC A117.1.
   2. REAR WALL: 36" LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON ONE SIDE AND 24" MINIMUM ON THE OTHER SIDE. REFER TO 609 GRAB BARS FOR SIZE AND STRUCTURAL ELEMENTS.
TAS SECTION 604.5.2 - REAR WALL
A. THE REAR GRAB BAR SHALL BE PERMITTED TO BE 24 INCHES LONG MINIMUM, CENTERED ON THE WATER CLOSET WHERE WALL SPACE DOES NOT PERMIT A LENGTH OF 36 INCHES MINIMUM DUE TO THE LOCATION OF A RECESSED FIXTURE ADJACENT TO THE WATER CLOSET.
B. WHERE AN ADMINISTRATIVE AUTHORITY REQUIRES FLUSH CONTROLS FOR FLUSH VALVES TO BE LOCATED IN A POSITION THAT CONFLICTS WITH THE LOCATION OF THE REAR GRAB BAR, THEN THE REAR GRAB BAR SHALL BE PERMITTED TO BE SPLIT OR SHIFTED TO THE OPEN SIDE OF THE TOILET AREA.
TAS SECTION 604.6 - FLUSH CONTROLS (REFERENCE FIGURE 604.5.2)
A. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.
TAS SECTION 604.7 - DISPENSERS (REFERENCE FIGURE 604.4)
A. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7" MINIMUM AND 9" MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS THAT CONTROL DELIVERY OR DO NOT PERMIT CONTINUOUS PAPER FLOW SHALL NOT BE USED.

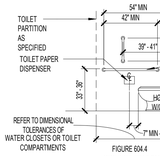


FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

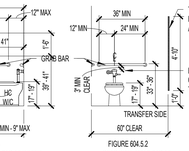


FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

TAS SECTION 604.8 - TOILET COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.
TAS SECTION 604.8.1 - WHEELCHAIR ACCESSIBLE COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1
B. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL, AND 56" DEEP MINIMUM FOR WALL HUNG WATER CLOSETS AND 59" DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDRENS USE SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE WALL AND 59" DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.

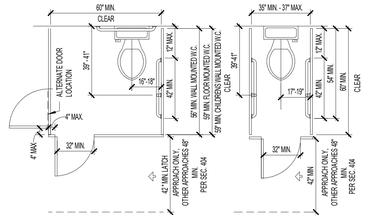


FIGURE 604.8.1
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

CLEARANCES INDICATED ARE MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REFER TO TOILET ROOMS AND LAVATORY DETAILS FOR MOUNTING HEIGHTS.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES (CONTINUED)

TAS SECTION 604.8.1.2 - DOORS (REFERENCE FIGURES 604.8.1.2, 604.8.2)
A. TOILET COMPARTMENTS DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42" MINIMUM. DOORS SHALL BE LOCATED IN THE FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE FRONT PARTITION. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.
B. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET.
TAS SECTION 604.8.1.4 - TOE CLEARANCE
A. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9" MINIMUM ABOVE FINISH FLOOR AND 9" DEEP MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDRENS USE SHALL PROVIDE 12" MINIMUM TOE CLEARANCE ABOVE FINISH FLOOR.
TAS SECTION 604.8.2 - AMBULATORY ACCESSIBLE COMPARTMENTS
A. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH FIGURE 604.8.2
B. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60" MINIMUM AND A WIDTH OF 35"-37" MAXIMUM.
C. GRAB BARS IN AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR THAT IS 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM THE REAR WALL AND EXTENDING 54" MINIMUM FROM THE REAR WALL SHALL BE LOCATED ON BOTH SIDES OF COMPARTMENT.
D. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" MAXIMUM ABOVE THE FINISH FLOOR.
TAS SECTION 605 - URINALS
A. URINALS SHALL BE STALL-TYPE OR WALL-HUNG WITH THE RIM 17" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13 1/2" DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK SIDE OF THE FIXTURE. (FIG. 605.2)
B. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.

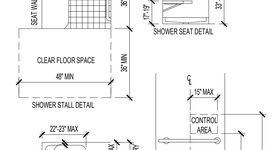


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

TAS SECTION 606 - LAVATORIES AND SINKS
A. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCES COMPLYING WITH 306 SHALL BE PROVIDED.
   1. SOAP AND TOWEL DISPENSERS MUST ALSO BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. LOCATE SOAP AND TOWEL DISPENSERS SO THEY ARE EASY TO USE BY A PERSON AT THE ACCESSIBLE LAVATORY.
B. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER RIM OR COUNTER SURFACE 34" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
C. CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND-OPERATED METERING FAUCETS SHALL REMAIN FOR 10 SECONDS MINIMUM.
D. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.

LAVATORY DETAIL

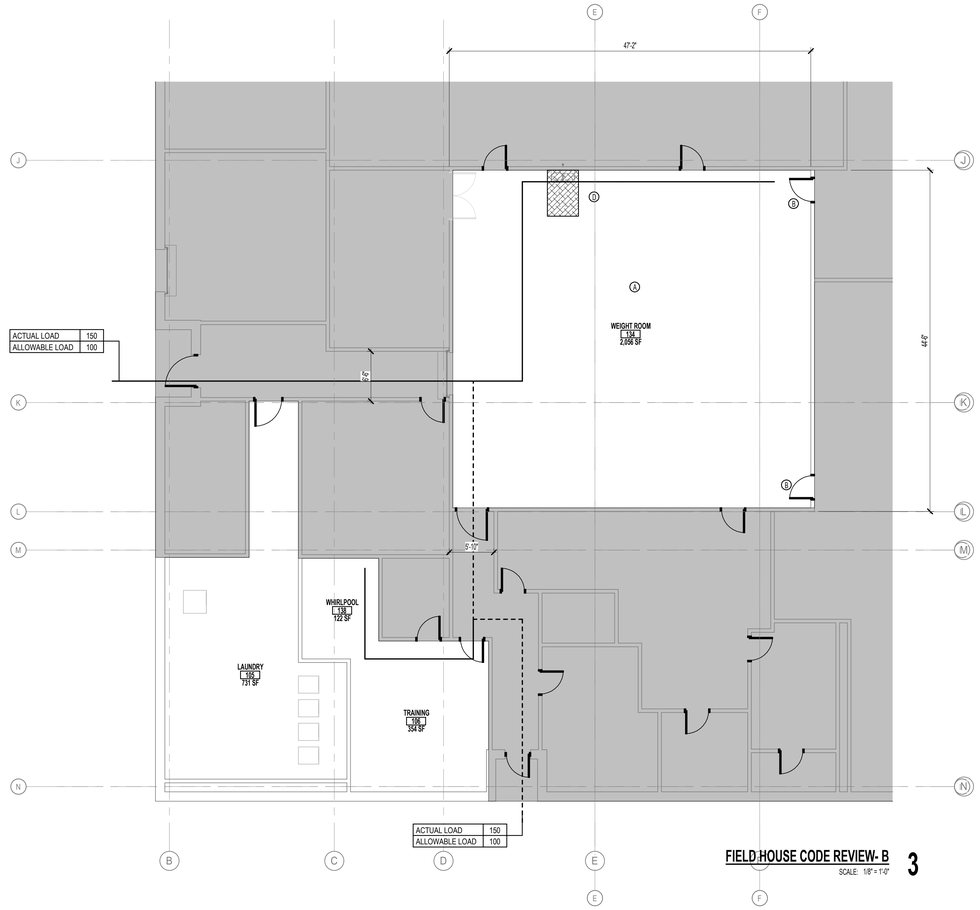
TAS SECTION 607 - BATHTUBS
A. CLEARANCE IN FRONT OF BATHTUBS SHALL EXTEND THE LENGTH OF THE BATHTUB AND SHALL BE 30 INCHES WIDE MINIMUM. A LAVATORY COMPLYING WITH 606 SHALL BE PERMITTED AT THE CONTROL END OF THE CLEARANCE. WHERE A PERMANENT SEAT IS PROVIDED AT THE HEAD END OF THE BATHTUB, THE CLEARANCE SHALL EXTEND 12" MINIMUM BEYOND THE WALL AT THE HEAD END OF THE BATHTUB.
B. A PERMANENT SEAT AT THE HEAD END OF THE BATHTUB OR A REMOVABLE IN-TUB SEAT SHALL BE PROVIDED. SEATS SHALL COMPLY WITH 610.
C. GRAB BARS FOR BATHTUBS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH FIGURES 607.4.1

TAS SECTION 608 - SHOWER COMPARTMENTS
A. SHOWER STALLS SHALL BE 36" X 36" CLEAR INSIDE DIMENSION AT TRANSFER TYPE SHOWER COMPARTMENTS AND HAVE A 36" MINIMUM WIDE BY 48" MINIMUM LONG CLEARANCE MEASURED FROM THE CONTROL WALL. ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 30" MINIMUM WIDE BY 60" MINIMUM LONG AND SHALL HAVE A 30" MIN WIDE X 60" MIN LONG ENTRY ON THE FACE OF THE SHOWER COMPARTMENT. ALTERNATE ROLL-IN SHOWER TYPE COMPARTMENTS SHALL BE 36" MINIMUM WIDE AND 60" MINIMUM DEEP CLEAR INSIDE DIMENSIONS WITH A 36" WIDE MINIMUM ENTRY PROVIDED AT ONE END OF THE LONG SIDE OF THE COMPARTMENT.

TAS SECTION 608.3.1 - TRANSFER TYPE SHOWER COMPARTMENT
A. IN TRANSFER TYPE COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND BACK WALL TO A POINT 18" FROM THE CONTROL WALL.
B. A FOLDING OR NON-FOLDING SEAT SHALL BE PROVIDED IN TRANSFER TYPE SHOWER COMPARTMENTS.
C. CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS SHALL COMPLY WITH 309.4
TAS SECTION 608.7 - THRESHOLDS
A. THRESHOLDS IN ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 1/2" HIGH MAXIMUM IN ACCORDANCE WITH 308. IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" HIGH SHALL BE BEVELED, ROUNDED, OR VERTICAL.

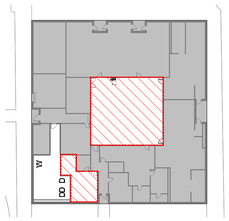
FIGURE 608.2.1
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

TAS SECTION 609 - GRAB BARS
A. GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2" MAXIMUM AND A PERIMETER DIMENSION OF 4" MINIMUM AND 4.8" MAXIMUM.
B. THE SPACE BETWEEN THE WALL AND GRAB BAR SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW SHALL BE 1 1/2" MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12" MINIMUM.
C. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33" MINIMUM AND 36" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. REFER TO CHART FOR CHILDREN ACCESSIBLE HEIGHTS FOR EXCEPTIONS.
D. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A HORIZONTAL OR VERTICAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT OF THE GRAB BAR OR ANY OF ITS COMPONENTS.
TAS SECTION 610.2 - BATHTUB SEATS
A. SEAT SHALL BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 POUNDS AND SHALL HAVE THE FOLLOWING FEATURES:
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. REMOVABLE SEATS SHALL BE 15"-16" DEEP AND CAPABLE OF SECURE PLACEMENT.
   3. PERMANENT SEATS SHALL BE 15" DEEP MINIMUM AND EXTEND FROM THE BACK WALL TO OR BEYOND THE OUTER EDGE OF THE BATHTUB.
TAS SECTION 610.3 - SHOWER SEATS
A. SEATS SHALL BE L-SHAPED WITH THE REAR EDGE 2 1/2" MAXIMUM FROM THE WALL AND 15"-16" MAXIMUM FROM THE SEAT WALL. THE REAR EDGE OF THE "L" PORTION SHALL BE 1 1/2" MAXIMUM FROM THE WALL AND THE FRONT EDGE SHALL BE 14"-15" FROM THE WALL. THE END OF THE "L" SHALL BE 22"-23" FROM THE MAIN SEAT WALL. SEATS SHALL HAVE BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 LBS.
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. WHERE A SEAT IS PROVIDED IN A ROLL IN TYPE SHOWER IT MUST BE THE FOLD-UP TYPE.
TAS SECTION 611 - WASHING MACHINES AND CLOTHES DRYERS
A. TOP LOADING MACHINES SHALL HAVE THE DOOR TO THE LAUNDRY COMPARTMENT LOCATED 36" MAXIMUM ABOVE THE FINISH



FIELD HOUSE CODE REVIEW- B 3

SCALE: 1/8" = 1'-0"



FEILD HOUSE KEY PLAN 4

SCALE: 1" = 40'-0"

CODE REVIEW: IBC 2015 - EXISTING BUILDING

CHAPTER 6 - REPAIRS

NEW AND REPLACEMENT MATERIALS (SEC 602.2)
EXCEPT AS OTHERWISE REQUIRED OR PERMITTED BY THIS CODE, MATERIALS PERMITTED BY THE APPLICABLE CODE FOR NEW CONSTRUCTION SHALL BE USED. LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS, PROVIDED NO DANGEROUS OR UNSAFE CONDITION, AS DEFINED IN CHAPTER 2, IS CREATED. HAZARDOUS MATERIALS, SUCH AS ASBESTOS AND LEAD-BASED PAINT, SHALL NOT BE USED WHERE THE CODE FOR NEW CONSTRUCTION WOULD NOT PERMIT THEIR USE IN BUILDINGS OF SIMILAR OCCUPANCY, PURPOSE AND LOCATION.

GENERAL ACCESSIBILITY (SEC 605.1)
REPAIRS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF ACCESSIBILITY PROVIDED.

CHAPTER 7 - ALTERATIONS - LEVEL 1

CONFORMANCE (SEC 701.2)
AN EXISTING BUILDING OR PORTION THEREOF SHALL NOT BE ALTERED SUCH THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITION.
EXCEPTION: WHERE THE CURRENT LEVEL OF SAFETY OR SANITATION IS PROPOSED TO BE REDUCED. THE PORTION ALTERED SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

INTERIOR FINISHES (SEC 702.2)
NEW INTERIOR FLOOR FINISH, INCLUDING NEW CARPETING USED AS AN INTERIOR FLOOR FINISH MATERIAL, SHALL COMPLY WITH SECTION 804 OF THE INTERNATIONAL BUILDING CODE.

CHAPTER 8 - ALTERATIONS - LEVEL 2

COMPLIANCE (SEC 801.3)
ALL NEW CONSTRUCTION ELEMENTS, COMPONENTS, SYSTEMS, AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

EXCEPTIONS:
WINDOWS MAY BE ADDED WITHOUT REQUIRING COMPLIANCE WITH THE LIGHT AND VENTILATION REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.
NEWLY INSTALLED ELECTRICAL EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 808.
THE LENGTH OF DEAD-END CORRIDORS IN NEWLY CONSTRUCTED SPACES SHALL ONLY BE REQUIRED TO COMPLY WITH THE PROVISIONS OF SECTION 805.6.
THE MINIMUM CEILING HEIGHT OF THE NEWLY CREATED HABITABLE AND OCCUPIABLE SPACES AND CORRIDORS SHALL BE 7 FEET (2134 MM).

FIRE ALARM AND DETECTION (SEC 804.4)
AN APPROVED FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH SECTIONS 804.4.1 THROUGH 804.4.3..

GROUP E OCCUPANCY (SEC 804.4.1.1)
A FIRE ALARM SYSTEM SHALL BE INSTALLED IN WORK AREAS OF GROUP E OCCUPANCIES AS REQUIRED BY THE INTERNATIONAL FIRE CODE FOR EXISTING GROUP E OCCUPANCIES.

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A2.00-B FOR DOOR SCHEDULE IDENTIFING FIRE RATING RATINGS
3. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
4. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
5. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL.
6. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
7. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES

2015 IBC INTERNATIONAL BUILDING CODE
2015 IMC INTERNATIONAL MECHANICAL CODE
2015 IPC INTERNATIONAL PLUMBING CODE
2012 NFPA (NATIONAL FIRE PROTECTION AGENCY) 101 LIFE SAFETY CODE (CHAPTER 43 - 2006 NFPA 101)
2012 NFPA (NATIONAL FIRE PROTECTION AGENCY) 170 STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS
2014 NFPA (NATIONAL FIRE PROTECTION AGENCY) 70 NATIONAL ELECTRICAL CODE
2013 ASHRAE STANDARD 90.01 - ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)
2021 INTERNATIONAL FIRE CODE

2015 IBC COMPLIANCE DATA

CHAPTER 2 - DEFINITIONS
GRADE PLANE: A REFERENCE PLANE REPRESENTING THE AVERAGE OF FINISHED GROUND LEVEL ADJOINING THE BUILDING AT EXTERIOR WALLS. WHERE THE FINISHED GROUND LEVEL SLOPES AWAY FROM THE EXTERIOR WALLS, THE REFERENCE PLANE SHALL BE ESTABLISHED BY THE LOWEST POINTS WITHIN THE AREA BETWEEN THE BUILDING AND THE LOT LINE OR, WHERE THE LOT LINE IS MORE THAN 6 FEET (1829 MM) FROM THE BUILDING, BETWEEN THE BUILDING AND A POINT 6 FEET (1829 MM) FROM THE BUILDING.
GRADE PLANE = -7' BELOW PROJECT "0' 0" ELEVATION"

STORY ABOVE GRADE PLANE: ANY STORY HAVING ITS FINISHED FLOOR SURFACE ENTIRELY ABOVE GRADE PLANE, OR IN WHICH THE FINISHED SURFACE OF THE FLOOR NEXT ABOVE IS: 1. MORE THAN 6 FEET (1829 MM) ABOVE GRADE PLANE; OR 2. MORE THAN 12 FEET (3658 MM) ABOVE THE FINISHED GROUND LEVEL AT ANY POINT.

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS
TABLE 504.3 & 504.4 & 506.2
GROUP E, TYPE 2B, FULLY SPRINKLED:
BUILDING HEIGHT: 75' ALLOWED; **40' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 3 STORIES ALLOWED; **2 STORIES ACTUAL**
BUILDING AREA: 63,500 SQUARE FEET PER STORY ALLOWED (BEFORE AREA INCREASES)

SECTION 506.2.3: EQUATION 5-2 FOR ALLOWABLE TOTAL SQUARE FOOTAGE FOR SINGLE OCCUPANCY, MULTI-STORY BUILDING
Aa=At+ • (NS x If) x Sa
Aa = 63,500 + (14,500 x 0.75) x 2
Aa = 108,250 SQUARE FEET ALLOWED FOR THE ENTIRE BUILDING
Aa = 54,375 SQUARE FEET ALLOWED PER STORY
NO INDIVIDUAL STORY SHALL EXCEED THE ALLOWABLE AREA (Aa) AS DETERMINED BY EQUATION 5-2 USING THE VALUE OF Sa=1

SECTION 506.3 - FRONTAGE INCREASE
If = (F/P-0.25)W/30
If = 0.75

BUILDING AREA ACTUAL
LEVEL 1: BUILDING A (SEGMENT A): 21,569 SQUARE FEET
LEVEL 1 BUILDING B (SEGMENTS B, C, D): 44,290 SQUARE FEET
LEVEL 1: BUILDING C (SEGMENT E): 21,569 SQUARE FEET
LEVEL 2: BUILDING A (SEGMENT A): 21,569 SQUARE FEET
LEVEL 2: BUILDING B (SEGMENT A): 644 SQUARE FEET

SECTION 508 - MIXED USE AND OCCUPANCY
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 - FOR CONSTRUCTION TYPE IIB: 0 HOUR FIRE-RESISTANCE RATING REQUIREMENT FOR BUILDING ELEMENTS
NOTE: ELEMENTS INCLUDE PRIMARY STRUCTURAL FRAME, EXTERIOR AND INTERIOR WALLS, FLOOR AND ROOF CONSTRUCTION

SECTION 602 - CONSTRUCTION CLASSIFICATION
602 - FOR CONSTRUCTION TYPE IIB: 1 HOUR FIRE RESISTANCE RATING FOR EXTERIOR WALLS IF < 10 FT. FROM OTHER STRUCTURES, ELSE 0
602.4 - NOT APPLICABLE

CHAPTER 6 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE 2B - PER TABLES 601 & 602:
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED: PRIMARY STRUCTURE, BEARING & NONBEARING WALLS/ PARTITIONS (INTERIOR & EXTERIOR), FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTABLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL
TABLE 706.4 - FIRE WALL FIRE-RESISTANCE RATINGS: 2 HOUR IN IIB CONSTRUCTION, GROUP E

SECTION 707 - FIRE BARRIERS
707.3.1 - SHAFT ENCLOSURES (INCLUDING ELEVATOR HOISTWAY): 1 HOUR FIRE BARRIER
707.3.3 - ENCLOSURES FOR EXIT ACCESS STAIRWAY ENCLOSURES: 1 HOUR BARRIER
PER SECTION 1019 EXIT ACCESS STAIRWAYS ARE NOT REQUIRED TO BE ENCLOSED FOR THIS BUILDING TYPE

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT)
ALL SHAFT ENCLOSURES SHALL BE CONSTRUCTED AS FIRE BARRIERS AND SHALL BE 1 HOUR FIRE RATED. SUPPORTING CONSTRUCTION SHALL BE RATED TO THE SAME DEGREE AS THE WALLS.

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS
FOR FIRE WALLS & FIRE BARRIERS WITH A 2 HR FIRE RATING, OPENINGS SHALL HAVE A 1.5 HR FIRE RATING, MAX. 100 SQ IN/ SQ FT OF GLAZING.
FOR FIRE BARRIERS AT EXIT COMPONENTS WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 1 HR FIRE RATING
FOR FIRE BARRIERS AT OTHER LOCATION WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 3/4 HR FIRE RATING

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES; NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES; BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE.

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS FULLY SPRINKLERED

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
1004.1.2 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

STORAGE, MECHANICAL	300 SQ. FT., GROSS
ASSEMBY WITH FIXED SEATS	18" PER OCCUPANT IN BLEACHERS
ASSEMBLY WITHOUT FIXED SEATS	
(TABLES AND CHAIRS)	15 SQ. FT. NET
BUSINESS	100 SQ. FT. GROSS
EDUCATION, CLASSROOM	20 SQ. FT. GROSS
EDUCATION, VOCATIONAL	50 SQ. FT. NET
LIBRARY	
(READING ROOMS)	50 SQ. FT. NET
(STACK AREAS)	100 SQ. FT. GROSS
STAGES & PLATFORMS	500 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.1 - FOR STAIRWAYS: 0.2 IN. PER OCCUPANT
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.1 - FOR OCCUPANT LOAD PER STORY:
BUILDING A / LEVEL 1: 3 EXITS REQUIRED, 3 EXITS PROVIDED
BUILDING B / LEVEL 1: 4 EXITS REQUIRED, 4 EXITS PROVIDED
BUILDING C / LEVEL 1: 3 EXITS REQUIRED, 3 EXITS PROVIDED
BUILDING A / LEVEL 2: 3 EXITS REQUIRED, 3 EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1009 - ACCESSIBLE MEANS OF EGRESS
1009.3 - FOR SPRINKLERED BUILDINGS: 48 IN. CLEAR HANDRAIL WIDTH IN EXIT STAIRS NOT REQUIRED.
1009.3 - FOR SPRINKLERED BUILDINGS, AREAS OF REFUGE IN EXIT STAIRS NOT REQUIRED

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.8 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1011 - STAIRWAYS
1011.2 - MINIMUM STAIRWAY WIDTH OF 44 IN.
1011.3 - MINIMUM STAIRWAY HEADROOM CLEARANCE OF 80 IN.
1011.5.2 - MAXIMUM RISER HEIGHT OF 7 IN., MINIMUM TREAD DEPTH OF 11 IN.
1011.6 - WIDTH OF LANDINGS SHALL BE NOT LESS THAN THE WIDTH OF STAIRWAY SERVED
1011.6 - LANDING DEPTH NEED NOT EXCEED 48 IN. FOR STRAIGHT-RUN STAIRS
1011.8 - A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE GREATER THAN 12 FT. BETWEEN FLOOR LEVELS AND LANDINGS

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
1017.2 - FOR GROUP E W/ SPRINKLER SYSTEM: EXIT TRAVEL DISTANCE IS 250 FT.

SECTION 1020 - CORRIDORS
1020.1 - FOR GROUP E W/ SPRINKLER SYSTEM: NO REQUIRED FIRE-RESISTANCE RATING
1020.2 - FOR GROUP E W/ OCCUPANT LOAD OF 100 OR MORE: MINIMUM WIDTH OF 72 IN.
1020.2 - FOR AN OCCUPANT LOAD LESS THAN 50: MINIMUM WIDTH OF 36 IN.
1020.2 - FOR ACCESS TO AND UTILIZATION OF MECHANICAL, PLUMBING, OR ELECTRICAL SYSTEMS OR EQUIPMENT: MINIMUM WIDTH OF 24 IN.
1020.2 - FOR ALL OTHER CONDITIONS: MINIMUM WIDTH OF 44 IN
1020.4 - FOR GROUP E W/ SPRINKLER SYSTEM: DEAD ENDS MAY BE 50 FT. IN LENGTH

2015 IPC COMPLIANCE DATA

		OCCUPANCY	STUDENTS	STAFF
			2388	NA
WATER CLOSETS	MENS*	REQ'D		
		PROVIDED		
	LADIES	REQ'D		
		PROVIDED		
LAVATORIES	MENS	REQ'D		
		PROVIDED		
	LADIES	REQ'D		
		PROVIDED		
EDF'S		REQ'D		
		PROVIDED		
SERVICE SINK		REQ'D		
		PROVIDED		

NOTE: PLUMBING COUNTS INCLUDE ALL GROUP TOILETS AVAILABLE TO THE GENERAL SCHOOL. FIXTURES LOCATED WITHIN CLASSROOMS, NURSES OFFICE, AND THOSE DEDICATED FOR PLAYGROUNDS ARE NOT INCLUDED.

* 419.2 SUBSTITUTION FOR WATER CLOSETS. IN EACH BATHROOM OR TOILET ROOM, URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 67 PERCENT OF THE REQUIRED WATER CLOSETS IN ASSEMBLY AND EDUCATIONAL OCCUPANCIES. URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50 PERCENT OF THE REQUIRED WATER CLOSETS IN ALL OTHER OCCUPANCIES.

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

6707 Fm 1464 Rd, Richmond, TX 77407

BUSH HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

NO.	Date	Description

100% CD

G0.03-B
LEVEL 01 - CODE PLAN

BUSH HIGH SCHOOL

12/4/2025 1:20:40 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_BUSH_ARCH_FBISD ATHLETIC RENOVATIONS BP012-B_R25.rvt

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL SIZES, LOCATIONS AND ELEVATIONS NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS PRIOR TO SUBMITTING PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR FROM PERFORMING THE WORK REQUIRED UNDER THIS CONTRACT. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE OWNER/ENGINEER.
2. SOME UTILITIES MAY NOT BE SHOWN ON THE PLANS. FIELD VERIFY AND IDENTIFY LOCATIONS OF PIPING AND ALL UTILITIES NOT NOTED ON THE PLANS. NOTIFY THE OWNER/ENGINEER OF ANY POTENTIAL CONFLICTS PRIOR TO STARTING CONSTRUCTION.
3. ALL GENERAL AND SUB-CONTRACTORS ARE ENCOURAGED TO VISIT AND INSPECT THE SITE PRIOR TO SUBMITTING A PROPOSAL TO COMPLETE.
4. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES, TRAFFIC CONTROL DEVICES AND PAVING. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITY'S ENGINEERING STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAWINGS, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR AND MAKE SURE THE CORRECT BENCHMARK IS USED.
7. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
9. CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
10. CONTRACTOR SHALL MAINTAIN A SHEET OF REDLINE DRAWINGS RECORDING AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINES MARKED DRAWINGS WILL BE SUBMITTED TO THE ENGINEER WHO WILL MAKE THE CHANGES ON THE ORIGINAL DRAWINGS. LABELING EACH SHEET IN THE SET AS "RECORD DRAWINGS".
11. CONTRACTORS SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
12. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICAS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
13. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALK, ETC.) SHALL BE STABILIZED WITH PLANTINGS OR OTHERWISE RECEIVE 6 INCHES OF MULCH OR LOAM AND SEED AS DIRECTED BY THE ENGINEER.
14. CONTRACTOR SHALL PREVENT DUST, SEDIMENT AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
15. SAFETY - NEITHER THE OWNER NOR THE ENGINEER OF RECORD WILL BE RESPONSIBLE FOR COMPLIANCE WITH SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, FEDERAL, AND CONTRACTUAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ANY SCHOOL CHILDREN OUT OF THE WORK AREA.
17. STANDARD SPECIFICATIONS - ALL CONSTRUCTION WORK AND INSTALLATION SHALL CONFORM TO THE PROJECT SPECIFICATIONS PROVIDED WITH THE CONTRACT DOCUMENTS AND ANY STANDARD SPECIFICATIONS AS INDICATED ON THESE PLANS.
18. INSPECTIONS - THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR REQUIRED INSPECTIONS. THE PRESENCE OR ABSENCE OF AN INSPECTOR WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE PROPER PERFORMANCE OF WORK.
19. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVE OR ANY OTHER AGENCY HAVING JURISDICTION FOR ALL ACTIVITIES ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH OSHA PERFORMANCE CRITERIA.
20. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS.

SITEWORK GENERAL NOTES:

1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D698:
   A. UNDER STRUCTURES: SCARIFY AND RE COMPACT 12 INCHES OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   B. UNDER WALKWAYS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   C. UNDER TURF OR UNPAVED AREAS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 90% SPD.
   D. UTILITY TRENCHES: BACKFILL SHALL BE IN 8 INCHES LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS ON EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% SPD IN PAVED AREAS AND 90% SPD IN UNPAVED AREAS OR AS INDICATED IN THE DRAWINGS.
2. DIMENSIONS IN THE DOCUMENTS SHALL GOVERN.

CIVIL GRADING NOTES:

1. CLEAR AND GRUB WITHIN THE GRADING LIMITS SHOWN IN THE CIVIL DRAWINGS. REMOVE STUMPS AND ROOTS 3 INCHES IN DIAMETER AND LARGER AND NONPERISHABLE SOLID OBJECTS A MINIMUM 3 FEET BELOW SUBGRADE OR FINISHED EMBANKMENT.
2. STRIP AND STOCKPILE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES WITHIN THE LIMITS OF EARTHWORK OPERATIONS.
3. STRUCTURAL EXCAVATION: EXCAVATE TO INDICATE ELEVATIONS WITHIN A TOLERANCE OF 1 INCH. EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORM WORK AND FOR INSPECTIONS.

UTILITIES:

1. THE LOCATIONS, SIZES AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATE CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN IN THE PLANS. PRIOR TO ORDERING MATERIAL AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZED AND ELEVATIONS OF THE POINT OF CONNECTIONS TO EXISTING UTILITIES AND SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND PROPOSED UTILITY ROUTES. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 1-800-245-4545 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.

PAVING NOTES:

1. RIM ELEVATIONS FOR MANHOLES AND SEWER CLEANOUTS, WATER VALVE COVERS, ELECTRIC AND TELEPHONE PULL BOXES AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: 1 INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.

STORM SEWER CONSTRUCTION NOTES:

1. STORM SEWERS SHALL BE INSTALLED, BEDDED, AND BACKFILLED ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
2. STORM SEWERS LOCATED WITHIN PUBLIC R.O.W. OR SIDE LOT EASEMENTS SHALL BE REINFORCED CONCRETE PIPE (24-INCH AND LARGER) (C-76. CLASS III). AND SHALL BE INSTALLED, BEDDED, AND BACKFILLED IN ACCORDANCE WITH THE GOVERNING ENTITIES STANDARD DETAILS AND SPECIFICATIONS. UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
3. ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABILIZED SAND TO ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH ALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
4. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
5. ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES AND INLETS ARE TO PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL PROVIDE 18" MINIMUM CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
7. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF LOCAL GOVERNING ENTITY STANDARDS AND SPECIFICATIONS FOR JUSTING MANHOLES, INLETS AND VALVE BOXES TO GRADE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACKSLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF HIS WORK.
9. ALL DITCHES SHALL BE REGRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.

SWPPP CONSTRUCTION NOTES:

1. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG THE ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPPP) PLANS TO KEEP SILT AND/ OR EXCAVATIONS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM SEWER.
2. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.
3. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK, TRACKED FROM THE EXCAVATED AREA.
4. CONTRACTOR SHALL FOLLOW GOOD HOUSE KEEPING PRACTICES DURING THE CONSTRUCTION PHASE OF THE PROJECT ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
5. CONTRACTOR IS TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5-INCHES OR GREATER:
   A. DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
   B. AREAS USED FOR STORAGE THAT ARE EXPOSED TO PRECIPITATION.
   C. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
6. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS, AND CORRECTIVE ACTION IF SUCH OCCURS.

TRAFFIC NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. ALL TRAFFIC CLOSURES SHALL BE SCHEDULED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITIES APPROPRIATE HOURS.
3. NO LANES ON MAJOR THOROUGHFARES MAY BE BLOCKED FROM 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM UNLESS APPROVED BY THE LOCAL GOVERNING ENTITY.
4. NO TRAFFIC LANES SHALL BE CLOSED IN ALL RESIDENTIAL AREAS FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS.
6. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND OPEN THE LANES FOR NORMAL TRAFFIC FLOW.
7. OFF-DUTY UNIFORMED POLICE OFFICER(S)/FLAGGER(S) ARE REQUIRED TO DIRECT TRAFFIC WHEN THE LANES ARE BLOCKED.
8. IN THE EVEN THAT NO "TRAFFIC CONTROL PLANS" EXIST AS PART OF CONTRACT DRAWINGS. CONTRACT MAY PREPARE PLANS AND SUBMIT TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN-DAYS (10) PRIOR TO IMPLEMENTATION.
9. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS. HE/SHE SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING AN ALTERNATE SET OF PLANS* TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN (10) WORKING DAYS PRIOR TO IMPLEMENTATION.
10. APPROVED COPIES OF THE TRAFFIC CONTROL PLANS AND REQUIRED PERMITS SHALL BE MADE AVAILABLE FOR INSPECTION AT THE JOB SITE AT ALL TIMES. CONTRACTORS MUST SECURE REQUIRED PERMITS FROM THE LOCAL GOVERNING ENTITY'S TRAFFIC MANAGEMENT AND MAINTENANCE BRANCH BEFORE CLOSING A LANE/SIDEWALK. THE REQUEST MUST BE MADE AT LEAST TEN (10) DAYS IN ADVANCE OF THE CLOSURE. NOTE THAT WORKING HOURS MAY BE RESTRICTED OR THE REQUEST MAY BE DENIED.
    A. THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLAR AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME PART OF THE CONTRACT DRAWINGS.

WARNING: OVERHEAD ELECTRICAL LINES:

1. OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:
   A. ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
   B. OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
2. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222. ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-6248 OR (713) 207-5769.

CENTERPOINT ENERGY:
CAUTION: UNDERGROUND GAS FACILITIES:

1. LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, LLC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 OR 1-800-669-8344 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
   A. WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 945-8036 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
   B. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
   C. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
   D. FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3522 OR (713) 207-4200.
   E. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

AT&T TEXAS/SBC FACILITIES:

1. THE LOCATIONS OF AT&T TEXAS/SBC FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SBC FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANICAL EXCAVATION PROCEDURES. WHEN BORING THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SBC FACILITIES.
4. WHEN AT&T TEXAS/SBC FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SBC UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURY CABLES OR OTHER CABLES IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713)456-4552 OR EMAIL HIM AT rl7259@att.com, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR AT&T TEXAS/SWBT FACILITIES.

SANITARY SEWER NOTES:

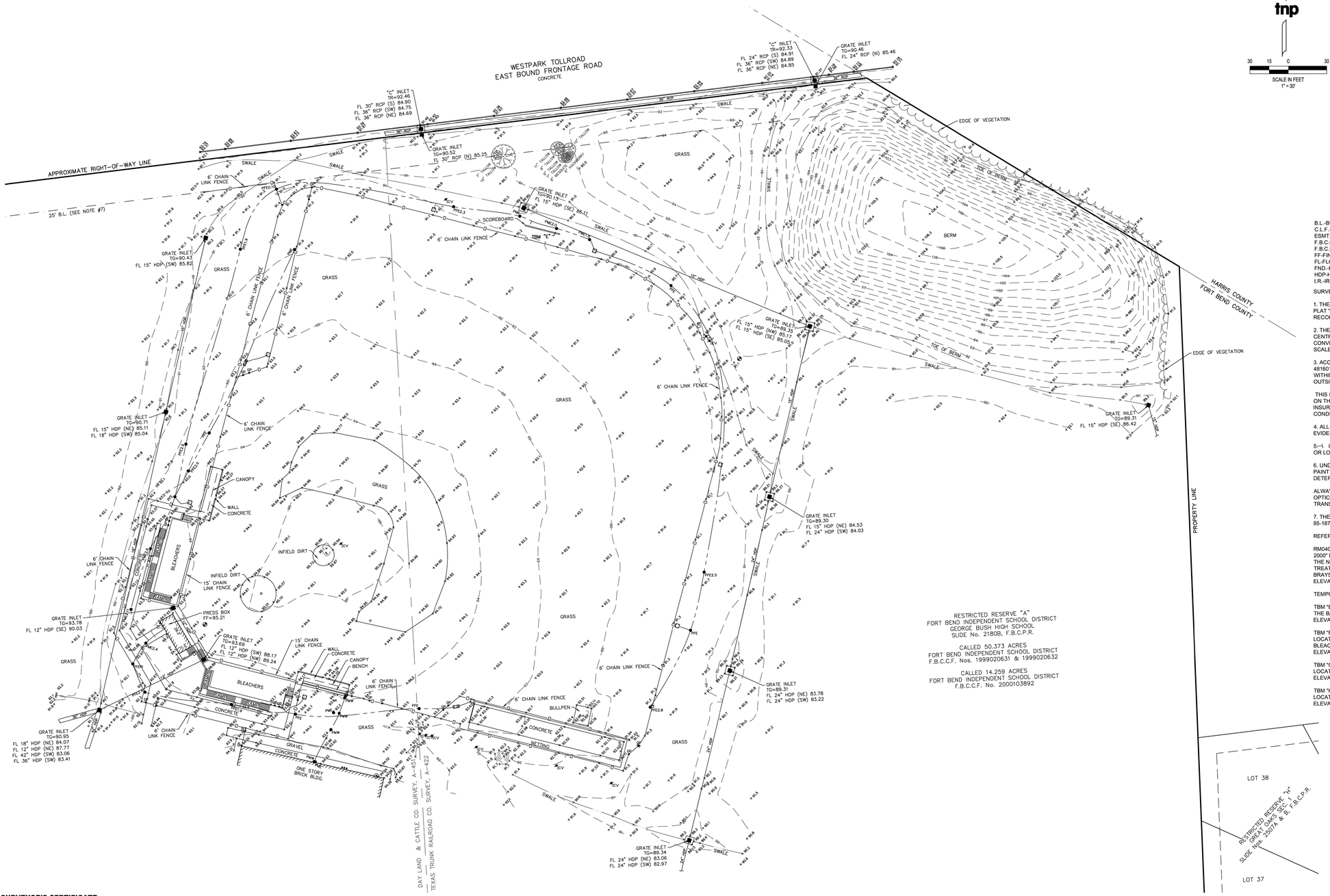
1. ALL SEWERS SHALL BE TESTED FOR EXCESS DEFLECTION IN PIPE CROSS SECTION, FOR LATERAL AND VERTICAL PIPE OBSTRUCTION, AND FOR JOINT OFFSETS, BY PULLING A MANDREL THROUGH THE PIPE BY HAND. THE MANDREL SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILLING HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. OBSTRUCTIONS ENCOUNTERED SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. MANDREL AND TEST EQUIPMENT SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONDUCTING THE TEST.
2. USE BEDDING AND BACKFILL PER DETAILS PROVIDED IN THE CONTRACT DRAWINGS UNLESS FIELD CONDITIONS DICTATE OTHERWISE. CONTRACTOR TO NOTIFY ENGINEER OF WET TRENCH CONDITIONS PRIOR TO LAYING PIPE. USE CEMENT STABILIZED SAND AND BACKFILL TO WITHIN 1 FOOT OF PROPOSED OR EXISTING PAVEMENT SUBGRADE. BEDDING, CEMENT STABILIZED SAND AND/OR BACKFILL SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM FOR PIPE AND SHALL NOT BE PAID FOR DIRECTLY.
3. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 24 INCHES OF VERTICAL CLEARANCE AND 9 FEET HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND WATER LINES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 12 INCHES OF VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND STORM SEWER LINES.
4. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM THE MANHOLE RIM PER ASTM F477.
5. UNLESS OTHERWISE NOTED, ALL SANITARY SEWERS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE (PVC) SCH 40, CONFORMING TO ASTM D1785, OR APPROVED EQUAL. ALL SANITARY SEWERS SHALL HAVE RUBBER GASKET BELL AND SPIGOT CONNECTIONS.
6. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES SHALL BE PRECAST CONCRETE MANHOLES.
7. NO CONNECTIONS SHALL BE MADE TO EXISTING SANITARY SEWER LINES UNTIL ALL PROPOSED SEWER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED AND APPROVED BY THE LOCAL GOVERNING ENTITY.
8. WHENEVER THE MANHOLE COVERS ARE LOCATED BELOW THE 100 YEAR FLOOD PLAIN ELEVATION THEY SHALL BE GASKETED AND BOLTED AS DESCRIBED IN 317.2. OF THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES.
9. LOW-PRESSURE AIR TEST. THIS TEST SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM C-828, ASTM C-924 OR OTHER APPROPRIATE PROCEDURES. FOR SAFETY REASONS, AIR TESTING OF SECTIONS OF PIPE SHALL BE LIMITED TO LINES LESS THAN 36-INCH AVERAGE INSIDE DIAMETER. LINES 36-INCH AVERAGE INSIDE DIAMETER AND LARGER MAY BE AIR TESTED AT EACH JOINT. THE MAXIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE DURING A JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR SECTION OF PIPE LESS THAN 36-INCH AVERAGE INSIDE DIAMETER, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE SHALL BE COMPUTED BY THE FOLLOWING EQUATIONS:

   T = 0.0850(D)(K)/(Q) WHERE T = TIME FOR PRESSURE TO DROP 1.0 POUNDS PER SQUARE INCH GAUGE IN SECONDS
   K = 0.000419(D)(L), BUT NOT LESS THAN 1.0
   D = AVERAGE INSIDE DIAMETER IN INCHES
   L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET
   Q = RATE OF LOSS, ASSUME 0.0015 CU FT/MIN/SQ FT INTERNAL SURFACE

10. SDR-26 PVC PIPE TO USE "FULL BODIED" SDR-26 FITTINGS.
11. ALL PVC PIPE TO HAVE CELL CLASS 12454 A OR B AS PER ASTM D1784.
12. NO MORE THAN 2 HOURS SHALL ELAPSE BETWEEN MIXING AND PLACEMENT OF CEMENT STABILIZED SAND.
13. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% SPD, ±2% OF OPTIMUM MOISTURE CONTENT, IN MAXIMUM 8-INCH LIFTS.

WATER SYSTEM CONSTRUCTION NOTES:

1. METERS AND BACKFLOW BOXES SHALL BE SET A MINIMUM OF 3 INCHES ABOVE FINISHED GRADE WITH SLOPED BACKFILL TO DIRECT STORM WATER AWAY FROM BOX. BOXES SHALL BE BACKFILLED WITH A MINIMUM 12 INCHES OF CEMENT STABILIZED SAND AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. FIRE SPRINKLER LINES SHALL BE INSTALLED AND TESTED BY A CONTRACTOR LICENSED BY THE STATE TO PERFORM SUCH WORK UNDER SECTION 4(A) & (B) OF ARTICLE 5.43-3 OF THE TEXAS INSURANCE CODE. CONTRACTOR SHALL FURNISH OWN CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING AS REQUIRED BY THE TEXAS COMMISSION ON FIRE PROTECTION.
3. ALL PVC PIPE USED IN WATER SYSTEMS SHALL BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL.
4. WATER LINE PIPE AND FITTING MATERIALS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:
   A. LESS THAN 4 INCH POTABLE WATER LINE SHALL BE SCHEDULE 40, PVC 1120, PER ASTM D-1785, EXCEPT THAT THREADED PIPE SHALL BE SCHEDULE 80. 3 INCH POTABLE WATER MAY BE SDR 21 PVC (200 P.S.I.) WITH GASKETED JOINTS.
   B. SITE 4 INCH AND LARGER POTABLE WATER LINE SHALL BE AWWA C900, DR 18, CLASS 235 PVC.
   C. FIRE SPRINKLER LINE SHALL BE AWWA C900, DR 14, CLASS 305 PVC.
   D. FITTINGS FOR LESS THAN 3 INCH AND LARGER WATER LINE SHALL BE ASTM D-2466 SCHEDULE 40 PVC. THREADED FITTINGS SHALL BE SCHEDULE 80 PER ASTM D-2467.
   E. FITTINGS FOR 3 INCH AND LARGER WATER LINE SHALL BE ALL-BELL, PUSH-ON, DUCTILE IRON MECHANICAL JOINT FITTINGS WITH MEGA-LUG.
5. VALVES:
   A. 1 1/2 INCH AND SMALLER SHALL BE 125 P.S.I.G., BRONZE, RISING STEM, SINGLE-WEDGE, DISC TYPE, SCREWED ENDS, CRANE NO. 428 OR APPROVED EQUAL.
   B. 2 INCH THRU 2 1/2 INCH VALVES SHALL BE IRON BODY, DOUBLE GATE, NON-RISING STEM, 150 P.S.I.G. TEST; 2 INCH SQUARE NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
   C. 3 INCH AND LARGER VALVES SHALL BE 200 P.S.I.G. GATE VALVES PER AWWA C500 OR C509, PUSH-ON BELL ENDS WITH RUBBER JOINT RINGS; 2 INCH NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
6. POLYETHYLENE WRAP ALL CAST AND DUCTILE IRON PIPE AND FITTINGS PER SPECIFICATIONS.
7. WATER LINES SHALL HAVE A MINIMUM COVER OF 4 FEET BELOW NATURAL GROUND, FINISH GRADE, OR MEAN ELEVATION OF NEARBY DITCH, WHICHEVER IS LOWER. ALL WATER LINES SHALL MAINTAIN A MINIMUM 12 INCH CLEARANCE TO OTHER UTILITIES AT CROSSINGS UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINES INSTALLED OVER 8 FEET DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS. CONTRACTOR SHALL PROVIDE THRUST BLOCKING TO WITHSTAND 125% OF TEST PRESSURES.
8. SEPARATION DISTANCE FOR ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS CHAPTER 290.44, HARRIS COUNTY, AND TCEQ REQUIREMENTS, LATEST PRINTING.
9. WHERE A DOMESTIC WATERLINE CROSSES A SANITARY SEWER, INSTALL ONE JOINT (MINIMUM 18 FOOT LENGTH) OF WATERLINE PIP CENTERED ON THE SEWER.
10. CONTRACTOR SHALL TAKE SANITARY PRECAUTIONS D



RESTRICTED RESERVE "A"
FORT BEND INDEPENDENT SCHOOL DISTRICT
GEORGE BUSH HIGH SCHOOL
SLIDE No. 2180B, F.B.C.P.R.

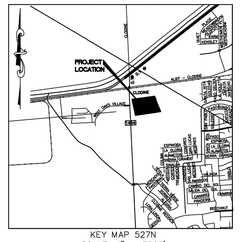
CALLED 50.373 ACRES
FORT BEND INDEPENDENT SCHOOL DISTRICT
F.B.C.C.F. Nos. 1999020631 & 1999020632

CALLED 14.259 ACRES
FORT BEND INDEPENDENT SCHOOL DISTRICT
F.B.C.C.F. No. 2000103892

tnp

30 15 0 30
SCALE IN FEET
1" = 30'

VICINITY MAP



KEY MAP 527N
SCALE: 1" = 3000'

LEGEND

BM	BENCHMARK	HB	HOSE BIB
•	BOLLARD	■	INLET
BH	BORE HOLE	ICV	IRRIGATION CONTROL VALVE
C	"C" INLET	☐	LIGHT STANDARD
CO	CLEANOUT	●	MANHOLE
DS	DOWN SPOUT	PE	PIN FLAG (ELECTRIC)
E	"E" INLET	PAE	PAINT MARKER (ELECTRIC)
EJB	ELECTRIC JUNCTION BOX	PAW	PAINT MARKER (WATER)
FP	FLAG POLE	PED	PEDESTAL
GP	GATE POST	TC	TRASH CAN

ABBREVIATIONS

B.L.-BUILDING LINE	MH-MANHOLE
C.L.F.-CHAIN LINK FENCE	PVC-POLYVINYL CHLORIDE PIPE
ESMT.-EASEMENT	RCP-REINFORCED CONCRETE PIPE
F.B.C.C.F.-FORT BEND COUNTY CLERK'S FILE	R.O.W.-RIGHT-OF-WAY
F.B.C.P.R.-FORT BEND COUNTY PLAT RECORDS	SAN.-SANITARY
FF-FINISH FLOOR	STM.-STORM
FL-FLOW LINE	SWR.-SEWER
FND.-FOUND	TG-TOP OF GRATE
HDP-HIGH DENSITY POLYETHYLENE PIPE	TR-TOP OF RIM
I.R.-IRON ROD	UGV-UNDERGROUND VAULT

SURVEYOR'S NOTES:

1. THE PROPERTY LINES SHOWN HEREON ARE BASED ON THOSE DEPICTED ON THE PLAT "FORT BEND INDEPENDENT SCHOOL DISTRICT GEORGE BUSH HIGH SCHOOL RECORDED ON SLIDE No. 2180B, F.B.C.P.R.

2. THE CAD FILE OF THE DRAWING SHOWN HEREIN IS BASED ON TEXAS SOUTH CENTRAL ZONE NO. 4204, STATE PLANE SURFACE VALUE (NAD83) AND MAY BE CONVERTED TO GRID BY SCALING THE DRAWING BY THE FOLLOWING COMBINED SCALE FACTOR OF 0.999884037654.

3. ACCORDING TO F.I.R.M. MAP NO. 48157C0135L (COMMUNITY-PANEL NO. 4816010135L), MAP REVISED DATE: APRIL 2, 2014. THE SUBJECT PROPERTY LIES WITHIN THE AREA DESIGNATED AS ZONE "X" UNSHADED. DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD.

THIS STATEMENT IS BASED ON SCALING THE LOCATION OF THE SUBJECT TRACT ON THE ABOVE REFERENCED MAP. THIS INFORMATION IS TO DETERMINE FLOOD INSURANCE RATES ONLY AND IS NOT INTENDED TO IDENTIFY SPECIFIC FLOODING CONDITIONS.

4. ALL UTILITIES SHOWN HEREON ARE LOCATED USING "APPARENT & VISIBLE" EVIDENCE BY ON-SITE OBSERVATION UNLESS OTHERWISE NOTED.

5.–⅛ INDICATES AN UNDERGROUND SEWER LINE WITH UNKNOWN DIRECTION, SIZE OR LOCATION OR A POSSIBLE STUB-OUT.

6. UNDERGROUND UTILITY LOCATIONS PROVIDED BY LONESTAR LOCATING, LLC. PAINT MARKS WITH NUMERIC VALUES INDICATES COVER (FEET AND INCHES) DETERMINED BY ELECTRONIC TONING.

ALWAYS CONTACT TEXAS 811 PRIOR TO DIGGING. SOME UTILITIES SUCH AS FIBER OPTIC W/O TRACERS, PLASTIC GAS, FIBERGLASS/PVC ARE NOT LOCATABLE BY TRANSMISSION SIGNAL.

7. THE SUBJECT TRACT IS AFFECTED BY THE CITY OF HOUSTON ORDINANCE No. 85-1878, AMENDED BY ORDINANCE No. 1999-262.

REFERENCE BENCHMARK:

RM040685 - STAINLESS STEEL ROD WITH LOGO CAP STAMPED "HGCSD 35 RESET 2000" LOCATED ON THE SOUTH SIDE OF ALIEF CLODINE ROAD ±10' SOUTHWEST OF THE NORTHWEST CORNER OF THE CHELFORD REGIONAL WASTEWATER TREATMENT FACILITY AT 15027 ALIEF CLODINE ROAD IN KEY MAP 527G IN THE BRAYS BAYOU WATERSHED.
ELEVATION=81.04' (NAVD 88, 2001 ADJ.)

TEMPORARY BENCHMARKS:

TBM "E" - BOX CUT ON CONCRETE BASE AT SOUTHEAST SIDE OF SCOREBOARD FOR THE BASEBALL FIELD.
ELEVATION=91.19'

TBM "F" - BOX CUT ON SOUTHEAST CORNER OF CONCRETE PAD FOR GRATE INLET LOCATED ±15' NORTH OF THE NORTH END OF THE TRACK / FOOTBALL FIELD BLEACHERS.
ELEVATION = 91.66'

TBM "G" - BOX CUT ON SOUTHEAST CORNER OF CONCRETE PAD FOR GRATE INLET LOCATED ±45' EAST OF THE SOFTBALL FIELD RESTROOMS.
ELEVATION = 90.48'

TBM "H" - BOX CUT ON SOUTHWEST CORNER OF CONCRETE PAD FOR GRATE INLET LOCATED ±80' NORTH OF THE NORTHEAST CORNER OF THE TENNIS COURTS.
ELEVATION = 91.58'

SHEET 1 OF 2

TSPS CATEGORY 6, CONDITION II
LIMITED TOPOGRAPHIC SURVEY

FORT BEND INDEPENDENT SCHOOL DISTRICT
GEORGE BUSH HIGH SCHOOL

SITUATED IN THE
DAY LAND & CATTLE CO. SURVEY, ABSTRACT NUMBER 451,
TEXAS TRUNK R.R. SURVEY, ABSTRACT NUMBER 422 AND
BENJAMIN OSBORNE SURVEY, ABSTRACT NUMBER 390
FORT BEND COUNTY, TEXAS

SURVEYOR'S CERTIFICATE

To: Fort Bend Independent School District

I, Brian J. Maddox, a Registered Professional Land Surveyor in the State of Texas, do hereby certify that I have prepared this map from an actual on the ground survey of the land, and the monuments shown thereon were found under my personal supervision in accordance with the Surveying Rules and Regulations of the State of Texas. This survey substantially conforms to a Category 6, Condition II Topographic Survey.

STATE OF TEXAS
REGISTERED
BRIAN J. MADDOX
5430
LAND SURVEYOR

Brian J. Maddox
Registered Professional Land Surveyor No. 5430
Surveyed on the ground November 28, 2023

PROJECT INFORMATION
Project No. FBI23515
Date: November 28, 2023
Drawn By: DB
Checked By: JDW
Scale: 1"=30'
Sheet: 1 of 2

SURVEYOR
TEAGUE NALL AND PERKINS, INC.
1221 Park West Green Drive, Suite 100
Katy, Texas 77493
832.220.1205 ph 214.461.9864 fx
TBPLS Registration No. 10194381
www.tnpinc.com

tnp

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BUSH HIGH SCHOOL
Project Info Additional Text Line
6707 FM 1464, Richmond, TX 77407

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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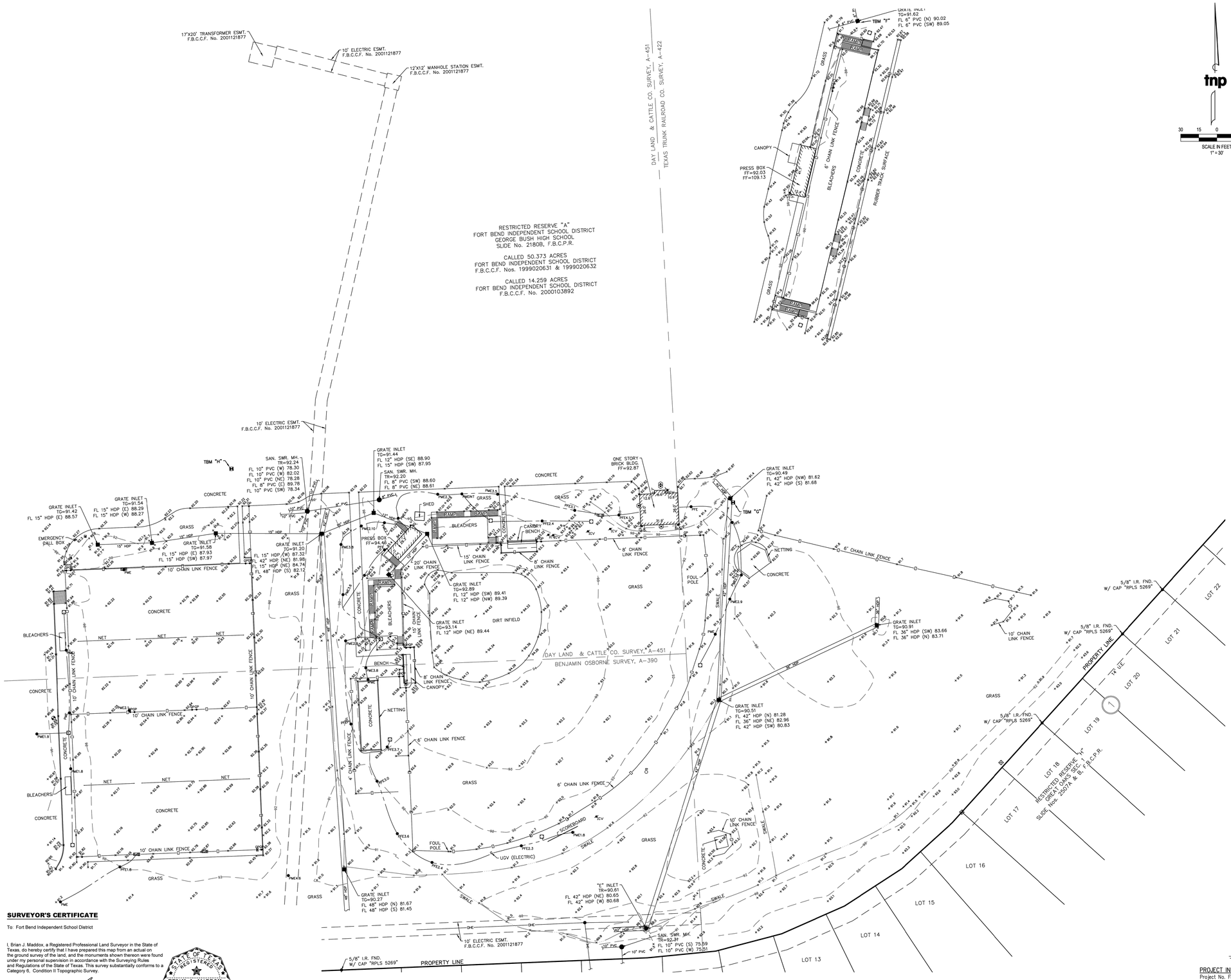
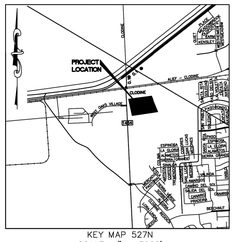
TSCE PROJECT # 2508

100% CD
C 0.02-B
CIVIL SPORTS SURVEY
REFERENCE ONLY





LEGEND

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	"C" INLET		LIGHT STANDARD
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4. ALL UTILITIES SHOWN HEREON ARE LOCATED USING "APPARENT & VISIBLE" EVIDENCE BY ON-SITE OBSERVATION UNLESS OTHERWISE NOTED.

5.–½ INDICATES AN UNDERGROUND SEWER LINE WITH UNKNOWN DIRECTION, SIZE OR LOCATION OR A POSSIBLE STUB-OUT.

6. UNDERGROUND UTILITY LOCATIONS PROVIDED BY LONESTAR LOCATING, LLC. PAINT MARKS WITH NUMERIC VALUES INDICATES COVER (FEET AND INCHES) DETERMINED BY ELECTRONIC TONING.

ALWAYS CONTACT TEXAS 811 PRIOR TO DIGGING. SOME UTILITIES SUCH AS FIBER OPTIC W/O TRACERS, PLASTIC GAS, FIBERGLASS/PVC ARE NOT LOCATABLE BY TRANSMISSION SIGNAL.

7. THE SUBJECT TRACT IS AFFECTED BY THE CITY OF HOUSTON ORDINANCE No. 85-1878, AMENDED BY ORDINANCE No. 1999-262.

REFERENCE BENCHMARK:

RM040685 - STAINLESS STEEL ROD WITH LOGO CAP STAMPED "HGCSD 35 RESET 2000' LOCATED ON THE SOUTH SIDE OF ALIEF CLODINE ROAD ±10' SOUTHWEST OF THE NORTHWEST CORNER OF THE CHELFORD REGIONAL WASTEWATER TREATMENT FACILITY AT 15027 ALIEF CLODINE ROAD IN KEY MAP 527G IN THE BRAYS BAYOU WATERSHED
ELEVATION=81.04' (NAVD 88, 2001 ADJ.)

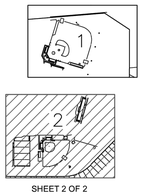
TEMPORARY BENCHMARKS:

TBM "E" - BOX CUT ON CONCRETE BASE AT SOUTHEAST SIDE OF SCOREBOARD FOR THE BASEBALL FIELD.
ELEVATION=91.19'

TBM "F" - BOX CUT ON SOUTHEAST CORNER OF CONCRETE PAD FOR GRATE INLET LOCATED ±15' NORTH OF THE NORTH END OF THE TRACK / FOOTBALL FIELD BLEACHERS.
ELEVATION = 91.66'

TBM "G" - BOX CUT ON SOUTHEAST CORNER OF CONCRETE PAD FOR GRATE INLET LOCATED ±45' EAST OF THE SOFTBALL FIELD RESTROOMS.
ELEVATION = 90.48'

TBM "H" - BOX CUT ON SOUTHWEST CORNER OF CONCRETE PAD FOR GRATE INLET LOCATED ±80' NORTH OF THE NORTHEAST CORNER OF THE TENNIS COURTS.
ELEVATION = 91.58'



SHEET 2 OF 2

SURVEYOR'S CERTIFICATE

To: Fort Bend Independent School District

I, Brian J. Maddox, a Registered Professional Land Surveyor in the State of Texas, do hereby certify that I have prepared this map from an actual on the ground survey of the land, and the monuments shown thereon were found under my personal supervision in accordance with the Surveying Rules and Regulations of the State of Texas. This survey substantially conforms to a Category 6, Condition II Topographic Survey.

STATE OF TEXAS REGISTERED BRIAN J. MADDOX 5430 PROFESSIONAL LAND SURVEYOR

Brian J. Maddox
Registered Professional Land Surveyor No. 5430
Surveyed on the ground November 28, 2023

TSPS CATEGORY 6, CONDITION II LIMITED TOPOGRAPHIC SURVEY

FORT BEND INDEPENDENT SCHOOL DISTRICT
GEORGE BUSH HIGH SCHOOL

SITUATED IN THE
DAY LAND & CATTLE CO. SURVEY, ABSTRACT NUMBER 451,
TEXAS TRUNK R.R. SURVEY, ABSTRACT NUMBER 422 AND
BENJAMIN OSBORNE SURVEY, ABSTRACT NUMBER 390
FORT BEND COUNTY, TEXAS

PROJECT INFORMATION
Project No. FBI23515
Date: November 28, 2023
Drawn By: DB
Checked By: JDW
Scale: 1"=30'
Sheet: 2 of 2

SURVEYOR
TEAGUE NALL AND PERKINS, INC.
1221 Park West Green Drive, Suite 100
Katy, Texas 77493
832.220.1205 ph 214.461.9864 fx
TBPLS Registration No. 10194381
www.tnpinc.com

tnp

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
TSCE PROJECT # 2508

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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BUSH HIGH SCHOOL

Project Info Additional Text Line

6707 FM 1464, Richmond, TX 77407

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED STATE OF TEXAS SURVEYOR

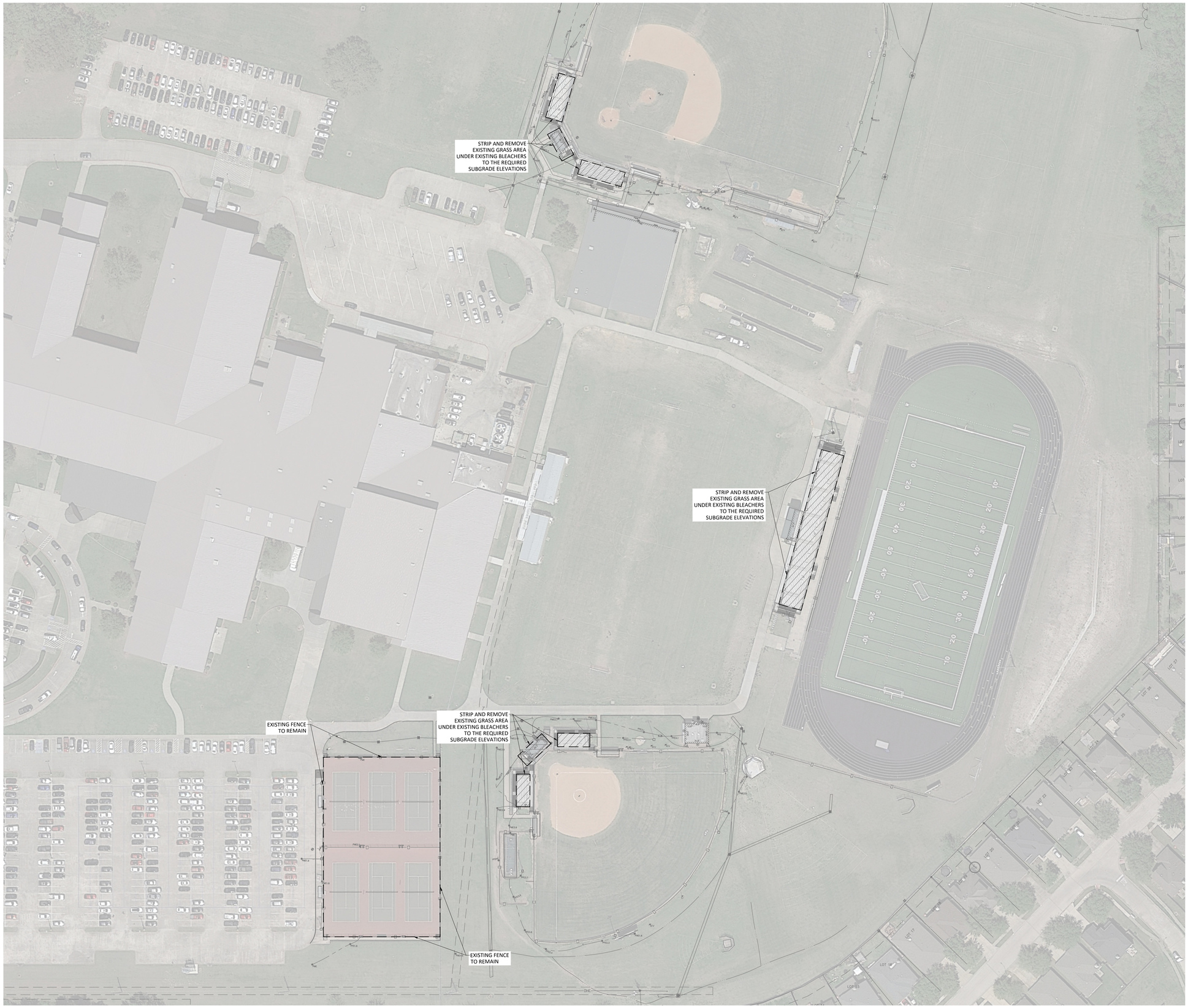
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 0.03-B
CIVIL SPORTS SURVEY
REFERENCE ONLY



N

NOTES:

1. ALL DEMOLITION ITEMS INCLUDING ALL SOILS TO BE HAULED OFF OF SITE OR AS DIRECTED BY CLIENT.
2. IF ANY DAMAGE IS DONE TO ANY AREA NOT ON SCOPE OF WORK IT SHALL BE THE CONTRACTOR'S DUTY TO FIX IT AT ITS OWN EXPENSE.
3. CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND EXISTING STRUCTURES.
4. CONTRACTOR SHALL MAINTAIN ALL PUBLIC STREET AND RIGHT OF WAY FREE OF DEBRIS, SILT AND SOILS AT ALL TIMES.
5. ALL WASTED SPILLED FROM TRUCKS SHALL BE REMOVED IMMEDIATELY AND NOT WASHED INTO STORM SEWER SYSTEM.
6. INLET PROTECTION WILL BE REQUIRED AT INLETS DOWNSTREAM OF THE WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.

LEGEND:

STRIP AND REMOVAL OF MATERIALS

REMOVAL AND DISPOSAL OF ITEMS

25' 50'
50' 0 100'

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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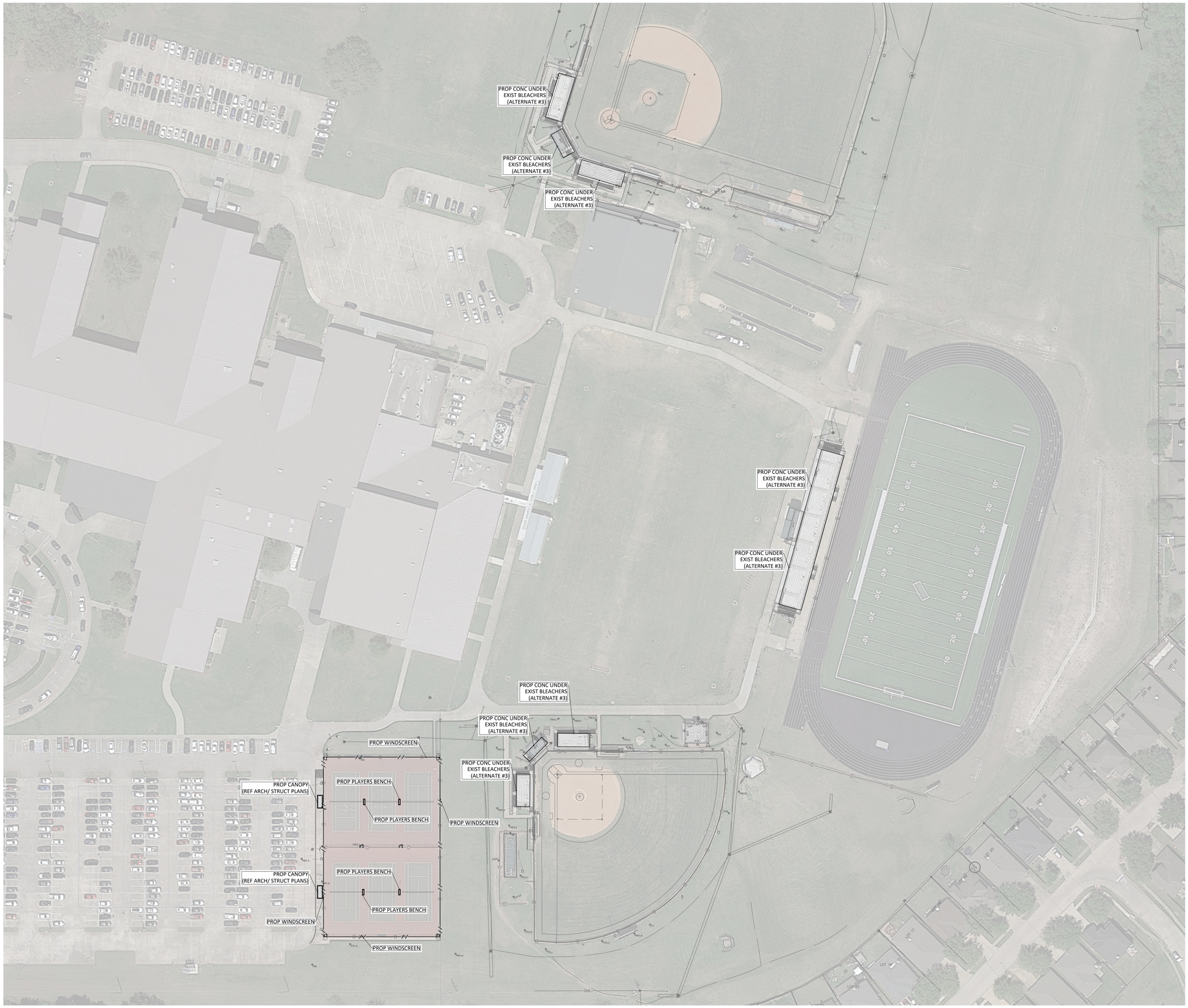
C 0.04-B
CIVIL SPORTS
DEMOLITION PLAN



N

WARNING - BURIED UTILITIES
CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF BURIED DRY UTILITIES. EXISTING SBC BURIED CABLES, COMCAST CABLES, CENTERPOINT GAS LINES AND UNDERGROUND ELECTRIC LINES ARE SHOWN AT APPROX. LOCATION & DEPTH BASED ON THE BEST INFORMATION AVAILABLE. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL EXISTING BURIED CABLES PRIOR TO COMMENCING CONSTRUCTION. SEE PRIVATE UTILITY NOTES. (SHT. F 0.01)

WARNING - UNDERGROUND PIPELINE
CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND PIPELINES. EXISTING CENTER POINT UNDERGROUND PIPELINES ARE SHOWN AT APPROX. LOCATION & DEPTH BASED ON THE BEST INFORMATION AVAILABLE. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. CONTACT WITH CENTER POINT @ (811 or 713-207-2222) AT LEAST 72 HOURS PRIOR TO CONSTRUCTION IN THE AREA.

WARNING - OVERHEAD POWER LINES
CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF OVERHEAD POWER LINES.

NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS AND GROUND ELEVATIONS.
2. CONTRACTOR TO SEE SHEET C5.01 FOR DETAILS.
3. ALL DISTURBED AREAS TO BE HYDROMULCHED. AREAS WITH SLOPE GREATER THAN 3:1 SLOPE TO BE SODDED.

NOTE TO CONTRACTOR:

1. REFER TO THE CIVIL / LANDSCAPE DRAWINGS FOR ALL INFORMATION OUTSIDE THE SPORTS DESIGN SCOPE.

25' 50'
50' 0 100'

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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TSCE PROJECT # 2598

pfluger
office 713.222.1141 | fax 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BUSH HIGH SCHOOL
Project Info Additional Text Line
6707 FM 1464, Richmond, TX 77407

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
11999.3
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
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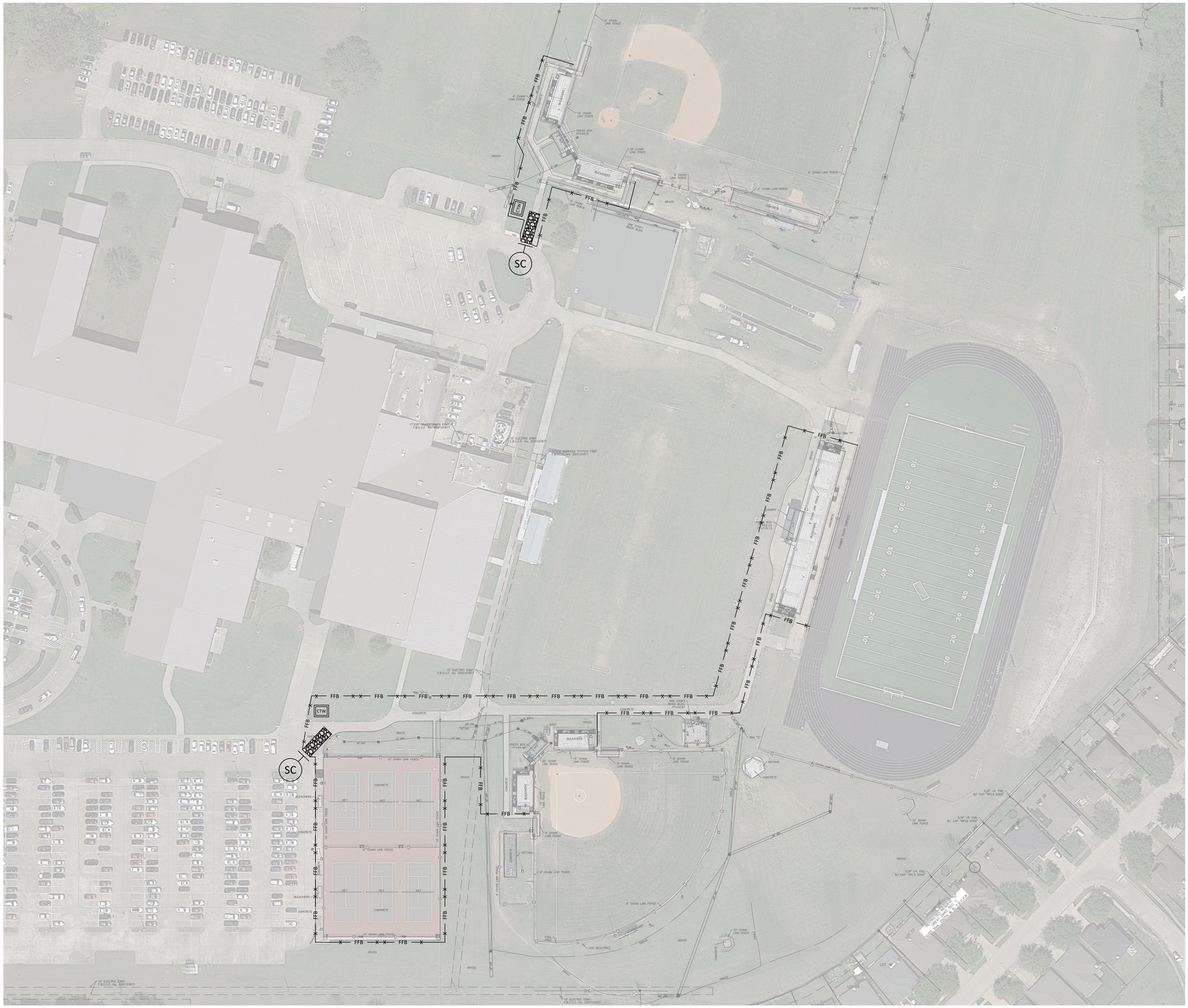
#	Date	Description

100% CD

C 1.01-B
CIVIL SPORTS SITE PLAN



NOTES:

1. CONTRACTOR TO PLACE "IPB" IN ALL SURROUNDING INLETS.

LEGEND:

IPB	INLET PROTECTION BARRIER STAGE I
IPB	INLET PROTECTION BARRIER STAGE II
SC	STABILIZED CONSTRUCTION ACCESS
CTW	CONCRETE TRUCK WASHOUT AREA
FFB	FILTER FABRIC BARRIER

25' 50'
50' 0 100'

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HOUSTON, TEXAS 77079
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pfluger
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2 Greenway Plaza, Suite 460
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6707 FM 1464, Richmond, TX 77407

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
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KENNETH I. JURADO
11999.3
STATE OF TEXAS
SURVEYOR

12/04/2025

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DATE: JUNE 04, 2025
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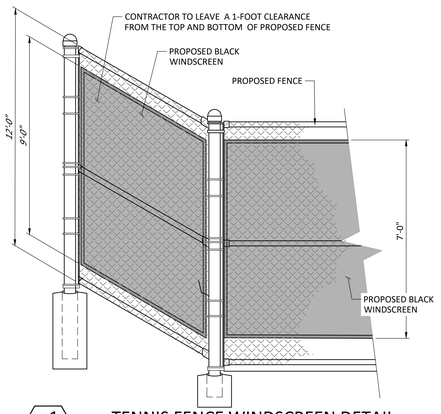
100% CD

C 4.01-B
CIVIL SPORTS SWPP PLAN BASEBALL

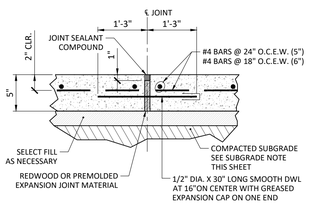
SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

NOTE: SEE GEOTECH REPORT FOR REFERENCE



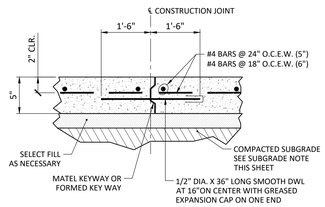
1 N.T.S. TENNIS FENCE WINDSCREEN DETAIL



NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

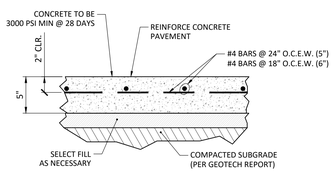
2 N.T.S. EXPANSION JOINT DETAIL



NOTES:

1. CONSTRUCTION JOINT SHALL BE PLACED AT THE END OF EACH DAYS POUR AND IN BETWEEN POURS AS SPECIFIED.

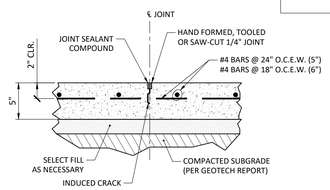
3 N.T.S. CONSTRUCTION JOINT DETAIL



NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.
2. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

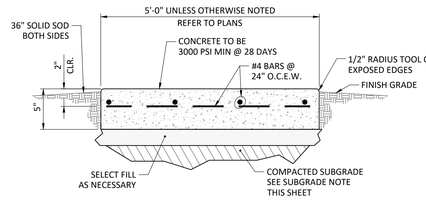
4 N.T.S. CONCRETE PAVEMENT DETAIL



NOTES:

1. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

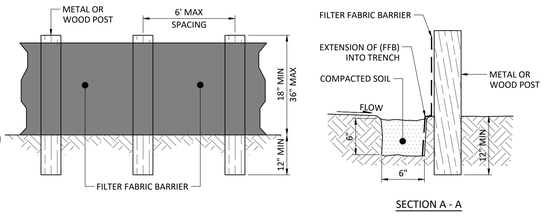
5 N.T.S. CONTROL JOINT DETAIL



NOTES:

1. PROVIDE GROOVED JOINT AT 4' ON CENTER.
2. PROVIDE 1/2" EXPANSION JOINT AT 15' ON CENTER.
3. PROVIDE CONTROL JOINTS AT 5' MAXIMUM.

6 N.T.S. CONCRETE SIDEWALK DETAIL



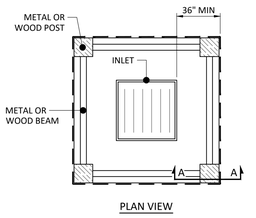
SECTION A - A

NOTES:

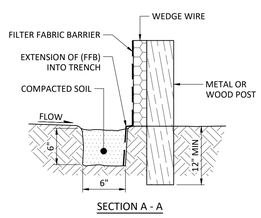
1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

X FFB X

7 N.T.S. FILTER FABRIC BARRIER



PLAN VIEW



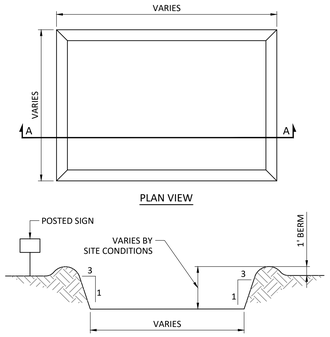
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

IPB

8 N.T.S. INLET PROTECTION BARRIER

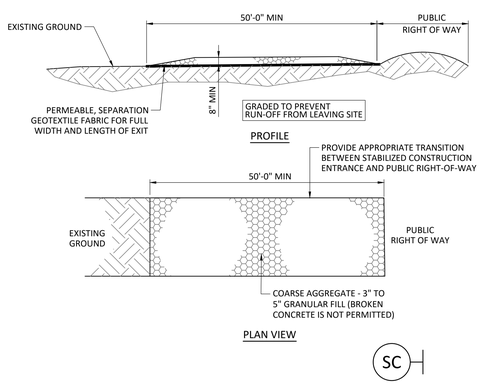


PLAN VIEW

SECTION A - A

CTW

9 N.T.S. CONCRETE TRUCK WASHOUT AREA



PLAN VIEW

SC

10 N.T.S. STABILIZED CONSTRUCTION ACCESS

GENERAL NOTES:

1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
2. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
3. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
4. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
5. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
6. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
7. ALTERNATIVE METHODS OF CONSTRUCTION INCLUDE:
   - CEMENT STABILIZED SOIL: COMPACTED CEMENT STABILIZED SOIL, LIMESTONE AGGREGATE, OR OTHER FILL MATERIAL IN AN APPLICATION OF THICKNESS OF 8 INCHES.
   - WOOD MATS: OAK OR OTHER HARDWOOD TIMBERS PLACED EDGE TO EDGE AND ACROSS SUPPORT WOODEN BEAMS WHICH ARE PLACED ON TOP OF EXISTING SOIL IN AN APPLICATION THICKNESS OF 6 INCHES.
   - STEEL MATS: PERFORATED MATS PLACED ACROSS PERPENDICULAR SUPPORT MEMBERS.

GENERAL NOTES:

1. POST A SIGN READING "CONCRETE WASH OUT PIT" NEXT TO THE PIT.
2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.
3. UNPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

BUSH HIGH SCHOOL

Project Info Additional Text Line

6707 FM 1464, Richmond, TX 77407

FBISD
INSPIRE·EQUIP·IMAGINE
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12/04/2025

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REVISIONS:

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100% CD

C 5.01-B

CIVIL SPORTS DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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TSCE PROJECT # 2508

GENERAL

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES. THE CODES LISTED SHALL INCLUDE ALL AMENDMENTS AND ADDENDA IN FORCE AT THE DATE OF THE CONTRACT DOCUMENTS.

   2021 EDITION OF THE INTERNATIONAL BUILDING CODE

2. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL AND ARCHITECTURAL CONTRACT DOCUMENTS THE STRICTEST REQUIREMENTS SHALL GOVERN.

3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE AND REPORT ANY DISCREPANCIES OR INCONSISTENCIES FROM ASSUMED CONDITIONS TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.

4. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT THEY ARE CUT AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER.

5. DO NOT SCALE THE DRAWINGS.

6. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

7. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, AND CONSTRUCTION EQUIPMENT. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE.

10. IT IS THE DESIGN INTENT FOR ALL CONCRETE POURS TO HAPPEN IN SEQUENTIAL ORDER FROM FOUNDATIONS THROUGH ROOF. THE GENERAL CONTRACTOR SHALL DISCUSS WITH THE A/E TEAM THE FEASIBILITY OF NON-SEQUENTIAL POURING OF CONCRETE AND ITS IMPACT ON THE DESIGN INTENT AND ALLOW SUFFICIENT TIME FOR SUCH SCHEME TO BE INVESTIGATED OR REVIEWED.

11. PERIODIC SITE OBSERVATION BY THE ENGINEER IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

12. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBERS.

13. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, WALLS, SLABS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF STRUCTURAL ENGINEER.

14. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

15. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

    SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS,
    SIZE AND LOCATION OF INTERIOR AND EXTERIOR NON-LOAD BEARING PARTITIONS, SIZE AND LOCATION OF CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHAMFERS, GROOVES, INSERTS, ETC., SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS, FLOOR AND ROOF FINISHES,
    STAIR FRAMING AND DETAILS, DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, CEILING AND EXTERIOR WALL ASSEMBLIES.

16. SEE THE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

    PIPES, SLEEVES, HANGERS, TRENCHES, WALL, FLOOR AND ROOF OPENINGS, DUCT PENETRATIONS, ETC., EXCEPT AS SHOWN OR NOTED OTHERWISE
    ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS, CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL, OR PLUMBING FIXTURES, SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES AND ANCHOR BOLTS FOR MOUNTS.

DESIGN CRITERIA

1. DEAD LOAD MATERIALS ASSUMED IN THE DESIGN ARE SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

2. AN ALLOWANCE OF 15 PSF HAS BEEN MADE FOR PARTITIONS AS A UNIFORMLY DISTRIBUTED LIVE LOAD, WHEREVER PARTITIONS ARE USED AND LOCATION SUBJECT TO CHANGE EXCLUDING PUBLIC LOBBIES, CORRIDORS, RESTROOMS, AND PLACES OF PUBLIC ASSEMBLY.

3. LIVE LOADS:

LOCATION	UNIFORM LOAD	CONCENTRATED LOAD
ROOF	20 PSF REDUCIBLE	300 LBS
GROUND FLR, COMMON AREAS	100 PSF REDUCIBLE	
HANDRAILS AND GUARDRAILS	50 PLF OR 200 LBS APPLIED AT TOP RAIL IN ANY DIRECTION. 50 LBS IN ANY DIRECTION APPLIED AT INTERMEDIATE RAILS.	
GRAB BARS		250 LBS ANY DIRECTION

4. WIND LOADS

ULTIMATE WIND SPEED	125 MPH (3-SEC GUST)
NOMINAL WIND SPEED	97 MPH (3-SEC GUST)
RISK CATEGORY	I
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFF.	+/- 0.18
COMPONENTS & CLADDING	SEE DIAGRAM

5. SEISMIC LOADS

RISK CATEGORY	I
IMPORTANCE FACTOR	1.00
MAPPED ACCELERATION PARAMETERS	
SS	0.066
S1	0.038
SPECTRAL RESPONSE COEFFICIENTS	
SDS	0.07
SD1	0.06
SEISMIC DESIGN CATEGORY	A

6. HANDRAILS, GUARDRAILS AND GRAB BARS (INCLUDING ATTACHMENT TO STRUCTURE) SHALL BE DESIGNED BY THE FABRICATOR FOR THE LOADS INDICATED IN THE REFERENCED BUILDING CODE. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF WHERE THE PROJECT IS LOCATED, REPRESENTING THE FABRICATOR.

FOUNDATION

1. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT (AND ANY ADDENDA) PREPARED BY THE FOLLOWING COMPANY:

   COMPANY HVJ ASSOCIATES
   REPORT NO. HG1810383.17 –B
   DATED FEBRUARY 09, 2024

   ALL RECOMMENDATIONS THEREIN THAT RELATE TO THE WORK SHOWN ON THESE DRAWINGS SHALL BE FOLLOWED.

2. THE FOUNDATION SYSTEM IS DESIGNED BASED ON THE FOLLOWING

   ALLOWABLE BEARING PRESSURE 2000 PSF

3. THE GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR FOR REVIEW OF FOUNDATION BEARING SURFACE, INSPECTION OF FOUNDATION INSTALLATION, AND PLACEMENT OF REINFORCING STEEL. THE CONTRACTOR SHALL NOT PLACE CONCRETE WITHOUT INSPECTOR'S APPROVAL.

4. THE CONTRACTOR SHALL NOTIFY THE AUTHORIZED INSPECTOR 48 HOURS IN ADVANCE OF ANY MAJOR FOUNDATION POUR.

5. FORM EXPOSED FACES OF GRADE BEAMS.

6. GRADE BEAM BOTTOM STEEL SHALL BE CHAIRED AT 5 FOOT MAXIMUM CENTERS USING BEAM BOLSTERS PROVIDING 3 INCH BOTTOM COVER TO REINFORCING STEEL. BEAM BOLSTERS USED SHALL BE INTENDED FOR SUPPORT ON SOIL.

7. BOTTOM BARS OF GRADE BEAM SHALL BE SPLICED (WHERE REQUIRED) AT THE PIERS ONLY. TOP BARS SHALL BE SPLICED (WHERE REQUIRED) AT THE MIDSPAN OF THE GRADE BEAMS. LAP LENGTH SHALL BE 44 TIMES BAR DIAMETER UNLESS SPECIFIED OTHERWISE. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

8. ALL REINFORCING STEEL FOR SLABS SHALL BE CHAIRED WITH SLAB BOLSTERS FOR SUPPORT ON SOIL AT 4'-0" MAXIMUM CENTERS EACH WAY FOR REINFORCING FOR SLABS. DEPTH OF CHAIRS SHALL PROVIDE COVER TO REINFORCING AS NOTED ON PLANS/DETAILS.

9. SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R. PROVIDE (3) #3 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

10. SUBGRADE PREPARATION SHALL CONFORM TO THE SOILS REPORT NOTED ABOVE. IF REPORT DOES NOT SPECIFY THE AMOUNT OF SELECT FILL, PROVIDE FILL AS REQUIRED ABOVE TO REDUCE PVR TO 1 INCH.

11. VAPOR RETARDER SHALL HAVE NO MORE THAN 0.01 PERMS AS TESTED BEFORE AND AFTER MANDATORY CONDITIONING (ASTM E 1745 SECTION 7.1 AND SUB-PARAGRAPHS 7.1.2-5), MEET OR EXCEED THE REQUIREMENTS OF ASTM E 1745 CLASS A AND BE NO LESS THAN 15 MILS THICK.

12. ALL VAPOR RETARDER SEAMS SHALL BE OVERLAPPED A MINIMUM OF 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE. ALL PENETRATIONS, BLOCK-OUTS, AND OPENINGS SHALL BE SEALED USING A COMBINATION OF THE VAPOR RETARDER, MASTIC AND MANUFACTURER'S TAPE. DO NOT PENETRATE VAPOR RETARDER WITH FORMWORK STAKES. USE STEGO BEAST FORM STAKES OR EQUIVALENT WHERE REQUIRED.

13. THE BEARING STRATUM OF EACH DRILLED PIER SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR PRIOR TO POURING OF CONCRETE.

14. THE BOTTOM ELEVATION OF PIERS IS SHOWN ON THE DRAWINGS FOR BID PURPOSES. THE ACTUAL REQUIRED BEARING ELEVATION MAY VARY AS REQUIRED TO PROVIDE PROPER CAPACITY AS DETERMINED BY THE GEOTECHNICAL ENGINEER. FOOTINGS SHALL BE POURED IMMEDIATELY AFTER EXCAVATION.

15. PROVIDE AND INSTALL 1/8 INCH STEEL TEMPLATES TO ACCURATELY SET VERTICAL PIER REINFORCING STEEL, AND ANCHOR BOLTS FOR STEEL COLUMNS.

16. THE PRESENCE OF SAND SEAMS AND SLICKENSIDES IN THE LAYERS MAY CAUSE SLOUGHING DURING PIER EXCAVATION. THIS MAY REQUIRE THE USE OF TEMPORARY STEEL CASING.

17. THE GROUNDWATER LEVELS MAY FLUCTUATE SEASONALLY AND WITH CLIMATIC CHANGES. SEEPAGE OF GROUNDWATER INTO THE EXCAVATIONS IS POSSIBLE AND SEEPAGE FROM "PERCHED" WATER TRAPPED IN THE SOILS MAY ALSO OCCUR. THE CONTRACTOR SHALL MAKE PROVISIONS FOR DEWATERING THE FOOTING EXCAVATION IF GROUNDWATER IS ENCOUNTERED.

18. CONCRETE SHALL BE PLACED AS SOON AS POSSIBLE AFTER THE FOOTING EXCAVATIONS ARE COMPLETED TO REDUCE THE POTENTIAL FOR WATER SEEPAGE AND TO MINIMIZE THE DISTURBANCE TO THE BEARING AREA. IN NO CASE, SHOULD AN EXCAVATION BE LEFT OPEN OVERNIGHT.

CONCRETE

1. ALL ASPECTS OF WORK RELATING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CURRENT EDITION OF ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
   CRSI MANUAL OF STANDARD PRACTICE

2. STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTHS AND TYPES ARE AS FOLLOWS:

LOCATION	STRENGTH	TYPE	AGGREGATE SIZE	EXPOSURE CLASS
FOUNDATIONS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0

3. THERE SHALL BE NO HORIZONTAL COLD JOINT IN ANY CONCRETE POUR.

4. ADMIXTURES USED SHALL BE COMPATIBLE WITH FLOOR TREATMENTS. FINISH APPLICATOR SHALL APPROVE ADMIXTURES AND CURING COMPOUNDS PRIOR TO USE.

5. EXPOSURE CLASSES FOR FREEZING AND THAWING (F), SULFATE (S), WATER (W), AND CORROSION PROTECTION (C) HAVE BEEN PROVIDED. CONCRETE MIXES SHALL CONFORM TO ALL ACI 318 REQUIREMENTS BASED ON EXPSURE CLASS, INCLUDING, BUT NOT LIMITED TO WATER CEMENT RATIO, COMPRESSION STRENGTH, AIR CONTENT, CEMENTITIOUS MATERIALS, CALCIUM CLORIDE ADMIXTURES, AND WATER-SOLUABLE CHLORIDE ION CONTENT.

6. CONCRETE FOR SLAB-ON-GRADE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.45. ALL OTHER CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.50. ADJUST CONCRETE STRENGTH BEYOND MINIMUM SPECIFIED ABOVE TO MAINTAIN MAXIMUM WATER-CEMENT RATIO.

7. CONCRETE FOR SLAB-ON-GRADE AND METAL DECK SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.04% (400 MICROSTATIONS) AT 28 DAYS OF DRYING. LENGTH CHANGE SHALL BE MEASURED IN ACCORDANCE WITH ASTM C157.

8. FLY ASH CONFORMING TO ASTM C618, MAY BE USED UNLESS NOTED OTHERWISE. THE MAXIMUM AMOUNT OF FLY ASH SHALL BE 25% OF THE TOTAL CEMENTITIOUS MATERIAL BY WEIGHT.

9. AT POLISHED OR STAINED CONCRETE THE FLOOR FLATNESS (FF) SHALL BE 40 OR BETTER AND THE FLOOR LEVELNESS (FL) SHALL BE 30 OR BETTER UNLESS MORE STRINGENT REQUIREMENTS ARE PROVIDED IN THE SPECIFICATIONS.

10. CONCRETE FORMS SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS INDICATED ON THE STRUCTURAL DRAWINGS.

11. CONCRETE FOR SLABS TO RECEIVE A HARD-TROWELED FINISH SHALL NOT CONTAIN AIR-ENTRAINING ADMIXTURES OR HAVE A TOTAL AIR CONTENT GREATER THAN 3 PERCENT.

12. SUBMIT SHOP DRAWINGS TO ARCHITECT AND ENGINEER INDICATING LOCATIONS OF CONCRETE JOINTS TO REVIEW PRIOR TO PLACING CONCRETE. PLACE JOINTS AT LOCATIONS TO MINIMIZE THE EFFECTS OF SHRINKAGE AS WELL AS BEING PLACED AT POINTS OF LOW STRESS.

13. ROUGHEN CONCRETE SURFACES TO 1/4 INCH AMPLITUDE WHERE MASONRY WALLS INTERSECT CONCRETE OR WHERE NEW CONCRETE INTERFACES WITH EXISTING CONCRETE.

14. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB-ON-GRADE, CONCRETE ON METAL DECK, FRAMED CONCRETE FLOORS, AND WALLS DO NOT REQUIRE SLEEVES UNLESS NOTED OTHERWISE ON THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE ARCHITECT AND ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH CONCRETE BEAMS OR COLUMNS UNLESS SPECIFICALLY DETAILED.

15. WITH THE EXCEPTION OF SLABS ON GRADE AND CONCRETE ON METAL DECK, THE OUTSIDE DIAMETER OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS (OTHER THAN THOSE PASSING THROUGH) SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS AND SHALL BE CENTERED BETWEEN THE TOP AND BOTTOM REINFORCING UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED. CONDUIT AND PIPE SHALL BE SPACED AT 3" OR 3 DIAMETERS ON CENTER, WHICHEVER IS GREATER.

16. FOR SLABS ON GRADE AND METAL DECK SLABS NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB UNLESS SPECIFICALLY DETAILED OTHERWISE.

17. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING WHEN TEMPORARY SUPPORTS, SHORES, BACKSHORES, AND OTHER BRACING MAY BE SAFELY REMOVED.

REINFORCING STEEL

1. ALL ASPECTS OF WORK RELATING TO THE REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CRSI MANUAL OF STANDARD PRACTICE

2. DEFORMED BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.

3. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185, YIELD STRENGTH 65,000 PSI. WELDED DEFORMED WIRE FABRIC FOR ASTM A497, YIELD STRENGTH 70,000 PSI. ALL WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS ONLY. WHEREVER WELDED WIRE FABRIC IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED ONE CROSS WIRE SPACING PLUS 2 INCHES.

4. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ONE HALF, WHICHEVER IS GREATER.

5. WELDING OF REINFORCING IS PERMITTED ONLY WHERE SHOWN ON THE DRAWINGS OR WHEN APPROVED BY THE ENGINEER OF RECORD. WELDING OF REINFORCING BARS SHALL BE WITH LOW HYDROGEN ELECTRODES IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF AWS D1.4.

6. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.

7. REINFORCING DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME NUMBER, SIZE, SPACING, AND GRADE AS THE SPECIFIED VERTICAL REINFORCING, UNO.

8. IN ADDITION TO ALL OF THE REINFORCING STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF REINFORCING BARS TO BE FURNISHED, FABRICATED, AND PLACED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

9. CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS SHALL BE AS FOLLOWS:

LOCATION OF CONCRETE	MINIMUM COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #18 BAR	2"
#5 BAR AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND	
SLABS, WALLS, JOISTS	3/4"
BEAMS, COLUMNS (INCLUDING TIES)	1 1/2"
SLAB ON GRADE	SEE DETAILS
PRESTRESSED CONCRETE	SEE IBC 1907.7.3

SUBMITTALS

1. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:

   CONCRETE MIX DESIGNS AND ACCESSORIES
   REINFORCING STEEL

   ITEMS MARKED (*) SHALL HAVE SHOP DRAWINGS SEALED BY A REGISTERED ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED. ITEMS MARKED (#) SHALL BE SUBMITTED TO ENGINEER FOR OWNER'S RECORD ONLY AND WILL NOT HAVE ENGINEER'S SHOP DRAWING STAMP. ITEMS MARKED (^) SHALL HAVE SEALED STRUCTURAL CALCULATIONS SUBMITTED TO ENGINEER FOR OWNER'S RECORD.

2. ALL SHOP DRAWINGS MUST BE REVIEWED AND SEALED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.

3. CONTRACTOR SHALL SUBMIT ELECTRONIC COPIES (E.G. PDFS) OF ALL SHOP DRAWINGS SPECIFIED TO BE RETURNED BY THE ENGINEER.

4. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIAL REQUIRED BY THE CONTRACT DOCUMENTS TO BE FURNISHED SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.

5. SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN CONSTRUCTION ON THE PROJECT.

6. THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREIN AS CORRECT, AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREIN.

SPECIAL INSPECTION

1. ALL ASPECTS OF WORK RELATING TO SPECIAL INSPECTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   2021 INTERNATIONAL BUILDING CODE (CHAPTER 17).

2. THE OWNER'S SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

3. PRIOR TO THE BEGINNING OF CONSTRUCTION, THE ARCHITECT (OR ENGINEER) SHALL CALL A PRE-CONSTRUCTION MEETING WITH THE ARCHITECT, ENGINEER, BUILDING OFFICIAL, CONTRACTOR AND SPECIAL INSPECTORS TO REVIEW THE SPECIAL INSPECTION REQUIREMENTS.

4. DUTIES OF THE OWNER'S SPECIAL INSPECTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. ACKNOWLEDGE THE SPECIAL INSPECTION AND TESTING AGREEMENT PROVIDED BY THE LOCAL JURISDICTION.

   B. THE OWNER'S SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND TO THE BUILDING OFFICIAL.

   C. THE OWNER'S SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, ARCHITECT, REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, CONTRACTOR AND (OTHER DESIGNATED PARTIES), IN A TIMELY MANNER, AS ESTABLISHED AT THE PRE-CONSTRUCTION MEETING.

   D. THE OWNER'S SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE.

5. DUTIES OF THE CONTRACTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. NOTIFY THE SPECIAL INSPECTOR THAT THE WORK IS READY FOR INSPECTION AT LEAST 24 HOURS BEFORE SUCH INSPECTION.

   B. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED AND INDICATED TO BE IN CONFORMANCE BY THE SPECIAL INSPECTOR AND APPROVED BY THE BUILDING OFFICIAL.

   C. PROVIDE THE SPECIAL INSPECTOR WITH ACCESS TO APPROVED CONSTRUCTION DOCUMENTS AT JOBSITE.

   D. MAINTAIN AT THE JOBSITE COPIES OF ALL REPORTS SUBMITTED BY THE SPECIAL INSPECTOR.

6. CONTINUOUS SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS CONTINUOUSLY PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED.

7. PERIODIC SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.

8. SPECIAL INSPECTIONS AND TESTING SHALL BE REQUIRED FOR THE FOLLOWING TYPES OF WORK LISTED BELOW. SPECIAL INSPECTIONS AND TESTING SHALL FOLLOW THE REQUIREMENTS OF THE BUILDING AND MATERIAL CODE REFERENCES AND TABLES. IN THE EVENT OF A CONFLICT BETWEEN REFERENCES, THE OWNER'S SPECIAL INSPECTOR SHALL FOLLOW THE MORE STRINGENT REQUIREMENT.

SOILS	IBC 1705.6 AND TABLE 1705.6, APPROVED GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS
CAST-IN-PLACE DEEP FOUNDATIONS	IBC 1705.8 AND TABLE 1705.8 APPROVED GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS
CONCRETE	IBC 1705.3 AND TABLE 1705.3
STEEL	IBC 1705.2 AND TABLE 1705.2.3 AND AISC 360 CHAPTER N AND SDI QA/QC DOCUMENT
SHOP FABRICATION	IBC 1704.2.5 (NOT REQUIRED IF FABRICATOR IS APPROVED IN ACCORDANCE WITH IBC 1704.2.5.1.
EXPANSION/EPOXY ANCHORS	MANUFACTURER'S ICC REPORT

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

6707 Fm 1464 Rd, Richmond, TX 77407

BUSH HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137127
LICENSED
PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S1.01-B
GENERAL NOTES

12/3/2025 10:20:36 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_BUSH_STRUCT_R25.rvt

ABBREVIATIONS

ABBR.	ABBREVIATION
A.F.F.	ABOVE FINISH FLOOR
ADDN'L	ADDITIONAL
AHU	AIR HANDLING UNIT
ALT.	ALTERNATE
ANCH.	ANCHOR
A.B.	ANCHOR BOLT
A.R.	ANCHOR ROD
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT(URAL)
BM.	BEAM
BRG.	BEARING
BTW	BETWEEN
BOT.	BOTTOM
B.F.B.	BOTTOM FLANGE BRACE
B.O.	BOTTOM OF
BRDG.	BRIDGING
BLDG	BUILDING
C	CAMBER
CANT.	CANTILEVER
C.I.P.	CAST IN PLACE
C/C	CENTER TO CENTER
CL	CENTERLINE
CH	CHANNEL
CLR.	CLEAR(ANCE)
CFMF	COLD FORMED METAL FRAMING
COL.	COLUMN
CJP	COMPLETE JOINT PENETRATION
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONST.	CONSTRUCTION
C.J.	CONSTRUCTION / CONTRACTION JOINT
CONT.	CONTINUOUS
COORD.	COORDINATE
DL	DEAD LOAD
DBA	DEFORM BAR ANCHOR
D	DEPTH
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
DWL	DOWEL
D.N.	DOWN
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
E.W.	EACH WAY
EL.	ELEVATION
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
ENGR.	ENGINEER
EOR	ENGINEER OF RECORD
EQ.	EQUAL
EQUIP.	EQUIPMENT
EQUIV.	EQUIVALENT
EXIST.	EXISTING
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
f'c=	28 DAY CONCRETE STRENGTH
FAB.	FABRICATE
F.S.	FAR SIDE
FIN	FINISH/FINISHED
FLR	FLOOR
F.D.	FLOOR DRAIN
FTG.	FOOTING
Fy=	YIELD STRENGTH
GALV.	GALVANIZED
GA.	GAUGE
GEN	GENERAL
G.C.	GENERAL CONTRACTOR
GFRC	GLASS FIBER REINFORCED CONCRETE
GR.	GRADE/GRADING
HGR.	HANGER
HSA	HEADED STUD ANCHOR
HI	HIGH
HSS	HOLLOW STRUCTURAL SECTION
HORIZ. OR (H)	HORIZONTAL
H	HORIZONTAL REACTION
IN	INCH
INFO.	INFORMATION
ID	INSIDE DIAMETER
I.F.	INSIDE FACE
INT.	INTERIOR
JT.	JOINT
JST.	JOIST
K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
Ld	DEVELOPMENT LENGTH
LWC	LIGHTWEIGHT CONCRETE
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLV	LONG LEG VERTICAL
LLH	LONG LGE HORIZONTAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LONG	LONGITUDINAL
LO	LOW
LBS	POUNDS
MFR. / MNFR.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM

MECH.	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M	MOMENT
M.C.	MOMENT CONNECTION
N.S.	NEAR SIDE
NWC	NORMAL WEIGHT CONCRETE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
O.C.	ON CENTER(S)
OPNG.	OPENING
OPP.	OPPOSITE
OPH.	OPPOSITE HAND
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OA	OVERALL
O.H.	OVERHEAD
OVS.	OVERSIZED HOLE
P	AXIAL LOAD
P.J.	PANEL JOINT
PAR.	PARALLEL
PRKG.	PARKING
PJP	PARTIAL JOINT PENETRATION
PVMT	PAVEMENT
PVG	PAVING
PERP.	PERPENDICULAR
PL.	PLATE
PLBG	PLUMBING
PT	POST-TENSION(ED)
PCF	POUNDS PER CUBIC FOOT/FEET
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT/FEET
PSI	POUNDS PER SQUARE INCH
P/C	PRECAST CONCRETE
PRELIM.	PRELIMINARY
P.L.	PROPERTY LINE
QTY	QUANTITY
R	RADIUS, REACTION, REMAINDER
REC.	RECESSED
RE:	REFER TO
REF.	REFERENCE
REINF.	REINFORCED / REINFORCING
REBAR	REINFORCING BAR
REQ'D	REQUIRED
REV.	REVISION
R.D.	ROOF DRAIN
RTU	ROOF TOP UNIT
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SLBB	SHORT LEG BACK TO BACK
SIM.	SIMILAR
SC	SLIP CRITICAL, SHEAR CONNECTOR
SPA.	SPACING
SPEC.	SPECIFICATION
SQ.	SQUARE
SF.	SQUARE FOOT/FEET
STD	STANDARD
STL	STEEL
STIFF.	STIFFENER
STIR.	STIRRUP
STRUCT.	STRUCTURE/STRUCTURAL
TEMP.	TEMPERED
THK	THICK(NESS)
t	THICKNESS, TREAD
THD	THREADED
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
VERT. OR (V)	VERTICAL
WT.	WEIGHT
WWR	WELD WIRE REINF.
WF	WIDE FLANGE
W	WIDTH
WL	WIND LOAD
W.P.	WORK POINT
XXS	DOUBLE EXTRA STRONG
XS	EXTRA STRONG
&	AND
≈	APPROXIMATELY EQUAL
@	AT
°	DEGREE
=	EQUAL
≥	GREATER THAN or EQUAL
≤	LESS THAN or EQUAL
#	NUMBER or POUNDS
/	PER
±	PLUS or MINUS
Ø	ROUND/DIAMETER

SYMBOLS LEGEND

SYMBOLS	DESCRIPTION
N	NORTH ARROW
XX / S-X.XX	ENLARGE FLOOR PLAN REFERENCE OR ENLARGE DETAIL REFERENCE
XX / S-X.XX	DETAIL SECTION (STRUCTURAL)
XX/SX.XX	BRACING ELEVATION
11 5/8" / 5"	DIMENSIONS
XX/S-X.XX / XX/S-X.XX	MATCHLINE
1	REVISION NUMBER & AFFECTED AREA
LEVEL NAME 0' - 0"	VERTICAL ELEVATION
EX: 152' - 6"	EXISTING ELEVATION
152' - 6"	NEW ELEVATION
	M.C. OR MOMENT CONNECTION
	DEPRESSION
	PANEL WALL TAG
12/36 — BELL DIAMETER (IN) / SHAFT DIAMETER (IN)	BELLED PIER
P1	PILE SHAFT
F3	FOOTING

STRUCTURAL SHEET INDEX

SHEET NUMBER	SHEET NAME	Current Revision
S1.01-B	GENERAL NOTES	
S1.02-B	GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX	
S2.01-B	FOUNDATION SITE DETAILS	
Grand total: 3		

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

6707 Fm 1464 Rd, Richmond, TX 77407

BUSH HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137125
LICENSED PROFESSIONAL ENGINEER
12/04/2025

ASCE Hazards Report

Address:
6707 FM 1464 Rd
Richmond, Texas
77407

Standard: ASCE/SEI 7-16
Risk Category: I
Soil Class: D - Default (see Section 11.4.3)

Latitude: 29.70373
Longitude: -95.685454
Elevation: 90.5936250118568 ft (NAVD 88)





Wind

Results:

Wind Speed	125 Vmph
10-year MRI	76 Vmph
25-year MRI	90 Vmph
50-year MRI	102 Vmph
100-year MRI	112 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1A and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Thu Jun 12 2025

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 15% probability of exceedance in 50 years (annual exceedance probability = 0.00333, MRI = 300 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

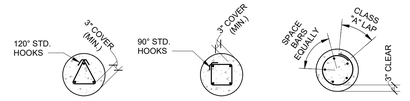
S1.02-B

GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX

12/3/2025 10:20:37 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_BUSH_STRUCT_R25.rvt

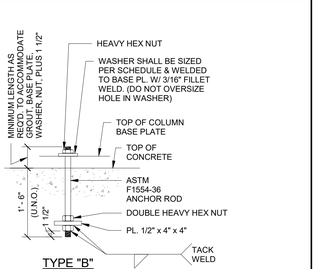
DRILLED PIER VERTICAL REINFORCEMENT SCHEDULE		
SHAFT DIAMETER (INCHES)	VERTICAL REINFORCEMENT	TIES
30	5 - #6	#3 @ 12"
42	8 - #6	#3 @ 12"

*ALL PIER SIZES SHOWN MAY NOT BE USED ON THIS PROJECT.



@ 3 BARS @ 4 BARS 5 OR MORE BARS

3 SHAFT BAR PLACEMENT PLANS
SCALE: N.T.S.



TYPE "B"

TYPE "B" WASHER SCHEDULE		
ANCHOR ROD DIA.	WASHER SIZE*	MIN. WASHER THICKNESS
3/4"	2"	1/4"
7/8"	2 1/2"	5/16"
1"	3"	3/8"
1 1/4"	3 1/2"	1/2"
1 1/2"	4"	1/2"
1 3/4"	4 1/2"	5/8"
2"	5"	3/4"
2 1/2"	5 1/2"	7/8"

NOTE:
USE TYPE "B" ANCHOR BOLTS AT COLUMNS WITH DIAGONAL BRACES, MOMENT CONNECTIONS, & AT CANOPY COLUMNS

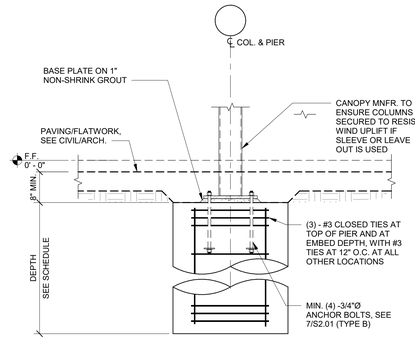
*CIRCULAR OR SQUARE WASHERS MEETING WASHER SIZE ARE ACCEPTABLE

10 TYPICAL DETAIL ANCHOR BOLT
SCALE: N.T.S.

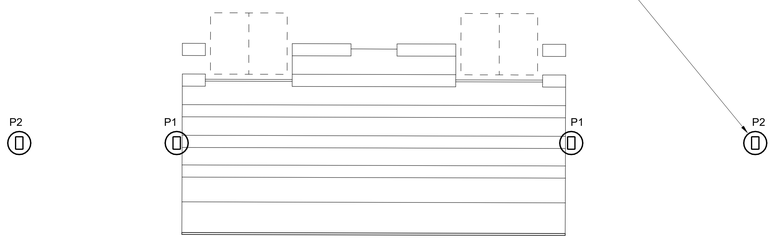
DRILLED STRAIGHT SHAFT VERTICAL REINFORCEMENT SCHEDULE		
MARK	SHAFT DIA.	DEPTH
P1	42"	7' - 0"
P2	30"	7' - 0"

NOTES:
1. SEE 3/S2.01 FOR REINF.

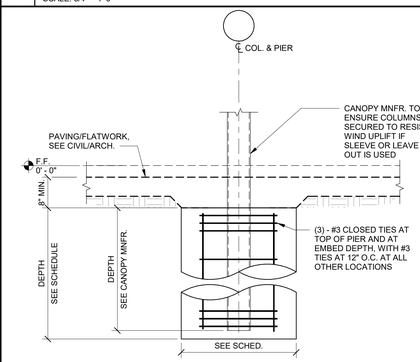
6 STRAIGHT SHAFT PIER SCHEDULE AT PREMANUFACTURED CANOPIES
SCALE: N.T.S.



2 TYPICAL DETAIL EXTERIOR CANOPY COLUMN (BOLTED)
SCALE: 3/4" = 1'-0"



9 BLEACHER CANOPY FOUNDATION
SCALE: 1/4" = 1'-0"



1 TYPICAL DETAIL EXTERIOR CANOPY COLUMN (EMBEDDED)
SCALE: 3/4" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

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6707 Fm 1464 Rd, Richmond, TX 77407

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FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137128
LICENSED PROFESSIONAL ENGINEER
12/04/2025

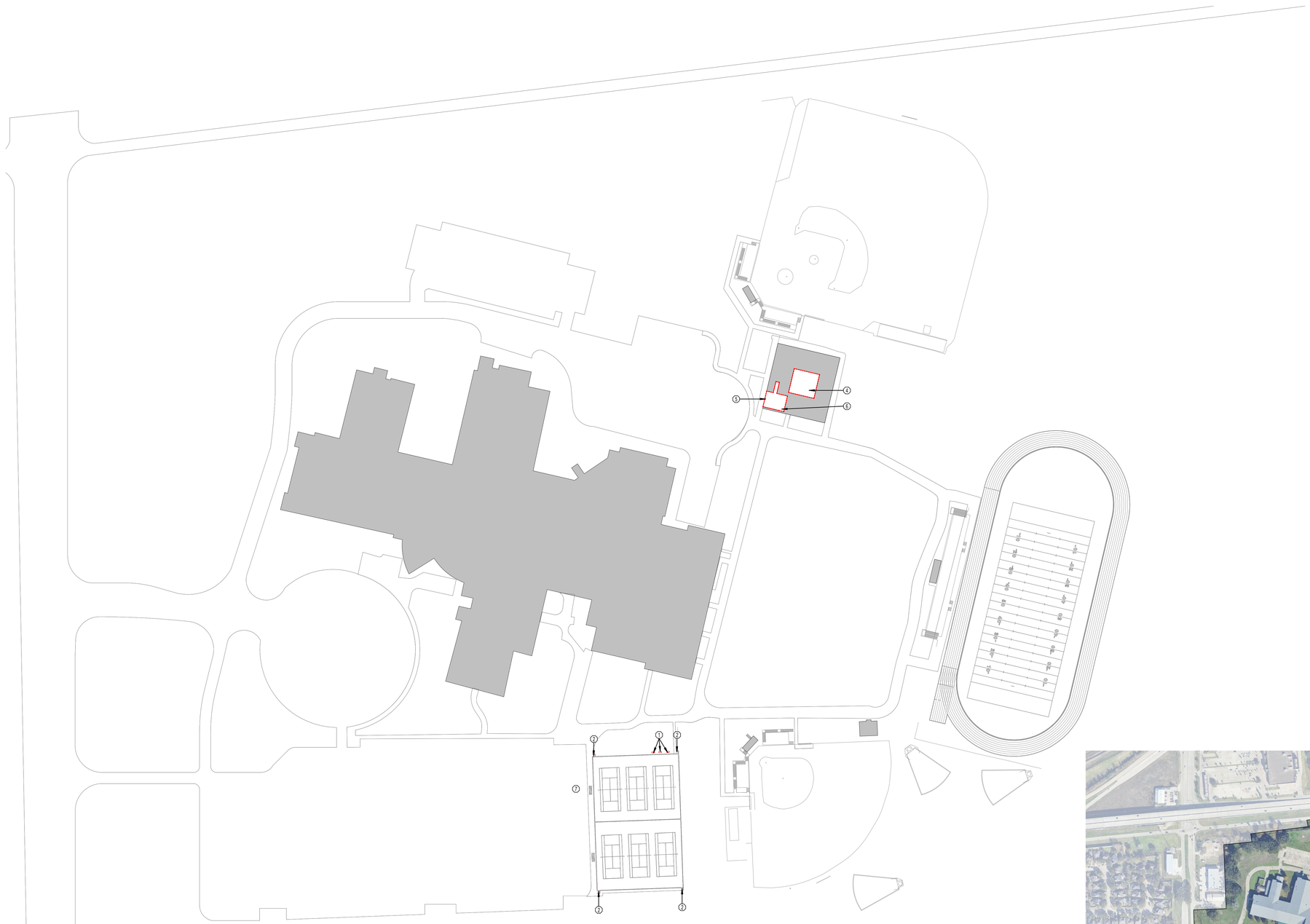
PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S2.01-B
FOUNDATION SITE DETAILS

12/3/2025 10:20:38 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_BUSH_STRUCT_R25.rvt



GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) ISARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
18. REMOVE ALL EXISTING PAINT AND REPAINT ALL EXISTING WALLS PART IN SCOPE. REFER TO MATERIAL LEGEND FOR PAINT COLORS AND TYPE

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- (4) DEMO KEY NOTE

DEMO KEY NOTES

TAG #	NOTE
1	DEMO EXISTING WOOD BENCHES
2	DEMO EXISTING FENCE GATE
4	DEMO WEIGHT ROOM FLOORING: REF A2.00-B, A10.00-B
5	DEMO WASHER/DRYER: REF AD.01-A
6	DEMO TRAINING ROOM FLOORING: REF A2.00-B, A10.00-B
7	DEMO CONCRETE PAVEMENT



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

6707 Fm 1464 Rd, Richmond, TX 77407

BUSH HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

Date	Description

100% CD

AD.00-B
DEMOLITION SITE PLAN

BUSH HIGH SCHOOL

12/4/2025 3:51:02 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_BUSH_ARCH_FBISD ATHLETIC RENOVATIONS BP012-B_R25.rvt

ABBREVIATIONS

A	
A.F.F.	ABOVE FINISH FLOOR
ACC.FL.	ACCESS FLOOR
A.P.	ACCESS PANEL
ACOUS.	ACOUSTICAL
ACT.	ACOUSTICAL CEILING TILE
ADD.	ADDENDUM
ADJNT.	ADJACENT
ADJ.	ADJUSTABLE
ADMIN.	ADMINISTRATION
AGG.	AGGREGATE
A/C	AIR CONDITIONING
ALT.	ALTERNATE, ALTERNATIVE
ALUM.	ALUMINUM
ANCH.	ANCHOR, ANCHORAGE
ANOD.	ANODIZED
APPROX.	APPROXIMATE
ARCH.	ARCHITECT
A.D.	AREA DRAIN
ASPH.	ASPHALT
AUTO.	AUTOMATIC
B	
BSMT.	BASEMENT
BM.	BENCH MARK
BTWN.	BETWEEN
BEV.	BEVEL
BIT.	BITUMINOUS
BLK.	BLOCKING
BD.	BOARD
B.S.	BOTH SIDES
B.W.	BOTH WAYS
B.O.D.	BOTTOM OF DECK
BRK.	BRACKET
BRZ.	BRONZE
BLDG.	BUILDING
BUR.	BUILT UP ROOFING
C	
CAB.	CABINET
CPT.	CARPET
CSMT.	CASEMENT
CIP.	CAST IN PLACE CONCRETE
C.B.	CATCH BASIN
CLG.	CEILING
CLG. HT.	CEILING HEIGHT
CEM.	CEMENT
CL	CENTERLINE
CT	CERAMIC TILE
C.O.	CLEAN OUT
CLR.	CLEAR(ANCE)
CLO.	CLOSET
COL.	COLUMN
COMPT.	COMPARTMENT
COMPR.	COMPRESS
COMP.	COMPUTER
CONC.	CONCRETE
CMU.	CONCRETE MASONRY UNIT
CONST.	CONSTRUCTION
CONT	CONTINUOUS
CONTR.	CONTRACT/CONTRACTOR
CFCI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
C.J.	CONTROL JOINT
CPR.	COPPER
CG.	CORNER GUARD
CORR.	CORRIDOR
CTR.	COUNTER
C. FL.	COUNTER FLASHING
CTR. SNK.	COUNTER SUNK
CRS.	COURSE
CU. FT.	CUBIC FEET
CU. YD.	CUBIC YARD
D	
D.P.	DAMP PROOFING
DPR.	DAMPER
DL.	DEAD LOAD
DEMO	DEMOLISH, DEMOLITION
DEP.	DEPRESS
DTL.	DETAIL
DIAG.	DIAGONAL
DIAM.	DIAMETER
DW.	DISH WASHER
DISPR.	DISPENSER
DIV.	DIVISION
DR.	DOOR
DBL.	DOUBLE
DH.	DOUBLE HUNG
DN.	DOWN
DS.	DOWNSPOUT
DRN.	DRAIN
DRN. BD.	DRAIN BOARD
DRN. TL.	DRAIN TILE
DWR.	DRAWER
DWG.	DRAWING
DF	DRINKING FOUNTAIN
E	
EA.	EACH
EA. FA.	EACH FACE
E.	EAST
ELEC.	ELECTRIC
EDF.	ELECTRIC DRINKING FOUNTAIN
EP.	ELECTRICAL PANEL
ELEV.	ELEVATION
EMERG.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EXCAV.	EXCAVATE
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EJ	EXPANSION JOINT
EXT.	EXTERIOR
EPS	EXTRUDED POLY STYRENE
F	
FAB	FABRICATED
FV.	FIELD VERIFY
FIN.	FINISH
FIN. FLR.	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FA.	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FE.	FIRE EXTINGUISHER
FEC.	FIRE EXTINGUISHER CABINET
FHS.	FIRE HOSE CABINET
FPL.	FIRE PLACE
FP.	FIRE PROOFING
FRC.	FIRE RESISTANT COATING
F. RT.	FIRE RETARDANT
FLSHG.	FLASHING
FLEX	FLEXIBLE
FLR.	FLOOR
FLR. C.O.	FLOOR CLEAN OUT
FD.	FLOOR DRAIN
FLR. JT.	FLOOR JOINT
FLR. PLT.	FLOOR PLATE
FLOUR.	FLUORESCENT
FTG.	FOOTING
FRMG.	FRAMING
FBO.	FURNISHED BY OWNER
FURR.	FURRED (ING)
FUT.	FUTURE
FRIG.	REFRIGERATOR
G	
GALV.	GALVANIZED
GSKT.	GASKET
GA.	GAUGE
GC.	GENERAL CONTRACTOR
GLS.	GLASS
GL. BLK.	GLASS BLOCK
GL. CMU.	GLAZED CONCRETE MASONRY UNIT
GST.	GLAZED STRUCTURAL TILE
GB.	GRAB BAR
GBLK.	GREEN BLOCK
GRT.	GROUT
GYPCTE.	GYPCRETE
GYP. PL.	GYPSUM PLASTER
GYP. T.	GYPSUM TILE
GWB.	GYPSUM WALL BOARD
H	
HD. BD.	HARD BOARD
HD. JT.	HARD JOINT
HDW.	HARDWARE
HDWD.	HARDWOOD
HDR.	HEADER
HTG.	HEATING
HVAC.	HEATING, VENTILATION, AIR CONDITIONING
HVY. D.	HEAVY DUTY
HT.	HEIGHT
HC.	HOLLOW CORE
HM.	HOLLOW METAL
HORIZ.	HORIZONTAL
HB.	HOSE BIB
HWH.	HOT WATER HEATER
HR.	HOUR
I	
INCL.	INCLUDE
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INTERM.	INTERMEDIATE
INV.	INVERT
J	
JAN.	JANITOR
J.C.	JANITORS CLOSET
JT.	JOINT
JF.	JOINT FILLER
JST.	JOIST
K	
K. PL.	KICK PLATE
KIT.	KITCHEN
K.O.	KNOCK OUT
L	
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LH.	LEFT HAND
LC.	LIGHT CONTROL
LT. WT.	LIGHT WEIGHT
LT.	LIGHT, RE: ELECTRICAL
LT. CONC.	LIGHTWEIGHT CONCRETE
LMSTN	LIMESTONE
LTL.	LINTEL
LL.	LIVE LOAD
LB.	LOAD BEARING
LPT.	LOW POINT
M	
MH.	MAN HOLE
MFR.	MANUFACTURE
MRB.	MARBLE
MB	MARKER BOARD
MAS.	MASONRY
M.O.	MASONRY OPENING
MU	MASONRY UNIT
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP	MECHANICAL/ELECTRICAL/ PLUMBING
M.C.	MEDICINE CABINET
MEMB.	MEMBRANE
MTL.	METAL
MFD.	METAL FLOOR DECK
MRD.	METAL ROOF DECK
M. THR.	METAL THRESHOLD
MWK.	MILLWORK
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MOD.	MODULAR
MLDG.	MOLDING
MT.	MOUNT
MTD.	MOUNTED
MOV.	MOVE
MULL.	MULLION
N	
NAT.	NATURAL
NR.	NOISE REDUCTION
NOM.	NOMINAL
N.	NORTH
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
O	
OC.	ON CENTER
OCEW	ON CENTER EACH WAY
OPG.	OPENING
OPP.	OPPOSITE
OH	OPPOSITE HAND
OH.	OPPOSITE HAND
O.A.	OVER ALL
OVRHD.	OVER HEAD
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	
PNT.	PAINT
PTD.	PAINTED
PNL.	PANEL
PB.	PANIC BAR
PTDIS.	PAPER TOWEL DISPENSER
PTR.	PAPER TOWEL RECEPTACLE
PAR.	PARALLEL
PKG.	PARKING
P. BD.	PARTICLE BOARD
PARTN.	PARTITION
PVT.	PAVEMENT
PERF.	PERFORATED
PERIM.	PERIMETER
PLAS.	PLASTER
PLAM.	PLASTIC LAMINATE
PL.	PLATE
PLY.	PLYWOOD
PVC.	POLYVINYL CHLORIDE
PREFAB.	PREFABRICATED
PREFIN.	PREFINISHED
P.L.	PROPERTY LINE
Q	
QT.	QUARRY TILE
R	
RAD.	RADIUS
REF.	REFERENCE
RFL.	REFLECTED
REG.	REGISTRAR
REINF.	REINFORCING
REM.	REMOVE
REQ'D.	REQUIRED
RES.	RESILIENT
RET.	RETURN
RA.	RETURN AIR
RVS.	REVERSE
REV.	REVISION
RH.	RIGHT HAND
R.O.W.	RIGHT OF WAY
RD.	ROOF DRAIN
RF. HT.	ROOF HEIGHT
RFG.	ROOFING
RM.	ROOM
RO.	ROUGH OPENING
RB.	RUBBER BASE
S	
SF. GL.	SAFETY GLASS
SCHED.	SCHEDULE
SLNT.	SEALANT
STG.	SEATING
SCTN.	SECTION
SHTH.	SHEATHING
SHT.	SHEET
SH. GL.	SHEET GLASS
SHR.	SHORING
SIM.	SIMILAR
SKYLT.	SKYLIGHT
SLV.	SLEEVE
SC.	SOLID CORE
SCW	SOLID CORE WOOD
S.	SOUTH
SPCR.	SPACER
SPKR.	SPEAKER
SPEC.	SPECIFICATIONS
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STA.	STATION
STL.	STEEL
STN.	STONE
STOR.	STORAGE
SD.	STORM DRAIN
STRUCT.	STRUCTURE (TURAL)
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
SYN.	SYNTHETIC
SYS.	SYSTEM
T	
TB.	TACK BOARD
TK. STP.	TACK STRIP
TEL.	TELEPHONE
TV	TELEVISION
THK.	THICK
THR.	THRESHOLD
TO. COL.	TOP OF COLUMN
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.J.	TOP OF JOIST
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
TG.	TOUNG AND GROOVE
TR.	TREAD
TYP.	TYPICAL
U	
UC.	UNDER CUT
UNFIN.	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR.	URINAL
V	
VB.	VAPOR BARRIER
VAR.	VARIES
VNR.	VENEER
VIF.	VERIFY IN FIELD
VERT.	VERTICAL
VG.	VERTICAL GRAIN
VIN.	VINYL
VIN. B.	VINYL BASE
VCT	VINYL COMPOSITION TILE
VIN. F.	VINYL FABRIC
VIN. T.	VINYL TILE
W	
WSCT.	WAINSCOT
WH.	WALL HUNG
WC.	WATER CLOSET
WPRF.	WATER PROOFING
WRP.	WATER REPELLENT
WS.	WATER STOP
WWF.	WELDED WIRE FABRIC
WWM.	WELDED WIRE MESH
W.	WEST
WDW.	WINDOW
WGLS.	WIRE GLASS
WM.	WIRE MESH
W.	WITH
WO.	WITHOUT
WD.	WOOD
WD. B.	WOOD BASE
W. PT.	WORKING POINT

SYMBOLS & LEGENDS

ARCHITECTURAL DRAWING SYMBOLS

- Name 101 150 SF — ROOM TAG WITH ROOM FINISH
- Name 101 XXX SF/ XXX(P) — ROOM TAG WITH OCCUPANCY SF=SQUARE FEET P=PEOPLE
- 101 — DOOR TAG
- AX1 — PARTITION TAG
- HOLLOW METAL FRAME TAG
- 1 — ALUMINUM FRAME TAG
- EXPANSION JOINT
- 21 / A101 SIM. — ENLARGED CALL OUT
- 1 A101 SIM — BUILDING SECTION TAG
- 1 A101 SIM — WALL SECTION TAG
- 1 A101 SIM — DETAIL SECTION TAG
- 20 A101 Ref — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- 15/ A 9.24 — VIEW REFERENCE DETAIL
- Elevation Name — ELEVATION LEVEL TAG
- AB — COLUMN GRID
- 5' DIAMETER ADA TURN AROUND
- REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC P.RQ R.EQ — EXIT POINT WITH WIDTH INDICATED IN INCHES OCCUPANT LOAD SHOWN VERTICAL P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- CENTER LINE
- MATCH LINE
- ITEM SHOWN IS ABOVE/BELOW OR TO BE REMOVED(ON DEMO SHTS) U.N.O.
- PROPERTY LINE
- BREAK LINE
- LONGEST TRAVEL DISTANCE TO EXIT
- BUILDING EXIT

WALL LEGEND

- EXISTING WALL TO REMAIN
- METAL STUD PARTITION
- CMU PARTITION
- 1 HR WALL CONSTRUCTION
- 1 HR CMU WALL CONSTRUCTION
- 2 HR WALL CONSTRUCTION
- 2 HR CMU WALL CONSTRUCTION

MATERIALS LEGEND

- EARTH (COMPACTED)
- POUROUS FILL (STONE OR GRAVEL)
- CONCRETE
- PLASTER/SAND/CEMENT/ GROUT
- BRICK (COMMON OR FACE)
- CONCRETE MASONRY UNIT (CMU)
- METAL (LARGE SCALE)
- METAL (SMALL SCALE)
- BATT INSULATION
- RIGID BOARD OR SPRAY FOAM INSULATION
- ROUGH WOOD (CONTINUOUS)
- ROUGH WOOD (NON-CONTINUOUS)
- FINISH WOOD
- PLYWOOD

PROJECT GENERAL NOTES

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A WATERTIGHT & WEATHERTIGHT BUILDING
2. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A PLUM, LEVEL AND SQUARE STRUCTURE UNLESS OTHERWISE NOTED ANY DEVIATION FROM THIS GENERAL INTENT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
3. THE BUILDING SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL THE APPLICABLE CODES, ORDINANCES AND REGULATIONS AS WELL AS THE DRAWINGS & SPECIFICATION. ANY CODE DEFICIENCIES IN THE DRAWINGS RECOGNIZED BY THE CONTRACTOR SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
4. THE CONTRACTOR SHALL VISIT PROJECT SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ANY AMBIGUOUS ITEMS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO SUBMITTING PROPOSAL.
5. THE CONTRACTOR IS TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES REQUIREMENTS, AND COMPLETE TEXAS HEALTH DEPARTMENT NOTIFICATIONS AND SUBMIT FORMS AND REQUIRED INFORMATION TO MEET " TEXAS COMMISSION ON ENVIRONMENTAL QUALITY" (TCEQ) REQUIREMENTS PRIOR TO START OF PROJECT
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF THE BUILDING ON THE SITE AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE BIDDING THE PROJECT OR THE COMMENCEMENT OF WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR CHANGES TO THE WORK DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HIS/HER SELF WITH EXISTING CONDITIONS
7. DO NOT SCALE DRAWINGS ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE AND BE FIELD VERIFIED AND COORDINATED WITH WORK OF ALL TRADES. IF NO DIMENSIONS ARE GIVEN OR DISCREPANCIES FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION BEFORE BIDDING OR COMMENCING THE WORK.
8. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, ALL INCLUDED AS PART OF THE WORK.
9. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
10. THE CONTRACTOR SHALL VERIFY THE SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS AND BASES, AS WELL AS POWER, WATER AND DRAIN REQUIREMENTS FOR SUCH EQUIPMENT WITH EQUIPMENT MFG. DEVIATION OF BEFORE MENTIONED REQUIREMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
11. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE WITH THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. REVIEW ALL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
12. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
13. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
14. PROVIDE FIRE STOPS WHEREVER INTERIOR AND EXTERIOR WALLS AND PARTITIONS INTERSECT FLOORS, CEILINGS, AND ROOFS. ALSO PROVIDE AT ALL OPENINGS AROUND PENETRATIONS TO PREVENT VERTICAL & HORIZONTAL COMMUNICATION OF FIRE ALONG LINES OF CORRIDORS, OCCUPANCY CHANGES, AND SIMILAR SEPARATIONS.
15. ALL WALL WIDTHS ARE SHOWN AND DIMENSIONED WITH ACTUAL DIMENSIONS. DIMENSIONS FOR FRAMED WALLS ARE SHOWN TO FACE OF STUDS AND/OR FACE OF BLOCK U.N.O.
16. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
17. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
18. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
19. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
20. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
21. DIFFUSERS, LIGHT FIXTURES, ETC., ARE INDICATED ON THE REFLECTED CEILING PLAN FOR LOCATION AND COORDINATION. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
22. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
23. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
24. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
25. CLASSROOM FURNITURE INDICATED ON THE FLOOR PLANS, NOT INDICATED AS "BUILT-IN", ARE NOT IN PROJECT CONTRACT. FURNITURE IS SHOWN FOR TYPICAL CLASSROOM ARRANGEMENT, ONLY.
26. GENERAL CONTRACTORS AND SUB-CONTRACTORS ARE TO SCHEDULE AND COMPLETE THEIR WORK SO AS TO KEEP MECHANICAL, ELECTRICAL, TELEPHONE, DATA, HVAC CONTROL, INTERCOM, AND OTHER EXISTING SYSTEMS OPERATIONAL IN AREAS OCCUPIED BY THE OWNER DURING THE RENOVATION AND CONSTRUCTION OF THE PROJECT
27. WHERE EXISTING OR NEW EXPANSION JOINTS ARE EXPOSED DUE TO NEW CONSTRUCTION OR RENOVATION, PROVIDE APPROVED FLOOR, WALL, AND/OR CEILING EXPANSION JOINT COVER ASSEMBLIES AS REQUIRED.
28. WHERE NEW FLOORING IS TO BE INSTALLED ON TOP OF EXISTING FLOOR SLAB, PROVIDE FLOOR LEVELING COMPOUND AS REQUIRED TO PROVIDE LEVEL WORKABLE SURFACE FOR NEW FINISHES
29. CONTRACTOR IS TO ENSURE THAT NEW AND/OR EXISTING MECHANICAL, ELECTRICAL, DATA, AND CONTROL SYSTEMS ARE CONCEALED TO THE GREATEST EXTENT AS POSSIBLE UNLESS OTHERWISE NOTED
30. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
31. ALL EXPOSED METALS EXCEPT GALVANIZED AND PRE-FINISHED ITEMS, SHALL BE FINISH PAINTED - COLOR TO BE SELECTED BY ARCHITECT. REF SPECS FOR FIELD WELDS AT GALV.
32. WHERE THE WORDS "PATCH", "MATCH", "REPAIR", "REPLACE", ARE USED SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT COLORS, TEXTURES AND FINISH OF DISTURBED AREAS SHALL MATCH IN ALL RESPECTS. REPLACE IS DEFINED AS REMOVE EXISTING AND INSTALL NEW INCLUDING ALL APPROPRIATE ELECTRICAL CONNECTIONS AND WITH MATCHING OR COMPATIBLE EQUIPMENT OR MATERIALS AS SHOWN. SPECIFIED OR REQUIRED FOR COMPLETE INSTALLATION.

SHEET NAMING CONVENTION

A2-XX-X

- A2 — DRAWING SHEET DISCIPLINE
- XX — SCHOOL NAME FIRST ALPHABET
- X — SHEET NUMBER IN DISCIPLINE

G	GENERAL	P	PLUMBING
C	CIVIL	E	ELECTRICAL
L	LANDSCAPE	FP	FIRE PROTECTION
S	STRUCTURAL	FA	FIRE ALARM
IR	IRRIGAITON	T	TECHNOLOGY
AD	ARCH DEMOLITION	TE	THEATRICAL
A	ARCHITECTURE	FS	FOOD SERVICES
M	MECHANICAL	AV	AUDIO VISUAL

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

6707 Fm 1464 Rd, Richmond, TX 77407

BUSH HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, Tx 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

A0.00-B
SYMBOLS & ABBREVIATIONS

BUSH HIGH SCHOOL

Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_BUSH_ARCH_FBISD ATHLETIC RENOVATIONS BP012-B_R25.rvt
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01 BUSH OVERALL 1
SCALE: 1" = 80'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01 & G0.02 FOR TAS REQUIREMENTS
3. RE: G0.03 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 6' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

X–X	VINYL COATED CHAIN LINK FENCE, 48" HIGH
L–L	VINYL COATED CHAIN LINK FENCE, 72" HIGH
M–M	BLACK WROUGHT IRON FENCE, 48" HIGH
R–R	BLACK WROUGHT IRON FENCE, 72" HIGH
1 / A101 SIM	BUILDING SECTION TAG
1 / A101 SIM	WALL SECTION TAG
21 / A101 SIM	ENLARGED CALL OUT

SITE PLAN KEYNOTES

TAG #	NOTE
1	ALTERNATE NO. 3 - NEW CONCRETE PAVEMENT UNDER BLEACHERS
2	NEW FENCE GATE
3	NEW MONDO FLOORING IN TRAINING ROOM
4	CANOPIES FOR EXISTING BLEACHERS
5	NEW TENNIS WINDSCREEN
6	COURT BENCHES WITH CABANAS
7	INSTALLING MONDO FLOOR IN WEIGHT ROOM
8	NEW DRINKING FOUNTAIN WITH BOTTLE FILLERS
9	REPLACE TWO HOLLOW METAL DOORS
10	REPLACE WASHER/DRYER
11	NEW CONCRETE PAVEMENT

ALTERNATES:

ALTERNATE NO. 3 - BUSH HIGH SCHOOL: CONCRETE PAVEMENT UNDER THE BLEACHERS OF SOFTBALL, BASEBALL, AND FOOTBALL.



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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6707 Fm 1464 Rd, Richmond, TX 77407

BUSH HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
	Date	Description

100% CD

A1.00-B
ARCHITECTURAL SITE PLAN

BUSH HIGH SCHOOL

Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_BUSH_ARCH_FBISD ATHLETIC RENOVATIONS BP012-B_R25.rvt
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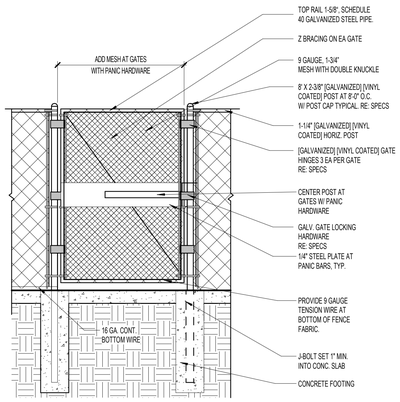
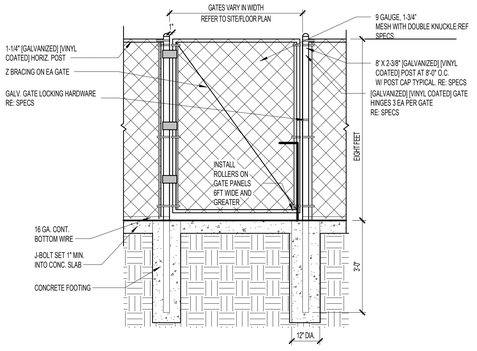


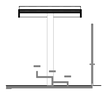
GATE PANIC HARDWARE 3
SCALE: 1/2" = 1'-0"



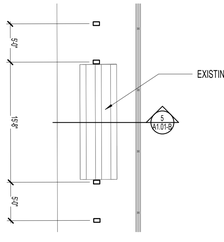
FENCE GATE DETAIL 2
SCALE: 1/2" = 1'-0"



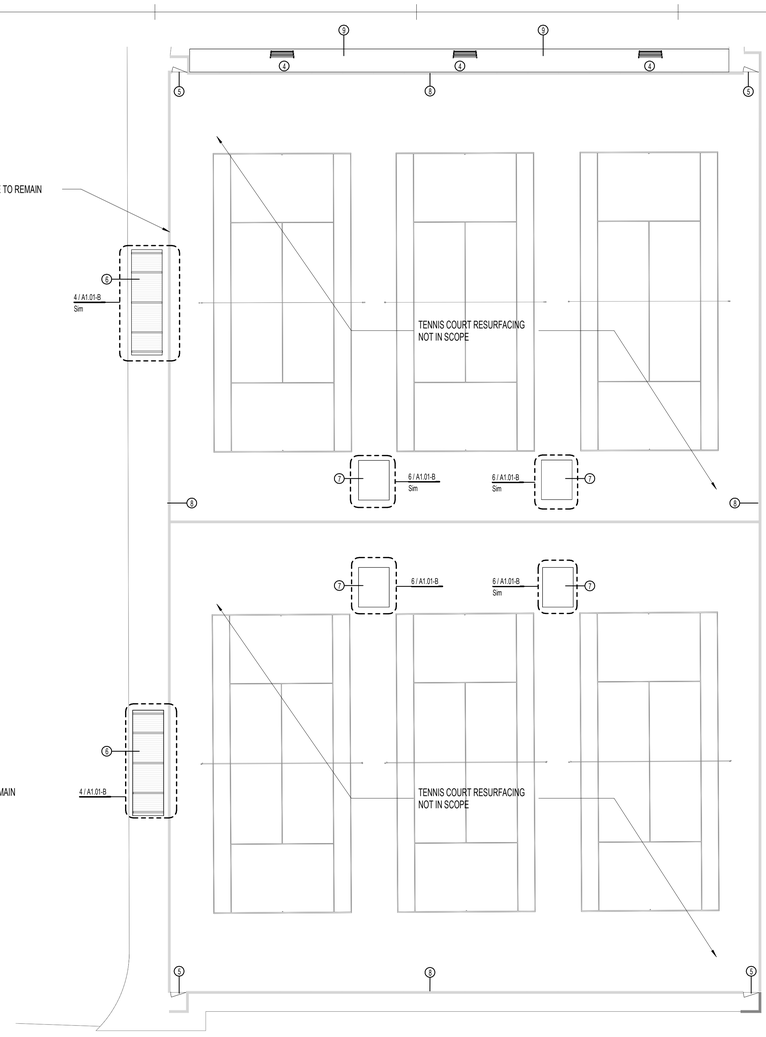
COURT BENCH WITH CANOPY 6
SCALE: 1/8" = 1'-0"



TENNIS CANOPY SECTION 5
SCALE: 1/8" = 1'-0"



EXISTING BLEACHER TENNIS COURT- B 4
SCALE: 1/8" = 1'-0"



TENNIS COURT- B 1
SCALE: 1/16" = 1'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01 & G0.02 FOR TAS REQUIREMENTS
3. RE: G0.03 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 5' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 6' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- X X — VINYL COATED CHAIN LINK FENCE, 48" HIGH
- L L — VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M M — BLACK WROUGHT IRON FENCE, 48" HIGH
- R R — BLACK WROUGHT IRON FENCE, 72" HIGH
- SIM / 1 / A101 — BUILDING SECTION TAG
- SIM / 1 / A101 — WALL SECTION TAG
- 21 / A101 SIM — ENLARGED CALL OUT

SITE PLAN KEYNOTES

TAG #	NOTE
1	DEMO EXISTING FENCE GATES
2	DEMO EXISTING WOOD BENCHES
3	EXISTING BLEACHER TO REMAIN – DEMOLISH CONCRETE PAD AS NECESSARY TO INSTALL CANOPY – REF. CIVIL
4	COURT BENCH: REF SPECS
5	NEW FENCE GATE
6	NEW CANOPIES FOR EXISTING BLEACHERS
7	NEW CABANA AND COURT BENCHES: REF SPECS
8	NEW WINDSCREEN ON EXISTING FENCE
9	NEW CONCRETE PAVEMENT

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
18. REMOVE ALL EXISTING PAINT AND REPAINT ALL EXISTING WALLS PART IN SCOPE. REFER TO MATERIAL LEGEND FOR PAINT COLORS AND TYPE

DEMOLITION LEGEND

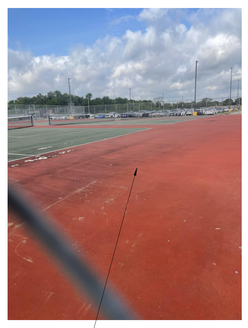
- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 4 — DEMO KEY NOTE



② DEMO WOODEN COURT BENCH INSIDE THE COURT
③ EXISTING BLEACHER TO REMAIN – DEMOLISH CONCRETE PAD AS NECESSARY TO INSTALL CANOPY – REF. CIVIL



EXISTING TENNIS COURT TO REMAIN



EXISTING TENNIS COURT TO REMAIN
SURFACE AND STRIPE TO REMAIN



① DEMO EXISTING GATES



① DEMO EXISTING GATES



② DEMO EXISTING WOOD BENCHES ON THE NORTH SIDE OF THE COURT AND REPLACE WITH NEW BENCHES



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

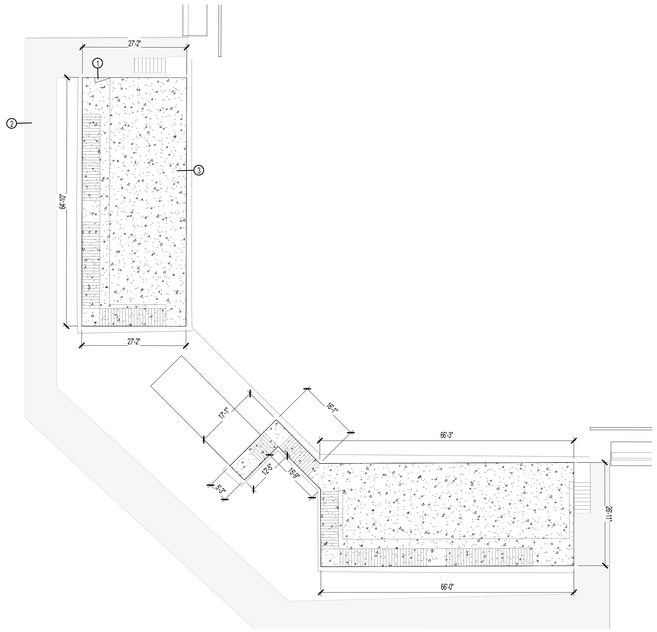
PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

100% CD

A1.01-B
SITE DETAILS TENNIS COURT

BUSH HIGH SCHOOL

12/4/2025 1:20:49 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_BUSH_ARCH_FBISD ATHLETIC RENOVATIONS BP012-B_R25.rvt



SITE DETAIL CONCRETE PAVEMENT BASEBALL 2
SCALE: 1/16" = 1'-0"



3 IMAGE OF SOFTBALL BLEACHER, EXISTING BLEACHER AND RAMP SHALL REMAIN. CLEAN AND EXCAVATE AREA . CONTRACTOR RESPONSIBLE FOR REMOVAL AND LEGAL DISPOSAL OF ALL DEBRIS AND OBSTACLES. POUR NEW CONCRETE PAVING BELOW BLEACHERS AND RAMP AT BOTH VISITORS AND HOME SIDE; SLOPE TO DRAIN AND MATCH ADJACENT FINISH GRADE: REF CIVIL



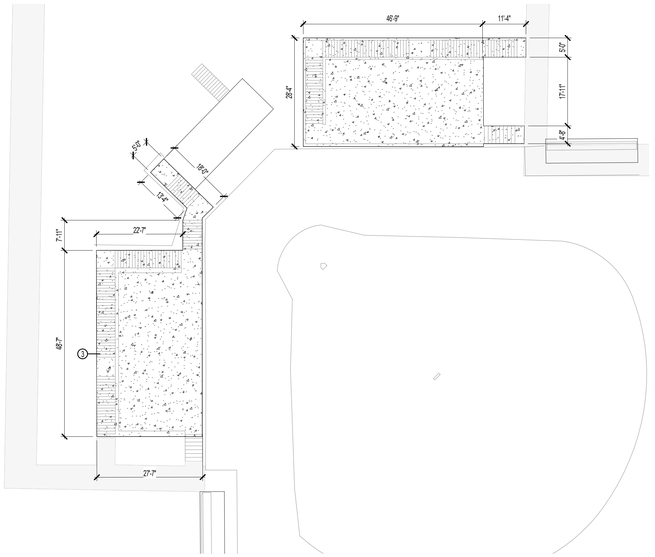
3 IMAGE OF SOFTBALL BLEACHER, EXISTING BLEACHER AND RAMP SHALL REMAIN. CLEAN AND EXCAVATE AREA . CONTRACTOR RESPONSIBLE FOR REMOVAL AND LEGAL DISPOSAL OF ALL DEBRIS AND OBSTACLES. POUR NEW CONCRETE PAVING BELOW BLEACHERS AND RAMP AT BOTH VISITORS AND HOME SIDE; SLOPE TO DRAIN AND MATCH ADJACENT FINISH GRADE: REF CIVIL



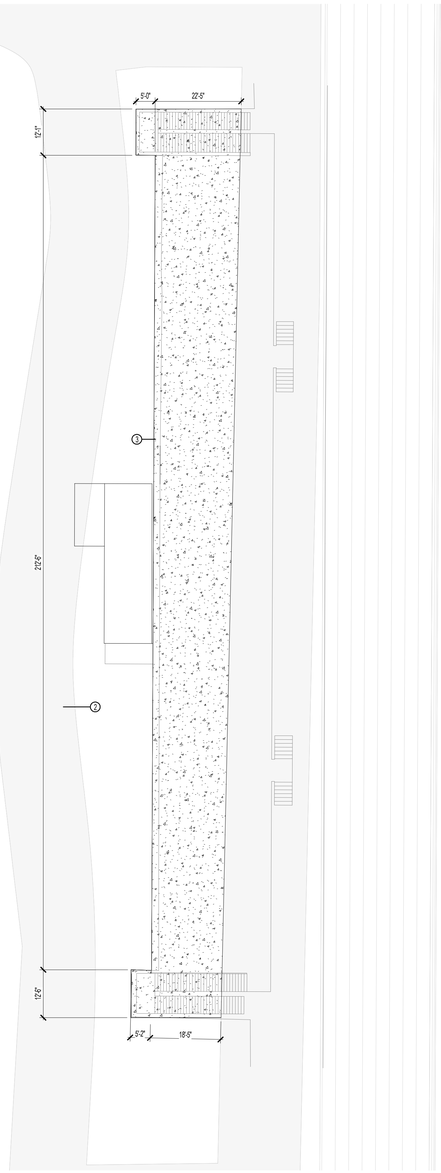
3 IMAGE OF BASEBALL BLEACHERS. EXISTING BLEACHER AND RAMP SHALL REMAIN. CLEAN AND EXCAVATE AREA . CONTRACTOR RESPONSIBLE FOR REMOVAL AND LEGAL DISPOSAL OF ALL DEBRIS AND OBSTACLES. POUR NEW CONCRETE PAVING BELOW BLEACHERS AND RAMP AT BOTH VISITORS AND HOME SIDE; SLOPE TO DRAIN AND MATCH ADJACENT FINISH GRADE: REF CIVIL



3 IMAGE OF FOOTBALL BLEACHER VISITOR SIDE, EXISTING BLEACHER AND RAMP SHALL REMAIN. CLEAN AND EXCAVATE AREA . CONTRACTOR RESPONSIBLE FOR REMOVAL AND LEGAL DISPOSAL OF ALL DEBRIS AND OBSTACLES. POUR NEW CONCRETE PAVING BELOW BLEACHERS AND RAMP AT BOTH VISITORS AND HOME SIDE; SLOPE TO DRAIN AND MATCH ADJACENT FINISH GRADE: REF CIVIL



CONCRETE PAVEMENT SOFTBALL FIELD 3
SCALE: 1/16" = 1'-0"



SITE DETAIL CONCRETE PAVEMENT FOOTBALL 1
SCALE: 1/16" = 1'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01 & G0.02 FOR TAS REQUIREMENTS
3. RE: G0.03 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 6' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- VINYL COATED CHAIN LINK FENCE, 48" HIGH
- VINYL COATED CHAIN LINK FENCE, 72" HIGH
- BLACK WROUGHT IRON FENCE, 48" HIGH
- BLACK WROUGHT IRON FENCE, 72" HIGH
- BUILDING SECTION TAG (SIM / A101)
- WALL SECTION TAG (SIM / A101)
- ENLARGED CALL OUT (21 / A101 SIM)

SITE PLAN KEYNOTES

TAG #	NOTE
1	EXISTING FENCE GATE TO REMAIN
2	EXISTING CONCRETE PAVEMENT TO REMAIN
3	NEW CONCRETE PAVEMENT UNDER BLEACHERS REF CIVIL

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER. DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
18. REMOVE ALL EXISTING PAINT AND REPAINT ALL EXISTING WALLS PART IN SCOPE. REFER TO MATERIAL LEGEND FOR PAINT COLORS AND TYPE

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 4 DEMO KEY NOTE

ALTERNATES:

ALTERNATE NO. 3 - BUSH HIGH SCHOOL: CONCRETE PAVEMENT UNDER THE BLEACHERS OF SOFTBALL, BASEBALL, AND FOOTBALL.

BASEBALL BLEACHER
FOOTBALL BLEACHER
SOFTBALL BLEACHER



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

6707 Fm 1464 Rd, Richmond, TX 77407

BUSH HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 30113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

A1.02-B
CONCRETE PAVEMENT DETAILS

BUSH HIGH SCHOOL

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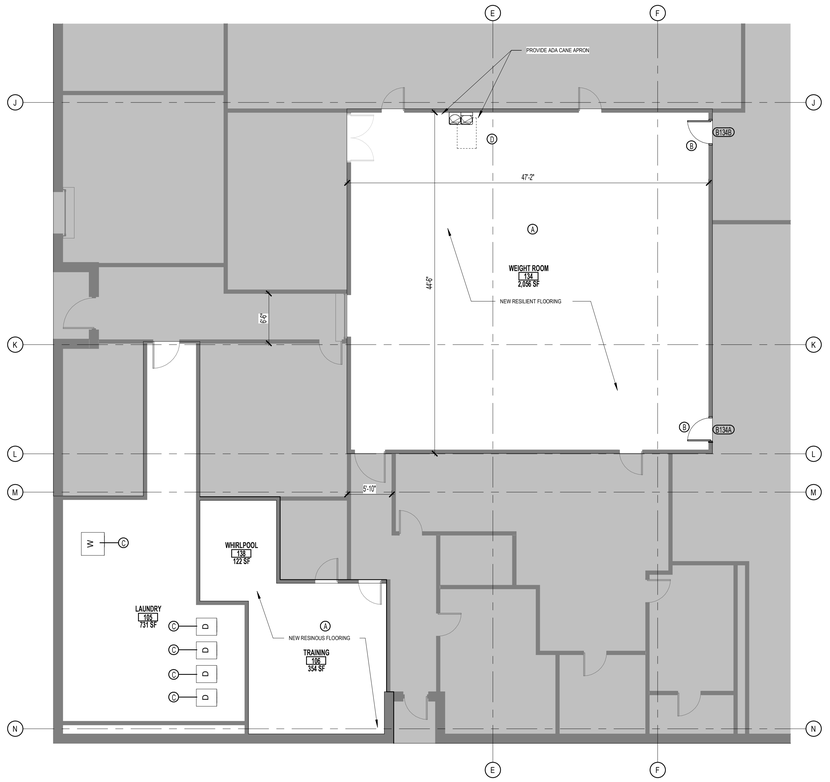


FIELD HOUSE FLOOR PLAN - B 2
SCALE: 1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

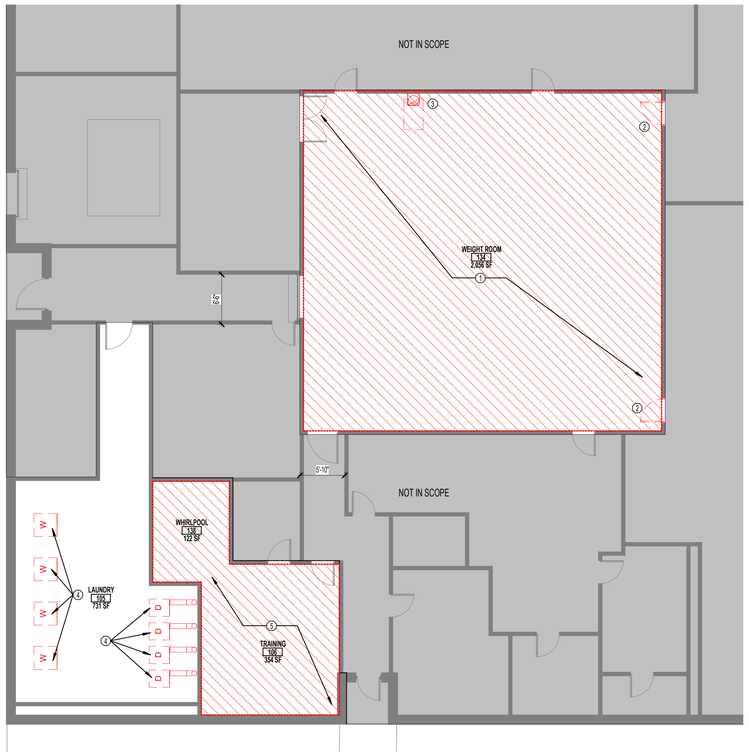
1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
3. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
4. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-0" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.
5. ALL FINISHES SUBJECT TO ARCHITECT'S APPROVAL.
6. REFER TO REFLECTED CEILING PLAN (A10 SERIES) FOR CEILING HEIGHTS & ADDITIONAL INFORMATION.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- AB — COLUMN GRID
- 30 / A101 Ref — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- 1 / A101 SIM — BUILDING SECTION TAG
- 1 / A101 SIM — WALL SECTION TAG
- 21 / A101 SIM — ENLARGED CALL OUT
- 103 — DOOR TAG
- 4X — PARTITION TAG
- 1 — HOLLOW METAL WINDOW TAG
- 1 — ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE
A	NEW MONDO FLOORING
B	REPLACE TWO HOLLOW METAL DOORS
C	REPLACE WASHER AND DRYER
D	NEW DRINKING FOUNTAIN WITH BOTTLE FILLERS



DEMO FIELD HOUSE - B 1
SCALE: 1/8" = 1'-0"

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DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 4 — DEMO KEY NOTE

DEMOLITION KEY NOTES

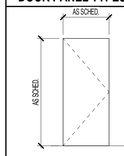
TAG#	NOTE
1	DEMO EXISTING RUBBER FLOOR, REMOVE ANY AND ALL GLUE RESIDUE FROM CONCRETE AND PREPARE FOR NEW FLOORING.
2	DEMO EXISTING HOLLOW METAL DOOR, LEAVE EXISTING FRAME IN PLACE. REPAINT AND REFINISH EXISTING FRAME
3	DEMO EXISTING DRINKING FOUNTAIN AND BOTTLE FILLERS, DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU.
4	REMOVE EXISTING WASHER AND DRYER, RETURN TO THE OWNER IN SAME CONDITION AS FOUND.
5	DEMO EXISTING VCT FLOORING, REMOVE ANY AND ALL GLUE RESIDUE FROM CONCRETE AND PREPARE FOR NEW FLOORING.

DOOR SCHEDULE											
		PANEL		PANEL						DETAILS	
Level	NUMBER	PAIR	WIDTH	WIDTH	HEIGHT	TYPE	MATERIAL	FIRE RATING	HARDWARE	THRESHOLD	COMMENTS
Level 01	B134A		3'-0"	3'-0"	7'-0"	A	HM	NA			Frame to remain
Level 01	B134B		3'-0"	3'-0"	7'-0"	A	HM	NA			Frame to remain

DOOR SCHEDULE GENERAL NOTES

1. REFER TO THE SPECIFICATIONS FOR HARDWARE DESCRIPTIONS
2. REFER TO A 8.02 FOR DOOR HEAD JAMB AND SILL DETAILS
3. REF. SPECIFICATIONS FOR GLAZING TYPES
4. ALL DOORS IN SMOKE RESISTANT PARTITIONS TO HAVE POSITIVE LATCHING AND BE SMOKE TIGHT (ST)
5. ALL DOORS TO HAVE BOXED HEADERS UNLESS STEEL CHANNELS ARE INDICATED IN THE COMMENT COLUMN OF THE DOOR SCHEDULE OR UNLESS OTHERWISE INDICATED BY HEAD DETAIL
6. ALL CLOSERS TO BE LOCATED ON THE ROOM SIDE OF THE DOOR WHERE INSTALLED AT CORRIDORS. IN NON CORRIDORS, CLOSERS TO BE INSTALLED AT THE ROOM SIDE FOR THE ROOM BEING SERVED BY THE OPENER
7. ALL FIRE RATINGS NOTED IN MINUTES

DOOR PANEL TYPES / ABREVIATIONS

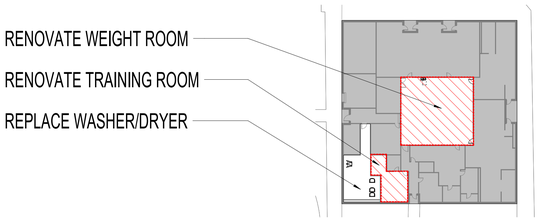


A

- AL: ALUMINUM
- HM: HOLLOW METAL
- MTL: METAL
- CL: CHAIN LINK
- RM: REFER TO MANUFACTURER
- ST: SMOKE TIGHT
- SCW: SOLID CORE WOOD
- MIN: MINUTES
- HW: HARDWARE

DOOR SCHEDULE COMMENTS

1. PANIC HARDWARE
2. VACANT/OCCUPIED LIGHT OVER DOOR
3. ADA DOOR OPERATOR
4. AUTOMATIC CARD READER AT DOOR, RE: SECURITY
6. MAGNETIC HOLD OPEN DEVICE TIED TO FIRE ALARM
7. MAGNETIC HOLD OPEN DEVICE - CONVENIENCE
8. MAGNETIC HOLD OPEN DEVICE TIED TO SECURITY
9. REMOTE ACTIVATED LATCH



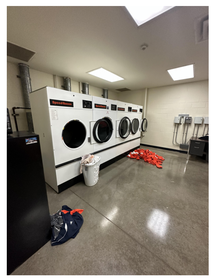
BUILDING KEY PLAN
N.T.S



SITE KEY PLAN
N.T.S

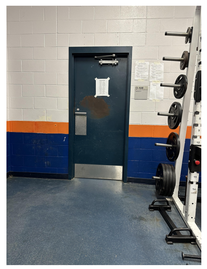


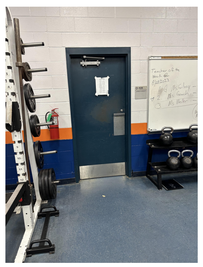




DEMO EXISTING DRINKING WATER FOUNTAIN AND REPLACE WITH ADA COMPLIANT DRINKING WATER FOUNTAIN WITH BOTTLE FILLER







pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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6707 Fm 1464 Rd, Richmond, TX 77407

BUSH HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

	Date	Description

100% CD

A2.00-B
01 FLOOR PLAN - FIELD HOUSE

BUSH HIGH SCHOOL

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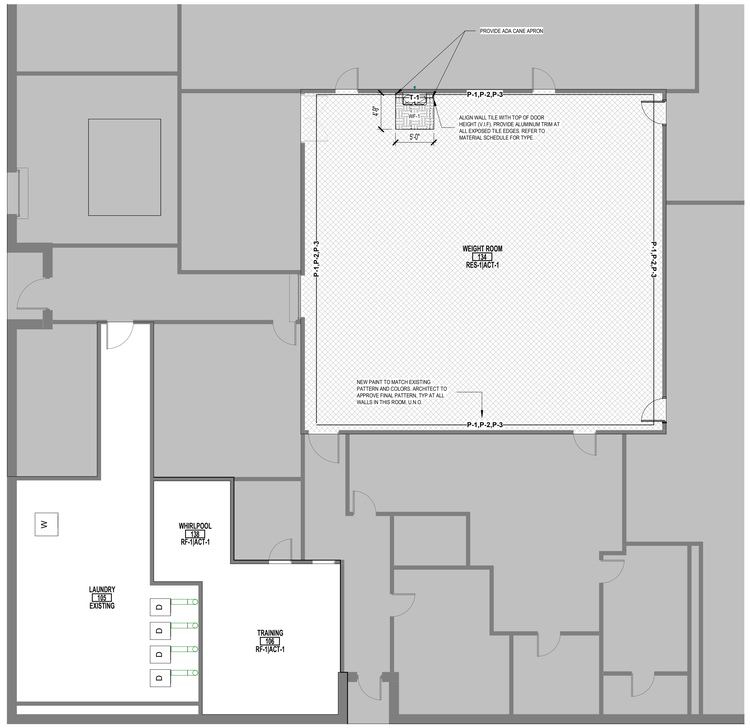
ROOM FINISH SCHEDULE - WEIGHT ROOM

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	REMARKS
106	TRAINING	RF-1	RFB-1	P-1	P-1	P-1	P-1	
134	WEIGHT ROOM	RES-1	RB-1	P-1, P-2 & P-3	P-1, P-2 & P-3	P-1, P-2 & P-3	P-1, P-2 & P-3	TO MATCH EXISTING
138	WHIRLPOOL	RF-1	RFB-1	P-1	P-1	P-1	P-1	

MATERIAL SCHEDULE

MARK	MATERIAL	MANUFACTURER	STYLE	COLOR	SPECS	REMARKS
01 FLOOR FINISH						
RES-1	RESILIENT FLOORING	MONDO	RAMFLEX	986 MARINE BLUE	3/8" THICKNESS (10MM) SMOOTH TEXTURE	WEIGHT ROOM
RF-1	RESINOUS FLOORING	STONHARD	STONSHIELD SLT	CUSTOM (GRAY BASE WITH SCHOOL COLOR ACCENT)		TRAINING ROOM
WF-1	WALK-OFF CARPET	TARKETT	ABRASIVE ACTION II			AT DRINKING FOUNTAINS
02 BASE						
RB-1	RUBBER BASE	JOHNSONITE			COVED, 4" HEIGHT	WEIGHT ROOM
RFB-1	RESINOUS FLOOR BASE	STONHARD	STONSHIELD SLT	CUSTOM (GRAY BASE WITH SCHOOL COLOR ACCENT)	COVED, 4" HEIGHT	TRAINING ROOM
03 WALL FINISH						
P-1	PAINT	SHERWIN WILLIAMS				FIELD, MATCH EXISTING
P-2	PAINT	SHERWIN WILLIAMS		SW 6244, NAVAL		BLUE ACCENT
P-3	PAINT	SHERWIN WILLIAMS				ORANGE ACCENT, MATCH EXISTING
P-4	PAINT	SHERWIN WILLIAMS			REF SPECS FOR PAINT FINISH	NEW DOORS (MATCH EXISTING COLOR)
T-1	WALL TILE	AMERICAN OLEAN	COLOR STORY WALL	CALM	8"X24" GLOSSY	AT DRINKING FOUNTAINS
04 CEILING FINISH						
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	CLEAN ROOM VL NO. 870	WHITE	24"X24" SQUARE EDGE	WEIGHT ROOM & TRAINING ROOM
05 MISC FINISHES						
TR-1	ALUMINUM STRIP	SCHLUTER	RENO-U	ANODIZED	FLOOR TRANSITION, ADA COMPLIANT	RES-1 TO WF, RF-1 TO VCT
TR-2	ALUMINUM STRIP	SCHLUTER	RENO-TK	ANODIZED	FLOOR TRANSITION, ADA COMPLIANT	RES-1 TO WF
TR-3	ALUMINUM STRIP	SCHLUTER	JOLLY	ANODIZED		AT TILE EDGES



FIELD HOUSE FLOOR PLAN - FINISH PLAN 1

SCALE: 1/8" = 1'-0"

MATERIAL FINISH LEGEND

RF-1 RESINOUS FLOOR

RES-1 RESILIENT FLOORING

PROVIDE CONTROL JOINTS (C.J.) AS SHOWN & AT COLOR CHANGES. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS

SYMBOLS

MW	MARKER WALL - DRY ERASE WALL-COVERING
CJ	CONTROL JOINT*
EJ	EXPANSION JOINT
CG	CORNER GUARD
IS	INTERIOR MANUAL ROLLER SHADE
ES	EXTERIOR MANUAL ROLLER SHADE

ROOM
100
PCON | SAP-1
CEILING FINISH
FLOOR FINISH

* PROVIDE CONTROL JOINTS AS SHOWN. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS. REFER TO STRUCTURAL DWGS FOR DIMENSIONS. AT COLOR TRANSITIONS, PROVIDE SCORE LINE U.N.O.

** REFER TO ROOM FINISH SCHEDULE FOR FULL LIST OF FINISH WITHIN ROOM

FLOOR TRANSITIONS

REF TO MATERIAL SCHEDULE FOR ALUMINUM TRANSITION TYPES.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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6707 Fm 1464 Rd, Richmond, TX 77407

BUSH HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

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A9.00-B

FINISH PLAN & MATERIAL SCHEDULE

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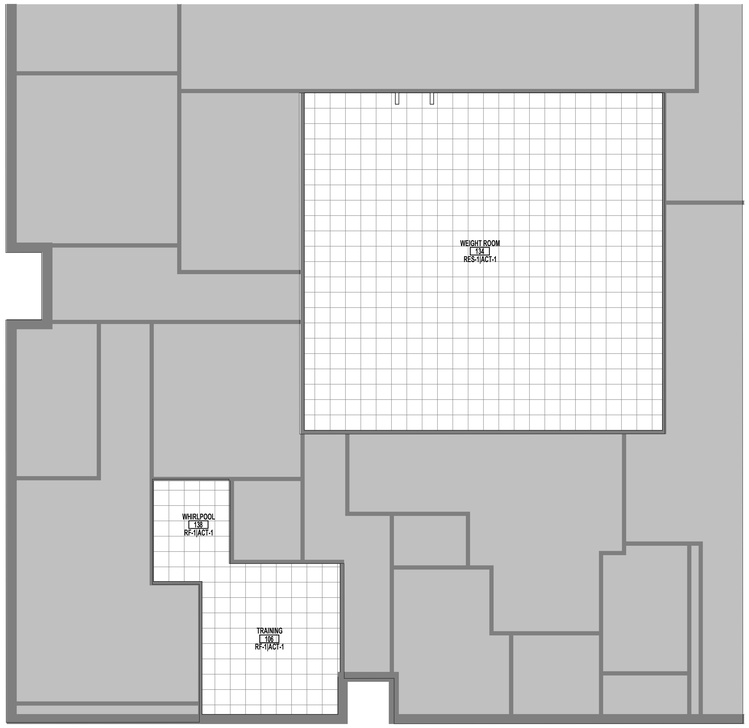
12/4/2025 1:20:58 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_BUSH_ARCH_FBISD ATHLETIC RENOVATIONS BP012-B_R25.rvt

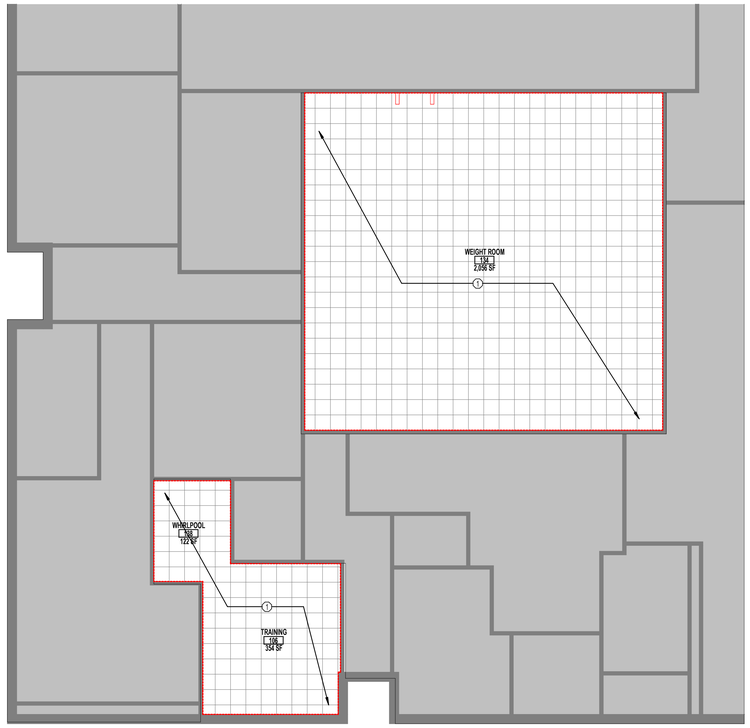


REFLECTED CEILING PLAN LEGEND

- 2' X 4' LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (SUSPENDED)
- LINEAR LED FIXTURE (SURFACE MOUNTED)
- RECESSED CAN FIXTURE
- PENDANT LIGHT FIXTURE
- SURFACE MOUNTED CAN LIGHT FIXTURE
- WALL SCONCE
- SOLATUBE
- CEILING FAN
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- SUSPENDED GYPSUM BOARD
- SUSPENDED CEILING SYSTEM WITH LAY-IN ACOUSTICAL PANELS
- SUSPENDED CEILING SYSTEM WITH LAY-IN VINYL FACED PANELS
- SUSPENDED CEILING SYSTEM WITH BLACK LAY-IN ACOUSTICAL PANELS
- SOFFIT
- EXPOSED STRUCTURE

GENERAL NOTES:
1. ALL CEILINGS TO BE 9'-0" UNLESS OTHERWISE NOTED.
2. REFER TO INTERIOR AND EXTERIOR ELEVATIONS FOR LIGHT FIXTURE MOUNTING HEIGHTS.
3. MEP & ARCHITECT TO REVIEW AND APPROVE SPRINKLER KEYOUT AND HEAD LOCATIONS PRIOR TO CONSTRUCTION. SUBMIT PLAN USING ARCHITECTS RCPS.
4. AT AREAS WHERE CEILING IS EXPOSED - EXPOSED CONDUIT TO BE LOCATED NEATLY. ARCHITECT TO APPROVE LAYOUTS.
5. COORDINATE CEILING ACCESS PANELS WITH MEP CONTRACTOR. LOCATE WHERE NECESSARY.
6. PROJECTOR MOUNTS TO BE LOCATED BETWEEN 10'-0" TO 13'-0" FROM WALL, UNO.
8. REFER TO A9.01 FOR MORE INFO ON SIGNAGE TYPES.

REFLECTED CEILING PANEL FIELD HOUSE 1
SCALE: 1/8" = 1'-0"



RCP DEMO NOTE LEGEND

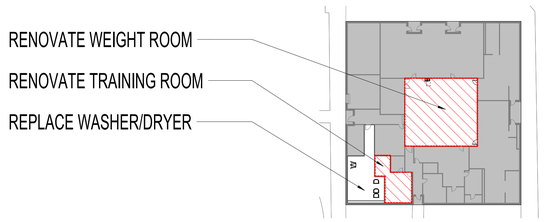
SCOPE OF DEMOLITION

TAG#	NOTE
1	DEMO EXISTING CEILING TILES. PROTECT EXISTING CEILING GRID TO REMAIN

RCP DEMO GENERAL NOTES

1. PROTECT AREA OF CEILING NOT BEING REMOVED IN AFFECTED AREAS FROM DAMAGE DURING WORK
2. FIELD VERIFY AND PHOTOGRAPH ALL CONDITIONS OF CEILINGS IN WORK AREAS BEFORE STARTING WORK

DEMO REFLECTED CEILING PANEL FIELD HOUSE 2
SCALE: 1/8" = 1'-0"



BUILDING KEY PLAN
N.T.S



SITE KEY PLAN
N.T.S

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

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BUSH HIGH SCHOOL

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20113
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A10.00-B
01 REFLECTED CEILING FLOOR PLAN - FIELD HOUSE
BUSH HIGH SCHOOL

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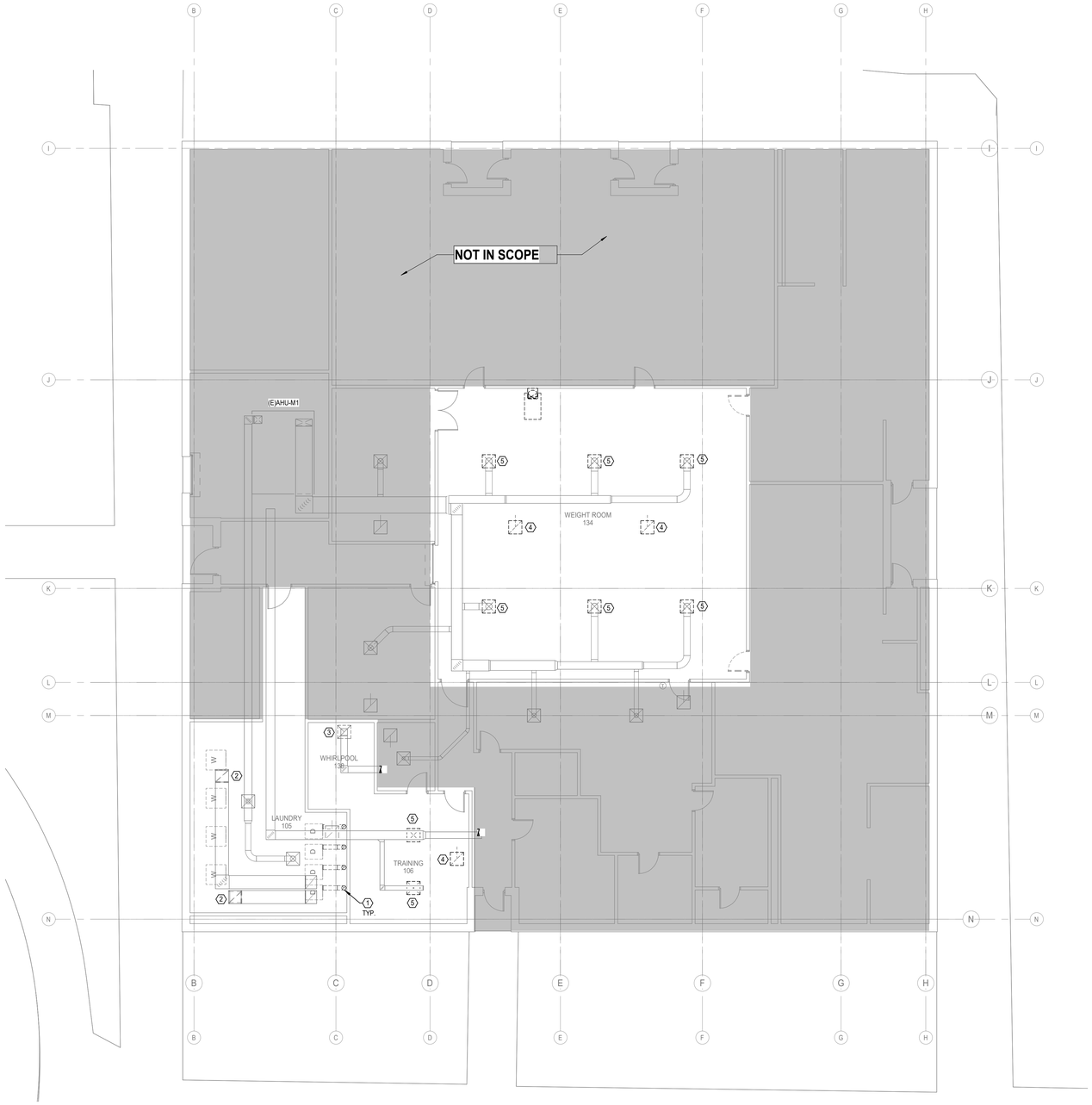
MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, DUST COLLECTORS, AND AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

MECHANICAL DEMOLITION KEYED NOTES

1. EXISTING DRYER VENT DUCTWORK SHALL BE REMOVED.
2. EXISTING INTAKE SHALL REMAIN.
3. EXHAUST GRILLE SHALL BE REMOVED.
4. RETURN GRILLE SHALL BE REMOVED.
5. SUPPLY DIFFUSER SHALL BE REMOVED.

SYMBOL LEGEND	
⌖	POINT OF CONNECTION FROM NEW TO EXISTING
▭	ITEM TO REMAIN
▭ (dashed)	ITEM TO BE REMOVED



N

1 **MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80218
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

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M0.01-B
MECHANICAL DEMOLITION FLOOR PLAN -LEVEL 1 -FIELDHOUSE
BUSH HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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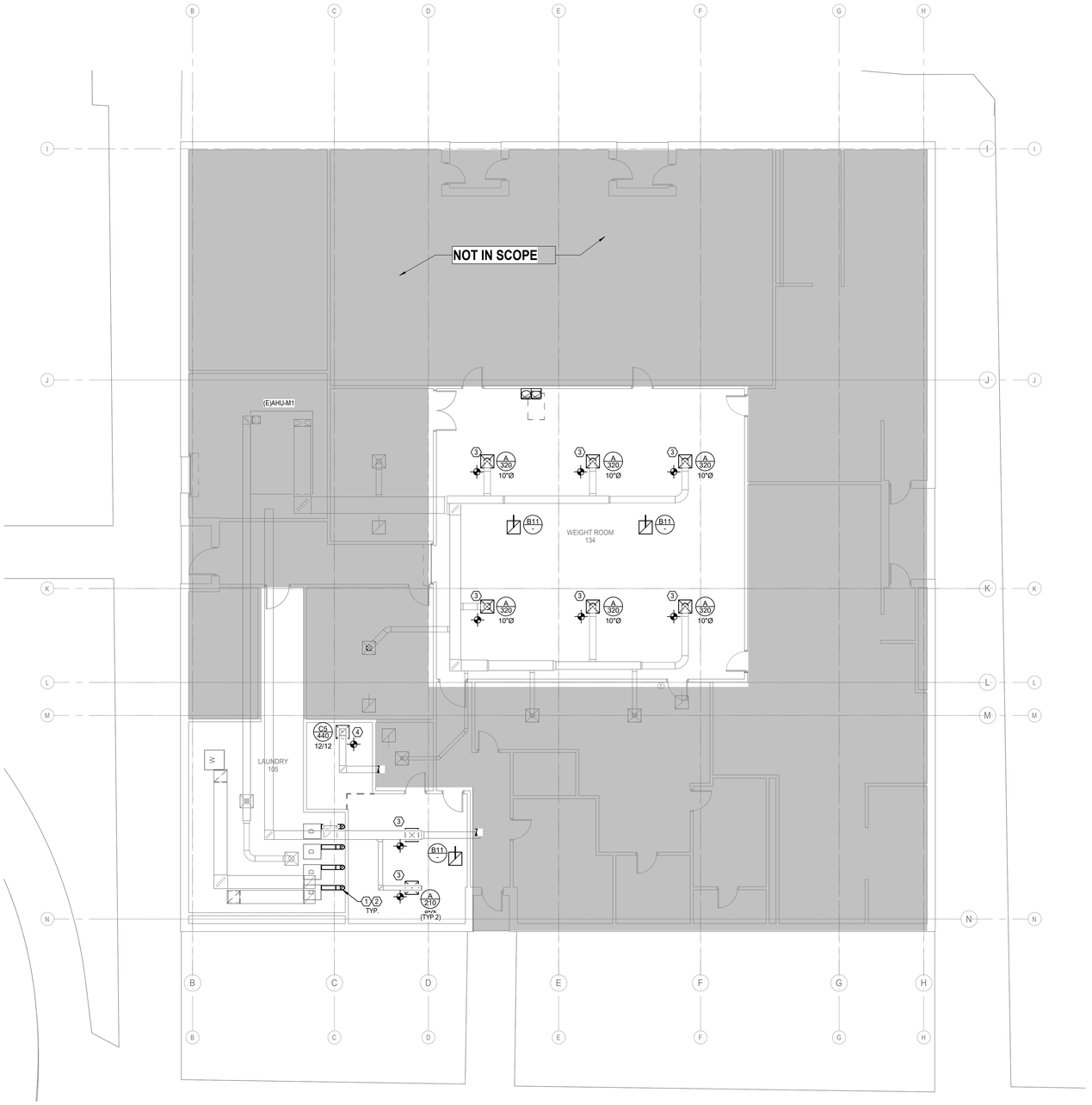
MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR), UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. CONNECT NEW DRYER VENT DUCTWORK TO NEW DRYER.
2. ROUTE DRYER VENT DUCTWORK UP TO ROOF. CONNECT TO GOOSENECK.
3. CONNECT SUPPLY AIR DIFFUSER TO EXISTING DUCTWORK. ADD NEW FLEX/HARD DUCTWORK IF NEEDED TO FINAL CONNECTION.
4. REPLACE EXHAUST AIR GRILLE AND CONNECT TO EXISTING DUCTWORK. ADD NEW EXHAUST HARD DUCTWORK IF NEEDED TO FINAL CONNECTION.



1 **MECHANICAL FLOOR PLAN - LEVEL 1 - FIELD HOUSE BUSH**
Scale: 1/8" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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BUSH HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

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M2.01-B
MECHANICAL FLOOR PLAN - LEVEL 1 - FIELDHOUSE

BUSH HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111

Salas O'Brien Project Number: 2550-00810-00

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LINETYPE LEGEND	
————	EXISTING TO REMAIN
- - - - - - - -	DISCONNECT AND REMOVE

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

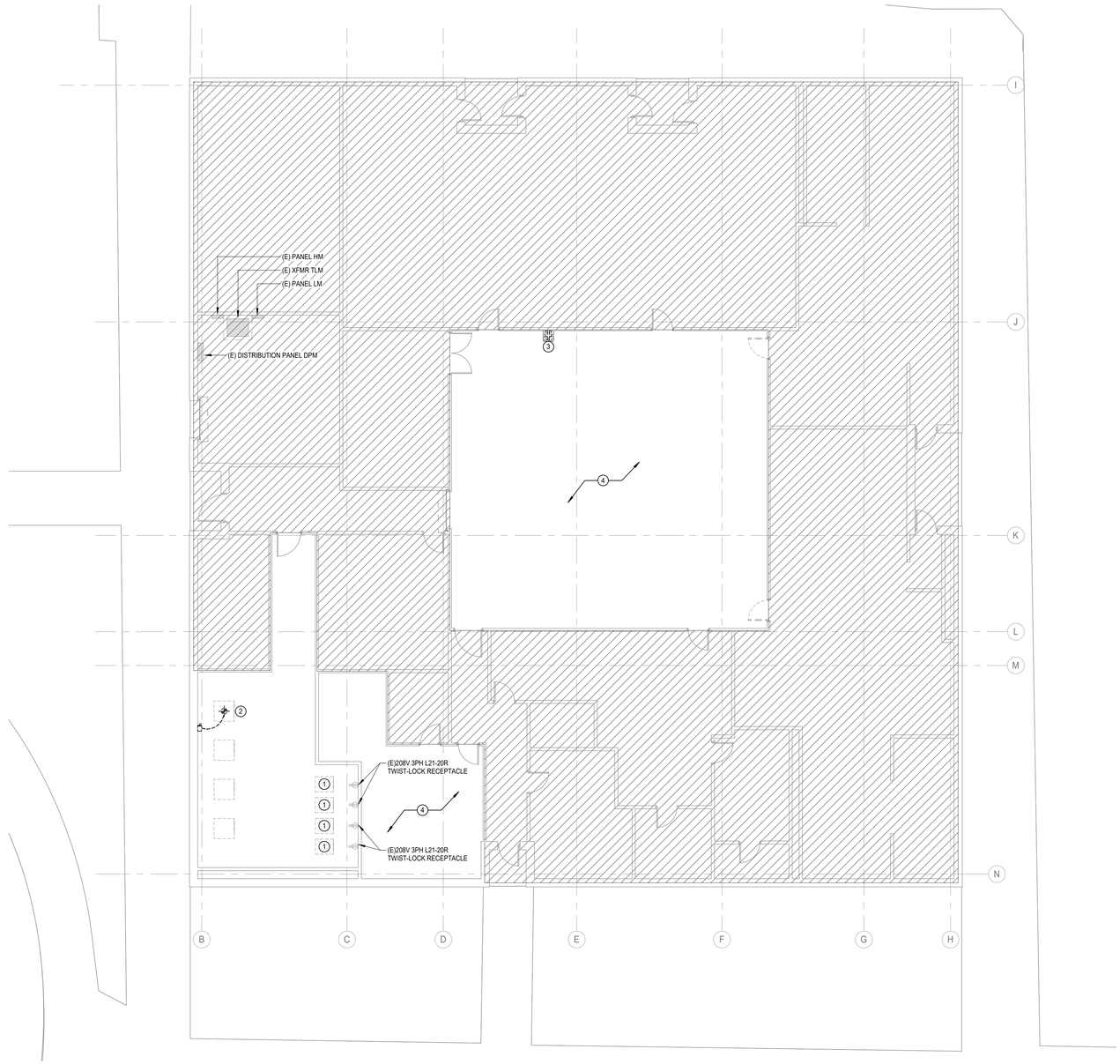
OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

1. DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
2. DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
3. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC...SHALL REMAIN.
4. DISCONNECT AND REMOVE ALL ELECTRICAL FROM WALLS SCHEDULED TO BE DEMOLISHED AND AS SHOWN. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT EXTENT OF WALL DEMOLITION.
5. EXCEPT AS OTHERWISE NOTED, ELECTRICAL WORK OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS. OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. ANY CONDUITS OUT OF MASONRY SURFACE SHALL BE CUT INTO SURFACE AND PATCHED.
6. CONTRACTOR TO FILL IN ALL HOLES LEFT BY THE DEMOLITION OF EXISTING CONDUIT PENETRATIONS.

ELECTRICAL KEYED NOTES:

1. DISCONNECT ELECTRICAL TO EXISTING COMMERCIAL DRYER, EXISTING RECEPTACLE SHALL REMAIN FOR CONNECTION OF NEW DRYER.
2. DISCONNECT ELECTRICAL TO EXISTING COMMERCIAL WASHER AND ASSOCIATED CONDUIT/WIRE BACK TO DISCONNECT SWITCH, LEAVE CIRCUIT INTACT FOR RE-USE. REMOVE DISCONNECT SWITCH AND REPLACE WITH NEW.
3. DISCONNECT AND REMOVE EXISTING WIRING DEVICE. EXISTING OUTLET BOX SHALL REMAIN AND SHALL BE RE-USED AS PRACTICAL FOR NEW WIRING DEVICE.
4. SUSPEND OR REMOVE AND STORE ALL CEILING MOUNTED ELECTRICAL DEVICES TO FACILITATE DEMOLITION OF CEILING. DEVICES INCLUDE BUT ARE NOT LIMITED TO: EXIT SIGNS, FIRE ALARM DEVICES, LIGHTING CONTROLS/OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REMOVED.



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1 **ELECTRICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE BUSH**
Scale: 1/8" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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BRADLEY KALMANS 80219 LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
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REVISIONS:

No.	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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E1.01-B
ELECTRICAL DEMOLITION FLOOR PLAN -LEVEL 1 -FIELDHOUSE
BUSH HIGH SCHOOL

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FIRE DETECTION AND ALARM SYSTEM:

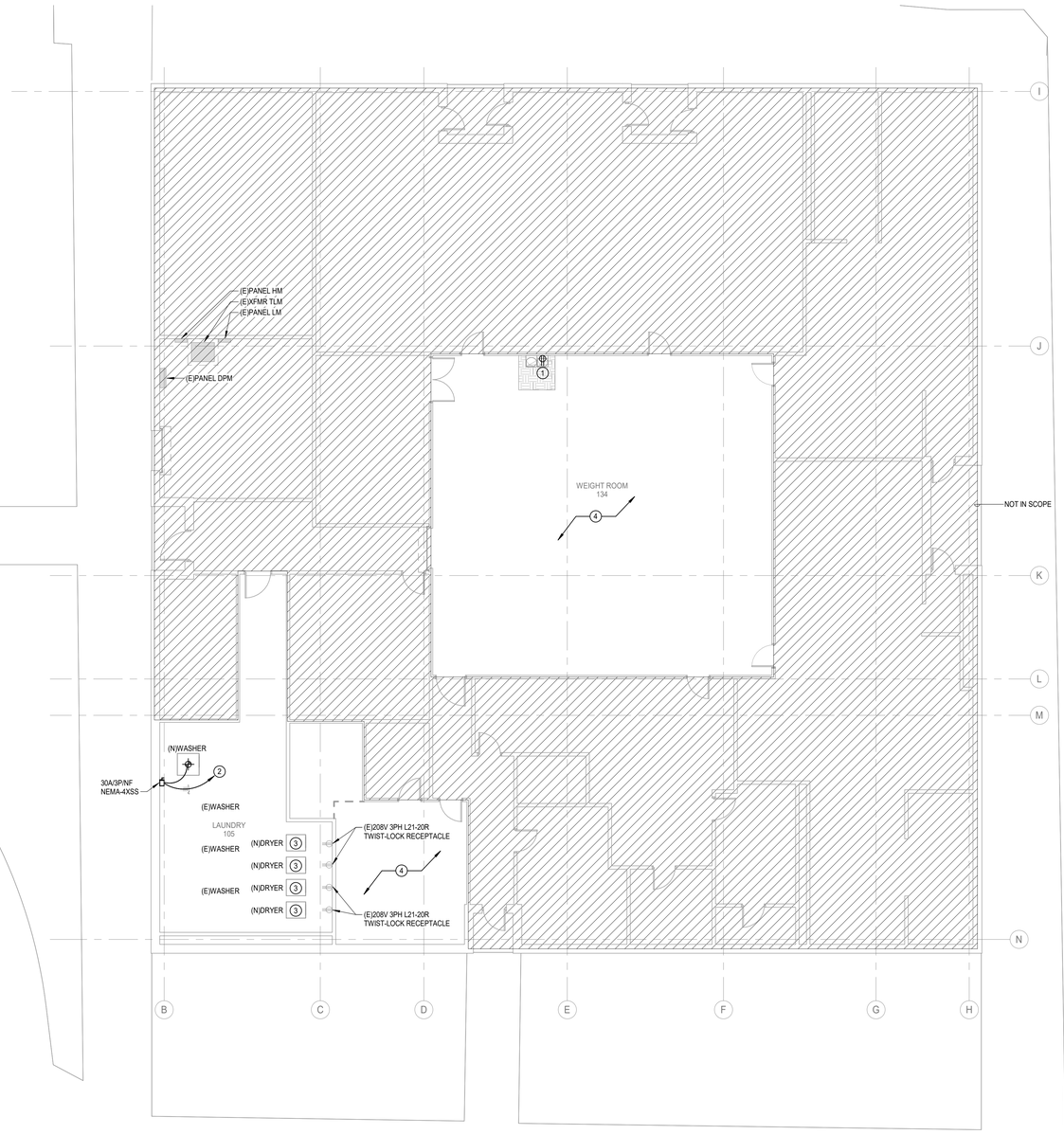
- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC., SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.

ELECTRICAL KEYED NOTES:

1. PROVIDE NEW DUPLEX RECEPTACLE FOR DRINKING FOUNTAIN; PROVIDE CIRCUIT BREAKER WITH NEW 20A/1P GFCI.
2. CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
3. NEW COMMERCIAL DRYER LOCATION; PROVIDE DRYER WITH TWIST-LOCK CORD/PLUG TO MATCH EXISTING RECEPTACLE CONNECTION.
4. REINSTALL ALL EXISTING CEILING MOUNTED ELECTRICAL IN NEW CEILINGS WHERE APPLICABLE. DEVICES INCLUDE BUT ARE NOT LIMITED TO: EXIT SIGNS, FIRE ALARM DEVICES, LIGHTING CONTROLS/OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REPLACED.



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SYMBOL SCHEDULE

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED ON EMERGENCY CIRCUIT
	DOWNLIGHT FIXTURE
	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
	LIGHT FIXTURE - WALL MOUNTED
	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - CEILING MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - WALL MOUNTED ON EMERGENCY CIRCUIT
LIGHTING CONTROLS & DEVICES	
$	LINE VOLTAGE SINGLE POLE SWITCH
$3	LINE VOLTAGE 3-WAY SWITCH
$4	LINE VOLTAGE 4-WAY SWITCH
$K	LINE VOLTAGE MOMENTARY DPST KEYED SWITCH
$D	LINE VOLTAGE DIMMER SWITCH, SIZE AND TYPE AS REQUIRED
$P	LINE VOLTAGE SWITCH WITH PILOT LIGHT
$T	6-HOUR ROTARY TIMER SWITCH WITH NO HOLD U.N.O.
	PUSH BUTTON EPO SWITCH WITH COVER
$MC	LOW VOLTAGE MOMENTARY CONTACT SWITCH
$R	LOW VOLTAGE DIGITAL KEYPAD
$B	LOW VOLTAGE BUILDING MANAGEMENT (BMCS) LOCAL OVERRIDE SWITCH
	OCCUPANCY SENSOR (AUTO ON / AUTO OFF WITHIN 20-MINUTES)
	VACANCY SENSOR (MANUAL ON / AUTO OFF WITHIN 20-MINUTES)
	PHOTOCELL SENSOR
RSF	LIGHTING CONTROL SYSTEM. ('#' DENOTES TYPE - SEE LIGHTING CONTROLS SCHEDULE)
ER	EMERGENCY LOAD CONTROL RELAY. MINIMUM 16A AND 0-10V COMPATIBLE. PROVIDE U.L. 924 U.N.O.
RECEPTACLES AND OUTLETS	
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
U	DUPLEX RECEPTACLE WITH TWO USB CHARGING PORTS.
	125/250 VOLT, 1 PHASE, 3-WIRE, 20 AMPS UNLESS NOTED OTHERWISE
	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
U	DOUBLE DUPLEX WITH TWO USB CHARGING PORTS IN 2-GANG BOX WITH SINGLE COVER PLATE
	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	FLUSH FLOOR DUPLEX RECEPTACLE OUTLET
	FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE OUTLET
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	JUNCTION BOX
	FLUSH REMOTE GFCI DEVICE (LOCATE IN READILY ACCESSIBLE LOCATION)
MOTOR CONTROLLERS AND EQUIPMENT	
	MOTOR, MAKE FINAL MOTOR CONNECTION
$	MOTOR-RATED SWITCH. 20A UNLESS INDICATED OTHERWISE.
	DISCONNECT SWITCH AS REQUIRED
	COMBINATION MOTOR STARTER/DISCONNECT SWITCH AS REQUIRED
	MOTOR STARTER
	PREWIRED DEVICE. MAKE ELECTRICAL FINAL CONNECTIONS
VFD	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
HF	HIGH EFFICIENCY HARMONIC FILTER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
	LOW VOLTAGE TRANSFORMER, SIZE AND TYPE AS REQUIRED.
	CHIME/BUZZER
ELECTRICAL EQUIPMENT	
	ELECTRICAL PANELBOARD; REFER TO FLOOR PLANS FOR VOLTAGE.
	DRY TYPE TRANSFORMER
	PLYWOOD TELEPHONE BACKBOARD
CIRCUITING	
	CONDUIT
	CONDUIT BELOW FLOOR, SLAB, OR GRADE
	3/4"C; UNLESS OTHERWISE NOTED; LONG HATCH, NEUTRAL; SHORT HATCH, PHASE; LONG HATCH & HOOK, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN.
	PARTIAL ELECTRICAL HOME RUN
SUBSCRIPTS AND ABBREVIATIONS	
WP	INDICATES 'WEATHERPROOF'
H	INDICATES 'HORIZONTAL'
NL	INDICATES 'NIGHT LIGHT'.
TP	INDICATES 'TAMPER PROOF'
(KS)	INDICATES 'KNEE SPACE'. LOCATE WIRING DEVICE IN KNEESPACE
U.N.O.	INDICATES 'UNLESS NOTED OTHERWISE'
(E)	INDICATES EXISTING TO REMAIN
(R)	INDICATES REPLACE DEVICE AND COVERPLATE.
•	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL MILLWORK DRAWINGS AND OTHER TRADES

GENERAL NOTES:

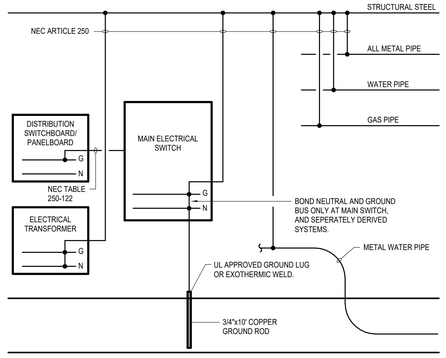
-ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-4X MINIMUM.
-ALL EXTERIOR RECEPTACLES SHALL BE WATER RESISTANT TYPE.

ELECTRICAL LOAD ANALYSIS

277/480V. 3PH., 4W

LOAD DESCRIPTION:	KVA
PEAK KVA @ 125%	1695.0
NEW LIGHTING LOAD @ 125%	0.0
NEW RECEPTACLE LOAD @ 100%	0.0
NEW MISCELLANEOUS LOAD @ 100%	0.0
TOTAL	1695.0

TOTAL / (480 X √3) = 2039.7
NO LOAD ADDED



1 GROUNDING DETAIL
SCALE: NONE

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES.
2. ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
3. ALL EMPTY CONDUIT SHALL HAVE PULL STRING.
4. EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
5. VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 6" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
6. ALL FIRE ALARM DEVICES, RECEPTACLES, SWITCHES, AND WIRING DEVICES IN MECHANICAL AND ELECTRICAL ROOMS ARE TO BE RECESSED IN WALLS.
7. ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
10. CENTER ALL EXIT SIGNS OVER DOORS.

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

6707 Fm 1464 Rd, Richmond, TX 77407

BUSH HIGH SCHOOL

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BRADLEY KALMANS
80210
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

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E3.01-B
ELECTRICAL SCHEDULES, DETAILS, AND LEGENDS

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PLUMBING KEYED NOTES

	EXISTING CLOTHES WASHER TO REMAIN.
1	EXISTING ELECTRONIC DRINKING FOUNTAIN TO BE REMOVED. REMOVE CW AND VENT PIPING BACK TO MAIN. EXISTING SANITARY RISER TO REMAIN FOR CONNECTION TO NEW DRINKING FOUNTAIN.
2	EXISTING CLOTHES WASHER TO REMAIN.
3	EXISTING CLOTHES DRYER TO BE REMOVED AND REPLACED. CAP UTILITIES FOR FUTURE CONNECTION.
4	EXISTING CLOTHES WASHER TO BE REMOVED AND REPLACED. SHUT OFF HW & CW CONNECTIONS AT HOSE BIBS AND DISCONNECT UTILITIES FOR FUTURE CONNECTION.



1 **PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
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PLUMBING DEMOLITION FLOOR PLAN - FIELDHOUSE

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Houston
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Salas O'Brien Project Number: 2550-00810-00

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Houston, TX 77064
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P1.01-B
PLUMBING SITE PLAN

BUSH HIGH SCHOOL

PROJECT NO. 25-006
DATE: 12/4/2025
DRAWN BY: JP CHECKED BY: EH
REVISIONS
Date Description

12/04/2025

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80219
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PROFESSIONAL
ENGINEER

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16431 Lexington Blvd.
Sugarland, TX 77479

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6707 Fm 1464 Rd, Richmond, TX 77407

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pflueger
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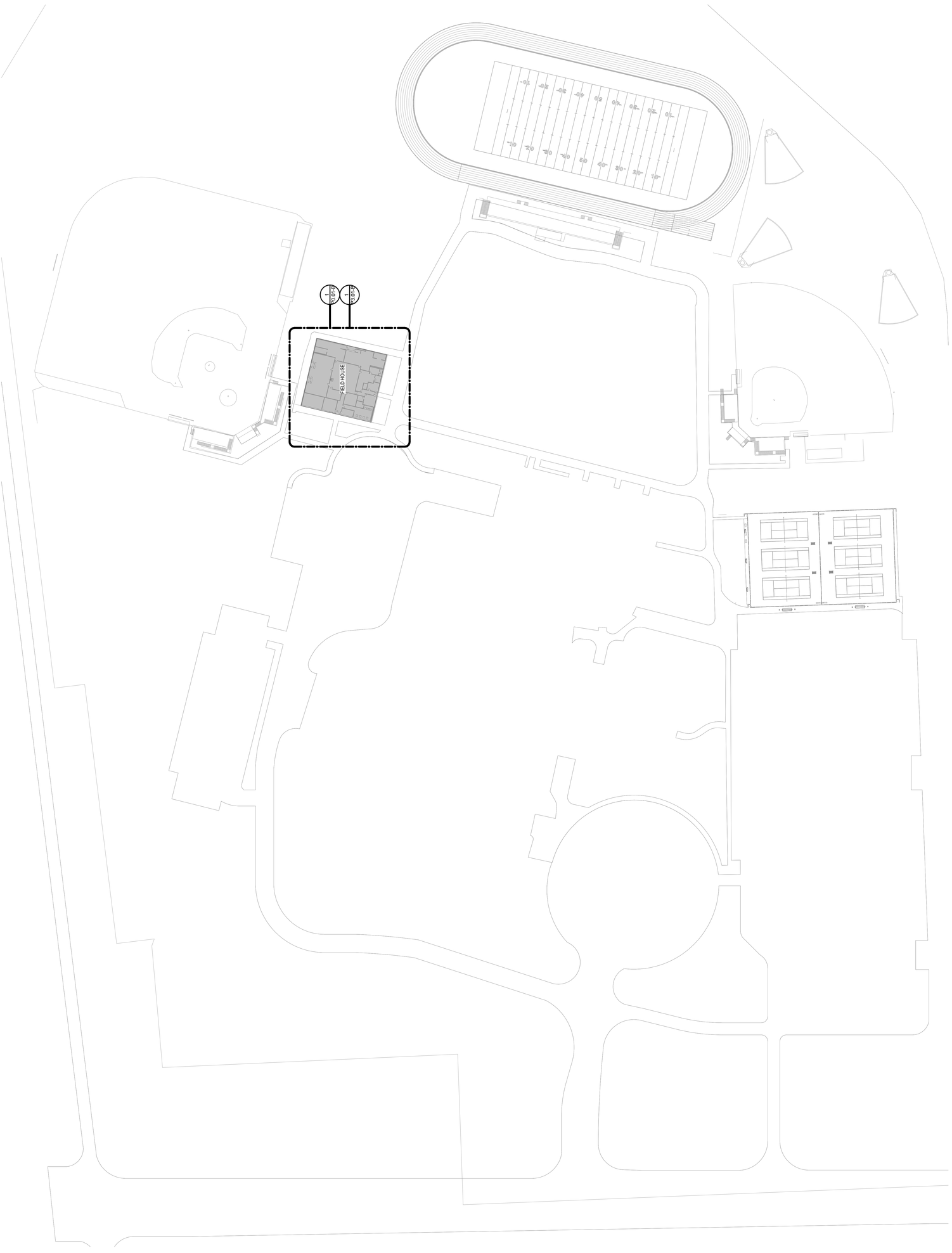
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com



1 PLUMBING SITE PLAN - BUSH HS
Scale: 1/64" = 1'-0"

PLUMBING KEYED NOTES

	<varies>
1	CONNECT NEW DRYER TO EXISTING UTILITIES.
2	PROVIDE AND INSTALL NEW ELECTRONIC DRINKING FOUNTAIN. CONNECT EXISTING UTILITIES (CW, SANITARY AND VENT.)
3	CONNECT NEW WASHER TO EXISTING UTILITIES.



1 **PLUMBING FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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Sugarland, TX 77479

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80219
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PLUMBING FLOOR PLAN - LEVEL 1 -FIELDHOUSE

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Houston, TX 77064
Salas O'Brien Registration: F-4111

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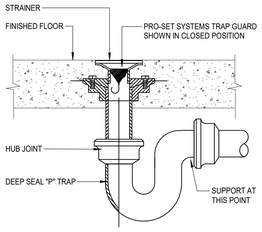
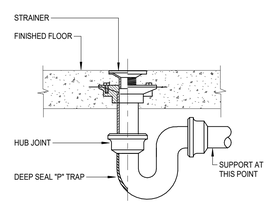
PSAN10- XX/XX/XX



NOTES:
1. TRAP GUARD SHALL BE FACTORY FITTED TO MATCH EACH FLOOR DRAIN (AND/FLOOR SINK) BY SIZE, MODEL, AND MANUFACTURER.
2. CONTACT LOCAL REP OR MANUFACTURER FOR CORRECT MODEL NUMBER.
3. FLOOR SINK TRAP GUARD INSTALLATION IS SIMILAR.
4. INSTALLATION OF TRAP GUARD TO BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. INSERT TRAP GUARD ONLY AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS TITE SEAL. FOR DRAIN RODDING AFTER INSTALLATION, INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

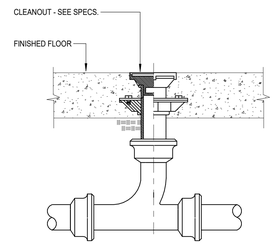
3 TRAP SEAL PROTECTION
SCALE: NONE

PSAN07- XX/XX/XX



2 FLOOR DRAIN
SCALE: NONE

PSAN01- XX/XX/XX



1 FLOOR CLEANOUT
SCALE: NONE

PLUMBING PIPING LEGEND

SYMBOLS	DESCRIPTION
SAN	SANITARY OR WASTE PIPING ABOVE GRADE (SAN)
SAN	SANITARY OR WASTE PIPING BELOW GRADE (SAN)
GW	GREASE WASTE PIPING (GW)
GW	GREASE WASTE PIPING BELOW GRADE (GW)
SD	STORM DRAIN PIPING (SD)
SD	STORM DRAIN PIPING BELOW GRADE (GW)
SSD	SUB-SOIL DRAIN OR FOOTING DRAIN (SSD)
AW	ACID WASTE PIPING (AW)
AW	ACID WASTE PIPING BELOW GRADE (AW)
PD	PUMPED DISCHARGE (PD)
CD	CONDENSATE DRAIN PIPING (CD)
D	CONDENSATE - INDIRECT DRAIN PIPING (D)
	VENT PIPING (V)
CW	COLD WATER PIPING (CW)
HW	HOT WATER PIPING (HW)
HWR	HOT WATER RETURN PIPING (HWR)
SCW	SOFT COLD WATER PIPING (SCW)
CDW	CHILLED DRINKING WATER PIPING (CDW)
TP	TRAP PRIMER LINE (TP)
F	FIRE PROTECTION PIPING (F)
AS	AUTOMATIC SPRINKLER PIPING (AS)
GAS	NATURAL GAS PIPING (G)
GV	GAS VENT PIPING (GV)
AIR	COMPRESSED AIR PIPING (A)
	FLOW DIRECTIONAL ARROW
	SHUT-OFF VALVE
	BALANCING VALVE (BV)
	SOLENOID VALVE (SV)
	BALL VALVE (BV)
	BUTTERFLY VALVE
	LUBRICATED PACKED PLUG STOP STOP COCK (PC)
	HORIZONTAL SWING CHECK
	UNION
	HORIZONTAL SWING CHECK
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	REDUCED PRESSURE BACKFLOW PREVENTER (RPBFP)
	PIPING DOWN
	RISE OR DROP PIPING
	PIPING UP -OR- PIPING UP & DOWN
	CAP ON END OF PIPE
	CLEANOUT (WALL OR CEILING) (CO)
	FLOOR CLEANOUT (FCO)
	EXTERIOR CLEANOUT WITH 18"x18"x4" CONCRETE PAD (ECO)
	TWO-WAY CLEANOUT (PROVIDE 18"x24"x4" CONCRETE PAD OUTSIDE)
	FIRE DEPARTMENT VALVE AT RISER
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
	PRESSURE REDUCING VALVE (PRV)
	BRANCH CONNECTION OUT OF TOP
	BRANCH CONNECTION OUT OF BOTTOM
	BRANCH CONNECTION OUT OF SIDE
	WYE & 1/8TH BEND BRANCH CONNECTION
	WYE BRANCH CONNECTION
	HOSE BIBB
	PRESSURE GAUGE WITH COCK
	THERMOMETER
	GAS PRESSURE REGULATOR
	TEST COCK
	GAS METER
	WALL HYDRANT
	VALVE IN RISE
	ASME TEMPERATURE & PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE
	ANGLE VALVE
	OS&Y VALVE
	ROOF DRAIN
1	REFER TO KEYED NOTE
FS	FLOW SWITCH
	FLOOR SINK (FS)
	FLOOR DRAIN (FD)
	FLOOR DRAIN WITH P-TRAP (FD)
	FLOOR DRAIN WITH P-TRAP AT 45° ANGLE (FD)
HD	HUB DRAIN (HD)
	ACCESS PANEL FOR TRAP PRIMER OR SHOCK ABSORBER
AP	ACCESS PANEL LOCATION SYMBOL
A	SHOCK ABSORBER
	AIR CHAMBER
(E)	EXISTING
(N)	NEW
VTR	VENT THRU ROOF
B.F.F.	BELOW FINISHED FLOOR
A.F.F.	ABOVE FINISHED FLOOR
	NEW CONNECTION
IE=100.00"	INVERT ELEVATION
1	DELTA CHANGE SYMBOL
P 1	4" VTR RISER FLAG

GENERAL NOTES

1. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE AND INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.

2. THIS CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THIS CONTRACTOR SHALL NOTIFY THE ARCHITECT/ ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.

PLUMBING GENERAL NOTES

1. WITHIN THE EXISTING BUILDING, EXISTING WATER, WASTE AND VENT SERVICES ARE TO BE MODIFIED AS REQUIRED AND REUSED FOR THE INSTALLATION OF NEW AND/OR RELOCATED PLUMBING FIXTURES. REFER TO PLUMBING FLOOR PLANS FOR POINTS OF CONNECTION.

2. WITHIN THE EXISTING BUILDING, SAWCUT AND REMOVE EXISTING FLOOR SLAB AS REQUIRED TO PROVIDE NEW AND/OR RELOCATED PLUMBING FIXTURES, CLEANOUTS, AND UNDERSLAB WASTE AND VENT PIPING. PATCH AND REFINISH FLOOR TO MATCH EXISTING.

3. IN AREAS WHERE THE FLOOR SLAB IS REMOVED, CONTRACTOR SHALL ALSO REMOVE UNDERSLAB WASTE AND VENT PIPING WHICH SERVES FIXTURES DESIGNATED FOR REMOVAL. PRIOR TO ANY REMOVAL, FIELD VERIFY THAT LINES TO BE REMOVED DO NOT SERVE ANY EXISTING FIXTURES TO REMAIN OR NEW FIXTURES TO BE INSTALLED.

4. IN AREAS WHERE THE FLOOR SLAB IS NOT REMOVED, CONTRACTOR SHALL ABANDON IN PLACE ANY UNDERSLAB WASTE AND VENT PIPING NO LONGER NEEDED, UNLESS THE PIPING MUST BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION. IF NEW WORK DOES NOT NECESSITATE THEIR REMOVAL, CUT AND PLUG SUCH LINES BELOW SLAB, AND PATCH FLOOR TO MATCH EXISTING.

5. FIELD VERIFY EXACT LOCATION, SIZE, DEPTH, DIRECTION OF FLOW, CAPACITY, PIPE MATERIAL AND CONDITION OF EXISTING WASTE PIPING PRIOR TO BEGINNING CONSTRUCTION. ENSURE THAT PROPER CONNECTIONS TO AND EXTENSION OF SUCH UTILITIES CAN BE MADE.

6. WASTE LINES TO BE RE-USED OR RECONNECTED TO SHALL BE THOROUGHLY RODDED OUT AND FLUSHED TO ENSURE THEY ARE FREE FROM BLOCKAGES.

7. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING BELOW SLAB WITH COLUMN FOOTINGS, GRADE BEAMS, UNDERGROUND PLUMBING AND ELECTRICAL UTILITIES, AND OTHER SUB-SURFACE BUILDING ELEMENTS.

8. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.

9. CONTRACTOR TO COORDINATE ALL REMODEL WORK WITH THE WORK OF OTHER TRADES TO AVOID CONFLICTS AND TO MINIMIZE INTERRUPTION OF SERVICES.

10. COORDINATE ALL FIXTURE AND EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS WITH LATEST ARCHITECTURAL DRAWINGS AND SPECIFICATIONS PRIOR TO ANY ROUGH-INS.

11. DO NOT ROUGH-IN FROM THESE DRAWINGS. REFER TO LATEST ARCHITECTURAL DRAWINGS FOR DIMENSIONED LOCATIONS.

12. CONTRACTOR TO FIELD VERIFY AS NECESSARY THE EXACT ROUTING AND SIZES OF ALL PIPING.

13. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE, INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.

14. THE PROPER INSTALLATION OF NEW FIXTURES AND THE PROPER CONTINUED OPERATION OF EXISTING FIXTURES TO REMAIN SHALL DETERMINE THE EXTENT AND NATURE OF PLUMBING REMODEL WORK.

15. EACH VENT SHALL TERMINATE VERTICALLY NOT LESS THAN 6" ABOVE ROOF, MAINTAIN MINIMUM 10'-0" DISTANCE BETWEEN VENT TERMINALS THROUGH ROOF AND ALL FRESH AIR INTAKES, AND A MINIMUM 5'-0" FROM ANY EXTERIOR WALL.

16. PRIOR TO BEGINNING CONSTRUCTION, COORDINATE BUILDING BACKFLOW PREVENTION REQUIREMENTS WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PROVIDE AS DIRECTED.

PLUMBING FIXTURE SCHEDULE

TYPE:	EDF-1 (ADA COMPLIANT)
DESCRIPTION:	BOTTLE FILLING STATION & BI-LEVEL HIGH EFFICIENCY VANDAL RESISTANT COOLER FILTERED REFRIGERATED STAINLESS, CHILLING CAPACITY OF 8.0 GPH OF 50°F DRINKING WATER, BASED ON 80°F INLET WATER AND 90°F AMBIENT. INCLUDE ANTIMICROBIAL, FILTERED, GREEN TICKER, HANDS FREE, HIGH EFFICIENCY, LAMINAR FLOW, REAL DRAIN, VANDAL RESISTANT, VISUAL FILTER MONITOR. ELECTRONIC BOTTLE FILLER SENSOR WITH MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. ELKAY MODEL #LVRCGRNTLBWSK.
P-TRAP:	1-1/4" CHROME PLATED CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON. MCGUIRE 8872.
SUPPLIES:	1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER:	RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE SLAB WITH (4) 1/2" BOLTS. ADJUSTABLE SLEEVE FOR CONNECTION TO HANGER PLATE PROVIDED BY FIXTURE MANUFACTURER. WADE 400.
ROUGH-IN:	2" WASTE, 2" VENT, 1/2" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

GENERAL NOTES

ALL LAVATORIES AND SINKS SHALL BE SUPPLIED WITH HOT AND COLD WATER (UNLESS NOTED TO BE COLD WATER ONLY) TO FAUCETS AS INDICATED ON PLANS AND FIXTURE SCHEDULE. PROVIDE CHROME PLATED BRASS SUPPLY STOPS WITH LOOSE KEYS AND WALL ESCUTCHEONS. PROVIDE CHROME PLATED FLEXIBLE RISERS OF SIZE REQUIRED TO PROPERLY CONNECT FIXTURES. PROVIDE 17 GAUGE CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON (UNLESS NOTED TO BE AN ACID WASTE FIXTURE). REFER TO FIXTURE SCHEDULE FOR MINIMUM SIZES OF PLUMBING FIXTURE ROUGH-INS.

INSULATION KITS AT ALL LAVATORIES AND SINKS REQUIRED TO BE T.A.S. ACCESSIBLE (MCGUIRE OR TRUEBRO). ALL SUCH FIXTURES AND FINAL INSTALLATIONS SHALL COMPLY WITH THE STATE ACCESSIBILITY STANDARDS REQUIREMENTS.

INSERT TRAP GUARDS AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS-TIGHT SEAL. FOR DRAIN RODDING AFTER INSTALLATION. INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

DISREGARD FIXTURES LISTED THAT ARE NOT ON THIS JOB.

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
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PLUMBING DETAIL & SCHEDULE

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TECHNOLOGY SYMBOLS & LEGEND

VOICE SYMBOLS

	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS PER LOCATION.
W	SINGLE VOICE OUTLET FOR WALL-MOUNTED PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +52-INCHES A.F.F. UNLESS OTHERWISE NOTED.

DATA SYMBOLS

	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF DATA OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
W	SINGLE DATA OUTLET FOR WALL-MOUNTED IP PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +42-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X COW	DATA CABLE FOR COMPUTER ON WHEELS, CABLE TYPE AS SPECIFIED MOUNTED + 18-INCHES A.F.F UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
X WAPW	DATA CABLE FOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPC	DATA CABLE FOR CEILING MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMW	DATA CABLE FOR INTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMC	DATA CABLE FOR CEILING MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

X CAME	DATA CABLE FOR EXTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLLATION.
X PRJW	DATA CABLE FOR WALL MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
PRJC	DATA CABLE FOR CEILING MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X AVCE	DATA CABLE FOR CEILING MOUNTED AUDIO/VISUAL EQUIPMENT ENCLOSURE, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A BLUE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
R	POWER POLE WITH ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
WAP	WIRELESS ACCESS POINT. EQUIPMENT AS SPECIFIED.

GENERAL SYMBOLS

# SHEET DRAWING TITLE SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
SHEET #	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES TELECOMMUNICATIONS REGION

VOICE/DATA SYMBOLS

	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF VOICE TERMINATIONS , Y = NUMBER OF DATA TERMINATIONS PER LOCATION.
	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF VOICE OUTLETS AND Y = NUMBER OF DATA OUTLETS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET AND SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X Y	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X Y	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS PER LOCATION.

FIBER OPTIC SYMBOLS

	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF FIBER OPTIC OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.

CABLE PLANT & RISER DIAGRAM

	MAINTENANCE HOLE, SIZE & TYPE AS SPECIFIED.
	PULLBOX, SIZE AND TYPE AS SPECIFIED.
UGC	DIRECT BURIED COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
AER	AERIAL COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
	CONDUIT, SIZE AND TYPE AS SPECIFIED.

COMMUNICATION AND SECURITY CABLING JACKET COLOR CODE

TYPICAL WORK AREA OUTET	BLUE - REFERENCE SPEC SECTION 27 10 00
WIRELESS ACCESS POINT	GREEN - REFERENCE SPEC SECTION 27 10 00
SECURITY(INTRUSION, ACCESS CONTROL, VIDEO SURVEILLANCE)	ORANGE - REFERENCE SPEC SECTION 28 13 00, 28 16 00, AND 27 10 00
BUILDING WIDE PUBLIC ADDRESS / INTERCOM	WHITE - REFERENCE SPEC SECTION 27 51 00
AUDIOVISUAL	BLACK - REFERENCE SPEC SECTION 27 41 16
LIGHTING CONTROL	LIME GREEN - REFERENCE MEP SPECIFICATIONS
BAS	YELLOW - REFERENCE MEP SPECIFICATIONS
FIRE ALARM	RED - REFERENCE MEP SPECIFICATIONS

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
DEMARC	DEMARCATION POINT
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
GIP	GALVANIZED IRON PIPE
HE	PA/INTERCOM HEAD-END
IMC	INTERMEDIATE METAL CONDUIT
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MH	MAINTENANCE HOLE
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PVC	POLYVINYL CHLORIDE
RSC	RIGID STEEL CONDUIT
SM	SINGLE MODE
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
TR	TELECOMMUNICATION REGION
UGC	UNDERGROUND COMMUNICATION
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR

NOTES

1. CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF TECHNOLOGY DRAWINGS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. TECHNOLOGY DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.

INDEX OF DRAWINGS

T000-B	TECHNOLOGY SYMBOLS & LEGEND
TD201-B	TECHNOLOGY LEVEL 01 DEMO FLOOR PLAN - FIELD HOUSE
T100-B	TECHNOLOGY SITE PLAN
T201-B	TECHNOLOGY LEVEL 01 FLOOR PLAN - FIELD HOUSE

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
6707 Fm 1464 Rd, Richmond, TX 77407
BUSH HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL AGAME 20113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
	Date	Description

100% CD

T000-B
TECHNOLOGY SYMBOLS & LEGEND

BUSH HIGH SCHOOL

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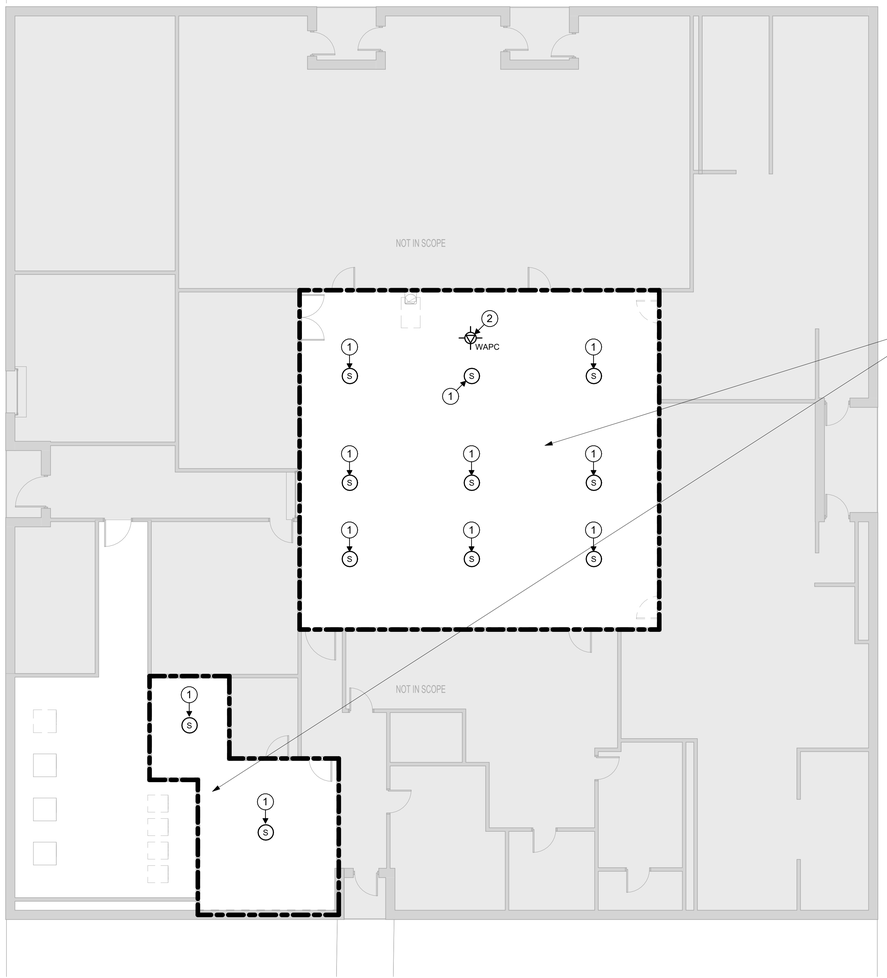

AREA OF RENOVATIONS. ALL EXISTING PUBLIC ADDRESS, WIRELESS ACCESS POINTS, AND SECURITY DEVICES IN THE CEILING TO BE DEMOLISHED WILL REMAIN. CONTRACTOR SHALL TEST EACH SYSTEM PRE AND POST CONSTRUCTION FOR FUNCTIONALITY. REFERENCE SPECIFICATIONS SECTIONS 27 10 00 STRUCTURED CABLING AND 27 51 00 PUBLIC ADDRESS AND CLOCK SYSTEM FOR CONTRACTOR QUALIFICATIONS

1 TD201-B TECHNOLOGY LEVEL 01 DEMO FLOOR PLAN - FIELD HOUSE
1/8" = 1'-0"

TECHNOLOGY DEMOLITION GENERAL NOTES

1. ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS SHALL REMAIN OPERATIONAL AT ALL TIMES DURING BUSINESS HOURS. ANY SYSTEM DOWNTIME SHALL BE SCHEDULED WITH THE ARCHITECT/ENGINEER AND OWNER AT LEAST TEN (10) WORKING DAYS IN ADVANCE. THE CONTRACTOR SHALL DEVELOP A PHASING PLAN AND SCHEDULE OF ANY SYSTEM DOWNTIME REQUIRED FOR REVIEW AND APPROVAL BY THE ARCHITECT/ENGINEER AND OWNER PRIOR TO ANY CONSTRUCTION ACTIVITIES.
2. THE EQUIPMENT ROOMS AND TELECOM ROOMS ENVIRONMENTAL CONTROLS SHALL BE MAINTAINED AT ALL TIMES. THE EQUIPMENT ROOMS AND TELECOM ROOMS TEMPERATURE SHALL REMAIN BETWEEN 60-70 DEGREES F WITH RELATIVE HUMIDITY OF 30% - 50% NON-CONDENSING. THE TEMPERATURE RANGE OF THE EQUIPMENT ROOMS AND TELECOM ROOMS SHALL BE MAINTAINED BETWEEN + -9 DEGREES F FROM DISTRICT SETPOINT.
3. THE OWNER SHALL BE RESPONSIBLE FOR POWER DOWN AND START- UP OF ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS. THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/ENGINEER AND OWNER AND PROVIDE A MINIMUM OF TEN (10) WORKING DAYS NOTICE FOR SCHEDULING OF ANY REQUIRED DOWNTIME.
4. ALL EXISTING CONDITIONS AS SHOWN ARE APPROXIMATELY CORRECT. NOT ALL EXISTING CONDITIONS ARE SHOWN. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY ALL THE EXISTING CONDITIONS AS REQUIRED TO PROPERLY PROVIDE A BID/PROPOSAL AND PERFORM ALL REQUIRED WORK.
5. ALL EXISTING FIBER BACKBONE, HORIZONTAL DATA CABLE, HORIZONTAL VOICE CABLE AND J-HOOK PATHWAYS SHALL BE REMOVED IN THEIR ENTIRETY AS INDICATED ON TD-SERIES DRAWINGS. ALL OTHER FIBER OPTIC CABLE AND COPPER BACKBONE ARE CRITICAL COMPONENTS FOR THE CAMPUS AND THE DISTRICT FIBER RING AND SHALL REMAIN PROTECTED AND OPERATIONAL AT ALL TIMES.
6. ALL EXISTING COAXIAL CABLE (.500/ RG-6/RG-59) FOR CATV IS TO REMAIN IN PLACE AND OPERATIONAL.
7. ALL EXISTING WIRELESS ACCESS POINTS SHALL BE REMOVED AND RETURNED TO THE OWNER. THE CONTRACTOR SHALL RE-INSTALL ALL EXISTING AND NEW WIRELESS ACCESS POINTS AT THE COMPLETION OF THE PROJECT.
8. COORDINATE REMOVAL OF EXISTING CAMERA(S) WITH OWNER/ARCHITECT DURING CONSTRUCTION.

TECHNOLOGY DEMOLITION KEYED NOTES

(1) EXISTING BUILDING INTERCOM / PA SPEAKER AND /CABLES TO REMAIN. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

(2) EXISTING WIRELESS ACCESS POINT SHALL BE REMOVED AND RE- INSTALLED AT THE END OF THE PROJECT. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

pfluger
office - 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

6707 Fm 1464 Rd, Richmond, TX 77407

BUSH HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 30113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:

No.	Date	Description

100% CD

TD201-B

TECHNOLOGY LEVEL 01 DEMO FLOOR PLAN - FIELD HOUSE

BUSH HIGH SCHOOL

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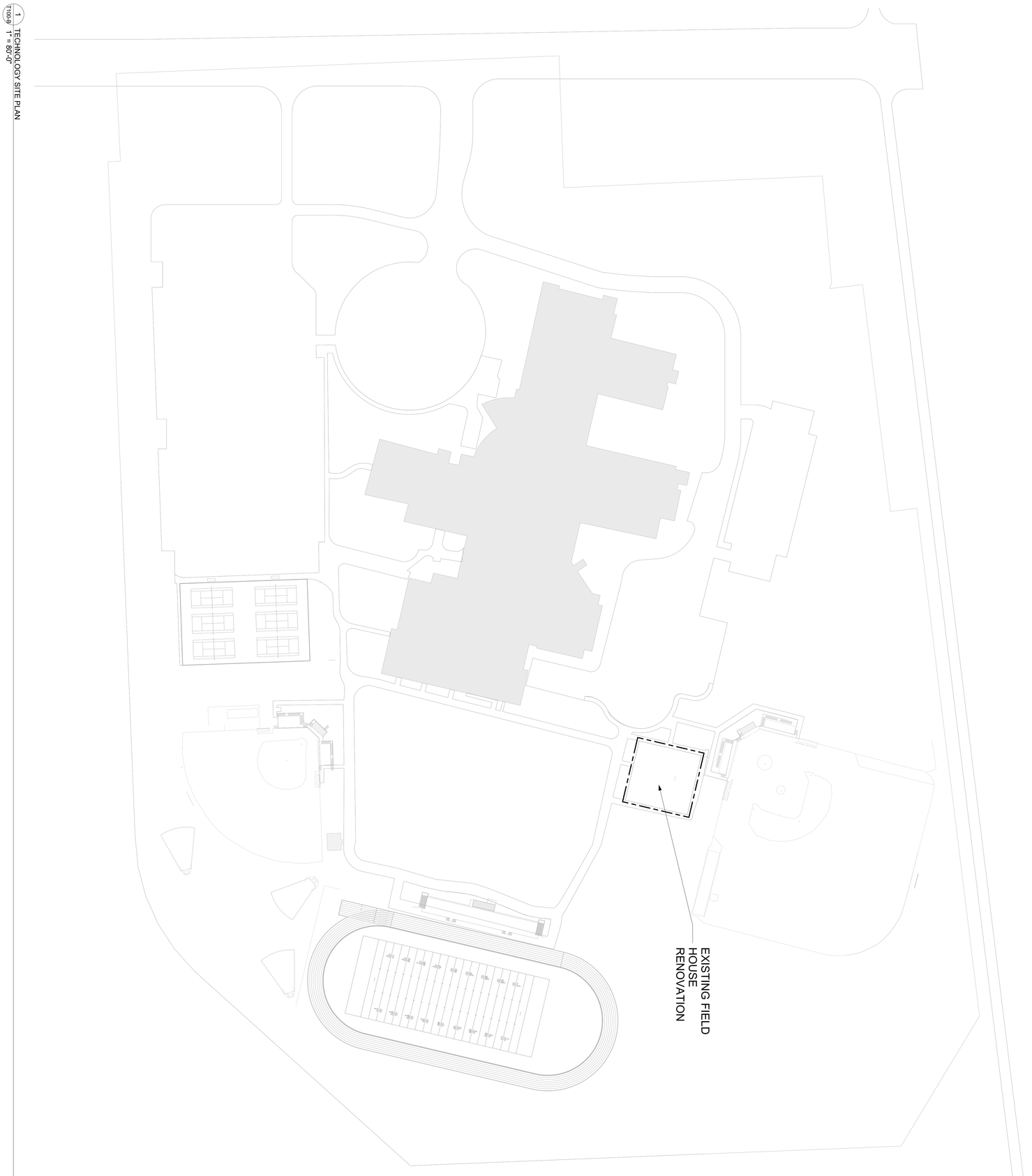
1 T100-B TECHNOLOGY SITE PLAN
1" = 80'-0"



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T100-B

TECHNOLOGY SITE PLAN

BUSH HIGH SCHOOL

PROJECT NO. 25-006
DATE 12-04-2025
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REGISTERED ARCHITECT BRIGHAM E. PFLUGER STATE OF TEXAS
12-04-2025

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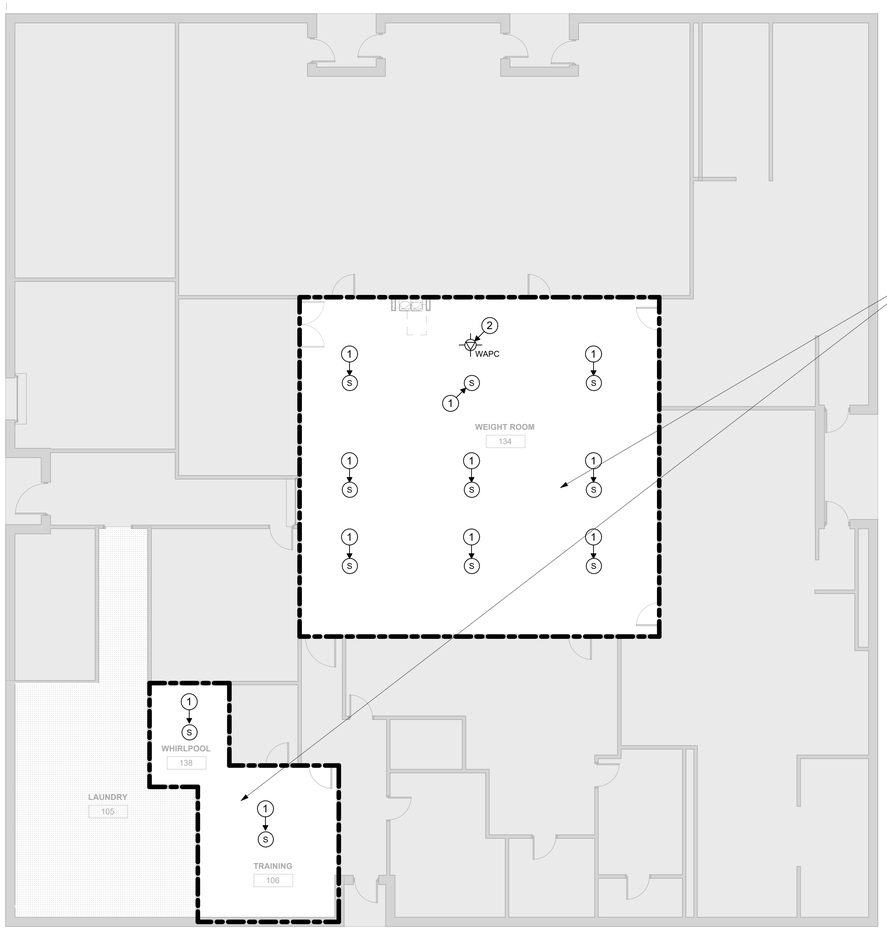
Sugarland, TX 77479

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
6707 Fm 1464 Rd, Richmond, TX 77407
BUSH HIGH SCHOOL

pfluger
office: 713.222.1141 I fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

TECHNOLOGY FLOOR PLAN KEYED NOTES:

1. EXISTING BUILDING INTERCOM / PA SPEAKER AND /CABLES TO REMAIN. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.
2. EXISTING WIRELESS ACCESS POINT SHALL BE REMOVED AND RE-INSTALLED AT THE END OF THE PROJECT. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION



AREA OF RENOVATIONS. ALL EXISTING PUBLIC ADDRESS, WIRELESS ACCESS POINTS, AND SECURITY DEVICES IN THE CEILING TO BE DEMOLOISHED WILL REMAIN. CONTRACTOR SHALL TEST EACH SYSTEM PRE AND POST CONSTRCTUION FOR FUNCTIONALITY. REFERENCE SPECIFICATIONS FOR CONTRACTOR QUALIFICATIONS

1 / T201-B TECHNOLOGY LEVEL 01 FLOOR PLAN - FIELD HOUSE
1/8" = 1'-0"

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office - 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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TECHNOLOGY LEVEL 01 FLOOR PLAN - FIELD HOUSE
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FORT BEND ISD
BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

DULLES HIGH SCHOOL
100% CONSTRUCTION DOCUMENTS

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- G0.02-D TAS 2 OF 2
- G0.03-D 01 CODE PLAN - GYM LOCKER ROOM

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- S1.02-D GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX
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- A2.01-D 02 FLOOR PLAN - SECOND FLOOR WEIGHT ROOM
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- A9.00-D MATERIAL & ROOM FINISH SCHEDULE
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- P5.01-D PLUMBING DETAILS
- P5.02-D PLUMBING LEGENDS AND SCHEDULES

SCOPE OF WORK

SID12505 - RENOVATE LOCKER ROOMS (GYM INSIDE SCHOOL)
- REPLACING LOCKERS
- CAGES SURROUNDING LOCKERS
- LED LIGHTS
- DRINKING FOUNTAINS WITH BOTTLE FILLERS
- REPLACE SHOWERS WITH INDIVIDUAL SHOWERS
- OTHER TOILET ACCESSORIES UPDATED TO ADA

SID12518 - RENOVATE WEIGHT ROOM (SECOND FLOOR GYM INSIDE SCHOOL)
- NEW FLOORING
- CASING AROUND PIPES

SID12541 - REPLACE WASHER AND DRYER

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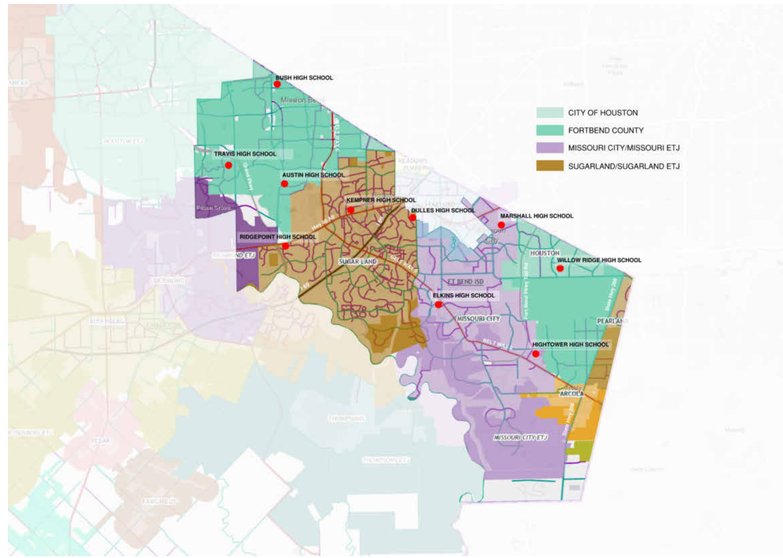
AFSHI CHARANIA	POSITION 3
ADDIE HAYLIGER	POSITION 5
ANGIE WIERZBICKI	POSITION 7

DULLES HIGH SCHOOL CAMPUS KEY PLAN



LOCATION MAP



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TEXAS SPORTS AND CIVIL ENGINEERING
11767 Katy Freeway, Suite 1112
Houston, TX 77079
P: 346.204.4854
www.texsce.com

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SALAS O'BRIEN
10930 W. San Houston Pkwy N. Suite 900
HOUSTON, TX 77064
P: (866) 768 4625
https://salasobrien.com

STRUCTURAL

MATRIX STRUCTURAL
5177 Richmond Ave Ste 670
HOUSTON, TX 77056
P: (713) 664-0130
matrixstructural.com

PFLUGER ARCHITECTS

PFLUGER ARCHITECTS
2 GREENWAY PLAZA #460
HOUSTON, TX 77046
P:(713) 222-1141
www.pflugerarchitects.com

pfluger
office: 713.222.1141 | fax: 713.222.1177
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
550 Dulles Ave, Sugarland, TX 77478
DULLES HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
2013
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: MS CHECKED BY: PA
REVISIONS:

No.	Date	Description

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DULLES HIGH SCHOOL

12/4/2025 9:51:15 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_DULLES_ARCH_FBISD ATHLETIC RENOVATIONS BP012-D_R25.rvt

THE FOLLOWING SECTION OF DETAILS PROVIDES INFORMATION ON REQUIREMENTS FOR DISABLED ACCESSIBILITY. THE REQUIREMENTS COMBINE MINIMUM REQUIREMENTS OF STATE AND FEDERAL AGENCIES. THE PURPOSE OF THIS SECTION IS TO HELP AVOID INSTALLATION OF MATERIALS ON CONSTRUCTION PROJECTS THAT WOULD LIMIT ACCESSIBILITY. THE SCOPE OF THIS SECTION IS LIMITED AND THE INDIVIDUALS WORKING ON THE PROJECT SHOULD FAMILIARIZE THEMSELVES WITH TEXAS ACCESSIBILITY STANDARD (TAS) AND AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COPIES OF THESE DOCUMENTS MAY BE OBTAINED BY CONTACTING THE FOLLOWING:

TAS:
TEXAS DEPT. OF LICENSING & REGULATION
P.O. BOX 12157
AUSTIN, TEXAS 78711
(800) 803-9202
TDD (800) 735-2989
WWW.LICENSE.STATE.TX.US

ADAAG:
SOUTHWEST DISABILITY AND BUSINESS
TECHNICAL ASSISTANCE CENTER FOR
REGION VI.
2323 S. SHEPERD, SUITE 1000
HOUSTON, TEXAS 77019
ADA HOTLINE: (800) 949-4232
TDD: (713) 520-5136 -OR- (713) 520-0232
FAX: (713) 520-5785

IN THE EVENT THE INFORMATION ON THE PLAN SHEETS DOES NOT MEET THE MINIMUM REQUIREMENTS OF THE SECTION, THEN THE INFORMATION SHALL BE PRESENTED TO THE ARCHITECT FOR CLARIFICATION PRIOR TO CONSTRUCTION OF SPECIFIC AREA OF WORK.

ELIMINATION OF ARCHITECTURAL BARRIERS
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (ADA)

IN ACCORDANCE WITH ACCESSIBILITY REQUIREMENTS, THE FOLLOWING STANDARDS SHALL BE INCLUDED WHEN BIDDING ON PROJECTS INVOLVING RENOVATION OF OR NEW FACILITIES FOR PUBLIC ACCOMMODATION OR COMMERCIAL FACILITIES. ANY ITEMS NOT CONFORMING TO THESE OR ANY OTHER STANDARDS, CODES, OR ORDINANCES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT FOR HIS INTERPRETATION. IN THE EVENT THE INFORMATION LISTED IN THIS DOCUMENT CONFLICTS WITH ANY PORTION OF THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT, IN WRITING, OF HIS NEED FOR A SOLUTION TO RESOLVE THE CONFLICT. THE MOUNTING HEIGHTS INDICATED ARE FOR ITEMS THAT REQUIRE ACCESSIBILITY BY DISABLED INDIVIDUALS. WHERE TWO OR MORE ITEMS ARE GROUPED IN ONE AREA (MIRRORS, SINKS, TOILETS, DRINKING FOUNTAINS, URINALS, SHELVES, TELEPHONES, ETC.) NOT ALL ITEMS IN THE AREA HAVE TO BE MOUNTED AT HANDICAP HEIGHT. CONTRACTOR TO COORDINATE THESE INSTALLATION HEIGHTS WITH OTHER MATERIALS FOR NEAT, TRIMMED OUT AND FINISHED APPEARANCE. ITEMS FOR DISABLED INDIVIDUAL USE SHALL BE MOUNTED AT HEIGHT INDICATED FOR AGE LEVEL AS NOTED.

CHAPTER 1: APPLICATION AND ADMINISTRATION

TAS SECTION 104 - CONVENTIONS
A. ALL DIMENSIONS ARE SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES EXCEPT WHERE THE REQUIREMENT IS STATED AS A RANGE WITH SPECIFIC MINIMUM AND MAXIMUM POINTS.
B. UNLESS SPECIFICALLY STATED OTHERWISE, FIGURES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

CHAPTER 2: SCOPING REQUIREMENTS

TAS SECTION 201.1 - SCOPE
A. ALL AREAS OF NEWLY DESIGNED AND NEWLY CONSTRUCTED BUILDINGS AND FACILITIES AN ALTERED PORTIONS OF EXISTING BUILDINGS AND FACILITIES SHALL COMPLY WITH THESE REQUIREMENTS.
TAS SECTION 202 - EXISTING BUILDINGS AND FACILITIES
A. EACH ADDITION TO AN EXISTING BUILDING OR FACILITY SHALL COMPLY WITH THE REQUIREMENTS FOR NEW CONSTRUCTION. EACH ADDITION THAT AFFECTS OR COULD EFFECT THE USABILITY OF OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL COMPLY WITH 202.4.
B. WHERE EXISTING ELEMENTS, SPACES, OR COMMON USE AREAS ARE ALTERED, EACH ALTERED ELEMENT, SPACE, OR COMMON USE AREA SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 2.
C. AN ALTERATION THAT DECREASES THE ACCESSIBILITY OF A BUILDING OR FACILITY BELOW THE REQUIREMENTS FOR NEW CONSTRUCTION AT THE TIME OF THE ALTERATION IS PROHIBITED.
D. AN ALTERATION OF AN EXISTING ELEMENT, SPACE, OR AREA OF A BUILDING OR FACILITY SHALL NOT IMPOSE A REQUIREMENT FOR ACCESSIBILITY GREATER THAN REQUIRED FOR NEW CONSTRUCTION.
E. ALTERATIONS THAT AFFECT THE USABILITY OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL BE MADE SO AS TO ENSURE USAGE BY INDIVIDUALS WITH DISABILITIES.
TAS SECTION 204 - PROTRUDING OBJECTS
A. WITHIN AREAS OF ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOM AND SPACES SHALL COMPLY WITH 309.
B. WITHIN AREAS OF SPORTS ACTIVITY, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307.
C. WITHIN PLAY AREAS, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307 PROVIDED THAT GROUND LEVEL ACCESSIBLE ROUTES PROVIDE VERTICAL CLEARANCE IN COMPLIANCE WITH 1008.2.
TAS SECTION 205 - OPERABLE PARTS
A. OPERABLE PARTS ON ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOMS AND SPACES SHALL COMPLY WITH 309.
B. OPERABLE PARTS INTENDED FOR USE ONLY BY SERVICE OR MAINTENANCE PERSONNEL SHALL NOT BE REQUIRED TO COMPLY WITH 309.
C. ELECTRICAL OR COMMUNICATION RECEPTACLES SERVING A DEDICATED USE SHALL NOT BE REQUIRED TO COMPLY WITH 309.
TAS SECTION 206 - ACCESSIBLE ROUTES
A. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
B. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE
C. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH STORY AND MEZZANINE IN MULTI-STORY BUILDINGS AND FACILITIES.
D. IN RESTAURANTS AND CAFETERIAS, AN ACCESSIBLE ROUTE SHALL BE PROVIDED TO ALL DINING AREAS, INCLUDING RAISED OR SUNKEN DINING AREAS, AND OUTDOOR DINING AREAS.
E. WHERE A CIRCULATION PATH DIRECTLY CONNECTS A PERFORMANCE AREA TO AN ASSEMBLY AREA, AN ACCESSIBLE ROUTE SHALL DIRECTLY CONNECT THE ASSEMBLY SEATING AREA WITH THE PERFORMANCE AREA. AN ACCESSIBLE ROUTE SHALL BE PROVIDED FROM PERFORMANCE AREAS TO ANCILLARY AREAS OR FACILITIES USED BY PERFORMERS.
TAS SECTION 207 - ACCESSIBLE MEANS OF EGRESS
A. MEANS OF EGRESS SHALL COMPLY WITH SECTION 1003.2.13 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION.)
B. STANDBY POWER SHALL BE PROVIDED FOR PLATFORM LIFTS PERMITTED BY SECTION 1003.2.13.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007.5 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO SERVE AS A PART OF AN ACCESSIBLE MEANS OF EGRESS.
TAS SECTION 208 - PARKING SPACES
A. PARKING SPACES SHALL COMPLY WITH 502 AND SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 208.2 EXCEPT REQUIRED BY 208.2.1, 208.2.2, AND 208.2.3. WHERE MORE THAN ONE PARKING FACILITY IS PROVIDED ON A SITE, THE NUMBER OF ACCESSIBLE SPACES PROVIDED ON THE SITE SHALL BE CALCULATED ACCORDING TO THE NUMBER OF SPACES REQUIRED FOR EACH PARKING FACILITY.

TABLE 208.2 PARKING SPACES

TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES	TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES
1 TO 25	1	201 TO 300	7
26 TO 50	2	301 TO 400	8
51 TO 75	3	401 TO 500	9
76 TO 100	4	501 TO 1000	2 PERCENT OF TOTAL
101 TO 150	5	1000 AND OVER	20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000
151 TO 200	6		

TAS SECTION 208.2.4 - VAN PARKING SPACES
A. FOR EVERY SIX OR FRACTION OF SIX PARKING SPACES REQUIRED BY 208.2 TO COMPLY WITH 502, AT LEAST ONE SHALL BE A VAN PARKING SPACE COMPLYING WITH 502.
TAS SECTION 208.3 - LOCATION
A. PARKING SPACES COMPLYING WITH 502 THAT SERVE A PARTICULAR BUILDING OR FACILITY SHALL BE LOCATED ON THE SHORTEST POSSIBLE ACCESSIBLE ROUTE FROM PARKING LOT TO AN ENTRANCE. WHERE PARKING SERVES MORE THAN ONE ACCESSIBLE ENTRANCE, PARKING SPACES COMPLYING WITH 502 SHALL BE DISPERSED AND LOCATED AT THE SHORTEST ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCES.
TAS SECTION 209 - PASSENGER LOADING ZONES AND BUS STOPS
A. PASSENGER LOADING ZONES, EXCEPT THOSE REQUIRED TO COMPLY WITH 209.2.2 AND 209.2.3, SHALL PROVIDE AT LEAST ONE PASSENGER LOADING ZONE COMPLYING WITH 503 IN EVERY CONTINUOUS 100 LINEAR FEET (30M) OF LOADING ZONE SPACE, OR FRACTION THEREOF.
B. IN BUS LOADING ZONES RESTRICTED TO USE BY DESIGNATED OR SPECIFIED PUBLIC TRANSPORTATION VEHICLES, EACH BUS BAY, BUS STOP, OR OTHER AREA DESIGNATED FOR LIFT OR RAMP DEPLOYMENT SHALL COMPLY WITH 810.2
TAS SECTION 210 - STAIRWAYS
A. INTERIOR AND EXTERIOR STAIRS THAT ARE PART OF A MEANS OF EGRESS SHALL COMPLY WITH 504. ALTHOUGH HANDRAILS ON STAIRS THAT ARE NOT PART OF A MEANS OF EGRESS, STATE OR LOCAL BUILDING CODES MAY REQUIRE HANDRAILS OR GUARDS.
TAS SECTION 211 - DRINKING FOUNTAINS
A. NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED.
B. MORE THAN THE MINIMUM NUMBER OF DRINKING FOUNTAINS SPECIFIED IN 211.2 ARE PROVIDED, 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.1 THROUGH 602.6, AND 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.7
TAS SECTION 212 - KITCHENS, KITCHENETTES, AND SINKS
A. KITCHENS AND KITCHENETTES SHALL COMPLY WITH 804.
B. WHERE SINKS ARE PROVIDED, AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE, OF EACH TYPE PROVIDED IN EACH ACCESSIBLE ROOM OR SPACE SHALL COMPLY WITH 606.
TAS SECTION 213 - TOILET FACILITIES AND BATHING FACILITIES
A. WHERE TOILET FACILITIES AND BATHING FACILITIES ARE PROVIDED, THEY SHALL COMPLY WITH 213. TOILET FACILITIES AND BATHING FACILITIES SHALL BE PROVIDED ON A STORY CONNECTED BY AN ACCESSIBLE ROUTE TO AN ACCESSIBLE ENTRANCE.
B. TOILET RESTROOMS AND BATHING ROOMS SHALL COMPLY WITH 603.
C. WHERE MULTIPLE SINGLE USER TOILET ROOMS ARE CLUSTERED AT A SINGLE LOCATION, NO MORE THAN 50% OF THE SINGLE USER TOILET ROOMS FOR EACH USE AT EACH CLUSTER SHALL BE REQUIRED TO COMPLY WITH 603.
D. UNISEX TOILET ROOMS AND UNISEX BATHING ROOMS SHALL CONTAIN NOT MORE THAN ONE LAVATORY, AND TWO WATER CLOSETS WITHOUT URINALS OR ONE WATER CLOSET AND ONE URINAL. UNISEX BATHING ROOMS CONTAIN ONE SHOWER OR ONE SHOWER AND ONE BATHTUB, ONE LAVATORY, AND ONE WATER CLOSET. DOORS TO UNISEX RESTROOMS AND BATHING ROOMS SHALL HAVE PRIVACY LATCHES.
TAS SECTION 214 - WASHING MACHINES AND CLOTHES DRYERS
A. WHERE 3 OR FEWER WASHING MACHINES ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 WASHING MACHINES ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
B. WHERE 3 OR FEWER CLOTHES DRYERS ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 CLOTHES DRYERS ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
TAS SECTION 215 - FIRE ALARM SYSTEMS
A. ALARMS IN PUBLIC USE AREAS AND COMMON USE AREAS SHALL COMPLY WITH 702.
B. WHERE EMPLOYEE WORK AREAS HAVE AUDIBLE ALARM COVERAGE, THE WIRING SYSTEM SHALL BE DESIGNED SO THAT THE VISIBLE ALARMS COMPLYING WITH 702 CAN BE INTEGRATED INTO THE ALARM SYSTEM.
TAS SECTION 216 - SIGNS
A. SIGNS SHALL COMPLY WITH 703. BUILDING DIRECTORIES, MENUS, SEAT AND ROW DESIGNATIONS IN ASSEMBLY AREAS, OCCUPANT NAMES, BUILDING ADDRESSES, AND COMPANY NAMES AND LOGOS SHALL NOT BE REQUIRED TO COMPLY WITH 216.
B. SIGNS REQUIRED BY SECTION 1003.2.13.5.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 1007.6.4 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE INSTRUCTIONS IN AREAS OF REFUGE SHALL COMPLY WITH 703.5.
C. DIRECTIONAL SIGNS REQUIRED BY SECTION 1003.2.13.6 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 707.7 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE DIRECTIONS TO ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 703.5.
D. WHERE NOT ALL ENTRANCES COMPLY WITH 404, ENTRANCES COMPLYING WITH 404 SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1. DIRECTIONAL SIGNS COMPLYING WITH 703.5 THAT INDICATE THE LOCATION OF THE NEAREST ENTRANCE COMPLYING WITH 404 SHALL BE PROVIDED AT ENTRANCES THAT DO NOT COMPLY WITH 404.
TAS SECTION 217 - TELEPHONES
A. WHERE PUBLIC TELEPHONE ARE PROVIDED, WHEELCHAIR ACCESSIBLE TELEPHONES COMPLYING WITH 704.2 SHALL BE PROVIDED.

CHAPTER 2: SCOPING REQUIREMENTS (CONTINUED)

TAS SECTION 219 - ASSISTIVE LISTENING SYSTEMS
A. IN EACH ASSEMBLY AREA WHERE AUDIBLE COMMUNICATION IS INTEGRAL TO THE USE OF THE SPACE, AN ASSISTIVE LISTENING SYSTEM SHALL BE PROVIDED.
B. WHERE ALL SEATS IN AN ASSEMBLY AREA ARE SERVED BY AN INTRODUCTION LOOP ASSISTIVE LEARNING SYSTEM. THE MINIMUM NUMBER OF RECEIVERS REQUIRED BY TABLE 219.3 TO BE HEARING-AID COMPATIBLE SHALL NOT BE REQUIRED TO BE PROVIDED.
TAS SECTION 220 - AUTOMATIC TELLER MACHINES AND FARE MACHINES
A. WHERE AUTOMATIC TELLER MACHINES OR SELF-SERVICE FARE VENDING, COLLECTION, OR ADJUSTMENT MACHINES ARE PROVIDED, AT LEAST ONE OF EACH TYPE PROVIDED AT EACH LOCATION SHALL COMPLY WITH 707. WHERE BINS ARE PROVIDED FOR ENVELOPES, WASTE PAPER, OR OTHER PURPOSES, AT LEAST ONE OF EACH SHALL COMPLY WITH 811.
TAS SECTION 221 - ASSEMBLY AREAS
A. ASSEMBLY AREAS SHALL PROVIDE WHEELCHAIR SPACES, COMPANION SEATS, AND DESIGNATED AISLE SEATS COMPLYING WITH 221 AND 802.
B. WHEELCHAIR SPACES COMPLYING WITH 802.1 SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 221.2.1.1.
C. WHEELCHAIR SPACES SHALL BE AN INTEGRAL PART OF THE SEATING PLAN.
D. WHEELCHAIR SPACES SHALL PROVIDE LINES OF SIGHT COMPLYING WITH 802.2. IN PROVIDING LINES OF SIGHT, WHEELCHAIR SPACES SHALL BE DISPERSED. WHEELCHAIR SPACES SHALL PROVIDE SPECTATORS WITH CHOICES OF SEATING LOCATIONS OR VIEWING ANGLES EQUAL TO OR BETTER THAN SEATING LOCATIONS AND VIEWING ANGLES OF OTHER SPECTATORS.
E. AT LEAST 5% OF THE TOTAL NUMBER OF AISLE SEATS PROVIDED SHALL COMPLY WITH 802.4 AND SHALL BE THE AISLE SEATS LOCATED CLOSEST TO THE ACCESSIBLE ROUTES.

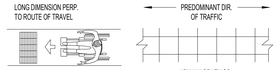
TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES	NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES
4 TO 25	1	301 TO 500	6
26 TO 50	2	501 TO 5000	6, PLUS 1 FOR EACH 150, OR FRACTION THEREOF, BETWEEN 501 THROUGH 5000
51 TO 150	4	5001 AND OVER	36, PLUS 1 FOR EACH 200, OR FRACTION THEREOF, OVER 5000
151 TO 300	5		

TAS SECTION 222 - DRESSING, FITTING, AND LOCKER ROOMS
A. WHERE DRESSING ROOMS, FITTING ROOMS, OR LOCKER ROOMS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE, OF EACH TYPE OF USE IN EACH CLUSTER PROVIDED SHALL COMPLY WITH 803.
B. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN DRESSING FITTING OR LOCKER ROOMS W/O INDIVIDUAL COMPARTMENTS, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 803.5. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN INDIVIDUAL COMPARTMENTS AT LEAST ONE OF EACH TYPE SHALL BE PROVIDED IN ACCORDANCE WITH 223.
TAS SECTION 223 - MEDICAL CARE AND LONG-TERM CARE FACILITIES
A. IN LICENSED MEDICAL CARE FACILITIES AND LICENSED LONG-TERM CARE FACILITIES WHERE THE PERIOD OF STAY EXCEEDS TWENTY-FOUR HOURS, PATIENT OR RESIDENT SLEEPING ROOMS SHALL BE PROVIDED IN ACCORDANCE WITH 223. TOILET ROOMS PART OF CRITICAL OR INTENSIVE CARE PATIENT SLEEPING ROOMS SHALL NOT BE REQUIRED TO COMPLY WITH 603.
TAS SECTION 224 - TRANSIENT LODGING FACILITIES AND GUEST ROOMS
A. TRANSIENT LODGING FACILITIES SHALL PROVIDE GUEST ROOMS IN ACCORDANCE WITH 224. PLACES OF LODGING AND HOUSING AT A PLACE OF EDUCATION SHALL COMPLY WITH THE PROVISIONS APPLICABLE TO TRANSIENT LODGING, INCLUDING, BUT NOT LIMITED TO, THE REQUIREMENTS FOR TRANSIENT LODGING GUEST ROOMS IN SECTIONS 224 AND 806.
B. ENTRANCES, DOORS, AND DOORWAYS PROVIDING USER PASSAGE INTO AND WITHIN THE GUEST ROOMS THAT ARE NOT REQUIRED TO PROVIDE MOBILITY FEATURES COMPLYING WITH 806.2 SHALL COMPLY WITH 404.2.3.
C. IN GUEST ROOMS HAVING MORE THAN 25 BEDS, 5% MINIMUM OF THE BEDS SHALL HAVE CLEAR FLOOR SPACE COMPLYING WITH 806.2.3.
TAS SECTION 225 - STORAGE
A. WHERE STORAGE IS PROVIDED, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 811.
B. WHERE LOCKERS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE, SHALL COMPLY WITH 811.
TAS SECTION 226 - DINING SURFACES AND WORK SURFACES
A. WHERE DINING SURFACES ARE PROVIDED FOR THE CONSUMPTION OF FOOD OR DRINK, AT LEAST 5% OF THE SEATING SPACES AND STANDING SPACES AT THE DINING SURFACES SHALL COMPLY WITH 902. IN ADDITION, WHERE WORK SURFACES ARE PROVIDED FOR USE BY OTHER THAN EMPLOYEES, AT LEAST 5% SHALL COMPLY WITH 902.
TAS SECTION 227 - SALES AND SERVICE
A. WHERE PROVIDED, CHECK-OUT AISLES, SALES COUNTERS, SERVICE COUNTERS, FOOD SERVICE LINES, QUEUES, AND WAITING LINES SHALL COMPLY WITH 227 AND 904.
B. WHERE COUNTERS ARE PROVIDED, AT LEAST ONE OF EACH TYPE OF SALES COUNTER AND SERVICE COUNTER SHALL COMPLY WITH 904.4. WHERE COUNTERS ARE DISPERSED THROUGHOUT THE FACILITY, COUNTERS COMPLYING WITH 904.4 SHALL ALSO BE DISPERSED.
C. QUEUES AND WAITING LINES SERVICING COUNTERS OR CHECK-OUT AISLES REQUIRED TO COMPLY WITH 904.3 OR 904.4 SHALL COMPLY WITH 403.
TAS SECTION 228 - DEPOSITORIES, VENDING MACHINES, CHANGE MACHINES, MAIL BOXES
A. WHERE PROVIDED, AT LEAST ONE OF EACH TYPE OF DEPOSITORY, VENDING MACHINE, CHANGE MACHINE, AND FUEL DISPENSER SHALL COMPLY WITH 309.
B. WHERE MAIL BOXES ARE PROVIDED IN AN INTERIOR LOCATION, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE SHALL COMPLY WITH 309.
TAS SECTION 229 - WINDOWS
A. WHERE GLAZED OPENINGS ARE PROVIDED IN ACCESSIBLE ROOMS OR SPACES FOR OPERATION BY OCCUPANTS, AT LEAST ONE MUST OPENING SHALL COMPLY WITH 309. EACH GLAZED OPENING REQUIRED BY AN ADMINISTRATIVE AUTHORITY TO BE OPERABLE SHALL COMPLY WITH 309.
TAS SECTION 230 - TWO-WAY COMMUNICATION SYSTEMS
A. WHERE A TWO-WAY COMMUNICATION SYSTEM IS PROVIDED TO GAIN ADMITTANCE TO A BUILDING OR FACILITY OR TO BE RESTRICTED AREAS WITHIN A BUILDING OR FACILITY, THE SYSTEM SHALL COMPLY WITH 708.
TAS SECTION 240 - PLAY AREAS
A. WHERE GROUND LEVEL PLAY COMPONENTS ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
B. WHEN ELEVATED PLAY COMPONENTS ARE PROVIDED, AT LEAST 50% SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
TAS SECTION 242 - SWIMMING POOLS, WADING POOLS, AND SPAS
A. AT LEAST TWO ACCESSIBLE MEANS OF ENTRY SHALL BE PROVIDED FOR SWIMMING POOLS.
B. AT LEAST ONE ACCESSIBLE MEANS FOR ENTRY FOR WADING POOLS AND SPAS.
TAS SECTION 243 - SHOOTING FACILITIES WITH FIRING POSITIONS
A. WHERE SHOOTING FACILITIES WITH FIRING POSITIONS ARE DESIGNED AND CONSTRUCTED AT A SITE, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE OF FIRING POSITION SHALL COMPLY WITH 1010.

CHAPTER 3: BUILDING BLOCKS

TAS SECTION 302 - FLOOR OR GROUND SURFACES
A. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
B. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE.
C. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3, AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.



TAS SECTION 303 - CHANGES IN LEVEL
A. CHANGES IN LEVEL OF 1/4" HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL. (FIG. 303)
B. CHANGES IN LEVEL BETWEEN 1/4"-1/2" MAXIMUM SHALL BE BEVELED AT A SLOPE NOT STEEPER THAN 1:2 (FIG. 303)
C. CHANGES IN LEVEL GREATER THAN 1/2" HIGH SHALL BE RAMPED AND COMPLY WITH 405 OR 406

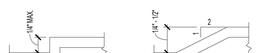


FIGURE 303

TAS SECTION 304 - TURNING SPACE
A. THE TURNING SPACE SHALL BE A SPACE 60" DIAMETER MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306
B. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. DOORS SHALL BE PERMITTED TO SWING INTO TURNING SPACES.
D. THE T-SHAPED TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60" SQUARE MINIMUM WITH ARMS AND BASE 36" WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12" MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24" MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM. (FIG. 304.3.2)

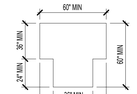


FIGURE 304.3.2 T-SHAPED TURNING SPACE

TAS SECTION 305 - CLEAR FLOOR OR GROUND SPACE
A. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM.
B. FLOOR OF GROUND SURFACES OF A CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM. (FIG. 305.3)
D. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCES COMPLYING WITH 306.
E. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT. (FIG. 305.5)
F. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE.
G. WHERE A CLEAR FLOOR OR GROUND SPACE IS LOCATED IN AN ALCOVE OR OTHERWISE CONFINED ON ALL OR PART OF 3 SIDES, ADDITIONAL MANEUVERING CLEARANCE SHALL BE PROVIDED IN ACCORDANCE WITH BELOW:
1. ALCOVES SHALL BE 36" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24" FOR FORWARD APPROACH (FIG. 315.7.1)
2. ALCOVES SHALL BE 60" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15" FOR PARALLEL APPROACH (FIG. 305.7.2)

CHAPTER 3: SCOPING REQUIREMENTS (CONTINUED)


FIGURE 305.3 CLEAR FLOOR OR GROUND SPACE

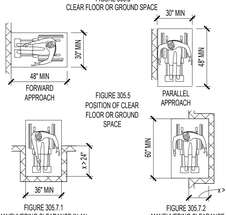


FIGURE 305.1 MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH
FIGURE 305.2 MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

TAS SECTION 306 - KNEE AND TOE CLEARANCE
A. WHERE SPACE BENEATH AN ELEMENT IS INCLUDED AS PART OF CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE, THE SPACE SHALL COMPLY WITH 306. ADDITIONAL SPACE SHALL NOT BE PROHIBITED BENEATH AN ELEMENT BUT SHALL NOT BE CONSIDERED AS PART OF THE CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE.
TAS SECTION 306.2 - TOE CLEARANCE
A. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9" ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE.
B. TOE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT
C. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17" MINIMUM UNDER THE ELEMENT.
D. SPACE EXTENDING GREATER THAN 9" BEYOND THE AVAILABLE KNEE CLEARANCE AT 9" ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.
E. TOE CLEARANCE SHALL BE 30" WIDE MINIMUM.
TAS SECTION 306.3 - KNEE CLEARANCE
A. SPACE UNDER AN ELEMENT 9"-27" ABOVE THE FINISH FLOOR SHALL BE CONSIDERED KNEE CLEARANCE.
B. KNEE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT AT 9" ABOVE THE FINISH FLOOR.
C. WHERE KNEE CLEARANCE IS REQUIRED UNDER AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE KNEE CLEARANCE SHALL BE 11" DEEP MINIMUM AT 9" ABOVE THE FINISH FLOOR OR GROUND, AND 8" DEEP MINIMUM AT 27" ABOVE FINISH FLOOR OR

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

TAS SECTION 502 - PARKING SPACES (REFERENCE FIGURE 502.3)

A. ACCESSIBLE CAR PARKING SPACES SHALL BE AT LEAST 96" MINIMUM WIDE AND VAN ACCESSIBLE PARKING SHALL BE 132" MINIMUM WIDE.
   1. VAN PARKING SPACES MAY BE 96" WIDE MINIMUM WHERE THERE IS AN ACCESS AISLE 96" WIDE MINIMUM.
   2. ACCESS AISLES SERVING CAR AND VAN PARKING SHALL BE A MINIMUM 60" WIDE AND SHALL ADJOIN AN ACCESSIBLE ROUTE.
   3. ACCESS AISLES SHOULD BE MARKED TO DISCOURAGE PEOPLE FROM PARKING IN THEM AND EXTEND THE FULL LENGTH OF THE PARKING SPACE.
B. SURFACE SLOPE SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS (NOTE: NO BUILT UP CURB RAMP MAY BE LOCATED IN AN ACCESSIBLE PARKING ACCESS AISLE.)
C. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY.
D. ACCESS AISLES SHALL BE PERIMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES, WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACE.

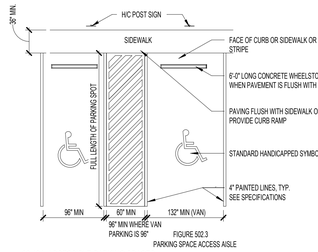
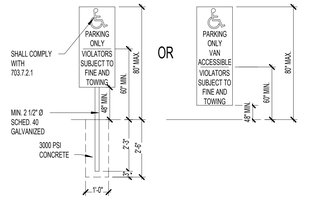


FIGURE 502.3
PARKING SPACE ACCESS AISLE

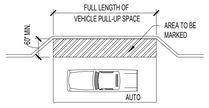
68.104: ACCESSIBLE PARKING SPACES

(A) A PAVED ACCESSIBLE PARKING SPACE MUST INCLUDE:
   (1) THE INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED CONSPICUOUSLY ON THE SURFACE IN A COLOR THAT CONTRASTS THE PAVEMENT;
   (2) THE WORDS "NO PARKING" PAINTED ON ANY ACCESS AISLE ADJACENT TO THE PARKING SPACE. THE WORDS MUST BE PAINTED:
      (A) IN ALL CAPITAL LETTERS;
      (B) WITH A LETTER HEIGHT OF AT LEAST TWELVE INCHES, AND A STROKE WIDTH OF AT LEAST TWO INCHES; AND
      (C) CENTERED WITHIN EACH ACCESS AISLE ADJACENT TO THE PARKING SPACE; AND
   (3) A SIGN IDENTIFYING THE CONSEQUENCES OF PARKING ILLEGALLY IN A PAVED ACCESSIBLE PARKING SPACE. THE SIGN MUST:
      (A) AT A MINIMUM STATE "VIOLATORS SUBJECT TO FINE AND TOWING " IN A LETTER HEIGHT OF AT LEAST ONE INCH;
      (B) BE MOUNTED ON A POLE, POST, WALL OR FREESTANDING BOARD;
      (C) BE NO MORE THAN EIGHT INCHES BELOW A SIGN REQUIRED BY TEXAS ACCESSIBILITY STANDARDS, 502.6; AND
      (D) BE INSTALLED SO THAT THE BOTTOM EDGE OF THE SIGN IS NO LOWER THAN 48 INCHES AND NO HIGHER THAN 80 INCHES ABOVE GROUND LEVEL.
(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).



NOTE: PROVIDE ONE SIGN AT EACH DISABLED (DESIGNATED) PARKING SPACE

TAS SECTION 503 - PASSENGER LOADING ZONES
A. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96" WIDE MINIMUM AND 20' LONG MINIMUM.
TAS SECTION 503.3 - ACCESS AISLE (REFERENCE FIGURE 503.3)
A. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 503 ADJACENT TO THE VEHICLE PULL UP SPACE. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.
   1. ACCESS AISLES SERVING VEHICULAR PULL-UP SPACES SHALL BE 60" WIDE MINIMUM AND EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE
   2. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED. CHANGES IN LEVEL OF THE FLOOR AND GROUND SURFACE ARE NOT PERMITTED.
B. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 144" MINIMUM.



ACCESS AISLE AT AUTOMOBILE PASSENGER LOADING ZONES

FIGURE 503.3
PASSENGER LOADING ZONE ACCESS AISLE

TAS SECTION 504 - STAIRWAYS
TAS SECTIONS 504.2 - TREADS AND RISERS
A. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND TREAD WIDTHS
   1. MINIMUM TREAD DEPTH SHALL BE 11". MEASURED FROM RISER TO RISER (NOT INCLUDING NOSING)
   2. OPEN RISERS ARE NOT PERMITTED
   3. RISERS SHALL BE 4" HIGH MIN. - 7" HIGH MAX.
TAS SECTIONS 504.5 - NOSINGS (REFERENCE FIGURE 504.5)
A. RADIUS OF THE CURVATURE AT THE LEADING EDGE SHALL BE 1/2" MAXIMUM. RISERS SHALL BE PERMITTED TO SLOPE UNDER THE TREAD AT AN ANGLE OF 30 DEGREES MAXIMUM FROM VERTICAL. THE PERMITTED PROJECTION OF THE NOSING SHALL EXTEND 1 1/2" MAXIMUM OVER THE TREAD BELOW.

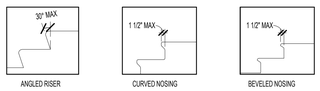
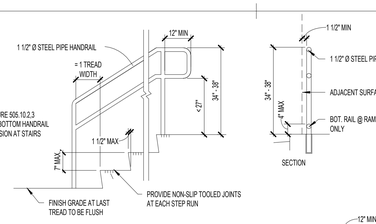
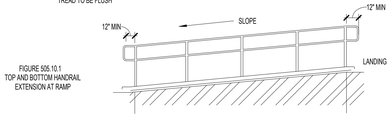


FIGURE 504.5
STAIR NOSINGS

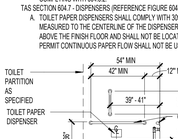
TAS SECTION 505 - HANDRAILS (REFERENCE FIGURES 505.10.1, 505.10.2, 3)
A. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS. NON-CONTINUOUS STAIR HANDRAILS SHALL EXTEND 12" BEYOND THE TOP RISER AND THE WIDTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT THE TOP, THE EXTENSION SHALL BE PARALLEL TO THE FLOOR. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF ONE TREAD WIDTH. NON CONTINUOUS RAMP HANDRAILS SHALL EXTEND 12" MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS.
B. HEIGHT: 34"-38", MEASURED FROM THE STAIR NOSING.
C. CLEARANCE BETWEEN HANDRAIL AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM.
D. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
E. HANDRAILS ARE REQUIRED ON RAMP RUNS GREATER THAN 6" IN RISE.

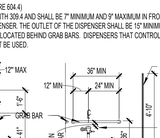




CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

TAS SECTION 602 - DRINKING FOUNTAINS
A. DRINKING FOUNTAINS SHALL COMPLY WITH 307 (PROTRUDING OBJECTS) AND 602.
B. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCES MUST COMPLY WITH 306. OPERABLE PARTS SHALL COMPLY WITH 309. (FIG. 602.5)
TAS SECTION 602.4 - SPOUT HEIGHT (REFERENCE FIGURE 602.4 FOR ACCESSIBLE UNIT)
A. ACCESSIBLE SPOUTS SHALL BE A MAXIMUM 36" ABOVE THE FINISH FLOOR OR GROUND.
TAS SECTION 602.5 - SPOUT LOCATION (REFERENCE FIGURE 602.5)
A. THE SPOUT SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.
B. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4" HIGH AND SHALL BE LOCATED 5" MAXIMUMFROM THE FRONT OF THE UNIT.
C. WHERE SPOUTS ARE LOCATED LESS THAN 2" FROM THE FRONT OF THE UNIT, THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE THE SPOUT IS LOCATED BETWEEN 2"-5" MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.
TAS SECTION 602.7 - DRINKING FOUNTAINS FOR STANDING PERSONS
A. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. (FIG. 602.4)





* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS

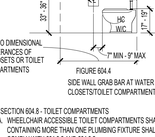
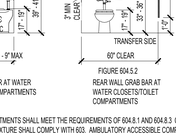


FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION



TAS SECTION 603 - TOILET AND BATHING ROOMS
A. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM. (60" DIAMETER OR T-SHAPED SPACE PER 304.3.2)
B. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP.
C. DOOR SWINGS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS CAN SWING INTO THE REQUIRED TURNING SPACE.
TAS SECTION 603.3 - MIRRORS
A. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED SO THE BOTTOM EDGE OF THE REFLECTING SURFACE IS 40" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT INSTALLED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE 35" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
TAS SECTION 603.4 - COAT HOOKS AND SHELVES
A. COAT HOOKS SHALL BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" ABOVE THE FINISH FLOOR.
TAS SECTION 604 - WATER CLOSETS AND TOILET COMPARTMENTS
A. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16" MINIMUM AND 18" MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT IN AN AMBULATORY ACCESSIBLE TOILET COMPARTMENT WHERE THE CENTERLINE OF THE WATER CLOSET MAY BE 17" MINIMUM AND 19" MAXIMUM FROM THE SIDE WALL OR PARTITION. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT-HAND OR RIGHT-HAND APPROACH. (FIG. 604.3.1, 604.8.2)
TAS SECTION 604.3 - CLEARANCE
A. CLEARANCES AROUND WATER CLOSETS AND IN TOILET COMPARTMENTS SHALL COMPLY WITH FIGURE 604.3.1

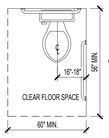


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

TAS SECTION 604.3.2 - OVERLAP
A. THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.
TAS SECTION 604.4 - SEATS (REFERENCE FIGURE 604.4)
A. THE SEAT HEIGHT OF A WATER CLOSET ABOVE FINISH FLOOR SHALL BE 17"-19" MAXIMUM MEASURED TO THE TOP OF SEAT.
   1. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION
TAS SECTION 604.5 - GRAB BARS (REFERENCE FIGURES 604.4, 604.5.2)
A. GRAB BARS SHALL COMPLY WITH 609 AND BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL.
   1. GRAB BARS SHALL NOT BE REQUIRED IN A TOILET ROOM FOR A SINGLE USE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON OR PUBLIC USE PROVIDED THAT REINFORCEMENT HAS BEEN INSTALLED IN WALLS AND LOCATED SO AS TO PERMIT THE INSTALLATION OF GRAB BARS COMPLYING WITH 604.5
B. FOR WATER CLOSETS NOT LOCATED IN TOILET STALLS, THE FOLLOWING GRAB BARS SHALL BE PROVIDED, 33"-36" ABOVE THE FINISH FLOOR"
   1. SIDE WALL: 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM BACK WALL. NOTE: INCLUDE 18" VERTICAL GRAB BAR PER ICC A117.1.
   2. REAR WALL: 36" LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON ONE SIDE AND 24" MINIMUM ON THE OTHER SIDE. REFER TO 609 GRAB BARS FOR SIZE AND STRUCTURAL ELEMENTS.
TAS SECTION 604.5.2 - REAR WALL
A. THE REAR GRAB BAR SHALL BE PERMITTED TO BE 24 INCHES LONG MINIMUM, CENTERED ON THE WATER CLOSET WHERE WALL SPACE DOES NOT PERMIT A LENGTH OF 36 INCHES MINIMUM DUE TO THE LOCATION OF A RECESSED FIXTURE ADJACENT TO THE WATER CLOSET.
B. WHERE AN ADMINISTRATIVE AUTHORITY REQUIRES FLUSH CONTROLS FOR FLUSH VALVES TO BE LOCATED IN A POSITION THAT CONFLICTS WITH THE LOCATION OF THE REAR GRAB BAR, THEN THE REAR GRAB BAR SHALL BE PERMITTED TO BE SPLIT OR SHIFTED TO THE OPEN SIDE OF THE TOILET AREA.
TAS SECTION 604.6 - FLUSH CONTROLS (REFERENCE FIGURE 604.5.2)
A. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.
TAS SECTION 604.7 - DISPENSERS (REFERENCE FIGURE 604.4)
A. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7" MINIMUM AND 9" MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS THAT CONTROL DELIVERY OR DO NOT PERMIT CONTINUOUS PAPER FLOW SHALL NOT BE USED.

FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

TAS SECTION 604.8 - TOILET COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.
TAS SECTION 604.8.1 - WHEELCHAIR ACCESSIBLE COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1
B. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL AND 56" DEEP MINIMUM FOR WALL-HUNG WATER CLOSETS AND 59" DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDREN'S USE SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE WALL AND 59" DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.

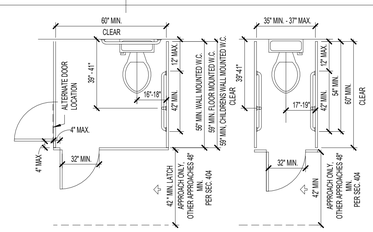


FIGURE 604.8.2
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

CLEARANCES INDICATED ARE MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REFER TO TOILET ROOMS AND LAVATORY DETAILS FOR MOUNTING HEIGHTS.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES (CONTINUED)

TAS SECTION 604.8.1.2 - DOORS (REFERENCE FIGURES 604.8.1.2, 604.8.2)
A. TOILET COMPARTMENTS DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42" MINIMUM. DOORS SHALL BE LOCATED IN THE FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE FRONT PARTITION. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.
B. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET.
TAS SECTION 604.8.1.4 - TOE CLEARANCE
A. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9" MINIMUM ABOVE FINISH FLOOR AND 6" DEEP MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDRENS USE SHALL PROVIDE 12" MINIMUM TOE CLEARANCE ABOVE FINISH FLOOR.
TAS SECTION 604.8.2 - AMBULATORY ACCESSIBLE COMPARTMENTS
A. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH FIGURE 604.8.2
B. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60" MINIMUM AND A WIDTH OF 35"-37" MAXIMUM.
C. GRAB BARS IN AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR THAT IS 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM THE REAR WALL AND EXTENDING 54" MINIMUM FROM THE REAR WALL SHALL BE LOCATED ON BOTH SIDES OF COMPARTMENT.
D. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" MAXIMUM ABOVE THE FINISH FLOOR.
TAS SECTION 605 - URINALS
A. URINALS SHALL BE STALL-TYPE OR WALL-HUNG WITH THE RIM 17" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13 1/2" DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK SIDE OF THE FIXTURE. (FIG. 605.2)
B. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.

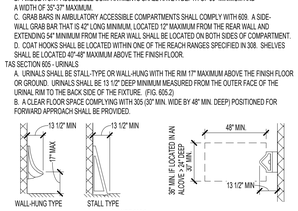
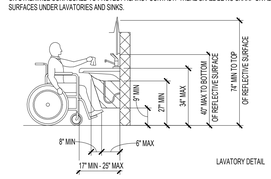
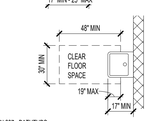


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

TAS SECTION 606 - LAVATORIES AND SINKS
A. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP), POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCES COMPLYING WITH 306 SHALL BE PROVIDED.
   1. SOAP AND TOWEL DISPENSERS MUST ALSO BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. LOCATE SOAP AND TOWEL DISPENSERS SO THEY ARE EASY TO USE BY A PERSON AT THE ACCESSIBLE LAVATORY.
B. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER RIM OR COUNTER SURFACE 34" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
C. CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND-OPERATED METERING FAUCETS SHALL REMAIN FOR 10 SECONDS MINIMUM.
D. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.



LAVATORY DETAIL



TAS SECTION 607 - BATHTUBS
A. CLEARANCE IN FRONT OF BATHTUBS SHALL EXTEND THE LENGTH OF THE BATHTUB AND SHALL BE 30 INCHES WIDE MINIMUM. A LAVATORY COMPLYING WITH 606 SHALL BE PERMITTED AT THE CONTROL END OF THE CLEARANCE. WHERE A PERMANENT SEAT IS PROVIDED AT THE HEAD END OF THE BATHTUB, THE CLEARANCE SHALL EXTEND 12" MINIMUM BEYOND THE WALL AT THE HEAD END OF THE BATHTUB.
B. A PERMANENT SEAT AT THE HEAD END OF THE BATHTUB OR A REMOVABLE IN-TUB SEAT SHALL BE PROVIDED. SEATS SHALL COMPLY WITH 610.
C. GRAB BARS FOR BATHTUBS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH FIGURES 607.4.1

TAS SECTION 608 - SHOWER COMPARTMENTS
A. SHOWER STALLS SHALL BE 36" X 36" CLEAR INSIDE DIMENSION AT TRANSFER TYPE SHOWER COMPARTMENTS AND HAVE A 36" MINIMUM WIDE BY 48" MINIMUM LONG CLEARANCE MEASURED FROM THE CONTROL WALL. ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 30" MINIMUM WIDE BY 60" MINIMUM LONG AND SHALL HAVE A 30" MIN WIDE X 60" MIN LONG ENTRY ON THE FACE OF THE SHOWER COMPARTMENT. ALTERNATE ROLL-IN SHOWER TYPE COMPARTMENTS SHALL BE 36" MINIMUM WIDE AND 60" MINIMUM DEEP CLEAR INSIDE DIMENSIONS WITH A 36" WIDE MINIMUM ENTRY PROVIDED AT ONE END OF THE LONG SIDE OF THE COMPARTMENT.

TAS SECTION 608.3.1 - TRANSFER TYPE SHOWER COMPARTMENT
A. IN TRANSFER TYPE COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND BACK WALL TO A POINT 18" FROM THE CONTROL WALL
B. A FOLDING OR NON-FOLDING SEAT SHALL BE PROVIDED IN TRANSFER TYPE SHOWER COMPARTMENTS.
C. CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS SHALL COMPLY WITH 309.4
TAS SECTION 608.7 - THRESHOLDS
A. THRESHOLDS IN ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 1/2" HIGH MAXIMUM IN ACCORDANCE WITH 308. IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" HIGH SHALL BE BEVELED, ROUNDED, OR VERTICAL.

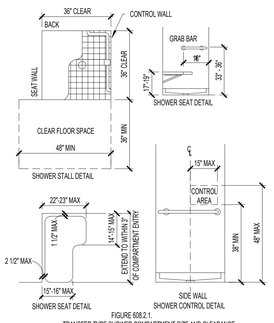
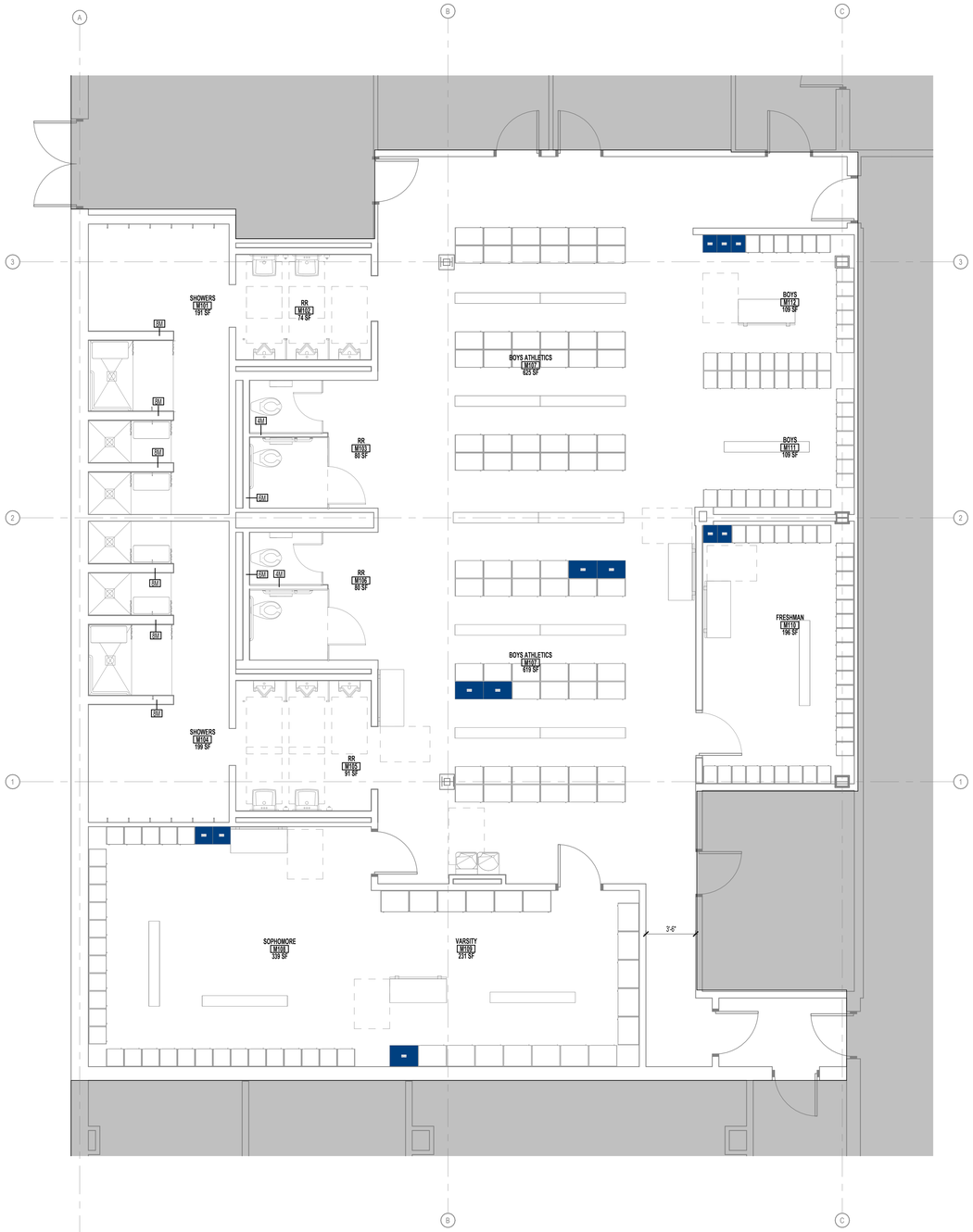


FIGURE 608.2.1.
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

TAS SECTION 609 - GRAB BARS
A. GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2" MAXIMUM AND A PERIMETER DIMENSION OF 4" MINIMUM AND 4.8" MAXIMUM.
B. THE SPACE BETWEEN THE WALL AND GRAB BAR SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW SHALL BE 1 1/2" MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12" MINIMUM.
C. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33" MINIMUM AND 36" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. REFER TO CHART FOR CHILDREN ACCESSIBLE HEIGHTS FOR EXCEPTIONS.
D. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A HORIZONTAL OR VERTICAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT OF THE GRAB BAR OR ANY OF ITS COMPONENTS.
TAS SECTION 610.2 - BATHTUB SEATS
A. SEAT SHALL BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 POUNDS AND SHALL HAVE THE FOLLOWING FEATURES:
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. REMOVABLE SEATS SHALL BE 15"-16" DEEP AND CAPABLE OF SECURE PLACEMENT.
   3. PERMANENT SEATS SHALL BE 15" DEEP MINIMUM AND EXTEND FROM THE BACK WALL TO OR BEYOND THE OUTER EDGE OF THE BATHTUB.
TAS SECTION 610.3 - SHOWER SEATS
A. SEATS SHALL BE L-SHAPED WITH THE REAR EDGE 2 1/2" MAXIMUM FROM THE WALL AND 15"-16" MAXIMUM FROM THE SEAT WALL. THE REAR EDGE OF THE "L" PORTION SHALL BE 1 1/2" MAXIMUM FROM THE WALL AND THE FRONT EDGE SHALL BE 14"-15" FROM THE WALL. THE END OF THE "L" SHALL BE 22"-23" FROM THE MAIN SEAT WALL. SEATS SHALL HAVE BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 LBS.
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. WHERE A SEAT IS PROVIDED IN A ROLL IN TYPE SHOWER IT MUST BE THE FOLD-UP TYPE.
TAS SECTION 611 - WASHING MACHINES AND CLOTHES DRYERS
A. TOP LOADING MACHINES SHALL HAVE THE DOOR TO THE LAUNDRY COMPARTMENT LOCATED 36" MAXIMUM ABOVE THE



01 CODE PLAN - GYM LOCKER ROOM 1

SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00 FOR DOOR SCHEDULE IDENTIFYING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL.
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2023 NATIONAL ELECTRICAL CODE
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)

2021 IBC COMPLIANCE DATA

CHAPTER 2 - DEFINITIONS
GRADE PLANE: A REFERENCE PLANE REPRESENTING THE AVERAGE OF FINISHED GROUND LEVEL ADJOINING THE BUILDING AT EXTERIOR WALLS. WHERE THE FINISHED GROUND LEVEL SLOPES AWAY FROM THE EXTERIOR WALLS, THE REFERENCE PLANE SHALL BE ESTABLISHED BY THE LOWEST POINTS WITHIN THE AREA BETWEEN THE BUILDING AND THE LOT LINE OR, WHERE THE LOT LINE IS MORE THAN 6 FEET (1829 MM) FROM THE BUILDING, BETWEEN THE BUILDING AND A POINT 6 FEET (1829 MM) FROM THE BUILDING.
GRADE PLANE = -7' BELOW PROJECT "0' 0" ELEVATION"

STORY ABOVE GRADE PLANE: ANY STORY HAVING ITS FINISHED FLOOR SURFACE ENTIRELY ABOVE GRADE PLANE, OR IN WHICH THE FINISHED SURFACE OF THE FLOOR NEXT ABOVE IS: 1. MORE THAN 6 FEET (1829 MM) ABOVE GRADE PLANE; OR 2. MORE THAN 12 FEET (3658 MM) ABOVE THE FINISHED GROUND LEVEL AT ANY POINT.

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS - NEW CONCESSION BUILDING
TABLE 504.3 & 504.4 & 506.2
GROUP E, TYPE II B, NOT SPRINKLED:
BUILDING HEIGHT: 55' ALLOWED; **15' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 2 STORIES ALLOWED; **1 STORIES ACTUAL**
BUILDING AREA: **14,500** SQUARE FEET PER STORY

TOTAL SF BUILDING: 4,393 SQUARE FEET

SECTION 508 - INCIDENTAL USES
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

TABLE 509 - MIXED USE AND OCCUPANCY
ELECTRICAL INSTALLATIONS AND TRANSFORMERS (SEE SECTIONS 110.26 THROUGH 110.34 AND SECTIONS 450.8 THROUGH 450.48 OF NFPA 70 FOR PROTECTION AND SEPARATION REQUIREMENTS.

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 - FOR CONSTRUCTION TYPE II B: 0 HOUR FIRE-RESISTANCE RATING REQUIREMENT FOR BUILDING ELEMENTS
NOTE: ELEMENTS INCLUDE PRIMARY STRUCTURAL FRAME, EXTERIOR AND INTERIOR WALLS, FLOOR AND ROOF CONSTRUCTION

SECTION 602 - CONSTRUCTION CLASSIFICATION
602 - FOR CONSTRUCTION TYPE II B: 0 HOUR FIRE RESISTANCE RATING FOR EXTERIOR WALLS IF < 10 FT. FROM OTHER STRUCTURES; ELSE 0

CHAPTER 6 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE II B - PER TABLES 601 & 602:
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED: PRIMARY STRUCTURE, BEARING & NONBEARING WALLS/ PARTITIONS (INTERIOR & EXTERIOR); FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTIBLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL - N/A

SECTION 707 - FIRE BARRIERS - N/A

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT) - N/A

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES: NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES; BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE.

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS NOT SPRINKLERED, BUILDING AREA IS LESS THAN 12,000 SQ. FT.

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
TABLE 1004.5 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

STORAGE, MECHANICAL	300 SQ. FT., GROSS
EDUCATION, CLASSROOM	20 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.2 - FOR OCCUPANT LOAD PER STORY:
CONCESSION BUILDING / LEVEL 1: 3 EXITS REQUIRED, 7 EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.8 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
1017.2 - FOR GROUP B W/O SPRINKLER SYSTEM: EXIT TRAVEL DISTANCE IS 200 FT.

CHAPTER 17: SPECIAL INSPECTIONS AND TESTS

STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS REQUIRING SPECIAL INSPECTIONS PER SECTION 705 OF THE IBC HAVE NOT BEEN LISTED HERE. REFER TO STRUCTURAL/MECHANICAL/ELECTRICAL FOR SPECIAL INSPECTION REQUIREMENTS FOR THESE COMPONENTS.
ITEMS OF ARCHITECTURAL CONSTRUCTION WHICH REQUIRE SPECIAL INSPECTION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1705.14 SPRAYED FIRE-RESISTANT MATERIALS
1705.15 MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS
1705.16.1 WATER-RESISTIVE BARRIER COATING
1705.17 FIRE-RESISTANT PENETRATIONS AND JOINTS
1705.18 TESTING FOR SMOKE CONTROL

2021 IECC COMPLIANCE DATA

CHAPTER 3 - GENERAL REQUIREMENTS

SECTION C301.1 - GENERAL
C301.1 - CLIMATE ZONE 2A

CHAPTER 4 - COMMERCIAL ENERGY EFFICIENCY

REFER TO COMCHECK FOR COMPLIANCE

C402.3 - EITHER THREE-YEAR AGED SOLAR REFLECTANCE OF 0.55 AND 3-YEAR AGED
THERMAL EMITTANCE OF 0.75 OR THREE-YEAR AGED SOLAR REFLECTANCE INDEX OF 64.
C402.4 - FOR CLIMATE ZONE 2 AND FIXED FENESTRATION: U-FACTOR OF 0.5
C402.4 - SOLAR HEAT GAIN COEFFICIENT REQUIREMENTS

PROJECTION FACTOR	SEW	N
PF <0.2	0.25	0.33
0.2 <= PF < 0.5	0.30	0.37
PF >= 0.5	0.40	0.40

SHGC OF SPECIFIED GLAZING = 0.25
U-VALUE OF SPECIFIED GLAZING = 0.33

C402.4.1 VERTICAL FENESTRATION SHALL NOT BE GREATER THAN 30 PERCENT OF GROSS
ABOVE-GRADE WALL AREA.

CODE REVIEW: IEBC 2021 - EXISTING BUILDING

CHAPTER 6 - REPAIRS	
NEW AND REPLACEMENT MATERIALS (SEC 602.2)	LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS, PROVIDED NO DANGEROUS OR UNSAFE CONDITION, AS DEFINED IN CHAPTER 2, IS CREATED.
GENERAL ACCESSIBILITY (SEC 605.1)	REPAIRS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF ACCESSIBILITY PROVIDED.
CHAPTER 7 - ALTERATIONS - LEVEL 1	
CONFORMANCE (SEC 701.2)	AN EXISTING BUILDING OR PORTION THEREOF SHALL NOT BE ALTERED SUCH THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITION. WHERE THE CURRENT LEVEL OF SAFETY OR SANITATION IS PROPOSED TO BE REDUCED, THE PORTION ALTERED SHALL CONFORM TO THE REQUIREMENTS OF THE IBC 2021.
INTERIOR FINISHES (SEC 702.2)	ALL NEWLY INSTALLED INTERIOR WALL AND CEILING FINISHES SHALL COMPLY WITH CHAPTER 8 OF THE IBC 2021. NEW INTERIOR FLOOR FINISH, INCLUDING CARPET USED AS AN INTERIOR FLOOR FINISH MATERIAL, SHALL COMPLY WITH SECTION 804 AND FOR IBC 2021.
CHAPTER 8 - ALTERATIONS - LEVEL 2	
COMPLIANCE (SEC 801.3)	ALL NEW CONSTRUCTION ELEMENTS, COMPONENTS, SYSTEMS, AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF THE IBC 2021.
FIRE ALARM AND DETECTION (SEC 804.4)	AN APPROVED AUTOMATIC FIRE DETECTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THIS CODE AND NFPA 72.
GROUP E OCCUPANCY (SEC 804.4.1.1)	A FIRE ALARM SYSTEM SHALL BE INSTALLED IN WORK AREAS OF GROUP E AS REQUIRED BY THE INTERNATIONAL FIRE CODE.

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

550 Dulles Ave, Sugarland, TX 77478

DULLES HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
30113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

	Date	Description
1		

100% CD

G0.03-D
01 CODE PLAN - GYM LOCKER ROOM

DULLES HIGH SCHOOL

12/4/2025 9:51:19 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_DULLES_ARCH_FBISD ATHLETIC RENOVATIONS BP012-D_R25.rvt

GENERAL

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES. THE CODES LISTED SHALL INCLUDE ALL AMENDMENTS AND ADDENDA IN FORCE AT THE DATE OF THE CONTRACT DOCUMENTS.

   2021 EDITION OF THE INTERNATIONAL BUILDING CODE

2. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL AND ARCHITECTURAL CONTRACT DOCUMENTS THE STRICTEST REQUIREMENTS SHALL GOVERN.

3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE AND REPORT ANY DISCREPANCIES OR INCONSISTENCIES FROM ASSUMED CONDITIONS TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.

4. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT THEY ARE CUT AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER.

5. DO NOT SCALE THE DRAWINGS.

6. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

7. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, AND CONSTRUCTION EQUIPMENT. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE.

10. IT IS THE DESIGN INTENT FOR ALL CONCRETE POURS TO HAPPEN IN SEQUENTIAL ORDER FROM FOUNDATIONS THROUGH ROOF. THE GENERAL CONTRACTOR SHALL DISCUSS WITH THE A/E TEAM THE FEASIBILITY OF NON-SEQUENTIAL POURING OF CONCRETE AND ITS IMPACT ON THE DESIGN INTENT AND ALLOW SUFFICIENT TIME FOR SUCH SCHEME TO BE INVESTIGATED OR REVIEWED.

11. PERIODIC SITE OBSERVATION BY THE ENGINEER IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

12. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBERS.

13. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, WALLS, SLABS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF STRUCTURAL ENGINEER.

14. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

15. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

    SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS,
    SIZE AND LOCATION OF INTERIOR AND EXTERIOR NON-LOAD BEARING PARTITIONS, SIZE AND LOCATION OF CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHAMFERS, GROOVES, INSERTS, ETC., SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS, FLOOR AND ROOF FINISHES,
    STAIR FRAMING AND DETAILS, DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, CEILING AND EXTERIOR WALL ASSEMBLIES.

16. SEE THE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

    PIPES, SLEEVES, HANGERS, TRENCHES, WALL, FLOOR AND ROOF OPENINGS, DUCT PENETRATIONS, ETC., EXCEPT AS SHOWN OR NOTED OTHERWISE
    ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS, CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL, OR PLUMBING FIXTURES, SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES AND ANCHOR BOLTS FOR MOUNTS.

DESIGN CRITERIA

1. DEAD LOAD MATERIALS ASSUMED IN THE DESIGN ARE SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

2. AN ALLOWANCE OF 15 PSF HAS BEEN MADE FOR PARTITIONS AS A UNIFORMLY DISTRIBUTED LIVE LOAD, WHEREVER PARTITIONS ARE USED AND LOCATION SUBJECT TO CHANGE EXCLUDING PUBLIC LOBBIES, CORRIDORS, RESTROOMS, AND PLACES OF PUBLIC ASSEMBLY.

3. LIVE LOADS:

LOCATION	UNIFORM LOAD	CONCENTRATED LOAD
ROOF	20 PSF REDUCIBLE	300 LBS
GROUND FLR, COMMON AREAS	100 PSF REDUCIBLE	
HANDRAILS AND GUARDRAILS	50 PLF OR 200 LBS APPLIED AT TOP RAIL IN ANY DIRECTION. 50 LBS IN ANY DIRECTION APPLIED AT INTERMEDIATE RAILS.	
GRAB BARS		250 LBS ANY DIRECTION

4. WIND LOADS

ULTIMATE WIND SPEED	134 MPH (3-SEC GUST)
NOMINAL WIND SPEED	104 MPH (3-SEC GUST)
RISK CATEGORY	II
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFF.	+/- 0.18
COMPONENTS & CLADDING	SEE DIAGRAM

5. SEISMIC LOADS

RISK CATEGORY	II
IMPORTANCE FACTOR	1.0
MAPPED ACCELERATION PARAMETERS	
SS	0.065
S1	0.037
SPECTRAL RESPONSE COEFFICIENTS	
SDS	0.07
SD1	0.06
SEISMIC DESIGN CATEGORY	A

CONCRETE

1. ALL ASPECTS OF WORK RELATING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CURRENT EDITION OF ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
   CRSI MANUAL OF STANDARD PRACTICE

2. STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTHS AND TYPES ARE AS FOLLOWS:

LOCATION	STRENGTH	TYPE	AGGREGATE SIZE	EXPOSURE CLASS
FOUNDATIONS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0

3. THERE SHALL BE NO HORIZONTAL COLD JOINT IN ANY CONCRETE POUR.

4. ADMIXTURES USED SHALL BE COMPATIBLE WITH FLOOR TREATMENTS. FINISH APPLICATOR SHALL APPROVE ADMIXTURES AND CURING COMPOUNDS PRIOR TO USE.

5. EXPOSURE CLASSES FOR FREEZING AND THAWING (F), SULFATE (S), WATER (W), AND CORROSION PROTECTION (C) HAVE BEEN PROVIDED. CONCRETE MIXES SHALL CONFORM TO ALL ACI 318 REQUIREMENTS BASED ON EXPSURE CLASS, INCLUDING, BUT NOT LIMITED TO WATER CEMENT RATIO, COMPRESSION STRENGTH, AIR CONTENT, CEMENTITIOUS MATERIALS, CALCIUM CLORIDE ADMIXTURES, AND WATER-SOLUABLE CHLORIDE ION CONTENT.

6. CONCRETE FOR SLAB-ON-GRADE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.45. ALL OTHER CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.50. ADJUST CONCRETE STRENGTH BEYOND MINIMUM SPECIFIED ABOVE TO MAINTAIN MAXIMUM WATER-CEMENT RATIO.

7. CONCRETE FOR SLAB-ON-GRADE AND METAL DECK SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.04% (400 MICROSTATIONS) AT 28 DAYS OF DRYING. LENGTH CHANGE SHALL BE MEASURED IN ACCORDANCE WITH ASTM C157.

8. FLY ASH CONFORMING TO ASTM C618, MAY BE USED UNLESS NOTED OTHERWISE. THE MAXIMUM AMOUNT OF FLY ASH SHALL BE 25% OF THE TOTAL CEMENTITIOUS MATERIAL BY WEIGHT.

9. AT POLISHED OR STAINED CONCRETE THE FLOOR FLATNESS (FF) SHALL BE 40 OR BETTER AND THE FLOOR LEVELNESS (FL) SHALL BE 30 OR BETTER UNLESS MORE STRINGENT REQUIREMENTS ARE PROVIDED IN THE SPECIFICATIONS.

10. CONCRETE FORMS SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS INDICATED ON THE STRUCTURAL DRAWINGS.

11. CONCRETE FOR SLABS TO RECEIVE A HARD-TROWELED FINISH SHALL NOT CONTAIN AIR-ENTRAINING ADMIXTURES OR HAVE A TOTAL AIR CONTENT GREATER THAN 3 PERCENT.

12. SUBMIT SHOP DRAWINGS TO ARCHITECT AND ENGINEER INDICATING LOCATIONS OF CONCRETE JOINTS TO REVIEW PRIOR TO PLACING CONCRETE. PLACE JOINTS AT LOCATIONS TO MINIMIZE THE EFFECTS OF SHRINKAGE AS WELL AS BEING PLACED AT POINTS OF LOW STRESS.

13. ROUGHEN CONCRETE SURFACES TO 1/4 INCH AMPLITUDE WHERE MASONRY WALLS INTERSECT CONCRETE OR WHERE NEW CONCRETE INTERFACES WITH EXISTING CONCRETE.

14. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB-ON-GRADE, CONCRETE ON METAL DECK, FRAMED CONCRETE FLOORS, AND WALLS DO NOT REQUIRE SLEEVES UNLESS NOTED OTHERWISE ON THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE ARCHITECT AND ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH CONCRETE BEAMS OR COLUMNS UNLESS SPECIFICALLY DETAILED.

15. WITH THE EXCEPTION OF SLABS ON GRADE AND CONCRETE ON METAL DECK, THE OUTSIDE DIAMETER OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS (OTHER THAN THOSE PASSING THROUGH) SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS AND SHALL BE CENTERED BETWEEN THE TOP AND BOTTOM REINFORCING WHICH MAY INTERFERE WITH DETAILED OTHERWISE. CONCENTRATIONS OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED. CONDUIT AND PIPE SHALL BE SPACED AT 3" OR 3 DIAMETERS ON CENTER, WHICHEVER IS GREATER.

16. FOR SLABS ON GRADE AND METAL DECK SLABS NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB UNLESS SPECIFICALLY DETAILED OTHERWISE.

17. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING WHEN TEMPORARY SUPPORTS, SHORES, BACKSHORES, AND OTHER BRACING MAY BE SAFELY REMOVED.

REINFORCING STEEL

1. ALL ASPECTS OF WORK RELATING TO THE REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CRSI MANUAL OF STANDARD PRACTICE

2. DEFORMED BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.

3. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185, YIELD STRENGTH 65,000 PSI. WELDED DEFORMED WIRE FABRIC FOR ASTM A497, YIELD STRENGTH 70,000 PSI. ALL WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS ONLY. WHEREVER WELDED WIRE FABRIC IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED ONE CROSS WIRE SPACING PLUS 2 INCHES.

4. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ONE HALF, WHICHEVER IS GREATER.

5. WELDING OF REINFORCING IS PERMITTED ONLY WHERE SHOWN ON THE DRAWINGS OR WHEN APPROVED BY THE ENGINEER OF RECORD. WELDING OF REINFORCING BARS SHALL BE WITH LOW HYDROGEN ELECTRODES IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF AWS D1.4.

6. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.

7. REINFORCING DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME NUMBER, SIZE, SPACING, AND GRADE AS THE SPECIFIED VERTICAL REINFORCING, UNO.

8. IN ADDITION TO ALL OF THE REINFORCING STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF REINFORCING BARS TO BE FURNISHED, FABRICATED, AND PLACED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

9. CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS SHALL BE AS FOLLOWS:

LOCATION OF CONCRETE	MINIMUM COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #18 BAR	2"
#5 BAR AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND	
SLABS, WALLS, JOISTS	3/4"
BEAMS, COLUMNS (INCLUDING TIES)	1 1/2"
SLAB ON GRADE	SEE DETAILS
PRESTRESSED CONCRETE	SEE IBC 1907.7.3

CONCRETE MASONRY

1. ALL MASONRY MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION AND THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF TMS-402 CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES

2. ALL CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C90. UNLESS SPECIFIED OTHERWISE, CMU SHALL BE NORMALWEIGHT (LESS THAN 125 PCF, OVEN DRY UNIT WEIGHT). THE MINIMUM COMPRESSIVE STRENGTH OF MASONRY (F'M) SHALL BE 2000 PSI AS DETERMINED BY THE UNIT STRENGTH METHOD OR BY THE PRISM TEST METHOD.

3. UNLESS SPECIFIED OTHERWISE, ALL MORTARS AND THE MATERIALS THEREIN SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF MASONRY UNITS, ASTM C270, TYPE S EXCEPT FOR MASONRY IN CONTACT WITH THE EARTH SHALL BE TYPE M.

4. ALL GROUT SHALL BE FINE GROUT CONTAINING SAND, PORTLAND CEMENT, AND LIME (OPTIONAL) FOR GROUT SPACES LESS THAN 2 INCHES IN ANY HORIZONTAL DIRECTION, UNLESS SPECIFIED OTHERWISE. GROUT SHALL ATTAIN A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 2500 PSI TESTED ACCORDING TO ASTM C476.

5. CONTROL JOINTS SHALL BE LOCATED PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS OR AT A MAXIMUM SPACING OF 24 FEET ON CENTERS OR 3 TIMES THE WALL HEIGHT, WHICHEVER IS LESS. ALL MASONRY UNITS SHALL BE PLACED IN RUNNING BOND.

6. PROVIDE HORIZONTAL JOINT REINFORCING (TRUSS OR LADDER TYPE, 9 GAUGE) AT 16 INCHES ON CENTER FOR ALL CMU WALLS LAID IN A RUNNING BOND AND AT 8 INCHES ON CENTER FOR ALL CMU WALL NOT LAID IN A RUNNING BOND. HORIZONTAL JOINT REINFORCING SHALL BE LAPPED A MINIMUM OF 6". REINFORCEMENT SHALL CONFORM TO ASTM A951 AND SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.

7. ALL HORIZONTAL REINFORCING STEEL IN BOND BEAMS AND LINTEL BLOCK UNITS SHALL BE CONTINUOUS AND UNITS SHALL BE SOLID GROUTED. PROVIDE 48 TIMES BAR DIAMETER LAP FOR HORIZONTAL REINFORCING IN BOND BEAMS. NO SPLICES SHALL BE PROVIDED FOR HORIZONTAL REINFORCING IN BLOCK LINTELS.

8. GROUT CELLS SOLID WHERE VERTICAL BARS ARE SHOWN ON THE DRAWINGS. VERTICAL BARS SHALL EXTEND FROM BOTTOM TO THE TOP OF THE WALL. AT EACH VERTICAL BAR, PROVIDE MATCHING BAR SIZE DOWEL INTO FOUNDATIONS. PROVIDE MINIMUM 48 TIMES BAR DIAMETER SPLICE FOR VERTICAL BARS WHERE REQUIRED AND/OR SHOWN ON THE DRAWINGS UNLESS NOTED OTHERWISE.

9. GROUT LIFTS SHALL TERMINATE TO FORM A GROUT KEY A MINIMUM OF 1 1/2" BELOW MORTAR JOINTS WHEN SUBSEQUENT GROUT LIFTS WILL HAPPEN AFTER PREVIOUS GROUT LIFTS HAVE SET. GROUT KEYS IN BOND BEAMS OR LINTELS SHALL NOT BE PERMITTED.

10. MAXIMUM GROUT POUR HEIGHT SHALL BE 5' - 4" (8 BLOCK COURSES).

11. PROVIDE A BOND BEAM AT THE TOP OF ALL CMU WALLS AND REINFORCE WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE. UNLESS NOTED OTHERWISE, ALL EXTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #5 CONTINUOUS AND ALL INTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #4 CONTINUOUS. BOND BEAM REINFORCING SHALL NOT BE CONTINUED THROUGH CONTROL JOINT LOCATIONS.

12. PROVIDE BOND BEAMS AT A MAXIMUM OF 48 INCHES ON CENTER IN ALL EXTERIOR AND LOAD BEARING CMU WALLS NOT LAID IN A RUNNING BOND (E.G. STACK BOND) REINFORCED WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE BOND BEAM REINFORCEMENT SHALL BE DISCONTINUED AT CONTROL JOINTS.

13. AT THE END OF EACH DAY AND DURING INCLEMENT WEATHER, ALL UNFINISHED MASONRY WORK SHALL BE COVERED AT THE TOP OF WALL AND EXTEND DOWN ALL SIDES A MINIMUM OF 24".

14. SEE TYPICAL DETAILS FOR INTERIOR WALL HEIGHT, BRACING AND REINFORCING REQUIREMENTS.

15. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH MASONRY WALLS DO NOT REQUIRE SLEEVES, UNLESS NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE GROUTING. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN GROUTED MASONRY IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH MASONRY LINTELS UNLESS SPECIFICALLY DETAILED.

16. ALL REINFORCED MASONRY WALLS WITH OPENINGS UP TO THREE (3) FEET WIDE, SHALL HAVE ONE VERTICAL BAR MINIMUM AT EACH SIDE OF OPENINGS. FOR OPENINGS LARGER THAN 3 FEET WIDE, PROVIDE TWO (2) VERTICAL BARS AT EACH SIDE OF OPENINGS UNLESS NOTED OTHERWISE. REINFORCING AT EDGES OF OPENING SHALL MATCH TYPICAL VERTICAL WALL REINFORCING (UNLESS NOTED OTHERWISE) AND SHALL EXTEND TO THE TOP OF WALL.

17. ALL REINFORCED MASONRY WALL CORNERS AND INTERSECTIONS SHALL HAVE ONE VERTICAL BAR (MINIMUM) IN GROUTED CELL. REINFORCING SHALL MATCH TYPICAL WALL VERTICAL REINFORCEMENT.

18. PROVIDE ONE VERTICAL BAR (MINIMUM) IN THE FIRST CELL EACH SIDE OF CONTROL JOINTS. REINFORCING SHALL MATCH TYPICAL VERTICAL WALL REINFORCING (UNLESS NOTED OTHERWISE) AND SHALL EXTEND TO THE TOP OF WALL.

STRUCTURAL STEEL

1. ALL ASPECTS OF WORK RELATING TO THE DESIGN, FABRICATION, DETAILING, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF THE AISC STEEL CONSTRUCTION MANUAL LATEST EDITION OF THE ANSI/AWS D1.1

2. STRUCTURAL STEEL MATERIALS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

WIDE FLANGE, CHANNELS	ASTM A992
ANGLES, PLATES, BARS	ASTM A572 GR 50
PIPES	ASTM A53 GR B
HSS (RECTANGULAR OR SQUARE)	ASTM A500 GR B (Fy = 46 KSI) OR GR C (Fy = 50 KSI)

3. SURFACES WHICH ARE TO BE FIREPROOFED WITH SPRAY-ON FIREPROOFING OR EMBEDDED IN CONCRETE SHALL NOT BE SHOP PAINTED. DO NOT PAINT TOP FLANGES OF COMPOSITE BEAMS NOR SURFACES OF MEMBERS WHERE WELDING OR HIGH STRENGTH FRICTION BOLTING WILL OCCUR. COORDINATE ALL SHOP PAINTING OF STRUCTURAL STEEL WITH ARCHITECT'S PAINTING REQUIREMENTS AS SPECIFIED ON THE ARCHITECTURAL DRAWINGS AND IN THE SPECIFICATIONS.

4. IT IS THE INTENTION OF THE PLANS AND SPECIFICATIONS THAT SHOP CONNECTIONS BE WELDED OR BOLTED AND THAT FIELD CONNECTIONS BE BOLTED, UNLESS DETAILED OTHERWISE ON THE DRAWINGS.

5. ALL WELDING SHALL COMPLY TO THE AMERICAN WELDING SOCIETY STANDARD (AWS D1.1). ALL WELDED JOINTS SHALL BE DETAILED AS INDICATED BY THE PREQUALIFIED JOINT DETAILS IN THE STRUCTURAL WELDING CODE. WELD LENGTHS CALLED FOR ON THE PLANS ARE THE NET EFFECTIVE LENGTH WELDED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED. ALL WELDS SHALL USE MINIMUM E70XX ELECTRODES.

6. ALL WELDING SHALL BE PERFORMED BY A WELDER CERTIFIED IN ACCORDANCE WITH THE AWS STANDARDS.

7. MISCELLANEOUS STEEL CONNECTIONS SHALL BE WELDED ALL AROUND WITH AISC MINIMUM FILLET WELD UNLESS A LARGER WELD IS SPECIFIED. STEEL MEMBERS CONTINUOUSLY ATTACHED SHALL BE STITCH WELDED TOGETHER WITH AISC MINIMUM 2" LONG FILLET WELD AT 12" O.C. UNLESS A LARGER WELD OR DIFFERENT GAGE IS SPECIFIED.

8. ALL STEEL EXPOSED TO WEATHER OR OUTSIDE THE BUILDING'S WATERPROOFING, SUCH AS BRICK SHELF ANGLES, SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION AS SPECIFIED BY THE STEEL STRUCTURES PAINTING COUNCIL (SSPC). THE ZINC COATING FOR STEEL SHAPES AND PLATES SHALL AVERAGE NOT LESS THAN 2.3 OZ. WITH NO INDIVIDUAL THICKNESS LESS THAN 2.0 OZ.

9. GALVANIZE ALL NUTS, BOLTS, AND WASHERS USED IN THE CONNECTION OF GALVANIZED STEEL.

10. GALVANIZED MEMBERS SHALL HAVE "Z.R.C. COLD GALVANIZING COMPOUND OR APPROVED EQUIVALENT APPLIED TO FIELD WELDED CONNECTIONS. SURFACE AREAS TO RECEIVE COLD GALVANIZING COMPOUND SHALL BE CLEAN OF DIRT AND DEBRIS PRIOR TO COMPOUND APPLICATION. SEE MANUFACTURER'S LITERATURE FOR ADDITIONAL RECOMMENDATIONS.

11. THE APPLICATION OF THE FIREPROOFING TO THE STEEL MEMBERS AND STEEL DECK IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST ENFORCE THE REQUIREMENTS OF THE MANUFACTURER AND NOT IMPOSE ADDITIONAL LOADS, INCLUDING CONSTRUCTION LIVE LOADS, DURING THE APPLICATION AND CURING OF THE FIREPROOFING.

12. IN ADDITION TO ALL OF THE STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF STEEL TO BE FURNISHED, FABRICATED, DETAILED, AND ERECTED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

13. THE CONTRACTOR SHALL MAKE AN ALLOWANCE FOR THE ADJUSTMENT AND DETAILING OF STEEL DURING THE SHOP DRAWING REVIEW PROCESS.

SPECIAL INSPECTION

1. ALL ASPECTS OF WORK RELATING TO SPECIAL INSPECTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   2015 INTERNATIONAL BUILDING CODE (CHAPTER 17).

2. THE OWNER'S SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

3. PRIOR TO THE BEGINNING OF CONSTRUCTION, THE ARCHITECT (OR ENGINEER) SHALL CALL A PRE-CONSTRUCTION MEETING WITH THE ARCHITECT, ENGINEER, BUILDING OFFICIAL, CONTRACTOR AND SPECIAL INSPECTORS TO REVIEW THE SPECIAL INSPECTION REQUIREMENTS.

4. DUTIES OF THE OWNER'S SPECIAL INSPECTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. ACKNOWLEDGE THE SPECIAL INSPECTION AND TESTING AGREEMENT PROVIDED BY THE LOCAL JURISDICTION.

   B. THE OWNER'S SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND TO THE BUILDING OFFICIAL.

   C. THE OWNER'S SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, ARCHITECT, REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, CONTRACTOR AND (OTHER DESIGNATED PARTIES), IN A TIMELY MANNER, AS ESTABLISHED AT THE PRE-CONSTRUCTION MEETING.

   D. THE OWNER'S SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE.

5. DUTIES OF THE CONTRACTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. NOTIFY THE SPECIAL INSPECTOR THAT THE WORK IS READY FOR INSPECTION AT LEAST 24 HOURS BEFORE SUCH INSPECTION.

   B. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED AND INDICATED TO BE IN CONFORMANCE BY THE SPECIAL INSPECTOR AND APPROVED BY THE BUILDING OFFICIAL.

   C. PROVIDE THE SPECIAL INSPECTOR WITH ACCESS TO APPROVED CONSTRUCTION DOCUMENTS AT JOBSITE.

   D. MAINTAIN AT THE JOBSITE COPIES OF ALL REPORTS SUBMITTED BY THE SPECIAL INSPECTOR.

6. CONTINUOUS SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS CONTINUOUSLY PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED.

7. PERIODIC SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.

8. SPECIAL INSPECTIONS AND TESTING SHALL BE REQUIRED FOR THE FOLLOWING TYPES OF WORK LISTED BELOW. SPECIAL INSPECTIONS AND TESTING SHALL FOLLOW THE REQUIREMENTS OF THE BUILDING AND MATERIAL CODE REFERENCES AND TABLES. IN THE EVENT OF A CONFLICT BETWEEN REFERENCES, THE OWNER'S SPECIAL INSPECTOR SHALL FOLLOW THE MORE STRINGENT REQUIREMENT.

SOILS	IBC 1705.6 AND TABLE 1705.6, APPROVED GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS
CONCRETE	IBC 1705.3 AND TABLE 1705.3
STEEL	IBC 1705.2 AND TABLE 1705.2.3 AND AISC 360 CHAPTER N AND SDI QA/QC DOCUMENT
SHOP FABRICATION	IBC 1704.2.5 (NOT REQUIRED IF FABRICATOR IS APPROVED IN ACCORDANCE WITH IBC 1704.2.5.1.
MASONRY	IBC 1705.4, TMS 402/ACI 530/ASCE 5 SECTION 3.1 AND T

ABBREVIATIONS

ABBR.	ABBREVIATION
A.F.F.	ABOVE FINISH FLOOR
ADDN'L	ADDITIONAL
AHU	AIR HANDLING UNIT
ALT.	ALTERNATE
ANCH.	ANCHOR
A.B.	ANCHOR BOLT
A.R.	ANCHOR ROD
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT(URAL)
BM.	BEAM
BRG.	BEARING
BTW	BETWEEN
BOT.	BOTTOM
B.F.B.	BOTTOM FLANGE BRACE
B.O.	BOTTOM OF
BRDG.	BRIDGING
BLDG	BUILDING
C	CAMBER
CANT.	CANTILEVER
C.I.P.	CAST IN PLACE
C/C	CENTER TO CENTER
CL	CENTERLINE
CH	CHANNEL
CLR.	CLEAR(ANCE)
CFMF	COLD FORMED METAL FRAMING
COL.	COLUMN
CJP	COMPLETE JOINT PENETRATION
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONST.	CONSTRUCTION
C.J.	CONSTRUCTION / CONTRACTION JOINT
CONT.	CONTINUOUS
COORD.	COORDINATE
DL	DEAD LOAD
DBA	DEFORM BAR ANCHOR
D	DEPTH
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
DWL	DOWEL
D.N.	DOWN
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
E.W.	EACH WAY
EL.	ELEVATION
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
ENGR.	ENGINEER
EOR	ENGINEER OF RECORD
EQ.	EQUAL
EQUIP.	EQUIPMENT
EQUIV.	EQUIVALENT
EXIST.	EXISTING
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
f'c=	28 DAY CONCRETE STRENGTH
FAB.	FABRICATE
F.S.	FAR SIDE
FIN	FINISH/FINISHED
FLR	FLOOR
F.D.	FLOOR DRAIN
FTG.	FOOTING
Fy=	YIELD STRENGTH
GALV.	GALVANIZED
GA.	GAUGE
GEN	GENERAL
G.C.	GENERAL CONTRACTOR
GFRC	GLASS FIBER REINFORCED CONCRETE
GR.	GRADE/GRADING
HGR.	HANGER
HSA	HEADED STUD ANCHOR
HI	HIGH
HSS	HOLLOW STRUCTURAL SECTION
HORIZ. OR (H)	HORIZONTAL
H	HORIZONTAL REACTION
IN	INCH
INFO.	INFORMATION
ID	INSIDE DIAMETER
I.F.	INSIDE FACE
INT.	INTERIOR
JT.	JOINT
JST.	JOIST
K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
Ld	DEVELOPMENT LENGTH
LWC	LIGHTWEIGHT CONCRETE
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLV	LONG LEG VERTICAL
LLH	LONG LGE HORIZONTAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LONG	LONGITUDINAL
LO	LOW
LBS	POUNDS
MFR. / MNFR.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM

MECH.	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M	MOMENT
M.C.	MOMENT CONNECTION
N.S.	NEAR SIDE
NWC	NORMAL WEIGHT CONCRETE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
O.C.	ON CENTER(S)
OPNG.	OPENING
OPP.	OPPOSITE
OPH.	OPPOSITE HAND
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OA	OVERALL
O.H.	OVERHEAD
OVS.	OVERSIZED HOLE
P	AXIAL LOAD
P.J.	PANEL JOINT
PAR.	PARALLEL
PRKG.	PARKING
PJP	PARTIAL JOINT PENETRATION
PVMT	PAVEMENT
PVG	PAVING
PERP.	PERPENDICULAR
PL.	PLATE
PLBG	PLUMBING
PT	POST-TENSION(ED)
PCF	POUNDS PER CUBIC FOOT/FEET
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT/FEET
PSI	POUNDS PER SQUARE INCH
P/C	PRECAST CONCRETE
PRELIM.	PRELIMINARY
P.L.	PROPERTY LINE
QTY	QUANTITY
R	RADIUS, REACTION, REMAINDER
REC.	RECESSED
RE:	REFER TO
REF.	REFERENCE
REINF.	REINFORCED / REINFORCING
REBAR	REINFORCING BAR
REQ'D	REQUIRED
REV.	REVISION
R.D.	ROOF DRAIN
RTU	ROOF TOP UNIT
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SLBB	SHORT LEG BACK TO BACK
SIM.	SIMILAR
SC	SLIP CRITICAL, SHEAR CONNECTOR
SPA.	SPACING
SPEC.	SPECIFICATION
SQ.	SQUARE
SF.	SQUARE FOOT/FEET
STD	STANDARD
STL	STEEL
STIFF.	STIFFENER
STIR.	STIRRUP
STRUCT.	STRUCTURE/STRUCTURAL
TEMP.	TEMPERED
THK	THICK(NESS)
t	THICKNESS, TREAD
THD	THREADED
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
VERT. OR (V)	VERTICAL
WT.	WEIGHT
WWR	WELD WIRE REINF.
WF	WIDE FLANGE
W	WIDTH
WL	WIND LOAD
W.P.	WORK POINT
XXS	DOUBLE EXTRA STRONG
XS	EXTRA STRONG
&	AND
≈	APPROXIMATELY EQUAL
@	AT
°	DEGREE
=	EQUAL
≥	GREATER THAN or EQUAL
≤	LESS THAN or EQUAL
#	NUMBER or POUNDS
/	PER
±	PLUS or MINUS
Ø	ROUND/DIAMETER

SYMBOLS LEGEND

SYMBOLS	DESCRIPTION
N	NORTH ARROW
XX / S-X.XX	ENLARGE FLOOR PLAN REFERENCE OR ENLARGE DETAIL REFERENCE
XX / S-X.XX	DETAIL SECTION (STRUCTURAL)
XX/SX.XX	BRACING ELEVATION
11 5/8" / 5"	DIMENSIONS
XX/S-X.XX / XX/S-X.XX	MATCHLINE
1	REVISION NUMBER & AFFECTED AREA
LEVEL NAME 0' - 0"	VERTICAL ELEVATION
EX: 152' - 6"	EXISTING ELEVATION
152' - 6"	NEW ELEVATION
	M.C. OR MOMENT CONNECTION
	DEPRESSION
	PANEL WALL TAG
12/36	BELL DIAMETER (IN) / BELLED PIER / SHAFT DIAMETER (IN)
P1	PILE SHAFT
F3	FOOTING

STRUCTURAL SHEET INDEX

SHEET NUMBER	SHEET NAME	Current Revision
S1.01-D	GENERAL NOTES	
S1.02-D	GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX	
S2.01-D	EXISTING FOUNDATION PLAN - GYM LOCKER ROOMS	
S2.02-D	EXISTING ROOF FRAMING PLAN - GYM LOCKER ROOMS	
S3.01-D	TYPICAL CMU WALL DETAILS	
S3.02-D	TYPICAL FOUNDATION DETAILS	

Grand total: 6

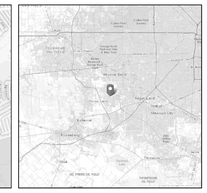
ASCE Hazards Report

Address: 3434 Pheasant Creek Dr Sugar Land, Texas 77498

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)

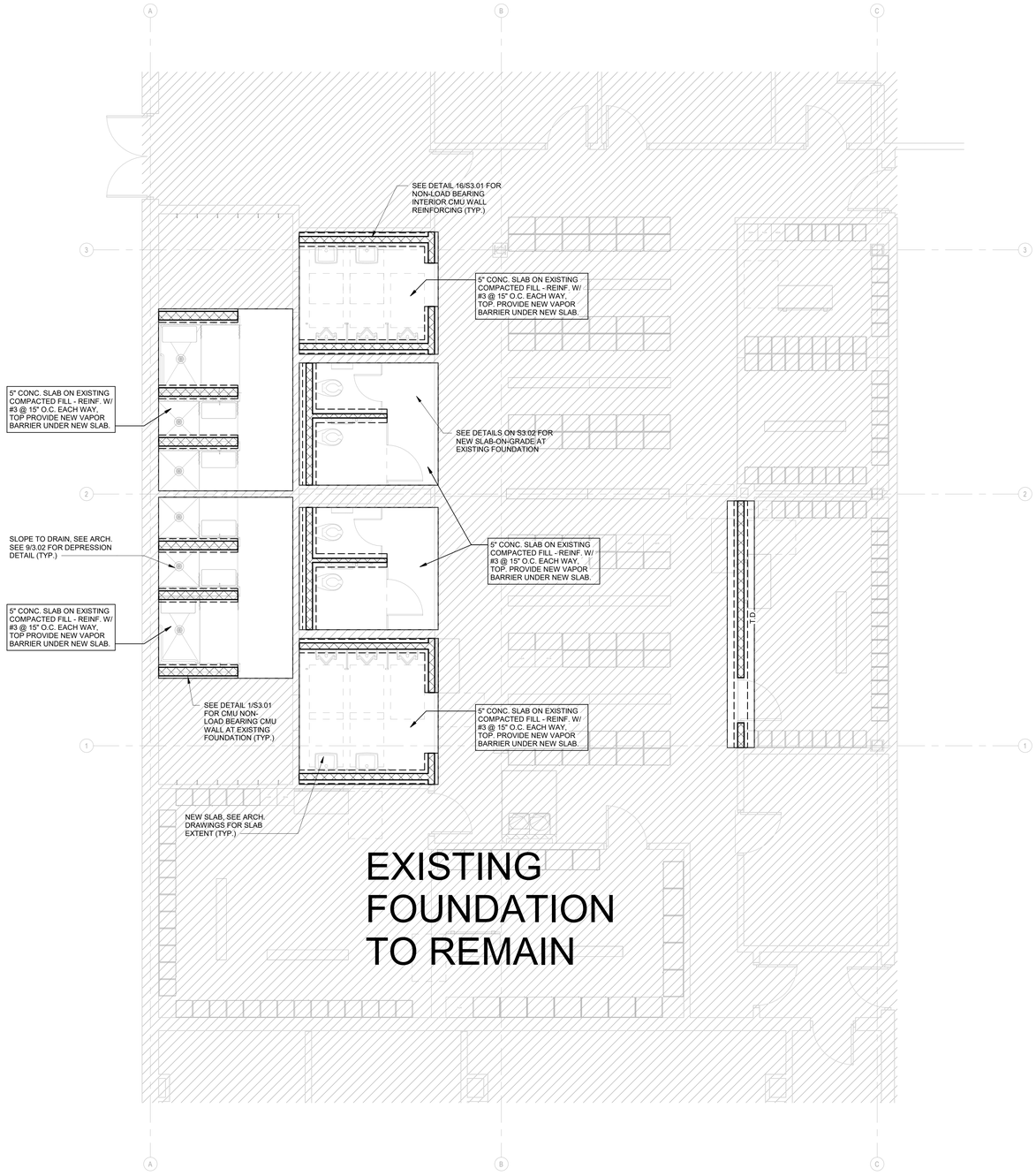
Latitude: 29.640985
Longitude: -95.677177
Elevation: 82.27436824629676 ft (NAVD 88)




Sugar Land
Meadow Creek Dr
Meadow Creek Dr
Meadow Creek Dr

FOUNDATION PLAN NOTES:

1. FIELD CORE LAB TO CONFIRM EXISTING FOUNDATION TO BE SLAB-ON-GRADE PRIOR TO DEMOLITION.
2. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
3. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATION.
4. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S302.
5. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
6. T.D. INDICATES TURN DOWNS. SEE DETAIL 13/S3.01.



1 EXISTING FOUNDATION PLAN - GYM LOCKER ROOMS
SCALE: 1/4" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

550 Dulles Ave, Sugarland, TX 77478

DULLES HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137125
LICENSED PROFESSIONAL ENGINEER
12/04/2025

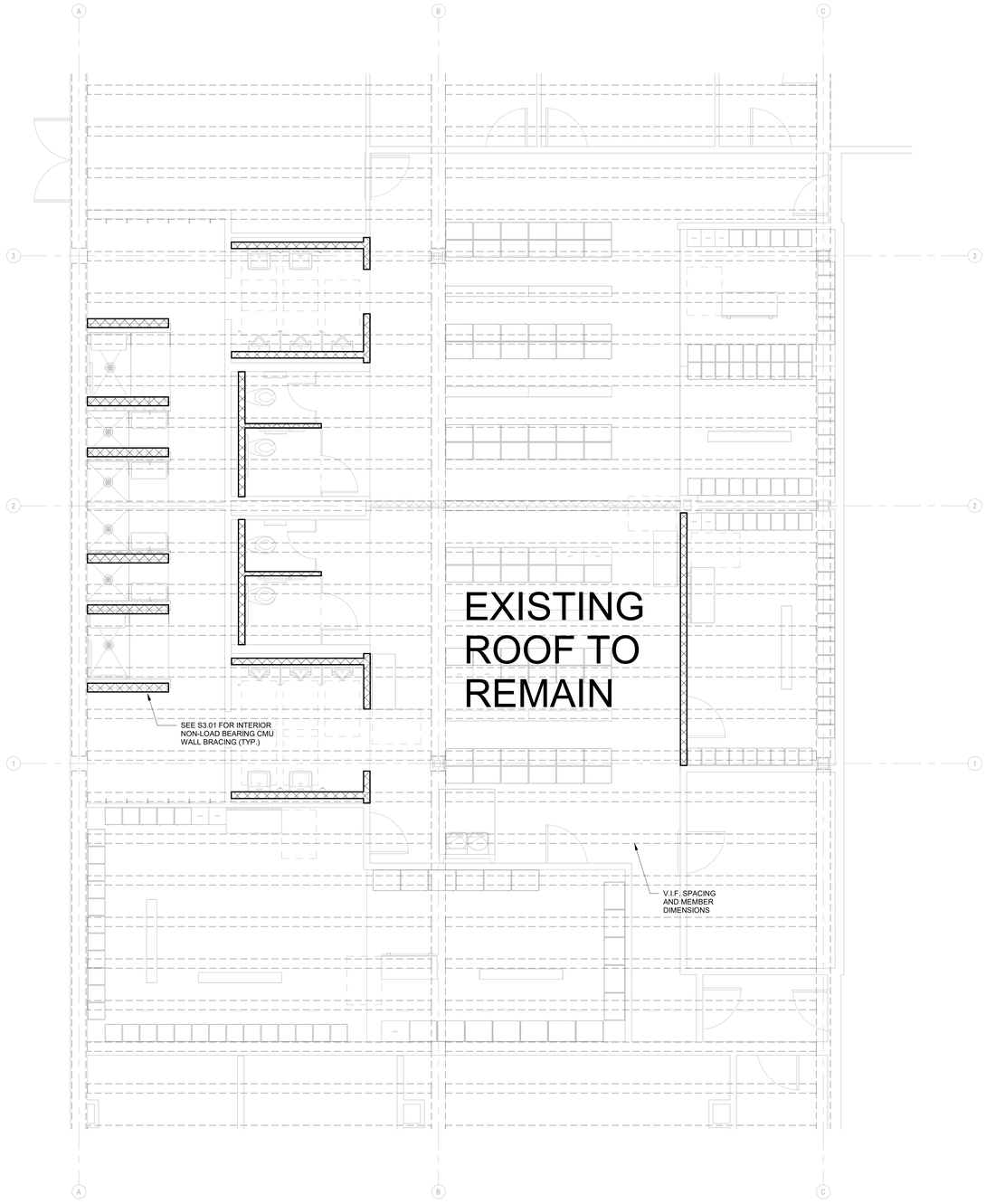
PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S2.01-D
EXISTING FOUNDATION PLAN - GYM LOCKER ROOMS

12/3/2025 10:28:21 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_DULLES_STRUCT_R25.rvt



1 EXISTING ROOF FRAMING PLAN - GYM LOCKER ROOMS
SCALE: 1/4" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
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STATE OF TEXAS
KHALIL TABAJA
137126
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S2.02-D
EXISTING ROOF FRAMING PLAN - GYM LOCKER ROOMS

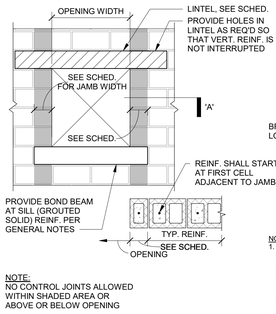
12/3/2025 10:28:22 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_DULLES_STRUCT_R25.rvt

INTERIOR NON-LOAD BEARING CMU WALL JAMB SCHEDULE							
WALL THICKNESS	SPANNING CMU HEIGHT	OPENING WIDTH					
		< 3' - 0"		< 6' - 0"		< 10' - 0"	
		# OF CELLS	REINF.	# OF CELLS	REINF.	# OF CELLS	REINF.
6"	14' - 0"	1	#4	1	#4	1	#4
6"	22' - 0"	1	#4	2	#4	2	#4
6"	33' - 0"	3	#5	4	#5	7	#5
6"	38' - 0"	5	#5	10	#5	NA	NA
8"	20' - 0"	1	#5	1	#5	1	#5
8"	37' - 6"	2	#5	2	(2)-#5	2	(2)-#5
8"	50' - 0"	3	(2)-#5	4	(2)-#6	5	(2)-#6
10"	24' - 0"	1	#5	1	#5	1	#5
10"	48' - 0"	1	(2)-#5	2	(2)-#5	2	(2)-#6
10"	58' - 0"	2	(2)-#5	3	(2)-#6	4	(2)-#6
12"	27' - 0"	1	#5	1	#5	1	#5
12"	52' - 0"	1	(2)-#5	2	(2)-#5	2	(2)-#6
12"	63' - 0"	2	(2)-#6	4	(2)-#6	6	(2)-#6

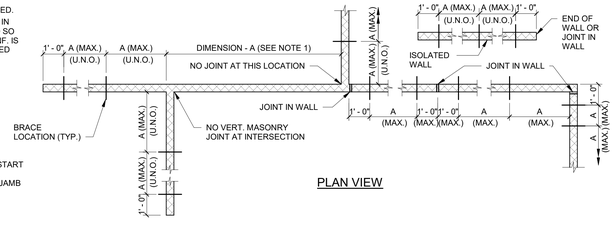
6" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
14' - 0"	NONE
15' - 6"	GROUT @ 48"
20' - 0"	(1)-#4 @ 56"
22' - 0"	(1)-#4 @ 48"
29' - 6"	(1)-#4 @ 24"
33' - 0"	(1)-#4 @ 16"
38' - 0"**	(1)-#4 @ 8"

8" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
20' - 0"	NONE
22' - 0"	GROUT @ 48"
27' - 0"	(1)-#5 @ 64"
33' - 6"	(1)-#5 @ 48"
37' - 6"	(1)-#5 @ 32"
43' - 0"	(2)-#5 @ 40"
50' - 0"	(2)-#5 @ 16"

** ONLY ALLOWED IF MAX OPENING IN WALL IS LESS THAN 6'-0" WITH 7'-0" JAMBS TO THE SIDE OF OPENING



NOTE:
NO CONTROL JOINTS ALLOWED WITHIN SHADED AREA OR ABOVE OR BELOW OPENING

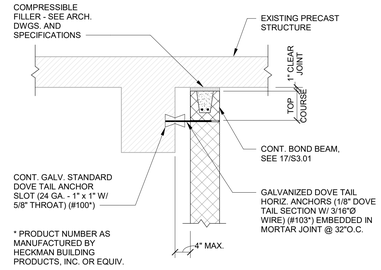


PLAN VIEW

NOTES:
1. ALL INTERIOR CMU WALLS SHALL BE BRACED AT TOP IF DISTANCE BETWEEN INTERSECTING WALLS (DIMENSION- A) IS MORE THAN 26 TIMES THE WALL NOMINAL THICKNESS. THERE SHALL BE NO JOINT BETWEEN WALLS AT THE INTERSECTIONS OR IN BETWEEN THE INTERSECTING WALLS. THERE SHALL BE NO DOORS OR ANY OTHER OPENINGS LARGER THAN 24 INCHES WITHOUT JAMB REINFORCING, SEE SCHEDULE FOR LARGER OPENINGS. MINIMUM LENGTH OF INTERSECTING WALLS SHALL BE 4 FEET.
2. REINFORCE VERTICALLY SPANNING CMU WALLS AS FOLLOWS:
3. AT FOUNDATION, PROVIDE DOWELS TO MATCH SIZE AND SPACING OF VERTICAL BARS.
4. SEE TYPICAL DETAILS ON STRUCTURAL/ARCHITECTURAL DRAWINGS FOR BRACING REQUIREMENTS AT THE TOP OF CMU WALLS. THIS DETAIL SHALL APPLY IF SPECIFIC REINFORCING AND BRACING DETAILS ARE NOT SHOWN ON ARCHITECTURAL/STRUCTURAL DRAWINGS.
5. CONSULT WITH ARCHITECT/ENGINEER WHEN HEIGHT OF WALL EXCEEDS THE HEIGHT SHOWN ABOVE.
6. PROVIDE CONTINUOUS BOND BEAM AT THE TOP OF WALLS. REINFORCE BOND BEAMS WITH (2) - #4 FOR 6" WALLS & (2)-#5 FOR 8" & 12" WALLS, UNLESS NOTED OTHERWISE.
7. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
8. CONTACT E.O.R. FOR CONDITIONS NOT LISTED ON SCHEDULE.

TYPICAL DETAIL - NON-LOAD BEARING INTERIOR/CMU WALLS BRACING AND REINFORCING STEEL

16 SCALE: N.T.S.



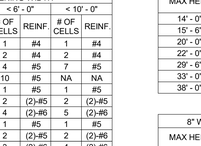
* PRODUCT NUMBER AS MANUFACTURED BY HECKMAN BUILDING PRODUCTS, INC. OR EQUIV.

NOTE:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.

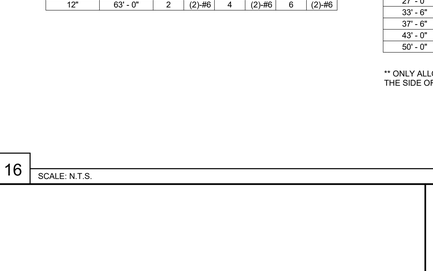
TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL SIDE CONNECTION TO CONCRETE BEAM

7 SCALE: 3/4" = 1'-0"

NOTES :
1. THIS DETAIL APPLIES AT ALL CMU WALL LOCATIONS WITHOUT GRADE BEAMS.
2. SEE PLAN FOR LOCATIONS MARKED "TURNDOWN", T.D. OR OTHERWISE NOTED.



AT UNREINFORCED WALLS

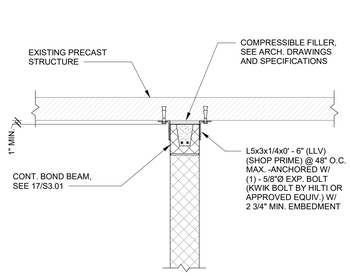


AT DOUBLE WALL

AT SINGLE WALL

TYPICAL DETAIL
TURNDOWN AT CMU WALL

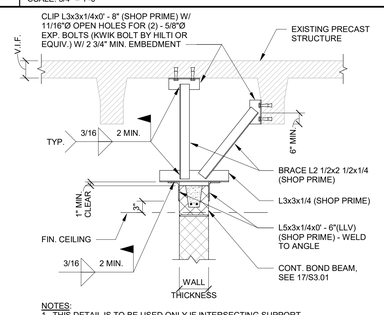
13 SCALE: 3/4" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 17/S3.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL TOP CONNECTION TO CONCRETE SLAB

6 SCALE: 3/4" = 1'-0"



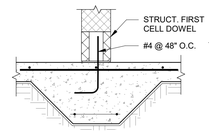
NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 17/S3.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL
NON-LOAD BEARING CMU WALL TOP CONNECTION TO CONCRETE JOIST (INTERIOR WALL PARALLEL TO JOIST)

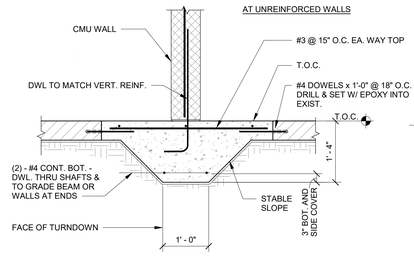
5 SCALE: 3/4" = 1'-0"

FOUNDATION TYPE							
	4" CMU	6" CMU			8" CMU		
GROUT	NONE	NONE	AT 48"	AT 24"	NONE	AT 48"	AT 24"
WALL HEIGHT (FT)							
0-10	1	1	1	1	1	1	1
12	1	1	1	1	1	1	2
14	1	1	1	2	1	2	2
16	1	1	2	2	2	2	2
18	1	2	2	2	2	2	2
20	2	2	2	2	2	2	2

NOTE :
THIS DETAIL APPLIES AT ALL CMU WALL LOCATIONS WITHOUT GRADE BEAMS. SEE NOTES ON DETAIL 20/SS.01 FOR BRACING INFORMATION.

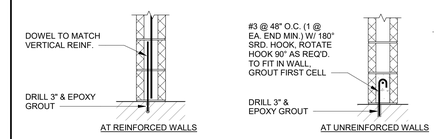


AT UNREINFORCED WALLS



NOTE:
SEE PLAN FOR LOCATIONS MARKED "TURNDOWN", T.D. OR OTHERWISE NOTED.

TYPE 2 DETAIL



AT REINFORCED WALLS AT UNREINFORCED WALLS

TYPE 1 DETAIL

TYPICAL DETAIL
EXISTING FOUNDATION AT NON-LOAD BEARING CMU WALL

1 SCALE: 3/4" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130

NSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

550 Dulles Ave, Sugarland, TX 77478

DULLES HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640



12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.01-D
TYPICAL CMU WALL DETAILS

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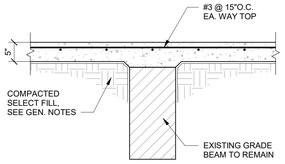
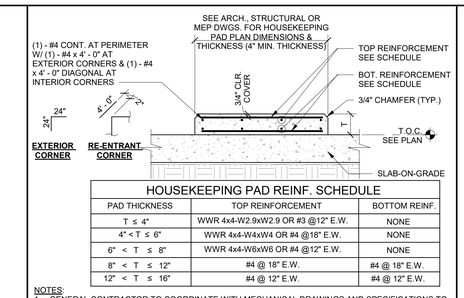


TYPICAL DETAIL
SLAB REPAIR OVER EXISTING BEAM

16 SCALE: 3/4" = 1'-0"



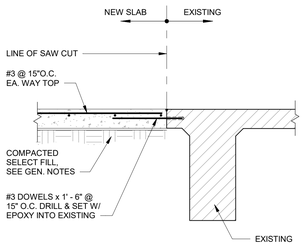
HOUSEKEEPING PAD REINF. SCHEDULE

PAD THICKNESS	TOP REINFORCEMENT	BOTTOM REINF.
T ≤ 4"	WWR 4x4-W2.9xW2.9 OR #3 @12" E.W.	NONE
4" < T ≤ 6"	WWR 4x4-W4xW4 OR #4 @18" E.W.	NONE
6" < T ≤ 8"	WWR 4x4-W6xW6 OR #4 @12" E.W.	NONE
8" < T ≤ 12"	#4 @ 18" E.W.	#4 @ 18" E.W.
12" < T ≤ 16"	#4 @ 12" E.W.	#4 @ 12" E.W.

NOTES:
1. GENERAL CONTRACTOR TO COORDINATE WITH MECHANICAL DRAWINGS AND SPECIFICATIONS TO DETERMINE REQUIREMENTS FOR HOUSEKEEPING PADS OVER SLAB-ON-GRADE AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT. COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AS REQUIRED.
2. PAD SHALL NOT BE POURED UNTIL AFTER SLAB HAS REACHED ITS SPECIFIED 28 DAYS STRENGTH.
3. CONCRETE FOR HOUSEKEEPING PAD SHALL BE NORMAL WEIGHT CONCRETE WITH f'c = 3,000 PSI.

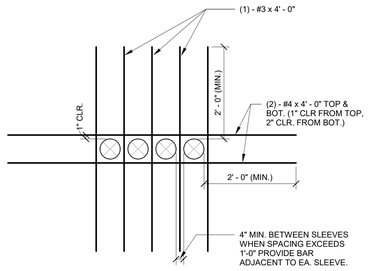
TYPICAL DETAIL
CONCRETE ISLAND OR HOUSEKEEPING PAD
SLAB-ON-GRADE

8 SCALE: N.T.S.

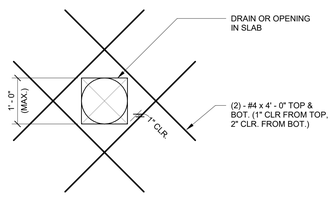


TYPICAL DETAIL
SLAB REPAIR NEAR BEAM

15 SCALE: 3/4" = 1'-0"



MULTIPLE OPENINGS
(PIPE SLEEVES)

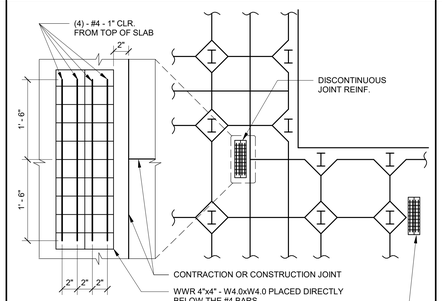


SINGLE DRAIN OR OPENING

NOTES:
1. COORDINATE OPENING SIZE AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONDUIT & PIPES OF ALUMINUM SHALL NOT BE PLACED IN CONCRETE UNLESS EFFECTIVELY COATED W/ PROTECTIVE MATERIAL TO PREVENT CHEMICAL REACTION.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT
OPENINGS AT SLAB-ON-GRADE

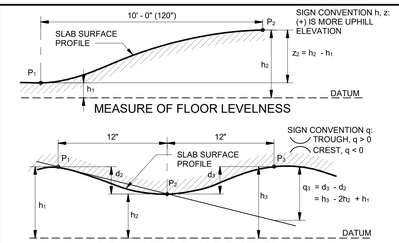
10 SCALE: N.T.S.



NOTE:
DISCONTINUOUS CONTRACTION OR CONSTRUCTION JOINTS SHOULD BE AVOIDED WHERE POSSIBLE.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT
DISCONTINUOUS JOINT IN SLAB-ON-GRADE

7 SCALE: N.T.S.



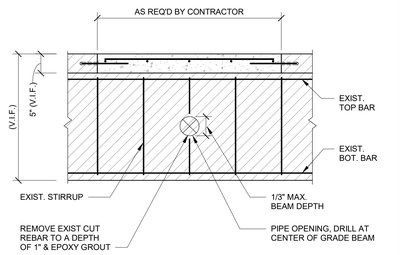
MEASURE OF FLOOR LEVELNESS

MEASURE OF FLOOR FLATNESS

NOTES:
1. F_L = LEVELNESS F-NUMBER
$F_L = \frac{12.5}{(3 \times S\bar{z}) + \bar{z}}$ WHERE $\bar{z}$ = MEAN VALUE OF ALL z FLOOR READINGS.
S_z = STANDARD DEVIATION OF ALL z FLOOR READINGS.
2. F_F = LEVELNESS F-NUMBER
$F_F = \frac{4.57}{(3 \times S\bar{q}) + \bar{q}}$ WHERE $\bar{q}$ = MEAN VALUE OF ALL z FLOOR READINGS.
S_q = STANDARD DEVIATION OF ALL q FLOOR READINGS
3. F_L AND F_F SHALL BE STATISTICALLY DETERMINED ACCORDING TO ASTM E 1155 "STANDARD TEST METHOD FOR DETERMINING FLOOR FLATNESS AND LEVELNESS USING THE F-NUMBER SYSTEM."
4. REFER TO CONCRETE SPECIFICATIONS FOR REQUIRED F_F AND F_L VALUES.

TYPICAL DETAIL
SLAB SURFACE TOLERANCE

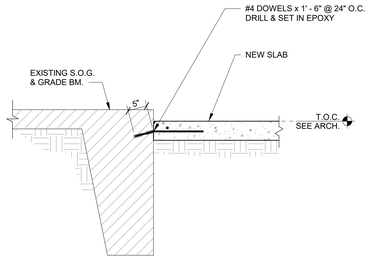
3 SCALE: N.T.S.



NOTE:
OPENINGS SHOULD ONLY BE PROVIDED WITHIN MIDDLE 8' - 0" OF GRADE BEAM SPAN AND MIDDLE 1/3 OF BEAM DEPTH.

TYPICAL DETAIL
PIPE OPENING THROUGH EXIST GRADE BEAM

18 SCALE: 3/4" = 1'-0"

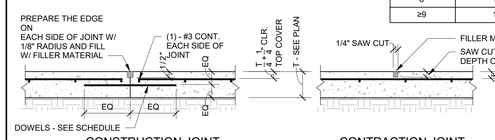


TYPICAL DETAIL
NEW SLAB-ON-GRADE AT EXISTING SLAB

14 SCALE: 3/4" = 1'-0"

DOWEL SCHEDULE			
SLAB DEPTH (IN.)	DOWEL DIAMETER (IN.)	TOTAL DOWEL LENGTH (IN.)	DOWEL SPACING CENTER TO CENTER (IN.)
5-6	3/4	16	12
7-8	1	18	12
9-11	1 1/4	18	12

CONTRACTION JOINT SPACING	
SLAB THK. (IN.)	JOINT SPACING (FT)
4	11
5	13
6	14
7	16
8	17
≥9	18

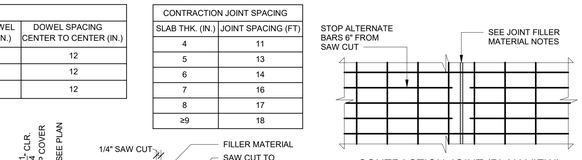


CONSTRUCTION JOINT

CONTRACTION JOINT

CONSTRUCTION JOINT NOTES:
1. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
2. BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDE WITH FORM OIL.
3. SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.
4. ALL DOWELS IN THIS DETAIL SHALL BE SMOOTH BAR DOWELS.

JOINT SPACING NOTE:
1. PROVIDE CONTRACTION AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN CENTERLINE AND AT A MAXIMUM SPACING AS SCHEDULED. ASPECT RATIOS OF SLAB PANELS ENCLOSED BY CONTROL JOINTS SHALL NOT EXCEED 1.5 TO 1.



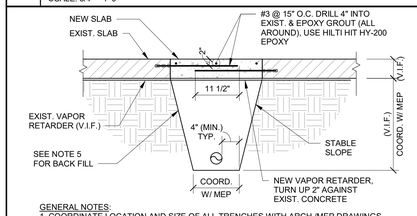
CONTRACTION JOINT (PLAN VIEW)

SAW CONTRACTION JOINT NOTES:
1. MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB.
2. ALL JOINTS SHALL BE CONTINUOUS. DO NOT OFFSET OR STAGGER JOINTS.
3. CLEAN JOINT PRIOR TO FILLING THE JOINT.

JOINT FILLER MATERIAL NOTES:
1. FILLER MATERIAL USED SHALL BE EPOXY RESINS WITH A MINIMUM SHORE "A" HARDNESS OF 80 AND SHALL CONFORM TO ASTM D2240. JOINT FILLER SHALL BE APPROVED BY ENGINEER PRIOR TO APPLICATION. INSTALL JOINT FILLER PER MANUFACTURER'S SPECIFICATIONS.
2. WHERE POSSIBLE, FILLER MATERIAL SHALL BE APPLIED WHEN BUILDING IS UNDER PERMANENT TEMPERATURE CONTROL. THIS SHALL BE EITHER AT THE END OF CONSTRUCTION OF THE COMPLETE BUILDING SHELL, OR A MINIMUM OF 90 DAYS AFTER SLAB CONSTRUCTION.
3. ALL EXPOSED SLAB JOINTS SHALL BE FILLED WITH FILLER MATERIAL.

TYPICAL DETAIL
CONSTRUCTION AND CONTRACTION JOINTS SLAB-ON-GRADE

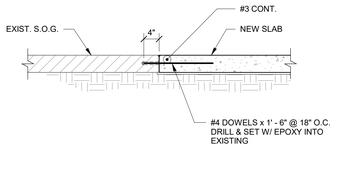
6 SCALE: N.T.S.



GENERAL NOTES:
1. COORDINATE LOCATION AND SIZE OF ALL TRENCHES WITH ARCH./MEP DRAWINGS.
2. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL HAVE 28 DAYS COMPRESSION STRENGTH OF MINIMUM 3,000 PSI (MAXIMUM AGGREGATE SIZE = 1 1/2"). MIX DESIGN SHALL CONFORM TO THE STANDARDS OF ACI 318 AND ACI 301.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
4. VAPOR RETARDER UNDER THE NEW SLAB SHALL BE 15 MIL STEGO VAPOR BARRIERS AS MANUFACTURED BY STEGO OR EQUIVALENT. ALL SEAMS SHALL BE OVERLAPPED MINIMUM 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE.
5. FILL UNDER THE NEW SLAB SHALL BE STRUCTURAL FILL (SANDY CLAY OR CLAYEY SAND) HAVING PLASTICITY INDEX BETWEEN 10 AND 20 AND LIQUID LIMIT NOT EXCEEDING 40. FILL MATERIAL SHALL BE PLACED IN 6 INCH LOOSE LIFTS AND COMPACTED TO AT LEAST 95% MAXIMUM DENSITY (ASTM D698). THE SELECT FILL SHALL BE MOISTURE ADJUSTED TO WITHIN 2% OF OPTIMUM MOISTURE CONTENT. AS AN ALTERNATE TO SELECT FILL, CONTRACTOR MAY UTILIZE CEMENT STABILIZED SAND FOR BACKFILLING TRENCHES. SAND SHALL BE CLEAN AND SHALL CONFORM TO ASTM C33 AND CEMENT SHALL CONFORM TO ASTM C150. SAND-CEMENT MIXTURE SHALL PROVIDE COMPRESSIVE STRENGTH OF MINIMUM 100 PSI WHEN COMPACTED TO MINIMUM 95% (ASTM D558). PLACE MATERIAL IN 8 INCH LOOSE LIFTS AND COMPACT TO MINIMUM 95% WITH MOISTURE CONTENT AT OPTIMUM OR BELOW OPTIMUM MOISTURE CONTENT.
6. V.I.F. - VERIFY IN FIELD.

TYPICAL DETAIL AT PLUMBING TRENCHES

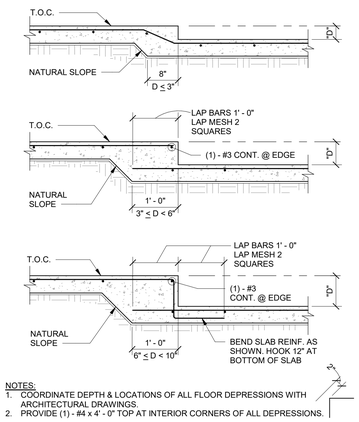
17 SCALE: 3/4" = 1'-0"



NOTE:
1. SAWCUT TOP 1" OF EXISTING SLAB PRIOR TO REMOVING EXISTING CONCRETE.

TYPICAL DETAIL
NEW SLAB-ON-GRADE AT EXISTING SLAB

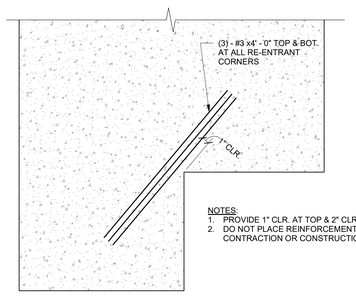
13 SCALE: 3/4" = 1'-0"



NOTES:
1. COORDINATE DEPTH & LOCATIONS OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE (1) - #4 x 4' - 0" TOP AT INTERIOR CORNERS OF ALL DEPRESSIONS.

TYPICAL DETAIL
AT FLOOR DEPRESSIONS

9 SCALE: N.T.S.

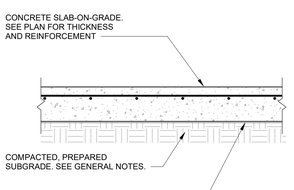


NOTES:
1. PROVIDE 1" CLR. AT TOP & 2" CLR. AT BOT.
2. DO NOT PLACE REINFORCEMENT ACROSS CONTRACTION OR CONSTRUCTION JOINTS.

SCHEMATIC SLAB-ON-GRADE

TYPICAL DETAIL
RE-ENTRANT CORNER BARS AT
SLAB-ON-GRADE

5 SCALE: N.T.S.



NOTE:
1. UNLESS SPECIFIED ELSEWHERE, VAPOR RETARDER SHALL BE A MINIMUM OF 15 MILS THICK (UNLESS THICKER SPECIFIED IN SPECS/ARCH. DRAWINGS) MEETING OR EXCEEDING ASTM E-1745, CLASS C, AND HAVE NO MORE THAN 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E-96.

TYPICAL DETAIL
SLAB-ON-GRADE CONSTRUCTION
SUBGRADE PREPARATION

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
550 Dulles Ave, Sugarland, TX 77478
DULLES HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640
STATE OF TEXAS
KHALIL TABAJA
117172
LICENSED
PROFESSIONAL ENGINEER
11/21/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

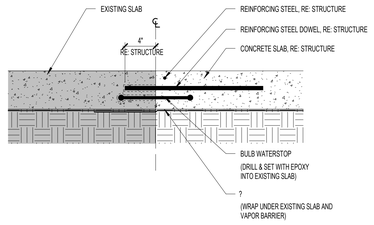
No.	Date	Description
	12/04/2025	100% CD

100% CD

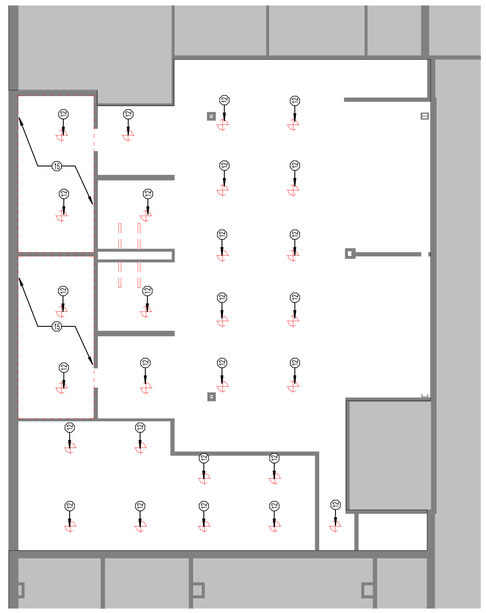
S3.02-D
TYPICAL FOUNDATION DETAILS

12/3/2025 10:28:24 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_DULLES_STRUCT_R25.rvt

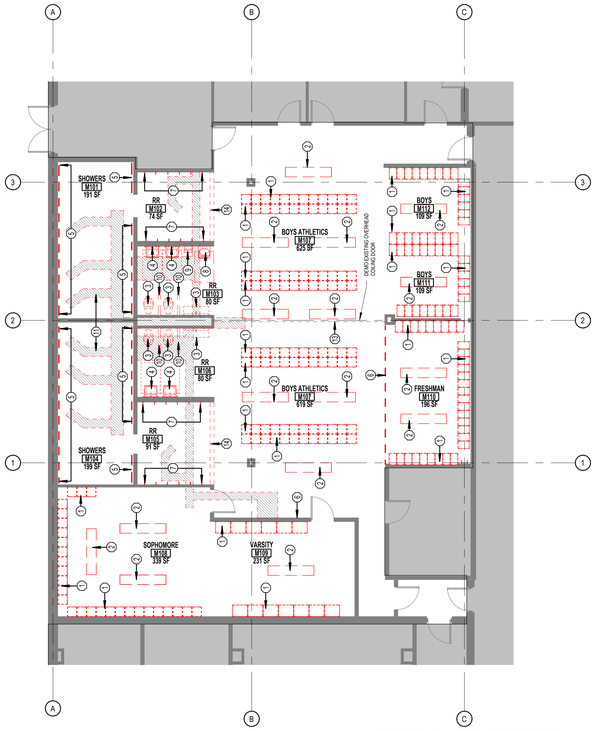
12/4/2025 9:51:28 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_DULLES_ARCH_FBISD ATHLETIC RENOVATIONS BP012-D_R25.rvt



SECTION DETAIL - NEW SLAB AT EXISTING SLAB 5
SCALE: 1 1/2" = 1'-0"



01 RCP - GYM LOCKER ROOM 1
SCALE: 1/8" = 1'-0"



01 DEMO PLAN - GYM LOCKER ROOM 2
SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

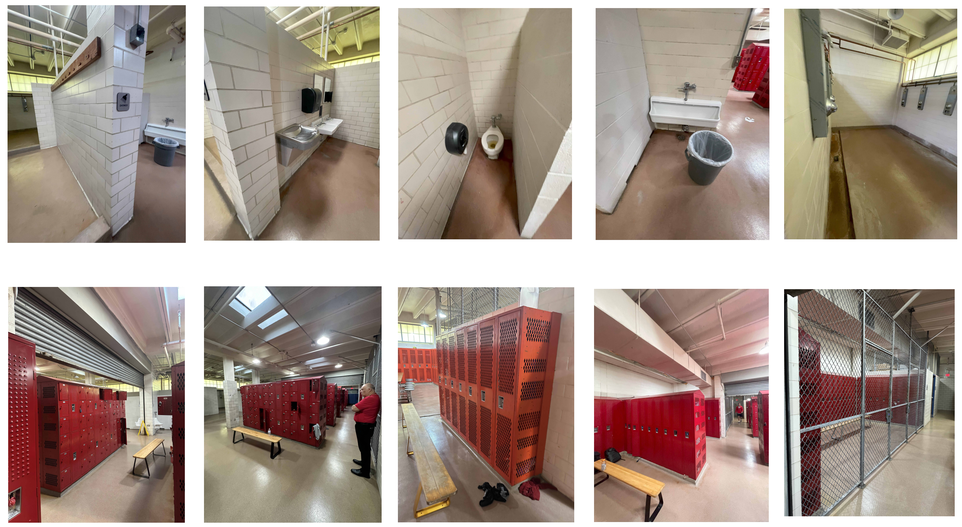
1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

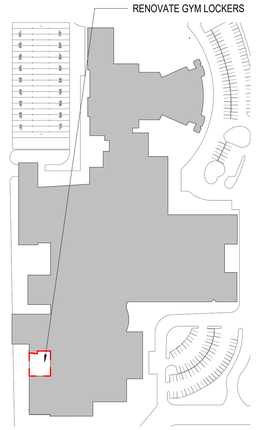
DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- (4) DEMO KEY NOTE

DEMOLITION KEY NOTES

TAG#	NOTE
1	DEMO EXISTING LOCKERS AND CONCRETE BASE. LEVEL CONCRETE FLOOR TO PREPARE FOR NEW FINISH
2	DEMO EXISTING BENCHES. REPAIR CONCRETE FLOOR AND PREP FOR NEW EPOXY FLOOR.
3	DEMO EXISTING PLUMBING FIXTURE, DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU.
4	DEMO EXISTING SINK, DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU.
5	DEMO EXISTING WALL MOUNTED SHOWER AND RELATED FIXTURES, DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU. REF TO MEP FOR ASSOCIATED DEMO.
6	DEMO EXISTING WIRE MESH PARTITION SURROUNDING LOCKERS
7	DEMO EXISTING ROBE HOOK AND CHANNEL. REFINISH AND REPAINT EXISTING WALL
8	DEMO EXISTING DRINKING FOUNTAIN, DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU.
9	DEMO EXISTING HAND DRYER, DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU.
10	DEMO EXISTING TOILET CMU PARTITION WALL
11	SAWCUT AND REMOVE EXISTING SLAB. REPLACE UNDERSLAB VAPOR BARRIER AND OVERLAP WITH EXISTING BARRIER ON ALL SIDES. TAPE BARRIER TO ENSURE CONTINUOUS BARRIER. REFERENCE SLAB REPAIR DETAIL 5/AD1.00-D
12	REMOVE EXISTING LIGHT FIXTURES AND SUPPORTS. REPAIR CEILING AND REPAINT, AND REPLACE WITH NEW SCHEDULED LIGHT FIXTURE AT SAME LOCATION. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPE AND WIRING REQUIREMENTS.
13	REMOVE EXISTING OVERHEAD DOOR AND ANY ASSOCIATED STRUCTURE AND EQUIPMENT. PATCH SURROUNDING FINISHES AND PREPARE FOR NEW FURR DOWN REF. A10 SHEETS FOR DETAIL
14	DEMO EXISTING CONCRETE CURB. SMOOTH FLOORING AND FINISH WITH EPOXY FLOORING TO MATCH EXISTING FINISH.
15	REMOVE EXISTING PAINT IN AREA. REPAINT ALL EXPOSED ITEMS/AREAS WITH FIELD PAINT P-1





BUILDING KEY PLAN- FIRST FLOOR
N.T.S



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

550 Dulles Ave, Sugarland, TX 77478

DULLES HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

	Date	Description

100% CD

AD1.00-D

01 DEMO PLAN - GYM LOCKER ROOM

DULLES HIGH SCHOOL

ABBREVIATIONS

A	
A.F.F.	ABOVE FINISH FLOOR
ACC.FL.	ACCESS FLOOR
A.P.	ACCESS PANEL
ACOUS.	ACOUSTICAL
ACT.	ACOUSTICAL CEILING TILE
ADD.	ADDENDUM
ADJNT.	ADJACENT
ADJ.	ADJUSTABLE
ADMIN.	ADMINISTRATION
AGG.	AGGREGATE
A/C	AIR CONDITIONING
ALT.	ALTERNATE, ALTERNATIVE
ALUM.	ALUMINUM
ANCH.	ANCHOR, ANCHORAGE
ANOD.	ANODIZED
APPROX.	APPROXIMATE
ARCH.	ARCHITECT
A.D.	AREA DRAIN
ASPH.	ASPHALT
AUTO.	AUTOMATIC
B	
BSMT.	BASEMENT
BM.	BENCH MARK
BTWN.	BETWEEN
BEV.	BEVEL
BIT.	BITUMINOUS
BLK.	BLOCKING
BD.	BOARD
B.S.	BOTH SIDES
B.W.	BOTH WAYS
B.O.D.	BOTTOM OF DECK
BRK.	BRACKET
BRZ.	BRONZE
BLDG.	BUILDING
BUR.	BUILT UP ROOFING
C	
CAB.	CABINET
CPT.	CARPET
CSMT.	CASEMENT
CIP.	CAST IN PLACE CONCRETE
C.B.	CATCH BASIN
CLG.	CEILING
CLG. HT.	CEILING HEIGHT
CEM.	CEMENT
CL	CENTERLINE
CT	CERAMIC TILE
C.O.	CLEAN OUT
CLR.	CLEAR(ANCE)
CLO.	CLOSET
COL.	COLUMN
COMPT.	COMPARTMENT
COMPR.	COMPRESS
COMP.	COMPUTER
CONC.	CONCRETE
CMU.	CONCRETE MASONRY UNIT
CONST.	CONSTRUCTION
CONT	CONTINUOUS
CONTR.	CONTRACT/CONTRACTOR
CFCI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
C.J.	CONTROL JOINT
CPR.	COPPER
CG.	CORNER GUARD
CORR.	CORRIDOR
CTR.	COUNTER
C. FL.	COUNTER FLASHING
CTR. SNK.	COUNTER SUNK
CRS.	COURSE
CU. FT.	CUBIC FEET
CU. YD.	CUBIC YARD
D	
D.P.	DAMP PROOFING
DPR.	DAMPER
DL.	DEAD LOAD
DEMO	DEMOLISH, DEMOLITION
DEP.	DEPRESS
DTL.	DETAIL
DIAG.	DIAGONAL
DIAM.	DIAMETER
DW.	DISH WASHER
DISPR.	DISPENSER
DIV.	DIVISION
DR.	DOOR
DBL.	DOUBLE
DH.	DOUBLE HUNG
DN.	DOWN
DS.	DOWNSPOUT
DRN.	DRAIN
DRN. BD.	DRAIN BOARD
DRN. TL.	DRAIN TILE
DWR.	DRAWER
DWG.	DRAWING
DF	DRINKING FOUNTAIN
E	
EA.	EACH
EA. FA.	EACH FACE
E.	EAST
ELEC.	ELECTRIC
EDF.	ELECTRIC DRINKING FOUNTAIN
EP.	ELECTRICAL PANEL
ELEV.	ELEVATION
EMERG.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EXCAV.	EXCAVATE
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EJ	EXPANSION JOINT
EXT.	EXTERIOR
EPS	EXTRUDED POLY STYRENE
F	
FAB	FABRICATED
FV.	FIELD VERIFY
FIN.	FINISH
FIN. FLR.	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FA.	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FE.	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHS.	FIRE HOSE CABINET
FPL.	FIRE PLACE
FP.	FIRE PROOFING
FRC.	FIRE RESISTANT COATING
F. RT.	FIRE RETARDANT
FLSHG.	FLASHING
FLEX	FLEXIBLE
FLR.	FLOOR
FLR. C.O.	FLOOR CLEAN OUT
FD.	FLOOR DRAIN
FLR. JT.	FLOOR JOINT
FLR. PLT.	FLOOR PLATE
FLOUR.	FLUORESCENT
FTG.	FOOTING
FRMG.	FRAMING
FBO.	FURNISHED BY OWNER
FURR.	FURRED (ING)
FUT.	FUTURE
FRG.	REFRIGERATOR
G	
GALV.	GALVANIZED
GSKT.	GASKET
GA.	GAUGE
GC.	GENERAL CONTRACTOR
GLS.	GLASS
GL. BLK.	GLASS BLOCK
GL. CMU.	GLAZED CONCRETE MASONRY UNIT
GST.	GLAZED STRUCTURAL TILE
GB.	GRAB BAR
GBLK.	GREEN BLOCK
GRT.	GROUT
GYPCTE.	GYPCRETE
GYP. PL.	GYPSUM PLASTER
GYP. T.	GYPSUM TILE
GWB.	GYPSUM WALL BOARD
H	
HD. BD.	HARD BOARD
HD. JT.	HARD JOINT
HDW.	HARDWARE
HDWD.	HARDWOOD
HDR.	HEADER
HTG.	HEATING
HVAC.	HEATING, VENTILATION, AIR CONDITIONING
HVY. D.	HEAVY DUTY
HT.	HEIGHT
HC.	HOLLOW CORE
HM.	HOLLOW METAL
HORIZ.	HORIZONTAL
HB.	HOSE BIB
HWH.	HOT WATER HEATER
HR.	HOUR
I	
INCL.	INCLUDE
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INTERM.	INTERMEDIATE
INV.	INVERT
J	
JAN.	JANITOR
J.C.	JANITORS CLOSET
JT.	JOINT
JF.	JOINT FILLER
JST.	JOIST
K	
K. PL.	KICK PLATE
KIT.	KITCHEN
K.O.	KNOCK OUT
L	
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LH.	LEFT HAND
LC.	LIGHT CONTROL
LT. WT.	LIGHT WEIGHT
LT.	LIGHT, RE: ELECTRICAL
LT. CONC.	LIGHTWEIGHT CONCRETE
LMSTN	LIMESTONE
LTL.	LINTEL
LL.	LIVE LOAD
LB.	LOAD BEARING
LPT.	LOW POINT
M	
MH.	MAN HOLE
MFR.	MANUFACTURE
MRB.	MARBLE
MB	MARKER BOARD
MAS.	MASONRY
M.O.	MASONRY OPENING
MU	MASONRY UNIT
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP	MECHANICAL/ELECTRICAL/ PLUMBING
M.C.	MEDICINE CABINET
MEMB.	MEMBRANE
MTL.	METAL
MFD.	METAL FLOOR DECK
MRD.	METAL ROOF DECK
M. THR.	METAL THRESHOLD
MWK.	MILLWORK
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MOD.	MODULAR
MLDG.	MOLDING
MT.	MOUNT
MTD.	MOUNTED
MOV.	MOVE
MULL.	MULLION
N	
NAT.	NATURAL
NR.	NOISE REDUCTION
NOM.	NOMINAL
N.	NORTH
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
O	
OC.	ON CENTER
OCEW	ON CENTER EACH WAY
OPG.	OPENING
OPP.	OPPOSITE
OH	OPPOSITE HAND
OH.	OPPOSITE HAND
O.A.	OVER ALL
OVRHD.	OVER HEAD
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	
PNT.	PAINT
PTD.	PAINTED
PNL.	PANEL
PB.	PANIC BAR
PTDIS.	PAPER TOWEL DISPENSER
PTR.	PAPER TOWEL RECEPTACLE
PAR.	PARALLEL
PKG.	PARKING
P. BD.	PARTICLE BOARD
PARTN.	PARTITION
PVT.	PAVEMENT
PERF.	PERFORATED
PERIM.	PERIMETER
PLAS.	PLASTER
PLAM	PLASTIC LAMINATE
PL.	PLATE
PLY.	PLYWOOD
PVC.	POLYVINYL CHLORIDE
PREFAB.	PREFABRICATED
PREFIN.	PREFINISHED
P.L.	PROPERTY LINE
Q	
QT.	QUARRY TILE
R	
RAD.	RADIUS
REF.	REFERENCE
RFL.	REFLECTED
REG.	REGISTRAR
REINF.	REINFORCING
REM.	REMOVE
REQ'D.	REQUIRED
RES.	RESILIENT
RET.	RETURN
RA.	RETURN AIR
RVS.	REVERSE
REV.	REVISION
RH.	RIGHT HAND
R.O.W.	RIGHT OF WAY
RD.	ROOF DRAIN
RF. HT.	ROOF HEIGHT
RFG.	ROOFING
RM.	ROOM
RO.	ROUGH OPENING
RB.	RUBBER BASE
S	
SF. GL.	SAFETY GLASS
SCHED.	SCHEDULE
SLNT.	SEALANT
STG.	SEATING
SCTN.	SECTION
SHTH.	SHEATHING
SHT.	SHEET
SH. GL.	SHEET GLASS
SHR.	SHORING
SIM.	SIMILAR
SKYLT.	SKYLIGHT
SLV.	SLEEVE
SC.	SOLID CORE
SCW	SOLID CORE WOOD
S.	SOUTH
SPCR.	SPACER
SPKR.	SPEAKER
SPEC.	SPECIFICATIONS
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STA.	STATION
STL.	STEEL
STN.	STONE
STOR.	STORAGE
SD.	STORM DRAIN
STRUCT.	STRUCTURE (TURAL)
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
SYN.	SYNTHETIC
SYS.	SYSTEM
T	
TB.	TACK BOARD
TK. STP.	TACK STRIP
TEL.	TELEPHONE
TV	TELEVISION
THK.	THICK
THR.	THRESHOLD
TO. COL.	TOP OF COLUMN
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.J.	TOP OF JOIST
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
TG.	TOUNG AND GROOVE
TR.	TREAD
TYP.	TYPICAL
U	
UC.	UNDER CUT
UNFIN.	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR.	URINAL
V	
VB.	VAPOR BARRIER
VAR.	VARIES
VNR.	VENEER
VIF.	VERIFY IN FIELD
VERT.	VERTICAL
VG.	VERTICAL GRAIN
VIN.	VINYL
VIN. B.	VINYL BASE
VCT	VINYL COMPOSITION TILE
VIN. F.	VINYL FABRIC
VIN. T.	VINYL TILE
W	
WSCT.	WAINSCOT
WH.	WALL HUNG
WC.	WATER CLOSET
WPRF.	WATER PROOFING
WRP.	WATER REPELLENT
WS.	WATER STOP
WWF.	WELDED WIRE FABRIC
WWM.	WELDED WIRE MESH
W.	WEST
WDW.	WINDOW
WGLS.	WIRE GLASS
WM.	WIRE MESH
W.	WITH
WO.	WITHOUT
WD.	WOOD
WD. B.	WOOD BASE
W. PT.	WORKING POINT

SYMBOLS & LEGENDS

ARCHITECTURAL DRAWING SYMBOLS

- Name / 101 / 150 SF — ROOM TAG WITH ROOM FINISH
- Name / 101 / XXX SF/ XXX(P) — ROOM TAG WITH OCCUPANCY SF=SQUARE FEET P=PEOPLE
- 101 — DOOR TAG
- XX1 — PARTITION TAG
- HOLLOW METAL FRAME TAG
- 1 — ALUMINUM FRAME TAG
- EXPANSION JOINT
- 21 / A101 SIM. — ENLARGED CALL OUT
- SIM, 1, A101 — BUILDING SECTION TAG
- SIM, 1, A101 — WALL SECTION TAG
- SIM, 1, A101 — DETAIL SECTION TAG
- Ref, 20, A101 — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- 15/ A 9.24 — VIEW REFERENCE DETAIL
- Elevation Name — ELEVATION/ LEVEL TAG
- AB — COLUMN GRID
- 5' DIAMETER ADA TURN AROUND
- REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC. P. REQ. R EQ. — EXIT POINT WITH WIDTH INDICATED IN INCHES OCCUPANT LOAD SHOWN VERTICAL P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- CENTER LINE
- MATCH LINE
- ITEM SHOWN IS ABOVE/BELOW OR TO BE REMOVED(ON DEMO SHTS) U.N.O.
- PROPERTY LINE
- BREAK LINE
- LONGEST TRAVEL DISTANCE TO EXIT
- BUILDING EXIT

WALL LEGEND

- EXISTING WALL TO REMAIN
- METAL STUD PARTITION
- CMU PARTITION
- 1 HR WALL CONSTRUCTION
- 1 HR CMU WALL CONSTRUCTION
- 2 HR WALL CONSTRUCTION
- 2 HR CMU WALL CONSTRUCTION

MATERIALS LEGEND

- EARTH (COMPACTED)
- POUROUS FILL (STONE OR GRAVEL)
- CONCRETE
- PLASTER/SAND/CEMENT/ GROUT
- BRICK (COMMON OR FACE)
- CONCRETE MASONRY UNIT (CMU)
- METAL (LARGE SCALE)
- METAL (SMALL SCALE)
- BATT INSULATION
- RIGID BOARD OR SPRAY FOAM INSULATION
- ROUGH WOOD (CONTINUOUS)
- ROUGH WOOD (NON-CONTINUOUS)
- FINISH WOOD
- PLYWOOD

PROJECT GENERAL NOTES

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A WATERTIGHT & WEATHERTIGHT BUILDING
2. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A PLUM, LEVEL AND SQUARE STRUCTURE UNLESS OTHERWISE NOTED ANY DEVIATION FROM THIS GENERAL INTENT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
3. THE BUILDING SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL THE APPLICABLE CODES, ORDINANCES AND REGULATIONS AS WELL AS THE DRAWINGS & SPECIFICATION. ANY CODE DEFICIENCIES IN THE DRAWINGS RECOGNIZED BY THE CONTRACTOR SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
4. THE CONTRACTOR SHALL VISIT PROJECT SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ANY AMBIGUOUS ITEMS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO SUBMITTING PROPOSAL.
5. THE CONTRACTOR IS TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES REQUIREMENTS, AND COMPLETE TEXAS HEALTH DEPARTMENT NOTIFICATIONS AND SUBMIT FORMS AND REQUIRED INFORMATION TO MEET " TEXAS COMMISSION ON ENVIRONMENTAL QUALITY" (TCEQ) REQUIREMENTS PRIOR TO START OF PROJECT
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF THE BUILDING ON THE SITE AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE BIDDING THE PROJECT OR THE COMMENCEMENT OF WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR CHANGES TO THE WORK DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HIS/HER SELF WITH EXISTING CONDITIONS
7. DO NOT SCALE DRAWINGS: ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE AND BE FIELD VERIFIED AND COORDINATED WITH WORK OF ALL TRADES. IF NO DIMENSIONS ARE GIVEN OR DISCREPANCIES FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION BEFORE BIDDING OR COMMENCING THE WORK.
8. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, ALL INCLUDED AS PART OF THE WORK.
9. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
10. THE CONTRACTOR SHALL VERIFY THE SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS AND BASES, AS WELL AS POWER, WATER AND DRAIN REQUIREMENTS FOR SUCH EQUIPMENT WITH EQUIPMENT MFG. DEVIATION OF BEFORE MENTIONED REQUIREMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
11. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE WITH THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. REVIEW ALL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
12. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
13. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
14. PROVIDE FIRE STOPS WHEREVER INTERIOR AND EXTERIOR WALLS AND PARTITIONS INTERSECT FLOORS, CEILINGS, AND ROOFS. ALSO PROVIDE AT ALL OPENINGS AROUND PENETRATIONS TO PREVENT VERTICAL & HORIZONTAL COMMUNICATION OF FIRE ALONG LINES OF CORRIDORS, OCCUPANCY CHANGES, AND SIMILAR SEPARATIONS.
15. ALL WALL WIDTHS ARE SHOWN AND DIMENSIONED WITH ACTUAL DIMENSIONS. DIMENSIONS FOR FRAMED WALLS ARE SHOWN TO FACE OF STUDS AND/OR FACE OF BLOCK U.N.O.
16. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
17. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
18. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
19. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
20. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
21. DIFFUSERS, LIGHT FIXTURES, ETC., ARE INDICATED ON THE REFLECTED CEILING PLAN FOR LOCATION AND COORDINATION. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
22. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
23. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
24. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
25. CLASSROOM FURNITURE INDICATED ON THE FLOOR PLANS, NOT INDICATED AS "BUILT-IN", ARE NOT IN PROJECT CONTRACT. FURNITURE IS SHOWN FOR TYPICAL CLASSROOM ARRANGEMENT, ONLY.
26. GENERAL CONTRACTORS AND SUB-CONTRACTORS ARE TO SCHEDULE AND COMPLETE THEIR WORK SO AS TO KEEP MECHANICAL, ELECTRICAL, TELEPHONE, DATA, HVAC CONTROL, INTERCOM, AND OTHER EXISTING SYSTEMS OPERATIONAL IN AREAS OCCUPIED BY THE OWNER DURING THE RENOVATION AND CONSTRUCTION OF THE PROJECT
27. WHERE EXISTING OR NEW EXPANSION JOINTS ARE EXPOSED DUE TO NEW CONSTRUCTION OR RENOVATION, PROVIDE APPROVED FLOOR, WALL, AND/OR CEILING EXPANSION JOINT COVER ASSEMBLIES AS REQUIRED.
28. WHERE NEW FLOORING IS TO BE INSTALLED ON TOP OF EXISTING FLOOR SLAB, PROVIDE FLOOR LEVELING COMPOUND AS REQUIRED TO PROVIDE LEVEL WORKABLE SURFACE FOR NEW FINISHES
29. CONTRACTOR IS TO ENSURE THAT NEW AND/OR EXISTING MECHANICAL, ELECTRICAL, DATA, AND CONTROL SYSTEMS ARE CONCEALED TO THE GREATEST EXTENT AS POSSIBLE UNLESS OTHERWISE NOTED
30. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
31. ALL EXPOSED METALS EXCEPT GALVANIZED AND PRE-FINISHED ITEMS, SHALL BE FINISH PAINTED - COLOR TO BE SELECTED BY ARCHITECT. REF SPECS FOR FIELD WELDS AT GALV.
32. WHERE THE WORDS "PATCH", "MATCH", "REPAIR", "REPLACE", ARE USED,SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT COLORS, TEXTURES AND FINISH OF DISTURBED AREAS SHALL MATCH IN ALL RESPECTS. REPLACE IS DEFINED AS REMOVE EXISTING AND INSTALL NEW INCLUDING ALL APPROPRIATE ELECTRICAL CONNECTIONS AND WITH MATCHING OR COMPATIBLE EQUIPMENT OR MATERIALS AS SHOWN, SPECIFIED OR REQUIRED FOR COMPLETE INSTALLATION.

SHEET NAMING CONVENTION

A2-XX

DRAWING SHEET DISCIPLINE

G	GENERAL	P	PLUMBING
C	CIVIL	E	ELECTRICAL
L	LANDSCAPE	FP	FIRE PROTECTION
S	STRUCTURAL	FA	FIRE ALARM
IR	IRRIGAITON	T	TECHNOLOGY
AD	ARCH DEMOLITION	TE	THEATRICAL
A	ARCHITECTURE	FS	FOOD SERVICES
M	MECHANICAL	AV	AUDIO VISUAL

SHEET NUMBER IN DISCIPLINE

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

550 Dulles Ave, Sugarland, TX 77478

DULLES HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

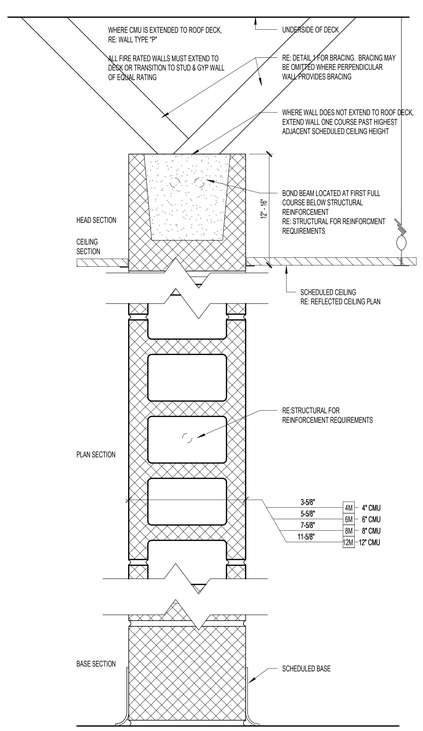
	Date	Description

100% CD

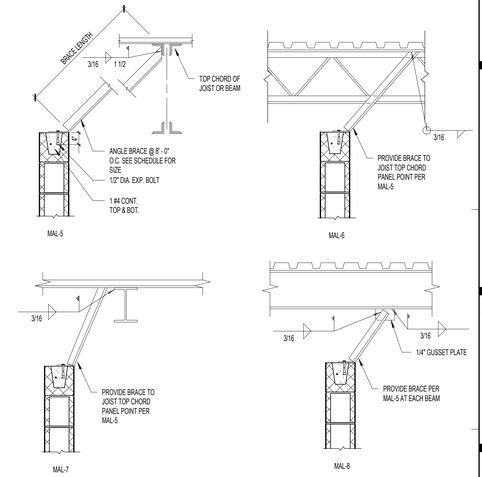
A0.00-D
SYMBOLS & ABBREVIATIONS

UPDATED 08.21.24
DULLES HIGH SCHOOL

12/4/2025 9:51:20 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath//25-006_DULLES_ARCH_FBISD ATHLETIC RENOVATIONS BP012-D_R25.rvt



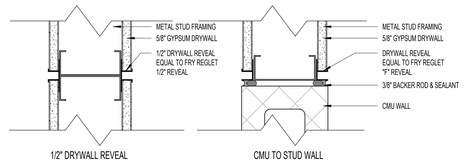
M	CONCRETE MASONRY UNITS W/ HORIZONTAL AND VERTICAL REINFOURCING RE: STRUCTURAL FOR REINFORCING DETAILS							
	NON- RATED	PARTITION TYPE		L/240 LIMITING HEIGHT		FIRE RATING		STC
		RATED	BURNISHED	BLOCK DEPTH	MAX . HEIGHT	HOURS	UL LISTING	
	4M	4MR	4MB	3-5/8"	5'-10"	---	---	43
	6M	6MR	6MB	5-5/8"	9'-0"	2HR	U906	46
	8M	8MR	8MB	7-5/8"	11'-8"	2-4 HR	U901,U904	49
	12M	12MR	12MB	11-5/8"	18'-0"		U905,U907	52



NOTE:
BRACING NOT REQUIRED AT WALLS SUPPORTING CONCRETE CEILINGS & CATWALKS OR WHERE ADJOINING WALLS EXCEED HORIZ. DIM OF CMU SCHEDULE

BRACE LENGTH	ANGLE SIZE
8' - 0" OR LESS	L 2 1/2 X 2 1/2 X 3/16
8' - 1" TO 10' - 0"	L 3 X 3 X 3/16
10' - 1" TO 13' - 0"	L 4 X 4 X 1/4
13' - 1" TO 16' - 0"	2 - L 3 X 3 X 3/16

WALL BRACING 2
SCALE: 3/4" = 1'-0"



GYPSUM TRANSITION DETAILS 1
SCALE: 3" = 1'-0"

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

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550 Dulles Ave, Sugarland, TX 77478
DULLES HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
No. Date Description

100% CD
A0.01-D
PARTITION TYPES

UPDATED 08-21-21
DULLES HIGH SCHOOL

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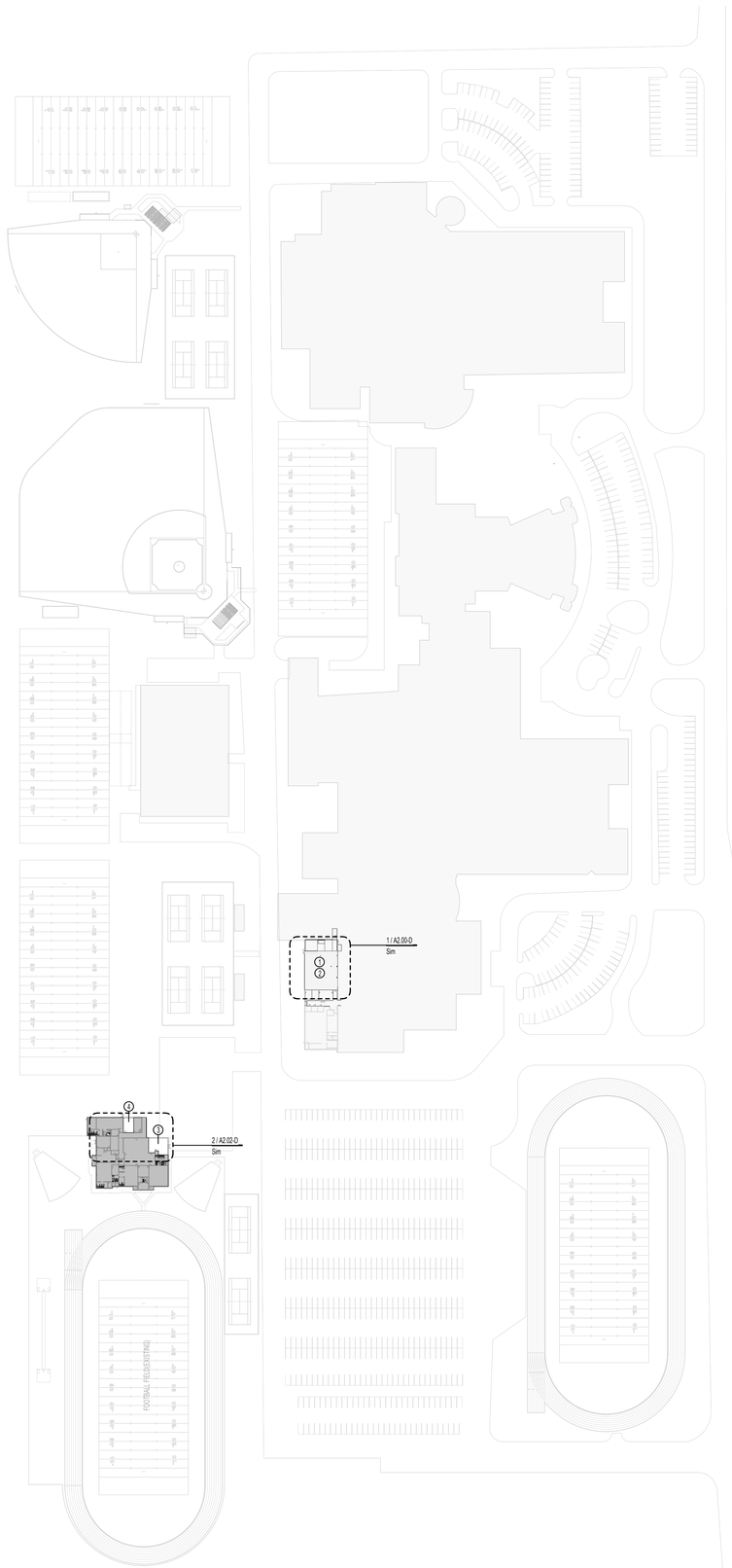


SITE PLAN - DULLES HIGH SCHOOL 1
SCALE: 1" = 100'-0"

SITE PLAN GENERAL NOTES

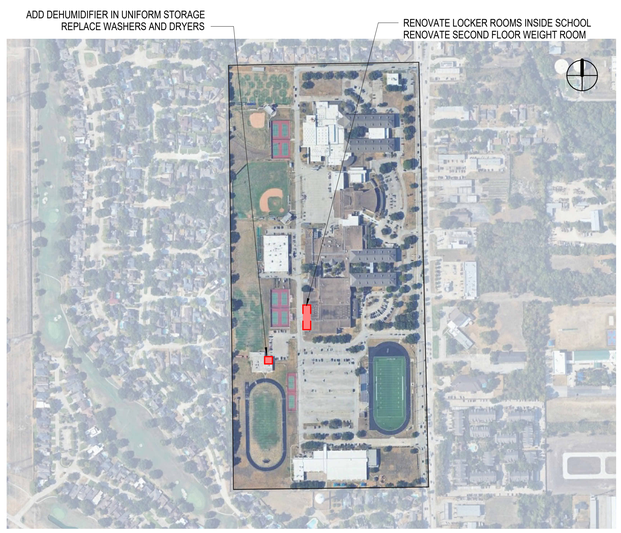
1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01-0 & G0.02-D FOR TAS REQUIREMENTS
3. RE: G0.03-D FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 8' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- X-X — VINYL COATED CHAIN LINK FENCE, 48" HIGH
- L-L — VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M-M — BLACK WROUGHT IRON FENCE, 48" HIGH
- R-R — BLACK WROUGHT IRON FENCE, 72" HIGH
- 1 / A101 SIM — BUILDING SECTION TAG
- 2 / A101 SIM — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT

SITE PLAN KEYNOTES

TAG #	NOTE
1	RENNOVATE LOCKER ROOM INSIDE SCHOOL
2	RENNOVATE WEIGHT ROOM SECOND FLOOR
3	REPLACE WASHER/DRYER
4	DEHUMIDIFIER IN FIELD HOUSE STORAGE



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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MICHAEL ADAME
30113
STATE OF TEXAS

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DRAWN BY: DRW	CHECKED BY: CHK

REVISIONS:

No.	Date	Description

100% CD

A1.00-D
ARCHITECTURAL SITE PLAN

DULLES HIGH SCHOOL

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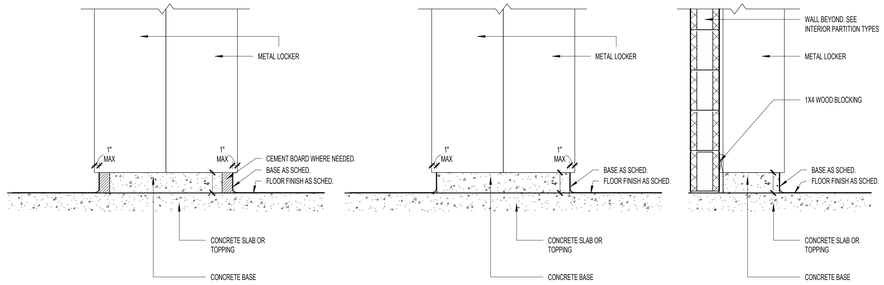
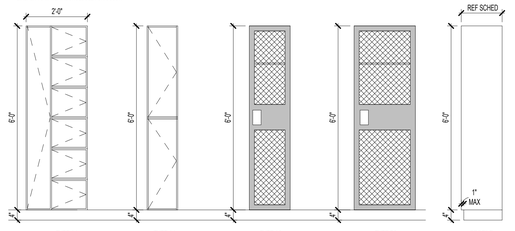


LOCKER CURB DETAIL 6

SCALE: 1" = 1'-0"

LOCKER SCHEDULE

1 PROVIDE SHOP-APPLIED, BAKED EPOXY ENAMEL FINISH
2 REFER TO MATERIAL SHCEDULE FOR COLOR



TYPE A1
9"x18"x72" & 15"x18"x72"

ROOM M107 G
EXISTING: 72
PROVIDED: 72
ADA REQUIRED: 4
ADA PROVIDED: 4

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS. REF SPECS

TYPE A4
12"x18"x72"

ROOM M110
EXISTING 33
PROVIDED 33
ADA REQUIRED: 2
ADA PROVIDED: 2

ROOM M111
EXISTING 24
PROVIDED 25
ADA REQUIRED: 2
ADA PROVIDED: 2

ROOM M112
EXISTING 24
PROVIDED 32
ADA REQUIRED: 2
ADA PROVIDED: 2

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

TYPE A6
15"x15"x72"

ROOM M108 B
EXISTING 32
PROVIDED 32
ADA REQUIRED: 2
ADA PROVIDED: 2

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

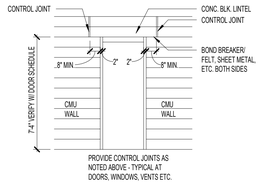
TYPE B2
24"x18"x72"

ROOM M109
EXISTING 15
PROVIDED 19
ADA REQUIRED: 1
ADA PROVIDED: 1

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

DOOR SCHEDULE

Level	NUMBER	PANEL WIDTH	PANEL HEIGHT	PANEL TYPE	PANEL MATERIAL	FRAME TYPE	FRAME MATERIAL	FIRE RATING	HARDWARE	DETAILS HEAD	DETAILS JAMB	DETAILS THRESHOLD	COMMENTS
GYM LOCKER ROOM													
Level 01	D100	3'-0"	7'-0"	A	HM	HM2	HM		J-1PL	3/A2.00-D	2/A2.00-D		

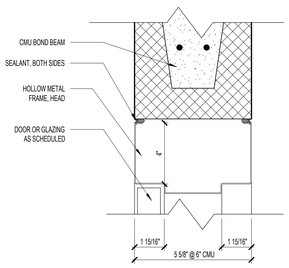


DOOR FRAME DETAIL @ MASONRY 5

SCALE: 1/4" = 1'-0"

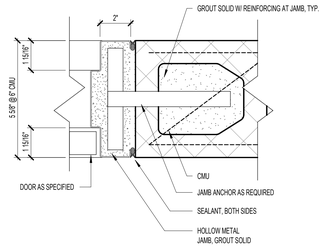
HOLLOW METAL FRAME TYPES 4

SCALE: 1/4" = 1'-0"



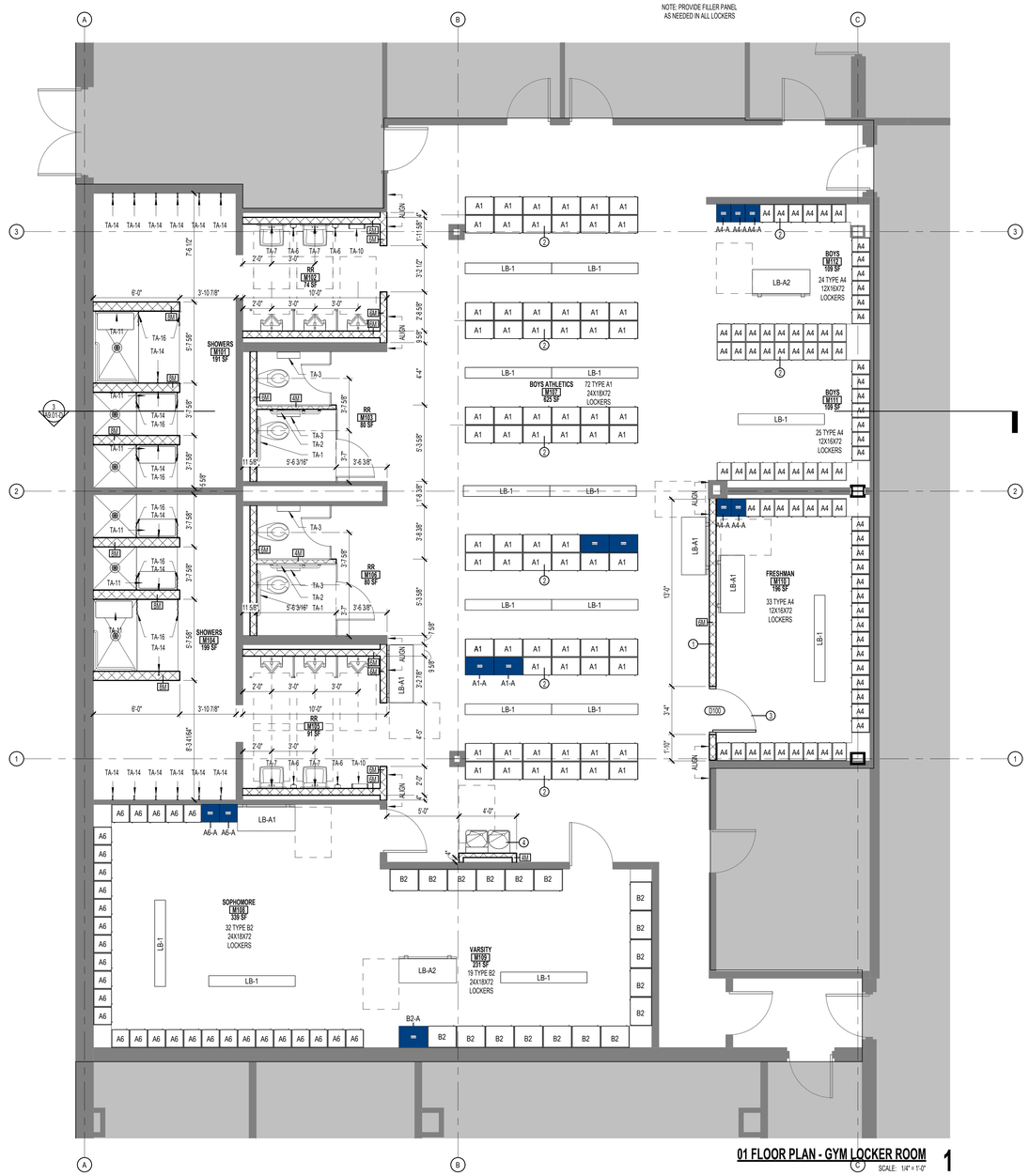
INT. HM DOOR/ WINDOW HEAD 3

SCALE: 3" = 1'-0"



INT. HM DOOR/ WINDOW JAMB 2

SCALE: 3" = 1'-0"



01 FLOOR PLAN - GYM LOCKER ROOM 1

SCALE: 1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
5. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
6. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
7. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-0" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.
8. 5% OF EACH LOCKER TYPE SHALL BE ADA COMPLIANT

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- AB — COLUMN GRID
- Ref / 20 / A101 — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- SIM / A101 — BUILDING SECTION TAG
- SIM / A101 — WALL SECTION TAG
- 21 / A101 SIM — ENLARGED CALL OUT
- 101 — DOOR TAG
- AA — PARTITION TAG
- HOLLOW METAL WINDOW TAG
- 1 — ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

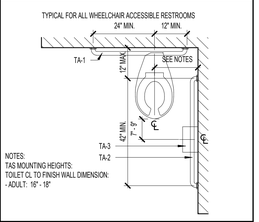
FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE
1	NEW CMU PARTITION SURROUNDING LOCKERS
2	NEW LOCKERS
3	NEW DOOR
4	NEW DRINKING FOUNTAIN WITH BOTTLE FILLERS

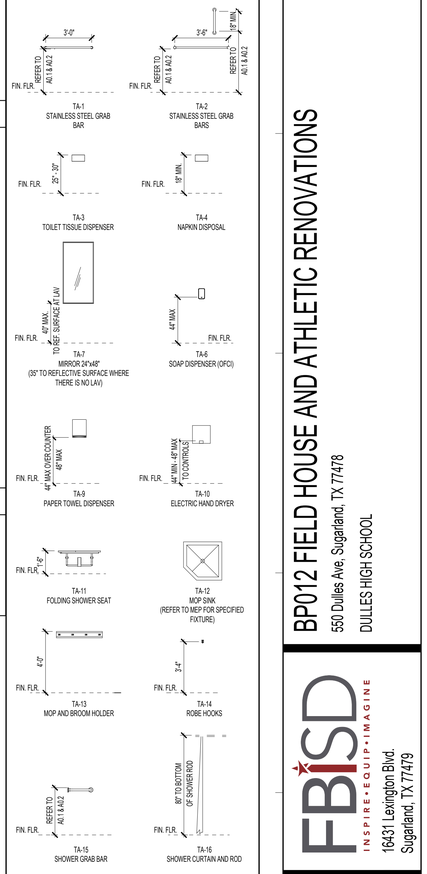
ADDITIONAL NOTES

1. INSTALL NEW LOCKERS ON CONCRETE BASE. INSTALL CLOSER FILLER PANELS AT END WALLS AND CORNERS. REFER TO SPEC 10513 FOR ADDITIONAL INSTALLATION INSTRUCTIONS.
2. INSTALL WALL ELECTRONIC DRINKING FOUNTAIN WITH BOTTLE FILLER. PER MANUFACTURER'S INSTRUCTIONS. REFER TO PLUMBING DRAWINGS FOR FIXTURE TYPE AND CONNECT TO EXISTING UTILITIES. REFER TO ELECTRICAL DRAWINGS TO INSTALL NEW TAMPER RESISTANT RECEPTACLES. INSTALL HIGH/LO RECEPTACLES AT LOCATION AS PER MANUFACTURER'S INSTRUCTIONS.
3. INSTALL RESINOUS FLOORING AND INTEGRAL COVE BASE ACCORDING TO APPROVED MOCK-UP AND MANUFACTURER'S INSTRUCTIONS. PRIOR TO INSTALLATION SHOT-BLAST EXISTING SURFACES WITH AN APPARATUS THAT ABRADES THE CONCRETE SURFACE. REPAIR DAMAGED AND DETERIORATED CONCRETE ACCORDING TO RESINOUS FLOORING MANUFACTURER'S WRITTEN RECOMMENDATIONS. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROTECTING NEW FLOORING FROM CONSTRUCTION TRAFFIC.
4. INSTALL NEW TILE SHOWERS. ACCORDING TO APPROVED MOCKUPS ON EPOXY GROUT. REFER TO 093000 TILE SPEC FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND MOCKUP REQUIREMENTS.
5. INSTALL NEW 4" SLIM PROFILE SURFACE-MOUNTED AUTOMATIC HAND DRYER ON CMU WALLS. ANCHOR DRYERS TO WALLS ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
6. INSTALL NEW ARCHITECTURAL SIGNAGE FOR ROOM IDENTIFICATION AT LOCATIONS NOTED ON DRAWINGS AND TO BE INSTALLED AT ACCESSIBLE HEIGHTS AND TO COMPLY WITH TAS 703.
7. PREPARE AND PAINT ALL LOCKER ROOM CMU WALLS WITH HIGH PERFORMANCE EPOXY WITH BLOCK FILLERS ACCORDING TO 099000 PAINTING AND COATING. REFER TO ROOM FINISH SCHEDULE FOR ADDITIONAL FINISH INFORMATION.
8. INSTALL ALL NEW CMU WALLS AT 8'-0" UNLESS NOTED OTHERWISE. REFER TO STRUCTURAL DOCUMENTS FOR NON-LOAD BEARING WALLS BRACING AND REINFORCING STEEL. REQUEST INFORMATION FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND/OR REQUIREMENTS.

RESTROOM WHEELCHAIR ACCESS, TYPICAL



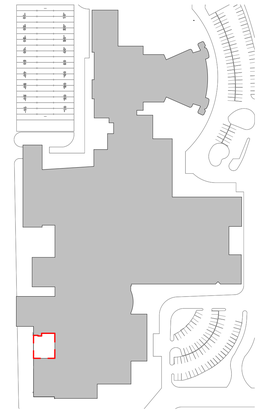
TYPICAL MOUNTING HEIGHTS, U.N.O.



NOTE: DIMENSIONS SHOWN ARE BASED ON ADULT MOUNTING HEIGHTS. REFER TO AGE BASED DIMENSIONAL INFORMATION TABLE FOR CHILDREN LOCATED ON SHEET G0.03 FOR MOUNTING HEIGHTS FOR OTHER AGE RANGES

ENLARGED PLANS: GENERAL NOTES

1. ALL DIMENSIONS AT ENLARGED PLANS ARE TO OUTSIDE FACE OF GYP. BD. / FACE OF CMU/TILT WALL.



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
550 Dulles Ave, Sugarland, TX 77478
DULLES HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

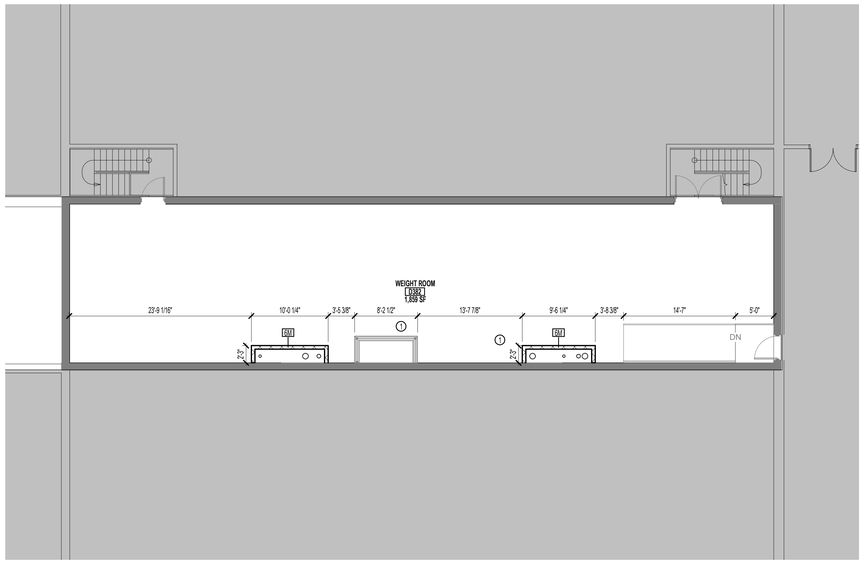
PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

100% CD

A2.00-D
01 FLOOR PLAN - GYM LOCKER ROOM

DULLES HIGH SCHOOL

12/4/2025 9:51:32 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_DULLES_ARCH_FBISD ATHLETIC RENOVATIONS BP012-D_R25.rvt



02 FLOOR PLAN - SECOND FLOOR WEIGHT ROOM 2

SCALE: 1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

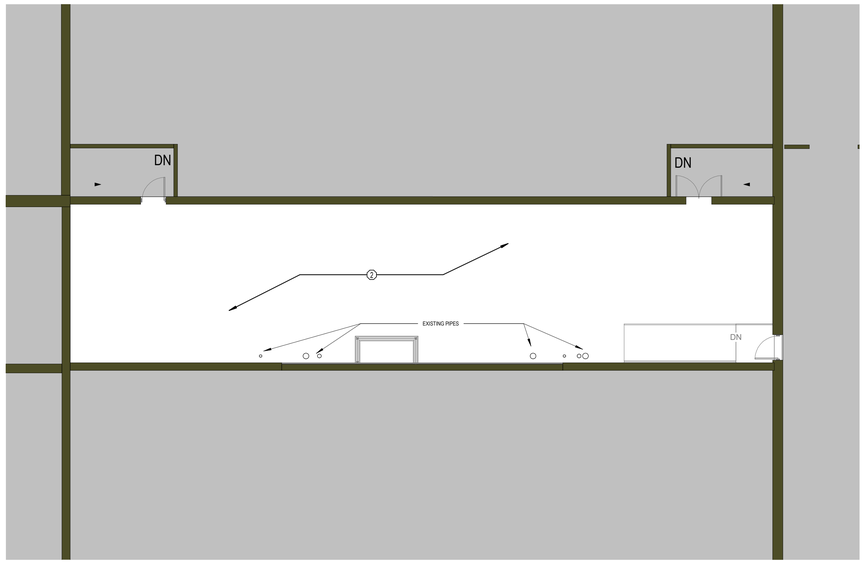
1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
5. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
6. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
7. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.
8. 5% OF EACH LOCKER TYPE SHALL BE ADA COMPLAINT

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- COLUMN GRID
- EXTERIOR ELEVATION TAG (Ref / 20 / A101)
- INTERIOR ELEVATION TAG (1/ A101 Ref)
- BUILDING SECTION TAG (SIM / 1 / A101)
- WALL SECTION TAG (SIM / 1 / A101)
- ENLARGED CALL OUT (21 / A101 SIM)
- DOOR TAG (101)
- PARTITION TAG (AX)
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG (1)
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE
1	ADD CHASING TO EXPOSED PIPES. INSTALL ALL NEW CMU WALLS AT 8'-0" UNLESS NOTED OTHERWISE. REFER TO STRUCTURAL DOCUMENTS FOR NON-LOAD BEARING WALLS BRACING AND REINFORCING STEEL. REQUEST INFORMATION FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND/OR REQUIREMENTS.
2	REMOVE EXISTING WEIGHT ROOM FLOORING AND ADHESIVE MATERIAL AND WALL BASE. SHOT BLAST CLEAN AND PREPARE FLOOR SURFACE PER MANUFACTURERS RECOMMENDATIONS TO INSTALL NEW FLOORING. REFER TO ROOM FINISH SCHEDULE AND MATERIAL SCHEDULE.



02 DEMO PLAN - SECOND FLOOR WEIGHT ROOM 1

SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

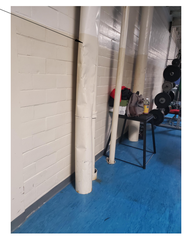
DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- DEMO KEY NOTE (4)

DEMOLITION KEY NOTES







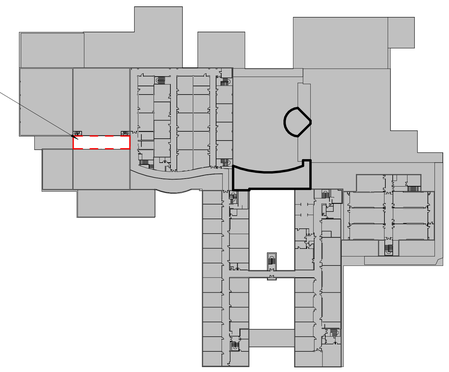


ADD CHASING AROUND PIPES ALL EXPOSED PIPES

ADD CHASING AROUND PIPES ALL EXPOSED PIPES

REPLACE FLOORING

SECOND FLOOR WEIGHT ROOM RENOVATION



BUILDING KEY PLAN- SECOND FLOOR
N.T.S

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

550 Dulles Ave, Sugarland, TX 77478

DULLES HIGH SCHOOL

FBISD
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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: DRW	CHECKED BY: CHK

REVISIONS:

No.	Date	Description

100% CD

A2.01-D

02 FLOOR PLAN - SECOND FLOOR WEIGHT ROOM

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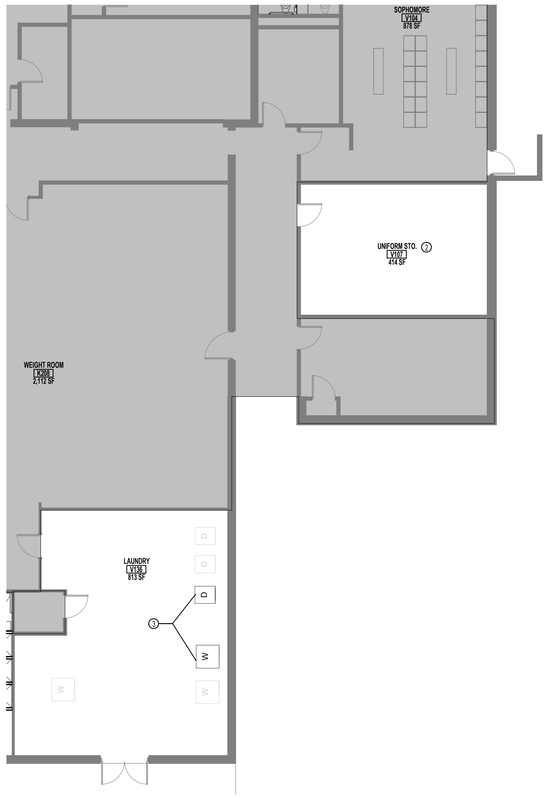


01 FLOOR PLAN - FIELD HOUSE LAUNDRY 2

SCALE: 1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

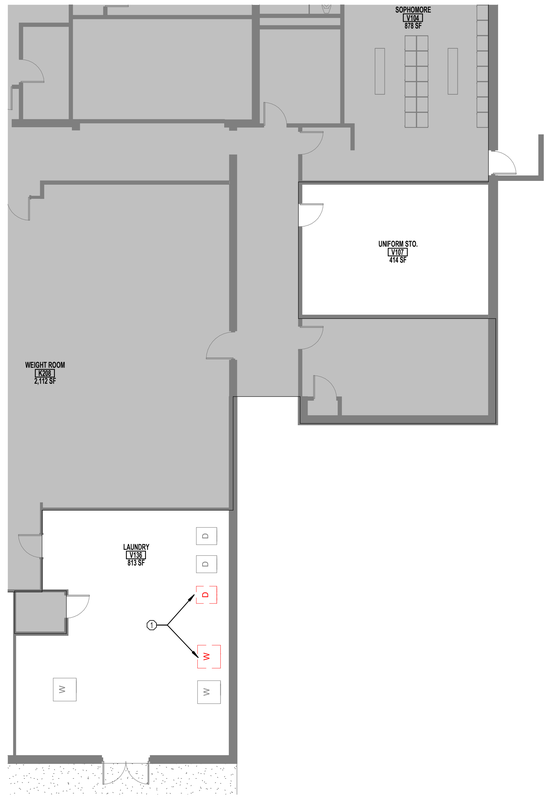
1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
5. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
6. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
7. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.
8. 5% OF EACH LOCKER TYPE SHALL BE ADA COMPLAINT

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- COLUMN GRID
- EXTERIOR ELEVATION TAG (Ref / 20 / A101)
- INTERIOR ELEVATION TAG (1/ A101 Ref)
- BUILDING SECTION TAG (SIM / 1 / A101)
- WALL SECTION TAG (SIM / 1 / A101)
- ENLARGED CALL OUT (21 / A101 SIM)
- DOOR TAG (101)
- PARTITION TAG (AX)
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG (1)
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE
2	DEHUMIDIFIER IN FIELD HOUSE STORAGE
3	NEW WASHER AND DRYERS



01 DEMO PLAN - FIELD HOUSE LAUNDRY 1

SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
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17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

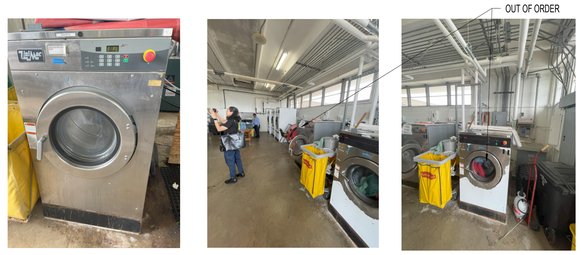
DEMOLITION LEGEND

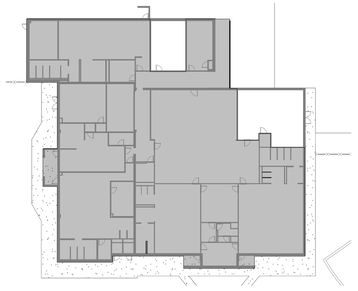
- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- DEMO KEY NOTE (4)

DEMOLITION KEY NOTES

TAG #	NOTE
1	DEMO EXISTING WASHERS/DRYERS
2	DEHUMIDIFIER IN FIELD HOUSE STORAGE
3	NEW WASHER AND DRYERS

TOTAL 3 WASHERS AND DRYERS TO BE REPLACED AMONG WHICH ONE DRYER AND ONE WASHER IS CURRENTLY NOT FUNCTIONAL





BUILDING KEY PLAN- FIELD HOUSE

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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REGISTERED ARCHITECT
MICHAEL ADAME
30113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

A2.02-D
02 FLOOR PLAN - FIELD HOUSE

DULLES HIGH SCHOOL

12/5/2025 12:39:22 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_DULLES_ARCH_FBISD ATHLETIC RENOVATIONS BP012-D_R25.rvt

ROOM FINISH SCHEDULE - LOCKERS ROOM								
ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	COMMENTS
M101	SHOWERS	T-3	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	REF TO FINISH PLAN
M102	RR	T-3	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	REF TO FINISH PLAN
M103	RR	T-3	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	REF TO FINISH PLAN
M104	SHOWERS	T-3	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	REF TO FINISH PLAN
M105	RR	T-3	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	REF TO FINISH PLAN
M106	RR	T-3	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	REF TO FINISH PLAN
M107	BOYS ATHLETICS	RF-1	RFB-1	P-1	P-1	P-1	P-1	
M108	SOPHOMORE	RF-1	RFB-1	P-1	P-1	P-1	P-1	
M109	VARSITY	RF-1	RFB-1	P-1	P-1	P-1	P-1	
M110	FRESHMAN	RF-1	RFB-1	P-1	P-1	P-1	P-1	
M111	BOYS	RF-1	RFB-1	P-1	P-1	P-1	P-1	
M112	BOYS	RF-1	RFB-1	P-1	P-1	P-1	P-1	

ROOM FINISH SCHEDULE - WEIGHT ROOM								
ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	COMMENTS
D382	WEIGHT ROOM	RES-1	RB-1	P-1	P-1	P-1	P-2	

MATERIAL SCHEDULE						
MARK	MATERIAL	MANUFACTURER	STYLE	COLOR	SPECS	REMARKS
01 FLOOR FINISH						
RES-1	RESILIENT FLOORING	MONDO	RAMFLEX	986 MARINE BLUE	3/8" (10MM) THICK, SMOOTH TEXTURE	WEIGHT ROOM, SECOND FLOOR
RF-1	RESINOUS FLOORING	STONHARD	STONSHIELD STL	CUSTOM (GRAY BASE & ACCENT SCHOOL COLOR)		LOCKERS FLOORING
T-3	FLOOR TILE	AMERICAN OLEAN	UNGLAZED MOSAICS	STORM GRAY	2"X2" MOSAIC	SHOWERS AND RESTROOMS
WF-1	WALK-OFF CARPET	TARKETT	ABRASIVE ACTION		POWERBOND, ROLL	AT DRINKING FOUNTAINS
02 BASE						
RB-1	RUBBER BASE	JOHNSONITE	4" COVE BASE		4" HEIGHT	WEIGHT ROOM, SECOND FLOOR
RFB-1	RESINOUS FLOORING BASE	STONHARD	STONSHIELD STL	CUSTOM (GRAY BASE & ACCENT SCHOOL COLOR)	COVE BASE 4"	AT WALLS AND LOCKERS BASE
TB-1	TILE BASE	AMERICAN OLEAN	UNGLAZED MOSAICS	STORM GRAY	COVE BASE	SHOWERS AND RESTROOMS
03 WALL FINISH						
CMU	CONCRETE MASONRY UNIT		SMOOTH FACE	TO BE PAINTED P-1 U.N.O.		NEW WALLS, REF A2 SHEETS
P-1	PAINT	SHERWIN WILLIAMS		DRIFT OF MIST, SW 9166		FIELD PAINT
P-1E	EPOXY PAINT	SHERWIN WILLIAMS		TO MATCH P-1 U.N.O		AT WET AREAS
P-2	PAINT	SHERWIN WILLIAMS		SW 6811 HONORABLE BLUE		ACCENT, SCHOOL COLOR BLUE
T-1	WALL TILE	AMERICAN OLEAN	COLOR STORY WALL	CALM, FIELD	8"X24" GLOSSY	AT RESTROOMS AND SHOWERS, 7' HEIGHT
T-2	WALL TILE	AMERICAN OLEAN	COLOR STORY WALL	SAPPHIRE SKY	8"X24" GLOSSY	AT RESTROOMS AND SHOWERS, 7' HEIGHT
04 TRANSITION						
TR-1	ALUMINUM TRANSITION	SCHLUTER		ANODIZED	ADA COMPLIANT	RESINOUS FLOOR TO EXISTING FLOOR
TR-2	ALUMINUM TRANSITION	SCHLUTER	JOLLY	ANODIZED	ADA COMPLIANT	AT TILE EDGES, PROVIDE END CAP AS APPLICABLE
TR-3	ALUMINUM TRANSITION	SCHLUTER	RENO-U	ANODIZED	ADA COMPLIANT	CARPET TO RESINOUS FLOOR
05 MISC FINISHES						
CURT-1	SHOWER CURTAIN	KR SPECIALITIES				AT SHOWERS
TP-1	TOILET PARTITION	ASI GLOBAL PARTITIONS	BLACK CORE PHENOLIC	GRAPHITE 2150	SOLID PHENOLIC	AT RESTROOMS
06 EQUIPMENT						
	BENCHES			MATCH SCHOOL COLOR BLUE		GYM LOCKER ROOMS
	LOCKERS	LIST INDUSTRIES		721 RELAY RED		GYM LOCKER ROOMS, REF LOCKERS SCHEDULE

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

550 Dulles Ave, Sugarland, TX 77478

DULLES HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
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A9.00-D
MATERIAL & ROOM FINISH SCHEDULE

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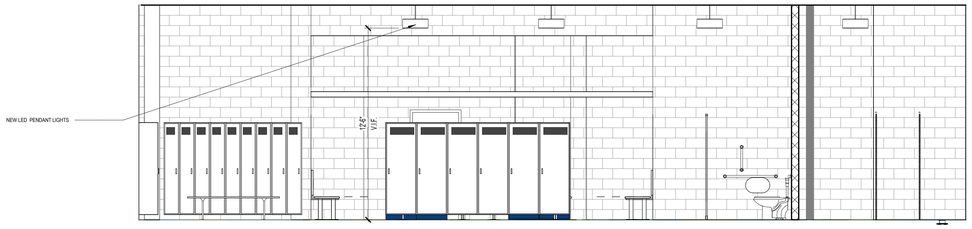
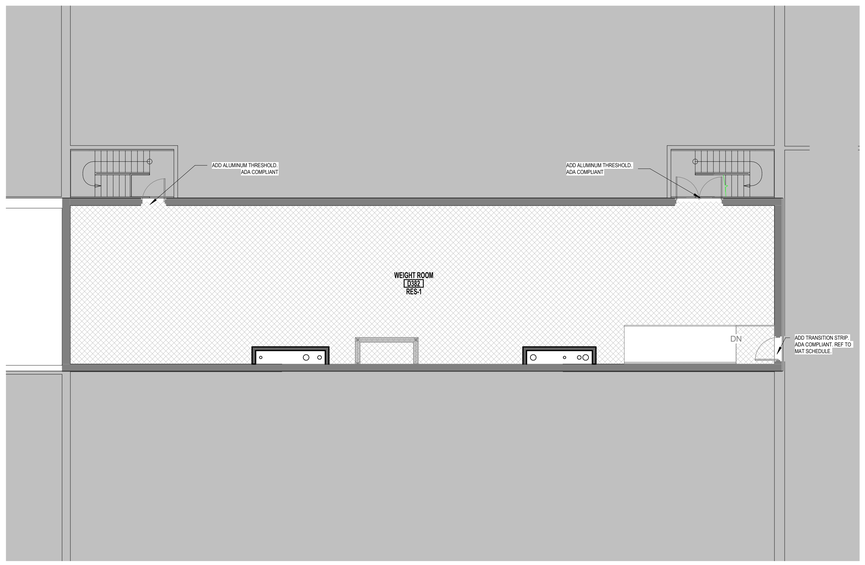


GYM LOCKER ELEVATION 3
SCALE: 1/4" = 1'-0"



01 FINISH PLAN - GYM LOCKER ROOM 1
SCALE: 1/4" = 1'-0"



02 FINISH PLAN - SECOND FLOOR WEIGHTROOM 2
SCALE: 1/8" = 1'-0"

MATERIAL FINISH LEGEND

- RF-1 RESINOUS FLOOR
- T-3 PORCELAIN TILE
- RES-1 RESILIENT FLOORING
- WF -1 WALK-OFF

PROVIDE CONTROL JOINTS (C.J.) AS SHOWN & AT COLOR CHANGES. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS

SYMBOLS

MW	MARKER WALL - DRY ERASE WALL-COVERING
CJ	CONTROL JOINT*
EJ	EXPANSION JOINT
CG	CORNER GUARD
IS	INTERIOR MANUAL ROLLER SHADE
ES	EXTERIOR MANUAL ROLLER SHADE

ROOM
100
PCON | SAP-1
CEILING FINISH
FLOOR FINISH

* PROVIDE CONTROL JOINTS AS SHOWN. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS. REFER TO STRUCTURAL DWGS FOR DIMENSIONS. AT COLOR TRANSITIONS, PROVIDE SCORE LINE U.N.O.

** REFER TO ROOM FINISH SCHEDULE FOR FULL LIST OF FINISH WITHIN ROOM

FLOOR TRANSITIONS

REF TO MATERIAL SCHEDULE FOR ALUMINUM TRANSITION TYPES. REF TO SPECS FOR MARBLE THRESHOLDS.

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
550 Dulles Ave, Sugarland, TX 77478
DULLES HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS
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A9.01-D
FINISH PLANS AND INTERIOR ELEVATIONS

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MICHAEL LEE LOVE
STATE OF TEXAS

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CEILING PLAN AND DETAILS - GYM LOCKER ROOM

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pfluger
Office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
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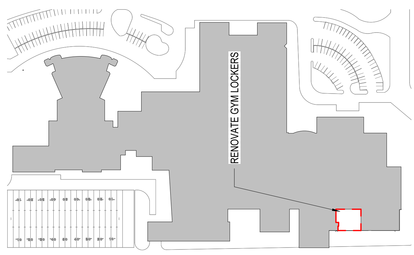
REFLECTED CEILING PLAN LEGEND

- 2'X 4' LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (SUSPENDED)
- LINEAR LED FIXTURE (SURFACE MOUNTED)
- RECESSED CAN FIXTURE
- PENDANT LIGHT FIXTURE
- SURFACE MOUNTED CAN LIGHT FIXTURE
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- SUSPENDED GYPSUM BOARD
- EXPOSED STRUCTURE

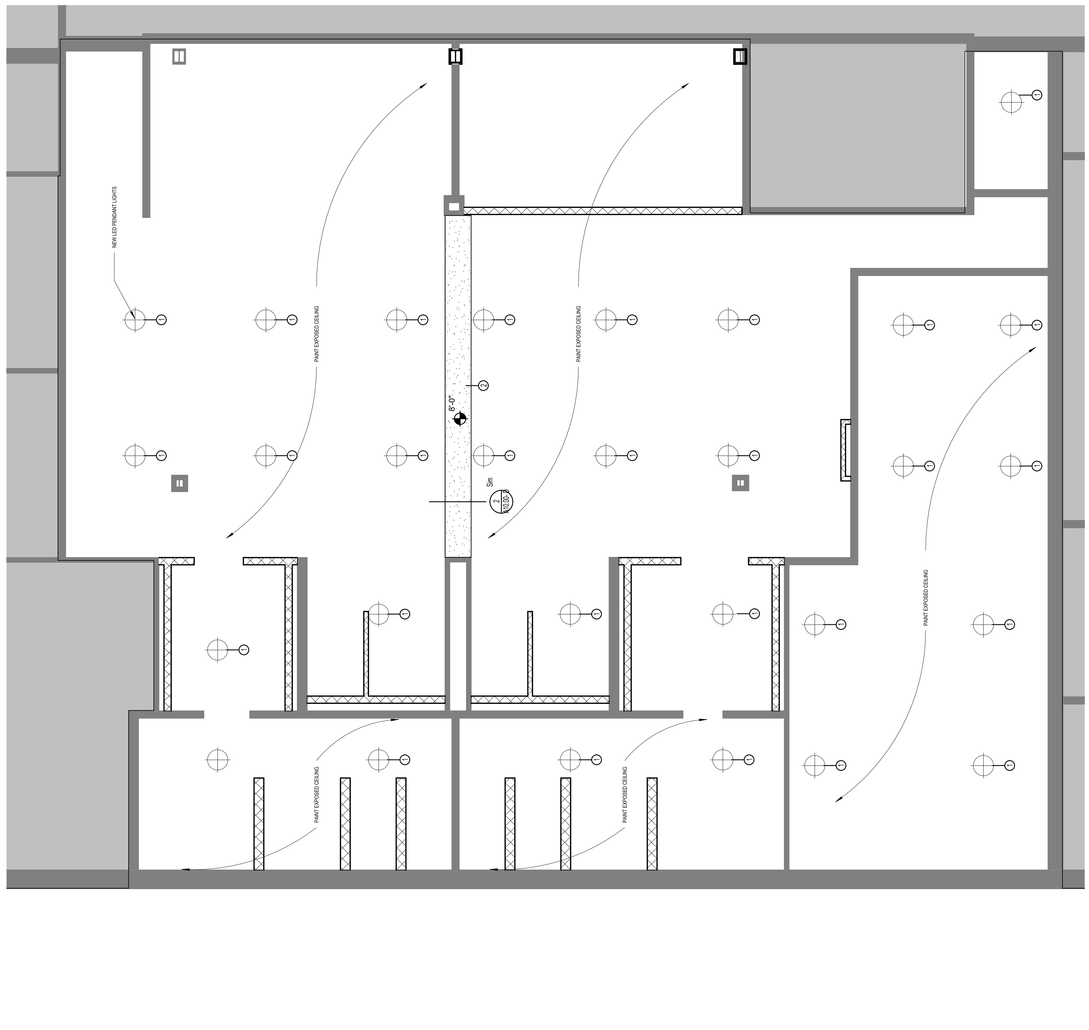
GENERAL NOTES:
1. ALL CEILINGS TO BE 9'-0" UNLESS OTHERWISE NOTED.
2. REFER TO INTERIOR AND EXTERIOR ELEVATIONS FOR LIGHT FIXTURE MOUNTING HEIGHTS
3. MEP & ARCHITECT TO REVIEW AND APPROVE SPRINKLER KEYOUT AND HEAD LOCATIONS PRIOR TO CONSTRUCTION. SUBMIT PLAN USING ARCHITECT'S RCP'S
4. AT AREAS WHERE CEILING IS EXPOSED - EXPOSED CONDUIT TO BE LOCATED NEATLY - ARCHITECT TO APPROVE LAYOUTS.
5. COORDINATE CEILING ACCESS PANELS WITH MEP CONTRACTOR. LOCATE WHERE NECESSARY.
6. PROJECTOR MOUNTS TO BE LOCATED BETWEEN 10'-0" TO 15'-0" FROM WALL. UNO.

REFLECTED CEILING PLAN NOTES

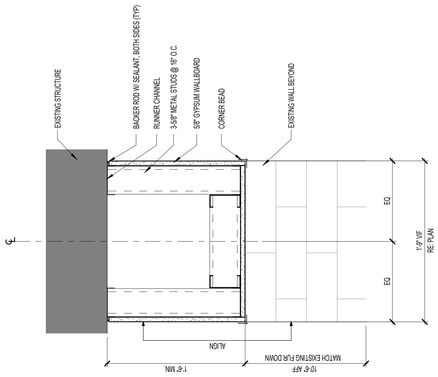
TAG #	NOTE
1	NEW LED PENDANT LIGHTS
2	FUR DOWN TO CONCEAL PIPING/DUCTS OVERHEAD TO CEILING DOOR.



BUILDING KEY PLAN
N.T.S



01 CEILING PLAN - GYM LOCKER ROOM 1
SCALE: 1/4" = 1'-0"



FUR DOWN DETAIL 2
SCALE: 1 1/2" = 1'-0"

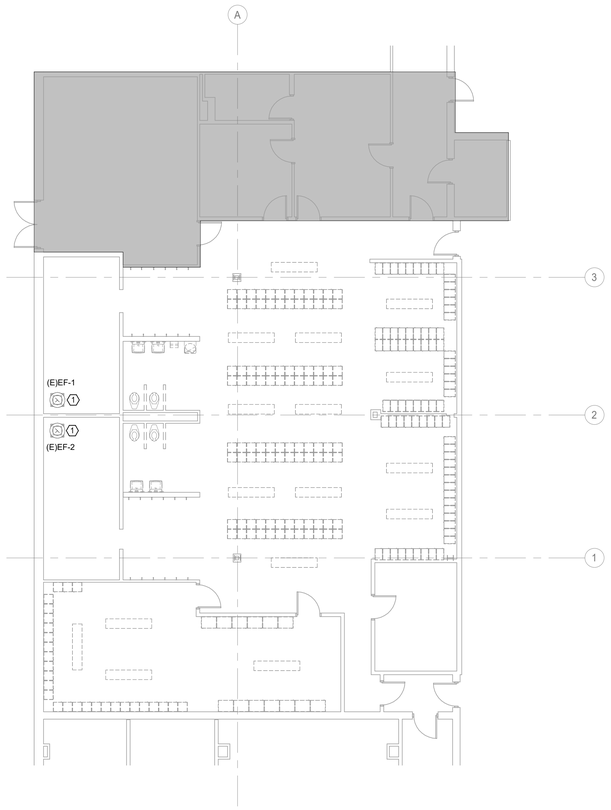
MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV-UNITS, EXHAUST FANS, DUST COLLECTORS, AND AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

MECHANICAL DEMOLITION KEYED NOTES

(1) EXHAUST AIR GRILLE SHALL BE REMOVED.

SYMBOL LEGEND	
⊕	POINT OF CONNECTION FROM NEW TO EXISTING
▭	ITEM TO REMAIN
▭	ITEM TO BE REMOVED



1 **MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - GYM**
Scale: 1/8" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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550 Dulles Ave, Sugarland, TX 77478

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MECHANICAL DEMOLITION FLOOR PLAN -LEVEL 1 - GYM

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Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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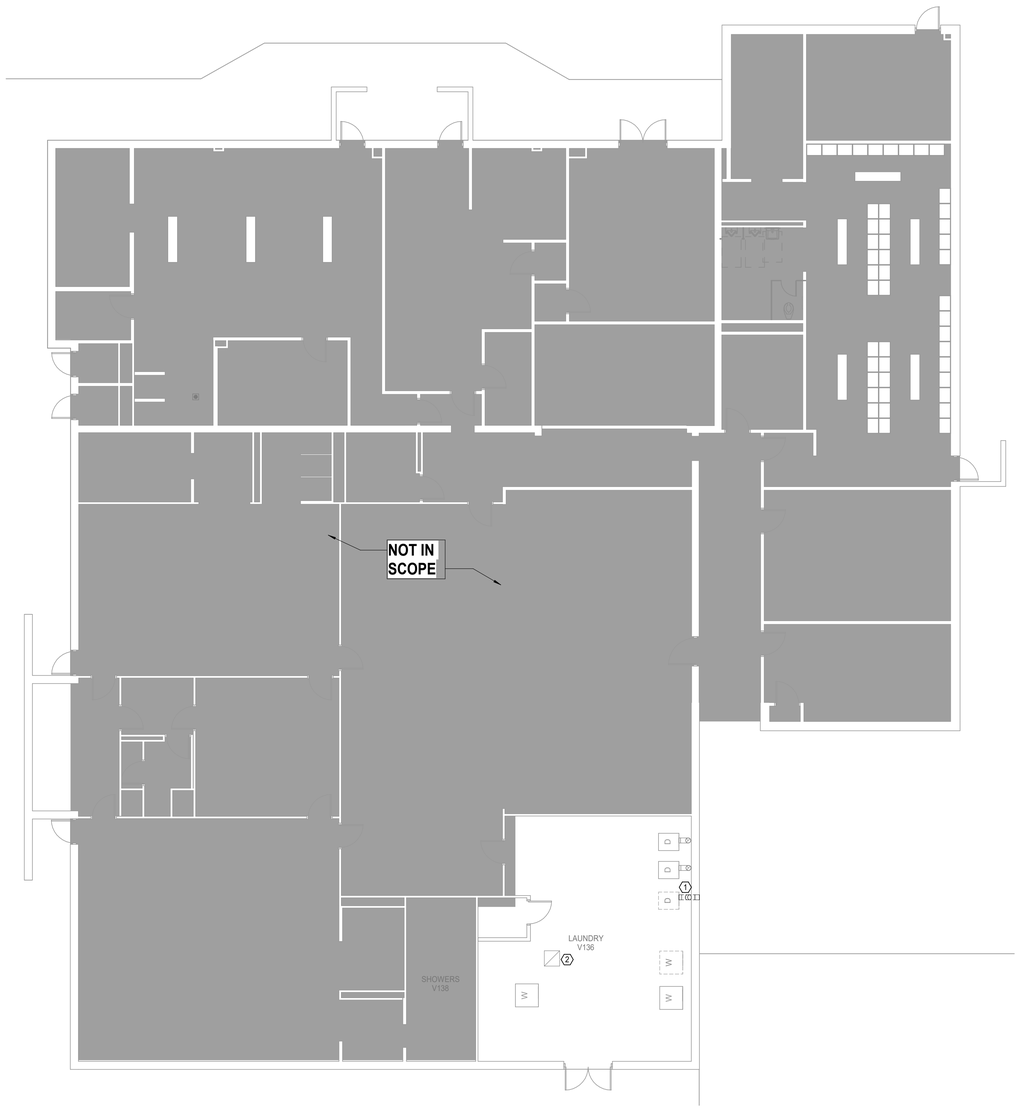
MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, DUST COLLECTORS, AND AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

MECHANICAL DEMOLITION KEYED NOTES

1. EXISTING DRYER VENT DUCTWORK SHALL BE REMOVED.
2. EXISTING INTAKE SHALL REMAIN.

SYMBOL LEGEND	
⊕	POINT OF CONNECTION FROM NEW TO EXISTING
▭	ITEM TO REMAIN
▭	ITEM TO BE REMOVED



1 **MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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Sugarland, TX 77479

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PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
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REVISIONS:

	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE

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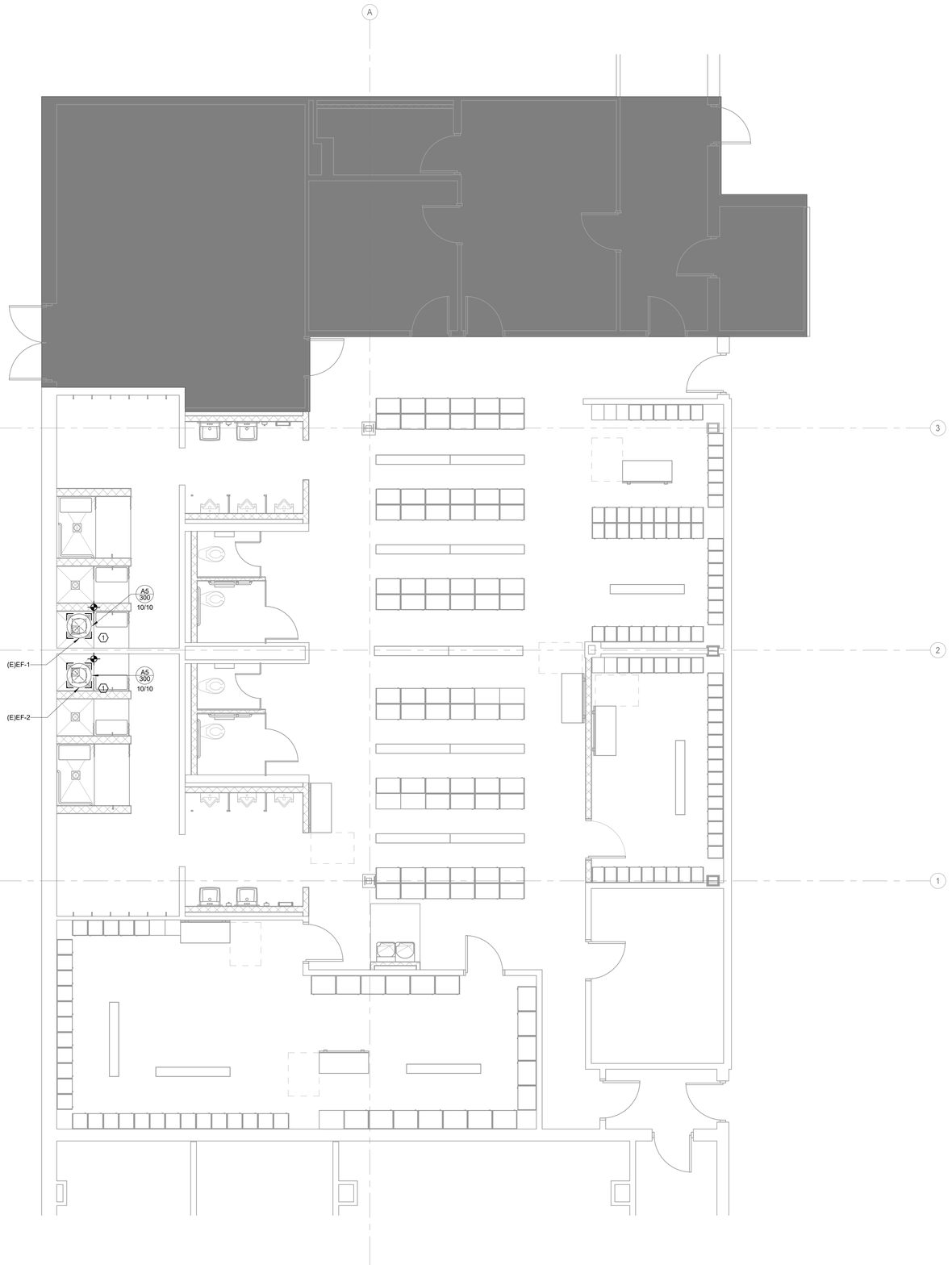

1 **MECHANICAL FLOOR PLAN - LEVEL 1 - GYM**
Scale: 1/4" = 1'-0"

MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR). UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

(1) REPLACE EXHAUST AIR GRILLE AND CONNECT TO EXISTING DUCTWORK. ADD NEW EXHAUST HARD DUCTWORK IF NEEDED TO FINAL CONNECTION.

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Houston, Texas 77046
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REVISIONS:

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MECHANICAL FLOOR PLAN - LEVEL 1 - GYM

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Houston
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Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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MECHANICAL GENERAL NOTES:

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2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR). UNLESS OTHERWISE NOTED.
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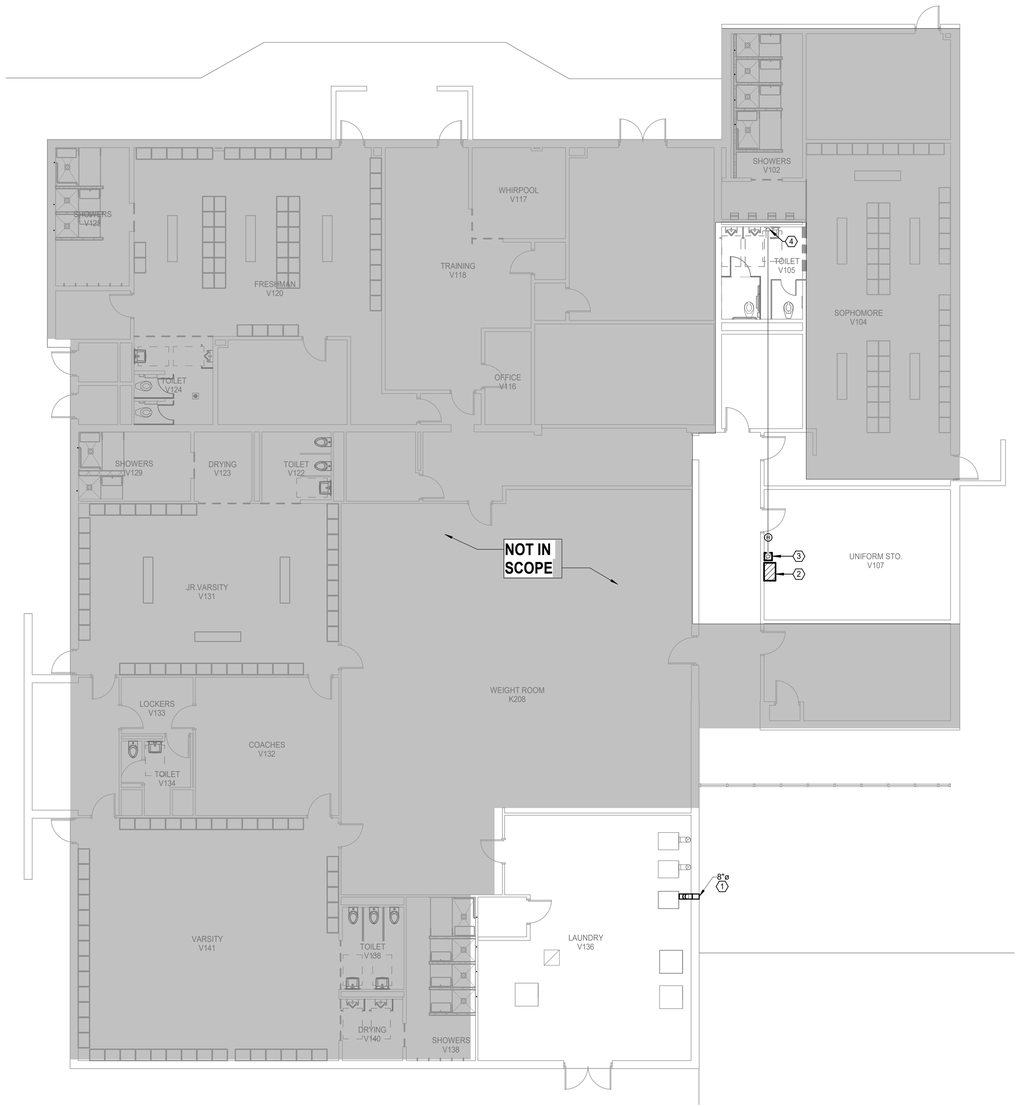
MECHANICAL KEYED NOTES

1. CONNECT NEW DRYER VENT DUCTWORK TO NEW DRYER. CONNECT TO WALL CAP.
2. PROVIDE ALORAIRE WALL MOUNTED DEHUMIDIFIER MODEL HD55P AT APPROXIMATE LOCATION SHOWN. COORDINATE FINAL LOCATION WITH ARCHITECT TO AVOID CONFLICTS. DEHUMIDIFIER SHALL BE PROVIDED WITH UNIT MOUNTED HUMIDISTAT AND WALL MOUNTING KIT.
3. PROVIDE WITH LITTLE GIANT CONDENSATE PUMP MODEL VCMA-20ULS-C-PRO. 1/30 HP, 115V/1PH/60HZ. MOUNT PUMP UNDER DEHUMIDIFER UNIT.
4. ROUTE 3/4" CONDENSATE DRAIN PIPE TO WYE TAIL PIECE.



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Sugarland, TX 77479

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MECHANICAL FLOOR PLAN - LEVEL 1 - FIELD HOUSE

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Salas O'Brien
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Salas O'Brien Registration: F-4111

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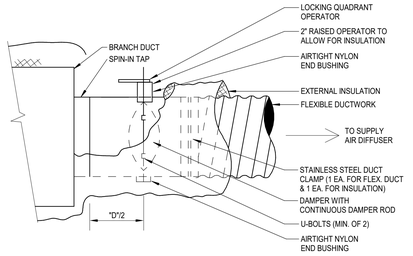
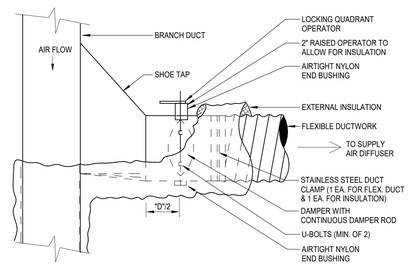


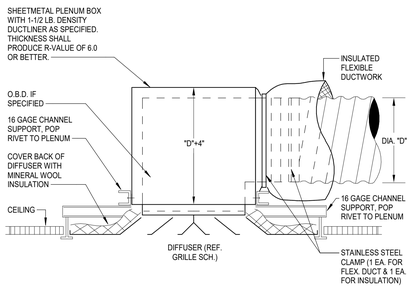
3 FLEXIBLE DUCT TAP - SPIN-IN

SCALE: NONE



2 FLEXIBLE DUCT TAP - SHOE

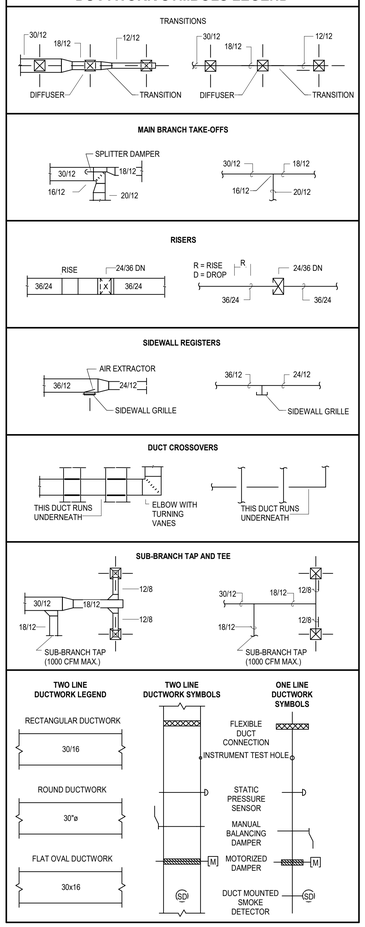
SCALE: NONE



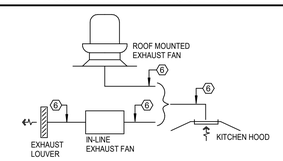
FLEX DUCT CONNECTION AT SUPPLY AIR DIFFUSER

1 SCALE: NONE

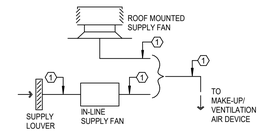
DUCTWORK SYMBOLS LEGEND



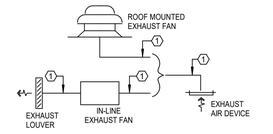
DUCT LINER AND INSULATION



KITCHEN HOOD EXHAUST AIR SYSTEMS



MAKE-UP/VENTILATION AIR SYSTEMS

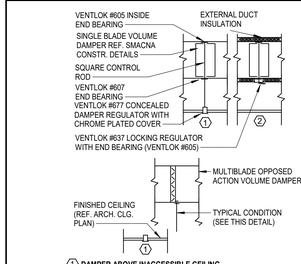


EXHAUST AIR SYSTEMS

KEYED NOTES:

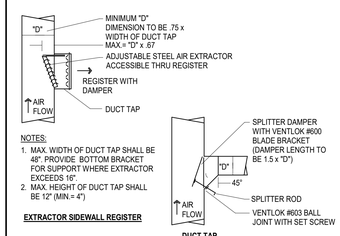
1. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
2. SHEETMETAL DUCTWORK RETURN AIR PLENUM WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
3. FLEXIBLE DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
4. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT DISCHARGE TO 10'-0" DOWNSTREAM.
5. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT INLET TO 10'-0" UPSTREAM.
6. EXHAUST DUCTWORK AS SPECIFIED WITH FIREBOARD INSULATION AS SPECIFIED.
7. SHEETMETAL DUCTWORK ONLY. NO INSULATION REQUIRED.

DUCTWORK CONSTRUCTION DETAILS



1 DAMPER ABOVE INACCESSIBLE CEILING

2 DAMPER ABOVE LIFT-OUT CEILING



GRILLE

MARK	SERVICE	TYPE	DAMPER	CONSTRUCTION MATERIAL	FINISH COLOR	MANUFACTURER	MODEL NUMBER	DESCRIPTION
A	EXHAUST AIR	GRILLE	-	ALUMINUM	-	TITUS	PAR-AA	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" OR 12"X12" FACE. PERFORATED FACE.

GENERAL NOTES:
1. DAMPERS NOTED AS U.L. SHALLBE A 'U.L.' CLASSIFIED CEILING RADIATION DAMPER WITH THERMAL BLANKET.
2. COORDINATE FINAL AIR DEVICE LOCATION AND FINISH COLOR WITH ARCHITECT.

REMARKS:
1. N/A

DAMPER

MARK	ACTUATOR	DUTY	BLADE ACTION	MANUFACTURER	MODEL NUMBER	REMARKS
D-1	MANUAL BALANCING	UNDER 9" WIDE	N/A	N/A	N/A	SEE SMACNA CONSTRUCTION DETAILS REFERENCED "TYPICAL CONSTRUCTION DETAILS FOR LOW VELOCITY DUCTS."
D-2	MANUAL BALANCING	OVER 9" WIDE	OPPOSED	RUSKIN	MD-35	MANUAL DAMPER WITH STANDARD CONSTRUCTION FEATURES AND VENTLOCK #639 LOCKING REGULATOR.
D-3	MOTORIZED	OVER 9" WIDE	OPPOSED	RUSKIN	CD-60	LOW LEAKAGE DAMPER WITH BLADE SEALS

NOTES:
N/A - NOT APPLICABLE

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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550 Dulles Ave, Sugarland, TX 77478
DULLES HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS 80219 LICENSED
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:
No. Date Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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M3.01-D
MECHANICAL SCHEDULES DETAILS, AND LEGEND

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LINETYPE LEGEND	
———	EXISTING TO REMAIN
- - - - - - - - -	DISCONNECT AND REMOVE

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

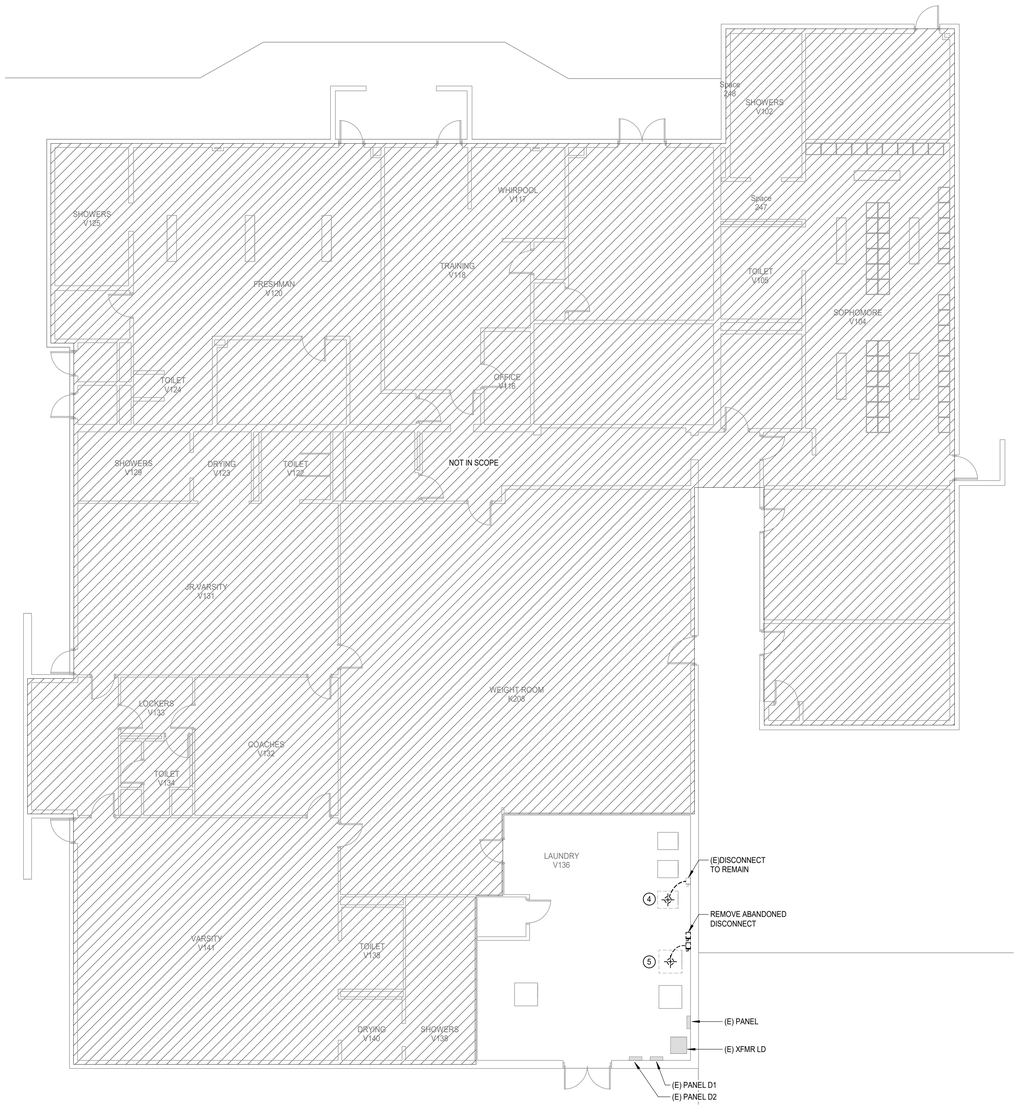
OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

1. DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
2. DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
3. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC...SHALL REMAIN.
4. DISCONNECT AND REMOVE ALL ELECTRICAL FROM WALLS SCHEDULED TO BE DEMOLISHED AND AS SHOWN. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT EXTENT OF WALL DEMOLITION.
5. EXCEPT AS OTHERWISE NOTED, ELECTRICAL WORK OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS. OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. ANY CONDUITS OUT OF MASONRY SURFACE SHALL BE CUT INTO SURFACE AND PATCHED.
6. CONTRACTOR TO FILL IN ALL HOLES LEFT BY THE DEMOLITION OF EXISTING CONDUIT PENETRATIONS.

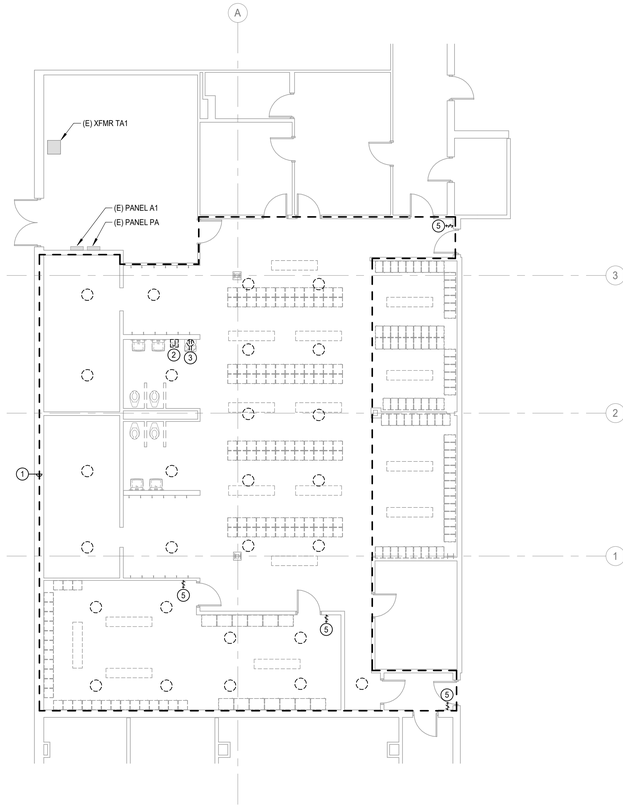
ELECTRICAL KEYED NOTES:

1. DISCONNECT AND REMOVE EXISTING PENDANT LIGHTING FIXTURES AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX. LEAVE CIRCUITRY INTACT FOR RE-USE.
2. DISCONNECT AND REMOVE ELECTRICAL TO EXISTING HAND DRYER AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX ABOVE CEILING. LEAVE CIRCUITRY INTACT FOR RE-USE. PATCH WALL TO MATCH EXISTING.
3. DISCONNECT AND REMOVE ELECTRICAL TO EXISTING DRINKING FOUNTAIN AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX ABOVE CEILING. LEAVE CIRCUITRY INTACT FOR RE-USE.
4. DISCONNECT ELECTRICAL TO EXISTING COMMERCIAL DRYER AND ASSOCIATED CONDUIT/WIRE BACK TO DISCONNECT SWITCH, LEAVE CIRCUIT INTACT FOR RE-USE.
5. DISCONNECT ELECTRICAL TO EXISTING COMMERCIAL WASHER AND ASSOCIATED CONDUIT/WIRE BACK TO DISCONNECT SWITCH, LEAVE CIRCUIT INTACT FOR RE-USE. REMOVE DISCONNECT SWITCH AND REPLACE WITH NEW.
5. DISCONNECT AND REMOVE EXISTING WIRING DEVICE. EXISTING OUTLET BOX SHALL REMAIN AND SHALL BE RE-USED AS PRACTICAL FOR NEW WIRING DEVICE.



2 ELECTRICAL DEMOLITION FLOOR PLAN - LEVEL 1 - DULLES FIELD HOUSE

Scale: 1/8" = 1'-0"



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1 ELECTRICAL DEMOLITION FLOOR PLAN - LEVEL 1 - DULLES GYM LOCKERS

Scale: 1/8" = 1'-0"

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Sugarland, TX 77479

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80219
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DES CHECKED BY: JZ
REVISIONS:

Number	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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ELECTRICAL DEMOLITION FLOOR PLANS - LEVEL 1

DULLES HIGH SCHOOL

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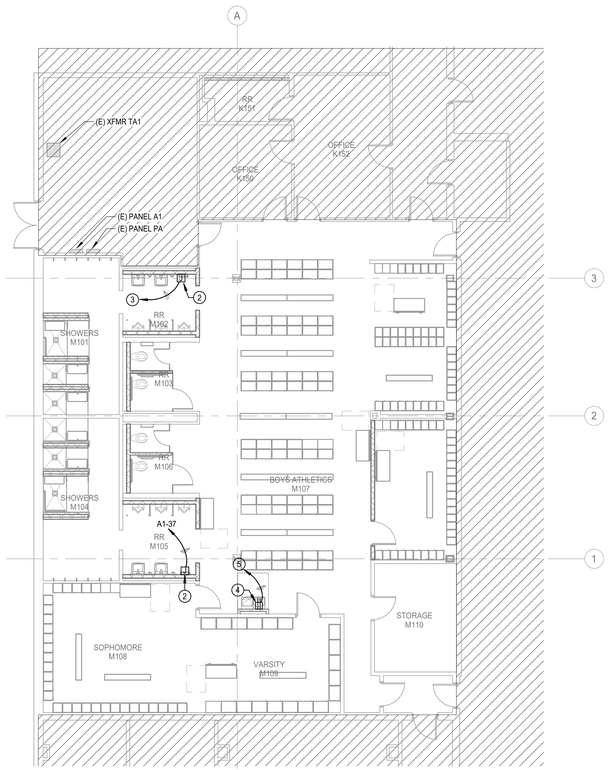
ELECTRICAL KEYED NOTES:

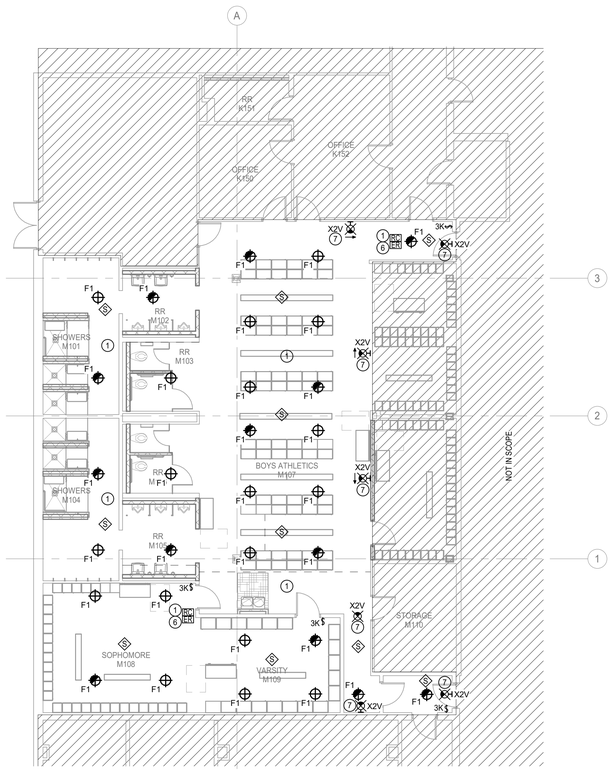
1. CONNECT NEW LIGHT FIXTURES TO EXISTING CIRCUITRY PRESERVED DURING DEMOLITION. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT TO EXISTING LOCATION AND/OR NEW FIXTURES. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 15-AMPERES.
2. PROVIDE A JUNCTION BOX FOR CONNECTION OF NEW ELECTRIC HAND DRYER. PROVIDE CIRCUIT BREAKER WITH NEW LOCK-OFF DEVICE. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
3. CONNECT HAND DRYER TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION; PROVIDE CIRCUIT BREAKER WITH NEW "LOCK-OFF" DEVICE.
4. NEW ELECTRIC DRINKING FOUNTAIN, REFER TO DETAIL FOR MOUNTING REQUIREMENTS.
5. CONNECT TO EXISTING DRINKING FOUNTAIN CIRCUIT PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
6. PROVIDE NEW EMERGENCY LOAD CONTROL RELAY 'ER' AND CONNECT TO 'HATCHED' FIXTURES WITHIN SPACE. CONNECT TO NEAREST EMERGENCY LIFE SAFETY BRANCH CIRCUIT WITH 2#12, 1#12G., 3/4"C.
7. PROVIDE A CONSTANT HOT FROM NEW LIFE SAFETY EMERGENCY CIRCUIT SERVING SPACE WITH #12AWG.

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC., SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.
4. LOCATION OF NEW / REPLACEMENT LIGHT FIXTURES SHALL RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTURE WHIPS AS PRACTICAL. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT AND PROVIDE NEW J-BOX ABOVE ACCESSIBLE CEILING WITH ½-INCH FLEXIBLE STEEL CONDUIT OR STEEL MC CABLE, LENGTH NOT TO EXCEED 6-FEET. 'DAISY CHAINING'LIGHT FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS NOT ALLOWED. FOR NON-ACCESSIBLE CEILINGS, LIGHT FIXTURE WHIPS SHALL BE ½-INCH FLEXIBLE STEEL CONDUIT, LENGTH AS REQUIRED TO MAKE A TAP AT AN ACCESSIBLE J-BOX. RECESSED LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MAY BE DAISY CHAINED USING THE LIGHT FIXTURE'S INTEGRAL, UL LISTED J-BOX OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THROUGH FIXTURE FROM BELOW THE CEILING. REFER TO SPECIFICATION SECTION 26 05 33 CONDUIT SYSTEMS.
5. LIGHTING CONTROLS WHERE PROVIDED SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
6. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
7. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED; CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.
8. SPACES WITH MULTIPLE OCCUPANCY / VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
9. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.
10. CONTRACTOR SHALL PROVIDE CONSTANT UNSWITCHED POWER FOR BATTERY PACKS AND / OR EXIT SIGNAGE.



2 **ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - DULLES GYM LOCKERS**
Scale: 1/8" = 1'-0"



1 **ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - DULLES GYM LOCKERS**
Scale: 1/8" = 1'-0"

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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550 Dulles Ave, Sugarland, TX 77478
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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: DES	CHECKED BY: JZ

REVISIONS:

No.	Date	Description

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ELECTRICAL FLOOR PLANS - LEVEL 1 - GYM LOCKERS

DULLES HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
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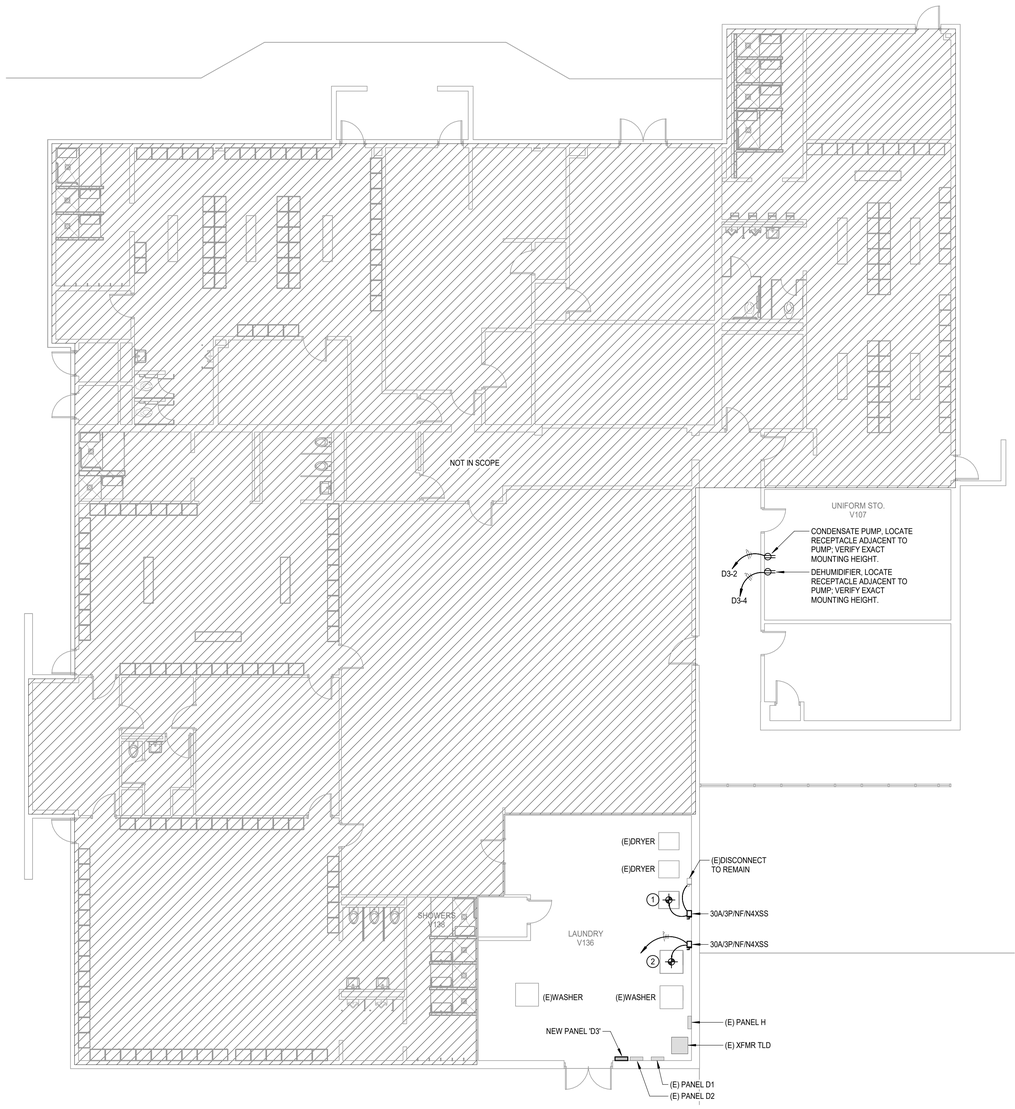
ELECTRICAL KEYED NOTES:

1. NEW COMMERCIAL DRYER LOCATION; CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
2. NEW COMMERCIAL WASHER LOCATION; CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC., SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.



1 **ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - DULLES FIELD HOUSE**
Scale: 1/8" = 1'-0"

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Houston, Texas 77046
pflugerarchitects.com

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Sugarland, TX 77479

BRADLEY KALMANS
86219
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
12/04/2025

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Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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ELECTRICAL FLOOR PLAN - LEVEL 1 - FIELD HOUSE

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Branch Panel: A1

EXISTING

Location: Room K450 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TA1 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Existing A/C Control	EX.	20	1	0.5 / 0.5			2	20	EX. Existing Load	2	
	3	Existing Load	EX.	20	1		0.5 / 0.5					4	
	5	Existing Locker Room Lighting	EX.	20	1			1.0 / 0.5	2	20	EX. Existing Load	6	
	7	Existing Load	EX.	20	1	0.5 / 0.5						8	
	9	Existing Locker Room Lighting	EX.	20	1		1.0 / 0.5		1	20	EX. Existing Load	10	
	11	Existing Load	EX.	20	1			0.5 / 0.5	1	20	EX. Existing Load	12	
	13	Existing Receptacles	EX.	20	1	0.5 / 0.5			1	20	EX. Existing Load	14	
	15	Existing Receptacles	EX.	20	1		0.5 / 0.5		1	20	EX. Existing Load	16	
	17	Existing Circulation Pump	EX.	20	1			0.5 / 0.5	1	20	EX. Existing Load	18	
	19	Existing Circulation Pump	EX.	20	1	0.5 / 0.5			1	20	EX. Existing A/C Control	20	
	21	Existing Load	EX.	20	1		0.5 / 0.5		1	20	EX. Existing Load	22	
	23	Existing Load	EX.	20	1			0.5 / 0.5	1	20	EX. Existing Load	24	
	25	Existing Locker Room Lighting	EX.	20	1	1.0 / 0.5			1	20	EX. Existing Load	26	
	27	Existing Load	EX.	20	1		0.5 / 0.5					28	
	29	Existing Load	EX.	20	1			0.5 / 0.5	2	20	EX. Existing Load	30	
	31	Existing Load	EX.	20	1	0.5 / 0.3						32	
	33	Existing Load	EX.	20	2		0.3 / 0.3		3	20	EX. Existing Load	34	
	35							0.3 / 0.3				36	
1,LF	37	**Electric Hand Dryer**	**#10**	**30**	**1**	1.5 / 0.0						38	
1	39	**SPARE**		**20**	**1**		0.0 / 0.0		3	20	-- Existing Spare	40	--
1	41	**SPARE**	--	**20**	**1**			0.0 / 0.0				42	
			Total Load:			7.8 kVA	6.1 kVA	6.1 kVA					
			Total Amps:			65 A	51 A	51 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Miscellaneous	1.5 kVA	100.00%	1.5 kVA		
Existing	18.5 kVA	100.00%	18.5 kVA	**Total Conn. Load:**	20.0 kVA
				Total Est. Demand:	20.0 kVA
				Total Conn. Current:	56 A
				Total Est. Demand Current:	56 A

Notes:
1 - Remove existing circuit breaker and provide new.

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: D1

EXISTING

Location: LAUNDRY V136 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: 45 kVA, 277 V/480 V, Three... | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 225A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Existing Circuit	EX.	20	1	0.4 / 0.4			1	20	EX. Existing	2	
	3	Existing Circuit	EX.	20	1		0.4 / 0.4		1	20	EX. Existing EF-5	4	
	5	Existing Receptacle	EX.	20	1			0.4 / 0.4	1	20	EX. Existing	6	
	7					0.6 / 0.6						8	
	9	Existing Washer 3	EX.	20	3		0.6 / 0.6		3	20	EX. Existing Ice Machine	10	
	11							0.6 / 0.6				12	
	13	Existing Circuit	EX.	20	1	0.4 / 0.6						14	
	15	Existing EF-3	EX.	20	1		0.4 / 0.6		3	20	EX. Existing Dryer 1 &2	16	
	17	Existing Circuit	EX.	20	1			0.4 / 0.6				18	
	19					3.0 / 0.6						20	
	21	Existing Circuit	EX.	50	3		3.0 / 0.6		3	20	EX. Existing Washer 2	22	
	23							3.0 / 0.6				24	
	25					0.6 / 0.6						26	
	27	Existing Dryer 3	EX.	20	3		0.6 / 0.6		3	20	EX. Existing Washer 1	28	
	29							0.6 / 0.6				30	
	31					0.6 / 0.4			1	20	EX. Existing	32	
	33	Existing Circuit	EX.	15	3		0.6 / 0.4		1	20	EX. Existing	34	
	35							0.6 / 1.0	1	20	EX. Existing Receptacle	36	
	37					3.0 / 0.6						**38**	
	39	Existing Circuit	EX.	50	3		3.0 / 0.9		**3**	**50**	**#8 Panel D3**	**40**	**1**
	41							3.0 / 1.0				**42**	
			Total Load:			19.0 kVA	19.4 kVA	20.1 kVA					
			Total Amps:			159 A	162 A	168 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Miscellaneous	0.7 kVA	100.00%	0.7 kVA		
Existing	57.8 kVA	100.00%	57.8 kVA	**Total Conn. Load:**	58.5 kVA
				Total Est. Demand:	58.5 kVA
				Total Conn. Current:	162 A
				Total Est. Demand Current:	162 A

Notes:
1 - PROVIDE NEW CIRCUIT BREAKER

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: D3

NEW

Location: LAUNDRY V136 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: D1 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 125A MLO

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker	Wire	Circuit Description	CKT	Note
1	1	**Existing Circuit**	**EX.**	**20**	**1**	0.4 / 0.2			**1**	**20**	**#12 Condensate Pump**	**2**	**G**
1	3	**Existing Receptacle**	**EX.**	**20**	**1**		0.4 / 0.5		**1**	**20**	**#12 Dehumidifier**	**4**	**G**
1	5	**Existing EF-4 & EF-11**	**EX.**	**20**	**1**			1.0 / 0.0	**1**	**--**	**-- SPACE**	**6**	**--**
--	7	**SPARE**	--	**20**	**1**	0.0 / 0.0			**1**	**--**	**-- SPACE**	**8**	**--**
--	9	**SPARE**	--	**20**	**1**		0.0 / 0.0		**1**	**--**	**-- SPACE**	**10**	**--**
--	11	**SPARE**	--	**20**	**1**			0.0 / 0.0	**1**	**--**	**-- SPACE**	**12**	**--**
--	13	**SPARE**	--	**20**	**1**	0.0 / 0.0			**1**	**--**	**-- SPACE**	**14**	**--**
--	15	**SPARE**	--	**20**	**1**		0.0 / 0.0		**1**	**--**	**-- SPACE**	**16**	**--**
--	17	**SPARE**	--	**20**	**1**			0.0 / 0.0	**1**	**--**	**-- SPACE**	**18**	**--**
--	19	**SPARE**	--	**20**	**1**	0.0 / 0.0			**1**	**--**	**-- SPACE**	**20**	**--**
--	21	**SPARE**	--	**20**	**1**		0.0 / 0.0		**1**	**--**	**-- SPACE**	**22**	**--**
--	23	**SPARE**	--	**20**	**1**			0.0 / 0.0	**1**	**--**	**-- SPACE**	**24**	**--**
--	25	**SPARE**	--	**20**	**1**	0.0 / 0.0						**26**	
--	27	**SPARE**	--	**20**	**1**		0.0 / 0.0		**3**	**30**	**-- SPD**	**28**	**--**
--	29	**SPARE**	--	**20**	**1**			0.0 / 0.0				**30**	
			Total Load:			0.6 kVA	0.9 kVA	1.0 kVA					
			Total Amps:			5 A	8 A	9 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Miscellaneous	0.7 kVA	100.00%	0.7 kVA		
Existing	1.8 kVA	100.00%	1.8 kVA	**Total Conn. Load:**	2.5 kVA
				Total Est. Demand:	2.5 kVA
				Total Conn. Current:	7 A
				Total Est. Demand Current:	7 A

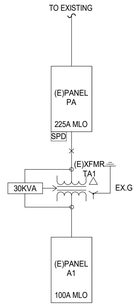
Notes:
1 - RE-LOCATED BRANCH CIRCUIT FROM PANEL D1.

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
M - PROVIDE METERING DEVICE

PANELBOARD CIRCUIT DIRECTORY:

CONTRACTOR SHALL RECORD AND/OR PRESERVE THE EXISTING CIRCUIT DIRECTORY, IF ANY, FOR THE SOLE PURPOSE UPON COMPLETION OF NEW WORK OF PRODUCING A NEW CIRCUIT DIRECTORY.

CONTRACTOR SHALL PROVIDE AS PART OF THE CONSTRUCTION DOCUMENTS A NEW, NEATLY TYPED DIRECTORY FOR EXISTING PANELS IN THE PROJECT. CONTRACTOR SHALL TRACE ALL EXISTING CIRCUITS AND SHALL LEGIBLY IDENTIFY AS TO ITS CLEAR,EVIDENT, AND SPECIFIC PURPOSE OR USE. LOADS SERVEDAND LOCATION AND/OR THE PANELBOARD SCHEDULE ON THE DRAWINGS. THE WORD "EXISTING" SHALL NOT BE USED ON PANELBOARD DIRECTORIES. SPARE BREAKERS ARE TO BE LISTED AS "SPARE". SPACES WITH NO BREAKERS ARE TO BE LEFT BLANK. REFER TO NEC-2017 408.4(A)



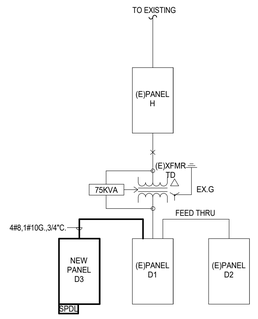
2 **PARTIAL ONE-LINE DIAGRAM - GYM LOCKERS**
Scale: NOT TO SCALE

ELECTRICAL LOAD ANALYSIS

277/480V. 3PH., 4W

LOAD DESCRIPTION:	KVA
PEAK KVA @ 125%	1670.0
NEW LIGHTING LOAD @ 125%	0.0
NEW RECEPTACLE LOAD @ 100%	0.0
NEW MISCELLANEOUS LOAD @ 100%	2.7
TOTAL	1672.7

TOTAL / (480 X √3) = 2012.9 AMPS



1 **PARTIAL ONE-LINE DIAGRAM - FIELDHOUSE**
Scale: NOT TO SCALE

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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Sugarland, TX 77479

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STATE OF TEXAS
PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. 25-006
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DRAWN BY: DES CHECKED BY: JZ
REVISIONS:

No.	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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E3.01-D

ELECTRICAL ONE-LINE DIAGRAM

DULLES HIGH SCHOOL

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LIGHTING CONTROLS SCHEDULE

Type	Sensor Operation	# of Lighting Zones	Description
ER	-	-	UL924 LOAD CONTROL RELAY, PLENUM RATED, 0-10V COMPATIBLE, 16A MINIMUM
RC	OCCUPANCY - AUTO ON / AUTO OFF	1	ON/OFF KEYED SWITCH, NO DIMMING.

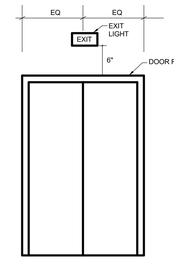
LIGHTING FIXTURE SCHEDULE

Type Mark	CATALOG NUMBER MANUFACTURER	MODEL	MOUNTING	DRIVER TYPE/LUMENS	CCT	CRI	VOLTAGE	LOAD	REMARKS
F1	McGRAW EDISON	TTN-D3-740-U-WQ-DPM-XX-NW+DPMSXX-NW	PENDANT	7,000L LED	4000 K	70	120 V	59 W	LOW BAY LUMINAIRE, IP66 RATED, WIDE DISTRIBUTION, DECORATIVE PENDANT MOUNT, WHITE FINISH. VERIFY PENDANT LENGTH TO MATCH EXISTING.
X2V	SURE-LITES	UX61WH	SURFACE	LED	-	80	277 V	1 W	VANDAL PROOF EXIT SIGN, WHITE HOUSING, RED LETTERING, AC ONLY.

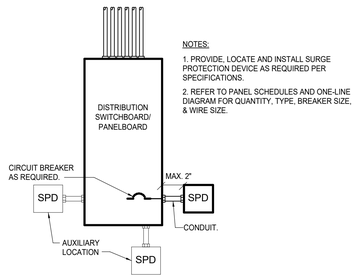
APPROVED LIGHTING MANUFACTURERS:

- LED / FLUORESCENT: LITHONIA, COLUMBIA, METALUX, AXIS, DAYBRITE, HE WILLIAMS, LSI, CREE
- EXIT SIGNS: LITHONIA, CHLORIDE, EMERGI-LITE, DUAL-LITE, SURE LITES, H.E. WILLIAMS
- ARCHITECTURAL HIGH PERFORMANCE FLOOD LIGHTS: WIDE-LITE, HADCO, KIM, McGRAW EDISON, GARDCO, LSI
- INDUSTRIAL: METALUX, LITHONIA, EXCELINE, G.E., HUBBELL, LUMARK, STONCO
- DOWN/TRACK LIGHTING: LIGHTOLIER, LITHONIA-GOTHAM, HALO ARCHITECTURAL, PRESCOLITE, HE WILLIAMS, INDY
- SECURITY (WALLPACKS): LITHONIA, McGRAW EDISON, G.E., LSI, HUBBELL, STONCO, GARDCO
- ARCHITECTURAL LINEAR: PEERLESS, LITECONTROL, ALERA, LAM, AMERICAN LINEAR LIGHTING, LEDALITE
- ARCHITECTURAL INDIRECT: INSIGHT, ORIGINAL CAST LIGHTING, SPI, LAM

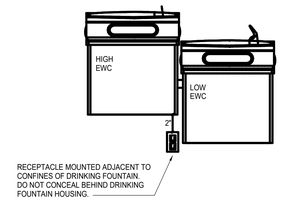
- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT INDICATED IN THE LIGHT FIXTURE SCHEDULE. WHERE THERE IS AN INCONSISTENCY BETWEEN THE LIGHT SCHEDULE AND THE SPECIFICATIONS, THE BETTER QUALITY OF WORK SHALL BE INCLUDED IN THE PROPOSAL.
- THE ABOVE LIGHTING MANUFACTURERS LIST DOES NOT IMPLY APPROVAL. APPROVAL WILL BE DETERMINED AFTER REVIEW OF SHOP DRAWING TO DETERMINE IF THE FIXTURE OR POLE SUBMITTED MEETS OR EXCEEDS THE DESIGN STANDARDS AND PERFORMANCE REQUIRED OF THE FIXTURE SPECIFIED IN THE LIGHT FIXTURE SCHEDULE OR SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE SPECIFIED LIGHT FIXTURE IF A SUBSTITUTION IS NOT APPROVED WITHOUT ANY ADDITIONAL COST TO THE OWNER. WHERE SPECIFIC OPTIONS/ACCESORIES ARE SPECIFIED OR REQUIRED, THEY SHALL BE PROVIDED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- DUE TO THE WIDE RANGE OF FIXTURE QUALITIES OFFERED BY EACH MANUFACTURER, THE APPROVED LIGHTING MANUFACTURERS SUBSTITUTION LIST IS NOT INTENDED TO INDICATE THAT ANY OR ALL MANUFACTURERS LISTED WILL HAVE SUITABLE SUBSTITUTIONS FOR THE LIGHT FIXTURES OR POLES SPECIFIED IN THE LIGHT FIXTURE SCHEDULE. SHOP DRAWING AND CONSTRUCTION DELAYS AS A RESULT OF INAPPROPRIATE SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT RESULT IN ANY ADDITIONAL COST TO THE OWNER.



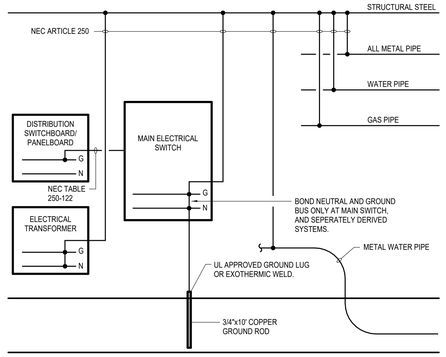
4 TYPICAL EXIT SIGN LOCATION
SCALE: NONE



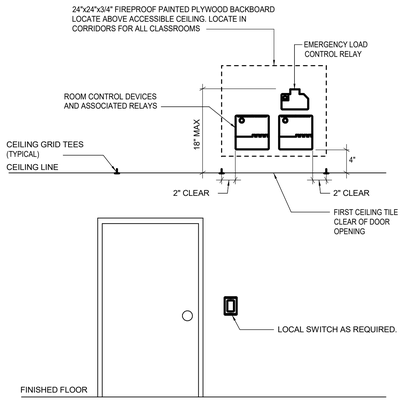
4 SURGE PROTECTION DETAIL
SCALE: NONE



3 ELECTRONIC DRINKING FOUNTAIN DETAIL
SCALE: NONE



2 GROUNDING DETAIL
SCALE: NONE



1 TYPICAL LIGHTING CONTROLS ELEVATION
SCALE: NONE

SYMBOL SCHEDULE

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED ON EMERGENCY CIRCUIT
	DOWNLIGHT FIXTURE
	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
	LIGHT FIXTURE - WALL MOUNTED
	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - CEILING MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - WALL MOUNTED ON EMERGENCY CIRCUIT
LIGHTING CONTROLS & DEVICES	
$	LINE VOLTAGE SINGLE POLE SWITCH
$3	LINE VOLTAGE 3-WAY SWITCH
$4	LINE VOLTAGE 4-WAY SWITCH
$K	LINE VOLTAGE MOMENTARY DPST KEYED SWITCH
$D	LINE VOLTAGE DIMMER SWITCH, SIZE AND TYPE AS REQUIRED
$P	LINE VOLTAGE SWITCH WITH PILOT LIGHT
$T	6-HOUR ROTARY TIMER SWITCH WITH NO HOLD U.N.O.
	PUSH BUTTON EPO SWITCH WITH COVER
$MC	LOW VOLTAGE MOMENTARY CONTACT SWITCH
$R	LOW VOLTAGE DIGITAL KEYPAD
$B	LOW VOLTAGE BUILDING MANAGEMENT (BMCS) LOCAL OVERRIDE SWITCH
	OCCUPANCY SENSOR (AUTO ON / AUTO OFF WITHIN 20-MINUTES)
	VACANCY SENSOR (MANUAL ON / AUTO OFF WITHIN 20-MINUTES)
	PHOTOCELL SENSOR
RF	LIGHTING CONTROL SYSTEM. ('R' DENOTES TYPE - SEE LIGHTING CONTROLS SCHEDULE)
ER	EMERGENCY LOAD CONTROL RELAY. MINIMUM 16A AND 0-10V COMPATIBLE. PROVIDE U.L. 924 U.N.O.
RECEPTACLES AND OUTLETS	
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
U	DUPLEX RECEPTACLE WITH TWO USB CHARGING PORTS.
	125/250 VOLT, 1 PHASE, 3-WIRE, 20 AMPS UNLESS NOTED OTHERWISE
	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
U	DOUBLE DUPLEX WITH TWO USB CHARGING PORTS IN 2-GANG BOX WITH SINGLE COVER PLATE
	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	FLUSH FLOOR DUPLEX RECEPTACLE OUTLET
	FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE OUTLET
D A	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
A	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	JUNCTION BOX
	FLUSH REMOTE GFCI DEVICE (LOCATE IN READILY ACCESSIBLE LOCATION)
MOTOR CONTROLLERS AND EQUIPMENT	
	MOTOR, MAKE FINAL MOTOR CONNECTION
$	MOTOR-RATED SWITCH. 20A UNLESS INDICATED OTHERWISE.
	DISCONNECT SWITCH AS REQUIRED
	COMBINATION MOTOR STARTER/DISCONNECT SWITCH AS REQUIRED
	MOTOR STARTER
	PREWIRED DEVICE, MAKE ELECTRICAL FINAL CONNECTIONS
VFD	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
HF	HIGH EFFICIENCY HARMONIC FILTER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
T	LOW VOLTAGE TRANSFORMER, SIZE AND TYPE AS REQUIRED.
	CHIME/BUZZER
ELECTRICAL EQUIPMENT	
	ELECTRICAL PANELBOARD; REFER TO FLOOR PLANS FOR VOLTAGE.
	DRY TYPE TRANSFORMER
	PLYWOOD TELEPHONE BACKBOARD
CIRCUITING	
	CONDUIT
	CONDUIT BELOW FLOOR, SLAB, OR GRADE
	3/4"C, UNLESS OTHERWISE NOTED; LONG HATCH, NEUTRAL; SHORT HATCH, PHASE; LONG HATCH & HOOK, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN.
	PARTIAL ELECTRICAL HOME RUN
SUBSCRIPTS AND ABBREVIATIONS	
WP	INDICATES 'WEATHERPROOF'
H	INDICATES 'HORIZONTAL'
NL	INDICATES 'NIGHT LIGHT'.
TP	INDICATES 'TAMPER PROOF'
(KS)	INDICATES 'KNEE SPACE'. LOCATE WIRING DEVICE IN KNEESPACE
U.N.O.	INDICATES 'UNLESS NOTED OTHERWISE'
(E)	INDICATES EXISTING TO REMAIN
(R)	INDICATES REPLACE DEVICE AND COVERPLATE.
•	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL MILLWORK DRAWINGS AND OTHER TRADES
GENERAL NOTES:	
-ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-4X MINIMUM. -ALL EXTERIOR RECEPTACLES SHALL BE WATER RESISTANT TYPE.	

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES.
2. ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
3. ALL EMPTY CONDUIT SHALL HAVE PULL STRING.
4. EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
5. VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 6" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
6. ALL FIRE ALARM DEVICES, RECEPTACLES, SWITCHES, AND WIRING DEVICES IN MECHANICAL AND ELECTRICAL ROOMS ARE TO BE RECESSED IN WALLS.
7. ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
10. CENTER ALL EXIT SIGNS OVER DOORS.

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
550 Dulles Ave, Sugarland, TX 77478
DULLES HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

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80219
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PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DES CHECKED BY: JZ
REVISIONS:

No.	Date	Description

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ELECTRICAL SCHEDULES, DETAILS, AND LEGENDS

DULLES HIGH SCHOOL

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PLUMBING KEYED NOTES

<varies>

1 EXISTING LAVATORY TO BE REMOVED. REMOVE CW AND VENT BACK TO MAIN. CAP SANITARY BELOW SLAB.

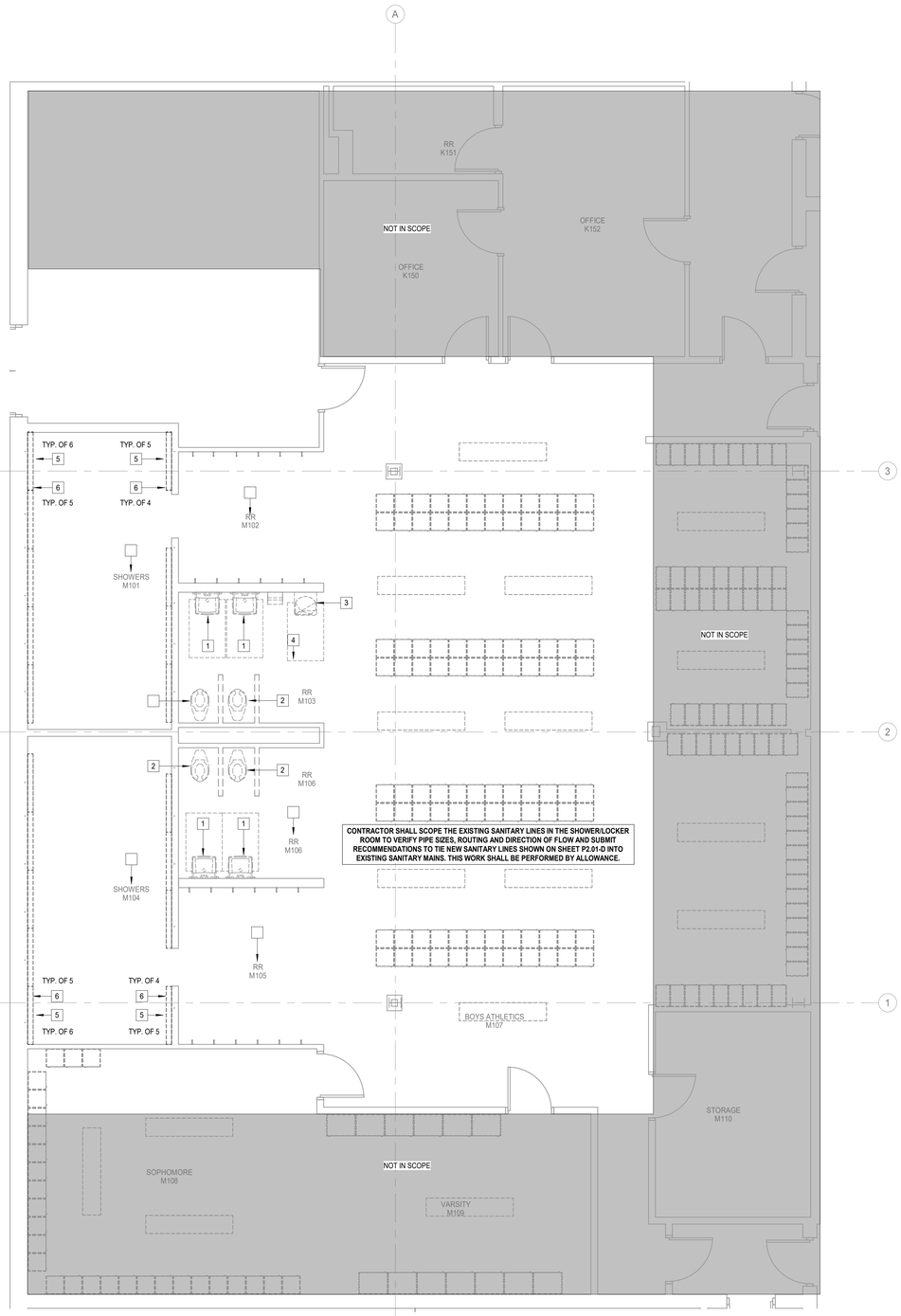
2 EXISTING WATER CLOSET TO BE REMOVED. REMOVE CW AND VENT BACK TO MAIN. CAP SANITARY BELOW SLAB.

3 EXISTING ELECTRONIC DRINKING FOUNTAIN TO BE REMOVED. REMOVE CW AND VENT PIPING BACK TO MAIN. CAP SANITARY BELOW SLAB.

4 VERIFY FLOOR DRAIN LOCATIONS (RR AND SHOWER)

5 EXISTING SHOWER TO BE REMOVED. REMOVE SANITARY, CW, HW AND VENT BACK TO MAIN.

6 EXISTING TRENCH DRAIN, FLOOR DRAIN AND SANITARY TO BE DEMOLISHED.



1 **PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - GYM**
Scale: 1/4" = 1'-0"

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
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12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: EH
REVISIONS:
No. Date Description

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P0.01-D
PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - GYM

DULLES HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
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PLUMBING KEYED NOTES

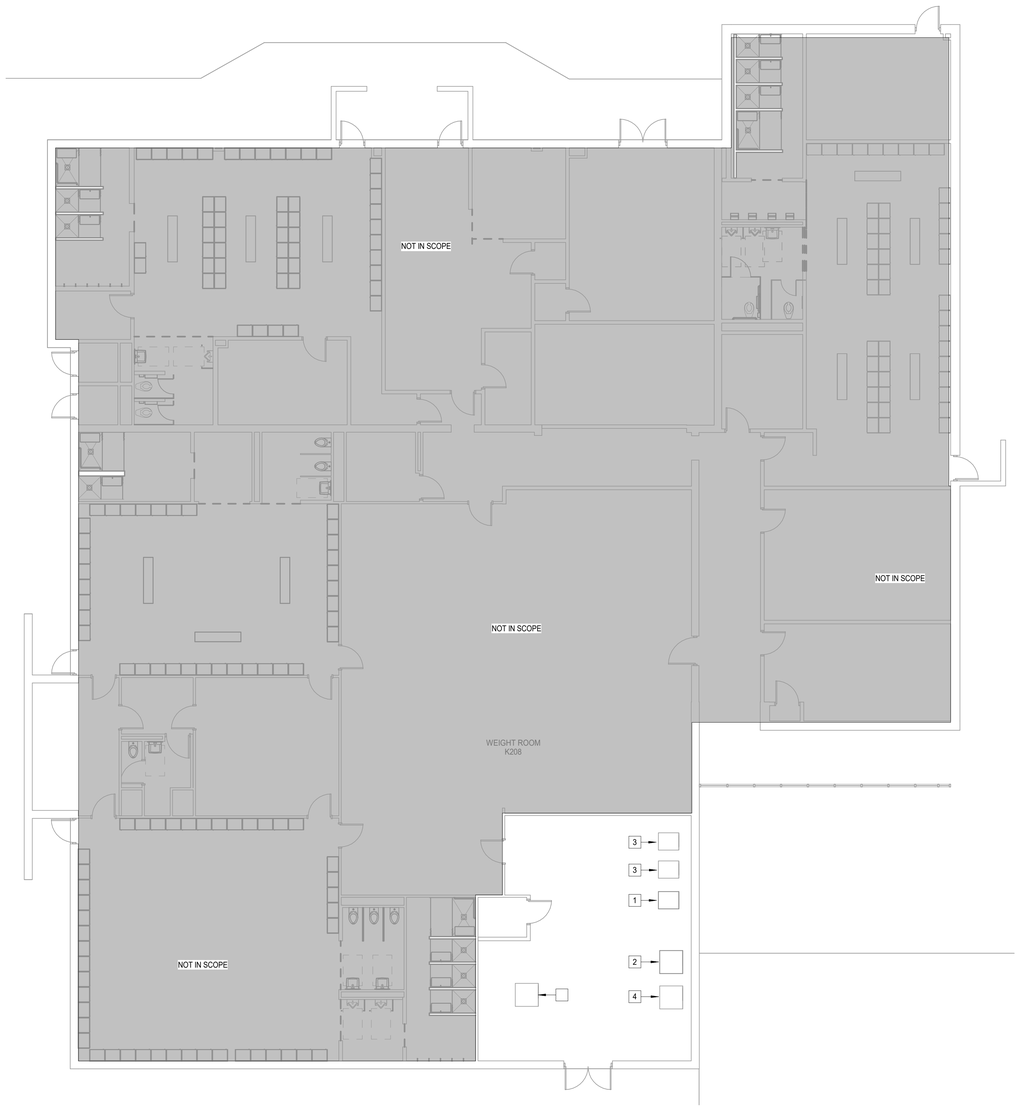
EXISTING CLOTHES WASHER TO REMAIN.

1 EXISTING DRYER TO BE REMOVED AND REPLACED. DISCONNECT EXISTING GAS CONNECTION AND PREPARE FOR CONNECTION OF NEW DRYER.

2 EXISTING WASHER TO BE REMOVED AND REPLACED. DISCONNECT EXISTING CW AND HW CONNECTION AND PREPARE FOR CONNECTION OF NEW WASHER.

3 EXISTING CLOTHES DRYER TO REMAIN.

4 EXISTING CLOTHES WASHER TO REMAIN.



1 **PLUMBING DEMOLITON FLOOR PLAN - LEVEL 1 - FIELD HOUSE - D**
Scale: 1/8" = 1'-0"

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Houston, Texas 77046
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PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: JP CHECKED BY: EH
REVISIONS:
No. Date Description

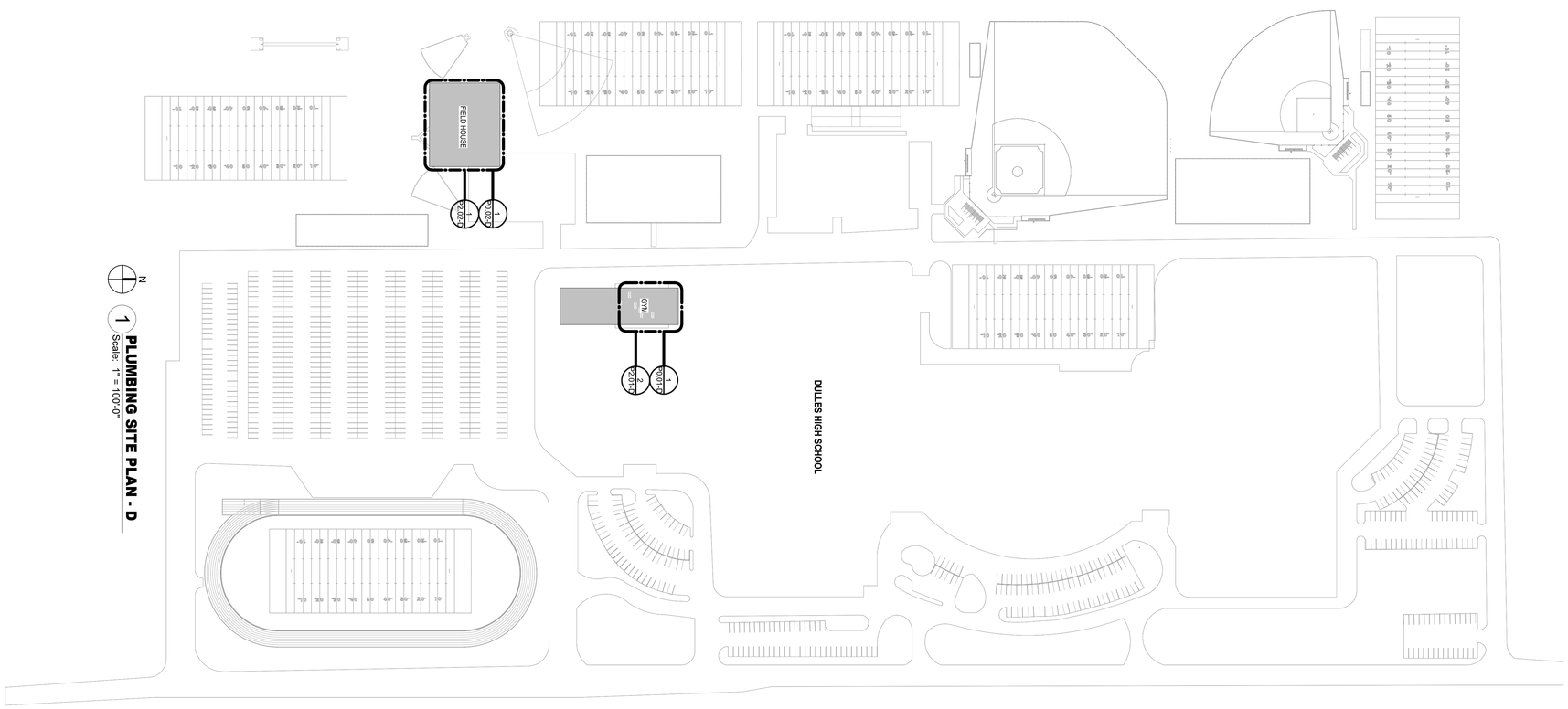
100% CD

P0.02-D
PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 -FIELD HOUSE

DULLES HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 5:21:36 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/DULLES_MEPT_R25.rvt



1 PLUMBING SITE PLAN - D
Scale: 1" = 100'-0"

Salas O'Brien
Houston
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Houston, TX 77064
Salas O'Brien Registration: F-4111
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DULLES HIGH SCHOOL

100% CD
P1.00-D
PLUMBING SITE PLAN

PROJECT NO. 25-006
DATE 12/04/2025
DRAWN BY: JP
CHECKED BY: EH
REVISIONS
Date Description

BRADLEY KALMANS
80219
CENSED
12/04/2025

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Sugarland, TX 77479

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

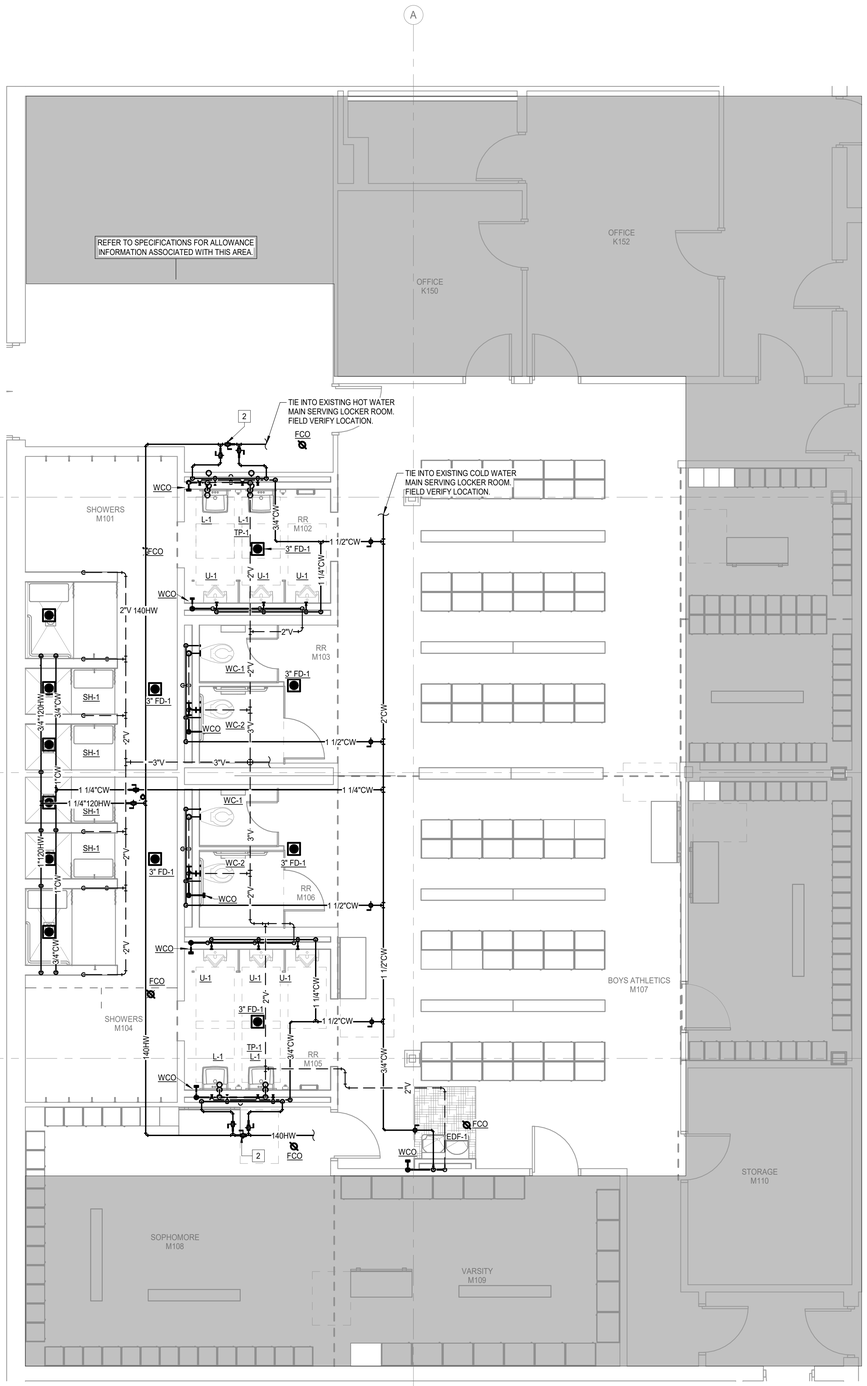
550 Dulles Ave, Sugarland, TX 77478

DULLES HIGH SCHOOL

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

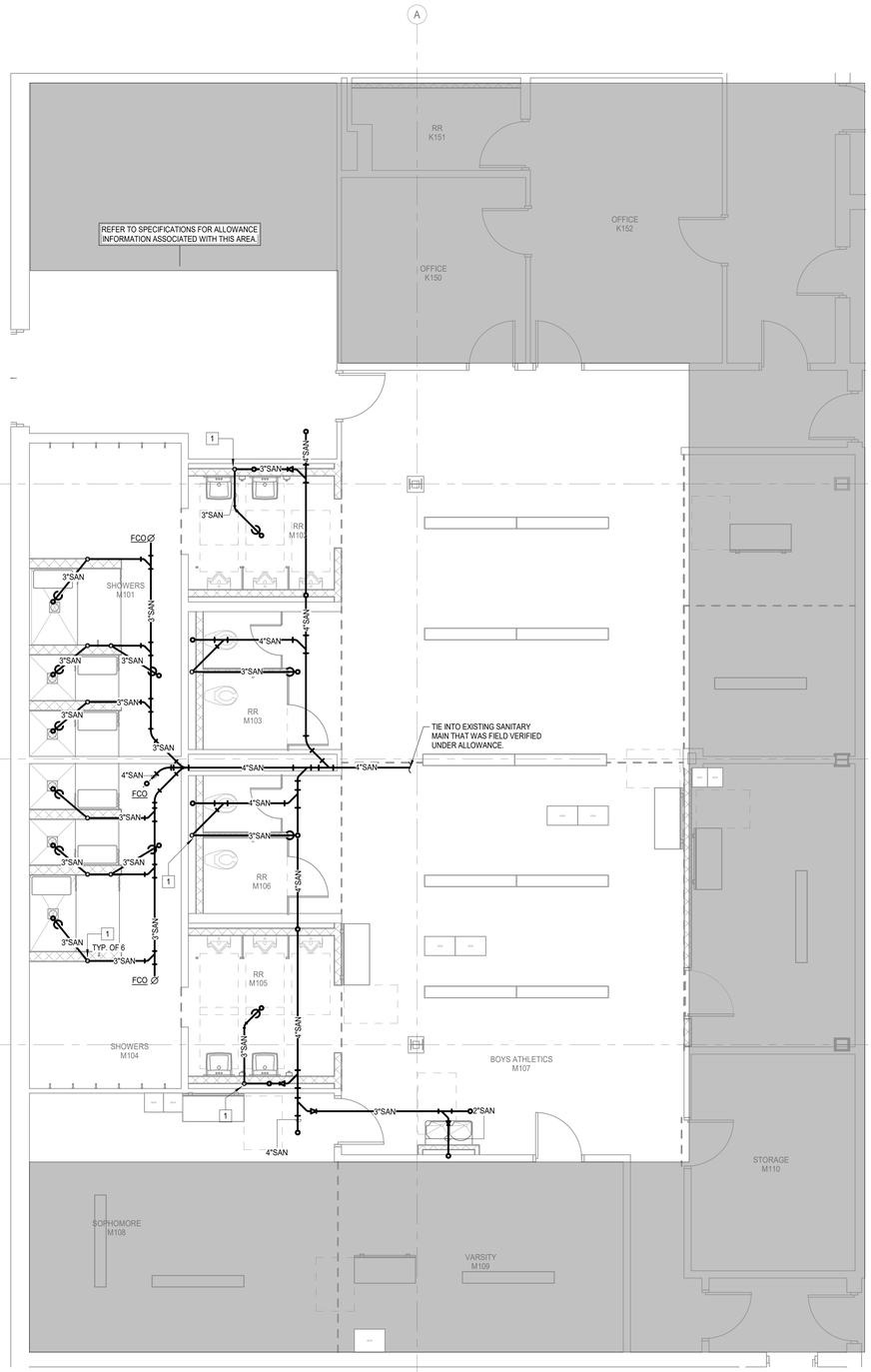
PLUMBING KEYED NOTES

1 2" VENT UP.
2 BYPASS VALVE NORMALLY CLOSED.



2 PLUMBING ENLARGED FLOOR PLAN - LEVEL 1 - GYM

Scale: 1/4" = 1'-0"



1 PLUMBING FLOOR PLAN - UNDERFLOOR - GYM

Scale: 1/4" = 1'-0"

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BRADLEY KALMANS — 80219 — LICENSED — STATE OF TEXAS — PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: JP CHECKED BY: EH
REVISIONS:

No.	Date	Description

100% CD

P2.01-D
PLUMBING FLOOR PLAN - LEVEL 1 - GYM

DULLES HIGH SCHOOL

Salas O'Brien
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10930 W. Sam Houston Pkwy North, Suite 900
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Salas O'Brien Registration: F-4111
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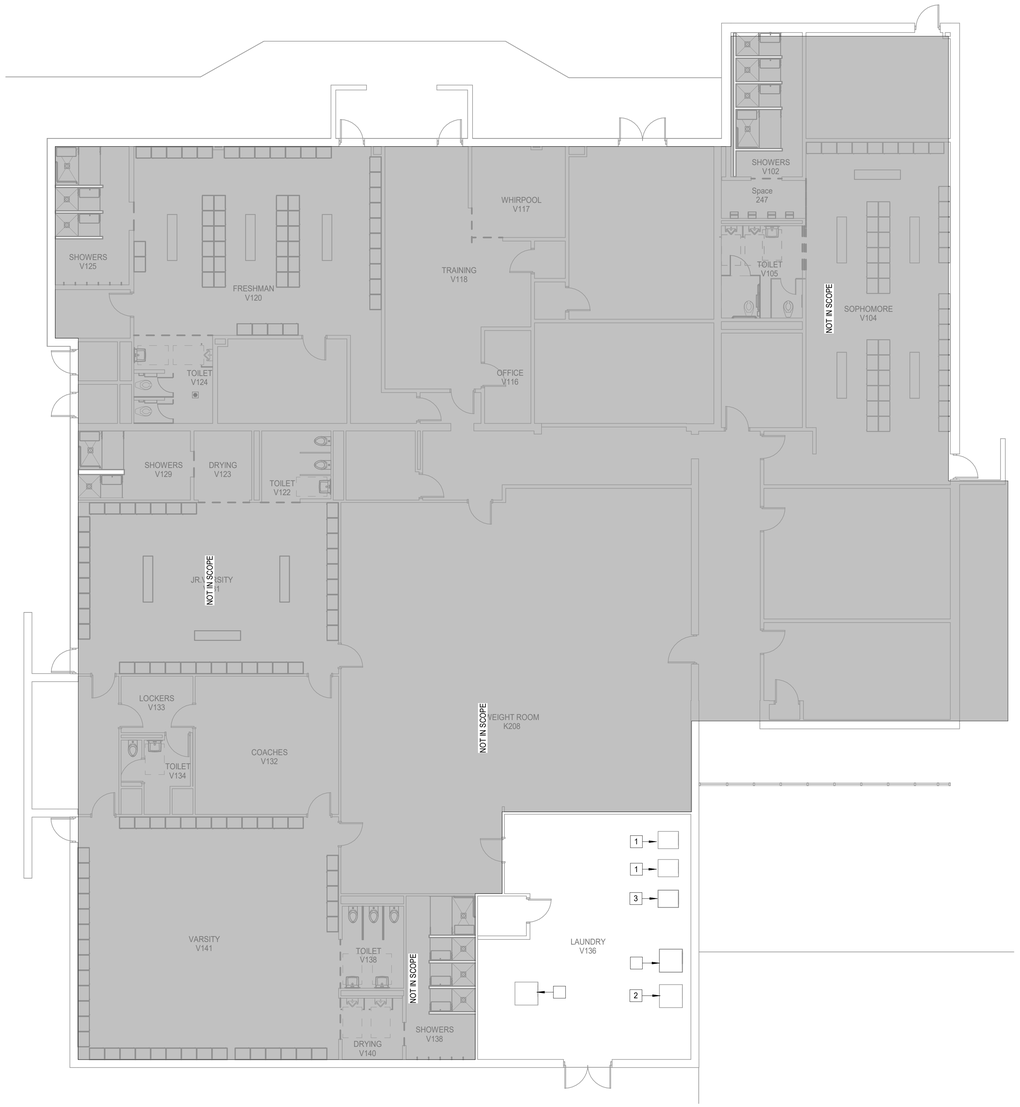
PLUMBING KEYED NOTES

<varies>

1 EXISTING CLOTHES DRYER.
2 EXISTING CLOTHES WASHER.
3 CONNECT NEW DRYER TO EXISTING UTILITIES.



1 **PLUMBING FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

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STATE OF TEXAS
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80219
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P2.02-D
PLUMBING FLOOR PLAN - LEVEL 1 - FIELD HOUSE

DULLES HIGH SCHOOL

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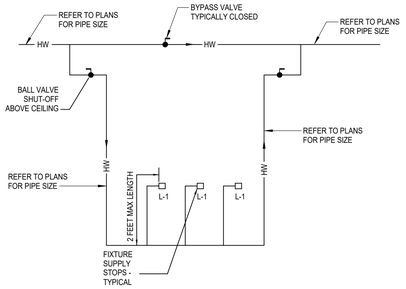
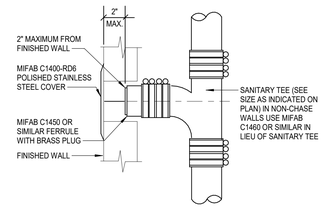


8 HW CIRCULATION FOR PUBLIC LAVATORIES
SCALE: NONE

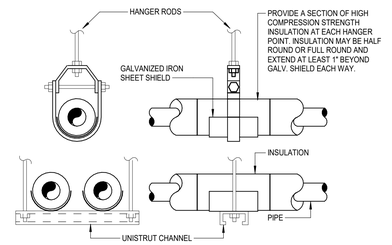
PSAN03- XX/XX/XX



4 WALL CLEANOUT
SCALE: NONE

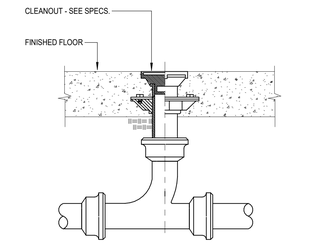
PP01 - XX/XX/XX

MINIMUM DIMENSIONS OF GALVANIZED SHEETMETAL PROTECTION SHIELDS AT PIPE HANGERS		
NOMINAL SIZE PIPE	SHIELD LENGTH (IN.)	GAUGE THICKNESS
1/2" & 3/4"	12	18
1" - 2-1/2"	12	18
3" - 4"	16	18
6"	18	16



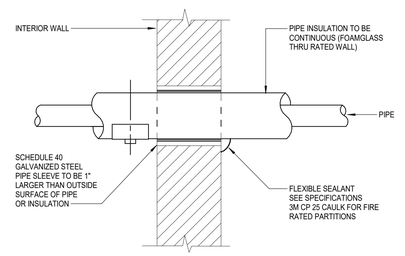
7 PIPE SHIELDS FOR INSULATED PIPING
SCALE: NONE

PSAN01- XX/XX/XX



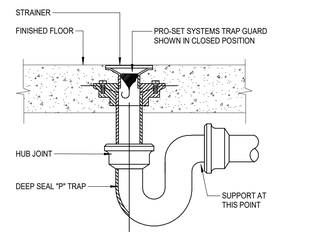
3 FLOOR CLEANOUT
SCALE: NONE

PSL01- XX/XX/XX



6 INTERIOR WALL PENETRATION
SCALE: NONE

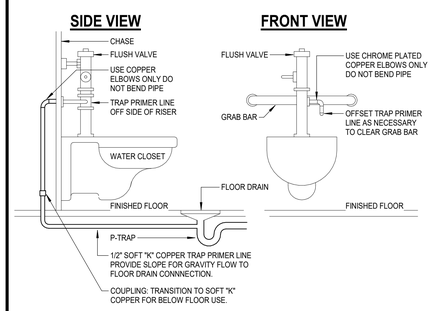
PSAN10- XX/XX/XX



NOTES:
1. TRAP GUARD SHALL BE FACTORY FITTED TO MATCH EACH FLOOR DRAIN (AND/FLOOR SINK) BY SIZE, MODEL, AND MANUFACTURER.
2. CONTACT LOCAL REP OR MANUFACTURER FOR CORRECT MODEL NUMBER.
3. FLOOR SINK TRAP GUARD INSTALLATION IS SIMILAR.
4. INSTALLATION OF TRAP GUARD TO BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. INSERT TRAP GUARD ONLY AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS TITE SEAL. FOR DRAIN RODDING AFTER INSTALLATION, INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

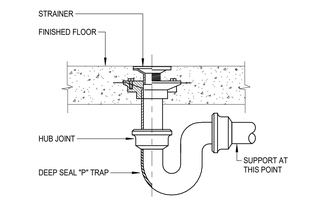
2 TRAP SEAL PROTECTION
SCALE: NONE

PTP03 - XX/XX/XX



5 FLUSH VALVE TRAP PRIMER
SCALE: NONE

PSAN07- XX/XX/XX



1 FLOOR DRAIN
SCALE: NONE

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office: 713.222.1141 | fax: 713.222.1174
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BRADLEY KALMANS
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PLUMBING DETAILS
DULLES HIGH SCHOOL

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PLUMBING PIPING LEGEND

SYMBOLS	DESCRIPTION
SAN	SANITARY OR WASTE PIPING ABOVE GRADE (SAN)
SAN	SANITARY OR WASTE PIPING BELOW GRADE (SAN)
GW	GREASE WASTE PIPING (GW)
GW	GREASE WASTE PIPING BELOW GRADE (GW)
SD	STORM DRAIN PIPING (SD)
SD	STORM DRAIN PIPING BELOW GRADE (GW)
SSD	SUB-SOIL DRAIN OR FOOTING DRAIN (SSD)
AW	ACID WASTE PIPING (AW)
AW	ACID WASTE PIPING BELOW GRADE (AW)
PD	PUMPED DISCHARGE (PD)
CD	CONDENSATE DRAIN PIPING (CD)
D	CONDENSATE - INDIRECT DRAIN PIPING (D)
	VENT PIPING (V)
CW	COLD WATER PIPING (CW)
HW	HOT WATER PIPING (HW)
HWR	HOT WATER RETURN PIPING (HWR)
SCW	SOFT COLD WATER PIPING (SCW)
CDW	CHILLED DRINKING WATER PIPING (CDW)
TP	TRAP PRIMER LINE (TP)
F	FIRE PROTECTION PIPING (F)
AS	AUTOMATIC SPRINKLER PIPING (AS)
GAS	NATURAL GAS PIPING (G)
GV	GAS VENT PIPING (GV)
AIR	COMPRESSED AIR PIPING (A)
	FLOW DIRECTIONAL ARROW
	SHUT-OFF VALVE
	BALANCING VALVE (BV)
	SOLENOID VALVE (SV)
	BALL VALVE (BV)
	BUTTERFLY VALVE
	LUBRICATED PACKED PLUG STOP STOP COCK (PC)
	HORIZONTAL SWING CHECK
	UNION
	HORIZONTAL SWING CHECK
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	REDUCED PRESSURE BACKFLOW PREVENTER (RPBFP)
	PIPING DOWN
	RISE OR DROP PIPING
	PIPING UP -OR- PIPING UP & DOWN
	CAP ON END OF PIPE
	CLEANOUT (WALL OR CEILING) (CO)
	FLOOR CLEANOUT (FCO)
	EXTERIOR CLEANOUT WITH 18"x18"x4" CONCRETE PAD (ECO)
	TWO-WAY CLEANOUT (PROVIDE 18"x24"x4" CONCRETE PAD OUTSIDE)
	FIRE DEPARTMENT VALVE AT RISER
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
	PRESSURE REDUCING VALVE (PRV)
	BRANCH CONNECTION OUT OF TOP
	BRANCH CONNECTION OUT OF BOTTOM
	BRANCH CONNECTION OUT OF SIDE
	WYE & 1/8TH BEND BRANCH CONNECTION
	WYE BRANCH CONNECTION
	HOSE BIBB
	PRESSURE GAUGE WITH COCK
	THERMOMETER
	GAS PRESSURE REGULATOR
	TEST COCK
	GAS METER
	WALL HYDRANT
	VALVE IN RISE
	ASME TEMPERATURE & PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE
	ANGLE VALVE
	OS&Y VALVE
	ROOF DRAIN
1	REFER TO KEYED NOTE
FS	FLOW SWITCH
	FLOOR SINK (FS)
	FLOOR DRAIN (FD)
	FLOOR DRAIN WITH P-TRAP (FD)
	FLOOR DRAIN WITH P-TRAP AT 45° ANGLE (FD)
	HUB DRAIN (HD)
	ACCESS PANEL FOR TRAP PRIMER OR SHOCK ABSORBER
AP	ACCESS PANEL LOCATION SYMBOL
A	SHOCK ABSORBER
	AIR CHAMBER
(E)	EXISTING
(N)	NEW
VTR	VENT THRU ROOF
B.F.F.	BELOW FINISHED FLOOR
A.F.F.	ABOVE FINISHED FLOOR
	NEW CONNECTION
IE=100.00"	INVERT ELEVATION
1	DELTA CHANGE SYMBOL
P 1	4" VTR RISER FLAG

PLUMBING FIXTURE SCHEDULE

TYPE:	WC-1 (STANDARD HEIGHT)
DESCRIPTION:	WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA WITH ANTIMICROBIAL SURFACE, 1.6 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD AFWALL #3351.101
SEAT:	ELONGATED OPEN FRONT SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. REFER TO ARCHITECTURAL DRAWINGS FOR SEAT COLOR. BEMIS #1955SSCT.
FLUSH VALVE:	1.6 GALLON FLUSH CYCLE. EXPOSED, PISTON TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. PROVIDE OFFSET TAILPIECE AND TRAP PRIMER CONNECTION. SLOAN ROYAL #110.
CARRIER:	WADE 311 (HORIZONTAL) AND 330 (VERTICAL) SERIES WITH 300 LB WEIGHT CAPACITY AND FLUSH VALVE SUPPORT (-AM1).
ROUGH-IN:	4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT REQUIREMENTS.
TYPE:	WC-2 (T.A.S. / ADA COMPLIANT)
DESCRIPTION:	WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA WITH ANTIMICROBIAL SURFACE, 1.6 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD AFWALL #3351.101
SEAT:	ELONGATED OPEN FRONT SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. REFER TO ARCHITECTURAL DRAWINGS FOR SEAT COLOR. BEMIS #1955SSCT.
FLUSH VALVE:	1.6 GALLON FLUSH CYCLE. EXPOSED, PISTON TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. PROVIDE OFFSET TAILPIECE AND TRAP PRIMER CONNECTION. SLOAN ROYAL #110.
CARRIER:	WADE 311 (HORIZONTAL) AND 330 (VERTICAL) SERIES WITH 300 LB WEIGHT CAPACITY AND FLUSH VALVE SUPPORT (-AM1).
ROUGH-IN:	4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT REQUIREMENTS.
TYPE:	U-1 (T.A.S. COMPLIANT)
DESCRIPTION:	URINAL, WALL HUNG, WHITE VITREOUS CHINA. 0.5 GALLON PER FLUSH. WASHOUT FLUSH ACTION, INTEGRAL TRAP. REMOVABLE DOMED STRAINER. AMERICAN STANDARD "WASHBROOK" 6590.001
FLUSH VALVE:	0.5 GALLON FLUSH CYCLE. EXPOSED, PISTON TYPE, CHROME PLATED URINAL FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 3/4" TOP SPUD. SLOAN ROYAL# 186.
CARRIER:	RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 4" SQUARE BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, UPPER AND LOWER BEARING PLATES WITH THREADED STUDS. WADE 401-AM1-M36.
ROUGH-IN:	2" WASTE, 2" VENT, 3/4" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.
TYPE:	L-1 (T.A.S. COMPLIANT)
DESCRIPTION:	LAVATORY, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, 4" CENTERSET FAUCET HOLES. AMERICAN STANDARD LUCERNE #0355.012.
FAUCET:	CHROME PLATED BRASS DECK MOUNTED LAVATORY FAUCET WITH COVER PLATE, 4-1/8" SPOUT, PUSH BUTTON HANDLE INDEXED "PUSH". SELF CLOSING METERING CARTRIDGE. VANDAL RESISTANT 2.2 SOFTFLOW AERATOR. CHICAGO #857-E12VP-769PSHABCP.
MIXING VALVE:	POINT OF USE 1070 CERTIFIED, BRASS BODY, ADJUSTABLE TEMPERATURE CONTROL, WAX FILLED THERMOSAT AND MOUNTING BRACKET. (105 F). BRADLEY S09-4007BY.
STRAINER:	1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP:	1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE #8872C.
SUPPLIES:	1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE #LFH2165LK
CARRIER:	RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE 520-08.
ROUGH-IN:	2" WASTE, 2" VENT, 1/2" COLD AND HOT WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.
TYPE:	SH-1 - INDIVIDUAL SHOWER STATION
DESCRIPTION:	SHOWER, JOB BUILT BASE INSTALLED PER ARCHITECTURAL DRAWINGS.
CONTROLS:	PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH INTEGRAL CHECKSTOPS. STAINLESS STEEL, ALUMINUM OR CHROME PLATED BRASS ESCUTCHEON. VANDAL RESISTANT 2.5 GPM SHOWER HEAD. CHICAGO #SH-PB1-12-030.
DRAIN:	FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. SEE FD-1 FOR ADDITIONAL INFORMATION.
TRAP SEAL:	PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN:	3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.
TYPE:	SH-2 (T.A.S. COMPLIANT) - INDIVIDUAL SHOWER STATION
DESCRIPTION:	SHOWER, JOB BUILT BASE INSTALLED PER ARCHITECTURAL DRAWINGS.
CONTROLS:	PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH LEVER HANDLE AND INTEGRAL CHECKSTOPS. STAINLESS STEEL, ALUMINUM OR CHROME PLATED BRASS ESCUTCHEON. 2.5 GPM HAND HELD SHOWER WITH 59" FLEXIBLE STAINLESS STEEL CLAD HOSE, VACUUM BREAKER, MOUNTING BRACKET, AND 24" SLIDE BAR. CHICAGO #SH-PB1-12-030.
DRAIN:	FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. SEE FD-1 FOR ADDITIONAL INFORMATION.
TRAP SEAL:	PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN:	3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.
TYPE:	EDF-1 (ADA COMPLIANT)
DESCRIPTION:	BOTTLE FILLING STATION & BI-LEVEL HIGH EFFICIENCY VANDAL RESISTANT COOLER FILTERED REFRIGERATED STAINLESS. CHILLING CAPACITY OF 8.0 GPH OF 50°F DRINKING WATER, BASED ON 80°F INLET WATER AND 90°F AMBIENT. INCLUDE ANTIMICROBIAL, FILTERED, GREEN TICKER, HANDS FREE, HIGH EFFICIENCY, LAMINAR FLOW, REAL DRAIN, VANDAL RESISTANT, VISUAL FILTER MINITOR, ELECTRONIC BOTTLE FILLER SENSOR WITH MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. ELKAY MODEL #LVRCGRNTL8WSK.
P-TRAP:	1-1/4" CHROME PLATED CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON. MCGUIRE 8872.
SUPPLIES:	1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK
CARRIER:	RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE SLAB WITH (4) 1/2" BOLTS. ADJUSTABLE SLEEVE FOR CONNECTION TO HANGER PLATE PROVIDED BY FIXTURE MANUFACTURER. WADE 400.
ROUGH-IN:	2" WASTE, 2" VENT, 1/2" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.
TYPE:	FD-1
SERVICE:	GENERAL USE
DESCRIPTION:	FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. WADE 1100-MR5.
TRAP PRIMER:	SERVED BY ELECTRONIC PPP PRIME-TIME TRAP PRIMER. REFER TO DETAILS.
ROUGH-IN:	REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION AND INSTALLATION WITH ARCHITECTURAL DRAWINGS / FLOOR CONSTRUCTION.
TYPE:	FCO
DESCRIPTION:	FLOOR CLEANOUT, CAST IRON BODY AND ADJUSTABLE TOP ASSEMBLY WITH GASKET SEAL, AND ROUND SCORIATED STAINLESS STEEL COVER. WADE 6000-153. FOR CARPETED FLOORS PROVIDE WADE 6000-CM.

GENERAL NOTES

ALL LAVATORIES AND SINKS SHALL BE SUPPLIED WITH HOT AND COLD WATER (UNLESS NOTED TO BE COLD WATER ONLY) TO FAUCETS AS INDICATED ON PLANS AND FIXTURE SCHEDULE. PROVIDE CHROME PLATED BRASS SUPPLY STOPS WITH LOOSE KEYS AND WALL ESCUTCHEONS. PROVIDE CHROME PLATED FLEXIBLE RISERS OF SIZE REQUIRED TO PROPERLY CONNECT FIXTURES. PROVIDE 17 GAUGE CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON (UNLESS NOTED TO BE AN ACID WASTE FIXTURE). REFER TO FIXTURE SCHEDULE FOR MINIMUM SIZES OF PLUMBING FIXTURE ROUGH-INS.

INSULATION KITS AT ALL LAVATORIES AND SINKS REQUIRED TO BE T.A.S. ACCESSIBLE (MCGUIRE OR TRUEBRO). ALL SUCH FIXTURES AND FINAL INSTALLATIONS SHALL COMPLY WITH THE STATE ACCESSIBILITY STANDARDS REQUIREMENTS.

INSERT TRAP GUARDS AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS-TIGHT SEAL. FOR DRAIN RODDING AFTER INSTALLATION. INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

DISREGARD FIXTURES LISTED THAT ARE NOT ON THIS JOB.

PLUMBING GENERAL NOTES

1. WITHIN THE EXISTING BUILDING, EXISTING WATER, WASTE AND VENT SERVICES ARE TO BE MODIFIED AS REQUIRED AND REUSED FOR THE INSTALLATION OF NEW AND/OR RELOCATED PLUMBING FIXTURES. REFER TO PLUMBING FLOOR PLANS FOR POINTS OF CONNECTION.
2. WITHIN THE EXISTING BUILDING, SAWCUT AND REMOVE EXISTING FLOOR SLAB AS REQUIRED TO PROVIDE NEW AND/OR RELOCATED PLUMBING FIXTURES, CLEANOUTS, AND UNDERSLAB WASTE AND VENT PIPING. PATCH AND REFINISH FLOOR TO MATCH EXISTING.
3. IN AREAS WHERE THE FLOOR SLAB IS REMOVED, CONTRACTOR SHALL ALSO REMOVE UNDERSLAB WASTE AND VENT PIPING WHICH SERVES FIXTURES DESIGNATED FOR REMOVAL PRIOR TO ANY REMOVAL, FIELD VERIFY THAT LINES TO BE REMOVED DO NOT SERVE ANY EXISTING FIXTURES TO REMAIN OR NEW FIXTURES TO BE INSTALLED.
4. IN AREAS WHERE THE FLOOR SLAB IS NOT REMOVED, CONTRACTOR SHALL ABANDON IN PLACE ANY UNDERSLAB WASTE AND VENT PIPING NO LONGER NEEDED, UNLESS THE PIPING MUST BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION. IF NEW WORK DOES NOT NECESSITATE THEIR REMOVAL, CUT AND PLUG SUCH LINES BELOW SLAB, AND PATCH FLOOR TO MATCH EXISTING.
5. FIELD VERIFY EXACT LOCATION, SIZE, DEPTH, DIRECTION OF FLOW, CAPACITY; PIPE MATERIAL AND CONDITION OF EXISTING WASTE PIPING PRIOR TO BEGINNING CONSTRUCTION. ENSURE THAT PROPER CONNECTIONS TO AND EXTENSION OF SUCH UTILITIES CAN BE MADE.
6. WASTE LINES TO BE RE-USED OR RECONNECTED TO SHALL BE THOROUGHLY RODDED OUT AND FLUSHED TO ENSURE THEY ARE FREE FROM BLOCKAGES.
7. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING BELOW SLAB WITH COLUMN FOOTINGS, GRADE BEAMS, UNDERGROUND PLUMBING AND ELECTRICAL UTILITIES, AND OTHER SUB-SURFACE BUILDING ELEMENTS.
8. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.
9. CONTRACTOR TO COORDINATE ALL REMODEL WORK WITH THE WORK OF OTHER TRADES TO AVOID CONFLICTS AND TO MINIMIZE INTERRUPTION OF SERVICES.
10. COORDINATE ALL FIXTURE AND EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS WITH LATEST ARCHITECTURAL DRAWINGS AND SPECIFICATIONS PRIOR TO ANY ROUGH-INS.
11. DO NOT ROUGH-IN FROM THESE DRAWINGS. REFER TO LATEST ARCHITECTURAL DRAWINGS FOR DIMENSIONED LOCATIONS.
12. CONTRACTOR TO FIELD VERIFY AS NECESSARY THE EXACT ROUTING AND SIZES OF ALL PIPING.
13. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE, INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.
14. THE PROPER INSTALLATION OF NEW FIXTURES AND THE PROPER CONTINUED OPERATION OF EXISTING FIXTURES TO REMAIN SHALL DETERMINE THE EXTENT AND NATURE OF PLUMBING REMODEL WORK.
15. EACH VENT SHALL TERMINATE VERTICALLY NOT LESS THAN 6" ABOVE ROOF, MAINTAIN MINIMUM 10'-0" DISTANCE BETWEEN VENT TERMINALS THROUGH ROOF AND ALL FRESH AIR INTAKES, AND A MINIMUM 5'-0" FROM ANY EXTERIOR WALL.
16. PRIOR TO BEGINNING CONSTRUCTION, COORDINATE BUILDING BACKFLOW PREVENTION REQUIREMENTS WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PROVIDE AS DIRECTED.

GENERAL NOTES

1. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE AND INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.
2. THIS CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THIS CONTRACTOR SHALL NOTIFY THE ARCHITECT/ ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.

SHOCK ARRESTOR SCHEDULE

P.D.I. SYMBOLS:	FIXTURE UNITS:	THREADED CONNECTION	CERTIFICATION
A	1 - 11	1/2"	ASSE 1010
B	12 - 32	3/4"	ASSE 1010
C	33 - 60	1"	ASSE 1010
D	61 - 113	1"	ASSE 1010
E	114 - 154	1"	ASSE 1010
F	155 - 330	1"	ASSE 1010

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

550 Dulles Ave, Sugarland, TX 77478

DULLES HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: JP CHECKED BY: EH
REVISIONS:

No.	Date	Description

100% CD

P5.02-D

PLUMBING LEGENDS AND SCHEDULES

DULLES HIGH SCHOOL

Salas O'Brien
Houston
10630 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111

Salas O'Brien Project Number: 2550-00810-00

12/3/2025 5:21:49 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/DULLES_MEPT_R25.rvt

FORT BEND ISD
BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

ELKINS HIGH SCHOOL
100% CONSTRUCTION DOCUMENTS

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SCOPE OF WORK

SID12509 - PROVIDE NEW COVERED HITTING CAGES AT SOFTBALL
- FOUR 14' X 70' X 14' COVERED HITTING TUNNELS

SID12511 - RENOVATE FIELD EVENTS. RENOVATE FOOTBALL PRESSBOX
- STRUCTURAL SPRAY RESURFACING ON TRACK
- BLEACHERS ADA ACCESSIBLE
- BLEACHERS STAIR REPLACEMENT ON NORTH SIDE
- POWER AND DATA IN PRESS BOX
- NEW VIEWING TOWER

SID12521 - PROVIDE NEW PRESS BOX FOR SOFTBALL
- NEW PRESSBOX FOR SOFTBALL
- MOVING THE EXISTING STONE MONUMENT

SID12537 - REPLACE WASHER AND DRYER

SECTION 2
- **ALTERNATE NO.4** - PUBLIC RESTROOM NEAR FIELD HOUSE
- REPLACE LOCKERS AND CEILING TILES IN FIELD HOUSE

BOARD OF TRUSTEES

DR. MARC SMITH	SUPERINTENDENT
KRISTEN K. TASSIN	PRESIDENT
ANGIE HANAN	VICE PRESIDENT
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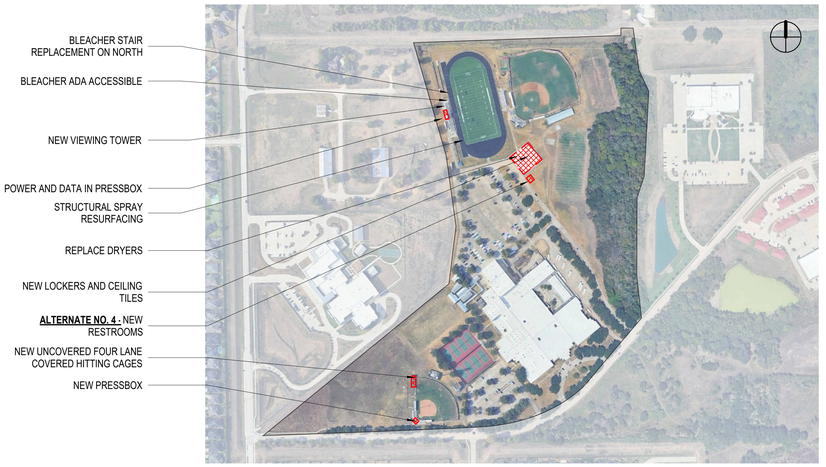
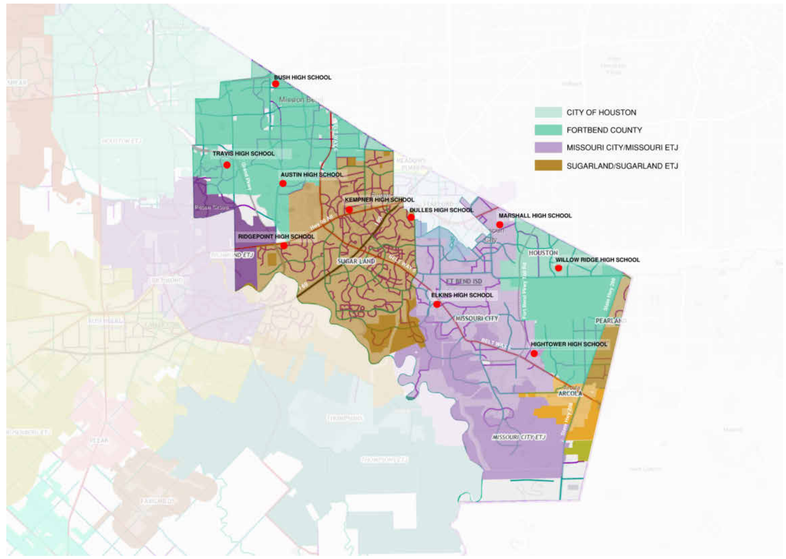
ELKINS CAMPUS KEY PLAN



LOCATION MAP



ALTERNATES:

ALTERNATE NO.4 - ELKINS HIGH SCHOOL: RESTROOM AT FIELD HOUSE FOR PUBLIC.

CIVIL

TEXAS SPORTS AND CIVIL ENGINEERING
11767 Katy Freeway, Suite 1112
Houston, TX 77079
P: 346.204.4854
www.texsce.com

MEPT

SALAS O'BRIEN
10930 W. San Houston Pkwy N. Suite 900
HOUSTON, TX 77064
P: (866) 768 4625
https://salasobrien.com

STRUCTURAL

MATRIX STRUCTURAL
5177 Richmond Ave Ste 670
HOUSTON, TX 77056
P: (713) 664-0130
matrixstructural.com

PFLUGER ARCHITECTS

PFLUGER ARCHITECTS
2 GREENWAY PLAZA #460
HOUSTON, TX 77046
P:(713) 222-1141
www.pflugerarchitects.com

pfluger
office: 713.222.1141 | fax: 713.222.1177
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

100% CD

G0.00-E
COVER

ELKINS HIGH SCHOOL

12/4/2025 10:08:51 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_ELKINS_ARCH_FBISD ATHLETIC RENOVATIONS BP012-E_R25.rvt

THE FOLLOWING SECTION OF DETAILS PROVIDES INFORMATION ON REQUIREMENTS FOR DISABLED ACCESSIBILITY. THE REQUIREMENTS COMBINE MINIMUM REQUIREMENTS OF STATE AND FEDERAL AGENCIES. THE PURPOSE OF THIS SECTION IS TO HELP AVOID INSTALLATION OF MATERIALS ON CONSTRUCTION PROJECTS THAT WOULD LIMIT ACCESSIBILITY. THE SCOPE OF THIS SECTION IS LIMITED AND THE INDIVIDUALS WORKING ON THE PROJECT SHOULD FAMILIARIZE THEMSELVES WITH TEXAS ACCESSIBILITY STANDARD (TAS) AND AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COPIES OF THESE DOCUMENTS MAY BE OBTAINED BY CONTACTING THE FOLLOWING:

TAS:
TEXAS DEPT. OF LICENSING & REGULATION
P.O. BOX 12157
AUSTIN, TEXAS 78711
(800) 803-9202
TDD (800) 735-2989
WWW.LICENSE.STATE.TX.US

ADAAG:
SOUTHWEST DISABILITY AND BUSINESS
TECHNICAL ASSISTANCE CENTER FOR
REGION VI.
2323 S. SHEPERD, SUITE 1000
HOUSTON, TEXAS 77019
ADA HOTLINE: (800) 949-4232
TDD: (713) 520-5136 -OR- (713) 520-0232
FAX: (713) 520-5785

IN THE EVENT THE INFORMATION ON THE PLAN SHEETS DOES NOT MEET THE MINIMUM REQUIREMENTS OF THE SECTION, THEN THE INFORMATION SHALL BE PRESENTED TO THE ARCHITECT FOR CLARIFICATION PRIOR TO CONSTRUCTION OF SPECIFIC AREA OF WORK.

ELIMINATION OF ARCHITECTURAL BARRIERS
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (ADA)

IN ACCORDANCE WITH ACCESSIBILITY REQUIREMENTS, THE FOLLOWING STANDARDS SHALL BE INCLUDED WHEN BIDDING ON PROJECTS INVOLVING RENOVATION OF OR NEW FACILITIES FOR PUBLIC ACCOMMODATION OR COMMERCIAL FACILITIES. ANY ITEMS NOT CONFORMING TO THESE OR ANY OTHER STANDARDS, CODES, OR ORDINANCES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT FOR HIS INTERPRETATION. IN THE EVENT THE INFORMATION LISTED IN THIS DOCUMENT CONFLICTS WITH ANY PORTION OF THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT, IN WRITING, OF HIS NEED FOR A SOLUTION TO RESOLVE THE CONFLICT. THE MOUNTING HEIGHTS INDICATED ARE FOR ITEMS THAT REQUIRE ACCESSIBILITY BY DISABLED INDIVIDUALS. WHERE TWO OR MORE ITEMS ARE GROUPED IN ONE AREA (MIRRORS, SINKS, TOILETS, DRINKING FOUNTAINS, URINALS, SHELVES, TELEPHONES, ETC.) NOT ALL ITEMS IN THE AREA HAVE TO BE MOUNTED AT HANDICAP HEIGHT. CONTRACTOR TO COORDINATE THESE INSTALLATION HEIGHTS WITH OTHER MATERIALS FOR NEAT, TRIMMED OUT AND FINISHED APPEARANCE. ITEMS FOR DISABLED INDIVIDUAL USE SHALL BE MOUNTED AT HEIGHT INDICATED FOR AGE LEVEL AS NOTED.

CHAPTER 1: APPLICATION AND ADMINISTRATION

TAS SECTION 104 - CONVENTIONS
A. ALL DIMENSIONS ARE SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES EXCEPT WHERE THE REQUIREMENT IS STATED AS A RANGE WITH SPECIFIC MINIMUM AND MAXIMUM POINTS.
B. UNLESS SPECIFICALLY STATED OTHERWISE, FIGURES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

CHAPTER 2: SCOPING REQUIREMENTS

TAS SECTION 201.1 - SCOPE
A. ALL AREAS OF NEWLY DESIGNED AND NEWLY CONSTRUCTED BUILDINGS AND FACILITIES AN ALTERED PORTIONS OF EXISTING BUILDINGS AND FACILITIES SHALL COMPLY WITH THESE REQUIREMENTS.

TAS SECTION 202 - EXISTING BUILDINGS AND FACILITIES
A. EACH ADDITION TO AN EXISTING BUILDING OR FACILITY SHALL COMPLY WITH THE REQUIREMENTS FOR NEW CONSTRUCTION. EACH ADDITION THAT AFFECTS OR COULD EFFECT THE USABILITY OF OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL COMPLY WITH 202.4.
B. WHERE EXISTING ELEMENTS, SPACES, OR COMMON USE AREAS ARE ALTERED, EACH ALTERED ELEMENT, SPACE, OR COMMON USE AREA SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 2.
C. AN ALTERATION THAT DECREASES THE ACCESSIBILITY OF A BUILDING OR FACILITY BELOW THE REQUIREMENTS FOR NEW CONSTRUCTION AT THE TIME OF THE ALTERATION IS PROHIBITED.
D. AN ALTERATION OF AN EXISTING ELEMENT, SPACE, OR AREA OF A BUILDING OR FACILITY SHALL NOT IMPOSE A REQUIREMENT FOR ACCESSIBILITY GREATER THAN REQUIRED FOR NEW CONSTRUCTION.
E. ALTERATIONS THAT AFFECT THE USABILITY OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL BE MADE SO AS TO ENSURE USAGE BY INDIVIDUALS WITH DISABILITIES.

TAS SECTION 204 - PROTRUDING OBJECTS
A. WITHIN AREAS OF ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOM AND SPACES SHALL COMPLY WITH 309.
B. WITHIN AREAS OF SPORTS ACTIVITY, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307.
C. WITHIN PLAY AREAS, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307 PROVIDED THAT GROUND LEVEL ACCESSIBLE ROUTES PROVIDE VERTICAL CLEARANCE IN COMPLIANCE WITH 1008.2.

TAS SECTION 205 - OPERABLE PARTS
A. OPERABLE PARTS ON ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOMS AND SPACES SHALL COMPLY WITH 309.
B. OPERABLE PARTS INTENDED FOR USE ONLY BY SERVICE OR MAINTENANCE PERSONNEL SHALL NOT BE REQUIRED TO COMPLY WITH 309.
C. ELECTRICAL OR COMMUNICATION RECEPTACLES SERVING A DEDICATED USE SHALL NOT BE REQUIRED TO COMPLY WITH 309.

TAS SECTION 206 - ACCESSIBLE ROUTES
A. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
B. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE
C. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH STORY AND MEZZANINE IN MULTI-STORY BUILDINGS AND FACILITIES.
D. IN RESTAURANTS AND CAFETERIAS, AN ACCESSIBLE ROUTE SHALL BE PROVIDED TO ALL DINING AREAS, INCLUDING RAISED OR SUNKEN DINING AREAS, AND OUTDOOR DINING AREAS.
E. WHERE A CIRCULATION PATH DIRECTLY CONNECTS A PERFORMANCE AREA TO AN ASSEMBLY AREA, AN ACCESSIBLE ROUTE SHALL DIRECTLY CONNECT THE ASSEMBLY SEATING AREA WITH THE PERFORMANCE AREA. AN ACCESSIBLE ROUTE SHALL BE PROVIDED FROM PERFORMANCE AREAS TO ANCILLARY AREAS OR FACILITIES USED BY PERFORMERS.

TAS SECTION 207 - ACCESSIBLE MEANS OF EGRESS
A. MEANS OF EGRESS SHALL COMPLY WITH SECTION 1003.2.13 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION.)
B. STANDBY POWER SHALL BE PROVIDED FOR PLATFORM LIFTS PERMITTED BY SECTION 1003.2.13.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007.5 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO SERVE AS A PART OF AN ACCESSIBLE MEANS OF EGRESS.

TAS SECTION 208 - PARKING SPACES
A. PARKING SPACES SHALL COMPLY WITH 502 AND SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 208.2 EXCEPT REQUIRED BY 208.2.1, 208.2.2, AND 208.2.3. WHERE MORE THAN ONE PARKING FACILITY IS PROVIDED ON A SITE, THE NUMBER OF ACCESSIBLE SPACES PROVIDED ON THE SITE SHALL BE CALCULATED ACCORDING TO THE NUMBER OF SPACES REQUIRED FOR EACH PARKING FACILITY.

TABLE 208.2 PARKING SPACES

TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES	TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES
1 TO 25	1	201 TO 300	7
26 TO 50	2	301 TO 400	8
51 TO 75	3	401 TO 500	9
76 TO 100	4	501 TO 1000	2 PERCENT OF TOTAL
101 TO 150	5	1000 AND OVER	20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000
151 TO 200	6		

TAS SECTION 208.2.4 - VAN PARKING SPACES
A. FOR EVERY SIX OR FRACTION OF SIX PARKING SPACES REQUIRED BY 208.2 TO COMPLY WITH 502, AT LEAST ONE SHALL BE A VAN PARKING SPACE COMPLYING WITH 502.

TAS SECTION 208.3 - LOCATION
A. PARKING SPACES COMPLYING WITH 502 THAT SERVE A PARTICULAR BUILDING OR FACILITY SHALL BE LOCATED ON THE SHORTEST POSSIBLE ACCESSIBLE ROUTE FROM PARKING LOT TO AN ENTRANCE. WHERE PARKING SERVES MORE THAN ONE ACCESSIBLE ENTRANCE, PARKING SPACES COMPLYING WITH 502 SHALL BE DISPERSED AND LOCATED AT THE SHORTEST ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCES.

TAS SECTION 209 - PASSENGER LOADING ZONES AND BUS STOPS
A. PASSENGER LOADING ZONES, EXCEPT THOSE REQUIRED TO COMPLY WITH 209.2.2 AND 209.2.3, SHALL PROVIDE AT LEAST ONE PASSENGER LOADING ZONE COMPLYING WITH 503 IN EVERY CONTINUOUS 100 LINEAR FEET (30M) OF LOADING ZONE SPACE, OR FRACTION THEREOF.
B. IN BUS LOADING ZONES RESTRICTED TO USE BY DESIGNATED OR SPECIFIED PUBLIC TRANSPORTATION VEHICLES, EACH BUS BAY, BUS STOP, OR OTHER AREA DESIGNATED FOR LIFT OR RAMP DEPLOYMENT SHALL COMPLY WITH 810.2

TAS SECTION 210 - STAIRWAYS
A. INTERIOR AND EXTERIOR STAIRS THAT ARE PART OF A MEANS OF EGRESS SHALL COMPLY WITH 504. ALTHOUGH HANDRAILS ON STAIRS THAT ARE NOT PART OF A MEANS OF EGRESS, STATE OR LOCAL BUILDING CODES MAY REQUIRE HANDRAILS OR GUARDS.

TAS SECTION 211 - DRINKING FOUNTAINS
A. NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED.
B. MORE THAN THE MINIMUM NUMBER OF DRINKING FOUNTAINS SPECIFIED IN 211.2 ARE PROVIDED, 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.1 THROUGH 602.6, AND 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.7

TAS SECTION 212 - KITCHENS, KITCHENETTES, AND SINKS
A. KITCHENS AND KITCHENETTES SHALL COMPLY WITH 804.
B. WHERE SINKS ARE PROVIDED, AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE, OF EACH TYPE PROVIDED IN EACH ACCESSIBLE ROOM OR SPACE SHALL COMPLY WITH 606.

TAS SECTION 213 - TOILET FACILITIES AND BATHING FACILITIES
A. WHERE TOILET FACILITIES AND BATHING FACILITIES ARE PROVIDED, THEY SHALL COMPLY WITH 213. TOILET FACILITIES AND BATHING FACILITIES SHALL BE PROVIDED ON A STORY CONNECTED BY AN ACCESSIBLE ROUTE TO AN ACCESSIBLE ENTRANCE.
B. TOILET RESTROOMS AND BATHING ROOMS SHALL COMPLY WITH 603.
C. WHERE MULTIPLE SINGLE USER TOILET ROOMS ARE CLUSTERED AT A SINGLE LOCATION, NO MORE THAN 50% OF THE SINGLE USER TOILET ROOMS FOR EACH USE AT EACH CLUSTER SHALL BE REQUIRED TO COMPLY WITH 603.
D. UNISEX TOILET ROOMS AND UNISEX BATHING ROOMS SHALL CONTAIN NOT MORE THAN ONE LAVATORY, AND TWO WATER CLOSETS WITHOUT URINALS OR ONE WATER CLOSET AND ONE URINAL. UNISEX BATHING ROOMS CONTAIN ONE SHOWER OR ONE SHOWER AND ONE BATHTUB, ONE LAVATORY, AND ONE WATER CLOSET. DOORS TO UNISEX RESTROOMS AND BATHING ROOMS SHALL HAVE PRIVACY LATCHES.

TAS SECTION 214 - WASHING MACHINES AND CLOTHES DRYERS
A. WHERE 3 OR FEWER WASHING MACHINES ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 WASHING MACHINES ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
B. WHERE 3 OR FEWER CLOTHES DRYERS ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 CLOTHES DRYERS ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.

TAS SECTION 215 - FIRE ALARM SYSTEMS
A. ALARMS IN PUBLIC USE AREAS AND COMMON USE AREAS SHALL COMPLY WITH 702.
B. WHERE EMPLOYEE WORK AREAS HAVE AUDIBLE ALARM COVERAGE, THE WIRING SYSTEM SHALL BE DESIGNED SO THAT THE VISIBLE ALARMS COMPLYING WITH 702 CAN BE INTEGRATED INTO THE ALARM SYSTEM.

TAS SECTION 216 - SIGNS
A. SIGNS SHALL COMPLY WITH 703. BUILDING DIRECTORIES, MENUS, SEAT AND ROW DESIGNATIONS IN ASSEMBLY AREAS, OCCUPANT NAMES, BUILDING ADDRESSES, AND COMPANY NAMES AND LOGOS SHALL NOT BE REQUIRED TO COMPLY WITH 216.
B. SIGNS REQUIRED BY SECTION 1003.2.13.5.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 1007.6.4 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE INSTRUCTIONS IN AREAS OF REFUGE SHALL COMPLY WITH 703.5.
C. DIRECTIONAL SIGNS REQUIRED BY SECTION 1003.2.13.6 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 707.7 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE DIRECTIONS TO ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 703.5.
D. WHERE NOT ALL ENTRANCES COMPLY WITH 404, ENTRANCES COMPLYING WITH 404 SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1. DIRECTIONAL SIGNS COMPLYING WITH 703.5 THAT INDICATE THE LOCATION OF THE NEAREST ENTRANCE COMPLYING WITH 404 SHALL BE PROVIDED AT ENTRANCES THAT DO NOT COMPLY WITH 404.

TAS SECTION 217 - TELEPHONES
A. WHERE PUBLIC TELEPHONE ARE PROVIDED, WHEELCHAIR ACCESSIBLE TELEPHONES COMPLYING WITH 704.2 SHALL BE PROVIDED.

CHAPTER 2: SCOPING REQUIREMENTS (CONTINUED)

TAS SECTION 219 - ASSISTIVE LISTENING SYSTEMS
A. IN EACH ASSEMBLY AREA WHERE AUDIBLE COMMUNICATION IS INTEGRAL TO THE USE OF THE SPACE, AN ASSISTIVE LISTENING SYSTEM SHALL BE PROVIDED.
B. WHERE ALL SEATS IN AN ASSEMBLY AREA ARE SERVED BY AN INTRODUCTION LOOP ASSISTIVE LEARNING SYSTEM, THE MINIMUM NUMBER OF RECEIVERS REQUIRED BY TABLE 219.3 TO BE HEARING-AID COMPATIBLE SHALL NOT BE REQUIRED TO BE PROVIDED.

TAS SECTION 220 - AUTOMATIC TELLER MACHINES AND FARE MACHINES
A. WHERE AUTOMATIC TELLER MACHINES OR SELF-SERVICE FARE VENDING, COLLECTION, OR ADJUSTMENT MACHINES ARE PROVIDED, AT LEAST ONE OF EACH TYPE PROVIDED AT EACH LOCATION SHALL COMPLY WITH 707. WHERE BINS ARE PROVIDED FOR ENVELOPES, WASTE PAPER, OR OTHER PURPOSES, AT LEAST ONE OF EACH SHALL COMPLY WITH 811.

TAS SECTION 221 - ASSEMBLY AREAS
A. ASSEMBLY AREAS SHALL PROVIDE WHEELCHAIR SPACES, COMPANION SEATS, AND DESIGNATED AISLE SEATS COMPLYING WITH 221 AND 802.
B. WHEELCHAIR SPACES COMPLYING WITH 802.1 SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 221.2.1.1.
C. WHEELCHAIR SPACES SHALL BE AN INTEGRAL PART OF THE SEATING PLAN.
D. WHEELCHAIR SPACES SHALL PROVIDE LINES OF SIGHT COMPLYING WITH 802.2. IN PROVIDING LINES OF SIGHT, WHEELCHAIR SPACES SHALL BE DISPERSED. WHEELCHAIR SPACES SHALL PROVIDE SPECTATORS WITH CHOICES OF SEATING LOCATIONS OR VIEWING ANGLES EQUAL TO OR BETTER THAN SEATING LOCATIONS AND VIEWING ANGLES OF OTHER SPECTATORS.
E. AT LEAST 5% OF THE TOTAL NUMBER OF AISLE SEATS PROVIDED SHALL COMPLY WITH 802.4 AND SHALL BE THE AISLE SEATS LOCATED CLOSEST TO THE ACCESSIBLE ROUTES.

TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES	NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES
4 TO 25	1	301 TO 500	6
26 TO 50	2	501 TO 5000	6, PLUS 1 FOR EACH 150, OR FRACTION THEREOF, BETWEEN 501 THROUGH 5000
51 TO 150	4	5001 AND OVER	36, PLUS 1 FOR EACH 200, OR FRACTION THEREOF, OVER 5000
151 TO 300	5		

TAS SECTION 222 - DRESSING, FITTING, AND LOCKER ROOMS
A. WHERE DRESSING ROOMS, FITTING ROOMS, OR LOCKER ROOMS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE, OF EACH TYPE OF USE IN EACH CLUSTER PROVIDED SHALL COMPLY WITH 803.
B. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN DRESSING FITTING OR LOCKER ROOMS W/O INDIVIDUAL COMPARTMENTS, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 803.5. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN INDIVIDUAL COMPARTMENTS AT LEAST ONE OF EACH TYPE SHALL BE PROVIDED IN ACCORDANCE WITH 223.

TAS SECTION 223 - MEDICAL CARE AND LONG-TERM CARE FACILITIES
A. IN LICENSED MEDICAL CARE FACILITIES AND LICENSED LONG-TERM CARE FACILITIES WHERE THE PERIOD OF STAY EXCEEDS TWENTY-FOUR HOURS, PATIENT OR RESIDENT SLEEPING ROOMS SHALL BE PROVIDED IN ACCORDANCE WITH 223. TOILET ROOMS PART OF CRITICAL OR INTENSIVE CARE PATIENT SLEEPING ROOMS SHALL NOT BE REQUIRED TO COMPLY WITH 603.

TAS SECTION 224 - TRANSIENT LODGING FACILITIES AND GUEST ROOMS
A. TRANSIENT LODGING FACILITIES SHALL PROVIDE GUEST ROOMS IN ACCORDANCE WITH 224. PLACES OF LODGING AND HOUSING AT A PLACE OF EDUCATION SHALL COMPLY WITH THE PROVISIONS APPLICABLE TO TRANSIENT LODGING, INCLUDING, BUT NOT LIMITED TO, THE REQUIREMENTS FOR TRANSIENT LODGING GUEST ROOMS IN SECTIONS 224 AND 806.
B. ENTRANCES, DOORS, AND DOORWAYS PROVIDING USER PASSAGE INTO AND WITHIN THE GUEST ROOMS THAT ARE NOT REQUIRED TO PROVIDE MOBILITY FEATURES COMPLYING WITH 806.2 SHALL COMPLY WITH 404.2.3.
C. IN GUEST ROOMS HAVING MORE THAN 25 BEDS, 5% MINIMUM OF THE BEDS SHALL HAVE CLEAR FLOOR SPACE COMPLYING WITH 806.2.3.

TAS SECTION 225 - STORAGE
A. WHERE STORAGE IS PROVIDED, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 811.
B. WHERE LOCKERS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE, SHALL COMPLY WITH 811.

TAS SECTION 226 - DINING SURFACES AND WORK SURFACES
A. WHERE DINING SURFACES ARE PROVIDED FOR THE CONSUMPTION OF FOOD OR DRINK, AT LEAST 5% OF THE SEATING SPACES AND STANDING SPACES AT THE DINING SURFACES SHALL COMPLY WITH 902. IN ADDITION, WHERE WORK SURFACES ARE PROVIDED FOR USE BY OTHER THAN EMPLOYEES, AT LEAST 5% SHALL COMPLY WITH 902.

TAS SECTION 227 - SALES AND SERVICE
A. WHERE PROVIDED, CHECK-OUT AISLES, SALES COUNTERS, SERVICE COUNTERS, FOOD SERVICE LINES, QUEUES, AND WAITING LINES SHALL COMPLY WITH 227 AND 904.
B. WHERE COUNTERS ARE PROVIDED, AT LEAST ONE OF EACH TYPE OF SALES COUNTER AND SERVICE COUNTER SHALL COMPLY WITH 904.4. WHERE COUNTERS ARE DISPERSED THROUGHOUT THE FACILITY, COUNTERS COMPLYING WITH 904.4 SHALL ALSO BE DISPERSED.
C. QUEUES AND WAITING LINES SERVICING COUNTERS OR CHECK-OUT AISLES REQUIRED TO COMPLY WITH 904.3 OR 904.4 SHALL COMPLY WITH 403.

TAS SECTION 228 - DEPOSITORIES, VENDING MACHINES, CHANGE MACHINES, MAIL BOXES
A. WHERE PROVIDED, AT LEAST ONE OF EACH TYPE OF DEPOSITORY, VENDING MACHINE, CHANGE MACHINE, AND FUEL DISPENSER SHALL COMPLY WITH 309.
B. WHERE MAIL BOXES ARE PROVIDED IN AN INTERIOR LOCATION, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE SHALL COMPLY WITH 309.

TAS SECTION 229 - WINDOWS
A. WHERE GLAZED OPENINGS ARE PROVIDED IN ACCESSIBLE ROOMS OR SPACES FOR OPERATION BY OCCUPANTS, AT LEAST ONE MUST OPENING SHALL COMPLY WITH 309. EACH GLAZED OPENING REQUIRED BY AN ADMINISTRATIVE AUTHORITY TO BE OPERABLE SHALL COMPLY WITH 309.

TAS SECTION 230 - TWO-WAY COMMUNICATION SYSTEMS
A. WHERE A TWO-WAY COMMUNICATION SYSTEM IS PROVIDED TO GAIN ADMITTANCE TO A BUILDING OR FACILITY OR TO BE RESTRICTED AREAS WITHIN A BUILDING OR FACILITY, THE SYSTEM SHALL COMPLY WITH 708.

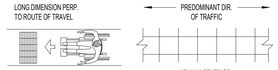
TAS SECTION 240 - PLAY AREAS
A. WHERE GROUND LEVEL PLAY COMPONENTS ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
B. WHEN ELEVATED PLAY COMPONENTS ARE PROVIDED, AT LEAST 50% SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4

TAS SECTION 242 - SWIMMING POOLS, WADING POOLS, AND SPAS
A. AT LEAST TWO ACCESSIBLE MEANS OF ENTRY SHALL BE PROVIDED FOR SWIMMING POOLS.
B. AT LEAST ONE ACCESSIBLE MEANS FOR ENTRY FOR WADING POOLS AND SPAS.

TAS SECTION 243 - SHOOTING FACILITIES WITH FIRING POSITIONS
A. WHERE SHOOTING FACILITIES WITH FIRING POSITIONS ARE DESIGNED AND CONSTRUCTED AT A SITE, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE OF FIRING POSITION SHALL COMPLY WITH 1010.

CHAPTER 3: BUILDING BLOCKS

TAS SECTION 302 - FLOOR OR GROUND SURFACES
A. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
B. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE.
C. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3, AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.



TAS SECTION 303 - CHANGES IN LEVEL
A. CHANGES IN LEVEL OF 1/4" HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL. (FIG. 303)
B. CHANGES IN LEVEL BETWEEN 1/4"-1/2" MAXIMUM SHALL BE BEVELED AT A SLOPE NOT STEEPER THAN 1:2 (FIG. 303)
C. CHANGES IN LEVEL GREATER THAN 1/2" HIGH SHALL BE RAMPED AND COMPLY WITH 405 OR 406



FIGURE 303

TAS SECTION 304 - TURNING SPACE
A. THE TURNING SPACE SHALL BE A SPACE 60" DIAMETER MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306.
B. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. DOORS SHALL BE PERMITTED TO SWING INTO TURNING SPACES.
D. THE T-SHAPED TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60" SQUARE MINIMUM WITH ARMS AND BASE 36" WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12" MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24" MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM. (FIG. 304.3.2)

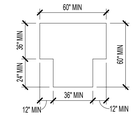


FIGURE 304.3.2
T-SHAPED
TURNING SPACE

TAS SECTION 305 - CLEAR FLOOR OR GROUND SPACE
A. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM.
B. FLOOR OF GROUND SURFACES OF A CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM. (FIG. 305.3)
D. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCES COMPLYING WITH 306.
E. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT. (FIG. 305.5)
F. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE.
G. WHERE A CLEAR FLOOR OR GROUND SPACE IS LOCATED IN AN ALCOVE OR OTHERWISE CONFINED ON ALL OR PART OF 3 SIDES, ADDITIONAL MANEUVERING CLEARANCE SHALL BE PROVIDED IN ACCORDANCE WITH BELOW:
1. ALCOVES SHALL BE 36" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24" FOR FORWARD APPROACH (FIG. 315.7.1)
2. ALCOVES SHALL BE 60" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15" FOR PARALLEL APPROACH (FIG. 305.7.2)

CHAPTER 3: SCOPING REQUIREMENTS (CONTINUED)


FIGURE 305.3
CLEAR FLOOR OR GROUND SPACE

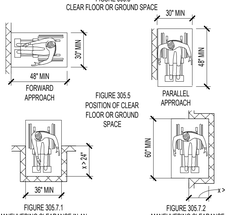


FIGURE 305.5
POSITION OF CLEAR FLOOR OR GROUND SPACE



FIGURE 305.7.1
MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH



FIGURE 305.7.2
MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

TAS SECTION 306 - KNEE AND TOE CLEARANCE
A. WHERE SPACE BENEATH AN ELEMENT IS INCLUDED AS PART OF CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE, THE SPACE SHALL COMPLY WITH 306. ADDITIONAL SPACE SHALL NOT BE PROHIBITED BENEATH AN ELEMENT BUT SHALL NOT BE CONSIDERED AS PART OF THE CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE.

TAS SECTION 306.2 - TOE CLEARANCE
A. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9" ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE.
B. TOE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT
C. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17" MINIMUM UNDER THE ELEMENT.
D. SPACE EXTENDING GREATER THAN 6" BEYOND THE AVAILABLE KNEE CLEARANCE AT 9" ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.
E. TOE CLEARANCE SHALL BE 30" WIDE MINIMUM.

TAS SECTION 306.3 - KNEE CLEARANCE
A. SPACE UNDER AN ELEMENT 9"-27" ABOVE THE FINISH FLOOR SHALL BE CONSIDERED KNEE CLEARANCE.
B. KNEE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT AT 9" ABOVE THE FINISH F

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

TAS SECTION 502 - PARKING SPACES (REFERENCE FIGURE 502.3)
- A. ACCESSIBLE CAR PARKING SPACES SHALL BE AT LEAST 96" MINIMUM WIDE AND VAN ACCESSIBLE PARKING SHALL BE 132" MINIMUM WIDE.
  1. VAN PARKING SPACES MAY BE 96" WIDE MINIMUM WHERE THERE IS AN ACCESS AISLE 96" WIDE MINIMUM.
  2. ACCESS AISLES SERVING CAR AND VAN PARKING SHALL BE A MINIMUM 60" WIDE AND SHALL ADJOIN AN ACCESSIBLE ROUTE.
  3. ACCESS AISLES SHOULD BE MARKED TO DISCOURAGE PEOPLE FROM PARKING IN THEM AND EXTEND THE FULL LENGTH OF THE PARKING SPACE.
- B. SURFACE SLOPE SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS (NOTE: NO BUILT UP CURB RAMP MAY BE LOCATED IN AN ACCESSIBLE PARKING ACCESS AISLE.)
- C. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY.
- D. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES, WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACE.

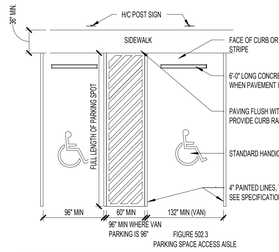
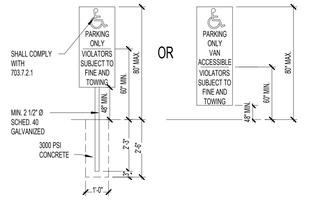


FIGURE 502.3
PARKING SPACE ACCESS AISLE

68.104: ACCESSIBLE PARKING SPACES

(A) A PAVED ACCESSIBLE PARKING SPACE MUST INCLUDE:
- (1) THE INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED CONSPICUOUSLY ON THE SURFACE IN A COLOR THAT CONTRASTS THE PAVEMENT;
- (2) THE WORDS "NO PARKING" PAINTED ON ANY ACCESS AISLE ADJACENT TO THE PARKING SPACE. THE WORDS MUST BE PAINTED:
  - (A) IN ALL CAPITAL LETTERS;
  - (B) WITH A LETTER HEIGHT OF AT LEAST TWELVE INCHES, AND A STROKE WIDTH OF AT LEAST TWO INCHES; AND
  - (C) CENTERED WITHIN EACH ACCESS AISLE ADJACENT TO THE PARKING SPACE; AND
- (3) A SIGN IDENTIFYING THE CONSEQUENCES OF PARKING ILLEGALLY IN A PAVED ACCESSIBLE PARKING SPACE. THE SIGN MUST:
  - (A) AT A MINIMUM STATE "VIOLATORS SUBJECT TO FINE AND TOWING " IN A LETTER HEIGHT OF AT LEAST ONE INCH;
  - (B) BE MOUNTED ON A POLE, POST, WALL OR FREESTANDING BOARD;
  - (C) BE NO MORE THAN EIGHT INCHES BELOW A SIGN REQUIRED BY TEXAS ACCESSIBILITY STANDARDS, 502.6; AND
  - (D) BE INSTALLED SO THAT THE BOTTOM EDGE OF THE SIGN IS NO LOWER THAN 48 INCHES AND NO HIGHER THAN 80 INCHES ABOVE GROUND LEVEL.

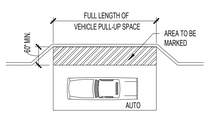
(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).



NOTE: PROVIDE ONE SIGN AT EACH DISABLED (DESIGNATED) PARKING SPACE

TAS SECTION 503 - PASSENGER LOADING ZONES
- A. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96" WIDE MINIMUM AND 20' LONG MINIMUM.

TAS SECTION 503.3 - ACCESS AISLE (REFERENCE FIGURE 503.3)
- A. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 503 ADJACENT TO THE VEHICLE PULL UP SPACE. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.
  1. ACCESS AISLES SERVING VEHICULAR PULL-UP SPACES SHALL BE 60" WIDE MINIMUM AND EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE
  2. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED. CHANGES IN LEVEL OF THE FLOOR AND GROUND SURFACE ARE NOT PERMITTED.
- B. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 144" MINIMUM.



ACCESS AISLE AT AUTOMOBILE PASSENGER LOADING ZONES

FIGURE 503.3
PASSENGER LOADING ZONE ACCESS AISLE

TAS SECTION 504 - STAIRWAYS

TAS SECTIONS 504.2 - TREADS AND RISERS
- A. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND TREAD WIDTHS
  1. MINIMUM TREAD DEPTH SHALL BE 11", MEASURED FROM RISER TO RISER (NOT INCLUDING NOSING)
  2. OPEN RISERS ARE NOT PERMITTED
  3. RISERS SHALL BE 4" HIGH MIN. - 7" HIGH MAX.

TAS SECTIONS 504.5 - NOSINGS (REFERENCE FIGURE 504.5)
- A. RADIUS OF THE CURVATURE AT THE LEADING EDGE SHALL BE 1/2" MAXIMUM. RISERS SHALL BE PERMITTED TO SLOPE UNDER THE TREAD AT AN ANGLE OF 30 DEGREES MAXIMUM FROM VERTICAL. THE PERMITTED PROJECTION OF THE NOSING SHALL EXTEND 1 1/2" MAXIMUM OVER THE TREAD BELOW.

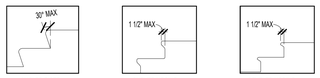
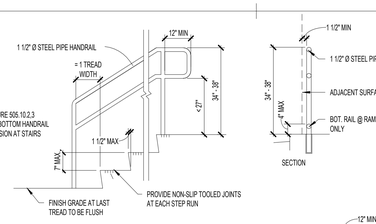
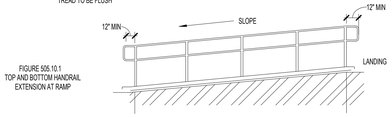


FIGURE 504.5
STAIR NOSINGS

TAS SECTION 505 - HANDRAILS (REFERENCE FIGURES 505.10.1, 505.10.2, 3)
- A. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS. NON-CONTINUOUS STAIR HANDRAILS SHALL EXTEND 12" BEYOND THE TOP RISER AND THE WIDTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT THE TOP, THE EXTENSION SHALL BE PARALLEL TO THE FLOOR. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF ONE TREAD WIDTH. NON CONTINUOUS RAMP HANDRAILS SHALL EXTEND 12" MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS.
- B. HEIGHT: 34"-38", MEASURED FROM THE STAIR NOSING.
- C. CLEARANCE BETWEEN HANDRAIL AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM.
- D. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
- E. HANDRAILS ARE REQUIRED ON RAMP RUNS GREATER THAN 6" IN RISE.





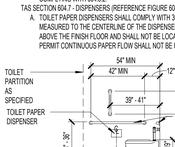
CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

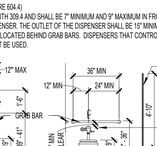
TAS SECTION 602 - DRINKING FOUNTAINS
- A. DRINKING FOUNTAINS SHALL COMPLY WITH 307 (PROTRUDING OBJECTS) AND 602.
- B. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCES MUST COMPLY WITH 306. OPERABLE PARTS SHALL COMPLY WITH 309. (FIG. 602.5)

TAS SECTION 602.4 - SPOUT HEIGHT (REFERENCE FIGURE 602.4 FOR ACCESSIBLE UNIT)
- A. ACCESSIBLE SPOUTS SHALL BE A MAXIMUM 36" ABOVE THE FINISH FLOOR OR GROUND.

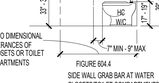
TAS SECTION 602.5 - SPOUT LOCATION (REFERENCE FIGURE 602.5)
- A. THE SPOUT SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.
- B. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4" HIGH AND SHALL BE LOCATED 5" MAXIMUMFROM THE FRONT OF THE UNIT.
- C. WHERE SPOUTS ARE LOCATED LESS THAN 3" FROM THE FRONT OF THE UNIT, THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE THE SPOUT IS LOCATED BETWEEN 3"-5" MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.

TAS SECTION 602.7 - DRINKING FOUNTAINS FOR STANDING PERSONS
- A. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. (FIG. 602.4)





* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS



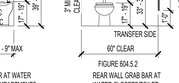


FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION

TAS SECTION 603 - TOILET AND BATHING ROOMS
- A. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM. (60" DIAMETER OR T-SHAPED SPACE PER 304.3.2)
- B. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP.
- C. DOOR SWINGS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS CAN SWING INTO THE REQUIRED TURNING SPACE.

TAS SECTION 603.3 - MIRRORS
- A. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED SO THE BOTTOM EDGE OF THE REFLECTING SURFACE IS 40" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT INSTALLED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE 35" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

TAS SECTION 603.4 - COAT HOOKS AND SHELVES
- A. COAT HOOKS SHALL BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" ABOVE THE FINISH FLOOR.

TAS SECTION 604 - WATER CLOSETS AND TOILET COMPARTMENTS
- A. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16" MINIMUM AND 18" MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT IN AN AMBULATORY ACCESSIBLE TOILET COMPARTMENT WHERE THE CENTERLINE OF THE WATER CLOSET MAY BE 17" MINIMUM AND 19" MAXIMUM FROM THE SIDE WALL OR PARTITION. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT-HAND OR RIGHT-HAND APPROACH. (FIG. 604.3.1, 604.8.2)

TAS SECTION 604.3 - CLEARANCE
- A. CLEARANCES AROUND WATER CLOSETS AND IN TOILET COMPARTMENTS SHALL COMPLY WITH FIGURE 604.3.1

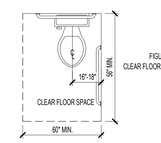


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

TAS SECTION 604.3.2 - OVERLAP
- A. THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.

TAS SECTION 604.4 - SEATS (REFERENCE FIGURE 604.4)
- A. THE SEAT HEIGHT OF A WATER CLOSET ABOVE FINISH FLOOR SHALL BE 17"-19" MAXIMUM MEASURED TO THE TOP OF SEAT.
  1. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION

TAS SECTION 604.5 - GRAB BARS (REFERENCE FIGURES 604.4, 604.5.2)
- A. GRAB BARS SHALL COMPLY WITH 609 AND BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL.
  1. GRAB BARS SHALL NOT BE REQUIRED IN A TOILET ROOM FOR A SINGLE USE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON OR PUBLIC USE PROVIDED THAT REINFORCEMENT HAS BEEN INSTALLED IN WALLS AND LOCATED SO AS TO PERMIT THE INSTALLATION OF GRAB BARS COMPLYING WITH 604.5
- B. FOR WATER CLOSETS NOT LOCATED IN TOILET STALLS, THE FOLLOWING GRAB BARS SHALL BE PROVIDED, 33"-36" ABOVE THE FINISH FLOOR:
  1. SIDE WALL: 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM BACK WALL. NOTE: INCLUDE 18" VERTICAL GRAB BAR PER ICC A117.1.
  2. REAR WALL: 36" LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON ONE SIDE AND 24" MINIMUM ON THE OTHER SIDE. REFER TO 609 GRAB BARS FOR SIZE AND STRUCTURAL ELEMENTS.

TAS SECTION 604.5.2 - REAR WALL
- A. THE REAR GRAB BAR SHALL BE PERMITTED TO BE 24 INCHES LONG MINIMUM, CENTERED ON THE WATER CLOSET WHERE WALL SPACE DOES NOT PERMIT A LENGTH OF 36 INCHES MINIMUM DUE TO THE LOCATION OF A RECESSED FIXTURE ADJACENT TO THE WATER CLOSET.
- B. WHERE AN ADMINISTRATIVE AUTHORITY REQUIRES FLUSH CONTROLS FOR FLUSH VALVES TO BE LOCATED IN A POSITION THAT CONFLICTS WITH THE LOCATION OF THE REAR GRAB BAR, THEN THE REAR GRAB BAR SHALL BE PERMITTED TO BE SPLIT OR SHIFTED TO THE OPEN SIDE OF THE TOILET AREA.

TAS SECTION 604.6 - FLUSH CONTROLS (REFERENCE FIGURE 604.5.2)
- A. FLUSH CONTROLS SHALL BE HAND-OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.

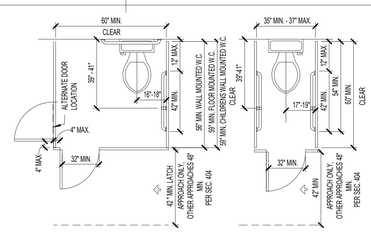
TAS SECTION 604.7 - DISPENSERS (REFERENCE FIGURE 604.4)
- A. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7" MINIMUM AND 9" MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS THAT CONTROL DELIVERY OR DO NOT PERMIT CONTINUOUS PAPER FLOW SHALL NOT BE USED.

FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

TAS SECTION 604.8 - TOILET COMPARTMENTS
- A. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.

TAS SECTION 604.8.1 - WHEELCHAIR ACCESSIBLE COMPARTMENTS
- A. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1
- B. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL, AND 56" DEEP MINIMUM FOR WALL HUNG WATER CLOSETS AND 59" DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDREN'S USE SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE WALL AND 59" DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.



CLEARANCES INDICATED ARE MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REFER TO TOILET ROOMS AND LAVATORY DETAILS FOR MOUNTING HEIGHTS.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES (CONTINUED)

TAS SECTION 604.8.1.2 - DOORS (REFERENCE FIGURES 604.8.1.2, 604.8.2)
- A. TOILET COMPARTMENTS DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42" MINIMUM. DOORS SHALL BE LOCATED IN THE FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE FRONT PARTITION. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.
- B. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET.

TAS SECTION 604.8.1.4 - TOE CLEARANCE
- A. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9" MINIMUM ABOVE FINISH FLOOR AND 6" (152 MM) MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDRENS USE SHALL PROVIDE 12" MINIMUM TOE CLEARANCE ABOVE FINISH FLOOR.

TAS SECTION 604.8.2 - AMBULATORY ACCESSIBLE COMPARTMENTS
- A. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH FIGURE 604.8.2
- B. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60" MINIMUM AND A WIDTH OF 35"-37" MAXIMUM.
- C. GRAB BARS IN AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR THAT IS 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM THE REAR WALL AND EXTENDING 54" MINIMUM FROM THE REAR WALL SHALL BE LOCATED ON BOTH SIDES OF COMPARTMENT.
- D. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" MAXIMUM ABOVE THE FINISH FLOOR.

TAS SECTION 605 - URINALS
- A. URINALS SHALL BE STALL-TYPE OR WALL-HUNG WITH THE RIM 17" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13 1/2" DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK SIDE OF THE FIXTURE. (FIG. 605.2)
- B. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.

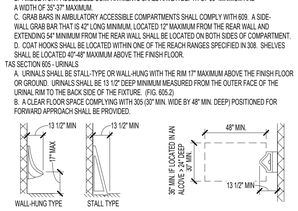
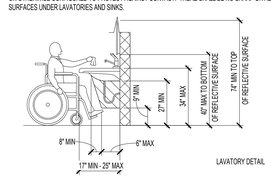
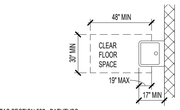


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

TAS SECTION 606 - LAVATORIES AND SINKS
- A. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCES COMPLYING WITH 306 SHALL BE PROVIDED.
  1. SOAP AND TOWEL DISPENSERS MUST ALSO BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. LOCATE SOAP AND TOWEL DISPENSERS SO THEY ARE EASY TO USE BY A PERSON AT THE ACCESSIBLE LAVATORY.
- B. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER RIM OR COUNTER SURFACE 34" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
- C. CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND-OPERATED METERING FAUCETS SHALL REMAIN FOR 10 SECONDS MINIMUM.
- D. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.



LAVATORY DETAIL



TAS SECTION 607 - BATHTUBS
- A. CLEARANCE IN FRONT OF BATHTUBS SHALL EXTEND THE LENGTH OF THE BATHTUB AND SHALL BE 30 INCHES WIDE MINIMUM. A LAVATORY COMPLYING WITH 606 SHALL BE PERMITTED AT THE CONTROL END OF THE CLEARANCE. WHERE A PERMANENT SEAT IS PROVIDED AT THE HEAD END OF THE BATHTUB, THE CLEARANCE SHALL EXTEND 12" MINIMUM BEYOND THE WALL AT THE HEAD END OF THE BATHTUB.
- B. A PERMANENT SEAT AT THE HEAD END OF THE BATHTUB OR A REMOVABLE IN-TUB SEAT SHALL BE PROVIDED. SEATS SHALL COMPLY WITH 610.
- C. GRAB BARS FOR BATHTUBS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH FIGURES 607.4.1

TAS SECTION 608 - SHOWER COMPARTMENTS
- A. SHOWER STALLS SHALL BE 36" X 36" CLEAR INSIDE DIMENSION AT TRANSFER TYPE SHOWER COMPARTMENTS AND HAVE A 36" MINIMUM WIDE BY 48" MINIMUM LONG CLEARANCE MEASURED FROM THE CONTROL WALL. ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 30" MINIMUM WIDE BY 60" MINIMUM LONG AND SHALL HAVE A 30" MIN WIDE X 60" MIN LONG ENTRY ON THE FACE OF THE SHOWER COMPARTMENT. ALTERNATE ROLL-IN SHOWER TYPE COMPARTMENTS SHALL BE 36" MINIMUM WIDE AND 60" MINIMUM DEEP CLEAR INSIDE DIMENSIONS WITH A 36" WIDE MINIMUM ENTRY PROVIDED AT ONE END OF THE LONG SIDE OF THE COMPARTMENT.

TAS SECTION 608.3.1 - TRANSFER TYPE SHOWER COMPARTMENT
- A. IN TRANSFER TYPE COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND BACK WALL TO A POINT 18" FROM THE CONTROL WALL.
- B. A FOLDING OR NON-FOLDING SEAT SHALL BE PROVIDED IN TRANSFER TYPE SHOWER COMPARTMENTS.
- C. CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS SHALL COMPLY WITH 309.4

TAS SECTION 608.7 - THRESHOLDS
- A. THRESHOLDS IN ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 1/2" HIGH MAXIMUM IN ACCORDANCE WITH 308. IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" HIGH SHALL BE BEVELED, ROUNDED, OR VERTICAL.

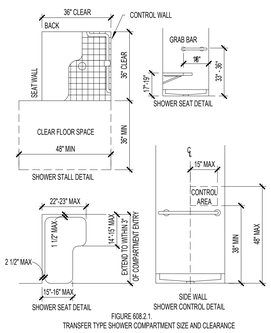


FIGURE 608.2.1
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

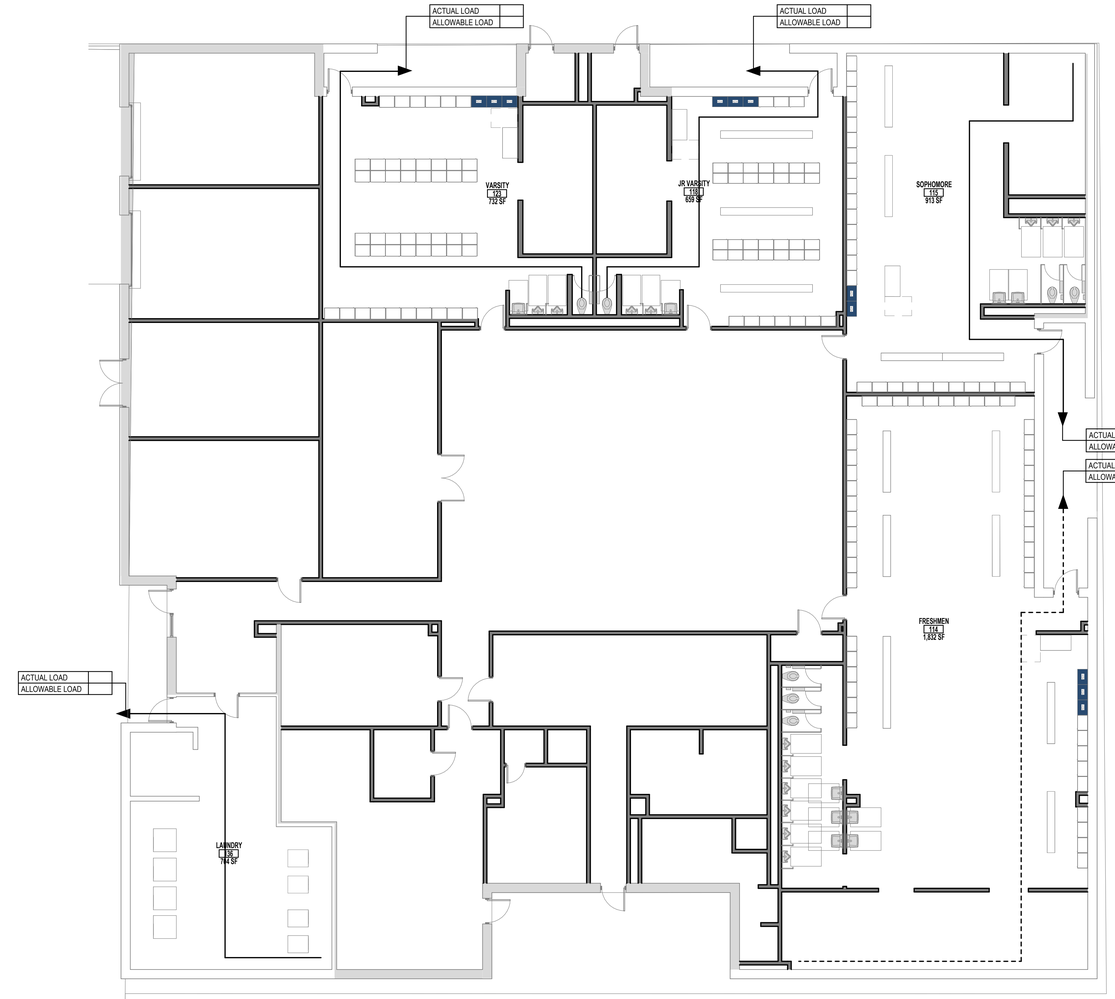
TAS SECTION 609 - GRAB BARS
- A. GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2" MAXIMUM AND A PERIMETER DIMENSION OF 4" MINIMUM AND 4.8" MAXIMUM.
- B. THE SPACE BETWEEN THE WALL AND GRAB BAR SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW SHALL BE 1 1/2" MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12" MINIMUM.
- C. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33" MINIMUM AND 36" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. REFER TO CHART FOR CHILDREN ACCESSIBLE HEIGHTS FOR EXCEPTIONS.
- D. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A HORIZONTAL OR VERTICAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT OF THE GRAB BAR OR ANY OF ITS COMPONENTS.

TAS SECTION 610.2 - BATHTUB SEATS
- A. A SEAT SHALL BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 POUNDS AND SHALL HAVE THE FOLLOWING FEATURES:
  1. SHALL BE 17"-19" ABOVE FINISH FLOOR
  2. REMOVABLE SEATS SHALL BE 15"-16" DEEP AND CAPABLE OF SECURE PLACEMENT.
  3. PERMANENT SEATS SHALL BE 15" DEEP MINIMUM AND EXTEND FROM THE BACK WALL TO OR BEYOND THE OUTER EDGE OF THE BATHTUB.

TAS SECTION 610.3 - SHOWER SEATS
- A. SEATS SHALL BE L-SHAPED WITH THE REAR EDGE 2 1/2" MAXIMUM FROM THE WALL AND 15"-16" MAXIMUM FROM THE SEAT WALL. THE REAR EDGE OF THE "L" PORTION SHALL BE 1 1/2" MAXIMUM FROM THE WALL AND THE FRONT EDGE SHALL BE 14"-15" FROM THE WALL. THE END OF THE "L" SHALL BE 22"-23" FROM THE MAIN SEAT WALL. SEATS SHALL HAVE BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 LBS.
  1. SHALL BE 17"-19" ABOVE FINISH FLOOR
  2. WHERE A SEAT IS PROV

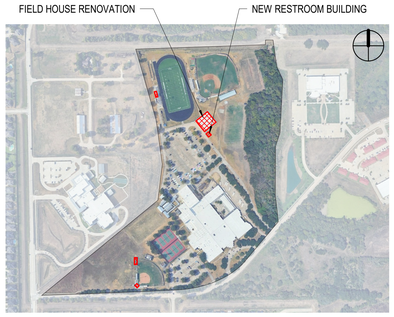
ALTERNATE NO.4 - FIELD HOUSE RESTROOM CODE PLAN 1

SCALE: 1/8" = 1'-0"



ALTERNATE NO. 5 - FIELD HOUSE CODE PLAN 2

SCALE: 1/8" = 1'-0"



LEGEND

- 1 HOUR FIRE-RESISTANCE RATING
- 2 HOUR FIRE-RESISTANCE RATING
- RATED DOOR/ WINDOW REF. DOOR SCHEDULE FOR MORE INFO.
- NON RATED ELEMENT
- RATED EXIT ENCLOSURE
- LONGEST EXIT ROUTE PER LEVEL
- EXIT ROUTE
- EXIT POINT WITH WIDTH INDICATED IN INCHES (OCCUPANT LOAD SHOWN VERTICAL P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT) — P 36" / R 36"
- FEC — FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER - SURFACE MOUNTED

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00-E FOR DOOR SCHEDULE IDENTIFING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL. ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL. ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL.
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES - MISSOURI CITY

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2023 NATIONAL ELECTRICAL CODE
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)

CHAPTER 3 - USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

2021 IBC COMPLIANCE DATA

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS
TABLE 504.3 & 504.4 & 506.2
GROUP E, TYPE I FIRE RESISTIVE CONSTRUCTION , UNSPRINKLED (EXCEPT STAGE) :
BUILDING HEIGHT: 75' ALLOWED; **40' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 3 STORIES ALLOWED; **1 STORIES ACTUAL**

BUILDING AREA ACTUAL : 294,662 SQUARE FEET
BUILDING AREA RENOVATION: 6235 SQUARE FEET

SECTION 508 - MIXED USE AND OCCUPANCY
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 – FOR CONSTRUCTION TYPE I-B: FIRE-RESISTANCE RATING REQUIREMENTS APPLY TO PRIMARY STRUCTURAL FRAME, INTERIOR AND EXTERIOR BEARING WALLS, FLOOR CONSTRUCTION, AND ROOF CONSTRUCTION AS LISTED IN TABLE 601.

SECTION 602 - CONSTRUCTION CLASSIFICATION
- EXTERIOR BEARING WALLS – 2 HOUR RATING
- INTERIOR BEARING WALLS – 2 HOUR RATING
- EXTERIOR NON-BEARING WALLS – 0 HOUR RATING (BASED ON FIRE SEPARATION DISTANCE PER SECTION 602)
- INTERIOR NON-BEARING WALLS & PARTITIONS – 0 HOUR RATING
- STRUCTURAL FRAME – 2 HOUR RATING
- FLOOR CONSTRUCTION – 2 HOUR RATING
- ROOF CONSTRUCTION – 1 HOUR RATING

EXIT ACCESS TRAVEL DISTANCE: 200 FT (TABLE 1017.2), PROVIDED <131 FT

CHAPTER 6 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE 2B - PER TABLES 601 & 602.
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED: PRIMARY STRUCTURE, BEARING & NONBEARING WALLS/ PARTITIONS (INTERIOR & EXTERIOR), FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTABLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL
TABLE 706.4 - FIRE WALL FIRE-RESISTANCE RATINGS: 2 HOUR IN IIB CONSTRUCTION, GROUP E

SECTION 707 - FIRE BARRIERS
707.3.1 - SHAFT ENCLOSURES (INCLUDING ELEVATOR HOISTWAY): 1 HOUR FIRE BARRIER
707.3.3 - ENCLOSURES FOR EXIT ACCESS STAIRWAY ENCLOSURES: 1 HOUR BARRIER
PER SECTION 1019 EXIT ACCESS STAIRWAYS ARE NOT REQUIRED TO BE ENCLOSED FOR THIS BUILDING TYPE

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT)
ALL SHAFT ENCLOSURES SHALL BE CONSTRUCTED AS FIRE BARRIERS AND SHALL BE 1 HOUR FIRE RATED. SUPPORTING CONSTRUCTION SHALL BE RATED TO THE SAME DEGREE AS THE WALLS.

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS
FOR FIRE WALLS & FIRE BARRIERS WITH A 2 HR FIRE RATING, OPENINGS SHALL HAVE A 1.5 HR FIRE RATING, MAX. 100 SQ IN OF GLAZING.
FOR FIRE BARRIERS AT EXIT COMPONENTS WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 1 HR FIRE RATING
FOR FIRE BARRIERS AT OTHER LOCATION WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 3/4 HR FIRE RATING

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES; NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES; BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE.

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS FULLY SPRINKLERED

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
1004.1.2 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

STORAGE, MECHANICAL	300 SQ. FT., GROSS
ASSEMBY WITH FIXED SEATS	18" PER OCCUPANT IN BLEACHERS
ASSEMBLY WITHOUT FIXED SEATS (TABLES AND CHAIRS)	15 SQ. FT. NET
BUSINESS	100 SQ. FT. GROSS
EDUCATION, CLASSROOM	20 SQ. FT. GROSS
EDUCATION, VOCATIONAL	50 SQ. FT. NET
LIBRARY	
(READING ROOMS)	50 SQ. FT. NET
(STACK AREAS)	100 SQ. FT. GROSS
STAGES & PLATFORMS	500 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.1 - FOR STAIRWAYS: 0.2 IN. PER OCCUPANT
OCCUPANTS 2,436
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.1 - FOR OCCUPANT LOAD PER STORY:
BUILDING A / LEVEL 1: 3 EXITS REQUIRED, 3 EXITS PROVIDED
BUILDING B / LEVEL 1: 4 EXITS REQUIRED, 4 EXITS PROVIDED
BUILDING C / LEVEL 1: 3 EXITS REQUIRED, 3 EXITS PROVIDED
BUILDING A / LEVEL 2: 3 EXITS REQUIRED, 3 EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1009 - ACCESSIBLE MEANS OF EGRESS
1009.3 - FOR SPRINKLERED BUILDINGS, 48 IN. CLEAR HANDRAIL WIDTH IN EXIT STAIRS NOT REQUIRED
1009.3 - FOR SPRINKLERED BUILDINGS, AREAS OF REFUGE IN EXIT STAIRS NOT REQUIRED

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.8 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1011 - STAIRWAYS
1011.2 - MINIMUM STAIRWAY WIDTH OF 44 IN.
1011.3 - MINIMUM STAIRWAY HEADROOM CLEARANCE OF 80 IN.
1011.5.2 - MAXIMUM RISER HEIGHT OF 7 IN., MINIMUM TREAD DEPTH OF 11 IN.
1011.6 - WIDTH OF LANDINGS SHALL BE NOT LESS THAN THE WIDTH OF STAIRWAY SERVED
1011.6 - LANDING DEPTH NEED NOT EXCEED 48 IN. FOR STRAIGHT-RUN STAIRS
1011.8 - A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE GREATER THAN 12 FT. BETWEEN FLOOR LEVELS AND LANDINGS

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
1017.2 - FOR GROUP E W/ SPRINKLER SYSTEM: EXIT TRAVEL DISTANCE IS 250 FT.

SECTION 1020 - CORRIDORS
1020.1 - FOR GROUP E W/ SPRINKLER SYSTEM: NO REQUIRED FIRE-RESISTANCE RATING
1020.2 - FOR GROUP E W/ OCCUPANT LOAD OF 100 OR MORE: MINIMUM WIDTH OF 72 IN.
1020.2 - FOR AN OCCUPANT LOAD LESS THAN 50: MINIMUM WIDTH OF 36 IN.
1020.2 - FOR ACCESS TO AND UTILIZATION OF MECHANICAL, PLUMBING, OR ELECTRICAL SYSTEMS OR EQUIPMENT: MINIMUM WIDTH OF 24 IN.
1020.2 - FOR ALL OTHER CONDITIONS: MINIMUM WIDTH OF 44 IN.
1020.4 - FOR GROUP E W/ SPRINKLER SYSTEM: DEAD ENDS MAY BE 50 FT. IN LENGTH

CODE REVIEW: IBC 2015 - EXISTING BUILDING

CHAPTER 6 - REPAIRS

NEW AND REPLACEMENT MATERIALS (SEC 602.2)
EXCEPT AS OTHERWISE REQUIRED OR PERMITTED BY THIS CODE, MATERIALS PERMITTED BY THE APPLICABLE CODE FOR NEW CONSTRUCTION SHALL BE USED. LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS, PROVIDED NO DANGEROUS OR UNSAFE CONDITION, AS DEFINED IN CHAPTER 2, IS CREATED. HAZARDOUS MATERIALS, SUCH AS ASBESTOS AND LEAD-BASED PAINT, SHALL NOT BE USED WHERE THE CODE FOR NEW CONSTRUCTION WOULD NOT PERMIT THEIR USE IN BUILDINGS OF SIMILAR OCCUPANCY, PURPOSE AND LOCATION.

GENERAL ACCESSIBILITY (SEC 605.1)
REPAIRS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF ACCESSIBILITY PROVIDED.

CHAPTER 7 - ALTERATIONS - LEVEL 1

CONFORMANCE (SEC 701.2)
AN EXISTING BUILDING OR PORTION THEREOF SHALL NOT BE ALTERED SUCH THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITION.
EXCEPTION: WHERE THE CURRENT LEVEL OF SAFETY OR SANITATION IS PROPOSED TO BE REDUCED, THE PORTION ALTERED SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

INTERIOR FINISHES (SEC 702.2)
NEW INTERIOR FLOOR FINISH, INCLUDING NEW CARPETING USED AS AN INTERIOR FLOOR FINISH MATERIAL, SHALL COMPLY WITH SECTION 804 OF THE INTERNATIONAL BUILDING CODE.

CHAPTER 8 - ALTERATIONS - LEVEL 2

COMPLIANCE (SEC 801.3)
ALL NEW CONSTRUCTION ELEMENTS, COMPONENTS, SYSTEMS, AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

EXCEPTIONS:
WINDOWS MAY BE ADDED WITHOUT REQUIRING COMPLIANCE WITH THE LIGHT AND VENTILATION REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.
NEWLY INSTALLED ELECTRICAL EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 808.
THE LENGTH OF DEAD-END CORRIDORS IN NEWLY CONSTRUCTED SPACES SHALL ONLY BE REQUIRED TO COMPLY WITH THE PROVISIONS OF SECTION 805.6.
THE MINIMUM CEILING HEIGHT OF THE NEWLY CREATED HABITABLE AND OCCUPIABLE SPACES AND CORRIDORS SHALL BE 7 FEET (2134 MM).

FIRE ALARM AND DETECTION (SEC 804.4)
AN APPROVED FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH SECTIONS 804.4.1 THROUGH 804.4.3..

GROUP E OCCUPANCY (SEC 804.4.1.1)
A FIRE ALARM SYSTEM SHALL BE INSTALLED IN WORK AREAS OF GROUP E OCCUPANCIES AS REQUIRED BY THE INTERNATIONAL FIRE CODE FOR EXISTING GROUP E OCCUPANCIES.

2021 IECC COMPLIANCE DATA

CHAPTER 3 - GENERAL REQUIREMENTS

SECTION C301.1 - GENERAL
C301.1 - CLIMATE ZONE 2A

CHAPTER 4 - COMMERCIAL ENERGY EFFICIENCY

SECTION C402 - BUILDING ENVELOPE REQUIREMENTS
C402.1.3 - FOR ROOFS WITH INSULATION ENTIRELY ABOVE DECK : R-25CI, **R-27CI PROVIDED**
C402.1.3 - FOR ABOVE GRADE, METAL-FRAMED WALLS: R-13 + R-5CI, **R-19 + R-10 CI PROVIDED**
C402.1.3 - FOR JOIST/FRAME FLOORS: R-30, **R-30 PROVIDED**
C402.1.3 - FOR UNHEATED SLAB-ON-GRADE FLOORS: NR
C402.1.3 - FOR NONSWINGING OPAQUE DOORS: R-4.75
C402.1.4.1 - EFFECTIVE R-VALUES FOR STEEL STUD WALL ASSEMBLIES

NOMINAL DEPTH	FRAMING SPACING	CAVITY R-VALUE	EFF. R-VALUE
3 1/2	16	13 / 15	5.98 / 6.45
3 1/2	24	13 / 15	7.15 / 7.80
6	16	19 / 21	7.03 / 7.35
6	24	19 / 21	8.55 / 9.03
8	16 / 24	25	7.75 / 9.50

C402.3 - EITHER THREE-YEAR AGED SOLAR REFLECTANCE OF 0.55 AND 3-YEAR AGED
THERMAL EMITTANCE OF 0.75 OR THREE-YEAR AGED SOLAR REFLECTANCE INDEX OF 64.
C402.4 - FOR CLIMATE ZONE 2 AND FIXED FENESTRATION: U-FACTOR OF 0.5
C402.4 - SOLAR HEAT GAIN COEFFICIENT REQUIREMENTS

PROJECTION FACTOR	SEW	N
PF <0.2	0.25	0.33
0.2 <= PF < 0.5	0.30	0.37
PF >= 0.5	0.40	0.40

SHGC OF SPECIFIED GLAZING = 0.25
U-VALUE OF SPECIFIED GLAZING = 0.33

C402.4.1 VERTICAL FENESTRATION SHALL NOT BE GREATER THAN 30 PERCENT OF GROSS
ABOVE-GRADE WALL AREA.

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

G0.03-E
01 CODE PLAN - FIELD HOUSE AND FIELD HOUSE RESTROOM
ELKINS HIGH SCHOOL

12/4/2025 3:26:14 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath//25-006_ELKINS_ARCH_FBISD ATHLETIC RENOVATIONS BP012-E_R25.rvt

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL SIZES, LOCATIONS AND ELEVATIONS NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS PRIOR TO SUBMITTING PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR FROM PERFORMING THE WORK REQUIRED UNDER THIS CONTRACT. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE OWNER/ENGINEER.
2. SOME UTILITIES MAY NOT BE SHOWN ON THE PLANS. FIELD VERIFY AND IDENTIFY LOCATIONS OF PIPING AND ALL UTILITIES NOT NOTED ON THE PLANS. NOTIFY THE OWNER/ENGINEER OF ANY POTENTIAL CONFLICTS PRIOR TO STARTING CONSTRUCTION.
3. ALL GENERAL AND SUB-CONTRACTORS ARE ENCOURAGED TO VISIT AND INSPECT THE SITE PRIOR TO SUBMITTING A PROPOSAL TO COMPLETE.
4. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES, TRAFFIC CONTROL DEVICES AND PAVING. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITY'S ENGINEERING STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAWINGS, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR AND MAKE SURE THE CORRECT BENCHMARK IS USED.
7. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
9. CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
10. CONTRACTOR SHALL MAINTAIN A SHEET OF REDLINE DRAWINGS RECORDING AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINES MARKED DRAWINGS WILL BE SUBMITTED TO THE ENGINEER WHO WILL MAKE THE CHANGES ON THE ORIGINAL DRAWINGS. LABELING EACH SHEET IN THE SET AS "RECORD DRAWINGS".
11. CONTRACTORS SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
12. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICAS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
13. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALK, ETC.) SHALL BE STABILIZED WITH PLANTINGS OR OTHERWISE RECEIVE 6 INCHES OF MULCH OR LOAM AND SEED AS DIRECTED BY THE ENGINEER.
14. CONTRACTOR SHALL PREVENT DUST, SEDIMENT AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
15. SAFETY - NEITHER THE OWNER NOR THE ENGINEER OF RECORD WILL BE RESPONSIBLE FOR COMPLIANCE WITH SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, FEDERAL, AND CONTRACTUAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ANY SCHOOL CHILDREN OUT OF THE WORK AREA.
17. STANDARD SPECIFICATIONS - ALL CONSTRUCTION WORK AND INSTALLATION SHALL CONFORM TO THE PROJECT SPECIFICATIONS PROVIDED WITH THE CONTRACT DOCUMENTS AND ANY STANDARD SPECIFICATIONS AS INDICATED ON THESE PLANS.
18. INSPECTIONS - THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR REQUIRED INSPECTIONS. THE PRESENCE OR ABSENCE OF AN INSPECTOR WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE PROPER PERFORMANCE OF WORK.
19. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVE OR ANY OTHER AGENCY HAVING JURISDICTION FOR ALL ACTIVITIES ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH OSHA PERFORMANCE CRITERIA.
20. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS.

SITEWORK GENERAL NOTES:

1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D698:
   A. UNDER STRUCTURES: SCARIFY AND RE COMPACT 12 INCHES OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   B. UNDER WALKWAYS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   C. UNDER TURF OR UNPAVED AREAS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 90% SPD.
   D. UTILITY TRENCHES: BACKFILL SHALL BE IN 8 INCHES LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS ON EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% SPD IN PAVED AREAS AND 90% SPD IN UNPAVED AREAS OR AS INDICATED IN THE DRAWINGS.
2. DIMENSIONS IN THE DOCUMENTS SHALL GOVERN.

CIVIL GRADING NOTES:

1. CLEAR AND GRUB WITHIN THE GRADING LIMITS SHOWN IN THE CIVIL DRAWINGS. REMOVE STUMPS AND ROOTS 3 INCHES IN DIAMETER AND LARGER AND NONPERISHABLE SOLID OBJECTS A MINIMUM 3 FEET BELOW SUBGRADE OR FINISHED EMBANKMENT.
2. STRIP AND STOCKPILE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES WITHIN THE LIMITS OF EARTHWORK OPERATIONS.
3. STRUCTURAL EXCAVATION: EXCAVATE TO INDICATE ELEVATIONS WITHIN A TOLERANCE OF 1 INCH. EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORM WORK AND FOR INSPECTIONS.

UTILITIES:

1. THE LOCATIONS, SIZES AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATE CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN IN THE PLANS. PRIOR TO ORDERING MATERIAL AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZED AND ELEVATIONS OF THE POINT OF CONNECTIONS TO EXISTING UTILITIES AND SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND PROPOSED UTILITY ROUTES. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 1-800-245-4545 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.

PAVING NOTES:

1. RIM ELEVATIONS FOR MANHOLES AND SEWER CLEANOUTS, WATER VALVE COVERS, ELECTRIC AND TELEPHONE PULL BOXES AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: 1 INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.

STORM SEWER CONSTRUCTION NOTES:

1. STORM SEWERS SHALL BE INSTALLED, BEDDED, AND BACKFILLED ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
2. STORM SEWERS LOCATED WITHIN PUBLIC R.O.W. OR SIDE LOT EASEMENTS SHALL BE REINFORCED CONCRETE PIPE (24-INCH AND LARGER) (C-76. CLASS III). AND SHALL BE INSTALLED, BEDDED, AND BACKFILLED IN ACCORDANCE WITH THE GOVERNING ENTITIES STANDARD DETAILS AND SPECIFICATIONS. UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
3. ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABILIZED SAND TO ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH ALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
4. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
5. ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES AND INLETS ARE TO PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL PROVIDE 18" MINIMUM CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
7. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF LOCAL GOVERNING ENTITY STANDARDS AND SPECIFICATIONS FOR JUSTING MANHOLES, INLETS AND VALVE BOXES TO GRADE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACKSLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF HIS WORK.
9. ALL DITCHES SHALL BE REGRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.

SWPPP CONSTRUCTION NOTES:

1. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG THE ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPPP) PLANS TO KEEP SILT AND/ OR EXCAVATIONS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM SEWER.
2. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.
3. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK, TRACKED FROM THE EXCAVATED AREA.
4. CONTRACTOR SHALL FOLLOW GOOD HOUSE KEEPING PRACTICES DURING THE CONSTRUCTION PHASE OF THE PROJECT ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
5. CONTRACTOR IS TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5-INCHES OR GREATER:
   A. DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
   B. AREAS USED FOR STORAGE THAT ARE EXPOSED TO PRECIPITATION.
   C. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
6. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS, AND CORRECTIVE ACTION IF SUCH OCCURS.

TRAFFIC NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. ALL TRAFFIC CLOSURES SHALL BE SCHEDULED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITIES APPROPRIATE HOURS.
3. NO LANES ON MAJOR THOROUGHFARES MAY BE BLOCKED FROM 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM UNLESS APPROVED BY THE LOCAL GOVERNING ENTITY.
4. NO TRAFFIC LANES SHALL BE CLOSED IN ALL RESIDENTIAL AREAS FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS.
6. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND OPEN THE LANES FOR NORMAL TRAFFIC FLOW.
7. OFF-DUTY UNIFORMED POLICE OFFICER(S)/FLAGGER(S) ARE REQUIRED TO DIRECT TRAFFIC WHEN THE LANES ARE BLOCKED.
8. IN THE EVEN THAT NO "TRAFFIC CONTROL PLANS" EXIST AS PART OF CONTRACT DRAWINGS. CONTRACT MAY PREPARE PLANS AND SUBMIT TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN-DAYS (10) PRIOR TO IMPLEMENTATION.
9. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS. HE/SHE SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING AN ALTERNATE SET OF PLANS* TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN (10) WORKING DAYS PRIOR TO IMPLEMENTATION.
10. APPROVED COPIES OF THE TRAFFIC CONTROL PLANS AND REQUIRED PERMITS SHALL BE MADE AVAILABLE FOR INSPECTION AT THE JOB SITE AT ALL TIMES. CONTRACTORS MUST SECURE REQUIRED PERMITS FROM THE LOCAL GOVERNING ENTITY'S TRAFFIC MANAGEMENT AND MAINTENANCE BRANCH BEFORE CLOSING A LANE/SIDEWALK. THE REQUEST MUST BE MADE AT LEAST TEN (10) DAYS IN ADVANCE OF THE CLOSURE. NOTE THAT WORKING HOURS MAY BE RESTRICTED OR THE REQUEST MAY BE DENIED.
    A. THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLAR AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME PART OF THE CONTRACT DRAWINGS.

WARNING: OVERHEAD ELECTRICAL LINES:

1. OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:
   A. ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
   B. OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
2. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222. ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-6248 OR (713) 207-5769.

CENTERPOINT ENERGY:
CAUTION: UNDERGROUND GAS FACILITIES:

1. LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, LLC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 OR 1-800-669-8344 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
   A. WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 945-8036 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
   B. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
   C. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
   D. FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3522 OR (713) 207-4200.
   E. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

AT&T TEXAS/SBC FACILITIES:

1. THE LOCATIONS OF AT&T TEXAS/SBC FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SBC FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANICAL EXCAVATION PROCEDURES. WHEN BORING THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SBC FACILITIES.
4. WHEN AT&T TEXAS/SBC FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SBC UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURY CABLES OR OTHER CABLES IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713)456-4552 OR EMAIL HIM AT rl7259@att.com, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR AT&T TEXAS/SWBT FACILITIES.

SANITARY SEWER NOTES:

1. ALL SEWERS SHALL BE TESTED FOR EXCESS DEFLECTION IN PIPE CROSS SECTION, FOR LATERAL AND VERTICAL PIPE OBSTRUCTION, AND FOR JOINT OFFSETS, BY PULLING A MANDREL THROUGH THE PIPE BY HAND. THE MANDREL SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILLING HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. OBSTRUCTIONS ENCOUNTERED SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. MANDREL AND TEST EQUIPMENT SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONDUCTING THE TEST.
2. USE BEDDING AND BACKFILL PER DETAILS PROVIDED IN THE CONTRACT DRAWINGS UNLESS FIELD CONDITIONS DICTATE OTHERWISE. CONTRACTOR TO NOTIFY ENGINEER OF WET TRENCH CONDITIONS PRIOR TO LAYING PIPE. USE CEMENT STABILIZED SAND AND BACKFILL TO WITHIN 1 FOOT OF PROPOSED OR EXISTING PAVEMENT SUBGRADE. BEDDING, CEMENT STABILIZED SAND AND/OR BACKFILL SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM FOR PIPE AND SHALL NOT BE PAID FOR DIRECTLY.
3. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 24 INCHES OF VERTICAL CLEARANCE AND 9 FEET HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND WATER LINES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 12 INCHES OF VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND STORM SEWER LINES.
4. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM THE MANHOLE RIM PER ASTM F477.
5. UNLESS OTHERWISE NOTED, ALL SANITARY SEWERS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE (PVC) SCH 40, CONFORMING TO ASTM D1785, OR APPROVED EQUAL. ALL SANITARY SEWERS SHALL HAVE RUBBER GASKET BELL AND SPIGOT CONNECTIONS.
6. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES SHALL BE PRECAST CONCRETE MANHOLES.
7. NO CONNECTIONS SHALL BE MADE TO EXISTING SANITARY SEWER LINES UNTIL ALL PROPOSED SEWER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED AND APPROVED BY THE LOCAL GOVERNING ENTITY.
8. WHENEVER THE MANHOLE COVERS ARE LOCATED BELOW THE 100 YEAR FLOOD PLAIN ELEVATION THEY SHALL BE GASKETED AND BOLTED AS DESCRIBED IN 317.2. OF THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES.
9. LOW-PRESSURE AIR TEST. THIS TEST SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM C-828, ASTM C-924 OR OTHER APPROPRIATE PROCEDURES. FOR SAFETY REASONS, AIR TESTING OF SECTIONS OF PIPE SHALL BE LIMITED TO LINES LESS THAN 36-INCH AVERAGE INSIDE DIAMETER. LINES 36-INCH AVERAGE INSIDE DIAMETER AND LARGER MAY BE AIR TESTED AT EACH JOINT. THE MAXIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE DURING A JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR SECTION OF PIPE LESS THAN 36-INCH AVERAGE INSIDE DIAMETER, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE SHALL BE COMPUTED BY THE FOLLOWING EQUATIONS:

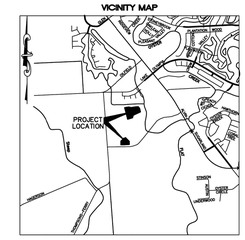
   T = 0.0850(D)(K)/(Q) WHERE T = TIME FOR PRESSURE TO DROP 1.0 POUNDS PER SQUARE INCH GAUGE IN SECONDS
   K = 0.000419(D)(L), BUT NOT LESS THAN 1.0
   D = AVERAGE INSIDE DIAMETER IN INCHES
   L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET
   Q = RATE OF LOSS, ASSUME 0.0015 CU FT/MIN/SQ FT INTERNAL SURFACE
10. SDR-26 PVC PIPE TO USE "FULL BODIED" SDR-26 FITTINGS.
11. ALL PVC PIPE TO HAVE CELL CLASS 12454 A OR B AS PER ASTM D1784.
12. NO MORE THAN 2 HOURS SHALL ELAPSE BETWEEN MIXING AND PLACEMENT OF CEMENT STABILIZED SAND.
13. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% SPD, ±2% OF OPTIMUM MOISTURE CONTENT, IN MAXIMUM 8-INCH LIFTS.

WATER SYSTEM CONSTRUCTION NOTES:

1. METERS AND BACKFLOW BOXES SHALL BE SET A MINIMUM OF 3 INCHES ABOVE FINISHED GRADE WITH SLOPED BACKFILL TO DIRECT STORM WATER AWAY FROM BOX. BOXES SHALL BE BACKFILLED WITH A MINIMUM 12 INCHES OF CEMENT STABILIZED SAND AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. FIRE SPRINKLER LINES SHALL BE INSTALLED AND TESTED BY A CONTRACTOR LICENSED BY THE STATE TO PERFORM SUCH WORK UNDER SECTION 4(A) & (B) OF ARTICLE 5.43-3 OF THE TEXAS INSURANCE CODE. CONTRACTOR SHALL FURNISH OWN CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING AS REQUIRED BY THE TEXAS COMMISSION ON FIRE PROTECTION.
3. ALL PVC PIPE USED IN WATER SYSTEMS SHALL BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL.
4. WATER LINE PIPE AND FITTING MATERIALS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:
   A. LESS THAN 4 INCH POTABLE WATER LINE SHALL BE SCHEDULE 40, PVC 1120, PER ASTM D-1785, EXCEPT THAT THREADED PIPE SHALL BE SCHEDULE 80. 3 INCH POTABLE WATER MAY BE SDR 21 PVC (200 P.S.I.) WITH GASKETED JOINTS.
   B. SITE 4 INCH AND LARGER POTABLE WATER LINE SHALL BE AWWA C900, DR 18, CLASS 235 PVC.
   C. FIRE SPRINKLER LINE SHALL BE AWWA C900, DR 14, CLASS 305 PVC.
   D. FITTINGS FOR LESS THAN 3 INCH AND LARGER WATER LINE SHALL BE ASTM D-2466 SCHEDULE 40 PVC. THREADED FITTINGS SHALL BE SCHEDULE 80 PER ASTM D-2467.
   E. FITTINGS FOR 3 INCH AND LARGER WATER LINE SHALL BE ALL-BELL, PUSH-ON, DUCTILE IRON MECHANICAL JOINT FITTINGS WITH MEGA-LUG.
5. VALVES:
   A. 1 1/2 INCH AND SMALLER SHALL BE 125 P.S.I.G., BRONZE, RISING STEM, SINGLE-WEDGE, DISC TYPE, SCREWED ENDS, CRANE NO. 428 OR APPROVED EQUAL.
   B. 2 INCH THRU 2 1/2 INCH VALVES SHALL BE IRON BODY, DOUBLE GATE, NON-RISING STEM, 150 P.S.I.G. TEST; 2 INCH SQUARE NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
   C. 3 INCH AND LARGER VALVES SHALL BE 200 P.S.I.G. GATE VALVES PER AWWA C500 OR C509, PUSH-ON BELL ENDS WITH RUBBER JOINT RINGS; 2 INCH NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
6. POLYETHYLENE WRAP ALL CAST AND DUCTILE IRON PIPE AND FITTINGS PER SPECIFICATIONS.
7. WATER LINES SHALL HAVE A MINIMUM COVER OF 4 FEET BELOW NATURAL GROUND, FINISH GRADE, OR MEAN ELEVATION OF NEARBY DITCH, WHICHEVER IS LOWER. ALL WATER LINES SHALL MAINTAIN A MINIMUM 12 INCH CLEARANCE TO OTHER UTILITIES AT CROSSINGS UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINES INSTALLED OVER 8 FEET DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS. CONTRACTOR SHALL PROVIDE THRUST BLOCKING TO WITHSTAND 125% OF TEST PRESSURES.
8. SEPARATION DISTANCE FOR ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS CHAPTER 290.44, HARRIS COUNTY, AND TCEQ REQUIREMENTS, LATEST PRINTING.
9. WHERE A DOMESTIC WATERLINE CROSSES A SANITARY SEWER, INSTALL ONE JOINT (MINIMUM 18 FOOT LENGTH) OF WATERLINE PIP CENTERED ON THE SEWER.
10. CONTRACTOR SHALL TAKE SANITARY PRECAUTIONS D



VICINITY MAP



KEY MAP 609U
SCALE 1" = 3000'

tnp

30 15 0 30
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1. THE CAD FILE OF THE DRAWING SHOWN HEREIN IS BASED ON TEXAS SOUTH CENTRAL ZONE NO. 4204, STATE PLANE SURFACE VALUE (NAD83) AND MAY BE CONVERTED TO GRID BY SCALING THE DRAWING BY THE FOLLOWING COMBINED SCALE FACTOR OF 0.999871140213.

2. ACCORDING TO F.I.R.M. MAP NO. 48157C0295L (COMMUNITY-PANEL NO. 4803040295L), MAP REVISED DATE: APRIL 2, 2014. THE SUBJECT PROPERTY LIES WITHIN THE AREA DESIGNATED AS ZONE AE - BASE FLOOD ELEVATIONS DETERMINED.

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TBM "D" - BOX CUT ON EDGE CONCRETE NEAR FENCE IN FRONT OF THE MOST NORTHERLY BLEACHER FOR THE SOFTBALL FIELD AND ±13 FEET SOUTH OF THE SOUTHEAST CORNER OF THE VISITOR'S DUGOUT.
ELEVATION=64.58'

TBM "E" - COTTON SPINDLE WITH SHINER STAMPED "WEST BELT SURVEYING INC" SET IN POWER POLE LOCATED ON THE NORTH SIDE OF THE CHAIN LINK FENCE AND NORTH SIDE OF THE TRACK.
ELEVATION = 65.03'

TBM "F" - BOX CUT ON THE NORTH CORNER OF CONCRETE SLAB WITH 12' CHAIN LINK FENCE LOCATED NEAR THE NORTHEAST CORNER OF THE BASEBALL FIELD.
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ELEVATION=66.83'

TBM "B1" - BOX CUT ON CONCRETE LOCATED ±45' SOUTH FROM THE SOUTHEAST CORNER OF THE EASTERLY BLEACHERS FOR TRACK AND FIELD.
ELEVATION=63.57'

SURVEYOR'S CERTIFICATE

To: Fort Bend Independent School District

I, Brian J. Maddox, a Registered Professional Land Surveyor in the State of Texas, do hereby certify that I have prepared this map from an actual on the ground survey of the land, and the monuments shown thereon were found under my personal supervision in accordance with the Surveying Rules and Regulations of the State of Texas. This survey substantially conforms to a Category 6, Condition II Topographic Survey.

Brian J. Maddox
Registered Professional Land Surveyor No. 5430
Surveyed on the ground November 17, 2023

STATE OF TEXAS
REGISTERED
BRIAN J. MADDOX
5430
SURVEYOR

ABBREVIATIONS

B.L.–BUILDING LINE
C.L.F.–CHAIN LINK FENCE
FF–FINISH FLOOR
FL–FLOW LINE
FND.–FOUND
HDP–HIGH DENSITY POLYETHYLENE PIPE
I.R.–IRON ROD
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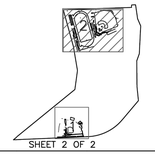
OHE–OVERHEAD ELECTRIC
PVC–POLYVINYL CHLORIDE PIPE
RCP–REINFORCED CONCRETE PIPE
R.O.W.–RIGHT–OF–WAY
SAN.–SANITARY
STM.–STORM
SWR.–SEWER
TG–TOP OF GRATE
TR–TOP OF RIM
TYP.–TYPICAL
UGV–UNDERGROUND VAULT

LEGEND

BENCHMARK
BOLLARD
CLEANOUT
DOWN SPOUT
ELECTRIC JUNCTION BOX
FIRE HYDRANT
FLAG POLE
GATE POST
HOSE BIB
INLET
IRRIGATION CONTROL VALVE
LIGHT STANDARD
MANHOLE
PAINT MARKER (ELECTRIC)
PAINT MARKER (TELEPHONE)
PEDESTAL
POWER POLE
WATER METER
WATER VALVE



TSPS CATEGORY 6, CONDITION II
LIMITED TOPOGRAPHIC SURVEY

FORT BEND I.S.D. ELKINS HIGH SCHOOL

7007 KNIGHTS COURT
MISSOURI CITY, FORT BEND COUNTY, TEXAS 77459

SITUATED IN THE
ELIJAH ROARK LEAGUE, ABSTRACT NUMBER 77
FORT BEND COUNTY, TEXAS

PROJECT INFORMATION
Project No. FBI23515
Date: November 17, 2023
Drawn By: DB
Checked By: JDJ
Scale: 1"=30'
Sheet: 2 of 2

tnp

SURVEYOR
TEAGUE NALL AND PERKINS, INC.
1221 Pork West Green Drive, Suite 100
Katy, Texas 77493
832.220.1205 ph 214.461.9864 fx
TBPLS Registration No. 10194381
www.tnpinc.com

pfluger
office 713.222.1141 | fax 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

ELKINS HIGH SCHOOL
Project Info Additional Text Line
7007 Knights CT, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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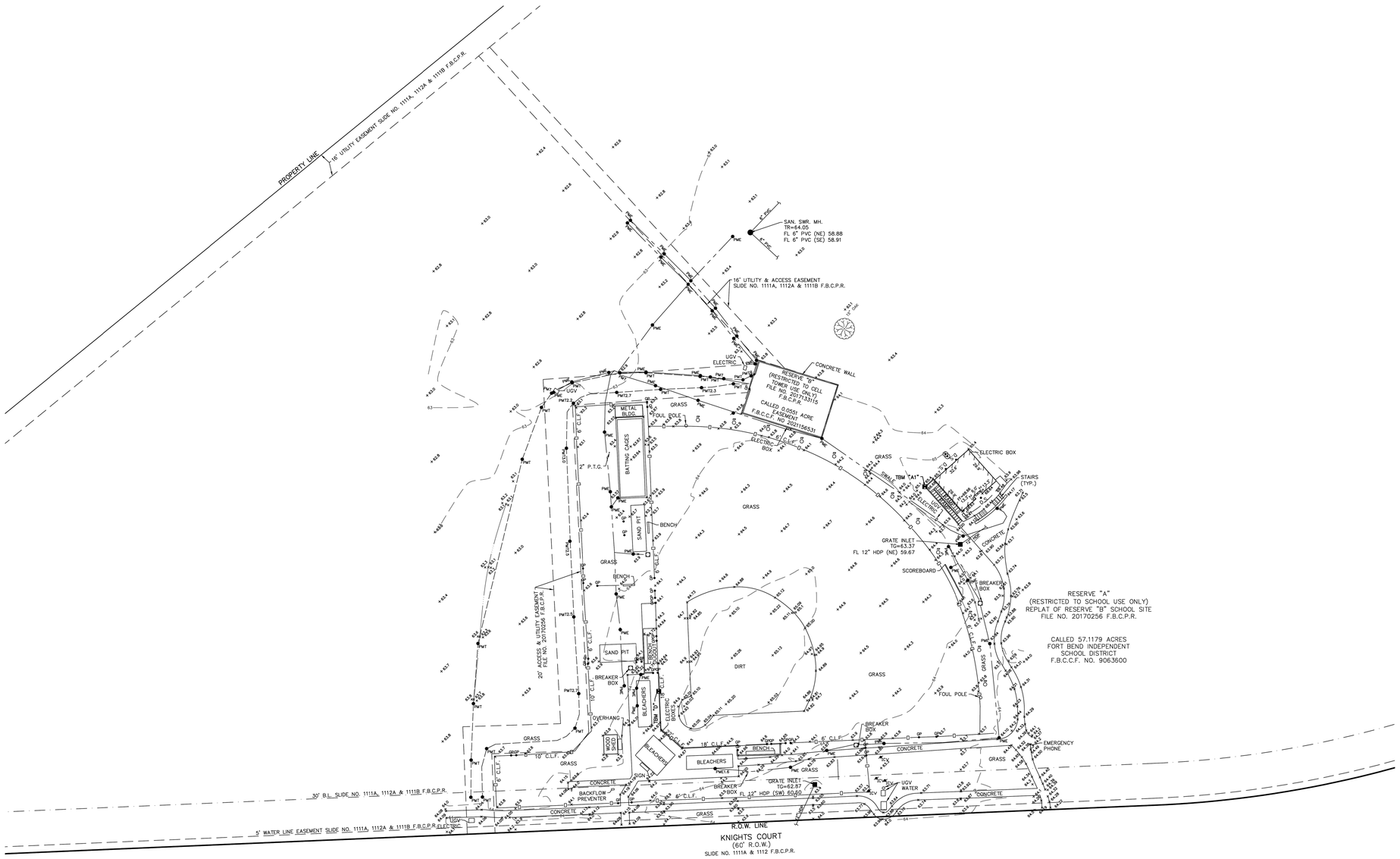
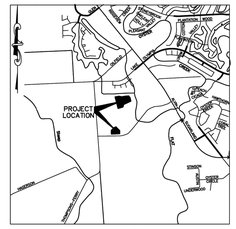
TSCE PROJECT # 2508

100% CD
C 0.02-E
CIVIL SPORTS SURVEY - A
(REFERENCE ONLY)



VICINITY MAP



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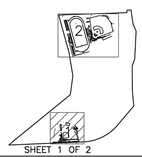
LEGEND

BENCHMARK	INLET
BOLLARD	IRRIGATION CONTROL VALVE
CLEANOUT	LIGHT STANDARD
DOWN SPOUT	MANHOLE
ELECTRIC JUNCTION BOX	PAINT MARKER (ELECTRIC)
FIRE HYDRANT	PAINT MARKER (TELEPHONE)
FLAG POLE	PEDESTAL
GATE POST	POWER POLE
HOSE BIB	WATER METER
	WATER VALVE



SHEET 1 OF 2

TSPS CATEGORY 6, CONDITION II LIMITED TOPOGRAPHIC SURVEY

FORT BEND I.S.D. ELKINS HIGH SCHOOL

7007 KNIGHTS COURT
MISSOURI CITY, FORT BEND COUNTY, TEXAS 77459

SITUATED IN THE
ELIJAH ROARK LEAGUE, ABSTRACT NUMBER 77
FORT BEND COUNTY, TEXAS

PROJECT INFORMATION
Project No. FBI23515
Date: November 17, 2023
Drawn By: DB
Checked By: JDJ
Scale: 1"=30'
Sheet: 1 of 2

tnp

SURVEYOR
TEAGUE NALL AND PERKINS, INC.
1221 Park West Green Drive, Suite 100
Katy, Texas 77493
832.220.1205 ph 214.461.9864 fx
TBPLS Registration No. 10194381
www.tnpinc.com

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

ELKINS HIGH SCHOOL
Project Info Additional Text Line
7007 Knights CT, Missouri City, TX 77459

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INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. BP012
DATE: JUNE.04.2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

100% CD
C 0.03-E
CIVIL SPORTS SURVEY - B
(REFERENCE ONLY)

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
TSCE PROJECT # 2508

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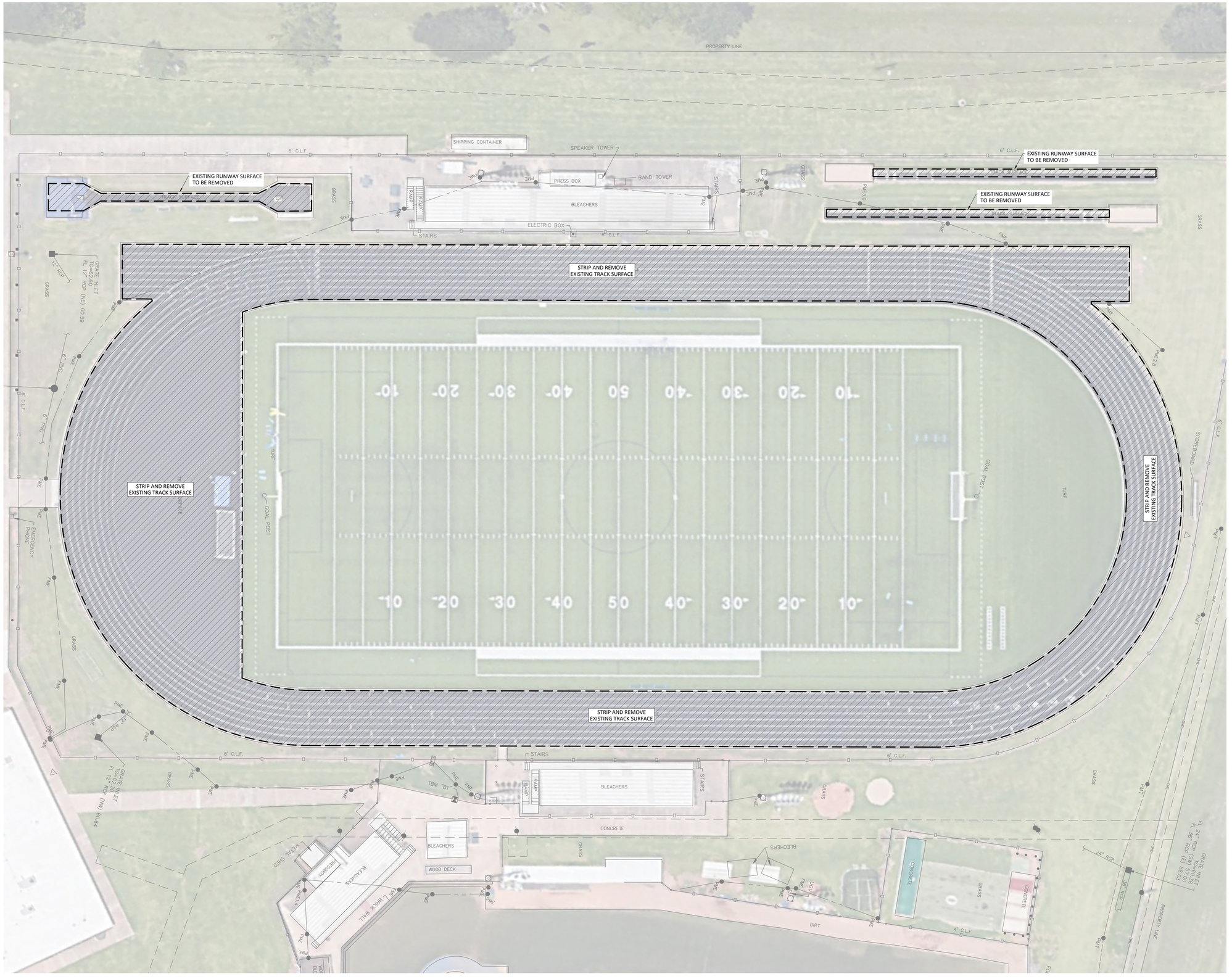

NOTES:

1. ALL DEMOLITION ITEMS INCLUDING ALL SOILS TO BE HAULED OFF OF SITE OR AS DIRECTED BY CLIENT.
2. IF ANY DAMAGE IS DONE TO ANY AREA NOT ON SCOPE OF WORK IT SHALL BE THE CONTRACTOR'S DUTY TO FIX IT AT ITS OWN EXPENSE.
3. CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND EXISTING STRUCTURES.
4. CONTRACTOR SHALL MAINTAIN ALL PUBLIC STREET AND RIGHT OF WAY FREE OF DEBRIS, SILT AND SOILS AT ALL TIMES.
5. ALL WASTED SPILLED FROM TRUCKS SHALL BE REMOVED IMMEDIATELY AND NOT WASHED INTO STORM SEWER SYSTEM.
6. INLET PROTECTION WILL BE REQUIRED AT INLETS DOWNSTREAM OF THE WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.

LEGEND:

STRIP AND REMOVAL OF MATERIALS

REMOVAL AND DISPOSAL OF ITEMS

10' 20' 20' 0 40'

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office 713.222.1141 | fax 713.222.1174
2 Greenway Plaza, Suite 460
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7007 Knights CT, Missouri City, TX 77459

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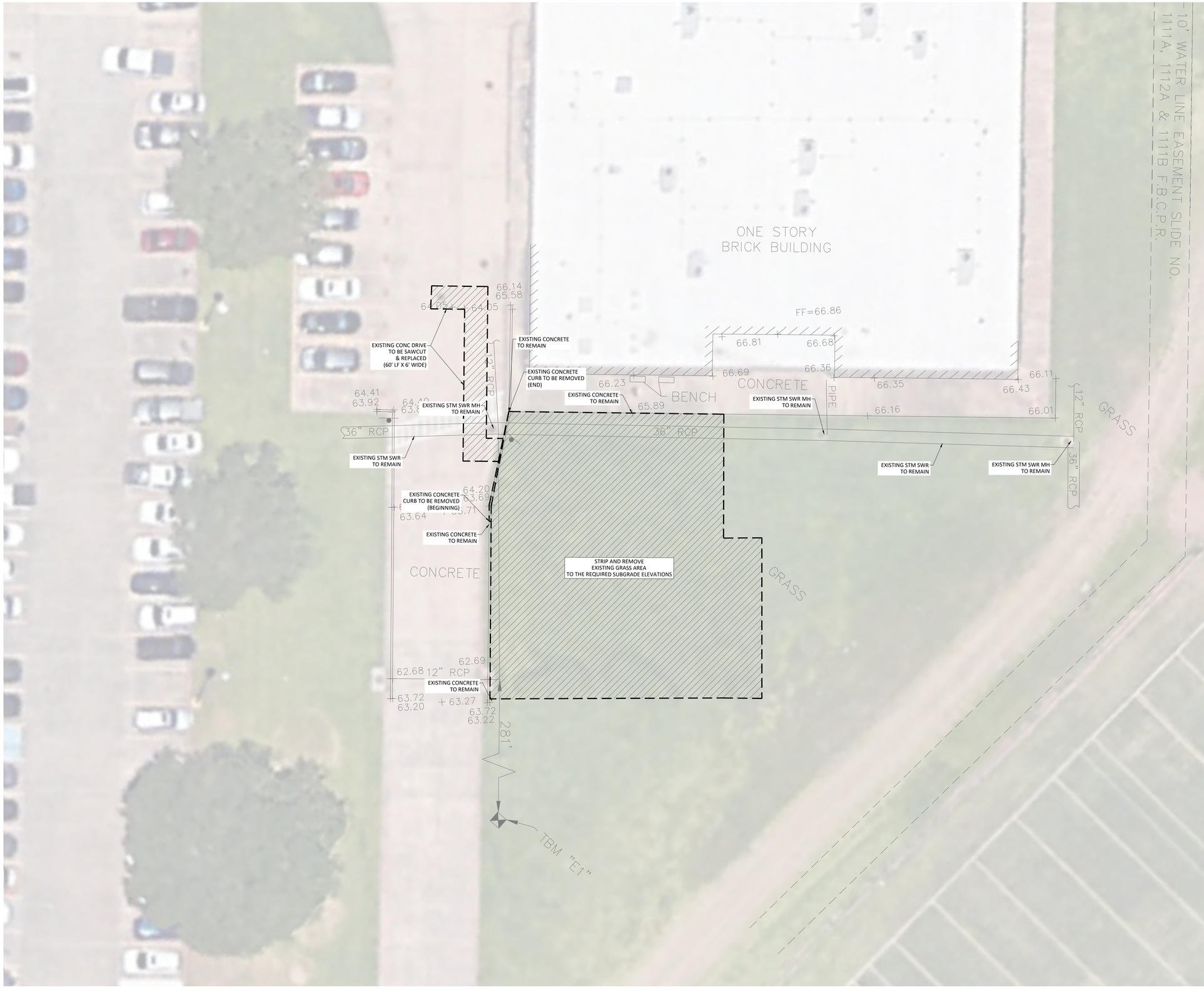
C 0.04-E
CIVIL SPORTS
DEMOLITION PLAN - A



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LEGEND:

STRIP AND REMOVAL OF MATERIALS

REMOVAL AND DISPOSAL OF ITEMS

5' 10'
10' 0 20'

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HOUSTON, TEXAS 77079
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2 Greenway Plaza, Suite 460
Houston, Texas 77046
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Project Info Additional Text Line
7007 Knights CT, Missouri City, TX 77459

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16431 LEXINGTON BLVD.
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12/04/2025

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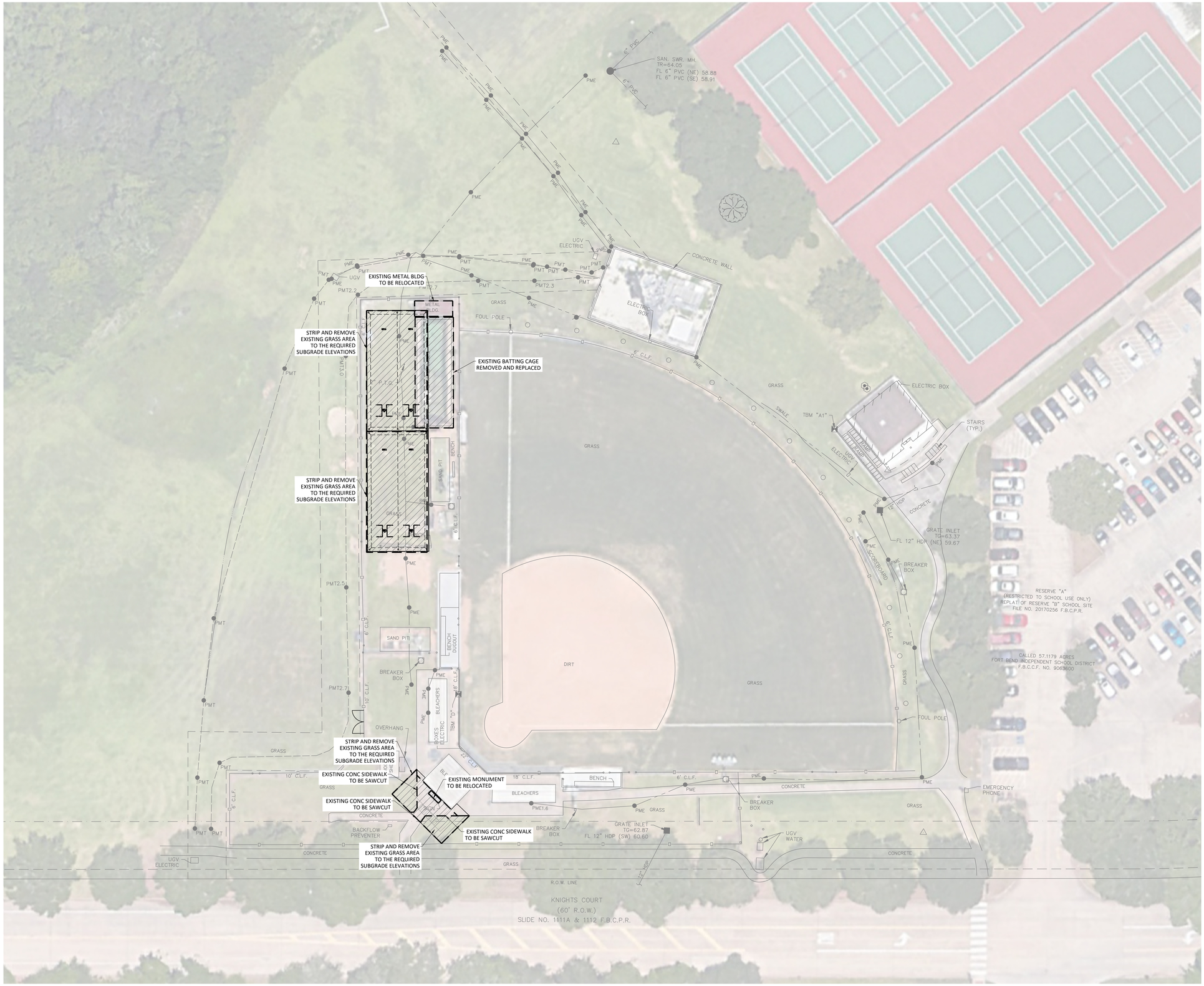
C 0.05-E
CIVIL SPORTS
DEMOLITION PLAN - B



N

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7. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.

LEGEND:

STRIP AND REMOVAL OF MATERIALS

REMOVAL AND DISPOSAL OF ITEMS

10' 20' 20' 0 40'

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2 Greenway Plaza, Suite 460
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pflugerarchitects.com

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7007 Knights CT, Missouri City, TX 77459

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16431 LEXINGTON BLVD.
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C 0.06-E
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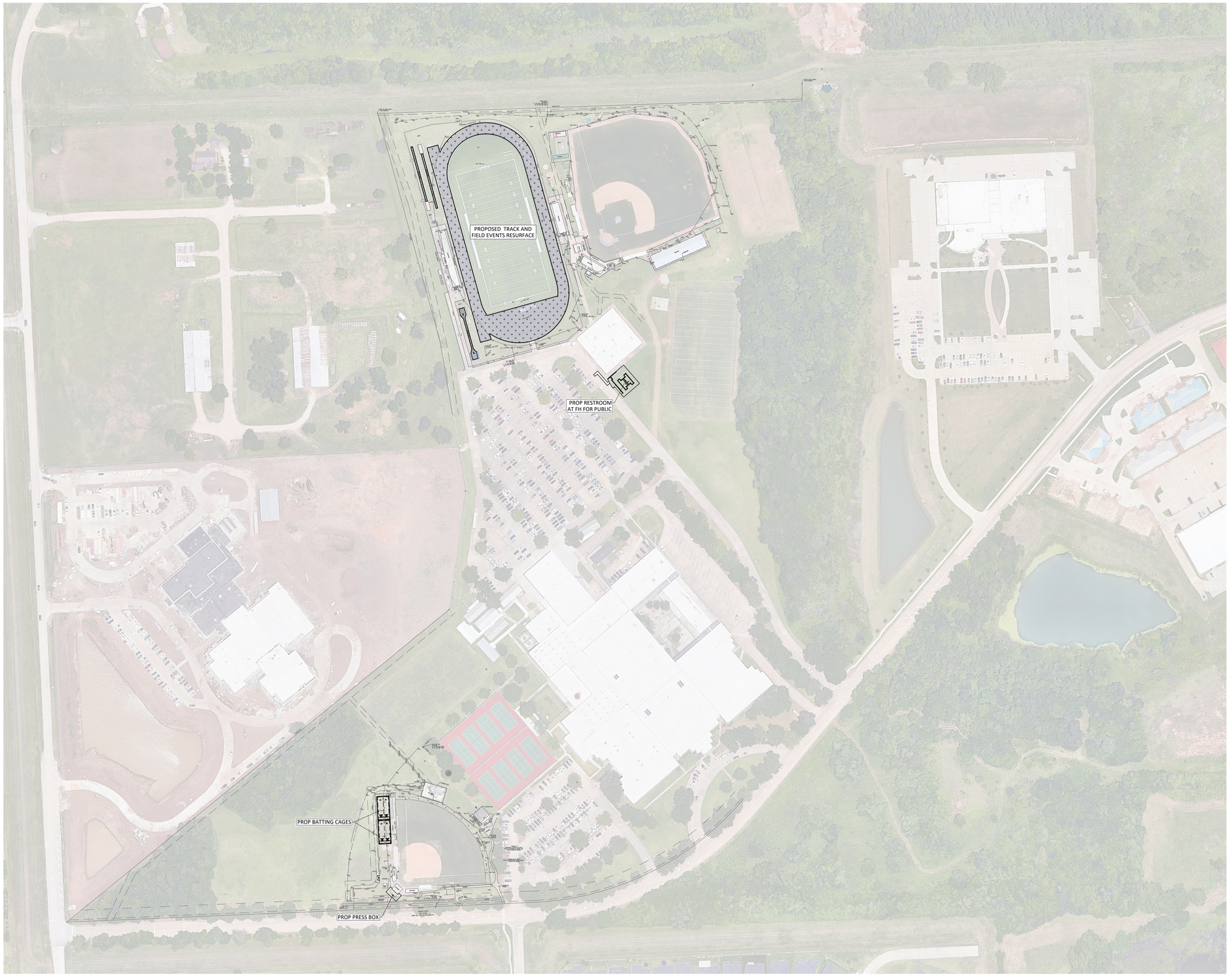
DEMOLITION PLAN - C



N

NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.
2. CONTRACTOR TO REMOVE THE EXISTING TRACK SURFACE FOR THE EXISTING TRACK AND FIELD EVENTS ALL THE WAY DOWN TO THE ASPHALT. ONCE ALL SURFACE HAS BEEN REMOVED, CONTRACTOR SHALL CONTACT THE ENGINEER TO INSPECT THE CONDITION OF THE EXISTING ASPHALT AND CONCRETE CURBS TO FIND THE AREAS THAT NEED TO BE FIXED OR REPLACED BEFORE ADDING ANY OTHER SURFACE.
3. CONTRACTOR TO APPLY THE PROPOSED TRACK SURFACE PER SPEC. (STRUCTURAL SPRAY).
4. CONTRACTOR TO SEE SHEET C 5.01-E THROUGH C 5.02-E DETAILS.
5. ALL DISTURBED AREAS TO BE HYDROMULCHED. AREAS WITH SLOPE GREATER THAN 3:1 SLOPE TO BE SODDED.

50' 100'
100' 0 200'

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pfluger
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2 Greenway Plaza, Suite 460
Houston, Texas 77046
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ELKINS HIGH SCHOOL

Project Info Additional Text Line

7007 Knights CT, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
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STATE OF TEXAS
ENGINEER

12/04/2025

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DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

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C 1.00-E
CIVIL SPORTS
OVERALL SITE PLAN



NOTES:

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4. CONTRACTOR TO SEE SHEET C 5.01-E & C 5.04-E DETAILS.
5. ALL DISTURBED AREAS TO BE HYDROMULCHED. AREAS WITH SLOPE GREATER THAN 3:1 SLOPE TO BE SODDED.

LEGEND:

TRACK RESURFACE

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Project Info Additional Text Line

7007 Knights CT, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
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KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
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REVISIONS:

#	Date	Description

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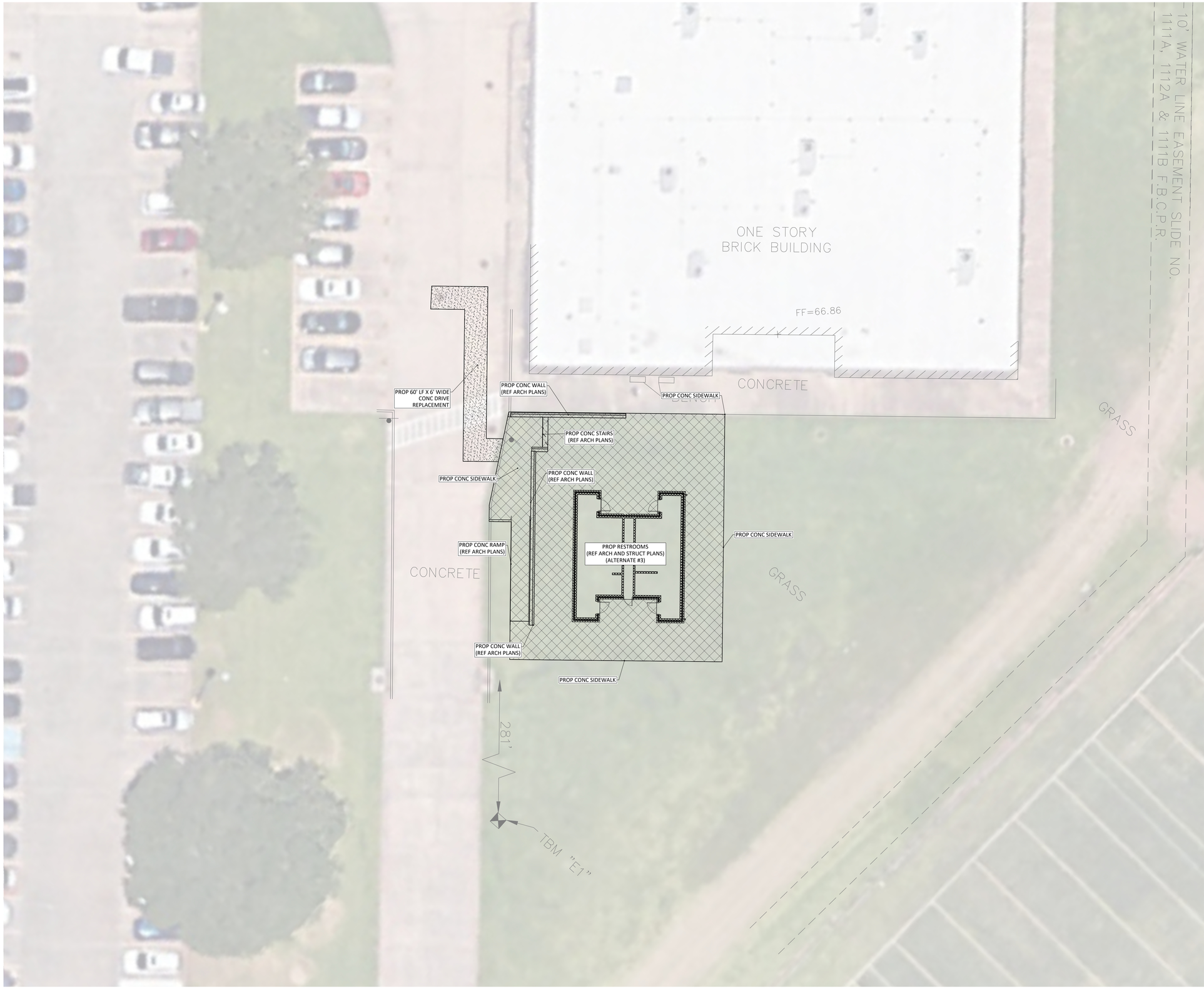
C 1.01-E
CIVIL SPORTS
SITE PLAN - A



NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS AND GROUND ELEVATIONS.
2. CONTRACTOR TO SEE SHEET C 5.01-E & C 5.04-E FOR DETAILS.

LEGEND:

- 4.5 INCH CONC SIDEWALK
- 6 INCH CONC DRIVE
- 7 INCH CONC DRIVE

5' 10' 10' 0 20'

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ELKINS HIGH SCHOOL
Project Info Additional Text Line
7007 Knights CT, Missouri City, TX 77459

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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993

12/04/2025

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DATE: JUNE 04, 2025
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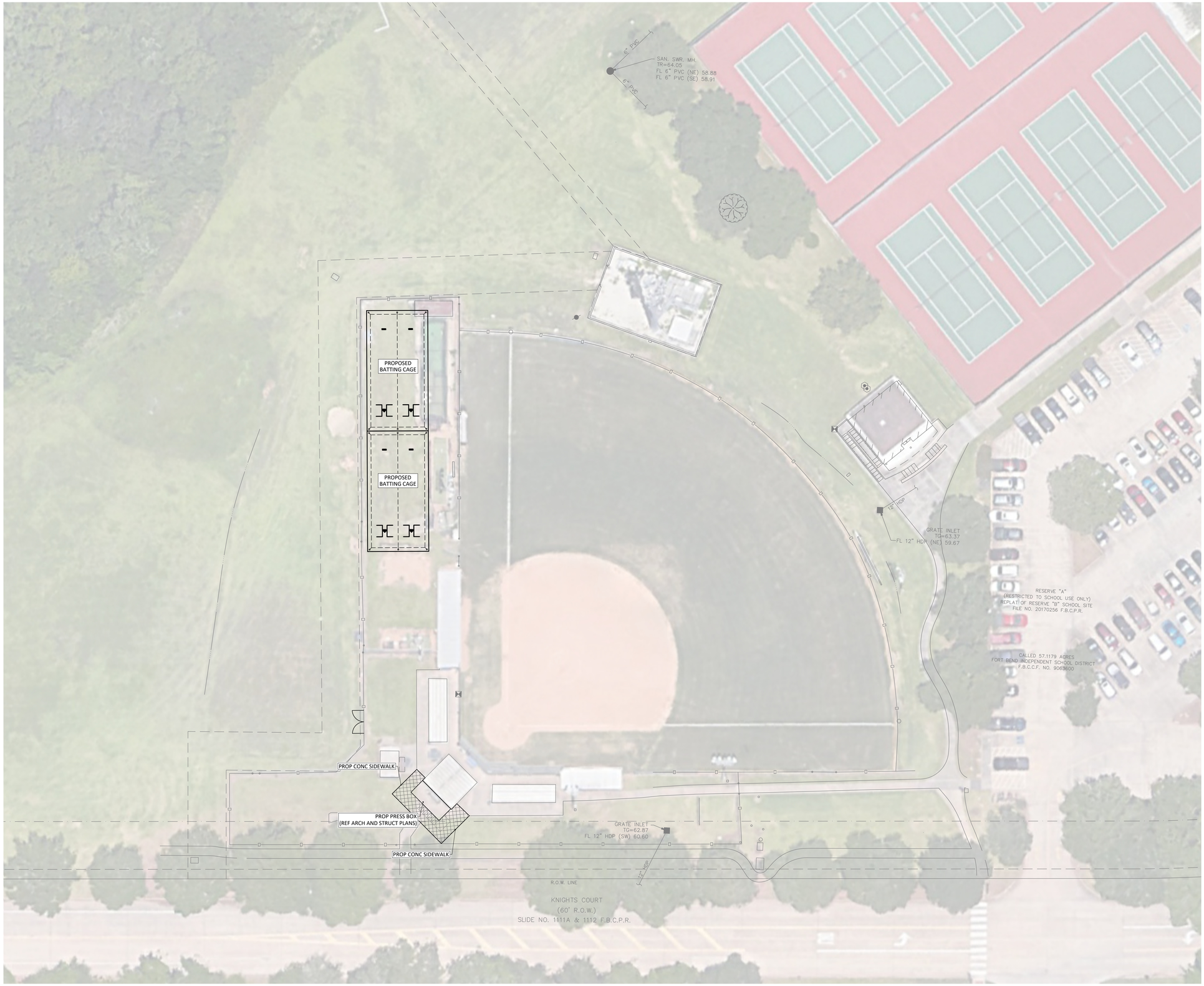
C 1.02-E
CIVIL SPORTS
SITE PLAN - B



N

NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS AND GROUND ELEVATIONS.
2. CONTRACTOR TO SEE SHEET C 5.01-E & C 5.04-E FOR DETAILS.

LEGEND:

- 4.5 INCH CONC SIDEWALK
- 6 INCH CONC DRIVE
- 7 INCH CONC DRIVE

10' 20' 0 20' 40'

TEXAS SPORTS & CIVIL ENGINEERING
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7007 Knights CT, Missouri City, TX 77459

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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
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PROFESSIONAL
ENGINEER
STATE OF TEXAS

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
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REVISIONS:

#	Date	Description

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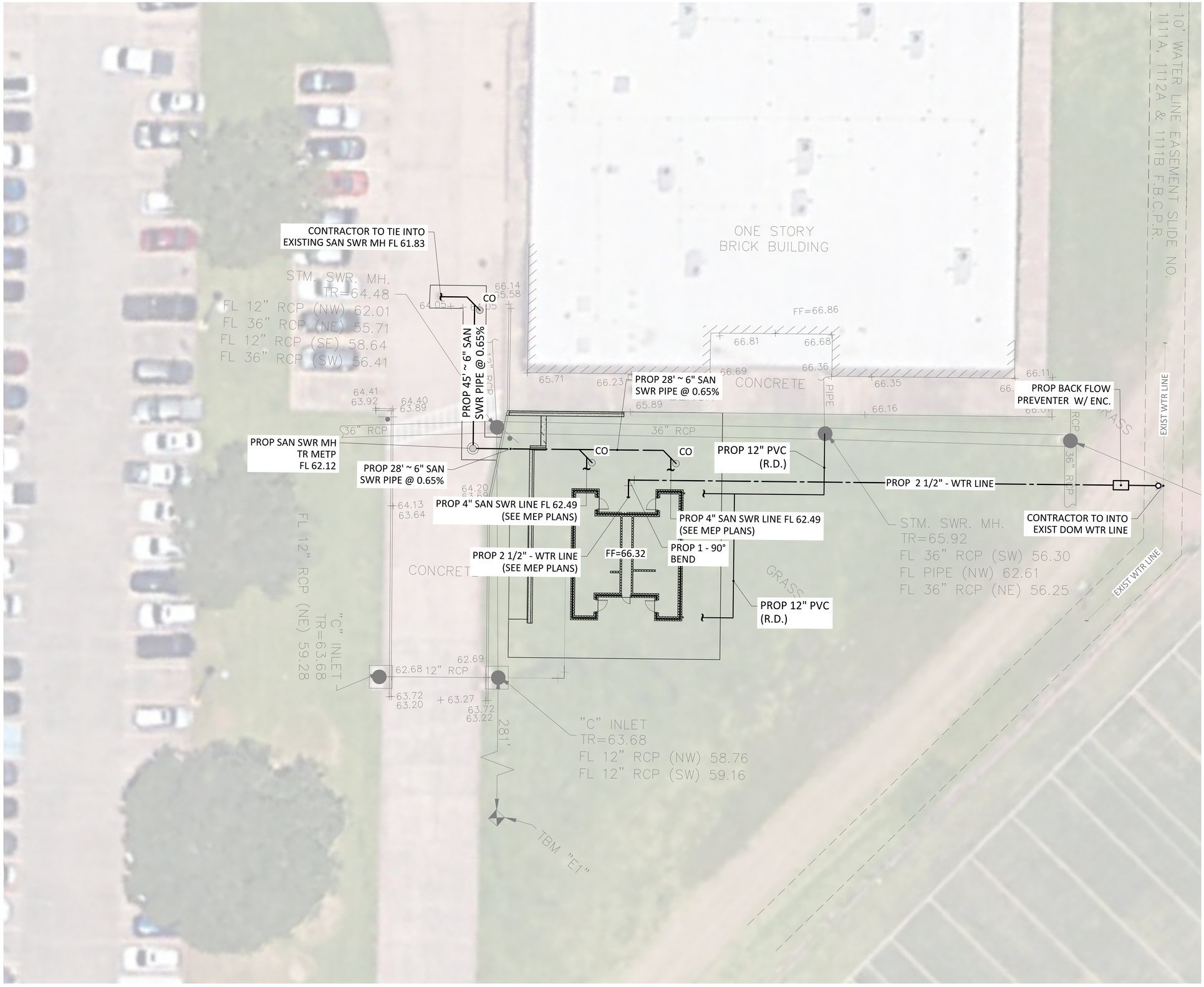
C 1.03-E
CIVIL SPORTS
SITE PLAN - C



GENERAL NOTES:

1. CONTRACTOR TO COORDINATE AND IDENTIFY ALL FITTINGS, PIPE MATERIALS, AND INSTALLATION DETAILS, NOT SHOWN WITHIN THE 5+- SPACING BETWEEN THE STRUCTURES. REFER TO M.E.P. PLANS FOR TRUNK LINE LEAD LOCATIONS PRIOR TO CONSTRUCTION FOR A WATERTIGHT CONNECTION.
2. CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS REQUIRED PRIOR O STARTING CONSTRUCTION. COORDINATE CONNECTIONS TO PUBLIC MUD FACILITIES WITH MUD ENGINEER/OPERATOR.
3. THE OWNER OR CONTRACTOR SHALL INSTALL APPROPRIATE BACKFLOW PREVENTION DEVICES IN ACCORDANCE WITH STATE PUMBLING CODES OR AS REQUIRED BY THE MUD OPERATOR. BACKFLOW TEST REPORTS MUST BE AVAILABLE AT THE TIME OF INSPECTION. COPIES OF ANNUAL TEST REPORTS MUST BE FORWARDED TO THE MUD DISTRICT.
4. NO PIPES, PIPE FITTINGS, PLUMBING FITTINGS AND FIXTURES WHICH CONTAIN MORE THAN A WEIGHTED AVERAGE OF 0.25% LEAN WHEN USED WITH RESPECT TO WETTED SURFACES EXIST IN PRIVATE WATER DISTRIBUTION FACILITIES INSTALLED ON OR AFTER JANUARY 4, 2014.
5. DIMENSION CONTROL PLAN PREPARED BY TSCE TO BE USED IN CONJUNCTION WITH THIS PLAN FOR LOCATING ALL IMPROVEMENTS.
6. ALL SANITARY SEWER RIMS TO BE PLACED NO HIGHER THAN ONE FOOT BELOW THE ADJACENT FINISHED FLOOR ELEVATION.
7. CONTRACTOR SHALL CORE DRILL THE SANITARY MANHOLE CONNECTION, USE A WATERTIGHT RESILIENT CONNECTOR, AND PROVIDE AN EXTERNAL DROP IF REQUIRED.
8. SANITARY SEWER LINES SHALL BE A MINIMUM 6" SDR 26 OR SCH40 BEDDED AND BACKFILLED WITH CEMENT STABILIZED SAND (8" AND LARGER SHAL BE SDR 26)
9. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION DIFFERS FROM WHAT IS SHOWN ON THE DOCUMENTS.
10. CONTRACTOR SHALL TAKE EXTRA CARE NOT TO DAMAGE ANY EXISTING UTILITIES THAT ARE TO REMAIN IN PLACE.
11. CONTRACTOR TO PLACE GATE VALVE EVERY 1,000 FT.
12. CONTRACTOR TO PLACE SAN SWR CLEAN OUT EVERY 100 FT.

NOTES:

1. REROUTE ALL UTILITIES INCLUDING ELECTRICAL,STORM,WATER AND SANITARY SEWER AS NEEDED FOR THE CONSTRUCTION OF THE PROPOSED CONCESSION.

LEGEND:

- FL XX.XX' — FLOW LINE
- TR XX.XX' — TOP OF RIM
- TG XX.XX' — TOP OF GRATE
- SAN MANHOLE (MH-X)
- CLEAN OUT
- WATER LINE
- SAN SWR LINE
- 90° ELB
- TEE
- REDUCER
- FLOW ARROW
- 2-ELBOW
- FIRE HYDRANT
- GATE VALVE

5' 10'
10' 0 20'

TEXAS SPORTS & CIVIL ENGINEERING
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HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

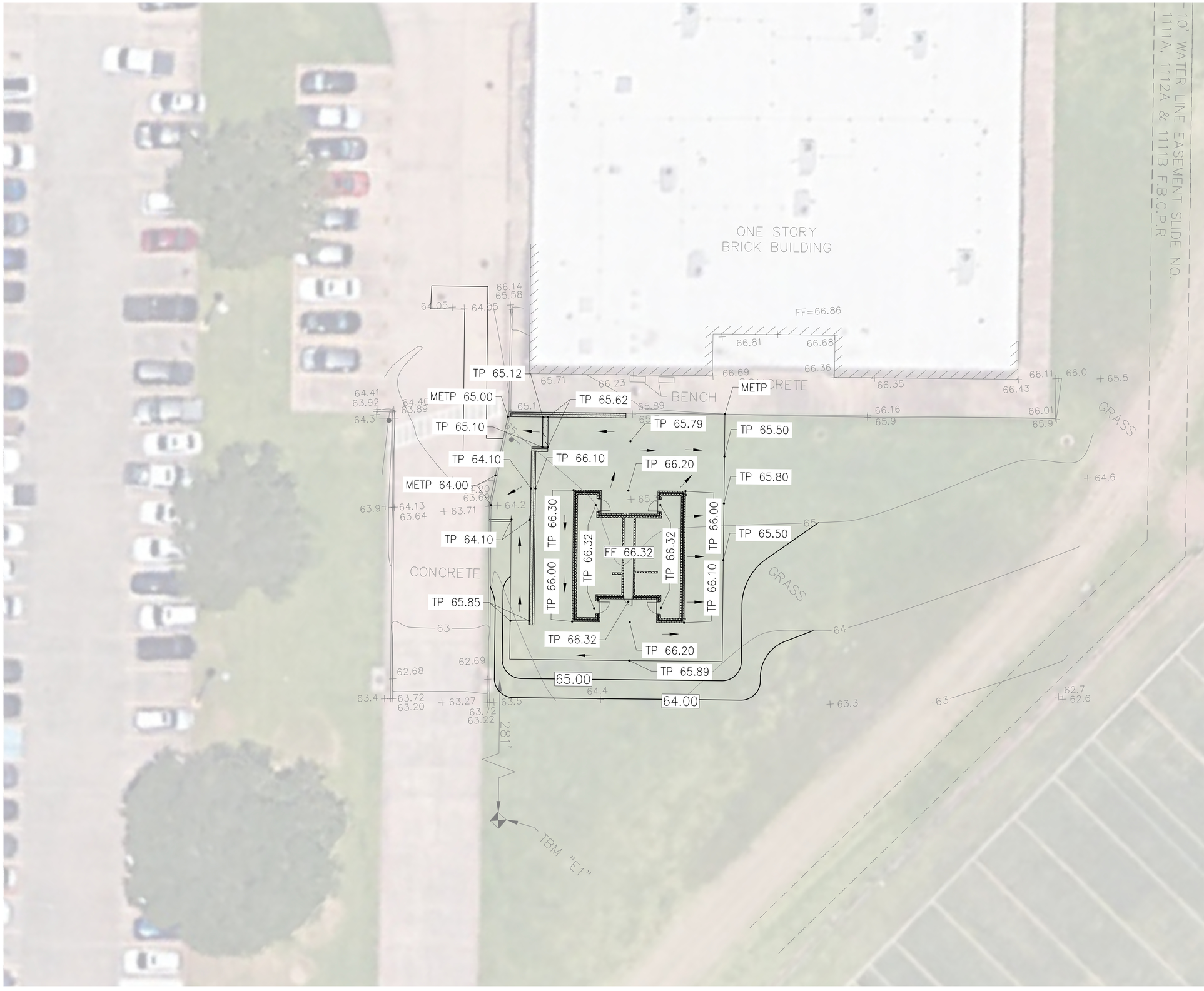
ELKINS HIGH SCHOOL
Project Info Additional Text Line
7007 Knights CT, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
11999
STATE OF TEXAS
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
1 Date Description

100% CD
C 2.12-E
CIVIL SPORTS
UTILITY PLAN - B



NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

5' 10'
10' 0 20'

TEXAS SPORTS & CIVIL ENGINEERING
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2 Greenway Plaza, Suite 460
Houston, Texas 77046
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7007 Knights CT, Missouri City, TX 77459

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119993
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PROFESSIONAL ENGINEER
STATE OF TEXAS

12/04/2025

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DATE: JUNE 04, 2025
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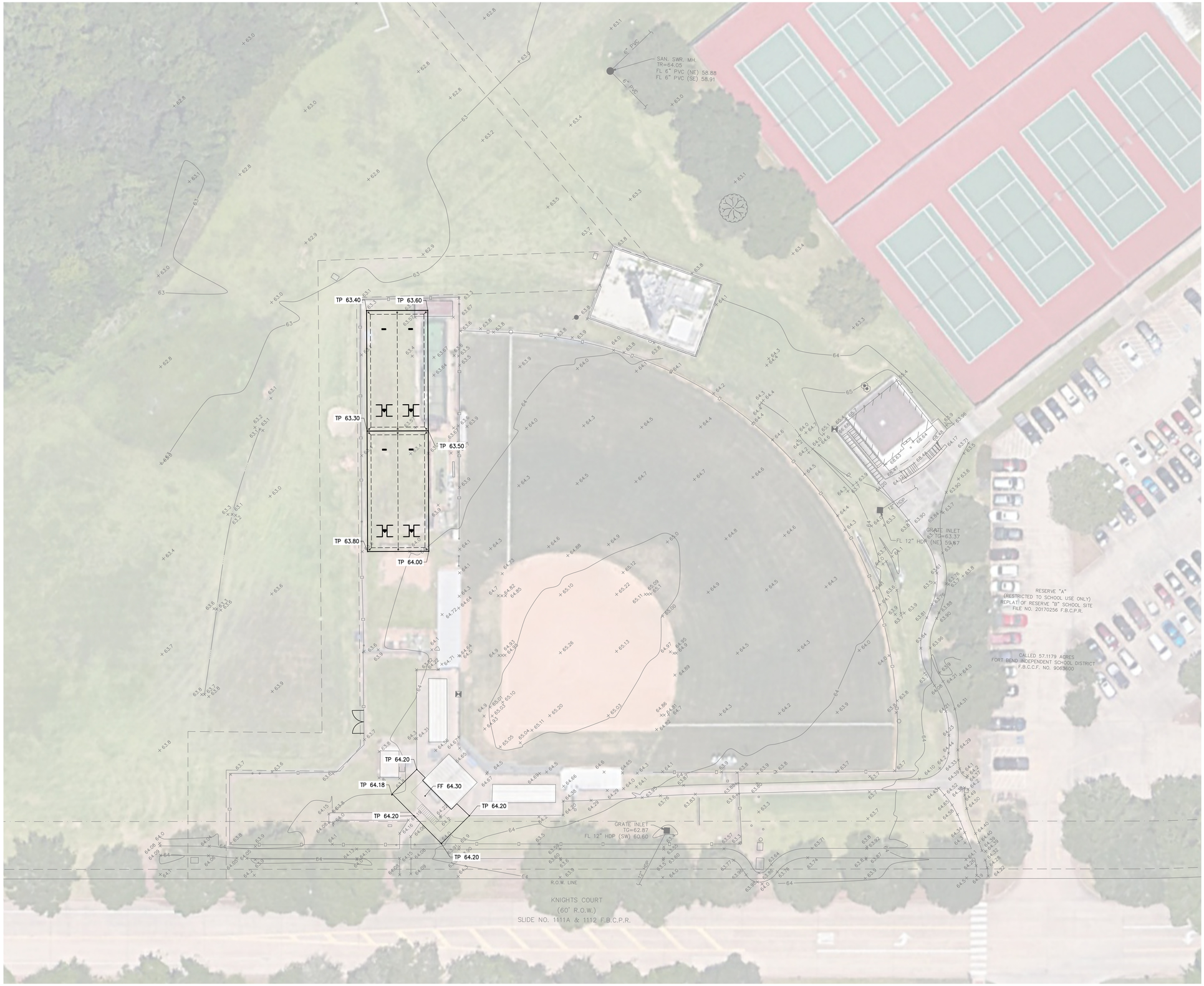
C 3.02-E
CIVIL SPORTS
GRADING PLAN - B



N

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TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
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TG XX.XX'	TOP OF GRATE
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	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

10' 20'
20' 0 40'

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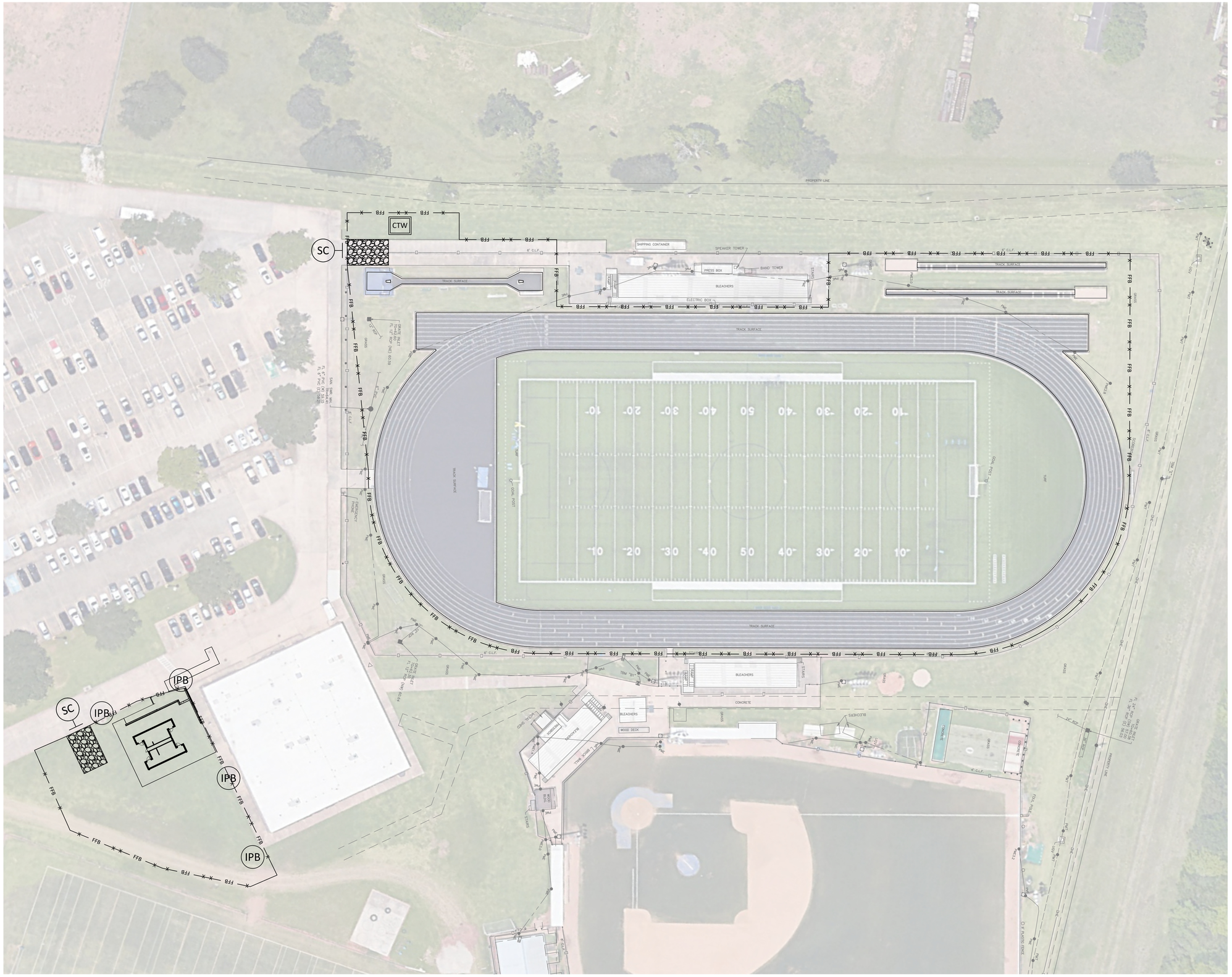
C 3.03-E
CIVIL SPORTS
GRADING PLAN - C



NOTES:

1. CONTRACTOR TO PLACE "IPB" IN ALL SURROUNDING INLETS.

LEGEND:

IPB	INLET PROTECTION BARRIER STAGE I
IPB	INLET PROTECTION BARRIER STAGE II
SC	STABILIZED CONSTRUCTION ACCESS
CTW	CONCRETE TRUCK WASHOUT AREA
FFB	FILTER FABRIC BARRIER

10' 20'
20' 0 40'

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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TSCE PROJECT # 2508

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

ELKINS HIGH SCHOOL

Project Info Additional Text Line

7007 Knights CT, Missouri City, TX 77459

FBISD
INSPIRE • EQUIP • IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
REGISTERED PROFESSIONAL ENGINEER

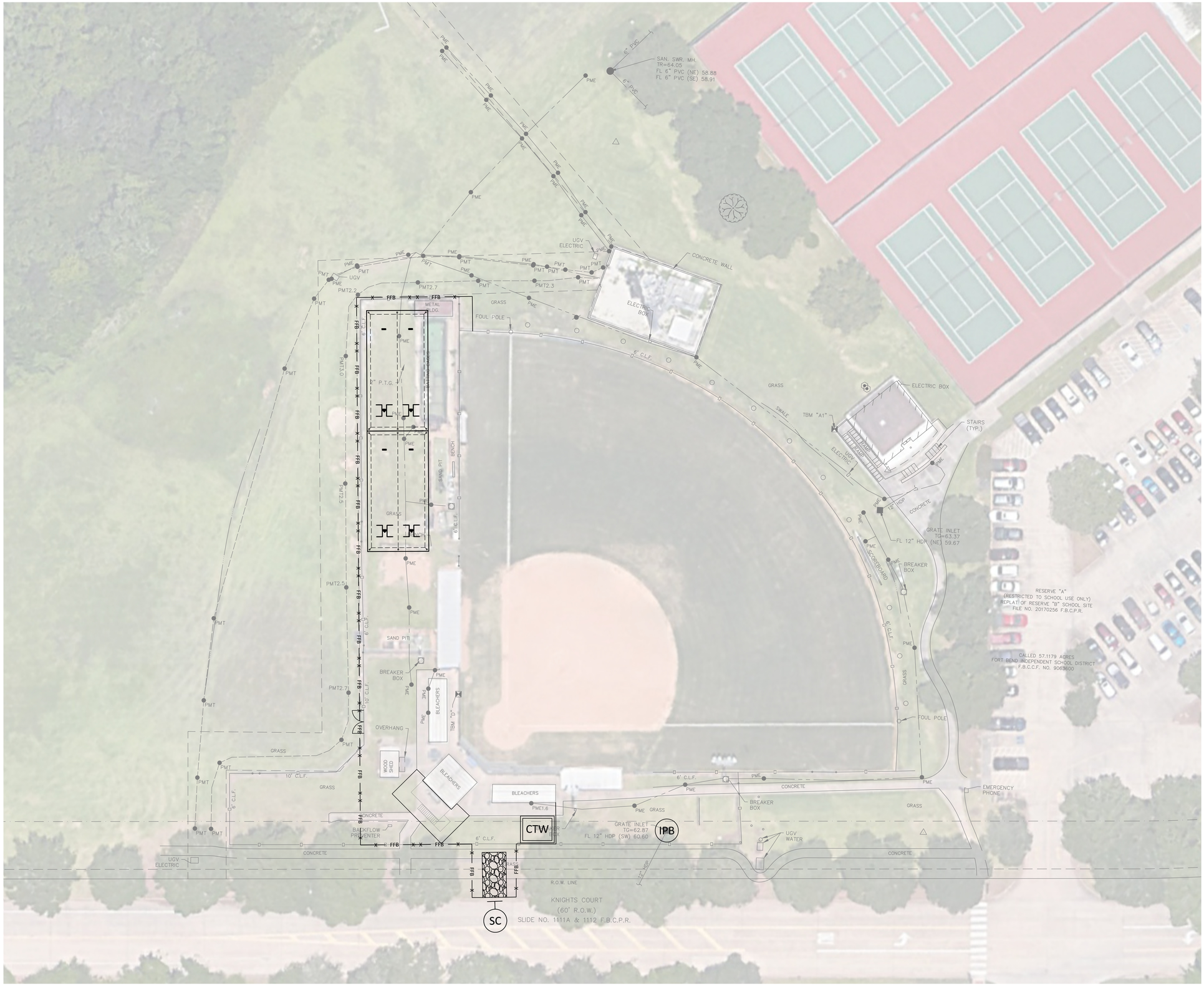
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 4.01-E
CIVIL SPORTS
SWPP PLAN - A



N

NOTES:

1. CONTRACTOR TO PLACE "IPB" IN ALL SURROUNDING INLETS.

LEGEND:

- IPB — INLET PROTECTION BARRIER STAGE I
- IPB — INLET PROTECTION BARRIER STAGE II
- SC — STABILIZED CONSTRUCTION ACCESS
- CTW — CONCRETE TRUCK WASHOUT AREA
- FFB — FFB — FFB — FILTER FABRIC BARRIER

10' 20' 20' 0 40'

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11767 KATY FWY, SUITE 1112
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PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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Project Info Additional Text Line

7007 Knights CT, Missouri City, TX 77459

FBISD
INSPIRE+EQUIP+IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

12/04/2025

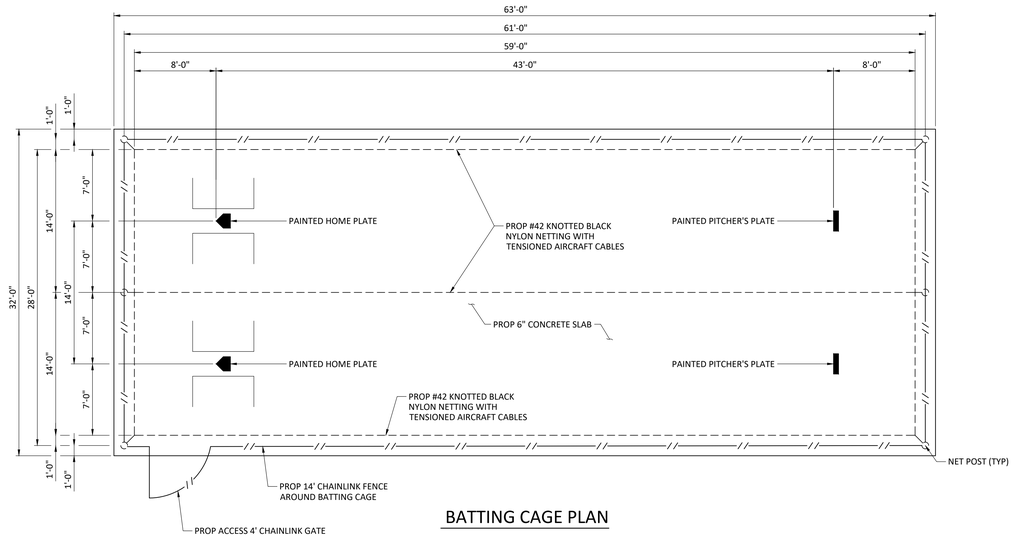
PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description
1		

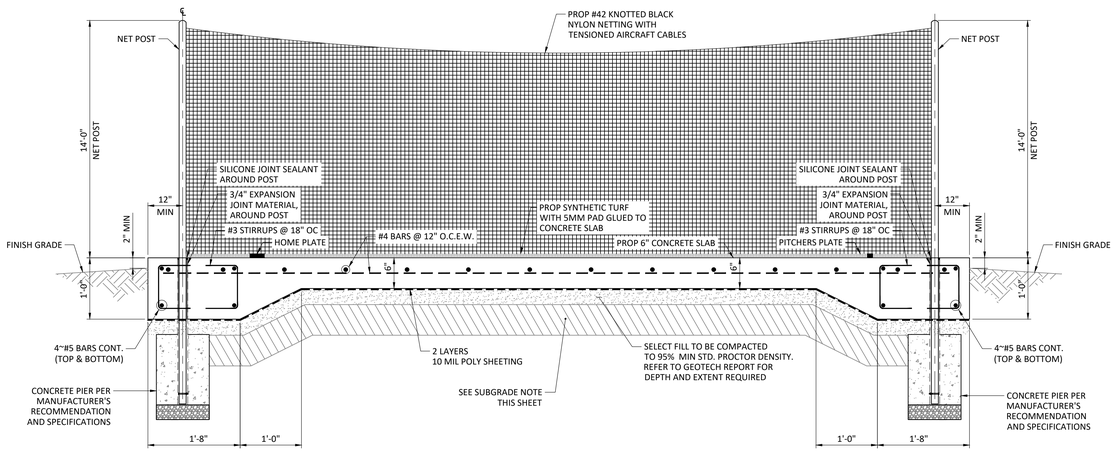
100% CD

C 4.02-E

CIVIL SPORTS
SWPP PLAN - B



BATTING CAGE PLAN



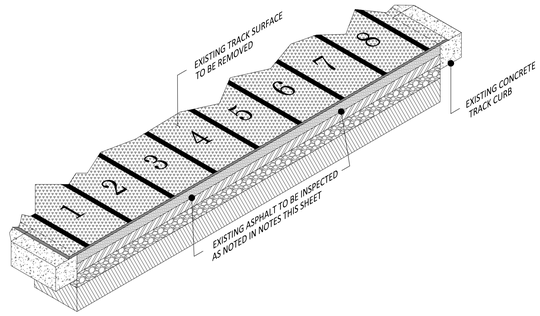
BATTING CAGE SECTION

NOTE:

1. BATTING CAGE NETTING SYSTEM SHALL BE DESIGNED BY MANUFACTURER PER OUR DIMENSIONS AND REQUIREMENTS NOTED AND SPECIFIED.

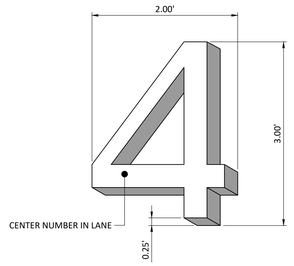
1 SOFTBALL DUAL BATTING CAGES SEE SITE PLAN FOR ORIENTATION

N.T.S.



2 TRACK SURFACE SECTION

N.T.S.



3 TRACK NUMBER DETAIL

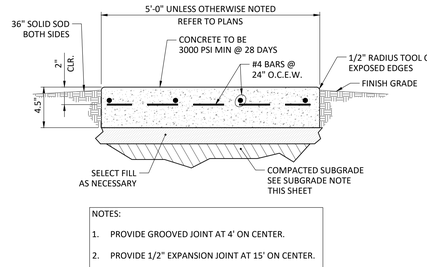
N.T.S.

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.
2. CONTRACTOR TO REMOVE THE EXISTING TRACK SURFACE FOR THE EXISTING TRACK AND FIELD EVENTS ALL THE WAY DOWN TO THE ASPHALT. ONCE ALL SURFACE HAS BEEN REMOVED, CONTRACTOR SHALL CONTACT THE ENGINEER TO INSPECT THE CONDITION OF THE EXISTING ASPHALT AND CONCRETE CURBS TO FIND THE AREAS THAT NEED TO BE FIXED OR REPLACED BEFORE ADDING ANY OTHER SURFACE.
3. CONTRACTOR TO APPLY THE PROPOSED TRACK SURFACE PER SPEC. (STRUCTURAL SPRAY).

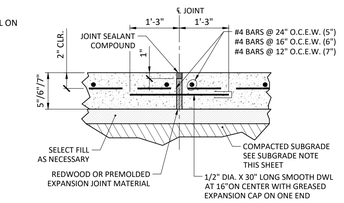


NOTES:

1. PROVIDE GROOVED JOINT AT 4' ON CENTER.
2. PROVIDE 1/2" EXPANSION JOINT AT 15' ON CENTER.
3. PROVIDE CONTROL JOINTS AT 5' MAXIMUM.

4 CONCRETE SIDEWALK DETAIL

N.T.S.



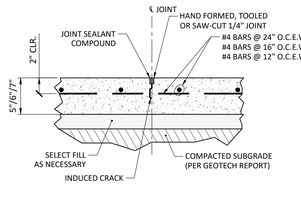
NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

5 EXPANSION JOINT DETAIL

N.T.S.

NOTE: SEE GEOTECH REPORT FOR REFERENCE

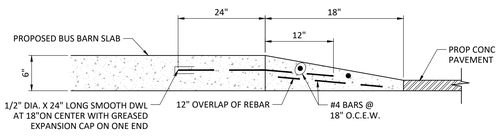


NOTES:

1. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

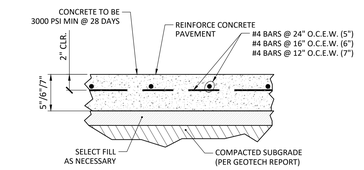
6 CONSTRUCTION JOINT DETAIL

N.T.S.



7 MOUNTABLE CURB DETAIL

N.T.S.

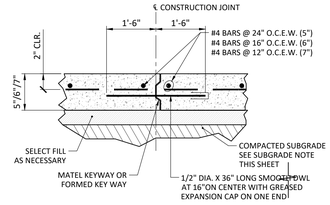


NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.
2. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

8 CONCRETE PAVEMENT DETAIL

N.T.S.

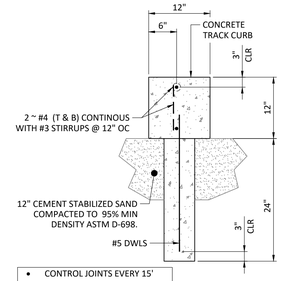


NOTES:

1. CONSTRUCTION JOINT SHALL BE PLACED AT THE END OF EACH DAYS POUR AND IN BETWEEN POURS AS SPECIFIED.

9 CONTROL JOINT DETAIL

N.T.S.



- CONTROL JOINTS EVERY 15'
- EXPANSION JOINTS EVERY 45'
- PIER TO BE 8" IN DIA AND SHALL BE INSTALLED EVERY 20'.

10 TRACK CURB SECTION

N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

ELKINS HIGH SCHOOL

Project Info Additional Text Line

7007 Knights CT, Missouri City, TX 77459

FBISD
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KENNETH I. JURADO
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12/04/2025

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C 5.01-E
CIVIL SPORTS DETAILS

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11767 KATY FWY, SUITE 1112
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PHONE No. 346.204.4854
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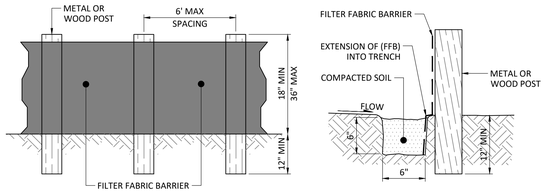


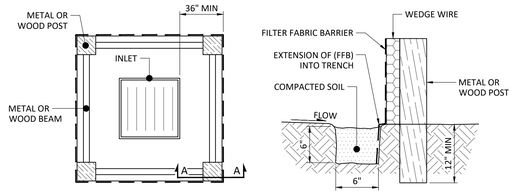
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

XFFBX

1 N.T.S. FILTER FABRIC BARRIER



PLAN VIEW

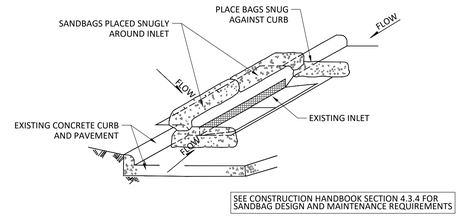
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

IPB

2 N.T.S. INLET PROTECTION BARRIER



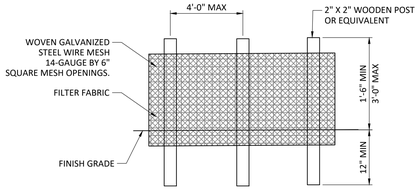
SEE CONSTRUCTION HANDBOOK SECTION 4.3.4 FOR SANDBAG DESIGN AND MAINTENANCE REQUIREMENTS

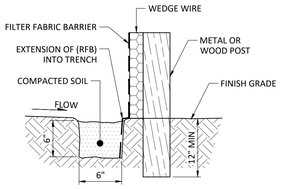
GENERAL NOTES:

1. BAGS OR WATTLES CAN BE USED FOR THIS APPLICATION.
2. PROVIDE WOVEN OR UNWOVEN GEOTEXTILE FILTER FABRIC FOR BAGS.
3. PROVIDE COARSE SAND AND AGGREGATE MIX FOR FILL MATERIAL FOR BAGS. USE ONLY PARTICLES CONSISTING OF CLEAN, HARD, DURABLE MATERIALS FREE FROM ADHERENT COATINGS, SALT, ALKALI, DIRT, CLAY, LOAM, SHALE, SOFT OR FLAKY MATERIALS, OR ORGANIC AND INJURIOUS MATTER.
4. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE BARRIER.

IPB

3 N.T.S. INLET PROTECTION BARRIER STAGE II



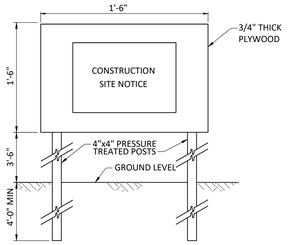


NOTES:

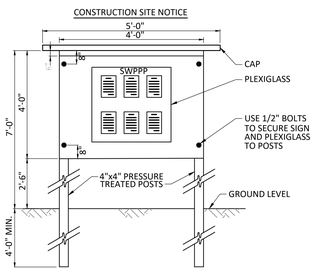
1. SET POSTS AT 4-FEET MAXIMUM SPACING. IF FACTORY PREASSEMBLED FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAXIMUM
2. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT THE POST, FOLD TOGETHER, AND ATTACH TO THE POSTS.
3. REMOVE SEDIMENT DEPOSITS WHEN SILT DEPTH REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE.

XXRFBXX

4 N.T.S. REINFORCE FILTER FABRIC BARRIER



CONSTRUCTION SITE NOTICE



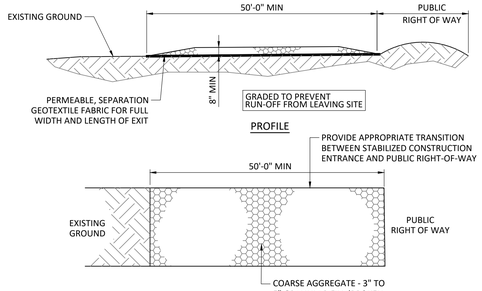
SWPPP SIGN

GENERAL NOTES:

1. COORDINATE CONSTRUCTION SITE AND SWPPP SIGN INFORMATION AND LAYOUT REQUIREMENTS WITH OWNER.

SC

5 N.T.S. PROJECT SIGN DETAIL



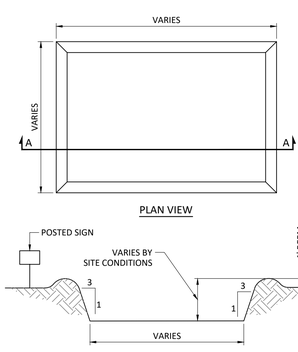
PLAN VIEW

SC

6 N.T.S. STABILIZED CONSTRUCTION ACCESS

GENERAL NOTES:

1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
2. MINIMUM WIDTH OF 14 FEET FOR ONE-WAY TRAFFIC, 20 FEET FOR TWO-WAY TRAFFIC.
3. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
4. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
5. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
6. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
7. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
8. ALTERNATIVE METHODS OF CONSTRUCTION INCLUDE
   -CEMENT STABILIZED SOIL: COMPACTED CEMENT STABILIZED SOIL, LIMESTONE AGGREGATE, OR OTHER FILL MATERIAL IN AN APPLICATION OF THICKNESS OF 8 INCHES.
   -WOOD MATS: OAK OR OTHER HARDWOOD TIMBERS PLACED EDGE TO EDGE AND ACROSS SUPPORT WOODEN BEAMS WHICH ARE PLACED ON TOP OF EXISTING SOIL IN AN APPLICATION THICKNESS OF 6 INCHES.
   -STEEL MATS: PERFORATED MATS PLACED ACROSS PERPENDICULAR SUPPORT MEMBERS.
9. CONSTRUCT CONSTRUCTION EXIT ON LEVEL GROUND WHEN POSSIBLE.
10. PROVIDE PERIODIC STREET SWEEPING AT CONJUCTION WITH PUBLIC RIGHT-OF-WAY.
11. LIMIT SPEED OF VEHICLES TO CONTROL DUST.
12. UTILIZE TEMPORARY PIPE CULVERTS AS NEEDED TO PREVENT IMPEDING POSITIVE DRAINAGE.
13. VERIFY STABILIZED CONSTRUCTION ACCESS LOCATION WITH OWNER PRIOR TO CONSTRUCTION.



PLAN VIEW

SECTION A - A

CTW

7 N.T.S. CONCRETE TRUCK WASHOUT AREA

GENERAL NOTES:

1. POST A SIGN READING "WARNING: CONCRETE WASH OUT PIT" NEXT TO EVERY PIT, MAKE SIGN VISIBLE TO NEAREST SIDEWALK OR ROAD.
2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.
3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.
6. LOCATE CONCRETE WASH OUT PITS AWAY FROM PLAYGROUND STRUCTURES.
7. VERIFY CONCRETE TRUCK WASHOUT AREA LOCATION WITH OWNER PRIOR TO CONSTRUCTION.

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
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ELKINS HIGH SCHOOL
Project Info Additional Text Line
7007 Knights CT, Missouri City, TX 77459

FBISD INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
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KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER

12/04/2025

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C 5.02-E
CIVIL SPORTS DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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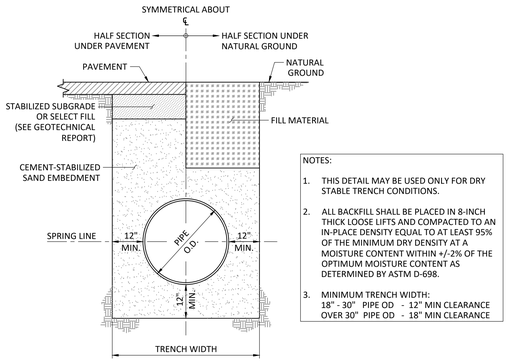
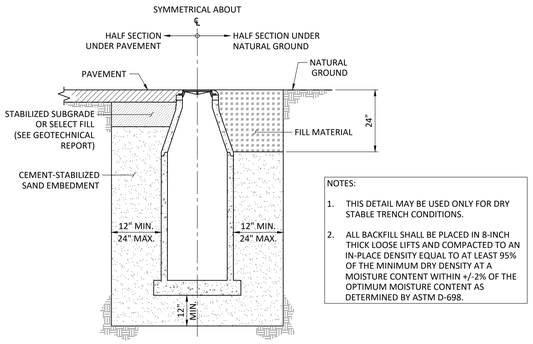


NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

1 SANITARY SEWER BEDDING AND BACKFILL DETAIL
N.T.S.



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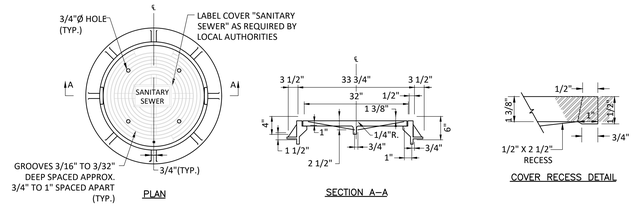
1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.

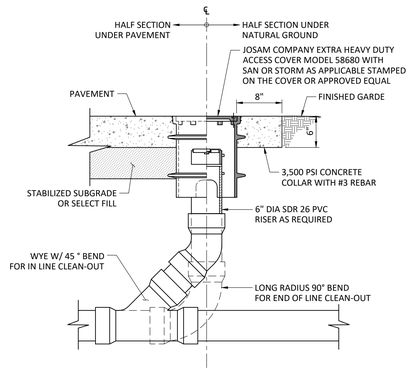
2 SANITARY SEWER STRUCTURE BEDDING AND BACKFILL DETAIL
N.T.S.



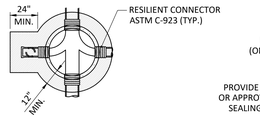
GENERAL NOTES:

1. ENSURE MANHOLE COVER IS TIGHTLY IN PLACE DURING AND POST CONSTRUCTION.

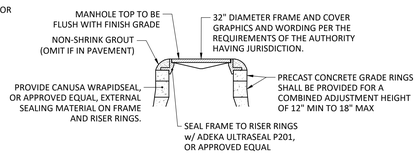
3 MANHOLE FRAME AND COVER
N.T.S.

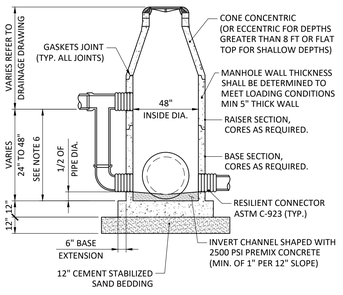


4 CLEAN-OUT DETAIL
N.T.S.



TOP VIEW

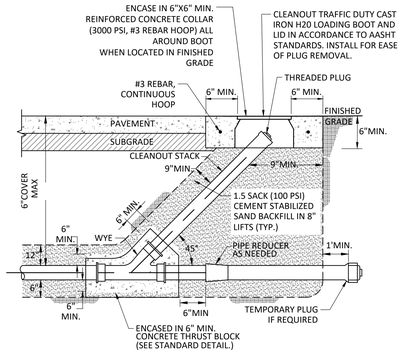




NOTES:

1. PRECAST CONCRETE MANHOLES SHALL BE MADE OF CLASS 1 CONCRETE WITH A DESIGN STRENGTH OF 4,500 PSI AT 28 DAYS AND RATED FOR H-20 LOADING.
2. STRUCTURAL REINFORCEMENT SHALL MEET ASTM C-478.
3. DEPTH OF MANHOLE SHALL DETERMINE THE NUMBER OF RISER SECTIONS AND ADJUSTMENT RINGS REQUIRED. BRICKS SHALL NOT BE USED.
4. GROUT INSIDE AND OUTSIDE OF EXTENSION RING(S) AND FRAME.
5. REFER TO SPECIFICATIONS FOR INTERIOR LINER MATERIALS. AS A MINIMUM, MANHOLE INTERIOR TO BE COATED WITH THANE-COAT OR PRE-ARRROVED EQUIVALENT, UNLESS NOTED OTHERWISE.
6. WHEN A PIPE ENTERS THE MANHOLE MORE THAN 24" ABOVE THE INVERT AN EXTERNAL DROP SHALL BE PROVIDED.
7. WHEN A MANHOLE IS LOCATED IN A PAVED AREA THE COVER SHALL MEET OR EXCEED AASHTO STANDARD M-306.
8. ALL MANHOLES SHALL BE PROVIDED WITH A STAINLESS STEEL DISH INSERT.
9. WHEN CONNECTING TO AN EXISTING MANHOLE THE CONNECTION SHALL BE MADE BY CORING.
10. MANHOLES SHALL CONFORM TO ALL TCEQ REQUIREMENTS.

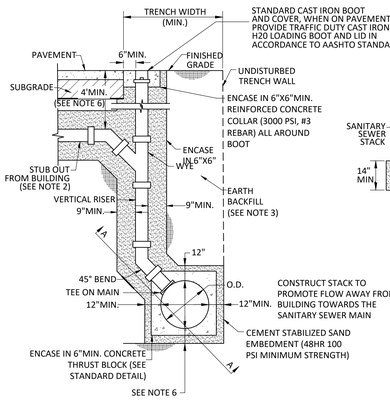
5 SANITARY SEWER MANHOLE DETAIL
N.T.S.

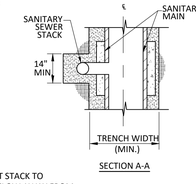


GENERAL NOTES:

1. PLUG TO BE AT A MINIMUM DISTANCE OF 2" FROM LID.
2. PLACE CEMENT STABILIZED SAND IN 8" LIFTS COMPACTED ONE LIFT AT A TIME.
3. CAP ALL SANITARY SEWER ENDS.
4. CLEANOUT STACK SIZE AND MATERIAL SHALL BE IN ACCORDANCE WITH LOCAL AUTHORITIES DESIGN CRITERIA AND NOTED IN UTILITY PLAN. MINIMUM SIZE OF 6".

6 STANDARD SANITARY SEWER CLEANOUT
N.T.S.





SECTION A-A

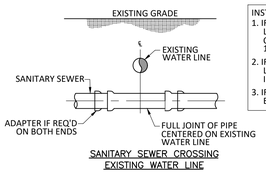
7 SANITARY SEWER STACK WITH BUILDING STUB-OUT
N.T.S.

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

GENERAL NOTES:

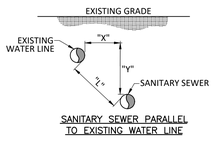
1. NO JOINTS IN VERTICAL RISER
2. REFER TO LOCAL PLUMBING CODE FOR STUB OUT CONNECTION TO BUILDING REQUIREMENTS. VERIFY DEPTH TO ENSURE ADEQUATE SLOPE TO BUILDING.
3. BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY.
4. PLACE CEMENT STABILIZED SAND IN 8" LIFTS COMPACTED ONE AT A TIME.
5. CLEANOUT BOOT AND COVER SHALL BE PLACED FLUSH WITH FINISHED GRADE.
6. MINIMUM DEPTH OF BEDDING TO BE 1/2 OD OR 6" WHICHEVER GREATER.
7. PLUG TO BE AT A MINIMUM DISTANCE OF 2" FROM LID.



SANITARY SEWER CROSSING EXISTING WATER LINE

INSTALLATION REQUIREMENTS

1. IF "Y" IS GREATER THAN 1' AND "Y" IS LESS THAN 2', USE MINIMUM 18' JOINT OF PRESSURE-RATED PIPE MINIMUM 150 PSI.
2. IF "Y" IS GREATER THAN 2' AND "Y" IS LESS THAN 9', USE GRAVITY SEWER PIPE IN CEMENT-STABILIZED SAND EMBEDMENT.
3. IF "Y" IS GREATER THAN 9', USE STANDARD EMBEDMENT AND NORMAL JOINT SPACING.



SANITARY SEWER PARALLEL TO EXISTING WATER LINE

INSTALLATION REQUIREMENTS

1. IF "L" IS LESS THAN 9', USE PRESSURE-RATED PIPE MH TO MH. "X" MUST BE AT LEAST 4'. "Y" MUST BE AT LEAST 2'.
2. IF "L" IS 9' OR GREATER, USE STANDARD PIPE AND EMBEDMENT.

GENERAL NOTES:

1. SANITARY SEWER MUST BE BELOW WATER LINE WHEREVER POSSIBLE. WHEN NEW WATER LINE IS BELOW SANITARY SEWER PROVIDE MINIMUM 2' SEPARATION "L" AND INSTALL PIPE IN ACCORDANCE TO LOCAL AUTHORITIES SPECIFICATIONS.
2. ADAPTORS MUST BE FACTORY MOLDED OR FABRICATED, WITH RING STIFFNESS AT LEAST EQUAL TO THE ADJOINING SANITARY SEWER PIPE, AND USING RESILIENT GASKET OR SEAL MATERIAL. FLEXIBLE RUBBER "BOOT" TYPE ADAPTERS WILL NOT BE ACCEPTED.
3. INSTALL FORCE MAINS SAME AS FOR GRAVITY SEWER, USING SPECIFIED PRESSURE PIPE.
4. "Y" MUST ALWAYS BE GREATER THAN OR EQUAL TO 1' FOR PRESSURE RATED SS AND 2' FOR NON-PRESSURE RATED SS.
5. "X" MUST BE GREATER THAN OR EQUAL TO 4'.
6. REFER TO PLUMBING CODE FOR APPLICABLE REQUIREMENTS.
7. INSTALL GREEN UNDERGROUND WARNING TAPE READING "CAUTION SANITARY SEWER BELOW" AT 12" BELOW THE EXISTING GRADE AND DIRECTLY ABOVE AND ALONG NEW SANITARY SEWER.
8. NOTIFY OWNER 48 HOURS IN ADVANCE BEFORE SHUTTING OFF EXISTING WATER LINE.
9. ENSURE EXISTING WATER LINE IS SECURE OR BRACED PRIOR TO THE SANITARY SEWER PLACEMENT.
10. MEASURE "Y" VERTICAL CLEARANCE BEFORE BEGINNING BACKFILL WORK.
11. BOTH LINES MUST PASS PRESSURE AND LEAKAGE TEST PER AWWA C600 STANDARDS.

pfluger
office 713.222.1141 | fax 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

ELKINS HIGH SCHOOL
Project Info Additional Text Line
7007 Knights CT, Missouri City, TX 77459

FBISD
INSPIRE • EQUIP • IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 5.03-E
CIVIL SPORTS SANITARY DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1312
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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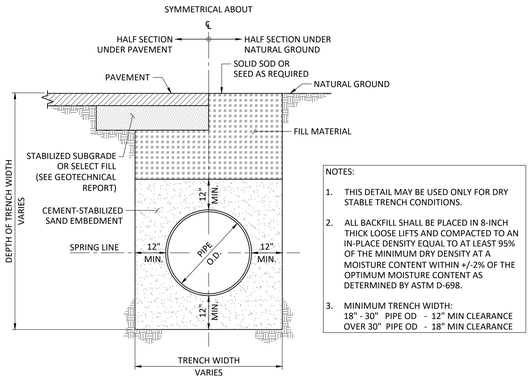
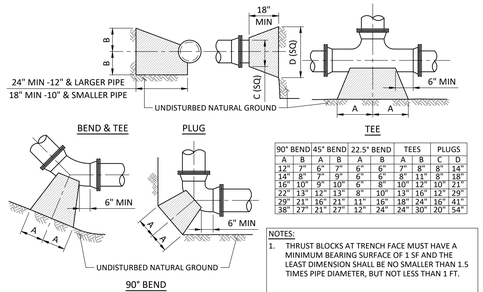
TSCE PROJECT # 2598



NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

1 WATER BEDDING AND BACKFILL DETAIL
N.T.S.

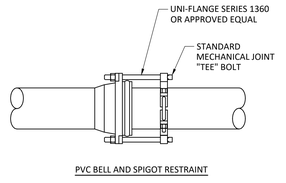


90° BEND		45° BEND		22.5° BEND		TEES		PLUGS	
A	B	A	B	A	B	A	B	C	D
12"	7"	6"	7"	6"	6"	7"	8"	8"	14"
14"	8"	7"	9"	6"	6"	8"	13"	8"	18"
16"	10"	9"	10"	6"	8"	10"	12"	10"	21"
22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
38"	27"	21"	27"	12"	24"	24"	30"	20"	54"

NOTES:

1. THRUST BLOCKS AT TRENCH FACE MUST HAVE A MINIMUM BEARING SURFACE OF 1 SF AND THE LEAST DIMENSION SHALL BE NO SMALLER THAN 1.5 TIMES PIPE DIAMETER, BUT NOT LESS THAN 1 FT.
2. THRUST BLOCKS SHALL BE PACKED AT ALL FITTINGS.
3. ALL FITTINGS SHALL BE M.J. RESTRAINED JOINT (EBAA IRON, SERIES 2000PV, OR APPROVED EQUAL).

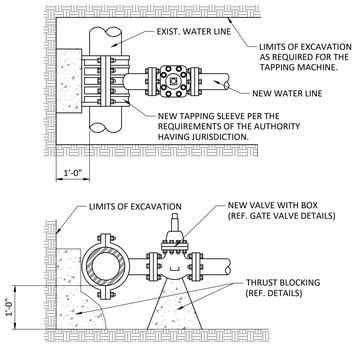
2 THRUST BLOCK DETAIL
N.T.S.



NOTES:

1. RESTRAINT DEVICES FOR PVC (AWWA C-900) AND PVC PRESSURE FITTINGS (AWWA C-907) SHALL CONSIST OF A SPLIT RING INSTALLED ON THE PIPE SPIGOT, CONNECTED TO A SPLIT BACK-UP RING SEATED BEHIND THE FITTING BELL.
2. THE SPLIT RESTRAINT RING SHALL INCORPORATE A SERIES OF MACHINED SERRATIONS (NOT "AS CAST") ON THE INSIDE DIAMETER TO PROVIDE POSITIVE RESTRAINT, EXACT FIT, AND 360° CONTACT AND SUPPORT OF THE PIPE WALL.
3. THE TWO HALVES OF THE SPLIT BACK UP RING SHALL INTER-LOCK WITHOUT THE NEED FOR ADDITIONAL BOLTS AND SHALL FORM A BEVELED LEADING EDGE TO ASSURE EXACT FIT BEHIND THE FITTING BELL.
4. RESTRAINT DEVICES SHALL BE OF DUCTILE IRON, ASTM A536, GRADE 65-45-12 AND CONNECTING BOLTS SHALL BE OF HIGH STRENGTH, LOW ALLOY MATERIAL IN ACCORDANCE WITH ANSI/AWWA C111/21.11
5. RESTRAINT DEVICES SHALL BE UNI-FLANGE SERIES 1360 OR APPROVED EQUAL.

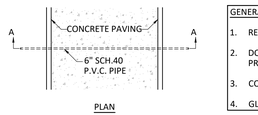
3 WATERLINE RESTRAINED MECHANICAL JOINT DETAIL
N.T.S.



NOTES:

1. TAPPING VALVES ARE NOT ALLOWED WHEN TAP IS SAME SIZE AS THE EXISTING MAIN EXCEPT WHEN APPROVED BY THE AUTHORITY HAVING JURISDICTION.

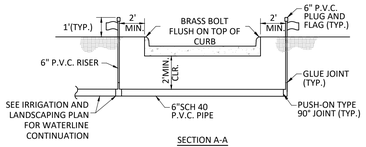
4 TAPPING SLEEVE AND VALVE
N.T.S.



PLAN

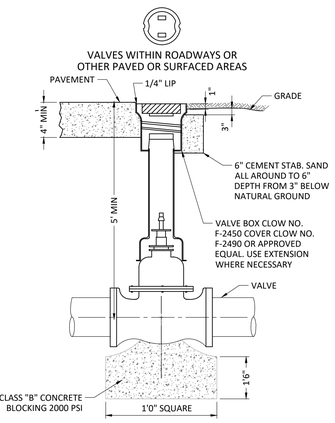
GENERAL NOTES:

1. REFER TO UTILITY AND LANDSCAPING PLAN FOR SLEEVE PLACEMENT.
2. DO NOT BORE SLEEVE. PROVIDE SAW CUT OVER EXISTING PAVEMENT OR PLACE PRIOR TO NEW PAVEMENT.
3. CONTRACTOR TO INSPECT SLEEVE FOR FAILURE DURING AND POST CONSTRUCTION.
4. GLUE JOINT CONNECTION TO CREATE WATERTIGHT SEAL.



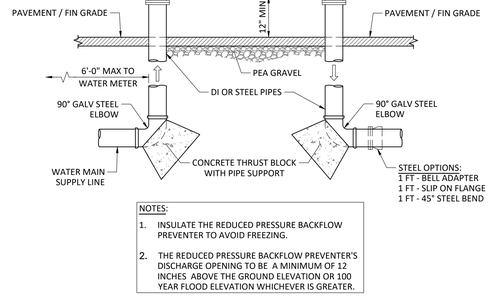
SECTION A-A

5 IRRIGATION SLEEVE CROSSING UNDER PAVEMENT
N.T.S.



* BLOCK GATE VALVES WITH COMPRESSION JOINT FITTINGS ON 8" & LARGER LINES

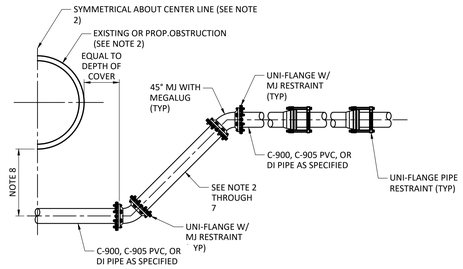
6 GATE VALVE AND BOX DETAIL
N.T.S.



NOTES:

1. INSULATE THE REDUCED PRESSURE BACKFLOW PREVENTER TO AVOID FREEZING.
2. THE REDUCED PRESSURE BACKFLOW PREVENTER'S DISCHARGE OPENING TO BE A MINIMUM OF 12 INCHES ABOVE THE GROUND ELEVATION OR 100 YEAR FLOOD ELEVATION WHICHEVER IS GREATER.

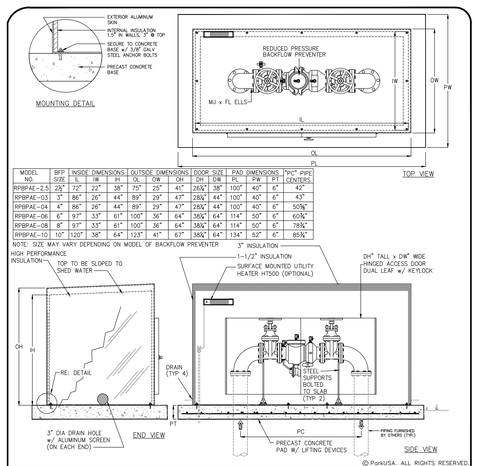
7 BACKFLOW PREVENTER DETAIL
N.T.S.



NOTES:

1. WHEN ALTERING EXISTING LINES RESTRAIN ANY EXISTING JOINTS EXPOSED BY CONSTRUCTION BEFORE OR AFTER PROPOSED FITTINGS WITH UNI-FLANGE BELL AND SPIGOT PIPE RESTRAINT.
2. RESTRAIN ALL JOINTS WITHIN 50 FEET OF PROPOSED FITTINGS.
3. APPROPRIATE BEDDING AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY OF LEAGUE CITY DETAILS AND DESIGN STANDARDS.
4. USE APPROPRIATE SERIES MODEL RESTRAINT FOR PIPE MATERIAL.
5. WHERE POSSIBLE THERE SHOULD BE NO PIPE JOINTS WITHIN THE VERTICAL OR HORIZONTAL RUN OF THE OFFSET (WHEN AND WHERE APPROVED SEE NOTE 6 AND 7).
6. IF A PIPE JOINT IS REQUIRED WITHIN THE VERTICAL OFFSET IT SHALL BE RESTRAINED WITH UNI-FLANGE BELL AND SPIGOT TYPE RESTRAINT.
7. WHEN DEPTH OF OFFSET REQUIRES MORE THAN A STANDARD LENGTH OF PIPE NO SEGMENT SHALL BE LESS THAN 5' IN LENGTH.
8. THE MINIMUM CLEARANCE SHALL BE DETERMINED BY THE AMOUNT OF BEDDING AND BACKFILL REQUIRED BY THE PROSPECTIVE PIPE AND THEIR USAGE. SEE THE BEDDING AND BACKFILL DETAILS FOR DIMENSIONS.
9. A SOLID CONTINUOUS JOINT OF PIPE SHALL BE USED AT ALL TIMES FOR THE HORIZONTAL SECTION OF THE OFFSET. IF THE MINIMUM SIDE CLEARANCE DISTANCES PLUS THE DIMENSION OF THE OBSTRUCTION IS GREATER THAN A STANDARD JOINT OF PIPE AN APPROPRIATELY SIZED AND CONTINUOUS LENGTH OF HDPE SHALL BE USED WITH TRANSITION FITTING OR GASKETS AS SPECIFIED BY THE MANUFACTURER IF NEEDED.

8 RESTRAINED MECHANICAL JOINT VERTICAL OFFSET
N.T.S.



MODEL NO.	BFP SIZE	INSIDE DIMENSIONS IL	IW	IH	OUTSIDE DIMENSIONS OL	OW	OH	DOOR SIZE DH	DW	PAD DIMENSIONS PL	PW	PT	"Pvc" PIPE CENTERS
RPBPAE-2.5	2½"	72"	22"	38"	75"	25"	41"	26⅜"	38"	100"	40"	6"	42"
RPBPAE-03	3"	86"	26"	44"	89"	29"	47"	28⅜"	44"	100"	40"	6"	43"
RPBPAE-04	4"	86"	26"	44"	89"	29"	47"	28⅜"	44"	100"	40"	6"	50⅝"
RPBPAE-06	6"	97"	33"	61"	100"	36"	64"	36⅜"	64"	114"	50"	6"	60⅜"
RPBPAE-08	8"	97"	33"	61"	100"	36"	64"	36⅜"	64"	114"	50"	6"	78⅜"
RPBPAE-10	10"	120"	38"	64"	123"	41"	67"	38⅜"	64"	134"	52"	6"	85⅜"

NOTE: SIZE MAY VARY DEPENDING ON MODEL OF BACKFLOW PREVENTER

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Specifications

GENERAL
The Model ERP aluminum enclosure is pre engineered to provide protection to backflow preventers, meters, pumps, and other devices installed above ground. These water conveying devices are subject to freezing and vandalism. The enclosure is designed to be installed over the equipment after installation. The enclosure is equipped with access doors to provide adequate access to the equipment.

CONSTRUCTION
The enclosure shall be manufactured from all new materials. The exterior shall be fabricated with 0.090 aluminum, continuously welded. The access door(s) shall be of like material and hinged with a continuous hinge. The door shall be equipped with a 3-point locking mechanism. The interior of the enclosure shall be structurally lined with high performance, non-wicking insulation.

HEATER
Interior heaters (if required) shall be thermostatically controlled and be mounted to the interior wall of the enclosure. A GFI receptacle shall be provided by others to provide power to the electric heater.

PROJECT:
CUSTOMER:
ENGINEER:
ORDER #:
PROJ #:
DATE:

888.811.PARK
WWW.PARKUSA.COM
PARK USA
DESIGN FOR WATER

WEATHERPROOF ENCLOSURE FOR RPZ BACKFLOW PREVENTER

PM	DRN	ENG	DWG. NO.	REV.
DATE 2018			RPBPAE-1	A

SCALE: NTS

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

ELKINS HIGH SCHOOL
Project Info Additional Text Line
7007 Knights CT, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD
C 5.04-E
CIVIL SPORTS WATER DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM# No. 19645 WWW.TEXSCE.COM
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TSCE PROJECT # 2508

GENERAL

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES. THE CODES LISTED SHALL INCLUDE ALL AMENDMENTS AND ADDENDA IN FORCE AT THE DATE OF THE CONTRACT DOCUMENTS.

   2021 EDITION OF THE INTERNATIONAL BUILDING CODE

2. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL AND ARCHITECTURAL CONTRACT DOCUMENTS THE STRICTEST REQUIREMENTS SHALL GOVERN.

3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE AND REPORT ANY DISCREPANCIES OR INCONSISTENCIES FROM ASSUMED CONDITIONS TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.

4. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT THEY ARE CUT AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER.

5. DO NOT SCALE THE DRAWINGS.

6. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

7. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, AND CONSTRUCTION EQUIPMENT. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE.

10. IT IS THE DESIGN INTENT FOR ALL CONCRETE POURS TO HAPPEN IN SEQUENTIAL ORDER FROM FOUNDATIONS THROUGH ROOF. THE GENERAL CONTRACTOR SHALL DISCUSS WITH THE A/E TEAM THE FEASIBILITY OF NON-SEQUENTIAL POURING OF CONCRETE AND ITS IMPACT ON THE DESIGN INTENT AND ALLOW SUFFICIENT TIME FOR SUCH SCHEME TO BE INVESTIGATED OR REVIEWED.

11. PERIODIC SITE OBSERVATION BY THE ENGINEER IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

12. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBERS.

13. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, WALLS, SLABS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF STRUCTURAL ENGINEER.

14. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS, WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

15. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

    SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS,
    SIZE AND LOCATION OF INTERIOR AND EXTERIOR NON-LOAD BEARING PARTITIONS, SIZE AND LOCATION OF CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHAMFERS, GROOVES, INSERTS, ETC., SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS, FLOOR AND ROOF FINISHES,
    STAIR FRAMING AND DETAILS, DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, CEILING AND EXTERIOR WALL ASSEMBLIES.

16. SEE THE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

    PIPES, SLEEVES, HANGERS, TRENCHES, WALL, FLOOR AND ROOF OPENINGS,
    DUCT PENETRATIONS, ETC., EXCEPT AS SHOWN OR NOTED OTHERWISE
    ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS, CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL, OR PLUMBING FIXTURES, SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES AND ANCHOR BOLTS FOR MOUNTS.

DESIGN CRITERIA

1. DEAD LOAD MATERIALS ASSUMED IN THE DESIGN ARE SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

2. AN ALLOWANCE OF 15 PSF HAS BEEN MADE FOR PARTITIONS AS A UNIFORMLY DISTRIBUTED LIVE LOAD, WHEREVER PARTITIONS ARE USED AND LOCATION SUBJECT TO CHANGE EXCLUDING PUBLIC LOBBIES, CORRIDORS, RESTROOMS, AND PLACES OF PUBLIC ASSEMBLY.

3. LIVE LOADS:

LOCATION	UNIFORM LOAD	CONCENTRATED LOAD
ROOF	20 PSF REDUCIBLE	300 LBS
GROUND FLR, COMMON AREAS	100 PSF REDUCIBLE	
HANDRAILS AND GUARDRAILS	50 PLF OR 200 LBS APPLIED AT TOP RAIL IN ANY DIRECTION. 50 LBS IN ANY DIRECTION APPLIED AT INTERMEDIATE RAILS.	
GRAB BARS		250 LBS ANY DIRECTION

4. WIND LOADS

ULTIMATE WIND SPEED	138 MPH (3-SEC GUST)
NOMINAL WIND SPEED	107 MPH (3-SEC GUST)
RISK CATEGORY	II
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFF.	+/- 0.18
COMPONENTS & CLADDING	SEE DIAGRAM

5. SEISMIC LOADS

RISK CATEGORY	II
IMPORTANCE FACTOR	1.00
MAPPED ACCELERATION PARAMETERS	
SS	0.066
S1	0.038
SPECTRAL RESPONSE COEFFICIENTS	
SDS	0.07
SD1	0.06
SEISMIC DESIGN CATEGORY	A

6. HANDRAILS, GUARDRAILS AND GRAB BARS (INCLUDING ATTACHMENT TO STRUCTURE) SHALL BE DESIGNED BY THE FABRICATOR FOR THE LOADS INDICATED IN THE REFERENCED BUILDING CODE. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF WHERE THE PROJECT IS LOCATED, REPRESENTING THE FABRICATOR.

FOUNDATION

1. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT (AND ANY ADDENDA) PREPARED BY THE FOLLOWING COMPANY:

   COMPANY HVJ ASSOCIATES
   REPORT NO. HG1810383.17 –E
   DATED FEBRUARY 09, 2024

   ALL RECOMMENDATIONS THEREIN THAT RELATE TO THE WORK SHOWN ON THESE DRAWINGS SHALL BE FOLLOWED.

2. THE FOUNDATION SYSTEM IS DESIGNED BASED ON THE FOLLOWING

   ALLOWABLE BEARING PRESSURE

SUSTAINED LOADS	2000 PSF
TOTAL LOADS	2500 PSF
DESIGN PLASTICITY INDEX (PI)	26
SOIL SUPPORT INDEX	0.07
CLIMATIC RATING	25

   SPREAD FOOTING
   ALLOWABLE BEARING PRESSURE 2000 PSF

3. THE GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR FOR REVIEW OF FOUNDATION BEARING SURFACE, INSPECTION OF FOUNDATION INSTALLATION, AND PLACEMENT OF REINFORCING STEEL. THE CONTRACTOR SHALL NOT PLACE CONCRETE WITHOUT INSPECTOR'S APPROVAL.

4. THE CONTRACTOR SHALL NOTIFY THE AUTHORIZED INSPECTOR 48 HOURS IN ADVANCE OF ANY MAJOR FOUNDATION POUR.

5. FORM EXPOSED FACES OF GRADE BEAMS.

6. GRADE BEAM BOTTOM STEEL SHALL BE CHAIRED AT 5 FOOT MAXIMUM CENTERS USING BEAM BOLSTERS PROVIDING 3 INCH BOTTOM COVER TO REINFORCING STEEL. BEAM BOLSTERS USED SHALL BE INTENDED FOR SUPPORT ON SOIL.

7. BOTTOM BARS OF GRADE BEAM SHALL BE SPLICED (WHERE REQUIRED) AT THE PIERS ONLY. TOP BARS SHALL BE SPLICED (WHERE REQUIRED) AT THE MIDSPAN OF THE GRADE BEAMS. LAP LENGTH SHALL BE 44 TIMES BAR DIAMETER UNLESS SPECIFIED OTHERWISE. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

8. ALL REINFORCING STEEL FOR SLABS SHALL BE CHAIRED WITH SLAB BOLSTERS FOR SUPPORT ON SOIL AT 4'-0" MAXIMUM CENTERS EACH WAY FOR REINFORCING FOR SLABS. DEPTH OF CHAIRS SHALL PROVIDE COVER TO REINFORCING AS NOTED ON PLANS/DETAILS.

9. SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R. PROVIDE (3) #3 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

10. SUBGRADE PREPARATION SHALL CONFORM TO THE SOILS REPORT NOTED ABOVE. IF REPORT DOES NOT SPECIFY THE AMOUNT OF SELECT FILL, PROVIDE FILL AS REQUIRED ABOVE TO REDUCE PVR TO 1 INCH.

11. VAPOR RETARDER SHALL HAVE NO MORE THAN 0.01 PERMS AS TESTED BEFORE AND AFTER MANDATORY CONDITIONING (ASTM E 1745 SECTION 7.1 AND SUB-PARAGRAPHS 7.1.2-5), MEET OR EXCEED THE REQUIREMENTS OF ASTM E 1745 CLASS A AND BE NO LESS THAN 15 MILS THICK.

12. ALL VAPOR RETARDER SEAMS SHALL BE OVERLAPPED A MINIMUM OF 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE. ALL PENETRATIONS, BLOCK-OUTS, AND OPENINGS SHALL BE SEALED USING A COMBINATION OF THE VAPOR RETARDER, MASTIC AND MANUFACTURER'S TAPE. DO NOT PENETRATE VAPOR RETARDER WITH FORMWORK STAKES. USE STEGO BEAST FORM STAKES OR EQUIVALENT WHERE REQUIRED.

13. THE CONTRACTOR SHALL ENSURE THE SELECT FILL MATERIAL IS PROPERLY MIXED TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER AND TESTING LAB AND SHALL MAKE PROVISIONS FOR SOIL PULVERIZATION OR OTHER MIXING METHODS AS REQUIRED.

14. THE BEARING STRATUM OF EACH SPREAD FOOTING AND ALL STRIP FOOTINGS SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR PRIOR TO POURING OF CONCRETE.

15. PROVIDE AND INSTALL 1/8 INCH STEEL TEMPLATES TO ACCURATELY SET ANCHOR BOLTS FOR STEEL COLUMNS.

16. FOOTINGS SHALL BE NEAT EXCAVATED WHERE POSSIBLE WITH SIDES AND TOP EDGES FREE OF LOOSE OR WET MATERIALS. WHERE NEAT EXCAVATION IS NOT POSSIBLE, FOOTING EXCAVATION SHALL BE OPEN CUT WITH EDGES FORMED AND BRACED. ALL FOOTINGS WITH FORMED EDGES SHALL BE BACKFILLED FROM BOTTOM TO TOP OF FOOTING WITH LEAN CONCRETE OR CEMENT STABILIZED SAND. THE BOTTOM EXCAVATION SHALL BE CLEAN AND DRY WITH ALL LOOSE MATERIAL REMOVED FOR AN ESSENTIALLY FLAT BEARING SURFACE. EXCAVATIONS SHALL NOT BE LEFT OVERNIGHT UNLESS A 2 INCH UNREINFORCED SEAL (MUD) SLAB IS PLACED AT THE BOTTOM OF THE FOOTING EXCAVATION. WHERE SOFT OR UNSUITABLE BEARING SURFACES ARE ENCOUNTERED, THE AREA SHALL BE UNDERCUT AS REQUIRED AND REPLACED WITH COMPACTED FILL, CEMENT STABILIZED SAND, OR CONCRETE AS DIRECTED BY THE GEOTECHNICAL ENGINEER. FILL MATERIAL, IF USED, SHALL BE COMPACTED IN 6 INCHES MAXIMUM LOOSE LIFTS TO A MINIMUM 95% OF STANDARD PROCTOR DENSITY (ASTM D 698) UNLESS SPECIFIED OTHERWISE BY THE GEOTECHNICAL ENGINEER.

NON-SHRINK GROUT FOR BASE PLATES AND BEARING PLATES

1. GROUT FOR BASE PLATES AND BEARING PLATES SHALL BE A NON-METALLIC, SHRINKAGE RESISTANT, PREMIXED, NON-CORROSIVE, NON-STAINING PRODUCT CONTAINING PORTLAND CEMENT, SILICA SANDS, SHRINKAGE COMPENSATING AGENTS, AND FLUIDITY IMPROVING COMPOUNDS.

2. GROUT SHALL CONFORM TO CORPS OF ENGINEERS SPECIFICATION FOR NON-SHRINK GROUT, CE-CRD-C621. TWENTY-EIGHT DAY COMPRESSIVE STRENGTH AS DETERMINED BY GROUT CUBE TESTS, SHALL BE 5,000 PSI. MINIMUM THICKNESS OF GROUT UNDER ALL BASE PLATES AND BEARING PLATES SHALL BE 1 INCH, UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS.

3. GROUT SHALL BE PLACED IN A FLUID FLOWABLE STATE UNDER BASE PLATES THAT HAVE A FORM BUILT AROUND THEM FOR GROUT CONFINEMENT. GROUT SHOULD BE CURED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

4. GROUT SHALL BE PLACED AND HARDENED PRIOR TO POURING ANY ELEVATED CONCRETE FLOORS SUPPORTED ON THE ASSOCIATED COLUMN.

5. BASE PLATES SHALL BE LOCATED USING LEVELING NUTS OR SHIMS. SHIMS SHALL BE STEEL OR A PLASTIC/COMPOSITE PRODUCT WITH COMPRESSIVE STRENGTH GREATER THAN OR EQUAL TO MINIMUM 28 DAY COMPRESSIVE STRENGTH OF THE GROUT.

6. LEVELING NUTS MAY NOT BE USED WHERE ANCHOR RODS ARE DIRECTLY EMBEDDED IN SPREAD FOOTINGS. LEVELING NUTS MAY BE USED WHEN ANCHOR RODS ARE EMBEDDED IN PLINTHS SUPPORTED BY SPREAD FOOTINGS OR PIERS.

7. G.C. TO COORDINATE REQUIRED GROUT THICKNESS WITH SUBCONTRACTORS. IF A DIFFERENT GROUT THICKNESS THAN SHOWN ON THE DETAILS IS DESIRED SUBMIT REQUEST FOR ALTERNATE THICKNESS TO EOR.

CONCRETE

1. ALL ASPECTS OF WORK RELATING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CURRENT EDITION OF ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
   CRSI MANUAL OF STANDARD PRACTICE

2. STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTHS AND TYPES ARE AS FOLLOWS:

LOCATION	STRENGTH	TYPE	AGGREGATE SIZE	EXPOSURE CLASS
FOUNDATIONS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0

3. THERE SHALL BE NO HORIZONTAL COLD JOINT IN ANY CONCRETE POUR.

4. ADMIXTURES USED SHALL BE COMPATIBLE WITH FLOOR TREATMENTS. FINISH APPLICATOR SHALL APPROVE ADMIXTURES AND CURING COMPOUNDS PRIOR TO USE.

5. EXPOSURE CLASSES FOR FREEZING AND THAWING (F), SULFATE (S), WATER (W), AND CORROSION PROTECTION (C) HAVE BEEN PROVIDED. CONCRETE MIXES SHALL CONFORM TO ALL ACI 318 REQUIREMENTS BASED ON EXPSURE CLASS, INCLUDING, BUT NOT LIMITED TO WATER CEMENT RATIO, COMPRESSION STRENGTH, AIR CONTENT, CEMENTITIOUS MATERIALS, CALCIUM CLORIDE ADMIXTURES, AND WATER-SOLUABLE CHLORIDE ION CONTENT.

6. CONCRETE FOR SLAB-ON-GRADE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.45. ALL OTHER CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.50. ADJUST CONCRETE STRENGTH BEYOND MINIMUM SPECIFIED ABOVE TO MAINTAIN MAXIMUM WATER-CEMENT RATIO.

7. CONCRETE FOR SLAB-ON-GRADE AND METAL DECK SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.04% (400 MICROSTATIONS) AT 28 DAYS OF DRYING. LENGTH CHANGE SHALL BE MEASURED IN ACCORDANCE WITH ASTM C157.

8. FLY ASH CONFORMING TO ASTM C618, MAY BE USED UNLESS NOTED OTHERWISE. THE MAXIMUM AMOUNT OF FLY ASH SHALL BE 25% OF THE TOTAL CEMENTITIOUS MATERIAL BY WEIGHT.

9. AT POLISHED OR STAINED CONCRETE THE FLOOR FLATNESS (FF) SHALL BE 40 OR BETTER AND THE FLOOR LEVELNESS (FL) SHALL BE 30 OR BETTER UNLESS MORE STRINGENT REQUIREMENTS ARE PROVIDED IN THE SPECIFICATIONS.

10. CONCRETE FORMS SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS INDICATED ON THE STRUCTURAL DRAWINGS.

11. CONCRETE FOR SLABS TO RECEIVE A HARD-TROWELED FINISH SHALL NOT CONTAIN AIR-ENTRAINING ADMIXTURES OR HAVE A TOTAL AIR CONTENT GREATER THAN 3 PERCENT.

12. SUBMIT SHOP DRAWINGS TO ARCHITECT AND ENGINEER INDICATING LOCATIONS OF CONCRETE JOINTS TO REVIEW PRIOR TO PLACING CONCRETE. PLACE JOINTS AT LOCATIONS TO MINIMIZE THE EFFECTS OF SHRINKAGE AS WELL AS BEING PLACED AT POINTS OF LOW STRESS.

13. ROUGHEN CONCRETE SURFACES TO 1/4 INCH AMPLITUDE WHERE MASONRY WALLS INTERSECT CONCRETE OR WHERE NEW CONCRETE INTERFACES WITH EXISTING CONCRETE.

14. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB-ON-GRADE, CONCRETE ON METAL DECK, FRAMED CONCRETE FLOORS, AND WALLS DO NOT REQUIRE SLEEVES UNLESS NOTED OTHERWISE ON THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE ARCHITECT AND ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH CONCRETE BEAMS OR COLUMNS UNLESS SPECIFICALLY DETAILED.

15. WITH THE EXCEPTION OF SLABS ON GRADE AND CONCRETE ON METAL DECK, THE OUTSIDE DIAMETER OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS (OTHER THAN THOSE PASSING THROUGH) SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS AND SHALL BE CENTERED BETWEEN THE TOP AND BOTTOM REINFORCING UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED. CONDUIT AND PIPE SHALL BE SPACED AT 3" OR 3 DIAMETERS ON CENTER, WHICHEVER IS GREATER.

16. FOR SLABS ON GRADE AND METAL DECK SLABS NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB UNLESS SPECIFICALLY DETAILED OTHERWISE.

17. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING WHEN TEMPORARY SUPPORTS, SHORES, BACKSHORES, AND OTHER BRACING MAY BE SAFELY REMOVED.

REINFORCING STEEL

1. ALL ASPECTS OF WORK RELATING TO THE REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CRSI MANUAL OF STANDARD PRACTICE

2. DEFORMED BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.

3. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185, YIELD STRENGTH 65,000 PSI. WELDED DEFORMED WIRE FABRIC FOR ASTM A497, YIELD STRENGTH 70,000 PSI. ALL WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS ONLY. WHEREVER WELDED WIRE FABRIC IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED ONE CROSS WIRE SPACING PLUS 2 INCHES.

4. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ONE HALF, WHICHEVER IS GREATER.

5. WELDING OF REINFORCING IS PERMITTED ONLY WHERE SHOWN ON THE DRAWINGS OR WHEN APPROVED BY THE ENGINEER OF RECORD. WELDING OF REINFORCING BARS SHALL BE WITH LOW HYDROGEN ELECTRODES IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF AWS D1.4.

6. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.

7. REINFORCING DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME NUMBER, SIZE, SPACING, AND GRADE AS THE SPECIFIED VERTICAL REINFORCING, UNO.

8. IN ADDITION TO ALL OF THE REINFORCING STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF REINFORCING BARS TO BE FURNISHED, FABRICATED, AND PLACED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

9. CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS SHALL BE AS FOLLOWS:

LOCATION OF CONCRETE	MINIMUM COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #18 BAR	2"
#5 BAR AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND	
SLABS, WALLS, JOISTS	3/4"
BEAMS, COLUMNS (INCLUDING TIES)	1 1/2"
SLAB ON GRADE	SEE DETAILS
PRESTRESSED CONCRETE	SEE IBC 1907.7.3

STRUCTURAL STEEL

1. ALL ASPECTS OF WORK RELATING TO THE DESIGN, FABRICATION, DETAILING, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF THE AISC STEEL CONSTRUCTION MANUAL LATEST EDITION OF THE ANSI/AWS D1.1

2. STRUCTURAL STEEL MATERIALS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

WIDE FLANGE, CHANNELS	ASTM A992
ANGLES, PLATES, BARS	ASTM A572 GR 50
PIPES	ASTM A53 GR B
HSS (RECTANGULAR OR SQUARE)	ASTM A500 GR B (Fy = 46 KSI) OR GR C (Fy = 50 KSI)
HSS (ROUND)	ASTM A500 GR B (Fy = 42 KSI) OR GR C (Fy = 50 KSI)
ANCHOR RODS	ASTM F1554-36 U.N.O
HIGH STRENGTH BOLTS	ASTM F3125 GR A325 OR GR F1852 U.N.O.
HEADED STUD ANCHORS (HSA)	ASTM A108
DEFORMED BAR ANCHORS (DBA)	ASTM A496

3. THE DESIGN OF ALL STEEL CONNECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED, EMPLOYED BY THE FABRICATOR. CALCULATIONS SEALED BY THE FABRICATOR'S PROFESSIONAL ENGINEER MUST BE SUBMITTED IF REQUESTED.

4. SURFACES WHICH ARE TO BE FIREPROOFED WITH SPRAY-ON FIREPROOFING OR EMBEDDED IN CONCRETE SHALL NOT BE SHOP PAINTED. DO NOT PAINT TOP FLANGES OF COMPOSITE BEAMS NOR SURFACES OF MEMBERS WHERE WELDING OR HIGH STRENGTH FRICTION BOLTING WILL OCCUR. COORDINATE ALL SHOP PAINTING OF STRUCTURAL STEEL WITH ARCHITECT'S PAINTING REQUIREMENTS AS SPECIFIED ON THE ARCHITECTURAL DRAWINGS AND IN THE SPECIFICATIONS.

5. IT IS THE INTENTION OF THE PLANS AND SPECIFICATIONS THAT SHOP CONNECTIONS BE WELDED OR BOLTED AND THAT FIELD CONNECTIONS BE BOLTED, UNLESS DETAILED OTHERWISE ON THE DRAWINGS.

6. ALL TYPICAL BEAM SIMPLE CONNECTIONS SHALL BE STANDARD DOUBLE ANGLE OR SINGLE ANGLE FRAMED BEAM CONNECTIONS UNLESS NOTED OTHERWISE. SHEAR TAB CONNECTIONS MAY BE USED AT LOCATIONS WHERE DOUBLE ANGLE CONNECTIONS ARE NOT POSSIBLE. SEATED BEAM CONNECTIONS SHALL NOT BE USED UNLESS INDICATED ON THE DRAWINGS. PROVIDE FULL DEPTH SHEAR TAB IF BEAM FRAMES ON ONLY ONE SIDE OF A GIRDER.

7. DESIGN CONNECTIONS OF NON-COMPOSITE BEAMS TO SUPPORT A REACTION R (UNLESS SPECIFIED OTHERWISE) EQUAL TO ONE HALF THE TOTAL UNIFORM LOAD CAPACITY FROM THE TABLE OF UNIFORM LOAD CONSTANTS IN THE AISC MANUAL.

8. ADD TO THE REACTION LISTED ABOVE, ANY LOADS OR REACTIONS OF MEMBERS SUPPORTED BY THE BEAM WITHIN THREE FEET OF BEAM END AND THE VERTICAL COMPONENTS OF FORCES IN BRACE MEMBERS FRAMING INTO THE BEAMS.

9. BRACING CONNECTIONS SHALL DEVELOP FULL TENSILE FORCES AT EACH END OF THE BRACING MEMBER UNLESS BRACING FORCES ARE SPECIFIED ON THE DRAWINGS.

10. ALL WELDING SHALL COMPLY TO THE AMERICAN WELDING SOCIETY STANDARD (AWS D1.1). ALL WELDED JOINTS SHALL BE DETAILED AS INDICATED BY THE PREQUALIFIED JOINT DETAILS IN THE STRUCTURAL WELDING CODE. WELD LENGTHS CALLED FOR ON THE PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED. ALL WELDS SHALL USE MINIMUM E70XX ELECTRODES.

11. ALL WELDING SHALL BE PERFORMED BY A WELDER CERTIFIED IN ACCORDANCE WITH THE AWS STANDARDS.

12. MISCELLANEOUS STEEL CONNECTIONS SHALL BE WELDED ALL AROUND WITH AISC MINIMUM FILLET WELD UNLESS A LARGER WELD IS SPECIFIED. STEEL MEMBERS CONTINUOUSLY ATTACHED SHALL BE STITCH WELDED TOGETHER WITH AISC MINIMUM 2" LONG FILLET WELD AT 12" O.C. UNLESS A LARGER WELD OR DIFFERENT GAGE IS SPECIFIED.

13. ALL BOLTS SHALL BE DESIGNED AS BEARING BOLTS WITH THREADS INCLUDED IN THE SHEAR PLANE. ALL BOLTS SHALL BE NEW AND NOT RE-USED. BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER THAN NOMINAL SIZE OF BOLT USED, EXCEPT ANCHOR ROD HOLES. MINIMUM BOLT DIAMETER SHALL BE 3/4 INCH. ALL BOLTS SHALL BE TIGHTENED TO A SNUG-TIGHT POSITION, EXCEPT AT BRACES, MOMENT CONNECTIONS AND CONNECTIONS MARKED AS SLIP CRITICAL (SC) SHALL BE TIGHTENED USING LOAD INDICATING WASHERS OR TENSION BOLTS.

14. ALL STEEL EXPOSED TO WEATHER OR OUTSIDE THE BUILDING'S WATERPROOFING, SUCH AS BRICK SHELF ANGLES, SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION AS SPECIFIED BY THE STEEL STRUCTURES PAINTING COUNCIL (SSPC). THE ZINC COATING FOR STEEL SHAPES AND PLATES SHALL AVERAGE NOT LESS THAN 2.3 OZ. WITH NO INDIVIDUAL THICKNESS LESS THAN 2.0 OZ.

15. GALVANIZE ALL NUTS, BOLTS, AND WASHERS USED IN THE CONNECTION OF GALVANIZED STEEL.

16. GALVANIZED MEMBERS SHALL HAVE "Z.R.C. COLD GALVANIZING COMPOUND OR APPROVED EQUIVALENT APPLIED TO FIELD WELDED CONNECTIONS. SURFACE AREAS TO RECEIVE COLD GALVANIZING COMPOUND SHALL BE CLEAN OF DIRT AND DEBRIS PRIOR TO COMPOUND APPLICATION. SEE MANUFACTURER'S LITERATURE FOR ADDITIONAL RECOMMENDATIONS.

17. THE APPLICATION OF THE FIREPROOFING TO THE STEEL MEMBERS AND STEEL DECK IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST ENFORCE THE REQUIREMENTS OF THE MANUFACTURER AND NOT IMPOSE ADDITIONAL LOADS, INCLUDING CONSTRUCTION LIVE LOADS, DURING THE APPLICATION AND CURING OF THE FIREPROOFING.

18. IN ADDITION TO ALL OF THE STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF STEEL TO BE FURNISHED, FABRICATED, DETAILED, AND ERECTED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

19. THE CONTRACTOR SHALL MAKE AN ALLOWANCE FOR THE ADJUSTMENT AND DETAILING OF STEEL DURING THE SHOP DRAWING REVIEW PROCESS.

OPEN WEB STEEL JOISTS AND JOIST GIRDERS

1. OPEN WE

CONCRETE MASONRY

1. ALL MASONRY MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION AND THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF TMS-402 CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES

2. ALL CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C90. UNLESS SPECIFIED OTHERWISE, CMU SHALL BE NORMALWEIGHT (LESS THAN 125 PCF, OVEN DRY UNIT WEIGHT). THE MINIMUM COMPRESSIVE STRENGTH OF MASONRY (F'M) SHALL BE 2000 PSI AS DETERMINED BY THE UNIT STRENGTH METHOD OR BY THE PRISM TEST METHOD.

3. UNLESS SPECIFIED OTHERWISE, ALL MORTARS AND THE MATERIALS THEREIN SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF MASONRY UNITS, ASTM C270, TYPE S EXCEPT FOR MASONRY IN CONTACT WITH THE EARTH SHALL BE TYPE M.

4. ALL GROUT SHALL BE FINE GROUT CONTAINING SAND, PORTLAND CEMENT, AND LIME (OPTIONAL) FOR GROUT SPACES LESS THAN 2 INCHES IN ANY HORIZONTAL DIRECTION, UNLESS SPECIFIED OTHERWISE. GROUT SHALL ATTAIN A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 2500 PSI TESTED ACCORDING TO ASTM C476.

5. CONTROL JOINTS SHALL BE LOCATED PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS OR AT A MAXIMUM SPACING OF 24 FEET ON CENTERS OR 3 TIMES THE WALL HEIGHT, WHICHEVER IS LESS. ALL MASONRY UNITS SHALL BE PLACED IN RUNNING BOND.

6. PROVIDE HORIZONTAL JOINT REINFORCING (TRUSS OR LADDER TYPE, 9 GAUGE) AT 16 INCHES ON CENTER FOR ALL CMU WALLS LAID IN A RUNNING BOND AND AT 8 INCHES ON CENTER FOR ALL CMU WALL NOT LAID IN A RUNNING BOND. HORIZONTAL JOINT REINFORCING SHALL BE LAPPED A MINIMUM OF 6". REINFORCEMENT SHALL CONFORM TO ASTM A951 AND SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.

7. ALL HORIZONTAL REINFORCING STEEL IN BOND BEAMS AND LINTEL BLOCK UNITS SHALL BE CONTINUOUS AND UNITS SHALL BE SOLID GROUTED. PROVIDE 48 TIMES BAR DIAMETER LAP FOR HORIZONTAL REINFORCING IN BOND BEAMS. NO SPLICES SHALL BE PROVIDED FOR HORIZONTAL REINFORCING IN BLOCK LINTELS.

8. GROUT CELLS SOLID WHERE VERTICAL BARS ARE SHOWN ON THE DRAWINGS. VERTICAL BARS SHALL EXTEND FROM BOTTOM TO THE TOP OF THE WALL. AT EACH VERTICAL BAR, PROVIDE MATCHING BAR SIZE DOWEL INTO FOUNDATIONS. PROVIDE MINIMUM 48 TIMES BAR DIAMETER SPLICE FOR VERTICAL BARS WHERE REQUIRED AND/OR SHOWN ON THE DRAWINGS UNLESS NOTED OTHERWISE.

9. GROUT LIFTS SHALL TERMINATE TO FORM A GROUT KEY A MINIMUM OF 1 1/2" BELOW MORTAR JOINTS WHEN SUBSEQUENT GROUT LIFTS WILL HAPPEN AFTER PREVIOUS GROUT LIFTS HAVE SET. GROUT KEYS IN BOND BEAMS OR LINTELS SHALL NOT BE PERMITTED.

10. MAXIMUM GROUT POUR HEIGHT SHALL BE 5' - 4" (8 BLOCK COURSES).

11. PROVIDE A BOND BEAM AT THE TOP OF ALL CMU WALLS AND REINFORCE WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE. UNLESS NOTED OTHERWISE, ALL EXTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #5 CONTINUOUS AND ALL INTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #4 CONTINUOUS. BOND BEAM REINFORCING SHALL NOT BE CONTINUED THROUGH CONTROL JOINT LOCATIONS.

12. PROVIDE BOND BEAMS AT A MAXIMUM OF 48 INCHES ON CENTER IN ALL EXTERIOR AND LOAD BEARING CMU WALLS NOT LAID IN A RUNNING BOND (E.G. STACK BOND) REINFORCED WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE BOND BEAM REINFORCEMENT SHALL BE DISCONTINUED AT CONTROL JOINTS.

13. AT THE END OF EACH DAY AND DURING INCLEMENT WEATHER, ALL UNFINISHED MASONRY WORK SHALL BE COVERED AT THE TOP OF WALL AND EXTEND DOWN ALL SIDES A MINIMUM OF 24".

14. SEE TYPICAL DETAILS FOR INTERIOR WALL HEIGHT, BRACING AND REINFORCING REQUIREMENTS.

15. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH MASONRY WALLS DO NOT REQUIRE SLEEVES, UNLESS NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE GROUTING. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN GROUTED MASONRY IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH MASONRY LINTELS UNLESS SPECIFICALLY DETAILED.

16. ALL REINFORCED MASONRY WALLS WITH OPENINGS UP TO THREE (3) FEET WIDE, SHALL HAVE ONE VERTICAL BAR MINIMUM AT EACH SIDE OF OPENINGS. FOR OPENINGS LARGER THAN 3 FEET WIDE, PROVIDE TWO (2) VERTICAL BARS AT EACH SIDE OF OPENINGS UNLESS NOTED OTHERWISE. REINFORCING AT EDGES OF OPENING SHALL MATCH TYPICAL VERTICAL WALL REINFORCING (UNLESS NOTED OTHERWISE) AND SHALL EXTEND TO THE TOP OF WALL.

17. ALL REINFORCED MASONRY WALL CORNERS AND INTERSECTIONS SHALL HAVE ONE VERTICAL BAR (MINIMUM) IN GROUTED CELL. REINFORCING SHALL MATCH TYPICAL WALL VERTICAL REINFORCEMENT.

18. PROVIDE ONE VERTICAL BAR (MINIMUM) IN THE FIRST CELL EACH SIDE OF CONTROL JOINTS. REINFORCING SHALL MATCH TYPICAL VERTICAL WALL REINFORCING (UNLESS NOTED OTHERWISE) AND SHALL EXTEND TO THE TOP OF WALL.

SUBMITTALS

1. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:

   CONCRETE MIX DESIGNS AND ACCESSORIES
   REINFORCING STEEL
   STRUCTURAL STEEL (*,^)
   BAR JOISTS (^)
   MISCELLANEOUS STEEL
   CONCRETE MASONRY (MATERIAL AND REBAR PLACEMENT PLANS
   SLAB CONTRACTION JOINT LAYOUT

   ITEMS MARKED (*) SHALL HAVE SHOP DRAWINGS SEALED BY A REGISTERED ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED. ITEMS MARKED (#) SHALL BE SUBMITTED TO ENGINEER FOR OWNER'S RECORD ONLY AND WILL NOT HAVE ENGINEER'S SHOP DRAWING STAMP. ITEMS MARKED (^) SHALL HAVE SEALED STRUCTURAL CALCULATIONS SUBMITTED TO ENGINEER FOR OWNER'S RECORD.

2. ALL SHOP DRAWINGS MUST BE REVIEWED AND SEALED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.

3. CONTRACTOR SHALL SUBMIT ELECTRONIC COPIES (E.G. PDFS) OF ALL SHOP DRAWINGS SPECIFIED TO BE RETURNED BY THE ENGINEER.

4. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIAL REQUIRED BY THE CONTRACT DOCUMENTS TO BE FURNISHED SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.

5. SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN CONSTRUCTION ON THE PROJECT.

6. THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREIN AS CORRECT, AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREIN.

SPECIAL INSPECTION

1. ALL ASPECTS OF WORK RELATING TO SPECIAL INSPECTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   2021 INTERNATIONAL BUILDING CODE (CHAPTER 17).

2. THE OWNER'S SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

3. PRIOR TO THE BEGINNING OF CONSTRUCTION, THE ARCHITECT (OR ENGINEER) SHALL CALL A PRE-CONSTRUCTION MEETING WITH THE ARCHITECT, ENGINEER, BUILDING OFFICIAL, CONTRACTOR AND SPECIAL INSPECTORS TO REVIEW THE SPECIAL INSPECTION REQUIREMENTS.

4. DUTIES OF THE OWNER'S SPECIAL INSPECTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. ACKNOWLEDGE THE SPECIAL INSPECTION AND TESTING AGREEMENT PROVIDED BY THE LOCAL JURISDICTION.

   B. THE OWNER'S SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND TO THE BUILDING OFFICIAL.

   C. THE OWNER'S SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, ARCHITECT, REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, CONTRACTOR AND (OTHER DESIGNATED PARTIES), IN A TIMELY MANNER, AS ESTABLISHED AT THE PRE-CONSTRUCTION MEETING.

   D. THE OWNER'S SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE.

5. DUTIES OF THE CONTRACTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. NOTIFY THE SPECIAL INSPECTOR THAT THE WORK IS READY FOR INSPECTION AT LEAST 24 HOURS BEFORE SUCH INSPECTION.

   B. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED AND INDICATED TO BE IN CONFORMANCE BY THE SPECIAL INSPECTOR AND APPROVED BY THE BUILDING OFFICIAL.

   C. PROVIDE THE SPECIAL INSPECTOR WITH ACCESS TO APPROVED CONSTRUCTION DOCUMENTS AT JOBSITE.

   D. MAINTAIN AT THE JOBSITE COPIES OF ALL REPORTS SUBMITTED BY THE SPECIAL INSPECTOR.

6. CONTINUOUS SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS CONTINUOUSLY PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED.

7. PERIODIC SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.

8. SPECIAL INSPECTIONS AND TESTING SHALL BE REQUIRED FOR THE FOLLOWING TYPES OF WORK LISTED BELOW. SPECIAL INSPECTIONS AND TESTING SHALL FOLLOW THE REQUIREMENTS OF THE BUILDING AND MATERIAL CODE REFERENCES AND TABLES. IN THE EVENT OF A CONFLICT BETWEEN REFERENCES, THE OWNER'S SPECIAL INSPECTOR SHALL FOLLOW THE MORE STRINGENT REQUIREMENT.

SOILS	IBC 1705.6 AND TABLE 1705.6, APPROVED GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS
CONCRETE	IBC 1705.3 AND TABLE 1705.3
STEEL	IBC 1705.2 AND TABLE 1705.2.3 AND AISC 360 CHAPTER N AND SDI QA/QC DOCUMENT
SHOP FABRICATION	IBC 1704.2.5 (NOT REQUIRED IF FABRICATOR IS APPROVED IN ACCORDANCE WITH IBC 1704.2.5.1.
EXPANSION/EPOXY ANCHORS	MANUFACTURER'S ICC REPORT
MASONRY	IBC 1705.4 TMS 402/ACI 530/ASCE 5 SECTION 3.1 AND TABLE 3.1.2, TMS 602/ACI 530. 1/ASCE 6 SECTION 1.6 AND TABLE 4
WIND RESISTANCE	IBC 1705.11

ABBREVIATIONS

ABBR.	ABBREVIATION
A.F.F.	ABOVE FINISH FLOOR
ADDN'L	ADDITIONAL
AHU	AIR HANDLING UNIT
ALT.	ALTERNATE
ANCH.	ANCHOR
A.B.	ANCHOR BOLT
A.R.	ANCHOR ROD
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT(URAL)
BM.	BEAM
BRG.	BEARING
BTW	BETWEEN
BOT.	BOTTOM
B.F.B.	BOTTOM FLANGE BRACE
B.O.	BOTTOM OF
BRDG.	BRIDGING
BLDG	BUILDING
C	CAMBER
CANT.	CANTILEVER
C.I.P.	CAST IN PLACE
C/C	CENTER TO CENTER
CL	CENTERLINE
CH	CHANNEL
CLR.	CLEAR(ANCE)
CFMF	COLD FORMED METAL FRAMING
COL.	COLUMN
CJP	COMPLETE JOINT PENETRATION
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONST.	CONSTRUCTION
C.J.	CONSTRUCTION / CONTRACTION JOINT
CONT.	CONTINUOUS
COORD.	COORDINATE
DL	DEAD LOAD
DBA	DEFORM BAR ANCHOR
D	DEPTH
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
DWL	DOWEL
D.N.	DOWN
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
E.W.	EACH WAY
EL.	ELEVATION
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
ENGR.	ENGINEER
EOR	ENGINEER OF RECORD
EQ.	EQUAL
EQUIP.	EQUIPMENT
EQUIV.	EQUIVALENT
EXIST.	EXISTING
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
f'c=	28 DAY CONCRETE STRENGTH
FAB.	FABRICATE
F.S.	FAR SIDE
FIN	FINISH/FINISHED
FLR.	FLOOR
F.D.	FLOOR DRAIN
FTG.	FOOTING
Fy=	YIELD STRENGTH
GALV.	GALVANIZED
GA.	GAUGE
GEN	GENERAL
G.C.	GENERAL CONTRACTOR
GFRC	GLASS FIBER REINFORCED CONCRETE
GR.	GRADE/GRADING
HGR.	HANGER
HSA	HEADED STUD ANCHOR
HI	HIGH
HSS	HOLLOW STRUCTURAL SECTION
HORIZ. OR (H)	HORIZONTAL
H	HORIZONTAL REACTION
IN	INCH
INFO.	INFORMATION
ID	INSIDE DIAMETER
I.F.	INSIDE FACE
INT.	INTERIOR
JT.	JOINT
JST.	JOIST
K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
Ld	DEVELOPMENT LENGTH
LWC	LIGHTWEIGHT CONCRETE
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLV	LONG LEG VERTICAL
LLH	LONG LGE HORIZONTAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LONG	LONGITUDINAL
LO	LOW
LBS	POUNDS
MFR. / MNFR.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM

MECH.	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M	MOMENT
M.C.	MOMENT CONNECTION
N.S.	NEAR SIDE
NWC	NORMAL WEIGHT CONCRETE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
O.C.	ON CENTER(S)
OPNG.	OPENING
OPP.	OPPOSITE
OPH.	OPPOSITE HAND
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OA	OVERALL
O.H.	OVERHEAD
OVS.	OVERSIZED HOLE
P	AXIAL LOAD
P.J.	PANEL JOINT
PAR.	PARALLEL
PRKG.	PARKING
PJP	PARTIAL JOINT PENETRATION
PVMT	PAVEMENT
PVG	PAVING
PERP.	PERPENDICULAR
PL.	PLATE
PLBG	PLUMBING
PT	POST-TENSION(ED)
PCF	POUNDS PER CUBIC FOOT/FEET
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT/FEET
PSI	POUNDS PER SQUARE INCH
P/C	PRECAST CONCRETE
PRELIM.	PRELIMINARY
P.L.	PROPERTY LINE
QTY	QUANTITY
R	RADIUS, REACTION, REMAINDER
REC.	RECESSED
RE:	REFER TO
REF.	REFERENCE
REINF.	REINFORCED / REINFORCING
REBAR	REINFORCING BAR
REQ'D	REQUIRED
REV.	REVISION
R.D.	ROOF DRAIN
RTU	ROOF TOP UNIT
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SLBB	SHORT LEG BACK TO BACK
SIM.	SIMILAR
SC	SLIP CRITICAL, SHEAR CONNECTOR
SPA.	SPACING
SPEC.	SPECIFICATION
SQ.	SQUARE
SF.	SQUARE FOOT/FEET
STD	STANDARD
STL	STEEL
STIFF.	STIFFENER
STIR.	STIRRUP
STRUCT.	STRUCTURE/STRUCTURAL
TEMP.	TEMPERED
THK	THICK(NESS)
t	THICKNESS, TREAD
THD	THREADED
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
VERT. OR (V)	VERTICAL
WT.	WEIGHT
WWR	WELD WIRE REINF.
WF	WIDE FLANGE
W	WIDTH
WL	WIND LOAD
W.P.	WORK POINT
XXS	DOUBLE EXTRA STRONG
XS	EXTRA STRONG
&	AND
≈	APPROXIMATELY EQUAL
@	AT
°	DEGREE
=	EQUAL
≥	GREATER THAN or EQUAL
≤	LESS THAN or EQUAL
#	NUMBER or POUNDS
/	PER
±	PLUS or MINUS
Ø	ROUND/DIAMETER

SYMBOLS LEGEND

SYMBOLS	DESCRIPTION
N	NORTH ARROW
XX / S-X.XX	ENLARGE FLOOR PLAN REFERENCE OR ENLARGE DETAIL REFERENCE
XX / S-X.XX	DETAIL SECTION (STRUCTURAL)
XX/SX.XX	BRACING ELEVATION
11 5/8" / 5"	DIMENSIONS
XX/S-X.XX / XX/S-X.XX	MATCHLINE
1	REVISION NUMBER & AFFECTED AREA
LEVEL NAME 0' - 0"	VERTICAL ELEVATION
EX: 152' - 6"	EXISTING ELEVATION
152' - 6"	NEW ELEVATION
	M.C. OR MOMENT CONNECTION
	DEPRESSION
	PANEL WALL TAG
BELL DIAMETER (IN) 12/36	BELLED PIER
SHAFT DIAMETER (IN)	
P1	PILE SHAFT
F3	FOOTING

ASCE

ASCE Hazards Report

Address: 7007 Knights Ct Missouri City, Texas 77459

Standard: ASCE/SEI 7-16 **Risk Category:** II **Soil Class:** D - Default (see Section 11.4.3)

Latitude: 29.5457 **Longitude:** -95.558366 **Elevation:** 66.92168181997144 ft (NAVD 88)





Wind

Results:

Wind Speed	138 Vmph
10-year MRI	77 Vmph
25-year MRI	92 Vmph
50-year MRI	105 Vmph
100-year MRI	116 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Thu Jun 12 2025

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

STRUCTURAL SHEET INDEX

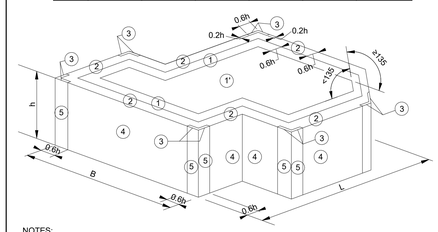
SHEET NUMBER	SHEET NAME	Current Revision
S1.01-E	GENERAL NOTES	
S1.02-E	GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX	
S2.01-E	FIELDHOUSE RESTROOM FOUNDATION AND ROOF PLAN	
S3.01-E	TYPICAL FOUNDATION DETAILS	
S3.02-E	TYPICAL FOUNDATION DETAILS	
S3.03-E	TYPICAL FOUNDATION DETAILS	
S3.11-E	FOUNDATION SITE DETAILS	
S3.12-E	FOUNDATION SITE DETAILS	
S4.01-E	TYPICAL CMU WALL DETAILS	
S4.02-E	TYPICAL CMU WALL DETAILS	
S5.01-E	TYPICAL STEEL FRAMING DETAILS	

Grand total: 11

ROOF PRESSURE (GROSS)						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
1'	+17,-39	+16,-39	+16,-39	+16,-39	+16,-26	+16,-21
1	+17,-68	+16,-63	+16,-57	+16,-53	+16,-43	+16,-43
2	+39,-90	+37,-84	+35,-76	+33,-70	+29,-57	+29,-57
3	+39,-90	+37,-84	+35,-76	+33,-70	+29,-57	+29,-57

WALL PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
4	+39,-42	+37,-41	+35,-38	+33,-36	+29,-32	+29,-32
5	+39,-52	+37,-49	+35,-44	+33,-41	+29,-32	+29,-32

PARAPET PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
4	± 120	± 112	± 102	± 94	± 76	± 76
5	± 120	± 112	± 102	± 94	± 76	± 76



NOTES:
1. (0-10 SQ. FT.) EXAMPLE DENOTES EFFECTIVE WIND AREA.
2. + AND - SIGNS SIGNIFY PRESSURES ACTING TOWARD OR AWAY FROM THE SURFACES, RESPECTIVELY. ALL VALUES SHOWN ARE IN PSF.
3. WIND PRESSURE FOR EFFECTIVE WIND AREAS BETWEEN THE SPECIFIED RANGES MAY BE DETERMINED BY INTERPOLATION, OTHERWISE, USE THE VALUE ASSOCIATED WITH THE LOWER EFFECTIVE AREA.
4. h = EAVE HEIGHT.
5. ELEMENTS WITH TRIBUTARY AREAS GREATER THAN 700 SQ. FEET MAY BE DESIGNED USING MWFRS PROVISIONS.
6. VALUES SHOWN ARE BASED ON IBC 2018 / ASCE 7-16 WIND CALCULATIONS FOR COMPONENTS AND CLADDING AND ARE ULTIMATE VALUES (LRFD). VALUES SHOWN ARE FOR USE IN ASCE 7-16 LOAD COMBINATIONS SHOWN IN SECTION 2.3.1 (1.0W). IF NOMINAL (ASD) WIND LOADS ARE DESIRED OR REQUIRED FOR COMPARISON TO LOAD CAPACITIES OF FENESTRATIONS, CLADDING OR OTHER SYSTEMS, MULTIPLY THE VALUE ON THE CHART BY 0.625.
7. THE BUILDING LAYOUT SHOWN IS INTENDED TO BE SCHEMATIC, APPLY WIND PRESSURE PROVIDED SIMILARLY TO THE BUILDING(S) AT THIS PROJECT.
8. UNLESS OTHERWISE SPECIFIED, ROOF DEAD LOAD TO BE USED FOR NET UPLIFT CALCULATIONS SHALL NOT EXCEED 10 PSF. NET UPLIFT PRESSURE SHALL NOT BE LESS THAN 16 PSF.
9. ROOF ZONE 1' = INTERIOR
   ROOF ZONE 1 = FIELD
   ROOF ZONE 2 = PERIMETER
   ROOF ZONE 3 = CORNER
10. ROOF ZONE PRESSURES NOTED ABOVE ARE NOT INTENDED TO BE USED AS MINIMUM REQUIRED UPLIFT RATINGS FOR ROOF ASSEMBLIES. REFER TO SPECIFICATIONS FOR ROOF ASSEMBLY FOR WIND UPLIFT REQUIREMENTS.

COMPONENTS & CLADDING PRESSURES

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 20014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
REGISTERED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

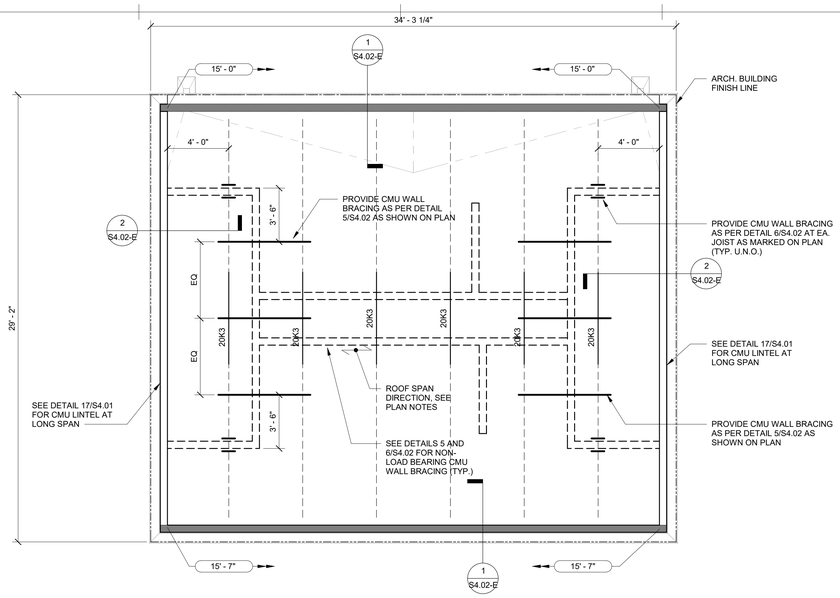
No.	Date	Description
	12/04/2025	100% CD

100% CD

S1.02-E

GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX

12/3/2025 10:39:33 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_ELKINS_STRUCT_R25.rvt

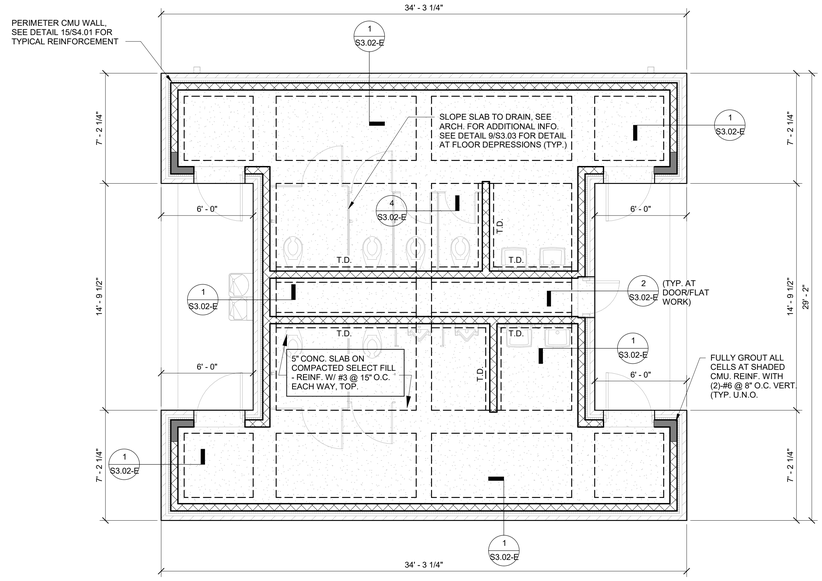


2 ROOF FRAMING PLAN - FIELDHOUSE RESTROOM

SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN NOTES:

1. LOCATIONS SHOWN THUS: ( ) INDICATES TOP OF STEEL (T.O.S.) ELEVATION (TOP OF STEEL = TOP OF JOIST OR BOTTOM OF DECK).
2. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
3. JOISTS SHALL BE DESIGNED FOR ADDITIONAL LOADS RESULTING FROM RTU'S AND OTHER MECHANICAL EQUIPMENT ON THE ROOF OR SUSPENDED FROM THE ROOF STRUCTURE. SEE ARCHITECTURAL AND MEP DRAWINGS FOR LOCATIONS.
4. SPACE JOISTS EQUALLY, U.N.O.
5. PROVIDE 3/16" CLOSURE PLATES AT ALL TUBE BEAMS.
6. REFER TO ARCHITECTURAL DRAWINGS / MEP FOR LOCATIONS OF ROOF DRAINS, OVERFLOW DRAINS AND TAPERED INSULATION.
7. ROOF SHALL BE 1.5B, 22GA DECK AS MANUFACTURED BY VULCRAFT OR EQUIVALENT. SEE ARCHITECTURAL DRAWINGS FOR INSULATION, ROOFING, ETC. WELD DECK USING 5/8"Ø NET EFFECTIVE PUDDLE WELDS:
   a. PERPENDICULAR BEARING: 36/4 PATTERN.
   b. PARALLEL BEARINGS AND EDGE: AT 6"O.C.
   c. SIDE SEAMS: #10 TEK SCREWS AT 12"O.C.
8. ONLY SHADED WALLS MAY BE USED AS BEARING WALLS FOR ROOF JOISTS.



1 FOUNDATION PLAN - FIELDHOUSE RESTROOM

SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES:

1. ALL SPREAD FOOTINGS ARE CENTERED UNDER COLUMN CENTERLINES, U.N.O.
2. SPREAD FOOTINGS OCCURRING AT INTERMEDIATE LOCATIONS SHALL BE CENTERED AT GRADE BEAM CENTERLINE.
3. LOCATIONS NOTED THUS: (1) INDICATES SPREAD FOOTING, SEE SPREAD FOOTING SCHEDULE FOR SIZE.
4. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
5. COORDINATE ALL BRICK LEDGES AND DEPTH WITH ARCHITECTURAL DRAWINGS.
6. LOCATIONS NOTED THUS: 0' - 0" INDICATES TOP OF SLAB ELEVATION.
7. REF. ELEVATION = 0' - 0" CORRESPONDS TO CIVIL ELEVATION 66.0'. VERIFY WITH CIVIL.
8. SEE 5/S3.03, 7/S3.03 & 10/S3.03 FOR ADDITIONAL REBAR AT OPENINGS, DISCONTINUOUS JOINTS, AND RE-ENTRANT CORNERS IN SLAB-ON-GRADE.
9. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
10. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
11. T.D. INDICATES TURN DOWNS. SEE DETAIL 9/S3.02.

ALTERNATE #4 - FIELDHOUSE RESTROOM

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

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FIELDHOUSE RESTROOM FOUNDATION AND ROOF PLAN

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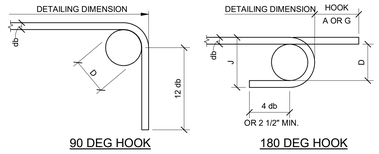


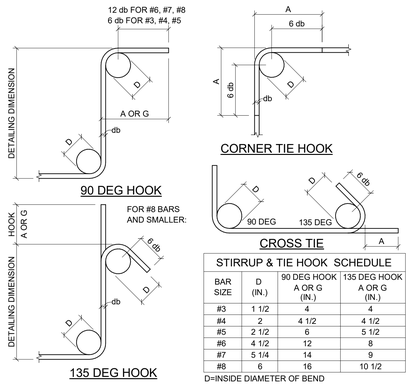
90 DEG HOOK　　180 DEG HOOK

RECOMMENDED END HOOKS, ALL GRADES				
BAR SIZE	FINISHED BEND DIAMETER D, (IN.)	180 DEG HOOKS		90 DEG HOOKS
		A OR G, (IN.)	J, (IN.)	A OR G, (IN.)
#3	2 1/4	5	3	6
#4	3	6	4	8
#5	3 3/4	7	5	10
#6	4 1/2	8	6	12
#7	5 1/4	10	7	14
#8	6	11	8	16
#9	9 1/2	15	11 3/4	19
#10	10 3/4	17	13 1/4	22
#11	12	19	14 3/4	24
#14	18 1/4	27	21 3/4	31
#18	24	36	28 1/2	41

D = INSIDE DIAMETER OF BEND

END HOOK TYPES

20 SCALE: N.T.S.

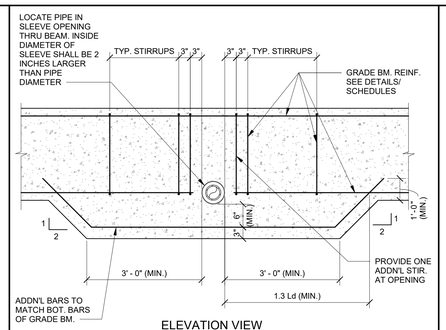


STIRRUP & TIE HOOK SCHEDULE			
BAR SIZE	D (IN.)	90 DEG HOOK A OR G (IN.)	135 DEG HOOK A OR G (IN.)
#3	1 1/2	4	4
#4	2	4 1/2	4 1/2
#5	2 1/2	6	5 1/2
#6	4 1/2	12	8
#7	5 1/4	14	9
#8	6	16	10 1/2

D=INSIDE DIAMETER OF BEND

STIRRUP AND TIE HOOK TYPES

16 SCALE: N.T.S.



ELEVATION VIEW

TYPICAL DETAIL OPENING THRU GRADE BEAM THAT CONFLICTS WITH BOTTOM REINFORCEMENT

8 SCALE: N.T.S.

DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

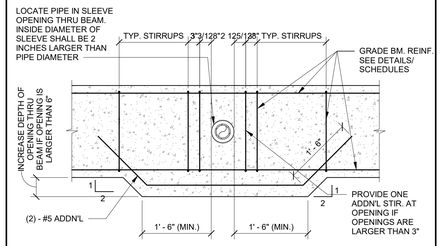
BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb
#3	9	6	8	6	7	6	6	6	6	6	6	6	6	6	6	6
#4	11	8	10	7	9	6	8	6	8	6	7	6	7	6	6	6
#5	14	10	12	9	11	8	10	7	9	7	9	6	8	6	8	6
#6	17	12	15	10	13	9	12	9	11	8	11	8	10	7	9	7
#7	20	14	17	12	15	11	14	10	13	9	12	9	12	8	11	8
#8	22	16	19	14	17	12	16	11	15	11	14	10	13	9	12	9
#9	25	18	22	15	20	14	18	13	17	12	16	11	15	10	14	10
#10	28	20	25	17	22	16	20	14	19	13	18	12	17	12	16	11
#11	31	22	27	19	24	17	22	16	21	15	19	14	18	13	17	12



NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Lhb = TENSION DEVELOPMENT LENGTH.
3. Ldh = Lhb, UNLESS CONDITIONS OF ITEM 4 ARE SATISFIED.
4. Ldh = 0.7 Lhb, WHEN SIDE COVER NORMAL TO PLANE OF HOOK IS NOT LESS THAN 2 1/2 INCHES AND FOR 90° HOOK, COVER ON BAR EXTENSION BEYOND HOOK SHALL NOT BE LESS THAN 2 INCHES.
5. HOOKS SHALL NOT BE CONSIDERED EFFECTIVE IN DEVELOPING BARS IN COMPRESSION.

TYPICAL DETAIL DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (NORMAL WEIGHT CONCRETE)

19 SCALE: N.T.S.



ELEVATION OF GRADE BEAM

TYPICAL DETAIL OPENING THRU GRADE BEAM

7 SCALE: N.T.S.

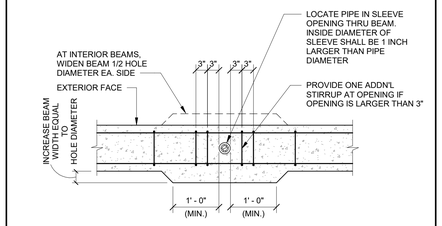
COMPRESSION DEVELOPMENT LENGTHS
AND COMPRESSION LAP SPLICE LENGTHS
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c ≥ 5000		BAR SIZE
	Ldc	Splice	Ldc	Splice	Ldc	Splice	
#3	9	12	8	12	8	12	#3
#4	11	15	10	15	9	15	#4
#5	14	19	12	19	12	19	#5
#6	17	23	15	23	14	23	#6
#7	20	27	17	27	16	27	#7
#8	22	30	19	30	18	30	#8
#9	25	34	22	34	21	34	#9
#10	28	39	25	39	23	39	#10
#11	31	43	27	43	26	43	#11
#14	38	51	33	51	31	51	#14
#18	50	68	43	68	41	68	#18

NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ldc = COMPRESSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN COMPRESSION, SPLICE LENGTH SHALL BE THE LARGER OF Ldc OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
5. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6 IN.

TYPICAL DETAIL COMPRESSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

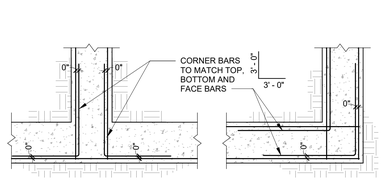
18 SCALE: N.T.S.



PLAN VIEW

TYPICAL DETAIL VERTICAL HOLE THRU GRADE BEAM LARGER THAN 3" DIAMETER

6 SCALE: N.T.S.



PLAN VIEW
GRADE BEAM "T" INTERSECTION

PLAN VIEW
GRADE BEAM CORNER

TYPICAL DETAIL GRADE BEAM REINFORCEMENT STEEL CORNER BARS

2 SCALE: N.T.S.

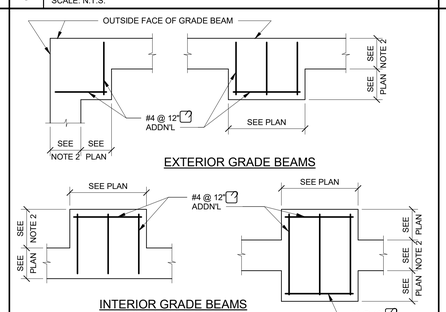
TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPLICE LENGTHS
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld
#3	17	22	15	19	13	17	12	16	12	16	12	16	12	16	12	16
#4	22	29	19	25	17	23	16	21	15	19	14	18	13	17	12	16
#5	28	36	24	31	22	28	20	26	18	24	17	22	16	21	15	20
#6	33	43	29	37	26	34	24	31	22	28	21	27	19	25	18	24
#7	48	63	42	54	38	49	34	45	32	41	30	39	28	36	27	35
#8	55	72	48	62	43	56	39	51	36	47	34	44	32	42	30	39
#9	62	81	54	70	48	63	44	57	41	53	38	50	36	47	34	44
#10	70	91	61	79	54	71	50	64	46	60	43	56	41	53	39	50
#11	78	101	67	87	60	78	55	71	51	66	48	62	45	58	43	55

NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ld = TENSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. FOR TOP BARS, MULTIPLY THE SPLICE LENGTHS BY 1.30. TOP BARS REQUIRE A MINIMUM OF 12" OF FRESH CONCRETE BELOW BAR.
5. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN TENSION, SPLICE LENGTH SHALL BE THE LARGER OF Ld OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
6. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6

TYPICAL DETAIL TENSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

17 SCALE: N.T.S.

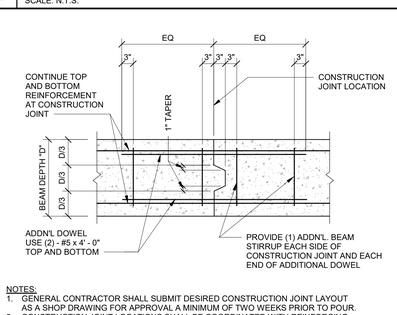


INTERIOR GRADE BEAMS

NOTES:
1. PLAN VIEWS FOR TYPICAL WIDENED GRADE BEAMS ARE SHOWN. FOR SIMILAR CONDITION NOT SHOWN, PROVIDE #4 @ 12" ADDN'L. @ 12" O.C. MAX. IN WIDENED SECTION.
2. SEE DETAIL SHEETS FOR GRADE BEAM WIDTH.

TYPICAL DETAIL ADDITIONAL BARS AT WIDENED GRADE BEAM (PLAN VIEW)

5 SCALE: N.T.S.



NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT DESIRED CONSTRUCTION JOINT LAYOUT AS A SHOP DRAWING FOR APPROVAL A MINIMUM OF TWO WEEKS PRIOR TO POUR.
2. CONSTRUCTION JOINT LOCATIONS SHALL BE COORDINATED WITH REINFORCING STEEL SUPPLIER AND ERECTOR.
3. JOINT LOCATIONS SHALL BE WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN.
4. FOR JOINT LOCATIONS OTHER THAN WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE ENGINEER ON THE SHOP DRAWINGS.

TYPICAL DETAIL GRADE BEAM CONSTRUCTION JOINT

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
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127121
LICENSED
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TYPICAL FOUNDATION DETAILS

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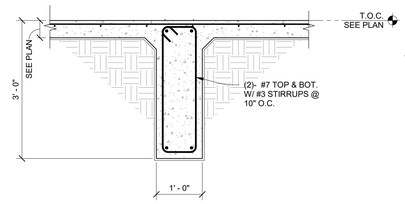
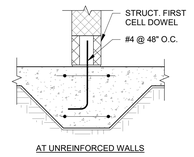


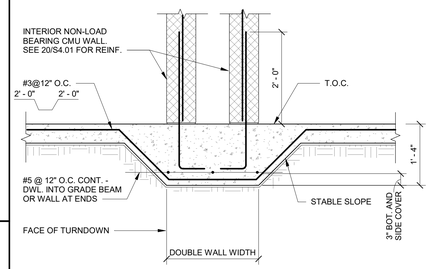
TYPICAL DETAIL
INTERIOR GRADE BEAM

4 SCALE: 3/4" = 1'-0"

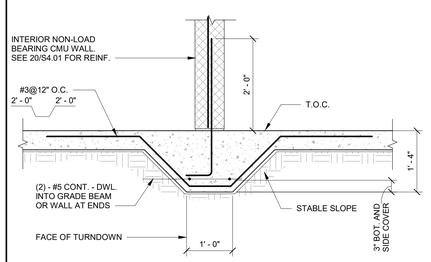
NOTES :
1. THIS DETAIL APPLIES AT ALL CMU WALL LOCATIONS WITHOUT GRADE BEAMS.
2. SEE PLAN FOR LOCATIONS MARKED "TURNDOWN", T.D. OR OTHERWISE NOTED.



AT UNREINFORCED WALLS



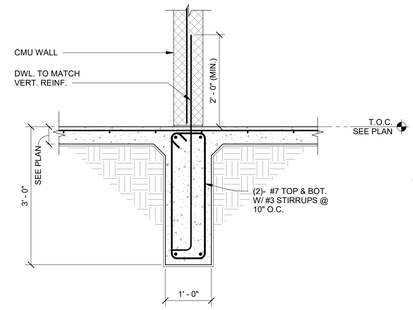
AT DOUBLE WALL



AT SINGLE WALL

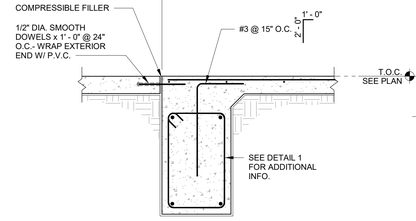
TYPICAL DETAIL
TURNDOWN AT CMU WALL

6 SCALE: 3/4" = 1'-0"



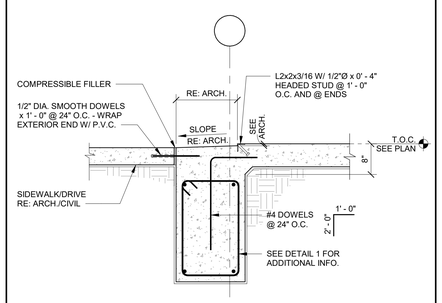
TYPICAL DETAIL
INTERIOR GRADE BEAM AT
CMU NON-LOAD BEARING WALL

3 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM
AT DOORS/FLATWORK

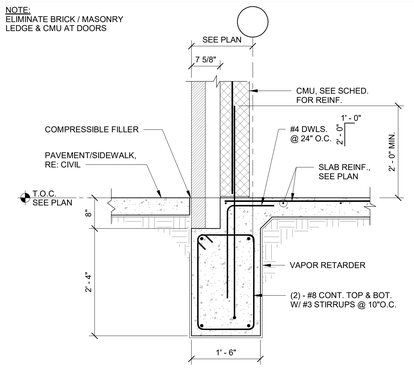
2 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM AT OVERHEAD DOOR

5 SCALE: 3/4" = 1'-0"

NOTE:
ELIMINATE BRICK / MASONRY
LEDGE & CMU AT DOORS



TYPICAL DETAIL
EXTERIOR GRADE BEAM

1 SCALE: 3/4" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
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137122
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S3.02-E
TYPICAL FOUNDATION
DETAILS

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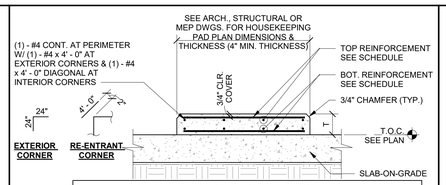


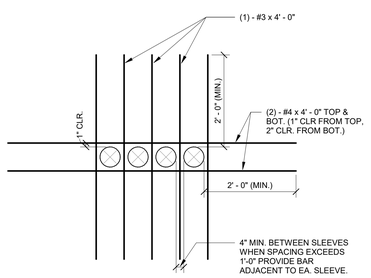
HOUSEKEEPING PAD REINF. SCHEDULE

PAD THICKNESS	TOP REINFORCEMENT	BOTTOM REINF.
T ≤ 4"	WWR 4x4-W2.9xW2.9 OR #3 @12" E.W.	NONE
4" < T ≤ 6"	WWR 4x4-W4xW4 OR #4 @18" E.W.	NONE
6" < T ≤ 8"	WWR 4x4-W6xW6 OR #4 @12" E.W.	NONE
8" < T ≤ 12"	#4 @ 18" E.W.	#4 @ 18" E.W.
12" < T ≤ 16"	#4 @ 12" E.W.	#4 @ 12" E.W.

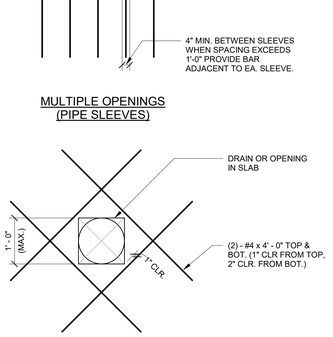
NOTES:
1. GENERAL CONTRACTOR TO COORDINATE WITH MECHANICAL DRAWINGS AND SPECIFICATIONS TO DETERMINE REQUIREMENTS FOR HOUSEKEEPING PADS OVER SLAB-ON-GRADE AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT. COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AS REQUIRED.
2. PAD SHALL NOT BE POURED UNTIL AFTER SLAB HAS REACHED ITS SPECIFIED 28 DAYS STRENGTH.
3. CONCRETE FOR HOUSEKEEPING PAD SHALL BE NORMAL WEIGHT CONCRETE WITH f'c = 3,000 PSI.

TYPICAL DETAIL
CONCRETE ISLAND OR HOUSEKEEPING PAD SLAB-ON-GRADE

8 SCALE: N.T.S.



MULTIPLE OPENINGS (PIPE SLEEVES)

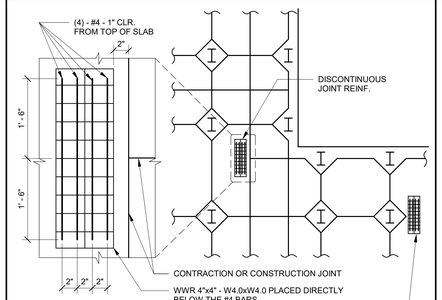


SINGLE DRAIN OR OPENING

NOTES:
1. COORDINATE OPENING SIZE AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONDUIT & PIPES OF ALUMINUM SHALL NOT BE PLACED IN CONCRETE UNLESS EFFECTIVELY COATED W/ PROTECTIVE MATERIAL TO PREVENT CHEMICAL REACTION.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT OPENINGS AT SLAB-ON-GRADE

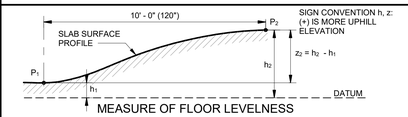
10 SCALE: N.T.S.



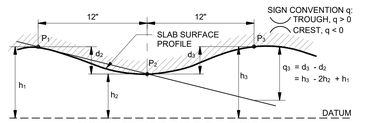
NOTE:
DISCONTINUOUS CONTRACTION OR CONSTRUCTION JOINTS SHOULD BE AVOIDED WHERE POSSIBLE.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT DISCONTINUOUS JOINT IN SLAB-ON-GRADE

7 SCALE: N.T.S.



MEASURE OF FLOOR LEVELNESS

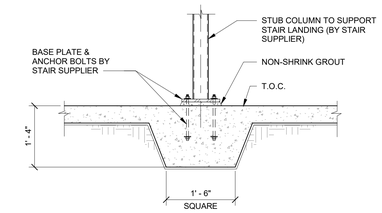


MEASURE OF FLOOR FLATNESS

NOTES:
1. F_L = LEVELNESS F-NUMBER
   $F_L = \frac{12.5}{(3 \times S_Z) + 2}$ WHERE z = MEAN VALUE OF ALL z FLOOR READINGS. S_Z = STANDARD DEVIATION OF ALL z FLOOR READINGS.
2. F_F = LEVELNESS F-NUMBER
   $F_F = \frac{4.57}{(3 \times S_Q) + 2}$ WHERE q = MEAN VALUE OF ALL z FLOOR READINGS. S_Q = STANDARD DEVIATION OF ALL q FLOOR READINGS
3. F_L AND F_F SHALL BE STATISTICALLY DETERMINED ACCORDING TO ASTM E 1155 "STANDARD TEST METHOD FOR DETERMINING FLOOR FLATNESS AND LEVELNESS USING THE F-NUMBER SYSTEM."
4. REFER TO CONCRETE SPECIFICATIONS FOR REQUIRED F_F AND F_L VALUES.

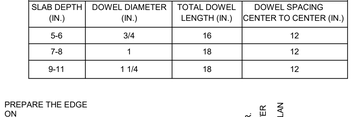
TYPICAL DETAIL
SLAB SURFACE TOLERANCE

3 SCALE: N.T.S.



TYPICAL DETAIL
THICKENED SLAB BELOW COLUMNS AT STAIR LANDING

14 SCALE: 3/4" = 1'-0"



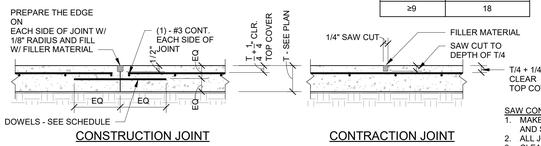
CONTRACTION JOINT (PLAN VIEW)

DOWEL SCHEDULE

SLAB DEPTH (IN.)	DOWEL DIAMETER (IN.)	TOTAL DOWEL LENGTH (IN.)	DOWEL SPACING CENTER TO CENTER (IN.)
5-6	3/4	16	12
7-8	1	18	12
9-11	1 1/4	18	12

CONTRACTION JOINT SPACING

SLAB THK. (IN.)	JOINT SPACING (FT)
4	11
5	13
6	14
7	16
8	17
≥9	18



CONSTRUCTION JOINT

CONTRACTION JOINT

CONSTRUCTION JOINT NOTES:
1. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
2. BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDE WITH FORM OIL.
3. SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.
4. ALL DOWELS IN THIS DETAIL SHALL BE SMOOTH BAR DOWELS.

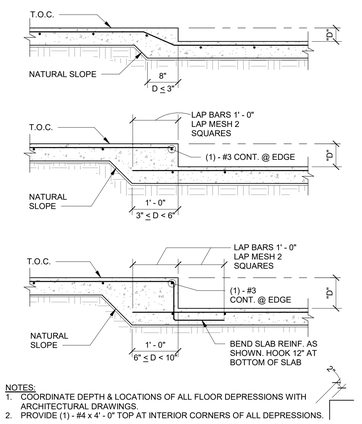
JOINT SPACING NOTE:
1. PROVIDE CONTRACTION AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN CENTERLINE AND AT A MAXIMUM SPACING AS SCHEDULED. ASPECT RATIOS OF SLAB PANELS ENCLOSED BY CONTROL JOINTS SHALL NOT EXCEED 1.5 TO 1.

SAW CONTRACTION JOINT NOTES:
1. MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB.
2. ALL JOINTS SHALL BE CONTINUOUS. DO NOT OFFSET OR STAGGER JOINTS.
3. CLEAN JOINT PRIOR TO FILLING THE JOINT.

JOINT FILLER MATERIAL NOTES:
1. FILLER MATERIAL USED SHALL BE EPOXY RESINS WITH A MINIMUM SHORE "A" HARDNESS OF 80 AND SHALL CONFORM TO ASTM D2240. JOINT FILLER SHALL BE APPROVED BY ENGINEER PRIOR TO APPLICATION. INSTALL JOINT FILLER PER MANUFACTURER'S SPECIFICATIONS.
2. WHERE POSSIBLE, FILLER MATERIAL SHALL BE APPLIED WHEN BUILDING IS UNDER PERMANENT TEMPERATURE CONTROL. THIS SHALL BE EITHER AT THE END OF CONSTRUCTION OF THE COMPLETE BUILDING SHELL, OR A MINIMUM OF 90 DAYS AFTER SLAB CONSTRUCTION.
3. ALL EXPOSED SLAB JOINTS SHALL BE FILLED WITH FILLER MATERIAL.

TYPICAL DETAIL
CONSTRUCTION AND CONTRACTION JOINTS SLAB-ON-GRADE

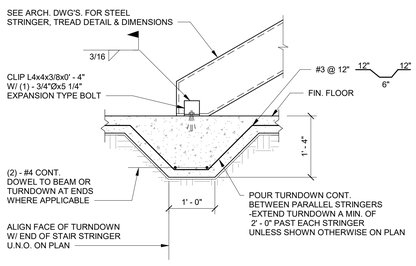
6 SCALE: N.T.S.



NOTES:
1. COORDINATE DEPTH & LOCATIONS OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE (1) - #4 x 4' - 0" TOP AT INTERIOR CORNERS OF ALL DEPRESSIONS.

TYPICAL DETAIL
AT FLOOR DEPRESSIONS

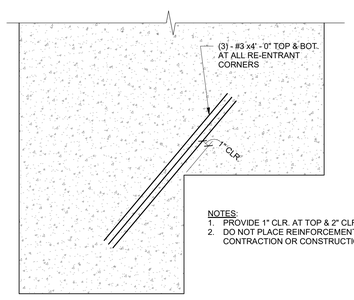
9 SCALE: N.T.S.



NOTES:
1. GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF STAIR STRINGER LOCATIONS WITH ARCHITECTURAL DRAWINGS & PROVIDE TURNDOWNS WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT.
2. CLIP ANGLE TO BE HIDDEN BENEATH FIRST TREAD. WHERE OPEN RISERS ARE USED, COORDINATE THE LOCATION WITH THE ARCHITECT.

TYPICAL DETAIL
TURNDOWN AT STEEL STAIR SLAB-ON-GRADE

13 SCALE: N.T.S.

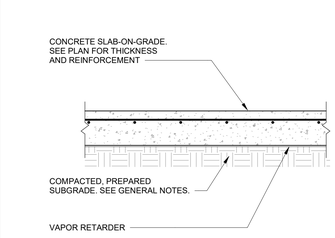


NOTES:
1. PROVIDE 1" CLR. AT TOP & 2" CLR. AT BOT.
2. DO NOT PLACE REINFORCEMENT ACROSS CONTRACTION OR CONSTRUCTION JOINTS.

SCHEMATIC SLAB-ON-GRADE

TYPICAL DETAIL
RE-ENTRANT CORNER BARS AT SLAB-ON-GRADE

5 SCALE: N.T.S.



NOTE:
1. UNLESS SPECIFIED ELSEWHERE, VAPOR RETARDER SHALL BE A MINIMUM OF 15 MILS THICK (UNLESS THICKER SPECIFIED IN SPECS/ARCH. DRAWINGS) MEETING OR EXCEEDING ASTM E-1745, CLASS C, AND HAVE NO MORE THAN 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E-96.

TYPICAL DETAIL
SLAB-ON-GRADE CONSTRUCTION SUBGRADE PREPARATION

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
127127
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.03-E
TYPICAL FOUNDATION DETAILS

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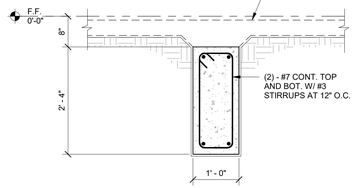
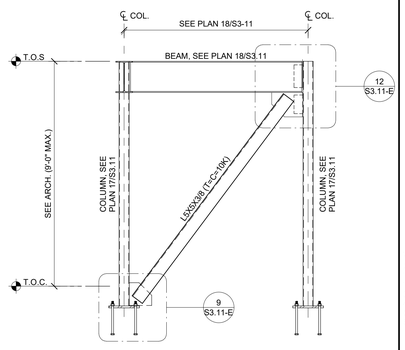


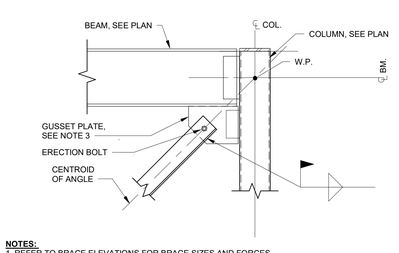
TYPICAL DETAIL
EXTERIOR GRADE BEAM
AT FLATWORK

20 SCALE: 3/4" = 1'-0"



BRACE 2

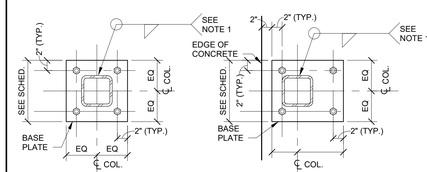
16 SCALE: 1/2" = 1'-0"



NOTES:
1. REFER TO BRACE ELEVATIONS FOR BRACE SIZES AND FORCES.
2. IF NOT PROVIDED, UNLESS NOTED OTHERWISE, THE BRACE FORCE SHALL BE THE MAXIMUM TENSION AND / OR COMPRESSION CAPACITY OF THE BRACE. IF BRACE FORCES ARE SHOWN, THEY ARE FACTORED LOADS (LRFD).
3. GUSSET PLATE SHALL BE CENTERED ON STEEL BEAM AND DESIGNED TO DEVELOP BRACE FORCE.
4. BOLTS AND WELDS SHALL BE DESIGNED BY THE FABRICATOR FOR THE VERTICAL AND HORIZONTAL COMPONENTS OF THE BRACE FORCE INCLUDING THE EFFECT OF ECCENTRICITY. THE MINIMUM SIZE FILLET WELD SHALL BE 1/4"

TYPICAL DETAIL BRACE CONNECTION

12 SCALE: 3/4" = 1'-0"



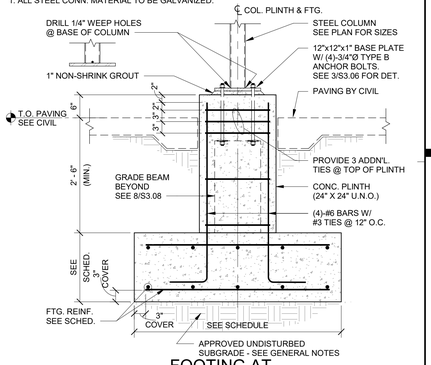
BASE PLATE SCHEDULE		
COLUMN	BASE PLATE	ANCHOR BOLTS
HSS 4 x 4	12" x 12" x 1"	(4)-3/4"Ø TYPE B

NOTES:
1. MINIMUM FILLET WELD ACCORDING TO AISC (1/4" MIN.). WELDING AROUND CORNER RADIUS IS NOT REQUIRED U.N.O.
2. USE OVERSIZED HOLES FOR ANCHOR RODS ACCORDING TO AISC.
3. WASHERS SHALL BE INSTALLED OVER OVERSIZED HOLES.
4. CONTRACTOR SHALL PROVIDE 1/8" THICK TEMPLATE FOR ANCHOR ROD INSTALLATION.

TYPICAL DETAIL
BASE PLATE AT HSS COLUMNS

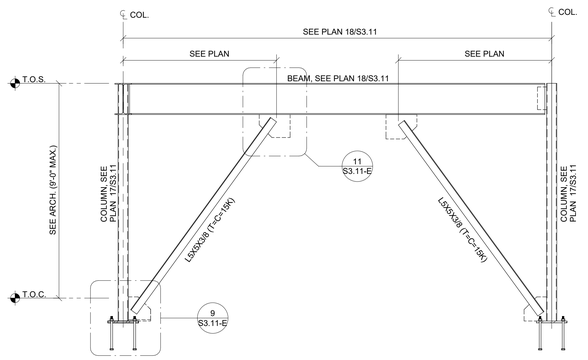
8 SCALE: N.T.S.

NOTES:
1. ALL STEEL CONN. MATERIAL TO BE GALVANIZED.



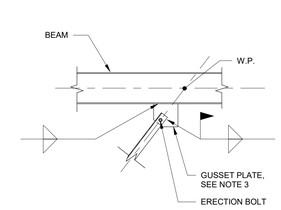
FOOTING AT
PRESSBOX FOUNDATION

4 SCALE: 3/4" = 1'-0"



BRACE 1

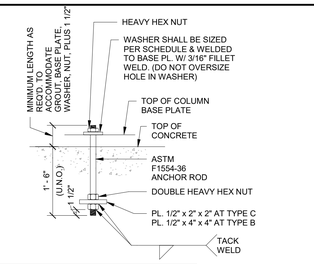
19 SCALE: 1/2" = 1'-0"



NOTES:
1. REFER TO BRACE ELEVATIONS FOR BRACE SIZES AND FORCES.
2. IF NOT PROVIDED, UNLESS NOTED OTHERWISE, THE BRACE FORCE SHALL BE THE MAXIMUM TENSION AND / OR COMPRESSION CAPACITY OF THE BRACE. IF BRACE FORCES ARE SHOWN, THEY ARE FACTORED LOADS (LRFD).
3. GUSSET PLATE SHALL BE CENTERED ON STEEL BEAM AND DESIGNED TO DEVELOP BRACE FORCE.
4. BOLTS AND WELDS SHALL BE DESIGNED BY THE FABRICATOR FOR THE VERTICAL AND HORIZONTAL COMPONENTS OF THE BRACE FORCE INCLUDING THE EFFECT OF ECCENTRICITY. THE MINIMUM SIZE FILLET WELD SHALL BE 1/4"

TYPICAL DETAIL BRACE CONNECTION

11 SCALE: 1/2" = 1'-0"



TYPE "B" WASHER SCHEDULE		
ANCHOR ROD DIA.	WASHER SIZE*	MIN. WASHER THICKNESS
3/4"	2"	1/4"
7/8"	2 1/2"	5/16"
1"	3"	3/8"
1 1/4"	3 1/2"	1/2"
1 1/2"	4"	1/2"
1 3/4"	4 1/2"	5/8"
2"	5"	3/4"
2 1/2"	5 1/2"	7/8"

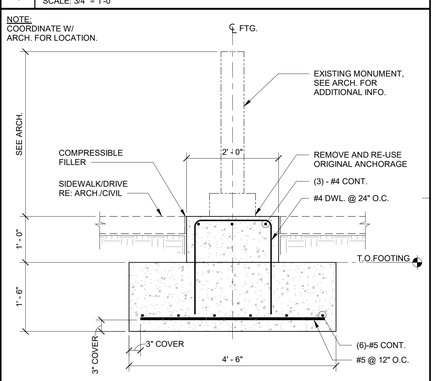
NOTE:
USE TYPE "B" ANCHOR BOLTS AT COLUMNS WITH DIAGONAL BRACES, MOMENT CONNECTIONS, & AT CANOPY COLUMNS

*CIRCULAR OR SQUARE WASHERS MEETING WASHER SIZE ARE ACCEPTABLE

TYPICAL DETAIL ANCHOR BOLT

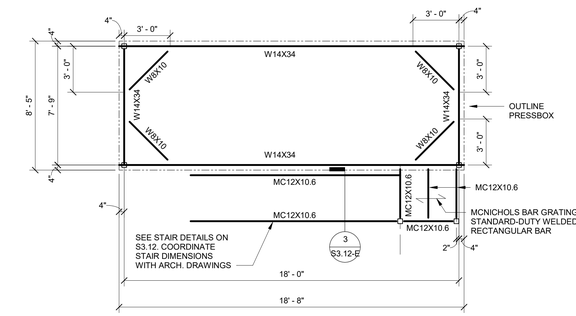
7 SCALE: N.T.S.

NOTE:
COORDINATE W/ ARCH. FOR LOCATION.



MONUMENT FOUNDATION

3 SCALE: 3/4" = 1'-0"

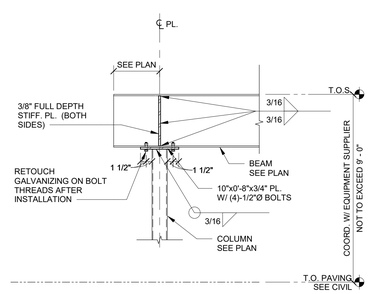


NOTES:
1. COORDINATE FOOTING LOCATIONS WITH ARCH. DRAWINGS.
2. VERIFY ALL DIMENSIONS PRIOR TO FABRICATION/ CONSTRUCTION.
3. ALL STEEL MEMBERS TO BE GALV.
4. PRESSBOX ATTACHMENT TO STEEL FRAMING BY PRESSBOX MNFR.
5. THE STEEL FRAMING PROVIDED IS DESIGNED TO SUPPORT AN AUSTIN MOHAWK PREFABRICATED PRESSBOX.

DIMENSIONS:
LENGTH: 18' - 0"
WIDTH: 7' - 9"
HEIGHT: 11' - 10 1/2"

FRAMING PLAN - PRESSBOX SUBSTRUCTURE

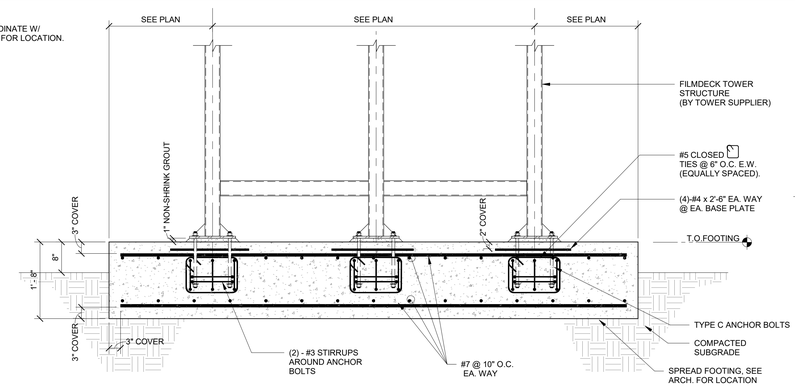
18 SCALE: 1/4" = 1'-0"



STEEL BEAM TO STEEL COLUMN
CONNECTION AT CHILLER TOWER

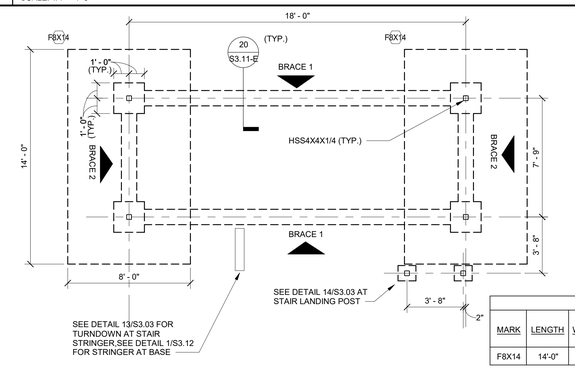
10 SCALE: 3/4" = 1'-0"

NOTE:
COORDINATE W/ ARCH. FOR LOCATION.



FILM DECK FOUNDATION DETAIL

6 SCALE: 3/4" = 1'-0"



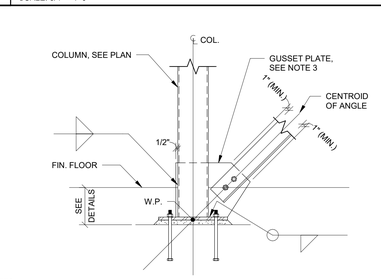
NOTES:
1. COORDINATE FOOTING LOCATIONS WITH ARCH. DRAWINGS.
2. VERIFY ALL DIMENSIONS PRIOR TO FABRICATION/ CONSTRUCTION.
3. THE STEEL FRAMING PROVIDED IS DESIGNED TO SUPPORT AN AUSTIN MOHAWK PREFABRICATED PRESSBOX.

DIMENSIONS:
LENGTH: 18' - 0"
WIDTH: 7' - 9"
HEIGHT: 11' - 10 1/2"

FOOTING SCHEDULE					
MARK	LENGTH	WIDTH	THICKNESS	REINFORCEMENT TOP & BOT. (SHORT WAY)	REINFORCEMENT TOP & BOT. (LONG WAY)
F8X14	14'-0"	8'-0"	1'-6"	(8) - #6	(14) - #6

PRESSBOX SUB-STRUCTURE FOUNDATION PLAN

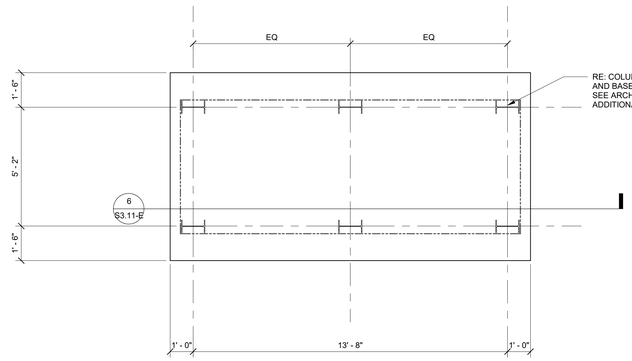
17 SCALE: 1/4" = 1'-0"



NOTES:
1. REFER TO BRACE ELEVATIONS FOR BRACE SIZES AND FORCES.
2. IF NOT PROVIDED, UNLESS NOTED OTHERWISE, THE BRACE FORCE SHALL BE THE MAXIMUM TENSION AND/OR COMPRESSION CAPACITY OF THE BRACE. IF BRACE FORCES ARE SHOWN, THEY ARE FACTORED LOADS (LRFD).
3. GUSSET PLATE SHALL BE CENTERED ON STEEL BEAM AND DESIGNED TO DEVELOP BRACE FORCE.
4. BOLTS AND WELDS SHALL BE DESIGNED BY THE FABRICATOR FOR THE VERTICAL AND HORIZONTAL COMPONENTS OF THE BRACE FORCE INCLUDING THE EFFECT OF ECCENTRICITY. THE MINIMUM SIZE FILLET WELD SHALL BE 1/4".

TYPICAL DETAIL BRACE CONNECTION

9 SCALE: 3/4" = 1'-0"



FILM DECK FOUNDATION PLAN

5 SCALE: 3/8" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
127127
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.11-E
FOUNDATION SITE DETAILS

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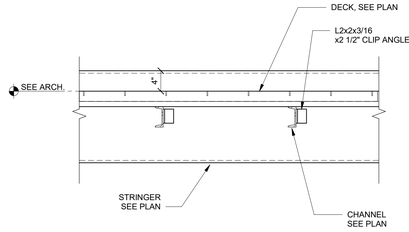
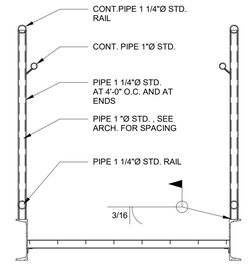


4 TYPICAL DETAIL AT STAIR LANDING

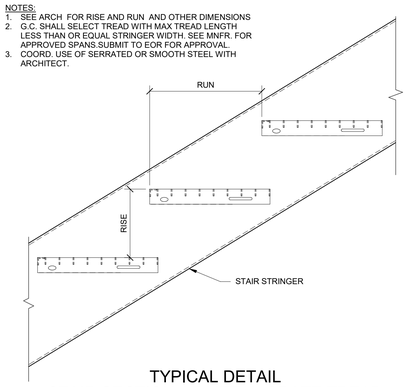
SCALE: 1" = 1'-0"



3 TYPICAL DETAIL SECTION AT STAIR

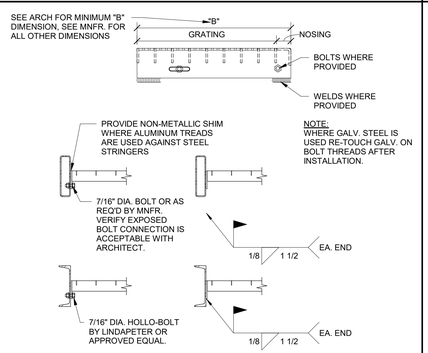
SCALE: 1" = 1'-0"

NOTES:
1. SEE ARCH FOR RISE AND RUN AND OTHER DIMENSIONS
2. G.C. SHALL SELECT TREAD WITH MAX TREAD LENGTH LESS THAN OR EQUAL STRINGER WIDTH. SEE MNFR. FOR APPROVED SPANS.SUBMIT TO EOR FOR APPROVAL.
3. COORD. USE OF SERRATED OR SMOOTH STEEL WITH ARCHITECT.



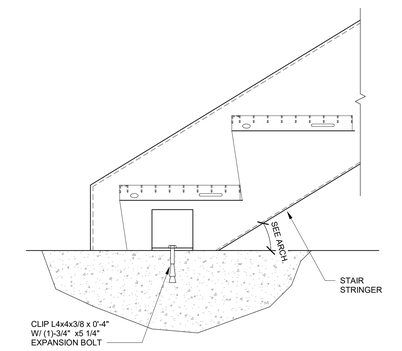
TYPICAL DETAIL
STAIR SECTION AT METAL GRATE TREAD

2 SCALE: 1" = 1'-0"



TYPICAL DETAIL
METAL GRATE TREAD
TO STRINGER CONNECTION

5 SCALE: 1" = 1'-0"



BASE OF STEEL STAIR

1 SCALE: 1" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No: F-2640

STATE OF TEXAS
KHALIL TABAJA
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.12-E
FOUNDATION SITE
DETAILS

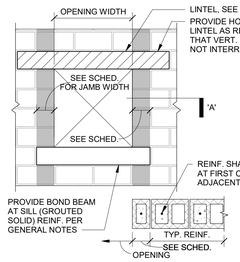
12/3/2025 10:39:38 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_ELKINS_STRUCT_R25.rvt

INTERIOR NON-LOAD BEARING CMU WALL JAMB SCHEDULE							
WALL THICKNESS	SPANNING CMU HEIGHT	OPENING WIDTH					
		< 3' - 0"		< 6' - 0"		< 10' - 0"	
		# OF CELLS	REINF.	# OF CELLS	REINF.	# OF CELLS	REINF.
6"	14' - 0"	1	#4	1	#4	1	#4
6"	22' - 0"	1	#4	2	#4	2	#4
6"	33' - 0"	3	#5	4	#5	7	#5
6"	38' - 0"	5	#5	10	#5	NA	NA
8"	20' - 0"	1	#5	1	#5	1	#5
8"	37' - 6"	2	#5	2	(2)-#5	2	(2)-#5
8"	50' - 0"	3	(2)-#5	4	(2)-#6	5	(2)-#6

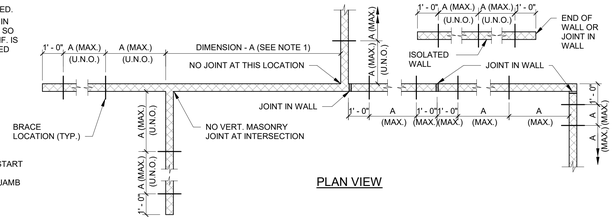
6" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
14' - 0"	NONE
15' - 6"	GROUT @ 48"
20' - 0"	(1)-#4 @ 56"
22' - 0"	(1)-#4 @ 48"
29' - 6"	(1)-#4 @ 24"
33' - 0"	(1)-#4 @ 16"
38' - 0"**	(1)-#4 @ 8"

8" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
20' - 0"	NONE
22' - 0"	GROUT @ 48"
27' - 0"	(1)-#5 @ 64"
33' - 6"	(1)-#5 @ 48"
37' - 6"	(1)-#5 @ 32"
43' - 0"	(2)-#5 @ 40"
50' - 0"	(2)-#5 @ 16"

** ONLY ALLOWED IF MAX OPENING IN WALL IS LESS THAN 6'-0" WITH 7'-0" JAMBS TO THE SIDE OF OPENING



NOTE:
NO CONTROL JOINTS ALLOWED WITHIN SHADED AREA OR ABOVE OR BELOW OPENING

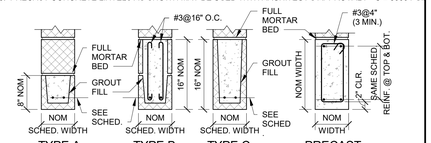


PLAN VIEW

NOTES:
1. ALL INTERIOR CMU WALLS SHALL BE BRACED AT TOP IF DISTANCE BETWEEN INTERSECTING WALLS (DIMENSION- A) IS MORE THAN 26 TIMES THE WALL NOMINAL THICKNESS. THERE SHALL BE NO JOINT BETWEEN WALLS AT THE INTERSECTIONS OR IN BETWEEN THE INTERSECTING WALLS. THERE SHALL BE NO DOORS OR ANY OTHER OPENINGS LARGER THAN 24 INCHES WITHOUT JAMB REINFORCING, SEE SCHEDULE FOR LARGER OPENINGS. MINIMUM LENGTH OF INTERSECTING WALLS SHALL BE 4 FEET.
2. REINFORCE VERTICALLY SPANNING CMU WALLS AS FOLLOWS:

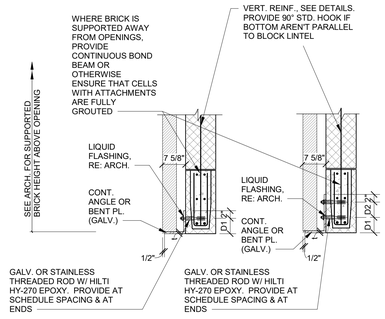
CLEAR SPAN	REINFORCING REQUIREMENTS IN NOMINAL LINTEL SECTION								
	4x8	6x8	6x16	8x8	8x16	10x8	10x16	12x8	12x16
3-4	1-#3	1-#3	—	1-#3	—	2-#3	—	2-#3	—
4-0	1-#3	1-#4	—	2-#3	—	2-#3	—	2-#4	—
4-8	1-#4	1-#4	—	2-#4	—	2-#4	—	2-#4	—
5-4	1-#4	2-#4	—	2-#4	—	2-#4	2-#3	2-#5	—
6-0	1-#5	2-#4	1-#4	2-#4	2-#3	2-#5	2-#4	2-#5	2-#4
6-8	N/A	N/A	1-#5	N/A	2-#4	N/A	2-#4	2-#6	2-#4
7-4	↓	↓	1-#5	↓	2-#4	↓	2-#4	N/A	2-#5
8-0			1-#6		2-#4		2-#5		2-#5
8-8			1-#6		2-#5		2-#5		2-#6
9-4	N/A	N/A	1-#7	N/A	2-#5	N/A	2-#6	N/A	2-#6

NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR SIZE & LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING AT EACH JAMB FOR EACH FOOT OF CLEAR SPAN BUT NOT LESS THAN 8". REINFORCEMENT SHALL PROJECT A MINIMUM OF 6" ONTO THE BEARING.
3. MINIMUM MASONRY COMPRESSIVE STRENGTH OF GROUTED PRISM F 'M = 2000 PSI.
4. LINTELS SCHEDULED AT 16" HIGH MAY BE EITHER TYPE "B" OR TYPE "C" AS DETAILED BELOW.
5. PRECAST CONCRETE LINTELS AS SHOWN MAY BE USED WITH ARCHITECT'S APPROVAL F ' C = 3000 PSI



TYPE A TYPE B TYPE C PRECAST

NON-LOAD BEARING BLOCK LINTEL SCHEDULE



TYPE 1 TYPE 2

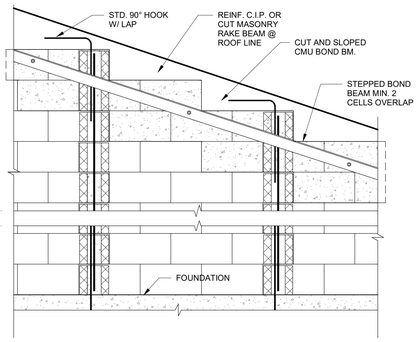
TYPE 1 SCHEDULE					
MAX HEIGHT OF SUPPORTED BRICK	ANGLE	THREADED ROD			
	t	D1	DIA.	EMBEDMENT	SPACING
3'-0"	1/4"	4"	3/8"	3 3/8"	3'-0"
5'-0"	1/4"	4"	1/2"	4 1/2"	3'-0"
8'-0"	5/16"	5"	1/2"	4 1/2"	2'-6"
10'-0"	5/16"	5"	5/8"	5 5/8"	2'-0"
12'-0"	5/16"	5"	5/8"	5 5/8"	1'-4"

TYPE 2 SCHEDULE						
MAX HEIGHT OF SUPPORTED BRICK	ANGLE	THREADED ROD				
	t	D1	D2	DIA.	EMBEDMENT	SPACING
10'-0"	5/16"	4"	4"	3/8"	3 3/8"	3'-0"
12'-0"	3/8"	4"	4"	1/2"	4 1/2"	3'-0"
15'-0"	3/8"	4"	4"	1/2"	4 1/2"	2'-6"
20'-0"	3/8"	4"	4"	5/8"	5 5/8"	2'-0"
25'-0"	3/8"	5"	4"	5/8"	5 5/8"	2'-0"
30'-0"	3/8"	5"	4"	5/8"	6 3/4"	1'-4"
35'-0"	7/16"	5"	4"	5/8"	6 3/4"	1'-4"

NOTES:
1. WHERE TWO SOLUTIONS ARE PROVIDED FOR A GIVEN HEIGHT, CONTRACTOR MAY CHOOSE BETWEEN TYPE 1 & TYPE 2.
2. MAX. HEIGHT OF SUPORTED BRICK SHALL BE FROM TOP OF OPENING TO TOP OF WALL UNLESS ANOTHER OPENING OF GREATER OR EQUAL WIDTH IS PROVIDED ABOVE THE OPENING.
3. SEE TYPICAL DETAIL " ANGLE OR BENT PLATE SUBSTITUTION FOR OPTIONAL ALTERNATES.

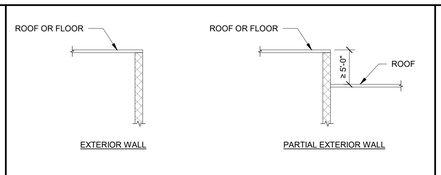
TYPICAL DETAIL
SHELF ANGLE AT CMU

9 SCALE: N.T.S.



TYPICAL DETAIL
MASONRY EDGE AT SLOPES AND GABLES

19 SCALE: N.T.S.

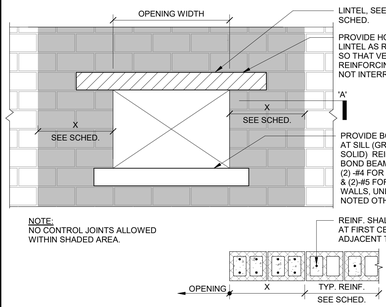


WALL THICKNESS	UNBRACED HEIGHT	VERTICAL REINFORCING	HORIZONTAL REINFORCING
8"	18' - 0" MAX	#5 @ 32" O.C.	BOND BEAMS W/ (2)-#5 @ 72" O.C.

NOTES:
1. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
2. ALL REINFORCING STEEL SHALL BE CONTINUOUS BETWEEN FOUNDATION AND TOP OF CMU. SPLICE REINFORCING PER GENERAL NOTES. ALL REINFORCED CELLS SHALL BE GROUTED SOLID.
3. AT FOUNDATION, PROVIDE DOWELS TO MATCH SIZE AND SPACING OF VERTICAL BARS.
4. CONSULT WITH ARCH./EOR WHEN HEIGHT OF WALL EXCEEDS THE HEIGHT SHOWN HERE.
5. PROVIDE CONTINUOUS BOND BEAMS AT THE TOP OF WALLS. REINFORCE BOND BEAMS WITH (2) - #5, UNLESS NOTED OTHERWISE.

TYPICAL DETAIL - EXTERIOR CMU WALL

15 SCALE: N.T.S.



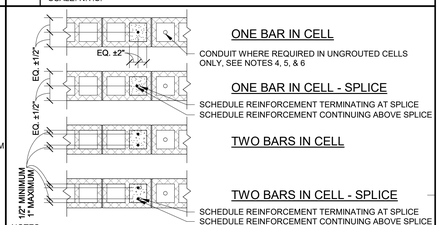
NOTE:
NO CONTROL JOINTS ALLOWED WITHIN SHADED AREA.

SECTION 'A'

OPENING SIZE	JAMB WIDTH 'X'	JAMB REINF.
≤ 4' - 0"	2' - 0"	(2) - #5 @ 8" O.C.
>10' - 0"	3' - 0"	(2) - #5 @ 8" O.C.

CMU JAMB REINFORCING SCHEDULE

7 SCALE: N.T.S.



NOTES:
1. REINFORCEMENT MUST BE PLACED USING REINFORCING BAR POSITIONERS THAT LOCATE THE BAR AS SPECIFIED AND PREVENT MOVEMENT OF THE BAR DURING CONSTRUCTION.
2. SPLICED REINFORCEMENT MUST BE A CONTACT LAP SPLICE WITH SPLICED BARS ALIGNED PARALLEL TO THE WALL AS SHOWN.
3. THE ENGINEER MUST BE NOTIFIED PRIOR TO PLACEMENT OF REINFORCEMENT THAT IS REQUIRED TO BE PLACED OUTSIDE OF THE TOLERANCES OF THIS DETAIL SUCH AS TO AVOID INTERFERENCE WITH OTHER REINFORCEMENT, CONDUITS, OR EMBEDDED ITEMS.
4. CONDUIT, PIPES AND SLEEVES SHALL BE NO CLOSER THAN 3 DIAMETERS ON CENTER (USE LARGER DIAMETER WHERE MULTIPLE SIZES ARE USED).
5. ALUMINUM PIPES MAY NOT BE USED UNLESS EFFECTIVELY COATED TO PREVENT CHEMICAL REACTION.
6. PIPES SHALL NOT BE EMBEDDED IN MASONRY WHEN:
   (a) CONTAINING LIQUIDS, GAS, OR VAPORS AT A TEMPERATURE HIGHER THAN 150°F (66°C).
   (b) UNDER PRESSURE IN EXCESS OF 55 PSI (379 KPA).
   (c) CONTAINING WATER OR OTHER LIQUIDS SUBJECT TO FREEZING.

TYPICAL DETAIL
CMU VERTICAL BAR PLACEMENT

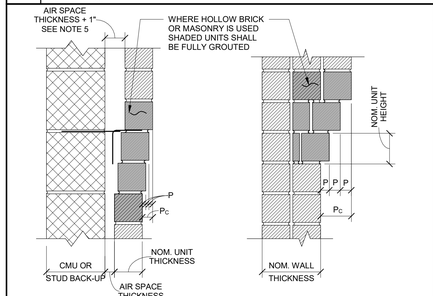
3 SCALE: N.T.S.

	MINIMUM LAP SPLICE LENGTH				REINFORCEMENT OFF CENTER	HOOKED BAR DEVELOPMENT LENGTH
	REINFORCEMENT AT CENTER OF WALL					
BAR SIZE	6" CMU	8" CMU	10" CMU	12" CMU	ANY	ANY
3	12	12	12	12	17	5
4	18	13	12	12	29	7
5	28[4]	20	16	13	45	9
6	51[4]	37	29	24	54	10
7	NA[5]	50	39	32	63	12
8	NA[5]	72	58	48	72	13

NOTES:
1. TABLE FOR USE WITH GRADE 60 UNCOATED REINF. BARS IN CMU (fm = 2000 psi)
2. BARS SPLICED BY NON-CONTACT LAP SPLICE SHALL NOT BE SPACED FARTHER APART THAN ONE-FIFTH THE REQUIRED LAP LENGTH, OR 8".
3. LAP LENGTHS PER IBC 2018.
4. PERMITTED ONLY IF ALL MORTAR FINS ARE REMOVED ROM THE CELL TO BE GROUTED.
5. BAR EXCEEDS MAX. ALLOWABLE SIZE.
6. DEVELOPMENT LENGTH OF EPOXY COATED BARS SHALL BE TAKEN AS 1.5 TIMES THE VALUES IN THE CHART.

TYPICAL DETAIL
MASONRY TENSION LAP SPLICE (INCHES)

4 SCALE: N.T.S.



AT SINGLE WYTHE AT MULTI WYTHE

NOTES:
1. Pc INDICATES ALLOWABLE TOTAL HORIZONTAL PROJECTION OF CORBELLING.
2. P INDICATES ALLOWABLE PROJECTION OF ONE UNIT.
3. Pc SHALL BE LESS THAN OR EQUAL TO ONE-HALF OF NOMINAL UNIT THICKNESS.
4. P SHALL BE LESS THAN OR EQUAL TO THE LESSER OF ONE-HALF OF NOMINAL UNIT HEIGHT OR ONE-THIRD OF NOMINAL UNIT THICKNESS.
5. THE BACK SURFACE OF THE CORBELLED SECTION SHALL REMAIN WITHIN 1" OF PLANE.

TYPICAL DETAIL
CORBELS AT MASONRY VENEER

8 SCALE:N.T.S.

TYPE 1 TYPE 2

TYPE 1 SCHEDULE					
MAX HEIGHT OF SUPPORTED BRICK	ANGLE	THREADED ROD			
	t	D1	DIA.	EMBEDMENT	SPACING
3'-0"	1/4"	4"	3/8"	3 3/8"	3'-0"
5'-0"	1/4"	4"	1/2"	4 1/2"	3'-0"
8'-0"	5/16"	5"	1/2"	4 1/2"	2'-6"
10'-0"	5/16"	5"	5/8"	5 5/8"	2'-0"
12'-0"	5/16"	5"	5/8"	5 5/8"	1'-4"

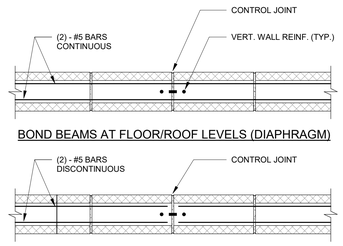
TYPE 2 SCHEDULE						
MAX HEIGHT OF SUPPORTED BRICK	ANGLE	THREADED ROD				
	t	D1	D2	DIA.	EMBEDMENT	SPACING
10'-0"	5/16"	4"	4"	3/8"	3 3/8"	3'-0"
12'-0"	3/8"	4"	4"	1/2"	4 1/2"	3'-0"
15'-0"	3/8"	4"	4"	1/2"	4 1/2"	2'-6"
20'-0"	3/8"	4"	4"	5/8"	5 5/8"	2'-0"
25'-0"	3/8"	5"	4"	5/8"	5 5/8"	2'-0"
30'-0"	3/8"	5"	4"	5/8"	6 3/4"	1'-4"
35'-0"	7/16"	5"	4"	5/8"	6 3/4"	1'-4"

NOTES:
1. WHERE TWO SOLUTIONS ARE PROVIDED FOR A GIVEN HEIGHT, CONTRACTOR MAY CHOOSE BETWEEN TYPE 1 & TYPE 2.
2. MAX. HEIGHT OF SUPORTED BRICK SHALL BE FROM TOP OF OPENING TO TOP OF WALL UNLESS ANOTHER OPENING OF GREATER OR EQUAL WIDTH IS PROVIDED ABOVE THE OPENING.
3. SEE TYPICAL DETAIL " ANGLE OR BENT PLATE SUBSTITUTION FOR OPTIONAL ALTERNATES.

TYPICAL DETAIL
SHELF ANGLE AT CMU

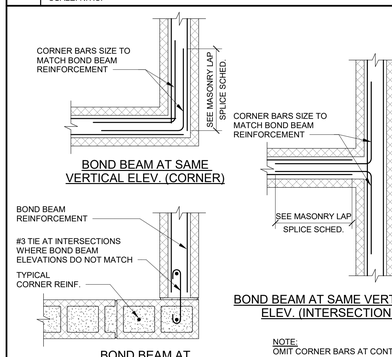
9 SCALE: N.T.S.

NOTE:
COORDINATE CONTROL JOINT LOCATIONS WITH ARCHITECTURAL DRAWINGS.



TYPICAL BOND BEAM AT CONTROL JOINTS

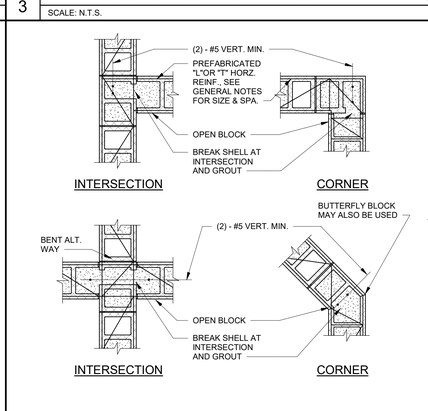
6 SCALE: N.T.S.



NOTE:
OMIT CORNER BARS AT CONTROL JOINT LOCATIONS AS INDICATED ON TYPICAL CMU ELEVATION.

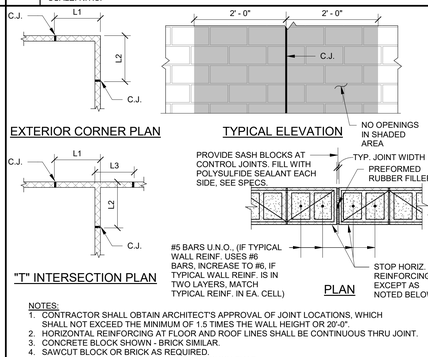
TYPICAL CMU BOND BEAM REINFORCEMENT

5 SCALE: N.T.S.



CMU WALL INTERSECTIONS

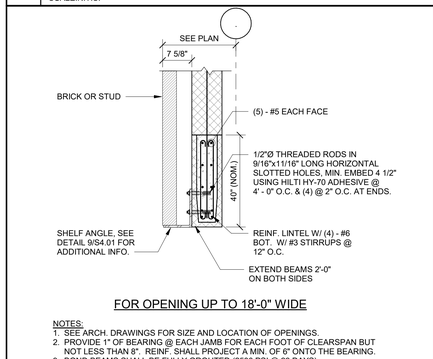
2 SCALE: N.T.S.



NOTES:
1. CONTRACTOR SHALL OBTAIN ARCHITECT'S APPROVAL OF JOINT LOCATIONS, WHICH SHALL NOT EXCEED THE MINIMUM OF 1.5 TIMES THE WALL HEIGHT OR 20'-0".
2. HORIZONTAL REINFORCING AT FLOOR AND ROOF LINES SHALL BE CONTINUOUS THRU JOINT.
3. CONCRETE BLOCK SHOWN - BRICK SIMILAR.
4. SAWCUT BLOCK OR BRICK AS REQUIRED.
5. AT EXTERIOR CORNERS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0".
6. AT EXTERIOR "T" INTERSECTIONS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0", L2 + L3 ≤ 20' - 0" AND L1 + L3 - WALL THICKNESS ≤ 20' - 0"

MASONRY WALL CONTROL JOINT

1 SCALE: N.T.S.

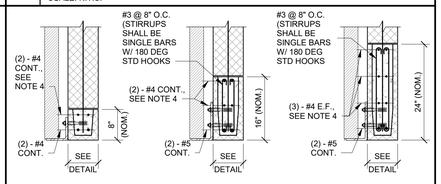


FOR OPENING UP TO 18'-0" WIDE

NOTES:
1. SEE ARCH. DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING @ EACH JAMB FOR EACH FOOT OF CLEARSPAN BUT NOT LESS THAN 8". REINF. SHALL PROJECT A MIN. OF 6" ONTO THE BEARING.
3. BOND BEAMS SHALL BE FULLY GROUTED (2500 PSI @ 28 DAYS)

TYPICAL DETAIL LONG SPAN LINTEL

17 SCALE: N.T.S.



TYPE 1 AT 8" CMU TYPE 2 AT 8" CMU TYPE 3 AT 8" CMU

BOND BEAM MAX CLEAR SPAN SCHEDULE					
CMU	WALL GROUT SPACING	CARRIED BRICK H (FT)	TYPE 1 RUNNING BOND	TYPE 2 RUNNING BOND	TYPE 3 RUNNING BOND
8"	>16" O.C.	12	4'-8"	8'-0"	12'-0"
		20	NA	6'-8"	11'-4"
		35	NA	5'-4"	10'-4"

NOTES:
1. SEE ARCH. DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING @ EACH JAMB FOR EACH FOOT OF CLEARSPAN BUT NOT LESS THAN 8" REINF. SHALL PROJECT A MIN. OF 6" ONTO THE BEARING CMU.
3. BOND BEAMS SHALL BE FULLY GROUTED (2500 PSI @ 28 DAYS).
4. THE #4 FACE BARS ARE ONLY REQUIRED AT EXTERIOR CMU WALLS.

TYPICAL DETAIL
BLOCK LINTEL AT EXTERIOR OR LOAD BEARING WALLS CARRYING BRICK

13 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-23640

STATE OF TEXAS
KHALIL TABAJA
127127
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

No.	Date	Description
	12/04/2025	100% CD

100% CD

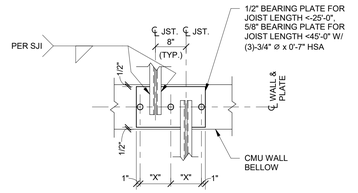
S4.01-E
TYPICAL CMU WALL DETAILS

12/3/2025 10:39:40 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_ELKINS_STRUCT_R25.rvt

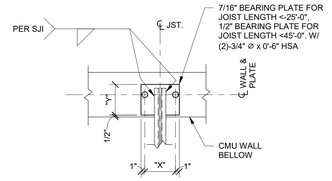
NOTES:

"X" DIMENSION SHALL BE AS FOLLOWS:
8" FOR K1-12 AND LH02-08
9" FOR LH07-17 & DLH10-17
14" FOR DLH15-25

"Y" DIMENSION SHALL BE AS FOLLOWS:
6" FOR 8" CMU
7" FOR 10" CMU
8" FOR 12" CMU



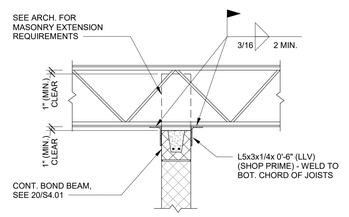
JOIST BOTH SIDES



JOIST ONE SIDES

3 TYPICAL DETAIL JOIST BEARING PLATE

SCALE: 3/4" = 1'-0"

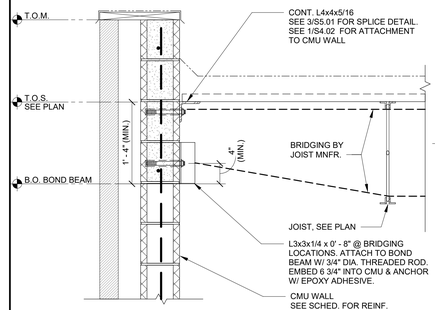


NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL INTERIOR NON-LOAD BEARING CMU WALL TOP CONNECTION PERPENDICULAR TO BAR JOISTS

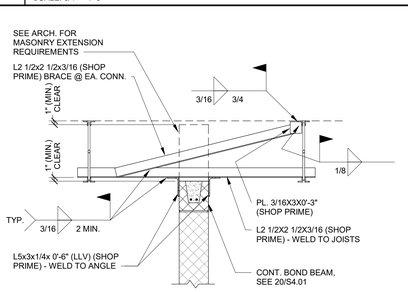
6 SCALE: 3/4" = 1'-0"

NOTES:
1. SEE 1/S4.02 FOR INFO. NOT SHOWN.



ROOF FRAMING DETAIL AT LOAD BEARING CMU WALLS

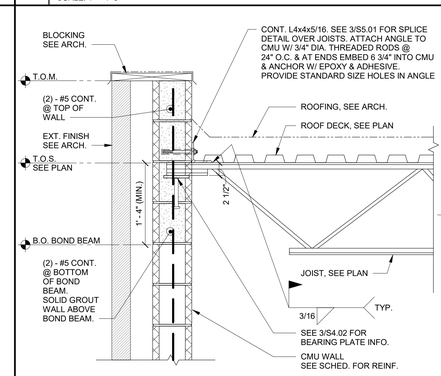
2 SCALE: 1" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL INTERIOR NON-LOAD BEARING CMU WALL TOP CONNECTION PARALLEL TO BAR JOISTS

5 SCALE: 3/4" = 1'-0"



ROOF FRAMING DETAIL AT LOAD BEARING CMU WALLS

1 SCALE: 1" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

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7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137122
LICENSED
PROFESSIONAL
ENGINEER

12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT

REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S4.02-E

TYPICAL CMU WALL DETAILS

12/3/2025 10:39:41 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_ELKINS_STRUCT_R25.rvt

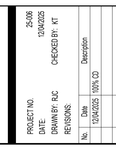
MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77046-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

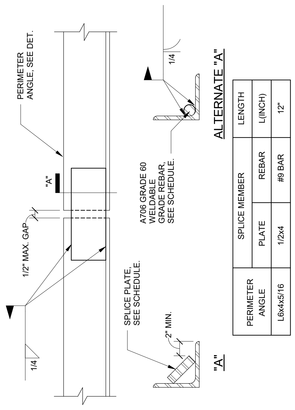
Matrix Structural Engineers
TBPE Firm Registration No. F-2840



PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

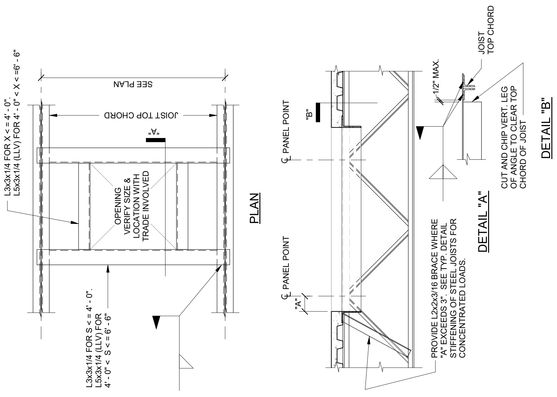
100% CD
S5.01-E
TYPICAL STEEL
FRAMING DETAILS



PERIMETER ANGLE	SPLICE MEMBER		LENGTH
	PLATE	REBAR	L(INCH)
L6x4x5/16	1/2x4	#9 BAR	12"

TYPICAL DETAIL
SPLICE AT PERIMETER ROOF ANGLE

3 SCALE: N.T.S.



TYPICAL DETAIL
OPEN WEB STEEL JOIST
ROOF OPENING

1 SCALE: N.T.S.

ABBREVIATIONS

A	
A.F.F.	ABOVE FINISH FLOOR
ACC.FL.	ACCESS FLOOR
A.P.	ACCESS PANEL
ACOUS.	ACOUSTICAL
ACT.	ACOUSTICAL CEILING TILE
ADD.	ADDENDUM
ADJNT.	ADJACENT
ADJ.	ADJUSTABLE
ADMIN.	ADMINISTRATION
AGG.	AGGREGATE
A/C	AIR CONDITIONING
ALT.	ALTERNATE, ALTERNATIVE
ALUM.	ALUMINUM
ANCH.	ANCHOR, ANCHORAGE
ANOD.	ANODIZED
APPROX.	APPROXIMATE
ARCH.	ARCHITECT
A.D.	AREA DRAIN
ASPH.	ASPHALT
AUTO.	AUTOMATIC
B	
BSMT.	BASEMENT
BM.	BENCH MARK
BTWN.	BETWEEN
BEV.	BEVEL
BIT.	BITUMINOUS
BLK.	BLOCKING
BD.	BOARD
B.S.	BOTH SIDES
B.W.	BOTH WAYS
B.O.D.	BOTTOM OF DECK
BRK.	BRACKET
BRZ.	BRONZE
BLDG.	BUILDING
BUR.	BUILT UP ROOFING
C	
CAB.	CABINET
CPT.	CARPET
CSMT.	CASEMENT
CIP.	CAST IN PLACE CONCRETE
C.B.	CATCH BASIN
CLG.	CEILING
CLG. HT.	CEILING HEIGHT
CEM.	CEMENT
CL	CENTERLINE
CT	CERAMIC TILE
C.O.	CLEAN OUT
CLR.	CLEAR(ANCE)
CLO.	CLOSET
COL.	COLUMN
COMPT.	COMPARTMENT
COMPR.	COMPRESS
COMP.	COMPUTER
CONC.	CONCRETE
CMU.	CONCRETE MASONRY UNIT
CONST.	CONSTRUCTION
CONT	CONTINUOUS
CONTR.	CONTRACT/CONTRACTOR
CFCI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
C.J.	CONTROL JOINT
CPR.	COPPER
CG.	CORNER GUARD
CORR.	CORRIDOR
CTR.	COUNTER
C. FL.	COUNTER FLASHING
CTR. SNK.	COUNTER SUNK
CRS.	COURSE
CU. FT.	CUBIC FEET
CU. YD.	CUBIC YARD
D	
D.P.	DAMP PROOFING
DPR.	DAMPER
DL.	DEAD LOAD
DEMO	DEMOLISH, DEMOLITION
DEP.	DEPRESS
DTL.	DETAIL
DIAG.	DIAGONAL
DIAM.	DIAMETER
DW.	DISH WASHER
DISPR.	DISPENSER
DIV.	DIVISION
DR.	DOOR
DBL.	DOUBLE
DH.	DOUBLE HUNG
DN.	DOWN
DS.	DOWNSPOUT
DRN.	DRAIN
DRN. BD.	DRAIN BOARD
DRN. TL.	DRAIN TILE
DWR.	DRAWER
DWG.	DRAWING
DF	DRINKING FOUNTAIN
E	
EA	EACH
EA. FA.	EACH FACE
E.	EAST
ELEC.	ELECTRIC
EDF.	ELECTRIC DRINKING FOUNTAIN
EP.	ELECTRICAL PANEL
ELEV.	ELEVATION
EMERG.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EXCAV.	EXCAVATE
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EJ	EXPANSION JOINT
EXT.	EXTERIOR
EPS	EXTRUDED POLY STYRENE
F	
FAB	FABRICATED
FV.	FIELD VERIFY
FIN.	FINISH
FIN. FLR.	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FA.	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FE.	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHS.	FIRE HOSE CABINET
FPL.	FIRE PLACE
FP.	FIRE PROOFING
FRC.	FIRE RESISTANT COATING
F. RT.	FIRE RETARDANT
FLSHG.	FLASHING
FLEX	FLEXIBLE
FLR.	FLOOR
FLR. C.O.	FLOOR CLEAN OUT
FD.	FLOOR DRAIN
FLR. JT.	FLOOR JOINT
FLR. PLT.	FLOOR PLATE
FLOUR.	FLUORESCENT
FTG.	FOOTING
FRMG.	FRAMING
FBO.	FURNISHED BY OWNER
FURR.	FURRED (ING)
FUT.	FUTURE
FRG.	REFRIGERATOR
G	
GALV.	GALVANIZED
GSKT.	GASKET
GA.	GAUGE
GC.	GENERAL CONTRACTOR
GLS.	GLASS
GL. BLK.	GLASS BLOCK
GL. CMU.	GLAZED CONCRETE MASONRY UNIT
GST.	GLAZED STRUCTURAL TILE
GB.	GRAB BAR
GBLK.	GREEN BLOCK
GRT.	GROUT
GYPCTE.	GYPCRETE
GYP. PL.	GYPSUM PLASTER
GYP. T.	GYPSUM TILE
GWB.	GYPSUM WALL BOARD
H	
HD. BD.	HARD BOARD
HD. JT.	HARD JOINT
HDW.	HARDWARE
HDWD.	HARDWOOD
HDR.	HEADER
HTG.	HEATING
HVAC.	HEATING, VENTILATION, AIR CONDITIONING
HVY. D.	HEAVY DUTY
HT.	HEIGHT
HC.	HOLLOW CORE
HM.	HOLLOW METAL
HORIZ.	HORIZONTAL
HB.	HOSE BIB
HWH.	HOT WATER HEATER
HR.	HOUR
I	
INCL.	INCLUDE
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INTERM.	INTERMEDIATE
INV.	INVERT
J	
JAN.	JANITOR
J.C.	JANITORS CLOSET
JT.	JOINT
JF.	JOINT FILLER
JST.	JOIST
K	
K. PL.	KICK PLATE
KIT.	KITCHEN
K.O.	KNOCK OUT
L	
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LH.	LEFT HAND
LC.	LIGHT CONTROL
LT. WT.	LIGHT WEIGHT
LT.	LIGHT, RE: ELECTRICAL
LT. CONC.	LIGHTWEIGHT CONCRETE
LMSTN	LIMESTONE
LTL.	LINTEL
LL.	LIVE LOAD
LB.	LOAD BEARING
LPT.	LOW POINT
M	
MH.	MAN HOLE
MFR.	MANUFACTURE
MRB.	MARBLE
MB	MARKER BOARD
MAS.	MASONRY
M.O.	MASONRY OPENING
MU	MASONRY UNIT
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP	MECHANICAL/ELECTRICAL/ PLUMBING
M.C.	MEDICINE CABINET
MEMB.	MEMBRANE
MTL.	METAL
MFD.	METAL FLOOR DECK
MRD.	METAL ROOF DECK
M. THR.	METAL THRESHOLD
MWK.	MILLWORK
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MOD.	MODULAR
MLDG.	MOLDING
MT.	MOUNT
MTD.	MOUNTED
MOV.	MOVE
MULL.	MULLION
N	
NAT.	NATURAL
NR.	NOISE REDUCTION
NOM.	NOMINAL
N.	NORTH
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
O	
OC.	ON CENTER
OCEW	ON CENTER EACH WAY
OPG.	OPENING
OPP.	OPPOSITE
OH	OPPOSITE HAND
OH.	OPPOSITE HAND
O.A.	OVER ALL
OVRHD.	OVER HEAD
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	
PNT.	PAINT
PTD.	PAINTED
PNL.	PANEL
PB.	PANIC BAR
PTDIS.	PAPER TOWEL DISPENSER
PTR.	PAPER TOWEL RECEPTACLE
PAR.	PARALLEL
PKG.	PARKING
P. BD.	PARTICLE BOARD
PARTN.	PARTITION
PVT.	PAVEMENT
PERF.	PERFORATED
PERIM.	PERIMETER
PLAS.	PLASTER
PLAM	PLASTIC LAMINATE
PL.	PLATE
PLY.	PLYWOOD
PVC.	POLYVINYL CHLORIDE
PREFAB.	PREFABRICATED
PREFIN.	PREFINISHED
P.L.	PROPERTY LINE
Q	
QT.	QUARRY TILE
R	
RAD.	RADIUS
REF.	REFERENCE
RFL.	REFLECTED
REG.	REGISTRAR
REINF.	REINFORCING
REM.	REMOVE
REQ'D.	REQUIRED
RES.	RESILIENT
RET.	RETURN
RA.	RETURN AIR
RVS.	REVERSE
REV.	REVISION
RH.	RIGHT HAND
R.O.W.	RIGHT OF WAY
RD.	ROOF DRAIN
RF. HT.	ROOF HEIGHT
RFG.	ROOFING
RM.	ROOM
RO.	ROUGH OPENING
RB.	RUBBER BASE
S	
SF. GL.	SAFETY GLASS
SCHED.	SCHEDULE
SLNT.	SEALANT
STG.	SEATING
SCTN.	SECTION
SHTH.	SHEATHING
SHT.	SHEET
SH. GL.	SHEET GLASS
SHR.	SHORING
SIM.	SIMILAR
SKYLT.	SKYLIGHT
SLV.	SLEEVE
SC.	SOLID CORE
SCW	SOLID CORE WOOD
S.	SOUTH
SPCR.	SPACER
SPKR.	SPEAKER
SPEC.	SPECIFICATIONS
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STA.	STATION
STL.	STEEL
STN.	STONE
STOR.	STORAGE
SD.	STORM DRAIN
STRUCT.	STRUCTURE (TURAL)
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
SYN.	SYNTHETIC
SYS.	SYSTEM
T	
TB.	TACK BOARD
TK. STP.	TACK STRIP
TEL.	TELEPHONE
TV	TELEVISION
THK.	THICK
THR.	THRESHOLD
TO. COL.	TOP OF COLUMN
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.J.	TOP OF JOIST
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
TG.	TOUNG AND GROOVE
TR.	TREAD
TYP.	TYPICAL
U	
UC.	UNDER CUT
UNFIN.	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR.	URINAL
V	
VB.	VAPOR BARRIER
VAR.	VARIES
VNR.	VENEER
VIF.	VERIFY IN FIELD
VERT.	VERTICAL
VG.	VERTICAL GRAIN
VIN.	VINYL
VIN. B.	VINYL BASE
VCT	VINYL COMPOSITION TILE
VIN. F.	VINYL FABRIC
VIN. T.	VINYL TILE
W	
WSCT.	WAINSCOT
WH.	WALL HUNG
WC.	WATER CLOSET
WPRF.	WATER PROOFING
WRP.	WATER REPELLENT
WS.	WATER STOP
WWF.	WELDED WIRE FABRIC
WWM.	WELDED WIRE MESH
W.	WEST
WDW.	WINDOW
WGLS.	WIRE GLASS
WM.	WIRE MESH
W.	WITH
WO.	WITHOUT
WD.	WOOD
WD. B.	WOOD BASE
W. PT.	WORKING POINT

SYMBOLS & LEGENDS

ARCHITECTURAL DRAWING SYMBOLS

- Name 101 150 SF — ROOM TAG WITH ROOM FINISH
- Name 101 XXX SF/ XXX(P) — ROOM TAG WITH OCCUPANCY SF=SQUARE FEET P=PEOPLE
- 101 — DOOR TAG
- XX1 — PARTITION TAG
- HOLLOW METAL FRAME TAG
- 1 — ALUMINUM FRAME TAG
- EXPANSION JOINT
- 21 / A101 SIM. — ENLARGED CALL OUT
- SIM, 1 / A101 — BUILDING SECTION TAG
- SIM, 1 / A101 — WALL SECTION TAG
- SIM, 1 / A101 — DETAIL SECTION TAG
- Ref, 20 / A101 — EXTERIOR ELEVATION TAG
- 1 / A101 Ref — INTERIOR ELEVATION TAG
- 15/ A 9.24 — VIEW REFERENCE DETAIL
- Elevation Name — ELEVATION/ LEVEL TAG
- AB — COLUMN GRID
- 5' DIAMETER ADA TURN AROUND
- REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC P RQ R EQ — EXIT POINT WITH WIDTH INDICATED IN INCHES OCCUPANT LOAD SHOWN VERTICAL P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- CENTER LINE
- MATCH LINE
- ITEM SHOWN IS ABOVE/BELOW OR TO BE REMOVED(ON DEMO SHTS) U.N.O.
- PROPERTY LINE
- BREAK LINE
- LONGEST TRAVEL DISTANCE TO EXIT
- BUILDING EXIT

WALL LEGEND

- EXISTING WALL TO REMAIN
- METAL STUD PARTITION
- CMU PARTITION
- 1 HR WALL CONSTRUCTION
- 1 HR CMU WALL CONSTRUCTION
- 2 HR WALL CONSTRUCTION
- 2 HR CMU WALL CONSTRUCTION

MATERIALS LEGEND

- EARTH (COMPACTED)
- POUROUS FILL (STONE OR GRAVEL)
- CONCRETE
- PLASTER/SAND/CEMENT/ GROUT
- BRICK (COMMON OR FACE)
- CONCRETE MASONRY UNIT (CMU)
- METAL (LARGE SCALE)
- METAL (SMALL SCALE)
- BATT INSULATION
- RIGID BOARD OR SPRAY FOAM INSULATION
- ROUGH WOOD (CONTINUOUS)
- ROUGH WOOD (NON-CONTINUOUS)
- FINISH WOOD
- PLYWOOD

PROJECT GENERAL NOTES

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A WATERTIGHT & WEATHERTIGHT BUILDING
2. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A PLUM, LEVEL AND SQUARE STRUCTURE UNLESS OTHERWISE NOTED ANY DEVIATION FROM THIS GENERAL INTENT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
3. THE BUILDING SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL THE APPLICABLE CODES, ORDINANCES AND REGULATIONS AS WELL AS THE DRAWINGS & SPECIFICATION. ANY CODE DEFICIENCIES IN THE DRAWINGS RECOGNIZED BY THE CONTRACTOR SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
4. THE CONTRACTOR SHALL VISIT PROJECT SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ANY AMBIGUOUS ITEMS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO SUBMITTING PROPOSAL.
5. THE CONTRACTOR IS TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES REQUIREMENTS, AND COMPLETE TEXAS HEALTH DEPARTMENT NOTIFICATIONS AND SUBMIT FORMS AND REQUIRED INFORMATION TO MEET " TEXAS COMMISSION ON ENVIRONMENTAL QUALITY" (TCEQ) REQUIREMENTS PRIOR TO START OF PROJECT
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF THE BUILDING ON THE SITE AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE BIDDING THE PROJECT OR THE COMMENCEMENT OF WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR CHANGES TO THE WORK DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HIS/HER SELF WITH EXISTING CONDITIONS
7. DO NOT SCALE DRAWINGS: ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE AND BE FIELD VERIFIED AND COORDINATED WITH WORK OF ALL TRADES. IF NO DIMENSIONS ARE GIVEN OR DISCREPANCIES FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION BEFORE BIDDING OR COMMENCING THE WORK.
8. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, ALL INCLUDED AS PART OF THE WORK.
9. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
10. THE CONTRACTOR SHALL VERIFY THE SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS AND BASES, AS WELL AS POWER, WATER AND DRAIN REQUIREMENTS FOR SUCH EQUIPMENT WITH EQUIPMENT MFG. DEVIATION OF BEFORE MENTIONED REQUIREMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
11. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE WITH THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. REVIEW ALL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
12. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
13. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
14. PROVIDE FIRE STOPS WHEREVER INTERIOR AND EXTERIOR WALLS AND PARTITIONS INTERSECT FLOORS, CEILINGS, AND ROOFS. ALSO PROVIDE AT ALL OPENINGS AROUND PENETRATIONS TO PREVENT VERTICAL & HORIZONTAL COMMUNICATION OF FIRE ALONG LINES OF CORRIDORS, OCCUPANCY CHANGES, AND SIMILAR SEPARATIONS.
15. ALL WALL WIDTHS ARE SHOWN AND DIMENSIONED WITH ACTUAL DIMENSIONS. DIMENSIONS FOR FRAMED WALLS ARE SHOWN TO FACE OF STUDS AND/OR FACE OF BLOCK U.N.O.
16. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
17. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
18. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
19. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
20. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
21. DIFFUSERS, LIGHT FIXTURES, ETC., ARE INDICATED ON THE REFLECTED CEILING PLAN FOR LOCATION AND COORDINATION. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
22. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
23. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
24. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
25. CLASSROOM FURNITURE INDICATED ON THE FLOOR PLANS, NOT INDICATED AS "BUILT-IN", ARE NOT IN PROJECT CONTRACT. FURNITURE IS SHOWN FOR TYPICAL CLASSROOM ARRANGEMENT, ONLY.
26. GENERAL CONTRACTORS AND SUB-CONTRACTORS ARE TO SCHEDULE AND COMPLETE THEIR WORK SO AS TO KEEP MECHANICAL, ELECTRICAL, TELEPHONE, DATA, HVAC CONTROL, INTERCOM, AND OTHER EXISTING SYSTEMS OPERATIONAL IN AREAS OCCUPIED BY THE OWNER DURING THE RENOVATION AND CONSTRUCTION OF THE PROJECT
27. WHERE EXISTING OR NEW EXPANSION JOINTS ARE EXPOSED DUE TO NEW CONSTRUCTION OR RENOVATION, PROVIDE APPROVED FLOOR, WALL, AND/OR CEILING EXPANSION JOINT COVER ASSEMBLIES AS REQUIRED.
28. WHERE NEW FLOORING IS TO BE INSTALLED ON TOP OF EXISTING FLOOR SLAB, PROVIDE FLOOR LEVELING COMPOUND AS REQUIRED TO PROVIDE LEVEL WORKABLE SURFACE FOR NEW FINISHES
29. CONTRACTOR IS TO ENSURE THAT NEW AND/OR EXISTING MECHANICAL, ELECTRICAL, DATA, AND CONTROL SYSTEMS ARE CONCEALED TO THE GREATEST EXTENT AS POSSIBLE UNLESS OTHERWISE NOTED
30. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
31. ALL EXPOSED METALS EXCEPT GALVANIZED AND PRE-FINISHED ITEMS, SHALL BE FINISH PAINTED - COLOR TO BE SELECTED BY ARCHITECT. REF SPECS FOR FIELD WELDS AT GALV.
32. WHERE THE WORDS "PATCH", "MATCH", "REPAIR", "REPLACE", ARE USED,SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT COLORS, TEXTURES AND FINISH OF DISTURBED AREAS SHALL MATCH IN ALL RESPECTS. REPLACE IS DEFINED AS REMOVE EXISTING AND INSTALL NEW INCLUDING ALL APPROPRIATE ELECTRICAL CONNECTIONS AND WITH MATCHING OR COMPATIBLE EQUIPMENT OR MATERIALS AS SHOWN, SPECIFIED OR REQUIRED FOR COMPLETE INSTALLATION.

SHEET NAMING CONVENTION

A2-XX

DRAWING SHEET DISCIPLINE

G	GENERAL	P	PLUMBING
C	CIVIL	E	ELECTRICAL
L	LANDSCAPE	FP	FIRE PROTECTION
S	STRUCTURAL	FA	FIRE ALARM
IR	IRRIGAITON	T	TECHNOLOGY
AD	ARCH DEMOLITION	TE	THEATRICAL
A	ARCHITECTURE	FS	FOOD SERVICES
M	MECHANICAL	AV	AUDIO VISUAL

SHEET NUMBER IN DISCIPLINE

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

	Date	Description

100% CD

A0.00-E
SYMBOLS & ABBREVIATIONS

ELKINS HIGH SCHOOL

12/4/2025 10:08:56 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath//25-006_ELKINS_ARCH_FBISD ATHLETIC RENOVATIONS BP012-E_R25.rvt

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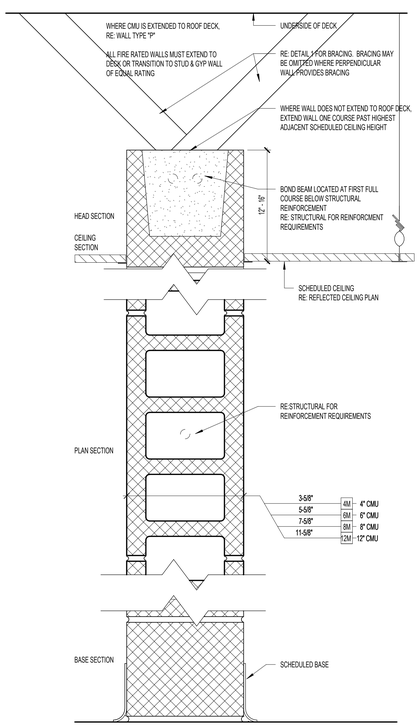
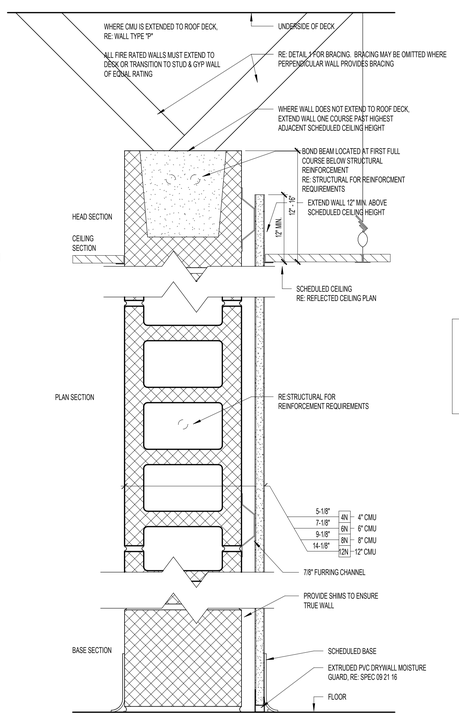
GENERAL PARTITION NOTES

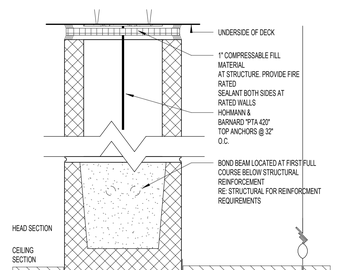
1. FOR HEIGHTS OF WALL SEE BLDG.'G SECTIONS OR ELEVATIONS.
2. EVERY WALL SHOWN ON PLAN SHALL BE ONE OF THE WALL TYPES SHOWN WHETHER KEYED ON THE PLAN OR NOT. IF WALL DOES NOT HAVE KEY, PROVIDE WALL TYPE TO MATCH ADJACENT OR NEAREST KEY.
3. SEE ROOM FINISH SCHEDULE FOR FINISHES AND CEILING HEIGHTS.
4. FIRE TAPE OR SEAL ALL PENETRATIONS IN FIRE RATED PARTITIONS.
5. ALL WALLS THAT ARE PERPENDICULAR TO ROOF DECK SHOULD BE SEALED TIGHT TO UNDERSIDE OF DECK W/ PACKED INSULATION AND FIRE SAFING. COPE SHEETROCK AROUND CONCRETE PAN.
6. ALL SOUND WALLS TO RECEIVE SEALANT AROUND CRACKS & GAPS OF EDGES @ FLOOR, CEILING AND JUNCTION BOXES.
7. PROVIDE BRACE AT END OF ALL CMU WALLS, EACH SIDE OF CONTROL JOINTS AND AT 8'-0" TYPICAL. IF AN INTERSECTING WALL IS LAYED AT THE SAME TIME, THE WALL MAY BE CONSIDERED A BRACE.
8. ALLOW FOR VERTICAL DEFLECTION OF THE STRUCTURE.
9. ALL METAL STUD ROOF DECK CONNECTIONS TO HAVE SLIP JOINT WITH DEEP LEG METAL STUD TRACK.
10. SEE INTERIOR ELEVATIONS FOR MASONRY/MATERIAL PATTERNS.
11. ALL WALLS AT OCCUPIED OR EXPOSED AREAS TO RECEIVE 3" BASE OF 5/8" DENSHIELD FIREGUARD TILE BACKER. WALLS AT CONCEALED AREAS, SUCH AS THOSE BEHIND MASONRY WAINSCOT, TO HAVE 5/8" DENS SHIELD FIREGUARD TILE BACKER 1/2" FROM FINISH FLOOR WITH SEALANT. AT CONTRACTOR'S DISCRECTION, 1/2" WATERGUARD EXTRUSION MAY BE USED IN LIEU OF DENS SHIELD DETAIL.
12. THE ABREVIATON "N.R." MEANS NO RATING.
13. AT RECESSED OR RAISED FLOORS, INSTALL CMU SOAP COURSE AT BASE OF CMU WALLS TO COURSE MASONRY WITH WALLS STARTING AT FINISH FLOOR.
14. ALL GYP. BOARD IS 5/8" TYPE "X" U.N.O
15. ABOVE CEILING AT ALL FIRE RATED WALLS, PROVIDE 4" HIGH, STENCIL EVERY 8' AND AT LEAST ONE PER WALL READING "FIRE WALL" IN RED PAINT. ALSO PROVIDE STENCIL AT 10' AFF IN MECHANICAL, HOUSEKEEPING, TECHNOLOGY, ELECTRICAL AND STORAGE SPACES THAT DO NOT HAVE A CEILING. STENCIL IS NOT REQUIRED WHERE THE FIRE WALL DOES NOT HAVE AN ADJACENT CEILING AND THE SPACE IS AN OCCUPIED, FINISHED SPACE.



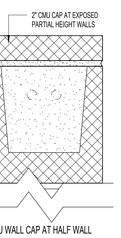
M	CONCRETE MASONRY UNITS W/ HORIZONTAL AND VERTICAL REINFOURCING RE: STRUCTURAL FOR REINFORCING DETAILS							
	NON- RATED	PARTITION TYPE		L/240 LIMITING HEIGHT		FIRE RATING		STC
		RATED	BURNISHED	BLOCK DEPTH	MAX . HEIGHT	HOURS	UL LISTING	
	4M	4MR	4MB	3-5/8"	5'-10"	---	---	43
	6M	6MR	6MB	5-5/8"	9'-0"	2HR	U906	46
	8M	8MR	8MB	7-5/8"	11'-8"	2-4 HR	U901,U904	49
	12M	12MR	12MB	11-5/8"	18'-0"		U905,U907	52

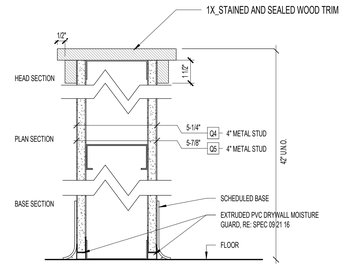


N	7/8" FURRING CHANNELS @ 24" O.C. WITH 1 LAYER 5/8" GYP ON CONCRETE MASONRY UNITS W/ HORIZONTAL AND VERTICAL REINFOURCING RE: STRUCTURAL FOR REINFORCING DETAILS							
	NON- RATED	PARTITION TYPE		L/240 LIMITING HEIGHT		FIRE RATING		STC
		RATED	BURNISHED	BLOCK DEPTH	MAX . HEIGHT	HOURS	UL LISTING	
	4N	4NR	4NB	5-1/8"	5'-10"	---	---	43
	6N	6NR	6NB	7-1/8"	9'-0"	2HR	U906	46
	8N	8NR	8NB	9-1/8"	11'-8"	2-4 HR	U901,U904	49
	12N	12NR	12NB	14-1/8"	18'-0"		U905,U907	52

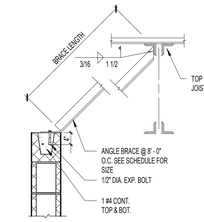


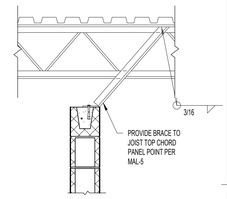
P	CONCRETE MASONRY UNITS W/ HORIZONTAL AND VERTICAL REINFORCING RE: STRUCTURAL FOR REINFORCING DETAILS						
	PARTITION TYPE		L/240 LIMITING HEIGHT		FIRE RATING		STC
	NON- RATED	RATED	BLOCK DEPTH	MAX . HEIGHT	HOURS	UL LISTING	
	4P	4PR	3-5/8"	5'-10"	---	---	43
	6P	6PR	5-5/8"	9'-0"	2HR	U906	46
	8P	8PR	7-5/8"	11'-8"	2-4 HR	U901,U904	49
	12P	12PR	11-5/8"	18'-0"		U905,U907	

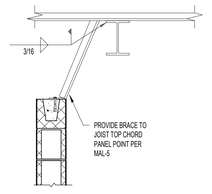


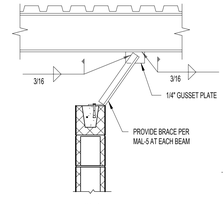


Q	25 GA. METAL STUD @ 16" O.C. 1 LAYER 5/8" GYP ON EACH SIDE AND AS CAP						
	PARTITION TYPE		L/240 LIMITING HEIGHT		FIRE RATING		STC
	NON- RATED	RATED	STUD DEPTH	MAX . HEIGHT	HOURS	UL LISTING	
	Q4	---	4"	13'-9"	---	---	---
	Q5	---	4"		---	---	---
		---			---	---	---
		---			---	---	---









NOTE:
BRACING NOT REQUIRED AT WALLS SUPPORTING CONCRETE CEILINGS & CATWALKS OR WHERE ADJOINING WALLS EXCEED HORIZ. DIM OF CMU SCHEDULE

BRACE LENGTH	ANGLE SIZE
8' -0" OR LESS	L 2 1/2 X 2 1/2 X 3/16
8' - 1" TO 10' - 0"	L 3 X 3 X 3/16
10' - 1" TO 13' - 0"	L 4 X 4 X 1/4
13' - 1" TO 16' - 0"	2 - L 3 X 3 X 3/16

WALL BRACING 2

SCALE: 3/4" = 1'-0"

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

	Date	Description

100% CD

A0.01-E
PARTITION TYPES

ELKINS HIGH SCHOOL

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A.0.03 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01 & G0.02 FOR TAS REQUIREMENTS
3. RE: G0.03 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDE OF ALL GATES, AS NEEDED, WHEN THEY ARE OPEN AND NOT IN LOCK. OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 5' O.C. AROUND ALL TRANSFORMERS AND ELECTRICAL EQUIPMENT AS REQUIRED. ALL TRANSFORMERS AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, RE-SEEDED/TED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 8' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE.
10. ALL EGIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE GRASS ADJOINS PAVING AS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

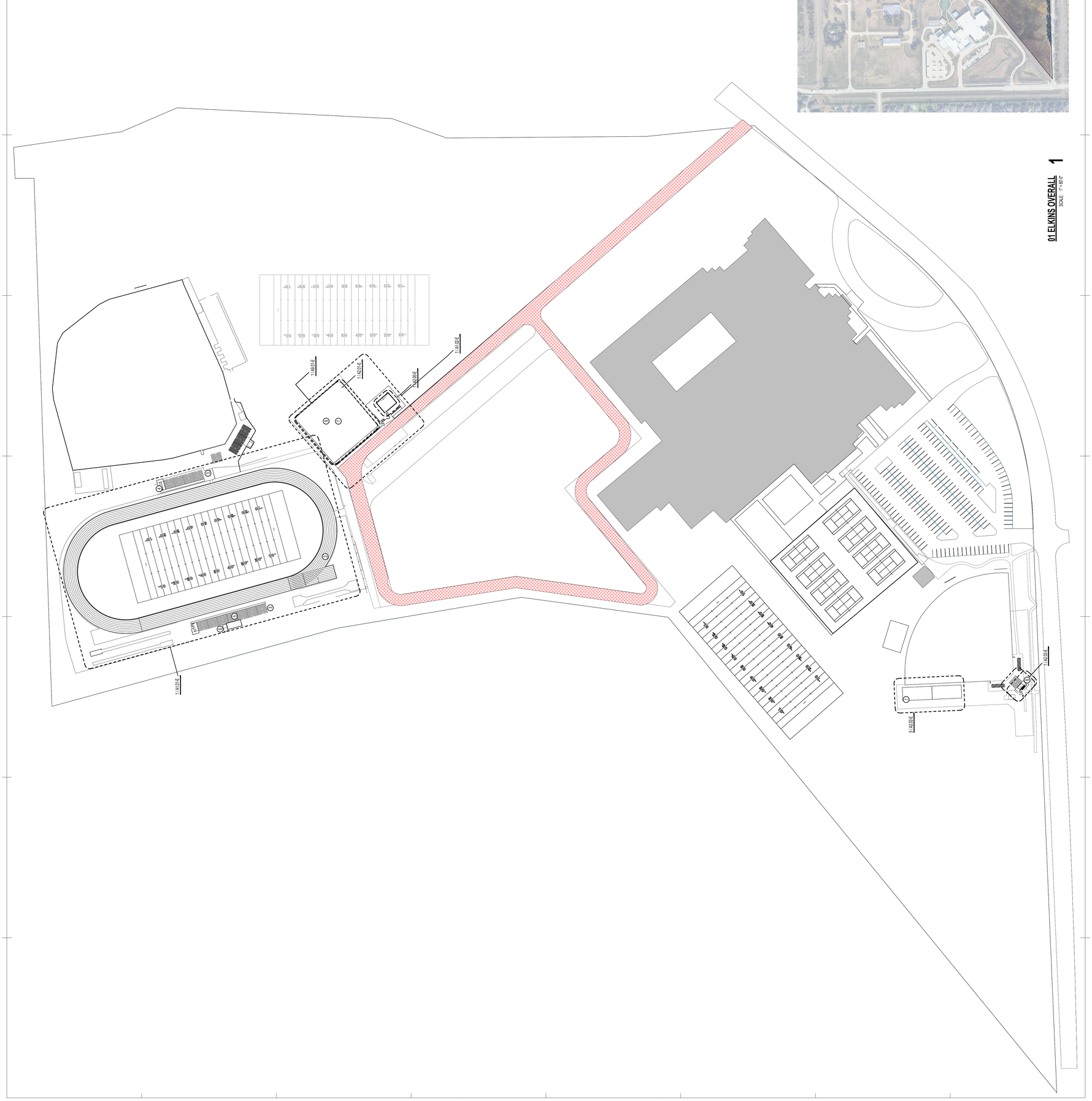
SITE PLAN LEGEND

- VINYL COATED CHAIN LINK FENCE, 48" HIGH
- VINYL COATED CHAIN LINK FENCE, 72" HIGH
- BLACK WROUGHT IRON FENCE, 48" HIGH
- BLACK WROUGHT IRON FENCE, 72" HIGH
- BUILDING SECTION TAG (A101)
- WALL SECTION TAG (A101)
- ENLARGED CALL OUT (1/4 ARCH SIM)

SITE PLAN KEYNOTES

TAG #	NOTE
1	NEW FOUR (4) COVERED HITTING CAGE
2	INSTALL (2) NEW BATTING CAGES
3	ADA ACCESSIBILITY TO BLEACHERS
4	BLEACHERS STAIR REPLACEMENT ON NORTH SIDE
5	POWER AND DATA CONNECTIONS
6	NEW FLAG DECK
7	REPLACE AS NEEDED SHOTPUT COVER
8	NEW PRESSBOX AND MOVE MONUMENT
9	REPLACE LOCKERS IN THE FIELD HOUSE





01 ELKINS OVERALL 1
SCALE 1" = 80'-0"

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

pfluger
2 Greenway Plaza, Suite 460
Houston, Texas 77046
Office: 713.222.1141 | fax: 713.222.1174
Pflugerarchitects.com

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL J. LOMAX 26115 STATE OF TEXAS

DATE: 12/4/2025

100% CD
A1.00-E
ARCHITECTURAL SITE PLAN

ELKINS HIGH SCHOOL

PROJECT NO. 25-006
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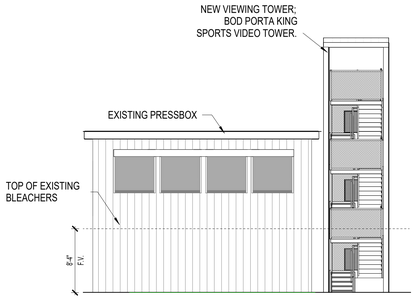
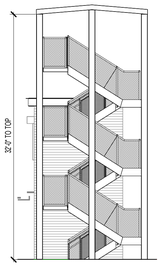
DEMO EXISTING FILM DECK AND SAW CUT EXISTING CONCRETE AT BOUNDARIES.

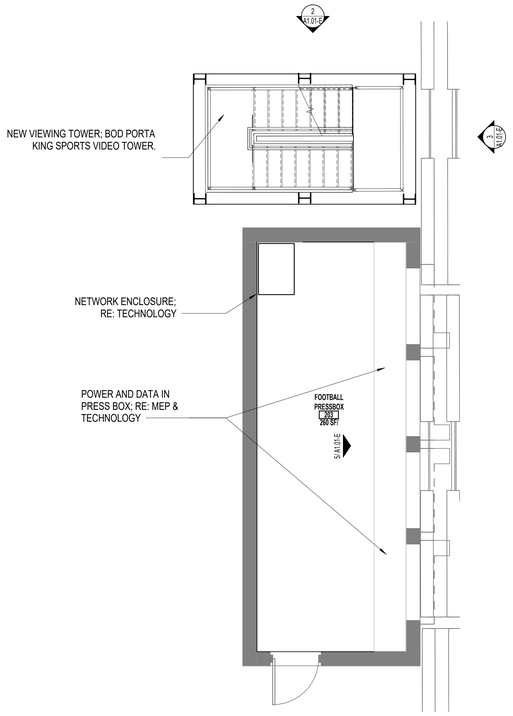
⑤ REPLACE EXISTING FILM DECK WITH NEW VIEWING TOWER



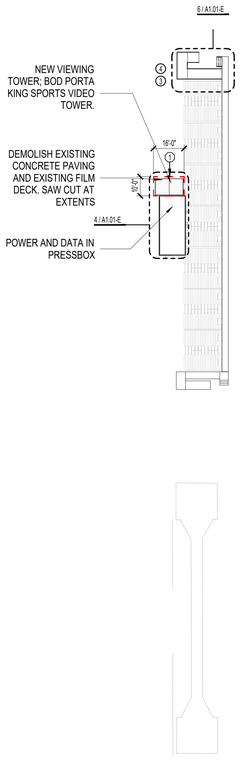
NEW VIEWING TOWER - WEST 3
SCALE: 1/8" = 1'-0"



NEW VIEWING TOWER - NORTH 2
SCALE: 1/8" = 1'-0"



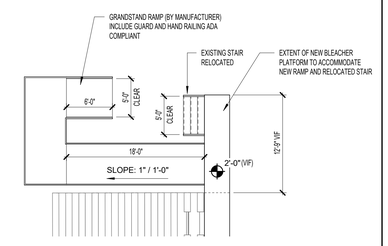
FOOTBALL PRESSBOX PLAN 4
SCALE: 1/4" = 1'-0"





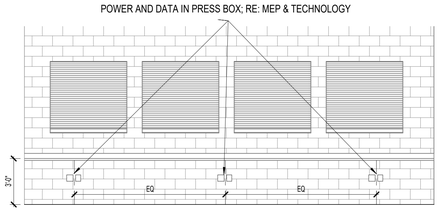
STRUCTURAL SPRAY RESURFACING ENTIRE TRACK:REF CIVIL

FOOTBALL FIELD - E 1
SCALE: 1/32" = 1'-0"



ACCESSIBLE RAMP - TYPICAL 6
SCALE: 1/8" = 1'-0"





FOOTBALL PRESS BOX - EAST 5
SCALE: 1/4" = 1'-0"



SITE KEY PLAN
N.T.S

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01 & G0.02 FOR TAS REQUIREMENTS
3. RE: G0.03 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 6' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- VINYL COATED CHAIN LINK FENCE, 48" HIGH
- VINYL COATED CHAIN LINK FENCE, 72" HIGH
- BLACK WROUGHT IRON FENCE, 48" HIGH
- BLACK WROUGHT IRON FENCE, 72" HIGH
- BUILDING SECTION TAG (SIM, A101)
- WALL SECTION TAG (SIM, A101)
- ENLARGED CALL OUT (2 / A101 SIM.)

SITE PLAN KEYNOTES

TAG #	NOTE
1	REMOVE CONCRETE PAVING AROUND FILM DECK
2	STRUCTURAL SPRAY RESURFACING
3	ADA ACCESSIBILITY TO BLEACHERS
4	BLEACHERS STAIR REPLACEMENT ON NORTH SIDE
5	POWER AND DATA CONNECTIONS
6	NEW VIEWING TOWER; BOD PORTA KING SPORTS VIDEO TOWER.

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) ISARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- ④ DEMO KEY NOTE

DEMOLITION KEY NOTES

TAG #	NOTE
1	REMOVE CONCRETE PAVING AROUND FILM DECK
2	STRUCTURAL SPRAY RESURFACING
3	ADA ACCESSIBILITY TO BLEACHERS
4	BLEACHERS STAIR REPLACEMENT ON NORTH SIDE
5	POWER AND DATA CONNECTIONS
6	NEW VIEWING TOWER; BOD PORTA KING SPORTS VIDEO TOWER.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

100% CD

A1.01-E
TRACK AND FIELD

ELKINS HIGH SCHOOL

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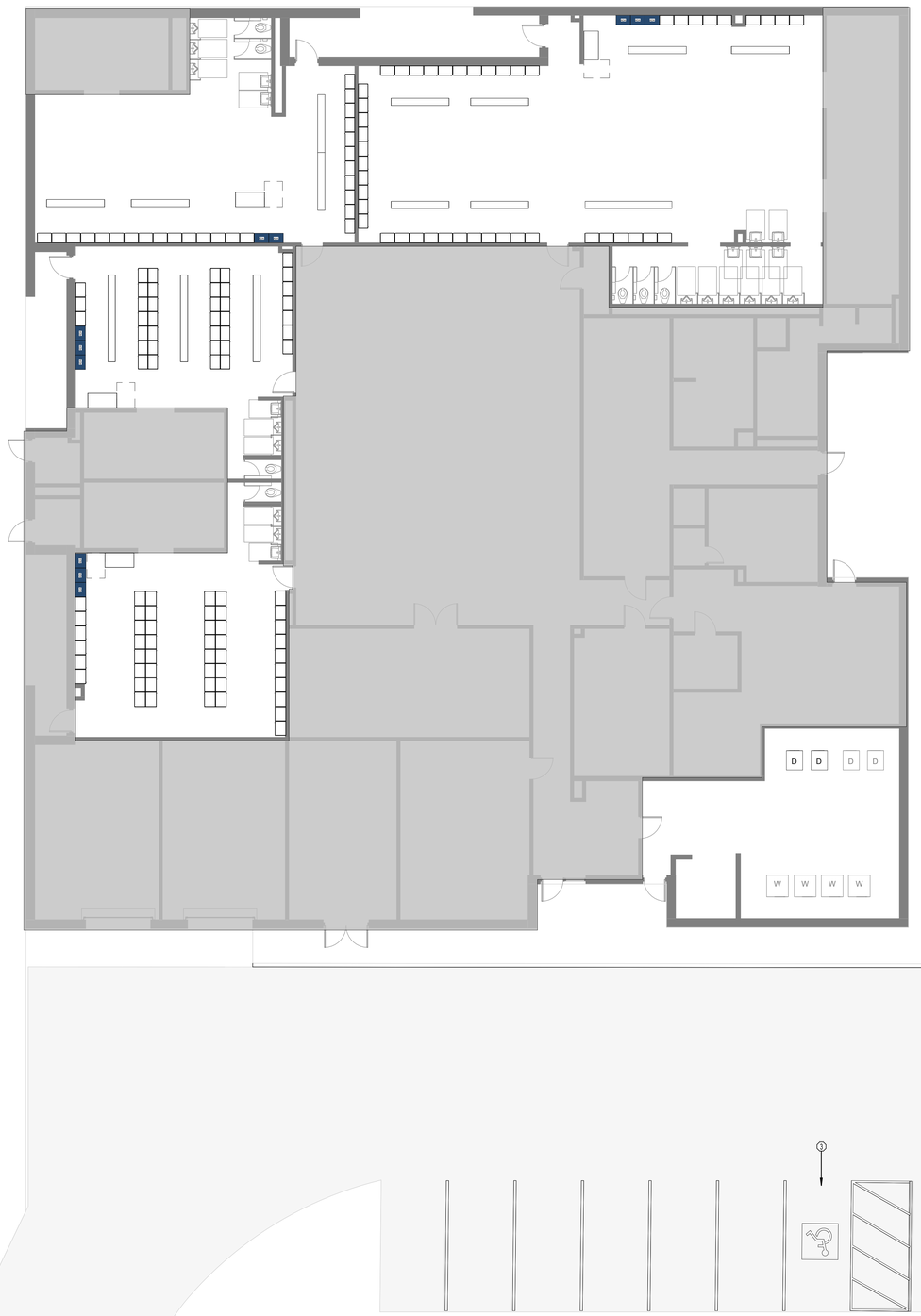
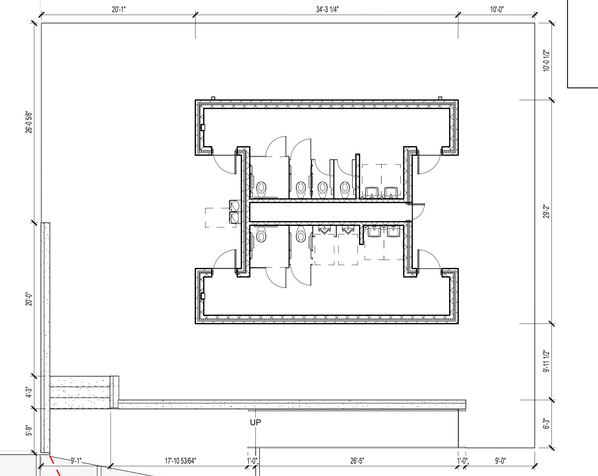
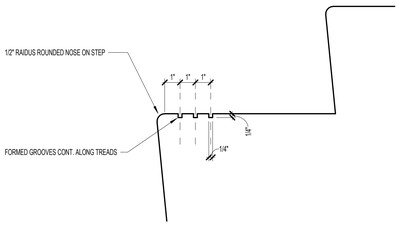




01 ENLARGED SITE PLAN FIELD HOUSE RESTROOM 1

SCALE: 1/8" = 1'-0"



TREAD NOSING DETAIL 2

SCALE: 3" = 1'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01 & G0.02 FOR TAS REQUIREMENTS
3. RE: G0.03 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS. AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 8' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- X X — VINYL COATED CHAIN LINK FENCE, 48" HIGH
- L L — VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M M — BLACK WROUGHT IRON FENCE, 48" HIGH
- R R — BLACK WROUGHT IRON FENCE, 72" HIGH
- 1 / A101 SIM. — BUILDING SECTION TAG
- 1 / A101 SIM. — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT

SITE PLAN KEYNOTES

TAG #	NOTE
1	REMOVE EXISTING CROSSWALK MARKINGS.
2	NEW CROSS WALK MARKINGS.
3	NEW ADA ACCESSIBLE PARKING.

ALTERNATES:

ALTERNATE NO.4 - ELKINS HIGH SCHOOL: RESTROOM AT FIELD HOUSE FOR PUBLIC.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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MICHAEL ADAME
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1 Date Description

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A1.02-E

ENLARGED FIELD HOUSE SITE PLAN

ELKINS HIGH SCHOOL

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GENERAL NOTES - EXTERIOR ELEVATIONS

1. EXPOSED EXTERIOR STRUCTURAL STEEL MEMBERS SHALL BE PAINTED - COLOR SELECTED BY ARCHITECT.
2. STEEL MASONRY LINTELS SHALL BE GALVANIZED.
3. EXPOSED CONCRETE WALLS, COLUMNS, AND BEAMS, SHALL HAVE RUBBED GROUT FINISH.
4. MASONRY WEEP HOLES SHALL BE HAVE PVC HONEYCOMB VENTED WEEPS AT 16 " O.C. MAXIMUM.
5. EXTERIOR ALUMINUM STOREFRONT/CURTAIN WALL SYSTEM(S) SHALL HAVE ALUMINUM SUB-SILLS WITH SEALED END DAMS.
6. EXTERIOR ALUMINUM STOREFRONT/CURTAIN WALL SYSTEM(S) SHALL HAVE CONTINUOUS ALUMINUM BACKFILLERS.
7. FLEXIBLE MEMBRANE FLASHING AT WINDOWS SILLS AND LINTELS SHALL HAVE PRE-FORMED END DAMS.
8. CONTRACTOR SHALL PROVIDE FLEXIBLE MEMBRANE FLASHING ACROSS JOINTS BETWEEN DISSIMILAR MATERIALS TO INCLUDE, BUT NOT LIMITED TO, CMU TO STEEL FRAME, CMU TO STEEL DECKING, CMU TO EXTERIOR SHEATHING, ETC. TO PROVIDE COMPLETE AIR AND VAPOR BARRIER ACROSS BUILDING ENVELOPE.
9. MASONRY VENEER CONTROL JOINTS SHALL BE 3/8 ", AT INSIDE CORNERS, AT DISTANCES NOT TO EXCEED 3'-4" FROM OUTSIDE CORNERS, AND AT 30 '-0" O.C. MAXIMUM, UNLESS NOTED OTHERWISE. REFERENCE EXTERIOR ELEVATIONS.
10. GUTTERS, CONDUCTOR HEADS, AND DOWNSPOUTS SHALL BE PRE-FINISHED SHEET METAL. COLOR SELECTED BY ARCHITECT.
11. DOWNSPOUTS SHALL HAVE 16 GAUGE PRE-FINISHED DOWNSPOUT BOOTS TO 6 '-0" ABOVE FINISH GRADE. COLOR SELECTED BY ARCHITECT.
12. DOWNSPOUTS AND ROOF DRAINS SHALL BE CONNECTED TO STORM DRAIN SYSTEM UNLESS OTHERWISE NOTED. REFERENCE CIVIL FOR STORM DRAIN CONNECTION DETAILS AND LOCATIONS.
13. CONTRACTOR SHALL PROVIDE MOCK-UP FOR EACH EXTERIOR CONDITION AND CONSTRUCTION ASSEMBLY TYPE. MOCK-UP SHALL INCLUDE METAL FLASHINGS, VERTICAL AND HORIZONTAL FLEXIBLE MEMBRANE FLASHINGS, AND WINDOW INSTALLATIONS AS DETAILED IN CONSTRUCTION DOCUMENTS. MOCK-UP SHALL BE A MINIMUM OF 8 '-0" TALL X 16 '-0" LONG WITH AN EXTERIOR CORNER, INTERIOR CORNER, AND VERTICAL CONTROL JOINT. COORDINATE LOCATION OF MOCK-UP PANEL WITH ARCHITECT PRIOR TO CONSTRUCTION.
14. MECHANICAL ROOF TOP UNITS SHALL BE PAINTED. COLOR SELECTED BY ARCHITECT.

EXTERIOR MATERIAL LEGEND

- BRICK 1 (BR-1) UTILITY, RUNNING BOND
- BRICK 1 (BR-2) UTILITY, RUNNING BOND
- BRICK 1 (BR-3) UTILITY, RUNNING BOND (RECESSED)
- BURNISHED FACE BLOCK (BF-1), RUNNING BOND

EXTERIOR ACCENT PAINT (EP-1)

ROOF PLAN GENERAL NOTES

1. FOR TYPICAL ROOF PENETRATIONS AND PIPE SUPPORTS DETAILS REFER TO SHEET A05.10
2. FOR ADDITIONAL ROOF PENETRATION DETAILS: REFER TO MEP DOCS.
3. REFER MEP DOCUMENTS FOR ROOFTOP EQUIPMENT NOT SHOWN. MECHANICAL, ELECTRICAL AND PLUMBING ROOF EQUIPMENT DEPICTED ON THIS SHEET IS FOR GENERAL ARCHITECTURAL INFORMATION ONLY. REFER TO THE MEP DOCUMENTS FOR ADDITIONAL REQUIREMENTS AND COORDINATION. REFER STRUCTURAL DOCUMENTS FOR EQUIPMENT SUPPORTS.
4. EXPOSED METAL FLASHING/TRIM PIECES ARE TO BE PREFINISHED GALVANIZED STEEL, UNLESS OTHERWISE NOTED. PAINT EXPOSED METAL FLASHING/TRIM PIECES THAT ARE NOT PREFINISHED, AS WELL AS ALL EXPOSED MISCELLANEOUS STEEL PIECES. REFER FINISH SCHEDULE AND NOTES.
5. TAPERED INSULATION SHALL BE 1/4"/FT MINIMUM SLOPE TO DRAIN. ROOF PLAN SHOWS TAPERED INSULATION AT NTS AND IS GRAPHIC ONLY, TO SHOW SLOPE AND APPROX LOCATION. (VERIFY INSULATION REQUIRED TO MAINTAIN SLOPE, PRIOR TO INSTALLATION).
6. PROVIDE TAPERED INSULATION CRICKETS (1/4"/FT MIN SLOPE) AT HIGH SIDE OF ALL MECHANICAL UNITS, SKYLIGHTS, ROOF HATCHES, AND MISCELLANEOUS ROOF PENETRATIONS, TO SHED WATER AROUND, AND TO INSURE POSITIVE ROOF DRAINAGE.
7. WOOD BLOCKING AT ROOF EDGES, RIDGES, ETC. SHALL BE FABRICATED FROM CONTINUOUS MINIMUM 2x6x PTWD BLOCKING. PROVIDE LARGER 2X PTWDS REQUIRED PER DETAIL DIMENSIONS. REFER ROOFING MANUFACTURER RECOMMENDATIONS.
8. WHERE WOOD BLOCKING EXCEEDS 8" THICKNESS AT TAPERED INSULATION, PROVIDE STEM WALL CONSTRUCTED OF 6" GALVANIZED CFMF AT 16"OC W/ CONTINUOUS TRACK TOP AND BOTTOM AND W/ 3/4" PT EXTERIOR GRADED PLYWOOD AT EACH SIDE, TOP TO SLOPE W/ TAPERED INSULATION.
9. PROVIDE STEP FLASHING AND COVER PLATE AT SLOPED ROOF H/L/O CONDITIONS.
10. VERIFY ELEVATION OF ROOF DRAIN RELATIVE TO OVERFLOW SCUPPER PRIOR TO INSTALLATION OF SCUPPERS.
11. STRUCTURAL SLOPES SHOWN ON PLAN ARE FOR GENERAL CONCEPT ONLY. REFER STRUCTURAL DRAWINGS FOR EXACT TOS/BOD ELEVATIONS.
12. REFER PLUMBING DOCUMENTS FOR ROOF DRAIN LEADERS, CONNECTIONS TO STORM DRAIN, AND NOZZLES.
13. FOR TYPICAL ROOF PENETRATION DETAILS: PROVIDE METAL ROOF MFRS STD ROOF CURBS AND PENETRATION DETAILS, FOR LOCATIONS, WEIGHTS, AND ANY OTHER ADDITIONAL INFO REFER TO MEP DOCS. COORDINATE FINAL SIZE.
    A. PROVIDE CURBS AND ALL SUPPORTS NOT INDICATED ON THE STRUCTURAL DOCUMENTS FOR NEW ROOF TOP MECH EQUIPMENT, INCLUDING BUT NOT LIMITED TO RTUS, CONDENSERS, AND FANS. REFER STRUCTURAL AND MEP DOCUMENTS.
    B. PROVIDE SUPPORTS AND FLASHING AS REQUIRED AT NEW GAS PIPING ON THE ROOF.
14. PROVIDE STD EAVE CLOSURES, AND MISCELLANEOUS TRIM REQUIRED FOR COMPLETE ASSEMBLY.
15. CONTRACTOR MAY DELETE WOOD BLOCKING SHOWN IN ROOFING DETAILS AS ALLOWED BY ROOFING MANUFACTURER. RECOMMENDATIONS AND FACTORY MUTUAL WIND UPLIFT REQUIREMENTS.

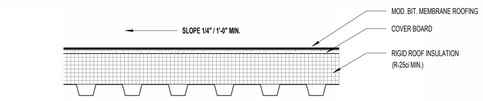
ROOF PLAN LEGEND

- CRICKET
- WALK PADS
- MODIFIED BITUMEN ROOF

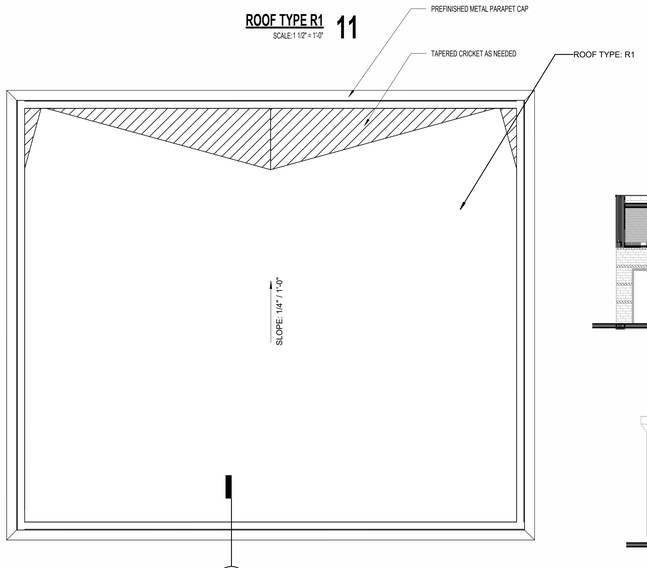
REFLECTED CEILING PLAN LEGEND

- 2' X 4' LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (SUSPENDED)
- LINEAR LED FIXTURE (SURFACE MOUNTED)
- RECESSED CAN FIXTURE
- PENDANT LIGHT FIXTURE
- SURFACE MOUNTED CAN LIGHT FIXTURE
- WALL SCONCE
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- SUSPENDED GYPSUM BOARD
- SUSPENDED CEILING SYSTEM WITH LAY-IN ACOUSTICAL PANELS
- SUSPENDED CEILING SYSTEM WITH LAY-IN VINYL FACED PANELS
- METAL SOFFIT, BOD CERTAINTEED LINEAR BOX 6 SYSTEM, EXTERIOR
- EXPOSED STRUCTURE

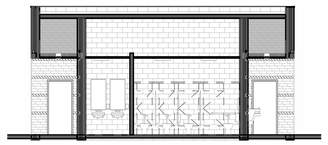
GENERAL NOTES:
1. ALL CEILINGS TO BE 10'-0" UNLESS OTHERWISE NOTED.
2. SEE SHEET A10.10 FOR CEILING DETAILS.
3. REFER TO INTERIOR AND EXTERIOR ELEVATIONS FOR LIGHT FIXTURE MOUNTING HEIGHTS.
4. MEP & ARCHITECT TO REVIEW AND APPROVE SPRINKLER KEYOUT AND HEAD LOCATIONS PRIOR TO CONSTRUCTION. SUBMIT PLAN USING ARCHITECTS RCPS.
5. AT AREAS WHERE CEILING IS EXPOSED - EXPOSED CONDUIT TO BE LOCATED NEATLY. ARCHITECT TO APPROVE LAYOUTS.
6. COORDINATE CEILING ACCESS PANELS WITH MEP CONTRACTOR. LOCATE WHERE NECESSARY.



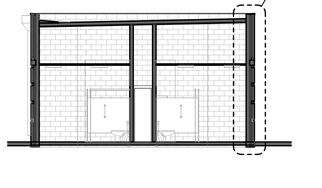
ROOF TYPE R1 11
SCALE: 1 1/2" = 1'-0"



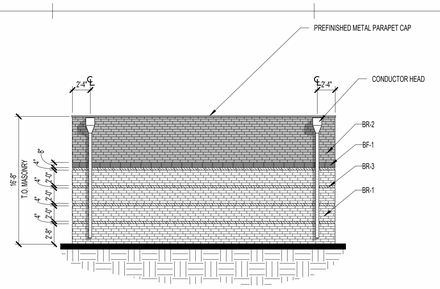
ROOF PLAN FIELD HOUSE RESTROOM 10
SCALE: 1/4" = 1'-0"



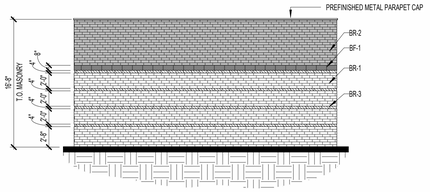
FIELD HOUSE RESTROOM SECTION B 7
SCALE: 1/8" = 1'-0"



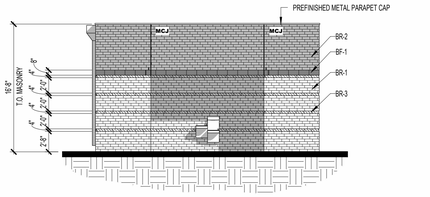
FIELD HOUSE RESTROOM SECTION A 6
SCALE: 1/8" = 1'-0"



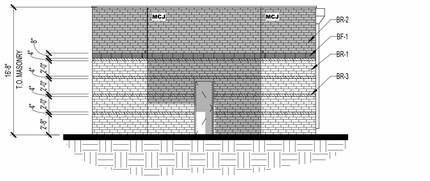
FIELD HOUSE RESTROOM NORTH ELEVATION 5
SCALE: 1/8" = 1'-0"



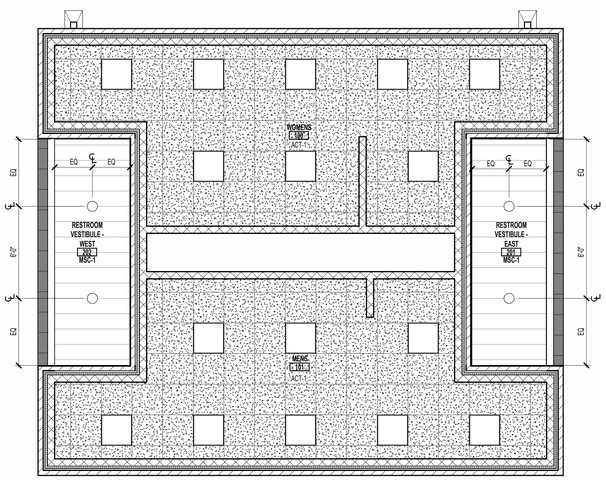
FIELD HOUSE RESTROOM SOUTH ELEVATION 4
SCALE: 1/8" = 1'-0"



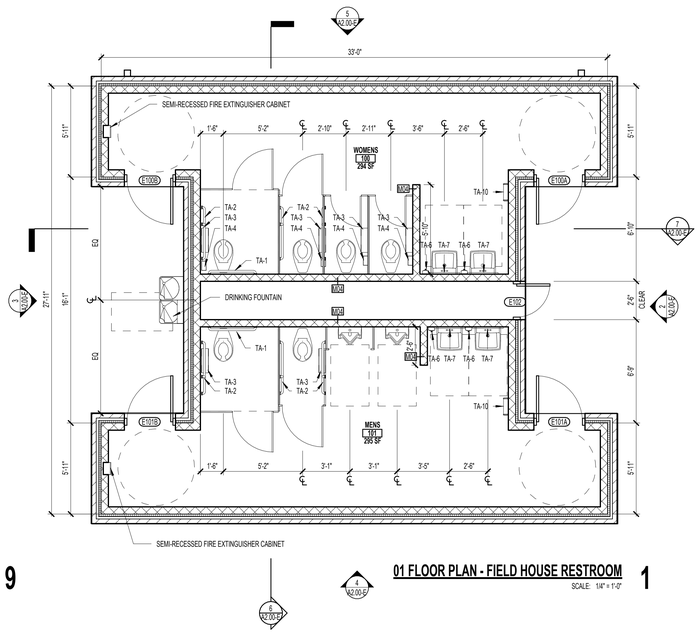
FIELD HOUSE RESTROOM WEST ELEVATION 3
SCALE: 1/8" = 1'-0"



FIELD HOUSE RESTROOM EAST ELEVATION 2
SCALE: 1/8" = 1'-0"



01 CEILING PLAN - FIELDHOUSE RESTROOM 9
SCALE: 1/4" = 1'-0"



01 FLOOR PLAN - FIELD HOUSE RESTROOM 1
SCALE: 1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

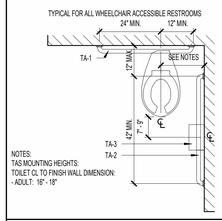
1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS AS SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

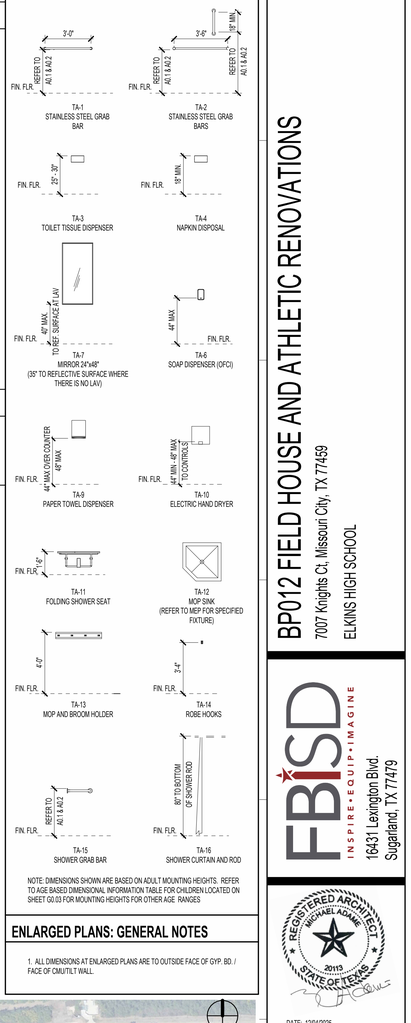
- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- COLUMN GRID
- EXTERIOR ELEVATION TAG (20 / A101 Ref)
- INTERIOR ELEVATION TAG (1/ A101 Ref)
- BUILDING SECTION TAG (1 / A101 SIM)
- WALL SECTION TAG (SIM / A101)
- ENLARGED CALL OUT (21 / A101 SIM)
- DOOR TAG (101)
- PARTITION TAG (AA)
- HOLLOW METAL WINDOW TAG (1)
- ALUMINUM WINDOW TAG (1)
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

RESTROOM WHEELCHAIR ACCESS, TYPICAL



TYPICAL MOUNTING HEIGHTS, U.N.O.



NOTE: DIMENSIONS SHOWN ARE BASED ON ADULT MOUNTING HEIGHTS. REFER TO AGE BASED DIMENSIONAL INFORMATION TABLE FOR CHILDREN LOCATED ON SHEET G0.03 FOR MOUNTING HEIGHTS FOR OTHER AGE RANGES

ENLARGED PLANS: GENERAL NOTES

1. ALL DIMENSIONS AT ENLARGED PLANS ARE TO OUTSIDE FACE OF GYP. BD. / FACE OF CMU/TILT WALL.

ALTERNATE NO. 4

ELKINS HIGH SCHOOL: RESTROOM AT FIELD HOUSE FOR PUBLIC.

ALTERNATE NO. 4 - NEW FIELD HOUSE RESTROOMS



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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7007 Knights Ct, Missouri City, TX 77459

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FBISD INSPIRE • EQUIP • IMAGINE
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ALTERNATE NO. 4 - 01 FLOOR PLAN - FIELD HOUSE RESTROOM
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01 FLOOR PLAN - FIELD HOUSE 2

SCALE: 1/8" = 1'-0"

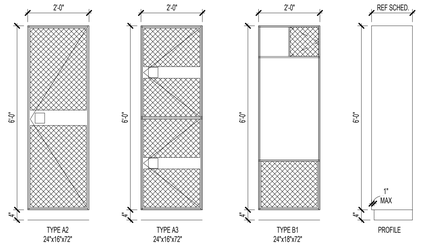


DEMO PLAN FIELD HOUSE 1

SCALE: 1/8" = 1'-0"

LOCKER SCHEDULE

1.PROVIDE SHOP-APPLIED, BAKED EPOXY ENAMEL FINISH
2.REFER TO MATERIAL SCHEDULE FOR COLOR



ROOM 118
EXISTING 41
PROVIDED 41
ADA REQUIRED: 3
ADA PROVIDED: 3

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

ROOM 115
EXISTING 28
PROVIDED 28
ADA REQUIRED: 2
ADA PROVIDED: 2

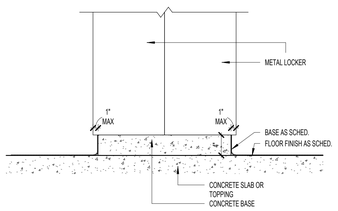
ROOM 114
EXISTING 50
PROVIDED 50
ADA REQUIRED: 3
ADA PROVIDED: 3

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

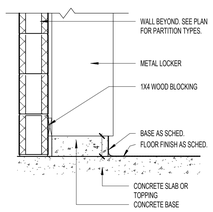
ROOM 123
EXISTING: 51
PROVIDED: 51
ADA REQUIRED: 3
ADA PROVIDED: 3

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

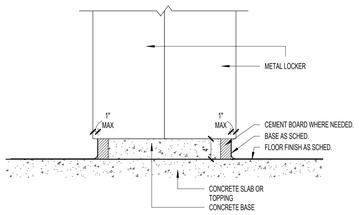
NEW CURB @ ISLAND



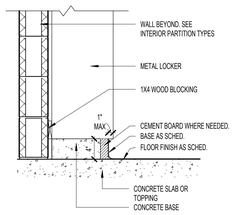
NEW CURB @ WALL



EXISTING CURB @ ISLAND

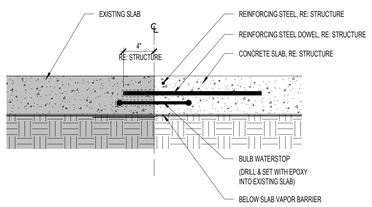


EXISTING CURB @ WALL



CONCRETE LOCKER CURB DETAIL 3

SCALE: 1" = 1'-0"



SECTION DETAIL - NEW SLAB AT EXISTING SLAB 4

SCALE: 1 1/2" = 1'-0"

REPLACE EXISTING DRYERS



LAUNDRY



VARSITY



SOPHOMORE

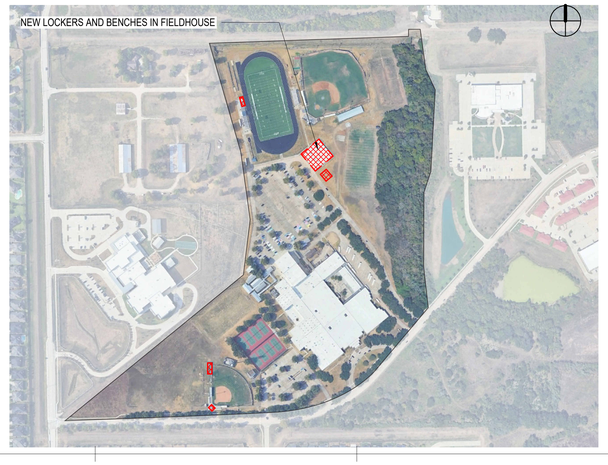


FRESHMEN



SOPHOMORE

NEW LOCKERS AND BENCHES IN FIELDHOUSE



GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) ISARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE

AREA OF TO BE PATCHED

DEMOLITION KEY NOTES

1. REMOVE EXISTING LOCKERS AND RETAIN EXISTING CONCRETE BASE. REPAIR AND PAINT ANY DAMAGES TO EXISTING CMU WALLS OR FLOORS. REFER TO MATERIAL SCHEDULE FOR P-1 PAINT COLOR.

2.REMOVE EXISTING DRYER AND ASSOCIATED EQUIPMENT AND RETURN TO OWNER. DRYER AND EQUIPMENT TO BE REMOVED TO ENSURE NO DAMAGE IS DONE TO EQUIPMENT

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS AS SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-0" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- COLUMN GRID (AB)
- EXTERIOR ELEVATION TAG (Ref / SH A101)
- INTERIOR ELEVATION TAG (1/ A101 Ref)
- BUILDING SECTION TAG (SIM / A101)
- WALL SECTION TAG (1 / A101 SIM)
- ENLARGED CALL OUT (21 / A101 SIM)
- DOOR TAG (101)
- PARTITION TAG (AX1)
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG (1)
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

1. NEW LOCKERS
2. NEW BENCH

SPECIALTY EQUIPMENT

TAG	EQUIPMENT
A2	LOCKER - 24" W X 16" D X 72" H
A3	LOCKER - 24" W X 16" D X 72" H
B1	LOCKER - 24" W X 18" D X 72" H
LB-1	LOCKER BENCH - 144" L X 15" W
LB-2	LOCKER BENCH - 96" L X 15" W
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 30113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

A2.01-E

01 FLOOR PLAN - FIELD HOUSE

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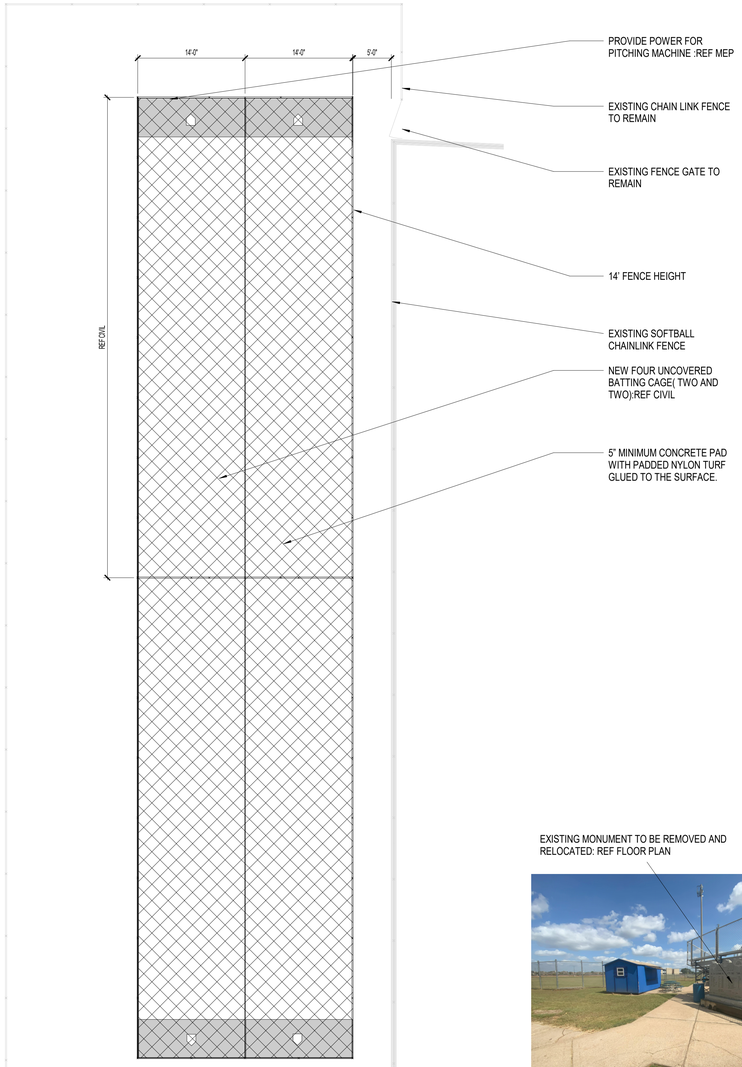
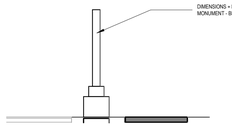
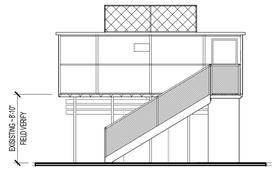
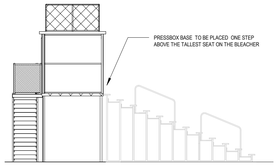




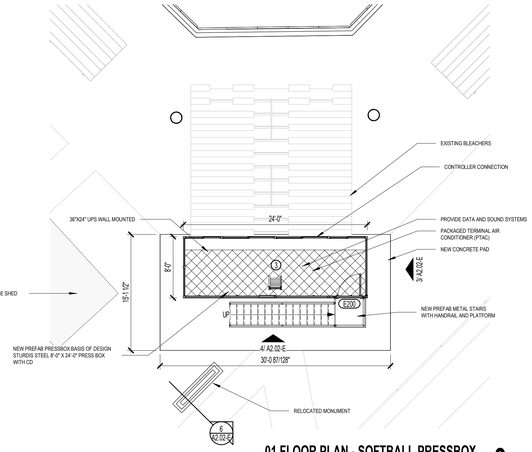
MONUMENT SECTION 6
SCALE: 1/4" = 1'-0"



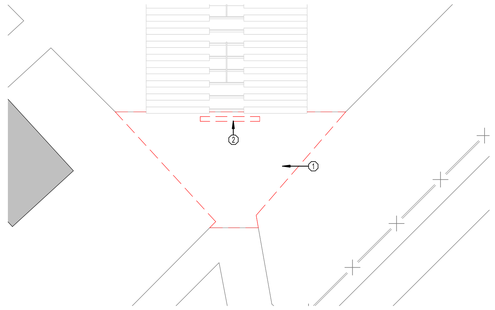
PRESSBOX ELEVATION- E 4
SCALE: 1/8" = 1'-0"



PRESSBOX EAST ELEVATION-A 3
SCALE: 1/8" = 1'-0"



01 FLOOR PLAN - SOFTBALL PRESSBOX 2
SCALE: 1/8" = 1'-0"



SOFTBALL PRESSBOX DEMO- E 1
SCALE: 1/8" = 1'-0"

EXISTING MONUMENT TO BE REMOVED AND RELOCATED: REF FLOOR PLAN

DEMO EXISTING HITTING CAGE



NEW BACKSTOP INCLUDED IN BP010



PROPOSED UNCOVERED HITTING CAGE



PROPOSED LOCATION OF NEW PRESSBOX: FLOOR PLATE OF PRESSBOX SHALL MATCH HEIGHT OF LAST STEP OF EXISTING BLEACHER

MONUMENT TO BE RELOCATED; REF: STRUC.



01 FLOOR PLAN - HITTING CAGE 5
SCALE: 1/8" = 1'-0"



SITE KEY PLAN
N.T.S

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01 & G0.02 FOR TAS REQUIREMENTS
3. RE: G0.03 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 6' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- VINYL COATED CHAIN LINK FENCE, 48" HIGH
- VINYL COATED CHAIN LINK FENCE, 72" HIGH
- BLACK WROUGHT IRON FENCE, 48" HIGH
- BLACK WROUGHT IRON FENCE, 72" HIGH
- BUILDING SECTION TAG (1 / A101 SIM.)
- WALL SECTION TAG (1 / A101 SIM.)
- ENLARGED CALL OUT (21 / A101 SIM.)

SITE PLAN KEYNOTES

TAG#	NOTE
1	DEMO EXISTING CONCRETE PAVEMENT
2	RELOCATE EXISTING MONUMENT, ENSURE MONUMENT IS NOT CRACKED DAMAGED OR BROKEN. GC TO BE RESPONSIBLE FOR REPAIR OR REPLACEMENT IF DAMAGED

GENERAL DEMOLITION NOTES

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17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- DEMO KEY NOTE (4)

DEMOLITION KEY NOTES

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
No. Date Description

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A2.02-E
SOFTBALL PRESSBOX AND HITTING CAGES

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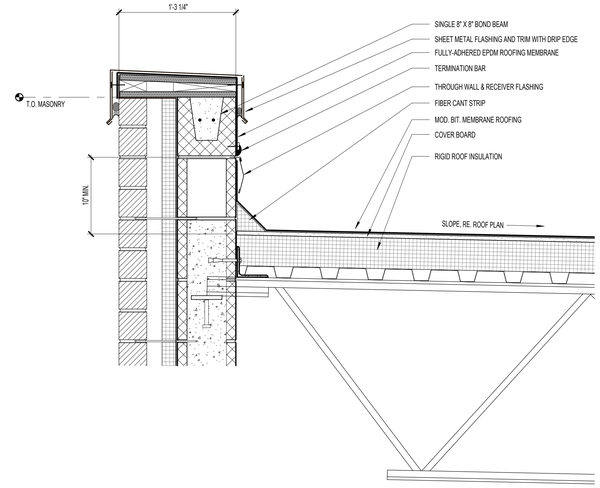
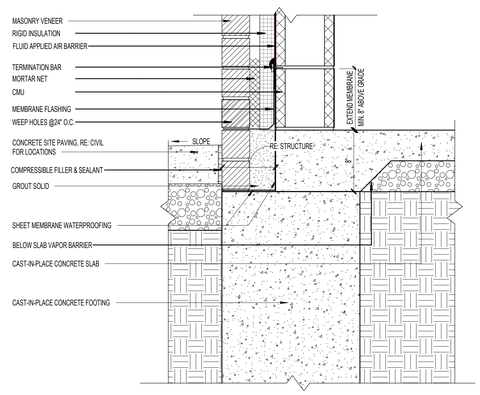
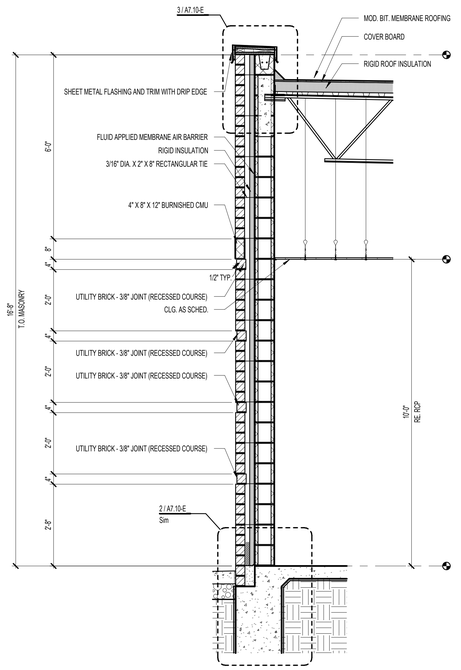


ROOF DETAIL - PARAPET 3
SCALE: 1 1/2" = 1'-0"



FOUNDATION DETAIL 2
SCALE: 1 1/2" = 1'-0"



WALL SECTION 01 1
SCALE: 1/2" = 1'-0"

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

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INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
30113
STATE OF TEXAS

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PROJECT NO.	25-006
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REVISIONS:

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A7.10-E
WALL SECTIONS

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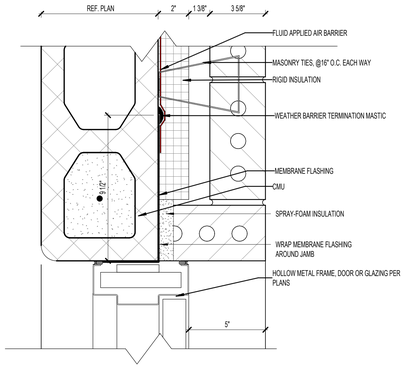
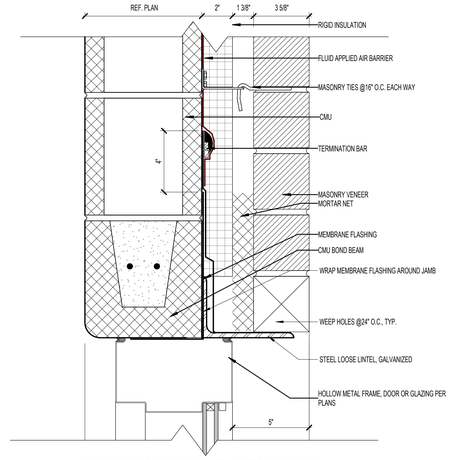


HM JAMB - MASONRY W/CMU 4
SCALE: 3" = 1'-0"

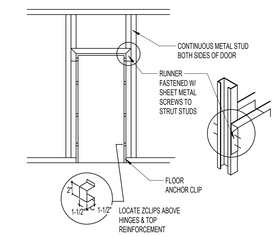


HEAD CONDITION AT OPENINGS EQUAL TO AND LESS THAN 8'-0" WIDE

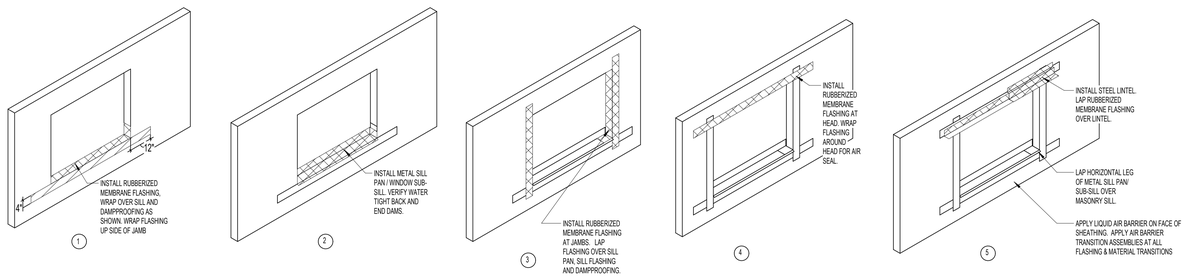
HM HEAD - MASONRY W/CMU 3
SCALE: 3" = 1'-0"

DOOR SCHEDULE

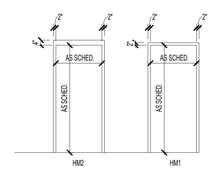
Level	BUILDING	NUMBER	PANEL PAIR	PANEL WIDTH	PANEL HEIGHT	PANEL TYPE	PANEL MATERIAL	FRAME TYPE	FRAME MATERIAL	FIRE RATING	HARDWARE	DETAILS HEAD	DETAILS JAMB	DETAILS THRESHOLD	COMMENTS
RESTROOMS															
Level 01	RESTROOMS	E100A		3'-0"	7'-0"	A	HM	HM2	HM		809L	3/A8.00-E	4/A8.00-E		
Level 01	RESTROOMS	E100B		3'-0"	7'-0"	A	HM	HM2	HM		809L	3/A8.00-E	4/A8.00-E		
Level 01	RESTROOMS	E101A		3'-0"	7'-0"	A	HM	HM2	HM		809L	3/A8.00-E	4/A8.00-E		
Level 01	RESTROOMS	E101B		3'-0"	7'-0"	A	HM	HM2	HM		809L	3/A8.00-E	4/A8.00-E		
Level 01	RESTROOMS	E102		2'-2"	7'-0"	A	HM	HM2	HM		205	3/A8.00-E	4/A8.00-E		
SOFTBALL PRESSBOX															
Level 01	SOFTBALL PRESSBOX	E200		3'-0"	7'-0"	A	Default	HM1	Default		P505				PREMANUFACTURED PRESSBOX DOOR



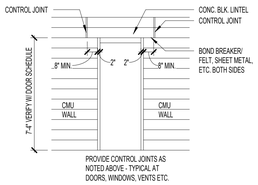
DOOR FRAME DETAIL @ METAL STUDS 2
SCALE: 1/4" = 1'-0"



WINDOW FLASHING SEQUENCE 6
SCALE: 3/8" = 1'-0"



HOLLOW METAL FRAME TYPES 5
SCALE: 1/4" = 1'-0"



DOOR FRAME DETAIL @ MASONRY 1
SCALE: 1/4" = 1'-0"

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office: 512.476.4040 | fax: 512.476.4289
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Austin, Texas 78704
pflugerarchitects.com

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7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

Date	Description

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A8.00-E
DOOR SCHEDULE AND DETAILS

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ROOM FINISH SCHEDULE - NEW RESTROOMS (ALTERNATE 4)

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	COMMENTS
100	WOMENS	T-1	TB-1	T-2, P-1E	T-2, P-1E	T-3, P-1E	T-2, P-1E	7' HEIGHT, P-1E ABOVE
101	MENS	T-1	TB-1	T-3, P-1E	T-2, P-1E	T-2, P-1E	T-2, P-1E	7' HEIGHT, P-1E ABOVE
102	RESTROOM CHASE	SCONC-1	RB-1	P-1	P-1	P-1	P-1	

MATERIAL SCHEDULE

MARK	MATERIAL	MANUFACTURER	STYLE	COLOR	SPECS	REMARKS
01 FLOOR FINISH						
RF-1	RESINOUS FLOORING	STONHARD	STONSHIELD SLT	MATCH EXISTING		PATCHING AS APPLICABLE
SCONC-1	SEALED CONCRETE					RESTROOMS CHASE. ALTERNATE 4
T-1	PORCELAIN TILE	AMERICAN OLEAN	UNGLAZED MOSAICS	STORM GRAY	2X2 MOSAIC	NEW RESTROOMS. ALTERNATE 4
02 BASE						
RB-1	RUBBER BASE	JOHNSONITE		BLACK	COVE BASE 4" HEIGHT	
RFB-1	RESINOUS FLOORING BASE	STONHARD	STONSHIELD SLT	MATCH EXISTING		LOCKER BASE AS APPLICABLE
TB-1	TILE BASE	AMERICAN OLEAN	UNGLAZED MOSAICS	STORM GRAY	COVE BASE	NEW RESTROOMS. ALTERNATE 4
03 WALL FINISH						
P-1	PAINT	SHERWIN WILLIAMS		SW 6232 MISTY		FIELD PAINT, LOCKER ROOMS
P-1E	EPOXY PAINT	SHERWIN WILLIAMS		MATCH FIELD PAINT, U.N.O.		EPOXY PAINT AT WET AREAS
T-2	WALL TILE	AMERICAN OLEAN	COLOR STORY FLOOR	MATTE DESIGNER WHITE	12"X24" MATTE	NEW RESTROOMS, FIELD, 7' HEIGHT. ALTERNATE 4
T-3	WALL TILE	AMERICAN OLEAN	COLOR STORY FLOOR	MATTE SAPPHIRE SKY	12"X24" MATTE	NEW RESTROOMS. ACCENT, 7' HEIGHT. ALTERNATE 4
04 CEILING FINISH						
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	CLEAN ROOM VI, NO. 870	WHITE	2X2 SQUARE EDGE	RESTROOMS, LOCKER ROOMS
GYP-1	GYMPSUM BOARD CEILING			TO MATCH P-1 U.N.O.		
05 MISC FINISHES						
	LOCKERS	LIST INDUSTRIES		TO MATCH SCHOOL COLOR BLUE		REF TO LOCKER SCHEDULE
	BENCHES			WOOD TOPS & STEEL PEDESTALS		
PL-1	PLASTIC LAMINATE	WILSONART		LANDMARK WOOD	SOFTGRAIN FINISH	CASEWORK AT OFFICES (GYM)
PL-2	PLASTIC LAMINATE	WILSONART		DOVE GREY	MATTE FINISH	COUNTERTOPS
06 TRANSITION						
	ALUMINUM TRIM	SCHLUTER				
TR-1	ALUMINUM TRIM	SCHLUTER	JOLLY	ANODIZED		AT TILE EDGES
07 EXTERIOR						
BR-1	BRICK	KANSAS BRICK & TILE	UTILITY	500 CLASSIC	RUNNING BOND	ALTERNATE 4
BR-2	BRICK	KANSAS BRICK & TILE	UTILITY	500 MIT GREY	RUNNING BOND	ALTERNATE 4
BR-3	BRICK	KANSAS BRICK & TILE	UTILITY	500 CHARCOAL	RUNNING BOND	ALTERNATE 4
CMU-1	BURNISHED BLOCK				RUNNING BOND	ALTERNATE 4
MSC-1	METAL CEILING SYSTEM	CERTAINTEED	DEEP BOX SERIES		LINEAR BOX 6, EXTERIOR	METAL SOFFIT. ALTERNATE 4
PM-1	PREFINISHED METAL					ALTERNATE 4

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7007 Knights Ct, Missouri City, TX 77459

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pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

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16431 Lexington Blvd.
Sugarland, TX 77479

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MICHAEL ADAME
20113
STATE OF TEXAS

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MATERIAL AND ROOM FINISH SCHEDULE

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01 CEILING PLAN - FIELD HOUSE 1
SCALE: 1/8" = 1'-0"



01 DEMO CEILING PLAN - FIELD HOUSE 2
SCALE: 1/8" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- 2' X 4' LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (RECESSED)
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- SUSPENDED GYPSUM BOARD
- SUSPENDED CEILING SYSTEM WITH LAY-IN ACOUSTICAL PANELS
- SUSPENDED CEILING SYSTEM WITH LAY-IN VINYL FACED PANELS
- EXPOSED STRUCTURE

GENERAL NOTES:
1. ALL CEILINGS TO BE 10'-0" UNLESS OTHERWISE NOTED.
2. MOUNT LIGHTING FIXTURES AT EXISTING CEILING HEIGHT.
3. MEP & ARCHITECT TO REVIEW AND APPROVE SPRINKLER KEYOUT AND HEAD LOCATIONS PRIOR TO CONSTRUCTION. SUBMIT PLAN USING ARCHITECT'S RCPS.
4. AT AREAS WHERE CEILING IS EXPOSED - EXPOSED CONDUIT TO BE LOCATED NEATLY. ARCHITECT TO APPROVE LAYOUTS.
5. COORDINATE CEILING ACCESS PANELS WITH MEP CONTRACTOR. LOCATE WHERE NECESSARY.
6. PROJECTOR MOUNTS TO BE LOCATED BETWEEN 10'-0" TO 13'-0" FROM WALL, UNO.

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED. REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) ISARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA OF TO BE PATCHED

DEMOLITION KEY NOTES

TAG #	NOTE
1	REMOVE CEILING TILES. REPLACE CEILING TILES. EXISTING LIGHTING FIXTURES AND GRID TO REMAIN.

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
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REVISIONS:
1 Date Description

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A10.00-E
01 CEILING PLAN - FIELD HOUSE

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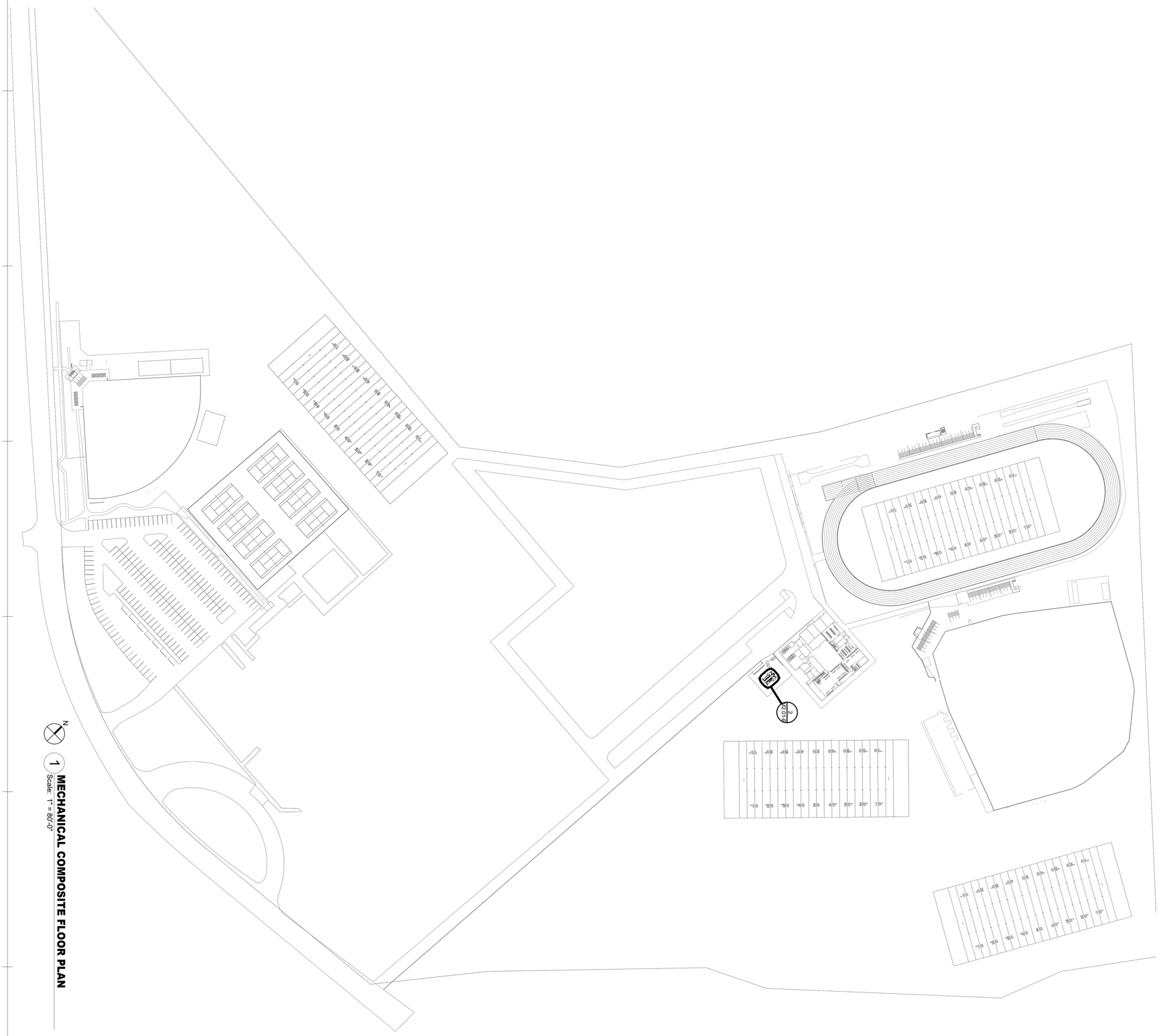

1 MECHANICAL COMPOSITE FLOOR PLAN
Scale: 1" = 80'-0"

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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MECHANICAL
COMPOSITE FLOOR
PLAN
ELKINS HIGH SCHOOL

PROJECT NO. 25-006
DATE: 12/4/2025
DRAWN BY: CHECKED BY:
REVISIONS:
Date Description

BRADLEY KALMANS
80219
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PROFESSIONAL ENGINEER
12/04/2025
DATE: 12/04/2025

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7007 Knights Ct, Missouri City, TX 77459

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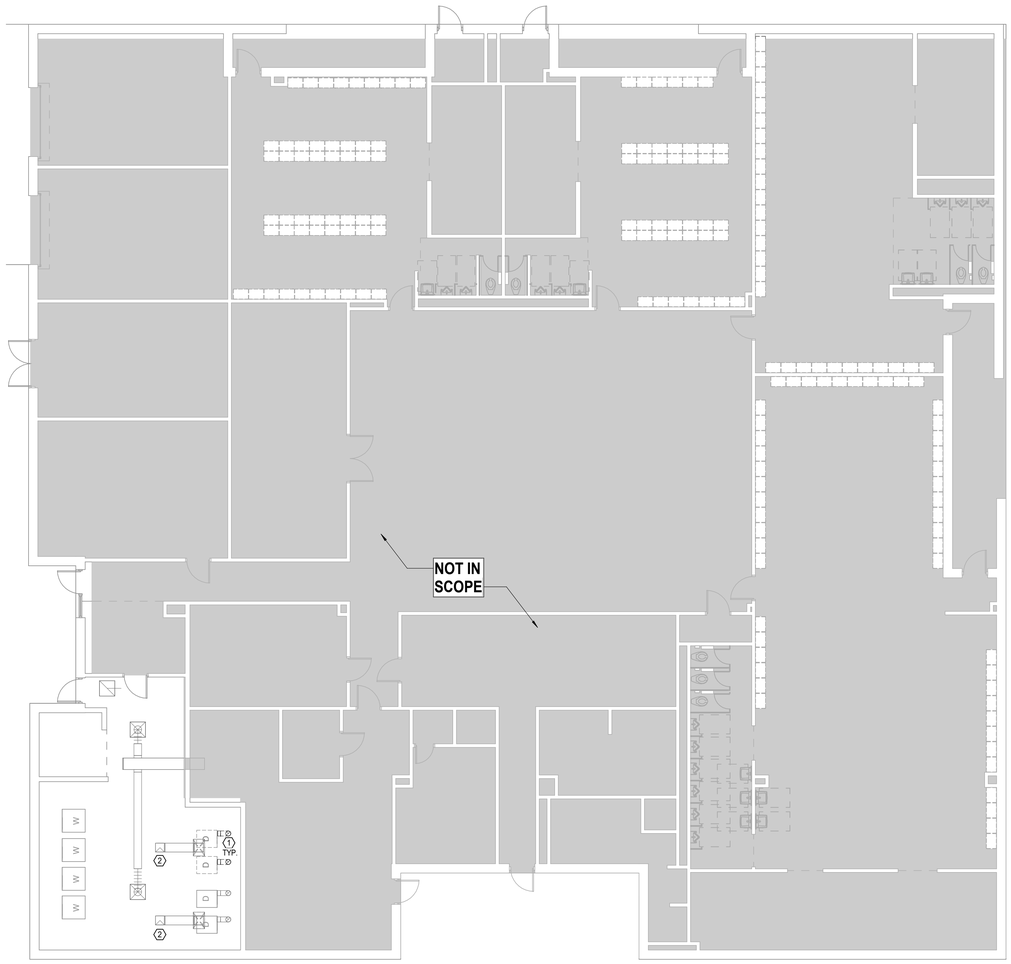
pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, DUST COLLECTORS, AND AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

MECHANICAL DEMOLITION KEYED NOTES

1. EXISTING DRYER VENT DUCTWORK SHALL BE REMOVED.
2. EXISTING INTAKE DUCTWORK SHALL REMAIN.



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1 **MECHANICAL DEMOLITION PLAN - LEVEL 1 - FIELDHOUSE**
Scale: 1/8" = 1'-0"

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Houston, Texas 77046
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BRADLEY KALMANS
80219
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12/04/2025

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Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELDHOUSE

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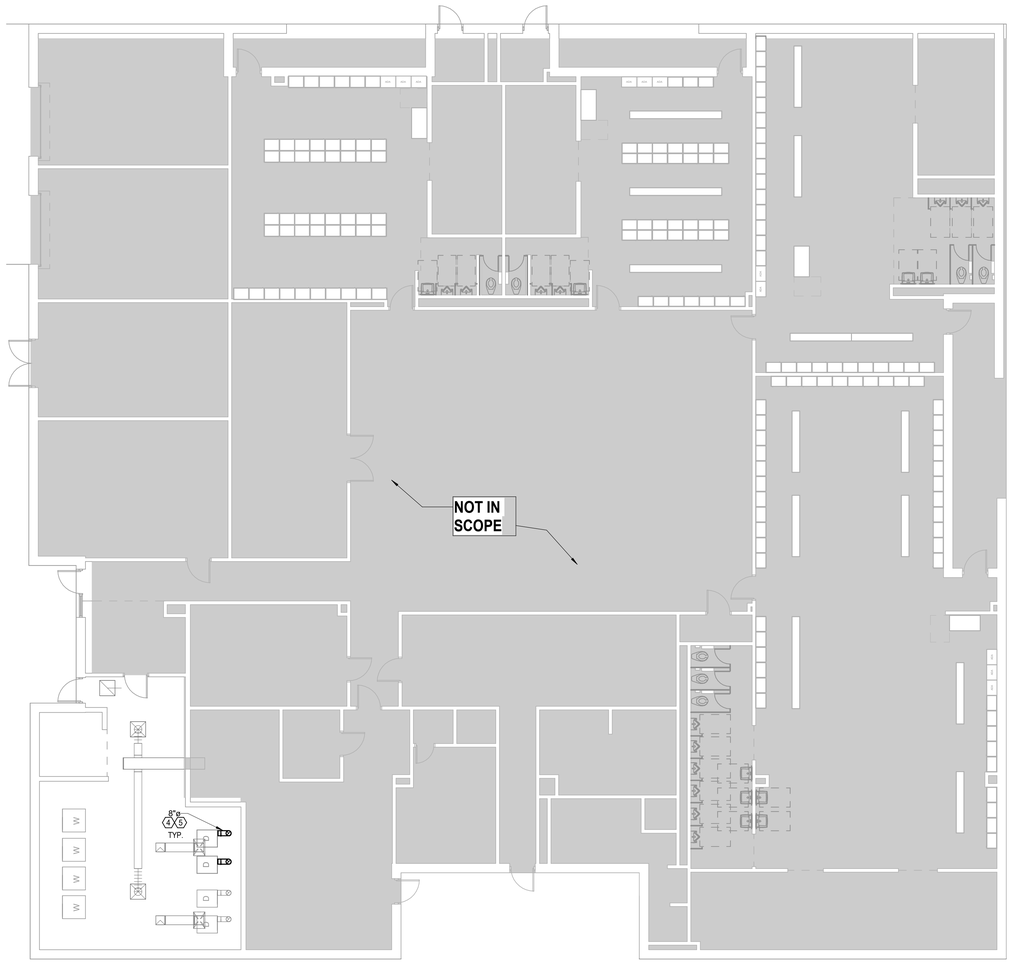
MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR). UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. VERIFY SERVICE CLEARANCES WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADE NOT TO OBSTRUCT.
2. PROVIDE 18"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .48 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
3. PROVIDE 18"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT OUTSIDE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .48 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
4. CONNECT NEW DRYER VENT DUCTWORK TO NEW DRYER.
5. ROUTE DRYER VENT DUCTWORK UP TO ROOF. CONNECT TO GOOSENECK.



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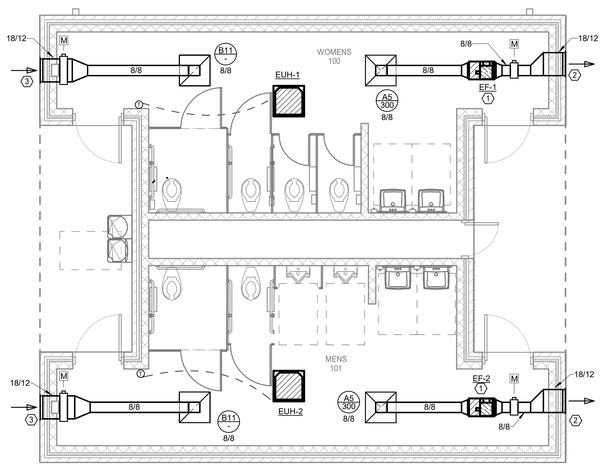
1 **MECHANICAL PLAN - LEVEL 1 - FIELDHOUSE**
Scale: 1/8" = 1'-0"



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2 **MECHANICAL PLAN - LEVEL 1 - RESTROOM - ALTERNATE NO.4**
Scale: 1/4" = 1'-0"

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
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MECHANICAL FLOOR PLAN - LEVEL 1- FIELD HOUSE

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Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
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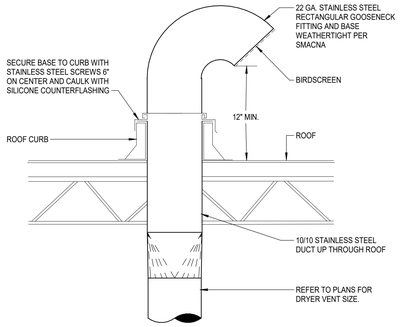
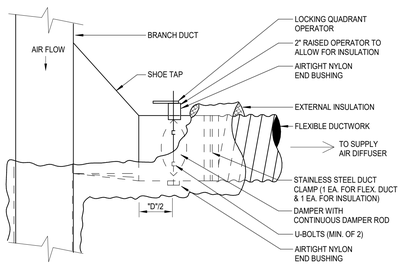
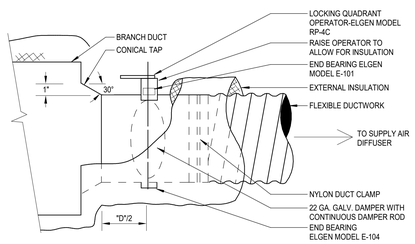


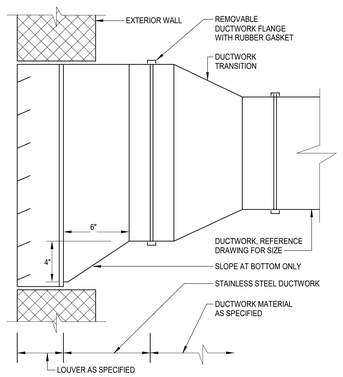
4 VENT THROUGH ROOF
SCALE: NONE



3 FLEXIBLE DUCT TAP - SHOE
SCALE: NONE

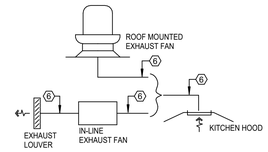


2 FLEXIBLE DUCT TAP - CONICAL
SCALE: NONE

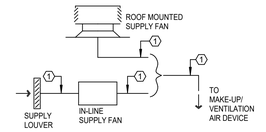


1 DUCTWORK AT LOUVER
SCALE: NONE

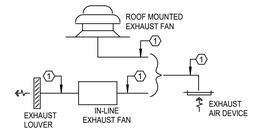
DUCT LINER AND INSULATION



KITCHEN HOOD EXHAUST AIR SYSTEMS



MAKE-UP/VENTILATION AIR SYSTEMS



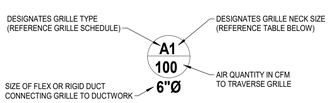
EXHAUST AIR SYSTEMS

KEYED NOTES:

1. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
2. SHEETMETAL DUCTWORK RETURN AIR PLENUM WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
3. FLEXIBLE DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
4. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT DISCHARGE TO 10'-0" DOWNSTREAM.
5. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT INLET TO 10'-0" UPSTREAM.
6. EXHAUST DUCTWORK AS SPECIFIED WITH FIREBOARD INSULATION AS SPECIFIED.
7. SHEETMETAL DUCTWORK ONLY. NO INSULATION REQUIRED.

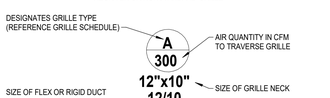
GRILLE SIZING SCHEDULE

STANDARD GRILLE



ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN.

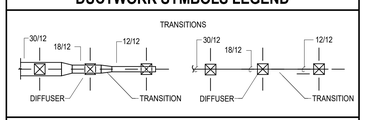
REGISTER OR NONSTANDARD GRILLE

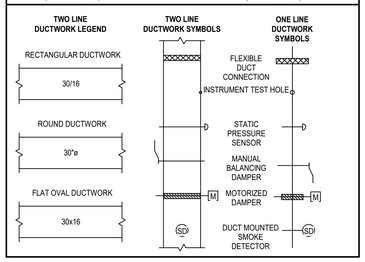


ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN. ALL REGISTERS SHALL HAVE A 45° HORIZONTAL DEFLECTION UNLESS OTHERWISE SHOWN.

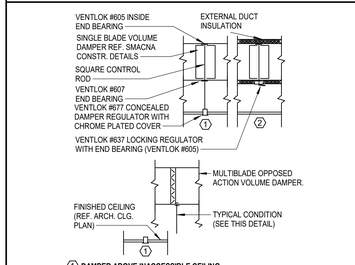
GRILLE SIZE DESIGNATION	GRILLE NECK SIZE	GRILLE SIZE DESIGNATION	GRILLE NECK SIZE
1	6" x 6"	7	15" x 15"
2	8" x 8"	8	16" x 16"
3	9" x 9"	9	18" x 18"
4	10" x 10"	10	20" x 20"
5	12" x 12"	11	22" x 22"
6	14" x 14"	12	24" x 24"

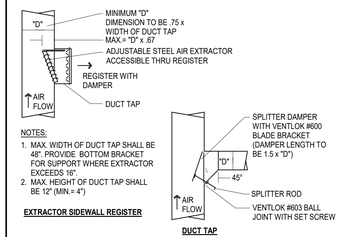
DUCTWORK SYMBOLS LEGEND





DUCTWORK CONSTRUCTION DETAILS





FAN SCHEDULE

TAG	LOCATION	CFM	EXT. STATIC PRESSURE (IN.W.C.)	MAX RPM	HORSE POWER	CURRENT CHAR V	CURRENT CHAR P	CURRENT CHAR F	LOCALLY SWITCHED	INTERLOCK WITH	FAN TYPE	DRIVE TYPE	MANUFACTURER	MODEL NUMBER	REMARKS
EF-1	WOMENS 100	300	0.30	1420	0.25	120	1	60	-	LIGHTS	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6,7
EF-2	MENS 101	300	0.30	1420	0.25	120	1	60	-	LIGHTS	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6,7

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MINIMUM RECOMMENDED CLEARANCE AROUND UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH DISCONNECT.
2. PROVIDE WITH MOTORIZED DAMPER.
3. PROVIDE WITH SPEED CONTROLLER.
4. PROVIDE WITH EC MOTOR.
5. PROVIDE WITH LINE VOLTAGE TSTAT.
6. SUSPEND UNIT WITH FOUR THREADED HANGER RODS ATTACHED TO TWO UNISTRUT RUNNERS SECURED TO STRUCTURE. PROVIDE SPRING ISOLATION. REFER TO MANUFACTURER FOR MORE DETAILS.
7. UNIT SHALL NOT BE PROVIDED IF ALTERNATE NO.4 HAS BEEN ACCEPTED.

GRILLE

MARK	SERVICE	TYPE	DAMPER	CONSTRUCTION MATERIAL	FINISH COLOR	MANUFACTURER	MODEL NUMBER	DESCRIPTION
A	EXHAUST AIR	GRILLE	-	STEEL	-	TITUS	PAR	SURFACE MOUNT CEILING FRAME STYLE WITH 18"X18" OR 12"X12" FACE. PERFERATED FACE.
B	RETURN AIR	GRILLE	-	STEEL	-	TITUS	PAR	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" FACE. PERFORATED.

GENERAL NOTES:
1. DAMPERS NOTED AS U.L. SHALLBE A 'U.L.' CLASSIFIED CEILING RADIATION DAMPER WITH THERMAL BLANKET.
2. COORDINATE FINAL AIR DEVICE LOCATION AND FINISH COLOR WITH ARCHITECT.

REMARKS:
1. N/A

DAMPER

MARK	ACTUATOR	DUTY	BLADE ACTION	MANUFACTURER	MODEL NUMBER	REMARKS
D-1	MANUAL BALANCING	UNDER 9" WIDE	N/A	N/A	N/A	SEE SMACNA CONSTRUCTION DETAILS REFERENCED "TYPICAL CONSTRUCTION DETAILS FOR LOW VELOCITY DUCTS."
D-2	MANUAL BALANCING	OVER 9" WIDE	OPPOSED	RUSKIN	MD-35	MANUAL DAMPER WITH STANDARD CONSTRUCTION FEATURES AND VENTLOCK #639 LOCKING REGULATOR.
D-3	MOTORIZED	OVER 9" WIDE	OPPOSED	RUSKIN	CD-60	LOW LEAKAGE DAMPER WITH BLADE SEALS

NOTES:
N/A - NOT APPLICABLE

UNIT HEATER - ELECTRIC

MARK	MINIMUM CAPACITY (BTUH)	KW	NUMBER OF STAGES	CURRENT CHAR. V	CURRENT CHAR. P	CURRENT CHAR. F	CFM	MANUFACTURER	MODEL	REMARKS
EUH-1	17,075	5	2	208	1	60	310	REZNOR	ECR	1,2
EUH-2	17,075	5	2	208	1	60	310	REZNOR	ECR	1,2

REMARKS:
1. PROVIDE WITH WALL MOUNTED THERMOSTAT.
2. PROVIDE WITH DISCONNECT SWITCH.

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

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12/04/2025
DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:
1 Date Description

100% CD
M3.01-E
MECHANICAL
SCHEDULES, DETAILS, AND LEGENDS
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Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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FIRE DETECTION AND ALARM SYSTEM:

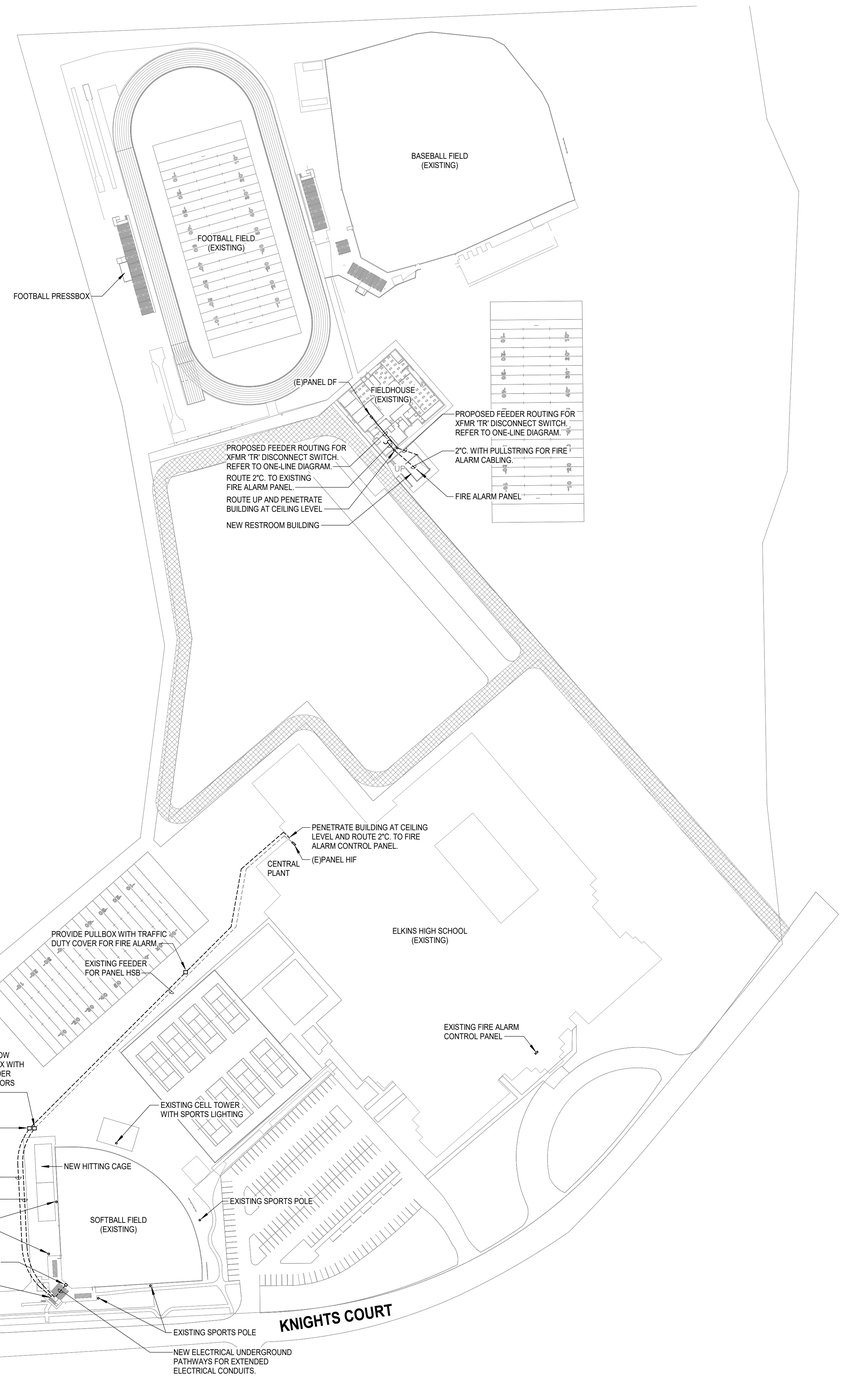
- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF NEW CONDUITS WITH ALL OTHER TRADES PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO CIVIL DRAWINGS FOR FINAL ROUTING AND DEPTH OF ALL UNDERGROUND UTILITIES.
3. REFER TO TECHNOLOGY DRAWINGS, DIVISION 27 AND 28 FOR TELECOMMUNICATION PATHWAYS AND OTHER REQUIREMENTS TO PROVIDED BY DIVISION 26.
4. CONTRACTOR IS RESPONSIBLE OF CALLING 811 TO HAVE ALL EXISTING UTILITIES MARKED PRIOR TO DIGGING.



SOFTBALL NOTES:
1. PANEL LSB (120/208V 3PH, 4W)
   A. DISCONNECT AND REMOVE EXISTING PANELBOARD; VERIFY EXISTING BRANCH CIRCUITS TO REMAIN ACTIVE AND EXTEND CONDUIT/WIRE TO NEW PANEL 'LSB'. PROVIDE IN-GRADE PULLBOX FOR SPLICING BRANCH CIRCUITS.
   B. INTERCEPT EXISTING FEEDER BELOW GRADE, PROVIDE PULLBOX AND EXTEND TO NEW PANEL 'LSB' LOCATION.
2. PANEL HSB (277/480V 3PH, 4W)
   A. DISCONNECT AND REMOVE EXISTING PANELBOARD; VERIFY EXISTING BRANCH CIRCUITS TO REMAIN ACTIVE AND EXTEND CONDUIT/WIRE TO NEW PANEL 'HSB'. PROVIDE IN-GRADE PULLBOX FOR SPLICING BRANCH CIRCUITS.
   B. INTERCEPT EXISTING FEEDER BELOW GRADE, PROVIDE PULLBOX AND EXTEND TO NEW PANEL 'HSB' LOCATION.

N

1 **ELECTRICAL SITE PLAN**
Scale: 1" = 100'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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7007 Knights Ct, Missouri City, TX 77459

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BRADLEY KALMANS
80219
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STATE OF TEXAS
ENGINEERING
12/04/2025

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PROJECT NO. 25-006
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DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

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E1.01-E
ELECTRICAL SITE PLAN

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111

Salas O'Brien Project Number: 2550-00810-00

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LINETYPE LEGEND	
———	EXISTING TO REMAIN
- - - - - - - - -	DISCONNECT AND REMOVE

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

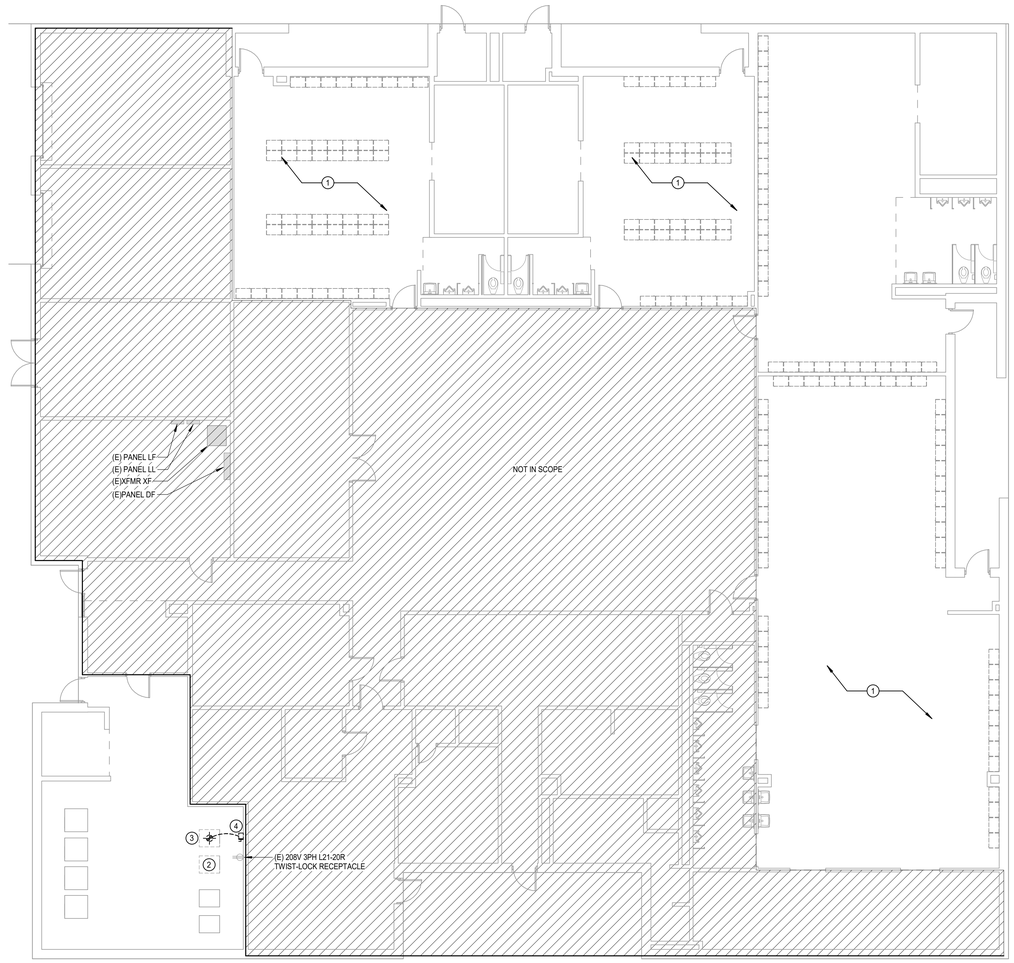
OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

1. DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
2. DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
3. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC...SHALL REMAIN.
4. DISCONNECT AND REMOVE ALL ELECTRICAL FROM WALLS SCHEDULED TO BE DEMOLISHED AND AS SHOWN. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT EXTENT OF WALL DEMOLITION.
5. EXCEPT AS OTHERWISE NOTED, ELECTRICAL WORK OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS. OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. ANY CONDUITS OUT OF MASONRY SURFACE SHALL BE CUT INTO SURFACE AND PATCHED.
6. CONTRACTOR TO FILL IN ALL HOLES LEFT BY THE DEMOLITION OF EXISTING CONDUIT PENETRATIONS.

ELECTRICAL KEYED NOTES:

1. SUSPEND OR REMOVE AND STORE ALL CEILING MOUNTED ELECTRICAL DEVICES TO FACILITATE DEMOLITION OF CEILING. DEVICES INCLUDE BUT ARE NOT LIMITED TO: EXIT SIGNS, FIRE ALARM DEVICES, LIGHTING CONTROLS/OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REMOVED.
2. DISCONNECT ELECTRICAL TO EXISTING COMMERCIAL DRYER, EXISTING RECEPTACLE SHALL REMAIN FOR CONNECTION OF NEW DRYER.
3. DISCONNECT ELECTRICAL TO EXISTING COMMERCIAL DRYER AND ASSOCIATED CONDUIT/WIRE BACK TO DISCONNECT SWITCH. LEAVE CIRCUIT INTACT FOR RE-USE.
4. DISCONNECT AND REMOVE EXISTING DISCONNECT SWITCH.



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1 **ELECTRICAL DEMOLITION PLAN - LEVEL 1 - FIELDHOUSE**
Scale: 1/8" = 1'-0"

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Houston, Texas 77046
pflugerarchitects.com

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Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
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ELECTRICAL
DEMOLITION PLANS - LEVEL 1
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FIRE DETECTION AND ALARM SYSTEM:

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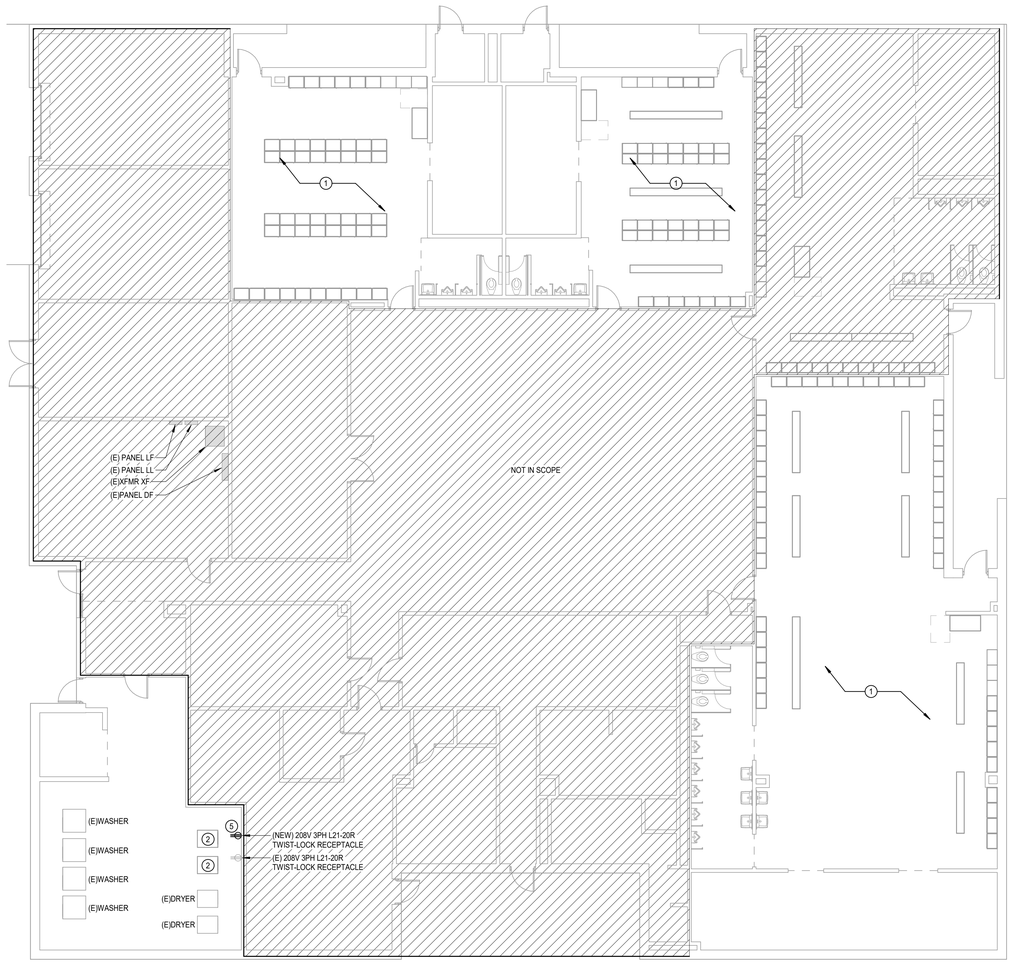
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL KEYED NOTES:

1. REINSTALL ALL EXISTING CEILING MOUNTED ELECTRICAL IN NEW CEILINGS WHERE APPLICABLE. DEVICES INCLUDE BUT ARE NOT LIMITED TO: EXIT SIGNS, FIRE ALARM DEVICES, LIGHTING CONTROLS/OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REPLACED.
2. NEW COMMERCIAL DRYER LOCATION; PROVIDE DRYER WITH TWIST-LOCK CORD/PLUG TO MATCH EXISTING RECEPTACLE CONNECTION.
3. PROVIDE WITH RELAY TO CONTROL EXHAUST FAN WITH LIGHT CONTROLS OCCUPANCY SENSOR.
4. PROVIDE A JUNCTION BOX FOR CONNECTION OF MOTORIZED DAMPER, VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
5. PROVIDE NEW SURFACE MOUNT RECEPTACLE AT EXISTING DISCONNECT SWITCH LOCATION. CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
6. PROVIDE A JUNCTION BOX FOR CONNECT FIRE ALARM PANEL. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC., SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.
4. LOCATION OF NEW / REPLACEMENT LIGHT FIXTURES SHALL RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTURE WHIPS AS PRACTICAL. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT AND PROVIDE NEW J-BOX ABOVE ACCESSIBLE CEILING WITH ½-INCH FLEXIBLE STEEL CONDUIT OR STEEL MC CABLE, LENGTH NOT TO EXCEED 6-FEET, 'DAISY CHAINING'LIGHT FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS NOT ALLOWED. FOR NON-ACCESSIBLE CEILINGS, LIGHT FIXTURE WHIPS SHALL BE ½-INCH FLEXIBLE STEEL CONDUIT, LENGTH AS REQUIRED TO MAKE A TAP AT AN ACCESSIBLE J-BOX. RECESSED LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MAY BE DAISY CHAINED USING THE LIGHT FIXTURE'S INTEGRAL, UL LISTED J-BOX OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THROUGH FIXTURE FROM BELOW THE CEILING. REFER TO SPECIFICATION SECTION 26 05 33 CONDUIT SYSTEMS.
5. LIGHTING CONTROLS WHERE PROVIDED SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
6. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
7. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED; CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.
8. SPACES WITH MULTIPLE OCCUPANCY / VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
9. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.
10. CONTRACTOR SHALL PROVIDE CONSTANT UNSWITCHED POWER FOR BATTERY PACKS AND / OR EXIT SIGNAGE.



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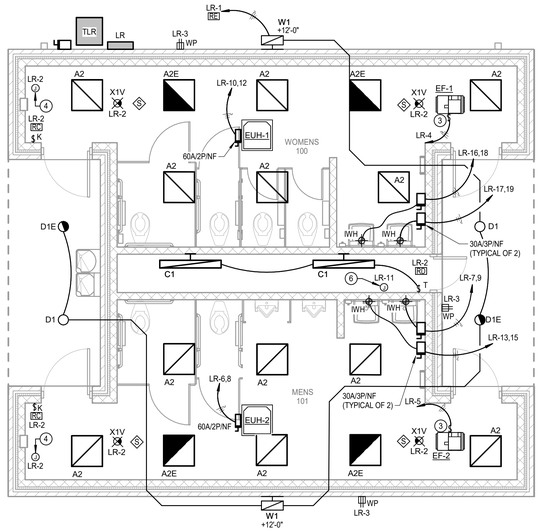
1 **ELECTRICAL FLOOR PLAN - LEVEL 1 - FIELDHOUSE**
Scale: 1/8" = 1'-0"



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2 **ELECTRICAL FLOOR PLAN - LEVEL 1 - FIELDHOUSE RESTROOM**
Scale: 1/4" = 1'-0"

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Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

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ELECTRICAL FLOOR PLANS - LEVEL 1 - FIELD HOUSE

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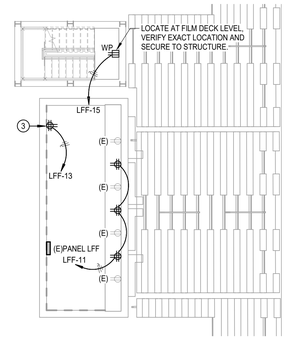
- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL GENERAL NOTES:

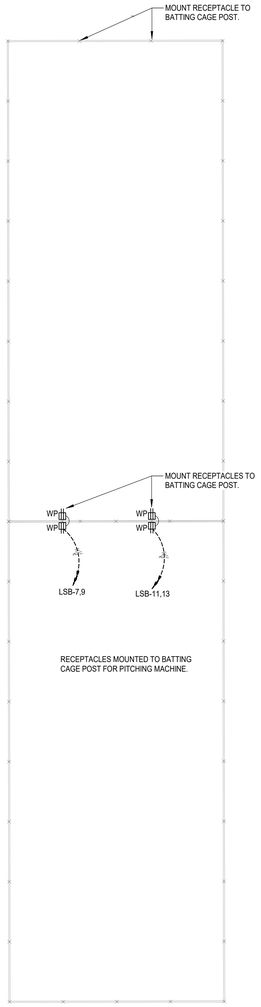
1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC., SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.

ELECTRICAL KEYED NOTES:

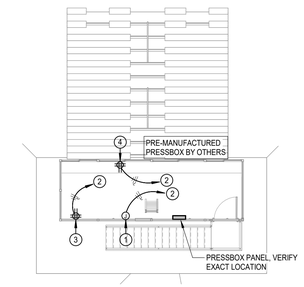
1. PROVIDE A JUNCTION BOX FOR CONNECT FIRE ALARM PANEL. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
2. ROUTE 2#12, 1#12G., 3/4"C. TO NEW 20A/1P CIRCUIT BREAKER IN PRESS BOX PANELBOARD FOR FIRE ALARM PANEL.
3. DEDICATED DOUBLE DUPLEX RECEPTACLE FOR CONNECTION OF WALL MOUNTED DATA RACK. VERIFY EXACT LOCATION WITH DIVISION 27.
4. DEDICATED DOUBLE DUPLEX RECEPTACLE FOR CONNECTION OF A/V EQUIPMENT RACK. VERIFY EXACT LOCATION WITH DIVISION 27.



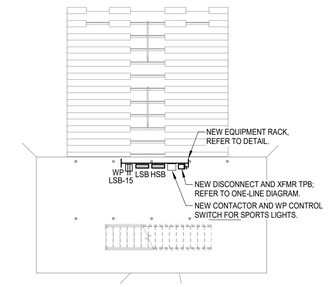
N 3 **ELECTRICAL FLOOR PLAN - LEVEL 2 - FOOTBALL PRESSBOX**
Scale: 1/8" = 1'-0"



N 4 **ELECTRICAL FLOOR PLAN - LEVEL 1 - HITTING CAGE**
Scale: 1/8" = 1'-0"



N 2 **ELECTRICAL FLOOR PLAN - LEVEL 2 - SOFTBALL PRESSBOX**
Scale: 1/8" = 1'-0"



N 1 **ELECTRICAL FLOOR PLAN - LEVEL 1 - SOFTBALL PRESSBOX**
Scale: 1/8" = 1'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS 80219 LICENSED PROFESSIONAL ENGINEER
12/04/2025

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

100% CD

E3.02-E
ELECTRICAL FLOOR PLANS

ELKINS HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 6:51:53 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/ELKINS_MEPT_R25.rvt

Branch Panel: LR

NEW

Location: | **Supply From:** TLR | **Mounting:** Surface | **Volts:** 120/208 Wye | **Phases:** 3 | **Wires:** 4 | **A.I.C. Rating:** 10,000 | **Enclosure:** Type 4XSS | **Mains:** 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C		Breaker	Wire	Circuit Description	CKT	Note
	1	Exterior Lighting	#12	20	1	0.2 / 0.9			1	20	#12	Lighting	2	
	3	Receptacles	#12	20	1		0.5 / 0.7		1	20	#12	EF-1	4	
	5	EF-2	#12	20	1			0.7 / 2.5	2	40	#8	EUH-2	6	
	7	IWH, Water Heater	#10	30	2	2.0 / 2.5							8	
	9						2.0 / 2.5						10	
LO	11	Fire Alarm	#12	20	1			0.5 / 2.5	2	40	#8	EUH-1	12	
	13	IWH, Water Heater	#10	30	2	2.0 / 0.0			1	20	--	SPARE	14	--
	15						2.0 / 2.0						16	
	17	IWH, Water Heater	#10	30	2			2.0 / 2.0	2	30	#10	IWH, Water Heater	18	
	19					2.0 / 0.0			1	--	--	SPACE	20	--
--	21	SPARE	--	20	1		0.0 / 0.0		1	--	--	SPACE	22	--
--	23	SPARE	--	20	1			0.0 / 0.0	1	--	--	SPACE	24	--
--	25	SPARE	--	20	1	0.0 / 0.0			1	--	--	SPACE	26	--
--	27	SPARE	--	20	1		0.0 / 0.0		1	--	--	SPACE	28	--
--	29	SPARE	--	20	1			0.0 / 0.0	1	--	--	SPACE	30	--
--	31	SPARE	--	20	1	0.0 / 0.0			1	--	--	SPACE	32	--
--	33	SPARE	--	20	1		0.0 / 0.0		1	--	--	SPACE	34	--
--	35	SPARE	--	20	1			0.0 / 0.0	1	--	--	SPACE	36	--
--	37	SPARE	--	20	1	0.0 / 0.0							38	
--	39	SPARE	--	20	1		0.0 / 0.0		3	30	--	SPDL	40	--
--	41	SPARE	--	20	1			0.0 / 0.0					42	
			Total Load:			9.6 kVA	9.7 kVA	10.2 kVA						
			Total Amps:			80 A	81 A	85 A						

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals	
HVAC	10.4 kVA	100.00%	10.4 kVA		
Lighting	0.9 kVA	125.00%	1.1 kVA	**Total Conn. Load:**	29.5 kVA
Miscellaneous	17.7 kVA	100.00%	17.7 kVA	**Total Est. Demand:**	29.7 kVA
Receptacles	0.5 kVA	100.00%	0.5 kVA	**Total Conn. Current:**	82 A
				Total Est. Demand...	82 A

Notes:

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: LSB

NEW

Location: | **Supply From:** | **Mounting:** Surface | **Volts:** 120/208 Wye | **Phases:** 3 | **Wires:** 4 | **A.I.C. Rating:** 10,000 | **Enclosure:** Type 4XSS | **Mains:** 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C		Breaker	Wire	Circuit Description	CKT	Note
1	1	Existing Circuit	EX.	20	1	0.4 / 0.4			1	20	EX.	Existing Circuit	2	1
1	3	Existing Circuit	EX.	100	2		5.0 / 0.4		1	20	EX.	Existing Circuit	4	1
	5							5.0 / 0.4	1	20	EX.	Existing Circuit	6	1
	7	Recept. Batting Cage	#8	20	1	1.0 / 0.4			1	20	EX.	Existing Circuit	8	1
	9	Recept. Batting Cage	#8	20	1		1.0 / 0.4		1	20	EX.	Existing Circuit	10	1
	11	Recept. Batting Cage	#8	20	1			1.0 / 0.4	1	20	EX.	Existing Circuit	12	1
	13	Recept. Batting Cage	#8	20	1	1.0 / 0.0			1	--	--	SPACE	14	--
	15	Receptacles	#12	20	1		0.2 / 0.0		1	--	--	SPACE	16	--
--	17	SPARE	--	20	1			0.0 / 0.0	1	--	--	SPACE	18	--
--	19	SPARE	--	20	1	0.0 / 0.0			1	--	--	SPACE	20	--
--	21	SPARE	--	20	1		0.0 / 0.0		1	--	--	SPACE	22	--
--	23	SPARE	--	20	1			0.0 / 0.0	1	--	--	SPACE	24	--
--	25	SPARE	--	20	1	0.0 / 0.0							26	
--	27	SPARE	--	20	1		0.0 / 0.0		3	30	--	SPDL	28	--
--	29	SPARE	--	20	1			0.0 / 0.0					30	
			Total Load:			3.2 kVA	7.0 kVA	6.8 kVA						
			Total Amps:			27 A	63 A	61 A						

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals	
Miscellaneous	4.0 kVA	100.00%	4.0 kVA		
Receptacles	0.2 kVA	100.00%	0.2 kVA	**Total Conn. Load:**	17.0 kVA
Existing	12.8 kVA	125.00%	16.0 kVA	**Total Est. Demand:**	20.2 kVA
				Total Conn. Current:	47 A
				Total Est. Demand...	56 A

Notes:
1 - RELOCATED BRANCH CIRCUIT.

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: HSB

NEW

Location: | **Supply From:** | **Mounting:** Surface | **Volts:** 277/480 Wye | **Phases:** 3 | **Wires:** 4 | **A.I.C. Rating:** 10,000 | **Enclosure:** Type 4XSS | **Mains:** 100A MCB

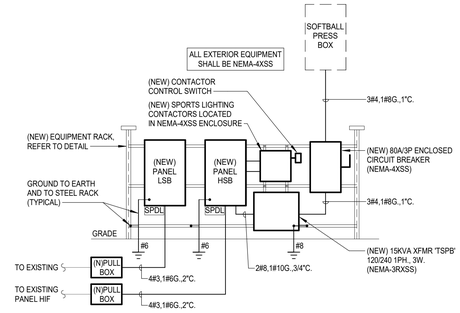
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C		Breaker	Wire	Circuit Description	CKT	Note
	1					2.8 / 2.8							2	
1	3	Sports Pole (A)	EX.	20	3		2.8 / 2.8		3	20	EX.	Sports Pole (A)	4	1
	5							2.8 / 2.8					6	
	7					1.7 / 1.7							8	
1	9	Sports Pole (B)	EX.	20	3		1.7 / 1.7		3	20	EX.	Sports Pole (B)	10	1
	11							1.7 / 1.7					12	
	13					1.7 / 1.7							14	
1	15	Sports Pole (C)	EX.	20	3		1.7 / 1.7		3	20	EX.	Sports Pole (C)	16	1
	17							1.7 / 1.7					18	
	19	XFMR TPB	#4	40	2	4.6 / 0.0			1	--	--	SPACE	20	--
	21						4.6 / 0.0		1	--	--	SPACE	22	--
--	23	SPACE	--	--	1			0.0 / 0.0	1	--	--	SPACE	24	--
--	25	SPACE	--	--	1	0.0 / 0.0							26	
--	27	SPACE	--	--	1		0.0 / 0.0		3	30	--	SPDL	28	--
--	29	SPACE	--	--	1			0.0 / 0.0					30	
			Total Load:			17.0 kVA	17.0 kVA	12.4 kVA						
			Total Amps:			64 A	64 A	45 A						

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals	
Miscellaneous	9.2 kVA	100.00%	9.2 kVA		
Existing	37.2 kVA	125.00%	46.5 kVA	**Total Conn. Load:**	46.4 kVA
				Total Est. Demand:	55.7 kVA
				Total Conn. Current:	56 A
				Total Est. Demand...	67 A

Notes:
1 - RELOCATED BRANCH CIRCUIT.

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE



2 PARTIAL ONE-LINE DIAGRAM - SOFTBALL

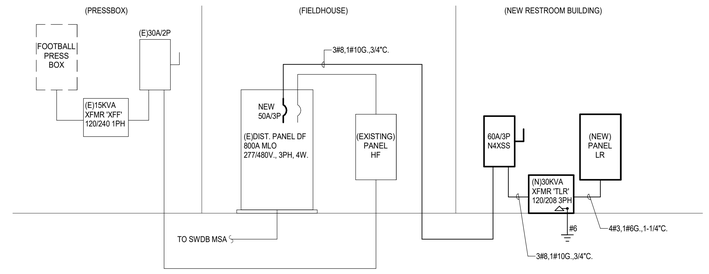
Scale: N.T.S.

ELECTRICAL LOAD ANALYSIS

277/480V, 3PH., 4W

LOAD DESCRIPTION:	KVA
PEAK KVA @ 125%	1456.3
NEW LIGHTING LOAD @ 125%	1.3
NEW RECEPTACLE LOAD @ 100%	1.1
NEW MISCELLANEOUS LOAD @ 100%	9.14
NEW HVAC LOAD @ 100%	14.9
TOTAL	1625.7

TOTAL / (480 X √3) = 1956.3 EXISTING 4000A SERVICE



1 PARTIAL ONE-LINE DIAGRAM - FIELDHOUSE

Scale: N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE

16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS — 80219 — LICENSED PROFESSIONAL ENGINEER — STATE OF TEXAS

12/04/2025

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

100% CD

E4.01-E
ELECTRICAL ONE-LINE DIAGRAM

ELKINS HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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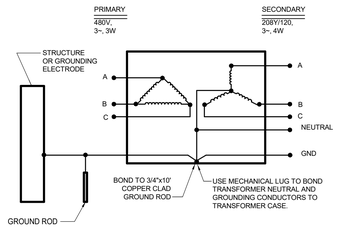
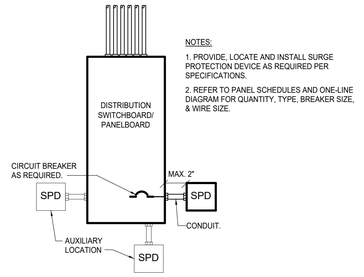
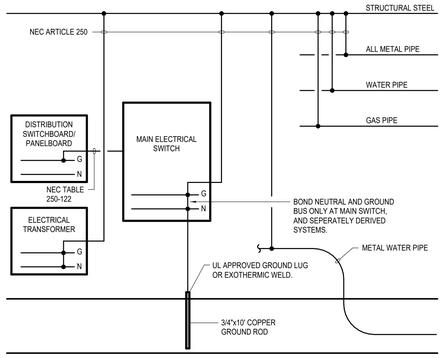


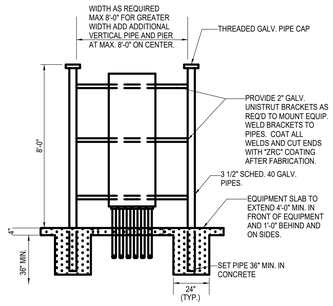
4 TRANSFORMER GROUNDING DETAIL
SCALE: NONE



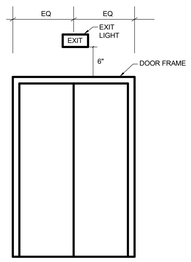
3 SURGE PROTECTION DETAIL
SCALE: NONE



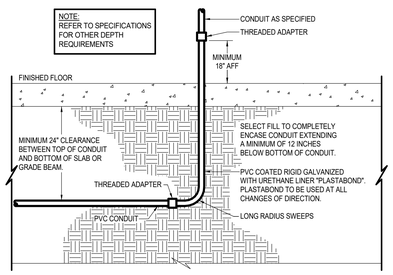
2 GROUNDING DETAIL
SCALE: NONE



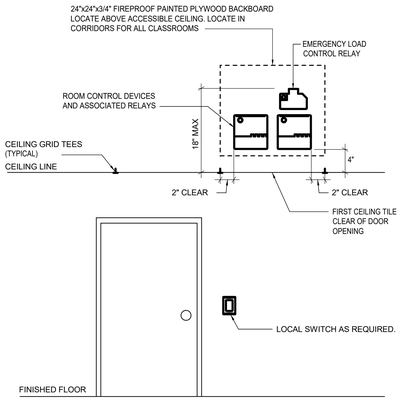
7 EQUIPMENT RACK DETAIL
SCALE: NONE



6 TYPICAL EXIT SIGN LOCATION
SCALE: NONE



5 CONDUIT BELOW BUILDING SLAB
SCALE: NONE



1 TYPICAL LIGHTING CONTROLS ELEVATION
SCALE: NONE

SYMBOL SCHEDULE

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED ON EMERGENCY CIRCUIT
	DOWNLIGHT FIXTURE
	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
	LIGHT FIXTURE - WALL MOUNTED
	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - CEILING MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - WALL MOUNTED ON EMERGENCY CIRCUIT
LIGHTING CONTROLS & DEVICES	
$	LINE VOLTAGE SINGLE POLE SWITCH
$3	LINE VOLTAGE 3-WAY SWITCH
$4	LINE VOLTAGE 4-WAY SWITCH
$K	LINE VOLTAGE MOMENTARY DPST KEYED SWITCH
$D	LINE VOLTAGE DIMMER SWITCH, SIZE AND TYPE AS REQUIRED
$P	LINE VOLTAGE SWITCH WITH PILOT LIGHT
$T	6-HOUR ROTARY TIMER SWITCH WITH NO HOLD U.N.O.
	PUSH BUTTON EPO SWITCH WITH COVER
$MC	LOW VOLTAGE MOMENTARY CONTACT SWITCH
$R	LOW VOLTAGE DIGITAL KEYPAD
$B	LOW VOLTAGE BUILDING MANAGEMENT (BMCS) LOCAL OVERRIDE SWITCH
	OCCUPANCY SENSOR (AUTO ON / AUTO OFF WITHIN 20-MINUTES)
	VACANCY SENSOR (MANUAL ON / AUTO OFF WITHIN 20-MINUTES)
	PHOTOCELL SENSOR
RF	LIGHTING CONTROL SYSTEM. ('#' DENOTES TYPE - SEE LIGHTING CONTROLS SCHEDULE)
ER	EMERGENCY LOAD CONTROL RELAY. MINIMUM 16A AND 0-10V COMPATIBLE. PROVIDE U.L. 924 U.N.O.
RECEPTACLES AND OUTLETS	
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
U	DUPLEX RECEPTACLE WITH TWO USB CHARGING PORTS.
	125/250 VOLT, 1 PHASE, 3-WIRE, 20 AMPS UNLESS NOTED OTHERWISE
	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
U	DOUBLE DUPLEX WITH TWO USB CHARGING PORTS IN 2-GANG BOX WITH SINGLE COVER PLATE
	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	FLUSH FLOOR DUPLEX RECEPTACLE OUTLET
	FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE OUTLET
D	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
D	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	JUNCTION BOX
G	FLUSH REMOTE GFCI DEVICE (LOCATE IN READILY ACCESSIBLE LOCATION)
MOTOR CONTROLLERS AND EQUIPMENT	
	MOTOR, MAKE FINAL MOTOR CONNECTION
$	MOTOR-RATED SWITCH. 20A UNLESS INDICATED OTHERWISE.
J	DISCONNECT SWITCH AS REQUIRED
J	COMBINATION MOTOR STARTER/DISCONNECT SWITCH AS REQUIRED
	MOTOR STARTER
	PREWIRED DEVICE, MAKE ELECTRICAL FINAL CONNECTIONS
VFD	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
HF	HIGH EFFICIENCY HARMONIC FILTER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
T	LOW VOLTAGE TRANSFORMER, SIZE AND TYPE AS REQUIRED.
Y	CHIME/BUZZER
ELECTRICAL EQUIPMENT	
	ELECTRICAL PANELBOARD; REFER TO FLOOR PLANS FOR VOLTAGE.
	DRY TYPE TRANSFORMER
	PLYWOOD TELEPHONE BACKBOARD
CIRCUITING	
	CONDUIT
	CONDUIT BELOW FLOOR, SLAB, OR GRADE
	3/4"C. UNLESS OTHERWISE NOTED, LONG HATCH, NEUTRAL; SHORT HATCH, PHASE; LONG HATCH & HOOK, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN.
	PARTIAL ELECTRICAL HOME RUN
SUBSCRIPTS AND ABBREVIATIONS	
WP	INDICATES 'WEATHERPROOF'
H	INDICATES 'HORIZONTAL'
NL	INDICATES 'NIGHT LIGHT'.
TP	INDICATES 'TAMPER PROOF'
(KS)	INDICATES 'KNEE SPACE'. LOCATE WIRING DEVICE IN KNEESPACE
U.N.O.	INDICATES 'UNLESS NOTED OTHERWISE'
(E)	INDICATES EXISTING TO REMAIN
(R)	INDICATES REPLACE DEVICE AND COVERPLATE.
•	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL MILLWORK DRAWINGS AND OTHER TRADES
GENERAL NOTES:	
-ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-4X MINIMUM. -ALL EXTERIOR RECEPTACLES SHALL BE WATER RESISTANT TYPE.	

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES.
2. ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
3. ALL EMPTY CONDUIT SHALL HAVE PULL STRING.
4. EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
5. VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 6" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
6. ALL FIRE ALARM DEVICES, RECEPTACLES, SWITCHES, AND WIRING DEVICES IN MECHANICAL AND ELECTRICAL ROOMS ARE TO BE RECESSED IN WALLS.
7. ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
10. CENTER ALL EXIT SIGNS OVER DOORS.

LIGHTING CONTROLS SCHEDULE

Type	Sensor Operation	# of Lighting Zones	Description
RC	OCCUPANCY - AUTO ON / AUTO OFF	1	ON/OFF KEYED SWITCH, NO DIMMING.
RD	NONE	1	ON/OFF SPRING WOUND TIMER SWITCH, 12-HOUR WITH HOLD; PROVIDE INTERMATIC #FD12HHW. WHERE MULTIPLE SWITCHES ARE USE, WIRE SWITCHES IN PARALLEL FOR SIMULTANTEOUS OPERATION.
RE	NONE	1	CONTACTOR CONTROLLED WITH PHOTOCELL ON / TIMECLOCK OFF. EXTERIOR LIGHTING SHALL BE TURNED OFF FROM 12:00 AM TO 6:00 AM OR FROM 1 HOUR AFTER CLOSING TO 1 HOUR BEFORE OPENING.

LIGHTING FIXTURE SCHEDULE

Type Mark	CATALOG NUMBER MANUFACTURER	MODEL	MOUNTING	LAMP TYPE	CCT	CRI	VOLTAGE	LOAD	REMARKS
A2	METALUX	22FP4240C	RECESSED	4200L LED	4000 K	80	120 V	38 W	2X2 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED.
A2E	METALUX	22FP4240C + EL14W	RECESSED	4200L LED	4000 K	80	120 V	38 W	2X2 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
C1	METALUX	4SNX-51SL-LW-UNV-L840-CD1-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	5100L LED	4000 K	80	120 V	32 W	4-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED.
D1	PRESCOLITE	LFR-6RD-20L40K8-MD-DM1 / LFR-6RD-T-SWT / LFR-6RD-H	RECESSED	2025L LED	4000 K	80	120 V	15 W	6-INCH MEDIUM BEAM OPEN DOWNLIGHT.
D1E	PRESCOLITE	LFR-6RD-20L40K8-MD-DM1 / LFR-6RD-T-SWT / LFR-6RD-H	RECESSED	2025L LED	4000 K	80	120 V	15 W	6-INCH MEDIUM BEAM OPEN DOWNLIGHT.
W1	McGRAW EDISON	IST-SA1E-740-U-T4FT-BZ-LCF	WALL	7099L LED	4000 K	70	120 V	58 W	ARCHITECTURAL WALL SCONCE, FORWARD THROW DISTRIBUTION, BRONZE FINISH.
X1V	SURE-LITES	UX71WH	SURFACE	LED	-	80	120 V	1 W	VANDAL PROOF EXIT SIGN, WHITE HOUSING, RED LETTERING. PROVIDE WITH EMERGENCY BATTERY PACK.

APPROVED LIGHTING MANUFACTURERS:
- LED / FLUORESCENT: LITHONIA, COLUMBIA, METALUX, AXIS, DAYBRITE, HE WILLIAMS, LSI, CREE
- EXIT SIGNS: LITHONIA, CHLORIDE, EMERGI-LITE, DUAL-LITE, SURE LITES, H.E. WILLIAMS
- ARCHITECTURAL HIGH PERFORMANCE FLOOD LIGHTS: WIDE-LITE, HADCO, KIM, McGRAW EDISON, GARDCO, LSI
- INDUSTRIAL: METALUX, LITHONIA, EXCELINE, G.E., HUBBELL, LUMARK, STONCO
- DOWN/TRACK LIGHTING: LIGHTOLIER, LITHONIA-GOTHAM, HALO ARCHITECTURAL, PRESCOLITE, HE WILLIAMS, INDY
- SECURITY (WALLPACKS): LITHONIA, McGRAW EDISON, G.E., LSI, HUBBELL, STONCO, GARDCO
- ARCHITECTURAL LINEAR: PEERLESS, LITECONTROL, ALERA, LAM, AMERICAN LINEAR LIGHTING, LEDALITE
- ARCHITECTURAL INDIRECT: INSIGHT, ORIGINAL CAST LIGHTING, SPI, LAM

- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT INDICATED IN THE LIGHT FIXTURE SCHEDULE. WHERE THERE IS AN INCONSISTENCY BETWEEN THE LIGHT SCHEDULE AND THE SPECIFICATIONS, THE BETTER QUALITY OF WORK SHALL BE INCLUDED IN THE PROPOSAL.
- THE ABOVE LIGHTING MANUFACTURERS LIST DOES NOT IMPLY APPROVAL. APPROVAL WILL BE DETERMINED AFTER REVIEW OF SHOP DRAWING TO DETERMINE IF THE FIXTURE OR POLE SUBMITTED MEETS OR EXCEEDS THE DESIGN STANDARDS AND PERFORMANCE REQUIRED OF THE FIXTURE SPECIFIED IN THE LIGHT FIXTURE SCHEDULE OR SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE SPECIFIED LIGHT FIXTURE IF A SUBSTITUTION IS NOT APPROVED WITHOUT ANY ADDITIONAL COST TO THE OWNER. WHERE SPECIFIC OPTIONS/ACCESORIES ARE SPECIFIED OR REQUIRED, THEY SHALL BE PROVIDED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- DUE TO THE WIDE RANGE OF FIXTURE QUALITIES OFFERED BY EACH MANUFACTURER, THE APPROVED LIGHTING MANUFACTURERS SUBSTITUTION LIST IS NOT INTENDED TO INDICATE THAT ANY OR ALL MANUFACTURERS LISTED WILL HAVE SUITABLE SUBSTITUTIONS FOR THE LIGHT FIXTURES OR POLES SPECIFIED IN THE LIGHT FIXTURE SCHEDULE. SHOP DRAWING AND CONSTRUCTION DELAYS AS A RESULT OF INAPPROPRIATE SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT RESULT IN ANY ADDITIONAL COST TO THE OWNER.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

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STATE OF TEXAS
BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

Mark	Date	Description
1		

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E5.01-E

ELECTRICAL SCHEDULES, DETAILS, AND LEGENDS

ELKINS HIGH SCHOOL

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Salas O'Brien Project Number: 2550-00810-00

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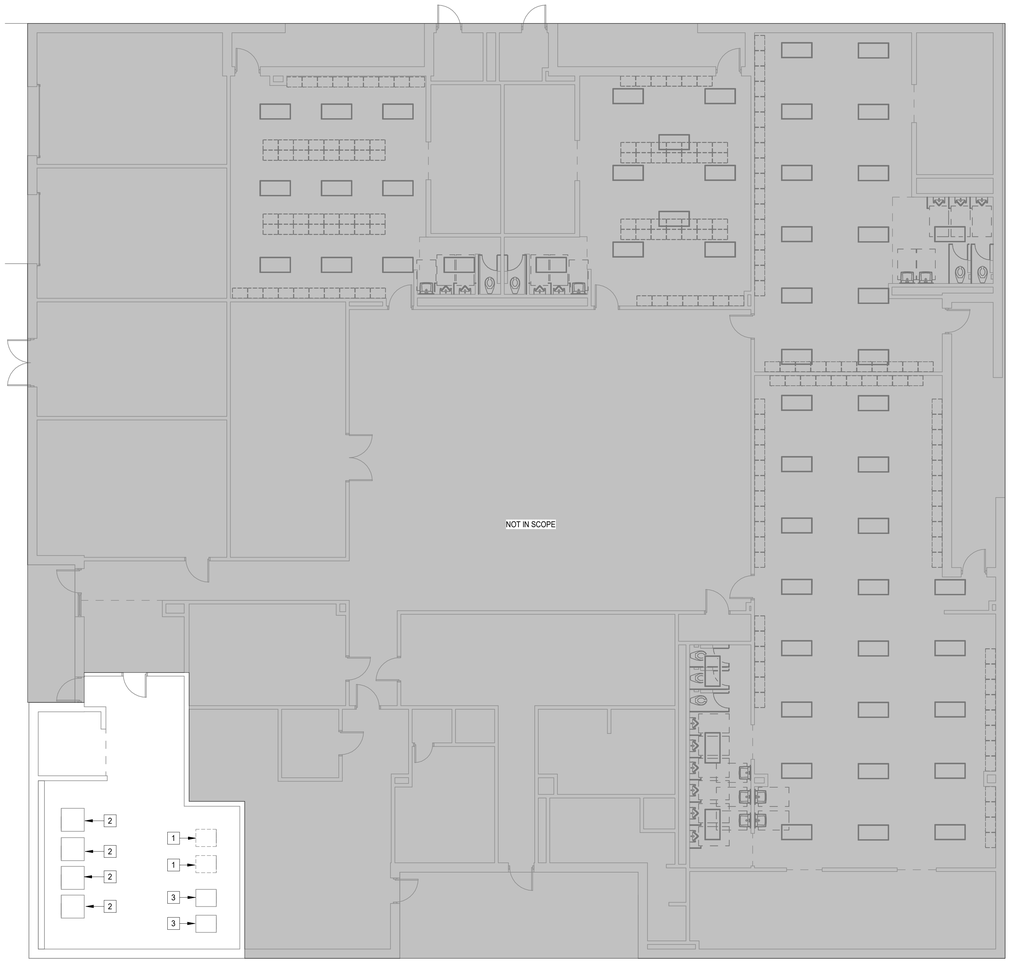
PLUMBING DEMOLITION KEYED NOTES

1 EXISTING CLOTHES DRYER TO BE REMOVED AND REPLACED. CAP UTILITIES FOR FUTURE CONNECTION.
2 EXISTING CLOTHES WASHER TO REMAIN.
3 EXISTING CLOTHES DRYER TO REMAIN.



1 **PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - LAUNDRY - E**
Scale: 1/8" = 1'-0"

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PLUMBING DEMOLITION FLOOR PLAN LEVEL 1 - E

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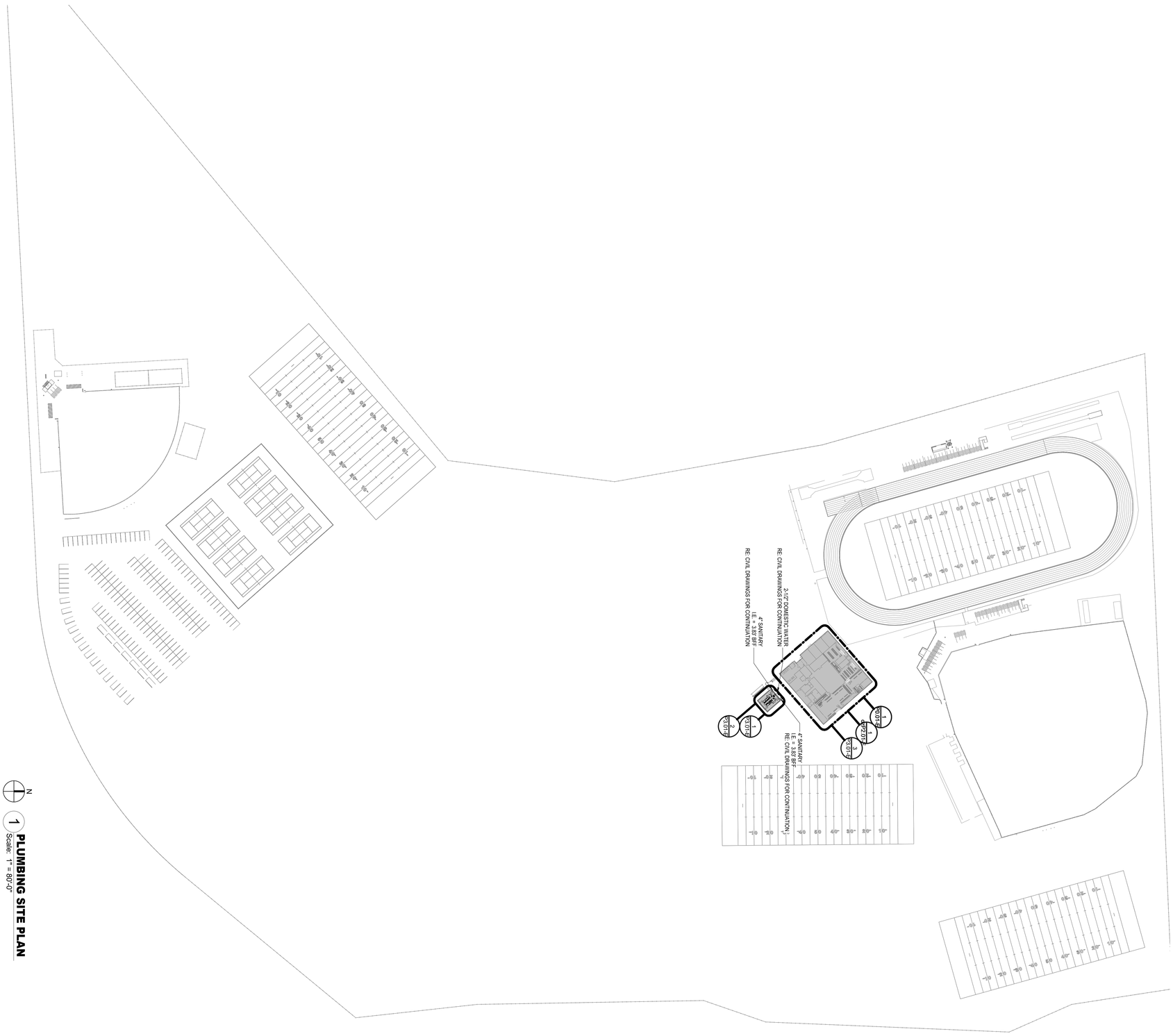

1 **PLUMBING SITE PLAN**
Scale: 1" = 80'-0"

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PLUMBING SITE PLAN
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Sugarland, TX 77479

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7007 Knights Ct, Missouri City, TX 77459

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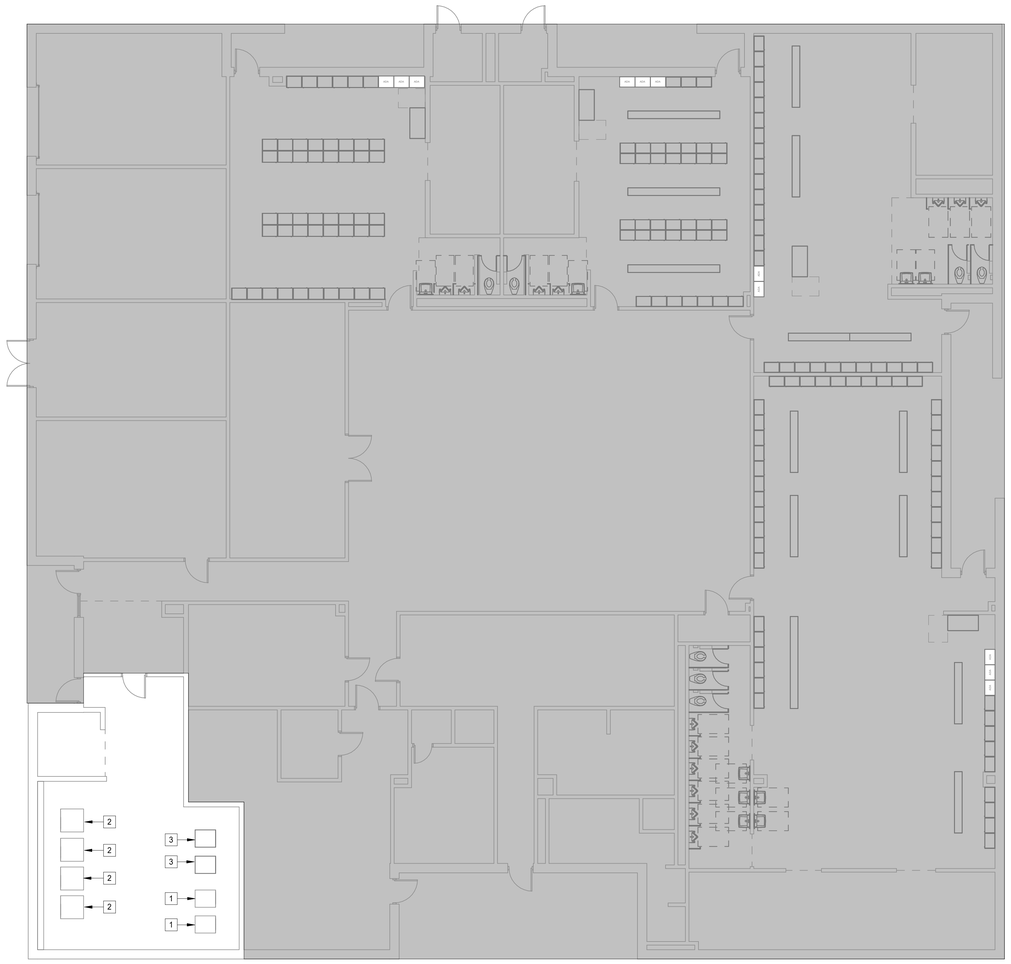
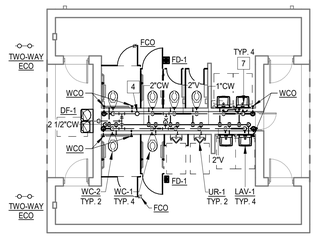
pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

PLUMBING DEMOLITION KEYED NOTES

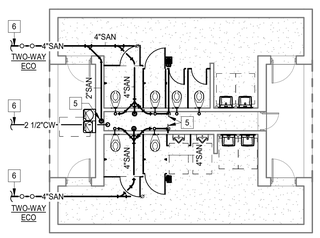
1 EXISTING CLOTHES DRYER TO REMAIN.
2 EXISTING CLOTHES WASHER TO REMAIN.
3 CONNECT NEW DRYER TO EXISTING UTILITIES.
4 4" VENT UP TO 4" VTR.
5 2" VENT UP.
6 REEFER TO SHEET P1.00-E FOR CONTINUATION.
7 PROVIDE IWH-1 TO SERVE LAVATORY FIXTURE.



3 **PLUMBING PLAN - LEVEL 1 - LAUNDRY**
Scale: 1/8" = 1'-0"



2 **PLUMBING PLAN - LEVEL 1 - RESTROOM**
Scale: 1/8" = 1'-0"



1 **PLUMBING UNDERFLOOR PLAN - RESTROOM**
Scale: 1/8" = 1'-0"

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PLUMBING FLOOR PLAN
LEVEL 1 - E

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PLUMBING PIPING LEGEND

SYMBOLS	DESCRIPTION
SAN	SANITARY OR WASTE PIPING ABOVE GRADE (SAN)
SAN	SANITARY OR WASTE PIPING BELOW GRADE (SAN)
GW	GREASE WASTE PIPING (GW)
GW	GREASE WASTE PIPING BELOW GRADE (GW)
SD	STORM DRAIN PIPING (SD)
SD	STORM DRAIN PIPING BELOW GRADE (GW)
SSD	SUB-SOIL DRAIN OR FOOTING DRAIN (SSD)
AW	ACID WASTE PIPING (AW)
AW	ACID WASTE PIPING BELOW GRADE (AW)
PD	PUMPED DISCHARGE (PD)
CD	CONDENSATE DRAIN PIPING (CD)
D	CONDENSATE - INDIRECT DRAIN PIPING (D)
	VENT PIPING (V)
CW	COLD WATER PIPING (CW)
HW	HOT WATER PIPING (HW)
HWR	HOT WATER RETURN PIPING (HWR)
SCW	SOFT COLD WATER PIPING (SCW)
CDW	CHILLED DRINKING WATER PIPING (CDW)
TP	TRAP PRIMER LINE (TP)
F	FIRE PROTECTION PIPING (F)
AS	AUTOMATIC SPRINKLER PIPING (AS)
GAS	NATURAL GAS PIPING (G)
GV	GAS VENT PIPING (GV)
AIR	COMPRESSED AIR PIPING (A)
	FLOW DIRECTIONAL ARROW
	SHUT-OFF VALVE
	BALANCING VALVE (BV)
	SOLENOID VALVE (SV)
	BALL VALVE (BV)
	BUTTERFLY VALVE
	LUBRICATED PACKED PLUG STOP STOP COCK (PC)
	HORIZONTAL SWING CHECK
	UNION
	HORIZONTAL SWING CHECK
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	REDUCED PRESSURE BACKFLOW PREVENTER (RPBFP)
	PIPING DOWN
	RISE OR DROP PIPING
	PIPING UP -OR- PIPING UP & DOWN
	CAP ON END OF PIPE
	CLEANOUT (WALL OR CEILING) (CO)
	FLOOR CLEANOUT (FCO)
	EXTERIOR CLEANOUT WITH 18"x18"x4" CONCRETE PAD (ECO)
	TWO-WAY CLEANOUT (PROVIDE 18"x24"x4" CONCRETE PAD OUTSIDE)
	FIRE DEPARTMENT VALVE AT RISER
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
	PRESSURE REDUCING VALVE (PRV)
	BRANCH CONNECTION OUT OF TOP
	BRANCH CONNECTION OUT OF BOTTOM
	BRANCH CONNECTION OUT OF SIDE
	WYE & 1/8TH BEND BRANCH CONNECTION
	WYE BRANCH CONNECTION
	HOSE BIBB
	PRESSURE GAUGE WITH COCK
	THERMOMETER
	GAS PRESSURE REGULATOR
	TEST COCK
	GAS METER
	WALL HYDRANT
	VALVE IN RISE
	ASME TEMPERATURE & PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE
	ANGLE VALVE
	OS&Y VALVE
	ROOF DRAIN
1	REFER TO KEYED NOTE
FS	FLOW SWITCH
	FLOOR SINK (FS)
	FLOOR DRAIN (FD)
	FLOOR DRAIN WITH P-TRAP (FD)
	FLOOR DRAIN WITH P-TRAP AT 45° ANGLE (FD)
	HUB DRAIN (HD)
	ACCESS PANEL FOR TRAP PRIMER OR SHOCK ABSORBER
AP	ACCESS PANEL LOCATION SYMBOL
A	SHOCK ABSORBER
	AIR CHAMBER
(E)	EXISTING
(N)	NEW
VTR	VENT THRU ROOF
B.F.F.	BELOW FINISHED FLOOR
A.F.F.	ABOVE FINISHED FLOOR
	NEW CONNECTION
IE=100.00"	INVERT ELEVATION
1	DELTA CHANGE SYMBOL
P 1	4" VTR RISER FLAG

PLUMBING FIXTURE SCHEDULE

TYPE: WC-1 (STANDARD HEIGHT)
DESCRIPTION: WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA WITH ANTIMICROBIAL SURFACE. 1.6 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD AFWALL #3351.101
SEAT: ELONGATED OPEN FRONT SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. REFER TO ARCHITECTURAL DRAWINGS FOR SEAT COLOR. BEMIS #1955SSCT.
FLUSH VALVE: 1.6 GALLON FLUSH CYCLE. EXPOSED, PISTON TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. SLOAN ROYAL #110.
CARRIER: WADE 311 (HORIZONTAL) AND 330 (VERTICAL) SERIES WITH 300 LB WEIGHT CAPACITY AND FLUSH VALVE SUPPORT (-AM1).
ROUGH-IN: 4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT REQUIREMENTS.

TYPE: WC-2 (T.A.S. / ADA COMPLIANT)
DESCRIPTION: WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA WITH ANTIMICROBIAL SURFACE. 1.6 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD AFWALL #3351.101
SEAT: ELONGATED OPEN FRONT SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. REFER TO ARCHITECTURAL DRAWINGS FOR SEAT COLOR. BEMIS #1955SSCT.
FLUSH VALVE: 1.6 GALLON FLUSH CYCLE. EXPOSED, PISTON TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. PROVIDE OFFSET TAILPIECE AND TRAP PRIMER CONNECTION. SLOAN ROYAL #110.
CARRIER: WADE 311 (HORIZONTAL) AND 330 (VERTICAL) SERIES WITH 300 LB WEIGHT CAPACITY AND FLUSH VALVE SUPPORT (-AM1).
ROUGH-IN: 4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT REQUIREMENTS.

TYPE: U-1 (T.A.S. COMPLIANT)
DESCRIPTION: URINAL, WALL HUNG, WHITE VITREOUS CHINA, 0.5 GALLON PER FLUSH, WASHOUT FLUSH ACTION, INTEGRAL TRAP, REMOVABLE DOMED STRAINER. AMERICAN STANDARD "WASHBROOK" 6590.001
FLUSH VALVE: 0.5 GALLON FLUSH CYCLE. EXPOSED, PISTON TYPE, CHROME PLATED URINAL FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 3/4" TOP SPUD. SLOAN ROYAL #186.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 4" SQUARE BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, UPPER AND LOWER BEARING PLATES WITH THREADED STUDS. WADE 401-AM1-M36.
ROUGH-IN: 2" WASTE, 2" VENT, 3/4" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: L-1 (T.A.S. COMPLIANT)
DESCRIPTION: LAVATORY, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, 4" CENTERSET FAUCET HOLES. AMERICAN STANDARD LUCERNE #0355.012.
FAUCET: CHROME PLATED BASS DECK MOUNTED LAVTORY FAUCET WITH COVER PLATE, 4-1/8" SPOUT, PUSH BUTTON HANDLE INDEXED "PUSH", SELF CLOSING METERING CARTRIDGE, VANDAL RESISTANT 2.2 SOFTFLOW AERATOR. CHICAGO #897-E12VP-765P65PSHABCP.
MIXING VALVE: POINT OF USE 1070 CERTIFIED, BRASS BODY, ADJUSTABLE TEMPERATURE CONTROL, WAX FILLED THERMOSAT AND MOUNTING BRACKET. (105 F). BRADLEY S59-4007BY.
STRAINER: 1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP: 1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE #8872C.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE #LFH2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE 520-08.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD AND HOT WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: FD-1
SERVICE: GENERAL USE
DESCRIPTION: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 6" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. WADE 1100-MR6-B5.
TRAP PRIMER: SERVED BY FLUSH VALVE TRAP PRIMER OR UNDER LAVATORY TRAP PRIMER. REFER TO PLANS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION AND INSTALLATION WITH ARCHITECTURAL DRAWINGS / FLOOR CONSTRUCTION.

TYPE: DF-1 (ADA COMPLIANT)
DESCRIPTION: WALL HUNG, VANDAL-RESISTANT BOTTLE FILLING STATION & BI-LEVEL DRINKING FOUNTAIN, FILTERED, NON-REFRIGERATED STAINLESS STEEL. LAMINAR FLOW, MECHANICALLY ACTIVATED, VANDAL RESISTANT BUBBLER. MECHANICAL BOTTLE FILLER BUTTON WITH MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. ELKAY MODEL #LVRCTLDDMWSK.
P-TRAP: 1-1/4" CHROME PLATED CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON. MCGUIRE 8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE SLAB WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE FOR CONNECTION TO HANGER PLATE PROVIDED BY FIXTURE MANUFACTURER. WADE 400.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: FCO
DESCRIPTION: FLOOR CLEANOUT, CAST IRON BODY AND ADJUSTABLE TOP ASSEMBLY WITH GASKET SEAL, AND ROUND SCORIATED STAINLESS STEEL COVER. WADE 6000-153. FOR CARPETED FLOORS PROVIDE WADE 6000-CM.

TYPE: ECO
DESCRIPTION: EXTERIOR CLEANOUT TO GRADE, CAST IRON BODY WITH ADJUSTABLE TOP ASSEMBLY WITH GASKET SEAL, AND ROUND SCORIATED VANDAL RESISTANT DUCTILE IRON TRACTOR TYPE COVER. IF LOCATED IN ASPHALT OR DIRT PROVIDE 18"X18"X12" CONCRETE PAD. WADE 6000-Z.

TYPE: WCO
DESCRIPTION: WALL CLEANOUT. CAST IRON CLEANOUT FERRULE WITH DUCTILE IRON COMBINED COVER/PLUG AND ROUND STAINLESS COVER PLATE WITH CENTER SECURING SCREW. WADE 8550 WITH 8480-R6. PROVIDE WADE 8560 CAST IRON CLEANOUT TEE IN LIEU OF FERRULE AS REQUIRED FOR WALL CONSTRUCTION.

TYPE: ETP-1
SERVICE: TRAP PRIMER FOR FLOOR DRAINS AND FLOOR SINKS
DESCRIPTION: ELECTRONIC TRAP PRIMER WITH SOLENOID VLAVE, AIR GAP, CIRCUIT BREAKER, TEST SWITCH AND TIMER. 120 V. PRECISION PLUMBING PRODUCTS "MINI PRIME" #MP-500 WITH DISTRIBUTION UNIT.
ROUGH-IN: 3/4" COLD WATER

GENERAL NOTES

ALL LAVATORIES AND SINKS SHALL BE SUPPLIED WITH HOT AND COLD WATER (UNLESS NOTED TO BE COLD WATER ONLY) TO FAUCETS AS INDICATED ON PLANS AND FIXTURE SCHEDULE. PROVIDE CHROME PLATED BRASS SUPPLY STOPS WITH LOOSE KEYS AND WALL ESCUTCHEONS. PROVIDE CHROME PLATED FLEXIBLE RISERS OF SIZE REQUIRED TO PROPERLY CONNECT FIXTURES. PROVIDE 17 GAUGE CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON (UNLESS NOTED TO BE AN ACID WASTE FIXTURE). REFER TO FIXTURE SCHEDULE FOR MINIMUM SIZES OF PLUMBING FIXTURE ROUGH-INS.

INSULATION KITS AT ALL LAVATORIES AND SINKS REQUIRED TO BE T.A.S. ACCESSIBLE (MCGUIRE OR TRUEBRO). ALL SUCH FIXTURES AND FINAL INSTALLATIONS SHALL COMPLY WITH THE STATE ACCESSIBILITY STANDARDS REQUIREMENTS.

INSERT TRAP GUARDS AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS-TIGHT SEAL. FOR DRAIN RODDING AFTER INSTALLATION. INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

DISREGARD FIXTURES LISTED THAT ARE NOT ON THIS JOB.

INSTANTANEOUS WATER HEATER SCHEDULE

MARK	BASIS OF DESIGN		WH TEMPERATURE RISE PER 2.0 GPM	WH OUTPUT WATER TEMPERATURE	ELECTRICAL CHARACTERISTICS		
	MANUFACTURER	MODEL			V	P	KW
IWH-1	EEMAX	SPEX4208T S	56 °F	105 °F	208	1	4
IWH-1	EEMAX	SPEX4208T S	56 °F	105 °F	208	1	4
IWH-1	EEMAX	SPEX4208T S	56 °F	105 °F	208	1	4
IWH-1	EEMAX	SPEX4208T S	56 °F	105 °F	208	1	4

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
12/04/2025

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:

Δ	Date	Description

100% CD

P5.01-E

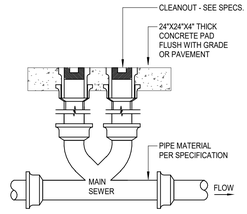
PLUMBING DETAILS, LEGEND, AND SCHEDULES

ELKINS HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

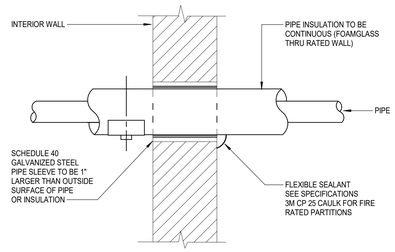
12/3/2025 6:52:04 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/ELKINS_MEPT_R25.rvt

PSAN05- XX/XX/XX



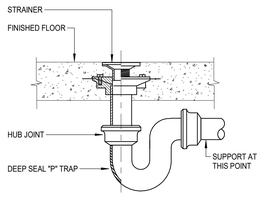
8 TWO-WAY EXTERIOR CLEANOUT
SCALE: NONE

PSL01- XX/XX/XX



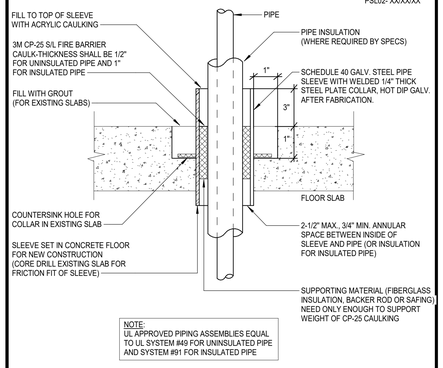
4 INTERIOR WALL PENETRATION
SCALE: NONE

PSAN07- XX/XX/XX



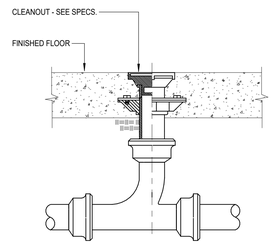
7 FLOOR DRAIN
SCALE: NONE

PSL02- XX/XX/XX



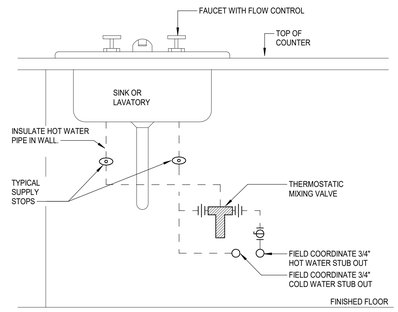
3 INTERIOR FLOOR PENETRATION
SCALE: NONE

PSAN01- XX/XX/XX



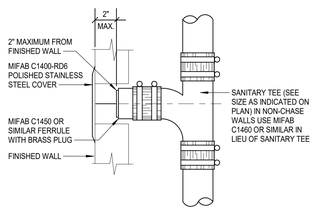
6 FLOOR CLEANOUT
SCALE: NONE

PHW04 - 09/10/18



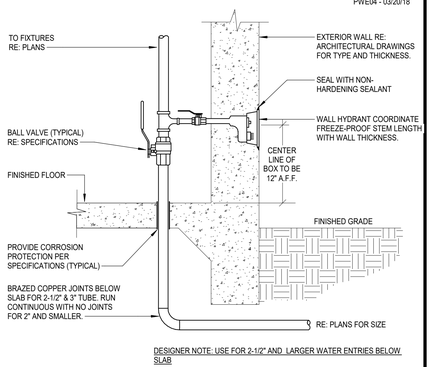
2 THERMOSTATIC MIXING VALVE PIPING AT LAVATORY
SCALE: NONE

PSAN02- XX/XX/XX



9 WALL CLEANOUT
SCALE: NONE

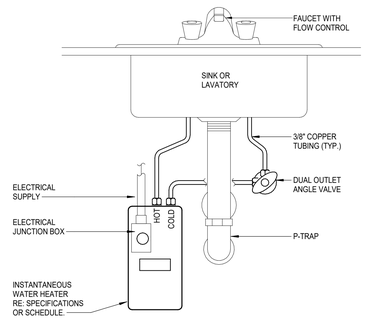
PWE04 - 03/20/18



DESIGNER NOTE: USE FOR 2-1/2" AND LARGER WATER ENTRIES BELOW SLAB

5 DOMESTIC WATER ENTRY
SCALE: NONE

PHW02 - 09/10/18



1 INSTANTANEOUS ELECTRIC WATER HEATER PIPING
SCALE: NONE

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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TECHNOLOGY SYMBOLS & LEGEND

VOICE SYMBOLS

	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS PER LOCATION.
W	SINGLE VOICE OUTLET FOR WALL-MOUNTED PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +52-INCHES A.F.F. UNLESS OTHERWISE NOTED.

DATA SYMBOLS

	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF DATA OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
W	SINGLE DATA OUTLET FOR WALL-MOUNTED IP PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +42-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X COW	DATA CABLE FOR COMPUTER ON WHEELS, CABLE TYPE AS SPECIFIED MOUNTED + 18-INCHES A.F.F UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
X WAPW	DATA CABLE FOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPC	DATA CABLE FOR CEILING MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMW	DATA CABLE FOR INTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMC	DATA CABLE FOR CEILING MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

X CAME	DATA CABLE FOR EXTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLLATION.
X PRJW	DATA CABLE FOR WALL MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
PRJC	DATA CABLE FOR CEILING MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X AVCE	DATA CABLE FOR CEILING MOUNTED AUDIO/VISUAL EQUIPMENT ENCLOSURE, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A BLUE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
R	POWER POLE WITH ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
WAP	WIRELESS ACCESS POINT. EQUIPMENT AS SPECIFIED.

GENERAL SYMBOLS

# SHEET DRAWING TITLE SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
SHEET #	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES TELECOMMUNICATIONS REGION

VOICE/DATA SYMBOLS

	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF VOICE TERMINATIONS , Y = NUMBER OF DATA TERMINATIONS PER LOCATION.
	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF VOICE OUTLETS AND Y = NUMBER OF DATA OUTLETS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET AND SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X Y	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X Y	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS PER LOCATION.

FIBER OPTIC SYMBOLS

	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF FIBER OPTIC OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.

CABLE PLANT & RISER DIAGRAM

	MAINTENANCE HOLE, SIZE & TYPE AS SPECIFIED.
	PULLBOX, SIZE AND TYPE AS SPECIFIED.
UGC	DIRECT BURIED COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
AER	AERIAL COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
	CONDUIT, SIZE AND TYPE AS SPECIFIED.

COMMUNICATION AND SECURITY CABLING JACKET COLOR CODE

TYPICAL WORK AREA OUTET	BLUE - REFERENCE SPEC SECTION 27 10 00
WIRELESS ACCESS POINT	GREEN - REFERENCE SPEC SECTION 27 10 00
SECURITY(INTRUSION, ACCESS CONTROL, VIDEO SURVEILLANCE)	ORANGE - REFERENCE SPEC SECTION 28 13 00, 28 16 00, AND 27 10 00
BUILDING WIDE PUBLIC ADDRESS / INTERCOM	WHITE - REFERENCE SPEC SECTION 27 51 00
AUDIOVISUAL	BLACK - REFERENCE SPEC SECTION 27 41 16
LIGHTING CONTROL	LIME GREEN - REFERENCE MEP SPECIFICATIONS
BAS	YELLOW - REFERENCE MEP SPECIFICATIONS
FIRE ALARM	RED - REFERENCE MEP SPECIFICATIONS

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
DEMARC	DEMARCATION POINT
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
GIP	GALVANIZED IRON PIPE
HE	PA/INTERCOM HEAD-END
IMC	INTERMEDIATE METAL CONDUIT
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MH	MAINTENANCE HOLE
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PVC	POLYVINYL CHLORIDE
RSC	RIGID STEEL CONDUIT
SM	SINGLE MODE
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
TR	TELECOMMUNICATION REGION
UGC	UNDERGROUND COMMUNICATION
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR

NOTES

1. THE CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF TECHNOLOGY DRAWINGS IS PROVIDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. TECHNOLOGY DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.

INDEX OF DRAWINGS

T000-E	TECHNOLOGY SYMBOLS & LEGEND
T100-E	TECHNOLOGY SITE PLAN
T101-E	TECHNOLOGY COMPOSITE FLOOR PLAN
T202-E	TECHNOLOGY SOFTBALL PRESSBOX AND HITTING CAGES
T300-E	TECHNOLOGY ENLARGED VIEWS AND EXISTING CONDITIONS
T400-E	TECHNOLOGY TYPICAL DETAILS
T401-E	TECHNOLOGY TYPICAL DETAILS
T402-E	TECHNOLOGY TYPICAL DETAILS
T500-E	TECHNOLOGY TYPICAL LABELING SCHEME

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL A. CRAIG 20113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
Date Description

100% CD

T000-E
TECHNOLOGY
SYMBOLS & LEGEND

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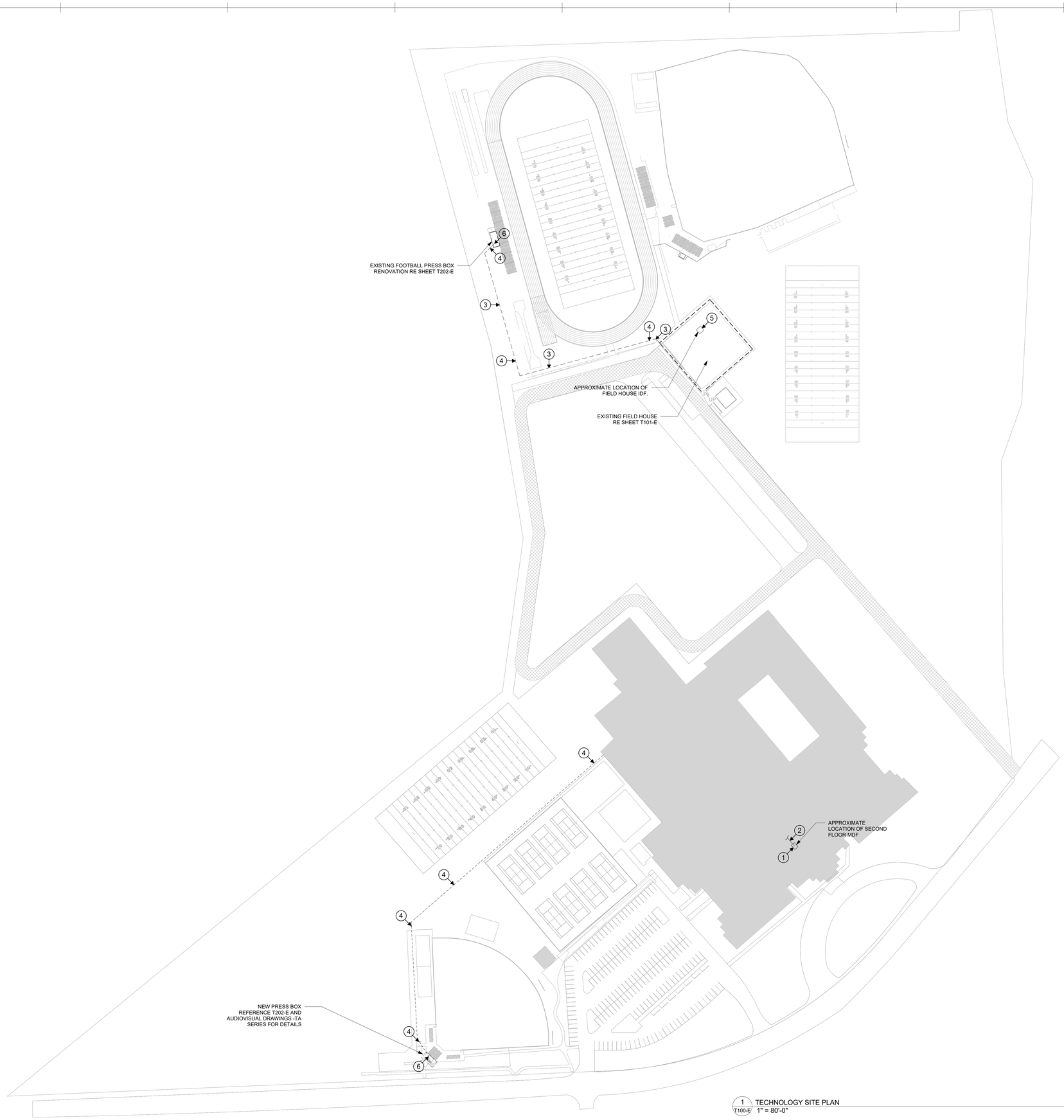

1 TECHNOLOGY SITE PLAN
T100-E 1" = 80'-0"

TECHNOLOGY SITE PLAN GENERAL NOTES

1. ALL CONDUIT PATHWAYS, ROUGH-INS, CONDUIT SLEEVES, ETC. INDICATED ON TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
2. ALL POWER INDICATED ON THE TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
3. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING BACK TO THE ORIGINAL RATING.
4. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING FOR SOUND ATTENUATION TO REDUCE NOISE TRAVELING THROUGH PENETRATIONS.
5. THE CONTRACTOR SHALL RESTORE ALL THE PENETRATIONS PROVIDED THROUGH WALLS/STRUCTURES FOR TECHNOLOGY CABLING TO PREVENT WATER INFILTRATION INTO THE SPACE.
6. CONDUITS SHALL MAINTAIN A MINIMUM OF 12-INCHES OF WELL TAMPED EARTH OR 3-INCHES OF CONCRETE SEPARATION BETWEEN ANY FOREIGN CONDUITS AND/OR PIPES THROUGHOUT THE ENTIRE CONDUIT PATHWAY.
7. CONDUIT SEGMENTS SHALL BE NO MORE THAN 600-FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
8. CONDUITS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUITS GREATER THAN 2-INCHES.
9. THE CONTRACTOR SHALL PROVIDE A DETECTABLE WARNING TAPE 12-INCHES BELOW GRADE ON TOP OF ALL CONDUITS THROUGHOUT THE ENTIRE CONDUIT TRENCH.
10. THE CONTRACTOR SHALL COORDINATE ALL CONDUIT PATHWAYS WITH THE ARCHITECT, CIVIL AND LANDSCAPE PLANS PRIOR TO BEGINNING ANY TRENCHING.
11. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR PULLING OF THE CABLE.
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. THE CONTRACTOR SHALL CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.

TECHNOLOGY SITE PLAN KEYED NOTES

1. APPROXIMATE LOCATION OF SECOND FLOOR MDF.
2. PROVIDE FIBER OPTIC BACKBONE TO FOOTBALL AND BASEBALL PRESS BOXES
3. PROVIDE (3) 2-INCH SCHEDULE 80 PVC CONDUIT BURIED 36-INCHES BELOW FINAL FINISHED GRADE FROM BUILDING EXTERIOR. THE CONTRACTOR SHALL PROVIDE PULL STRING INSIDE EACH CONDUIT. THE CONTRACTOR SHALL PROVIDE NYLON BUSHINGS AND PROTECTIVE CAPS ON EACH END OF THE CONDUIT. ONE 2-INCH CONDUIT WILL BE PROVIDED WITH (1) 2-INCH, THREE-CELL MAXCELL INNERDUCT. (BY DIV. 26).
4. (24)-INCH X (18)-INCH X (36)-INCH HAND HOLE WITH LOCKABLE COVER RATED FOR ENVIRONMENT STAMPED WITH TELECOMMUNICATIONS. COVER OF HANDHOLE SHALL BE FLUSH WITH A FINAL FINISHED GRADE. (BY DIV. 26).
5. UTILIZE EXISTING PATHWAY BETWEEN MAIN BUILDING AND FIELD HOUSE FOR INTERCONNECTIVITY TO NEW FOOTBALL PRESS BOX
6. TERMINATE INTERCONNECTING 2-INCH PATHWAYS NEAR NETWORK ENCLOSURE. COORDINATE FINAL LOCATION WITH OWNER, ARCHITECT, AND CONSULTANT PRIOR TO ROUGH-IN AND INSTALLATION

pfluger
office : 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 30113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:

No.	Date	Description

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T100-E
TECHNOLOGY SITE PLAN

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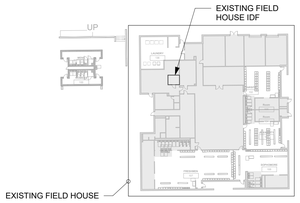

1 T101-E TECHNOLOGY COMPOSITE FIRST FLOOR PLAN.
1" = 50'-0"

2 T101-E TECHNOLOGY COMPOSITE SECOND FLOOR PLAN.
1" = 50'-0"

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
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T101-E
TECHNOLOGY
COMPOSITE FLOOR
PLAN

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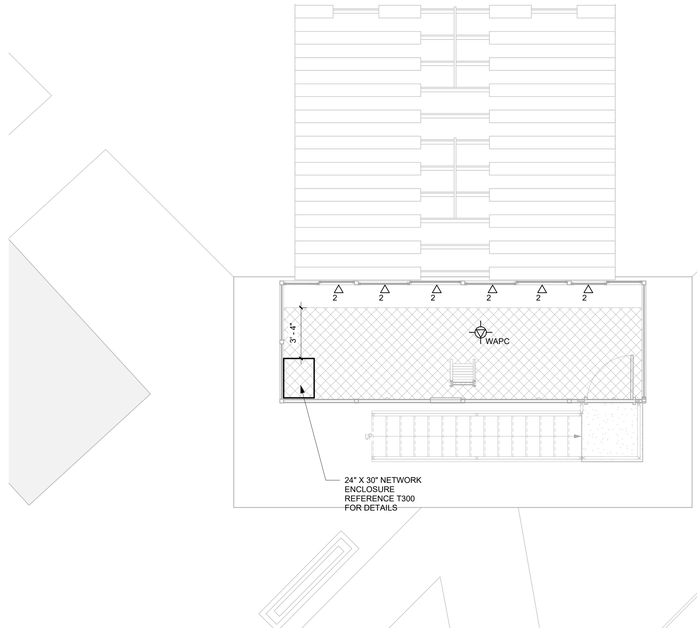
1 T202-E TECHNOLOGY FOOTBALL PRESSBOX - HITTING CAGE
1/4" = 1'-0"



2 T202-E TECHNOLOGY LEVEL 01 FLOOR PLAN - SOFTBALL PRESSBOX
1/4" = 1'-0"

TECHNOLOGY FLOOR PLAN GENERAL NOTES

1. THE TECHNOLOGY REGION / WIRING BOUNDARIES ARE IDENTIFIED ON THE OVERALL SHEETS ONLY AND NOT ON THE ENLARGED SHEETS. THE CONTRACTOR SHALL REFER TO THE OVERALL SHEETS FOR ALL TECHNOLOGY REGIONS / WIRING BOUNDARIES.
2. ALL CONDUIT PATHWAYS, ROUGH-INS, BACKBOXES, FLOOR BOXES, CONDUIT SLEEVES, ETC. INDICATED ON TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
3. ALL POWER INDICATED ON THE TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
4. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING BACK TO THE ORIGINAL RATING.
5. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING FOR SOUND ATTENUATION TO REDUCE NOISE TRAVELING THROUGH PENETRATIONS.
6. TECHNOLOGY CABLING SHALL BE ROUTED IN SEPARATE PATHWAYS IN J-HOOKS, CONDUITS, CONDUIT SLEEVES, CORES, ETC. THROUGHOUT THE ENTIRE PATHWAY. DIFFERENT MEDIA TYPES (DATA, VIDEO, SECURITY, ETC.) SHALL NOT SHARE THE SAME J-HOOK, CONDUIT, CONDUIT SLEEVE, CORE, ETC.
7. UNLESS NOTED OTHERWISE, ALL CONDUITS FOR TECHNOLOGY DEVICES SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE AN ACCESSIBLE CEILING (AN OPEN CEILING OR CLOUD TYPE CEILING IS NOT CONSIDERED AN ACCESSIBLE CEILING) IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF A MAIN CORRIDOR. CONDUIT PATHWAYS SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF / IDF ROOM TO MINIMIZE CABLE LENGTHS ENSURING CABLE LENGTHS DO NOT EXCEED 275 FEET.
8. UNLESS NOTED OTHERWISE ALL CONDUITS SHALL BE HOMERUN FROM THE DEVICE LOCATION AND NO DAISY CHAINING OF DEVICES / ROUGH-INS SHALL BE ALLOWED.
9. CONDUIT SEGMENTS SHALL BE NO MORE THAN 100 FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
10. CONDUITS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUITS GREATER THAN 2-INCHES.
11. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR PULLING OF THE CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
13. EQUIPMENT NOT RELATED TO THE SUPPORT OF THE TELECOMMUNICATIONS ROOM (E.G., PIPING, DUCTWORK, PNEUMATIC TUBING) SHALL NOT BE INSTALLED IN, PASS THROUGH, OR ENTER THE TELECOMMUNICATIONS ROOM.
14. ALL CONDUITS FOR TECHNOLOGY DEVICES SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE A LAY- IN TYPE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE A LAY-IN TYPE CEILING TO PREVENT THE CABLES FROM BEING EXPOSED, THE CONDUIT SHALL ROUTE TO THE NEAREST LAY-IN TYPE CEILING OFF A MAIN CORRIDOR OR THE NEAREST MDF/IDF. THE CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE MAIN CORRIDOR OR THE NEAREST MDF/IDF TO MINIMIZE THE CABLE LENGTH ENSURING THE CABLE LENGTH DOES NOT EXCEED 275 FEET. CONDUIT, CONNECTIONS, J-BOXES, SUSPENSION, ANCHORAGES, AND OTHER CONDUIT COMPONENTS EXPOSED TO VIEW IN PUBLIC SPACES SHALL BE ROUTED AND INSTALLED CAREFULLY TO MINIMIZE VISUAL IMPACT AND SHALL BE FULLY PAINTED TO MATCH UNLESS NOTED OTHERWISE.
15. CONDUIT(S) INSTALLED IN-SLAB OR UNDER-SLAB TO FLOOR BOXES, POKE-THURS, AND TO WORKAREA OUTLETS, ETC. SHALL BE INSTALLED WITH WET RATED CABLE(S).
16. NO GRID WIRE SHALL BE UTILIZED FOR SUPPORTS ONLY USE SOLID SUPPORTS (CLIPS, ALL-THREAD, ANCHORS, ETC.).
17. WIRE BASKET TRAY SHALL HAVE A 6" CLEARANCE FROM CEILING TILE TO THE BOTTOM OF BASKET TRAY, 12" CLEARANCE FROM THE TOP OF THE BASKET TRAY TO HVAC UNITS, HVAC DUCTS, HEATING DUCTS, AND HEATING EQUIPMENT, ETC., AND 12" CLEARANCE FROM THE SIDE OF THE BASKET TRAY TO HVAC UNITS, HVAC DUCTS, HEATING DUCTS, AND HEATING EQUIPMENT, ETC. WIRE BASKET TRAY SHALL BE PROPERLY GROUNDED AND BONDED AS PER INDUSTRY STANDARDS (BY DIV. 26).

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
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REGISTERED ARCHITECT
MICHAEL J. AYMAR
20113
STATE OF TEXAS
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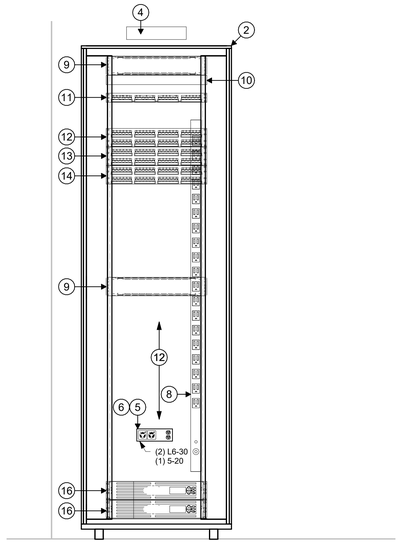
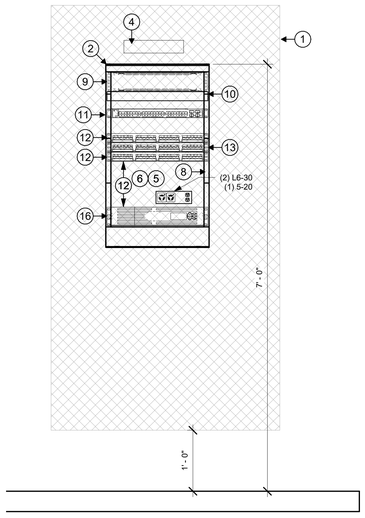
T202-E

TECHNOLOGY
SOFTBALL PRESSBOX
AND HITTING CAGES



1 T300-E FREE-STANDING28" W X 40" DEEP NETWORK ENCLOSURE
N.T.S.



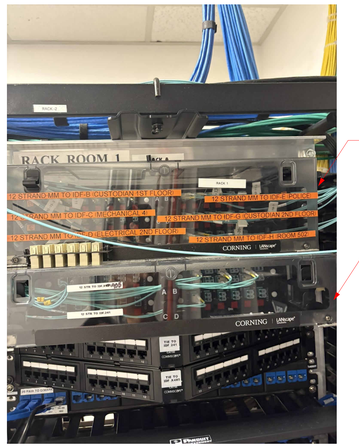
2 T300-E 28" W X 40" DEEP NETWORK ENCLOSURE
N.T.S.

GENERAL NOTES

1. IN THE EVENT THE CONTRACTOR PROVIDES AND INSTALLS 2-POST EQUIPMENT RACKS IN THE MDF/IDF ROOMS, THE DIVISION 27 CONTRACTOR SHALL COORDINATE WITH THE OWNER TO DETERMINE IF THE OWNER NEEDS ADDITIONAL EQUIPMENT RACK SUPPORT SUCH AS RAILS OR DEEP SHELVING TO SUPPORT FUTURE OWNER PROVIDED/OWNER INSTALLED UPS SYSTEM EQUIPMENT.
2. CONTRACTOR SHALL CONFIRM PATCH PANEL COUNTS WITH CABLE QUANTITIES PRIOR TO BIDDING. PATCH PANEL QUANTITY SHALL BE BASED OF OFF DEVICE QUANTITY SHOWN ON FLOOR PLANS AND REQUIRED SPARE PORTS. PATCH PANEL QUANTITY SHOWN ON RACKS ARE FOR REFERENCE ONLY.
3. EQUIPMENT NOT RELATED TO THE SUPPORT OF THE TELECOMMUNICATIONS ROOM (E.G., PIPING, DUCTWORK, PNEUMATIC TUBING) SHALL NOT BE INSTALLED IN, PASS THROUGH, OR ENTER THE TELECOMMUNICATIONS ROOM.
4. A VERTICAL SECTION OF LADDER RACK SHALL BE ATTACHED TO THE WALLBOARD TO MANAGE BACKBONE CABLES, SERVICE PROVIDER CABLES, OR CABLES AS THEY TRANSITION FROM THE ENTRANCE CONDUITS TO OVERHEAD LADDER RACK.
5. MAX (5) DATA PATCH PANELS ON INITIAL INSTALLATION ANY ADDITIONAL PATCH PANEL WILL BE PLACE ON THE NEXT RACK.
6. ALL RACK EQUIPMENT AND PATCH PANELS SHALL BE MOCKED UP AND COORDINATED WITH OWNER AND CONSULTANT PRIOR TO PERMANENT ATTACHMENT AND OR INSTALLATION.

ENLARGED PLAN KEYED NOTES

1. 4-FEET X 8-FEET X ¾-INCH A-B GRADE, VOID FREE, FIRE RATED PLYWOOD INSTALLED VERTICALLY STARTING AT 24-INCHES ABOVE FINISHED FLOOR ON ALL PERIMETER WALLS. PAINT WITH (2) COATS OF FIRE RETARDANT PAINT. (BY DIV. 27)
2. FREE STANDING 28"W X 40" D NETWORK ENCLOSURE (BY DIV 27)
3. WALL MOUNTED 24"W X 30" D NETWORK ENCLOSURE (BY DIV 27)
4. GROUND BUS BAR MOUNTED AT 84-INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
5. DEDICATED 20 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH DUPLEX NEMA 5-20R RECEPTACLE MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR BEHIND THE EQUIPMENT RACKS. (BY DIV. 26)
6. DEDICATED 30 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH SIMPLEX NEMA L6-30R TWIST LOCK RECEPTACLE MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR BEHIND THE EQUIPMENT RACKS. (BY DIV. 26)
7. 20 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH DUPLEX NEMA 5-20R RECEPTACLE FLUSH MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR. (BY DIV.26)
8. VERTICAL POWER STRIP WITH STAND-OFF BRACKET(S), MOUNTED ON THE BACK SIDE OF RELAY RACKS. VERTICAL POWER AND STAND-OFF BRACKETS SHALL NOT INTERFERE WITH NETWORK SWITCHES. (BY DIV. 27)
9. 2RU HORIZONTAL WIRE MANAGER (BY DIV. 27)
10. 1RU RACK MOUNTED FIBER OPTIC ENCLOSURE (BY DIV. 27)
11. 1RU VOICE BACKBONE 24 PORT ANGLED PATCH PANEL (BY DIV. 27)
12. ANGLED PATCH PANEL FOR VIDEO SURVEILLANCE CABLES (BY DIV. 27)
13. ANGLED PATCH PANEL FOR WIRELESS ACCESS POINT CABLES (BY DIV. 27)
14. ANGLED PATCH PANEL FOR DATA CABLES (BY DIV. 27)
15. CISCO DATA NETWORK EQUIPMENT (BY OWNER)
16. UNINTERRUPTABLE POWER SUPPLY (BY OWNER)



3 T300-E EXISTING MDF RACK 1 - EXISTING FIBER LIU
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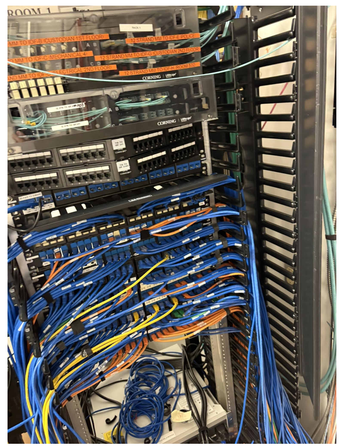

4 T300-E EXISTING MDF RACK 1 - EXISTING CONDITIONS
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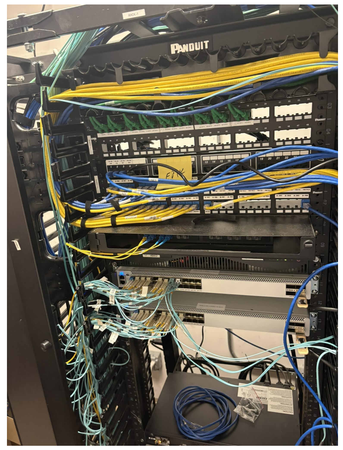

5 T300-E EXISTING MDF RACK 2 - EXISTING CONDITIONS
N.T.S.



6 T300-E EXISTING MDF RACK 3 - EXISTING CONDITIONS
N.T.S.

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL J. JAMME
20113
STATE OF TEXAS

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T300-E

TECHNOLOGY
ENLARGED VIEWS AND EXISTING CONDITIONS

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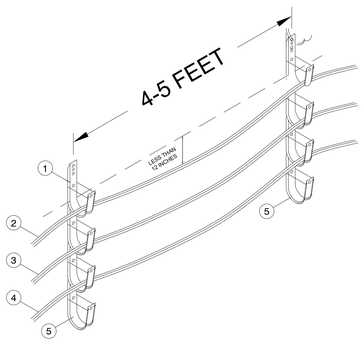

KEYED NOTES:

1. J-HOOK WITH RETAINER CLIP ABOVE ACCESSIBLE CEILING (BY DIV 27).
2. DATA CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).
3. A/V CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).
4. SECURITY CABLE ABOVE ACCESSIBLE CEILING (BY DIV 28).
5. SPARE J-HOOK (BY DIV 27).

1 / T400-E TYPICAL J-HOOK CABLE PATHWAY

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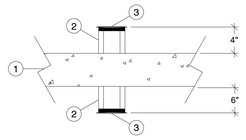
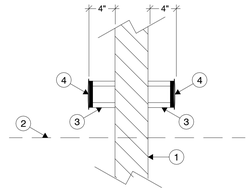


KEYED NOTES:

1. SCHEDULED FLOOR OR DECK.
2. CONDUIT SLEEVE (BY DIV 26).
3. NYLON BUSHING (BY DIV 26).

2 / T400-E TYPICAL CONDUIT SLEEVE THROUGH FLOOR OR DECK DETAIL

SCALE: N.T.S.

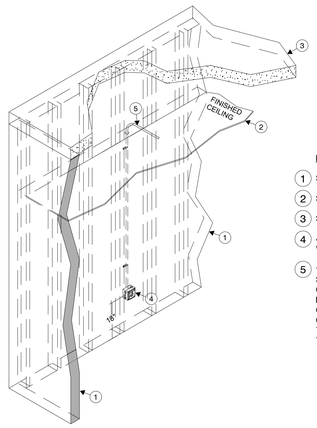


KEYED NOTES:

1. SCHEDULED WALL.
2. SCHEDULED CEILING.
3. CONDUIT SLEEVE (BY DIV 26).
4. NYLON BUSHING (BY DIV 26).

3 / T400-E TYPICAL CONDUIT SLEEVE GOING THROUGH WALL

SCALE: N.T.S.

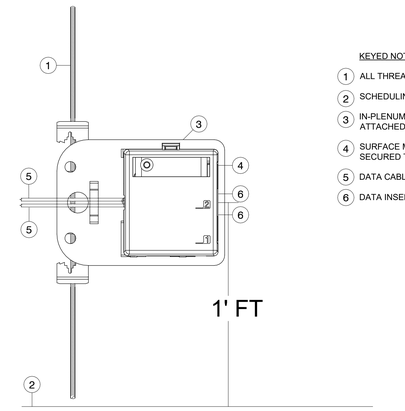


KEYED NOTES:

1. SCHEDULED WALL.
2. SCHEDULED CEILING.
3. SCHEDULED DECK ABOVE.
4. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX WITH DOUBLE GANG PLASTER RING (BY DIV 26).
5. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH. (BY DIV 26).

4 / T400-E TYPICAL TECHNOLOGY CONDUIT ROUGH-IN

SCALE: N.T.S.

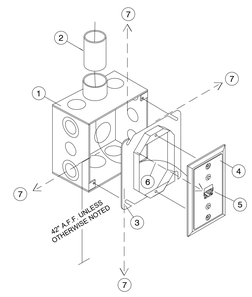


KEYED NOTES:

1. ALL THREAD TO BUILDING STRUCTURE (BY DIV. 27)
2. SCHEDULING CEILING
3. IN-PLENUM CEILING BRACKET PN 49223-CBC ATTACHED TO ALL THREAD (BY DIV. 27)
4. SURFACE MOUNT BOX ABOVE ACCESSIBLE CEILING SECURED TO BRACKET (BY DIV. 27)
5. DATA CABLE (BY DIV. 27)
6. DATA INSERT (BY DIV. 27)

5 / T400-E TYPICAL ABOVE CEILING DATA OUTLET

SCALE: N.T.S.

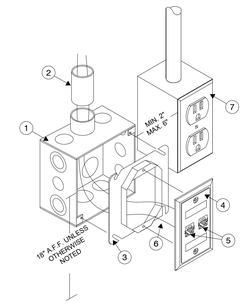


KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH PHONE STUDS (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. PROVIDE A MINIMUM OF 8-INCHES OF CLEARANCE AROUND BACK-BOX TO ACCOMODATE PHONE APPLIANCE THAT WILL BE INSTALLED ON THIS OUTLET

6 / T400-E TYPICAL WALL PHONE OUTLET CONFIGURATION

SCALE: N.T.S.

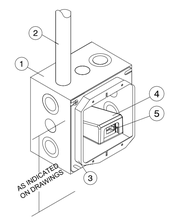


KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

7 / T400-E TYPICAL DUAL DATA OUTLET CONFIGURATION

SCALE: N.T.S.



KEYED NOTES:

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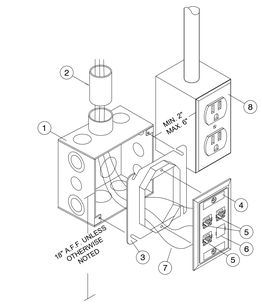
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. DOUBLE GANG PLASTER RING (BY DIV 26).
4. SURFACE MOUNT BOX INSIDE THE 4 11/16-INCH X 4 11/16-INCH X 2 1/8-INCH DOUBLE GANG BOX (BY DIV 27).
5. RJ-45 INSERT (BY DIV 27).

8 / T400-E TYPICAL WALL-MOUNTED WIRELESS ACCESS POINT

SCALE: N.T.S.



KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
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3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. BLANK INSERT (BY DIV 27).
7. CABLE AS SPECIFIED (BY DIV 27).
8. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

9 / T400-E TYPICAL THREE DATA OUTLET CONFIGURATION

SCALE: N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS
12-05-2025

PROJECT NO.	25-006
DATE:	12-05-2025
DRAWN BY: BP	CHECKED BY: CCG

REVISIONS:

	Date	Description

100% CD

T400-E

TECHNOLOGY TYPICAL DETAILS

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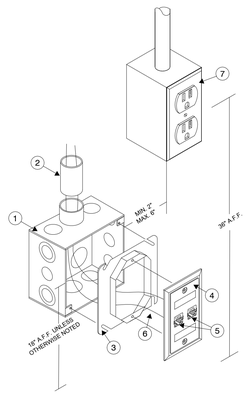

KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
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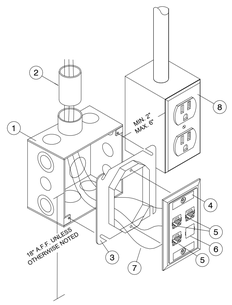
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26). ELECTRICAL RECEPTACLE TO BE INSTALLED AT 36" A.F.F AND ADJACENT TO COW / SECONDARY TEACHING OUTLET LOCATION.

1 T401-E TYPICAL COW / SECONDARY TEACHER'S DATA OUTLET CONFIGURATION

SCALE: N.T.S.

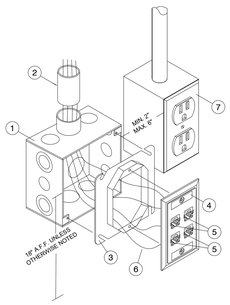


KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. BLANK INSERT (BY DIV 27).
7. CABLE AS SPECIFIED (BY DIV 27).
8. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

2 T401-E TYPICAL THREE DATA OUTLET CONFIGURATION

SCALE: N.T.S.



KEYED NOTES:

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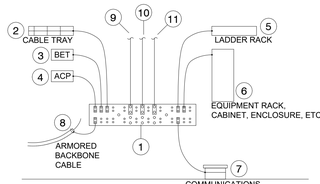
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

3 T401-E TYPICAL FOUR DATA OUTLET CONFIGURATION

SCALE: N.T.S.

GENERAL NOTES:

1. MAKE ALL BONDING CONNECTIONS WITH TWO-HOLE COMPRESSION LUGS.
2. SIZE ALL BONDING CONDUCTORS PER TELECOM BONDING CONDUCTOR SIZING TABLE.
3. THIS IS A TYPICAL DETAIL. NOT ALL EQUIPMENT REQUIRING BONDING MAY BE PRESENT IN EACH TELECOM ROOM.



KEYED NOTES:

1. TELECOMMUNICATIONS GROUNDING BUSBAR WITH BICSI STYLE HOLE PATTERN, SIZED PER [DRAWINGS/SPECIFICATIONS] (BY DIV 27).
2. BOND TO CABLE TRAY IN CORRIDOR. (BY DIV 26)
3. BOND TO BUILDING ENTRANCE TERMINALS AND PROTECTORS. (BY DIV 27)
4. BOND TO ACCESS CONTROL PANELS AND OTHER SECURITY ENCLOSURES. (BY DIV 28)
5. BOND TO OVERHEAD LADDER RACK; ENSURE ALL LADDER RACK SECTIONS ARE BONDED TOGETHER. (BY DIV 27)
6. BOND TO EACH EQUIPMENT RACK, CABINET, ENCLOSURE, ETC. (BY DIV 27)
7. BOND TO EACH CONTINUOUS COMMUNICATIONS CONDUIT THAT ENTERS THE TELECOM ROOM. (SLEEVES DO NOT NEED TO BE BONDED). (BY DIV 26)
8. BOND TO EACH ARMORED BACKBONE CABLE THAT TERMINATES IN THE TELECOM ROOM. (BY DIV 27)
9. FOR TELECOMMUNICATIONS MAIN GROUNDING BUSBAR, PROVIDE BONDING CONDUCTOR FOR TELECOMMUNICATIONS TO MAIN ELECTRICAL GROUND. (BY DIV 26)
10. FOR TELECOMMUNICATIONS GROUNDING BUSBARS ONLY: BONDING CONDUCTOR TO [BUILDING STEEL] [TELECOMMUNICATIONS BONDING BACKBONE] [GROUND BUS OF ELECTRICAL PANEL SERVING TELECOM ROOM POWER]. (BY DIV 26)
11. [FOR TELECOMMUNICATIONS MAIN GROUNDING BUSBAR, PROVIDE TELECOMMUNICATIONS BONDING BACKBONE PER TYPICAL GROUNDING DIAGRAM.] (BY DIV 26)

4 T401-E TELECOMMUNICATIONS BONDING BUSBAR DETAIL

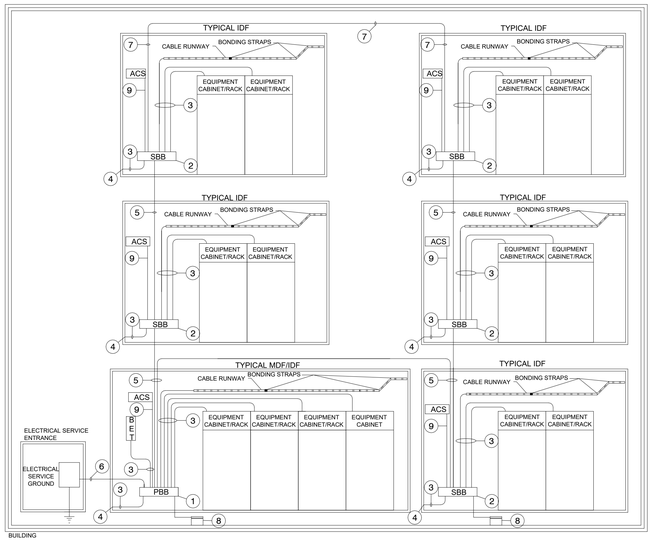
SCALE: N.T.S.

TBB/GE CONDUCTOR SIZING	
LENGTH IN LINEAR M (FT)	SIZE (AWG)
LESS THAN 4 (13)	6
4 - 6 (14-20)	4
6 - 8 (21 - 26)	3
8 - 10 (27 - 33)	2
10 - 13 (34 - 41)	1
13 - 16 (42 - 52)	1/0
16 - 20 (53 - 66)	2/0
20 - 26 (67 - 84)	3/0
26 - 32 (85 - 105)	4/0
32 - 38 (106 - 125)	250 kcmil
38 - 46 (126 - 150)	300 kcmil
46 - 53 (151 - 175)	350 kcmil
53 - 76 (176 - 250)	500 kcmil
76 - 91 (251 - 300)	600 kcmil
GREATER THAN 91 (301)	750 kcmil

ROUTE THE TBB TO EACH TGB IN AS STRAIGHT A PATH AS POSSIBLE. THE TBB SHOULD BE INSTALLED AS A CONTINUOUS CONDUCTOR, AVOIDING SPLICES WHERE POSSIBLE.

5 T401-E TBB CONDUCTOR SIZING

SCALE: N.T.S.

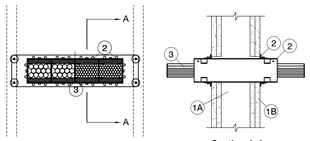


1. TELECOMMUNICATIONS MAIN GROUNDING BUS BAR (PBB)(BY DIV. 27)
2. TELECOMMUNICATIONS GROUNDING BUS BAR (SBB) (BY DIV 27)
3. TELECOMMUNICATIONS BONDING CONDUCTOR (TBC). REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS (BY DIV 27)
4. CONNECT TO GROUNDED BUILDING STEEL WHEN EXPOSED IN ROOM.
5. TELECOMMUNICATIONS BONDING BACKBONE (TBB). REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS (BY DIV 26)
6. TELECOMMUNICATIONS BONDING CONDUCTOR (TBC). BY ELECTRICAL CONTRACTOR.REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS.
7. GROUNDING EQUALIZER CONDUCTOR (GEC)(BY DIV 26)
8. BOUND WITH GROUDING COLLARS TO EACH CONTINUOUS CONDUIT THAT ENTERS THE TELECOM ROOM. (BY DIV 26).
9. BOND TO EACH ACCESS CONTROL PANEL AND OTHER SECURITY PANELS IN HE TELECOM ROOM. (BY DIV 27)

6 T401-E TYPICAL GROUNDING DIAGRAM

SCALE: N.T.S.

System No. W-L-3218
F Ratings - 1, 2, 3 and 4 Hr (See Items 1 and 3)
T Ratings - 3/4 and 1 Hr (See Item 3)
L Rating At Ambient - Less Than 1, 1.3, 4 or 7 CFM (See Item 3)
L Rating At 400 F - Less Than 1, 2 or 3 CFM (See Item 3)



Section A-A

1. Wall Assembly - The 1, 2, 3 or 4 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described within the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall incorporate the following construction features:
   A. Studs - Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* - Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Opening in gypsum board to be max 1/4 in. (6 mm) larger then width and height dimensions of firestop device(s).

   The hourly F Rating of the firestop system is dependent upon the hourly rating of the wall in which it is installed.
2. Firestop Device* - One, two, three, four or seven firestop device modules ganged together. Each firestop device module consists of a 3 by 3 by 10-1/2 in. (76 by 76 by 267 mm) long galv steel tube with an intumescent material lining. Firestop device modules to be installed in accordance with the accompanying installation instructions. The space between the firestop device module(s) and the periphery of the opening shall be min 0 in. (0 mm, point contact) to max 1/8 in. (3.2 mm). In round openings, the space between the firestop device and the periphery of the opening shall be min 0 in. (point contact) to max 1/2 in. (13 mm). Firestop device module(s) secured in place by means of steel wall plates installed with gasketing material supplied with product. Steel wall plates installed on both sides of wall and secured to each device by means of steel set screws provided with device. Each four- and seven-gang steel wall plate shall be fastened to the studs with steel screws sized to extend through the gypsum board layers and penetrate 1/2 in. (13 mm) into the framing member. Each firestop device module is to be installed with ends projecting an equal distance beyond each surface of the wall assembly.

   As an alternate, the four- and seven-gang steel wall plates may be installed directly against the studs for walls having 16 and 24 in. (406 and 610 mm) center-to-center stud spacing, respectively, prior to installation of the gypsum board layers. The steel wall plates shall be secured to the stud by means of steel screws. After installation of the steel wall plates and firestop device modules, the gypsum board shall be installed as specified in the individual U300 or U400 Design with a maximum 1/8 in. (3.2 mm) gap between the firestop device module and the cutout in the gypsum board. Gap between the firestop device module and the cutout in the gypsum board may be filled with gypsum joint compound or fill material (Item 4).

   SPECIFIED TECHNOLOGIES INC - EZ PATH Series 33 Fire Rated Pathway

2A. Firestop Device* - Extension Module - (Optional, Not Shown) - Module attached to ends of 3 by 3 by 10-1/2 in. (76 by 76 by 267 mm) long firestop device (Item 3) to increase its length to facilitate installation in thicker walls. Each module consists of a 3 by 3 by 6 in. (76 by 76 by 152 mm) long galv steel tube with an intumescent material lining. Extension module to be installed in accordance with the accompanying installation instructions. When module is used, firestop device (Item 2) and extension module(s) secured in place by means of steel wall plates installed with gasketing material supplied with product. Steel wall plates installed on both sides of wall and secured to each device or extension module(s) by means of steel set screws provided with wall plates. Firestop device and extension module(s) assembly to be installed with ends projecting an equal distance beyond each surface of the wall assembly.

   SPECIFIED TECHNOLOGIES INC - EZ PATH Extension
3. Cables - Within the loading area for each firestop device module, the cables may represent a 0 to 100 percent visual fill. Cable fill to be distributed at a uniform height across the width of the firestop device module. Cables to be rigidly supported on both sides of the wall assembly. Any combination of the following types of cables may be used:
   A. Max 400 pair No. 24 AWG (or smaller) copper conductor telecommunication cable with polyvinyl chloride (PVC) jacketing and insulation.
   B. Max 350 kcmil single copper conductor power cable with XLPE jacket and insulation
   C. Max 7/C No. 12 AWG copper conductor control cable with PVC or XLPE jacket and insulation.
   D. Max 3/C No. 10 AWG metal clad or armored cable with steel or aluminum jacket.
   E. Max 3/C No. 8 AWG NM cable (Romex) with PVC insulation and jacket.
   F. Max four pair No. 22 AWG (or smaller) copper conductor data cable with PVC or plenum rated jacketing and insulation.
   G. Max RG/U coaxial cable with fluorinated ethylene insulation and jacketing.
   H. Fiber optic cable with PVC or polyethylene (PE) jacket and insulation having a max diam of 5/8 in. (16 mm).
   I. Optical Fiber Raceway+ - Max 1-1/2 in. (38 mm) diam (or smaller) optical fiber raceway ("innerduct") formed of either PVC or polyvinylidene fluoride (PVDF) with optical fiber cable fill. Raceways installed in accordance with the National Electrical Code (NFPA 70).

   When the hourly rating of the wall assembly is 1 hr, the T Rating is 3/4 hr. When the hourly fire rating of the wall assembly is greater than 1 hr, the T Rating is 3/4 hr when Item 3A, 3B, 3C, 3D or 3E is used. Otherwise the T Rating is 1 hr. When Item 3A, 3B, 3C, 3D or 3E is used, the maximum F Rating is 2 hr. When max 200 pair No. 24 AWG telecommunication cable is used or when Item 3F, 3G, 3H or 3I is used, the maximum F Rating is 4 hr.

   The L Rating for each empty firestop device module is less than 1 cfm at ambient and at 400F. When Item 3A is used, the L Rating for each firestop device module with 100 percent visual fill is 4 cfm at ambient and 3 cfm at 400F. When Item 3F is used, the L Rating for each firestop device module with 100 percent visual fill is 1.3 cfm at ambient and 1 cfm at 400F. When Item 3G or 3H is used, the L Rating for each firestop device module with 100 percent visual fill is 7 cfm at ambient and 2 cfm at 400F.
4. Fill, Void or Cavity Material* - Sealant or Putty - (Not Shown) - As an alternate to gypsum joint compound, the gap between the firestop device module and the cutout in the gypsum board may be sealed with fill material on each side of the wall assembly when four- and seven-gang steel wall plates are installed directly against the wood or steel studs.

   SPECIFIED TECHNOLOGIES INC - SpecSeal Series SSS Sealant, SpecSeal LCI Sealant, SpecSeal Putty

   *Bearing the UL Classification Mark

7 T401-E TYPICAL STI EZ-PATH SLEEVE DETAIL

SCALE: N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS
12-05-2025

PROJECT NO.	25-006
DATE:	12-05-2025
DRAWN BY: BP	CHECKED BY: CCG
REVISIONS:	
No. Date	Description

100% CD

T401-E
TECHNOLOGY TYPICAL DETAILS

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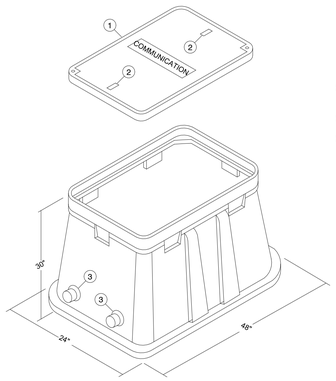
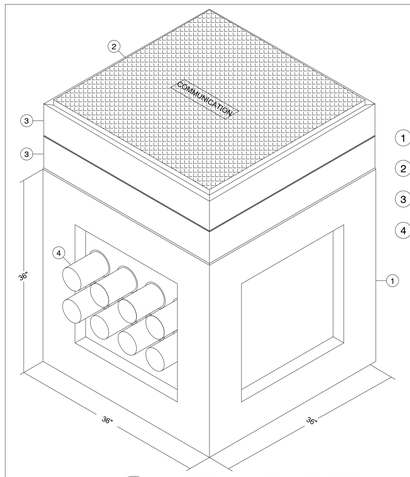


KEYED NOTES:

1. 40-INCH X 18-INCH COVER RATED FOR ENVIRONMENT WITH "COMMUNICATION" STENCILED ON TOP (BY DIV 26).
2. LIFTING EYE (BY DIV 26).
3. 4-INCH TERMINATOR (BY DIV 26).

1 / T402-E — TYPICAL TECHNOLOGY HANDHOLES (HH)

SCALE: N.T.S.

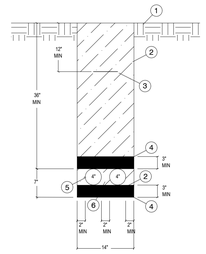


KEYED NOTES:

1. 36-INCH X 36-INCH X 36-INCH PRECAST HANDHOLE (BY DIV 26).
2. 36-INCH X 36-INCH COVER RATED FOR ENVIRONMENT WITH "COMMUNICATION" STENCILED ON TOP (BY DIV 26).
3. PRECAST EXTENSION AS REQUIRED TO MOUNT FLUSH WITH GRADE (BY DIV 26).
4. 4-INCH TERMINATOR (BY DIV 26).

2 / T402-E — TYPICAL TECHNOLOGY HANDHOLE (HH)

SCALE: N.T.S.

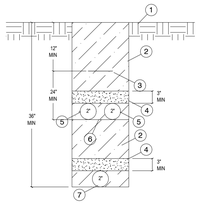


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. SELECT COMPACTED BACKFILL (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. COMMUNICATIONS CONDUIT (BY DIV 26).
6. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).

3 / T402-E — TYPICAL COMMUNICATIONS DUCT BANK DETAIL - (2) 4-INCH CONDUITS

SCALE: N.T.S.

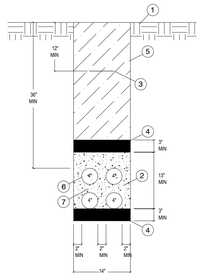


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. SELECT COMPACTED BACKFILL (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. COMMUNICATIONS CONDUIT (BY DIV 26).
6. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).
7. ELECTRICAL CONDUIT (BY DIV 26)

4 / T402-E — 12-INCH SEPARATION COMMUNICATION AND ELECTRICAL SHARED DUCT BANK DETAIL

SCALE: N.T.S.

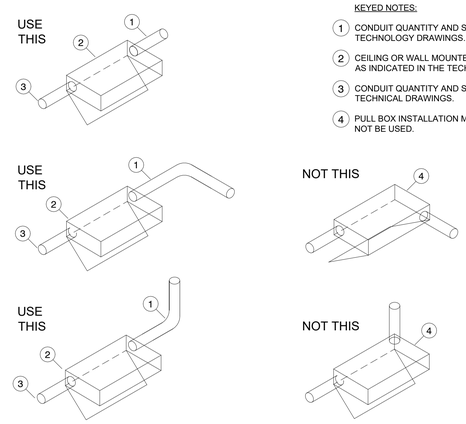


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. 3000 PSI CONCRETE (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. SELECT COMPACTED BACKFILL (BY DIV 26).
6. COMMUNICATIONS CONDUIT (BY DIV 26).
7. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).

5 / T402-E — TYPICAL COMMUNICATIONS CONCRETE ENCASED DUCT BANK DETAIL - (4) 4-INCH CONDUITS

SCALE: N.T.S.



KEYED NOTES:

1. CONDUIT QUANTITY AND SIZE AS INDICATED IN THE TECHNOLOGY DRAWINGS.
2. CEILING OR WALL MOUNTED PULL BOX WITH LOCKING COVER AS INDICATED IN THE TECHNOLOGY DRAWINGS.
3. CONDUIT QUANTITY AND SIZE AND INDICATED IN THE TECHNICAL DRAWINGS.
4. PULL BOX INSTALLATION MEANS AND METHODS THAT SHALL NOT BE USED.

6 / T402-E — TYPICAL PULL BOX ENTRANCE POINT MEANS AND METHODS DETAIL

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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

7007 Knights Ct, Missouri City, TX 77459

ELKINS HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL J. AHANE
20113
STATE OF TEXAS

12-05-2025

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T402-E

TECHNOLOGY TYPICAL DETAILS

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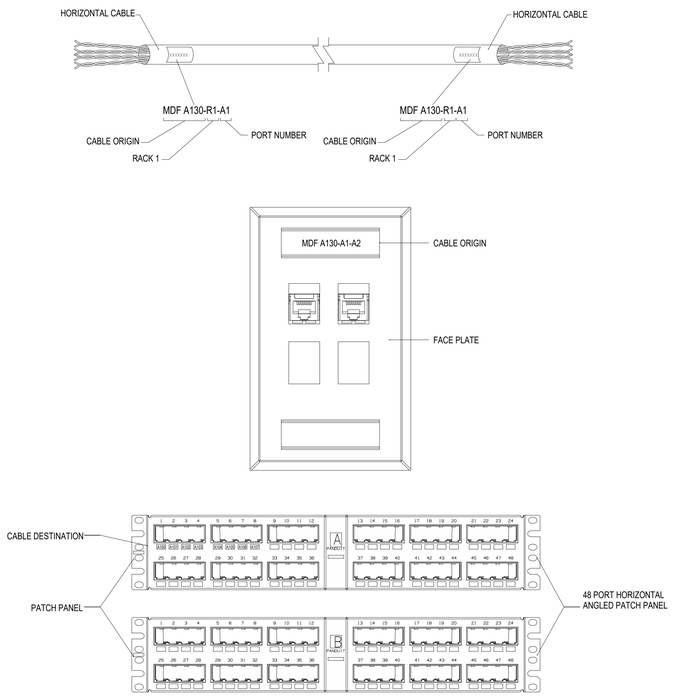

1 T500-E TYPICAL HORIZONTAL DATA CABLE LABELING SCHEME

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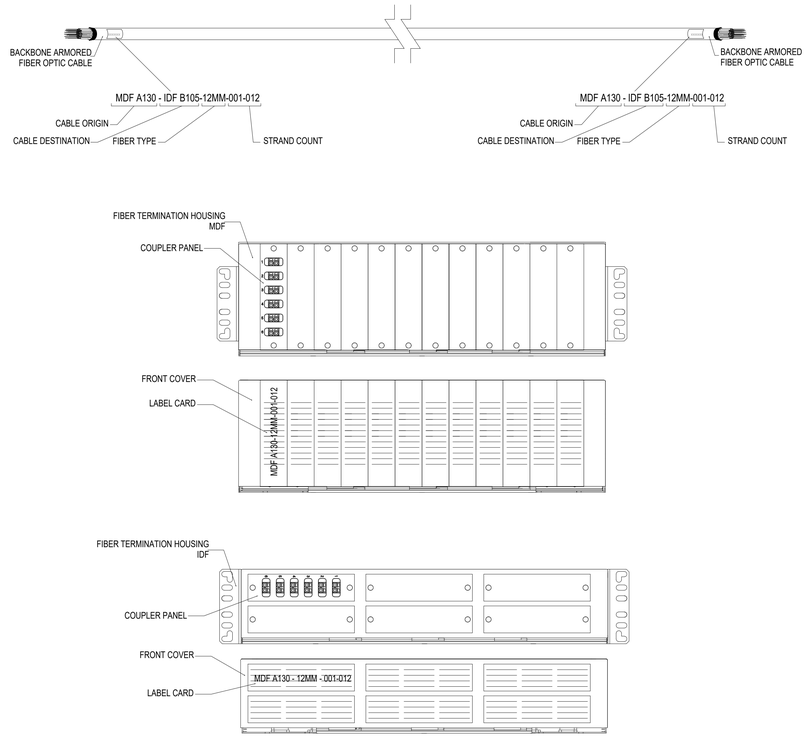
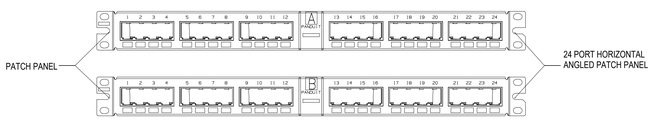


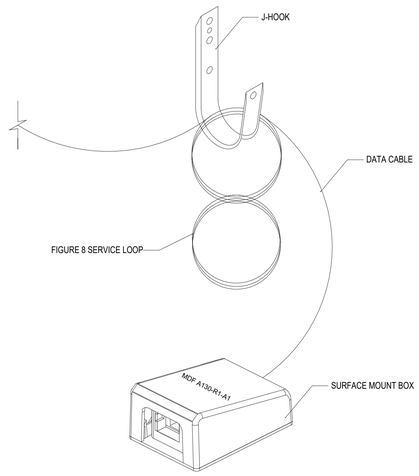
2 T500-E TYPICAL FIBER BACKBONE LABELING SCHEME

SCALE: N.T.S.



3 T500-E TYPICAL COPPER BACKBONE LABELING SCHEME

SCALE: N.T.S.



4 T500-E ABOVE ASSESSIBLE CEILING LABELING SCHEME

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
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T500-E
TECHNOLOGY TYPICAL LABELING SCHEME

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AUDIOVISUAL SYMBOLS & LEGEND

AUDIOVISUAL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING HEIGHT TO CENTERLINE	BACK BOX	CONDUIT SIZE
ACP	AUDIOVISUAL CONTROL PROCESSOR	RACK, AV WALL BOX, WALL MOUNTED	N/A	1" CONDUIT TO ACCESSIBLE CEILING
AMP	SPEAKER AMPLIFIER	RACK, AV WALL BOX, WALL MOUNTED	N/A	N/A
ALS	ASSISTED LISTENING SYSTEM	SURFACE CEILING MOUNTED	2-GANG	1" CONDUIT TO ACCESSIBLE CEILING
AT#	CEILING-MOUNTED ANTENNA, # = TYPE AS SPECIFIED	PER DRAWINGS	2-GANG	1" CONDUIT TO ACCESSIBLE CEILING
AT#	WALL-MOUNTED ANTENNA, # = TYPE AS SPECIFIED	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
AV#	AV DEVICE	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
BT	BLUETOOTH RECEIVER	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
CAM	CEILING-MOUNTED AUDIOVISUAL CAMERA	SURFACE CEILING MOUNTED	2-GANG	1.25" CONDUIT TO ACCESSIBLE CEILING
CAM	WALL-MOUNTED AUDIOVISUAL CAMERA	PER DRAWINGS	1-GANG	1.25" CONDUIT TO ACCESSIBLE CEILING
CB	WALL-MOUNTED CALL BUTTON	PER DRAWINGS	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
CE	CEILING MOUNTED EQUIPMENT ENCLOSURE	FLUSH CEILING MOUNTED	2-GANG ELECTRICAL 2-GANG DATA 2-GANG AV	1.5" AV CONDUIT TO ACCESSIBLE CEILING
CP#	WALL OR TABLE TOP MOUNTED CONTROL PANEL, # = TYPE AS SPECIFIED	WALL MOUNTED 48" ABOVE FINISHED FLOOR	WILL VARY PER PROJECT OR TYPE	1" CONDUIT TO ACCESSIBLE CEILING
CTV	CATV LOCATION, CABLE TYPE AND TERMINATION AS SPECIFIED	PER DRAWINGS	2-GANG	1" CONDUIT TO ACCESSIBLE CEILING
DA	DISTRIBUTION AMPLIFIER	RACK OR AV WALL BOX MOUNTED.	N/A	N/A
DS	DIGITAL SIGNAGE PLAYER	RACK OR AV WALL BOX MOUNTED.	N/A	N/A
DSP	AUDIO DIGITAL SIGNAL PROCESSOR	RACK OR AV WALL BOX MOUNTED.	N/A	N/A
EQ#	EQUIPMENT RACK, # = TYPE AS SPECIFIED	PER DRAWINGS /PER SPECS	N/A	N/A
FB#	FLOOR BOX, # = TYPE AS SPECIFIED	PER DRAWINGS	2-GANG ELECTRICAL 2-GANG DATA 2-GANG AV	1.5" AV CONDUIT TO ACCESSIBLE CEILING
IPE	IP ENCODER	RACK OR AV WALL BOX MOUNTED.	N/A	N/A
IPD	IP DECODER	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
L	LECTERN / PODIUM	FLUSH CEILING MOUNTED	N/A	1" CONDUIT TO ACCESSIBLE CEILING
MC#	CEILING-MOUNTED MICROPHONE, # = TYPE AS SPECIFIED	PER DRAWINGS	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
MC#	WALL-MOUNTED OR TABLETOP MOUNTED MICROPHONE, # = TYPE AS SPECIFIED	PER DRAWINGS	2-GANG	1" CONDUIT TO ACCESSIBLE CEILING
MCT	MOBILE CART	N/A	N/A	N/A
MM#	CEILING-MOUNTED MULTIMEDIA PLATE, # = TYPE AS SPECIFIED	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
MM#	WALL-MOUNTED MULTIMEDIA PLATE, # = TYPE AS SPECIFIED	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
OS	CEILING-MOUNTED OCCUPANCY SENSOR	SURFACE CEILING MOUNTED	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
OS	WALL-MOUNTED OCCUPANCY SENSOR	PER DRAWINGS	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
PS	CEILING-MOUNTED PARTITION SENSOR	SURFACE CEILING MOUNTED	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
P#	PROJECTOR, # = TYPE AS SPECIFIED	PER DRAWINGS	N/A	N/A
R	WALL-MOUNTED ROUGH-IN LOCATION	18" ABOVE FINISHED FLOOR OR PER DRAWINGS	2-GANG OF PER DRAWINGS	1" CONDUIT TO ACCESSIBLE CEILING
RS	ROOM SCHEDULER	48" ABOVE FINISHED FLOOR	3-GANG OR PER MANUFACTURER	1" CONDUIT TO ACCESSIBLE CEILING
RX#	AUDIOVISUAL RECEIVER	PER DRAWINGS	N/A	N/A
S#	CEILING-MOUNTED SPEAKER, # = TYPE AS SPECIFIED	SURFACE CEILING MOUNTED	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
S#	WALL-MOUNTED SPEAKER, # = TYPE AS SPECIFIED	PER DRAWINGS	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING

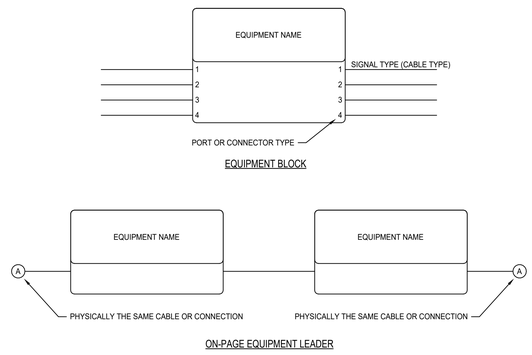
AUDIOVISUAL SYMBOLS - CONTINUED

SYMBOL	DESCRIPTION	MOUNTING HEIGHT TO CENTERLINE	BACK BOX	CONDUIT SIZE
SB	SOUND BAR.	PER DRAWINGS	N/A	N/A
SBC	INTEGRATED SOUND BAR WITH CAMERA AND MICROPHONE.	PER DRAWINGS	N/A	N/A
TC	TABLETOP CABLE CUBBY.	N/A	N/A	N/A
TX#	AUDIOVISUAL TRANSMITTER.	18" A.F.F. OR PER DRAWINGS	2-GANG	1" CONDUIT TO ACCESSIBLE CEILING
VC	WALL-MOUNTED VOLUME CONTROL.	48" A.F.F. OR PER DRAWINGS	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
VCC	VIDEO CONFERENCING COMPUTER.	RACK OR AV WALL BOX MOUNTED.	N/A	N/A
WB#	AUDIOVISUAL WALL BOX, # = TYPE AS SPECIFICED	PER DRAWINGS	2-GANG ELECTRICAL 2-GANG DATA 2-GANG AV	N/A
WP	WIRELESS PRESENTATION.	RACK OR AV WALL BOX MOUNTED.	N/A	N/A
FPD#	FLAT PANEL DISPAY, # = DISPLAY SIZE	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
IFP#	INTERACTIVE FLAT PANEL, # = DISPLAY SIZE	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
SCR#	PROJECTION SCREEN, # = DISPLAY SIZE	PER DRAWINGS	2 - GANG ELECTRICAL 2 - GANG AV	1" CONDUIT TO ACCESSIBLE CEILING
VW#	VIDEO WALL, # = DISPLAY SIZE	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
———	DEVICE CONDUIT ABOVE CEILING.	N/A	N/A	N/A
- - - - -	DEVICE CONDUIT BELOW FLOOR.	N/A	N/A	N/A

GENERAL SYMBOLS

# SHEET DRAWING TITLE SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
1 TA-302	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES TELECOMMUNICATIONS REGION.

AUDIOVISUAL SIGNAL FLOW SYMBOLS



ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
BYOD	BRING YOUR OWN DEVICE
CATV	COMMUNITY ANTENNA TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CL	CENTERLINE
CLT	CLOSET
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
HE	PA/INTERCOM HEAD-END
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PVC	POLYVINYL CHLORIDE
SM	SINGLE MODE
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR
OFOI	OWNER FURNISHED/OWNER INSTALLED
OFCI	OWNER FURNISHED/CONTRACTOR INSTALLED
OFCI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED

NOTES

SYMBOLS & LEGEND SHEET

1. CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF AUDIOVISUAL DRAWINGS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. AUDIOVISUAL DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.
5. IN THE EVENT OF A DISCREPANCY BETWEEN THE AUDIOVISUAL DRAWINGS AND SPECIFICATIONS THE GREATER QUANTITY AND COST SHALL BE UTILIZED.
6. CONFIRM MOUNTING HEIGHTS AND LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.
7. THE CENTERLINE OF DEVICE INSTALL LOCATIONS ARE FOR REFERENCE AND DESIGN INTENT. CONFIRM WITH ARCHITECT, OWNER, AND FIELD CONDITIONS.
8. ALL DISPLAYS OR WALL MOUNTED DEVICES SHALL BE WITHIN ADA REQUIREMENTS. CONTRACTOR SHALL IDENTIFY ANY NON-COMPLIANT DEVICES AND BRING TO THE ATTENTION OF THE ARCHITECT AND CONSULTANT.

INDEX OF DRAWINGS

TA000-E	AUDIOVISUAL SYMBOLS & LEGEND
TA201-E	AUDIOVISUAL SOFTBALL PRESSBOX
TA400-E	AUDIOVISUAL TYPICAL DETAILS
TA500-E	AUDIOVISUAL SIGNAL FLOW DIAGRAM

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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7007 Knights Ct, Missouri City, TX 77459
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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS
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TA000-E
AUDIOVISUAL SYMBOLS & LEGEND

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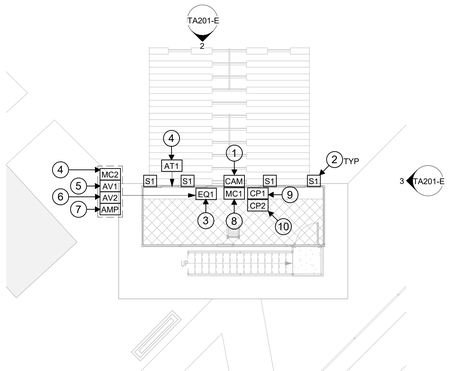
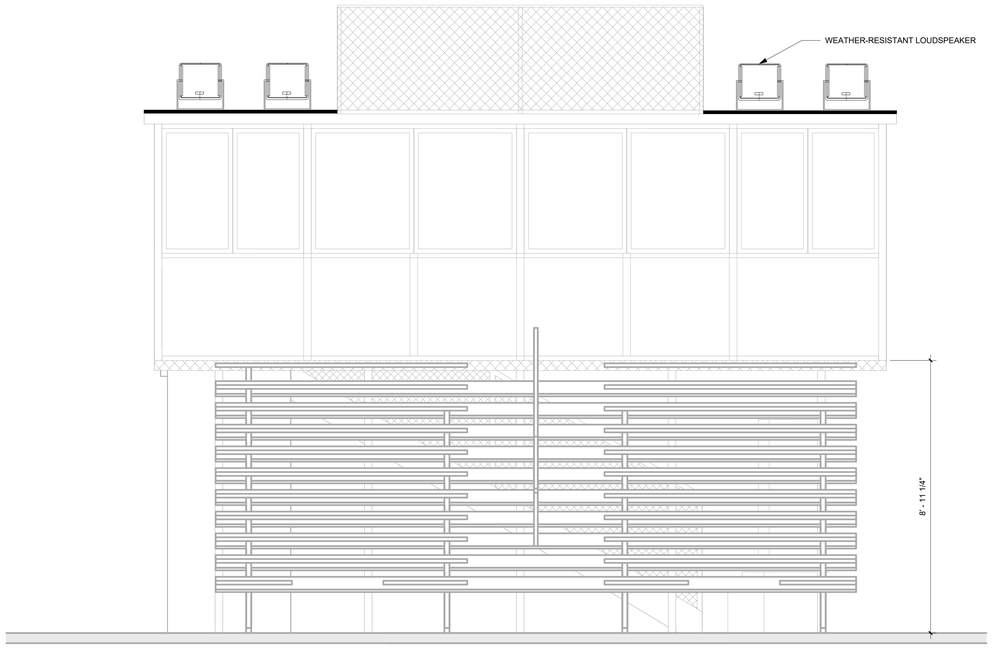
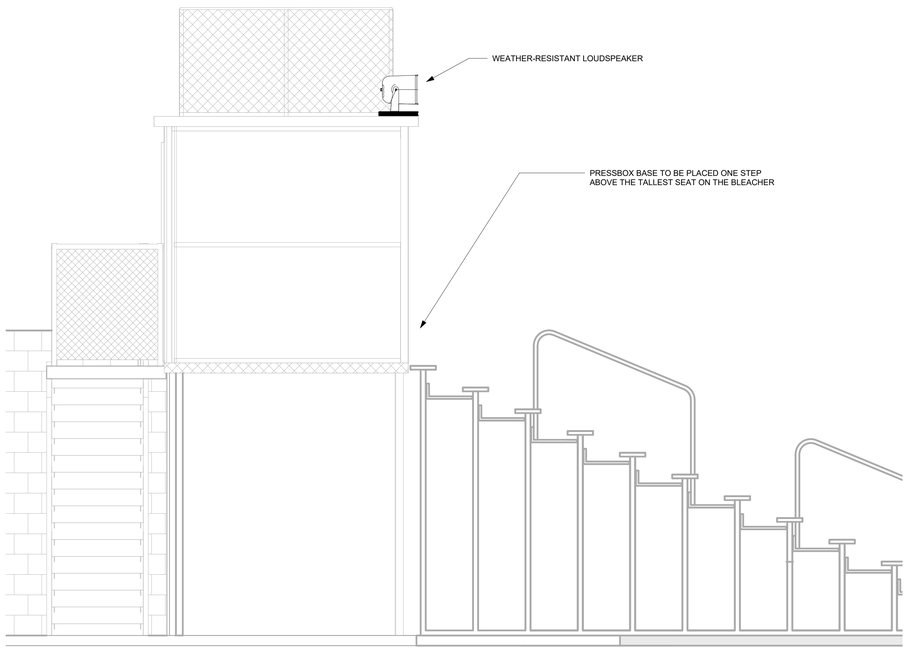


1 TA201-E AUDIOVISUAL LEVEL 01 FLOOR PLAN - SOFTBALL PRESSBOX
1/8" = 1'-0"



2 TA201-E PRESSBOX ELEVATION - E
1/2" = 1'-0"



3 TA201-E PRESSBOX EAST ELEVATION - A
1/2" = 1'-0"

AUDIOVISUAL FLOOR PLAN GENERAL NOTES

1. ALL CONDUIT PATHWAYS, ROUGH-INS, BACKBOXES, IN-WALL BOXES, FLOOR BOXES, CONDUIT SLEEVES, ETC. INDICATED ON THE AUDIOVISUAL DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26. AUDIOVISUAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR ON AUDIOVISUAL INFRASTRUCTURE REQUIREMENTS.
2. ALL POWER INDICATED ON THE AUDIOVISUAL DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26. AUDIOVISUAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR ON AUDIOVISUAL POWER REQUIREMENTS.
3. AUDIOVISUAL CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE RATED WALLS/STRUCTURES FOR AUDIOVISUAL CABLING BACK TO THE ORIGINAL RATING.
4. AUDIOVISUAL CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR AUDIOVISUAL CABLING TO MITIGATE SOUND TRANSFER THROUGH PENETRATIONS.
5. AUDIOVISUAL SYSTEMS CABLING SHALL BE ROUTED IN SEPARATE PATHWAYS IN J-HOOKS, CONDUITS, CONDUIT SLEEVES, CORES, ETC. THROUGHOUT THE ENTIRE PATHWAY. AUDIOVISUAL SYSTEMS CABLING SHALL NOT SHARE THE SAME J-HOOK, CONDUIT, CONDUIT SLEEVE, CORE, ETC. WITH OTHER SYSTEMS (I.E. COMMUNICATIONS, SECURITY, FIRE ALARM, ETC.)
6. UNLESS NOTED OTHERWISE, ALL CONDUITS FOR AUDIOVISUAL SYSTEMS SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE AN ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. AN OPEN CEILING OR CLOUD TYPE CEILING IS NOT CONSIDERED AN ACCESSIBLE CEILING. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF A MAIN CORRIDOR.
7. CONDUIT PATHWAYS FOR AUDIOVISUAL SYSTEMS SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF / IDF ROOM TO MINIMIZE CABLE LENGTHS AND ENSURE CABLE DISTANCES DO NOT EXCEED MANUFACTURER RECOMMENDATIONS.
8. UNLESS NOTED OTHERWISE ALL CONDUITS FOR AUDIOVISUAL SYSTEMS SHALL BE HOMERUN FROM THE DEVICE LOCATION TO THE TERMINATION DESTINATION. DAISY CHAINING OF DEVICES / ROUGH-INS IS NOT PERMITTED.
9. CONDUIT SEGMENTS FOR AUDIOVISUAL SYSTEMS SHALL BE NO MORE THAN 100-FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
10. CONDUITS FOR AUDIOVISUAL SYSTEMS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF THE CONDUIT FOR CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUIT FOR CONDUITS GREATER THAN 2-INCHES.
11. ALL CONDUITS FOR AUDIOVISUAL SYSTEMS SHALL HAVE NYLON BUSHINGS ON EACH END AND A PULL STRING INSTALLED FOR PULLING OF CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
13. CONDUIT, CONNECTIONS, J-BOXES, SUSPENSION, ANCHORAGES, AND OTHER CONDUIT COMPONENTS EXPOSED TO VIEW IN PUBLIC SPACES SHALL BE ROUTED AND INSTALLED CAREFULLY TO MINIMIZE VISUAL IMPACT AND SHALL BE FULLY PAINTED TO MATCH UNLESS NOTED OTHERWISE.
14. FOR AV CONDUIT PATHWAYS, THERE SHALL BE NO MORE THAN (2) 90-DEGREE BENDS BETWEEN PULL BOXES OR CONDUIT ENDS. THE MAXIMUM DISTANCE BETWEEN PULL BOXES OR CONDUIT ENDS SHALL BE NO MORE THAN 100FT.

AUDIOVISUAL FLOOR PLAN KEY NOTES

1. WALL MOUNTED WIDE-VIEW CAMERA. PROVIDED BY OTHERS.
2. OUTDOOR RATED SPEAKER. PROVIDE MANUFACTURER YOKE BRACKET AND APPROVED ANCHORS FOR EXTERIOR MOUNTING. PROVIDE 2-GANG OUTDOOR RATED BACKBOX WITH 1.25" CONDUIT BACK TO AV EQUIPMENT RACK HEADEND LOCATION (BY DIV 26). AV CONTRACTOR RESPONSIBLE FOR APPROPRIATE AZIMUTH AND PITCH OF EACH CABINET, FOR OPTIMAL SOUND COVERAGE.
3. EQUIPMENT RACK LOCATED UNDER MILLWORK FOR AUDIOVISUAL SYSTEMS. COORDINATE HEIGHT AND PLACEMENT WITH MILLWORK PROVIDER. POWER AND DATA REQUIRED. PROVIDE (2) 120V / 20A DEDICATED, GROUNDED CIRCUITS WITH 2-GANG QUAD RECEPTACLES (BY DIV 26).
4. WIRELESS MICROPHONE SYSTEM INCLUDING (2) HANDHELD MICROPHONES. PROVIDE OUTDOOR-RATED ANTENNAS AS REQUIRED FOR WIRELESS COVERAGE. PROVIDE 2-GANG OUTDOOR RATED BACKBOX WITH 1.25" CONDUIT, FROM ANTENNA LOCATION TO AV EQUIPMENT RACK HEADEND LOCATION (BY DIV 26).
5. RACK MOUNTED MEDIA PLAYER WITH BLUETOOTH CONNECTION. POWER REQUIRED.
6. RACKMOUNT AUTOMATIC MICROPHONE MIXER.
7. RACK MOUNTED AUDIO AMPLIFIER WITH INTEGRATED DSP. PROVIDE QUANTITY AS REQUIRED FOR DESIGN INTENT AND TURNKEY SYSTEM. DATA AND DEDICATED 20A POWER REQUIRED.
8. WIRED BROADCAST MICROPHONE. PROVIDE DESK STAND, AND 2" TABLE GROMMET FOR CABLE PASS-THROUGH TO EQUIPMENT RACK.
9. ANNOUNCER'S CONSOLE. PROVIDE PATCH CABLING REQUIRED.
10. POWER SEQUENCER ON / OFF KEY SWITCH. PROVIDE (1) 1-GANG BACK BOX MOUNTED FLUSH TO THE DESKTOP, WITH 1.25" CONDUIT PATHWAY TO AV RACK LOCATION (BY DIV 26).

pfluger
office : 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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TA201-E
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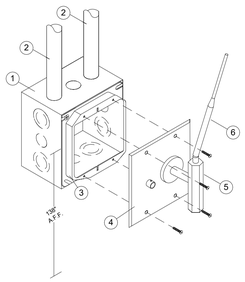
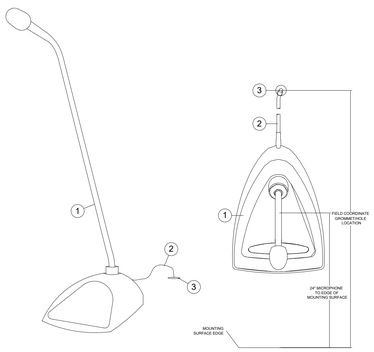


KEYED NOTES:

1. 4-11/16" X 4-11/16" X 2-1/8" RECESSED DOUBLE-GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED.
3. DOUBLE-GANG PLASTER RING - DEVICE OPENING MUST HAVE RIGHT ANGLE CORNERS TO AVOID PHYSICAL CONFLICTS WITH A|V DEVICE(S) (BY DIV 26).
4. CUSTOM 2-GANG FACEPLATE WITH 50-OHM BNC-M PASS-THROUGH CONNECTOR AND THREADED SURFACE-MOUNT MICROPHONE MOUNT ADAPTER (BY DIV 27).
5. WIRELESS MICROPHONE IN-LINE AMPLIFIER - MANUFACTURER/MODEL NUMBER AS SPECIFIED. REFER TO DRAWINGS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION (BY DIV 27).
6. WIRELESS MICROPHONE ANTENNA - MANUFACTURER/MODEL NUMBER AS SPECIFIED. REFER TO DRAWINGS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION (BY DIV 27).

1 TA400-E TYPICAL WIRELESS MICROPHONE ANTENNA DETAIL

SCALE: N.T.S.



KEYED NOTES:

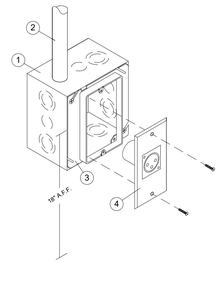
1. DESKTOP MICROPHONE – MANUFACTURER / MODEL NUMBER AS SPECIFIED (BY DIV 27).
2. SIGNAL CABLE FOR WIRED MICROPHONE (BY DIV 27).
3. GROMMET/HOLE IN TABLE SURFACE FOR SIGNAL CABLE PASSAGE. COORDINATE INSTALLATION WITH FURNITURE CONTRACTOR (BY DIV 27).

GENERAL NOTE:

PROVIDE ONE (1) 1-INCH DISCRETE/DEDICATED EMT CONDUIT FROM EACH ACCESSIBLE TABLE LEG FOR MICROPHONE SIGNAL CABLE. ROUTE CONDUIT TO ACCESSIBLE CEILING SPACE IN THE SAME ROOM WHERE THE DEVICE IS LOCATED (BY DIV 26).

2 TA400-E TYPICAL DESKTOP MICROPHONE MOUNTING DETAIL

SCALE: N.T.S.

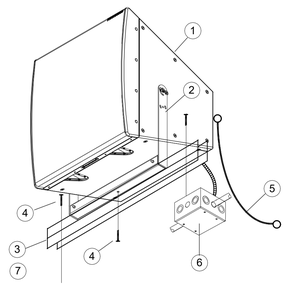


KEYED NOTES:

1. 4-11/16" X 4-11/16" X 2-1/8" RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM BACK BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED (BY DIV 26).
3. SINGLE-GANG PLASTER RING - DEVICE OPENING MUST HAVE RIGHT-ANGLE CORNERS TO AVOID PHYSICAL CONFLICTS WITH DEVICE(S) (BY DIV 26).
4. XLR CONNECTOR(S) - GENDER, TYPE, MODEL NUMBER AS SPECIFIED. REFER TO DRAWINGS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION (BY DIV 27).

3 TA400-E TYPICAL XLR LOCATION DETAIL

SCALE: N.T.S.



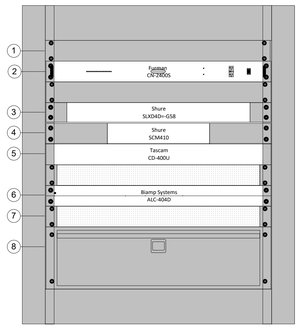
KEYED NOTES:

1. IP55 OR GREATER OUTDOOR RATED SPEAKER FOR SPORTS ARENA.
2. MANUFACTURER SPECIFIED YOKE BRACKET MOUNT.
3. P1001 STRUT CHANNEL CROSSBEAM TO MOUNT YOKE BRACKET ON ROTATION POINT. MOUNTS BY STRUCTURAL BOLT TO STRUCTURAL POINT (BY OTHERS).
4. 1/2" GRADE-8 STAINLESS STEEL STRUCTURAL BOLT. CONSULT EPA WIND REQUIREMENTS AND ANSI 5:1 STRUCTURAL LOAD REQUIREMENTS.
5. STEEL SAFETY CABLE AND EYEBOLTS. COORDINATE EYEBOLT SIZE PRIOR TO INSTALL.
6. OUTDOOR JUNCTION BOX WITH 1" CONDUIT PATHWAY BACK TO HEADEND, AND 3/4" FLEX CONDUIT TO SPEAKER ENCLOSURE (BY DIV 26). ALL PENETRATIONS INTO THE BULDING, PROVIDED BY OTHERS.
7. METAL DEVICES SHALL BE PROPERLY GROUNDED AND LIGHTING PROTECTED.

4 TA400-E ARENA LOUDSPEAKER MOUNTING DETAIL

SCALE: N.T.S.

EQ1



KEYED NOTES:

1. BLANK PLATE
2. POWER DISTRIBUTION SEQUENCER
3. WIRELESS MICROPHONE SYSTEM
4. MICROPHONE MIXER
5. COMBINATION MEDIA PLAYER
6. MULTICHANNEL DSP AND SPEAKER AMPLIFER
7. VENT PLATE
8. UTILITY DRAWER

5 TA400-E AV EQUIPMENT RACK ELEVATION

SCALE: N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
7007 Knights Ct, Missouri City, TX 77459
ELKINS HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 29113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
No. Date Description

100% CD

TA400-E
AUDIOVISUAL TYPICAL DETAILS

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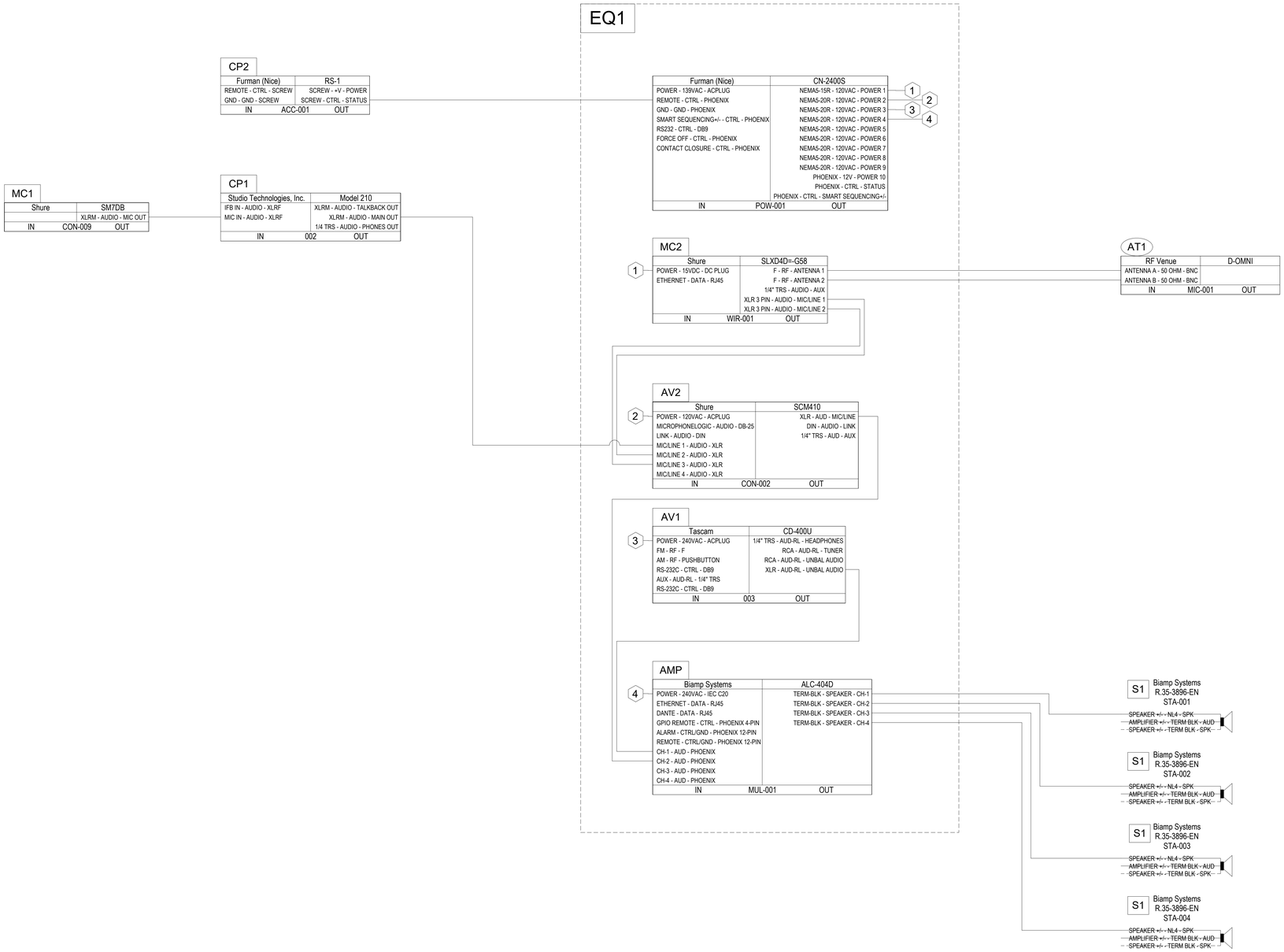
PRESS BOX SOUND REINFORCEMENT SYSTEM



1 TA500-E AUDIOVISUAL SIGNAL FLOW DIAGRAM
N.T.S.

AV SIGNAL FLOW GENERAL NOTES

1. AUDIOVISUAL SIGNAL FLOW DIAGRAMS ARE INTENDED TO SHOW GENERAL DESIGN INTENT, MAJOR COMPONENTS, INTERCONNECTIVITY, AND FUNCTIONALITY.
2. CONTRACTOR SHALL PROVIDE POINT TO POINT SCHEMATIC DIAGRAMS WITH ALL INPUTS, OUTPUTS, AND CONNECTIVITY WITH SUBMITTAL PACKAGE.
3. CONTRACTOR SHALL PROVIDE REQUEST FOR INFORMATION DURING BID AND SUBMITTAL PROCESS FOR ANY QUESTIONS REGARDING SIGNAL FLOW, SYSTEM INTEGRATION, OR SYSTEM FUNCTIONALITY.
4. CONTRACTOR WILL PROVIDE FULLY FUNCTIONAL SYSTEM AS REQUIRED BY DESIGN INTENT AND ANY CONFLICT WITH SIGNAL FLOW DIAGRAM SHALL BE ADDRESSED DURING BID AND SUBMITTAL PROCESS.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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7007 Knights Ct, Missouri City, TX 77459
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FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL JAMES 20113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
No. Date Description

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TA500-E
AUDIOVISUAL SIGNAL FLOW DIAGRAM

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FORT BEND ISD
BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

HIGHTOWER HIGH SCHOOL
100% CONSTRUCTIONS DOCUMENTS

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SCOPE OF WORK

SID12503 - CONSTRUCT 4,000 SF CONCESSION/RESTROOM/STORAGE BUILDING TO BE USED FOR FOOTBALL AND BASEBALL.
- ADD ELECTRICAL ROOM
- RESTROOM
- STORAGE
- IDF

SID12508 - RENOVATE LOCKER ROOMS
- CEILING REPAIR
- NEW LOCKERS AND BENCHES
- TOILET AND SHOWER RENOVATION
- NEW CASEWORK AT COACHES OFFICE

SID12501 - RENOVATE FIELD HOUSE
- RENOVATE TRAINING AREA
- RENOVATE LOCKER ROOM
- NEW LOCKERS AND BENCHES
- RENOVATE SHOWER AREA

SECTION 02- FIELD HOUSE COACHES OFFICE
- NEW CASEWORK IN COACHES OFFICE

SECTION 02- FIELD HOUSE TRAINING ROOM
- NEW CABINETS AND SHELVES IN TRAINING ROOM

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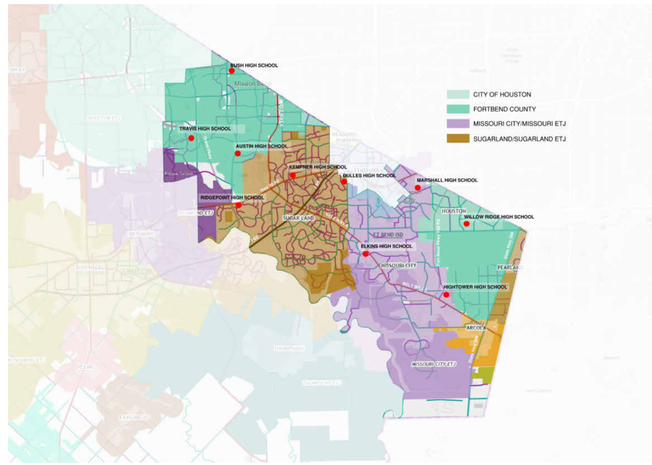
HIGHTOWER HIGH SCHOOL CAMPUS KEY PLAN



LOCATION MAP



CIVIL

TEXAS SPORTS AND CIVIL ENGINEERING
11767 Katy Freeway, Suite 1112
Houston, TX 77079
P: 346-204-4854

MEPT

SALAS O'BRIEN
10930 W. San Houston Pkwy N. Suite 900
HOUSTON, TX 77064
P: (866) 768 4625

STRUCTURAL

MATRIX STRUCTURAL
5177 Richmond Ave Ste 670
HOUSTON, TX 77056
P: (713) 664-0130

PFLUGER ARCHITECTS

PFLUGER ARCHITECTS
2 GREENWAY PLAZA #460
HOUSTON, TX 77046
P:(713) 222-1141
WWW.PFLUGERARCHITECTS.COM

pfluger
office: 713.222.1141 | fax: 713.222.1177
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: MS CHECKED BY: PA
REVISIONS:
1 Date Description

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COVER

HIGHTOWER HIGH SCHOOL

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THE FOLLOWING SECTION OF DETAILS PROVIDES INFORMATION ON REQUIREMENTS FOR DISABLED ACCESSIBILITY. THE REQUIREMENTS COMBINE MINIMUM REQUIREMENTS OF STATE AND FEDERAL AGENCIES. THE PURPOSE OF THIS SECTION IS TO HELP AVOID INSTALLATION OF MATERIALS ON CONSTRUCTION PROJECTS THAT WOULD LIMIT ACCESSIBILITY. THE SCOPE OF THIS SECTION IS LIMITED AND THE INDIVIDUALS WORKING ON THE PROJECT SHOULD FAMILIARIZE THEMSELVES WITH TEXAS ACCESSIBILITY STANDARD (TAS) AND AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COPIES OF THESE DOCUMENTS MAY BE OBTAINED BY CONTACTING THE FOLLOWING:

TAS:
TEXAS DEPT. OF LICENSING & REGULATION
P.O. BOX 12157
AUSTIN, TEXAS 78711
(800) 803-9202
TDD (800) 735-2989
WWW.LICENSE.STATE.TX.US

ADAAG:
SOUTHWEST DISABILITY AND BUSINESS
TECHNICAL ASSISTANCE CENTER FOR
REGION VI.
2323 S. SHEPERD, SUITE 1000
HOUSTON, TEXAS 77019
ADA HOTLINE: (800) 949-4232
TDD: (713) 520-5136 -OR- (713) 520-0232
FAX: (713) 520-5785

IN THE EVENT THE INFORMATION ON THE PLAN SHEETS DOES NOT MEET THE MINIMUM REQUIREMENTS OF THE SECTION, THEN THE INFORMATION SHALL BE PRESENTED TO THE ARCHITECT FOR CLARIFICATION PRIOR TO CONSTRUCTION OF SPECIFIC AREA OF WORK.

ELIMINATION OF ARCHITECTURAL BARRIERS
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (ADA)

IN ACCORDANCE WITH ACCESSIBILITY REQUIREMENTS, THE FOLLOWING STANDARDS SHALL BE INCLUDED WHEN BIDDING ON PROJECTS INVOLVING RENOVATION OF OR NEW FACILITIES FOR PUBLIC ACCOMMODATION OR COMMERCIAL FACILITIES. ANY ITEMS NOT CONFORMING TO THESE OR ANY OTHER STANDARDS, CODES, OR ORDINANCES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT FOR HIS INTERPRETATION. IN THE EVENT THE INFORMATION LISTED IN THIS DOCUMENT CONFLICTS WITH ANY PORTION OF THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT, IN WRITING, OF HIS NEED FOR A SOLUTION TO RESOLVE THE CONFLICT. THE MOUNTING HEIGHTS INDICATED ARE FOR ITEMS THAT REQUIRE ACCESSIBILITY BY DISABLED INDIVIDUALS. WHERE TWO OR MORE ITEMS ARE GROUPED IN ONE AREA (MIRRORS, SINKS, TOILETS, DRINKING FOUNTAINS, URINALS, SHELVES, TELEPHONES, ETC.) NOT ALL ITEMS IN THE AREA HAVE TO BE MOUNTED AT HANDICAP HEIGHT. CONTRACTOR TO COORDINATE THESE INSTALLATION HEIGHTS WITH OTHER MATERIALS FOR NEAT, TRIMMED OUT AND FINISHED APPEARANCE. ITEMS FOR DISABLED INDIVIDUAL USE SHALL BE MOUNTED AT HEIGHT INDICATED FOR AGE LEVEL AS NOTED.

CHAPTER 1: APPLICATION AND ADMINISTRATION

TAS SECTION 104 - CONVENTIONS
A. ALL DIMENSIONS ARE SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES EXCEPT WHERE THE REQUIREMENT IS STATED AS A RANGE WITH SPECIFIC MINIMUM AND MAXIMUM POINTS.
B. UNLESS SPECIFICALLY STATED OTHERWISE, FIGURES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

CHAPTER 2: SCOPING REQUIREMENTS

TAS SECTION 201.1 - SCOPE
A. ALL AREAS OF NEWLY DESIGNED AND NEWLY CONSTRUCTED BUILDINGS AND FACILITIES AN ALTERED PORTIONS OF EXISTING BUILDINGS AND FACILITIES SHALL COMPLY WITH THESE REQUIREMENTS.
TAS SECTION 202 - EXISTING BUILDINGS AND FACILITIES
A. EACH ADDITION TO AN EXISTING BUILDING OR FACILITY SHALL COMPLY WITH THE REQUIREMENTS FOR NEW CONSTRUCTION. EACH ADDITION THAT AFFECTS OR COULD EFFECT THE USABILITY OF OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL COMPLY WITH 202.4.
B. WHERE EXISTING ELEMENTS, SPACES, OR COMMON USE AREAS ARE ALTERED, EACH ALTERED ELEMENT, SPACE, OR COMMON USE AREA SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 2.
C. AN ALTERATION THAT DECREASES THE ACCESSIBILITY OF A BUILDING OR FACILITY BELOW THE REQUIREMENTS FOR NEW CONSTRUCTION AT THE TIME OF THE ALTERATION IS PROHIBITED.
D. AN ALTERATION OF AN EXISTING ELEMENT, SPACE, OR AREA OF A BUILDING OR FACILITY SHALL NOT IMPOSE A REQUIREMENT FOR ACCESSIBILITY GREATER THAN REQUIRED FOR NEW CONSTRUCTION.
E. ALTERATIONS THAT AFFECT THE USABILITY OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL BE MADE SO AS TO ENSURE USAGE BY INDIVIDUALS WITH DISABILITIES.
TAS SECTION 204 - PROTRUDING OBJECTS
A. WITHIN AREAS OF ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOM AND SPACES SHALL COMPLY WITH 309.
B. WITHIN AREAS OF SPORTS ACTIVITY, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307.
C. WITHIN PLAY AREAS, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307 PROVIDED THAT GROUND LEVEL ACCESSIBLE ROUTES PROVIDE VERTICAL CLEARANCE IN COMPLIANCE WITH 1008.2.
TAS SECTION 205 - OPERABLE PARTS
A. OPERABLE PARTS ON ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOMS AND SPACES SHALL COMPLY WITH 309.
B. OPERABLE PARTS INTENDED FOR USE ONLY BY SERVICE OR MAINTENANCE PERSONNEL SHALL NOT BE REQUIRED TO COMPLY WITH 309.
C. ELECTRICAL OR COMMUNICATION RECEPTACLES SERVING A DEDICATED USE SHALL NOT BE REQUIRED TO COMPLY WITH 309.
TAS SECTION 206 - ACCESSIBLE ROUTES
A. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
B. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE
C. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH STORY AND MEZZANINE IN MULTI-STORY BUILDINGS AND FACILITIES.
D. IN RESTAURANTS AND CAFETERIAS, AN ACCESSIBLE ROUTE SHALL BE PROVIDED TO ALL DINING AREAS, INCLUDING RAISED OR SUNKEN DINING AREAS, AND OUTDOOR DINING AREAS.
E. WHERE A CIRCULATION PATH DIRECTLY CONNECTS A PERFORMANCE AREA TO AN ASSEMBLY AREA, AN ACCESSIBLE ROUTE SHALL DIRECTLY CONNECT THE ASSEMBLY SEATING AREA WITH THE PERFORMANCE AREA. AN ACCESSIBLE ROUTE SHALL BE PROVIDED FROM PERFORMANCE AREAS TO ANCILLARY AREAS OR FACILITIES USED BY PERFORMERS.
TAS SECTION 207 - ACCESSIBLE MEANS OF EGRESS
A. MEANS OF EGRESS SHALL COMPLY WITH SECTION 1003.2.13 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION.)
B. STANDBY POWER SHALL BE PROVIDED FOR PLATFORM LIFTS PERMITTED BY SECTION 1003.2.13.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007.5 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO SERVE AS A PART OF AN ACCESSIBLE MEANS OF EGRESS.
TAS SECTION 208 - PARKING SPACES
A. PARKING SPACES SHALL COMPLY WITH 502 AND SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 208.2 EXCEPT REQUIRED BY 208.2.1, 208.2.2, AND 208.2.3. WHERE MORE THAN ONE PARKING FACILITY IS PROVIDED ON A SITE, THE NUMBER OF ACCESSIBLE SPACES PROVIDED ON THE SITE SHALL BE CALCULATED ACCORDING TO THE NUMBER OF SPACES REQUIRED FOR EACH PARKING FACILITY.

TABLE 208.2 PARKING SPACES

TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES	TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES
1 TO 25	1	201 TO 300	7
26 TO 50	2	301 TO 400	8
51 TO 75	3	401 TO 500	9
76 TO 100	4	501 TO 1000	2 PERCENT OF TOTAL
101 TO 150	5	1000 AND OVER	20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000
151 TO 200	6		

TAS SECTION 208.2.4 - VAN PARKING SPACES
A. FOR EVERY SIX OR FRACTION OF SIX PARKING SPACES REQUIRED BY 208.2 TO COMPLY WITH 502, AT LEAST ONE SHALL BE A VAN PARKING SPACE COMPLYING WITH 502.
TAS SECTION 208.3 - LOCATION
A. PARKING SPACES COMPLYING WITH 502 THAT SERVE A PARTICULAR BUILDING OR FACILITY SHALL BE LOCATED ON THE SHORTEST POSSIBLE ACCESSIBLE ROUTE FROM PARKING LOT TO AN ENTRANCE. WHERE PARKING SERVES MORE THAN ONE ACCESSIBLE ENTRANCE, PARKING SPACES COMPLYING WITH 502 SHALL BE DISPERSED AND LOCATED AT THE SHORTEST ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCES.
TAS SECTION 209 - PASSENGER LOADING ZONES AND BUS STOPS
A. PASSENGER LOADING ZONES, EXCEPT THOSE REQUIRED TO COMPLY WITH 209.2.2 AND 209.2.3, SHALL PROVIDE AT LEAST ONE PASSENGER LOADING ZONE COMPLYING WITH 503 IN EVERY CONTINUOUS 100 LINEAR FEET (30M) OF LOADING ZONE SPACE, OR FRACTION THEREOF.
B. IN BUS LOADING ZONES RESTRICTED TO USE BY DESIGNATED OR SPECIFIED PUBLIC TRANSPORTATION VEHICLES, EACH BUS BAY, BUS STOP, OR OTHER AREA DESIGNATED FOR LIFT OR RAMP DEPLOYMENT SHALL COMPLY WITH 810.2
TAS SECTION 210 - STAIRWAYS
A. INTERIOR AND EXTERIOR STAIRS THAT ARE PART OF A MEANS OF EGRESS SHALL COMPLY WITH 504. ALTHOUGH HANDRAILS ON STAIRS THAT ARE NOT PART OF A MEANS OF EGRESS, STATE OR LOCAL BUILDING CODES MAY REQUIRE HANDRAILS OR GUARDS.
TAS SECTION 211 - DRINKING FOUNTAINS
A. NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED.
B. MORE THAN THE MINIMUM NUMBER OF DRINKING FOUNTAINS SPECIFIED IN 211.2 ARE PROVIDED, 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.1 THROUGH 602.6, AND 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.7
TAS SECTION 212 - KITCHENS, KITCHENETTES, AND SINKS
A. KITCHENS AND KITCHENETTES SHALL COMPLY WITH 804.
B. WHERE SINKS ARE PROVIDED, AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE, OF EACH TYPE PROVIDED IN EACH ACCESSIBLE ROOM OR SPACE SHALL COMPLY WITH 606.
TAS SECTION 213 - TOILET FACILITIES AND BATHING FACILITIES
A. WHERE TOILET FACILITIES AND BATHING FACILITIES ARE PROVIDED, THEY SHALL COMPLY WITH 213. TOILET FACILITIES AND BATHING FACILITIES SHALL BE PROVIDED ON A STORY CONNECTED BY AN ACCESSIBLE ROUTE TO AN ACCESSIBLE ENTRANCE.
B. TOILET RESTROOMS AND BATHING ROOMS SHALL COMPLY WITH 603.
C. WHERE MULTIPLE SINGLE USER TOILET ROOMS ARE CLUSTERED AT A SINGLE LOCATION, NO MORE THAN 50% OF THE SINGLE USER TOILET ROOMS FOR EACH USE AT EACH CLUSTER SHALL BE REQUIRED TO COMPLY WITH 603.
D. UNISEX TOILET ROOMS AND UNISEX BATHING ROOMS SHALL CONTAIN NOT MORE THAN ONE LAVATORY, AND TWO WATER CLOSETS WITHOUT URINALS OR ONE WATER CLOSET AND ONE URINAL. UNISEX BATHING ROOMS CONTAIN ONE SHOWER OR ONE SHOWER AND ONE BATHTUB, ONE LAVATORY, AND ONE WATER CLOSET. DOORS TO UNISEX RESTROOMS AND BATHING ROOMS SHALL HAVE PRIVACY LATCHES.
TAS SECTION 214 - WASHING MACHINES AND CLOTHES DRYERS
A. WHERE 3 OR FEWER WASHING MACHINES ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 WASHING MACHINES ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
B. WHERE 3 OR FEWER CLOTHES DRYERS ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 CLOTHES DRYERS ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
TAS SECTION 215 - FIRE ALARM SYSTEMS
A. ALARMS IN PUBLIC USE AREAS AND COMMON USE AREAS SHALL COMPLY WITH 702.
B. WHERE EMPLOYEE WORK AREAS HAVE AUDIBLE ALARM COVERAGE, THE WIRING SYSTEM SHALL BE DESIGNED SO THAT THE VISIBLE ALARMS COMPLYING WITH 702 CAN BE INTEGRATED INTO THE ALARM SYSTEM.
TAS SECTION 216 - SIGNS
A. SIGNS SHALL COMPLY WITH 703. BUILDING DIRECTORIES, MENUS, SEAT AND ROW DESIGNATIONS IN ASSEMBLY AREAS, OCCUPANT NAMES, BUILDING ADDRESSES, AND COMPANY NAMES AND LOGOS SHALL NOT BE REQUIRED TO COMPLY WITH 216.
B. SIGNS REQUIRED BY SECTION 1003.2.13.5.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 1007.6.4 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE INSTRUCTIONS IN AREAS OF REFUGE SHALL COMPLY WITH 703.5.
C. DIRECTIONAL SIGNS REQUIRED BY SECTION 1003.2.13.6 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 707.7 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE DIRECTIONS TO ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 703.5.
D. WHERE NOT ALL ENTRANCES COMPLY WITH 404, ENTRANCES COMPLYING WITH 404 SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1. DIRECTIONAL SIGNS COMPLYING WITH 703.5 THAT INDICATE THE LOCATION OF THE NEAREST ENTRANCE COMPLYING WITH 404 SHALL BE PROVIDED AT ENTRANCES THAT DO NOT COMPLY WITH 404.
TAS SECTION 217 - TELEPHONES
A. WHERE PUBLIC TELEPHONE ARE PROVIDED, WHEELCHAIR ACCESSIBLE TELEPHONES COMPLYING WITH 704.2 SHALL BE PROVIDED.

CHAPTER 2: SCOPING REQUIREMENTS (CONTINUED)

TAS SECTION 219 - ASSISTIVE LISTENING SYSTEMS
A. IN EACH ASSEMBLY AREA WHERE AUDIBLE COMMUNICATION IS INTEGRAL TO THE USE OF THE SPACE, AN ASSISTIVE LISTENING SYSTEM SHALL BE PROVIDED.
B. WHERE ALL SEATS IN AN ASSEMBLY AREA ARE SERVED BY AN INTRODUCTION LOOP ASSISTIVE LEARNING SYSTEM, THE MINIMUM NUMBER OF RECEIVERS REQUIRED BY TABLE 219.3 TO BE HEARING-AID COMPATIBLE SHALL NOT BE REQUIRED TO BE PROVIDED.
TAS SECTION 220 - AUTOMATIC TELLER MACHINES AND FARE MACHINES
A. WHERE AUTOMATIC TELLER MACHINES OR SELF-SERVICE FARE VENDING, COLLECTION, OR ADJUSTMENT MACHINES ARE PROVIDED, AT LEAST ONE OF EACH TYPE PROVIDED AT EACH LOCATION SHALL COMPLY WITH 707. WHERE BINS ARE PROVIDED FOR ENVELOPES, WASTE PAPER, OR OTHER PURPOSES, AT LEAST ONE OF EACH SHALL COMPLY WITH 811.
TAS SECTION 221 - ASSEMBLY AREAS
A. ASSEMBLY AREAS SHALL PROVIDE WHEELCHAIR SPACES, COMPANION SEATS, AND DESIGNATED AISLE SEATS COMPLYING WITH 221 AND 802.
B. WHEELCHAIR SPACES COMPLYING WITH 802.1 SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 221.2.1.1.
C. WHEELCHAIR SPACES SHALL BE AN INTEGRAL PART OF THE SEATING PLAN.
D. WHEELCHAIR SPACES SHALL PROVIDE LINES OF SIGHT COMPLYING WITH 802.2. IN PROVIDING LINES OF SIGHT, WHEELCHAIR SPACES SHALL BE DISPERSED. WHEELCHAIR SPACES SHALL PROVIDE SPECTATORS WITH CHOICES OF SEATING LOCATIONS OR VIEWING ANGLES EQUAL TO OR BETTER THAN SEATING LOCATIONS AND VIEWING ANGLES OF OTHER SPECTATORS.
E. AT LEAST 5% OF THE TOTAL NUMBER OF AISLE SEATS PROVIDED SHALL COMPLY WITH 802.4 AND SHALL BE THE AISLE SEATS LOCATED CLOSEST TO THE ACCESSIBLE ROUTES.

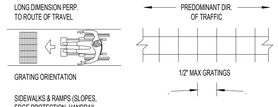
TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES	NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES
4 TO 25	1	301 TO 500	6
26 TO 50	2	501 TO 5000	6, PLUS 1 FOR EACH 150, OR FRACTION THEREOF, BETWEEN 501 THROUGH 5000
51 TO 150	4	5001 AND OVER	36, PLUS 1 FOR EACH 200, OR FRACTION THEREOF, OVER 5000
151 TO 300	5		

TAS SECTION 222 - DRESSING, FITTING, AND LOCKER ROOMS
A. WHERE DRESSING ROOMS, FITTING ROOMS, OR LOCKER ROOMS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE, OF EACH TYPE OF USE IN EACH CLUSTER PROVIDED SHALL COMPLY WITH 803.
B. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN DRESSING FITTING OR LOCKER ROOMS W/O INDIVIDUAL COMPARTMENTS, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 803.5. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN INDIVIDUAL COMPARTMENTS AT LEAST ONE OF EACH TYPE SHALL BE PROVIDED IN ACCORDANCE WITH 223.
TAS SECTION 223 - MEDICAL CARE AND LONG-TERM CARE FACILITIES
A. IN LICENSED MEDICAL CARE FACILITIES AND LICENSED LONG-TERM CARE FACILITIES WHERE THE PERIOD OF STAY EXCEEDS TWENTY-FOUR HOURS, PATIENT OR RESIDENT SLEEPING ROOMS SHALL BE PROVIDED IN ACCORDANCE WITH 223. TOILET ROOMS PART OF CRITICAL OR INTENSIVE CARE PATIENT SLEEPING ROOMS SHALL NOT BE REQUIRED TO COMPLY WITH 603.
TAS SECTION 224 - TRANSIENT LODGING FACILITIES AND GUEST ROOMS
A. TRANSIENT LODGING FACILITIES SHALL PROVIDE GUEST ROOMS IN ACCORDANCE WITH 224. PLACES OF LODGING AND HOUSING AT A PLACE OF EDUCATION SHALL COMPLY WITH THE PROVISIONS APPLICABLE TO TRANSIENT LODGING, INCLUDING, BUT NOT LIMITED TO, THE REQUIREMENTS FOR TRANSIENT LODGING GUEST ROOMS IN SECTIONS 224 AND 806.
B. ENTRANCES, DOORS, AND DOORWAYS PROVIDING USER PASSAGE INTO AND WITHIN THE GUEST ROOMS THAT ARE NOT REQUIRED TO PROVIDE MOBILITY FEATURES COMPLYING WITH 806.2 SHALL COMPLY WITH 404.2.3.
C. IN GUEST ROOMS HAVING MORE THAN 25 BEDS, 5% MINIMUM OF THE BEDS SHALL HAVE CLEAR FLOOR SPACE COMPLYING WITH 806.2.3.
TAS SECTION 225 - STORAGE
A. WHERE STORAGE IS PROVIDED, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 811.
B. WHERE LOCKERS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE, SHALL COMPLY WITH 811.
TAS SECTION 226 - DINING SURFACES AND WORK SURFACES
A. WHERE DINING SURFACES ARE PROVIDED FOR THE CONSUMPTION OF FOOD OR DRINK, AT LEAST 5% OF THE SEATING SPACES AND STANDING SPACES AT THE DINING SURFACES SHALL COMPLY WITH 902. IN ADDITION, WHERE WORK SURFACES ARE PROVIDED FOR USE BY OTHER THAN EMPLOYEES, AT LEAST 5% SHALL COMPLY WITH 902.
TAS SECTION 227 - SALES AND SERVICE
A. WHERE PROVIDED, CHECK-OUT AISLES, SALES COUNTERS, SERVICE COUNTERS, FOOD SERVICE LINES, QUEUES, AND WAITING LINES SHALL COMPLY WITH 227 AND 904.
B. WHERE COUNTERS ARE PROVIDED, AT LEAST ONE OF EACH TYPE OF SALES COUNTER AND SERVICE COUNTER SHALL COMPLY WITH 904.4. WHERE COUNTERS ARE DISPERSED THROUGHOUT THE FACILITY, COUNTERS COMPLYING WITH 904.4 SHALL ALSO BE DISPERSED.
C. QUEUES AND WAITING LINES SERVICING COUNTERS OR CHECK-OUT AISLES REQUIRED TO COMPLY WITH 904.3 OR 904.4 SHALL COMPLY WITH 403.
TAS SECTION 228 - DEPOSITORIES, VENDING MACHINES, CHANGE MACHINES, MAIL BOXES
A. WHERE PROVIDED, AT LEAST ONE OF EACH TYPE OF DEPOSITORY, VENDING MACHINE, CHANGE MACHINE, AND FUEL DISPENSER SHALL COMPLY WITH 309.
B. WHERE MAIL BOXES ARE PROVIDED IN AN INTERIOR LOCATION, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE SHALL COMPLY WITH 309.
TAS SECTION 229 - WINDOWS
A. WHERE GLAZED OPENINGS ARE PROVIDED IN ACCESSIBLE ROOMS OR SPACES FOR OPERATION BY OCCUPANTS, AT LEAST ONE MUST OPENING SHALL COMPLY WITH 309. EACH GLAZED OPENING REQUIRED BY AN ADMINISTRATIVE AUTHORITY TO BE OPERABLE SHALL COMPLY WITH 309.
TAS SECTION 230 - TWO-WAY COMMUNICATION SYSTEMS
A. WHERE A TWO-WAY COMMUNICATION SYSTEM IS PROVIDED TO GAIN ADMITTANCE TO A BUILDING OR FACILITY OR TO BE RESTRICTED AREAS WITHIN A BUILDING OR FACILITY, THE SYSTEM SHALL COMPLY WITH 708.
TAS SECTION 240 - PLAY AREAS
A. WHERE GROUND LEVEL PLAY COMPONENTS ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
B. WHEN ELEVATED PLAY COMPONENTS ARE PROVIDED, AT LEAST 50% SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
TAS SECTION 242 - SWIMMING POOLS, WADING POOLS, AND SPAS
A. AT LEAST TWO ACCESSIBLE MEANS OF ENTRY SHALL BE PROVIDED FOR SWIMMING POOLS.
B. AT LEAST ONE ACCESSIBLE MEANS FOR ENTRY FOR WADING POOLS AND SPAS.
TAS SECTION 243 - SHOOTING FACILITIES WITH FIRING POSITIONS
A. WHERE SHOOTING FACILITIES WITH FIRING POSITIONS ARE DESIGNED AND CONSTRUCTED AT A SITE, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE OF FIRING POSITION SHALL COMPLY WITH 1010.

CHAPTER 3: BUILDING BLOCKS

TAS SECTION 302 - FLOOR OR GROUND SURFACES
A. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
B. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE.
C. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3, AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.



TAS SECTION 303 - CHANGES IN LEVEL
A. CHANGES IN LEVEL OF 1/4" HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL. (FIG. 303)
B. CHANGES IN LEVEL BETWEEN 1/4"-1/2" MAXIMUM SHALL BE BEVELED AT A SLOPE NOT STEEPER THAN 1:2 (FIG. 303)
C. CHANGES IN LEVEL GREATER THAN 1/2" HIGH SHALL BE RAMPED AND COMPLY WITH 405 OR 406

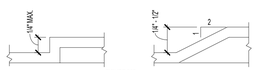


FIGURE 303

TAS SECTION 304 - TURNING SPACE
A. THE TURNING SPACE SHALL BE A SPACE 60" DIAMETER MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306.
B. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. DOORS SHALL BE PERMITTED TO SWING INTO TURNING SPACES.
D. THE T-SHAPED TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60" SQUARE MINIMUM WITH ARMS AND BASE 36" WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12" MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24" MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM. (FIG. 304.3.2)

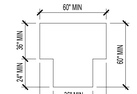


FIGURE 304.3.2 T-SHAPED TURNING SPACE

TAS SECTION 305 - CLEAR FLOOR OR GROUND SPACE
A. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM.
B. FLOOR OF GROUND SURFACES OF A CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM. (FIG. 305.3)
D. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCES COMPLYING WITH 306.
E. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT. (FIG. 305.5)
F. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE.
G. WHERE A CLEAR FLOOR OR GROUND SPACE IS LOCATED IN AN ALCOVE OR OTHERWISE CONFINED ON ALL OR PART OF 3 SIDES, ADDITIONAL MANEUVERING CLEARANCE SHALL BE PROVIDED IN ACCORDANCE WITH BELOW:
1. ALCOVES SHALL BE 36" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24" FOR FORWARD APPROACH (FIG. 315.7.1)
2. ALCOVES SHALL BE 60" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15" FOR PARALLEL APPROACH (FIG. 305.7.2)

CHAPTER 3: SCOPING REQUIREMENTS (CONTINUED)


FIGURE 305.3 CLEAR FLOOR OR GROUND SPACE

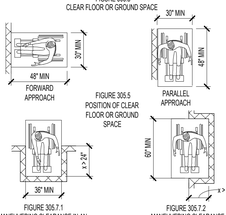


FIGURE 306.1 MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH

FIGURE 306.2 MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

TAS SECTION 306 - KNEE AND TOE CLEARANCE
A. WHERE SPACE BENEATH AN ELEMENT IS INCLUDED AS PART OF CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE, THE SPACE SHALL COMPLY WITH 306. ADDITIONAL SPACE SHALL NOT BE PROHIBITED BENEATH AN ELEMENT BUT SHALL NOT BE CONSIDERED AS PART OF THE CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE.
TAS SECTION 306.2 - TOE CLEARANCE
A. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9" ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE.
B. TOE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT
C. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17" MINIMUM UNDER THE ELEMENT.
D. SPACE EXTENDING GREATER THAN 6" BEYOND THE AVAILABLE KNEE CLEARANCE AT 9" ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.
E. TOE CLEARANCE SHALL BE 30" WIDE MINIMUM.
TAS SECTION 306.3 - KNEE CLEARANCE
A. SPACE UNDER AN ELEMENT 9"-27" ABOVE THE FINISH FLOOR SHALL BE CONSIDERED KNEE CLEARANCE.
B. KNEE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT AT 9" ABOVE THE FINISH FLOOR.
C. WHERE KNEE CLEARANCE IS REQUIRED UNDER AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE KNEE CLEARANCE SHALL BE 11" DEEP MINIMUM AT 9" ABOVE THE FINISH FLOOR OR GROUND, AND 8

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

TAS SECTION 502 - PARKING SPACES (REFERENCE FIGURE 502.3)

A. ACCESSIBLE CAR PARKING SPACES SHALL BE AT LEAST 96" MINIMUM WIDE AND VAN ACCESSIBLE PARKING SHALL BE 132" MINIMUM WIDE.
   1. VAN PARKING SPACES MAY BE 96" WIDE MINIMUM WHERE THERE IS AN ACCESS AISLE 96" WIDE MINIMUM.
   2. ACCESS AISLES SERVING CAR AND VAN PARKING SHALL BE A MINIMUM 60" WIDE AND SHALL ADJOIN AN ACCESSIBLE ROUTE.
   3. ACCESS AISLES SHOULD BE MARKED TO DISCOURAGE PEOPLE FROM PARKING IN THEM AND EXTEND THE FULL LENGTH OF THE PARKING SPACE.

B. SURFACE SLOPE SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS (NOTE: NO BUILT UP CURB RAMP MAY BE LOCATED IN AN ACCESSIBLE PARKING ACCESS AISLE.)

C. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY.

D. ACCESS AISLES SHALL BE PERIMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES, WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACE.

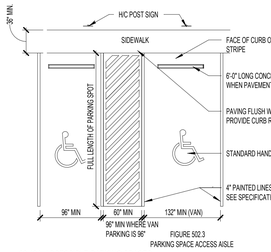
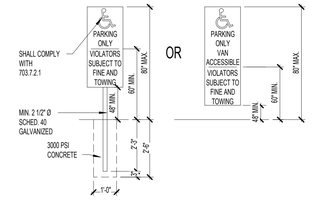


FIGURE 502.3
PARKING SPACE ACCESS AISLE

68.104: ACCESSIBLE PARKING SPACES

(A) A PAVED ACCESSIBLE PARKING SPACE MUST INCLUDE:
   (1) THE INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED CONSPICUOUSLY ON THE SURFACE IN A COLOR THAT CONTRASTS THE PAVEMENT;
   (2) THE WORDS "NO PARKING" PAINTED ON ANY ACCESS AISLE ADJACENT TO THE PARKING SPACE. THE WORDS MUST BE PAINTED:
      (A) IN ALL CAPITAL LETTERS;
      (B) WITH A LETTER HEIGHT OF AT LEAST TWELVE INCHES, AND A STROKE WIDTH OF AT LEAST TWO INCHES; AND
      (C) CENTERED WITHIN EACH ACCESS AISLE ADJACENT TO THE PARKING SPACE; AND
   (3) A SIGN IDENTIFYING THE CONSEQUENCES OF PARKING ILLEGALLY IN A PAVED ACCESSIBLE PARKING SPACE. THE SIGN MUST:
      (A) AT A MINIMUM STATE "VIOLATORS SUBJECT TO FINE AND TOWING " IN A LETTER HEIGHT OF AT LEAST ONE INCH;
      (B) BE MOUNTED ON A POLE, POST, WALL OR FREESTANDING BOARD;
      (C) BE NO MORE THAN EIGHT INCHES BELOW A SIGN REQUIRED BY TEXAS ACCESSIBILITY STANDARDS, 502.6; AND
      (D) BE INSTALLED SO THAT THE BOTTOM EDGE OF THE SIGN IS NO LOWER THAN 48 INCHES AND NO HIGHER THAN 80 INCHES ABOVE GROUND LEVEL.

(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).

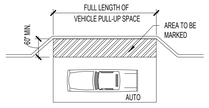


NOTE: PROVIDE ONE SIGN AT EACH DISABLED (DESIGNATED) PARKING SPACE

TAS SECTION 503 - PASSENGER LOADING ZONES
A. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96" WIDE MINIMUM AND 20' LONG MINIMUM.

TAS SECTION 503.3 - ACCESS AISLE (REFERENCE FIGURE 503.3)
A. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 503 ADJACENT TO THE VEHICLE PULL UP SPACE. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.
   1. ACCESS AISLES SERVING VEHICULAR PULL-UP SPACES SHALL BE 60" WIDE MINIMUM AND EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE
   2. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED. CHANGES IN LEVEL OF THE FLOOR AND GROUND SURFACE ARE NOT PERMITTED.

B. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 144" MINIMUM.



ACCESS AISLE AT AUTOMOBILE PASSENGER LOADING ZONES

FIGURE 503.3
PASSENGER LOADING ZONE ACCESS AISLE

TAS SECTION 504 - STAIRWAYS
TAS SECTIONS 504.2 - TREADS AND RISERS
A. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND TREAD WIDTHS
   1. MINIMUM TREAD DEPTH SHALL BE 11". MEASURED FROM RISER TO RISER (NOT INCLUDING NOSING)
   2. OPEN RISERS ARE NOT PERMITTED
   3. RISERS SHALL BE 4" HIGH MIN. - 7" HIGH MAX.

TAS SECTIONS 504.5 - NOSINGS (REFERENCE FIGURE 504.5)
A. RADIUS OF THE CURVATURE AT THE LEADING EDGE SHALL BE 1/2" MAXIMUM. RISERS SHALL BE PERMITTED TO SLOPE UNDER THE TREAD AT AN ANGLE OF 30 DEGREES MAXIMUM FROM VERTICAL. THE PERMITTED PROJECTION OF THE NOSING SHALL EXTEND 1 1/2" MAXIMUM OVER THE TREAD BELOW.

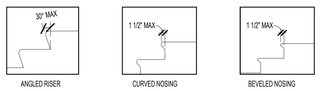


FIGURE 504.5
STAIR NOSINGS

TAS SECTION 505 - HANDRAILS (REFERENCE FIGURES 505.10.1, 505.10.2, 3)
A. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS. NON-CONTINUOUS STAIR HANDRAILS SHALL EXTEND 12" BEYOND THE TOP RISER AND THE WIDTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT THE TOP, THE EXTENSION SHALL BE PARALLEL TO THE FLOOR. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF ONE TREAD WIDTH. NON CONTINUOUS RAMP HANDRAILS SHALL EXTEND 12" MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS.
B. HEIGHT: 34"-38", MEASURED FROM THE STAIR NOSING.
C. CLEARANCE BETWEEN HANDRAIL AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM.
D. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
E. HANDRAILS ARE REQUIRED ON RAMP RUNS GREATER THAN 6" IN RISE.

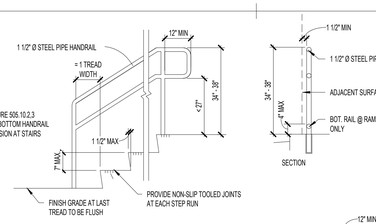


FIGURE 505.10.2.3
TOP AND BOTTOM HANDRAIL EXTENSION AT STAIRS

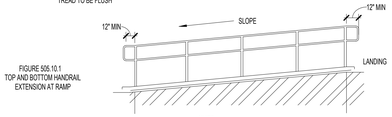


FIGURE 505.10.1
TOP AND BOTTOM HANDRAIL EXTENSION AT RAMP

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

TAS SECTION 602 - DRINKING FOUNTAINS
A. DRINKING FOUNTAINS SHALL COMPLY WITH 307 (PROTRUDING OBJECTS) AND 602.
B. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCES MUST COMPLY WITH 306. OPERABLE PARTS SHALL COMPLY WITH 309. (FIG. 602.5)

TAS SECTION 602.4 - SPOUT HEIGHT (REFERENCE FIGURE 602.4 FOR ACCESSIBLE UNIT)
A. ACCESSIBLE SPOUTS SHALL BE A MAXIMUM 36" ABOVE THE FINISH FLOOR OR GROUND.

TAS SECTION 602.5 - SPOUT LOCATION (REFERENCE FIGURE 602.5)
A. THE SPOUT SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.
B. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4" HIGH AND SHALL BE LOCATED 5" MAXIMUMFROM THE FRONT OF THE UNIT.
C. WHERE SPOUTS ARE LOCATED LESS THAN 3" FROM THE FRONT OF THE UNIT, THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE THE SPOUT IS LOCATED BETWEEN 3"-5" MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.

TAS SECTION 602.7 - DRINKING FOUNTAINS FOR STANDING PERSONS
A. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. (FIG. 602.4)

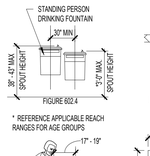
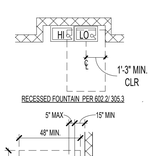
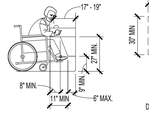


FIGURE 602.4



RECESSED FOUNTAIN, PER 602.2; 305.3

* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS



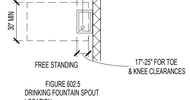


FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION

TAS SECTION 603 - TOILET AND BATHING ROOMS
A. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM. (60" DIAMETER OR T-SHAPED SPACE PER 304.3.2)
B. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP.
C. DOOR SWINGS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS CAN SWING INTO THE REQUIRED TURNING SPACE.

TAS SECTION 603.3 - MIRRORS
A. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED SO THE BOTTOM EDGE OF THE REFLECTING SURFACE IS 40" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT INSTALLED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE 35" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

TAS SECTION 603.4 - COAT HOOKS AND SHELVES
A. COAT HOOKS SHALL BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" ABOVE THE FINISH FLOOR.

TAS SECTION 604 - WATER CLOSETS AND TOILET COMPARTMENTS
A. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16" MINIMUM AND 18" MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT IN AN AMBULATORY ACCESSIBLE TOILET COMPARTMENT WHERE THE CENTERLINE OF THE WATER CLOSET MAY BE 17" MINIMUM AND 19" MAXIMUM FROM THE SIDE WALL OR PARTITION. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT-HAND OR RIGHT-HAND APPROACH. (FIG. 604.3.1, 604.8.2)

TAS SECTION 604.3 - CLEARANCE
A. CLEARANCES AROUND WATER CLOSETS AND IN TOILET COMPARTMENTS SHALL COMPLY WITH FIGURE 604.3.1

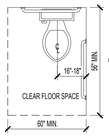


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

TAS SECTION 604.3.2 - OVERLAP
A. THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.

TAS SECTION 604.4 - SEATS (REFERENCE FIGURE 604.4)
A. THE SEAT HEIGHT OF A WATER CLOSET ABOVE FINISH FLOOR SHALL BE 17"-19" MAXIMUM MEASURED TO THE TOP OF SEAT.
   1. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION

TAS SECTION 604.5 - GRAB BARS (REFERENCE FIGURES 604.4, 604.5.2)
A. GRAB BARS SHALL COMPLY WITH 609 AND BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL.
   1. GRAB BARS SHALL NOT BE REQUIRED IN A TOILET ROOM FOR A SINGLE USE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON OR PUBLIC USE PROVIDED THAT REINFORCEMENT HAS BEEN INSTALLED IN WALLS AND LOCATED SO AS TO PERMIT THE INSTALLATION OF GRAB BARS COMPLYING WITH 604.5
B. FOR WATER CLOSETS NOT LOCATED IN TOILET STALLS, THE FOLLOWING GRAB BARS SHALL BE PROVIDED, 33"-36" ABOVE THE FINISH FLOOR"
   1. SIDE WALL: 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM BACK WALL. NOTE: INCLUDE 18" VERTICAL GRAB BAR PER ICC A117.1.
   2. REAR WALL: 36" LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON ONE SIDE AND 24" MINIMUM ON THE OTHER SIDE. REFER TO 609 GRAB BARS FOR SIZE AND STRUCTURAL ELEMENTS.

TAS SECTION 604.5.2 - REAR WALL
A. THE REAR GRAB BAR SHALL BE PERMITTED TO BE 24 INCHES LONG MINIMUM, CENTERED ON THE WATER CLOSET WHERE WALL SPACE DOES NOT PERMIT A LENGTH OF 36 INCHES MINIMUM DUE TO THE LOCATION OF A RECESSED FIXTURE ADJACENT TO THE WATER CLOSET.
B. WHERE AN ADMINISTRATIVE AUTHORITY REQUIRES FLUSH CONTROLS FOR FLUSH VALVES TO BE LOCATED IN A POSITION THAT CONFLICTS WITH THE LOCATION OF THE REAR GRAB BAR, THEN THE REAR GRAB BAR SHALL BE PERMITTED TO BE SPLIT OR SHIFTED TO THE OPEN SIDE OF THE TOILET AREA.

TAS SECTION 604.6 - FLUSH CONTROLS (REFERENCE FIGURE 604.5.2)
A. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.

TAS SECTION 604.7 - DISPENSERS (REFERENCE FIGURE 604.4)
A. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7" MINIMUM AND 9" MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS THAT CONTROL DELIVERY OR DO NOT PERMIT CONTINUOUS PAPER FLOW SHALL NOT BE USED.

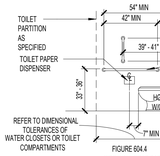


FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

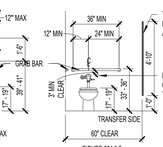


FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

TAS SECTION 604.8 - TOILET COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.

TAS SECTION 604.8.1 - WHEELCHAIR ACCESSIBLE COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1
B. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL AND 56" DEEP MINIMUM FOR WALL-HUNG WATER CLOSETS AND 59" DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDREN'S USE SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE WALL AND 59" DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.

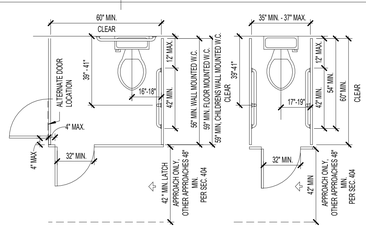


FIGURE 604.8.2
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

FIGURE 604.8.2
AMBULATORY ACCESSIBLE TOILET COMPARTMENTS

CLEARANCES INDICATED ARE MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REFER TO TOILET ROOMS AND LAVATORY DETAILS FOR MOUNTING HEIGHTS.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES (CONTINUED)

TAS SECTION 604.8.1.2 - DOORS (REFERENCE FIGURES 604.8.1.2, 604.8.2)
A. TOILET COMPARTMENTS DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42" MINIMUM. DOORS SHALL BE LOCATED IN THE FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE FRONT PARTITION. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.
B. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET.

TAS SECTION 604.8.1.4 - TOE CLEARANCE
A. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9" MINIMUM ABOVE FINISH FLOOR AND 6" DEEP MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDRENS USE SHALL PROVIDE 12" MINIMUM TOE CLEARANCE ABOVE FINISH FLOOR.

TAS SECTION 604.8.2 - AMBULATORY ACCESSIBLE COMPARTMENTS
A. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH FIGURE 604.8.2
B. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60" MINIMUM AND A WIDTH OF 35"-37" MAXIMUM.
C. GRAB BARS IN AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR THAT IS 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM THE REAR WALL AND EXTENDING 54" MINIMUM FROM THE REAR WALL SHALL BE LOCATED ON BOTH SIDES OF COMPARTMENT.
D. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" MAXIMUM ABOVE THE FINISH FLOOR.

TAS SECTION 605 - URINALS
A. URINALS SHALL BE STALL-TYPE OR WALL-HUNG WITH THE RIM 17" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13 1/2" DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK SIDE OF THE FIXTURE. (FIG. 605.2)
B. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.

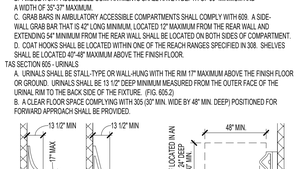
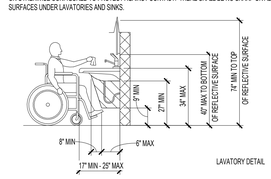
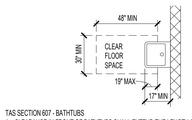


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

TAS SECTION 606 - LAVATORIES AND SINKS
A. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP), POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCES COMPLYING WITH 306 SHALL BE PROVIDED.
   1. SOAP AND TOWEL DISPENSERS MUST ALSO BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. LOCATE SOAP AND TOWEL DISPENSERS SO THEY ARE EASY TO USE BY A PERSON AT THE ACCESSIBLE LAVATORY.
B. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER RIM OR COUNTER SURFACE 34" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
C. CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND-OPERATED METERING FAUCETS SHALL REMAIN FOR 10 SECONDS MINIMUM.
D. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.



LAVATORY DETAIL



TAS SECTION 607 - BATHTUBS
A. CLEARANCE IN FRONT OF BATHTUBS SHALL EXTEND THE LENGTH OF THE BATHTUB AND SHALL BE 30 INCHES WIDE MINIMUM. A LAVATORY COMPLYING WITH 606 SHALL BE PERMITTED AT THE CONTROL END OF THE CLEARANCE. WHERE A PERMANENT SEAT IS PROVIDED AT THE HEAD END OF THE BATHTUB, THE CLEARANCE SHALL EXTEND 12" MINIMUM BEYOND THE WALL AT THE HEAD END OF THE BATHTUB.
B. A PERMANENT SEAT AT THE HEAD END OF THE BATHTUB OR A REMOVABLE IN-TUB SEAT SHALL BE PROVIDED. SEATS SHALL COMPLY WITH 610.
C. GRAB BARS FOR BATHTUBS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH FIGURES 607.4.1

TAS SECTION 608 - SHOWER COMPARTMENTS
A. SHOWER STALLS SHALL BE 36" X 36" CLEAR INSIDE DIMENSION AT TRANSFER TYPE SHOWER COMPARTMENTS AND HAVE A 36" MINIMUM WIDE BY 48" MINIMUM LONG CLEARANCE MEASURED FROM THE CONTROL WALL. ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 30" MINIMUM WIDE BY 60" MINIMUM LONG AND SHALL HAVE A 30" MIN WIDE X 60" MIN LONG ENTRY ON THE FACE OF THE SHOWER COMPARTMENT. ALTERNATE ROLL-IN SHOWER TYPE COMPARTMENTS SHALL BE 36" MINIMUM WIDE AND 60" MINIMUM DEEP CLEAR INSIDE DIMENSIONS WITH A 36" WIDE MINIMUM ENTRY PROVIDED AT ONE END OF THE LONG SIDE OF THE COMPARTMENT.

TAS SECTION 608.3.1 - TRANSFER TYPE SHOWER COMPARTMENT
A. IN TRANSFER TYPE COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND BACK WALL TO A POINT 18" FROM THE CONTROL WALL.
B. A FOLDING OR NON-FOLDING SEAT SHALL BE PROVIDED IN TRANSFER TYPE SHOWER COMPARTMENTS.
C. CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS SHALL COMPLY WITH 309.4

TAS SECTION 608.7 - THRESHOLDS
A. THRESHOLDS IN ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 1/2" HIGH MAXIMUM IN ACCORDANCE WITH 308. IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" HIGH SHALL BE BEVELED, ROUNDED, OR VERTICAL.

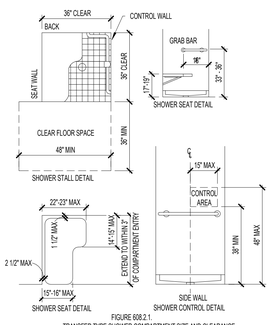


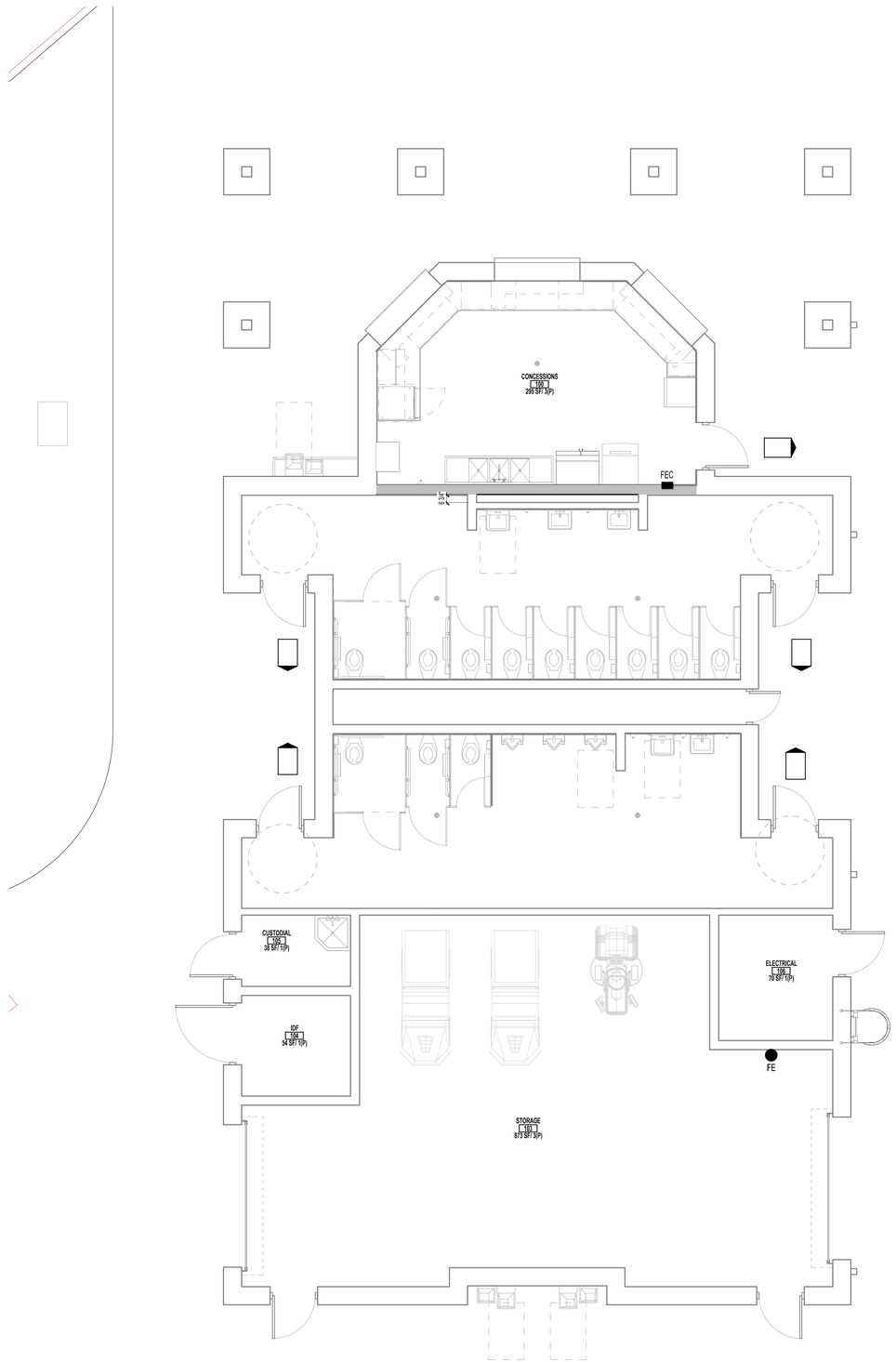
FIGURE 608.2.1
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

TAS SECTION 609 - GRAB BARS
A. GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2" MAXIMUM AND A PERIMETER DIMENSION OF 4" MINIMUM AND 4.8" MAXIMUM.
B. THE SPACE BETWEEN THE WALL AND GRAB BAR SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW SHALL BE 1 1/2" MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12" MINIMUM.
C. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33" MINIMUM AND 36" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. REFER TO CHART FOR CHILDREN ACCESSIBLE HEIGHTS FOR EXCEPTIONS.
D. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A HORIZONTAL OR VERTICAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT OF THE GRAB BAR OR ANY OF ITS COMPONENTS.

TAS SECTION 610.2 - BATHTUB SEATS
A. SEAT SHALL BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 POUNDS AND SHALL HAVE THE FOLLOWING FEATURES:
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. REMOVABLE SEATS SHALL BE 15"-16" DEEP AND CAPABLE OF SECURE PLACEMENT.
   3. PERMANENT SEATS SHALL BE 15" DEEP MINIMUM AND EXTEND FROM THE BACK WALL TO OR BEYOND THE OUTER EDGE OF THE BATHTUB.

TAS SECTION 610.3 - SHOWER SEATS
A. SEATS SHALL BE L-SHAPED WITH THE REAR EDGE 2 1/2" MAXIMUM FROM THE WALL AND 15"-16" MAXIMUM FROM THE SEAT WALL. THE REAR EDGE OF THE "L" PORTION SHALL BE 1 1/2" MAXIMUM FROM THE WALL AND THE FRONT EDGE SHALL BE 14"-15" FROM THE WALL. THE END OF THE "L" SHALL BE 22"-23" FROM THE MAIN SEAT WALL. SEATS SHALL HAVE BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 LBS.
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. WHERE A SEAT IS PROVIDED IN A ROLL IN TYPE SHOWER IT MUST BE THE FOLD-UP TYPE.

TAS SECTION 611 - WASHING MACHINES AND CLOTHES DRYERS



CODE REVIEW PLAN - NEW CONCESSION BUILDING 3

SCALE: 1/4" = 1'-0"

PLUMBING FIXTURES - CITY OF MISSOURI CITY PLUMBING CODE

Fixture counts per Chapter 29 of the IBC 2021

PLUMBING FIXTURES ARE TESTED IN FIVE DIFFERENT CATEGORIES BASED ON USER GROUPS PER CoHBC Table 2902.1

C1. **LARGE GROUP PUBLIC**: FOR FOOTBALL GRANDSTAND OCCUPANTS IN A FULL GATHERING

C1 — TOTAL PROJECTED MAXIMUM CAPACITY OF FOOTBALL GRANDSTANDS = **(578.38)**
MALE= 289.19 FEMALE= 289.19

LARGE GROUP PUBLIC (A/S) GRANDSTANDS

FIXTURE TYPE				REQUIRED		PROVIDED		CODES
MALE	WC* 1 per 75		STANDARD		3		6	COH
			HC**					COH/TAS
			AMBULATORY					TAS
	LAV 1 per 200		STANDARD		1		2	COH
			HC					
FEMALE	WC* 1 per 35		STANDARD		9		9	COH
			HC**					COH/TAS
			AMBULATORY					TAS
	LAV 1 per 150		STANDARD		1		3	COH
			HC					
DRINKING FOUNTAINS AT 1 PER 1,000			STANDARD		1		3	COH
			HC					

NOTES:

1. ALL DRINKING FOUNTAINS PAIRED AS HI/LO - HC ACCESSIBLE
2. (1) SERVICE SINK REQUIRED PER LEVEL

* URINALS MAY BE SUBSTITUTED FOR WC'S PROVIDED THAT NUMBER OF WC'S IS NOT REDUCED TO LESS THAT 50% OF THE NUMBER REQUIRED.
** INCLUDE HC URINALS.
*** PROVIDE 1 HC LAV IN EACH TOILET ROOM.
**** FAMILY TOILET PROVIDED (SUBSTITUTE 1 WC & LAV)

NOTES: TOILETS LOCATED IN ATHLETIC FIELD HOUSE - REFER G107/A2.03.H

FIELD HOUSE PROVIDED:

MALE: 15 WC / 8 LAV
FEMALE: 1 WC / 1 LAV

DRINKING FOUNTAINS: 6

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00 FOR DOOR SCHEDULE IDENTIFYING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL.
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES- (CITY OF MISSOURI CITY)

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2023 NATIONAL ELECTRICAL CODE
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)

2021 IBC COMPLIANCE DATA

CHAPTER 2 - DEFINITIONS
GRADE PLANE: A REFERENCE PLANE REPRESENTING THE AVERAGE OF FINISHED GROUND LEVEL ADJOINING THE BUILDING AT EXTERIOR WALLS. WHERE THE FINISHED GROUND LEVEL SLOPES AWAY FROM THE EXTERIOR WALLS, THE REFERENCE PLANE SHALL BE ESTABLISHED BY THE LOWEST POINTS WITHIN THE AREA BETWEEN THE BUILDING AND THE LOT LINE OR, WHERE THE LOT LINE IS MORE THAN 6 FEET (1829 MM) FROM THE BUILDING, BETWEEN THE BUILDING AND A POINT 6 FEET (1829 MM) FROM THE BUILDING.
GRADE PLANE = -7' BELOW PROJECT "0'-0" ELEVATION"

STORY ABOVE GRADE PLANE: ANY STORY HAVING ITS FINISHED FLOOR SURFACE ENTIRELY ABOVE GRADE PLANE, OR IN WHICH THE FINISHED SURFACE OF THE FLOOR NEXT ABOVE IS: 1. MORE THAN 6 FEET (1829 MM) ABOVE GRADE PLANE; OR 2. MORE THAN 12 FEET (3658 MM) ABOVE THE FINISHED GROUND LEVEL AT ANY POINT.

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS - NEW CONCESSION BUILDING
TABLE 504.3 & 504.4 & 506.2
GROUP E, TYPE II B, NOT SPRINKLED:
BUILDING HEIGHT: 55' ALLOWED; **15' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 2 STORIES ALLOWED, **1 STORIES ACTUAL**
BUILDING AREA: **14,500** SQUARE FEET PER STORY

TOTAL SF BUILDING: 4,393 SQUARE FEET

SECTION 508 - INCIDENTAL USES
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

TABLE 509 - MIXED USE AND OCCUPANCY
ELECTRICAL INSTALLATIONS AND TRANSFORMERS (SEE SECTIONS 110.26 THROUGH 110.34 AND SECTIONS 450.8 THROUGH 450.48 OF NFPA 70 FOR PROTECTION AND SEPARATION REQUIREMENTS.

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 - FOR CONSTRUCTION TYPE II B: 0 HOUR FIRE-RESISTANCE RATING REQUIREMENT FOR BUILDING ELEMENTS
NOTE: ELEMENTS INCLUDE PRIMARY STRUCTURAL FRAME, EXTERIOR AND INTERIOR WALLS, FLOOR AND ROOF CONSTRUCTION

SECTION 602 - CONSTRUCTION CLASSIFICATION
602 - FOR CONSTRUCTION TYPE II B: 0 HOUR FIRE RESISTANCE RATING FOR EXTERIOR WALLS IF < 10 FT. FROM OTHER STRUCTURES, ELSE 0

CHAPTER 6 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE II B - PER TABLES 601 & 602:
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED: PRIMARY STRUCTURE, BEARING & NONBEARING WALLS/ PARTITIONS (INTERIOR & EXTERIOR), FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTIBLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL - N/A

SECTION 707 - FIRE BARRIERS - N/A

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT) - N/A

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES; NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES; BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE.

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS NOT SPRINKLERED, BUILDING AREA IS LESS THAN 12,000 SQ. FT.

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
TABLE 1004.5 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT
STORAGE, MECHANICAL 300 SQ. FT., GROSS
EDUCATION, CLASSROOM 20 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.2 - FOR OCCUPANT LOAD PER STORY:
CONCESSION BUILDING / LEVEL 1: 3 EXITS REQUIRED, 7 EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.8 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
1017.2 - FOR GROUP E W/O SPRINKLER SYSTEM: EXIT TRAVEL DISTANCE IS 200 FT.

CHAPTER 17: SPECIAL INSPECTIONS AND TESTS

STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS REQUIRING SPECIAL INSPECTIONS PER SECTION 705 OF THE IBC HAVE NOT BEEN LISTED HERE. REFER TO STRUCTURAL/MECHANICAL/ELECTRICAL FOR SPECIAL INSPECTION REQUIREMENTS FOR THESE COMPONENTS.
ITEMS OF ARCHITECTURAL CONSTRUCTION WHICH REQUIRE SPECIAL INSPECTION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1705.14 SPRAYED FIRE-RESISTANT MATERIALS
1705.15 MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS
1705.16.1 WATER-RESISTIVE BARRIER COATING
1705.17 FIRE-RESISTANT PENETRATIONS AND JOINTS
1705.18 TESTING FOR SMOKE CONTROL

2021 IECC COMPLIANCE DATA

CHAPTER 3 - GENERAL REQUIREMENTS

SECTION C301.1 - GENERAL
C301.1 - CLIMATE ZONE 2A

CHAPTER 4 - COMMERCIAL ENERGY EFFICIENCY

REFER TO COMCHECK FOR COMPLIANCE

C402.3 - EITHER THREE-YEAR AGED SOLAR REFLECTANCE OF 0.55 AND 3-YEAR AGED
THERMAL EMITTANCE OF 0.75 OR THREE-YEAR AGED SOLAR REFLECTANCE INDEX OF 64.
C402.4 - FOR CLIMATE ZONE 2 AND FIXED FENESTRATION: U-FACTOR OF 0.5
C402.4 - SOLAR HEAT GAIN COEFFICIENT REQUIREMENTS

PROJECTION FACTOR	SEW	N
PF <0.2	0.25	0.33
0.2 <= PF < 0.5	0.30	0.37
PF >= 0.5	0.40	0.40

SHGC OF SPECIFIED GLAZING = 0.25
U-VALUE OF SPECIFIED GLAZING = 0.33

C402.4.1 VERTICAL FENESTRATION SHALL NOT BE GREATER THAN 30 PERCENT OF GROSS
ABOVE-GRADE WALL AREA.

LEGEND

- LONGEST EXIT ROUTE PER LEVEL
- EXIT ROUTE
- EXIT POINT WITH WIDTH INDICATED IN INCHES (XX P 36" R 36") — OCCUPANT LOAD SHOWN VERTICAL. P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER - SURFACE MOUNTED

CODE REVIEW: IEBC 2021 - EXISTING BUILDING

CHAPTER 6 - REPAIRS
NEW AND REPLACEMENT MATERIALS (SEC 602.2) — LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS, PROVIDED NO DANGEROUS OR UNSAFE CONDITION, AS DEFINED IN CHAPTER 2, IS CREATED.

GENERAL ACCESSIBILITY (SEC 605.1) — REPAIRS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF ACCESSIBILITY PROVIDED.

CHAPTER 7 - ALTERATIONS - LEVEL 1

CONFORMANCE (SEC 701.2) — AN EXISTING BUILDING OR PORTION THEREOF SHALL NOT BE ALTERED SUCH THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITION. WHERE THE CURRENT LEVEL OF SAFETY OR SANITATION IS PROPOSED TO BE REDUCED, THE PORTION ALTERED SHALL CONFORM TO THE REQUIREMENTS OF THE IBC 2021.

INTERIOR FINISHES (SEC 702.2) — ALL NEWLY INSTALLED INTERIOR WALL AND CEILING FINISHES SHALL COMPLY WITH CHAPTER 8 OF THE IBC 2021. NEW INTERIOR FLOOR FINISH, INCLUDING CARPET USED AS AN INTERIOR FLOOR FINISH MATERIAL, SHALL COMPLY WITH SECTION 804 AND FOR IBC 2021.

CHAPTER 8 - ALTERATIONS - LEVEL 2
COMPLIANCE (SEC 801.3) — ALL NEW CONSTRUCTION ELEMENTS, COMPONENTS, SYSTEMS, AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF THE IBC 2021.

FIRE ALARM AND DETECTION (SEC 804.4) — AN APPROVED AUTOMATIC FIRE DETECTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THIS CODE AND NFPA 72.

GROUP E OCCUPANCY (SEC 804.4.1.1) — A FIRE ALARM SYSTEM SHALL BE INSTALLED IN WORK AREAS OF GROUP E AS REQUIRED BY THE INTERNATIONAL FIRE CODE.

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT — MICHAEL ADAME — 20113 — STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

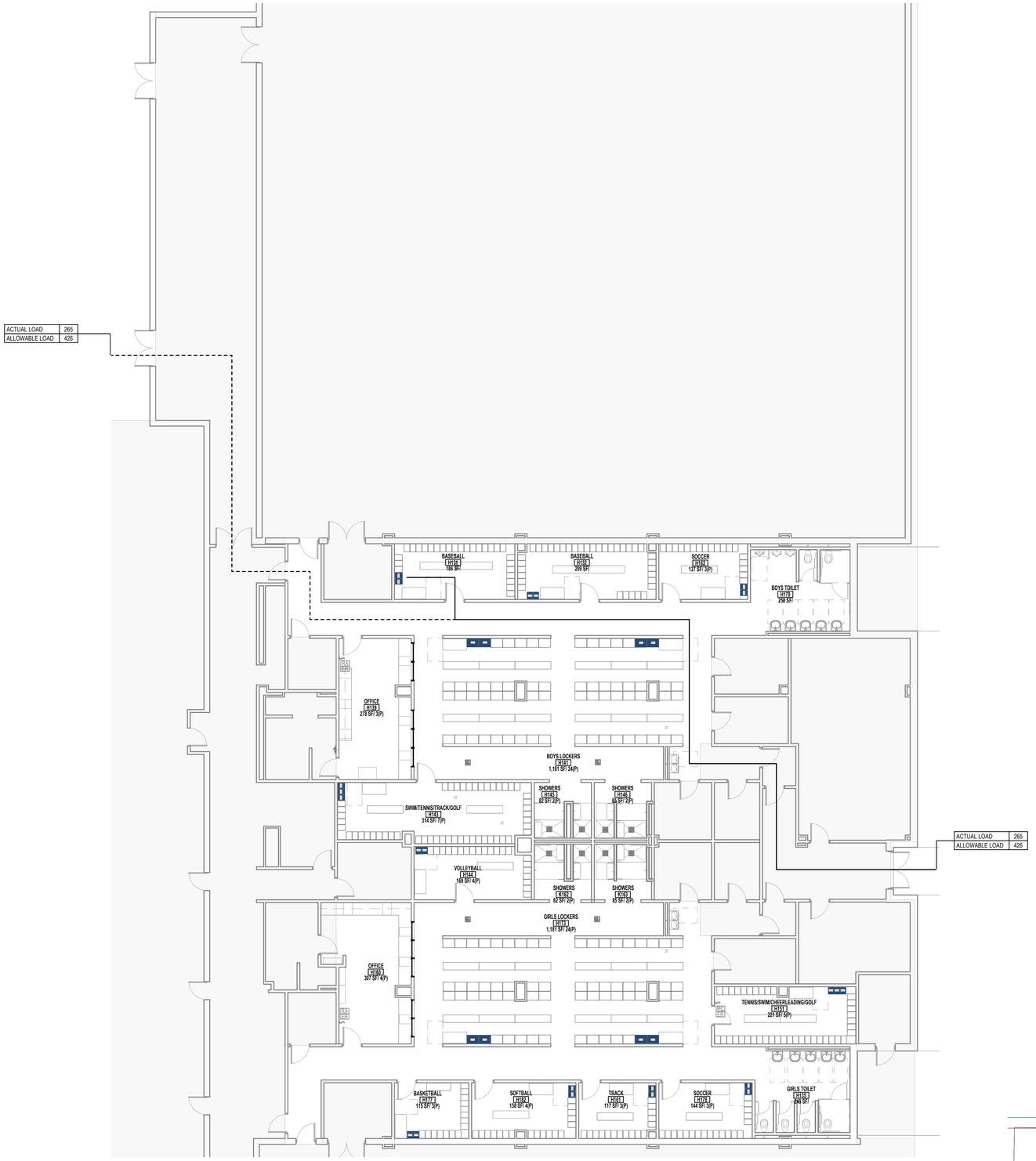
Date	Description

100% CD

G0.03-H
LEVEL 01 PLAN CONCESSIONS CODE REVIEW

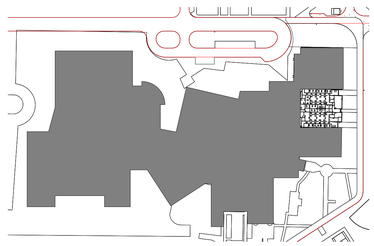
HIGHTOWER HIGH SCHOOL

12/4/2025 10:22:45 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_HIGHTOWER_ARCH_H_R25.rvt



01 FLOOR PLAN GYM LOCKERS 2

SCALE: 1/8" = 1'-0"



GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00 FOR DOOR SCHEDULE IDENTIFYING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2023 NATIONAL ELECTRICAL CODE
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)

2021 IBC COMPLIANCE DATA

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GRADE PLANE: A REFERENCE PLANE REPRESENTING THE AVERAGE OF FINISHED GROUND LEVEL ADJOINING THE BUILDING AT EXTERIOR WALLS. WHERE THE FINISHED GROUND LEVEL SLOPES AWAY FROM THE EXTERIOR WALLS, THE REFERENCE PLANE SHALL BE ESTABLISHED BY THE LOWEST POINTS WITHIN THE AREA BETWEEN THE BUILDING AND THE LOT LINE OR, WHERE THE LOT LINE IS MORE THAN 6 FEET (1829 MM) FROM THE BUILDING, BETWEEN THE BUILDING AND A POINT 6 FEET (1829 MM) FROM THE BUILDING.
GRADE PLANE = -7' BELOW PROJECT "0' 0" ELEVATION"

STORY ABOVE GRADE PLANE: ANY STORY HAVING ITS FINISHED FLOOR SURFACE ENTIRELY ABOVE GRADE PLANE, OR IN WHICH THE FINISHED SURFACE OF THE FLOOR NEXT ABOVE IS: 1. MORE THAN 6 FEET (1829 MM) ABOVE GRADE PLANE; OR 2. MORE THAN 12 FEET (3658 MM) ABOVE THE FINISHED GROUND LEVEL AT ANY POINT.

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 - EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS - NEW CONCESSION BUILDING
TABLE 504.3 & 504.4 & 506.2
EXISTING GROUP E, TYPE I, SPRINKLED:
BUILDING HEIGHT: 180' ALLOWED, **15' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 2 STORIES ALLOWED; **1 STORIES ACTUAL**
BUILDING AREA: **14,500** SQUARE FEET PER STORY

TOTAL SF EXISTING: 350,000 SQUARE FEET
RENOVATED AREA: 8,447 SQUARE FEET

SECTION 508 - INCIDENTAL USES
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

TABLE 509 - MIXED USE AND OCCUPANCY
ELECTRICAL INSTALLATIONS AND TRANSFORMERS (SEE SECTIONS 110.26 THROUGH 110.34 AND SECTIONS 450.8 THROUGH 450.48 OF NFPA 70 FOR PROTECTION AND SEPARATION REQUIREMENTS.

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 - FOR CONSTRUCTION TYPE : 2 HOUR FIRE-RESISTANCE RATING REQUIREMENT FOR BUILDING ELEMENTS
NOTE: ELEMENTS INCLUDE PRIMARY STRUCTURAL FRAME, EXTERIOR AND INTERIOR WALLS, FLOOR AND ROOF CONSTRUCTION

SECTION 602 - CONSTRUCTION CLASSIFICATION
602 - FOR CONSTRUCTION TYPE I B: 0 HOUR FIRE RESISTANCE RATING FOR EXTERIOR WALLS IF < 10 FT. FROM OTHER STRUCTURES, ELSE 0

CHAPTER 6 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE I B - PER TABLES 601 & 602:
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED; PRIMARY STRUCTURE, BEARING & NONBEARING WALLS/ PARTITIONS (INTERIOR & EXTERIOR), FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTIBLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL - N/A

SECTION 707 - FIRE BARRIERS - N/A

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT) - N/A

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES; NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES; BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE.

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS NOT SPRINKLERED, BUILDING AREA IS LESS THAN 12,000 SQ. FT.

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
TABLE 1004.5 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

STORAGE, MECHANICAL	300 SQ. FT., GROSS
EDUCATION, CLASSROOM	20 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.2 - FOR OCCUPANT LOAD PER STORY:
CONCESSION BUILDING / LEVEL 1: 3 EXITS REQUIRED, 7 EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.8 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
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CHAPTER 17: SPECIAL INSPECTIONS AND TESTS

STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS REQUIRING SPECIAL INSPECTIONS PER SECTION 705 OF THE IBC HAVE NOT BEEN LISTED HERE. REFER TO STRUCTURAL/MECHANICAL/ELECTRICAL FOR SPECIAL INSPECTION REQUIREMENTS FOR THESE COMPONENTS.
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2021 IECC COMPLIANCE DATA

CHAPTER 3 - GENERAL REQUIREMENTS

SECTION C301.1 - GENERAL
C301.1 - CLIMATE ZONE 2A

CHAPTER 4 - COMMERCIAL ENERGY EFFICIENCY

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C402.4 - SOLAR HEAT GAIN COEFFICIENT REQUIREMENTS

PROJECTION FACTOR	SEW	N
PF <0.2	0.25	0.33
0.2 <= PF < 0.5	0.30	0.37
PF >= 0.5	0.40	0.40

SHGC OF SPECIFIED GLAZING = 0.25
U-VALUE OF SPECIFIED GLAZING = 0.33

C402.4.1 VERTICAL FENESTRATION SHALL NOT BE GREATER THAN 30 PERCENT OF GROSS
ABOVE-GRADE WALL AREA.

LEGEND

- LONGEST EXIT ROUTE PER LEVEL
- EXIT ROUTE
- P: 36" R: 36" — EXIT POINT WITH WIDTH INDICATED IN INCHES
  OCCUPANT LOAD SHOWN VERTICAL
  P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT
  R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER - SURFACE MOUNTED

CODE REVIEW: IEBC 2021 - EXISTING BUILDING

CHAPTER 6 - REPAIRS	
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GENERAL ACCESSIBILITY (SEC 605.1)	REPAIRS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF ACCESSIBILITY PROVIDED.
CHAPTER 7 - ALTERATIONS - LEVEL 1	
CONFORMANCE (SEC 701.2)	AN EXISTING BUILDING OR PORTION THEREOF SHALL NOT BE ALTERED SUCH THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITION. WHERE THE CURRENT LEVEL OF SAFETY OR SANITATION IS PROPOSED TO BE REDUCED, THE PORTION ALTERED SHALL CONFORM TO THE REQUIREMENTS OF THE IBC 2021.
INTERIOR FINISHES (SEC 702.2)	ALL NEWLY INSTALLED INTERIOR WALL AND CEILING FINISHES SHALL COMPLY WITH CHAPTER 8 OF THE IBC 2021. NEW INTERIOR FLOOR FINISH, INCLUDING CARPET USED AS AN INTERIOR FLOOR FINISH MATERIAL, SHALL COMPLY WITH SECTION 804 AND FOR IBC 2021.
CHAPTER 8 - ALTERATIONS - LEVEL 2	
COMPLIANCE (SEC 801.3)	ALL NEW CONSTRUCTION ELEMENTS, COMPONENTS, SYSTEMS, AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF THE IBC 2021.
FIRE ALARM AND DETECTION (SEC 804.4)	AN APPROVED AUTOMATIC FIRE DETECTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THIS CODE AND NFPA 72.
GROUP E OCCUPANCY (SEC 804.4.1.1)	A FIRE ALARM SYSTEM SHALL BE INSTALLED IN WORK AREAS OF GROUP E AS REQUIRED BY THE INTERNATIONAL FIRE CODE.

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

G0.04-H
LEVEL 01 PLAN GYM LOCKERS CODE REVIEW

HIGHTOWER HIGH SCHOOL

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FLOORPLAN FIELD HOUSE PLAN CODE REVIEW 2

SCALE: 3/16" = 1'-0"

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00 FOR DOOR SCHEDULE IDENTIFYING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2023 NATIONAL ELECTRICAL CODE
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)

2021 IBC COMPLIANCE DATA

CHAPTER 2 - DEFINITIONS
GRADE PLANE: A REFERENCE PLANE REPRESENTING THE AVERAGE OF FINISHED GROUND LEVEL ADJOINING THE BUILDING AT EXTERIOR WALLS. WHERE THE FINISHED GROUND LEVEL SLOPES AWAY FROM THE EXTERIOR WALLS, THE REFERENCE PLANE SHALL BE ESTABLISHED BY THE LOWEST POINTS WITHIN THE AREA BETWEEN THE BUILDING AND THE LOT LINE OR, WHERE THE LOT LINE IS MORE THAN 6 FEET (1829 MM) FROM THE BUILDING, BETWEEN THE BUILDING AND A POINT 6 FEET (1829 MM) FROM THE BUILDING.
GRADE PLANE = -7' BELOW PROJECT "0'-0" ELEVATION"

STORY ABOVE GRADE PLANE: ANY STORY HAVING ITS FINISHED FLOOR SURFACE ENTIRELY ABOVE GRADE PLANE, OR IN WHICH THE FINISHED SURFACE OF THE FLOOR NEXT ABOVE IS: 1. MORE THAN 6 FEET (1829 MM) ABOVE GRADE PLANE; OR 2. MORE THAN 12 FEET (3658 MM) ABOVE THE FINISHED GROUND LEVEL AT ANY POINT.

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 - EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS - NEW CONCESSION BUILDING
TABLE 504.3, 504.4 & 506.2
EXISTING GROUP E, TYPE II, SPRINKLED:
BUILDING HEIGHT: 55' ALLOWED; **25' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 2 STORIES ALLOWED; **1 STORIES ACTUAL**
BUILDING AREA: **12,004** SQUARE FEET PER STORY

TOTAL SF BUILDING: 4,393 SQUARE FEET

SECTION 508 - INCIDENTAL USES
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

TABLE 509 - MIXED USE AND OCCUPANCY
ELECTRICAL INSTALLATIONS AND TRANSFORMERS (SEE SECTIONS 110.26 THROUGH 110.34 AND SECTIONS 450.8 THROUGH 450.48 OF NFPA 70 FOR PROTECTION AND SEPARATION REQUIREMENTS.

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 - FOR CONSTRUCTION TYPE II B: 0 HOUR FIRE-RESISTANCE RATING REQUIREMENT FOR BUILDING ELEMENTS
NOTE: ELEMENTS INCLUDE PRIMARY STRUCTURAL FRAME, EXTERIOR AND INTERIOR WALLS, FLOOR AND ROOF CONSTRUCTION

SECTION 602 - CONSTRUCTION CLASSIFICATION
602 - FOR CONSTRUCTION TYPE II B: 0 HOUR FIRE RESISTANCE RATING FOR EXTERIOR WALLS IF < 10 FT. FROM OTHER STRUCTURES, ELSE 0

CHAPTER 8 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE II B - PER TABLES 601 & 602:
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED: PRIMARY STRUCTURE, BEARING & NONBEARING WALLS/ PARTITIONS (INTERIOR & EXTERIOR), FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTIBLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL - N/A

SECTION 707 - FIRE BARRIERS - N/A

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT) - N/A

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES; NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES; BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE.

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS NOT SPRINKLERED, BUILDING AREA IS LESS THAN 12,000 SQ. FT..

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
TABLE 1004.5 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT
STORAGE, MECHANICAL 300 SQ. FT., GROSS
EDUCATION, CLASSROOM 20 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.2 - FOR OCCUPANT LOAD PER STORY:
CONCESSION BUILDING / LEVEL 1: 3 EXITS REQUIRED, 7 EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.8 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
1017.2 - FOR GROUP E W/O SPRINKLER SYSTEM: EXIT TRAVEL DISTANCE IS 200 FT.

CHAPTER 17: SPECIAL INSPECTIONS AND TESTS

STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS REQUIRING SPECIAL INSPECTIONS PER SECTION 705 OF THE IBC HAVE NOT BEEN LISTED HERE. REFER TO STRUCTURAL/MECHANICAL/ELECTRICAL FOR SPECIAL INSPECTION REQUIREMENTS FOR THESE COMPONENTS.
ITEMS OF ARCHITECTURAL CONSTRUCTION WHICH REQUIRE SPECIAL INSPECTION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1705.14 SPRAYED FIRE-RESISTANT MATERIALS
1705.15 MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS
1705.16.1 WATER-RESISTIVE BARRIER COATING
1705.17 FIRE-RESISTANT PENETRATIONS AND JOINTS
1705.18 TESTING FOR SMOKE CONTROL

2021 IECC COMPLIANCE DATA

CHAPTER 3 - GENERAL REQUIREMENTS

SECTION C301.1 - GENERAL
C301.1 - CLIMATE ZONE 2A

CHAPTER 4 - COMMERCIAL ENERGY EFFICIENCY

REFER TO COMCHECK FOR COMPLIANCE

C402.3 - EITHER THREE-YEAR AGED SOLAR REFLECTANCE OF 0.55 AND 3-YEAR AGED
THERMAL EMITTANCE OF 0.75 OR THREE-YEAR AGED SOLAR REFLECTANCE INDEX OF 64.
C402.4 - FOR CLIMATE ZONE 2 AND FIXED FENESTRATION: U-FACTOR OF 0.5
C402.4 - SOLAR HEAT GAIN COEFFICIENT REQUIREMENTS

PROJECTION FACTOR	SEW	N
PF <0.2	0.25	0.33
0.2 <= PF < 0.5	0.30	0.37
PF >= 0.5	0.40	0.40

SHGC OF SPECIFIED GLAZING = 0.25
U-VALUE OF SPECIFIED GLAZING = 0.33

C402.4.1 VERTICAL FENESTRATION SHALL NOT BE GREATER THAN 30 PERCENT OF GROSS
ABOVE-GRADE WALL AREA.

LEGEND

- LONGEST EXIT ROUTE PER LEVEL
- EXIT ROUTE
- P 36" / R 36" — EXIT POINT WITH WIDTH INDICATED IN INCHES. OCCUPANT LOAD SHOWN VERTICAL. P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT. R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER - SURFACE MOUNTED

CODE REVIEW: IEBC 2021 - EXISTING BUILDING

CHAPTER 6 - REPAIRS
NEW AND REPLACEMENT MATERIALS (SEC 602.2) — LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS. PROVIDED NO DANGEROUS OR UNSAFE CONDITION, AS DEFINED IN CHAPTER 2, IS CREATED.

GENERAL ACCESSIBILITY (SEC 605.1) — REPAIRS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF ACCESSIBILITY PROVIDED.

CHAPTER 7 - ALTERATIONS - LEVEL 1

CONFORMANCE (SEC 701.2) — AN EXISTING BUILDING OR PORTION THEREOF SHALL NOT BE ALTERED SUCH THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITION. WHERE THE CURRENT LEVEL OF SAFETY OR SANITATION IS PROPOSED TO BE REDUCED, THE PORTION ALTERED SHALL CONFORM TO THE REQUIREMENTS OF THE IBC 2021.

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FIRE ALARM AND DETECTION (SEC 804.4) — AN APPROVED AUTOMATIC FIRE DETECTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THIS CODE AND NFPA 72.

GROUP E OCCUPANCY (SEC 804.4.1.1) — A FIRE ALARM SYSTEM SHALL BE INSTALLED IN WORK AREAS OF GROUP E AS REQUIRED BY THE INTERNATIONAL FIRE CODE.

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

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G0.05-H
LEVEL 01 FIELD HOUSE CODE REVIEW

HIGHTOWER HIGH SCHOOL

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GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL SIZES, LOCATIONS AND ELEVATIONS NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS PRIOR TO SUBMITTING PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR FROM PERFORMING THE WORK REQUIRED UNDER THIS CONTRACT. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE OWNER/ENGINEER.
2. SOME UTILITIES MAY NOT BE SHOWN ON THE PLANS. FIELD VERIFY AND IDENTIFY LOCATIONS OF PIPING AND ALL UTILITIES NOT NOTED ON THE PLANS. NOTIFY THE OWNER/ENGINEER OF ANY POTENTIAL CONFLICTS PRIOR TO STARTING CONSTRUCTION.
3. ALL GENERAL AND SUB-CONTRACTORS ARE ENCOURAGED TO VISIT AND INSPECT THE SITE PRIOR TO SUBMITTING A PROPOSAL TO COMPLETE.
4. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES, TRAFFIC CONTROL DEVICES AND PAVING. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITY'S ENGINEERING STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAWINGS, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR AND MAKE SURE THE CORRECT BENCHMARK IS USED.
7. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
9. CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
10. CONTRACTOR SHALL MAINTAIN A SHEET OF REDLINE DRAWINGS RECORDING AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINES MARKED DRAWINGS WILL BE SUBMITTED TO THE ENGINEER WHO WILL MAKE THE CHANGES ON THE ORIGINAL DRAWINGS. LABELING EACH SHEET IN THE SET AS "RECORD DRAWINGS".
11. CONTRACTORS SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
12. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICAS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
13. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALK, ETC.) SHALL BE STABILIZED WITH PLANTINGS OR OTHERWISE RECEIVE 6 INCHES OF MULCH OR LOAM AND SEED AS DIRECTED BY THE ENGINEER.
14. CONTRACTOR SHALL PREVENT DUST, SEDIMENT AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
15. SAFETY - NEITHER THE OWNER NOR THE ENGINEER OF RECORD WILL BE RESPONSIBLE FOR COMPLIANCE WITH SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, FEDERAL, AND CONTRACTUAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ANY SCHOOL CHILDREN OUT OF THE WORK AREA.
17. STANDARD SPECIFICATIONS - ALL CONSTRUCTION WORK AND INSTALLATION SHALL CONFORM TO THE PROJECT SPECIFICATIONS PROVIDED WITH THE CONTRACT DOCUMENTS AND ANY STANDARD SPECIFICATIONS AS INDICATED ON THESE PLANS.
18. INSPECTIONS - THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR REQUIRED INSPECTIONS. THE PRESENCE OR ABSENCE OF AN INSPECTOR WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE PROPER PERFORMANCE OF WORK.
19. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVE OR ANY OTHER AGENCY HAVING JURISDICTION FOR ALL ACTIVITIES ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH OSHA PERFORMANCE CRITERIA.
20. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS.

SITEWORK GENERAL NOTES:

1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D698:
   A. UNDER STRUCTURES: SCARIFY AND RE COMPACT 12 INCHES OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   B. UNDER WALKWAYS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   C. UNDER TURF OR UNPAVED AREAS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 90% SPD.
   D. UTILITY TRENCHES: BACKFILL SHALL BE IN 8 INCHES LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS ON EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% SPD IN PAVED AREAS AND 90% SPD IN UNPAVED AREAS OR AS INDICATED IN THE DRAWINGS.
2. DIMENSIONS IN THE DOCUMENTS SHALL GOVERN.

CIVIL GRADING NOTES:

1. CLEAR AND GRUB WITHIN THE GRADING LIMITS SHOWN IN THE CIVIL DRAWINGS. REMOVE STUMPS AND ROOTS 3 INCHES IN DIAMETER AND LARGER AND NONPERISHABLE SOLID OBJECTS A MINIMUM 3 FEET BELOW SUBGRADE OR FINISHED EMBANKMENT.
2. STRIP AND STOCKPILE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES WITHIN THE LIMITS OF EARTHWORK OPERATIONS.
3. STRUCTURAL EXCAVATION: EXCAVATE TO INDICATE ELEVATIONS WITHIN A TOLERANCE OF 1 INCH. EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORM WORK AND FOR INSPECTIONS.

UTILITIES:

1. THE LOCATIONS, SIZES AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATE CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN IN THE PLANS. PRIOR TO ORDERING MATERIAL AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZED AND ELEVATIONS OF THE POINT OF CONNECTIONS TO EXISTING UTILITIES AND SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND PROPOSED UTILITY ROUTES. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 1-800-245-4545 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.

PAVING NOTES:

1. RIM ELEVATIONS FOR MANHOLES AND SEWER CLEANOUTS, WATER VALVE COVERS, ELECTRIC AND TELEPHONE PULL BOXES AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: 1 INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.

STORM SEWER CONSTRUCTION NOTES:

1. STORM SEWERS SHALL BE INSTALLED, BEDDED, AND BACKFILLED ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
2. STORM SEWERS LOCATED WITHIN PUBLIC R.O.W. OR SIDE LOT EASEMENTS SHALL BE REINFORCED CONCRETE PIPE (24-INCH AND LARGER) (C-76. CLASS III). AND SHALL BE INSTALLED, BEDDED, AND BACKFILLED IN ACCORDANCE WITH THE GOVERNING ENTITIES STANDARD DETAILS AND SPECIFICATIONS. UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
3. ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABILIZED SAND TO ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH ALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
4. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
5. ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES AND INLETS ARE TO PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL PROVIDE 18" MINIMUM CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
7. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF LOCAL GOVERNING ENTITY STANDARDS AND SPECIFICATIONS FOR JUSTING MANHOLES, INLETS AND VALVE BOXES TO GRADE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACKSLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF HIS WORK.
9. ALL DITCHES SHALL BE REGRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.

SWPPP CONSTRUCTION NOTES:

1. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG THE ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPPP) PLANS TO KEEP SILT AND/ OR EXCAVATIONS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM SEWER.
2. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.
3. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK, TRACKED FROM THE EXCAVATED AREA.
4. CONTRACTOR SHALL FOLLOW GOOD HOUSE KEEPING PRACTICES DURING THE CONSTRUCTION PHASE OF THE PROJECT ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
5. CONTRACTOR IS TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5-INCHES OR GREATER:
   A. DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
   B. AREAS USED FOR STORAGE THAT ARE EXPOSED TO PRECIPITATION.
   C. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
6. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS, AND CORRECTIVE ACTION IF SUCH OCCURS.

TRAFFIC NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. ALL TRAFFIC CLOSURES SHALL BE SCHEDULED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITIES APPROPRIATE HOURS.
3. NO LANES ON MAJOR THOROUGHFARES MAY BE BLOCKED FROM 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM UNLESS APPROVED BY THE LOCAL GOVERNING ENTITY.
4. NO TRAFFIC LANES SHALL BE CLOSED IN ALL RESIDENTIAL AREAS FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS.
6. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND OPEN THE LANES FOR NORMAL TRAFFIC FLOW.
7. OFF-DUTY UNIFORMED POLICE OFFICER(S)/FLAGGER(S) ARE REQUIRED TO DIRECT TRAFFIC WHEN THE LANES ARE BLOCKED.
8. IN THE EVEN THAT NO "TRAFFIC CONTROL PLANS" EXIST AS PART OF CONTRACT DRAWINGS. CONTRACT MAY PREPARE PLANS AND SUBMIT TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN-DAYS (10) PRIOR TO IMPLEMENTATION.
9. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS. HE/SHE SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING AN ALTERNATE SET OF PLANS* TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN (10) WORKING DAYS PRIOR TO IMPLEMENTATION.
10. APPROVED COPIES OF THE TRAFFIC CONTROL PLANS AND REQUIRED PERMITS SHALL BE MADE AVAILABLE FOR INSPECTION AT THE JOB SITE AT ALL TIMES. CONTRACTORS MUST SECURE REQUIRED PERMITS FROM THE LOCAL GOVERNING ENTITY'S TRAFFIC MANAGEMENT AND MAINTENANCE BRANCH BEFORE CLOSING A LANE/SIDEWALK. THE REQUEST MUST BE MADE AT LEAST TEN (10) DAYS IN ADVANCE OF THE CLOSURE. NOTE THAT WORKING HOURS MAY BE RESTRICTED OR THE REQUEST MAY BE DENIED.
    A. THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLAR AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME PART OF THE CONTRACT DRAWINGS.

WARNING: OVERHEAD ELECTRICAL LINES:

1. OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:
   A. ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
   B. OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
2. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222. ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-6248 OR (713) 207-5769.

CENTERPOINT ENERGY:
CAUTION: UNDERGROUND GAS FACILITIES:

1. LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, LLC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 OR 1-800-669-8344 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
   A. WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 945-8036 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
   B. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
   C. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
   D. FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3522 OR (713) 207-4200.
   E. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

AT&T TEXAS/SBC FACILITIES:

1. THE LOCATIONS OF AT&T TEXAS/SBC FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SBC FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANICAL EXCAVATION PROCEDURES. WHEN BORING THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SBC FACILITIES.
4. WHEN AT&T TEXAS/SBC FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SBC UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURY CABLES OR OTHER CABLES IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713)456-4552 OR EMAIL HIM AT rl7259@att.com, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR AT&T TEXAS/SWBT FACILITIES.

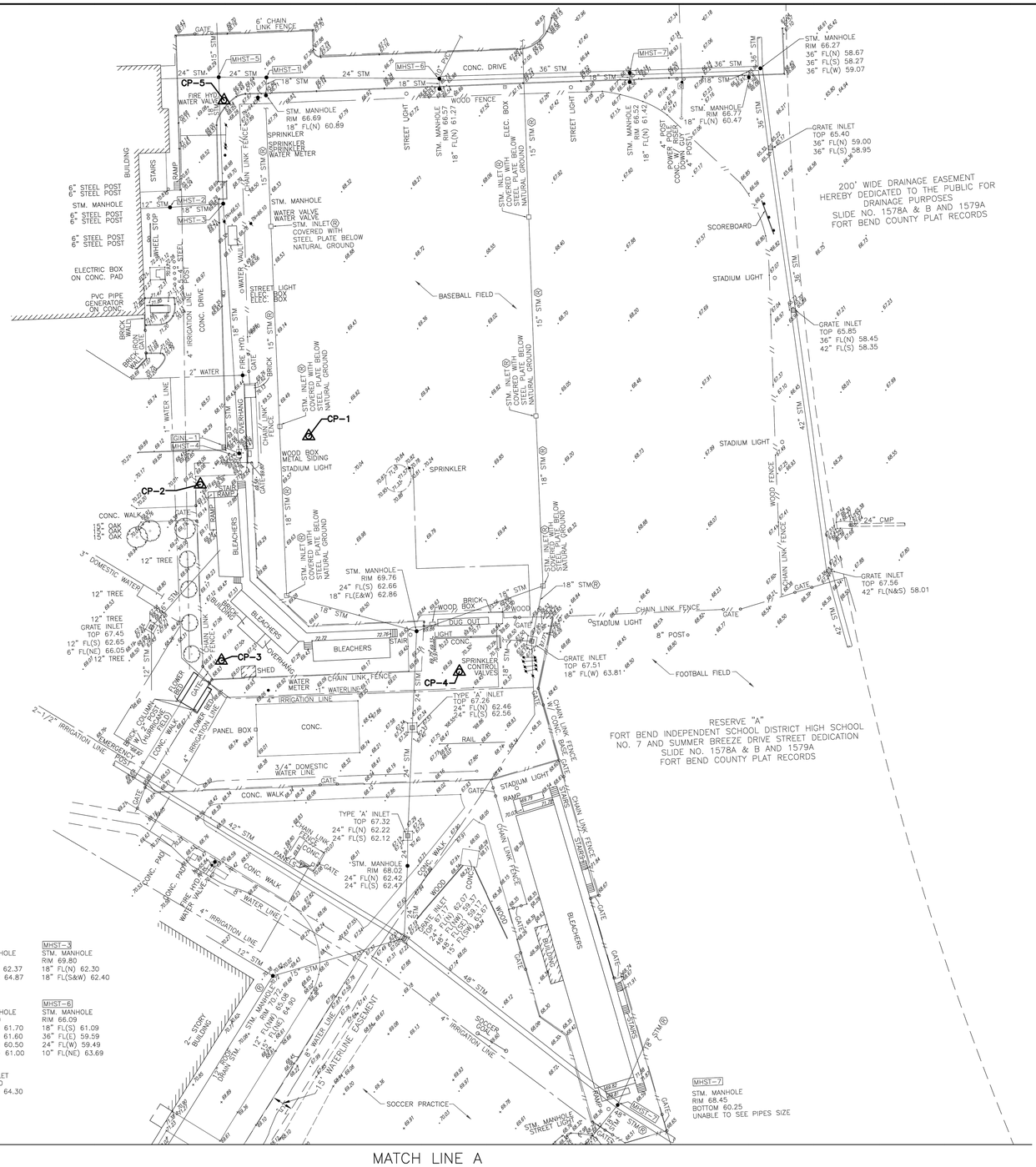
SANITARY SEWER NOTES:

1. ALL SEWERS SHALL BE TESTED FOR EXCESS DEFLECTION IN PIPE CROSS SECTION, FOR LATERAL AND VERTICAL PIPE OBSTRUCTION, AND FOR JOINT OFFSETS, BY PULLING A MANDREL THROUGH THE PIPE BY HAND. THE MANDREL SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILLING HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. OBSTRUCTIONS ENCOUNTERED SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. MANDREL AND TEST EQUIPMENT SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONDUCTING THE TEST.
2. USE BEDDING AND BACKFILL PER DETAILS PROVIDED IN THE CONTRACT DRAWINGS UNLESS FIELD CONDITIONS DICTATE OTHERWISE. CONTRACTOR TO NOTIFY ENGINEER OF WET TRENCH CONDITIONS PRIOR TO LAYING PIPE. USE CEMENT STABILIZED SAND AND BACKFILL TO WITHIN 1 FOOT OF PROPOSED OR EXISTING PAVEMENT SUBGRADE. BEDDING, CEMENT STABILIZED SAND AND/OR BACKFILL SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM FOR PIPE AND SHALL NOT BE PAID FOR DIRECTLY.
3. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 24 INCHES OF VERTICAL CLEARANCE AND 9 FEET HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND WATER LINES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 12 INCHES OF VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND STORM SEWER LINES.
4. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM THE MANHOLE RIM PER ASTM F477.
5. UNLESS OTHERWISE NOTED, ALL SANITARY SEWERS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE (PVC) SCH 40, CONFORMING TO ASTM D1785, OR APPROVED EQUAL. ALL SANITARY SEWERS SHALL HAVE RUBBER GASKET BELL AND SPIGOT CONNECTIONS.
6. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES SHALL BE PRECAST CONCRETE MANHOLES.
7. NO CONNECTIONS SHALL BE MADE TO EXISTING SANITARY SEWER LINES UNTIL ALL PROPOSED SEWER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED AND APPROVED BY THE LOCAL GOVERNING ENTITY.
8. WHENEVER THE MANHOLE COVERS ARE LOCATED BELOW THE 100 YEAR FLOOD PLAIN ELEVATION THEY SHALL BE GASKETED AND BOLTED AS DESCRIBED IN 317.2. OF THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES.
9. LOW-PRESSURE AIR TEST. THIS TEST SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM C-828, ASTM C-924 OR OTHER APPROPRIATE PROCEDURES. FOR SAFETY REASONS, AIR TESTING OF SECTIONS OF PIPE SHALL BE LIMITED TO LINES LESS THAN 36-INCH AVERAGE INSIDE DIAMETER. LINES 36-INCH AVERAGE INSIDE DIAMETER AND LARGER MAY BE AIR TESTED AT EACH JOINT. THE MAXIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE DURING A JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR SECTION OF PIPE LESS THAN 36-INCH AVERAGE INSIDE DIAMETER, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE SHALL BE COMPUTED BY THE FOLLOWING EQUATIONS:

   T = 0.0850(D)(K)/(Q) WHERE T = TIME FOR PRESSURE TO DROP 1.0 POUNDS PER SQUARE INCH GAUGE IN SECONDS
   K = 0.000419(D)(L), BUT NOT LESS THAN 1.0
   D = AVERAGE INSIDE DIAMETER IN INCHES
   L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET
   Q = RATE OF LOSS, ASSUME 0.0015 CU FT/MIN/SQ FT INTERNAL SURFACE
10. SDR-26 PVC PIPE TO USE "FULL BODIED" SDR-26 FITTINGS.
11. ALL PVC PIPE TO HAVE CELL CLASS 12454 A OR B AS PER ASTM D1784.
12. NO MORE THAN 2 HOURS SHALL ELAPSE BETWEEN MIXING AND PLACEMENT OF CEMENT STABILIZED SAND.
13. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% SPD, ±2% OF OPTIMUM MOISTURE CONTENT, IN MAXIMUM 8-INCH LIFTS.

WATER SYSTEM CONSTRUCTION NOTES:

1. METERS AND BACKFLOW BOXES SHALL BE SET A MINIMUM OF 3 INCHES ABOVE FINISHED GRADE WITH SLOPED BACKFILL TO DIRECT STORM WATER AWAY FROM BOX. BOXES SHALL BE BACKFILLED WITH A MINIMUM 12 INCHES OF CEMENT STABILIZED SAND AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. FIRE SPRINKLER LINES SHALL BE INSTALLED AND TESTED BY A CONTRACTOR LICENSED BY THE STATE TO PERFORM SUCH WORK UNDER SECTION 4(A) & (B) OF ARTICLE 5.43-3 OF THE TEXAS INSURANCE CODE. CONTRACTOR SHALL FURNISH OWN CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING AS REQUIRED BY THE TEXAS COMMISSION ON FIRE PROTECTION.
3. ALL PVC PIPE USED IN WATER SYSTEMS SHALL BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL.
4. WATER LINE PIPE AND FITTING MATERIALS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:
   A. LESS THAN 4 INCH POTABLE WATER LINE SHALL BE SCHEDULE 40, PVC 1120, PER ASTM D-1785, EXCEPT THAT THREADED PIPE SHALL BE SCHEDULE 80. 3 INCH POTABLE WATER MAY BE SDR 21 PVC (200 P.S.I.) WITH GASKETED JOINTS.
   B. SITE 4 INCH AND LARGER POTABLE WATER LINE SHALL BE AWWA C900, DR 18, CLASS 235 PVC.
   C. FIRE SPRINKLER LINE SHALL BE AWWA C900, DR 14, CLASS 305 PVC.
   D. FITTINGS FOR LESS THAN 3 INCH AND LARGER WATER LINE SHALL BE ASTM D-2466 SCHEDULE 40 PVC. THREADED FITTINGS SHALL BE SCHEDULE 80 PER ASTM D-2467.
   E. FITTINGS FOR 3 INCH AND LARGER WATER LINE SHALL BE ALL-BELL, PUSH-ON, DUCTILE IRON MECHANICAL JOINT FITTINGS WITH MEGA-LUG.
5. VALVES:
   A. 1 1/2 INCH AND SMALLER SHALL BE 125 P.S.I.G., BRONZE, RISING STEM, SINGLE-WEDGE, DISC TYPE, SCREWED ENDS, CRANE NO. 428 OR APPROVED EQUAL.
   B. 2 INCH THRU 2 1/2 INCH VALVES SHALL BE IRON BODY, DOUBLE GATE, NON-RISING STEM, 150 P.S.I.G. TEST; 2 INCH SQUARE NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
   C. 3 INCH AND LARGER VALVES SHALL BE 200 P.S.I.G. GATE VALVES PER AWWA C500 OR C509, PUSH-ON BELL ENDS WITH RUBBER JOINT RINGS; 2 INCH NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
6. POLYETHYLENE WRAP ALL CAST AND DUCTILE IRON PIPE AND FITTINGS PER SPECIFICATIONS.
7. WATER LINES SHALL HAVE A MINIMUM COVER OF 4 FEET BELOW NATURAL GROUND, FINISH GRADE, OR MEAN ELEVATION OF NEARBY DITCH, WHICHEVER IS LOWER. ALL WATER LINES SHALL MAINTAIN A MINIMUM 12 INCH CLEARANCE TO OTHER UTILITIES AT CROSSINGS UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINES INSTALLED OVER 8 FEET DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS. CONTRACTOR SHALL PROVIDE THRUST BLOCKING TO WITHSTAND 125% OF TEST PRESSURES.
8. SEPARATION DISTANCE FOR ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS CHAPTER 290.44, HARRIS COUNTY, AND TCEQ REQUIREMENTS, LATEST PRINTING.
9. WHERE A DOMESTIC WATERLINE CROSSES A SANITARY SEWER, INSTALL ONE JOINT (MINIMUM 18 FOOT LENGTH) OF WATERLINE PIP CENTER



MHST-1
STM. MANHOLE
RIM 66.43
18" FL(S) 60.33
24" FL(E) 60.13
24" FL(W) 60.33

MHST-2
STM. MANHOLE
RIM 70.57
18" FL(E) 62.37
12" FL(W) 64.87

MHST-3
STM. MANHOLE
RIM 69.80
18" FL(N) 62.30
18" FL(S&W) 62.40

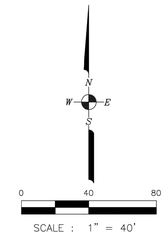
MHST-4
STM. MANHOLE
RIM 69.50
18" FL(N) 62.75
15" FL(W) 62.90

MHST-5
STM. MANHOLE
RIM 67.90
15" FL(N) 61.70
18" FL(S) 61.60
24" FL(E) 60.50
24" FL(W) 61.00

MHST-6
STM. MANHOLE
RIM 66.09
18" FL(S) 61.09
36" FL(E) 59.59
24" FL(W) 59.49
10" FL(NE) 63.69

MHST-7
STM. MANHOLE
RIM 66.16
18" FL(S) 61.26
36" FL(E) 59.16
36" FL(W) 59.46

GINL-1
GRATE INLET
TOP 67.50
15" FL(E) 64.30



SCALE : 1" = 40'

SURVEY CONTROL MONUMENTS

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
CP-1	13,759,655.68	3,083,060.63	69.63'	SET 5/8" W/ CAP STAMPED "LANDTECH"
CP-2	13,759,621.40	3,082,983.53	69.18'	SET "X" CUT IN CONC.
CP-3	13,759,496.20	3,082,998.59	69.02'	SET "X" CUT IN CONC.
CP-4	13,759,488.33	3,083,167.64	69.66'	SET 5/8" W/ CAP STAMPED "LANDTECH"
CP-5	13,759,894.37	3,083,000.44	67.51'	SET "X" CUT IN CONC.

BENCHMARK:

CITY OF MISSOURI CITY SURVEY MARKER 7152 BRASS DISK ON TOP OF INLET STAMPED "COMC7152" AT THE INTERSECTION OF WATTS PLANTATION AND ARBOR CREST.
ELEVATION = 66.97' (NAVD88, 2001 ADJUSTMENT)

TOPOGRAPHIC SURVEY
HIGHTOWER HIGH SCHOOL
FORT BEND COUNTY, TEXAS

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

DATE: OCTOBER 2025
SCALE: 1" = 40'
DRAWING No.: -D-
JOB No.: 2520139.00
SHEET No. : 1 OF 2

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pfluger
office 713.222.1141 | fax 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

HIGHTOWER HIGH SCHOOL
Project Info Additional Text Line
3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
| # | Date | Description |

100% CD
C 0.02-H
CIVIL SPORTS SURVEY
(REFERENCE ONLY)

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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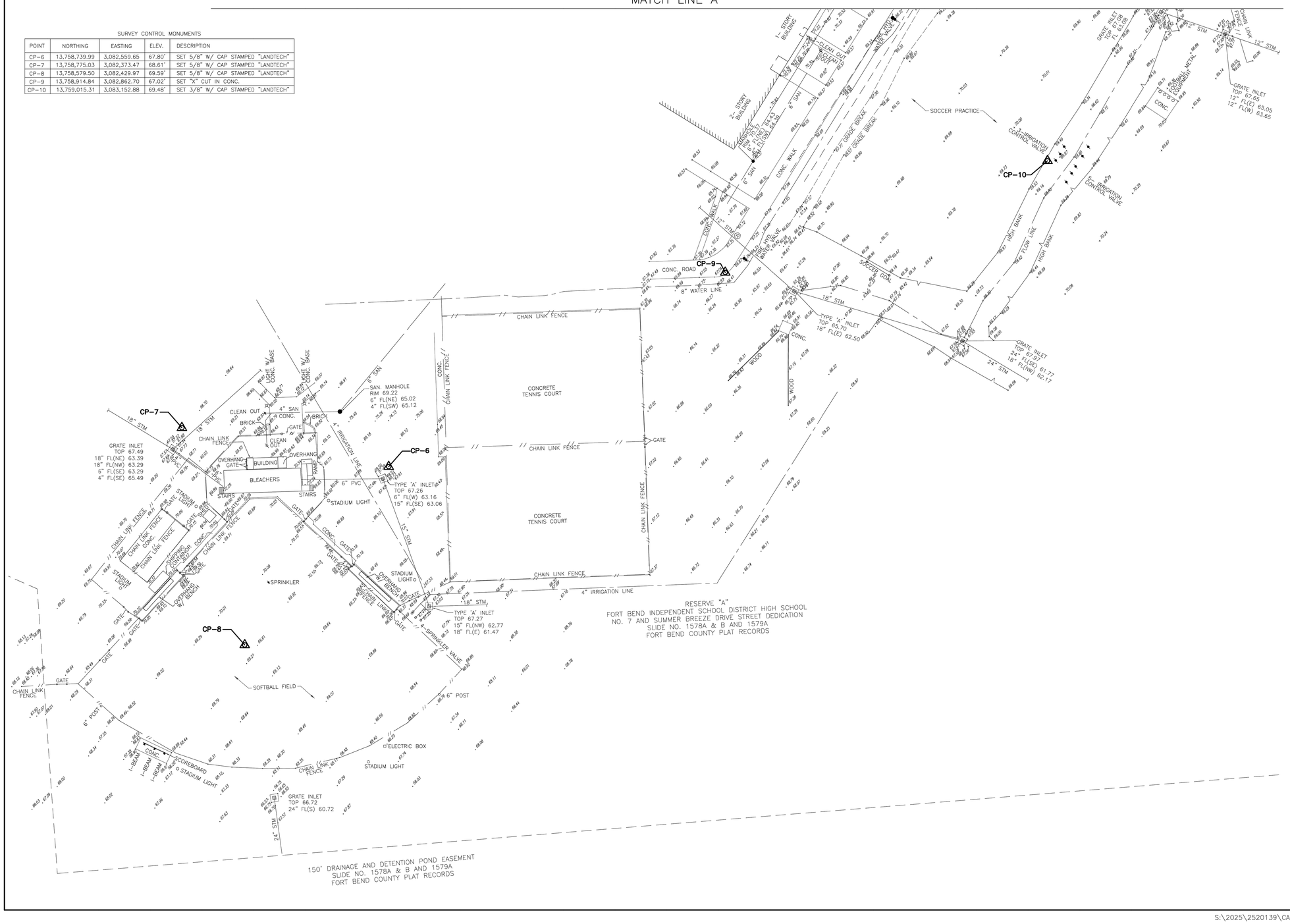
TSCE PROJECT # 2508

MATCH LINE A

SURVEY CONTROL MONUMENTS

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
CP–6	13,758,739.99	3,082,559.65	67.80'	SET 5/8" W/ CAP STAMPED "LANDTECH"
CP–7	13,758,775.03	3,082,373.47	68.61'	SET 5/8" W/ CAP STAMPED "LANDTECH"
CP–8	13,758,579.50	3,082,429.97	69.59'	SET 5/8" W/ CAP STAMPED "LANDTECH"
CP–9	13,758,914.84	3,082,862.70	67.02'	SET "X" CUT IN CONC.
CP–10	13,759,015.31	3,083,152.88	69.48'	SET 5/8" W/ CAP STAMPED "LANDTECH"



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W E
S

0 40 80

SCALE : 1" = 40'

TOPOGRAPHIC SURVEY
HIGHTOWER HIGH SCHOOL
FORT BEND COUNTY, TEXAS

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

DATE: OCTOBER 2025
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JOB No.: 2520139.00
SHEET No. : 2 OF 2

S:\2025\2520139\CADD\Hightower HS Topo.dwg

TEXAS SPORTS & CIVIL ENGINEERING
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HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

HIGHTOWER HIGH SCHOOL
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3333 Hurricane Ln, Missouri City, TX 77459

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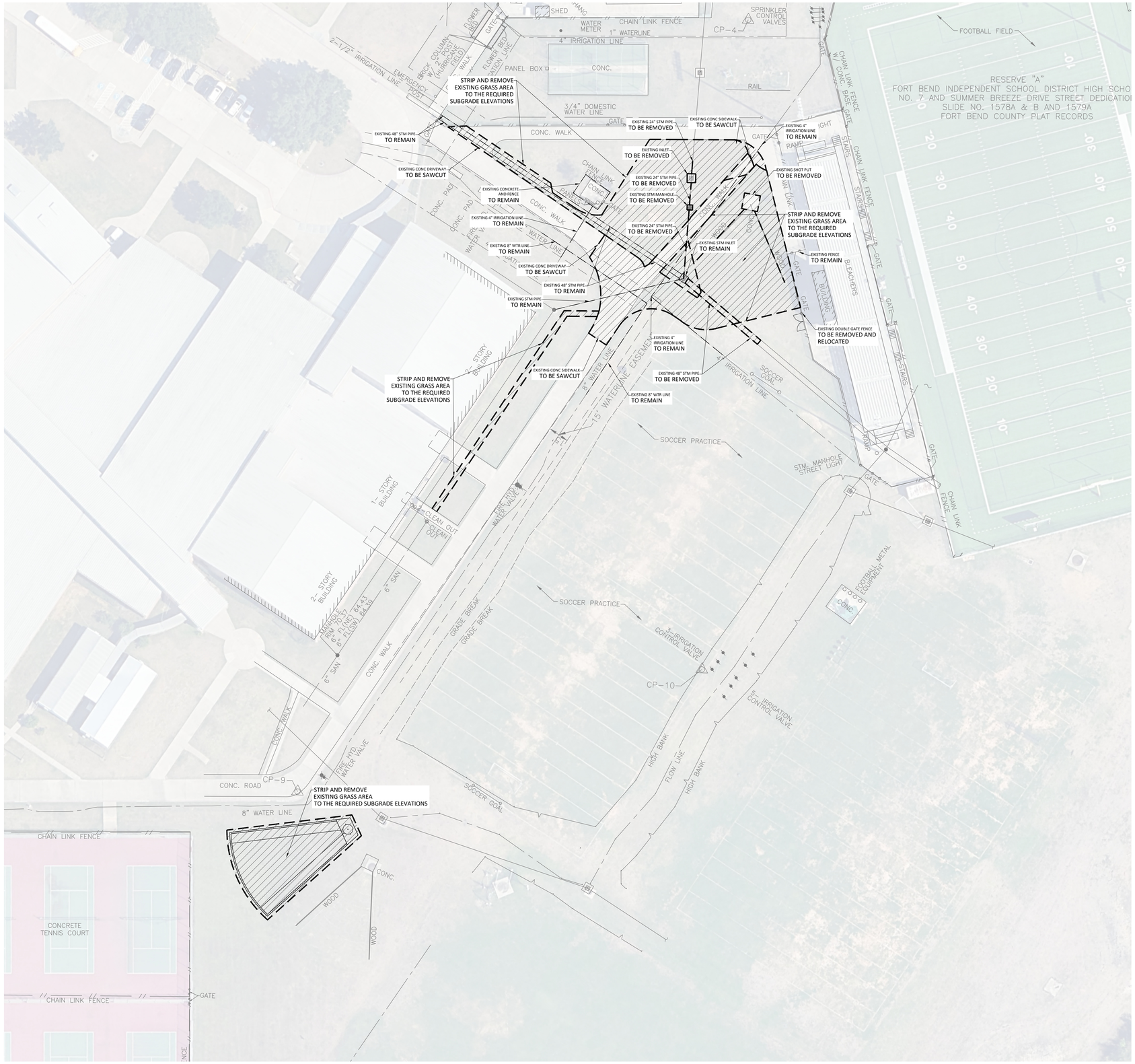
KENNETH I. JURADO
119993
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

100% CD
C 0.03-H
CIVIL SPORTS SURVEY (REFERENCE ONLY)


STRIP AND REMOVE EXISTING GRASS AREA TO THE REQUIRED SUBGRADE ELEVATIONS
EXISTING 48" STM PIPE TO REMAIN
EXISTING CONC DRIVEWAY TO BE SAWCUT
EXISTING CONCRETE AND FENCE TO REMAIN
EXISTING 4" IRRIGATION LINE TO REMAIN
EXISTING 8" WTR LINE TO REMAIN
EXISTING CONC DRIVEWAY TO BE SAWCUT
EXISTING 48" STM PIPE TO REMAIN
EXISTING STM PIPE TO REMAIN
EXISTING 24" STM PIPE TO BE REMOVED
EXISTING CONC SIDEWALK TO BE SAWCUT
EXISTING 4" IRRIGATION LINE TO REMAIN
EXISTING INLET TO BE REMOVED
EXISTING 24" STM PIPE TO BE REMOVED
EXISTING STM MANHOLE TO BE REMOVED
EXISTING 24" STM PIPE TO BE REMOVED
EXISTING STM INLET TO REMAIN
EXISTING 4" IRRIGATION LINE TO REMAIN
EXISTING 48" STM PIPE TO BE REMOVED
EXISTING 8" WTR LINE TO REMAIN
EXISTING CONC SIDEWALK TO BE SAWCUT
STRIP AND REMOVE EXISTING GRASS AREA TO THE REQUIRED SUBGRADE ELEVATIONS
EXISTING SHOT PUT TO BE REMOVED
STRIP AND REMOVE EXISTING GRASS AREA TO THE REQUIRED SUBGRADE ELEVATIONS
EXISTING FENCE TO REMAIN
EXISTING DOUBLE GATE FENCE TO BE REMOVED AND RELOCATED
STRIP AND REMOVE EXISTING GRASS AREA TO THE REQUIRED SUBGRADE ELEVATIONS
STRIP AND REMOVE EXISTING GRASS AREA TO THE REQUIRED SUBGRADE ELEVATIONS
FOOTBALL FIELD
RESERVE "A"
FORT BEND INDEPENDENT SCHOOL DISTRICT HIGH SCHO
NO. 7 AND SUMMER BREEZE DRIVE STREET DEDICATIO
SLIDE NO. 1578A & B AND 1579A
FORT BEND COUNTY PLAT RECORDS
SHED
WATER METER
CHAIN LINK FENCE
1" WATERLINE
SPRINKLER CONTROL VALVES
CP-4
4" IRRIGATION LINE
CONC.
PANEL BOX
RAIL
3/4" DOMESTIC WATER LINE
2-1/2" IRRIGATION LINE
EMERGENCY POST
BRICK COLUMN W/ POST (MURPHY FIELD)
FLOWER BED
FLOWER BED
WALK
GATE
CONC. WALK
CHAIN LINK FENCE W/ CONC. BASE
GATE
RAMP
STAIRS
CHAIN LINK FENCE
CONC. PAD
CONC. WALK
WATER LINE
CONC. WALK
CONC. PAD
CHAIN LINK FENCE
CONC. WALK
CONC. WALK
CONC. WALK



N

NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS AND GROUND ELEVATIONS.
2. CONTRACTOR TO SEE SHEET C 5.01-H TO C5.06-H FOR DETAILS.

LEGEND:

4.5 INCH CONC SIDEWALK

7 INCH CONC DRIVE

15' 30'
30' 0 60'

TEXAS SPORTS & CIVIL ENGINEERING
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HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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TSCE PROJECT # 2508

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

HIGHTOWER HIGH SCHOOL
Project Info Additional Text Line
3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE+EQUIP+IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
PROFESSIONAL
ENGINEER
STATE OF TEXAS

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 1.01-H
CIVIL SPORTS
SITE PLAN



N

NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.
2. CONTRACTOR TO COMMENCE WORK FROM DOWNSTREAM.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
MEFL	MATCH EXISTING FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRADE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

15' 30' 30' 0 60'

TEXAS SPORTS & CIVIL ENGINEERING
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HOUSTON, TEXAS 77079
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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Project Info Additional Text Line
3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 2.01-H
CIVIL SPORTS DRAINAGE PLAN



N

NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

15' 30'
30' 0 60'

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HOUSTON, TEXAS 77079
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3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

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C 3.01-H
CIVIL SPORTS GRADING PLAN



N

GENERAL NOTES:

1. CONTRACTOR TO COORDINATE AND IDENTIFY ALL FITTINGS, PIPE MATERIALS, AND INSTALLATION DETAILS, NOT SHOWN WITHIN THE 5+- SPACING BETWEEN THE STRUCTURES. REFER TO M.E.P. PLANS FOR TRUNK LINE LEAD LOCATIONS PRIOR TO CONSTRUCTION FOR A WATERTIGHT CONNECTION.
2. CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS REQUIRED PRIOR O STARTING CONSTRUCTION. COORDINATE INNECTIONS TO PUBLIC MUD FACILITIES WITH MUD ENGINEER/OPERATOR.
3. THE OWNER OR CONTRACTOR SHALL INSTALL APPROPRIATE BACKFLOW PREVENTION DEVICES IN ACCORDANCE WITH STATE PUMBLING CODES OR AS REQUIRED BY THE MUD OPERATOR. BACKFLOW TEST REPORTS MUST BE AVAILABLE AT THE TIME OF INSPECTION. COPIES OF ANNUAL TEST REPORTS MUST BE FORWARDED TO THE MUD DISTRICT.
4. NO PIPES, PIPE FITTINGS, PLUMBING FITTINGS AND FIXTURES WHICH CONTAIN MORE THAN A WEIGHTED AVERAGE OF 0.25% LEAN WHEN USED WITH RESPECT TO WETTED SURFACES EXIST IN PRIVATE WATER DISTRIBUTION FACILITIES INSTALLED ON OR AFTER JANUARY 4, 2014.
5. DIMENSION CONTROL PLAN PREPARED BY TSCE TO BE USED IN CONJUNCTION WITH THIS PLAN FOR LOCATING ALL IMPROVEMENTS.
6. ALL SANITARY SEWER RIMS TO BE PLACED NO HIGHER THAN ONE FOOT BELOW THE ADJACENT FINISHED FLOOR ELEVATION.
7. CONTRACTOR SHALL CORE DRILL THE SANITARY MANHOLE CONNECTION, USE A WATERTIGHT RESILIENT CONNECTOR, AND PROVIDE AN EXTERNAL DROP IF REQUIRED.
8. SANITARY SEWER LINES SHALL BE A MINIMUM 6" SDR 26 OR SCH40 BEDDED AND BACKFILLED WITH CEMENT STABILIZED SAND (8" AND LARGER SHAL BE SDR 26)
9. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION DIFFERS FROM WHAT IS SHOWN ON THE DOCUMENTS.
10. CONTRACTOR SHALL TAKE EXTRA CARE NOT TO DAMAGE ANY EXISTING UTILITIES THAT ARE TO REMAIN IN PLACE.
11. CONTRACTOR TO PLACE GATE VALVE EVERY 1,000 FT.
12. CONTRACTOR TO PLACE SAN SWR CLEAN OUT EVERY 100 FT.

NOTES:

1. REROUTE ALL UTILITIES INCLUDING ELECTRICAL,STORM,WATER AND SANITARY SEWER AS NEEDED FOR THE CONSTRUCTION OF THE PROPOSED CONCESSION.

LEGEND:

FL XX.XX'	FLOW LINE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	SAN MANHOLE (MH-X)
	CLEAN OUT
	WATER LINE
	SAN SWR LINE
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOW
	FIRE HYDRANT
	GATE VALVE

15' 30'
30' 0 60'

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ENGINEER

12/04/2025

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REVISIONS:

#	Date	Description

100% CD

C 3.21-H

CIVIL SPORTS UTILITY PLAN



N

NOTES:

1. CONTRACTOR TO PLACE "IPB" IN ALL SURROUNDING INLETS.

LEGEND:

IPB	INLET PROTECTION BARRIER STAGE I
IPB	INLET PROTECTION BARRIER STAGE II
SC	STABILIZED CONSTRUCTION ACCESS
CTW	CONCRETE TRUCK WASHOUT AREA
FFB	FILTER FABRIC BARRIER

15' 30' 30' 0 60'

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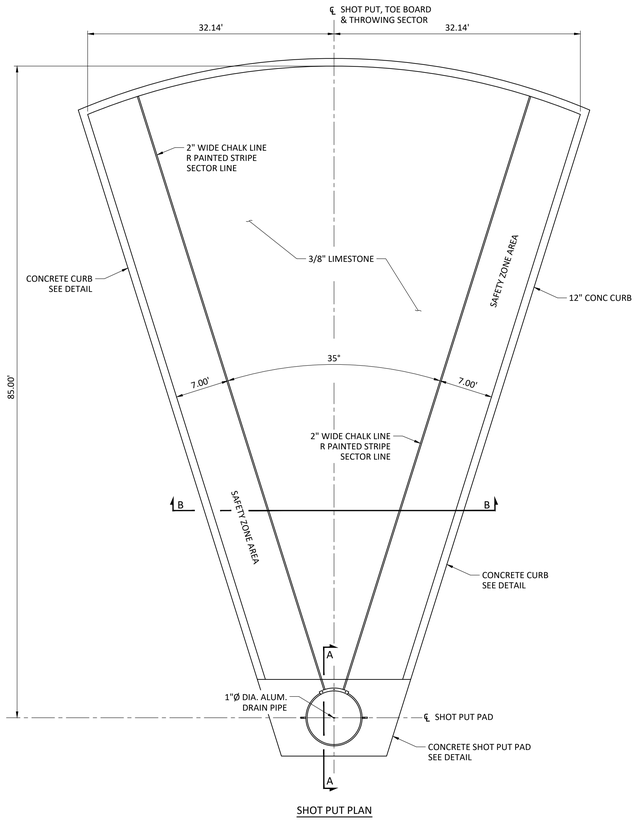
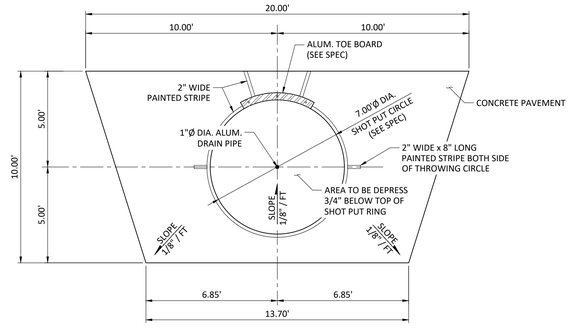
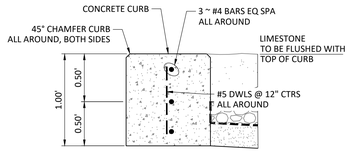
C 4.01-H
CIVIL SPORTS
SWPP PLAN



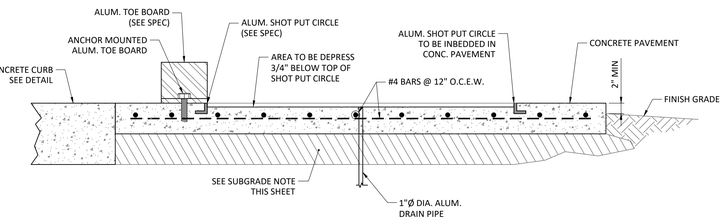
SHOT PUT PLAN



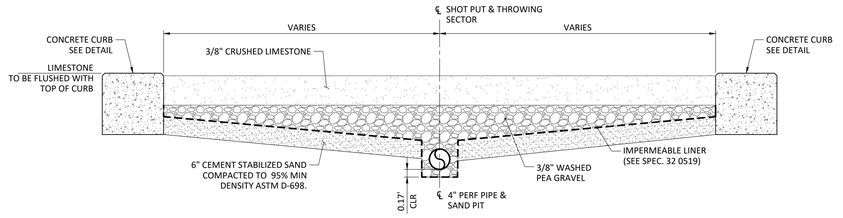
SHOT PUT PAD



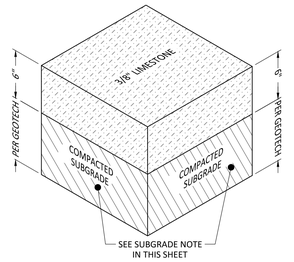
CONCRETE CURB DETAIL



SECTION A - A



SECTION B - B

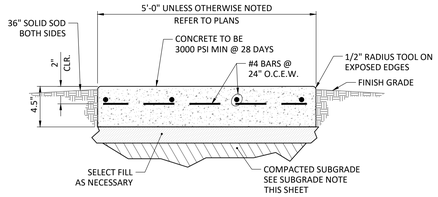


LIMESTONE

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

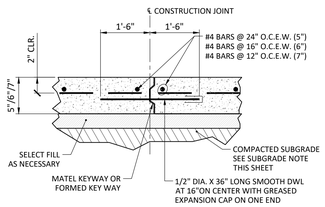
1 N.T.S. SHOT PUT DETAIL



NOTES:

1. PROVIDE GROOVED JOINT AT 4' ON CENTER.
2. PROVIDE 1/2" EXPANSION JOINT AT 15' ON CENTER.
3. PROVIDE CONTROL JOINTS AT 5' MAXIMUM.

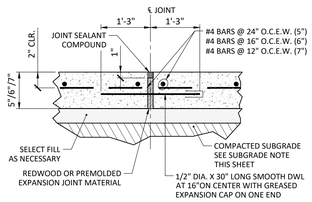
2 N.T.S. CONCRETE SIDEWALK DETAIL



NOTES:

1. CONSTRUCTION JOINT SHALL BE PLACED AT THE END OF EACH DAYS POUR AND IN BETWEEN POURS AS SPECIFIED.

3 N.T.S. CONTROL JOINT DETAIL

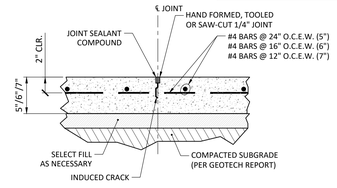


NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

4 N.T.S. EXPANSION JOINT DETAIL

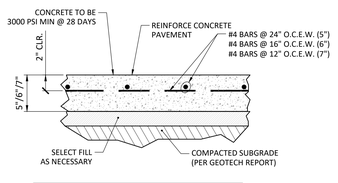
NOTE: SEE GEOTECH REPORT FOR REFERENCE



NOTES:

1. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

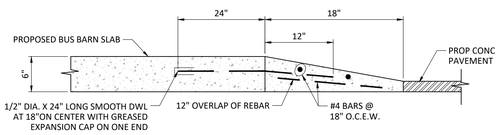
5 N.T.S. CONSTRUCTION JOINT DETAIL



NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.
2. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

6 N.T.S. CONCRETE PAVEMENT DETAIL



7 N.T.S. MOUNTABLE CURB DETAIL

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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REVISIONS:

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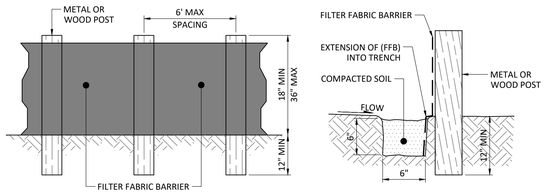
100% CD

C 5.01-H
CIVIL SPORTS DETAILS



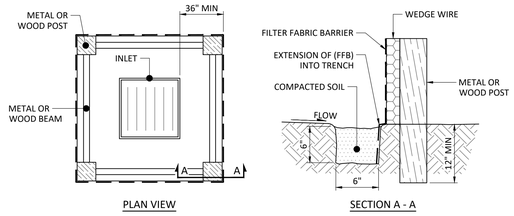
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

X — FFB — X

1 N.T.S. FILTER FABRIC BARRIER



PLAN VIEW

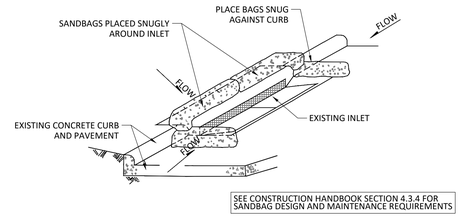
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

IPB

2 N.T.S. INLET PROTECTION BARRIER



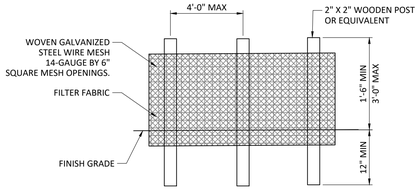
SEE CONSTRUCTION HANDBOOK SECTION 4.3.4 FOR SANDBAG DESIGN AND MAINTENANCE REQUIREMENTS

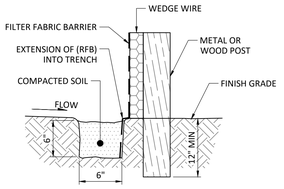
GENERAL NOTES:

1. BAGS OR WATTLES CAN BE USED FOR THIS APPLICATION.
2. PROVIDE WOVEN OR UNWOVEN GEOTEXTILE FILTER FABRIC FOR BAGS.
3. PROVIDE COARSE SAND AND AGGREGATE MIX FOR FILL MATERIAL FOR BAGS. USE ONLY PARTICLES CONSISTING OF CLEAN, HARD, DURABLE MATERIALS FREE FROM ADHERENT COATINGS, SALT, ALKALI, DIRT, CLAY, LOAM, SHALE, SOFT OR FLAKY MATERIALS, OR ORGANIC AND INJURIOUS MATTER.
4. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE BARRIER.

IPB

3 N.T.S. INLET PROTECTION BARRIER STAGE II



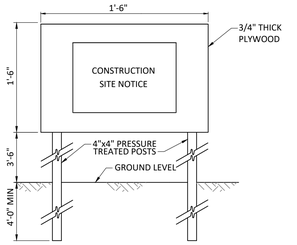


NOTES:

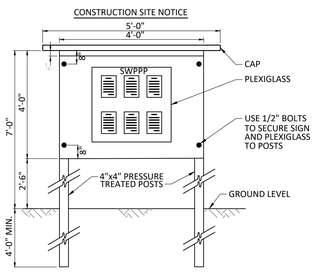
1. SET POSTS AT 4-FEET MAXIMUM SPACING. IF FACTORY PREASSEMBLED FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAXIMUM
2. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT THE POST, FOLD TOGETHER, AND ATTACH TO THE POSTS.
3. REMOVE SEDIMENT DEPOSITS WHEN SILT DEPTH REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE.

XX — RFB — XX

4 N.T.S. REINFORCE FILTER FABRIC BARRIER



CONSTRUCTION SITE NOTICE



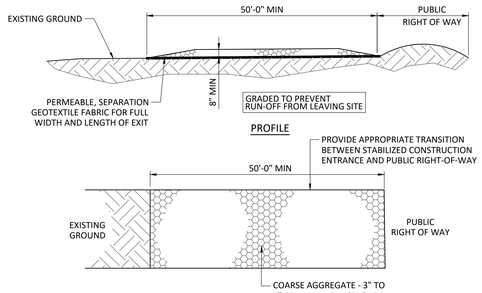
SWPPP SIGN

GENERAL NOTES:

1. COORDINATE CONSTRUCTION SITE AND SWPPP SIGN INFORMATION AND LAYOUT REQUIREMENTS WITH OWNER.

SC

5 N.T.S. PROJECT SIGN DETAIL



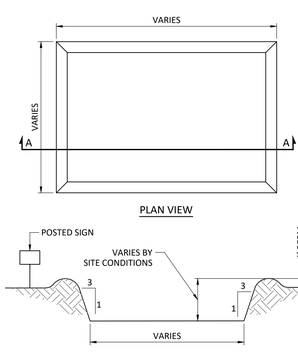
PLAN VIEW

SC

6 N.T.S. STABILIZED CONSTRUCTION ACCESS

GENERAL NOTES:

1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
2. MINIMUM WIDTH OF 14 FEET FOR ONE-WAY TRAFFIC, 20 FEET FOR TWO-WAY TRAFFIC.
3. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
4. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
5. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
6. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
7. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
8. ALTERNATIVE METHODS OF CONSTRUCTION INCLUDE
   -CEMENT STABILIZED SOIL: COMPACTED CEMENT STABILIZED SOIL, LIMESTONE AGGREGATE, OR OTHER FILL MATERIAL IN AN APPLICATION OF THICKNESS OF 8 INCHES.
   -WOOD MATS: OAK OR OTHER HARDWOOD TIMBERS PLACED EDGE TO EDGE AND ACROSS SUPPORT WOODEN BEAMS WHICH ARE PLACED ON TOP OF EXISTING SOIL IN AN APPLICATION THICKNESS OF 6 INCHES.
   -STEEL MATS: PERFORATED MATS PLACED ACROSS PERPENDICULAR SUPPORT MEMBERS.
9. CONSTRUCT CONSTRUCTION EXIT ON LEVEL GROUND WHEN POSSIBLE.
10. PROVIDE PERIODIC STREET SWEEPING AT CONJUCTION WITH PUBLIC RIGHT-OF-WAY.
11. LIMIT SPEED OF VEHICLES TO CONTROL DUST.
12. UTILIZE TEMPORARY PIPE CULVERTS AS NEEDED TO PREVENT IMPEDING POSITIVE DRAINAGE.
13. VERIFY STABILIZED CONSTRUCTION ACCESS LOCATION WITH OWNER PRIOR TO CONSTRUCTION.



PLAN VIEW

SECTION A - A

CTW

7 N.T.S. CONCRETE TRUCK WASHOUT AREA

GENERAL NOTES:

1. POST A SIGN READING "WARNING: CONCRETE WASH OUT PIT" NEXT TO EVERY PIT, MAKE SIGN VISIBLE TO NEAREST SIDEWALK OR ROAD.
2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.
3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.
6. LOCATE CONCRETE WASH OUT PITS AWAY FROM PLAYGROUND STRUCTURES.
7. VERIFY CONCRETE TRUCK WASHOUT AREA LOCATION WITH OWNER PRIOR TO CONSTRUCTION.

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

HIGHTOWER HIGH SCHOOL
Project Info Additional Text Line
3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD
C 5.02-H
CIVIL SPORTS
SWPP DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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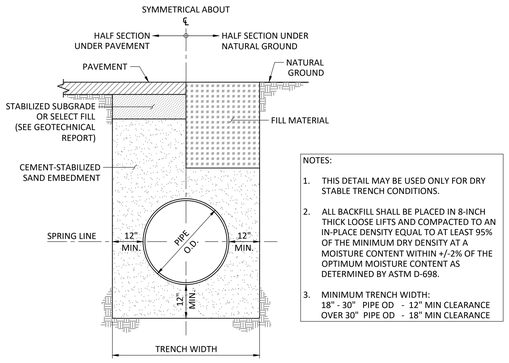
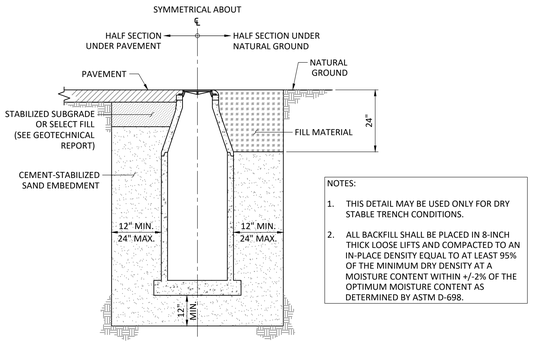
TSCE PROJECT # 2508



NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.
3. MINIMUM TRENCH WIDTH: 18" - 30" PIPE OD - 12" MIN CLEARANCE OVER 30" PIPE OD - 18" MIN CLEARANCE

1 SANITARY SEWER BEDDING AND BACKFILL DETAIL
N.T.S.



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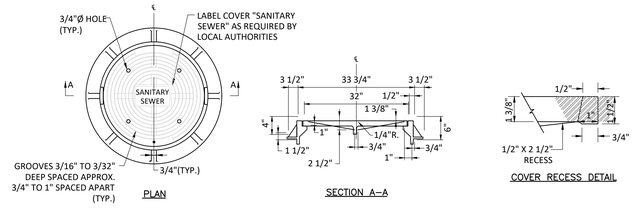
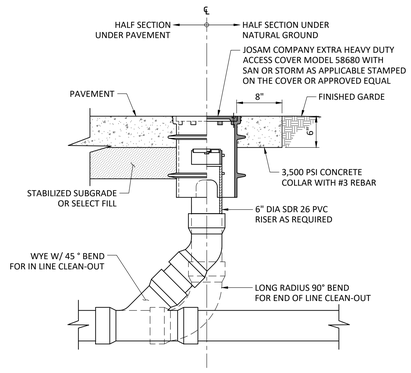
2 SANITARY SEWER STRUCTURE BEDDING AND BACKFILL DETAIL
N.T.S.



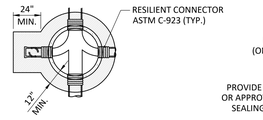
GENERAL NOTES:

1. ENSURE MANHOLE COVER IS TIGHTLY IN PLACE DURING AND POST CONSTRUCTION.

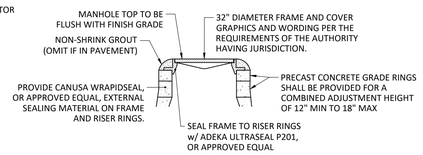
3 MANHOLE FRAME AND COVER
N.T.S.

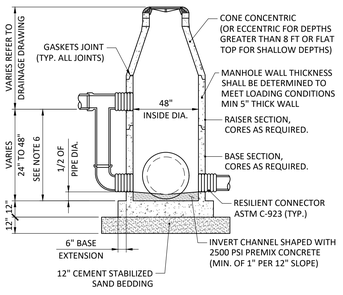


4 CLEAN-OUT DETAIL
N.T.S.



TOP VIEW

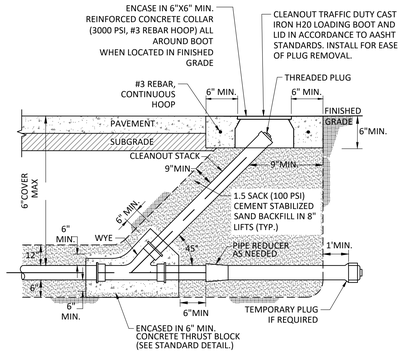




NOTES:

1. PRECAST CONCRETE MANHOLES SHALL BE MADE OF CLASS 1 CONCRETE WITH A DESIGN STRENGTH OF 4,500 PSI AT 28 DAYS AND RATED FOR H-20 LOADING.
2. STRUCTURAL REINFORCEMENT SHALL MEET ASTM C-478.
3. DEPTH OF MANHOLE SHALL DETERMINE THE NUMBER OF RISER SECTIONS AND ADJUSTMENT RINGS REQUIRED. BRICKS SHALL NOT BE USED.
4. GROUT INSIDE AND OUTSIDE OF EXTENSION RING(S) AND FRAME.
5. REFER TO SPECIFICATIONS FOR INTERIOR LINER MATERIALS. AS A MINIMUM, MANHOLE INTERIOR TO BE COATED WITH THANE-COAT OR PRE-ARRROVED EQUIVALENT, UNLESS NOTED OTHERWISE.
6. WHEN A PIPE ENTERS THE MANHOLE MORE THAN 24" ABOVE THE INVERT AN EXTERNAL DROP SHALL BE PROVIDED.
7. WHEN A MANHOLE IS LOCATED IN A PAVED AREA THE COVER SHALL MEET OR EXCEED AASHTO STANDARD M-306.
8. ALL MANHOLES SHALL BE PROVIDED WITH A STAINLESS STEEL DISH INSERT.
9. WHEN CONNECTING TO AN EXISTING MANHOLE THE CONNECTION SHALL BE MADE BY CORING.
10. MANHOLES SHALL CONFORM TO ALL TCEQ REQUIREMENTS.

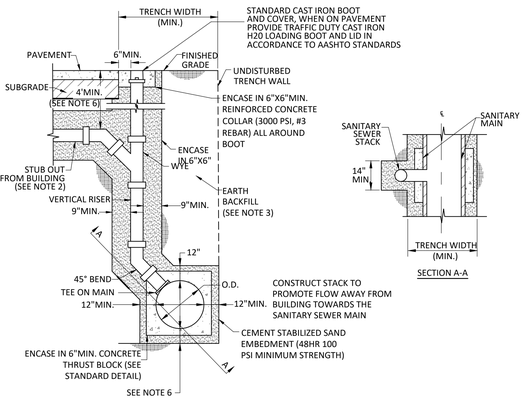
5 SANITARY SEWER MANHOLE DETAIL
N.T.S.



GENERAL NOTES:

1. PLUG TO BE AT A MINIMUM DISTANCE OF 2" FROM LID.
2. PLACE CEMENT STABILIZED SAND IN 8" LIFTS COMPACTED ONE LIFT AT A TIME.
3. CAP ALL SANITARY SEWER ENDS.
4. CLEANOUT STACK SIZE AND MATERIAL SHALL BE IN ACCORDANCE WITH LOCAL AUTHORITIES DESIGN CRITERIA AND NOTED IN UTILITY PLAN. MINIMUM SIZE OF 6".

6 STANDARD SANITARY SEWER CLEANOUT
N.T.S.



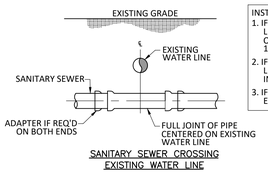
7 SANITARY SEWER STACK WITH BUILDING STUB-OUT
N.T.S.

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

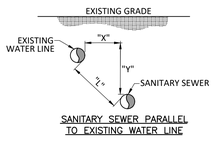
GENERAL NOTES:

1. NO JOINTS IN VERTICAL RISER
2. REFER TO LOCAL PLUMBING CODE FOR STUB OUT CONNECTION TO BUILDING REQUIREMENTS. VERIFY DEPTH TO ENSURE ADEQUATE SLOPE TO BUILDING.
3. BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY.
4. PLACE CEMENT STABILIZED SAND IN 8" LIFTS COMPACTED ONE AT A TIME.
5. CLEANOUT BOOT AND COVER SHALL BE PLACED FLUSH WITH FINISHED GRADE.
6. MINIMUM DEPTH OF BEDDING TO BE 1/2 OD OR 6" WHICHEVER GREATER.
7. PLUG TO BE AT A MINIMUM DISTANCE OF 2" FROM LID.



SANITARY SEWER CROSSING EXISTING WATER LINE

INSTALLATION REQUIREMENTS
1. IF "Y" IS GREATER THAN 1' AND "Y" IS LESS THAN 2', USE MINIMUM 18' JOINT OF PRESSURE-RATED PIPE MINIMUM 150 PSI.
2. IF "Y" IS GREATER THAN 2' AND "Y" IS LESS THAN 9', USE GRAVITY SEWER PIPE IN CEMENT-STABILIZED SAND EMBEDMENT.
3. IF "Y" IS GREATER THAN 9', USE STANDARD EMBEDMENT AND NORMAL JOINT SPACING.



SANITARY SEWER PARALLEL TO EXISTING WATER LINE

INSTALLATION REQUIREMENTS
1. IF "L" IS LESS THAN 9', USE PRESSURE-RATED PIPE MH TO MH. "X" MUST BE AT LEAST 4'. "Y" MUST BE AT LEAST 2'.
2. IF "L" IS 9' OR GREATER, USE STANDARD PIPE AND EMBEDMENT.

GENERAL NOTES:

1. SANITARY SEWER MUST BE BELOW WATER LINE WHEREVER POSSIBLE. WHEN NEW WATER LINE IS BELOW SANITARY SEWER PROVIDE MINIMUM 2' SEPARATION "L" AND INSTALL PIPE IN ACCORDANCE TO LOCAL AUTHORITIES SPECIFICATIONS.
2. ADAPTORS MUST BE FACTORY MOLDED OR FABRICATED, WITH RING STIFFNESS AT LEAST EQUAL TO THE ADJOINING SANITARY SEWER PIPE, AND USING RESILIENT GASKET OR SEAL MATERIAL. FLEXIBLE RUBBER "BOOT" TYPE ADAPTERS WILL NOT BE ACCEPTED.
3. INSTALL FORCE MAINS SAME AS FOR GRAVITY SEWER, USING SPECIFIED PRESSURE PIPE.
4. "Y" MUST ALWAYS BE GREATER THAN OR EQUAL TO 1' FOR PRESSURE RATED SS AND 2' FOR NON-PRESSURE RATED SS.
5. "X" MUST BE GREATER THAN OR EQUAL TO 4'.
6. REFER TO PLUMBING CODE FOR APPLICABLE REQUIREMENTS.
7. INSTALL GREEN UNDERGROUND WARNING TAPE READING "CAUTION SANITARY SEWER BELOW" AT 12" BELOW THE EXISTING GRADE AND DIRECTLY ABOVE AND ALONG NEW SANITARY SEWER.
8. NOTIFY OWNER 48 HOURS IN ADVANCE BEFORE SHUTTING OFF EXISTING WATER LINE.
9. ENSURE EXISTING WATER LINE IS SECURE OR BRACED PRIOR TO THE SANITARY SEWER PLACEMENT.
10. MEASURE "Y" VERTICAL CLEARANCE BEFORE BEGINNING BACKFILL WORK.
11. BOTH LINES MUST PASS PRESSURE AND LEAKAGE TEST PER AWWA C600 STANDARDS.

8 SANITARY SEWER CROSSING
N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
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HIGHTOWER HIGH SCHOOL
Project Info Additional Text Line
3333 Hurricane Ln, Missouri City, TX 77459

FBISD
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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD
C 5.03-H
CIVIL SPORTS SANITARY DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
13767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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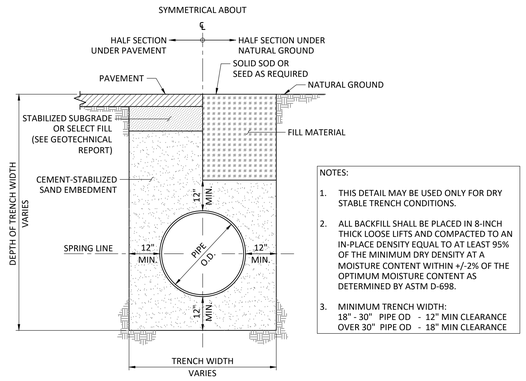

NOTES:

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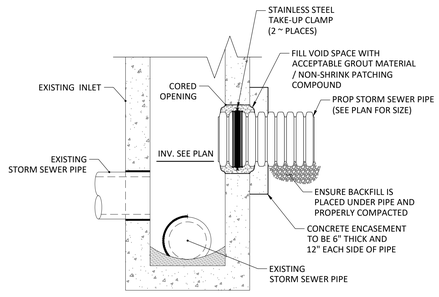
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

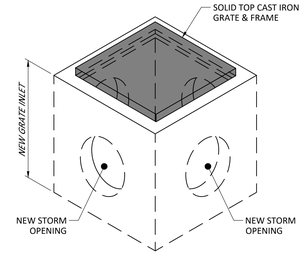
1 N.T.S. STORM SEWER BEDDING AND BACKFILL DETAIL



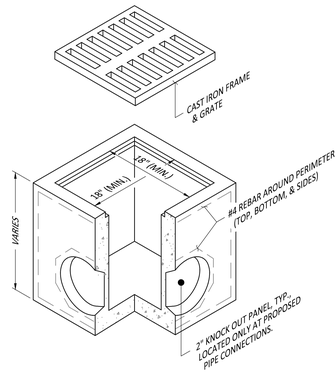
NOTES:

1. FORM CONCRETE ENCASEMENT ON UNDISTURBED MATERIAL OR STRUCTURALLY FIRM FOUNDATION.
2. PROVIDE WATER STOP WITH STAINLESS STEEL CLAMPS AROUND NEW PIPE FOR SANITARY SEWER FLOWS.
3. REWORK EXISTING MANHOLE INVERT TO ACCOMMODATE NEW FLOWS, IF NECESSARY.

2 N.T.S. STORM SEWER PIPE CONNECTION INTO EXISTING INLET



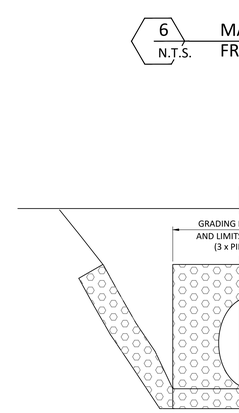
4 N.T.S. BURIED JUNCTION BOX



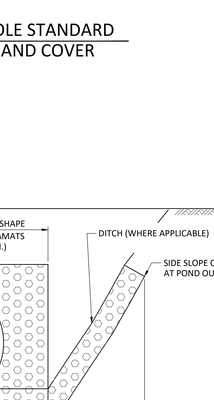
CATCH BASIN NOTES:

1. WALLS & BOTTOM SHALL BE CONSTRUCTED OF 6" REINFORCED, CLASS "A" (4000 psi) CONCRETE.
2. PRECAST CONCRETE INLET BASINS SHALL BE PROVIDED WITH PRE-FORMED KNOCKOUTS ONLY IN WALLS WHERE PIPE CONNECTIONS ARE TO BE MADE. KNOCKOUTS SHALL BE PIPE O.D. + 4" MAX. AND CIRCULAR SHAPED.
3. IN GRASS AREAS, FOLLOWING FINAL GRADING, THE CONTRACTOR SHALL PLACE SOLID SOD A MINIMUM OF 5 FEET AROUND PERIMETER OF TOP OF INLET.
4. IF THE BASE SECTION IS PRECAST WITH A BOTTOM, A 12" THICK CEMENT STABILIZED SAND BASE SHALL BE REQUIRED BENEATH THE STRUCTURE, EXTENDING 12" PAST THE OUTER FACE.
5. WHEN HDPE PIPE IS USED, PROVIDE 6" CLEARANCE BETWEEN INLET BOTTOM & FLOWLINE OF PIPE. GROUT ENTIRE BOTTOM OF INLET. EXTEND PIPE INTO INLET AT LEAST ONE FULL CORRUGATION. NO JOINT WITHIN 6 FEET OF INLET.
6. INSTALL FILTER FABRIC OVER INLET GRATE TO PREVENT SILTS FROM ENTERING INLET.
7. ALL CATCH BASINS AND GRATE/COVERS SHALL BE TRAFFIC DUTY RATED UNLESS OTHERWISE NOTED.

5 N.T.S. CATCH BASIN DETAIL



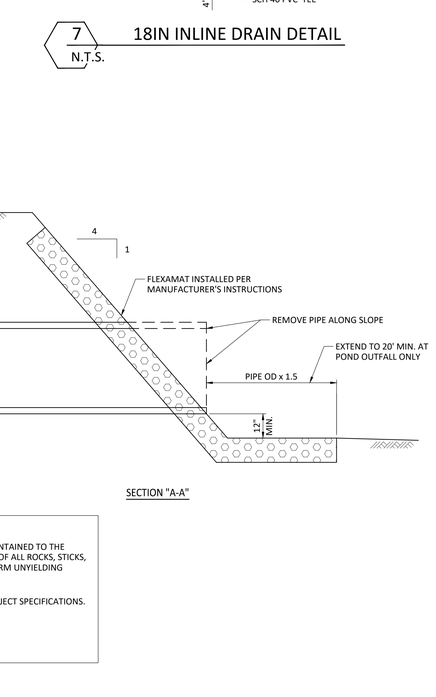
PLAN



COVER RECESS DETAIL

GENERAL NOTES:
1. ENSURE MANHOLE COVER IS TIGHTLY IN PLACE DURING AND POST CONSTRUCTION.

6 N.T.S. MANHOLE STANDARD FRAME AND COVER



7 N.T.S. 18IN INLINE DRAIN DETAIL

SUBGRADE TREATMENT NOTE:

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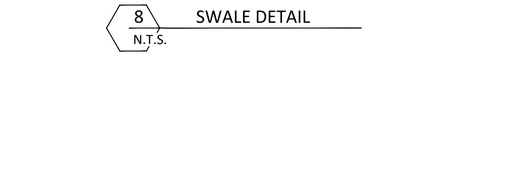

8 N.T.S. SWALE DETAIL

NOTES:

1. GRADE OUTFALL AREA SO THAT WATER WILL FLOW DOWN THE CENTER OF THE CHANNEL AND BE CONTAINED TO THE CHANNEL. SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND. THE PREPARED SURFACE SHALL PROVIDE A FIRM UNYIELDING FOUNDATION FOR THE MATS WITH NO SHARP OR ABRUPT BREAKS IN THE GRADE.
2. APPLY SEED DIRECTLY TO THE PREPARED SOIL PRIOR TO FLEXAMAT INSTALLATION. USE SEED PER PROJECT SPECIFICATIONS.
3. ANCHOR THE MAT PER MANUFACTURERS INSTRUCTIONS.
4. A CONCRETE SAW SHALL BE USED TO CUT THE MAT TO EXACT SIZE AND SHAPE.

9 N.T.S. OUTFALL DETAIL

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

HIGHTOWER HIGH SCHOOL

Project Info Additional Text Line

3333 Hurricane Ln, Missouri City, TX 77459

FBISD INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 5.04-H
CIVIL SPORTS STORM DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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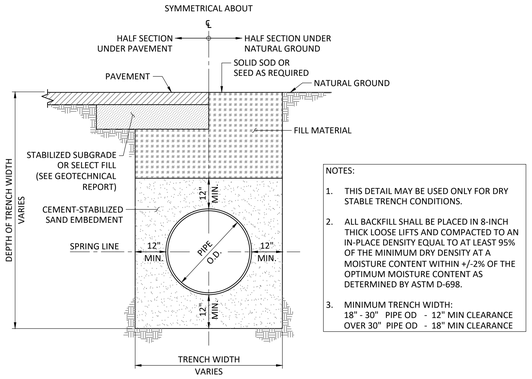

NOTES:

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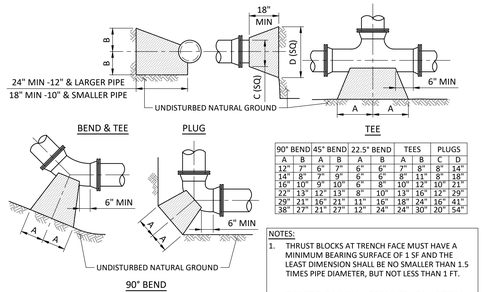
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

1 WATER BEDDING AND BACKFILL DETAIL
N.T.S.



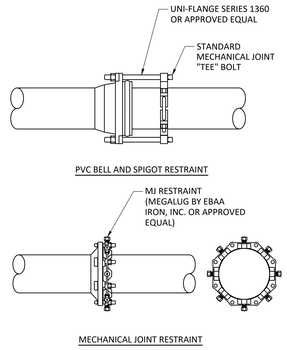
TEE

90° BEND		45° BEND		22.5° BEND		TEES		PLUGS	
A	B	A	B	A	B	A	B	C	D
12"	7"	6"	7"	6"	6"	7"	8"	8"	14"
14"	8"	7"	9"	6"	6"	8"	11"	8"	18"
16"	10"	9"	10"	6"	8"	10"	12"	10"	21"
22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
38"	27"	21"	27"	12"	24"	24"	30"	20"	54"

NOTES:

1. THRUST BLOCKS AT TRENCH FACE MUST HAVE A MINIMUM BEARING SURFACE OF 1 SF AND THE LEAST DIMENSION SHALL BE NO SMALLER THAN 1.5 TIMES PIPE DIAMETER, BUT NOT LESS THAN 1 FT.
2. THRUST BLOCKS SHALL BE PACKED AT ALL FITTINGS.
3. ALL FITTINGS SHALL BE M.J. RESTRAINED JOINT (EBAA IRON, SERIES 2000PV, OR APPROVED EQUAL).

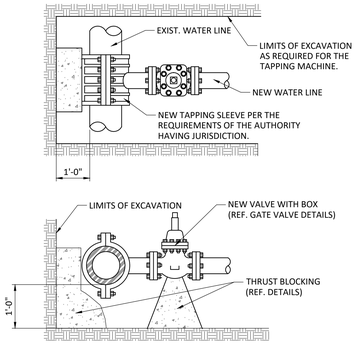
2 THRUST BLOCK DETAIL
N.T.S.



NOTES:

1. RESTRAINT DEVICES FOR PVC (AWWA C-900) AND PVC PRESSURE FITTINGS (AWWA C-907) SHALL CONSIST OF A SPLIT RING INSTALLED ON THE PIPE SPIGOT, CONNECTED TO A SPLIT BACK-UP RING SEATED BEHIND THE FITTING BELL.
2. THE SPLIT RESTRAINT RING SHALL INCORPORATE A SERIES OF MACHINED SERRATIONS (NOT "AS CAST") ON THE INSIDE DIAMETER TO PROVIDE POSITIVE RESTRAINT, EXACT FIT, AND 360° CONTACT AND SUPPORT OF THE PIPE WALL.
3. THE TWO HALVES OF THE SPLIT BACK UP RING SHALL INTER-LOCK WITHOUT THE NEED FOR ADDITIONAL BOLTS AND SHALL FORM A BEVELED LEADING EDGE TO ASSURE EXACT FIT BEHIND THE FITTING BELL.
4. RESTRAINT DEVICES SHALL BE OF DUCTILE IRON, ASTM A536, GRADE 65-45-12 AND CONNECTING BOLTS SHALL BE OF HIGH STRENGTH, LOW ALLOY MATERIAL IN ACCORDANCE WITH ANSI/AWWA C111/21.11
5. RESTRAINT DEVICES SHALL BE UNI-FLANGE SERIES 1360 OR APPROVED EQUAL.

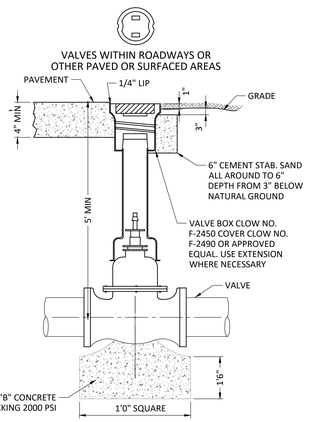
3 WATERLINE RESTRAINED MECHANICAL JOINT DETAIL
N.T.S.



NOTES:

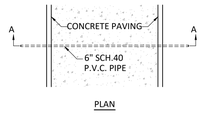
1. TAPPING VALVES ARE NOT ALLOWED WHEN TAP IS SAME SIZE AS THE EXISTING MAIN EXCEPT WHEN APPROVED BY THE AUTHORITY HAVING JURISDICTION.

4 TAPPING SLEEVE AND VALVE
N.T.S.



* BLOCK GATE VALVES WITH COMPRESSION JOINT FITTINGS ON 8" & LARGER LINES

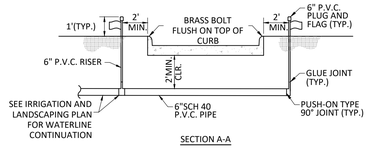
5 GATE VALVE AND BOX DETAIL
N.T.S.



PLAN

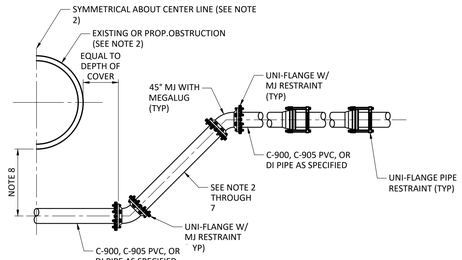
GENERAL NOTES:

1. REFER TO UTILITY AND LANDSCAPING PLAN FOR SLEEVE PLACEMENT.
2. DO NOT BORE SLEEVE. PROVIDE SAW CUT OVER EXISTING PAVEMENT OR PLACE PRIOR TO NEW PAVEMENT.
3. CONTRACTOR TO INSPECT SLEEVE FOR FAILURE DURING AND POST CONSTRUCTION.
4. GLUE JOINT CONNECTION TO CREATE WATERTIGHT SEAL.



SECTION A-A

6 IRRIGATION SLEEVE CROSSING UNDER PAVEMENT
N.T.S.



NOTES:

1. WHEN ALTERING EXISTING LINES RESTRAIN ANY EXISTING JOINTS EXPOSED BY CONSTRUCTION BEFORE OR AFTER PROPOSED FITTINGS WITH UNI-FLANGE BELL AND SPIGOT PIPE RESTRAINT.
2. RESTRAIN ALL JOINTS WITHIN 50 FEET OF PROPOSED FITTINGS.
3. APPROPRIATE BEDDING AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY OF LEAGUE CITY DETAILS AND DESIGN STANDARDS.
4. USE APPROPRIATE SERIES MODEL RESTRAINT FOR PIPE MATERIAL.
5. WHERE POSSIBLE THERE SHOULD BE NO PIPE JOINTS WITHIN THE VERTICAL OR HORIZONTAL RUN OF THE OFFSET (WHEN AND WHERE APPROVED SEE NOTE 6 AND 7).
6. IF A PIPE JOINT IS REQUIRED WITHIN THE VERTICAL OFFSET IT SHALL BE RESTRAINED WITH UNI-FLANGE BELL AND SPIGOT TYPE RESTRAINT.
7. WHEN DEPTH OF OFFSET REQUIRES MORE THAN A STANDARD LENGTH OF PIPE NO SEGMENT SHALL BE LESS THAN 5' IN LENGTH.
8. THE MINIMUM CLEARANCE SHALL BE DETERMINED BY THE AMOUNT OF BEDDING AND BACKFILL REQUIRED BY THE PROSPECTIVE PIPE AND THEIR USAGE. SEE THE BEDDING AND BACKFILL DETAILS FOR DIMENSIONS.
9. A SOLID CONTINUOUS JOINT OF PIPE SHALL BE USED AT ALL TIMES FOR THE HORIZONTAL SECTION OF THE OFFSET. IF THE MINIMUM SIDE CLEARANCE DISTANCES PLUS THE DIMENSION OF THE OBSTRUCTION IS GREATER THAN A STANDARD JOINT OF PIPE AN APPROPRIATELY SIZED AND CONTINUOUS LENGTH OF HDPE SHALL BE USED WITH TRANSITION FITTING OR GASKETS AS SPECIFIED BY THE MANUFACTURER IF NEEDED.

7 RESTRAINED MECHANICAL JOINT VERTICAL OFFSET
N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

HIGHTOWER HIGH SCHOOL
Project Info Additional Text Line
3333 Hurricane Ln, Missouri City, TX 77459

FBISD INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 5.05-H
CIVIL SPORTS WATER DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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TSCE PROJECT # 2508

GENERAL

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES. THE CODES LISTED SHALL INCLUDE ALL AMENDMENTS AND ADDENDA IN FORCE AT THE DATE OF THE CONTRACT DOCUMENTS.

   2021 EDITION OF THE INTERNATIONAL BUILDING CODE

2. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL AND ARCHITECTURAL CONTRACT DOCUMENTS THE STRICTEST REQUIREMENTS SHALL GOVERN.

3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE AND REPORT ANY DISCREPANCIES OR INCONSISTENCIES FROM ASSUMED CONDITIONS TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.

4. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT THEY ARE CUT AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER.

5. DO NOT SCALE THE DRAWINGS.

6. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

7. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, AND CONSTRUCTION EQUIPMENT. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE.

10. IT IS THE DESIGN INTENT FOR ALL CONCRETE POURS TO HAPPEN IN SEQUENTIAL ORDER FROM FOUNDATIONS THROUGH ROOF. THE GENERAL CONTRACTOR SHALL DISCUSS WITH THE A/E TEAM THE FEASIBILITY OF NON-SEQUENTIAL POURING OF CONCRETE AND ITS IMPACT ON THE DESIGN INTENT AND ALLOW SUFFICIENT TIME FOR SUCH SCHEME TO BE INVESTIGATED OR REVIEWED.

11. PERIODIC SITE OBSERVATION BY THE ENGINEER IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OF THE WORK, BUT RATHER AS AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

12. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBERS.

13. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, WALLS, SLABS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF STRUCTURAL ENGINEER.

14. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS, WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

15. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

    SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS,
    SIZE AND LOCATION OF INTERIOR AND EXTERIOR NON-LOAD BEARING PARTITIONS, SIZE AND LOCATION OF CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHAMFERS, GROOVES, INSERTS, ETC., SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS, FLOOR AND ROOF FINISHES, STAIR FRAMING AND DETAILS, DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, CEILING AND EXTERIOR WALL ASSEMBLIES.

16. SEE THE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

    PIPES, SLEEVES, HANGERS, TRENCHES, WALL, FLOOR AND ROOF OPENINGS, DUCT PENETRATIONS, ETC., EXCEPT AS SHOWN OR NOTED OTHERWISE ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS, CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL, OR PLUMBING FIXTURES, SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES AND ANCHOR BOLTS FOR MOUNTS.

DESIGN CRITERIA

1. DEAD LOAD MATERIALS ASSUMED IN THE DESIGN ARE SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

2. AN ALLOWANCE OF 15 PSF HAS BEEN MADE FOR PARTITIONS AS A UNIFORMLY DISTRIBUTED LIVE LOAD, WHEREVER PARTITIONS ARE USED AND LOCATION SUBJECT TO CHANGE EXCLUDING PUBLIC LOBBIES, CORRIDORS, RESTROOMS, AND PLACES OF PUBLIC ASSEMBLY.

3. LIVE LOADS:

LOCATION	UNIFORM LOAD	CONCENTRATED LOAD
ROOF	20 PSF REDUCIBLE	300 LBS
GROUND FLR, COMMON AREAS	100 PSF REDUCIBLE	
HANDRAILS AND GUARDRAILS	50 PLF OR 200 LBS APPLIED AT TOP RAIL IN ANY DIRECTION. 50 LBS IN ANY DIRECTION APPLIED AT INTERMEDIATE RAILS.	
GRAB BARS		250 LBS ANY DIRECTION

4. WIND LOADS

ULTIMATE WIND SPEED	139 MPH (3-SEC GUST)
NOMINAL WIND SPEED	108 MPH (3-SEC GUST)
RISK CATEGORY	II
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFF.	+/- 0.18
COMPONENTS & CLADDING	SEE DIAGRAM

5. SEISMIC LOADS

RISK CATEGORY	II
IMPORTANCE FACTOR	1.00
MAPPED ACCELERATION PARAMETERS	
SS	0.065
S1	0.037
SPECTRAL RESPONSE COEFFICIENTS	
SDS	0.07
SD1	0.06
SEISMIC DESIGN CATEGORY	A

6. HANDRAILS, GUARDRAILS AND GRAB BARS (INCLUDING ATTACHMENT TO STRUCTURE) SHALL BE DESIGNED BY THE FABRICATOR FOR THE LOADS INDICATED IN THE REFERENCED BUILDING CODE. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF WHERE THE PROJECT IS LOCATED, REPRESENTING THE FABRICATOR.

FOUNDATION

1. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT (AND ANY ADDENDA) PREPARED BY THE FOLLOWING COMPANY:

   COMPANY AVILES ENGINEERING CORP.
   REPORT NO. G136-23C
   DATED FEBRUARY 2025

   ALL RECOMMENDATIONS THEREIN THAT RELATE TO THE WORK SHOWN ON THESE DRAWINGS SHALL BE FOLLOWED.

2. THE FOUNDATION SYSTEM IS DESIGNED BASED ON THE FOLLOWING

   ALLOWABLE BEARING PRESSURE
   SUSTAINED LOADS 1700 PSF
   TOTAL LOADS 2550 PSF

3. THE GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR FOR REVIEW OF FOUNDATION BEARING SURFACE, INSPECTION OF FOUNDATION INSTALLATION, AND PLACEMENT OF REINFORCING STEEL. THE CONTRACTOR SHALL NOT PLACE CONCRETE WITHOUT INSPECTOR'S APPROVAL.

4. THE CONTRACTOR SHALL NOTIFY THE AUTHORIZED INSPECTOR 48 HOURS IN ADVANCE OF ANY MAJOR FOUNDATION POUR.

5. FORM EXPOSED FACES OF GRADE BEAMS.

6. GRADE BEAM BOTTOM STEEL SHALL BE CHAIRED AT 5 FOOT MAXIMUM CENTERS USING BEAM BOLSTERS PROVIDING 3 INCH BOTTOM COVER TO REINFORCING STEEL. BEAM BOLSTERS USED SHALL BE INTENDED FOR SUPPORT ON SOIL.

7. BOTTOM BARS OF GRADE BEAM SHALL BE SPLICED (WHERE REQUIRED) AT THE PIERS ONLY. TOP BARS SHALL BE SPLICED (WHERE REQUIRED) AT THE MIDSPAN OF THE GRADE BEAMS. LAP LENGTH SHALL BE 44 TIMES BAR DIAMETER UNLESS SPECIFIED OTHERWISE. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

8. VOID FORMS UNDER GRADE BEAMS SHALL BE CAPABLE OF SUPPORTING THE WET WEIGHT OF CONCRETE OVER IT.

9. ALL REINFORCING STEEL FOR SLABS SHALL BE CHAIRED WITH SLAB BOLSTERS FOR SUPPORT ON SOIL AT 4'-0" MAXIMUM CENTERS EACH WAY FOR REINFORCING FOR SLABS. DEPTH OF CHAIRS SHALL PROVIDE COVER TO REINFORCING AS NOTED ON DRAWINGS/DETAILS.

10. SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R. PROVIDE (3) #3 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

11. SUBGRADE PREPARATION SHALL CONFORM TO THE SOILS REPORT NOTED ABOVE. IF REPORT DOES NOT SPECIFY THE AMOUNT OF SELECT FILL, PROVIDE FILL AS REQUIRED ABOVE TO REDUCE PVR TO 1 INCH.

12. VAPOR RETARDER SHALL HAVE NO MORE THAN 0.01 PERMS AS TESTED BEFORE AND AFTER MANDATORY CONDITIONING (ASTM E 1745 SECTION 7.1 AND SUB-PARAGRAPHS 7.1.2-5), MEET OR EXCEED THE REQUIREMENTS OF ASTM E 1745 CLASS A AND BE NO LESS THAN 15 MILS THICK.

13. ALL VAPOR RETARDER SEAMS SHALL BE OVERLAPPED A MINIMUM OF 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE. ALL PENETRATIONS, BLOCK-OUTS, AND OPENINGS SHALL BE SEALED USING A COMBINATION OF THE VAPOR RETARDER, MASTIC AND MANUFACTURER'S TAPE. DO NOT PENETRATE VAPOR RETARDER WITH FORMWORK STAKES. USE STEGO BEAST FORM STAKES OR EQUIVALENT WHERE REQUIRED.

14. REMOVE ALL VEGETATION, TREE ROOTS, ORGANIC SOIL, EXISTING FOUNDATIONS, PAVED AREAS, AND ANY UNDESIRABLE MATERIALS FROM THE CONSTRUCTION AREA.

15. THE CONTRACTOR SHALL ENSURE THE SELECT FILL MATERIAL IS PROPERLY MIXED TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER AND TESTING LAB AND SHALL MAKE PROVISIONS FOR SOIL PULVERIZATION OR OTHER MIXING METHODS AS REQUIRED.

16. THE BEARING STRATUM OF EACH DRILLED PIER SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR PRIOR TO POURING OF CONCRETE.

17. THE BOTTOM ELEVATION OF PIERS IS SHOWN ON THE DRAWINGS FOR BID PURPOSES. THE ACTUAL REQUIRED BEARING ELEVATION MAY VARY AS REQUIRED TO PROVIDE PROPER CAPACITY AS DETERMINED BY THE GEOTECHNICAL ENGINEER. FOOTINGS SHALL BE POURED IMMEDIATELY AFTER EXCAVATION.

18. PROVIDE AND INSTALL 1/8 INCH STEEL TEMPLATES TO ACCURATELY SET VERTICAL PIER REINFORCING STEEL, AND ANCHOR BOLTS FOR STEEL COLUMNS.

19. THE PRESENCE OF SAND SEAMS AND SLICKENSIDES IN THE LAYERS MAY CAUSE SLOUGHING DURING PIER EXCAVATION. THIS MAY REQUIRE THE USE OF TEMPORARY STEEL CASING.

20. REDUCING THE POTENTIAL FOR CAVING OF THE BELL CAN BE ACHIEVED BY LIMITING THE BELL TO SHAFT DIAMETER RATIO TO 2:1 OR INSTALLING STRAIGHT SHAFT FOOTINGS.

21. THE GROUNDWATER LEVELS MAY FLUCTUATE SEASONALLY AND WITH CLIMATIC CHANGES. SEEPAGE OF GROUNDWATER INTO THE EXCAVATIONS IS POSSIBLE AND SEEPAGE FROM 'PERCHED' WATER TRAPPED IN THE SOILS MAY ALSO OCCUR. THE CONTRACTOR SHALL MAKE PROVISIONS FOR DEWATERING THE FOOTING EXCAVATION IF GROUNDWATER IS ENCOUNTERED.

22. CONCRETE SHALL BE PLACED AS SOON AS POSSIBLE AFTER THE FOOTING EXCAVATIONS ARE COMPLETED TO REDUCE THE POTENTIAL FOR WATER SEEPAGE AND TO MINIMIZE THE DISTURBANCE TO THE BEARING AREA. IN NO CASE, SHOULD AN EXCAVATION BE LEFT OPEN OVERNIGHT.

CONCRETE

1. ALL ASPECTS OF WORK RELATING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CURRENT EDITION OF ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
   CRSI MANUAL OF STANDARD PRACTICE

2. STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTHS AND TYPES ARE AS FOLLOWS:

LOCATION	STRENGTH	TYPE	AGGREGATE SIZE	EXPOSURE CLASS
FOUNDATIONS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0
GRADE BEAMS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0
SLAB-ON-GRADE	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0

3. THERE SHALL BE NO HORIZONTAL COLD JOINT IN ANY CONCRETE POUR.

4. ADMIXTURES USED SHALL BE COMPATIBLE WITH FLOOR TREATMENTS. FINISH APPLICATOR SHALL APPROVE ADMIXTURES AND CURING COMPOUNDS PRIOR TO USE.

5. EXPOSURE CLASSES FOR FREEZING AND THAWING (F), SULFATE (S), WATER (W), AND CORROSION PROTECTION (C) HAVE BEEN PROVIDED. CONCRETE MIXES SHALL CONFORM TO ALL ACI 318 REQUIREMENTS BASED ON EXPSURE CLASS, INCLUDING, BUT NOT LIMITED TO WATER CEMENT RATIO, COMPRESSION STRENGTH, AIR CONTENT, CEMENTITIOUS MATERIALS, CALCIUM CLORIDE ADMIXTURES, AND WATER-SOLUABLE CHLORIDE ION CONTENT.

6. CONCRETE FOR SLAB-ON-GRADE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.45. ALL OTHER CONCRETE SHALL BE 44 TIMES BAR DIAMETER UNLESS SPECIFIED OTHERWISE. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

7. CONCRETE FOR SLAB-ON-GRADE AND METAL DECK SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.04% (400 MICROSTATIONS) AT 28 DAYS OF DRYING. LENGTH CHANGE SHALL BE MEASURED IN ACCORDANCE WITH ASTM C157.

8. FLY ASH CONFORMING TO ASTM C618, MAY BE USED UNLESS NOTED OTHERWISE. THE MAXIMUM AMOUNT OF FLY ASH SHALL BE 25% OF THE TOTAL CEMENTITIOUS MATERIAL BY WEIGHT.

9. AT POLISHED OR STAINED CONCRETE THE FLOOR FLATNESS (FF) SHALL BE 40 OR BETTER AND THE FLOOR LEVELNESS (FL) SHALL BE 30 OR BETTER UNLESS MORE STRINGENT REQUIREMENTS ARE PROVIDED IN THE SPECIFICATIONS.

10. CONCRETE FORMS SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS INDICATED ON THE STRUCTURAL DRAWINGS.

11. CONCRETE FOR SLABS TO RECEIVE A HARD-TROWELED FINISH SHALL NOT CONTAIN AIR-ENTRAINING ADMIXTURES OR HAVE A TOTAL AIR CONTENT GREATER THAN 3 PERCENT.

12. SUBMIT SHOP DRAWINGS TO ARCHITECT AND ENGINEER INDICATING LOCATIONS OF CONCRETE JOINTS TO REVIEW PRIOR TO PLACING CONCRETE. PLACE JOINTS AT LOCATIONS TO MINIMIZE THE EFFECTS OF SHRINKAGE AS WELL AS BEING PLACED AT POINTS OF LOW STRESS.

13. ROUGHEN CONCRETE SURFACES TO 1/4 INCH AMPLITUDE WHERE MASONRY WALLS INTERSECT CONCRETE OR WHERE NEW CONCRETE INTERFACES WITH EXISTING CONCRETE.

14. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB-ON-GRADE, CONCRETE ON METAL DECK, FRAMED CONCRETE FLOORS, AND WALLS DO NOT REQUIRE SLEEVES UNLESS NOTED OTHERWISE ON THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE ARCHITECT AND ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH CONCRETE BEAMS OR COLUMNS UNLESS SPECIFICALLY DETAILED.

15. WITH THE EXCEPTION OF SLABS ON GRADE AND CONCRETE ON METAL DECK, THE OUTSIDE DIAMETER OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS (OTHER THAN THOSE PASSING THROUGH) SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS AND SHALL BE CENTERED BETWEEN THE TOP AND BOTTOM REINFORCING UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED. CONDUIT AND PIPE SHALL BE SPACED AT 3" OR 3 DIAMETERS ON CENTER, WHICHEVER IS GREATER.

16. FOR SLABS ON GRADE AND METAL DECK SLABS NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB UNLESS SPECIFICALLY DETAILED OTHERWISE.

17. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING WHEN TEMPORARY SUPPORTS, SHORES, BACKSHORES, AND OTHER BRACING MAY BE SAFELY REMOVED.

REINFORCING STEEL

1. ALL ASPECTS OF WORK RELATING TO THE REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CRSI MANUAL OF STANDARD PRACTICE

2. DEFORMED BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.

3. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185, YIELD STRENGTH 65,000 PSI. WELDED DEFORMED WIRE FABRIC FOR ASTM A497, YIELD STRENGTH 70,000 PSI. ALL WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS ONLY. WHEREVER WELDED WIRE FABRIC IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED ONE CROSS WIRE SPACING PLUS 2 INCHES.

4. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ONE HALF, WHICHEVER IS GREATER.

5. WELDING OF REINFORCING IS PERMITTED ONLY WHERE SHOWN ON THE DRAWINGS OR WHEN APPROVED BY THE ENGINEER OF RECORD. WELDING OF REINFORCING BARS SHALL BE WITH LOW HYDROGEN ELECTRODES IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF AWS D1.4.

6. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.

7. REINFORCING DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME NUMBER, SIZE, SPACING, AND GRADE AS THE SPECIFIED VERTICAL REINFORCING, UNO.

8. IN ADDITION TO ALL OF THE REINFORCING STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF REINFORCING BARS TO BE FURNISHED, FABRICATED, AND PLACED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

9. CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS SHALL BE AS FOLLOWS:

LOCATION OF CONCRETE	MINIMUM COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #18 BAR	2"
#5 BAR AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND	
SLABS, WALLS, JOISTS	3/4"
BEAMS, COLUMNS (INCLUDING TIES)	1 1/2"
SLAB ON GRADE	SEE DETAILS
PRESTRESSED CONCRETE	SEE IBC 1907.7.3

CONCRETE MASONRY

1. ALL MASONRY MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION AND THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF TMS-402 CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES

2. ALL CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C90. UNLESS SPECIFIED OTHERWISE, CMU SHALL BE NORMALWEIGHT (LESS THAN 125 PCF, OVEN DRY UNIT WEIGHT). THE MINIMUM COMPRESSIVE STRENGTH OF MASONRY (F'M) SHALL BE 2000 PSI AS DETERMINED BY THE UNIT STRENGTH METHOD OR BY THE PRISM TEST METHOD.

3. UNLESS SPECIFIED OTHERWISE, ALL MORTARS AND THE MATERIALS THEREIN SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF MASONRY UNITS, ASTM C270, TYPE S EXCEPT FOR MASONRY IN CONTACT WITH THE EARTH SHALL BE TYPE M.

4. ALL GROUT SHALL BE FINE GROUT CONTAINING SAND, PORTLAND CEMENT, AND LIME (OPTIONAL) FOR GROUT SPACES LESS THAN 2 INCHES IN ANY HORIZONTAL DIRECTION, UNLESS SPECIFIED OTHERWISE. GROUT SHALL ATTAIN A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 2500 PSI TESTED ACCORDING TO ASTM C476.

5. CONTROL JOINTS SHALL BE LOCATED PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS OR AT A MAXIMUM SPACING OF 24 FEET ON CENTERS OR 3 TIMES THE WALL HEIGHT, WHICHEVER IS LESS. ALL MASONRY UNITS SHALL BE PLACED IN RUNNING BOND.

6. PROVIDE HORIZONTAL JOINT REINFORCING (TRUSS OR LADDER TYPE, 9 GAUGE) AT 16 INCHES ON CENTER FOR ALL CMU WALLS LAID IN A RUNNING BOND AND AT 8 INCHES ON CENTER FOR ALL CMU WALL NOT LAID IN A RUNNING BOND. HORIZONTAL JOINT REINFORCING SHALL BE LAPPED A MINIMUM OF 6". REINFORCEMENT SHALL CONFORM TO ASTM A951 AND SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.

7. ALL HORIZONTAL REINFORCING STEEL IN BOND BEAMS AND LINTEL BLOCK UNITS SHALL BE CONTINUOUS AND UNITS SHALL BE SOLID GROUTED. PROVIDE 48 TIMES BAR DIAMETER LAP FOR HORIZONTAL REINFORCING IN BOND BEAMS. NO SPLICES SHALL BE PROVIDED FOR HORIZONTAL REINFORCING IN BLOCK LINTELS.

8. GROUT CELLS SOLID WHERE VERTICAL BARS ARE SHOWN ON THE DRAWINGS. VERTICAL BARS SHALL EXTEND FROM BOTTOM TO THE TOP OF THE WALL. AT EACH VERTICAL BAR, PROVIDE MATCHING BAR SIZE DOWEL INTO FOUNDATIONS. PROVIDE MINIMUM 48 TIMES BAR DIAMETER SPLICE FOR VERTICAL BARS WHERE REQUIRED AND/OR SHOWN ON THE DRAWINGS UNLESS NOTED OTHERWISE.

9. GROUT LIFTS SHALL TERMINATE TO FORM A GROUT KEY A MINIMUM OF 1 1/2" BELOW MORTAR JOINTS WHEN SUBSEQUENT GROUT LIFTS WILL HAPPEN AFTER PREVIOUS GROUT LIFTS HAVE SET. GROUT KEYS IN BOND BEAMS OR LINTELS SHALL NOT BE PERMITTED.

10. MAXIMUM GROUT POUR HEIGHT SHALL BE 5' - 4" (8 BLOCK COURSES).

11. PROVIDE A BOND BEAM AT THE TOP OF ALL CMU WALLS AND REINFORCE WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE. UNLESS NOTED OTHERWISE, ALL EXTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #5 CONTINUOUS AND ALL INTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #4 CONTINUOUS. BOND BEAM REINFORCING SHALL NOT BE CONTINUED THROUGH CONTROL JOINT LOCATIONS.

12. PROVIDE BOND BEAMS AT A MAXIMUM OF 48 INCHES ON CENTER IN ALL EXTERIOR AND LOAD BEARING CMU WALLS NOT LAID IN A RUNNING BOND (E.G. STACK BOND) REINFORCED WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE BOND BEAM REINFORCEMENT SHALL BE DISCONTINUED AT CONTROL JOINTS.

13. AT THE END OF EACH DAY AND DURING INCLEMENT WEATHER, ALL UNFINISHED MASONRY WORK SHALL BE COVERED AT THE TOP OF WALL AND EXTEND DOWN ALL SIDES A MINIMUM OF 24".

14. SEE TYPICAL DETAILS FOR INTERIOR WALL HEIGHT, BRACING AND REINFORCING REQUIREMENTS.

15. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH MASONRY WALLS DO NOT REQUIRE SLEEVES, UNLESS NOTED OTHERWISE ON THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE GROUTING. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN GROUTED MASONRY IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH MASONRY LINTELS UNLESS SPECIFICALLY DETAILED.

16. ALL REINFORCED MASONRY WALLS WITH OPENINGS UP TO THREE (3) FEET WIDE, SHALL HAVE ONE VERTICAL BAR MINIMUM AT EACH SIDE OF OPENINGS. FOR OPENINGS LARGER THAN 3 FEET WIDE, PROVIDE TWO (2) VERTICAL BARS AT EACH SIDE OF OPENINGS UNLESS NOTED OTHERWISE. REINFORCING AT EDGES OF OPENING SHALL MATCH TYPICAL VERTICAL WALL REINFORCING (UNLESS NOTED OTHERWISE) AND SHALL EXTEND TO THE TOP OF WALL.

17. ALL REINFORCED MASONRY WALL CORNERS AND INTERSECTIONS SHALL HAVE ONE VERTICAL BAR (MINIMUM) IN GROUTED CELL. REINFORCING SHALL MATCH TYPICAL WALL VERTICAL REINFORCEMENT.

18. PROVIDE ONE VERTICAL BAR (MINIMUM) IN THE FIRST CELL EACH SIDE OF CONTROL JOINTS. REINFORCING SHALL MATCH TYPICAL VERTICAL WALL REINFORCING (UNLESS NOTED OTHERWISE) AND SHALL EXTEND TO THE TOP OF WALL.

19. FOR ANCHORED MASONRY VENEER, THE DISTANCE BETWEEN THE INSIDE FACE OF THE VENEER AND THE COLD-FORMED STEEL, MASONRY, WOOD, OR CONCRETE BACKUP SHALL BE AS SPECIFIED BY THE ARCHITECT, BUT NOT GREATER THAN 4 1/2". A MINIMUM 1 INCH AIR SPACE SHALL BE PROVIDED.

20. ANCHORED MASONRY VENEER NOT LAID IN A RUNNING BOND SHALL HAVE A JOINT REINFORCEMENT OF AT LEAST ONE WIRE, OF SIZE W1.7, SPACED AT A MAXIMUM OF 18 INCHES ON CENTER VERTICALLY.

21. ALL CONCRETE MASONRY AND MASONRY VENEER SHALL HAVE A MINIMUM BEARING WIDTH OF 2/3 THE WIDTH OF THE MASONRY UNIT.

22. SPECIAL INSPECTION, IN ACCORDANCE WITH THE BUILDING CODE REFERENCED ABOVE, SHALL BE PROVIDED FOR ALL CMU WALLS.

OPEN WEB STEEL JOISTS AND JOIST GIRDERS

1. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED, MANUFACTURED, AND ERECTED PER THE CURRENT APPLICABLE ISSUE OF THE STANDARD SPECIFICATIONS FOR STEEL JOISTS (K SERIES), LONGSPAN STEEL JOISTS (LH SERIES), OR DEEP LONGSPAN JOISTS (DLH SERIES), OR SUPER LONGSPAN STEEL INSTITUTE AND AISC.

2. JOISTS AND JOIST GIRDERS SHALL BE CAMBERED FOR REALISTIC DEAD LOAD. PROVIDE STANDARD SJI CAMBER UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS.

3. TOP CHORD OF JOISTS SHALL BE DOUBLE ANGLES OR TEES. PROVIDE TOP CHORD EXTENSIONS WHERE SHOWN ON THE DRAWINGS. JOISTS AND JOIST GIRDERS WITH BOTTOM CHORD EXTENSIONS SHALL NOT HAVE END CONNECTIONS MADE TO COLUMN STABILIZER PLATE.

4. PROVIDE FLAT BEARING FOR ALL JOISTS AND JOIST GIRDERS. PROVIDE SJI STANDARD DEPTH OF BEARING FOR ALL JOISTS AND JOIST GIRDERS. IF SUFFICIENT BEARING DOES NOT EXIST, STAGGER THE END OF EACH JOIST AND CENTER OF BEARING OVER THE CENTER OF SUPPORT. WHERE K SERIES JOISTS BEAR ON THE SAME BEAM AS LH AND DLH JOISTS, THE K SERIES JOIST SEATS SHALL MATCH THE DEPTH OF THE LH OR DL

SPECIAL INSPECTION

1. ALL ASPECTS OF WORK RELATING TO SPECIAL INSPECTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   2021 INTERNATIONAL BUILDING CODE (CHAPTER 17).

2. THE OWNER'S SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

3. PRIOR TO THE BEGINNING OF CONSTRUCTION, THE ARCHITECT (OR ENGINEER) SHALL CALL A PRE-CONSTRUCTION MEETING WITH THE ARCHITECT, ENGINEER, BUILDING OFFICIAL, CONTRACTOR AND SPECIAL INSPECTORS TO REVIEW THE SPECIAL INSPECTION REQUIREMENTS.

4. DUTIES OF THE OWNER'S SPECIAL INSPECTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. ACKNOWLEDGE THE SPECIAL INSPECTION AND TESTING AGREEMENT PROVIDED BY THE LOCAL JURISDICTION.

   B. THE OWNER'S SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND TO THE BUILDING OFFICIAL.

   C. THE OWNER'S SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, ARCHITECT, REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, CONTRACTOR AND (OTHER DESIGNATED PARTIES), IN A TIMELY MANNER, AS ESTABLISHED AT THE PRE-CONSTRUCTION MEETING.

   D. THE OWNER'S SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE.

5. DUTIES OF THE CONTRACTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. NOTIFY THE SPECIAL INSPECTOR THAT THE WORK IS READY FOR INSPECTION AT LEAST 24 HOURS BEFORE SUCH INSPECTION.

   B. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED AND INDICATED TO BE IN CONFORMANCE BY THE SPECIAL INSPECTOR AND APPROVED BY THE BUILDING OFFICIAL.

   C. PROVIDE THE SPECIAL INSPECTOR WITH ACCESS TO APPROVED CONSTRUCTION DOCUMENTS AT JOBSITE.

   D. MAINTAIN AT THE JOBSITE COPIES OF ALL REPORTS SUBMITTED BY THE SPECIAL INSPECTOR.

6. CONTINUOUS SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS CONTINUOUSLY PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED.

7. PERIODIC SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.

8. SPECIAL INSPECTIONS AND TESTING SHALL BE REQUIRED FOR THE FOLLOWING TYPES OF WORK LISTED BELOW. SPECIAL INSPECTIONS AND TESTING SHALL FOLLOW THE REQUIREMENTS OF THE BUILDING AND MATERIAL CODE REFERENCES AND TABLES. IN THE EVENT OF A CONFLICT BETWEEN REFERENCES, THE OWNER'S SPECIAL INSPECTOR SHALL FOLLOW THE MORE STRINGENT REQUIREMENT.

SOILS	IBC 1705.6 AND TABLE 1705.6, APPROVED GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS
CAST-IN-PLACE DEEP FOUNDATIONS	IBC 1705.8 AND TABLE 1705.8 APPROVED GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS
CONCRETE	IBC 1705.3 AND TABLE 1705.3
STEEL	IBC 1705.2 AND TABLE 1705.2.3 AND AISC 360 CHAPTER N AND SDI QA/QC DOCUMENT
SHOP FABRICATION	IBC 1704.2.5 (NOT REQUIRED IF FABRICATOR IS APPROVED IN ACCORDANCE WITH IBC 1704.2.5.1.
MASONRY	IBC 1705.4, TMS 402/ACI 530/ASCE 5 SECTION 3.1 AND TABLE 3.1.2, TMS 602/ACI 530.1/ASCE 6 SECTION 1.6 AND TABLE 4
EXPANSION/EPOXY ANCHORS	MANUFACTURER'S ICC REPORT
WIND RESISTANCE	IBC 1705.11

STRUCTURAL STEEL

1. ALL ASPECTS OF WORK RELATING TO THE DESIGN, FABRICATION, DETAILING, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF THE AISC STEEL CONSTRUCTION MANUAL LATEST EDITION OF THE ANSI/AWS D1.1

2. STRUCTURAL STEEL MATERIALS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

WIDE FLANGE, CHANNELS	ASTM A992
ANGLES, PLATES, BARS	ASTM A572 GR 50
PIPES	ASTM A53 GR B
HSS (RECTANGULAR OR SQUARE)	ASTM A500 GR B (Fy = 46 KSI) OR GR C (Fy = 50 KSI)
HSS (ROUND)	ASTM A500 GR B (Fy = 42 KSI) OR GR C (Fy = 50 KSI)
ANCHOR RODS	ASTM F1554-36 U.N.O
HIGH STRENGTH BOLTS	ASTM F3125 GR A325 OR GR F1852 U.N.O.
HEADED STUD ANCHORS (HSA)	ASTM A108
DEFORMED BAR ANCHORS (DBA)	ASTM A496

3. THE DESIGN OF ALL STEEL CONNECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED, EMPLOYED BY THE FABRICATOR. CALCULATIONS SEALED BY THE FABRICATOR'S PROFESSIONAL ENGINEER MUST BE SUBMITTED IF REQUESTED.

4. SURFACES WHICH ARE TO BE FIREPROOFED WITH SPRAY-ON FIREPROOFING OR EMBEDDED IN CONCRETE SHALL NOT BE SHOP PAINTED. DO NOT PAINT TOP FLANGES OF COMPOSITE BEAMS NOR SURFACES OF MEMBERS WHERE WELDING OR HIGH STRENGTH FRICTION BOLTING WILL OCCUR. COORDINATE ALL SHOP PAINTING OF STRUCTURAL STEEL WITH ARCHITECT'S PAINTING REQUIREMENTS AS SPECIFIED ON THE ARCHITECTURAL DRAWINGS AND IN THE SPECIFICATIONS.

5. IT IS THE INTENTION OF THE PLANS AND SPECIFICATIONS THAT SHOP CONNECTIONS BE WELDED OR BOLTED AND THAT FIELD CONNECTIONS BE BOLTED, UNLESS DETAILED OTHERWISE ON THE DRAWINGS.

6. ALL TYPICAL BEAM SIMPLE CONNECTIONS SHALL BE STANDARD DOUBLE ANGLE OR SINGLE ANGLE FRAMED BEAM CONNECTIONS UNLESS NOTED OTHERWISE, SHEAR TAB CONNECTIONS MAY BE USED AT LOCATIONS WHERE DOUBLE ANGLE CONNECTIONS ARE NOT POSSIBLE. SEATED BEAM CONNECTIONS SHALL NOT BE USED UNLESS INDICATED ON THE DRAWINGS. PROVIDE FULL DEPTH SHEAR TAB IF BEAM FRAMES ON ONLY ONE SIDE OF A GIRDER.

7. DESIGN CONNECTIONS OF NON-COMPOSITE BEAMS TO SUPPORT A REACTION R (UNLESS SPECIFIED OTHERWISE) EQUAL TO ONE HALF THE TOTAL UNIFORM LOAD CAPACITY FROM THE TABLE OF UNIFORM LOAD CONSTANTS IN THE AISC MANUAL.

8. ADD TO THE REACTION LISTED ABOVE, ANY LOADS OR REACTIONS OF MEMBERS SUPPORTED BY THE BEAM WITHIN THREE FEET OF BEAM END AND THE VERTICAL COMPONENTS OF FORCES IN BRACE MEMBERS FRAMING INTO THE BEAMS.

9. BRACING CONNECTIONS SHALL DEVELOP FULL TENSILE FORCES AT EACH END OF THE BRACING MEMBER UNLESS BRACING FORCES ARE SPECIFIED ON THE DRAWINGS.

10. ALL WELDING SHALL COMPLY TO THE AMERICAN WELDING SOCIETY STANDARD (AWS D1.1). ALL WELDED JOINTS SHALL BE DETAILED AS INDICATED BY THE PREQUALIFIED JOINT DETAILS IN THE STRUCTURAL WELDING CODE. WELD LENGTHS CALLED FOR ON THE PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED. ALL WELDS SHALL USE MINIMUM E70XX ELECTRODES.

11. ALL WELDING SHALL BE PERFORMED BY A WELDER CERTIFIED IN ACCORDANCE WITH THE AWS STANDARDS.

12. MISCELLANEOUS STEEL CONNECTIONS SHALL BE WELDED ALL AROUND WITH AISC MINIMUM FILLET WELD UNLESS A LARGER WELD IS SPECIFIED. STEEL MEMBERS CONTINUOUSLY ATTACHED SHALL BE STITCH WELDED TOGETHER WITH AISC MINIMUM 2" LONG FILLET WELD AT 12" O.C. UNLESS A LARGER WELD OR DIFFERENT GAGE IS SPECIFIED.

13. ALL BOLTS SHALL BE DESIGNED AS BEARING BOLTS WITH THREADS INCLUDED IN THE SHEAR PLANE. ALL BOLTS SHALL BE NEW AND NOT RE-USED. BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER THAN NOMINAL SIZE OF BOLT USED, EXCEPT ANCHOR ROD HOLES. MINIMUM BOLT DIAMETER SHALL BE 3/4 INCH. ALL BOLTS SHALL BE TIGHTENED TO A SNUG-TIGHT POSITION, EXCEPT AT BRACES, MOMENT CONNECTIONS AND CONNECTIONS MARKED AS SLIP CRITICAL (SC) SHALL BE TIGHTENED USING LOAD INDICATING WASHERS OR TENSION BOLTS.

14. ALL STEEL EXPOSED TO WEATHER OR OUTSIDE THE BUILDING'S WATERPROOFING, SUCH AS BRICK SHELF ANGLES, SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION AS SPECIFIED BY THE STEEL STRUCTURES PAINTING COUNCIL (SSPC). THE ZINC COATING FOR STEEL SHAPES AND PLATES SHALL AVERAGE NOT LESS THAN 2.3 OZ. WITH NO INDIVIDUAL THICKNESS LESS THAN 2.0 OZ.

15. GALVANIZE ALL NUTS, BOLTS, AND WASHERS USED IN THE CONNECTION OF GALVANIZED STEEL.

16. GALVANIZED MEMBERS SHALL HAVE "Z.R.C. COLD GALVANIZING COMPOUND OR APPROVED EQUIVALENT APPLIED TO FIELD WELDED CONNECTIONS. SURFACE AREAS TO RECEIVE COLD GALVANIZING COMPOUND SHALL BE CLEAN OF DIRT AND DEBRIS PRIOR TO COMPOUND APPLICATION. SEE MANUFACTURER'S LITERATURE FOR ADDITIONAL RECOMMENDATIONS.

17. THE APPLICATION OF THE FIREPROOFING TO THE STEEL MEMBERS AND STEEL DECK IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST ENFORCE THE REQUIREMENTS OF THE MANUFACTURER AND NOT IMPOSE ADDITIONAL LOADS, INCLUDING CONSTRUCTION LIVE LOADS, DURING THE APPLICATION AND CURING OF THE FIREPROOFING.

18. IN ADDITION TO ALL OF THE STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF STEEL TO BE FURNISHED, FABRICATED, DETAILED, AND ERECTED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

19. THE CONTRACTOR SHALL MAKE AN ALLOWANCE FOR THE ADJUSTMENT AND DETAILING OF STEEL DURING THE SHOP DRAWING REVIEW PROCESS.

ABBREVIATIONS

ABBR.	ABBREVIATION
A.F.F.	ABOVE FINISH FLOOR
ADDN'L	ADDITIONAL
AHU	AIR HANDLING UNIT
ALT.	ALTERNATE
ANCH.	ANCHOR
A.B.	ANCHOR BOLT
A.R.	ANCHOR ROD
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT(URAL)
BM.	BEAM
BRG.	BEARING
BTW	BETWEEN
BOT.	BOTTOM
B.F.B.	BOTTOM FLANGE BRACE
B.O.	BOTTOM OF
BRDG.	BRIDGING
BLDG	BUILDING
C	CAMBER
CANT.	CANTILEVER
C.I.P.	CAST IN PLACE
C/C	CENTER TO CENTER
CL	CENTERLINE
CH	CHANNEL
CLR.	CLEAR(ANCE)
CFMF	COLD FORMED METAL FRAMING
COL	COLUMN
CJP	COMPLETE JOINT PENETRATION
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONST.	CONSTRUCTION
C.J.	CONSTRUCTION / CONTRACTION JOINT
CONT.	CONTINUOUS
COORD.	COORDINATE
DL	DEAD LOAD
DBA	DEFORM BAR ANCHOR
D	DEPTH
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
DWL	DOWEL
D.N.	DOWN
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
E.W.	EACH WAY
EL.	ELEVATION
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
ENGR.	ENGINEER
EOR	ENGINEER OF RECORD
EQ.	EQUAL
EQUIP.	EQUIPMENT
EQUIV.	EQUIVALENT
EXIST.	EXISTING
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
f'c=	28 DAY CONCRETE STRENGTH
FAB.	FABRICATE
F.S.	FAR SIDE
FIN	FINISH/FINISHED
FLR.	FLOOR
F.D.	FLOOR DRAIN
FTG.	FOOTING
Fy=	YIELD STRENGTH
GALV.	GALVANIZED
GA.	GAUGE
GEN	GENERAL
G.C.	GENERAL CONTRACTOR
GFRC	GLASS FIBER REINFORCED CONCRETE
GR.	GRADE/GRADING
HGR.	HANGER
HSA	HEADED STUD ANCHOR
HI	HIGH
HSS	HOLLOW STRUCTURAL SECTION
HORIZ. OR (H)	HORIZONTAL
H	HORIZONTAL REACTION
IN	INCH
INFO.	INFORMATION
ID	INSIDE DIAMETER
I.F.	INSIDE FACE
INT.	INTERIOR
JT.	JOINT
JST.	JOIST
K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
Ld	DEVELOPMENT LENGTH
LWC	LIGHTWEIGHT CONCRETE
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLV	LONG LEG VERTICAL
LLH	LONG LGE HORIZONTAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LONG	LONGITUDINAL
LO	LOW
LBS	POUNDS
MFR. / MNFR.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM

MECH.	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M	MOMENT
M.C.	MOMENT CONNECTION
N.S.	NEAR SIDE
NWC	NORMAL WEIGHT CONCRETE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
O.C.	ON CENTER(S)
OPNG.	OPENING
OPP.	OPPOSITE
OPH.	OPPOSITE HAND
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OA	OVERALL
O.H.	OVERHEAD
OVS.	OVERSIZED HOLE
P	AXIAL LOAD
P.J.	PANEL JOINT
PAR.	PARALLEL
PRKG.	PARKING
PJP	PARTIAL JOINT PENETRATION
PVMT	PAVEMENT
PVG	PAVING
PERP.	PERPENDICULAR
PL.	PLATE
PLBG	PLUMBING
PT	POST-TENSION(ED)
PCF	POUNDS PER CUBIC FOOT/FEET
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT/FEET
PSI	POUNDS PER SQUARE INCH
P/C	PRECAST CONCRETE
PRELIM.	PRELIMINARY
P.L.	PROPERTY LINE
QTY	QUANTITY
R	RADIUS, REACTION, REMAINDER
REC.	RECESSED
RE:	REFER TO
REF.	REFERENCE
REINF.	REINFORCED / REINFORCING
REBAR	REINFORCING BAR
REQ'D	REQUIRED
REV.	REVISION
R.D.	ROOF DRAIN
RTU	ROOF TOP UNIT
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SLBB	SHORT LEG BACK TO BACK
SIM.	SIMILAR
SC	SLIP CRITICAL, SHEAR CONNECTOR
SPA.	SPACING
SPEC.	SPECIFICATION
SQ.	SQUARE
SF.	SQUARE FOOT/FEET
STD	STANDARD
STL	STEEL
STIFF.	STIFFENER
STIR.	STIRRUP
STRUCT.	STRUCTURE/STRUCTURAL
TEMP.	TEMPERED
THK	THICK(NESS)
t	THICKNESS, TREAD
THD	THREADED
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
VERT. OR (V)	VERTICAL
WT.	WEIGHT
WWR	WELD WIRE REINF.
WF	WIDE FLANGE
W	WIDTH
WL	WIND LOAD
W.P.	WORK POINT
XXS	DOUBLE EXTRA STRONG
XS	EXTRA STRONG
&	AND
≈	APPROXIMATELY EQUAL
@	AT
°	DEGREE
=	EQUAL
≥	GREATER THAN or EQUAL
≤	LESS THAN or EQUAL
#	NUMBER or POUNDS
/	PER
±	PLUS or MINUS
Ø	ROUND/DIAMETER

SYMBOLS LEGEND

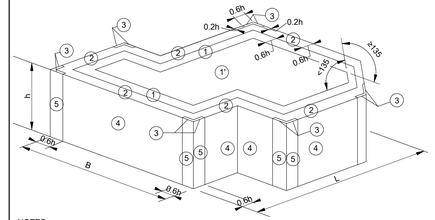
SYMBOLS	DESCRIPTION
N	NORTH ARROW
XX S-X.XX	ENLARGE FLOOR PLAN REFERENCE OR ENLARGE DETAIL REFERENCE
XX S-X.XX	DETAIL SECTION (STRUCTURAL)
XX/SX.XX	BRACING ELEVATION
11 5/8" 5"	DIMENSIONS
XX/S-X.XX XX/S-X.XX	MATCHLINE
1	REVISION NUMBER & AFFECTED AREA
LEVEL NAME 0' - 0"	VERTICAL ELEVATION
EX: 152' - 6"	EXISTING ELEVATION
152' - 6"	NEW ELEVATION
	M.C. OR MOMENT CONNECTION
	DEPRESSION
	PANEL WALL TAG
12/36 BELL DIAMETER (IN) BELLED PIER SHAFT DIAMETER (IN)	
P1	PILE SHAFT
F3	FOOTING

STRUCTURAL SHEET INDEX		
SHEET NUMBER	SHEET NAME	Current Revision
S1.01-H	GENERAL NOTES	
S1.02-H	GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX	
S2.01-H	FOUNDATION PLAN - CONCESSION - NEW	
S2.02-H	ROOF FRAMING PLAN - CONCESSION - NEW	
S2.11-H	EXISTING FOUNDATION PLAN - GYM	
S2.12-H	EXISTING ROOF FRAMING PLAN - GYM	
S2.21-H	EXISTING FOUNDATION PLAN - FIELD HOUSE	
S2.22-H	EXISTING ROOF FRAMING PLAN - FIELD HOUSE	
S3.01-H	TYPICAL FOUNDATION DETAILS	
S3.02-H	TYPICAL FOUNDATION DETAILS	
S3.03-H	TYPICAL FOUNDATION DETAILS	
S4.01-H	TYPICAL CMU WALL DETAILS	
S4.02-H	TYPICAL CMU WALL DETAILS	
S5.01-H	TYPICAL STEEL FRAMING DETAILS	
Grand total: 14		

ROOF PRESSURE (GROSS)						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
1'	+17,-39	+16,-39	+16,-39	+16,-39	+16,-26	+16,-21
1	+17,-68	+16,-63	+16,-57	+16,-53	+16,-43	+16,-43
2	+39,-90	+37,-84	+35,-76	+33,-70	+29,-57	+29,-57
3	+39,-90	+37,-84	+35,-76	+33,-70	+29,-57	+29,-57

WALL PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
4	+39,-42	+37,-41	+35,-38	+33,-36	+29,-32	+29,-32
5	+39,-52	+37,-49	+35,-44	+33,-41	+29,-32	+29,-32

PARAPET PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
4	± 120	± 112	± 102	± 94	± 76	± 76
5	± 120	± 112	± 102	± 94	± 76	± 76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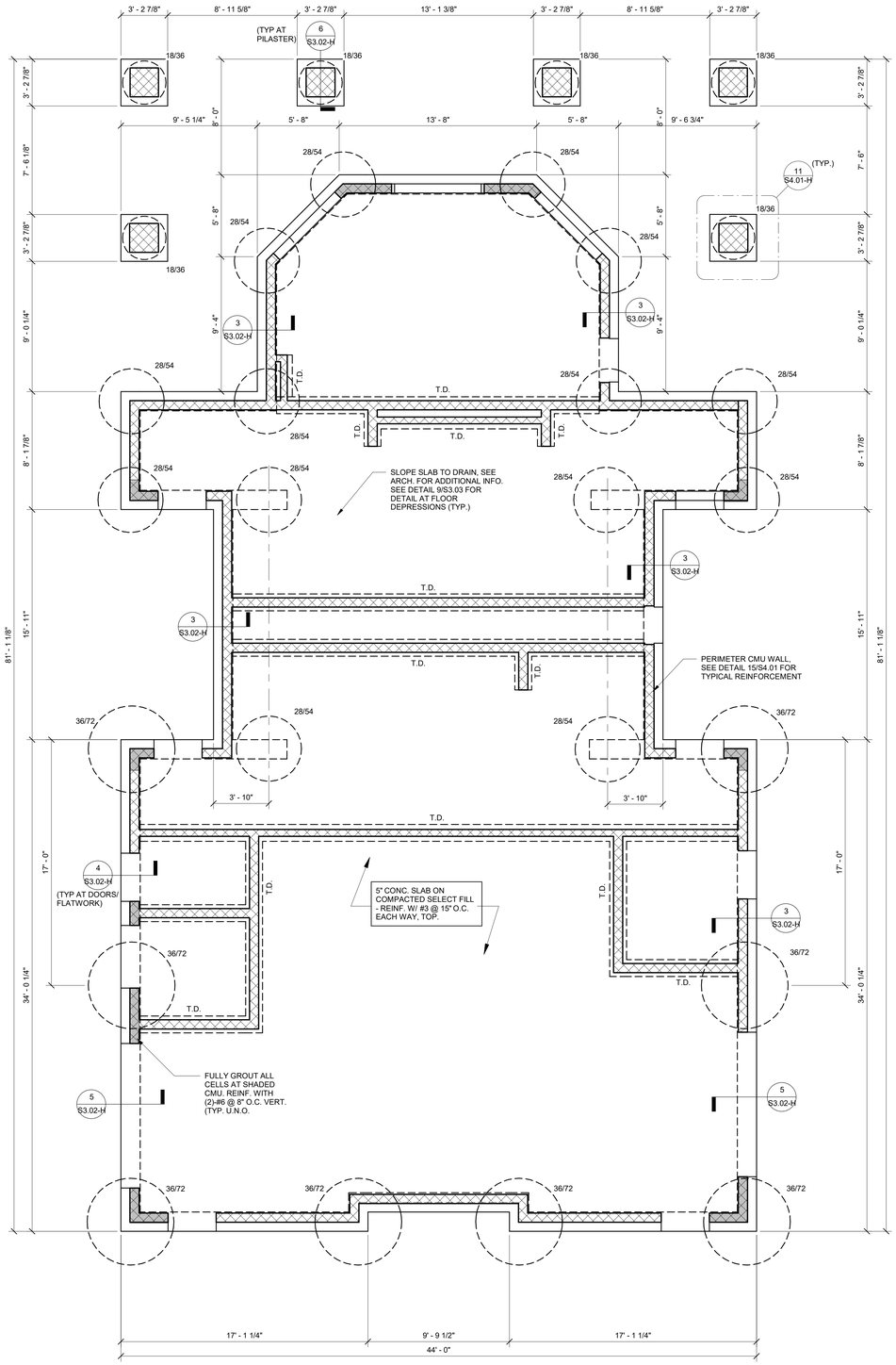
0.2h
0.6h
0.6h
0.6



1 FOUNDATION PLAN - CONCESSION - NEW
SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES:

1. ALL PIERS ARE CENTERED UNDER COLUMN CENTERLINES, U.N.O.
2. PIERS UNDER GRADE BEAMS (WITHOUT COLUMNS) SHALL BE CENTERED UNDER GRADE BEAMS, U.N.O.
3. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
4. COORDINATE ALL BRICK LEDGES AND DEPTH WITH ARCHITECTURAL DRAWINGS.
5. LOCATIONS NOTED THUS: 0' - 0" INDICATES TOP OF SLAB ELEVATION.
6. REF. ELEVATION = 0' - 0" CORRESPONDS TO CIVIL ELEVATION 69.0'. VERIFY WITH CIVIL.
7. SEE 5/S3.03, 7/S3.03 & 10/S3.03 FOR ADDITIONAL REBAR AT OPENINGS, DISCONTINUOUS JOINTS, AND RE-ENTRANT CORNERS IN SLAB-ON-GRADE.
8. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
9. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
10. T.D. INDICATES TURN DOWNS. SEE DETAIL 9/S3.02.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

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HIGHTOWER HIGH SCHOOL

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Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
97172
LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S2.01-H
FOUNDATION PLAN - CONCESSION - NEW

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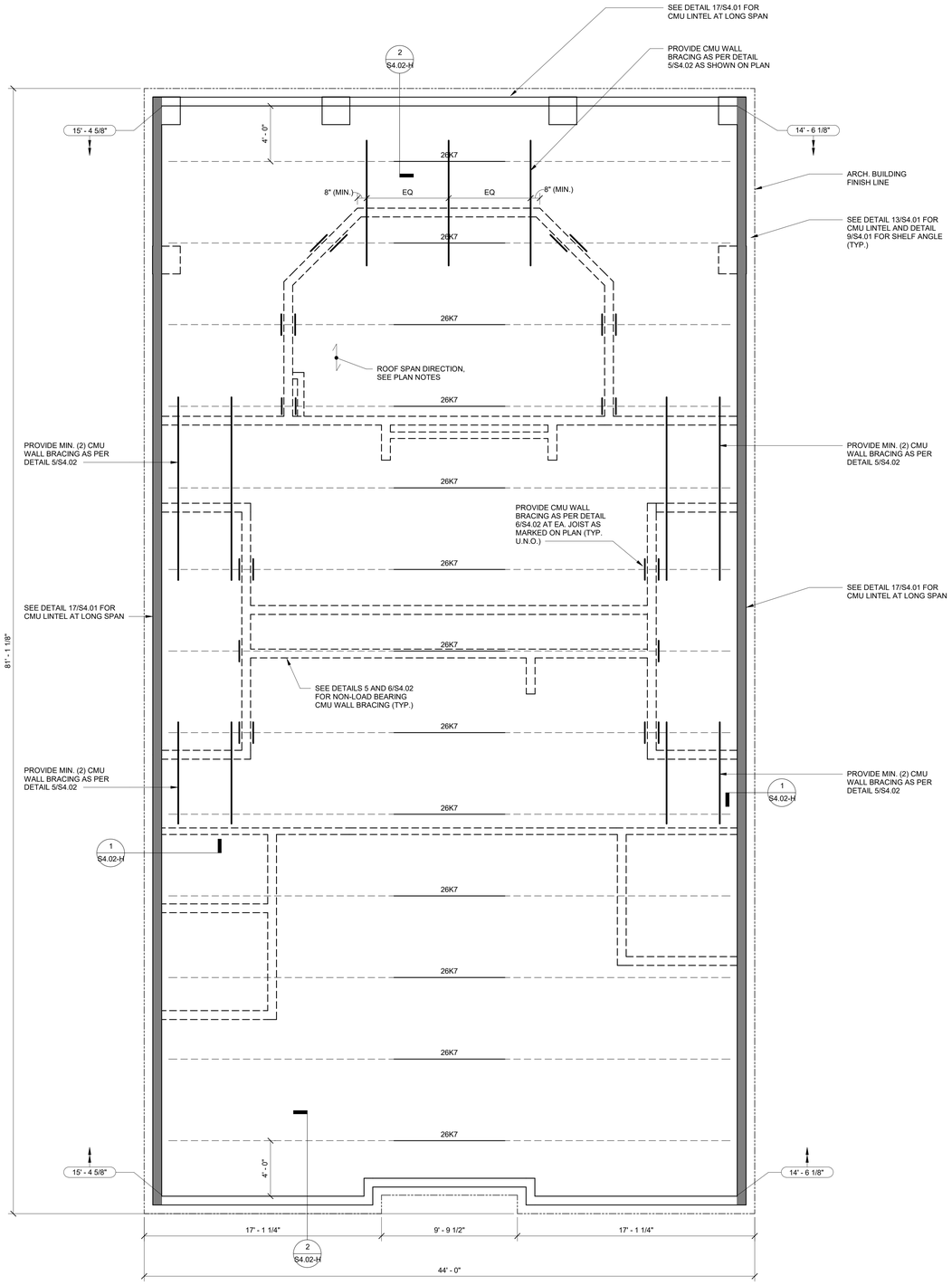

1 ROOF FRAMING PLAN - CONCESSION - NEW

SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN NOTES:

1. LOCATIONS SHOWN THUS: ( ) INDICATES TOP OF STEEL (T.O.S.) ELEVATION (TOP OF STEEL = TOP OF JOIST OR BOTTOM OF DECK).
2. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
3. JOISTS SHALL BE DESIGNED FOR ADDITIONAL LOADS RESULTING FROM RTU'S AND OTHER MECHANICAL EQUIPMENT ON THE ROOF OR SUSPENDED FROM THE ROOF STRUCTURE. SEE ARCHITECTURAL AND MEP DRAWINGS FOR LOCATIONS.
4. SPACE JOISTS EQUALLY, U.N.O.
5. REFER TO ARCHITECTURAL DRAWINGS / MEP FOR LOCATIONS OF ROOF DRAINS, OVERFLOW DRAINS AND TAPERED INSULATION.
6. ROOF SHALL BE 1.5B, 22GA DECK AS MANUFACTURED BY VULCRAFT OR EQUIVALENT. SEE ARCHITECTURAL DRAWINGS FOR INSULATION, ROOFING, ETC. WELD DECK USING 5/8"Ø NET EFFECTIVE PUDDLE WELDS:
   a. PERPENDICULAR BEARING: 36/4 PATTERN.
   b. PARALLEL BEARINGS AND EDGE: AT 6" O.C.
   c. SIDE SEAMS: #10 TEK SCREWS AT 12" O.C.
7. ONLY SHADED WALLS MAY BE USED AS BEARING WALLS FOR ROOF JOISTS.

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STATE OF TEXAS
KHALIL TABAJA
137127
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PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
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S2.02-H

ROOF FRAMING PLAN - CONCESSION - NEW

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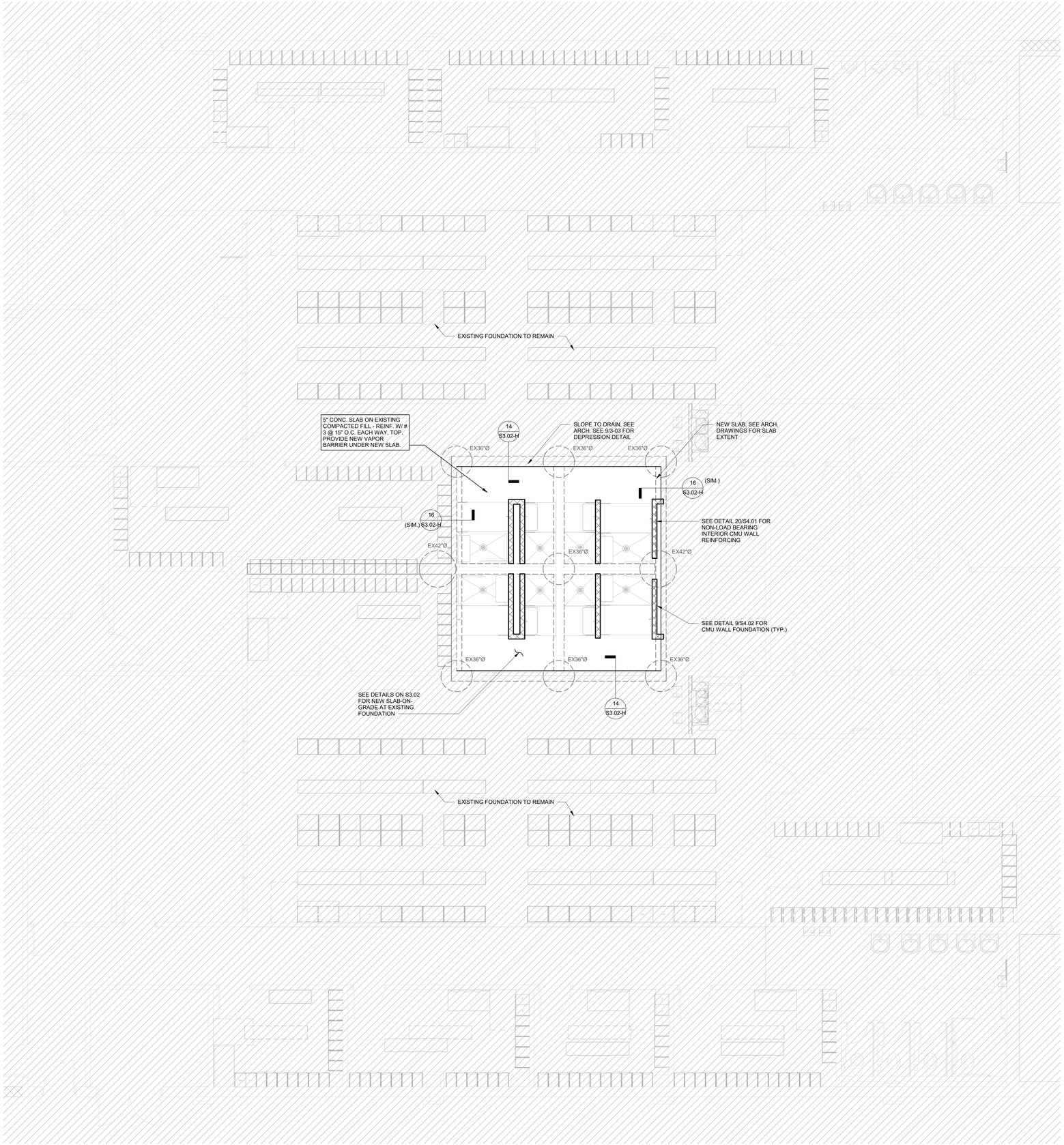

1 FOUNDATION PLAN - GYM - EXISTING
SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
2. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATION.
3. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
4. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
5. T.D. INDICATES TURN DOWNS. SEE DETAIL 9/S3.02.

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5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
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12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

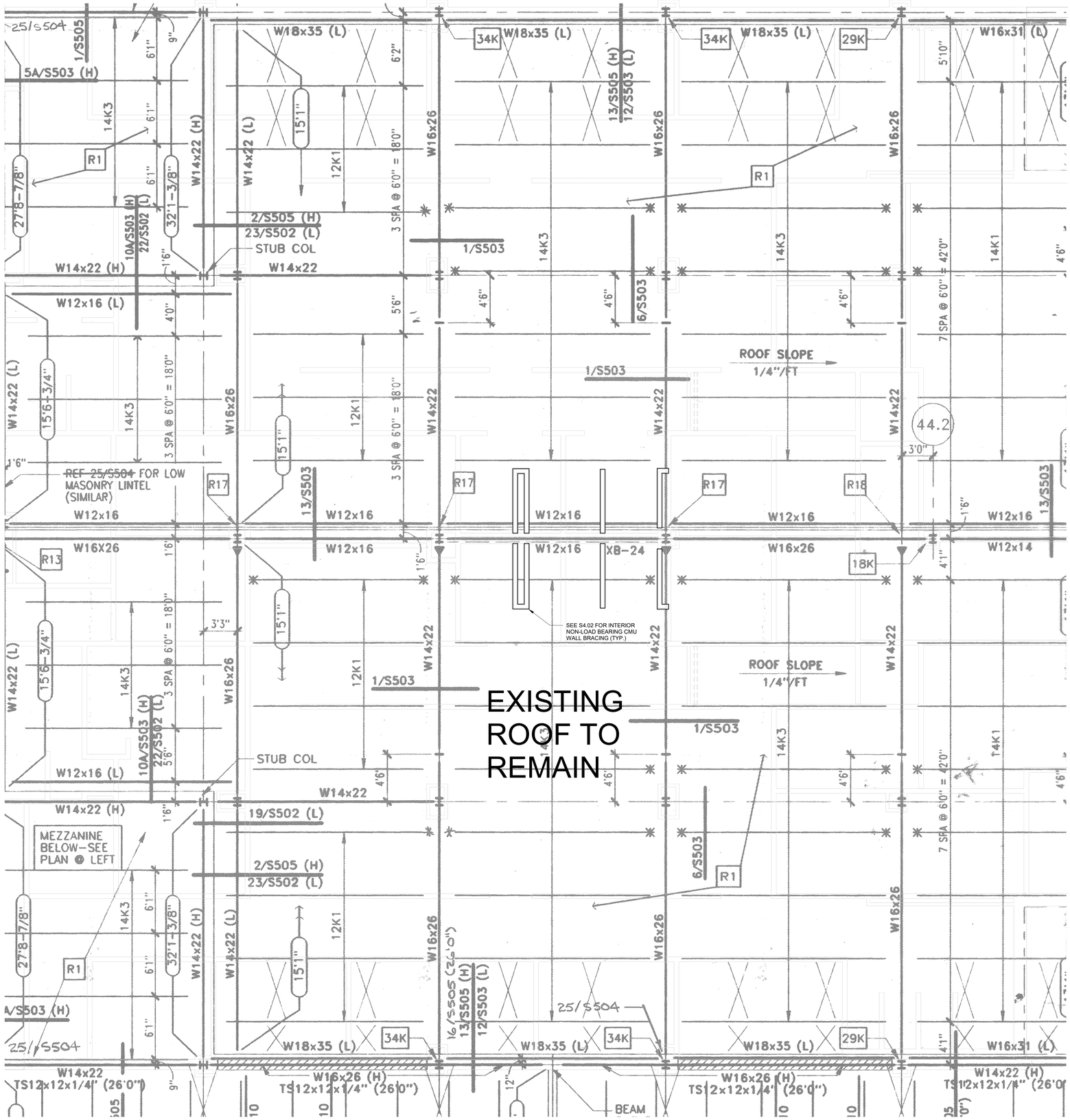
No.	Date	Description
	12/04/2025	100% CD

100% CD

S2.11-H
EXISTING FOUNDATION PLAN - GYM

ROOF FRAMING PLAN NOTES:

1. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.



1 ROOF FRAMING PLAN - GYM - EXISTING
SCALE: 1/4" = 1'-0"

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KHALIL TABAJA
137727
LICENSED
PROFESSIONAL ENGINEER
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S2.12-H

EXISTING ROOF FRAMING PLAN - GYM

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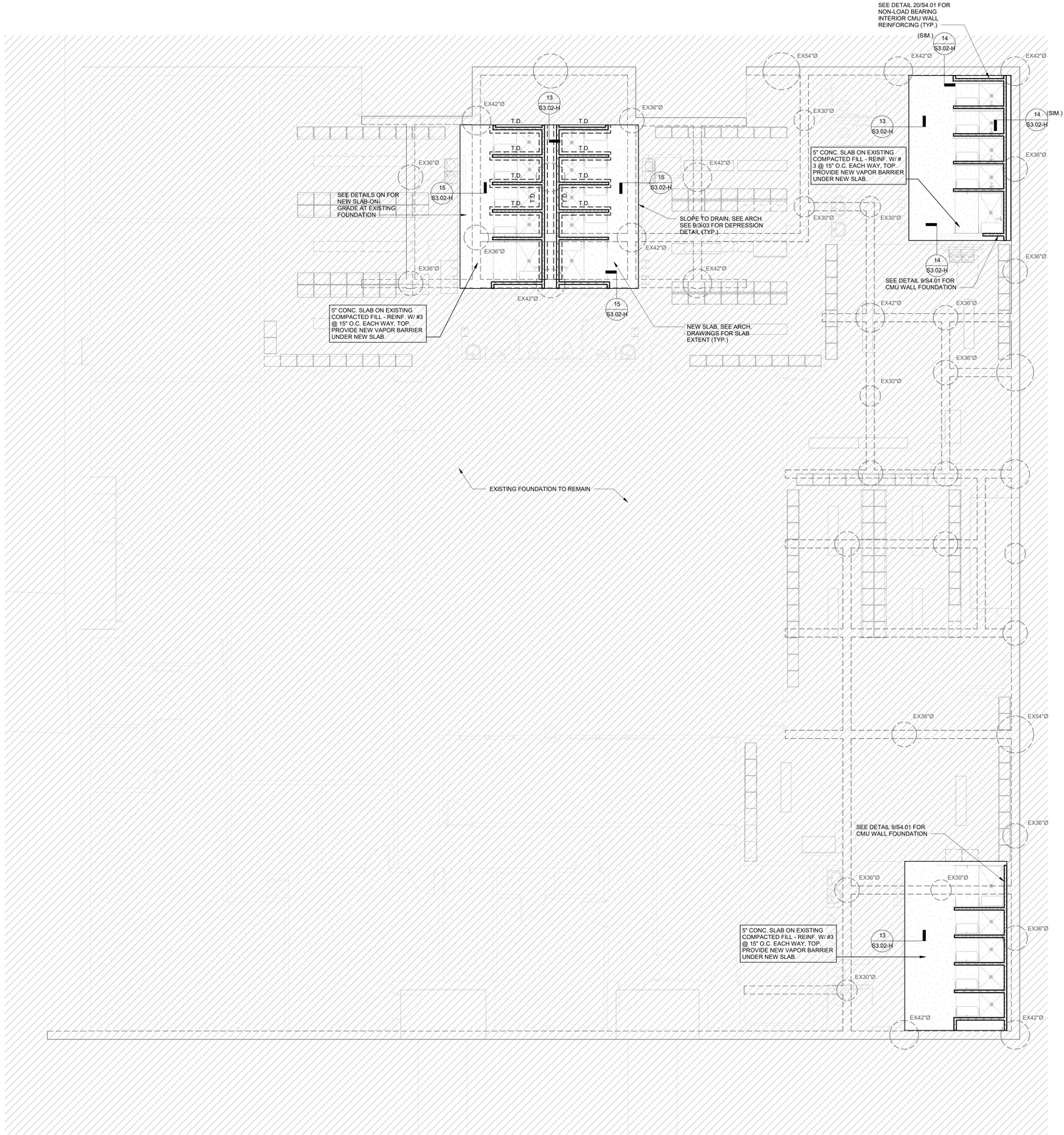

FOUNDATION PLAN NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
2. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATION.
3. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
4. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
5. T.D. INDICATES TURN DOWNS. SEE DETAIL 9/S3.02.

1 FOUNDATION PLAN - FIELD HOUSE - EXISTING

SCALE: 3/16" = 1'-0"

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Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25074

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Sugarland, TX 77479

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STATE OF TEXAS
KHALIL TABAJA
137126
LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
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REVISIONS:

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EXISTING FOUNDATION PLAN - FIELD HOUSE

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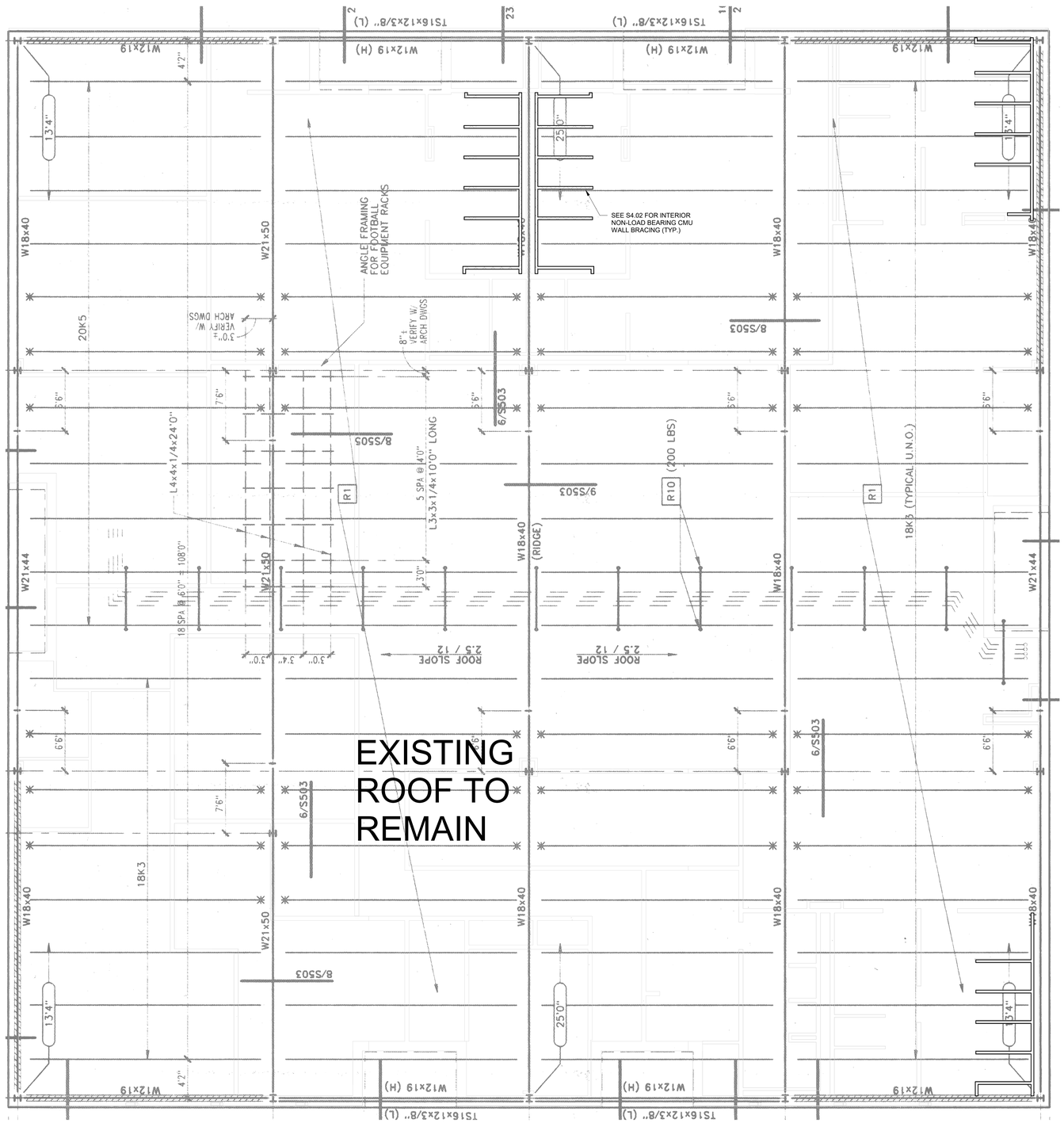
ROOF FRAMING PLAN NOTES:

1. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.



1 ROOF FRAMING PLAN - FIELD HOUSE - EXISTING
SCALE: 3/16" = 1'-0"

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Houston, TX 77046-2401
Tel: 713.664.0130
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KHALIL TABAJA
117127
LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
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REVISIONS:

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100% CD

S2.22-H
EXISTING ROOF FRAMING PLAN - FIELD HOUSE

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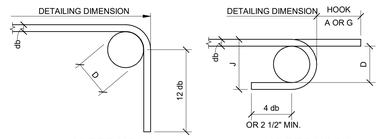


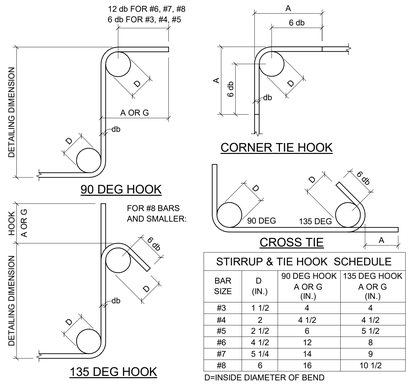
90 DEG HOOK | 180 DEG HOOK

RECOMMENDED END HOOKS, ALL GRADES				
BAR SIZE	FINISHED BEND DIAMETER D, (IN.)	180 DEG HOOKS		90 DEG HOOKS
		A OR G, (IN.)	J, (IN.)	A OR G, (IN.)
#3	2 1/4	5	3	6
#4	3	6	4	8
#5	3 3/4	7	5	10
#6	4 1/2	8	6	12
#7	5 1/4	10	7	14
#8	6	11	8	16
#9	9 1/2	15	11 3/4	19
#10	10 3/4	17	13 1/4	22
#11	12	19	14 3/4	24
#14	18 1/4	27	21 3/4	31
#18	24	36	28 1/2	41

D = INSIDE DIAMETER OF BEND

END HOOK TYPES

20 SCALE: N.T.S.

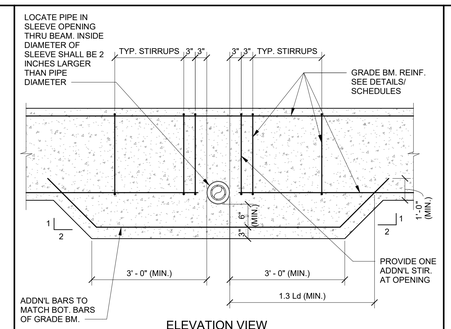


STIRRUP & TIE HOOK SCHEDULE			
BAR SIZE	D (IN.)	90 DEG HOOK A OR G (IN.)	135 DEG HOOK A OR G (IN.)
#3	1 1/2	4	4
#4	2	4 1/2	4 1/2
#5	2 1/2	6	5 1/2
#6	4 1/2	12	8
#7	5 1/4	14	9
#8	6	16	10 1/2

D=INSIDE DIAMETER OF BEND

STIRRUP AND TIE HOOK TYPES

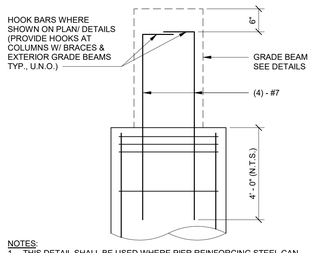
16 SCALE: N.T.S.



ELEVATION VIEW

TYPICAL DETAIL
OPENING THRU GRADE BEAM THAT CONFLICTS WITH BOTTOM REINFORCEMENT

8 SCALE: N.T.S.



NOTES:
1. THIS DETAIL SHALL BE USED WHERE PIER REINFORCING STEEL CAN NOT BE ACCOMMODATED WITHIN WIDTH OF GRADE BEAMS.
2. SEE TYPICAL DRILLED PIER DETAIL FOR ADDITIONAL INFORMATION.

TYPICAL DETAIL
SHAFT SIZE LARGER THAN GRADE BEAM WIDTH

4 SCALE: N.T.S.

DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

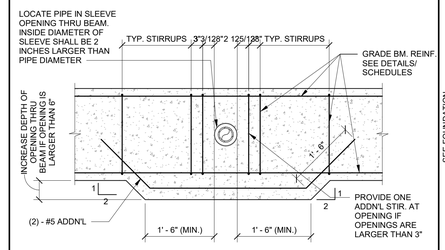
BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb
#3	9	6	8	6	7	6	6	6	6	6	6	6	6	6	6	6
#4	11	8	10	7	9	6	8	6	8	6	7	6	7	6	6	6
#5	14	10	12	9	11	8	10	7	9	7	9	6	8	6	8	6
#6	17	12	15	10	13	9	12	9	11	8	11	8	10	7	9	7
#7	20	14	17	12	15	11	14	10	13	9	12	9	12	8	11	8
#8	22	16	19	14	17	12	16	11	15	11	14	10	13	9	12	9
#9	25	18	22	15	20	14	18	13	17	12	16	11	15	10	14	10
#10	28	20	25	17	22	16	20	14	19	13	18	12	17	12	16	11
#11	31	22	27	19	24	17	22	16	21	15	19	14	18	13	17	12



NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Lhb = TENSION DEVELOPMENT LENGTH.
3. Ldh = Lhb, UNLESS CONDITIONS OF ITEM 4 ARE SATISFIED.
4. Ldh = 0.7 Lhb, WHEN SIDE COVER NORMAL TO PLANE OF HOOK IS NOT LESS THAN 2 1/2 INCHES AND FOR 90° HOOK, COVER ON BAR EXTENSION BEYOND HOOK SHALL NOT BE LESS THAN 2 INCHES.
5. HOOKS SHALL NOT BE CONSIDERED EFFECTIVE IN DEVELOPING BARS IN COMPRESSION.

TYPICAL DETAIL
DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (NORMAL WEIGHT CONCRETE)

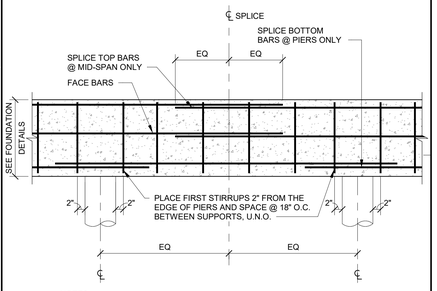
19 SCALE: N.T.S.



ELEVATION OF GRADE BEAM

TYPICAL DETAIL
OPENING THRU GRADE BEAM

7 SCALE: N.T.S.



NOTES:
1. SLAB STEEL NOT SHOWN FOR CLARITY.
2. SEE TYPICAL DETAIL "TENSION DEVELOPMENT AND SPLICE LENGTH" FOR SPLICE DIMENSION.

TYPICAL DETAIL
BEAM REINFORCING SPLICE DETAIL

3 SCALE:N.T.S.

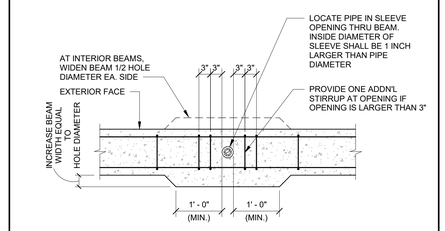
COMPRESSION DEVELOPMENT LENGTHS
AND COMPRESSION LAP SPLICE LENGTHS
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c ≥ 5000		BAR SIZE
	Ldc	Splice	Ldc	Splice	Ldc	Splice	
#3	9	12	8	12	8	12	#3
#4	11	15	10	15	9	15	#4
#5	14	19	12	19	12	19	#5
#6	17	23	15	23	14	23	#6
#7	20	27	17	27	16	27	#7
#8	22	30	19	30	18	30	#8
#9	25	34	22	34	21	34	#9
#10	28	39	25	39	23	39	#10
#11	31	43	27	43	26	43	#11
#14	38	51	33	51	31	51	#14
#18	50	68	43	68	41	68	#18

NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ldc = COMPRESSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN COMPRESSION, SPLICE LENGTH SHALL BE THE LARGER OF Ldc OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
5. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6 IN.

TYPICAL DETAIL
COMPRESSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

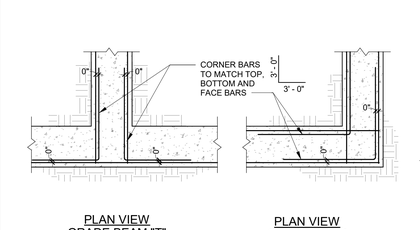
18 SCALE: N.T.S.



PLAN VIEW

TYPICAL DETAIL
VERTICAL HOLE THRU GRADE BEAM LARGER THAN 3" DIAMETER

6 SCALE: N.T.S.



PLAN VIEW GRADE BEAM "T" INTERSECTION | PLAN VIEW GRADE BEAM CORNER

TYPICAL DETAIL
GRADE BEAM REINFORCEMENT STEEL CORNER BARS

2 SCALE: N.T.S.

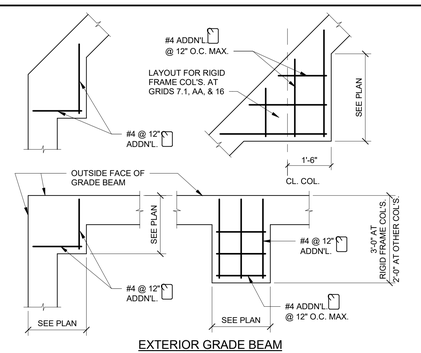
TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPLICE LENGTHS
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld
#3	17	22	15	19	13	17	12	16	12	16	12	16	12	16	12	16
#4	22	29	19	25	17	23	16	21	15	19	14	18	13	17	12	16
#5	28	36	24	31	22	28	20	26	18	24	17	22	16	21	15	20
#6	33	43	29	37	26	34	24	31	22	28	21	27	19	25	18	24
#7	48	63	42	54	38	49	34	45	32	41	30	39	28	36	27	35
#8	55	72	48	62	43	56	39	51	36	47	34	44	32	42	30	39
#9	62	81	54	70	48	63	44	57	41	53	38	50	36	47	34	44
#10	70	91	61	79	54	71	50	64	46	60	43	56	41	53	39	50
#11	78	101	67	87	60	78	55	71	51	66	48	62	45	58	43	55

NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ld = TENSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. FOR TOP BARS, MULTIPLY THE SPLICE LENGTHS BY 1.30. TOP BARS REQUIRE A MINIMUM OF 12" OF FRESH CONCRETE BELOW BAR.
5. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN TENSION, SPLICE LENGTH SHALL BE THE LARGER OF Ld OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
6. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6

TYPICAL DETAIL
TENSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

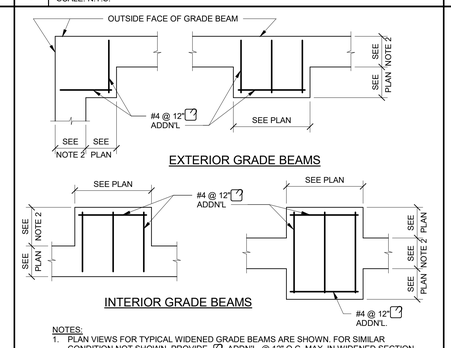
17 SCALE: N.T.S.



EXTERIOR GRADE BEAM

TYPICAL DETAIL
ADDITIONAL BARS AT WIDENED GRADE BEAM (PLAN VIEW)

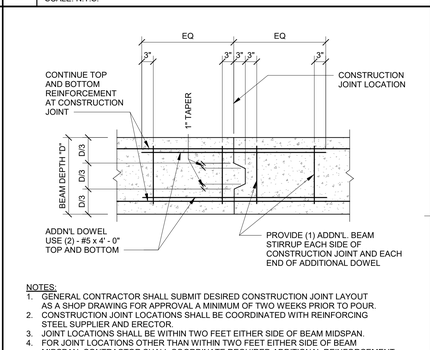
13 SCALE: N.T.S.



NOTES:
1. PLAN VIEWS FOR TYPICAL WIDENED GRADE BEAMS ARE SHOWN. FOR SIMILAR CONDITION NOT SHOWN, PROVIDE #4 ADDN'L. @ 12" O.C. MAX. IN WIDENED SECTION.
2. SEE DETAIL SHEETS FOR GRADE BEAM WIDTH.

TYPICAL DETAIL
ADDITIONAL BARS AT WIDENED GRADE BEAM (PLAN VIEW)

5 SCALE: N.T.S.



NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT DESIRED CONSTRUCTION JOINT LAYOUT AS A SHOP DRAWING FOR APPROVAL A MINIMUM OF TWO WEEKS PRIOR TO POUR.
2. CONSTRUCTION JOINT LOCATIONS SHALL BE COORDINATED WITH REINFORCING STEEL SUPPLIER AND ERECTOR.
3. JOINT LOCATIONS SHALL BE WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN.
4. FOR JOINT LOCATIONS OTHER THAN WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE ENGINEER ON THE SHOP DRAWINGS.

TYPICAL DETAIL
GRADE BEAM CONSTRUCTION JOINT

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640



12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.01-H
TYPICAL FOUNDATION DETAILS

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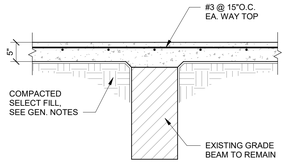
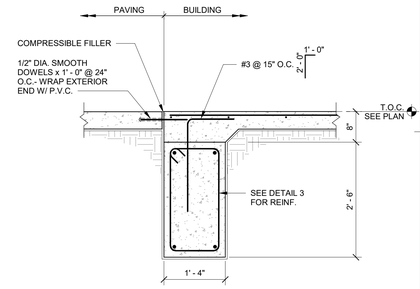


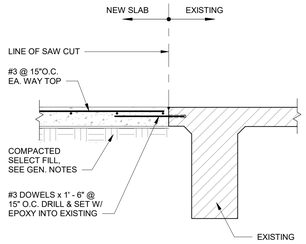
TYPICAL DETAIL
SLAB REPAIR OVER EXISTING BEAM

16 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM
AT DOORS/FLATWORK

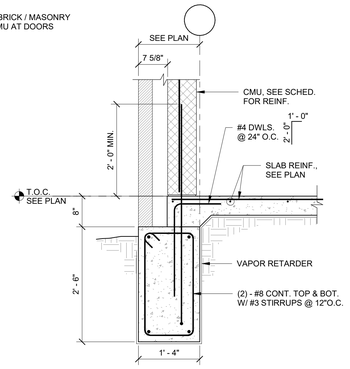
4 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
SLAB REPAIR NEAR BEAM

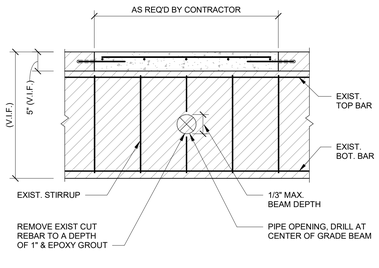
15 SCALE: 3/4" = 1'-0"

NOTE:
ELIMINATE BRICK / MASONRY
LEDGE & CMU AT DOORS



TYPICAL DETAIL
EXTERIOR GRADE BEAM

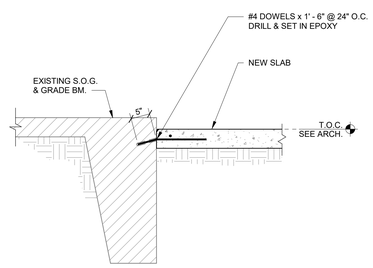
3 SCALE: 3/4" = 1'-0"



NOTE:
OPENINGS SHOULD ONLY BE PROVIDED WITHIN MIDDLE 8' - 0" OF GRADE BEAM SPAN AND MIDDLE 1/3 OF BEAM DEPTH.

TYPICAL DETAIL
PIPE OPENING THROUGH EXIST GRADE BEAM

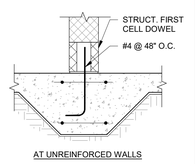
18 SCALE: 3/4" = 1'-0"



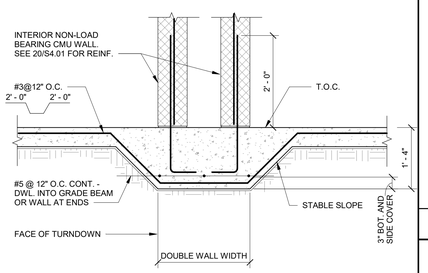
TYPICAL DETAIL
NEW SLAB-ON-GRADE AT EXISTING SLAB

14 SCALE: 3/4" = 1'-0"

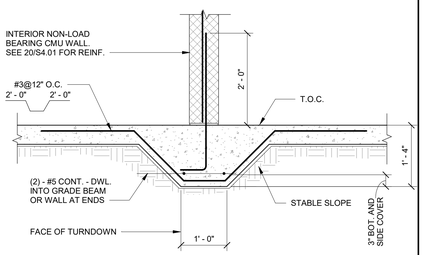
NOTES :
1. THIS DETAIL APPLIES AT ALL CMU WALL LOCATIONS WITHOUT GRADE BEAMS.
2. SEE PLAN FOR LOCATIONS MARKED "TURNDOWN", T.D. OR OTHERWISE NOTED.



AT UNREINFORCED WALLS



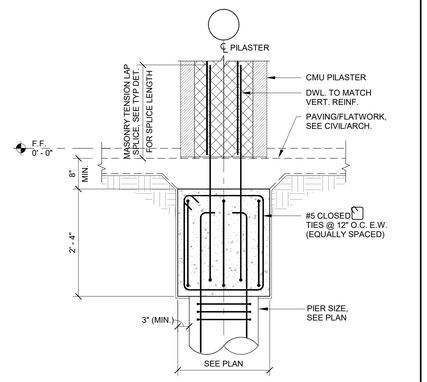
AT DOUBLE WALL



AT SINGLE WALL

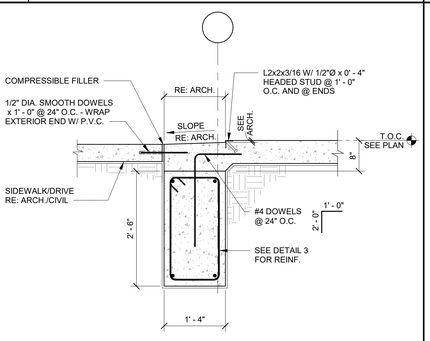
TYPICAL DETAIL
TURNDOWN AT CMU WALL

9 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL AT CMU PILASTER CAP

6 SCALE: 3/4" = 1'-0"



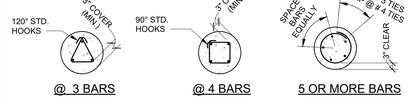
TYPICAL DETAIL
EXTERIOR GRADE BEAM AT OVERHEAD DOOR

5 SCALE: 3/4" = 1'-0"

DRILLED PIER VERTICAL
REINFORCEMENT SCHEDULE

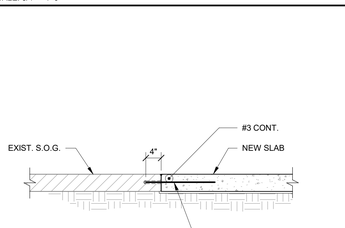
SHAFT DIAMETER (INCHES)	VERTICAL REINFORCEMENT	TIES (USE #3 @ 12" U.N.O.)
12	3 - #5	#3 @ 10"
14, 16	4 - #5	#3 @ 10"
18, 20	4 - #6	
22, 24, 26	5 - #7	
28, 30	5 - #8	
36	5 - #9	

*ALL PIER SIZES SHOWN MAY NOT BE USED ON THIS PROJECT.



SHAFT BAR PLACEMENT PLANS

2 SCALE: N.T.S.



GENERAL NOTES:
1. COORDINATE LOCATION AND SIZE OF ALL TRENCHES WITH ARCH./MEP DRAWINGS.
2. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL HAVE 28 DAYS COMPRESSION STRENGTH OF MINIMUM 3,000 PSI (MAXIMUM AGGREGATE SIZE = 1 1/2"). MIX DESIGN SHALL CONFORM TO THE STANDARDS OF ACI 318 AND ACI 301.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
4. VAPOR RETARDER UNDER THE NEW SLAB SHALL BE 15 MIL STEGO VAPOR BARRIERS AS MANUFACTURED BY STEGO OR EQUIVALENT. ALL SEAMS SHALL BE OVERLAPPED MINIMUM 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE.
5. FILL UNDER THE NEW SLAB SHALL BE STRUCTURAL FILL (SANDY CLAY OR CLAYEY SAND) HAVING PLASTICITY INDEX BETWEEN 10 AND 20 AND LIQUID LIMIT NOT EXCEEDING 40. FILL MATERIAL SHALL BE PLACED IN 6 INCH LOOSE LIFTS AND COMPACTED TO AT LEAST 95% MAXIMUM DENSITY (ASTM D698). THE SELECT FILL SHALL BE MOISTURE ADJUSTED TO WITHIN 2% OF OPTIMUM MOISTURE CONTENT. AS AN ALTERNATE TO SELECT FILL, CONTRACTOR MAY UTILIZE CEMENT STABILIZED SAND FOR BACKFILLING TRENCHES. SAND SHALL BE CLEAN AND SHALL CONFORM TO ASTM C33 AND CEMENT SHALL CONFORM TO ASTM C150. SAND-CEMENT MIXTURE SHALL PROVIDE COMPRESSIVE STRENGTH OF MINIMUM 100 PSI WHEN COMPACTED TO MINIMUM 95% (ASTM D558). PLACE MATERIAL IN 8 INCH LOOSE LIFTS AND COMPACT TO MINIMUM 95% WITH MOISTURE CONTENT AT OPTIMUM OR BELOW OPTIMUM MOISTURE CONTENT.
6. V.I.F. - VERIFY IN FIELD.

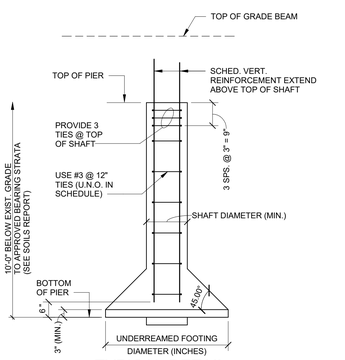
TYPICAL DETAIL AT PLUMBING TRENCHES

17 SCALE: 3/4" = 1'-0"

NOTE:
1. SAWCUT TOP 1" OF EXISTING SLAB PRIOR TO REMOVING EXISTING CONCRETE.

TYPICAL DETAIL
NEW SLAB-ON-GRADE AT EXISTING SLAB

13 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
DRILLED PIER

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137126
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.02-H
TYPICAL FOUNDATION DETAILS

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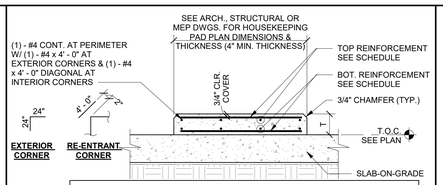


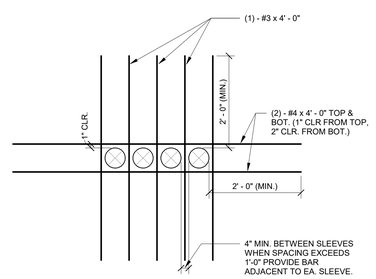
HOUSEKEEPING PAD REINF. SCHEDULE

PAD THICKNESS	TOP REINFORCEMENT	BOTTOM REINF.
T ≤ 4"	WWR 4x4-W2.9xW2.9 OR #3 @12" E.W.	NONE
4" < T ≤ 6"	WWR 4x4-W4xW4 OR #4 @18" E.W.	NONE
6" < T ≤ 8"	WWR 4x4-W6xW6 OR #4 @12" E.W.	NONE
8" < T ≤ 12"	#4 @ 18" E.W.	#4 @ 18" E.W.
12" < T ≤ 16"	#4 @ 12" E.W.	#4 @ 12" E.W.

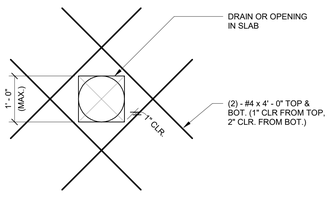
NOTES:
1. GENERAL CONTRACTOR TO COORDINATE WITH MECHANICAL DRAWINGS AND SPECIFICATIONS TO DETERMINE REQUIREMENTS FOR HOUSEKEEPING PADS OVER SLAB-ON-GRADE AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT. COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AS REQUIRED.
2. PAD SHALL NOT BE POURED UNTIL AFTER SLAB HAS REACHED ITS SPECIFIED 28 DAYS STRENGTH.
3. CONCRETE FOR HOUSEKEEPING PAD SHALL BE NORMAL WEIGHT CONCRETE WITH f'c = 3,000 PSI.

TYPICAL DETAIL
CONCRETE ISLAND OR HOUSEKEEPING PAD SLAB-ON-GRADE

8 SCALE: N.T.S.



MULTIPLE OPENINGS (PIPE SLEEVES)

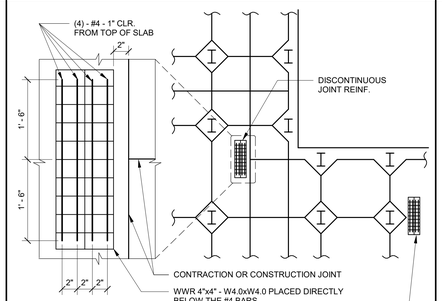


SINGLE DRAIN OR OPENING

NOTES:
1. COORDINATE OPENING SIZE AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONDUIT & PIPES OF ALUMINUM SHALL NOT BE PLACED IN CONCRETE UNLESS EFFECTIVELY COATED W/ PROTECTIVE MATERIAL TO PREVENT CHEMICAL REACTION.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT OPENINGS AT SLAB-ON-GRADE

10 SCALE: N.T.S.

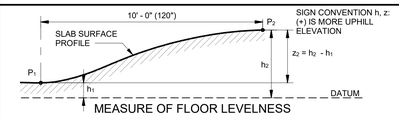


NOTE:
DISCONTINUOUS CONTRACTION OR CONSTRUCTION JOINTS SHOULD BE AVOIDED WHERE POSSIBLE.

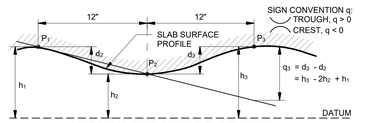
PROVIDE AT DISCONTINUOUS JOINT REINF. AT ALL BLOCKOUT CORNERS THAT DO NOT INTERSECT CONTRACTION JOINTS

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT DISCONTINUOUS JOINT IN SLAB-ON-GRADE

7 SCALE: N.T.S.



MEASURE OF FLOOR LEVELNESS



MEASURE OF FLOOR FLATNESS

NOTES:
1. F_L = LEVELNESS F-NUMBER
   $F_L = \frac{12.5}{(3 \times S_Z) + \bar{z}}$ WHERE $\bar{z}$ = MEAN VALUE OF ALL z FLOOR READINGS. S_Z = STANDARD DEVIATION OF ALL z FLOOR READINGS.
2. F_F = LEVELNESS F-NUMBER
   $F_F = \frac{4.57}{(3 \times S_Q) + \bar{q}}$ WHERE $\bar{q}$ = MEAN VALUE OF ALL z FLOOR READINGS. S_Q = STANDARD DEVIATION OF ALL q FLOOR READINGS
3. F_L AND F_F SHALL BE STATISTICALLY DETERMINED ACCORDING TO ASTM E 1155 "STANDARD TEST METHOD FOR DETERMINING FLOOR FLATNESS AND LEVELNESS USING THE F-NUMBER SYSTEM."
4. REFER TO CONCRETE SPECIFICATIONS FOR REQUIRED F_F AND F_L VALUES.

TYPICAL DETAIL
SLAB SURFACE TOLERANCE

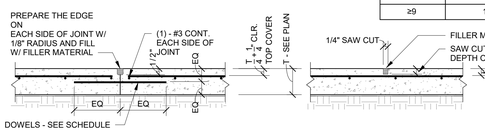
3 SCALE: N.T.S.

DOWEL SCHEDULE

SLAB DEPTH (IN.)	DOWEL DIAMETER (IN.)	TOTAL DOWEL LENGTH (IN.)	DOWEL SPACING CENTER TO CENTER (IN.)
5-6	3/4	16	12
7-8	1	18	12
9-11	1 1/4	18	12

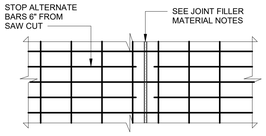
CONTRACTION JOINT SPACING

SLAB THK. (IN.)	JOINT SPACING (FT)
4	11
5	13
6	14
7	16
8	17
≥9	18



CONSTRUCTION JOINT

CONTRACTION JOINT



CONTRACTION JOINT (PLAN VIEW)

CONSTRUCTION JOINT NOTES:
1. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
2. BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDE WITH FORM OIL.
3. SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.
4. ALL DOWELS IN THIS DETAIL SHALL BE SMOOTH BAR DOWELS.

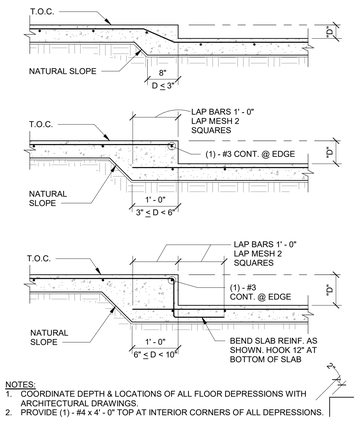
JOINT SPACING NOTE:
1. PROVIDE CONTRACTION AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN CENTERLINE AND AT A MAXIMUM SPACING AS SCHEDULED. ASPECT RATIOS OF SLAB PANELS ENCLOSED BY CONTROL JOINTS SHALL NOT EXCEED 1.5 TO 1.

SAW CONTRACTION JOINT NOTES:
1. MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB.
2. ALL JOINTS SHALL BE CONTINUOUS. DO NOT OFFSET OR STAGGER JOINTS.
3. CLEAN JOINT PRIOR TO FILLING THE JOINT.

JOINT FILLER MATERIAL NOTES:
1. FILLER MATERIAL USED SHALL BE EPOXY RESINS WITH A MINIMUM SHORE "A" HARDNESS OF 80 AND SHALL CONFORM TO ASTM D2240. JOINT FILLER SHALL BE APPROVED BY ENGINEER PRIOR TO APPLICATION. INSTALL JOINT FILLER PER MANUFACTURER'S SPECIFICATIONS.
2. WHERE POSSIBLE, FILLER MATERIAL SHALL BE APPLIED WHEN BUILDING IS UNDER PERMANENT TEMPERATURE CONTROL. THIS SHALL BE EITHER AT THE END OF CONSTRUCTION OF THE COMPLETE BUILDING SHELL, OR A MINIMUM OF 90 DAYS AFTER SLAB CONSTRUCTION.
3. ALL EXPOSED SLAB JOINTS SHALL BE FILLED WITH FILLER MATERIAL.

TYPICAL DETAIL
CONSTRUCTION AND CONTRACTION JOINTS SLAB-ON-GRADE

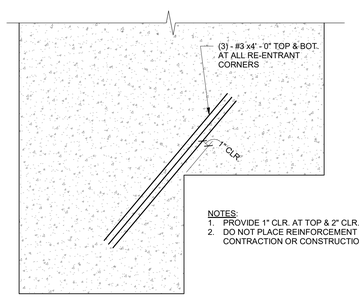
6 SCALE: N.T.S.



NOTES:
1. COORDINATE DEPTH & LOCATIONS OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE (1) - #4 x 4' - 0" TOP AT INTERIOR CORNERS OF ALL DEPRESSIONS.

TYPICAL DETAIL
AT FLOOR DEPRESSIONS

9 SCALE: N.T.S.

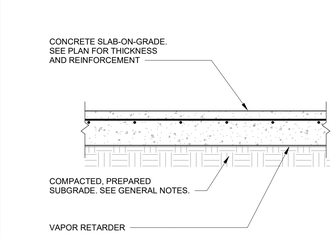


NOTES:
1. PROVIDE 1" CLR. AT TOP & 2" CLR. AT BOT.
2. DO NOT PLACE REINFORCEMENT ACROSS CONTRACTION OR CONSTRUCTION JOINTS.

SCHEMATIC SLAB-ON-GRADE

TYPICAL DETAIL
RE-ENTRANT CORNER BARS AT SLAB-ON-GRADE

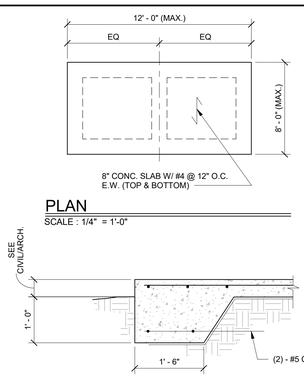
5 SCALE: N.T.S.



NOTE:
1. UNLESS SPECIFIED ELSEWHERE, VAPOR RETARDER SHALL BE A MINIMUM OF 15 MILS THICK (UNLESS THICKER SPECIFIED IN SPECS/ARCH. DRAWINGS) MEETING OR EXCEEDING ASTM E-1745, CLASS C, AND HAVE NO MORE THAN 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E-96.

TYPICAL DETAIL
SLAB-ON-GRADE CONSTRUCTION SUBGRADE PREPARATION

1 SCALE: N.T.S.



PLAN
SCALE : 1/4" = 1'-0"

GENERATOR FOUNDATION

13 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640
STATE OF TEXAS
KHALIL TABAJA
127127
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.03-H
TYPICAL FOUNDATION DETAILS

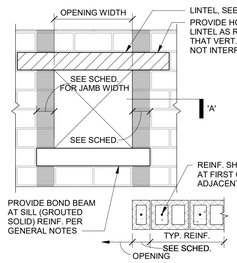
12/3/2025 10:44:16 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_HIGHTOWER_STRUCT_R25.rvt

INTERIOR NON-LOAD BEARING CMU WALL JAMB SCHEDULE							
WALL THICKNESS	SPANNING CMU HEIGHT	OPENING WIDTH					
		< 3' - 0"		< 6' - 0"		< 10' - 0"	
		# OF CELLS	REINF.	# OF CELLS	REINF.	# OF CELLS	REINF.
6"	14' - 0"	1	#4	1	#4	1	#4
6"	22' - 0"	1	#4	2	#4	2	#4
6"	33' - 0"	3	#5	4	#5	7	#5
6"	38' - 0"	5	#5	10	#5	NA	NA
8"	20' - 0"	1	#5	1	#5	1	#5
8"	37' - 6"	2	#5	2	(2)-#5	2	(2)-#5
8"	50' - 0"	3	(2)-#5	4	(2)-#6	5	(2)-#6

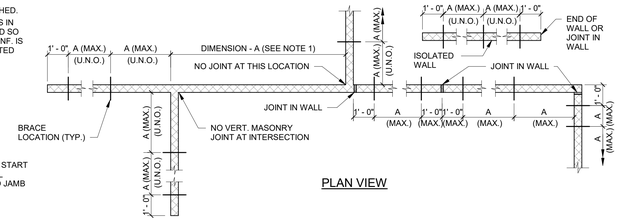
6" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
14' - 0"	NONE
15' - 6"	GROUT @ 48"
20' - 0"	(1)-#4 @ 56"
22' - 0"	(1)-#4 @ 48"
29' - 6"	(1)-#4 @ 24"
33' - 0"	(1)-#4 @ 16"
38' - 0"**	(1)-#4 @ 8"

8" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
20' - 0"	NONE
22' - 0"	GROUT @ 48"
27' - 0"	(1)-#5 @ 64"
33' - 6"	(1)-#5 @ 48"
37' - 6"	(1)-#5 @ 32"
43' - 0"	(2)-#5 @ 40"
50' - 0"	(2)-#5 @ 16"

** ONLY ALLOWED IF MAX OPENING IN WALL IS LESS THAN 6'-0" WITH 7'-0" JAMBS TO THE SIDE OF OPENING



NOTE:
NO CONTROL JOINTS ALLOWED WITHIN SHADED AREA OR ABOVE OR BELOW OPENING



PLAN VIEW

NOTES:
1. ALL INTERIOR CMU WALLS SHALL BE BRACED AT TOP IF DISTANCE BETWEEN INTERSECTING WALLS (DIMENSION- A) IS MORE THAN 26 TIMES THE WALL NOMINAL THICKNESS. THERE SHALL BE NO JOINT BETWEEN WALLS AT THE INTERSECTIONS OR IN BETWEEN THE INTERSECTING WALLS. THERE SHALL BE NO DOORS OR ANY OTHER OPENINGS LARGER THAN 24 INCHES WITHOUT JAMB REINFORCING, SEE SCHEDULE FOR LARGER OPENINGS. MINIMUM LENGTH OF INTERSECTING WALLS SHALL BE 4 FEET.
2. REINFORCE VERTICALLY SPANNING CMU WALLS AS FOLLOWS:
3. AT FOUNDATION, PROVIDE DOWELS TO MATCH SIZE AND SPACING OF VERTICAL BARS.
4. SEE TYPICAL DETAILS ON STRUCTURAL/ARCHITECTURAL DRAWINGS FOR BRACING REQUIREMENTS AT THE TOP OF CMU WALLS. THIS DETAIL SHALL APPLY IF SPECIFIC REINFORCING AND BRACING DETAILS ARE NOT SHOWN ON ARCHITECTURAL/STRUCTURAL DRAWINGS.
5. CONSULT WITH ARCHITECT/ENGINEER WHEN HEIGHT OF WALL EXCEEDS THE HEIGHT SHOWN ABOVE.
6. PROVIDE CONTINUOUS BOND BEAM AT THE TOP OF WALLS. REINFORCE BOND BEAMS WITH (2) - #4 FOR 6" WALLS & (2)-#5 FOR 8" & 12" WALLS, UNLESS NOTED OTHERWISE.
7. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
8. CONTACT E.O.R. FOR CONDITIONS NOT LISTED ON SCHEDULE.

TYPICAL DETAIL - NON-LOAD BEARING INTERIOR/CMU WALLS BRACING AND REINFORCING STEEL

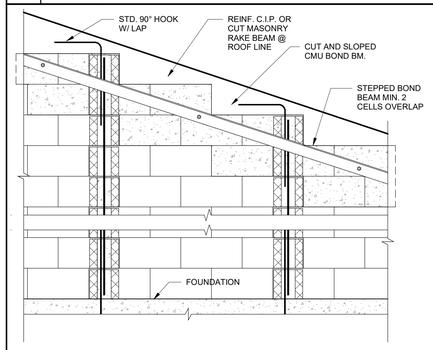
20 SCALE: N.T.S.

	MINIMUM LAP SPLICE LENGTH				REINFORCEMENT OFF CENTER	HOOKED BAR DEVELOPMENT LENGTH
	REINFORCEMENT AT CENTER OF WALL					
BAR SIZE	6" CMU	8" CMU	10" CMU	12" CMU	ANY	ANY
3	12	12	12	12	17	5
4	18	13	12	12	29	7
5	28[4]	20	16	13	45	9
6	51[4]	37	29	24	54	10
7	NA[5]	50	39	32	63	12
8	NA[5]	72	58	48	72	13

NOTES:
1. TABLE FOR USE WITH GRADE 60 UNCOATED REINF. BARS IN CMU (fm = 2000 psi)
2. BARS SPLICED BY NON-CONTACT LAP SPLICE SHALL NOT BE SPACED FARTHER APART THAN .ONE-FIFTH THE REQUIRED LAP LENGTH, OR 8".
3. LAP LENGTHS PER IBC 2021.
4. PERMITTED ONLY IF ALL MORTAR FINS ARE REMOVED ROM THE CELL TO BE GROUTED.
5. BAR EXCEEDS MAX. ALLOWABLE SIZE.
6. DEVELOPMENT LENGTH OF EPOXY COATED BARS SHALL BE TAKEN AS 1.5 TIMES THE VALUES IN THE CHART.

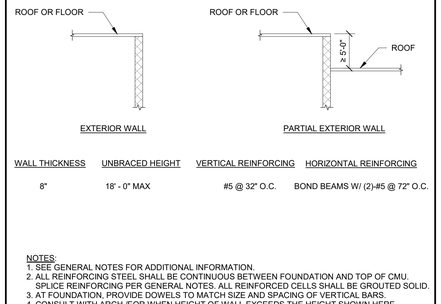
TYPICAL DETAIL MASONRY TENSION LAP SPLICE (INCHES)

4 SCALE: N.T.S.



TYPICAL DETAIL MASONRY EDGE AT SLOPES AND GABLES

19 SCALE: N.T.S.

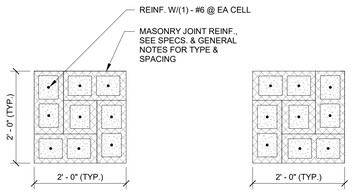


WALL THICKNESS	UNBRACED HEIGHT	VERTICAL REINFORCING	HORIZONTAL REINFORCING
8"	18' - 0" MAX	#5 @ 32" O.C.	BOND BEAMS W/ (2)-#5 @ 72" O.C.

NOTES:
1. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
2. ALL REINFORCING STEEL SHALL BE CONTINUOUS BETWEEN FOUNDATION AND TOP OF CMU. SPLICE REINFORCING PER GENERAL NOTES. ALL REINFORCED CELLS SHALL BE GROUTED SOLID.
3. AT FOUNDATION, PROVIDE DOWELS TO MATCH SIZE AND SPACING OF VERTICAL BARS.
4. CONSULT WITH ARCH./EOR WHEN HEIGHT OF WALL EXCEEDS THE HEIGHT SHOWN HERE.
5. PROVIDE CONTINUOUS BOND BEAMS AT THE TOP OF WALLS. REINFORCE BOND BEAMS WITH (2) - #5, UNLESS NOTED OTHERWISE.

TYPICAL DETAIL - EXTERIOR CMU WALL

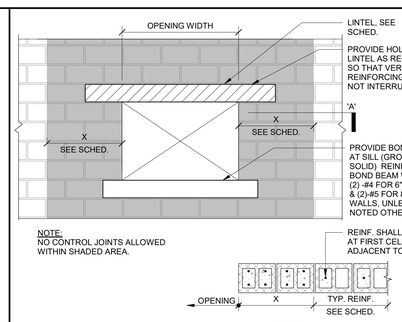
15 SCALE: N.T.S.



ALTERNATE COURSES

TYPICAL DETAIL MASONRY COLUMNS

11 SCALE: 3/4" = 1'-0"



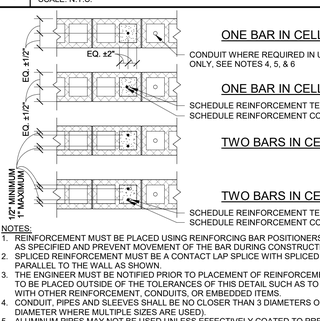
NOTE:
NO CONTROL JOINTS ALLOWED WITHIN SHADED AREA.

SECTION 'A'

OPENING SIZE	JAMB WIDTH 'X'	JAMB REINF.
≤ 4' - 0"	2' - 0"	(2) - #5 @ 8" O.C.
≤ 10' - 0"	3' - 0"	(2) - #5 @ 8" O.C.

CMU JAMB REINFORCING SCHEDULE

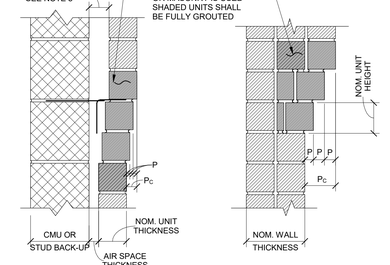
7 SCALE: N.T.S.



NOTES:
1. REINFORCEMENT MUST BE PLACED USING REINFORCING BAR POSITIONERS THAT LOCATE THE BAR AS SPECIFIED AND PREVENT MOVEMENT OF THE BAR DURING CONSTRUCTION.
2. SPLICED REINFORCEMENT MUST BE A CONTACT LAP SPLICE WITH SPLICED BARS ALIGNED PARALLEL TO THE WALL AS SHOWN.
3. THE ENGINEER MUST BE NOTIFIED PRIOR TO PLACEMENT OF REINFORCEMENT THAT IS REQUIRED TO BE PLACED OUTSIDE OF THE TOLERANCES OF THIS DETAIL SUCH AS TO AVOID INTERFERENCE WITH OTHER REINFORCEMENT, CONDUITS, OR EMBEDDED ITEMS.
4. CONDUIT, PIPES AND SLEEVES SHALL BE NO CLOSER THAN 3 DIAMETERS ON CENTER (USE LARGER DIAMETER WHERE MULTIPLE SIZES ARE USED).
5. ALUMINUM PIPES MAY NOT BE USED UNLESS EFFECTIVELY COATED TO PREVENT CHEMICAL REACTION.
6. PIPES SHALL NOT BE EMBEDDED IN MASONRY WHEN:
   (a) CONTAINING LIQUIDS, GAS, OR VAPORS AT A TEMPERATURE HIGHER THAN 150°F (66°C).
   (b) UNDER PRESSURE IN EXCESS OF 55 PSI (379 KPA).
   (c) CONTAINING WATER OR OTHER LIQUIDS SUBJECT TO FREEZING.

TYPICAL DETAIL CMU VERTICAL BAR PLACEMENT

3 SCALE: N.T.S.



AT SINGLE WYTHE AT MULTI WYTHE

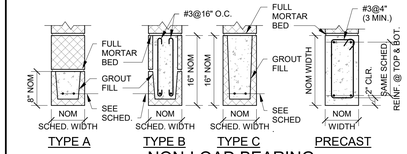
NOTES:
1. P_C INDICATES ALLOWABLE TOTAL HORIZONTAL PROJECTION OF CORBELLING.
2. P INDICATES ALLOWABLE PROJECTION OF ONE UNIT.
3. P_C SHALL BE LESS THAN OR EQUAL TO ONE-HALF OF NOMINAL UNIT THICKNESS.
4. P SHALL BE LESS THAN OR EQUAL TO THE LESSER OF ONE-HALF OF NOMINAL UNIT HEIGHT OR ONE-THIRD OF NOMINAL UNIT THICKNESS.
5. THE BACK SURFACE OF THE CORBELLED SECTION SHALL REMAIN WITHIN 1" OF PLANE.

TYPICAL DETAIL CORBELS AT MASONRY VENEER

18 SCALE:N.T.S.

CLEAR SPAN	REINFORCING REQUIREMENTS IN NOMINAL LINTEL SECTION								
	4x8	6x8	6x16	8x8	8x16	10x8	10x16	12x8	12x16
3-4	1-#3	1-#3	—	1-#3	—	2-#3	—	2-#3	—
4-0	1-#3	1-#4	—	2-#3	—	2-#3	—	2-#4	—
4-8	1-#4	1-#4	—	2-#4	—	2-#4	—	2-#4	—
5-4	1-#4	2-#4	—	2-#4	—	2-#4	2-#3	2-#5	—
6-0	1-#5	2-#4	1-#4	2-#4	2-#3	2-#5	2-#4	2-#5	2-#4
6-8	N/A	N/A	1-#5	N/A	2-#4	N/A	2-#4	2-#6	2-#4
7-4	↓	↑	1-#5	↑	2-#4	↓	2-#4	N/A	2-#5
8-0	↓	↑	1-#6	↑	2-#4	↓	2-#5	↑	2-#5
8-8	↓	↑	1-#6	↑	2-#5	↓	2-#5	↑	2-#6
9-4	N/A	N/A	1-#7	N/A	2-#5	N/A	2-#6	N/A	2-#6

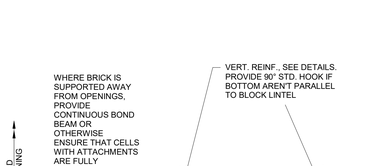
NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR SIZE & LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING AT EACH JAMB FOR EACH FOOT OF CLEAR SPAN BUT NOT LESS THAN 8". REINFORCEMENT SHALL PROJECT A MINIMUM OF 6" ONTO THE BEARING.
3. MINIMUM MASONRY COMPRESSIVE STRENGTH OF GROUTED PRISM F 'M = 2000 PSI.
4. LINTELS SCHEDULED AT 16" HIGH MAY BE EITHER TYPE "B" OR TYPE "C" AS DETAILED BELOW.
5. PRECAST CONCRETE LINTELS AS SHOWN MAY BE USED WITH ARCHITECT'S APPROVAL F ' C = 3000 PSI



TYPE A TYPE B TYPE C PRECAST

NON-LOAD BEARING BLOCK LINTEL SCHEDULE

14 SCALE: N.T.S.



GALV. OR STAINLESS THREADED ROD W/ HILTI HY-270 EPOXY. PROVIDE AT SCHEDULE SPACING & AT ENDS

GALV. OR STAINLESS THREADED ROD W/ HILTI HY-270 EPOXY. PROVIDE AT SCHEDULE SPACING & AT ENDS

TYPE 1 TYPE 2

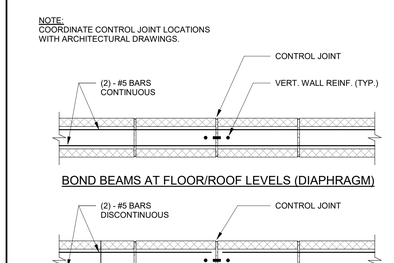
TYPE 1 SCHEDULE					
MAX HEIGHT OF SUPPORTED BRICK	ANGLE	THREADED ROD			
	t	D1	DIA.	EMBEDMENT	SPACING
3'-0"	1/4"	4"	3/8"	3 3/8"	3'-0"
5'-0"	1/4"	4"	1/2"	4 1/2"	3'-0"
8'-0"	5/16"	5"	1/2"	4 1/2"	2'-6"
10'-0"	5/16"	5"	5/8"	5 5/8"	2'-0"
12'-0"	5/16"	5"	5/8"	5 5/8"	1'-4"

TYPE 2 SCHEDULE							
MAX HEIGHT OF SUPPORTED BRICK	ANGLE	THREADED ROD					
	t	D1	D2	DIA.	EMBEDMENT	SPACING	
10'-0"	5/16"	4"	4"	3/8"	3 3/8"	3'-0"	
12'-0"	3/8"	4"	4"	1/2"	4 1/2"	3'-0"	
15'-0"	3/8"	4"	4"	1/2"	4 1/2"	2'-6"	
20'-0"	3/8"	4"	4"	5/8"	5 5/8"	2'-0"	
25'-0"	3/8"	5"	4"	5/8"	5 5/8"	2'-0"	
30'-0"	3/8"	5"	4"	5/8"	6 3/4"	1'-4"	
35'-0"	7/16"	5"	4"	5/8"	6 3/4"	1'-4"	

NOTES:
1. WHERE TWO SOLUTIONS ARE PROVIDED FOR A GIVEN HEIGHT, CONTRACTOR MAY CHOOSE BETWEEN TYPE 1 & TYPE 2.
2. MAX. HEIGHT OF SUPORTED BRICK SHALL BE FROM TOP OF OPENING TO TOP OF WALL UNLESS ANOTHER OPENING OF GREATER OR EQUAL WIDTH IS PROVIDED ABOVE THE OPENING.
3. SEE TYPICAL DETAIL " ANGLE OR BENT PLATE SUBSTITUTION FOR OPTIONAL ALTERNATES.

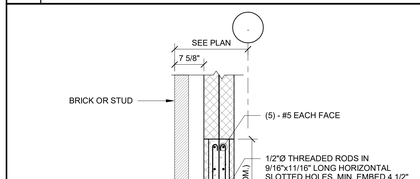
TYPICAL DETAIL SHELF ANGLE AT CMU

9 SCALE: N.T.S.



TYPICAL BOND BEAM AT CONTROL JOINTS

6 SCALE: N.T.S.



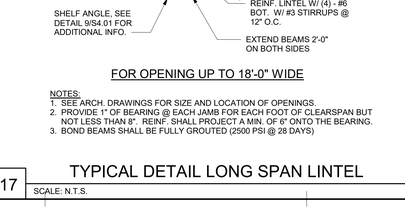
TYPE 1 AT 8" CMU TYPE 2 AT 8" CMU TYPE 3 AT 8" CMU

BOND BEAM MAX CLEAR SPAN SCHEDULE					
CMU	WALL GROUT SPACING	CARRIED BRICK H (FT)	TYPE 1 RUNNING BOND	TYPE 2 RUNNING BOND	TYPE 3 RUNNING BOND
8"	>16" O.C.	12	4'-8"	8'-0"	12'-0"
		20	NA	6'-8"	11'-4"
		35	NA	5'-4"	10'-4"

NOTES:
1. SEE ARCH. DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING @ EACH JAMB FOR EACH FOOT OF CLEARSPAN BUT NOT LESS THAN 8". REINF. SHALL PROJECT A MIN. OF 6" ONTO THE BEARING CMU.
3. BOND BEAMS SHALL BE FULLY GROUTED (2500 PSI @ 28 DAYS).
4. THE #4 FACE BARS ARE ONLY REQUIRED AT EXTERIOR CMU WALLS.

TYPICAL DETAIL BLOCK LINTEL AT EXTERIOR OR LOAD BEARING WALLS CARRYING BRICK

13 SCALE: N.T.S.

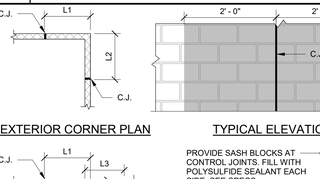


FOR OPENING UP TO 18'-0" WIDE

NOTES:
1. SEE ARCH. DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING @ EACH JAMB FOR EACH FOOT OF CLEARSPAN BUT NOT LESS THAN 8". REINF. SHALL PROJECT A MIN. OF 6" ONTO THE BEARING.
3. BOND BEAMS SHALL BE FULLY GROUTED (2500 PSI @ 28 DAYS)

TYPICAL DETAIL LONG SPAN LINTEL

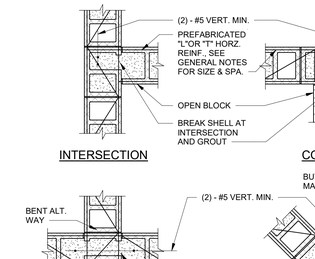
17 SCALE: N.T.S.



NOTE:
OMIT CORNER BARS AT CONTROL JOINT LOCATIONS AS INDICATED ON TYPICAL CMU ELEVATION.

TYPICAL CMU BOND BEAM REINFORCEMENT

5 SCALE: N.T.S.



CMU WALL INTERSECTIONS

2 SCALE: N.T.S.

NOTES:
1. CONTRACTOR SHALL OBTAIN ARCHITECT'S APPROVAL OF JOINT LOCATIONS, WHICH SHALL NOT EXCEED THE MINIMUM OF 1.5 TIMES THE WALL HEIGHT OR 20'-0".
2. HORIZONTAL REINFORCING AT FLOOR AND ROOF LINES SHALL BE CONTINUOUS THRU JOINT.
3. CONCRETE BLOCK SHOWN - BRICK SIMILAR.
4. SAWCUT BLOCK OR BRICK AS REQUIRED.
5. AT EXTERIOR CORNERS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0".
6. AT EXTERIOR "T" INTERSECTIONS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0", L2 + L3 ≤ 20' - 0" AND L1 + L3 - WALL THICKNESS ≤ 20' - 0"

MASONRY WALL CONTROL JOINT

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

FBISD
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16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
127127
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S4.01-H
TYPICAL CMU WALL DETAILS

Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_HIGHTOWER_STRUCT_R25.rvt
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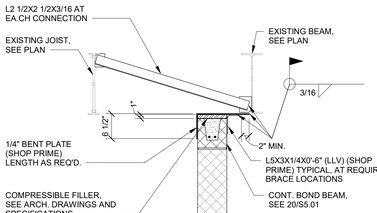


NOTE:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.

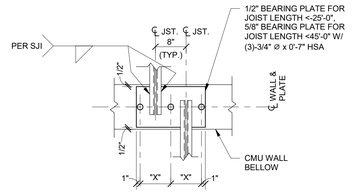
TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
SIDE CONNECTION TO STEEL BEAM

15 SCALE: 3/4" = 1'-0"

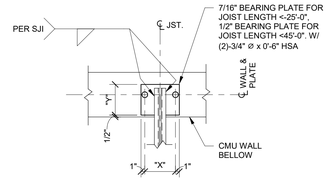
NOTES:

"X" DIMENSION SHALL BE AS FOLLOWS:
8" FOR K1-12 AND LH02-08
9" FOR LH07-17 & DLH10-17
14" FOR DLH15-25

"Y" DIMENSION SHALL BE AS FOLLOWS:
6" FOR 8" CMU
7" FOR 10" CMU
8" FOR 12" CMU



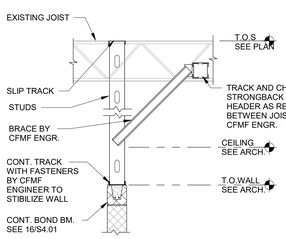
JOIST BOTH SIDES



JOIST ONE SIDES

TYPICAL DETAIL JOIST BEARING PLATE

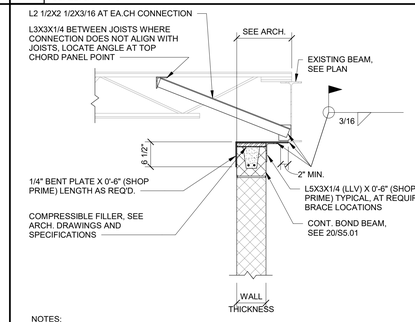
3 SCALE: 3/4" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERESECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. CFMF ENGINEER MAY DESIGN BRACES TO OCCUR AT MAX SPACING OR AT EACH PURLIN. IN EITHER SCENARIO DESIGN BRACE TO STABALIZE CMU AND LIGHT GAUGE WALL UNDER 5 PSF LOAD ALONG FULL HEIGHT.

TYPICAL DETAIL
BRACING AT ROOF STEEL JOISTS
(ALTERNATIVE)

18 SCALE: 1/2" = 1'-0"



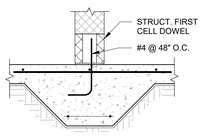
NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S5.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
TOP CONNECTION TO STEEL BEAM

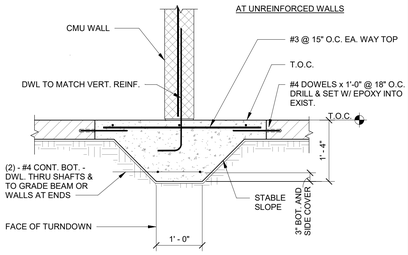
14 SCALE: 3/4" = 1'-0"

FOUNDATION TYPE							
	4" CMU	6" CMU			8" CMU		
GROUT	NONE	NONE	AT 48"	AT 24"	NONE	AT 48"	AT 24"
WALL HEIGHT (FT)							
0-10	1	1	1	1	1	1	1
12	1	1	1	1	1	1	2
14	1	1	1	2	1	2	2
16	1	1	2	2	2	2	2
18	1	2	2	2	2	2	2
20	2	2	2	2	2	2	2

NOTE :
THIS DETAIL APPLIES AT ALL CMU WALL LOCATIONS WITHOUT GRADE BEAMS. SEE NOTES ON DETAIL 20/S5.01 FOR BRACING INFORMATION.

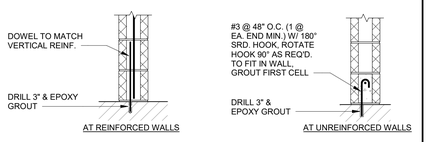


AT UNREINFORCED WALLS



NOTE:
SEE PLAN FOR LOCATIONS MARKED "TURNDOWN", T.D. OR OTHERWISE NOTED.

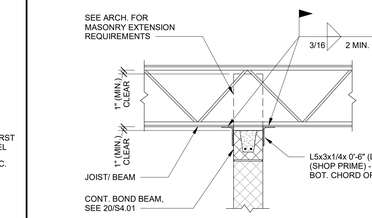
TYPE 2 DETAIL



TYPE 1 DETAIL

TYPICAL DETAIL
EXISTING FOUNDATION AT NON-LOAD
BEARING CMU WALL

9 SCALE: 3/4" = 1'-0"

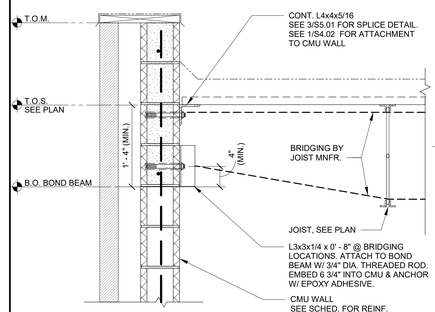


NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. THIS DETAIL APPLIES AT NEW AND EXISTING FRAMING.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
TOP CONNECTION PERPENDICULAR
TO BAR JOISTS

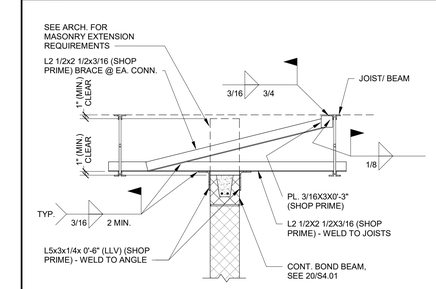
6 SCALE: 3/4" = 1'-0"

NOTES:
1. SEE 1/S4.02 FOR INFO. NOT SHOWN.



ROOF FRAMING DETAIL
AT LOAD BEARING CMU WALLS

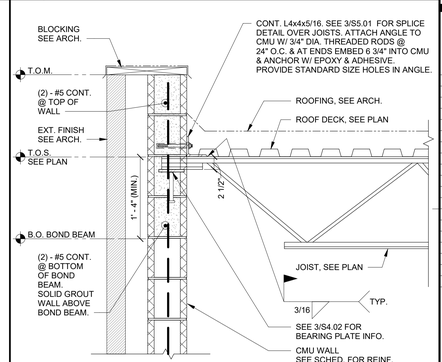
2 SCALE: 1" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. THIS DETAIL APPLIES AT NEW AND EXISTING FRAMING.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
TOP CONNECTION PARALLEL TO BAR JOISTS

5 SCALE: 3/4" = 1'-0"



ROOF FRAMING DETAIL
AT LOAD BEARING CMU WALLS

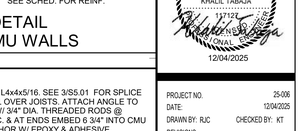
1 SCALE: 1" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE • 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640



12/04/2025

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S4.02-H
TYPICAL CMU WALL
DETAILS

Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_HIGHTOWER_STRUCT_R25.rvt
12/3/2025 10:44:19 AM

STRUCTURAL MATRIX
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3333 Hurricane Ln, Missouri City, TX 77459

HIGHTOWER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Mark Stockard Engineering
TBPE Firm Registration No. 2340
STATE OF TEXAS
MARK T. STOCKARD
103111
LICENSED PROFESSIONAL ENGINEER
12/04/2025

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DRAWN BY: RJC CHECKED BY: KT

REVISIONS

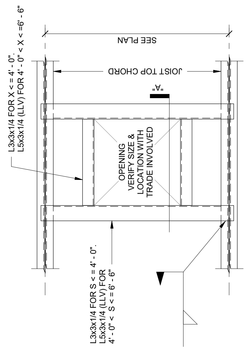
No.	Date	Description
1	12/04/2025	100% CD

100% CD

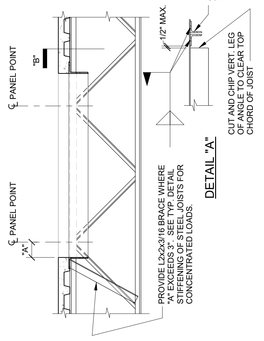
S5.01-H
TYPICAL STEEL
FRAMING DETAILS

TYPICAL DETAIL
OPEN WEB STEEL JOIST
ROOF OPENING

1 SCALE: N.T.S.



PLAN

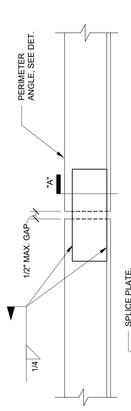


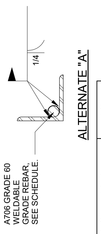
DETAIL "A"

DETAIL "B"

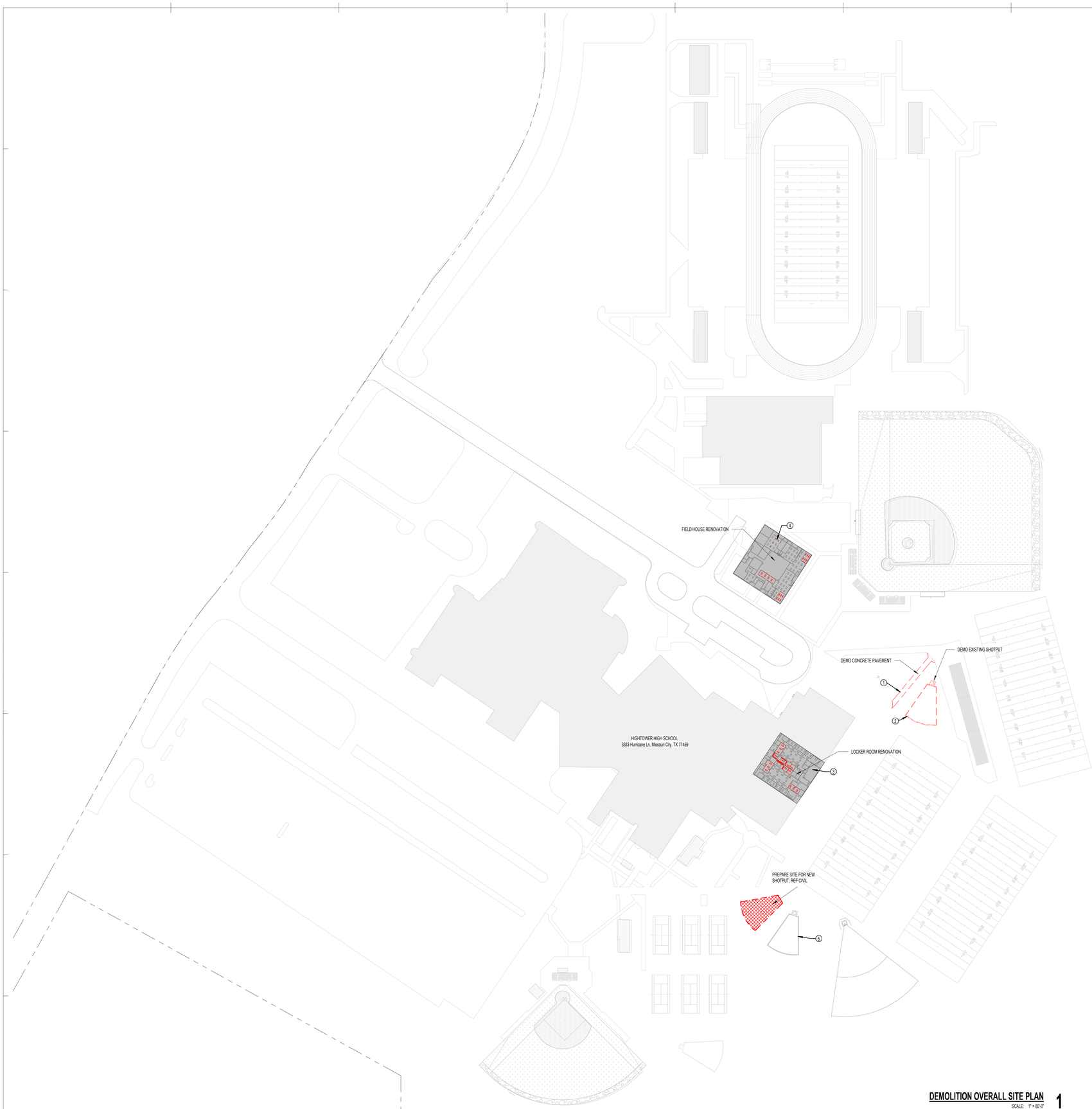
TYPICAL DETAIL
SPLICE AT PERIMETER ROOF ANGLE

3 SCALE: N.T.S.





PERIMETER ANGLE	SPLICE MEMBER		LENGTH
	PLATE	REBAR	L(INCH)
L4x4x5/16	1/2x4	#9 BAR	12"



DEMOLITION OVERALL SITE PLAN 1
SCALE: 1" = 80'-0"

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER; DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION KEY NOTES

TAG #	NOTE
1	DEMO EXISTING PAVEMENT
2	DEMO EXISTING SHOTPUT
3	RENOVATE GYM LOCKERS; REF SHEET AD2.01-H
4	RENOVATE FIELDHOUSE; REF SHEET AD2.02-H
5	PREPARE SITE FOR NEW SHOTPUT; REF CIVIL

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- DEMO KEY NOTE
- DEMO EXISTING FINISH FLOORING



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

HIGHTOWER HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

100% CD

AD1.00-H
DEMOLITION SITE PLAN

HIGHTOWER HIGH SCHOOL

12/5/2025 1:04:27 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_HIGHTOWER_ARCH_H_R25.rvt



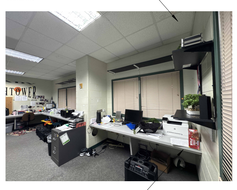
01 DEMO GYM LOCKERS RCP 2

SCALE: 1/8" = 1'-0"



DEMO GYM LOCKERS PLAN 1

SCALE: 1/8" = 1'-0"

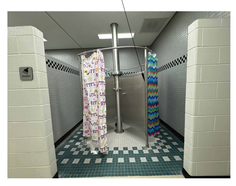


DEMO EXISTING COUNTER TOP

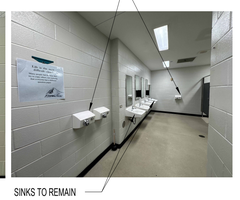
DEMO EXISTING CEILING TILES, TRACK GRID AND LIGHTS TO REMAIN



DEMO EXISTING LOCKERS AND BENCHES, CONCRETE BASE TO REMAIN



DEMO EXISTING TOWER SHOWER. TERMINATE AND CAP TOWER AT CEILING

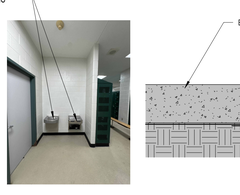


SINKS TO REMAIN

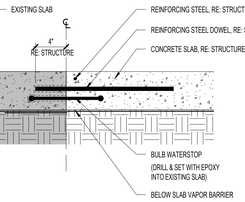
DEMO EXISTING HAND DRYERS



WALL MOUNTED PLUMBING FIXTURES AND TOILET PARTITIONS TO REMAIN



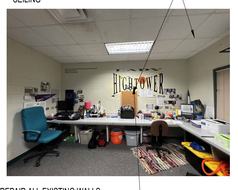
DEMO DRINKING WATER FOUNTAINS



DEMO EXISTING TOWER SHOWER AND GYP CEILING IN SHOWER AREA. TERMINATE AND CAP TOWER AT CEILING

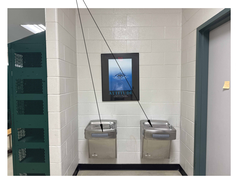


DEMO EXISTING CEILING IN SHOWER AREA. TERMINATE AND CAP TOWER AT CEILING

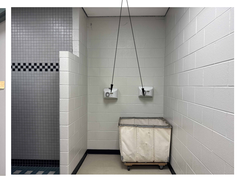


CLEAN AND REPAIR ALL EXISTING WALLS TO RECEIVE NEW SCHEDULED PAINT. TAPE AROUND EXISTING GRAPHICS

DEMO DRINKING WATER FOUNTAINS



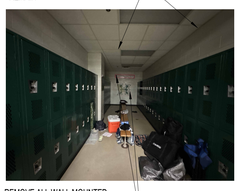
DEMO EXISTING HAND DRYERS



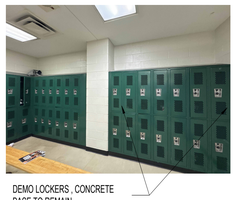
DEMO EXISTING CEILING TILES, TRACK GRID AND LIGHTS TO REMAIN



DEMO EXISTING CEILING TILES, TRACK GRID AND LIGHTS TO REMAIN



REMOVE ALL WALL MOUNTED SIGNS AND GRAPHICS. CLEAN AND REPAIR EXISTING WALLS AND REPAINT AS SCHEDULED. FOR GRAPHICS ON WALL, TAPE AROUND AND PAINT.

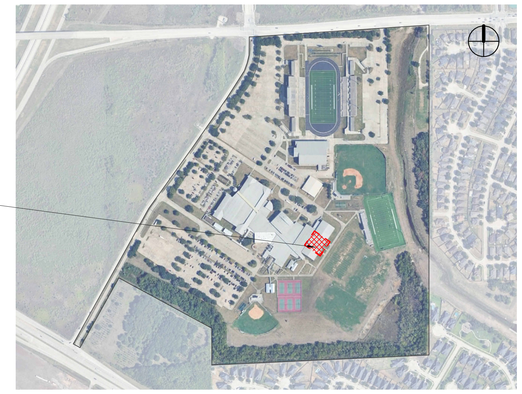


DEMO LOCKERS , CONCRETE BASE TO REMAIN

SECTION DETAIL - NEW SLAB AT EXISTING SLAB 4

SCALE: 1 1/2" = 1'-0"

RENOVATE GYM LOCKER ROOMS



GENERAL DEMOLITION NOTES

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5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
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12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
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15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
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DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- DEMO KEY NOTE
- DEMO EXISTING FINISH FLOORING

DEMOLITION KEY NOTES

TAG#	NOTE
1	DEMO EXISTING DRINKING FOUNTAIN. DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU.
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5	DEMO EXISTING COUNTERTOP. REPAIR AND REPAINT WALLS.
6	DEMO EXISTING BENCHES. REPAIR, CLEAN CONCRETE FLOOR AND PREP FOR NEW RESINOUS FLOOR.
7	SAWCUT AND REMOVE EXISTING SLAB. REPLACE UNDERSLAB VAPOR BARRIER AND OVER LAP WITH EXISTING BARRIER ON ALL SIDES. TAPE BARRIER TO ENSURE CONTINUOUS BARRIER. REFERENCE SLAB REPAIR DETAIL 4/AD2.01-H
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pfluger
office: 713.222.1141 | fax: 713.222.1174
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BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3333 Hurricane Ln, Missouri City, TX 77459

HIGHTOWER HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
30113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

Date	Description

100% CD

AD2.01-H

01 DEMO FLOOR PLAN GYM

HIGHTOWER HIGH SCHOOL

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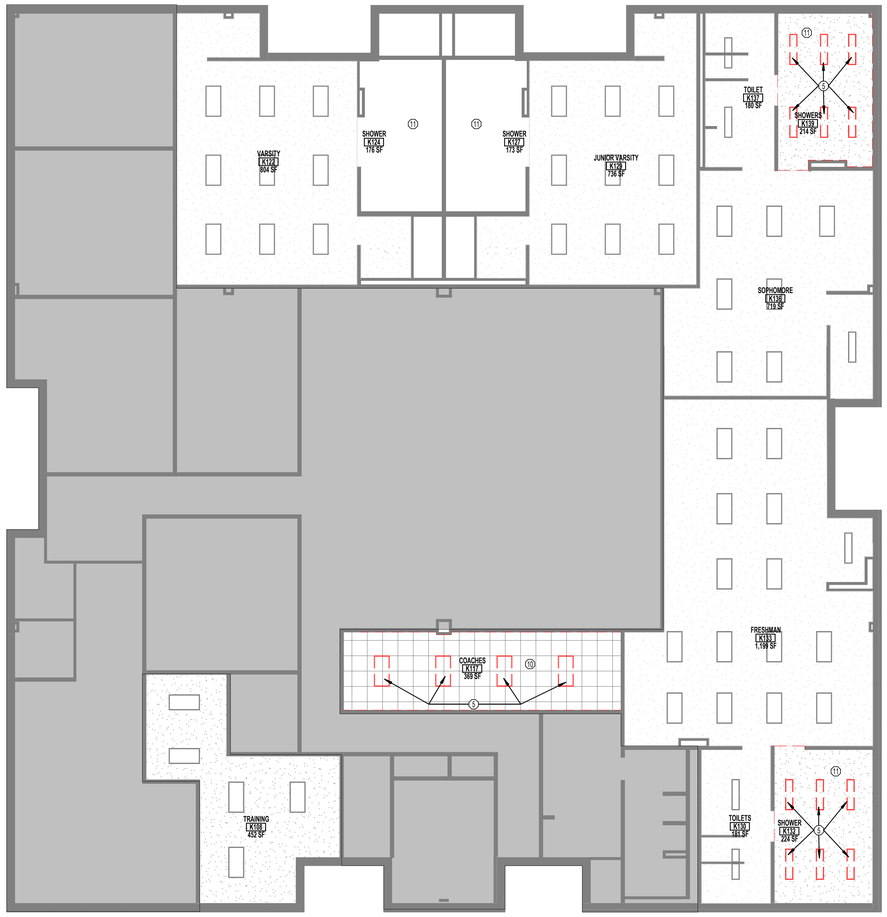
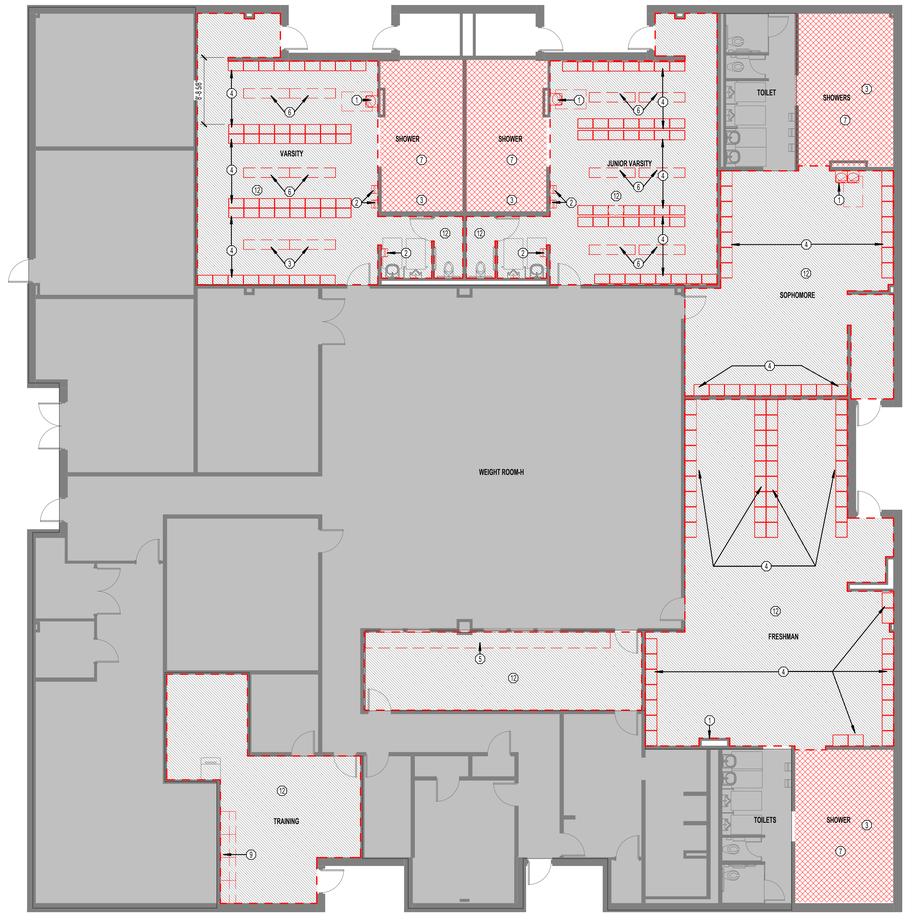


DEMO REFLECTED CEILING PLAN FIELD HOUSE 1

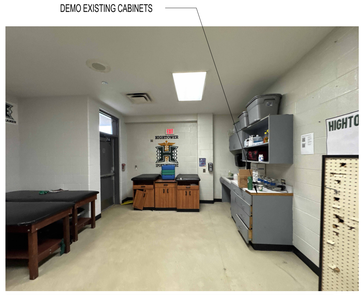
SCALE: 1/8" = 1'-0"

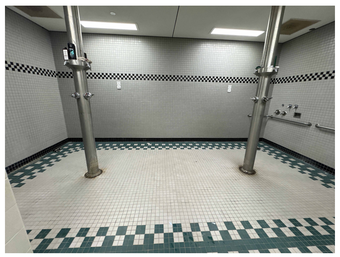


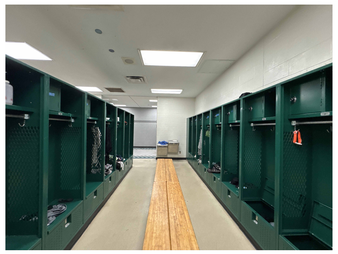
DEMO HIGHTOWER FIELD HOUSE 2

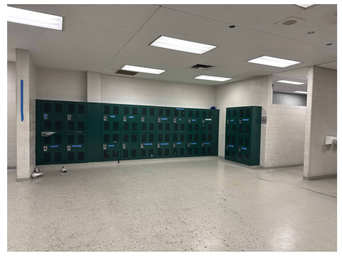
SCALE: 1/8" = 1'-0"

DEMO EXISTING CABINETS

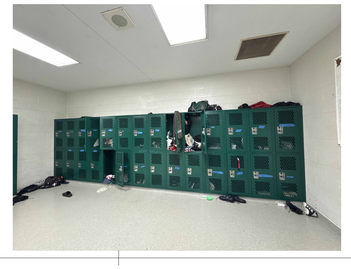




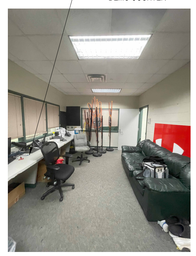




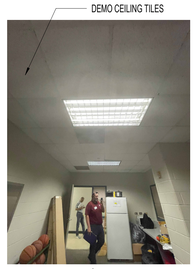




DEMO COUNTER



DEMO CEILING TILES





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BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3333 Hurricane Ln, Missouri City, TX 77459

HIGHTOWER HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

Date	Description

100% CD

AD2.02- H

01 DEMO FLOOR PLAN FIELD HOUSE

HIGHTOWER HIGH SCHOOL

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ABBREVIATIONS

A	
A.F.F.	ABOVE FINISH FLOOR
ACC.FL.	ACCESS FLOOR
A.P.	ACCESS PANEL
ACOUS.	ACOUSTICAL
ACT.	ACOUSTICAL CEILING TILE
ADD.	ADDENDUM
ADJNT.	ADJACENT
ADJ.	ADJUSTABLE
ADMIN.	ADMINISTRATION
AGG.	AGGREGATE
A/C	AIR CONDITIONING
ALT.	ALTERNATE, ALTERNATIVE
ALUM.	ALUMINUM
ANCH.	ANCHOR, ANCHORAGE
ANOD.	ANODIZED
APPROX.	APPROXIMATE
ARCH.	ARCHITECT
A.D.	AREA DRAIN
ASPH.	ASPHALT
AUTO.	AUTOMATIC
B	
BSMT.	BASEMENT
BM.	BENCH MARK
BTWN.	BETWEEN
BEV.	BEVEL
BIT.	BITUMINOUS
BLK.	BLOCKING
BD.	BOARD
B.S.	BOTH SIDES
B.W.	BOTH WAYS
B.O.D.	BOTTOM OF DECK
BRK.	BRACKET
BRZ.	BRONZE
BLDG.	BUILDING
BUR.	BUILT UP ROOFING
C	
CAB.	CABINET
CPT.	CARPET
CSMT.	CASEMENT
CIP.	CAST IN PLACE CONCRETE
C.B.	CATCH BASIN
CLG.	CEILING
CLG. HT.	CEILING HEIGHT
CEM.	CEMENT
CL	CENTERLINE
CT	CERAMIC TILE
C.O.	CLEAN OUT
CLR.	CLEAR(ANCE)
CLO.	CLOSET
COL.	COLUMN
COMPT.	COMPARTMENT
COMPR.	COMPRESS
COMP.	COMPUTER
CONC.	CONCRETE
CMU.	CONCRETE MASONRY UNIT
CONST.	CONSTRUCTION
CONT	CONTINUOUS
CONTR.	CONTRACT/CONTRACTOR
CFCI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
C.J.	CONTROL JOINT
CPR.	COPPER
CG.	CORNER GUARD
CORR.	CORRIDOR
CTR.	COUNTER
C. FL.	COUNTER FLASHING
CTR. SNK.	COUNTER SUNK
CRS.	COURSE
CU. FT.	CUBIC FEET
CU. YD.	CUBIC YARD
D	
D.P.	DAMP PROOFING
DPR.	DAMPER
DL.	DEAD LOAD
DEMO	DEMOLISH, DEMOLITION
DEP.	DEPRESS
DTL.	DETAIL
DIAG.	DIAGONAL
DIAM.	DIAMETER
DW.	DISH WASHER
DISPR.	DISPENSER
DIV.	DIVISION
DR.	DOOR
DBL.	DOUBLE
DH.	DOUBLE HUNG
DN.	DOWN
DS.	DOWNSPOUT
DRN.	DRAIN
DRN. BD.	DRAIN BOARD
DRN. TL.	DRAIN TILE
DWR.	DRAWER
DWG.	DRAWING
DF	DRINKING FOUNTAIN
E	
EA	EACH
EA. FA.	EACH FACE
E.	EAST
ELEC.	ELECTRIC
EDF.	ELECTRIC DRINKING FOUNTAIN
EP.	ELECTRICAL PANEL
ELEV.	ELEVATION
EMERG.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EXCAV.	EXCAVATE
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EJ	EXPANSION JOINT
EXT.	EXTERIOR
EPS	EXTRUDED POLY STYRENE
F	
FAB	FABRICATED
FV.	FIELD VERIFY
FIN.	FINISH
FIN. FLR.	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FA.	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FE.	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHS.	FIRE HOSE CABINET
FPL.	FIRE PLACE
FP.	FIRE PROOFING
FRC.	FIRE RESISTANT COATING
F. RT.	FIRE RETARDANT
FLSHG.	FLASHING
FLEX	FLEXIBLE
FLR.	FLOOR
FLR. C.O.	FLOOR CLEAN OUT
FD.	FLOOR DRAIN
FLR. JT.	FLOOR JOINT
FLR. PLT.	FLOOR PLATE
FLOUR.	FLUORESCENT
FTG.	FOOTING
FRMG.	FRAMING
FBO.	FURNISHED BY OWNER
FURR.	FURRED (ING)
FUT.	FUTURE
FRG.	REFRIGERATOR
G	
GALV.	GALVANIZED
GSKT.	GASKET
GA.	GAUGE
GC.	GENERAL CONTRACTOR
GLS.	GLASS
GL. BLK.	GLASS BLOCK
GL. CMU.	GLAZED CONCRETE MASONRY UNIT
GST.	GLAZED STRUCTURAL TILE
GB.	GRAB BAR
GBLK.	GREEN BLOCK
GRT.	GROUT
GYPCTE.	GYPCRETE
GYP. PL.	GYPSUM PLASTER
GYP. T.	GYPSUM TILE
GWB.	GYPSUM WALL BOARD
H	
HD. BD.	HARD BOARD
HD. JT.	HARD JOINT
HDW.	HARDWARE
HDWD.	HARDWOOD
HDR.	HEADER
HTG.	HEATING
HVAC.	HEATING, VENTILATION, AIR CONDITIONING
HVY. D.	HEAVY DUTY
HT.	HEIGHT
HC.	HOLLOW CORE
HM.	HOLLOW METAL
HORIZ.	HORIZONTAL
HB.	HOSE BIB
HWH.	HOT WATER HEATER
HR.	HOUR
I	
INCL.	INCLUDE
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INTERM.	INTERMEDIATE
INV.	INVERT
J	
JAN.	JANITOR
J.C.	JANITORS CLOSET
JT.	JOINT
JF.	JOINT FILLER
JST.	JOIST
K	
K. PL.	KICK PLATE
KIT.	KITCHEN
K.O.	KNOCK OUT
L	
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LH.	LEFT HAND
LC.	LIGHT CONTROL
LT. INT.	LIGHT INSIGHT
LT.	LIGHT, RE: ELECTRICAL
LT. CONC.	LIGHTWEIGHT CONCRETE
LMSTN	LIMESTONE
LTL.	LINTEL
LL.	LIVE LOAD
LB.	LOAD BEARING
LPT.	LOW POINT
M	
MH.	MAN HOLE
MFR.	MANUFACTURE
MRB.	MARBLE
MB	MARKER BOARD
MAS.	MASONRY
M.O.	MASONRY OPENING
MU	MASONRY UNIT
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP	MECHANICAL/ELECTRICAL/ PLUMBING
M.C.	MEDICINE CABINET
MEMB.	MEMBRANE
MTL.	METAL
MFD.	METAL FLOOR DECK
MRD.	METAL ROOF DECK
M. THR.	METAL THRESHOLD
MWK.	MILLWORK
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MOD.	MODULAR
MLDG.	MOLDING
MT.	MOUNT
MTD.	MOUNTED
MOV.	MOVE
MULL.	MULLION
N	
NAT.	NATURAL
NR.	NOISE REDUCTION
NOM.	NOMINAL
N.	NORTH
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
O	
OC.	ON CENTER
OCEW	ON CENTER EACH WAY
OPG.	OPENING
OPP.	OPPOSITE
OH	OPPOSITE HAND
OH.	OPPOSITE HAND
O.A.	OVER ALL
OVRHD.	OVER HEAD
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	
PNT.	PAINT
PTD.	PAINTED
PNL.	PANEL
PB.	PANIC BAR
PTDIS.	PAPER TOWEL DISPENSER
PTR.	PAPER TOWEL RECEPTACLE
PAR.	PARALLEL
PKG.	PARKING
P. BD.	PARTICLE BOARD
PARTN.	PARTITION
PVT.	PAVEMENT
PERF.	PERFORATED
PERIM.	PERIMETER
PLAS.	PLASTER
PLAM	PLASTIC LAMINATE
PL.	PLATE
PLY.	PLYWOOD
PVC.	POLYVINYL CHLORIDE
PREFAB.	PREFABRICATED
PREFIN.	PREFINISHED
P.L.	PROPERTY LINE
Q	
QT.	QUARRY TILE
R	
RAD.	RADIUS
REF.	REFERENCE
RFL.	REFLECTED
REG.	REGISTRAR
REINF.	REINFORCING
REM.	REMOVE
REQ'D.	REQUIRED
RES.	RESILIENT
RET.	RETURN
RA.	RETURN AIR
RVS.	REVERSE
REV.	REVISION
RH.	RIGHT HAND
R.O.W.	RIGHT OF WAY
RD.	ROOF DRAIN
RF. HT.	ROOF HEIGHT
RFG.	ROOFING
RM.	ROOM
RO.	ROUGH OPENING
RB.	RUBBER BASE
S	
SF. GL.	SAFETY GLASS
SCHED.	SCHEDULE
SLNT.	SEALANT
STG.	SEATING
SCTN.	SECTION
SHTH.	SHEATHING
SHT.	SHEET
SH. GL.	SHEET GLASS
SHR.	SHORING
SIM.	SIMILAR
SKYLT.	SKYLIGHT
SLV.	SLEEVE
SC.	SOLID CORE
SCW	SOLID CORE WOOD
S.	SOUTH
SPCR.	SPACER
SPKR.	SPEAKER
SPEC.	SPECIFICATIONS
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STA.	STATION
STL.	STEEL
STN.	STONE
STOR.	STORAGE
SD.	STORM DRAIN
STRUCT.	STRUCTURE (TURAL)
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
SYN.	SYNTHETIC
SYS.	SYSTEM
T	
TB.	TACK BOARD
TK. STP.	TACK STRIP
TEL.	TELEPHONE
TV	TELEVISION
THK.	THICK
THR.	THRESHOLD
TO. COL.	TOP OF COLUMN
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.J.	TOP OF JOIST
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
TG.	TOUNG AND GROOVE
TR.	TREAD
TYP.	TYPICAL
U	
UC.	UNDER CUT
UNFIN.	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR.	URINAL
V	
VB.	VAPOR BARRIER
VAR.	VARIES
VNR.	VENEER
VIF.	VERIFY IN FIELD
VERT.	VERTICAL
VG.	VERTICAL GRAIN
VIN.	VINYL
VIN. B.	VINYL BASE
VCT	VINYL COMPOSITION TILE
VIN. F.	VINYL FABRIC
VIN. T.	VINYL TILE
W	
WSCT.	WAINSCOT
WH.	WALL HUNG
WC.	WATER CLOSET
WPRF.	WATER PROOFING
WRP.	WATER REPELLENT
WS.	WATER STOP
WWF.	WELDED WIRE FABRIC
WWM.	WELDED WIRE MESH
W.	WEST
WDW.	WINDOW
WGLS.	WIRE GLASS
WM.	WIRE MESH
W.	WITH
WO.	WITHOUT
WD.	WOOD
WD. B.	WOOD BASE
W. PT.	WORKING POINT

SYMBOLS & LEGENDS

ARCHITECTURAL DRAWING SYMBOLS

- Name 101 150 SF — ROOM TAG WITH ROOM FINISH
- Name 101 XXX SF/ XXX(P) — ROOM TAG WITH OCCUPANCY SF=SQUARE FEET P=PEOPLE
- 101 — DOOR TAG
- XX1 — PARTITION TAG
- HOLLOW METAL FRAME TAG
- 1 — ALUMINUM FRAME TAG
- EXPANSION JOINT
- 21 / A101 SIM. — ENLARGED CALL OUT
- SIM 1 / A101 — BUILDING SECTION TAG
- SIM 1 / A101 — WALL SECTION TAG
- SIM 1 / A101 — DETAIL SECTION TAG
- Ref 20 / A101 — EXTERIOR ELEVATION TAG
- 1 / A101 Ref — INTERIOR ELEVATION TAG
- 15/ A 9.24 — VIEW REFERENCE DETAIL
- Elevation Name — ELEVATION/ LEVEL TAG
- AB — COLUMN GRID
- 5' DIAMETER ADA TURN AROUND
- REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC P RQ R EQ — EXIT POINT WITH WIDTH INDICATED IN INCHES OCCUPANT LOAD SHOWN VERTICAL P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- CENTER LINE
- MATCH LINE
- ITEM SHOWN IS ABOVE/BELOW OR TO BE REMOVED(ON DEMO SHTS) U.N.O.
- PROPERTY LINE
- BREAK LINE
- LONGEST TRAVEL DISTANCE TO EXIT
- BUILDING EXIT

WALL LEGEND

- EXISTING WALL TO REMAIN
- METAL STUD PARTITION
- CMU PARTITION
- 1 HR WALL CONSTRUCTION
- 1 HR CMU WALL CONSTRUCTION
- 2 HR WALL CONSTRUCTION
- 2 HR CMU WALL CONSTRUCTION

MATERIALS LEGEND

- EARTH (COMPACTED)
- POUROUS FILL (STONE OR GRAVEL)
- CONCRETE
- PLASTER/SAND/CEMENT/ GROUT
- BRICK (COMMON OR FACE)
- CONCRETE MASONRY UNIT (CMU)
- METAL (LARGE SCALE)
- METAL (SMALL SCALE)
- BATT INSULATION
- RIGID BOARD OR SPRAY FOAM INSULATION
- ROUGH WOOD (CONTINUOUS)
- ROUGH WOOD (NON-CONTINUOUS)
- FINISH WOOD
- PLYWOOD

PROJECT GENERAL NOTES

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A WATERTIGHT & WEATHERTIGHT BUILDING
2. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A PLUM, LEVEL AND SQUARE STRUCTURE UNLESS OTHERWISE NOTED ANY DEVIATION FROM THIS GENERAL INTENT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
3. THE BUILDING SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL THE APPLICABLE CODES, ORDINANCES AND REGULATIONS AS WELL AS THE DRAWINGS & SPECIFICATION. ANY CODE DEFICIENCIES IN THE DRAWINGS RECOGNIZED BY THE CONTRACTOR SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
4. THE CONTRACTOR SHALL VISIT PROJECT SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ANY AMBIGUOUS ITEMS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO SUBMITTING PROPOSAL.
5. THE CONTRACTOR IS TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES REQUIREMENTS, AND COMPLETE TEXAS HEALTH DEPARTMENT NOTIFICATIONS AND SUBMIT FORMS AND REQUIRED INFORMATION TO MEET " TEXAS COMMISSION ON ENVIRONMENTAL QUALITY" (TCEQ) REQUIREMENTS PRIOR TO START OF PROJECT
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF THE BUILDING ON THE SITE AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE BIDDING THE PROJECT OR THE COMMENCEMENT OF WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR CHANGES TO THE WORK DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HIS/HER SELF WITH EXISTING CONDITIONS
7. DO NOT SCALE DRAWINGS: ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE AND BE FIELD VERIFIED AND COORDINATED WITH WORK OF ALL TRADES. IF NO DIMENSIONS ARE GIVEN OR DISCREPANCIES FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION BEFORE BIDDING OR COMMENCING THE WORK.
8. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, ALL INCLUDED AS PART OF THE WORK.
9. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
10. THE CONTRACTOR SHALL VERIFY THE SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS AND BASES, AS WELL AS POWER, WATER AND DRAIN REQUIREMENTS FOR SUCH EQUIPMENT WITH EQUIPMENT MFG. DEVIATION OF BEFORE MENTIONED REQUIREMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
11. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE WITH THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. REVIEW ALL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
12. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
13. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
14. PROVIDE FIRE STOPS WHEREVER INTERIOR AND EXTERIOR WALLS AND PARTITIONS INTERSECT FLOORS, CEILINGS, AND ROOFS. ALSO PROVIDE AT ALL OPENINGS AROUND PENETRATIONS TO PREVENT VERTICAL & HORIZONTAL COMMUNICATION OF FIRE ALONG LINES OF CORRIDORS, OCCUPANCY CHANGES, AND SIMILAR SEPARATIONS.
15. ALL WALL WIDTHS ARE SHOWN AND DIMENSIONED WITH ACTUAL DIMENSIONS. DIMENSIONS FOR FRAMED WALLS ARE SHOWN TO FACE OF STUDS AND/OR FACE OF BLOCK U.N.O.
16. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
17. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
18. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
19. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
20. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
21. DIFFUSERS, LIGHT FIXTURES, ETC., ARE INDICATED ON THE REFLECTED CEILING PLAN FOR LOCATION AND COORDINATION. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
22. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
23. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
24. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
25. CLASSROOM FURNITURE INDICATED ON THE FLOOR PLANS, NOT INDICATED AS "BUILT-IN", ARE NOT IN PROJECT CONTRACT. FURNITURE IS SHOWN FOR TYPICAL CLASSROOM ARRANGEMENT, ONLY.
26. GENERAL CONTRACTORS AND SUB-CONTRACTORS ARE TO SCHEDULE AND COMPLETE THEIR WORK SO AS TO KEEP MECHANICAL, ELECTRICAL, TELEPHONE, DATA, HVAC CONTROL, INTERCOM, AND OTHER EXISTING SYSTEMS OPERATIONAL IN AREAS OCCUPIED BY THE OWNER DURING THE RENOVATION AND CONSTRUCTION OF THE PROJECT
27. WHERE EXISTING OR NEW EXPANSION JOINTS ARE EXPOSED DUE TO NEW CONSTRUCTION OR RENOVATION, PROVIDE APPROVED FLOOR, WALL, AND/OR CEILING EXPANSION JOINT COVER ASSEMBLIES AS REQUIRED.
28. WHERE NEW FLOORING IS TO BE INSTALLED ON TOP OF EXISTING FLOOR SLAB, PROVIDE FLOOR LEVELING COMPOUND AS REQUIRED TO PROVIDE LEVEL WORKABLE SURFACE FOR NEW FINISHES
29. CONTRACTOR IS TO ENSURE THAT NEW AND/OR EXISTING MECHANICAL, ELECTRICAL, DATA, AND CONTROL SYSTEMS ARE CONCEALED TO THE GREATEST EXTENT AS POSSIBLE UNLESS OTHERWISE NOTED
30. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
31. ALL EXPOSED METALS EXCEPT GALVANIZED AND PRE-FINISHED ITEMS, SHALL BE FINISH PAINTED - COLOR TO BE SELECTED BY ARCHITECT. REF SPECS FOR FIELD WELDS AT GALV.
32. WHERE THE WORDS "PATCH", "MATCH", "REPAIR", "REPLACE", ARE USED,SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT COLORS, TEXTURES AND FINISH OF DISTURBED AREAS SHALL MATCH IN ALL RESPECTS. REPLACE IS DEFINED AS REMOVE EXISTING AND INSTALL NEW INCLUDING ALL APPROPRIATE ELECTRICAL CONNECTIONS AND WITH MATCHING OR COMPATIBLE EQUIPMENT OR MATERIALS AS SHOWN, SPECIFIED OR REQUIRED FOR COMPLETE INSTALLATION.

SHEET NAMING CONVENTION

A2-XX-X

- A2 — DRAWING SHEET DISCIPLINE
- XX — FIRST ALPHABET OF THE SCHOOL NAME
- X — SHEET NUMBER IN DISCIPLINE

G	GENERAL	P	PLUMBING
C	CIVIL	E	ELECTRICAL
L	LANDSCAPE	FP	FIRE PROTECTION
S	STRUCTURAL	FA	FIRE ALARM
IR	IRRIGAITON	T	TECHNOLOGY
AD	ARCH DEMOLITION	TE	THEATRICAL
A	ARCHITECTURE	FS	FOOD SERVICES
M	MECHANICAL	AV	AUDIO VISUAL

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3333 Hurricane Ln, Missouri City, TX 77459

HIGHTOWER HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 30113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

A0.00-H

SYMBOLS & ABBREVIATIONS

HIGHTOWER HIGH SCHOOL

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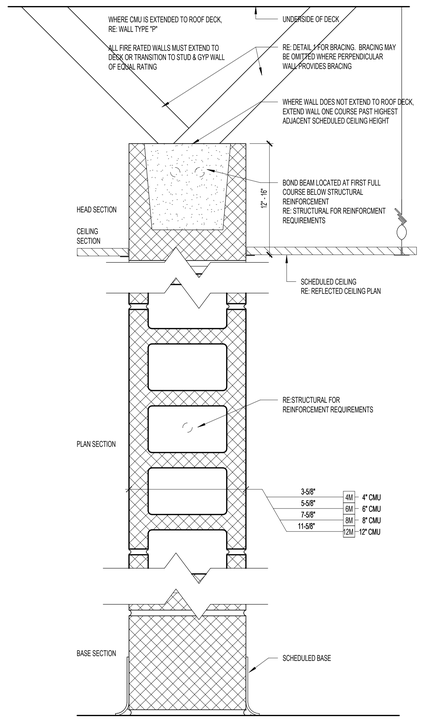
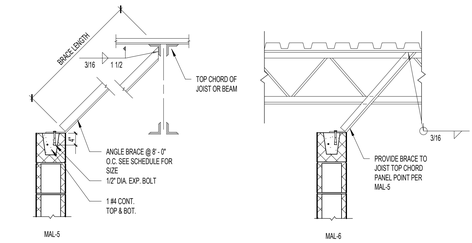
GENERAL PARTITION NOTES

1. FOR HEIGHTS OF WALL SEE BLDG.'G SECTIONS OR ELEVATIONS.
2. EVERY WALL SHOWN ON PLAN SHALL BE ONE OF THE WALL TYPES SHOWN WHETHER KEYED ON THE PLAN OR NOT. IF WALL DOES NOT HAVE KEY, PROVIDE WALL TYPE TO MATCH ADJACENT OR NEAREST KEY.
3. SEE ROOM FINISH SCHEDULE FOR FINISHES AND CEILING HEIGHTS.
4. FIRE TAPE OR SEAL ALL PENETRATIONS IN FIRE RATED PARTITIONS.
5. ALL WALLS THAT ARE PERPENDICULAR TO ROOF DECK SHOULD BE SEALED TIGHT TO UNDERSIDE OF DECK W/ PACKED INSULATION AND FIRE SAFING. COPE SHEETROCK AROUND CONCRETE PAN.
6. ALL SOUND WALLS TO RECEIVE SEALANT AROUND CRACKS & GAPS OF EDGES @ FLOOR, CEILING AND JUNCTION BOXES.
7. PROVIDE BRACE AT END OF ALL CMU WALLS, EACH SIDE OF CONTROL JOINTS AND AT 8'-0" TYPICAL. IF AN INTERSECTING WALL IS LAYED AT THE SAME TIME, THE WALL MAY BE CONSIDERED A BRACE.
8. ALLOW FOR VERTICAL DEFLECTION OF THE STRUCTURE.
9. ALL METAL STUD ROOF DECK CONNECTIONS TO HAVE SLIP JOINT WITH DEEP LEG METAL STUD TRACK.
10. SEE INTERIOR ELEVATIONS FOR MASONRY/MATERIAL PATTERNS.
11. ALL WALLS AT OCCUPIED OR EXPOSED AREAS TO RECEIVE 5" BASE OF 5/8" DENSHIELD FIREGUARD TILE BACKER. WALLS AT CONCEALED AREAS, SUCH AS THOSE BEHIND MASONRY WAINSCOT, TO HAVE 5/8" DENS SHIELD FIREGUARD TILE BACKER 1/2" FROM FINISH FLOOR WITH SEALANT. AT CONTRACTOR'S DISCRECTION, 1/2" WATERGUARD EXTRUSION MAY BE USED IN LIEU OF DENS SHIELD DETAIL.
12. THE ABREVIATON "N.R." MEANS NO RATING.
13. AT RECESSED OR RAISED FLOORS, INSTALL CMU SOAP COURSE AT BASE OF CMU WALLS TO COURSE MASONRY WITH WALLS STARTING AT FINISH FLOOR
14. ALL GYP. BOARD IS 5/8" TYPE "X" U.N.O
15. ABOVE CEILING AT ALL FIRE RATED WALLS, PROVIDE 4" HIGH, STENCIL EVERY 8' AND AT LEAST ONE PER WALL READING "FIRE WALL" IN RED PAINT. ALSO PROVIDE STENCIL AT 10' AFF IN MECHANICAL, HOUSEKEEPING, TECHNOLOGY, ELECTRICAL AND STORAGE SPACES THAT DO NOT HAVE A CEILING. STENCIL IS NOT REQUIRED WHERE THE FIRE WALL DOES NOT HAVE AN ADJACENT CEILING AND THE SPACE IS AN OCCUPIED, FINISHED SPACE.



M	CONCRETE MASONRY UNITS W/ HORIZONTAL AND VERTICAL REINFOURCING RE: STRUCTURAL FOR REINFORCING DETAILS							
	NON- RATED	PARTITION TYPE		L/240 LIMITING HEIGHT		FIRE RATING		STC
		RATED	BURNISHED	BLOCK DEPTH	MAX . HEIGHT	HOURS	UL LISTING	
	4M	4MR	4MB	3-5/8"	5'-10"	—	—	43
	6M	6MR	6MB	5-5/8"	9'-0"	2HR.	U906.	46
	8M	8MR	8MB	7-5/8"	11'-8"	2-4 HR	U901,U904	49
	12M	12MR	12MB	11-5/8"	18'-0"		U905,U907	52



NOTE:
BRACING NOT REQUIRED AT WALLS SUPPORTING CONCRETE CEILINGS & CATWALKS OR WHERE ADJOINING WALLS EXCEED HORIZ. DIM OF CMU SCHEDULE

BRACE LENGTH	ANGLE SIZE
8'- 0" OR LESS	L 2 1/2 X 2 1/2 X 3/16
8' - 1" TO 10' - 0"	L 3 X 3 X 3/16
10' - 1" TO 13' - 0"	L 4 X 4 X 1/4
13' - 1" TO 16' - 0"	2 - L 3 X 3 X 3/16

WALL BRACING 2
SCALE: 3/4" = 1'-0"

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

HIGHTOWER HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

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PROJECT NO. 25-006
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100% CD

A0.01-H
PARTITION TYPES

HIGHTOWER HIGH SCHOOL

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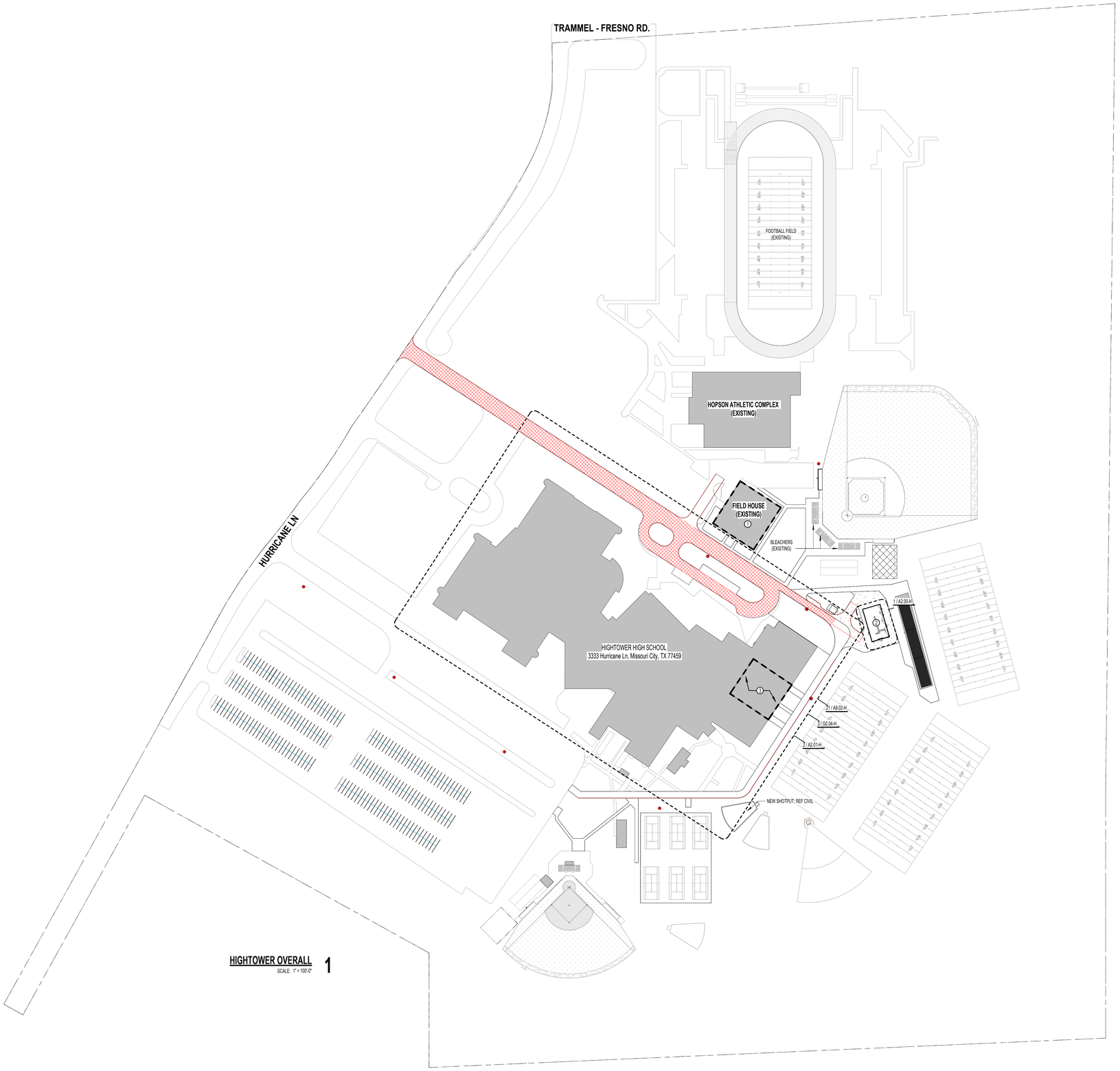

HIGHTOWER OVERALL 1
SCALE: 1" = 100'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A0.00-H FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01-H & G0.02-H FOR TAS REQUIREMENTS
3. RE: G0.03-H, G0.04-H, G0.05 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 8' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 6' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- X X — VINYL COATED CHAIN LINK FENCE, 48" HIGH
- L L — VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M M — BLACK WROUGHT IRON FENCE, 48" HIGH
- R R — BLACK WROUGHT IRON FENCE, 72" HIGH
- SIM / 1 / A101 — BUILDING SECTION TAG
- SIM / 1 / A101 — WALL SECTION TAG
- EXISTING FIRE LANE
- 21 / A101 SIM — ENLARGED CALL OUT
- FIRE HYDRANT

SITE PLAN KEYNOTES

TAG #	NOTE
1	RENNOVATE FIELDHOUSE LOCKERS
2	NEW 3,500 SQFT CONCESSION, RESTROOM, STORAGE BUILDING
3	RENOVATE LOCKER ROOMS



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459
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REVISIONS:
1 Date Description

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A1.00-H
ARCHITECTURAL SITE PLAN

HIGHTOWER HIGH SCHOOL

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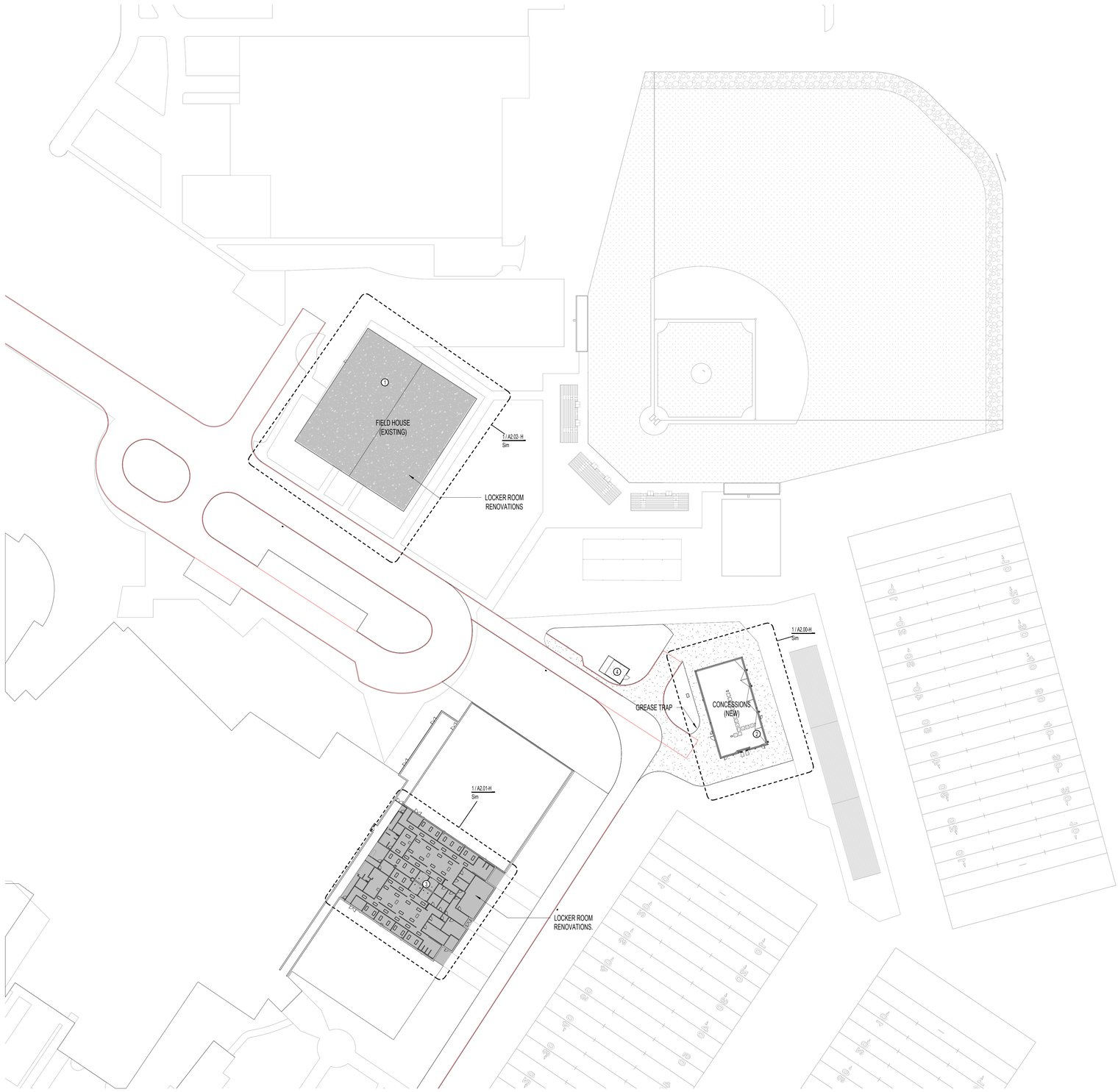

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1 / A101 SIM	BUILDING SECTION TAG
1 / A101 SIM	WALL SECTION TAG
	EXISTING FIRE LANE
21 / A101 SIM.	ENLARGED CALL OUT
	FIRE HYDRANT

SITE PLAN KEYNOTES

TAG #	NOTE
1	RENNOVATE FIELDHOUSE LOCKERS. RENOVATE TRAINING AREA, RENOVATE SHOWERS
2	NEW 4000 SQFT CONCESSION, RESTROOM, STORAGE BUILDING
3	RENOVATE LOCKER ROOMS:CEILING REPAIR, NEW LOCKERS AND BENCHES, TOILET AND SHOWER RENOVATIONS, AND NEW CASEWORK AT COACHES OFFICE
4	EXISTING PANEL YARD

ENLARGED SITE PLAN 1
SCALE: 1" = 40'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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20113
STATE OF TEXAS

DATE: 12/04/2025

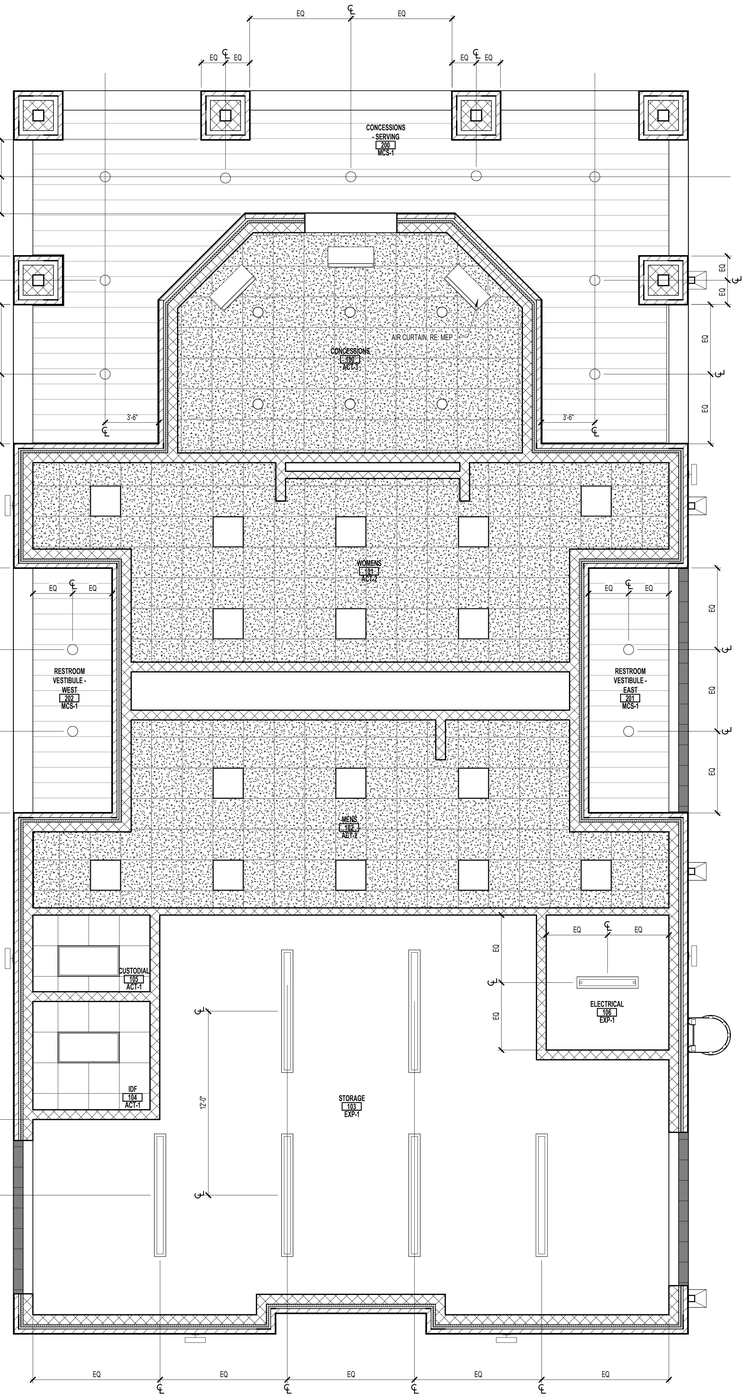
PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
Date Description

100% CD

A1.02-H
ENLARGED SITE PLAN

HIGHTOWER HIGH SCHOOL

12/4/2025 10:23:12 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_HIGHTOWER_ARCH_H_R25.rvt



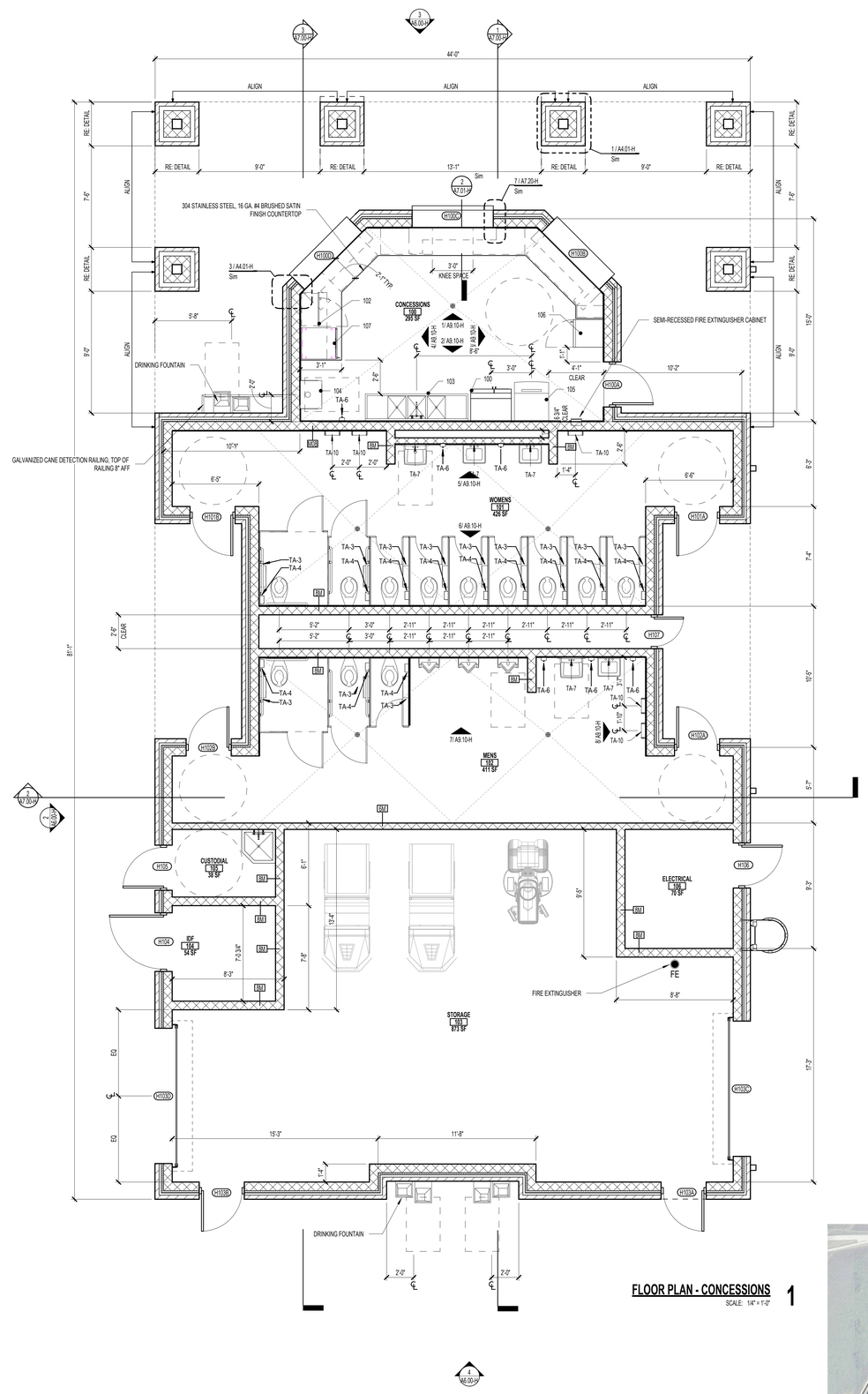
REFLECTED CEILING PLAN- CONCESSIONS 2

SCALE: 1/4" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- 2' X 4' LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (SUSPENDED)
- LINEAR LED FIXTURE (SURFACE MOUNTED)
- RECESSED CAN FIXTURE
- PENDANT LIGHT FIXTURE
- SURFACE MOUNTED CAN LIGHT FIXTURE
- WALL SCONCE
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- SUSPENDED GYPSUM BOARD
- SUSPENDED CEILING SYSTEM WITH LAY-IN ACOUSTICAL PANELS
- SUSPENDED CEILING SYSTEM WITH LAY-IN VINYL FACED PANELS
- METAL SOFFIT, BOD CERTAINTEED LINEAR BOX 6 SYSTEM, EXTERIOR
- EXPOSED STRUCTURE

GENERAL NOTES:
1. ALL CEILINGS TO BE 10'-0" UNLESS OTHERWISE NOTED.
2. SEE SHEET A10.10 FOR CEILING DETAILS.
3. REFER TO INTERIOR AND EXTERIOR ELEVATIONS FOR LIGHT FIXTURE MOUNTING HEIGHTS.
4. MEP & ARCHITECT TO REVIEW AND APPROVE SPRINKLER KEYOUT AND HEAD LOCATIONS PRIOR TO CONSTRUCTION. SUBMIT PLAN USING ARCHITECT'S RCPS.
5. AT AREAS WHERE CEILING IS EXPOSED - EXPOSED CONDUIT TO BE LOCATED NEATLY. ARCHITECT TO APPROVE LAYOUTS.
6. COORDINATE CEILING ACCESS PANELS WITH MEP CONTRACTOR. LOCATE WHERE NECESSARY.



FLOOR PLAN - CONCESSIONS 1

SCALE: 1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-0" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- COLUMN GRID
- EXTERIOR ELEVATION TAG
- INTERIOR ELEVATION TAG
- BUILDING SECTION TAG
- WALL SECTION TAG
- ENLARGED CALL OUT
- DOOR TAG
- PARTITION TAG
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TOILET ROOM ACCESSORY LEGEND

TA-1	36" STAINLESS STEEL GRAB BAR
TA-2	42" HORIZONTAL & 18" VERTICAL STAINLESS STEEL GRAB BAR
TA-3	TOILET TISSUE DISPENSER
TA-4	SANITARY NAPKIN DISPOSAL
TA-6	SOAP DISPENSER
TA-7	MIRROR 24"x48"
TA-9	PAPER TOWEL DISPENSER
TA-10	ELECTRIC HAND DRYER
TA-11	FOLDING SHOWER SEAT
TA-12	MOP SINK
TA-13	MOP & BROOM HOLDER
TA-14	ROBE HOOKS
TA-15	SHOWER GRAB BARS
TA-16	SHOWER CURTAIN AND ROD

GENERAL NOTES

1. REFER TO ACCESSIBILITY SHEETS FOR MINIMUM DIMENSIONS.
2. PROVIDE PIPE GUARDS AT ALL EXPOSED LAVATORY PIPES. TYP. RE: MEP
3. REFER TO A3 SHEETS FOR HANDRAIL & GUARDRAIL DETAILS

CONCESSIONS EQUIPMENT

05 52 13.A1	GALVANIZED CANE DETECTION RAILING, TOP OF RAILING 8" AFF
10 44 00.A1	FIRE EXTINGUISHER
10 44 00.C1	SEMI-RECESSED FIRE EXTINGUISHER CABINET
12 36 16.A1	304 STAINLESS STEEL, 16 GA. #4 BRUSHED SATIN FINISH COUNTERTOP
22 40 00.A1	DRINKING FOUNTAIN
23 34 30.A1	AIR CURTAIN, RE: MEP
100	REACH-IN REFRIGERATOR
102	MICROWAVE
103	THREE-COMPARTMENT SINK
104	HAND SINK
105	ICE MACHINE
106	BEVERAGE COOLER
107	HEATED HOLDING CABINET



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
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A2.00-H
01 FLOOR PLAN CONCESSION

HIGHTOWER HIGH SCHOOL

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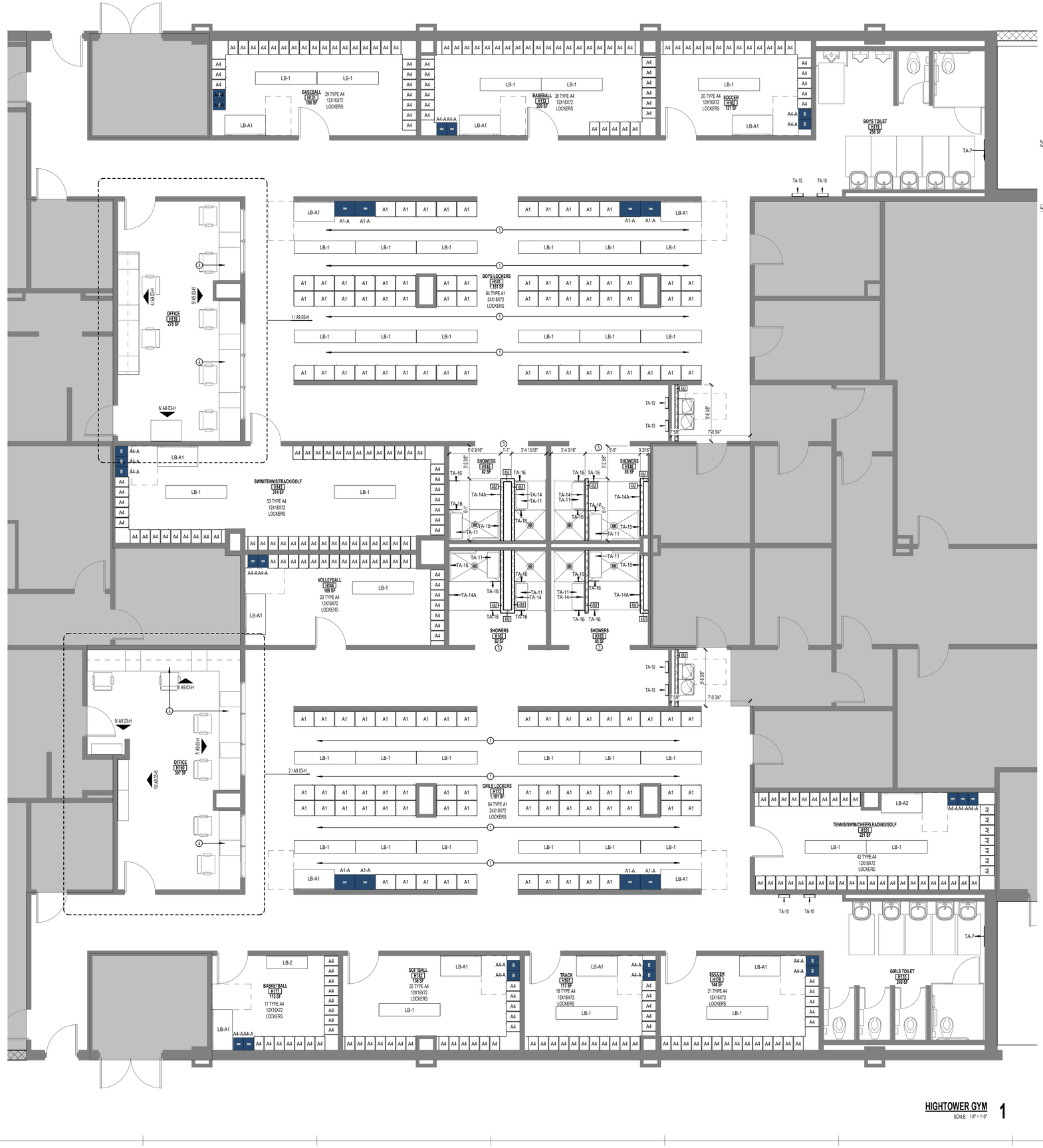
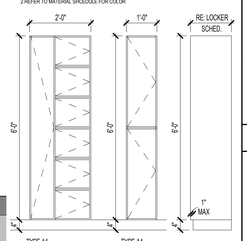


LOCKER SCHEDULE

1 PROVIDE SHOP APPLIED, BAKED EPOXY ENAMEL FINISH
2 REFER TO MATERIAL SHCEDULE FOR COLOR



TYPE A1
9'x18"x72"/15"x18"x72"

TYPE A4
12"x18"x72"

ROOM H141
EXISTING: 68
PROVIDED: 64
ADA REQUIRED: 4
ADA PROVIDED: 4

ROOM H173
EXISTING: 68
PROVIDED: 64
ADA REQUIRED: 4
ADA PROVIDED: 4

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

ROOM H131 BASE
EXISTING: 31
PROVIDED: 29
ADA REQUIRED: 2
ADA PROVIDED: 2

ROOM H132 BASKET
EXISTING: 38
PROVIDED: 38
ADA REQUIRED: 2
ADA PROVIDED: 2

ROOM H162 SOC
EXISTING: 20
PROVIDED: 20
ADA REQUIRED: 2
ADA PROVIDED: 2

ROOM H143 SWIM/TR
EXISTING: 52
PROVIDED: 53
ADA REQUIRED: 3
ADA PROVIDED: 3

ROOM H144 VOLL
EXISTING: 23
PROVIDED: 23
ADA REQUIRED: 2
ADA PROVIDED: 2

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

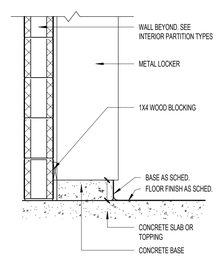
ROOM H151 SWIM
EXISTING: 43
PROVIDED: 42
ADA REQUIRED: 3
ADA PROVIDED: 3

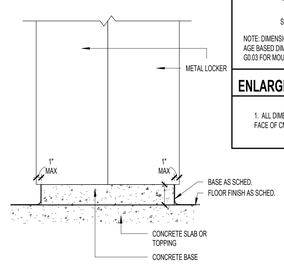
ROOM H177 BASK
EXISTING: 19
PROVIDED: 17
ADA REQUIRED: 1
ADA PROVIDED: 1

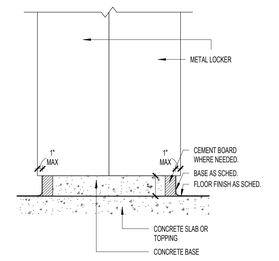
ROOM H182 SOFT
EXISTING: 20
PROVIDED: 20
ADA REQUIRED: 1
ADA PROVIDED: 1

ROOM H161 TRA
EXISTING: 18
PROVIDED: 18
ADA REQUIRED: 1
ADA PROVIDED: 1

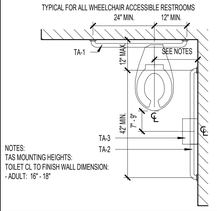
ROOM H178 SOC
EXISTING: 21
PROVIDED: 21
ADA REQUIRED: 2
ADA PROVIDED: 2





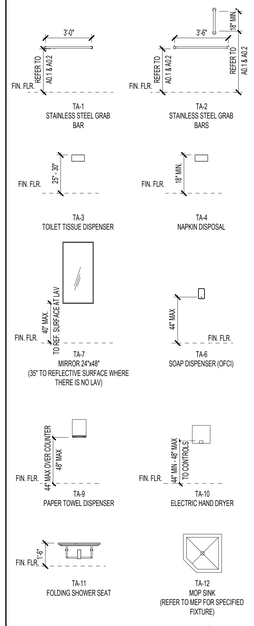


RESTROOM WHEELCHAIR ACCESS, TYPICAL



NOTES:
TAS MOUNTING HEIGHTS:
TOILET CL TO FINISH WALL DIMENSION:
- ADULT: 16" - 18"

TYPICAL MOUNTING HEIGHTS, U.N.O.



NOTE: DIMENSIONS SHOWN ARE BASED ON ADULT MOUNTING HEIGHTS. REFER TO AGE BASED DIMENSIONAL INFORMATION TABLE FOR CHILDREN LOCATED ON SHEET G0.03 FOR MOUNTING HEIGHTS FOR OTHER AGE RANGES

ENLARGED PLANS: GENERAL NOTES

1. ALL DIMENSIONS AT ENLARGED PLANS ARE TO OUTSIDE FACE OF GYP. BD. / FACE OF CMU/TILT WALL.

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-0" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- COLUMN GRID (AB)
- EXTERIOR ELEVATION TAG (Ref: 25 / A101)
- INTERIOR ELEVATION TAG (1/ A101 Ref)
- BUILDING SECTION TAG (SIM / A101)
- WALL SECTION TAG (SIM / A101)
- ENLARGED CALL OUT (21 / A101 SIM.)
- DOOR TAG (101)
- PARTITION TAG (AN)
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG (1)
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE
1	NEW LOCKERS AND BENCHES
3	RENOVATE SHOWERS
4	NEW CASEWORK AT COACHES OFFICE

TOILET ROOM ACCESSORY LEGEND

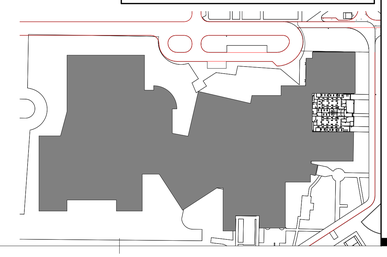
TA-1	36" STAINLESS STEEL GRAB BAR
TA-2	42" HORIZONTAL & 18" VERTICAL STAINLESS STEEL GRAB BAR
TA-3	TOILET TISSUE DISPENSER
TA-4	SANITARY NAPKIN DISPOSAL
TA-6	SOAP DISPENSER
TA-7	MIRROR 24"x48"
TA-9	PAPER TOWEL DISPENSER
TA-10	ELECTRIC HAND DRYER
TA-11	FOLDING SHOWER SEAT
TA-12	MOP SINK
TA-13	MOP & BROOM HOLDER
TA-14	ROBE HOOKS
TA-15	SHOWER GRAB BARS
TA-16	SHOWER CURTAIN AND ROD

GENERAL NOTES

1. REFER TO ACCESSIBILITY SHEETS FOR MINIMUM DIMENSIONS.
2. PROVIDE PIPE GUARDS AT ALL EXPOSED LAVATORY PIPES. TYP. RE: MEP
3. REFER TO A3 SHEETS FOR HANDRAIL & GUARDRAIL DETAILS

SPECIALTY EQUIPMENT

TAG	EQUIPMENT
A1	LOCKER - 24" W X 18" D X 72" H
A2	LOCKER - 24" W X 16" D X 72" H
A3	LOCKER - 24" W X 16" D X 72" H
A4	LOCKER - 12" W X 16" D X 72" H
B1	LOCKER - 24" W X 18" D X 72" H
LB-1	LOCKER BENCH - 72" L X 15" W
LB-2	LOCKER BENCH - 48" L X 15" W
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK



HIGHTOWER GYM
SCALE: 1/4" = 1'-0" 1

LOCKER CURB DETAIL
SCALE: 1" = 1'-0" 4

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

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A2.01-H
01 FLOOR PLAN GYM

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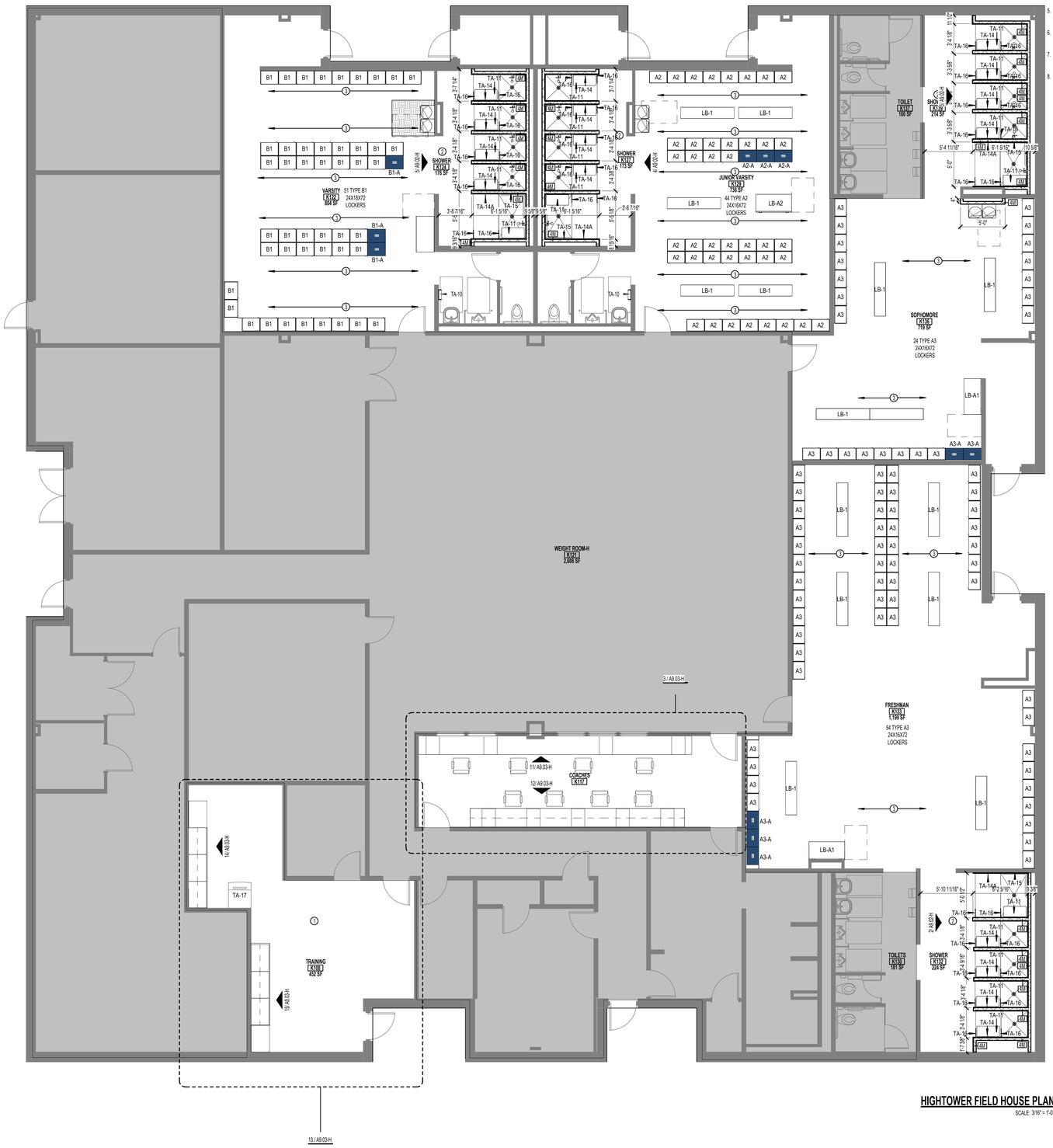

HIGHTOWER FIELD HOUSE PLAN 1

SCALE: 3/16" = 1'-0"

ADDITIONAL NOTES

1. INSTALL NEW LOCKERS ON CONCRETE BASE. INSTALL CLOSER FILLER PANELS AT END WALLS AND CORNERS. REFER TO SPEC 105113 FOR ADDITIONAL INSTALLATION INSTRUCTIONS.
2. INSTALL WALL ELECTRONIC DRINKING FOUNTAIN WITH BOTTLE FILLER PER MANUFACTURER'S INSTRUCTIONS. REFER TO PLUMBING DRAWINGS FOR FIXTURE TYPE AND CONNECT TO EXISTING UTILITIES. REFER TO ELECTRICAL DRAWINGS TO INSTALL NEW TAMPER RESISTANT RECEPTACLES. INSTALL HIGHLO RECEPTACLES AT LOCATION AS PER MANUFACTURER'S INSTRUCTIONS.
3. INSTALL RESINOUS FLOORING AND INTEGRAL COVE BASE ACCORDING TO APPROVED MOCK-UP AND MANUFACTURER'S INSTRUCTIONS. PRIOR TO INSTALLATION SHOT-BLAST EXISTING SURFACES WITH AN APPARATUS THAT ABRADES THE CONCRETE SURFACE. REPAIR DAMAGED AND DETERIORATED CONCRETE ACCORDING TO RESINOUS FLOORING MANUFACTURER'S WRITTEN RECOMMENDATIONS. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROTECTING NEW FLOORING FROM CONSTRUCTION TRAFFIC.
4. INSTALL NEW TILE SHOWERS ACCORDING TO APPROVED MOCKUPS ON EPOXY GROUT. REFER TO 093000 TILE SPEC FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND MOCKUP REQUIREMENTS.
5. INSTALL NEW 4" SLIM PROFILE SURFACE-MOUNTED AUTOMATIC HAND DRYER ON CMU WALLS. ANCHOR DRYERS TO WALLS ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
6. INSTALL NEW ARCHITECTURAL SIGNAGE FOR ROOM IDENTIFICATION AT LOCATIONS NOTED ON DRAWINGS AND TO BE INSTALLED AT ACCESSIBLE HEIGHTS AND TO COMPLY WITH TAS 703.
7. PREPARE AND PAINT ALL LOCKER ROOM CMU WALLS WITH HIGH PERFORMANCE EPOXY WITH BLOCK FILLERS ACCORDING TO 099000 PAINTING AND COATING. REFER TO ROOM FINISH SCHEDULE FOR ADDITIONAL FINISH INFORMATION.
8. INSTALL ALL NEW CMU WALLS AT 8'-0" UNLESS NOTED OTHERWISE. REFER TO STRUCTURAL DOCUMENTS FOR NON-LOAD BEARING WALLS BRACING AND REINFORCING STEEL. REQUEST INFORMATION FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND/OR REQUIREMENTS.

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
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6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-2" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

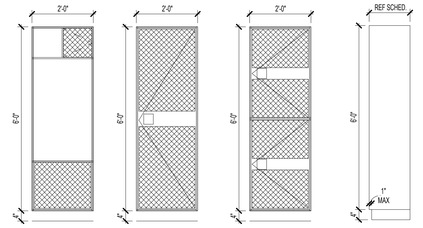
- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- (AB) COLUMN GRID
- 20 / A101 Ref — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- SIM / A101 — BUILDING SECTION TAG
- SIM / A101 — WALL SECTION TAG
- 21 / A101 SIM — ENLARGED CALL OUT
- 101 — DOOR TAG
- AX — PARTITION TAG
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE
1	RENOVATE TRAINING AREA
2	RENOVATE SHOWERS
3	NEW LOCKERS AND BENCHES

LOCKER SCHEDULE

1 PROVIDE SHOP-APPLIED, BAKED EPOXY ENAMEL FINISH
2 REFER TO MATERIAL SHCEDULE FOR COLOR



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A2.02- H
01 FLOOR PLAN FIELD HOUSE

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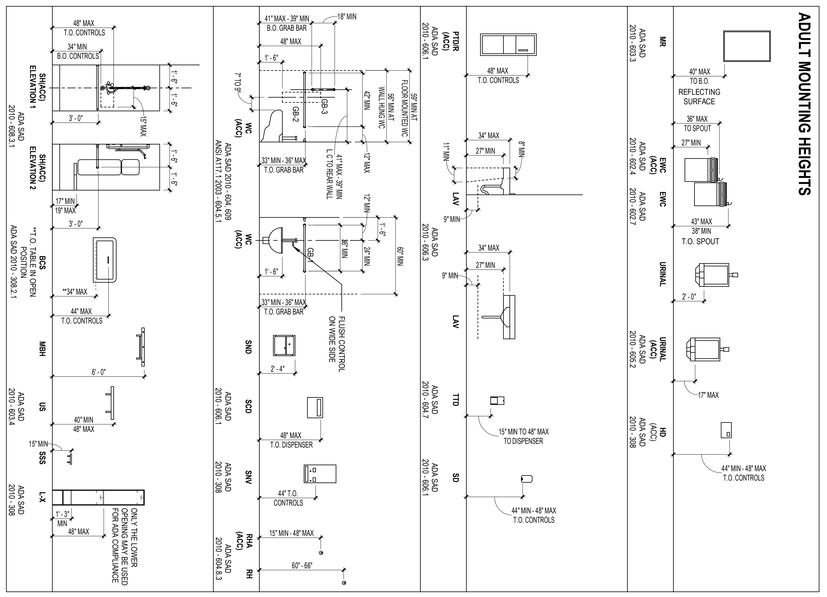

LEGEND - TOILET ACCESSORIES

ABBREV.	EQUIPMENT
TA-11	FOLDING SHOWER SEAT
TA-14	ROBE HOOK
TA-15	2" GRAB BAR
TA-16	SHOWER CURTAIN

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3333 Hurricane Ln, Missouri City, TX 77459

HIGHTOWER HIGH SCHOOL

pfluger
office: 512.476.4040 I fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

100% CD

A3.01-H
01 ENLARGED
RESTROOM PLANS

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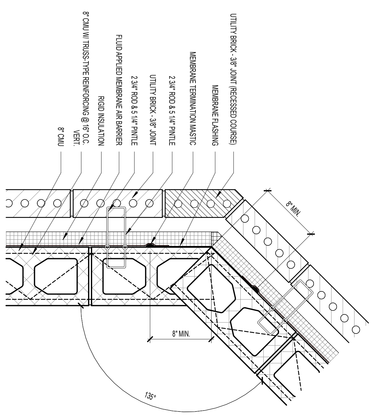
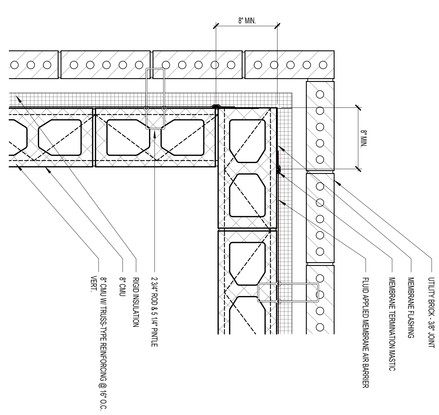
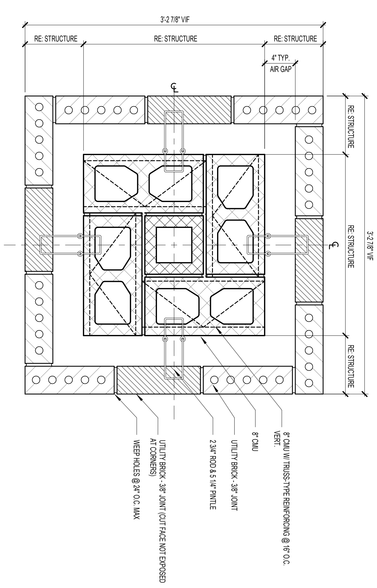


PLAN DETAIL 45 DEGREE CORNER
SCALE: 1 1/2" = 1'-0"
3



PLAN DETAIL OUTWARD CORNER
SCALE: 1 1/2" = 1'-0"
2



PLAN DETAIL PILASTER
SCALE: 1 1/2" = 1'-0"
1

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PLAN DETAILS

HIGHTOWER HIGH SCHOOL

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:
Date Description

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REGISTERED ARCHITECT MICHAEL ADAMS 2013 STATE OF TEXAS

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16431 Lexington Blvd.
Sugarland, TX 77479

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3333 Hurricane Ln, Missouri City, TX 77459

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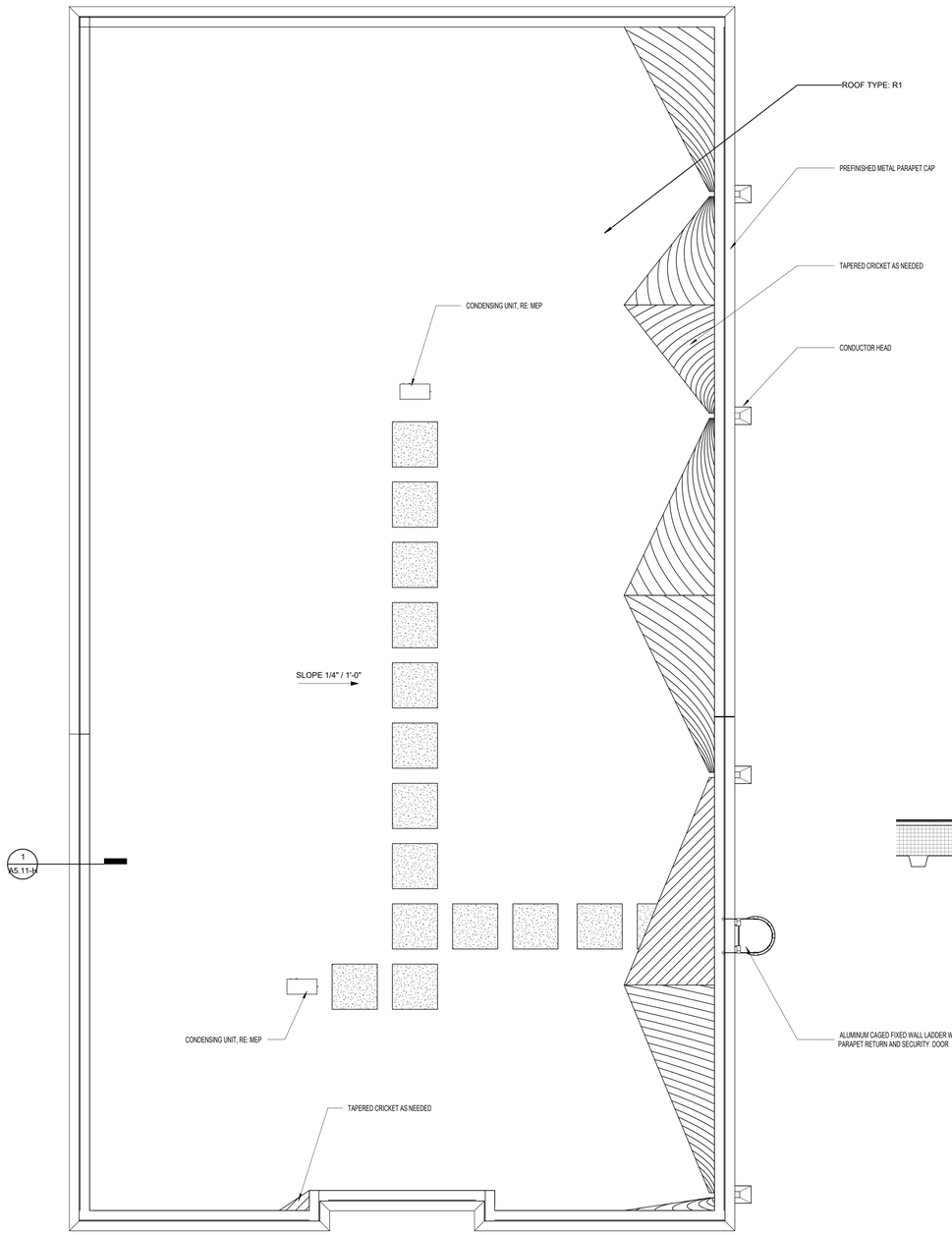
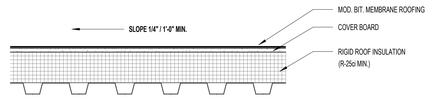
pfluger
office: 713.222.1141 I fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com



ROOF PLAN
SCALE: 1/4" = 1'-0" 1



ROOF TYPE R1
SCALE: 1 1/2" = 1'-0" 2

ROOF PLAN GENERAL NOTES

1. FOR TYPICAL ROOF PENETRATIONS AND PIPE SUPPORTS DETAILS REFER TO SHEET A05.10
2. FOR ADDITIONAL ROOF PENETRATION DETAILS: REFER TO MEP DOCS.
3. REFER MEP DOCUMENTS FOR ROOFTOP EQUIPMENT NOT SHOWN. MECHANICAL, ELECTRICAL AND PLUMBING ROOF EQUIPMENT DEPICTED ON THIS SHEET IS FOR GENERAL ARCHITECTURAL INFORMATION ONLY. REFER TO THE MEP DOCUMENTS FOR ADDITIONAL REQUIREMENTS AND COORDINATION. REFER STRUCTURAL DOCUMENTS FOR EQUIPMENT SUPPORTS.
4. EXPOSED METAL FLASHING/TRIM PIECES ARE TO BE PREFINISHED GALVANIZED STEEL, UNLESS OTHERWISE NOTED. PAINT EXPOSED METAL FLASHING/TRIM PIECES THAT ARE NOT PREFINISHED, AS WELL AS ALL EXPOSED MISCELLANEOUS STEEL PIECES. REFER FINISH SCHEDULE AND NOTES.
5. TAPERED INSULATION SHALL BE 1/4"/FT MINIMUM SLOPE TO DRAIN. ROOF PLAN SHOWS TAPERED INSULATION AT NTS AND IS GRAPHIC ONLY, TO SHOW SLOPE AND APPROX LOCATION. (VERIFY INSULATION REQUIRED TO MAINTAIN SLOPE, PRIOR TO INSTALLATION).
6. PROVIDE TAPERED INSULLATION CRICKETS (1/4"/FT MIN SLOPE) AT HIGH SIDE OF ALL MECHANICAL UNITS, SKYLIGHTS, ROOF HATCHES, AND MISCELLANEOUS ROOF PENETRATIONS, TO SHED WATER AROUND, AND TO INSURE POSITIVE ROOF DRAINAGE.
7. WOOD BLOCKING AT ROOF EDGES, RIDGES, ETC. SHALL BE FABRICATED FROM CONTINUOUS MINIMUM 2X6s PTWD BLOCKING. PROVIDE LARGER 2X PTWDS REQUIRED PER DETAIL DIMENSIONS. REFER ROOFING MANUFACTURER RECOMMENDATIONS.
8. WHERE WOOD BLOCKING EXCEEDS 8" THICKNESS AT TAPERED INSULATION, PROVIDE STEM WALL CONSTRUCTED OF 6" GALVANIZED CFMF AT 16"OC W/ CONTINUOUS TRACK TOP AND BOTTOM AND W/ 3/4" PT EXTERIOR GRADED PLYWOOD AT EACH SIDE, TOP TO SLOPE W/ TAPERED INSULATION.
9. PROVIDE STEP FLASHING AND COVER PLATE AT SLOPED ROOF HI/LO CONDITIONS.
10. VERIFY ELEVATION OF ROOF DRAIN RELATIVE TO OVERFLOW SCUPPER PRIOR TO INSTALLATION OF SCUPPERS.
11. STRUCTURAL SLOPES SHOWN ON PLAN ARE FOR GENERAL CONCEPT ONLY. REFER STRUCTURAL DRAWINGS FOR EXACT TOS/BOD ELEVATIONS.
12. REFER PLUMBING DOCUMENTS FOR ROOF DRAIN LEADERS, CONNECTIONS TO STORM DRAIN, AND NOZZLES.
13. FOR TYPICAL ROOF PENETRATION DETAILS: PROVIDE METAL ROOF MFRS STD ROOF CURBS AND PENETRATION DETAILS, FOR LOCATIONS, WEIGHTS, AND ANY OTHER ADDITIONAL INFO REFER TO MEP DOCS. COORDINATE FINAL SIZE.
    A. PROVIDE CURBS AND ALL SUPPORTS NOT INDICATED ON THE STRUCTURAL DOCUMENTS FOR NEW ROOF TOP MECH EQUIPMENT, INCLUDING BUT NOT LIMITED TO RTUS, CONDENSERS, AND FANS. REFER STRUCTURAL AND MEP DOCUMENTS.
    B. PROVIDE SUPPORTS AND FLASHING AS REQUIRED AT NEW GAS PIPING ON THE ROOF.
14. PROVIDE STD EAVE CLOSURES, AND MISCELLANEOUS TRIM REQUIRED FOR COMPLETE ASSEMBLY.
15. CONTRACTOR MAY DELETE WOOD BLOCKING SHOWN IN ROOFING DETAILS AS ALLOWED BY ROOFING MANUFACTURER RECOMMENDATIONS AND FACTORY MUTUAL WIND UPLIFT REQUIREMENTS.

ROOF PLAN LEGEND

CRICKET

WALK PADS

MODIFIED BITUMEN ROOF

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

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ROOF PLAN
CONCESSION

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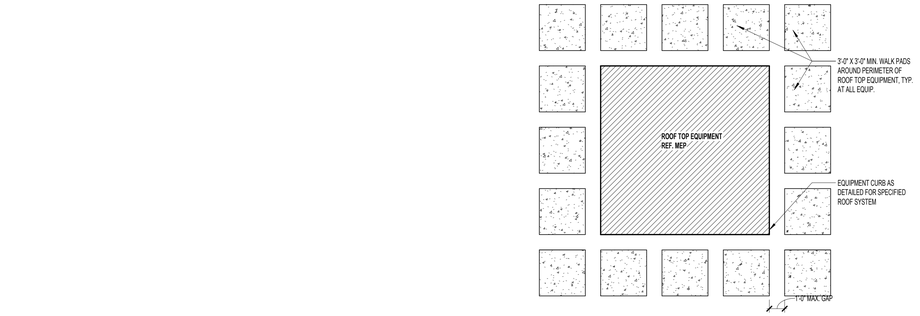
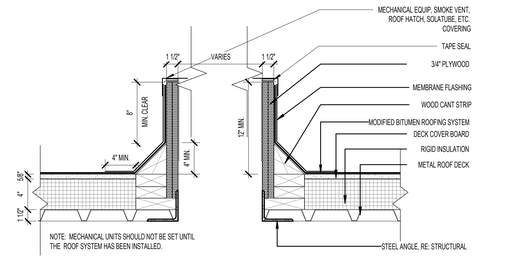


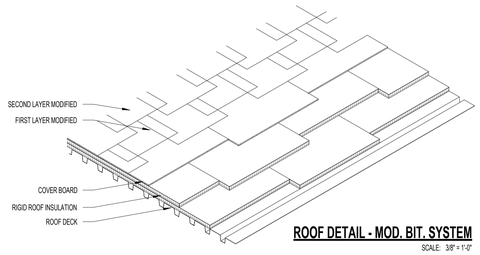
ROOF DETAIL - WALK PADS @ RTU 9

SCALE: 3" = 1'-0"



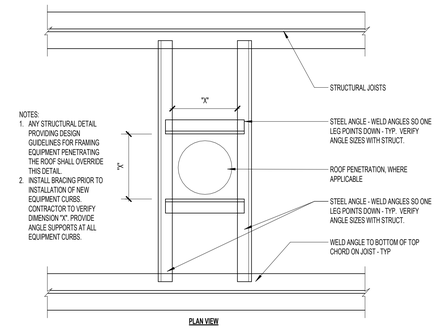
ROOF DETAIL - EQUIPMENT CURB 4

SCALE:1 1/2" = 1'-0"



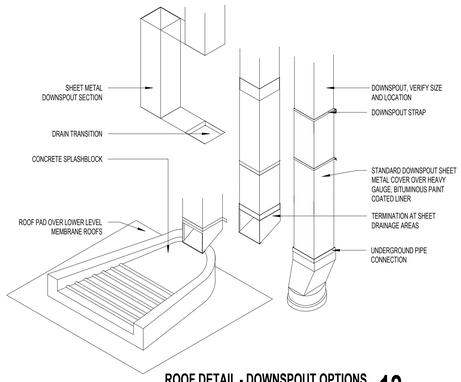
ROOF DETAIL - MOD. BIT. SYSTEM 8

SCALE: 3/8" = 1'-0"



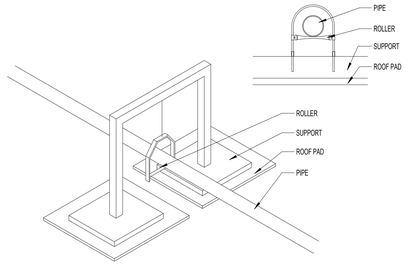
ROOF DETAIL - EQUIPMENT FRAMING 3

SCALE: 3" = 1'-0"



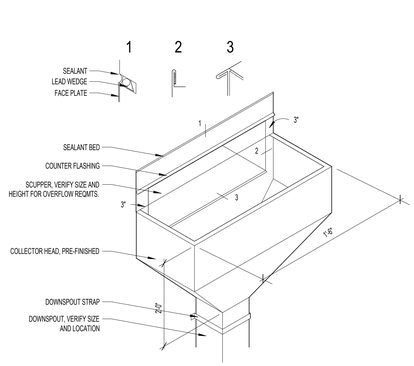
ROOF DETAIL - DOWNSPOUT OPTIONS 12

SCALE: 3/4" = 1'-0"



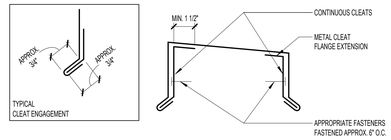
ROOF DETAIL - PIPE SUPPORTS 7

SCALE: 1/4" = 1'-0"



ROOF DETAIL - COLLECTOR HEAD 2

SCALE: 1" = 1'-0"

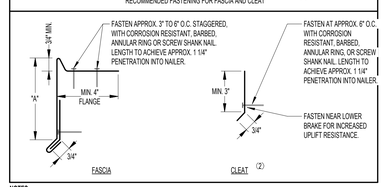


ROOF DETAIL - SHEET METAL PARAPET CAP 11

SCALE: 12" = 1'-0"

RECOMMENDED MINIMUM GAUGES FOR FASCIA AND CLEAT (1)					
EXPOSED FACE WITHOUT BRAKES "A" DIMENSION	ALUMINUM ALLOY (3003)	COLD ROLLED COPPER	GALVANIZED OR COATED (G90) STEEL	STAINLESS STEEL (302 AND 304)	CLEAT (2)
UP TO 3" FACE	.040"	20 oz.	24 ga.	24 ga.	NOT REQUIRED
UP TO 3" FACE	.032"	16 oz.	24 ga.	26 ga.	SAME GAUGE AS FASCIA METAL
3" TO 6" FACE	.040"	16 oz.	24 ga.	24 ga.	SAME GAUGE AS FASCIA METAL
6" TO 8" FACE	.050"	20 oz.	24 ga.	24 ga.	ONE GAUGE HEAVIER THAN FASCIA METAL
8" TO 15" FACE	ADD BRAKES TO STIFFEN OR USE TWO-PIECE FACE	ADD BRAKES TO STIFFEN OR USE TWO-PIECE FACE	ADD BRAKES TO STIFFEN OR USE TWO-PIECE FACE	ADD BRAKES TO STIFFEN OR USE TWO-PIECE FACE	ONE GAUGE HEAVIER THAN FASCIA METAL

RECOMMENDED FASTENING FOR FASCIA AND CLEAT (1)



NOTES:

1. CONSIDERATION MUST BE GIVEN TO WIND ZONE AND LOCAL CONDITIONS IN REGARDS TO THE SELECTION OF METAL GAUGE, PROFILE AND FASTENING SCHEDULE. SEVERE CONDITIONS OR CODE AND REGULATORY BODIES MAY REQUIRE MORE CONSERVATIVE DESIGNS. WHEN USING THE ABOVE TABLE, ADDITIONAL ITEMS SHOULD BE CONSIDERED, SUCH AS FASTENING PATTERN.
2. ALL CLEATS SHALL BE CONTINUOUS WITH LENGTHS NOT TO EXCEED 12 FEET. ALLOW A 1/4" GAP BETWEEN PIECES. JOINTS IN CLEAT SHOULD NOT COINCIDE WITH JOINTS IN FASCIA METAL.

GUIDE FOR SHEET METAL FASCIA EDGES 10

SCALE: 12" = 1'-0"

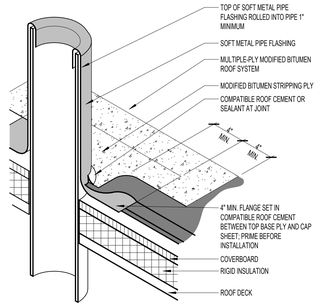
NOTES:

SOFT METAL FLASHING:
- SHEET LEAD: MINIMUM OF 2 1/2 LB. PER SQUARE FOOT, OR
-SHEET COPPER: MINIMUM 16 OZ.

PRECAUTIONS SHOULD BE TAKEN NOT TO DAMAGE THE SHEET LEAD WHEN USING HEAT-WELDED APPLICATION.

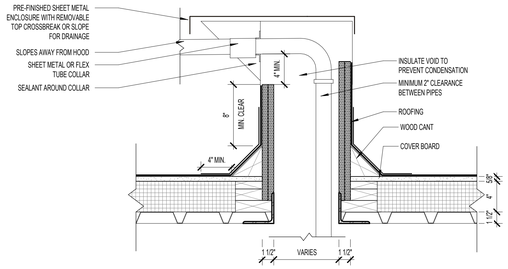
IF USING COPPER FLASHING OVER AN IRON OR STEEL PIPE, INSERT A SEPARATOR SHEET (E.G., ASPHALT-SATURATED ROOFING FELT), WRAPPED AROUND PIPE, TO SEPARATE THE COPPER FLASHING FROM DIRECT CONTACT WITH PIPE, TO REDUCE GALVANIC ACTION.

VENT STACKS AND OTHER PIPES SHOULD HAVE A MINIMUM OF 12 INCHES OF CLEARANCE ON ALL SIDES FROM WALLS, CURBS AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.



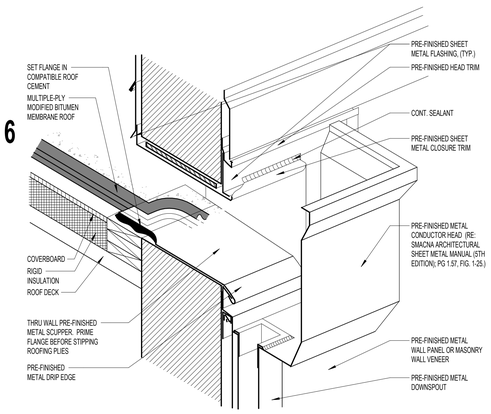
ROOF DETAIL - PIPE PENETRATION 6

SCALE: 3/4" = 1'-0"



ROOF DETAIL - PIPE ENCLOSURE 5

SCALE:1 1/2" = 1'-0"



THROUGH WALL SCUPPER W/ CONDUCTOR HEAD 1

SCALE: 1" = 1'-0"

ACCESS LADDER SCHEDULE

BASIS OF DESIGN: ALACO LADDER COMPANY

VERTICAL ACCESS LADDERS

MODEL			DESCRIPTION
0'-20' HT	>20' HT	>30' HT	
561-E	N/A	N/A	ELEVATOR PIT ACCESS LADDER. PROVIDE ONE AT EVERY ELEVATOR PIT
561	561-C	561-CP	INTERIOR PLATFORM OR ROOF LADDER WITH HANDRAILS OVER ROOF
561-SE	561-SE-C	561-SE-CP	INTERIOR PLATFORM OR ROOF LADDER WITH SIDE ACCESS AT TOP
564-PRPC	564-C	564-CP	ROOF LADDER AT PARAPET CONDITION. PARAPET RETURN WITH CROSSOVER PLATFORM
560	560-C	560-CP	ROOF HATCH ACCESS LADDER

SHIPS LADDERS

MODEL			DESCRIPTION
0'-20' HT			
M1000			PLATFORM ACCESS SHIPS LADDER - 75 DEG.
H1000			ROOF HATCH ACCESS SHIPS LADDER - 75 DEG.

NOTE:

1. ALL EXTERIOR LADDERS SHALL HAVE OPTIONAL MOUNTING AT BASE OF LADDER, HOLDING LADDER UP, ABOVE ROOF/GROUND
2. ALL VERTICAL ROOF ACCESS LADDERS EXTENDING TO GRADE SHALL HAVE OPTIONAL H300 SECURITY DOOR
3. ALL VERTICAL INTERIOR LADDERS SHALL HAVE OPTIONAL H300 SECURITY DOOR UNLESS LOCATED IN A SECURED ROOM
4. ALL WALL/PARTITION/FLOOR ATTACHMENTS SHALL BE COORDINATED WITH THE STRUCTURAL ENGINEER

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459
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Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

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ROOF DETAILS

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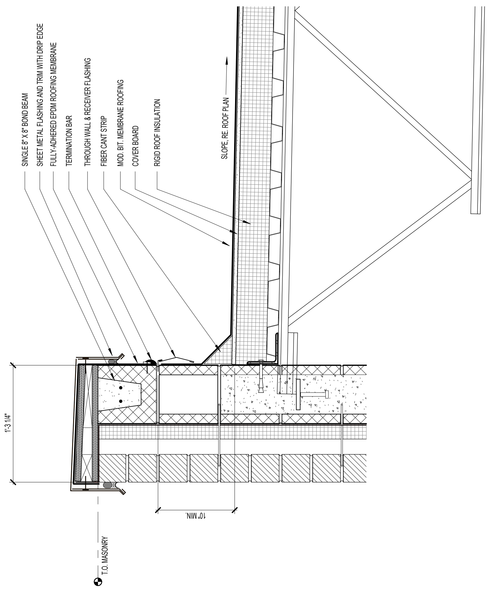
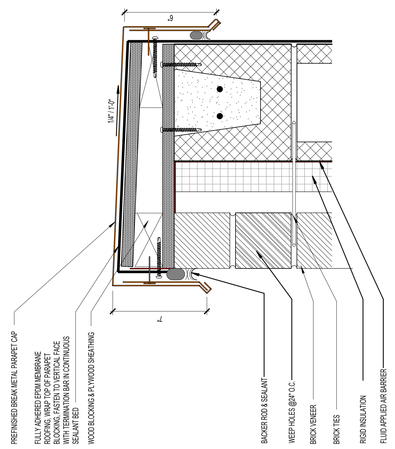


ROOF DETAIL - PARAPET 1

SCALE: 1 1/2" = 1'-0"



ROOF PARAPET DETAIL AT MASONRY VENEER 2

SCALE: 3" = 1'-0"

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16431 Lexington Blvd.
Sugarland, TX 77479

pflueger
Office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

REGISTERED ARCHITECT MICHAEL W. PFLUEGER 25448 STATE OF TEXAS

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ROOF PARAPET DETAILS

HIGHTOWER HIGH SCHOOL

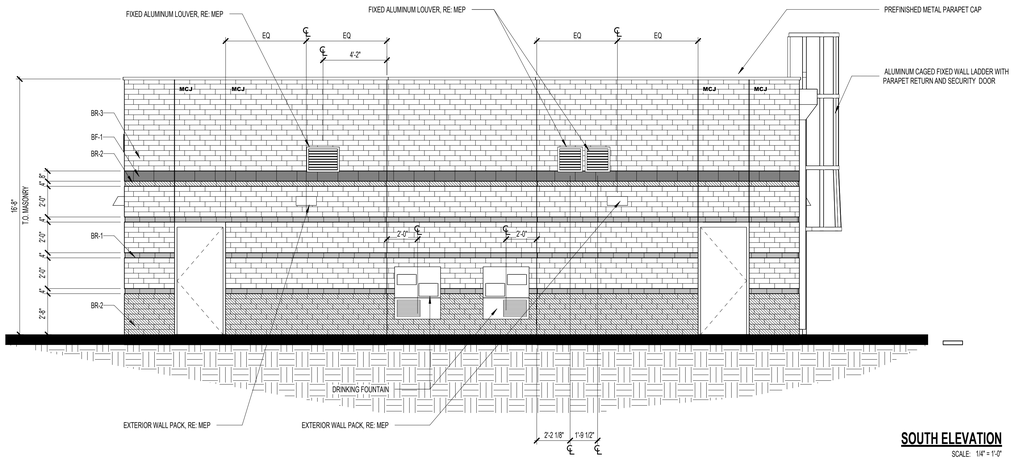
GENERAL NOTES - EXTERIOR ELEVATIONS

1. EXPOSED EXTERIOR STRUCTURAL STEEL MEMBERS SHALL BE PAINTED – COLOR SELECTED BY ARCHITECT.
2. STEEL MASONRY LINTELS SHALL BE GALVANIZED.
3. EXPOSED CONCRETE WALLS, COLUMNS, AND BEAMS, SHALL HAVE RUBBED GROUT FINISH.
4. MASONRY WEEP HOLES SHALL BE HAVE PVC HONEYCOMB VENTED WEEPS AT 16 " O.C. MAXIMUM.
5. EXTERIOR ALUMINUM STOREFRONT/CURTAIN WALL SYSTEM(S) SHALL HAVE ALUMINUM SUB-SILLS WITH SEALED END DAMS.
6. EXTERIOR ALUMINUM STOREFRONT/CURTAIN WALL SYSTEM(S) SHALL HAVE CONTINUOUS ALUMINUM BACKFILLERS.
7. FLEXIBLE MEMBRANE FLASHING AT WINDOWS SILLS AND LINTELS SHALL HAVE PRE-FORMED END DAMS.
8. CONTRACTOR SHALL PROVIDE FLEXIBLE MEMBRANE FLASHING ACROSS JOINTS BETWEEN DISSIMILAR MATERIALS TO INCLUDE, BUT NOT LIMITED TO, CMU TO STEEL FRAME, CMU TO STEEL DECKING, CMU TO EXTERIOR SHEATHING, ETC. TO PROVIDE COMPLETE AIR AND VAPOR BARRIER ACROSS BUILDING ENVELOPE.
9. MASONRY VENEER CONTROL JOINTS SHALL BE 3/8 ", AT INSIDE CORNERS, AT DISTANCES NOT TO EXCEED 3'-4" FROM OUTSIDE CORNERS, AND AT 30 '-0" O.C. MAXIMUM, UNLESS NOTED OTHERWISE. REFERENCE EXTERIOR ELEVATIONS.
10. GUTTERS, CONDUCTOR HEADS, AND DOWNSPOUTS SHALL BE PRE-FINISHED SHEET METAL. COLOR SELECTED BY ARCHITECT.
11. DOWNSPOUTS SHALL HAVE 16 GAUGE PRE-FINISHED DOWNSPOUT BOOTS TO 6 '-0" ABOVE FINISH GRADE. COLOR SELECTED BY ARCHITECT.
12. DOWNSPOUTS AND ROOF DRAINS SHALL BE CONNECTED TO STORM DRAIN SYSTEM UNLESS OTHERWISE NOTED. REFERENCE CIVIL FOR STORM DRAIN CONNECTION DETAILS AND LOCATIONS.
13. CONTRACTOR SHALL PROVIDE MOCK-UP FOR EACH EXTERIOR CONDITION AND CONSTRUCTION ASSEMBLY TYPE. MOCK-UP SHALL INCLUDE METAL FLASHINGS, VERTICAL AND HORIZONTAL FLEXIBLE MEMBRANE FLASHINGS, AND WINDOW INSTALLATIONS AS DETAILED IN CONSTRUCTION DOCUMENTS. MOCK-UP SHALL BE A MINIMUM OF 8 -0" TALL X 16 -0" LONG WITH AN EXTERIOR CORNER, INTERIOR CORNER, AND VERTICAL CONTROL JOINT. COORDINATE LOCATION OF MOCK-UP PANEL WITH ARCHITECT PRIOR TO CONSTRUCTION.
14. MECHANICAL ROOF TOP UNITS SHALL BE PAINTED. COLOR SELECTED BY ARCHITECT.

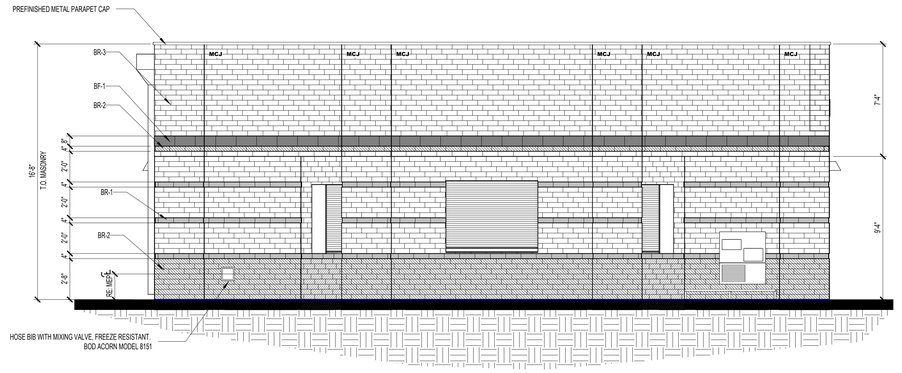
EXTERIOR MATERIAL LEGEND

- BRICK 1 (BR-1) UTILITY, RUNNING BOND
- BRICK 1 (BR-2) UTILITY, RUNNING BOND
- BRICK 1 (BR-3), RUNNING BOND
- BURNISHED FACE BLOCK (CMU-1), RUNNING BOND

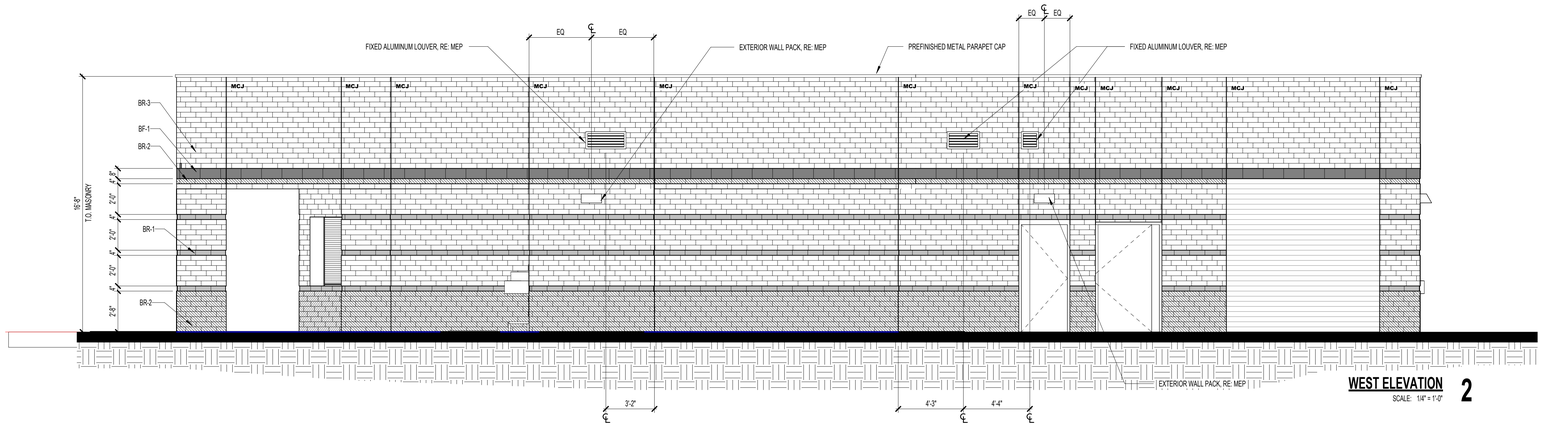
EXTERIOR ACCENT PAINT (EP-1)



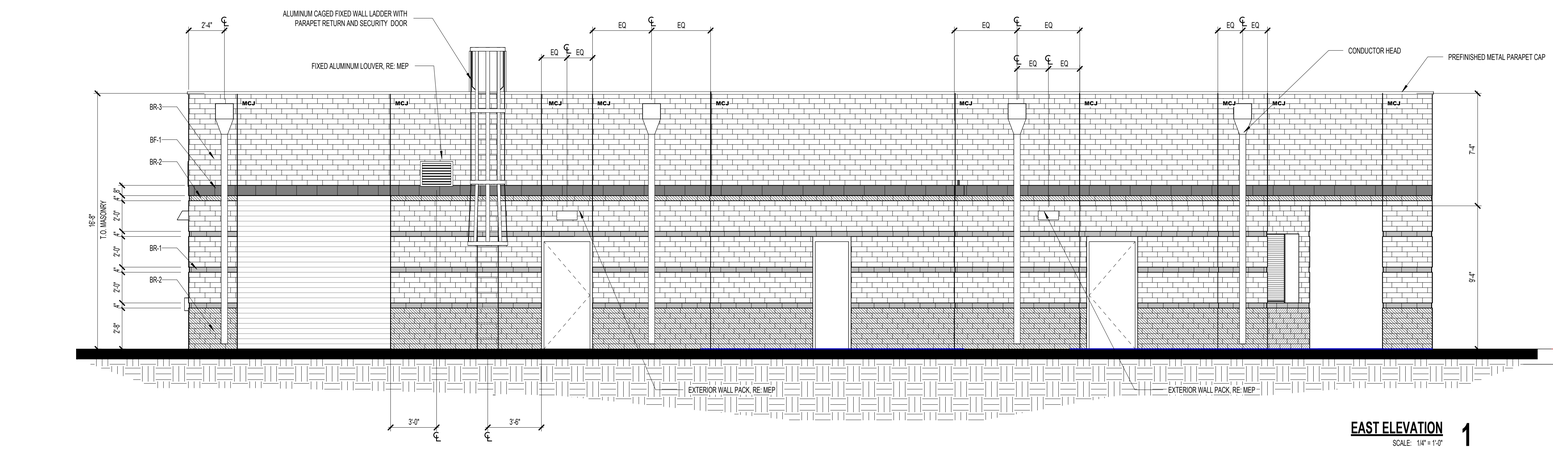
SOUTH ELEVATION 4
SCALE: 1/4" = 1'-0"



NORTH ELEVATION 3
SCALE: 1/4" = 1'-0"



WEST ELEVATION 2
SCALE: 1/4" = 1'-0"



EAST ELEVATION 1
SCALE: 1/4" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
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A6.00-H
CONCESSIONS
EXTERIOR ELEVATIONS

HIGHTOWER HIGH SCHOOL

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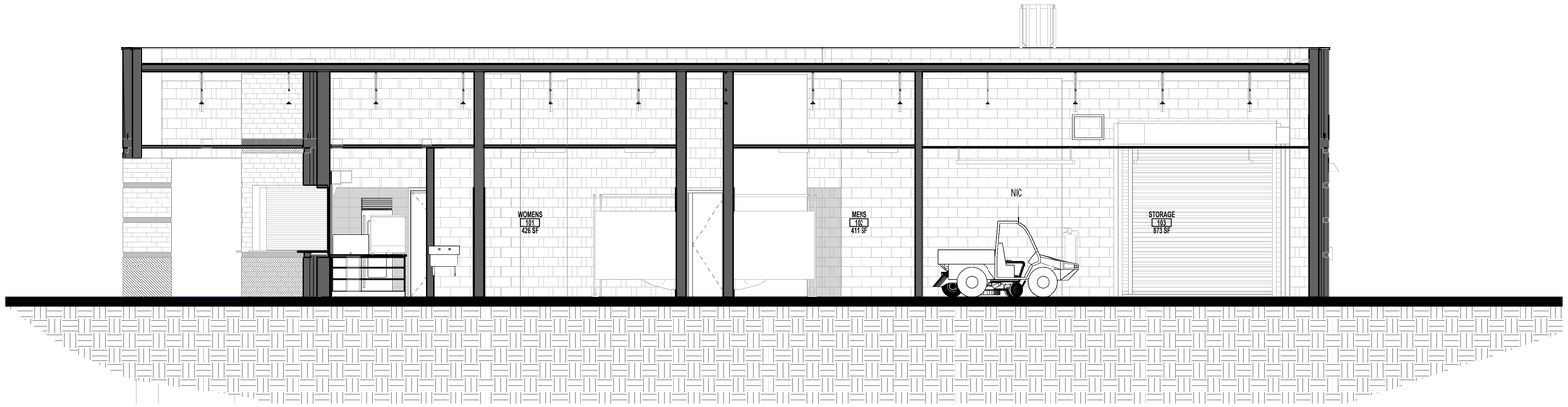

BUILDING SECTION 3 3
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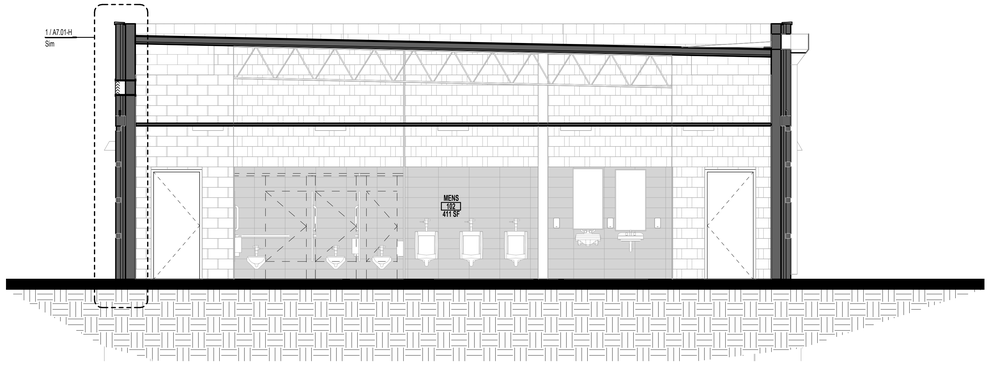

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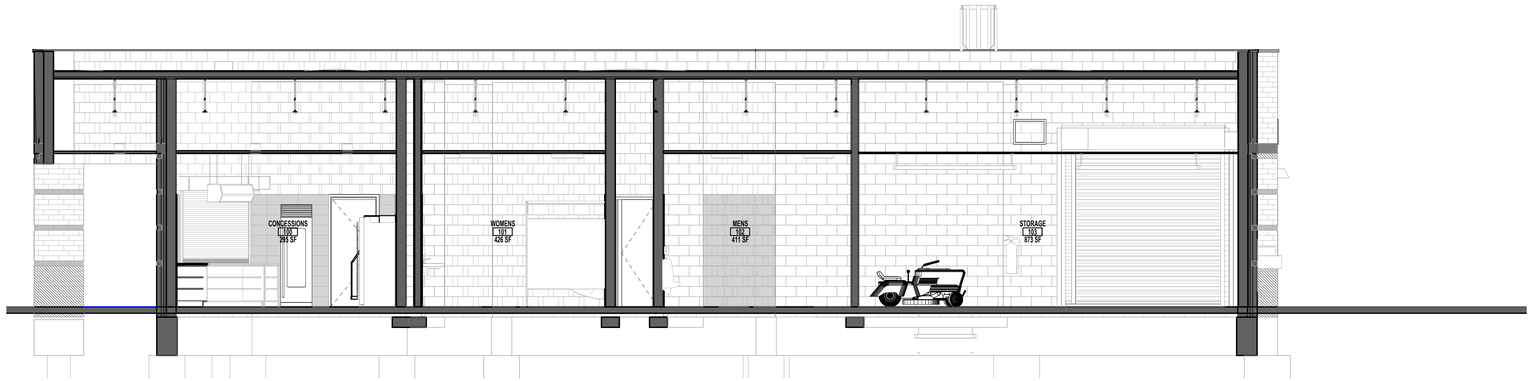

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BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

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Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: DRW	CHECKED BY: CHK
REVISIONS:	
No. Date	Description

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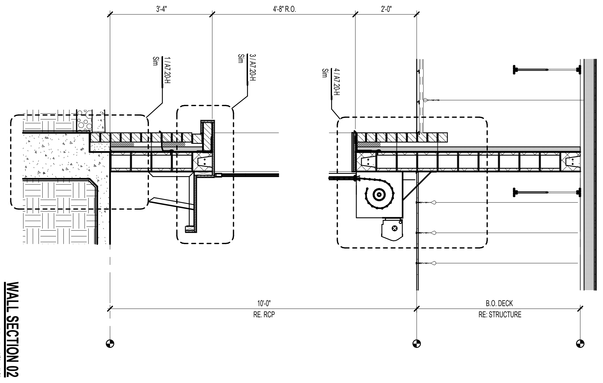
A7.00-H
BUILDING SECTIONS
CONCESSION

HIGHTOWER HIGH SCHOOL



WALL SECTION 02
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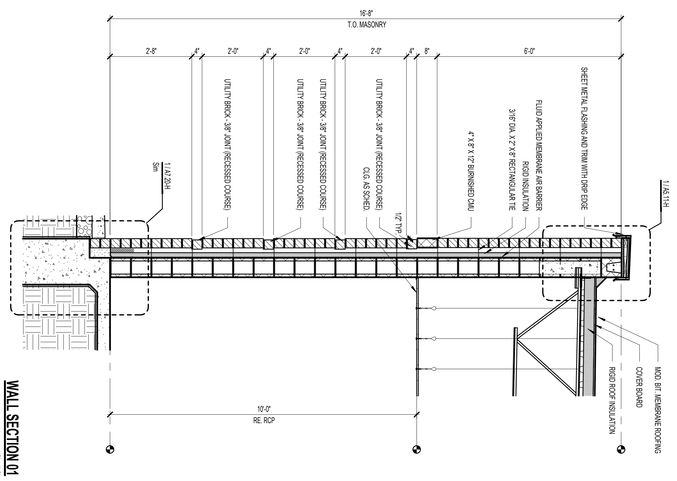
2



WALL SECTION 01
SCALE: 1/2" = 1'-0"
1

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WALL SECTIONS
CONCESSION

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PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW
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Date
Description

DATE: 12/04/2025

REGISTERED ARCHITECT
MICHAEL ALAMIE
2013
STATE OF TEXAS

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office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
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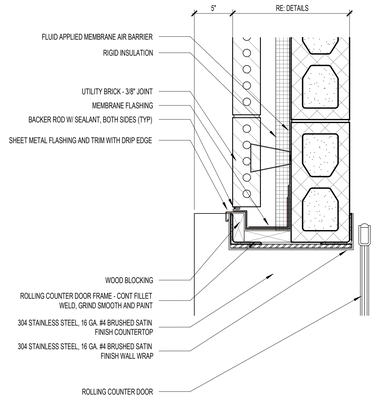
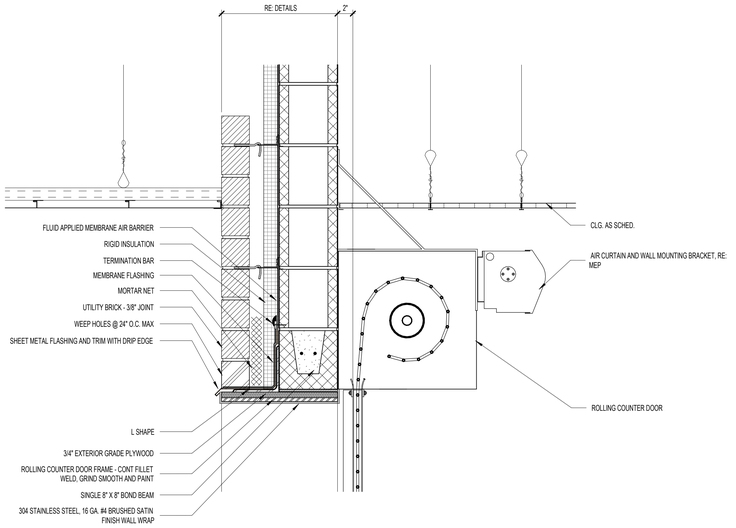
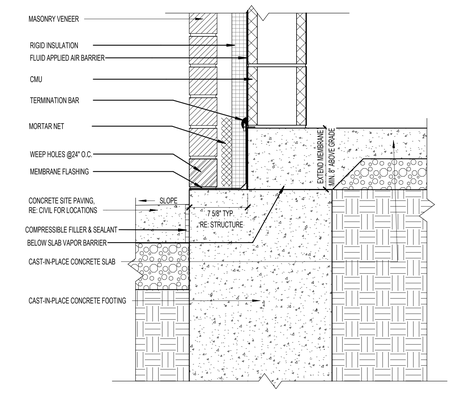


COUNTERTOP JAMB DETAIL 7
SCALE: 1 1/2" = 1'-0"



COUNTERTOP HEAD DETAIL 4
SCALE: 1 1/2" = 1'-0"



FOUNDATION DETAIL 2
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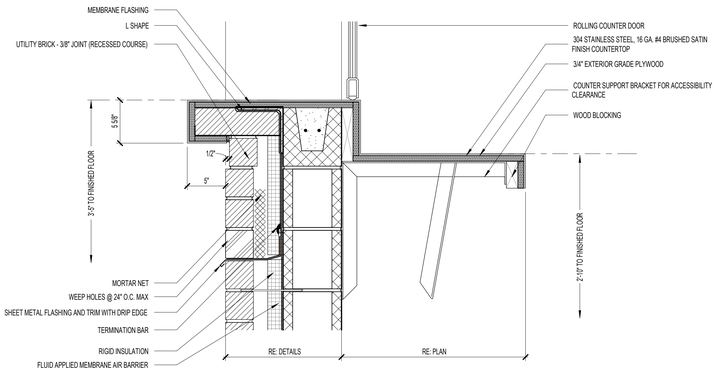

COUNTERTOP SILL DETAIL 3
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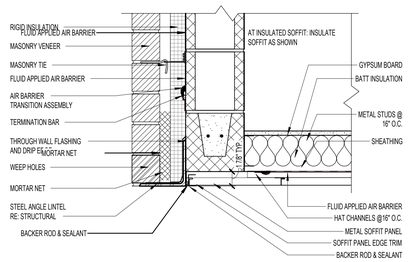
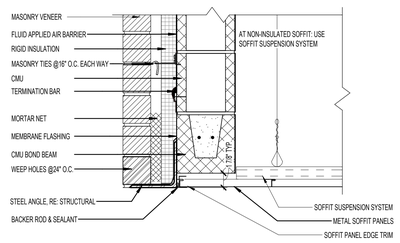


SECTION DETAIL - WALL RECESS 6
SCALE: 1 1/2" = 1'-0"



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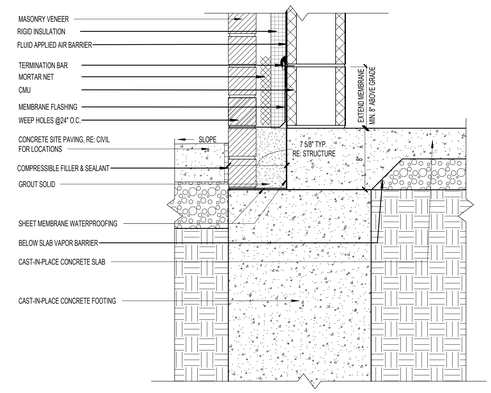

FOUNDATION DETAIL 1
SCALE: 1 1/2" = 1'-0"

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A7.20-H
SECTION DETAILS

HIGHTOWER HIGH SCHOOL

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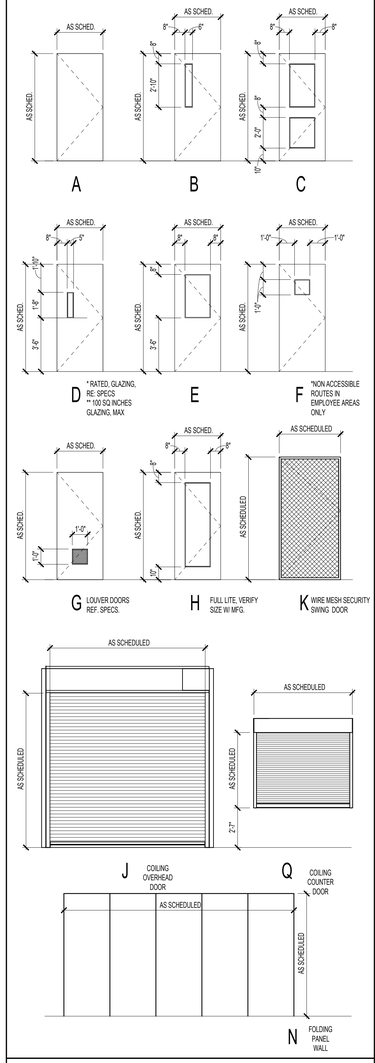
DOOR SCHEDULE

NUMBER	WIDTH	PANEL WIDTH	PANEL HEIGHT	PANEL TYPE	PANEL MATERIAL	FRAME TYPE	FRAME MATERIAL	FIRE RATING	HARDWARE	DETAILS HEAD	DETAILS JAMB	DETAILS THRESHOLD	COMMENTS
H100A	3'-0"	3'-0"	7'-0"	A	HM	HM2	HM		205	7/A8.00-H	9/A8.00-H		
H100B		6'-0"	4'-8"	Q	ALUM				001	5/A8.00-H	6/A8.00-H		INSULATED COILING COUNTER DOOR WITH JAMB LOCK
H100C		6'-0"	4'-8"	Q	ALUM				001	5/A8.00-H	6/A8.00-H		INSULATED COILING COUNTER DOOR WITH JAMB LOCK
H100D		6'-0"	4'-8"	Q	ALUM				001	5/A8.00-H	6/A8.00-H		INSULATED COILING COUNTER DOOR WITH JAMB LOCK
H101A	3'-0"	3'-0"	7'-0"	A	HM	HM2	HM		805L	7/A8.00-H	9/A8.00-H		
H101B	3'-0"	3'-0"	7'-0"	A	HM	HM2	HM		805L	7/A8.00-H	9/A8.00-H		
H102A	3'-0"	3'-0"	7'-0"	A	HM	HM2	HM		805L	7/A8.00-H	9/A8.00-H		
H102B	3'-0"	3'-0"	7'-0"	A	HM	HM2	HM		805L	7/A8.00-H	9/A8.00-H		
H103A	3'-0"	3'-0"	7'-0"	A	HM	HM2	HM		205	4/A8.01-H	9/A8.00-H		
H103B	3'-0"	3'-0"	7'-0"	A	HM	HM2	HM		205	4/A8.01-H	9/A8.00-H		
H103C	10'-0"	10'-0"	10'-0"	K	AL	-	AL	-	001	5/A8.00-H	6/A8.00-H	10/A8.00-H	INSULATED MOTORIZED OVERHEAD COILING DOOR
H103D	10'-0"	10'-0"	10'-0"	K	AL	-	AL	-	001	5/A8.00-H	6/A8.00-H	10/A8.00-H	INSULATED MOTORIZED OVERHEAD COILING DOOR
H104	4'-0"	4'-0"	7'-0"	A	HM	HM2	HM			7/A8.00-H	9/A8.00-H		CARD READER ACCESS
H105	3'-0"	3'-0"	7'-0"	A	HM	HM2	HM		205	7/A8.00-H	9/A8.00-H		
H106	3'-0"	3'-0"	7'-0"	A	HM	HM2	HM		205	7/A8.00-H	9/A8.00-H		
H107	2'-0"	2'-0"	7'-0"	A	HM	HM2	HM		205	7/A8.00-H	9/A8.00-H		

DOOR SCHEDULE GENERAL NOTES

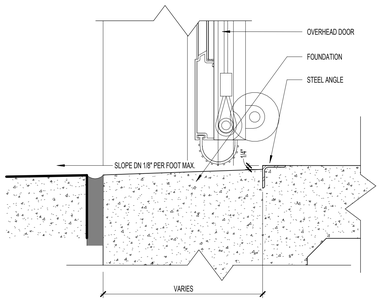
1. REFER TO THE SPECIFICATIONS FOR HARDWARE DESCRIPTIONS
2. REFER TO A 8.00-H FOR DOOR HEAD JAMB AND SILL DETAILS
3. REF. SPECIFICATIONS FOR GLAZING TYPES
4. ALL DOORS IN SMOKE RESISTANT PARTITIONS TO HAVE POSITIVE LATCHING AND BE SMOKE TIGHT (ST)
5. ALL DOORS TO HAVE BOXED HEADERS UNLESS STEEL CHANNELS ARE INDICATED IN THE COMMENT COLUMN OF THE DOOR SCHEDULE OR UNLESS OTHERWISE INDICATED BY HEAD DETAIL
6. ALL CLOSERS TO BE LOCATED ON THE ROOM SIDE OF THE DOOR WHERE INSTALLED AT CORRIDORS. IN NON CORRIDORS, CLOSERS TO BE INSTALLED AT THE ROOM SIDE FOR THE ROOM BEING SERVED BY THE OPENER
7. ALL FIRE RATINGS NOTED IN MINUTES

DOOR PANEL TYPES



DOOR SCHEDULE ABREVIATIONS

AL: ALUMINUM	RM: REFER TO MANUFACTURER	MIN: MINUTES
HM: HOLLOW METAL	ST: SMOKE TIGHT	HW: HARDWARE
MTL: METAL	SCW: SOLID CORE WOOD	
CL: CHAIN LINK	FBC: POLYMER CORE	



OVERHEAD DOOR THRESHOLD 10
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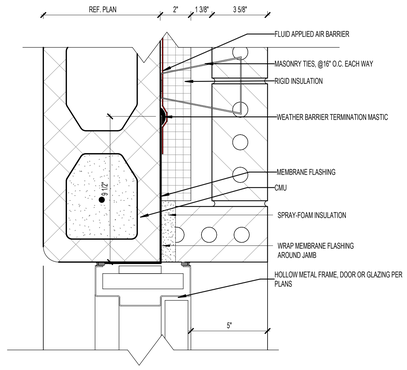

HM JAMB - MASONRY W/CMU 9
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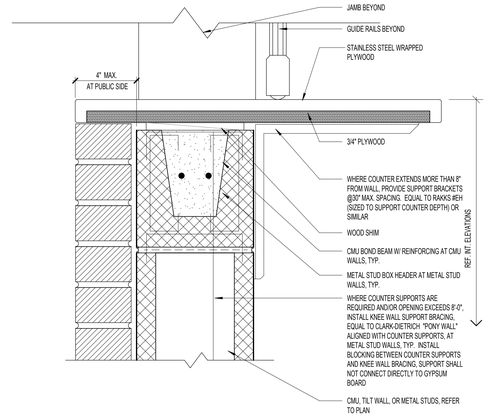
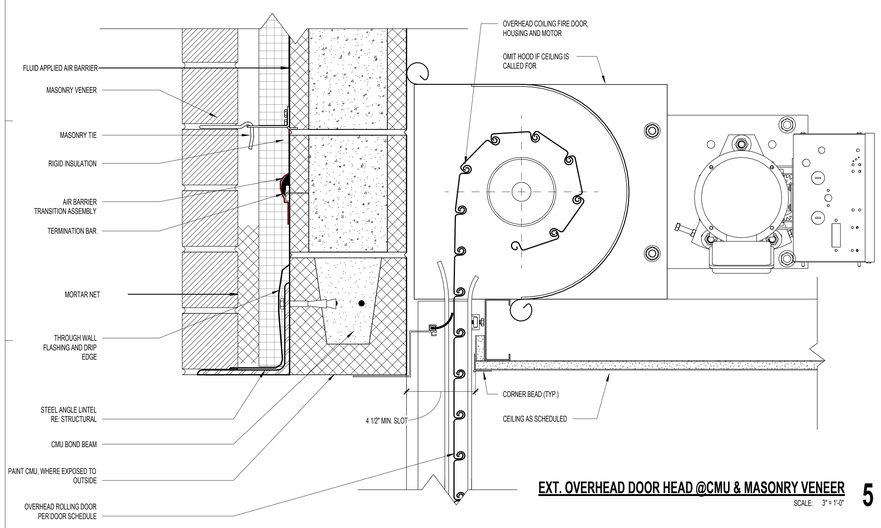
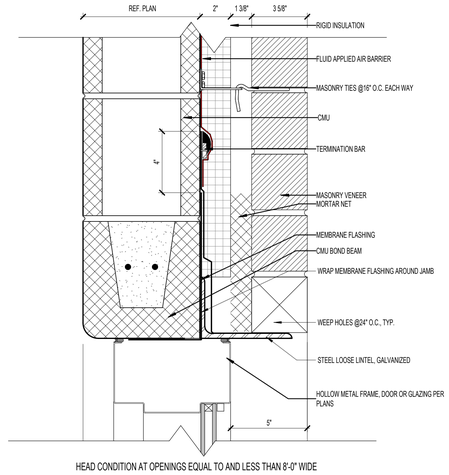


EXT. COUNTER SHUTTER SILL - METAL STUD OR CMU WALL 8
SCALE: 3" = 1'-0"

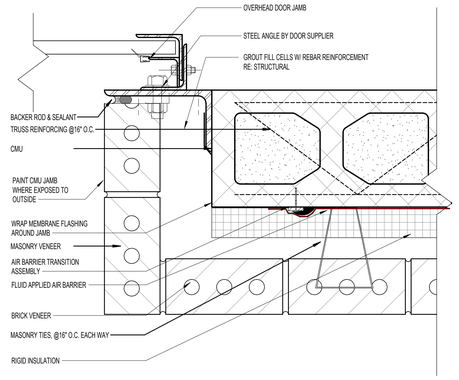


EXT. OVERHEAD DOOR HEAD @CMU & MASONRY VENEER 5
SCALE: 3" = 1'-0"



HEAD CONDITION AT OPENINGS EQUAL TO AND LESS THAN 8'-0" WIDE

HM HEAD - MASONRY W/CMU 7
SCALE: 3" = 1'-0"



EXT. OH DR - JAMB - CMU & MASONRY VENEER 6
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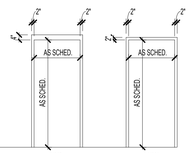

HOLLOW METAL FRAME TYPES 4
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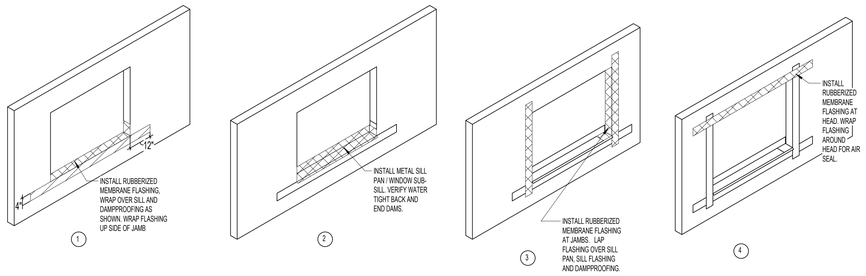

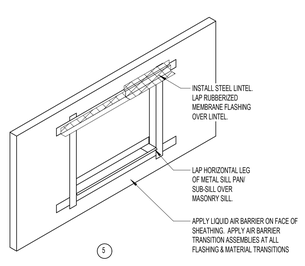

WINDOW FLASHING SEQUENCE 3
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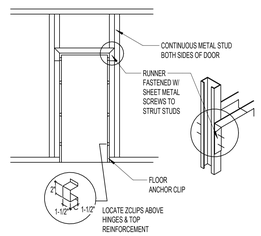
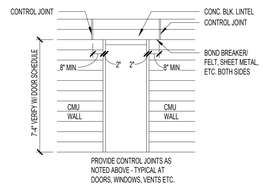


DOOR FRAME DETAIL @ METAL STUDS 2
SCALE: 1/4" = 1'-0"



DOOR FRAME DETAIL @ MASONRY 1
SCALE: 1/4" = 1'-0"

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office: 512.476.4040 | fax: 512.476.4289
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REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

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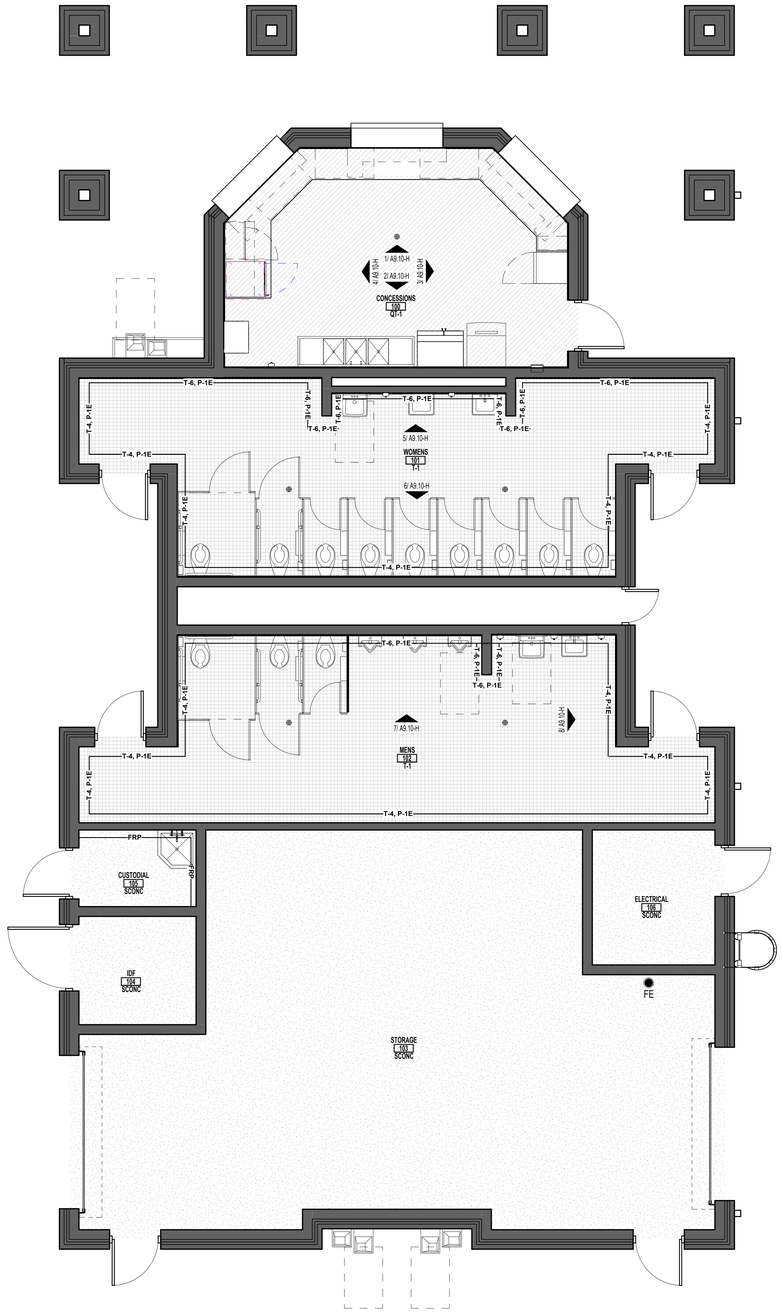
A8.00-H
DOOR SCHEDULE

HIGHTOWER HIGH SCHOOL



01 FINISH FLOOR PLAN CONCESSIONS 1

SCALE: 1/4" = 1'-0"

MATERIAL FINISH LEGEND

RF-1 RESINOUS FLOOR	T-1 PORCELAIN TILE
LVT-1 RESILIENT FLOORING	WF -1 WALK-OFF
QT-1 QUARRY TILE	SCONC SEALED CONCRETE

PROVIDE CONTROL JOINTS (C.J.) AS SHOWN & AT COLOR CHANGES. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS

SYMBOLS

MW	MARKER WALL - DRY ERASE WALL-COVERING
CJ	CONTROL JOINT*
EJ	EXPANSION JOINT
CG	CORNER GUARD
IS	INTERIOR MANUAL ROLLER SHADE
ES	EXTERIOR MANUAL ROLLER SHADE

ROOM
100
PCON | SAP-1
CEILING FINISH
FLOOR FINISH

* PROVIDE CONTROL JOINTS AS SHOWN. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS. REFER TO STRUCTURAL DWGS FOR DIMENSIONS. AT COLOR TRANSITIONS, PROVIDE SCORE LINE U.N.O.

** REFER TO ROOM FINISH SCHEDULE FOR FULL LIST OF FINISH WITHIN ROOM

FLOOR TRANSITIONS

REF TO MATERIAL SCHEDULE FOR ALUMINUM TRANSITION TYPES. REF TO SPECS FOR MARBLE THRESHOLDS.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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01 FINISH FLOOR PLAN CONCESSION

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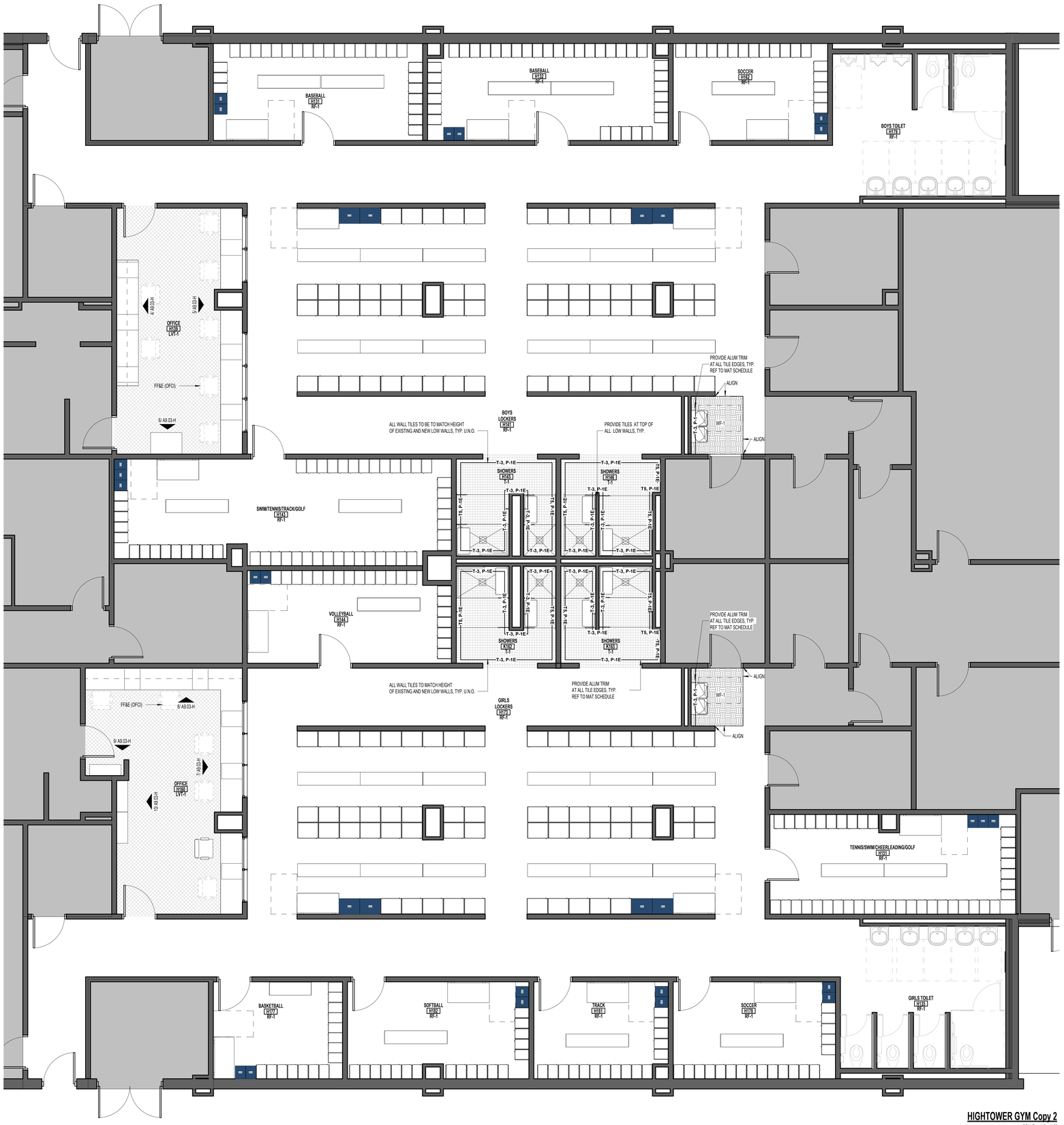

HIGHTOWER GYM Copy 2
SCALE: 1/4" = 1'-0"

1

MATERIAL FINISH LEGEND

RF-1 RESINOUS FLOOR	T-1 PORCELAIN TILE
LVT-1 RESILIENT FLOORING	WF -1 WALK-OFF
QT-1 QUARRY TILE	SCONC SEALED CONCRETE

PROVIDE CONTROL JOINTS (C.J.) AS SHOWN & AT COLOR CHANGES. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS

SYMBOLS

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CJ	CONTROL JOINT*
EJ	EXPANSION JOINT
CG	CORNER GUARD
IS	INTERIOR MANUAL ROLLER SHADE
ES	EXTERIOR MANUAL ROLLER SHADE

ROOM
100
PCON | SAP-1
CEILING FINISH
FLOOR FINISH

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GYM

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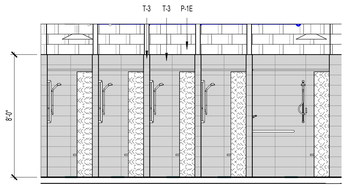
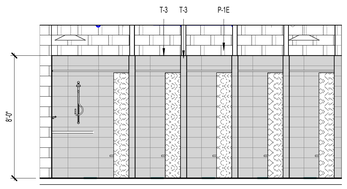


VARSITY LOCKER ROOM SHOWERS 5
SCALE: 1/4" = 1'-0"



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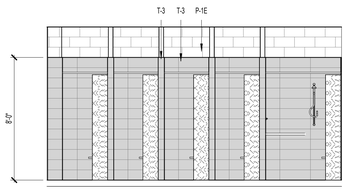

SOPHOMORE LOCKER ROOM SHOWERS 3
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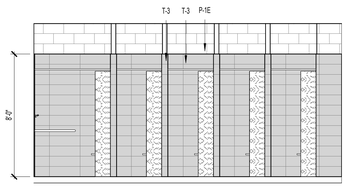

FRESHMAN LOCKER ROOM SHOWERS 2
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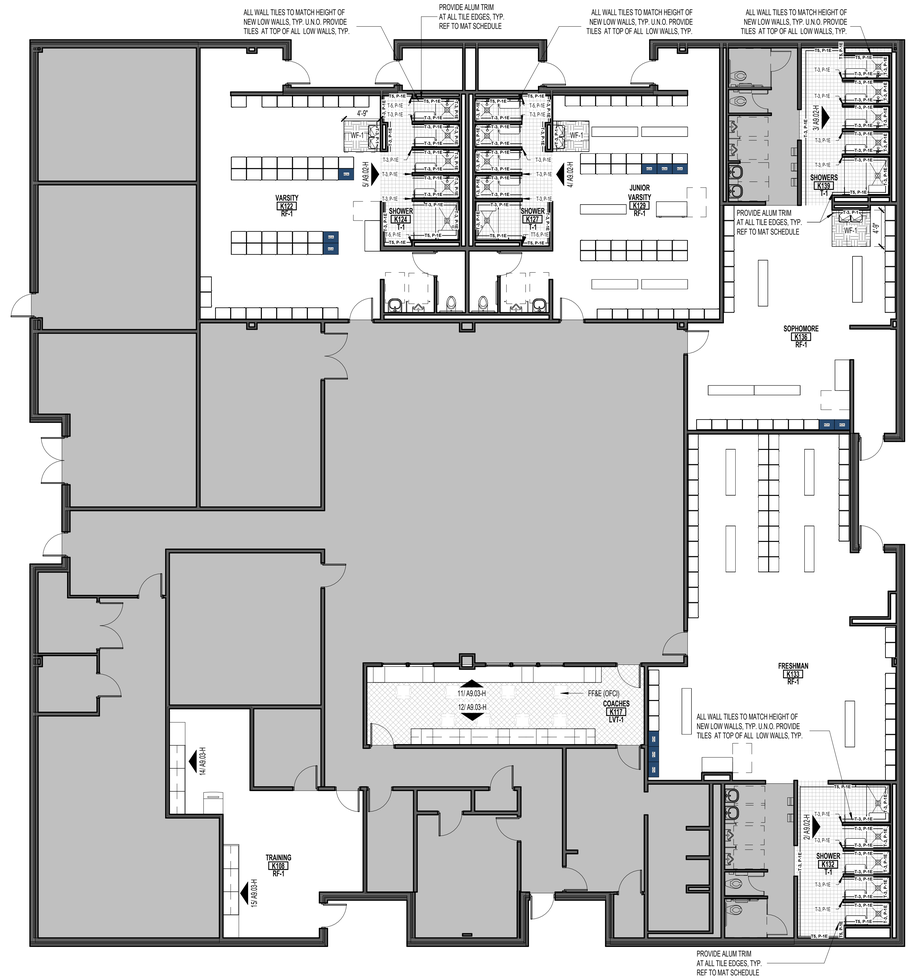
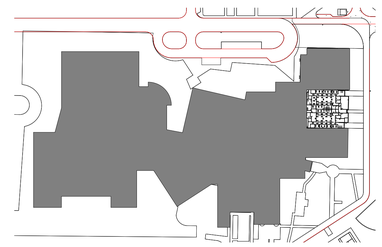


01 FINISH FLOOR PLAN FIELD HOUSE 1
SCALE: 1/8" = 1'-0"



MATERIAL FINISH LEGEND

- RF-1 RESINOUS FLOOR
- T-1 PORCELAIN TILE
- LVT-1 RESILIENT FLOORING
- WF -1 WALK-OFF
- QT-1 QUARRY TILE
- SCONC SEALED CONCRETE

PROVIDE CONTROL JOINTS (C.J.) AS SHOWN & AT COLOR CHANGES. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS

SYMBOLS

MW	MARKER WALL - DRY ERASE WALL-COVERING
CJ	CONTROL JOINT*
EJ	EXPANSION JOINT
CG	CORNER GUARD
IS	INTERIOR MANUAL ROLLER SHADE
ES	EXTERIOR MANUAL ROLLER SHADE

ROOM 100
PCON | SAP-1
CEILING FINISH
FLOOR FINISH

* PROVIDE CONTROL JOINTS AS SHOWN. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS. REFER TO STRUCTURAL DWGS FOR DIMENSIONS. AT COLOR TRANSITIONS, PROVIDE SCORE LINE U.N.O.

** REFER TO ROOM FINISH SCHEDULE FOR FULL LIST OF FINISH WITHIN ROOM

FLOOR TRANSITIONS

REF TO MATERIAL SCHEDULE FOR ALUMINUM TRANSITION TYPES. REF TO SPECS FOR MARBLE THRESHOLDS.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
30113
STATE OF TEXAS
DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
Date Description

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A9.02-H
FINISH PLAN FIELD HOUSE AND INTERIOR ELEVATIONS
HIGHTOWER HIGH SCHOOL

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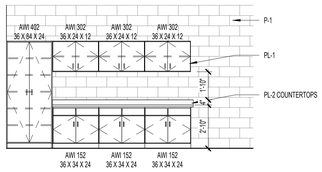

WEST ELEVATION 02 TRAINING ROOM 15
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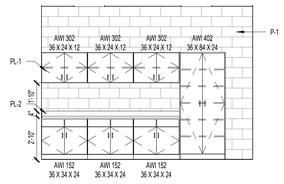

TRAINING ROOM WEST ELEVATION 01 14
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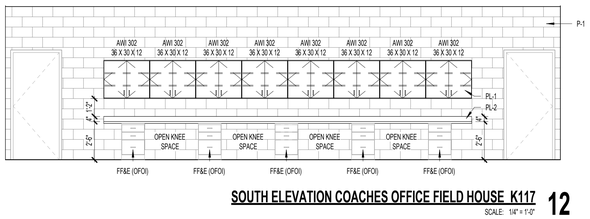
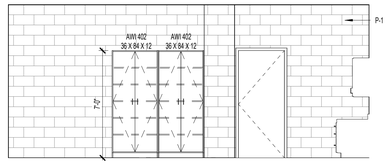


SOUTH ELEVATION COACHES OFFICE FIELD HOUSE K117 12
SCALE: 1/4" = 1'-0"



WEST ELEVATION COACHES OFFICE H160 10
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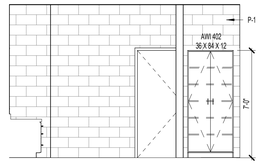
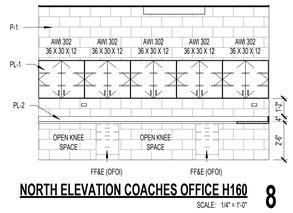


SOUTH ELEVATION 1 COACHES OFFICE 9
SCALE: 1/4" = 1'-0"



NORTH ELEVATION COACHES OFFICE H160 8
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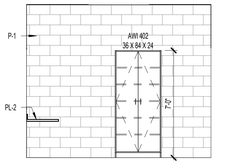

SOUTH ELEVATION COACHES OFFICE H139 6
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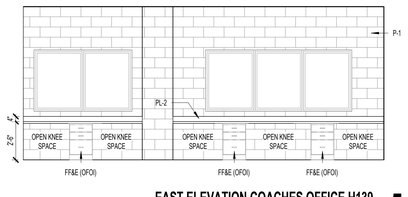

EAST ELEVATION COACHES OFFICE H139 5
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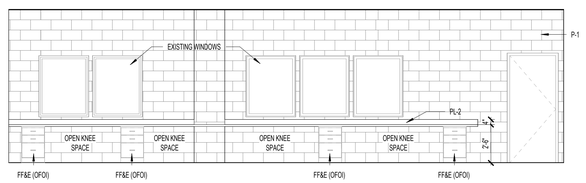

NORTH ELEVATION COACHES OFFICE FIELD HOUSE K117 11
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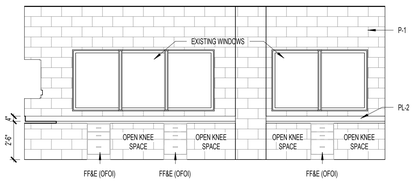

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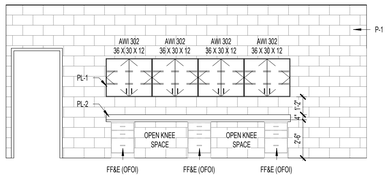

WEST ELEVATION COACHES OFFICE H139 4
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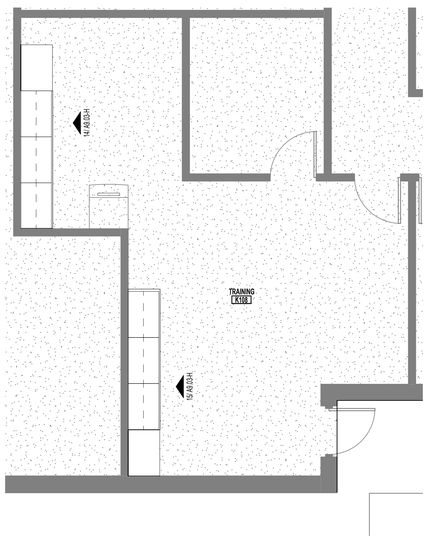
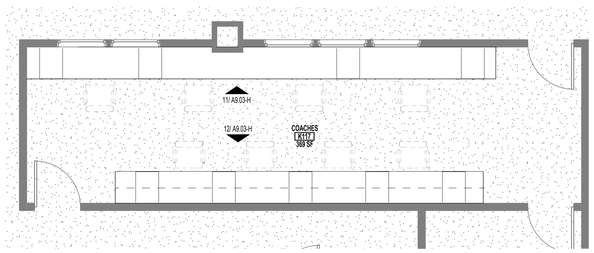


ENLARGED PLAN TRAINING ROOM 13
SCALE: 1/4" = 1'-0"



01 ENLARGED FLOOR PLAN FIELD HOUSE COACHES OFFICE K117 3
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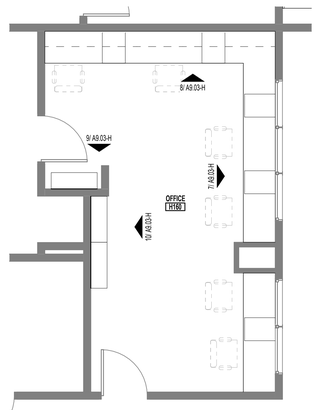

ENLARGED PLAN COACHES OFFICE 160 2
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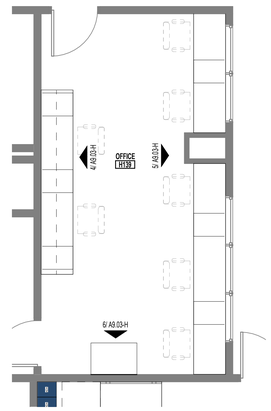

ENLARGED PLAN COACHES OFFICE H139 1
SCALE: 1/4" = 1'-0"

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

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INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
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20113
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A9.03-H
01 COACH OFFICES
INTERIOR ELEVATIONS

HIGHTOWER HIGH SCHOOL

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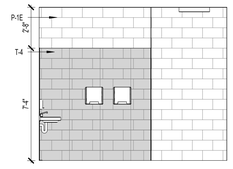
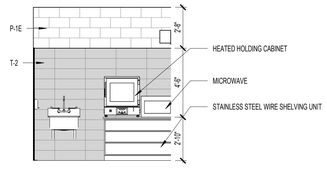


MENS RESTROOM EAST ELEVATION 8
SCALE: 1/4" = 1'-0"



CONCESSION WEST ELEVATION 4
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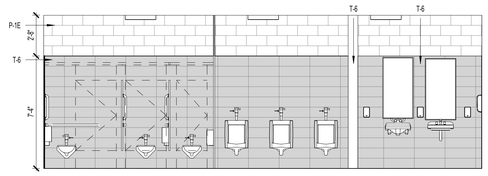

MENS RESTROOM NORTH ELEVATION 7
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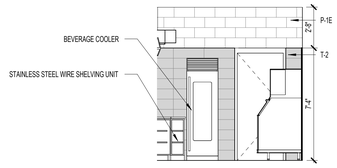

CONCESSION EAST ELEVATION 3
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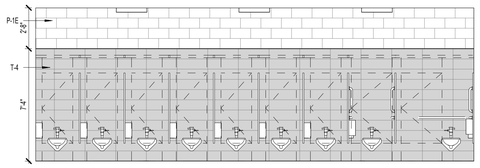
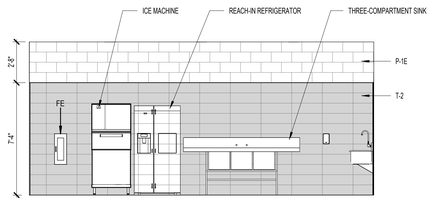


WOMENS RESTROOM SOUTH ELEVATION 6
SCALE: 1/4" = 1'-0"



CONCESSION SOUTH ELEVATION 2
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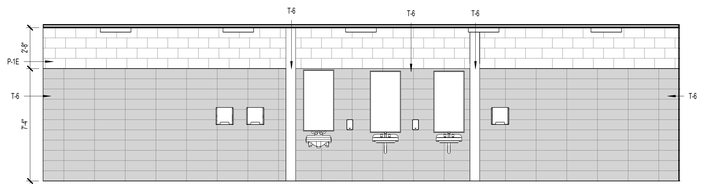

WOMENS RESTROOM NORTH ELEVATION 5
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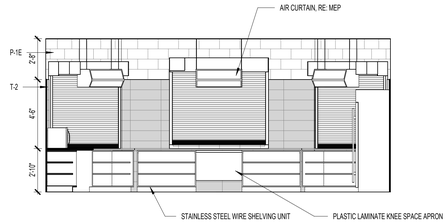

CONCESSIONS NORTH ELEVATION 1
SCALE: 1/4" = 1'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459
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INSPIRE•EQUIP•IMAGINE
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MICHAEL ADAME
20113
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Date Description

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A9.10-H
CONCESSION INTERIOR ELEVATIONS

HIGHTOWER HIGH SCHOOL

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ROOM FINISH SCHEDULE - FIELD HOUSE

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	REMARKS
K108	TRAINING	RF-1	RFB-1	P-1	P-1	P-1	P-1	
K117	COACHES	LVT-1	RB-1	P-1	P-1	P-1	P-2	
K122	VARSITY	RF-1	RFB-1	P-1	P-1	P-1	P-1	
K124	SHOWERS	T-1	TB-1	T, P-1/E	T, P-1/E	T, P-1/E	T, P-1/E	
K127	SHOWER	T-1	TB-1	T, P-1/E	T, P-1/E	T, P-1/E	T, P-1/E	
K129	JUNIOR VARSITY	RF-1	RFB-1	P-1	P-1	P-1	P-1	
K132	SHOWER	T-1	TB-1	T, P-1/E	T, P-1/E	T, P-1/E	T, P-1/E	
K133	PERSONNEL	RF-1	RFB-1	P-1	P-1	P-1	P-1	
K136	SHOWERS	RF-1	RFB-1	P-1	P-1	P-1	P-1	
K139	SHOWERS	T-1	TB-1	T, P-1/E	T, P-1/E	T, P-1/E	T, P-1/E	

ROOM FINISH SCHEDULE - GYM LOCKER ROOMS

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	REMARKS
H131	BASEBALL	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H132	BASEBALL	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H135	CHILD CARE	RF-1	RFB-1	P, P-1/E	P, P-1/E	P, P-1/E	P, P-1/E	
H139	OFFICE	LVT-1	RB-1	P-1	P-1	P-1/E	P-1	
H141	BOYS LOCKERS	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H143	SWIM/TENNIS/TRACK/GOLF	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H144	VOLLEYBALL	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H146	SHOWERS	T-1	TB-1	T, P-1/E	T, P-1/E	T, P-1/E	T, P-1/E	
H148	SHOWERS	T-1	TB-1	T, P-1/E	T, P-1/E	T, P-1/E	T, P-1/E	
H151	TENNIS/SWIMCHEER/LEADING/GOLF	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H160	OFFICE	LVT-1	RB-1	P-1	P-1	P-1	P-2	
H161	TRACK	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H162	TRACK	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H173	GIRLS LOCKERS	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H177	BASKETBALL	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H178	SOCCER	RF-1	RFB-1	P-1	P-1	P-1	P-1	
H179	BOYS TOILET	RF-1	RFB-1	P, P-1/E	P, P-1/E	P, P-1/E	P, P-1/E	
H182	SHOWERS	RF-1	RFB-1	P, P-1/E	P, P-1/E	P, P-1/E	P, P-1/E	
K162	SHOWERS	T-1	TB-1	T, P-1/E	T, P-1/E	T, P-1/E	T, P-1/E	
K163	SHOWERS	T-1	TB-1	T, P-1/E	T, P-1/E	T, P-1/E	T, P-1/E	

ROOM FINISH SCHEDULE - NEW CONCESSIONS BUILDING

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	REMARKS
100	CONCESSIONS	QT-1	TB-2	T-2	T-2	T-2	T-2	7' HEIGHT TILE P-1/E ABOVE
101	WOMENS	T-1	TB-1	T, P-1/E	T, P-1/E	T, P-1/E	T, P-1/E	REF TO FINISH PLAN
102	MENS	T-1	TB-1	T, P-1/E	T, P-1/E	T, P-1/E	T, P-1/E	REF TO FINISH PLAN
103	STORAGE	SCONC	RB-1	P-1	P-1	P-1	P-1	
104	IDF	SCONC	RB-1	P-1	P-1	P-1	P-1	
105	CUSTODIAL	SCONC	RB-1	P-1	P-1	P-1	P-1	
106	ELECTRICAL	SCONC	RB-1	P-1	P-1	P-1	P-1	

MATERIAL SCHEDULE

MARK	MATERIAL	MANUFACTURER	STYLE	COLOR	SPECS	REMARKS
01 FLOOR FINISH						
LVT-1	LUXURY VINYL TILE	TARKETT				AT OFFICES
QT-1	QUARRY TILE	AMERICAN OLEAN				CONCESSIONS BUILDING
SC-1	SEALED CONCRETE	STONHARD	STONSHIELD SL1	CUSTOM GRAY BASE, SCHOOL COLOR ACCENT	EME EPOXY COAT OVER	CONCESSIONS BUILDING
SCWC	SEALED CONCRETE					WOOD STOP AT JOINTS
T-1	PORCELAIN TILE	AMERICAN OLEAN	LINO LAZIED MOSAICS	STORM GRAY	2"X2" MOSAIC	SHOWERS & NEW RESTROOMS
WF-1	WALK-OFF CARPET	TARKETT	ABRASIVE ACTION II		POWERBOND, ROLL	AT DRINKING FOUNTAINS
02 BASE						
RB-1	RUBBER BASE	JOHNSONITE				FIELD
RFB-1	RESINOUS FLOORING BASE	STONHARD	STONSHIELD SL1		COVE BASE 4" HEIGHT	
TB-1	TILE BASE	AMERICAN OLEAN	LINO LAZIED MOSAICS	STORM GRAY	COVE BASE	SHOWERS
TB-2	QUARRY TILE BASE	AMERICAN OLEAN				
03 WALL FINISH						
FRP	FIBERGLASS REINFORCED PANELING					AT MOP SINKS
P-1	PAINT	SHERWIN WILLIAMS		SW 7064 PASSIVE		FIELD PAINT
P-1/E	EPOXY PAINT	SHERWIN WILLIAMS		MATCH P-1, U.N.O.		EPOXY PAINT AT WET AREAS
T-1	WALL TILE	AMERICAN OLEAN		BALTIMORE CLUB		CONCESSIONS - SCHOOL COLOR
T-2	WALL TILE	AMERICAN OLEAN		CALM WAVES	8"X24" GLOSSY	CONCESSIONS
T-3	WALL TILE	AMERICAN OLEAN	COLOR STORY WALL	CALM WAVES	8"X24" GLOSSY	SHOWERS, FIELD
T-4	WALL TILE	AMERICAN OLEAN	COLOR STORY FLOOR	DESIGNER WHITE 0061	12X24, MATTE	NEW RESTROOMS, FIELD
T-5	WALL TILE	AMERICAN OLEAN	COLOR STORY WALL	WISDOM 0082	8"X24" GLOSSY	SHOWERS, ACCENT
T-6	WALL TILE	AMERICAN OLEAN	COLOR COMPLEMENTS	CUSTOM COLOR TO MATCH SW 6466 HUNT	12X24, MATTE	NEW RESTROOMS, ACCENT
04 CEILING FINISH						
ACT-1	ACOUSTICAL PANEL CEILING	ARMSTRONG	FINE FISSURED, SCHOOL ZONE	WHITE	2X2 SQUARE LAY-IN	
ACT-2	ACOUSTICAL PANEL CEILING	ARMSTRONG	CLEAN ROOM II, NO.870	WHITE	2X2 SQUARE EDGE	OFFICES
ACT-3	ACOUSTICAL PANEL CEILING	ARMSTRONG	CLEAN ROOM II, NO.880	WHITE	2X2 SQUARE EDGE	RESTROOMS
DP-1				PAINTED P-1 U.N.O.	REF SPECS FOR PAINT FINISH	CONCESSIONS, FOOD PREP AREA
DP-2				PAINTED P-1 U.N.O.		
GYP-1	GYPSUM BOARD CEILING					
MGS-1	METAL CEILING SYSTEM	CERTAINTEED	DEEP BOX SERIES, EXTERIOR		6" PANELS	CONCESSION BUILDING, SOFFIT
06 MISC FINISHES						
	LOCKERS	LIST INDUSTRIES		TAN EVERGREEN		REF TO LOCKER SCHEDULE
	BENCHES			BLACK TOPS, STEEL PEDESTALS		
G-1/E	EPOXY GROUT				MATTE FINISH	AT WET AREAS
PL-1	PLASTIC LAMINATE	WILSONART		BERGENWOOD 7856W	MATTE FINISH	CASEWORK AT OFFICES (GYM)
PL-2	PLASTIC LAMINATE	WILSONART		DOVE GREY	MATTE FINISH	CASEWORK AT CONCESSIONS
SS-1	STAINLESS STEEL COUNTER				304 SS, 4 GA #4 BRUSHED SATIN FINISH	CONCESSIONS COUNTERTOP
08 TRANSITION						
TR-1	ALUMINUM TRIM	SCHLUTER		ANODIZED	ADA COMPLIANT	RF-1 TO EXISTING
TR-2	ALUMINUM TRIM	SCHLUTER	JOLLY	ANODIZED	ADA COMPLIANT	AT TILE EDGES
TR-3	ALUMINUM TRIM	SCHLUTER	RENO-TK	ANODIZED	ADA COMPLIANT	WF TO RF-1
TR-4	ALUMINUM TRIM	SCHLUTER	VIANPROJ	ANODIZED	ADA COMPLIANT	RF-1 TO LVT
07 EXTERIOR						
BR-1	BRICK	KANSAS BRICK & TILE	UTILITY	550 DARK	RUNNING BOND	
BR-2	BRICK	KANSAS BRICK & TILE	UTILITY	550 DARK	RUNNING BOND	
BR-3	BRICK	KANSAS BRICK & TILE	UTILITY	580 CHARCOAL	RUNNING BOND	
CMU-1	SMOOTH FACE	BEST BLOCK			RUNNING BOND	EXTERIOR
CMU-2	SMOOTH FACE	BEST BLOCK		PAINTED P-1 U.N.O.	RUNNING BOND	NEW INTERIOR CMU WALLS
PM-1	PREFINISHED METAL	BERRIDGE				

pflueger
Office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
Pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

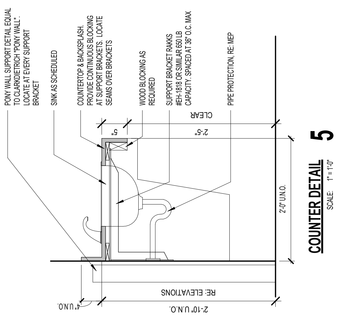
REGISTERED ARCHITECT MICHAEL THOMAS ADAME 31018 STATE OF TEXAS

DATE: 12/4/2025

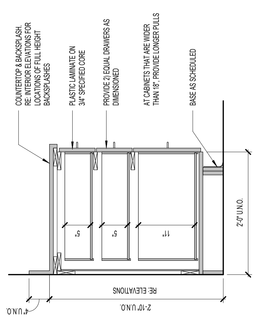
PROJECT NO. 25.006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS
No. Date Description

100% CD
A9.11-H
MATERIAL SCHEDULE & ROOM FINISH SCHEDULE
HIGHTOWER HIGH SCHOOL

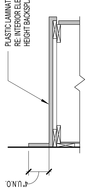
12/4/2025 10:23:44 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/25-006_HIGHTOWER_ARCH_H_R25.rvt



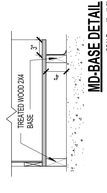
COUNTER DETAIL 5
SCALE 1" = 1'-0"



CABINET DETAIL 4
SCALE 1" = 1'-0"



MD-COUNTER DETAIL 3
SCALE 1" = 1'-0"



MD-BASE DETAIL 2
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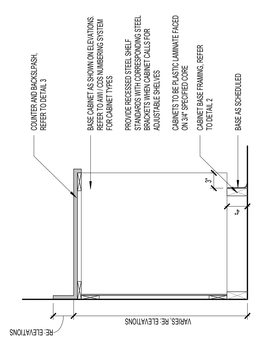
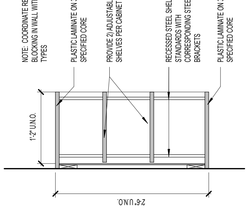
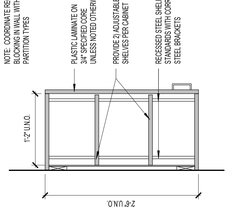


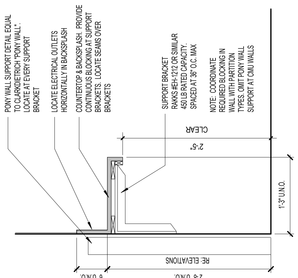
CABINET DETAIL 1
SCALE 1" = 1'-0"



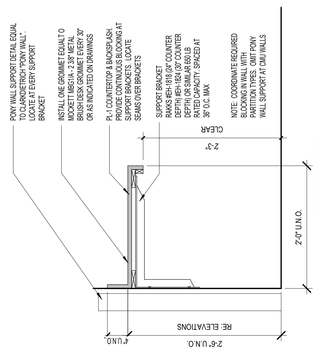
CABINET DETAIL 9
SCALE 1" = 1'-0"



CABINET DETAIL 8
SCALE 1" = 1'-0"



COUNTER DETAIL 7
SCALE 1" = 1'-0"



COUNTER DETAIL 6
SCALE 1" = 1'-0"

pflueger
Office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459
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Sugarland, TX 77479

REGISTERED ARCHITECT STATE OF TEXAS

DATE: 12/4/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: Author	CHECKED BY: Checker

REVISIONS	
Date	Description

100% CD
A9.31-H
BASE CABINET DETAILS

HIGHTOWER HIGH SCHOOL



RENOVATE GYM
LOCKER ROOMS



REFLECTED CEILING PLAN GYM LOCKERS 2

SCALE: 1/4" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- 2' X 4' LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (SUSPENDED)
- LINEAR LED FIXTURE (SURFACE MOUNTED)
- RECESSED CAN FIXTURE
- PENDANT LIGHT FIXTURE
- SURFACE MOUNTED CAN LIGHT FIXTURE
- WALL SCONCE
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- SUSPENDED GYPSUM BOARD
- SUSPENDED CEILING SYSTEM WITH LAY-IN ACOUSTICAL PANELS
- SUSPENDED CEILING SYSTEM WITH LAY-IN VINYL FACED PANELS
- METAL SOFFIT, BOD CERTAINTEED LINEAR BOX 6 SYSTEM, EXTERIOR
- EXPOSED STRUCTURE

GENERAL NOTES:
1. ALL CEILINGS TO BE 10'-0" UNLESS OTHERWISE NOTED.
2. SEE SHEET A10.10 FOR CEILING DETAILS.
3. REFER TO INTERIOR AND EXTERIOR ELEVATIONS FOR LIGHT FIXTURE MOUNTING HEIGHTS.
4. MEP & ARCHITECT TO REVIEW AND APPROVE SPRINKLER KEYOUT AND HEAD LOCATIONS PRIOR TO CONSTRUCTION. SUBMIT PLAN USING ARCHITECTS RCPS.
5. AT AREAS WHERE CEILING IS EXPOSED - EXPOSED CONDUIT TO BE LOCATED NEATLY. ARCHITECT TO APPROVE LAYOUTS.
6. COORDINATE CEILING ACCESS PANELS WITH MEP CONTRACTOR. LOCATE WHERE NECESSARY.

TAG #	NOTE

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459
HIGHTOWER HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
30113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: DRW	CHECKED BY: CHK

REVISIONS:

	Date	Description

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A10.00-H
REFLECTED CEILING PLAN GYM LOCKERS

HIGHTOWER HIGH SCHOOL

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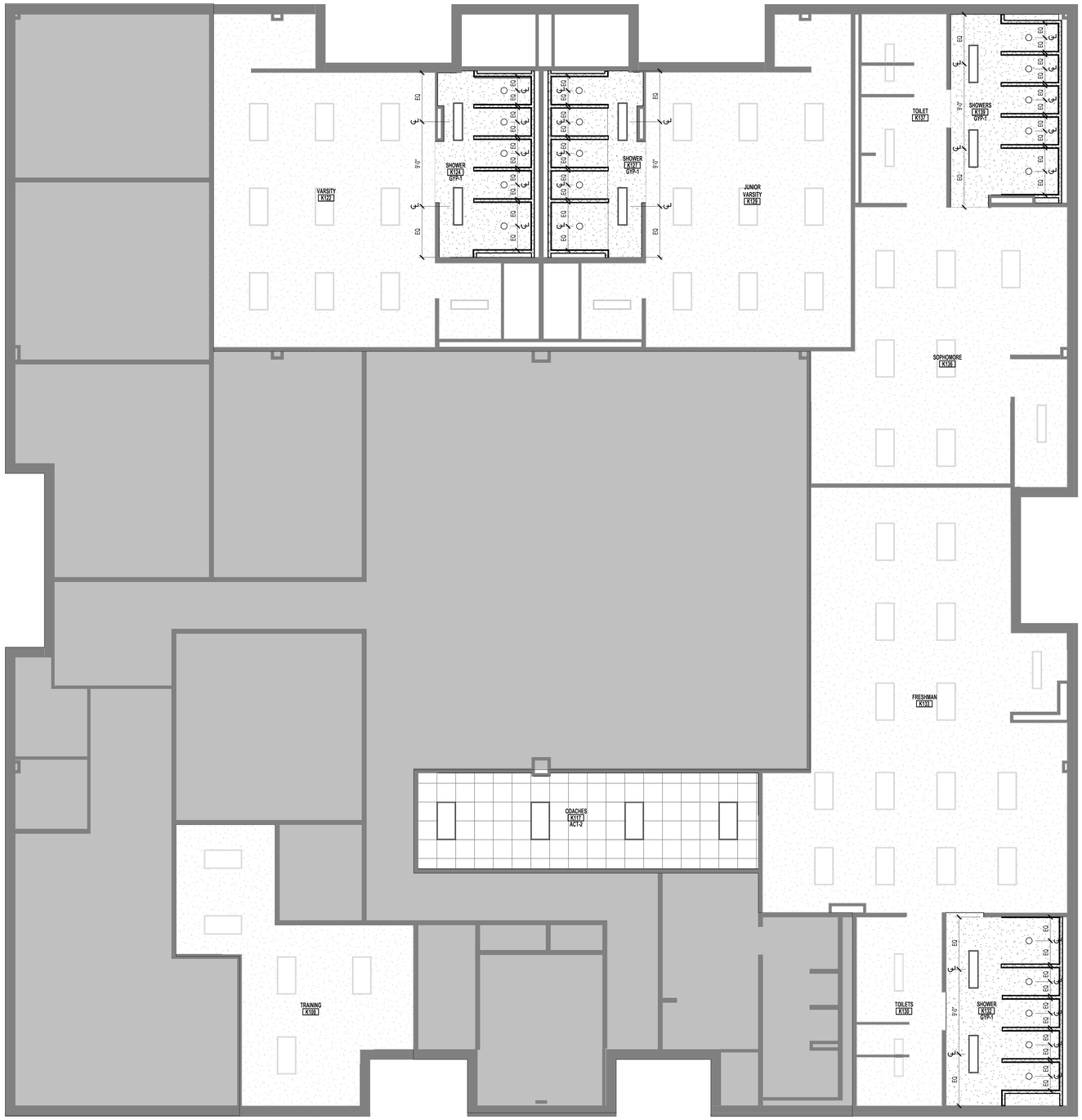
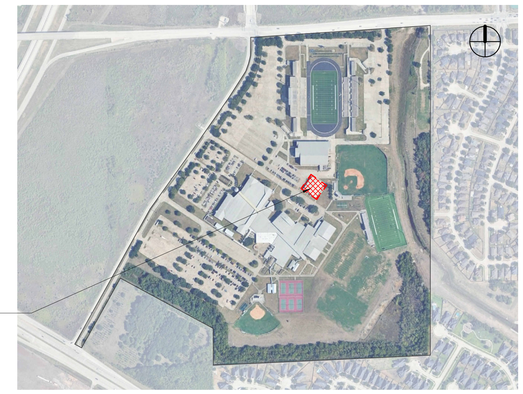


REFLECTED CEILING PLAN - FIELD HOUSE 1
SCALE: 3/16" = 1'-0"

RENOVATE GYM
LOCKER ROOMS



REFLECTED CEILING PLAN LEGEND

- 2' X 4' LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (SUSPENDED)
- LINEAR LED FIXTURE (SURFACE MOUNTED)
- RECESSED CAN FIXTURE
- PENDANT LIGHT FIXTURE
- SURFACE MOUNTED CAN LIGHT FIXTURE
- WALL SCONCE
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- SUSPENDED GYPSUM BOARD
- SUSPENDED CEILING SYSTEM WITH LAY-IN ACOUSTICAL PANELS
- SUSPENDED CEILING SYSTEM WITH LAY-IN VINYL FACED PANELS
- METAL SOFFIT, BOD CERTAINTEED LINEAR BOX 6 SYSTEM, EXTERIOR
- EXPOSED STRUCTURE

GENERAL NOTES:
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5. AT AREAS WHERE CEILING IS EXPOSED - EXPOSED CONDUIT TO BE LOCATED NEATLY. ARCHITECT TO APPROVE LAYOUTS.
6. COORDINATE CEILING ACCESS PANELS WITH MEP CONTRACTOR. LOCATE WHERE NECESSARY.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAMS
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
	Date	Description

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A10.01-H
REFLECTED CEILING
FIELD HOUSE

HIGHTOWER HIGH SCHOOL

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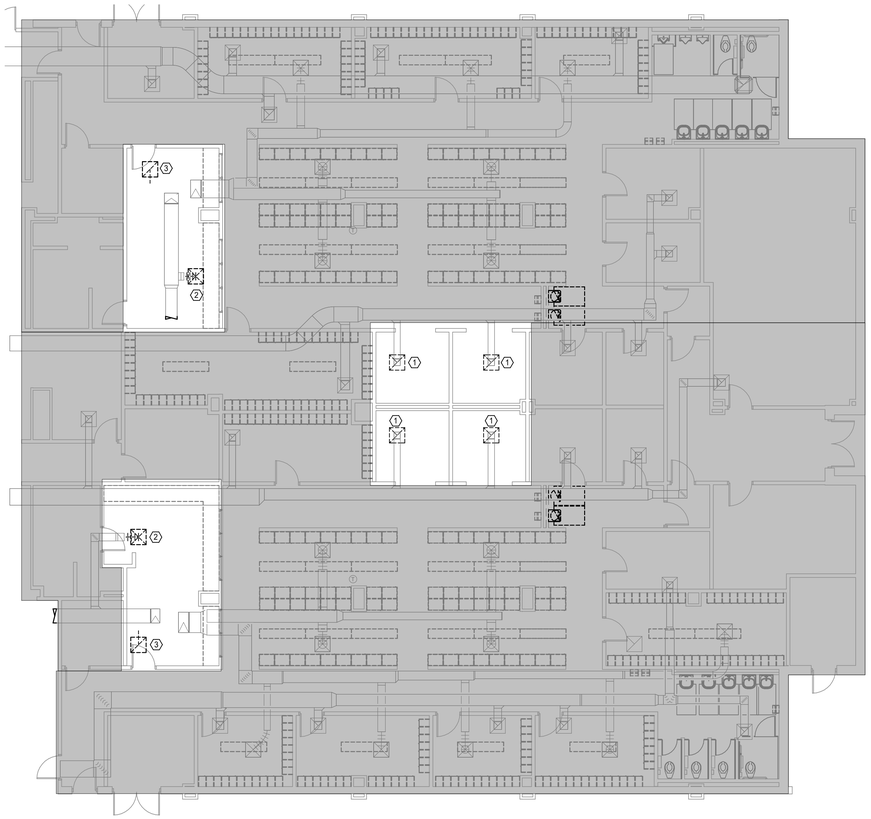
MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, DUST COLLECTORS, AND AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

MECHANICAL DEMOLITION KEYED NOTES

1. EXHAUST GRILLE SHALL BE REMOVED.
2. SUPPLY DIFFUSER SHALL BE REMOVED.
3. RETURN GRILLE SHALL BE REMOVED.

SYMBOL LEGEND	
⊕	POINT OF CONNECTION FROM NEW TO EXISTING
▭	ITEM TO REMAIN
▭	ITEM TO BE REMOVED



N

1 **MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - GYM**
Scale: 1/8" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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STATE OF TEXAS
BRADLEY KALMANS
80215
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

Δ	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

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MECHANICAL DEMOLITION FLOOR PLAN -LEVEL 1 - GYM

HIGHTOWER HIGH SCHOOL

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MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
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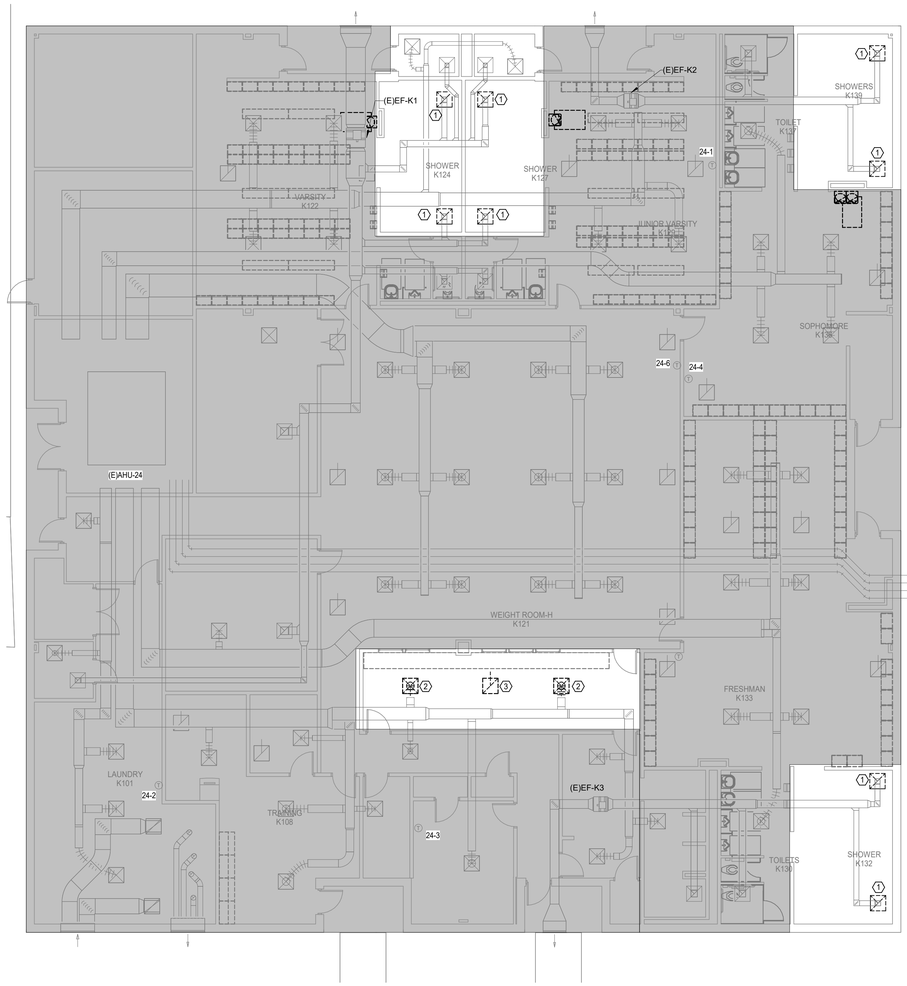
MECHANICAL DEMOLITION KEYED NOTES

1. EXHAUST GRILLE SHALL BE REMOVED.
2. SUPPLY DIFFUSER SHALL BE REMOVED.
3. RETURN GRILLE SHALL BE REMOVED.

SYMBOL LEGEND	
⊕	POINT OF CONNECTION FROM NEW TO EXISTING
▭	ITEM TO REMAIN
▭ (dashed)	ITEM TO BE REMOVED



N

1 **MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS 90219 LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

#	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

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MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE
HIGHTOWER HIGH SCHOOL

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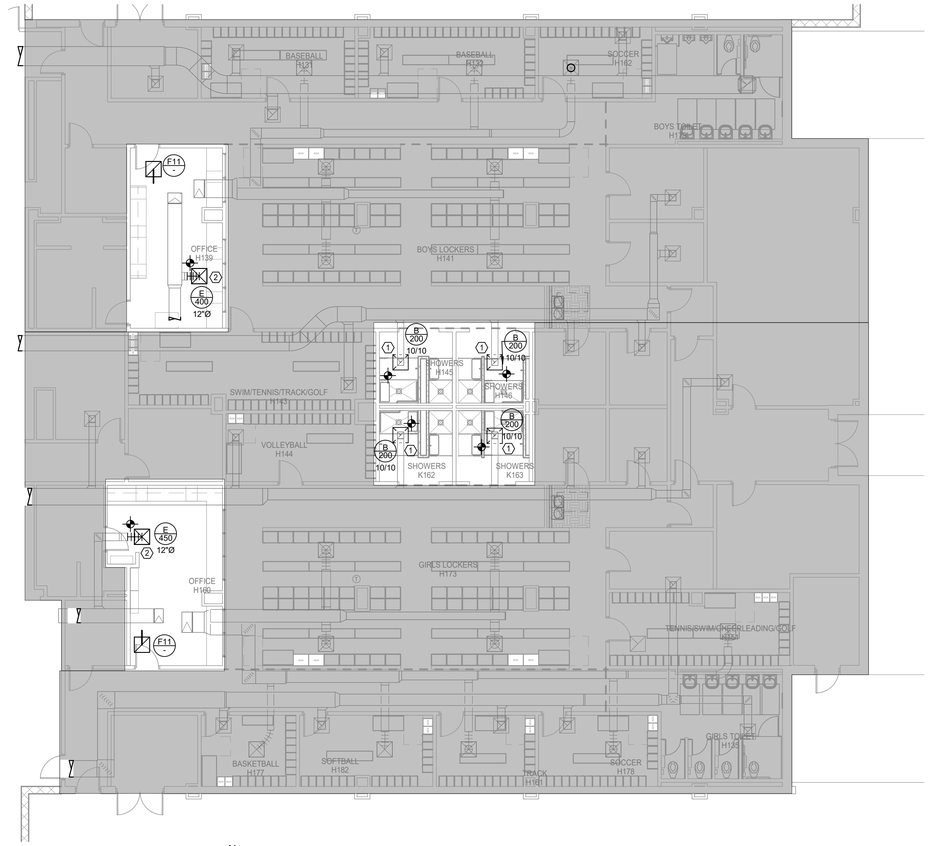
MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR). UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. REPLACE EXHAUST DIFFUSERS AND CONNECT TO EXISTING DUCTWORK. ADD NEW EXHAUST HARD DUCTWORK IF NEEDED TO FINAL CONNECTION.
2. CONNECT SUPPLY AIR DIFFUSER TO EXISTING DUCTWORK. ADD NEW FLEX/HARD DUCTWORK IF NEEDED TO FINAL CONNECTION.



N

1 **MECHANICAL FLOOR PLAN - LEVEL 1 - GYM**
Scale: 1/8" = 1'-0"

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Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

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BRADLEY KALMANS
80215
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
12/04/2025

PROJECT NO.	25-006
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CHECKED BY:	Checker

REVISIONS:

No.	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX. 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

100% CD

M2.01-H

MECHANICAL FLOOR PLAN - LEVEL 1 - GYM

HIGHTOWER HIGH SCHOOL

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MECHANICAL GENERAL NOTES:

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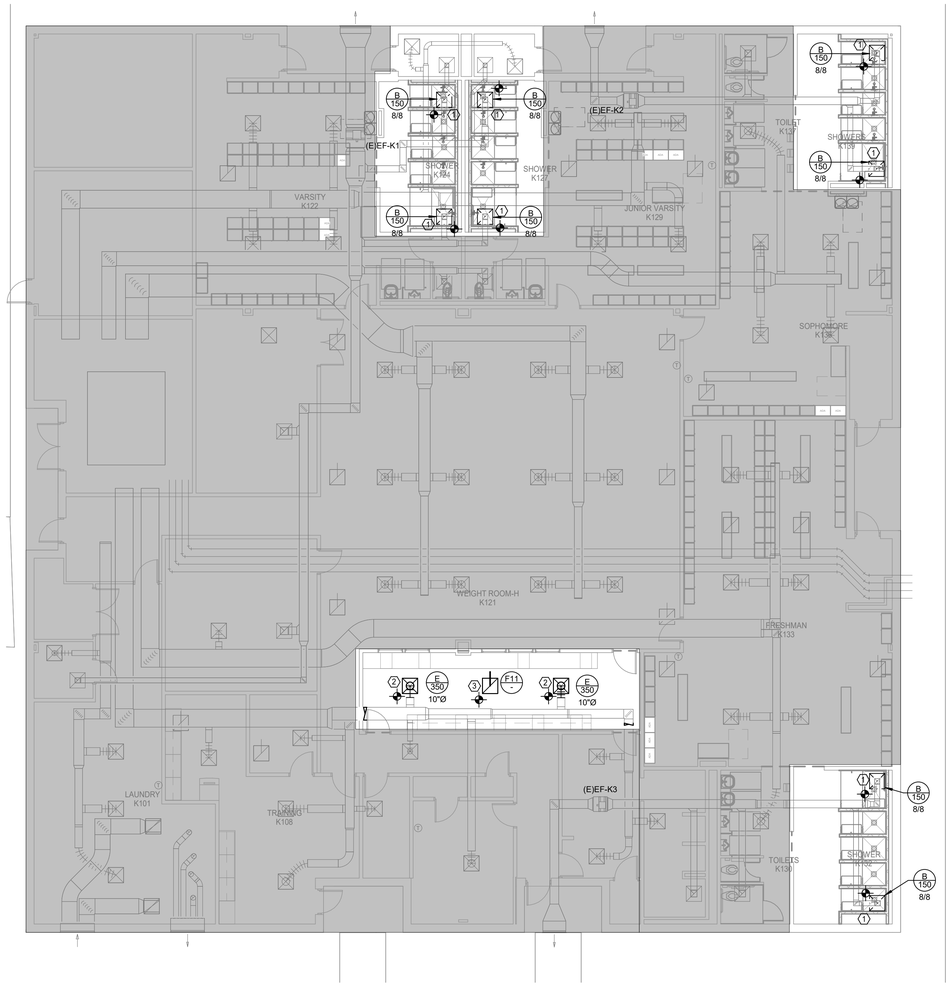
MECHANICAL KEYED NOTES

1. REPLACE EXHAUST AIR GRILLE AND CONNECT TO EXISTING DUCTWORK. ADD NEW EXHAUST HARD DUCTWORK IF NEEDED TO FINAL CONNECTION.
2. CONNECT SUPPLY AIR DIFFUSER TO EXISTING DUCTWORK. ADD NEW FLEX/HARD DUCTWORK IF NEEDED TO FINAL CONNECTION.
3. REPLACE RETURN AIR GRILLE.



N

1 **MECHANICAL FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

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16431 Lexington Blvd.
Sugarland, Tx 77479

BRADLEY KALMANS
STATE OF TEXAS
80210
LICENSED
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY:	Author
CHECKED BY:	Checker

REVISIONS:

No.	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

100% CD

M2.02-H

MECHANICAL FLOOR PLAN - LEVEL 1 - FIELD HOUSE

HIGHTOWER HIGH SCHOOL

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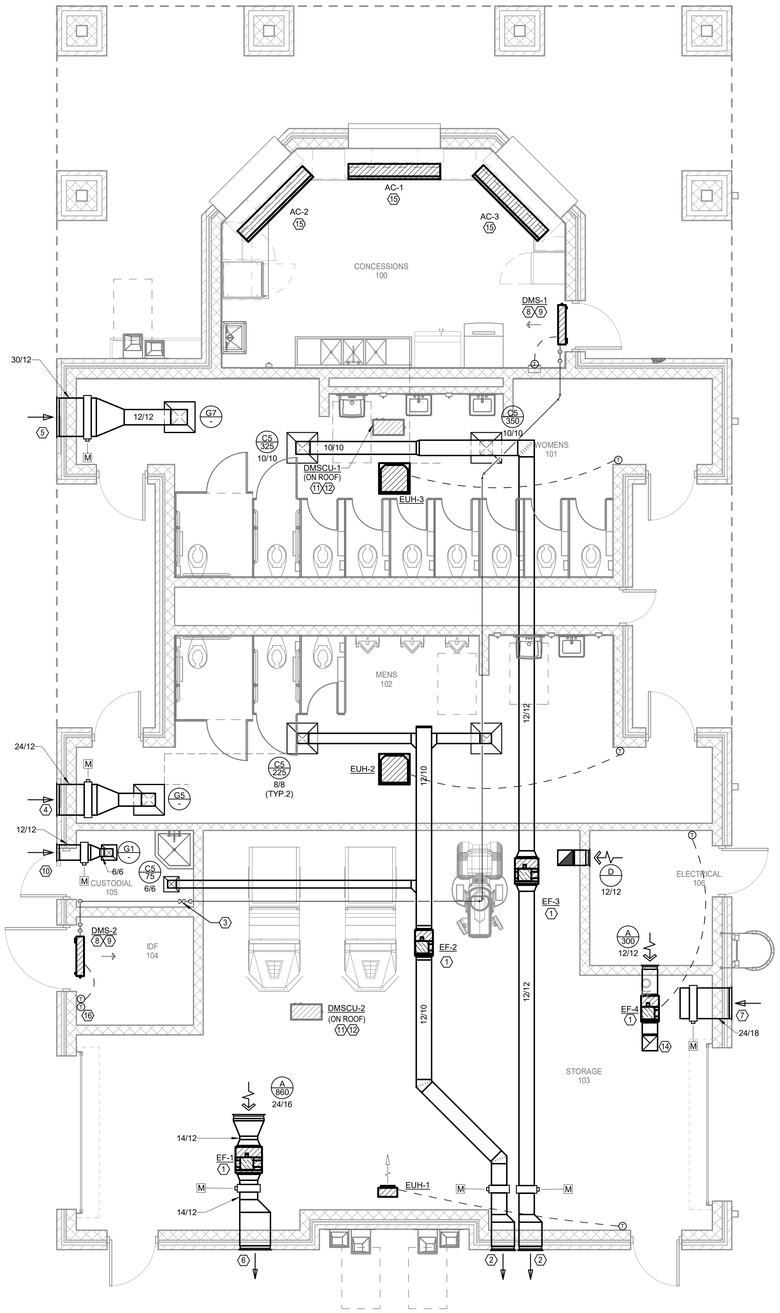

N

1 **MECHANICAL FLOOR PLAN - LEVEL 1 - CONCESSION**
Scale: 1/4" = 1'-0"

MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR) UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. VERIFY SERVICE CLEARANCES WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADE NOT TO OBSTRUCT.
2. PROVIDE 18"X 18" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .87 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
3. ROUTE FULL SIZE CONDENSATE PIPE TO FLOOR DRAIN.REFER TO PLUMBING DRAWINGS FOR EXACT LOCATION.
4. PROVIDE 24"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT OUTSIDE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .67 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
5. PROVIDE 30"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT OUTSIDE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .87 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
6. PROVIDE 24"X 18" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF 1.22 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
7. PROVIDE 24"X 18" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT OUTSIDE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF 1.22 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
8. VERIFY SERVICE CLEARANCES FOR AIR FILTER, FAN SHAFT AND COIL REMOVAL WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADES NOT TO OBSTRUCT.
9. ROUTE REFRIGERANT LINES TO ASSOCIATED CONDENSING UNIT ON GROUND. SIZE LINES PER MANUFACTURER'S RECOMMENDATION.
10. PROVIDE 12"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT OUTSIDE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .29 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
11. MOUNT ON WIND RESISTANT ROOF CURB. RE: 2/M3.01H FOR MORE INFORMATION.
12. ROUTE REFRIGERANT PIPING TO ASSOCIATED INDOOR UNIT. PROVIDE PIPE SUPPORT.
13. ROUTE FULL SIZE CONDENSATE PIPE TO FLOOR DRAIN.REFER TO PLUMBING DRAWINGS FOR EXACT LOCATION.
14. TRIM EXHAUST AIR OPEN ELBOW 6" BELOW BOTTOM OF STRUCTURE.
15. PROVIDE 6FT LENGTH BERNER AIR CURTAIN MODELL PN260-1U*-OB. ELECTRICAL SHALL BE 208/1/60. INSTALL AS PER MANUFACTURER'S RECOMMENDATION.
16. PROVIDE AND INSTALL NEW BMCS TEMPERATURE SENSOR. SENSOR SHALL BE INTEGRATED TO EXISTING BMCS TO MONITOR ROOM TEMPERATURE AND SEND AN ALARM IF TEMPERATURE IS 2°F ABOVE SETPOINT (ADJUSTABLE).

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HIGHTOWER HIGH SCHOOL

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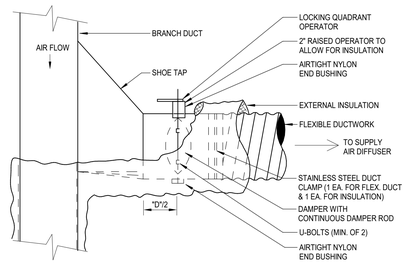
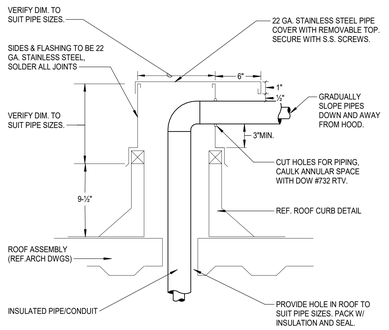
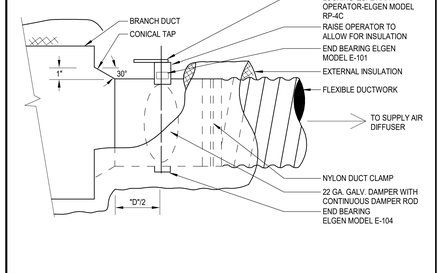


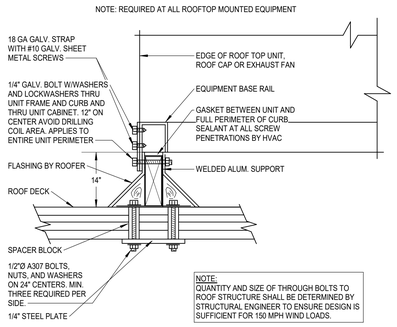
4 FLEXIBLE DUCT TAP - SHOE
SCALE: NONE



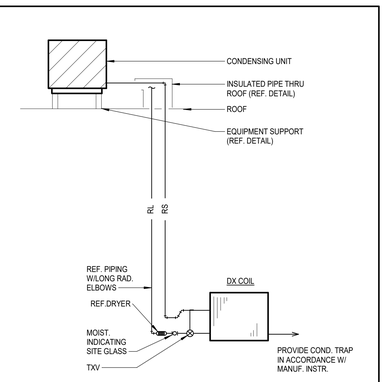
7 INSULATED PIPE THRU ROOF
SCALE: NONE



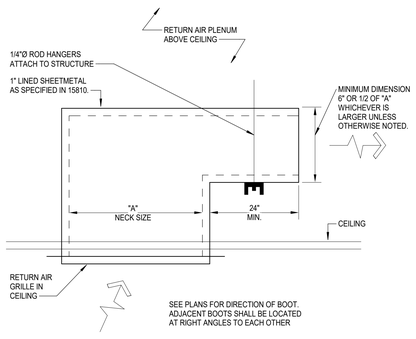
3 FLEXIBLE DUCT TAP - CONICAL
SCALE: NONE



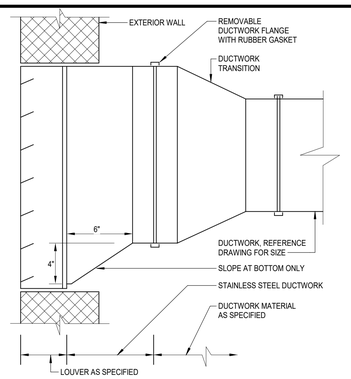
6 WIND RESISTANT EQUIPMENT SUPPORT
SCALE: NONE



2 REFRIGERANT PIPING DIAGRAM
SCALE: NONE



5 RETURN AIR GRILLE BOOT
SCALE: NONE

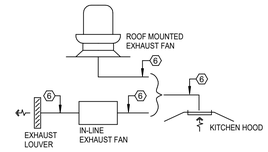


1 DUCTWORK AT LOUVER
SCALE: NONE

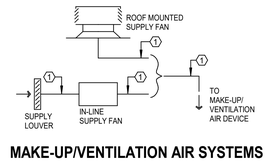
SYMBOL LEGEND

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
GENERAL	
(#)	KEY NOTE TAG
(A)	REVISION TAG
	NEW EQUIPMENT
DUCTWORK	
	SUPPLY AIR DUCTWORK
	RETURN AIR AND OUTSIDE AIR DUCTWORK
	EXHAUST AIR DUCTWORK
	FLEXIBLE DUCTWORK
	SUPPLY AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	RETURN AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	EXHAUST AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	FIRE DAMPER (VERTICAL)
	FIRE DAMPER (HORIZONTAL)
(S)	SMOKE DAMPER (VERTICAL)
(S)	SMOKE DAMPER (HORIZONTAL)
(FS)	COMBINATION FIRE & SMOKE DAMPER (VERTICAL)
FS	COMBINATION FIRE & SMOKE DAMPER (HORIZONTAL)
	MANUAL BALANCING DAMPER (SEE DAMPER SCHEDULE)
M	MOTORIZED DAMPER (SEE DAMPER SCHEDULE)
SENSORS	
(T)	THERMOSTAT AND TEMPERATURE SENSOR
(H)	HUMIDISTAT
SD	SMOKE DETECTOR
HD	HEAT DETECTOR
AIR DEVICES	
	GRILLE SIZE TAG (REFER TO GRILLE SIZE LEGEND)
	SUPPLY AIR GRILLE WITH FOUR-WAY THROW
	SUPPLY AIR GRILLE WITH THREE-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY CORNER THROW
	SUPPLY AIR GRILLE WITH ONE-WAY THROW
	RETURN AIR GRILLE
	RETURN AIR GRILLE WITH SOUND BOOT
	EXHAUST AIR GRILLE
	SUPPLY AIR SIDEWALL GRILLE
	RETURN AIR SIDEWALL GRILLE
20X12	RETURN AIR OPENING ABOVE CEILING
PIPING	
–CW&R–	CONDENSER WATER SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–CWS–	CONDENSER WATER SUPPLY
–CWR–	CONDENSER WATER RETURN
–CHW&R–	CHILLED WATER SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–CHWS–	CHILLED WATER SUPPLY
–CHWR–	CHILLED WATER RETURN
–HW&R–	HOT WATER FOR HYDRONIC HEATING SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–HWS–	HOT WATER FOR HYDRONIC HEATING SUPPLY
–HWR–	HOT WATER FOR HYDRONIC HEATING RETURN
–D–	CONDENSATE DRAIN LINE
–AD–	AUXILIARY CONDENSATE DRAIN LINE
–RLR–	REFRIGERANT LIQUID & GAS RECIRCULATION LINE (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–RL–	REFRIGERANT LIQUID LINE
–HG–	REFRIGERANT HOT GAS LINE
–RS–	REFRIGERANT SUCTION LINE
	ELBOW UP
	ELBOW DOWN
	90° ELBOW
	45° ELBOW
	TEE
	TEE DOWN
	TEE UP
	TOP BRANCH CONNECTION
	BOTTOM BRANCH CONNECTION
	FLANGE
	CAP
	CONTINUATION
	FLOOR DRAIN (REFER TO PLUMBING DRAWINGS)
	GATE VALVE
	GLOBE VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	BUTTERFLY VALVE WITH OPERATOR
	PLUG VALVE
	TWO-WAY CONTROL VALVE
	THREE-WAY CONTROL VALVE
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	BALL VALVE
	STRAINER
	UNION
	THERMOMETER WELL
	PETE'S PLUG
	PRESSURE GAUGE
	TEMPERATURE SENSOR IN PIPE
	VENTURI FLOW METER
	FLOW SWITCH
FM	FLOW MEASURING STATION
	EXPANSION JOINT
	FLEXIBLE CONNECTION
G.C.	GAUGE COCK
	SITE GLASS
	DIFFERENTIAL PRESSURE SENSOR
	TURBINE FLOW METER
	ANCHOR
	PIPE GUIDE
SUBSCRIPTS AND ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
CFM	CUBIC FEET PER MINUTE
EA	EXHAUST AIR
FPM	FEET PER MINUTE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR

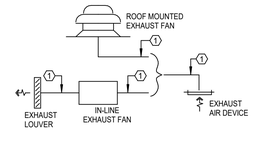
DUCT LINER AND INSULATION



KITCHEN HOOD EXHAUST AIR SYSTEMS



MAKE-UP/VENTILATION AIR SYSTEMS



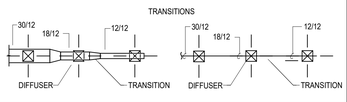
EXHAUST AIR SYSTEMS

KEYED NOTES:

1. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
2. SHEETMETAL DUCTWORK RETURN AIR PLENUM WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
3. FLEXIBLE DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
4. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT DISCHARGE TO 10'-0" DOWNSTREAM.
5. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT INLET TO 10'-0" UPSTREAM.
6. EXHAUST DUCTWORK AS SPECIFIED WITH FIREBOARD INSULATION AS SPECIFIED.
7. SHEETMETAL DUCTWORK ONLY. NO INSULATION REQUIRED.

DUCTWORK SYMBOLS LEGEND

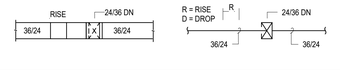
TRANSITIONS



MAIN BRANCH TAKE-OFFS



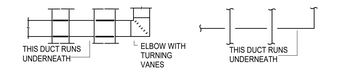
RISERS



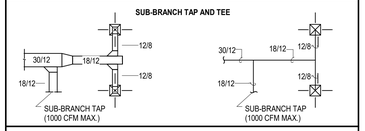
SIDEWALL REGISTERS

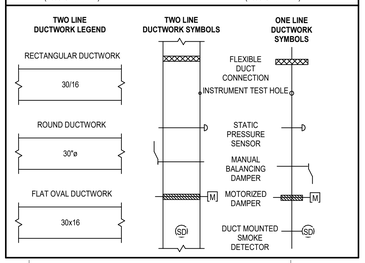


DUCT CROSSOVERS

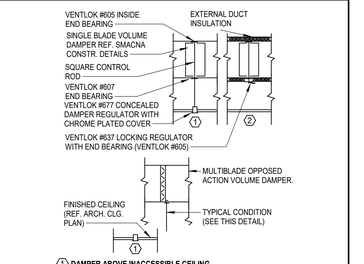


SUB-BRANCH TAP AND TEE



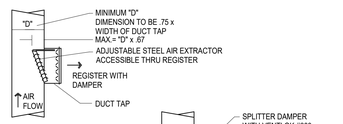


DUCTWORK CONSTRUCTION DETAILS



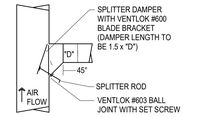
1 DAMPER ABOVE INACCESSIBLE CEILING

2 DAMPER ABOVE LIFT-OUT CEILING

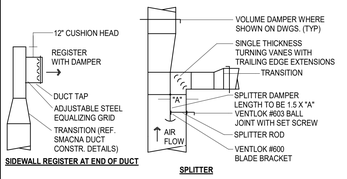


NOTES:
1. MAX. WIDTH OF DUCT TAP SHALL BE 48". PROVIDE BOTTOM BRACKET FOR SUPPORT WHERE EXTRACTOR EXCEEDS 16".
2. MAX. HEIGHT OF DUCT TAP SHALL BE 12" (MIN.= 4")

EXTRACTOR SIDEWALL REGISTER



DUCT TAP

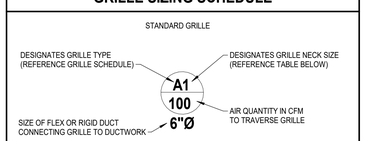


SIDEWALL REGISTER AT END OF DUCT

SPLITTER

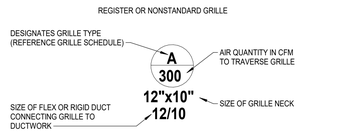
GRILLE SIZING SCHEDULE

STANDARD GRILLE



ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN.

REGISTER OR NONSTANDARD GRILLE



ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN. ALL REGISTERS SHALL HAVE A 45° HORIZONTAL DEFLECTION UNLESS OTHERWISE SHOWN.

GRILLE SIZE DESIGNATION	GRILLE NECK SIZE	GRILLE SIZE DESIGNATION	GRILLE NECK SIZE
1	6" x 6"	7	15" x 15"
2	8" x 8"	8	16" x 16"
3	9" x 9"	9	18" x 18"
4	10" x 10"	10	20" x 20"
5	12" x 12"	11	22" x 22"
6	14" x 14"	12	24" x 24"

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MECHANICAL DETAILS AND LEGEND

HIGHTOWER HIGH SCHOOL

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FAN SCHEDULE

TAG	LOCATION	CFM	EXT. STATIC PRESSURE (IN.W.C.)	MAX RPM	HORSE POWER	CURRENT CHAR			LOCALLY SWITCHED	INTERLOCK WITH	FAN TYPE	DRIVE TYPE	MANUFACTURER	MODEL NUMBER	REMARKS
						V	P	F							
EF-1	STORAGE 139	860	0.40	1102	0.25	120	1	60	-	LIGHTS	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6
EF-2	STORAGE 139	525	0.40	1500	0.25	120	1	60	-	LIGHTS	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6
EF-3	STORAGE 139	675	0.40	1139	0.25	120	1	60	-	LIGHTS	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6
EF-4	STORAGE 139	300	0.40	1312	0.25	120	1	60	T-STAT	-	INLINE	DIRECT	COOK	SQND	1,3,4,5,6

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MINIMUM RECOMMENDED CLEARANCE AROUND UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH DISCONNECT.
2. PROVIDE WITH MOTORIZED DAMPER.
3. PROVIDE WITH SPEED CONTROLLER.
4. PROVIDE WITH EC MOTOR.
5. PROVIDE WITH LINE VOLTAGE TSTAT.
6. SUSPEND UNIT WITH FOUR THREADED HANGER RODS ATTACHED TO TWO UNISTRUT RUNNERS SECURED TO STRUCTURE. PROVIDE SPRING ISOLATION. REFER TO MANUFACTURER FOR MORE DETAILS.

DAMPER

MARK	ACTUATOR	DUTY	BLADE ACTION	MANUFACTURER	MODEL NUMBER	REMARKS
D-1	MANUAL BALANCING	UNDER 9" WIDE	N/A	N/A	N/A	SEE SMACNA CONSTRUCTION DETAILS REFERENCED "TYPICAL CONSTRUCTION DETAILS FOR LOW VELOCITY DUCTS."
D-2	MANUAL BALANCING	OVER 9" WIDE	OPPOSED	RUSKIN	MD-35	MANUAL DAMPER WITH STANDARD CONSTRUCTION FEATURES AND VENTLOCK #639 LOCKING REGULATOR.
D-3	MOTORIZED	OVER 9" WIDE	OPPOSED	RUSKIN	CD-60	LOW LEAKAGE DAMPER WITH BLADE SEALS

NOTES:
N/A - NOT APPLICABLE

GRILLE

MARK	SERVICE	TYPE	DAMPER	CONSTRUCTION MATERIAL	FINISH COLOR	MANUFACTURER	MODEL NUMBER	DESCRIPTION
A	EXHAUST AIR	GRILLE	-	STEEL	-	TITUS	350RL	DOUBLE DEFLECTION SIDEWALL GRILLE WITH HORIZONTAL FRONT BARS. SURFACE MOUNTED (1)
B	EXHAUST AIR	GRILLE	UL	ALUMINUM	-	TITUS	PAR-AA	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" OR 12"X12" FACE. PERFORATED FACE.
C	EXHAUST AIR	GRILLE	-	STEEL	-	TITUS	PAR	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" OR 12"X12" FACE. PERFORATED FACE.
D	RETURN AIR	GRILLE	-	STEEL	-	TITUS	350RL	DOUBLE DEFLECTION SIDEWALL GRILLE WITH HORIZONTAL FRONT BARS. SURFACE MOUNTED (1)
E	SUPPLY AIR	DIFFUSER	UL	STEEL	-	TITUS	OMNI	EXPOSED T-BAR CEILING FRAME STYLE WITH 24"X24" OR 12"X12" FACE.
F	RETURN AIR	GRILLE	UL	STEEL	-	TITUS	PAR	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" FACE. PERFORATED.
G	RETURN AIR	GRILLE	-	STEEL	-	TITUS	PAR	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" FACE. PERFORATED.

GENERAL NOTES:
1. DAMPERS NOTED AS U.L. SHALLBE A 'U.L.' CLASSIFIED CEILING RADIATION DAMPER WITH THERMAL BLANKET.
2. COORDINATE FINAL AIR DEVICE LOCATION AND FINISH COLOR WITH ARCHITECT.

REMARKS:
1. N/A

AIR CURTAIN

TAG	LOCATION	CFM	EXT. STATIC PRESSURE (IN.W.C.)	MAX RPM	HORSE POWER	CURRENT CHAR			LOCALLY SWITCHED	MANUFACTURER	MODEL NUMBER	REMARKS
						V	P	F				
AC-1	CONCESSIONS 100	1960	0.20	3260	0.2	120	1	60	MAG SWITCH	POWERED AIRE	EVE-2-72	1,2,3,4
AC-2	CONCESSIONS 100	1960	0.20	3260	0.2	120	1	60	MAG SWITCH	POWERED AIRE	EVE-2-72	1,2,3,4
AC-3	CONCESSIONS 100	1960	0.20	3260	0.2	120	1	60	MAG SWITCH	POWERED AIRE	EVE-2-72	1,2,3,4

GENERAL NOTES:
1. MINIMUM RECOMMENDED CLEARANCE AROUND UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE TOP MOUNT FROM STRUCTURE WITH FOUR 3/8 GALVANIZED THREADED RODS. COORDINATE FINAL UNIT LOCATION AND MOUNTING METHOD WITH THE ARCHITECT. CONTRACTOR SHALL PROVIDE ALL REQUIRED MOUNTING HARDWARE AND ACCESSORIES. INSTALL IN COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION MANUAL AND APPROVED MOUNTING DETAILS.
2. PROVIDE WITH UNIT MOUNTED VARIABLE SPEED SWITCH.
3. PROVIDE WITH FILTER.
4. PROVIDE WITH SM300 MAG SWITCH WITH TIME DELAY.

DUCTLESS MINI-SPLIT - INDOOR UNIT

MARK	FAN							AIR TEMPERATURE (°F)		COOLING			HEATING			REMARKS
	SUPPLY AIR CFM	OUTSIDE AIR CFM	EXT.STATIC PRESSURE (IN. W.C.)	HORSE POWER	CURRENT CHARAC.			ENTERING DRY BULB	ENTERING WET BULB	MIN. TOTAL CAPACITY (BTUH)	MIN. SENS. CAPACITY (BTUH)	MINIMUM EER/ SEER	ENTERING AIR TEMP.(°F)	MINIMUM CAPACITY (BTUH)	KW	
					V	P	F									
DMS-1	370	0	0.10	40.0	208	1	60	75.0	62.5	17,100	13,680	-/15.2	72	7,290	2	1,2,3,4,5,6,7
DMS-2	370	0	0.10	40.0	208	1	60	75.0	62.5	17,100	13,680	-/15.2	0	0	0	1,2,3,4,5,6,8

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MAINTAIN MINIMUM CLEARANCE FOR COIL PULL AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. UNIT TO BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. CONTROLLED BY PROGRAMMABLE WIRED THERMOSTAT.
3. REFRIGERANT LINES TO BE SIZED PER MANUFACTURER'S REQUIREMENTS.
4. INDOOR UNIT IS POWERED FROM OUTDOOR UNIT.
5. PROVIDE MODEL "MINI WHITE" CONDENSATE PUMP BY ASPEN PUMPS OR APPROVED EQUAL TO BE FITTED BENEATH AND EXTERNALLY FROM HIGH WALL INDOOR UNIT. CONDENSATE PUMP SHALL BE PROVIDED WITH A HIGH LEVEL SAFETY SWITCH WIRED TO DEACTIVATE INDOOR HIGH WALL UNIT IN THE EVENT OF PUMP FAILURE OR OBSTRUCTED CONDENSATE LINE. REFER TO MANUFACTURER INSTALLATION INSTRUCTIONS OF ADDITIONAL INFORMATION.
6. PROVIDE CONDENSATE OVERFLOW SWITCH TO DEACTIVATE UNIT IN THE EVENT OF AN OVERFLOW CONDITION.
7. HEAT PUMP WALL MOUNTED UNIT.
8. COOLING ONLY WALL MOUNTED UNIT.

DUCTLESS MINI-SPLIT - OUTDOOR UNIT

MARK	MIN. TOTAL CAPACITY (BTUH)	OUTDOOR AIR TEMP (°F)	MINIMUM EER/ SEER	CURRENT CHARAC.			RELATED UNIT MARK	REMARKS
				V	PH	F		
DMSCU-1	17,100	95	-/15.2	208	1	60	DMS-1	1,2,3
DMSCU-2	17,100	95	-/15.2	208	1	60	DMS-1	1,2,3

GENERAL NOTES:
1. MINIMUM RECOMMENDED CLEARANCE AROUND ROOFTOP UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE FOR CONDENSER AIR FLOW AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH LOW AMBIENT CONTROL DOWN TO 20°F.
2. PROVIDE WITH DISCONNECT SWITCH.
3. REFRIGERANT LINES TO BE SIZED PER MANUFACTURER'S REQUIREMENTS.

UNIT HEATER - ELECTRIC

MARK	MINIMUM CAPACITY (BTUH)	KW	NUMBER OF STAGES	CURRENT CHAR.			CFM	MANUFACTURER	MODEL	REMARKS
				V	P	F				
EUH-1	17,065	5	2	480	3	60	480	REZNOR	EUH	1,2
EUH-2	17,075	5	2	480	3	60	310	REZNOR	ECR	1,2
EUH-3	17,075	5	2	480	3	60	310	REZNOR	ECR	1,2

REMARKS:
1. PROVIDE WITH WALL MOUNTED THERMOSTAT.
2. PROVIDE WITH DISCONNECT SWITCH.

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
STATE OF TEXAS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

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MECHANICAL SCHEDULES

HIGHTOWER HIGH SCHOOL

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FIRE DETECTION AND ALARM SYSTEM:

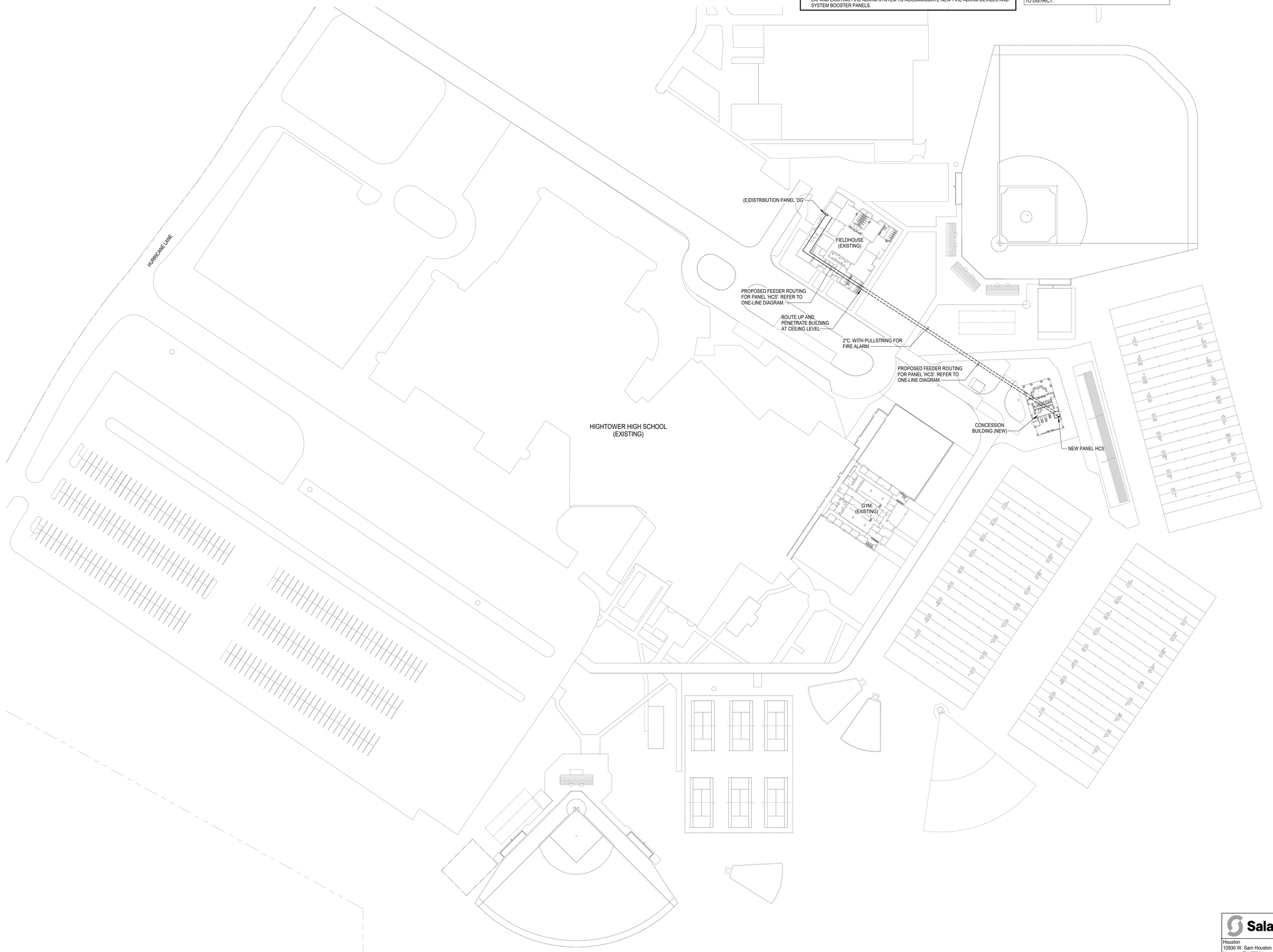
- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF NEW CONDUITS WITH ALL OTHER TRADES PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO CIVIL DRAWINGS FOR FINAL ROUTING AND DEPTH OF ALL UNDERGROUND UTILITIES.
3. REFER TO TECHNOLOGY DRAWINGS, DIVISION 27 AND 28 FOR TELECOMMUNICATION PATHWAYS AND OTHER REQUIREMENTS TO PROVIDED BY DIVISION 26.
4. CONTRACTOR IS RESPONSIBLE OF CALLING 811 TO HAVE ALL EXISTING UTILITIES MARKED PRIOR TO DIGGING.



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1 **ELECTRICAL SITE PLAN**
Scale: 1" = 60'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3333 Hurricane Ln, Missouri City, TX 77459

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INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
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#	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX. 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

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ELECTRICAL SITE PLAN

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LINETYPE LEGEND	
———	EXISTING TO REMAIN
- - - - - - - - -	DISCONNECT AND REMOVE

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

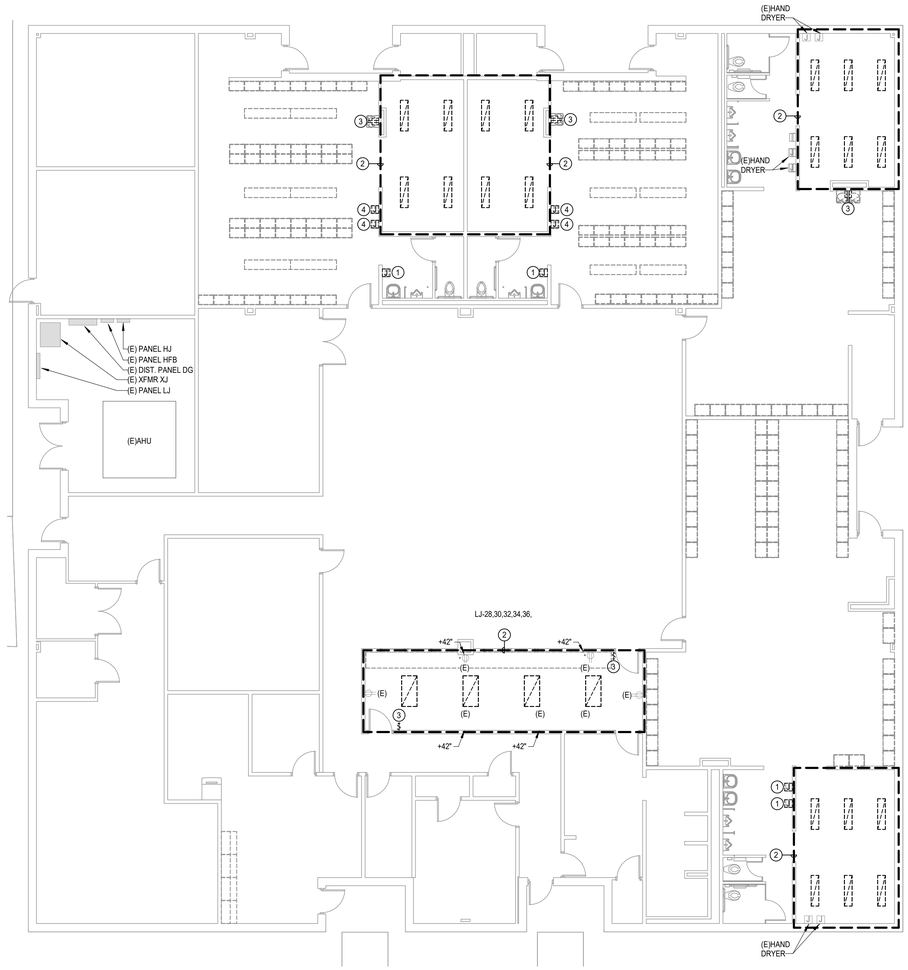
OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

1. DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
2. DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
3. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC...SHALL REMAIN.
4. DISCONNECT AND REMOVE ALL ELECTRICAL FROM WALLS SCHEDULED TO BE DEMOLISHED AND AS SHOWN. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT EXTENT OF WALL DEMOLITION.
5. EXCEPT AS OTHERWISE NOTED, ELECTRICAL WORK OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS. OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. ANY CONDUITS OUT OF MASONRY SURFACE SHALL BE CUT INTO SURFACE AND PATCHED.
6. CONTRACTOR TO FILL IN ALL HOLES LEFT BY THE DEMOLITION OF EXISTING CONDUIT PENETRATIONS.

ELECTRICAL KEYED NOTES:

1. DISCONNECT AND REMOVE ELECTRICAL TO EXISTING HAND DRYER; LEAVE CIRCUITRY INTACT FOR CONNECTION OF NEW HAND DRYER.
2. DISCONNECT AND REMOVE EXISTING RECESSED LIGHTING FIXTURES AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX ABOVE CEILING. ALL EXISTING LIGHTING BRANCH CIRCUITS (NORMAL/EMERGENCY) SHALL REMAIN AND BE RE-USED.
3. DISCONNECT AND REMOVE EXISTING WIRING DEVICE. EXISTING OUTLET BOX SHALL REMAIN AND SHALL BE RE-USED AS PRACTICAL FOR NEW WIRING DEVICE.
4. DISCONNECT AND REMOVE ELECTRICAL TO EXISTING HAND DRYER/HAIR DRYER AND ASSOCIATED CONDUIT/WIRE BACK TO SOURCE. RE-LABEL CIRCUIT BREAKER AS "SPARE". PROVIDE OUTLET WITH BLANK STAINLESS STEEL COVERPLATE.



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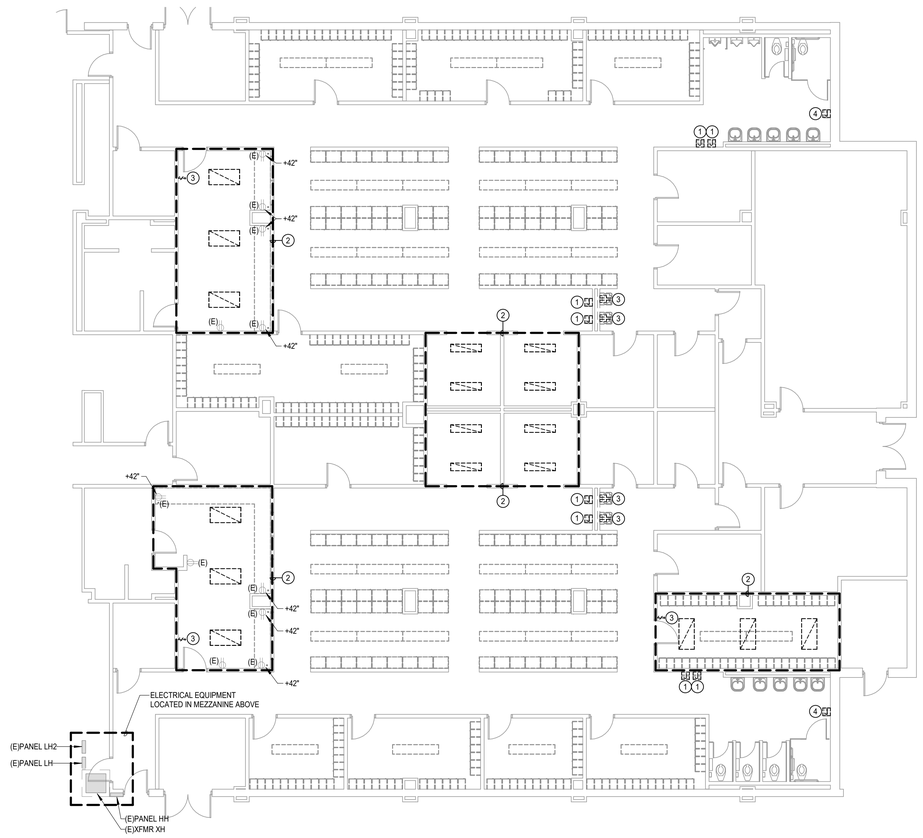
2 ELECTRICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE

Scale: 1/8" = 1'-0"



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1 ELECTRICAL DEMOLITION FLOOR PLAN - LEVEL 1 - GYM LOCKERS

Scale: 1/8" = 1'-0"

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX. 77064
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

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Sugarland, TX 77479

STATE OF TEXAS
BRADLEY KALMANS
90215
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ELECTRICAL DEMOLITION FLOOR PLANS -LEVEL 1

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FIRE DETECTION AND ALARM SYSTEM:

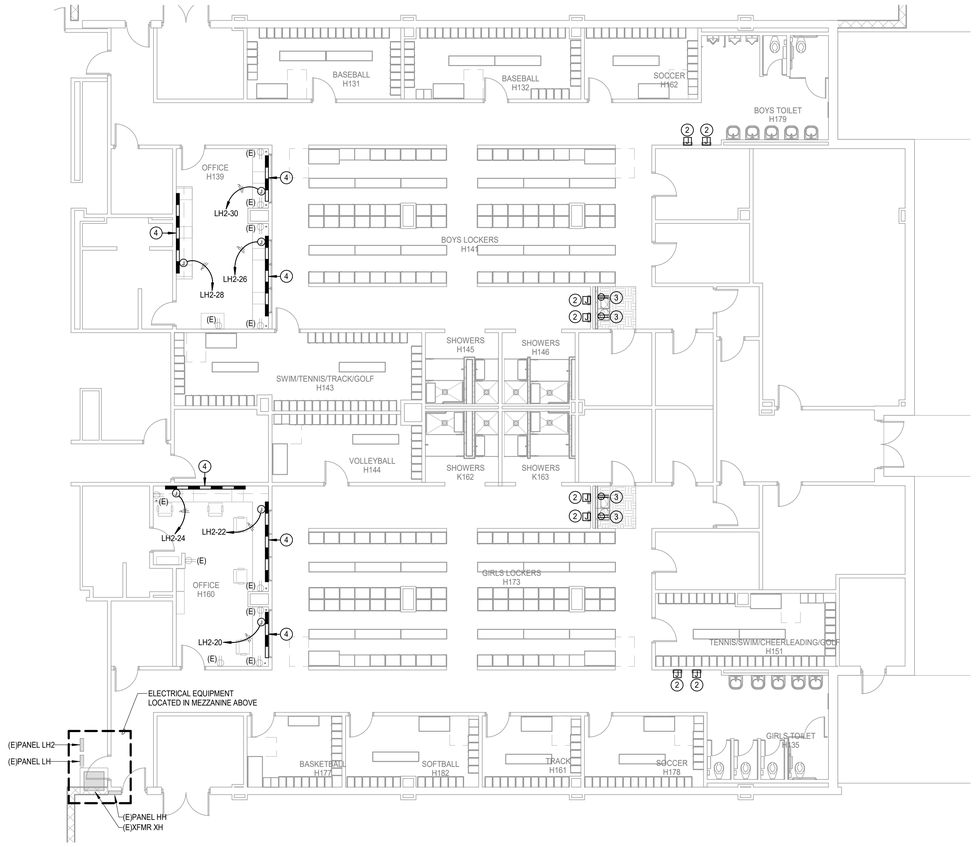
- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL KEYED NOTES:

1. CONNECT NEW LIGHT FIXTURES TO EXISTING NORMAL AND EMERGENCY CIRCUITS LEFT IN PLACE AFTER DEMOLITION OR NEW AS SHOWN. PROVIDE EMERGENCY CIRCUIT FOR HATCHED FIXTURES AND/OR EXIT SIGNS. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT TO EXISTING LOCATION AND/OR NEW FIXTURES. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 15-AMPERES.
2. EXISTING ELECTRIC HAND DRYER LOCATION; CONNECT REPLACEMENT HAND DRYER TO EXISTING CIRCUITRY PRESERVED DURING DEMOLITION. PROVIDE CIRCUIT BREAKER WITH NEW "LOCK-OFF" DEVICE.
3. PROVIDE NEW DUPLEX RECEPTACLE FOR DRINKING FOUNTAIN; PROVIDE CIRCUIT BREAKER WITH NEW 20A/1P GFCI.
4. PROVIDE SURFACE MOUNTED DUAL-CHANNEL RACEWAY CAPABLE OF HOUSING POWER AND TECHNOLOGY WIRING DEVICES. PROVIDE DUPLEX RECEPTACLE EVERY 3'-0" O.C.; WIREMOLD #AL5200-SERIES

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC... SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.
4. LOCATION OF NEW / REPLACEMENT LIGHT FIXTURES SHALL RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTURE WHIPS AS PRACTICAL. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT AND PROVIDE NEW J-BOX ABOVE ACCESSIBLE CEILING WITH ½-INCH FLEXIBLE STEEL CONDUIT OR STEEL MC CABLE, LENGTH NOT TO EXCEED 6-FEET, 'DAISY CHAINING'LIGHT FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS NOT ALLOWED. FOR NON-ACCESSIBLE CEILINGS, LIGHT FIXTURE WHIPS SHALL BE ½-INCH FLEXIBLE STEEL CONDUIT, LENGTH AS REQUIRED TO MAKE A TAP AT AN ACCESSIBLE J-BOX. RECESSED LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MAY BE DAISY CHAINED USING THE LIGHT FIXTURE'S INTEGRAL, UL LISTED J-BOX OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THROUGH FIXTURE FROM BELOW THE CEILING. REFER TO SPECIFICATION SECTION 26 05 33 CONDUIT SYSTEMS.
5. LIGHTING CONTROLS WHERE PROVIDED SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
6. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED POWER FOR EMERGENCY RELAYS, BATTERY PACKS AND / OR EXIT SIGNS.
7. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL. LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
8. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED, CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.



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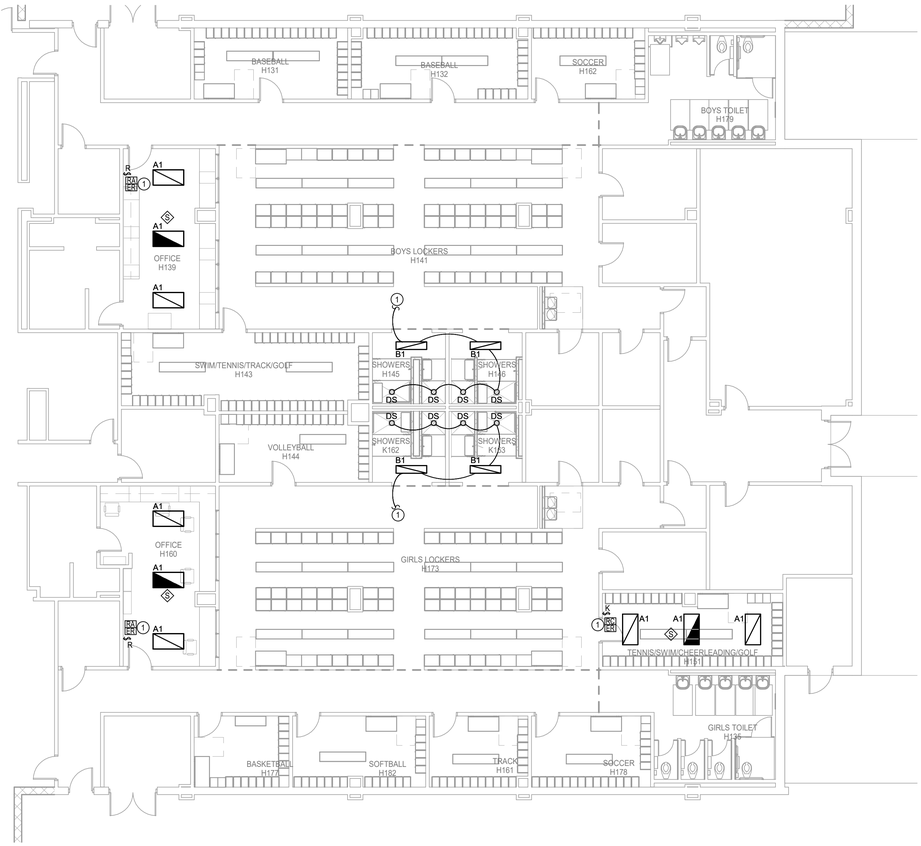
2 **ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - GYM**
Scale: 1/8" = 1'-0"



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1 **ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - GYM**
Scale: 1/8" = 1'-0"

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

STATE OF TEXAS
BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY:	Author CHECKED BY: Checker

REVISIONS:

	Date	Description
1		

100% CD

E3.01-H

ELECTRICAL FLOOR PLANS - LEVEL 1 - GYM LOCKERS

HIGHTOWER HIGH SCHOOL

12/3/2025 6:49:28 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/HIGHTOWER_MEPT_R25.rvt

FIRE DETECTION AND ALARM SYSTEM:

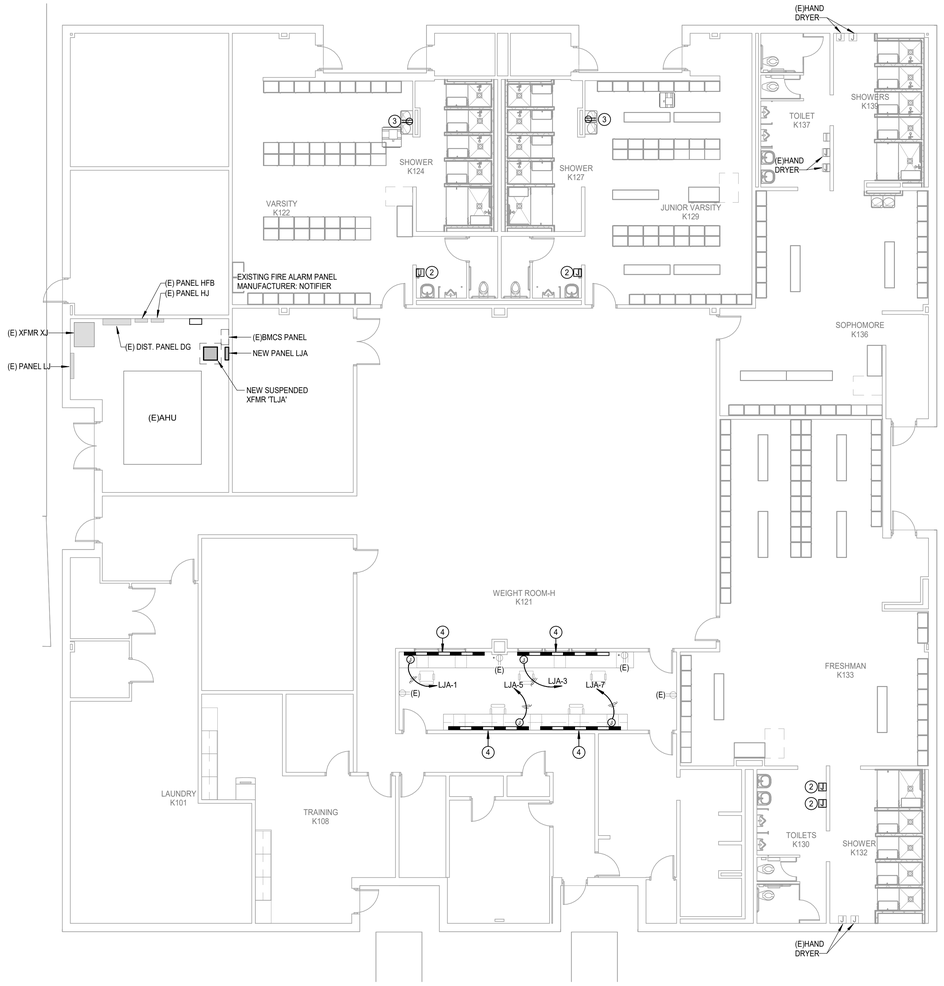
- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL KEYED NOTES:

1. CONNECT NEW LIGHT FIXTURES TO EXISTING CIRCUITRY PRESERVED DURING DEMOLITION. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT TO EXISTING LOCATION AND/OR NEW FIXTURES. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 15-AMPERES.
2. EXISTING ELECTRIC HAND DRYER LOCATION; CONNECT REPLACEMENT HAND DRYER TO EXISTING CIRCUITRY PRESERVED DURING DEMOLITION. PROVIDE CIRCUIT BREAKER WITH NEW "LOCK-OFF" DEVICE.
3. PROVIDE NEW DUPLEX RECEPTACLE FOR DRINKING FOUNTAIN; PROVIDE CIRCUIT BREAKER WITH NEW 20A/1P GFCI.
4. PROVIDE SURFACE MOUNTED DUAL-CHANNEL RACEWAY CAPABLE OF HOUSING POWER AND TECHNOLOGY WIRING DEVICES. PROVIDE DUPLEX RECEPTACLE EVERY 3'-0" O.C.; WIREMOLD #AL5200-SERIES

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC., SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.
4. LOCATION OF NEW / REPLACEMENT LIGHT FIXTURES SHALL RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTURE WHIPS AS PRACTICAL. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT AND PROVIDE NEW J-BOX ABOVE ACCESSIBLE CEILING WITH ½-INCH FLEXIBLE STEEL CONDUIT OR STEEL MC CABLE, LENGTH NOT TO EXCEED 6-FEET. 'DAISY CHAINING'LIGHT FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS NOT ALLOWED. FOR NON-ACCESSIBLE CEILINGS, LIGHT FIXTURE WHIPS SHALL BE ½-INCH FLEXIBLE STEEL CONDUIT, LENGTH AS REQUIRED TO MAKE A TAP AT AN ACCESSIBLE J-BOX. RECESSED LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MAY BE DAISY CHAINED USING THE LIGHT FIXTURE'S INTEGRAL, UL LISTED J-BOX OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THROUGH FIXTURE FROM BELOW THE CEILING. REFER TO SPECIFICATION SECTION 26 05 33 CONDUIT SYSTEMS.
5. LIGHTING CONTROLS WHERE PROVIDED SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
6. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAMEPLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
7. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED; CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.
8. SPACES WITH MULTIPLE OCCUPANCY / VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
9. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.
10. CONTRACTOR SHALL PROVIDE CONSTANT UNSWITCHED POWER FOR BATTERY PACKS AND / OR EXIT SIGNAGE.



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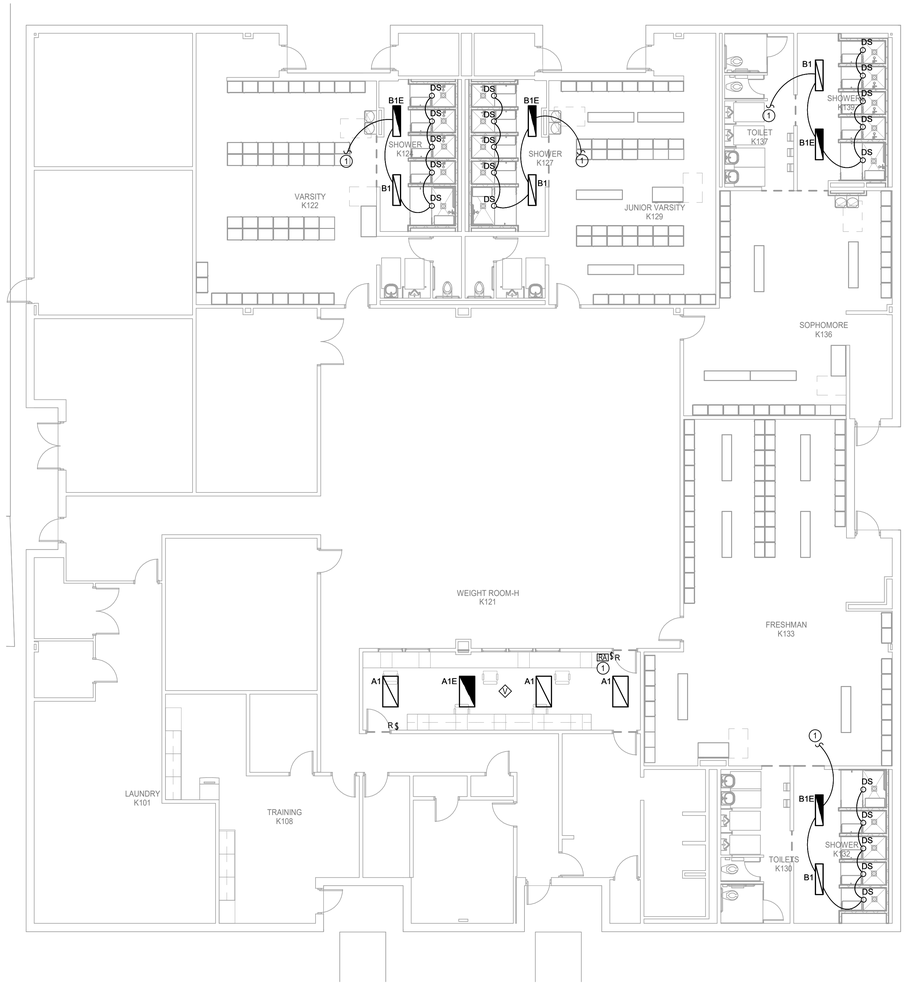
3 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - FIELD HOUSE

Scale: 1/8" = 1'-0"



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1 ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - FIELD HOUSE

Scale: 1/8" = 1'-0"

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
STATE OF TEXAS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

100% CD

E3.02-H

ELECTRICAL FLOOR PLANS - LEVEL 1 - FIELD HOUSE

HIGHTOWER HIGH SCHOOL

12/3/2025 6:49:31 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/HIGHTOWER_MEPT_R25.rvt

FIRE DETECTION AND ALARM SYSTEM:

- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL GENERAL NOTES:

1. LIGHTING CONTROLS SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
2. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED POWER FOR EMERGENCY BATTERY PACKS AND / OR EXIT SIGNS.
3. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE. INDICATE AS: DLM.
4. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED, CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.
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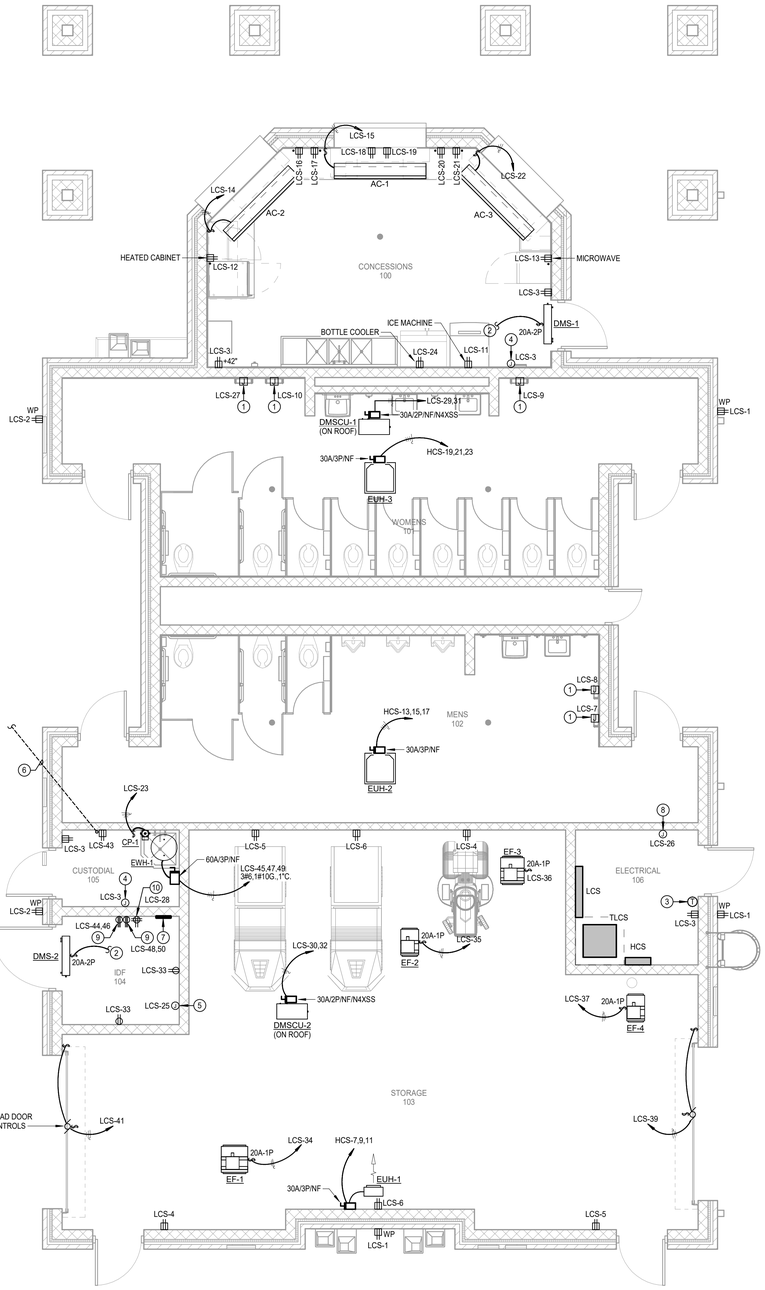
6. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.
7. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
8. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.

ELECTRICAL KEYED NOTES:

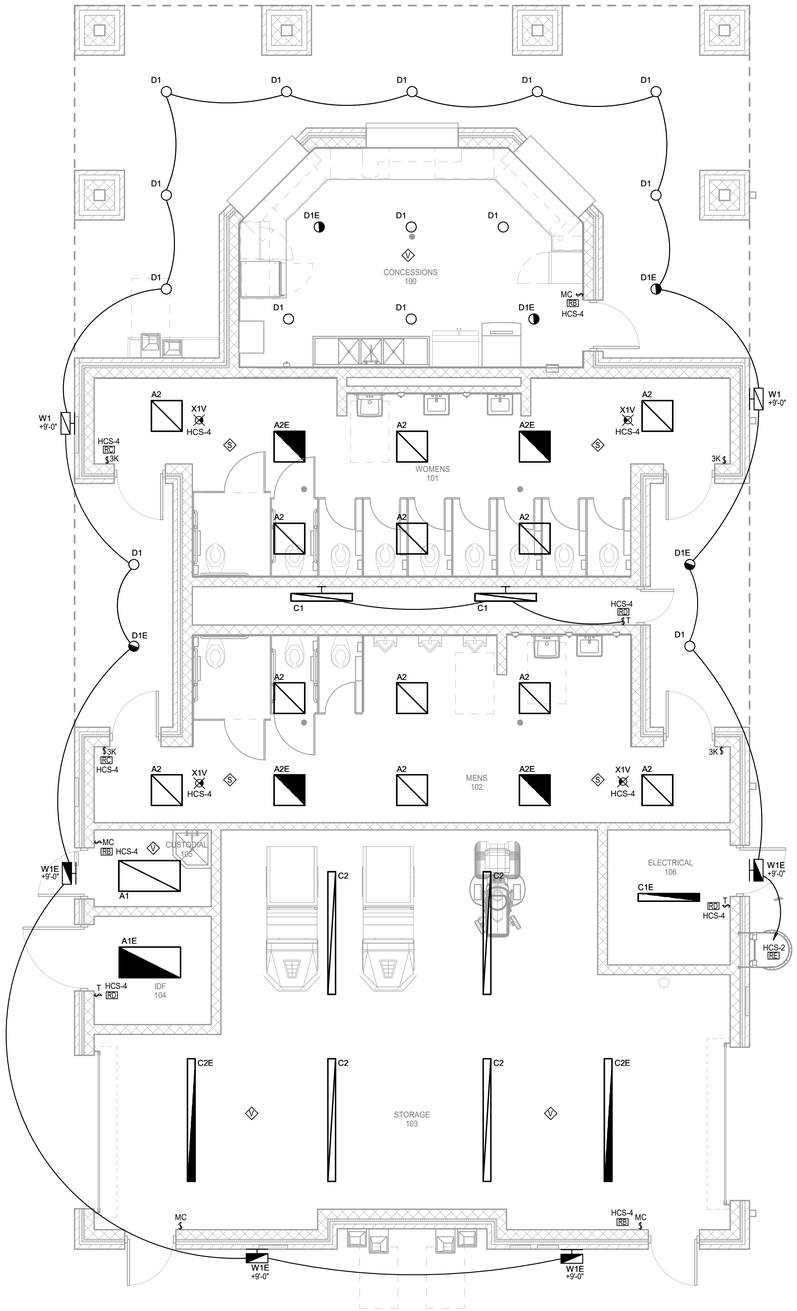
1. PROVIDE A JUNCTION BOX FOR CONNECTION OF NEW ELECTRIC HAND DRYER. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
2. ROUTE 2#12,1#12G.,3/4"C. FROM INDOOR DMS MINISPLIT TO ASSOCIATED OUTDOOR DMSCU; INDOOR UNIT IS POWERED BY OUTDOOR UNIT.
3. LINE VOLTAGE THERMOSTAT PROVIDED BY DIVISION 23, INSTALLED BY DIVISION 26. MAKE FINAL CONNECTION TO FAN.
4. PROVIDE A JUNCTION BOX FOR CONNECTION OF ELECTRONIC TRAP PRIMER. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
5. PROVIDE A JUNCTION BOX FOR CONNECTION OF ACCESS CONTROL PANEL. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
6. ROUTE (1)1"C. W/ PULLSTRING TO GREASE TRAP FOR HIGH LEVEL ALARM CABLING. PROVIDE SEALS AT EACH END. REFER TO PLUMBING.
7. PROVIDE GROUNDING BUS BAR. REFER TO GROUNDING SPECIFICATIONS AND TECHNOLOGY DRAWINGS FOR ADDITIONAL SCOPE OF WORK.
8. PROVIDE A JUNCTION BOX FOR CONNECTION OF FIRE ALARM BOOSTER PANEL. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
9. PROVIDE NEMA L6-30R RECEPTACLE LOCATED BEHIND DATA RACK. COORDINATE EXACT MOUNTING LOCATION WITH OWNER.
10. PROVIDE NEMA 5-20R DOUBLE DUPLEX RECEPTACLE LOCATED BEHIND DATA RACK. COORDINATE EXACT MOUNTING LOCATION WITH OWNER.



N

2 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - CONCESSION

Scale: 1/4" = 1'-0"



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1 ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - CONCESSION

Scale: 1/4" = 1'-0"

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

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E3.03-H

ELECTRICAL FLOOR PLANS - LEVEL 1 - CONCESSIONS

HIGHTOWER HIGH SCHOOL

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12/3/2025 6:49:35 PM

Branch Panel: HCS

NEW

Location: ELECTRICAL 106 | **Supply From:** | **Mounting:** Surface | **Volts:** 277/480 Wye | **Phases:** 3 | **Wires:** 4 | **A.I.C. Rating:** 18,000 | **Enclosure:** Type 1 | **Mains:** 200A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1				16.8 / 0.6			1	20	#12 Exterior Lighting	2	C
	3	XFMR TLCS	1-L	70	3	14.7 / 0.5		1	20	#12 Lighting - Concession Bldg	4	
	5						14.7 / 0.0	1	20	-- SPARE	6	--
	7				1.7 / 0.0			1	20	-- SPARE	8	--
	9	EUH-1	#12	20	3	1.7 / 0.0		1	20	-- SPARE	10	--
	11						1.7 / 0.0	1	20	-- SPARE	12	--
	13				1.7 / 0.0			1	--	-- SPACE	14	--
	15	EUH-2	#12	20	3	1.7 / 0.0		1	--	-- SPACE	16	--
	17						1.7 / 0.0	1	--	-- SPACE	18	--
	19				1.7 / 0.0			1	--	-- SPACE	20	--
	21	EUH-3	#12	20	3	1.7 / 0.0		1	--	-- SPACE	22	--
	23						1.7 / 0.0	1	--	-- SPACE	24	--
--	25	SPACE	--	--	1	0.0 / 0.0		1	--	-- SPACE	26	--
--	27	SPACE	--	--	1	0.0 / 0.0		1	--	-- SPACE	28	--
--	29	SPACE	--	--	1		0.0 / 0.0	1	--	-- SPACE	30	--
--	31	SPACE	--	--	1	0.0 / 0.0		1	--	-- SPACE	32	--
--	33	SPACE	--	--	1	0.0 / 0.0		1	--	-- SPACE	34	--
--	35	SPACE	--	--	1		0.0 / 0.0	1	--	-- SPACE	36	--
--	37	SPACE	--	--	1	0.0 / 0.0					38	
--	39	SPACE	--	--	1	0.0 / 0.0		3	30	-- SPDL	40	--
--	41	SPACE	--	--	1		0.0 / 0.0				42	
					Total Load:	22.4 kVA	20.1 kVA	19.7 kVA				
					Total Amps:	81 A	73 A	71 A				

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
HVAC	21.2 kVA	100.00%	21.2 kVA	
Heating	15.0 kVA	100.00%	15.0 kVA	Total Conn. Load: 62.2 kVA
Lighting	1.1 kVA	125.00%	1.4 kVA	Total Est. Demand: 62.5 kVA
Miscellaneous	21.3 kVA	100.00%	21.3 kVA	Total Conn. Current: 75 A
Receptacles	3.6 kVA	100.00%	3.6 kVA	Total Est. Demand... 75 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
M - PROVIDE METERING DEVICE

Branch Panel: LJA

NEW

Location: Room K278 | **Supply From:** TLJA | **Mounting:** Surface | **Volts:** 120/208 Wye | **Phases:** 3 | **Wires:** 4 | **A.I.C. Rating:** 10,000 | **Enclosure:** Type 1 | **Mains:** 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Plugload Receptacles	#12	20	1	1.8 / 0.0		1	--	-- SPACE	2	--
	3	Plugload Receptacles	#12	20	1		1.8 / 0.0	1	--	-- SPACE	4	--
	5	Plugload Receptacles	#12	20	1			1	--	-- SPACE	6	--
	7	Plugload Receptacles	#12	20	1	1.8 / 0.0		1	--	-- SPACE	8	--
--	9	SPARE	--	20	1	0.0 / 0.0		1	--	-- SPACE	10	--
--	11	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	12	--
--	13	SPARE	--	20	1	0.0 / 0.0		1	--	-- SPACE	14	--
--	15	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	16	--
--	17	SPARE	--	20	1			1	--	-- SPACE	18	--
--	19	SPARE	--	20	1	0.0 / 0.0		1	--	-- SPACE	20	--
--	21	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	22	--
--	23	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	24	--
--	25	SPARE	--	20	1	0.0 / 0.0		1	--	-- SPACE	26	--
--	27	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	28	--
--	29	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	30	--
--	31	SPARE	--	20	1	0.0 / 0.0		1	--	-- SPACE	32	--
--	33	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	34	--
--	35	SPARE	--	20	1			1	--	-- SPACE	36	--
--	37	SPARE	--	20	1	0.0 / 0.0					38	
--	39	SPARE	--	20	1		0.0 / 0.0	3	30	-- SPDL	40	--
--	41	SPARE	--	20	1						42	
					Total Load:	3.6 kVA	1.8 kVA	1.8 kVA				
					Total Amps:	30 A	15 A	15 A				

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
Miscellaneous	7.2 kVA	100.00%	7.2 kVA	
				Total Conn. Load: 7.2 kVA
				Total Est. Demand: 7.2 kVA
				Total Conn. Current: 20 A
				Total Est. Demand... 20 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
M - PROVIDE METERING DEVICE

Branch Panel: LH2

Location: | **Supply From:** LH | **Mounting:** Surface | **Volts:** 120/208 Wye | **Phases:** 3 | **Wires:** 4 | **A.I.C. Rating:** 10,000 | **Enclosure:** Type 1 | **Mains:** 225A MLO

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
--	1	(E)Receptacles	--	20	1	0.0 / 0.0		1	20	-- (E)EF-H1	2	--
--	3	(E)Receptacles	--	20	1		0.0 / 0.0	1	20	-- SPARE	4	--
--	5	(E)Receptacles	--	20	1			1	20	-- (E)EF-H3	6	--
--	7	(E)Receptacles	--	20	1	0.0 / 0.0		1	20	-- (E)EF-H4	8	--
--	9	(E)Receptacles	--	20	1		0.0 / 0.0	2	30	-- (E)Telephone Equipment	10	--
--	11	(E)Receptacles	--	20	1						12	
--	13	(E)Receptacles	--	20	1	0.0 / 0.0		2	30	-- (E)Telephone Equipment	14	--
--	15	(E)Receptacles	--	20	1		0.0 / 0.0				16	
--	17	(E)Receptacles	--	20	1			1	20	-- (E)IDF Recept.	18	--
--	19	(E)Receptacles	--	20	1	0.0 / 1.8		1	20	#12 Plugload Receptacles	20	1
--	21	(E)Receptacles	--	20	1		0.0 / 1.8	1	20	#12 Plugload Receptacles	22	1
--	23	(E)Receptacles	--	20	1			1	20	#12 Plugload Receptacles	24	1
--	25	(E)Receptacles	--	20	1	0.0 / 1.8		1	20	#12 Plugload Receptacles	26	1
--	27	(E)Fire Alarm	--	20	1		0.0 / 1.8	1	20	#12 Plugload Receptacles	28	1
	29							1	20	#12 Plugload Receptacles	30	1
--	31	SPARE	--	20	3	0.0 / 0.0		1	--	-- SPACE	32	--
	33						0.0 / 0.0	1	--	-- SPACE	34	--
--	35	SPACE	--	--	1			1	--	-- SPACE	36	--
--	37	SPARE	--	20	1	0.0 / 0.0		1	--	-- SPACE	38	--
--	39	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	40	--
--	41	SPARE	--	20	1			1	--	-- SPACE	42	--
					Total Load:	3.6 kVA	3.6 kVA	1.0 kVA				
					Total Amps:	33 A	33 A	8 A				

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
Miscellaneous	8.2 kVA	100.00%	8.2 kVA	
				Total Conn. Load: 8.2 kVA
				Total Est. Demand: 8.2 kVA
				Total Conn. Current: 23 A
				Total Est. Demand... 23 A

Notes:
1 - Provide new circuit breaker.

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
M - PROVIDE METERING DEVICE

Branch Panel: LCS

NEW

Location: ELECTRICAL 106 | **Supply From:** TLCS | **Mounting:** Surface | **Volts:** 120/208 Wye | **Phases:** 3 | **Wires:** 4 | **A.I.C. Rating:** 10,000 | **Enclosure:** Type 1 | **Mains:** 150A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Receptacles	#12	20	1	0.5 / 0.4		1	20	#12 Receptacles	2	
	3	Receptacles	#12	20	1		0.9 / 0.4	1	20	#12 Receptacles	4	
	5	Receptacles	#12	20	1			1	20	#12 Receptacles	6	
LF	7	Elec. Hand Dryer	#10	30	1	1.5 / 1.5		1	30	#10 Elec. Hand Dryer	8	LF
LF	9	Elec. Hand Dryer	#10	30	1		1.5 / 1.5	1	30	#10 Elec. Hand Dryer	10	LF
	11	Ice Machine	#12	20	1			1	20	#12 Holding Cabinet	12	
	13	Microwave	#12	20	1	1.5 / 0.6		1	20	#12 Air Curtain	14	
	15	Air Curtain	#12	20	1		0.6 / 0.2	1	20	#12 Dedicated Recept.	16	
	17	Dedicated Recept.	#12	20	1			1	20	#12 Dedicated Recept.	18	
	19	Dedicated Recept.	#12	20	1	0.2 / 0.2		1	20	#12 Dedicated Recept.	20	
	21	Dedicated Recept.	#12	20	1		0.2 / 0.6	1	20	#12 Air Curtain	22	
	23	Circ Pump - CP-1	#12	20	1			1	20	#12 Bottle Cooler	24	
	25	Access Control Panel	#12	20	1	0.5 / 0.1		1	20	#12 Fire Alarm	26	LO
LF	27	Elec. Hand Dryer	#10	30	1		1.5 / 0.4	1	20	#12 Data Rack	28	LO
	29	DMSCU-1 / DMS-1	#12	20	2			1	20	#12 DMSCU-2 / DMS-2	30	
	31					1.2 / 1.2					32	
	33	Receptacles IDF 142	#12	20	1		0.4 / 0.2	1	20	#12 EF-1	34	
	35	EF-2	#12	20	1			1	20	#12 EF-3	36	
	37	EF-4	#12	20	1	0.2 / 0.0					38	
	39	Overhead Door	#12	20	1		0.5 / 0.0	3	30	-- SPDL	40	--
	41	Overhead Door	#12	20	1						42	
	43	High Level Alarm	#12	20	1	0.2 / 1.0					44	
	45						5.0 / 1.0	2	30	#10 Data Rack	46	LO
	47	EWH-1	#6	60	3						48	
	49					5.0 / 1.0	5.0 / 1.0	2	30	#10 Data Rack	50	LO
--	51	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	52	--
--	53	SPARE	--	20	1			1	--	-- SPACE	54	--
--	55	SPARE	--	20	1	0.0 / 0.0		1	--	-- SPACE	56	--
--	57	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	58	--
--	59	SPARE	--	20	1			1	--	-- SPACE	60	--
--	61	SPARE	--	20	1	0.0 / 0.0		1	--	-- SPACE	62	--
--	63	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	64	--
--	65	SPARE	--	20	1			1	--	-- SPACE	66	--
--	67	SPARE	--	20	1	0.0 / 0.0		1	--	-- SPACE	68	--
--	69	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	70	--
--	71	SPARE	--	20	1			1	--	-- SPACE	72	--
--	73	SPARE	--	20	1	0.0 / 0.0		1	--	-- SPACE	74	--
--	75	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	76	--
--	77	SPARE	--	20	1			1	--	-- SPACE	78	--
--	79	SPARE	--	20	1	0.0 / 0.0		1	--	-- SPACE	80	--
--	81	SPARE	--	20	1		0.0 / 0.0	1	--	-- SPACE	82	--
--	83	SPARE	--	20	1			1	--	-- SPACE	84	--
					Total Load:	16.8 kVA	14.7 kVA	14.7 kVA				
					Total Amps:	140 A	122 A	122 A				

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
HVAC	21.2 kVA	100.00%	21.2 kVA	
Miscellaneous	21.3 kVA	100.00%	21.3 kVA	Total Conn. Load: 46.1 kVA
Receptacles	3.6 kVA	100.00%	3.6 kVA	Total Est. Demand: 46.1 kVA
				Total Conn. Current: 128 A
				Total Est. Demand... 128 A

Notes:

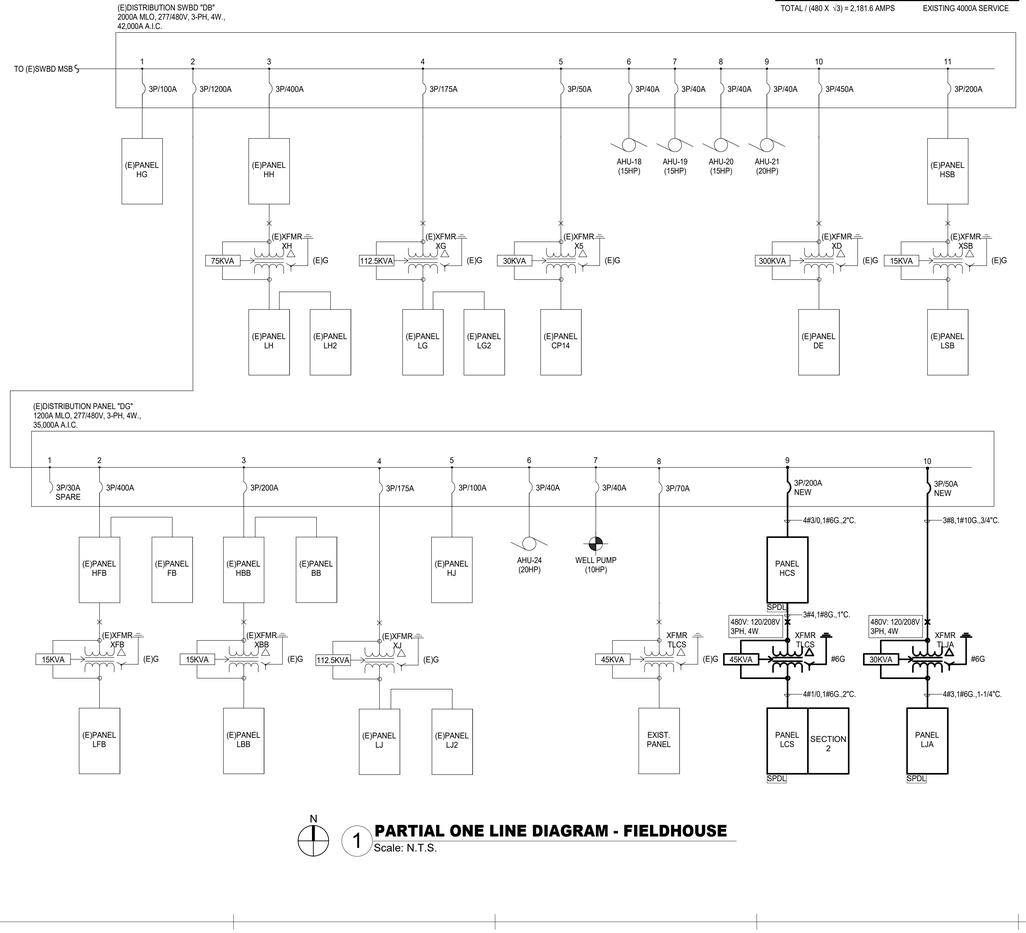
Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
M - PROVIDE METERING DEVICE

ELECTRICAL LOAD ANALYSIS

277/480V. 3PH., 4W

LOAD DESCRIPTION:	KVA
PEAK KVA @ 125%	1727.5
NEW LIGHTING LOAD @ 125%	1.1
NEW RECEPTACLE LOAD @ 100%	3.2
NEW MISCELLANEOUS LOAD @ 100%	38.5
NEW ELEC. HEAT LOAD @ 100%	15.0
NEW HVAC LOAD @ 100%	27.6
TOTAL	1812.9

TOTAL / (480 X √3) = 2,181.6 AMPS — EXISTING 4000A SERVICE



N

1 **PARTIAL ONE LINE DIAGRAM - FIELDHOUSE**
Scale: N.T.S.

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND athletic RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS — 80219 — LICENSED — STATE OF TEXAS — PROFESSIONAL ENGINEER
12/04/2025

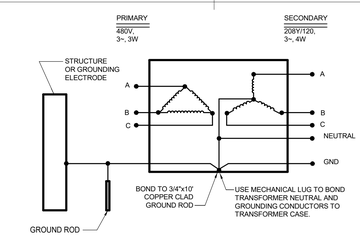
PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author | CHECKED BY: Checker
REVISIONS:

Δ	Date	Description

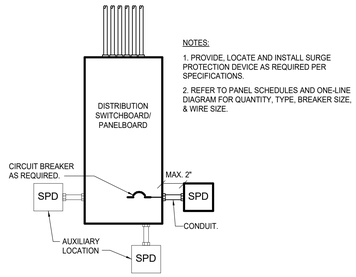
100% CD
E4.01-H
ELECTRICAL ONE-LINE DIAGRAM

HIGHTOWER HIGH SCHOOL

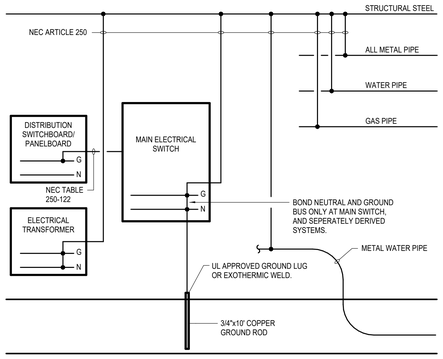
12/3/2025 6:49:37 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/HIGHTOWER_MEPT_R25.rvt



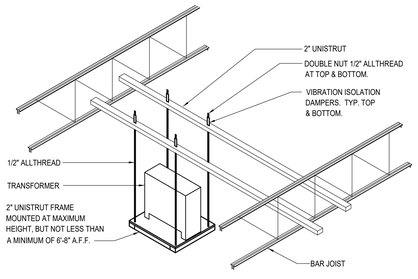
4 TRANSFORMER GROUNDING DETAIL
SCALE: NONE



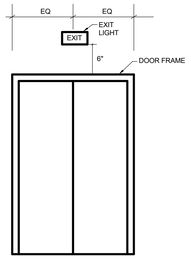
3 SURGE PROTECTION DETAIL
SCALE: NONE



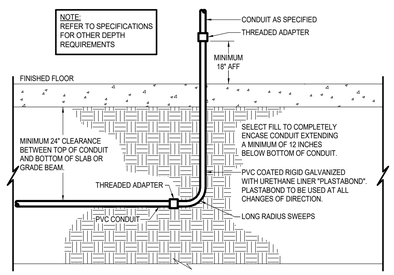
2 GROUNDING DETAIL
SCALE: NONE



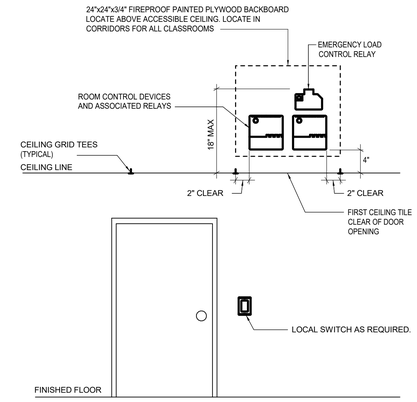
7 SUSPENDED TRANSFORMER DETAIL
SCALE: NONE



6 TYPICAL EXIT SIGN LOCATION
SCALE: NONE



5 CONDUIT BELOW BUILDING SLAB
SCALE: NONE



1 TYPICAL LIGHTING CONTROLS ELEVATION
SCALE: NONE

SYMBOL SCHEDULE

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED ON EMERGENCY CIRCUIT
	DOWNLIGHT FIXTURE
	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
	LIGHT FIXTURE - WALL MOUNTED
	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - CEILING MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - WALL MOUNTED ON EMERGENCY CIRCUIT
LIGHTING CONTROLS & DEVICES	
$	LINE VOLTAGE SINGLE POLE SWITCH
$3	LINE VOLTAGE 3-WAY SWITCH
$4	LINE VOLTAGE 4-WAY SWITCH
$K	LINE VOLTAGE MOMENTARY DPST KEYED SWITCH
$D	LINE VOLTAGE DIMMER SWITCH, SIZE AND TYPE AS REQUIRED
$P	LINE VOLTAGE SWITCH WITH PILOT LIGHT
$T	6-HOUR ROTARY TIMER SWITCH WITH NO HOLD U.N.O.
	PUSH BUTTON EPO SWITCH WITH COVER
$MC	LOW VOLTAGE MOMENTARY CONTACT SWITCH
$R	LOW VOLTAGE DIGITAL KEYPAD
$B	LOW VOLTAGE BUILDING MANAGEMENT (BMCS) LOCAL OVERRIDE SWITCH
	OCCUPANCY SENSOR (AUTO ON / AUTO OFF WITHIN 20-MINUTES)
	VACANCY SENSOR (MANUAL ON / AUTO OFF WITHIN 20-MINUTES)
	PHOTOCELL SENSOR
RF	LIGHTING CONTROL SYSTEM. ('#' DENOTES TYPE - SEE LIGHTING CONTROLS SCHEDULE)
ER	EMERGENCY LOAD CONTROL RELAY. MINIMUM 16A AND 0-10V COMPATIBLE. PROVIDE U.L. 924 U.N.O.
RECEPTACLES AND OUTLETS	
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
U	DUPLEX RECEPTACLE WITH TWO USB CHARGING PORTS.
	125/250 VOLT, 1 PHASE, 3-WIRE, 20 AMPS UNLESS NOTED OTHERWISE
	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
U	DOUBLE DUPLEX WITH TWO USB CHARGING PORTS IN 2-GANG BOX WITH SINGLE COVER PLATE
	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	FLUSH FLOOR DUPLEX RECEPTACLE OUTLET
	FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE OUTLET
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	JUNCTION BOX
	FLUSH REMOTE GFCI DEVICE (LOCATE IN READILY ACCESSIBLE LOCATION)
MOTOR CONTROLLERS AND EQUIPMENT	
	MOTOR, MAKE FINAL MOTOR CONNECTION
$	MOTOR-RATED SWITCH. 20A UNLESS INDICATED OTHERWISE.
J	DISCONNECT SWITCH AS REQUIRED
J	COMBINATION MOTOR STARTER/DISCONNECT SWITCH AS REQUIRED
	MOTOR STARTER
	PREWIRED DEVICE, MAKE ELECTRICAL FINAL CONNECTIONS
VFD	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
HF	HIGH EFFICIENCY HARMONIC FILTER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
T	LOW VOLTAGE TRANSFORMER, SIZE AND TYPE AS REQUIRED.
Y	CHIME/BUZZER
ELECTRICAL EQUIPMENT	
	ELECTRICAL PANELBOARD; REFER TO FLOOR PLANS FOR VOLTAGE.
	DRY TYPE TRANSFORMER
	PLYWOOD TELEPHONE BACKBOARD
CIRCUITING	
	CONDUIT
	CONDUIT BELOW FLOOR, SLAB, OR GRADE
#/#	3/4"C. UNLESS OTHERWISE NOTED. LONG HATCH, NEUTRAL; SHORT HATCH, PHASE; LONG HATCH & HOOK, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN.
	PARTIAL ELECTRICAL HOME RUN
SUBSCRIPTS AND ABBREVIATIONS	
WP	INDICATES 'WEATHERPROOF'
H	INDICATES 'HORIZONTAL'
NL	INDICATES 'NIGHT LIGHT'.
TP	INDICATES 'TAMPER PROOF'
(KS)	INDICATES 'KNEE SPACE'. LOCATE WIRING DEVICE IN KNEESPACE
U.N.O.	INDICATES 'UNLESS NOTED OTHERWISE'
(E)	INDICATES EXISTING TO REMAIN
(R)	INDICATES REPLACE DEVICE AND COVERPLATE.
•	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL MILLWORK DRAWINGS AND OTHER TRADES
GENERAL NOTES:	
-ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-4X MINIMUM. -ALL EXTERIOR RECEPTACLES SHALL BE WATER RESISTANT TYPE.	

LIGHTING CONTROLS SCHEDULE

Type	Sensor Operation	# of Lighting Zones	Description
RA	OCCUPANCY - AUTO ON @ 50% / AUTO OFF	1	DIGITAL KEYPAD; ON/OFF WITH RAISE/LOWER, 0-10V DIMMING.
RB	VACANCY - MANUAL ON / AUTO OFF	1	ON/OFF MOMENTARY CONTACT SWITCH, NO DIMMING.
RC	OCCUPANCY - AUTO ON / AUTO OFF	1	ON/OFF KEYED SWITCH, NO DIMMING.
RD	NONE	1	ON/OFF SPRING WOUND TIMER SWITCH, 12-HOUR WITH HOLD; PROVIDE INTERMATIC #FD12HHW. WHERE MULTIPLE SWITCHES ARE USE, WIRE SWITCHES IN PARALLEL FOR SIMULTANTEOUS OPERATION.
RE	NONE	1	CONTACTOR CONTROLLED WITH PHOTOCELL ON / TIMECLOCK OFF. EXTERIOR LIGHTING SHALL BE TURNED OFF FROM 12:00 AM TO 6:00 AM OR FROM 1 HOUR AFTER CLOSING TO 1 HOUR BEFORE OPENING.

LIGHTING FIXTURE SCHEDULE

Type Mark	CATALOG NUMBER		MOUNTING	LAMP TYPE	CCT	CRI	VOLTAGE	LOAD	REMARKS
	MANUFACTURER	MODEL							
A1	METALUX	24FP4740C	RECESSED	4700L LED	4000 K	80	277 V	42 W	2X4 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED.
A1E	METALUX	24FP4740C + EL14W	RECESSED	4700L LED	4000 K	80	277 V	42 W	2X4 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
A2	METALUX	22FP4240C	RECESSED	4200L LED	4000 K	80	277 V	38 W	2X2 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED.
A2E	METALUX	22FP4240C + EL14W	RECESSED	4200L LED	4000 K	80	277 V	38 W	2X2 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
B1	METALUX	14GR-FA-LD5-36-A19/156-UNV-L840-CD1-U-DF-14W-U	RECESSED	3600L LED	4000 K	80	277 V	35 W	1X4 STATIC TROFFER, 0.156" A19 LENS, TRIPLE GASKET, ALUMINUM DOORFRAME, 0-10V DIMMING, DRYWALL FLANGE KIT, DLC LISTED.
B1E	METALUX	14GR-FA-LD5-36-A19/156-UNV-EL14W-L840-CD1-U-DF-14W-U	RECESSED	3600L LED	4000 K	80	277 V	35 W	1X4 STATIC TROFFER, 0.156" A19 LENS, TRIPLE GASKET, ALUMINUM DOORFRAME, 0-10V DIMMING, DRYWALL FLANGE KIT, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
C1	METALUX	4SNX-51SL-LW-UNV-L840-CD1-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	5100L LED	4000 K	80	277 V	32 W	4-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED.
C1E	METALUX	4SNX-51SL-LW-UNV-L840-CD1-EL14W-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	5100L LED	4000 K	80	277 V	32 W	4-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
C2	METALUX	8SNX-96SL-LW-UNV-L840-CD1-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	9600L LED	4000 K	80	277 V	32 W	8-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED.
C2E	METALUX	8SNX-96SL-LW-UNV-L840-CD1EL14W[2]-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	9600L LED	4000 K	80	277 V	32 W	8-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
D1	HALO	HC620D010-HM60525840-61WDC	RECESSED	2000L LED	4000 K	80	277 V	21 W	6-INCH DOWNLIGHT, WIDE BEAM, SEMI-SPECULAR TRIM, ENERGY STAR RATED.
D1E	HALO	HC620D010-IEM14-HM60525840-61WDC	RECESSED	2000L LED	4000 K	80	277 V	21 W	6-INCH DOWNLIGHT, WIDE BEAM, SEMI-SPECULAR TRIM, ENERGY STAR RATED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
DS	HALO	HC620D010-HM60525840-61PSMDW	RECESSED	2000L LED	4000 K	80	277 V	21 W	6-INCH SHOWER DOWNLIGHT, MEDIUM BEAM, NON-CONDUCTIVE TRIM, ENERGY STAR RATED.
W1	McGRAW EDISON	IST-SA1E-740-U-T4FT-BZ-LCF	WALL	7099L LED	4000 K	70	277 V	58 W	ARCHITECTURAL WALL SCONCE, FORWARD THROW DISTRIBUTION, BRONZE FINISH.
W1E	McGRAW EDISON	IST-SA1E-740-U-T4FT-BZ-LCF-CBP	WALL	7099L LED	4000 K	70	277 V	58 W	ARCHITECTURAL WALL SCONCE, FORWARD THROW DISTRIBUTION, BRONZE FINISH. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
X1V	SURE-LITES	UX71WH	SURFACE	LED	-	80	277 V	1 W	VANDAL PROOF EXIT SIGN, WHITE HOUSING, RED LETTERING. PROVIDE WITH EMERGENCY BATTERY PACK.

APPROVED LIGHTING MANUFACTURERS:
- LED / FLUORESCENT: LITHONIA, COLUMBIA, METALUX, AXIS, DAYBRITE, HE WILLIAMS, LSI, CREE
- EXIT SIGNS: LITHONIA, CHLORIDE, EMERGI-LITE, DUAL-LITE, SURE LITES, H.E. WILLIAMS
- ARCHITECTURAL HIGH PERFORMANCE FLOOD LIGHTS: WIDE-LITE, HADCO, KIM, McGRAW EDISON, GARDCO, LSI
- INDUSTRIAL: METALUX, LITHONIA, EXCELINE, G.E., HUBBELL, LUMARK, STONCO
- DOWN/TRACK LIGHTING: LIGHTOLIER, LITHONIA-GOTHAM, HALO ARCHITECTURAL, PRESCOLITE, HE WILLIAMS, INDY
- SECURITY (WALLPACKS): LITHONIA, McGRAW EDISON, G.E., LSI, HUBBELL, STONCO, GARDCO
- ARCHITECTURAL LINEAR: PEERLESS, LITECONTROL, ALERA, LAM, AMERICAN LINEAR LIGHTING, LEDALITE
- ARCHITECTURAL INDIRECT: INSIGHT, ORIGINAL CAST LIGHTING, SPI, LAM

- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT INDICATED IN THE LIGHT FIXTURE SCHEDULE. WHERE THERE IS AN INCONSISTENCY BETWEEN THE LIGHT SCHEDULE AND THE SPECIFICATIONS, THE BETTER QUALITY OF WORK SHALL BE INCLUDED IN THE PROPOSAL.
- THE ABOVE LIGHTING MANUFACTURERS LIST DOES NOT IMPLY APPROVAL. APPROVAL WILL BE DETERMINED AFTER REVIEW OF SHOP DRAWING TO DETERMINE IF THE FIXTURE OR POLE SUBMITTED MEETS OR EXCEEDS THE DESIGN STANDARDS AND PERFORMANCE REQUIRED OF THE FIXTURE SPECIFIED IN THE LIGHT FIXTURE SCHEDULE OR SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE SPECIFIED LIGHT FIXTURE IF A SUBSTITUTION IS NOT APPROVED WITHOUT ANY ADDITIONAL COST TO THE OWNER. WHERE SPECIFIC OPTIONS/ACCESORIES ARE SPECIFIED OR REQUIRED, THEY SHALL BE PROVIDED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- DUE TO THE WIDE RANGE OF FIXTURE QUALITIES OFFERED BY EACH MANUFACTURER, THE APPROVED LIGHTING MANUFACTURERS SUBSTITUTION LIST IS NOT INTENDED TO INDICATE THAT ANY OR ALL MANUFACTURERS LISTED WILL HAVE SUITABLE SUBSTITUTIONS FOR THE LIGHT FIXTURES OR POLES SPECIFIED IN THE LIGHT FIXTURE SCHEDULE. SHOP DRAWING AND CONSTRUCTION DELAYS AS A RESULT OF INAPPROPRIATE SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT RESULT IN ANY ADDITIONAL COST TO THE OWNER.

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES.
2. ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
3. ALL EMPTY CONDUIT SHALL HAVE PULL STRING.
4. EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
5. VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 6" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
6. ALL FIRE ALARM DEVICES, RECEPTACLES, SWITCHES, AND WIRING DEVICES IN MECHANICAL AND ELECTRICAL ROOMS ARE TO BE RECESSED IN WALLS.
7. ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
10. CENTER ALL EXIT SIGNS OVER DOORS.

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS — STATE OF TEXAS — 90219 — LICENSED — ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:
	Date	Description

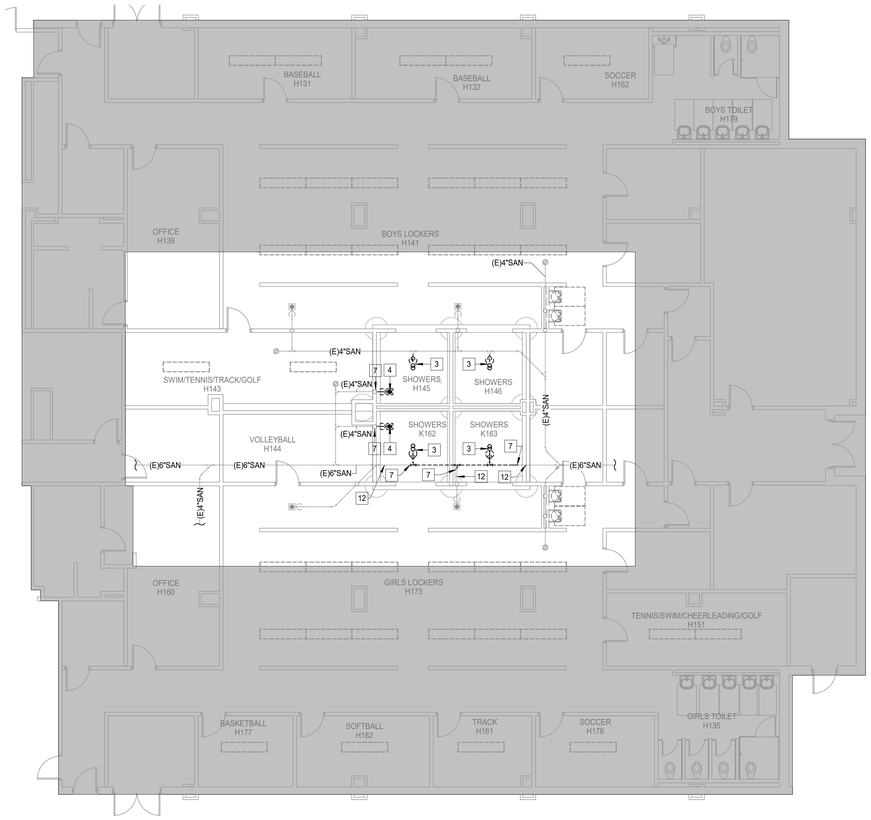
100% CD
E5.01-H
ELECTRICAL DETAILS, AND SCHEDULES

HIGHTOWER HIGH SCHOOL

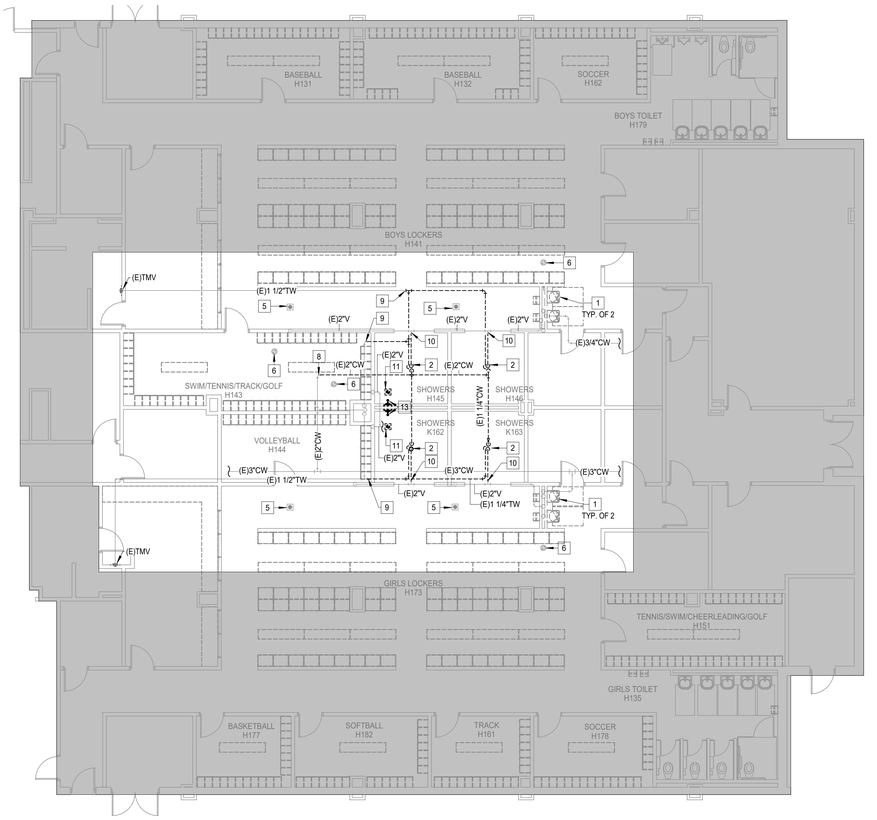
12/3/2025 6:49:38 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/HIGHTOWER_MEPT_R25.rvt

PLUMBING KEYED NOTES

1 EXISTING ELECTRONIC DRINKING FOUNTAIN TO BE REMOVED AND REPLACED. CAP UTILITIES FOR FUTURE CONNECTION.
2 EXISTING COLUMN SHOWER TO BE REMOVED CAP UTILITIES BACK TO POINT INDICATED FOR FUTURE CONNECTION.
3 EXISTING SAN AND VENT SERVICING COLUMN SHOWER ABOVE TO BE REMOVED. REMOVE SANITARY BACK TO MAIN AND CAP. REMOVE VENT BACK TO MAIN.
4 EXISTING 4" FLOOR DRAIN TO BE REMOVED. CAP UTILITIES BACK TO POINT INDICATED FOR FUTURE CONNECTION.
5 EXISTING FLOOR DRAIN TO REMAIN.
6 EXISTING FLOOR CLEANOUT TO REMAIN.
7 REMOVE EXISTING SANITARY BACK TO THIS POINT.
8 REMOVE EXISTING CW BACK TO THIS POINT.
9 REMOVE EXISTING THW BACK TO THIS POINT.
10 REMOVE EXISTING VENT BACK TO THIS POINT.
11 EXISTING FLOOR DRAIN TO BE REMOVED.
12 EXISTING SANITARY TO REMAIN
13 EXISTING ADA SHOWER TO BE REMOVED CAP UTILITIES BACK TO POINT INDICATED FOR FUTURE CONNECTION.



2 **PLUMBING DEMOLITION UNDERFLOOR PLAN - HIGHTOWER GYM**
Scale: 1/8" = 1'-0"



1 **PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - HIGHTOWER GYM**
Scale: 1/8" = 1'-0"

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

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Sugarland, TX 77479

BRADLEY KALMANS
90219
LICENSED
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:

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Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
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100% CD

P0.01-H

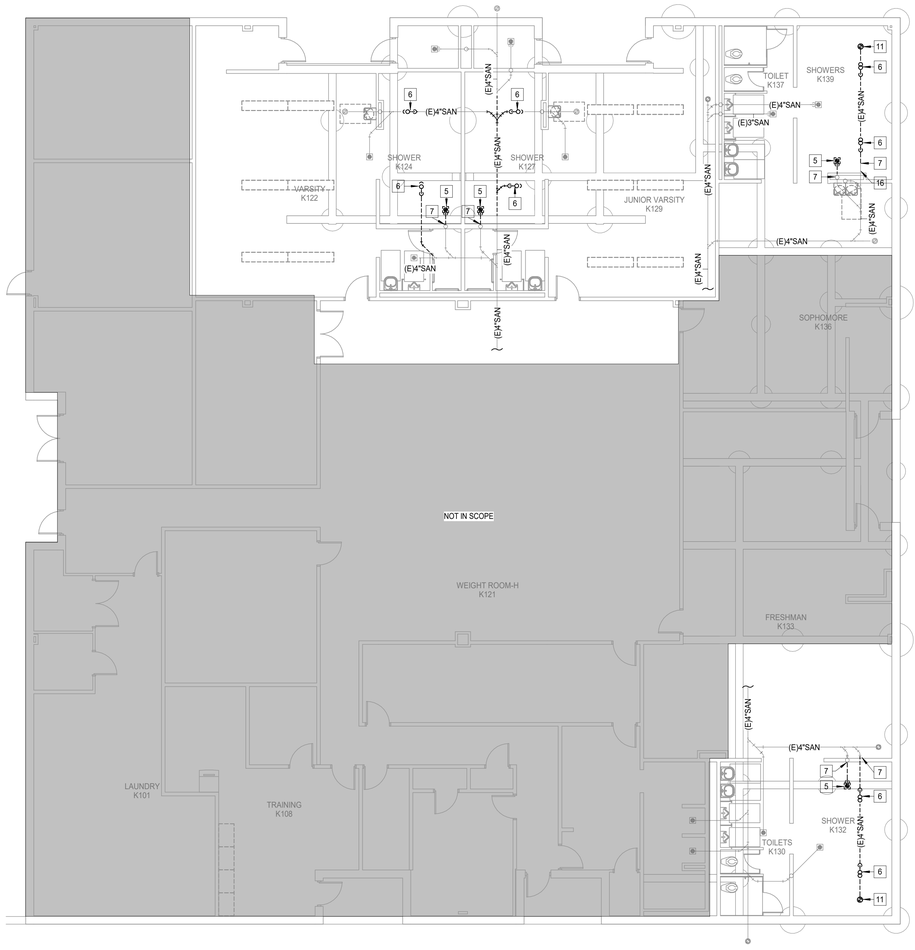
PLUMBING DEMOLITION FLOOR PLAN - GYM

HIGHTOWER HIGH SCHOOL

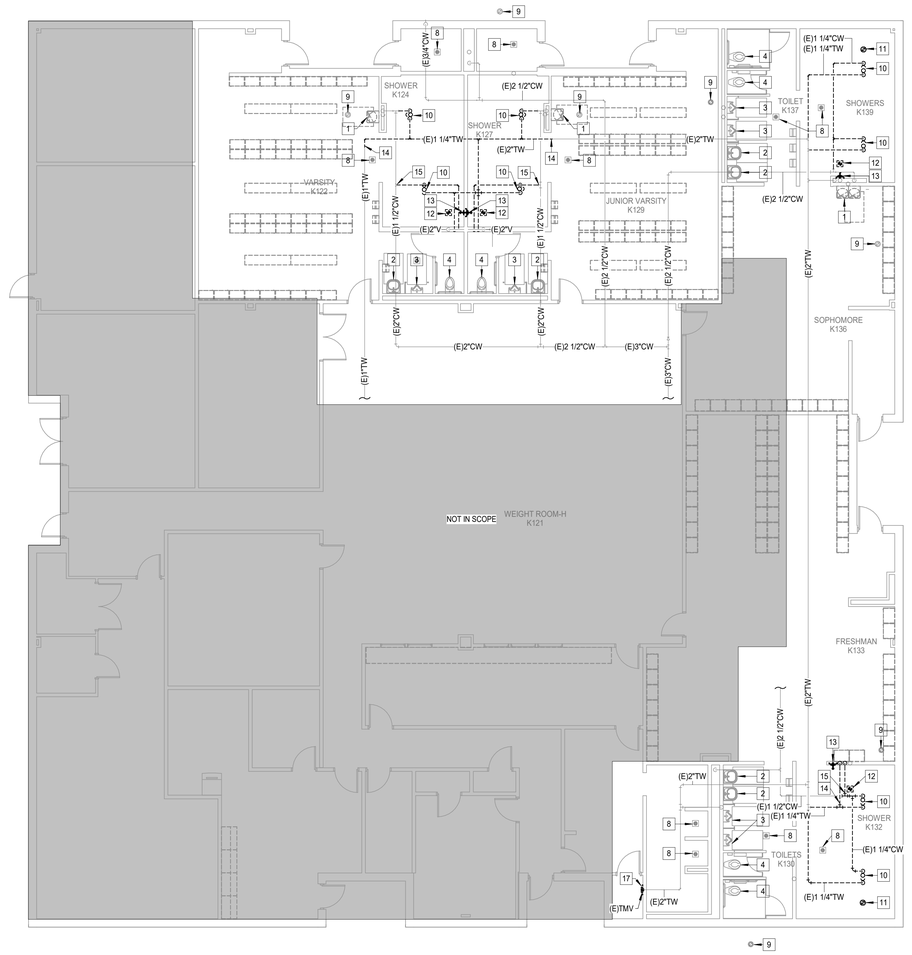
12/3/2025 6:49:44 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/HIGHTOWER_MEPT_R25.rvt

PLUMBING KEYED NOTES

1 EXISTING WATER CLOSET TO BE REMOVED AND REPLACED. CAP UTILITIES FOR FUTURE CONNECTION.
2 EXISTING LAVATORY TO REMAIN.
3 EXISTING URINAL TO REMAIN.
4 EXISTING WATER CLOSET TO REMAIN.
5 EXISTING 4" FLOOR DRAIN TO BE REMOVED. CAP UTILITIES BACK TO POINT INDICATED FOR FUTURE CONNECTION.
6 EXISTING SAN AND VENT SERVICING COLUMN SHOWER ABOVE TO BE REMOVED. REMOVE SANITARY BACK TO MAIN AND CAP. REMOVE VENT BACK TO MAIN.
7 REMOVE EXISTING SANITARY BACK TO THIS POINT.
8 EXISTING FLOOR DRAIN TO REMAIN.
9 EXISTING FLOOR CLEANOUT TO REMAIN.
10 EXISTING COLUMN SHOWER TO BE REMOVED CAP UTILITIES BACK TO POINT INDICATED FOR FUTURE CONNECTION.
11 EXISTING FLOOR CLEAN-OUT TO BE REMOVED.
12 EXISTING FLOOR DRAIN TO BE REMOVED.
13 EXISTING ADA SHOWER TO BE REMOVED CAP UTILITIES BACK TO POINT INDICATED FOR FUTURE CONNECTION.
14 REMOVE EXISTING THW BACK TO THIS POINT.
15 REMOVE EXISTING CW BACK TO THIS POINT.
16 EXISTING SANITARY TO REMAIN
17 EXISTING TMV TO BE REMOVED AND REPLACED. CAP ALL SERVICE UTILITIES FOR FUTURE USE.



2 **PLUMBING DEMOLITION UNDERFLOOR PLAN - HIGHTOWER FIELD HOUSE**
Scale: 1/8" = 1'-0"



1 **PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - HIGHTOWER FIELD HOUSE**
Scale: 1/8" = 1'-0"

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

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16431 Lexington Blvd.
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BRADLEY KALMANS — 80219 — LICENSED — STATE OF TEXAS — ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:
No. Date Description

100% CD
P0.02-H
PLUMBING DEMOLITION FLOOR PLAN - FIELD HOUSE
HIGHTOWER HIGH SCHOOL

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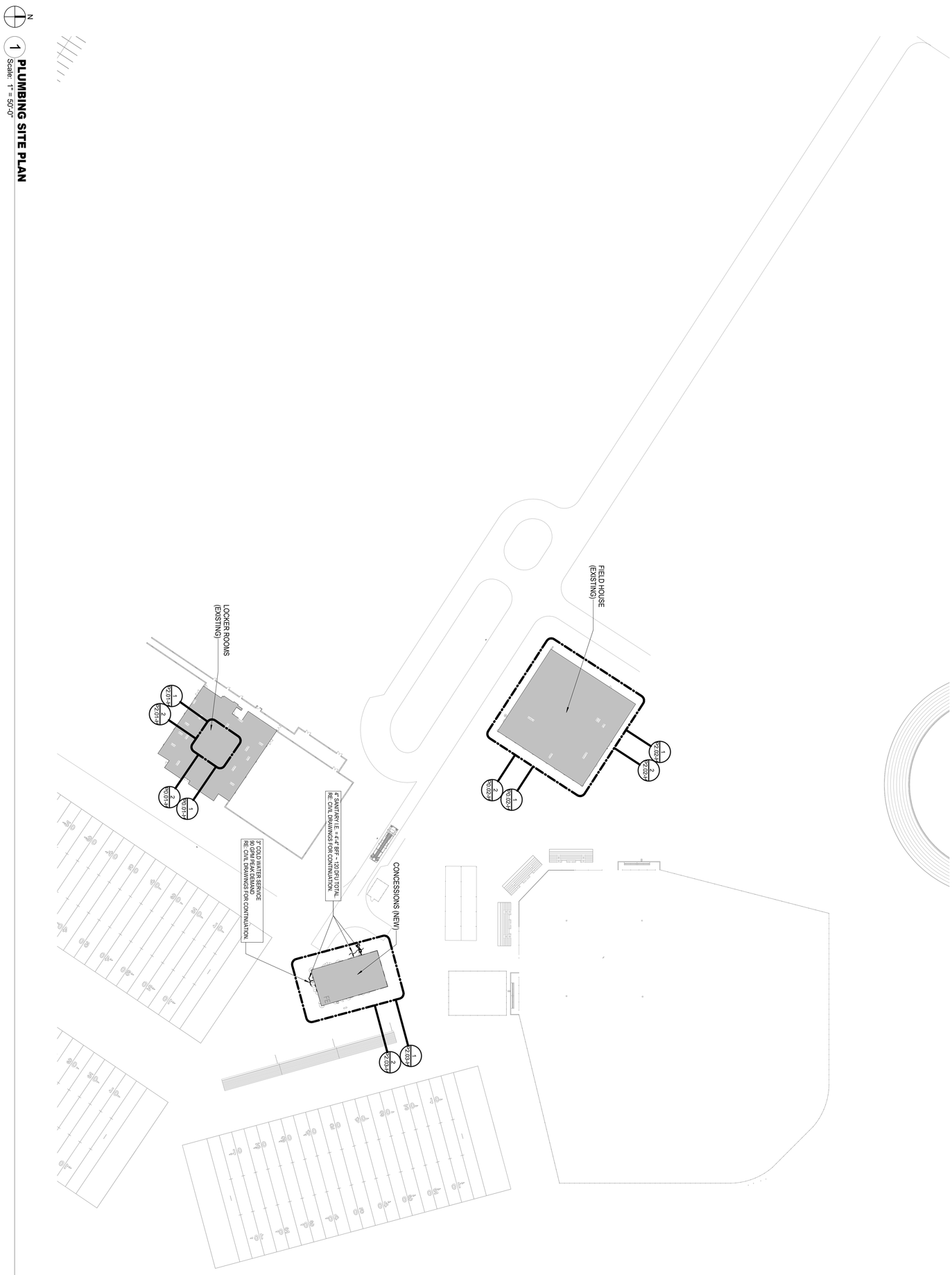

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

100% CD
P1.00-H
PLUMBING SITE PLAN

HIGHTOWER HIGH SCHOOL

PROJECT NO: 25-006
DATE: 12/4/2025
DRAWN BY:
CHECKED BY:
REVISIONS:
Date Description

SALAS O'BRIEN
BRADLEY KALMANS
80219
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12/04/2025

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16431 Lexington Blvd.
Sugarland, TX 77479

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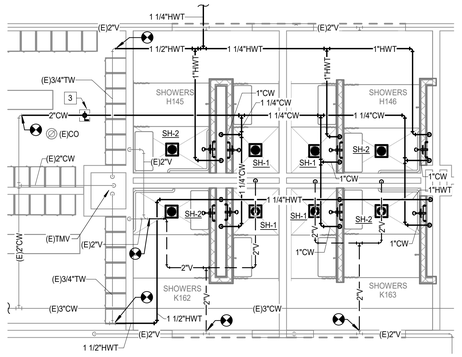
3333 Hurricane Ln, Missouri City, TX 77459

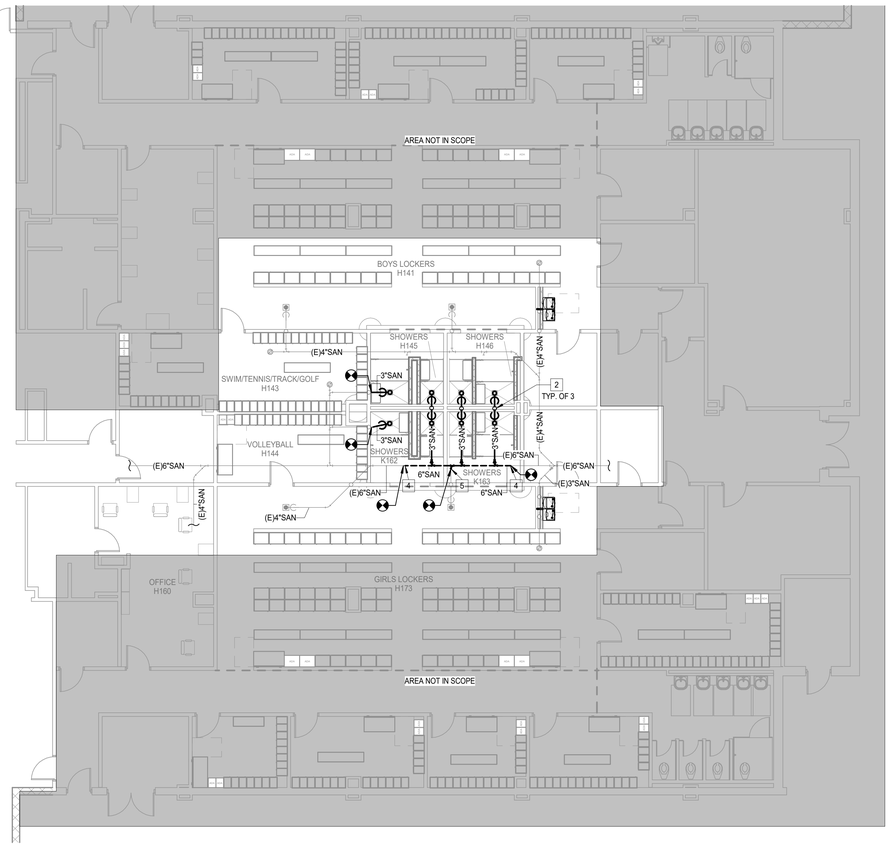
pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

PLUMBING KEYED NOTES

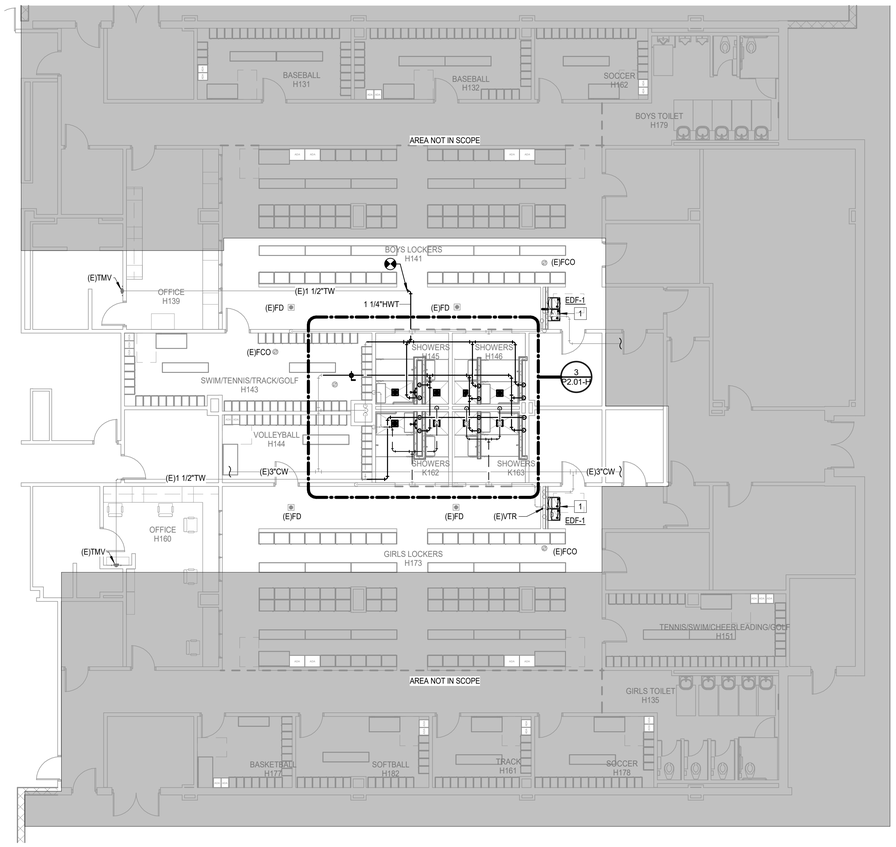
1 PROVIDE AND INSTALL NEW ELECTRONIC DRINKING FOUNTAIN. CONNECT EXISTING UTILITIES (CW, SANITARY AND VENT.)
2 2" VENT UP.
3 PROVIDE A 8"X8" ACCESS PANEL.
4 CONNECT NEW 6" SANITARY TO EXISTING MAIN.
5 CONNECT EXISTING 4" SANITARY FROM FLOOR DRAIN TO NEW 6" SANITARY.



3 **PLUMBING ENLARGED FLOOR PLAN - LEVEL 1 - HIGHTOWER GYM SHOWERS**
Scale: 1/4" = 1'-0"



2 **PLUMBING UNDERFLOOR PLAN - HIGHTOWER GYM**
Scale: 1/8" = 1'-0"



1 **PLUMBING FLOOR PLAN - LEVEL 1 - HIGHTOWER GYM**
Scale: 1/8" = 1'-0"

Salas O'Brien
Houston
10630 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
LICENSED PROFESSIONAL ENGINEER
80219
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:
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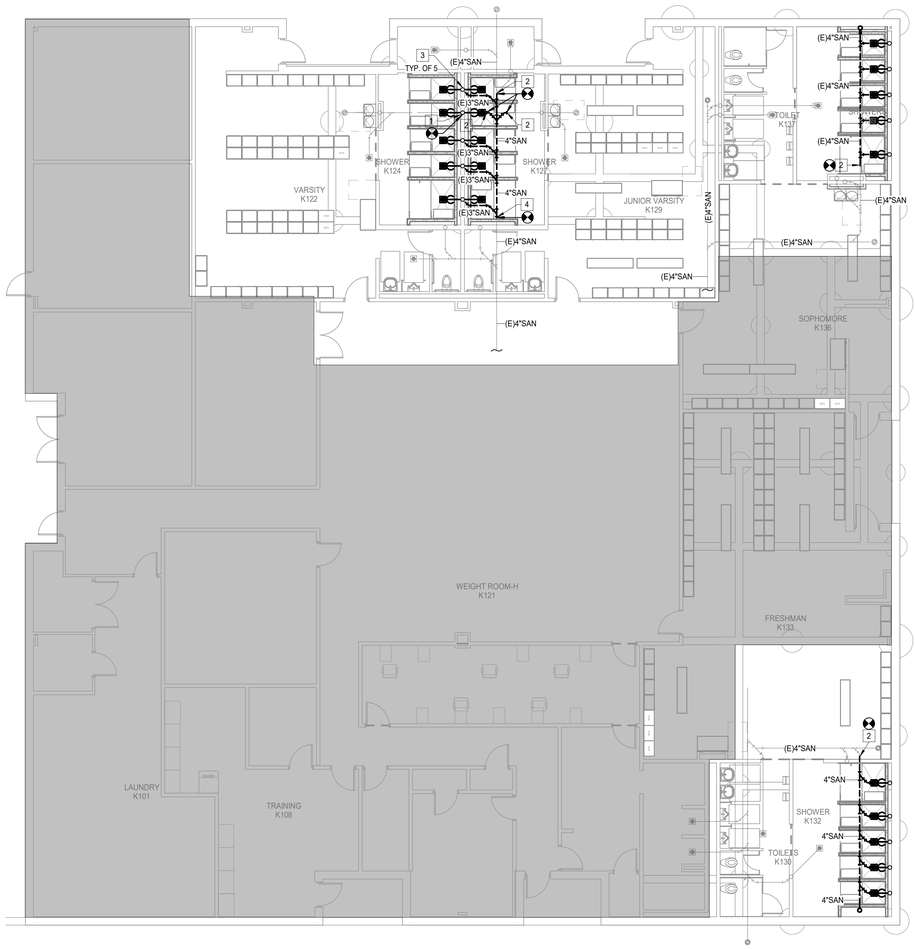
P2.01-H
PLUMBING FLOOR PLAN - GYM

HIGHTOWER HIGH SCHOOL

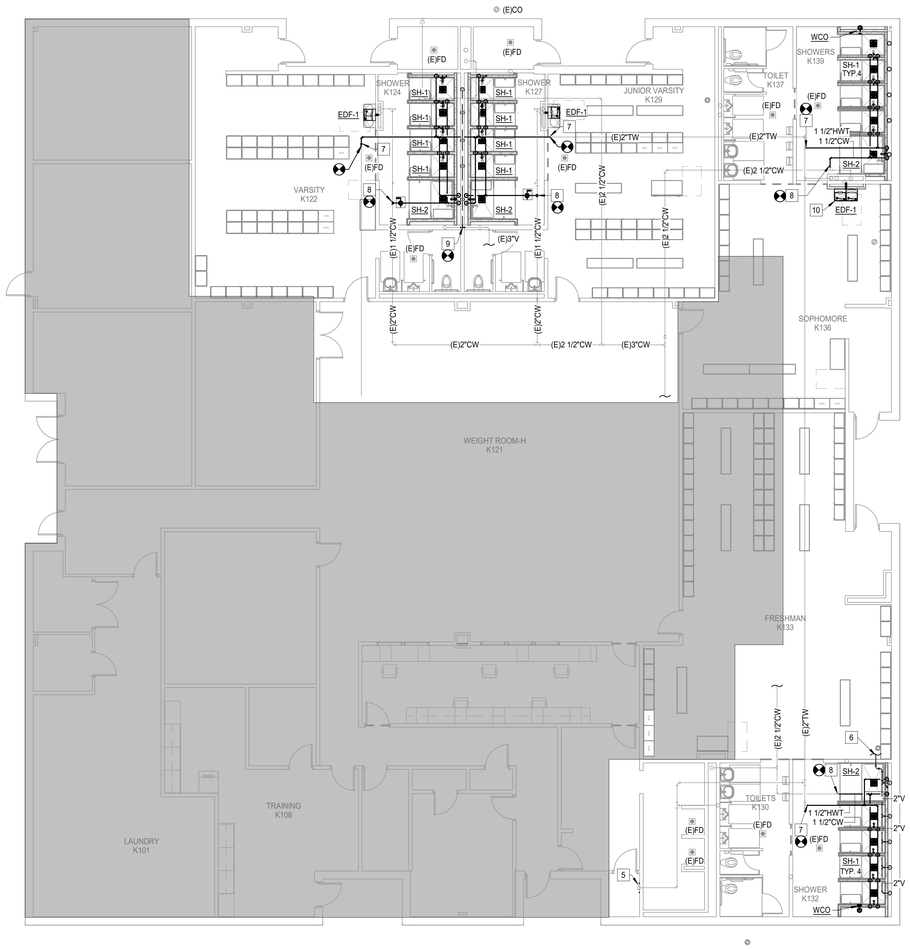
12/3/2025 6:50:02 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/HIGHTOWER_MEPT_R25.rvt

PLUMBING KEYED NOTES

1 CONNECT NEW 3" SHOWER DRAIN TO EXISTING 4" SANITARY BRANCH. CONTRACTOR TO FIELD VERIFY EXACT LOCATION.
2 CONNECT NEW SANITARY TO EXISTING 4" SANITARY OR LARGER. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF CONNECTION.
3 2" VENT UP.
4 CONNECT NEW 4" SANITARY TO EXISTING MAIN.
5 PROVIDE NEW THERMOSTATIC MIXING VALVE TO SERVICE NEW SHOWERS.
6 ROUTE NEW 3" VENT TO MAIN OF EQUAL OR GREATER SIZE.
7 CONNECT NEW HW SERVICE TO EXISTING UTILITY AT LOCATION NOTED.
8 CONNECT NEW CW SERVICE TO EXISTING UTILITY AT LOCATION NOTED.
9 CONNECT NEW 2" VENT TO EXISTING VENT MAIN.
10 PROVIDE AND INSTALL NEW ELECTRONIC DRINKING FOUNTAIN. CONNECT EXISTING UTILITIES (CW, SANITARY AND VENT.)



2 **PLUMBING UNDERFLOOR PLAN - HIGHTOWER FIELD HOUSE**
Scale: 1/8" = 1'-0"



1 **PLUMBING FLOOR PLAN - LEVEL 1 - HIGHTOWER FIELD HOUSE**
Scale: 1/8" = 1'-0"

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

pfluger
office. 713.222.1141 | fax. 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
STATE OF TEXAS
60210
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12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:
Date Description

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P2.02-H
PLUMBING FLOOR PLAN - FIELD HOUSE

HIGHTOWER HIGH SCHOOL

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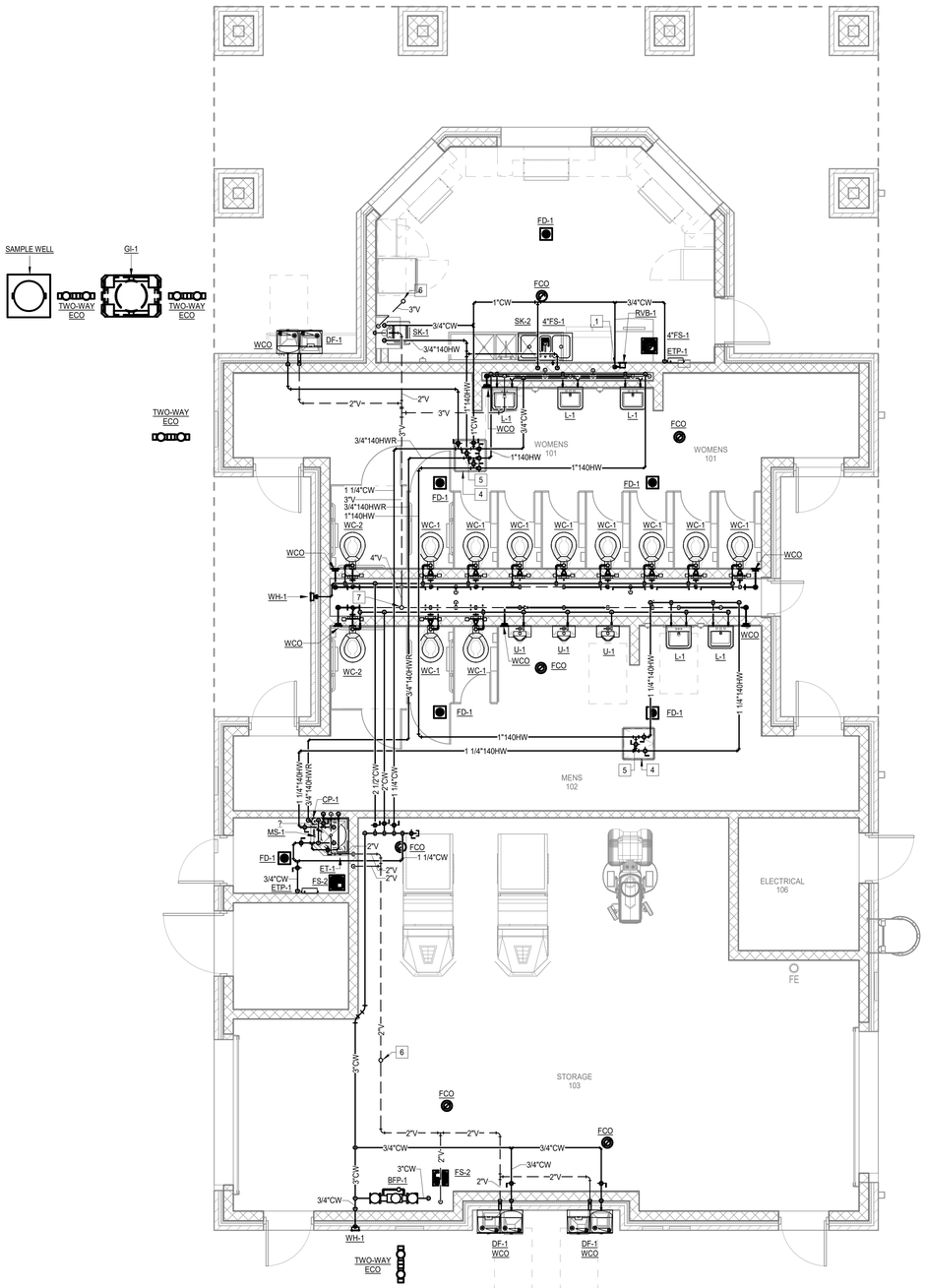
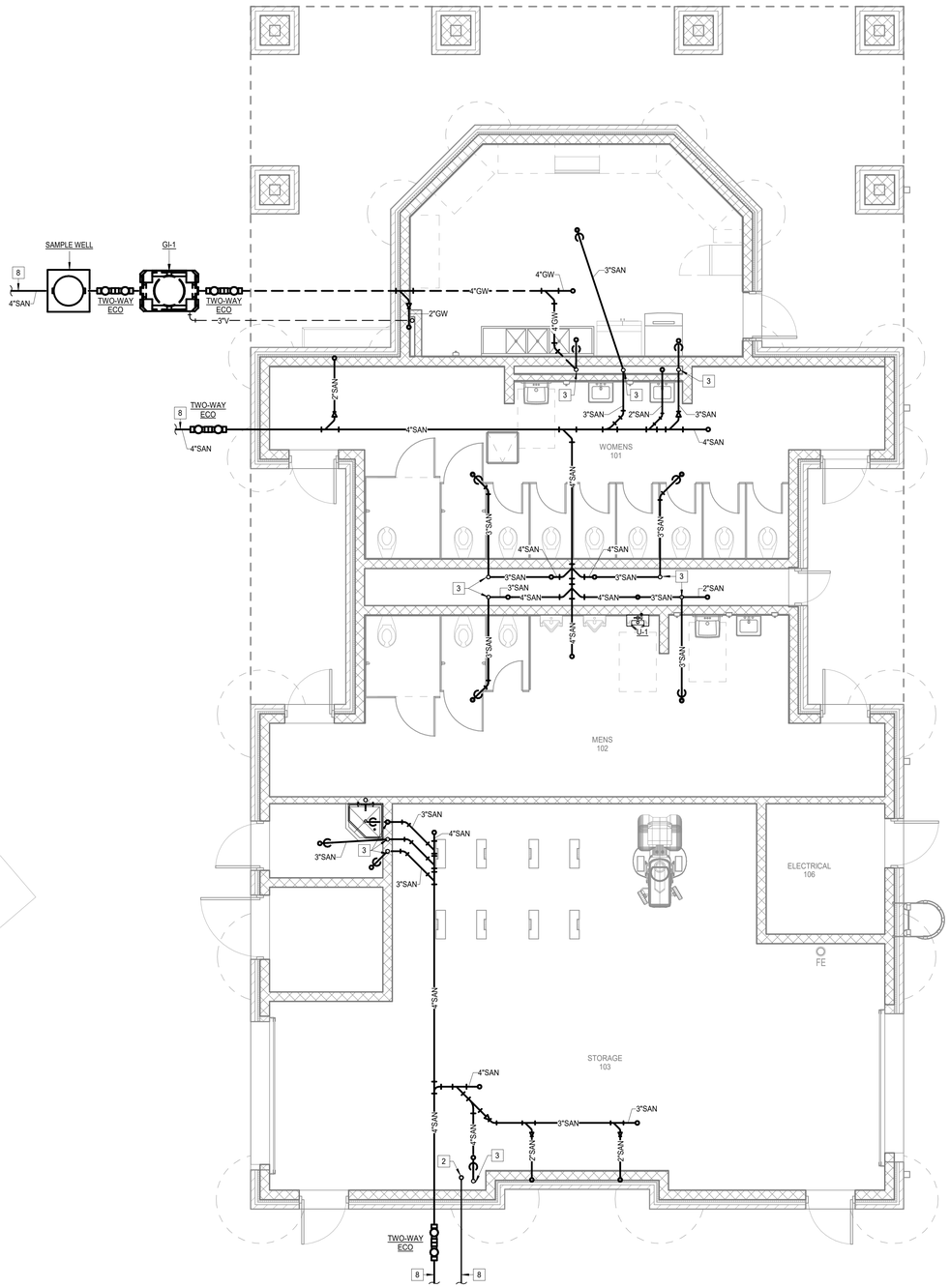
PLUMBING KEYED NOTES

1 1/2" CW TO SERVE ICE MACHINE. ROUTE CW PIPE THROUGH PRV PRIOR TO CONNECTING TO ICE MACHINE.
2 3" CW FROM BELOW SLAB. 3" WATER ENTRY. REFER TO DETAIL 10/P5.01.
3 2" VENT UP.
4 PROVIDE A 24"X24" ACCESS PANEL.
5 BYPASS VALVE NORMALLY CLOSED.
6 3" VENT UP TO 4" VTR.
7 4" VENT UP TO 4" VTR.
8 REFER TO SHEET P1.00-H FOR CONTINUATION.



1 **PLUMBING FLOOR PLAN - LEVEL 1 HIGHTOWER CONCESSION**
Scale: 1/4" = 1'-0"



2 **PLUMBING UNDERFLOOR PLAN - HIGHTOWER CONCESSION**
Scale: 1/4" = 1'-0"

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STATE OF TEXAS
80215
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PROJECT NO. 25-006
DATE: 12/04/2025
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No.	Date	Description

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P2.03-H
PLUMBING FLOOR PLAN - CONCESSIONS

HIGHTOWER HIGH SCHOOL

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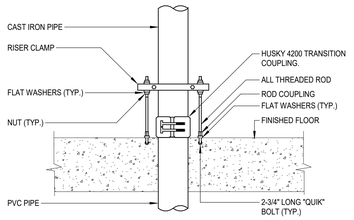
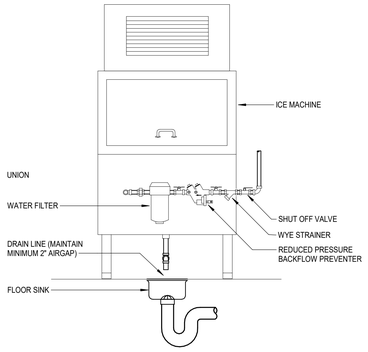
PSAN12- 05/16/24



NOTE:
1. MAKE CONNECTION FROM PVC BELOW SLAB TO CAST IRON ABOVE SLAB WITH HUSKY 4200 TRANSITION COUPLING.
2. THERE IS TO BE NO EXPOSED PVC ABOVE SLAB.

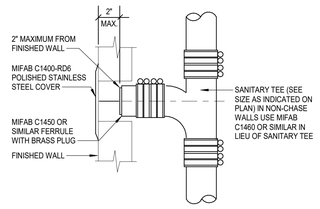
16 CAST IRON TO PVC TRANSITION
SCALE: NONE

PSAN25- XX/XX/XX



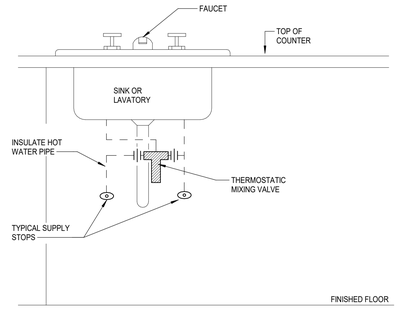
12 ICE MACHINE CONNECTION
SCALE: NONE

PSAN03- XX/XX/XX



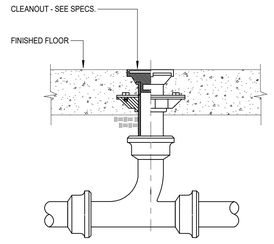
8 WALL CLEANOUT
SCALE: NONE

PHW04 - 08/10/20

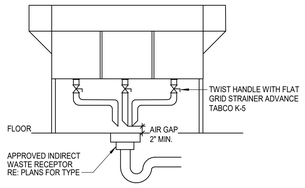


4 THERMOSTATIC MIXING VALVE AT SINK/LAVATORY DUAL TEMPERATURE
SCALE: NONE

PSAN01- XX/XX/XX

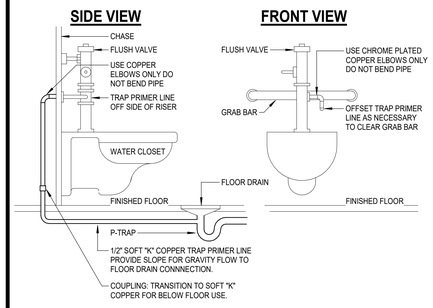


15 FLOOR CLEANOUT
SCALE: NONE

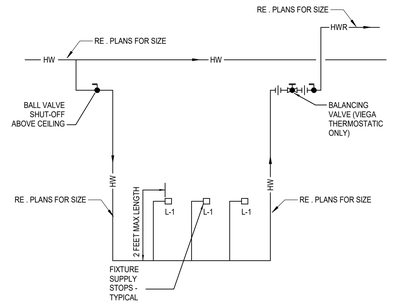


11 THREE COMPARTMENT SINK
SCALE: NONE

PTP03 - XX/XX/XX

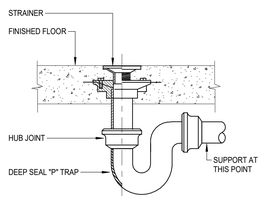


7 FLUSH VALVE TRAP PRIMER
SCALE: NONE



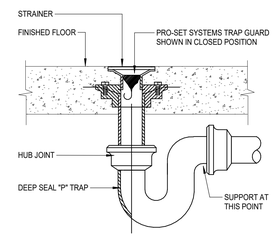
3 HW CIRCULATION FOR PUBLIC LAVATORIES
SCALE: NONE

PSAN07- XX/XX/XX



14 FLOOR DRAIN
SCALE: NONE

PSAN10- XX/XX/XX

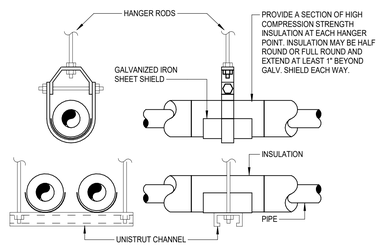


NOTES:
1. TRAP GUARD SHALL BE FACTORY FITTED TO MATCH EACH FLOOR DRAIN (AND/FLOOR SINK) BY SIZE, MODEL, AND MANUFACTURER.
2. CONTACT LOCAL REP OR MANUFACTURER FOR CORRECT MODEL NUMBER.
3. FLOOR SINK TRAP GUARD INSTALLATION IS SIMILAR.
4. INSTALLATION OF TRAP GUARD TO BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. INSERT TRAP GUARD ONLY AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS TITE SEAL. FOR DRAIN RODDING AFTER INSTALLATION, INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

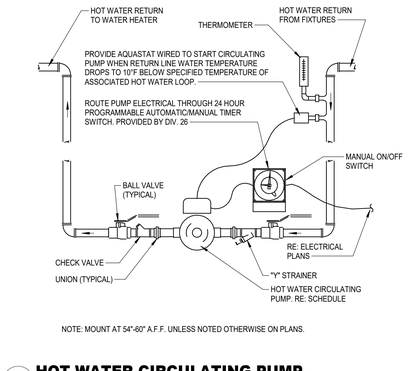
10 TRAP SEAL PROTECTION
SCALE: NONE

PP01 - XX/XX/XX

MINIMUM DIMENSIONS OF GALVANIZED SHEETMETAL PROTECTION SHIELDS AT PIPE HANGERS		
NOMINAL SIZE PIPE	SHIELD LENGTH (IN.)	GAUGE THICKNESS
1/2" & 3/4"	12	18
1" - 2-1/2"	12	18
3" - 4"	16	18
6"	18	16



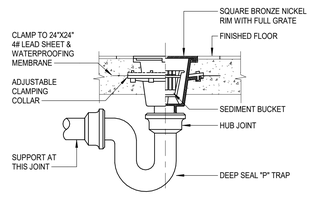
6 PIPE SHIELDS FOR INSULATED PIPING
SCALE: NONE



NOTE: MOUNT AT 54"-60" A.F.F. UNLESS NOTED OTHERWISE ON PLANS.

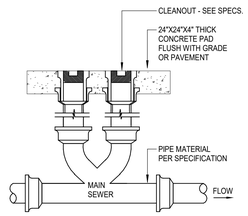
2 HOT WATER CIRCULATING PUMP
SCALE: NONE

PSAN08- XX/XX/XX



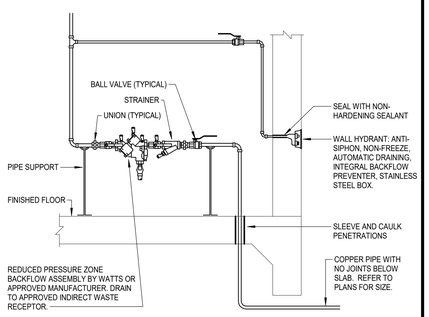
13 FLOOR SINK
SCALE: NONE

PSAN05- XX/XX/XX

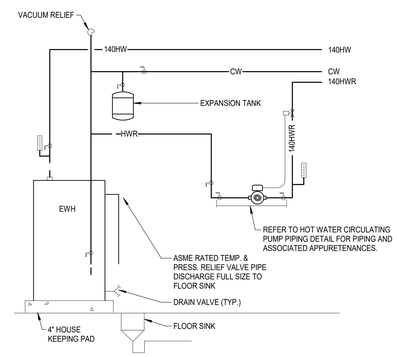


9 TWO-WAY EXTERIOR CLEANOUT
SCALE: NONE

PWE10 - 03/20/18



5 DOMESTIC WATER ENTRY WITH BACKFLOW PREVENTER
SCALE: NONE



1 ELECTRIC WATER HEATER PIPING
SCALE: NONE

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111

Salas O'Brien Project Number: 2500-00810-00

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
STATE OF TEXAS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY:	CHECKED BY:
REVISIONS:	

No.	Date	Description

100% CD
P5.01-H
PLUMBING DETAILS

HIGHTOWER HIGH SCHOOL

12/3/2025 6:50:16 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/HIGHTOWER_MEPT_R25.rvt

ELECTRIC WATER HEATER SCHEDULE

MARK	BASIS OF DESIGN		STORAGE CAPACITY	KW	WH GALS. PER HR. RECOVERY RATE 80°F RISE	STORED WATER TEMP	ELECTRICAL CHAR.	
	MANUFACTURER	MODEL					V	P
EWH-1	AO SMITH	DRE-52	50 GAL	15.0	77	140	208	3
*	IF THE MAXIMUM FUSE SIZE OF THE EQUIPMENT PROVIDED EXCEEDS THE SPECIFIED AMOUNT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL COSTS RELATED TO INCREASED FUSE SIZE / WIRE SIZE.							

CIRCULATION PUMP SCHEDULE

MARK	BASIS OF DESIGN		DESCRIPTION	TYPE	GPM	HEAD FEET	MAX. POWER	ELECTRICAL CHAR.	
	MANUFACTURER	MODEL						V	P
CP-1	GRUNDFOS	ALPHA HWR 15-29	CIRCULATION PUMP	STAINLESS STEEL/FLANGE	3	3	0.03 hp	120	1

DOMESTIC HW EXPANSION TANK SCHEDULE

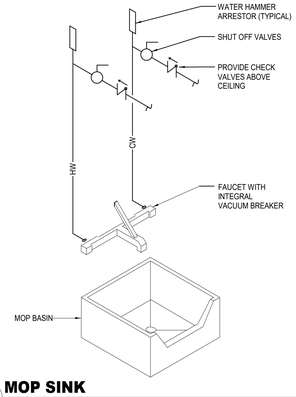
MARK	BASIS OF DESIGN		DESCRIPTION	MAX WORK PRESSURE (PSI)	TANK VOLUME GALLONS	MAX. ACCEPT. GALLONS	DIAMETER (INCHES)
	MANUFACTURER	MODEL					
ET-1	AMTROL	ST-5C-DD	HOT WATER EXPANSION TANK	150	2	.9	8"
1	PROVIDE ASME POTABLE WATER EXPANSION TANK ON THE COLD WATER SUPPLY LINE, DOWNSTREAM OF THE CHECK VALVE.						
2	PROVIDE HOUSEKEEPING PAD.						
3	PROVIDE UNION CONNECTION.						

THERMOSTATIC MIXING VALVE SCHEDULE

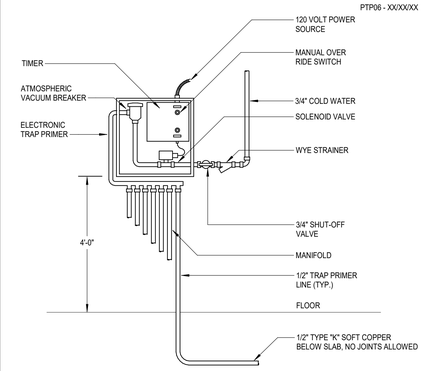
MARK	BASIS OF DESIGN		TEMP. IN (DEG. F)	TEMP. OUT (DEG. F)	MIN. FLOW GPM	DESIGN FLOW GPM	VALVE FINISH	THERMOMETER	UNION CONNECTION	PRESSURE DIFFERENTIAL	NOTES
	MANUFACTURER	MODEL									
TMV-1	POWERS	LFMM433	140	110	.50	.23	CP	YES	YES	5.0	1, 2, 3, 4, 5
1	MAKE WATER CONNECTIONS TO THERMOSTATIC MIXING VALVE(S) IN ACCRODANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.										
2	PROVIDE PIPE INCREASERS AND/OR VALVES AS REQUIRED.										
3	PROVIDE UNION CONNECTIONS AND OUTLET THERMOMETER UNLESS INDICATED OTHERWISE.										
4	REFER TO DETAIL FOR MORE INFORMATION.										
5	PROVIDE MIXING VALVE CABINET WITH INTEGRATED PRE-PIPED RETURN LINE, BOTTOM INLET AND TOP OUTLET CONNECTIONS.										

SHOCK ARRESTOR SCHEDULE

P.D.I. SYMBOLS:	FIXTURE UNITS:	THREADED CONNECTION	CERTIFICATION
A	1 - 11	1/2"	ASSE 1010
B	12 - 32	3/4"	ASSE 1010
C	33 - 60	1"	ASSE 1010
D	61 - 113	1"	ASSE 1010
E	114 - 154	1"	ASSE 1010
F	155 - 330	1"	ASSE 1010



4 MOP SINK
SCALE: NONE



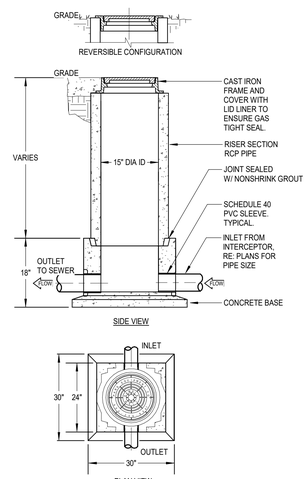
3 ELECTRONIC TRAP PRIMER
SCALE: NONE

PSAN30 - XX/XX/XX

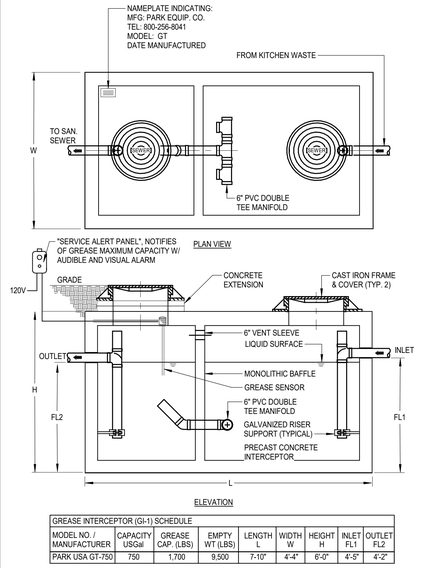
NOTES AND SPECIFICATIONS:

1. USE 15" T&G R.C.P. FOR INSTALLATION FOR INSTALLATION 6'-0" DEEP AND LESS.
2. USE 24" T&G R.C.P. FOR INSTALLATION GREATER THAN 6'-0" DEEP. (STANDARD RING AND M.H. COVER REQUIRED)
3. SAMPLING WELL MUST BE SET IN A CIRCULAR OR SQUARE CONCRETE PAD (1'-0" GREATER THAN OUTSIDE DIAMETER OF PIPE.)
4. LAWN INSTALLATION MUST BE 4" ABOVE FINISHED GRADE.
5. DRIVE & SIDEWALK INSTALLATION MUST BE BROUGHT TO FINISHED GRADE
6. CONCRETE SHALL BE CLASS 1 WITH A DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT SHALL BE OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.
7. CAST IRON FRAMES AND GRATES SHALL BE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 30, HEAVY DUTY AASHTO H-20.

MANUFACTURER/ MODEL
PARK EQUIPMENT SWB1



2 SAMPLE WELL
SCALE: NONE



GREASE INTERCEPTOR (GI-1) SCHEDULE								
MODEL NO. / MANUFACTURER	CAPACITY USGal	GREASE CAP. (LBS)	EMPTY WT (LBS)	LENGTH L	WIDTH W	HEIGHT H	INLET FL1	OUTLET FL2
PARK USA GT-750	750	1,700	9,500	7-10"	4'-4"	6'-0"	4'-5"	4'-2"

1 GREASE INTERCEPTOR WITH MONITOR
SCALE: NONE

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479



PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:

	Date	Description

100% CD
P5.02-H
PLUMBING DETAILS, LEGEND AND SCHEDULES
HIGHTOWER HIGH SCHOOL

12/3/2025 6:50:19 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/HIGHTOWER_MEPT_R25.rvt

PLUMBING PIPING LEGEND

SYMBOLS	DESCRIPTION
SAN	SANITARY OR WASTE PIPING ABOVE GRADE (SAN)
SAN	SANITARY OR WASTE PIPING BELOW GRADE (SAN)
GW	GREASE WASTE PIPING (GW)
GW	GREASE WASTE PIPING BELOW GRADE (GW)
SD	STORM DRAIN PIPING (SD)
SD	STORM DRAIN PIPING BELOW GRADE (GW)
SSD	SUB-SOIL DRAIN OR FOOTING DRAIN (SSD)
AW	ACID WASTE PIPING (AW)
AW	ACID WASTE PIPING BELOW GRADE (AW)
PD	PUMPED DISCHARGE (PD)
CD	CONDENSATE DRAIN PIPING (CD)
D	CONDENSATE - INDIRECT DRAIN PIPING (D)
	VENT PIPING (V)
CW	COLD WATER PIPING (CW)
HW	HOT WATER PIPING (HW)
HWR	HOT WATER RETURN PIPING (HWR)
SCW	SOFT COLD WATER PIPING (SCW)
CDW	CHILLED DRINKING WATER PIPING (CDW)
TP	TRAP PRIMER LINE (TP)
F	FIRE PROTECTION PIPING (F)
AS	AUTOMATIC SPRINKLER PIPING (AS)
GAS	NATURAL GAS PIPING (G)
GV	GAS VENT PIPING (GV)
AIR	COMPRESSED AIR PIPING (A)
	FLOW DIRECTIONAL ARROW
	SHUT-OFF VALVE
BV	BALANCING VALVE (BV)
SV	SOLENOID VALVE (SV)
	BALL VALVE (BV)
	BUTTERFLY VALVE
	LUBRICATED PACKED PLUG STOP STOP COCK (PC)
	HORIZONTAL SWING CHECK
	UNION
	HORIZONTAL SWING CHECK
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
RPBFP	REDUCED PRESSURE BACKFLOW PREVENTER (RPBFP)
	PIPING DOWN
	RISE OR DROP PIPING
	PIPING UP -OR- PIPING UP & DOWN
	CAP ON END OF PIPE
CO	CLEANOUT (WALL OR CEILING) (CO)
FCO	FLOOR CLEANOUT (FCO)
2 ECO	EXTERIOR CLEANOUT WITH 18"x18"x4" CONCRETE PAD (ECO)
	TWO-WAY CLEANOUT (PROVIDE 18"x24"x4" CONCRETE PAD OUTSIDE)
	FIRE DEPARTMENT VALVE AT RISER
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
PRV	PRESSURE REDUCING VALVE (PRV)
	BRANCH CONNECTION OUT OF TOP
	BRANCH CONNECTION OUT OF BOTTOM
	BRANCH CONNECTION OUT OF SIDE
	WYE & 1/8TH BEND BRANCH CONNECTION
	WYE BRANCH CONNECTION
	HOSE BIBB
	PRESSURE GAUGE WITH COCK
	THERMOMETER
	GAS PRESSURE REGULATOR
	TEST COCK
	GAS METER
	WALL HYDRANT
	VALVE IN RISE
	ASME TEMPERATURE & PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE
	ANGLE VALVE
	OS&Y VALVE
	ROOF DRAIN
1	REFER TO KEYED NOTE
FS	FLOW SWITCH
	FLOOR SINK (FS)
	FLOOR DRAIN (FD)
	FLOOR DRAIN WITH P-TRAP (FD)
	FLOOR DRAIN WITH P-TRAP AT 45° ANGLE (FD)
	HUB DRAIN (HD)
	ACCESS PANEL FOR TRAP PRIMER OR SHOCK ABSORBER
AP	ACCESS PANEL LOCATION SYMBOL
A	SHOCK ABSORBER
	AIR CHAMBER
(E)	EXISTING
(N)	NEW
VTR	VENT THRU ROOF
B.F.F.	BELOW FINISHED FLOOR
A.F.F.	ABOVE FINISHED FLOOR
	NEW CONNECTION
IE=100.00'	INVERT ELEVATION
1	DELTA CHANGE SYMBOL
P 1 4" VTR	RISER FLAG

PLUMBING FIXTURE SCHEDULE

TYPE: WC-1 (STANDARD HEIGHT)
DESCRIPTION: WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA WITH ANTIMICROBIAL SURFACE, 1.28 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD AFWALL #3351.101
SEAT: ELONGATED OPEN FRONT SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. REFER TO ARCHITECTURAL DRAWINGS FOR SEAT COLOR. BEMIS #1955SSCT.
FLUSH VALVE: 1.28 GALLON FLUSH CYCLE. EXPOSED, DIAPHRAGM TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. SLOAN ROYAL 111-1.28.
CARRIER: WADE 311 (HORIZONTAL) AND 330 (VERTICAL) SERIES WITH 300 LB WEIGHT CAPACITY AND FLUSH VALVE SUPPORT (-AM1).
ROUGH-IN: 4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT REQUIREMENTS.

TYPE: WC-2 (T.A.S. / ADA COMPLIANT)
DESCRIPTION: WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA WITH ANTIMICROBIAL SURFACE, 1.28 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD AFWALL #3351.101
SEAT: ELONGATED OPEN FRONT SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. REFER TO ARCHITECTURAL DRAWINGS FOR SEAT COLOR. BEMIS #1955SSCT.
FLUSH VALVE: 1.28 GALLON FLUSH CYCLE. EXPOSED, DIAPHRAGM TYPE, CHROME PLATED CLOSET. FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. PROVIDE OFFSET TAILPIECE AND TRAP PRIMER CONNECTION. SLOAN ROYAL 111-1.28.
CARRIER: WADE 311 (HORIZONTAL) AND 330 (VERTICAL) SERIES WITH 300 LB WEIGHT CAPACITY AND FLUSH VALVE SUPPORT (-AM1).
ROUGH-IN: 4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT REQUIREMENTS.

TYPE: U-1 (T.A.S. COMPLIANT)
DESCRIPTION: URINAL, WALL HUNG, WHITE VITREOUS CHINA, 0.5 GALLON PER FLUSH, WASHOUT FLUSH ACTION, INTEGRAL TRAP, REMOVABLE DOMED STRAINER. AMERICAN STANDARD "WASHBROOK" 6590.001
FLUSH VALVE: 0.5 GALLON FLUSH CYCLE. EXPOSED, MANUAL TYPE, CHROME PLATED URINAL FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 3/4" TOP SPUD. SLOAN ROYAL 186-0.5
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 4" SQUARE BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, UPPER AND LOWER BEARING PLATES WITH THREADED STUDS. WADE 401-AM1-M36.
ROUGH-IN: 2" WASTE, 2" VENT, 3/4" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: L-1 (T.A.S. COMPLIANT) PUBLIC/STUDENT
DESCRIPTION: LAVATORY, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, 4" CENTERSET FAUCET HOLES. AMERICAN STANDARD LUCERNE #0355.012.
FAUCET: CHROME PLATED, VANDAL RESISTANT 0.5 GPM NON-AERATING LAMINAR FLOW OUTLET 4" SPOUT, VANDAL PROOF SINGLE PUSH BUTTON METERING, 4" CENTERS. CHICAGO #857-E280S-665PSHAB.
MIXING VALVE: POINT OF USE 1070 CERTIFIED, BRASS BODY, ADJUSTABLE TEMPERATURE CONTROL, WAX FILLED THERMOSAT AND MOUNTING BRACKET. (110 F). BRADLEY S59-4007
STRAINER: 1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP: 1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE #8872C.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE #LFH2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE. THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE 520-08.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD AND HOT WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SK-1 (T.A.S. COMPLIANT) - KITCHEN HAND WASH
DESCRIPTION: HAND SINK, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, 4" CENTERSET FAUCET HOLES. AMERICAN STANDARD LUCERNE #0355.012.
FAUCET: SINK FAUCET FOR HOT AND COLD WATER, DECK-MOUNTED WITH 4" FIXED CENTERS, CHROME PLATED. INCLUDES POP-UP WASTE. RIGID/SWING GOOSENECK SPOUT, 3-1/2" CENTER-TO-CENTER. 4" METAL, VANDAL-PROOF. WRISTBLADE HANDLES WITH SIXTEEN-POINT, TAPERED BROACH AND SECURED BLUE AND RED INDEX BUTTONS. NPSM SUPPLY INLETS AND COUPLING NUT FOR 3/8" OR 1/2" FLEXIBLE RISER. COMPRESSION OPERATING CARTRIDGE(S) FOR FLOW CONTROL.
1/2" QUATURN STRAINER: 1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP: 1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE 8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 4" SQUARE BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS. ADJUSTABLE SLEEVE. THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE 520-08.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SK-2 - CONCESSIONS THREE COMPARTMENT SINK
DESCRIPTION: SINK, STAND-ALONE, STAINLESS-STEEL 88" X 25-13/16" X 43-3/4", 18 GAUGE THREE COMPARTMENT SINK W/ 18" LEFT AND RIGHT DRAINBOARDS AND 4 STAINLESS-STEEL LEGS. CENTER SET DRAIN, WITH 9" BACK-SPLASH AND 8" ON-CENTER FAUCET HOLES. ELKAY MODEL E3C16X20-2-18X.
FAUCET: CHROME PLATED BRASS CENTERSET WALL MOUNTED FAUCET FITTING. 12" ARC TUBE SPOUT, 6" WRIST BLADE HANDLES AND QUARTER TURN CERAMIC VALVE CARTRIDGES. ELKAY MODEL LK944AT12TBH.
STRAINER: (1) ROTARY LEVER OPERATED DRAIN FITTINGS, EACH WITH STAINLESS STEEL PERFORATED GRID STRAINER AND 3-1/2" IPS DRAIN OUTLET. (3) ADVANCE TABCO K-15.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
ROUGH-IN: 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS. REFER TO PLUMBING PLANS FOR LOCATION AND TYPE OF INDIRECT DRAINAGE RECEPTOR, SPECIFIED SEPARATELY.

TYPE: MS-1
DESCRIPTION: MOP SINK BASIN, 36" X 36" X 12" HIGH CORNER TYPE, PRECAST TERRAZZO WITH 6" DROPPED FRONT, STAINLESS STEEL THRESHOLD CAP, AND DOUBLE STAINLESS STEEL WALL GUARDS. STERN-WILLIAMS "CORLOW" SBC-1750.
FAUCET: CHROME PLATED BRASS WALL MOUNTED FITTING WITH CHECK IN STOPS, ADJUSTABLE SUPPLY ARMS, VACUUM BREAKER SPOUT WITH PAIL HOOK AND WALL BRACE, 2-1/2" INDEXED LEVER HANDLES ON 8" CENTERS. QUARTER TURN CARTRIDGES, 3/4" MALE HOSE THREAD OUTLET. CHICAGO 445-897-XKCP.
ROUGH-IN: 3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER.

TYPE: EDF-1 (ADA COMPLIANT)
DESCRIPTION: BOTTLE FILLING STATION & BI-LEVEL HIGH EFFICIENCY VANDAL RESISTANT COOLER FILTERED REFRIGERATED STAINLESS. CHILLING CAPACITY OF 8.0 GPH OF 50°F DRINKING WATER, BASED ON 80°F INLET WATER AND 90°F AMBIENT. INCLUDE ANTIMICROBIAL, FILTERED, GREEN TICKER, HANDS FREE, HIGH EFFICIENCY, LAMINAR FLOW, REAL DRAIN, VANDAL RESISTANT, VISUAL FILTER MONITOR, ELECTRONIC BOTTLE FILLER SENSOR WITH MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. ELKAY MODEL #LVRCGRNTLBWSK.
P-TRAP: 1-1/4" CHROME PLATED CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON. MCGUIRE 8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE SLAB WITH (4) 1/2" BOLTS. ADJUSTABLE SLEEVE FOR CONNECTION TO HANGER PLATE PROVIDED BY FIXTURE MANUFACTURER. WADE 400.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: DF-1 (ADA COMPLIANT)
DESCRIPTION: WALL HUNG, VANDAL-RESISTANT BOTTLE FILLING STATION & BI-LEVEL DRINKING FOUNTAIN, FILTERED, NON-REFRIGERATED STAINLESS STEEL. LAMINAR FLOW, MECHANICALLY ACTIVATED, VANDAL RESISTANT BUBBLER. MECHANICAL BOTTLE FILLER BUTTON WITH MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. ELKAY MODEL #LVRCTLDDMWSK.
P-TRAP: 1-1/4" CHROME PLATED CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON. MCGUIRE 8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE SLAB WITH (4) 1/2" BOLTS. ADJUSTABLE SLEEVE FOR CONNECTION TO HANGER PLATE PROVIDED BY FIXTURE MANUFACTURER. WADE 400.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

DISREGARD FIXTURES LISTED THAT ARE NOT ON THIS JOB.

TYPE: SH-1 - INDIVIDUAL SHOWER STATION
DESCRIPTION: SHOWER, JOB BUILT BASE INSTALLED PER ARCHITECTURAL DRAWINGS.
CONTROLS: PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH INTEGRAL CHECKSTOPS. STAINLESS STEEL, ALUMINUM OR CHROME PLATED BRASS ESCUTCHEON. VANDAL RESISTANT 2.5 GPM SHOWER HEAD. ACORN 532-GX-P.
DRAIN: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. SEE FD-1 FOR ADDITIONAL INFORMATION.
TRAP SEAL: PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN: 3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SH-2 (T.A.S. COMPLIANT) - INDIVIDUAL SHOWER STATION
DESCRIPTION: SHOWER, JOB BUILT BASE INSTALLED PER ARCHITECTURAL DRAWINGS.
CONTROLS: PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH LEVER HANDLE AND INTEGRAL CHECKSTOPS. STAINLESS STEEL, ALUMINUM OR CHROME PLATED BRASS ESCUTCHEON. 2.5 GPM HAND HELD SHOWER WITH 60" FLEXIBLE STAINLESS STEEL CLAD HOSE, VACUUM BREAKER, MOUNTING BRACKET, AND 24" SLIDE BAR. ACORN 532-GX-FX-SB-LVR.
DRAIN: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. SEE FD-1 FOR ADDITIONAL INFORMATION.
TRAP SEAL: PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN: 3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: IMC-1
DESCRIPTION: ICE MACHINE CONNECTION, WATER SUPPLY VALVED AT WALL. PROVIDE DOUBLE CHECK VALVE TYPE BACKFLOW PREVENTER AND WATER FILTER. WATTS 1/2" 007-S BACKFLOW PREVENTER AND AQUA-PURE #CE 140-S FILTER. ROUTE BACKFLOW PREVENTER DISCHARGE TO FLOOR SINK SERVING ICE MACHINE.
ROUGH-IN: 3/4" COLD WATER. COORDINATE ROUGH-IN LOCATION/HEIGHT. FINAL CONNECTION WITH EQUIPMENT BEING INSTALLED AND WITH ARCHITECTURAL/CASEWORK DRAWINGS.

TYPE: WH-1
DESCRIPTION: WALL HYDRANT IS S.S. BOX, 3/4" NON FREEZE, HALF TURN CERAMIC DISC CARTRIDGE, STAINLESS STEEL FINISH WITH ANTI SIPHON VACUUM BREAKER AND LOOSE TEE KEY. INSTALL WITH BOTTOM OF HYDRANT 18" A.F.F. WADE #8701-MT-175.
ROUGH-IN: 3/4" COLD WATER

TYPE: FD-1
SERVICE: GENERAL USE
DESCRIPTION: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. WADE 1100-MRS.
TRAP PRIMER: SERVED BY ELECTRONIC PPP PRIME-TIME TRAP PRIMER. REFER TO DETAILS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION AND INSTALLATION WITH ARCHITECTURAL DRAWINGS / FLOOR CONSTRUCTION.

TYPE: FD-2
SERVICE: MECHANICAL ROOM CONDENSATE, T&P VALVE DISCHARGE
DESCRIPTION: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 7" DIAMETER STAINLESS STEEL STRAINER WITH EXTENDED RIM AND VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. WADE 1100-ER7.
TRAP PRIMER: SERVED BY ELECTRONIC PPP PRIME-TIME TRAP PRIMER. REFER TO DETAILS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION WITH EQUIPMENT PLACEMENT.

TYPE: FD-3
SERVICE: KITCHEN AREA DRAIN
DESCRIPTION: FLOOR DRAIN, CAST IRON BODY, 8" DIAMETER STAINLESS STEEL STRAINER, 6" DEEP SUMP, A.R.C. INTERIOR, A.R.C. SEDIMENT BUCKET, CLAMPING COLLAR, ALUMNIUM DOME STRAINER. WADE #9010-6-26-27-85-110.
TRAP PRIMER: SERVED BY ELECTRONIC PPP PRIME-TIME TRAP PRIMER. REFER TO DETAILS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION WITH EQUIPMENT PLACEMENT.

TYPE: FS-1
SERVICE: ICE MACHINE DRAIN / BACKFLOW PREVENTER DISCHARGE
DESCRIPTION: CAST IRON 8" SQUARE FLOOR SINK WITH 6" DEEP SUMP, A.R.E. INTERIOR, ALUMINUM DOME BOTTOM STRAINER, 1/2 STAINLESS STEEL HALF TOP GRATE, CLAMPING DEVICE. WADE 9110-6-15-26-27-85.
TRAP PRIMER: SERVED BY ELECTRONIC TRAP PRIMER. REFER TO PLANS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION WITH ARCHITECTURAL DRAWINGS / EQUIPMENT PLACEMENT.

TYPE: BFP-1 (2" AND SMALLER)
DESCRIPTION: BACKFLOW PREVENTER, REDUCED PRESSURE ZONE TYPE WITH TWO INLINE INDEPENDENT CHECK VALVES WITH AN INTERMEDIATE RELIEF VALVE. COMPLETE WITH TWO FULL PORTED BALL VALVE SHUT-OFFS AND BALL TYPE TEST COCKS. BRONZE STRAINER ON INLET. REFER TO FLOOR PLANS FOR SIZES. MOUNT AT 48" A.F.F. UNLESS NOTED OTHERWISE ON DRAWINGS. PROVIDE AIR GAP WITH DRAIN PIPE TO NEAREST FLOOR DRAIN. WATTS 909-QT-S.

TYPE: BFP-2 (2 1/2" AND LARGER)
DESCRIPTION: BACKFLOW PREVENTER, REDUCED PRESSURE ZONE TYPE WITH TWO INLINE INDEPENDENT CHECK VALVES WITH AN INTERMEDIATE RELIEF VALVE. COMPLETE WITH TWO FULL PORTED BALL VALVE SHUT-OFFS AND BALL TYPE TEST COCKS. BRONZE STRAINER ON INLET. PROVIDE AIR GAP WITH DRAIN PIPE TO NEAREST FLOOR DRAIN. WATTS 909 SERIES.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. MOUNT AT 48" A.F.F. UNLESS NOTED OTHERWISE ON DRAWINGS.

TYPE: FCO
DESCRIPTION: FLOOR CLEANOUT, CAST IRON BODY AND ADJUSTABLE TOP ASSEMBLY WITH GASKET SEAL, AND ROUND SCORIATED STAINLESS STEEL COVER. WADE 6000-153. FOR CARPETED FLOORS PROVIDE WADE 6000-CM.

TYPE: ECO
DESCRIPTION: EXTERIOR CLEANOUT TO GRADE, CAST IRON BODY WITH ADJUSTABLE TOP ASSEMBLY WITH GASKET SEAL, AND ROUND SCORIATED VANDAL RESISTANT DUCTILE IRON TRACTOR TYPE COVER. IF LOCATED IN ASPHALT OR DIRT PROVIDE 18"X18"X12" CONCRETE PAD. WADE 6000-Z.

TYPE: WCO
DESCRIPTION: WALL CLEANOUT. CAST IRON CLEANOUT FERRULE WITH DUCTILE IRON COMBINED COVER/PLUG AND ROUND STAINLESS COVER PLATE WITH CENTER SECURING SCREW. WADE 8550 WITH 8480-R6. PROVIDE WADE 8560 CAST IRON CLEANOUT TEE IN LIEU OF FERRULE AS REQUIRED FOR WALL CONSTRUCTION.

GENERAL NOTES

ALL LAVATORIES AND SINKS SHALL BE SUPPLIED WITH HOT AND COLD WATER (UNLESS NOTED TO BE COLD WATER ONLY) TO FAUCETS AS INDICATED ON PLANS AND FIXTURE SCHEDULE. PROVIDE CHROME PLATED BRASS SUPPLY STOPS WITH LOOSE KEYS AND WALL ESCUTCHEONS. PROVIDE CHROME PLATED FLEXIBLE RISERS OF SIZE REQUIRED TO PROPERLY CONNECT FIXTURES. PROVIDE 17 GAUGE CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON (UNLESS NOTED TO BE AN ACID WASTE FIXTURE). REFER TO FIXTURE SCHEDULE FOR MINIMUM SIZES OF PLUMBING FIXTURE ROUGH-INS.

INSULATION KITS AT ALL LAVATORIES AND SINKS REQUIRED TO BE T.A.S. ACCESSIBLE (MCGUIRE OR TRUEBRO). ALL SUCH FIXTURES AND FINAL INSTALLATIONS SHALL COMPLY WITH THE STATE ACCESSIBILITY STANDARDS REQUIREMENTS.

INSERT TRAP GUARDS AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS-TIGHT SEAL. FOR DRAIN RODDING AFTER INSTALLATION. INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

GENERAL NOTES

1. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE AND INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.
2. THIS CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THIS CONTRACTOR SHALL NOTIFY THE ARCHITECT/ ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.

PLUMBING GENERAL NOTES

1. WITHIN THE EXISTING BUILDING, EXISTING WATER, WASTE AND VENT SERVICES ARE TO BE MODIFIED AS REQUIRED AND REUSED FOR THE INSTALLATION OF NEW AND/OR RELOCATED PLUMBING FIXTURES. REFER TO PLUMBING FLOOR PLANS FOR POINTS OF CONNECTION.
2. WITHIN THE EXISTING BUILDING, SAWCUT AND REMOVE EXISTING FLOOR SLAB AS REQUIRED TO PROVIDE NEW AND/OR RELOCATED PLUMBING FIXTURES, CLEANOUTS, AND UNDERSLAB WASTE AND VENT PIPING. PATCH AND REFINISH FLOOR TO MATCH EXISTING.
3. IN AREAS WHERE THE FLOOR SLAB IS REMOVED, CONTRACTOR SHALL ALSO REMOVE UNDERSLAB WASTE AND VENT PIPING WHICH SERVES FIXTURES DESIGNATED FOR REMOVAL. PRIOR TO ANY REMOVAL, FIELD VERIFY THAT LINES TO BE REMOVED DO NOT SERVE ANY EXISTING FIXTURES TO REMAIN OR NEW FIXTURES TO BE INSTALLED.
4. IN AREAS WHERE THE FLOOR SLAB IS NOT REMOVED, CONTRACTOR SHALL ABANDON IN PLACE ANY UNDERSLAB WASTE AND VENT PIPING NO LONGER NEEDED, UNLESS THE PIPING MUST BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION. IF NEW WORK DOES NOT NECESSITATE THEIR REMOVAL, CUT AND PLUG SUCH LINES BELOW SLAB, AND PATCH FLOOR TO MATCH EXISTING.
5. FIELD VERIFY EXACT LOCATION, SIZE, DEPTH, DIRECTION OF FLOW, CAPACITY, PIPE MATERIAL AND CONDITION OF EXISTING WASTE PIPING PRIOR TO BEGINNING CONSTRUCTION. ENSURE THAT PROPER CONNECTIONS TO AND EXTENSION OF SUCH UTILITIES CAN BE MADE.
6. WASTE LINES TO BE RE-USED OR RECONNECTED TO SHALL BE THOROUGHLY RODDED OUT AND FLUSHED TO ENSURE THEY ARE FREE FROM BLOCKAGES.
7. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING BELOW SLAB WITH COLUMN FOOTINGS, GRADE BEAMS, UNDERGROUND PLUMBING AND ELECTRICAL UTILITIES, AND OTHER SUB-SURFACE BUILDING ELEMENTS.
8. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.
9. CONTRACTOR TO COORDINATE ALL REMODEL WORK WITH THE WORK OF OTHER TRADES TO AVOID CONFLICTS AND TO MINIMIZE INTERRUPTION OF SERVICES.
10. COORDINATE ALL FIXTURE AND EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS WITH LATEST ARCHITECTURAL DRAWINGS AND SPECIFICATIONS PRIOR TO ANY ROUGH-INS.
11. DO NOT ROUGH-IN FROM THESE DRAWINGS. REFER TO LATEST ARCHITECTURAL DRAWINGS FOR DIMENSIONED LOCATIONS.
12. CONTRACTOR TO FIELD VERIFY AS NECESSARY THE EXACT ROUTING AND SIZES OF ALL PIPING.
13. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE, INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.
14. THE PROPER INSTALLATION OF NEW FIXTURES AND THE PROPER CONTINUED OPERATION OF EXISTING FIXTURES TO REMAIN SHALL DETERMINE THE EXTENT AND NATURE OF PLUMBING REMODEL WORK.
15. EACH VENT SHALL TERMINATE VERTICALLY NOT LESS THAN 6' ABOVE ROOF, MAINTAIN MINIMUM 10'-0" DISTANCE BETWEEN VENT TERMINALS THROUGH ROOF AND ALL FRESH AIR INTAKES, AND A MINIMUM 5'-0" FROM ANY EXTERIOR WALL.
16. PRIOR TO BEGINNING CONSTRUCTION, COORDINATE BUILDING BACKFLOW PREVENTION REQUIREMENTS WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PROVIDE AS DIRECTED.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
LICENSED
80219
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:

	Date	Description
1		

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX. 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2500-00810-00

100% CD
P6.01-H
PLUMBING SCHEDULES
HIGHTOWER HIGH SCHOOL

12/3/2025 6:50:20 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath//HIGHTOWER_MEPT_R25.rvt

TECHNOLOGY SYMBOLS & LEGEND

VOICE SYMBOLS

	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS PER LOCATION.
W	SINGLE VOICE OUTLET FOR WALL-MOUNTED PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +52-INCHES A.F.F. UNLESS OTHERWISE NOTED.

DATA SYMBOLS

	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF DATA OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
W	SINGLE DATA OUTLET FOR WALL-MOUNTED IP PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +42-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X COW	DATA CABLE FOR COMPUTER ON WHEELS, CABLE TYPE AS SPECIFIED MOUNTED + 18-INCHES A.F.F UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
X WAPW	DATA CABLE FOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPC	DATA CABLE FOR CEILING MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMW	DATA CABLE FOR INTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMC	DATA CABLE FOR CEILING MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

X CAME	DATA CABLE FOR EXTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLLATION.
X PRJW	DATA CABLE FOR WALL MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
PRJC	DATA CABLE FOR CEILING MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X AVCE	DATA CABLE FOR CEILING MOUNTED AUDIO/VISUAL EQUIPMENT ENCLOSURE, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A BLUE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
R	POWER POLE WITH ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
WAP	WIRELESS ACCESS POINT. EQUIPMENT AS SPECIFIED.

GENERAL SYMBOLS

# SHEET DRAWING TITLE SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
SHEET #	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES TELECOMMUNICATIONS REGION

VOICE/DATA SYMBOLS

	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF VOICE TERMINATIONS , Y = NUMBER OF DATA TERMINATIONS PER LOCATION.
	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF VOICE OUTLETS AND Y = NUMBER OF DATA OUTLETS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET AND SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X Y	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X Y	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS PER LOCATION.

FIBER OPTIC SYMBOLS

	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF FIBER OPTIC OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.

CABLE PLANT & RISER DIAGRAM

	MAINTENANCE HOLE, SIZE & TYPE AS SPECIFIED.
	PULLBOX, SIZE AND TYPE AS SPECIFIED.
UGC	DIRECT BURIED COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
AER	AERIAL COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
	CONDUIT, SIZE AND TYPE AS SPECIFIED.

COMMUNICATION AND SECURITY CABLING JACKET COLOR CODE

TYPICAL WORK AREA OUTET	BLUE - REFERENCE SPEC SECTION 27 10 00
WIRELESS ACCESS POINT	GREEN - REFERENCE SPEC SECTION 27 10 00
SECURITY(INTRUSION, ACCESS CONTROL, VIDEO SURVEILLANCE)	ORANGE - REFERENCE SPEC SECTION 28 13 00, 28 16 00, AND 27 10 00
BUILDING WIDE PUBLIC ADDRESS / INTERCOM	WHITE - REFERENCE SPEC SECTION 27 51 00
AUDIOVISUAL	BLACK - REFERENCE SPEC SECTION 27 41 16
LIGHTING CONTROL	LIME GREEN - REFERENCE MEP SPECIFICATIONS
BAS	YELLOW - REFERENCE MEP SPECIFICATIONS
FIRE ALARM	RED - REFERENCE MEP SPECIFICATIONS

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
DEMARC	DEMARCATION POINT
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
GIP	GALVANIZED IRON PIPE
HE	PA/INTERCOM HEAD-END
IMC	INTERMEDIATE METAL CONDUIT
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MH	MAINTENANCE HOLE
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PVC	POLYVINYL CHLORIDE
RSC	RIGID STEEL CONDUIT
SM	SINGLE MODE
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
TR	TELECOMMUNICATION REGION
UGC	UNDERGROUND COMMUNICATION
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR

NOTES

1. THE CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF TECHNOLOGY DRAWINGS IS PROVIDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. TECHNOLOGY DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.

INDEX OF DRAWINGS

T000-H TECHNOLOGY SYMBOLS & LEGEND
TD100-H TECHNOLOGY DEMOLITION SITE PLAN
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TD202-H TECHNOLOGY LEVEL 01 DEMO FLOOR PLAN FIELD HOUSE
T100-H TECHNOLOGY SITE PLAN
T101-H TECHNOLOGY COMPOSITE FLOOR PLAN
T201-H TECHNOLOGY LEVEL 01 FLOOR PLAN CONCESSION
T202-H TECHNOLOGY LEVEL 01 FLOOR PLAN GYM
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T400-H TECHNOLOGY TYPICAL DETAILS
T401-H TECHNOLOGY TYPICAL DETAILS
T402-H TECHNOLOGY TYPICAL DETAILS
T500-H TECHNOLOGY TYPICAL LABELING SCHEME

pfluger
office. 713.222.1141 | fax. 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
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REVISIONS:
| No. | Date | Description |

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T000-H
TECHNOLOGY
SYMBOLS & LEGEND

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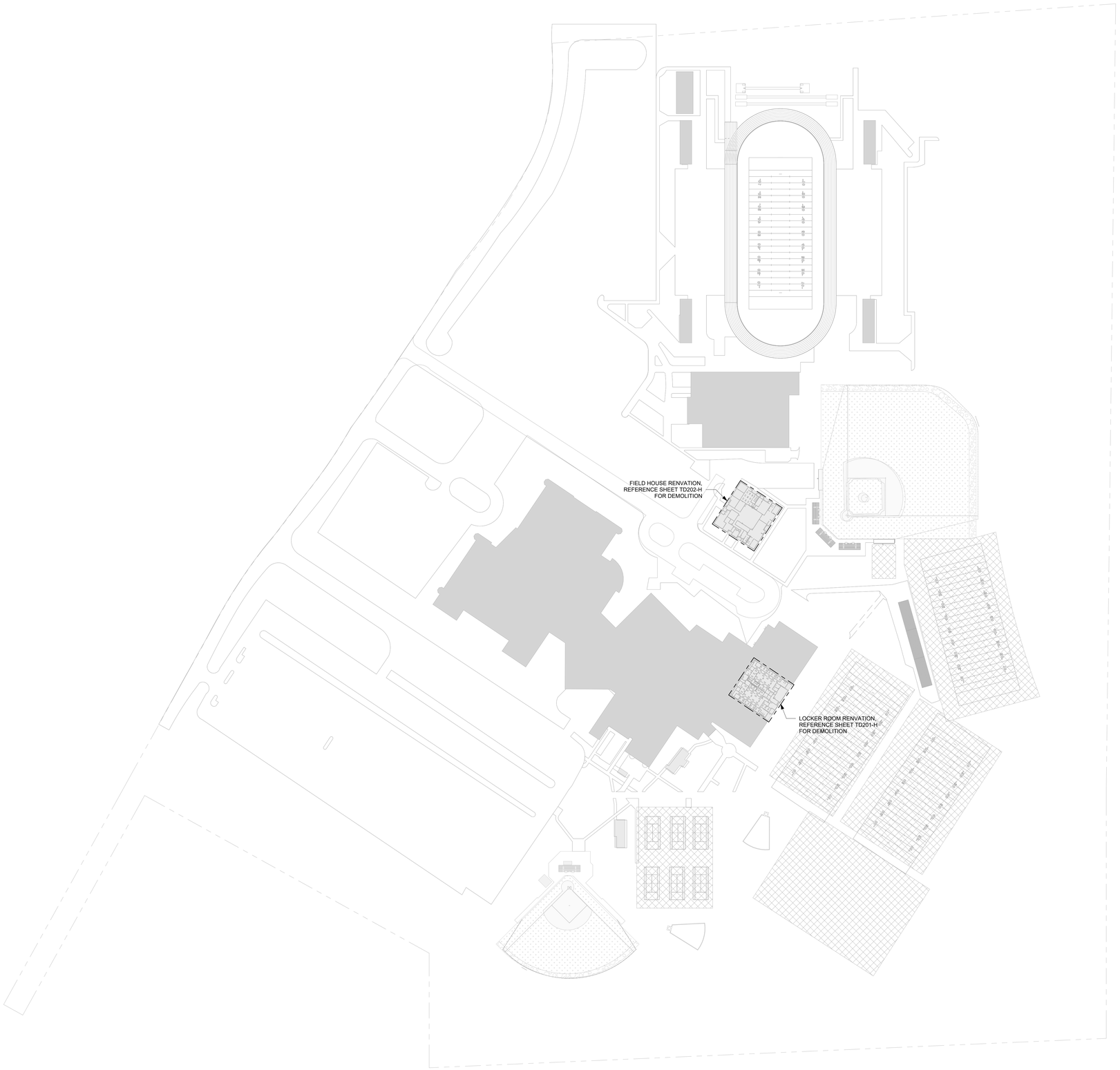

1 TECHNOLOGY DEMOLITION SITE PLAN
TD100-H 1" = 100'-0"

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

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INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS
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TD100-H
TECHNOLOGY
DEMOLITION SITE PLAN

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1 TECHNOLOGY LEVEL 01 DEMO FLOOR PLAN GYM LOCKER ROOM
TD201-H 1/8" = 1'-0"

TECHNOLOGY DEMOLITION GENERAL NOTES

1. ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS SHALL REMAIN OPERATIONAL AT ALL TIMES DURING BUSINESS HOURS. ANY SYSTEM DOWNTIME SHALL BE SCHEDULED WITH THE ARCHITECT/ENGINEER AND OWNER AT LEAST TEN (10) WORKING DAYS IN ADVANCE. THE CONTRACTOR SHALL DEVELOP A PHASING PLAN AND SCHEDULE OF ANY SYSTEM DOWNTIME REQUIRED FOR REVIEW AND APPROVAL BY THE ARCHITECT/ENGINEER AND OWNER PRIOR TO ANY CONSTRUCTION ACTIVITIES.
2. THE EQUIPMENT ROOMS AND TELECOM ROOMS ENVIRONMENTAL CONTROLS SHALL BE MAINTAINED AT ALL TIMES. THE EQUIPMENT ROOMS AND TELECOM ROOMS TEMPERATURE SHALL REMAIN BETWEEN 60 - 70 DEGREES F WITH RELATIVE HUMIDITY OF 30% - 50% NON-CONDENSING. THE TEMPERATURE RANGE OF THE EQUIPMENT ROOMS AND TELECOM ROOMS SHALL BE MAINTAINED BETWEEN + - 9 DEGREES F FROM DISTRICT SETPOINT.
3. THE OWNER SHALL BE RESPONSIBLE FOR POWER DOWN AND START-UP OF ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS. THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/ENGINEER AND OWNER AND PROVIDE A MINIMUM OF TEN (10) WORKING DAYS NOTICE FOR SCHEDULING OF ANY REQUIRED DOWNTIME.
4. ALL EXISTING CONDITIONS AS SHOWN ARE APPROXIMATELY CORRECT. NOT ALL EXISTING CONDITIONS ARE SHOWN. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY ALL THE EXISTING CONDITIONS AS REQUIRED TO PROPERLY PROVIDE A BID/PROPOSAL AND PERFORM ALL REQUIRED WORK.
5. ALL EXISTING FIBER BACKBONE, HORIZONTAL DATA CABLE, HORIZONTAL VOICE CABLE AND J-HOOK PATHWAYS SHALL BE REMOVED IN THEIR ENTIRETY AS INDICATED ON TD-SERIES DRAWINGS. ALL OTHER FIBER OPTIC CABLE AND COPPER BACKBONE ARE CRITICAL COMPONENTS FOR THE CAMPUS AND THE DISTRICT FIBER RING AND SHALL REMAIN PROTECTED AND OPERATIONAL AT ALL TIMES.
6. ALL EXISTING COAXIAL CABLE (.500 / RG-6 / RG-59) FOR CATV IS TO REMAIN IN PLACE AND OPERATIONAL.
7. ALL EXISTING WIRELESS ACCESS POINTS SHALL BE REMOVED AND RETURNED TO THE OWNER. THE CONTRACTOR SHALL RE-INSTALL ALL EXISTING AND NEW WIRELESS ACCESS POINTS AT THE COMPLETION OF THE PROJECT.
8. COORDINATE REMOVAL OF EXISTING CAMERA(S) WITH OWNER/ARCHITECT DURING CONSTRUCTION.

TECHNOLOGY DEMOLITION KEYED NOTES

(1) EXISTING BUILDING INTERCOM / PA SPEAKER AND /CABLES TO REMAIN. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

(2) EXISTING WIRELESS ACCESS POINT SHALL BE REMOVED AND RE-INSTALLED AT THE END OF THE PROJECT. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

(3) EXISTING COMMUNICATIONS OUTLET TO BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL 4-PAIR CABLES AND WORKSTATION CONNECTING HARDWARE TERMINATED AT THIS LOCATION. IF THE LOCATION IS NOT RE-USED, THE CONTRACTOR SHALL SUPPLY AND INSTALL BLANK COVER. THE CONTRACTOR IS TO REMOVE EACH CABLE TO BE DEMOLISHED FROM THE PATCH PANEL OR TERMINATION BLOCK IN THE TELECOMMUNICATIONS ROOM. REMOVE THE ENTIRE LENGTH OF THE CABLE AND THE CORRESPONDING MODULAR CONNECTOR, FACEPLATE AND ACCESSORIES. NO-ABANDONED CABLING SHALL BE LEFT ABOVE CEILING. THE CONTRACTOR SHALL INSTALL ALL EXISTING AND NEW WIRELESS ACCESS POINTS AT THE COMPLETION OF THE PROJECT.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE+EQUIP+IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS
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TD201-H
TECHNOLOGY LEVEL 01
DEMO FLOOR PLAN
GYM

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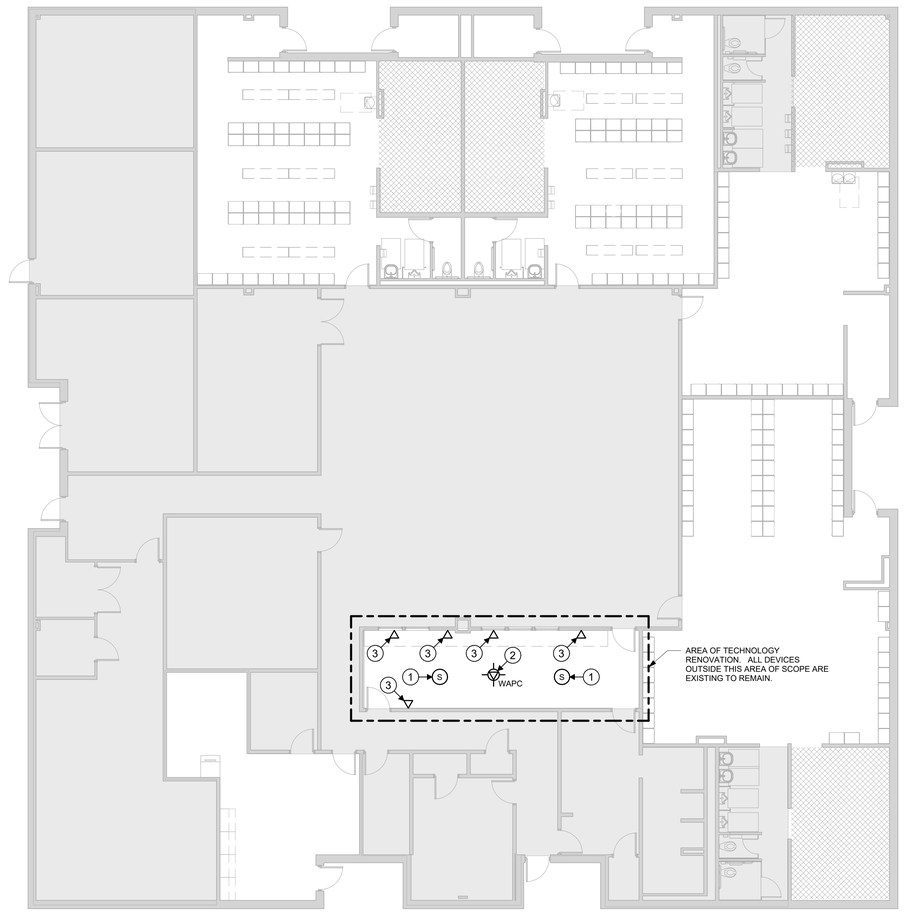

1 TD202-H TECHNOLOGY LEVEL 01 DEMO FLOOR PLAN FIELD HOUSE
1/8" = 1'-0"

TECHNOLOGY DEMOLITION GENERAL NOTES

1. ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS SHALL REMAIN OPERATIONAL AT ALL TIMES DURING BUSINESS HOURS. ANY SYSTEM DOWNTIME SHALL BE SCHEDULED WITH THE ARCHITECT/ENGINEER AND OWNER AT LEAST TEN (10) WORKING DAYS IN ADVANCE. THE CONTRACTOR SHALL DEVELOP A PHASING PLAN AND SCHEDULE OF ANY SYSTEM DOWNTIME REQUIRED FOR REVIEW AND APPROVAL BY THE ARCHITECT/ENGINEER AND OWNER PRIOR TO ANY CONSTRUCTION ACTIVITIES.
2. THE EQUIPMENT ROOMS AND TELECOM ROOMS ENVIRONMENTAL CONTROLS SHALL BE MAINTAINED AT ALL TIMES. THE EQUIPMENT ROOMS AND TELECOM ROOMS TEMPERATURE SHALL REMAIN BETWEEN 60 - 70 DEGREES F WITH RELATIVE HUMIDITY OF 30% - 50% NON-CONDENSING. THE TEMPERATURE RANGE OF THE EQUIPMENT ROOMS AND TELECOM ROOMS SHALL BE MAINTAINED BETWEEN + - 9 DEGREES F FROM DISTRICT SETPOINT.
3. THE OWNER SHALL BE RESPONSIBLE FOR POWER DOWN AND START-UP OF ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS. THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/ENGINEER AND OWNER AND PROVIDE A MINIMUM OF TEN (10) WORKING DAYS NOTICE FOR SCHEDULING OF ANY REQUIRED DOWNTIME.
4. ALL EXISTING CONDITIONS AS SHOWN ARE APPROXIMATELY CORRECT. NOT ALL EXISTING CONDITIONS ARE SHOWN. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY ALL THE EXISTING CONDITIONS AS REQUIRED TO PROPERLY PROVIDE A BID/PROPOSAL AND PERFORM ALL REQUIRED WORK.
5. ALL EXISTING FIBER BACKBONE, HORIZONTAL DATA CABLE, HORIZONTAL VOICE CABLE AND J-HOOK PATHWAYS SHALL BE REMOVED IN THEIR ENTIRETY AS INDICATED ON TD-SERIES DRAWINGS. ALL OTHER FIBER OPTIC CABLE AND COPPER BACKBONE ARE CRITICAL COMPONENTS FOR THE CAMPUS AND THE DISTRICT FIBER RING AND SHALL REMAIN PROTECTED AND OPERATIONAL AT ALL TIMES.
6. ALL EXISTING COAXIAL CABLE (.500 / RG-6 / RG-59) FOR CATV IS TO REMAIN IN PLACE AND OPERATIONAL.
7. ALL EXISTING WIRELESS ACCESS POINTS SHALL BE REMOVED AND RETURNED TO THE OWNER. THE CONTRACTOR SHALL RE-INSTALL ALL EXISTING AND NEW WIRELESS ACCESS POINTS AT THE COMPLETION OF THE PROJECT.
8. COORDINATE REMOVAL OF EXISTING CAMERA(S) WITH OWNER/ARCHITECT DURING CONSTRUCTION.

TECHNOLOGY DEMOLITION KEYED NOTES

(1) EXISTING BUILDING INTERCOM / PA SPEAKER AND /CABLES TO REMAIN. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

(2) EXISTING WIRELESS ACCESS POINT SHALL BE REMOVED AND RE-INSTALLED AT THE END OF THE PROJECT. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

(3) EXISTING COMMUNICATIONS OUTLET TO BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL 4-PAIR CABLES AND WORKSTATION CONNECTING HARDWARE TERMINATED AT THIS LOCATION. IF THE LOCATION IS NOT RE-USED, THE CONTRACTOR SHALL SUPPLY AND INSTALL BLANK COVER. THE CONTRACTOR IS TO REMOVE EACH CABLE TO BE DEMOLISHED FROM THE PATCH PANEL OR TERMINATION BLOCK IN THE TELECOMMUNICATIONS ROOM. REMOVE THE ENTIRE LENGTH OF THE CABLE AND THE CORRESPONDING MODULAR CONNECTOR, FACEPLATE AND ACCESSORIES. NO-ABANDONED CABLING SHALL BE LEFT ABOVE CEILING. THE CONTRACTOR SHALL INSTALL ALL EXISTING AND NEW WIRELESS ACCESS POINTS AT THE COMPLETION OF THE PROJECT.

pfluger
office . 713.222.1141 | fax. 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

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Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ALAIMO 20113 STATE OF TEXAS
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REVISIONS:
Date Description

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TD202-H
TECHNOLOGY LEVEL 01
DEMO FLOOR PLAN
FIELD HOUSE

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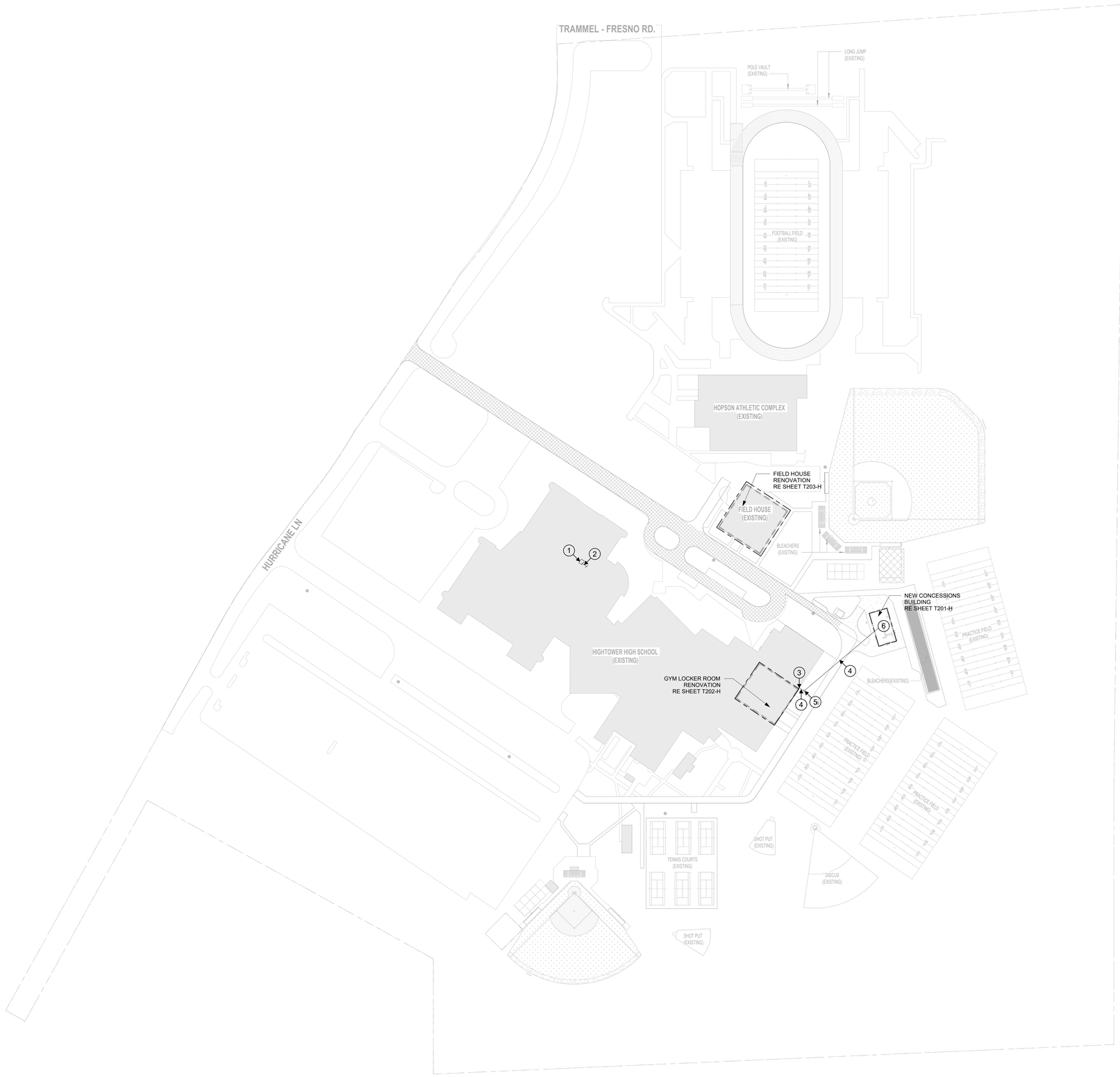

1 / T100-H TECHNOLOGY SITE PLAN
1" = 100'-0"

TECHNOLOGY SITE PLAN GENERAL NOTES

1. ALL CONDUIT PATHWAYS, ROUGH-INS, CONDUIT SLEEVES, ETC. INDICATED ON TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
2. ALL POWER INDICATED ON THE TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
3. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING BACK TO THE ORIGINAL RATING.
4. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING FOR SOUND ATTENUATION TO REDUCE NOISE TRAVELING THROUGH PENETRATIONS.
5. THE CONTRACTOR SHALL RESTORE ALL THE PENETRATIONS PROVIDED THROUGH WALLS/STRUCTURES FOR TECHNOLOGY CABLING TO PREVENT WATER INFILTRATION INTO THE SPACE.
6. CONDUITS SHALL MAINTAIN A MINIMUM OF 12-INCHES OF WELL TAMPED EARTH OR 3-INCHES OF CONCRETE SEPARATION BETWEEN ANY FOREIGN CONDUITS AND/OR PIPES THROUGHOUT THE ENTIRE CONDUIT PATHWAY.
7. CONDUIT SEGMENTS SHALL BE NO MORE THAN 600-FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
8. CONDUITS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUITS GREATER THAN 2-INCHES.
9. THE CONTRACTOR SHALL PROVIDE A DETECTABLE WARNING TAPE 12-INCHES BELOW GRADE ON TOP OF ALL CONDUITS THROUGHOUT THE ENTIRE CONDUIT TRENCH.
10. THE CONTRACTOR SHALL COORDINATE ALL CONDUIT PATHWAYS WITH THE ARCHITECT, CIVIL AND LANDSCAPE PLANS PRIOR TO BEGINNING ANY TRENCHING.
11. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR PULLING OF THE CABLE.
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. THE CONTRACTOR SHALL CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.

TECHNOLOGY SITE PLAN KEYED NOTES

1. APPROXIMATE LOCATION OF SECOND FLOOR MDF.
2. PROVIDE FIBER OPTIC BACKBONE TO NEW CONCESSIONS BUILDING.
3. EXIT THE BUILDING PLENUM AND TURN DOWN BUILDING EXTERIOR AT THIS LOCATION.
4. PROVIDE (3) 2-INCH SCHEDULE 80 PVC CONDUIT BURIED 36-INCHES BELOW FINAL FINISHED GRADE FROM BUILDING EXTERIOR. THE CONTRACTOR SHALL PROVIDE PULL STRING INSIDE EACH CONDUIT. THE CONTRACTOR SHALL PROVIDE NYLON BUSHINGS AND PROTECTIVE CAPS ON EACH END OF THE CONDUIT. ONE 2-INCH CONDUIT WILL BE PROVIDED WITH (1) 2-INCH, THREE-CELL MAXCELL INNERDUCT, (BY DIV. 26).
5. (24)-INCH X (18)-INCH X (36)-INCH HAND HOLE WITH LOCKABLE COVER RATED FOR ENVIRONMENT STAMPED WITH TELECOMMUNICATIONS. COVER OF HANDHOLE SHALL BE FLUSH WITH A FINAL FINISHED GRADE. (BY DIV. 26).
6. APPROXIMATE LOCATION OF CONCESSIONS BUILDING IDF

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
25113
STATE OF TEXAS
12-05-2025

PROJECT NO.	25-006
DATE:	12-05-2025
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T100-H
TECHNOLOGY SITE PLAN

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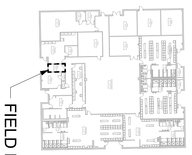
3 T101-H TECHNOLOGY COMPOSITE FIRST FLOOR PLAN
1" = 50'-0"







2 T101-H TECHNOLOGY COMPOSITE SECOND FLOOR PLAN
1" = 50'-0"



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T101-H
TECHNOLOGY COMPOSITE FLOOR PLAN

PROJECT NO. 25-006
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REVISIONS

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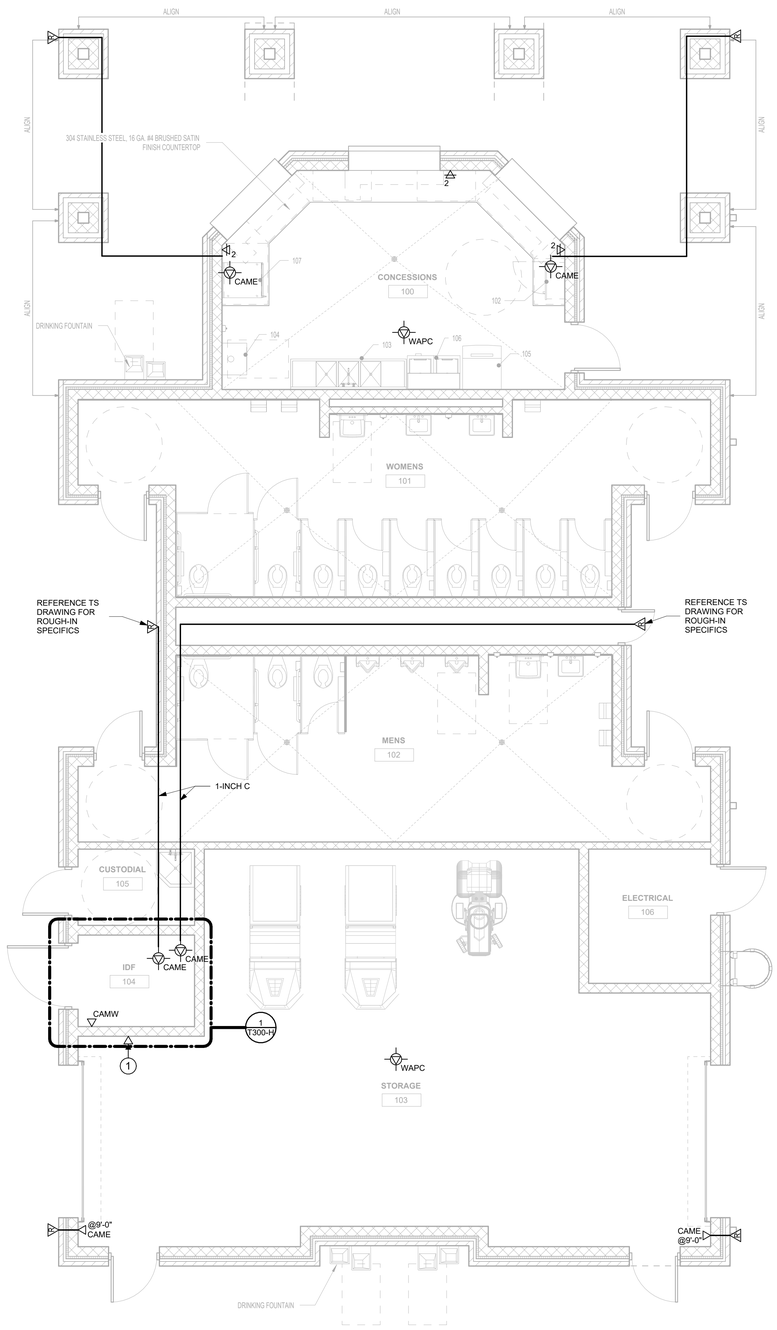
16431 Lexington Blvd.
Sugarland, TX 77479

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com



1 / T201-H TECHNOLOGY LEVEL 01 FLOOR PLAN CONCESSION
1/4" = 1'-0"

TECHNOLOGY FLOOR PLAN GENERAL NOTES

1. THE TECHNOLOGY REGION / WIRING BOUNDARIES ARE IDENTIFIED ON THE OVERALL SHEETS ONLY AND NOT ON THE ENLARGED SHEETS. THE CONTRACTOR SHALL REFER TO THE OVERALL SHEETS FOR ALL TECHNOLOGY REGIONS / WIRING BOUNDARIES.
2. ALL CONDUIT PATHWAYS, ROUGH-INS, BACKBOXES, FLOOR BOXES, CONDUIT SLEEVES, ETC. INDICATED ON TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
3. ALL POWER INDICATED ON THE TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
4. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING BACK TO THE ORIGINAL RATING.
5. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING FOR SOUND ATTENUATION TO REDUCE NOISE TRAVELING THROUGH PENETRATIONS.
6. TECHNOLOGY CABLING SHALL BE ROUTED IN SEPARATE PATHWAYS IN J-HOOKS, CONDUITS, CONDUIT SLEEVES, CORES, ETC. THROUGHOUT THE ENTIRE PATHWAY. DIFFERENT MEDIA TYPES (DATA, VIDEO, SECURITY, ETC.) SHALL NOT SHARE THE SAME J-HOOK, CONDUIT, CONDUIT SLEEVE, CORE, ETC.
7. UNLESS NOTED OTHERWISE, ALL CONDUITS FOR TECHNOLOGY DEVICES SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE AN ACCESSIBLE CEILING (AN OPEN CEILING OR CLOUD TYPE CEILING IS NOT CONSIDERED AN ACCESSIBLE CEILING) IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF A MAIN CORRIDOR. CONDUIT PATHWAYS SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF / IDF ROOM TO MINIMIZE CABLE LENGTHS ENSURING CABLE LENGTHS DO NOT EXCEED 275 FEET.
8. UNLESS NOTED OTHERWISE ALL CONDUITS SHALL BE HOMERUN FROM THE DEVICE LOCATION AND NO DAISY CHAINING OF DEVICES / ROUGH-INS SHALL BE ALLOWED.
9. CONDUIT SEGMENTS SHALL BE NO MORE THAN 100 FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
10. CONDUITS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUITS GREATER THAN 2-INCHES.
11. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR PULLING OF THE CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
13. EQUIPMENT NOT RELATED TO THE SUPPORT OF THE TELECOMMUNICATIONS ROOM (E.G., PIPING, DUCTWORK, PNEUMATIC TUBING) SHALL NOT BE INSTALLED IN, PASS THROUGH, OR ENTER THE TELECOMMUNICATIONS ROOM.
14. ALL CONDUITS FOR TECHNOLOGY DEVICES SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE A LAY- IN TYPE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE A LAY-IN TYPE CEILING TO PREVENT THE CABLES FROM BEING EXPOSED, THE CONDUIT SHALL ROUTE TO THE NEAREST LAY-IN TYPE CEILING OFF A MAIN CORRIDOR OR THE NEAREST MDF/IDF. THE CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE MAIN CORRIDOR OR THE NEAREST MDF/IDF TO MINIMIZE THE CABLE LENGTH ENSURING THE CABLE LENGTH DOES NOT EXCEED 275 FEET. CONDUIT, CONNECTIONS, J-BOXES, SUSPENSION, ANCHORAGES, AND OTHER CONDUIT COMPONENTS EXPOSED TO VIEW IN PUBLIC SPACES SHALL BE ROUTED AND INSTALLED CAREFULLY TO MINIMIZE VISUAL IMPACT AND SHALL BE FULLY PAINTED TO MATCH UNLESS NOTED OTHERWISE.
15. CONDUIT(S) INSTALLED IN-SLAB OR UNDER-SLAB TO FLOOR BOXES, POKE-THURS, AND TO WORKAREA OUTLETS, ETC. SHALL BE INSTALLED WITH WET RATED CABLE(S).
16. NO GRID WIRE SHALL BE UTILIZED FOR SUPPORTS ONLY USE SOLID SUPPORTS (CLIPS, ALL-THREAD, ANCHORS, ETC.).
17. WIRE BASKET TRAY SHALL HAVE A 6" CLEARANCE FROM CEILING TILE TO THE BOTTOM OF BASKET TRAY, 12" CLEARANCE FROM THE TOP OF THE BASKET TRAY TO HVAC UNITS, HVAC DUCTS, HEATING DUCTS, AND HEATING EQUIPMENT, ETC., AND 12" CLEARANCE FROM THE SIDE OF THE BASKET TRAY TO HVAC UNITS, HVAC DUCTS, HEATING DUCTS, AND HEATING EQUIPMENT, ETC. WIRE BASKET TRAY SHALL BE PROPERLY GROUNDED AND BONDED AS PER INDUSTRY STANDARDS (BY DIV. 26).

TECHNOLOGY FLOOR PLAN KEYED NOTES

(1) DATA CABLE WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK FOR OWNER PROVIDED / OWNER INSTALLED ACCESS CONTROL GATEWAY / CONTROLLER WITH ACCESSIBLE CEILING. REFER TO SECURITY DRAWINGS FOR EXACT LOCATION AND CONDUIT ROUGH-IN REQUIREMENTS.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

FBISD INSPIRE+EQUIP+IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 29113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:

No.	Date	Description

100% CD

T201-H
TECHNOLOGY LEVEL 01 FLOOR PLAN CONCESSION

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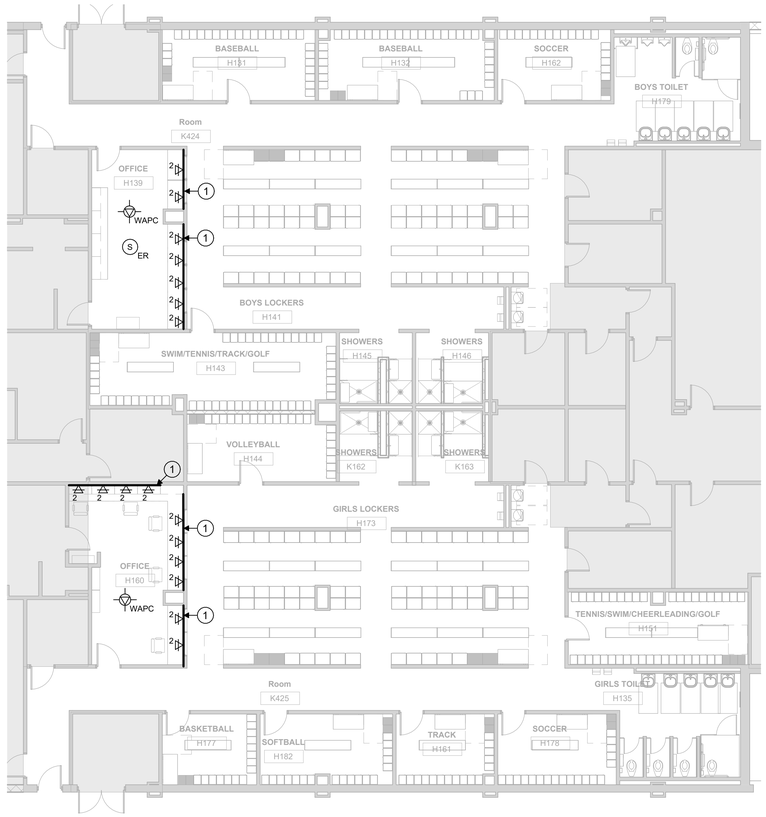

1 T202-H TECHNOLOGY LEVEL 01 FLOOR PLAN GYM LOCKER ROOM
1/8" = 1'-0"

TECHNOLOGY FLOOR PLAN GENERAL NOTES

1. THE TECHNOLOGY REGION / WIRING BOUNDARIES ARE IDENTIFIED ON THE OVERALL SHEETS ONLY AND NOT ON THE ENLARGED SHEETS. THE CONTRACTOR SHALL REFER TO THE OVERALL SHEETS FOR ALL TECHNOLOGY REGIONS / WIRING BOUNDARIES.
2. ALL CONDUIT PATHWAYS, ROUGH-INS, BACKBOXES, FLOOR BOXES, CONDUIT SLEEVES, ETC. INDICATED ON TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
3. ALL POWER INDICATED ON THE TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
4. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING BACK TO THE ORIGINAL RATING.
5. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING FOR SOUND ATTENUATION TO REDUCE NOISE TRAVELING THROUGH PENETRATIONS.
6. TECHNOLOGY CABLING SHALL BE ROUTED IN SEPARATE PATHWAYS IN J-HOOKS, CONDUITS. CONDUIT SLEEVES, CORES, ETC. THROUGHOUT THE ENTIRE PATHWAY. DIFFERENT MEDIA TYPES (DATA, VIDEO, SECURITY, ETC.) SHALL NOT SHARE THE SAME J-HOOK, CONDUIT, CONDUIT SLEEVE, CORE, ETC.
7. UNLESS NOTED OTHERWISE, ALL CONDUITS FOR TECHNOLOGY DEVICES SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE AN ACCESSIBLE CEILING (AN OPEN CEILING OR CLOUD TYPE CEILING IS NOT CONSIDERED AN ACCESSIBLE CEILING) IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF A MAIN CORRIDOR. CONDUIT PATHWAYS SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF / IDF ROOM TO MINIMIZE CABLE LENGTHS ENSURING CABLE LENGTHS DO NOT EXCEED 275 FEET.
8. UNLESS NOTED OTHERWISE ALL CONDUITS SHALL BE HOMERUN FROM THE DEVICE LOCATION AND NO DAISY CHAINING OF DEVICES / ROUGH-INS SHALL BE ALLOWED.
9. CONDUIT SEGMENTS SHALL BE NO MORE THAN 100 FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
10. CONDUITS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUITS GREATER THAN 2-INCHES.
11. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR PULLING OF THE CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
13. EQUIPMENT NOT RELATED TO THE SUPPORT OF THE TELECOMMUNICATIONS ROOM (E.G., PIPING, DUCTWORK, PNEUMATIC TUBING) SHALL NOT BE INSTALLED IN, PASS THROUGH, OR ENTER THE TELECOMMUNICATIONS ROOM.
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TECHNOLOGY FLOOR PLAN KEYED NOTES

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2 Greenway Plaza, Suite 460
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3333 Hurricane Ln, Missouri City, TX 77459

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADUME 20113 STATE OF TEXAS
12-05-2025

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No. Date Description

100% CD

T202-H
TECHNOLOGY LEVEL 01
FLOOR PLAN GYM

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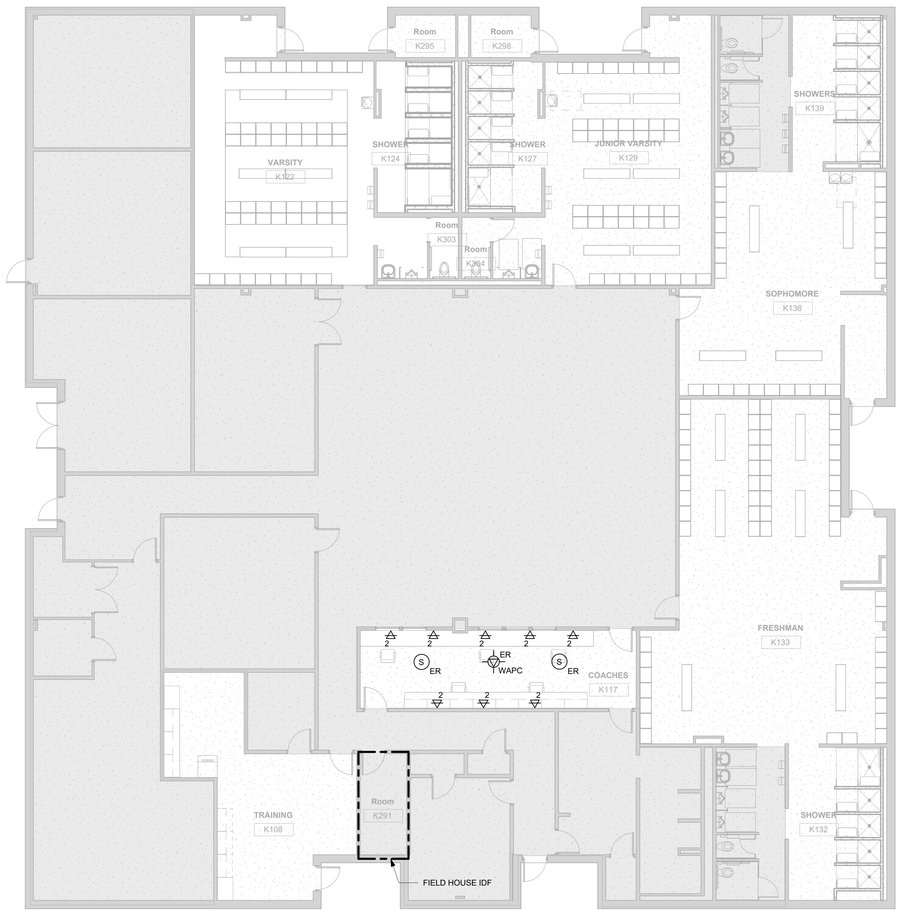

1 T203-H TECHNOLOGY LEVEL 01 FLOOR PLAN FIELD HOUSE
1/8" = 1'-0"

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3333 Hurricane Ln, Missouri City, TX 77459

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
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REGISTERED ARCHITECT
MICHAEL ADAME
25113
STATE OF TEXAS
12-05-2025

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DRAWN BY: BP	CHECKED BY: CCG

REVISIONS:

	Date	Description

100% CD

T203-H

TECHNOLOGY LEVEL 01 FLOOR PLAN FIELD HOUSE

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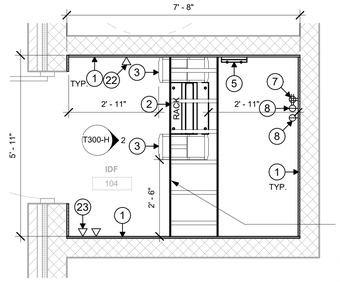
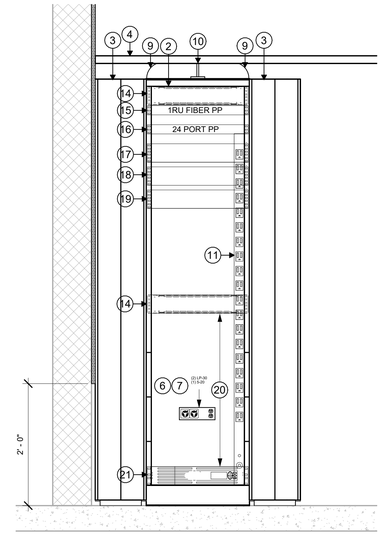


2-INCHES SHY OF BICSI RECOMMENED 32" AISLEWAY FOR MAINTENANCE.

WE COULD USE 8-INCH VERTICAL MANAGERS WHICH ARE NON STANDARD EQUIPMENT FOR FBISD. DOING SO WOULD YEILD 4-INCHES RESULTING IN THE 32" OF CLEARANCE NEEDED

1 T300-H CONCESSION BUILDING IDF ENLARGED PLAN
1/2" = 1'-0"



2 T300-H CONCESSIONS BUILDING NETWORK RACK ELEVATION
1" = 1'-0"

MDF / IDF GENERAL NOTES

1. IN THE EVENT THE CONTRACTOR PROVIDES AND INSTALLS 2-POST EQUIPMENT RACKS IN THE MDF/IDF ROOMS, THE DIVISION 27 CONTRACTOR SHALL COORDINATE WITH THE OWNER TO DETERMINE IF THE OWNER NEEDS ADDITIONAL EQUIPMENT RACK SUPPORT SUCH AS RAILS OR DEEP SHELVING TO SUPPORT FUTURE OWNER PROVIDED/OWNER INSTALLED UPS SYSTEM EQUIPMENT.
2. CONTRACTOR SHALL CONFIRM PATCH PANEL COUNTS WITH CABLE QUANTITIES PRIOR TO BIDDING. PATCH PANEL QUANTITY SHALL BE BASED OF OFF DEVICE QUANTITY SHOWN ON FLOOR PLANS AND REQUIRED SPARE PORTS. PATCH PANEL QUANTITY SHOWN ON RACKS ARE FOR REFERENCE ONLY.
3. EQUIPMENT NOT RELATED TO THE SUPPORT OF THE TELECOMMUNICATIONS ROOM (E.G., PIPING, DUCTWORK, PNEUMATIC TUBING) SHALL NOT BE INSTALLED IN, PASS THROUGH, OR ENTER THE TELECOMMUNICATIONS ROOM.
4. A VERTICAL SECTION OF LADDER RACK SHALL BE ATTACHED TO THE WALLBOARD TO MANAGE BACKBONE CABLES, SERVICE PROVIDER CABLES, OR CABLES AS THEY TRANSITION FROM THE ENTRANCE CONDUITS TO OVERHEAD LADDER RACK.
5. MAX (5) DATA PATCH PANELS ON INITIAL INSTALLATION ANY ADDITIONAL PATCH PANEL WILL BE PLACE ON THE NEXT RACK.
6. ALL RACK EQUIPMENT AND PATCH PANELS SHALL BE MOCKED UP AND COORDINATED WITH OWNER AND CONSULTANT PRIOR TO PERMANENT ATTACHMENT AND OR INSTALLATION.

IDF ROOM KEYED NOTES

1. 4-FEET X 8-FEET X 3/4-INCH A-B GRADE, VOID FREE, FIRE RATED PLYWOOD INSTALLED VERTICALLY STARTING AT 24-INCHES ABOVE FINISHED FLOOR ON ALL PERIMETER WALLS. PAINT WITH (2) COATS OF FIRE RETARDANT PAINT. (BY DIV. 27)
2. 19-INCH X 84-INCH RELAY RACK (BY DIV. 27)
3. 10-INCH VERTICAL WIRE MANAGERS. (BY DIV. 27)
4. 12-INCH LADDER RACK MOUNTED AT 87-INCHES ABOVE FINISHED FLOOR. LADDER RACK SHALL BE SUPPORTED PER MANUFACTURE AND INDUSTRY STANDARDS. (BY DIV. 27)
5. GROUND BUS BAR MOUNTED AT 84-INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
6. DEDICATED 20 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH DUPLEX NEMA 5-20R RECEPTACLE MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR BEHIND THE EQUIPMENT RACKS. (BY DIV. 26)
7. DEDICATED 30 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH SIMPLEX NEMA L6-30R TWIST LOCK RECEPTACLE MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR BEHIND THE EQUIPMENT RACKS. (BY DIV. 26)
8. 20 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH DUPLEX NEMA 5-20R RECEPTACLE FLUSH MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR. (BY DIV.26)
9. CABLE RUNWAY RADIUS DROP CROSS MEMBER (BY DIV. 27)
10. CABLE RUNWAY ELEVATION KIT (BY DIV. 27)
11. VERTICAL POWER STRIP WITH STAND-OFF BRACKET(S), MOUNTED ON THE BACK SIDE OF RELAY RACKS. VERTICAL POWER AND STAND-OFF BRACKETS SHALL NOT INTERFERE WITH NETWORK SWITCHES. (BY DIV. 27)
12. FLOOR MOUNTED HVAC UNIT. PIPING SHALL EXIT THE ROOM IN THE CORNER. THE DISCONNECT AND HAVC PANEL SHALL BE LOCATED ABOVE THE FLOOR MOUNTED HAVC UNIT. (BY DIV. 23)
13. (3) 4-INCH CONDUIT TO ACCESSIBLE CEILING
14. 2RU HORIZONTAL WIRE MANAGER (BY DIV. 27)
15. 2RU RACK MOUNTED FIBER OPTIC ENCLOSURE (BY DIV. 27)
16. 1RU VOICE BACKBONE 24 PORT ANGLED PATCH PANEL (BY DIV. 27)
17. 2RU 48 PORT ANGLED PATCH PANEL FOR VIDEO SURVEILLANCE CABLES (BY DIV. 27)
18. 2RU 48 PORT ANGLED PATCH PANEL FOR WIRELESS ACCESS POINT CABLES (BY DIV. 27)
19. 2RU 48 PORT ANGLED PATCH PANEL FOR DATA CABLES (BY DIV. 27)
20. CISCO DATA NETWORK EQUIPMENT (BY OWNER)
21. UNINTERRUPTABLE POWER SUPPLY (BY OWNER)
22. WALL MOUNTED PHONE. INSALL OUTLET AT 48" AFF. ENSURE A 12- INCH CLEAR SPACE AROUND OUTLET. COORDINATE LOCATION WITH OWNER AND CONSULTANT PRIOR TO ROUGH-IN
23. WALL MOUNTED SURVEILLANCE CAMERA. INSTALL OUTLET AT 6" BELOW CABLE RUNWAY ENSURE A 12-INCH CLEAR SPACE AROUND OUTLET. COORDINATE LOCATION WITH OWNER AND CONSULTANT PRIOR TO ROUGH-IN

pfluger
office: 713.222.1141 | fax: 713.222.1174
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T300-H
TECHNOLOGY
ENLARGED VIEWS

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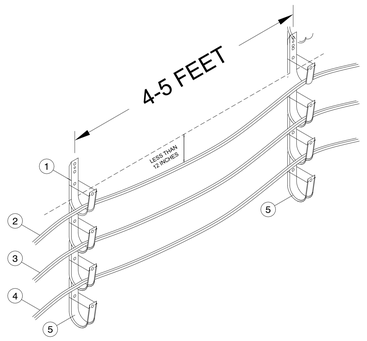
NOTE TO CONTRACTOR:
UNLESS OTHERWISE NOTED, LOW VOLTAGE CABLING SHALL BE INSTALLED WITHIN 6-INCHES OF THE CEILING AND LAST VERTICALLY SITUATED J-HOOK SHALL BE NO HIGHER THAN 18" OF CEILING. CABLES AND SUPPORTS SHELL BE ACCESSIBLE BY TECHNICIAN ON A STANDARD A-FRAME LADDER.

CONTRACTOR SHALL MAINTAIN AT LEAST 6-INCHES OF SEPARATION BETWEEN CABLING BUNDLES AND MECHANICAL DUCTWORKS, EQUIPMENT, PIPING OR OTHER SYSTEMS IN THE CEILING PLENUM

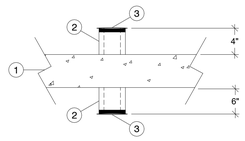


KEYED NOTES:

1. J-HOOK WITH RETAINER CLIP ABOVE ACCESSIBLE CEILING (BY DIV 27).
2. DATA CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).
3. A/V CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).
4. SECURITY CABLE ABOVE ACCESSIBLE CEILING (BY DIV 28).
5. SPARE J-HOOK (BY DIV 27).

1 / T400-H TYPICAL J-HOOK CABLE PATHWAY

SCALE: N.T.S.

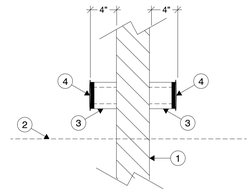


KEYED NOTES:

1. SCHEDULED FLOOR OR DECK.
2. CONDUIT SLEEVE (BY DIV 26).
3. NYLON BUSHING (BY DIV 26).

2 / T400-H TYPICAL CONDUIT SLEEVE THROUGH FLOOR OR DECK DETAIL

SCALE: N.T.S.

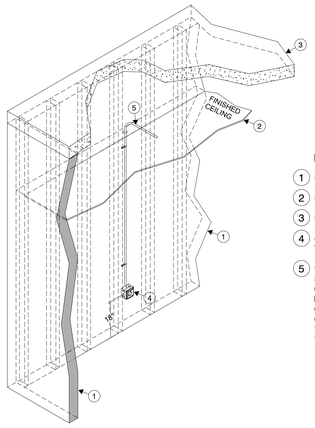


KEYED NOTES:

1. SCHEDULED WALL.
2. SCHEDULED CEILING.
3. CONDUIT SLEEVE (BY DIV 26).
4. NYLON BUSHING (BY DIV 26).

3 / T400-H TYPICAL CONDUIT SLEEVE GOING THROUGH WALL

SCALE: N.T.S.

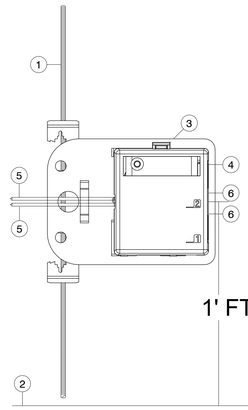


KEYED NOTES:

1. SCHEDULED WALL.
2. SCHEDULED CEILING.
3. SCHEDULED DECK ABOVE.
4. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX WITH DOUBLE GANG PLASTER RING (BY DIV 26).
5. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH. (BY DIV 26).

4 / T400-H TYPICAL TECHNOLOGY CONDUIT ROUGH-IN

SCALE: N.T.S.

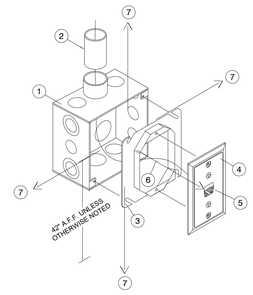


KEYED NOTES:

1. ALL THREAD TO BUILDING STRUCTURE (BY DIV. 27)
2. SCHEDULING CEILING
3. IN-PLENUM CEILING BRACKET PN 49223-CBC ATTACHED TO ALL THREAD (BY DIV. 27)
4. SURFACE MOUNT BOX ABOVE ACCESSIBLE CEILING SECURED TO BRACKET (BY DIV. 27)
5. DATA CABLE (BY DIV. 27)
6. DATA INSERT (BY DIV. 27)

5 / T400-H TYPICAL ABOVE CEILING DATA OUTLET

SCALE: N.T.S.

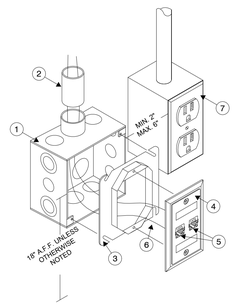


KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH PHONE STUDS (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. PROVIDE A MINIMUM OF 8-INCHES OF CLEARANCE AROUND BACK-BOX TO ACCOMODATE PHONE APPLIANCE THAT WILL BE INSTALLED ON THIS OUTLET

6 / T400-H TYPICAL WALL PHONE OUTLET CONFIGURATION

SCALE: N.T.S.



KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
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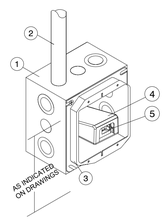
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

7 / T400-H TYPICAL DUAL DATA OUTLET CONFIGURATION

SCALE: N.T.S.



KEYED NOTES:

1. 4 11/16-INCH X 4 11/16-INCH X 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
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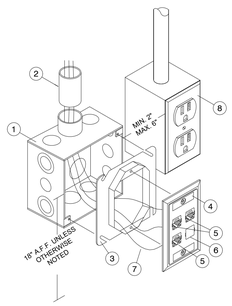
3. DOUBLE GANG PLASTER RING (BY DIV 26).
4. SURFACE MOUNT BOX INSIDE THE 4 11/16-INCH X 4 11/16-INCH X 2 1/8-INCH DOUBLE GANG BOX (BY DIV 27).
5. RJ-45 INSERT (BY DIV 27).

8 / T400-H TYPICAL WALL-MOUNTED WIRELESS ACCESS POINT

SCALE: N.T.S.



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3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. BLANK INSERT (BY DIV 27).
7. CABLE AS SPECIFIED (BY DIV 27).
8. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

9 / T400-H TYPICAL THREE DATA OUTLET CONFIGURATION

SCALE: N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL A. PAYNE
20113
STATE OF TEXAS

12-05-2025

PROJECT NO.	25-006
DATE:	12-05-2025
DRAWN BY: BP	CHECKED BY: CCG

REVISIONS:

	Date	Description

100% CD

T400-H
TECHNOLOGY TYPICAL DETAILS

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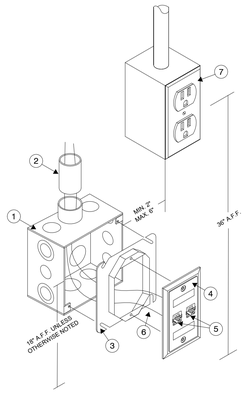

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1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
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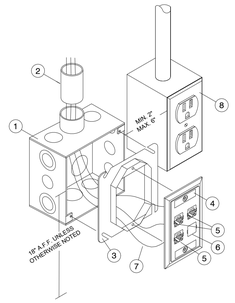
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26). ELECTRICAL RECEPTACLE TO BE INSTALLED AT 36" A.F.F AND ADJACENT TO COW / SECONDARY TEACHING OUTLET LOCATION.

TYPICAL COW / SECONDARY TEACHER'S DATA OUTLET CONFIGURATION

1 / T401-H

SCALE: N.T.S.



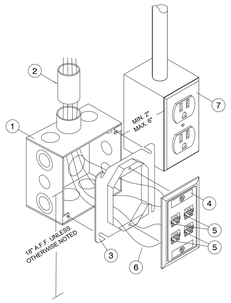
KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. BLANK INSERT (BY DIV 27).
7. CABLE AS SPECIFIED (BY DIV 27).
8. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

TYPICAL THREE DATA OUTLET CONFIGURATION

2 / T401-H

SCALE: N.T.S.



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2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

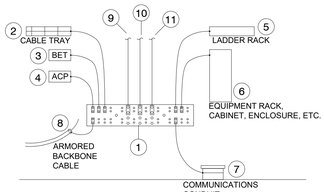
TYPICAL FOUR DATA OUTLET CONFIGURATION

3 / T401-H

SCALE: N.T.S.

GENERAL NOTES:

1. MAKE ALL BONDING CONNECTIONS WITH TWO-HOLE COMPRESSION LUGS.
2. SIZE ALL BONDING CONDUCTORS PER TELECOM BONDING CONDUCTOR SIZING TABLE.
3. THIS IS A TYPICAL DETAIL, NOT ALL EQUIPMENT REQUIRING BONDING MAY BE PRESENT IN EACH TELECOM ROOM.



KEYED NOTES:

1. TELECOMMUNICATIONS GROUNDING BUSBAR WITH BICSI STYLE HOLE PATTERN, SIZED PER [DRAWINGS/SPECIFICATIONS] (BY DIV 27).
2. BOND TO CABLE TRAY IN CORRIDOR. (BY DIV 26)
3. BOND TO BUILDING ENTRANCE TERMINALS AND PROTECTORS. (BY DIV 27)
4. BOND TO ACCESS CONTROL PANELS AND OTHER SECURITY ENCLOSURES. (BY DIV 28)
5. BOND TO OVERHEAD LADDER RACK; ENSURE ALL LADDER RACK SECTIONS ARE BONDED TOGETHER. (BY DIV 27)
6. BOND TO EACH EQUIPMENT RACK, CABINET, ENCLOSURE, ETC. (BY DIV 27)
7. BOND TO EACH CONTINUOUS COMMUNICATIONS CONDUIT THAT ENTERS THE TELECOM ROOM. (SLEEVES DO NOT NEED TO BE BONDED). (BY DIV 26)
8. BOND TO EACH ARMORED BACKBONE CABLE THAT TERMINATES IN THE TELECOM ROOM. (BY DIV 27)
9. FOR TELECOMMUNICATIONS MAIN GROUNDING BUSBAR, PROVIDE BONDING CONDUCTOR FOR TELECOMMUNICATIONS TO MAIN ELECTRICAL GROUND. (BY DIV 26)
10. FOR TELECOMMUNICATIONS GROUNDING BUSBARS ONLY: BONDING CONDUCTOR TO [BUILDING STEEL] [TELECOMMUNICATIONS BONDING BACKBONE] [GROUND BUS OF ELECTRICAL PANEL SERVING TELECOM ROOM POWER]. (BY DIV 26)
11. [FOR TELECOMMUNICATIONS MAIN GROUNDING BUSBAR, PROVIDE TELECOMMUNICATIONS BONDING BACKBONE PER TYPICAL GROUNDING DIAGRAM.] (BY DIV 26)

TELECOMMUNICATIONS BONDING BUSBAR DETAIL

4 / T401-H

SCALE: N.T.S.

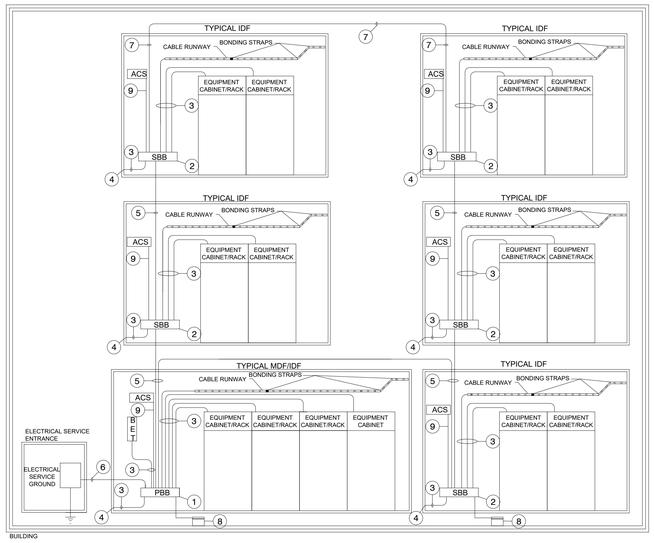
TBB/GE CONDUCTOR SIZING	
LENGTH IN LINEAR M (FT)	SIZE (AWG)
LESS THAN 4 (13)	6
4 - 6 (14-20)	4
6 - 8 (21 - 26)	3
8 - 10 (27 - 33)	2
10 - 13 (34 - 41)	1
13 - 16 (42 - 52)	1/0
16 - 20 (53 - 66)	2/0
20 - 26 (67 - 84)	3/0
26 - 32 (85 - 105)	4/0
32 - 38 (106 - 125)	250 kcmil
38 - 46 (126 - 150)	300 kcmil
46 - 53 (151 - 175)	350 kcmil
53 - 76 (176 - 250)	500 kcmil
76 - 91 (251 - 300)	600 kcmil
GREATER THAN 91 (301)	750 kcmil

ROUTE THE TBB TO EACH TGB IN AS STRAIGHT A PATH AS POSSIBLE. THE TBB SHOULD BE INSTALLED AS A CONTINUOUS CONDUCTOR, AVOIDING SPLICES WHERE POSSIBLE.

TBB CONDUCTOR SIZING

5 / T401-H

SCALE: N.T.S.



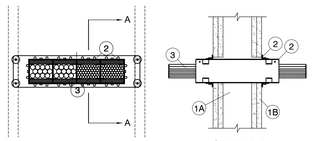
1. TELECOMMUNICATIONS MAIN GROUNDING BUS BAR (PBB)(BY DIV. 27)
2. TELECOMMUNICATIONS GROUNDING BUS BAR (SBB) (BY DIV 27)
3. TELECOMMUNICATIONS BONDING CONDUCTOR (TBC). REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS (BY DIV 27)
4. CONNECT TO GROUNDED BUILDING STEEL WHEN EXPOSED IN ROOM.
5. TELECOMMUNICATIONS BONDING BACKBONE (TBB). REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS (BY DIV 26)
6. TELECOMMUNICATIONS BONDING CONDUCTOR (TBC). BY ELECTRICAL CONTRACTOR REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS.
7. GROUNDING EQUALIZER CONDUCTOR (GEC)(BY DIV 26)
8. BOUND WITH GROUDING COLLARS TO EACH CONTINUOUS CONDUIT THAT ENTERS THE TELECOM ROOM. (BY DIV 26).
9. BOND TO EACH ACCESS CONTROL PANEL AND OTHER SECURITY PANELS IN HE TELECOM ROOM. (BY DIV 27)

TYPICAL GROUNDING DIAGRAM

6 / T401-H

SCALE: N.T.S.

System No. W-L-3218
F Ratings - 1, 2, 3 and 4 Hr (See Items 1 and 3)
T Ratings - 3/4 and 1 Hr (See Item 3)
L Rating At Ambient - Less Than 1, 1.3, 4 or 7 CFM (See Item 3)
L Rating At 400 F - Less Than 1, 2 or 3 CFM (See Item 3)



Section A-A

1. Wall Assembly - The 1, 2, 3 or 4 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described within the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall incorporate the following construction features:

   A. Studs - Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.

   B. Gypsum Board* - Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Opening in gypsum board to be max 1/4 in. (6 mm) larger then width and height dimensions of firestop device(s).

   The hourly F Rating of the firestop system is dependent upon the hourly rating of the wall in which it is installed.

2. Firestop Device* - One, two, three, four or seven firestop device modules ganged together. Each firestop device module consists of a 3 by 3 by 10-1/2 in. (76 by 76 by 267 mm) long galv steel tube with an intumescent material lining. Firestop device modules to be installed in accordance with the accompanying installation instructions. The space between the firestop device module(s) and the periphery of the opening shall be min 0 in. (0 mm, point contact) to max 1/8 in. (3.2 mm). In round openings, the space between the firestop device and the periphery of the opening shall be min 0 in. (point contact) to max 1/2 in. (13 mm). Firestop device module(s) secured in place by means of steel wall plates installed with gasketing material supplied with product. Steel wall plates installed on both sides of wall and secured to each device by means of steel set screws provided with device. Each four- and seven-gang steel wall plate shall be fastened to the studs with steel screws sized to extend through the gypsum board layers and penetrate 1/2 in. (13 mm) into the framing member. Each firestop device module is to be installed with ends projecting an equal distance beyond each surface of the wall assembly.

   As an alternate, the four- and seven-gang steel wall plates may be installed directly against the studs for walls having 16 and 24 in. (406 and 610 mm) center-to-center stud spacing, respectively, prior to installation of the gypsum board layers. The steel wall plates shall be secured to the stud by means of steel screws. After installation of the steel wall plates and firestop device modules, the gypsum board shall be installed as specified in the individual U300 or U400 Design with a maximum 1/8 in. (3.2 mm) gap between the firestop device module and the cutout in the gypsum board. Gap between the firestop device module and the cutout in the gypsum board may be filled with gypsum joint compound or fill material (Item 4).

   SPECIFIED TECHNOLOGIES INC - EZ PATH Series 33 Fire Rated Pathway

2A. Firestop Device* - Extension Module - (Optional, Not Shown) - Module attached to ends of 3 by 3 by 10-1/2 in. (76 by 76 by 267 mm) long firestop device (Item 3) to increase its length to facilitate installation in thicker walls. Each module consists of a 3 by 3 by 6 in. (76 by 76 by 152 mm) long galv steel tube with an intumescent material lining. Extension module to be installed in accordance with the accompanying installation instructions. When module is used, firestop device (Item 2) and extension module(s) secured in place by means of steel wall plates installed with gasketing material supplied with product. Steel wall plates installed on both sides of wall and secured to each device or extension module(s) by means of steel set screws provided with wall plates. Firestop device and extension module(s) assembly to be installed with ends projecting an equal distance beyond each surface of the wall assembly.

   SPECIFIED TECHNOLOGIES INC - EZ PATH Extension

3. Cables - Within the loading area for each firestop device module, the cables may represent a 0 to 100 percent visual fill. Cable fill to be distributed at a uniform height across the width of the firestop device module. Cables to be rigidly supported on both sides of the wall assembly. Any combination of the following types of cables may be used:

   A. Max 400 pair No. 24 AWG (or smaller) copper conductor telecommunication cable with polyvinyl chloride (PVC) jacketing and insulation.

   B. Max 350 kcmil single copper conductor power cable with XLPE jacket and insulation

   C. Max 7/C No. 12 AWG copper conductor control cable with PVC or XLPE jacket and insulation.

   D. Max 3/C No. 10 AWG metal clad or armored cable with steel or aluminum jacket.

   E. Max 3/C No. 8 AWG NM cable (Romex) with PVC insulation and jacket.

   F. Max four pair No. 22 AWG (or smaller) copper conductor data cable with PVC or plenum rated jacketing and insulation.

   G. Max RG/U coaxial cable with fluorinated ethylene insulation and jacketing.

   H. Fiber optic cable with PVC or polyethylene (PE) jacket and insulation having a max diam of 5/8 in. (16 mm).

   I. Optical Fiber Raceway+ - Max 1-1/2 in. (38 mm) diam (or smaller) optical fiber raceway ("innerduct") formed of either PVC or polyvinylidene fluoride (PVDF) with optical fiber cable fill. Raceways installed in accordance with the National Electrical Code (NFPA 70).

   When the hourly rating of the wall assembly is 1 hr, the T Rating is 3/4 hr. When the hourly fire rating of the wall assembly is greater than 1 hr, the T Rating is 3/4 hr when Item 3A, 3B, 3C, 3D or 3E is used. Otherwise the T Rating is 1 hr. When Item 3A, 3B, 3C, 3D or 3E is used, the maximum F Rating is 2 hr. When max 200 pair No. 24 AWG telecommunication cable is used or when Item 3F, 3G, 3H or 3I is used, the maximum F Rating is 4 hr.

   The L Rating for each empty firestop device module is less than 1 cfm at ambient and at 400F. When Item 3A is used, the L Rating for each firestop device module with 100 percent visual fill is 4 cfm at ambient and 3 cfm at 400F. When Item 3F is used, the L Rating for each firestop device module with 100 percent visual fill is 1.3 cfm at ambient and 1 cfm at 400F. When Item 3G or 3H is used, the L Rating for each firestop device module with 100 percent visual fill is 7 cfm at ambient and 2 cfm at 400F.

4. Fill, Void or Cavity Material* - Sealant or Putty - (Not Shown) - As an alternate to gypsum joint compound, the gap between the firestop device module and the cutout in the gypsum board may be sealed with fill material on each side of the wall assembly when four- and seven-gang steel wall plates are installed directly against the wood or steel studs.

   SPECIFIED TECHNOLOGIES INC - SpecSeal Series SSS Sealant, SpecSeal LCI Sealant, SpecSeal Putty

   *Bearing the UL Classification Mark

TYPICAL STI EZ-PATH SLEEVE DETAIL

7 / T401-H

SCALE: N.T.S.

pfluger
office : 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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REGISTERED ARCHITECT
MICHAEL ADUME
20113
STATE OF TEXAS
12-05-2025

PROJECT NO.	25-006
DATE:	12-05-2025
DRAWN BY: BP	CHECKED BY: CCG
REVISIONS:	
NO. Date	Description

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T401-H
TECHNOLOGY TYPICAL DETAILS

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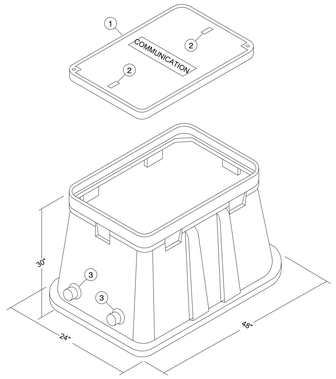
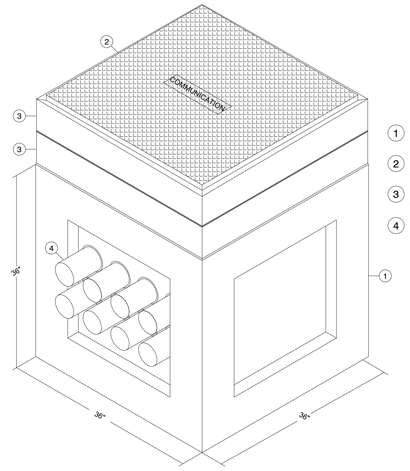


KEYED NOTES:

1. 40-INCH X 18-INCH COVER RATED FOR ENVIRONMENT WITH "COMMUNICATION" STENCILED ON TOP (BY DIV 26).
2. LIFTING EYE (BY DIV 26).
3. 4-INCH TERMINATOR (BY DIV 26).

1 T402-H TYPICAL TECHNOLOGY HANDHOLES (HH)

SCALE: N.T.S.

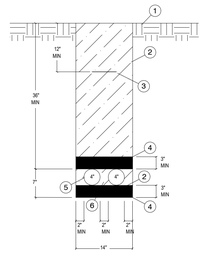


KEYED NOTES:

1. 36-INCH X 36-INCH X 36-INCH PRECAST HANDHOLE (BY DIV 26).
2. 36-INCH X 36-INCH COVER RATED FOR ENVIRONMENT WITH "COMMUNICATION" STENCILED ON TOP (BY DIV 26).
3. PRECAST EXTENSION AS REQUIRED TO MOUNT FLUSH WITH GRADE (BY DIV 26).
4. 4-INCH TERMINATOR (BY DIV 26).

2 T402-H TYPICAL TECHNOLOGY HANDHOLE (HH)

SCALE: N.T.S.

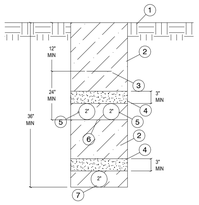


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. SELECT COMPACTED BACKFILL (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. COMMUNICATIONS CONDUIT (BY DIV 26).
6. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).

3 T402-H TYPICAL COMMUNICATIONS DUCT BANK DETAIL - (2) 4-INCH CONDUITS

SCALE: N.T.S.

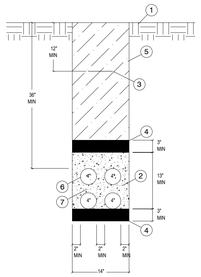


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. SELECT COMPACTED BACKFILL (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. COMMUNICATIONS CONDUIT (BY DIV 26).
6. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).
7. ELECTRICAL CONDUIT (BY DIV 26)

4 T402-H 12-INCH SEPARATION COMMUNICATION AND ELECTRICAL SHARED DUCT BANK DETAIL

SCALE: N.T.S.

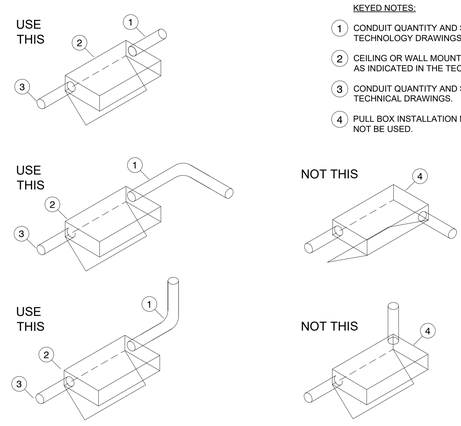


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. 3000 PSI CONCRETE (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. SELECT COMPACTED BACKFILL (BY DIV 26).
6. COMMUNICATIONS CONDUIT (BY DIV 26).
7. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).

5 T402-H TYPICAL COMMUNICATIONS CONCRETE ENCASED DUCT BANK DETAIL - (4) 4-INCH CONDUITS

SCALE: N.T.S.



KEYED NOTES:

1. CONDUIT QUANTITY AND SIZE AS INDICATED IN THE TECHNOLOGY DRAWINGS.
2. CEILING OR WALL MOUNTED PULL BOX WITH LOCKING COVER AS INDICATED IN THE TECHNOLOGY DRAWINGS.
3. CONDUIT QUANTITY AND SIZE AND INDICATED IN THE TECHNICAL DRAWINGS.
4. PULL BOX INSTALLATION MEANS AND METHODS THAT SHALL NOT BE USED.

6 T402-H TYPICAL PULL BOX ENTRANCE POINT MEANS AND METHODS DETAIL

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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL A. DAME
26113
STATE OF TEXAS

12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:

Date	Description

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T402-H

TECHNOLOGY TYPICAL DETAILS

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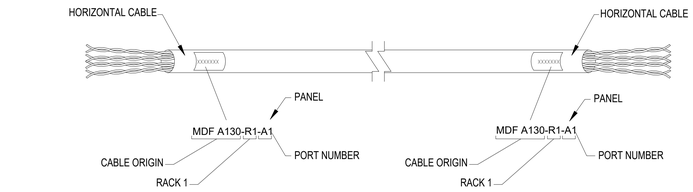
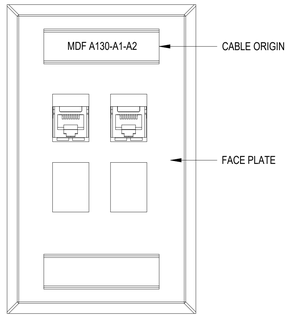
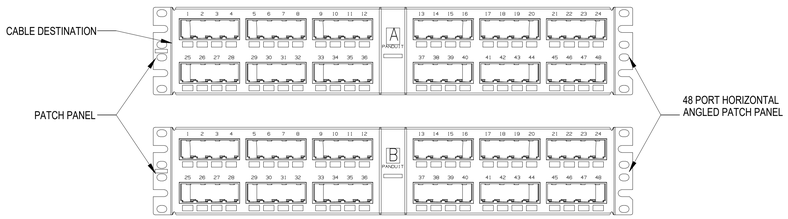
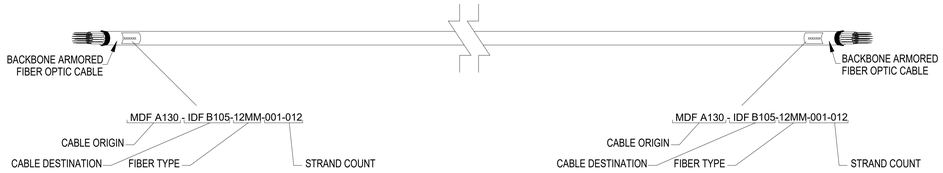


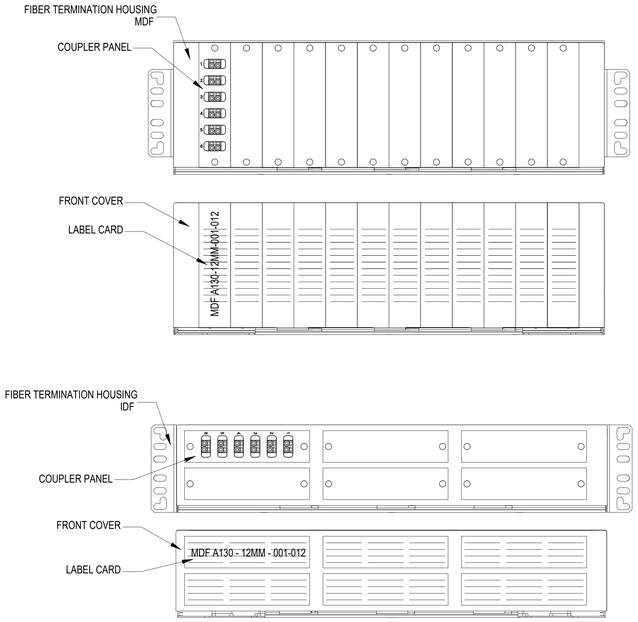




1 T-500-H TYPICAL HORIZONTAL DATA CABLE LABELING SCHEME

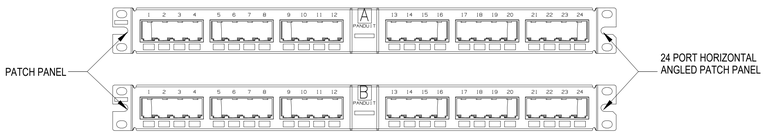
SCALE: N.T.S.





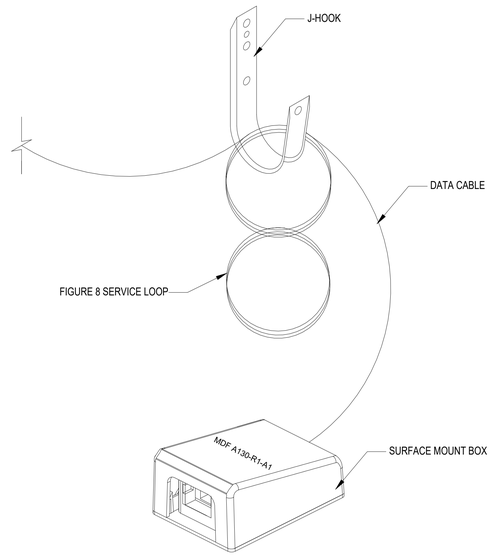
2 T-500-H TYPICAL FIBER BACKBONE LABELING SCHEME

SCALE: N.T.S.



3 T-500-H TYPICAL COPPER BACKBONE LABELING SCHEME

SCALE: N.T.S.



4 T-500-H ABOVE ASSESSIBLE CEILING LABELING SCHEME

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
3333 Hurricane Ln, Missouri City, TX 77459

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL A. ADAME 20113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
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DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
1 Date Description

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T500-H
TECHNOLOGY TYPICAL
LABELING SCHEME

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SECURITY SYMBOLS & LEGEND

ACCESS CONTROL SYMBOLS

AD	INTERFACE TO AUTOMATIC DOOR CONTROL AND MONITORING.
BI	INTERFACE TO RETRACTABLE VEHICLE BOLLARD.
BR	BIOMETRIC READER.
CH	DOOR BELL CHIME.
CR	CARD READER.
CR1	CARD READER MULLION MOUNT.
CR2	ELEVATOR CARD READER.
CR3	CARD READER/INTERCOM UNIT.
CR4	CARD READER/INTERCOM PEDESTRIAN PEDESTAL.
D	DURESS BUTTON MOUNTED IN KNEE SPACE OF DESK, TABLE OR COUNTER PROVIDE ARMORED CABLE FROM DURESS BUTTON TO JUNCTION BOX.
D	WALL MOUNTED DURESS BUTTON.
DB	DOOR BELL.
DC	DOOR CONTACT.
DC1	OVERHEAD DOOR CONTACT. PROVIDE ARMORED CABLE FROM SWITCH TO JUNCTION BOX.
DMA	DOOR MANAGEMENT ANNUNCIATOR.
OR	SINGLE DOOR RELEASE PUSHBUTTON UNDER COUNTER. ARMORED CABLE FROM PUSHBUTTON TO JUNCTION BOX.
EL	INTERFACE TO ELEVATOR CONTROL/MONITORING.
FA	INTERFACE TO FIRE ALARM SYSTEM.
GC	INTERFACE TO PARKING GATE CONTROL/MONITORING.
IC	AUDIO INTERCOM SUBSTATION.
IM	INTERCOM MASTER STATION AS INDICATED BLOCK DIAGRAM AND/OR DETAILS.
KS	KEYSWITCH.
LD	LOCKDOWN BUTTON UNDER COUNTER. ARMORED CABLE FROM LOCKDOWN BUTTON TO JUNCTION BOX.
LD	LOCKDOWN BUTTON.
OD	INTERFACE TO OVERHEAD DOOR CONTROL/MONITORING.
RD	INTERFACE TO MOTORIZED REVOLVING DOOR CONTROL/MONITORING.
REX	REQUEST-TO-EXIT IS INTEGRAL WITH ELECTRIFIED LOCKING HARDWARE. PROVIDED AND INSTALLED BY OTHERS.
RX	REQUEST-TO-EXIT MOTION SENSOR MOUNTED CEILING-MOUNTED.
RX	REQUEST-TO-EXIT MOTION SENSOR DOOR FRAME-MOUNTED.
SD	INTERFACE TO SLIDING DOOR CONTROL/MONITORING.
SR	SECURITY SYSTEM RISER, DATA GATHERING PANEL AND LOW VOLTAGE POWER SUPPLY DISTRIBUTION LOCATION.
VI	VIDEO INTERCOM SUBSTATION.
VM	DESKTOP VIDEO INTERCOM MASTER STATION.
WD	WIRELESS DURESS BUTTON MOUNTED IN KNEE SPACE OF DESK, TABLE, OR COUNTER.

ACCESS CONTROL SYMBOLS

WDRR	WIRELESS DOOR RELEASE RECEIVER DEVICE.
WDRT	WIRELESS DOOR RELEASE TRANSMITTER DEVICE.
WR	WIRELESS DURESS BUTTON RECEIVER DEVICE.
WT	WIRELESS DURESS BUTTON TRANSMITTER DEVICE.
	PRE-WIRE AND BLANK COVER PLATE FOR FUTURE DEVICE.

ELECTRONIC SURVEILLANCE SYMBOLS

	FIXED SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	CEILING-MOUNTED FIXED SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	180° SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	CEILING-MOUNTED 180° SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	360° SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	CEILING-MOUNTED 360° SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	PAN, TILT & ZOOM SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
CLG	CEILING-MOUNTED PAN, TILT & ZOOM SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.

GENERAL SYMBOLS

# SHEET — DRAWING TITLE — SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
SHEET #	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES SECURITY REGION

INTRUSION DETECTION SYMBOLS

AL	ALARM ANNUNCIATOR LIGHT.
AP	ANNUNCIATOR PANEL AS INDICATED IN BLOCK DIAGRAMS AND/OR DETAILS.
AV	AUDIO VISUAL ANNUNCIATOR.
FA	INTERFACE TO FREEZER/TEMPERATURE ALARM. PROVIDED AND INSTALLED BY OTHERS.
FC	FUTURE CABLE AS SPECIFIED.
GB	CEILING-MOUNTED GLASS BREAK SENSOR.
GB	GLASS BREAK SENSOR.
KP	PERSONAL IDENTIFICATION NUMBER KEYPAD.
M	SOUND DETECTION MICROPHONE.
MD	360° MOTION DETECTOR MOUNTED TO CEILING.
MD	MOTION DETECTOR.
MD LR	LONG RANGE MOTION DETECTOR.
RA	INTERFACE TO REFRIGERATOR/TEMPERATURE ALARM. PROVIDED AND INSTALLED BY OTHERS.
ST	STROBE LIGHT SURFACE MOUNTED TO CEILING.
ST	STROBE LIGHT.
V	VIBRATION DETECTOR.

MISCELLANEOUS SECURITY SYMBOLS

B	ALERTUS BEACON MOUNTED AT 60" A.F.F. UNLESS OTHERWISE NOTED
EP	EMERGENCY PHONE.
LS	FLOOR MOUNTED LIQUID SENSOR. PROVIDE ARMORED CABLE FROM SENSOR TO JUNCTION BOX.
S	INTERCOM SPEAKER FLUSH MOUNTED IN CEILING.
	ALERTUS LED MARQUEE (SINGLE SIDED)
	ALERTUS LED MARQUEE (DOUBLE SIDED)

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
B	BURIED
CAT 3/5	CATEGORY 3/5
CATV	COMMUNITY ANTENNA TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CLT	CLOSET
CO	CENTRAL OFFICE
DEMARC	DEMARCATION POINT
DPDT	DOUBLE PULL DOUBLE THROW
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
GIP	GALVANIZED IRON PIPE
HE	PA/INTERCOM HEAD-END
IRC	INTERMEDIATE RIGID CONDUIT
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MH	MANHOLE
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PBX	PRIVATE BRANCH EXCHANGE
PVC	POLYVINYL CHLORIDE
SM	SINGLE MODE
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
UTP	UNSHIELDED TWISTED PAIR

NOTES

1. CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF SECURITY DRAWINGS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. SECURITY DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECTDESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECTDESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.
5. ANY REFERENCE TO OR INDICATION OF DOOR HARDWARE IS SHOWN FOR REFERENCE ONLY. COORDINATE WITH THE DIVISION 8 ENGINEER/CONSULTANT FOR DOOR HARDWARE CLARIFICATION OR INFORMATION (BY DIV. 8).

INDEX OF DRAWINGS

TS000-H	SECURITY SYMBOLS & LEGEND
TS201-H	SECURITY LEVEL 01 FLOOR PLAN CONCESSION
TS400-H	SECURITY TYPICAL DETAILS
TS500-H	SECURITY SCHEDULES

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

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INSPIRE•EQUIP•IMAGINE
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TS000-H
SECURITY SYMBOLS & LEGEND

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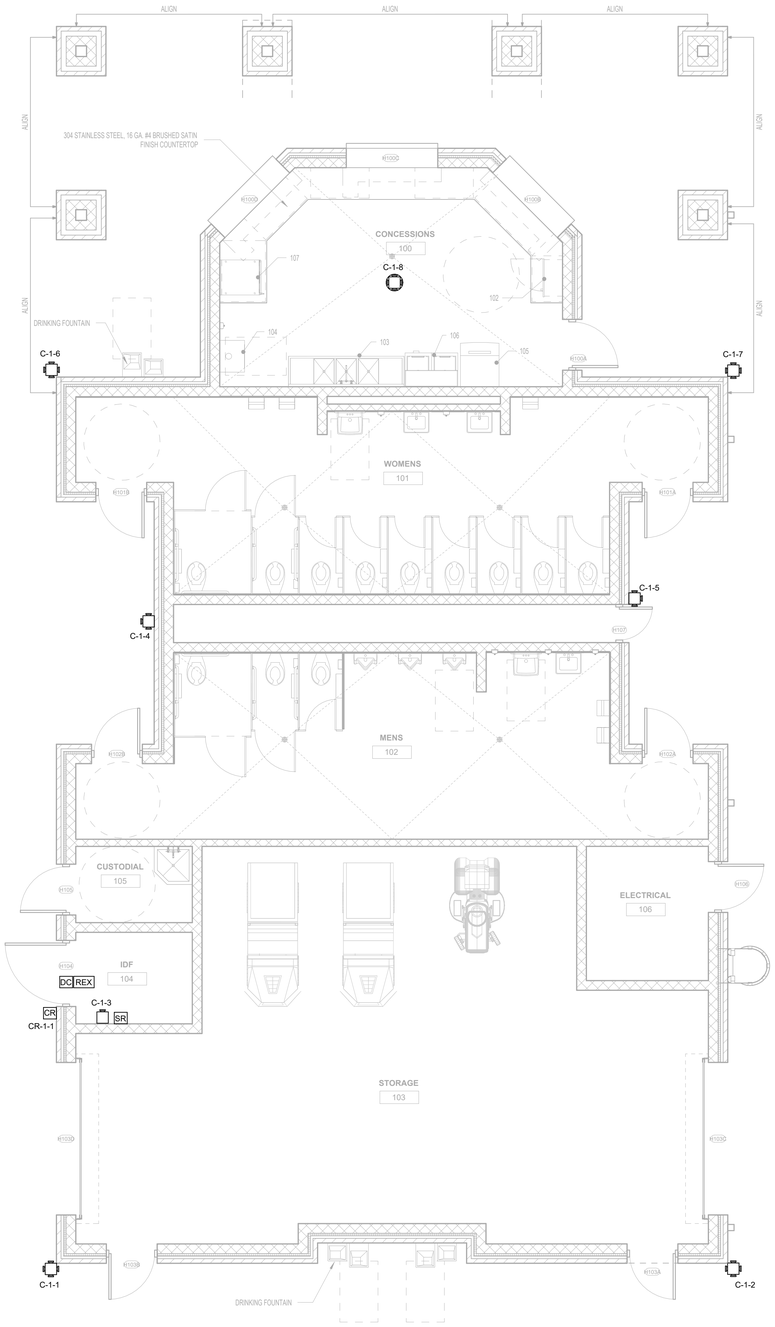

1 TS201-H SECURITY LEVEL 01 FLOOR PLAN CONCESSION
1/4" = 1'-0"

GENERAL NOTES:

1. ALL SECURITY INSTALLATIONS SHALL COMPLY WITH LOCAL CODES AND PERMITTING REQUIREMENTS FOR LOW-VOLTAGE, CCTV, AND ACCESS CONTROL SYSTEMS. CONTRACTOR SHALL VERIFY AND OBTAIN ALL REQUIRED PERMITS PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL PROVIDE AND INSTALL ALL REQUIRED BOXES, CONDUIT, CABLING, SUPPORTS, TERMINATIONS, AND ACCESSORIES FOR A COMPLETE AND CODE-COMPLIANT SECURITY SYSTEM, WHETHER OR NOT EACH ITEM IS SPECIFICALLY SHOWN.
3. ALL CONDUIT PATHWAYS, ROUGH-INS, SLEEVES, AND ASSOCIATED INFRASTRUCTURE SHOWN ON SECURITY DRAWINGS SHALL BE INSTALLED BY DIVISION 26 (ELECTRICAL).
4. ALL POWER TO SECURITY DEVICES, PANELS, AND EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY DIVISION 26 (ELECTRICAL) UNLESS OTHERWISE NOTED.
5. SECURITY DATA NETWORK CABLING, FIBER CONNECTIVITY, AND ASSOCIATED EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY DIVISION 27 (COMMUNICATIONS). REFER TO T-SERIES DRAWINGS FOR ROUTING AND REQUIREMENTS.
6. ELECTRIFIED DOOR HARDWARE INDICATED ON SECURITY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 8. REFER TO DOOR HARDWARE SCHEDULES FOR MODEL TYPES, POWER TRANSFER DEVICES, AND CONTROL INTERFACE REQUIREMENTS.
7. VEHICLE GATE EQUIPMENT AND OPERATORS SHALL BE PROVIDED AND INSTALLED BY DIVISION 11. COORDINATE ALL SECURITY-RELATED RELAY CABLING AND TERMINATIONS IN THE FIELD.
8. ELEVATOR SECURITY INTERFACES, INCLUDING CARD READER FLOOR ACCESS, HALL CALL CONTROL, AND CAMERAS, SHALL BE COORDINATED WITH THE ELEVATOR VENDOR. TRAVEL CABLES AND ASSOCIATED TERMINATIONS SHALL BE PROVIDED AND INSTALLED BY THE ELEVATOR CONTRACTOR. REFER TO ELEVATOR SHOP DRAWINGS AND SPECIFICATIONS FOR INTERFACE REQUIREMENTS.
9. WHERE SYSTEMS INTERFACE WITH EMERGENCY SERVICES (E.G., GATES, EGRESS HARDWARE, OR INTERCOMS), COORDINATION WITH THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) IS REQUIRED PRIOR TO COMMISSIONING.
10. WHERE INTEGRATION WITH BUILDING SYSTEMS IS REQUIRED (E.G., BMS, ELEVATOR RECALL, INTERCOM, OR FIRE ALARM), COORDINATION SHALL BE PERFORMED WITH THE RESPECTIVE SYSTEM VENDORS PRIOR TO ROUGH-IN.
11. SECURITY EQUIPMENT SHALL BE POWERED FROM DEDICATED CIRCUITS UNLESS OTHERWISE NOTED. COORDINATE PANEL LOCATIONS, BREAKER REQUIREMENTS, AND UPS BACKUP (IF REQUIRED) WITH DIVISION 26.
12. ALL SECURITY SYSTEM COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER MANUFACTURER REQUIREMENTS AND APPLICABLE ELECTRICAL CODES.
13. CONTRACTOR SHALL COORDINATE ALL CONDUIT ROUTES WITH ARCHITECTURAL, CIVIL, ELECTRICAL, AND LANDSCAPE DRAWINGS PRIOR TO INSTALLATION OR TRENCHING.
14. ALL PENETRATIONS THROUGH FIRE-RATED WALLS OR STRUCTURES FOR SECURITY CABLING SHALL BE SEALED TO RESTORE ORIGINAL FIRE-RESISTANCE RATINGS.
15. PENETRATIONS THROUGH NON-RATED WALLS SHALL BE SEALED TO REDUCE ACOUSTIC TRANSMISSION BETWEEN SPACES.
16. ALL WALL AND FLOOR PENETRATIONS SHALL BE SEALED TO PREVENT WATER INTRUSION INTO INTERIOR OR CONDITIONED SPACES.
17. CONTRACTOR SHALL RESTORE ALL SURFACES (E.G., WALLS, PAVEMENT, LANDSCAPING) AFFECTED BY SECURITY INSTALLATION TO ORIGINAL OR BETTER CONDITION.
18. ALL SECURITY DEVICE LOCATIONS SHOWN ARE DIAGRAMMATIC AND NOT TO SCALE. FINAL PLACEMENT SHALL BE COORDINATED WITH THE ARCHITECT OR SECURITY DESIGN CONSULTANT PRIOR TO ROUGH-IN.
19. COORDINATE ALL EXTERIOR CAMERA LOCATIONS WITH LANDSCAPING AND ADJACENT BUILDING ELEMENTS. ENSURE CLEAR FIELDS OF VIEW FREE FROM OBSTRUCTIONS SUCH AS TREES, DOWNSPOUTS, OR SIGNAGE.
20. DEVICE MOUNTING HEIGHTS, INCLUDING ACCESS CONTROL AND INTERCOMS, SHALL COMPLY WITH ADA ACCESSIBILITY STANDARDS AND APPLICABLE LOCAL AND STATE CODES.
21. VERIFY EXACT MOUNTING CONDITIONS IN THE FIELD AND COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS WITH STRUCTURE, FINISHES, OR UTILITIES.
22. ALL INSTALLED SYSTEMS AND COMPONENTS SHALL BE TESTED FOR FULL FUNCTIONALITY, INTEGRATION, AND COMPLIANCE WITH SPECIFICATIONS PRIOR TO FINAL TURNOVER.
23. CONTRACTOR SHALL COORDINATE FINAL TERMINATIONS, PROGRAMMING, AND SYSTEM COMMISSIONING WITH THE SECURITY VENDOR OR INTEGRATOR. SYSTEM FUNCTIONALITY SHALL BE DEMONSTRATED AND ACCEPTED BY THE OWNER PER WRITTEN SPECIFICATIONS.
24. CONTRACTOR SHALL REFER TO T-SERIES TECHNOLOGY OR STRUCTURED CABLING DRAWINGS FOR DEVICE DATA NETWORK CABLING, RISER INFORMATION, AND ADDITIONAL SYSTEM-SPECIFIC REQUIREMENTS.
25. CONTRACTOR SHALL SUBMIT PRODUCT DATA SHEETS, SHOP DRAWINGS, AND DEVICE CUT SHEETS FOR ALL SECURITY EQUIPMENT FOR REVIEW AND APPROVAL PRIOR TO ORDERING.
26. UPON COMPLETION, PROVIDE RECORD DRAWINGS (AS-BUILTS), INCLUDING CONDUIT ROUTING, DEVICE LOCATIONS, CABLE IDS, AND PANEL TERMINATIONS. LABEL ALL DEVICES IN THE FIELD TO MATCH RECORD DOCUMENTS.
27. CONTRACTOR SHALL NOTIFY THE SECURITY CONSULTANT AND/OR ARCHITECT OF ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS PRIOR TO INSTALLATION. UNAUTHORIZED SUBSTITUTIONS OR RELOCATIONS MAY BE SUBJECT TO REMOVAL AND CORRECTION AT THE CONTRACTOR'S EXPENSE.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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pflugerarchitects.com

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3333 Hurricane Ln, Missouri City, TX 77459

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PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
No. Date Description

100% CD

TS201-H
SECURITY LEVEL 01
FLOOR PLAN
CONCESSION

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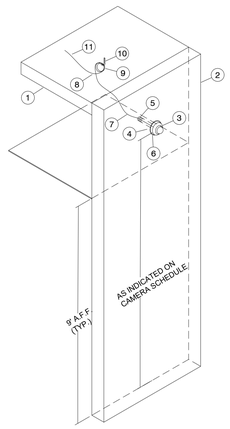


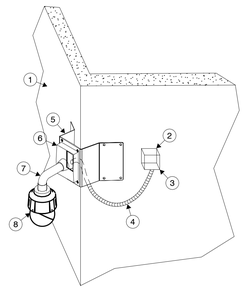
KEYED NOTES:

1. CEILING DECK AS SCHEDULED.
2. EXTERIOR WALL AS SCHEDULED.
3. EXTERIOR WALL MOUNTED IP VIDEO SURVEILLANCE DOME CAMERA (REFERENCE SPECIFICATION)
4. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
5. 3/4-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING (BY DIV 26).
6. WEATHERTIGHT GASKET FOR WEATHERPROOF BACKBOX (BY DIV 26).
7. PATCH CORD AS SPECIFIED.
8. SURFACE MOUNT BOX ABOVE ACCESSIBLE CEILING (BY DIV 27).
9. 20 FOOT SERVICE LOOP ABOVE ACCESSIBLE CEILING NEATLY COILED AND SECURED TO J-HOOK (BY DIV 27).
10. J-HOOK ABOVE ACCESSIBLE CEILING (BY DIV 27).
11. DATA CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).

TYPICAL EXTERIOR WALL MOUNTED SURVEILLANCE CAMERA

1 / TS400-H

SCALE: N.T.S.



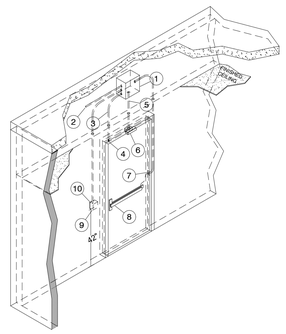
KEYED NOTES:

1. SCHEDULED EXTERIOR WALL.
2. 4 11/16" X 4 11/16" X 2 1/8" DOUBLE GANG WATER PROOF BACKBOX INSTALLED FLUSH WITH THE BUILDING CONTRACTOR SHALL INSTALL BACKBOX NO FURTHER THAN 18-INCHES FROM THE CORNER OF THE BUILDING (BY DIV. 26).
3. ADJUSTABLE SEAL TIGHT BACKBOX WATER PROOF COVER PLATE (BY DIV. 26).
4. 3/4-INCH SEAL TIGHT FROM 4 11/16" X 4 11/16" X 2 1/8" DOUBLE GANG WATER PROOF BACKBOX COVER PLATE TO WALL MOUNTED CORNER BRACKET (BY DIV. 26).
5. CORNER MOUNT BRACKET.
6. WALL MOUNT BRACKET.
7. PENDANT KIT.
8. SURVEILLANCE CAMERA.

TYPICAL EXTERIOR CORNER MOUNTED SURVEILLANCE CAMERA

2 / TS400-H

SCALE: N.T.S.



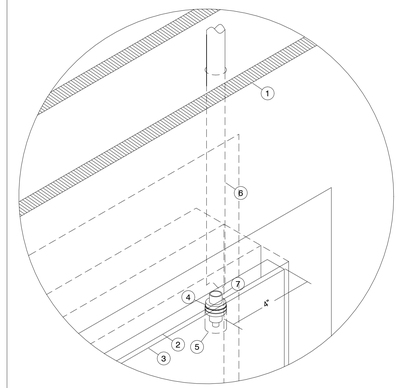
KEYED NOTES:

1. (1) 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX MOUNTED ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR (BY DIV. 26).
2. (1) 1-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX TO ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR FOR ACCESS CONTROL CABLE (BY DIV. 26).
3. (1) 1/2-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX TO HEAD OF DOOR FRAME FOR CONCEALED DOOR POSITION SWITCH. STUB CONDUIT INTO HEAD OF DOOR FRAME 6-INCHES FROM THE STRIKE SIDE OF THE DOOR. PROVIDE A 3-INCH BLOCKOUT FOR GROUTED DOORS (BY DIV. 26).
4. CONCEALED DOOR POSITION SWITCH (BY DIV. 28).
5. (1) 1/2-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 12-INCH DEEP JUNCTION BOX TO A RECESSED SINGLE GANG BOX WITH A SINGLE GANG PLASTER RING INSTALLED HORIZONTALLY 6-INCHES ABOVE HEAD OF DOOR FRAME ON CENTERLINE OF DOOR AND ON SECURE SIDE OF DOOR FOR REQUEST TO EXIT MOTION SENSOR (BY DIV. 26).
6. (1) REQUEST TO EXIT MOTION SENSOR ON SECURE SIDE OF DOOR (BY DIV. 28).
7. (1) 3/4-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX DOWN DOOR FRAME FOR POWER TRANSFER HINGE (BY DIV. 26).
8. (1) ELECTRIFIED EXIT DEVICE ON SECURE SIDE OF DOOR (BY DIV. 8).
9. (1) 3/4-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX TO A RECESSED DOUBLE GANG BOX WITH A SINGLE GANG PLASTER RING FOR CARD READER ON UNSECURE SIDE OF DOOR (BY DIV. 26).
10. (1) CARD READER ON UNSECURE SIDE OF DOOR (BY DIV. 28).

WALL MOUNTED CARD READER WITH ELECTRIFIED EXIT DEVICE AND FRAME MOUNTED REQUEST TO EXIT MOTION SENSOR

3 / TS400-H

SCALE: N.T.S.



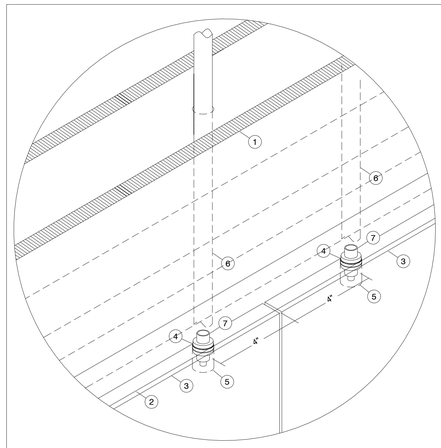
KEYED NOTES:

1. SCHEDULED PARTITION.
2. HEAD OF DOOR FRAME. PROVIDE TAB AT DOOR FRAME TO SECURE CONDUIT DIRECTLY ABOVE DOOR POSITION SWITCH.
3. SCHEDULED DOOR.
4. 15/16" DIAMETER HOLE IN THE HEAD OF FRAME FOR CONCEALED DOOR CONTACT.
5. 15/16" DIAMETER X 1 5/8" DEEP HOLE IN TOP OF DOOR FOR CONCEALED DOOR CONTACT MAGNET.
6. 1/2" CONDUIT FROM 6" X 6" X 4" JUNCTION BOX ABOVE DOOR (BY DIV 26).
7. DOOR CONTACT (REFERENCE SPECIFICATION).

DOOR CONTACT - SINGLE DOOR RECESSED

4 / TS400-H

SCALE: SCALE



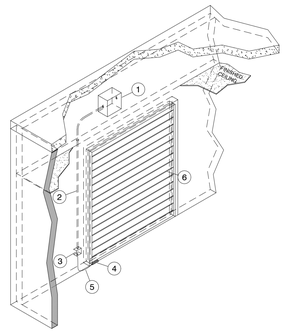
KEYED NOTES:

1. SCHEDULED PARTITION.
2. HEAD OF DOOR FRAME. PROVIDE TAB AT DOOR FRAME TO SECURE CONDUIT DIRECTLY ABOVE DOOR POSITION SWITCH.
3. SCHEDULED DOOR.
4. 15/16" DIAMETER HOLE IN THE HEAD OF FRAME FOR CONCEALED DOOR CONTACT.
5. 15/16" DIAMETER X 1 5/8" DEEP HOLE IN TOP OF DOOR FOR CONCEALED DOOR CONTACT MAGNET.
6. 1/2" CONDUIT FROM 6" X 6" X 4" JUNCTION BOX ABOVE DOOR (BY DIV 26).
7. DOOR CONTACT (REFERENCE SPECIFICATION).

DOOR CONTACT - DOUBLE DOOR RECESSED

5 / TS400-H

SCALE: SCALE



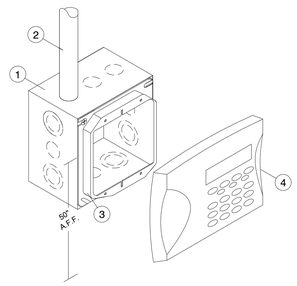
KEYED NOTES:

1. (1) 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX MOUNTED ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR (BY DIV. 26).
2. (1) 1-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX MOUNTED ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR FOR OVERHEAD DOOR CONTACT CABLE (BY DIV. 26).
3. (1) 4-INCH WIDE X 4-INCH HIGH X 2 1/8" DEEP JUNCTION BOX SURFACE MOUNTED AT 1'-0" A.F.F. ON SECURE SIDE OF DOOR (BY DIV. 26).
4. OVERHEAD DOOR POSITION SWITCH SUFACE MOUNTED AND FASTENED TO FLOOR (BY DIV. 28).
5. ARMORED CABLE (BY DIV. 28).
6. OVERHEAD ROLL UP DOOR AS SCHEDULED.

DOOR CONTACT OVERHEAD DOOR (FLOOR MOUNT)

6 / TS400-H

SCALE: N.T.S.



KEYED NOTES:

1. 4 1/16-INCH x 4 1/16-INCH x 2 1/8-INCH DOUBLE GANG BOX (BY DIV 26). RECESS WHEN POSSIBLE.
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED TO CABLE TRAY (BY DIV 26).
3. DOUBLE GANG PLASTER RING (BY DIV 26).
4. SCHEDULED ARM/DISARM KEYPAD (REFERENCE SPECIFICATION).

TYPICAL ARM/DISARM KEYPAD DETAIL

7 / TS400-H

SCALE: N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

3333 Hurricane Ln, Missouri City, TX 77459

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL P. BOWIE
20113
STATE OF TEXAS

12-05-2025

PROJECT NO.	25-006
DATE:	12-05-2025
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TS400-H
SECURITY TYPICAL DETAILS

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FBISD - FIELD HOUSE AND ATHLETICS - HIGHTOWER HS
VIDEO SURVEILLANCE SYSTEM DEVICE SCHEDULE

DEVICE NUMBER	DEVICE TYPE	DEVICE RATING (INTERIOR / EXTERIOR)	DEVICE MOUNTING	DEVICE HEIGHT (TO CENTER)	NOTES
C-1-1	360° MULTI-DIRECTIONAL LENS	EXTERIOR	CORNER	12-FEET A.F.F.	
C-1-2	360° MULTI-DIRECTIONAL LENS	EXTERIOR	CORNER	12-FEET A.F.F.	
C-1-3	SINGLE LENS DOME	INTERIOR	WALL	9-FEET A.F.F.	
C-1-4	180° PANORAMIC	EXTERIOR	WALL	9-FEET A.F.F.	
C-1-5	180° PANORAMIC	EXTERIOR	WALL	9-FEET A.F.F.	
C-1-6	360° MULTI-DIRECTIONAL LENS	EXTERIOR	CORNER	12-FEET A.F.F.	
C-1-7	360° MULTI-DIRECTIONAL LENS	EXTERIOR	CORNER	12-FEET A.F.F.	
C-1-8	360° MULTI-DIRECTIONAL LENS	INTERIOR	CEILING	SEE TYPICAL DETAIL	

FBISD - FIELD HOUSE AND ATHLETICS - HIGHTOWER HS
ACCESS CONTROL SYSTEM DEVICE SCHEDULE

DEVICE NUMBER	DEVICE TYPE	DEVICE MOUNTING	ASSOCIATED DOOR NUMBER	ASSOCIATED DOOR TYPE	DEVICE HEIGHT (TO CENTER)	TERMINATION POINT	NOTES
CR-1-1	CARD READER	WALL	H104	SINGLE	48-INCHES A.F.F.	COORDINATE WITH OWNER	

pfluger
office - 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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3333 Hurricane Ln, Missouri City, TX 77459

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INSPIRE • EQUIP • IMAGINE
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Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL A. JAMES
20113
STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
No.	Date	Description

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TS500-H
SECURITY SCHEDULES

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FORT BEND ISD
BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

KEMPNER HIGH SCHOOL

100% CONSTRUCTION DOCUMENTS

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- G0.02-K TAS 2 OF 2
- G0.03-K 01 CODE PLAN - CONCESSION

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- C0.03-K CIVIL SPORTS SURVEY (REF ONLY)
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- TS500-K SECURITY SCHEDULES

SCOPE OF WORK

SID12506 - RENOVATE LOCKER ROOMS (FIELD HOUSE)
- NEW LOCKERS AND BENCHES
- EPOXY FLOORING
- CASEWORK
- NEW SHOWERS AND TOILET STALLS
- SINK AND HAND DRYER
- NEW PAINT
- NEW CEILINGS

SID12517 - RENOVATE TRACK AND FIELD EVENTS
- RESURFACE TRACK

SID12520 - PROVIDE 2,000 SF CONCESSIONS/RESTROOM/STORAGE FOR FOOTBALL.
- CONCESSION
- RESTROOM
- STORAGE
- CUSTODIAL
- ELECTRICAL
- IDF
- RELOCATE SHOTPUT

SID12522 - PROVIDE NEW PRESS BOX FOR SOFTBALL

SID12525 - <u>ALTERNATE NO.5:</u> RESURFACE TENNIS COURTS AND PROVIDE IMPROVEMENTS
- RESURFACE TENNIS COURT
- NEW TENNIS COURT FENCE
- WINDSCREEN
- FENCE GATE

SID12538 - REPLACE WASHERS AND DRYERS.

SECTION 2 - DEHUMIDIFIER IN UNIFORM STORAGE IN FIELD HOUSE

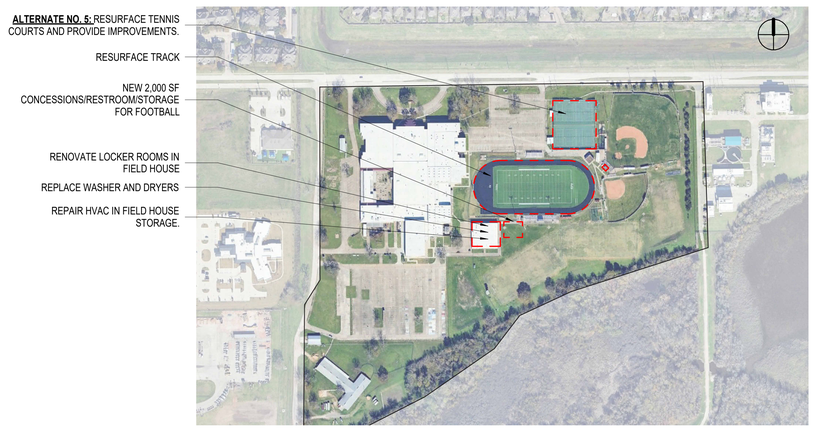
BOARD OF TRUSTEES

DR. MARC SMITH	SUPERINTENDENT
KRISTEN K. TASSIN	PRESIDENT
ANGIE HANAN	VICE PRESIDENT
DR. SHIRLEY ROSE-GILLIAM	SECRETARY
ADAM SCHOOF	POSITION 2
AFSHI CHARANIA	POSITION 3
ADDIE HAYLIGER	POSITION 5
ANGIE WIERZBICKI	POSITION 7

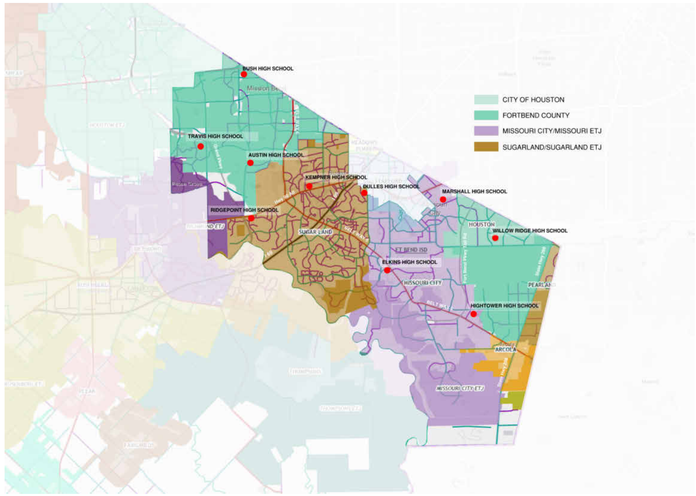
RENDERING



KEMPNER HIGH SCHOOL CAMPUS KEY PLAN



LOCATION MAP



ALTERNATES:

<u>ALTERNATE NO.5:</u> RESURFACE TENNIS COURTS AND PROVIDE IMPROVEMENTS.

CIVIL

TEXAS SPORTS AND CIVIL ENGINEERING
11767 Katy Freeway, Suite 1112
Houston, TX 77079
P: 346-204-4854
https://texassportsandcivilengineering.com

MEPT

SALAS O'BRIEN
10930 W. San Houston Pkwy N. Suite 900
HOUSTON, TX 77064
P: (866) 768 4625
https://salasobrien.com

STRUCTURAL

MATRIX STRUCTURAL
5177 Richmond Ave Ste 670
HOUSTON, TX 77056
P: (713) 664-0130
matrixstructural.com

PFLUGER ARCHITECTS

PFLUGER ARCHITECTS
2 GREENWAY PLAZA #460
HOUSTON, TX 77046
P:(713) 222-1141
www.pflugerarchitects.com

pfluger
office: 713.222.1141 | fax: 713.222.1177
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAM PFLUGER
20113
STATE OF TEXAS
DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: MS CHECKED BY: PA
REVISIONS:

	Date	Description

100% CD

G0.00-K
COVER

KEMPNER HIGH SCHOOL

12/4/2025 5:41:59 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_KEMPNER_FBISD ATHLETIC RENOVATIONS BP012-K_R25.rvt

THE FOLLOWING SECTION OF DETAILS PROVIDES INFORMATION ON REQUIREMENTS FOR DISABLED ACCESSIBILITY. THE REQUIREMENTS COMBINE MINIMUM REQUIREMENTS OF STATE AND FEDERAL AGENCIES. THE PURPOSE OF THIS SECTION IS TO HELP AVOID INSTALLATION OF MATERIALS ON CONSTRUCTION PROJECTS THAT WOULD LIMIT ACCESSIBILITY. THE SCOPE OF THIS SECTION IS LIMITED AND THE INDIVIDUALS WORKING ON THE PROJECT SHOULD FAMILIARIZE THEMSELVES WITH TEXAS ACCESSIBILITY STANDARD (TAS) AND AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COPIES OF THESE DOCUMENTS MAY BE OBTAINED BY CONTACTING THE FOLLOWING:

TAS:
TEXAS DEPT. OF LICENSING & REGULATION
P.O. BOX 12157
AUSTIN, TEXAS 78711
(800) 803-9202
TDD (800) 735-2989
WWW.LICENSE.STATE.TX.US

ADAAG:
SOUTHWEST DISABILITY AND BUSINESS
TECHNICAL ASSISTANCE CENTER FOR
REGION VI.
2323 S. SHEPERD, SUITE 1000
HOUSTON, TEXAS 77019
ADA HOTLINE: (800) 949-4232
TDD: (713) 520-5136 -OR- (713) 520-0232
FAX: (713) 520-5785

IN THE EVENT THE INFORMATION ON THE PLAN SHEETS DOES NOT MEET THE MINIMUM REQUIREMENTS OF THE SECTION, THEN THE INFORMATION SHALL BE PRESENTED TO THE ARCHITECT FOR CLARIFICATION PRIOR TO CONSTRUCTION OF SPECIFIC AREA OF WORK.

ELIMINATION OF ARCHITECTURAL BARRIERS
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (ADA)

IN ACCORDANCE WITH ACCESSIBILITY REQUIREMENTS, THE FOLLOWING STANDARDS SHALL BE INCLUDED WHEN BIDDING ON PROJECTS INVOLVING RENOVATION OF OR NEW FACILITIES FOR PUBLIC ACCOMMODATION OR COMMERCIAL FACILITIES. ANY ITEMS NOT CONFORMING TO THESE OR ANY OTHER STANDARDS, CODES, OR ORDINANCES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT FOR HIS INTERPRETATION. IN THE EVENT THE INFORMATION LISTED IN THIS DOCUMENT CONFLICTS WITH ANY PORTION OF THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT, IN WRITING, OF HIS NEED FOR A SOLUTION TO RESOLVE THE CONFLICT. THE MOUNTING HEIGHTS INDICATED ARE FOR ITEMS THAT REQUIRE ACCESSIBILITY BY DISABLED INDIVIDUALS. WHERE TWO OR MORE ITEMS ARE GROUPED IN ONE AREA (MIRRORS, SINKS, TOILETS, DRINKING FOUNTAINS, URINALS, SHELVES, TELEPHONES, ETC.) NOT ALL ITEMS IN THE AREA HAVE TO BE MOUNTED AT HANDICAP HEIGHT. CONTRACTOR TO COORDINATE THESE INSTALLATION HEIGHTS WITH OTHER MATERIALS FOR NEAT, TRIMMED OUT AND FINISHED APPEARANCE. ITEMS FOR DISABLED INDIVIDUAL USE SHALL BE MOUNTED AT HEIGHT INDICATED FOR AGE LEVEL AS NOTED.

CHAPTER 1: APPLICATION AND ADMINISTRATION

TAS SECTION 104 - CONVENTIONS
A. ALL DIMENSIONS ARE SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES EXCEPT WHERE THE REQUIREMENT IS STATED AS A RANGE WITH SPECIFIC MINIMUM AND MAXIMUM POINTS.
B. UNLESS SPECIFICALLY STATED OTHERWISE, FIGURES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

CHAPTER 2: SCOPING REQUIREMENTS

TAS SECTION 201.1 - SCOPE
A. ALL AREAS OF NEWLY DESIGNED AND NEWLY CONSTRUCTED BUILDINGS AND FACILITIES AN ALTERED PORTIONS OF EXISTING BUILDINGS AND FACILITIES SHALL COMPLY WITH THESE REQUIREMENTS.
TAS SECTION 202 - EXISTING BUILDINGS AND FACILITIES
A. EACH ADDITION TO AN EXISTING BUILDING OR FACILITY SHALL COMPLY WITH THE REQUIREMENTS FOR NEW CONSTRUCTION. EACH ADDITION THAT AFFECTS OR COULD EFFECT THE USABILITY OF OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL COMPLY WITH 202.4.
B. WHERE EXISTING ELEMENTS, SPACES, OR COMMON USE AREAS ARE ALTERED, EACH ALTERED ELEMENT, SPACE, OR COMMON USE AREA SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 2.
C. AN ALTERATION THAT DECREASES THE ACCESSIBILITY OF A BUILDING OR FACILITY BELOW THE REQUIREMENTS FOR NEW CONSTRUCTION AT THE TIME OF THE ALTERATION IS PROHIBITED.
D. AN ALTERATION OF AN EXISTING ELEMENT, SPACE, OR AREA OF A BUILDING OR FACILITY SHALL NOT IMPOSE A REQUIREMENT FOR ACCESSIBILITY GREATER THAN REQUIRED FOR NEW CONSTRUCTION.
E. ALTERATIONS THAT AFFECT THE USABILITY OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL BE MADE SO AS TO ENSURE USAGE BY INDIVIDUALS WITH DISABILITIES.
TAS SECTION 204 - PROTRUDING OBJECTS
A. WITHIN AREAS OF ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOM AND SPACES SHALL COMPLY WITH 309.
B. WITHIN AREAS OF SPORTS ACTIVITY, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307.
C. WITHIN PLAY AREAS, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307 PROVIDED THAT GROUND LEVEL ACCESSIBLE ROUTES PROVIDE VERTICAL CLEARANCE IN COMPLIANCE WITH 1008.2.
TAS SECTION 205 - OPERABLE PARTS
A. OPERABLE PARTS ON ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOMS AND SPACES SHALL COMPLY WITH 309.
B. OPERABLE PARTS INTENDED FOR USE ONLY BY SERVICE OR MAINTENANCE PERSONNEL SHALL NOT BE REQUIRED TO COMPLY WITH 309.
C. ELECTRICAL OR COMMUNICATION RECEPTACLES SERVING A DEDICATED USE SHALL NOT BE REQUIRED TO COMPLY WITH 309.
TAS SECTION 206 - ACCESSIBLE ROUTES
A. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
B. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE
C. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH STORY AND MEZZANINE IN MULTI-STORY BUILDINGS AND FACILITIES.
D. IN RESTAURANTS AND CAFETERIAS, AN ACCESSIBLE ROUTE SHALL BE PROVIDED TO ALL DINING AREAS, INCLUDING RAISED OR SUNKEN DINING AREAS, AND OUTDOOR DINING AREAS.
E. WHERE A CIRCULATION PATH DIRECTLY CONNECTS A PERFORMANCE AREA TO AN ASSEMBLY AREA, AN ACCESSIBLE ROUTE SHALL DIRECTLY CONNECT THE ASSEMBLY SEATING AREA WITH THE PERFORMANCE AREA. AN ACCESSIBLE ROUTE SHALL BE PROVIDED FROM PERFORMANCE AREAS TO ANCILLARY AREAS OR FACILITIES USED BY PERFORMERS.
TAS SECTION 207 - ACCESSIBLE MEANS OF EGRESS
A. MEANS OF EGRESS SHALL COMPLY WITH SECTION 1003.2.13 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION.)
B. STANDBY POWER SHALL BE PROVIDED FOR PLATFORM LIFTS PERMITTED BY SECTION 1003.2.13.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007.5 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO SERVE AS A PART OF AN ACCESSIBLE MEANS OF EGRESS.
TAS SECTION 208 - PARKING SPACES
A. PARKING SPACES SHALL COMPLY WITH 502 AND SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 208.2 EXCEPT REQUIRED BY 208.2.1, 208.2.2, AND 208.2.3. WHERE MORE THAN ONE PARKING FACILITY IS PROVIDED ON A SITE, THE NUMBER OF ACCESSIBLE SPACES PROVIDED ON THE SITE SHALL BE CALCULATED ACCORDING TO THE NUMBER OF SPACES REQUIRED FOR EACH PARKING FACILITY.

TABLE 208.2 PARKING SPACES

TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES	TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES
1 TO 25	1	201 TO 300	7
26 TO 50	2	301 TO 400	8
51 TO 75	3	401 TO 500	9
76 TO 100	4	501 TO 1000	2 PERCENT OF TOTAL
101 TO 150	5	1000 AND OVER	20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000
151 TO 200	6		

TAS SECTION 208.2.4 - VAN PARKING SPACES
A. FOR EVERY SIX OR FRACTION OF SIX PARKING SPACES REQUIRED BY 208.2 TO COMPLY WITH 502, AT LEAST ONE SHALL BE A VAN PARKING SPACE COMPLYING WITH 502.
TAS SECTION 208.3 - LOCATION
A. PARKING SPACES COMPLYING WITH 502 THAT SERVE A PARTICULAR BUILDING OR FACILITY SHALL BE LOCATED ON THE SHORTEST POSSIBLE ACCESSIBLE ROUTE FROM PARKING LOT TO AN ENTRANCE. WHERE PARKING SERVES MORE THAN ONE ACCESSIBLE ENTRANCE, PARKING SPACES COMPLYING WITH 502 SHALL BE DISPERSED AND LOCATED AT THE SHORTEST ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCES.
TAS SECTION 209 - PASSENGER LOADING ZONES AND BUS STOPS
A. PASSENGER LOADING ZONES, EXCEPT THOSE REQUIRED TO COMPLY WITH 209.2.2 AND 209.2.3, SHALL PROVIDE AT LEAST ONE PASSENGER LOADING ZONE COMPLYING WITH 503 IN EVERY CONTINUOUS 100 LINEAR FEET (30M) OF LOADING ZONE SPACE, OR FRACTION THEREOF.
B. IN BUS LOADING ZONES RESTRICTED TO USE BY DESIGNATED OR SPECIFIED PUBLIC TRANSPORTATION VEHICLES, EACH BUS BAY, BUS STOP, OR OTHER AREA DESIGNATED FOR LIFT OR RAMP DEPLOYMENT SHALL COMPLY WITH 810.2
TAS SECTION 210 - STAIRWAYS
A. INTERIOR AND EXTERIOR STAIRS THAT ARE PART OF A MEANS OF EGRESS SHALL COMPLY WITH 504. ALTHOUGH HANDRAILS ON STAIRS THAT ARE NOT PART OF A MEANS OF EGRESS, STATE OR LOCAL BUILDING CODES MAY REQUIRE HANDRAILS OR GUARDS.
TAS SECTION 211 - DRINKING FOUNTAINS
A. NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED.
B. MORE THAN THE MINIMUM NUMBER OF DRINKING FOUNTAINS SPECIFIED IN 211.2 ARE PROVIDED, 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.1 THROUGH 602.6, AND 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.7
TAS SECTION 212 - KITCHENS, KITCHENETTES, AND SINKS
A. KITCHENS AND KITCHENETTES SHALL COMPLY WITH 804.
B. WHERE SINKS ARE PROVIDED, AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE, OF EACH TYPE PROVIDED IN EACH ACCESSIBLE ROOM OR SPACE SHALL COMPLY WITH 606.
TAS SECTION 213 - TOILET FACILITIES AND BATHING FACILITIES
A. WHERE TOILET FACILITIES AND BATHING FACILITIES ARE PROVIDED, THEY SHALL COMPLY WITH 213. TOILET FACILITIES AND BATHING FACILITIES SHALL BE PROVIDED ON A STORY CONNECTED BY AN ACCESSIBLE ROUTE TO AN ACCESSIBLE ENTRANCE.
B. TOILET RESTROOMS AND BATHING ROOMS SHALL COMPLY WITH 603.
C. WHERE MULTIPLE SINGLE USER TOILET ROOMS ARE CLUSTERED AT A SINGLE LOCATION, NO MORE THAN 50% OF THE SINGLE USER TOILET ROOMS FOR EACH USE AT EACH CLUSTER SHALL BE REQUIRED TO COMPLY WITH 603.
D. UNISEX TOILET ROOMS AND UNISEX BATHING ROOMS SHALL CONTAIN NOT MORE THAN ONE LAVATORY, AND TWO WATER CLOSETS WITHOUT URINALS OR ONE WATER CLOSET AND ONE URINAL. UNISEX BATHING ROOMS CONTAIN ONE SHOWER OR ONE SHOWER AND ONE BATHTUB, ONE LAVATORY, AND ONE WATER CLOSET. DOORS TO UNISEX RESTROOMS AND BATHING ROOMS SHALL HAVE PRIVACY LATCHES.
TAS SECTION 214 - WASHING MACHINES AND CLOTHES DRYERS
A. WHERE 3 OR FEWER WASHING MACHINES ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 WASHING MACHINES ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
B. WHERE 3 OR FEWER CLOTHES DRYERS ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 CLOTHES DRYERS ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
TAS SECTION 215 - FIRE ALARM SYSTEMS
A. ALARMS IN PUBLIC USE AREAS AND COMMON USE AREAS SHALL COMPLY WITH 702.
B. WHERE EMPLOYEE WORK AREAS HAVE AUDIBLE ALARM COVERAGE, THE WIRING SYSTEM SHALL BE DESIGNED SO THAT THE VISIBLE ALARMS COMPLYING WITH 702 CAN BE INTEGRATED INTO THE ALARM SYSTEM.
TAS SECTION 216 - SIGNS
A. SIGNS SHALL COMPLY WITH 703. BUILDING DIRECTORIES, MENUS, SEAT AND ROW DESIGNATIONS IN ASSEMBLY AREAS, OCCUPANT NAMES, BUILDING ADDRESSES, AND COMPANY NAMES AND LOGOS SHALL NOT BE REQUIRED TO COMPLY WITH 216.
B. SIGNS REQUIRED BY SECTION 1003.2.13.5.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 1007.6.4 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE INSTRUCTIONS IN AREAS OF REFUGE SHALL COMPLY WITH 703.5.
C. DIRECTIONAL SIGNS REQUIRED BY SECTION 1003.2.13.6 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 707.7 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE DIRECTIONS TO ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 703.5.
D. WHERE NOT ALL ENTRANCES COMPLY WITH 404, ENTRANCES COMPLYING WITH 404 SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1. DIRECTIONAL SIGNS COMPLYING WITH 703.5 THAT INDICATE THE LOCATION OF THE NEAREST ENTRANCE COMPLYING WITH 404 SHALL BE PROVIDED AT ENTRANCES THAT DO NOT COMPLY WITH 404.
TAS SECTION 217 - TELEPHONES
A. WHERE PUBLIC TELEPHONE ARE PROVIDED, WHEELCHAIR ACCESSIBLE TELEPHONES COMPLYING WITH 704.2 SHALL BE PROVIDED.

CHAPTER 2: SCOPING REQUIREMENTS (CONTINUED)

TAS SECTION 219 - ASSISTIVE LISTENING SYSTEMS
A. IN EACH ASSEMBLY AREA WHERE AUDIBLE COMMUNICATION IS INTEGRAL TO THE USE OF THE SPACE, AN ASSISTIVE LISTENING SYSTEM SHALL BE PROVIDED.
B. WHERE ALL SEATS IN AN ASSEMBLY AREA ARE SERVED BY AN INTRODUCTION LOOP ASSISTIVE LEARNING SYSTEM, THE MINIMUM NUMBER OF RECEIVERS REQUIRED BY TABLE 219.3 TO BE HEARING-AID COMPATIBLE SHALL NOT BE REQUIRED TO BE PROVIDED.
TAS SECTION 220 - AUTOMATIC TELLER MACHINES AND FARE MACHINES
A. WHERE AUTOMATIC TELLER MACHINES OR SELF-SERVICE FARE VENDING, COLLECTION, OR ADJUSTMENT MACHINES ARE PROVIDED, AT LEAST ONE OF EACH TYPE PROVIDED AT EACH LOCATION SHALL COMPLY WITH 707. WHERE BINS ARE PROVIDED FOR ENVELOPES, WASTE PAPER, OR OTHER PURPOSES, AT LEAST ONE OF EACH SHALL COMPLY WITH 811.
TAS SECTION 221 - ASSEMBLY AREAS
A. ASSEMBLY AREAS SHALL PROVIDE WHEELCHAIR SPACES, COMPANION SEATS, AND DESIGNATED AISLE SEATS COMPLYING WITH 221 AND 802.
B. WHEELCHAIR SPACES COMPLYING WITH 802.1 SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 221.2.1.1.
C. WHEELCHAIR SPACES SHALL BE AN INTEGRAL PART OF THE SEATING PLAN.
D. WHEELCHAIR SPACES SHALL PROVIDE LINES OF SIGHT COMPLYING WITH 802.2. IN PROVIDING LINES OF SIGHT, WHEELCHAIR SPACES SHALL BE DISPERSED. WHEELCHAIR SPACES SHALL PROVIDE SPECTATORS WITH CHOICES OF SEATING LOCATIONS OR VIEWING ANGLES EQUAL TO OR BETTER THAN SEATING LOCATIONS AND VIEWING ANGLES OF OTHER SPECTATORS.
E. AT LEAST 5% OF THE TOTAL NUMBER OF AISLE SEATS PROVIDED SHALL COMPLY WITH 802.4 AND SHALL BE THE AISLE SEATS LOCATED CLOSEST TO THE ACCESSIBLE ROUTES.

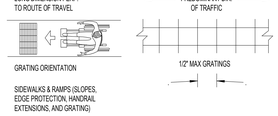
TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES	NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES
4 TO 25	1	301 TO 500	6
26 TO 50	2	501 TO 5000	6, PLUS 1 FOR EACH 150, OR FRACTION THEREOF, BETWEEN 501 THROUGH 5000
51 TO 150	4	5001 AND OVER	36, PLUS 1 FOR EACH 200, OR FRACTION THEREOF, OVER 5000
151 TO 300	5		

TAS SECTION 222 - DRESSING, FITTING, AND LOCKER ROOMS
A. WHERE DRESSING ROOMS, FITTING ROOMS, OR LOCKER ROOMS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE, OF EACH TYPE OF USE IN EACH CLUSTER PROVIDED SHALL COMPLY WITH 803.
B. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN DRESSING FITTING OR LOCKER ROOMS W/O INDIVIDUAL COMPARTMENTS, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 803.5. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN INDIVIDUAL COMPARTMENTS AT LEAST ONE OF EACH TYPE SHALL BE PROVIDED IN ACCORDANCE WITH 223.
TAS SECTION 223 - MEDICAL CARE AND LONG-TERM CARE FACILITIES
A. IN LICENSED MEDICAL CARE FACILITIES AND LICENSED LONG-TERM CARE FACILITIES WHERE THE PERIOD OF STAY EXCEEDS TWENTY-FOUR HOURS, PATIENT OR RESIDENT SLEEPING ROOMS SHALL BE PROVIDED IN ACCORDANCE WITH 223. TOILET ROOMS PART OF CRITICAL OR INTENSIVE CARE PATIENT SLEEPING ROOMS SHALL NOT BE REQUIRED TO COMPLY WITH 603.
TAS SECTION 224 - TRANSIENT LODGING FACILITIES AND GUEST ROOMS
A. TRANSIENT LODGING FACILITIES SHALL PROVIDE GUEST ROOMS IN ACCORDANCE WITH 224. PLACES OF LODGING AND HOUSING AT A PLACE OF EDUCATION SHALL COMPLY WITH THE PROVISIONS APPLICABLE TO TRANSIENT LODGING, INCLUDING, BUT NOT LIMITED TO, THE REQUIREMENTS FOR TRANSIENT LODGING GUEST ROOMS IN SECTIONS 224 AND 806.
B. ENTRANCES, DOORS, AND DOORWAYS PROVIDING USER PASSAGE INTO AND WITHIN THE GUEST ROOMS THAT ARE NOT REQUIRED TO PROVIDE MOBILITY FEATURES COMPLYING WITH 806.2 SHALL COMPLY WITH 404.2.3.
C. IN GUEST ROOMS HAVING MORE THAN 25 BEDS, 5% MINIMUM OF THE BEDS SHALL HAVE CLEAR FLOOR SPACE COMPLYING WITH 806.2.3.
TAS SECTION 225 - STORAGE
A. WHERE STORAGE IS PROVIDED, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 811.
B. WHERE LOCKERS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE, SHALL COMPLY WITH 811.
TAS SECTION 226 - DINING SURFACES AND WORK SURFACES
A. WHERE DINING SURFACES ARE PROVIDED FOR THE CONSUMPTION OF FOOD OR DRINK, AT LEAST 5% OF THE SEATING SPACES AND STANDING SPACES AT THE DINING SURFACES SHALL COMPLY WITH 902. IN ADDITION, WHERE WORK SURFACES ARE PROVIDED FOR USE BY OTHER THAN EMPLOYEES, AT LEAST 5% SHALL COMPLY WITH 902.
TAS SECTION 227 - SALES AND SERVICE
A. WHERE PROVIDED, CHECK-OUT AISLES, SALES COUNTERS, SERVICE COUNTERS, FOOD SERVICE LINES, QUEUES, AND WAITING LINES SHALL COMPLY WITH 227 AND 904.
B. WHERE COUNTERS ARE PROVIDED, AT LEAST ONE OF EACH TYPE OF SALES COUNTER AND SERVICE COUNTER SHALL COMPLY WITH 904.4. WHERE COUNTERS ARE DISPERSED THROUGHOUT THE FACILITY, COUNTERS COMPLYING WITH 904.4 SHALL ALSO BE DISPERSED.
C. QUEUES AND WAITING LINES SERVICING COUNTERS OR CHECK-OUT AISLES REQUIRED TO COMPLY WITH 904.3 OR 904.4 SHALL COMPLY WITH 403.
TAS SECTION 228 - DEPOSITORIES, VENDING MACHINES, CHANGE MACHINES, MAIL BOXES
A. WHERE PROVIDED, AT LEAST ONE OF EACH TYPE OF DEPOSITORY, VENDING MACHINE, CHANGE MACHINE, AND FUEL DISPENSER SHALL COMPLY WITH 309.
B. WHERE MAIL BOXES ARE PROVIDED IN AN INTERIOR LOCATION, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE SHALL COMPLY WITH 309.
TAS SECTION 229 - WINDOWS
A. WHERE GLAZED OPENINGS ARE PROVIDED IN ACCESSIBLE ROOMS OR SPACES FOR OPERATION BY OCCUPANTS, AT LEAST ONE MUST OPENING SHALL COMPLY WITH 309. EACH GLAZED OPENING REQUIRED BY AN ADMINISTRATIVE AUTHORITY TO BE OPERABLE SHALL COMPLY WITH 309.
TAS SECTION 230 - TWO-WAY COMMUNICATION SYSTEMS
A. WHERE A TWO-WAY COMMUNICATION SYSTEM IS PROVIDED TO GAIN ADMITTANCE TO A BUILDING OR FACILITY OR TO BE RESTRICTED AREAS WITHIN A BUILDING OR FACILITY, THE SYSTEM SHALL COMPLY WITH 708.
TAS SECTION 240 - PLAY AREAS
A. WHERE GROUND LEVEL PLAY COMPONENTS ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
B. WHEN ELEVATED PLAY COMPONENTS ARE PROVIDED, AT LEAST 50% SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
TAS SECTION 242 - SWIMMING POOLS, WADING POOLS, AND SPAS
A. AT LEAST TWO ACCESSIBLE MEANS OF ENTRY SHALL BE PROVIDED FOR SWIMMING POOLS.
B. AT LEAST ONE ACCESSIBLE MEANS FOR ENTRY FOR WADING POOLS AND SPAS.
TAS SECTION 243 - SHOOTING FACILITIES WITH FIRING POSITIONS
A. WHERE SHOOTING FACILITIES WITH FIRING POSITIONS ARE DESIGNED AND CONSTRUCTED AT A SITE, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE OF FIRING POSITION SHALL COMPLY WITH 1010.

CHAPTER 3: BUILDING BLOCKS

TAS SECTION 302 - FLOOR OR GROUND SURFACES
A. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
B. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE.
C. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3, AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.



TAS SECTION 303 - CHANGES IN LEVEL
A. CHANGES IN LEVEL OF 1/4" HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL. (FIG. 303)
B. CHANGES IN LEVEL BETWEEN 1/4"-1/2" MAXIMUM SHALL BE BEVELED AT A SLOPE NOT STEEPER THAN 1:2 (FIG. 303)
C. CHANGES IN LEVEL GREATER THAN 1/2" HIGH SHALL BE RAMPED AND COMPLY WITH 405 OR 406



FIGURE 303

TAS SECTION 304 - TURNING SPACE
A. THE TURNING SPACE SHALL BE A SPACE 60" DIAMETER MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306.
B. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. DOORS SHALL BE PERMITTED TO SWING INTO TURNING SPACES.
D. THE T-SHAPED TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60" SQUARE MINIMUM WITH ARMS AND BASE 36" WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12" MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24" MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM. (FIG. 304.3.2)

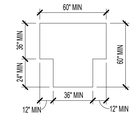


FIGURE 304.3.2 T-SHAPED TURNING SPACE

TAS SECTION 305 - CLEAR FLOOR OR GROUND SPACE
A. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM.
B. FLOOR OF GROUND SURFACES OF A CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM. (FIG. 305.3)
D. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCES COMPLYING WITH 306.
E. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT. (FIG. 305.5)
F. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE.
G. WHERE A CLEAR FLOOR OR GROUND SPACE IS LOCATED IN AN ALCOVE OR OTHERWISE CONFINED ON ALL OR PART OF 3 SIDES, ADDITIONAL MANEUVERING CLEARANCE SHALL BE PROVIDED IN ACCORDANCE WITH BELOW:
1. ALCOVES SHALL BE 36" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24" FOR FORWARD APPROACH (FIG. 315.7.1)
2. ALCOVES SHALL BE 60" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15" FOR PARALLEL APPROACH (FIG. 305.7.2)

CHAPTER 3: SCOPING REQUIREMENTS (CONTINUED)


FIGURE 305.3 CLEAR FLOOR OR GROUND SPACE

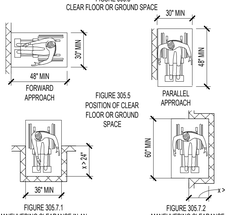


FIGURE 306.1 MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH
FIGURE 305.2 MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

TAS SECTION 306 - KNEE AND TOE CLEARANCE
A. WHERE SPACE BENEATH AN ELEMENT IS INCLUDED AS PART OF CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE, THE SPACE SHALL COMPLY WITH 306. ADDITIONAL SPACE SHALL NOT BE PROHIBITED BENEATH AN ELEMENT BUT SHALL NOT BE CONSIDERED AS PART OF THE CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE.
TAS SECTION 306.2 - TOE CLEARANCE
A. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9" ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE.
B. TOE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT
C. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17" MINIMUM UNDER THE ELEMENT.
D. SPACE EXTENDING GREATER THAN 8" BEYOND THE AVAILABLE KNEE CLEARANCE AT 9" ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.
E. TOE CLEARANCE SHALL BE 30" WIDE MINIMUM.
TAS SECTION 306.3 - KNEE CLEARANCE
A. SPACE UNDER AN ELEMENT 9"-27" ABOVE THE FINISH FLOOR SHALL BE CONSIDERED KNEE CLEARANCE.
B. KNEE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT AT 9" ABOVE THE FINISH FLOOR.
C. WHERE KNEE CLEARANCE IS REQUIRED UNDER AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE KNEE CLEARANCE SHALL BE 11" DEEP MINIMUM AT 9" ABOVE THE FINISH FLOOR O

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

TAS SECTION 502 - PARKING SPACES (REFERENCE FIGURE 502.3)

A. ACCESSIBLE CAR PARKING SPACES SHALL BE AT LEAST 96" MINIMUM WIDE AND VAN ACCESSIBLE PARKING SHALL BE 132" MINIMUM WIDE.
   1. VAN PARKING SPACES MAY BE 96" WIDE MINIMUM WHERE THERE IS AN ACCESS AISLE 96" WIDE MINIMUM.
   2. ACCESS AISLES SERVING CAR AND VAN PARKING SHALL BE A MINIMUM 60" WIDE AND SHALL ADJOIN AN ACCESSIBLE ROUTE.
   3. ACCESS AISLES SHOULD BE MARKED TO DISCOURAGE PEOPLE FROM PARKING IN THEM AND EXTEND THE FULL LENGTH OF THE PARKING SPACE.

B. SURFACE SLOPE SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS (NOTE: NO BUILT UP CURB RAMP MAY BE LOCATED IN AN ACCESSIBLE PARKING ACCESS AISLE.)

C. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY.

D. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES, WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACE.

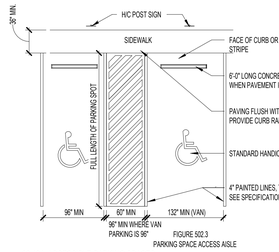
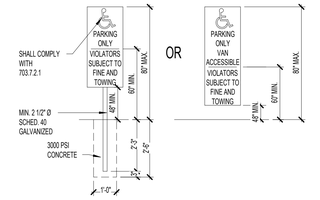


FIGURE 502.3
PARKING SPACE ACCESS AISLE

68.104: ACCESSIBLE PARKING SPACES

(A) A PAVED ACCESSIBLE PARKING SPACE MUST INCLUDE:
   (1) THE INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED CONSPICUOUSLY ON THE SURFACE IN A COLOR THAT CONTRASTS THE PAVEMENT;
   (2) THE WORDS "NO PARKING" PAINTED ON ANY ACCESS AISLE ADJACENT TO THE PARKING SPACE. THE WORDS MUST BE PAINTED:
      (A) IN ALL CAPITAL LETTERS;
      (B) WITH A LETTER HEIGHT OF AT LEAST TWELVE INCHES, AND A STROKE WIDTH OF AT LEAST TWO INCHES; AND
      (C) CENTERED WITHIN EACH ACCESS AISLE ADJACENT TO THE PARKING SPACE; AND
   (3) A SIGN IDENTIFYING THE CONSEQUENCES OF PARKING ILLEGALLY IN A PAVED ACCESSIBLE PARKING SPACE. THE SIGN MUST:
      (A) AT A MINIMUM STATE "VIOLATORS SUBJECT TO FINE AND TOWING " IN A LETTER HEIGHT OF AT LEAST ONE INCH;
      (B) BE MOUNTED ON A POLE, POST, WALL OR FREESTANDING BOARD;
      (C) BE NO MORE THAN EIGHT INCHES BELOW A SIGN REQUIRED BY TEXAS ACCESSIBILITY STANDARDS, 502.6; AND
      (D) BE INSTALLED SO THAT THE BOTTOM EDGE OF THE SIGN IS NO LOWER THAN 48 INCHES AND NO HIGHER THAN 80 INCHES ABOVE GROUND LEVEL.

(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).

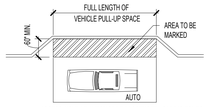


NOTE: PROVIDE ONE SIGN AT EACH DISABLED (DESIGNATED) PARKING SPACE

TAS SECTION 503 - PASSENGER LOADING ZONES
A. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96" WIDE MINIMUM AND 20' LONG MINIMUM.

TAS SECTION 503.3 - ACCESS AISLE (REFERENCE FIGURE 503.3)
A. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 503 ADJACENT TO THE VEHICLE PULL UP SPACE. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.
   1. ACCESS AISLES SERVING VEHICULAR PULL-UP SPACES SHALL BE 60" WIDE MINIMUM AND EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE
   2. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED. CHANGES IN LEVEL OF THE FLOOR AND GROUND SURFACE ARE NOT PERMITTED.

B. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 144" MINIMUM.



ACCESS AISLE AT AUTOMOBILE PASSENGER LOADING ZONES

FIGURE 503.3
PASSENGER LOADING ZONE ACCESS AISLE

TAS SECTION 504 - STAIRWAYS
TAS SECTIONS 504.2 - TREADS AND RISERS
A. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND TREAD WIDTHS
   1. MINIMUM TREAD DEPTH SHALL BE 11", MEASURED FROM RISER TO RISER (NOT INCLUDING NOSING)
   2. OPEN RISERS ARE NOT PERMITTED
   3. RISERS SHALL BE 4" HIGH MIN. - 7" HIGH MAX.

TAS SECTIONS 504.5 - NOSINGS (REFERENCE FIGURE 504.5)
A. RADIUS OF THE CURVATURE AT THE LEADING EDGE SHALL BE 1/2" MAXIMUM. RISERS SHALL BE PERMITTED TO SLOPE UNDER THE TREAD AT AN ANGLE OF 30 DEGREES MAXIMUM FROM VERTICAL. THE PERMITTED PROJECTION OF THE NOSING SHALL EXTEND 1 1/2" MAXIMUM OVER THE TREAD BELOW.

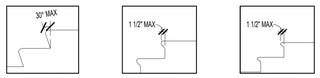
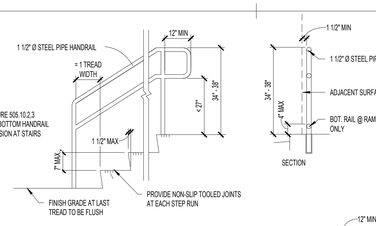
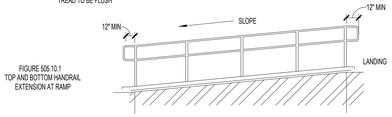


FIGURE 504.5
STAIR NOSINGS

TAS SECTION 505 - HANDRAILS (REFERENCE FIGURES 505.10.1, 505.10.2, 3)
A. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS. NON-CONTINUOUS STAIR HANDRAILS SHALL EXTEND 12" BEYOND THE TOP RISER AND THE WIDTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT THE TOP, THE EXTENSION SHALL BE PARALLEL TO THE FLOOR. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF ONE TREAD WIDTH. NON CONTINUOUS RAMP HANDRAILS SHALL EXTEND 12" MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS.
B. HEIGHT: 34"-38", MEASURED FROM THE STAIR NOSING.
C. CLEARANCE BETWEEN HANDRAIL AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM.
D. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
E. HANDRAILS ARE REQUIRED ON RAMP RUNS GREATER THAN 6" IN RISE.





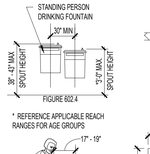
CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

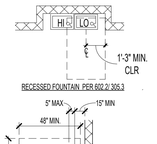
TAS SECTION 602 - DRINKING FOUNTAINS
A. DRINKING FOUNTAINS SHALL COMPLY WITH 307 (PROTRUDING OBJECTS) AND 602.
B. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCES MUST COMPLY WITH 306. OPERABLE PARTS SHALL COMPLY WITH 309. (FIG. 602.5)

TAS SECTION 602.4 - SPOUT HEIGHT (REFERENCE FIGURE 602.4 FOR ACCESSIBLE UNIT)
A. ACCESSIBLE SPOUTS SHALL BE A MAXIMUM 36" ABOVE THE FINISH FLOOR OR GROUND.

TAS SECTION 602.5 - SPOUT LOCATION (REFERENCE FIGURE 602.5)
A. THE SPOUT SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.
B. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4" HIGH AND SHALL BE LOCATED 5" MAXIMUMFROM THE FRONT OF THE UNIT.
C. WHERE SPOUTS ARE LOCATED LESS THAN 2" FROM THE FRONT OF THE UNIT, THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE THE SPOUT IS LOCATED BETWEEN 2"-5" MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.

TAS SECTION 602.7 - DRINKING FOUNTAINS FOR STANDING PERSONS
A. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. (FIG. 602.4)





* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS

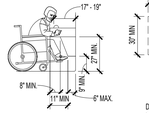




FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION

TAS SECTION 603 - TOILET AND BATHING ROOMS
A. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM. (60" DIAMETER OR T-SHAPED SPACE PER 304.3.2)
B. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP.
C. DOOR SWINGS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS CAN SWING INTO THE REQUIRED TURNING SPACE.

TAS SECTION 603.3 - MIRRORS
A. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED SO THE BOTTOM EDGE OF THE REFLECTING SURFACE IS 40" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT INSTALLED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE 35" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

TAS SECTION 603.4 - COAT HOOKS AND SHELVES
A. COAT HOOKS SHALL BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" ABOVE THE FINISH FLOOR.

TAS SECTION 604 - WATER CLOSETS AND TOILET COMPARTMENTS
A. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16" MINIMUM AND 18" MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT IN AN AMBULATORY ACCESSIBLE TOILET COMPARTMENT WHERE THE CENTERLINE OF THE WATER CLOSET MAY BE 17" MINIMUM AND 19" MAXIMUM FROM THE SIDE WALL OR PARTITION. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT-HAND OR RIGHT-HAND APPROACH. (FIG. 604.3.1, 604.8.2)

TAS SECTION 604.3 - CLEARANCE
A. CLEARANCES AROUND WATER CLOSETS AND IN TOILET COMPARTMENTS SHALL COMPLY WITH FIGURE 604.3.1

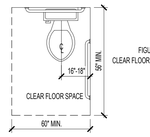


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

TAS SECTION 604.3.2 - OVERLAP
A. THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.

TAS SECTION 604.4 - SEATS (REFERENCE FIGURE 604.4)
A. THE SEAT HEIGHT OF A WATER CLOSET ABOVE FINISH FLOOR SHALL BE 17"-19" MAXIMUM MEASURED TO THE TOP OF SEAT.
   1. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION

TAS SECTION 604.5 - GRAB BARS (REFERENCE FIGURES 604.4, 604.5.2)
A. GRAB BARS SHALL COMPLY WITH 609 AND BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL.
   1. GRAB BARS SHALL NOT BE REQUIRED IN A TOILET ROOM FOR A SINGLE USE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON OR PUBLIC USE PROVIDED THAT REINFORCEMENT HAS BEEN INSTALLED IN WALLS AND LOCATED SO AS TO FACILITATE THE INSTALLATION OF GRAB BARS COMPLYING WITH 604.5
B. FOR WATER CLOSETS NOT LOCATED IN TOILET STALLS, THE FOLLOWING GRAB BARS SHALL BE PROVIDED, 33"-36" ABOVE THE FINISH FLOOR:
   1. SIDE WALL: 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM BACK WALL. NOTE: INCLUDE 18" VERTICAL GRAB BAR PER ICC A117.1.
   2. REAR WALL: 36" LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON ONE SIDE AND 24" MINIMUM ON THE OTHER SIDE. REFER TO 609 GRAB BARS FOR SIZE AND STRUCTURAL ELEMENTS.

TAS SECTION 604.5.2 - REAR WALL
A. THE REAR GRAB BAR SHALL BE PERMITTED TO BE 24 INCHES LONG MINIMUM, CENTERED ON THE WATER CLOSET WHERE WALL SPACE DOES NOT PERMIT A LENGTH OF 36 INCHES MINIMUM DUE TO THE LOCATION OF A RECESSED FIXTURE ADJACENT TO THE WATER CLOSET.
B. WHERE AN ADMINISTRATIVE AUTHORITY REQUIRES FLUSH CONTROLS FOR FLUSH VALVES TO BE LOCATED IN A POSITION THAT CONFLICTS WITH THE LOCATION OF THE REAR GRAB BAR, THEN THE REAR GRAB BAR SHALL BE PERMITTED TO BE SPLIT OR SHIFTED TO THE OPEN SIDE OF THE TOILET AREA.

TAS SECTION 604.6 - FLUSH CONTROLS (REFERENCE FIGURE 604.5.2)
A. FLUSH CONTROLS SHALL BE HAND-OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.

TAS SECTION 604.7 - DISPENSERS (REFERENCE FIGURE 604.4)
A. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7" MINIMUM AND 9" MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS THAT CONTROL DELIVERY OR DO NOT PERMIT CONTINUOUS PAPER FLOW SHALL NOT BE USED.

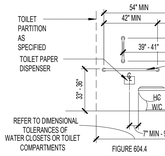


FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

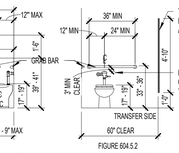
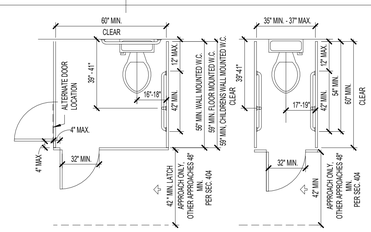


FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

TAS SECTION 604.8 - TOILET COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.

TAS SECTION 604.8.1 - WHEELCHAIR ACCESSIBLE COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1
B. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL, AND 56" DEEP MINIMUM FOR WALL HUNG WATER CLOSETS AND 59" DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDREN'S USE SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE WALL AND 59" DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.



CLEARANCES INDICATED ARE MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REFER TO TOILET ROOMS AND LAVATORY DETAILS FOR MOUNTING HEIGHTS.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES (CONTINUED)

TAS SECTION 604.8.1.2 - DOORS (REFERENCE FIGURES 604.8.1.2, 604.8.2)
A. TOILET COMPARTMENTS DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42" MINIMUM. DOORS SHALL BE LOCATED IN THE FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE FRONT PARTITION. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.
B. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET.

TAS SECTION 604.8.1.4 - TOE CLEARANCE
A. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9" MINIMUM ABOVE FINISH FLOOR AND 6" (152 MM) MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDRENS USE SHALL PROVIDE 12" MINIMUM TOE CLEARANCE ABOVE FINISH FLOOR.

TAS SECTION 604.8.2 - AMBULATORY ACCESSIBLE COMPARTMENTS
A. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH FIGURE 604.8.2
B. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60" MINIMUM AND A WIDTH OF 35"-37" MAXIMUM.
C. GRAB BARS IN AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR THAT IS 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM THE REAR WALL AND EXTENDING 54" MINIMUM FROM THE REAR WALL SHALL BE LOCATED ON BOTH SIDES OF COMPARTMENT.
D. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" MAXIMUM ABOVE THE FINISH FLOOR.

TAS SECTION 605 - URINALS
A. URINALS SHALL BE STALL-TYPE OR WALL-HUNG WITH THE RIM 17" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13 1/2" DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK SIDE OF THE FIXTURE. (FIG. 605.2)
B. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.



FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

TAS SECTION 606 - LAVATORIES AND SINKS
A. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP), POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCES COMPLYING WITH 306 SHALL BE PROVIDED.
   1. SOAP AND TOWEL DISPENSERS MUST ALSO BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. LOCATE SOAP AND TOWEL DISPENSERS SO THEY ARE EASY TO USE BY A PERSON AT THE ACCESSIBLE LAVATORY.
B. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER RIM OR COUNTER SURFACE 34" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
C. CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND-OPERATED METERING FAUCETS SHALL REMAIN FOR 10 SECONDS MINIMUM.
D. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.

LAVATORY DETAIL

TAS SECTION 607 - BATHTUBS
A. CLEARANCE IN FRONT OF BATHTUBS SHALL EXTEND THE LENGTH OF THE BATHTUB AND SHALL BE 30 INCHES WIDE MINIMUM. A LAVATORY COMPLYING WITH 606 SHALL BE PERMITTED AT THE CONTROL END OF THE CLEARANCE. WHERE A PERMANENT SEAT IS PROVIDED AT THE HEAD END OF THE BATHTUB, THE CLEARANCE SHALL EXTEND 12" MINIMUM BEYOND THE WALL AT THE HEAD END OF THE BATHTUB.
B. A PERMANENT SEAT AT THE HEAD END OF THE BATHTUB OR A REMOVABLE IN-TUB SEAT SHALL BE PROVIDED. SEATS SHALL COMPLY WITH 610.
C. GRAB BARS FOR BATHTUBS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH FIGURES 607.4.1

TAS SECTION 608 - SHOWER COMPARTMENTS
A. SHOWER STALLS SHALL BE 36" X 36" CLEAR INSIDE DIMENSION AT TRANSFER TYPE SHOWER COMPARTMENTS AND HAVE A 36" MINIMUM WIDE BY 48" MINIMUM LONG CLEARANCE MEASURED FROM THE CONTROL WALL. ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 30" MINIMUM WIDE BY 60" MINIMUM LONG AND SHALL HAVE A 30" MIN WIDE X 60" MIN LONG ENTRY ON THE FACE OF THE SHOWER COMPARTMENT. ALTERNATE ROLL-IN SHOWER TYPE COMPARTMENTS SHALL BE 36" MINIMUM WIDE AND 60" MINIMUM DEEP CLEAR INSIDE DIMENSIONS WITH A 36" WIDE MINIMUM ENTRY PROVIDED AT ONE END OF THE LONG SIDE OF THE COMPARTMENT.

TAS SECTION 608.3.1 - TRANSFER TYPE SHOWER COMPARTMENT
A. IN TRANSFER TYPE COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND BACK WALL TO A POINT 18" FROM THE CONTROL WALL.
B. A FOLDING OR NON-FOLDING SEAT SHALL BE PROVIDED IN TRANSFER TYPE SHOWER COMPARTMENTS.
C. CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS SHALL COMPLY WITH 309.4

TAS SECTION 608.7 - THRESHOLDS
A. THRESHOLDS IN ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 1/2" HIGH MAXIMUM IN ACCORDANCE WITH 308. IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" HIGH SHALL BE BEVELED, ROUNDED, OR VERTICAL.

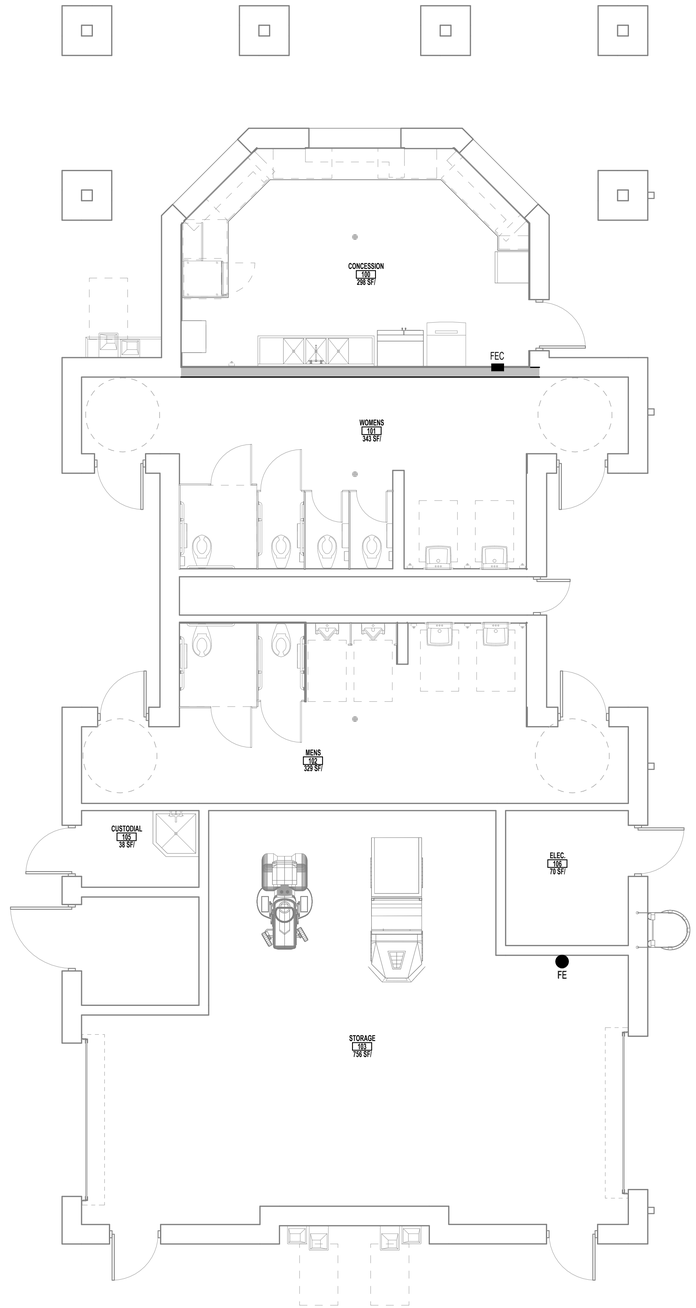
FIGURE 608.2.1
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

TAS SECTION 609 - GRAB BARS
A. GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2" MAXIMUM AND A PERIMETER DIMENSION OF 4" MINIMUM AND 4.8" MAXIMUM.
B. THE SPACE BETWEEN THE WALL AND GRAB BAR SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW SHALL BE 1 1/2" MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12" MINIMUM.
C. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33" MINIMUM AND 36" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. REFER TO CHART FOR CHILDREN ACCESSIBLE HEIGHTS FOR EXCEPTIONS.
D. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A HORIZONTAL OR VERTICAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT OF THE GRAB BAR OR ANY OF ITS COMPONENTS.

TAS SECTION 610.2 - BATHTUB SEATS
A. SEAT SHALL BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 POUNDS AND SHALL HAVE THE FOLLOWING FEATURES:
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. REMOVABLE SEATS SHALL BE 15"-16" DEEP AND CAPABLE OF SECURE PLACEMENT.
   3. PERMANENT SEATS SHALL BE 15" DEEP MINIMUM AND EXTEND FROM THE BACK WALL TO OR BEYOND THE OUTER EDGE OF THE BATHTUB.

TAS SECTION 610.3 - SHOWER SEATS
A. SEATS SHALL BE L-SHAPED WITH THE REAR EDGE 2 1/2" MAXIMUM FROM THE WALL AND 15"-16" MAXIMUM FROM THE SEAT WALL. THE REAR EDGE OF THE "L" PORTION SHALL BE 1 1/2" MAXIMUM FROM THE WALL AND THE FRONT EDGE SHALL BE 14"-15" FROM THE WALL. THE END OF THE "L" SHALL BE 22"-23" FROM THE MAIN SEAT WALL. SEATS SHALL HAVE BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 LBS.
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. WHERE A SEAT IS PROVIDED IN A ROLL IN TYPE SHOWER IT MUST BE THE FOLD-UP TYPE.

TAS SECTION 611 - WASHING MACHINES AND CLOTHES DRYERS
A. TOP LOADING MACHINES SHALL HAVE TH



01 CODE PLAN - CONCESSIONS 1

SCALE: 1/4" = 1'-0"

PLUMBING FIXTURES - CITY OF SUGARLAND PLUMBING CODE

Fixture counts per Chapter 29 of the International Building Code

PLUMBING FIXTURES ARE TESTED IN FIVE DIFFERENT CATEGORIES BASED ON USER GROUPS PER CoHBC Table 2902.1

C1. **LARGE GROUP PUBLIC**: FOR FOOTBALL GRANDSTAND OCCUPANTS IN A FULL GATHERING

C1 TOTAL PROJECTED MAXIMUM CAPACITY OF FOOTBALL GRANDSTANDS = **286.9**
MALE= 143.46 FEMALE= 143.46

	FIXTURE TYPE			REQUIRED		PROVIDED		CODES
LARGE GROUP PUBLIC (A-5) GRANDSTANDS	MALE	WC* 1 per 75	STANDARD		1		4	COH
			HC**					COH/TAS
			AMBULATORY					TAS
		LAV 1 per 200	STANDARD		1		2	COH
			HC					
	FEMALE	WC* 1 per 35	STANDARD		4		4	COH
			HC**					COH/TAS
			AMBULATORY					TAS
		LAV 1 per 150	STANDARD		1		2	COH
			HC					
	DRINKING FOUNTAINS AT 1 PER 1,000		STANDARD		1		3	COH
			HC					

NOTES:

1. ALL DRINKING FOUNTAINS PAIRED AS HI/LO - HC ACCESSIBLE
2. (1) SERVICE SINK REQUIRED PER LEVEL

* URINALS MAY BE SUBSTITUTED FOR WC'S PROVIDED THAT NUMBER OF WC'S IS NOT REDUCED TO LESS THAT 50% OF THE NUMBER REQUIRED.
** INCLUDE HC URINALS.
*** PROVIDE 1 HC LAV IN EACH TOILET ROOM.
**** FAMILY TOILET PROVIDED (SUBSTITUTE 1 WC & LAV)

NOTES: TOILETS LOCATED IN ATHLETIC FIELD HOUSE - REFER G107/A141

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00 FOR DOOR SCHEDULE IDENTIFYING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL. ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL. ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL.
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES - CITY OF SUGARLAND

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2023 NATIONAL ELECTRICAL CODE
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 - EDUCATIONAL GROUP E

2021 IBC COMPLIANCE DATA

CHAPTER 2 - DEFINITIONS
GRADE PLANE: A REFERENCE PLANE REPRESENTING THE AVERAGE OF FINISHED GROUND LEVEL ADJOINING THE BUILDING AT EXTERIOR WALLS. WHERE THE FINISHED GROUND LEVEL SLOPES AWAY FROM THE EXTERIOR WALLS, THE REFERENCE PLANE SHALL BE ESTABLISHED BY THE LOWEST POINTS WITHIN THE AREA BETWEEN THE BUILDING AND THE LOT LINE OR, WHERE THE LOT LINE IS MORE THAN 6 FEET (1829 MM) FROM THE BUILDING, BETWEEN THE BUILDING AND A POINT 6 FEET (1829 MM) FROM THE BUILDING.
GRADE PLANE = -7' BELOW PROJECT "0'-0" ELEVATION"

STORY ABOVE GRADE PLANE: ANY STORY HAVING ITS FINISHED FLOOR SURFACE ENTIRELY ABOVE GRADE PLANE, OR IN WHICH THE FINISHED SURFACE OF THE FLOOR NEXT ABOVE IS: 1. MORE THAN 6 FEET (1829 MM) ABOVE GRADE PLANE, OR 2. MORE THAN 12 FEET (3658 MM) ABOVE THE FINISHED GROUND LEVEL AT ANY POINT.

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 - EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS
TABLE 504.3 & 504.4 & 506.2
GROUP E, TYPE 2A, NOT SPRINKLED
BUILDING HEIGHT: 160' ALLOWED; **XX' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 5 STORIES ALLOWED; **2 STORIES ACTUAL**
BUILDING AREA: UNLIMITED SQUARE FEET PER STORY ALLOWED (BEFORE AREA INCREASES)

SECTION 506.2.3: EQUATION 5-2 FOR ALLOWABLE TOTAL SQUARE FOOTAGE FOR SINGLE OCCUPANCY, MULTI-STORY BUILDING
As+At+ (NS x If) x Sa
Aa = XXXX + (XXXX x 0.75) x 2
Aa = XXXXX SQUARE FEET ALLOWED FOR THE ENTIRE BUILDING
Aa = XXXXX SQUARE FEET ALLOWED PER STORY
NO INDIVIDUAL STORY SHALL EXCEED THE ALLOWABLE AREA (Aa) AS DETERMINED BY EQUATION 5-2 USING THE VALUE OF Sa=1

SECTION 506.3 - FRONTAGE INCREASE
If = (F/P-0.25)W/30
If = 0.75

BUILDING AREA ACTUAL
LEVEL 1: BUILDING A (SEGMENT A): 21,569 SQUARE FEET
LEVEL 1: BUILDING B (SEGMENT E): 21,569 SQUARE FEET
LEVEL 2: BUILDING A (SEGMENT A): 21,569 SQUARE FEET
LEVEL 2: BUILDING B (SEGMENT A): 644 SQUARE FEET

TOTAL SF LEVEL 1: XXXXXX SQUARE FEET
TOTAL SF LEVEL 2: XXXXXX SQUARE FEET
TOTAL SF BUILDING: XXXXXX SQUARE FEET

SECTION 508 - INCIDENTAL USES
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

TABLE 509 - MIXED USE AND OCCUPANCY
ROOMS WITH BOILERS WHERE THE LARGEST PIECE OF EQUIPMENT IS OVER 15 PSI AND 10 HORSEPOWER - 1 HOUR OR PROVIDE AUTOMATIC SPRINKLER SYSTEM
IN GROUP E OCCUPANCIES, LABORATORIES AND VOCATIONAL SHOPS NOT CLASSIFIED AS GROUP H - 1 HOUR OR PROVIDE AUTOMATIC SPRINKLER SYSTEM
LAUNDRY ROOMS OVER 100 SQUARE FEET - 1 HOUR OR PROVIDE AUTOMATIC SPRINKLER SYSTEM
ELECTRICAL INSTALLATIONS AND TRANSFORMERS (SEE SECTIONS 110.26 THROUGH 110.34 AND SECTIONS 450.8 THROUGH 450.48 OF NFPA 70 FOR PROTECTION AND SEPARATION REQUIREMENTS.

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 - FOR CONSTRUCTION TYPE IB: 0 HOUR FIRE-RESISTANCE RATING REQUIREMENT FOR BUILDING ELEMENTS
NOTE: ELEMENTS INCLUDE PRIMARY STRUCTURAL FRAME, EXTERIOR AND INTERIOR WALLS, FLOOR AND ROOF CONSTRUCTION

SECTION 602 - CONSTRUCTION CLASSIFICATION
602 - FOR CONSTRUCTION TYPE IB: 1 HOUR FIRE RESISTANCE RATING FOR EXTERIOR WALLS IF < 10 FT. FROM OTHER STRUCTURES, ELSE 0
602.4 - NOT APPLICABLE

CHAPTER 6 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE 2B - PER TABLES 601 & 602:
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED: PRIMARY STRUCTURE, BEARING & NONBEARING WALLS/ PARTITIONS (INTERIOR & EXTERIOR), FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTIBLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL
TABLE 706.4 - FIRE WALL FIRE-RESISTANCE RATINGS: 2 HOUR IN IIB CONSTRUCTION, GROUP E

SECTION 707 - FIRE BARRIERS
707.3.1 - SHAFT ENCLOSURES (INCLUDING ELEVATOR HOISTWAY): 1 HOUR FIRE BARRIER
707.3.3 - ENCLOSURES FOR EXIT ACCESS STAIRWAY ENCLOSURES: 1 HOUR BARRIER PER SECTION 1019 EXIT ACCESS STAIRWAYS ARE NOT REQUIRED TO BE ENCLOSED FOR THIS BUILDING TYPE

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT)
ALL SHAFT ENCLOSURES SHALL BE CONSTRUCTED AS FIRE BARRIERS AND SHALL BE 1 HOUR FIRE RATED. SUPPORTING CONSTRUCTION SHALL BE RATED TO THE SAME DEGREE AS THE WALLS.

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT)
ALL SHAFT ENCLOSURES SHALL BE CONSTRUCTED AS FIRE BARRIERS AND SHALL BE 1 HOUR FIRE RATED. SUPPORTING CONSTRUCTION SHALL BE RATED TO THE SAME DEGREE AS THE WALLS.

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS
FOR FIRE WALLS & FIRE BARRIERS WITH A 2 HR FIRE RATING, OPENINGS SHALL HAVE A 1.5 HR FIRE RATING, MAX. 100 SQ IN OF GLAZING.
FOR FIRE BARRIERS AT EXIT COMPONENTS WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 1 HR FIRE RATING
FOR FIRE BARRIERS AT OTHER LOCATION WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 3/4 HR FIRE RATING

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES; NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES; BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS FULLY SPRINKLERED

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
TABLE 1004.5 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

STORAGE, MECHANICAL	300 SQ. FT., GROSS
ASSEMBLY WITH FIXED SEATS	18" PER OCCUPANT IN BLEACHERS
ASSEMBLY WITHOUT FIXED SEATS	
(TABLES AND CHAIRS)	15 SQ. FT. NET
BUSINESS	150 SQ. FT. GROSS
EDUCATION, CLASSROOM	20 SQ. FT. GROSS
EDUCATION, VOCATIONAL	50 SQ. FT. NET
LIBRARY	
(READING ROOMS)	50 SQ. FT. NET
(STACK AREAS)	100 SQ. FT. GROSS
STAGES & PLATFORMS	500 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.1 - FOR STAIRWAYS: 0.2 IN. PER OCCUPANT
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.2 - FOR OCCUPANT LOAD PER STORY:
BUILDING A / LEVEL 1: 3 EXITS REQUIRED, X EXITS PROVIDED
BUILDING B / LEVEL 1: 4 EXITS REQUIRED, X EXITS PROVIDED
BUILDING C / LEVEL 1: 3 EXITS REQUIRED, X EXITS PROVIDED
BUILDING A / LEVEL 2: 3 EXITS REQUIRED, X EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1009 - ACCESSIBLE MEANS OF EGRESS
1009.3.2 - FOR SPRINKLERED BUILDINGS, 48 IN. CLEAR HANDRAIL WIDTH IN EXIT STAIRS NOT REQUIRED
1009.3.2 - FOR SPRINKLERED BUILDINGS, AREAS OF REFUGE IN EXIT STAIRS NOT REQUIRED

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.8 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1011 - STAIRWAYS
1011.2 - MINIMUM STAIRWAY WIDTH OF 44 IN.
1011.3 - MINIMUM STAIRWAY HEADROOM CLEARANCE OF 80 IN
1011.5.2 - MAXIMUM RISER HEIGHT OF 7 IN., MINIMUM TREAD DEPTH OF 11 IN.
1011.6 - WIDTH OF LANDINGS SHALL BE NOT LESS THAN THE WIDTH OF STAIRWAY SERVED
1011.6 - LANDING DEPTH NEED NOT EXCEED 48 IN. FOR STRAIGHT-RUN STAIRS
1011.8 - A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE GREATER THAN 12 FT. BETWEEN FLOOR LEVELS AND LANDINGS
1011.7.3 WALLS AND SOFFITS ENCLOSING USABLE SPACE BELOW INTERIOR STAIRWAYS, SHALL BE PROTECTED BY 1-HOUR FIRE-RESISTANCE-RATED CONSTRUCTION OR MATCH THE RATING OF THE STAIRWAY ENCLOSURE, WHICHEVER IS GREATER. ACCESS TO THE ENCLOSED SPACE SHALL NOT BE DIRECTLY FROM WITHIN THE STAIRWAY ENCLOSURE.

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
1017.2 - FOR GROUP E W/ SPRINKLER SYSTEM: EXIT TRAVEL DISTANCE IS 250 FT.

SECTION 1020 - CORRIDORS
1020.1 - GROUP E W/ SPRINKLER SYSTEM: NO REQ'D. FIRE-RESISTANCE RATING
1020.2 - FOR GROUP E W/ OCCUPANT LOAD OF 100 OR MORE: MIN. WIDTH OF 72"
1020.2 - FOR AN OCCUPANT LOAD LESS THAN 50: MINIMUM WIDTH OF 36 IN.
1020.2 - FOR ACCESS TO AND UTILIZATION OF MECHANICAL, PLUMBING, OR ELECTRICAL SYSTEMS OR EQUIPMENT: MINIMUM WIDTH OF 24 IN.
1020.2 - FOR ALL OTHER CONDITIONS: MINIMUM WIDTH OF 44 IN.
1020.4 - GROUP E W/ SPRINKLER SYSTEM: DEAD ENDS MAY BE 50 FT. IN LENGTH

CHAPTER 17: SPECIAL INSPECTIONS AND TESTS

STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS REQUIRING SPECIAL INSPECTIONS PER SECTION 705 OF THE IBC HAVE NOT BEEN LISTED HERE. REFER TO STRUCTURAL/MECHANICAL/ELECTRICAL FOR SPECIAL INSPECTION REQUIREMENTS FOR THESE COMPONENTS.
ITEMS OF ARCHITECTURAL CONSTRUCTION WHICH REQUIRE SPECIAL INSPECTION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1705.14 SPRAYED FIRE-RESISTANT MATERIALS
1705.15 MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS
1705.16 EXTERIOR INSULATION FINISH SYSTEMS (EIFS)
1705.16.1 WATER-RESISTIVE BARRIER COATING
1705.17 FIRE-RESISTANT PENETRATIONS AND JOINTS
1705.18 TESTING FOR SMOKE CONTROL

2021 IECC COMPLIANCE DATA

CHAPTER 3 - GENERAL REQUIREMENTS

SECTION C301.1 - GENERAL
C301.1 - CLIMATE ZONE 2A

CHAPTER 4 - COMMERCIAL ENERGY EFFICIENCY

REFER TO COMCHECK FOR COMPLIANCE

C402.3 - EITHER THREE-YEAR AGED SOLAR REFLECTANCE OF 0.55 AND 3-YEAR AGED
THERMAL EMITTANCE OF 0.75 OR THREE-YEAR AGED SOLAR REFLECTANCE INDEX OF 64.
C402.4 - FOR CLIMATE ZONE 2 AND FIXED FENESTRATION: U-FACTOR OF 0.5
C402.4 - SOLAR HEAT GAIN COEFFICIENT REQUIREMENTS

PROJECTION FACTOR	SEW	N
PF <0.2	0.25	0.33
0.2 <= PF < 0.5	0.30	0.37
PF >= 0.5	0.40	0.40

SHGC OF SPECIFIED GLAZING = 0.25
U-VALUE OF SPECIFIED GLAZING = 0.33

C402.4.1 VERTICAL FENESTRATION SHALL NOT BE GREATER THAN 30 PERCENT OF GROSS
ABOVE-GRADE WALL AREA.

LEGEND

1 HOUR FIRE-RESISTANCE RATING
2 HOUR FIRE-RESISTANCE RATING
RATED DOOR/ WINDOW REF. DOOR SCHEDULE FOR MORE INFO.
NON RATED ELEMENT
RATED EXIT ENCLOSURE
LONGEST EXIT ROUTE PER LEVEL
EXIT ROUTE
EXIT POINT WITH WIDTH INDICATED IN INCHES (P 36 / R 36)
OCCUPANT LOAD SHOWN VERTICAL
P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT
R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
FEC — FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER
FE — FIRE EXTINGUISHER - SURFACE MOUNTED

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
Date Description

100% CD

G0.03-K
01 CODE PLAN - CONCESSION

UPDATED 08-21-21
KEMPNER HIGH SCHOOL

12/4/2025 10:21:09 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_KEMPNER_FBISD ATHLETIC RENOVATIONS BP012-K_R25.rvt

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL SIZES, LOCATIONS AND ELEVATIONS NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS PRIOR TO SUBMITTING PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR FROM PERFORMING THE WORK REQUIRED UNDER THIS CONTRACT. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE OWNER/ENGINEER.
2. SOME UTILITIES MAY NOT BE SHOWN ON THE PLANS. FIELD VERIFY AND IDENTIFY LOCATIONS OF PIPING AND ALL UTILITIES NOT NOTED ON THE PLANS. NOTIFY THE OWNER/ENGINEER OF ANY POTENTIAL CONFLICTS PRIOR TO STARTING CONSTRUCTION.
3. ALL GENERAL AND SUB-CONTRACTORS ARE ENCOURAGED TO VISIT AND INSPECT THE SITE PRIOR TO SUBMITTING A PROPOSAL TO COMPLETE.
4. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES, TRAFFIC CONTROL DEVICES AND PAVING. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITY'S ENGINEERING STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAWINGS, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR AND MAKE SURE THE CORRECT BENCHMARK IS USED.
7. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
9. CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
10. CONTRACTOR SHALL MAINTAIN A SHEET OF REDLINE DRAWINGS RECORDING AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINES MARKED DRAWINGS WILL BE SUBMITTED TO THE ENGINEER WHO WILL MAKE THE CHANGES ON THE ORIGINAL DRAWINGS. LABELING EACH SHEET IN THE SET AS "RECORD DRAWINGS".
11. CONTRACTORS SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
12. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICAS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
13. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALK, ETC.) SHALL BE STABILIZED WITH PLANTINGS OR OTHERWISE RECEIVE 6 INCHES OF MULCH OR LOAM AND SEED AS DIRECTED BY THE ENGINEER.
14. CONTRACTOR SHALL PREVENT DUST, SEDIMENT AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
15. SAFETY - NEITHER THE OWNER NOR THE ENGINEER OF RECORD WILL BE RESPONSIBLE FOR COMPLIANCE WITH SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, FEDERAL, AND CONTRACTUAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ANY SCHOOL CHILDREN OUT OF THE WORK AREA.
17. STANDARD SPECIFICATIONS - ALL CONSTRUCTION WORK AND INSTALLATION SHALL CONFORM TO THE PROJECT SPECIFICATIONS PROVIDED WITH THE CONTRACT DOCUMENTS AND ANY STANDARD SPECIFICATIONS AS INDICATED ON THESE PLANS.
18. INSPECTIONS - THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR REQUIRED INSPECTIONS. THE PRESENCE OR ABSENCE OF AN INSPECTOR WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE PROPER PERFORMANCE OF WORK.
19. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVE OR ANY OTHER AGENCY HAVING JURISDICTION FOR ALL ACTIVITIES ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH OSHA PERFORMANCE CRITERIA.
20. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS.

SITEWORK GENERAL NOTES:

1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D698:
   A. UNDER STRUCTURES: SCARIFY AND RE COMPACT 12 INCHES OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   B. UNDER WALKWAYS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   C. UNDER TURF OR UNPAVED AREAS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 90% SPD.
   D. UTILITY TRENCHES: BACKFILL SHALL BE IN 8 INCHES LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS ON EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% SPD IN PAVED AREAS AND 90% SPD IN UNPAVED AREAS OR AS INDICATED IN THE DRAWINGS.
2. DIMENSIONS IN THE DOCUMENTS SHALL GOVERN.

CIVIL GRADING NOTES:

1. CLEAR AND GRUB WITHIN THE GRADING LIMITS SHOWN IN THE CIVIL DRAWINGS. REMOVE STUMPS AND ROOTS 3 INCHES IN DIAMETER AND LARGER AND NONPERISHABLE SOLID OBJECTS A MINIMUM 3 FEET BELOW SUBGRADE OR FINISHED EMBANKMENT.
2. STRIP AND STOCKPILE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES WITHIN THE LIMITS OF EARTHWORK OPERATIONS.
3. STRUCTURAL EXCAVATION: EXCAVATE TO INDICATE ELEVATIONS WITHIN A TOLERANCE OF 1 INCH. EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORM WORK AND FOR INSPECTIONS.

UTILITIES:

1. THE LOCATIONS, SIZES AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATE CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN IN THE PLANS. PRIOR TO ORDERING MATERIAL AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZED AND ELEVATIONS OF THE POINT OF CONNECTIONS TO EXISTING UTILITIES AND SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND PROPOSED UTILITY ROUTES. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 1-800-245-4545 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.

PAVING NOTES:

1. RIM ELEVATIONS FOR MANHOLES AND SEWER CLEANOUTS, WATER VALVE COVERS, ELECTRIC AND TELEPHONE PULL BOXES AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: 1 INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.

STORM SEWER CONSTRUCTION NOTES:

1. STORM SEWERS SHALL BE INSTALLED, BEDDED, AND BACKFILLED ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
2. STORM SEWERS LOCATED WITHIN PUBLIC R.O.W. OR SIDE LOT EASEMENTS SHALL BE REINFORCED CONCRETE PIPE (24-INCH AND LARGER) (C-76. CLASS III). AND SHALL BE INSTALLED, BEDDED, AND BACKFILLED IN ACCORDANCE WITH THE GOVERNING ENTITIES STANDARD DETAILS AND SPECIFICATIONS. UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
3. ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABILIZED SAND TO ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH ALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
4. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
5. ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES AND INLETS ARE TO PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL PROVIDE 18" MINIMUM CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
7. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF LOCAL GOVERNING ENTITY STANDARDS AND SPECIFICATIONS FOR JUSTING MANHOLES, INLETS AND VALVE BOXES TO GRADE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACKSLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF HIS WORK.
9. ALL DITCHES SHALL BE REGRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.

SWPPP CONSTRUCTION NOTES:

1. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG THE ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPPP) PLANS TO KEEP SILT AND/ OR EXCAVATIONS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM SEWER.
2. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.
3. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK, TRACKED FROM THE EXCAVATED AREA.
4. CONTRACTOR SHALL FOLLOW GOOD HOUSE KEEPING PRACTICES DURING THE CONSTRUCTION PHASE OF THE PROJECT ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
5. CONTRACTOR IS TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5-INCHES OR GREATER:
   A. DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
   B. AREAS USED FOR STORAGE THAT ARE EXPOSED TO PRECIPITATION.
   C. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
6. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS, AND CORRECTIVE ACTION IF SUCH OCCURS.

TRAFFIC NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. ALL TRAFFIC CLOSURES SHALL BE SCHEDULED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITIES APPROPRIATE HOURS.
3. NO LANES ON MAJOR THOROUGHFARES MAY BE BLOCKED FROM 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM UNLESS APPROVED BY THE LOCAL GOVERNING ENTITY.
4. NO TRAFFIC LANES SHALL BE CLOSED IN ALL RESIDENTIAL AREAS FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS.
6. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND OPEN THE LANES FOR NORMAL TRAFFIC FLOW.
7. OFF-DUTY UNIFORMED POLICE OFFICER(S)/FLAGGER(S) ARE REQUIRED TO DIRECT TRAFFIC WHEN THE LANES ARE BLOCKED.
8. IN THE EVEN THAT NO "TRAFFIC CONTROL PLANS" EXIST AS PART OF CONTRACT DRAWINGS. CONTRACT MAY PREPARE PLANS AND SUBMIT TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN-DAYS (10) PRIOR TO IMPLEMENTATION.
9. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS. HE/SHE SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING AN ALTERNATE SET OF PLANS* TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN (10) WORKING DAYS PRIOR TO IMPLEMENTATION.
10. APPROVED COPIES OF THE TRAFFIC CONTROL PLANS AND REQUIRED PERMITS SHALL BE MADE AVAILABLE FOR INSPECTION AT THE JOB SITE AT ALL TIMES. CONTRACTORS MUST SECURE REQUIRED PERMITS FROM THE LOCAL GOVERNING ENTITY'S TRAFFIC MANAGEMENT AND MAINTENANCE BRANCH BEFORE CLOSING A LANE/SIDEWALK. THE REQUEST MUST BE MADE AT LEAST TEN (10) DAYS IN ADVANCE OF THE CLOSURE. NOTE THAT WORKING HOURS MAY BE RESTRICTED OR THE REQUEST MAY BE DENIED.
    A. THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLAR AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME PART OF THE CONTRACT DRAWINGS.

WARNING: OVERHEAD ELECTRICAL LINES:

1. OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:
   A. ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
   B. OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
2. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222. ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-6248 OR (713) 207-5769.

CENTERPOINT ENERGY:
CAUTION: UNDERGROUND GAS FACILITIES:

1. LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, LLC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 OR 1-800-669-8344 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
   A. WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 945-8036 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
   B. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
   C. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
   D. FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3522 OR (713) 207-4200.
   E. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

AT&T TEXAS/SBC FACILITIES:

1. THE LOCATIONS OF AT&T TEXAS/SBC FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SBC FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANICAL EXCAVATION PROCEDURES. WHEN BORING THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SBC FACILITIES.
4. WHEN AT&T TEXAS/SBC FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SBC UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURY CABLES OR OTHER CABLES IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713)456-4552 OR EMAIL HIM AT rl7259@att.com, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR AT&T TEXAS/SWBT FACILITIES.

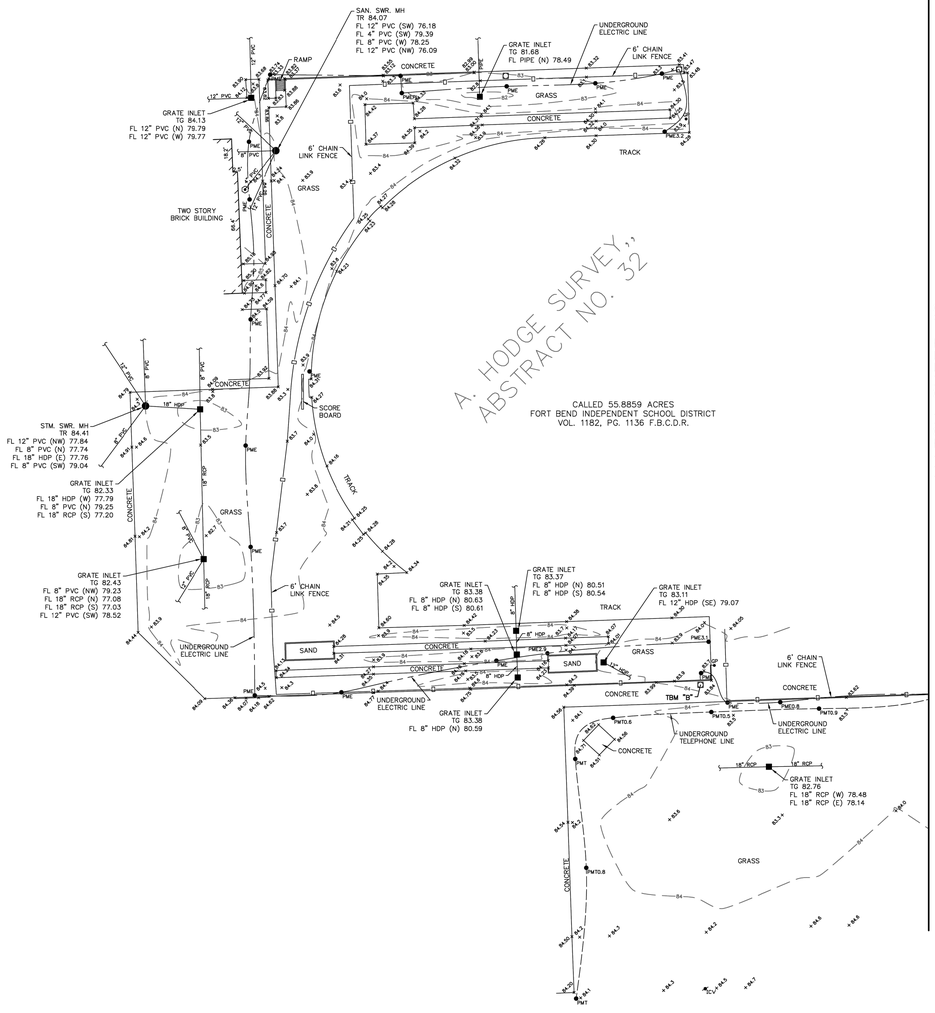
SANITARY SEWER NOTES:

1. ALL SEWERS SHALL BE TESTED FOR EXCESS DEFLECTION IN PIPE CROSS SECTION, FOR LATERAL AND VERTICAL PIPE OBSTRUCTION, AND FOR JOINT OFFSETS, BY PULLING A MANDREL THROUGH THE PIPE BY HAND. THE MANDREL SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILLING HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. OBSTRUCTIONS ENCOUNTERED SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. MANDREL AND TEST EQUIPMENT SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONDUCTING THE TEST.
2. USE BEDDING AND BACKFILL PER DETAILS PROVIDED IN THE CONTRACT DRAWINGS UNLESS FIELD CONDITIONS DICTATE OTHERWISE. CONTRACTOR TO NOTIFY ENGINEER OF WET TRENCH CONDITIONS PRIOR TO LAYING PIPE. USE CEMENT STABILIZED SAND AND BACKFILL TO WITHIN 1 FOOT OF PROPOSED OR EXISTING PAVEMENT SUBGRADE. BEDDING, CEMENT STABILIZED SAND AND/OR BACKFILL SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM FOR PIPE AND SHALL NOT BE PAID FOR DIRECTLY.
3. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 24 INCHES OF VERTICAL CLEARANCE AND 9 FEET HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND WATER LINES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 12 INCHES OF VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND STORM SEWER LINES.
4. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM THE MANHOLE RIM PER ASTM F477.
5. UNLESS OTHERWISE NOTED, ALL SANITARY SEWERS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE (PVC) SCH 40, CONFORMING TO ASTM D1785, OR APPROVED EQUAL. ALL SANITARY SEWERS SHALL HAVE RUBBER GASKET BELL AND SPIGOT CONNECTIONS.
6. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES SHALL BE PRECAST CONCRETE MANHOLES.
7. NO CONNECTIONS SHALL BE MADE TO EXISTING SANITARY SEWER LINES UNTIL ALL PROPOSED SEWER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED AND APPROVED BY THE LOCAL GOVERNING ENTITY.
8. WHENEVER THE MANHOLE COVERS ARE LOCATED BELOW THE 100 YEAR FLOOD PLAIN ELEVATION THEY SHALL BE GASKETED AND BOLTED AS DESCRIBED IN 317.2. OF THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES.
9. LOW-PRESSURE AIR TEST. THIS TEST SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM C-828, ASTM C-924 OR OTHER APPROPRIATE PROCEDURES. FOR SAFETY REASONS, AIR TESTING OF SECTIONS OF PIPE SHALL BE LIMITED TO LINES LESS THAN 36-INCH AVERAGE INSIDE DIAMETER. LINES 36-INCH AVERAGE INSIDE DIAMETER AND LARGER MAY BE AIR TESTED AT EACH JOINT. THE MAXIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE DURING A JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR SECTION OF PIPE LESS THAN 36-INCH AVERAGE INSIDE DIAMETER, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE SHALL BE COMPUTED BY THE FOLLOWING EQUATIONS:

   T = 0.0850(D)(K)/(Q) WHERE T = TIME FOR PRESSURE TO DROP 1.0 POUNDS PER SQUARE INCH GAUGE IN SECONDS
   K = 0.000419(D)(L), BUT NOT LESS THAN 1.0
   D = AVERAGE INSIDE DIAMETER IN INCHES
   L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET
   Q = RATE OF LOSS, ASSUME 0.0015 CU FT/MIN/SQ FT INTERNAL SURFACE
10. SDR-26 PVC PIPE TO USE "FULL BODIED" SDR-26 FITTINGS.
11. ALL PVC PIPE TO HAVE CELL CLASS 12454 A OR B AS PER ASTM D1784.
12. NO MORE THAN 2 HOURS SHALL ELAPSE BETWEEN MIXING AND PLACEMENT OF CEMENT STABILIZED SAND.
13. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% SPD, ±2% OF OPTIMUM MOISTURE CONTENT, IN MAXIMUM 8-INCH LIFTS.

WATER SYSTEM CONSTRUCTION NOTES:

1. METERS AND BACKFLOW BOXES SHALL BE SET A MINIMUM OF 3 INCHES ABOVE FINISHED GRADE WITH SLOPED BACKFILL TO DIRECT STORM WATER AWAY FROM BOX. BOXES SHALL BE BACKFILLED WITH A MINIMUM 12 INCHES OF CEMENT STABILIZED SAND AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. FIRE SPRINKLER LINES SHALL BE INSTALLED AND TESTED BY A CONTRACTOR LICENSED BY THE STATE TO PERFORM SUCH WORK UNDER SECTION 4(A) & (B) OF ARTICLE 5.43-3 OF THE TEXAS INSURANCE CODE. CONTRACTOR SHALL FURNISH OWN CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING AS REQUIRED BY THE TEXAS COMMISSION ON FIRE PROTECTION.
3. ALL PVC PIPE USED IN WATER SYSTEMS SHALL BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL.
4. WATER LINE PIPE AND FITTING MATERIALS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:
   A. LESS THAN 4 INCH POTABLE WATER LINE SHALL BE SCHEDULE 40, PVC 1120, PER ASTM D-1785, EXCEPT THAT THREADED PIPE SHALL BE SCHEDULE 80. 3 INCH POTABLE WATER MAY BE SDR 21 PVC (200 P.S.I.) WITH GASKETED JOINTS.
   B. SITE 4 INCH AND LARGER POTABLE WATER LINE SHALL BE AWWA C900, DR 18, CLASS 235 PVC.
   C. FIRE SPRINKLER LINE SHALL BE AWWA C900, DR 14, CLASS 305 PVC.
   D. FITTINGS FOR LESS THAN 3 INCH AND LARGER WATER LINE SHALL BE ASTM D-2466 SCHEDULE 40 PVC. THREADED FITTINGS SHALL BE SCHEDULE 80 PER ASTM D-2467.
   E. FITTINGS FOR 3 INCH AND LARGER WATER LINE SHALL BE ALL-BELL, PUSH-ON, DUCTILE IRON MECHANICAL JOINT FITTINGS WITH MEGA-LUG.
5. VALVES:
   A. 1 1/2 INCH AND SMALLER SHALL BE 125 P.S.I.G., BRONZE, RISING STEM, SINGLE-WEDGE, DISC TYPE, SCREWED ENDS, CRANE NO. 428 OR APPROVED EQUAL.
   B. 2 INCH THRU 2 1/2 INCH VALVES SHALL BE IRON BODY, DOUBLE GATE, NON-RISING STEM, 150 P.S.I.G. TEST; 2 INCH SQUARE NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
   C. 3 INCH AND LARGER VALVES SHALL BE 200 P.S.I.G. GATE VALVES PER AWWA C500 OR C509, PUSH-ON BELL ENDS WITH RUBBER JOINT RINGS; 2 INCH NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
6. POLYETHYLENE WRAP ALL CAST AND DUCTILE IRON PIPE AND FITTINGS PER SPECIFICATIONS.
7. WATER LINES SHALL HAVE A MINIMUM COVER OF 4 FEET BELOW NATURAL GROUND, FINISH GRADE, OR MEAN ELEVATION OF NEARBY DITCH, WHICHEVER IS LOWER. ALL WATER LINES SHALL MAINTAIN A MINIMUM 12 INCH CLEARANCE TO OTHER UTILITIES AT CROSSINGS UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINES INSTALLED OVER 8 FEET DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS. CONTRACTOR SHALL PROVIDE THRUST BLOCKING TO WITHSTAND 125% OF TEST PRESSURES.
8. SEPARATION DISTANCE FOR ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS CHAPTER 290.44, HARRIS COUNTY, AND TCEQ REQUIREMENTS, LATEST PRINTING.
9. WHERE A DOMESTIC WATERLINE CROSSES A SANITARY SEWER, INSTALL ONE JOINT (MINIMUM 18 FOOT LENGTH) OF WATERLINE PIP CENTERED ON THE SEWER.
10. CONTRACTOR SHALL TAKE SANITARY PRECAUTIONS D



MATCH SHEET #2

SURVEYOR'S CERTIFICATE

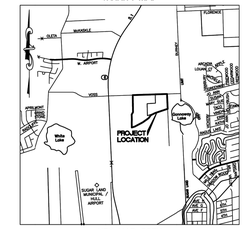
To: Fort Bend Independent School District

I, Brian J. Maddox, a Registered Professional Land Surveyor in the State of Texas, do hereby certify that I have prepared this map from an actual on the ground survey of the land, and the monuments shown thereon were found under my personal supervision in accordance with the Surveying Rules and Regulations of the State of Texas. This survey substantially conforms to a Category 6, Condition II Topographic Survey.

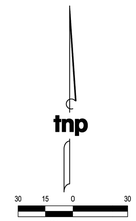
STATE OF TEXAS
REGISTERED
BRIAN J. MADDOX
5430
PROFESSIONAL
LAND SURVEYOR

Brian J. Maddox
Registered Professional Land Surveyor No. 5430
Surveyed on the ground November 20, 2023

VICINITY MAP



KEY MAP 567H
SCALE 1" = 3000'



SURVEYOR'S NOTES:

1. THE CAD FILE OF THE DRAWING SHOWN HEREIN IS BASED ON TEXAS SOUTH CENTRAL ZONE NO. 4204, STATE PLANE SURFACE VALUE (NAD83) AND MAY BE CONVERTED TO GRID BY SCALING THE DRAWING BY THE FOLLOWING COMBINED SCALE FACTOR OF 0.99987795069.

2. ACCORDING TO F.I.R.M. MAP NO. 48157C0145L (COMMUNITY-PANEL NO. 4802340145L), MAP REVISED DATE: APRIL 2, 2014. THE SUBJECT PROPERTY LIES WITHIN THE AREA DESIGNATED AS ZONE "X" UNSHADED. DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD.

THIS STATEMENT IS BASED ON SCALING THE LOCATION OF THE SUBJECT TRACT ON THE ABOVE REFERENCED MAP. THIS INFORMATION IS TO DETERMINE FLOOD INSURANCE RATES ONLY AND IS NOT INTENDED TO IDENTIFY SPECIFIC FLOODING CONDITIONS.

3. —¢ INDICATES AN UNDERGROUND SEWER LINE WITH UNKNOWN DIRECTION, SIZE OR LOCATION OR A POSSIBLE STUB-OUT.

REFERENCE BENCHMARK:

SGR-RM019 - CITY OF SUGAR LAND GEODETIC CONTROL BRASS DISK STAMPED RM019 LOCATED AT THE NORTHWEST END OF THE MEDIAN AT THE ENTRANCE TO ELDRIDGE PARK OFF OF ELDRIDGE ROAD.
ELEVATION=85.37' (NAVD 88, 2001 ADJ.)

TEMPORARY BENCHMARKS:

TBM "A" -BOX CUT ON LIGHT STANDARD BASE LOCATED AT THE SOUTHWEST CORNER OF TENNIS COURTS.
ELEVATION = 88.05'

TBM"B" - BOX CUT ON TOP OF CONCRETE BASE FOR LIGHT STANDARD LOCATED ON THE SOUTH SIDE OF TRACK AND ON THE WEST SIDE OF THE BLEACHER.
ELEVATION = 87.62'

TBM"C" - BOX CUT ON THE EAST CORNER OF CONCRETE PAD FOR SHOT PUT LOCATED ±37 FEET SOUTH OF THE BLEACHERS ON THE SOUTH SIDE OF THE FOOTBALL FIELD.
ELEVATION = 83.63'

TBM"D" - BOX CUT ON TOP OF CONCRETE BASE FOR LIGHT STANDARD LOCATED ON THE SOUTH SIDE OF BASEBALL FILED ±87 FEET EAST OF THE DUGOUT.
ELEVATION = 88.06'

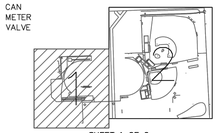
TBM"E" - BOX CUT ON THE SOUTHEAST CORNER OF UNDERGROUND VAULT LOCATED ON THE SOUTH SIDE OF VOSS ROAD ±60 FEET NORTHWEST OF THE NORTHWEST CORNER OF THE BASEBALL FIELD FENCE.
ELEVATION = 83.56'

LEGEND

- BENCHMARK
- BORE HOLE
- "C" INLET
- CLEANOUT
- D.S. DOWN SPOUT
- ELECTRIC JUNCTION BOX
- FIRE HYDRANT
- FLAG POLE
- GAS VALVE
- GATE POST
- GUY WIRE
- INLET
- IRRIGATION CONTROL VALVE
- LIGHT STANDARD
- MANHOLE
- PAINT MARKER (ELECTRIC)
- PAINT MARKER (GAS)
- PAINT MARKER (TELEPHONE)
- SIGN
- TRASH CAN
- WATER METER
- WATER VALVE

ABBREVIATIONS

- FF—FINISH FLOOR
- FL—FLOW LINE
- FND.—FOUND
- F.B.C.C.F.—FORT BEND COUNTY CLERK'S FILE
- F.B.C.D.R.—FORT BEND COUNTY DEED RECORDS
- HDP—HIGH DENSITY POLYETHYLENE PIPE
- I.P.—IRON PIPE
- I.R.—IRON ROD
- MH—MANHOLE
- PG.—PAGE
- PVC—POLYVINYL CHLORIDE PIPE
- RCP—REINFORCED CONCRETE PIPE
- R.O.W.—RIGHT-OF-WAY
- SAN.—SANITARY
- STM.—STORM
- SWR.—SEWER
- TBM—TEMPORARY BENCHMARK
- TG—TOP OF GRATE
- TR—TOP OF RIM
- VOL.—VOLUME



SHEET 1 OF 2

TSPS CATEGORY 6, CONDITION II
LIMITED TOPOGRAPHIC SURVEY

FORT BEND I.S.D. KEMPNER HIGH SCHOOL
14777 VOSS RD.
SUGAR LAND, TX. 77498

SITUATED IN THE
A. HODGE SURVEY, ABSTRACT NUMBER 32
CITY OF SUGAR LAND, FORT BEND COUNTY, TEXAS

PROJECT INFORMATION
Project No. FBI23515
Date:November 20, 2023
Drawn By: KMH
Checked By: JDJ
Scale: 1"=30'
Sheet: 1 of 2

SURVEYOR
TEAGUE NALL AND PERKINS, INC.
1221 Park West Green Drive, Suite 100
Katy, Texas 77493
832.220.1205 ph 214.461.9864 fx
TBPLS Registration No. 10194381
www.tnpinc.com

tnp

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

KEMPNER HIGH SCHOOL
Project Info Additional Text Line
14777 Voss RD, Sugar Land, TX 77498

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
SURVEYOR
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
1 Date Description

100% CD
C 0.02-K
CIVIL SPORTS SURVEY
(REFERENCE ONLY)

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
TSCE PROJECT # 2508

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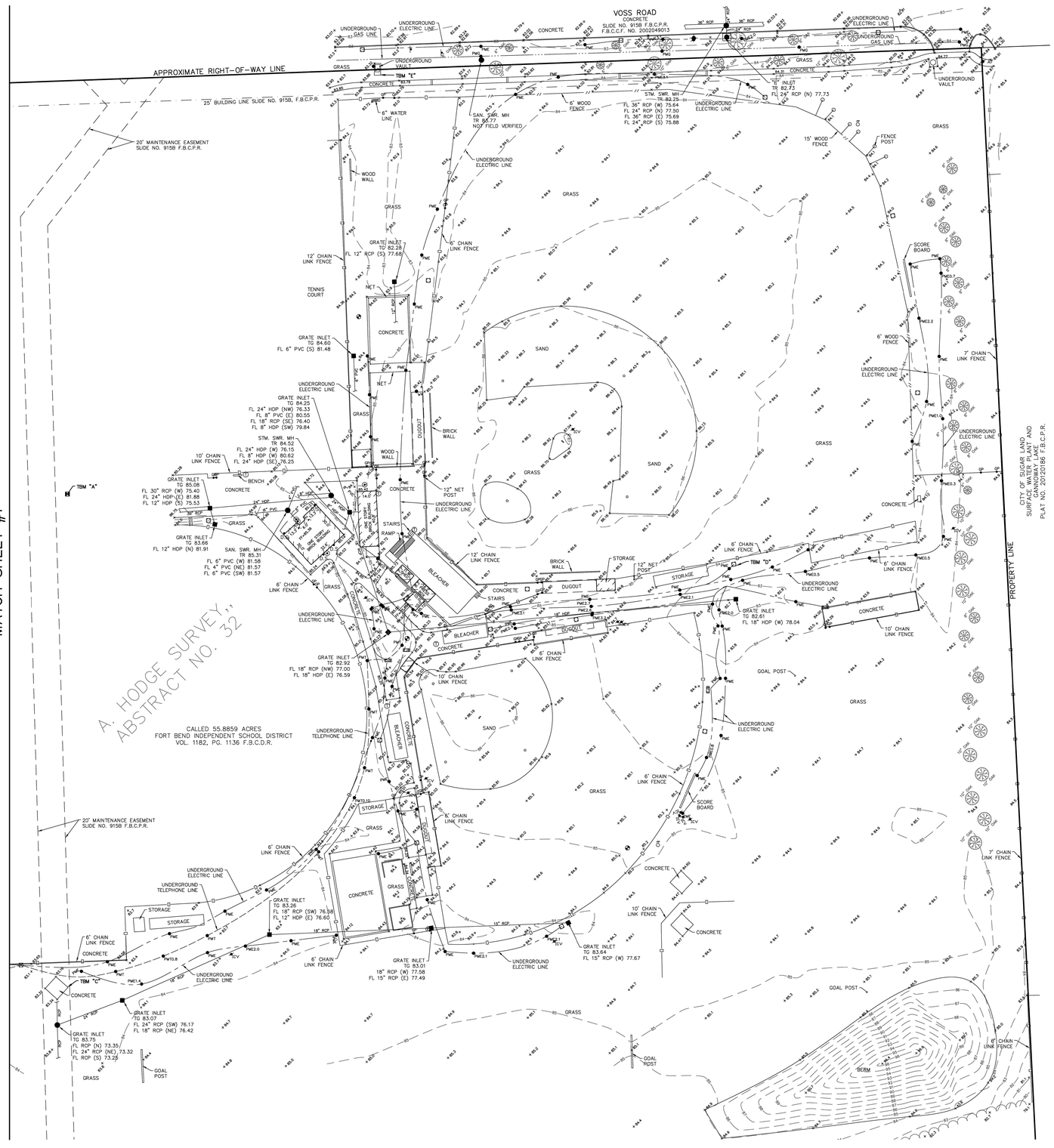


SURVEYOR'S CERTIFICATE

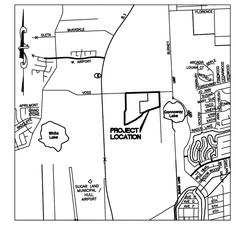
To: Fort Bend Independent School District

I, Brian J. Maddox, a Registered Professional Land Surveyor in the State of Texas, do hereby certify that I have prepared this map from an actual on the ground survey of the land, and the monuments shown thereon were found under my personal supervision in accordance with the Surveying Rules and Regulations of the State of Texas. This survey substantially conforms to a Category 6, Condition II Topographic Survey.

STATE OF TEXAS REGISTERED BRIAN J. MADDOX 5430 PROFESSIONAL LAND SURVEYOR

Brian J. Maddox
Registered Professional Land Surveyor No. 5430
Surveyed on the ground November 20, 2023

VICINITY MAP



KEY MAP 567H
SCALE 1" = 3000'

tnp

30 15 0 30
SCALE IN FEET
1" = 30'

SURVEYOR'S NOTES:

1. THE CAD FILE OF THE DRAWING SHOWN HEREIN IS BASED ON TEXAS SOUTH CENTRAL ZONE NO. 4204, STATE PLANE SURFACE VALUE (NAD83) AND MAY BE CONVERTED TO GRID BY SCALING THE DRAWING BY THE FOLLOWING COMBINED SCALE FACTOR OF 0.99987750569.

2. ACCORDING TO F.I.R.M. MAP NO. 48157C0145L (COMMUNITY-PANEL NO. 4802340145L), MAP REVISED DATE: APRIL 2, 2014. THE SUBJECT PROPERTY LIES WITHIN THE AREA DESIGNATED AS ZONE "X" UNSHADED. DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD.

THIS STATEMENT IS BASED ON SCALING THE LOCATION OF THE SUBJECT TRACT ON THE ABOVE REFERENCED MAP. THIS INFORMATION IS TO DETERMINE FLOOD INSURANCE RATES ONLY AND IS NOT INTENDED TO IDENTIFY SPECIFIC FLOODING CONDITIONS.

3. ⊣⊢ INDICATES AN UNDERGROUND SEWER LINE WITH UNKNOWN DIRECTION, SIZE OR LOCATION OR A POSSIBLE STUB-OUT.

REFERENCE BENCHMARK:

SGR-RM019 - CITY OF SUGAR LAND GEODETIC CONTROL BRASS DISK STAMPED RM019 LOCATED AT THE NORTHWEST END OF THE MEDIAN AT THE ENTRANCE TO ELDRIDGE PARK OFF OF ELDRIDGE ROAD.
ELEVATION=85.37' (NAVD 88, 2001 ADJ.)

TEMPORARY BENCHMARKS:

TBM "A" -BOX CUT ON LIGHT STANDARD BASE LOCATED AT THE SOUTHWEST CORNER OF TENNIS COURTS.
ELEVATION = 88.05'

TBM"B" - BOX CUT ON TOP OF CONCRETE BASE FOR LIGHT STANDARD LOCATED ON THE SOUTH SIDE OF TRACK AND ON THE WEST SIDE OF THE BLEACHER.
ELEVATION = 87.62'

TBM"C" - BOX CUT ON THE EAST CORNER OF CONCRETE PAD FOR SHOT PUT LOCATED ±37 FEET SOUTH OF THE BLEACHERS ON THE SOUTH SIDE OF THE FOOTBALL FIELD.
ELEVATION = 83.63'

TBM"D" - BOX CUT ON TOP OF CONCRETE BASE FOR LIGHT STANDARD LOCATED ON THE SOUTH SIDE OF BASEBALL FILED ±87 FEET EAST OF THE DUGOUT.
ELEVATION = 88.05'

TBM"E" - BOX CUT ON THE SOUTHEAST CORNER OF UNDERGROUND VAULT LOCATED ON THE SOUTH SIDE OF VOSS ROAD ±60 FEET NORTHWEST OF THE NORTHWEST CORNER OF THE BASEBALL FIELD FENCE.
ELEVATION = 83.56'

LEGEND

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- BORE HOLE
- "C" INLET
- CLEANOUT
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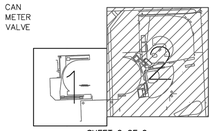

SHEET 2 OF 2

TSPS CATEGORY 6, CONDITION II LIMITED TOPOGRAPHIC SURVEY

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CITY OF SUGAR LAND, FORT BEND COUNTY, TEXAS

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

KEMPNER HIGH SCHOOL
Project Info Additional Text Line
14777 Voss RD, Sugar Land, TX 77498

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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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TSCE PROJECT # 2598

100% CD
C 0.03-K
CIVIL SPORTS SURVEY
(REFERENCE ONLY)


IMAGE "A"


IMAGE "B"


IMAGE "C"


IMAGE "D"


IMAGE "E"

N

NOTES:

1. ALL DEMOLITION ITEMS INCLUDING ALL SOILS TO BE HAULED OFF OF SITE OR AS DIRECTED BY CLIENT.
2. IF ANY DAMAGE IS DONE TO ANY AREA NOT ON SCOPE OF WORK IT SHALL BE THE CONTRACTOR'S DUTY TO FIX IT AT ITS OWN EXPENSE.
3. CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND EXISTING STRUCTURES.
4. CONTRACTOR SHALL MAINTAIN ALL PUBLIC STREET AND RIGHT OF WAY FREE OF DEBRIS, SILT AND SOILS AT ALL TIMES.
5. ALL WASTED SPILLED FROM TRUCKS SHALL BE REMOVED IMMEDIATELY AND NOT WASHED INTO STORM SEWER SYSTEM.
6. INLET PROTECTION WILL BE REQUIRED AT INLETS DOWNSTREAM OF THE WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.

LEGEND:

STRIP AND REMOVAL OF MATERIALS

REMOVAL AND DISPOSAL OF ITEMS

15' 30' 0 30' 60'

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

KEMPNER HIGH SCHOOL

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14777 Voss RD, Sugar Land, TX 77498

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INSPIRE•EQUIP•IMAGINE
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12/04/2025

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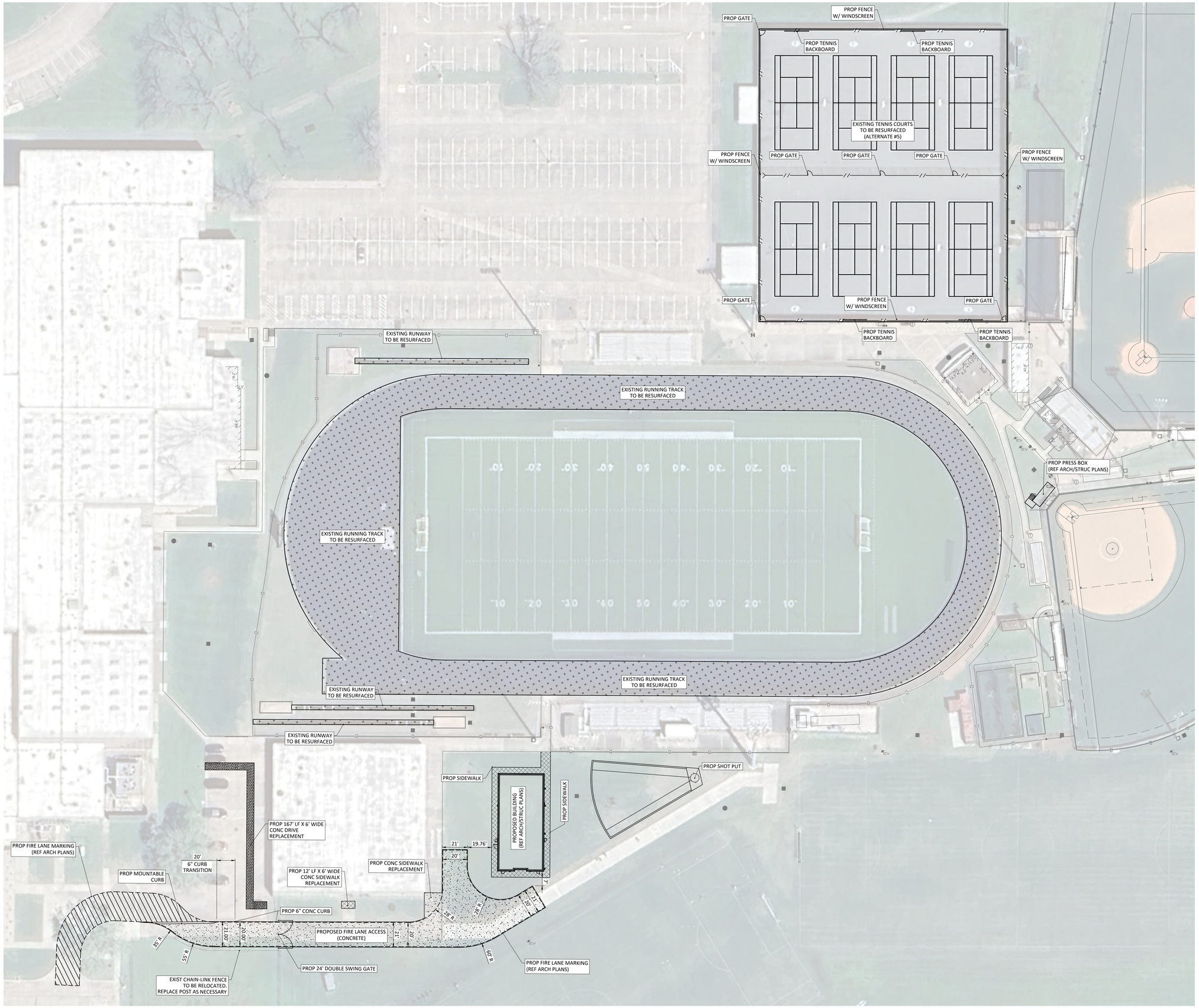
C 0.04-K

CIVIL SPORTS DEMOLITION PLAN



NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.
2. CONTRACTOR TO REMOVE THE EXISTING TRACK SURFACE FOR THE EXISTING TRACK AND FIELD EVENTS ALL THE WAY DOWN TO THE ASPHALT. ONCE ALL SURFACE HAS BEEN REMOVED, CONTRACTOR SHALL CONTACT THE ENGINEER TO INSPECT THE CONDITION OF THE EXISTING ASPHALT AND CONCRETE CURBS TO FIND THE AREAS THAT NEED TO BE FIXED OR REPLACED BEFORE ADDING ANY OTHER SURFACE.
3. CONTRACTOR TO APPLY THE PROPOSED TRACK SURFACE PER SPEC. (STRUCTURAL SPRAY).
4. CONTRACTOR TO SEE SHEET FROM C 5.01-K TO C5.06-K FOR DETAILS.
5. ALL DISTURBED AREAS TO BE HYDROMULCHED. AREAS WITH SLOPE GREATER THAN 3:1 SLOPE TO BE SODDED.

LEGEND:

- TRACK RESURFACE
- 4.5 INCH CONC SIDEWALK
- 6 INCH CONC DRIVE
- 7 INCH CONC DRIVE

15' 30' 30' 0 60'

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pfluger
office: 713.222.1141 | fax: 713.222.1174
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KEMPNER HIGH SCHOOL

Project Info Additional Text Line

14777 Voss RD, Sugar Land, TX 77498

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

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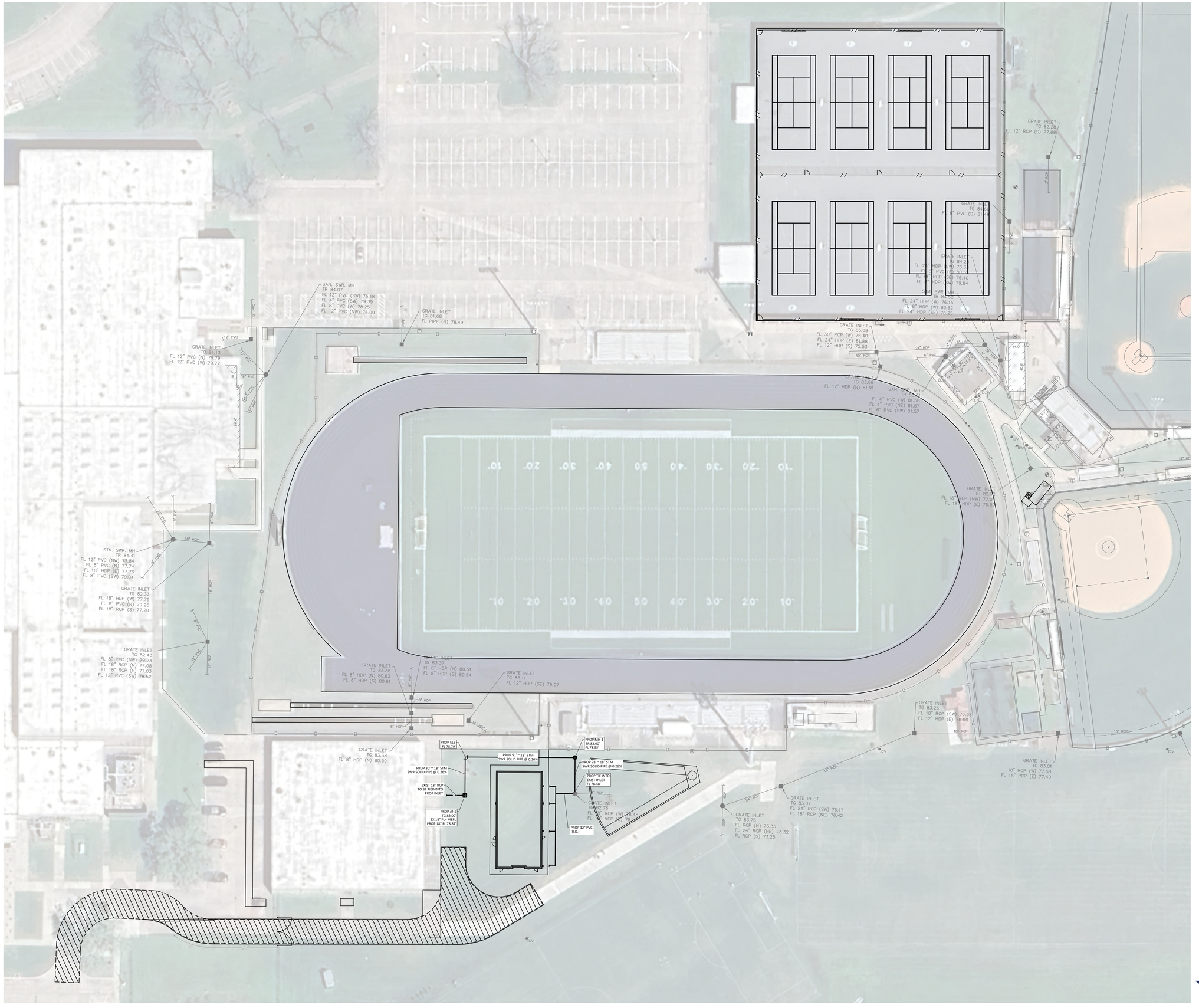
C 1.01-K
CIVIL SPORTS SITE PLAN



NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

15' 30'
30' 0 60'

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

KEMPNER HIGH SCHOOL
Project Info Additional Text Line
14777 Voss RD, Sugar Land, TX 77498

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

	Date	Description
1		

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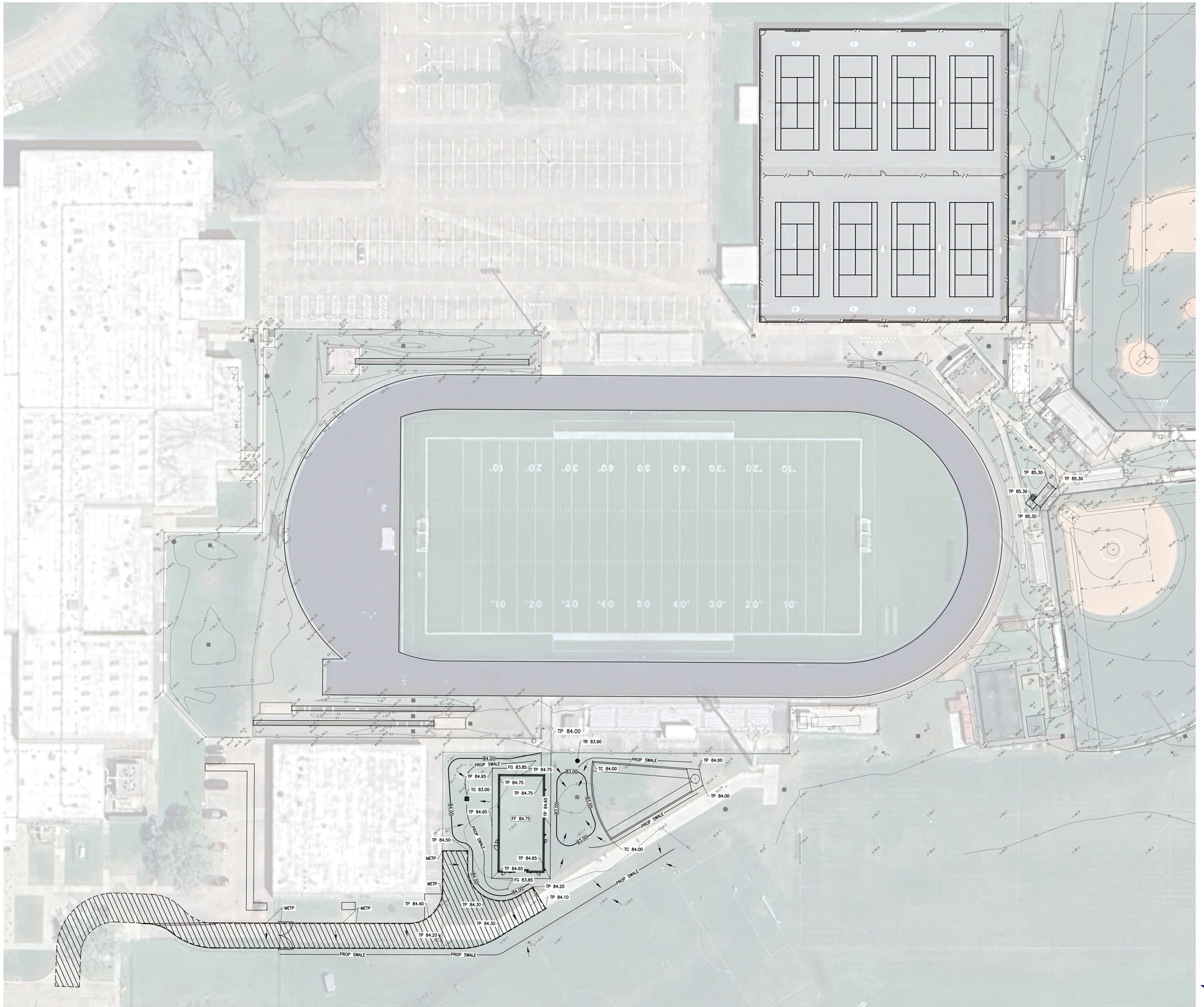
C 2.01-K
CIVIL SPORTS
DRAINAGE PLAN



N

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LEGEND:

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FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

15' 30'
30' 0 60'

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11767 KATY FWY, SUITE 1112
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PHONE No. 346.204.4854
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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FBISD
INSPIRE•EQUIP•IMAGINE
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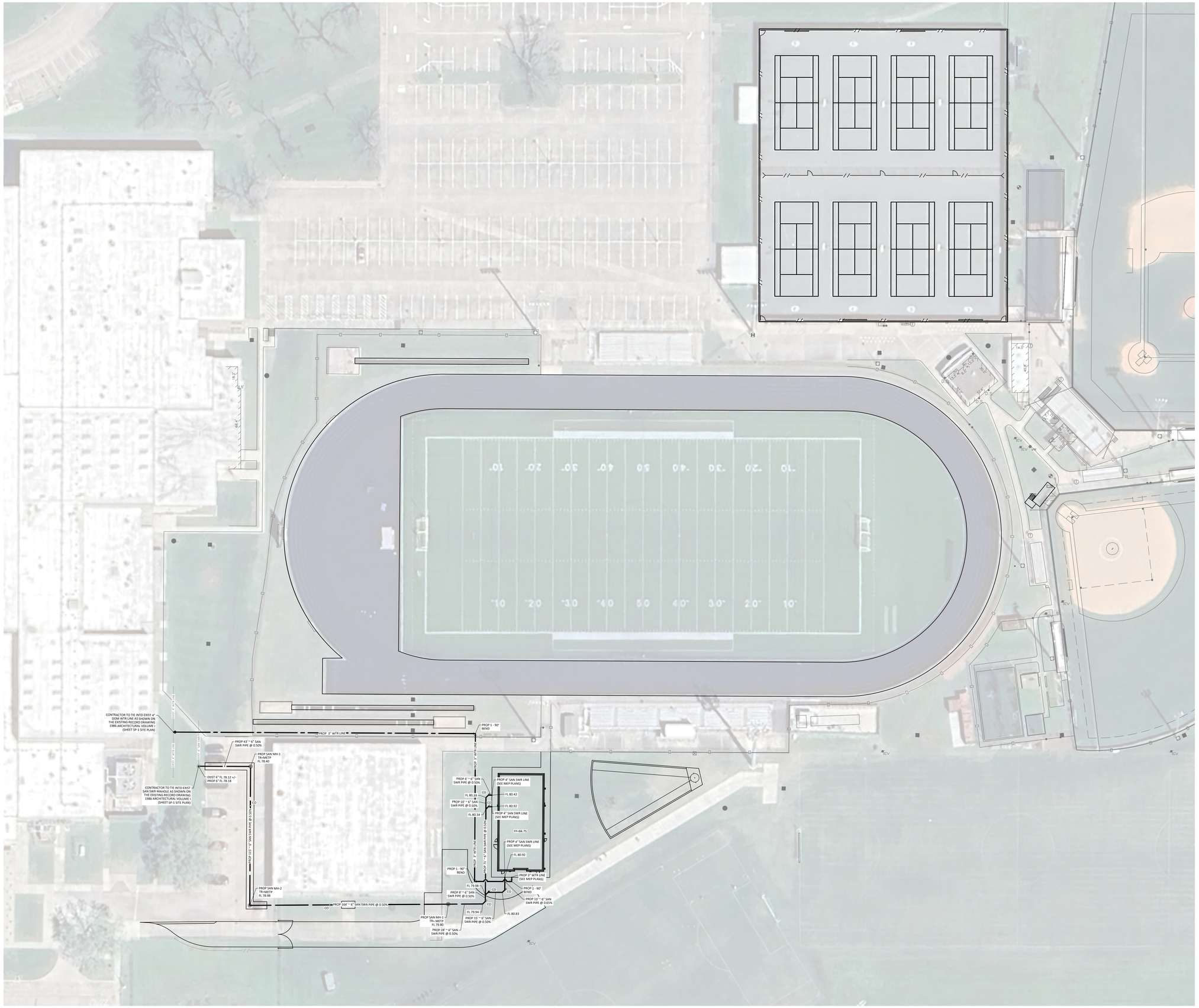
KENNETH I. JURADO
119993
LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

	Date	Description
1		

100% CD

C 3.01-K
CIVIL SPORTS GRADING PLAN



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GENERAL NOTES:

1. CONTRACTOR TO COORDINATE AND IDENTIFY ALL FITTINGS, PIPE MATERIALS, AND INSTALLATION DETAILS, NOT SHOWN WITHIN THE 5+- SPACING BETWEEN THE STRUCTURES. REFER TO M.E.P. PLANS FOR TRUNK LINE LEAD LOCATIONS PRIOR TO CONSTRUCTION FOR A WATERTIGHT CONNECTION.
2. CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS REQUIRED PRIOR O STARTING CONSTRUCTION. COORDINATE CONNECTIONS TO PUBLIC MUD FACILITIES WITH MUD ENGINEER/OPERATOR.
3. THE OWNER OR CONTRACTOR SHALL INSTALL APPROPRIATE BACKFLOW PREVENTION DEVICES IN ACCORDANCE WITH STATE PUMBLING CODES OR AS REQUIRED BY THE MUD OPERATOR. BACKFLOW TEST REPORTS MUST BE AVAILABLE AT THE TIME OF INSPECTION. COPIES OF ANNUAL TEST REPORTS MUST BE FORWARDED TO THE MUD DISTRICT.
4. NO PIPES, PIPE FITTINGS, PLUMBING FITTINGS AND FIXTURES WHICH CONTAIN MORE THAN A WEIGHTED AVERAGE OF 0.25% LEAN WHEN USED WITH RESPECT TO WETTED SURFACES EXIST IN PRIVATE WATER DISTRIBUTION FACILITIES INSTALLED ON OR AFTER JANUARY 4, 2014.
5. DIMENSION CONTROL PLAN PREPARED BY TSCE TO BE USED IN CONJUNCTION WITH THIS PLAN FOR LOCATING ALL IMPROVEMENTS.
6. ALL SANITARY SEWER RIMS TO BE PLACED NO HIGHER THAN ONE FOOT BELOW THE ADJACENT FINISHED FLOOR ELEVATION.
7. CONTRACTOR SHALL CORE DRILL THE SANITARY MANHOLE CONNECTION, USE A WATERTIGHT RESILIENT CONNECTOR, AND PROVIDE AN EXTERNAL DROP IF REQUIRED.
8. SANITARY SEWER LINES SHALL BE A MINIMUM 6" SDR 26 OR SCH40 BEDDED AND BACKFILLED WITH CEMENT STABILIZED SAND (8" AND LARGER SHAL BE SDR 26)
9. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION DIFFERS FROM WHAT IS SHOWN ON THE DOCUMENTS.
10. CONTRACTOR SHALL TAKE EXTRA CARE NOT TO DAMAGE ANY EXISTING UTILITIES THAT ARE TO REMAIN IN PLACE.
11. CONTRACTOR TO PLACE GATE VALVE EVERY 1,000 FT.
12. CONTRACTOR TO PLACE SAN SWR CLEAN OUT EVERY 100 FT.

NOTES:

1. REROUTE ALL UTILITIES INCLUDING ELECTRICAL,STORM,WATER AND SANITARY SEWER AS NEEDED FOR THE CONSTRUCTION OF THE PROPOSED CONCESSION.

LEGEND:

FL XX.XX'	FLOW LINE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	SAN MANHOLE (MH-X)
	CLEAN OUT
	WATER LINE
	SAN SWR LINE
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOW
	FIRE HYDRANT
	GATE VALVE

15' 30' 30' 0 60'

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KEMPNER HIGH SCHOOL

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12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

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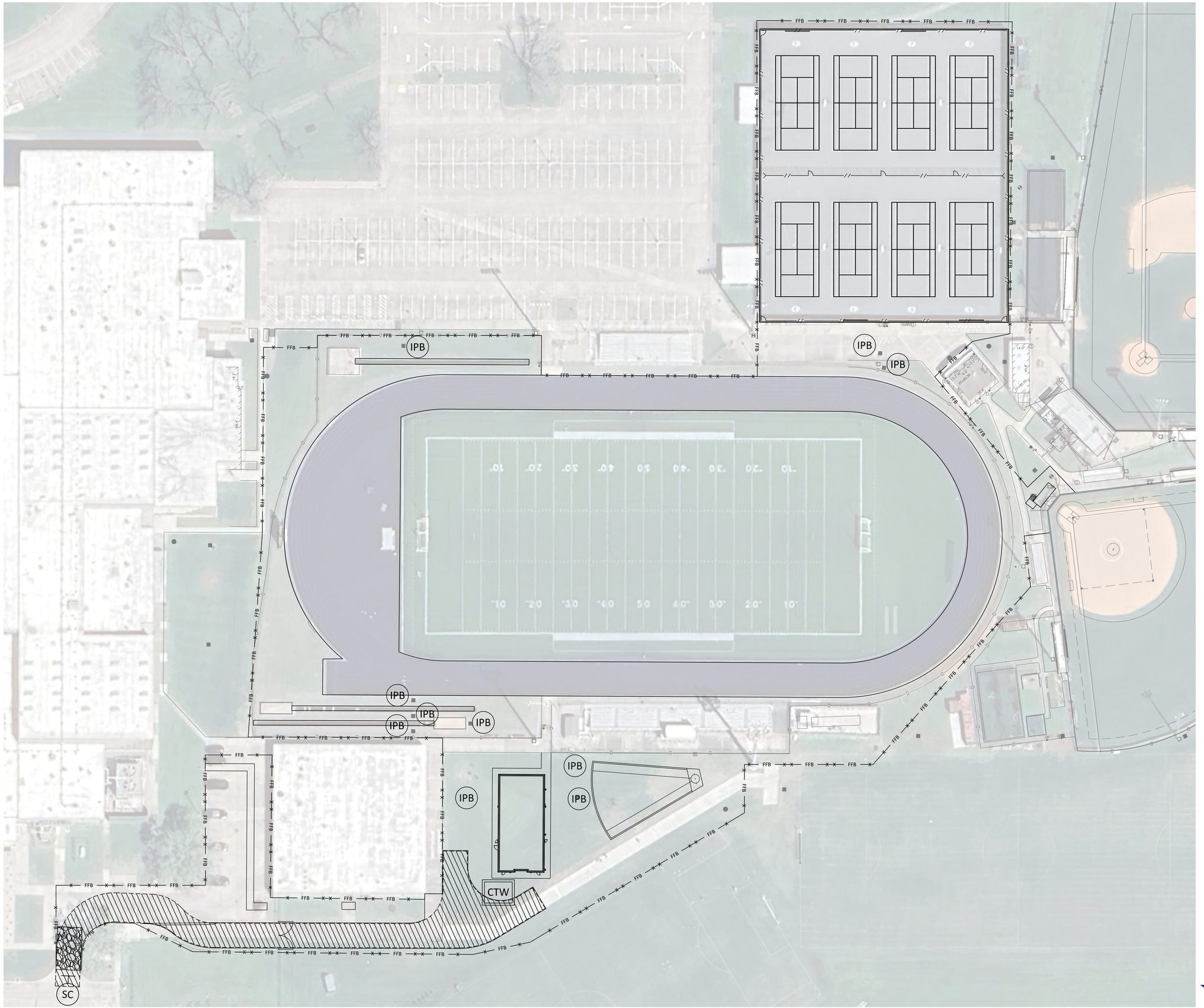
C 3.21-K

CIVIL SPORTS UTILITY PLAN



N

NOTES:

1. CONTRACTOR TO PLACE "IPB" IN ALL SURROUNDING INLETS.

LEGEND:

- IPB — INLET PROTECTION BARRIER STAGE I
- IPB — INLET PROTECTION BARRIER STAGE II
- SC — STABILIZED CONSTRUCTION ACCESS
- CTW — CONCRETE TRUCK WASHOUT AREA
- FFB — FILTER FABRIC BARRIER

15' 30' 30' 0 60'

TEXAS SPORTS & CIVIL ENGINEERING
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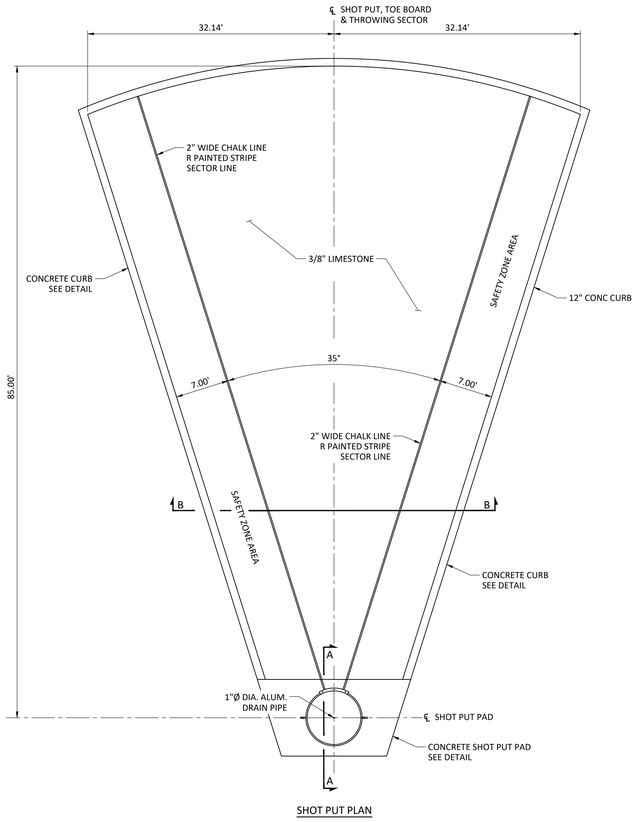
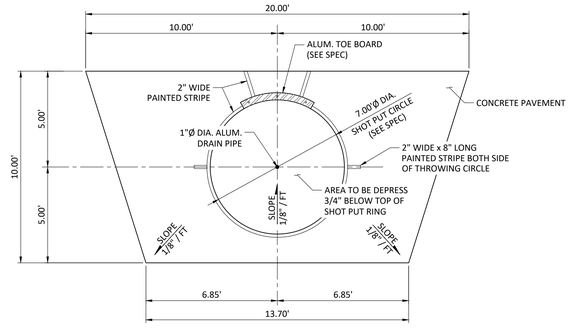
C 4.01-K
CIVIL SPORTS
SWPP PLAN



SHOT PUT PLAN



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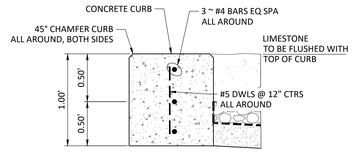
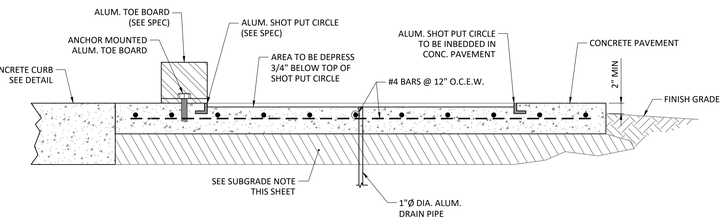
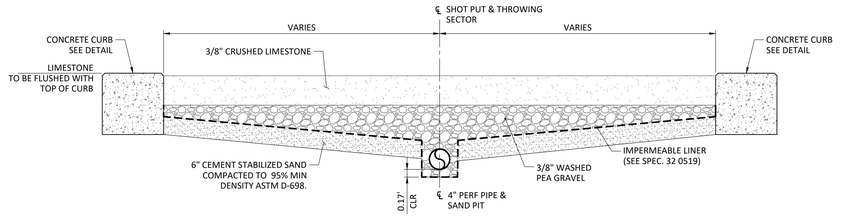


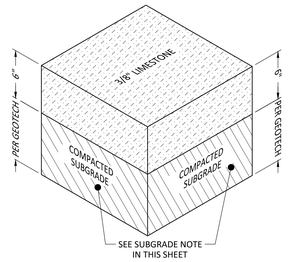
CONCRETE CURB DETAIL



SECTION A - A



SECTION B - B

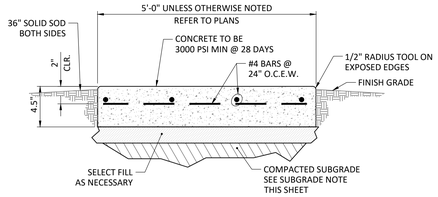


LIMESTONE

SUBGRADE TREATMENT NOTE:

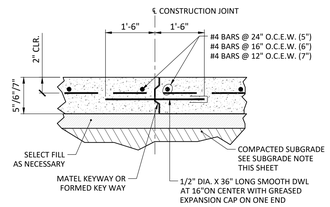
1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

1 SHOT PUT DETAIL
N.T.S.



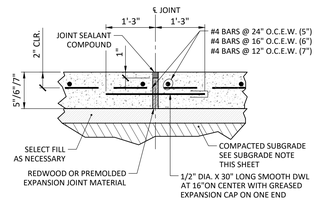
NOTES:
1. PROVIDE GROOVED JOINT AT 4' ON CENTER.
2. PROVIDE 1/2" EXPANSION JOINT AT 15' ON CENTER.
3. PROVIDE CONTROL JOINTS AT 5' MAXIMUM.

2 CONCRETE SIDEWALK DETAIL
N.T.S.



NOTES:
1. CONSTRUCTION JOINT SHALL BE PLACED AT THE END OF EACH DAYS POUR AND IN BETWEEN POURS AS SPECIFIED.

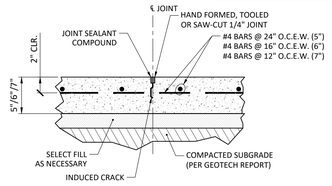
3 CONTROL JOINT DETAIL
N.T.S.



NOTES:
1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

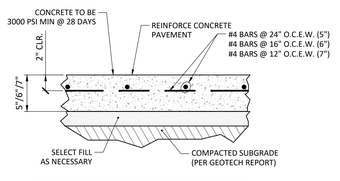
4 EXPANSION JOINT DETAIL
N.T.S.

NOTE: SEE GEOTECH REPORT FOR REFERENCE



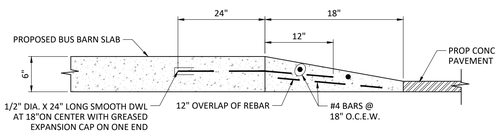
NOTES:
1. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

5 CONSTRUCTION JOINT DETAIL
N.T.S.



NOTES:
1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.
2. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

6 CONCRETE PAVEMENT DETAIL
N.T.S.



7 MOUNTABLE CURB DETAIL
N.T.S.

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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TSCE PROJECT # 2508

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

KEMPNER HIGH SCHOOL

Project Info Additional Text Line

14777 Voss RD, Sugar Land, TX 77498

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

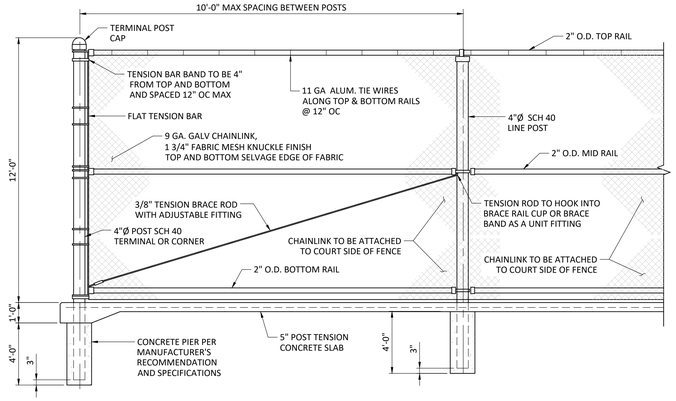
KENNETH I. JURADO 119993

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

100% CD

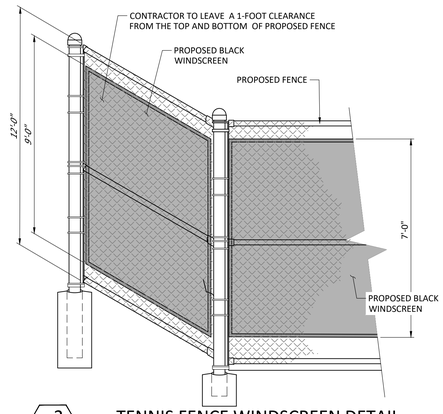
C 5.01-K
CIVIL SPORTS DETAILS



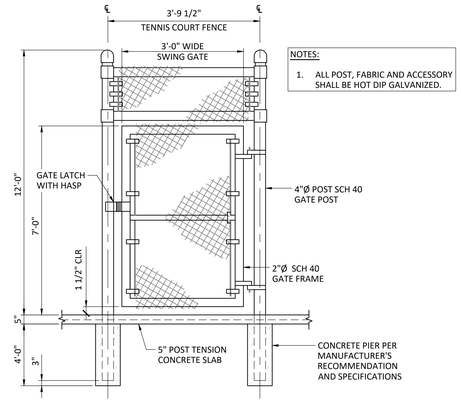
NOTES:

1. ALL POST, FABRIC AND ACCESSORY SHALL BE HOT DIP GALVANIZED.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
3. CONTRACTOR SHALL DESIGN AND BUILD FENCE TO WITHSTAND WIND LOADS PER REGULATIONS AND BE RESPONSIBLE FOR ITS FUTURE PERFORMANCE.

1 TENNIS FENCE DETAIL
N.T.S.



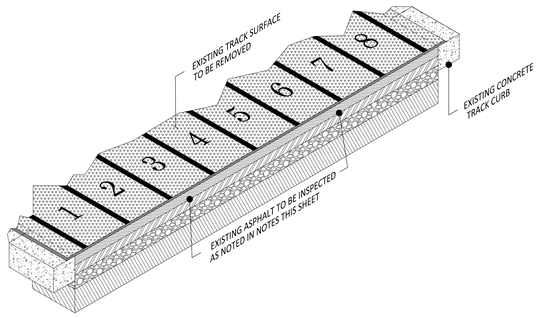
2 TENNIS FENCE WINDSCREEN DETAIL
N.T.S.



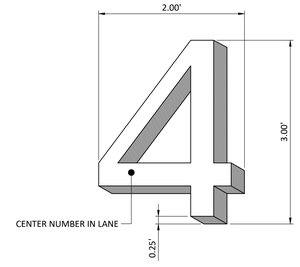
NOTES:

1. ALL POST, FABRIC AND ACCESSORY SHALL BE HOT DIP GALVANIZED.

3 TENNIS 3' WIDE GATE DETAIL
N.T.S.



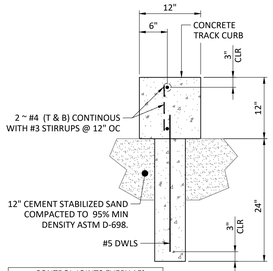
4 TRACK SURFACE SECTION
N.T.S.



5 TRACK NUMBER DETAIL
N.T.S.

NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.
2. CONTRACTOR TO REMOVE THE EXISTING TRACK SURFACE FOR THE EXISTING TRACK AND FIELD EVENTS ALL THE WAY DOWN TO THE ASPHALT. ONCE ALL SURFACE HAS BEEN REMOVED, CONTRACTOR SHALL CONTACT THE ENGINEER TO INSPECT THE CONDITION OF THE EXISTING ASPHALT AND CONCRETE CURBS TO FIND THE AREAS THAT NEED TO BE FIXED OR REPLACED BEFORE ADDING ANY OTHER SURFACE.
3. CONTRACTOR TO APPLY THE PROPOSED TRACK SURFACE PER SPEC. (STRUCTURAL SPRAY).

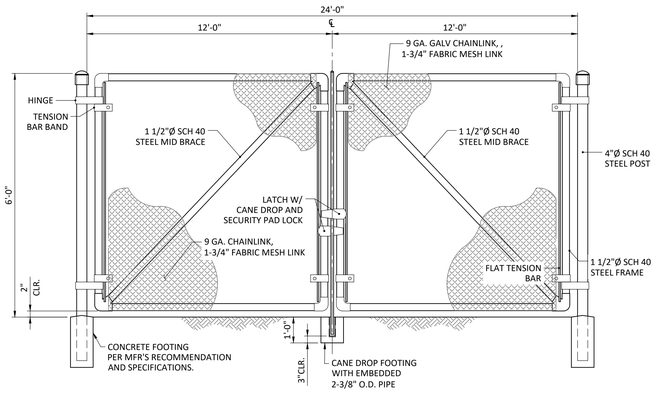


- CONTROL JOINTS EVERY 15'
- EXPANSION JOINTS EVERY 45'
- PIER TO BE 8" IN DIA AND SHALL BE INSTALLED EVERY 20'.

6 TRACK CURB SECTION
N.T.S.

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.



7 TYPICAL 20' SWING GATE
N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

KEMPNER HIGH SCHOOL

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KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 5.02-K
CIVIL SPORTS DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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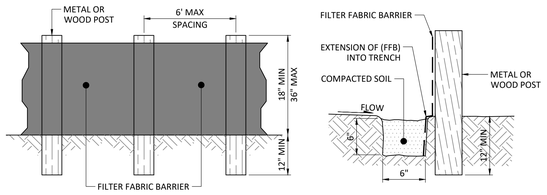


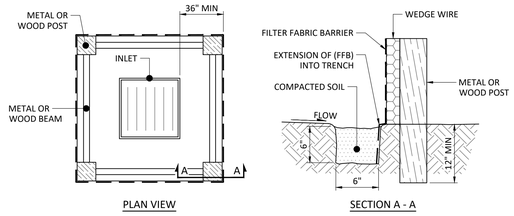
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

X — FFB — X

1 N.T.S. FILTER FABRIC BARRIER



PLAN VIEW

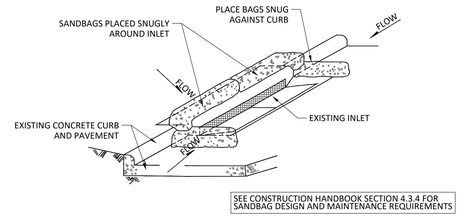
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

IPB

2 N.T.S. INLET PROTECTION BARRIER



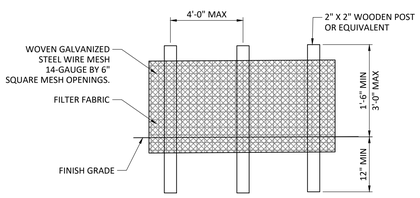
SEE CONSTRUCTION HANDBOOK SECTION 4.3.4 FOR SANDBAG DESIGN AND MAINTENANCE REQUIREMENTS

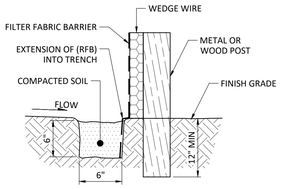
GENERAL NOTES:

1. BAGS OR WATTLES CAN BE USED FOR THIS APPLICATION.
2. PROVIDE WOVEN OR UNWOVEN GEOTEXTILE FILTER FABRIC FOR BAGS.
3. PROVIDE COARSE SAND AND AGGREGATE MIX FOR FILL MATERIAL FOR BAGS. USE ONLY PARTICLES CONSISTING OF CLEAN, HARD, DURABLE MATERIALS FREE FROM ADHERENT COATINGS, SALT, ALKALI, DIRT, CLAY, LOAM, SHALE, SOFT OR FLAKY MATERIALS, OR ORGANIC AND INJURIOUS MATTER.
4. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE BARRIER.

IPB

3 N.T.S. INLET PROTECTION BARRIER STAGE II





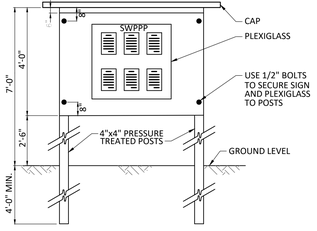
NOTES:

1. SET POSTS AT 4-FEET MAXIMUM SPACING. IF FACTORY PREASSEMBLED FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAXIMUM
2. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT THE POST, FOLD TOGETHER, AND ATTACH TO THE POSTS.
3. REMOVE SEDIMENT DEPOSITS WHEN SILT DEPTH REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE.

XX — RFB — XX

4 N.T.S. REINFORCE FILTER FABRIC BARRIER

CONSTRUCTION SITE NOTICE



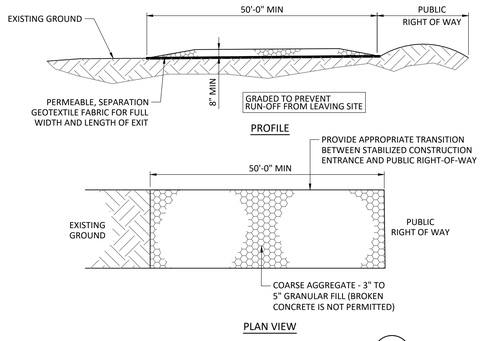
SWPPP SIGN

GENERAL NOTES:

1. COORDINATE CONSTRUCTION SITE AND SWPPP SIGN INFORMATION AND LAYOUT REQUIREMENTS WITH OWNER.

SC

5 N.T.S. PROJECT SIGN DETAIL



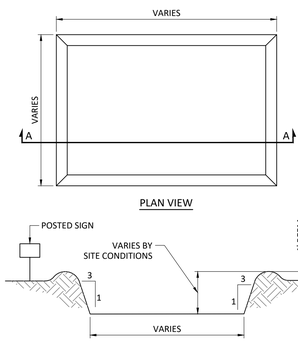
PLAN VIEW

SC

6 N.T.S. STABILIZED CONSTRUCTION ACCESS

GENERAL NOTES:

1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
2. MINIMUM WIDTH OF 14 FEET FOR ONE-WAY TRAFFIC, 20 FEET FOR TWO-WAY TRAFFIC.
3. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
4. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
5. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
6. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
7. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
8. ALTERNATIVE METHODS OF CONSTRUCTION INCLUDE
   -CEMENT STABILIZED SOIL: COMPACTED CEMENT STABILIZED SOIL, LIMESTONE AGGREGATE, OR OTHER FILL MATERIAL IN AN APPLICATION OF THICKNESS OF 8 INCHES.
   -WOOD MATS: OAK OR OTHER HARDWOOD TIMBERS PLACED EDGE TO EDGE AND ACROSS SUPPORT WOODEN BEAMS WHICH ARE PLACED ON TOP OF EXISTING SOIL IN AN APPLICATION THICKNESS OF 6 INCHES.
   -STEEL MATS: PERFORATED MATS PLACED ACROSS PERPENDICULAR SUPPORT MEMBERS.
9. CONSTRUCT CONSTRUCTION EXIT ON LEVEL GROUND WHEN POSSIBLE.
10. PROVIDE PERIODIC STREET SWEEPING AT CONJUCTION WITH PUBLIC RIGHT-OF-WAY.
11. LIMIT SPEED OF VEHICLES TO CONTROL DUST.
12. UTILIZE TEMPORARY PIPE CULVERTS AS NEEDED TO PREVENT IMPEDING POSITIVE DRAINAGE.
13. VERIFY STABILIZED CONSTRUCTION ACCESS LOCATION WITH OWNER PRIOR TO CONSTRUCTION.



PLAN VIEW

SECTION A - A

CTW

7 N.T.S. CONCRETE TRUCK WASHOUT AREA

GENERAL NOTES:

1. POST A SIGN READING "WARNING: CONCRETE WASH OUT PIT" NEXT TO EVERY PIT, MAKE SIGN VISIBLE TO NEAREST SIDEWALK OR ROAD.
2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.
3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.
6. LOCATE CONCRETE WASH OUT PITS AWAY FROM PLAYGROUND STRUCTURES.
7. VERIFY CONCRETE TRUCK WASHOUT AREA LOCATION WITH OWNER PRIOR TO CONSTRUCTION.

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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Project Info Additional Text Line
14777 Voss RD, Sugar Land, TX 77498

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KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 5.03-K
CIVIL SPORTS
SWPP DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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TSCE PROJECT # 2508

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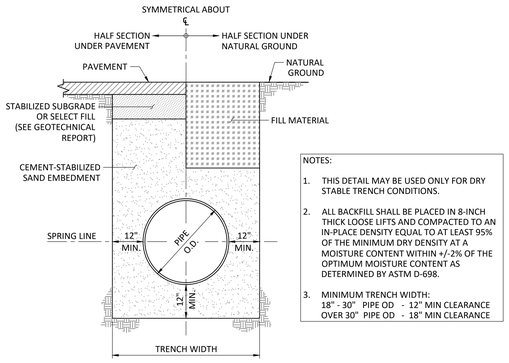
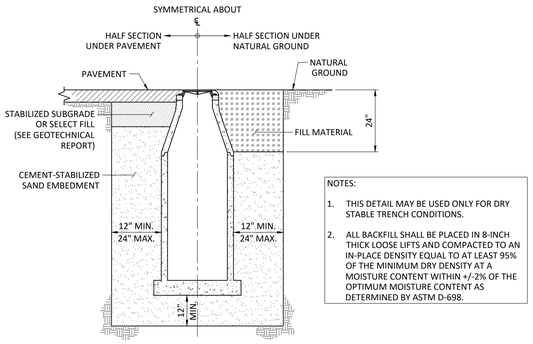


NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

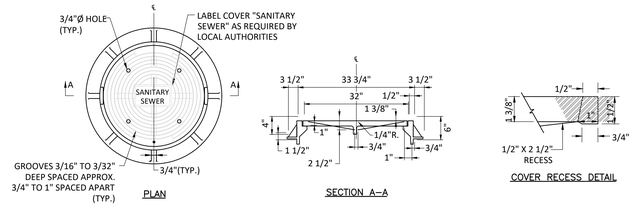
1 SANITARY SEWER BEDDING AND BACKFILL DETAIL
N.T.S.



NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.

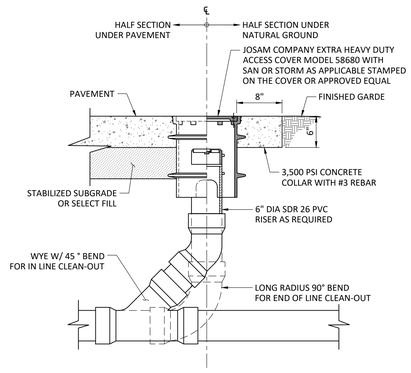
2 SANITARY SEWER STRUCTURE BEDDING AND BACKFILL DETAIL
N.T.S.



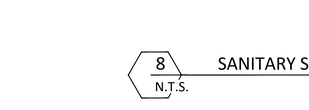
GENERAL NOTES:

1. ENSURE MANHOLE COVER IS TIGHTLY IN PLACE DURING AND POST CONSTRUCTION.

3 MANHOLE FRAME AND COVER
N.T.S.



4 CLEAN-OUT DETAIL
N.T.S.



TOP VIEW



NOTES:

1. PRECAST CONCRETE MANHOLES SHALL BE MADE OF CLASS 1 CONCRETE WITH A DESIGN STRENGTH OF 4,500 PSI AT 28 DAYS AND RATED FOR H-20 LOADING.
2. STRUCTURAL REINFORCEMENT SHALL MEET ASTM C-478.
3. DEPTH OF MANHOLE SHALL DETERMINE THE NUMBER OF RISER SECTIONS AND ADJUSTMENT RINGS REQUIRED. BRICKS SHALL NOT BE USED.
4. GROUT INSIDE AND OUTSIDE OF EXTENSION RING(S) AND FRAME.
5. REFER TO SPECIFICATIONS FOR INTERIOR LINER MATERIALS. AS A MINIMUM, MANHOLE INTERIOR TO BE COATED WITH THANE-COAT OR PRE-ARRROVED EQUIVALENT, UNLESS NOTED OTHERWISE.
6. WHEN A PIPE ENTERS THE MANHOLE MORE THAN 24" ABOVE THE INVERT AN EXTERNAL DROP SHALL BE PROVIDED.
7. WHEN A MANHOLE IS LOCATED IN A PAVED AREA THE COVER SHALL MEET OR EXCEED AASHTO STANDARD M-306.
8. ALL MANHOLES SHALL BE PROVIDED WITH A STAINLESS STEEL DISH INSERT.
9. WHEN CONNECTING TO AN EXISTING MANHOLE THE CONNECTION SHALL BE MADE BY CORING.
10. MANHOLES SHALL CONFORM TO ALL TCEQ REQUIREMENTS.

5 SANITARY SEWER MANHOLE DETAIL
N.T.S.

GENERAL NOTES:

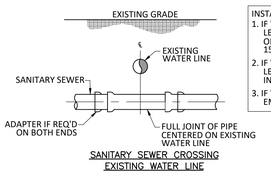
1. PLUG TO BE AT A MINIMUM DISTANCE OF 2" FROM LID.
2. PLACE CEMENT STABILIZED SAND IN 8" LIFTS COMPACTED ONE LIFT AT A TIME.
3. CAP ALL SANITARY SEWER ENDS.
4. CLEANOUT STACK SIZE AND MATERIAL SHALL BE IN ACCORDANCE WITH LOCAL AUTHORITIES DESIGN CRITERIA AND NOTED IN UTILITY PLAN. MINIMUM SIZE OF 6".

6 STANDARD SANITARY SEWER CLEANOUT
N.T.S.

GENERAL NOTES:

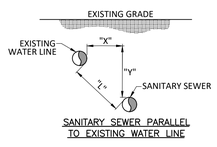
1. NO JOINTS IN VERTICAL RISER
2. REFER TO LOCAL PLUMBING CODE FOR STUB OUT CONNECTION TO BUILDING REQUIREMENTS. VERIFY DEPTH TO ENSURE ADEQUATE SLOPE TO BUILDING.
3. BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY.
4. PLACE CEMENT STABILIZED SAND IN 8" LIFTS COMPACTED ONE AT A TIME.
5. CLEANOUT BOOT AND COVER SHALL BE PLACED FLUSH WITH FINISHED GRADE.
6. MINIMUM DEPTH OF BEDDING TO BE 1/2 OD OR 6" WHICHEVER GREATER.
7. PLUG TO BE AT A MINIMUM DISTANCE OF 2" FROM LID.

7 SANITARY SEWER STACK WITH BUILDING STUB-OUT
N.T.S.



SANITARY SEWER CROSSING EXISTING WATER LINE

INSTALLATION REQUIREMENTS
1. IF "Y" IS GREATER THAN 1' AND "Y" IS LESS THAN 2', USE MINIMUM 18' JOINT OF PRESSURE-RATED PIPE MINIMUM 150 PSI.
2. IF "Y" IS GREATER THAN 2' AND "Y" IS LESS THAN 9', USE GRAVITY SEWER PIPE IN CEMENT-STABILIZED SAND EMBEDMENT.
3. IF "Y" IS GREATER THAN 9', USE STANDARD EMBEDMENT AND NORMAL JOINT SPACING.



SANITARY SEWER PARALLEL TO EXISTING WATER LINE

INSTALLATION REQUIREMENTS
1. IF "L" IS LESS THAN 9', USE PRESSURE-RATED PIPE MH TO MH. "X" MUST BE AT LEAST 4'. "Y" MUST BE AT LEAST 2'.
2. IF "L" IS 9' OR GREATER, USE STANDARD PIPE AND EMBEDMENT.

GENERAL NOTES:

1. SANITARY SEWER MUST BE BELOW WATER LINE WHEREVER POSSIBLE. WHEN NEW WATER LINE IS BELOW SANITARY SEWER PROVIDE MINIMUM 2' SEPARATION "L" AND INSTALL PIPE IN ACCORDANCE TO LOCAL AUTHORITIES SPECIFICATIONS.
2. ADAPTORS MUST BE FACTORY MOLDED OR FABRICATED, WITH RING STIFFNESS AT LEAST EQUAL TO THE ADJOINING SANITARY SEWER PIPE, AND USING RESILIENT GASKET OR SEAL MATERIAL. FLEXIBLE RUBBER "BOOT" TYPE ADAPTERS WILL NOT BE ACCEPTED.
3. INSTALL FORCE MAINS SAME AS FOR GRAVITY SEWER, USING SPECIFIED PRESSURE PIPE.
4. "Y" MUST ALWAYS BE GREATER THAN OR EQUAL TO 1' FOR PRESSURE RATED SS AND 2' FOR NON-PRESSURE RATED SS.
5. "X" MUST BE GREATER THAN OR EQUAL TO 4'.
6. REFER TO PLUMBING CODE FOR APPLICABLE REQUIREMENTS.
7. INSTALL GREEN UNDERGROUND WARNING TAPE READING "CAUTION SANITARY SEWER BELOW" AT 12" BELOW THE EXISTING GRADE AND DIRECTLY ABOVE AND ALONG NEW SANITARY SEWER.
8. NOTIFY OWNER 48 HOURS IN ADVANCE BEFORE SHUTTING OFF EXISTING WATER LINE.
9. ENSURE EXISTING WATER LINE IS SECURE OR BRACED PRIOR TO THE SANITARY SEWER PLACEMENT.
10. MEASURE "Y" VERTICAL CLEARANCE BEFORE BEGINNING BACKFILL WORK.
11. BOTH LINES MUST PASS PRESSURE AND LEAKAGE TEST PER AWWA C600 STANDARDS.

8 SANITARY SEWER CROSSING
N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

KEMPNER HIGH SCHOOL
Project Info Additional Text Line
14777 Voss RD, Sugar Land, TX 77498

FBISD
INSPIRE • EQUIP • IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 5.04-K
CIVIL SPORTS SANITARY DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
13767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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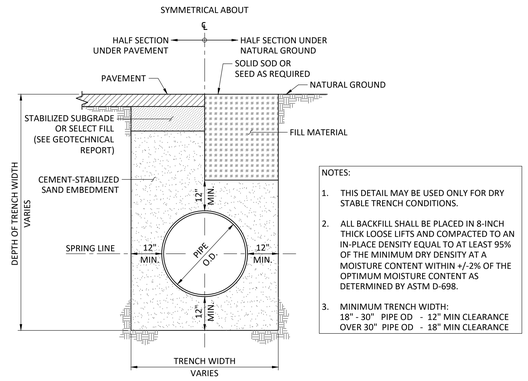
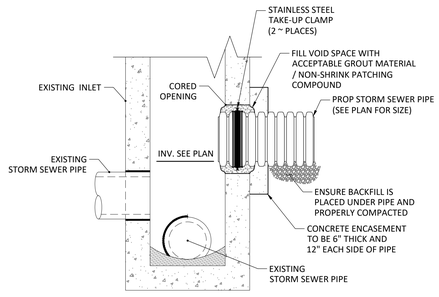
TSCE PROJECT # 2508



NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

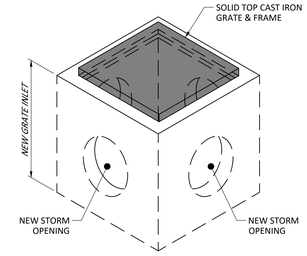
1 N.T.S. STORM SEWER BEDDING AND BACKFILL DETAIL



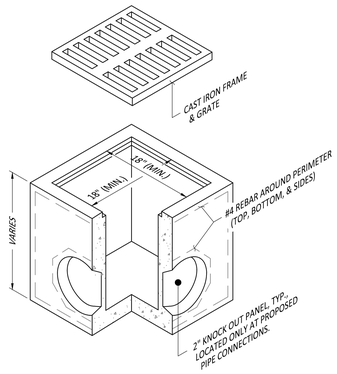
NOTES:

1. FORM CONCRETE ENCASEMENT ON UNDISTURBED MATERIAL OR STRUCTURALLY FIRM FOUNDATION.
2. PROVIDE WATER STOP WITH STAINLESS STEEL CLAMPS AROUND NEW PIPE FOR SANITARY SEWER FLOWS.
3. REWORK EXISTING MANHOLE INVERT TO ACCOMMODATE NEW FLOWS, IF NECESSARY.

2 N.T.S. STORM SEWER PIPE CONNECTION INTO EXISTING INLET



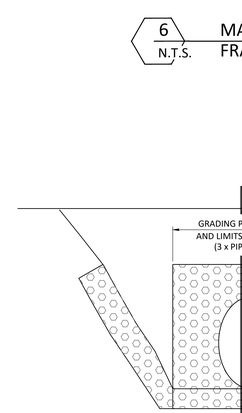
4 N.T.S. JUNCTION BOX



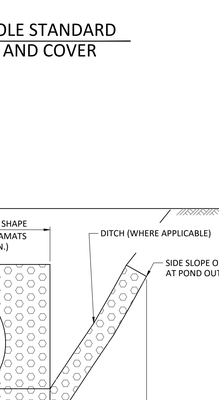
CATCH BASIN NOTES:

1. WALLS & BOTTOM SHALL BE CONSTRUCTED OF 6" REINFORCED, CLASS "A" (4000 psi) CONCRETE.
2. PRECAST CONCRETE INLET BASINS SHALL BE PROVIDED WITH PRE-FORMED KNOCKOUTS ONLY IN WALLS WHERE PIPE CONNECTIONS ARE TO BE MADE. KNOCKOUTS SHALL BE PIPE O.D. + 4" MAX. AND CIRCULAR SHAPED.
3. IN GRASS AREAS, FOLLOWING FINAL GRADING, THE CONTRACTOR SHALL PLACE SOLID SOD A MINIMUM OF 5 FEET AROUND PERIMETER OF TOP OF INLET.
4. IF THE BASE SECTION IS PRECAST WITH A BOTTOM, A 12" THICK CEMENT STABILIZED SAND BASE SHALL BE REQUIRED BENEATH THE STRUCTURE, EXTENDING 12" PAST THE OUTER FACE.
5. WHEN HDPE PIPE IS USED, PROVIDE 6" CLEARANCE BETWEEN INLET BOTTOM & FLOWLINE OF PIPE. GROUT ENTIRE BOTTOM OF INLET. EXTEND PIPE INTO INLET AT LEAST ONE FULL CORRUGATION. NO JOINT WITHIN 6 FEET OF INLET.
6. INSTALL FILTER FABRIC OVER INLET GRATE TO PREVENT SILTS FROM ENTERING INLET.
7. ALL CATCH BASINS AND GRATE/COVERS SHALL BE TRAFFIC DUTY RATED UNLESS OTHERWISE NOTED.

5 N.T.S. CATCH BASIN DETAIL



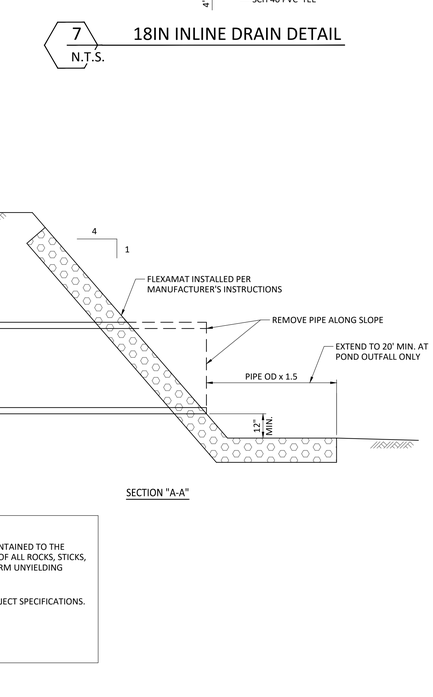
PLAN



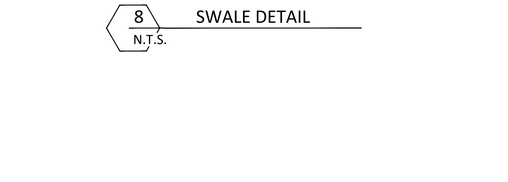
COVER RECESS DETAIL

GENERAL NOTES:
1. ENSURE MANHOLE COVER IS TIGHTLY IN PLACE DURING AND POST CONSTRUCTION.

6 N.T.S. MANHOLE STANDARD FRAME AND COVER



7 N.T.S. 18IN INLINE DRAIN DETAIL



8 N.T.S. SWALE DETAIL

NOTES:

1. GRADE OUTFALL AREA SO THAT WATER WILL FLOW DOWN THE CENTER OF THE CHANNEL AND BE CONTAINED TO THE CHANNEL. SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND. THE PREPARED SURFACE SHALL PROVIDE A FIRM UNYIELDING FOUNDATION FOR THE MATS WITH NO SHARP OR ABRUPT BREAKS IN THE GRADE.
2. APPLY SEED DIRECTLY TO THE PREPARED SOIL PRIOR TO FLEXAMAT INSTALLATION. USE SEED PER PROJECT SPECIFICATIONS.
3. ANCHOR THE MAT PER MANUFACTURERS INSTRUCTIONS.
4. A CONCRETE SAW SHALL BE USED TO CUT THE MAT TO EXACT SIZE AND SHAPE.

9 N.T.S. OUTFALL DETAIL

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

KEMPNER HIGH SCHOOL

Project Info Additional Text Line

14777 Voss RD, Sugar Land, TX 77498

FBISD INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 5.05-K
CIVIL SPORTS
STORM DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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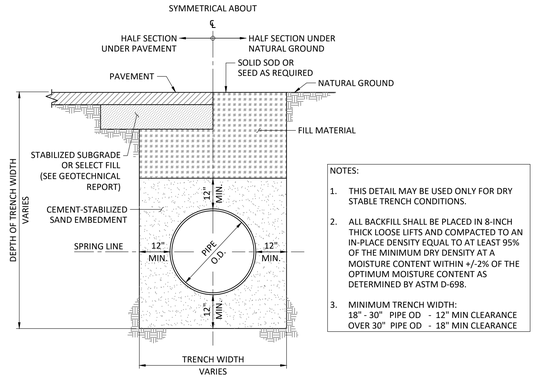

NOTES:

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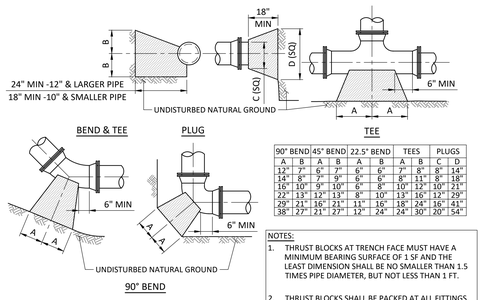
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

1 WATER BEDDING AND BACKFILL DETAIL
N.T.S.

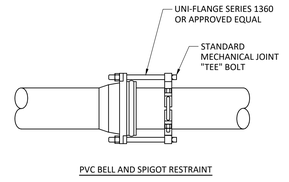


90° BEND		45° BEND		22.5° BEND		TEES		PLUGS	
A	B	A	B	A	B	A	B	C	D
12"	7"	6"	7"	6"	6"	7"	8"	8"	14"
14"	8"	7"	9"	6"	6"	8"	11"	8"	18"
16"	10"	9"	10"	6"	8"	10"	12"	10"	21"
22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
38"	27"	21"	27"	12"	24"	24"	30"	20"	54"

NOTES:

1. THRUST BLOCKS AT TRENCH FACE MUST HAVE A MINIMUM BEARING SURFACE OF 1 SF AND THE LEAST DIMENSION SHALL BE NO SMALLER THAN 1.5 TIMES PIPE DIAMETER, BUT NOT LESS THAN 1 FT.
2. THRUST BLOCKS SHALL BE PACKED AT ALL FITTINGS.
3. ALL FITTINGS SHALL BE M.J. RESTRAINED JOINT (EBAA IRON, SERIES 2000PV, OR APPROVED EQUAL).

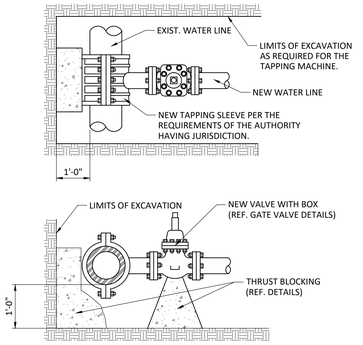
2 THRUST BLOCK DETAIL
N.T.S.



NOTES:

1. RESTRAINT DEVICES FOR PVC (AWWA C-900) AND PVC PRESSURE FITTINGS (AWWA C-907) SHALL CONSIST OF A SPLIT RING INSTALLED ON THE PIPE SPIGOT, CONNECTED TO A SPLIT BACK-UP RING SEATED BEHIND THE FITTING BELL.
2. THE SPLIT RESTRAINT RING SHALL INCORPORATE A SERIES OF MACHINED SERRATIONS (NOT "AS CAST") ON THE INSIDE DIAMETER TO PROVIDE POSITIVE RESTRAINT, EXACT FIT, AND 360° CONTACT AND SUPPORT OF THE PIPE WALL.
3. THE TWO HALVES OF THE SPLIT BACK UP RING SHALL INTER-LOCK WITHOUT THE NEED FOR ADDITIONAL BOLTS AND SHALL FORM A BEVELED LEADING EDGE TO ASSURE EXACT FIT BEHIND THE FITTING BELL.
4. RESTRAINT DEVICES SHALL BE OF DUCTILE IRON, ASTM A536, GRADE 65-45-12 AND CONNECTING BOLTS SHALL BE OF HIGH STRENGTH, LOW ALLOY MATERIAL IN ACCORDANCE WITH ANSI/AWWA C111/21.11
5. RESTRAINT DEVICES SHALL BE UNI-FLANGE SERIES 1360 OR APPROVED EQUAL.

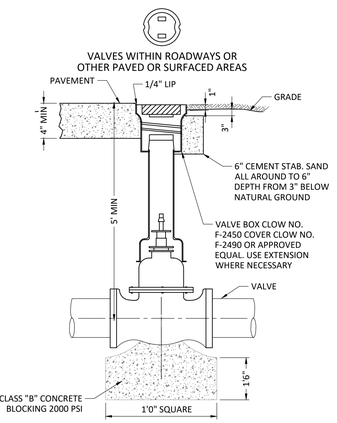
3 WATERLINE RESTRAINED MECHANICAL JOINT DETAIL
N.T.S.



NOTES:

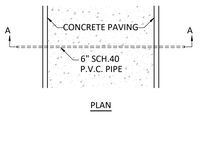
1. TAPPING VALVES ARE NOT ALLOWED WHEN TAP IS SAME SIZE AS THE EXISTING MAIN EXCEPT WHEN APPROVED BY THE AUTHORITY HAVING JURISDICTION.

4 TAPPING SLEEVE AND VALVE
N.T.S.



* BLOCK GATE VALVES WITH COMPRESSION JOINT FITTINGS ON 8" & LARGER LINES

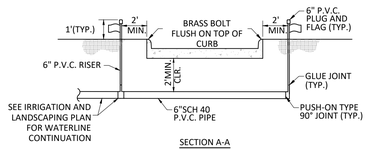
5 GATE VALVE AND BOX DETAIL
N.T.S.



PLAN

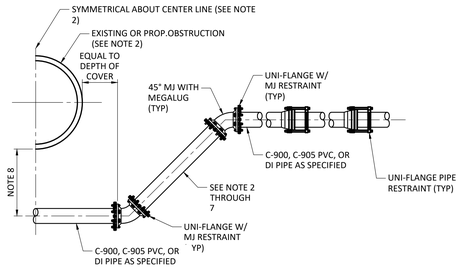
GENERAL NOTES:

1. REFER TO UTILITY AND LANDSCAPING PLAN FOR SLEEVE PLACEMENT.
2. DO NOT BORE SLEEVE. PROVIDE SAW CUT OVER EXISTING PAVEMENT OR PLACE PRIOR TO NEW PAVEMENT.
3. CONTRACTOR TO INSPECT SLEEVE FOR FAILURE DURING AND POST CONSTRUCTION.
4. GLUE JOINT CONNECTION TO CREATE WATERTIGHT SEAL.



SECTION A-A

6 IRRIGATION SLEEVE CROSSING UNDER PAVEMENT
N.T.S.



NOTES:

1. WHEN ALTERING EXISTING LINES RESTRAIN ANY EXISTING JOINTS EXPOSED BY CONSTRUCTION BEFORE OR AFTER PROPOSED FITTINGS WITH UNI-FLANGE BELL AND SPIGOT PIPE RESTRAINT.
2. RESTRAIN ALL JOINTS WITHIN 50 FEET OF PROPOSED FITTINGS.
3. APPROPRIATE BEDDING AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY OF LEAGUE CITY DETAILS AND DESIGN STANDARDS.
4. USE APPROPRIATE SERIES MODEL RESTRAINT FOR PIPE MATERIAL.
5. WHERE POSSIBLE THERE SHOULD BE NO PIPE JOINTS WITHIN THE VERTICAL OR HORIZONTAL RUN OF THE OFFSET (WHEN AND WHERE APPROVED SEE NOTE 6 AND 7).
6. IF A PIPE JOINT IS REQUIRED WITHIN THE VERTICAL OFFSET IT SHALL BE RESTRAINED WITH UNI-FLANGE BELL AND SPIGOT TYPE RESTRAINT.
7. WHEN DEPTH OF OFFSET REQUIRES MORE THAN A STANDARD LENGTH OF PIPE NO SEGMENT SHALL BE LESS THAN 5' IN LENGTH.
8. THE MINIMUM CLEARANCE SHALL BE DETERMINED BY THE AMOUNT OF BEDDING AND BACKFILL REQUIRED BY THE PROSPECTIVE PIPE AND THEIR USAGE. SEE THE BEDDING AND BACKFILL DETAILS FOR DIMENSIONS.
9. A SOLID CONTINUOUS JOINT OF PIPE SHALL BE USED AT ALL TIMES FOR THE HORIZONTAL SECTION OF THE OFFSET. IF THE MINIMUM SIDE CLEARANCE DISTANCES PLUS THE DIMENSION OF THE OBSTRUCTION IS GREATER THAN A STANDARD JOINT OF PIPE AN APPROPRIATELY SIZED AND CONTINUOUS LENGTH OF HDPE SHALL BE USED WITH TRANSITION FITTING OR GASKETS AS SPECIFIED BY THE MANUFACTURER IF NEEDED.

7 RESTRAINED MECHANICAL JOINT VERTICAL OFFSET
N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

KEMPNER HIGH SCHOOL
Project Info Additional Text Line
14777 Voss RD, Sugar Land, TX 77498

FBISD
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KENNETH I. JURADO
119993
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12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD
C 5.06-K
CIVIL SPORTS WATER DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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TSCE PROJECT # 2508

GENERAL

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES. THE CODES LISTED SHALL INCLUDE ALL AMENDMENTS AND ADDENDA IN FORCE AT THE DATE OF THE CONTRACT DOCUMENTS.

   2021 EDITION OF THE INTERNATIONAL BUILDING CODE

2. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL AND ARCHITECTURAL CONTRACT DOCUMENTS THE STRICTEST REQUIREMENTS SHALL GOVERN.

3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE AND REPORT ANY DISCREPANCIES OR INCONSISTENCIES FROM ASSUMED CONDITIONS TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.

4. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT THEY ARE CUT AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER.

5. DO NOT SCALE THE DRAWINGS.

6. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

7. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, AND CONSTRUCTION EQUIPMENT. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE.

10. IT IS THE DESIGN INTENT FOR ALL CONCRETE POURS TO HAPPEN IN SEQUENTIAL ORDER FROM FOUNDATIONS THROUGH ROOF. THE GENERAL CONTRACTOR SHALL DISCUSS WITH THE A/E TEAM THE FEASIBILITY OF NON-SEQUENTIAL POURING OF CONCRETE AND ITS IMPACT ON THE DESIGN INTENT AND ALLOW SUFFICIENT TIME FOR SUCH SCHEME TO BE INVESTIGATED OR REVIEWED.

11. PERIODIC SITE OBSERVATION BY THE ENGINEER IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

12. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBERS.

13. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, WALLS, SLABS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF STRUCTURAL ENGINEER.

14. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS, WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

15. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

    SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS,
    SIZE AND LOCATION OF INTERIOR AND EXTERIOR NON-LOAD BEARING PARTITIONS, SIZE AND LOCATION OF CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHAMFERS, GROOVES, INSERTS, ETC., SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS, FLOOR AND ROOF FINISHES,
    STAIR FRAMING AND DETAILS, DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, CEILING AND EXTERIOR WALL ASSEMBLIES.

16. SEE THE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

    PIPES, SLEEVES, HANGERS, TRENCHES, WALL, FLOOR AND ROOF OPENINGS, DUCT PENETRATIONS, ETC., EXCEPT AS SHOWN OR NOTED OTHERWISE ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS, CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL, OR PLUMBING FIXTURES, SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES AND ANCHOR BOLTS FOR MOUNTS.

DESIGN CRITERIA

1. DEAD LOAD MATERIALS ASSUMED IN THE DESIGN ARE SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

2. AN ALLOWANCE OF 15 PSF HAS BEEN MADE FOR PARTITIONS AS A UNIFORMLY DISTRIBUTED LIVE LOAD, WHEREVER PARTITIONS ARE USED AND LOCATION SUBJECT TO CHANGE EXCLUDING PUBLIC LOBBIES, CORRIDORS, RESTROOMS, AND PLACES OF PUBLIC ASSEMBLY.

3. LIVE LOADS:

LOCATION	UNIFORM LOAD	CONCENTRATED LOAD
ROOF	20 PSF REDUCIBLE	300 LBS
GROUND FLR, COMMON AREAS	100 PSF REDUCIBLE	
HANDRAILS AND GUARDRAILS	50 PLF OR 200 LBS APPLIED AT TOP RAIL IN ANY DIRECTION. 50 LBS IN ANY DIRECTION APPLIED AT INTERMEDIATE RAILS.	
GRAB BARS		250 LBS ANY DIRECTION

4. WIND LOADS

ULTIMATE WIND SPEED	133 MPH (3-SEC GUST)
NOMINAL WIND SPEED	108 MPH (3-SEC GUST)
RISK CATEGORY	II
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFF.	+/- 0.18
COMPONENTS & CLADDING	SEE DIAGRAM

5. SEISMIC LOADS

RISK CATEGORY	II
IMPORTANCE FACTOR	1.00
MAPPED ACCELERATION PARAMETERS	
SS	0.078
S1	0.042
SPECTRAL RESPONSE COEFFICIENTS	
SDS	0.069
SD1	0.063
SEISMIC DESIGN CATEGORY	A

6. HANDRAILS, GUARDRAILS AND GRAB BARS (INCLUDING ATTACHMENT TO STRUCTURE) SHALL BE DESIGNED BY THE FABRICATOR FOR THE LOADS INDICATED IN THE REFERENCED BUILDING CODE. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF WHERE THE PROJECT IS LOCATED, REPRESENTING THE FABRICATOR.

FOUNDATION

1. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT (AND ANY ADDENDA) PREPARED BY THE FOLLOWING COMPANY:

   COMPANY HVJ ASSOCIATES
   REPORT NO. HG1810383.17 –G
   DATED FEBRUARY 09, 2024

   ALL RECOMMENDATIONS THEREIN THAT RELATE TO THE WORK SHOWN ON THESE DRAWINGS SHALL BE FOLLOWED.

2. THE FOUNDATION SYSTEM IS DESIGNED BASED ON THE FOLLOWING

   ALLOWABLE BEARING PRESSURE

SUSTAINED LOADS	1500 PSF
TOTAL LOADS	2200 PSF
DESIGN PLASTICITY INDEX (PI)	30
SOIL SUPPORT INDEX	0.14
CLIMATIC RATING	25

3. THE GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR FOR REVIEW OF FOUNDATION BEARING SURFACE, INSPECTION OF FOUNDATION INSTALLATION, AND PLACEMENT OF REINFORCING STEEL. THE CONTRACTOR SHALL NOT PLACE CONCRETE WITHOUT INSPECTOR'S APPROVAL.

4. THE CONTRACTOR SHALL NOTIFY THE AUTHORIZED INSPECTOR 48 HOURS IN ADVANCE OF ANY MAJOR FOUNDATION POUR.

5. FORM EXPOSED FACES OF GRADE BEAMS.

6. GRADE BEAM BOTTOM STEEL SHALL BE CHAIRED AT 5 FOOT MAXIMUM CENTERS USING BEAM BOLSTERS PROVIDING 3 INCH BOTTOM COVER TO REINFORCING STEEL. BEAM BOLSTERS USED SHALL BE INTENDED FOR SUPPORT ON SOIL.

7. BOTTOM BARS OF GRADE BEAM SHALL BE SPLICED (WHERE REQUIRED) AT THE PIERS ONLY. TOP BARS SHALL BE SPLICED (WHERE REQUIRED) AT THE MIDSPAN OF THE GRADE BEAMS. LAP LENGTH SHALL BE 44 TIMES BAR DIAMETER UNLESS SPECIFIED OTHERWISE. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

8. ALL REINFORCING STEEL FOR SLABS SHALL BE CHAIRED WITH SLAB BOLSTERS FOR SUPPORT ON SOIL AT 4'-0" MAXIMUM CENTERS EACH WAY FOR REINFORCING FOR SLABS. DEPTH OF CHAIRS SHALL PROVIDE COVER TO REINFORCING AS NOTED ON PLANS/DETAILS.

9. SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R. PROVIDE (3) #3 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

10. SUBGRADE PREPARATION SHALL CONFORM TO THE SOILS REPORT NOTED ABOVE. IF REPORT DOES NOT SPECIFY THE AMOUNT OF SELECT FILL, PROVIDE FILL AS REQUIRED ABOVE TO REDUCE PVR TO 1 INCH.

11. VAPOR RETARDER SHALL HAVE NO MORE THAN 0.01 PERMS AS TESTED BEFORE AND AFTER MANDATORY CONDITIONING (ASTM E 1745 SECTION 7.1 AND SUB-PARAGRAPHS 7.1.2-5), MEET OR EXCEED THE REQUIREMENTS OF ASTM E 1745 CLASS A AND BE NO LESS THAN 15 MILS THICK.

12. ALL VAPOR RETARDER SEAMS SHALL BE OVERLAPPED A MINIMUM OF 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE. ALL PENETRATIONS, BLOCK-OUTS, AND OPENINGS SHALL BE SEALED USING A COMBINATION OF THE VAPOR RETARDER, MASTIC AND MANUFACTURER'S TAPE. DO NOT PENETRATE VAPOR RETARDER WITH FORMWORK STAKES. USE STEGO BEAST FORM STAKES OR EQUIVALENT WHERE REQUIRED.

13. THE CONTRACTOR SHALL ENSURE THE SELECT FILL MATERIAL IS PROPERLY MIXED TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER AND TESTING LAB AND SHALL MAKE PROVISIONS FOR SOIL PULVERIZATION OR OTHER MIXING METHODS AS REQUIRED.

14. THE BEARING STRATUM OF EACH SPREAD FOOTING AND ALL STRIP FOOTINGS SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR PRIOR TO POURING OF CONCRETE.

15. PROVIDE AND INSTALL 1/8 INCH STEEL TEMPLATES TO ACCURATELY SET ANCHOR BOLTS FOR STEEL COLUMNS.

16. FOOTINGS SHALL BE NEAT EXCAVATED WHERE POSSIBLE WITH SIDES AND TOP EDGES FREE OF LOOSE OR WET MATERIALS. WHERE NEAT EXCAVATION IS NOT POSSIBLE, FOOTING EXCAVATION SHALL BE OPEN CUT WITH EDGES FORMED AND BRACED. ALL FOOTINGS WITH FORMED EDGES SHALL BE BACKFILLED FROM BOTTOM TO TOP OF FOOTING WITH LEAN CONCRETE OR CEMENT STABILIZED SAND. THE BOTTOM EXCAVATION SHALL BE CLEAN AND DRY WITH ALL LOOSE MATERIAL REMOVED FOR AN ESSENTIALLY FLAT BEARING SURFACE. EXCAVATIONS SHALL NOT BE LEFT OVERNIGHT UNLESS A 2 INCH UNREINFORCED SEAL (MUD) SLAB IS PLACED AT THE BOTTOM OF THE FOOTING EXCAVATION. WHERE SOFT OR UNSUITABLE BEARING SURFACES ARE ENCOUNTERED, THE AREA SHALL BE UNDERCUT AS REQUIRED AND REPLACED WITH COMPACTED FILL. CEMENT STABILIZED SAND, OR CONCRETE AS DIRECTED BY THE GEOTECHNICAL ENGINEER. FILL MATERIAL, IF USED, SHALL BE COMPACTED IN 6 INCHES MAXIMUM LOOSE LIFTS TO A MINIMUM 95% OF STANDARD PROCTOR DENSITY (ASTM D 698) UNLESS SPECIFIED OTHERWISE BY THE GEOTECHNICAL ENGINEER.

STRUCTURAL STEEL

1. ALL ASPECTS OF WORK RELATING TO THE DESIGN, FABRICATION, DETAILING, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF THE AISC STEEL CONSTRUCTION MANUAL LATEST EDITION OF THE ANSI/AWS D1.1

2. STRUCTURAL STEEL MATERIALS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

WIDE FLANGE, CHANNELS	ASTM A992
ANGLES, PLATES, BARS	ASTM A572 GR 50
PIPES	ASTM A53 GR B
HSS (RECTANGULAR OR SQUARE)	ASTM A500 GR B (Fy = 46 KSI) OR GR C (Fy = 50 KSI)
HSS (ROUND)	ASTM A500 GR B (Fy = 42 KSI) OR GR C (Fy = 50 KSI)
ANCHOR RODS	ASTM F1554-36 U.N.O
HIGH STRENGTH BOLTS	ASTM F3125 GR A325 OR GR F1852 U.N.O.
HEADED STUD ANCHORS (HSA)	ASTM A108
DEFORMED BAR ANCHORS (DBA)	ASTM A496

3. THE DESIGN OF ALL STEEL CONNECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED, EMPLOYED BY THE FABRICATOR. CALCULATIONS SEALED BY THE FABRICATOR'S PROFESSIONAL ENGINEER MUST BE SUBMITTED IF REQUESTED.

4. SURFACES WHICH ARE TO BE FIREPROOFED WITH SPRAY-ON FIREPROOFING OR EMBEDDED IN CONCRETE SHALL NOT BE SHOP PAINTED. DO NOT PAINT TOP FLANGES OF COMPOSITE BEAMS NOR SURFACES OF MEMBERS WHERE WELDING OR HIGH STRENGTH FRICTION BOLTING WILL OCCUR. COORDINATE ALL SHOP PAINTING OF STRUCTURAL STEEL WITH ARCHITECT'S PAINTING REQUIREMENTS AS SPECIFIED ON THE ARCHITECTURAL DRAWINGS AND IN THE SPECIFICATIONS.

5. IT IS THE INTENTION OF THE PLANS AND SPECIFICATIONS THAT SHOP CONNECTIONS BE WELDED OR BOLTED AND THAT FIELD CONNECTIONS BE BOLTED, UNLESS DETAILED OTHERWISE ON THE DRAWINGS.

6. ALL TYPICAL BEAM SIMPLE CONNECTIONS SHALL BE STANDARD DOUBLE ANGLE OR SINGLE ANGLE FRAMED BEAM CONNECTIONS UNLESS NOTED OTHERWISE. SHEAR TAB CONNECTIONS MAY BE USED AT LOCATIONS WHERE DOUBLE ANGLE CONNECTIONS ARE NOT POSSIBLE. SEATED BEAM CONNECTIONS SHALL NOT BE USED UNLESS INDICATED ON THE DRAWINGS. PROVIDE FULL DEPTH SHEAR TAB IF BEAM FRAMES ON ONLY ONE SIDE OF A GIRDER.

7. DESIGN CONNECTIONS OF NON-COMPOSITE BEAMS TO SUPPORT A REACTION R (UNLESS SPECIFIED OTHERWISE) EQUAL TO ONE HALF THE TOTAL UNIFORM LOAD CAPACITY FROM THE TABLE OF UNIFORM LOAD CONSTANTS IN THE AISC MANUAL.

8. ADD TO THE REACTION LISTED ABOVE, ANY LOADS OR REACTIONS OF MEMBERS SUPPORTED BY THE BEAM WITHIN THREE FEET OF BEAM END AND THE VERTICAL COMPONENTS OF FORCES IN BRACE MEMBERS FRAMING INTO THE BEAMS.

9. BRACING CONNECTIONS SHALL DEVELOP FULL TENSILE FORCES AT EACH END OF THE BRACING MEMBER UNLESS BRACING FORCES ARE SPECIFIED ON THE DRAWINGS.

10. ALL WELDING SHALL COMPLY TO THE AMERICAN WELDING SOCIETY STANDARD (AWS D1.1). ALL WELDED JOINTS SHALL BE DETAILED AS INDICATED BY THE PREQUALIFIED JOINT DETAILS IN THE STRUCTURAL WELDING CODE. WELD LENGTHS CALLED FOR ON THE PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED. ALL WELDS SHALL USE MINIMUM E70XX ELECTRODES.

11. ALL WELDING SHALL BE PERFORMED BY A WELDER CERTIFIED IN ACCORDANCE WITH THE AWS STANDARDS.

12. MISCELLANEOUS STEEL CONNECTIONS SHALL BE WELDED ALL AROUND WITH AISC MINIMUM FILLET WELD UNLESS A LARGER WELD IS SPECIFIED. STEEL MEMBERS CONTINUOUSLY ATTACHED SHALL BE STITCH WELDED TOGETHER WITH AISC MINIMUM 2" LONG FILLET WELD AT 12" O.C. UNLESS A LARGER WELD OR DIFFERENT GAGE IS SPECIFIED.

13. ALL BOLTS SHALL BE DESIGNED AS BEARING BOLTS WITH THREADS INCLUDED IN THE SHEAR PLANE. ALL BOLTS SHALL BE NEW AND NOT RE-USED. BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER THAN NOMINAL SIZE OF BOLT USED, EXCEPT ANCHOR ROD HOLES. MINIMUM BOLT DIAMETER SHALL BE 3/4 INCH. ALL BOLTS SHALL BE TIGHTENED TO A SNUG-TIGHT POSITION, EXCEPT AT BRACES, MOMENT CONNECTIONS AND CONNECTIONS MARKED AS SLIP CRITICAL (SC) SHALL BE TIGHTENED USING LOAD INDICATING WASHERS OR TENSION BOLTS.

14. ALL STEEL EXPOSED TO WEATHER OR OUTSIDE THE BUILDING'S WATERPROOFING, SUCH AS BRICK SHELF ANGLES, SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION AS SPECIFIED BY THE STEEL STRUCTURES PAINTING COUNCIL (SSPC). THE ZINC COATING FOR STEEL SHAPES AND PLATES SHALL AVERAGE NOT LESS THAN 2.3 OZ. WITH NO INDIVIDUAL THICKNESS LESS THAN 2.0 OZ.

15. GALVANIZE ALL NUTS, BOLTS, AND WASHERS USED IN THE CONNECTION OF GALVANIZED STEEL.

16. GALVANIZED MEMBERS SHALL HAVE "Z.R.C. COLD GALVANIZING COMPOUND OR APPROVED EQUIVALENT APPLIED TO FIELD WELDED CONNECTIONS. SURFACE AREAS TO RECEIVE COLD GALVANIZING COMPOUND SHALL BE CLEAN OF DIRT AND DEBRIS PRIOR TO COMPOUND APPLICATION. SEE MANUFACTURER'S LITERATURE FOR ADDITIONAL RECOMMENDATIONS.

17. THE APPLICATION OF THE FIREPROOFING TO THE STEEL MEMBERS AND STEEL DECK IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST ENFORCE THE REQUIREMENTS OF THE MANUFACTURER AND NOT IMPOSE ADDITIONAL LOADS, INCLUDING CONSTRUCTION LIVE LOADS, DURING THE APPLICATION AND CURING OF THE FIREPROOFING.

18. IN ADDITION TO ALL OF THE STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET (INSERT AMOUNT HERE) TONS OF STEEL TO BE FURNISHED, FABRICATED, DETAILED, AND ERECTED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

19. THE CONTRACTOR SHALL MAKE AN ALLOWANCE FOR THE ADJUSTMENT AND DETAILING OF STEEL DURING THE SHOP DRAWING REVIEW PROCESS.

CONCRETE

1. ALL ASPECTS OF WORK RELATING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CURRENT EDITION OF ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
   CRSI MANUAL OF STANDARD PRACTICE

2. STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTHS AND TYPES ARE AS FOLLOWS:

LOCATION	STRENGTH	TYPE	AGGREGATE SIZE	EXPOSURE CLASS
FOUNDATIONS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0
GRADE BEAMS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0
SLAB-ON-GRADE	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0

3. THERE SHALL BE NO HORIZONTAL COLD JOINT IN ANY CONCRETE POUR.

4. ADMIXTURES USED SHALL BE COMPATIBLE WITH FLOOR TREATMENTS. FINISH APPLICATOR SHALL APPROVE ADMIXTURES AND CURING COMPOUNDS PRIOR TO USE.

5. EXPOSURE CLASSES FOR FREEZING AND THAWING (F), SULFATE (S), WATER (W), AND CORROSION PROTECTION (C) HAVE BEEN PROVIDED. CONCRETE MIXES SHALL CONFORM TO ALL ACI 318 REQUIREMENTS BASED ON EXPSURE CLASS, INCLUDING, BUT NOT LIMITED TO WATER CEMENT RATIO, COMPRESSION STRENGTH, AIR CONTENT, CEMENTITIOUS MATERIALS, CALCIUM CLORIDE ADMIXTURES, AND WATER-SOLUABLE CHLORIDE ION CONTENT.

6. CONCRETE FOR SLAB-ON-GRADE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.45. ALL OTHER CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.50. ADJUST CONCRETE STRENGTH BEYOND MINIMUM SPECIFIED ABOVE TO MAINTAIN MAXIMUM WATER-CEMENT RATIO.

7. CONCRETE FOR SLAB-ON-GRADE AND METAL DECK SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.04% (400 MICROSTATIONS) AT 28 DAYS OF DRYING. 1 MONTH CHANGE SHALL BE MEASURED IN ACCORDANCE WITH ASTM C157.

8. FLY ASH CONFORMING TO ASTM C618, MAY BE USED UNLESS NOTED OTHERWISE. THE MAXIMUM AMOUNT OF FLY ASH SHALL BE 25% OF THE TOTAL CEMENTITIOUS MATERIAL BY WEIGHT.

9. AT POLISHED OR STAINED CONCRETE THE FLOOR FLATNESS (FF) SHALL BE 40 OR BETTER AND THE FLOOR LEVELNESS (FL) SHALL BE 30 OR BETTER UNLESS MORE STRINGENT REQUIREMENTS ARE PROVIDED IN THE SPECIFICATIONS.

10. CONCRETE FORMS SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS INDICATED ON THE STRUCTURAL DRAWINGS.

11. CONCRETE FOR SLABS TO RECEIVE A HARD-TROWELED FINISH SHALL NOT CONTAIN AIR-ENTRAINING ADMIXTURES OR HAVE A TOTAL AIR CONTENT GREATER THAN 3 PERCENT.

12. SUBMIT SHOP DRAWINGS TO ARCHITECT AND ENGINEER INDICATING LOCATIONS OF CONCRETE JOINTS TO REVIEW PRIOR TO PLACING CONCRETE. PLACE JOINTS AT LOCATIONS TO MINIMIZE THE EFFECTS OF SHRINKAGE AS WELL AS BEING PLACED AT POINTS OF LOW STRESS.

13. ROUGHEN CONCRETE SURFACES TO 1/4 INCH AMPLITUDE WHERE MASONRY WALLS INTERSECT CONCRETE OR WHERE NEW CONCRETE INTERFACES WITH EXISTING CONCRETE.

14. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB-ON-GRADE, CONCRETE ON METAL DECK, FRAMED CONCRETE FLOORS, AND WALLS DO NOT REQUIRE SLEEVES UNLESS NOTED OTHERWISE ON THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE ARCHITECT AND ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH CONCRETE BEAMS OR COLUMNS UNLESS SPECIFICALLY DETAILED.

15. WITH THE EXCEPTION OF SLABS ON GRADE AND CONCRETE ON METAL DECK, THE OUTSIDE DIAMETER OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS (OTHER THAN THOSE PASSING THROUGH) SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS AND SHALL BE CENTERED BETWEEN THE TOP AND BOTTOM REINFORCING UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED. CONDUIT AND PIPE SHALL BE SPACED AT 3" OR 3 DIAMETERS ON CENTER, WHICHEVER IS GREATER.

16. FOR SLABS ON GRADE AND METAL DECK SLABS NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB UNLESS SPECIFICALLY DETAILED OTHERWISE.

17. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING WHEN TEMPORARY SUPPORTS, SHORES, BACKSHORES, AND OTHER BRACING MAY BE SAFELY REMOVED.

REINFORCING STEEL

1. ALL ASPECTS OF WORK RELATING TO THE REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CRSI MANUAL OF STANDARD PRACTICE

2. DEFORMED BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.

3. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185, YIELD STRENGTH 65,000 PSI. WELDED DEFORMED WIRE FABRIC FOR ASTM A497, YIELD STRENGTH 70,000 PSI. ALL WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS ONLY. WHEREVER WELDED WIRE FABRIC IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED ONE CROSS WIRE SPACING PLUS 2 INCHES.

4. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ONE HALF, WHICHEVER IS GREATER.

5. WELDING OF REINFORCING IS PERMITTED ONLY WHERE SHOWN ON THE DRAWINGS OR WHEN APPROVED BY THE ENGINEER OF RECORD. WELDING OF REINFORCING BARS SHALL BE WITH LOW HYDROGEN ELECTRODES IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF AWS D1.4.

6. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.

7. REINFORCING DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME NUMBER, SIZE, SPACING, AND GRADE AS THE SPECIFIED VERTICAL REINFORCING, UNO.

8. IN ADDITION TO ALL OF THE REINFORCING STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A HALF TON OF REINFORCING BARS TO BE FURNISHED, FABRICATED, AND PLACED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

9. CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS SHALL BE AS FOLLOWS:

LOCATION OF CONCRETE	MINIMUM COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #18 BAR	2"
#5 BAR AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND	
SLABS, WALLS, JOISTS	3/4"
BEAMS, COLUMNS (INCLUDING TIES)	1 1/2"
SLAB ON GRADE	SEE DETAILS
PRESTRESSED CONCRETE	SEE IBC 1907.7.3

OPEN WEB STEEL JOISTS AND JOIST GIRDERS

1. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED, MANUFACTURED, AND ERECTED PER THE CURRENT APPLICABLE ISSUE OF THE STANDARD SPECIFICATIONS FOR STEEL JOISTS (K SERIES), LONGSPAN STEEL JOISTS (LH SERIES), OR DEEP LONGSPAN JOISTS (DLH SERIES), OR SUPER LONGSPAN STEEL INSTITUTE AND AISC.

2. JOISTS AND JOIST GIRDERS SHALL BE CAMBERED FOR REALISTIC DEAD LOAD. PROVIDE STANDARD SJI CAMBER UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS.

3. TOP CHORD OF JOISTS SHALL BE DOUBLE ANGLES OR TEES. PROVIDE TOP CHORD EXTENSIONS WHERE SHOWN ON THE DRAWINGS. JOISTS AND JOIST GIRDERS WITH BOTTOM CHORD EXTENSIONS SHALL NOT HAVE END CONNECTIONS MADE TO COLUMN STABILIZER PLATE.

4. PROVIDE FLAT BEARING FOR ALL JOISTS AND JOIST GIRDERS. PROVIDE SJI STANDARD DEPTH OF BEARING FOR ALL JOISTS AND JOIST GIRDERS. IF SUFFICIENT BEARING DOES NOT EXIST, STAGGER THE END OF EACH JOIST AND CENTER OF BEARING OVER THE CENTER OF SUPPORT. WHERE K SERIES JOISTS BEAR ON THE SAME BEAM AS LH AND DLH JOISTS, THE K SERIES JOIST SEATS SHALL MATCH THE DEPTH OF THE LH OR DLH JOIST SEATS.

5. COORDINATION OF ALL JOIST SEAT DEPTHS WITH STRUCTURAL STEEL ELEVATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND STEEL FABRICATOR.

6. JOISTS AND JOIST GIRDERS SHALL BE SHOP PAINTED PER ARCHITECTURAL SPECIFICATIONS.

7. ALL JOISTS SHALL CARRY THE DESIGN LOADS AS SPECIFIED IN THE SJI LOAD TABLES AS THE MINIMUM REQUIREMENT. ADDITIONALLY, THE JOISTS SHALL BE DESIG

CONCRETE MASONRY

1. ALL MASONRY MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION AND THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF TMS-402 CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES

2. ALL CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C90. UNLESS SPECIFIED OTHERWISE, CMU SHALL BE NORMALWEIGHT (LESS THAN 125 PCF, OVEN DRY UNIT WEIGHT). THE MINIMUM COMPRESSIVE STRENGTH OF MASONRY (F'M) SHALL BE 2000 PSI AS DETERMINED BY THE UNIT STRENGTH METHOD OR BY THE PRISM TEST METHOD.

3. UNLESS SPECIFIED OTHERWISE, ALL MORTARS AND THE MATERIALS THEREIN SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF MASONRY UNITS, ASTM C270, TYPE S EXCEPT FOR MASONRY IN CONTACT WITH THE EARTH SHALL BE TYPE M.

4. ALL GROUT SHALL BE FINE GROUT CONTAINING SAND, PORTLAND CEMENT, AND LIME (OPTIONAL) FOR GROUT SPACES LESS THAN 2 INCHES IN ANY HORIZONTAL DIRECTION, UNLESS SPECIFIED OTHERWISE. GROUT SHALL ATTAIN A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 2500 PSI TESTED ACCORDING TO ASTM C476.

5. CONTROL JOINTS SHALL BE LOCATED PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS OR AT A MAXIMUM SPACING OF 24 FEET ON CENTERS OR 3 TIMES THE WALL HEIGHT, WHICHEVER IS LESS. ALL MASONRY UNITS SHALL BE PLACED IN RUNNING BOND.

6. PROVIDE HORIZONTAL JOINT REINFORCING (TRUSS OR LADDER TYPE, 9 GAUGE) AT 16 INCHES ON CENTER FOR ALL CMU WALLS LAID IN A RUNNING BOND AND AT 8 INCHES ON CENTER FOR ALL CMU WALL NOT LAID IN A RUNNING BOND. HORIZONTAL JOINT REINFORCING SHALL BE LAPPED A MINIMUM OF 6". REINFORCEMENT SHALL CONFORM TO ASTM A951 AND SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.

7. ALL HORIZONTAL REINFORCING STEEL IN BOND BEAMS AND LINTEL BLOCK UNITS SHALL BE CONTINUOUS AND UNITS SHALL BE SOLID GROUTED. PROVIDE 48 TIMES BAR DIAMETER LAP FOR HORIZONTAL REINFORCING IN BOND BEAMS. NO SPLICES SHALL BE PROVIDED FOR HORIZONTAL REINFORCING IN BLOCK LINTELS.

8. GROUT CELLS SOLID WHERE VERTICAL BARS ARE SHOWN ON THE DRAWINGS. VERTICAL BARS SHALL EXTEND FROM BOTTOM TO THE TOP OF THE WALL. AT EACH VERTICAL BAR, PROVIDE MATCHING BAR SIZE DOWEL INTO FOUNDATIONS. PROVIDE MINIMUM 48 TIMES BAR DIAMETER SPLICE FOR VERTICAL BARS WHERE REQUIRED AND/OR SHOWN ON THE DRAWINGS UNLESS NOTED OTHERWISE.

9. GROUT LIFTS SHALL TERMINATE TO FORM A GROUT KEY A MINIMUM OF 1 1/2" BELOW MORTAR JOINTS WHEN SUBSEQUENT GROUT LIFTS WILL HAPPEN AFTER PREVIOUS GROUT LIFTS HAVE SET. GROUT KEYS IN BOND BEAMS OR LINTELS SHALL NOT BE PERMITTED.

10. MAXIMUM GROUT POUR HEIGHT SHALL BE 5' - 4" (8 BLOCK COURSES).

11. PROVIDE A BOND BEAM AT THE TOP OF ALL CMU WALLS AND REINFORCE WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE. UNLESS NOTED OTHERWISE, ALL EXTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #5 CONTINUOUS AND ALL INTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #4 CONTINUOUS. BOND BEAM REINFORCING SHALL NOT BE CONTINUED THROUGH CONTROL JOINT LOCATIONS.

12. PROVIDE BOND BEAMS AT A MAXIMUM OF 48 INCHES ON CENTER IN ALL EXTERIOR AND LOAD BEARING CMU WALLS NOT LAID IN A RUNNING BOND (E.G. STACK BOND) REINFORCED WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE BOND BEAM REINFORCEMENT SHALL BE DISCONTINUED AT CONTROL JOINTS.

13. AT THE END OF EACH DAY AND DURING INCLEMENT WEATHER, ALL UNFINISHED MASONRY WORK SHALL BE COVERED AT THE TOP OF WALL AND EXTEND DOWN ALL SIDES A MINIMUM OF 24".

14. SEE TYPICAL DETAILS FOR INTERIOR WALL HEIGHT, BRACING AND REINFORCING REQUIREMENTS.

15. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH MASONRY WALLS DO NOT REQUIRE SLEEVES, UNLESS NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE GROUTING. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN GROUTED MASONRY IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH MASONRY LINTELS UNLESS SPECIFICALLY DETAILED.

16. ALL REINFORCED MASONRY WALLS WITH OPENINGS UP TO THREE (3) FEET WIDE, SHALL HAVE ONE VERTICAL BAR MINIMUM AT EACH SIDE OF OPENINGS. FOR OPENINGS LARGER THAN 3 FEET WIDE, PROVIDE TWO (2) VERTICAL BARS AT EACH SIDE OF OPENINGS UNLESS NOTED OTHERWISE. REINFORCING AT EDGES OF OPENING SHALL MATCH TYPICAL VERTICAL WALL REINFORCING (UNLESS NOTED OTHERWISE) AND SHALL EXTEND TO THE TOP OF WALL.

17. ALL REINFORCED MASONRY WALL CORNERS AND INTERSECTIONS SHALL HAVE ONE VERTICAL BAR (MINIMUM) IN GROUTED CELL. REINFORCING SHALL MATCH TYPICAL WALL VERTICAL REINFORCEMENT.

18. PROVIDE ONE VERTICAL BAR (MINIMUM) IN THE FIRST CELL EACH SIDE OF CONTROL JOINTS. REINFORCING SHALL MATCH TYPICAL VERTICAL WALL REINFORCING (UNLESS NOTED OTHERWISE) AND SHALL EXTEND TO THE TOP OF WALL.

19. FOR ANCHORED MASONRY VENEER, THE DISTANCE BETWEEN THE INSIDE FACE OF THE VENEER AND THE COLD-FORMED STEEL, MASONRY, WOOD, OR CONCRETE BACKUP SHALL BE AS SPECIFIED BY THE ARCHITECT, BUT NOT GREATER THAN 4 1/2". A MINIMUM 1 INCH AIR SPACE SHALL BE PROVIDED.

20. ANCHORED MASONRY VENEER NOT LAID IN A RUNNING BOND SHALL HAVE A JOINT REINFORCEMENT OF AT LEAST ONE WIRE, OF SIZE W1.7, SPACED AT A MAXIMUM OF 18 INCHES ON CENTER VERTICALLY.

21. ALL CONCRETE MASONRY AND MASONRY VENEER SHALL HAVE A MINIMUM BEARING WIDTH OF 2/3 THE WIDTH OF THE MASONRY UNIT.

22. SPECIAL INSPECTION, IN ACCORDANCE WITH THE BUILDING CODE REFERENCED ABOVE, SHALL BE PROVIDED FOR ALL CMU WALLS.

SUBMITTALS

1. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:

   CONCRETE MIX DESIGNS AND ACCESSORIES
   REINFORCING STEEL
   STRUCTURAL STEEL (*,^)
   METAL DECK
   BAR JOISTS (^)
   MISCELLANEOUS STEEL
   CONCRETE MASONRY MATERIAL AND REBAR PLACEMENT PLANS
   SLAB CONTRACTION JOINT LAYOUT

   ITEMS MARKED (*) SHALL HAVE SHOP DRAWINGS SEALED BY A REGISTERED ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED. ITEMS MARKED (#) SHALL BE SUBMITTED TO ENGINEER FOR OWNER'S RECORD ONLY AND WILL NOT HAVE ENGINEER'S SHOP DRAWING STAMP. ITEMS MARKED (^) SHALL HAVE SEALED STRUCTURAL CALCULATIONS SUBMITTED TO ENGINEER FOR OWNER'S RECORD.

2. ALL SHOP DRAWINGS MUST BE REVIEWED AND SEALED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.

3. CONTRACTOR SHALL SUBMIT ELECTRONIC COPIES (E.G. PDFS) OF ALL SHOP DRAWINGS SPECIFIED TO BE RETURNED BY THE ENGINEER.

4. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIAL REQUIRED BY THE CONTRACT DOCUMENTS TO BE FURNISHED SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.

5. SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN CONSTRUCTION ON THE PROJECT.

6. THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREIN AS CORRECT, AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREIN.

SPECIAL INSPECTION

1. ALL ASPECTS OF WORK RELATING TO SPECIAL INSPECTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   2021 INTERNATIONAL BUILDING CODE (CHAPTER 17).

2. THE OWNER'S SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

3. PRIOR TO THE BEGINNING OF CONSTRUCTION, THE ARCHITECT (OR ENGINEER) SHALL CALL A PRE-CONSTRUCTION MEETING WITH THE ARCHITECT, ENGINEER, BUILDING OFFICIAL, CONTRACTOR AND SPECIAL INSPECTORS TO REVIEW THE SPECIAL INSPECTION REQUIREMENTS.

4. DUTIES OF THE OWNER'S SPECIAL INSPECTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. ACKNOWLEDGE THE SPECIAL INSPECTION AND TESTING AGREEMENT PROVIDED BY THE LOCAL JURISDICTION.

   B. THE OWNER'S SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND TO THE BUILDING OFFICIAL.

   C. THE OWNER'S SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, ARCHITECT, REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, CONTRACTOR AND (OTHER DESIGNATED PARTIES), IN A TIMELY MANNER, AS ESTABLISHED AT THE PRE-CONSTRUCTION MEETING.

   D. THE OWNER'S SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE.

5. DUTIES OF THE CONTRACTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. NOTIFY THE SPECIAL INSPECTOR THAT THE WORK IS READY FOR INSPECTION AT LEAST 24 HOURS BEFORE SUCH INSPECTION.

   B. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED AND INDICATED TO BE IN CONFORMANCE BY THE SPECIAL INSPECTOR AND APPROVED BY THE BUILDING OFFICIAL.

   C. PROVIDE THE SPECIAL INSPECTOR WITH ACCESS TO APPROVED CONSTRUCTION DOCUMENTS AT JOBSITE.

   D. MAINTAIN AT THE JOBSITE COPIES OF ALL REPORTS SUBMITTED BY THE SPECIAL INSPECTOR.

6. CONTINUOUS SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS CONTINUOUSLY PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED.

7. PERIODIC SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.

8. SPECIAL INSPECTIONS AND TESTING SHALL BE REQUIRED FOR THE FOLLOWING TYPES OF WORK LISTED BELOW. SPECIAL INSPECTIONS AND TESTING SHALL FOLLOW THE REQUIREMENTS OF THE BUILDING AND MATERIAL CODE REFERENCES AND TABLES. IN THE EVENT OF A CONFLICT BETWEEN REFERENCES, THE OWNER'S SPECIAL INSPECTOR SHALL FOLLOW THE MORE STRINGENT REQUIREMENT.

SOILS	IBC 1705.6 AND TABLE 1705.6, APPROVED GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS
CONCRETE	IBC 1705.3 AND TABLE 1705.3
STEEL	IBC 1705.2 AND TABLE 1705.2.3 AND AISC 360 CHAPTER N AND SDI QA/QC DOCUMENT
SHOP FABRICATION	IBC 1704.2.5 (NOT REQUIRED IF FABRICATOR IS APPROVED IN ACCORDANCE WITH IBC 1704.2.5.1.
MASONRY	IBC 1705.4, TMS 402/ACI 530/ASCE 5 SECTION 3.1 AND TABLE 3.1.2, TMS 602/ACI 530.1/ASCE 6 SECTION 1.6 AND TABLE 4
EXPANSION/EPOXY ANCHORS	MANUFACTURER'S ICC REPORT
WIND RESISTANCE	IBC 1705.11

ABBREVIATIONS

ABBR.	ABBREVIATION
A.F.F.	ABOVE FINISH FLOOR
ADDN'L	ADDITIONAL
AHU	AIR HANDLING UNIT
ALT.	ALTERNATE
ANCH.	ANCHOR
A.B.	ANCHOR BOLT
A.R.	ANCHOR ROD
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT(URAL)
BM.	BEAM
BRG.	BEARING
BTW	BETWEEN
BOT.	BOTTOM
B.F.B.	BOTTOM FLANGE BRACE
B.O.	BOTTOM OF
BRDG.	BRIDGING
BLDG	BUILDING
C	CAMBER
CANT.	CANTILEVER
C.I.P.	CAST IN PLACE
C/C	CENTER TO CENTER
CL	CENTERLINE
CH	CHANNEL
CLR.	CLEAR(ANCE)
CFMF	COLD FORMED METAL FRAMING
COL.	COLUMN
CJP	COMPLETE JOINT PENETRATION
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONST.	CONSTRUCTION
C.J.	CONSTRUCTION / CONTRACTION JOINT
CONT.	CONTINUOUS
COORD.	COORDINATE
DL	DEAD LOAD
DBA	DEFORM BAR ANCHOR
D	DEPTH
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
DWL	DOWEL
D.N.	DOWN
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
E.W.	EACH WAY
EL.	ELEVATION
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
ENGR.	ENGINEER
EOR	ENGINEER OF RECORD
EQ.	EQUAL
EQUIP.	EQUIPMENT
EQUIV.	EQUIVALENT
EXIST.	EXISTING
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
f'c=	28 DAY CONCRETE STRENGTH
FAB.	FABRICATE
F.S.	FAR SIDE
FIN	FINISH/FINISHED
F.D.	FLOOR DRAIN
FLR	FLOOR
FTG.	FOOTING
Fy=	YIELD STRENGTH
GALV.	GALVANIZED
GA.	GAUGE
GEN	GENERAL
G.C.	GENERAL CONTRACTOR
GFRC	GLASS FIBER REINFORCED CONCRETE
GR.	GRADE/GRADING
HGR.	HANGER
HSA	HEADED STUD ANCHOR
HI	HIGH
HSS	HOLLOW STRUCTURAL SECTION
HORIZ. OR (H)	HORIZONTAL
H	HORIZONTAL REACTION
IN	INCH
INFO.	INFORMATION
ID	INSIDE DIAMETER
I.F.	INSIDE FACE
INT.	INTERIOR
JT.	JOINT
JST.	JOIST
K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
Ld	DEVELOPMENT LENGTH
LWC	LIGHTWEIGHT CONCRETE
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLV	LONG LEG VERTICAL
LLH	LONG LGE HORIZONTAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LONG	LONGITUDINAL
LO	LOW
LBS	POUNDS
MFR. / MNFR.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM

MECH.	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M	MOMENT
M.C.	MOMENT CONNECTION
N.S.	NEAR SIDE
NWC	NORMAL WEIGHT CONCRETE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
O.C.	ON CENTER(S)
OPNG.	OPENING
OPP.	OPPOSITE
OPH.	OPPOSITE HAND
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OA	OVERALL
O.H.	OVERHEAD
OVS.	OVERSIZED HOLE
P	AXIAL LOAD
P.J.	PANEL JOINT
PAR.	PARALLEL
PRKG.	PARKING
PJP	PARTIAL JOINT PENETRATION
PVMT	PAVEMENT
PVG	PAVING
PERP.	PERPENDICULAR
PL.	PLATE
PLBG	PLUMBING
PT	POST-TENSION(ED)
PCF	POUNDS PER CUBIC FOOT/FEET
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT/FEET
PSI	POUNDS PER SQUARE INCH
P/C	PRECAST CONCRETE
PRELIM.	PRELIMINARY
P.L.	PROPERTY LINE
QTY	QUANTITY
R	RADIUS, REACTION, REMAINDER
REC.	RECESSED
RE:	REFER TO
REF.	REFERENCE
REINF.	REINFORCED / REINFORCING
REBAR	REINFORCING BAR
REQ'D	REQUIRED
REV.	REVISION
R.D.	ROOF DRAIN
RTU	ROOF TOP UNIT
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SLBB	SHORT LEG BACK TO BACK
SIM.	SIMILAR
SC	SLIP CRITICAL, SHEAR CONNECTOR
SPA.	SPACING
SPEC.	SPECIFICATION
SQ.	SQUARE
SF.	SQUARE FOOT/FEET
STD	STANDARD
STL	STEEL
STIFF.	STIFFENER
STIR.	STIRRUP
STRUCT.	STRUCTURE/STRUCTURAL
TEMP.	TEMPERED
THK	THICK(NESS)
t	THICKNESS, TREAD
THD	THREADED
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
VERT. OR (V)	VERTICAL
WT.	WEIGHT
WWR	WELD WIRE REINF.
WF	WIDE FLANGE
W	WIDTH
WL	WIND LOAD
W.P.	WORK POINT
XXS	DOUBLE EXTRA STRONG
XS	EXTRA STRONG
&	AND
≈	APPROXIMATELY EQUAL
@	AT
°	DEGREE
=	EQUAL
≥	GREATER THAN or EQUAL
≤	LESS THAN or EQUAL
#	NUMBER or POUNDS
/	PER
±	PLUS or MINUS
Ø	ROUND/DIAMETER

SYMBOLS LEGEND

SYMBOLS	DESCRIPTION
N	NORTH ARROW
XX / S-X.XX	ENLARGE FLOOR PLAN REFERENCE OR ENLARGE DETAIL REFERENCE
XX / S-X.XX	DETAIL SECTION (STRUCTURAL)
XX/SX.XX	BRACING ELEVATION
11 5/8" / 5"	DIMENSIONS
XX/S-X.XX = XX/S-X.XX	MATCHLINE
1	REVISION NUMBER & AFFECTED AREA
LEVEL NAME 0' - 0"	VERTICAL ELEVATION
EX: 152' - 6"	EXISTING ELEVATION
152' - 6"	NEW ELEVATION
	M.C. OR MOMENT CONNECTION
	DEPRESSION
	PANEL WALL TAG
12/36 — BELL DIAMETER (IN); SHAFT DIAMETER (IN)	BELLED PIER
P1	PILE SHAFT
F3	FOOTING

ASCE Hazards Report

Address: 14777 Voss Rd Sugar Land, Texas 77498
Standard: ASCE/SEI 7-22
Risk Category: II
Soil Class: Default
Latitude: 29.642352
Longitude: 95.644888
Elevation: 84.58587711947763 ft (NAVD 88)




Wind

Results:

Wind Speed	133 Vmph
10-year MRI	76 Vmph
25-year MRI	90 Vmph
50-year MRI	103 Vmph
100-year MRI	113 Vmph
300-year MRI	125 Vmph
700-year MRI	133 Vmph
1,700-year MRI	139 Vmph
3,000-year MRI	145 Vmph
10,000-year MRI	153 Vmph
100,000-year MRI	168 Vmph
1,000,000-year MRI	180 Vmph

Data Source: ASCE/SEI 7-22, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Thu Jun 12 2025

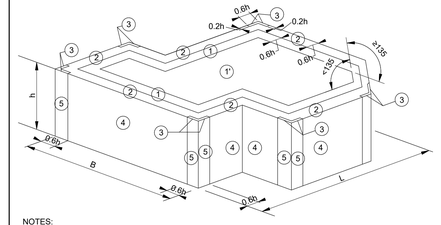
STRUCTURAL SHEET INDEX

SHEET NUMBER	SHEET NAME	Current Revision
S1.01-K	GENERAL NOTES	
S1.02-K	GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX	
S2.01-K	FOUNDATION PLAN - CONCESSION - NEW	
S2.02-K	ROOF FRAMING PLAN - CONCESSION - NEW	
S2.03-K	FOUNDATION PLAN - FIELD HOUSE - EXISTING	
S2.04-K	ROOF FRAMING PLAN - FIELD HOUSE - EXISTING	
S3.01-K	TYPICAL FOUNDATION DETAILS	
S3.02-K	TYPICAL FOUNDATION DETAILS	
S3.03-K	TYPICAL FOUNDATION DETAILS	
S3.11-K	FOUNDATION SITE DETAILS	
S3.12-K	FOUNDATION SITE DETAILS	
S4.01-K	TYPICAL CMU WALL DETAILS	
S4.02-K	TYPICAL CMU WALL DETAILS	
S5.01-K	TYPICAL STEEL FRAMING DETAILS	
Grand total: 14		

ROOF PRESSURE (GROSS)						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
1'	+17,-39	+16,-39	+16,-39	+16,-39	+16,-26	+16,-21
1	+17,-68	+16,-63	+16,-57	+16,-53	+16,-43	+16,-43
2	+39,-90	+37,-84	+35,-76	+33,-70	+29,-57	+29,-57
3	+39,-90	+37,-84	+35,-76	+33,-70	+29,-57	+29,-57

WALL PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
4	+39,-42	+37,-41	+35,-38	+33,-36	+29,-32	+29,-32
5	+39,-52	+37,-49	+35,-44	+33,-41	+29,-32	+29,-32

PARAPET PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
4	± 120	± 112	± 102	± 94	± 76	± 76
5	± 120	± 112	± 102	± 94	± 76	± 76



NOTES:
1. (0-10 SQ. FT.) EXAMPLE DENOTES EFFECTIVE WIND AREA.
2. + AND - SIGNS SIGNIFY PRESSURES ACTING TOWARD OR AWAY FROM THE SURFACES, RESPECTIVELY. ALL VALUES SHOWN ARE IN PSF.
3. WIND PRESSURE FOR EFFECTIVE WIND AREAS BETWEEN THE SPECIFIED RANGES MAY BE DETERMINED BY INTERPOLATION, OTHERWISE, USE THE VALUE ASSOCIATED WITH THE LOWER EFFECTIVE AREA.
4. h = EAVE HEIGHT.
5. ELEMENTS WITH TRIBUTARY AREAS GREATER THAN 700 SQ. FEET MAY BE DESIGNED USING MWFRS PROVISIONS.
6. VALUES SHOWN ARE BASED ON IBC 2018 / ASCE 7-16 WIND CALCULATIONS FOR COMPONENTS AND CLADDING AND ARE ULTIMATE VALUES (LRFD). VALUES SHOWN ARE FOR USE IN ASCE 7-16 LOAD COMBINATIONS SHOWN IN SECTION 2.3.1 (1.0W). IF NOMINAL (ASD) WIND LOADS ARE DESIRED OR REQUIRED FOR COMPARISON TO LOAD CAPACITIES OF FENESTRATIONS, CLADDING OR OTHER SYSTEMS, MULTIPLY THE VALUE ON THE CHART BY 0.625.
7. THE BUILDING LAYOUT SHOWN IS INTENDED TO BE SCHEMATIC, APPLY WIND PRESSURE PROVIDED SIMILARLY TO THE BUILDING(S) AT THIS PROJECT.
8. UNLESS OTHERWISE SPECIFIED, ROOF DEAD LOAD TO BE USED FOR NET UPLIFT CALCULATIONS SHALL NOT EXCEED 10 PSF. NET UPLIFT PRESSURE SHALL NOT BE LESS THAN 16 PSF.
9. ROOF ZONE 1' = INTERIOR
   ROOF ZONE 1 = FIELD
   ROOF ZONE 2 = PERIMETER
   ROOF ZONE 3 = CORNER
10. ROOF ZONE PRESSURES NOTED ABOVE ARE NOT INTENDED TO BE USED AS MINIMUM REQUIRED UPLIFT RATINGS FOR ROOF ASSEMBLIES. REFER TO SPECIFICATIONS FOR ROOF ASSEMBLY FOR WIND UPLIFT REQUIREMENTS.

COMPONENTS & CLADDING PRESSURES

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS — KHALIL TABAJA — 127127 — LICENSED PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

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S1.02-K

GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX

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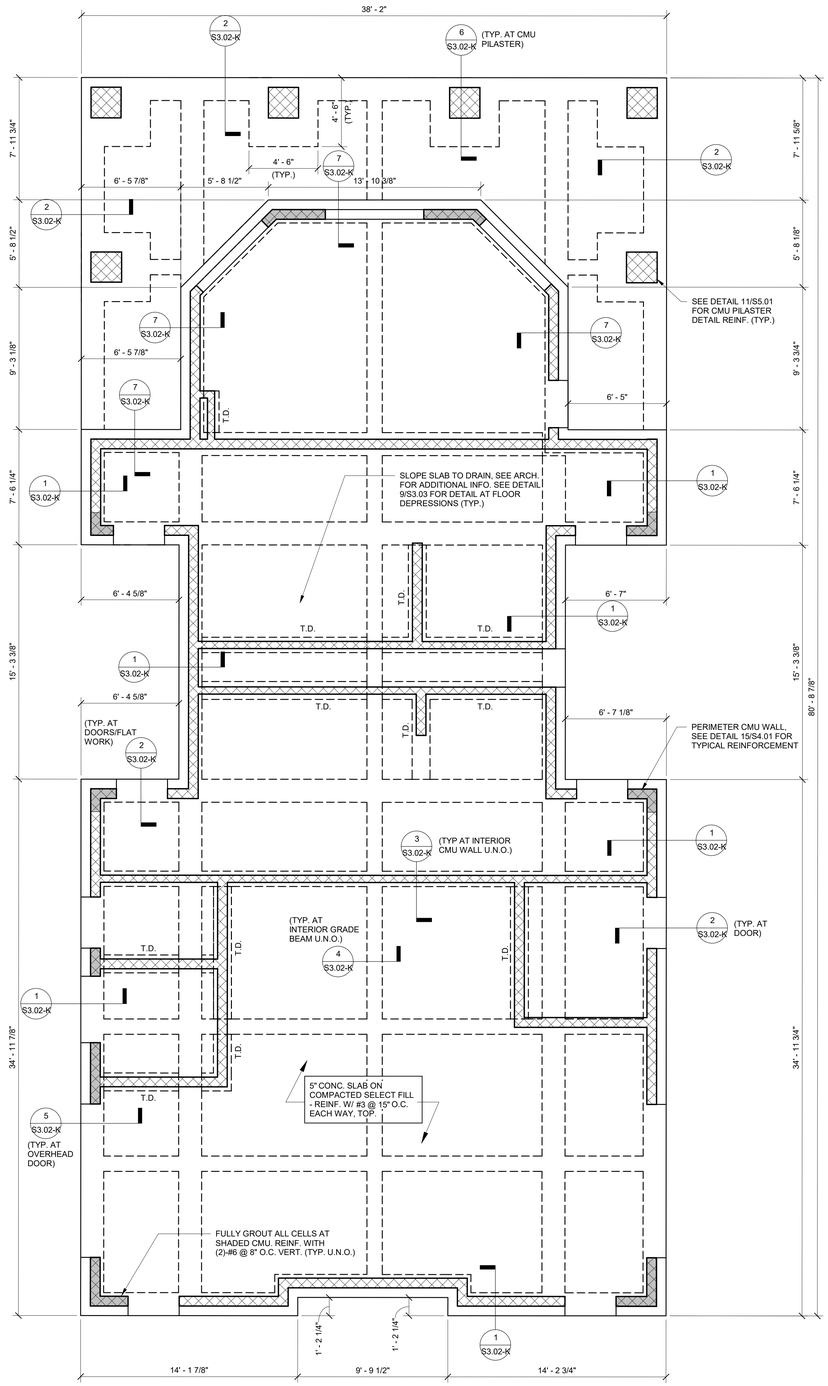

1 FOUNDATION PLAN - CONCESSION - NEW

SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
2. COORDINATE ALL BRICK LEDGES AND DEPTH WITH ARCHITECTURAL DRAWINGS.
3. LOCATIONS NOTED THUS: 0' - 0" INDICATES TOP OF SLAB ELEVATION.
4. REF. ELEVATION = 0' - 0" CORRESPONDS TO CIVIL ELEVATION 84.75'. VERIFY WITH CIVIL.
5. SEE 5/S3.03, 7/S3.03 & 10/S3.03 FOR ADDITIONAL REBAR AT OPENINGS, DISCONTINUOUS JOINTS, AND RE-ENTRANT CORNERS IN SLAB-ON-GRADE.
6. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
7. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
8. T.D. INDICATES TURN DOWNS. SEE DETAIL 9/S3.02.

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5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

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FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
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STATE OF TEXAS
KHALIL TABAJA
137126
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

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FOUNDATION PLAN - CONCESSION - NEW

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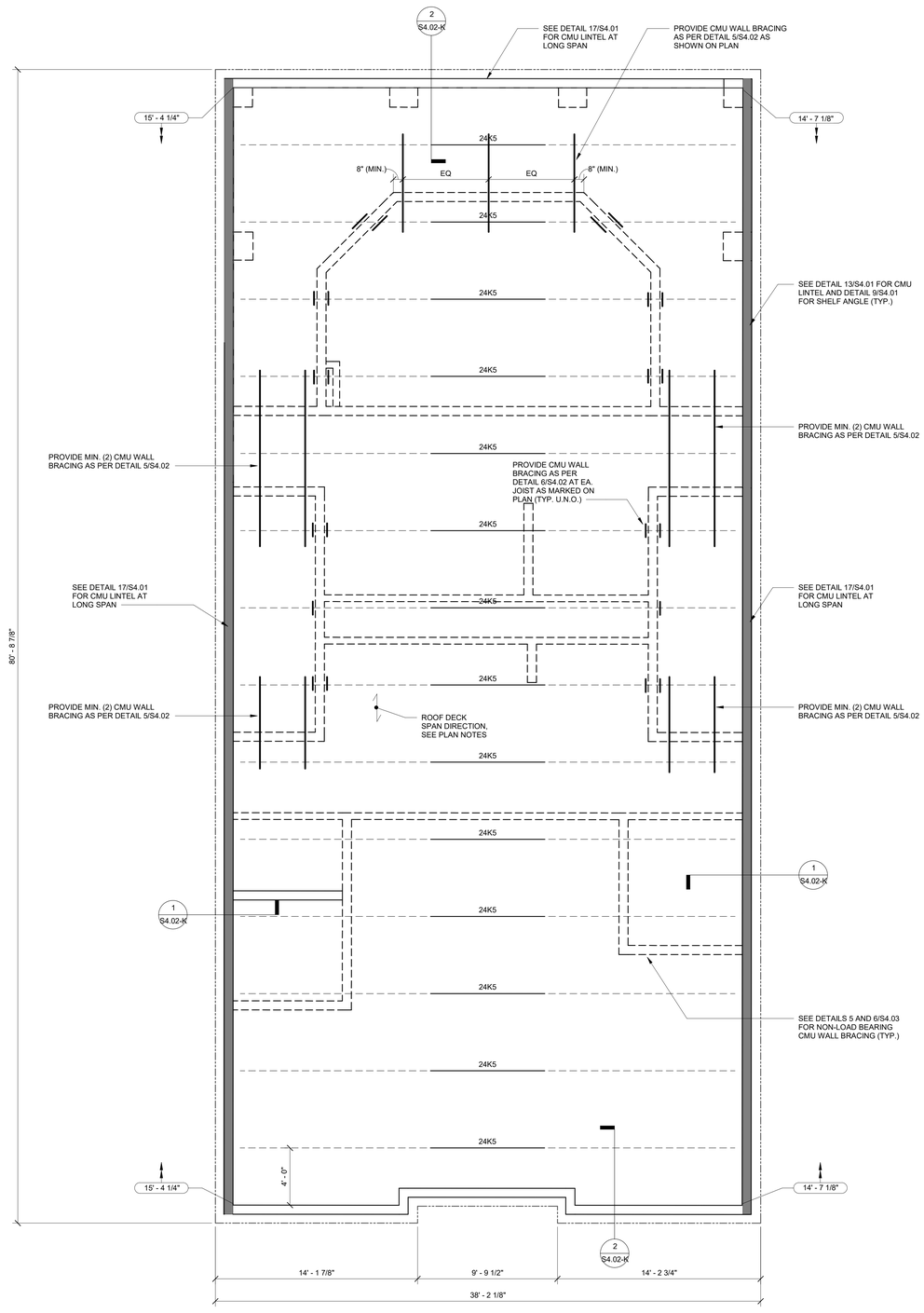

1 ROOF FRAMING PLAN - CONCESSION - NEW
SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN NOTES:

1. LOCATIONS SHOWN THUS: ( ) INDICATES TOP OF STEEL (T.O.S.) ELEVATION (TOP OF STEEL = TOP OF JOIST OR BOTTOM OF DECK).
2. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
3. JOISTS SHALL BE DESIGNED FOR ADDITIONAL LOADS RESULTING FROM RTU'S AND OTHER MECHANICAL EQUIPMENT ON THE ROOF OR SUSPENDED FROM THE ROOF STRUCTURE. SEE ARCHITECTURAL AND MEP DRAWINGS FOR LOCATIONS.
4. SPACE JOISTS EQUALLY, U.N.O.
5. PROVIDE 3/16" CLOSURE PLATES AT ALL TUBE BEAMS.
6. REFER TO ARCHITECTURAL DRAWINGS / MEP FOR LOCATIONS OF ROOF DRAINS, OVERFLOW DRAINS AND TAPERED INSULATION.
7. ROOF SHALL BE 1.5B, 22GA DECK AS MANUFACTURED BY VULCRAFT OR EQUIVALENT. SEE ARCHITECTURAL DRAWINGS FOR INSULATION, ROOFING, ETC. WELD DECK USING 5/8"Ø NET EFFECTIVE PUDDLE WELDS:
   a. PERPENDICULAR BEARING: 36/4 PATTERN.
   b. PARALLEL BEARINGS AND EDGE: AT 6"O.C.
   c. SIDE SEAMS: #10 TEK SCREWS AT 12"O.C.
8. ONLY SHADED WALLS MAY BE USED AS BEARING WALLS FOR ROOF JOISTS.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77046-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640
STATE OF TEXAS
KHALIL TABAJA
117127
LICENSED
PROFESSIONAL ENGINEER
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ROOF FRAMING PLAN - CONCESSION - NEW

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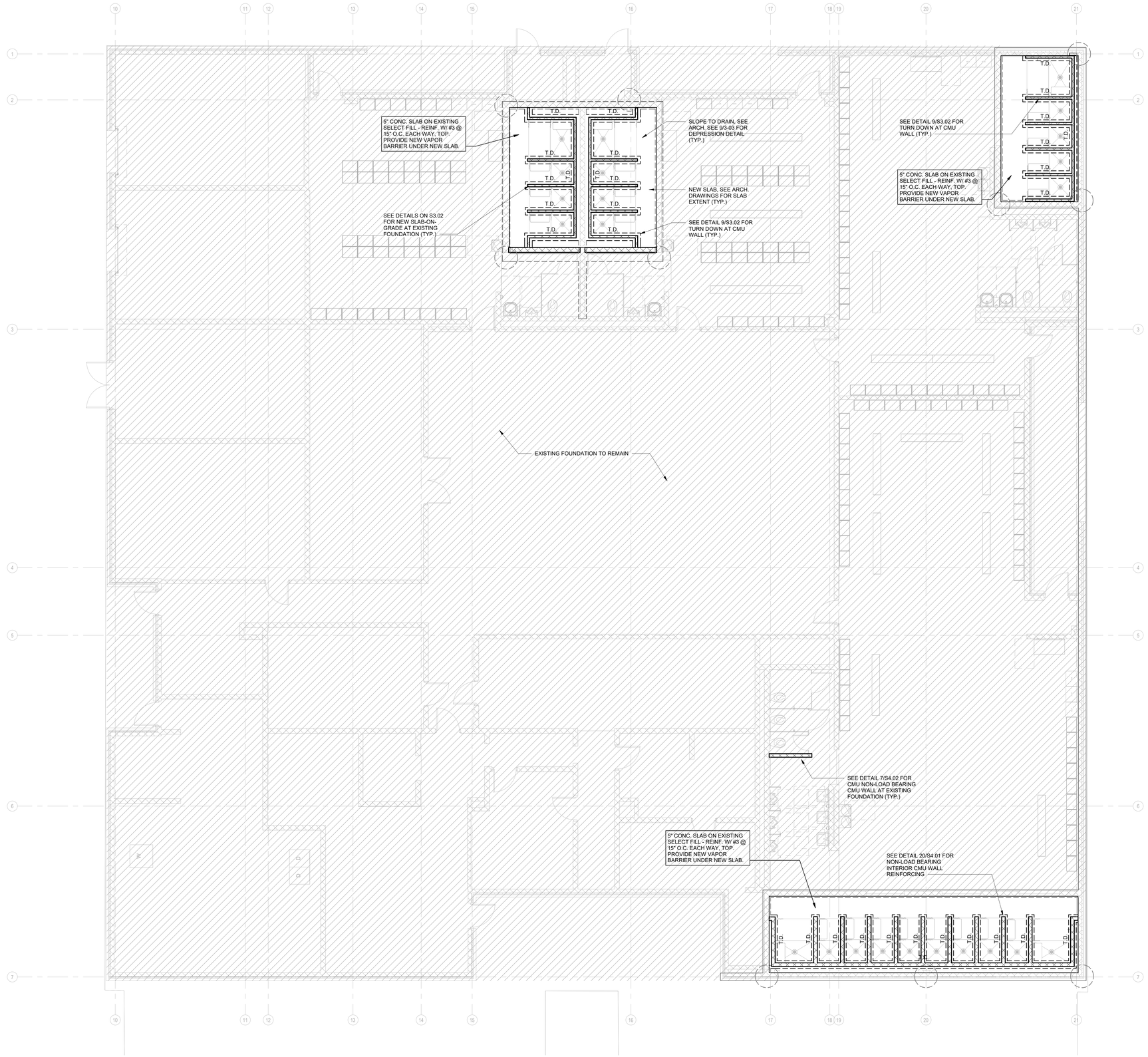

1 FOUNDATION PLAN - FIELD HOUSE - EXISTING
SCALE: 3/16" = 1'-0"

FOUNDATION PLAN NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
2. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATION.
3. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
4. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
5. T.D. INDICATES TURN DOWNS. SEE DETAIL 9/S3.02.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

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14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

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KHALIL TABAJA
137126
REGISTERED
PROFESSIONAL
ENGINEER
12/04/2025

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FOUNDATION PLAN - FIELD HOUSE - EXISTING

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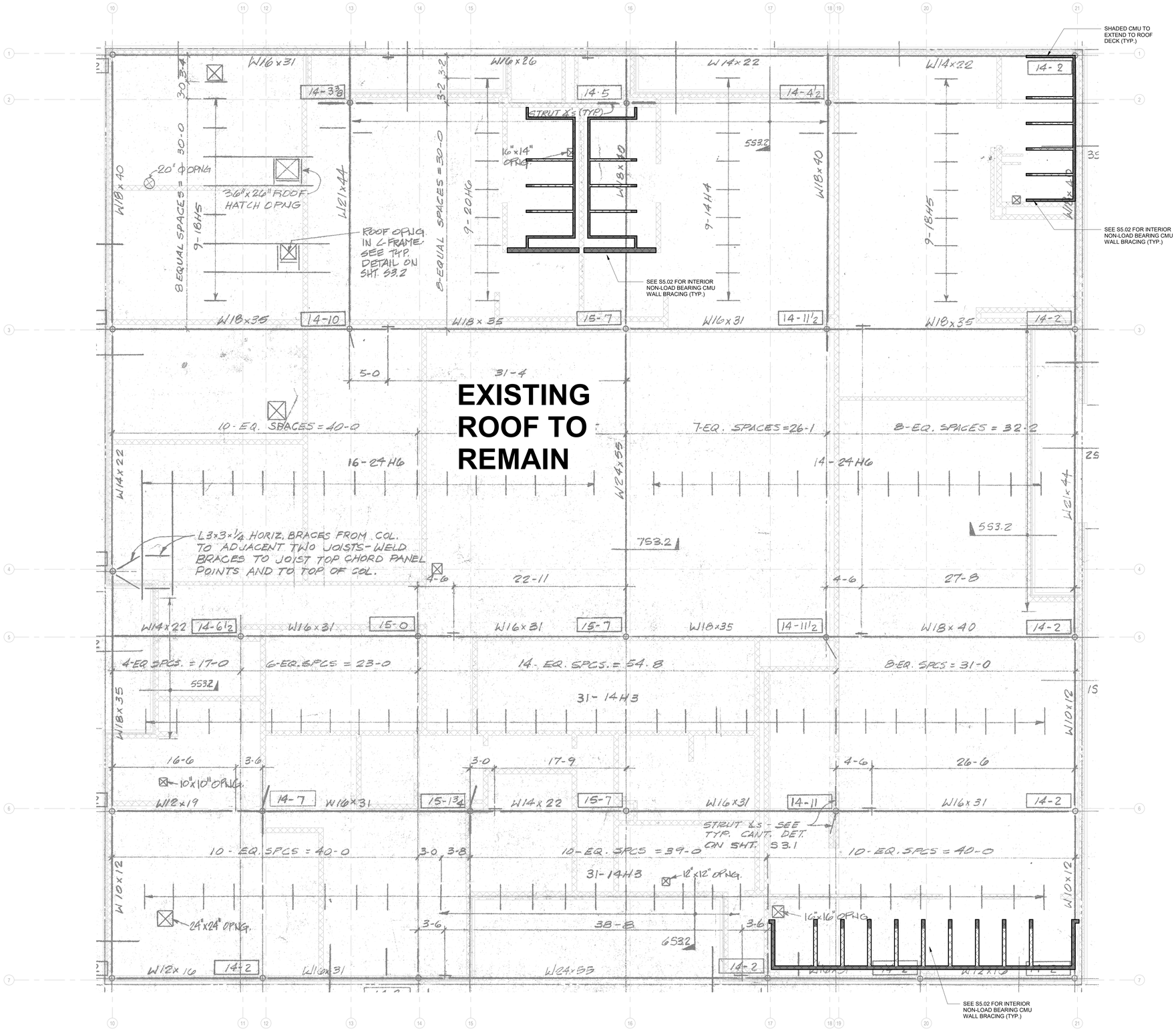
ROOF FRAMING PLAN NOTES:

1. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.



1 ROOF FRAMING PLAN - FIELD HOUSE - EXISTING
SCALE: 3/16" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137172
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

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ROOF FRAMING PLAN - FIELD HOUSE - EXISTING

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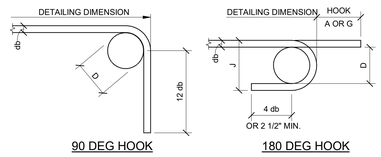


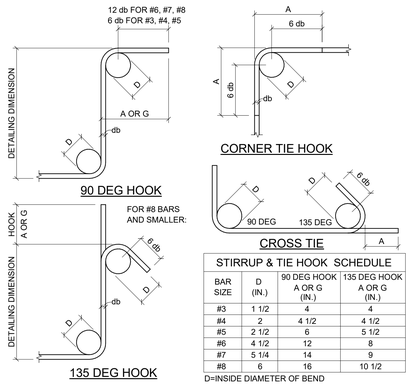
90 DEG HOOK　　180 DEG HOOK

RECOMMENDED END HOOKS, ALL GRADES				
BAR SIZE	FINISHED BEND DIAMETER D, (IN.)	180 DEG HOOKS		90 DEG HOOKS
		A OR G, (IN.)	J, (IN.)	A OR G, (IN.)
#3	2 1/4	5	3	6
#4	3	6	4	8
#5	3 3/4	7	5	10
#6	4 1/2	8	6	12
#7	5 1/4	10	7	14
#8	6	11	8	16
#9	9 1/2	15	11 3/4	19
#10	10 3/4	17	13 1/4	22
#11	12	19	14 3/4	24
#14	18 1/4	27	21 3/4	31
#18	24	36	28 1/2	41

D = INSIDE DIAMETER OF BEND

END HOOK TYPES

20 SCALE: N.T.S.

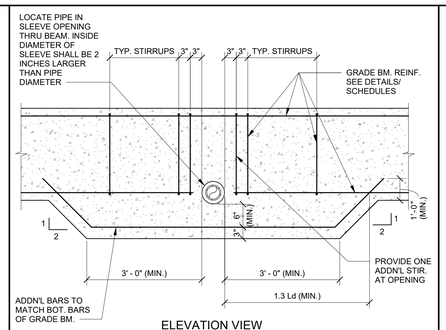


STIRRUP & TIE HOOK SCHEDULE			
BAR SIZE	D (IN.)	90 DEG HOOK A OR G (IN.)	135 DEG HOOK A OR G (IN.)
#3	1 1/2	4	4
#4	2	4 1/2	4 1/2
#5	2 1/2	6	5 1/2
#6	4 1/2	12	8
#7	5 1/4	14	9
#8	6	16	10 1/2

D=INSIDE DIAMETER OF BEND

STIRRUP AND TIE HOOK TYPES

16 SCALE: N.T.S.



ELEVATION VIEW

TYPICAL DETAIL OPENING THRU GRADE BEAM THAT CONFLICTS WITH BOTTOM REINFORCEMENT

8 SCALE: N.T.S.

DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

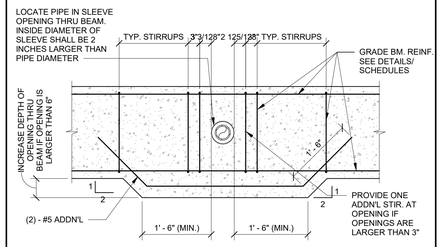
BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb
#3	9	6	8	6	7	6	6	6	6	6	6	6	6	6	6	6
#4	11	8	10	7	9	6	8	6	8	6	7	6	7	6	6	6
#5	14	10	12	9	11	8	10	7	9	7	9	6	8	6	8	6
#6	17	12	15	10	13	9	12	9	11	8	11	8	10	7	9	7
#7	20	14	17	12	15	11	14	10	13	9	12	9	12	8	11	8
#8	22	16	19	14	17	12	16	11	15	11	14	10	13	9	12	9
#9	25	18	22	15	20	14	18	13	17	12	16	11	15	10	14	10
#10	28	20	25	17	22	16	20	14	19	13	18	12	17	12	16	11
#11	31	22	27	19	24	17	22	16	21	15	19	14	18	13	17	12



NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Lhb = TENSION DEVELOPMENT LENGTH.
3. Ldh = Lhb, UNLESS CONDITIONS OF ITEM 4 ARE SATISFIED.
4. Ldh = 0.7 Lhb, WHEN SIDE COVER NORMAL TO PLANE OF HOOK IS NOT LESS THAN 2 1/2 INCHES AND FOR 90° HOOK, COVER ON BAR EXTENSION BEYOND HOOK SHALL NOT BE LESS THAN 2 INCHES.
5. HOOKS SHALL NOT BE CONSIDERED EFFECTIVE IN DEVELOPING BARS IN COMPRESSION.

TYPICAL DETAIL DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (NORMAL WEIGHT CONCRETE)

19 SCALE: N.T.S.



ELEVATION OF GRADE BEAM

TYPICAL DETAIL OPENING THRU GRADE BEAM

7 SCALE: N.T.S.

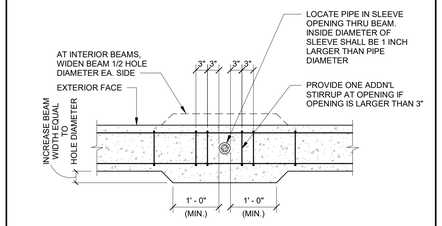
COMPRESSION DEVELOPMENT LENGTHS
AND COMPRESSION LAP SPLICE LENGTHS
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c ≥ 5000		BAR SIZE
	Ldc	Splice	Ldc	Splice	Ldc	Splice	
#3	9	12	8	12	8	12	#3
#4	11	15	10	15	9	15	#4
#5	14	19	12	19	12	19	#5
#6	17	23	15	23	14	23	#6
#7	20	27	17	27	16	27	#7
#8	22	30	19	30	18	30	#8
#9	25	34	22	34	21	34	#9
#10	28	39	25	39	23	39	#10
#11	31	43	27	43	26	43	#11
#14	38	51	33	51	31	51	#14
#18	50	68	43	68	41	68	#18

NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ldc = COMPRESSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN COMPRESSION, SPLICE LENGTH SHALL BE THE LARGER OF Ldc OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
5. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6 IN.

TYPICAL DETAIL COMPRESSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

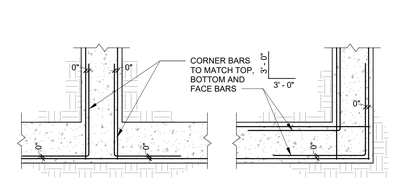
18 SCALE: N.T.S.



PLAN VIEW

TYPICAL DETAIL VERTICAL HOLE THRU GRADE BEAM LARGER THAN 3" DIAMETER

6 SCALE: N.T.S.



PLAN VIEW
GRADE BEAM "T" INTERSECTION

PLAN VIEW
GRADE BEAM CORNER

TYPICAL DETAIL GRADE BEAM REINFORCEMENT STEEL CORNER BARS

2 SCALE: N.T.S.

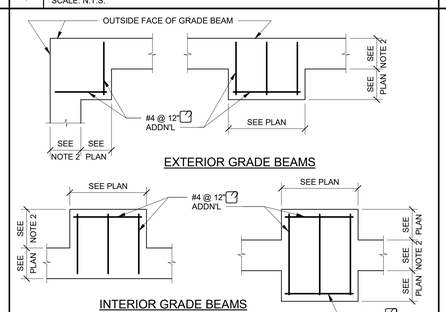
TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPLICE LENGTHS
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld
#3	17	22	15	19	13	17	12	16	12	16	12	16	12	16	12	16
#4	22	29	19	25	17	23	16	21	15	19	14	18	13	17	12	16
#5	28	36	24	31	22	28	20	26	18	24	17	22	16	21	15	20
#6	33	43	29	37	26	34	24	31	22	28	21	27	19	25	18	24
#7	48	63	42	54	38	49	34	45	32	41	30	39	28	36	27	35
#8	55	72	48	62	43	56	39	51	36	47	34	44	32	42	30	39
#9	62	81	54	70	48	63	44	57	41	53	38	50	36	47	34	44
#10	70	91	61	79	54	71	50	64	46	60	43	56	41	53	39	50
#11	78	101	67	87	60	78	55	71	51	66	48	62	45	58	43	55

NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ld = TENSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. FOR TOP BARS, MULTIPLY THE SPLICE LENGTHS BY 1.30. TOP BARS REQUIRE A MINIMUM OF 12" OF FRESH CONCRETE BELOW BAR.
5. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN TENSION, SPLICE LENGTH SHALL BE THE LARGER OF Ld OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
6. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6

TYPICAL DETAIL TENSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

17 SCALE: N.T.S.

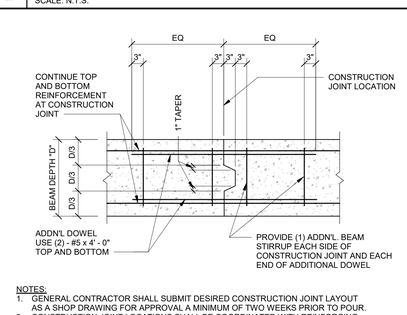


INTERIOR GRADE BEAMS

NOTES:
1. PLAN VIEWS FOR TYPICAL WIDENED GRADE BEAMS ARE SHOWN. FOR SIMILAR CONDITION NOT SHOWN, PROVIDE #4 @ 12" ADDN'L. @ 12" O.C. MAX. IN WIDENED SECTION.
2. SEE DETAIL SHEETS FOR GRADE BEAM WIDTH.

TYPICAL DETAIL ADDITIONAL BARS AT WIDENED GRADE BEAM (PLAN VIEW)

5 SCALE: N.T.S.



NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT DESIRED CONSTRUCTION JOINT LAYOUT AS A SHOP DRAWING FOR APPROVAL A MINIMUM OF TWO WEEKS PRIOR TO POUR.
2. CONSTRUCTION JOINT LOCATIONS SHALL BE COORDINATED WITH REINFORCING STEEL SUPPLIER AND ERECTOR.
3. JOINT LOCATIONS SHALL BE WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN.
4. FOR JOINT LOCATIONS OTHER THAN WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE ENGINEER ON THE SHOP DRAWINGS.

TYPICAL DETAIL GRADE BEAM CONSTRUCTION JOINT

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

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14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
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STATE OF TEXAS
KHALIL TABAJA
137121
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

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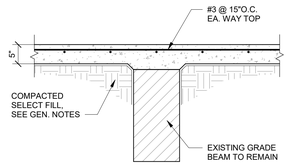
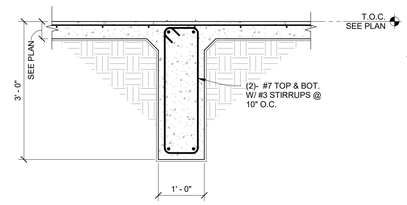
TYPICAL FOUNDATION DETAILS

12/3/2025 10:47:51 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_KEMPNER_STRUCT_R25.rvt



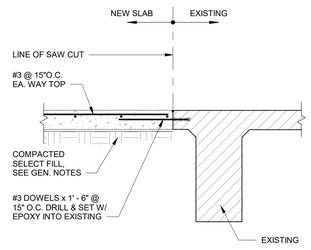
TYPICAL DETAIL
SLAB REPAIR OVER EXISTING BEAM

16 SCALE: 3/4" = 1'-0"



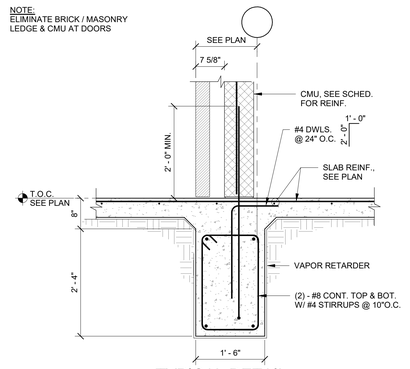
TYPICAL DETAIL
INTERIOR GRADE BEAM

4 SCALE: 3/4" = 1'-0"



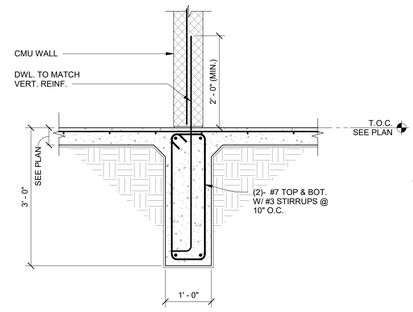
TYPICAL DETAIL
SLAB REPAIR NEAR BEAM

15 SCALE: 3/4" = 1'-0"



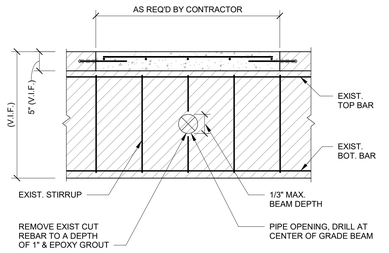
TYPICAL DETAIL
EXTERIOR GRADE BEAM

7 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
INTERIOR GRADE BEAM AT
CMU NON-LOAD BEARING WALL

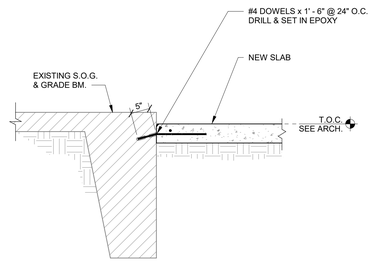
3 SCALE: 3/4" = 1'-0"



NOTE:
OPENINGS SHOULD ONLY BE PROVIDED WITHIN MIDDLE 8' - 0" OF GRADE BEAM SPAN AND MIDDLE 1/3 OF BEAM DEPTH.

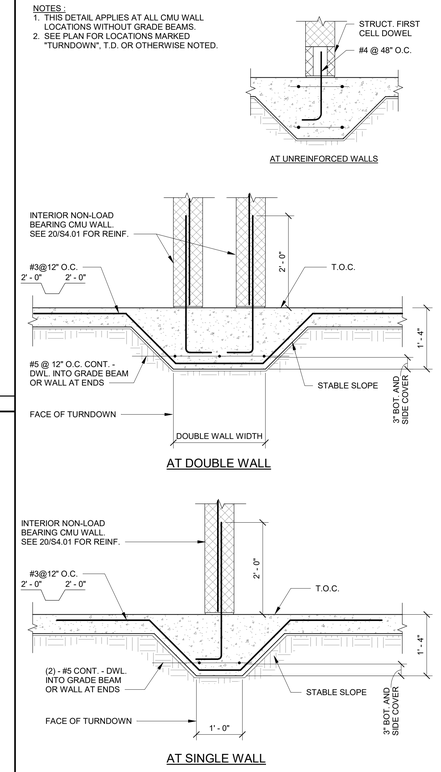
TYPICAL DETAIL
PIPE OPENING THROUGH EXIST GRADE BEAM

18 SCALE: 3/4" = 1'-0"



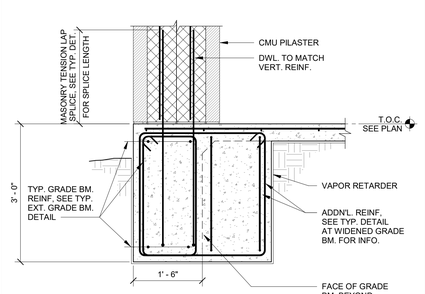
TYPICAL DETAIL
NEW SLAB-ON-GRADE AT EXISTING SLAB

14 SCALE: 3/4" = 1'-0"



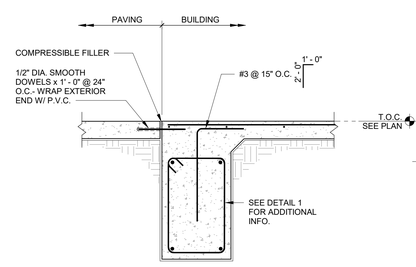
TYPICAL DETAIL
TURNDOWN AT CMU WALL

9 SCALE: 3/4" = 1'-0"



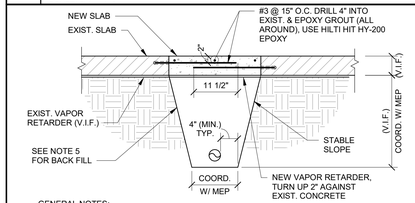
TYPICAL DETAIL
WIDENED GRADE BEAM AT CMU PILASTER

6 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM
AT DOORS/FLATWORK

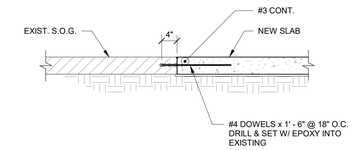
2 SCALE: 3/4" = 1'-0"



GENERAL NOTES:
1. COORDINATE LOCATION AND SIZE OF ALL TRENCHES WITH ARCH./MEP DRAWINGS.
2. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL HAVE 28 DAYS COMPRESSION STRENGTH OF MINIMUM 3,000 PSI (MAXIMUM AGGREGATE SIZE = 1 1/2"). MIX DESIGN SHALL CONFORM TO THE STANDARDS OF ACI 318 AND ACI 301.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
4. VAPOR RETARDER UNDER THE NEW SLAB SHALL BE 15 MIL STEGO VAPOR BARRIERS AS MANUFACTURED BY STEGO OR EQUIVALENT. ALL SEAMS SHALL BE OVERLAPPED MINIMUM 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE.
5. FILL UNDER THE NEW SLAB SHALL BE STRUCTURAL FILL (SANDY CLAY OR CLAYEY SAND) HAVING PLASTICITY INDEX BETWEEN 10 AND 20 AND LIQUID LIMIT NOT EXCEEDING 40. FILL MATERIAL SHALL BE PLACED IN 6 INCH LOOSE LIFTS AND COMPACTED TO AT LEAST 95% MAXIMUM DENSITY (ASTM D698). THE SELECT FILL SHALL BE MOISTURE ADJUSTED TO WITHIN 2% OF OPTIMUM MOISTURE CONTENT. AS AN ALTERNATE TO SELECT FILL, CONTRACTOR MAY UTILIZE CEMENT STABILIZED SAND FOR BACKFILLING TRENCHES. SAND SHALL BE CLEAN AND SHALL CONFORM TO ASTM C33 AND CEMENT SHALL CONFORM TO ASTM C150. SAND-CEMENT MIXTURE SHALL PROVIDE COMPRESSIVE STRENGTH OF MINIMUM 100 PSI WHEN COMPACTED TO MINIMUM 95% (ASTM D558). PLACE MATERIAL IN 8 INCH LOOSE LIFTS AND COMPACT TO MINIMUM 95% WITH MOISTURE CONTENT AT OPTIMUM OR BELOW OPTIMUM MOISTURE CONTENT.
6. V.I.F. - VERIFY IN FIELD.

TYPICAL DETAIL AT PLUMBING TRENCHES

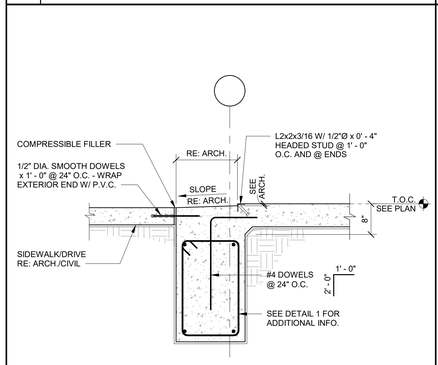
17 SCALE: 3/4" = 1'-0"



NOTE:
1. SAWCUT TOP 1" OF EXISTING SLAB PRIOR TO REMOVING EXISTING CONCRETE.

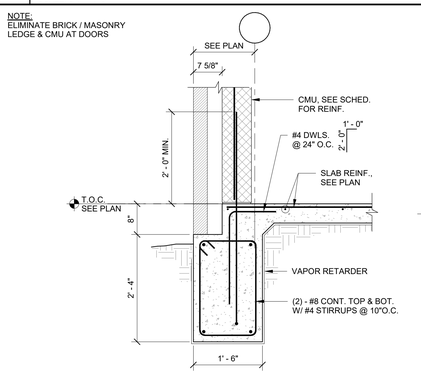
TYPICAL DETAIL
NEW SLAB-ON-GRADE AT EXISTING SLAB

13 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM AT OVERHEAD DOOR

5 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM

1 SCALE: 3/4" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
103172
REGISTERED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.02-K

TYPICAL FOUNDATION DETAILS

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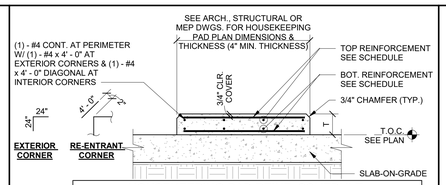
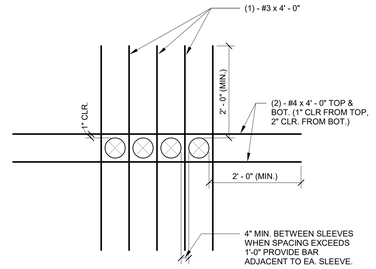


HOUSEKEEPING PAD REINF. SCHEDULE		
PAD THICKNESS	TOP REINFORCEMENT	BOTTOM REINF.
T ≤ 4"	WWR 4x4-W2.9xW2.9 OR #3 @12" E.W.	NONE
4" < T ≤ 6"	WWR 4x4-W4xW4 OR #4 @18" E.W.	NONE
6" < T ≤ 8"	WWR 4x4-W6xW6 OR #4 @12" E.W.	NONE
8" < T ≤ 12"	#4 @ 18" E.W.	#4 @ 18" E.W.
12" < T ≤ 16"	#4 @ 12" E.W.	#4 @ 12" E.W.

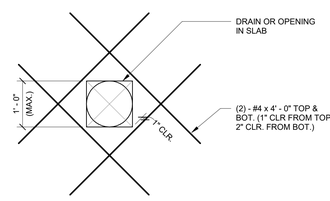
NOTES:
1. GENERAL CONTRACTOR TO COORDINATE WITH MECHANICAL DRAWINGS AND SPECIFICATIONS TO DETERMINE REQUIREMENTS FOR HOUSEKEEPING PADS OVER SLAB-ON-GRADE AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT. COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AS REQUIRED.
2. PAD SHALL NOT BE POURED UNTIL AFTER SLAB HAS REACHED ITS SPECIFIED 28 DAYS STRENGTH.
3. CONCRETE FOR HOUSEKEEPING PAD SHALL BE NORMAL WEIGHT CONCRETE WITH f'c = 3,000 PSI.

TYPICAL DETAIL
CONCRETE ISLAND OR HOUSEKEEPING PAD SLAB-ON-GRADE

8 SCALE: N.T.S.



MULTIPLE OPENINGS (PIPE SLEEVES)

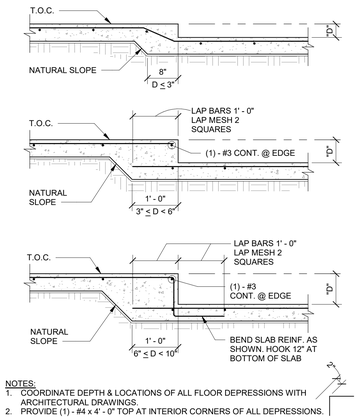


SINGLE DRAIN OR OPENING

NOTES:
1. COORDINATE OPENING SIZE AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONDUIT & PIPES OF ALUMINUM SHALL NOT BE PLACED IN CONCRETE UNLESS EFFECTIVELY COATED W/ PROTECTIVE MATERIAL TO PREVENT CHEMICAL REACTION.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT OPENINGS AT SLAB-ON-GRADE

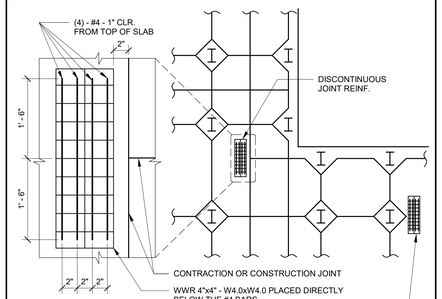
10 SCALE: N.T.S.



NOTES:
1. COORDINATE DEPTH & LOCATIONS OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE (1) - #4 x 4' - 0" TOP AT INTERIOR CORNERS OF ALL DEPRESSIONS.

TYPICAL DETAIL
AT FLOOR DEPRESSIONS

9 SCALE: N.T.S.

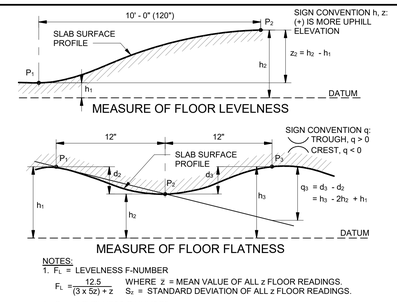


NOTE:
DISCONTINUOUS CONTRACTION OR CONSTRUCTION JOINTS SHOULD BE AVOIDED WHERE POSSIBLE.

PROVIDE AT DISCONTINUOUS JOINT REINF. AT ALL BLOCKOUT CORNERS THAT DO NOT INTERSECT CONTRACTION JOINTS

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT DISCONTINUOUS JOINT IN SLAB-ON-GRADE

7 SCALE: N.T.S.



MEASURE OF FLOOR LEVELNESS

MEASURE OF FLOOR FLATNESS

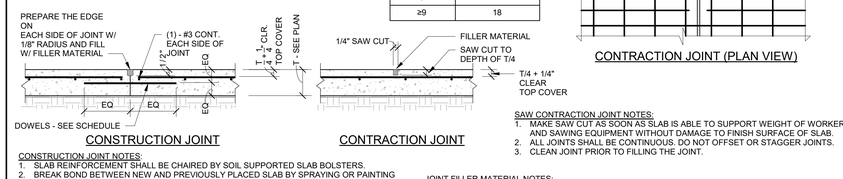
NOTES:
1. F_L = LEVELNESS F-NUMBER
   $F_L = \frac{12.5}{(3 \times S2) + z}$ WHERE z = MEAN VALUE OF ALL z FLOOR READINGS.
   S_z = STANDARD DEVIATION OF ALL z FLOOR READINGS.
2. F_F = LEVELNESS F-NUMBER
   $F_F = \frac{4.57}{(3 \times Sq) + \bar{q}}$ WHERE $\bar{q}$ = MEAN VALUE OF ALL z FLOOR READINGS.
   S_q = STANDARD DEVIATION OF ALL q FLOOR READINGS
3. F_L AND F_F SHALL BE STATISTICALLY DETERMINED ACCORDING TO ASTM E 1155 "STANDARD TEST METHOD FOR DETERMINING FLOOR FLATNESS AND LEVELNESS USING THE F-NUMBER SYSTEM."
4. REFER TO CONCRETE SPECIFICATIONS FOR REQUIRED F_F AND F_L VALUES.

TYPICAL DETAIL
SLAB SURFACE TOLERANCE

4 SCALE: N.T.S.

DOWEL SCHEDULE			
SLAB DEPTH (IN.)	DOWEL DIAMETER (IN.)	TOTAL DOWEL LENGTH (IN.)	DOWEL SPACING CENTER TO CENTER (IN.)
5-6	3/4	16	12
7-8	1	18	12
9-11	1 1/4	18	12

CONTRACTION JOINT SPACING	
SLAB THK. (IN.)	JOINT SPACING (FT)
4	11
5	13
6	14
7	16
8	17
≥9	18



CONSTRUCTION JOINT

CONTRACTION JOINT

CONTRACTION JOINT (PLAN VIEW)

CONSTRUCTION JOINT NOTES:
1. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
2. BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDE WITH FORM OIL.
3. SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.
4. ALL DOWELS IN THIS DETAIL SHALL BE SMOOTH BAR DOWELS.

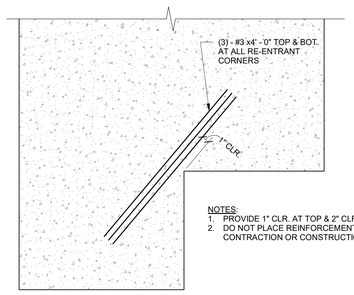
JOINT SPACING NOTE:
1. PROVIDE CONTRACTION AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN CENTERLINE AND AT A MAXIMUM SPACING AS SCHEDULED. ASPECT RATIOS OF SLAB PANELS ENCLOSED BY CONTROL JOINTS SHALL NOT EXCEED 1.5 TO 1.

SAW CONTRACTION JOINT NOTES:
1. MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB.
2. ALL JOINTS SHALL BE CONTINUOUS. DO NOT OFFSET OR STAGGER JOINTS.
3. CLEAN JOINT PRIOR TO FILLING THE JOINT.

JOINT FILLER MATERIAL NOTES:
1. FILLER MATERIAL USED SHALL BE EPOXY RESINS WITH A MINIMUM SHORE "A" HARDNESS OF 80 AND SHALL CONFORM TO ASTM D2240. JOINT FILLER SHALL BE APPROVED BY ENGINEER PRIOR TO APPLICATION. INSTALL JOINT FILLER PER MANUFACTURER'S SPECIFICATIONS.
2. WHERE POSSIBLE, FILLER MATERIAL SHALL BE APPLIED WHEN BUILDING IS UNDER PERMANENT TEMPERATURE CONTROL. THIS SHALL BE EITHER AT THE END OF CONSTRUCTION OF THE COMPLETE BUILDING SHELL, OR A MINIMUM OF 90 DAYS AFTER SLAB CONSTRUCTION.
3. ALL EXPOSED SLAB JOINTS SHALL BE FILLED WITH FILLER MATERIAL.

TYPICAL DETAIL
CONSTRUCTION AND CONTRACTION JOINTS SLAB-ON-GRADE

6 SCALE: N.T.S.

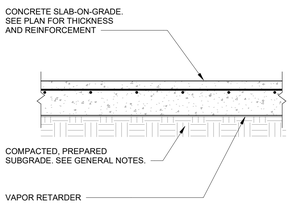


NOTES:
1. PROVIDE 1" CLR. AT TOP & 2" CLR. AT BOT.
2. DO NOT PLACE REINFORCEMENT ACROSS CONTRACTION OR CONSTRUCTION JOINTS.

SCHEMATIC SLAB-ON-GRADE

TYPICAL DETAIL
RE-ENTRANT CORNER BARS AT SLAB-ON-GRADE

5 SCALE: N.T.S.



NOTE:
1. UNLESS SPECIFIED ELSEWHERE, VAPOR RETARDER SHALL BE A MINIMUM OF 15 MILS THICK (UNLESS THICKER SPECIFIED IN SPECS/ARCH. DRAWINGS) MEETING OR EXCEEDING ASTM E-1745, CLASS C, AND HAVE NO MORE THAN 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E-96.

TYPICAL DETAIL
SLAB-ON-GRADE CONSTRUCTION SUBGRADE PREPARATION

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137122
LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.03-K
TYPICAL FOUNDATION DETAILS

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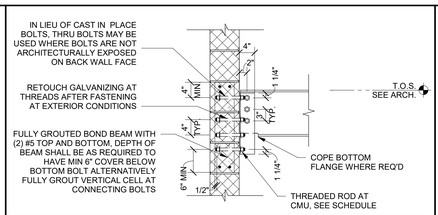
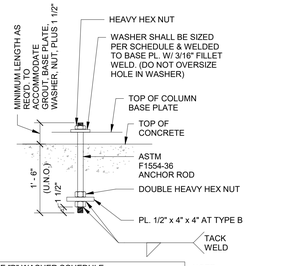


CONNECTION SCHEDULE				
MINIMUM STRINGER	ANGLE SIZE	BOLTS AT BEAM WEB	THREADED ROD AT CMU	CAPACITY AT 8" CMU Vu (Kips)
MC12	(1) L4X3X3/8	(3)- 3/4" DIA	(4)- 3/4" DIA	16.0

NOTES:
1. DO NOT USE DETAIL FOR SHEAR DEMAND LARGER THAN SCHEDULED.
2. THREADED ROD AT CMU MAY NOT BE DRILLED AND EPOXIED NOR CAN EXPANSION ANCHORS BE USED. ONLY CAST-IN-PLACE AND THRU BOLTS ARE ALLOWED.

DETAIL STEEL BEAM TO CMU WALL SIDE CONNECTION

16 SCALE: N.T.S.



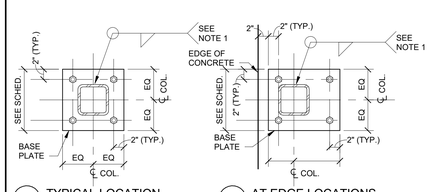
TYPE "B" WASHER SCHEDULE		
ANCHOR ROD DIA.	WASHER SIZE*	MIN. WASHER THICKNESS
3/4"	2"	1/4"
7/8"	2 1/2"	5/16"
1"	3"	3/8"
1 1/4"	3 1/2"	1/2"
1 1/2"	4"	1/2"
1 3/4"	4 1/2"	5/8"
2"	5"	3/4"
2 1/2"	5 1/2"	7/8"

NOTE:
USE TYPE "B" ANCHOR BOLTS AT COLUMNS WITH DIAGONAL BRACES, MOMENT CONNECTIONS, & AT CANOPY COLUMNS

*CIRCULAR OR SQUARE WASHERS MEETING WASHER SIZE ARE ACCEPTABLE

TYPICAL DETAIL ANCHOR BOLT

19 SCALE: N.T.S.



A TYPICAL LOCATION

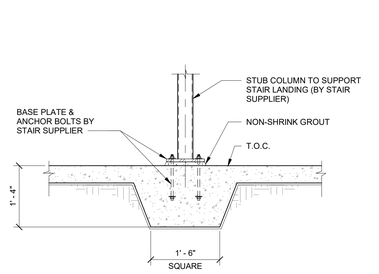
B AT EDGE LOCATIONS

BASE PLATE SCHEDULE		
COLUMN	BASE PLATE	ANCHOR BOLTS
HSS 4 x 4	12" x 12" x 1"	(4)-3/4"Ø TYPE B

NOTES:
1. MINIMUM FILLET WELD ACCORDING TO AISC (1/4" MIN.). WELDING AROUND CORNER RADIUS IS NOT REQUIRED U.N.O.
2. USE OVERSIZED HOLES FOR ANCHOR RODS ACCORDING TO AISC.
3. WASHERS SHALL BE INSTALLED OVER OVERSIZED HOLES.
4. CONTRACTOR SHALL PROVIDE 1/8" THICK TEMPLATE FOR ANCHOR ROD INSTALLATION.

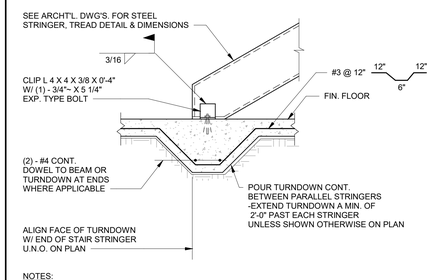
TYPICAL DETAIL BASE PLATE AT HSS COLUMNS

15 SCALE: N.T.S.



TYPICAL DETAIL THICKENED SLAB BELOW COLUMNS AT STAIR LANDING

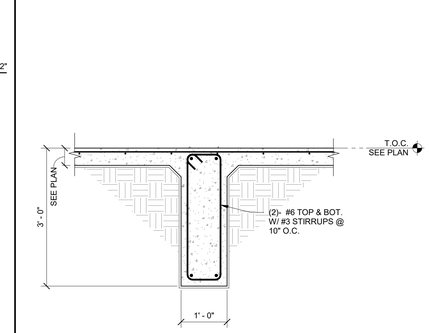
18 SCALE: 3/4" = 1'-0"



NOTES:
1. GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF STAIR STRINGER LOCATIONS WITH ARCHITECTURAL DRAWINGS & PROVIDE TURNDOWNS WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT.
2. CLIP ANGLE TO BE HIDDEN BENEATH FIRST TREAD. WHERE OPEN RISERS ARE USED, COORDINATE THE LOCATION WITH THE ARCHITECT.

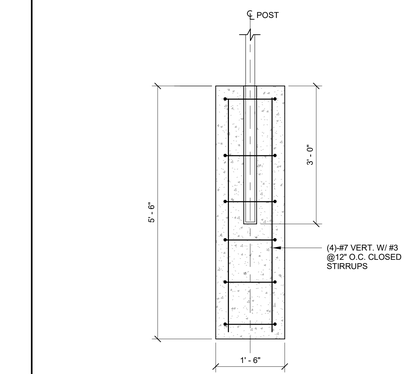
TYPICAL DETAIL TURNDOWN AT STEEL STAIR

14 SCALE: 3/4" = 1'-0"



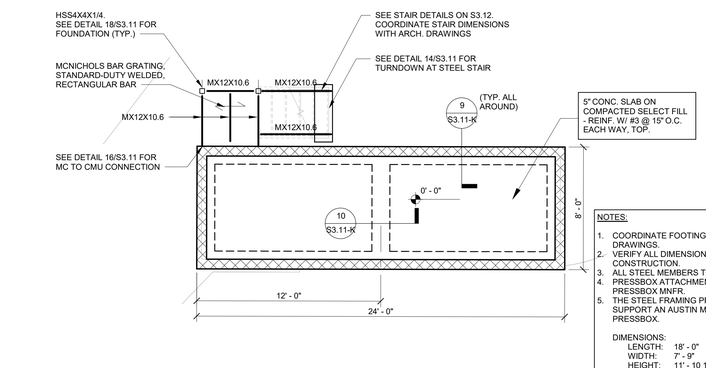
TYPICAL DETAIL INTERIOR GRADE BEAM

10 SCALE: 3/4" = 1'-0"



FENCE DETAIL

2 SCALE: N.T.S.

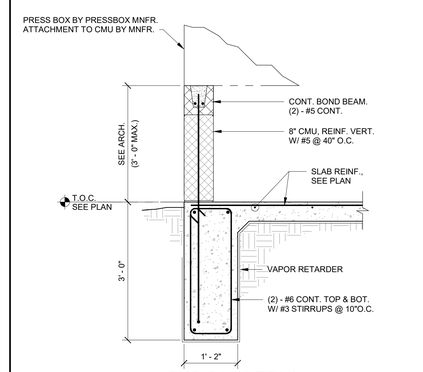


NOTES:
1. COORDINATE FOOTING LOCATIONS WITH ARCH. DRAWINGS.
2. VERIFY ALL DIMENSIONS PRIOR TO FABRICATION/ CONSTRUCTION.
3. ALL STEEL MEMBERS TO BE GALV.
4. PRESSBOX ATTACHMENT TO STEEL FRAMING BY PRESSBOX MNFR.
5. THE STEEL FRAMING PROVIDED IS DESIGNED TO SUPPORT AN AUSTIN MOHAWK PREFABRICATED PRESSBOX.

DIMENSIONS:
LENGTH: 18' - 0"
WIDTH: 7' - 9"
HEIGHT: 11' - 10 1/2"

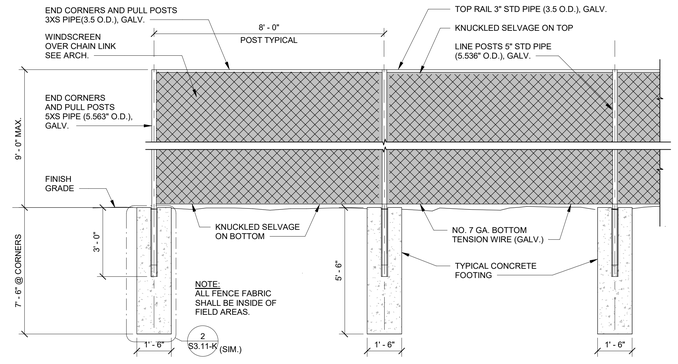
FOUNDATION PLAN - SOFTBALL PRESSBOX - NEW

17 SCALE: 1/4" = 1'-0"



TYPICAL DETAIL EXTERIOR GRADE BEAM

9 SCALE: 3/4" = 1'-0"



ALTERNATE #5

CHAIN LINK FENCE WITH WINDSCREEN

5 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
117172
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

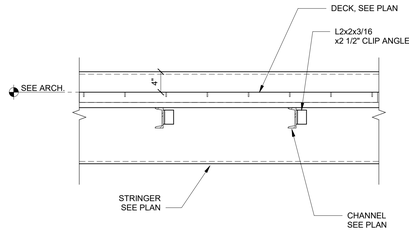
No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.11-K

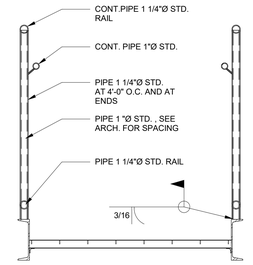
FOUNDATION SITE DETAILS

12/3/2025 10:47:54 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_KEMPNER_STRUCT_R25.rvt



4 TYPICAL DETAIL AT STAIR LANDING

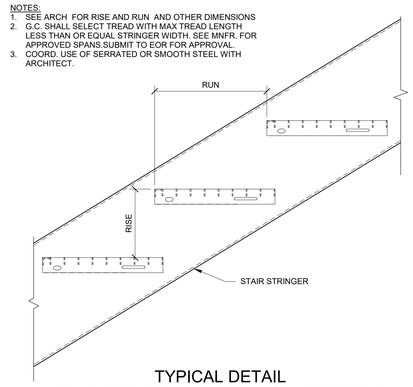
SCALE: 1" = 1'-0"



3 TYPICAL DETAIL SECTION AT STAIR

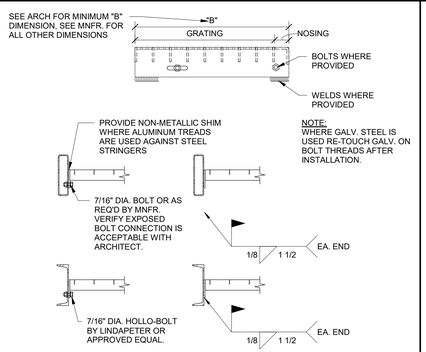
SCALE: 1" = 1'-0"

NOTES:
1. SEE ARCH FOR RISE AND RUN AND OTHER DIMENSIONS
2. G.C. SHALL SELECT TREAD WITH MAX TREAD LENGTH LESS THAN OR EQUAL STRINGER WIDTH. SEE MNFR. FOR APPROVED SPANS.SUBMIT TO EOR FOR APPROVAL.
3. COORD. USE OF SERRATED OR SMOOTH STEEL WITH ARCHITECT.



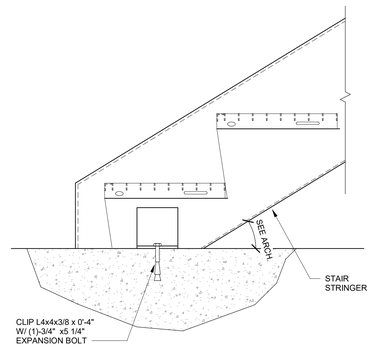
TYPICAL DETAIL
STAIR SECTION AT METAL GRATE TREAD

2 SCALE: 1" = 1'-0"



TYPICAL DETAIL
METAL GRATE TREAD
TO STRINGER CONNECTION

5 SCALE: 1" = 1'-0"



BASE OF STEEL STAIR

1 SCALE: 1" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

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14777 Voss Rd, Sugar Land, TX 77498

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Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
127172
LICENSED
PROFESSIONAL ENGINEER

11/21/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.12-K
FOUNDATION SITE DETAILS

12/3/2025 10:47:55 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_KEMPNER_STRUCT_R25.rvt

INTERIOR NON-LOAD BEARING CMU WALL JAMB SCHEDULE							
WALL THICKNESS	SPANNING CMU HEIGHT	OPENING WIDTH					
		< 3' - 0"		< 6' - 0"		< 10' - 0"	
		# OF CELLS	REINF.	# OF CELLS	REINF.	# OF CELLS	REINF.
6"	14' - 0"	1	#4	1	#4	1	#4
6"	22' - 0"	1	#4	2	#4	2	#4
6"	33' - 0"	3	#5	4	#5	7	#5
6"	38' - 0"	5	#5	10	#5	NA	NA
8"	20' - 0"	1	#5	1	#5	1	#5
8"	37' - 6"	2	#5	2	(2)-#5	2	(2)-#5
8"	50' - 0"	3	(2)-#5	4	(2)-#6	5	(2)-#6

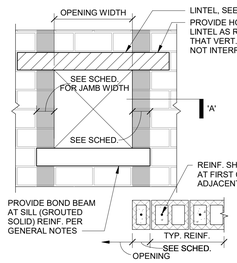
6" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
14' - 0"	NONE
15' - 6"	GROUT @ 48"
20' - 0"	(1)-#4 @ 56"
22' - 0"	(1)-#4 @ 48"
29' - 6"	(1)-#4 @ 24"
33' - 0"	(1)-#4 @ 16"
38' - 0"**	(1)-#4 @ 8"

8" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
20' - 0"	NONE
22' - 0"	GROUT @ 48"
27' - 0"	(1)-#5 @ 64"
33' - 6"	(1)-#5 @ 48"
37' - 6"	(1)-#5 @ 32"
43' - 0"	(2)-#5 @ 40"
50' - 0"	(2)-#5 @ 16"

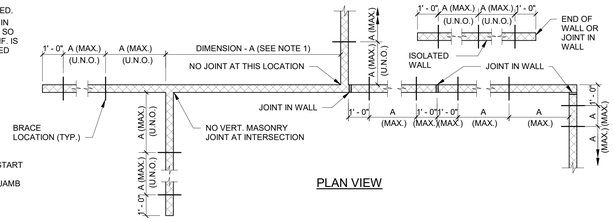
** ONLY ALLOWED IF MAX OPENING IN WALL IS LESS THAN 6'-0" WITH 7'-0" JAMBS TO THE SIDE OF OPENING

4" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
8' - 6"	NONE
9' - 6"	GROUT @ 48"
10' - 0"	GROUT @ 40"
10' - 6"	GROUT @ 24"
11' - 6"	GROUT @ 16"
14' - 0"	GROUT @ 8"

NO OPENINGS ALLOWED IN 4" WALLS WITHOUT BACKUP



NOTE:
NO CONTROL JOINTS ALLOWED WITHIN SHADED AREA OR ABOVE OR BELOW OPENING



PLAN VIEW

NOTES:
1. ALL INTERIOR CMU WALLS SHALL BE BRACED AT TOP IF DISTANCE BETWEEN INTERSECTING WALLS (DIMENSION- A) IS MORE THAN 26 TIMES THE WALL NOMINAL THICKNESS. THERE SHALL BE NO JOINT BETWEEN WALLS AT THE INTERSECTIONS OR IN BETWEEN THE INTERSECTING WALLS. THERE SHALL BE NO DOORS OR ANY OTHER OPENINGS LARGER THAN 24 INCHES WITHOUT JAMB REINFORCING, SEE SCHEDULE FOR LARGER OPENINGS. MINIMUM LENGTH OF INTERSECTING WALLS SHALL BE 4 FEET.
2. REINFORCE VERTICALLY SPANNING CMU WALLS AS FOLLOWS:

BAR SIZE	MINIMUM LAP SPLICE LENGTH				REINFORCEMENT OFF CENTER	HOOKED BAR DEVELOPMENT LENGTH
	REINFORCEMENT AT CENTER OF WALL					
	6" CMU	8" CMU	10" CMU	12" CMU	ANY	ANY
3	12	12	12	12	17	5
4	18	13	12	12	29	7
5	28[4]	20	16	13	45	9
6	51[4]	37	29	24	54	10
7	NA[5]	50	39	32	63	12
8	NA[5]	72	58	48	72	13

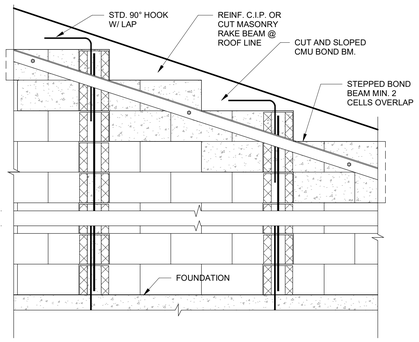
NOTES:
1. TABLE FOR USE WITH GRADE 60 UNCOATED REINF. BARS IN CMU (fm = 2000 psi)
2. BARS SPLICED BY NON-CONTACT LAP SPLICE SHALL NOT BE SPACED FARTHER APART THAN ONE-FIFTH THE REQUIRED LAP LENGTH, OR 8".
3. LAP LENGTHS PER IBC 2021.
4. PERMITTED ONLY IF ALL MORTAR FINS ARE REMOVED ROM THE CELL TO BE GROUTED.
5. BAR EXCEEDS MAX. ALLOWABLE SIZE.
6. DEVELOPMENT LENGTH OF EPOXY COATED BARS SHALL BE TAKEN AS 1.5 TIMES THE VALUES IN THE CHART.

TYPICAL DETAIL - NON-LOAD BEARING INTERIOR/CMU WALLS BRACING AND REINFORCING STEEL

20 SCALE: N.T.S.

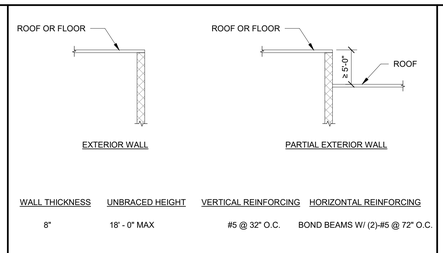
TYPICAL DETAIL MASONRY TENSION LAP SPLICE (INCHES)

4 SCALE: N.T.S.



TYPICAL DETAIL MASONRY EDGE AT SLOPES AND GABLES

19 SCALE: N.T.S.

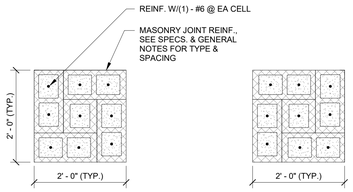


WALL THICKNESS	UNBRACED HEIGHT	VERTICAL REINFORCING	HORIZONTAL REINFORCING
8"	18' - 0" MAX	#5 @ 32" O.C.	BOND BEAMS W/ (2)-#5 @ 72" O.C.

NOTES:
1. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
2. ALL REINFORCING STEEL SHALL BE CONTINUOUS BETWEEN FOUNDATION AND TOP OF CMU. SPLICE REINFORCING PER GENERAL NOTES. ALL REINFORCED CELLS SHALL BE GROUTED SOLID.
3. AT FOUNDATION, PROVIDE DOWELS TO MATCH SIZE AND SPACING OF VERTICAL BARS.
4. CONSULT WITH ARCH./EOR WHEN HEIGHT OF WALL EXCEEDS THE HEIGHT SHOWN HERE.
5. PROVIDE CONTINUOUS BOND BEAMS AT THE TOP OF WALLS. REINFORCE BOND BEAMS WITH (2) - #5, UNLESS NOTED OTHERWISE.

TYPICAL DETAIL - EXTERIOR CMU WALL

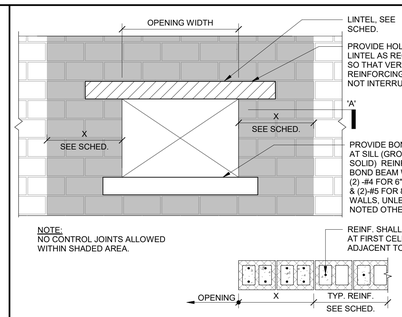
15 SCALE: N.T.S.



ALTERNATE COURSES

TYPICAL DETAIL MASONRY COLUMNS

11 SCALE: 3/4" = 1'-0"



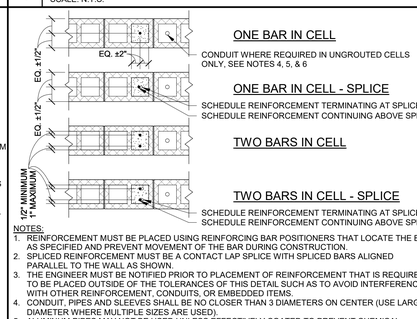
NOTE:
NO CONTROL JOINTS ALLOWED WITHIN SHADED AREA.

SECTION 'A'

OPENING SIZE	JAMB WIDTH 'X'	JAMB REINF.
≤ 4' - 0"	2' - 0"	(2) - #5 @ 8" O.C.
>10' - 0"	3' - 0"	(2) - #5 @ 8" O.C.

CMU JAMB REINFORCING SCHEDULE

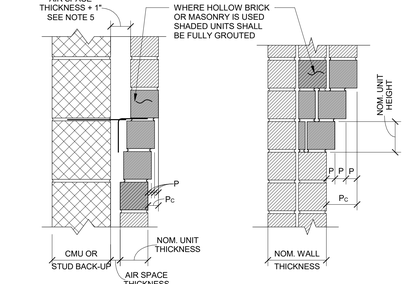
7 SCALE: N.T.S.



NOTES:
1. REINFORCEMENT MUST BE PLACED USING REINFORCING BAR POSITIONERS THAT LOCATE THE BAR AS SPECIFIED AND PREVENT MOVEMENT OF THE BAR DURING CONSTRUCTION.
2. SPLICED REINFORCEMENT MUST BE A CONTACT LAP SPLICE WITH SPLICED BARS ALIGNED PARALLEL TO THE WALL AS SHOWN.
3. THE ENGINEER MUST BE NOTIFIED PRIOR TO PLACEMENT OF REINFORCEMENT THAT IS REQUIRED TO BE PLACED OUTSIDE OF THE TOLERANCES OF THIS DETAIL SUCH AS TO AVOID INTERFERENCE WITH OTHER REINFORCEMENT, CONDUITS, OR EMBEDDED ITEMS.
4. CONDUIT, PIPES AND SLEEVES SHALL BE NO CLOSER THAN 3 DIAMETERS ON CENTER (USE LARGER DIAMETER WHERE MULTIPLE SIZES ARE USED).
5. ALUMINUM PIPES MAY NOT BE USED UNLESS EFFECTIVELY COATED TO PREVENT CHEMICAL REACTION.
6. PIPES SHALL NOT BE EMBEDDED IN MASONRY WHEN:
   (a) CONTAINING LIQUIDS, GAS, OR VAPORS AT A TEMPERATURE HIGHER THAN 150°F (66°C).
   (b) UNDER PRESSURE IN EXCESS OF 55 PSI (379 KPA).
   (c) CONTAINING WATER OR OTHER LIQUIDS SUBJECT TO FREEZING.

TYPICAL DETAIL CMU VERTICAL BAR PLACEMENT

3 SCALE: N.T.S.



AT SINGLE WYTHE AT MULTI WYTHE

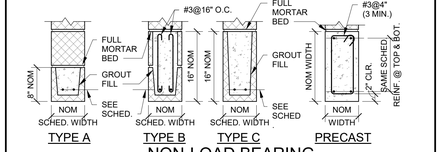
NOTES:
1. Pc INDICATES ALLOWABLE TOTAL HORIZONTAL PROJECTION OF CORBELLING.
2. P INDICATES ALLOWABLE PROJECTION OF ONE UNIT.
3. Pc SHALL BE LESS THAN OR EQUAL TO ONE-HALF OF NOMINAL UNIT THICKNESS.
4. P SHALL BE LESS THAN OR EQUAL TO THE LESSER OF ONE-HALF OF NOMINAL UNIT HEIGHT OR ONE-THIRD OF NOMINAL UNIT THICKNESS.
5. THE BACK SURFACE OF THE CORBELLED SECTION SHALL REMAIN WITHIN 1" OF PLANE.

TYPICAL DETAIL CORBELS AT MASONRY VENEER

8 SCALE:N.T.S.

CLEAR SPAN	REINFORCING REQUIREMENTS IN NOMINAL LINTEL SECTION								
	4x8	6x8	6x16	8x8	8x16	10x8	10x16	12x8	12x16
3-4	1-#3	1-#3	—	1-#3	—	2-#3	—	2-#3	—
4-0	1-#3	1-#4	—	2-#3	—	2-#3	—	2-#4	—
4-8	1-#4	1-#4	—	2-#4	—	2-#4	—	2-#4	—
5-4	1-#4	2-#4	—	2-#4	—	2-#4	2-#3	2-#5	—
6-0	1-#5	2-#4	1-#4	2-#4	2-#3	2-#5	2-#4	2-#5	2-#4
6-8	N/A	N/A	1-#5	N/A	2-#4	N/A	2-#4	2-#6	2-#4
7-4	↑	↑	1-#5	↑	2-#4	↑	2-#4	N/A	2-#5
8-0	↑	↑	1-#6	↑	2-#4	↑	2-#5	↑	2-#5
8-8	↑	↑	1-#6	↑	2-#5	↑	2-#5	↑	2-#6
9-4	N/A	N/A	1-#7	N/A	2-#5	N/A	2-#6	N/A	2-#6

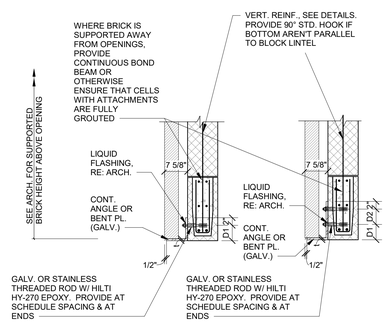
NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR SIZE & LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING AT EACH JAMB FOR EACH FOOT OF CLEAR SPAN BUT NOT LESS THAN 8". REINFORCEMENT SHALL PROJECT A MINIMUM OF 6" ONTO THE BEARING.
3. MINIMUM MASONRY COMPRESSIVE STRENGTH OF GROUTED PRISM F 'M = 2000 PSI.
4. LINTELS SCHEDULED AT 16" HIGH MAY BE EITHER TYPE "B" OR TYPE "C" AS DETAILED BELOW.
5. PRECAST CONCRETE LINTELS AS SHOWN MAY BE USED WITH ARCHITECT'S APPROVAL F ' C = 3000 PSI



TYPE A TYPE B TYPE C PRECAST

NON-LOAD BEARING BLOCK LINTEL SCHEDULE

14 SCALE: N.T.S.



TYPE 1 TYPE 2

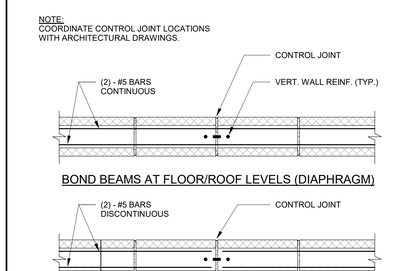
TYPE 1 SCHEDULE					
MAX HEIGHT OF SUPPORTED BRICK	ANGLE	THREADED ROD			
	t	D1	DIA.	EMBEDMENT	SPACING
3'-0"	1/4"	4"	3/8"	3 3/8"	3'-0"
5'-0"	1/4"	4"	1/2"	4 1/2"	3'-0"
8'-0"	5/16"	5"	1/2"	4 1/2"	2'-6"
10'-0"	5/16"	5"	5/8"	5 5/8"	2'-0"
12'-0"	5/16"	5"	5/8"	5 5/8"	1'-4"

TYPE 2 SCHEDULE						
MAX HEIGHT OF SUPPORTED BRICK	ANGLE	THREADED ROD				
	t	D1	D2	DIA.	EMBEDMENT	SPACING
10'-0"	5/16"	4"	4"	3/8"	3 3/8"	3'-0"
12'-0"	3/8"	4"	4"	1/2"	4 1/2"	3'-0"
15'-0"	3/8"	4"	4"	1/2"	4 1/2"	2'-6"
20'-0"	3/8"	4"	4"	5/8"	5 5/8"	2'-0"
25'-0"	3/8"	5"	4"	5/8"	5 5/8"	2'-0"
30'-0"	3/8"	5"	4"	5/8"	6 3/4"	1'-4"
35'-0"	7/16"	5"	4"	5/8"	6 3/4"	1'-4"

NOTES:
1. WHERE TWO SOLUTIONS ARE PROVIDED FOR A GIVEN HEIGHT, CONTRACTOR MAY CHOOSE BETWEEN TYPE 1 & TYPE 2.
2. MAX. HEIGHT OF SUPORTED BRICK SHALL BE FROM TOP OF OPENING TO TOP OF WALL UNLESS ANOTHER OPENING OF GREATER OR EQUAL WIDTH IS PROVIDED ABOVE THE OPENING.
3. SEE TYPICAL DETAIL " ANGLE OR BENT PLATE SUBSTITUTION FOR OPTIONAL ALTERNATES.

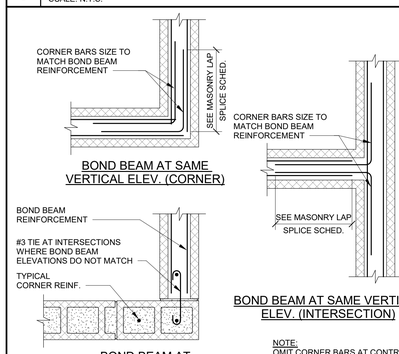
TYPICAL DETAIL SHELF ANGLE AT CMU

9 SCALE: N.T.S.

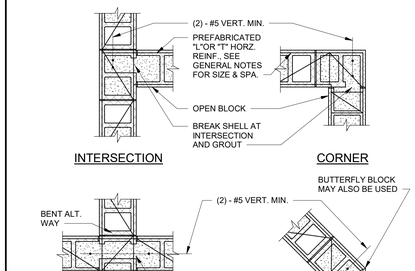


TYPICAL CMU BOND BEAM REINFORCEMENT

5 SCALE: N.T.S.

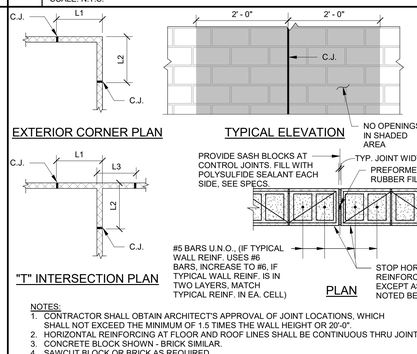


NOTE:
OMIT CORNER BARS AT CONTROL JOINT LOCATIONS AS INDICATED ON TYPICAL CMU ELEVATION.



CMU WALL INTERSECTIONS

2 SCALE: N.T.S.



NOTES:
1. CONTRACTOR SHALL OBTAIN ARCHITECT'S APPROVAL OF JOINT LOCATIONS, WHICH SHALL NOT EXCEED THE MINIMUM OF 1.5 TIMES THE WALL HEIGHT OR 20'-0".
2. HORIZONTAL REINFORCING AT FLOOR AND ROOF LINES SHALL BE CONTINUOUS THRU JOINT.
3. CONCRETE BLOCK SHOWN - BRICK SIMILAR.
4. SAWCUT BLOCK OR BRICK AS REQUIRED.
5. AT EXTERIOR CORNERS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0".
6. AT EXTERIOR "T" INTERSECTIONS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0", L2 + L3 ≤ 20' - 0" AND L1 + L3 - WALL THICKNESS ≤ 20' - 0"

MASONRY WALL CONTROL JOINT

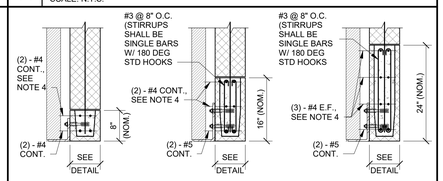
1 SCALE: N.T.S.

FOR OPENING UP TO 18'-0" WIDE

NOTES:
1. SEE ARCH. DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING @ EACH JAMB FOR EACH FOOT OF CLEARSPAN BUT NOT LESS THAN 8". REINF. SHALL PROJECT A MIN. OF 6" ONTO THE BEARING.
3. BOND BEAMS SHALL BE FULLY GROUTED (2500 PSI @ 28 DAYS)

TYPICAL DETAIL LONG SPAN LINTEL

17 SCALE: N.T.S.



TYPE 1 AT 8" CMU TYPE 2 AT 8" CMU TYPE 3 AT 8" CMU

BOND BEAM MAX CLEAR SPAN SCHEDULE					
CMU	WALL GROUT SPACING	CARRIED BRICK H (FT)	TYPE 1 RUNNING BOND	TYPE 2 RUNNING BOND	TYPE 3 RUNNING BOND
8"	>16" O.C.	12	4'-8"	8'-0"	12'-0"
		20	NA	6'-8"	11'-4"
		35	NA	5'-4"	10'-4"

NOTES:
1. SEE ARCH. DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING @ EACH JAMB FOR EACH FOOT OF CLEARSPAN BUT NOT LESS THAN 8" REINF. SHALL PROJECT A MIN. OF 6" ONTO THE BEARING CMU.
3. BOND BEAMS SHALL BE FULLY GROUTED (2500 PSI @ 28 DAYS).
4. THE #4 FACE BARS ARE ONLY REQUIRED AT EXTERIOR CMU WALLS.

TYPICAL DETAIL BLOCK LINTEL AT EXTERIOR OR LOAD BEARING WALLS CARRYING BRICK

13 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137127
LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

No.	Date	Description
	12/04/2025	100% CD

100% CD

S4.01-K

TYPICAL CMU WALL DETAILS

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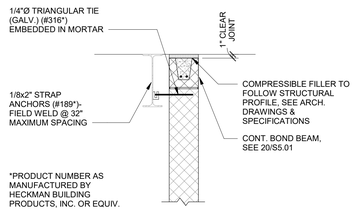
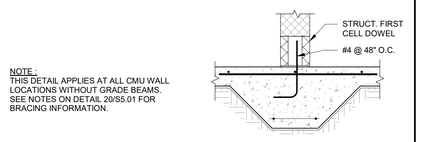


NOTE:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.

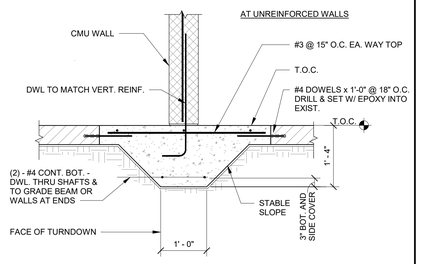
TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
SIDE CONNECTION TO STEEL BEAM

11 SCALE: 3/4" = 1'-0"

	FOUNDATION TYPE						
	4" CMU	6" CMU			8" CMU		
GROUT	NONE	NONE	AT 48"	AT 24"	NONE	AT 48"	AT 24"
WALL HEIGHT (FT)							
0-10	1	1	1	1	1	1	1
12	1	1	1	1	1	1	2
14	1	1	1	2	1	2	2
16	1	1	2	2	2	2	2
18	1	2	2	2	2	2	2
20	2	2	2	2	2	2	2

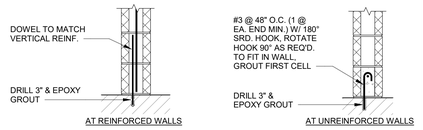


NOTE :
THIS DETAIL APPLIES AT ALL CMU WALL LOCATIONS WITHOUT GRADE BEAMS. SEE NOTES ON DETAIL 20/S5.01 FOR BRACING INFORMATION.



NOTE:
SEE PLAN FOR LOCATIONS MARKED "TURNDOWN", T.D. OR OTHERWISE NOTED.

TYPE 2 DETAIL



TYPE 1 DETAIL

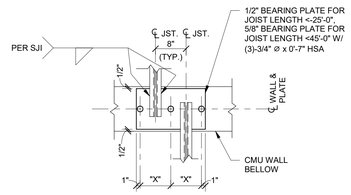
TYPICAL DETAIL
EXISTING FOUNDATION AT NON-LOAD
BEARING CMU WALL

7 SCALE: 3/4" = 1'-0"

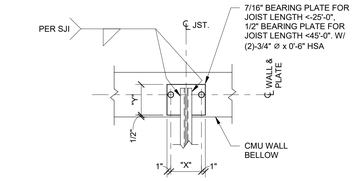
NOTES:

"X" DIMENSION SHALL BE AS FOLLOWS:
8" FOR K1-12 AND LH02-08
9" FOR LH07-17 & DLH10-17
14" FOR DLH15-25

"Y" DIMENSION SHALL BE AS FOLLOWS:
6" FOR 8" CMU
7" FOR 10" CMU
8" FOR 12" CMU



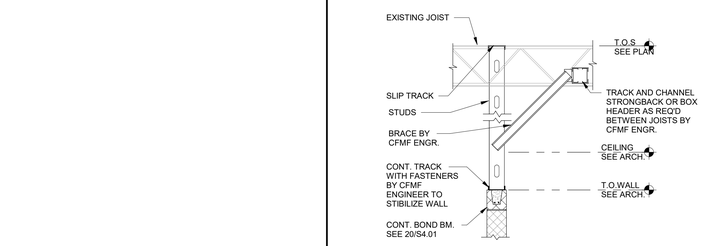
JOIST BOTH SIDES



JOIST ONE SIDES

TYPICAL DETAIL JOIST BEARING PLATE

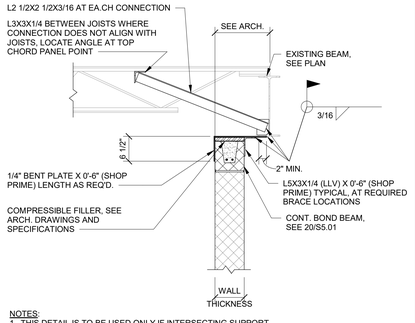
3 SCALE: 3/4" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERESECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. CFMF ENGINEER MAY DESIGN BRACES TO OCCUR AT MAX SPACING OR AT EACH PURLIN. IN EITHER SCENARIO DESIGN BRACE TO STABILIZE CMU AND LIGHT GAUGE WALL UNDER 5 PSF LOAD ALONG FULL HEIGHT.

TYPICAL DETAIL
BRACING AT ROOF STEEL JOISTS
(ALTERNATIVE)

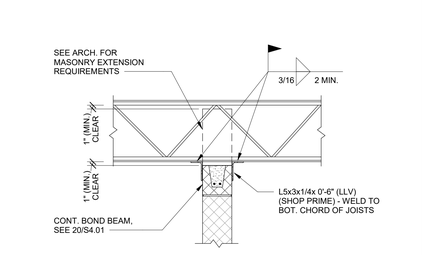
14 SCALE: 1/2" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S5.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
TOP CONNECTION TO STEEL BEAM

10 SCALE: 3/4" = 1'-0"

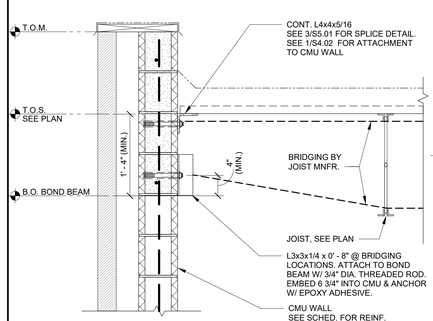


NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. THIS DETAIL APPLIES AT NEW AND EXISTING FRAMING

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
TOP CONNECTION PERPENDICULAR
TO BAR JOISTS

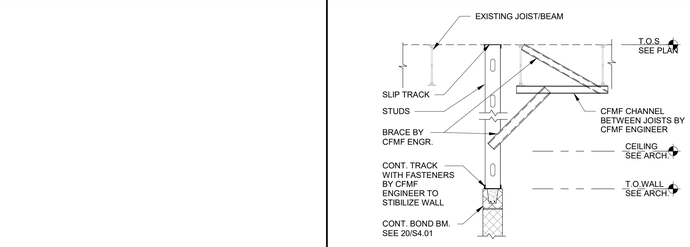
6 SCALE: 3/4" = 1'-0"

NOTES:
1. SEE 1/S4.02 FOR INFO. NOT SHOWN.



ROOF FRAMING DETAIL
AT LOAD BEARING CMU WALLS

2 SCALE: 1" = 1'-0"



NOTES:
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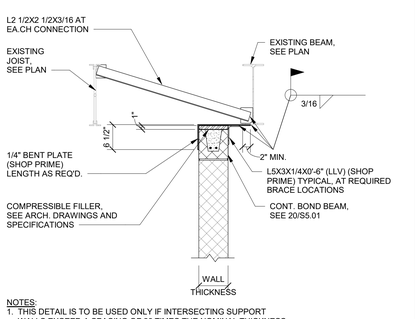
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. CFMF ENGINEER MAY DESIGN BRACES TO OCCUR AT MAX SPACING OR AT EACH PURLIN. IN EITHER SCENARIO DESIGN BRACE TO STABALIZE CMU AND LIGHT GAUGE WALL UNDER 5 PSF LOAD ALONG FULL HEIGHT.

TYPICAL DETAIL
BRACING AT ROOF STEEL JOISTS
(ALTERNATIVE)

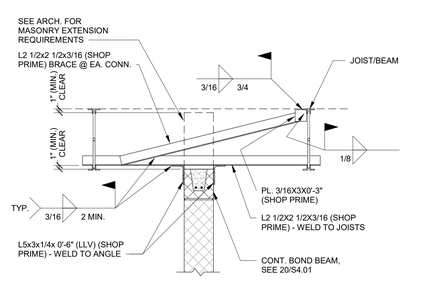
13 SCALE: 1/2" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S5.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
TOP CONNECTION TO STEEL BEAM

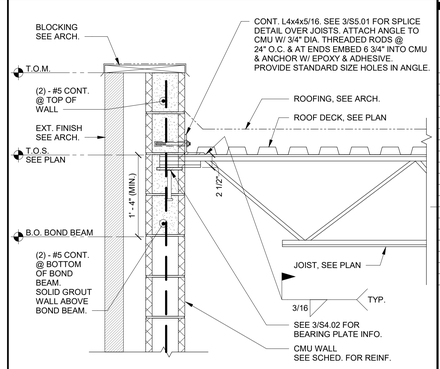
9 SCALE: 3/4" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. THIS DETAIL APPLIES AT NEW AND EXISTING FRAMING

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
TOP CONNECTION PARALLEL TO BAR JOISTS

5 SCALE: 3/4" = 1'-0"



ROOF FRAMING DETAIL
AT LOAD BEARING CMU WALLS

1 SCALE: 1" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640



PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT

REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

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S4.02-K

TYPICAL CMU WALL DETAILS

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Houston, TX 77046-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

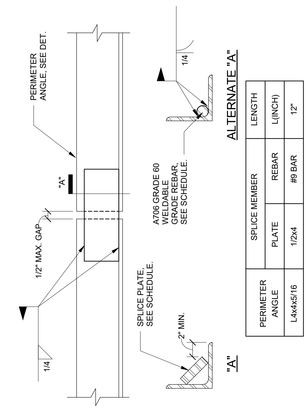
Matrix Structural Engineers
TBPE Firm Registration No. F-2840

STATE OF TEXAS
KHALIL TABAJA
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD
S5.01-K
TYPICAL STEEL
FRAMING DETAILS

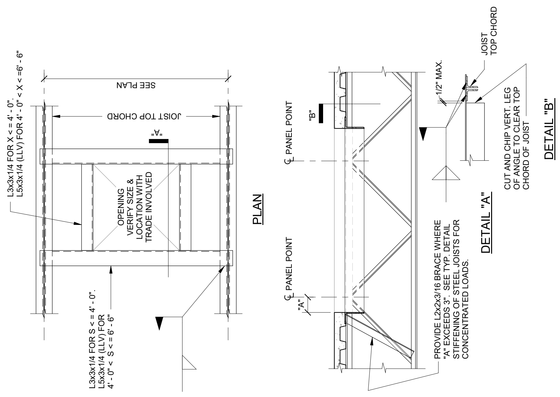


ALTERNATE "A"

PERIMETER ANGLE	SPLICE MEMBER		LENGTH
	PLATE	REBAR	L(INCH)
L4x4x5/16	1/2x4	#9 BAR	12"

TYPICAL DETAIL
SPLICE AT PERIMETER ROOF ANGLE

3 SCALE: N.T.S.



TYPICAL DETAIL
OPEN WEB STEEL JOIST
ROOF OPENING

1 SCALE: N.T.S.

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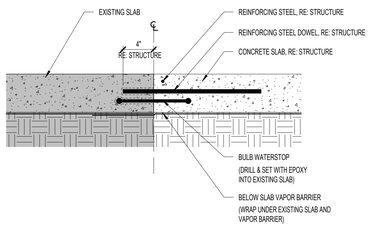
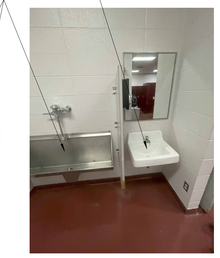


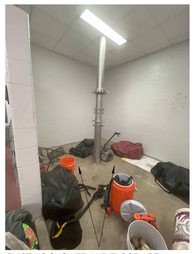
SECTION DETAIL - NEW SLAB AT EXISTING SLAB 1

SCALE: 1 1/2" = 1'-0"

DEMO EXISTING FIXTURES AND CMU PARTITIONS IN RESTROOMS







A. REMOVE ALL EXISTING FLOOR FINISH, AND WALL-MOUNTED ACCESSORIES, TO ALLOW INSTALLATION OF NEW DRAINS AND PLUMBING LINES. REFER TO PLUMBING DRAWINGS.

B. CLEAN, PATCH, AND REPAIR ALL EXISTING WALLS TO RECEIVE NEW PAINT PER FINISH SCHEDULE.

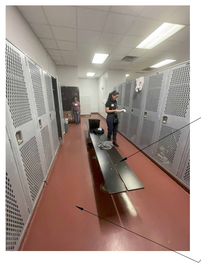
C. REMOVE ALL EXISTING FLOOR FINISH AS REQUIRED TO INSTALL NEW DRAINS AND PLUMBING LINES. REFER TO PLUMBING DRAWINGS.

D. REMOVE EXISTING FLOOR DRAINS AND CAP/TERMINATE PLUMBING LINES AS INDICATED ON PLUMBING DRAWINGS.

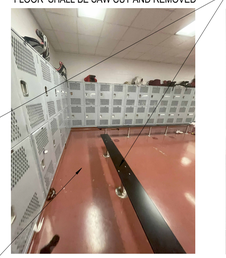
E. REMOVE ALL WALL MOUNTED SIGNS AND GRAPHICS. CLEAN, PATCH, AND REPAIR EXISTING WALLS. REPAINT PER FINISH SCHEDULE.

F. CLEAN AND REPAIR EXISTING METAL FRAME AND DOOR. REPAINT PER FINISH SCHEDULE.

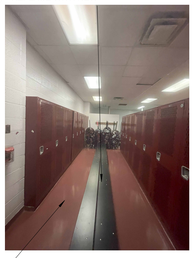




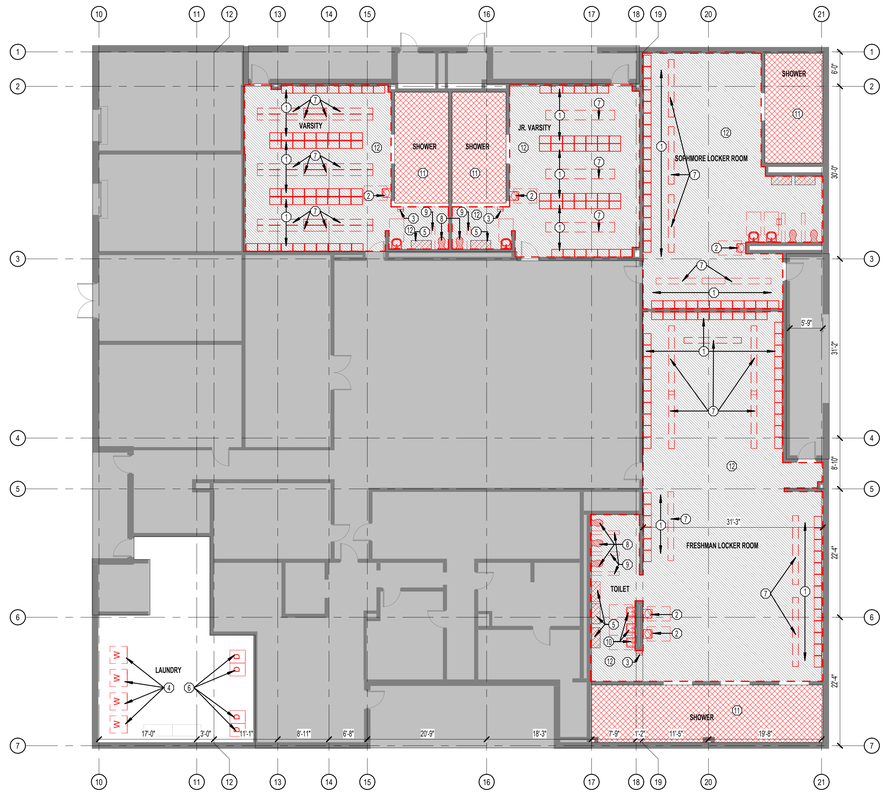
EXISTING SHOWER AND FLOOR AREA- FLOOR SHALL BE SAW CUT AND REMOVED



DEMO BENCHES IN LOCKER ROOM AND REPLACE WITH NEW



DEMO URINALS DEMO HAND DRYER DEMO EXISTING EPOXY FLOORING IN EVERY LOCKER ROOMS AND ALL THE RESTROOMS :REF FLOOR PLAN



01 DEMO PLAN - FIELD HOUSE 2

SCALE: 3/32" = 1'-0"

RENOVATE FIELD HOUSE LOCKER ROOMS



GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) ISARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- (4) DEMO KEY NOTE
- DEMO EXISTING FINISH FLOORING

DEMOLITION KEY NOTES

TAG#	NOTE
1	DEMO EXISTING LOCKERS. EXISTING LOCKER CONCRETE BASE TO REMAIN. RESIZE EXISTING BASE WITH CONCRETE FILL AS REQUIRED TO FIT NEW LOCKERS.
2	DEMO EXISTING DRINKING FOUNTAIN. REPAIR EXISTING CMU WALL, REFINISH AND REPAINT CMU WALL.
3	DEMO EXISTING HAND DRYER. REPAIR AND PATCH EXISTING CMU WALL, REFINISH AND REPAINT EXISTING WALL.
4	DEMO WASHER AND ANY ASSOCIATED EQUIPMENT. ENSURE WASHER AND EQUIPMENT IS RETURNED TO OWNER IN CONDITION AS FOUND.
5	DEMO URINAL, DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU. REF. MEP FOR ANY ASSOCIATED PIPING DEMO.
6	DEMO DRYER AND ANY ASSOCIATED EQUIPMENT. ENSURE WASHER AND EQUIPMENT IS RETURNED TO OWNER IN CONDITION AS FOUND.
7	DEMO EXISTING BENCHES, REPAIR, CLEAN CONCRETE FLOOR AND PREP FOR NEW RESINOUS FLOOR.
8	DEMO EXISTING WATER CLOSET. DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU. REF. MEP FOR ANY ASSOCIATED PIPING DEMO.
9	DEMO EXISTING INTERIOR CMU WALL
10	DEMO EXISTING SINK. DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU. REF. MEP FOR ANY ASSOCIATED PIPING DEMO.
11	SAWCUT AND REMOVE EXISTING SLAB IN HATCHED AREAS NOTED ON DRAWING. REPLACE UNDERSLAB VAPOR BARRIER AND OVER LAP WITH EXISTING BARRIER ON ALL SIDES. TAPE BARRIER TO ENSURE CONTINUOUS BARRIER. REFERENCE SLAB REPAIR DETAIL 1/AD.00-K. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO REVIEW AND TO COORDINATE LIMITS OF SLAB DEMO WITH PLUMBING, ELECTRICAL, ARCHITECTURAL, STRUCTURAL DRAWINGS.
12	DEMO ALL EXISTING INTERIOR LOCKER ROOM EPOXY FLOORING AND ADHESIVE MATERIAL AND WALL BASE. SHOT BLAST CLEAN AND PREPARE FLOOR SURFACE PER MANUFACTURERS RECOMMENDATIONS TO INSTALL NEW FLOORING. REFER TO ROOM FINISH SCHEDULE AND MATERIAL SCHEDULE.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
Date Description

100% CD

AD2.00-K
01 DEMO FLOOR PLAN - FIELD HOUSE

KEMPNER HIGH SCHOOL

12/4/2025 10:21:17 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_KEMPNER_FBISD ATHLETIC RENOVATIONS BP012-K_R25.rvt

ABBREVIATIONS

A	
A.F.F.	ABOVE FINISH FLOOR
ACC.FL.	ACCESS FLOOR
A.P.	ACCESS PANEL
ACOUS.	ACOUSTICAL
ACT.	ACOUSTICAL CEILING TILE
ADD.	ADDENDUM
ADJNT.	ADJACENT
ADJ.	ADJUSTABLE
ADMIN.	ADMINISTRATION
AGG.	AGGREGATE
A/C	AIR CONDITIONING
ALT.	ALTERNATE, ALTERNATIVE
ALUM.	ALUMINUM
ANCH.	ANCHOR, ANCHORAGE
ANOD.	ANODIZED
APPROX.	APPROXIMATE
ARCH.	ARCHITECT
A.D.	AREA DRAIN
ASPH.	ASPHALT
AUTO.	AUTOMATIC
B	
BSMT.	BASEMENT
BM.	BENCH MARK
BTWN.	BETWEEN
BEV.	BEVEL
BIT.	BITUMINOUS
BLK.	BLOCKING
BD.	BOARD
B.S.	BOTH SIDES
B.W.	BOTH WAYS
B.O.D.	BOTTOM OF DECK
BRK.	BRACKET
BRZ.	BRONZE
BLDG.	BUILDING
BUR.	BUILT UP ROOFING
C	
CAB.	CABINET
CPT.	CARPET
CSMT.	CASEMENT
CIP.	CAST IN PLACE CONCRETE
C.B.	CATCH BASIN
CLG.	CEILING
CLG. HT.	CEILING HEIGHT
CEM.	CEMENT
CL	CENTERLINE
CT	CERAMIC TILE
C.O.	CLEAN OUT
CLR.	CLEAR(ANCE)
CLO.	CLOSET
COL.	COLUMN
COMPT.	COMPARTMENT
COMPR.	COMPRESS
COMP.	COMPUTER
CONC.	CONCRETE
CMU.	CONCRETE MASONRY UNIT
CONST.	CONSTRUCTION
CONT	CONTINUOUS
CONTR.	CONTRACT/CONTRACTOR
CFCI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
C.J.	CONTROL JOINT
CPR.	COPPER
CG.	CORNER GUARD
CORR.	CORRIDOR
CTR.	COUNTER
C. FL.	COUNTER FLASHING
CTR. SNK.	COUNTER SUNK
CRS.	COURSE
CU. FT.	CUBIC FEET
CU. YD.	CUBIC YARD
D	
D.P.	DAMP PROOFING
DPR.	DAMPER
DL.	DEAD LOAD
DEMO	DEMOLISH, DEMOLITION
DEP.	DEPRESS
DTL.	DETAIL
DIAG.	DIAGONAL
DIAM.	DIAMETER
DW.	DISH WASHER
DISPR.	DISPENSER
DIV.	DIVISION
DR.	DOOR
DBL.	DOUBLE
DH.	DOUBLE HUNG
DN.	DOWN
DS.	DOWNSPOUT
DRN.	DRAIN
DRN. BD.	DRAIN BOARD
DRN. TL.	DRAIN TILE
DWR.	DRAWER
DWG.	DRAWING
DF	DRINKING FOUNTAIN
E	
EA	EACH
EA. FA.	EACH FACE
E.	EAST
ELEC.	ELECTRIC
EDF.	ELECTRIC DRINKING FOUNTAIN
EP.	ELECTRICAL PANEL
ELEV.	ELEVATION
EMERG.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EXCAV.	EXCAVATE
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EJ	EXPANSION JOINT
EXT.	EXTERIOR
EPS	EXTRUDED POLY STYRENE
F	
FAB	FABRICATED
FV.	FIELD VERIFY
FIN.	FINISH
FIN. FLR.	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FA.	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FE.	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHS.	FIRE HOSE CABINET
FPL.	FIRE PLACE
FP.	FIRE PROOFING
FRC.	FIRE RESISTANT COATING
F. RT.	FIRE RETARDANT
FLSHG.	FLASHING
FLEX	FLEXIBLE
FLR.	FLOOR
FLR. C.O.	FLOOR CLEAN OUT
FD.	FLOOR DRAIN
FLR. JT.	FLOOR JOINT
FLR. PLT.	FLOOR PLATE
FLOUR.	FLUORESCENT
FTG.	FOOTING
FRMG.	FRAMING
FBO.	FURNISHED BY OWNER
FURR.	FURRED (ING)
FUT.	FUTURE
FRG.	REFRIGERATOR
G	
GALV.	GALVANIZED
GSKT.	GASKET
GA.	GAUGE
GC.	GENERAL CONTRACTOR
GLS.	GLASS
GL. BLK.	GLASS BLOCK
GL. CMU.	GLAZED CONCRETE MASONRY UNIT
GST.	GLAZED STRUCTURAL TILE
GB.	GRAB BAR
GBLK.	GREEN BLOCK
GRT.	GROUT
GYPCTE.	GYPCRETE
GYP. PL.	GYPSUM PLASTER
GYP. T.	GYPSUM TILE
GWB.	GYPSUM WALL BOARD
H	
HD. BD.	HARD BOARD
HD. JT.	HARD JOINT
HDW.	HARDWARE
HDWD.	HARDWOOD
HDR.	HEADER
HTG.	HEATING
HVAC.	HEATING, VENTILATION, AIR CONDITIONING
HVY. D.	HEAVY DUTY
HT.	HEIGHT
HC.	HOLLOW CORE
HM.	HOLLOW METAL
HORIZ.	HORIZONTAL
HB.	HOSE BIB
HWH.	HOT WATER HEATER
HR.	HOUR
I	
INCL.	INCLUDE
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INTERM.	INTERMEDIATE
INV.	INVERT
J	
JAN.	JANITOR
J.C.	JANITORS CLOSET
JT.	JOINT
JF.	JOINT FILLER
JST.	JOIST
K	
K. PL.	KICK PLATE
KIT.	KITCHEN
K.O.	KNOCK OUT
L	
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LH.	LEFT HAND
LC.	LIGHT CONTROL
LT. WT.	LIGHT WEIGHT
LT.	LIGHT, RE: ELECTRICAL
LT. CONC.	LIGHTWEIGHT CONCRETE
LMSTN	LIMESTONE
LTL.	LINTEL
LL.	LIVE LOAD
LB.	LOAD BEARING
LPT.	LOW POINT
M	
MH.	MAN HOLE
MFR.	MANUFACTURE
MRB.	MARBLE
MB	MARKER BOARD
MAS.	MASONRY
M.O.	MASONRY OPENING
MU	MASONRY UNIT
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP	MECHANICAL/ELECTRICAL/ PLUMBING
M.C.	MEDICINE CABINET
MEMB.	MEMBRANE
MTL.	METAL
MFD.	METAL FLOOR DECK
MRD.	METAL ROOF DECK
M. THR.	METAL THRESHOLD
MWK.	MILLWORK
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MOD.	MODULAR
MLDG.	MOLDING
MT.	MOUNT
MTD.	MOUNTED
MOV.	MOVE
MULL.	MULLION
N	
NAT.	NATURAL
NR.	NOISE REDUCTION
NOM.	NOMINAL
N.	NORTH
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
O	
OC.	ON CENTER
OCEW	ON CENTER EACH WAY
OPG.	OPENING
OPP.	OPPOSITE
OH	OPPOSITE HAND
OH.	OPPOSITE HAND
O.A.	OVER ALL
OVRHD.	OVER HEAD
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	
PNT.	PAINT
PTD.	PAINTED
PNL.	PANEL
PB.	PANIC BAR
PTDIS.	PAPER TOWEL DISPENSER
PTR.	PAPER TOWEL RECEPTACLE
PAR.	PARALLEL
PKG.	PARKING
P. BD.	PARTICLE BOARD
PARTN.	PARTITION
PVT.	PAVEMENT
PERF.	PERFORATED
PERIM.	PERIMETER
PLAS.	PLASTER
PLAM	PLASTIC LAMINATE
PL.	PLATE
PLY.	PLYWOOD
PVC.	POLYVINYL CHLORIDE
PREFAB.	PREFABRICATED
PREFIN.	PREFINISHED
P.L.	PROPERTY LINE
Q	
QT.	QUARRY TILE
R	
RAD.	RADIUS
REF.	REFERENCE
RFL.	REFLECTED
REG.	REGISTRAR
REINF.	REINFORCING
REM.	REMOVE
REQ'D.	REQUIRED
RES.	RESILIENT
RET.	RETURN
RA.	RETURN AIR
RVS.	REVERSE
REV.	REVISION
RH.	RIGHT HAND
R.O.W.	RIGHT OF WAY
RD.	ROOF DRAIN
RF. HT.	ROOF HEIGHT
RFG.	ROOFING
RM.	ROOM
RO.	ROUGH OPENING
RB.	RUBBER BASE
S	
SF. GL.	SAFETY GLASS
SCHED.	SCHEDULE
SLNT.	SEALANT
STG.	SEATING
SCTN.	SECTION
SHTH.	SHEATHING
SHT.	SHEET
SH. GL.	SHEET GLASS
SHR.	SHORING
SIM.	SIMILAR
SKYLT.	SKYLIGHT
SLV.	SLEEVE
SC.	SOLID CORE
SCW	SOLID CORE WOOD
S.	SOUTH
SPCR.	SPACER
SPKR.	SPEAKER
SPEC.	SPECIFICATIONS
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STA.	STATION
STL.	STEEL
STN.	STONE
STOR.	STORAGE
SD.	STORM DRAIN
STRUCT.	STRUCTURE (TURAL)
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
SYN.	SYNTHETIC
SYS.	SYSTEM
T	
TB.	TACK BOARD
TK. STP.	TACK STRIP
TEL.	TELEPHONE
TV	TELEVISION
THK.	THICK
THR.	THRESHOLD
TO. COL.	TOP OF COLUMN
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.J.	TOP OF JOIST
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
TG.	TOUNG AND GROOVE
TR.	TREAD
TYP.	TYPICAL
U	
UC.	UNDER CUT
UNFIN.	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR.	URINAL
V	
VB.	VAPOR BARRIER
VAR.	VARIES
VNR.	VENEER
VIF.	VERIFY IN FIELD
VERT.	VERTICAL
VG.	VERTICAL GRAIN
VIN.	VINYL
VIN. B.	VINYL BASE
VCT	VINYL COMPOSITION TILE
VIN. F.	VINYL FABRIC
VIN. T.	VINYL TILE
W	
WSCT.	WAINSCOT
WH.	WALL HUNG
WC.	WATER CLOSET
WPRF.	WATER PROOFING
WRP.	WATER REPELLENT
WS.	WATER STOP
WWF.	WELDED WIRE FABRIC
WWM.	WELDED WIRE MESH
W.	WEST
WDW.	WINDOW
WGLS.	WIRE GLASS
WM.	WIRE MESH
W.	WITH
WO.	WITHOUT
WD.	WOOD
WD. B.	WOOD BASE
W. PT.	WORKING POINT

SYMBOLS & LEGENDS

ARCHITECTURAL DRAWING SYMBOLS

- Name 101 150 SF — ROOM TAG WITH ROOM FINISH
- Name 101 XXX SF/ XXX(P) — ROOM TAG WITH OCCUPANCY SF=SQUARE FEET P=PEOPLE
- 101 — DOOR TAG
- XX1 — PARTITION TAG
- HOLLOW METAL FRAME TAG
- 1 — ALUMINUM FRAME TAG
- EXPANSION JOINT
- 21 / A101 SIM. — ENLARGED CALL OUT
- 1 / A101 SIM — BUILDING SECTION TAG
- 1 / A101 SIM — WALL SECTION TAG
- 1 / A101 SIM — DETAIL SECTION TAG
- 20 / A101 Ref — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- 15/ A 9.24 — VIEW REFERENCE DETAIL
- Elevation Name — ELEVATION/ LEVEL TAG
- AB — COLUMN GRID
- 5' DIAMETER ADA TURN AROUND
- REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC P RQ R EQ — EXIT POINT WITH WIDTH INDICATED IN INCHES OCCUPANT LOAD SHOWN VERTICAL P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- CENTER LINE
- MATCH LINE
- ITEM SHOWN IS ABOVE/BELOW OR TO BE REMOVED(ON DEMO SHTS) U.N.O.
- PROPERTY LINE
- BREAK LINE
- LONGEST TRAVEL DISTANCE TO EXIT
- BUILDING EXIT

WALL LEGEND

- EXISTING WALL TO REMAIN
- METAL STUD PARTITION
- CMU PARTITION
- 1 HR WALL CONSTRUCTION
- 1 HR CMU WALL CONSTRUCTION
- 2 HR WALL CONSTRUCTION
- 2 HR CMU WALL CONSTRUCTION

MATERIALS LEGEND

- EARTH (COMPACTED)
- POUROUS FILL (STONE OR GRAVEL)
- CONCRETE
- PLASTER/SAND/CEMENT/ GROUT
- BRICK (COMMON OR FACE)
- CONCRETE MASONRY UNIT (CMU)
- METAL (LARGE SCALE)
- METAL (SMALL SCALE)
- BATT INSULATION
- RIGID BOARD OR SPRAY FOAM INSULATION
- ROUGH WOOD (CONTINUOUS)
- ROUGH WOOD (NON-CONTINUOUS)
- FINISH WOOD
- PLYWOOD

PROJECT GENERAL NOTES

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A WATERTIGHT & WEATHERTIGHT BUILDING
2. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A PLUM, LEVEL AND SQUARE STRUCTURE UNLESS OTHERWISE NOTED ANY DEVIATION FROM THIS GENERAL INTENT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
3. THE BUILDING SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL THE APPLICABLE CODES, ORDINANCES AND REGULATIONS AS WELL AS THE DRAWINGS & SPECIFICATION. ANY CODE DEFICIENCIES IN THE DRAWINGS RECOGNIZED BY THE CONTRACTOR SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
4. THE CONTRACTOR SHALL VISIT PROJECT SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ANY AMBIGUOUS ITEMS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO SUBMITTING PROPOSAL.
5. THE CONTRACTOR IS TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES REQUIREMENTS, AND COMPLETE TEXAS HEALTH DEPARTMENT NOTIFICATIONS AND SUBMIT FORMS AND REQUIRED INFORMATION TO MEET " TEXAS COMMISSION ON ENVIRONMENTAL QUALITY" (TCEQ) REQUIREMENTS PRIOR TO START OF PROJECT
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF THE BUILDING ON THE SITE AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE BIDDING THE PROJECT OR THE COMMENCEMENT OF WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR CHANGES TO THE WORK DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HIS/HER SELF WITH EXISTING CONDITIONS
7. DO NOT SCALE DRAWINGS: ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE AND BE FIELD VERIFIED AND COORDINATED WITH WORK OF ALL TRADES. IF NO DIMENSIONS ARE GIVEN OR DISCREPANCIES FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION BEFORE BIDDING OR COMMENCING THE WORK.
8. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, ALL INCLUDED AS PART OF THE WORK.
9. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
10. THE CONTRACTOR SHALL VERIFY THE SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS AND BASES, AS WELL AS POWER, WATER AND DRAIN REQUIREMENTS FOR SUCH EQUIPMENT WITH EQUIPMENT MFG. DEVIATION OF BEFORE MENTIONED REQUIREMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
11. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE WITH THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. REVIEW ALL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
12. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
13. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
14. PROVIDE FIRE STOPS WHEREVER INTERIOR AND EXTERIOR WALLS AND PARTITIONS INTERSECT FLOORS, CEILINGS, AND ROOFS. ALSO PROVIDE AT ALL OPENINGS AROUND PENETRATIONS TO PREVENT VERTICAL & HORIZONTAL COMMUNICATION OF FIRE ALONG LINES OF CORRIDORS, OCCUPANCY CHANGES, AND SIMILAR SEPARATIONS.
15. ALL WALL WIDTHS ARE SHOWN AND DIMENSIONED WITH ACTUAL DIMENSIONS. DIMENSIONS FOR FRAMED WALLS ARE SHOWN TO FACE OF STUDS AND/OR FACE OF BLOCK U.N.O.
16. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
17. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
18. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
19. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
20. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
21. DIFFUSERS, LIGHT FIXTURES, ETC., ARE INDICATED ON THE REFLECTED CEILING PLAN FOR LOCATION AND COORDINATION. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
22. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
23. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
24. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
25. CLASSROOM FURNITURE INDICATED ON THE FLOOR PLANS, NOT INDICATED AS "BUILT-IN", ARE NOT IN PROJECT CONTRACT. FURNITURE IS SHOWN FOR TYPICAL CLASSROOM ARRANGEMENT, ONLY.
26. GENERAL CONTRACTORS AND SUB-CONTRACTORS ARE TO SCHEDULE AND COMPLETE THEIR WORK SO AS TO KEEP MECHANICAL, ELECTRICAL, TELEPHONE, DATA, HVAC CONTROL, INTERCOM, AND OTHER EXISTING SYSTEMS OPERATIONAL IN AREAS OCCUPIED BY THE OWNER DURING THE RENOVATION AND CONSTRUCTION OF THE PROJECT
27. WHERE EXISTING OR NEW EXPANSION JOINTS ARE EXPOSED DUE TO NEW CONSTRUCTION OR RENOVATION, PROVIDE APPROVED FLOOR, WALL, AND/OR CEILING EXPANSION JOINT COVER ASSEMBLIES AS REQUIRED.
28. WHERE NEW FLOORING IS TO BE INSTALLED ON TOP OF EXISTING FLOOR SLAB, PROVIDE FLOOR LEVELING COMPOUND AS REQUIRED TO PROVIDE LEVEL WORKABLE SURFACE FOR NEW FINISHES
29. CONTRACTOR IS TO ENSURE THAT NEW AND/OR EXISTING MECHANICAL, ELECTRICAL, DATA, AND CONTROL SYSTEMS ARE CONCEALED TO THE GREATEST EXTENT AS POSSIBLE UNLESS OTHERWISE NOTED
30. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
31. ALL EXPOSED METALS EXCEPT GALVANIZED AND PRE-FINISHED ITEMS, SHALL BE FINISH PAINTED - COLOR TO BE SELECTED BY ARCHITECT. REF SPECS FOR FIELD WELDS AT GALV.
32. WHERE THE WORDS "PATCH", "MATCH", "REPAIR", "REPLACE", ARE USED,SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT COLORS, TEXTURES AND FINISH OF DISTURBED AREAS SHALL MATCH IN ALL RESPECTS. REPLACE IS DEFINED AS REMOVE EXISTING AND INSTALL NEW INCLUDING ALL APPROPRIATE ELECTRICAL CONNECTIONS AND WITH MATCHING OR COMPATIBLE EQUIPMENT OR MATERIALS AS SHOWN, SPECIFIED OR REQUIRED FOR COMPLETE INSTALLATION.

SHEET NAMING CONVENTION

A2-XX

DRAWING SHEET DISCIPLINE

G	GENERAL	P	PLUMBING
C	CIVIL	E	ELECTRICAL
L	LANDSCAPE	FP	FIRE PROTECTION
S	STRUCTURAL	FA	FIRE ALARM
IR	IRRIGAITON	T	TECHNOLOGY
AD	ARCH DEMOLITION	TE	THEATRICAL
A	ARCHITECTURE	FS	FOOD SERVICES
M	MECHANICAL	AV	AUDIO VISUAL

SHEET NUMBER IN DISCIPLINE

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

	Date	Description

100% CD

A0.00-K
SYMBOLS & ABBREVIATIONS

UPDATED 08.21.21
KEMPNER HIGH SCHOOL

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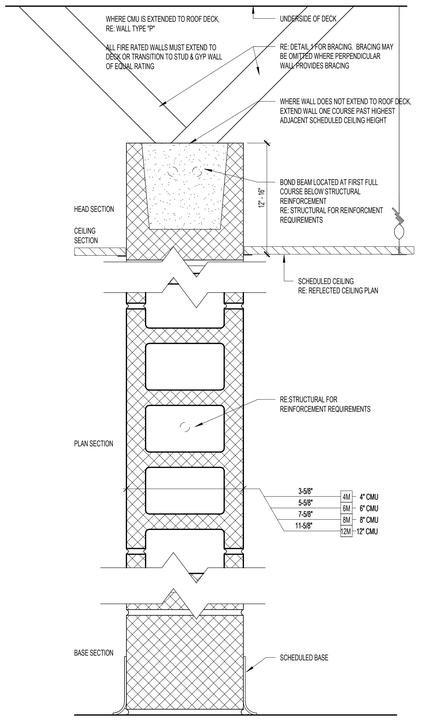
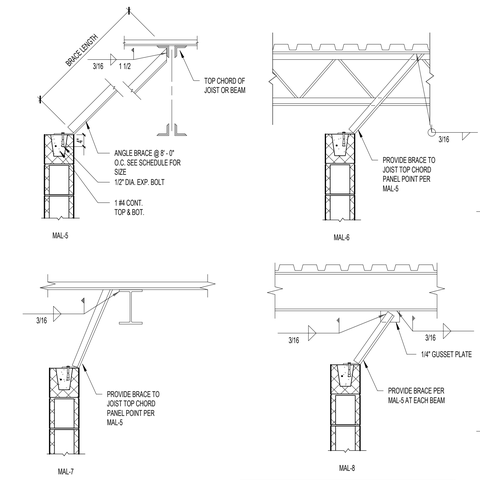
GENERAL PARTITION NOTES

1. FOR HEIGHTS OF WALL SEE BLDG.'G SECTIONS OR ELEVATIONS.
2. EVERY WALL SHOWN ON PLAN SHALL BE ONE OF THE WALL TYPES SHOWN WHETHER KEYED ON THE PLAN OR NOT. IF WALL DOES NOT HAVE KEY, PROVIDE WALL TYPE TO MATCH ADJACENT OR NEAREST KEY.
3. SEE ROOM FINISH SCHEDULE FOR FINISHES AND CEILING HEIGHTS.
4. FIRE TAPE OR SEAL ALL PENETRATIONS IN FIRE RATED PARTITIONS.
5. ALL WALLS THAT ARE PERPENDICULAR TO ROOF DECK SHOULD BE SEALED TIGHT TO UNDERSIDE OF DECK W/ PACKED INSULATION AND FIRE SAFING. COPE SHEETROCK AROUND CONCRETE PAN.
6. ALL SOUND WALLS TO RECEIVE SEALANT AROUND CRACKS & GAPS OF EDGES @ FLOOR, CEILING AND JUNCTION BOXES.
7. PROVIDE BRACE AT END OF ALL CMU WALLS, EACH SIDE OF CONTROL JOINTS AND AT 8'-0" TYPICAL. IF AN INTERSECTING WALL IS LAYED AT THE SAME TIME, THE WALL MAY BE CONSIDERED A BRACE.
8. ALLOW FOR VERTICAL DEFLECTION OF THE STRUCTURE.
9. ALL METAL STUD ROOF DECK CONNECTIONS TO HAVE SLIP JOINT WITH DEEP LEG METAL STUD TRACK.
10. SEE INTERIOR ELEVATIONS FOR MASONRY/MATERIAL PATTERNS.
11. ALL WALLS AT OCCUPIED OR EXPOSED AREAS TO RECEIVE 3" BASE OF 5/8" DENSHIELD FIREGUARD TILE BACKER. WALLS AT CONCEALED AREAS, SUCH AS THOSE BEHIND MASONRY WAINSCOT, TO HAVE 5/8" DENS SHIELD FIREGUARD TILE BACKER 1/2" FROM FINISH FLOOR WITH SEALANT. AT CONTRACTOR'S DISCRECTION, 1/2" WATERGUARD EXTRUSION MAY BE USED IN LIEU OF DENS SHIELD DETAIL.
12. THE ABREVIATON "N.R." MEANS NO RATING.
13. AT RECESSED OR RAISED FLOORS, INSTALL CMU SOAP COURSE AT BASE OF CMU WALLS TO COURSE MASONRY WITH WALLS STARTING AT FINISH FLOOR
14. ALL GYP. BOARD IS 5/8" TYPE "X" U.N.O
15. ABOVE CEILING AT ALL FIRE RATED WALLS, PROVIDE 4" HIGH, STENCIL EVERY 8' AND AT LEAST ONE PER WALL READING "FIRE WALL" IN RED PAINT. ALSO PROVIDE STENCIL AT 10' AFF IN MECHANICAL, HOUSEKEEPING, TECHNOLOGY, ELECTRICAL AND STORAGE SPACES THAT DO NOT HAVE A CEILING. STENCIL IS NOT REQUIRED WHERE THE FIRE WALL DOES NOT HAVE AN ADJACENT CEILING AND THE SPACE IS AN OCCUPIED, FINISHED SPACE.



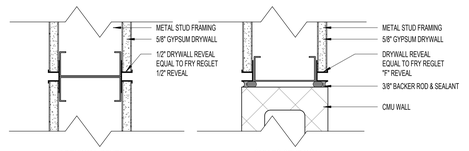
M	CONCRETE MASONRY UNITS W/ HORIZONTAL AND VERTICAL REINFOURCING RE: STRUCTURAL FOR REINFORCING DETAILS						
	NON- RATED	PARTITION TYPE		L/240 LIMITING HEIGHT		FIRE RATING		STC
		RATED	BURNISHED	BLOCK DEPTH	MAX. HEIGHT	HOURS	UL LISTING	
	4M	4MR	4MB	3-5/8"	5'-10"	---	---	43
	6M	6MR	6MB	5-5/8"	9'-0"	2HR.	U906	46
	8M	8MR	8MB	7-5/8"	11'-8"	2-4 HR	U901,U904	49
	12M	12MR	12MB	11-5/8"	18'-0"		U905,U907	52



NOTE:
BRACING NOT REQUIRED AT WALLS SUPPORTING CONCRETE CEILINGS & CATWALKS OR WHERE ADJOINING WALLS EXCEED HORIZ. DIM OF CMU SCHEDULE

BRACE LENGTH	ANGLE SIZE
8' - 0" OR LESS	L 2 1/2 X 2 1/2 X 3/16
8' - 1" TO 10' - 0"	L 3 X 3 X 3/16
10' - 1" TO 13' - 0"	L 4 X 4 X 1/4
13' - 1" TO 16' - 0"	2 - L 3 X 3 X 3/16

WALL BRACING 2
SCALE: 3/4" = 1'-0"



GYPSUM TRANSITION DETAILS 1
SCALE: 3" = 1'-0"

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A0.01-K
PARTITION TYPES

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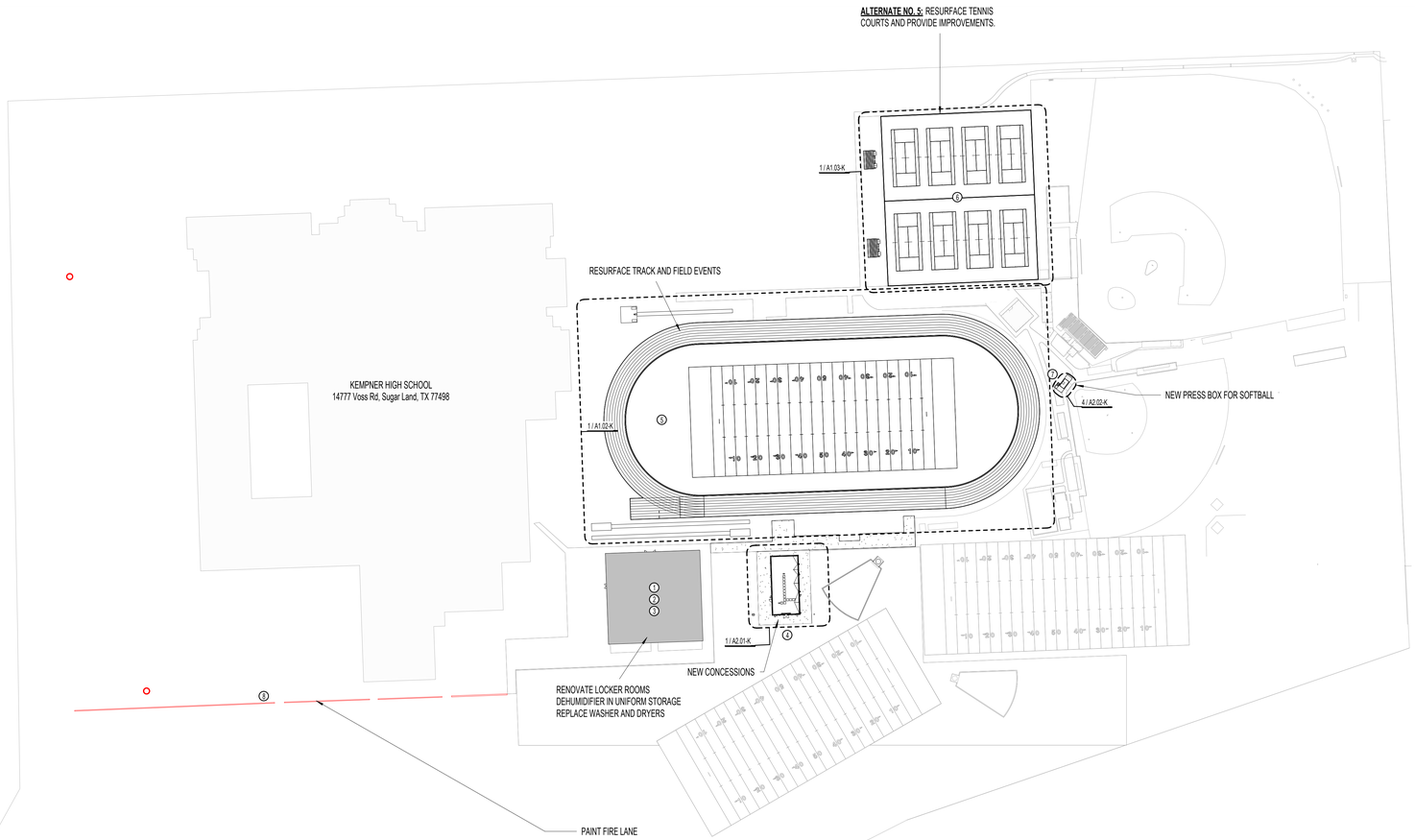

01 KEMPNER SITE 1
SCALE: 1" = 80'-0"

TENNIS COURT GENERAL NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. "REMOVE", "REMOVE AND SALVAGE", AND "REMOVE AND REINSTALL" ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.

TENNIS COURT STRIPING NOTES

A. ALL STRIPING TO BE 2" TYP. WHITE ON (COLOR) COLORED COURT WITH (COLOR) OUT OF BOUNDS
B. VERIFY COLORS OF COURTS AND OUT OF BOUNDS WITH OWNER/ARCHITECT

SITE PLAN LEGEND

- X-X VINYL COATED CHAIN LINK FENCE, 48" HIGH
- L-L VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M-M BLACK WROUGHT IRON FENCE, 48" HIGH
- R-R BLACK WROUGHT IRON FENCE, 72" HIGH
- SIM / A101 — BUILDING SECTION TAG
- SIM / A101 — WALL SECTION TAG
- 21 / A101 SIM — ENLARGED CALL OUT

SITE PLAN KEYNOTES

TAG #	NOTE
1	RENOVATE LOCKER ROOMS
2	ADD DEHUMIDIFIER TO STORAGE; REF: MEP
3	REPLACE WASHER AND DRYER IN FIELD HOUSE
4	NEW CONCESSION/RESTROOM/STORAGE BUILDING
5	RESURFACE TRACK AND FIELD EVENTS
6	ALTERNATE NO.5 - RESURFACE TENNIS COURTS AND PROVIDE IMPROVEMENTS
7	NEW SOFTBALL PRESS BOX
8	PAINT EXISTING FIRE LANE

ALTERNATES:

ALTERNATE NO.5: RESURFACE TENNIS COURTS AND PROVIDE IMPROVEMENTS.



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
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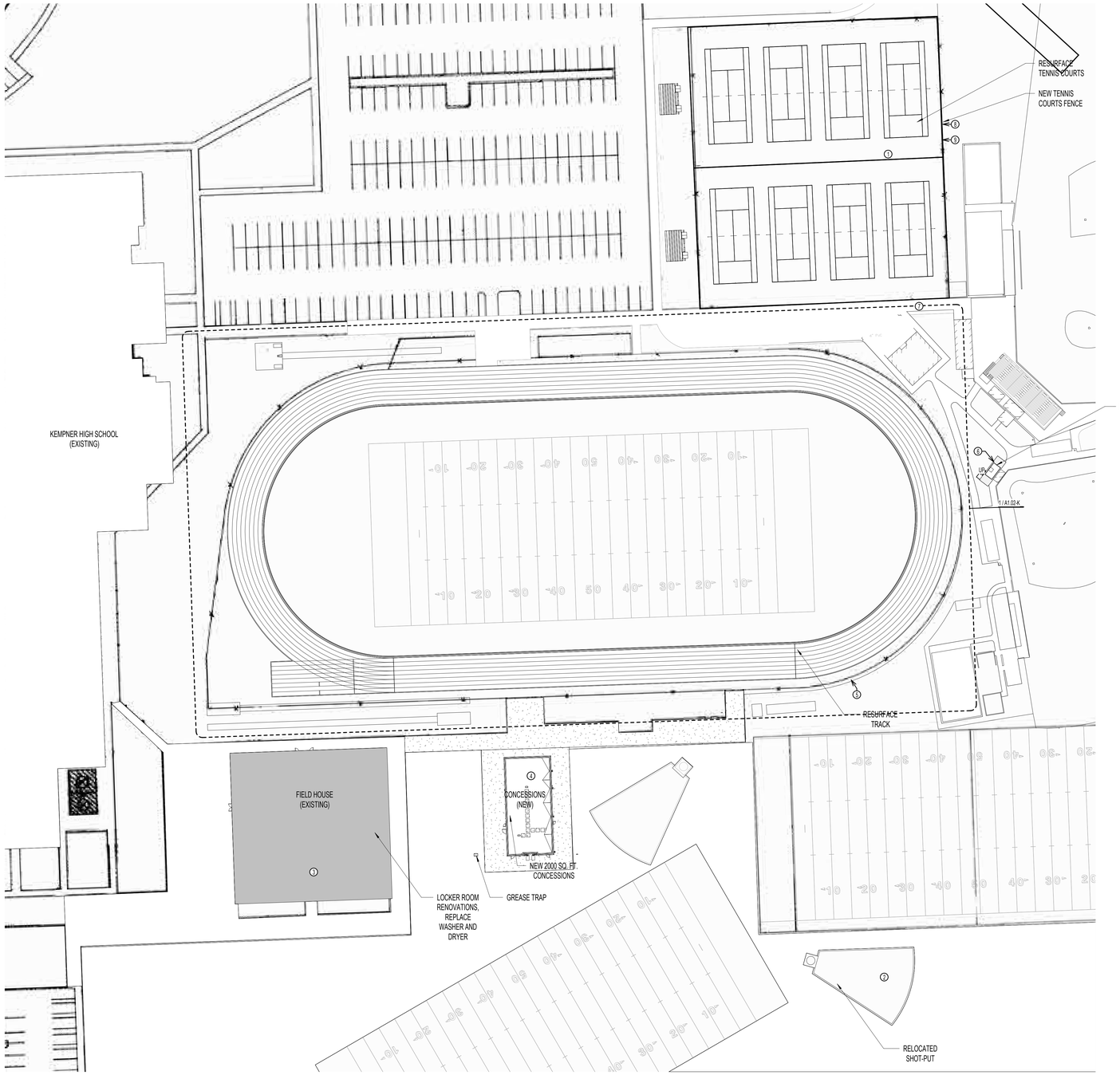
ARCHITECTURAL SITE PLAN

KEMPNER HIGH SCHOOL



ENLARGED SITE PLAN 1

SCALE: 1" = 40'-0"

TENNIS COURT GENERAL NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. "REMOVE", "REMOVE AND SALVAGE", AND "REMOVE AND REINSTALL" ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.

TENNIS COURT STRIPING NOTES

A. ALL STRIPING TO BE 2" TYP. WHITE ON (COLOR) COLORED COURT WITH (COLOR) OUT OF BOUNDS

B. VERIFY COLORS OF COURTS AND OUT OF BOUNDS WITH OWNER/ARCHITECT

SITE PLAN LEGEND

- X-X — VINYL COATED CHAIN LINK FENCE, 48" HIGH
- L-L — VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M-M — BLACK WROUGHT IRON FENCE, 48" HIGH
- R-R — BLACK WROUGHT IRON FENCE, 72" HIGH
- 1 / A101 SIM. — BUILDING SECTION TAG
- 1 / A101 SIM. — WALL SECTION TAG
- 2 / A101 SIM. — ENLARGED CALL OUT

SITE PLAN KEYNOTES

TAG #	NOTE
1	RESURFACE TENNIS COURT
2	SHOT-OUT RELOCATION
3	TRAINING AREA, LOCKER ROOMS, AND SHOWER AREA RENOVATIONS
4	NEW CONCESSIONS
5	RESURFACE TRACK
6	NEW SOFTBALL PRESSBOX
7	NEW FENCE GATE
8	NEW TENNIS WINDSCREEN
9	NEW TENNIS COURT FENCE

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ENLARGED SITE PLAN

KEMPNER HIGH SCHOOL

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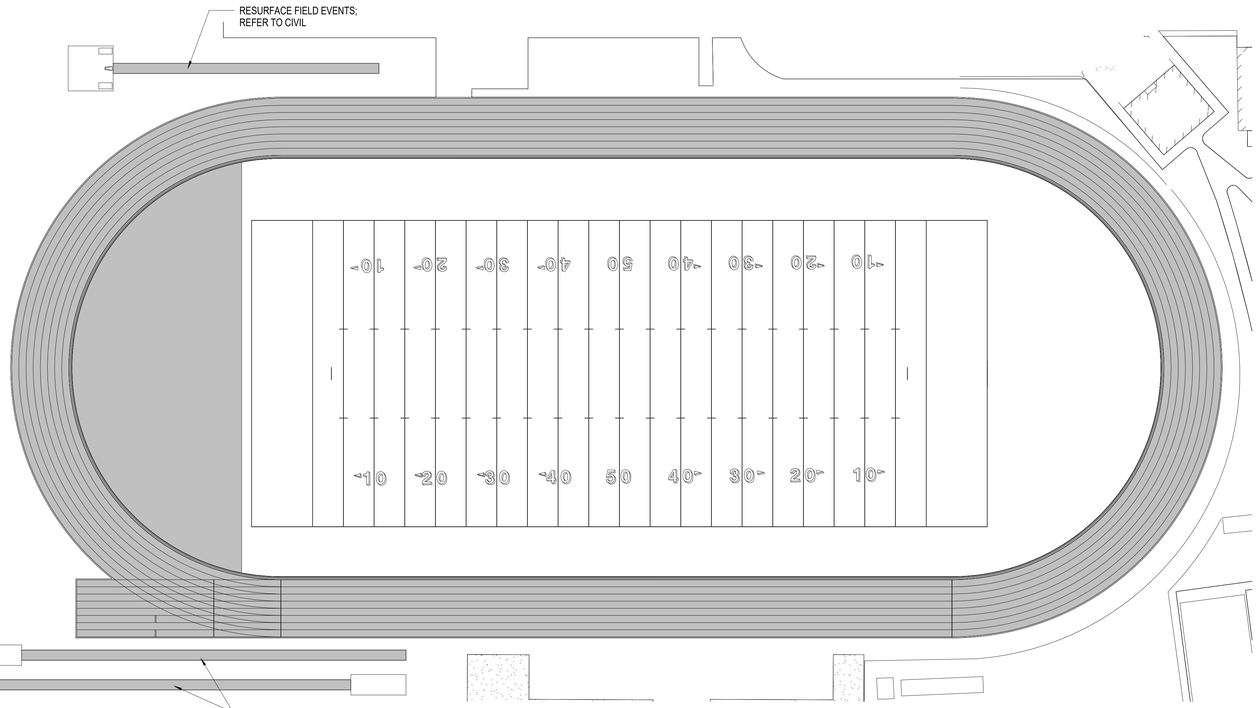

TRACK AND FIELD 1
SCALE: 1" = 30'-0"



TENNIS COURT GENERAL NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
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TENNIS COURT STRIPING NOTES

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B. VERIFY COLORS OF COURTS AND OUT OF BOUNDS WITH OWNER/ARCHITECT

SITE PLAN LEGEND

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- L-L — VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M-M — BLACK WROUGHT IRON FENCE, 48" HIGH
- R-R — BLACK WROUGHT IRON FENCE, 72" HIGH
- 1 / A101 SIM — BUILDING SECTION TAG
- 1 / A101 SIM — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT

SITE PLAN KEYNOTES

TAG #	NOTE

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 4 — DEMO KEY NOTE
- DEMO EXISTING FINISH FLOORING

DEMOLITION KEY NOTES

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SITE DETAILS TRACK AND FIELD

KEMPNER HIGH SCHOOL

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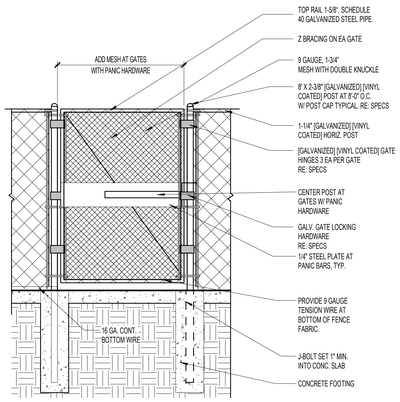
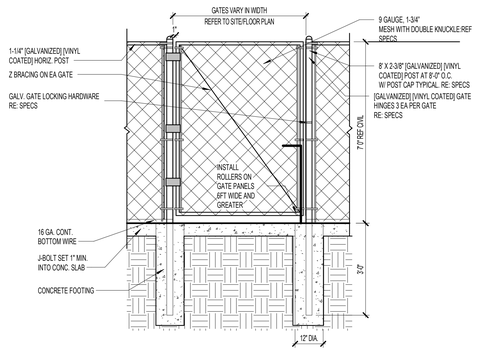
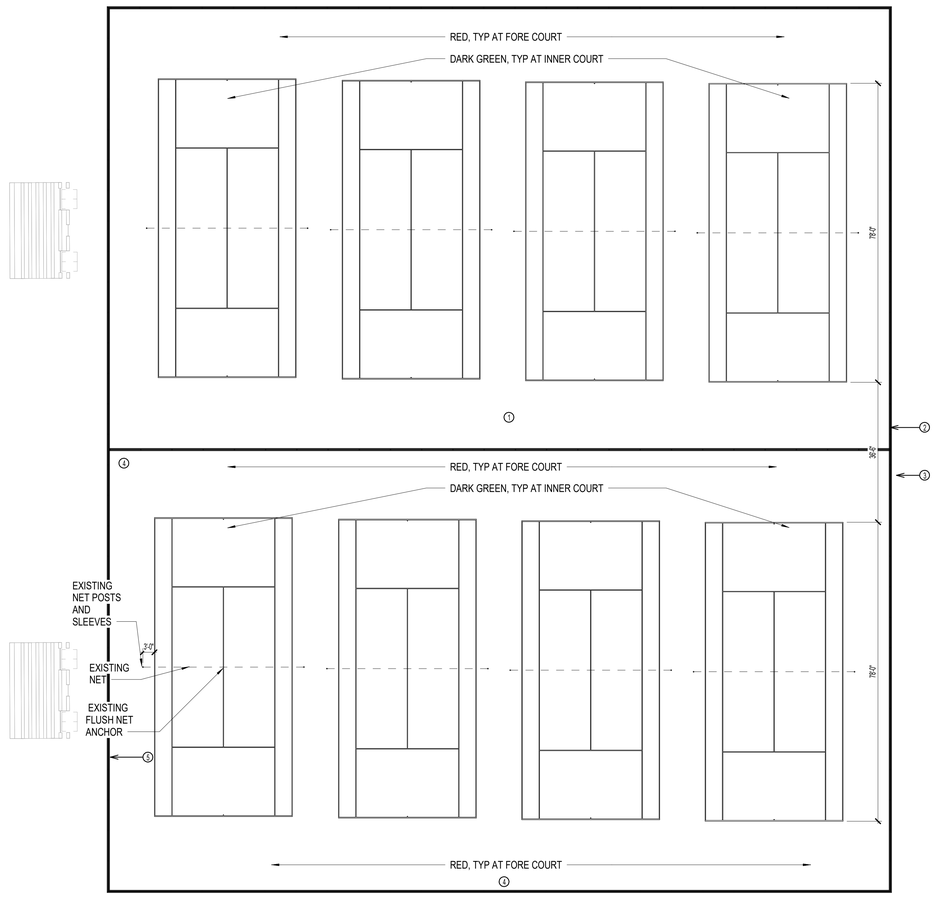


GATE PANIC HARDWARE 4
SCALE: 1/2" = 1'-0"



FENCE GATE DETAIL 2
SCALE: 1/2" = 1'-0"

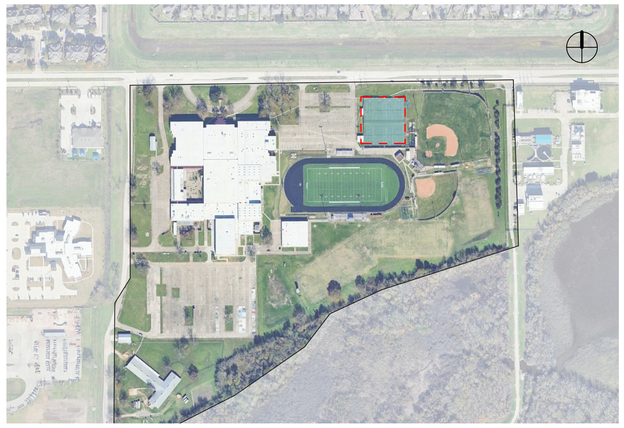




TENNIS COURT PLAN 1
SCALE: 1/16" = 1'-0"

ALTERNATES:

ALTERNATE NO.5: RESURFACE TENNIS COURTS AND PROVIDE IMPROVEMENTS. RESURFACE EXISTING TENNIS COURTS AND PROVIDE IMPROVEMENTS INCLUDING NEW COURT SURFACING, NEW PERIMETER TENNIS COURT FENCE, NEW TENNIS WINDSCREEN, NEW FENCE GATES, AND NEW TENNIS BACKBOARDS; PROTECT AND REUSE EXISTING NET POSTS, SLEEVES, NETS, AND ANCHORS UNLESS NOTED OTHERWISE.



TENNIS COURT GENERAL NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. "REMOVE", "REMOVE AND SALVAGE", AND "REMOVE AND REINSTALL" ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.

TENNIS COURT STRIPING NOTES

A. ALL STRIPING TO BE 2" TYP. WHITE ON (COLOR) COLORED COURT WITH (COLOR) OUT OF BOUNDS

B. VERIFY COLORS OF COURTS AND OUT OF BOUNDS WITH OWNER/ARCHITECT

SITE PLAN LEGEND

- VINYL COATED CHAIN LINK FENCE, 48" HIGH
- VINYL COATED CHAIN LINK FENCE, 72" HIGH
- BLACK WROUGHT IRON FENCE, 48" HIGH
- BLACK WROUGHT IRON FENCE, 72" HIGH
- BUILDING SECTION TAG (SIM / 1 / A101)
- WALL SECTION TAG (SIM / 1 / A101)
- ENLARGED CALL OUT (2 1 / A101 SIM.)

SITE PLAN KEYNOTES

TAG #	NOTE
1	RESURFACE TENNIS COURT. REF. CIVIL
2	NEW TENNIS COURT FENCE
3	NEW TENNIS WINDSCREEN. REF STRUCTURAL
4	NEW FENCE GATE
5	NEW TENNIS BACKBOARDS

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
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4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFCALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
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12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- DEMO KEY NOTE (4)
- DEMO EXISTING FINISH FLOORING

DEMOLITION KEY NOTES

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL AGAPE 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

100% CD

A1.03-K

ALTERNATE NO.5 - SITE DETAILS TENNIS COURT

KEMPNER HIGH SCHOOL

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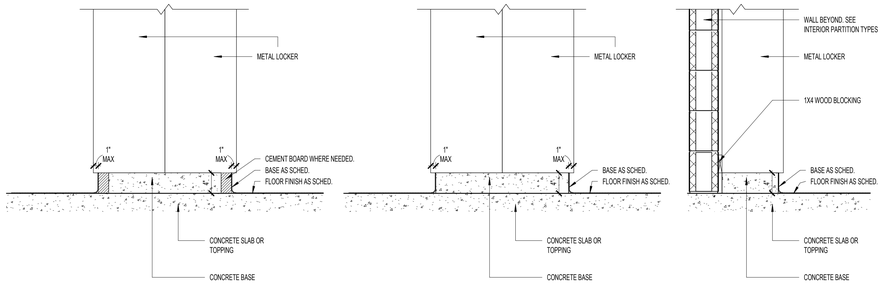
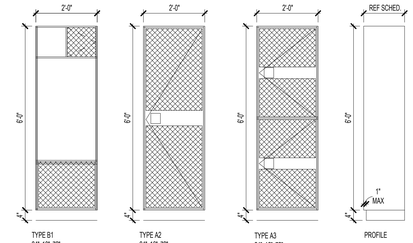


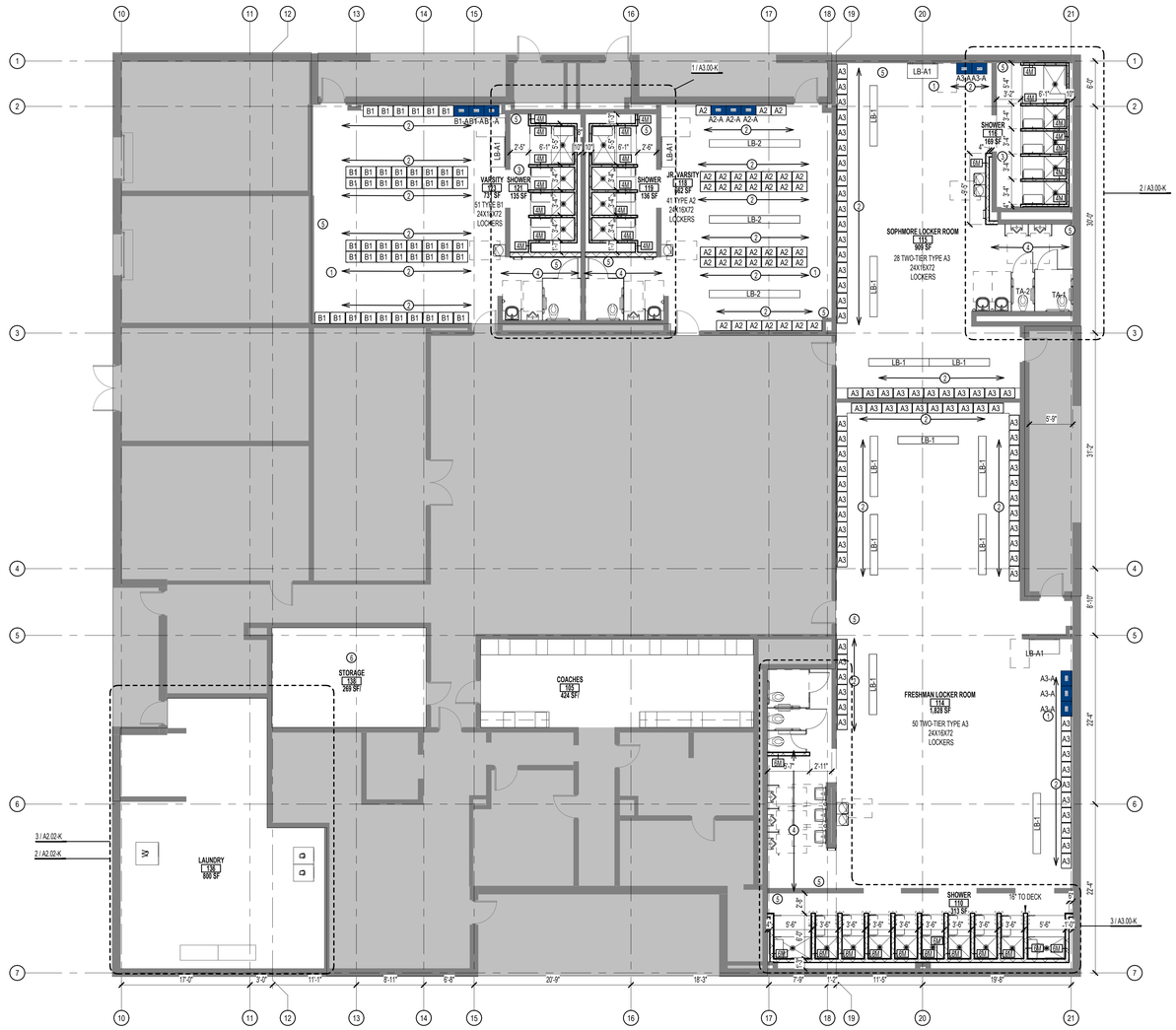
LOCKER CURB DETAIL 2

SCALE: 1" = 1'-0"

LOCKER SCHEDULE

1 PROVIDE SHOP APPLIED, BAKED EPOXY ENAMEL FINISH
2 REFER TO MATERIAL SHCEDULE FOR COLOR





01 FLOOR PLAN - FIELD HOUSE 1

SCALE: 1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- AB — COLUMN GRID
- Ref / 20 / A101 — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- SIM / 1 / A101 — BUILDING SECTION TAG
- SIM / 1 / A101 — WALL SECTION TAG
- 21 / A101 / SIM — ENLARGED CALL OUT
- 101 — DOOR TAG
- AX — PARTITION TAG
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE
1	NEW EPOXY FLOORING TO EXTEND ENTIRE LOCKER AND REST ROOMS. SHOWERS TO NOT HAVE EPOXY FLOORING
2	NEW LOCKERS AND BENCHES
3	NEW SHOWERS
4	NEW TOILET STALLS, SINK AND HAND DRYERS
5	NEW PAINT THROUGHOUT. REFER TO FINISH SCHEDULE
6	ADD DEHUMIDIFIER TO STORAGE, REF: MEP

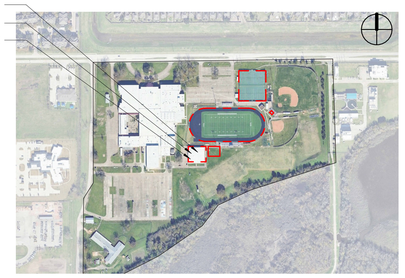
SPECIALTY EQUIPMENT

TAG	EQUIPMENT
A2	LOCKER - 24" W X 16" D X 72" H
A3	LOCKER - 24" W X 16" D X 72" H
B1	LOCKER - 28" W X 18" D X 91" H
LB-1	LOCKER BENCH - 96" L X 15" W
LB-2	LOCKER BENCH - 144" L X 15" W
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK

ADDITIONAL NOTES

1. INSTALL NEW LOCKERS ON CONCRETE BASE. INSTALL CLOSER FILLER PANELS AT END WALLS AND CORNERS. REFER TO SPEC 10513 FOR ADDITIONAL INSTALLATION INSTRUCTIONS.
2. INSTALL WALL ELECTRONIC DRINKING FOUNTAIN WITH BOTTLE FILLER. PER MANUFACTURER'S INSTRUCTIONS. REFER TO PLUMBING DRAWINGS FOR FIXTURE TYPE AND CONNECT TO EXISTING UTILITIES. REFER TO ELECTRICAL DRAWINGS TO INSTALL NEW TAMPER RESISTANT RECEPTACLES. INSTALL HIGHLO RECEPTACLES AT LOCATION AS PER MANUFACTURER'S INSTRUCTIONS.
3. INSTALL RESINOUS FLOORING AND INTEGRAL COVE BASE. ACCORDING TO APPROVED MOCK-UP AND MANUFACTURER'S INSTRUCTIONS. PRIOR TO INSTALLATION SHOT-BLAST EXISTING SURFACES WITH AN APPARATUS THAT ABRADES THE CONCRETE SURFACE. REPAIR DAMAGED AND DETERIORATED CONCRETE ACCORDING TO RESINOUS FLOORING MANUFACTURER'S WRITTEN RECOMMENDATIONS. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROTECTING NEW FLOORING FROM CONSTRUCTION TRAFFIC.
4. INSTALL NEW TILE SHOWERS, ACCORDING TO APPROVED MOCKUPS ON EPOXY GROUT. REFER TO 093000 TILE SPEC FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND MOCKUP REQUIREMENTS.
5. INSTALL NEW 4" SLIM PROFILE SURFACE MOUNTED AUTOMATIC HAND DRYER, ON CMU WALLS. ANCHOR DRYERS TO WALLS ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
6. INSTALL NEW ARCHITECTURAL SIGNAGE FOR ROOM IDENTIFICATION AT LOCATIONS NOTED ON DRAWINGS AND TO BE INSTALLED AT ACCESSIBLE HEIGHTS AND TO COMPLY WITH TAS 703.
7. PREPARE AND PAINT ALL LOCKER ROOM CMU WALLS WITH HIGH PERFORMANCE EPOXY WITH BLOCK FILLERS ACCORDING TO 099000 PAINTING AND COATING. REFER TO ROOM FINISH SCHEDULE FOR ADDITIONAL FINISH INFORMATION.
8. INSTALL ALL NEW CMU WALLS AT 8'-0" UNLESS NOTED OTHERWISE. REFER TO STRUCTURAL DOCUMENTS FOR NON-LOAD BEARING WALLS BRACING AND REINFORCING STEEL. REQUEST INFORMATION FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND/OR REQUIREMENTS.

RENOVATE LOCKER ROOMS
REPLACE WASHER AND DRYERS
REPAIR HVAC IN FIELD HOUSE



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No.	Date	Description

100% CD

A2.00-K
01 FLOOR PLAN - FIELD HOUSE

KEMPNER HIGH SCHOOL

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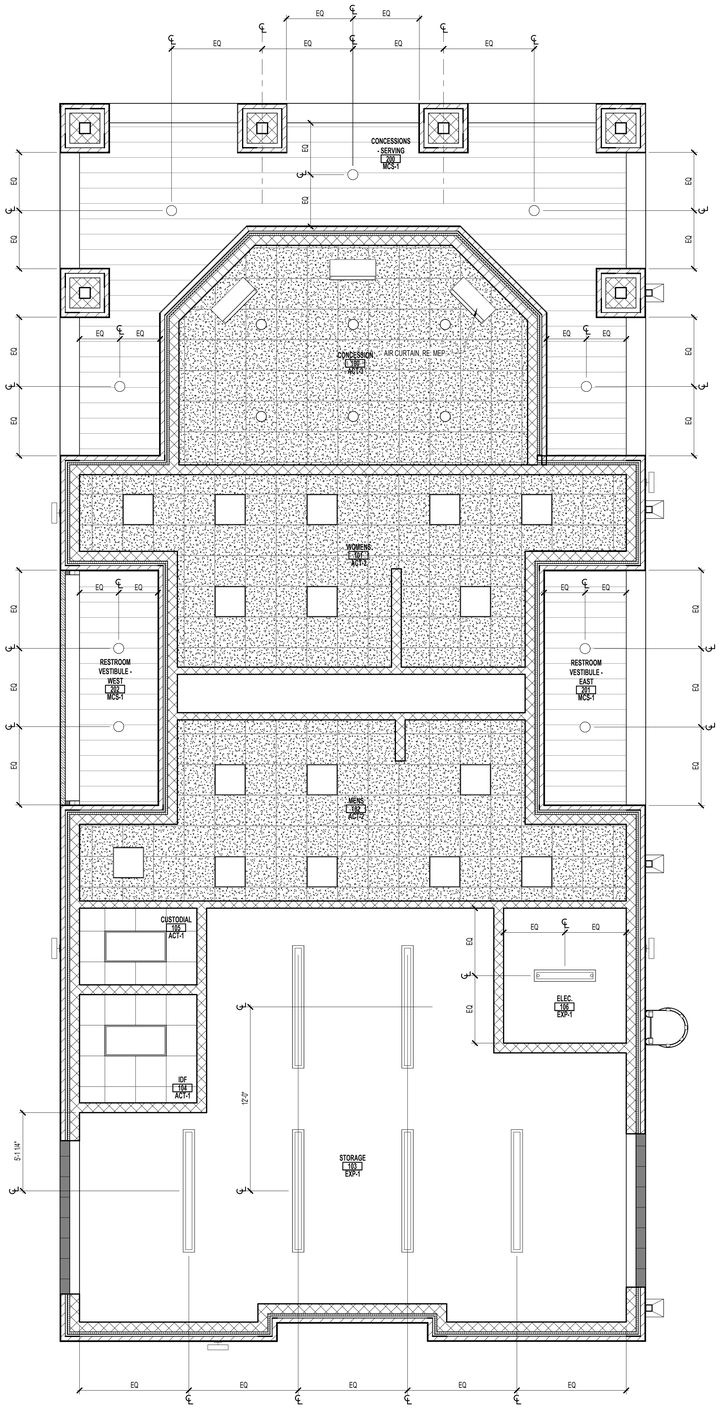


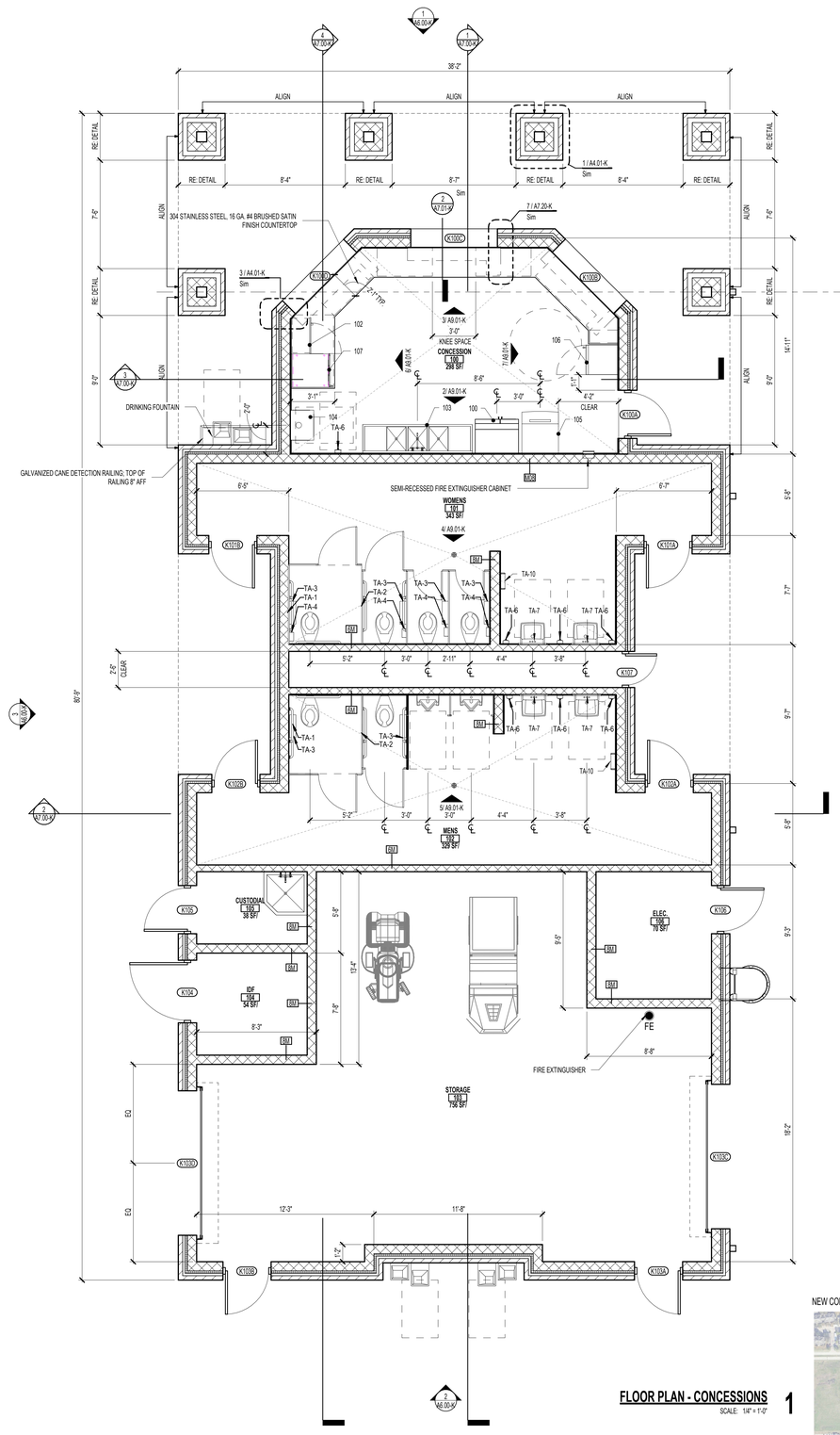
REFLECTED CEILING PLAN- CONCESSIONS 2

SCALE: 1/4" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- 2' X 4' LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (SUSPENDED)
- LINEAR LED FIXTURE (SURFACE MOUNTED)
- RECESSED CAN FIXTURE
- PENDANT LIGHT FIXTURE
- SURFACE MOUNTED CAN LIGHT FIXTURE
- WALL SCONCE
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- SUSPENDED GYPSUM BOARD
- SUSPENDED CEILING SYSTEM WITH LAY-IN ACOUSTICAL PANELS
- SUSPENDED CEILING SYSTEM WITH LAY-IN VINYL FACED PANELS
- METAL SOFFIT, BOD CERTAINTEED LINEAR BOX 6 SYSTEM, EXTERIOR
- EXPOSED STRUCTURE

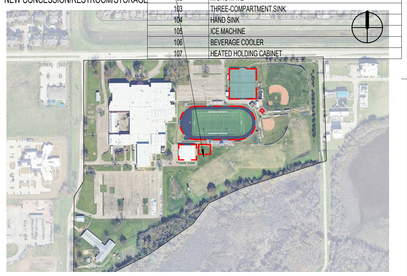
GENERAL NOTES:
1. ALL CEILINGS TO BE 10'-0" UNLESS OTHERWISE NOTED.
2. SEE SHEET A10.10 FOR CEILING DETAILS.
3. REFER TO INTERIOR AND EXTERIOR ELEVATIONS FOR LIGHT FIXTURE MOUNTING HEIGHTS.
4. MEP & ARCHITECT TO REVIEW AND APPROVE SPRINKLER KEYOUT AND HEAD LOCATIONS PRIOR TO CONSTRUCTION. SUBMIT PLAN USING ARCHITECT'S RCP'S.
5. AT AREAS WHERE CEILING IS EXPOSED - EXPOSED CONDUIT TO BE LOCATED NEATLY. ARCHITECT TO APPROVE LAYOUTS.
6. COORDINATE CEILING ACCESS PANELS WITH MEP CONTRACTOR. LOCATE WHERE NECESSARY.



FLOOR PLAN - CONCESSIONS 1

SCALE: 1/4" = 1'-0"

NEW CONCESSION/RESTROOM/STORAGE



FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- COLUMN GRID
- EXTERIOR ELEVATION TAG
- INTERIOR ELEVATION TAG
- BUILDING SECTION TAG
- WALL SECTION TAG
- ENLARGED CALL OUT
- DOOR TAG
- PARTITION TAG
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE

TOILET ROOM ACCESSORY LEGEND

TA-1	36" STAINLESS STEEL GRAB BAR
TA-2	42" HORIZONTAL & 18" VERTICAL STAINLESS STEEL GRAB BAR
TA-3	TOILET TISSUE DISPENSER
TA-4	SANITARY NAPKIN DISPOSAL
TA-5	BABY CHANGING STATION
TA-6	SOAP DISPENSER
TA-7	MIRROR 24"x48"
TA-8	ELECTRIC HAND DRYER
TA-9	PAPER TOWEL DISPENSER
TA-10	MIRROR 24"X72"
TA-11	FOLDING SHOWER SEAT
TA-12	MOP SINK
TA-13	MOP & BROOM HOLDER
TA-14	ROBE HOOKS
TA-15	SHOWER GRAB BARS
TA-16	SHOWER CURTAIN AND ROD

GENERAL NOTES

1. REFER TO ACCESSIBILITY SHEETS FOR MINIMUM DIMENSIONS.
2. PROVIDE PIPE GUARDS AT ALL EXPOSED LAVATORY PIPES, TYP. RE: MEP
3. REFER TO A3 SHEETS FOR HANDRAIL & GUARDRAIL DETAILS

CONCESSIONS EQUIPMENT

05 52 13.A1	GALVANIZED CANE DETECTION RAILING, TOP OF RAILING 8" AFF
10 44 00.A1	FIRE EXTINGUISHER
10 44 00.C1	SEMI-RECESSED FIRE EXTINGUISHER CABINET
12 36 16.A1	304 STAINLESS STEEL, 16 GA, #4 BRUSHED SATIN FINISH COUNTERTOP
22 40 00.A1	DRINKING FOUNTAIN
23 34 30.A1	AIR CURTAIN, RE: MEP
100	REACH-IN REFRIGERATOR
102	MICROWAVE
103	THREE-COMPARTMENT SINK
104	HAND SINK
105	ICE MACHINE
106	BEVERAGE COOLER
107	HEATED HOLDING CABINET

pfluger
office: 713.222.1141 | fax: 713.222.1174
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REVISIONS:

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100% CD

A2.01-K

01 FLOOR PLAN - CONCESSION

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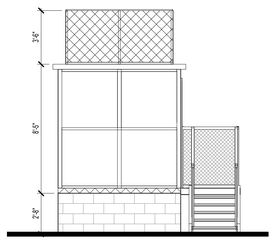
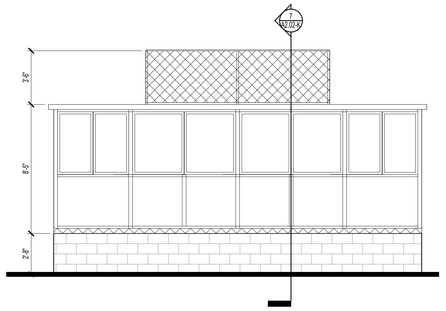
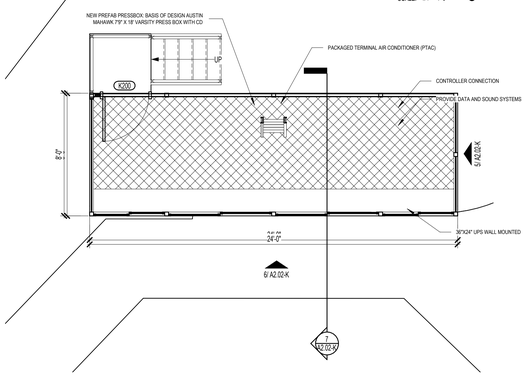


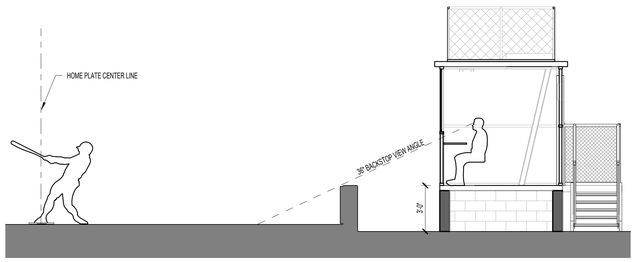
SOFTBALL PRESSBOX EAST ELEVATION 5
SCALE: 1/4" = 1'-0"



SOFTBALL PRESSBOX SOUTH ELEVATION 6
SCALE: 1/4" = 1'-0"



01 FLOOR PLAN - SOFTBALL PRESSBOX 4
SCALE: 1/4" = 1'-0"



SOFTBALL PRESSBOX SECTION A 7
SCALE: 1/4" = 1'-0"



LOCATION OF NEW SOFTBALL PRESSBOX

FLOOR PLAN GENERAL NOTES

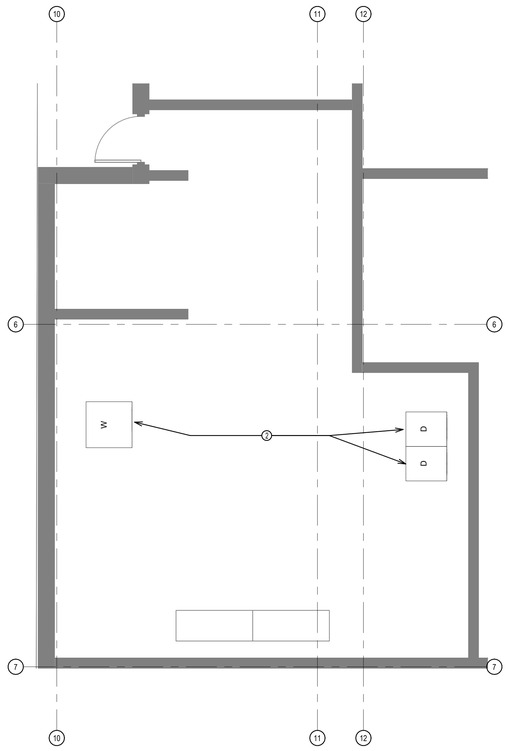
1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

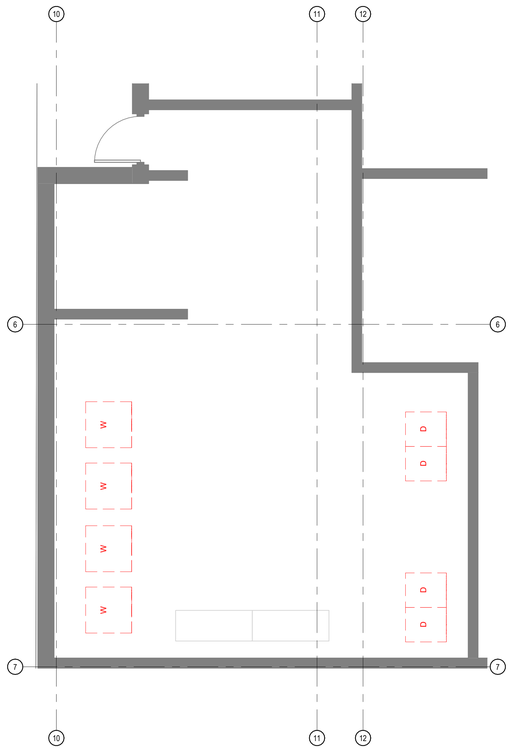
- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- AB — COLUMN GRID
- Ref / 20 / A101 — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- 7 / A101 SIM — BUILDING SECTION TAG
- 1 / A101 SIM — WALL SECTION TAG
- 21 / A101 SIM — ENLARGED CALL OUT
- 101 — DOOR TAG
- 4X — PARTITION TAG
- 2 — HOLLOW METAL WINDOW TAG
- 1 — ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE
2	NEW WASHER AND DRYERS

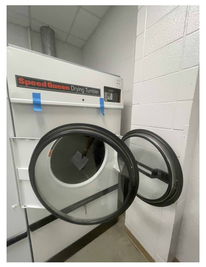


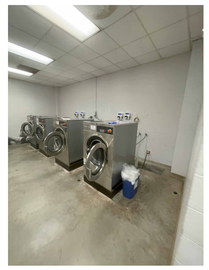
01 FLOOR PLAN - LAUNDRY 2
SCALE: 1/4" = 1'-0"

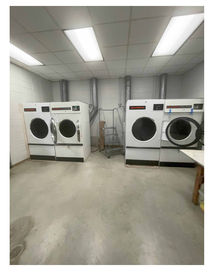


01 DEMO PLAN - LAUNDRY 3
SCALE: 1/4" = 1'-0"



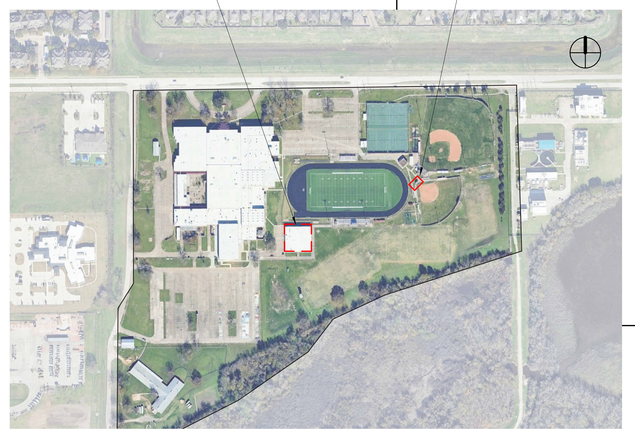






REPLACE WASHER AND DRYERS

NEW SOFTBALL PRESSBOX



GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 4 — DEMO KEY NOTE
- DEMO EXISTING FINISH FLOORING

DEMOLITION KEY NOTES

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

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Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
Date Description

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A2.02-K
01 FLOOR PLAN - LAUNDRY AND SOFTBALL PRESSBOX
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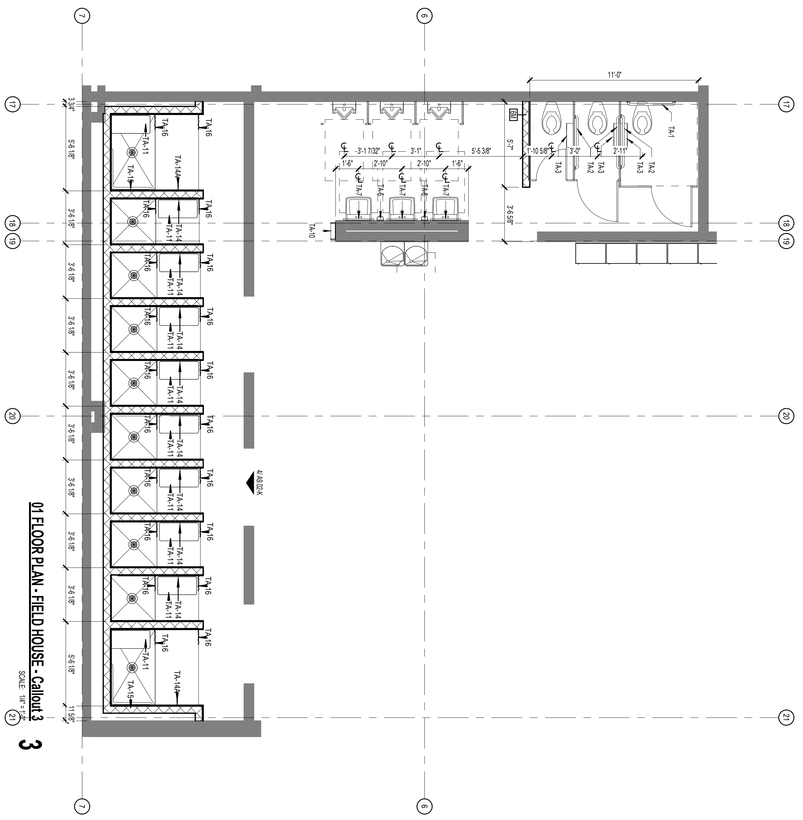
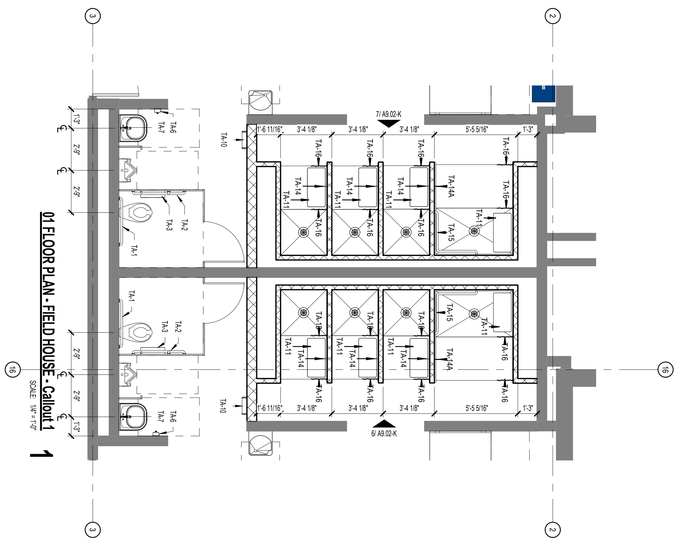
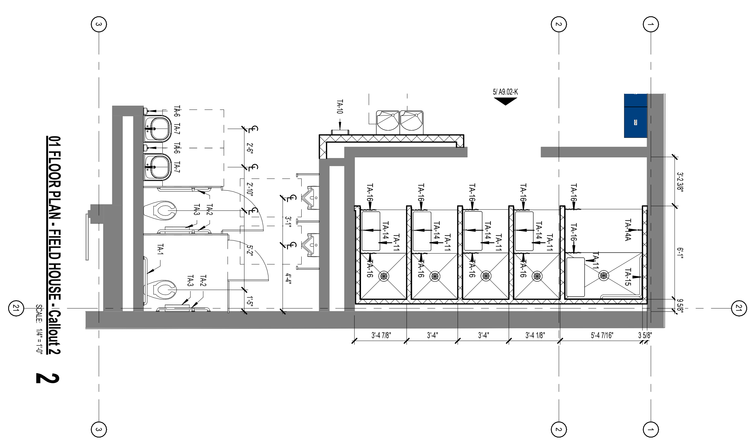


01 FLOOR PLAN - FIELD HOUSE - Callout 3
SCALE: 1/4" = 1'-0"
3

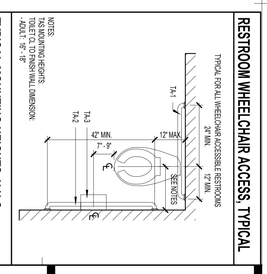


01 FLOOR PLAN - FIELD HOUSE - Callout 1
SCALE: 1/4" = 1'-0"
1

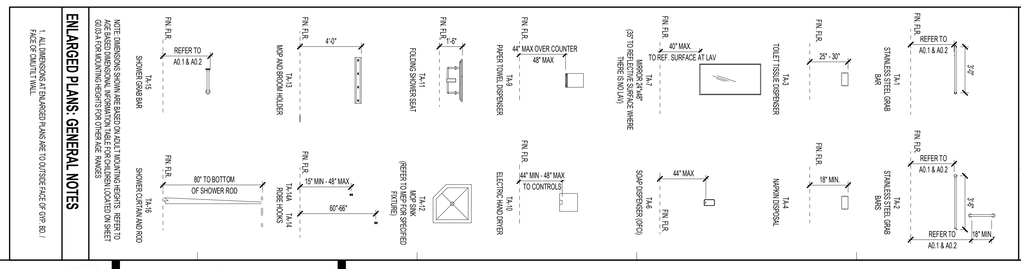


01 FLOOR PLAN - FIELD HOUSE - Callout 2
SCALE: 1/4" = 1'-0"
2

RESTROOM WHEELCHAIR ACCESS, TYPICAL



TYPICAL MOUNTING HEIGHTS, U.N.O.



ENLARGED PLANS: GENERAL NOTES

1. ALL DIMENSIONS AT ENLARGED PLANS ARE TO OUTSIDE FACE OF GYP. BD. / FACE OF CMU TILT WALL.

NOTE: DIMENSIONS SHOWN ARE BASED ON ADULT MOUNTING HEIGHTS. REFER TO AGE BASED DIMENSIONAL INFORMATION TABLE FOR CHILDREN LOCATED ON SHEET G0.03-A FOR MOUNTING HEIGHTS FOR OTHER AGE RANGES.

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ENLARGED RESTROOM PLANS

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DATE: 12/04/2025
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REVISIONS:
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DATE: 12/04/2025

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Sugarland, TX 77479

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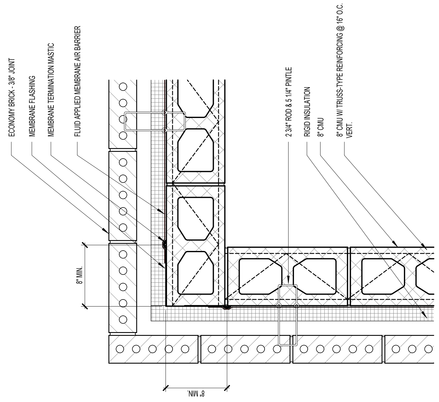
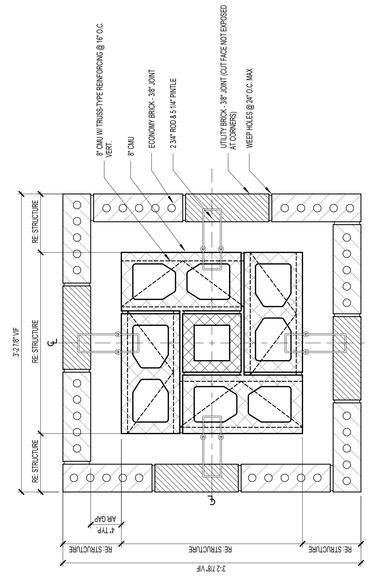
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com



PLAN DETAIL OUTWARD CORNER 2

SCALE: 1 1/2" = 1'-0"



PLAN DETAIL PILASTER 1

SCALE: 1 1/2" = 1'-0"

PLAN DETAIL 45 DEGREE CORNER 3

SCALE: 1 1/2" = 1'-0"

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DATE: 12/4/2025

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PLAN DETAILS

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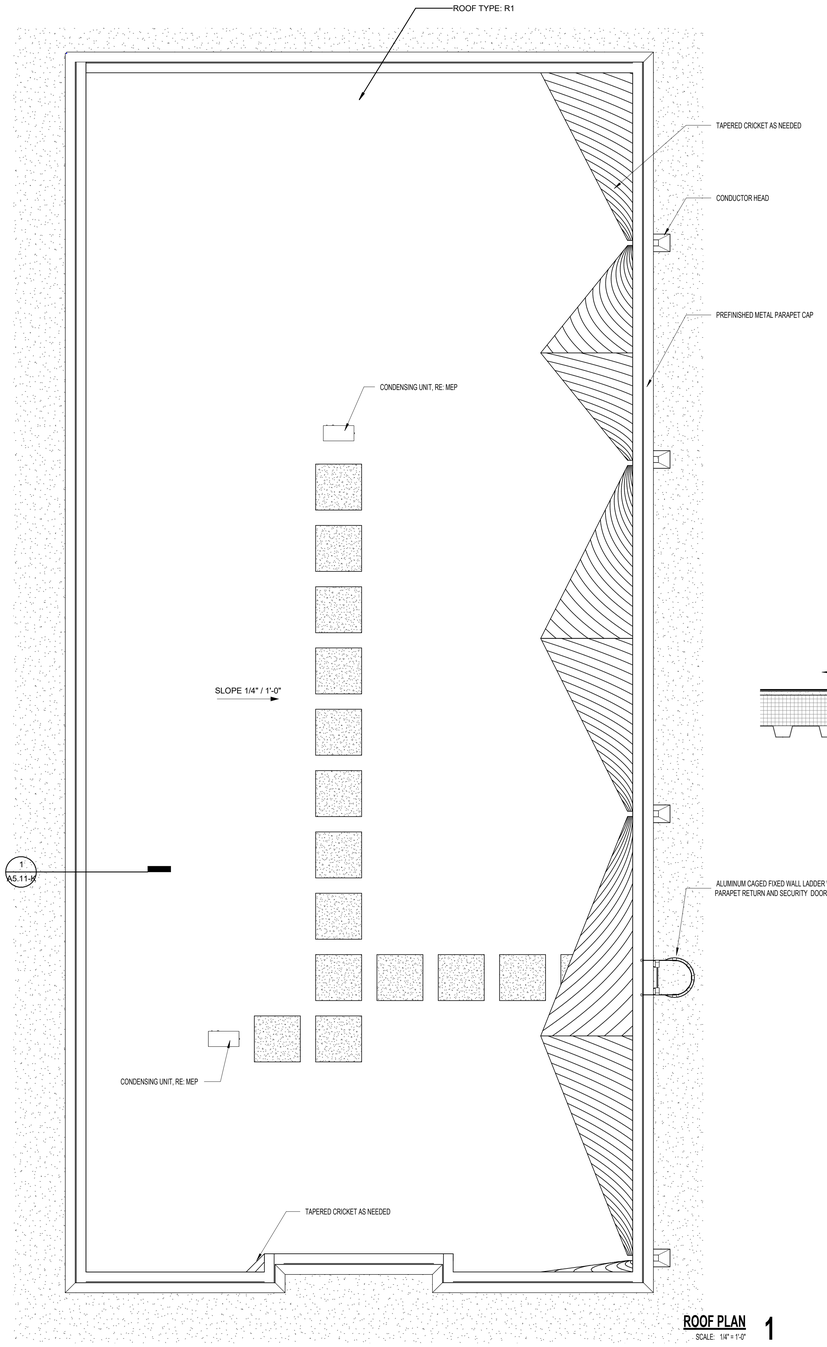
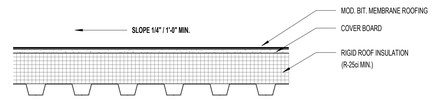


ROOF PLAN 1
SCALE: 1/4" = 1'-0"



ROOF TYPE R1 2
SCALE: 1 1/2" = 1'-0"

ROOF PLAN GENERAL NOTES

1. FOR TYPICAL ROOF PENETRATIONS AND PIPE SUPPORTS DETAILS REFER TO SHEET A05.10
2. FOR ADDITIONAL ROOF PENETRATION DETAILS: REFER TO MEP DOCS.
3. REFER MEP DOCUMENTS FOR ROOFTOP EQUIPMENT NOT SHOWN. MECHANICAL, ELECTRICAL AND PLUMBING ROOF EQUIPMENT DEPICTED ON THIS SHEET IS FOR GENERAL ARCHITECTURAL INFORMATION ONLY. REFER TO THE MEP DOCUMENTS FOR ADDITIONAL REQUIREMENTS AND COORDINATION. REFER STRUCTURAL DOCUMENTS FOR EQUIPMENT SUPPORTS.
4. EXPOSED METAL FLASHING/TRIM PIECES ARE TO BE PREFINISHED GALVANIZED STEEL, UNLESS OTHERWISE NOTED. PAINT EXPOSED METAL FLASHING/TRIM PIECES THAT ARE NOT PREFINISHED, AS WELL AS ALL EXPOSED MISCELLANEOUS STEEL PIECES. REFER FINISH SCHEDULE AND NOTES.
5. TAPERED INSULATION SHALL BE 1/4"/FT MINIMUM SLOPE TO DRAIN. ROOF PLAN SHOWS TAPERED INSULATION AT NTS AND IS GRAPHIC ONLY, TO SHOW SLOPE AND APPROX LOCATION. (VERIFY INSULATION REQUIRED TO MAINTAIN SLOPE, PRIOR TO INSTALLATION).
6. PROVIDE TAPERED INSULLATION CRICKETS (1/4"/FT MIN SLOPE) AT HIGH SIDE OF ALL MECHANICAL UNITS, SKYLIGHTS, ROOF HATCHES, AND MISCELLANEOUS ROOF PENETRATIONS, TO SHED WATER AROUND, AND TO INSURE POSITIVE ROOF DRAINAGE.
7. WOOD BLOCKING AT ROOF EDGES, RIDGES, ETC. SHALL BE FABRICATED FROM CONTINUOUS MINIMUM 2X6s PTWD BLOCKING. PROVIDE LARGER 2X PTWDS REQUIRED PER DETAIL DIMENSIONS. REFER ROOFING MANUFACTURER RECOMMENDATIONS.
8. WHERE WOOD BLOCKING EXCEEDS 8" THICKNESS AT TAPERED INSULATION, PROVIDE STEM WALL CONSTRUCTED OF 6" GALVANIZED CFMF AT 16"OC W/ CONTINUOUS TRACK TOP AND BOTTOM AND W/ 3/4" PT EXTERIOR GRADED PLYWOOD AT EACH SIDE, TOP TO SLOPE W/ TAPERED INSULATION.
9. PROVIDE STEP FLASHING AND COVER PLATE AT SLOPED ROOF HI/LO CONDITIONS.
10. VERIFY ELEVATION OF ROOF DRAIN RELATIVE TO OVERFLOW SCUPPER PRIOR TO INSTALLATION OF SCUPPERS.
11. STRUCTURAL SLOPES SHOWN ON PLAN ARE FOR GENERAL CONCEPT ONLY. REFER STRUCTURAL DRAWINGS FOR EXACT TOS/BOD ELEVATIONS.
12. REFER PLUMBING DOCUMENTS FOR ROOF DRAIN LEADERS, CONNECTIONS TO STORM DRAIN, AND NOZZLES.
13. FOR TYPICAL ROOF PENETRATION DETAILS: PROVIDE METAL ROOF MFRS STD ROOF CURBS AND PENETRATION DETAILS, FOR LOCATIONS, WEIGHTS, AND ANY OTHER ADDITIONAL INFO REFER TO MEP DOCS. COORDINATE FINAL SIZE.
    A. PROVIDE CURBS AND ALL SUPPORTS NOT INDICATED ON THE STRUCTURAL DOCUMENTS FOR NEW ROOF TOP MECH EQUIPMENT, INCLUDING BUT NOT LIMITED TO RTUS, CONDENSERS, AND FANS. REFER STRUCTURAL AND MEP DOCUMENTS.
    B. PROVIDE SUPPORTS AND FLASHING AS REQUIRED AT NEW GAS PIPING ON THE ROOF.
14. PROVIDE STD EAVE CLOSURES, AND MISCELLANEOUS TRIM REQUIRED FOR COMPLETE ASSEMBLY.
15. CONTRACTOR MAY DELETE WOOD BLOCKING SHOWN IN ROOFING DETAILS AS ALLOWED BY ROOFING MANUFACTURER RECOMMENDATIONS AND FACTORY MUTUAL WIND UPLIFT REQUIREMENTS.

ROOF PLAN LEGEND

CRICKET

WALK PADS

MODIFIED BITUMEN ROOF

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office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
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ROOF PLAN
CONCESSION

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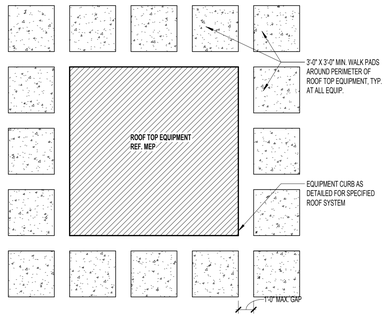
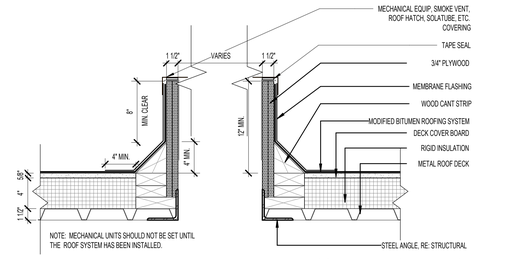


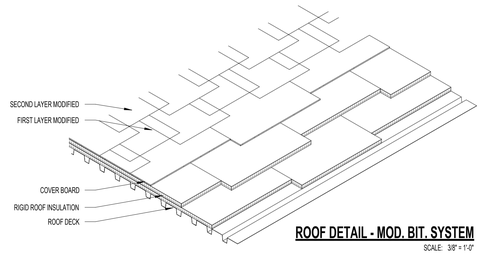
ROOF DETAIL - WALK PADS @ RTU 9

SCALE: 3" = 1'-0"



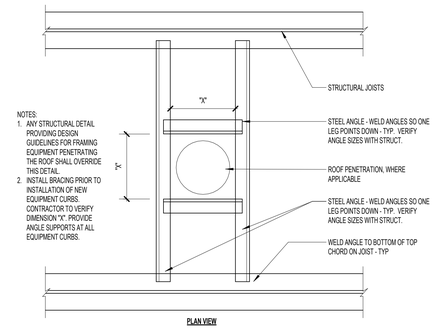
ROOF DETAIL - EQUIPMENT CURB 4

SCALE:1 1/2" = 1'-0"



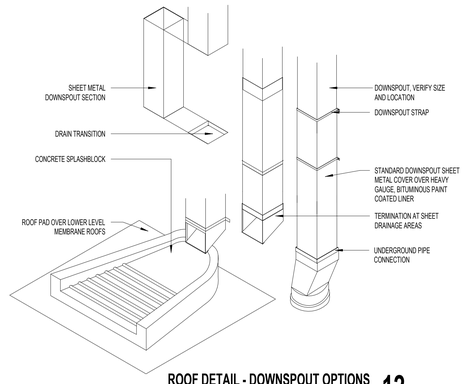
ROOF DETAIL - MOD. BIT. SYSTEM 8

SCALE: 3/8" = 1'-0"



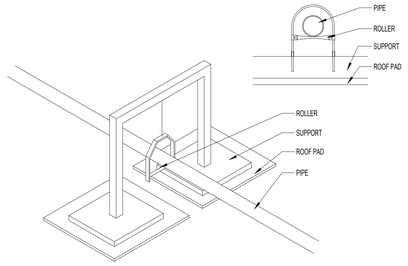
ROOF DETAIL - EQUIPMENT FRAMING 3

SCALE: 3" = 1'-0"



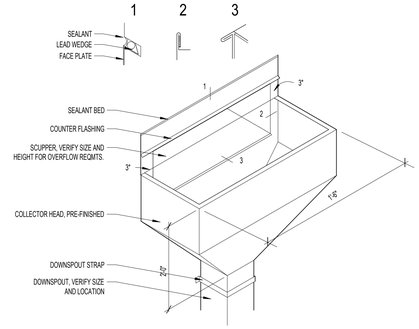
ROOF DETAIL - DOWNSPOUT OPTIONS 12

SCALE: 3/4" = 1'-0"



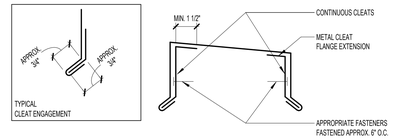
ROOF DETAIL - PIPE SUPPORTS 7

SCALE: 1/4" = 1'-0"



ROOF DETAIL - COLLECTOR HEAD 2

SCALE: 1" = 1'-0"

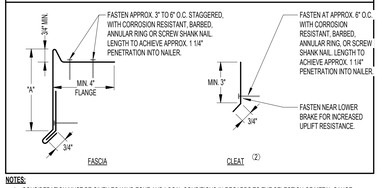


ROOF DETAIL - SHEET METAL PARAPET CAP 11

SCALE: 12" = 1'-0"

RECOMMENDED MINIMUM GAUGES FOR FASCIA AND CLEAT (1)					
EXPOSED FACE WITHOUT BRAKES "A" DIMENSION	ALUMINUM ALLOY (3003)	COLD ROLLED COPPER	GALVANIZED OR COATED (G90) STEEL	STAINLESS STEEL (302 AND 304)	CLEAT (2)
UP TO 3" FACE	.040"	20 oz.	24 ga.	24 ga.	NOT REQUIRED
UP TO 3" FACE	.032"	16 oz.	24 ga.	26 ga.	SAME GAUGE AS FASCIA METAL
3" TO 6" FACE	.040"	16 oz.	24 ga.	24 ga.	SAME GAUGE AS FASCIA METAL
6" TO 8" FACE	.050"	20 oz.	24 ga.	24 ga.	ONE GAUGE HEAVIER THAN FASCIA METAL
8" TO 15" FACE	ADD BRAKES TO STIFFEN OR USE TWO-PIECE FACE	ADD BRAKES TO STIFFEN OR USE TWO-PIECE FACE	ADD BRAKES TO STIFFEN OR USE TWO-PIECE FACE	ADD BRAKES TO STIFFEN OR USE TWO-PIECE FACE	ONE GAUGE HEAVIER THAN FASCIA METAL

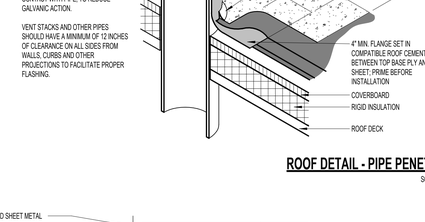
RECOMMENDED FASTENING FOR FASCIA AND CLEAT (1)



NOTES:
1. CONSIDERATION MUST BE GIVEN TO WIND ZONE AND LOCAL CONDITIONS IN REGARDS TO THE SELECTION OF METAL GAUGE, PROFILE AND FASTENING SCHEDULE. SEVERE CONDITIONS OR CODE AND REGULATORY BODIES MAY REQUIRE MORE CONSERVATIVE DESIGNS. WHEN USING THE ABOVE TABLE, ADDITIONAL ITEMS SHOULD BE CONSIDERED, SUCH AS FASTENING PATTERN.
2. ALL CLEATS SHALL BE CONTINUOUS WITH LENGTHS NOT TO EXCEED 12 FEET. ALLOW A 1/4" GAP BETWEEN PIECES. JOINTS IN CLEAT SHOULD NOT COINCIDE WITH JOINTS IN FASCIA METAL.

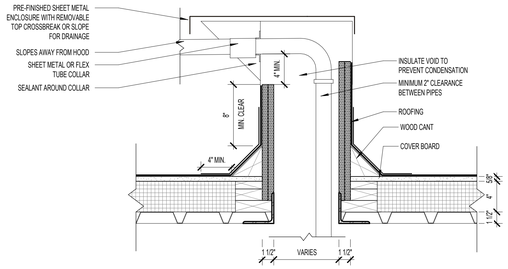
GUIDE FOR SHEET METAL FASCIA EDGES 10

SCALE: 12" = 1'-0"



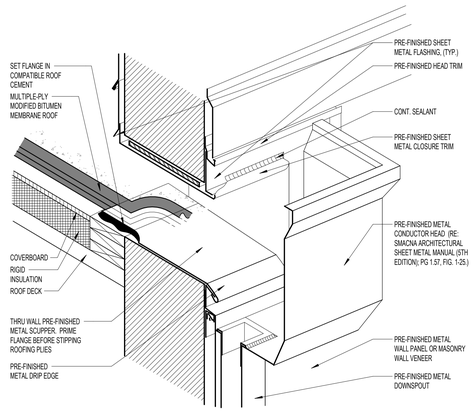
ROOF DETAIL - PIPE PENETRATION 6

SCALE: 3/4" = 1'-0"



ROOF DETAIL - PIPE ENCLOSURE 5

SCALE:1 1/2" = 1'-0"



THROUGH WALL SCUPPER W/ CONDUCTOR HEAD 1

SCALE: 1" = 1'-0"

ACCESS LADDER SCHEDULE

BASIS OF DESIGN: ALACO LADDER COMPANY

VERTICAL ACCESS LADDERS

MODEL			DESCRIPTION
0'-20' HT	>20' HT	>30' HT	
561-E	N/A	N/A	ELEVATOR PIT ACCESS LADDER. PROVIDE ONE AT EVERY ELEVATOR PIT
561	561-C	561-CP	INTERIOR PLATFORM OR ROOF LADDER WITH HANDRAILS OVER ROOF
561-SE	561-SE-C	561-SE-CP	INTERIOR PLATFORM OR ROOF LADDER WITH SIDE ACCESS AT TOP
564-PRPC	564-C	564-CP	ROOF LADDER AT PARAPET CONDITION. PARAPET RETURN WITH CROSSOVER PLATFORM
560	560-C	560-CP	ROOF HATCH ACCESS LADDER

SHIPS LADDERS

MODEL			DESCRIPTION
0'-20' HT			
M1000			PLATFORM ACCESS SHIPS LADDER - 75 DEG
H1000			ROOF HATCH ACCESS SHIPS LADDER - 75 DEG

NOTE:

1. ALL EXTERIOR LADDERS SHALL HAVE OPTIONAL MOUNTING AT BASE OF LADDER, HOLDING LADDER UP, ABOVE ROOF/GROUND
2. ALL VERTICAL ROOF ACCESS LADDERS EXTENDING TO GRADE SHALL HAVE OPTIONAL H300 SECURITY DOOR
3. ALL VERTICAL INTERIOR LADDERS SHALL HAVE OPTIONAL H300 SECURITY DOOR UNLESS LOCATED IN A SECURED ROOM
4. ALL WALL/PARTITION/FLOOR ATTACHMENTS SHALL BE COORDINATED WITH THE STRUCTURAL ENGINEER

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office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
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ROOF DETAILS

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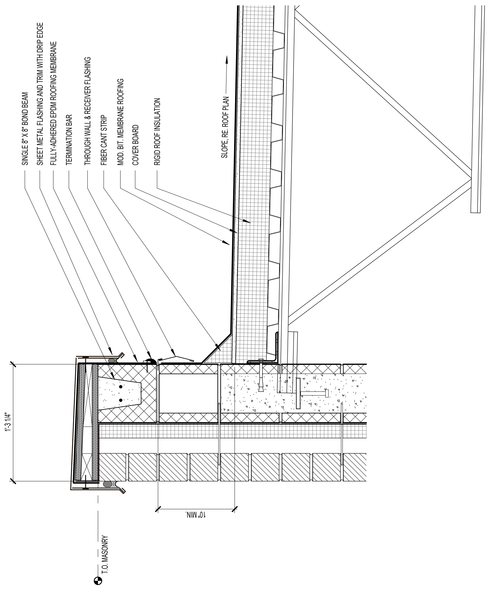
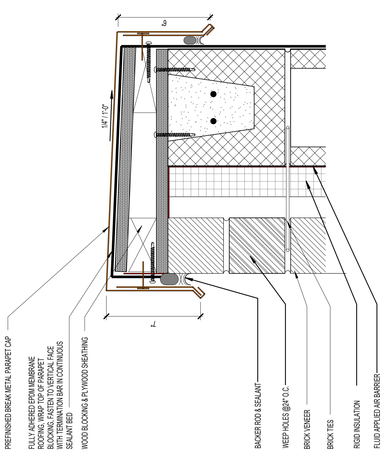


ROOF DETAIL - PARAPET 1

SCALE: 1 1/2" = 1'-0"



ROOF PARAPET DETAIL AT MASONRY VENEER 2

SCALE: 3" = 1'-0"

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ROOF PARAPET DETAILS

PROJECT NO. 25-006
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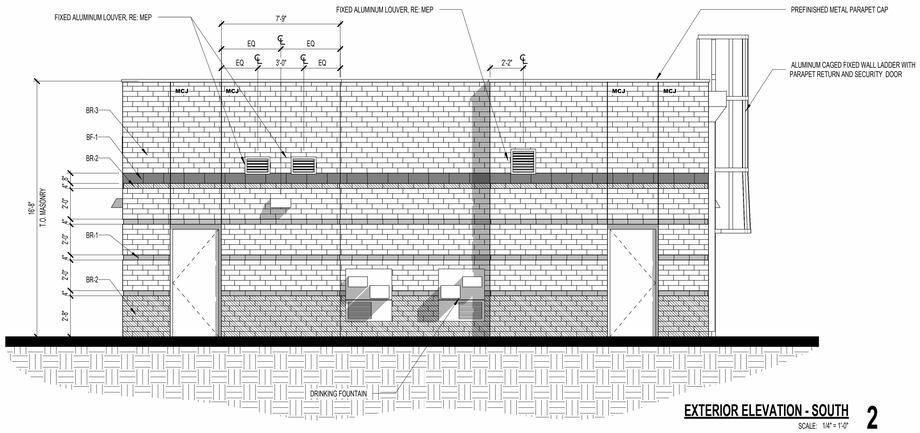
GENERAL NOTES - EXTERIOR ELEVATIONS

1. EXPOSED EXTERIOR STRUCTURAL STEEL MEMBERS SHALL BE PAINTED – COLOR SELECTED BY ARCHITECT.
2. STEEL MASONRY LINTELS SHALL BE GALVANIZED.
3. EXPOSED CONCRETE WALLS, COLUMNS, AND BEAMS, SHALL HAVE RUBBED GROUT FINISH.
4. MASONRY WEEP HOLES SHALL BE HAVE PVC HONEYCOMB VENTED WEEPS AT 16 " O.C. MAXIMUM.
5. EXTERIOR ALUMINUM STOREFRONT/CURTAIN WALL SYSTEM(S) SHALL HAVE ALUMINUM SUB-SILLS WITH SEALED END DAMS.
6. EXTERIOR ALUMINUM STOREFRONT/CURTAIN WALL SYSTEM(S) SHALL HAVE CONTINUOUS ALUMINUM BACKFILLERS.
7. FLEXIBLE MEMBRANE FLASHING AT WINDOWS SILLS AND LINTELS SHALL HAVE PRE-FORMED END DAMS.
8. CONTRACTOR SHALL PROVIDE FLEXIBLE MEMBRANE FLASHING ACROSS JOINTS BETWEEN DISSIMILAR MATERIALS TO INCLUDE, BUT NOT LIMITED TO, CMU TO STEEL FRAME, CMU TO STEEL DECKING, CMU TO EXTERIOR SHEATHING, ETC. TO PROVIDE COMPLETE AIR AND VAPOR BARRIER ACROSS BUILDING ENVELOPE.
9. MASONRY VENEER CONTROL JOINTS SHALL BE 3/8 ", AT INSIDE CORNERS, AT DISTANCES NOT TO EXCEED 3'-4" FROM OUTSIDE CORNERS, AND AT 30 '-0" O.C. MAXIMUM, UNLESS NOTED OTHERWISE. REFERENCE EXTERIOR ELEVATIONS.
10. GUTTERS, CONDUCTOR HEADS, AND DOWNSPOUTS SHALL BE PRE-FINISHED SHEET METAL. COLOR SELECTED BY ARCHITECT.
11. DOWNSPOUTS SHALL HAVE 16 GAUGE PRE-FINISHED DOWNSPOUT BOOTS TO 6 '-0" ABOVE FINISH GRADE. COLOR SELECTED BY ARCHITECT.
12. DOWNSPOUTS AND ROOF DRAINS SHALL BE CONNECTED TO STORM DRAIN SYSTEM UNLESS OTHERWISE NOTED. REFERENCE CIVIL FOR STORM DRAIN CONNECTION DETAILS AND LOCATIONS.
13. CONTRACTOR SHALL PROVIDE MOCK-UP FOR EACH EXTERIOR CONDITION AND CONSTRUCTION ASSEMBLY TYPE. MOCK-UP SHALL INCLUDE METAL FLASHINGS, VERTICAL AND HORIZONTAL FLEXIBLE MEMBRANE FLASHINGS, AND WINDOW INSTALLATIONS AS DETAILED IN CONSTRUCTION DOCUMENTS. MOCK-UP SHALL BE A MINIMUM OF 8 -0" TALL X 16 -0" LONG WITH AN EXTERIOR CORNER, INTERIOR CORNER, AND VERTICAL CONTROL JOINT. COORDINATE LOCATION OF MOCK-UP PANEL WITH ARCHITECT PRIOR TO CONSTRUCTION.
14. MECHANICAL ROOF TOP UNITS SHALL BE PAINTED. COLOR SELECTED BY ARCHITECT.

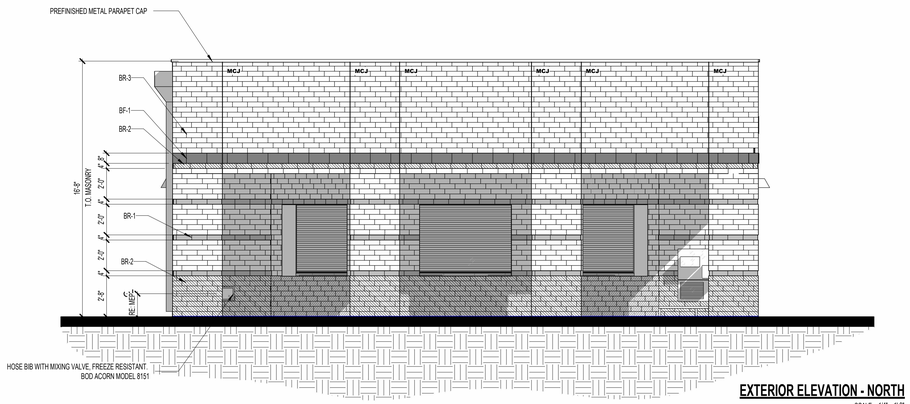
EXTERIOR MATERIAL LEGEND

- BRICK 1 (BR-1) UTILITY, RUNNING BOND
- BRICK 1 (BR-2) UTILITY, RUNNING BOND
- BRICK 1 (BR-3), RUNNING BOND
- BURNISHED FACE BLOCK (BF-1), RUNNING BOND

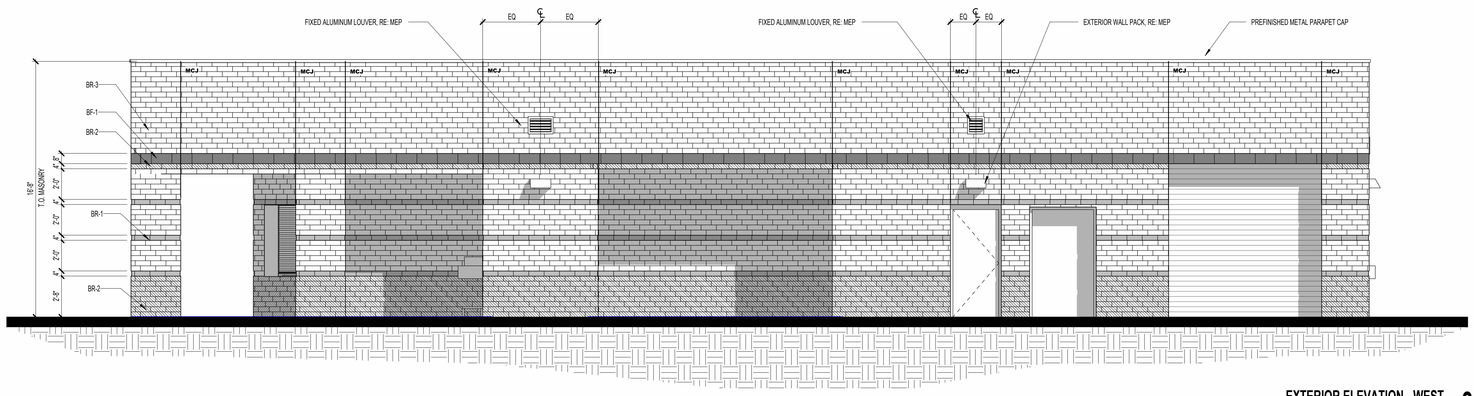
EXTERIOR ACCENT PAINT (EP-1)



EXTERIOR ELEVATION - SOUTH 2
SCALE: 1/4" = 1'-0"



EXTERIOR ELEVATION - NORTH 1
SCALE: 1/4" = 1'-0"



EXTERIOR ELEVATION - WEST 3
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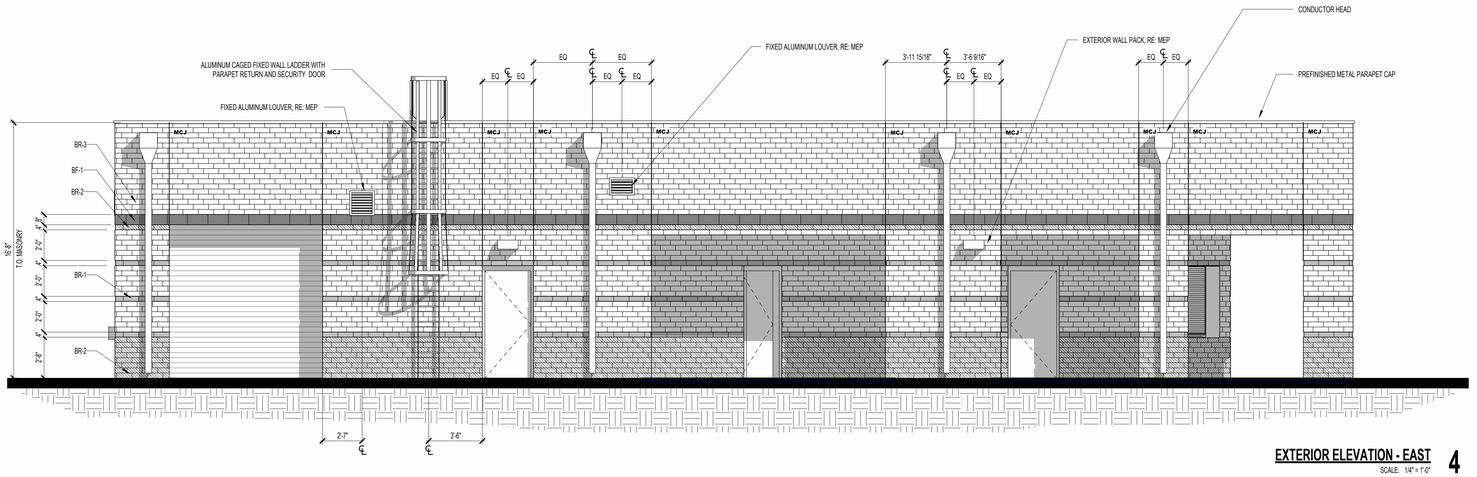

EXTERIOR ELEVATION - EAST 4
SCALE: 1/4" = 1'-0"

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KEMPNER HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
30113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: DRW	CHECKED BY: CHK

REVISIONS:

No.	Date	Description

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A6.00-K
CONCESSIONS
EXTERIOR ELEVATIONS

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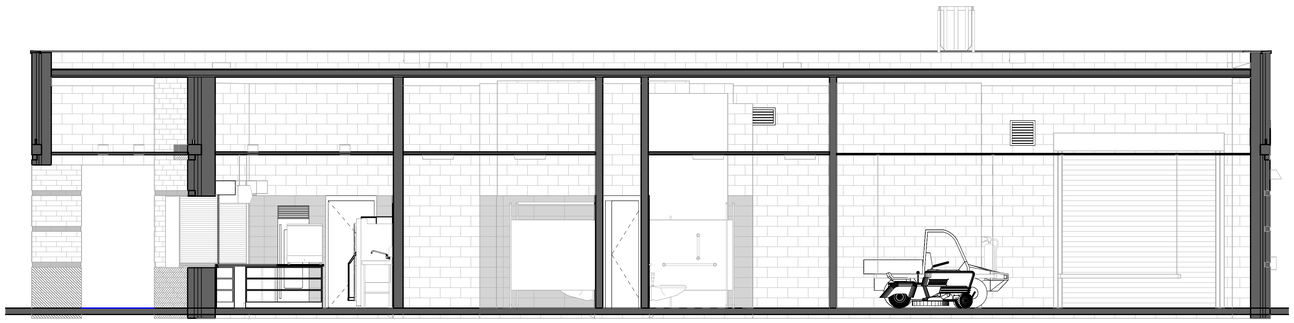

BUILDING SECTION 2
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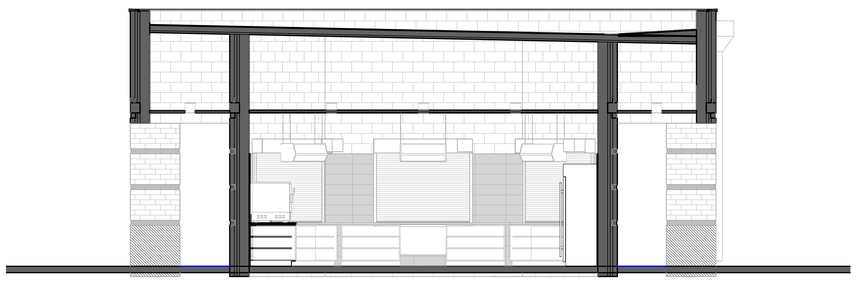

BUILDING SECTION 3
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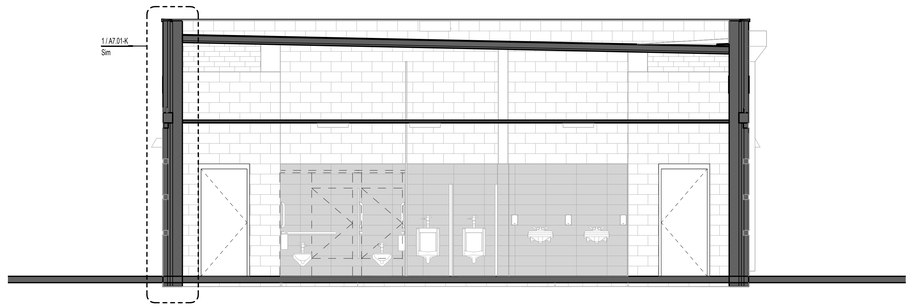

BUILDING SECTION 1
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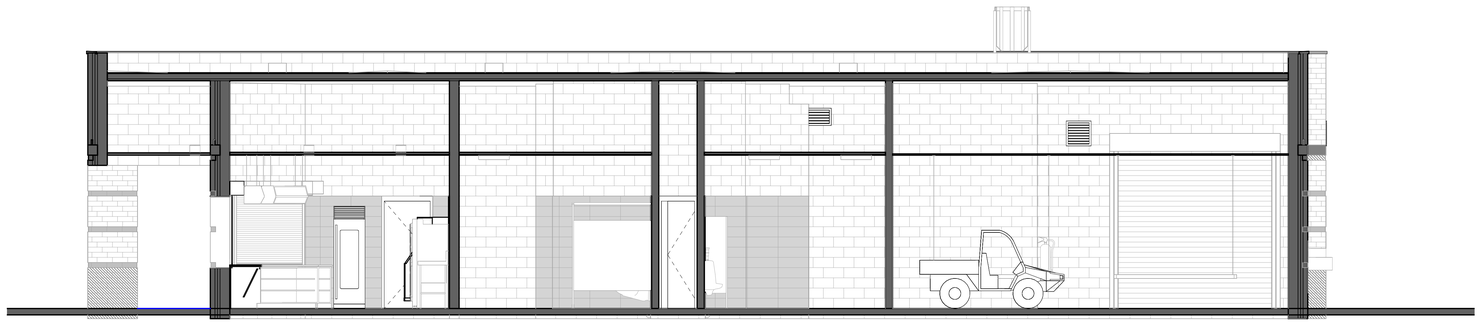

Section 3
SCALE: 1/4" = 1'-0" 1

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STATE OF TEXAS

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BUILDING SECTIONS
CONCESSION

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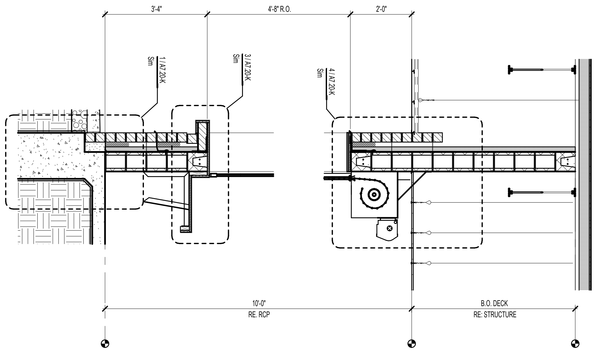

WALL SECTION 02
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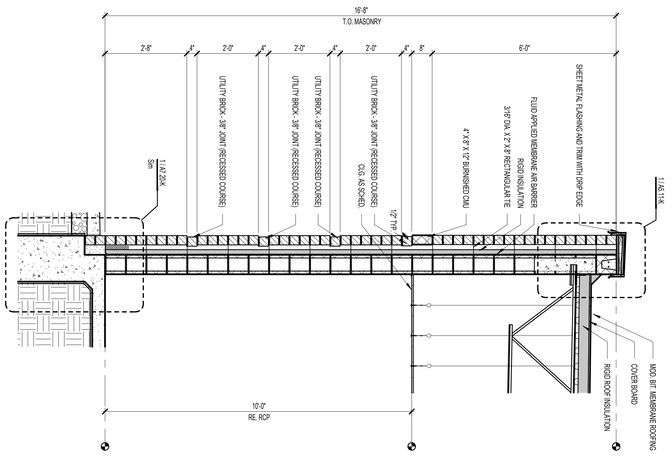
2



WALL SECTION 01
SCALE: 1/2" = 1'-0"
1

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WALL SECTIONS
CONCESSION

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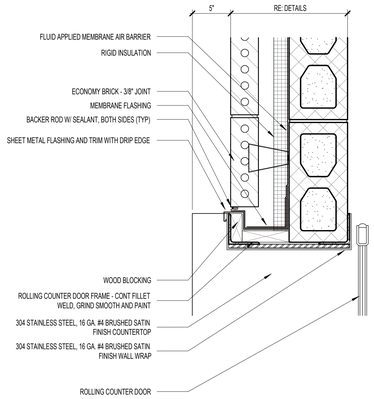
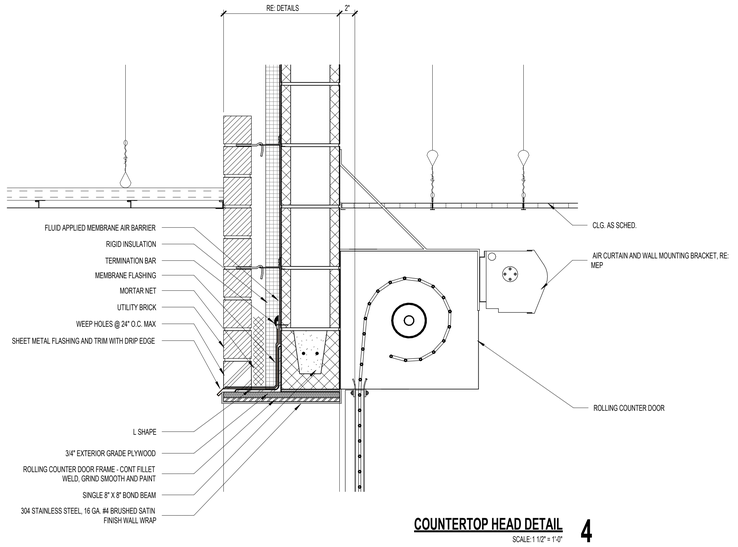
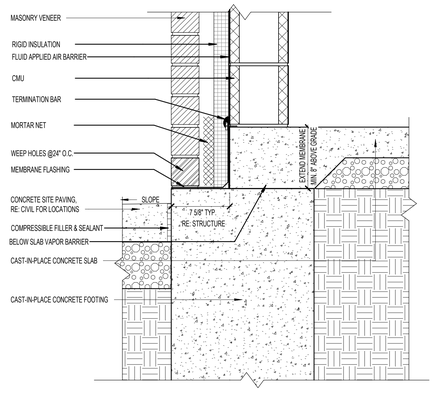


COUNTERTOP JAMB DETAIL 7
SCALE: 1 1/2" = 1'-0"



COUNTERTOP HEAD DETAIL 4
SCALE: 1 1/2" = 1'-0"



FOUNDATION DETAIL 2
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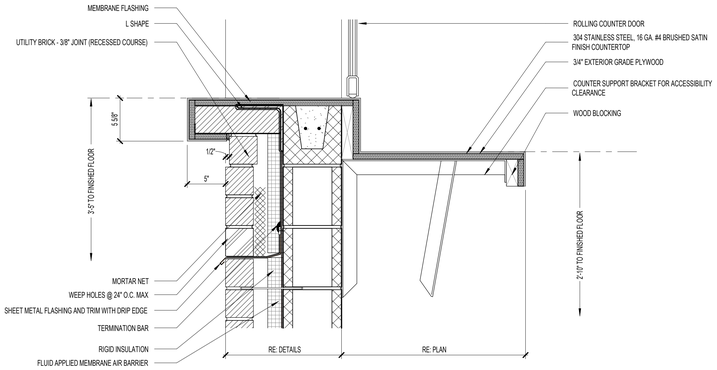

COUNTERTOP SILL DETAIL 3
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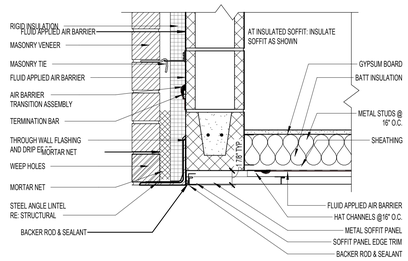

SECTION DETAIL - WALL RECESS 6
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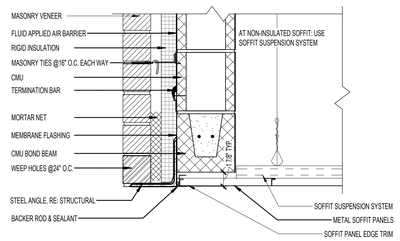

SECTION DETAIL - WALL RECESS 5
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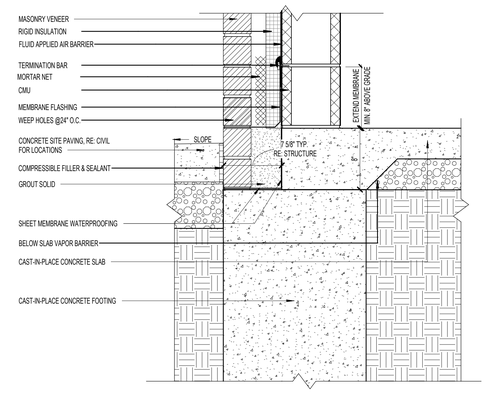

FOUNDATION DETAIL 1
SCALE: 1 1/2" = 1'-0"

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20113
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SECTION DETAILS

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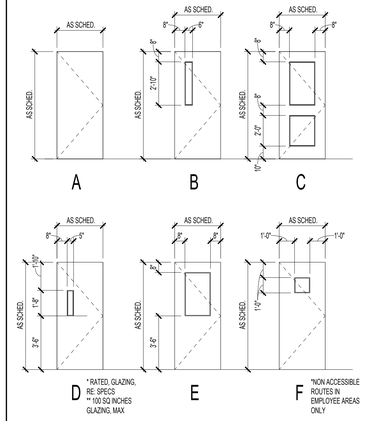
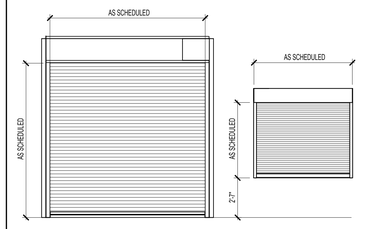
DOOR SCHEDULE GENERAL NOTES

1. REFER TO THE SPECIFICATIONS FOR HARDWARE DESCRIPTIONS
2. REFER TO A 8.02 FOR DOOR HEAD JAMB AND SILL DETAILS
3. REF. SPECIFICATIONS FOR GLAZING TYPES
4. ALL DOORS IN SMOKE RESISTANT PARTITIONS TO HAVE POSITIVE LATCHING AND BE SMOKE TIGHT (ST)
5. ALL DOORS TO HAVE BOXED HEADERS UNLESS STEEL CHANNELS ARE INDICATED IN THE COMMENT COLUMN OF THE DOOR SCHEDULE OR UNLESS OTHERWISE INDICATED BY HEAD DETAIL
6. ALL CLOSERS TO BE LOCATED ON THE ROOM SIDE OF THE DOOR WHERE INSTALLED AT CORRIDORS. IN NON CORRIDORS, CLOSERS TO BE INSTALLED AT THE ROOM SIDE FOR THE ROOM BEING SERVED BY THE OPENER
7. ALL FIRE RATINGS NOTED IN MINUTES

DOOR PANEL TYPES



A
B
C
D * RATED, GLAZING, RE: SPECS ** 100 SQ INCHES GLAZING, MAX
E
F *NON ACCESSIBLE ROUTES IN EMPLOYEE AREAS ONLY
G LOUVER DOORS REF. SPECS.
H FULL LITE, VERIFY SIZE W/ MFG.
J WIRE MESH SECURITY SWING DOOR



K COILING OVERHEAD DOOR
Q COILING COUNTER DOOR
N FOLDING PANEL WALL

DOOR SCHEDULE COMMENTS

MODIFY/DELETE ITEMS AS NEEDED

1. PANIC HARDWARE
2. VACANT/OCCUPIED LIGHT OVER DOOR
3. ADA DOOR OPERATOR
4. PACKAGED DOOR ASSEMBLY, RE: SPECS
5. AUTOMATIC CARD READER AT DOOR, RE: SECURITY
6. MAGNETIC HOLD OPEN DEVICE TIED TO FIRE ALARM
7. MAGNETIC HOLD OPEN DEVICE - CONVENIENCE
8. MAGNETIC HOLD OPEN DEVICE TIED TO SECURITY
9. REMOTE ACTIVATED LATCH
10. BALLISTISTICS FILM APPLIED TO ALL GLAZING

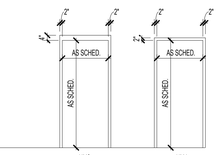
DOOR SCHEDULE ABREVIATIONS

MODIFY/DELETE ITEMS AS NEEDED

AL: ALUMINUM
HM: HOLLOW METAL
MTL: METAL
CL: CHAIN LINK
RM: REFER TO MANUFACTURER
ST: SMOKE TIGHT
SCW: SOLID CORE WOOD
FBC: POLYMER CORE
MIN: MINUTES
HW: HARDWARE

DOOR SCHEDULE

Level	BUILDING	NUMBER	WIDTH	PANEL HEIGHT	PANEL TYPE	PANEL MATERIAL	FRAME TYPE	FRAME MATERIAL	FIRE RATING	HARDWARE	DETAILS HEAD	DETAILS JAMB	DETAILS THRESHOLD	COMMENTS
CONCESSIONS														
Level 01	CONCESSIONS	K100A	3'-0"	7'-0"	A	HM	HM2	HM		205	4/A8.01-K	5/A8.01-K		
Level 01	CONCESSIONS	K100B		4'-8"	Q	AL				001	1/A8.01-K	2/A8.01-K		INSULATED COILING COUNTER DOOR WITH JAMB LOCK
Level 01	CONCESSIONS	K100C		4'-8"	Q	AL				001	1/A8.01-K	2/A8.01-K		INSULATED COILING COUNTER DOOR WITH JAMB LOCK
Level 01	CONCESSIONS	K100D		4'-8"	Q	AL				001	1/A8.01-K	2/A8.01-K		INSULATED COILING COUNTER DOOR WITH JAMB LOCK
Level 01	CONCESSIONS	K101A	3'-0"	7'-0"	A	HM	HM2	HM		80SL	4/A8.01-K	5/A8.01-K		
Level 01	CONCESSIONS	K101B	3'-0"	7'-0"	A	HM	HM2	HM		80SL	4/A8.01-K	5/A8.01-K		
Level 01	CONCESSIONS	K102A	3'-0"	7'-0"	A	HM	HM2	HM		80SL	4/A8.01-K	5/A8.01-K		
Level 01	CONCESSIONS	K102B	3'-0"	7'-0"	A	HM	HM2	HM		80SL	4/A8.01-K	5/A8.01-K		
Level 01	CONCESSIONS	K103A	3'-0"	7'-0"	A	HM	HM2	HM		205	4/A8.01-K	5/A8.01-K		
Level 01	CONCESSIONS	K103B	3'-0"	7'-0"	A	HM	HM2	HM		205	4/A8.01-K	5/A8.01-K		
Level 01	CONCESSIONS	K103C	10'-0"	10'-0"	K	AL	-	AL	-	001	1/A8.01-K	2/A8.01-K	3/A8.01-K	MOTORIZED INSULATED OVERHEAD COILING DOOR
Level 01	CONCESSIONS	K103D	10'-0"	10'-0"	K	AL	-	AL	-	001	1/A8.01-K	2/A8.01-K	3/A8.01-K	MOTORIZED INSULATED OVERHEAD COILING DOOR
Level 01	CONCESSIONS	K104	4'-0"	7'-0"	B	HM	HM2	HM		C20SW	4/A8.01-K	5/A8.01-K		CARD READER ACCESS
Level 01	CONCESSIONS	K105	3'-0"	7'-0"	A	HM	HM2	HM		205	4/A8.01-K	5/A8.01-K		
Level 01	CONCESSIONS	K106	3'-0"	7'-0"	A	HM	HM2	HM		205	4/A8.01-K	5/A8.01-K		
Level 01	CONCESSIONS	K107	2'-2"	7'-0"	A	HM	HM2	HM		205	4/A8.01-K	5/A8.01-K		
SOFTBALL PRESS BOX														
Level 01	SOFTBALL PRESS BOX	K200	3'-0"	7'-0"	A	Default	HM1	Default		P505				PREMANUFACTURED PRESS BOX DOOR



HOLLOW METAL FRAME TYPES 4
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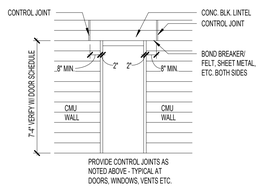
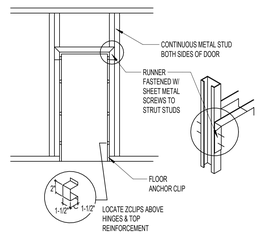
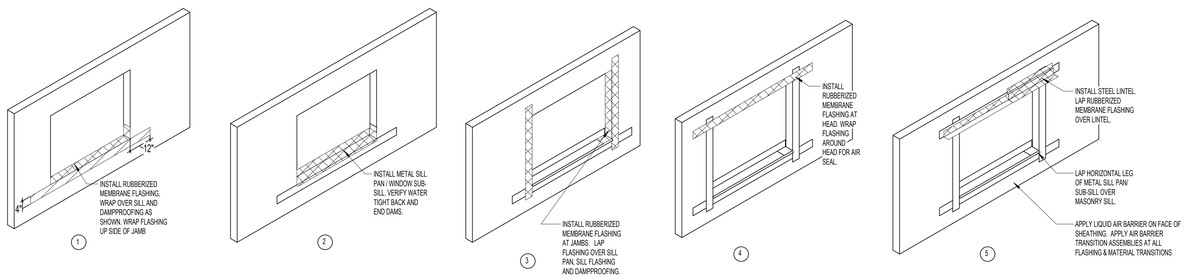


DOOR FRAME DETAIL @ MASONRY 1
SCALE: 1/4" = 1'-0"



DOOR FRAME DETAIL @ METAL STUDS 2
SCALE: 1/4" = 1'-0"



WINDOW FLASHING SEQUENCE 3
SCALE: 3/8" = 1'-0"

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office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
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14777 Voss Rd, Sugar Land, TX 77498

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A8.00-K
DOOR SCHEDULE

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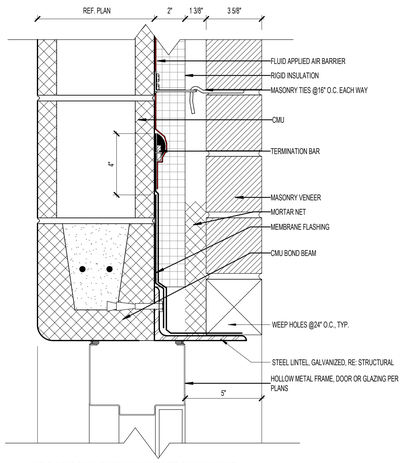
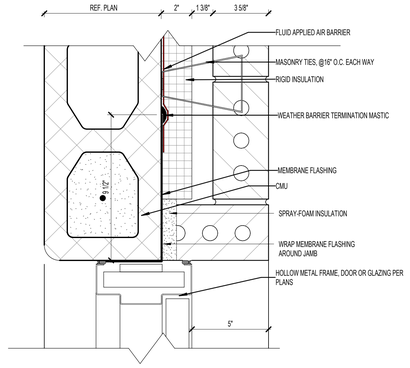


HEAD CONDITION AT OPENINGS GREATER THAN 8'-0" WIDE

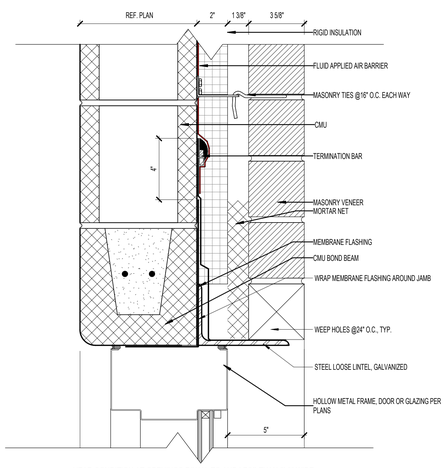
HM HEAD - MASONRY W/CMU STEEL LINTEL 6

SCALE: 3" = 1'-0"



HM JAMB - MASONRY W/CMU 5

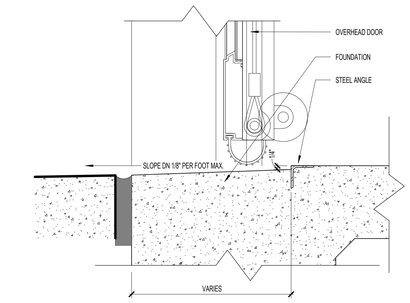
SCALE: 3" = 1'-0"



HEAD CONDITION AT OPENINGS EQUAL TO AND LESS THAN 8'-0" WIDE

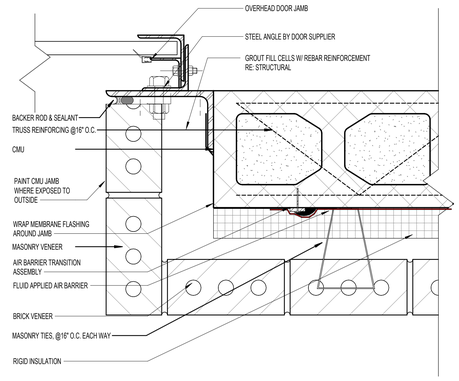
HM HEAD - MASONRY W/CMU 4

SCALE: 3" = 1'-0"



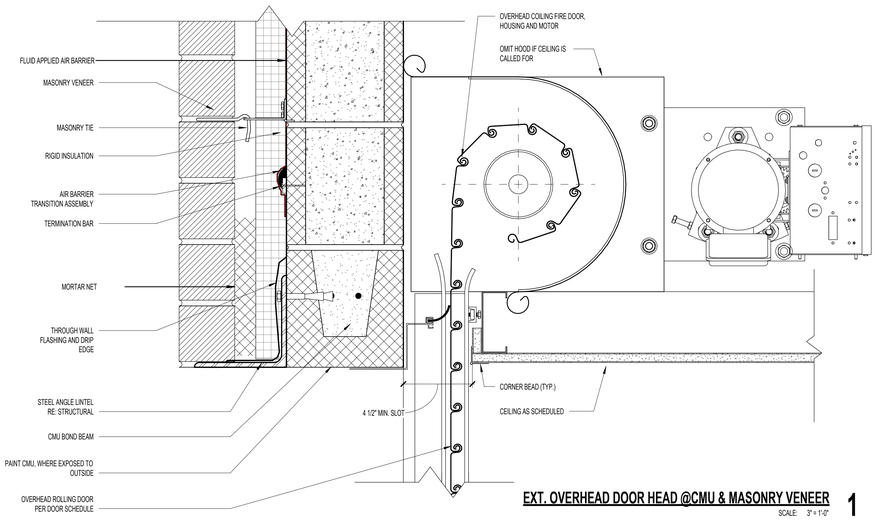
OVERHEAD DOOR THRESHOLD 3

SCALE: 3" = 1'-0"



EXT. OH DR - JAMB - CMU & MASONRY VENEER 2

SCALE: 3" = 1'-0"



EXT. OVERHEAD DOOR HEAD @CMU & MASONRY VENEER 1

SCALE: 3" = 1'-0"

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office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

	Date	Description

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A8.01-K

EXTERIOR HOLLOW METAL FRAME DETAILS

KEMPNER HIGH SCHOOL

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ROOM FINISH SCHEDULE - FIELD HOUSE

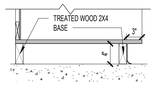
ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	REMARKS
105	COACHES	LVT-1	RB-1	P-1	P-2	P-1	P-1	
110	SHOWER	T-1	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	REF TO FINISH PLAN
114	FRESHMAN LOCKER ROOM	RF-1	RFB-1	P-1	P-1	P-1	P-1	
115	SOPHMORE LOCKER ROOM	RF-1	RFB-1	P-1	P-1	P-1	P-1	
116	SHOWER	T-1	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	REF TO FINISH PLAN
118	JR. VARSITY	RF-1	RFB-1	P-1	P-1	P-1	P-1	
119	SHOWER	T-1	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	REF TO FINISH PLAN
121	SHOWER	T-1	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	REF TO FINISH PLAN
123	VARSITY	RF-1	RFB-1	P-1	P-1	P-1	P-1	
203	TOILET	RF-1	RFB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	
204	TOILET	RF-1	RFB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	
205	TOILET	RF-1	RFB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	
206	TOILET	RF-1	RFB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	

ROOM FINISH SCHEDULE - CONCESSIONS BUILDING

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	REMARKS
100	CONCESSION	QT-1	TB-2	T, P-1E	T, P-1E	T, P-1E	T, P-1E	
101	WOMENS	T-1	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	7' HEIGHT, HORIZONTAL STACKED
102	MENS	T-1	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	7' HEIGHT, HORIZONTAL STACKED
103	STORAGE	SCONC-1	RB-1	P-1	P-1	P-1	P-1	
104	IDF	SCONC-1	RB-1	P-1	P-1	P-1	P-1	
105	CUSTODIAL	SCONC-1	RB-1	P-1, FRP	P-1, FRP	P-1	P-1	7' HEIGHT FRP, P-1 ABOVE
106	ELEC.	SCONC-1	RB-1	P-1	P-1	P-1	P-1	
108	MECHANICAL	SCONC-1	RB-1	P-1	P-1	P-1	P-1	

MATERIAL SCHEDULE

MARK	MATERIAL	MANUFACTURER	STYLE	COLOR	SPECS	REMARKS
01 FLOOR FINISH						
LVT-1	LUXURY VINYL TILE	TARKETT				OFFICES
QT-1	QUARRY TILE	AMERICAN OLEAN			6X6, EPOXY COAT OVER	CONSESSION BUILDING
RF-1	RESINOUS FLOORING	STONHARD	STONESHIELD SLT	CUSTOM (GRAY BASE, SCHOOL COLOR ACCENT)		LOCKER ROOMS FLOORING
SCONC-1	SEALED CONCRETE					NEW STORAGE ROOMS
T-1	PORCELAIN TILE	AMERICAN OLEAN	UNGLAZED MOSAICS	STORM GRAY	2X2 MOSAIC	SHOWERS & RESTROOMS
WF-1	WALK-OFF CARPET	TARKETT	ABRASIVE ACTION II		POWERBOND, ROLL	AT DRINKING FOUNTAINS
02 BASE						
RB-1	RUBBER BASE	JOHNSONITE	4" COVE BASE		4" HEIGHT	FIELD
RFB-1	RESINOUS FLOORING BASE	STONHARD	STONESHIELD SLT		4" HEIGHT, COVE BASE	LOCKER ROOMS
TB-1	TILE BASE	AMERICAN OLEAN	UNGLAZED MOSAICS	STORM GRAY		
TB-2	QUARRY TILE BASE	AMERICAN OLEAN				CONSESSION BUILDING
03 WALL FINISH						
FRP	FIBERGLASS REINFORCED PANELING					AT MOP SINK
P-1	PAINT	SHERWIN WILLIAMS		SW 7653 SILVERPOINTE		FIELD PAINT
P-1E	EPOXY PAINT	SHERWIN WILLIAMS		MATCH FIELD PAINT, U.N.O.		EPOXY PAINT AT WET AREAS
P-2	PAINT	SHERWIN WILLIAMS		SW 6307 FINE WINE		ACCENT, SCHOOL COLOR
T-2	WALL TILE	AMERICAN OLEAN	COLOR STORY WALL	CALM, FIELD	8"X24" GLOSSY	SHOWERS
T-3	WALL TILE	AMERICAN OLEAN	COLOR STORY WALL	PASSION 0016, ACCENT	8"X24" GLOSSY	SHOWERS
T-4	WALL TILE	AMERICAN OLEAN	COLOR STORY FLOOR	MATTER DESIGNER WHITE	12X24, MATTE	NEW RESTROOMS
T-5	WALL TILE	AMERICAN OLEAN	COLOR STORY FLOOR	MATTE PASSION	12X24, MATTE	NEW RESTROOMS
04 CEILING						
ACT-1	ACOUSTICAL PANEL CEILING	ARMSTRONG	FINE FISSURED, SCHOOL ZONE	WHITE	2X2 SQUARE LAY-IN	CONSESSION BUILDING
ACT-2	ACOUSTICAL PANEL CEILING	ARMSTRONG	CLEAN ROOM VL NO. 870	WHITE	2X2 SQUARE LAY-IN	RESTROOMS & FIELD HOUSE
ACT-3	ACOUSTICAL PANEL CEILING	ARMSTRONG	CLEAN ROOM VL NO.868	WHITE	2X2 SQUARE LAY-IN	CONSESSION BUILDING, FOOD PREPARATION AREA
EXP-1	EXPOSED CEILING			TO BE PAINTED P-1 U.N.O.		CONSESSION BUILDING
GYP-1	GYPBOARD CEILING			TO BE PAINTED P-1 U.N.O.		CONSESSION BUILDING
MCS-1	METAL CEILING SYSTEM	CERTAINTEED	DEEP BOX SERIES, EXTERIOR		8" PANELS	CONSESSION BUILDING, SOFFIT
05 MISC FINISHES						
	LOCKERS	LIST INDUSTRIES		727 MAROON		REF TO LOCKER SCHEDULE
	BENCHES			GRAY TOPS & STEEL PEDESTALS		MATCH SCHOOL COLOR GRAY
G-1E	EPOXY GROUT					AT WET AREAS
PL-1	PLASTIC LAMINATE	WILSONART		PHANTOM ECRU 8212K-28		CASEWORK, FIELD HOUSE
PL-2	PLASTIC LAMINATE	WILSONART		DOVE GRAY		COUNTERTOPS, FIELD HOUSE
SS-1	STAINLESS STEEL COUNTER				304 SS, 16 GA. #4 BRUSHED SATIN FINISH	CONSESSIONS COUNTERTOP
TP-1	TOILET PARTITIONS	ASI	BLACK CORE PHENOLIC	GRAPHITE 2150	SOLID PHENOLIC	RESTROOMS, FIELD HOUSE
06 ALUM TRANSITION						
TR-1	ALUMINUM TRANSITION	SCHLUTER		ANODIZED	ADA COMPLIANT	RESINOUS TO EXISTING
TR-2	ALUMINUM TRANSITION	SCHLUTER	RENO-TK	ANODIZED	ADA COMPLIANT	RESINOUS TO WF
TR-3	ALUMINUM TRANSITION	SCHLUTER	JOLLY	ANODIZED		AT TILE EDGES. PROVIDE END CAP AS APPLICABLE
07 EXTERIORS						
BR-1	BRICK	KANSAS BRICK & TILE	UTILITY	500 CLASSIC	RUNNING BOND	
BR-2	BRICK	KANSAS BRICK & TILE	UTILITY	500 MIT GREY	RUNNING BOND	
BR-3	BRICK	KANSAS BRICK & TILE	UTILITY	500 CHARCOAL	RUNNING BOND	
CMU-1	BURNISHED FACE	BEST BLOCK			RUNNING BOND	
CMU-2	SMOOTH FACE	BEST BLOCK		PAINTED P-1 U.N.O.	RUNNING BOND	NEW INTERIOR CMU WALLS
EP-1	EXTERIOR ACCENT PAINT	SHERWIN WILLIAMS				
PM-1	PREFINISHED METAL	BERRIDGE				



MD-BASE DETAIL 4
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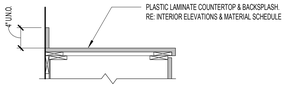

MD-COUNTER DETAIL 2
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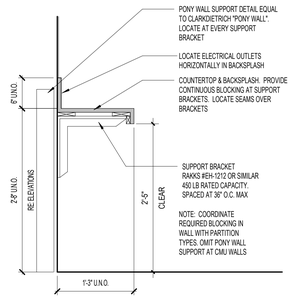
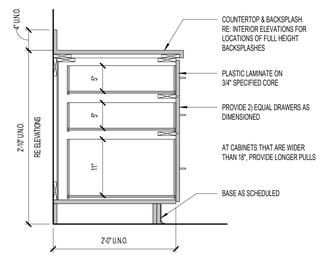


COUNTER DETAIL 5
SCALE: 1" = 1'-0"



CABINET DETAIL 3
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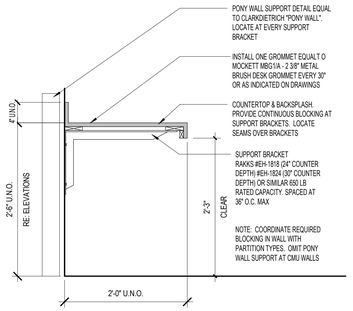

COUNTER DETAIL 1
SCALE: 1" = 1'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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14777 Voss Rd, Sugar Land, TX 77498

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REGISTERED ARCHITECT MICHAEL ADAME 30113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
Date Description

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A9.00-K
MATERIAL SCHEDULE & INTERIOR DETAILS

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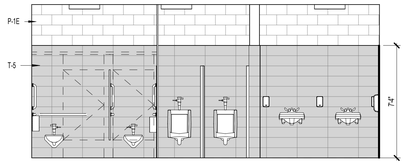
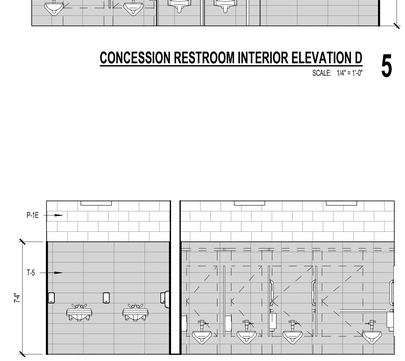


CONCESSION RESTROOM INTERIOR ELEVATION D 5
SCALE: 1/4" = 1'-0"



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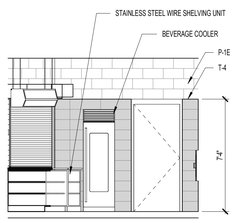
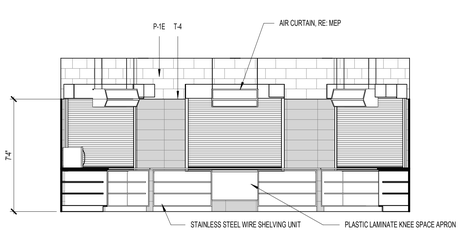


CONCESSION INTERIOR ELEVATION - EAST 7
SCALE: 1/4" = 1'-0"



CONCESSION INTERIOR ELEVATION - NORTH 3
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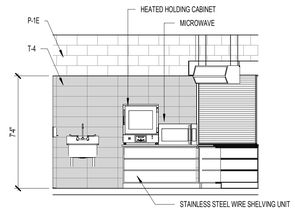

CONCESSION INTERIOR ELEVATION - WEST 6
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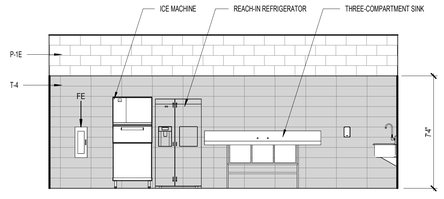
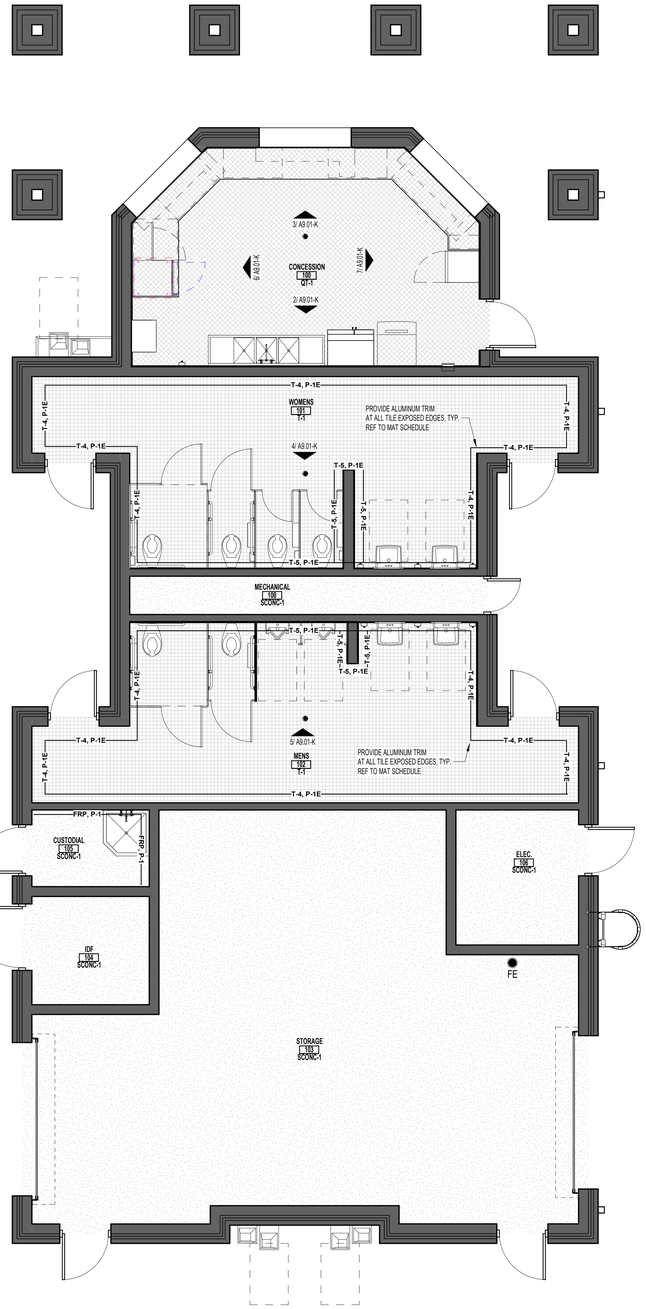


CONCESSION INTERIOR ELEVATION - SOUTH 2
SCALE: 1/4" = 1'-0"



01 FINISH PLAN - CONCESSIONS 1
SCALE: 1/4" = 1'-0"

MATERIAL FINISH LEGEND

- T-1 (PORCELAIN TILE)
- RF-1 (RESINOUS FLOORING)
- QT-1 (QUARRY TILE)
- SCONC SEALED CONCRETE
- LVT-1 (LUXURY VYNIL TILE)

PROVIDE CONTROL JOINTS (C.J.) AS SHOWN & AT COLOR CHANGES. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS

SYMBOLS

MW	MARKER WALL - DRY ERASE WALL-COVERING
CJ	CONTROL JOINT*
EJ	EXPANSION JOINT
CG	CORNER GUARD
HLB	HORIZONTAL LOUVER BLINDS
RS	ROLLER SHADES

T-X, P-X — WALL FINISH. REF TO MATERIAL SCHEDULE FOR FINISH TYPE MARKS

ROOM
100
PCON
FLOOR FINISH

* PROVIDE CONTROL JOINTS AS SHOWN. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS. REFER TO STRUCTURAL DWGS FOR DIMENSIONS. AT COLOR TRANSITIONS, PROVIDE SCORE LINE U.N.O.

** REFER TO ROOM FINISH SCHEDULE FOR FULL LIST OF FINISH WITHIN ROOM

FLOOR TRANSITIONS

REFER TO MATERIAL SCHEDULE FOR ALUMINUM TRIM TRANSITION TYPES. REF TO SPECS FOR MARBLE THRESHOLDS.

FINISH SCHEDULE NOTES

1. REFER TO INTERIOR ELEVATIONS FOR LOCATION, SIZES & TYPES OF INTERIOR FINISHES.
2. PROVIDE FLOOR OR WALL PATTERNS. REFER TO INTERIOR PLANS (A5.1S) FOR DESIGN DETAILS.
3. PROVIDE ACOUSTIC PANELS. REFER TO INTERIOR ELEVATIONS FOR SIZES & TYPES.
4. REFER TO REFLECTED CEILING PLAN (A10 SERIES DWGS). FOR PAINTED GYP. BD. AND/OR SPECIALTY PORTIONS OF CEILING.
5. PROVIDE ACCENT TILE (CTA) RE: X/A 9.X FOR PATTERN.
6. PROVIDE ACCENT WALL. REFER TO INTERIOR PLANS FOR ACCENT PAINT LOCATIONS
7. AT MDF ROOMS, PROVIDE 8'-0"H, 3/4" PLYWOOD ON ALL WALL SURFACES. PAINT SIDES AND EDGES BLACK.
10. AT ALL STORAGE ROOMS, PROVIDE 2" HIGH, CONTINUOUS RED STRIPE 18" BELOW CEILING OR STRUCTURE. AT 6' INTERVALS (AND NOT LESS THAN ONCE PER WALL) STENCIL THE WORDS "NO STORAGE ABOVE LINE."
11. ABOVE CEILING AT ALL FIRE RATED WALLS, PROVIDE 4" HIGH, STENCIL EVERY 8' AND AT LEAST ONE PER WALL READING "FIRE WALL." IN RED PAINT. ALSO PROVIDE STENCIL AT 10' AFF IN MECHANICAL, HOUSEKEEPING, TECHNOLOGY, ELECTRICAL AND STORAGE SPACES THAT DO NOT HAVE A CEILING. STENCIL IS NOT REQUIRED WHERE THE FIRE WALL DOES NOT HAVE AN ADJACENT CEILING AND THE SPACE IS AN OCCUPIED, FINISHED SPACE.

GENERAL NOTES

A. REFER TO REFLECTED CEILING PLAN (A10 SERIES DWGS). FOR CEILING HEIGHTS & ADDITIONAL INFORMATION.

B. ALL FINISHES SUBJECT TO ARCHITECT'S APPROVAL.

C. REFERENCE FOOD SERVICE DRAWINGS (K SERIES) FOR KITCHEN AND SERVING LINE EQUIPMENT & FINISH INFORMATION.

INTERIOR ELEVATION GENERAL NOTES

1. NUMBERS SHOWN AT CABINETS ARE BASED ON AWI CABINET DESIGN SERIES (CDS) SYSTEM. PROVIDE NUMBER OF SHELVES AS SHOWN.
2. PROVIDE **PLASTIC LAMINATE** ON SPECIFIED CORE AT ALL EXPOSED SURFACES AND EDGES OF CASEWORK, ENDS, ETC. UNLESS OTHERWISED NOTED
3. PROVIDE **PLASTIC LAMINATE** ON COUNTERTOPS, UNLESS OTHERWISE NOTE.
4. **ALL UPPER AND TALL CABINETS THAT DO NOT HAVE A FURR DOWN OVER THEM SHALL HAVE A SLOPED TOP EQUAL TO AWI 426.**
5. EXPOSED WALL UNDER COUNTER TO RECEIVE FINISH AS SCHEDULED
6. ARCHITECT TO SELECT COLORS. CONTRACTOR TO COORDINATE LEAD TIMES FOR ALL MATERIALS TO MAINTAIN PROJECT SCHEDULE
7. ALL SHELVES IN CABINETS AND BOOK CASES SHALL BE ADJUSTABLE, UNLESS OTHERWISE NOTED
8. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATING MILLWORK TO ASSURE PROPER FIT W/ AS-BUILT CONDITIONS
9. VERIFY W/ OWNER EXACT SIZE OF ALL EQUIPMENT FURNISHED BY OWNER FOR PROPER FIT W/ CONTRACTOR SUPPLIED MILLWORK & CASEWORK.
10. MODIFY MILLWORK/CASEWORK AS REQUIRED FOR COLUMN BUMPOUT AND FURRING TO CONCEAL CONDUITS, PIPES ETC. RE: ARCHITECTURAL, STRUCTURAL AND MEP DRAWINGS FOR POTENTIAL LOCATIONS
11. PROVIDE END PANELS AT ALL LOWER CABINET OPENINGS THAT END WITH AN OPEN SPACE FOR AN APPLIANCE OR KNEE SPACE
12. PROVIDE CONTROL JOINTS AS SHOWN AND SPECIFIED
13. REFERENCE WINDOW AND DOOR TYPES AS SPECIFIED FOR EXACT DIMENSIONS AND TYPES OF EACH ITEM
14. REFERENCE BUILDING SECTIONS FOR ADDITIONAL INFORMATION
15. REFER TO **A3S** FOR SIZES & LOCATIONS OF GRAB BARS & OTHER TOILET ACCESSORIES
16. REFER TO **A0.1 & A0.2** FOR REQUIRED MOUNTING HEIGHTS PER T.A.S

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
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REGISTERED ARCHITECT
MICHAEL ADAME
30113
STATE OF TEXAS
DATE: 12/04/2025

PROJECT NO. 25-006
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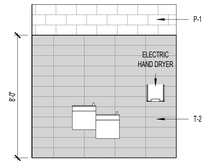
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

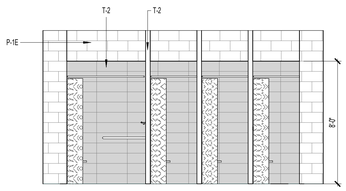
100% CD

A9.01-K
FINISH PLAN
CONCESSIONS AND
INTERIOR ELEVATIONS
KEMPNER HIGH SCHOOL

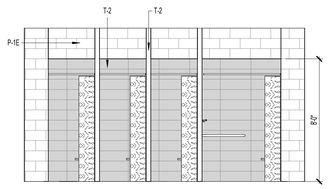
12/4/2025 12:32:36 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath\25-006_KEMPNER_FBISD ATHLETIC RENOVATIONS BP012-K_R25.rvt



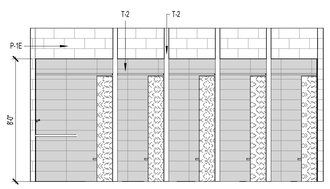
SOPHOMORE LOCKER ROOM EAST 8
SCALE: 1/4" = 1'-0"



VARSITY LOCKER ROOM SHOWERS 7
SCALE: 1/4" = 1'-0"



JR VARSITY LOCKER ROOM SHOWERS 6
SCALE: 1/4" = 1'-0"



SOPHOMORE LOCKER ROOM SHOWERS 5
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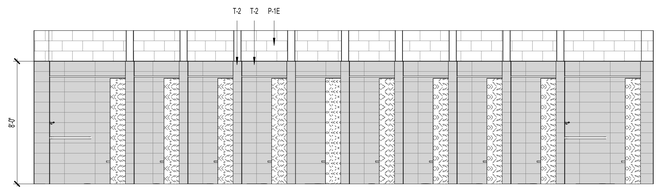

FRESHMAN LOCKER ROOM SHOWERS 4
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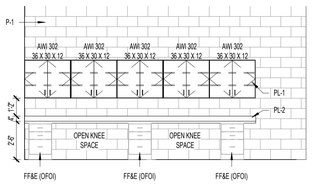
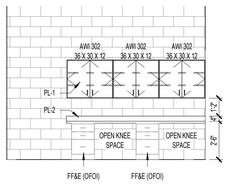
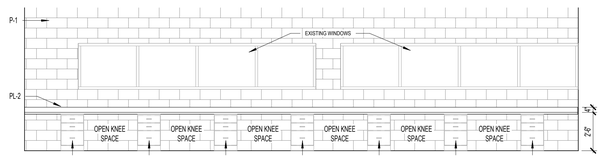
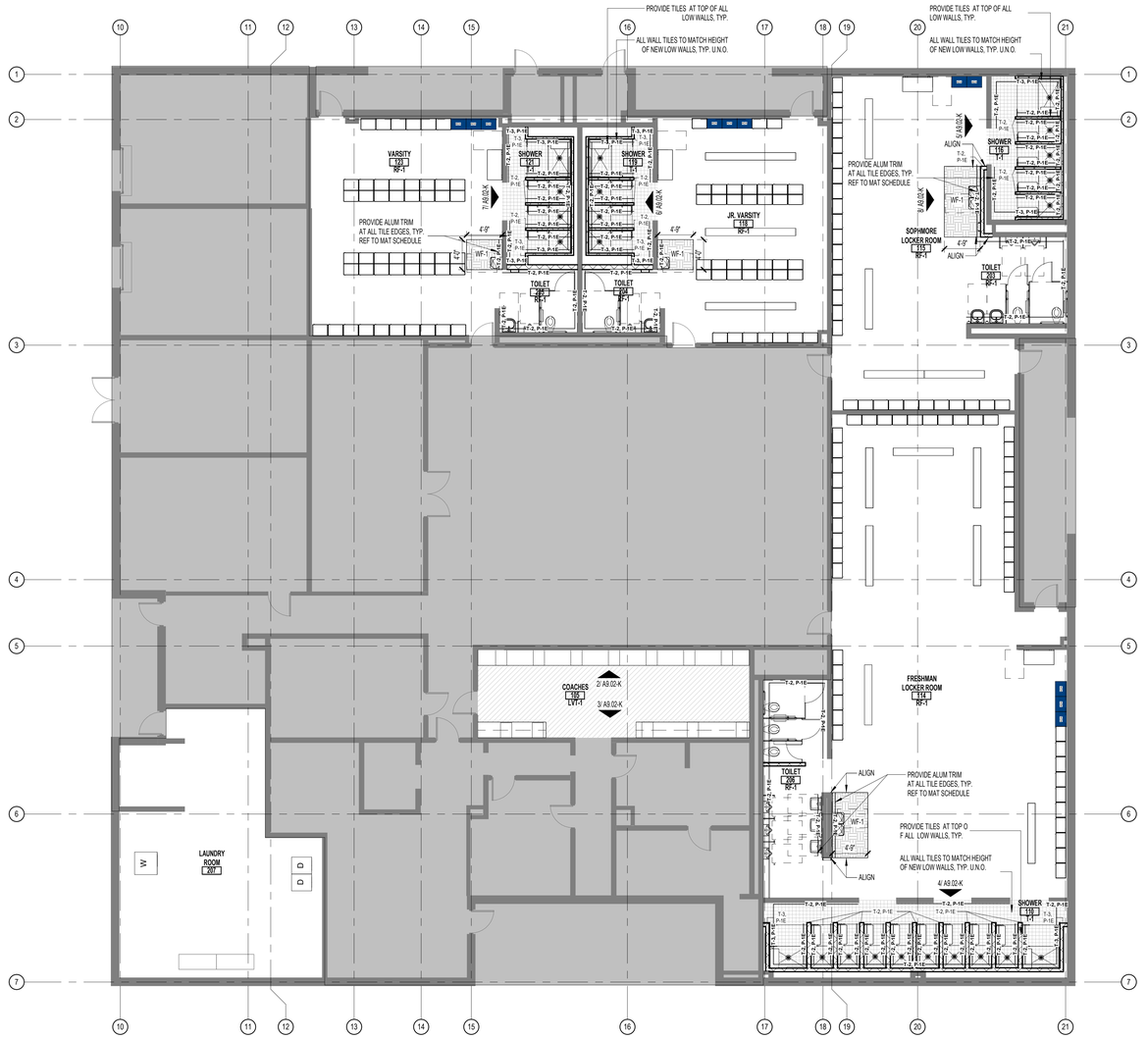




COACHES SOUTH ELEVATION 3
SCALE: 1/4" = 1'-0"



COACHES NORTH ELEVATION 2
SCALE: 1/4" = 1'-0"



01 FIELD HOUSE FINISH PLAN 1
SCALE: 1/8" = 1'-0"

MATERIAL FINISH LEGEND

- T-1 (PORCELAIN TILE)
- RF-1 (RESINOUS FLOORING)
- QT-1 (QUARRY TILE)
- SCONC SEALED CONCRETE
- LVT-1 (LUXURY VYNIL TILE)

PROVIDE CONTROL JOINTS (C.J.) AS SHOWN & AT COLOR CHANGES. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS

SYMBOLS

MW	MARKER WALL - DRY ERASE WALL-COVERING
CJ	CONTROL JOINT*
EJ	EXPANSION JOINT
CG	CORNER GUARD
HLB	HORIZONTAL LOUVER BLINDS
RS	ROLLER SHADES

T-X, P-X — WALL FINISH. REF TO MATERIAL SCHEDULE FOR FINISH TYPE MARKS

ROOM 100 PCON — FLOOR FINISH

* PROVIDE CONTROL JOINTS AS SHOWN. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS. REFER TO STRUCTURAL DWGS FOR DIMENSIONS. AT COLOR TRANSITIONS, PROVIDE SCORE LINE U N.O.

** REFER TO ROOM FINISH SCHEDULE FOR FULL LIST OF FINISH WITHIN ROOM

FLOOR TRANSITIONS

REFER TO MATERIAL SCHEDULE FOR ALUMINUM TRIM TRANSITION TYPES. REF TO SPECS FOR MARBLE THRESHOLDS.

FINISH SCHEDULE NOTES

1. REFER TO INTERIOR ELEVATIONS FOR LOCATION, SIZES & TYPES OF INTERIOR FINISHES.
2. PROVIDE FLOOR OR WALL PATTERNS. REFER TO INTERIOR PLANS (A5.1S) FOR DESIGN DETAILS.
3. PROVIDE ACOUSTIC PANELS. REFER TO INTERIOR ELEVATIONS FOR SIZES & TYPES.
4. REFER TO REFLECTED CEILING PLAN (A10 SERIES DWGS). FOR PAINTED GYP. BD. AND/OR SPECIALTY PORTIONS OF CEILING.
5. PROVIDE ACCENT TILE (CTA) RE: X/A 9.X FOR PATTERN.
6. PROVIDE ACCENT WALL. REFER TO INTERIOR PLANS FOR ACCENT PAINT LOCATIONS.
7. AT MDF ROOMS, PROVIDE 8'-0"H, 3/4" PLYWOOD ON ALL WALL SURFACES. PAINT SIDES AND EDGES BLACK.
10. AT ALL STORAGE ROOMS, PROVIDE 2" HIGH, CONTINUOUS RED STRIPE 18" BELOW CEILING OR STRUCTURE. AT 6' INTERVALS (AND NOT LESS THAN ONCE PER WALL) STENCIL THE WORDS "NO STORAGE ABOVE LINE."
11. ABOVE CEILING AT ALL FIRE RATED WALLS, PROVIDE 4" HIGH, STENCIL EVERY 8' AND AT LEAST ONE PER WALL READING "FIRE WALL." IN RED PAINT. ALSO PROVIDE STENCIL AT 10' AFF IN MECHANICAL, HOUSEKEEPING, TECHNOLOGY, ELECTRICAL AND STORAGE SPACES THAT DO NOT HAVE A CEILING. STENCIL IS NOT REQUIRED WHERE THE FIRE WALL DOES NOT HAVE AN ADJACENT CEILING AND THE SPACE IS AN OCCUPIED, FINISHED SPACE.

GENERAL NOTES

A. REFER TO REFLECTED CEILING PLAN (A10 SERIES DWGS). FOR CEILING HEIGHTS & ADDITIONAL INFORMATION.

B. ALL FINISHES SUBJECT TO ARCHITECT'S APPROVAL.

C. REFERENCE FOOD SERVICE DRAWINGS (K SERIES) FOR KITCHEN AND SERVING LINE EQUIPMENT & FINISH INFORMATION.

INTERIOR ELEVATION GENERAL NOTES

1. NUMBERS SHOWN AT CABINETS ARE BASED ON AWI CABINET DESIGN SERIES (CDS) SYSTEM. PROVIDE NUMBER OF SHELVES AS SHOWN.
2. PROVIDE **PLASTIC LAMINATE** ON SPECIFIED CORE AT ALL EXPOSED SURFACES AND EDGES OF CASEWORK, ENDS, ETC. UNLESS OTHERWISED NOTED
3. PROVIDE **PLASTIC LAMINATE** ON COUNTERTOPS, UNLESS OTHERWISE NOTE.
4. **ALL UPPER AND TALL CABINETS THAT DO NOT HAVE A FURR DOWN OVER THEM SHALL HAVE A SLOPED TOP EQUAL TO AWI 426.**
5. EXPOSED WALL UNDER COUNTER TO RECEIVE FINISH AS SCHEDULED
6. ARCHITECT TO SELECT COLORS. CONTRACTOR TO COORDINATE LEAD TIMES FOR ALL MATERIALS TO MAINTAIN PROJECT SCHEDULE
7. ALL SHELVES IN CABINETS AND BOOK CASES SHALL BE ADJUSTABLE, UNLESS OTHERWISE NOTED
8. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATING MILLWORK TO ASSURE PROPER FIT W/ AS-BUILT CONDITIONS
9. VERIFY W/ OWNER EXACT SIZE OF ALL EQUIPMENT FURNISHED BY OWNER FOR PROPER FIT W/ CONTRACTOR SUPPLIED MILLWORK & CASEWORK
10. MODIFY MILLWORK/CASEWORK AS REQUIRED FOR COLUMN BUMPOUT AND FURRING TO CONCEAL CONDUITS, PIPES ETC. RE: ARCHITECTURAL, STRUCTURAL AND MEP DRAWINGS FOR POTENTIAL LOCATIONS
11. PROVIDE END PANELS AT ALL LOWER CABINET OPENINGS THAT END WITH AN OPEN SPACE FOR AN APPLIANCE OR KNEE SPACE
12. PROVIDE CONTROL JOINTS AS SHOWN AND SPECIFIED
13. REFERENCE WINDOW AND DOOR TYPES AS SPECIFIED FOR EXACT DIMENSIONS AND TYPES OF EACH ITEM
14. REFERENCE BUILDING SECTIONS FOR ADDITIONAL INFORMATION
15. REFER TO **A35** FOR SIZES & LOCATIONS OF GRAB BARS & OTHER TOILET ACCESSORIES
16. REFER TO **A0.1 & A0.2** FOR REQUIRED MOUNTING HEIGHTS PER T.A.S

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
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REVISIONS:

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A9.02-K

FINISH PLAN FIELD HOUSE AND INTERIOR ELEVATIONS

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01 DEMO CEILING PLAN - FIELD HOUSE 2
SCALE: 1/8" = 1'-0"



01 REFLECTED CEILING PLAN - FIELD HOUSE 1
SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA OF FLOOR TO BE PATCHED

DEMOLITION KEY NOTES

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

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14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

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Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

	Date	Description

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A10.00-K
01 CEILING PLAN - FIELD HOUSE

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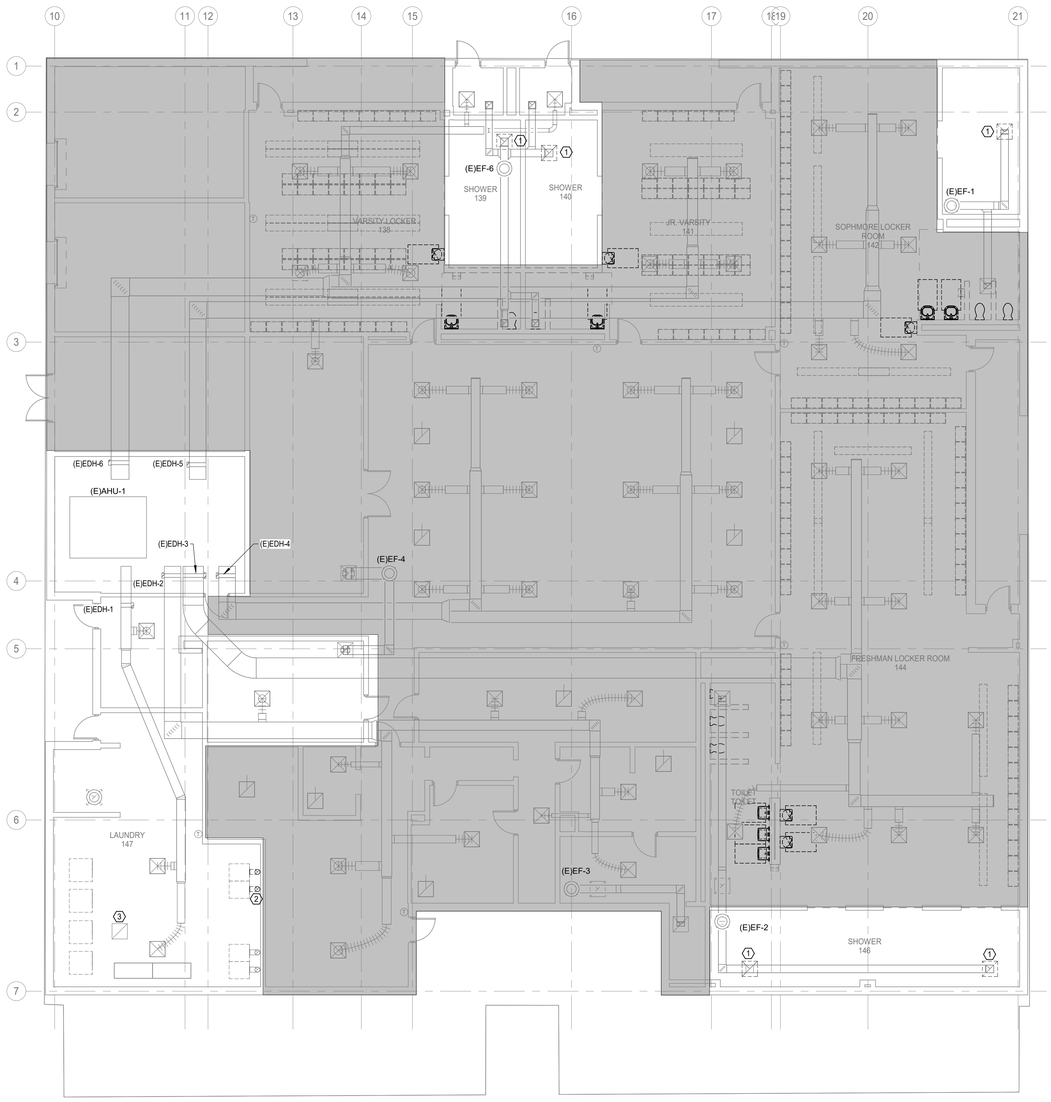
MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, DUST COLLECTORS, AND AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

MECHANICAL DEMOLITION KEYED NOTES

1. EXHAUST DIFFUSER SHALL BE REMOVED.
2. EXISTING DRYER VENT DUCTWORK SHALL BE REMOVED.
3. EXISTING INTAKE SHALL REMAIN.

SYMBOL LEGEND	
⊕	POINT OF CONNECTION FROM NEW TO EXISTING
▭	ITEM TO REMAIN
▭	ITEM TO BE REMOVED



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1 **MECHANCAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

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STATE OF TEXAS
80219
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12/04/2025

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REVISIONS:

No.	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE

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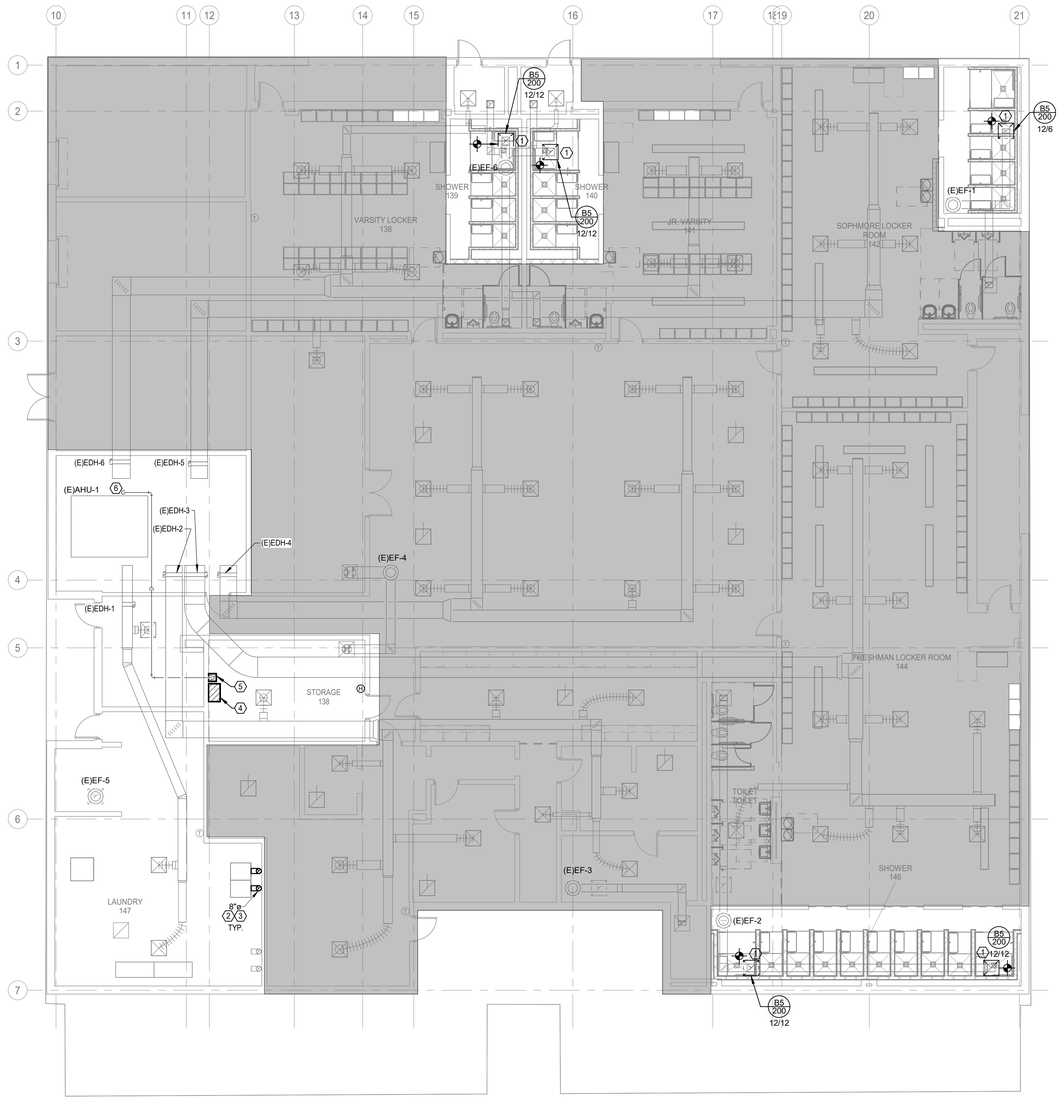
MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR) UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. REPLACE EXHAUST DIFFUSERS AND CONNECT TO EXISTING DUCTWORK. ADD NEW EXHAUST HARD DUCTWORK IF NEEDED TO FINAL CONNECTION.
2. CONNECT NEW DRYER VENT DUCTWORK TO NEW DRYER.
3. ROUTE DRYER VENT DUCTWORK UP TO ROOF. CONNECT TO GOOSENECK.
4. PROVIDE ALORAIRE WALL MOUNTED DEHUMIDIFIER MODEL HD55P AT APPROXIMATE LOCATION SHOWN. COORDINATE FINAL LOCATION WITH ARCHITECT TO AVOID CONFLICTS. DEHUMIDIFIER SHALL BE PROVIDED WITH UNIT MOUNTED HUMIDISTAT AND WALL MOUNTING KIT.
5. PROVIDE WITH LITTLE GIANT CONDENSATE PUMP MODEL VCMA-20ULS-C-PRO, 1/30 HP, 115V/1PH/60HZ. MOUNT PUMP UNDER DEHUMIDIFER UNIT.
6. ROUTE FULL SIZE CONDENSATE DRAIN PIPE TO FLOOR DRAIN.



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1 **MECHANICAL FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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MECHANICAL FLOOR PLAN - LEVEL 1 - FIELD HOUSE

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Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111

Salas O'Brien Project Number: 2550-00810-00

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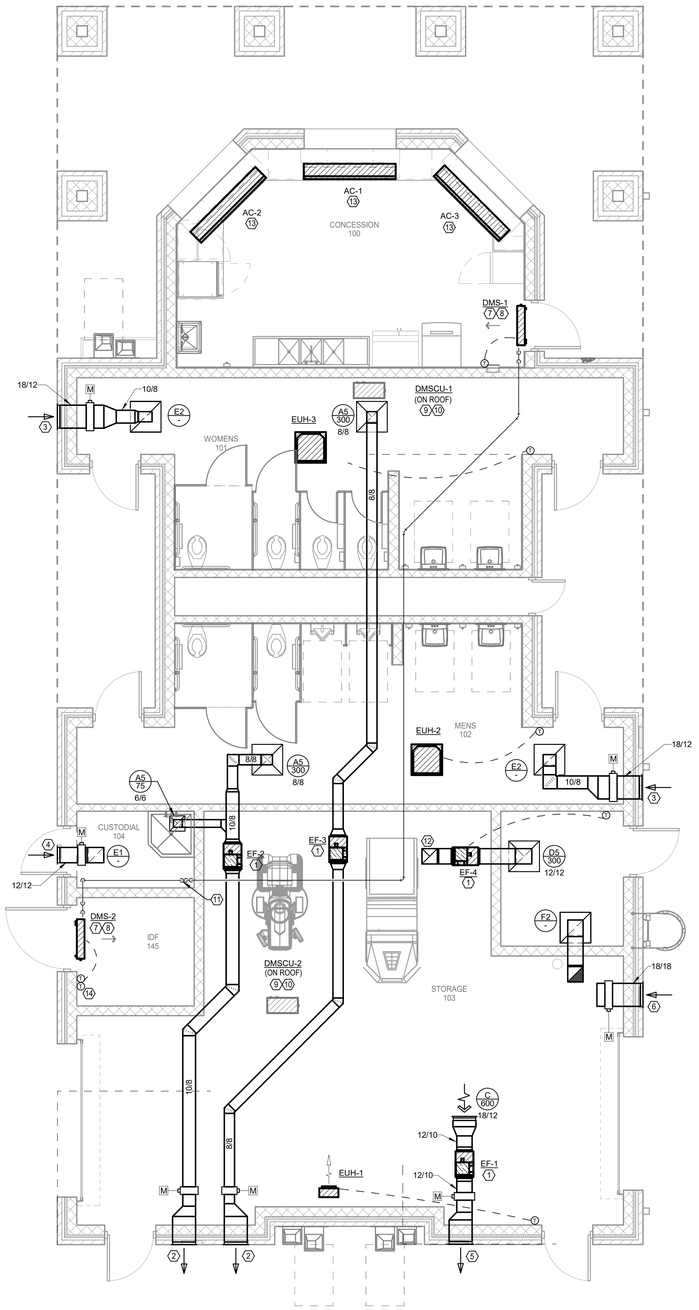

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1 MECHANICAL FLOOR PLAN - LEVEL 1 - CONCESSIONS

Scale: 1/4" = 1'-0"

MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR), UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. VERIFY SERVICE CLEARANCES WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADE NOT TO OBSTRUCT.
2. PROVIDE 18"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF 0.48 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. COORDINATE FINAL LOCATION WITH ARCHITECT.
3. PROVIDE 18"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT OUTSIDE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF 0.48 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. COORDINATE FINAL LOCATION WITH ARCHITECT.
4. PROVIDE 12"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT OUTSIDE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF 0.29 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. COORDINATE FINAL LOCATION WITH ARCHITECT.
5. PROVIDE 18"X 18" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF 0.87 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. COORDINATE FINAL LOCATION WITH ARCHITECT.
6. PROVIDE 18"X 18" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT OUTSIDE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF 0.87 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. COORDINATE FINAL LOCATION WITH ARCHITECT.
7. VERIFY SERVICE CLEARANCES FOR AIR FILTER, FAN SHAFT AND COIL REMOVAL WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADES NOT TO OBSTRUCT.
8. ROUTE REFRIGERANT LINES TO ASSOCIATED CONDENSING UNIT ON GROUND. SIZE LINES PER MANUFACTURER'S RECOMMENDATION.
9. MOUNT ON WIND RESISTANT ROOF CURB. RE: 6/M3.01K FOR MORE INFORMATION.
10. ROUTE REFRIGERANT PIPING TO ASSOCIATED INDOOR UNIT. PROVIDE PIPE SUPPORT.
11. ROUTE FULL SIZE CONDENSATE PIPE TO FLOOR DRAIN.REFER TO PLUMBING DRAWINGS FOR EXACT LOCATION.
12. TRIM EXHAUST AIR OPEN ELBOW 6" BELOW BOTTOM OF STRUCTURE.
13. PROVIDE 6FT LENGTH BERNER AIR CURTAIN MODELL PN260-1U*-OB. ELECTRICAL SHALL BE 208/1/60. INSTALL AS PER MANUFACTURER'S RECOMMENDATION.
14. PROVIDE AND INSTALL NEW BMCS TEMPERATURE SENSOR. SENSOR SHALL BE INTEGRATED TO EXISTING BMCS TO MONITOR ROOM TEMPERATURE AND SEND AN ALARM IF TEMPERATURE IS 2° F ABOVE SETPOINT (ADJUSTABLE).

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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MECHANICAL FLOOR PLAN - LEVEL 1 - CONCESSIONS

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Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
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Salas O'Brien Project Number: 2550-00810-00

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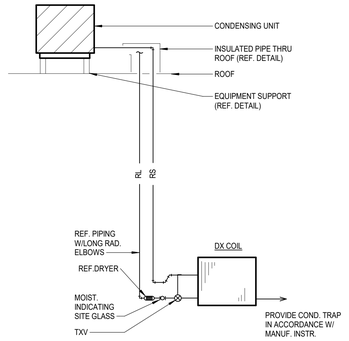
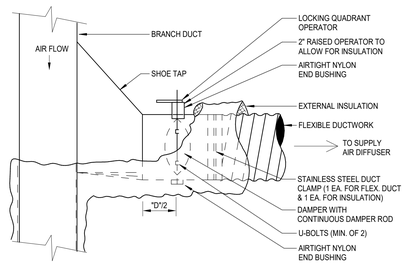


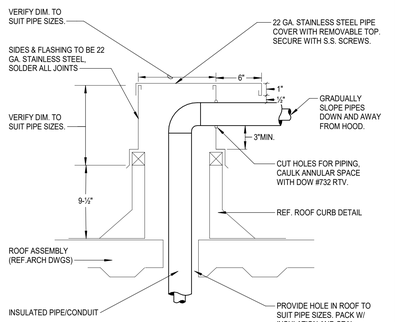
8 REFRIGERANT PIPING DIAGRAM

SCALE: NONE



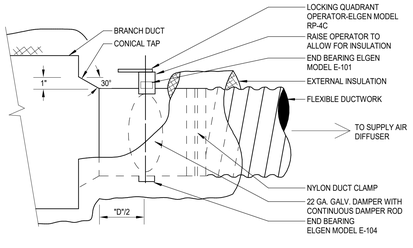
4 FLEXIBLE DUCT TAP - SHOE

SCALE: NONE



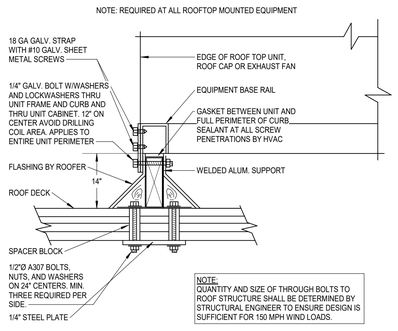
7 INSULATED PIPE THRU ROOF

SCALE: NONE



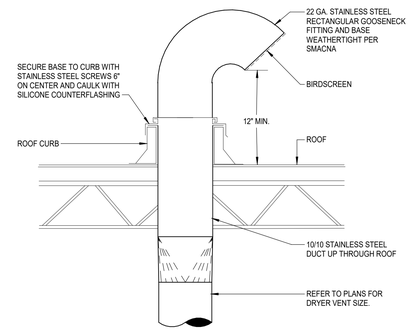
3 FLEXIBLE DUCT TAP - CONICAL

SCALE: NONE



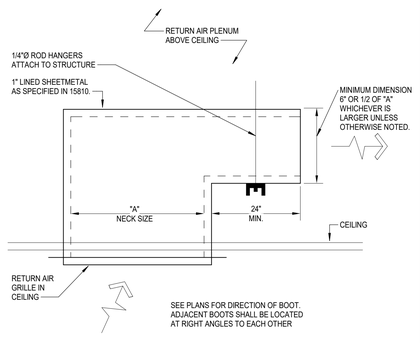
6 WIND RESISTANT EQUIPMENT SUPPORT

SCALE: NONE



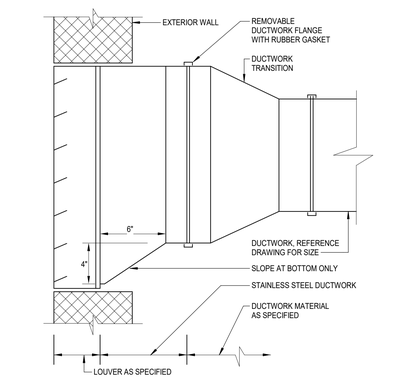
2 VENT THROUGH ROOF

SCALE: NONE



5 RETURN AIR GRILLE BOOT

SCALE: NONE



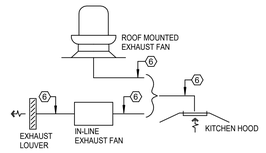
1 DUCTWORK AT LOUVER

SCALE: NONE

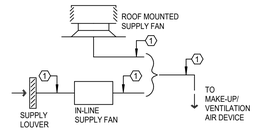
SYMBOL LEGEND

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
GENERAL	
(#)	KEY NOTE TAG
(#)	REVISION TAG
	NEW EQUIPMENT
DUCTWORK	
	SUPPLY AIR DUCTWORK
	RETURN AIR AND OUTSIDE AIR DUCTWORK
	EXHAUST AIR DUCTWORK
	FLEXIBLE DUCTWORK
	SUPPLY AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	RETURN AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	EXHAUST AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	FIRE DAMPER (VERTICAL)
	FIRE DAMPER (HORIZONTAL)
(S)	SMOKE DAMPER (VERTICAL)
(S)	SMOKE DAMPER (HORIZONTAL)
(FS)	COMBINATION FIRE & SMOKE DAMPER (VERTICAL)
FS	COMBINATION FIRE & SMOKE DAMPER (HORIZONTAL)
	MANUAL BALANCING DAMPER (SEE DAMPER SCHEDULE)
M	MOTORIZED DAMPER (SEE DAMPER SCHEDULE)
SENSORS	
(T)	THERMOSTAT AND TEMPERATURE SENSOR
(H)	HUMIDISTAT
SD	SMOKE DETECTOR
HD	HEAT DETECTOR
AIR DEVICES	
(-)	GRILLE SIZE TAG (REFER TO GRILLE SIZE LEGEND)
	SUPPLY AIR GRILLE WITH FOUR-WAY THROW
	SUPPLY AIR GRILLE WITH THREE-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY CORNER THROW
	SUPPLY AIR GRILLE WITH ONE-WAY THROW
	RETURN AIR GRILLE
	RETURN AIR GRILLE WITH SOUND BOOT
	EXHAUST AIR GRILLE
	SUPPLY AIR SIDEWALL GRILLE
	RETURN AIR SIDEWALL GRILLE
20X12	RETURN AIR OPENING ABOVE CEILING
PIPING	
–CWS&R–	CONDENSER WATER SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–CWS–	CONDENSER WATER SUPPLY
–CWR–	CONDENSER WATER RETURN
–CHWS&R–	CHILLED WATER SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–CHWS–	CHILLED WATER SUPPLY
–CHWR–	CHILLED WATER RETURN
–HWS&R–	HOT WATER FOR HYDRONIC HEATING SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–HWS–	HOT WATER FOR HYDRONIC HEATING SUPPLY
–HWR–	HOT WATER FOR HYDRONIC HEATING RETURN
—D—	CONDENSATE DRAIN LINE
—AD—	AUXILIARY CONDENSATE DRAIN LINE
—RLR—	REFRIGERANT LIQUID & GAS RECIRCULATION LINE (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
—RL—	REFRIGERANT LIQUID LINE
—HG—	REFRIGERANT HOT GAS LINE
—RS—	REFRIGERANT SUCTION LINE
	ELBOW UP
	ELBOW DOWN
	90° ELBOW
	45° ELBOW
	TEE
	TEE DOWN
	TEE UP
	TOP BRANCH CONNECTION
	BOTTOM BRANCH CONNECTION
	FLANGE
	CAP
	CONTINUATION
	FLOOR DRAIN (REFER TO PLUMBING DRAWINGS)
	GATE VALVE
	GLOBE VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	BUTTERFLY VALVE WITH OPERATOR
	PLUG VALVE
	TWO-WAY CONTROL VALVE
	THREE-WAY CONTROL VALVE
	PRESSURE REDUCING VALVE
(PD)	PRESSURE RELIEF VALVE
	BALL VALVE
	STRAINER
	UNION
	THERMOMETER WELL
	PETE'S PLUG
	PRESSURE GAUGE
	TEMPERATURE SENSOR IN PIPE
	VENTURI FLOW METER
	FLOW SWITCH
FM	FLOW MEASURING STATION
	EXPANSION JOINT
	FLEXIBLE CONNECTION
G.C.	GAUGE COCK
	SITE GLASS
	DIFFERENTIAL PRESSURE SENSOR
	TURBINE FLOW METER
	ANCHOR
	PIPE GUIDE
SUBSCRIPTS AND ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
CFM	CUBIC FEET PER MINUTE
EA	EXHAUST AIR
FPM	FEET PER MINUTE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR

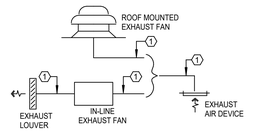
DUCT LINER AND INSULATION



KITCHEN HOOD EXHAUST AIR SYSTEMS



MAKE-UP/VENTILATION AIR SYSTEMS



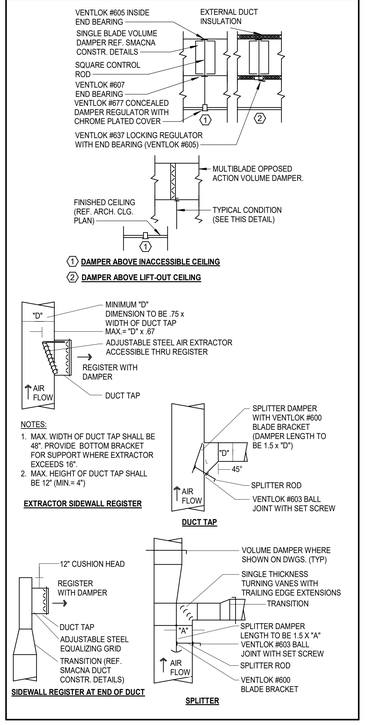
EXHAUST AIR SYSTEMS

KEYED NOTES:

1. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
2. SHEETMETAL DUCTWORK RETURN AIR PLENUM WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
3. FLEXIBLE DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
4. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT DISCHARGE TO 10'-0" DOWNSTREAM.
5. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT INLET TO 10'-0" UPSTREAM.
6. EXHAUST DUCTWORK AS SPECIFIED WITH FIREBOARD INSULATION AS SPECIFIED.
7. SHEETMETAL DUCTWORK ONLY. NO INSULATION REQUIRED.

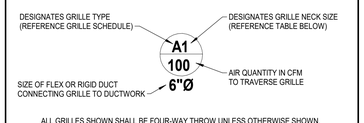
DUCTWORK SYMBOLS LEGEND

DUCTWORK CONSTRUCTION DETAILS



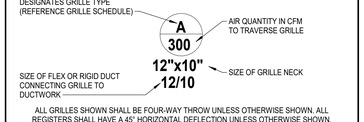
GRILLE SIZING SCHEDULE

STANDARD GRILLE



ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN.

REGISTER OR NONSTANDARD GRILLE



ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN. ALL REGISTERS SHALL HAVE A 45° HORIZONTAL DEFLECTION UNLESS OTHERWISE SHOWN.

GRILLE SIZE DESIGNATION	GRILLE NECK SIZE	GRILLE SIZE DESIGNATION	GRILLE NECK SIZE
1	6" x 6"	7	15" x 15"
2	8" x 8"	8	16" x 16"
3	9" x 9"	9	18" x 18"
4	10" x 10"	10	20" x 20"
5	12" x 12"	11	22" x 22"
6	14" x 14"	12	24" x 24"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

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Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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MECHANICAL SCHEDULES, DETAILS, AND LEGEND

KEMPNER HIGH SCHOOL

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FAN SCHEDULE

TAG	LOCATION	CFM	EXT. STATIC PRESSURE (IN.W.C.)	MAX RPM	HORSE POWER	CURRENT CHAR			LOCALLY SWITCHED	INTERLOCK WITH	FAN TYPE	DRIVE TYPE	MANUFACTURER	MODEL NUMBER	REMARKS
						V	P	F							
EF-1	STORAGE 103	600	0.40	1500	0.25	120	1	60	-	LIGHTS	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6
EF-2	STORAGE 103	375	0.40	1500	0.25	120	1	60	-	LIGHTS	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6
EF-3	STORAGE 103	300	0.40	1312	0.25	120	1	60	-	LIGHTS	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6
EF-4	STORAGE 103	300	0.40	1312	0.25	120	1	60	T-STAT	-	INLINE	DIRECT	COOK	SQND	1,3,4,5,6

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MINIMUM RECOMMENDED CLEARANCE AROUND UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH DISCONNECT.
2. PROVIDE WITH MOTORIZED DAMPER.
3. PROVIDE WITH SPEED CONTROLLER.
4. PROVIDE WITH EC MOTOR.
5. PROVIDE WITH LINE VOLTAGE TSTAT.
6. SUSPEND UNIT WITH FOUR THREADED HANGER RODS ATTACHED TO TWO UNISTRUT RUNNERS SECURED TO STRUCTURE. PROVIDE SPRING ISOLATION. REFER TO MANUFACTURER FOR MORE DETAILS.

GRILLE

MARK	SERVICE	TYPE	DAMPER	CONSTRUCTION MATERIAL	FINISH COLOR	MANUFACTURER	MODEL NUMBER	DESCRIPTION
A	EXHAUST AIR	GRILLE	-	STEEL	-	TITUS	PAR	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" OR 12"X12" FACE. PERFORATED FACE.
B	EXHAUST AIR	GRILLE	-	ALUMINUM	-	TITUS	OMNI-AA	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" OR 12"X12" FACE. PERFORATED FACE.
C	EXHAUST AIR	GRILLE	-	STEEL	-	TITUS	350RL	DOUBLE DEFLECTION SIDEWALL GRILLE WITH HORIZONTAL FRONT BARS. SURFACE MOUNTED (1)
D	EXHAUST AIR	GRILLE	-	STEEL	-	TITUS	PAR	SURFACE MOUNT CEILING FRAME STYLE WITH 18"X18" OR 12"X12" FACE. PERFERATED FACE.
E	RETURN AIR	GRILLE	-	STEEL	-	TITUS	PAR	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" FACE. PERFORATED.
F	RETURN AIR	GRILLE	-	STEEL	-	TITUS	PAR	SURFACE MOUNT CEILING FRAME STYLE WITH 24"X24".

GENERAL NOTES:
1. DAMPERS NOTED AS U.L. SHALLBE A 'U.L.' CLASSIFIED CEILING RADIATION DAMPER WITH THERMAL BLANKET.
2. COORDINATE FINAL AIR DEVICE LOCATION AND FINISH COLOR WITH ARCHITECT.

REMARKS:
1. N/A

AIR CURTAIN

TAG	LOCATION	CFM	EXT. STATIC PRESSURE (IN.W.C.)	MAX RPM	HORSE POWER	CURRENT CHAR			LOCALLY SWITCHED	MANUFACTURER	MODEL NUMBER	REMARKS
						V	P	F				
AC-1	CONCESSION 100	1960	0.20	3260	0.2	120	1	60	MAG SWITCH	POWERED AIRE	EVE-2-72	1,2,3,4
AC-2	CONCESSION 100	1960	0.20	3260	0.2	120	1	60	MAG SWITCH	POWERED AIRE	EVE-2-72	1,2,3,4
AC-3	CONCESSION 100	1960	0.20	3260	0.2	120	1	60	MAG SWITCH	POWERED AIRE	EVE-2-72	1,2,3,4

GENERAL NOTES:
1. MINIMUM RECOMMENDED CLEARANCE AROUND UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE TOP MOUNT FROM STRUCTURE WITH FOUR 3/8 GALVANIZED THREADED RODS. COORDINATE FINAL UNIT LOCATION AND MOUNTING METHOD WITH THE ARCHITECT. CONTRACTOR SHALL PROVIDE ALL REQUIRED MOUNTING HARDWARE AND ACCESSORIES. INSTALL IN COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION MANUAL AND APPROVED MOUNTING DETAILS.
2. PROVIDE WITH UNIT MOUNTED VARIABLE SPEED SWITCH.
3. PROVIDE WITH FILTER.
4. PROVIDE WITH SM300 MAG SWITCH WITH TIME DELAY.

UNIT HEATER - ELECTRIC

MARK	MINIMUM CAPACITY (BTUH)	KW	NUMBER OF STAGES	CURRENT CHAR.			CFM	MANUFACTURER	MODEL	REMARKS
				V	P	F				
EUH-1	17,065	5	2	480	3	60	480	REZNOR	EUH	1,2
EUH-2	17,075	5	2	480	3	60	310	REZNOR	ECR	1,2
EUH-3	17,075	5	2	480	3	60	310	REZNOR	ECR	1,2

REMARKS:
1. PROVIDE WITH WALL MOUNTED THERMOSTAT.
2. PROVIDE WITH DISCONNECT SWITCH.

DAMPER

MARK	ACTUATOR	DUTY	BLADE ACTION	MANUFACTURER	MODEL NUMBER	REMARKS
D-1	MANUAL BALANCING	UNDER 9" WIDE	N/A	N/A	N/A	SEE SMACNA CONSTRUCTION DETAILS REFERENCED "TYPICAL CONSTRUCTION DETAILS FOR LOW VELOCITY DUCTS."
D-2	MANUAL BALANCING	OVER 9" WIDE	OPPOSED	RUSKIN	MD-35	MANUAL DAMPER WITH STANDARD CONSTRUCTION FEATURES AND VENTLOCK #639 LOCKING REGULATOR.
D-3	MOTORIZED	OVER 9" WIDE	OPPOSED	RUSKIN	CD-60	LOW LEAKAGE DAMPER WITH BLADE SEALS

NOTES:
N/A - NOT APPLICABLE

DUCTLESS MINI-SPLIT - INDOOR UNIT

MARK	FAN				CURRENT CHARAC			AIR TEMPERATURE (°F)		COOLING			HEATING			REMARKS
	SUPPLY AIR CFM	OUTSIDE AIR CFM	EXT.STATIC PRESSURE (IN. W.C.)	HORSE POWER	V	P	F	ENTERING DRY BULB	ENTERING WET BULB	MIN. TOTAL CAPACITY (BTUH)	MIN. SENS. CAPACITY (BTUH)	MINIMUM EER/ SEER	ENTERING AIR TEMP.(°F)	MINIMUM CAPACITY (BTUH)	KW	
DMS-1	370	0	0.10	40.0	208	1	60	75.0	62.5	17,100	13,680	-/15.2	72	7,290	2	1,2,3,4,5,6,7
DMS-2	370	0	0.10	40.0	208	1	60	75.0	62.5	17,100	13,680	-/15.2	0	0	0	1,2,3,4,5,6,8

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MAINTAIN MINIMUM CLEARANCE FOR COIL PULL AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. UNIT TO BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. CONTROLLED BY PROGRAMMABLE WIRED THERMOSTAT.
3. REFRIGERANT LINES TO BE SIZED PER MANUFACTURER'S REQUIREMENTS.
4. INDOOR UNIT IS POWERED FROM OUTDOOR UNIT.
5. PROVIDE MODEL "MINI WHITE" CONDENSATE PUMP BY ASPEN PUMPS OR APPROVED EQUAL TO BE FITTED BENEATH AND EXTERNALLY FROM HIGH WALL INDOOR UNIT. CONDENSATE PUMP SHALL BE PROVIDED WITH A HIGH LEVEL SAFETY SWITCH WIRED TO DEACTIVATE INDOOR HIGH WALL UNIT IN THE EVENT OF PUMP FAILURE OR OBSTRUCTED CONDENSATE LINE. REFER TO MANUFACTURER INSTALLATION INSTRUCTIONS OF ADDITIONAL INFORMATION.
6. PROVIDE CONDENSATE OVERFLOW SWITCH TO DEACTIVATE UNIT IN THE EVENT OF AN OVERFLOW CONDITION.
7. HEAT PUMP WALL MOUNTED UNIT.
8. COOLING ONLY WALL MOUNTED UNIT.

DUCTLESS MINI-SPLIT - OUTDOOR UNIT

MARK	MIN. TOTAL CAPACITY (BTUH)	OUTDOOR AIR TEMP (°F)	MINIMUM EER/ SEER	CURRENT CHARAC.			RELATED UNIT MARK	REMARKS
				V	PH	F		
DMSCU-1	17,100	95	-/15.2	208	1	60	DMS-1	1,2,3
DMSCU-2	17,100	95	-/15.2	208	1	60	DMS-1	1,2,3

GENERAL NOTES:
1. MINIMUM RECOMMENDED CLEARANCE AROUND ROOFTOP UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE FOR CONDENSER AIR FLOW AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH LOW AMBIENT CONTROL DOWN TO 20°F.
2. PROVIDE WITH DISCONNECT SWITCH.
3. REFRIGERANT LINES TO BE SIZED PER MANUFACTURER'S REQUIREMENTS.

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

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14777 Voss Rd, Sugar Land, TX 77498
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12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY Author CHECKED BY Checker
REVISIONS:
	Date	Description

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MECHANICAL SCHEDULES

KEMPNER HIGH SCHOOL

12/3/2025 7:00:48 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/KEMPNER_MEPT_R25.rvt

FIRE DETECTION AND ALARM SYSTEM:

- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

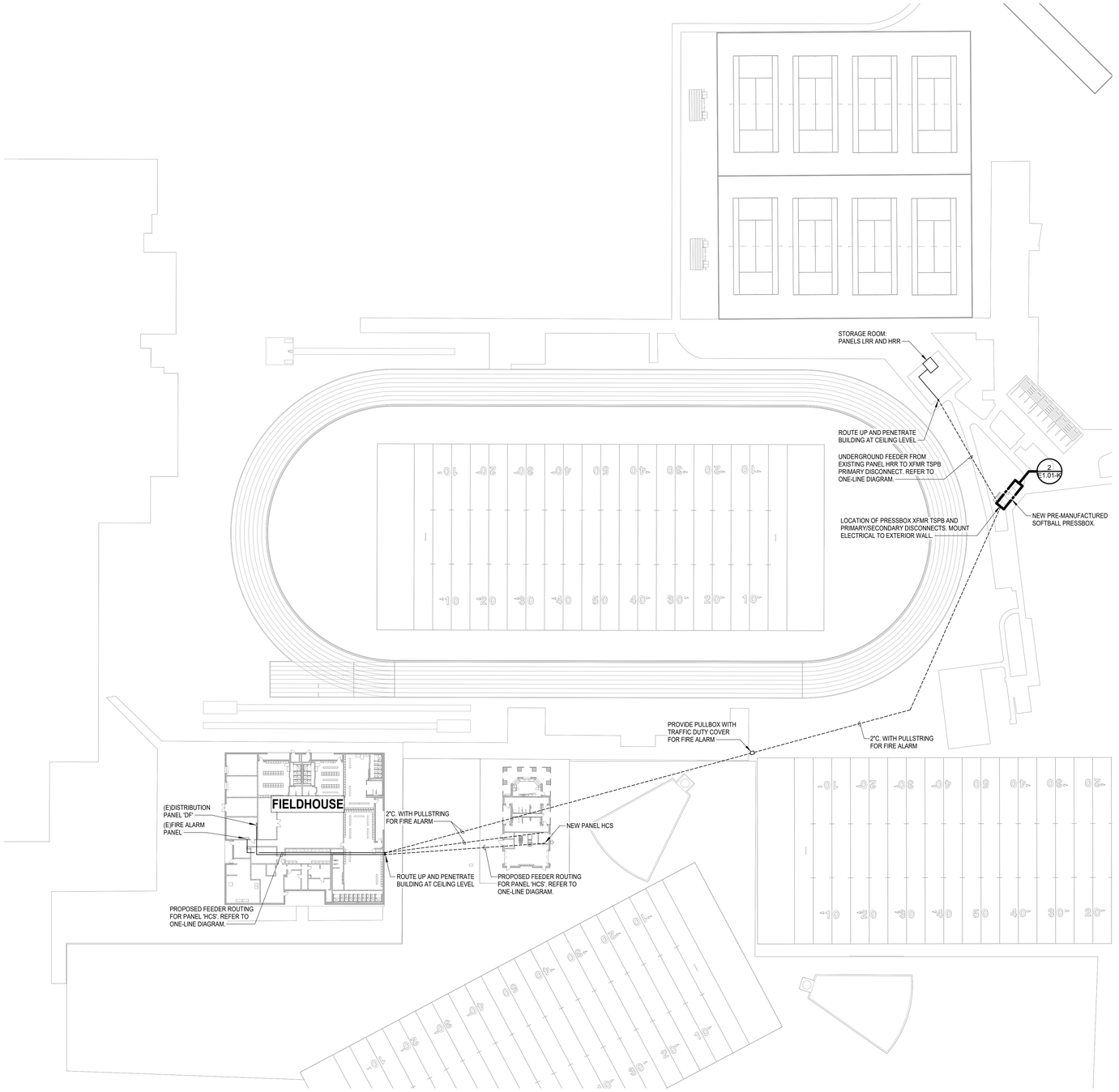
OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF NEW CONDUITS WITH ALL OTHER TRADES PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO CIVIL DRAWINGS FOR FINAL ROUTING AND DEPTH OF ALL UNDERGROUND UTILITIES.
3. REFER TO TECHNOLOGY DRAWINGS, DIVISION 27 AND 28 FOR TELECOMMUNICATION PATHWAYS AND OTHER REQUIREMENTS TO PROVIDED BY DIVISION 26.
4. CONTRACTOR IS RESPONSIBLE OF CALLING 811 TO HAVE ALL EXISTING UTILITIES MARKED PRIOR TO DIGGING.

ELECTRICAL KEYED NOTES:

1. PROVIDE A JUNCTION BOX AT +54"AFF FOR CONNECTION OF FIRE ALARM BOOSTER PANEL. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
2. DEDICATED DOUBLE DUPLEX RECEPTACLE FOR CONNECTION OF WALL MOUNTED DATA RACK. VERIFY EXACT LOCATION WITH DIVISION 27.
3. DEDICATED DOUBLE DUPLEX RECEPTACLE FOR CONNECTION OF A/V EQUIPMENT RACK. VERIFY EXACT LOCATION WITH DIVISION 27.
4. ROUTE 2#12, 1#12G., 3/4"C. TO NEW 20A/1P CIRCUIT BREAKER IN PRESSBOX PANELBOARD.



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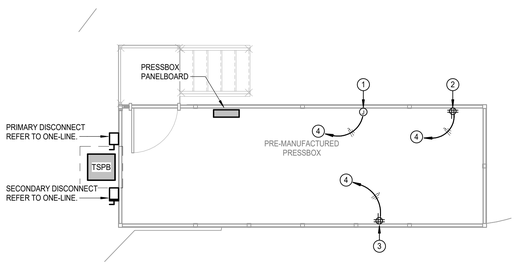
1 **ELECTRICAL SITE PLAN**
Scale: 1" = 40'-0"



N

2 **ELECTRICAL PLAN - SOFTBALL PRESSBOX**
Scale: 1/4" = 1'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:

No.	Date	Description

100% CD

E1.01-K

ELECTRICAL SITE PLAN

KEMPNER HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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LINETYPE LEGEND	
———	EXISTING TO REMAIN
- - - - - -	DISCONNECT AND REMOVE

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

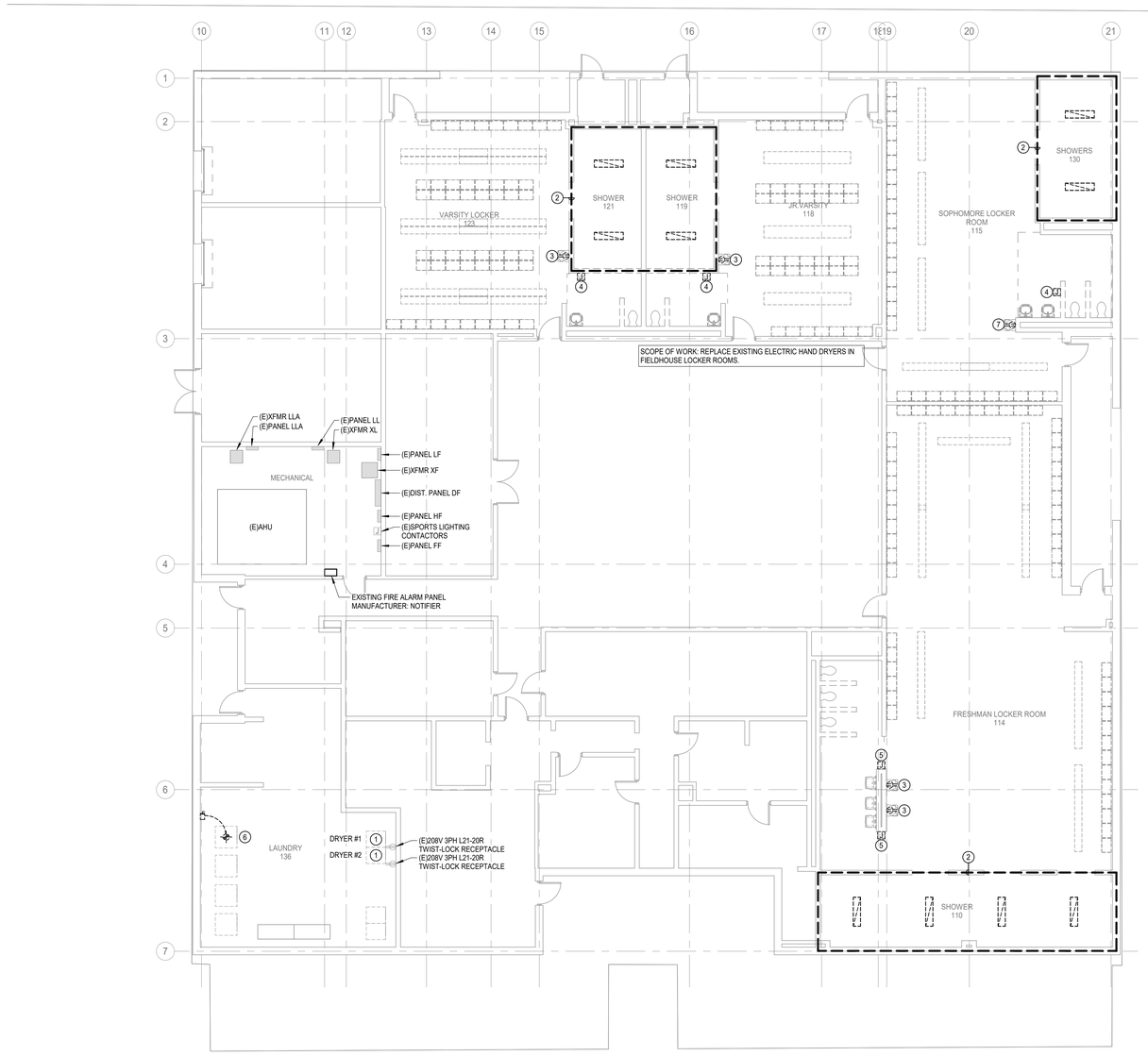
OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

1. DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
2. DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
3. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC...SHALL REMAIN.
4. DISCONNECT AND REMOVE ALL ELECTRICAL FROM WALLS SCHEDULED TO BE DEMOLISHED AND AS SHOWN. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT EXTENT OF WALL DEMOLITION.
5. EXCEPT AS OTHERWISE NOTED, ELECTRICAL WORK OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS. OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. ANY CONDUITS OUT OF MASONRY SURFACE SHALL BE CUT INTO SURFACE AND PATCHED.
6. CONTRACTOR TO FILL IN ALL HOLES LEFT BY THE DEMOLITION OF EXISTING CONDUIT PENETRATIONS.

ELECTRICAL KEYED NOTES:

1. DISCONNECT ELECTRICAL TO EXISTING COMMERCIAL DRYER, EXISTING RECEPTACLE SHALL REMAIN FOR CONNECTION OF NEW DRYER.
2. DISCONNECT AND REMOVE EXISTING RECESSED LIGHTING FIXTURES AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX ABOVE CEILING. LEAVE CIRCUITRY INTACT FOR RE-USE.
3. DISCONNECT AND REMOVE EXISTING WIRING DEVICE. EXISTING OUTLET BOX SHALL REMAIN AND SHALL BE RE-USED AS PRACTICAL FOR NEW WIRING DEVICE.
4. DISCONNECT AND REMOVE ELECTRICAL TO EXISTING HAND DRYER AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX ABOVE CEILING. LEAVE CIRCUITRY INTACT FOR RE-USE.
5. DISCONNECT AND REMOVE ELECTRICAL TO EXISTING HAND DRYER, LEAVE CIRCUITRY INTACT FOR CONNECTION OF NEW HAND DRYER.
6. DISCONNECT ELECTRICAL TO EXISTING COMMERCIAL WASHER AND ASSOCIATED CONDUIT/WIRE BACK TO DISCONNECT SWITCH; REPLACE DISCONNECT WITH NEW.
7. DISCONNECT AND REMOVE ELECTRICAL TO EXISTING ELECTRIC DRINKING FOUNTAIN AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX ABOVE CEILING. LEAVE CIRCUITRY INTACT FOR RE-USE. PROVIDE OUTLET BOX WITH BLANK STAINLESS STEEL COVER PLATE.



N

1 **ELECTRICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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No.	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

100% CD

E2.01-K

ELECTRICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE

KEMPNER HIGH SCHOOL

12/3/2025 7:00:52 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/KEMPNER_MEPT_R25.rvt

FIRE DETECTION AND ALARM SYSTEM:

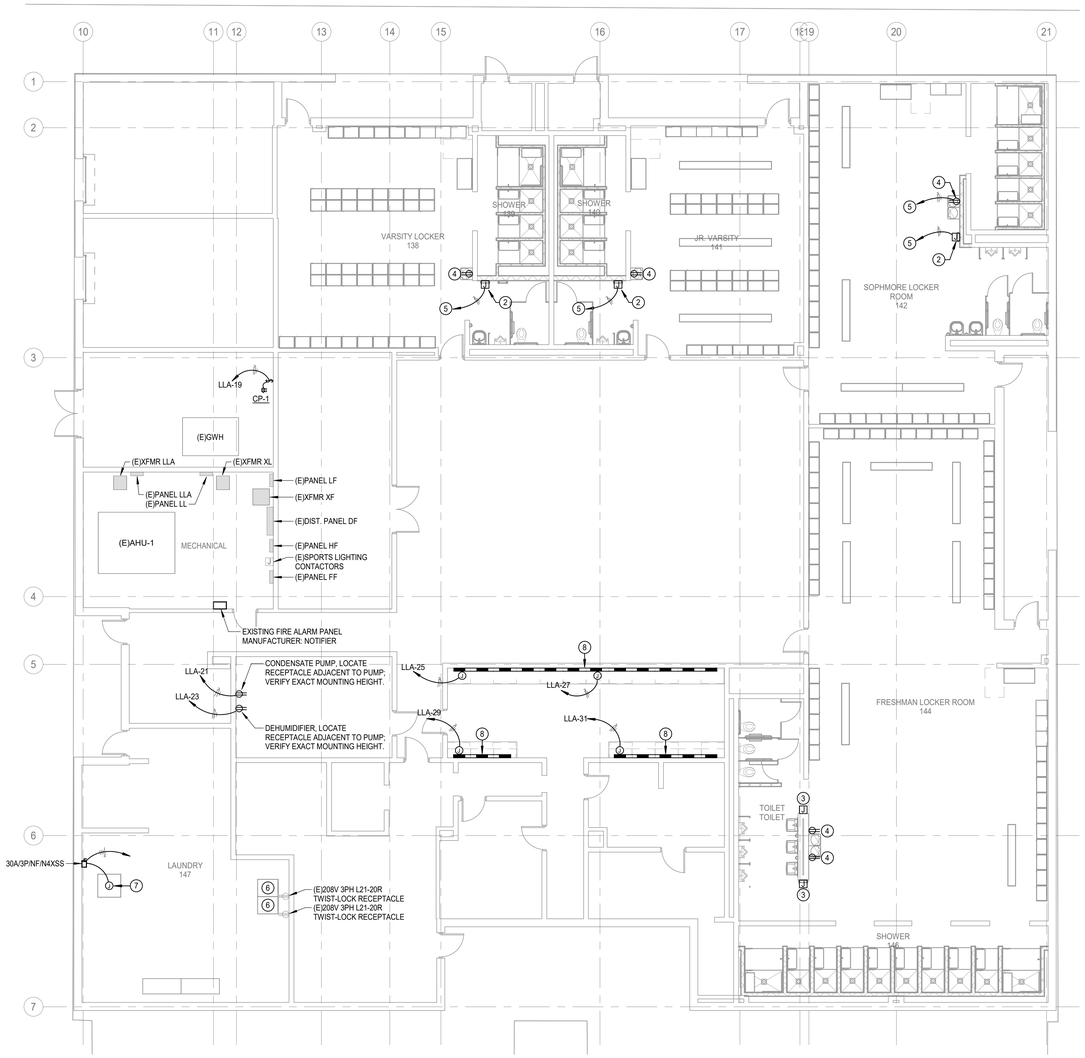
- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL KEYED NOTES:

1. CONNECT NEW LIGHT FIXTURES TO EXISTING CIRCUITRY PRESERVED DURING DEMOLITION. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT TO EXISTING LOCATION AND/OR NEW FIXTURES. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 15-AMPERES.
2. PROVIDE A JUNCTION BOX FOR CONNECTION OF NEW ELECTRIC HAND DRYER. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION; PROVIDE CIRCUIT BREAKER WITH NEW "LOCK-OFF" DEVICE.
3. EXISTING ELECTRIC HAND DRYER LOCATION; CONNECT REPLACEMENT HAND DRYER TO EXISTING CIRCUITRY PRESERVED DURING DEMOLITION. PROVIDE CIRCUIT BREAKER WITH NEW "LOCK-OFF" DEVICE.
4. PROVIDE NEW DUPLEX RECEPTACLE FOR DRINKING FOUNTAIN; PROVIDE CIRCUIT BREAKER WITH NEW 20A/1P GFCI.
5. CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
6. NEW COMMERCIAL DRYER LOCATION; PROVIDE DRYER WITH TWIST-LOCK CORD/PLUG TO MATCH EXISTING RECEPTACLE CONNECTION.
7. NEW COMMERCIAL WASHER LOCATION; CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
8. PROVIDE SURFACE MOUNTED DUAL-CHANNEL RACEWAY CAPABLE OF HOUSING POWER AND TECHNOLOGY WIRING DEVICES. PROVIDE DUPLEX RECEPTACLE EVERY 3'-0" O.C.; WIREMOLD #AL5200-SERIES

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC., SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.
4. LOCATION OF NEW / REPLACEMENT LIGHT FIXTURES SHALL RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTURE WHIPS AS PRACTICAL. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT AND PROVIDE NEW J-BOX ABOVE ACCESSIBLE CEILING WITH ½-INCH FLEXIBLE STEEL CONDUIT OR STEEL MC CABLE, LENGTH NOT TO EXCEED 6-FEET, 'DAISY CHAINING'LIGHT FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS NOT ALLOWED. FOR NON-ACCESSIBLE CEILINGS, LIGHT FIXTURE WHIPS SHALL BE ½-INCH FLEXIBLE STEEL CONDUIT, LENGTH AS REQUIRED TO MAKE A TAP AT AN ACCESSIBLE J-BOX. RECESSED LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MAY BE DAISY CHAINED USING THE LIGHT FIXTURE'S INTEGRAL, UL LISTED J-BOX OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THROUGH FIXTURE FROM BELOW THE CEILING. REFER TO SPECIFICATION SECTION 26 05 33 CONDUIT SYSTEMS.
5. LIGHTING CONTROLS WHERE PROVIDED SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
6. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
7. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED; CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.
8. SPACES WITH MULTIPLE OCCUPANCY / VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
9. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.
10. CONTRACTOR SHALL PROVIDE CONSTANT UNSWITCHED POWER FOR BATTERY PACKS AND / OR EXIT SIGNAGE.



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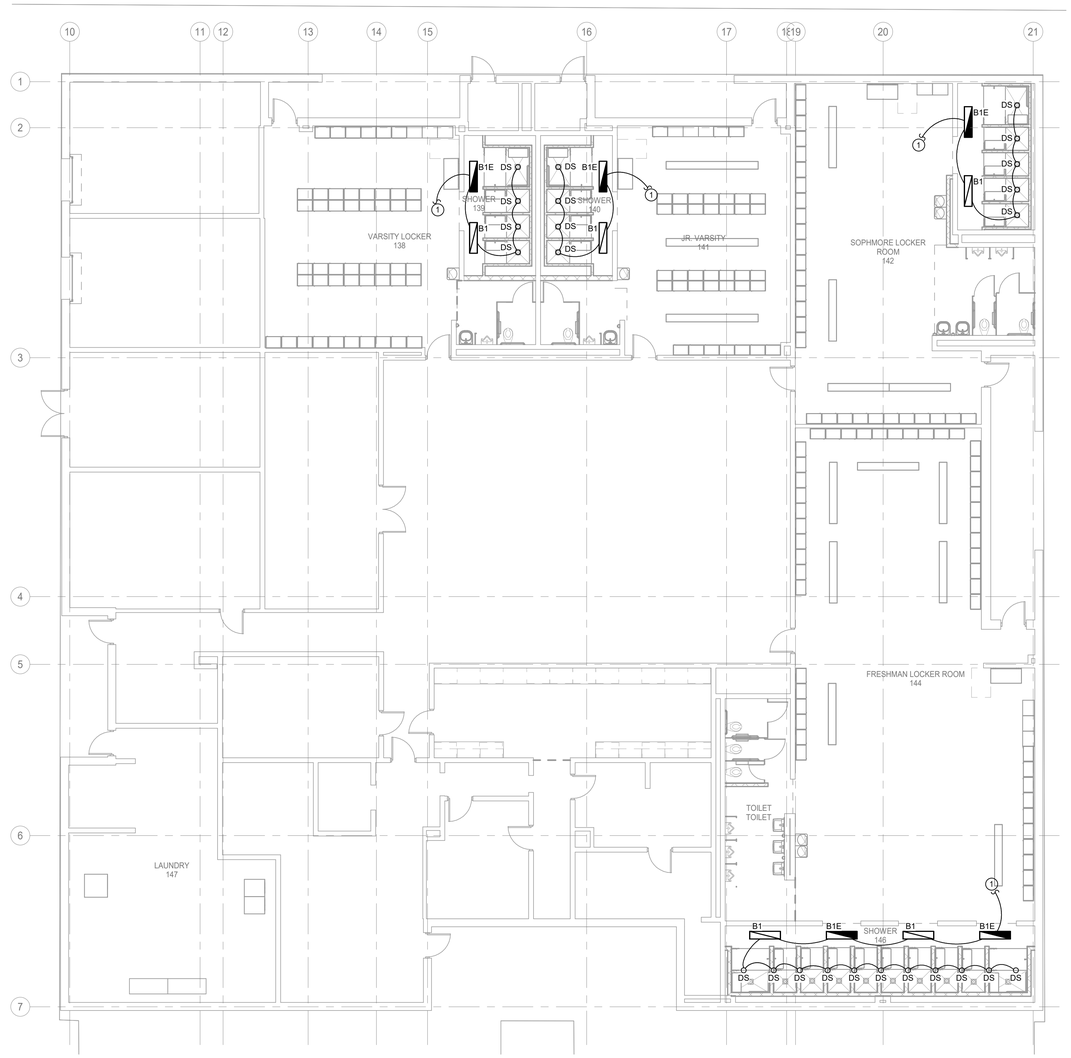
2 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - FIELD HOUSE

Scale: 1/8" = 1'-0"



N

1 ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - FIELD HOUSE

Scale: 1/8" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1174
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BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:

No.	Date	Description

100% CD

E3.02-K

ELECTRICAL FLOOR PLANS - LEVEL 1 - FIELD HOUSE

KEMPNER HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 7:00:55 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/KEMPNER_MEPT_R25.rvt

FIRE DETECTION AND ALARM SYSTEM:

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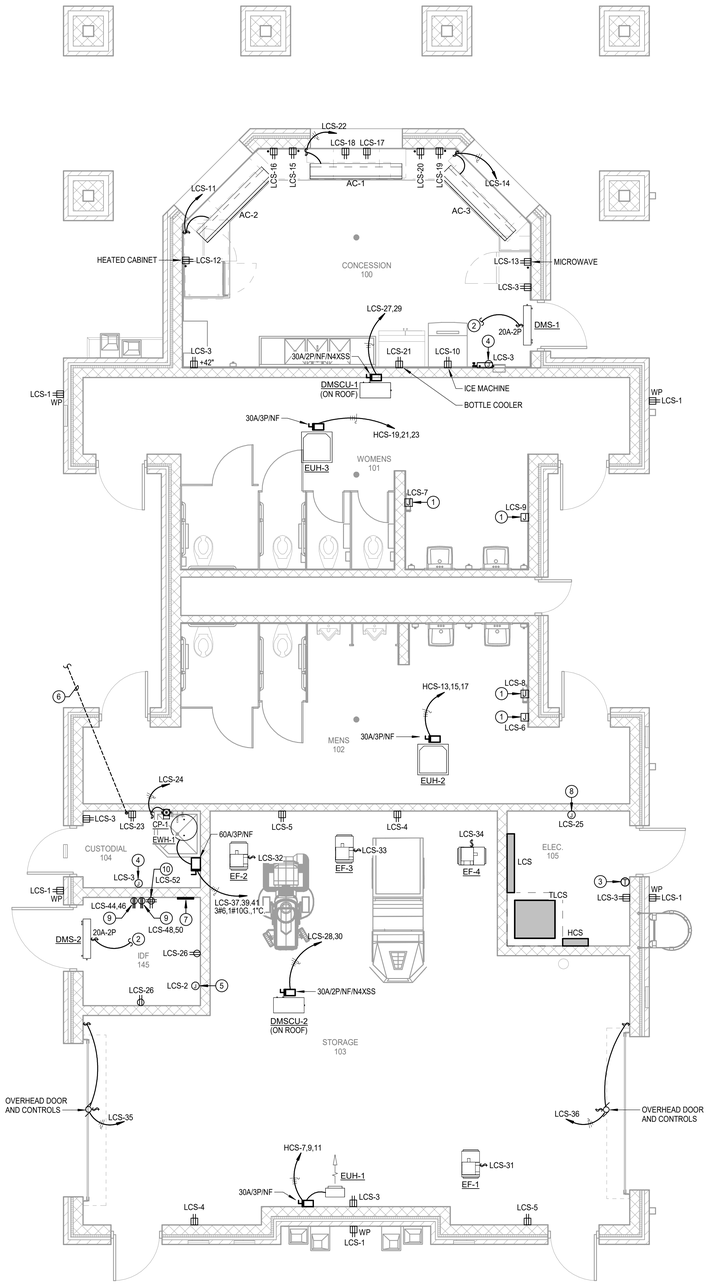
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL GENERAL NOTES:

1. LIGHTING CONTROLS SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
2. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED POWER FOR EMERGENCY BATTERY PACKS AND / OR EXIT SIGNS.
3. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
4. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED, CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.
5. SPACES WITH MULTIPLE OCCUPANCY / VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
6. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.
7. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
8. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.

ELECTRICAL KEYED NOTES:

1. PROVIDE A JUNCTION BOX FOR CONNECTION OF NEW ELECTRIC HAND DRYER. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
2. ROUTE 2#12,1#12G..3/4"C. FROM INDOOR DMS MINISPLIT TO ASSOCIATED OUTDOOR DMSCU; INDOOR UNIT IS POWERED BY OUTDOOR UNIT.
3. LINE VOLTAGE THERMOSTAT PROVIDED BY DIVISION 23, INSTALLED BY DIVISION 26. MAKE FINAL CONNECTION TO FAN.
4. PROVIDE A JUNCTION BOX FOR CONNECTION OF ELECTRONIC TRAP PRIMER. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
5. PROVIDE A JUNCTION BOX FOR CONNECTION OF ACCESS CONTROL PANEL. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
6. ROUTE (1)1"C. W/ PULLSTRING TO GREASE TRAP FOR HIGH LEVEL ALARM CABLING. PROVIDE SEALS AT EACH END. REFER TO PLUMBING.
7. PROVIDE GROUNDING BUS BAR. REFER TO GROUNDING SPECIFICATIONS AND TECHNOLOGY DRAWINGS FOR ADDITIONAL SCOPE OF WORK.
8. PROVIDE A JUNCTION BOX FOR CONNECTION OF FIRE ALARM BOOSTER PANEL. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
9. PROVIDE NEMA L6-30R RECEPTACLE LOCATED BEHIND DATA RACK. COORDINATE EXACT MOUNTING LOCATION WITH OWNER.
10. PROVIDE NEMA 5-20R DOUBLE DUPLEX RECEPTACLE LOCATED BEHIND DATA RACK. COORDINATE EXACT MOUNTING LOCATION WITH OWNER.



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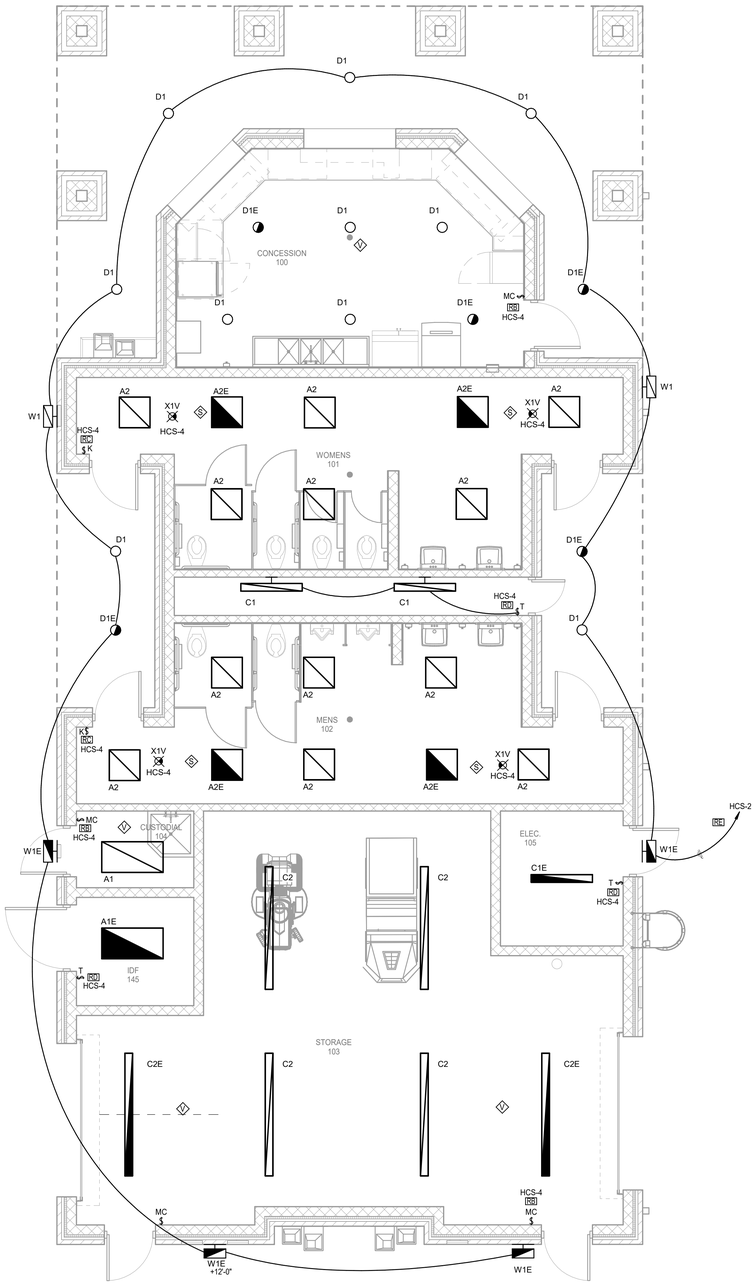
2 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - CONCESSIONS

Scale: 1/4" = 1'-0"



N

1 ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - CONCESSIONS

Scale: 1/4" = 1'-0"

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BRADLEY KALMANS — STATE OF TEXAS — 80219 — LICENSED PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY:	CHECKED BY:

REVISIONS:

No.	Date	Description

100% CD

E3.04-K

ELECTRICAL FLOOR PLANS - LEVEL 1 - CONCESSIONS

KEMPNER HIGH SCHOOL

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10930 W. Sam Houston Pkwy North, Suite 900
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12/3/2025 7:00:59 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/KEMPNER_MEPT_R25.rvt

Branch Panel: LLA — EXISTING

Location: MECH. 124A
Supply From:
Mounting: Surface
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 10,000
Enclosure: Type 1
Mains: 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
--	1	(E)RECEPTACLES	--	20 1	0.0 / 0.0			1	20 --	(E)RECEPTACLES	2	--
--	3	(E)RECEPTACLES	--	20 1		0.0 / 0.0		1	20 --	(E)RECEPTACLES	4	--
--	5	(E)RECEPTACLES	--	20 1			0.0 / 0.0	1	20 --	(E)RECEPTACLES	6	--
--	7	(E)RECEPTACLES	--	20 1	0.0 / 0.0			1	20 --	(E)RECEPTACLES	8	--
--	9	(E)RECEPTACLES	--	20 1		0.0 / 0.0		1	20 --	(E)RECEPTACLES	10	--
--	11	(E)RECEPTACLES	--	20 1			0.0 / 0.0	1	20 --	(E)RECEPTACLES	12	--
--	13	(E)RECEPTACLES	--	20 1	0.0 / 0.0			1	20 --	(E)RECEPTACLES	14	--
--	15	(E)ICE MACHINE	--	30 2		0.0 / 0.0		1	20 --	(E)RECEPTACLES	16	--
--	17						0.0 / 0.0	1	20 --	SPARE	18	--
1	19	**Circ Pump, CP-2**	#12	20 1	0.1 / 0.0			1	20 --	SPARE	20	--
1	21	**Condensate Pump**	#12	20 1		0.5 / 0.0		1	20 --	SPARE	22	--
1	23	**Dehumidifier**	#12	20 1			0.5 / 0.0	1	20 --	SPARE	24	--
1	25	**Plugload Receptacles**	#12	20 1	1.0 / 0.0			1	20 --	SPARE	26	--
1	27	**Plugload Receptacles**	#12	20 1		1.0 / 0.0		1	20 --	SPARE	28	--
1	29	**Plugload Receptacles**	#12	20 1			0.5 / 0.0	1	20 --	SPARE	30	--
1	31	**Plugload Receptacles**	#12	20 1	0.5 / 0.0			1	20 --	SPARE	32	--
--	33	SPARE	--	20 1		0.0 / 0.0		1	20 --	SPARE	34	--
--	35	SPARE	--	20 1			0.0 / 0.0	1	20 --	SPARE	36	--
--	37	SPARE	--	20 1	0.0 / 0.0			1	20 --	SPARE	38	--
--	39	SPARE	--	20 1		0.0 / 0.0		1	20 --	SPARE	40	--
--	41	SPARE	--	20 1			0.0 / 0.0	1	20 --	SPARE	42	--
		Total Load:			1.6 kVA	1.5 kVA	1.0 kVA					
		Total Amps:			14 A	13 A	8 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	0.1 kVA	100.00%	0.1 kVA		
Miscellaneous	4.0 kVA	100.00%	4.0 kVA	**Total Conn. Load:**	4.1 kVA
				Total Est. Demand:	4.1 kVA
				Total Conn. Current:	11 A
				Total Est. Demand Current:	11 A

Notes:
1 - EXISTING CIRCUIT BREAKER, NEW BRANCH CIRCUIT.

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
M - PROVIDE METERING DEVICE

Branch Panel: HRR — EXISTING

Location:
Supply From:
Mounting: Surface
Volts: 277/480 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 18,000
Enclosure: Type 1
Mains: 225A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
--	1	(E)LIGHTING	--	20 1	0.0 / 0.0						2	
--	3	(E)LIGHTING	--	20 1		0.0 / 0.0		3	50 --	(E)XFMR XRR	4	--
--	5	(E)LIGHTING	--	20 1			0.0 / 0.0				6	
--	7	(E)LIGHTING	--	20 1	0.0 / 4.5			2	40 #8	**XFMR TSPB (SOFTBALL PRESSBOX)**	8	1
--	9	SPARE	--	20 1		0.0 / 4.5					10	
--	11	(E)EUH-1	--	15 2	0.0 / 0.0			1	-- --	SPACE	12	--
	13						0.0 / 0.0	1	-- --	SPACE	14	--
--	15	(E)EUH-2	--	15 2		0.0 / 0.0		1	-- --	SPACE	16	--
	17						0.0 / 0.0	1	-- --	SPACE	18	--
--	19	(E)EUH-3	--	15 2	0.0 / 0.0			1	-- --	SPACE	20	--
	21					0.0 / 0.0		1	-- --	SPACE	22	--
--	23	SPARE	--	20 1			0.0 / 0.0	1	-- --	SPACE	24	--
--	25	(E)HAND DRYER	--	20 1	0.0 / 0.0			1	-- --	SPACE	26	--
--	27	(E)HAND DRYER	--	20 1		0.0 / 0.0		1	-- --	SPACE	28	--
--	29	(E)HAND DRYER	--	20 1			0.0 / 0.0	1	-- --	SPACE	30	--
--	31	SPARE	--	20 1	0.0 / 0.0			1	-- --	SPACE	32	--
--	33	SPARE	--	20 1		0.0 / 0.0		1	-- --	SPACE	34	--
--	35	SPARE	--	20 1			0.0 / 0.0	1	-- --	SPACE	36	--
--	37	SPACE	--	-- 1	0.0 / 0.0			1	-- --	SPACE	38	--
--	39	SPACE	--	-- 1		0.0 / 0.0		1	-- --	SPACE	40	--
--	41	SPACE	--	-- 1			0.0 / 0.0	1	-- --	SPACE	42	--
		Total Load:			4.5 kVA	4.5 kVA	0.0 kVA					
		Total Amps:			19 A	19 A	0 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Miscellaneous	9.0 kVA	100.00%	9.0 kVA		
				Total Conn. Load:	9.0 kVA
				Total Est. Demand:	9.0 kVA
				Total Conn. Current:	11 A
				Total Est. Demand Current:	11 A

Notes:
1 - PROVIDE NEW CIRCUIT BREAKER.

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
M - PROVIDE METERING DEVICE

Branch Panel: HCS — NEW

Location: ELEC. 105
Supply From:
Mounting: Surface
Volts: 277/480 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 18,000
Enclosure: Type 1
Mains: 200A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1				15.1 / 0.5			1	20 #12	**Lighting - Exterior**	2	C
	3	**XFMR TLCS**	1-L	70 3		15.1 / 0.9		1	20 #12	**Lighting - Concession Bldg**	4	
	5						14.8 / 0.0	1	20 --	**SPARE**	6	--
	7				1.7 / 0.0			1	20 --	**SPARE**	8	--
	9	**EUH-1**	#12	20 3		1.7 / 0.0		1	20 --	**SPARE**	10	--
	11						1.7 / 0.0	1	20 --	**SPARE**	12	--
	13				1.7 / 0.0			1	-- --	**SPACE**	14	--
	15	**EUH-2**	#12	20 3		1.7 / 0.0		1	-- --	**SPACE**	16	--
	17						1.7 / 0.0	1	-- --	**SPACE**	18	--
	19				1.7 / 0.0			1	-- --	**SPACE**	20	--
	21	**EUH-3**	#12	20 3		1.7 / 0.0		1	-- --	**SPACE**	22	--
	23						1.7 / 0.0	1	-- --	**SPACE**	24	--
--	25	**SPACE**	--	-- 1	0.0 / 0.0			1	-- --	**SPACE**	26	--
--	27	**SPACE**	--	-- 1		0.0 / 0.0		1	-- --	**SPACE**	28	--
--	29	**SPACE**	--	-- 1			0.0 / 0.0	1	-- --	**SPACE**	30	--
--	31	**SPACE**	--	-- 1	0.0 / 0.0			1	-- --	**SPACE**	32	--
--	33	**SPACE**	--	-- 1		0.0 / 0.0		1	-- --	**SPACE**	34	--
--	35	**SPACE**	--	-- 1			0.0 / 0.0	1	-- --	**SPACE**	36	--
--	37	**SPACE**	--	-- 1	0.0 / 0.0						38	
--	39	**SPACE**	--	-- 1		0.0 / 0.0		3	30 --	**SPDL**	40	--
--	41	**SPACE**	--	-- 1			0.0 / 0.0				42	
		Total Load:			20.5 kVA	21.0 kVA	19.8 kVA					
		Total Amps:			75 A	76 A	71 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	31.3 kVA	100.00%	31.3 kVA		
Heating	5.0 kVA	100.00%	5.0 kVA	**Total Conn. Load:**	61.4 kVA
Lighting	1.4 kVA	125.00%	1.8 kVA	**Total Est. Demand:**	61.7 kVA
Miscellaneous	20.9 kVA	100.00%	20.9 kVA	**Total Conn. Current:**	74 A
Receptacles	2.7 kVA	100.00%	2.7 kVA	**Total Est. Demand Current:**	74 A

Notes:

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
C - CONTROLLED VIA CONTACTOR

Branch Panel: LCS — NEW

Location: ELEC. 105
Supply From: TLCS
Mounting: Surface
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 10,000
Enclosure: Type 1
Mains: 150A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	**Receptacles**	#12	20 1	0.9 / 0.5			1	20 #12	**Access Control Panel**	2	
	3	**Receptacles**	#12	20 1		1.1 / 0.4		1	20 #12	**Receptacles**	4	
	5	**Receptacles**	#12	20 1			0.4 / 1.5	1	30 #10	**Elec. Hand Dryer**	6	LF
LF	7	**Elec. Hand Dryer**	#10	30 1	1.5 / 1.5			1	30 #10	**Elec. Hand Dryer**	8	LF
LF	9	**Elec. Hand Dryer**	#10	30 1		1.5 / 1.0		1	20 #12	**Ice Machine**	10	
	11	**Air Curtain**	#12	20 1			0.6 / 2.2	1	20 #12	**Heated Cabinet**	12	
	13	**Microwave**	#12	20 1	1.5 / 0.6			1	20 #12	**Air Curtain**	14	
	15	**Dedicated Recept.**	#12	20 1		0.2 / 0.2		1	20 #12	**Dedicated Recept.**	16	
	17	**Dedicated Recept.**	#12	20 1			0.2 / 0.2	1	20 #12	**Dedicated Recept.**	18	
	19	**Dedicated Recept.**	#12	20 1	0.2 / 0.2			1	20 #12	**Dedicated Recept.**	20	
	21	**Bottle Cooler**	#12	20 1		1.0 / 0.6		1	20 #12	**Air Curtain**	22	
	23	**High Level Alarm**	#12	20 1			0.2 / 0.1	1	20 #12	**Circ Pump, CP-1**	24	
LO	25	**Fire Alarm**	#12	20 1	0.5 / 0.4			1	20 #12	**Receptacles IDF 145**	26	
	27	**DMSCU-1 / DMS-1**	#12	20 2		1.2 / 1.2		2	20 #12	**DMSCU-2 / DMS-2**	28	
	29						1.2 / 1.2				30	
	31	**EF-1**	#12	20 1	0.2 / 0.2			1	20 #12	**EF-2**	32	
	33	**EF-3**	#12	20 1		0.2 / 0.2		1	20 #12	**EF-4**	34	
	35	**Overhead Door**	#12	20 1			0.5 / 0.5	1	20 #12	**Overhead Door**	36	
	37				5.0 / 0.0						38	
	39	**EWH-1**	#6	60 3		5.0 / 0.0		3	30 --	**SPDL**	40	--
	41						5.0 / 0.0				42	
--	43	**SPARE**	--	20 1	0.0 / 1.0			2	30 #10	**Data Rack**	44	LO
--	45	**SPARE**	--	20 1		0.0 / 1.0					46	
--	47	**SPARE**	--	20 1			0.0 / 1.0				48	LO
--	49	**SPARE**	--	20 1	0.0 / 1.0						50	
--	51	**SPARE**	--	20 1		0.0 / 0.4		1	20 #12	**Data Rack**	52	LO
--	53	**SPARE**	--	20 1			0.0 / 0.0	1	-- --	**SPACE**	54	--
--	55	**SPARE**	--	20 1	0.0 / 0.0			1	-- --	**SPACE**	56	--
--	57	**SPARE**	--	20 1		0.0 / 0.0		1	-- --	**SPACE**	58	--
--	59	**SPARE**	--	20 1			0.0 / 0.0	1	-- --	**SPACE**	60	--
--	61	**SPARE**	--	20 1	0.0 / 0.0			1	-- --	**SPACE**	62	--
--	63	**SPARE**	--	20 1		0.0 / 0.0		1	-- --	**SPACE**	64	--
--	65	**SPARE**	--	20 1			0.0 / 0.0	1	-- --	**SPACE**	66	--
--	67	**SPARE**	--	20 1	0.0 / 0.0			1	-- --	**SPACE**	68	--
--	69	**SPARE**	--	20 1		0.0 / 0.0		1	-- --	**SPACE**	70	--
--	71	**SPARE**	--	20 1			0.0 / 0.0	1	-- --	**SPACE**	72	--
--	73	**SPARE**	--	20 1	0.0 / 0.0			1	-- --	**SPACE**	74	--
--	75	**SPARE**	--	20 1		0.0 / 0.0		1	-- --	**SPACE**	76	--
--	77	**SPARE**	--	20 1			0.0 / 0.0	1	-- --	**SPACE**	78	--
--	79	**SPARE**	--	20 1	0.0 / 0.0			1	-- --	**SPACE**	80	--
--	81	**SPARE**	--	20 1		0.0 / 0.0		1	-- --	**SPACE**	82	--
--	83	**SPARE**	--	20 1			0.0 / 0.0	1	-- --	**SPACE**	84	--
		Total Load:			15.1 kVA	15.1 kVA	14.8 kVA					
		Total Amps:			126 A	126 A	123 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	21.3 kVA	100.00%	21.3 kVA		
Miscellaneous	20.9 kVA	100.00%	20.9 kVA	**Total Conn. Load:**	44.9 kVA
Receptacles	2.7 kVA	100.00%	2.7 kVA	**Total Est. Demand:**	44.9 kVA
				Total Conn. Current:	125 A
				Total Est. Demand Current:	125 A

Notes:

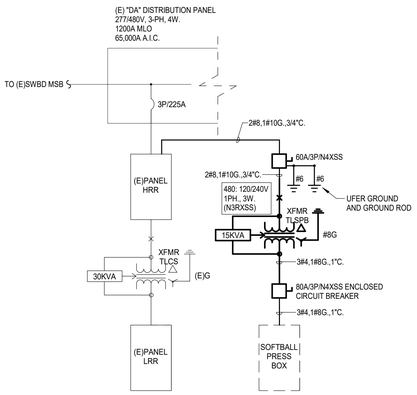
Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
M - PROVIDE METERING DEVICE

ELECTRICAL LOAD ANALYSIS

277/480V. 3PH., 4W

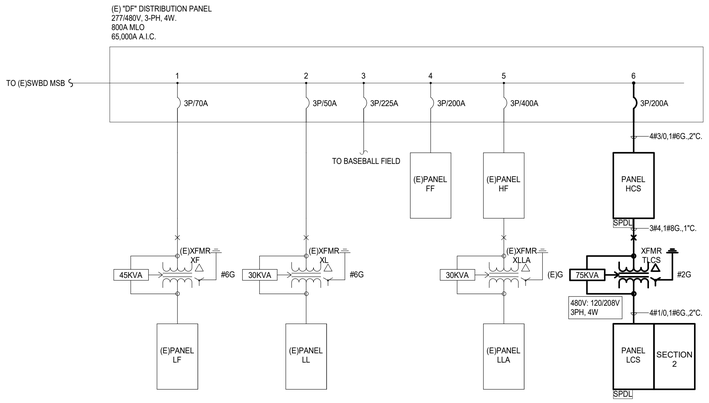
LOAD DESCRIPTION:	KVA
PEAK KVA @ 125%	1256.3
NEW LIGHTING LOAD @ 125%	1.1
NEW RECEPTACLE LOAD @ 100%	3.2
NEW MISCELLANEOUS LOAD @ 100%	38.5
NEW ELEC. HEAT LOAD @ 100%	15.0
NEW HVAC LOAD @ 100%	27.6
TOTAL	1341.7

TOTAL / (480 X √3) = 1614.5 AMPS EXISTING 4000A SERVICE



N

2 PARTIAL ONE LINE DIAGRAM - RESTROOM BLDG
Scale: N.T.S.



N

1 PARTIAL ONE LINE DIAGRAM - FIELD HOUSE
Scale: N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:

No.	Date	Description

100% CD

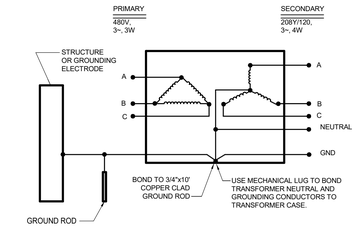
E4.01-K

ELECTRICAL ONE-LINE DIAGRAM

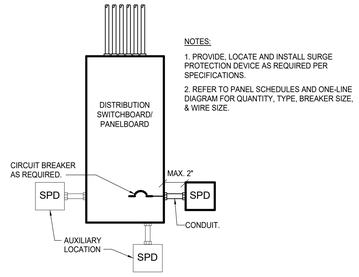
KEMPNER HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 7:00:59 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/KEMPNER_MEPT_R25.rvt



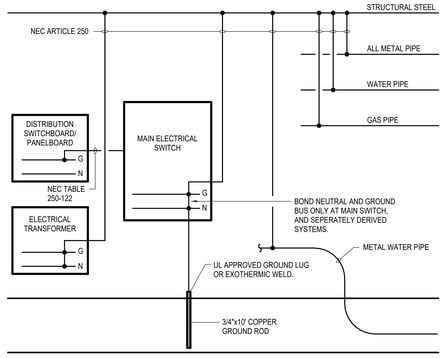
4 TRANSFORMER GROUNDING DETAIL
SCALE: NONE



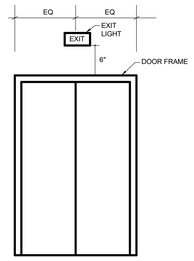
NOTES:

1. PROVIDE, LOCATE AND INSTALL SURGE PROTECTION DEVICE AS REQUIRED PER SPECIFICATIONS.
2. REFER TO PANEL SCHEDULES AND ONE-LINE DIAGRAM FOR QUANTITY, TYPE, BREAKER SIZE, & WIRE SIZE.

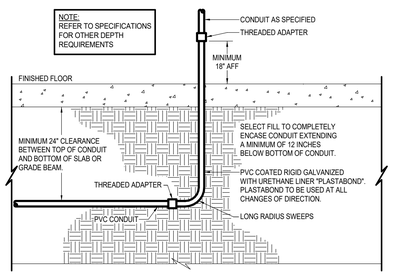
3 SURGE PROTECTION DETAIL
SCALE: NONE



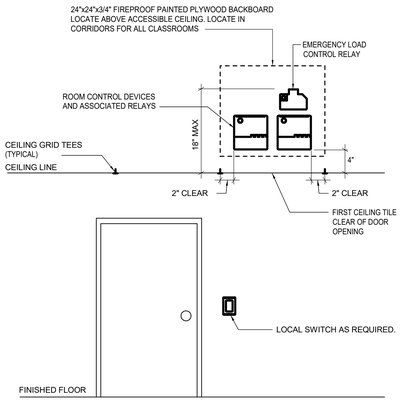
2 GROUNDING DETAIL
SCALE: NONE



8 TYPICAL EXIT SIGN LOCATION
SCALE: NONE



7 CONDUIT BELOW BUILDING SLAB
SCALE: NONE



1 TYPICAL LIGHTING CONTROLS ELEVATION
SCALE: NONE

SYMBOL SCHEDULE

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED ON EMERGENCY CIRCUIT
	DOWNLIGHT FIXTURE
	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
	LIGHT FIXTURE - WALL MOUNTED
	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - CEILING MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - WALL MOUNTED ON EMERGENCY CIRCUIT
LIGHTING CONTROLS & DEVICES	
$	LINE VOLTAGE SINGLE POLE SWITCH
$3	LINE VOLTAGE 3-WAY SWITCH
$4	LINE VOLTAGE 4-WAY SWITCH
$K	LINE VOLTAGE MOMENTARY DPST KEYED SWITCH
$D	LINE VOLTAGE DIMMER SWITCH, SIZE AND TYPE AS REQUIRED
$P	LINE VOLTAGE SWITCH WITH PILOT LIGHT
$T	6-HOUR ROTARY TIMER SWITCH WITH NO HOLD U.N.O.
	PUSH BUTTON EPO SWITCH WITH COVER
$MC	LOW VOLTAGE MOMENTARY CONTACT SWITCH
$R	LOW VOLTAGE DIGITAL KEYPAD
$B	LOW VOLTAGE BUILDING MANAGEMENT (BMCS) LOCAL OVERRIDE SWITCH
	OCCUPANCY SENSOR (AUTO ON / AUTO OFF WITHIN 20-MINUTES)
	VACANCY SENSOR (MANUAL ON / AUTO OFF WITHIN 20-MINUTES)
	PHOTOCELL SENSOR
RF	LIGHTING CONTROL SYSTEM. ('F' DENOTES TYPE - SEE LIGHTING CONTROLS SCHEDULE)
ER	EMERGENCY LOAD CONTROL RELAY. MINIMUM 16A AND 0-10V COMPATIBLE. PROVIDE U.L. 924 U.N.O.
RECEPTACLES AND OUTLETS	
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
U	DUPLEX RECEPTACLE WITH TWO USB CHARGING PORTS.
	125/250 VOLT, 1 PHASE, 3-WIRE, 20 AMPS UNLESS NOTED OTHERWISE
	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
U	DOUBLE DUPLEX WITH TWO USB CHARGING PORTS IN 2-GANG BOX WITH SINGLE COVER PLATE
	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	FLUSH FLOOR DUPLEX RECEPTACLE OUTLET
	FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE OUTLET
D A	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
A	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
J	JUNCTION BOX
G	FLUSH REMOTE GFCI DEVICE (LOCATE IN READILY ACCESSIBLE LOCATION)
MOTOR CONTROLLERS AND EQUIPMENT	
	MOTOR, MAKE FINAL MOTOR CONNECTION
$	MOTOR-RATED SWITCH. 20A UNLESS INDICATED OTHERWISE.
F	DISCONNECT SWITCH AS REQUIRED
MF	COMBINATION MOTOR STARTER/DISCONNECT SWITCH AS REQUIRED
M	MOTOR STARTER
	PREWIRED DEVICE, MAKE ELECTRICAL FINAL CONNECTIONS
VFD	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
HF	HIGH EFFICIENCY HARMONIC FILTER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
T	LOW VOLTAGE TRANSFORMER, SIZE AND TYPE AS REQUIRED.
Y	CHIME/BUZZER
ELECTRICAL EQUIPMENT	
	ELECTRICAL PANELBOARD; REFER TO FLOOR PLANS FOR VOLTAGE.
	DRY TYPE TRANSFORMER
	PLYWOOD TELEPHONE BACKBOARD
CIRCUITING	
	CONDUIT
	CONDUIT BELOW FLOOR, SLAB, OR GRADE
	3/4"C. UNLESS OTHERWISE NOTED; LONG HATCH, NEUTRAL; SHORT HATCH, PHASE; LONG HATCH & HOOK, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN.
	PARTIAL ELECTRICAL HOME RUN
SUBSCRIPTS AND ABBREVIATIONS	
WP	INDICATES 'WEATHERPROOF'
H	INDICATES 'HORIZONTAL'
NL	INDICATES 'NIGHT LIGHT'.
TP	INDICATES 'TAMPER PROOF'
(KS)	INDICATES 'KNEE SPACE'. LOCATE WIRING DEVICE IN KNEESPACE
U.N.O.	INDICATES 'UNLESS NOTED OTHERWISE'
(E)	INDICATES EXISTING TO REMAIN
(R)	INDICATES REPLACE DEVICE AND COVERPLATE.
•	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL MILLWORK DRAWINGS AND OTHER TRADES
GENERAL NOTES:	
-ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-4X MINIMUM. -ALL EXTERIOR RECEPTACLES SHALL BE WATER RESISTANT TYPE.	

LIGHTING CONTROLS SCHEDULE

Type	Sensor Operation	# of Lighting Zones	Description
RA	OCCUPANCY - AUTO ON @ 50% / AUTO OFF	1	DIGITAL KEYPAD; ON/OFF WITH RAISE/LOWER, 0-10V DIMMING.
RB	VACANCY - MANUAL ON / AUTO OFF	1	ON/OFF MOMENTARY CONTACT SWITCH, NO DIMMING.
RC	OCCUPANCY - AUTO ON / AUTO OFF	1	ON/OFF KEYED SWITCH, NO DIMMING.
RD	NONE	1	ON/OFF SPRING WOUND TIMER SWITCH, 12-HOUR WITH HOLD; PROVIDE INTERMATIC #FD12HHW. WHERE MULTIPLE SWITCHES ARE USE, WIRE SWITCHES IN PARALLEL FOR SIMULTANTEOUS OPERATION.
RE	NONE	1	CONTACTOR CONTROLLED WITH BMCS ON/OFF INTERFACE FOR PHOTOCELL / SCHEDULE. EXTERIOR LIGHTING SHALL AUTOMATICALLY SHUTOFF WHEN DAYLIGHT IS PRESENT; IN ADDITION, EXTERIOR LIGHTING SHALL BE TURNED OFF FROM 12:00 AM TO 6:00 AM OR FROM 1 HOUR AFTER CLOSING TO 1 HOUR BEFORE OPENING.

LIGHTING FIXTURE SCHEDULE

TYPE MARK	CATALOG NUMBER MANUFACTURER	MODEL	MOUNTING	LED DRIVER LUMENS/TYPE	CCT	CRI	VOLTAGE	LOAD	REMARKS
A1	METALUX	24FP4740C	RECESSED	4700L LED	4000 K	80	277 V	42 W	2X4 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED.
A1E	METALUX	24FP4740C + EL14W	RECESSED	4700L LED	4000 K	80	277 V	42 W	2X4 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
A2	METALUX	22FP4240C	RECESSED	4200L LED	4000 K	80	277 V	38 W	2X2 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED.
A2E	METALUX	22FP4240C + EL14W	RECESSED	4200L LED	4000 K	80	277 V	38 W	2X2 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
B1	METALUX	14GR-FA-LD5-36-A19/156-UNV-L840-CD1-U-DF-14W-U	RECESSED	3600L LED	4000 K	80	277 V	35 W	1X4 STATIC TROFFER, 0.156" A19 LENS, TRIPLE GASKET, ALUMINUM DOORFRAME, 0-10V DIMMING, DRYWALL FLANGE KIT, DLC LISTED.
B1E	METALUX	14GR-FA-LD5-36-A19/156-UNV-EL14W-L840-CD1-U-DF-14W-U	RECESSED	3600L LED	4000 K	80	277 V	35 W	1X4 STATIC TROFFER, 0.156" A19 LENS, TRIPLE GASKET, ALUMINUM DOORFRAME, 0-10V DIMMING, DRYWALL FLANGE KIT, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
C1	METALUX	4SNX-51SL-LW-UNV-L840-CD1-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	5100L LED	4000 K	80	277 V	32 W	4-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED.
C1E	METALUX	4SNX-51SL-LW-UNV-L840-CD1-EL14W-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	5100L LED	4000 K	80	277 V	32 W	4-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
C2	METALUX	8SNX-96SL-LW-UNV-L840-CD1-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	9600L LED	4000 K	80	277 V	32 W	8-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED.
C2E	METALUX	8SNX-96SL-LW-UNV-L840-CD1EL14W(2)-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	9600L LED	4000 K	80	277 V	32 W	8-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
D1	HALO	HC620D010-HM60525840-61WDC	RECESSED	2000L LED	4000 K	80	277 V	21 W	6-INCH DOWNLIGHT, WIDE BEAM, SEMI-SPECULAR TRIM, ENERGY STAR RATED.
D1E	HALO	HC620D010-IEM14-HM60525840-61WDC	RECESSED	2000L LED	4000 K	80	277 V	21 W	6-INCH DOWNLIGHT, WIDE BEAM, SEMI-SPECULAR TRIM, ENERGY STAR RATED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
DS	HALO	HC620D010-HM60525840-61PSMDW	RECESSED	2000L LED	4000 K	80	277 V	21 W	6-INCH SHOWER DOWNLIGHT, MEDIUM BEAM, NON-CONDUCTIVE TRIM, ENERGY STAR RATED.
W1	McGRAW EDISON	IST-SA1E-740-U-T4FT-BZ-LCF	WALL	7099L LED	4000 K	70	277 V	58 W	ARCHITECTURAL WALL SCONCE, FORWARD THROW DISTRIBUTION, BRONZE FINISH.
W1E	McGRAW EDISON	IST-SA1E-740-U-T4FT-BZ-LCF-CBP	WALL	7099L LED	4000 K	70	277 V	58 W	ARCHITECTURAL WALL SCONCE, FORWARD THROW DISTRIBUTION, BRONZE FINISH. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
X1V	SURE-LITES	UX71WH	SURFACE	LED	-	80	277 V	1 W	VANDAL PROOF EXIT SIGN, WHITE HOUSING, RED LETTERING. PROVIDE WITH EMERGENCY BATTERY PACK.

APPROVED LIGHTING MANUFACTURERS:
- LED / FLUORESCENT: LITHONIA, COLUMBIA, METALUX, AXIS, DAYBRITE, HE WILLIAMS, LSI, CREE
- EXIT SIGNS: LITHONIA, CHLORIDE, EMERGI-LITE, DUAL-LITE, SURE LITES, H.E. WILLIAMS
- ARCHITECTURAL HIGH PERFORMANCE FLOOD LIGHTS: WIDE-LITE, HADCO, KIM, McGRAW EDISON, GARDCO, LSI
- INDUSTRIAL: METALUX, LITHONIA, EXCELINE, G.E., HUBBELL, LUMARK, STONCO
- DOWN/TRACK LIGHTING: LIGHTOLIER, LITHONIA-GOTHAM, HALO ARCHITECTURAL, PRESCOLITE, HE WILLIAMS, INDY
- SECURITY (WALLPACKS): LITHONIA, McGRAW EDISON, G.E., LSI, HUBBELL, STONCO, GARDCO
- ARCHITECTURAL LINEAR: PEERLESS, LITECONTROL, ALERA, LAM, AMERICAN LINEAR LIGHTING, LEDALITE
- ARCHITECTURAL INDIRECT: INSIGHT, ORIGINAL CAST LIGHTING, SPI, LAM

- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT INDICATED IN THE LIGHT FIXTURE SCHEDULE. WHERE THERE IS AN INCONSISTENCY BETWEEN THE LIGHT SCHEDULE AND THE SPECIFICATIONS, THE BETTER QUALITY OF WORK SHALL BE INCLUDED IN THE PROPOSAL.
- THE ABOVE LIGHTING MANUFACTURERS LIST DOES NOT IMPLY APPROVAL. APPROVAL WILL BE DETERMINED AFTER REVIEW OF SHOP DRAWING TO DETERMINE IF THE FIXTURE OR POLE SUBMITTED MEETS OR EXCEEDS THE DESIGN STANDARDS AND PERFORMANCE REQUIRED OF THE FIXTURE SPECIFIED IN THE LIGHT FIXTURE SCHEDULE OR SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE SPECIFIED LIGHT FIXTURE IF A SUBSTITUTION IS NOT APPROVED WITHOUT ANY ADDITIONAL COST TO THE OWNER. WHERE SPECIFIC OPTIONS/ACCESORIES ARE SPECIFIED OR REQUIRED, THEY SHALL BE PROVIDED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- DUE TO THE WIDE RANGE OF FIXTURE QUALITIES OFFERED BY EACH MANUFACTURER, THE APPROVED LIGHTING MANUFACTURERS SUBSTITUTION LIST IS NOT INTENDED TO INDICATE THAT ANY OR ALL MANUFACTURERS LISTED WILL HAVE SUITABLE SUBSTITUTIONS FOR THE LIGHT FIXTURES OR POLES SPECIFIED IN THE LIGHT FIXTURE SCHEDULE. SHOP DRAWING AND CONSTRUCTION DELAYS AS A RESULT OF INAPPROPRIATE SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT RESULT IN ANY ADDITIONAL COST TO THE OWNER.

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES.
2. ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
3. ALL EMPTY CONDUIT SHALL HAVE PULL STRING.
4. EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
5. VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 6" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
6. ALL FIRE ALARM DEVICES, RECEPTACLES, SWITCHES, AND WIRING DEVICES IN MECHANICAL AND ELECTRICAL ROOMS ARE TO BE RECESSED IN WALLS.
7. ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
10. CENTER ALL EXIT SIGNS OVER DOORS.

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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12/04/2025

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ELECTRICAL SCHEDULES, DETAILS, AND LEGENDS

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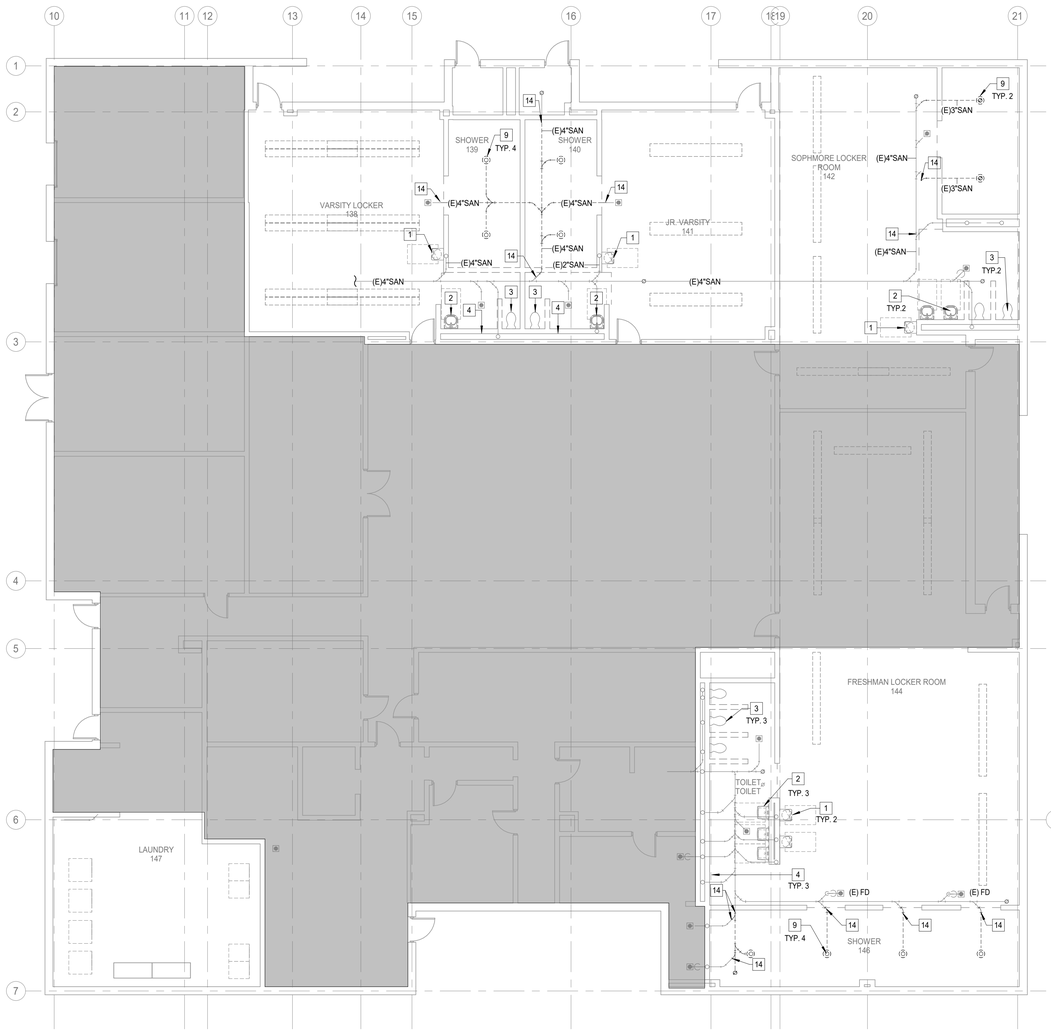
PLUMBING KEYED NOTES

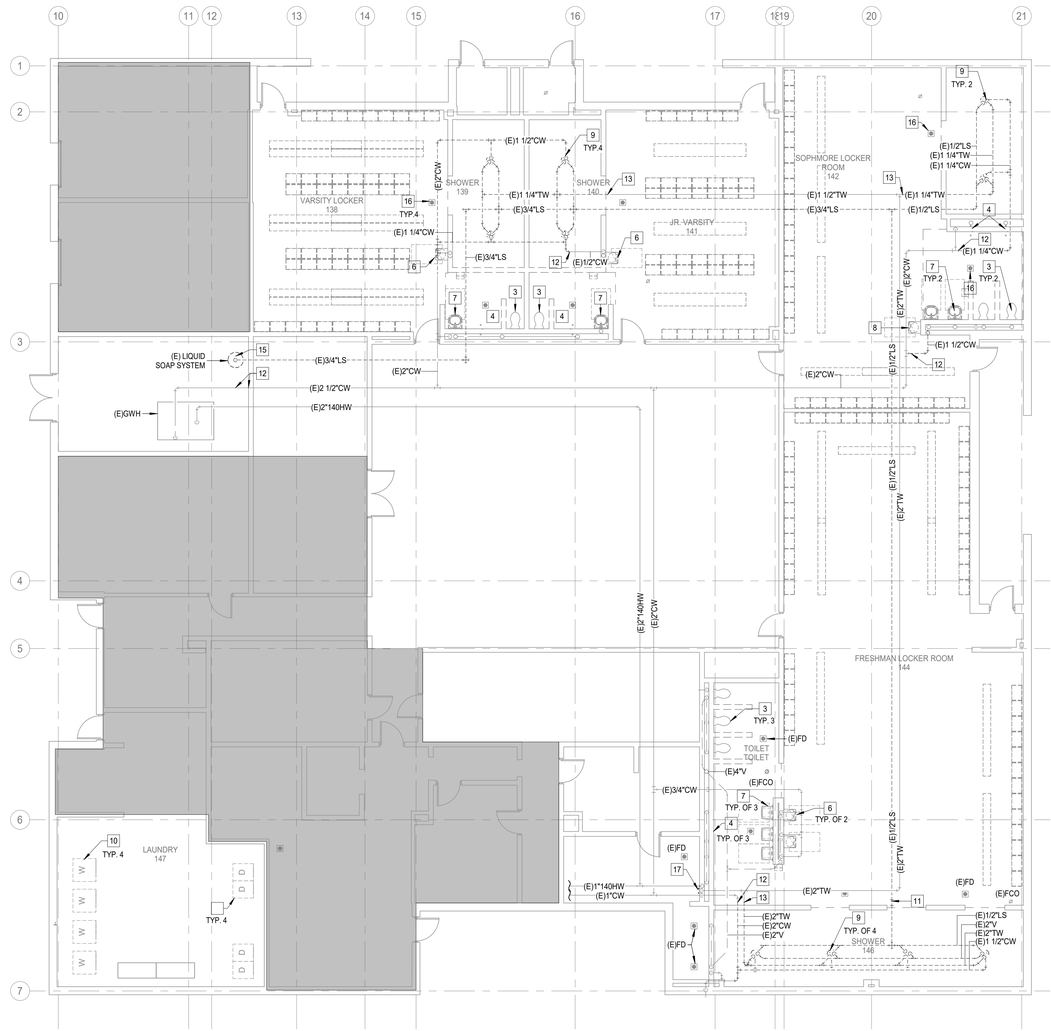
EXISTING DRYER TO BE REMOVED AND REPLACED. DISCONNECT EXISTING GAS CONNECTION AND PREPARE FOR CONNECTION OF NEW DRYER.

1 2" SANITARY FROM ELECTRONIC DRINKING FOUNTAIN ABOVE.
2 EXISTING 2" SANITARY FROM LAVATORY ABOVE.
3 EXISTING WATER CLOSET TO BE REMOVED AND REPLACED. CAP UTILITIES FOR FUTURE CONNECTION.
4 EXISTING URINAL TO BE REMOVED AND REPLACED. CAP UTILITIES FOR FUTURE CONNECTION.
6 EXISTING ELECTRONIC DRINKING FOUNTAIN TO BE REMOVED AND REPLACED. CAP UTILITIES FOR FUTURE CONNECTION. REFER TO ARCHITECTURAL DRAWING.
7 EXISTING LAVATORY TO BE REMOVED AND REPLACED. CAP UTILITIES FOR FUTURE CONNECTION.
8 EXISTING ELECTRONIC DRINKING FOUNTAIN TO BE REMOVED. REMOVE SANITARY, CW AND VENT BACK TO MAIN.
9 EXISTING SAN AND VENT SERVICING COLUMN SHOWER ABOVE TO BE REMOVED CAP UTILITIES BACK TO POINT INDICATED FOR FUTURE CONNECTION.
10 EXISTING WASHER TO BE REMOVED AND REPLACED. DISCONNECT EXISTING CW AND HW CONNECTION AND PREPARE FOR CONNECTION OF NEW WASHER.
11 EXISTING LIQUID SOAP 3/4" PIPE AND WALL CLEANOUT TO BE REMOVED.
12 EXISTING CW TO BE REMOVED BACK TO POINT INDICATED.
13 EXISTING HW TO BE REMOVED BACK TO POINT INDICATED.
14 REMOVE EXISTING SANITARY BACK TO THIS POINT.
15 EXISTING LIQUID SOAP TANK TO BE REMOVED. REMOVE CW BACK TO MAIN AND REMOVE ALL LS PIPING.
16 EXISTING FLOOR DRAIN TO REMAIN.
17 EXISTING TMV TO BE REMOVED AND REPLACED. CAP ALL SERVICE UTILITIES FOR FUTURE USE.



2 PLUMBING DEMOLITION UNDERFLOOR PLAN - FIELD HOUSE

Scale: 1/8" = 1'-0"



1 PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE

Scale: 1/8" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE

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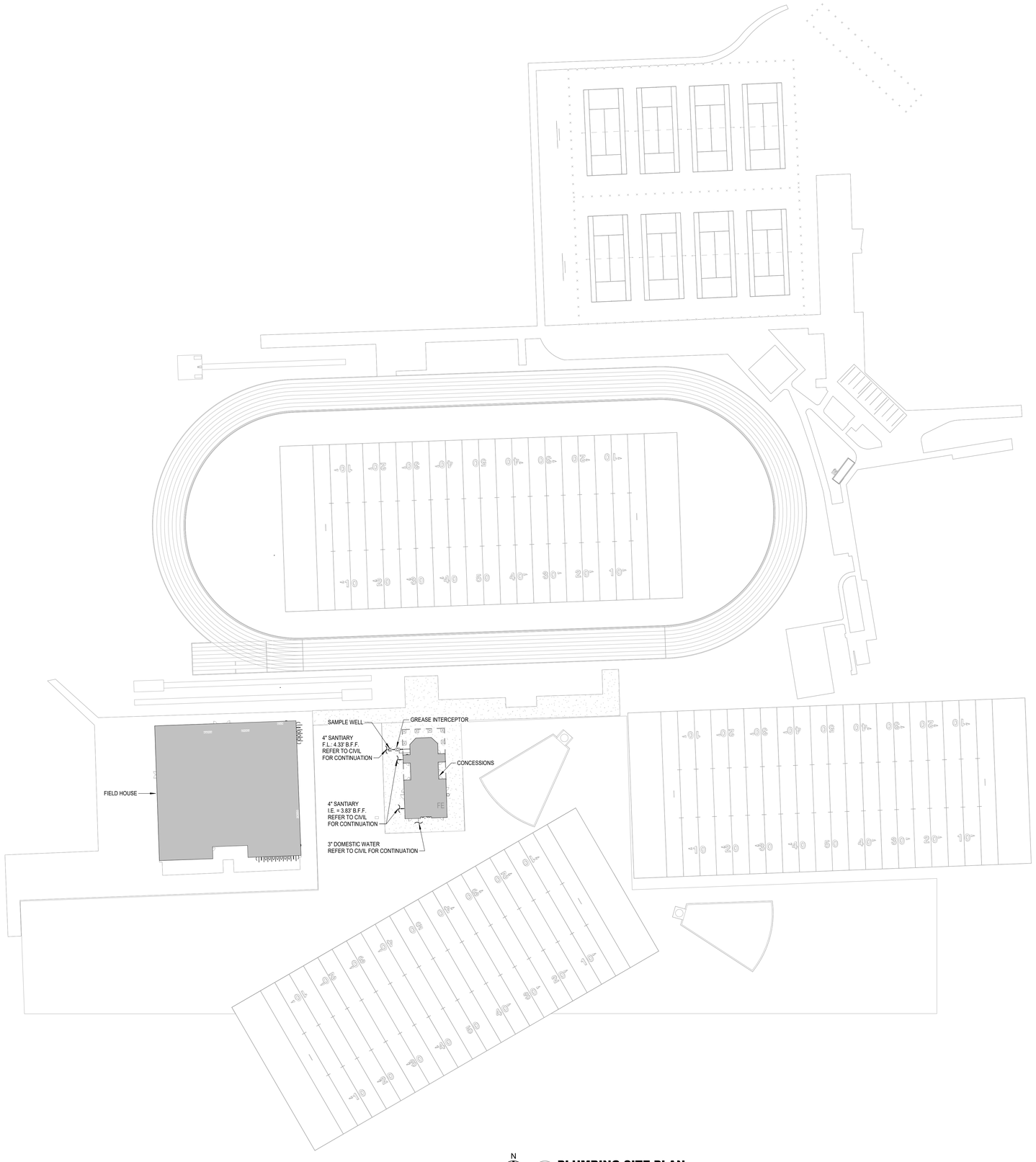

N

1 **PLUMBING SITE PLAN**
Scale: 1" = 40'-0"

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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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PLUMBING SITE PLAN

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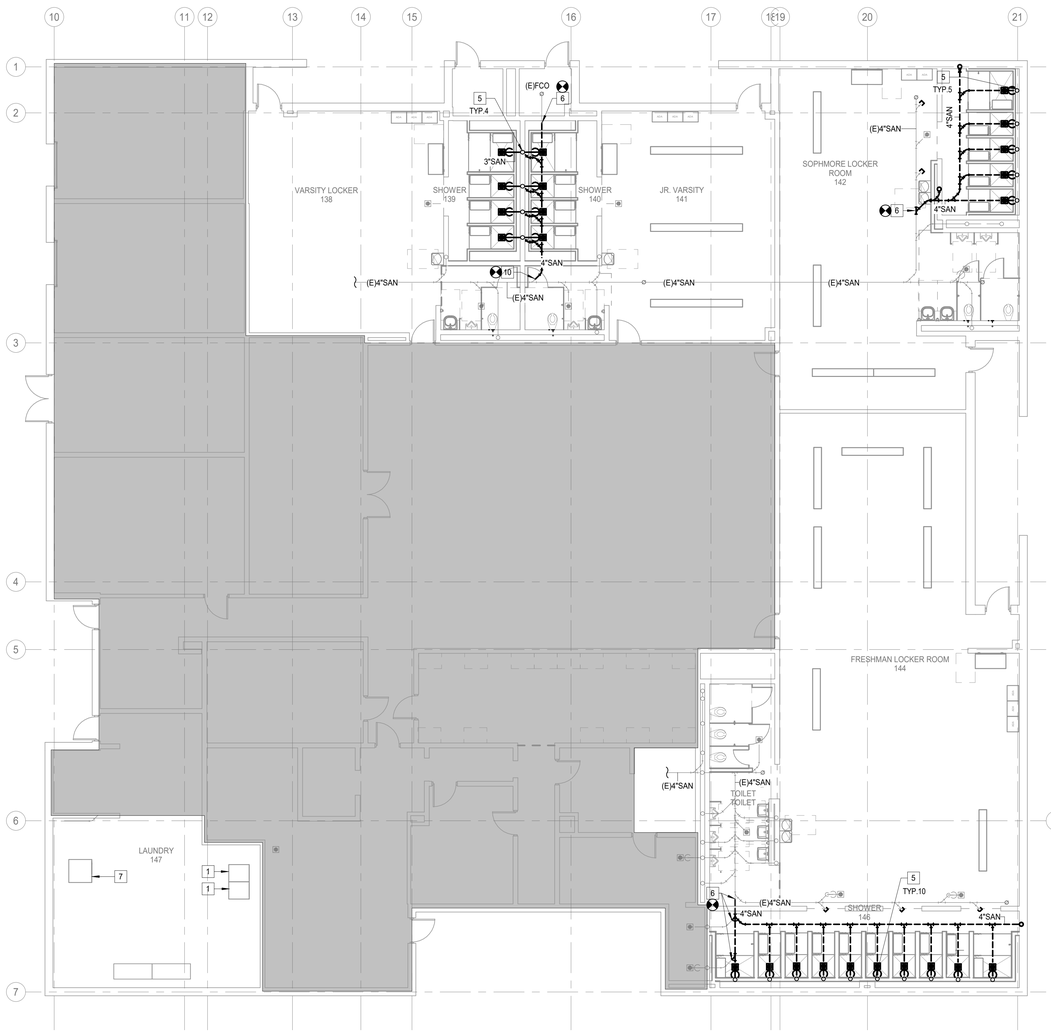
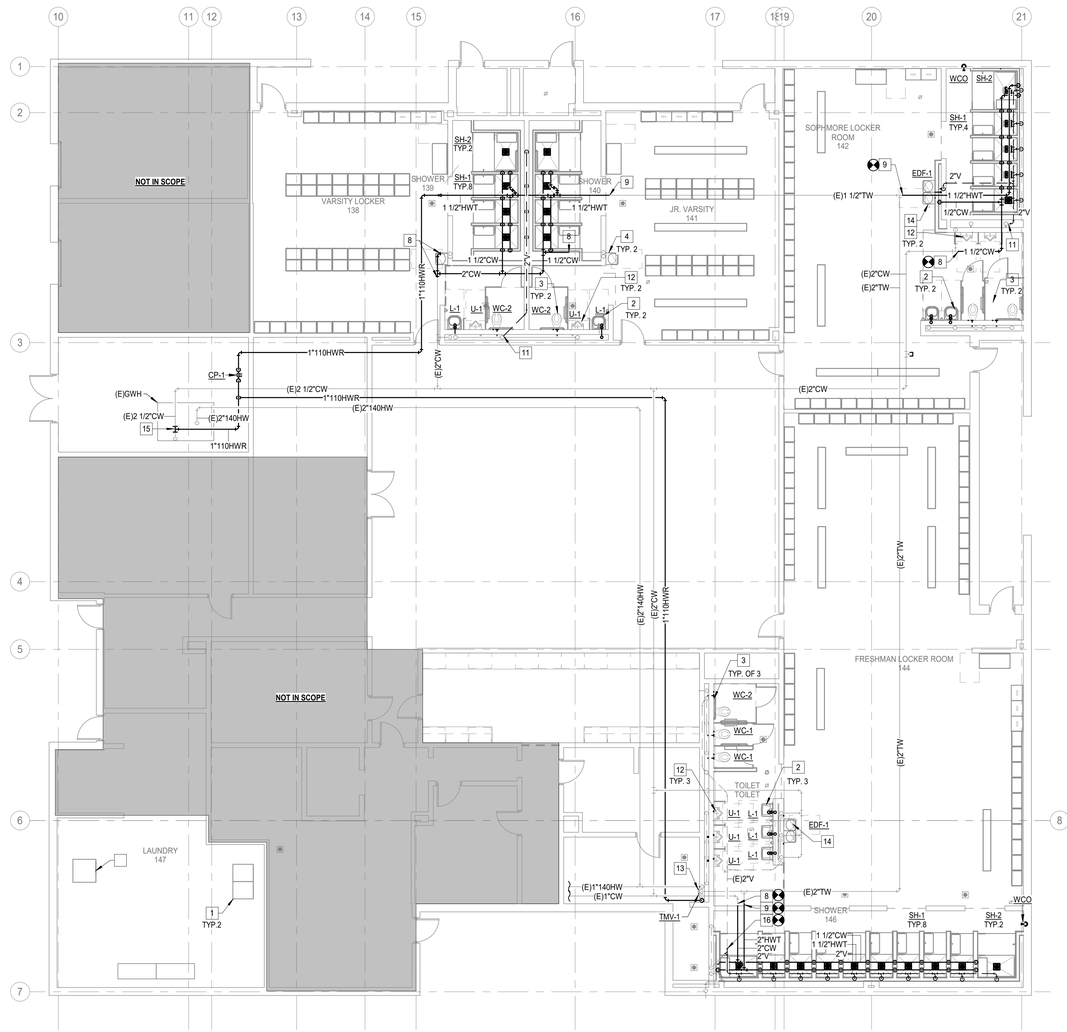
PLUMBING KEYED NOTES

	CONNECT NEW WASHER TO EXISTING UTILITIES.
1	CONNECT NEW DRYER TO EXISTING UTILITIES.
2	PROVIDE AND INSTALL NEW LAVATORY. CONNECT EXISTING UTILITIES (CW, HW, SANITARY AND VENT).
3	PROVIDE AND INSTALL NEW WATER CLOSET. CONNECT EXISTING UTILITIES (CW, SANITARY AND VENT.)
4	PROVIDE AND INSTALL NEW ELECTRONIC DRINKING FOUNTAIN. CONNECT EXISTING UTILITIES (CW, SANITARY AND VENT.)
5	2" VENT UP.
6	CONNECT NEW SANITARY TO EXISTING 4" SANITARY OR LARGER. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF CONNECTION.
7	CONNECT EXISTING UTILITIES (HW, CW, & SANITARY) TO NEW CLOTHES WASHER. REFER TO ARCHITECTURAL DRAWING.
8	CONNECT NEW CW SERVICE TO EXISTING UTILITY AT LOCATION NOTED.
9	CONNET NEW HW SERVICE TO EXISTING UTILITY AT LOCATION NOTED.
10	CONNECT NEW 4" SANITARY TO EXISTING MAIN.
11	CONNECT NEW 2" VENT TO EXISTING VTR.
12	PROVIDE AND INSTALL NEW URINAL. CONNECT EXISTING UTILITIES (CW, SANITARY AND VENT.)
13	PROVIDE NEW THERMOSTATIC MIXING VALVE TO SERVICE NEW SHOWERS.
14	PROVIDE AND INSTALL NEW ELECTRONIC DRINKING FOUNTAIN. CONNECT TO UTILITIES (CW, SANITARY AND VENT.)
15	CONNECT NEW HWR TO EXISTING GAS WATER HEATER WATER SUPPLY LINE.
16	CONNECT NEW 2" VENT TO EXISTING VENT MAIN.



2 PLUMBING UNDERFLOOR PLAN - FIELD HOUSE
Scale: 1/8" = 1'-0"



1 PLUMBING FLOOR PLAN - FIELD HOUSE
Scale: 1/8" = 1'-0"

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PLUMBING FLOOR PLAN - FIELD HOUSE

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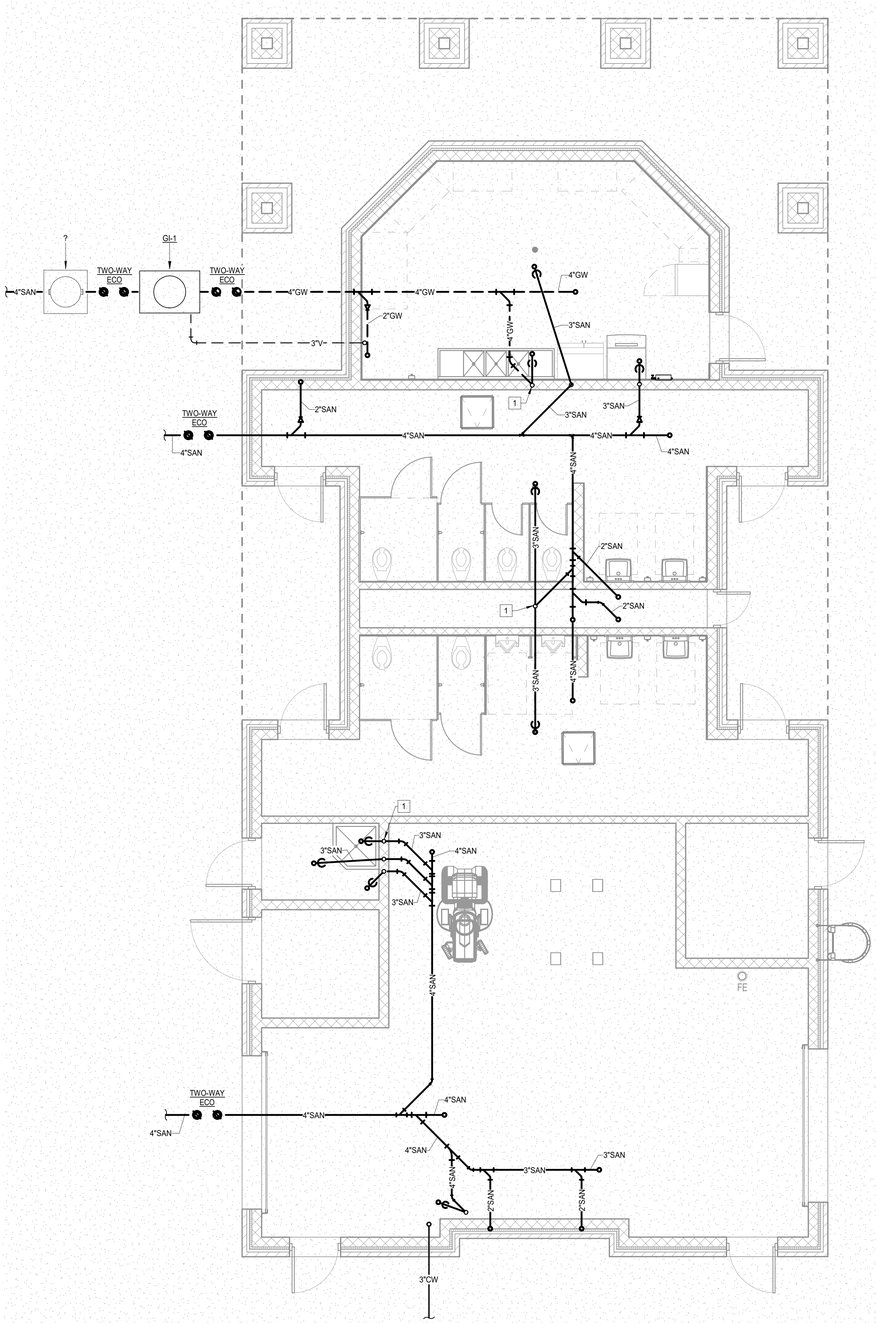
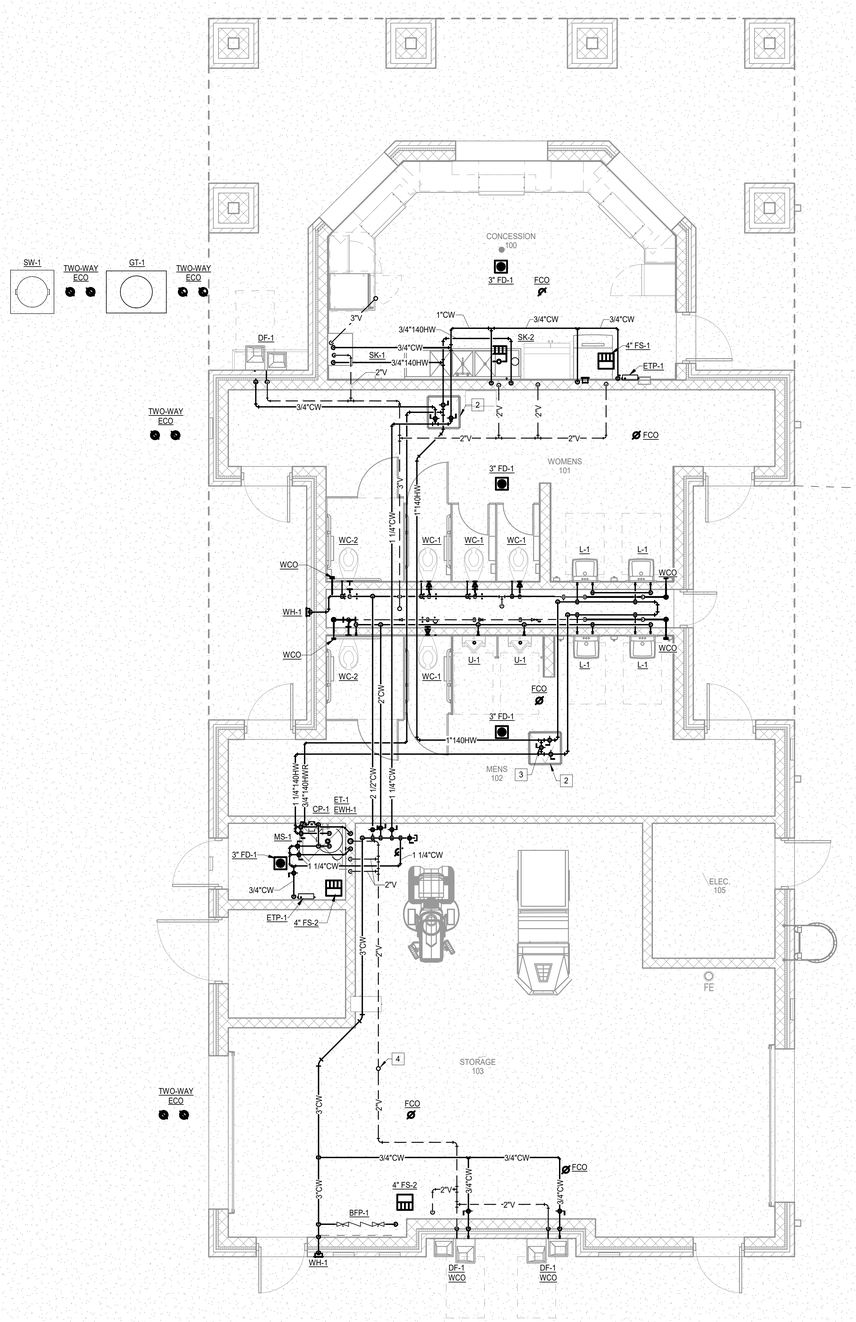
PLUMBING KEYED NOTES

1 2" VENT UP.
2 PROVIDE A 24"X24" ACCESS PANEL.
3 BYPASS VALVE NORMALLY CLOSED.
4 3" VENT UP TO 4" VTR.



2 PLUMBING UNDERFLOOR PLAN - CONCESSION

Scale: 1/4" = 1'-0"



1 PLUMBING FLOOR PLAN - LEVEL 1 - CONCESSIONS

Scale: 1/4" = 1'-0"

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P3.02-K

PLUMBING FLOOR PLAN - CONCESSIONS

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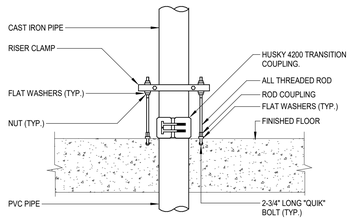
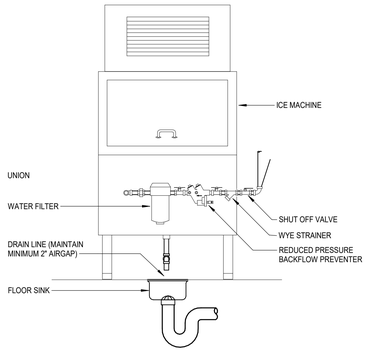
PSAN12- 05/16/24



NOTE:
1. MAKE CONNECTION FROM PVC BELOW SLAB TO CAST IRON ABOVE SLAB WITH HUSKY 4200 TRANSITION COUPLING.
2. THERE IS TO BE NO EXPOSED PVC ABOVE SLAB.

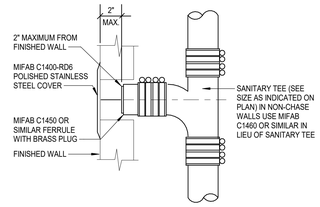
16 CAST IRON TO PVC TRANSITION
SCALE: NONE

PSAN25- XX/XX/XX



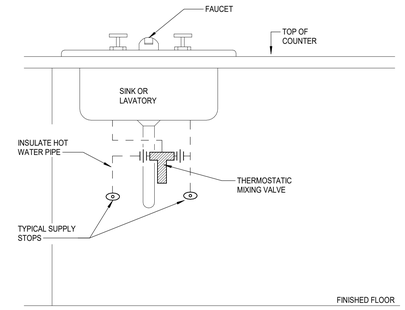
12 ICE MACHINE CONNECTION
SCALE: NONE

PSAN03- XX/XX/XX



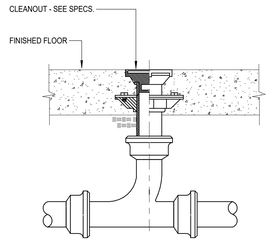
8 WALL CLEANOUT
SCALE: NONE

PHW04 - 08/10/20

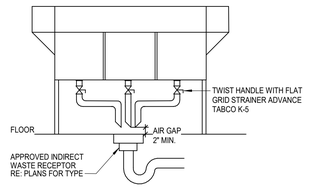


4 THERMOSTATIC MIXING VALVE AT SINK/LAVATORY DUAL TEMPERATURE
SCALE: NONE

PSAN01- XX/XX/XX

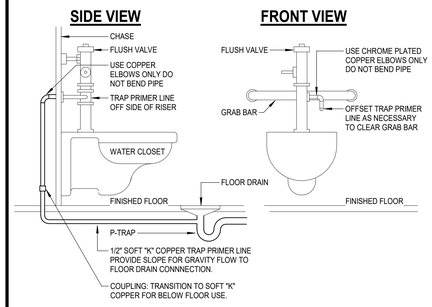


15 FLOOR CLEANOUT
SCALE: NONE

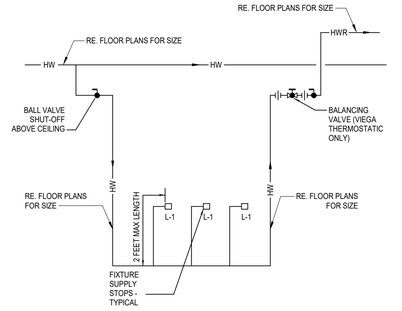


11 THREE COMPARTMENT SINK
SCALE: NONE

PTP03 - XX/XX/XX

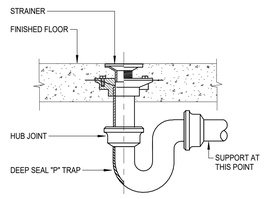


7 FLUSH VALVE TRAP PRIMER
SCALE: NONE



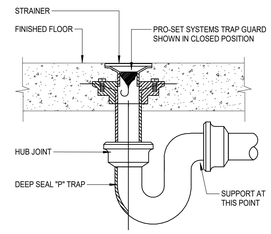
3 HW CIRCULATION FOR PUBLIC LAVATORIES
SCALE: NONE

PSAN07- XX/XX/XX



14 FLOOR DRAIN
SCALE: NONE

PSAN10- XX/XX/XX

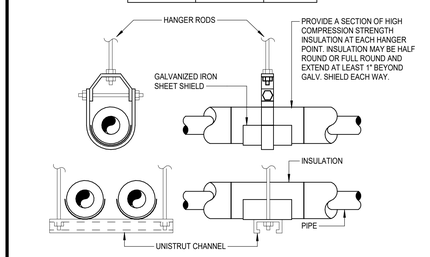


NOTES:
1. TRAP GUARD SHALL BE FACTORY FITTED TO MATCH EACH FLOOR DRAIN (ANDFLOOR SINK) BY SIZE, MODEL, AND MANUFACTURER.
2. CONTACT LOCAL REP OR MANUFACTURER FOR CORRECT MODEL NUMBER.
3. FLOOR SINK TRAP GUARD INSTALLATION IS SIMILAR.
4. INSTALLATION OF TRAP GUARD TO BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. INSERT TRAP GUARD ONLY AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS TITE SEAL. FOR DRAIN RODDING AFTER INSTALLATION, INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

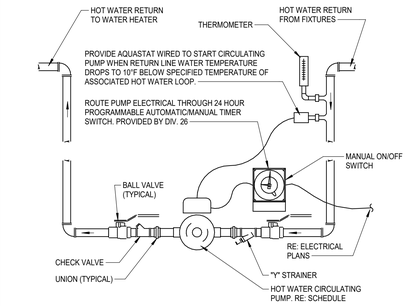
10 TRAP SEAL PROTECTION
SCALE: NONE

PP01 - XX/XX/XX

MINIMUM DIMENSIONS OF GALVANIZED SHEETMETAL PROTECTION SHIELDS AT PIPE HANGERS		
NOMINAL SIZE PIPE	SHIELD LENGTH (IN.)	GAUGE THICKNESS
1/2" & 3/4"	12	18
1" - 2-1/2"	12	18
3" - 4"	16	18
6"	16	16



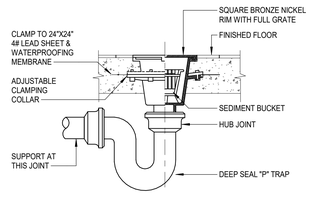
6 PIPE SHIELDS FOR INSULATED PIPING
SCALE: NONE



NOTE: MOUNT AT 54"-60" A.F.F. UNLESS NOTED OTHERWISE ON PLANS.

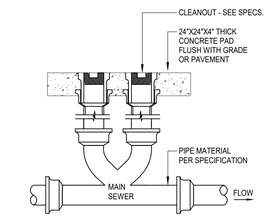
2 HOT WATER CIRCULATING PUMP
SCALE: NONE

PSAN08- XX/XX/XX



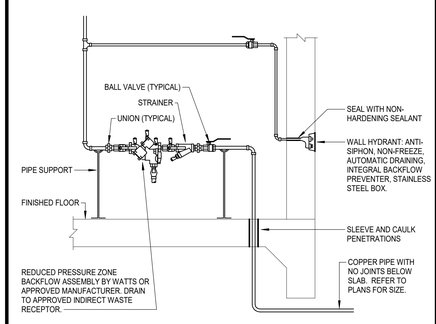
13 FLOOR SINK
SCALE: NONE

PSAN05- XX/XX/XX

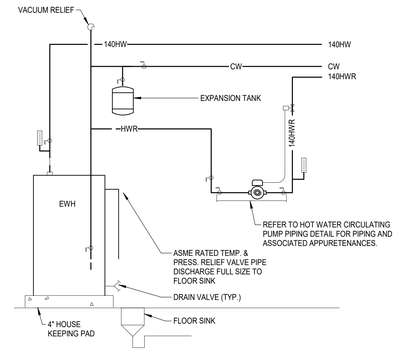


9 TWO-WAY EXTERIOR CLEANOUT
SCALE: NONE

PWE10 - 03/20/18



5 DOMESTIC WATER ENTRY WITH BACKFLOW PREVENTER
SCALE: NONE



1 ELECTRIC WATER HEATER PIPING
SCALE: NONE

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS — 80219 — LICENSED PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

100% CD

P4.01-K

PLUMBING DETAILS-K

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

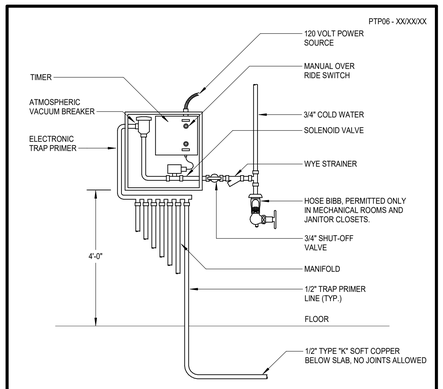
KEMPNER HIGH SCHOOL

12/3/2025 7:01:21 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/KEMPNER_MEPT_R25.rvt

SHOCK ARRESTOR SCHEDULE

P.D.I. SYMBOLS:	FIXTURE UNITS:	THREADED CONNECTION	CERTIFICATION
A	1 - 11	1/2"	ASSE 1010
B	12 - 32	3/4"	ASSE 1010
C	33 - 60	1"	ASSE 1010
D	61 - 113	1"	ASSE 1010
E	114 - 154	1"	ASSE 1010
F	155 - 330	1"	ASSE 1010

PTP06 - XX/XX/XX



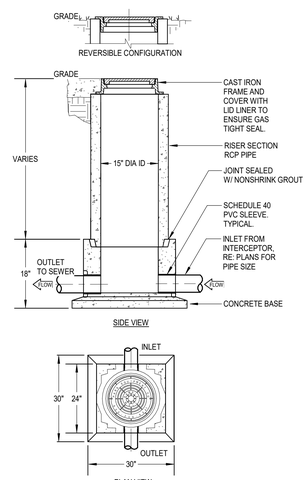
2 ELECTRONIC TRAP PRIMER
SCALE: NONE

PSAN30 - XX/XX/XX

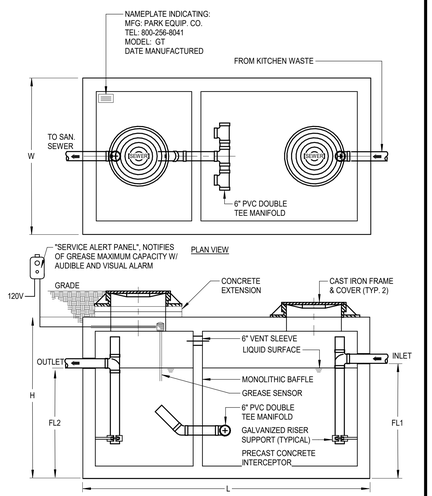
NOTES AND SPECIFICATIONS:

1. USE 15" T&G R.C.P. FOR INSTALLATION FOR INSTALLATION 6'-0" DEEP AND LESS.
2. USE 24" T&G R.C.P. FOR INSTALLATION GREATER THAN 6'-0" DEEP. (STANDARD RING AND M.H. COVER REQUIRED)
3. SAMPLING WELL MUST BE SET IN A CIRCULAR OR SQUARE CONCRETE PAD (1'-0" GREATER THAN OUTSIDE DIAMETER OF PIPE.)
4. LAWN INSTALLATION MUST BE 4" ABOVE FINISHED GRADE.
5. DRIVE & SIDEWALK INSTALLATION MUST BE BROUGHT TO FINISHED GRADE
6. CONCRETE SHALL BE CLASS 1 WITH A DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT SHALL BE OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.
7. CAST IRON FRAMES AND GRATES SHALL BE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 30, HEAVY DUTY AASHTO H-20.

MANUFACTURER/ MODEL
PARK EQUIPMENT SWB-15



3 SAMPLE WELL
SCALE: NONE



GREASE INTERCEPTOR (GI-1) SCHEDULE								
MODEL NO. / MANUFACTURER	CAPACITY USGal	GREASE CAP. (LBS)	EMPTY WT (LBS)	LENGTH L	WIDTH W	HEIGHT H	INLET FL1	OUTLET FL2
PARK USA GT-750	750	1,700	9,500	7'-10"	4'-4"	6'-0"	4'-5"	4'-2"

DESIGNER NOTE: EDIT ABOVE SCHEDULE PER GREASE TRAP SELECTED

1 GREASE TRAP WITH MONITOR
SCALE: NONE

ELECTRIC WATER HEATER SCHEDULE

MARK	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	STORAGE CAPACITY	KW	WH GALS. PER HR RECOVERY RATE 80°F RISE	STORED WATER TEMP	ELECTRICAL CHAR. V	ELECTRICAL CHAR. P
EWH-1	AO SMITH	DRE-52	50 GAL	15.0	77	140	208	3
*	IF THE MAXIMUM FUSE SIZE OF THE EQUIPMENT PROVIDED EXCEEDS THE SPECIFIED AMOUNT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL COSTS RELATED TO INCREASED FUSE SIZE / WIRE SIZE.							

CIRCULATION PUMP SCHEDULE

MARK	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	DESCRIPTION	TYPE	GPM	HEAD FEET	MAX. POWER	ELECTRICAL CHAR. V	ELECTRICAL CHAR. P	SCHEDULE NOTES
CP-1	GRUNDFOS	ALPHA HWR 15-29 SF/T	CIRCULATION PUMP	STAINLESS STEEL/FLANGE	3	1'-0"	0.03 HP	120	1	WALL MOUNTED

DOMESTIC HW EXPANSION TANK SCHEDULE

MARK	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	DESCRIPTION	MAX WORK PRESSURE (PSI)	TANK VOLUME GALLONS	MAX. ACCEPT. GALLONS	DIAMETER (INCHES)
ET-1	WATTS	PLT-5	HOT WATER EXPANSION TANK	150	2.1	0	8"
1	PROVIDE ASME POTABLE WATER EXPANSION TANK ON THE COLD WATER SUPPLY LINE, DOWNSTREAM OF THE CHECK VALVE.						
2	PROVIDE HOUSEKEEPING PAD.						
3	PROVIDE UNION CONNECTION.						

THERMOSTATIC MIXING VALVE SCHEDULE

MARK	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	TEMP. IN (DEG. F)	TEMP. OUT (DEG. F)	MIN. FLOW GPM	DESIGN FLOW GPM	VALVE FINISH	THERMOMETER	UNION CONNECTION	PRESSURE DIFFERENTIAL
TMV-1	POWERS	LFMM434	140	110	0.50	40	CP	YES	YES	5.0
1	MAKE WATER CONNECTIONS TO THERMOSTATIC MIXING VALVE(S) IN ACCRODANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.									
2	PROVIDE PIPE INCREASERS AND/OR VALVES AS REQUIRED.									
3	PROVIDE UNION CONNECTIONS AND OUTLET THERMOMETER UNLESS INDICATED OTHERWISE.									
4	REFER TO DETAIL FOR MORE INFORMATION.									
5	PROVIDE MIXING VALVE CABINET WITH INTEGRATED PRE-PIPED RETURN LINE, BOTTOM INLET AND TOP OUTLET CONNECTIONS.									

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
STATE OF TEXAS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:
1 Date Description

100% CD
P4.02-K
PLUMBING DETAILS & SCHEDULES-K
KEMPNER HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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PLUMBING PIPING LEGEND

SYMBOLS	DESCRIPTION
SAN	SANITARY OR WASTE PIPING ABOVE GRADE (SAN)
SAN	SANITARY OR WASTE PIPING BELOW GRADE (SAN)
GW	GREASE WASTE PIPING (GW)
GW	GREASE WASTE PIPING BELOW GRADE (GW)
SD	STORM DRAIN PIPING (SD)
SD	STORM DRAIN PIPING BELOW GRADE (GW)
SSD	SUB-SOIL DRAIN OR FOOTING DRAIN (SSD)
AW	ACID WASTE PIPING (AW)
AW	ACID WASTE PIPING BELOW GRADE (AW)
PD	PUMPED DISCHARGE (PD)
CD	CONDENSATE DRAIN PIPING (CD)
D	CONDENSATE - INDIRECT DRAIN PIPING (D)
	VENT PIPING (V)
CW	COLD WATER PIPING (CW)
HW	HOT WATER PIPING (HW)
HWR	HOT WATER RETURN PIPING (HWR)
SCW	SOFT COLD WATER PIPING (SCW)
CDW	CHILLED DRINKING WATER PIPING (CDW)
TP	TRAP PRIMER LINE (TP)
F	FIRE PROTECTION PIPING (F)
AS	AUTOMATIC SPRINKLER PIPING (AS)
GAS	NATURAL GAS PIPING (G)
GV	GAS VENT PIPING (GV)
AIR	COMPRESSED AIR PIPING (A)
	FLOW DIRECTIONAL ARROW
	SHUT-OFF VALVE
BV	BALANCING VALVE (BV)
SV	SOLENOID VALVE (SV)
	BALL VALVE (BV)
	BUTTERFLY VALVE
	LUBRICATED PACKED PLUG STOP STOP COCK (PC)
	HORIZONTAL SWING CHECK
	UNION
	HORIZONTAL SWING CHECK
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	REDUCED PRESSURE BACKFLOW PREVENTER (RPBFP)
	PIPING DOWN
	RISE OR DROP PIPING
	PIPING UP -OR- PIPING UP & DOWN
	CAP ON END OF PIPE
CO	CLEANOUT (WALL OR CEILING) (CO)
	FLOOR CLEANOUT (FCO)
ECO	EXTERIOR CLEANOUT WITH 18"x18"x4" CONCRETE PAD (ECO)
	TWO-WAY CLEANOUT (PROVIDE 18"x24"x4" CONCRETE PAD OUTSIDE)
	FIRE DEPARTMENT VALVE AT RISER
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
PRV	PRESSURE REDUCING VALVE (PRV)
	BRANCH CONNECTION OUT OF TOP
	BRANCH CONNECTION OUT OF BOTTOM
	BRANCH CONNECTION OUT OF SIDE
	WYE & 1/8TH BEND BRANCH CONNECTION
	WYE BRANCH CONNECTION
HB	HOSE BIBB
	PRESSURE GAUGE WITH COCK
	THERMOMETER
	GAS PRESSURE REGULATOR
	TEST COCK
	GAS METER
	WALL HYDRANT
	VALVE IN RISE
	ASME TEMPERATURE & PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE
	ANGLE VALVE
	OS&Y VALVE
	ROOF DRAIN
1	REFER TO KEYED NOTE
FS	FLOW SWITCH
	FLOOR SINK (FS)
	FLOOR DRAIN (FD)
	FLOOR DRAIN WITH P-TRAP (FD)
	FLOOR DRAIN WITH P-TRAP AT 45° ANGLE (FD)
	HUB DRAIN (HD)
	ACCESS PANEL FOR TRAP PRIMER OR SHOCK ABSORBER
AP	ACCESS PANEL LOCATION SYMBOL
A	SHOCK ABSORBER
	AIR CHAMBER
(E)	EXISTING
(N)	NEW
VTR	VENT THRU ROOF
B.F.F.	BELOW FINISHED FLOOR
A.F.F.	ABOVE FINISHED FLOOR
	NEW CONNECTION
IE=100.00'	INVERT ELEVATION
1	DELTA CHANGE SYMBOL
P 1	4" VTR RISER FLAG

PLUMBING FIXTURE SCHEDULE

TYPE: WC-1 (STANDARD HEIGHT)
DESCRIPTION: WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA WITH ANTIMICROBIAL SURFACE, 1.28 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD AFWALL #3351.101 ELONGATED OPEN FRONT SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. REFER TO ARCHITECTURAL DRAWINGS FOR SEAT COLOR. BEMIS #1955SSCT.
SEAT:
FLUSH VALVE: 1.28 GALLON FLUSH CYCLE. EXPOSED, DIAPHRAGM TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. SLOAN ROYAL 111-1.28.
CARRIER: WADE 311 (HORIZONTAL) AND 330 (VERTICAL) SERIES WITH 300 LB WEIGHT CAPACITY AND FLUSH VALVE SUPPORT (-AM1).
ROUGH-IN: 4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT REQUIREMENTS.

TYPE: WC-2 (T.A.S. / ADA COMPLIANT)
DESCRIPTION: WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA WITH ANTIMICROBIAL SURFACE, 1.28 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD AFWALL #3351.101 ELONGATED OPEN FRONT SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. REFER TO ARCHITECTURAL DRAWINGS FOR SEAT COLOR. BEMIS #1955SSCT.
SEAT:
FLUSH VALVE: 1.28 GALLON FLUSH CYCLE. EXPOSED, DIAPHRAGM TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. PROVIDE OFFSET TAILPIECE AND TRAP PRIMER CONNECTION. SLOAN ROYAL 111-1.28.
CARRIER: WADE 311 (HORIZONTAL) AND 330 (VERTICAL) SERIES WITH 300 LB WEIGHT CAPACITY AND FLUSH VALVE SUPPORT (-AM1).
ROUGH-IN: 4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT REQUIREMENTS.

TYPE: U-1 (T.A.S. COMPLIANT)
DESCRIPTION: URINAL, WALL HUNG, WHITE VITREOUS CHINA, 0.5 GALLON PER FLUSH, WASHOUT FLUSH ACTION, INTEGRAL TRAP, REMOVABLE DOMED STRAINER. AMERICAN STANDARD "WASHBROOK" 6590.001
FLUSH VALVE: 0.5 GALLON FLUSH CYCLE. EXPOSED, MANUAL TYPE, CHROME PLATED URINAL FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 3/4" TOP SPUD. SLOAN ROYAL 186-0.5
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 4" SQUARE BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, UPPER AND LOWER BEARING PLATES WITH THREADED STUDS. WADE 401-AM1-M36.
ROUGH-IN: 2" WASTE, 2" VENT, 3/4" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: L-1 (T.A.S. COMPLIANT) PUBLIC/STUDENT
DESCRIPTION: LAVATORY, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, 4" CENTERSET FAUCET HOLES. AMERICAN STANDARD LUCERNE #0355.012.
FAUCET: CHROME PLATED, VANDAL RESISTANT 0.5 GPM NON-AERATING LAMINAR FLOW OUTLET 4" SPOUT, VANDAL PROOF SINGLE PUSH BUTTON METERING, 4" CENTERS. CHICAGO #857-E2805-665PSHAB.
MIXING VALVE: POINT OF USE 1070 CERTIFIED, BRASS BODY, ADJUSTABLE TEMPERATURE CONTROL, WAX FILLED THERMOSAT AND MOUNTING BRACKET, (110 F). BRADLEY S59-4007
STRAINER: 1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP: 1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE #8872C.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE #LFH2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE 520-08.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD AND HOT WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SK-1 (T.A.S. COMPLIANT) - KITCHEN HAND WASH
DESCRIPTION: HAND SINK, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, 4" CENTERSET FAUCET HOLES. AMERICAN STANDARD LUCERNE #0355.012.
FAUCET: SINK FAUCET FOR HOT AND COLD WATER, DECK-MOUNTED WITH 4" FIXED CENTERS, CHROME PLATED. INCLUDES POPUP WASTE, RIGID/SWING GOOSENECK SPOUT, 3-1/2" CENTER-TO-CENTER. 4" METAL, VANDAL-PROOF, WRISTBLADE HANDLES WITH SIXTEEN-POINT, TAPERED BROACH AND SECURED BLUE AND RED INDEX BUTTONS. NPSM SUPPLY INLETS AND COUPLING NUT FOR 3/8" OR 1/2" FLEXIBLE RISER. COMPRESSION OPERATING CARTRIDGE(S) FOR FLOW CONTROL.
1/2" QUATURN STRAINER: 1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP: 1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE 8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 4" SQUARE BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE 520-08.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SK-2 - CONCESSIONS THREE COMPARTMENT SINK
DESCRIPTION: SINK, STAND-ALONE, STAINLESS-STEEL 88" X 25-13/16" X 43-3/4", 18 GAUGE THREE COMPARTMENT SINK W/ 18" LEFT AND RIGHT DRAINBOARDS AND 4 STAINLESS-STEEL LEGS. CENTER SET DRAIN, WITH 9" BACK-SPLASH AND 8" ON-CENTER FAUCET HOLES. ELKAY MODEL E3C16X20-2-18X.
FAUCET: CHROME PLATED BRASS CENTERSET WALL MOUNTED FAUCET FITTING. 12" ARC TUBE SPOUT, 6" WRIST BLADE HANDLES AND QUARTER TURN CERAMIC VALVE CARTRIDGES. ELKAY MODEL LK940AT127GH.
STRAINER: (1) ROTARY LEVER OPERATED DRAIN FITTINGS, EACH WITH STAINLESS STEEL PERFORATED GRID STRAINER AND 3-1/2" IPS DRAIN OUTLET. (3) ADVANCE TABCO K-15.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
ROUGH-IN: 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS. REFER TO PLUMBING PLANS FOR LOCATION AND TYPE OF INDIRECT DRAINAGE RECEPTOR, SPECIFIED SEPARATELY.

TYPE: MS-1
DESCRIPTION: MOP SINK BASIN, 36" X 36" X 12" HIGH CORNER TYPE, PRECAST TERRAZZO WITH 6" DROPPED FRONT, STAINLESS STEEL THRESHOLD CAP, AND DOUBLE STAINLESS STEEL WALL GUARDS. STERN-WILLIAMS "CORLOW" SBC-1750.
FAUCET: CHROME PLATED BRASS WALL MOUNTED FITTING WITH CHECK IN STOPS, ADJUSTABLE SUPPLY ARMS, VACUUM BREAKER SPOUT WITH PAIL HOOK AND WALL BRACE, 2-1/2" INDEXED LEVER HANDLES ON 8" CENTERS, QUARTER TURN CARTRIDGES, 3/4" MALE HOSE THREAD OUTLET. CHICAGO 445-897-XKCP.
ROUGH-IN: 3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER.

TYPE: EDF-1 (ADA COMPLIANT)
DESCRIPTION: BOTTLE FILLING STATION & BI-LEVEL HIGH EFFICIENCY VANDAL RESISTANT COOLER FILTERED REFRIGERATED STAINLESS. CHILLING CAPACITY OF 8.0 GPH OF 50°F DRINKING WATER, BASED ON 80°F INLET WATER AND 90°F AMBIENT. INCLUDE ANTIMICROBIAL, FILTERED, GREEN TICKER, HANDS FREE, HIGH EFFICIENCY, LAMINAR FLOW, REAL DRAIN, VANDAL RESISTANT, VISUAL FILTER MONITOR. ELECTRONIC BOTTLE FILLER SENSOR WITH MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. ELKAY MODEL #LVRCGRNTL8WSK.
P-TRAP: 1-1/4" CHROME PLATED CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON. MCGUIRE 8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE SLAB WITH (4) 1/2" BOLTS. ADJUSTABLE SLEEVE FOR CONNECTION TO HANGER PLATE PROVIDED BY FIXTURE MANUFACTURER. WADE 400.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: DF-1 (ADA COMPLIANT)
DESCRIPTION: WALL HUNG, VANDAL-RESISTANT BOTTLE FILLING STATION & BI-LEVEL DRINKING FOUNTAIN, FILTERED, NON-REFRIGERATED STAINLESS STEEL. LAMINAR FLOW, MECHANICALLY ACTIVATED, VANDAL RESISTANT BUBBLER. MECHANICAL BOTTLE FILLER BUTTON WITH MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. ELKAY MODEL #LVRCTLDDMWSK.
P-TRAP: 1-1/4" CHROME PLATED CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON. MCGUIRE 8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE SLAB WITH (4) 1/2" BOLTS. ADJUSTABLE SLEEVE FOR CONNECTION TO HANGER PLATE PROVIDED BY FIXTURE MANUFACTURER. WADE 400.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SH-1 - INDIVIDUAL SHOWER STATION
DESCRIPTION: SHOWER, JOB BUILT BASE INSTALLED PER ARCHITECTURAL DRAWINGS.
CONTROLS: PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH INTEGRAL CHECKSTOPS. STAINLESS STEEL, ALUMINUM OR CHROME PLATED BRASS ESCUTCHEON. VANDAL RESISTANT 2.5 GPM SHOWER HEAD. ACORN 532-GX-P.
DRAIN: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. SEE FD-1 FOR ADDITIONAL INFORMATION.
TRAP SEAL: PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN: 3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SH-2 (T.A.S. COMPLIANT) - INDIVIDUAL SHOWER STATION
DESCRIPTION: SHOWER, JOB BUILT BASE INSTALLED PER ARCHITECTURAL DRAWINGS.
CONTROLS: PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH LEVER HANDLE AND INTEGRAL CHECKSTOPS. STAINLESS STEEL, ALUMINUM OR CHROME PLATED BRASS ESCUTCHEON. 2.5 GPM HAND HELD SHOWER WITH 60" FLEXIBLE STAINLESS STEEL CLAD HOSE, VACUUM BREAKER, MOUNTING BRACKET, AND 24" SLIDE BAR. ACORN 532-GX-FX-SB-LVR.
DRAIN: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. SEE FD-1 FOR ADDITIONAL INFORMATION.
TRAP SEAL: PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN: 3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: IMC-1
DESCRIPTION: ICE MACHINE CONNECTION, WATER SUPPLY VALVED AT WALL. PROVIDE DOUBLE CHECK VALVE TYPE BACKFLOW PREVENTER AND WATER FILTER. WATTS 1/2" 007-S BACKFLOW PREVENTER AND AQUA-PURE #ICE 140-S FILTER. ROUTE BACKFLOW PREVENTER DISCHARGE TO FLOOR SINK SERVING ICE MACHINE.
ROUGH-IN: 3/4" COLD WATER. COORDINATE ROUGH-IN LOCATION/HEIGHT, FINAL CONNECTION WITH EQUIPMENT BEING INSTALLED AND WITH ARCHITECTURAL/CASEWORK DRAWINGS.

TYPE: WH-1
DESCRIPTION: WALL HYDRANT IS S.S. BOX, 3/4" NON FREEZE. HALF TURN CERAMIC DISC CARTRIDGE, STAINLESS STEEL FINISH WITH ANTI SIPHON VACUUM BREAKER AND LOOSE TEE KEY. INSTALL WITH BOTTOM OF HYDRANT 18" A.F.F. WADE #8701-MT-175.
ROUGH-IN: 3/4" COLD WATER

TYPE: FD-1
SERVICE: GENERAL USE
DESCRIPTION: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. WADE 1100-MR5.
TRAP PRIMER: SERVED BY ELECTRONIC PPP PRIME-TIME TRAP PRIMER. REFER TO DETAILS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION AND INSTALLATION WITH ARCHITECTURAL DRAWINGS / FLOOR CONSTRUCTION.

TYPE: FD-2
SERVICE: MECHANICAL ROOM CONDENSATE, T&P VALVE DISCHARGE
DESCRIPTION: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 7" DIAMETER STAINLESS STEEL STRAINER WITH EXTENDED RIM AND VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. WADE 1100-ER7.
TRAP PRIMER: SERVED BY ELECTRONIC PPP PRIME-TIME TRAP PRIMER. REFER TO DETAILS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION WITH EQUIPMENT PLACEMENT.

TYPE: FD-3
SERVICE: KITCHEN AREA DRAIN
DESCRIPTION: FLOOR DRAIN, CAST IRON BODY, 8" DIAMETER STAINLESS STEEL STRAINER, 6" DEEP SUMP, A.R.C. INTERIOR, A.R.C. SEDIMENT BUCKET, CLAMPING COLLAR, ALUMINUM DOME STRAINER. WADE #9010-6-26-27-85-110.
TRAP PRIMER: SERVED BY ELECTRONIC PPP PRIME-TIME TRAP PRIMER. REFER TO DETAILS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION WITH EQUIPMENT PLACEMENT.

TYPE: FS-1
SERVICE: ICE MACHINE DRAIN / BACKFLOW PREVENTER DISCHARGE
DESCRIPTION: CAST IRON 8" SQUARE FLOOR SINK WITH 6" DEEP SUMP, A.R.E. INTERIOR, ALUMINUM DOME BOTTOM STRAINER, 1/2 STAINLESS STEEL HALF TOP GRATE, CLAMPING DEVICE. WADE 9110-6-15-26-27-85.
TRAP PRIMER: SERVED BY ELECTRONIC TRAP PRIMER. REFER TO PLANS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION WITH ARCHITECTURAL DRAWINGS / EQUIPMENT PLACEMENT.

TYPE: BFP-1 (2" AND SMALLER)
DESCRIPTION: BACKFLOW PREVENTER, REDUCED PRESSURE ZONE TYPE WITH TWO INLINE INDEPENDENT CHECK VALVES WITH AN INTERMEDIATE RELIEF VALVE. COMPLETE WITH TWO FULL PORTED BALL VALVE SHUT-OFFS AND BALL TYPE TEST COCKS. BRONZE STRAINER ON INLET. REFER TO FLOOR PLANS FOR SIZES. MOUNT AT 48" A.F.F. UNLESS NOTED OTHERWISE ON DRAWINGS. PROVIDE AIR GAP WITH DRAIN PIPE TO NEAREST FLOOR DRAIN. WATTS 909-QT-S.

TYPE: BFP-2 (2 1/2" AND LARGER)
DESCRIPTION: BACKFLOW PREVENTER, REDUCED PRESSURE ZONE TYPE WITH TWO INLINE INDEPENDENT CHECK VALVES WITH AN INTERMEDIATE RELIEF VALVE. COMPLETE WITH TWO FULL PORTED BALL VALVE SHUT-OFFS AND BALL TYPE TEST COCKS. BRONZE STRAINER ON INLET. PROVIDE AIR GAP WITH DRAIN PIPE TO NEAREST FLOOR DRAIN. WATTS 909 SERIES.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. MOUNT AT 48" A.F.F. UNLESS NOTED OTHERWISE ON DRAWINGS.

TYPE: FCO
DESCRIPTION: FLOOR CLEANOUT, CAST IRON BODY AND ADJUSTABLE TOP ASSEMBLY WITH GASKET SEAL, AND ROUND SCORIATED STAINLESS STEEL COVER. WADE 6000-153. FOR CARPETED FLOORS PROVIDE WADE 6000-CM.

TYPE: ECO
DESCRIPTION: EXTERIOR CLEANOUT TO GRADE. CAST IRON BODY WITH ADJUSTABLE TOP ASSEMBLY WITH GASKET SEAL, AND ROUND SCORIATED VANDAL RESISTANT DUCTILE IRON TRACTOR TYPE COVER. IF LOCATED IN ASPHALT OR DIRT PROVIDE 18"X18"X12" CONCRETE PAD. WADE 6000-Z.

TYPE: WCO
DESCRIPTION: WALL CLEANOUT. CAST IRON CLEANOUT FERRULE WITH DUCTILE IRON COMBINED COVER/PLUG AND ROUND STAINLESS COVER PLATE WITH CENTER SECURING SCREW. WADE 8550 WITH 8480-R6. PROVIDE WADE 8560 CAST IRON CLEANOUT TEE IN LIEU OF FERRULE AS REQUIRED FOR WALL CONSTRUCTION.

GENERAL NOTES

ALL LAVATORIES AND SINKS SHALL BE SUPPLIED WITH HOT AND COLD WATER (UNLESS NOTED TO BE COLD WATER ONLY) TO FAUCETS AS INDICATED ON PLANS AND FIXTURE SCHEDULE. PROVIDE CHROME PLATED BRASS SUPPLY STOPS WITH LOOSE KEYS AND WALL ESCUTCHEONS. PROVIDE CHROME PLATED FLEXIBLE RISERS OF SIZE REQUIRED TO PROPERLY CONNECT FIXTURES. PROVIDE 17 GAUGE CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON (UNLESS NOTED TO BE AN ACID WASTE FIXTURE). REFER TO FIXTURE SCHEDULE FOR MINIMUM SIZES OF PLUMBING FIXTURE ROUGH-INS.

INSULATION KITS AT ALL LAVATORIES AND SINKS REQUIRED TO BE T.A.S. ACCESSIBLE (MCGUIRE OR TRUEBRO). ALL SUCH FIXTURES AND FINAL INSTALLATIONS SHALL COMPLY WITH THE STATE ACCESSIBILITY STANDARDS REQUIREMENTS.

INSERT TRAP GUARDS AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS-TIGHT SEAL. FOR DRAIN RODDING AFTER INSTALLATION. INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

DISREGARD FIXTURES LISTED THAT ARE NOT ON THIS JOB.

GENERAL NOTES

1. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE AND INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.
2. THIS CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THIS CONTRACTOR SHALL NOTIFY THE ARCHITECT/ ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.

PLUMBING GENERAL NOTES

1. WITHIN THE EXISTING BUILDING, EXISTING WATER, WASTE AND VENT SERVICES ARE TO BE MODIFIED AS REQUIRED AND REUSED FOR THE INSTALLATION OF NEW AND/OR RELOCATED PLUMBING FIXTURES. REFER TO PLUMBING FLOOR PLANS FOR POINTS OF CONNECTION.
2. WITHIN THE EXISTING BUILDING, SAWCUT AND REMOVE EXISTING FLOOR SLAB AS REQUIRED TO PROVIDE NEW AND/OR RELOCATED PLUMBING FIXTURES, CLEANOUTS, AND UNDERSLAB WASTE AND VENT PIPING. PATCH AND REFINISH FLOOR TO MATCH EXISTING.
3. IN AREAS WHERE THE FLOOR SLAB IS REMOVED, CONTRACTOR SHALL ALSO REMOVE UNDERSLAB WASTE AND VENT PIPING WHICH SERVES FIXTURES DESIGNATED FOR REMOVAL PRIOR TO ANY REMOVAL, FIELD VERIFY THAT LINES TO BE REMOVED DO NOT SERVE ANY EXISTING FIXTURES TO REMAIN OR NEW FIXTURES TO BE INSTALLED.
4. IN AREAS WHERE THE FLOOR SLAB IS NOT REMOVED, CONTRACTOR SHALL ABANDON IN PLACE ANY UNDERSLAB WASTE AND VENT PIPING NO LONGER NEEDED, UNLESS THE PIPING MUST BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION. IF NEW WORK DOES NOT NECESSITATE THEIR REMOVAL, CUT AND PLUG SUCH LINES BELOW SLAB, AND PATCH FLOOR TO MATCH EXISTING.
5. FIELD VERIFY EXACT LOCATION, SIZE, DEPTH, DIRECTION OF FLOW, CAPACITY, PIPE MATERIAL AND CONDITION OF EXISTING WASTE PIPING PRIOR TO BEGINNING CONSTRUCTION. ENSURE THAT PROPER CONNECTIONS TO AND EXTENSION OF SUCH UTILITIES CAN BE MADE.
6. WASTE LINES TO BE RE-USED OR RECONNECTED TO SHALL BE THOROUGHLY RODDED OUT AND FLUSHED TO ENSURE THEY ARE FREE FROM BLOCKAGES.
7. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING BELOW SLAB WITH COLUMN FOOTINGS, GRADE BEAMS, UNDERGROUND PLUMBING AND ELECTRICAL UTILITIES, AND OTHER SUB-SURFACE BUILDING ELEMENTS.
8. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.
9. CONTRACTOR TO COORDINATE ALL REMODEL WORK WITH THE WORK OF OTHER TRADES TO AVOID CONFLICTS AND TO MINIMIZE INTERRUPTION OF SERVICES.
10. COORDINATE ALL FIXTURE AND EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS WITH LATEST ARCHITECTURAL DRAWINGS AND SPECIFICATIONS PRIOR TO ANY ROUGH-INS.
11. DO NOT ROUGH-IN FROM THESE DRAWINGS. REFER TO LATEST ARCHITECTURAL DRAWINGS FOR DIMENSIONED LOCATIONS.
12. CONTRACTOR TO FIELD VERIFY AS NECESSARY THE EXACT ROUTING AND SIZES OF ALL PIPING.
13. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE, INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.
14. THE PROPER INSTALLATION OF NEW FIXTURES AND THE PROPER CONTINUED OPERATION OF EXISTING FIXTURES TO REMAIN SHALL DETERMINE THE EXTENT AND NATURE OF PLUMBING REMODEL WORK.
15. EACH VENT SHALL TERMINATE VERTICALLY NOT LESS THAN 6" ABOVE ROOF, MAINTAIN MINIMUM 10'-0" DISTANCE BETWEEN VENT TERMINALS THROUGH ROOF AND ALL FRESH AIR INTAKES, AND A MINIMUM 5'-0" FROM ANY EXTERIOR WALL.
16. PRIOR TO BEGINNING CONSTRUCTION, COORDINATE BUILDING BACKFLOW PREVENTION REQUIREMENTS WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PROVIDE AS DIRECTED.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS — 80219 — LICENSED PROFESSIONAL ENGINEER — STATE OF TEXAS
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:

No.	Date	Description

100% CD
P5.01-K
PLUMBING SCHEDULES-K
KEMPNER HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 7:01:23 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath\KEMPNER_MEPT_R25.rvt

TECHNOLOGY SYMBOLS & LEGEND

VOICE SYMBOLS

	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS PER LOCATION.
W	SINGLE VOICE OUTLET FOR WALL-MOUNTED PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +52-INCHES A.F.F. UNLESS OTHERWISE NOTED.

DATA SYMBOLS

	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF DATA OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
W	SINGLE DATA OUTLET FOR WALL-MOUNTED IP PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +42-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X COW	DATA CABLE FOR COMPUTER ON WHEELS, CABLE TYPE AS SPECIFIED MOUNTED + 18-INCHES A.F.F UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
X WAPW	DATA CABLE FOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPC	DATA CABLE FOR CEILING MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMW	DATA CABLE FOR INTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMC	DATA CABLE FOR CEILING MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

X CAME	DATA CABLE FOR EXTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLLATION.
X PRJW	DATA CABLE FOR WALL MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
PRJC	DATA CABLE FOR CEILING MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X AVCE	DATA CABLE FOR CEILING MOUNTED AUDIO/VISUAL EQUIPMENT ENCLOSURE, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A BLUE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
R	POWER POLE WITH ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
WAP	WIRELESS ACCESS POINT. EQUIPMENT AS SPECIFIED.

GENERAL SYMBOLS

# SHEET — DRAWING TITLE — SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
SHEET #	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES TELECOMMUNICATIONS REGION

VOICE/DATA SYMBOLS

	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF VOICE TERMINATIONS , Y = NUMBER OF DATA TERMINATIONS PER LOCATION.
	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF VOICE OUTLETS AND Y = NUMBER OF DATA OUTLETS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET AND SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X Y	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X Y	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS PER LOCATION.

FIBER OPTIC SYMBOLS

	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF FIBER OPTIC OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.

CABLE PLANT & RISER DIAGRAM

	MAINTENANCE HOLE, SIZE & TYPE AS SPECIFIED.
	PULLBOX, SIZE AND TYPE AS SPECIFIED.
UGC	DIRECT BURIED COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
AER	AERIAL COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
	CONDUIT, SIZE AND TYPE AS SPECIFIED.

COMMUNICATION AND SECURITY CABLING JACKET COLOR CODE

TYPICAL WORK AREA OUTET	BLUE - REFERENCE SPEC SECTION 27 10 00
WIRELESS ACCESS POINT	GREEN - REFERENCE SPEC SECTION 27 10 00
SECURITY(INTRUSION, ACCESS CONTROL, VIDEO SURVEILLANCE)	ORANGE - REFERENCE SPEC SECTION 28 13 00, 28 16 00, AND 27 10 00
BUILDING WIDE PUBLIC ADDRESS / INTERCOM	WHITE - REFERENCE SPEC SECTION 27 51 00
AUDIOVISUAL	BLACK - REFERENCE SPEC SECTION 27 41 16
LIGHTING CONTROL	LIME GREEN - REFERENCE MEP SPECIFICATIONS
BAS	YELLOW - REFERENCE MEP SPECIFICATIONS
FIRE ALARM	RED - REFERENCE MEP SPECIFICATIONS

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
DEMARC	DEMARCATION POINT
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
GIP	GALVANIZED IRON PIPE
HE	PA/INTERCOM HEAD-END
IMC	INTERMEDIATE METAL CONDUIT
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MH	MAINTENANCE HOLE
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PVC	POLYVINYL CHLORIDE
RSC	RIGID STEEL CONDUIT
SM	SINGLE MODE
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
TR	TELECOMMUNICATION REGION
UGC	UNDERGROUND COMMUNICATION
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR

NOTES

1. THE CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF TECHNOLOGY DRAWINGS IS PROVIDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. TECHNOLOGY DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.

INDEX OF DRAWINGS

T000-K	TECHNOLOGY SYMBOLS & LEGEND
TD201-K	TECHNOLOGY LEVEL 01 DEMO FLOOR PLAN - FIELD HOUSE
T100-K	TECHNOLOGY SITE PLAN
T101-K	TECHNOLOGY COMPOSITE FLOOR PLAN
T201-K	TECHNOLOGY LEVEL 01 FLOOR PLAN - FIELD HOUSE
T202-K	TECHNOLOGY LEVEL 01 FLOOR PLAN - CONCESSION
T203-K	TECHNOLOGY LEVEL 01 FLOOR PLAN - SOFTBALL PRESSBOX
T300-K	TECHNOLOGY ENLARGED VIEWS
T400-K	TECHNOLOGY TYPICAL DETAILS
T401-K	TECHNOLOGY TYPICAL DETAILS
T402-K	TECHNOLOGY TYPICAL DETAILS
T500-K	TECHNOLOGY TYPICAL LABELING SCHEME

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
25113
STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
1 Date Description

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T000-K
TECHNOLOGY
SYMBOLS & LEGEND

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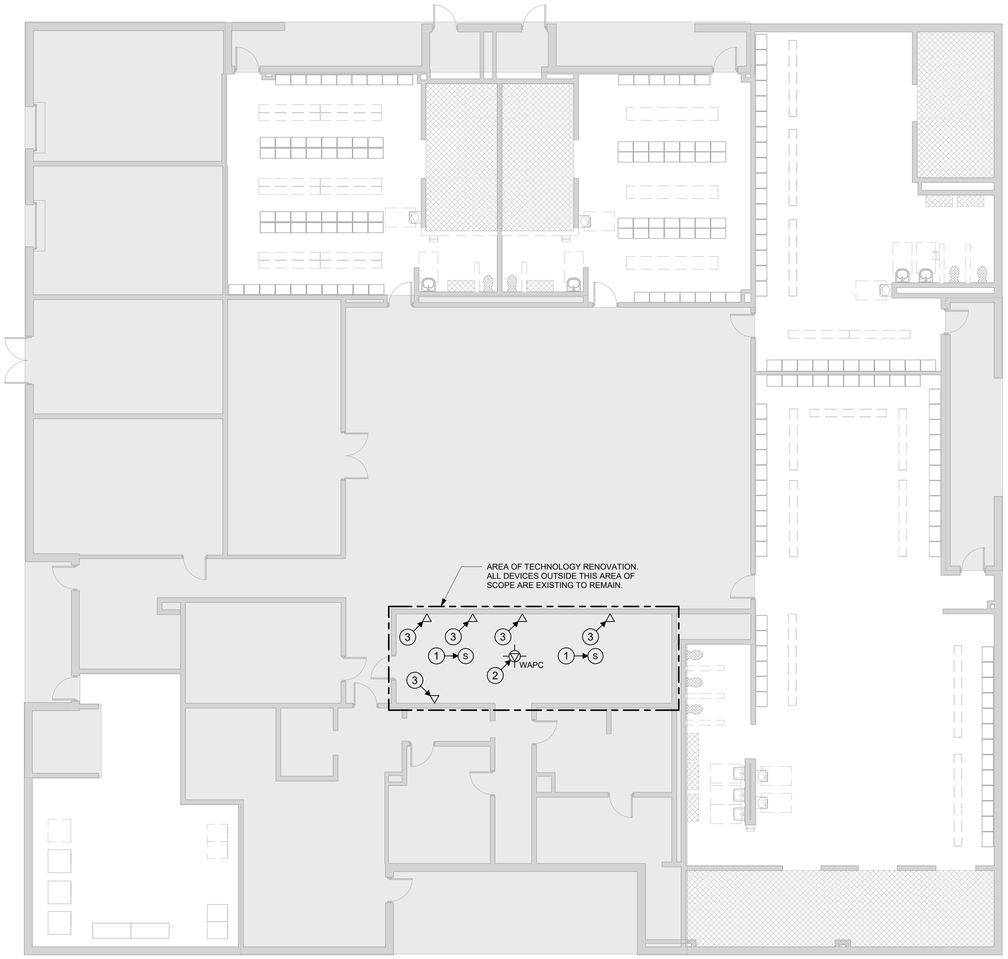

1 TD201-K TECHNOLOGY LEVEL 01 DEMO FLOOR PLAN - FIELD HOUSE
1/8" = 1'-0"

TECHNOLOGY DEMOLITION GENERAL NOTES

1. ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS SHALL REMAIN OPERATIONAL AT ALL TIMES DURING BUSINESS HOURS. ANY SYSTEM DOWNTIME SHALL BE SCHEDULED WITH THE ARCHITECT/ENGINEER AND OWNER AT LEAST TEN (10) WORKING DAYS IN ADVANCE. THE CONTRACTOR SHALL DEVELOP A PHASING PLAN AND SCHEDULE OF ANY SYSTEM DOWNTIME REQUIRED FOR REVIEW AND APPROVAL BY THE ARCHITECT/ENGINEER AND OWNER PRIOR TO ANY CONSTRUCTION ACTIVITIES.
2. THE EQUIPMENT ROOMS AND TELECOM ROOMS ENVIRONMENTAL CONTROLS SHALL BE MAINTAINED AT ALL TIMES. THE EQUIPMENT ROOMS AND TELECOM ROOMS TEMPERATURE SHALL REMAIN BETWEEN 60 - 70 DEGREES F WITH RELATIVE HUMIDITY OF 30% - 50% NON-CONDENSING. THE TEMPERATURE RANGE OF THE EQUIPMENT ROOMS AND TELECOM ROOMS SHALL BE MAINTAINED BETWEEN + - 9 DEGREES F FROM DISTRICT SETPOINT.
3. THE OWNER SHALL BE RESPONSIBLE FOR POWER DOWN AND START-UP OF ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS. THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/ENGINEER AND OWNER AND PROVIDE A MINIMUM OF TEN (10) WORKING DAYS NOTICE FOR SCHEDULING OF ANY REQUIRED DOWNTIME.
4. ALL EXISTING CONDITIONS AS SHOWN ARE APPROXIMATELY CORRECT. NOT ALL EXISTING CONDITIONS ARE SHOWN. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY ALL THE EXISTING CONDITIONS AS REQUIRED TO PROPERLY PROVIDE A BID/PROPOSAL AND PERFORM ALL REQUIRED WORK.
5. ALL EXISTING FIBER BACKBONE, HORIZONTAL DATA CABLE, HORIZONTAL VOICE CABLE AND J-HOOK PATHWAYS SHALL BE REMOVED IN THEIR ENTIRETY AS INDICATED ON TD-SERIES DRAWINGS. ALL OTHER FIBER OPTIC CABLE AND COPPER BACKBONE ARE CRITICAL COMPONENTS FOR THE CAMPUS AND THE DISTRICT FIBER RING AND SHALL REMAIN PROTECTED AND OPERATIONAL AT ALL TIMES.
6. ALL EXISTING COAXIAL CABLE (.500 / RG-6 / RG-59) FOR CATV IS TO REMAIN IN PLACE AND OPERATIONAL.
7. ALL EXISTING WIRELESS ACCESS POINTS SHALL BE REMOVED AND RETURNED TO THE OWNER. THE CONTRACTOR SHALL RE-INSTALL ALL EXISTING AND NEW WIRELESS ACCESS POINTS AT THE COMPLETION OF THE PROJECT.
8. COORDINATE REMOVAL OF EXISTING CAMERA(S) WITH OWNER/ARCHITECT DURING CONSTRUCTION.

TECHNOLOGY DEMOLITION KEYED NOTES

(1) EXISTING BUILDING INTERCOM / PA SPEAKER AND /CABLES TO REMAIN. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

(2) EXISTING WIRELESS ACCESS POINT SHALL BE REMOVED AND RE-INSTALLED AT THE END OF THE PROJECT. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

(3) EXISTING COMMUNICATIONS OUTLET TO BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL 4-PAIR CABLES AND WORKSTATION CONNECTING HARDWARE TERMINATED AT THIS LOCATION. IF THE LOCATION IS NOT RE-USED, THE CONTRACTOR SHALL SUPPLY AND INSTALL BLANK COVER. THE CONTRACTOR IS TO REMOVE EACH CABLE TO BE DEMOLISHED FROM THE PATCH PANEL OR TERMINATION BLOCK IN THE TELECOMMUNICATIONS ROOM. REMOVE THE ENTIRE LENGTH OF THE CABLE AND THE CORRESPONDING MODULAR CONNECTOR, FACEPLATE AND ACCESSORIES. NO-ABANDONED CABLING SHALL BE LEFT ABOVE CEILING. THE CONTRACTOR SHALL INSTALL ALL EXISTING AND NEW WIRELESS ACCESS POINTS AT THE COMPLETION OF THE PROJECT.

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS
12-05-2025

PROJECT NO: 25-006
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TD201-K
TECHNOLOGY LEVEL 01 DEMO FLOOR PLAN - FIELD HOUSE

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1 T100-K TECHNOLOGY LEVEL 01 KEMPNER SITE
1" = 80'-0"

TECHNOLOGY SITE PLAN GENERAL NOTES

1. ALL CONDUIT PATHWAYS, ROUGH-INS, CONDUIT SLEEVES, ETC. INDICATED ON TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
2. ALL POWER INDICATED ON THE TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
3. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING BACK TO THE ORIGINAL RATING.
4. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING FOR SOUND ATTENUATION TO REDUCE NOISE TRAVELING THROUGH PENETRATIONS.
5. THE CONTRACTOR SHALL RESTORE ALL THE PENETRATIONS PROVIDED THROUGH WALLS/STRUCTURES FOR TECHNOLOGY CABLING TO PREVENT WATER INFILTRATION INTO THE SPACE.
6. CONDUITS SHALL MAINTAIN A MINIMUM OF 12-INCHES OF WELL TAMPED EARTH OR 3-INCHES OF CONCRETE SEPARATION BETWEEN ANY FOREIGN CONDUITS AND/OR PIPES THROUGHOUT THE ENTIRE CONDUIT PATHWAY.
7. CONDUIT SEGMENTS SHALL BE NO MORE THAN 600-FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
8. CONDUITS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUITS GREATER THAN 2-INCHES.
9. THE CONTRACTOR SHALL PROVIDE A DETECTABLE WARNING TAPE 12-INCHES BELOW GRADE ON TOP OF ALL CONDUITS THROUGHOUT THE ENTIRE CONDUIT TRENCH.
10. THE CONTRACTOR SHALL COORDINATE ALL CONDUIT PATHWAYS WITH THE ARCHITECT, CIVIL AND LANDSCAPE PLANS PRIOR TO BEGINNING ANY TRENCHING.
11. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR PULLING OF THE CABLE.
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. THE CONTRACTOR SHALL CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.

TECHNOLOGY SITE PLAN KEYED NOTES

1. APPROXIMATE LOCATION OF SECOND FLOOR MDF.
2. PROVIDE FIBER OPTIC BACKBONE TO FOOTBALL AND BASEBALL PRESS BOXES
3. UTILIZE EXISTING PATHWAY BETWEEN MAIN BUILDING AND FIELD HOUSE FOR INTERCONNECTIVITY TO NEW PRESS BOX AND CONCESSIONS BUILDING
4. EXIT THE BUILDING PLENUM AND TURN DOWN BUILDING EXTERIOR AT THIS LOCATION.
5. PROVIDE (3) 2-INCH SCHEDULE 80 PVC CONDUIT BURIED 36-INCHES BELOW FINAL FINISHED GRADE FROM BUILDING EXTERIOR. THE CONTRACTOR SHALL PROVIDE PULL STRING INSIDE EACH CONDUIT. THE CONTRACTOR SHALL PROVIDE NYLON BUSHINGS AND PROTECTIVE CAPS ON EACH END OF THE CONDUIT. ONE 2-INCH CONDUIT WILL BE PROVIDED WITH (1) 2-INCH, THREE-CELL MAXCELL INNERDUCT, (BY DIV. 26).
6. (24)-INCH X (18)-INCH X (36)-INCH HAND HOLE WITH LOCKABLE COVER RATED FOR ENVIRONMENT STAMPED WITH TELECOMMUNICATIONS. COVER OF HANDHOLE SHALL BE FLUSH WITH A FINAL FINISHED GRADE. (BY DIV. 26).
7. APPROXIMATE LOCATION OF CONCESSIONS BUILDING IDF
8. TERMINATE INTERCONNECTING 2-INCH PATHWAYS NEAR NETWORK ENCLOSURE. COORDINATE FINAL LOCATION WITH OWNER, ARCHITECT, AND CONSULTANT PRIOR TO ROUGH-IN AND INSTALLATION

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

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16431 Lexington Blvd.
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T100-K
TECHNOLOGY SITE PLAN

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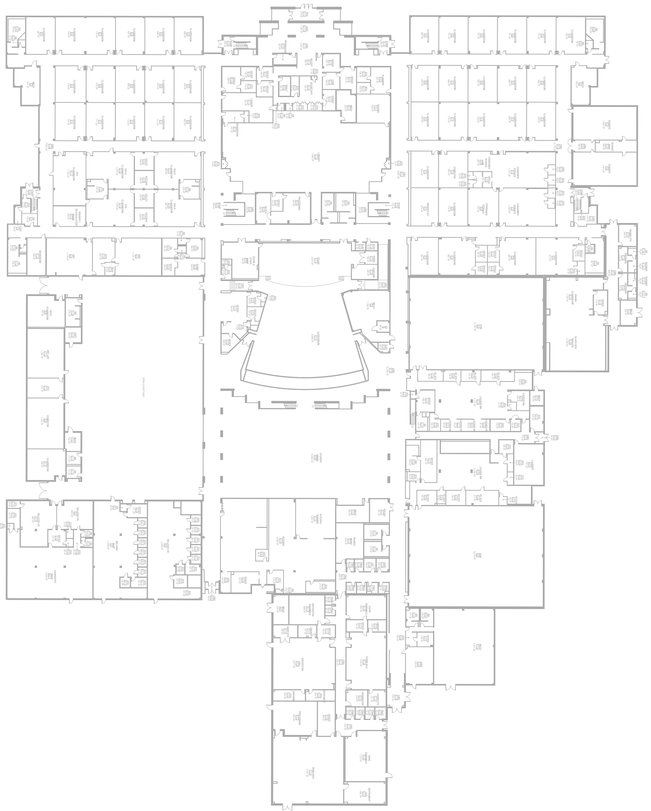
1 T101-K
1" = 50'-0"
TECHNOLOGY COMPOSITE FIRST FLOOR PLAN

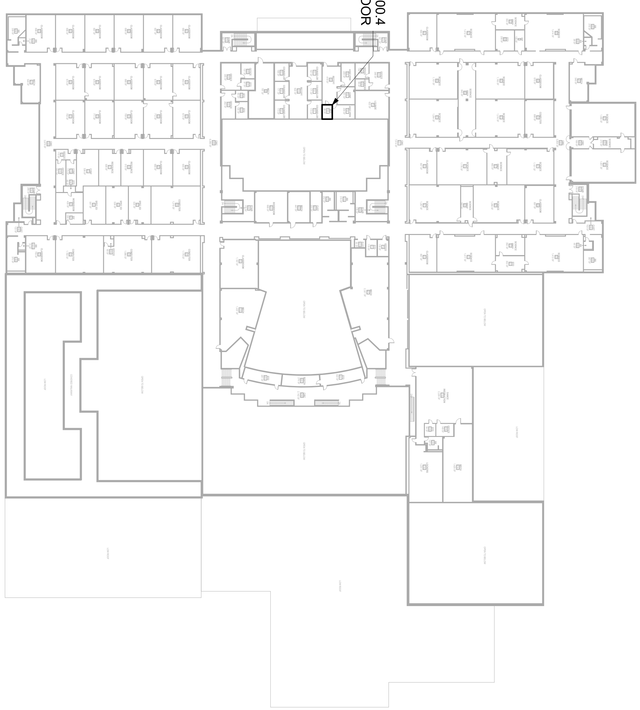


BUILDING MDF 700.4
2ND FLOOR





2 T101-K
1" = 50'-0"
TECHNOLOGY COMPOSITE SECOND FLOOR PLAN



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T101-K
TECHNOLOGY COMPOSITE FLOOR PLAN

PROJECT NO: 25-006
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Sugarland, TX 77479

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14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

pfluger
office: 713.222.1141 | fax: 713.222.1174
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Houston, Texas 77046
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1 T201-K TECHNOLOGY LEVEL 01 FLOOR PLAN - FIELD HOUSE
1/8" = 1'-0"

TECHNOLOGY FLOOR PLAN GENERAL NOTES

1. THE TECHNOLOGY REGION / WIRING BOUNDARIES ARE IDENTIFIED ON THE OVERALL SHEETS ONLY AND NOT ON THE ENLARGED SHEETS. THE CONTRACTOR SHALL REFER TO THE OVERALL SHEETS FOR ALL TECHNOLOGY REGIONS / WIRING BOUNDARIES.
2. ALL CONDUIT PATHWAYS, ROUGH-INS, BACKBOXES, FLOOR BOXES, CONDUIT SLEEVES, ETC. INDICATED ON TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
3. ALL POWER INDICATED ON THE TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
4. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING BACK TO THE ORIGINAL RATING.
5. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING FOR SOUND ATTENUATION TO REDUCE NOISE TRAVELING THROUGH PENETRATIONS.
6. TECHNOLOGY CABLING SHALL BE ROUTED IN SEPARATE PATHWAYS IN J-HOOKS, CONDUITS, CONDUIT SLEEVES, CORES, ETC. THROUGHOUT THE ENTIRE PATHWAY. DIFFERENT MEDIA TYPES (DATA, VIDEO, SECURITY, ETC.) SHALL NOT SHARE THE SAME J-HOOK, CONDUIT, CONDUIT SLEEVE, CORE, ETC.
7. UNLESS NOTED OTHERWISE, ALL CONDUITS FOR TECHNOLOGY DEVICES SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE AN ACCESSIBLE CEILING (AN OPEN CEILING OR CLOUD TYPE CEILING IS NOT CONSIDERED AN ACCESSIBLE CEILING) IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF A MAIN CORRIDOR. CONDUIT PATHWAYS SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF / IDF ROOM TO MINIMIZE CABLE LENGTHS ENSURING CABLE LENGTHS DO NOT EXCEED 275 FEET.
8. UNLESS NOTED OTHERWISE ALL CONDUITS SHALL BE HOMERUN FROM THE DEVICE LOCATION AND NO DAISY CHAINING OF DEVICES / ROUGH-INS SHALL BE ALLOWED.
9. CONDUIT SEGMENTS SHALL BE NO MORE THAN 100 FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
10. CONDUITS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUITS GREATER THAN 2-INCHES.
11. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR PULLING OF THE CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
13. EQUIPMENT NOT RELATED TO THE SUPPORT OF THE TELECOMMUNICATIONS ROOM (E.G., PIPING, DUCTWORK, PNEUMATIC TUBING) SHALL NOT BE INSTALLED IN, PASS THROUGH, OR ENTER THE TELECOMMUNICATIONS ROOM.
14. ALL CONDUITS FOR TECHNOLOGY DEVICES SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE A LAY- IN TYPE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE A LAY-IN TYPE CEILING TO PREVENT THE CABLES FROM BEING EXPOSED, THE CONDUIT SHALL ROUTE TO THE NEAREST LAY-IN TYPE CEILING OFF A MAIN CORRIDOR OR THE NEAREST MDF/IDF. THE CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE MAIN CORRIDOR OR THE NEAREST MDF/IDF TO MINIMIZE THE CABLE LENGTH ENSURING THE CABLE LENGTH DOES NOT EXCEED 275 FEET. CONDUIT, CONNECTIONS, J-BOXES, SUSPENSION, ANCHORAGES, AND OTHER CONDUIT COMPONENTS EXPOSED TO VIEW IN PUBLIC SPACES SHALL BE ROUTED AND INSTALLED CAREFULLY TO MINIMIZE VISUAL IMPACT AND SHALL BE FULLY PAINTED TO MATCH UNLESS NOTED OTHERWISE.
15. CONDUIT(S) INSTALLED IN-SLAB OR UNDER-SLAB TO FLOOR BOXES, POKE-THURS, AND TO WORKAREA OUTLETS, ETC. SHALL BE INSTALLED WITH WET RATED CABLE(S).
16. NO GRID WIRE SHALL BE UTILIZED FOR SUPPORTS ONLY USE SOLID SUPPORTS (CLIPS, ALL-THREAD, ANCHORS, ETC.).
17. WIRE BASKET TRAY SHALL HAVE A 6" CLEARANCE FROM CEILING TILE TO THE BOTTOM OF BASKET TRAY, 12" CLEARANCE FROM THE TOP OF THE BASKET TRAY TO HVAC UNITS, HVAC DUCTS, HEATING DUCTS, AND HEATING EQUIPMENT, ETC., AND 12" CLEARANCE FROM THE SIDE OF THE BASKET TRAY TO HVAC UNITS, HVAC DUCTS, HEATING DUCTS, AND HEATING EQUIPMENT, ETC. WIRE BASKET TRAY SHALL BE PROPERLY GROUNDED AND BONDED AS PER INDUSTRY STANDARDS (BY DIV. 26).

TECHNOLOGY FLOOR PLAN KEYED NOTES

(1) DATA CABLE WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK FOR OWNER PROVIDED / OWNER INSTALLED ACCESS CONTROL GATEWAY / CONTROLLER WITH ACCESSIBLE CEILING. REFER TO SECURITY DRAWINGS FOR EXACT LOCATION AND CONDUIT ROUGH-IN REQUIREMENTS.

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMEC 20113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
1 Date Description

100%CD

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TECHNOLOGY LEVEL 01 FLOOR PLAN - FIELD HOUSE

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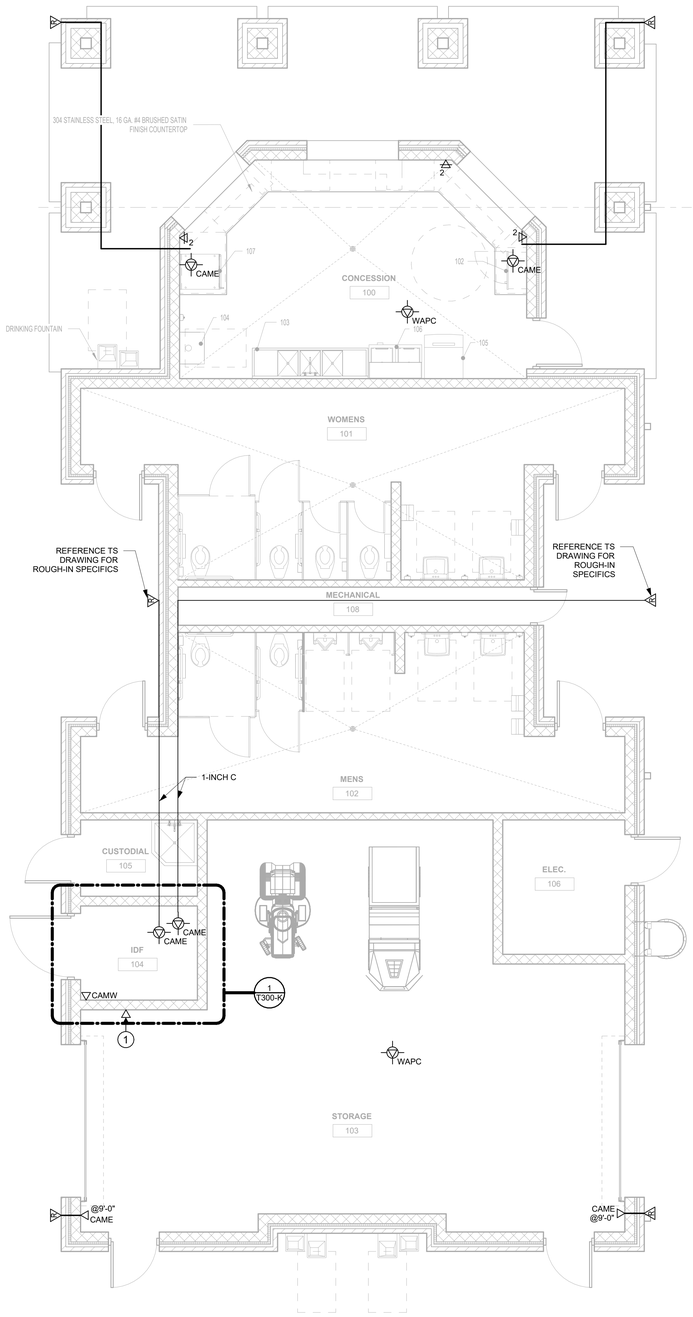

1 T202-K TECHNOLOGY LEVEL 01 FLOOR PLAN - CONCESSION
1/4" = 1'-0"

TECHNOLOGY FLOOR PLAN GENERAL NOTES

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2. ALL CONDUIT PATHWAYS, ROUGH-INS, BACKBOXES, FLOOR BOXES, CONDUIT SLEEVES, ETC. INDICATED ON TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
3. ALL POWER INDICATED ON THE TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
4. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING BACK TO THE ORIGINAL RATING.
5. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING FOR SOUND ATTENUATION TO REDUCE NOISE TRAVELING THROUGH PENETRATIONS.
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7. UNLESS NOTED OTHERWISE, ALL CONDUITS FOR TECHNOLOGY DEVICES SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE AN ACCESSIBLE CEILING (AN OPEN CEILING OR CLOUD TYPE CEILING IS NOT CONSIDERED AN ACCESSIBLE CEILING) IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF A MAIN CORRIDOR. CONDUIT PATHWAYS SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF / IDF ROOM TO MINIMIZE CABLE LENGTHS ENSURING CABLE LENGTHS DO NOT EXCEED 275 FEET.
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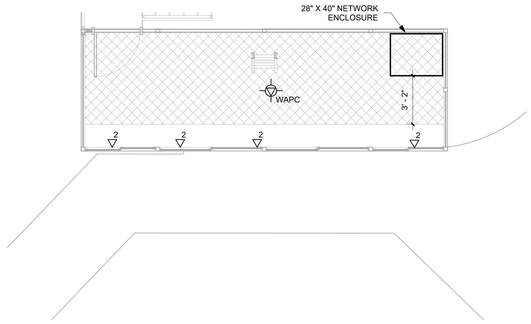
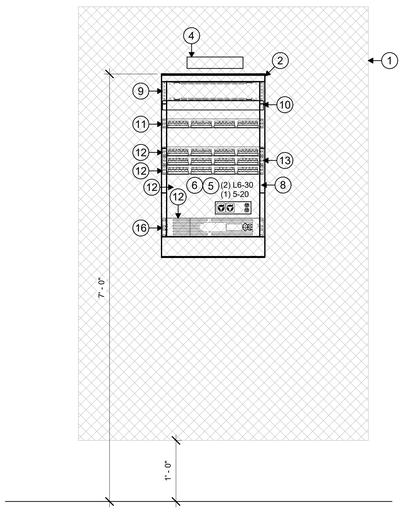


1 T203-K TECHNOLOGY LEVEL 01 FLOOR PLAN - SOFTBALL PRESSBOX
1/4" = 1'-0"



2 T203-K WALL MOUNTED 28" W X 40" DEEP NETWORK ENCLOSURE
N.T.S.

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TECHNOLOGY FLOOR PLAN KEYED NOTES

(1) DATA CABLE WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK FOR OWNER PROVIDED / OWNER INSTALLED ACCESS CONTROL GATEWAY / CONTROLLER WITH ACCESSIBLE CEILING. REFER TO SECURITY DRAWINGS FOR EXACT LOCATION AND CONDUIT ROUGH-IN REQUIREMENTS.

MDF / IDF GENERAL NOTES

1. IN THE EVENT THE CONTRACTOR PROVIDES AND INSTALLS 2-POST EQUIPMENT RACKS IN THE MDF/IDF ROOMS, THE DIVISION 27 CONTRACTOR SHALL COORDINATE WITH THE OWNER TO DETERMINE IF THE OWNER NEEDS ADDITIONAL EQUIPMENT RACK SUPPORT SUCH AS RAILS OR DEEP SHELVING TO SUPPORT FUTURE OWNER PROVIDED/OWNER INSTALLED UPS SYSTEM EQUIPMENT.
2. CONTRACTOR SHALL CONFIRM PATCH PANEL COUNTS WITH CABLE QUANTITIES PRIOR TO BIDDING. PATCH PANEL QUANTITY SHALL BE BASED OF OFF DEVICE QUANTITY SHOWN ON FLOOR PLANS AND REQUIRED SPARE PORTS. PATCH PANEL QUANTITY SHOWN ON RACKS ARE FOR REFERENCE ONLY.
3. EQUIPMENT NOT RELATED TO THE SUPPORT OF THE TELECOMMUNICATIONS ROOM (E.G., PIPING, DUCTWORK, PNEUMATIC TUBING) SHALL NOT BE INSTALLED IN, PASS THROUGH, OR ENTER THE TELECOMMUNICATIONS ROOM.
4. A VERTICAL SECTION OF LADDER RACK SHALL BE ATTACHED TO THE WALLBOARD TO MANAGE BACKBONE CABLES, SERVICE PROVIDER CABLES, OR CABLES AS THEY TRANSITION FROM THE ENTRANCE CONDUITS TO OVERHEAD LADDER RACK.
5. MAX (5) DATA PATCH PANELS ON INITIAL INSTALLATION ANY ADDITIONAL PATCH PANEL WILL BE PLACE ON THE NEXT RACK.
6. ALL RACK EQUIPMENT AND PATCH PANELS SHALL BE MOCKED UP AND COORDINATED WITH OWNER AND CONSULTANT PRIOR TO PERMANENT ATTACHMENT AND OR INSTALLATION.

ENLARGED PLAN KEYED NOTES

(1) 4-FEET X 8-FEET X ¾-INCH A-B GRADE, VOID FREE, FIRE RATED PLYWOOD INSTALLED VERTICALLY STARTING AT 24-INCHES ABOVE FINISHED FLOOR ON ALL PERIMETER WALLS. PAINT WITH (2) COATS OF FIRE RETARDANT PAINT. (BY DIV. 27)

(2) FREE STANDING 28"W X 40" D NETWORK ENCLOSURE (BY DIV 27)

(3) WALL MOUNTED 24"W X 30" D NETWORK ENLCOSURE (BY DIV 2&

(4) GROUND BUS BAR MOUNTED AT 84-INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)

(5) DEDICATED 20 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH DUPLEX NEMA 5-20R RECEPTACLE MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR BEHIND THE EQUIPMENT RACKS. (BY DIV. 26)

(6) DEDICATED 30 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH SIMPLEX NEMA L6-30R TWIST LOCK RECEPTACLE MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR BEHIND THE EQUIPMENT RACKS. (BY DIV. 26)

(7) 20 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH DUPLEX NEMA 5-20R RECEPTACLE FLUSH MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR. (BY DIV.26)

(8) VERTICAL POWER STRIP WITH STAND-OFF BRACKET(S), MOUNTED ON THE BACK SIDE OF RELAY RACKS. VERTICAL POWER AND STAND-OFF BRACKETS SHALL NOT INTERFERE WITH NETWORK SWITCHES. (BY DIV. 27)

(9) 2RU HORIZONTAL WIRE MANAGER (BY DIV. 27)

(10) 1RU RACK MOUNTED FIBER OPTIC ENCLOSURE (BY DIV. 27)

(11) 1RU VOICE BACKBONE 24 PORT ANGLED PATCH PANEL (BY DIV. 27)

(12) ANGLED PATCH PANEL FOR VIDEO SURVEILLANCE CABLES (BY DIV. 27)

(13) ANGLED PATCH PANEL FOR WIRELESS ACCESS POINT CABLES (BY DIV. 27)

(14) ANGLED PATCH PANEL FOR DATA CABLES (BY DIV. 27)

(15) CISCO DATA NETWORK EQUIPMENT (BY OWNER)

(16) UNINTERRUPTABLE POWER SUPPLY (BY OWNER)

pfluger
office 713.222.1141 | fax: 713.222.1174
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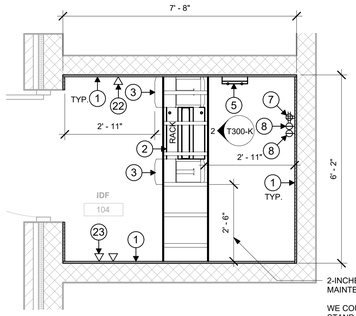
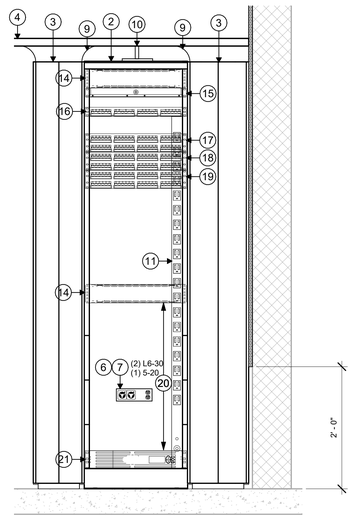


2-INCHES SHY OF BICSI RECOMMENED 32" AISLEWAY FOR MAINTENANCE.

WE COULD USE 8-INCH VERTICAL MANAGERS WHICH ARE NON STANDARD EQUIPMENT FOR FBISD. DOING SO WOULD YEILD 4-INCHES RESULTING IN THE 32" OF CLEARANCE NEEDED

1 T300-K CONCESSION BUILDING IDF ENLARGED PLAN
1/2" = 1'-0"



2 T300-K CONCESSIONS BUILDING NETWORK RACK ELEVATION
1" = 1'-0"

MDF / IDF GENERAL NOTES

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IDF ROOM KEYED NOTES

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2. 19-INCH X 84-INCH RELAY RACK (BY DIV. 27)
3. 10-INCH VERTICAL WIRE MANAGERS. (BY DIV. 27)
4. 12-INCH LADDER RACK MOUNTED AT 87-INCHES ABOVE FINISHED FLOOR. LADDER RACK SHALL BE SUPPORTED PER MANUFACTURE AND INDUSTRY STANDARDS. (BY DIV. 27)
5. GROUND BUS BAR MOUNTED AT 84-INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
6. DEDICATED 20 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH DUPLEX NEMA 5-20R RECEPTACLE MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR BEHIND THE EQUIPMENT RACKS. (BY DIV. 26)
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8. 20 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH DUPLEX NEMA 5-20R RECEPTACLE FLUSH MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR. (BY DIV.26)
9. CABLE RUNWAY RADIUS DROP CROSS MEMBER (BY DIV. 27)
10. CABLE RUNWAY ELEVATION KIT (BY DIV. 27)
11. VERTICAL POWER STRIP WITH STAND-OFF BRACKET(S), MOUNTED ON THE BACK SIDE OF RELAY RACKS. VERTICAL POWER AND STAND-OFF BRACKETS SHALL NOT INTERFERE WITH NETWORK SWITCHES. (BY DIV. 27)
12. FLOOR MOUNTED HVAC UNIT. PIPING SHALL EXIT THE ROOM IN THE CORNER. THE DISCONNECT AND HAVC PANEL SHALL BE LOCATED ABOVE THE FLOOR MOUNTED HAVC UNIT. (BY DIV. 23)
13. (3) 4-INCH CONDUIT TO ACCESSIBLE CEILING
14. 2RU HORIZONTAL WIRE MANAGER (BY DIV. 27)
15. 2RU RACK MOUNTED FIBER OPTIC ENCLOSURE (BY DIV. 27)
16. 1RU VOICE BACKBONE 24 PORT ANGLED PATCH PANEL (BY DIV. 27)
17. 2RU 48 PORT ANGLED PATCH PANEL FOR VIDEO SURVEILLANCE CABLES (BY DIV. 27)
18. 2RU 48 PORT ANGLED PATCH PANEL FOR WIRELESS ACCESS POINT CABLES (BY DIV. 27)
19. 2RU 48 PORT ANGLED PATCH PANEL FOR DATA CABLES (BY DIV. 27)
20. CISCO DATA NETWORK EQUIPMENT (BY OWNER)
21. UNINTERRUPTABLE POWER SUPPLY (BY OWNER)
22. WALL MOUNTED PHONE. INSALL OUTLET AT 48" AFF. ENSURE A 12- INCH CLEAR SPACE AROUND OUTLET. COORDINATE LOCATION WITH OWNER AND CONSULTANT PRIOR TO ROUGH-IN
23. WALL MOUNTED SURVEILLANCE CAMERA. INSTALL OUTLET AT 6" BELOW CABLE RUNWAY ENSURE A 12-INCH CLEAR SPACE AROUND OUTLET. COORDINATE LOCATION WITH OWNER AND CONSULTANT PRIOR TO ROUGH-IN

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
2015
STATE OF TEXAS

12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:

	Date	Description
1		

100%CD

T300-K
TECHNOLOGY
ENLARGED VIEWS

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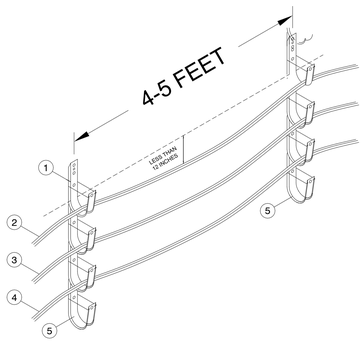
NOTE TO CONTRACTOR:
UNLESS OTHERWISE NOTED, LOW VOLTAGE CABLING SHALL BE INSTALLED WITHIN 6-INCHES OF THE CEILING AND LAST VERTICALLY SITUATED J-HOOK SHALL BE NO HIGHER THAN 18" OF CEILING. CABLES AND SUPPORTS SHELL BE ACCESSIBLE BY TECHNICIAN ON A STANDARD A-FRAME LADDER.

CONTRACTOR SHALL MAINTAIN AT LEAST 6-INCHES OF SEPARATION BETWEEN CABLING BUNDLES AND MECHANICAL DUCTWORKS, EQUIPMENT, PIPING OR OTHER SYSTEMS IN THE CEILING PLENUM

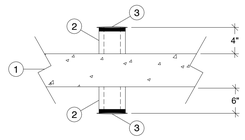


KEYED NOTES:

1. J-HOOK WITH RETAINER CLIP ABOVE ACCESSIBLE CEILING (BY DIV 27).
2. DATA CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).
3. A/V CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).
4. SECURITY CABLE ABOVE ACCESSIBLE CEILING (BY DIV 28).
5. SPARE J-HOOK (BY DIV 27).

1 T400-K — TYPICAL J-HOOK CABLE PATHWAY

SCALE: N.T.S.

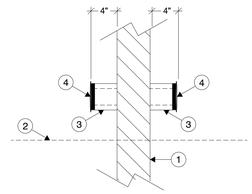


KEYED NOTES:

1. SCHEDULED FLOOR OR DECK.
2. CONDUIT SLEEVE (BY DIV 26).
3. NYLON BUSHING (BY DIV 26).

2 T400-K — TYPICAL CONDUIT SLEEVE THROUGH FLOOR OR DECK DETAIL

SCALE: N.T.S.

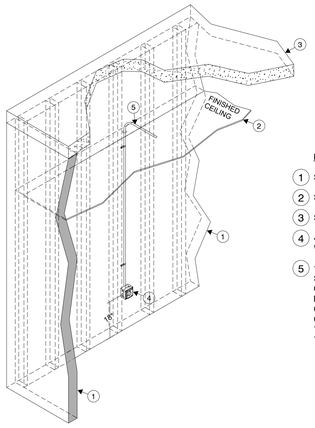


KEYED NOTES:

1. SCHEDULED WALL.
2. SCHEDULED CEILING.
3. CONDUIT SLEEVE (BY DIV 26).
4. NYLON BUSHING (BY DIV 26).

3 T400-K — TYPICAL CONDUIT SLEEVE GOING THROUGH WALL

SCALE: N.T.S.

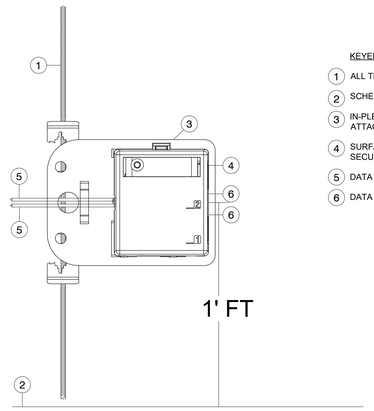


KEYED NOTES:

1. SCHEDULED WALL.
2. SCHEDULED CEILING.
3. SCHEDULED DECK ABOVE.
4. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX WITH DOUBLE GANG PLASTER RING (BY DIV 26).
5. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH. (BY DIV 26).

4 T400-K — TYPICAL TECHNOLOGY CONDUIT ROUGH-IN

SCALE: N.T.S.

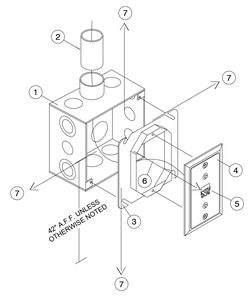


KEYED NOTES:

1. ALL THREAD TO BUILDING STRUCTURE (BY DIV. 27)
2. SCHEDULING CEILING
3. IN-PLENUM CEILING BRACKET PN 49223-CBC ATTACHED TO ALL THREAD (BY DIV. 27)
4. SURFACE MOUNT BOX ABOVE ACCESSIBLE CEILING SECURED TO BRACKET (BY DIV. 27)
5. DATA CABLE (BY DIV. 27)
6. DATA INSERT (BY DIV. 27)

5 T400-K — TYPICAL ABOVE CEILING DATA OUTLET

SCALE: N.T.S.

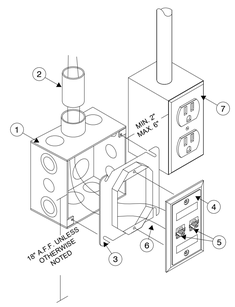


KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH PHONE STUDS (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. PROVIDE A MINIMUM OF 8-INCHES OF CLEARANCE AROUND BACK-BOX TO ACCOMODATE PHONE APPLIANCE THAT WILL BE INSTALLED ON THIS OUTLET

6 T400-K — TYPICAL WALL PHONE OUTLET CONFIGURATION

SCALE: N.T.S.

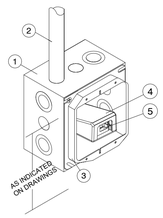


KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

7 T400-K — TYPICAL DUAL DATA OUTLET CONFIGURATION

SCALE: N.T.S.

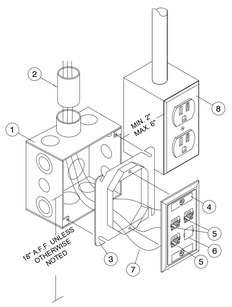


KEYED NOTES:

1. 4 11/16-INCH X 4 11/16-INCH X 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. DOUBLE GANG PLASTER RING (BY DIV 26).
4. SURFACE MOUNT BOX INSIDE THE 4 11/16-INCH X 4 11/16-INCH X 2 1/8-INCH DOUBLE GANG BOX (BY DIV 27).
5. RJ-45 INSERT (BY DIV 27).

8 T400-K — TYPICAL WALL-MOUNTED WIRELESS ACCESS POINT

SCALE: N.T.S.



KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
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3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. BLANK INSERT (BY DIV 27).
7. CABLE AS SPECIFIED (BY DIV 27).
8. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

9 T400-K — TYPICAL THREE DATA OUTLET CONFIGURATION

SCALE: N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

12-05-2025

PROJECT NO.	25-006
DATE:	12-05-2025
DRAWN BY: BP	CHECKED BY: CCG

REVISIONS:

	Date	Description
1		

100%CD

T400-K

TECHNOLOGY TYPICAL DETAILS

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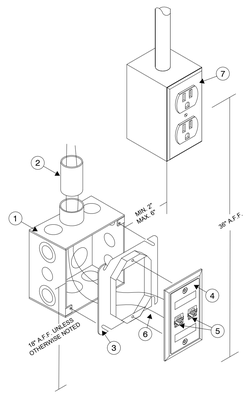
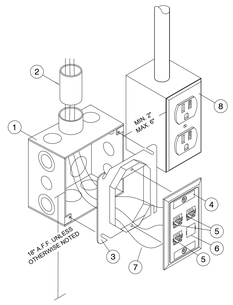


KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26). ELECTRICAL RECEPTACLE TO BE INSTALLED AT 36" A.F.F AND ADJACENT TO COW / SECONDARY TEACHING OUTLET LOCATION.

1 T401-K TYPICAL COW / SECONDARY TEACHER'S DATA OUTLET CONFIGURATION

SCALE: N.T.S.

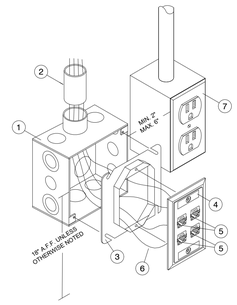


KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. BLANK INSERT (BY DIV 27).
7. CABLE AS SPECIFIED (BY DIV 27).
8. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

2 T401-K TYPICAL THREE DATA OUTLET CONFIGURATION

SCALE: N.T.S.



KEYED NOTES:

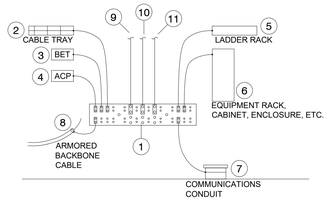
1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

3 T401-K TYPICAL FOUR DATA OUTLET CONFIGURATION

SCALE: N.T.S.

GENERAL NOTES:

1. MAKE ALL BONDING CONNECTIONS WITH TWO-HOLE COMPRESSION LUGS.
2. SIZE ALL BONDING CONDUCTORS PER TELECOM BONDING CONDUCTOR SIZING TABLE.
3. THIS IS A TYPICAL DETAIL, NOT ALL EQUIPMENT REQUIRING BONDING MAY BE PRESENT IN EACH TELECOM ROOM.



KEYED NOTES:

1. TELECOMMUNICATIONS GROUNDING BUSBAR WITH BICSI STYLE HOLE PATTERN, SIZED PER [DRAWINGS/SPECIFICATIONS] (BY DIV 27).
2. BOND TO CABLE TRAY IN CORRIDOR. (BY DIV 26)
3. BOND TO BUILDING ENTRANCE TERMINALS AND PROTECTORS. (BY DIV 27)
4. BOND TO ACCESS CONTROL PANELS AND OTHER SECURITY ENCLOSURES. (BY DIV 28)
5. BOND TO OVERHEAD LADDER RACK; ENSURE ALL LADDER RACK SECTIONS ARE BONDED TOGETHER. (BY DIV 27)
6. BOND TO EACH EQUIPMENT RACK, CABINET, ENCLOSURE, ETC. (BY DIV 27)
7. BOND TO EACH CONTINUOUS COMMUNICATIONS CONDUIT THAT ENTERS THE TELECOM ROOM. (SLEEVES DO NOT NEED TO BE BONDED). (BY DIV 26)
8. BOND TO EACH ARMORED BACKBONE CABLE THAT TERMINATES IN THE TELECOM ROOM. (BY DIV 27)
9. FOR TELECOMMUNICATIONS MAIN GROUNDING BUSBAR, PROVIDE BONDING CONDUCTOR FOR TELECOMMUNICATIONS TO MAIN ELECTRICAL GROUND. (BY DIV 26)
10. FOR TELECOMMUNICATIONS GROUNDING BUSBARS ONLY: BONDING CONDUCTOR TO [BUILDING STEEL] [TELECOMMUNICATIONS BONDING BACKBONE] [GROUND BUS OF ELECTRICAL PANEL SERVING TELECOM ROOM POWER]. (BY DIV 26)
11. [FOR TELECOMMUNICATIONS MAIN GROUNDING BUSBAR, PROVIDE TELECOMMUNICATIONS BONDING BACKBONE PER TYPICAL GROUNDING DIAGRAM.] (BY DIV 26)

4 T401-K TELECOMMUNICATIONS BONDING BUSBAR DETAIL

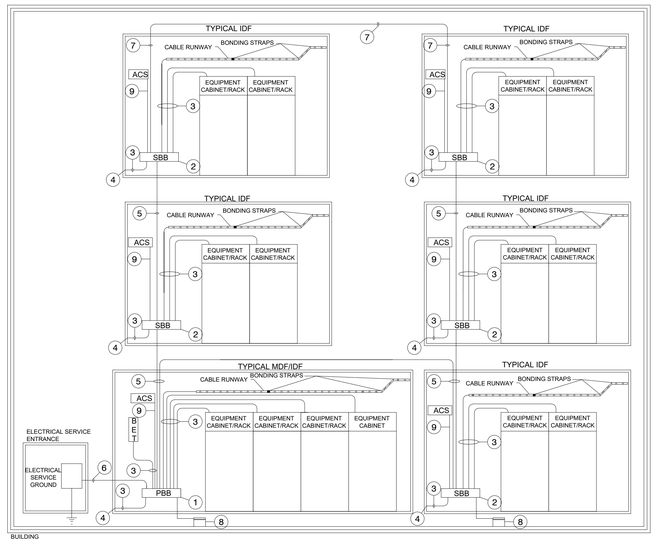
SCALE: N.T.S.

TBB/GE CONDUCTOR SIZING	
LENGTH IN LINEAR M (FT)	SIZE (AWG)
LESS THAN 4 (13)	6
4 - 6 (14-20)	4
6 - 8 (21 - 26)	3
8 - 10 (27 - 33)	2
10 - 13 (34 - 41)	1
13 - 16 (42 - 52)	1/0
16 - 20 (53 - 66)	2/0
20 - 26 (67 - 84)	3/0
26 - 32 (85 - 105)	4/0
32 - 38 (106 - 125)	250 kcmil
38 - 46 (126 - 150)	300 kcmil
46 - 53 (151 - 175)	350 kcmil
53 - 76 (176 - 250)	500 kcmil
76 - 91 (251 - 300)	600 kcmil
GREATER THAN 91 (301)	750 kcmil

ROUTE THE TBB TO EACH TGB IN AS STRAIGHT A PATH AS POSSIBLE. THE TBB SHOULD BE INSTALLED AS A CONTINUOUS CONDUCTOR, AVOIDING SPLICES WHERE POSSIBLE.

5 T401-K TBB CONDUCTOR SIZING

SCALE: N.T.S.

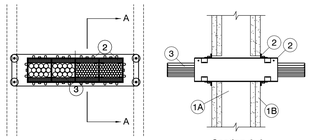


1. TELECOMMUNICATIONS MAIN GROUNDING BUS BAR (PBB)(BY DIV. 27)
2. TELECOMMUNICATIONS GROUNDING BUS BAR (SBB) (BY DIV 27)
3. TELECOMMUNICATIONS BONDING CONDUCTOR (TBC). REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS (BY DIV 27)
4. CONNECT TO GROUNDED BUILDING STEEL WHEN EXPOSED IN ROOM.
5. TELECOMMUNICATIONS BONDING BACKBONE (TBB). REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS (BY DIV 26)
6. TELECOMMUNICATIONS BONDING CONDUCTOR (TBC). BY ELECTRICAL CONTRACTOR.REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS.
7. GROUNDING EQUALIZER CONDUCTOR (GEC)(BY DIV 26)
8. BOUND WITH GROUDING COLLARS TO EACH CONTINUOUS CONDUIT THAT ENTERS THE TELECOM ROOM. (BY DIV 26).
9. BOND TO EACH ACCESS CONTROL PANEL AND OTHER SECURITY PANELS IN HE TELECOM ROOM. (BY DIV 27)

6 T401-K TYPICAL GROUNDING DIAGRAM

SCALE: N.T.S.

System No. W-L-3218
F Ratings - 1, 2, 3 and 4 Hr (See Items 1 and 3)
T Ratings - 3/4 and 1 Hr (See Item 3)
L Rating At Ambient - Less Than 1, 1.3, 4 or 7 CFM (See Item 3)
L Rating At 400 F - Less Than 1, 2 or 3 CFM (See Item 3)



Section A-A

1. Wall Assembly - The 1, 2, 3 or 4 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described within the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall incorporate the following construction features:
   A. Studs - Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* - Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Opening in gypsum board to be max 1/4 in. (6 mm) larger then width and height dimensions of firestop device(s).

   The hourly F Rating of the firestop system is dependent upon the hourly rating of the wall in which it is installed.
2. Firestop Device* - One, two, three, four or seven firestop device modules ganged together. Each firestop device module consists of a 3 by 3 by 10-1/2 in. (76 by 76 by 267 mm) long galv steel tube with an intumescent material lining. Firestop device modules to be installed in accordance with the accompanying installation instructions. The space between the firestop device module(s) and the periphery of the opening shall be min 0 in. (0 mm, point contact) to max 1/8 in. (3.2 mm). In round openings, the space between the firestop device and the periphery of the opening shall be min 0 in. (point contact) to max 1/2 in. (13 mm). Firestop device module(s) secured in place by means of steel wall plates installed with gasketing material supplied with product. Steel wall plates installed on both sides of wall and secured to each device by means of steel set screws provided with device. Each four- and seven-gang steel wall plate shall be fastened to the studs with steel screws sized to extend through the gypsum board layers and penetrate 1/2 in. (13 mm) into the framing member. Each firestop device module is to be installed with ends projecting an equal distance beyond each surface of the wall assembly.

   As an alternate, the four- and seven-gang steel wall plates may be installed directly against the studs for walls having 16 and 24 in. (406 and 610 mm) center-to-center stud spacing, respectively, prior to installation of the gypsum board layers. The steel wall plates shall be secured to the stud by means of steel screws. After installation of the steel wall plates and firestop device modules, the gypsum board shall be installed as specified in the individual U300 or U400 Design with a maximum 1/8 in. (3.2 mm) gap between the firestop device module and the cutout in the gypsum board. Gap between the firestop device module and the cutout in the gypsum board may be filled with gypsum joint compound or fill material (Item 4).

   SPECIFIED TECHNOLOGIES INC - EZ PATH Series 33 Fire Rated Pathway

2A. Firestop Device* - Extension Module - (Optional, Not Shown) - Module attached to ends of 3 by 3 by 10-1/2 in. (76 by 76 by 267 mm) long firestop device (Item 3) to increase its length to facilitate installation in thicker walls. Each module consists of a 3 by 3 by 6 in. (76 by 76 by 152 mm) long galv steel tube with an intumescent material lining. Extension module to be installed in accordance with the accompanying installation instructions. When module is used, firestop device (Item 2) and extension module(s) secured in place by means of steel wall plates installed with gasketing material supplied with product. Steel wall plates installed on both sides of wall and secured to each device or extension module(s) by means of steel set screws provided with wall plates. Firestop device and extension module(s) assembly to be installed with ends projecting an equal distance beyond each surface of the wall assembly.

   SPECIFIED TECHNOLOGIES INC - EZ PATH Extension

3. Cables - Within the loading area for each firestop device module, the cables may represent a 0 to 100 percent visual fill. Cable fill to be distributed at a uniform height across the width of the firestop device module. Cables to be rigidly supported on both sides of the wall assembly. Any combination of the following types of cables may be used:
   A. Max 400 pair No. 24 AWG (or smaller) copper conductor telecommunication cable with polyvinyl chloride (PVC) jacketing and insulation.
   B. Max 350 kcmil single copper conductor power cable with XLPE jacket and insulation
   C. Max 7/C No. 12 AWG copper conductor control cable with PVC or XLPE jacket and insulation.
   D. Max 3/C No. 10 AWG metal clad or armored cable with steel or aluminum jacket.
   E. Max 3/C No. 8 AWG NM cable (Romex) with PVC insulation and jacket.
   F. Max four pair No. 22 AWG (or smaller) copper conductor data cable with PVC or plenum rated jacketing and insulation.
   G. Max RG/U coaxial cable with fluorinated ethylene insulation and jacketing.
   H. Fiber optic cable with PVC or polyethylene (PE) jacket and insulation having a max diam of 5/8 in. (16 mm).
   I. Optical Fiber Raceway+ - Max 1-1/2 in. (38 mm) diam (or smaller) optical fiber raceway ("innerduct") formed of either PVC or polyvinylidene fluoride (PVDF) with optical fiber cable fill. Raceways installed in accordance with the National Electrical Code (NFPA 70).

   When the hourly rating of the wall assembly is 1 hr, the T Rating is 3/4 hr. When the hourly fire rating of the wall assembly is greater than 1 hr, the T Rating is 3/4 hr when Item 3A, 3B, 3C, 3D or 3E is used. Otherwise the T Rating is 1 hr. When Item 3A, 3B, 3C, 3D or 3E is used, the maximum F Rating is 2 hr. When max 200 pair No. 24 AWG telecommunication cable is used or when Item 3F, 3G, 3H or 3I is used, the maximum F Rating is 4 hr.

   The L Rating for each empty firestop device module is less than 1 cfm at ambient and at 400F. When Item 3A is used, the L Rating for each firestop device module with 100 percent visual fill is 4 cfm at ambient and 3 cfm at 400F. When Item 3F is used, the L Rating for each firestop device module with 100 percent visual fill is 1.3 cfm at ambient and 1 cfm at 400F. When Item 3G or 3H is used, the L Rating for each firestop device module with 100 percent visual fill is 7 cfm at ambient and 2 cfm at 400F.
4. Fill, Void or Cavity Material* - Sealant or Putty - (Not Shown) - As an alternate to gypsum joint compound, the gap between the firestop device module and the cutout in the gypsum board may be sealed with fill material on each side of the wall assembly when four- and seven-gang steel wall plates are installed directly against the wood or steel studs.

   SPECIFIED TECHNOLOGIES INC - SpecSeal Series SSS Sealant, SpecSeal LCI Sealant, SpecSeal Putty

   *Bearing the UL Classification Mark

7 T401-K TYPICAL STI EZ-PATH SLEEVE DETAIL

SCALE: N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL A. MCCOY 20113 STATE OF TEXAS
12-05-2025

PROJECT NO: 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
1 Date Description

100%CD

T401-K
TECHNOLOGY TYPICAL DETAILS

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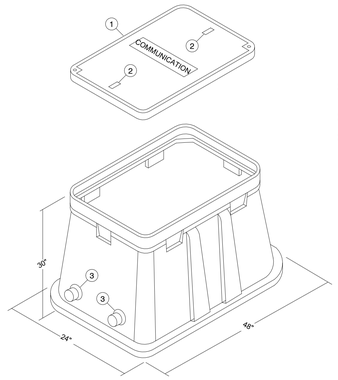
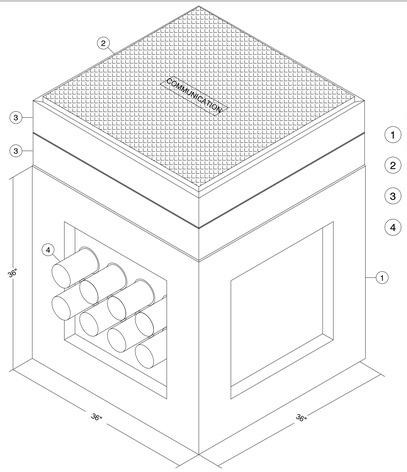


KEYED NOTES:

1. 40-INCH X 18-INCH COVER RATED FOR ENVIRONMENT WITH "COMMUNICATION" STENCILED ON TOP (BY DIV 26).
2. LIFTING EYE (BY DIV 26).
3. 4-INCH TERMINATOR (BY DIV 26).

1 T402-K TYPICAL TECHNOLOGY HANDHOLES (HH)

SCALE: N.T.S.

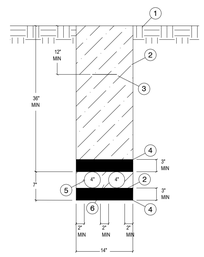


KEYED NOTES:

1. 36-INCH X 36-INCH X 36-INCH PRECAST HANDHOLE (BY DIV 26).
2. 36-INCH X 36-INCH COVER RATED FOR ENVIRONMENT WITH "COMMUNICATION" STENCILED ON TOP (BY DIV 26).
3. PRECAST EXTENSION AS REQUIRED TO MOUNT FLUSH WITH GRADE (BY DIV 26).
4. 4-INCH TERMINATOR (BY DIV 26).

2 T402-K TYPICAL TECHNOLOGY HANDHOLE (HH)

SCALE: N.T.S.

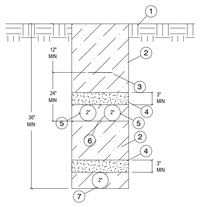


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. SELECT COMPACTED BACKFILL (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. COMMUNICATIONS CONDUIT (BY DIV 26).
6. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).

3 T402-K TYPICAL COMMUNICATIONS DUCT BANK DETAIL - (2) 4-INCH CONDUITS

SCALE: N.T.S.

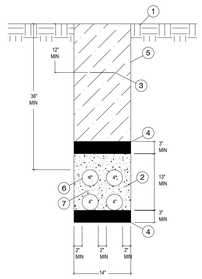


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. SELECT COMPACTED BACKFILL (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. COMMUNICATIONS CONDUIT (BY DIV 26).
6. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).
7. ELECTRICAL CONDUIT (BY DIV 26)

4 T402-K 12-INCH SEPARATION COMMUNICATION AND ELECTRICAL SHARED DUCT BANK DETAIL

SCALE: N.T.S.

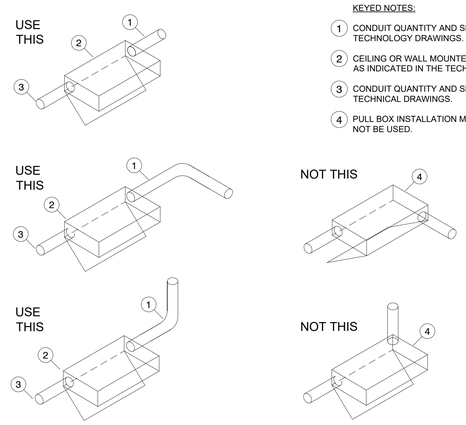


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. 3000 PSI CONCRETE (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. SELECT COMPACTED BACKFILL (BY DIV 26).
6. COMMUNICATIONS CONDUIT (BY DIV 26).
7. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).

5 T402-K TYPICAL COMMUNICATIONS CONCRETE ENCASED DUCT BANK DETAIL - (4) 4-INCH CONDUITS

SCALE: N.T.S.



KEYED NOTES:

1. CONDUIT QUANTITY AND SIZE AS INDICATED IN THE TECHNOLOGY DRAWINGS.
2. CEILING OR WALL MOUNTED PULL BOX WITH LOCKING COVER AS INDICATED IN THE TECHNOLOGY DRAWINGS.
3. CONDUIT QUANTITY AND SIZE AND INDICATED IN THE TECHNICAL DRAWINGS.
4. PULL BOX INSTALLATION MEANS AND METHODS THAT SHALL NOT BE USED.

6 T402-K TYPICAL PULL BOX ENTRANCE POINT MEANS AND METHODS DETAIL

SCALE: N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL LADAME
20113
STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
1 Date Description

100%CD

T402-K
TECHNOLOGY TYPICAL DETAILS

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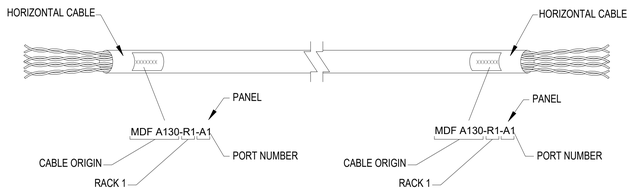
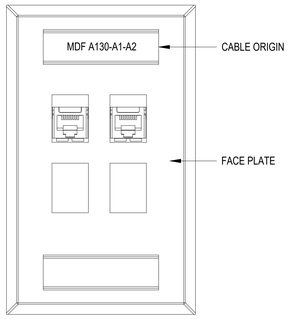
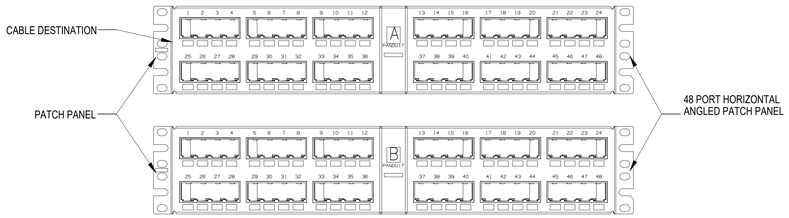
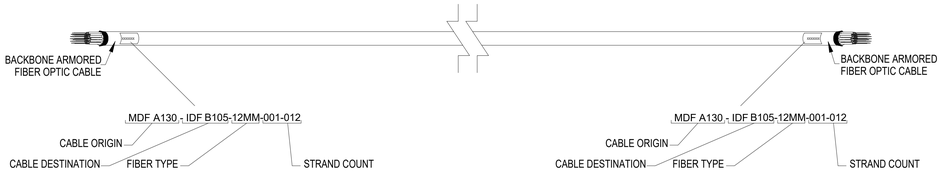


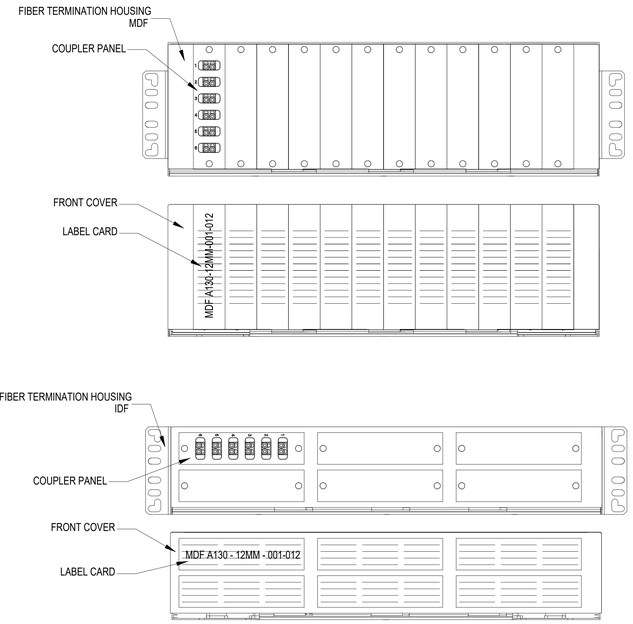




1 T-500-K TYPICAL HORIZONTAL DATA CABLE LABELING SCHEME

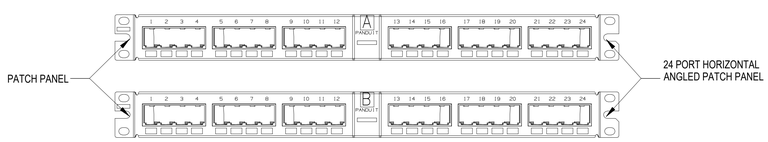
SCALE: N.T.S.





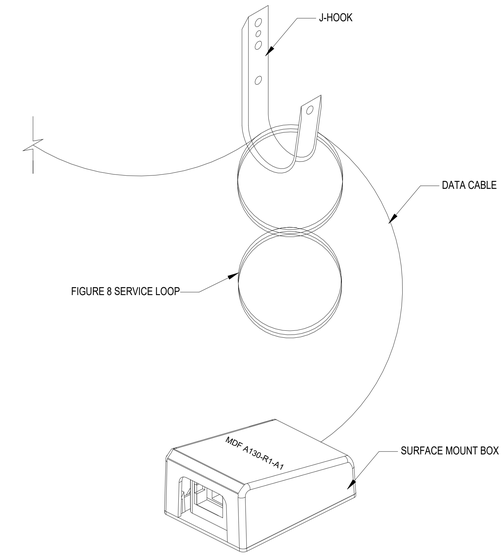
2 T-500-K TYPICAL FIBER BACKBONE LABELING SCHEME

SCALE: N.T.S.



3 T-500-K TYPICAL COPPER BACKBONE LABELING SCHEME

SCALE: N.T.S.



4 T-500-K ABOVE ASSESSIBLE CEILING LABELING SCHEME

SCALE: N.T.S.

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
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REGISTERED ARCHITECT
MICHAEL A. ADAME
20113
STATE OF TEXAS

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REVISIONS:

	Date	Description

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T500-K
TECHNOLOGY TYPICAL
LABELING SCHEME

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AUDIOVISUAL SYMBOLS & LEGEND

AUDIOVISUAL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING HEIGHT TO CENTERLINE	BACK BOX	CONDUIT SIZE
ACP	AUDIOVISUAL CONTROL PROCESSOR	RACK, AV WALL BOX, WALL MOUNTED	N/A	1" CONDUIT TO ACCESSIBLE CEILING
AMP	SPEAKER AMPLIFIER	RACK, AV WALL BOX, WALL MOUNTED	N/A	N/A
ALS	ASSISTED LISTENING SYSTEM	SURFACE CEILING MOUNTED	2-GANG	1" CONDUIT TO ACCESSIBLE CEILING
AT#	CEILING-MOUNTED ANTENNA, # = TYPE AS SPECIFIED	PER DRAWINGS	2-GANG	1" CONDUIT TO ACCESSIBLE CEILING
AT#	WALL-MOUNTED ANTENNA, # = TYPE AS SPECIFIED	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
AV#	AV DEVICE	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
BT	BLUETOOTH RECEIVER	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
CAM	CEILING-MOUNTED AUDIOVISUAL CAMERA	SURFACE CEILING MOUNTED	2-GANG	1.25" CONDUIT TO ACCESSIBLE CEILING
CAM	WALL-MOUNTED AUDIOVISUAL CAMERA	PER DRAWINGS	1-GANG	1.25" CONDUIT TO ACCESSIBLE CEILING
CB	WALL-MOUNTED CALL BUTTON	PER DRAWINGS	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
CE	CEILING MOUNTED EQUIPMENT ENCLOSURE	FLUSH CEILING MOUNTED	2-GANG ELECTRICAL 2-GANG DATA 2-GANG AV	1.5" AV CONDUIT TO ACCESSIBLE CEILING
CP#	WALL OR TABLE TOP MOUNTED CONTROL PANEL, # = TYPE AS SPECIFIED	WALL MOUNTED 48" ABOVE FINISHED FLOOR	WILL VARY PER PROJECT OR TYPE	1" CONDUIT TO ACCESSIBLE CEILING
CTV	CATV LOCATION, CABLE TYPE AND TERMINATION AS SPECIFIED	PER DRAWINGS	2-GANG	1" CONDUIT TO ACCESSIBLE CEILING
DA	DISTRIBUTION AMPLIFIER	RACK OR AV WALL BOX MOUNTED.	N/A	N/A
DS	DIGITAL SIGNAGE PLAYER	RACK OR AV WALL BOX MOUNTED.	N/A	N/A
DSP	AUDIO DIGITAL SIGNAL PROCESSOR	RACK OR AV WALL BOX MOUNTED.	N/A	N/A
EQ#	EQUIPMENT RACK, # = TYPE AS SPECIFIED	PER DRAWINGS /PER SPECS	N/A	N/A
FB#	FLOOR BOX, # = TYPE AS SPECIFIED	PER DRAWINGS	2-GANG ELECTRICAL 2-GANG DATA 2-GANG AV	1.5" AV CONDUIT TO ACCESSIBLE CEILING
IPE	IP ENCODER	RACK OR AV WALL BOX MOUNTED.	N/A	N/A
IPD	IP DECODER	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
L	LECTERN / PODIUM	FLUSH CEILING MOUNTED	N/A	1" CONDUIT TO ACCESSIBLE CEILING
MC#	CEILING-MOUNTED MICROPHONE, # = TYPE AS SPECIFIED	PER DRAWINGS	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
MC#	WALL-MOUNTED OR TABLETOP MOUNTED MICROPHONE, # = TYPE AS SPECIFIED	PER DRAWINGS	2-GANG	1" CONDUIT TO ACCESSIBLE CEILING
MCT	MOBILE CART	N/A	N/A	N/A
MM#	CEILING-MOUNTED MULTIMEDIA PLATE, # = TYPE AS SPECIFIED	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
MM#	WALL-MOUNTED MULTIMEDIA PLATE, # = TYPE AS SPECIFIED	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
OS	CEILING-MOUNTED OCCUPANCY SENSOR	SURFACE CEILING MOUNTED	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
OS	WALL-MOUNTED OCCUPANCY SENSOR	PER DRAWINGS	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
PS	CEILING-MOUNTED PARTITION SENSOR	SURFACE CEILING MOUNTED	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
P#	PROJECTOR, # = TYPE AS SPECIFIED	PER DRAWINGS	N/A	N/A
R	WALL-MOUNTED ROUGH-IN LOCATION	18" ABOVE FINISHED FLOOR OR PER DRAWINGS	2-GANG OF PER DRAWINGS	1" CONDUIT TO ACCESSIBLE CEILING
RS	ROOM SCHEDULER	48" ABOVE FINISHED FLOOR	3-GANG OR PER MANUFACTURER	1" CONDUIT TO ACCESSIBLE CEILING
RX#	AUDIOVISUAL RECEIVER	PER DRAWINGS	N/A	N/A
S#	CEILING-MOUNTED SPEAKER, # = TYPE AS SPECIFIED	SURFACE CEILING MOUNTED	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
S#	WALL-MOUNTED SPEAKER, # = TYPE AS SPECIFIED	PER DRAWINGS	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING

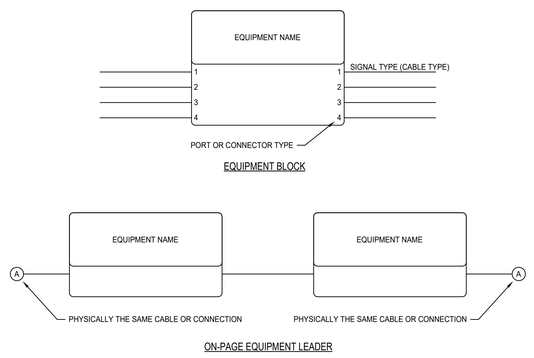
AUDIOVISUAL SYMBOLS - CONTINUED

SYMBOL	DESCRIPTION	MOUNTING HEIGHT TO CENTERLINE	BACK BOX	CONDUIT SIZE
SB	SOUND BAR.	PER DRAWINGS	N/A	N/A
SBC	INTEGRATED SOUND BAR WITH CAMERA AND MICROPHONE.	PER DRAWINGS	N/A	N/A
TC	TABLETOP CABLE CUBBY.	N/A	N/A	N/A
TX#	AUDIOVISUAL TRANSMITTER.	18" A.F.F. OR PER DRAWINGS	2-GANG	1" CONDUIT TO ACCESSIBLE CEILING
VC	WALL-MOUNTED VOLUME CONTROL.	48" A.F.F. OR PER DRAWINGS	1-GANG	1" CONDUIT TO ACCESSIBLE CEILING
VCC	VIDEO CONFERENCING COMPUTER.	RACK OR AV WALL BOX MOUNTED.	N/A	N/A
WB#	AUDIOVISUAL WALL BOX, # = TYPE AS SPECIFICED	PER DRAWINGS	2-GANG ELECTRICAL 2-GANG DATA 2-GANG AV	N/A
WP	WIRELESS PRESENTATION.	RACK OR AV WALL BOX MOUNTED.	N/A	N/A
FPD#	FLAT PANEL DISPAY, # = DISPLAY SIZE	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
IFP#	INTERACTIVE FLAT PANEL, # = DISPLAY SIZE	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
SCR#	PROJECTION SCREEN, # = DISPLAY SIZE	PER DRAWINGS	2 - GANG ELECTRICAL 2 - GANG AV	1" CONDUIT TO ACCESSIBLE CEILING
VW#	VIDEO WALL, # = DISPLAY SIZE	PER DRAWINGS	PER DRAWINGS	PER DRAWINGS
———	DEVICE CONDUIT ABOVE CEILING.	N/A	N/A	N/A
- - - - -	DEVICE CONDUIT BELOW FLOOR.	N/A	N/A	N/A

GENERAL SYMBOLS

# SHEET DRAWING TITLE SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
1 TA-302	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES TELECOMMUNICATIONS REGION.

AUDIOVISUAL SIGNAL FLOW SYMBOLS



ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
BYOD	BRING YOUR OWN DEVICE
CATV	COMMUNITY ANTENNA TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CL	CENTERLINE
CLT	CLOSET
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
HE	PA/INTERCOM HEAD-END
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PVC	POLYVINYL CHLORIDE
SM	SINGLE MODE
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR
OFOI	OWNER FURNISHED/OWNER INSTALLED
OFCI	OWNER FURNISHED/CONTRACTOR INSTALLED
OFCI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED

NOTES

SYMBOLS & LEGEND SHEET

1. CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF AUDIOVISUAL DRAWINGS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. AUDIOVISUAL DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.
5. IN THE EVENT OF A DISCREPANCY BETWEEN THE AUDIOVISUAL DRAWINGS AND SPECIFICATIONS THE GREATER QUANTITY AND COST SHALL BE UTILIZED.
6. CONFIRM MOUNTING HEIGHTS AND LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.
7. THE CENTERLINE OF DEVICE INSTALL LOCATIONS ARE FOR REFERENCE AND DESIGN INTENT. CONFIRM WITH ARCHITECT, OWNER, AND FIELD CONDITIONS.
8. ALL DISPLAYS OR WALL MOUNTED DEVICES SHALL BE WITHIN ADA REQUIREMENTS. CONTRACTOR SHALL IDENTIFY ANY NON-COMPLIANT DEVICES AND BRING TO THE ATTENTION OF THE ARCHITECT AND CONSULTANT.

INDEX OF DRAWINGS

TA000-K AUDIOVISUAL SYMBOLS & LEGEND
TA201-K AUDIOVISUAL LEVEL 01 FLOOR PLAN - SOFTBALL PRESSBOX
TA400-K AUDIOVISUAL TYPICAL DETAILS
TA500-K AUDIOVISUAL SIGNAL FLOW DIAGRAM

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 25113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
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1 Date Description

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TA000-K
AUDIOVISUAL SYMBOLS & LEGEND

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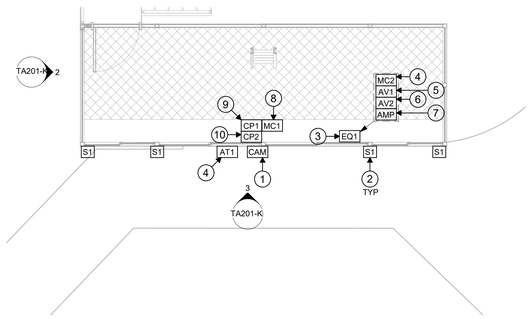
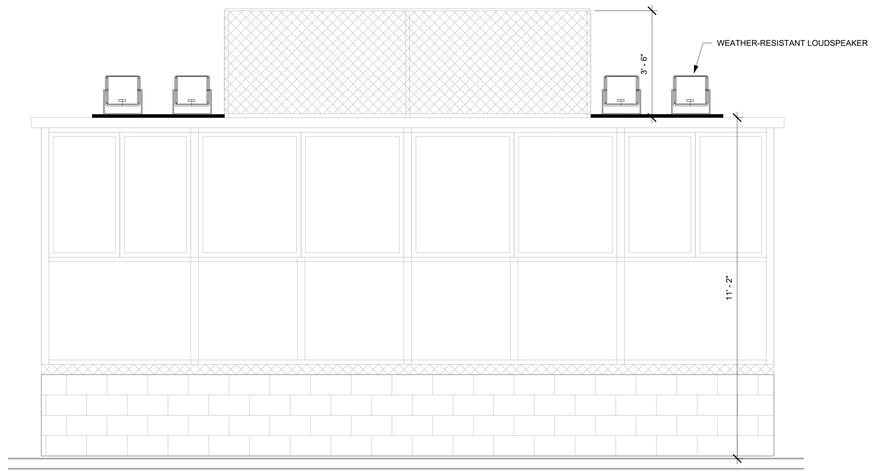
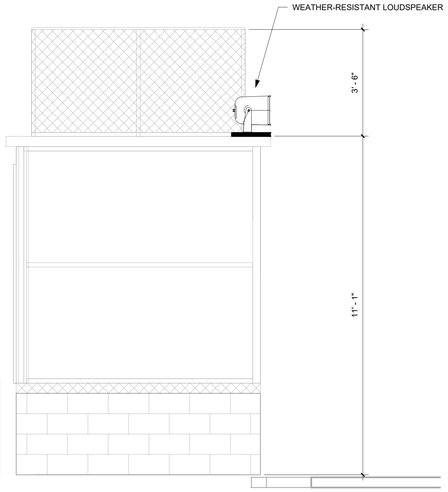


1 TA201-K AUDIOVISUAL LEVEL 01 FLOOR PLAN - SOFTBALL PRESSBOX
1/4" = 1'-0"



3 TA201-K SOFTBALL PRESSBOX SOUTH ELEVATION
1/2" = 1'-0"



2 TA201-K SOFTBALL PRESSBOX EAST ELEVATION
1/2" = 1'-0"

AV FLOOR PLANS GENERAL NOTES

1. ALL CONDUIT PATHWAYS, ROUGH-INS, BACKBOXES, IN-WALL BOXES, FLOOR BOXES, CONDUIT SLEEVES, ETC. INDICATED ON THE AUDIOVISUAL DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26. AUDIOVISUAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR ON AUDIOVISUAL INFRASTRUCTURE REQUIREMENTS.
2. ALL POWER INDICATED ON THE AUDIOVISUAL DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26. AUDIOVISUAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR ON AUDIOVISUAL POWER REQUIREMENTS.
3. AUDIOVISUAL CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE RATED WALLS/STRUCTURES FOR AUDIOVISUAL CABLING BACK TO THE ORIGINAL RATING.
4. AUDIOVISUAL CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR AUDIOVISUAL CABLING TO MITIGATE SOUND TRANSFER THROUGH PENETRATIONS.
5. AUDIOVISUAL SYSTEMS CABLING SHALL BE ROUTED IN SEPARATE PATHWAYS IN J-HOOKS, CONDUITS, CONDUIT SLEEVES, CORES, ETC. THROUGHOUT THE ENTIRE PATHWAY. AUDIOVISUAL SYSTEMS CABLING SHALL NOT SHARE THE SAME J-HOOK, CONDUIT, CONDUIT SLEEVE, CORE, ETC. WITH OTHER SYSTEMS (I.E. COMMUNICATIONS, SECURITY, FIRE ALARM, ETC.)
6. UNLESS NOTED OTHERWISE, ALL CONDUITS FOR AUDIOVISUAL SYSTEMS SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE AN ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. AN OPEN CEILING OR CLOUD TYPE CEILING IS NOT CONSIDERED AN ACCESSIBLE CEILING. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF A MAIN CORRIDOR.
7. CONDUIT PATHWAYS FOR AUDIOVISUAL SYSTEMS SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF / IDF ROOM TO MINIMIZE CABLE LENGTHS AND ENSURE CABLE DISTANCES DO NOT EXCEED MANUFACTURER RECOMMENDATIONS.
8. UNLESS NOTED OTHERWISE ALL CONDUITS FOR AUDIOVISUAL SYSTEMS SHALL BE HOMERUN FROM THE DEVICE LOCATION TO THE TERMINATION DESTINATION. DAISY CHAINING OF DEVICES / ROUGH-INS IS NOT PERMITTED.
9. CONDUIT SEGMENTS FOR AUDIOVISUAL SYSTEMS SHALL BE NO MORE THAN 100-FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
10. CONDUITS FOR AUDIOVISUAL SYSTEMS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF THE CONDUIT FOR CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUIT FOR CONDUITS GREATER THAN 2-INCHES.
11. ALL CONDUITS FOR AUDIOVISUAL SYSTEMS SHALL HAVE NYLON BUSHINGS ON EACH END AND A PULL STRING INSTALLED FOR PULLING OF CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
13. CONDUIT, CONNECTIONS, J-BOXES, SUSPENSION, ANCHORAGES, AND OTHER CONDUIT COMPONENTS EXPOSED TO VIEW IN PUBLIC SPACES SHALL BE ROUTED AND INSTALLED CAREFULLY TO MINIMIZE VISUAL IMPACT AND SHALL BE FULLY PAINTED TO MATCH UNLESS NOTED OTHERWISE.
14. FOR AV CONDUIT PATHWAYS, THERE SHALL BE NO MORE THAN (2) 90-DEGREE BENDS BETWEEN PULL BOXES OR CONDUIT ENDS. THE MAXIMUM DISTANCE BETWEEN PULL BOXES OR CONDUIT ENDS SHALL BE NO MORE THAN 100FT.

AUDIO VISUAL SYSTEMS – FLOOR PLAN KEYED NOTES

1. WALL MOUNTED WIDE-VIEW CAMERA. PROVIDED BY OTHERS.
2. OUTDOOR RATED SPEAKER. PROVIDE MANUFACTURER YOKE BRACKET AND APPROVED ANCHORS FOR EXTERIOR MOUNTING. PROVIDE 2-GANG OUTDOOR RATED BACKBOX WITH 1.25" CONDUIT BACK TO AV EQUIPMENT RACK HEADEND LOCATION (BY DIV 26). AV CONTRACTOR RESPONSIBLE FOR APPROPRIATE AZIMUTH AND PITCH OF EACH CABINET, FOR OPTIMAL SOUND COVERAGE.
3. EQUIPMENT RACK LOCATED UNDER MILLWORK FOR AUDIOVISUAL SYSTEMS. COORDINATE HEIGHT AND PLACEMENT WITH MILLWORK PROVIDER. POWER AND DATA REQUIRED. PROVIDE (2) 120V / 20A DEDICATED, GROUNDED CIRCUITS WITH 2-GANG QUAD RECEPTACLES (BY DIV 26).
4. WIRELESS MICROPHONE SYSTEM INCLUDING (2) HANDHELD MICROPHONES. PROVIDE OUTDOOR-RATED ANTENNAS AS REQUIRED FOR WIRELESS COVERAGE. PROVIDE 2-GANG OUTDOOR RATED BACKBOX WITH 1.25 " CONDUIT, FROM ANTENNA LOCATION TO AV EQUIPMENT RACK HEADEND LOCATION (BY DIV 26).
5. RACK MOUNTED MEDIA PLAYER WITH BLUETOOTH CONNECTION. POWER REQUIRED.
6. RACKMOUNT AUTOMATIC MICROPHONE MIXER.
7. RACK MOUNTED AUDIO AMPLIFIER WITH INTEGRATED DSP. PROVIDE QUANTITY AS REQUIRED FOR DESIGN INTENT AND TURNKEY SYSTEM. DATA AND DEDICATED 20A POWER REQUIRED.
8. WIRED BROADCAST MICROPHONE. PROVIDE DESK STAND, AND 2 " TABLE GROMMET FOR CABLE PASS-THROUGH TO EQUIPMENT RACK.
9. ANNOUNCER'S CONSOLE. PROVIDE PATCH CABLING REQUIRED.
10. POWER SEQUENCER ON / OFF KEY SWITCH. PROVIDE (1) 1-GANG BACK BOX MOUNTED FLUSH TO THE DESKTOP, WITH 1.25" CONDUIT PATHWAY TO AV RACK LOCATION (BY DIV 26).

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL LADAME
29113
STATE OF TEXAS

12-05-2025

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TA201-K

AUDIOVISUAL LEVEL 01 FLOOR PLAN - SOFTBALL PRESSBOX

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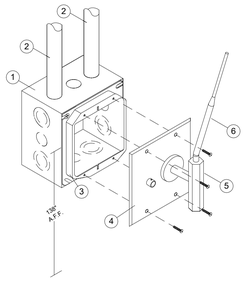

KEYED NOTES:

1. 4-11/16" X 4-11/16" X 2-1/8" RECESSED DOUBLE-GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED.
3. DOUBLE-GANG PLASTER RING - DEVICE OPENING MUST HAVE RIGHT ANGLE CORNERS TO AVOID PHYSICAL CONFLICTS WITH A|V DEVICE(S) (BY DIV 26).
4. CUSTOM 2-GANG FACEPLATE WITH 50-OHM BNC-M PASS-THROUGH CONNECTOR AND THREADED SURFACE-MOUNT MICROPHONE MOUNT ADAPTER (BY DIV 27).
5. WIRELESS MICROPHONE IN-LINE AMPLIFIER - MANUFACTURER/MODEL NUMBER AS SPECIFIED. REFER TO DRAWINGS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION (BY DIV 27).
6. WIRELESS MICROPHONE ANTENNA - MANUFACTURER/MODEL NUMBER AS SPECIFIED. REFER TO DRAWINGS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION (BY DIV 27).

1 TA400-K TYPICAL WIRELESS MICROPHONE ANTENNA DETAIL

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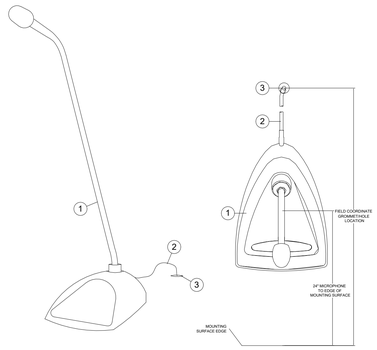


KEYED NOTES:

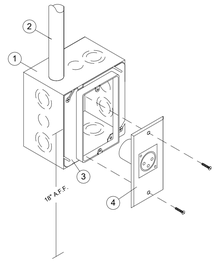
1. DESKTOP MICROPHONE – MANUFACTURER / MODEL NUMBER AS SPECIFIED (BY DIV 27).
2. SIGNAL CABLE FOR WIRED MICROPHONE (BY DIV 27).
3. GROMMET/HOLE IN TABLE SURFACE FOR SIGNAL CABLE PASSAGE. COORDINATE INSTALLATION WITH FURNITURE CONTRACTOR (BY DIV 27).

GENERAL NOTE:

PROVIDE ONE (1) 1-INCH DISCRETE/DEDICATED EMT CONDUIT FROM EACH ACCESSIBLE TABLE LEG FOR MICROPHONE SIGNAL CABLE. ROUTE CONDUIT TO ACCESSIBLE CEILING SPACE IN THE SAME ROOM WHERE THE DEVICE IS LOCATED (BY DIV 26).

2 TA400-K TYPICAL DESKTOP MICROPHONE MOUNTING DETAIL

SCALE: N.T.S.

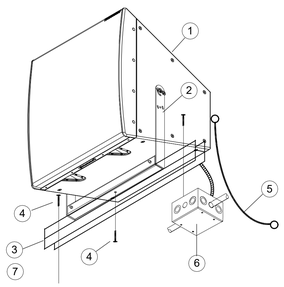


KEYED NOTES:

1. 4-11/16" X 4-11/16" X 2-1/8" RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM BACK BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED (BY DIV 26).
3. SINGLE-GANG PLASTER RING - DEVICE OPENING MUST HAVE RIGHT-ANGLE CORNERS TO AVOID PHYSICAL CONFLICTS WITH DEVICE(S) (BY DIV 26).
4. XLR CONNECTOR(S) - GENDER, TYPE, MODEL NUMBER AS SPECIFIED. REFER TO DRAWINGS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION (BY DIV 27).

3 TA400-K TYPICAL XLR LOCATION DETAIL

SCALE: N.T.S.

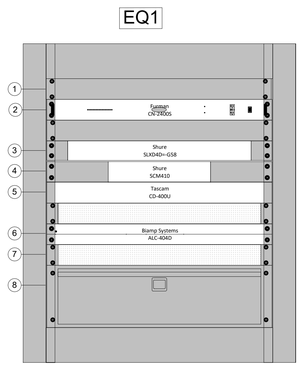


KEYED NOTES:

1. IP55 OR GREATER OUTDOOR RATED SPEAKER FOR SPORTS ARENA.
2. MANUFACTURER SPECIFIED YOKE BRACKET MOUNT.
3. P1001 STRUT CHANNEL CROSSBEAM TO MOUNT YOKE BRACKET ON ROTATION POINT. MOUNTS BY STRUCTURAL BOLT TO STRUCTURAL POINT (BY OTHERS).
4. 1/2" GRADE-8 STAINLESS STEEL STRUCTURAL BOLT. CONSULT EPA WIND REQUIREMENTS AND ANSI 5:1 STRUCTURAL LOAD REQUIREMENTS.
5. STEEL SAFETY CABLE AND EYEBOLTS. COORDINATE EYEBOLT SIZE PRIOR TO INSTALL.
6. OUTDOOR JUNCTION BOX WITH 1" CONDUIT PATHWAY BACK TO HEADEND, AND 3/4" FLEX CONDUIT TO SPEAKER ENCLOSURE (BY DIV 26). ALL PENETRATIONS INTO THE BULDING, PROVIDED BY OTHERS.
7. METAL DEVICES SHALL BE PROPERLY GROUNDED AND LIGHTING PROTECTED.

4 TA400-K ARENA LOUDSPEAKER MOUNTING DETAIL

SCALE: N.T.S.



KEYED NOTES:

1. BLANK PLATE
2. POWER DISTRIBUTION SEQUENCER
3. WIRELESS MICROPHONE SYSTEM
4. MICROPHONE MIXER
5. COMBINATION MEDIA PLAYER
6. MULTICHANNEL DSP AND SPEAKER AMPLIFER
7. VENT PLATE
8. UTILITY DRAWER

5 TA400-K AV EQUIPMENT RACK ELEVATION

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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
25113
STATE OF TEXAS
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TA400-K
AUDIOVISUAL TYPICAL DETAILS

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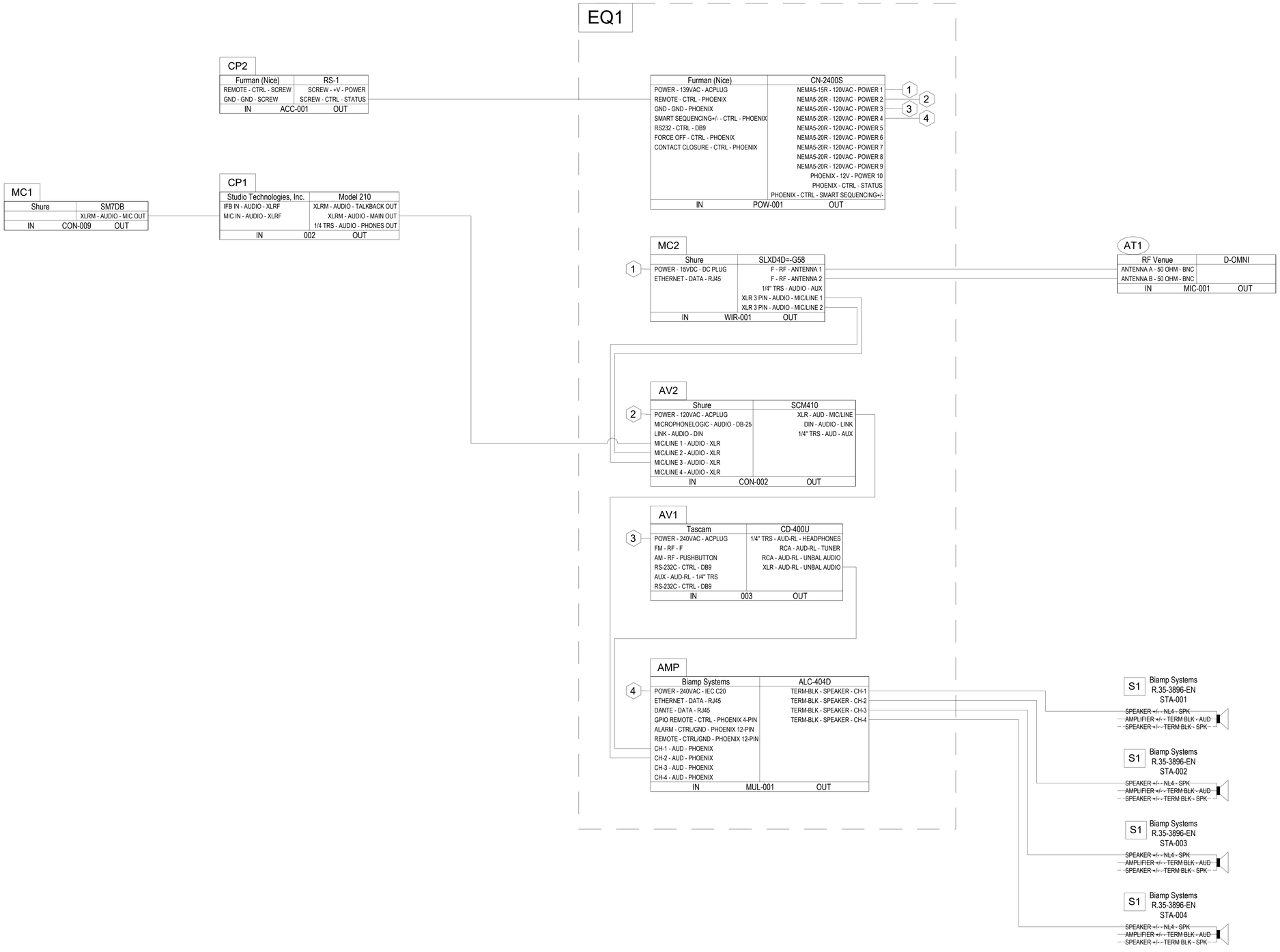
PRESS BOX SOUND REINFORCEMENT SYSTEM

AV SIGNAL FLOW GENERAL NOTES

1. AUDIOVISUAL SIGNAL FLOW DIAGRAMS ARE INTENDED TO SHOW GENERAL DESIGN INTENT, MAJOR COMPONENTS, INTERCONNECTIVITY, AND FUNCTIONALITY.
2. CONTRACTOR SHALL PROVIDE POINT TO POINT SCHEMATIC DIAGRAMS WITH ALL INPUTS, OUTPUTS, AND CONNECTIVITY WITH SUBMITTAL PACKAGE.
3. CONTRACTOR SHALL PROVIDE REQUEST FOR INFORMATION DURING BID AND SUBMITTAL PROCESS FOR ANY QUESTIONS REGARDING SIGNAL FLOW, SYSTEM INTEGRATION, OR SYSTEM FUNCTIONALITY.
4. CONTRACTOR WILL PROVIDE FULLY FUNCTIONAL SYSTEM AS REQUIRED BY DESIGN INTENT AND ANY CONFLICT WITH SIGNAL FLOW DIAGRAM SHALL BE ADDRESSED DURING BID AND SUBMITTAL PROCESS.



1 TA500-K AUDIOVISUAL SIGNAL FLOW DIAGRAM
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pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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KEMPNER HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
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TA500-K
AUDIOVISUAL SIGNAL FLOW DIAGRAM

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SECURITY SYMBOLS & LEGEND

ACCESS CONTROL SYMBOLS

AD	INTERFACE TO AUTOMATIC DOOR CONTROL AND MONITORING.
BI	INTERFACE TO RETRACTABLE VEHICLE BOLLARD.
BR	BIOMETRIC READER.
CH	DOOR BELL CHIME.
CR	CARD READER.
CR1	CARD READER MULLION MOUNT.
CR2	ELEVATOR CARD READER.
CR3	CARD READER/INTERCOM UNIT.
CR4	CARD READER/INTERCOM PEDESTRIAN PEDESTAL.
D	DURESS BUTTON MOUNTED IN KNEE SPACE OF DESK, TABLE OR COUNTER PROVIDE ARMORED CABLE FROM DURESS BUTTON TO JUNCTION BOX.
D	WALL MOUNTED DURESS BUTTON.
DB	DOOR BELL.
DC	DOOR CONTACT.
DC1	OVERHEAD DOOR CONTACT. PROVIDE ARMORED CABLE FROM SWITCH TO JUNCTION BOX.
DMA	DOOR MANAGEMENT ANNUNCIATOR.
DR	SINGLE DOOR RELEASE PUSHBUTTON UNDER COUNTER. ARMORED CABLE FROM PUSHBUTTON TO JUNCTION BOX.
EL	INTERFACE TO ELEVATOR CONTROL/MONITORING.
FA	INTERFACE TO FIRE ALARM SYSTEM.
GC	INTERFACE TO PARKING GATE CONTROL/MONITORING.
IC	AUDIO INTERCOM SUBSTATION.
IM	INTERCOM MASTER STATION AS INDICATED BLOCK DIAGRAM AND/OR DETAILS.
KS	KEYSWITCH.
LD	LOCKDOWN BUTTON UNDER COUNTER. ARMORED CABLE FROM LOCKDOWN BUTTON TO JUNCTION BOX.
LD	LOCKDOWN BUTTON.
OD	INTERFACE TO OVERHEAD DOOR CONTROL/MONITORING.
RD	INTERFACE TO MOTORIZED REVOLVING DOOR CONTROL/MONITORING.
REX	REQUEST-TO-EXIT IS INTEGRAL WITH ELECTRIFIED LOCKING HARDWARE. PROVIDED AND INSTALLED BY OTHERS.
RX	REQUEST-TO-EXIT MOTION SENSOR MOUNTED CEILING-MOUNTED.
RX	REQUEST-TO-EXIT MOTION SENSOR DOOR FRAME-MOUNTED.
SD	INTERFACE TO SLIDING DOOR CONTROL/MONITORING.
SR	SECURITY SYSTEM RISER, DATA GATHERING PANEL AND LOW VOLTAGE POWER SUPPLY DISTRIBUTION LOCATION.
VI	VIDEO INTERCOM SUBSTATION.
VM	DESKTOP VIDEO INTERCOM MASTER STATION.
WD	WIRELESS DURESS BUTTON MOUNTED IN KNEE SPACE OF DESK, TABLE, OR COUNTER.

ACCESS CONTROL SYMBOLS

WDRR	WIRELESS DOOR RELEASE RECEIVER DEVICE.
WDRT	WIRELESS DOOR RELEASE TRANSMITTER DEVICE.
WR	WIRELESS DURESS BUTTON RECEIVER DEVICE.
WT	WIRELESS DURESS BUTTON TRANSMITTER DEVICE.
	PRE-WIRE AND BLANK COVER PLATE FOR FUTURE DEVICE.

INTRUSION DETECTION SYMBOLS

AL	ALARM ANNUNCIATOR LIGHT.
AP	ANNUNCIATOR PANEL AS INDICATED IN BLOCK DIAGRAMS AND/OR DETAILS.
AV	AUDIO VISUAL ANNUNCIATOR.
FA	INTERFACE TO FREEZER/TEMPERATURE ALARM. PROVIDED AND INSTALLED BY OTHERS.
FC	FUTURE CABLE AS SPECIFIED.
GB	CEILING-MOUNTED GLASS BREAK SENSOR.
GB	GLASS BREAK SENSOR.
KP	PERSONAL IDENTIFICATION NUMBER KEYPAD.
M	SOUND DETECTION MICROPHONE.
MD	360° MOTION DETECTOR MOUNTED TO CEILING.
MD	MOTION DETECTOR.
MD LR	LONG RANGE MOTION DETECTOR.
RA	INTERFACE TO REFRIGERATOR/TEMPERATURE ALARM. PROVIDED AND INSTALLED BY OTHERS.
ST	STROBE LIGHT SURFACE MOUNTED TO CEILING.
ST	STROBE LIGHT.
V	VIBRATION DETECTOR.

ELECTRONIC SURVEILLANCE SYMBOLS

	FIXED SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	CEILING-MOUNTED FIXED SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	180° SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	CEILING-MOUNTED 180° SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	360° SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	CEILING-MOUNTED 360° SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	PAN, TILT & ZOOM SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
CLG	CEILING-MOUNTED PAN, TILT & ZOOM SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.

MISCELLANEOUS SECURITY SYMBOLS

B	ALERTUS BEACON MOUNTED AT 60" A.F.F. UNLESS OTHERWISE NOTED
EP	EMERGENCY PHONE.
LS	FLOOR MOUNTED LIQUID SENSOR. PROVIDE ARMORED CABLE FROM SENSOR TO JUNCTION BOX.
S	INTERCOM SPEAKER FLUSH MOUNTED IN CEILING.
	ALERTUS LED MARQUEE (SINGLE SIDED)
	ALERTUS LED MARQUEE (DOUBLE SIDED)

GENERAL SYMBOLS

# SHEET — DRAWING TITLE — SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
SHEET #	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES SECURITY REGION

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
B	BURIED
CAT 3/5	CATEGORY 3/5
CATV	COMMUNITY ANTENNA TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CLT	CLOSET
CO	CENTRAL OFFICE
DEMARC	DEMARCATION POINT
DPDT	DOUBLE PULL DOUBLE THROW
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
GIP	GALVANIZED IRON PIPE
HE	PA/INTERCOM HEAD-END
IRC	INTERMEDIATE RIGID CONDUIT
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MH	MANHOLE
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PBX	PRIVATE BRANCH EXCHANGE
PVC	POLYVINYL CHLORIDE
SM	SINGLE MODE
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
UTP	UNSHIELDED TWISTED PAIR

NOTES

1. CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF SECURITY DRAWINGS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. SECURITY DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECTDESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECTDESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.
5. ANY REFERENCE TO OR INDICATION OF DOOR HARDWARE IS SHOWN FOR REFERENCE ONLY. COORDINATE WITH THE DIVISION 8 ENGINEER/CONSULTANT FOR DOOR HARDWARE CLARIFICATION OR INFORMATION (BY DIV. 8).

INDEX OF DRAWINGS

TS000-K SECURITY SYMBOLS & LEGEND
TS100-K SECURITY SITE PLAN
TS202-K SECURITY LEVEL 01 FLOOR PLAN - CONCESSION
TS400-K SECURITY TYPICAL DETAILS
TS500-K SECURITY SCHEDULES

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS
12-05-2025

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TS000-K
SECURITY SYMBOLS & LEGEND

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1 TS100-K SECURITY LEVEL 01 KEMPNER SITE
1" = 80'-0"

SECURITY SITE PLAN GENERAL NOTES:

1. ALL SECURITY INSTALLATIONS SHALL COMPLY WITH LOCAL JURISDICTIONAL CODES, INCLUDING PERMITTING REQUIREMENTS FOR LOW-VOLTAGE, CCTV, AND ACCESS CONTROL SYSTEMS WHERE APPLICABLE. CONTRACTOR SHALL CONFIRM ALL PERMITTING NEEDS PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY BOXES, CONDUIT, CABLING, SUPPORTS, TERMINATIONS, AND ACCESSORIES FOR A FULLY FUNCTIONAL AND CODE-COMPLIANT SECURITY SYSTEM, REGARDLESS OF WHETHER EACH ITEM IS SHOWN.
3. ALL CONDUIT PATHWAYS, ROUGH-INS, SLEEVES, AND ASSOCIATED INFRASTRUCTURE SHOWN ON SECURITY DRAWINGS SHALL BE INSTALLED BY DIVISION 26 (ELECTRICAL).
4. ALL POWER TO SECURITY DEVICES, PANELS, AND EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY DIVISION 26 (ELECTRICAL) UNLESS OTHERWISE NOTED.
5. SECURITY DATA NETWORK CABLING, FIBER CONNECTIVITY, AND ASSOCIATED EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY DIVISION 27 (COMMUNICATIONS). REFER TO T-SERIES DRAWINGS FOR ROUTING AND REQUIREMENTS.
6. ELECTRIFIED DOOR HARDWARE INDICATED ON SECURITY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 8. REFER TO HARDWARE SCHEDULES FOR MODEL TYPES, POWER TRANSFER DEVICES, AND CONTROL INTERFACE REQUIREMENTS.
7. VEHICLE GATE EQUIPMENT AND OPERATORS SHALL BE PROVIDED AND INSTALLED BY DIVISION 11. COORDINATE ALL SECURITY-RELATED RELAY CABLING AND TERMINATIONS IN THE FIELD.
8. WHERE SYSTEMS INTERFACE WITH EMERGENCY SERVICES (E.G., GATES, EGRESS HARDWARE, OR INTERCOMS), COORDINATION WITH THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) IS REQUIRED PRIOR TO COMMISSIONING.
9. WHERE INTEGRATION WITH BUILDING SYSTEMS IS REQUIRED (E.G., BMS, ELEVATOR RECALL, INTERCOM, OR FIRE ALARM), COORDINATION SHALL BE PERFORMED WITH THE RESPECTIVE SYSTEM VENDORS PRIOR TO ROUGH-IN.
10. SECURITY EQUIPMENT SHALL BE POWERED FROM DEDICATED CIRCUITS UNLESS OTHERWISE NOTED. COORDINATE PANEL LOCATIONS, BREAKER REQUIREMENTS, AND UPS BACKUP (IF REQUIRED) WITH DIVISION 26.
11. ALL SECURITY SYSTEM COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER MANUFACTURER REQUIREMENTS AND APPLICABLE ELECTRICAL CODES.
12. CONTRACTOR SHALL COORDINATE ALL CONDUIT ROUTES WITH ARCHITECTURAL, CIVIL, ELECTRICAL, AND LANDSCAPE DRAWINGS PRIOR TO INSTALLATION OR TRENCHING.
13. ALL PENETRATIONS THROUGH FIRE-RATED WALLS OR STRUCTURES FOR SECURITY CABLING SHALL BE SEALED TO RESTORE ORIGINAL FIRE-RESISTANCE RATINGS.
14. PENETRATIONS THROUGH NON-RATED WALLS SHALL BE SEALED TO REDUCE ACOUSTIC TRANSMISSION BETWEEN SPACES.
15. ALL WALL AND FLOOR PENETRATIONS SHALL BE SEALED TO PREVENT WATER INTRUSION INTO INTERIOR OR CONDITIONED SPACES.
16. CONTRACTOR SHALL RESTORE ALL SURFACES (E.G., WALLS, PAVEMENT, LANDSCAPING) AFFECTED BY SECURITY INSTALLATION TO ORIGINAL OR BETTER CONDITION.
17. COORDINATE CAMERA MOUNTING HEIGHTS ON LIGHT POLES (BY DIVISION 26), INCLUDING HANDHOLE ORIENTATION AND POWER/CABLING ACCESS.
18. ALL SECURITY DEVICE LOCATIONS SHOWN ARE DIAGRAMMATIC AND NOT TO SCALE. FINAL PLACEMENT SHALL BE COORDINATED WITH THE ARCHITECT OR SECURITY DESIGN CONSULTANT PRIOR TO ROUGH-IN.
19. COORDINATE ALL EXTERIOR CAMERA LOCATIONS WITH LANDSCAPING AND ADJACENT BUILDING ELEMENTS. ENSURE CLEAR FIELDS OF VIEW FREE FROM OBSTRUCTIONS SUCH AS TREES, DOWNSPOUTS, OR SIGNAGE.
20. DEVICE HEIGHTS, ESPECIALLY FOR ACCESS CONTROL AND INTERCOMS, SHALL MEET ADA ACCESSIBILITY REQUIREMENTS AND APPLICABLE LOCAL/STATE CODES.
21. VERIFY EXACT MOUNTING CONDITIONS IN THE FIELD AND COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS WITH STRUCTURE, FINISHES, OR UTILITIES.
22. ALL INSTALLED SYSTEMS AND COMPONENTS SHALL BE TESTED FOR FULL FUNCTIONALITY, INTEGRATION, AND COMPLIANCE WITH SPECIFICATIONS PRIOR TO FINAL TURNOVER.
23. CONTRACTOR SHALL COORDINATE FINAL TERMINATIONS, PROGRAMMING, AND SYSTEM COMMISSIONING WITH THE SECURITY VENDOR OR INTEGRATOR. SYSTEM FUNCTIONALITY SHALL BE DEMONSTRATED AND ACCEPTED BY THE OWNER PER WRITTEN SPECIFICATIONS.
24. CONTRACTOR SHALL REFER TO T-SERIES TECHNOLOGY OR STRUCTURED CABLING DRAWINGS FOR DEVICE DATA NETWORK CABLING, RISER INFORMATION, AND ADDITIONAL SYSTEM-SPECIFIC REQUIREMENTS.
25. CONTRACTOR SHALL SUBMIT PRODUCT DATA SHEETS, SHOP DRAWINGS, AND DEVICE CUT SHEETS FOR ALL SECURITY EQUIPMENT FOR REVIEW AND APPROVAL PRIOR TO ORDERING.
26. UPON COMPLETION, PROVIDE RECORD DRAWINGS (AS-BUILTS), INCLUDING CONDUIT ROUTING, DEVICE LOCATIONS, CABLE IDS, AND PANEL TERMINATIONS. LABEL ALL DEVICES IN THE FIELD TO MATCH RECORD DOCUMENTS.
27. CONTRACTOR SHALL NOTIFY THE SECURITY CONSULTANT AND/OR ARCHITECT OF ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS PRIOR TO INSTALLATION. UNAUTHORIZED SUBSTITUTIONS OR RELOCATIONS MAY BE SUBJECT TO REMOVAL AND CORRECTION AT THE CONTRACTOR'S EXPENSE.

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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FBISD INSPIRE•EQUIP•IMAGINE
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Sugarland, TX 77479

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TS100-K
SECURITY SITE PLAN

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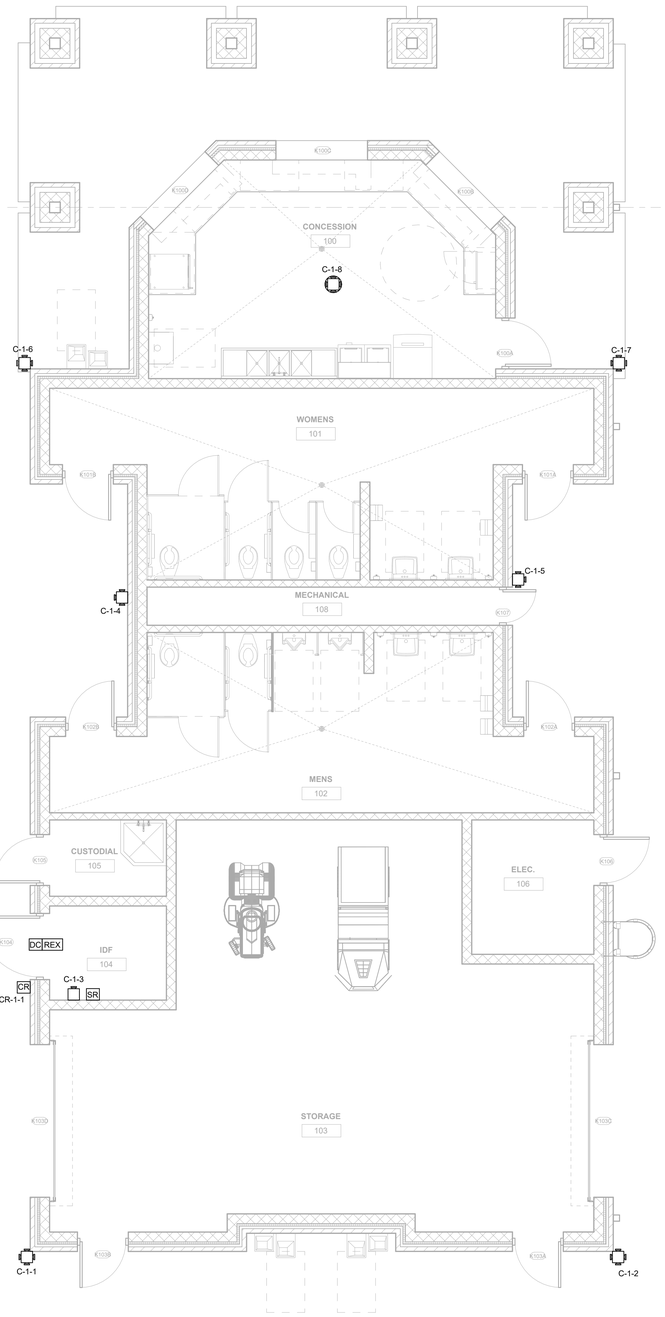

1 TS202-K SECURITY LEVEL 01 FLOOR PLAN - CONCESSION
1/4" = 1'-0"

GENERAL NOTES:

1. ALL SECURITY INSTALLATIONS SHALL COMPLY WITH LOCAL CODES AND PERMITTING REQUIREMENTS FOR LOW-VOLTAGE, CCTV, AND ACCESS CONTROL SYSTEMS. CONTRACTOR SHALL VERIFY AND OBTAIN ALL REQUIRED PERMITS PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL PROVIDE AND INSTALL ALL REQUIRED BOXES, CONDUIT, CABLING, SUPPORTS, TERMINATIONS, AND ACCESSORIES FOR A COMPLETE AND CODE-COMPLIANT SECURITY SYSTEM, WHETHER OR NOT EACH ITEM IS SPECIFICALLY SHOWN.
3. ALL CONDUIT PATHWAYS, ROUGH-INS, SLEEVES, AND ASSOCIATED INFRASTRUCTURE SHOWN ON SECURITY DRAWINGS SHALL BE INSTALLED BY DIVISION 26 (ELECTRICAL).
4. ALL POWER TO SECURITY DEVICES, PANELS, AND EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY DIVISION 26 (ELECTRICAL) UNLESS OTHERWISE NOTED.
5. SECURITY DATA NETWORK CABLING, FIBER CONNECTIVITY, AND ASSOCIATED EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY DIVISION 27 (COMMUNICATIONS). REFER TO T-SERIES DRAWINGS FOR ROUTING AND REQUIREMENTS.
6. ELECTRIFIED DOOR HARDWARE INDICATED ON SECURITY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 8. REFER TO DOOR HARDWARE SCHEDULES FOR MODEL TYPES, POWER TRANSFER DEVICES, AND CONTROL INTERFACE REQUIREMENTS.
7. VEHICLE GATE EQUIPMENT AND OPERATORS SHALL BE PROVIDED AND INSTALLED BY DIVISION 11. COORDINATE ALL SECURITY-RELATED RELAY CABLING AND TERMINATIONS IN THE FIELD.
8. ELEVATOR SECURITY INTERFACES, INCLUDING CARD READER FLOOR ACCESS, HALL CALL CONTROL, AND CAMERAS, SHALL BE COORDINATED WITH THE ELEVATOR VENDOR. TRAVEL CABLES AND ASSOCIATED TERMINATIONS SHALL BE PROVIDED AND INSTALLED BY THE ELEVATOR CONTRACTOR. REFER TO ELEVATOR SHOP DRAWINGS AND SPECIFICATIONS FOR INTERFACE REQUIREMENTS.
9. WHERE SYSTEMS INTERFACE WITH EMERGENCY SERVICES (E.G., GATES, EGRESS HARDWARE, OR INTERCOMS), COORDINATION WITH THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) IS REQUIRED PRIOR TO COMMISSIONING.
10. WHERE INTEGRATION WITH BUILDING SYSTEMS IS REQUIRED (E.G., BMS, ELEVATOR RECALL, INTERCOM, OR FIRE ALARM), COORDINATION SHALL BE PERFORMED WITH THE RESPECTIVE SYSTEM VENDORS PRIOR TO ROUGH-IN.
11. SECURITY EQUIPMENT SHALL BE POWERED FROM DEDICATED CIRCUITS UNLESS OTHERWISE NOTED. COORDINATE PANEL LOCATIONS, BREAKER REQUIREMENTS, AND UPS BACKUP (IF REQUIRED) WITH DIVISION 26.
12. ALL SECURITY SYSTEM COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER MANUFACTURER REQUIREMENTS AND APPLICABLE ELECTRICAL CODES.
13. CONTRACTOR SHALL COORDINATE ALL CONDUIT ROUTES WITH ARCHITECTURAL, CIVIL, ELECTRICAL, AND LANDSCAPE DRAWINGS PRIOR TO INSTALLATION OR TRENCHING.
14. ALL PENETRATIONS THROUGH FIRE-RATED WALLS OR STRUCTURES FOR SECURITY CABLING SHALL BE SEALED TO RESTORE ORIGINAL FIRE-RESISTANCE RATINGS.
15. PENETRATIONS THROUGH NON-RATED WALLS SHALL BE SEALED TO REDUCE ACOUSTIC TRANSMISSION BETWEEN SPACES.
16. ALL WALL AND FLOOR PENETRATIONS SHALL BE SEALED TO PREVENT WATER INTRUSION INTO INTERIOR OR CONDITIONED SPACES.
17. CONTRACTOR SHALL RESTORE ALL SURFACES (E.G., WALLS, PAVEMENT, LANDSCAPING) AFFECTED BY SECURITY INSTALLATION TO ORIGINAL OR BETTER CONDITION.
18. ALL SECURITY DEVICE LOCATIONS SHOWN ARE DIAGRAMMATIC AND NOT TO SCALE. FINAL PLACEMENT SHALL BE COORDINATED WITH THE ARCHITECT OR SECURITY DESIGN CONSULTANT PRIOR TO ROUGH-IN.
19. COORDINATE ALL EXTERIOR CAMERA LOCATIONS WITH LANDSCAPING AND ADJACENT BUILDING ELEMENTS. ENSURE CLEAR FIELDS OF VIEW FREE FROM OBSTRUCTIONS SUCH AS TREES, DOWNSPOUTS, OR SIGNAGE.
20. DEVICE MOUNTING HEIGHTS, INCLUDING ACCESS CONTROL AND INTERCOMS, SHALL COMPLY WITH ADA ACCESSIBILITY STANDARDS AND APPLICABLE LOCAL AND STATE CODES.
21. VERIFY EXACT MOUNTING CONDITIONS IN THE FIELD AND COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS WITH STRUCTURE, FINISHES, OR UTILITIES.
22. ALL INSTALLED SYSTEMS AND COMPONENTS SHALL BE TESTED FOR FULL FUNCTIONALITY, INTEGRATION, AND COMPLIANCE WITH SPECIFICATIONS PRIOR TO FINAL TURNOVER.
23. CONTRACTOR SHALL COORDINATE FINAL TERMINATIONS, PROGRAMMING, AND SYSTEM COMMISSIONING WITH THE SECURITY VENDOR OR INTEGRATOR. SYSTEM FUNCTIONALITY SHALL BE DEMONSTRATED AND ACCEPTED BY THE OWNER PER WRITTEN SPECIFICATIONS.
24. CONTRACTOR SHALL REFER TO T-SERIES TECHNOLOGY OR STRUCTURED CABLING DRAWINGS FOR DEVICE DATA NETWORK CABLING, RISER INFORMATION, AND ADDITIONAL SYSTEM-SPECIFIC REQUIREMENTS.
25. CONTRACTOR SHALL SUBMIT PRODUCT DATA SHEETS, SHOP DRAWINGS, AND DEVICE CUT SHEETS FOR ALL SECURITY EQUIPMENT FOR REVIEW AND APPROVAL PRIOR TO ORDERING.
26. UPON COMPLETION, PROVIDE RECORD DRAWINGS (AS-BUILTS), INCLUDING CONDUIT ROUTING, DEVICE LOCATIONS, CABLE IDS, AND PANEL TERMINATIONS. LABEL ALL DEVICES IN THE FIELD TO MATCH RECORD DOCUMENTS.
27. CONTRACTOR SHALL NOTIFY THE SECURITY CONSULTANT AND/OR ARCHITECT OF ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS PRIOR TO INSTALLATION. UNAUTHORIZED SUBSTITUTIONS OR RELOCATIONS MAY BE SUBJECT TO REMOVAL AND CORRECTION AT THE CONTRACTOR'S EXPENSE.

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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14777 Voss Rd, Sugar Land, TX 77498
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FBISD INSPIRE•EQUIP•IMAGINE
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Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS
12-05-2025

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DATE: 12-05-2025
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TS202-K
SECURITY LEVEL 01 FLOOR PLAN - CONCESSION

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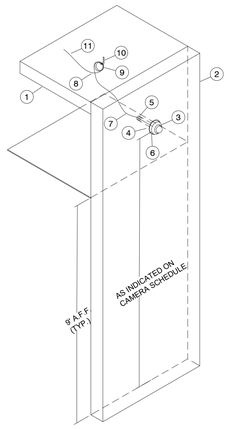


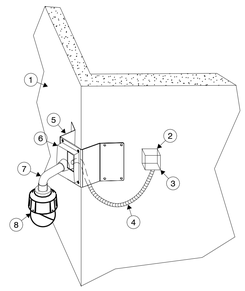
KEYED NOTES:

1. CEILING DECK AS SCHEDULED.
2. EXTERIOR WALL AS SCHEDULED.
3. EXTERIOR WALL MOUNTED IP VIDEO SURVEILLANCE DOME CAMERA (REFERENCE SPECIFICATION)
4. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
5. 3/4-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING (BY DIV 26).
6. WEATHERTIGHT GASKET FOR WEATHERPROOF BACKBOX (BY DIV 26).
7. PATCH CORD AS SPECIFIED.
8. SURFACE MOUNT BOX ABOVE ACCESSIBLE CEILING (BY DIV 27).
9. 20 FOOT SERVICE LOOP ABOVE ACCESSIBLE CEILING NEATLY COILED AND SECURED TO J-HOOK (BY DIV 27).
10. J-HOOK ABOVE ACCESSIBLE CEILING (BY DIV 27).
11. DATA CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).

TYPICAL EXTERIOR WALL MOUNTED SURVEILLANCE CAMERA

1 / TS400-K

SCALE: N.T.S.



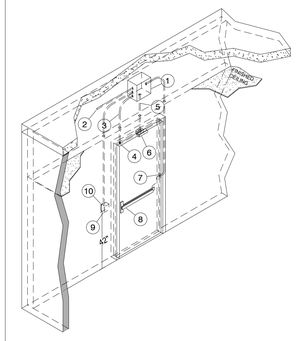
KEYED NOTES:

1. SCHEDULED EXTERIOR WALL.
2. 4 11/16" X 4 11/16" X 2 1/8" DOUBLE GANG WATER PROOF BACKBOX INSTALLED FLUSH WITH THE BUILDING CONTRACTOR SHALL INSTALL BACKBOX NO FURTHER THAN 18-INCHES FROM THE CORNER OF THE BUILDING (BY DIV. 26).
3. ADJUSTABLE SEAL TIGHT BACKBOX WATER PROOF COVER PLATE (BY DIV. 26).
4. 3/4-INCH SEAL TIGHT FROM 4 11/16" X 4 11/16" X 2 1/8" DOUBLE GANG WATER PROOF BACKBOX COVER PLATE TO WALL MOUNTED CORNER BRACKET (BY DIV. 26).
5. CORNER MOUNT BRACKET.
6. WALL MOUNT BRACKET.
7. PENDANT KIT.
8. SURVEILLANCE CAMERA.

TYPICAL EXTERIOR CORNER MOUNTED SURVEILLANCE CAMERA

2 / TS400-K

SCALE: N.T.S.



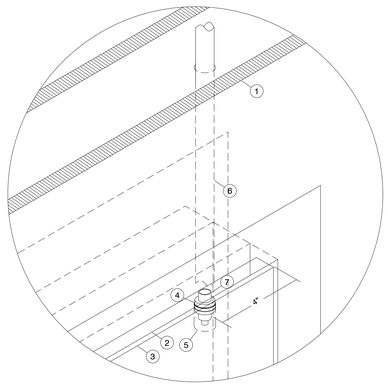
KEYED NOTES:

1. (1) 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX MOUNTED ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR (BY DIV. 26).
2. (1) 1-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX TO ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR FOR ACCESS CONTROL CABLE (BY DIV. 26).
3. (1) 1/2-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX TO HEAD OF DOOR FRAME FOR CONCEALED DOOR POSITION SWITCH. STUB CONDUIT INTO HEAD OF DOOR FRAME 6-INCHES FROM THE STRIKE SIDE OF THE DOOR. PROVIDE A 3-INCH BLOCKOUT FOR GROUTED DOORS (BY DIV. 26).
4. CONCEALED DOOR POSITION SWITCH (BY DIV. 28).
5. (1) 1/2-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 12-INCH DEEP JUNCTION BOX TO A RECESSED SINGLE GANG BOX WITH A SINGLE GANG PLASTER RING INSTALLED HORIZONTALLY 6-INCHES ABOVE HEAD OF DOOR FRAME ON CENTERLINE OF DOOR AND ON SECURE SIDE OF DOOR FOR REQUEST TO EXIT MOTION SENSOR (BY DIV. 26).
6. (1) REQUEST TO EXIT MOTION SENSOR ON SECURE SIDE OF DOOR (BY DIV. 28).
7. (1) 3/4-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX DOWN DOOR FRAME FOR POWER TRANSFER HINGE (BY DIV. 26).
8. (1) ELECTRIFIED EXIT DEVICE ON SECURE SIDE OF DOOR (BY DIV. 8).
9. (1) 3/4-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX TO A RECESSED DOUBLE GANG BOX WITH A SINGLE GANG PLASTER RING FOR CARD READER ON UNSECURE SIDE OF DOOR (BY DIV. 26).
10. (1) CARD READER ON UNSECURE SIDE OF DOOR (BY DIV. 28).

WALL MOUNTED CARD READER WITH ELECTRIFIED EXIT DEVICE AND FRAME MOUNTED REQUEST TO EXIT MOTION SENSOR

3 / TS400-K

SCALE: N.T.S.



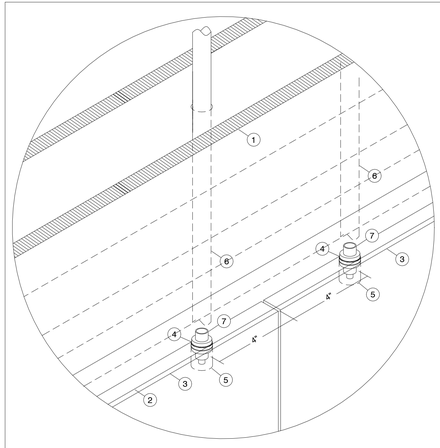
KEYED NOTES:

1. SCHEDULED PARTITION.
2. HEAD OF DOOR FRAME. PROVIDE TAB AT DOOR FRAME TO SECURE CONDUIT DIRECTLY ABOVE DOOR POSITION SWITCH.
3. SCHEDULED DOOR.
4. 15/16" DIAMETER HOLE IN THE HEAD OF FRAME FOR CONCEALED DOOR CONTACT.
5. 15/16" DIAMETER X 1 5/8" DEEP HOLE IN TOP OF DOOR FOR CONCEALED DOOR CONTACT MAGNET.
6. 1/2" CONDUIT FROM 6" X 6" X 4" JUNCTION BOX ABOVE DOOR (BY DIV 26).
7. DOOR CONTACT (REFERENCE SPECIFICATION).

DOOR CONTACT - SINGLE DOOR RECESSED

4 / TS400-K

SCALE: SCALE



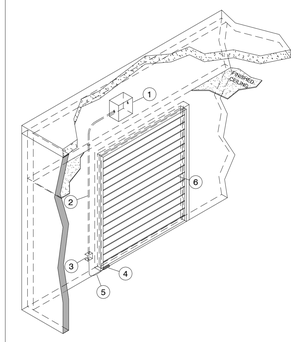
KEYED NOTES:

1. SCHEDULED PARTITION.
2. HEAD OF DOOR FRAME. PROVIDE TAB AT DOOR FRAME TO SECURE CONDUIT DIRECTLY ABOVE DOOR POSITION SWITCH.
3. SCHEDULED DOOR.
4. 15/16" DIAMETER HOLE IN THE HEAD OF FRAME FOR CONCEALED DOOR CONTACT.
5. 15/16" DIAMETER X 1 5/8" DEEP HOLE IN TOP OF DOOR FOR CONCEALED DOOR CONTACT MAGNET.
6. 1/2" CONDUIT FROM 6" X 6" X 4" JUNCTION BOX ABOVE DOOR (BY DIV 26).
7. DOOR CONTACT (REFERENCE SPECIFICATION).

DOOR CONTACT - DOUBLE DOOR RECESSED

5 / TS400-K

SCALE: SCALE



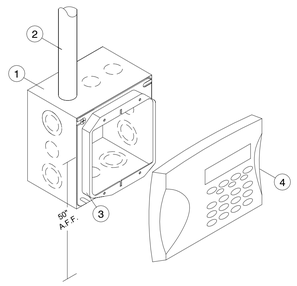
KEYED NOTES:

1. (1) 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX MOUNTED ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR (BY DIV. 26).
2. (1) 1-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX MOUNTED ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR FOR OVERHEAD DOOR CONTACT CABLE (BY DIV. 26).
3. (1) 4-INCH WIDE X 4-INCH HIGH X 2 1/8" DEEP JUNCTION BOX SURFACE MOUNTED AT 1'-0" A.F.F. ON SECURE SIDE OF DOOR (BY DIV. 26).
4. OVERHEAD DOOR POSITION SWITCH SUFACE MOUNTED AND FASTENED TO FLOOR (BY DIV. 28).
5. ARMORED CABLE (BY DIV. 28).
6. OVERHEAD ROLL UP DOOR AS SCHEDULED.

DOOR CONTACT OVERHEAD DOOR (FLOOR MOUNT)

6 / TS400-K

SCALE: N.T.S.



KEYED NOTES:

1. 4 1/16-INCH x 4 1/16-INCH x 2 1/8-INCH DOUBLE GANG BOX (BY DIV 26). RECESS WHEN POSSIBLE.
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED TO CABLE TRAY (BY DIV 26).
3. DOUBLE GANG PLASTER RING (BY DIV 26).
4. SCHEDULED ARM/DISARM KEYPAD (REFERENCE SPECIFICATION).

TYPICAL ARM/DISARM KEYPAD DETAIL

7 / TS400-K

SCALE: N.T.S.

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

14777 Voss Rd, Sugar Land, TX 77498

KEMPNER HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 25113 STATE OF TEXAS

12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:

No.	Date	Description

100%CD

TS400-K
SECURITY TYPICAL DETAILS

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FBISD - FIELD HOUSE AND ATHLETICS - KEMPER HS
VIDEO SURVEILLANCE SYSTEM DEVICE SCHEDULE

C-1-1	360° MULTI-DIRECTIONAL LENS	EXTERIOR	CORNER	12-FEET A.F.F.	
C-1-2	360° MULTI-DIRECTIONAL LENS	EXTERIOR	CORNER	12-FEET A.F.F.	
C-1-3	SINGLE LENS DOME	INTERIOR	WALL	9-FEET A.F.F.	
C-1-4	180° PANORAMIC	EXTERIOR	WALL	9-FEET A.F.F.	
C-1-5	180° PANORAMIC	EXTERIOR	WALL	9-FEET A.F.F.	
C-1-6	360° MULTI-DIRECTIONAL LENS	EXTERIOR	CORNER	12-FEET A.F.F.	
C-1-7	360° MULTI-DIRECTIONAL LENS	EXTERIOR	CORNER	12-FEET A.F.F.	
C-1-8	360° MULTI-DIRECTIONAL LENS	INTERIOR	CEILING	SEE TYPICAL DETAIL	

FBISD - FIELD HOUSE AND ATHLETICS - KEMPER HS
ACCESS CONTROL SYSTEM DEVICE SCHEDULE

CR-1-1	CARD READER	WALL	K104	SINGLE	48-INCHES A.F.F.	COORDINATE WITH OWNER	

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2 Greenway Plaza, Suite 460
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14777 Voss Rd, Sugar Land, TX 77498
KEMPNER HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
No. Date Description

100%CD
TS500-K
SECURITY SCHEDULES

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FORT BEND ISD
BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

THURGOOD MARSHALL HIGH SCHOOL

100% CONSTRUCTION DOCUMENTS

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SCOPE OF WORK

SID12502 - RENOVATE LOCKER ROOMS (GYM AND FIELD HOUSE)

GYM LOCKERS:
- REMOVE CARPET IN GYM LOCKERS
- REPLACING WATER FOUNTAIN WITH BOTTLE FILLERS
- EPOXY FLOORING FOR GYM LOCKER ROOMS
- NEW BENCHES TO REPLACE BROKEN ONES

FIELD HOUSE:
- REPLACE WATER FOUNTAINS WITH BOTTLE FILLERS IN LOCKERS
- NEW LOCKERS
- EPOXY FLOORING

SID12504 - PROVIDE 4,000 SF CONCESSIONS/RESTROOM/STORAGE BUILDING
- CONCESSION
- RESTROOM
- STORAGE

SID12513 - ADD HITTING CAGES FOR BASEBALL/SOFTBALL

SID12515 - RENOVATE TRAINING ROOM (FIELD HOUSE)
- RENOVATE TRAINING AREA
- NEW ICE MACHINE
- STORAGE SHELVES

SID12531 - RESURFACE TENNIS COURTS AND PROVIDE IMPROVEMENTS
- RESURFACE TENNIS COURT
- COVERED BLEACHERS
- WINDSCREEN
- NEW 60 SEAT ADA COMPLIANT BLEACHER
- CONCRETE PAD FOR BLEACHERS

SID12539 - REPLACE WASHER AND DRYERS

SECTION 02 -NEW FURNITURE FOR TRAINING ROOM

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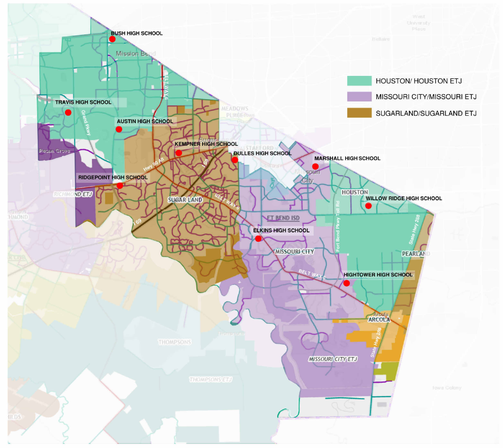
RENDERING

THURGOOD MARSHALL HIGH SCHOOL CAMPUS KEY PLAN



LOCATION MAP



CIVIL

TEXAS SPORTS AND CIVIL ENGINEERING
11767 Katy Freeway, Suite 1112
Houston, TX 77079
P: 346-204-4854
https://texassportsandcivilengineering.com

MEPT

SALAS O'BRIEN
10930 W. San Houston Pkwy N. Suite 900
HOUSTON, TX 77064
P: (866) 768 4625
https://salasobrien.com

STRUCTURAL

MATRIX STRUCTURAL
5177 Richmond Ave Ste 670
HOUSTON, TX 77056
P: (713) 664-0130
matrixstructural.com

PFLUGER ARCHITECTS

PFLUGER ARCHITECTS
2 GREENWAY PLAZA #460
HOUSTON, TX 77046
P:(713) 222-1141
WWW.PFLUGERARCHITECTS.COM

pfluger
office: 713.222.1141 | fax: 713.222.1177
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CK CHECKED BY: PA
REVISIONS:

No.	Date	Description

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G0.00-M
COVER

MARSHALL HIGH SCHOOL

12/4/2025 10:35:31 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/25-006_MARSHALL_FBISD ATHLETIC RENOVATIONS BP012-M_R25.rvt

THE FOLLOWING SECTION OF DETAILS PROVIDES INFORMATION ON REQUIREMENTS FOR DISABLED ACCESSIBILITY. THE REQUIREMENTS COMBINE MINIMUM REQUIREMENTS OF STATE AND FEDERAL AGENCIES. THE PURPOSE OF THIS SECTION IS TO HELP AVOID INSTALLATION OF MATERIALS ON CONSTRUCTION PROJECTS THAT WOULD LIMIT ACCESSIBILITY. THE SCOPE OF THIS SECTION IS LIMITED AND THE INDIVIDUALS WORKING ON THE PROJECT SHOULD FAMILIARIZE THEMSELVES WITH TEXAS ACCESSIBILITY STANDARD (TAS) AND AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COPIES OF THESE DOCUMENTS MAY BE OBTAINED BY CONTACTING THE FOLLOWING:

TAS:
TEXAS DEPT. OF LICENSING & REGULATION
P.O. BOX 12157
AUSTIN, TEXAS 78711
(800) 803-9202
TDD (800) 735-2989
WWW.LICENSE.STATE.TX.US

ADAAG:
SOUTHWEST DISABILITY AND BUSINESS TECHNICAL ASSISTANCE CENTER FOR REGION VI.
2323 S. SHEPERD, SUITE 1000
HOUSTON, TEXAS 77019
ADA HOTLINE: (800) 949-4232
TDD: (713) 520-5136 -OR- (713) 520-0232
FAX: (713) 520-5785

IN THE EVENT THE INFORMATION ON THE PLAN SHEETS DOES NOT MEET THE MINIMUM REQUIREMENTS OF THE SECTION, THEN THE INFORMATION SHALL BE PRESENTED TO THE ARCHITECT FOR CLARIFICATION PRIOR TO CONSTRUCTION OF SPECIFIC AREA OF WORK.

ELIMINATION OF ARCHITECTURAL BARRIERS
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (ADA)

IN ACCORDANCE WITH ACCESSIBILITY REQUIREMENTS, THE FOLLOWING STANDARDS SHALL BE INCLUDED WHEN BIDDING ON PROJECTS INVOLVING RENOVATION OF OR NEW FACILITIES FOR PUBLIC ACCOMMODATION OR COMMERCIAL FACILITIES. ANY ITEMS NOT CONFORMING TO THESE OR ANY OTHER STANDARDS, CODES, OR ORDINANCES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT FOR HIS INTERPRETATION. IN THE EVENT THE INFORMATION LISTED IN THIS DOCUMENT CONFLICTS WITH ANY PORTION OF THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT, IN WRITING, OF HIS NEED FOR A SOLUTION TO RESOLVE THE CONFLICT. THE MOUNTING HEIGHTS INDICATED ARE FOR ITEMS THAT REQUIRE ACCESSIBILITY BY DISABLED INDIVIDUALS. WHERE TWO OR MORE ITEMS ARE GROUPED IN ONE AREA (MIRRORS, SINKS, TOILETS, DRINKING FOUNTAINS, URINALS, SHELVES, TELEPHONES, ETC.) NOT ALL ITEMS IN THE AREA HAVE TO BE MOUNTED AT HANDICAP HEIGHT. CONTRACTOR TO COORDINATE THESE INSTALLATION HEIGHTS WITH OTHER MATERIALS FOR NEAT, TRIMMED OUT AND FINISHED APPEARANCE. ITEMS FOR DISABLED INDIVIDUAL USE SHALL BE MOUNTED AT HEIGHT INDICATED FOR AGE LEVEL AS NOTED.

CHAPTER 1: APPLICATION AND ADMINISTRATION

TAS SECTION 104 - CONVENTIONS
A. ALL DIMENSIONS ARE SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES EXCEPT WHERE THE REQUIREMENT IS STATED AS A RANGE WITH SPECIFIC MINIMUM AND MAXIMUM POINTS.
B. UNLESS SPECIFICALLY STATED OTHERWISE, FIGURES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

CHAPTER 2: SCOPING REQUIREMENTS

TAS SECTION 201.1 - SCOPE
A. ALL AREAS OF NEWLY DESIGNED AND NEWLY CONSTRUCTED BUILDINGS AND FACILITIES AN ALTERED PORTIONS OF EXISTING BUILDINGS AND FACILITIES SHALL COMPLY WITH THESE REQUIREMENTS.
TAS SECTION 202 - EXISTING BUILDINGS AND FACILITIES
A. EACH ADDITION TO AN EXISTING BUILDING OR FACILITY SHALL COMPLY WITH THE REQUIREMENTS FOR NEW CONSTRUCTION. EACH ADDITION THAT AFFECTS OR COULD EFFECT THE USABILITY OF OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL COMPLY WITH 202.4.
B. WHERE EXISTING ELEMENTS, SPACES, OR COMMON USE AREAS ARE ALTERED, EACH ALTERED ELEMENT, SPACE, OR COMMON USE AREA SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 2.
C. AN ALTERATION THAT DECREASES THE ACCESSIBILITY OF A BUILDING OR FACILITY BELOW THE REQUIREMENTS FOR NEW CONSTRUCTION AT THE TIME OF THE ALTERATION IS PROHIBITED.
D. AN ALTERATION OF AN EXISTING ELEMENT, SPACE, OR AREA OF A BUILDING OR FACILITY SHALL NOT IMPOSE A REQUIREMENT FOR ACCESSIBILITY GREATER THAN REQUIRED FOR NEW CONSTRUCTION.
E. ALTERATIONS THAT AFFECT THE USABILITY OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL BE MADE SO AS TO ENSURE USAGE BY INDIVIDUALS WITH DISABILITIES.
TAS SECTION 204 - PROTRUDING OBJECTS
A. WITHIN AREAS OF ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOM AND SPACES SHALL COMPLY WITH 309.
B. WITHIN AREAS OF SPORTS ACTIVITY, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307.
C. WITHIN PLAY AREAS, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307 PROVIDED THAT GROUND LEVEL ACCESSIBLE ROUTES PROVIDE VERTICAL CLEARANCE IN COMPLIANCE WITH 1008.2.
TAS SECTION 205 - OPERABLE PARTS
A. OPERABLE PARTS ON ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOMS AND SPACES SHALL COMPLY WITH 309.
B. OPERABLE PARTS INTENDED FOR USE ONLY BY SERVICE OR MAINTENANCE PERSONNEL SHALL NOT BE REQUIRED TO COMPLY WITH 309.
C. ELECTRICAL OR COMMUNICATION RECEPTACLES SERVING A DEDICATED USE SHALL NOT BE REQUIRED TO COMPLY WITH 309.
TAS SECTION 206 - ACCESSIBLE ROUTES
A. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
B. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE
C. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH STORY AND MEZZANINE IN MULTI-STORY BUILDINGS AND FACILITIES.
D. IN RESTAURANTS AND CAFETERIAS, AN ACCESSIBLE ROUTE SHALL BE PROVIDED TO ALL DINING AREAS, INCLUDING RAISED OR SUNKEN DINING AREAS, AND OUTDOOR DINING AREAS.
E. WHERE A CIRCULATION PATH DIRECTLY CONNECTS A PERFORMANCE AREA TO AN ASSEMBLY AREA, AN ACCESSIBLE ROUTE SHALL DIRECTLY CONNECT THE ASSEMBLY SEATING AREA WITH THE PERFORMANCE AREA. AN ACCESSIBLE ROUTE SHALL BE PROVIDED FROM PERFORMANCE AREAS TO ANCILLARY AREAS OR FACILITIES USED BY PERFORMERS.
TAS SECTION 207 - ACCESSIBLE MEANS OF EGRESS
A. MEANS OF EGRESS SHALL COMPLY WITH SECTION 1003.2.13 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION.)
B. STANDBY POWER SHALL BE PROVIDED FOR PLATFORM LIFTS PERMITTED BY SECTION 1003.2.13.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007.5 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO SERVE AS A PART OF AN ACCESSIBLE MEANS OF EGRESS.
TAS SECTION 208 - PARKING SPACES
A. PARKING SPACES SHALL COMPLY WITH 502 AND SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 208.2 EXCEPT REQUIRED BY 208.2.1, 208.2.2, AND 208.2.3. WHERE MORE THAN ONE PARKING FACILITY IS PROVIDED ON A SITE, THE NUMBER OF ACCESSIBLE SPACES PROVIDED ON THE SITE SHALL BE CALCULATED ACCORDING TO THE NUMBER OF SPACES REQUIRED FOR EACH PARKING FACILITY.

TABLE 208.2 PARKING SPACES

TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES	TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES
1 TO 25	1	201 TO 300	7
26 TO 50	2	301 TO 400	8
51 TO 75	3	401 TO 500	9
76 TO 100	4	501 TO 1000	2 PERCENT OF TOTAL
101 TO 150	5	1000 AND OVER	20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000
151 TO 200	6		

TAS SECTION 208.2.4 - VAN PARKING SPACES
A. FOR EVERY SIX OR FRACTION OF SIX PARKING SPACES REQUIRED BY 208.2 TO COMPLY WITH 502, AT LEAST ONE SHALL BE A VAN PARKING SPACE COMPLYING WITH 502.
TAS SECTION 208.3 - LOCATION
A. PARKING SPACES COMPLYING WITH 502 THAT SERVE A PARTICULAR BUILDING OR FACILITY SHALL BE LOCATED ON THE SHORTEST POSSIBLE ACCESSIBLE ROUTE FROM PARKING LOT TO AN ENTRANCE. WHERE PARKING SERVES MORE THAN ONE ACCESSIBLE ENTRANCE, PARKING SPACES COMPLYING WITH 502 SHALL BE DISPERSED AND LOCATED AT THE SHORTEST ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCES.
TAS SECTION 209 - PASSENGER LOADING ZONES AND BUS STOPS
A. PASSENGER LOADING ZONES, EXCEPT THOSE REQUIRED TO COMPLY WITH 209.2.2 AND 209.2.3, SHALL PROVIDE AT LEAST ONE PASSENGER LOADING ZONE COMPLYING WITH 503 IN EVERY CONTINUOUS 100 LINEAR FEET (30M) OF LOADING ZONE SPACE, OR FRACTION THEREOF.
B. IN BUS LOADING ZONES RESTRICTED TO USE BY DESIGNATED OR SPECIFIED PUBLIC TRANSPORTATION VEHICLES, EACH BUS BAY, BUS STOP, OR OTHER AREA DESIGNATED FOR LIFT OR RAMP DEPLOYMENT SHALL COMPLY WITH 810.2
TAS SECTION 210 - STAIRWAYS
A. INTERIOR AND EXTERIOR STAIRS THAT ARE PART OF A MEANS OF EGRESS SHALL COMPLY WITH 504. ALTHOUGH HANDRAILS ON STAIRS THAT ARE NOT PART OF A MEANS OF EGRESS, STATE OR LOCAL BUILDING CODES MAY REQUIRE HANDRAILS OR GUARDS.
TAS SECTION 211 - DRINKING FOUNTAINS
A. NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED.
B. MORE THAN THE MINIMUM NUMBER OF DRINKING FOUNTAINS SPECIFIED IN 211.2 ARE PROVIDED, 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.1 THROUGH 602.6, AND 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.7
TAS SECTION 212 - KITCHENS, KITCHENETTES, AND SINKS
A. KITCHENS AND KITCHENETTES SHALL COMPLY WITH 804.
B. WHERE SINKS ARE PROVIDED, AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE, OF EACH TYPE PROVIDED IN EACH ACCESSIBLE ROOM OR SPACE SHALL COMPLY WITH 606.
TAS SECTION 213 - TOILET FACILITIES AND BATHING FACILITIES
A. WHERE TOILET FACILITIES AND BATHING FACILITIES ARE PROVIDED, THEY SHALL COMPLY WITH 213. TOILET FACILITIES AND BATHING FACILITIES SHALL BE PROVIDED ON A STORY CONNECTED BY AN ACCESSIBLE ROUTE TO AN ACCESSIBLE ENTRANCE.
B. TOILET RESTROOMS AND BATHING ROOMS SHALL COMPLY WITH 603.
C. WHERE MULTIPLE SINGLE USER TOILET ROOMS ARE CLUSTERED AT A SINGLE LOCATION, NO MORE THAN 50% OF THE SINGLE USER TOILET ROOMS FOR EACH USE AT EACH CLUSTER SHALL BE REQUIRED TO COMPLY WITH 603.
D. UNISEX TOILET ROOMS AND UNISEX BATHING ROOMS SHALL CONTAIN NOT MORE THAN ONE LAVATORY, AND TWO WATER CLOSETS WITHOUT URINALS OR ONE WATER CLOSET AND ONE URINAL. UNISEX BATHING ROOMS CONTAIN ONE SHOWER OR ONE SHOWER AND ONE BATHTUB, ONE LAVATORY, AND ONE WATER CLOSET. DOORS TO UNISEX RESTROOMS AND BATHING ROOMS SHALL HAVE PRIVACY LATCHES.
TAS SECTION 214 - WASHING MACHINES AND CLOTHES DRYERS
A. WHERE 3 OR FEWER WASHING MACHINES ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 WASHING MACHINES ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
B. WHERE 3 OR FEWER CLOTHES DRYERS ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 CLOTHES DRYERS ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
TAS SECTION 215 - FIRE ALARM SYSTEMS
A. ALARMS IN PUBLIC USE AREAS AND COMMON USE AREAS SHALL COMPLY WITH 702.
B. WHERE EMPLOYEE WORK AREAS HAVE AUDIBLE ALARM COVERAGE, THE WIRING SYSTEM SHALL BE DESIGNED SO THAT THE VISIBLE ALARMS COMPLYING WITH 702 CAN BE INTEGRATED INTO THE ALARM SYSTEM.
TAS SECTION 216 - SIGNS
A. SIGNS SHALL COMPLY WITH 703. BUILDING DIRECTORIES, MENUS, SEAT AND ROW DESIGNATIONS IN ASSEMBLY AREAS, OCCUPANT NAMES, BUILDING ADDRESSES, AND COMPANY NAMES AND LOGOS SHALL NOT BE REQUIRED TO COMPLY WITH 216.
B. SIGNS REQUIRED BY SECTION 1003.2.13.5.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 1007.6.4 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE INSTRUCTIONS IN AREAS OF REFUGE SHALL COMPLY WITH 703.5.
C. DIRECTIONAL SIGNS REQUIRED BY SECTION 1003.2.13.6 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 707.7 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE DIRECTIONS TO ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 703.5.
D. WHERE NOT ALL ENTRANCES COMPLY WITH 404, ENTRANCES COMPLYING WITH 404 SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1 DIRECTIONAL SIGNS COMPLYING WITH 703.5 THAT INDICATE THE LOCATION OF THE NEAREST ENTRANCE COMPLYING WITH 404 SHALL BE PROVIDED AT ENTRANCES THAT DO NOT COMPLY WITH 404.
TAS SECTION 217 - TELEPHONES
A. WHERE PUBLIC TELEPHONE ARE PROVIDED, WHEELCHAIR ACCESSIBLE TELEPHONES COMPLYING WITH 704.2 SHALL BE PROVIDED.

CHAPTER 2: SCOPING REQUIREMENTS (CONTINUED)

TAS SECTION 219 - ASSISTIVE LISTENING SYSTEMS
A. IN EACH ASSEMBLY AREA WHERE AUDIBLE COMMUNICATION IS INTEGRAL TO THE USE OF THE SPACE, AN ASSISTIVE LISTENING SYSTEM SHALL BE PROVIDED.
B. WHERE ALL SEATS IN AN ASSEMBLY AREA ARE SERVED BY AN INTRODUCTION LOOP ASSISTIVE LEARNING SYSTEM, THE MINIMUM NUMBER OF RECEIVERS REQUIRED BY TABLE 219.3 TO BE HEARING-AID COMPATIBLE SHALL NOT BE REQUIRED TO BE PROVIDED.
TAS SECTION 220 - AUTOMATIC TELLER MACHINES AND FARE MACHINES
A. WHERE AUTOMATIC TELLER MACHINES OR SELF-SERVICE FARE VENDING, COLLECTION, OR ADJUSTMENT MACHINES ARE PROVIDED, AT LEAST ONE OF EACH TYPE PROVIDED AT EACH LOCATION SHALL COMPLY WITH 707. WHERE BINS ARE PROVIDED FOR ENVELOPES, WASTE PAPER, OR OTHER PURPOSES, AT LEAST ONE OF EACH SHALL COMPLY WITH 811.
TAS SECTION 221 - ASSEMBLY AREAS
A. ASSEMBLY AREAS SHALL PROVIDE WHEELCHAIR SPACES, COMPANION SEATS, AND DESIGNATED AISLE SEATS COMPLYING WITH 221 AND 802.
B. WHEELCHAIR SPACES COMPLYING WITH 802.1 SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 221.2.1.1.
C. WHEELCHAIR SPACES SHALL BE AN INTEGRAL PART OF THE SEATING PLAN.
D. WHEELCHAIR SPACES SHALL PROVIDE LINES OF SIGHT COMPLYING WITH 802.2. IN PROVIDING LINES OF SIGHT, WHEELCHAIR SPACES SHALL BE DISPERSED. WHEELCHAIR SPACES SHALL PROVIDE SPECTATORS WITH CHOICES OF SEATING LOCATIONS OR VIEWING ANGLES EQUAL TO OR BETTER THAN SEATING LOCATIONS AND VIEWING ANGLES OF OTHER SPECTATORS.
E. AT LEAST 5% OF THE TOTAL NUMBER OF AISLE SEATS PROVIDED SHALL COMPLY WITH 802.4 AND SHALL BE THE AISLE SEATS LOCATED CLOSEST TO THE ACCESSIBLE ROUTES.

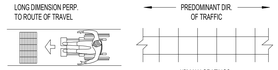
TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES	NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES
4 TO 25	1	301 TO 500	6
26 TO 50	2	501 TO 5000	6, PLUS 1 FOR EACH 150, OR FRACTION THEREOF, BETWEEN 501 THROUGH 5000
51 TO 150	4	5001 AND OVER	36, PLUS 1 FOR EACH 200, OR FRACTION THEREOF, OVER 5000
151 TO 300	5		

TAS SECTION 222 - DRESSING, FITTING, AND LOCKER ROOMS
A. WHERE DRESSING ROOMS, FITTING ROOMS, OR LOCKER ROOMS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE, OF EACH TYPE OF USE IN EACH CLUSTER PROVIDED SHALL COMPLY WITH 803.
B. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN DRESSING FITTING OR LOCKER ROOMS W/O INDIVIDUAL COMPARTMENTS, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 803.5. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN INDIVIDUAL COMPARTMENTS AT LEAST ONE OF EACH TYPE SHALL BE PROVIDED IN ACCORDANCE WITH 223.
TAS SECTION 223 - MEDICAL CARE AND LONG-TERM CARE FACILITIES
A. IN LICENSED MEDICAL CARE FACILITIES AND LICENSED LONG-TERM CARE FACILITIES WHERE THE PERIOD OF STAY EXCEEDS TWENTY-FOUR HOURS, PATIENT OR RESIDENT SLEEPING ROOMS SHALL BE PROVIDED IN ACCORDANCE WITH 223. TOILET ROOMS PART OF CRITICAL OR INTENSIVE CARE PATIENT SLEEPING ROOMS SHALL NOT BE REQUIRED TO COMPLY WITH 603.
TAS SECTION 224 - TRANSIENT LODGING FACILITIES AND GUEST ROOMS
A. TRANSIENT LODGING FACILITIES SHALL PROVIDE GUEST ROOMS IN ACCORDANCE WITH 224. PLACES OF LODGING AND HOUSING AT A PLACE OF EDUCATION SHALL COMPLY WITH THE PROVISIONS APPLICABLE TO TRANSIENT LODGING, INCLUDING, BUT NOT LIMITED TO, THE REQUIREMENTS FOR TRANSIENT LODGING GUEST ROOMS IN SECTIONS 224 AND 806.
B. ENTRANCES, DOORS, AND DOORWAYS PROVIDING USER PASSAGE INTO AND WITHIN THE GUEST ROOMS THAT ARE NOT REQUIRED TO PROVIDE MOBILITY FEATURES COMPLYING WITH 806.2 SHALL COMPLY WITH 404.2.3.
C. IN GUEST ROOMS HAVING MORE THAN 25 BEDS, 5% MINIMUM OF THE BEDS SHALL HAVE CLEAR FLOOR SPACE COMPLYING WITH 806.2.3.
TAS SECTION 225 - STORAGE
A. WHERE STORAGE IS PROVIDED, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 811.
B. WHERE LOCKERS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE, SHALL COMPLY WITH 811.
TAS SECTION 226 - DINING SURFACES AND WORK SURFACES
A. WHERE DINING SURFACES ARE PROVIDED FOR THE CONSUMPTION OF FOOD OR DRINK, AT LEAST 5% OF THE SEATING SPACES AND STANDING SPACES AT THE DINING SURFACES SHALL COMPLY WITH 902. IN ADDITION, WHERE WORK SURFACES ARE PROVIDED FOR USE BY OTHER THAN EMPLOYEES, AT LEAST 5% SHALL COMPLY WITH 902.
TAS SECTION 227 - SALES AND SERVICE
A. WHERE PROVIDED, CHECK-OUT AISLES, SALES COUNTERS, SERVICE COUNTERS, FOOD SERVICE LINES, QUEUES, AND WAITING LINES SHALL COMPLY WITH 227 AND 904.
B. WHERE COUNTERS ARE PROVIDED, AT LEAST ONE OF EACH TYPE OF SALES COUNTER AND SERVICE COUNTER SHALL COMPLY WITH 904.4. WHERE COUNTERS ARE DISPERSED THROUGHOUT THE FACILITY, COUNTERS COMPLYING WITH 904.4 SHALL ALSO BE DISPERSED.
C. QUEUES AND WAITING LINES SERVICING COUNTERS OR CHECK-OUT AISLES REQUIRED TO COMPLY WITH 904.3 OR 904.4 SHALL COMPLY WITH 403.
TAS SECTION 228 - DEPOSITORIES, VENDING MACHINES, CHANGE MACHINES, MAIL BOXES
A. WHERE PROVIDED, AT LEAST ONE OF EACH TYPE OF DEPOSITORY, VENDING MACHINE, CHANGE MACHINE, AND FUEL DISPENSER SHALL COMPLY WITH 309.
B. WHERE MAIL BOXES ARE PROVIDED IN AN INTERIOR LOCATION, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE SHALL COMPLY WITH 309.
TAS SECTION 229 - WINDOWS
A. WHERE GLAZED OPENINGS ARE PROVIDED IN ACCESSIBLE ROOMS OR SPACES FOR OPERATION BY OCCUPANTS, AT LEAST ONE MUST OPENING SHALL COMPLY WITH 309. EACH GLAZED OPENING REQUIRED BY AN ADMINISTRATIVE AUTHORITY TO BE OPERABLE SHALL COMPLY WITH 309.
TAS SECTION 230 - TWO-WAY COMMUNICATION SYSTEMS
A. WHERE A TWO-WAY COMMUNICATION SYSTEM IS PROVIDED TO GAIN ADMITTANCE TO A BUILDING OR FACILITY OR TO BE RESTRICTED AREAS WITHIN A BUILDING OR FACILITY, THE SYSTEM SHALL COMPLY WITH 708.
TAS SECTION 240 - PLAY AREAS
A. WHERE GROUND LEVEL PLAY COMPONENTS ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
B. WHEN ELEVATED PLAY COMPONENTS ARE PROVIDED, AT LEAST 50% SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
TAS SECTION 242 - SWIMMING POOLS, WADING POOLS, AND SPAS
A. AT LEAST TWO ACCESSIBLE MEANS OF ENTRY SHALL BE PROVIDED FOR SWIMMING POOLS.
B. AT LEAST ONE ACCESSIBLE MEANS FOR ENTRY FOR WADING POOLS AND SPAS.
TAS SECTION 243 - SHOOTING FACILITIES WITH FIRING POSITIONS
A. WHERE SHOOTING FACILITIES WITH FIRING POSITIONS ARE DESIGNED AND CONSTRUCTED AT A SITE, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE OF FIRING POSITION SHALL COMPLY WITH 1010.

CHAPTER 3: BUILDING BLOCKS

TAS SECTION 302 - FLOOR OR GROUND SURFACES
A. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
B. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE.
C. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3, AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.



TAS SECTION 303 - CHANGES IN LEVEL
A. CHANGES IN LEVEL OF 1/4" HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL. (FIG. 303)
B. CHANGES IN LEVEL BETWEEN 1/4"-1/2" MAXIMUM SHALL BE BEVELED AT A SLOPE NOT STEEPER THAN 1:2 (FIG. 303)
C. CHANGES IN LEVEL GREATER THAN 1/2" HIGH SHALL BE RAMPED AND COMPLY WITH 405 OR 406

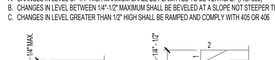


FIGURE 303

TAS SECTION 304 - TURNING SPACE
A. THE TURNING SPACE SHALL BE A SPACE 60" DIAMETER MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306.
B. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. DOORS SHALL BE PERMITTED TO SWING INTO TURNING SPACES.
D. THE T-SHAPED TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60" SQUARE MINIMUM WITH ARMS AND BASE 36" WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12" MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24" MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM. (FIG. 304.3.2)

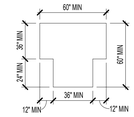
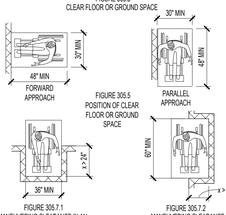


FIGURE 304.3.2 T-SHAPED TURNING SPACE

TAS SECTION 305 - CLEAR FLOOR OR GROUND SPACE
A. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM.
B. FLOOR OF GROUND SURFACES OF A CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM. (FIG. 305.3)
D. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCES COMPLYING WITH 306.
E. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT. (FIG. 305.5)
F. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE.
G. WHERE A CLEAR FLOOR OR GROUND SPACE IS LOCATED IN AN ALCOVE OR OTHERWISE CONFINED ON ALL OR PART OF 3 SIDES, ADDITIONAL MANEUVERING CLEARANCE SHALL BE PROVIDED IN ACCORDANCE WITH BELOW:
1. ALCOVES SHALL BE 36" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24" FOR FORWARD APPROACH (FIG. 315.7.1)
2. ALCOVES SHALL BE 60" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15" FOR PARALLEL APPROACH (FIG. 305.7.2)

CHAPTER 3: SCOPING REQUIREMENTS (CONTINUED)


FIGURE 305.3 CLEAR FLOOR OR GROUND SPACE



TAS SECTION 306 - KNEE AND TOE CLEARANCE
A. WHERE SPACE BENEATH AN ELEMENT IS INCLUDED AS PART OF CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE, THE SPACE SHALL COMPLY WITH 306. ADDITIONAL SPACE SHALL NOT BE PROHIBITED BENEATH AN ELEMENT BUT SHALL NOT BE CONSIDERED AS PART OF THE CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE.
TAS SECTION 306.2 - TOE CLEARANCE
A. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9" ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE.
B. TOE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT
C. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17" MINIMUM UNDER THE ELEMENT.
D. SPACE EXTENDING GREATER THAN 9" BEYOND THE AVAILABLE KNEE CLEARANCE AT 9" ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.
E. TOE CLEARANCE SHALL BE 30" WIDE MINIMUM.
TAS SECTION 306.3 - KNEE CLEARANCE
A. SPACE UNDER AN ELEMENT 9"-27" ABOVE THE FINISH FLOOR SHALL BE CONSIDERED KNEE CLEARANCE.
B. KNEE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT AT 9" ABOVE THE FINISH FLOOR.
C. WHERE KNEE CLEARANCE IS REQUIRED UNDER AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE KNEE CLEARANCE SHALL BE 11" DEEP MINIMUM AT 9" ABOVE THE FINISH FLOOR OR GROUND,

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

TAS SECTION 502 - PARKING SPACES (REFERENCE FIGURE 502.3)

A. ACCESSIBLE CAR PARKING SPACES SHALL BE AT LEAST 96" MINIMUM WIDE AND VAN ACCESSIBLE PARKING SHALL BE 132" MINIMUM WIDE.
   1. VAN PARKING SPACES MAY BE 96" WIDE MINIMUM WHERE THERE IS AN ACCESS AISLE 96" WIDE MINIMUM.
   2. ACCESS AISLES SERVING CAR AND VAN PARKING SHALL BE A MINIMUM 60" WIDE AND SHALL ADJOIN AN ACCESSIBLE ROUTE.
   3. ACCESS AISLES SHOULD BE MARKED TO DISCOURAGE PEOPLE FROM PARKING IN THEM AND EXTEND THE FULL LENGTH OF THE PARKING SPACE.

B. SURFACE SLOPE SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS (NOTE: NO BUILT UP CURB RAMP MAY BE LOCATED IN AN ACCESSIBLE PARKING ACCESS AISLE.)

C. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY.

D. ACCESS AISLES SHALL BE PERIMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES, WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACE.

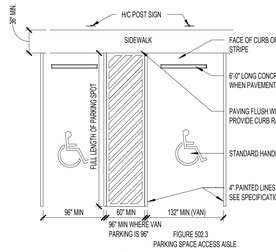
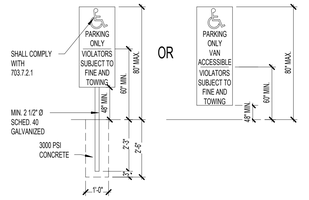


FIGURE 502.3
PARKING SPACE ACCESS AISLE

68.104: ACCESSIBLE PARKING SPACES

(A) A PAVED ACCESSIBLE PARKING SPACE MUST INCLUDE:
   (1) THE INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED CONSPICUOUSLY ON THE SURFACE IN A COLOR THAT CONTRASTS THE PAVEMENT;
   (2) THE WORDS "NO PARKING" PAINTED ON ANY ACCESS AISLE ADJACENT TO THE PARKING SPACE. THE WORDS MUST BE PAINTED:
      (A) IN ALL CAPITAL LETTERS;
      (B) WITH A LETTER HEIGHT OF AT LEAST TWELVE INCHES, AND A STROKE WIDTH OF AT LEAST TWO INCHES; AND
      (C) CENTERED WITHIN EACH ACCESS AISLE ADJACENT TO THE PARKING SPACE; AND
   (3) A SIGN IDENTIFYING THE CONSEQUENCES OF PARKING ILLEGALLY IN A PAVED ACCESSIBLE PARKING SPACE. THE SIGN MUST:
      (A) AT A MINIMUM STATE "VIOLATORS SUBJECT TO FINE AND TOWING " IN A LETTER HEIGHT OF AT LEAST ONE INCH;
      (B) BE MOUNTED ON A POLE, POST, WALL OR FREESTANDING BOARD;
      (C) BE NO MORE THAN EIGHT INCHES BELOW A SIGN REQUIRED BY TEXAS ACCESSIBILITY STANDARDS, 502.6; AND
      (D) BE INSTALLED SO THAT THE BOTTOM EDGE OF THE SIGN IS NO LOWER THAN 48 INCHES AND NO HIGHER THAN 80 INCHES ABOVE GROUND LEVEL.

(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).



NOTE: PROVIDE ONE SIGN AT EACH DISABLED (DESIGNATED) PARKING SPACE

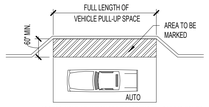
TAS SECTION 503 - PASSENGER LOADING ZONES

A. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96" WIDE MINIMUM AND 20' LONG MINIMUM.

TAS SECTION 503.3 - ACCESS AISLE (REFERENCE FIGURE 503.3)

A. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 503 ADJACENT TO THE VEHICLE PULL UP SPACE. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.
   1. ACCESS AISLES SERVING VEHICULAR PULL-UP SPACES SHALL BE 60" WIDE MINIMUM AND EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE
   2. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED. CHANGES IN LEVEL OF THE FLOOR AND GROUND SURFACE ARE NOT PERMITTED.

B. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 144" MINIMUM.



ACCESS AISLE AT AUTOMOBILE PASSENGER LOADING ZONES

FIGURE 503.3
PASSENGER LOADING ZONE ACCESS AISLE

TAS SECTION 504 - STAIRWAYS

TAS SECTIONS 504.2 - TREADS AND RISERS

A. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND TREAD WIDTHS
   1. MINIMUM TREAD DEPTH SHALL BE 11". MEASURED FROM RISER TO RISER (NOT INCLUDING NOSING)
   2. OPEN RISERS ARE NOT PERMITTED
   3. RISERS SHALL BE 4" HIGH MIN. - 7" HIGH MAX.

TAS SECTIONS 504.5 - NOSINGS (REFERENCE FIGURE 504.5)

A. RADIUS OF THE CURVATURE AT THE LEADING EDGE SHALL BE 1/2" MAXIMUM. RISERS SHALL BE PERMITTED TO SLOPE UNDER THE TREAD AT AN ANGLE OF 30 DEGREES MAXIMUM FROM VERTICAL. THE PERMITTED PROJECTION OF THE NOSING SHALL EXTEND 1 1/2" MAXIMUM OVER THE TREAD BELOW.

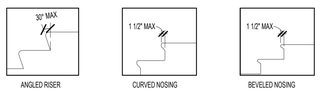
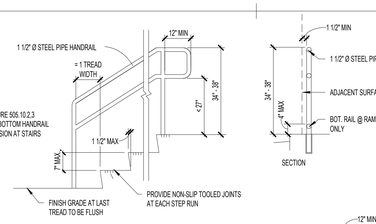
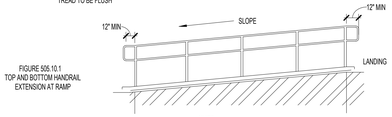


FIGURE 504.5
STAIR NOSINGS

TAS SECTION 505 - HANDRAILS (REFERENCE FIGURES 505.10.1, 505.10.2, 3)

A. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS. NON-CONTINUOUS STAIR HANDRAILS SHALL EXTEND 12" BEYOND THE TOP RISER AND THE WIDTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT THE TOP, THE EXTENSION SHALL BE PARALLEL TO THE FLOOR. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF ONE TREAD WIDTH. NON CONTINUOUS RAMP HANDRAILS SHALL EXTEND 12" MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS.
B. HEIGHT: 34"-38", MEASURED FROM THE STAIR NOSING.
C. CLEARANCE BETWEEN HANDRAIL AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM.
D. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
E. HANDRAILS ARE REQUIRED ON RAMP RUNS GREATER THAN 6" IN RISE.





CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

TAS SECTION 602 - DRINKING FOUNTAINS

A. DRINKING FOUNTAINS SHALL COMPLY WITH 307 (PROTRUDING OBJECTS) AND 602.
B. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCES MUST COMPLY WITH 306. OPERABLE PARTS SHALL COMPLY WITH 309. (FIG. 602.5)

TAS SECTION 602.4 - SPOUT HEIGHT (REFERENCE FIGURE 602.4 FOR ACCESSIBLE UNIT)

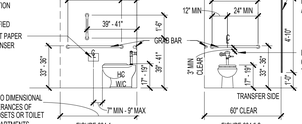
A. ACCESSIBLE SPOUTS SHALL BE A MAXIMUM 36" ABOVE THE FINISH FLOOR OR GROUND.

TAS SECTION 602.5 - SPOUT LOCATION (REFERENCE FIGURE 602.5)

A. THE SPOUT SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.
B. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4" HIGH AND SHALL BE LOCATED 5" MAXIMUMFROM THE FRONT OF THE UNIT.
C. WHERE SPOUTS ARE LOCATED LESS THAN 2" FROM THE FRONT OF THE UNIT, THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE THE SPOUT IS LOCATED BETWEEN 2"-5" MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.

TAS SECTION 602.7 - DRINKING FOUNTAINS FOR STANDING PERSONS

A. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. (FIG. 602.4)



* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS



TAS SECTION 603 - TOILET AND BATHING ROOMS

A. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM. (60" DIAMETER OR T-SHAPED SPACE PER 304.3.2)
B. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP.
C. DOOR SWINGS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS CAN SWING INTO THE REQUIRED TURNING SPACE.

TAS SECTION 603.3 - MIRRORS

A. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED SO THE BOTTOM EDGE OF THE REFLECTING SURFACE IS 40" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT INSTALLED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE 35" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

TAS SECTION 603.4 - COAT HOOKS AND SHELVES

A. COAT HOOKS SHALL BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" ABOVE THE FINISH FLOOR.

TAS SECTION 604 - WATER CLOSETS AND TOILET COMPARTMENTS

A. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16" MINIMUM AND 18" MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT IN AN AMBULATORY ACCESSIBLE TOILET COMPARTMENT WHERE THE CENTERLINE OF THE WATER CLOSET MAY BE 17" MINIMUM AND 19" MAXIMUM FROM THE SIDE WALL OR PARTITION. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT-HAND OR RIGHT-HAND APPROACH. (FIG. 604.3.1, 604.8.2)

TAS SECTION 604.3 - CLEARANCE

A. CLEARANCES AROUND WATER CLOSETS AND IN TOILET COMPARTMENTS SHALL COMPLY WITH FIGURE 604.3.1

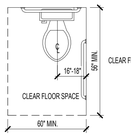


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

TAS SECTION 604.3.2 - OVERLAP

A. THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.

TAS SECTION 604.4 - SEATS (REFERENCE FIGURE 604.4)

A. THE SEAT HEIGHT OF A WATER CLOSET ABOVE FINISH FLOOR SHALL BE 17"-19" MAXIMUM MEASURED TO THE TOP OF SEAT.
   1. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION

TAS SECTION 604.5.2 - GRAB BARS (REFERENCE FIGURES 604.4, 604.5.2)

A. GRAB BARS SHALL COMPLY WITH 609 AND BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL.
   1. GRAB BARS SHALL NOT BE REQUIRED IN A TOILET ROOM FOR A SINGLE USE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON OR PUBLIC USE PROVIDED THAT REINFORCEMENT HAS BEEN INSTALLED IN WALLS AND LOCATED SO AS TO PERMIT THE INSTALLATION OF GRAB BARS COMPLYING WITH 604.5

B. FOR WATER CLOSETS NOT LOCATED IN TOILET STALLS, THE FOLLOWING GRAB BARS SHALL BE PROVIDED, 33"-36" ABOVE THE FINISH FLOOR"
   1. SIDE WALL: 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM BACK WALL. NOTE: INCLUDE 18" VERTICAL GRAB BAR PER ICC A117.1.
   2. REAR WALL: 36" LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON ONE SIDE AND 24" MINIMUM ON THE OTHER SIDE. REFER TO 609 GRAB BARS FOR SIZE AND STRUCTURAL ELEMENTS.

TAS SECTION 604.5.2 - REAR WALL

A. THE REAR GRAB BAR SHALL BE PERMITTED TO BE 24 INCHES LONG MINIMUM, CENTERED ON THE WATER CLOSET WHERE WALL SPACE DOES NOT PERMIT A LENGTH OF 36 INCHES MINIMUM DUE TO THE LOCATION OF A RECESSED FIXTURE ADJACENT TO THE WATER CLOSET.
B. WHERE AN ADMINISTRATIVE AUTHORITY REQUIRES FLUSH CONTROLS FOR FLUSH VALVES TO BE LOCATED IN A POSITION THAT CONFLICTS WITH THE LOCATION OF THE REAR GRAB BAR, THEN THE REAR GRAB BAR SHALL BE PERMITTED TO BE SPLIT OR SHIFTED TO THE OPEN SIDE OF THE TOILET AREA.

TAS SECTION 604.6 - FLUSH CONTROLS (REFERENCE FIGURE 604.5.2)

A. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.

TAS SECTION 604.7 - DISPENSERS (REFERENCE FIGURE 604.4)

A. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7" MINIMUM AND 9" MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS THAT CONTROL DELIVERY OR DO NOT PERMIT CONTINUOUS PAPER FLOW SHALL NOT BE USED.

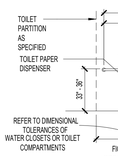


FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

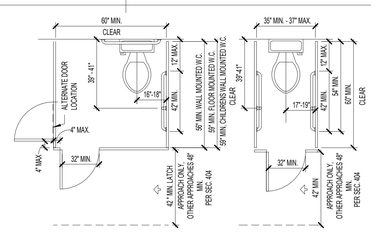
FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

TAS SECTION 604.8 - TOILET COMPARTMENTS

A. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.

TAS SECTION 604.8.1 - WHEELCHAIR ACCESSIBLE COMPARTMENTS

A. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1
B. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL AND 56" DEEP MINIMUM FOR WALL-HUNG WATER CLOSETS AND 59" DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDREN'S USE SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE WALL AND 59" DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.



CLEARANCES INDICATED ARE MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REFER TO TOILET ROOMS AND LAVATORY DETAILS FOR MOUNTING HEIGHTS.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES (CONTINUED)

TAS SECTION 604.8.1.2 - DOORS (REFERENCE FIGURES 604.8.1.2, 604.8.2)

A. TOILET COMPARTMENTS DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42" MINIMUM. DOORS SHALL BE LOCATED IN THE FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE FRONT PARTITION. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.
B. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET.

TAS SECTION 604.8.1.4 - TOE CLEARANCE

A. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9" MINIMUM ABOVE FINISH FLOOR AND 6" DEEP MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDRENS USE SHALL PROVIDE 12" MINIMUM TOE CLEARANCE ABOVE FINISH FLOOR.

TAS SECTION 604.8.2 - AMBULATORY ACCESSIBLE COMPARTMENTS

A. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH FIGURE 604.8.2
B. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60" MINIMUM AND A WIDTH OF 35"-37" MAXIMUM.
C. GRAB BARS IN AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR THAT IS 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM THE REAR WALL AND EXTENDING 54" MINIMUM FROM THE REAR WALL SHALL BE LOCATED ON BOTH SIDES OF COMPARTMENT.
D. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" MAXIMUM ABOVE THE FINISH FLOOR.

TAS SECTION 605 - URINALS

A. URINALS SHALL BE STALL-TYPE OR WALL-HUNG WITH THE RIM 17" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13 1/2" DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK SIDE OF THE FIXTURE. (FIG. 605.2)
B. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.

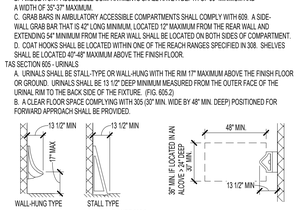
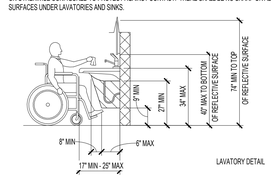


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

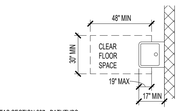
TAS SECTION 606 - LAVATORIES AND SINKS

A. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCES COMPLYING WITH 306 SHALL BE PROVIDED.
   1. SOAP AND TOWEL DISPENSERS MUST ALSO BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. LOCATE SOAP AND TOWEL DISPENSERS SO THEY ARE EASY TO USE BY A PERSON AT THE ACCESSIBLE LAVATORY.

B. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER RIM OR COUNTER SURFACE 34" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
C. CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND-OPERATED METERING FAUCETS SHALL REMAIN FOR 10 SECONDS MINIMUM.
D. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.



LAVATORY DETAIL



TAS SECTION 607 - BATHTUBS

A. CLEARANCE IN FRONT OF BATHTUBS SHALL EXTEND THE LENGTH OF THE BATHTUB AND SHALL BE 30 INCHES WIDE MINIMUM. A LAVATORY COMPLYING WITH 606 SHALL BE PERMITTED AT THE CONTROL END OF THE CLEARANCE. WHERE A PERMANENT SEAT IS PROVIDED AT THE HEAD END OF THE BATHTUB, THE CLEARANCE SHALL EXTEND 12" MINIMUM BEYOND THE WALL AT THE HEAD END OF THE BATHTUB.
B. A PERMANENT SEAT AT THE HEAD END OF THE BATHTUB OR A REMOVABLE IN-TUB SEAT SHALL BE PROVIDED. SEATS SHALL COMPLY WITH 610.
C. GRAB BARS FOR BATHTUBS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH FIGURES 607.4.1

TAS SECTION 608 - SHOWER COMPARTMENTS

A. SHOWER STALLS SHALL BE 36" X 36" CLEAR INSIDE DIMENSION AT TRANSFER TYPE SHOWER COMPARTMENTS AND HAVE A 36" MINIMUM WIDE BY 48" MINIMUM LONG CLEARANCE MEASURED FROM THE CONTROL WALL. ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 30" MINIMUM WIDE BY 60" MINIMUM LONG AND SHALL HAVE A 30" MIN WIDE X 60" MIN LONG ENTRY ON THE FACE OF THE SHOWER COMPARTMENT. ALTERNATE ROLL-IN SHOWER TYPE COMPARTMENTS SHALL BE 36" MINIMUM WIDE AND 60" MINIMUM DEEP CLEAR INSIDE DIMENSIONS WITH A 36" WIDE MINIMUM ENTRY PROVIDED AT ONE END OF THE LONG SIDE OF THE COMPARTMENT.

TAS SECTION 608.3.1 - TRANSFER TYPE SHOWER COMPARTMENT

A. IN TRANSFER TYPE COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND BACK WALL TO A POINT 18" FROM THE CONTROL WALL.
B. A FOLDING OR NON-FOLDING SEAT SHALL BE PROVIDED IN TRANSFER TYPE SHOWER COMPARTMENTS.
C. CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS SHALL COMPLY WITH 309.4

TAS SECTION 608.7 - THRESHOLDS

A. THRESHOLDS IN ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 1/2" HIGH MAXIMUM IN ACCORDANCE WITH 308. IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" HIGH SHALL BE BEVELED, ROUNDED, OR VERTICAL.

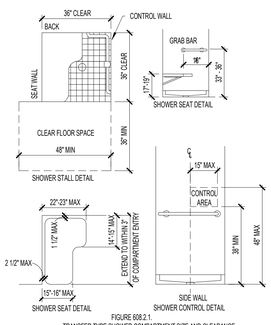


FIGURE 608.2.1.
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

TAS SECTION 609 - GRAB BARS

A. GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2" MAXIMUM AND A PERIMETER DIMENSION OF 4" MINIMUM AND 4.8" MAXIMUM.
B. THE SPACE BETWEEN THE WALL AND GRAB BAR SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW SHALL BE 1 1/2" MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12" MINIMUM.
C. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33" MINIMUM AND 36" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. REFER TO CHART FOR CHILDREN ACCESSIBLE HEIGHTS FOR EXCEPTIONS.
D. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A HORIZONTAL OR VERTICAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT OF THE GRAB BAR OR ANY OF ITS COMPONENTS.

TAS SECTION 610.2 - BATHTUB SEATS

A. SEAT SHALL BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 POUNDS AND SHALL HAVE THE FOLLOWING FEATURES:
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. REMOVABLE SEATS SHALL BE 15"-16" DEEP AND CAPABLE OF SECURE PLACEMENT.
   3. PERMANENT SEATS SHALL BE 15" DEEP MINIMUM AND EXTEND FROM THE BACK WALL TO OR BEYOND THE OUTER EDGE OF THE BATHTUB.

TAS SECTION 610.3 - SHOWER SEATS

A. SEATS SHALL BE L-SHAPED WITH THE REAR EDGE 2 1/2" MAXIMUM FROM THE WALL AND 15"-16" MAXIMUM FROM THE SEAT WALL. THE REAR EDGE OF THE "L" PORTION SHALL BE 1 1/2" MAXIMUM FROM THE WALL AND THE FRONT EDGE SHALL BE 14"-15" FROM THE WALL. THE END OF THE "L" SHALL BE 22"-23" FROM THE MAIN SEAT WALL. SEATS SHALL HAVE BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 LBS.
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. WHERE A SEAT IS PROVIDED IN A ROLL IN TYPE SHOWER IT MUST BE THE FOLD-UP TYPE.

TAS SECTION 611 - WASHING MACHINES AND CLOTHES DRYERS

A. TOP LOADING MACHINES SHALL HAVE THE DOOR TO THE LAUNDRY COMPARTMENT LOCATED 36" MAXIMUM ABOVE THE FINISH FLOOR. FRONT LOADING MACHINES SHALL HAVE THE BOTT

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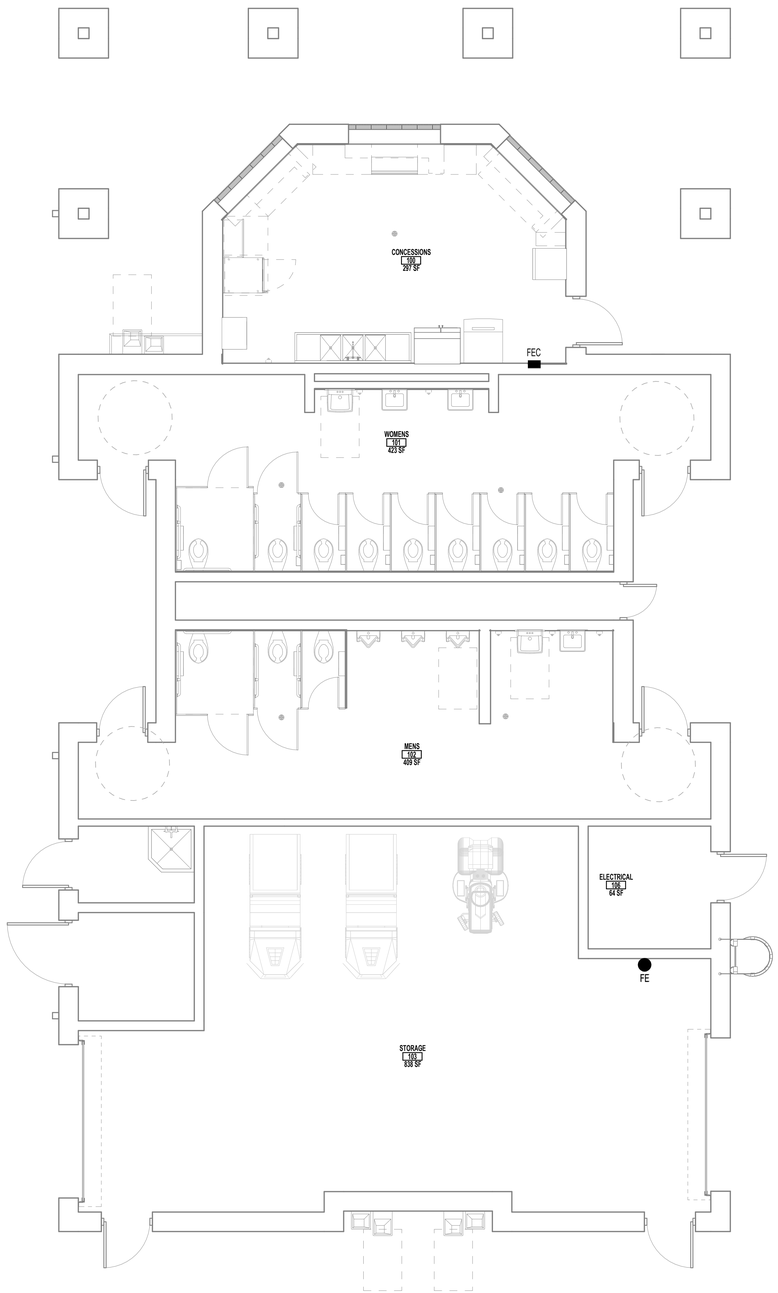


FLOOR PLAN CONCESSIONS - M 2
SCALE: 1/4" = 1'-0"

PLUMBING FIXTURES - CITY OF HOUSTON PLUMBING CODE

Houston Amendments to the 2012 Uniform Plumbing Code; Fixture counts per Chapter 29 of the City of Houston Building Code

PLUMBING FIXTURES ARE TESTED IN FIVE DIFFERENT CATEGORIES BASED ON USER GROUPS PER CoHBC Table 2902.1

C1. **LARGE GROUP PUBLIC**: FOR FOOTBALL GRANDSTAND OCCUPANTS IN A FULL GATHERING

C1 TOTAL PROJECTED MAXIMUM CAPACITY OF FOOTBALL GRANDSTANDS = **552.32**
MALE= 276.5 FEMALE= 276.5

	FIXTURE TYPE			REQUIRED		PROVIDED		CODES
LARGE GROUP PUBLIC (A-5) GRANDSTANDS	MALE	WC* 1 per 75	STANDARD		3		6	COH
			HC**					COH/TAS
			AMBULATORY					TAS
		LAV 1 per 200	STANDARD		1		2	COH
			HC					
	FEMALE	WC* 1 per 35	STANDARD		7		9	COH
			HC**					COH/TAS
			AMBULATORY					TAS
		LAV 1 per 150	STANDARD		1		3	COH
			HC					
	DRINKING FOUNTAINS AT 1 PER 1,000		STANDARD		1		3	COH
			HC					

NOTES:

1. ALL DRINKING FOUNTAINS PAIRED AS H/LO - HC ACCESSIBLE
2. (1) SERVICE SINK REQUIRED PER LEVEL

* URINALS MAY BE SUBSTITUTED FOR WC'S PROVIDED THAT NUMBER OF WC'S IS NOT REDUCED TO LESS THAT 50% OF THE NUMBER REQUIRED.
** INCLUDE HC URINALS.
*** PROVIDE 1 HC LAV IN EACH TOILET ROOM.
**** FAMILY TOILET PROVIDED (SUBSTITUTE 1 WC & LAV)

NOTES: TOILETS LOCATED IN ATHLETIC FIELD HOUSE - REFER G107/A141

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00 FOR DOOR SCHEDULE IDENTIFYING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL. ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL. ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL.
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2023 NATIONAL ELECTRICAL CODE
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)

CHAPTER 3 - USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

2021 IBC COMPLIANCE DATA

CHAPTER 2 - DEFINITIONS
GRADE PLANE: A REFERENCE PLANE REPRESENTING THE AVERAGE OF FINISHED GROUND LEVEL ADJOINING THE BUILDING AT EXTERIOR WALLS. WHERE THE FINISHED GROUND LEVEL SLOPES AWAY FROM THE EXTERIOR WALLS, THE REFERENCE PLANE SHALL BE ESTABLISHED BY THE LOWEST POINTS WITHIN THE AREA BETWEEN THE BUILDING AND THE LOT LINE OR, WHERE THE LOT LINE IS MORE THAN 6 FEET (1829 MM) FROM THE BUILDING, BETWEEN THE BUILDING AND A POINT 6 FEET (1829 MM) FROM THE BUILDING.
GRADE PLANE = -7' BELOW PROJECT "0' 0" ELEVATION"

STORY ABOVE GRADE PLANE: ANY STORY HAVING ITS FINISHED FLOOR SURFACE ENTIRELY ABOVE GRADE PLANE, OR IN WHICH THE FINISHED SURFACE OF THE FLOOR NEXT ABOVE IS: 1. MORE THAN 6 FEET (1829 MM) ABOVE GRADE PLANE; OR 2. MORE THAN 12 FEET (3658 MM) ABOVE THE FINISHED GROUND LEVEL AT ANY POINT.

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS
TABLE 504.3 & 504.4 & 506.2
GROUP E, TYPE 2A, NOT SPRINKLED:
BUILDING HEIGHT: 160' ALLOWED; **XX' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 5 STORIES ALLOWED; **2 STORIES ACTUAL**
BUILDING AREA: UNLIMITED SQUARE FEET PER STORY ALLOWED (BEFORE AREA INCREASES)

SECTION 506.2.3: EQUATION 5-2 FOR ALLOWABLE TOTAL SQUARE FOOTAGE FOR SINGLE OCCUPANCY, MULTI-STORY BUILDING
Aa=At+ (NS x If) x Sa
Aa = XXXX + (XXXX x 0.75) x 2
At = XXXXX SQUARE FEET ALLOWED FOR THE ENTIRE BUILDING
As = XXXXX SQUARE FEET ALLOWED PER STORY
NO INDIVIDUAL STORY SHALL EXCEED THE ALLOWABLE AREA (Aa) AS DETERMINED BY EQUATION 5-2 USING THE VALUE OF Sa=1

SECTION 506.3 - FRONTAGE INCREASE
If = (F/P-0.25)W/30
If = 0.75

BUILDING AREA ACTUAL
LEVEL 1: BUILDING A (SEGMENT A): 21,569 SQUARE FEET
LEVEL 1: BUILDING B (SEGMENT E): 21,569 SQUARE FEET
LEVEL 2: BUILDING A (SEGMENT A): 21,569 SQUARE FEET
LEVEL 2: BUILDING B (SEGMENT A): 644 SQUARE FEET

TOTAL SF LEVEL 1: XXXXXX SQUARE FEET
TOTAL SF LEVEL 2: XXXXXX SQUARE FEET
TOTAL SF BUILDING: XXXXXX SQUARE FEET

SECTION 508 - INCIDENTAL USES
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

TABLE 509 - MIXED USE AND OCCUPANCY
ROOMS WITH BOILERS WHERE THE LARGEST PIECE OF EQUIPMENT IS OVER 15 PSI AND 10 HORSEPOWER - 1 HOUR OR PROVIDE AUTOMATIC SPRINKLER SYSTEM
IN GROUP E OCCUPANCIES, LABORATORIES AND VOCATIONAL SHOPS NOT CLASSIFIED AS GROUP H - 1 HOUR OR PROVIDE AUTOMATIC SPRINKLER SYSTEM
LAUNDRY ROOMS OVER 100 SQUARE FEET - 1 HOUR OR PROVIDE AUTOMATIC SPRINKLER SYSTEM
ELECTRICAL INSTALLATIONS AND TRANSFORMERS (SEE SECTIONS 110.26 THROUGH 110.34 AND SECTIONS 450.8 THROUGH 450.48 OF NFPA 70 FOR PROTECTION AND SEPARATION REQUIREMENTS.

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 - FOR CONSTRUCTION TYPE IB: 0 HOUR FIRE-RESISTANCE RATING REQUIREMENT FOR BUILDING ELEMENTS
NOTE: ELEMENTS INCLUDE PRIMARY STRUCTURAL FRAME, EXTERIOR AND INTERIOR WALLS, FLOOR AND ROOF CONSTRUCTION

SECTION 602 - CONSTRUCTION CLASSIFICATION
602 - FOR CONSTRUCTION TYPE IB: 1 HOUR FIRE RESISTANCE RATING FOR EXTERIOR WALLS IF < 10 FT. FROM OTHER STRUCTURES, ELSE 0
602.4 - NOT APPLICABLE

CHAPTER 6 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE 2B - PER TABLES 601 & 602:
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED. PRIMARY STRUCTURE, BEARING & NONBEARING WALLS PARTITIONS (INTERIOR & EXTERIOR), FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTIBLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL
TABLE 706.4 - FIRE WALL FIRE-RESISTANCE RATINGS: 2 HOUR IN IIB CONSTRUCTION, GROUP E

SECTION 707 - FIRE BARRIERS
707.3.1 - SHAFT ENCLOSURES (INCLUDING ELEVATOR HOISTWAY): 1 HOUR FIRE BARRIER
707.3.3 - ENCLOSURES FOR EXIT ACCESS STAIRWAY ENCLOSURES: 1 HOUR BARRIER PER SECTION 1019 EXIT ACCESS STAIRWAYS ARE NOT REQUIRED TO BE ENCLOSED FOR THIS BUILDING TYPE

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT)
ALL SHAFT ENCLOSURES SHALL BE CONSTRUCTED AS FIRE BARRIERS AND SHALL BE 1 HOUR FIRE RATED. SUPPORTING CONSTRUCTION SHALL BE RATED TO THE SAME DEGREE AS THE WALLS.

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT)
ALL SHAFT ENCLOSURES SHALL BE CONSTRUCTED AS FIRE BARRIERS AND SHALL BE 1 HOUR FIRE RATED. SUPPORTING CONSTRUCTION SHALL BE RATED TO THE SAME DEGREE AS THE WALLS.

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS
FOR FIRE WALLS & FIRE BARRIERS WITH A 2 HR FIRE RATING, OPENINGS SHALL HAVE A 1.5 HR FIRE RATING, MAX. 100 SQ IN OF GLAZING.
FOR FIRE BARRIERS AT EXIT COMPONENTS WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 1 HR FIRE RATING
FOR FIRE BARRIERS AT OTHER LOCATION WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 3/4 HR FIRE RATING

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES; NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES, BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE.

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS FULLY SPRINKLERED

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
TABLE 1004.1 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

STORAGE, MECHANICAL	300 SQ. FT., GROSS
ASSEMBLY WITH FIXED SEATS	18" PER OCCUPANT IN BLEACHERS
ASSEMBLY WITHOUT FIXED SEATS (TABLES AND CHAIRS)	15 SQ. FT. NET
BUSINESS	150 SQ. FT. GROSS
EDUCATION, CLASSROOM	20 SQ. FT. GROSS
EDUCATION, VOCATIONAL	50 SQ. FT. NET
LIBRARY (READING ROOMS)	50 SQ. FT. NET
(STACK AREAS)	100 SQ. FT. GROSS
STAGES & PLATFORMS	500 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.1 - FOR STAIRWAYS: 0.2 IN. PER OCCUPANT
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.2 - FOR OCCUPANT LOAD PER STORY:
BUILDING A / LEVEL 1: 3 EXITS REQUIRED, X EXITS PROVIDED
BUILDING B / LEVEL 1: 4 EXITS REQUIRED, X EXITS PROVIDED
BUILDING C / LEVEL 1: 3 EXITS REQUIRED, X EXITS PROVIDED
BUILDING A / LEVEL 2: 3 EXITS REQUIRED, X EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1009 - ACCESSIBLE MEANS OF EGRESS
1009.3.2 - FOR SPRINKLERED BUILDINGS, 48 IN. CLEAR HANDRAIL WIDTH IN EXIT STAIRS NOT REQUIRED.
1009.3.2 - FOR SPRINKLERED BUILDINGS, AREAS OF REFUGE IN EXIT STAIRS NOT REQUIRED

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.8 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1011 - STAIRWAYS
1011.2 - MINIMUM STAIRWAY WIDTH OF 44 IN.
1011.3 - MINIMUM STAIRWAY HEADROOM CLEARANCE OF 80 IN.
1011.5.2 - MAXIMUM RISER HEIGHT OF 7 IN., MINIMUM TREAD DEPTH OF 11 IN.
1011.6 - WIDTH OF LANDINGS SHALL BE NOT LESS THAN THE WIDTH OF STAIRWAY SERVED
1011.6 - LANDING DEPTH NEED NOT EXCEED 48 IN. FOR STRAIGHT-RUN STAIRS
1011.8 - A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE GREATER THAN 12 FT. BETWEEN FLOOR LEVELS AND LANDINGS.
1011.7.3 WALLS AND SOFFITS ENCLOSING USABLE SPACE BELOW INTERIOR STAIRWAYS, SHALL BE PROTECTED BY 1-HOUR FIRE-RESISTANCE-RATED CONSTRUCTION OR MATCH THE RATING OF THE STAIRWAY ENCLOSURE, WHICHEVER IS GREATER. ACCESS TO THE ENCLOSED SPACE SHALL NOT BE DIRECTLY FROM WITHIN THE STAIRWAY ENCLOSURE.

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
1017.2 - FOR GROUP E W/ SPRINKLER SYSTEM: EXIT TRAVEL DISTANCE IS 250 FT.

SECTION 1020 - CORRIDORS
1020.1 - GROUP E W/ SPRINKLER SYSTEM: NO REQ'D. FIRE-RESISTANCE RATING
1020.2 - FOR GROUP E W/ OCCUPANT LOAD OF 100 OR MORE: MIN. WIDTH OF 72"
1020.2 - FOR AN OCCUPANT LOAD LESS THAN 50: MINIMUM WIDTH OF 36 IN.
1020.2 - FOR ACCESS TO AND UTILIZATION OF MECHANICAL, PLUMBING, OR ELECTRICAL SYSTEMS OR EQUIPMENT: MINIMUM WIDTH OF 24 IN.
1020.2 - FOR ALL OTHER CONDITIONS: MINIMUM WIDTH OF 44 IN.
1020.4 - GROUP E W/ SPRINKLER SYSTEM: DEAD ENDS MAY BE 50 FT. IN LENGTH

CHAPTER 17: SPECIAL INSPECTIONS AND TESTS

STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS REQUIRING SPECIAL INSPECTIONS PER SECTION 709 OF THE IBC HAVE NOT BEEN LISTED HERE. REFER TO STRUCTURAL/MECHANICAL/ELECTRICAL FOR SPECIAL INSPECTION REQUIREMENTS FOR THESE COMPONENTS.
ITEMS OF ARCHITECTURAL CONSTRUCTION WHICH REQUIRE SPECIAL INSPECTION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1705.14 SPRAYED FIRE-RESISTANT MATERIALS
1705.15 MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS
1705.16 EXTERIOR INSULATION FINISH SYSTEMS (EIFS)
1705.16.1 WATER-RESISTIVE BARRIER COATING
1705.17 FIRE-RESISTANT PENETRATIONS AND JOINTS
1705.18 TESTING FOR SMOKE CONTROL

2021 IECC COMPLIANCE DATA

CHAPTER 3 - GENERAL REQUIREMENTS

SECTION C301.1 - GENERAL
C301.1 - CLIMATE ZONE 2A

CHAPTER 4 - COMMERCIAL ENERGY EFFICIENCY

REFER TO COMCHECK FOR COMPLIANCE

C402.3 - EITHER THREE-YEAR AGED SOLAR REFLECTANCE OF 0.55 AND 3-YEAR AGED
THERMAL EMITTANCE OF 0.75 OR THREE-YEAR AGED SOLAR REFLECTANCE INDEX OF 64
C402.4 - FOR CLIMATE ZONE 2 AND FIXED FENESTRATION: U-FACTOR OF 0.5
C402.4 - SOLAR HEAT GAIN COEFFICIENT REQUIREMENTS

PROJECTION FACTOR	SEW	N
PF <0.2	0.25	0.33
0.2 <= PF < 0.5	0.30	0.37
PF >= 0.5	0.40	0.40

SHGC OF SPECIFIED GLAZING = 0.25
U-VALUE OF SPECIFIED GLAZING = 0.33

C402.4.1 VERTICAL FENESTRATION SHALL NOT BE GREATER THAN 30 PERCENT OF GROSS
ABOVE-GRADE WALL AREA.

2021 IPC COMPLIANCE DATA

		OCCUPANCY	STUDENTS	STAFF
		1060	860	200
WATER CLOSETS	MENS*	REQ'D	9	2
		PROVIDED	XX (X URINAL)	X
	LADIES	REQ'D	9	2
		PROVIDED	X	X
LAVATORIES	MENS	REQ'D	9	2
		PROVIDED	X	X
	LADIES	REQ'D	9	2
		PROVIDED	X	X
EDFS		REQ'D	9	2
		PROVIDED	X	X
SERVICE SINK		REQ'D	1	
		PROVIDED	X	

NOTE: PLUMBING COUNTS INCLUDE ALL GROUP TOILETS AVAILABLE TO THE GENERAL SCHOOL. FIXTURES LOCATED WITHIN DEDICATED SPACES WITH RESTRICTED OR LIMITED ACCESS.
* 419.2 SUBSTITUTION FOR WATER CLOSETS. IN EACH BATHROOM OR TOILET ROOM, URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 67 PERCENT OF THE REQUIRED WATER CLOSETS IN ASSEMBLY AND EDUCATIONAL OCCUPANCIES. URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50 PERCENT OF THE REQUIRED WATER CLOSETS IN ALL OTHER OCCUPANCIES.

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00 FOR DOOR SCHEDULE IDENTIFING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL. ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM.
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL. ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL.
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

LEGEND

- 1 HOUR FIRE-RESISTANCE RATING
- 2 HOUR FIRE-RESISTANCE RATING
- RATED DOOR/ WINDOW REF. DOOR SCHEDULE FOR MORE INFO.
- NON RATED ELEMENT
- RATED EXIT ENCLOSURE
- LONGEST EXIT ROUTE PER LEVEL
- EXIT ROUTE
- P: 36" R: 36" — EXIT POINT WITH WIDTH INDICATED IN INCHES. OCCUPANT LOAD SHOWN VERTICAL. P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER - SURFACE MOUNTED

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

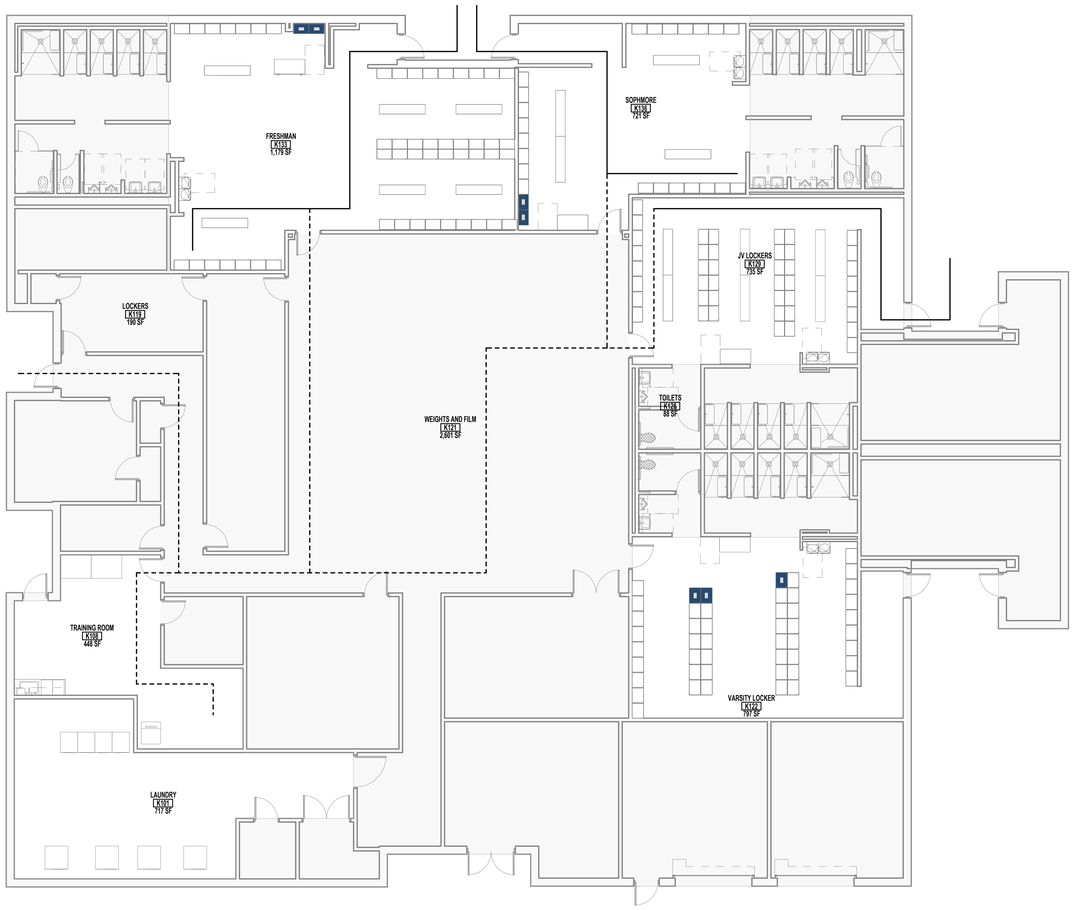
DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
No. Date Description

100 % CD

G0.03- M
LEVEL 01 PLAN CONCESSIONS

MARSHALL HIGH SCHOOL



FILED HOUSE CODE PLAN-M 1

SCALE: 1/8" = 1'-0"

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- EXIT ROUTE
- EXIT POINT WITH WIDTH INDICATED IN INCHES (P 36 / R 36): OCCUPANT LOAD SHOWN VERTICAL. P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
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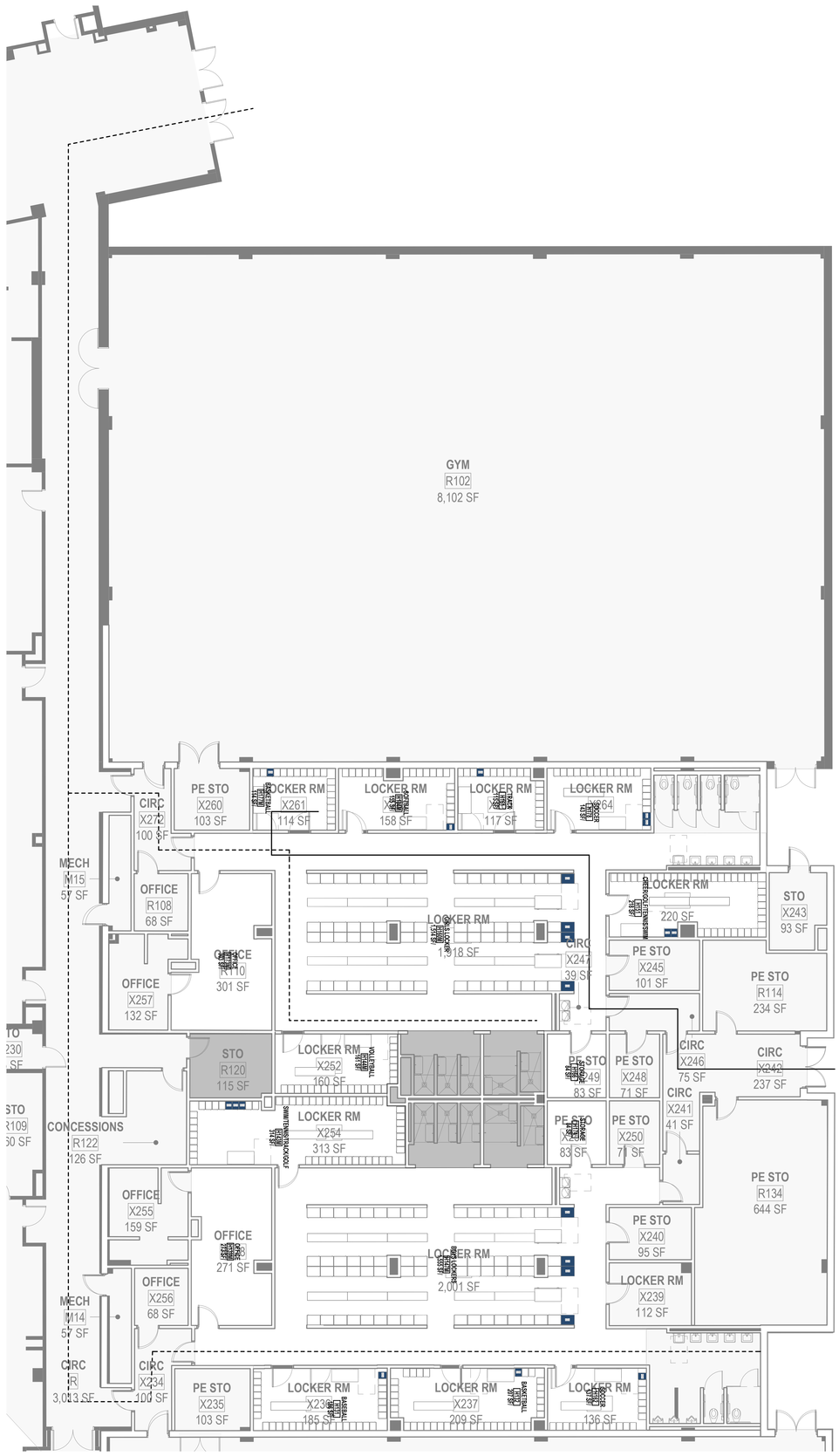
100 % CD

G0.04-M

LEVEL 01 PLAN FIELD HOUSE

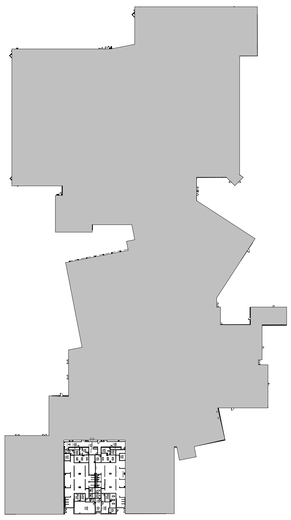
MARSHALL HIGH SCHOOL

12/4/2025 10:35:38 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_MARSHALL_FBISD ATHLETIC RENOVATIONS BP012-M_R25.rvt



LOCKER ROOM CODE PLAN-M 1

SCALE: 1/8" = 1'-0"



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100 % CD
G0.05-M
LEVEL 01 PLAN GYM
LOCKERS

MARSHALL HIGH SCHOOL

PROJECT NO. 25-006
DATE 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS
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REGISTERED ARCHITECT MICHAEL LAMAR STATE OF TEXAS 2013

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INSPIRE • EQUIP • IMAGINE
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GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL SIZES, LOCATIONS AND ELEVATIONS NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS PRIOR TO SUBMITTING PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR FROM PERFORMING THE WORK REQUIRED UNDER THIS CONTRACT. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE OWNER/ENGINEER.
2. SOME UTILITIES MAY NOT BE SHOWN ON THE PLANS. FIELD VERIFY AND IDENTIFY LOCATIONS OF PIPING AND ALL UTILITIES NOT NOTED ON THE PLANS. NOTIFY THE OWNER/ENGINEER OF ANY POTENTIAL CONFLICTS PRIOR TO STARTING CONSTRUCTION.
3. ALL GENERAL AND SUB-CONTRACTORS ARE ENCOURAGED TO VISIT AND INSPECT THE SITE PRIOR TO SUBMITTING A PROPOSAL TO COMPLETE.
4. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES, TRAFFIC CONTROL DEVICES AND PAVING. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITY'S ENGINEERING STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAWINGS, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR AND MAKE SURE THE CORRECT BENCHMARK IS USED.
7. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
9. CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
10. CONTRACTOR SHALL MAINTAIN A SHEET OF REDLINE DRAWINGS RECORDING AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINES MARKED DRAWINGS WILL BE SUBMITTED TO THE ENGINEER WHO WILL MAKE THE CHANGES ON THE ORIGINAL DRAWINGS. LABELING EACH SHEET IN THE SET AS "RECORD DRAWINGS".
11. CONTRACTORS SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
12. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICAS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
13. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALK, ETC.) SHALL BE STABILIZED WITH PLANTINGS OR OTHERWISE RECEIVE 6 INCHES OF MULCH OR LOAM AND SEED AS DIRECTED BY THE ENGINEER.
14. CONTRACTOR SHALL PREVENT DUST, SEDIMENT AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
15. SAFETY - NEITHER THE OWNER NOR THE ENGINEER OF RECORD WILL BE RESPONSIBLE FOR COMPLIANCE WITH SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, FEDERAL, AND CONTRACTUAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ANY SCHOOL CHILDREN OUT OF THE WORK AREA.
17. STANDARD SPECIFICATIONS - ALL CONSTRUCTION WORK AND INSTALLATION SHALL CONFORM TO THE PROJECT SPECIFICATIONS PROVIDED WITH THE CONTRACT DOCUMENTS AND ANY STANDARD SPECIFICATIONS AS INDICATED ON THESE PLANS.
18. INSPECTIONS - THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR REQUIRED INSPECTIONS. THE PRESENCE OR ABSENCE OF AN INSPECTOR WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE PROPER PERFORMANCE OF WORK.
19. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVE OR ANY OTHER AGENCY HAVING JURISDICTION FOR ALL ACTIVITIES ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH OSHA PERFORMANCE CRITERIA.
20. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS.

SITEWORK GENERAL NOTES:

1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D698:
   A. UNDER STRUCTURES: SCARIFY AND RE COMPACT 12 INCHES OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   B. UNDER WALKWAYS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   C. UNDER TURF OR UNPAVED AREAS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 90% SPD.
   D. UTILITY TRENCHES: BACKFILL SHALL BE IN 8 INCHES LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS ON EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% SPD IN PAVED AREAS AND 90% SPD IN UNPAVED AREAS OR AS INDICATED IN THE DRAWINGS.
2. DIMENSIONS IN THE DOCUMENTS SHALL GOVERN.

CIVIL GRADING NOTES:

1. CLEAR AND GRUB WITHIN THE GRADING LIMITS SHOWN IN THE CIVIL DRAWINGS. REMOVE STUMPS AND ROOTS 3 INCHES IN DIAMETER AND LARGER AND NONPERISHABLE SOLID OBJECTS A MINIMUM 3 FEET BELOW SUBGRADE OR FINISHED EMBANKMENT.
2. STRIP AND STOCKPILE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES WITHIN THE LIMITS OF EARTHWORK OPERATIONS.
3. STRUCTURAL EXCAVATION: EXCAVATE TO INDICATE ELEVATIONS WITHIN A TOLERANCE OF 1 INCH. EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORM WORK AND FOR INSPECTIONS.

UTILITIES:

1. THE LOCATIONS, SIZES AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATE CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN IN THE PLANS. PRIOR TO ORDERING MATERIAL AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZED AND ELEVATIONS OF THE POINT OF CONNECTIONS TO EXISTING UTILITIES AND SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND PROPOSED UTILITY ROUTES. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 1-800-245-4545 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.

PAVING NOTES:

1. RIM ELEVATIONS FOR MANHOLES AND SEWER CLEANOUTS, WATER VALVE COVERS, ELECTRIC AND TELEPHONE PULL BOXES AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: 1 INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.

STORM SEWER CONSTRUCTION NOTES:

1. STORM SEWERS SHALL BE INSTALLED, BEDDED, AND BACKFILLED ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
2. STORM SEWERS LOCATED WITHIN PUBLIC R.O.W. OR SIDE LOT EASEMENTS SHALL BE REINFORCED CONCRETE PIPE (24-INCH AND LARGER) (C-76. CLASS III). AND SHALL BE INSTALLED, BEDDED, AND BACKFILLED IN ACCORDANCE WITH THE GOVERNING ENTITIES STANDARD DETAILS AND SPECIFICATIONS. UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
3. ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABILIZED SAND TO ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH ALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
4. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
5. ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES AND INLETS ARE TO PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL PROVIDE 18" MINIMUM CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
7. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF LOCAL GOVERNING ENTITY STANDARDS AND SPECIFICATIONS FOR JUSTING MANHOLES, INLETS AND VALVE BOXES TO GRADE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACKSLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF HIS WORK.
9. ALL DITCHES SHALL BE REGRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.

SWPPP CONSTRUCTION NOTES:

1. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG THE ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPPP) PLANS TO KEEP SILT AND/ OR EXCAVATIONS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM SEWER.
2. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.
3. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK, TRACKED FROM THE EXCAVATED AREA.
4. CONTRACTOR SHALL FOLLOW GOOD HOUSE KEEPING PRACTICES DURING THE CONSTRUCTION PHASE OF THE PROJECT ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
5. CONTRACTOR IS TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5-INCHES OR GREATER:
   A. DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
   B. AREAS USED FOR STORAGE THAT ARE EXPOSED TO PRECIPITATION.
   C. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
6. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS, AND CORRECTIVE ACTION IF SUCH OCCURS.

TRAFFIC NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. ALL TRAFFIC CLOSURES SHALL BE SCHEDULED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITIES APPROPRIATE HOURS.
3. NO LANES ON MAJOR THOROUGHFARES MAY BE BLOCKED FROM 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM UNLESS APPROVED BY THE LOCAL GOVERNING ENTITY.
4. NO TRAFFIC LANES SHALL BE CLOSED IN ALL RESIDENTIAL AREAS FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS.
6. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND OPEN THE LANES FOR NORMAL TRAFFIC FLOW.
7. OFF-DUTY UNIFORMED POLICE OFFICER(S)/FLAGGER(S) ARE REQUIRED TO DIRECT TRAFFIC WHEN THE LANES ARE BLOCKED.
8. IN THE EVEN THAT NO "TRAFFIC CONTROL PLANS" EXIST AS PART OF CONTRACT DRAWINGS. CONTRACT MAY PREPARE PLANS AND SUBMIT TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN-DAYS (10) PRIOR TO IMPLEMENTATION.
9. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS. HE/SHE SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING AN ALTERNATE SET OF PLANS* TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN (10) WORKING DAYS PRIOR TO IMPLEMENTATION.
10. APPROVED COPIES OF THE TRAFFIC CONTROL PLANS AND REQUIRED PERMITS SHALL BE MADE AVAILABLE FOR INSPECTION AT THE JOB SITE AT ALL TIMES. CONTRACTORS MUST SECURE REQUIRED PERMITS FROM THE LOCAL GOVERNING ENTITY'S TRAFFIC MANAGEMENT AND MAINTENANCE BRANCH BEFORE CLOSING A LANE/SIDEWALK. THE REQUEST MUST BE MADE AT LEAST TEN (10) DAYS IN ADVANCE OF THE CLOSURE. NOTE THAT WORKING HOURS MAY BE RESTRICTED OR THE REQUEST MAY BE DENIED.
    A. THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLAR AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME PART OF THE CONTRACT DRAWINGS.

WARNING: OVERHEAD ELECTRICAL LINES:

1. OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:
   A. ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
   B. OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
2. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222. ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-6248 OR (713) 207-5769.

CENTERPOINT ENERGY:
CAUTION: UNDERGROUND GAS FACILITIES:

1. LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, LLC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 OR 1-800-669-8344 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
   A. WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 945-8036 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
   B. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
   C. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
   D. FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3522 OR (713) 207-4200.
   E. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

AT&T TEXAS/SBC FACILITIES:

1. THE LOCATIONS OF AT&T TEXAS/SBC FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SBC FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANICAL EXCAVATION PROCEDURES. WHEN BORING THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SBC FACILITIES.
4. WHEN AT&T TEXAS/SBC FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SBC UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURY CABLES OR OTHER CABLES IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713)456-4552 OR EMAIL HIM AT rl7259@att.com, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR AT&T TEXAS/SWBT FACILITIES.

SANITARY SEWER NOTES:

1. ALL SEWERS SHALL BE TESTED FOR EXCESS DEFLECTION IN PIPE CROSS SECTION, FOR LATERAL AND VERTICAL PIPE OBSTRUCTION, AND FOR JOINT OFFSETS, BY PULLING A MANDREL THROUGH THE PIPE BY HAND. THE MANDREL SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILLING HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. OBSTRUCTIONS ENCOUNTERED SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. MANDREL AND TEST EQUIPMENT SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONDUCTING THE TEST.
2. USE BEDDING AND BACKFILL PER DETAILS PROVIDED IN THE CONTRACT DRAWINGS UNLESS FIELD CONDITIONS DICTATE OTHERWISE. CONTRACTOR TO NOTIFY ENGINEER OF WET TRENCH CONDITIONS PRIOR TO LAYING PIPE. USE CEMENT STABILIZED SAND AND BACKFILL TO WITHIN 1 FOOT OF PROPOSED OR EXISTING PAVEMENT SUBGRADE. BEDDING, CEMENT STABILIZED SAND AND/OR BACKFILL SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM FOR PIPE AND SHALL NOT BE PAID FOR DIRECTLY.
3. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 24 INCHES OF VERTICAL CLEARANCE AND 9 FEET HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND WATER LINES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 12 INCHES OF VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND STORM SEWER LINES.
4. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM THE MANHOLE RIM PER ASTM F477.
5. UNLESS OTHERWISE NOTED, ALL SANITARY SEWERS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE (PVC) SCH 40, CONFORMING TO ASTM D1785, OR APPROVED EQUAL. ALL SANITARY SEWERS SHALL HAVE RUBBER GASKET BELL AND SPIGOT CONNECTIONS.
6. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES SHALL BE PRECAST CONCRETE MANHOLES.
7. NO CONNECTIONS SHALL BE MADE TO EXISTING SANITARY SEWER LINES UNTIL ALL PROPOSED SEWER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED AND APPROVED BY THE LOCAL GOVERNING ENTITY.
8. WHENEVER THE MANHOLE COVERS ARE LOCATED BELOW THE 100 YEAR FLOOD PLAIN ELEVATION THEY SHALL BE GASKETED AND BOLTED AS DESCRIBED IN 317.2. OF THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES.
9. LOW-PRESSURE AIR TEST. THIS TEST SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM C-828, ASTM C-924 OR OTHER APPROPRIATE PROCEDURES. FOR SAFETY REASONS, AIR TESTING OF SECTIONS OF PIPE SHALL BE LIMITED TO LINES LESS THAN 36-INCH AVERAGE INSIDE DIAMETER. LINES 36-INCH AVERAGE INSIDE DIAMETER AND LARGER MAY BE AIR TESTED AT EACH JOINT. THE MAXIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE DURING A JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR SECTION OF PIPE LESS THAN 36-INCH AVERAGE INSIDE DIAMETER, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE SHALL BE COMPUTED BY THE FOLLOWING EQUATIONS:

   T = 0.0850(D)(K)/(Q) WHERE T = TIME FOR PRESSURE TO DROP 1.0 POUNDS PER SQUARE INCH GAUGE IN SECONDS
   K = 0.000419(D)(L), BUT NOT LESS THAN 1.0
   D = AVERAGE INSIDE DIAMETER IN INCHES
   L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET
   Q = RATE OF LOSS, ASSUME 0.0015 CU FT/MIN/SQ FT INTERNAL SURFACE

10. SDR-26 PVC PIPE TO USE "FULL BODIED" SDR-26 FITTINGS.
11. ALL PVC PIPE TO HAVE CELL CLASS 12454 A OR B AS PER ASTM D1784.
12. NO MORE THAN 2 HOURS SHALL ELAPSE BETWEEN MIXING AND PLACEMENT OF CEMENT STABILIZED SAND.
13. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% SPD, ±2% OF OPTIMUM MOISTURE CONTENT, IN MAXIMUM 8-INCH LIFTS.

WATER SYSTEM CONSTRUCTION NOTES:

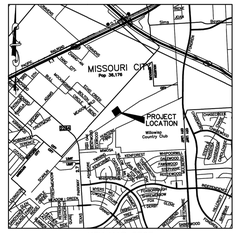
1. METERS AND BACKFLOW BOXES SHALL BE SET A MINIMUM OF 3 INCHES ABOVE FINISHED GRADE WITH SLOPED BACKFILL TO DIRECT STORM WATER AWAY FROM BOX. BOXES SHALL BE BACKFILLED WITH A MINIMUM 12 INCHES OF CEMENT STABILIZED SAND AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. FIRE SPRINKLER LINES SHALL BE INSTALLED AND TESTED BY A CONTRACTOR LICENSED BY THE STATE TO PERFORM SUCH WORK UNDER SECTION 4(A) & (B) OF ARTICLE 5.43-3 OF THE TEXAS INSURANCE CODE. CONTRACTOR SHALL FURNISH OWN CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING AS REQUIRED BY THE TEXAS COMMISSION ON FIRE PROTECTION.
3. ALL PVC PIPE USED IN WATER SYSTEMS SHALL BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL.
4. WATER LINE PIPE AND FITTING MATERIALS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:
   A. LESS THAN 4 INCH POTABLE WATER LINE SHALL BE SCHEDULE 40, PVC 1120, PER ASTM D-1785, EXCEPT THAT THREADED PIPE SHALL BE SCHEDULE 80. 3 INCH POTABLE WATER MAY BE SDR 21 PVC (200 P.S.I.) WITH GASKETED JOINTS.
   B. SITE 4 INCH AND LARGER POTABLE WATER LINE SHALL BE AWWA C900, DR 18, CLASS 235 PVC.
   C. FIRE SPRINKLER LINE SHALL BE AWWA C900, DR 14, CLASS 305 PVC.
   D. FITTINGS FOR LESS THAN 3 INCH AND LARGER WATER LINE SHALL BE ASTM D-2466 SCHEDULE 40 PVC. THREADED FITTINGS SHALL BE SCHEDULE 80 PER ASTM D-2467.
   E. FITTINGS FOR 3 INCH AND LARGER WATER LINE SHALL BE ALL-BELL, PUSH-ON, DUCTILE IRON MECHANICAL JOINT FITTINGS WITH MEGA-LUG.
5. VALVES:
   A. 1 1/2 INCH AND SMALLER SHALL BE 125 P.S.I.G., BRONZE, RISING STEM, SINGLE-WEDGE, DISC TYPE, SCREWED ENDS, CRANE NO. 428 OR APPROVED EQUAL.
   B. 2 INCH THRU 2 1/2 INCH VALVES SHALL BE IRON BODY, DOUBLE GATE, NON-RISING STEM, 150 P.S.I.G. TEST; 2 INCH SQUARE NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
   C. 3 INCH AND LARGER VALVES SHALL BE 200 P.S.I.G. GATE VALVES PER AWWA C500 OR C509, PUSH-ON BELL ENDS WITH RUBBER JOINT RINGS; 2 INCH NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
6. POLYETHYLENE WRAP ALL CAST AND DUCTILE IRON PIPE AND FITTINGS PER SPECIFICATIONS.
7. WATER LINES SHALL HAVE A MINIMUM COVER OF 4 FEET BELOW NATURAL GROUND, FINISH GRADE, OR MEAN ELEVATION OF NEARBY DITCH, WHICHEVER IS LOWER. ALL WATER LINES SHALL MAINTAIN A MINIMUM 12 INCH CLEARANCE TO OTHER UTILITIES AT CROSSINGS UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINES INSTALLED OVER 8 FEET DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS. CONTRACTOR SHALL PROVIDE THRUST BLOCKING TO WITHSTAND 125% OF TEST PRESSURES.
8. SEPARATION DISTANCE FOR ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS CHAPTER 290.44, HARRIS COUNTY, AND TCEQ REQUIREMENTS, LATEST PRINTING.
9. WHERE A DOMESTIC WATERLINE CROSSES A SANITARY SEWER, INSTALL ONE JOINT (MINIMUM 18 FOOT LENGTH) OF WATERLINE PIP CENTERED ON THE SEWER.
10. CONTRACTOR SHALL TAKE SANITARY PRECAUTIONS D



tnp

30 15 0 30

SCALE IN FEET
1" = 30'



KEY MAP 570T
SCALE 1" = 3000'

SURVEYOR'S NOTES:

1. THE CAD FILE OF THE DRAWING SHOWN HEREIN IS BASED ON TEXAS SOUTH CENTRAL ZONE NO. 4204, STATE PLANE SURFACE VALUE (NAD83) AND MAY BE CONVERTED TO GRID BY SCALING THE DRAWING BY THE FOLLOWING COMBINED SCALE FACTOR OF 0.99987435375.

2. ACCORDING TO F.I.R.M. MAP NO. 48157C0285M (COMMUNITY-PANEL NO. 480304028SM), MAP REVISED DATE: JANUARY 29, 2021, THE SUBJECT PROPERTY LIES WITHIN THE AREA DESIGNATED AS ZONE "X" UNSHADED, AREA OF MINIMAL HAZARD.

THIS STATEMENT IS BASED ON SCALING THE LOCATION OF THE SUBJECT TRACT ON THE ABOVE REFERENCED MAP. THIS INFORMATION IS TO DETERMINE FLOOD INSURANCE RATES ONLY AND IS NOT INTENDED TO IDENTIFY SPECIFIC FLOODING CONDITIONS.

3. ALL UTILITIES SHOWN HEREON ARE LOCATED USING "APPARENT & VISIBLE" EVIDENCE BY ON-SITE OBSERVATION UNLESS OTHERWISE NOTED.

4. —¼INDICATES AN UNDERGROUND SEWER LINE WITH UNKNOWN DIRECTION, SIZE OR LOCATION OR A POSSIBLE STUB-OUT.

5. UNDERGROUND UTILITY LOCATIONS PROVIDED BY LONESTAR LOCATING, LLC. PAINT MARKS WITH NUMERIC VALUES INDICATES COVER (FEET AND INCHES) DETERMINED BY ELECTRONIC TONING.

ALWAYS CONTACT TEXAS 811 PRIOR TO DIGGING. SOME UTILITIES SUCH AS FIBER OPTIC W/O TRACERS, PLASTIC GAS, FIBERGLASS/PVC ARE NOT LOCATABLE BY TRANSMISSION SIGNAL.
REFERENCE BENCHMARK:

MISSOURI CITY SURVEY CONTROL MARKER BRASS DISC LOCATED AT THE NORTHWESTERN CORNER OF THE INTERSECTION OF TEXAS PARKWAY AND MISSOURI CITY DRIVE.
ELEVATION=72.96' (NAVD 88, 201 ADJ.)

TEMPORARY BENCHMARKS:

TBM "YY" - BOC CUT ON THE SOUTHWESTERLY CORNER OF CONCRETE SLAD FOR DUGOUT LOCATED ON THE WEST SIDE OF BASEBALL FIELD ±11 FEET NORTHWEST OF THE DUGOUT.
ELEVATION = 70.82'

TBM"ZZ" - BOX CUT ON CORNER OF CONCRETE SIDEWALK 24 FEET SOUTH OF THE BLEACHERS LOCATED ON THE WEST SIDE OF THE BASEBALL FIELD.
ELEVATION = 70.25'

ABBREVIATIONS

F.B.C.P.R.–FORT BEND COUNTY PLAT RECORDS
FF–FINISH FLOOR
FL–FLOW LINE
HDP–HIGH DENSITY POLYETHYLENE PIPE
MH–MANHOLE
OHE–OVERHEAD ELECTRIC
PVC–POLYVINYL CHLORIDE PIPE
RCP–REINFORCED CONCRETE PIPE
STM.–STORM
SWR.–SEWER
TBM–TEMPORARY BENCHMARK
TG–TOP OF GRATE
TR–TOP OF RIM

LEGEND

- BOLLARD
- BORE HOLE
- CLEANOUT
- D.S. DOWN SPOUT
- ELECTRIC JUNCTION BOX
- FIRE HYDRANT
- FLAG POLE
- GATE POST
- INLET
- IRRIGATION CONTROL VALVE
- LIGHT STANDARD
- MANHOLE
- PAINT MARKER (ELECTRIC)
- POWER POLE
- SHRUB
- SIGN
- WATER METER

SURVEYOR'S CERTIFICATE

To: Fort Bend Independent School District

I, Brian J. Maddox, a Registered Professional Land Surveyor in the State of Texas, do hereby certify that I have prepared this map from an actual on the ground survey of the land, and the monuments shown thereon were found under my personal supervision in accordance with the Surveying Rules and Regulations of the State of Texas. This survey substantially conforms to a Category 6, Condition II Topographic Survey.

Brian J. Maddox
Registered Professional Land Surveyor No. 5430
Surveyed on the ground December 5, 2023

STATE OF TEXAS REGISTERED BRIAN J. MADDOX 5430 PROFESSIONAL LAND SURVEYOR

TSPS CATEGORY 6, CONDITION II
LIMITED TOPOGRAPHIC SURVEY
FORT BEND INDEPENDENT SCHOOL DISTRICT
MARSHALL HIGH SCHOOL

SITUATED IN THE
GEORGE B. LUCAS SURVEY, ABSTRACT NUMBER 626 AND
THE I & G.N. RAILROAD CO. SURVEY, ABSTRACT NUMBER 263,
CITY OF MISSOURI CITY, FORT BEND COUNTY, TEXAS

PROJECT INFORMATION
Project No. FBI 23515
Date:DECEMBER 5, 2023
Drawn By: KMH
Checked By: JDJ
Scale: 1"=30'
Sheet: 1 of 1

tnp

SURVEYOR
TEAGUE NALL AND PERKINS, INC.
1221 Park West Green Drive, Suite 100
Katy, Texas 77493
832.220.1205 ph 214.461.9864 fx
TBPLS Registration No. 10194381
www.tnpinc.com

pfluger
office 713.222.1141 | fax 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

MARSHALL HIGH SCHOOL
Project Info Additional Text Line
1220 Buffalo Run, Missouri City, TX 77489

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED STATE SURVEYOR
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

100% CD
C 0.02-M
CIVIL SPORTS SURVEY
(REFERENCE ONLY)

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
TSCE PROJECT # 2508

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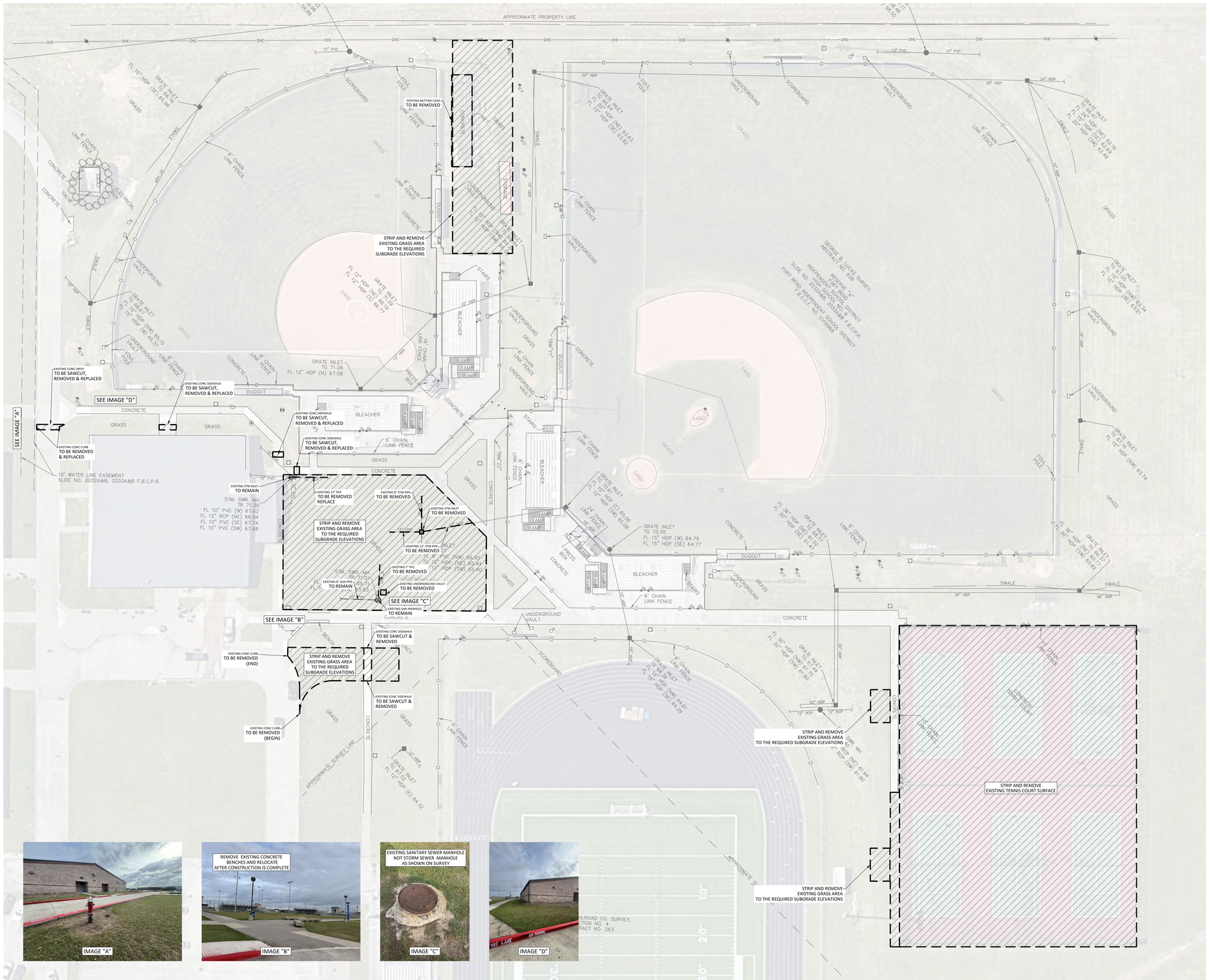

NOTES:

1. ALL DEMOLITION ITEMS INCLUDING ALL SOILS TO BE HAULED OFF OF SITE OR AS DIRECTED BY CLIENT.
2. IF ANY DAMAGE IS DONE TO ANY AREA NOT ON SCOPE OF WORK IT SHALL BE THE CONTRACTOR'S DUTY TO FIX IT AT ITS OWN EXPENSE.
3. CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND EXISTING STRUCTURES.
4. CONTRACTOR SHALL MAINTAIN ALL PUBLIC STREET AND RIGHT OF WAY FREE OF DEBRIS, SILT AND SOILS AT ALL TIMES.
5. ALL WASTED SPILLED FROM TRUCKS SHALL BE REMOVED IMMEDIATELY AND NOT WASHED INTO STORM SEWER SYSTEM.
6. INLET PROTECTION WILL BE REQUIRED AT INLETS DOWNSTREAM OF THE WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.

LEGEND:

STRIP AND REMOVAL OF MATERIALS

REMOVAL AND DISPOSAL OF ITEMS

15' 30' 30' 0 60'

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KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER

12/04/2025

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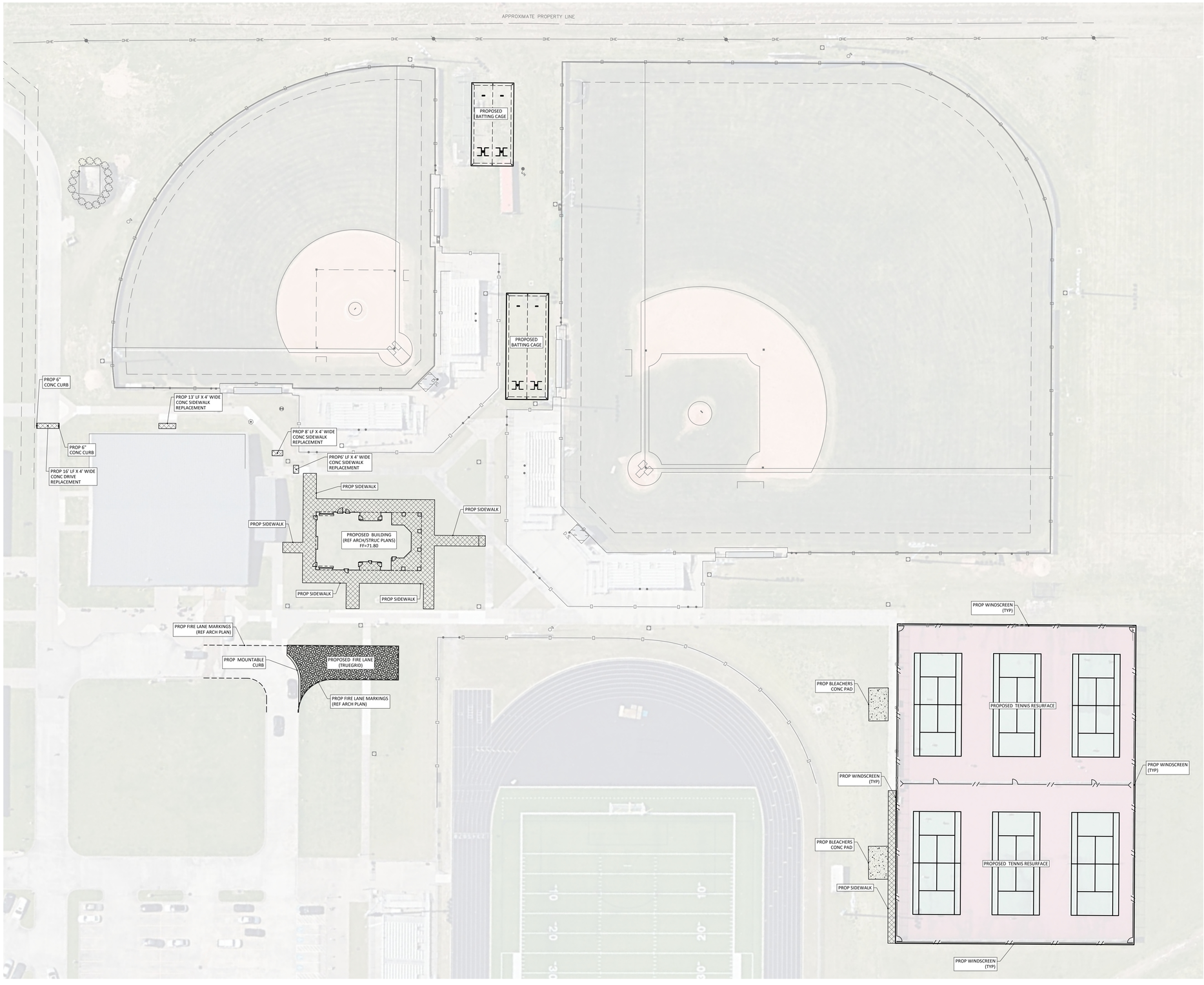
C 0.03-M
CIVIL SPORTS
DEMOLITION PLAN



NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS AND GROUND ELEVATIONS.
2. CONTRACTOR TO SEE SHEET C 5.01-M TO C5.06-M FOR DETAILS.

LEGEND:

- 4.5 INCH CONC SIDEWALK
- 5 INCH CONC
- TRUEGRID

15' 30' 30' 0 60'

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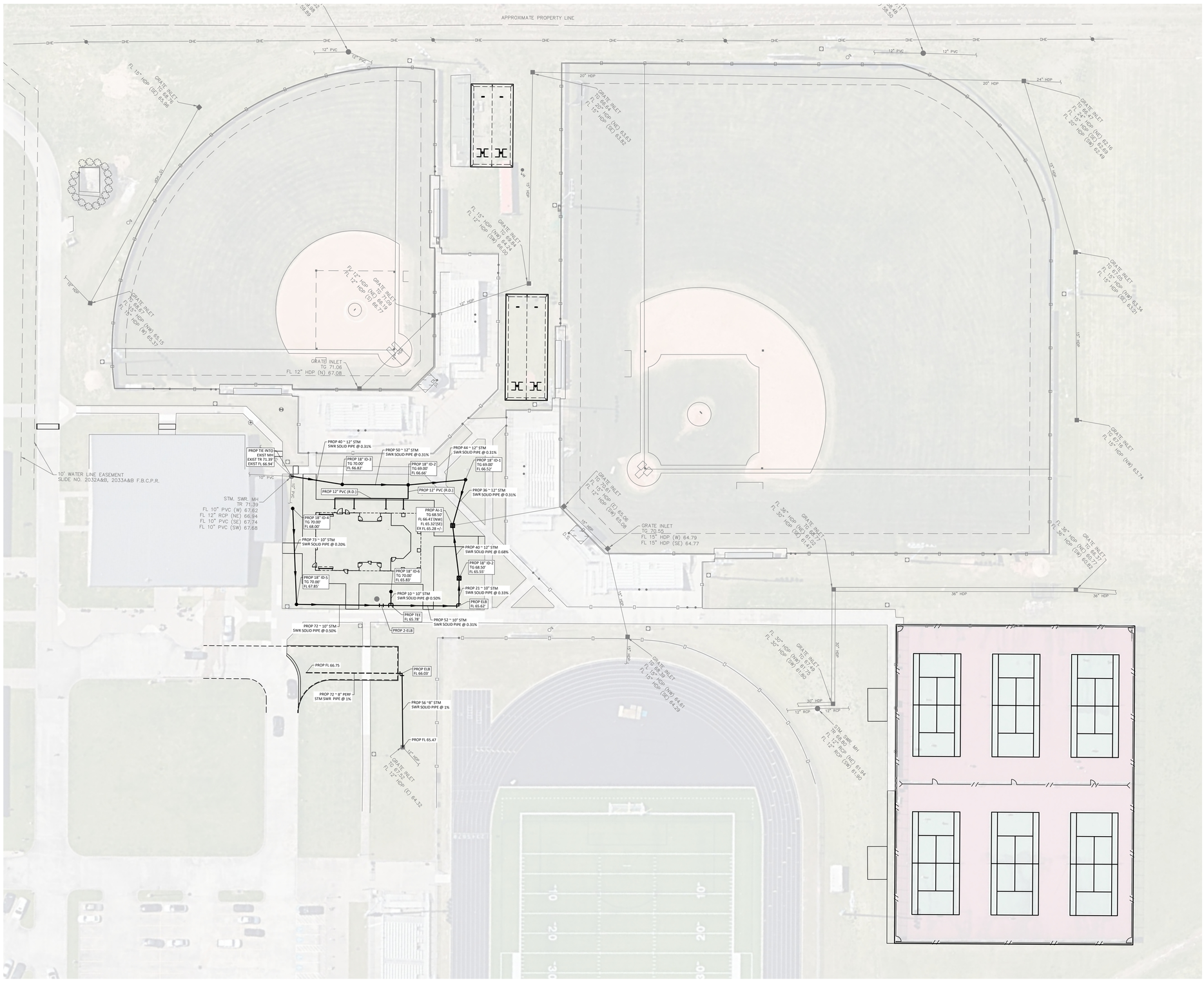
C 1.01-M
CIVIL SPORTS
SITE PLAN



NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

15' 30'
30' 0 60'

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1220 Buffalo Run, Missouri City, TX 77489

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SUGAR LAND, TX 77479

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119993
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ENGINEER

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
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REVISIONS:

#	Date	Description

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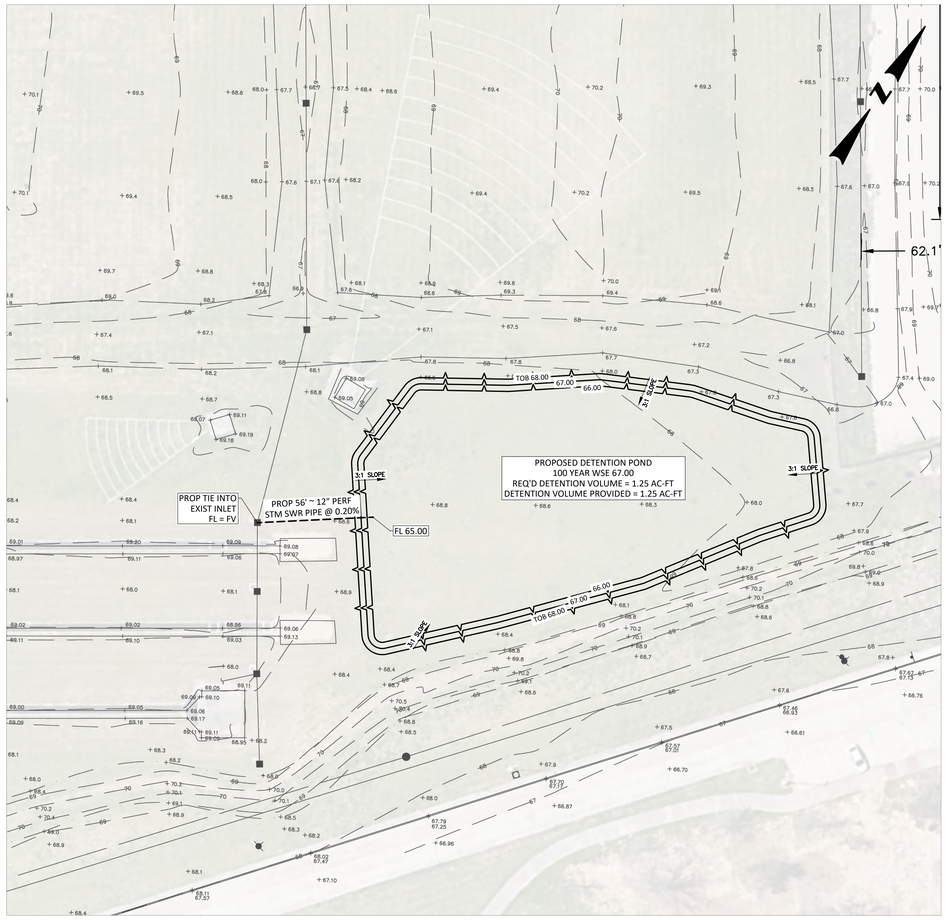
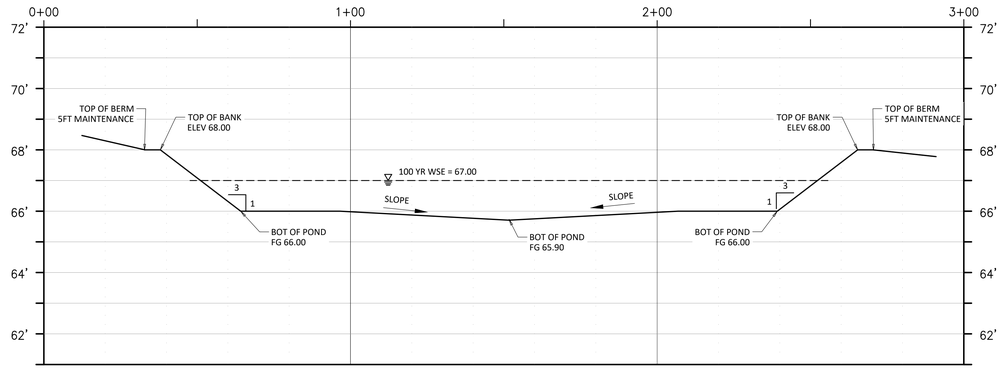
C 2.01-M
CIVIL SPORTS DRAINAGE PLAN





DETENTION POND (SECTION A - A)

SCALE = $\frac{1" = 2'}{1" = 20'}$

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

15' 30'
30' 0 60'

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1220 Buffalo Run, Missouri City, TX 77489

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119993
STATE OF TEXAS

12/04/2025

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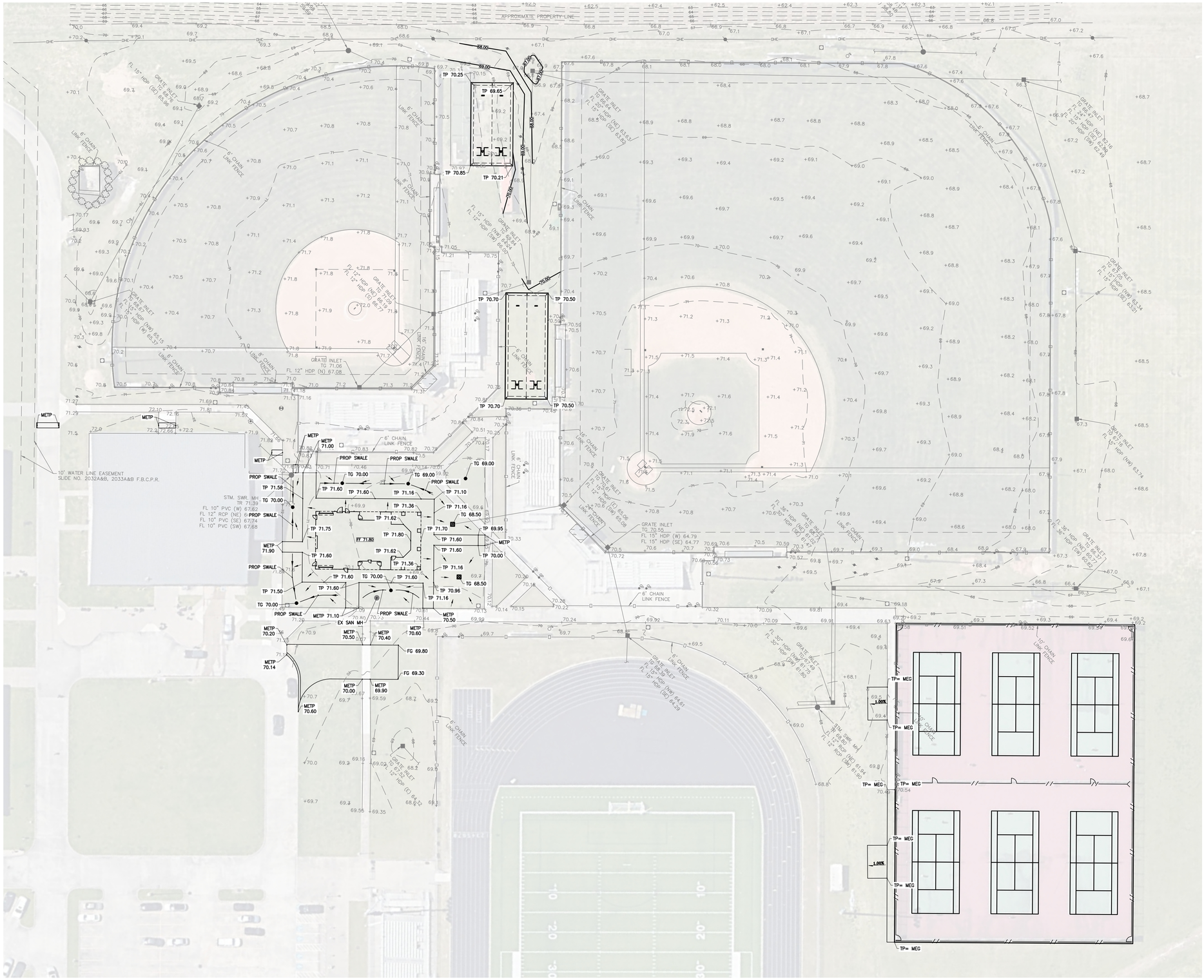
C 2.21-M

CIVIL SPORTS DETENTION POND EXPANSION & CROSS SECTIONS



NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.
2. REROUTE ALL UTILITIES INCLUDING ELECTRICAL,STORM,WATER AND SANITARY SEWER AS NEEDED FOR THE CONSTRUCTION OF THE PROPOSED CONCESSION.
3. REROUTE EXISTING 6INCH IRRIGATION LINE.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

15' 30'
30' 0 60'

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Project Info Additional Text Line

1220 Buffalo Run, Missouri City, TX 77489

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INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
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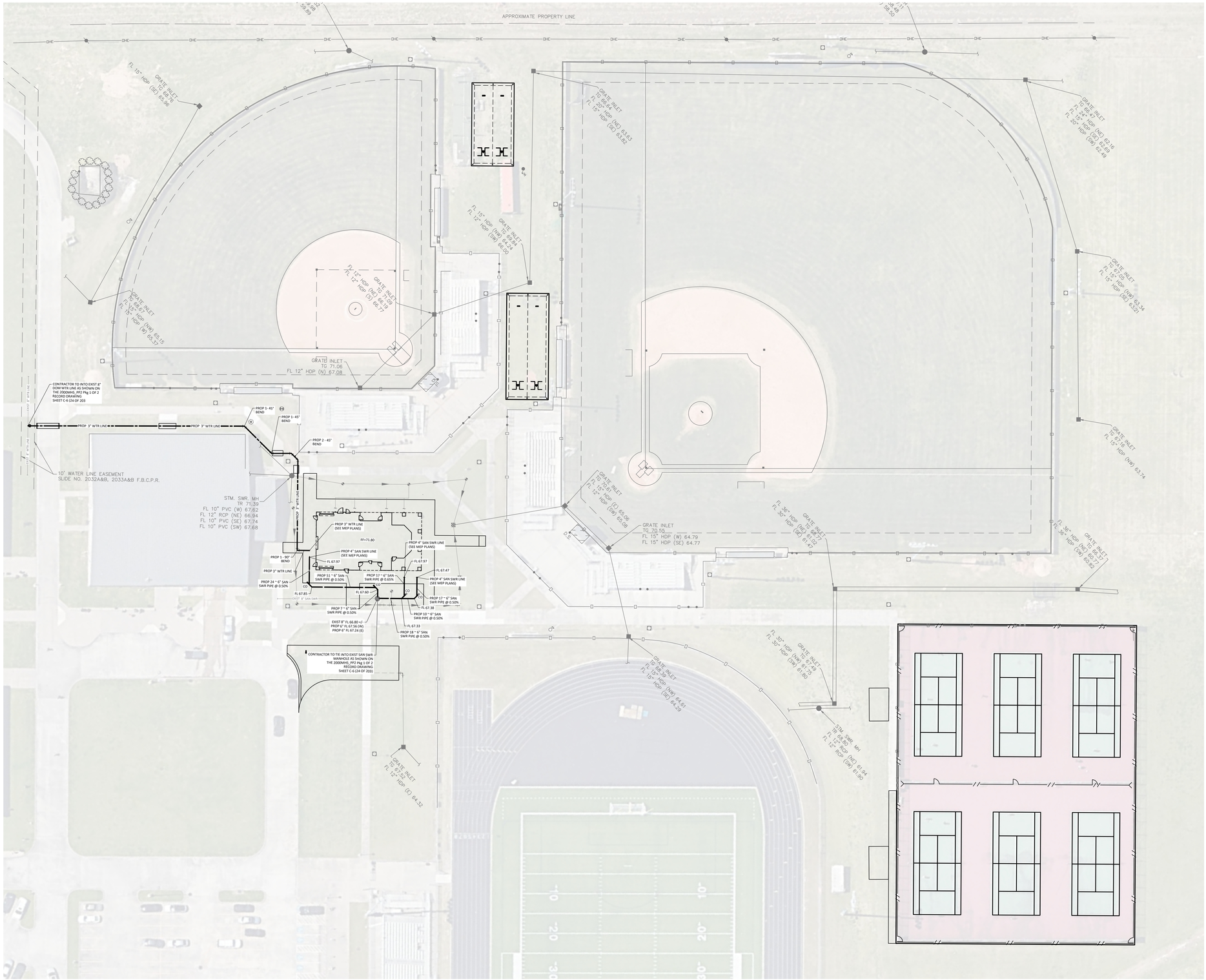
C 3.01-M
CIVIL SPORTS GRADING PLAN



GENERAL NOTES:

1. CONTRACTOR TO COORDINATE AND IDENTIFY ALL FITTINGS, PIPE MATERIALS, AND INSTALLATION DETAILS, NOT SHOWN WITHIN THE 5+- SPACING BETWEEN THE STRUCTURES. REFER TO M.E.P. PLANS FOR TRUNK LINE LEAD LOCATIONS PRIOR TO CONSTRUCTION FOR A WATERTIGHT CONNECTION.
2. CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS REQUIRED PRIOR O STARTING CONSTRUCTION. COORDINATE CONNECTIONS TO PUBLIC MUD FACILITIES WITH MUD ENGINEER/OPERATOR.
3. THE OWNER OR CONTRACTOR SHALL INSTALL APPROPRIATE BACKFLOW PREVENTION DEVICES IN ACCORDANCE WITH STATE PUMBLING CODES OR AS REQUIRED BY THE MUD OPERATOR. BACKFLOW TEST REPORTS MUST BE AVAILABLE AT THE TIME OF INSPECTION. COPIES OF ANNUAL TEST REPORTS MUST BE FORWARDED TO THE MUD DISTRICT.
4. NO PIPES, PIPE FITTINGS, PLUMBING FITTINGS AND FIXTURES WHICH CONTAIN MORE THAN A WEIGHTED AVERAGE OF 0.25% LEAN WHEN USED WITH RESPECT TO WETTED SURFACES EXIST IN PRIVATE WATER DISTRIBUTION FACILITIES INSTALLED ON OR AFTER JANUARY 4, 2014.
5. DIMENSION CONTROL PLAN PREPARED BY TSCE TO BE USED IN CONJUNCTION WITH THIS PLAN FOR LOCATING ALL IMPROVEMENTS.
6. ALL SANITARY SEWER RIMS TO BE PLACED NO HIGHER THAN ONE FOOT BELOW THE ADJACENT FINISHED FLOOR ELEVATION.
7. CONTRACTOR SHALL CORE DRILL THE SANITARY MANHOLE CONNECTION, USE A WATERTIGHT RESILIENT CONNECTOR, AND PROVIDE AN EXTERNAL DROP IF REQUIRED.
8. SANITARY SEWER LINES SHALL BE A MINIMUM 6" SDR 26 OR SCH40 BEDDED AND BACKFILLED WITH CEMENT STABILIZED SAND (8" AND LARGER SHAL BE SDR 26)
9. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION DIFFERS FROM WHAT IS SHOWN ON THE DOCUMENTS.
10. CONTRACTOR SHALL TAKE EXTRA CARE NOT TO DAMAGE ANY EXISTING UTILITIES THAT ARE TO REMAIN IN PLACE.
11. CONTRACTOR TO PLACE GATE VALVE EVERY 1,000 FT.
12. CONTRACTOR TO PLACE SAN SWR CLEAN OUT EVERY 100 FT.

NOTES:

1. REROUTE ALL UTILITIES INCLUDING ELECTRICAL,STORM,WATER AND SANITARY SEWER AS NEEDED FOR THE CONSTRUCTION OF THE PROPOSED CONCESSION.
2. REROUTE EXISTING 6INCH IRRIGATION LINE.

LEGEND:

FL XX.XX'	FLOW LINE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	SAN MANHOLE (MH-X)
	CLEAN OUT
	WATER LINE
	SAN SWR LINE
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOW
	FIRE HYDRANT
	GATE VALVE

15' 30' 30' 0 60'

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HOUSTON, TEXAS 77079
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MARSHALL HIGH SCHOOL
Project Info Additional Text Line
1220 Buffalo Run, Missouri City, TX 77489

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KENNETH I. JURADO
119993
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SURVEYOR

12/04/2025

PROJECT NO. BP012
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REVISIONS:

#	Date	Description

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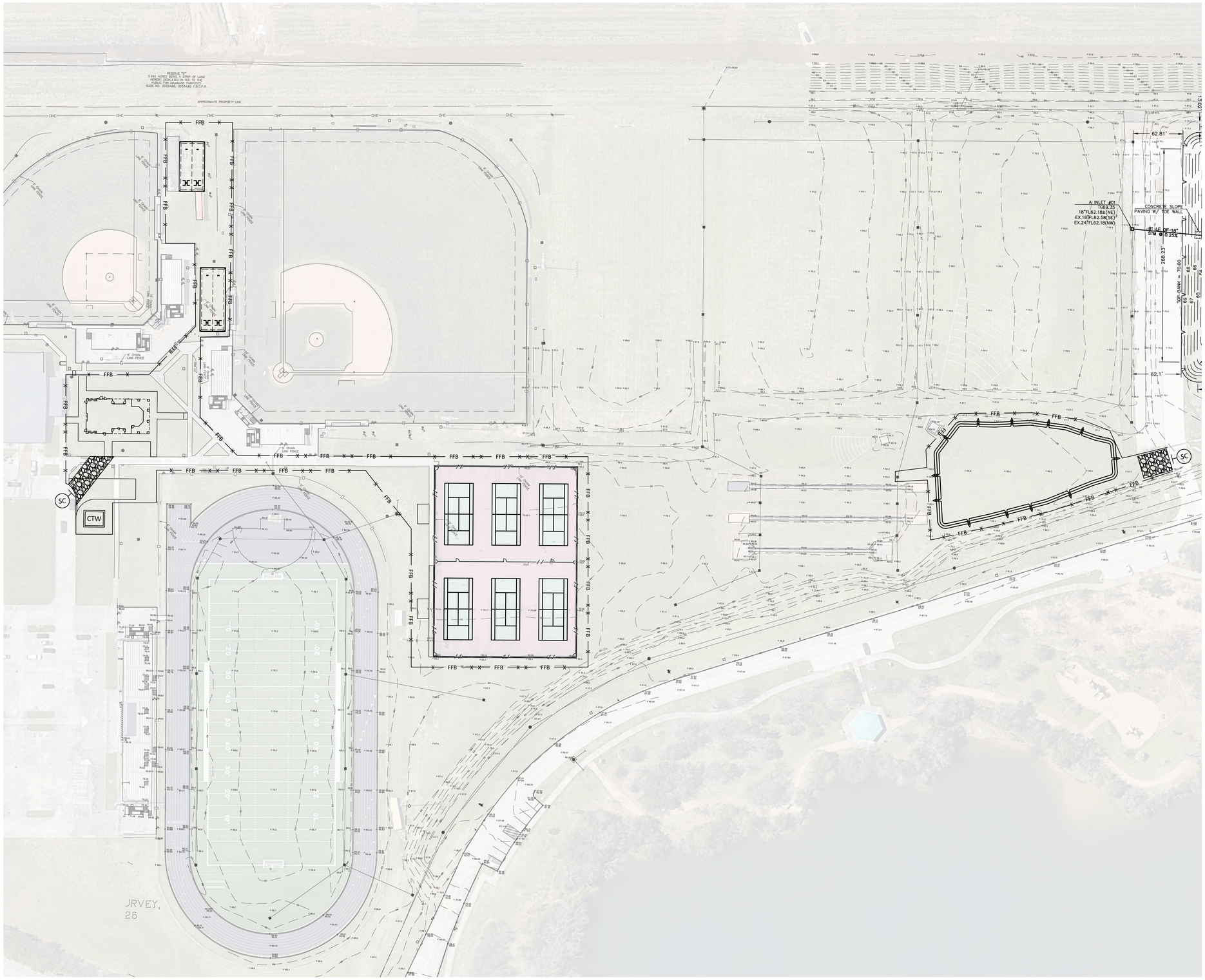
C 3.21-M
CIVIL SPORTS UTILITY PLAN



NOTES:

1. CONTRACTOR TO PLACE "IPB" IN ALL SURROUNDING INLETS.

LEGEND:

IPB	INLET PROTECTION BARRIER STAGE I
IPB	INLET PROTECTION BARRIER STAGE II
SC	STABILIZED CONSTRUCTION ACCESS
CTW	CONCRETE TRUCK WASHOUT AREA
FFB	FILTER FABRIC BARRIER

15' 30'
30' 0 60'

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STATE OF TEXAS
12/04/2025

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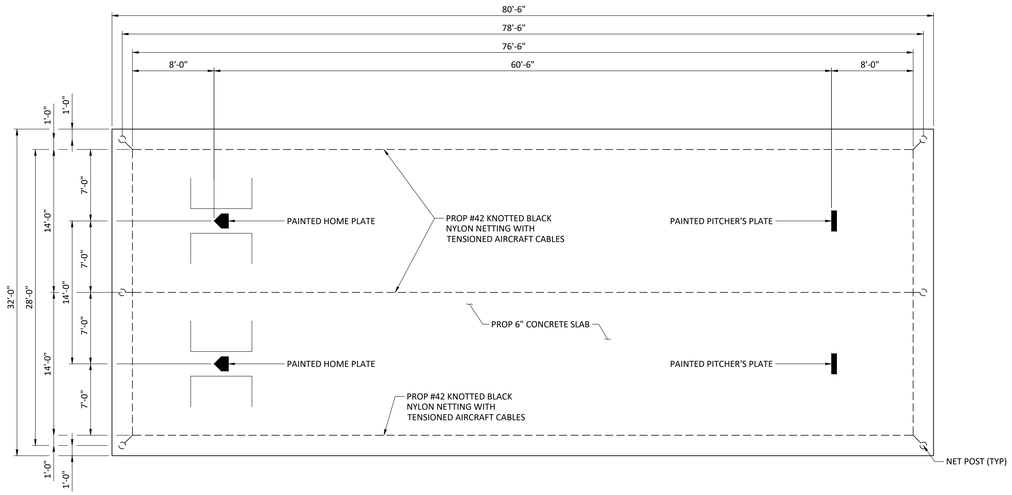
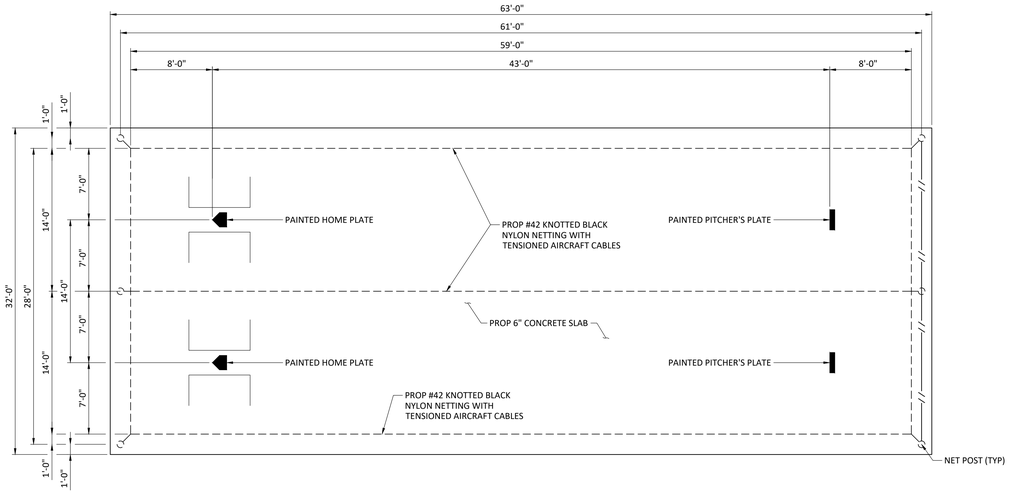
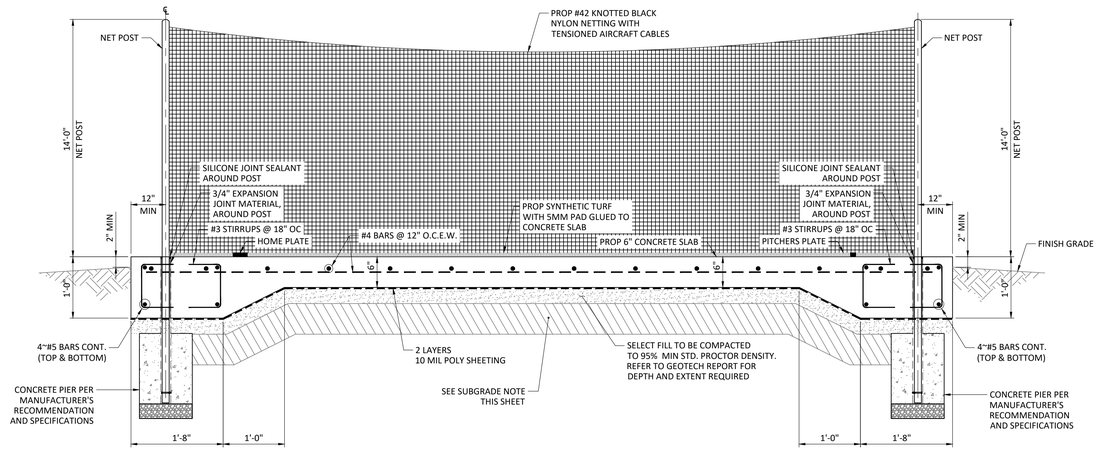
C 4.01-M
CIVIL SPORTS
SWPP PLAN



BATTING CAGE PLAN



BATTING CAGE PLAN

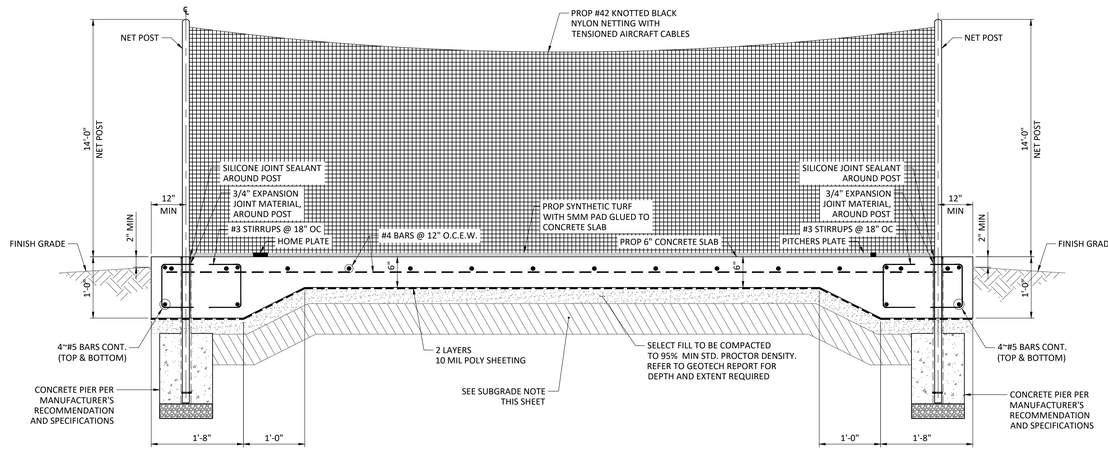


BATTING CAGE SECTION

NOTE:

1. BATTING CAGE NETTING SYSTEM SHALL BE DESIGNED BY MANUFACTURER PER OUR DIMENSIONS AND REQUIREMENTS NOTED AND SPECIFIED.

1 N.T.S. BASEBALL DUAL BATTING CAGES
SEE SITE PLAN FOR ORIENTATION



BATTING CAGE SECTION

NOTE:

1. BATTING CAGE NETTING SYSTEM SHALL BE DESIGNED BY MANUFACTURER PER OUR DIMENSIONS AND REQUIREMENTS NOTED AND SPECIFIED.

2 N.T.S. SOFTBALL DUAL BATTING CAGES
SEE SITE PLAN FOR ORIENTATION

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

pfluger
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2 Greenway Plaza, Suite 480
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12/04/2025

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| # | Date | Description |

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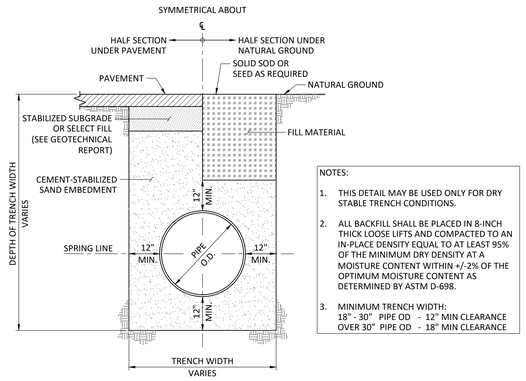
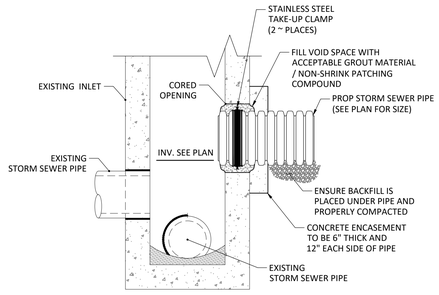
CIVIL SPORTS
BATTING CAGE DETAILS



NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

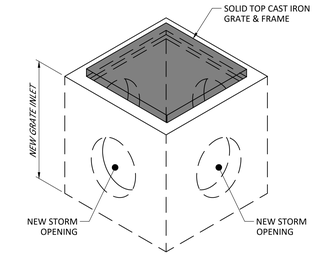
1 STORM SEWER BEDDING AND BACKFILL DETAIL
N.T.S.



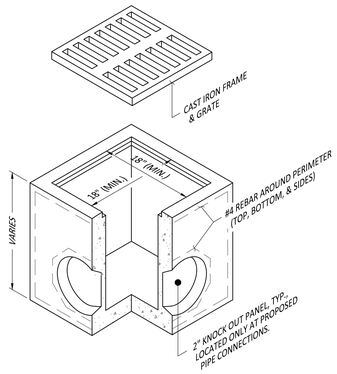
NOTES:

1. FORM CONCRETE ENCASEMENT ON UNDISTURBED MATERIAL OR STRUCTURALLY FIRM FOUNDATION.
2. PROVIDE WATER STOP WITH STAINLESS STEEL CLAMPS AROUND NEW PIPE FOR SANITARY SEWER FLOWS.
3. REWORK EXISTING MANHOLE INVERT TO ACCOMMODATE NEW FLOWS, IF NECESSARY.

2 STORM SEWER PIPE CONNECTION INTO EXISTING INLET
N.T.S.



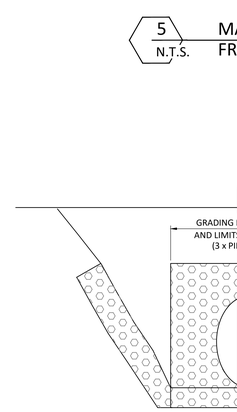
3 JUNCTION BOX
N.T.S.

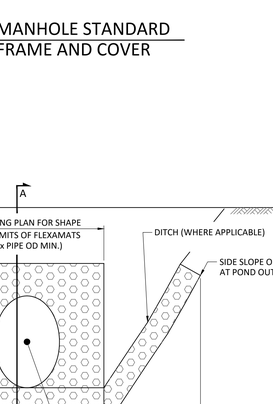


CATCH BASIN NOTES:

1. WALLS & BOTTOM SHALL BE CONSTRUCTED OF 6" REINFORCED, CLASS "A" (4000 psi) CONCRETE.
2. PRECAST CONCRETE INLET BASINS SHALL BE PROVIDED WITH PRE-FORMED KNOCKOUTS ONLY IN WALLS WHERE PIPE CONNECTIONS ARE TO BE MADE. KNOCKOUTS SHALL BE PIPE O.D. + 4" MAX. AND CIRCULAR SHAPED.
3. IN GRASS AREAS, FOLLOWING FINAL GRADING, THE CONTRACTOR SHALL PLACE SOLID SOD A MINIMUM OF 5 FEET AROUND PERIMETER OF TOP OF INLET.
4. IF THE BASE SECTION IS PRECAST WITH A BOTTOM, A 12" THICK CEMENT STABILIZED SAND BASE SHALL BE REQUIRED BENEATH THE STRUCTURE, EXTENDING 12" PAST THE OUTER FACE.
5. WHEN HDPE PIPE IS USED, PROVIDE 6" CLEARANCE BETWEEN INLET BOTTOM & FLOWLINE OF PIPE. GROUT ENTIRE BOTTOM OF INLET. EXTEND PIPE INTO INLET AT LEAST ONE FULL CORRUGATION. NO JOINT WITHIN 6 FEET OF INLET.
6. INSTALL FILTER FABRIC OVER INLET GRATE TO PREVENT SILTS FROM ENTERING INLET.
7. ALL CATCH BASINS AND GRATE/COVERS SHALL BE TRAFFIC DUTY RATED UNLESS OTHERWISE NOTED.

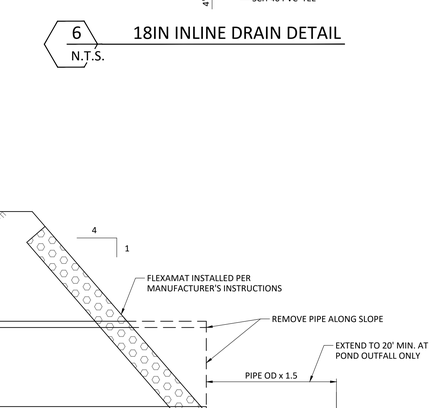
4 CATCH BASIN DETAIL
N.T.S.





GENERAL NOTES:
1. ENSURE MANHOLE COVER IS TIGHTLY IN PLACE DURING AND POST CONSTRUCTION.

5 MANHOLE STANDARD FRAME AND COVER
N.T.S.



6 18IN INLINE DRAIN DETAIL
N.T.S.

7 SWALE DETAIL
N.T.S.

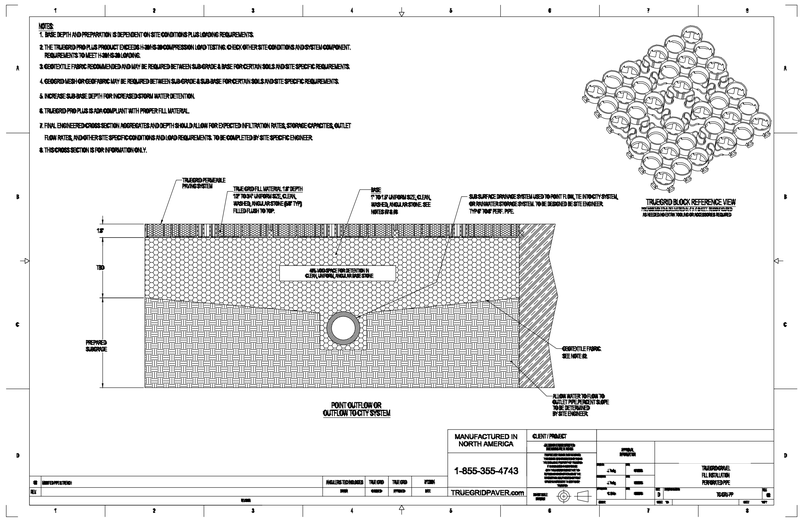
SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

NOTES:

1. GRADE OUTFALL AREA SO THAT WATER WILL FLOW DOWN THE CENTER OF THE CHANNEL AND BE CONTAINED TO THE CHANNEL. SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND. THE PREPARED SURFACE SHALL PROVIDE A FIRM UNYIELDING FOUNDATION FOR THE MATS WITH NO SHARP OR ABRUPT BREAKS IN THE GRADE.
2. APPLY SEED DIRECTLY TO THE PREPARED SOIL PRIOR TO FLEXAMAT INSTALLATION. USE SEED PER PROJECT SPECIFICATIONS.
3. ANCHOR THE MAT PER MANUFACTURERS INSTRUCTIONS.
4. A CONCRETE SAW SHALL BE USED TO CUT THE MAT TO EXACT SIZE AND SHAPE.

8 OUTFALL DETAIL
N.T.S.



9 TRUEGRID DETAIL
N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

MARSHALL HIGH SCHOOL
Project Info Additional Text Line
1220 Buffalo Run, Missouri City, TX 77489

FBISD
INSPIRE • EQUIP • IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 5.02-M
CIVIL SPORTS STORM DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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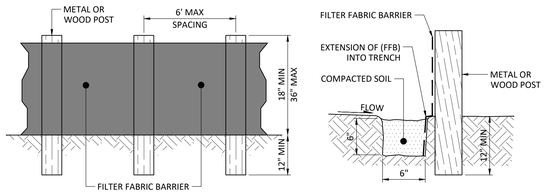
TSCE PROJECT # 2508



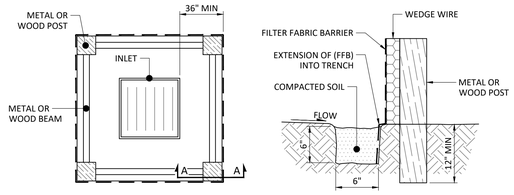
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

FFB

1 N.T.S. FILTER FABRIC BARRIER



PLAN VIEW

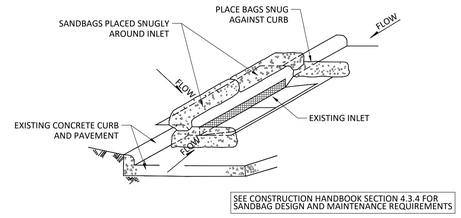
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

IPB

2 N.T.S. INLET PROTECTION BARRIER



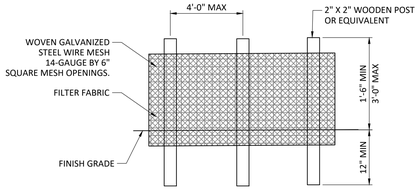
SEE CONSTRUCTION HANDBOOK SECTION 4.3.4 FOR SANDBAG DESIGN AND MAINTENANCE REQUIREMENTS

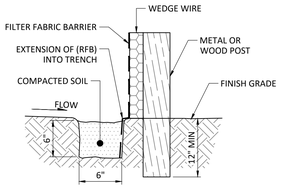
GENERAL NOTES:

1. BAGS OR WATTLES CAN BE USED FOR THIS APPLICATION.
2. PROVIDE WOVEN OR UNWOVEN GEOTEXTILE FILTER FABRIC FOR BAGS.
3. PROVIDE COARSE SAND AND AGGREGATE MIX FOR FILL MATERIAL FOR BAGS. USE ONLY PARTICLES CONSISTING OF CLEAN, HARD, DURABLE MATERIALS FREE FROM ADHERENT COATINGS, SALT, ALKALI, DIRT, CLAY, LOAM, SHALE, SOFT OR FLAKY MATERIALS, OR ORGANIC AND INJURIOUS MATTER.
4. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE BARRIER.

IPB

3 N.T.S. INLET PROTECTION BARRIER STAGE II



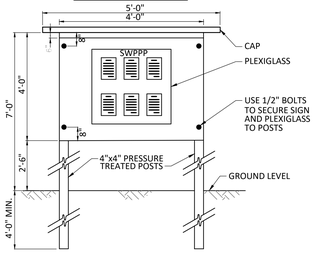


NOTES:

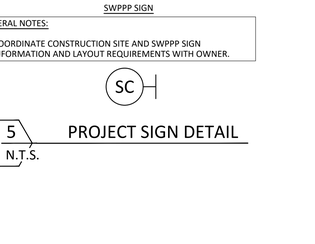
1. SET POSTS AT 4-FEET MAXIMUM SPACING. IF FACTORY PREASSEMBLED FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAXIMUM
2. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT THE POST, FOLD TOGETHER, AND ATTACH TO THE POSTS.
3. REMOVE SEDIMENT DEPOSITS WHEN SILT DEPTH REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE.

XX RFB XX

4 N.T.S. REINFORCE FILTER FABRIC BARRIER



CONSTRUCTION SITE NOTICE



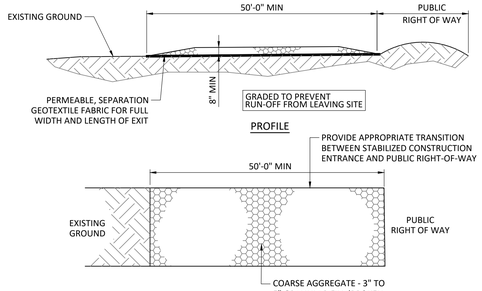
SWPPP SIGN

GENERAL NOTES:

1. COORDINATE CONSTRUCTION SITE AND SWPPP SIGN INFORMATION AND LAYOUT REQUIREMENTS WITH OWNER.

SC

5 N.T.S. PROJECT SIGN DETAIL



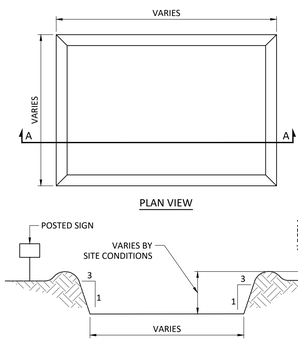
PLAN VIEW

SC

6 N.T.S. STABILIZED CONSTRUCTION ACCESS

GENERAL NOTES:

1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
2. MINIMUM WIDTH OF 14 FEET FOR ONE-WAY TRAFFIC, 20 FEET FOR TWO-WAY TRAFFIC.
3. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
4. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
5. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
6. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
7. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
8. ALTERNATIVE METHODS OF CONSTRUCTION INCLUDE
   -CEMENT STABILIZED SOIL: COMPACTED CEMENT STABILIZED SOIL, LIMESTONE AGGREGATE, OR OTHER FILL MATERIAL IN AN APPLICATION OF THICKNESS OF 8 INCHES.
   -WOOD MATS: OAK OR OTHER HARDWOOD TIMBERS PLACED EDGE TO EDGE AND ACROSS SUPPORT WOODEN BEAMS WHICH ARE PLACED ON TOP OF EXISTING SOIL IN AN APPLICATION THICKNESS OF 6 INCHES.
   -STEEL MATS: PERFORATED MATS PLACED ACROSS PERPENDICULAR SUPPORT MEMBERS.
9. CONSTRUCT CONSTRUCTION EXIT ON LEVEL GROUND WHEN POSSIBLE.
10. PROVIDE PERIODIC STREET SWEEPING AT CONJUCTION WITH PUBLIC RIGHT-OF-WAY.
11. LIMIT SPEED OF VEHICLES TO CONTROL DUST.
12. UTILIZE TEMPORARY PIPE CULVERTS AS NEEDED TO PREVENT IMPEDING POSITIVE DRAINAGE.
13. VERIFY STABILIZED CONSTRUCTION ACCESS LOCATION WITH OWNER PRIOR TO CONSTRUCTION.



PLAN VIEW

SECTION A - A

CTW

7 N.T.S. CONCRETE TRUCK WASHOUT AREA

GENERAL NOTES:

1. POST A SIGN READING "WARNING: CONCRETE WASH OUT PIT" NEXT TO EVERY PIT, MAKE SIGN VISIBLE TO NEAREST SIDEWALK OR ROAD.
2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.
3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.
6. LOCATE CONCRETE WASH OUT PITS AWAY FROM PLAYGROUND STRUCTURES.
7. VERIFY CONCRETE TRUCK WASHOUT AREA LOCATION WITH OWNER PRIOR TO CONSTRUCTION.

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

MARSHALL HIGH SCHOOL
Project Info Additional Text Line
1220 Buffalo Run, Missouri City, TX 77489

FBISD INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

100% CD
C 5.03-M
CIVIL SPORTS
SWPP DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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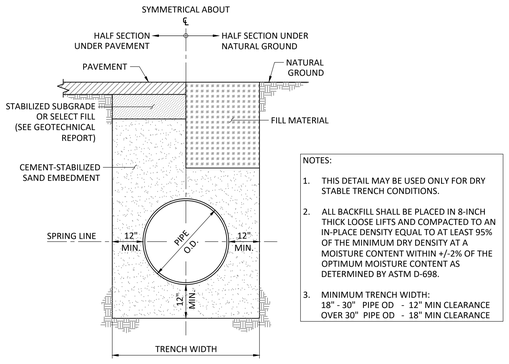
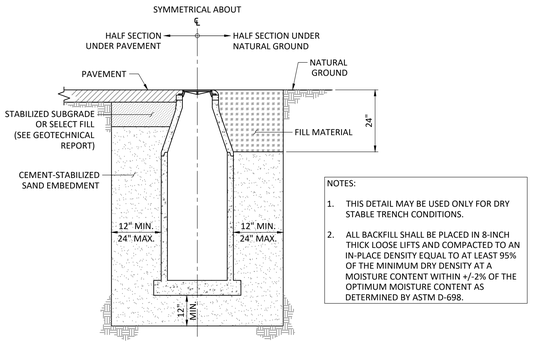
TSCE PROJECT # 2508



NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

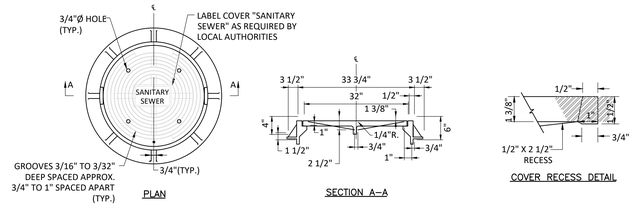
1 SANITARY SEWER BEDDING AND BACKFILL DETAIL
N.T.S.



NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.

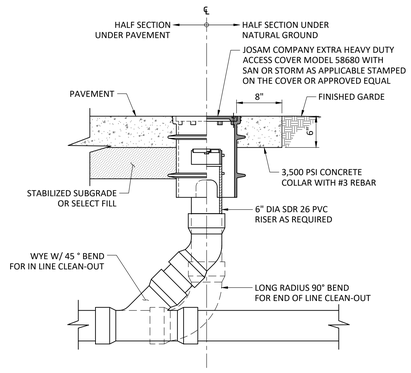
2 SANITARY SEWER STRUCTURE BEDDING AND BACKFILL DETAIL
N.T.S.



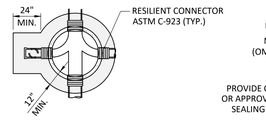
GENERAL NOTES:

1. ENSURE MANHOLE COVER IS TIGHTLY IN PLACE DURING AND POST CONSTRUCTION.

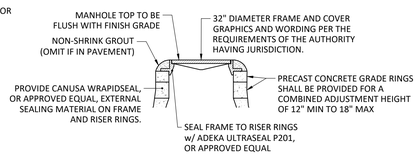
3 MANHOLE FRAME AND COVER
N.T.S.

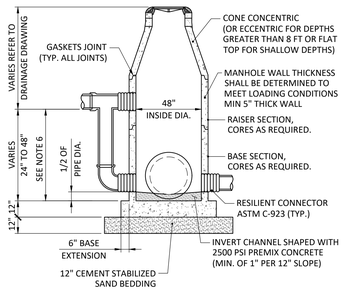


4 CLEAN-OUT DETAIL
N.T.S.



TOP VIEW

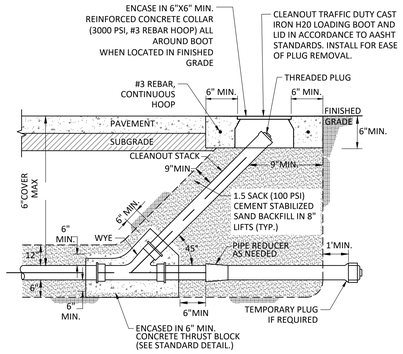




NOTES:

1. PRECAST CONCRETE MANHOLES SHALL BE MADE OF CLASS 1 CONCRETE WITH A DESIGN STRENGTH OF 4,500 PSI AT 28 DAYS AND RATED FOR H-20 LOADING.
2. STRUCTURAL REINFORCEMENT SHALL MEET ASTM C-478.
3. DEPTH OF MANHOLE SHALL DETERMINE THE NUMBER OF RISER SECTIONS AND ADJUSTMENT RINGS REQUIRED. BRICKS SHALL NOT BE USED.
4. GROUT INSIDE AND OUTSIDE OF EXTENSION RING(S) AND FRAME.
5. REFER TO SPECIFICATIONS FOR INTERIOR LINER MATERIALS. AS A MINIMUM, MANHOLE INTERIOR TO BE COATED WITH THANE-COAT OR PRE-ARRROVED EQUIVALENT, UNLESS NOTED OTHERWISE.
6. WHEN A PIPE ENTERS THE MANHOLE MORE THAN 24" ABOVE THE INVERT AN EXTERNAL DROP SHALL BE PROVIDED.
7. WHEN A MANHOLE IS LOCATED IN A PAVED AREA THE COVER SHALL MEET OR EXCEED AASHTO STANDARD M-306.
8. ALL MANHOLES SHALL BE PROVIDED WITH A STAINLESS STEEL DISH INSERT.
9. WHEN CONNECTING TO AN EXISTING MANHOLE THE CONNECTION SHALL BE MADE BY CORING.
10. MANHOLES SHALL CONFORM TO ALL TCEQ REQUIREMENTS.

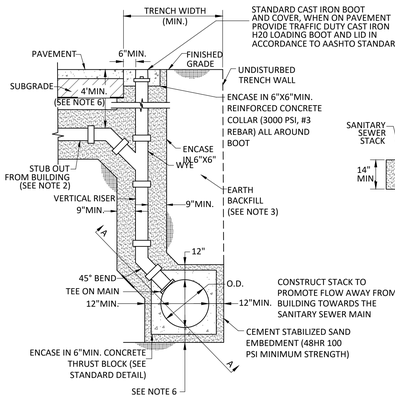
5 SANITARY SEWER MANHOLE DETAIL
N.T.S.



GENERAL NOTES:

1. PLUG TO BE AT A MINIMUM DISTANCE OF 2" FROM LID.
2. PLACE CEMENT STABILIZED SAND IN 8" LIFTS COMPACTED ONE LIFT AT A TIME.
3. CAP ALL SANITARY SEWER ENDS.
4. CLEANOUT STACK SIZE AND MATERIAL SHALL BE IN ACCORDANCE WITH LOCAL AUTHORITIES DESIGN CRITERIA AND NOTED IN UTILITY PLAN. MINIMUM SIZE OF 6".

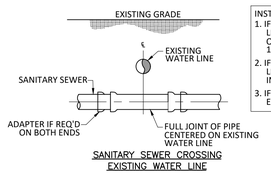
6 STANDARD SANITARY SEWER CLEANOUT
N.T.S.



GENERAL NOTES:

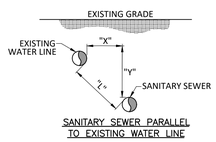
1. NO JOINTS IN VERTICAL RISER
2. REFER TO LOCAL PLUMBING CODE FOR STUB OUT CONNECTION TO BUILDING REQUIREMENTS. VERIFY DEPTH TO ENSURE ADEQUATE SLOPE TO BUILDING.
3. BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY.
4. PLACE CEMENT STABILIZED SAND IN 8" LIFTS COMPACTED ONE AT A TIME.
5. CLEANOUT BOOT AND COVER SHALL BE PLACED FLUSH WITH FINISHED GRADE.
6. MINIMUM DEPTH OF BEDDING TO BE 1/2 OD OR 6" WHICHEVER GREATER.
7. PLUG TO BE AT A MINIMUM DISTANCE OF 2" FROM LID.

7 SANITARY SEWER STACK WITH BUILDING STUB-OUT
N.T.S.



SANITARY SEWER CROSSING EXISTING WATER LINE

INSTALLATION REQUIREMENTS
1. IF "Y" IS GREATER THAN 1' AND "Y" IS LESS THAN 2', USE MINIMUM 18' JOINT OF PRESSURE-RATED PIPE MINIMUM 150 PSI.
2. IF "Y" IS GREATER THAN 2' AND "Y" IS LESS THAN 9', USE GRAVITY SEWER PIPE IN CEMENT-STABILIZED SAND EMBEDMENT.
3. IF "Y" IS GREATER THAN 9', USE STANDARD EMBEDMENT AND NORMAL JOINT SPACING.



SANITARY SEWER PARALLEL TO EXISTING WATER LINE

INSTALLATION REQUIREMENTS
1. IF "L" IS LESS THAN 9', USE PRESSURE-RATED PIPE MH TO MH. "X" MUST BE AT LEAST 4'. "Y" MUST BE AT LEAST 2'.
2. IF "L" IS 9' OR GREATER, USE STANDARD PIPE AND EMBEDMENT.

GENERAL NOTES:

1. SANITARY SEWER MUST BE BELOW WATER LINE WHEREVER POSSIBLE. WHEN NEW WATER LINE IS BELOW SANITARY SEWER PROVIDE MINIMUM 2' SEPARATION "L" AND INSTALL PIPE IN ACCORDANCE TO LOCAL AUTHORITIES SPECIFICATIONS.
2. ADAPTORS MUST BE FACTORY MOLDED OR FABRICATED, WITH RING STIFFNESS AT LEAST EQUAL TO THE ADJOINING SANITARY SEWER PIPE, AND USING RESILIENT GASKET OR SEAL MATERIAL. FLEXIBLE RUBBER "BOOT" TYPE ADAPTERS WILL NOT BE ACCEPTED.
3. INSTALL FORCE MAINS SAME AS FOR GRAVITY SEWER, USING SPECIFIED PRESSURE PIPE.
4. "Y" MUST ALWAYS BE GREATER THAN OR EQUAL TO 1' FOR PRESSURE RATED SS AND 2' FOR NON-PRESSURE RATED SS.
5. "X" MUST BE GREATER THAN OR EQUAL TO 4'.
6. REFER TO PLUMBING CODE FOR APPLICABLE REQUIREMENTS.
7. INSTALL GREEN UNDERGROUND WARNING TAPE READING "CAUTION SANITARY SEWER BELOW" AT 12" BELOW THE EXISTING GRADE AND DIRECTLY ABOVE AND ALONG NEW SANITARY SEWER.
8. NOTIFY OWNER 48 HOURS IN ADVANCE BEFORE SHUTTING OFF EXISTING WATER LINE.
9. ENSURE EXISTING WATER LINE IS SECURE OR BRACED PRIOR TO THE SANITARY SEWER PLACEMENT.
10. MEASURE "Y" VERTICAL CLEARANCE BEFORE BEGINNING BACKFILL WORK.
11. BOTH LINES MUST PASS PRESSURE AND LEAKAGE TEST PER AWWA C600 STANDARDS.

8 SANITARY SEWER CROSSING
N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

MARSHALL HIGH SCHOOL
Project Info Additional Text Line
1220 Buffalo Run, Missouri City, TX 77489

FBISD
INSPIRE • EQUIP • IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 5.04-M
CIVIL SPORTS
SANITARY DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1312
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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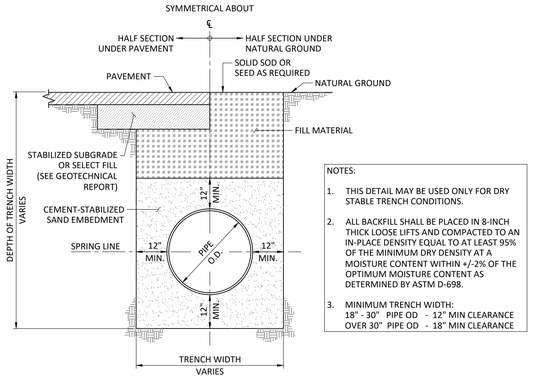
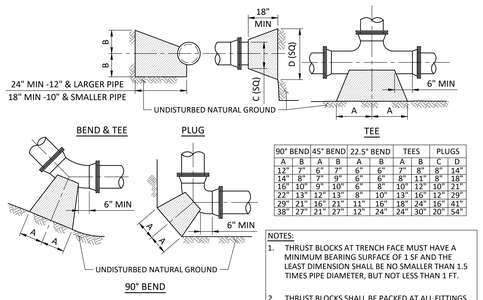
TSCE PROJECT # 2598



NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

1 WATER BEDDING AND BACKFILL DETAIL
N.T.S.

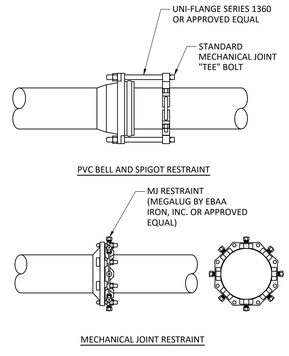


90° BEND		45° BEND		22.5° BEND		TEES		PLUGS	
A	B	A	B	A	B	A	B	C	D
12"	7"	6"	7"	6"	6"	7"	8"	8"	14"
14"	8"	7"	9"	6"	6"	8"	11"	8"	18"
16"	10"	8"	10"	6"	8"	10"	12"	10"	22"
22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
38"	27"	21"	27"	12"	24"	24"	30"	20"	54"

NOTES:

1. THRUST BLOCKS AT TRENCH FACE MUST HAVE A MINIMUM BEARING SURFACE OF 1 SF AND THE LEAST DIMENSION SHALL BE NO SMALLER THAN 1.5 TIMES PIPE DIAMETER, BUT NOT LESS THAN 1 FT.
2. THRUST BLOCKS SHALL BE PACKED AT ALL FITTINGS.
3. ALL FITTINGS SHALL BE M.J. RESTRAINED JOINT (EBAA IRON, SERIES 2000PV, OR APPROVED EQUAL).

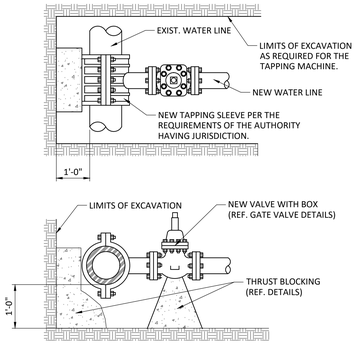
2 THRUST BLOCK DETAIL
N.T.S.



NOTES:

1. RESTRAINT DEVICES FOR PVC (AWWA C-900) AND PVC PRESSURE FITTINGS (AWWA C-907) SHALL CONSIST OF A SPLIT RING INSTALLED ON THE PIPE SPIGOT, CONNECTED TO A SPLIT BACK-UP RING SEATED BEHIND THE FITTING BELL.
2. THE SPLIT RESTRAINT RING SHALL INCORPORATE A SERIES OF MACHINED SERRATIONS (NOT "AS CAST") ON THE INSIDE DIAMETER TO PROVIDE POSITIVE RESTRAINT, EXACT FIT, AND 360° CONTACT AND SUPPORT OF THE PIPE WALL.
3. THE TWO HALVES OF THE SPLIT BACK UP RING SHALL INTER-LOCK WITHOUT THE NEED FOR ADDITIONAL BOLTS AND SHALL FORM A BEVELED LEADING EDGE TO ASSURE EXACT FIT BEHIND THE FITTING BELL.
4. RESTRAINT DEVICES SHALL BE OF DUCTILE IRON, ASTM A536, GRADE 65-45-12 AND CONNECTING BOLTS SHALL BE OF HIGH STRENGTH, LOW ALLOY MATERIAL IN ACCORDANCE WITH ANSI/AWWA C111/21.11
5. RESTRAINT DEVICES SHALL BE UNI-FLANGE SERIES 1360 OR APPROVED EQUAL.

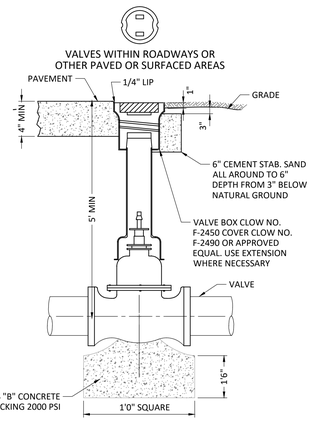
3 WATERLINE RESTRAINED MECHANICAL JOINT DETAIL
N.T.S.



NOTES:

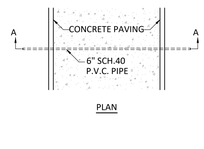
1. TAPPING VALVES ARE NOT ALLOWED WHEN TAP IS SAME SIZE AS THE EXISTING MAIN EXCEPT WHEN APPROVED BY THE AUTHORITY HAVING JURISDICTION.

4 TAPPING SLEEVE AND VALVE
N.T.S.



* BLOCK GATE VALVES WITH COMPRESSION JOINT FITTINGS ON 8" & LARGER LINES

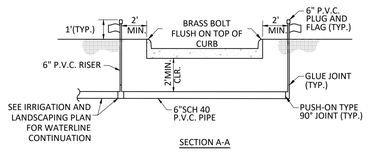
5 GATE VALVE AND BOX DETAIL
N.T.S.



PLAN

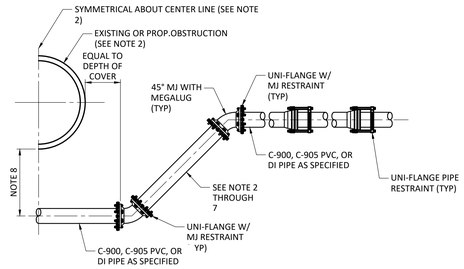
GENERAL NOTES:

1. REFER TO UTILITY AND LANDSCAPING PLAN FOR SLEEVE PLACEMENT.
2. DO NOT BORE SLEEVE. PROVIDE SAW CUT OVER EXISTING PAVEMENT OR PLACE PRIOR TO NEW PAVEMENT.
3. CONTRACTOR TO INSPECT SLEEVE FOR FAILURE DURING AND POST CONSTRUCTION.
4. GLUE JOINT CONNECTION TO CREATE WATERTIGHT SEAL.



SECTION A-A

6 IRRIGATION SLEEVE CROSSING UNDER PAVEMENT
N.T.S.



NOTES:

1. WHEN ALTERING EXISTING LINES RESTRAIN ANY EXISTING JOINTS EXPOSED BY CONSTRUCTION BEFORE OR AFTER PROPOSED FITTINGS WITH UNI-FLANGE BELL AND SPIGOT PIPE RESTRAINT.
2. RESTRAIN ALL JOINTS WITHIN 50 FEET OF PROPOSED FITTINGS.
3. APPROPRIATE BEDDING AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY OF LEAGUE CITY DETAILS AND DESIGN STANDARDS.
4. USE APPROPRIATE SERIES MODEL RESTRAINT FOR PIPE MATERIAL.
5. WHERE POSSIBLE THERE SHOULD BE NO PIPE JOINTS WITHIN THE VERTICAL OR HORIZONTAL RUN OF THE OFFSET (WHEN AND WHERE APPROVED SEE NOTE 6 AND 7).
6. IF A PIPE JOINT IS REQUIRED WITHIN THE VERTICAL OFFSET IT SHALL BE RESTRAINED WITH UNI-FLANGE BELL AND SPIGOT TYPE RESTRAINT.
7. WHEN DEPTH OF OFFSET REQUIRES MORE THAN A STANDARD LENGTH OF PIPE NO SEGMENT SHALL BE LESS THAN 5' IN LENGTH.
8. THE MINIMUM CLEARANCE SHALL BE DETERMINED BY THE AMOUNT OF BEDDING AND BACKFILL REQUIRED BY THE PROSPECTIVE PIPE AND THEIR USAGE. SEE THE BEDDING AND BACKFILL DETAILS FOR DIMENSIONS.
9. A SOLID CONTINUOUS JOINT OF PIPE SHALL BE USED AT ALL TIMES FOR THE HORIZONTAL SECTION OF THE OFFSET. IF THE MINIMUM SIDE CLEARANCE DISTANCES PLUS THE DIMENSION OF THE OBSTRUCTION IS GREATER THAN A STANDARD JOINT OF PIPE AN APPROPRIATELY SIZED AND CONTINUOUS LENGTH OF HDPE SHALL BE USED WITH TRANSITION FITTING OR GASKETS AS SPECIFIED BY THE MANUFACTURER IF NEEDED.

7 RESTRAINED MECHANICAL JOINT VERTICAL OFFSET
N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

MARSHALL HIGH SCHOOL
Project Info Additional Text Line
1220 Buffalo Run, Missouri City, TX 77489

FBISD INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD
C 5.05-M
CIVIL SPORTS WATER DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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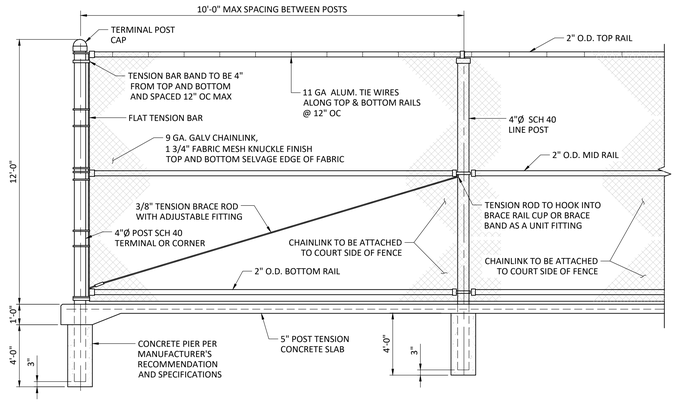
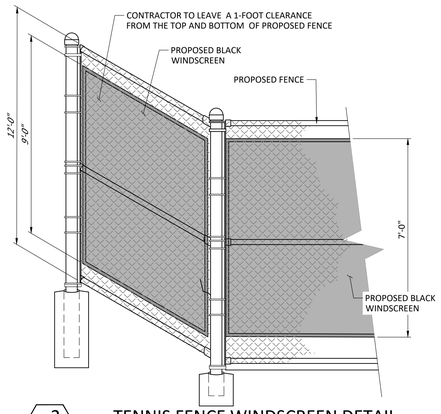
TSCE PROJECT # 2508

NOTES:

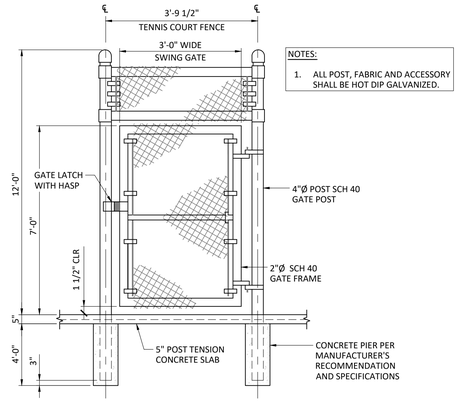
1. ALL POST, FABRIC AND ACCESSORY SHALL BE HOT DIP GALVANIZED.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
3. CONTRACTOR SHALL DESIGN AND BUILD FENCE TO WITHSTAND WIND LOADS PER REGULATIONS AND BE RESPONSIBLE FOR ITS FUTURE PERFORMANCE.



1 N.T.S. TENNIS FENCE DETAIL



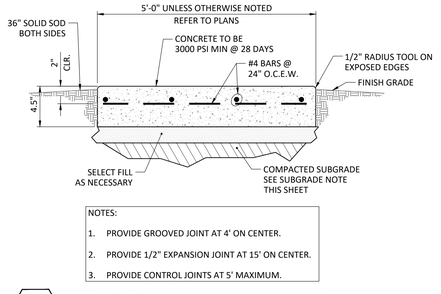
2 N.T.S. TENNIS FENCE WINDSCREEN DETAIL



NOTES:

1. ALL POST, FABRIC AND ACCESSORY SHALL BE HOT DIP GALVANIZED.

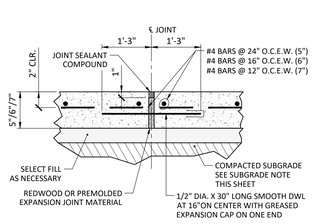
3 N.T.S. TENNIS 3' WIDE GATE DETAIL



NOTES:

1. PROVIDE GROOVED JOINT AT 4' ON CENTER.
2. PROVIDE 1/2" EXPANSION JOINT AT 15' ON CENTER.
3. PROVIDE CONTROL JOINTS AT 5' MAXIMUM.

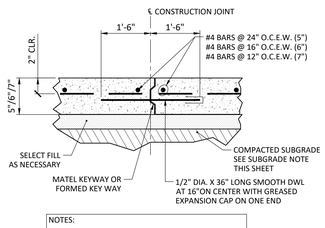
4 N.T.S. CONCRETE SIDEWALK DETAIL



NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

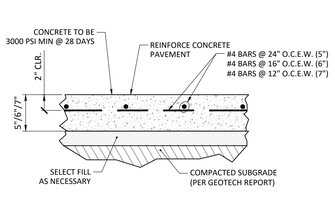
5 N.T.S. EXPANSION JOINT DETAIL



NOTES:

1. CONSTRUCTION JOINT SHALL BE PLACED AT THE END OF EACH DAYS POUR AND IN BETWEEN POURS AS SPECIFIED.

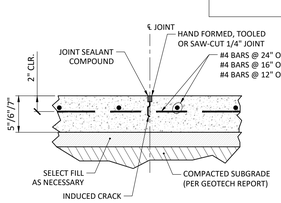
6 N.T.S. CONSTRUCTION JOINT DETAIL



NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.
2. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

7 N.T.S. CONCRETE PAVEMENT DETAIL

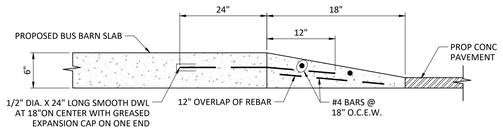


NOTES:

1. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

8 N.T.S. CONTROL JOINT DETAIL

NOTE: SEE GEOTECH REPORT FOR REFERENCE



9 N.T.S. MOUNTABLE CURB DETAIL

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

MARSHALL HIGH SCHOOL
Project Info Additional Text Line
1220 Buffalo Run, Missouri City, TX 77489

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INSPIRE • EQUIP • IMAGINE
16431 LEXINGTON BLVD.
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TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY., SUITE 1312
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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TSCE PROJECT # 2508

GENERAL

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES. THE CODES LISTED SHALL INCLUDE ALL AMENDMENTS AND ADDENDA IN FORCE AT THE DATE OF THE CONTRACT DOCUMENTS.

   2021 EDITION OF THE INTERNATIONAL BUILDING CODE

2. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL AND ARCHITECTURAL CONTRACT DOCUMENTS THE STRICTEST REQUIREMENTS SHALL GOVERN.

3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE AND REPORT ANY DISCREPANCIES OR INCONSISTENCIES FROM ASSUMED CONDITIONS TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.

4. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT THEY ARE CUT AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER.

5. DO NOT SCALE THE DRAWINGS.

6. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

7. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, AND CONSTRUCTION EQUIPMENT. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE.

10. IT IS THE DESIGN INTENT FOR ALL CONCRETE POURS TO HAPPEN IN SEQUENTIAL ORDER FROM FOUNDATIONS THROUGH ROOF. THE GENERAL CONTRACTOR SHALL DISCUSS WITH THE A/E TEAM THE FEASIBILITY OF NON-SEQUENTIAL POURING OF CONCRETE AND ITS IMPACT ON THE DESIGN INTENT AND ALLOW SUFFICIENT TIME FOR SUCH SCHEME TO BE INVESTIGATED OR REVIEWED.

11. PERIODIC SITE OBSERVATION BY THE ENGINEER IS SOLELY FOR THE PURPOSE OF DETERMINING THAT THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

12. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBERS.

13. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, WALLS, SLABS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF STRUCTURAL ENGINEER.

14. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS, WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

15. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

    SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS,
    SIZE AND LOCATION OF INTERIOR AND EXTERIOR NON-LOAD BEARING PARTITIONS, SIZE AND LOCATION OF CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHAMFERS, GROOVES, INSERTS, ETC., SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS, FLOOR AND ROOF FINISHES,
    STAIR FRAMING AND DETAILS, DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, CEILING AND EXTERIOR WALL ASSEMBLIES.

16. SEE THE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

    PIPES, SLEEVES, HANGERS, TRENCHES, WALL, FLOOR AND ROOF OPENINGS, DUCT PENETRATIONS, ETC., EXCEPT AS SHOWN OR NOTED OTHERWISE
    ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS, CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL, OR PLUMBING FIXTURES, SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES AND ANCHOR BOLTS FOR MOUNTS.

DESIGN CRITERIA

1. DEAD LOAD MATERIALS ASSUMED IN THE DESIGN ARE SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

2. AN ALLOWANCE OF 15 PSF HAS BEEN MADE FOR PARTITIONS AS A UNIFORMLY DISTRIBUTED LIVE LOAD, WHEREVER PARTITIONS ARE USED AND LOCATION SUBJECT TO CHANGE EXCLUDING PUBLIC LOBBIES, CORRIDORS, RESTROOMS, AND PLACES OF PUBLIC ASSEMBLY.

3. LIVE LOADS:

LOCATION	UNIFORM LOAD	CONCENTRATED LOAD
ROOF	20 PSF REDUCIBLE	300 LBS
GROUND FLR, COMMON AREAS	100 PSF REDUCIBLE	
HANDRAILS AND GUARDRAILS	50 PLF OR 200 LBS APPLIED AT TOP RAIL IN ANY DIRECTION. 50 LBS IN ANY DIRECTION APPLIED AT INTERMEDIATE RAILS.	
GRAB BARS		250 LBS ANY DIRECTION

4. WIND LOADS

ULTIMATE WIND SPEED	137 MPH (3-SEC GUST)
NOMINAL WIND SPEED	106 MPH (3-SEC GUST)
RISK CATEGORY	II
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFF.	+/- 0.18
COMPONENTS & CLADDING	SEE DIAGRAM

5. SEISMIC LOADS

RISK CATEGORY	II
IMPORTANCE FACTOR	1.00
MAPPED ACCELERATION PARAMETERS	
SS	0.065
S1	0.037
SPECTRAL RESPONSE COEFFICIENTS	
SDS	0.07
SD1	0.06
SEISMIC DESIGN CATEGORY	A

6. HANDRAILS, GUARDRAILS AND GRAB BARS (INCLUDING ATTACHMENT TO STRUCTURE) SHALL BE DESIGNED BY THE FABRICATOR FOR THE LOADS INDICATED IN THE REFERENCED BUILDING CODE. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF WHERE THE PROJECT IS LOCATED, REPRESENTING THE FABRICATOR.

FOUNDATION

1. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT (AND ANY ADDENDA) PREPARED BY THE FOLLOWING COMPANY:

   COMPANY HVJ ASSOCIATES
   REPORT NO. HG1810383.17 –C
   DATED FEBRUARY 09, 2024

   ALL RECOMMENDATIONS THEREIN THAT RELATE TO THE WORK SHOWN ON THESE DRAWINGS SHALL BE FOLLOWED.

2. THE FOUNDATION SYSTEM IS DESIGNED BASED ON THE FOLLOWING

   ALLOWABLE BEARING PRESSURE

SUSTAINED LOADS	1500
TOTAL LOADS	2200
DESIGN PLASTICITY INDEX (PI)	41
SOIL SUPPORT INDEX	0.19
CLIMATIC RATING	25

3. THE GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR FOR REVIEW OF FOUNDATION BEARING SURFACE, INSPECTION OF FOUNDATION INSTALLATION, AND PLACEMENT OF REINFORCING STEEL. THE CONTRACTOR SHALL NOT PLACE CONCRETE WITHOUT INSPECTOR'S APPROVAL.

4. THE CONTRACTOR SHALL NOTIFY THE AUTHORIZED INSPECTOR 48 HOURS IN ADVANCE OF ANY MAJOR FOUNDATION POUR.

5. FORM EXPOSED FACES OF GRADE BEAMS.

6. GRADE BEAM BOTTOM STEEL SHALL BE CHAIRED AT 5 FOOT MAXIMUM CENTERS USING BEAM BOLSTERS PROVIDING 3 INCH BOTTOM COVER TO REINFORCING STEEL. BEAM BOLSTERS USED SHALL BE INTENDED FOR SUPPORT ON SOIL.

7. BOTTOM BARS OF GRADE BEAM SHALL BE SPLICED (WHERE REQUIRED) AT THE PIERS ONLY. TOP BARS SHALL BE SPLICED (WHERE REQUIRED) AT THE MIDSPAN OF THE GRADE BEAMS. LAP LENGTH SHALL BE 44 TIMES BAR DIAMETER UNLESS SPECIFIED OTHERWISE. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

8. ALL REINFORCING STEEL FOR SLABS SHALL BE CHAIRED WITH SLAB BOLSTERS FOR SUPPORT ON SOIL AT 4'-0" MAXIMUM CENTERS EACH WAY FOR REINFORCING FOR SLABS. DEPTH OF CHAIRS SHALL PROVIDE COVER TO REINFORCING AS NOTED ON PLANS/DETAILS.

9. SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R. PROVIDE (3) #3 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

10. SUBGRADE PREPARATION SHALL CONFORM TO THE SOILS REPORT NOTED ABOVE. IF REPORT DOES NOT SPECIFY THE AMOUNT OF SELECT FILL, PROVIDE FILL AS REQUIRED ABOVE TO REDUCE PVR TO 1 INCH.

11. VAPOR RETARDER SHALL HAVE NO MORE THAN 0.01 PERMS AS TESTED BEFORE AND AFTER MANDATORY CONDITIONING (ASTM E 1745 SECTION 7.1 AND SUB-PARAGRAPHS 7.1.2-5), MEET OR EXCEED THE REQUIREMENTS OF ASTM E 1745 CLASS A AND BE NO LESS THAN 15 MILS THICK.

12. ALL VAPOR RETARDER SEAMS SHALL BE OVERLAPPED A MINIMUM OF 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE. ALL PENETRATIONS, BLOCK-OUTS, AND OPENINGS SHALL BE SEALED USING A COMBINATION OF THE VAPOR RETARDER, MASTIC AND MANUFACTURER'S TAPE. DO NOT PENETRATE VAPOR RETARDER WITH FORMWORK STAKES. USE STEGO BEAST FORM STAKES OR EQUIVALENT WHERE REQUIRED.

13. THE BEARING STRATUM OF EACH SPREAD FOOTING AND ALL STRIP FOOTINGS SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR PRIOR TO POURING OF CONCRETE.

14. PROVIDE AND INSTALL 1/8 INCH STEEL TEMPLATES TO ACCURATELY SET ANCHOR BOLTS FOR STEEL COLUMNS.

15. FOOTINGS SHALL BE NEAT EXCAVATED WHERE POSSIBLE WITH SIDES AND TOP EDGES FREE OF LOOSE OR WET MATERIALS. WHERE NEAT EXCAVATION IS NOT POSSIBLE, FOOTING EXCAVATION SHALL BE OPEN CUT WITH EDGES FORMED AND BRACED. ALL FOOTINGS WITH FORMED EDGES SHALL BE BACKFILLED FROM BOTTOM TO TOP OF FOOTING WITH LEAN CONCRETE OR CEMENT STABILIZED SAND. THE BOTTOM EXCAVATION SHALL BE CLEAN AND DRY WITH ALL LOOSE MATERIAL REMOVED FOR AN ESSENTIALLY FLAT BEARING SURFACE. EXCAVATIONS SHALL NOT BE LEFT OVERNIGHT UNLESS A 2 INCH UNREINFORCED SEAL (MAD, OR CONCRETE AT THE BOTTOM OF THE FOOTING EXCAVATION. WHERE SOFT OR UNSUITABLE BEARING SURFACES ARE ENCOUNTERED, THE AREA SHALL BE UNDERCUT AS REQUIRED AND REPLACED WITH COMPACTED FILL, CEMENT STABILIZED SAND, OR CONCRETE AS DIRECTED BY THE GEOTECHNICAL ENGINEER. FILL MATERIAL, IF USED, SHALL BE COMPACTED IN 6 INCHES MAXIMUM LOOSE LIFTS TO A MINIMUM 95% OF STANDARD PROCTOR DENSITY (ASTM D 698) UNLESS SPECIFIED OTHERWISE BY THE GEOTECHNICAL ENGINEER.

CONCRETE

1. ALL ASPECTS OF WORK RELATING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CURRENT EDITION OF ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
   CRSI MANUAL OF STANDARD PRACTICE

2. STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTHS AND TYPES ARE AS FOLLOWS:

LOCATION	STRENGTH	TYPE	AGGREGATE SIZE	EXPOSURE CLASS
FOUNDATIONS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0
GRADE BEAMS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0
SLAB-ON-GRADE	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0

3. THERE SHALL BE NO HORIZONTAL COLD JOINT IN ANY CONCRETE POUR.

4. ADMIXTURES USED SHALL BE COMPATIBLE WITH FLOOR TREATMENTS. FINISH APPLICATOR SHALL APPROVE ADMIXTURES AND CURING COMPOUNDS PRIOR TO USE.

5. EXPOSURE CLASSES FOR FREEZING AND THAWING (F), SULFATE (S), WATER (W), AND CORROSION PROTECTION (C) HAVE BEEN PROVIDED. CONCRETE MIXES SHALL CONFORM TO ALL ACI 318 REQUIREMENTS BASED ON EXPSURE CLASS, INCLUDING, BUT NOT LIMITED TO WATER CEMENT RATIO, COMPRESSION STRENGTH, AIR CONTENT, CEMENTITIOUS MATERIALS, CALCIUM CLORIDE ADMIXTURES, AND WATER-SOLUABLE CHLORIDE ION CONTENT.

6. CONCRETE FOR SLAB-ON-GRADE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.45. ALL OTHER CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.50. ADJUST CONCRETE STRENGTH BEYOND MINIMUM SPECIFIED ABOVE TO MAINTAIN MAXIMUM WATER-CEMENT RATIO.

7. CONCRETE FOR SLAB-ON-GRADE AND METAL DECK SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.04% (400 MICROSTATIONS) AT 28 DAYS OF DRYING. LENGTH CHANGE SHALL BE MEASURED IN ACCORDANCE WITH ASTM C157.

8. FLY ASH CONFORMING TO ASTM C618, MAY BE USED UNLESS NOTED OTHERWISE. THE MAXIMUM AMOUNT OF FLY ASH SHALL BE 25% OF THE TOTAL CEMENTITIOUS MATERIAL BY WEIGHT.

9. AT POLISHED OR STAINED CONCRETE THE FLOOR FLATNESS (FF) SHALL BE 40 OR BETTER AND THE FLOOR LEVELNESS (FL) SHALL BE 30 OR BETTER UNLESS MORE STRINGENT REQUIREMENTS ARE PROVIDED IN THE SPECIFICATIONS.

10. CONCRETE FORMS SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS INDICATED ON THE STRUCTURAL DRAWINGS.

11. CONCRETE FOR SLABS TO RECEIVE A HARD-TROWELED FINISH SHALL NOT CONTAIN AIR-ENTRAINING ADMIXTURES OR HAVE A TOTAL AIR CONTENT GREATER THAN 3 PERCENT.

12. SUBMIT SHOP DRAWINGS TO ARCHITECT AND ENGINEER INDICATING LOCATIONS OF CONCRETE JOINTS TO REVIEW PRIOR TO PLACING CONCRETE. PLACE JOINTS AT LOCATIONS TO MINIMIZE THE EFFECTS OF SHRINKAGE AS WELL AS BEING PLACED AT POINTS OF LOW STRESS.

13. ROUGHEN CONCRETE SURFACES TO 1/4 INCH AMPLITUDE WHERE MASONRY WALLS INTERSECT CONCRETE OR WHERE NEW CONCRETE INTERFACES WITH EXISTING CONCRETE.

14. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB-ON-GRADE, CONCRETE ON METAL DECK, FRAMED CONCRETE FLOORS, AND WALLS DO NOT REQUIRE SLEEVES UNLESS NOTED OTHERWISE ON THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE ARCHITECT AND ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH CONCRETE BEAMS OR COLUMNS UNLESS SPECIFICALLY DETAILED.

15. WITH THE EXCEPTION OF SLABS ON GRADE AND CONCRETE ON METAL DECK, THE OUTSIDE DIAMETER OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS (OTHER THAN THOSE PASSING THROUGH) SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS AND SHALL BE CENTERED BETWEEN THE TOP AND BOTTOM REINFORCING UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED. CONDUIT AND PIPE SHALL BE SPACED AT 3" OR 3 DIAMETERS ON CENTER, WHICHEVER IS GREATER.

16. FOR SLABS ON GRADE AND METAL DECK SLABS NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB UNLESS SPECIFICALLY DETAILED OTHERWISE.

17. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING WHEN TEMPORARY SUPPORTS, SHORES, BACKSHORES, AND OTHER BRACING MAY BE SAFELY REMOVED.

REINFORCING STEEL

1. ALL ASPECTS OF WORK RELATING TO THE REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CRSI MANUAL OF STANDARD PRACTICE

2. DEFORMED BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.

3. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185, YIELD STRENGTH 65,000 PSI. WELDED DEFORMED WIRE FABRIC FOR ASTM A497, YIELD STRENGTH 70,000 PSI. ALL WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS ONLY. WHEREVER WELDED WIRE FABRIC IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED ONE CROSS WIRE SPACING PLUS 2 INCHES.

4. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ONE HALF, WHICHEVER IS GREATER.

5. WELDING OF REINFORCING IS PERMITTED ONLY WHERE SHOWN ON THE DRAWINGS OR WHEN APPROVED BY THE ENGINEER OF RECORD. WELDING OF REINFORCING BARS SHALL BE WITH LOW HYDROGEN ELECTRODES IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF AWS D1.4.

6. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.

7. REINFORCING DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME NUMBER, SIZE, SPACING, AND GRADE AS THE SPECIFIED VERTICAL REINFORCING, UNO.

8. IN ADDITION TO ALL OF THE REINFORCING STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A HALF TON OF REINFORCING BARS TO BE FURNISHED, FABRICATED, AND PLACED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

9. CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS SHALL BE AS FOLLOWS:

LOCATION OF CONCRETE	MINIMUM COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #18 BAR	2"
#5 BAR AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND	
SLABS, WALLS, JOISTS	3/4"
BEAMS, COLUMNS (INCLUDING TIES)	1 1/2"
SLAB ON GRADE	SEE DETAILS
PRESTRESSED CONCRETE	SEE IBC 1907.7.3

OPEN WEB STEEL JOISTS AND JOIST GIRDERS

1. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED, MANUFACTURED, AND ERECTED PER THE CURRENT APPLICABLE ISSUE OF THE STANDARD SPECIFICATIONS FOR STEEL JOISTS (K SERIES), LONGSPAN STEEL JOISTS (LH SERIES), OR DEEP LONGSPAN JOISTS (DLH SERIES), OR SUPER LONGSPAN STEEL INSTITUTE AND AISC.

2. JOISTS AND JOIST GIRDERS SHALL BE CAMBERED FOR REALISTIC DEAD LOAD. PROVIDE STANDARD SJI CAMBER UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS.

3. TOP CHORD OF JOISTS SHALL BE DOUBLE ANGLES OR TEES. PROVIDE TOP CHORD EXTENSIONS WHERE SHOWN ON THE DRAWINGS. JOISTS AND JOIST GIRDERS WITH BOTTOM CHORD EXTENSIONS SHALL NOT HAVE END CONNECTIONS MADE TO COLUMN STABILIZER PLATE.

4. PROVIDE FLAT BEARING FOR ALL JOISTS AND JOIST GIRDERS. PROVIDE SJI STANDARD DEPTH OF BEARING FOR ALL JOISTS AND JOIST GIRDERS. IF SUFFICIENT BEARING DOES NOT EXIST, STAGGER THE END OF EACH JOIST AND CENTER OF BEARING OVER THE CENTER OF SUPPORT. WHERE K SERIES JOISTS BEAR ON THE SAME BEAM AS LH AND DLH JOISTS, THE K SERIES JOIST SEATS SHALL MATCH THE DEPTH OF THE LH OR DLH JOIST SEATS.

5. COORDINATION OF ALL JOIST SEAT DEPTHS WITH STRUCTURAL STEEL ELEVATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND STEEL FABRICATOR.

6. JOISTS AND JOIST GIRDERS SHALL BE SHOP PAINTED PER ARCHITECTURAL SPECIFICATIONS.

7. ALL JOISTS SHALL CARRY THE DESIGN LOADS AS SPECIFIED IN THE SJI LOAD TABLES AS THE MINIMUM REQUIREMENT. ADDITIONALLY, THE JOISTS SHALL BE DESIGNED TO CARRY ANY OTHER LOAD TYPES AND PATTERNS INDICATED ON THE STRUCTURAL DRAWINGS. REFER TO THE STRUCTURAL DRAWINGS FOR ANY OTHER LOADS REQUIRED TO BE CARRIED BY ANY JOIST.

8. WHERE UPLIFT FORCES ARE A DESIGN CONSIDERATION, ROOF JOISTS SHALL BE ANCHORED TO RESIST SUCH FORCES. ROOF JOISTS SHALL BE DESIGNED FOR A NET UPLIFT PRESSURE OF 20 PSF UNLESS NOTED OTHERWISE ON THE DRAWINGS.

STEEL ROOF DECK (WITH RIGID INSULATION BOARD)

1. THE STEEL ROOF DECK SHALL BE OF THE TYPE AND GAUGE CALLED FOR ON THE DRAWINGS. STEEL DECK SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A653 STRUCTURAL QUALITY GRADE 33 OR HIGHER. THE DESIGN, FABRICATION, AND ERECTION OF ALL ROOF DECK SHALL CONFORM TO THE SDI MANUAL FOR COMPOSITE DECKS, FORM DECKS, AND ROOF DECKS.

2. STEEL DECK SHALL BE GALVANIZED WITH A PROTECTIVE ZINC COATING CONFORMING TO ASTM A653-G90.

3. MINIMUM BEARING OF STEEL DECK ON SUPPORTS SHALL BE 2 INCHES. ALL 3 IN DEEP STEEL DECK SHALL HAVE A MINIMUM BEARING OF 3 INCHES. END LAPS OF SHEETS SHALL BE A MINIMUM OF 2 INCHES AND SHALL OCCUR OVER SUPPORTS. SHEETS SHALL BE ATTACHED TO SUPPORTING STEEL MEMBERS BY WELDING AS INDICATED ON THE DRAWINGS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. UPON COMPLETION OF ERECTION, ALL WELDS ON STEEL DECK SHALL BE DE-SLAGGED, CLEANED, AND TOUCHED UP WITH A ZINC RICH PRIMER.

4. PROVIDE ROOF DECK CONSTRUCTION WHICH IS LISTED AND CONFORMS TO THE UL FIRE RESISTANCE DIRECTORY AND BUILDING MATERIALS DIRECTORY. DECK ATTACHMENT SHALL BE INCREASED ABOVE THE MINIMUM SPECIFIED HEREIN AS REQUIRED TO ACHIEVE A CLASS 90 UPLIFT RATING.

5. PROVIDE MINIMUM 20 GAUGE RIDGE AND VALLEY PLATES, MINIMUM 20 GAUGE CANT STRIPS, MINIMUM 14 GAUGE SUMP PANS, MINIMUM 20 GAUGE INSIDE OR OUTSIDE CLOSURE CHANNELS, MINIMUM 20 GAUGE BUTT STRIPS AT CHANGE OF DECK DIRECTIONS, MINIMUM 20 GAUGE FILLER SHEETS, AND RUBBER CLOSURES AS REQUIRED TO PROVIDE A FINISHED SURFACE FOR THE APPLICATION OF INSULATION AND ROOFING.

6. DO NOT HANG LOADS FROM METAL DECK. PROVIDE ENGINEERED STRUCTURAL SYSTEM TO HANG ALL LOADS FROM STEEL JOISTS OR BEAMS. THIS INCLUDES BUT IS NOT LIMITED TO METAL STUD SOFFIT OR CEILING FRAMING, MECHANICAL OR PLUMBING EQUIPMENT, ETC.

7. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, ETC., FOR SIZES AND LOCATIONS OF DECK OPENINGS AND FOR DECK OPENINGS SMALLER THAN 10 INCHES NOT SHOWN ON THE STRUCTURAL DRAWINGS. ROOF OPENINGS LESS THAN 6 INCHES SQUARE OR DIAMETER REQUIRE NO REINFORCEMENT. OPENINGS 6 INCHES TO 10 INCHES INCLUSIVE SHALL BE REINFORCED WITH A 20 GAUGE GALVANIZED PLATE WELDED TO THE DECK AT EACH CORNER AND 6 INCHES O.C. WITH 5/8 INCH DIAMETER PUDDLE WELDS OR SHEET METAL SCREWS. SEE TYPICAL DETAILS FOR FRAMING REQUIREMENTS AT OPENINGS LARGER THAN 10 INCHES. OPENINGS LARGER THAN 6 FEET SHALL BE REFERRED TO THE ENGINEER FOR FRAMING.

8. METAL DECK SPANS SHALL NOT EXCEED THE MAXIMUM CENTER TO CENTER SPANS AS REQUIRED BY SDI. WHERE POSSIBLE, ALL METAL DECK SHALL EXTEND OVER THREE OR MORE SUPPORTS. TWO SPAN DECK SHALL BE USED ONLY WHERE DECK LAYOUT DOES NOT PERMIT THE USE OF THREE SPANS. SINGLE SPAN DECK IS NOT PERMITTED.

CONCRETE MASONRY

1. ALL MASONRY MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION AND THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF TMS-402 CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES

2. ALL CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C90. UNLESS SPECIFIED OTHERWISE, CMU SHALL BE NORMALWEIGHT (LESS THAN 125 PCF, OVEN DRY UNIT WEIGHT). THE MINIMUM COMPRESSIVE STRENGTH OF MASONRY (F'M) SHALL BE 2000 PSI AS DETERMINED BY THE UNIT STRENGTH METHOD OR BY THE PRISM TEST METHOD.

3. UNLESS SPECIFIED OTHERWISE, ALL MORTARS AND THE MATERIALS THEREIN SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF MASONRY UNITS, ASTM C270, TYPE S EXCEPT FOR MASONRY IN CONTACT WITH THE EARTH SHALL BE TYPE M.

4. ALL GROUT SHALL BE FINE GROUT CONTAINING SAND, PORTLAND CEMENT, AND LIME (OPTIONAL) FOR GROUT SPACES LESS THAN 2 INCHES IN ANY HORIZONTAL DIRECTION, UNLESS SPECIFIED OTHERWISE. GROUT SHALL ATTAIN A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 2500 PSI TESTED ACCORDING TO ASTM C476.

5. CONTROL JOINTS SHALL BE LOCATED PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS OR AT A MAXIMUM SPACING OF 24 FEET ON CENTERS OR 3 TIMES THE WALL HEIGHT, WHICHEVER IS LESS. ALL MASONRY UNITS SHALL BE PLACED IN RUNNING BOND.

6. PROVIDE HORIZONTAL JOINT REINFORCING (TRUSS OR LADDER TYPE, 9 GAUGE) AT 16 INCHES ON CENTER FOR ALL CMU WALLS LAID IN A RUNNING BOND AND AT 8 INCHES ON CENTER FOR ALL CMU WALLS NOT LAID IN A RUNNING BOND. HORIZONTAL JOINT REINFORCING SHALL BE LAPPED A MINIMUM OF 6". REINFORCEMENT SHALL CONFORM TO ASTM A951 AND SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.

7. ALL HORIZONTAL REINFORCING STEEL IN BOND BEAMS AND LINTEL BLOCK UNITS SHALL BE CONTINUOUS AND UNITS SHALL BE SOLID GROUTED. PROVIDE 48 TIMES BAR DIAMETER LAP FOR HORIZONTAL REINFORCING IN BOND BEAMS. NO SPLICES SHALL BE PROVIDED FOR HORIZONTAL REINFORCING IN BLOCK LINTELS.

8. GROUT CELLS SOLID WHERE VERTICAL BARS ARE SHOWN ON THE DRAWINGS. VERTICAL BARS SHALL EXTEND FROM BOTTOM TO THE TOP OF THE WALL. AT EACH VERTICAL BAR, PROVIDE MATCHING BAR SIZE DOWEL INTO FOUNDATIONS. PROVIDE MINIMUM 48 TIMES BAR DIAMETER SPLICE FOR VERTICAL BARS WHERE REQUIRED AND/OR SHOWN ON THE DRAWINGS UNLESS NOTED OTHERWISE.

9. GROUT LIFTS SHALL TERMINATE TO FORM A GROUT KEY A MINIMUM OF 1 1/2" BELOW MORTAR JOINTS WHEN SUBS

STRUCTURAL STEEL

1. ALL ASPECTS OF WORK RELATING TO THE DESIGN, FABRICATION, DETAILING, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF THE AISC STEEL CONSTRUCTION MANUAL LATEST EDITION OF THE ANSI/AWS D1.1

2. STRUCTURAL STEEL MATERIALS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

WIDE FLANGE, CHANNELS	ASTM A992
ANGLES, PLATES, BARS	ASTM A572 GR 50
PIPES	ASTM A53 GR B
HSS (RECTANGULAR OR SQUARE)	ASTM A500 GR B (Fy = 46 KSI) OR GR C (Fy = 50 KSI)
HSS (ROUND)	ASTM A500 GR B (Fy = 42 KSI) OR GR C (Fy = 50 KSI)
ANCHOR RODS	ASTM F1554-36 U.N.O
HIGH STRENGTH BOLTS	ASTM F3125 GR A325 OR GR F1852 U.N.O.
HEADED STUD ANCHORS (HSA)	ASTM A108
DEFORMED BAR ANCHORS (DBA)	ASTM A496

3. THE DESIGN OF ALL STEEL CONNECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED, EMPLOYED BY THE FABRICATOR. CALCULATIONS SEALED BY THE FABRICATOR'S PROFESSIONAL ENGINEER MUST BE SUBMITTED IF REQUESTED.

4. SURFACES WHICH ARE TO BE FIREPROOFED WITH SPRAY-ON FIREPROOFING OR EMBEDDED IN CONCRETE SHALL NOT BE SHOP PAINTED. DO NOT PAINT TOP FLANGES OF COMPOSITE BEAMS NOR SURFACES OF MEMBERS WHERE WELDING OR HIGH STRENGTH FRICTION BOLTING WILL OCCUR. COORDINATE ALL SHOP PAINTING OF STRUCTURAL STEEL WITH ARCHITECT'S PAINTING REQUIREMENTS AS SPECIFIED ON THE ARCHITECTURAL DRAWINGS AND IN THE SPECIFICATIONS.

5. IT IS THE INTENTION OF THE PLANS AND SPECIFICATIONS THAT SHOP CONNECTIONS BE WELDED OR BOLTED AND THAT FIELD CONNECTIONS BE BOLTED, UNLESS DETAILED OTHERWISE ON THE DRAWINGS.

6. ALL TYPICAL BEAM SIMPLE CONNECTIONS SHALL BE STANDARD DOUBLE ANGLE OR SINGLE ANGLE FRAMED BEAM CONNECTIONS UNLESS NOTED OTHERWISE. SHEAR TAB CONNECTIONS MAY BE USED AT LOCATIONS WHERE DOUBLE ANGLE CONNECTIONS ARE NOT POSSIBLE. SEATED BEAM CONNECTIONS SHALL NOT BE USED UNLESS INDICATED ON THE DRAWINGS. PROVIDE FULL DEPTH SHEAR TAB IF BEAM FRAMES ON ONLY ONE SIDE OF A GIRDER.

7. DESIGN CONNECTIONS OF NON-COMPOSITE BEAMS TO SUPPORT A REACTION R (UNLESS SPECIFIED OTHERWISE) EQUAL TO ONE HALF THE TOTAL UNIFORM LOAD CAPACITY FROM THE TABLE OF UNIFORM LOAD CONSTANTS IN THE AISC MANUAL.

8. ADD TO THE REACTION LISTED ABOVE, ANY LOADS OR REACTIONS OF MEMBERS SUPPORTED BY THE BEAM WITHIN THREE FEET OF BEAM END AND THE VERTICAL COMPONENTS OF FORCES IN BRACE MEMBERS FRAMING INTO THE BEAMS.

9. BRACING CONNECTIONS SHALL DEVELOP FULL TENSILE FORCES AT EACH END OF THE BRACING MEMBER UNLESS BRACING FORCES ARE SPECIFIED ON THE DRAWINGS.

10. ALL WELDING SHALL COMPLY TO THE AMERICAN WELDING SOCIETY STANDARD (AWS D1.1). ALL WELDED JOINTS SHALL BE DETAILED AS INDICATED BY THE PREQUALIFIED JOINT DETAILS IN THE STRUCTURAL WELDING CODE. WELD LENGTHS CALLED FOR ON THE PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED. ALL WELDS SHALL USE MINIMUM E70XX ELECTRODES.

11. ALL WELDING SHALL BE PERFORMED BY A WELDER CERTIFIED IN ACCORDANCE WITH THE AWS STANDARDS.

12. MISCELLANEOUS STEEL CONNECTIONS SHALL BE WELDED ALL AROUND WITH AISC MINIMUM FILLET WELD UNLESS A LARGER WELD IS SPECIFIED. STEEL MEMBERS CONTINUOUSLY ATTACHED SHALL BE STITCH WELDED TOGETHER WITH AISC MINIMUM 2" LONG FILLET WELD AT 12" O.C. UNLESS A LARGER WELD OR DIFFERENT GAGE IS SPECIFIED.

13. ALL BOLTS SHALL BE DESIGNED AS BEARING BOLTS WITH THREADS INCLUDED IN THE SHEAR PLANE. ALL BOLTS SHALL BE NEW AND NOT RE-USED. BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER THAN NOMINAL SIZE OF BOLT USED, EXCEPT ANCHOR ROD HOLES. MINIMUM BOLT DIAMETER SHALL BE 3/4 INCH. ALL BOLTS SHALL BE TIGHTENED TO A SNUG-TIGHT POSITION, EXCEPT AT BRACES, MOMENT CONNECTIONS AND CONNECTIONS MARKED AS SLIP CRITICAL (SC) SHALL BE TIGHTENED USING LOAD INDICATING WASHERS OR TENSION BOLTS.

14. ALL STEEL EXPOSED TO WEATHER OR OUTSIDE THE BUILDING'S WATERPROOFING, SUCH AS BRICK SHELF ANGLES, SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION AS SPECIFIED BY THE STEEL STRUCTURES PAINTING COUNCIL (SSPC). THE ZINC COATING FOR STEEL SHAPES AND PLATES SHALL AVERAGE NOT LESS THAN 2.3 OZ. WITH NO INDIVIDUAL THICKNESS LESS THAN 2.0 OZ.

15. GALVANIZE ALL NUTS, BOLTS, AND WASHERS USED IN THE CONNECTION OF GALVANIZED STEEL.

16. GALVANIZED MEMBERS SHALL HAVE 'Z.R.C. COLD GALVANIZING COMPOUND OR APPROVED EQUIVALENT APPLIED TO FIELD WELDED CONNECTIONS. SURFACE AREAS TO RECEIVE COLD GALVANIZING COMPOUND SHALL BE CLEAN OF DIRT AND DEBRIS PRIOR TO COMPOUND APPLICATION. SEE MANUFACTURER'S LITERATURE FOR ADDITIONAL RECOMMENDATIONS.

17. THE APPLICATION OF THE FIREPROOFING TO THE STEEL MEMBERS AND STEEL DECK IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST ENFORCE THE REQUIREMENTS OF THE MANUFACTURER AND NOT IMPOSE ADDITIONAL LOADS, INCLUDING CONSTRUCTION LIVE LOADS, DURING THE APPLICATION AND CURING OF THE FIREPROOFING.

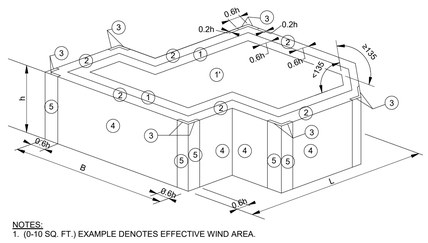
18. IN ADDITION TO ALL OF THE STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF STEEL TO BE FURNISHED, FABRICATED, DETAILED, AND ERECTED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

19. THE CONTRACTOR SHALL MAKE AN ALLOWANCE FOR THE ADJUSTMENT AND DETAILING OF STEEL DURING THE SHOP DRAWING REVIEW PROCESS.

ROOF PRESSURE (GROSS)						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
1'	+17,-39	+16,-39	+16,-39	+16,-39	+16,-26	+16,-21
1	+17,-68	+16,-63	+16,-57	+16,-53	+16,-43	+16,-43
2	+39,-90	+37,-84	+35,-76	+33,-70	+29,-57	+29,-57
3	+39,-90	+37,-84	+35,-76	+33,-70	+29,-57	+29,-57

WALL PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
4	+39,-42	+37,-41	+35,-38	+33,-36	+29,-32	+29,-32
5	+39,-52	+37,-49	+35,-44	+33,-41	+29,-32	+29,-32

PARAPET PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
4	± 120	± 112	± 102	± 94	± 76	± 76
5	± 120	± 112	± 102	± 94	± 76	± 76



NOTES:
1. (0-10 SQ. FT.) EXAMPLE DENOTES EFFECTIVE WIND AREA.
2. + AND - SIGNS SIGNIFY PRESSURES ACTING TOWARD OR AWAY FROM THE SURFACES, RESPECTIVELY. ALL VALUES SHOWN ARE IN PSF.
3. WIND PRESSURE FOR EFFECTIVE WIND AREAS BETWEEN THE SPECIFIED RANGES MAY BE DETERMINED BY INTERPOLATION, OTHERWISE, USE THE VALUE ASSOCIATED WITH THE LOWER EFFECTIVE AREA.
4. h = EAVE HEIGHT.
5. ELEMENTS WITH TRIBUTARY AREAS GREATER THAN 700 SQ. FEET MAY BE DESIGNED USING MWFRS PROVISIONS.
6. VALUES SHOWN ARE BASED ON IBC 2018 / ASCE 7-16 WIND CALCULATIONS FOR COMPONENTS AND CLADDING AND ARE ULTIMATE VALUES (LRFD). VALUES SHOWN ARE FOR USE IN ASCE 7-16 LOAD COMBINATIONS SHOWN IN SECTION 2.3.1 (1.0W). IF NOMINAL (ASD) WIND LOADS ARE DESIRED OR REQUIRED FOR COMPARISON TO LOAD CAPACITIES OF FENESTRATIONS, CLADDING OR OTHER SYSTEMS, MULTIPLY THE VALUE ON THE CHART BY 0.625.
7. THE BUILDING LAYOUT SHOWN IS INTENDED TO BE SCHEMATIC, APPLY WIND PRESSURE PROVIDED SIMILARLY TO THE BUILDING(S) AT THIS PROJECT.
8. UNLESS OTHERWISE SPECIFIED, ROOF DEAD LOAD TO BE USED FOR NET UPLIFT CALCULATIONS SHALL NOT EXCEED 10 PSF. NET UPLIFT PRESSURE SHALL NOT BE LESS THAN 16 PSF.
9. ROOF ZONE 1' = INTERIOR
   ROOF ZONE 1 = FIELD
   ROOF ZONE 2 = PERIMETER
   ROOF ZONE 3 = CORNER
10. ROOF ZONE PRESSURES NOTED ABOVE ARE NOT INTENDED TO BE USED AS MINIMUM REQUIRED UPLIFT RATINGS FOR ROOF ASSEMBLIES. REFER TO SPECIFICATIONS FOR ROOF ASSEMBLY FOR WIND UPLIFT REQUIREMENTS.

COMPONENTS & CLADDING PRESSURES

ABBREVIATIONS

ABBR.	ABBREVIATION
A.F.F.	ABOVE FINISH FLOOR
ADDN'L	ADDITIONAL
AHU	AIR HANDLING UNIT
ALT.	ALTERNATE
ANCH.	ANCHOR
A.B.	ANCHOR BOLT
A.R.	ANCHOR ROD
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT(URAL)
BM.	BEAM
BRG.	BEARING
BTW	BETWEEN
BOT.	BOTTOM
B.F.B.	BOTTOM FLANGE BRACE
B.O.	BOTTOM OF
BRDG.	BRIDGING
BLDG	BUILDING
C	CAMBER
CANT.	CANTILEVER
C.I.P.	CAST IN PLACE
C/C	CENTER TO CENTER
CL	CENTERLINE
CH	CHANNEL
CLR.	CLEAR(ANCE)
CFMF	COLD FORMED METAL FRAMING
COL.	COLUMN
CJP	COMPLETE JOINT PENETRATION
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONST.	CONSTRUCTION
C.J.	CONSTRUCTION / CONTRACTION JOINT
CONT.	CONTINUOUS
COORD.	COORDINATE
DL	DEAD LOAD
DBA	DEFORM BAR ANCHOR
D	DEPTH
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
DWL	DOWEL
D.N.	DOWN
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
E.W.	EACH WAY
EL.	ELEVATION
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
ENGR.	ENGINEER
EOR	ENGINEER OF RECORD
EQ.	EQUAL
EQUIP.	EQUIPMENT
EQUIV.	EQUIVALENT
EXIST.	EXISTING
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
f'c=	28 DAY CONCRETE STRENGTH
FAB.	FABRICATE
F.S.	FAR SIDE
FIN	FINISH/FINISHED
FLR	FLOOR
F.D.	FLOOR DRAIN
FTG.	FOOTING
Fy=	YIELD STRENGTH
GALV.	GALVANIZED
GA.	GAUGE
GEN	GENERAL
G.C.	GENERAL CONTRACTOR
GFRC	GLASS FIBER REINFORCED CONCRETE
GR.	GRADE/GRADING
HGR.	HANGER
HSA	HEADED STUD ANCHOR
HI	HIGH
HSS	HOLLOW STRUCTURAL SECTION
HORIZ. OR (H)	HORIZONTAL
H	HORIZONTAL REACTION
IN	INCH
INFO.	INFORMATION
ID	INSIDE DIAMETER
I.F.	INSIDE FACE
INT.	INTERIOR
JT.	JOINT
JST.	JOIST
K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
Ld	DEVELOPMENT LENGTH
LWC	LIGHTWEIGHT CONCRETE
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLV	LONG LEG VERTICAL
LLH	LONG LGE HORIZONTAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LONG	LONGITUDINAL
LO	LOW
LBS	POUNDS
MFR. / MNFR.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM

MECH.	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M	MOMENT
M.C.	MOMENT CONNECTION
N.S.	NEAR SIDE
NWC	NORMAL WEIGHT CONCRETE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
O.C.	ON CENTER(S)
OPNG.	OPENING
OPP.	OPPOSITE
OPH.	OPPOSITE HAND
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OA	OVERALL
O.H.	OVERHEAD
OVS.	OVERSIZED HOLE
P	AXIAL LOAD
P.J.	PANEL JOINT
PAR.	PARALLEL
PRKG.	PARKING
PJP	PARTIAL JOINT PENETRATION
PVMT	PAVEMENT
PVG	PAVING
PERP.	PERPENDICULAR
PL.	PLATE
PLBG	PLUMBING
PT	POST-TENSION(ED)
PCF	POUNDS PER CUBIC FOOT/FEET
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT/FEET
PSI	POUNDS PER SQUARE INCH
P/C	PRECAST CONCRETE
PRELIM.	PRELIMINARY
P.L.	PROPERTY LINE
QTY	QUANTITY
R	RADIUS, REACTION, REMAINDER
REC.	RECESSED
RE:	REFER TO
REF.	REFERENCE
REINF.	REINFORCED / REINFORCING
REBAR	REINFORCING BAR
REQ'D	REQUIRED
REV.	REVISION
R.D.	ROOF DRAIN
RTU	ROOF TOP UNIT
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SLBB	SHORT LEG BACK TO BACK
SIM.	SIMILAR
SC	SLIP CRITICAL, SHEAR CONNECTOR
SPA.	SPACING
SPEC.	SPECIFICATION
SQ.	SQUARE
SF.	SQUARE FOOT/FEET
STD	STANDARD
STL	STEEL
STIFF.	STIFFENER
STIR.	STIRRUP
STRUCT.	STRUCTURE/STRUCTURAL
TEMP.	TEMPERED
THK	THICK(NESS)
t	THICKNESS, TREAD
THD	THREADED
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
VERT. OR (V)	VERTICAL
WT.	WEIGHT
WWR	WELD WIRE REINF.
WF	WIDE FLANGE
W	WIDTH
WL	WIND LOAD
W.P.	WORK POINT
XXS	DOUBLE EXTRA STRONG
XS	EXTRA STRONG
&	AND
≈	APPROXIMATELY EQUAL
@	AT
°	DEGREE
=	EQUAL
≥	GREATER THAN or EQUAL
≤	LESS THAN or EQUAL
#	NUMBER or POUNDS
/	PER
±	PLUS or MINUS
Ø	ROUND/DIAMETER

SYMBOLS LEGEND

SYMBOLS	DESCRIPTION
N	NORTH ARROW
XX / S-X.XX	ENLARGE FLOOR PLAN REFERENCE OR ENLARGE DETAIL REFERENCE
XX / S-X.XX	DETAIL SECTION (STRUCTURAL)
XX/S-X.XX	BRACING ELEVATION
11 5/8", 5"	DIMENSIONS
XX/S-X.XX = XX/S-X.XX	MATCHLINE
1	REVISION NUMBER & AFFECTED AREA
LEVEL NAME 0' - 0"	VERTICAL ELEVATION
EX: 152' - 6"	EXISTING ELEVATION
152' - 6"	NEW ELEVATION
	M.C. OR MOMENT CONNECTION
	DEPRESSION
	PANEL WALL TAG
12/36 — BELL DIAMETER (IN), SHAFT DIAMETER (IN)	BELLED PIER
P1	PILE SHAFT
F3	FOOTING

STRUCTURAL SHEET INDEX

SHEET NUMBER	SHEET NAME	Current Revision
S1.01-M	GENERAL NOTES	
S1.02-M	GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX	
S2.01-M	FOUNDATION PLAN - CONCESSION - NEW	
S2.02-M	ROOF FRAMING PLAN - CONCESSION - NEW	
S2.03-M	FOUNDATION PLAN - LOCKER ROOM - EXISTING	
S2.04-M	ROOF FRAMING PLAN - LOCKER ROOM - EXISTING	
S2.05-M	FOUNDATION PLAN - FIELD HOUSE - EXISTING	
S2.06-M	ROOF FRAMING PLAN - FIELD HOUSE - EXISTING	
S3.01-M	TYPICAL FOUNDATION DETAILS	
S3.02-M	TYPICAL FOUNDATION DETAILS	
S3.03-M	TYPICAL FOUNDATION DETAILS	
S3.11-M	FOUNDATION SITE DETAILS	
S4.01-M	TYPICAL CMU WALL DETAILS	
S4.02-M	TYPICAL CMU WALL DETAILS	
S5.01-M	TYPICAL STEEL FRAMING DETAILS	

Grand total: 15

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS — KHALIL TABAJA — 137778 — LICENSED PROFESSIONAL ENGINEER

12/04/2025

ASCE Hazards Report

Address: 1220 Buffalo Run, Missouri City, Texas 77489
Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)
Latitude: 29.61144
Longitude: -95.522532
Elevation: 73.3942771222383 ft (NAVD 88)





Wind

Results:

Wind Speed	137 Vmph
10-year MRI	77 Vmph
25-year MRI	92 Vmph
50-year MRI	105 Vmph
100-year MRI	115 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Tue Jun 10 2025

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

No.	Date	Description
	12/04/25	100% CD

100 % CD

S1.02-M

GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX

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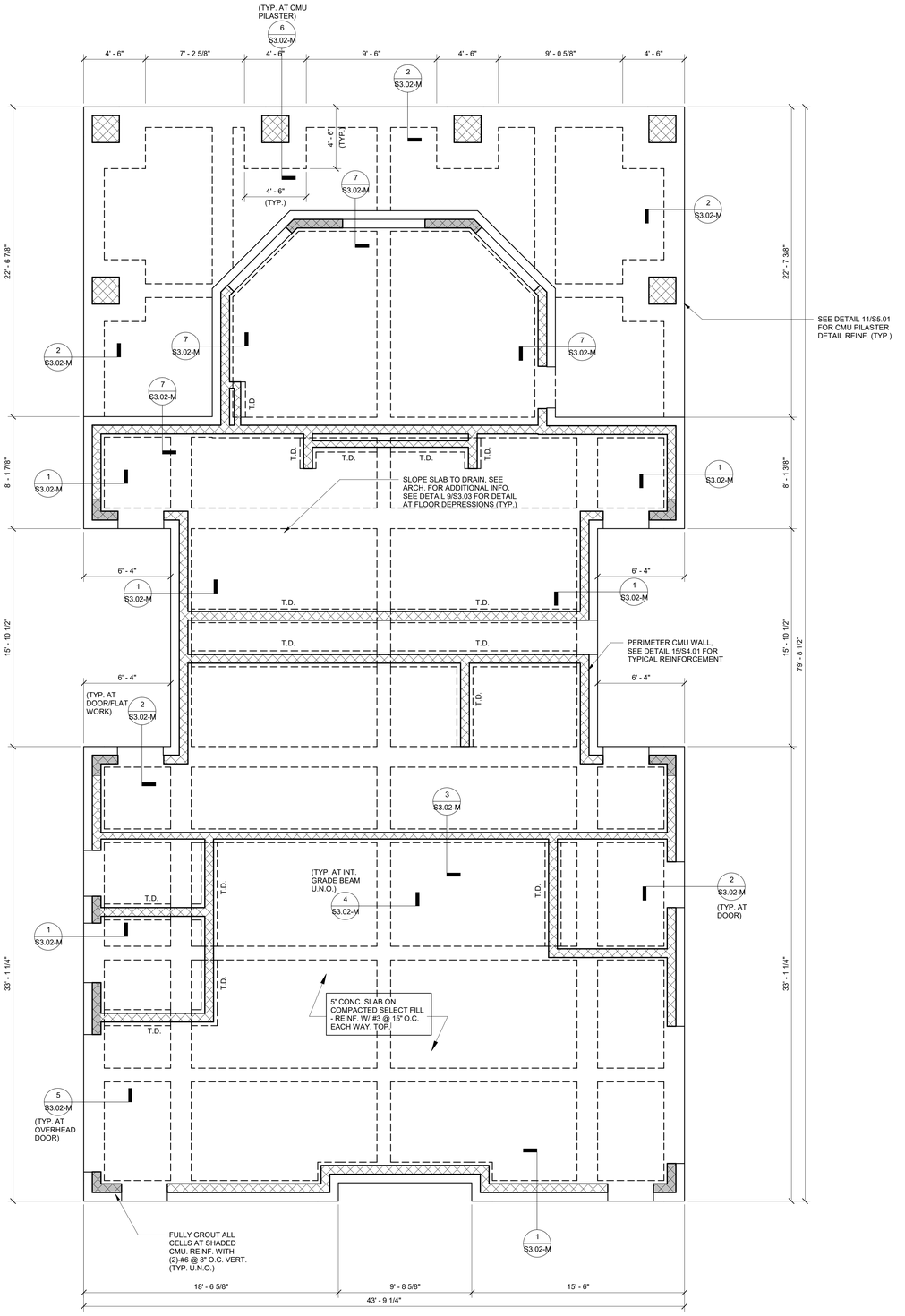

1 FOUNDATION PLAN - CONCESSION - NEW
SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
2. COORDINATE ALL BRICK LEDGES AND DEPTH WITH ARCHITECTURAL DRAWINGS.
3. LOCATIONS NOTED THUS: 0' - 0" INDICATES TOP OF SLAB ELEVATION.
4. REF. ELEVATION = 0' - 0" CORRESPONDS TO CIVIL ELEVATION 71.80'. VERIFY WITH CIVIL.
5. SEE 5/S3.03, 7/S3.03 & 10/S3.03 FOR ADDITIONAL REBAR AT OPENINGS, DISCONTINUOUS JOINTS, AND RE-ENTRANT CORNERS IN SLAB-ON-GRADE.
6. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
7. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
8. T.D. INDICATES TURN DOWNS. SEE DETAIL 9/S3.02.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

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TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137122
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/225	100% CD

100 % CD

S2.01-M
FOUNDATION PLAN - CONCESSION - NEW

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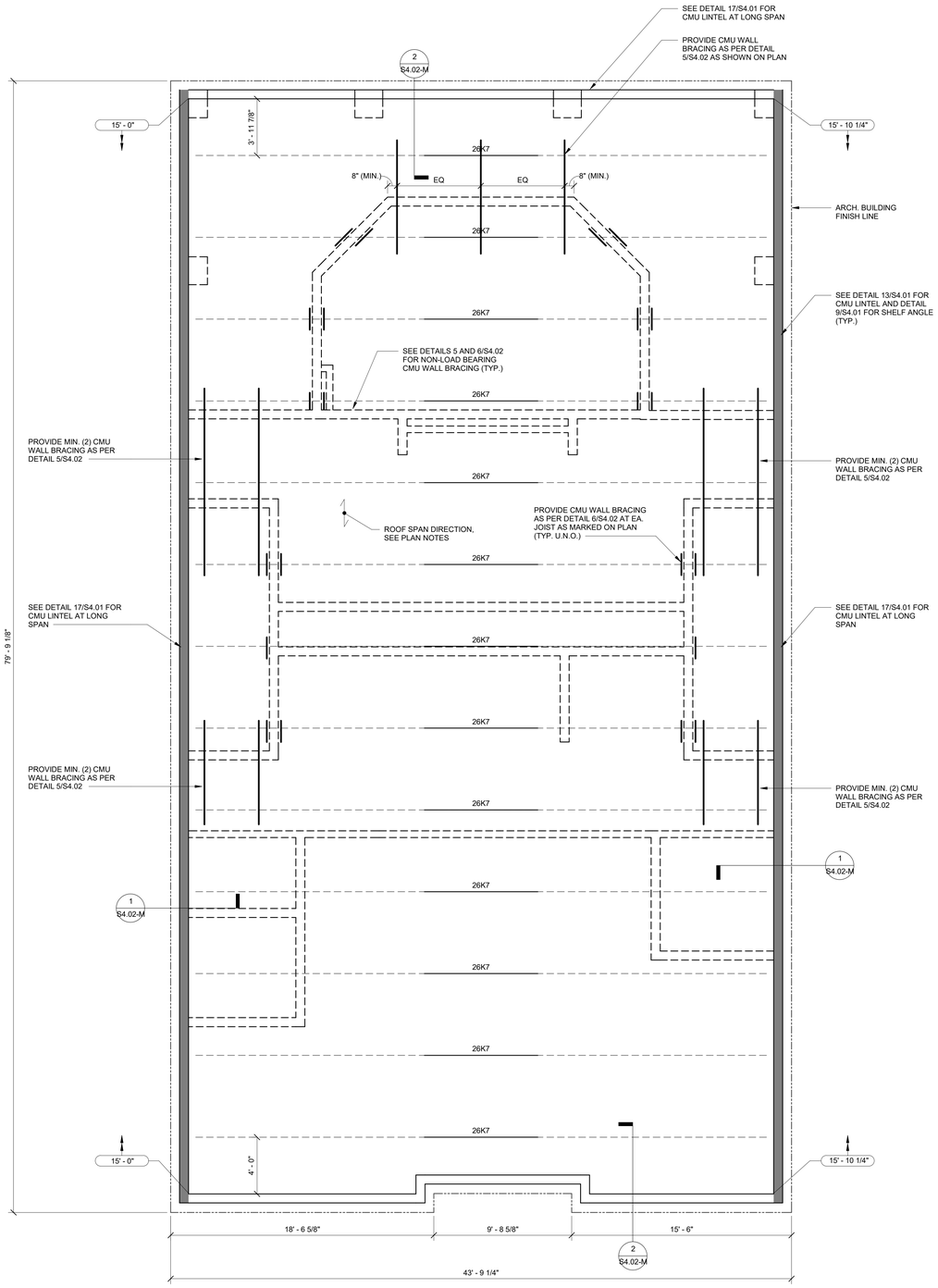

1 ROOF FRAMING PLAN - CONCESSION - NEW
SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN NOTES:

1. LOCATIONS SHOWN THUS: ( ) INDICATES TOP OF STEEL (T.O.S.) ELEVATION (TOP OF STEEL = TOP OF JOIST OR BOTTOM OF DECK).
2. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
3. JOISTS SHALL BE DESIGNED FOR ADDITIONAL LOADS RESULTING FROM RTU'S AND OTHER MECHANICAL EQUIPMENT ON THE ROOF OR SUSPENDED FROM THE ROOF STRUCTURE. SEE ARCHITECTURAL AND MEP DRAWINGS FOR LOCATIONS.
4. SPACE JOISTS EQUALLY, U.N.O.
5. PROVIDE 3/16" CLOSURE PLATES AT ALL TUBE BEAMS.
6. REFER TO ARCHITECTURAL DRAWINGS / MEP FOR LOCATIONS OF ROOF DRAINS, OVERFLOW DRAINS AND TAPERED INSULATION.
7. ROOF SHALL BE 1.5B, 22GA DECK AS MANUFACTURED BY VULCRAFT OR EQUIVALENT. SEE ARCHITECTURAL DRAWINGS FOR INSULATION, ROOFING, ETC. WELD DECK USING 5/8"Ø NET EFFECTIVE PUDDLE WELDS:
   a. PERPENDICULAR BEARING: 36/4 PATTERN.
   b. PARALLEL BEARINGS AND EDGE: AT 6"O.C.
   c. SIDE SEAMS: #10 TEK SCREWS AT 12"O.C.
8. ONLY SHADED WALLS MAY BE USED AS BEARING WALLS FOR ROOF JOISTS.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

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1220 Buffalo Run, Missouri City, TX 77489

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PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
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100 % CD

S2.02-M
ROOF FRAMING PLAN - CONCESSION - NEW

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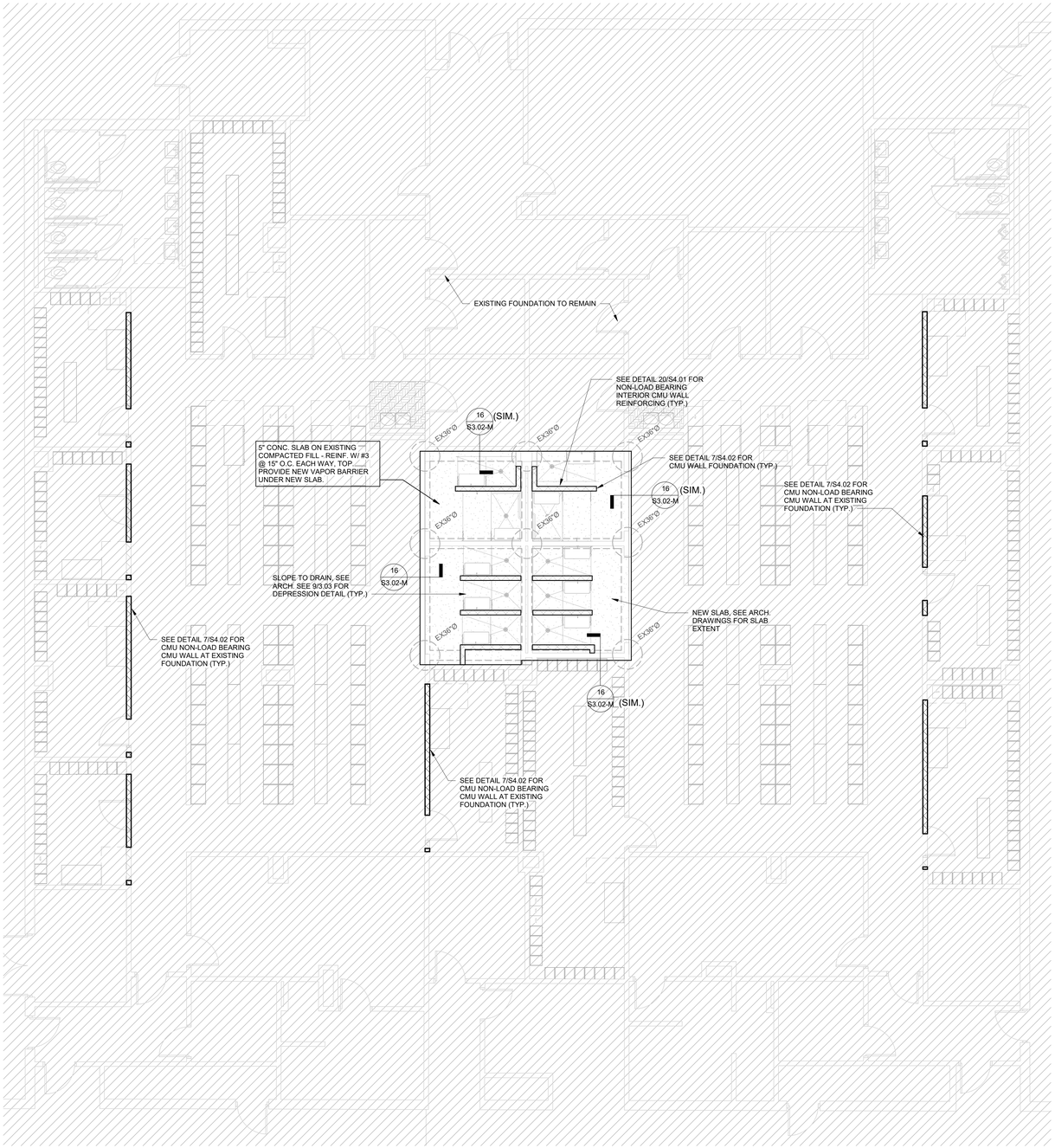
FOUNDATION PLAN NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
2. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATION.
3. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
4. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
5. T.D. INDICATES TURN DOWNS. SEE DETAIL 9/S3.02.



1 FOUNDATION PLAN - LOCKER ROOM - EXISTING
SCALE: 3/16" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77046-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

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TBPE Firm Registration No. F-2640

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KHALIL TABAJA
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PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/225	100% CD

100 % CD
S2.03-M
FOUNDATION PLAN - LOCKER ROOM - EXISTING

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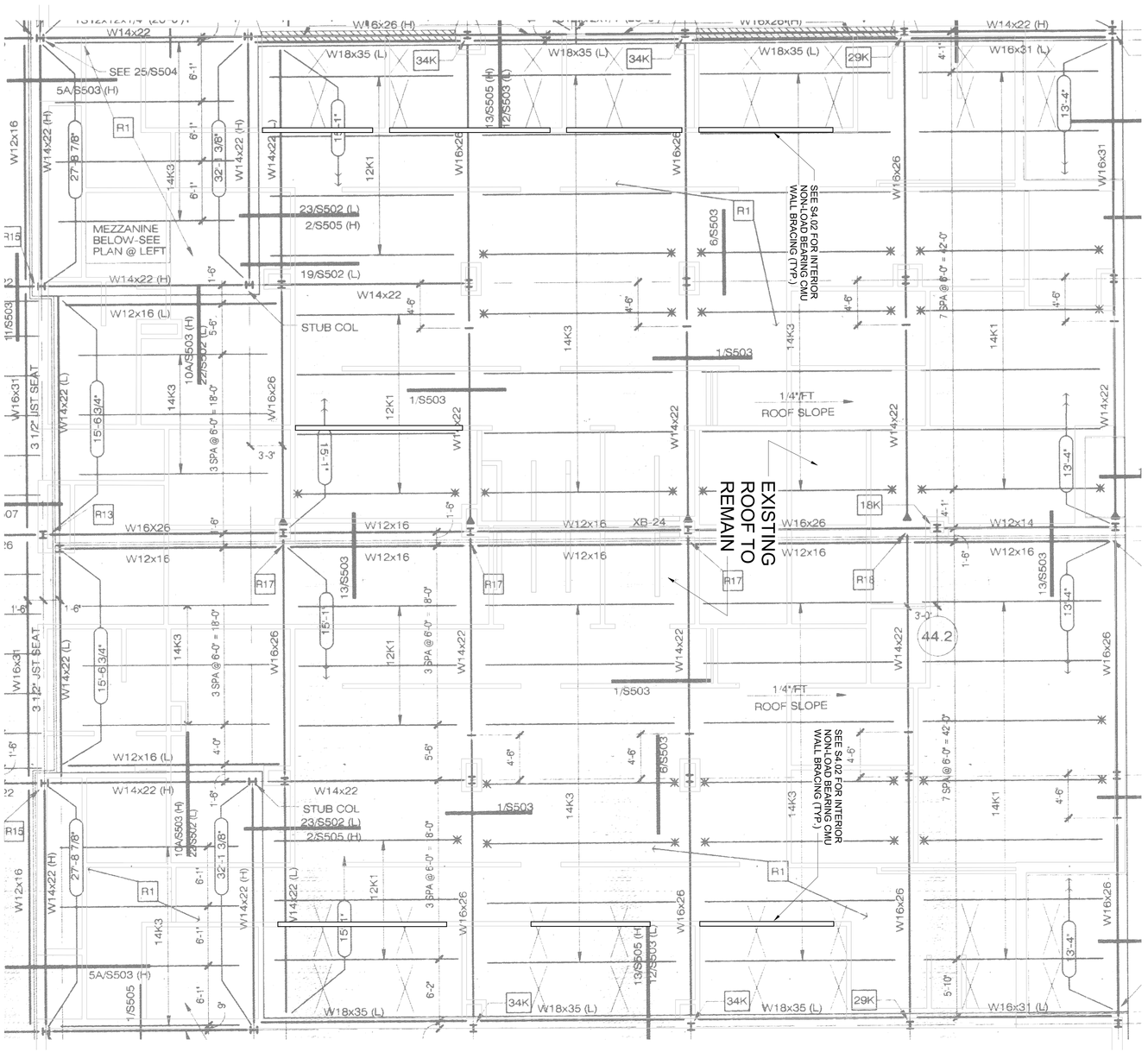

1 ROOF FRAMING PLAN - LOCKER ROOM - EXISTING
SCALE: 3/16" = 1'-0"

ROOF FRAMING PLAN NOTES:
1. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION

100 % CD
S2.04-M
ROOF FRAMING PLAN - LOCKER ROOM - EXISTING

No.	Date	Description
1	12/3/25	100% CD

PROJECT NO. 25-006
DATE 12/04/2025
DRAWN BY AZ
CHECKED BY KT

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1220 Buffalo Run, Missouri City, TX 77489

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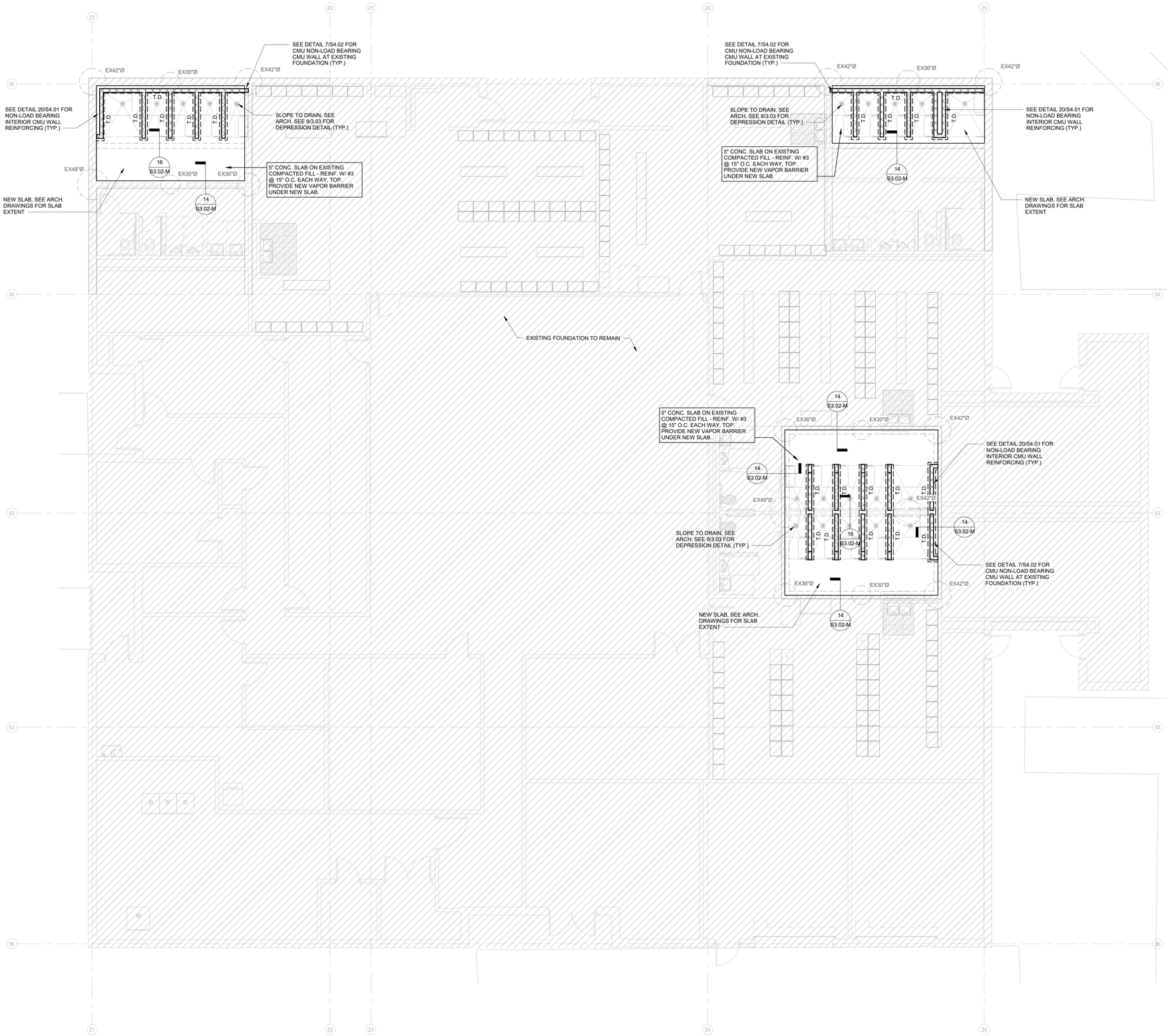

1 FOUNDATION PLAN - FIELD HOUSE - EXISTING
SCALE: 3/16" = 1'-0"

FOUNDATION PLAN NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
2. SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATION.
3. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
4. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
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12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/225	100% CD

100 % CD

S2.05-M
FOUNDATION PLAN - FIELD HOUSE - EXISTING

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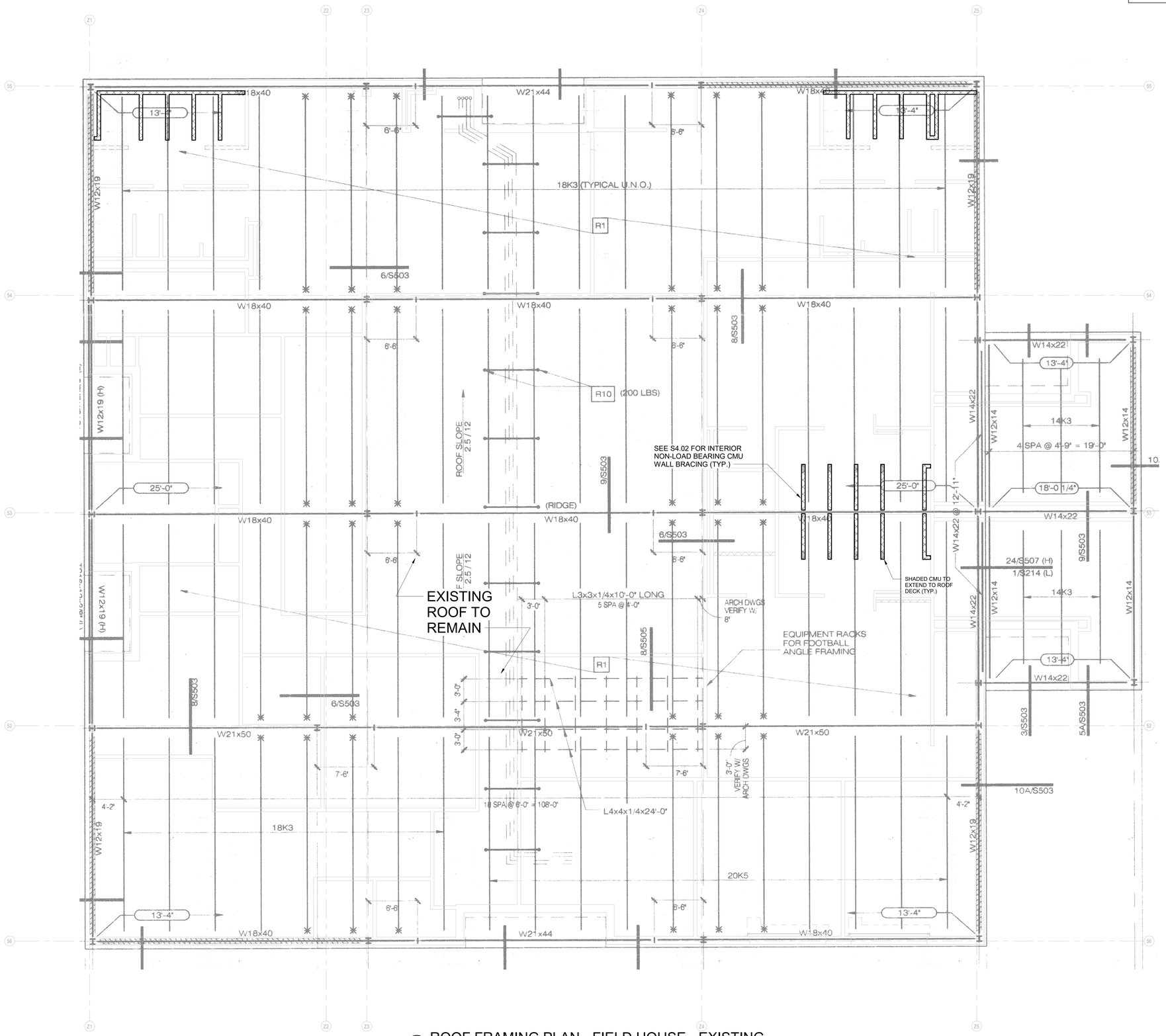
ROOF FRAMING PLAN NOTES:

1. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.



1 ROOF FRAMING PLAN - FIELD HOUSE - EXISTING
SCALE: 3/16" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77046-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
117127
LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

No.	Date	Description
	12/04/225	100% CD

100 % CD

S2.06-M
ROOF FRAMING PLAN - FIELD HOUSE - EXISTING

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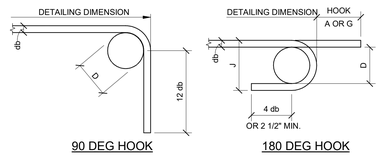


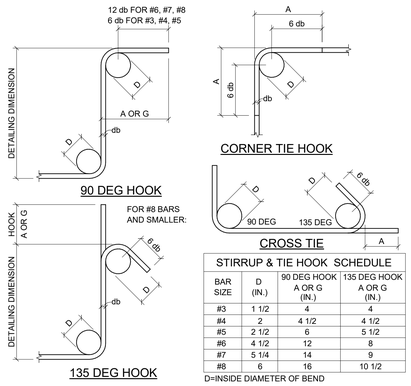
90 DEG HOOK　　180 DEG HOOK

BAR SIZE	FINISHED BEND DIAMETER D, (IN.)	180 DEG HOOKS		90 DEG HOOKS
		A OR G, (IN.)	J, (IN.)	A OR G, (IN.)
#3	2 1/4	5	3	6
#4	3	6	4	8
#5	3 3/4	7	5	10
#6	4 1/2	8	6	12
#7	5 1/4	10	7	14
#8	6	11	8	16
#9	9 1/2	15	11 3/4	19
#10	10 3/4	17	13 1/4	22
#11	12	19	14 3/4	24
#14	18 1/4	27	21 3/4	31
#18	24	36	28 1/2	41

D = INSIDE DIAMETER OF BEND

END HOOK TYPES

20 SCALE: N.T.S.

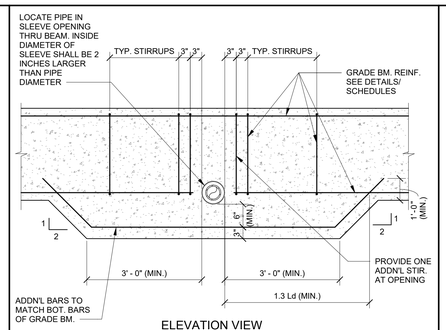


STIRRUP & TIE HOOK SCHEDULE			
BAR SIZE	D (IN.)	90 DEG HOOK A OR G (IN.)	135 DEG HOOK A OR G (IN.)
#3	1 1/2	4	4
#4	2	4 1/2	4 1/2
#5	2 1/2	6	5 1/2
#6	4 1/2	12	8
#7	5 1/4	14	9
#8	6	16	10 1/2

D=INSIDE DIAMETER OF BEND

STIRRUP AND TIE HOOK TYPES

16 SCALE: N.T.S.



ELEVATION VIEW

TYPICAL DETAIL OPENING THRU GRADE BEAM THAT CONFLICTS WITH BOTTOM REINFORCEMENT

8 SCALE: N.T.S.

DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb
#3	9	6	8	6	7	6	6	6	6	6	6	6	6	6	6	6
#4	11	8	10	7	9	6	8	6	8	6	7	6	7	6	6	6
#5	14	10	12	9	11	8	10	7	9	7	9	6	8	6	8	6
#6	17	12	15	10	13	9	12	9	11	8	11	8	10	7	9	7
#7	20	14	17	12	15	11	14	10	13	9	12	9	12	8	11	8
#8	22	16	19	14	17	12	16	11	15	11	14	10	13	9	12	9
#9	25	18	22	15	20	14	18	13	17	12	16	11	15	10	14	10
#10	28	20	25	17	22	16	20	14	19	13	18	12	17	12	16	11
#11	31	22	27	19	24	17	22	16	21	15	19	14	18	13	17	12

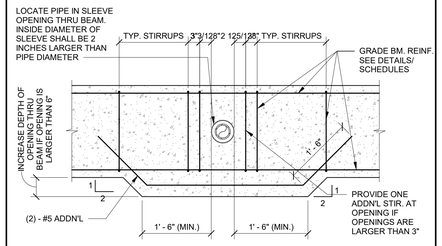
90° HOOKS　　180° HOOKS



NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Lhb = TENSION DEVELOPMENT LENGTH.
3. Ldh = Lhb, UNLESS CONDITIONS OF ITEM 4 ARE SATISFIED.
4. Ldh = 0.7 Lhb, WHEN SIDE COVER NORMAL TO PLANE OF HOOK IS NOT LESS THAN 2 1/2 INCHES AND FOR 90° HOOK, COVER ON BAR EXTENSION BEYOND HOOK SHALL NOT BE LESS THAN 2 INCHES.
5. HOOKS SHALL NOT BE CONSIDERED EFFECTIVE IN DEVELOPING BARS IN COMPRESSION.

TYPICAL DETAIL DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (NORMAL WEIGHT CONCRETE)

19 SCALE: N.T.S.



ELEVATION OF GRADE BEAM

TYPICAL DETAIL OPENING THRU GRADE BEAM

7 SCALE: N.T.S.

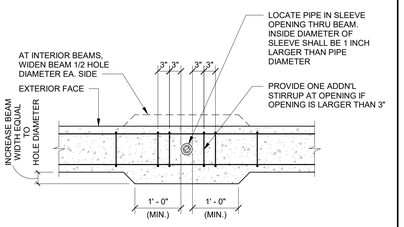
COMPRESSION DEVELOPMENT LENGTHS
AND COMPRESSION LAP SPLICE LENGTHS
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c ≥ 5000		BAR SIZE
	Ldc	Splice	Ldc	Splice	Ldc	Splice	
#3	9	12	8	12	8	12	#3
#4	11	15	10	15	9	15	#4
#5	14	19	12	19	12	19	#5
#6	17	23	15	23	14	23	#6
#7	20	27	17	27	16	27	#7
#8	22	30	19	30	18	30	#8
#9	25	34	22	34	21	34	#9
#10	28	39	25	39	23	39	#10
#11	31	43	27	43	26	43	#11
#14	38	51	33	51	31	51	#14
#18	50	68	43	68	41	68	#18

NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ldc = COMPRESSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN COMPRESSION, SPLICE LENGTH SHALL BE THE LARGER OF Ldc OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
5. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6 IN.

TYPICAL DETAIL COMPRESSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

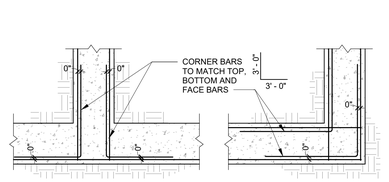
18 SCALE: N.T.S.



PLAN VIEW

TYPICAL DETAIL VERTICAL HOLE THRU GRADE BEAM LARGER THAN 3" DIAMETER

6 SCALE: N.T.S.



PLAN VIEW
GRADE BEAM "T" INTERSECTION

PLAN VIEW
GRADE BEAM CORNER

TYPICAL DETAIL GRADE BEAM REINFORCEMENT STEEL CORNER BARS

2 SCALE: N.T.S.

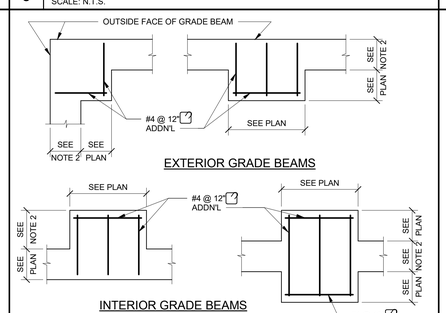
TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPLICE LENGTHS
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld
#3	17	22	15	19	13	17	12	16	12	16	12	16	12	16	12	16
#4	22	29	19	25	17	23	16	21	15	19	14	18	13	17	12	16
#5	28	36	24	31	22	28	20	26	18	24	17	22	16	21	15	20
#6	33	43	29	37	26	34	24	31	22	28	21	27	19	25	18	24
#7	48	63	42	54	38	49	34	45	32	41	30	39	28	36	27	35
#8	55	72	48	62	43	56	39	51	36	47	34	44	32	42	30	39
#9	62	81	54	70	48	63	44	57	41	53	38	50	36	47	34	44
#10	70	91	61	79	54	71	50	64	46	60	43	56	41	53	39	50
#11	78	101	67	87	60	78	55	71	51	66	48	62	45	58	43	55

NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ld = TENSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. FOR TOP BARS, MULTIPLY THE SPLICE LENGTHS BY 1.30. TOP BARS REQUIRE A MINIMUM OF 12" OF FRESH CONCRETE BELOW BAR.
5. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN TENSION, SPLICE LENGTH SHALL BE THE LARGER OF Ld OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
6. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6

TYPICAL DETAIL TENSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

17 SCALE: N.T.S.

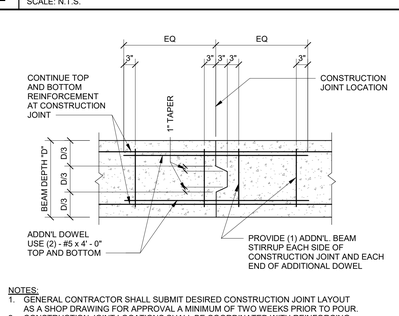


INTERIOR GRADE BEAMS

NOTES:
1. PLAN VIEWS FOR TYPICAL WIDENED GRADE BEAMS ARE SHOWN. FOR SIMILAR CONDITION NOT SHOWN, PROVIDE #4 @ 12" ADDN'L. @ 12" O.C. MAX. IN WIDENED SECTION.
2. SEE DETAIL SHEETS FOR GRADE BEAM WIDTH.

TYPICAL DETAIL ADDITIONAL BARS AT WIDENED GRADE BEAM (PLAN VIEW)

5 SCALE: N.T.S.



NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT DESIRED CONSTRUCTION JOINT LAYOUT AS A SHOP DRAWING FOR APPROVAL A MINIMUM OF TWO WEEKS PRIOR TO POUR.
2. CONSTRUCTION JOINT LOCATIONS SHALL BE COORDINATED WITH REINFORCING STEEL SUPPLIER AND ERECTOR.
3. JOINT LOCATIONS SHALL BE WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN.
4. FOR JOINT LOCATIONS OTHER THAN WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE ENGINEER ON THE SHOP DRAWINGS.

TYPICAL DETAIL GRADE BEAM CONSTRUCTION JOINT

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

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STATE OF TEXAS
KHALIL TABAJA
137121
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

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100 % CD

S3.01-M
TYPICAL FOUNDATION DETAILS

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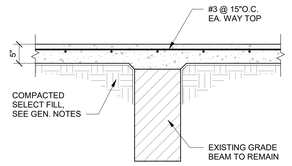
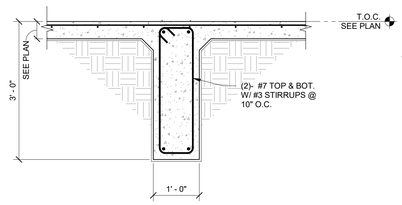


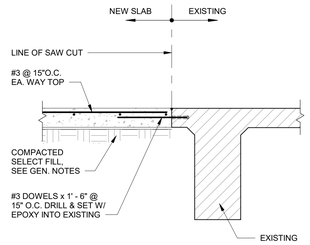
TYPICAL DETAIL
SLAB REPAIR OVER EXISTING BEAM

16 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
INTERIOR GRADE BEAM

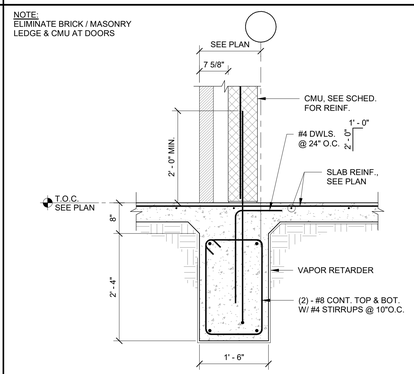
4 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
SLAB REPAIR NEAR BEAM

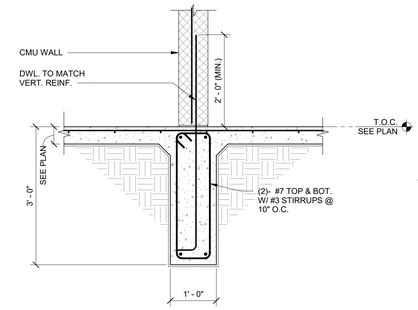
15 SCALE: 3/4" = 1'-0"

NOTE:
ELIMINATE BRICK / MASONRY
LEDGE & CMU AT DOORS



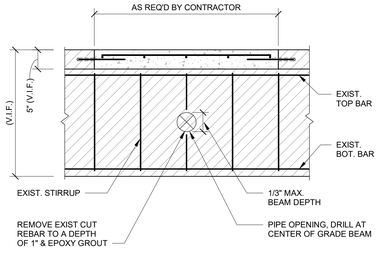
TYPICAL DETAIL
EXTERIOR GRADE BEAM

7 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
INTERIOR GRADE BEAM AT
CMU NON-LOAD BEARING WALL

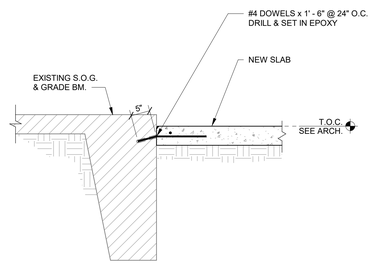
3 SCALE: 3/4" = 1'-0"



NOTE:
OPENINGS SHOULD ONLY BE PROVIDED WITHIN MIDDLE 8' - 0" OF GRADE BEAM SPAN AND MIDDLE 1/3 OF BEAM DEPTH.

TYPICAL DETAIL
PIPE OPENING THROUGH EXIST GRADE BEAM

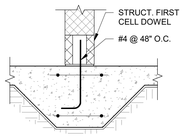
18 SCALE: 3/4" = 1'-0"



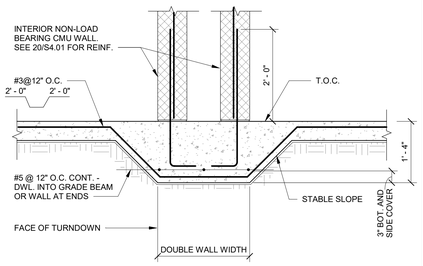
TYPICAL DETAIL
NEW SLAB-ON-GRADE AT EXISTING SLAB

14 SCALE: 3/4" = 1'-0"

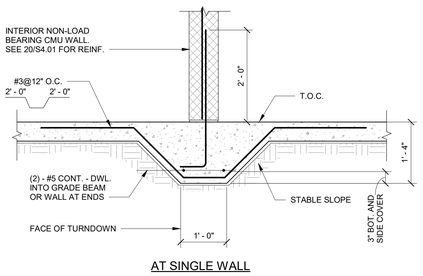
NOTES :
1. THIS DETAIL APPLIES AT ALL CMU WALL LOCATIONS WITHOUT GRADE BEAMS.
2. SEE PLAN FOR LOCATIONS MARKED "TURNDOWN", T.D. OR OTHERWISE NOTED.



AT UNREINFORCED WALLS



AT DOUBLE WALL



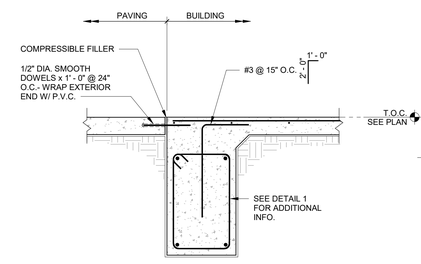
AT SINGLE WALL

TYPICAL DETAIL
TURNDOWN AT CMU WALL

9 SCALE: 3/4" = 1'-0"

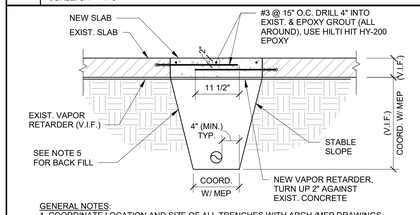
TYPICAL DETAIL
WIDENED GRADE BEAM AT CMU PILASTER

6 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM
AT DOORS/FLATWORK

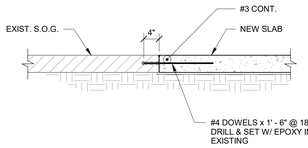
2 SCALE: 3/4" = 1'-0"



GENERAL NOTES:
1. COORDINATE LOCATION AND SIZE OF ALL TRENCHES WITH ARCH./MEP DRAWINGS.
2. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL HAVE 28 DAYS COMPRESSION STRENGTH OF MINIMUM 3,000 PSI (MAXIMUM AGGREGATE SIZE = 1 1/2"). MIX DESIGN SHALL CONFORM TO THE STANDARDS OF ACI 318 AND ACI 301.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
4. VAPOR RETARDER UNDER THE NEW SLAB SHALL BE 15 MIL STEGO VAPOR BARRIERS AS MANUFACTURED BY STEGO OR EQUIVALENT. ALL SEAMS SHALL BE OVERLAPPED MINIMUM 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE.
5. FILL UNDER THE NEW SLAB SHALL BE STRUCTURAL FILL (SANDY CLAY OR CLAYEY SAND) HAVING PLASTICITY INDEX BETWEEN 10 AND 20 AND LIQUID LIMIT NOT EXCEEDING 40. FILL MATERIAL SHALL BE PLACED IN 6 INCH LOOSE LIFTS AND COMPACTED TO AT LEAST 95% MAXIMUM DENSITY (ASTM D698). THE SELECT FILL SHALL BE MOISTURE ADJUSTED TO WITHIN 2% OF OPTIMUM MOISTURE CONTENT. AS AN ALTERNATE TO SELECT FILL, CONTRACTOR MAY UTILIZE CEMENT STABILIZED SAND FOR BACKFILLING TRENCHES. SAND SHALL BE CLEAN AND SHALL CONFORM TO ASTM C33 AND CEMENT SHALL CONFORM TO ASTM C150. SAND-CEMENT MIXTURE SHALL PROVIDE COMPRESSIVE STRENGTH OF MINIMUM 100 PSI WHEN COMPACTED TO MINIMUM 95% (ASTM D558). PLACE MATERIAL IN 8 INCH LOOSE LIFTS AND COMPACT TO MINIMUM 95% WITH MOISTURE CONTENT AT OPTIMUM OR BELOW OPTIMUM MOISTURE CONTENT.
6. V.I.F. - VERIFY IN FIELD.

TYPICAL DETAIL AT PLUMBING TRENCHES

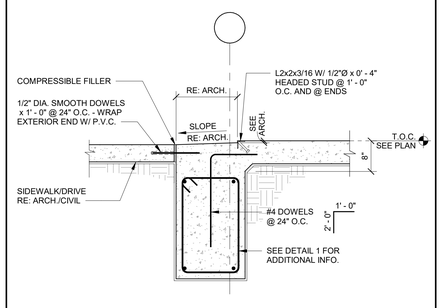
17 SCALE: 3/4" = 1'-0"



NOTE:
1. SAWCUT TOP 1" OF EXISTING SLAB PRIOR TO REMOVING EXISTING CONCRETE.

TYPICAL DETAIL
NEW SLAB-ON-GRADE AT EXISTING SLAB

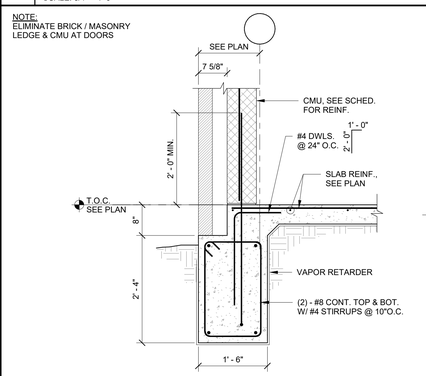
13 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM AT OVERHEAD DOOR

5 SCALE: 3/4" = 1'-0"

NOTE:
ELIMINATE BRICK / MASONRY
LEDGE & CMU AT DOORS



TYPICAL DETAIL
EXTERIOR GRADE BEAM

1 SCALE: 3/4" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640



12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/225	100% CD

100 % CD

S3.02-M
TYPICAL FOUNDATION DETAILS

Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_MARSHALL_STRUCT_R25.rvt
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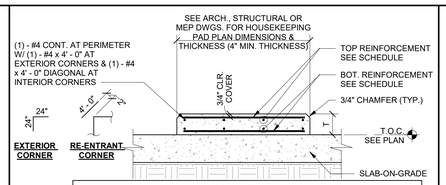
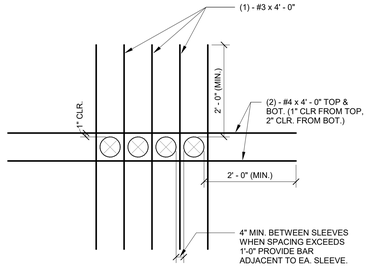


HOUSEKEEPING PAD REINF. SCHEDULE		
PAD THICKNESS	TOP REINFORCEMENT	BOTTOM REINF.
T ≤ 4"	WWR 4x4-W2.9xW2.9 OR #3 @12" E.W.	NONE
4" < T ≤ 6"	WWR 4x4-W4xW4 OR #4 @18" E.W.	NONE
6" < T ≤ 8"	WWR 4x4-W6xW6 OR #4 @12" E.W.	NONE
8" < T ≤ 12"	#4 @ 18" E.W.	#4 @ 18" E.W.
12" < T ≤ 16"	#4 @ 12" E.W.	#4 @ 12" E.W.

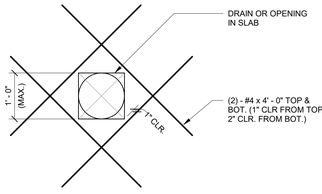
NOTES:
1. GENERAL CONTRACTOR TO COORDINATE WITH MECHANICAL DRAWINGS AND SPECIFICATIONS TO DETERMINE REQUIREMENTS FOR HOUSEKEEPING PADS OVER SLAB-ON-GRADE AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT. COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AS REQUIRED.
2. PAD SHALL NOT BE POURED UNTIL AFTER SLAB HAS REACHED ITS SPECIFIED 28 DAYS STRENGTH.
3. CONCRETE FOR HOUSEKEEPING PAD SHALL BE NORMAL WEIGHT CONCRETE WITH f'c = 3,000 PSI.

TYPICAL DETAIL
CONCRETE ISLAND OR HOUSEKEEPING PAD SLAB-ON-GRADE

8 SCALE: N.T.S.



MULTIPLE OPENINGS (PIPE SLEEVES)

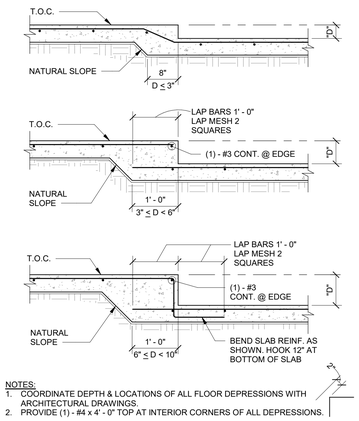


SINGLE DRAIN OR OPENING

NOTES:
1. COORDINATE OPENING SIZE AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONDUIT & PIPES OF ALUMINUM SHALL NOT BE PLACED IN CONCRETE UNLESS EFFECTIVELY COATED W/ PROTECTIVE MATERIAL TO PREVENT CHEMICAL REACTION.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT OPENINGS AT SLAB-ON-GRADE

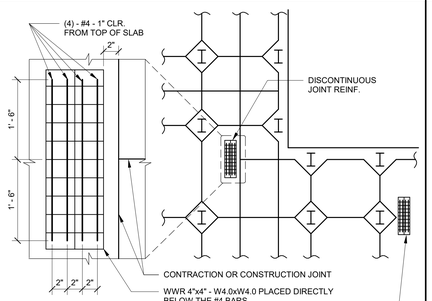
10 SCALE: N.T.S.



NOTES:
1. COORDINATE DEPTH & LOCATIONS OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE (1) - #4 x 4' - 0" TOP AT INTERIOR CORNERS OF ALL DEPRESSIONS.

TYPICAL DETAIL
AT FLOOR DEPRESSIONS

9 SCALE: N.T.S.

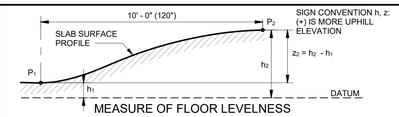


NOTE:
DISCONTINUOUS CONTRACTION OR CONSTRUCTION JOINTS SHOULD BE AVOIDED WHERE POSSIBLE.

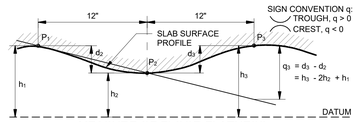
PROVIDE AT DISCONTINUOUS JOINT REINF. AT ALL BLOCKOUT CORNERS THAT DO NOT INTERSECT CONTRACTION JOINTS

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT DISCONTINUOUS JOINT IN SLAB-ON-GRADE

7 SCALE: N.T.S.



MEASURE OF FLOOR LEVELNESS



MEASURE OF FLOOR FLATNESS

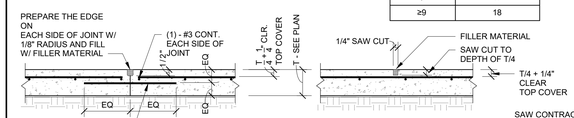
NOTES:
1. F_L = LEVELNESS F-NUMBER
   $F_L = \frac{12.5}{(3 \times S2) + z}$ WHERE z = MEAN VALUE OF ALL z FLOOR READINGS.
   S_z = STANDARD DEVIATION OF ALL z FLOOR READINGS.
2. F_F = LEVELNESS F-NUMBER
   $F_F = \frac{4.57}{(3 \times Sq) + q}$ WHERE q = MEAN VALUE OF ALL z FLOOR READINGS.
   S_q = STANDARD DEVIATION OF ALL q FLOOR READINGS
3. F_L AND F_F SHALL BE STATISTICALLY DETERMINED ACCORDING TO ASTM E 1155 "STANDARD TEST METHOD FOR DETERMINING FLOOR FLATNESS AND LEVELNESS USING THE F-NUMBER SYSTEM."
4. REFER TO CONCRETE SPECIFICATIONS FOR REQUIRED F_F AND F_L VALUES.

TYPICAL DETAIL
SLAB SURFACE TOLERANCE

3 SCALE: N.T.S.

DOWEL SCHEDULE			
SLAB DEPTH (IN.)	DOWEL DIAMETER (IN.)	TOTAL DOWEL LENGTH (IN.)	DOWEL SPACING CENTER TO CENTER (IN.)
5-6	3/4	16	12
7-8	1	18	12
9-11	1 1/4	18	12

CONTRACTION JOINT SPACING	
SLAB THK. (IN.)	JOINT SPACING (FT)
4	11
5	13
6	14
7	16
8	17
≥9	18

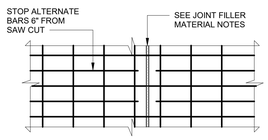


CONSTRUCTION JOINT

CONTRACTION JOINT

CONSTRUCTION JOINT NOTES:
1. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
2. BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDE WITH FORM OIL.
3. SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.
4. ALL DOWELS IN THIS DETAIL SHALL BE SMOOTH BAR DOWELS.

JOINT SPACING NOTE:
1. PROVIDE CONTRACTION AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN CENTERLINE AND AT A MAXIMUM SPACING AS SCHEDULED. ASPECT RATIOS OF SLAB PANELS ENCLOSED BY CONTROL JOINTS SHALL NOT EXCEED 1.5 TO 1.



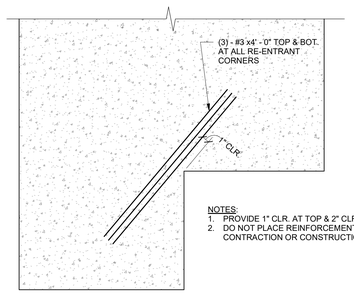
CONTRACTION JOINT (PLAN VIEW)

SAW CONTRACTION JOINT NOTES:
1. MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB.
2. ALL JOINTS SHALL BE CONTINUOUS. DO NOT OFFSET OR STAGGER JOINTS.
3. CLEAN JOINT PRIOR TO FILLING THE JOINT.

JOINT FILLER MATERIAL NOTES:
1. FILLER MATERIAL USED SHALL BE EPOXY RESINS WITH A MINIMUM SHORE "A" HARDNESS OF 80 AND SHALL CONFORM TO ASTM D2240. JOINT FILLER SHALL BE APPROVED BY ENGINEER PRIOR TO APPLICATION. INSTALL JOINT FILLER PER MANUFACTURER'S SPECIFICATIONS.
2. WHERE POSSIBLE, FILLER MATERIAL SHALL BE APPLIED WHEN BUILDING IS UNDER PERMANENT TEMPERATURE CONTROL. THIS SHALL BE EITHER AT THE END OF CONSTRUCTION OF THE COMPLETE BUILDING SHELL, OR A MINIMUM OF 90 DAYS AFTER SLAB CONSTRUCTION.
3. ALL EXPOSED SLAB JOINTS SHALL BE FILLED WITH FILLER MATERIAL.

TYPICAL DETAIL
CONSTRUCTION AND CONTRACTION JOINTS SLAB-ON-GRADE

6 SCALE: N.T.S.

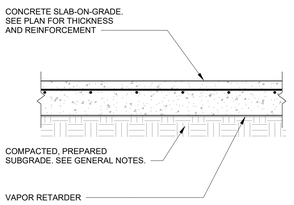


NOTES:
1. PROVIDE 1" CLR. AT TOP & 2" CLR. AT BOT.
2. DO NOT PLACE REINFORCEMENT ACROSS CONTRACTION OR CONSTRUCTION JOINTS.

SCHEMATIC SLAB-ON-GRADE

TYPICAL DETAIL
RE-ENTRANT CORNER BARS AT SLAB-ON-GRADE

5 SCALE: N.T.S.



NOTE:
1. UNLESS SPECIFIED ELSEWHERE, VAPOR RETARDER SHALL BE A MINIMUM OF 15 MILS THICK (UNLESS THICKER SPECIFIED IN SPECS/ARCH. DRAWINGS) MEETING OR EXCEEDING ASTM E-1745, CLASS C, AND HAVE NO MORE THAN 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E-96.

TYPICAL DETAIL
SLAB-ON-GRADE CONSTRUCTION SUBGRADE PREPARATION

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137122
LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/225	100% CD

100 % CD

S3.03-M
TYPICAL FOUNDATION DETAILS

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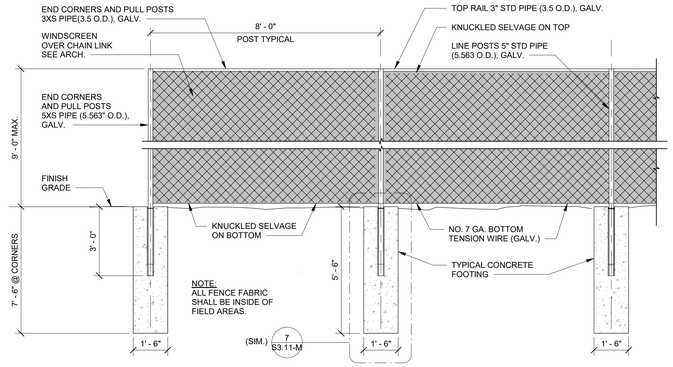
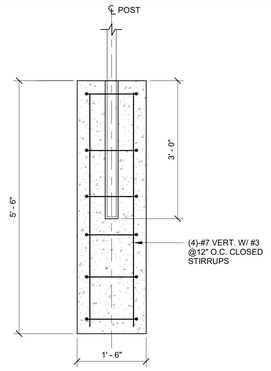


CHAIN LINK FENCE WITH WINDSCREEN

8 SCALE: N.T.S.

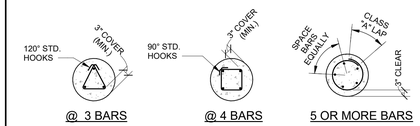


FENCE DETAIL

7 SCALE: N.T.S.

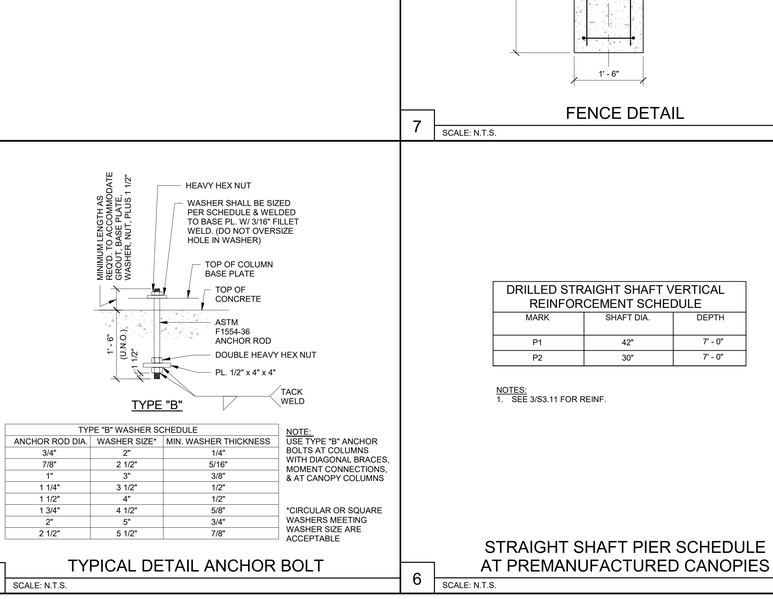
DRILLED PIER VERTICAL REINFORCEMENT SCHEDULE		
SHAFT DIAMETER (INCHES)	VERTICAL REINFORCEMENT	TIES
30	5 - #6	#3 @ 12"
42	8 - #6	#3 @ 12"

*ALL PIER SIZES SHOWN MAY NOT BE USED ON THIS PROJECT.



SHAFT BAR PLACEMENT PLANS

3 SCALE: N.T.S.



TYPE "B"

TYPE "B" WASHER SCHEDULE		
ANCHOR ROD DIA.	WASHER SIZE*	MIN. WASHER THICKNESS
3/4"	2"	1/4"
7/8"	2 1/2"	5/16"
1"	3"	3/8"
1 1/4"	3 1/2"	1/2"
1 1/2"	4"	1/2"
1 3/4"	4 1/2"	5/8"
2"	5"	3/4"
2 1/2"	5 1/2"	7/8"

NOTE:
USE TYPE "B" ANCHOR BOLTS AT COLUMNS WITH DIAGONAL BRACES, MOMENT CONNECTIONS, & AT CANOPY COLUMNS

*CIRCULAR OR SQUARE WASHERS MEETING WASHER SIZE ARE ACCEPTABLE

TYPICAL DETAIL ANCHOR BOLT

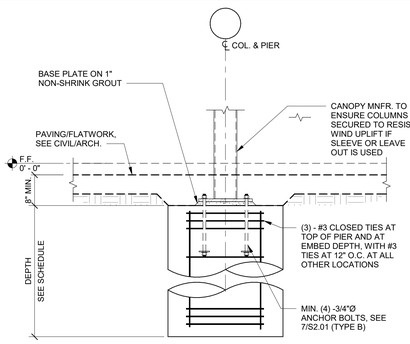
10 SCALE: N.T.S.

DRILLED STRAIGHT SHAFT VERTICAL REINFORCEMENT SCHEDULE		
MARK	SHAFT DIA.	DEPTH
P1	42"	7' - 0"
P2	30"	7' - 0"

NOTES:
1. SEE 3/S3.11 FOR REINF.

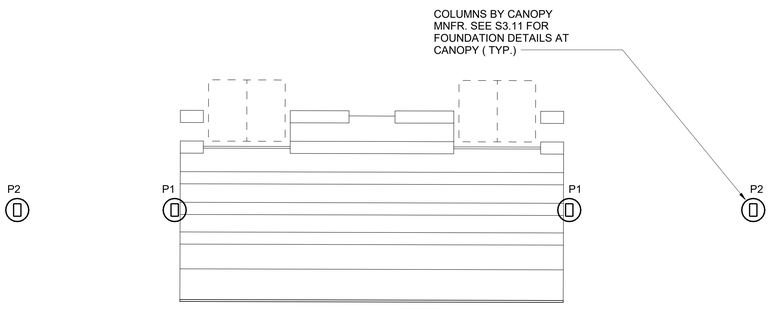
STRAIGHT SHAFT PIER SCHEDULE AT PREMANUFACTURED CANOPIES

6 SCALE: N.T.S.



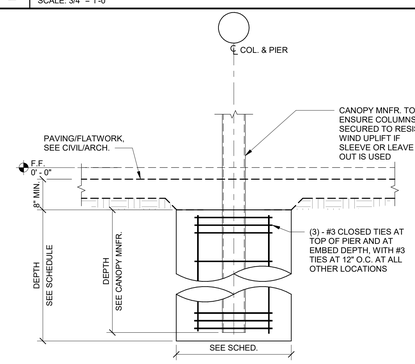
TYPICAL DETAIL EXTERIOR CANOPY COLUMN (BOLTED)

2 SCALE: 3/4" = 1'-0"



BLEACHER CANOPY FOUNDATION

9 SCALE: 1/4" = 1'-0"



TYPICAL DETAIL EXTERIOR CANOPY COLUMN (EMBEDDED)

1 SCALE: 3/4" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
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DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

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	12/04/225	100% CD

100 % CD

S3.11-M
FOUNDATION SITE DETAILS

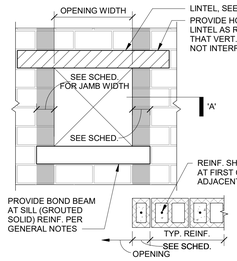
12/3/2025 10:51:52 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_MARSHALL_STRUCT_R25.rvt

INTERIOR NON-LOAD BEARING CMU WALL JAMB SCHEDULE							
WALL THICKNESS	SPANNING CMU HEIGHT	OPENING WIDTH					
		< 3' - 0"		< 6' - 0"		< 10' - 0"	
		# OF CELLS	REINF.	# OF CELLS	REINF.	# OF CELLS	REINF.
6"	14' - 0"	1	#4	1	#4	1	#4
6"	22' - 0"	1	#4	2	#4	2	#4
6"	33' - 0"	3	#5	4	#5	7	#5
6"	38' - 0"	5	#5	10	#5	NA	NA
8"	20' - 0"	1	#5	1	#5	1	#5
8"	37' - 6"	2	#5	2	(2)-#5	2	(2)-#5
8"	50' - 0"	3	(2)-#5	4	(2)-#6	5	(2)-#6

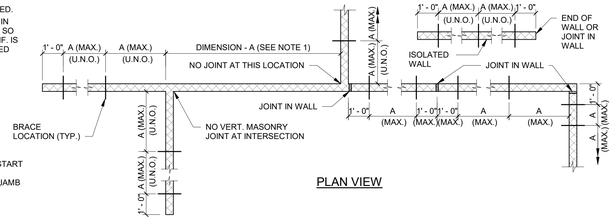
6" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
14' - 0"	NONE
15' - 6"	GROUT @ 48"
20' - 0"	(1)-#4 @ 56"
22' - 0"	(1)-#4 @ 48"
29' - 6"	(1)-#4 @ 24"
33' - 0"	(1)-#4 @ 16"
38' - 0"**	(1)-#4 @ 8"

8" WALL SCHEDULE	
MAX HEIGHT	VERTICAL REINFORCING
20' - 0"	NONE
22' - 0"	GROUT @ 48"
27' - 0"	(1)-#5 @ 64"
33' - 6"	(1)-#5 @ 48"
37' - 6"	(1)-#5 @ 32"
43' - 0"	(2)-#5 @ 40"
50' - 0"	(2)-#5 @ 16"

** ONLY ALLOWED IF MAX OPENING IN WALL IS LESS THAN 6'-0" WITH 7'-0" JAMBS TO THE SIDE OF OPENING



NOTE:
NO CONTROL JOINTS ALLOWED WITHIN SHADED AREA OR ABOVE OR BELOW OPENING



PLAN VIEW

NOTES:
1. ALL INTERIOR CMU WALLS SHALL BE BRACED AT TOP IF DISTANCE BETWEEN INTERSECTING WALLS (DIMENSION- A) IS MORE THAN 26 TIMES THE WALL NOMINAL THICKNESS. THERE SHALL BE NO JOINT BETWEEN WALLS AT THE INTERSECTIONS OR IN BETWEEN THE INTERSECTING WALLS. THERE SHALL BE NO DOORS OR ANY OTHER OPENINGS LARGER THAN 24 INCHES WITHOUT JAMB REINFORCING, SEE SCHEDULE FOR LARGER OPENINGS. MINIMUM LENGTH OF INTERSECTING WALLS SHALL BE 4 FEET.
2. REINFORCE VERTICALLY SPANNING CMU WALLS AS FOLLOWS:
3. AT FOUNDATION, PROVIDE DOWELS TO MATCH SIZE AND SPACING OF VERTICAL BARS.
4. SEE TYPICAL DETAILS ON STRUCTURAL/ARCHITECTURAL DRAWINGS FOR BRACING REQUIREMENTS AT THE TOP OF CMU WALLS. THIS DETAIL SHALL APPLY IF SPECIFIC REINFORCING AND BRACING DETAILS ARE NOT SHOWN ON ARCHITECTURAL/STRUCTURAL DRAWINGS.
5. CONSULT WITH ARCHITECT/ENGINEER WHEN HEIGHT OF WALL EXCEEDS THE HEIGHT SHOWN ABOVE.
6. PROVIDE CONTINUOUS BOND BEAM AT THE TOP OF WALLS. REINFORCE BOND BEAMS WITH (2) - #4 FOR 6" WALLS & (2)-#5 FOR 8" & 12" WALLS, UNLESS NOTED OTHERWISE.
7. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
8. CONTACT E.O.R. FOR CONDITIONS NOT LISTED ON SCHEDULE.

TYPICAL DETAIL - NON-LOAD BEARING INTERIOR/CMU WALLS BRACING AND REINFORCING STEEL

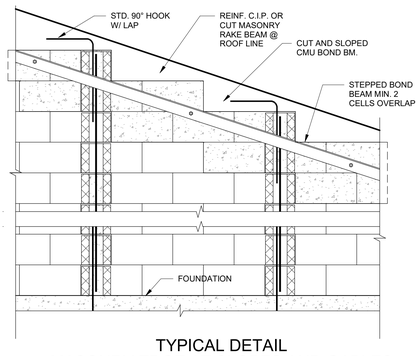
20 SCALE: N.T.S.

	MINIMUM LAP SPLICE LENGTH				REINFORCEMENT OFF CENTER	HOOKED BAR DEVELOPMENT LENGTH
	REINFORCEMENT AT CENTER OF WALL					
BAR SIZE	6" CMU	8" CMU	10" CMU	12" CMU	ANY	ANY
3	12	12	12	12	17	5
4	18	13	12	12	29	7
5	28[4]	20	16	13	45	9
6	51[4]	37	29	24	54	10
7	NA[5]	50	39	32	63	12
8	NA[5]	72	58	48	72	13

NOTES:
1. TABLE FOR USE WITH GRADE 60 UNCOATED REINF. BARS IN CMU (f'm = 2000 psi)
2. BARS SPLICED BY NON-CONTACT LAP SPLICE SHALL NOT BE SPACED FARTHER APART THAN ONE-FIFTH THE REQUIRED LAP LENGTH, OR 8".
3. LAP LENGTHS PER IBC 2021.
4. PERMITTED ONLY IF ALL MORTAR FINS ARE REMOVED ROM THE CELL TO BE GROUTED.
5. BAR EXCEEDS MAX. ALLOWABLE SIZE.
6. DEVELOPMENT LENGTH OF EPOXY COATED BARS SHALL BE TAKEN AS 1.5 TIMES THE VALUES IN THE CHART.

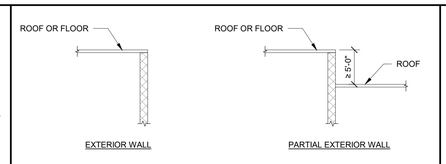
TYPICAL DETAIL MASONRY TENSION LAP SPLICE (INCHES)

4 SCALE: N.T.S.



TYPICAL DETAIL MASONRY EDGE AT SLOPES AND GABLES

19 SCALE: N.T.S.

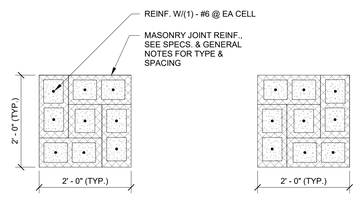


WALL THICKNESS	UNBRACED HEIGHT	VERTICAL REINFORCING	HORIZONTAL REINFORCING
8"	18' - 0" MAX	#5 @ 32" O.C.	BOND BEAMS W/ (2)-#5 @ 72" O.C.

NOTES:
1. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
2. ALL REINFORCING STEEL SHALL BE CONTINUOUS BETWEEN FOUNDATION AND TOP OF CMU. SPLICE REINFORCING PER GENERAL NOTES. ALL REINFORCED CELLS SHALL BE GROUTED SOLID.
3. AT FOUNDATION, PROVIDE DOWELS TO MATCH SIZE AND SPACING OF VERTICAL BARS.
4. CONSULT WITH ARCH./EOR WHEN HEIGHT OF WALL EXCEEDS THE HEIGHT SHOWN HERE.
5. PROVIDE CONTINUOUS BOND BEAMS AT THE TOP OF WALLS. REINFORCE BOND BEAMS WITH (2) - #5, UNLESS NOTED OTHERWISE.

TYPICAL DETAIL - EXTERIOR CMU WALL

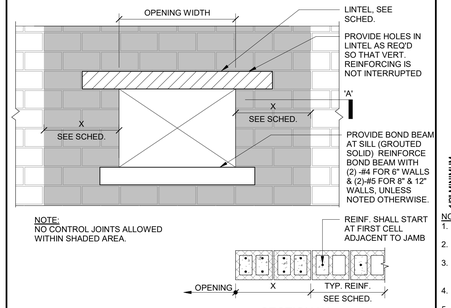
15 SCALE: N.T.S.



ALTERNATE COURSES

TYPICAL DETAIL MASONRY COLUMNS

11 SCALE: 3/4" = 1'-0"



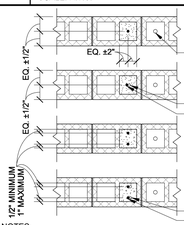
NOTE:
NO CONTROL JOINTS ALLOWED WITHIN SHADED AREA.

SECTION 'A'

OPENING SIZE	JAMB WIDTH 'X'	JAMB REINF.
≤ 4' - 0"	2' - 0"	(2) - #5 @ 8" O.C.
>10' - 0"	3' - 0"	(2) - #5 @ 8" O.C.

CMU JAMB REINFORCING SCHEDULE

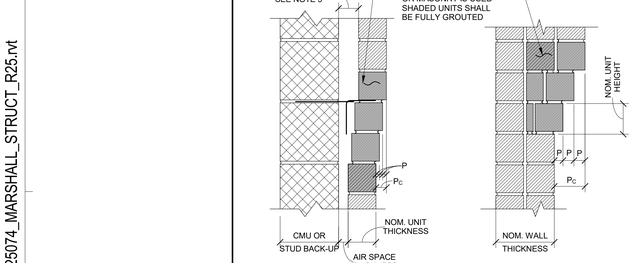
7 SCALE: N.T.S.



NOTES:
1. REINFORCEMENT MUST BE PLACED USING REINFORCING BAR POSITIONERS THAT LOCATE THE BAR AS SPECIFIED AND PREVENT MOVEMENT OF THE BAR DURING CONSTRUCTION.
2. SPLICED REINFORCEMENT MUST BE A CONTACT LAP SPLICE WITH SPLICED BARS ALIGNED PARALLEL TO THE WALL AS SHOWN.
3. THE ENGINEER MUST BE NOTIFIED PRIOR TO PLACEMENT OF REINFORCEMENT THAT IS REQUIRED TO BE PLACED OUTSIDE OF THE TOLERANCES OF THIS DETAIL SUCH AS TO AVOID INTERFERENCE WITH OTHER REINFORCEMENT, CONDUITS, OR EMBEDDED ITEMS.
4. CONDUIT, PIPES AND SLEEVES SHALL BE NO CLOSER THAN 3 DIAMETERS ON CENTER (USE LARGER DIAMETER WHERE MULTIPLE SIZES ARE USED).
5. ALUMINUM PIPES MAY NOT BE USED UNLESS EFFECTIVELY COATED TO PREVENT CHEMICAL REACTION.
6. PIPES SHALL NOT BE EMBEDDED IN MASONRY WHEN:
   (a) CONTAINING LIQUIDS, GAS, OR VAPORS AT A TEMPERATURE HIGHER THAN 150°F (66°C).
   (b) UNDER PRESSURE IN EXCESS OF 55 PSI (379 KPA).
   (c) CONTAINING WATER OR OTHER LIQUIDS SUBJECT TO FREEZING.

TYPICAL DETAIL CMU VERTICAL BAR PLACEMENT

3 SCALE: N.T.S.



AT SINGLE WYTHE AT MULTI WYTHE

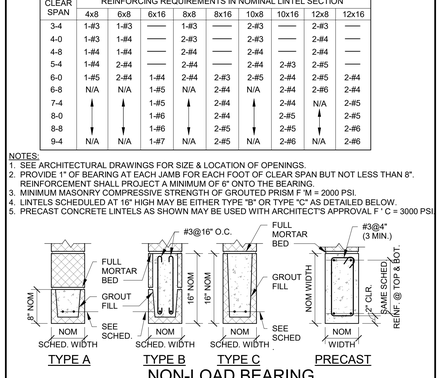
NOTES:
1. P_C INDICATES ALLOWABLE TOTAL HORIZONTAL PROJECTION OF CORBELLING.
2. P INDICATES ALLOWABLE PROJECTION OF ONE UNIT.
3. P_C SHALL BE LESS THAN OR EQUAL TO ONE-HALF OF NOMINAL UNIT THICKNESS.
4. P SHALL BE LESS THAN OR EQUAL TO THE LESSER OF ONE-HALF OF NOMINAL UNIT HEIGHT OR ONE-THIRD OF NOMINAL UNIT THICKNESS.
5. THE BACK SURFACE OF THE CORBELLED SECTION SHALL REMAIN WITHIN 1" OF PLANE.

TYPICAL DETAIL CORBELS AT MASONRY VENEER

18 SCALE:N.T.S.

CMU WALL INTERSECTIONS

2 SCALE: N.T.S.



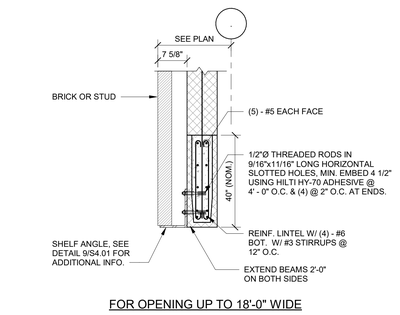
TYPE 1 AT 8" CMU TYPE 2 AT 8" CMU TYPE 3 AT 8" CMU

BOND BEAM MAX CLEAR SPAN SCHEDULE					
CMU	WALL GROUT SPACING	CARRIED BRICK H (FT)	TYPE 1 RUNNING BOND	TYPE 2 RUNNING BOND	TYPE 3 RUNNING BOND
8"	>16" O.C.	12	4'-8"	8'-0"	12'-0"
		20	NA	6'-8"	11'-4"
		35	NA	5'-4"	10'-4"

NOTES:
1. SEE ARCH. DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING @ EACH JAMB FOR EACH FOOT OF CLEARSPAN BUT NOT LESS THAN 8" REINF. SHALL PROJECT A MIN. OF 6" ONTO THE BEARING CMU.
3. BOND BEAMS SHALL BE FULLY GROUTED (2500 PSI @ 28 DAYS).
4. THE #4 FACE BARS ARE ONLY REQUIRED AT EXTERIOR CMU WALLS.

TYPICAL DETAIL BLOCK LINTEL AT EXTERIOR OR LOAD BEARING WALLS CARRYING BRICK

13 SCALE: N.T.S.

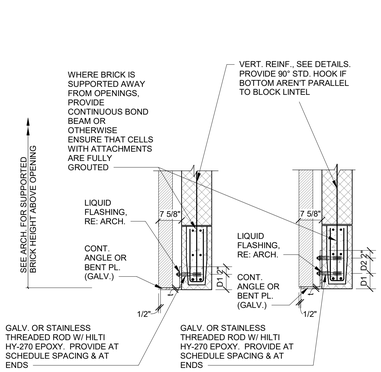


FOR OPENING UP TO 18'-0" WIDE

NOTES:
1. SEE ARCH. DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING @ EACH JAMB FOR EACH FOOT OF CLEARSPAN BUT NOT LESS THAN 8". REINF. SHALL PROJECT A MIN. OF 6" ONTO THE BEARING.
3. BOND BEAMS SHALL BE FULLY GROUTED (2500 PSI @ 28 DAYS)

TYPICAL DETAIL LONG SPAN LINTEL

17 SCALE: N.T.S.



TYPE 1 TYPE 2

TYPE 1 SCHEDULE					
MAX HEIGHT OF SUPPORTED BRICK	ANGLE	THREADED ROD			
	t	D1	DIA.	EMBEDMENT	SPACING
3'-0"	1/4"	4"	3/8"	3 3/8"	3'-0"
5'-0"	1/4"	4"	1/2"	4 1/2"	3'-0"
8'-0"	5/16"	5"	1/2"	4 1/2"	2'-6"
10'-0"	5/16"	5"	5/8"	5 5/8"	2'-0"
12'-0"	5/16"	5"	5/8"	5 5/8"	1'-4"

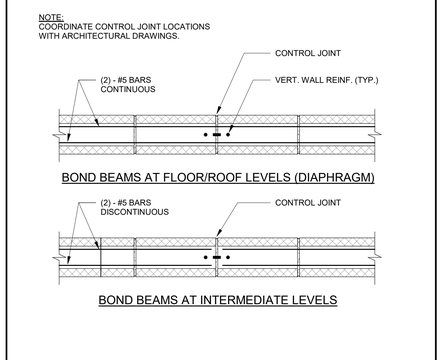
TYPE 2 SCHEDULE							
MAX HEIGHT OF SUPPORTED BRICK	ANGLE	THREADED ROD					
	t	D1	D2	DIA.	EMBEDMENT	SPACING	
10'-0"	5/16"	4"	4"	3/8"	3 3/8"	3'-0"	
12'-0"	3/8"	4"	4"	1/2"	4 1/2"	3'-0"	
15'-0"	3/8"	4"	4"	1/2"	4 1/2"	2'-6"	
20'-0"	3/8"	4"	4"	5/8"	5 5/8"	2'-0"	
25'-0"	3/8"	5"	4"	5/8"	5 5/8"	2'-0"	
30'-0"	3/8"	5"	4"	5/8"	6 3/4"	1'-4"	
35'-0"	7/16"	5"	4"	5/8"	6 3/4"	1'-4"	

NOTES:
1. WHERE TWO SOLUTIONS ARE PROVIDED FOR A GIVEN HEIGHT, CONTRACTOR MAY CHOOSE BETWEEN TYPE 1 & TYPE 2.
2. MAX. HEIGHT OF SUPORTED BRICK SHALL BE FROM TOP OF OPENING TO TOP OF WALL UNLESS ANOTHER OPENING OF GREATER OR EQUAL WIDTH IS PROVIDED ABOVE THE OPENING.
3. SEE TYPICAL DETAIL " ANGLE OR BENT PLATE SUBSTITUTION FOR OPTIONAL ALTERNATES.

TYPICAL DETAIL SHELF ANGLE AT CMU

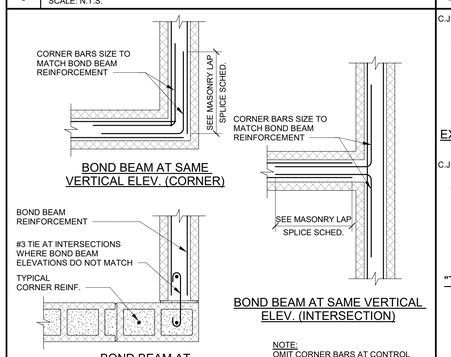
9 SCALE: N.T.S.

NOTE:
COORDINATE CONTROL JOINT LOCATIONS WITH ARCHITECTURAL DRAWINGS.



TYPICAL BOND BEAM AT CONTROL JOINTS

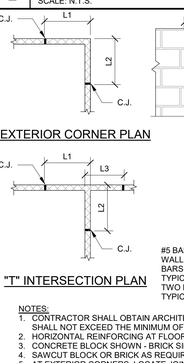
6 SCALE: N.T.S.



NOTE:
OMIT CORNER BARS AT CONTROL JOINT LOCATIONS AS INDICATED ON TYPICAL CMU ELEVATION.

TYPICAL CMU BOND BEAM REINFORCING

5 SCALE: N.T.S.



"T" INTERSECTION PLAN PLAN

NOTES:
1. CONTRACTOR SHALL OBTAIN ARCHITECT'S APPROVAL OF JOINT LOCATIONS, WHICH SHALL NOT EXCEED THE MINIMUM OF 1.5 TIMES THE WALL HEIGHT OR 20'-0".
2. HORIZONTAL REINFORCING AT FLOOR AND ROOF LINES SHALL BE CONTINUOUS THRU JOINT.
3. CONCRETE BLOCK SHOWN - BRICK SIMILAR.
4. SAWCUT BLOCK OR BRICK AS REQUIRED.
5. AT EXTERIOR CORNERS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0".
6. AT EXTERIOR "T" INTERSECTIONS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0", L2 + L3 ≤ 20' - 0" AND L1 + L3 - WALL THICKNESS ≤ 20' - 0"

MASONRY WALL CONTROL JOINT

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25014

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640



12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

No.	Date	Description
	12/04/225	100% CD

100 % CD

S4.01-M

TYPICAL CMU WALL DETAILS

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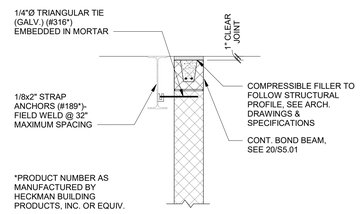
12/3/2025 10:51:55 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_MARSHALL_STRUCT_R25.rvt

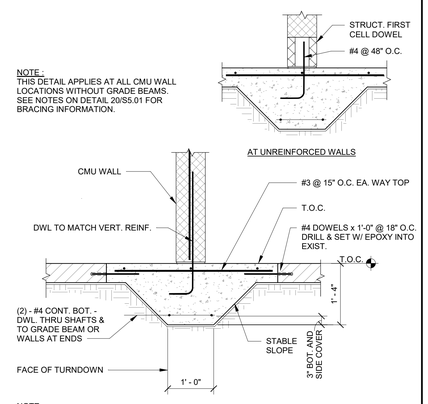


NOTE:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
SIDE CONNECTION TO STEEL BEAM

11 SCALE: 3/4" = 1'-0"

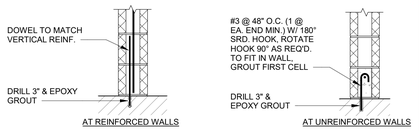
FOUNDATION TYPE							
	4" CMU		6" CMU		8" CMU		
GROUT	NONE	NONE	AT 48"	AT 24"	NONE	AT 48"	AT 24"
WALL HEIGHT (FT)							
0-10	1	1	1	1	1	1	1
12	1	1	1	1	1	1	2
14	1	1	1	2	1	2	2
16	1	1	2	2	2	2	2
18	1	2	2	2	2	2	2
20	2	2	2	2	2	2	2



NOTE :
THIS DETAIL APPLIES AT ALL CMU WALL LOCATIONS WITHOUT GRADE BEAMS. SEE NOTES ON DETAIL 20/S5.01 FOR BRACING INFORMATION.

NOTE:
SEE PLAN FOR LOCATIONS MARKED "TURNDOWN", T.D. OR OTHERWISE NOTED.

TYPE 2 DETAIL



TYPE 1 DETAIL

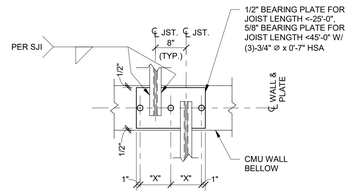
TYPICAL DETAIL
EXISTING FOUNDATION AT NON-LOAD BEARING CMU WALL

7 SCALE: 3/4" = 1'-0"

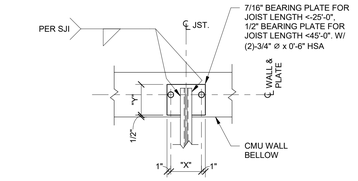
NOTES:

"X" DIMENSION SHALL BE AS FOLLOWS:
8" FOR K1-12 AND LH02-08
9" FOR LH07-17 & DLH10-17
14" FOR DLH15-25

"Y" DIMENSION SHALL BE AS FOLLOWS:
6" FOR 8" CMU
7" FOR 10" CMU
8" FOR 12" CMU



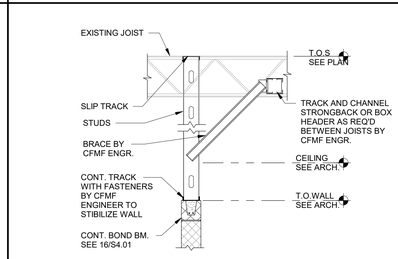
JOIST BOTH SIDES



JOIST ONE SIDES

TYPICAL DETAIL JOIST BEARING PLATE

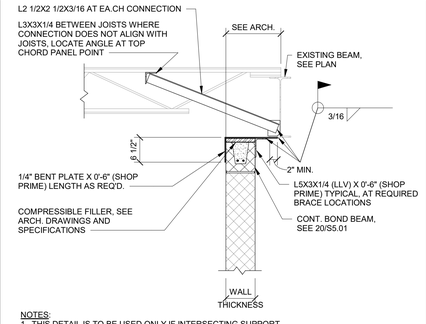
3 SCALE: 3/4" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERESECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. CFMF ENGINEER MAY DESIGN BRACES TO OCCUR AT MAX SPACING OR AT EACH PURLIN. IN EITHER SCENARIO DESIGN BRACE TO STABALIZE CMU AND LIGHT GAUGE WALL UNDER 5 PSF LOAD ALONG FULL HEIGHT.

TYPICAL DETAIL
BRACING AT ROOF STEEL JOISTS
(ALTERNATIVE)

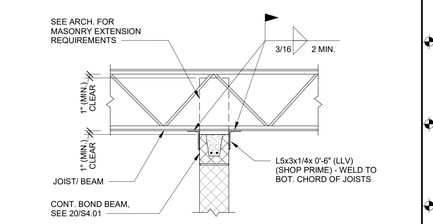
14 SCALE: 1/2" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S5.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
TOP CONNECTION TO STEEL BEAM

10 SCALE: 3/4" = 1'-0"

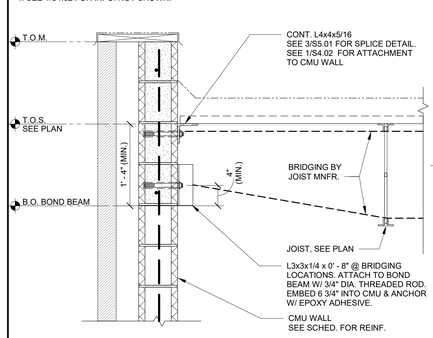


NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. THIS DETAIL APPLIES AT NEW AND EXISTING FRAMING.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
TOP CONNECTION PERPENDICULAR
TO BAR JOISTS

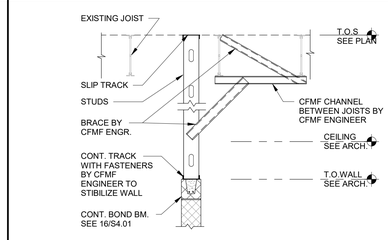
6 SCALE: 3/4" = 1'-0"

NOTES:
1. SEE 1/S4.02 FOR INFO. NOT SHOWN.



ROOF FRAMING DETAIL
AT LOAD BEARING CMU WALLS

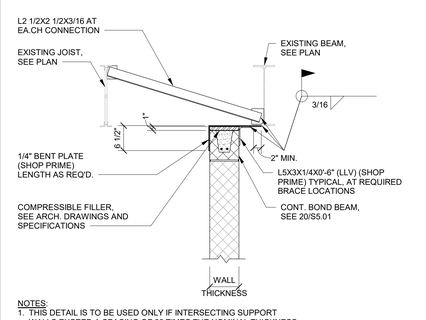
2 SCALE: 1" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERESECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. CFMF ENGINEER MAY DESIGN BRACES TO OCCUR AT MAX SPACING OR AT EACH PURLIN. IN EITHER SCENARIO DESIGN BRACE TO STABALIZE CMU AND LIGHT GAUGE WALL UNDER 5 PSF LOAD ALONG FULL HEIGHT.

TYPICAL DETAIL
BRACING AT ROOF STEEL JOISTS
(ALTERNATIVE)

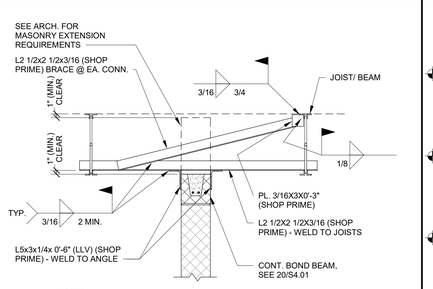
13 SCALE: 1/2" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S5.01 FOR BRACE LOCATION REQUIREMENTS.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
TOP CONNECTION TO STEEL BEAM

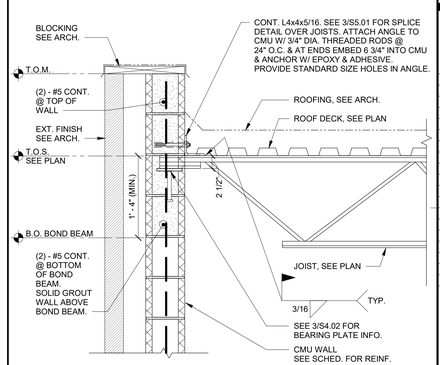
9 SCALE: 3/4" = 1'-0"



NOTES:
1. THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 26 TIMES THE NOMINAL THICKNESS.
2. SEE 20/S4.01 FOR BRACE LOCATION REQUIREMENTS.
3. THIS DETAIL APPLIES AT NEW AND EXISTING FRAMING.

TYPICAL DETAIL
INTERIOR NON-LOAD BEARING CMU WALL
TOP CONNECTION PARALLEL TO BAR JOISTS

5 SCALE: 3/4" = 1'-0"



ROOF FRAMING DETAIL
AT LOAD BEARING CMU WALLS

1 SCALE: 1" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640



12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/225	100% CD

100 % CD

S4.02-M
TYPICAL CMU WALL DETAILS

STRUCTURAL MATRIX
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Mark Stockard Engineering
TBPE Registration No. 23340
12/04/2025

PROJECT NO. 25.006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT

REVISIONS

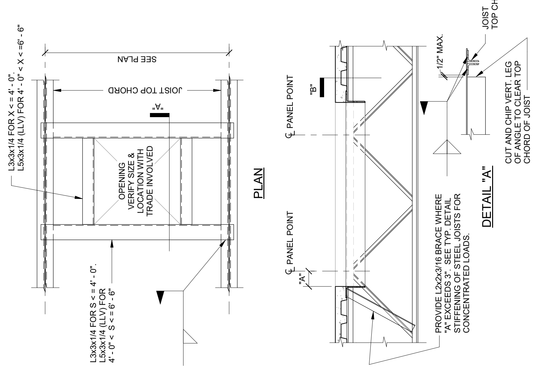
No.	Date	Description
1	12/04/25	100% CD

100 % CD

S5.01-M
TYPICAL STEEL
FRAMING DETAILS

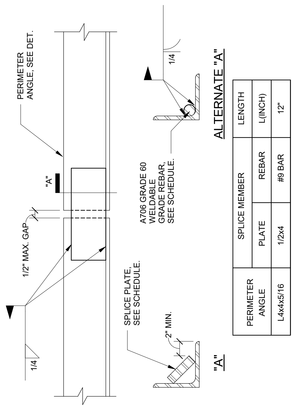
TYPICAL DETAIL
OPEN WEB STEEL JOIST ROOF OPENING

SCALE: N.T.S. 1



TYPICAL DETAIL
SPLICE AT PERIMETER ROOF ANGLE

SCALE: N.T.S. 3



PERIMETER ANGLE	SPLICE MEMBER		LENGTH
	PLATE	REBAR	L(INCH)
L4x4x5/16	1/2x4	#9 BAR	12"



FIELD HOUSE DEMO PLAN 1
SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. VISIT THE SITE TO UNDERSTAND THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. THE EXISTING BUILDING CONDITION SURVEY WAS COMPILED FROM DRAWINGS PROVIDED BY THE OWNER. THESE DRAWINGS WERE NOT AS-BUILT DRAWINGS & ACTUAL CONDITIONS / DIMENSIONS MAY VARY FROM WHAT IS INDICATED. REPORT DISCREPANCIES OR AMBIGUOUS ITEMS TO THE ARCHITECT PRIOR TO START OF FABRICATION. ANY OTHER DISCREPANCIES NOTED BY THE ARCHITECT FIELD INSPECTIONS UNCOVERED, OR DISCREPANCIES IN THE CONTRACT DOCUMENTS WHICH DO NOT COMPLY WITH THE INTENDED FINAL PRODUCT & REQUEST MODIFICATIONS TO THE LAYOUT.

2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION WORK. ALL DEMOLITION WORK TO BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE CODES, LAWS & REGULATIONS INCLUDING OWNER REQUIREMENTS.

3. COORDINATE DEMOLITION WORK WITH PLAN SHEETS AND DETAILS. REFER TO A200 SERIES FOR DOOR AND WINDOW FRAME TYPICALS AND DETAILS AT NEW OPENINGS IN EXISTING WALLS.

4. REFER TO CIVIL, STRUCTURAL, AND MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION REQUIREMENTS. PATCH ALL WHERE FIXTURES AND EQUIPMENT ARE DEMOLISHED TO MATCH EXISTING ADJACENT SURFACE.

5. THE OWNER HAS FIRST RIGHTS OF SALVAGE OF ALL FIXTURES, EQUIPMENT AND BUILDING MATERIALS REMOVED AS PART OF THE DEMOLITION AND NOT REUSED IN THE NEW CONSTRUCTION. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF CONSTRUCTION SCRAP IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

6. PRIOR TO START OF DEMOLITION, SECURE FROM THE OWNER A LIST OF ADDITIONAL EXISTING BUILDING COMPONENTS TO BE SALVAGED AND DELIVERED TO THE OWNER. EXERCISE SUFFICIENT CARE IN SALVAGE OPERATIONS SUCH THAT SALVAGED COMPONENTS ARE DELIVERED TO THE OWNER IN THEIR EXISTING UNDAMAGED CONDITION.

7. PROTECT ADJACENT AREAS FROM DUST, EXCESSIVE NOISE & / OR DISRUPTION OF OCCUPANCY. REMOVE ALL WORK THAT INTERFERES WITH THE OPERATION OF THE SURROUNDING AREAS & ANY INTERRUPTION OF SERVICES INCLUDING THE OPERATION OF UTILITIES SHALL BE PERFORMED AT A TIME APPROVED BY THE OWNER'S REPRESENTATIVE.

8. PROTECT EXISTING STRUCTURES, FINISHES, UTILITIES & OTHER ELEMENTS SCHEDULED TO REMAIN. PRIOR TO DEMOLITION, DOCUMENT SURROUNDING PROPERTIES WHICH COULD BE COMPROMISED AND DAMAGE RESULTING FROM DEMOLITION & FILE WITH OWNER'S REPRESENTATIVE. AREAS THAT ARE DAMAGED BY SELECTIVE DEMOLITION SHALL BE PATCHED, REPAIRED & FINISHED OR REPLACED TO MATCH EXISTING ADJACENT SURFACE AT NO EXPENSE TO THE OWNER.

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10. PROVIDE TEMPORARY BARRICADES & OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNER 'S PERSONNEL & GENERAL PUBLIC FROM INJURY DUE TO DEMOLITION. PROVIDE A PROPER MEANS OF EGRESS AS REQUIRED FOR OCCUPIED AREAS PER CODE THROUGH CONSTRUCTION. EGRESS MUST ALSO BE MAINTAINED WITH THE CONTRACTOR 'S AREA.

11. IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY & INFORM THE OWNER 'S REPRESENTATIVE & THE ARCHITECT FOR FURTHER DIRECTION.

STRUCTURAL DEMOLITION

12. PROVIDE SHORING, BRACING, AND SUPPORTS AS REQUIRED TO MAINTAIN THE INTEGRITY OF EXISTING OR NEWLY INSTALLED CONSTRUCTION AS REQUIRED TO REMOVE EXISTING LOAD-BEARING OR NON-LOAD BEARING WALL, FOOTING, OR ROOF CONSTRUCTION. ASSUME RESPONSIBILITY FOR ACTUAL CONDITION OF EXISTING STRUCTURE TO BE DEMOLISHED.

13. UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DOCUMENTS, MAINTAIN THE INTEGRITY OF EXISTING CONSTRUCTION ADJACENT TO NEW STRUCTURAL SYSTEMS. WHERE EXISTING LOAD-BEARING OR NON-LOAD-BEARING, WHEN DEMOLISHED. PROVIDE STRUCTURAL SYSTEMS PER NEW STRUCTURAL & ARCHITECTURAL DOCUMENTS. REFER TO A600 SERIES FOR NEW WORK.

CUTTING AND PATCHING

1. PROVIDE MATERIALS FOR CUTTING AND PATCHING WHICH WILL RESULT IN EQUAL-OR-BETTER WORK THAN BEING CUT OR PATCHED.

2. REMOVE EXISTING CONSTRUCTION SO AS NOT TO DAMAGE EXISTING CONSTRUCTION THAT IS TO REMAIN. PATCH FLOORS, WALLS AND CEILINGS IN A RECTANGULAR PATTERN TO SOUND EXISTING CONDITIONS AND MAKE THEM READY TO RECEIVE ANY NEW FINISHES INDICATED.

3. CAP PLUMBING LINES THAT ARE TO BE REMOVED BELOW FLOOR OR BEHIND WALL OR REMOVE THEM COMPLETELY. PATCH FLOORS AND WALLS TO MATCH EXISTING CONDITIONS. REFER PLUMBING DOCUMENTS FOR ADDITIONAL REQUIREMENTS.

4. AT AREAS WHERE EXISTING FLOOR MOUNTED TOILET ROOM FIXTURES ARE TO BE REMOVED, ALSO REMOVE APPROXIMATELY 30 SF OF TILE FROM THE FLOOR AND 40 SF OF TILE FROM THE WALL. PREPARE THIS AREA TO RECEIVE NEW TILE. THE LAYOUT AND EXACT AMOUNT OF TILE TO BE REMOVED SHALL BE AT THE DIRECTION OF THE ARCHITECT.

5. AT AREAS WHERE EXISTING WALL MOUNTED TOILET ROOM FIXTURES ARE TO BE REMOVED, ALSO REMOVE APPROXIMATELY 40 SF OF TILE FROM THE WALL. PREPARE THIS AREA TO RECEIVE NEW TILE. THE LAYOUT AND EXACT AMOUNT OF TILE TO BE REMOVED SHALL BE AT THE DIRECTION OF THE ARCHITECT.

6. WHERE EXISTING FLOORING, CEILINGS OR WALL FINISHES ARE TO BE REMOVED AND REPLACED WITH NEW FINISHES, SURFACES TO REMAIN SHALL BE STRIPPED CLEAN OF ALL EXISTING FINISHES AND MADE READY TO RECEIVE NEW FINISHES.

7. INSPECT FLOORS TO RECEIVE NEW FINISHES PRIOR TO BID. COMPLETELY REMOVE FLOOR FINISHES TO BE REPLACED AND, CLEAN AND PROPERLY PREPARE THE EXISTING SUBSTRATE PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. STRIP, PATCH, AND FILL TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF BURRS AND ADHESIVE AND SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. UNDER CUT OR ADJUST DOORS TO ACCOMMODATE NEW FLOOR FINISH WHERE NEW FINISH IS THICKER THAN ORIGINAL FINISH.

8. THE NEW CONCRETE TOPPING IS TO BE PLACED OVER EXISTING CONCRETE SLAB, ABRADE EXISTING CONCRETE FINISH FOR BETTER BOND.

9. TOOTH IN MASONRY WHERE EXISTING MASONRY ABUTS NEW MASONRY IN THE SAME WALL PLANE. REFER TO ELEVATIONS ON A200 SERIES FOR NEW MASONRY COURSING AND BOND PATTERN.

10. PROVIDE A FINISHED EDGE BY TOOTHING IN NEW MASONRY TO MATCH EXISTING WHERE A PORTION OF AN EXISTING MASONRY WALL IS TO BE REMOVED (U/ON).

11. REMOVE EXISTING WINDOWS AND SILLS COMPLETELY PRIOR TO SEALING OPENINGS (U/ON).

12. NEW MASONRY FRAME AND PATCH WALL WITH SAME ADJACENT MATERIAL AND FINISH AS EXISTING WHERE EXISTING DOOR OPENINGS ARE TO BE SEALED. ALIGN NEW AND EXISTING WALLS (U/ON).

13. REMOVE EXPANSION JOINT COVERS (FLOOR, WALL, AND CEILING) THAT ARE DAMAGED DURING DEMOLITION AND REPLACE WITH NEW COVERS OF THE SAME TYPE AND FINISH (OR NEW AS DETAILED), WHERE INDICATED.

14. COORDINATE WITH ROOF PLAN SHEET A130 AND DETAILS FOR SELECTED DEMOLITION OF ROOF AREAS.

15. EXISTING DOORS, FRAMES, AND HARDWARE THAT ARE REMOVED MAY BE REUSED, WHERE INDICATED ON PLANS, IF IN GOOD CONDITION IN THE OPINION OF THE ARCHITECT AND OWNER.

16. WHERE INDICATED, REMOVE TACKBOARDS, SMART BOARDS, CHALKBOARDS, MISCELLANEOUS DISPLAY RAILS, AND TOILET ROOM ACCESSORIES. SALVAGE REMOVED ITEMS FOR OWNER OR REINSTALL AS INDICATED IN DRAWINGS AND SPECIFICATIONS. CLEAN AND REPAIR ITEMS AS REQUIRED FOR NEW EQUIPMENT OR TO RECEIVE A NEW FINISH.

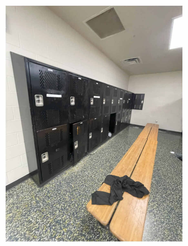
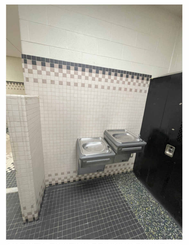
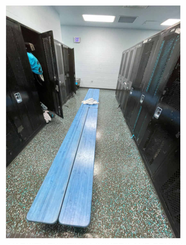
17. REMOVE EXISTING LAY-IN CEILING AND GRID FROM AREAS WHERE THERE IS NEW MECHANICAL OR ELECTRICAL WORK ABOVE CEILING. PREPARE FOR A600 SERIES REFLECTED CEILING PLANS TO BE DEMOLISHED.

DEMOLITION KEY NOTES

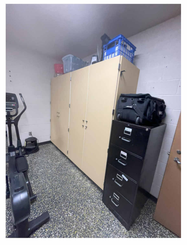
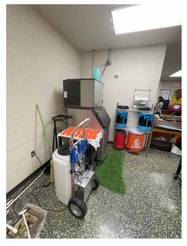
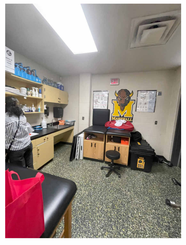
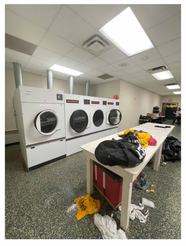
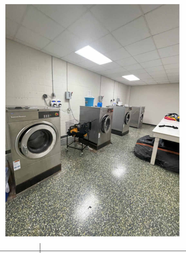
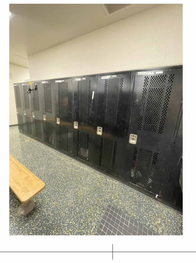
TAG#	NOTE
1	DEMO EXISTING LOCKERS. EXISTING LOCKER CONCRETE BASE TO REMAIN. RESIZE EXISTING BASE WITH CONCRETE FILL AS REQUIRED TO FIT NEW LOCKERS.
2	DEMO EXISTING DRINKING FOUNTAIN. DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU. GC TO VERIFY LOCATION
3	DEMO ALL EXISTING INTERIOR EPOXY FLOORING AND ADHESIVE MATERIAL AND WALL BASE. SHOPBLAST CLEAN AND PREPARE FLOOR SURFACE PER MANUFACTURERS RECOMMENDATIONS TO INSTALL NEW FLOORING. REFER TO ROOM FINISH SCHEDULE AND MATERIAL SCHEDULE.
4	DEMO EXISTING BENCHES, REPAIR CONCRETE FLOOR AND PREP FOR NEW EPOXY FLOOR.
5	DEMO CASEWORK AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU.
6	DEMO EXISTING SINK AND PATCH WALL AS NEEDED. REF. MEP FOR PLUMBING DEMO REQUIREMENTS
7	REMOVE EXISTING DRYER AND RETURN TO OWNER. ENSURE DRYER IS RETURNED IN SAME CONDITION AS FOUND.
8	REMOVE EXISTING WASHER AND RETURN TO OWNER. ENSURE DRYER IS RETURNED IN SAME CONDITION AS FOUND.
9	DEMO EXISTING INTERIOR CARPET FLOORING AND ADHESIVE MATERIAL AND WALL BASE
10	DEMO EXISTING WIRE MESH PARTITIONS. REPAIR AND PATCH ANY WALLS, CEILINGS AND FLOORING WHICH THE PARTITION IS ATTACHED TO.
11	SAWCUT AND REMOVE EXISTING SLAB. REPLACE UNDERSLAB VAPOR BARRIER AND OVER LAP WITH EXISTING BARRIER ON ALL SIDES. TAPE BARRIER TO ENSURE CONTINUOUS BARRIER. REFERENCE SLAB REPAIR DETAIL 2/A/D.01-M
12	DEMO EXISTING GYPSUM CEILING. REF. TO RCP FOR NEW CEILING TYPE AND HEIGHT
13	DEMO EXISTING ACT CEILING TILES. PROTECT EXISTING FIXTURES AND CEILING GRID.
14	DEMO EXISTING HAND DRYERS. DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU. GC TO VERIFY LOCATION
15	DEMO EXISTING LOCKERS AND CONCRETE BASE. LEVEL CONCRETE FLOOR TO PREPARE FOR NEW FINISH DEMO EXISTING INTERIOR CMU WALL
16	DEMO SHOWER DRAIN, REF. PLUMBING DEMO PLAN.
17	DEMO EXISTING INTERIOR CMU WALL. REPAIR FLOORS, CEILINGS AND WALLS TO REMAIN. PREPARE EXISTING WALLS AND CEILINGS TO RECEIVE NEW SCHEDULED FINISHES.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- FLOOR TO BE SAW CUT AND REMOVED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- (4) DEMO KEY NOTE
- AREA TO BE DEMOLISHED
- REMOVE EXISTING CARPET




VARSITY EXISTING DRINKING FOUNTAIN

VARSITY EXISTING LOCKERS AND BENCH



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS
DATE: 12/04/2025

PROJECT NO. 25-006
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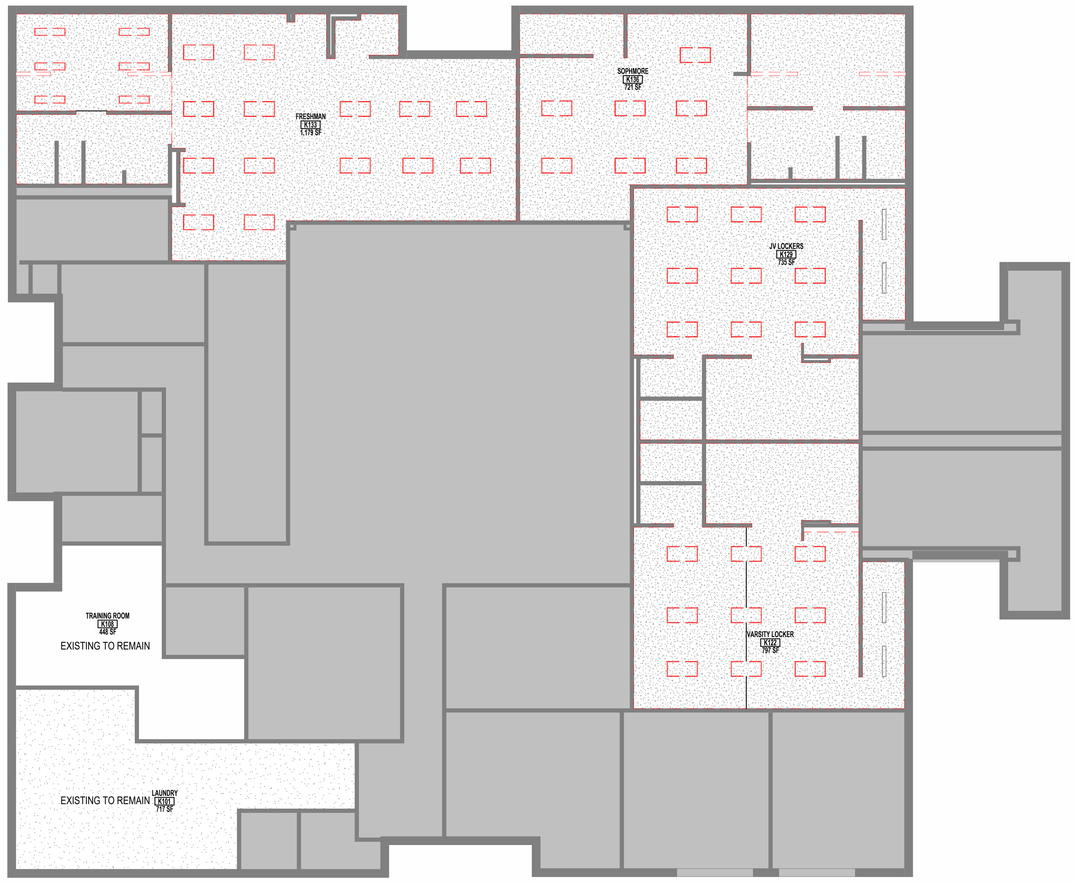
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

100 % CD
AD.01-M
01 DEMO FLOOR PLAN
FIELD HOUSE

MARSHALL HIGH SCHOOL

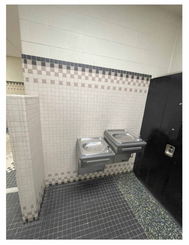
12/4/2025 10:35:50 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_MARSHALL_FBISD ATHLETIC RENOVATIONS BP012-M_R25.rvt



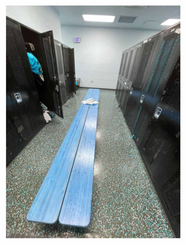
FIELD HOUSE DEMO REFLECTED CEILING PLAN- M 2

SCALE: 1/8" = 1'-0"





VARSITY EXISTING DRINKING FOUNTAIN



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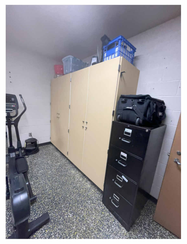

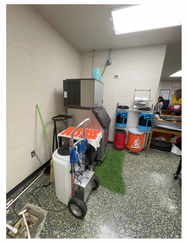

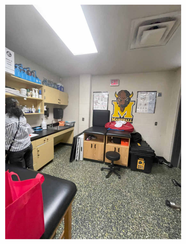

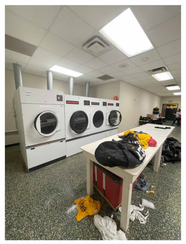

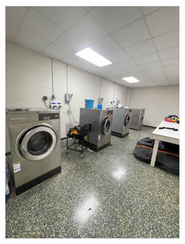

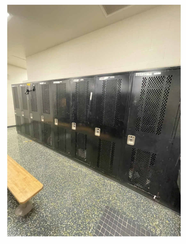



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9. ALL DEMOLITION WORK REQUIRED IS NOT LIMITED TO THAT INDICATED WITH THE CONTRACT DOCUMENTS. IF THE EXISTING CONSTRUCTION THAT INTERFERES WITH NEW WORK TO THE EXTENT OF THE INTERFERENCE, THEN THE ITEM IS TO BE DEMOLISHED. ALL NEW PLUMBING, ELECTRICAL & ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION. CUT & LATER PATCH ALL HOLES & OPENINGS IN EXISTING CONSTRUCTION NECESSARY FOR CONNECTION OF NEW WORK TO THE PASSAGE OF CONDUITS, PIPING, MECHANICAL, PLUMBING & ELECTRICAL UTILITIES & SERVICES.

10. PROVIDE TEMPORARY BARRICADES & OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNER 'S PERSONNEL & GENERAL PUBLIC FROM INJURY DUE TO DEMOLITION. PROVIDE A PROPER MEANS OF EGRESS AS REQUIRED FOR OCCUPIED AREAS PER CODE THROUGH CONSTRUCTION. EGRESS MUST ALSO BE MAINTAINED WITH THE CONTRACTOR 'S AREA.

11. IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY & INFORM THE OWNER 'S REPRESENTATIVE & THE ARCHITECT FOR FURTHER DIRECTION.

STRUCTURAL DEMOLITION

12. PROVIDE SHORING, BRACING, AND SUPPORTS AS REQUIRED TO MAINTAIN THE INTEGRITY OF EXISTING OR NEWLY INSTALLED CONSTRUCTION AS REQUIRED TO REMOVE EXISTING LOAD-BEARING OR NON-LOAD BEARING WALL, FOOTING, OR ROOF CONSTRUCTION. ASSUME RESPONSIBILITY FOR ACTUAL CONDITION OF EXISTING STRUCTURE TO BE DEMOLISHED.

13. UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DOCUMENTS, MAINTAIN THE INTEGRITY OF EXISTING CONSTRUCTION ADJACENT TO NEW STRUCTURAL SYSTEMS. WHERE EXISTING LOAD-BEARING OR NON-LOAD-BEARING, WHEN DEMOLISHED. PROVIDE STRUCTURAL SYSTEMS PER NEW STRUCTURAL & ARCHITECTURAL DOCUMENTS. REFER TO A600 SERIES FOR NEW WORK.

CUTTING AND PATCHING

1. PROVIDE MATERIALS FOR CUTTING AND PATCHING WHICH WILL RESULT IN EQUAL-OR-BETTER WORK THAN BEING CUT OR PATCHED.

2. REMOVE EXISTING CONSTRUCTION SO AS NOT TO DAMAGE EXISTING CONSTRUCTION THAT IS TO REMAIN. PATCH FLOORS, WALLS AND CEILINGS IN A RECTANGULAR PATTERN TO SOUND EXISTING CONDITIONS AND MAKE THEM READY TO RECEIVE ANY NEW FINISHES INDICATED.

3. CAP PLUMBING LINES THAT ARE TO BE REMOVED BELOW FLOOR OR BEHIND WALL OR REMOVE THEM COMPLETELY. PATCH FLOORS AND WALLS TO MATCH EXISTING CONDITIONS. REFER PLUMBING DOCUMENTS FOR ADDITIONAL REQUIREMENTS.

4. AT AREAS WHERE EXISTING FLOOR MOUNTED TOILET ROOM FIXTURES ARE TO BE REMOVED, ALSO REMOVE APPROXIMATELY 30 SF OF TILE FROM THE FLOOR AND 40 SF OF TILE FROM THE WALL. PREPARE THIS AREA TO RECEIVE NEW TILE. THE LAYOUT AND EXACT AMOUNT OF TILE TO BE REMOVED SHALL BE AT THE DIRECTION OF THE ARCHITECT.

5. AT AREAS WHERE EXISTING WALL MOUNTED TOILET ROOM FIXTURES ARE TO BE REMOVED, ALSO REMOVE APPROXIMATELY 40 SF OF TILE FROM THE WALL. PREPARE THIS AREA TO RECEIVE NEW TILE. THE LAYOUT AND EXACT AMOUNT OF TILE TO BE REMOVED SHALL BE AT THE DIRECTION OF THE ARCHITECT.

6. WHERE EXISTING FLOORING, CEILINGS OR WALL FINISHES ARE TO BE REMOVED AND REPLACED WITH NEW FINISHES, SURFACES TO REMAIN SHALL BE STRIPPED CLEAN OF ALL EXISTING FINISHES AND MADE READY TO RECEIVE NEW FINISHES.

7. INSPECT FLOORS TO RECEIVE NEW FINISHES PRIOR TO BID. COMPLETELY REMOVE FLOOR FINISHES TO BE REPLACED AND, CLEAN AND PROPERLY PREPARE THE EXISTING SUBSTRATE PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. STRIP, PATCH, AND FILL TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF BURRS AND ADHESIVE AND SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. UNDER CUT OR ADJUST DOORS TO ACCOMMODATE NEW FLOOR FINISH WHERE NEW FINISH IS THICKER THAN ORIGINAL FINISH.

8. THE NEW CONCRETE TOPPING IS TO BE PLACED OVER EXISTING CONCRETE SLAB, ABRADE EXISTING CONCRETE FINISH FOR BETTER BOND.

9. TOOTH IN MASONRY WHERE EXISTING MASONRY ABUTS NEW MASONRY IN THE SAME WALL PLANE. REFER TO ELEVATIONS ON A200 SERIES FOR NEW MASONRY COURSING AND BOND PATTERN.

10. PROVIDE A FINISHED EDGE BY TOOTHING IN NEW MASONRY TO MATCH EXISTING WHERE A PORTION OF AN EXISTING MASONRY WALL IS TO BE REMOVED (UON).

11. REMOVE EXISTING WINDOWS AND SILLS COMPLETELY PRIOR TO SEALING OPENINGS (UON).

12. NEW MASONRY FRAME AND PATCH WALL WITH SAME ADJACENT MATERIAL AND FINISH AS EXISTING WHERE EXISTING DOOR OPENINGS ARE TO BE SEALED. ALIGN NEW AND EXISTING WALLS (UON).

13. REMOVE EXPANSION JOINT COVERS (FLOOR, WALL, AND CEILING) THAT ARE DAMAGED DURING DEMOLITION AND REPLACE WITH NEW COVERS OF THE SAME TYPE AND FINISH (OR NEW AS DETAILED), WHERE INDICATED.

14. COORDINATE WITH ROOF PLAN SHEET A130 AND DETAILS FOR SELECTED DEMOLITION OF ROOF AREAS.

15. EXISTING DOORS, FRAMES, AND HARDWARE THAT ARE REMOVED MAY BE REUSED, WHERE INDICATED ON PLANS, IF IN GOOD CONDITION IN THE OPINION OF THE ARCHITECT AND OWNER.

16. WHERE INDICATED, REMOVE TACKBOARDS, SMART BOARDS, CHALKBOARDS, MISCELLANEOUS DISPLAY RAILS, AND TOILET ROOM ACCESSORIES. SALVAGE REMOVED ITEMS FOR OWNER OR REINSTALL AS INDICATED IN DRAWINGS AND SPECIFICATIONS. CLEAN AND REPAIR ITEMS AS REQUIRED FOR NEW EQUIPMENT OR TO RECEIVE A NEW FINISH.

17. REMOVE EXISTING LAY-IN CEILING AND GRID FROM AREAS WHERE THERE IS NEW MECHANICAL OR ELECTRICAL WORK ABOVE CEILING. PREPARE FOR A600 SERIES REFLECTED CEILING PLANS TO BE DEMOLISHED.

DEMOLITION KEY NOTES

TAG#	NOTE
1	DEMO EXISTING LOCKERS. EXISTING LOCKER CONCRETE BASE TO REMAIN. RESIZE EXISTING BASE WITH CONCRETE FILL AS REQUIRED TO FIT NEW LOCKERS.
2	DEMO EXISTING DRINKING FOUNTAIN, DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU. GC TO VERIFY LOCATION
3	DEMO ALL EXISTING INTERIOR EPOXY FLOORING AND ADHESIVE MATERIAL AND WALL BASE. SHOPBLAST CLEAN AND PREPARE FLOOR SURFACE PER MANUFACTURERS RECOMMENDATIONS TO INSTALL NEW FLOORING. REFER TO ROOM FINISH SCHEDULE AND MATERIAL SCHEDULE.
4	DEMO EXISTING BENCHES, REPAIR CONCRETE FLOOR AND PREP FOR NEW EPOXY FLOOR.
5	DEMO CASEWORK AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU.
6	DEMO EXISTING SINK AND PATCH WALL AS NEEDED. REF. MEP FOR PLUMBING DEMO REQUIREMENTS
7	REMOVE EXISTING DRYER AND RETURN TO OWNER. ENSURE DRYER IS RETURNED IN SAME CONDITION AS FOUND.
8	REMOVE EXISTING WASHER AND RETURN TO OWNER. ENSURE DRYER IS RETURNED IN SAME CONDITION AS FOUND.
9	DEMO EXISTING INTERIOR CARPET FLOORING AND ADHESIVE MATERIAL AND WALL BASE
10	DEMO EXISTING WIRE MESH PARTITIONS, REPAIR AND PATCH ANY WALLS, CEILINGS AND FLOORING WHICH THE PARTITION IS ATTACHED TO.
11	SAWCUT AND REMOVE EXISTING SLAB. REPLACE UNDERSLAB VAPOR BARRIER AND OVER LAP WITH EXISTING BARRIER ON ALL SIDES. TAPE BARRIER TO ENSURE CONTINUOUS BARRIER. REFERENCE SLAB REPAIR DETAIL 2/AD.01-M
12	DEMO EXISTING GYPSUM CEILING. REF. TO RCP FOR NEW CEILING TYPE AND HEIGHT
13	DEMO EXISTING ACT CEILING TILES. PROTECT EXISTING FIXTURES AND CEILING GRID.
14	DEMO EXISTING HAND DRYERS. DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU. GC TO VERIFY LOCATION
15	DEMO EXISTING LOCKERS AND CONCRETE BASE. LEVEL CONCRETE FLOOR TO PREPARE FOR NEW FINISH DEMO EXISTING INTERIOR CMU WALL
16	DEMO SHOWER DRAIN, REF. PLUMBING DEMO PLAN.
17	DEMO EXISTING INTERIOR CMU WALL. REPAIR FLOORS, CEILINGS AND WALLS TO REMAIN. PREPARE EXISTING WALLS AND CEILINGS TO RECEIVE NEW SCHEDULED FINISHES.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- FLOOR TO BE SAW CUT AND REMOVED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- (4) DEMO KEY NOTE
- AREA TO BE DEMOLISHED
- REMOVE EXISTING CARPET



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100 % CD

AD.02-M
01 DEMO RCP FIELD HOUSE

MARSHALL HIGH SCHOOL

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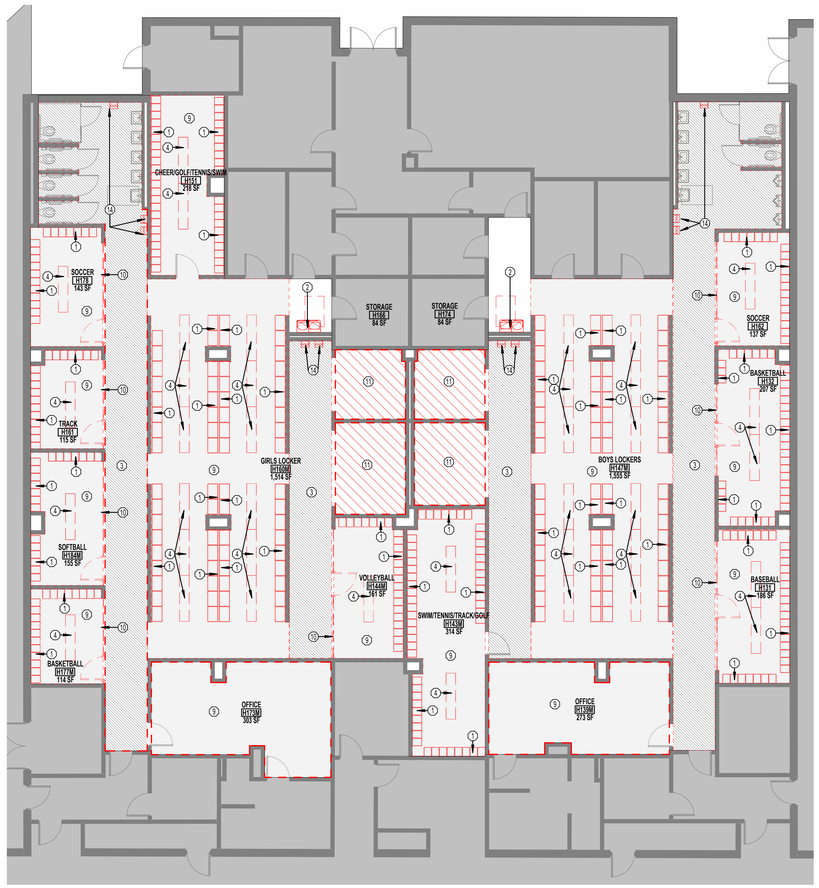
DEMO REFLECTED CEILING PANEL - GYM LOCKERS 2

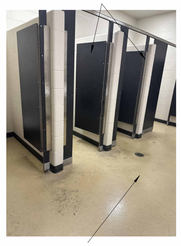
SCALE: 1/8" = 1'-0"



LOCKER ROOM DEMO PLAN 1

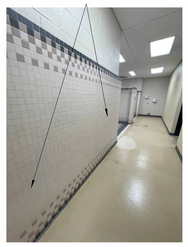
SCALE: 1/8" = 1'-0"

EXISTING TOILET PARTITIONS TO REMAIN

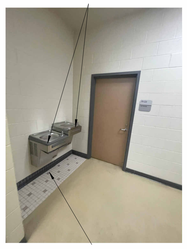


EXISTING WALL MOUNTED PLUMBING FIXTURES TO REMAIN, FLOOR TO BE DEMOLISHED

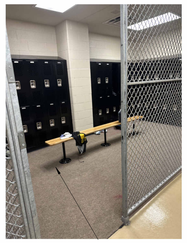
TILE TO REMAIN



DEMO EXISTING DF

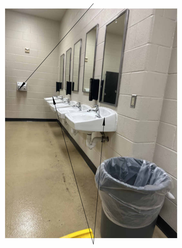


DEMO FLOOR AND TILE



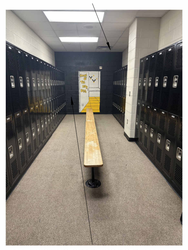
DEMO CARPET

DEMO HAND DRYER

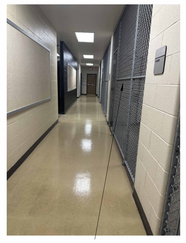


DEMOLISH GIRLS RESTROOM SINKS

DEMO CEILING TILES

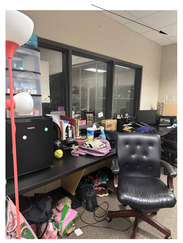


ALL EXISTING GRAPHICS TO REMAIN- TAPE AROUND AND PAINT



DEMO ALL WIRE MESH PARTITIONS

DEMO CEILING TILES IN COACHES OFFICE





GENERAL DEMOLITION NOTES

1. VISIT THE SITE TO UNDERSTAND THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. THE EXISTING BUILDING CONDITION SURVEY WAS COMPILED FROM DRAWINGS PROVIDED BY THE OWNER. THESE DRAWINGS WERE NOT AS-BUILT DRAWINGS & ACTUAL CONDITIONS / DIMENSIONS MAY VARY FROM WHAT IS INDICATED. REPORT DISCREPANCIES OR AMBIGUOUS ITEMS TO THE ARCHITECT PRIOR TO START OF FABRICATION. ANY OTHER DISCREPANCIES NOTED BY THE ARCHITECT FIELD INSPECTIONS UNCOVERED, OR DISCREPANCIES IN THE CONTRACT DOCUMENTS WHICH DO NOT COMPLY WITH THE INTENDED FINAL PRODUCT & REQUEST MODIFICATIONS TO THE LAYOUT.

2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION WORK. ALL DEMOLITION WORK TO BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE CODES, LAWS & REGULATIONS INCLUDING OWNER REQUIREMENTS.

3. COORDINATE DEMOLITION WORK WITH PLAN SHEETS AND DETAILS. REFER TO A200 SERIES FOR DOOR AND WINDOW FRAME TYPICALS AND DETAILS AT NEW OPENINGS IN EXISTING WALLS.

4. REFER TO CIVIL, STRUCTURAL, AND MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION REQUIREMENTS. PATCH ALL WHERE FIXTURES AND EQUIPMENT ARE DEMOLISHED TO MATCH EXISTING ADJACENT SURFACE.

5. THE OWNER HAS FIRST RIGHTS OF SALVAGE OF ALL FIXTURES, EQUIPMENT AND BUILDING MATERIALS REMOVED AS PART OF THE DEMOLITION AND NOT REUSED IN THE NEW CONSTRUCTION. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF CONSTRUCTION SCRAP IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

6. PRIOR TO START OF DEMOLITION, SECURE FROM THE OWNER A LIST OF ADDITIONAL EXISTING BUILDING COMPONENTS TO BE SALVAGED AND DELIVERED TO THE OWNER EXERCISE SUFFICIENT CARE IN SALVAGE OPERATIONS SUCH THAT SALVAGED COMPONENTS ARE DELIVERED TO THE OWNER IN THEIR EXISTING UNDAMAGED CONDITION.

7. PROTECT ADJACENT AREAS FROM DUST, EXCESSIVE NOISE & / OR DISRUPTION OF OCCUPANCY. REMOVE ALL WORK THAT INTERFERES WITH THE OPERATION OF THE SURROUNDING AREAS & ANY INTERRUPTION OF SERVICES INCLUDING THE OPERATION OF UTILITIES SHALL BE PERFORMED AT A TIME APPROVED BY THE OWNER'S REPRESENTATIVE.

8. PROTECT EXISTING STRUCTURES, FINISHES, UTILITIES & OTHER ELEMENTS SCHEDULED TO REMAIN. PRIOR TO DEMOLITION, DOCUMENT SURROUNDING PROPERTIES WHICH COULD BE COMPROMISED AND DAMAGE RESULTING FROM DEMOLITION & FILE WITH OWNER'S REPRESENTATIVE. AREAS THAT ARE DAMAGED BY SELECTIVE DEMOLITION SHALL BE PATCHED, REPAIRED & FINISHED OR REPLACED TO MATCH EXISTING ADJACENT SURFACE AT NO EXPENSE TO THE OWNER.

9. ALL DEMOLITION WORK REQUIRED IS NOT LIMITED TO THAT INDICATED WITH THE CONTRACT DOCUMENTS. IF THE EXISTING CONSTRUCTION THAT INTERFERES WITH NEW WORK TO THE EXTENT OF THE INTERFERENCE, THEN THE ITEM IS TO BE DEMOLISHED. ALL NEW PLUMBING, ELECTRICAL & ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION. CUT & LATER PATCH ALL HOLES & OPENINGS IN EXISTING CONSTRUCTION NECESSARY FOR CONNECTION OF NEW WORK TO THE PASSAGE OF CONDUITS, PIPING, MECHANICAL, PLUMBING & ELECTRICAL UTILITIES & SERVICES.

10. PROVIDE TEMPORARY BARRICADES & OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNER 'S PERSONNEL & GENERAL PUBLIC FROM INJURY DUE TO DEMOLITION. PROVIDE A PROPER MEANS OF EGRESS AS REQUIRED FOR OCCUPIED AREAS PER CODE THROUGH CONSTRUCTION. EGRESS MUST ALSO BE MAINTAINED WITH THE CONTRACTOR 'S AREA.

11. IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY & INFORM THE OWNER 'S REPRESENTATIVE & THE ARCHITECT FOR FURTHER DIRECTION.

STRUCTURAL DEMOLITION

12. PROVIDE SHORING, BRACING, AND SUPPORTS AS REQUIRED TO MAINTAIN THE INTEGRITY OF EXISTING OR NEWLY INSTALLED CONSTRUCTION AS REQUIRED TO REMOVE EXISTING LOAD-BEARING OR NON-LOAD BEARING WALL, FOOTING, OR ROOF CONSTRUCTION. ASSUME RESPONSIBILITY FOR ACTUAL CONDITION OF EXISTING STRUCTURE TO BE DEMOLISHED.

13. UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DOCUMENTS, MAINTAIN THE INTEGRITY OF EXISTING CONSTRUCTION ADJACENT TO NEW STRUCTURAL SYSTEMS. WHERE EXISTING LOAD-BEARING OR NON-LOAD-BEARING, WHEN DEMOLISHED, PROVIDE STRUCTURAL SYSTEMS PER NEW STRUCTURAL & ARCHITECTURAL DOCUMENTS. REFER TO A500 SERIES FOR NEW WORK.

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1. PROVIDE MATERIALS FOR CUTTING AND PATCHING WHICH WILL RESULT IN EQUAL-OR-BETTER WORK THAN BEING CUT OR PATCHED.

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5. AT AREAS WHERE EXISTING WALL MOUNTED TOILET ROOM FIXTURES ARE TO BE REMOVED, ALSO REMOVE APPROXIMATELY 40 SF OF TILE FROM THE WALL. PREPARE THIS AREA TO RECEIVE NEW TILE. THE LAYOUT AND EXACT AMOUNT OF TILE TO BE REMOVED SHALL BE AT THE DIRECTION OF THE ARCHITECT.

6. WHERE EXISTING FLOORING, CEILINGS OR WALL FINISHES ARE TO BE REMOVED AND REPLACED WITH NEW FINISHES, SURFACES TO REMAIN SHALL BE STRIPPED CLEAN OF ALL EXISTING FINISHES AND MADE READY TO RECEIVE NEW FINISHES.

7. INSPECT FLOORS TO RECEIVE NEW FINISHES PRIOR TO BID. COMPLETELY REMOVE FLOOR FINISHES TO BE REPLACED AND, CLEAN AND PROPERLY PREPARE THE EXISTING SUBSTRATE PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. STRIP, PATCH, AND FILL TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF BURRS AND ADHESIVE AND SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. UNDER CUT OR ADJUST DOORS TO ACCOMMODATE NEW FLOOR FINISH WHERE NEW FINISH IS THICKER THAN ORIGINAL FINISH.

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- SCOPE OF DEMOLITION
- DEMO KEY NOTE
- AREA TO BE DEMOLISHED
- REMOVE EXISTING CARPET

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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REVISIONS:

	Date	Description

100 % CD

AD.03-M

01 DEMO FLOOR PLAN GYM LOCKER

MARSHALL HIGH SCHOOL

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ABBREVIATIONS

A	
A.F.F.	ABOVE FINISH FLOOR
ACC.FL.	ACCESS FLOOR
A.P.	ACCESS PANEL
ACOUS.	ACOUSTICAL
ACT.	ACOUSTICAL CEILING TILE
ADD.	ADDENDUM
ADJNT.	ADJACENT
ADJ.	ADJUSTABLE
ADMIN.	ADMINISTRATION
AGG.	AGGREGATE
A/C	AIR CONDITIONING
ALT.	ALTERNATE, ALTERNATIVE
ALUM.	ALUMINUM
ANCH.	ANCHOR, ANCHORAGE
ANOD.	ANODIZED
APPROX.	APPROXIMATE
ARCH.	ARCHITECT
A.D.	AREA DRAIN
ASPH.	ASPHALT
AUTO.	AUTOMATIC
B	
BSMT.	BASEMENT
BM.	BENCH MARK
BTWN.	BETWEEN
BEV.	BEVEL
BIT.	BITUMINOUS
BLK.	BLOCKING
BD.	BOARD
B.S.	BOTH SIDES
B.W.	BOTH WAYS
B.O.D.	BOTTOM OF DECK
BRK.	BRACKET
BRZ.	BRONZE
BLDG.	BUILDING
BUR.	BUILT UP ROOFING
C	
CAB.	CABINET
CPT.	CARPET
CSMT.	CASEMENT
CIP.	CAST IN PLACE CONCRETE
C.B.	CATCH BASIN
CLG.	CEILING
CLG. HT.	CEILING HEIGHT
CEM.	CEMENT
CL	CENTERLINE
CT	CERAMIC TILE
C.O.	CLEAN OUT
CLR.	CLEAR(ANCE)
CLO.	CLOSET
COL.	COLUMN
COMPT.	COMPARTMENT
COMPR.	COMPRESS
COMP.	COMPUTER
CONC.	CONCRETE
CMU.	CONCRETE MASONRY UNIT
CONST.	CONSTRUCTION
CONT	CONTINUOUS
CONTR.	CONTRACT/CONTRACTOR
CFCI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
C.J.	CONTROL JOINT
CPR.	COPPER
CG.	CORNER GUARD
CORR.	CORRIDOR
CTR.	COUNTER
C. FL.	COUNTER FLASHING
CTR. SNK.	COUNTER SUNK
CRS.	COURSE
CU. FT.	CUBIC FEET
CU. YD.	CUBIC YARD
D	
D.P.	DAMP PROOFING
DPR.	DAMPER
DL.	DEAD LOAD
DEMO.	DEMOLISH, DEMOLITION
DEP.	DEPRESS
DTL.	DETAIL
DIAG.	DIAGONAL
DIAM.	DIAMETER
DW.	DISH WASHER
DISPR.	DISPENSER
DIV.	DIVISION
DR.	DOOR
DBL.	DOUBLE
DH.	DOUBLE HUNG
DN.	DOWN
DS.	DOWNSPOUT
DRN.	DRAIN
DRN. BD.	DRAIN BOARD
DRN. TL.	DRAIN TILE
DWR.	DRAWER
DWG.	DRAWING
DF	DRINKING FOUNTAIN
E	
EA	EACH
EA. FA.	EACH FACE
E.	EAST
ELEC.	ELECTRIC
EDF.	ELECTRIC DRINKING FOUNTAIN
EP.	ELECTRICAL PANEL
ELEV.	ELEVATION
EMERG.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EXCAV.	EXCAVATE
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EJ	EXPANSION JOINT
EXT.	EXTERIOR
EPS	EXTRUDED POLY STYRENE
F	
FAB	FABRICATED
FV.	FIELD VERIFY
FIN.	FINISH
FIN. FLR.	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FA.	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FE.	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHS.	FIRE HOSE CABINET
FPL.	FIRE PLACE
FP.	FIRE PROOFING
FRC.	FIRE RESISTANT COATING
F. RT.	FIRE RETARDANT
FLSHG.	FLASHING
FLEX	FLEXIBLE
FLR.	FLOOR
FLR. C.O.	FLOOR CLEAN OUT
FD.	FLOOR DRAIN
FLR. JT.	FLOOR JOINT
FLR. PLT.	FLOOR PLATE
FLOUR.	FLUORESCENT
FTG.	FOOTING
FRMG.	FRAMING
FBO.	FURNISHED BY OWNER
FURR.	FURRED (ING)
FUT.	FUTURE
FRG.	REFRIGERATOR
G	
GALV.	GALVANIZED
GSKT.	GASKET
GA.	GAUGE
GC.	GENERAL CONTRACTOR
GLS.	GLASS
GL. BLK.	GLASS BLOCK
GL. CMU.	GLAZED CONCRETE MASONRY UNIT
GST.	GLAZED STRUCTURAL TILE
GB.	GRAB BAR
GBLK.	GREEN BLOCK
GRT.	GROUT
GYPCTE.	GYPCRETE
GYP. PL.	GYPSUM PLASTER
GYP. T.	GYPSUM TILE
GWB.	GYPSUM WALL BOARD
H	
HD. BD.	HARD BOARD
HD. JT.	HARD JOINT
HDW.	HARDWARE
HDWD.	HARDWOOD
HDR.	HEADER
HTG.	HEATING
HVAC.	HEATING, VENTILATION, AIR CONDITIONING
HVY. D.	HEAVY DUTY
HT.	HEIGHT
HC.	HOLLOW CORE
HM.	HOLLOW METAL
HORIZ.	HORIZONTAL
HB.	HOSE BIB
HWH.	HOT WATER HEATER
HR.	HOUR
I	
INCL.	INCLUDE
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INTERM.	INTERMEDIATE
INV.	INVERT
J	
JAN.	JANITOR
J.C.	JANITORS CLOSET
JT.	JOINT
JF.	JOINT FILLER
JST.	JOIST
K	
K. PL.	KICK PLATE
KIT.	KITCHEN
K.O.	KNOCK OUT
L	
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LH.	LEFT HAND
LC.	LIGHT CONTROL
LT. WT.	LIGHT WEIGHT
LT.	LIGHT, RE: ELECTRICAL
LT. CONC.	LIGHTWEIGHT CONCRETE
LMSTN.	LIMESTONE
LTL.	LINTEL
LL.	LIVE LOAD
LB.	LOAD BEARING
LPT.	LOW POINT
M	
MH.	MAN HOLE
MFR.	MANUFACTURE
MRB.	MARBLE
MB	MARKER BOARD
MAS.	MASONRY
M.O.	MASONRY OPENING
MU	MASONRY UNIT
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP.	MECHANICAL/ELECTRICAL/ PLUMBING
M.C.	MEDICINE CABINET
MEMB.	MEMBRANE
MTL.	METAL
MFD.	METAL FLOOR DECK
MRD.	METAL ROOF DECK
M. THR.	METAL THRESHOLD
MWK.	MILLWORK
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MOD.	MODULAR
MLDG.	MOLDING
MT.	MOUNT
MTD.	MOUNTED
MOV.	MOVE
MULL.	MULLION
N	
NAT.	NATURAL
NR.	NOISE REDUCTION
NOM.	NOMINAL
N.	NORTH
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
O	
OC.	ON CENTER
OCEW	ON CENTER EACH WAY
OPG.	OPENING
OPP.	OPPOSITE
OH	OPPOSITE HAND
OH.	OPPOSITE HAND
O.A.	OVER ALL
OVRHD.	OVER HEAD
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	
PNT.	PAINT
PTD.	PAINTED
PNL.	PANEL
PB.	PANIC BAR
PTDIS.	PAPER TOWEL DISPENSER
PTR.	PAPER TOWEL RECEPTACLE
PAR.	PARALLEL
PKG.	PARKING
P. BD.	PARTICLE BOARD
PARTN.	PARTITION
PVT.	PAVEMENT
PERF.	PERFORATED
PERIM.	PERIMETER
PLAS.	PLASTER
PLAM	PLASTIC LAMINATE
PL.	PLATE
PLY.	PLYWOOD
PVC.	POLYVINYL CHLORIDE
PREFAB.	PREFABRICATED
PREFIN.	PREFINISHED
P.L.	PROPERTY LINE
Q	
QT.	QUARRY TILE
R	
RAD.	RADIUS
REF.	REFERENCE
RFL.	REFLECTED
REG.	REGISTRAR
REINF.	REINFORCING
REM.	REMOVE
REQ'D.	REQUIRED
RES.	RESILIENT
RET.	RETURN
RA.	RETURN AIR
RVS.	REVERSE
REV.	REVISION
RH.	RIGHT HAND
R.O.W.	RIGHT OF WAY
RD.	ROOF DRAIN
RF. HT.	ROOF HEIGHT
RFG.	ROOFING
RM.	ROOM
RO.	ROUGH OPENING
RB.	RUBBER BASE
S	
SF. GL.	SAFETY GLASS
SCHED.	SCHEDULE
SLNT.	SEALANT
STG.	SEATING
SCTN.	SECTION
SHTH.	SHEATHING
SHT.	SHEET
SH. GL.	SHEET GLASS
SHR.	SHORING
SIM.	SIMILAR
SKYLT.	SKYLIGHT
SLV.	SLEEVE
SC.	SOLID CORE
SCW	SOLID CORE WOOD
S.	SOUTH
SPCR.	SPACER
SPKR.	SPEAKER
SPEC.	SPECIFICATIONS
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STA.	STATION
STL.	STEEL
STN.	STONE
STOR.	STORAGE
SD.	STORM DRAIN
STRUCT.	STRUCTURE (TURAL)
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
SYN.	SYNTHETIC
SYS.	SYSTEM
T	
TB.	TACK BOARD
TK. STP.	TACK STRIP
TEL.	TELEPHONE
TV	TELEVISION
THK.	THICK
THR.	THRESHOLD
TO. COL.	TOP OF COLUMN
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.J.	TOP OF JOIST
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
TG.	TOUNG AND GROOVE
TR.	TREAD
TYP.	TYPICAL
U	
UC.	UNDER CUT
UNFIN.	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR.	URINAL
V	
VB.	VAPOR BARRIER
VAR.	VARIES
VNR.	VENEER
VIF.	VERIFY IN FIELD
VERT.	VERTICAL
VG.	VERTICAL GRAIN
VIN.	VINYL
VIN. B.	VINYL BASE
VCT	VINYL COMPOSITION TILE
VIN. F.	VINYL FABRIC
VIN. T.	VINYL TILE
W	
WSCT.	WAINSCOT
WH.	WALL HUNG
WC.	WATER CLOSET
WPRF.	WATER PROOFING
WRP.	WATER REPELLENT
WS.	WATER STOP
WWF.	WELDED WIRE FABRIC
WWM.	WELDED WIRE MESH
W.	WEST
WDW.	WINDOW
WGLS.	WIRE GLASS
WM.	WIRE MESH
W.	WITH
WO.	WITHOUT
WD.	WOOD
WD. B.	WOOD BASE
W. PT.	WORKING POINT

SYMBOLS & LEGENDS

ARCHITECTURAL DRAWING SYMBOLS

- Name 101 150 SF — ROOM TAG WITH ROOM FINISH
- Name 101 XXX SF/ XXX(P) — ROOM TAG WITH OCCUPANCY SF=SQUARE FEET P=PEOPLE
- 101 — DOOR TAG
- XX1 — PARTITION TAG
- HOLLOW METAL FRAME TAG
- 1 — ALUMINUM FRAME TAG
- EXPANSION JOINT
- 21 / A101 SIM. — ENLARGED CALL OUT
- 1 / A101 SIM — BUILDING SECTION TAG
- 1 / A101 SIM — WALL SECTION TAG
- 1 / A101 SIM — DETAIL SECTION TAG
- 20 / A101 Ref — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- 15/ A 9.24 — VIEW REFERENCE DETAIL
- Elevation Name — ELEVATION/ LEVEL TAG
- AB — COLUMN GRID
- 5' DIAMETER ADA TURN AROUND
- REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC P RQ R EQ — EXIT POINT WITH WIDTH INDICATED IN INCHES OCCUPANT LOAD SHOWN VERTICAL P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- CENTER LINE
- MATCH LINE
- ITEM SHOWN IS ABOVE/BELOW OR TO BE REMOVED(ON DEMO SHTS) U.N.O.
- PROPERTY LINE
- BREAK LINE
- LONGEST TRAVEL DISTANCE TO EXIT
- BUILDING EXIT

WALL LEGEND

- EXISTING WALL TO REMAIN
- METAL STUD PARTITION
- CMU PARTITION
- 1 HR WALL CONSTRUCTION
- 1 HR CMU WALL CONSTRUCTION
- 2 HR WALL CONSTRUCTION
- 2 HR CMU WALL CONSTRUCTION

MATERIALS LEGEND

- EARTH (COMPACTED)
- POUROUS FILL (STONE OR GRAVEL)
- CONCRETE
- PLASTER/SAND/CEMENT/ GROUT
- BRICK (COMMON OR FACE)
- CONCRETE MASONRY UNIT (CMU)
- METAL (LARGE SCALE)
- METAL (SMALL SCALE)
- BATT INSULATION
- RIGID BOARD OR SPRAY FOAM INSULATION
- ROUGH WOOD (CONTINUOUS)
- ROUGH WOOD (NON-CONTINUOUS)
- FINISH WOOD
- PLYWOOD

PROJECT GENERAL NOTES

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A WATERTIGHT & WEATHERTIGHT BUILDING
2. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A PLUM, LEVEL AND SQUARE STRUCTURE UNLESS OTHERWISE NOTED ANY DEVIATION FROM THIS GENERAL INTENT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
3. THE BUILDING SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL THE APPLICABLE CODES, ORDINANCES AND REGULATIONS AS WELL AS THE DRAWINGS & SPECIFICATION. ANY CODE DEFICIENCIES IN THE DRAWINGS RECOGNIZED BY THE CONTRACTOR SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
4. THE CONTRACTOR SHALL VISIT PROJECT SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ANY AMBIGUOUS ITEMS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO SUBMITTING PROPOSAL.
5. THE CONTRACTOR IS TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES REQUIREMENTS, AND COMPLETE TEXAS HEALTH DEPARTMENT NOTIFICATIONS AND SUBMIT FORMS AND REQUIRED INFORMATION TO MEET " TEXAS COMMISSION ON ENVIRONMENTAL QUALITY" (TCEQ) REQUIREMENTS PRIOR TO START OF PROJECT
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF THE BUILDING ON THE SITE AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE BIDDING THE PROJECT OR THE COMMENCEMENT OF WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR CHANGES TO THE WORK DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HISHER SELF WITH EXISTING CONDITIONS
7. DO NOT SCALE DRAWINGS: ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE AND SHALL BE FIELD VERIFIED AND COORDINATED WITH WORK OF ALL TRADES. IF NO DIMENSIONS ARE GIVEN OR DISCREPANCIES FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION BEFORE BIDDING OR COMMENCING THE WORK.
8. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, ALL INCLUDED AS PART OF THE WORK.
9. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
10. THE CONTRACTOR SHALL VERIFY THE SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS AND BASES, AS WELL AS POWER, WATER AND DRAIN REQUIREMENTS FOR SUCH EQUIPMENT WITH EQUIPMENT MFG. DEVIATION OF BEFORE MENTIONED REQUIREMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
11. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE WITH THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. REVIEW ALL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
12. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
13. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
14. PROVIDE FIRE STOPS WHEREVER INTERIOR AND EXTERIOR WALLS AND PARTITIONS INTERSECT FLOORS, CEILINGS, AND ROOFS. ALSO PROVIDE AT ALL OPENINGS AROUND PENETRATIONS TO PREVENT VERTICAL & HORIZONTAL COMMUNICATION OF FIRE ALONG LINES OF CORRIDORS, OCCUPANCY CHANGES, AND SIMILAR SEPARATIONS.
15. ALL WALL WIDTHS ARE SHOWN AND DIMENSIONED WITH ACTUAL DIMENSIONS. DIMENSIONS FOR FRAMED WALLS ARE SHOWN TO FACE OF STUDS AND/OR FACE OF BLOCK U.N.O.
16. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
17. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
18. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
19. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
20. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
21. DIFFUSERS, LIGHT FIXTURES, ETC., ARE INDICATED ON THE REFLECTED CEILING PLAN FOR LOCATION AND COORDINATION. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
22. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
23. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
24. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
25. CLASSROOM FURNITURE INDICATED ON THE FLOOR PLANS, NOT INDICATED AS "BUILT-IN", ARE NOT IN PROJECT CONTRACT. FURNITURE IS SHOWN FOR TYPICAL CLASSROOM ARRANGEMENT, ONLY.
26. GENERAL CONTRACTORS AND SUB-CONTRACTORS ARE TO SCHEDULE AND COMPLETE THEIR WORK SO AS TO KEEP MECHANICAL, ELECTRICAL, TELEPHONE, DATA, HVAC CONTROL, INTERCOM, AND OTHER EXISTING SYSTEMS OPERATIONAL IN AREAS OCCUPIED BY THE OWNER DURING THE RENOVATION AND CONSTRUCTION OF THE PROJECT
27. WHERE EXISTING OR NEW EXPANSION JOINTS ARE EXPOSED DUE TO NEW CONSTRUCTION OR RENOVATION, PROVIDE APPROVED FLOOR, WALL, AND/OR CEILING EXPANSION JOINT COVER ASSEMBLIES AS REQUIRED.
28. WHERE NEW FLOORING IS TO BE INSTALLED ON TOP OF EXISTING FLOOR SLAB, PROVIDE FLOOR LEVELING COMPOUND AS REQUIRED TO PROVIDE LEVEL WORKABLE SURFACE FOR NEW FINISHES
29. CONTRACTOR IS TO ENSURE THAT NEW AND/OR EXISTING MECHANICAL, ELECTRICAL, DATA, AND CONTROL SYSTEMS ARE CONCEALED TO THE GREATEST EXTENT AS POSSIBLE UNLESS OTHERWISE NOTED
30. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
31. ALL EXPOSED METALS EXCEPT GALVANIZED AND PRE-FINISHED ITEMS, SHALL BE FINISH PAINTED - COLOR TO BE SELECTED BY ARCHITECT. REF SPECS FOR FIELD WELDS AT GALV.
32. WHERE THE WORDS "PATCH", "MATCH", "REPAIR", "REPLACE", ARE USED,SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT COLORS, TEXTURES AND FINISH OF DISTURBED AREAS SHALL MATCH IN ALL RESPECTS. REPLACE IS DEFINED AS REMOVE EXISTING AND INSTALL NEW INCLUDING ALL APPROPRIATE ELECTRICAL CONNECTIONS AND WITH MATCHING OR COMPATIBLE EQUIPMENT OR MATERIALS AS SHOWN, SPECIFIED OR REQUIRED FOR COMPLETE INSTALLATION.

SHEET NAMING CONVENTION

A2-XX-X

- A2 — DRAWING SHEET DISCIPLINE
- XX — FIRST LETTER OF THE SCHOOL NAME
- X — SHEET NUMBER IN DISCIPLINE

G	GENERAL	P	PLUMBING
C	CIVIL	E	ELECTRICAL
L	LANDSCAPE	FP	FIRE PROTECTION
S	STRUCTURAL	FA	FIRE ALARM
IR	IRRIGATION	T	TECHNOLOGY
AD	ARCH DEMOLITION	TE	THEATRICAL
A	ARCHITECTURE	FS	FOOD SERVICES
M	MECHANICAL	AV	AUDIO VISUAL

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100 % CD

A0.00-M
SYMBOLS & ABBREVIATIONS

MARSHALL HIGH SCHOOL

12/4/2025 10:35:41 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_MARSHALL_FBISD ATHLETIC RENOVATIONS BP012-M_R25.rvt

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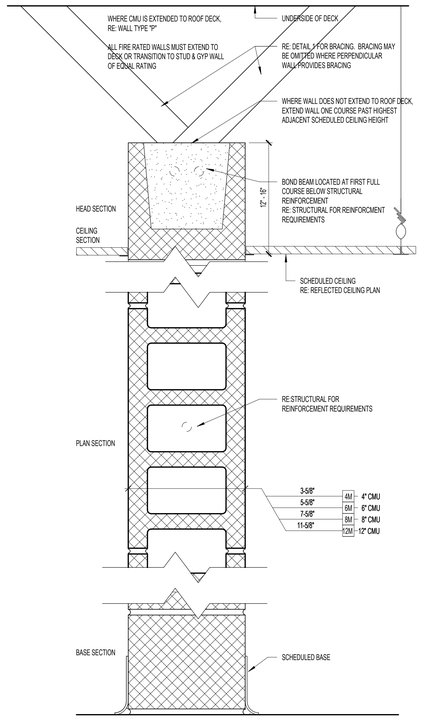
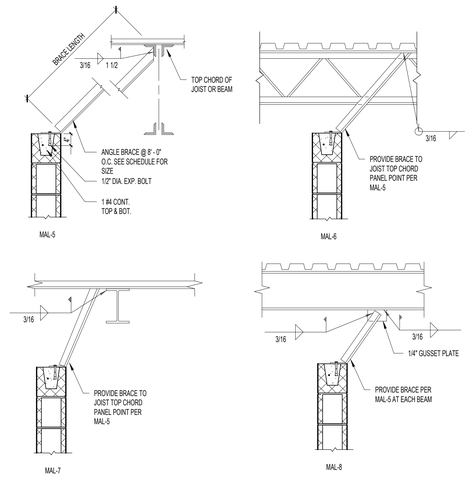


M	CONCRETE MASONRY UNITS W/ HORIZONTAL AND VERTICAL REINFOURCING RE: STRUCTURAL FOR REINFORCING DETAILS							
	NON- RATED	PARTITION TYPE		L/240 LIMITING HEIGHT		FIRE RATING		STC
		RATED	BURNISHED	BLOCK DEPTH	MAX . HEIGHT	HOURS	UL LISTING	
	4M	4MR	4MB	3-5/8"	5'-10"	---	---	43
	6M	6MR	6MB	5-5/8"	9'-0"	...2HR...	U909L	46
	8M	8MR	8MB	7-5/8"	11'-8"	2-4 HR	U901,U904	49
	12M	12MR	12MB	11-5/8"	18'-0"		U905,U907	52



NOTE:
BRACING NOT REQUIRED AT WALLS SUPPORTING CONCRETE CEILINGS & CATWALKS OR WHERE ADJOINING WALLS EXCEED HORIZ. DIM OF CMU SCHEDULE

BRACE LENGTH	ANGLE SIZE
8' - 0" OR LESS	L 2 1/2 X 2 1/2 X 3/16
8' - 1" TO 10' - 0"	L 3 X 3 X 3/16
10' - 1" TO 13' - 0"	L 4 X 4 X 1/4
13' - 1" TO 16' - 0"	2 - L 3 X 3 X 3/16

WALL BRACING Copy 1 2
SCALE: 3/4" = 1'-0"

GENERAL PARTITION NOTES

1. FOR HEIGHTS OF WALL SEE BLDG.'G SECTIONS OR ELEVATIONS.
2. EVERY WALL SHOWN ON PLAN SHALL BE ONE OF THE WALL TYPES SHOWN WHETHER KEYED ON THE PLAN OR NOT. IF WALL DOES NOT HAVE KEY, PROVIDE WALL TYPE TO MATCH ADJACENT OR NEAREST KEY.
3. SEE ROOM FINISH SCHEDULE FOR FINISHES AND CEILING HEIGHTS.
4. FIRE TAPE OR SEAL ALL PENETRATIONS IN FIRE RATED PARTITIONS.
5. ALL WALLS THAT ARE PERPENDICULAR TO ROOF DECK SHOULD BE SEALED TIGHT TO UNDERSIDE OF DECK W/ PACKED INSULATION AND FIRE SAFING. COPE SHEETROCK AROUND CONCRETE PAN.
6. ALL SOUND WALLS TO RECEIVE SEALANT AROUND CRACKS & GAPS OF EDGES @ FLOOR, CEILING AND JUNCTION BOXES.
7. PROVIDE BRACE AT END OF ALL CMU WALLS, EACH SIDE OF CONTROL JOINTS AND AT 8'-0" TYPICAL. IF AN INTERSECTING WALL IS LAYED AT THE SAME TIME, THE WALL MAY BE CONSIDERED A BRACE.
8. ALLOW FOR VERTICAL DEFLECTION OF THE STRUCTURE.
9. ALL METAL STUD ROOF DECK CONNECTIONS TO HAVE SLIP JOINT WITH DEEP LEG METAL STUD TRACK.
10. SEE INTERIOR ELEVATIONS FOR MASONRY/MATERIAL PATTERNS.
11. ALL WALLS AT OCCUPIED OR EXPOSED AREAS TO RECEIVE 3" BASE OF 5/8" DENSHIELD FIREGUARD TILE BACKER. WALLS AT CONCEALED AREAS, SUCH AS THOSE BEHIND MASONRY WAINSCOT, TO HAVE 5/8" DENS SHIELD FIREGUARD TILE BACKER 1/2" FROM FINISH FLOOR WITH SEALANT. AT CONTRACTOR'S DISCRECTION, 1/2" WATERGUARD EXTRUSION MAY BE USED IN LIEU OF DENS SHIELD DETAIL.
12. THE ABREVIATON "N.R." MEANS NO RATING.
13. AT RECESSED OR RAISED FLOORS, INSTALL CMU SOAP COURSE AT BASE OF CMU WALLS TO COURSE MASONRY WITH WALLS STARTING AT FINISH FLOOR
14. ALL GYP. BOARD IS 5/8" TYPE "X" U.N.O
15. ABOVE CEILING AT ALL FIRE RATED WALLS, PROVIDE 4" HIGH, STENCIL EVERY 8' AND AT LEAST ONE PER WALL READING "FIRE WALL". IN RED PAINT. ALSO PROVIDE STENCIL AT 10' AFF IN MECHANICAL, HOUSEKEEPING, TECHNOLOGY, ELECTRICAL AND STORAGE SPACES THAT DO NOT HAVE A CEILING. STENCIL IS NOT REQUIRED WHERE THE FIRE WALL DOES NOT HAVE AN ADJACENT CEILING AND THE SPACE IS AN OCCUPIED, FINISHED SPACE.

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAMS
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

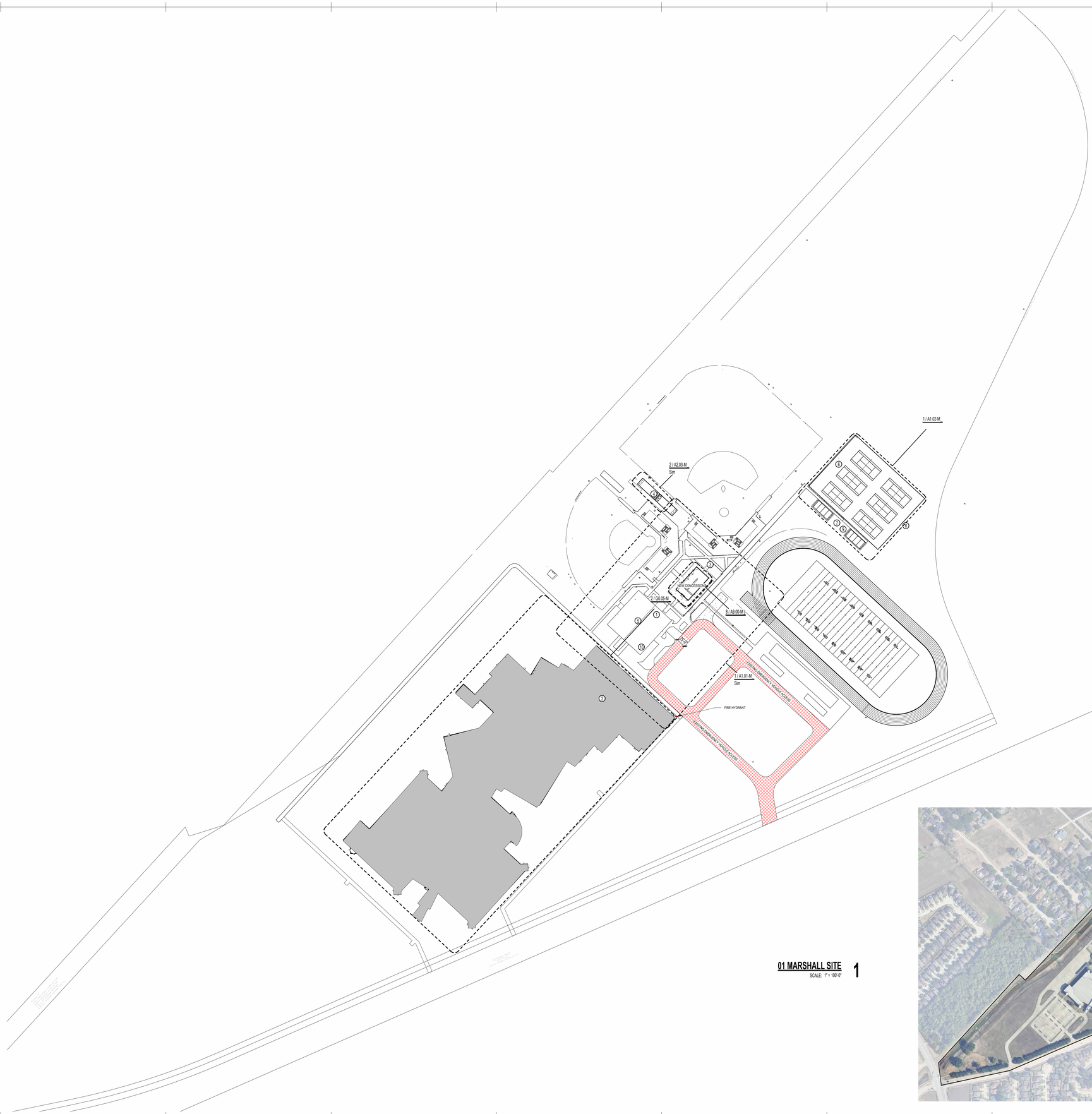
No.	Date	Description

100 % CD

A0.01 -M
PARTITION TYPES

MARSHALL HIGH SCHOOL

12/4/2025 10:36:11 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_MARSHALL_FBISD ATHLETIC RENOVATIONS BP012-M_R25.rvt



01 MARSHALL SITE 1
SCALE: 1" = 100'-0"



SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.

2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS

3. RE: G0.04 & G0.05 FOR CODE PLAN

4. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTORS UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.

5. "REMOVE", "REMOVE AND SALVAGE", AND "REMOVE AND REINSTALL" ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.

6. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.

7. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.

8. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

9. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.

TENNIS COURT STRIPING NOTES

A. ALL STRIPING TO BE 2" TYP. WHITE ON (COLOR) COLORED COURT WITH (COLOR) OUT OF BOUNDS

B. VERIFY COLORS OF COURTS AND OUT OF BOUNDS WITH OWNER/ARCHITECT

SITE PLAN LEGEND

- X X — VINYL COATED CHAIN LINK FENCE, 48" HIGH
- L L — VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M M — BLACK WROUGHT IRON FENCE, 48" HIGH
- R R — BLACK WROUGHT IRON FENCE, 72" HIGH
- 1 / A101 SIM — BUILDING SECTION TAG
- 1 / A101 SIM — WALL SECTION TAG
- EMRGENCY ACCESS
- 21 / A101 SIM — ENLARGED CALL OUT
- FIRE HYDRANT

SITE PLAN KEYNOTES

TAG #	NOTE
1	RENOVATE FEILD HOUSE
2	RENOVATE LOCKER ROOMS
3	NEW 4000 SQFT CONCESSION ,RESTROOM, STORAGE BUILDING
4	ADD SIX HITTING CAGES
5	RENOVATE TRAINING AREA
6	RESURFACE TENNIS COURTS
7	COVERED BLEACHERS
8	NEW TENNIS WINDSCREEN
9	CONCRETE PADDING UNDER BLEACHERS
10	REPLACE WASHER AND DRYER

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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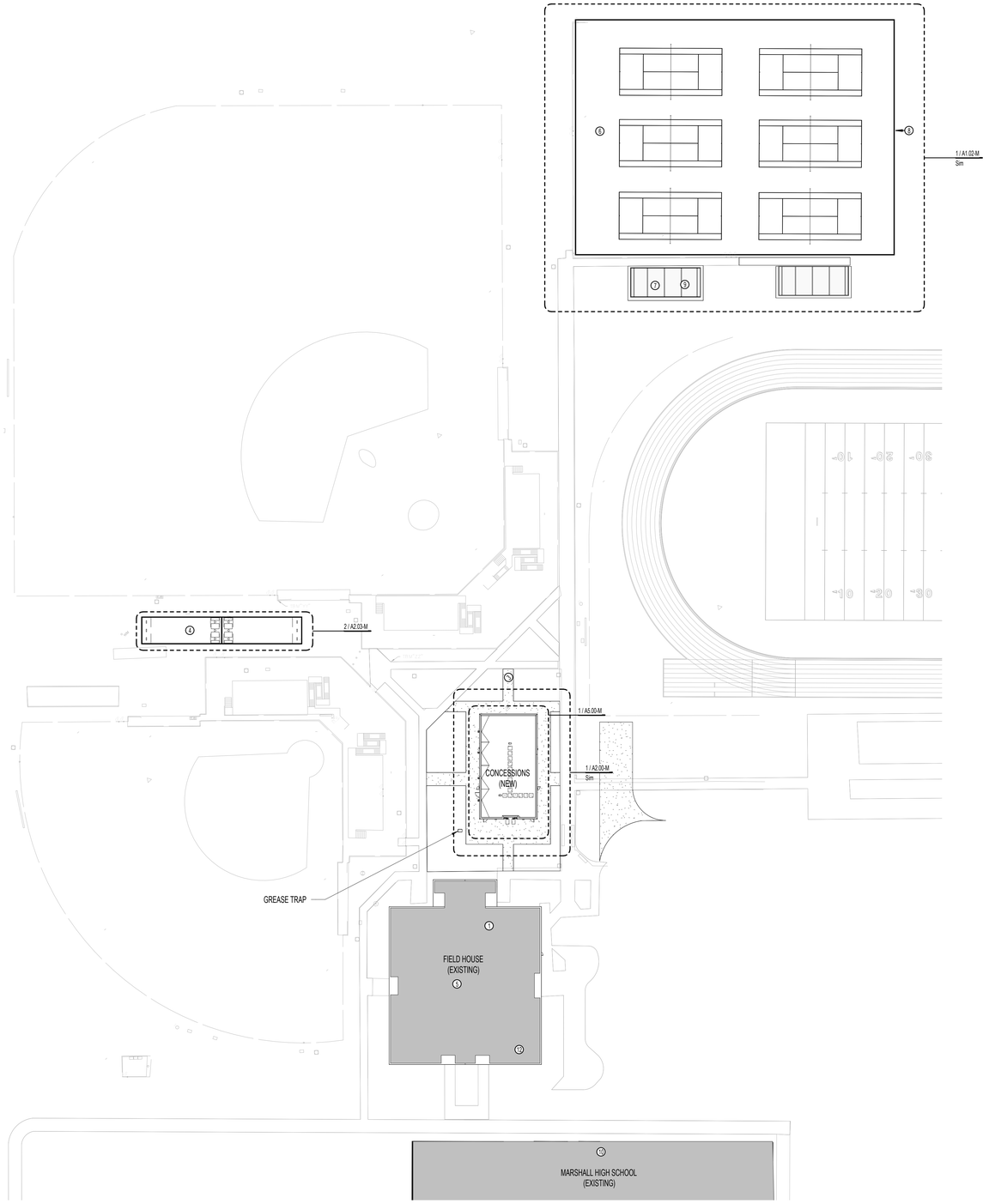
A1.00-M
ARCHITECTURAL SITE PLAN

MARSHALL HIGH SCHOOL



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- WALL SECTION TAG (1 / A101, SIM)
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A1.01-M
ENLARGED SITE PLAN

MARSHALL HIGH SCHOOL

ENLARGED SITE PLAN 1
SCALE: 1" = 40'-0"

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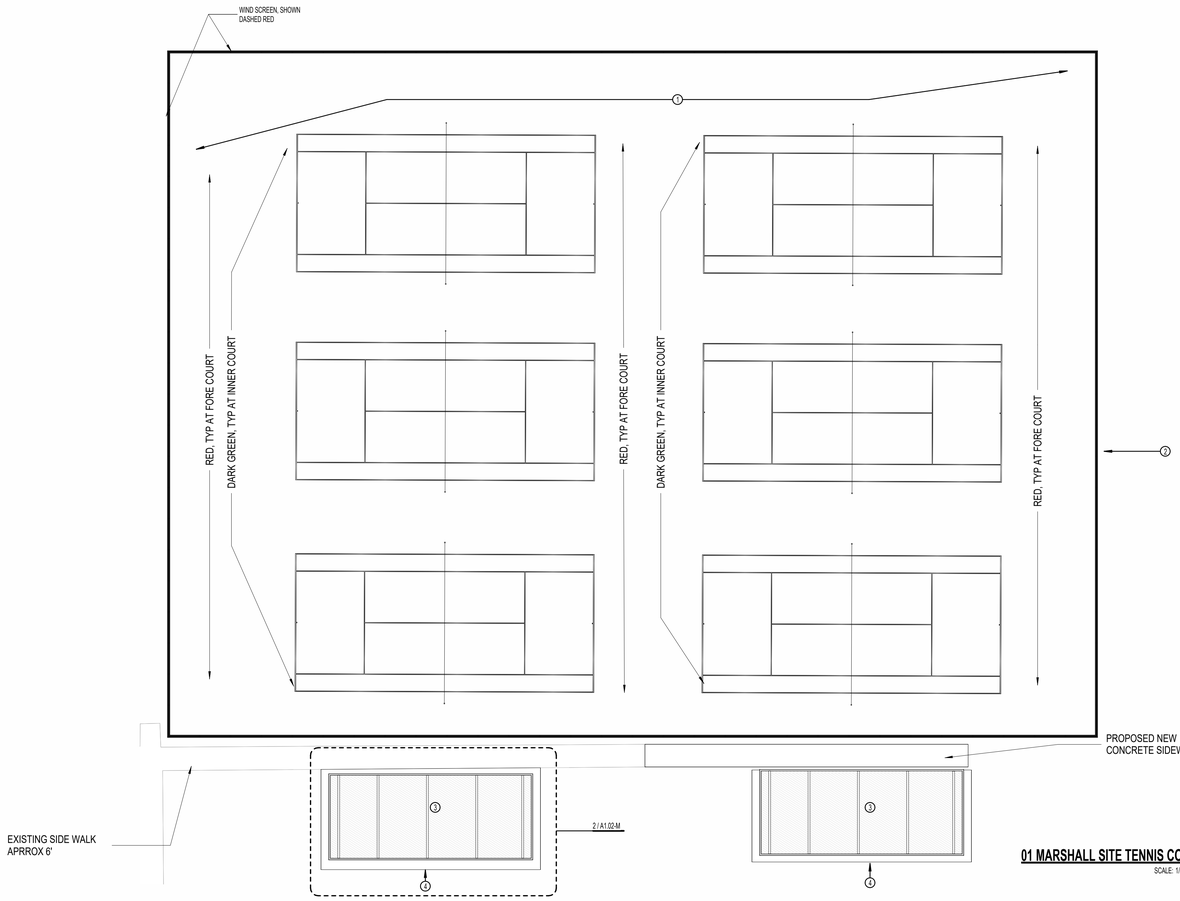
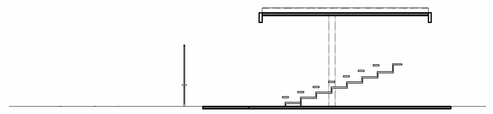


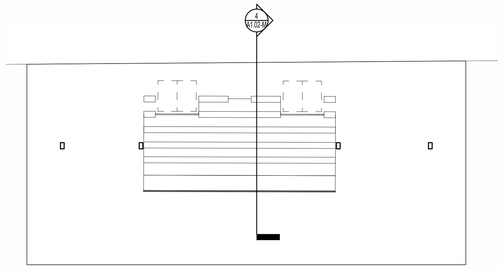
01 MARSHALL SITE TENNIS COURT 1

SCALE: 1/16" = 1'-0"



SITE DETAIL BLEACHER SECTION 4

SCALE: 1/8" = 1'-0"



SITE PLAN BLEACHER LAYOUT 2

SCALE: 1/8" = 1'-0"











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- 21 / A101 SIM. — ENLARGED CALL OUT
- FIRE HYDRANT

SITE PLAN KEYNOTES

TAG #	NOTE
1	RESURFACE TENNIS COURT. PROVIDE EVEN- TEXTURED ACRYLIC SURFACE SYSTEM FOR POST-TENSIONED CONCRETE TENNIS COURTS AS MANUFACTURED BY CALIFORNIA PRODUCTS OR LAYKOLD RECREATIONSAL SPORTS SURFACING. REF. CIVIL
2	NEW TENNIS WINDSCREEN. PROVIDE 9' WINDSCREEN WITH WINDFLAPS FOR EXISTING 12' HIGH FENCE WITH OPEN AREA AT BOTTOM
3	PRE-ENGINEERED ALUMINUM BLEACHERS AND CANOPY
4	NEW CONCRETE PAD FOR NEW BLEACHER AND CANOPY. REF. CIVIL

GENERAL DEMOLITION NOTES

1. VISIT THE SITE TO UNDERSTAND THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. THE EXISTING BUILDING CONDITION SURVEY WAS COMPILED FROM DRAWINGS PROVIDED BY THE OWNER. THESE DRAWINGS WERE NOT AS-BUILT DRAWINGS & ACTUAL CONDITIONS / DIMENSIONS MAY VARY FROM WHAT IS INDICATED. REPORT DISCREPANCIES OR AMBIGUOUS ITEMS TO THE ARCHITECT PRIOR TO START OF FABRICATION. ANY OTHER DISCREPANCIES NOTED BY THE ARCHITECT FIELD INSPECTIONS UNCOVERED, OR DISCREPANCIES IN THE CONTRACT DOCUMENTS WHICH DO NOT COMPLY WITH THE INTENDED FINAL PRODUCT & REQUEST MODIFICATIONS TO THE LAYOUT.

2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION WORK. ALL DEMOLITION WORK TO BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE CODES, LAWS & REGULATIONS INCLUDING OWNER REQUIREMENTS.

3. COORDINATE DEMOLITION WORK WITH PLAN SHEETS AND DETAILS. REFER TO A200 SERIES FOR DOOR AND WINDOW FRAME TYPICALS AND DETAILS AT NEW OPENINGS IN EXISTING WALLS.

4. REFER TO CIVIL, STRUCTURAL, AND MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION REQUIREMENTS. PATCH ALL WHERE FIXTURES AND EQUIPMENT ARE DEMOLISHED TO MATCH EXISTING ADJACENT SURFACE.

5. THE OWNER HAS FIRST RIGHTS OF SALVAGE OF ALL FIXTURES, EQUIPMENT AND BUILDING MATERIALS REMOVED AS PART OF THE DEMOLITION AND NOT REUSED IN THE NEW CONSTRUCTION. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF CONSTRUCTION SCRAP IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

6. PRIOR TO START OF DEMOLITION, SECURE FROM THE OWNER A LIST OF ADDITIONAL EXISTING BUILDING COMPONENTS TO BE SALVAGED AND DELIVERED TO THE OWNER. EXERCISE SUFFICIENT CARE IN SALVAGE OPERATIONS SUCH THAT SALVAGED COMPONENTS ARE DELIVERED TO THE OWNER IN THEIR EXISTING UNDAMAGED CONDITION.

7. PROTECT ADJACENT AREAS FROM DUST, EXCESSIVE NOISE & / OR DISRUPTION OF OCCUPANCY. REMOVE ALL WORK THAT INTERFERES WITH THE OPERATION OF THE SURROUNDING AREAS & ANY INTERRUPTION OF SERVICES INCLUDING THE OPERATION OF UTILITIES SHALL BE PERFORMED AT A TIME APPROVED BY THE OWNER'S REPRESENTATIVE.

8. PROTECT EXISTING STRUCTURES, FINISHES, UTILITIES & OTHER ELEMENTS SCHEDULED TO REMAIN. PRIOR TO DEMOLITION, DOCUMENT SURROUNDING PROPERTIES WHICH COULD BE COMPROMISED AND DAMAGE RESULTING FROM DEMOLITION & FILE WITH OWNER 'S REPRESENTATIVE. AREAS THAT ARE DAMAGED BY SELECTIVE DEMOLITION SHALL BE PATCHED, REPAIRED & FINISHED OR REPLACED TO MATCH EXISTING ADJACENT SURFACE AT NO EXPENSE TO THE OWNER.

9. ALL DEMOLITION WORK REQUIRED IS NOT LIMITED TO THAT INDICATED WITH THE CONTRACT DOCUMENTS. IF THE EXISTING CONSTRUCTION THAT INTERFERES WITH NEW WORK TO THE EXTENT OF THE INTERFERENCE, THEN THE ITEM IS TO BE DEMOLISHED. ALL NEW PLUMBING, ELECTRICAL & ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION. CUT & LATER PATCH ALL HOLES & OPENINGS IN EXISTING CONSTRUCTION NECESSARY FOR CONNECTION OF NEW WORK TO THE PASSAGE OF CONDUITS, PIPING, MECHANICAL PLUMBING & ELECTRICAL UTILITIES & SERVICES.

10. PROVIDE TEMPORARY BARRICADES & OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNER 'S PERSONNEL & GENERAL PUBLIC FROM INJURY DUE TO DEMOLITION. PROVIDE A PROPER MEANS OF EGRESS AS REQUIRED FOR OCCUPIED AREAS PER CODE THROUGH CONSTRUCTION. EGRESS MUST ALSO BE MAINTAINED WITH THE CONTRACTOR 'S AREA.

11. IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY & INFORM THE OWNER 'S REPRESENTATIVE & THE ARCHITECT FOR FURTHER DIRECTION.

STRUCTURAL DEMOLITION

12. PROVIDE SHORING, BRACING, AND SUPPORTS AS REQUIRED TO MAINTAIN THE INTEGRITY OF EXISTING OR NEWLY INSTALLED CONSTRUCTION AS REQUIRED TO REMOVE EXISTING LOAD-BEARING OR NON-LOAD BEARING WALL, FOOTING, OR ROOF CONSTRUCTION. ASSUME RESPONSIBILITY FOR ACTUAL CONDITION OF EXISTING STRUCTURE TO BE DEMOLISHED.

13. UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DOCUMENTS, MAINTAIN THE INTEGRITY OF EXISTING CONSTRUCTION ADJACENT TO NEW STRUCTURAL SYSTEMS. WHERE EXISTING LOAD-BEARING OR NON-LOAD-BEARING, WHEN DEMOLISHED, PROVIDE STRUCTURAL SYSTEMS PER NEW STRUCTURAL & ARCHITECTURAL DOCUMENTS. REFER TO A500 SERIES FOR NEW WORK.

CUTTING AND PATCHING

1. PROVIDE MATERIALS FOR CUTTING AND PATCHING WHICH WILL RESULT IN EQUAL-OR-BETTER WORK THAN BEING CUT OR PATCHED.

2. REMOVE EXISTING CONSTRUCTION SO AS NOT TO DAMAGE EXISTING CONSTRUCTION THAT IS TO REMAIN. PATCH FLOORS, WALLS AND CEILINGS IN A RECTANGULAR PATTERN TO SOUND EXISTING CONDITIONS AND MAKE THEM READY TO RECEIVE ANY NEW FINISHES INDICATED.

3. CAP PLUMBING LINES THAT ARE TO BE REMOVED BELOW FLOOR OR BEHIND WALL OR REMOVE THEM COMPLETELY. PATCH FLOORS AND WALLS TO MATCH EXISTING CONDITIONS. REFER PLUMBING DOCUMENTS FOR ADDITIONAL REQUIREMENTS.

4. AT AREAS WHERE EXISTING FLOOR MOUNTED TOILET ROOM FIXTURES ARE TO BE REMOVED, ALSO REMOVE APPROXIMATELY 30 SF OF TILE FROM THE FLOOR AND 40 SF OF TILE FROM THE WALL. PREPARE THIS AREA TO RECEIVE NEW TILE. THE LAYOUT AND EXACT AMOUNT OF TILE TO BE REMOVED SHALL BE AT THE DIRECTION OF THE ARCHITECT.

5. AT AREAS WHERE EXISTING WALL MOUNTED TOILET ROOM FIXTURES ARE TO BE REMOVED, ALSO REMOVE APPROXIMATELY 40 SF OF TILE FROM THE WALL. PREPARE THIS AREA TO RECEIVE NEW TILE. THE LAYOUT AND EXACT AMOUNT OF TILE TO BE REMOVED SHALL BE AT THE DIRECTION OF THE ARCHITECT.

6. WHERE EXISTING FLOORING, CEILINGS OR WALL FINISHES ARE TO BE REMOVED AND REPLACED WITH NEW FINISHES, SURFACES TO REMAIN SHALL BE STRIPPED CLEAN OF ALL EXISTING FINISHES AND MADE READY TO RECEIVE NEW FINISHES.

7. INSPECT FLOORS TO RECEIVE NEW FINISHES PRIOR TO BID. COMPLETELY REMOVE FLOOR FINISHES TO BE REPLACED AND, CLEAN AND PROPERLY PREPARE THE EXISTING SUBSTRATE PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. STRIP, PATCH, AND FILL TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF BURRS AND ADHESIVE AND SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. UNDER CUT OR ADJUST DOORS TO ACCOMMODATE NEW FLOOR FINISH WHERE NEW FINISH IS THICKER THAN ORIGINAL FINISH.

8. THE NEW CONCRETE TOPPING IS TO BE PLACED OVER EXISTING CONCRETE SLAB, ABRADE EXISTING CONCRETE FINISH FOR BETTER BOND.

9. TOOTH IN MASONRY WHERE EXISTING MASONRY ABUTS NEW MASONRY IN THE SAME WALL PLANE. REFER TO ELEVATIONS ON A200 SERIES FOR NEW MASONRY COURSING AND BOND PATTERN.

10. PROVIDE A FINISHED EDGE BY TOOTHING IN NEW MASONRY TO MATCH EXISTING WHERE A PORTION OF AN EXISTING MASONRY WALL IS TO BE REMOVED (UON).

11. REMOVE EXISTING WINDOWS AND SILLS COMPLETELY PRIOR TO SEALING OPENINGS (UON).

12. NEW MASONRY FRAME AND PATCH WALL WITH SAME ADJACENT MATERIAL AND FINISH AS EXISTING WHERE EXISTING DOOR OPENINGS ARE TO BE SEALED. ALIGN NEW AND EXISTING WALLS (UON).

13. REMOVE EXPANSION JOINT COVERS (FLOOR, WALL, AND CEILING) THAT ARE DAMAGED DURING DEMOLITION AND REPLACE WITH NEW COVERS OF THE SAME TYPE AND FINISH (OR NEW AS DETAILED), WHERE INDICATED.

14. COORDINATE WITH ROOF PLAN SHEET A130 AND DETAILS FOR SELECTED DEMOLITION OF ROOF AREAS.

15. EXISTING DOORS, FRAMES, AND HARDWARE THAT ARE REMOVED MAY BE REUSED, WHERE INDICATED ON PLANS, IF IN GOOD CONDITION IN THE OPINION OF THE ARCHITECT AND OWNER.

16. WHERE INDICATED, REMOVE TACKBOARDS, SMART BOARDS, CHALKBOARDS, MISCELLANEOUS DISPLAY RAILS, AND TOILET ROOM ACCESSORIES. SALVAGE REMOVED ITEMS FOR OWNER OR REINSTALL AS INDICATED IN DRAWINGS AND SPECIFICATIONS. CLEAN AND REPAIR ITEMS AS REQUIRED FOR NEW EQUIPMENT OR TO RECEIVE A NEW FINISH.

17. REMOVE EXISTING LAY-IN CEILING AND GRID FROM AREAS WHERE THERE IS NEW MECHANICAL OR ELECTRICAL WORK ABOVE CEILING. PREPARE FOR A600 SERIES REFLECTED CEILING PLANS TO BE DEMOLISHED.

DEMOLITION KEY NOTES

TAG#	NOTE
1	DEMO EXISTING LOCKERS. EXISTING LOCKER CONCRETE BASE TO REMAIN. RESIZE EXISTING BASE WITH CONCRETE FILL AS REQUIRED TO FIT NEW LOCKERS.
2	DEMO EXISTING DRINKING FOUNTAIN, DEMO AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU. GC TO VERIFY LOCATION
3	DEMO ALL EXISTING INTERIOR EPOXY FLOORING AND ADHESIVE MATERIAL AND WALL BASE. SHOPBLAST CLEAN AND PREPARE FLOOR SURFACE PER MANUFACTURERS RECOMMENDATIONS TO INSTALL NEW FLOORING. REFER TO ROOM FINISH SCHEDULE AND MATERIAL SCHEDULE.
4	DEMO EXISTING BENCHES, REPAIR CONCRETE FLOOR AND PREP FOR NEW EPOXY FLOOR
5	DEMO CASEWORK AND PATCH WALL AS NEEDED. REFINISH AND REPAINT NEW CMU.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- FLOOR TO BE SAW CUT AND REMOVED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 4 — DEMO KEY NOTE
- AREA TO BE DEMOLISHED

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REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

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A1.02-M

SITE DETAILS TENNIS COURT

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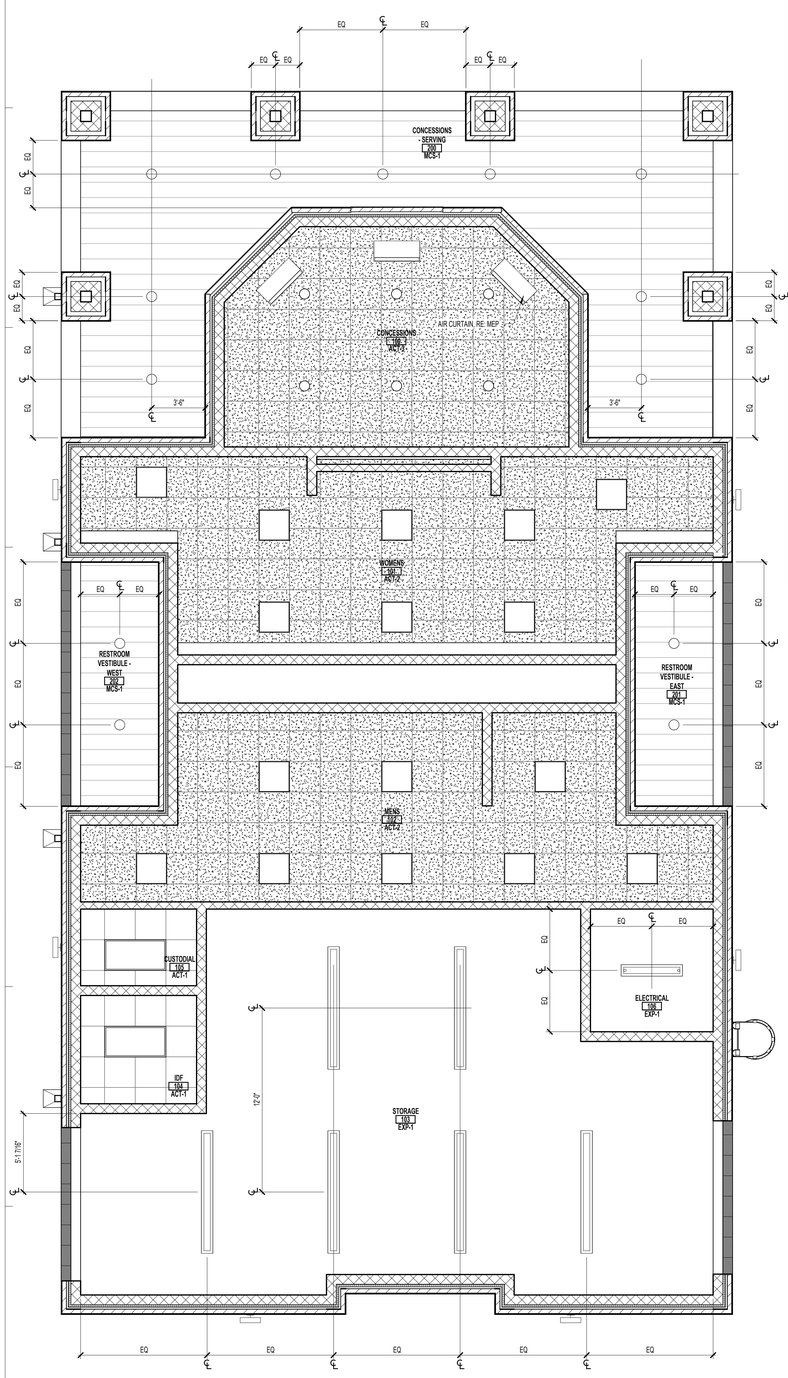
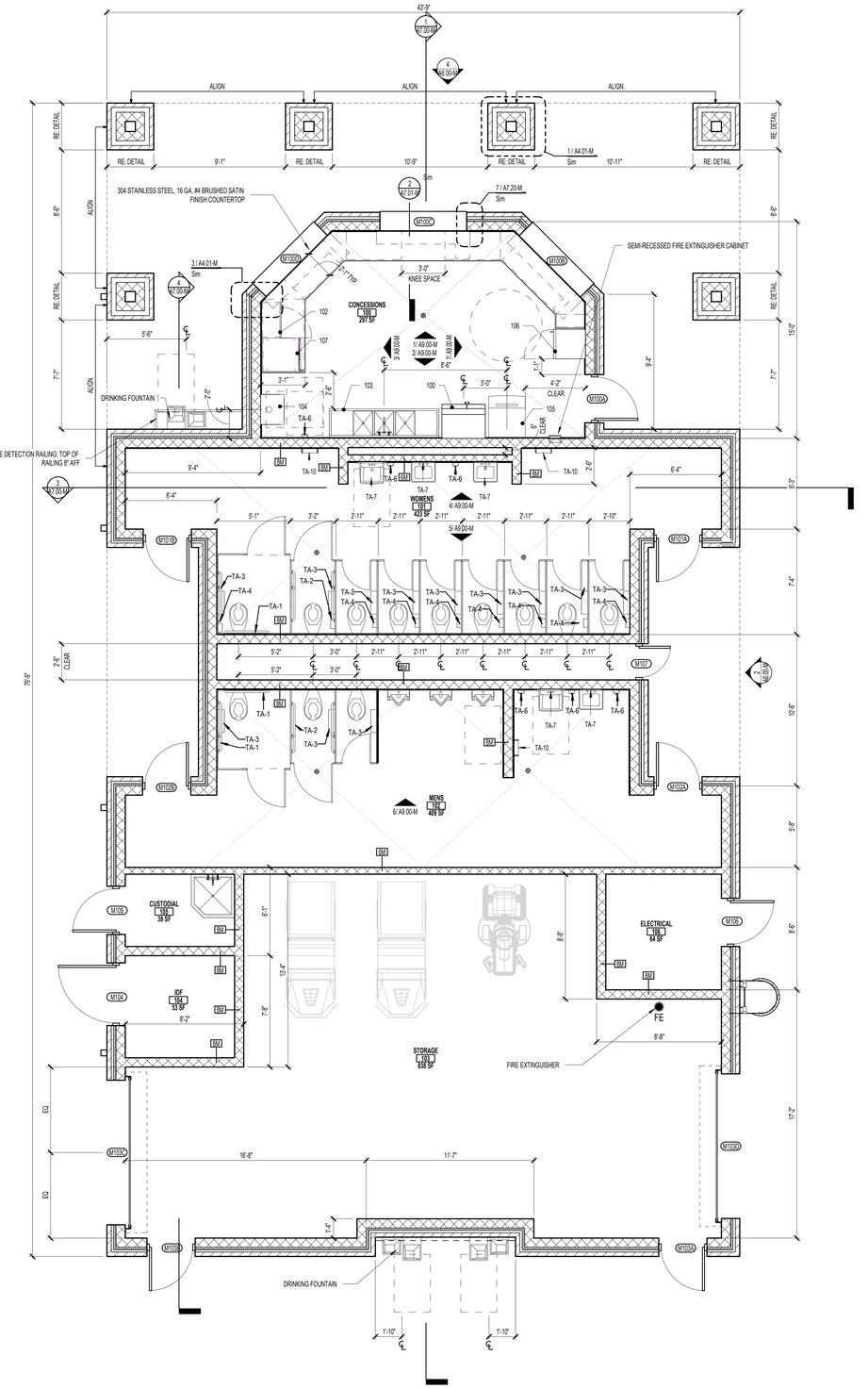


REFLECTED CEILING PLAN LEGEND

- 2' X 4' LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (SUSPENDED)
- LINEAR LED FIXTURE (SURFACE MOUNTED)
- RECESSED CAN FIXTURE
- PENDANT LIGHT FIXTURE
- SURFACE MOUNTED CAN LIGHT FIXTURE
- WALL SCONCE
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- SUSPENDED GYPSUM BOARD
- SUSPENDED CEILING SYSTEM WITH LAY-IN ACOUSTICAL PANELS
- SUSPENDED CEILING SYSTEM WITH LAY-IN VINYL FACED PANELS
- METAL SOFFIT, BOD CERTAINTEED LINEAR BOX 6 SYSTEM, EXTERIOR
- EXPOSED STRUCTURE

GENERAL NOTES:
1. ALL CEILINGS TO BE 10'-0" UNLESS OTHERWISE NOTED.
2. SEE SHEET A10.10 FOR CEILING DETAILS.
3. REFER TO INTERIOR AND EXTERIOR ELEVATIONS FOR LIGHT FIXTURE MOUNTING HEIGHTS.
4. MEP & ARCHITECT TO REVIEW AND APPROVE SPRINKLER KEYOUT AND HEAD LOCATIONS PRIOR TO CONSTRUCTION. SUBMIT PLAN USING ARCHITECT'S RCP'S.
5. AT AREAS WHERE CEILING IS EXPOSED - EXPOSED CONDUIT TO BE LOCATED NEATLY. ARCHITECT TO APPROVE LAYOUTS.
6. COORDINATE CEILING ACCESS PANELS WITH MEP CONTRACTOR. LOCATE WHERE NECESSARY.

REFLECTED CEILING PLAN- CONCESSIONS 2
SCALE: 1/4" = 1'-0"



FLOOR PLAN - CONCESSIONS 1
SCALE: 1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- COLUMN GRID
- EXTERIOR ELEVATION TAG
- INTERIOR ELEVATION TAG
- BUILDING SECTION TAG
- WALL SECTION TAG
- ENLARGED CALL OUT
- DOOR TAG
- PARTITION TAG
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE

SPECIALTY EQUIPMENT

TAG	EQUIPMENT
A1	LOCKER - 24" W X 18" D X 72" H
A2	LOCKER - 24" W X 16" D X 72" H
A3	LOCKER - 24" W X 16" D X 72" H
A4	LOCKER - 12" W X 16" D X 72" H
B	LOCKER - 24" W X 18" D X 72" H
LB-1	LOCKER BENCH - 72" L X 15" W
LB-2	LOCKER BENCH - 96" L X 15" W
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK

TOILET ROOM ACCESSORY LEGEND

TA-1	36" STAINLESS STEEL GRAB BAR
TA-2	42" HORIZONTAL & 18" VERTICAL STAINLESS STEEL GRAB BAR
TA-3	TOILET TISSUE DISPENSER
TA-4	SANITARY NAPKIN DISPOSAL
TA-5	BABY CHANGING STATION
TA-6	SOAP DISPENSER
TA-7	MIRROR 24"x48"
TA-9	PAPER TOWEL DISPENSER
TA-10	ELECTRIC HAND DRYER
TA-11	FOLDING SHOWER SEAT
TA-12	MOP SINK
TA-13	MOP & BROOM HOLDER
TA-14	ROBE HOOKS
TA-15	SHOWER GRAB BARS
TA-16	SHOWER CURTAIN AND ROD

GENERAL NOTES

1. REFER TO ACCESSIBILITY SHEETS FOR MINIMUM DIMENSIONS.
2. PROVIDE PIPE GUARDS AT ALL EXPOSED LAVATORY PIPES, TYP. RE: MEP
3. REFER TO A3 SHEETS FOR HANDRAIL & GUARDRAIL DETAILS

CONCESSIONS EQUIPMENT

05 52 13.A1	GALVANIZED CANE DETECTION RAILING, TOP OF RAILING 8' AFF
10 44 00.A1	FIRE EXTINGUISHER
10 44 00.C1	SEMI-RECESSED FIRE EXTINGUISHER CABINET
12 36 16.A1	304 STAINLESS STEEL, 16 GA. #4 BRUSHED SATIN FINISH COUNTERTOP
22 40 00.A1	DRINKING FOUNTAIN
23 34 30.A1	AIR CURTAIN, RE: MEP
100	REACH-IN REFRIGERATOR
102	MICROWAVE
103	THREE-COMPARTMENT SINK
104	HAND SINK
105	ICE MACHINE
106	BEVERAGE COOLER
107	HEATED HOLDING CABINET

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

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THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

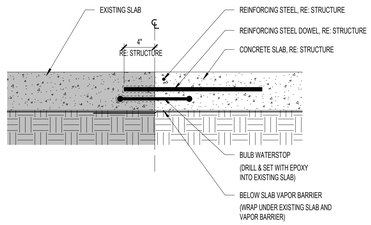
No.	Date	Description

100 % CD

A2.00-M
01 FLOOR PLAN
CONCESSION

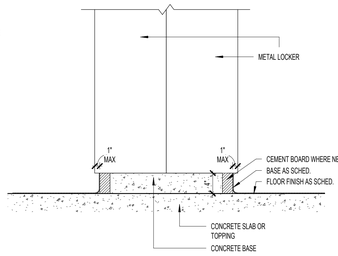
MARSHALL HIGH SCHOOL

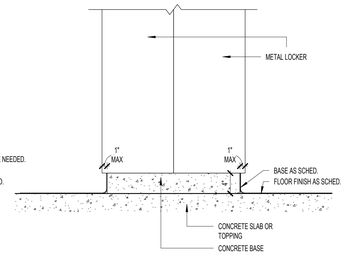
12/4/2025 10:36:24 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_MARSHALL_FBISD ATHLETIC RENOVATIONS BP012-M_R25.rvt

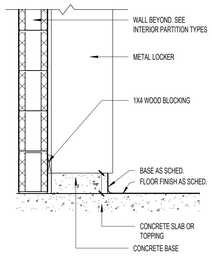


SECTION DETAIL - NEW SLAB AT EXISTING SLAB 3

SCALE: 1 1/2" = 1'-0"









FILED HOUSE PLAN 1

SCALE: 3/16" = 1'-0"

LOCKER CURB DETAIL 2

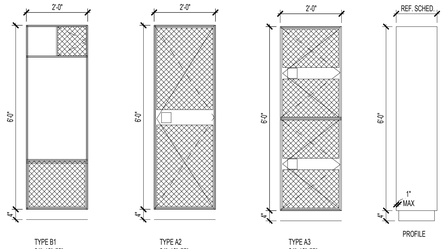
SCALE: 1" = 1'-0"

ADDITIONAL NOTES

1. INSTALL NEW LOCKERS ON CONCRETE BASE. INSTALL CLOSER FILLER PANELS AT END WALLS AND CORNERS. REFER TO SPEC 105113 FOR ADDITIONAL INSTALLATION INSTRUCTIONS.
2. INSTALL WALL ELECTRONIC DRINKING FOUNTAIN WITH BOTTLE FILLER PER MANUFACTURER'S INSTRUCTIONS. REFER TO PLUMBING DRAWINGS FOR FIXTURE TYPE AND CONNECT TO EXISTING UTILITIES. REFER TO ELECTRICAL DRAWINGS TO INSTALL NEW TAMPER RESISTANT RECEPTACLES. INSTALL HIGH/LO RECEPTACLES AT LOCATION AS PER MANUFACTURER'S INSTRUCTIONS.
3. INSTALL RESINOUS FLOORING AND INTEGRAL COVE BASE ACCORDING TO APPROVED MOCK-UP AND MANUFACTURER'S INSTRUCTIONS. PRIOR TO INSTALLATION SHOT-BLAST EXISTING SURFACES WITH AN APPARATUS THAT ABRADES THE CONCRETE SURFACE. REPAIR DAMAGED AND DETERIORATED CONCRETE ACCORDING TO RESINOUS FLOORING MANUFACTURER'S WRITTEN RECOMMENDATIONS. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROTECTING NEW FLOORING FROM CONSTRUCTION TRAFFIC.
4. INSTALL NEW TILE SHOWERS, ACCORDING TO APPROVED MOCKUPS ON EPOXY GROUT. REFER TO 093000 TILE SPEC FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND MOCKUP REQUIREMENTS.
5. INSTALL NEW 4" SLIM PROFILE SURFACE-MOUNTED AUTOMATIC HAND DRYER, ON CMU WALLS. ANCHOR DRYERS TO WALLS ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
6. INSTALL NEW ARCHITECTURAL SIGNAGE FOR ROOM IDENTIFICATION AT LOCATIONS NOTED ON DRAWINGS AND TO BE INSTALLED AT ACCESSIBLE HEIGHTS AND TO COMPLY WITH TAS 703.
7. PREPARE AND PAINT ALL LOCKER ROOM CMU WALLS WITH HIGH PERFORMANCE EPOXY WITH BLOCK FILLERS ACCORDING TO 099000 PAINTING AND COATING. REFER TO ROOM FINISH SCHEDULE FOR ADDITIONAL FINISH INFORMATION.
8. INSTALL ALL NEW CMU WALLS AT 8'-0" UNLESS NOTED OTHERWISE. REFER TO STRUCTURAL DOCUMENTS FOR NON-LOAD BEARING WALLS BRACING AND REINFORCING STEEL. REQUEST INFORMATION FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND/OR REQUIREMENTS.

LOCKER SCHEDULE

1 PROVIDE SHOP APPLIED, BAKED EPOXY ENAMEL FINISH
2 REFER TO MATERIAL SHEDSULE FOR COLOR



FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS AS SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- AB — COLUMN GRID
- Ref 2/ A101 — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- SIM 1/ A101 — BUILDING SECTION TAG
- SIM 1/ A101 — WALL SECTION TAG
- 2/ A101 SIM — ENLARGED CALL OUT
- 101 — DOOR TAG
- AX — PARTITION TAG
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE
1	NEW LOCKERS AND BENCHES
2	NEW ICE MACHINE
4	NEW WASHER
5	NEW TRAINING ROOM FURNITURE; FFE
6	NEW DRINKING WATER FOUNTAIN WITH BOTTLE FILLERS
7	NEW CABINETS
8	NEW DRYER

SPECIALTY EQUIPMENT

TAG	EQUIPMENT
A1	LOCKER - 24" W X 18" D X 72" H
A2	LOCKER - 24" W X 16" D X 72" H
A3	LOCKER - 24" W X 16" D X 72" H
A4	LOCKER - 12" W X 16" D X 72" H
B	LOCKER - 24" W X 18" D X 72" H
LB-1	LOCKER BENCH - 72" L X 15" W
LB-2	LOCKER BENCH - 96" L X 15" W
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK

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100 % CD

A2.01-M
01 FLOOR PLAN FIELD HOUSE

MARSHALL HIGH SCHOOL

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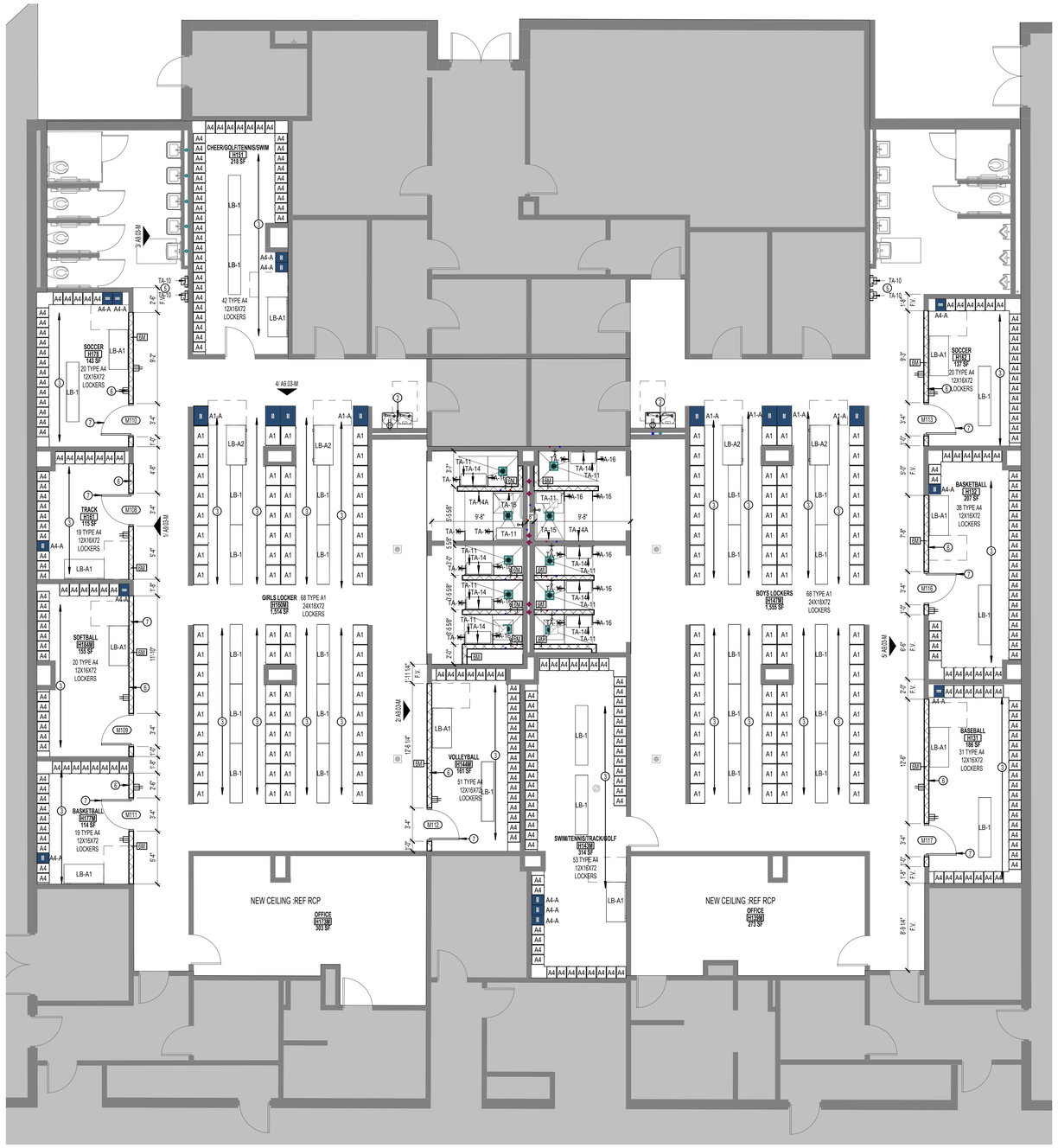
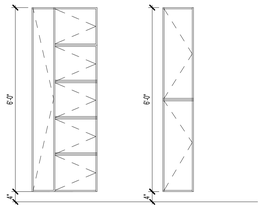


LOCKER ROOM PLAN 1
SCALE: 3/16" = 1'-0"

LOCKER SCHEDULE

1.PROVIDE SHOP-APPLIED, BAKED EPOXY ENAMEL FINISH
2.REFER TO MATERIAL SHCEDULE FOR COLOR



TYPE A1
9"x18"x72"/15"x18"x72"

ROOM H141
EXISTING: 64
PROVIDED: 64
ADA REQUIRED: 4
ADA PROVIDED: 4

ROOM H160
EXISTING: 64
PROVIDED: 64
ADA REQUIRED: 4
ADA PROVIDED: 4

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

TYPE A4
12"x16"x72"

ROOM H177
EXISTING: 19
PROVIDED: 19
ADA REQUIRED: 1
ADA PROVIDED: 1

ROOM H184
EXISTING: 20
PROVIDED: 20
ADA REQUIRED: 1
ADA PROVIDED: 1

ROOM H161
EXISTING: 18
PROVIDED: 19
ADA REQUIRED: 1
ADA PROVIDED: 1

ROOM H178
EXISTING: 21
PROVIDED: 20
ADA REQUIRED: 2
ADA PROVIDED: 2

ROOM H144
EXISTING: 23
PROVIDED: 23
ADA REQUIRED: 2
ADA PROVIDED: 2

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

ROOM H151
EXISTING: 43
PROVIDED: 42
ADA REQUIRED: 3
ADA PROVIDED: 3

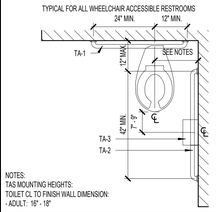
ROOM H131
EXISTING: 31
PROVIDED: 31
ADA REQUIRED: 2
ADA PROVIDED: 2

ROOM H132
EXISTING: 38
PROVIDED: 38
ADA REQUIRED: 2
ADA PROVIDED: 2

ROOM H162
EXISTING: 20
PROVIDED: 20
ADA REQUIRED: 1
ADA PROVIDED: 1

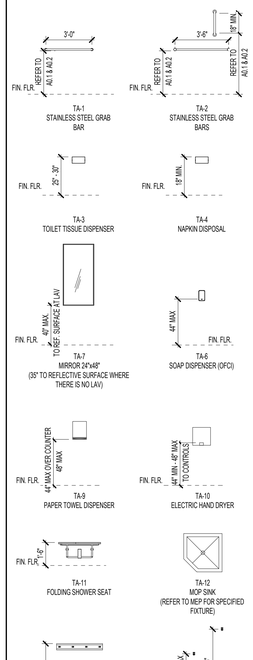
ROOM H143
EXISTING: 44
PROVIDED: 53
ADA REQUIRED: 3
ADA PROVIDED: 3

RESTROOM WHEELCHAIR ACCESS, TYPICAL



NOTES:
TAS MOUNTING HEIGHTS:
TOILET CL TO FINISH WALL DIMENSION:
- ADULT: 16" - 18"

TYPICAL MOUNTING HEIGHTS, U.N.O.



NOTE: DIMENSIONS SHOWN ARE BASED ON ADULT MOUNTING HEIGHTS. REFER TO AGE BASED DIMENSIONAL INFORMATION TABLE FOR CHILDREN LOCATED ON SHEET G0.03-A FOR MOUNTING HEIGHTS FOR OTHER AGE RANGES

ENLARGED PLANS: GENERAL NOTES

1. ALL DIMENSIONS AT ENLARGED PLANS ARE TO OUTSIDE FACE OF GYP. BD. / FACE OF CMU/TILT WALL.

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- AB — COLUMN GRID
- 20 / A101 Ref — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- SIM / A101 — BUILDING SECTION TAG
- SIM / A101 — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT
- 101 — DOOR TAG
- AX1 — PARTITION TAG
- HOLLOW METAL WINDOW TAG
- 1 — ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

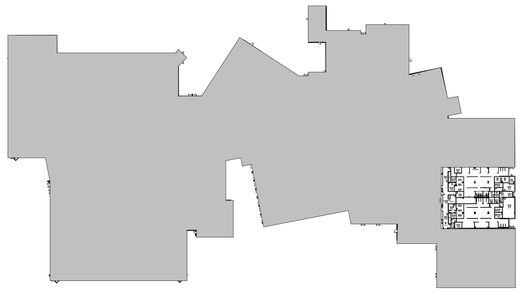
TAG #	NOTE
2	NEW WATER FOUNTAINS WITH BOTTLE FILLERS
3	NEW LOCKERS AND BENCHES
5	NEW HANDRYERS
6	NEW PARTITION WALL 8' TALL
7	NEW HOLLOW METAL DOOR

SPECIALTY EQUIPMENT

TAG	EQUIPMENT
A1	LOCKER - 24" W X 18" D X 72" H
A2	LOCKER - 24" W X 16" D X 72" H
A3	LOCKER - 24" W X 16" D X 72" H
A4	LOCKER - 12" W X 16" D X 72" H
B	LOCKER - 24" W X 18" D X 72" H
LB-1	LOCKER BENCH - 72" L X 15" W
LB-2	LOCKER BENCH - 96" L X 15" W
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK

ADDITIONAL NOTES

1. INSTALL NEW LOCKERS ON CONCRETE BASE. INSTALL CLOSER FILLER PANELS AT END WALLS AND CORNERS. REFER TO SPEC 105113 FOR ADDITIONAL INSTALLATION INSTRUCTIONS.
2. INSTALL WALL ELECTRONIC DRINKING FOUNTAIN WITH BOTTLE FILLER PER MANUFACTURER'S INSTRUCTIONS. REFER TO PLUMBING DRAWINGS FOR FIXTURE TYPE AND CONNECT TO EXISTING UTILITIES. REFER TO ELECTRICAL DRAWINGS TO INSTALL NEW TAMPER RESISTANT RECEPTACLES. INSTALL HIGH LO RECEPTACLES AT LOCATION AS PER MANUFACTURER'S INSTRUCTIONS.
3. INSTALL RESINOUS FLOORING AND INTEGRAL COVE BASE ACCORDING TO APPROVED MOCK-UP AND MANUFACTURERS INSTRUCTIONS. PRIOR TO INSTALLATION SHOT-BLAST EXISTING SURFACES WITH AN APPARATUS THAT ABRADES THE CONCRETE SURFACE. REPAIR DAMAGED AND DETERIORATED CONCRETE ACCORDING TO RESINOUS FLOORING MANUFACTURER'S WRITTEN RECOMMENDATIONS. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROTECTING NEW FLOORING FROM CONSTRUCTION TRAFFIC.
4. INSTALL NEW TILE SHOWERS ACCORDING TO APPROVED MOCKUPS ON EPOXY GROUT. REFER TO 093000 TILE SPEC FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND MOCKUP REQUIREMENTS.
5. INSTALL NEW 4" SLIM PROFILE SURFACE MOUNTED AUTOMATIC HAND DRYER, ON CMU WALLS. ANCHOR DRYERS TO WALLS ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
6. INSTALL NEW ARCHITECTURAL SIGNAGE FOR ROOM IDENTIFICATION AT LOCATIONS NOTED ON DRAWINGS AND TO BE INSTALLED AT ACCESSIBLE HEIGHTS AND TO COMPLY WITH TAS 703.
7. PREPARE AND PAINT ALL LOCKER ROOM CMU WALLS WITH HIGH PERFORMANCE EPOXY WITH BLOCK FILLERS ACCORDING TO 099600 PAINTING AND COATING. REFER TO ROOM FINISH SCHEDULE FOR ADDITIONAL FINISH INFORMATION.
8. INSTALL ALL NEW CMU WALLS AT 8'-0" UNLESS NOTED OTHERWISE. REFER TO STRUCTURAL DOCUMENTS FOR NON-LOAD BEARING WALLS BRACING AND REINFORCING STEEL. REQUEST INFORMATION FOR ADDITIONAL INSTALLATION INSTRUCTIONS AND/OR REQUIREMENTS.



pfluger
office: 713.222.1141 | fax: 713.222.1174
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REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

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100 % CD

A2.02-M
01 FLOOR PLAN GYM LOCKER

MARSHALL HIGH SCHOOL

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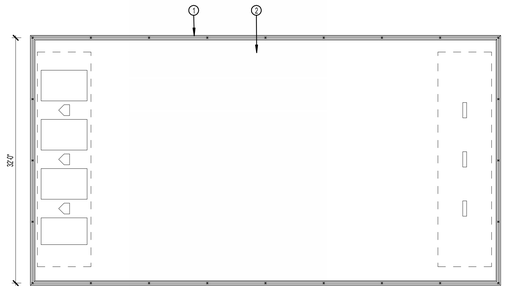


TYPICAL TWO LANE HITTING CAGE 2
SCALE: 1/8" = 1'-0"

SITE PLAN GENERAL NOTES

1.REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.

2.RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS

3.RE: G0.04 & G0.05 FOR CODE PLAN

4.CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.

5."REMOVE", "REMOVE AND SALVAGE", AND "REMOVE AND REINSTALL" ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.

6.REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.

7.ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.

8.PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

9.ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.

TENNIS COURT STRIPING NOTES

A. ALL STRIPING TO BE 2" TYP. WHITE ON (COLOR) COLORED COURT WITH (COLOR) OUT OF BOUNDS

B. VERIFY COLORS OF COURTS AND OUT OF BOUNDS WITH OWNER/ARCHITECT

SITE PLAN LEGEND

- X-X VINYL COATED CHAIN LINK FENCE, 48" HIGH
- L-L VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M-M BLACK WROUGHT IRON FENCE, 48" HIGH
- R-R BLACK WROUGHT IRON FENCE, 72" HIGH
- 1 / A101 SIM — BUILDING SECTION TAG
- 1 / A101 SIM — WALL SECTION TAG
- EMRGENCY ACCESS
- 21 / A101 SIM — ENLARGED CALL OUT
- FIRE HYDRANT

SITE PLAN KEYNOTES

TAG #	NOTE
1	NEW HITTING CAGE: REF CIVIL
2	SYNTHETIC TURF WITH 5 MM PAD : REF CIVIL



GENERAL DEMOLITION NOTES

1. VISIT THE SITE TO UNDERSTAND THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. THE EXISTING BUILDING CONDITION SURVEY WAS COMPILED FROM DRAWINGS PROVIDED BY THE OWNER. THESE DRAWINGS WERE NOT AS-BUILT DRAWINGS & ACTUAL CONDITIONS / DIMENSIONS MAY VARY FROM WHAT IS INDICATED. REPORT DISCREPANCIES OR AMBIGUOUS ITEMS TO THE ARCHITECT PRIOR TO START OF FABRICATION. ANY OTHER DISCREPANCIES NOTED BY THE ARCHITECT FIELD INSPECTIONS UNCOVERED, OR DISCREPANCIES IN THE CONTRACT DOCUMENTS WHICH DO NOT COMPLY WITH THE INTENDED FINAL PRODUCT & REQUEST MODIFICATIONS TO THE LAYOUT.

2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION WORK. ALL DEMOLITION WORK TO BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE CODES, LAWS & REGULATIONS INCLUDING OWNER REQUIREMENTS.

3. COORDINATE DEMOLITION WORK WITH PLAN SHEETS AND DETAILS. REFER TO A200 SERIES FOR DOOR AND WINDOW FRAME TYPICALS AND DETAILS AT NEW OPENINGS IN EXISTING WALLS.

4. REFER TO CIVIL, STRUCTURAL, AND MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION REQUIREMENTS. PATCH ALL WHERE FIXTURES AND EQUIPMENT ARE DEMOLISHED TO MATCH EXISTING ADJACENT SURFACE.

5. THE OWNER HAS FIRST RIGHTS OF SALVAGE OF ALL FIXTURES, EQUIPMENT AND BUILDING MATERIALS REMOVED AS PART OF THE DEMOLITION AND NOT REUSED IN THE NEW CONSTRUCTION. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF CONSTRUCTION SCRAP IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

6. PRIOR TO START OF DEMOLITION, SECURE FROM THE OWNER A LIST OF ADDITIONAL EXISTING BUILDING COMPONENTS TO BE SALVAGED AND DELIVERED TO THE OWNER. EXERCISE SUFFICIENT CARE IN SALVAGE OPERATIONS SUCH THAT SALVAGED COMPONENTS ARE DELIVERED TO THE OWNER IN THEIR EXISTING UNDAMAGED CONDITION.

7. PROTECT ADJACENT AREAS FROM DUST, EXCESSIVE NOISE & / OR DISRUPTION OF OCCUPANCY. REMOVE ALL WORK THAT INTERFERES WITH THE OPERATION OF THE SURROUNDING AREAS & ANY INTERRUPTION OF SERVICES INCLUDING THE OPERATION OF UTILITIES SHALL BE PERFORMED AT A TIME APPROVED BY THE OWNER'S REPRESENTATIVE.

8. PROTECT EXISTING STRUCTURES, FINISHES, UTILITIES & OTHER ELEMENTS SCHEDULED TO REMAIN. PRIOR TO DEMOLITION, DOCUMENT SURROUNDING PROPERTIES WHICH COULD BE COMPROMISED AND DAMAGE RESULTING FROM DEMOLITION & FILE WITH OWNER'S REPRESENTATIVE. AREAS THAT ARE DAMAGED BY SELECTIVE DEMOLITION SHALL BE PATCHED, REPAIRED & FINISHED OR REPLACED TO MATCH EXISTING ADJACENT SURFACE AT NO EXPENSE TO THE OWNER.

9. ALL DEMOLITION WORK REQUIRED IS NOT LIMITED TO THAT INDICATED WITH THE CONTRACT DOCUMENTS. IF THE EXISTING CONSTRUCTION THAT INTERFERES WITH NEW WORK TO THE EXTENT OF THE INTERFERENCE, THEN THE ITEM IS TO BE DEMOLISHED. ALL NEW PLUMBING, ELECTRICAL & ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION. CUT & LATER PATCH ALL HOLES & OPENINGS IN EXISTING CONSTRUCTION NECESSARY FOR CONNECTION OF NEW WORK TO THE PASSAGE OF CONDUITS, PIPING, MECHANICAL PLUMBING & ELECTRICAL UTILITIES & SERVICES.

10. PROVIDE TEMPORARY BARRICADES & OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNER'S PERSONNEL & GENERAL PUBLIC FROM INJURY DUE TO DEMOLITION. PROVIDE A PROPER MEANS OF EGRESS AS REQUIRED FOR OCCUPIED AREAS PER CODE THROUGH CONSTRUCTION. EGRESS MUST ALSO BE MAINTAINED WITH THE CONTRACTOR'S AREA.

11. IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY & INFORM THE OWNER'S REPRESENTATIVE & THE ARCHITECT FOR FURTHER DIRECTION.

STRUCTURAL DEMOLITION

12. PROVIDE SHORING, BRACING, AND SUPPORTS AS REQUIRED TO MAINTAIN THE INTEGRITY OF EXISTING OR NEWLY INSTALLED CONSTRUCTION AS REQUIRED TO REMOVE EXISTING LOAD-BEARING OR NON-LOAD BEARING WALL, FOOTING, OR ROOF CONSTRUCTION. ASSUME RESPONSIBILITY FOR ACTUAL CONDITION OF EXISTING STRUCTURE TO BE DEMOLISHED.

13. UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DOCUMENTS, MAINTAIN THE INTEGRITY OF EXISTING CONSTRUCTION ADJACENT TO NEW STRUCTURAL SYSTEMS. WHERE EXISTING LOAD-BEARING OR NON-LOAD-BEARING, WHEN DEMOLISHED, PROVIDE STRUCTURAL SYSTEMS PER NEW STRUCTURAL & ARCHITECTURAL DOCUMENTS. REFER TO A500 SERIES FOR NEW WORK.

CUTTING AND PATCHING

1. PROVIDE MATERIALS FOR CUTTING AND PATCHING WHICH WILL RESULT IN EQUAL-OR-BETTER WORK THAN BEING CUT OR PATCHED.

2. REMOVE EXISTING CONSTRUCTION SO AS NOT TO DAMAGE EXISTING CONSTRUCTION THAT IS TO REMAIN. PATCH FLOORS, WALLS AND CEILINGS IN A RECTANGULAR PATTERN TO SOUND EXISTING CONDITIONS AND MAKE THEM READY TO RECEIVE ANY NEW FINISHES INDICATED.

3. CAP PLUMBING LINES THAT ARE TO BE REMOVED BELOW FLOOR OR BEHIND WALL OR REMOVE THEM COMPLETELY. PATCH FLOORS AND WALLS TO MATCH EXISTING CONDITIONS. REFER PLUMBING DOCUMENTS FOR ADDITIONAL REQUIREMENTS.

4. AT AREAS WHERE EXISTING FLOOR MOUNTED TOILET ROOM FIXTURES ARE TO BE REMOVED, ALSO REMOVE APPROXIMATELY 30 SF OF TILE FROM THE FLOOR AND 40 SF OF TILE FROM THE WALL. PREPARE THIS AREA TO RECEIVE NEW TILE. THE LAYOUT AND EXACT AMOUNT OF TILE TO BE REMOVED SHALL BE AT THE DIRECTION OF THE ARCHITECT.

5. AT AREAS WHERE EXISTING WALL MOUNTED TOILET ROOM FIXTURES ARE TO BE REMOVED, ALSO REMOVE APPROXIMATELY 40 SF OF TILE FROM THE WALL. PREPARE THIS AREA TO RECEIVE NEW TILE. THE LAYOUT AND EXACT AMOUNT OF TILE TO BE REMOVED SHALL BE AT THE DIRECTION OF THE ARCHITECT.

6. WHERE EXISTING FLOORING, CEILINGS OR WALL FINISHES ARE TO BE REMOVED AND REPLACED WITH NEW FINISHES, SURFACES TO REMAIN SHALL BE STRIPPED CLEAN OF ALL EXISTING FINISHES AND MADE READY TO RECEIVE NEW FINISHES.

7. INSPECT FLOORS TO RECEIVE NEW FINISHES PRIOR TO BID. COMPLETELY REMOVE FLOOR FINISHES TO BE REPLACED AND, CLEAN AND PROPERLY PREPARE THE EXISTING SUBSTRATE PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. STRIP, PATCH, AND FILL TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF BURRS AND ADHESIVE AND SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. UNDER CUT OR ADJUST DOORS TO ACCOMMODATE NEW FLOOR FINISH WHERE NEW FINISH IS THICKER THAN ORIGINAL FINISH.

8. THE NEW CONCRETE TOPPING IS TO BE PLACED OVER EXISTING CONCRETE SLAB, ABRADE EXISTING CONCRETE FINISH FOR BETTER BOND.

9. TOOTH IN MASONRY WHERE EXISTING MASONRY ABUTS NEW MASONRY IN THE SAME WALL PLANE. REFER TO ELEVATIONS ON A200 SERIES FOR NEW MASONRY COURSING AND BOND PATTERN.

10. PROVIDE A FINISHED EDGE BY TOOTHING IN NEW MASONRY TO MATCH EXISTING WHERE A PORTION OF AN EXISTING MASONRY WALL IS TO BE REMOVED (UON).

11. REMOVE EXISTING WINDOWS AND SILLS COMPLETELY PRIOR TO SEALING OPENINGS (UON).

12. NEW MASONRY FRAME AND PATCH WALL WITH SAME ADJACENT MATERIAL AND FINISH AS EXISTING WHERE EXISTING DOOR OPENINGS ARE TO BE SEALED. ALIGN NEW AND EXISTING WALLS (UON).

13. REMOVE EXPANSION JOINT COVERS (FLOOR, WALL, AND CEILING) THAT ARE DAMAGED DURING DEMOLITION AND REPLACE WITH NEW COVERS OF THE SAME TYPE AND FINISH (OR NEW AS DETAILED), WHERE INDICATED.

14. COORDINATE WITH ROOF PLAN SHEET A130 AND DETAILS FOR SELECTED DEMOLITION OF ROOF AREAS.

15. EXISTING DOORS, FRAMES, AND HARDWARE THAT ARE REMOVED MAY BE REUSED, WHERE INDICATED ON PLANS, IF IN GOOD CONDITION IN THE OPINION OF THE ARCHITECT AND OWNER.

16. WHERE INDICATED, REMOVE TACKBOARDS, SMART BOARDS, CHALKBOARDS, MISCELLANEOUS DISPLAY RAILS, AND TOILET ROOM ACCESSORIES. SALVAGE REMOVED ITEMS FOR OWNER OR REINSTALL AS INDICATED IN DRAWINGS AND SPECIFICATIONS. CLEAN AND REPAIR ITEMS AS REQUIRED FOR NEW EQUIPMENT OR TO RECEIVE A NEW FINISH.

17. REMOVE EXISTING LAY-IN CEILING AND GRID FROM AREAS WHERE THERE IS NEW MECHANICAL OR ELECTRICAL WORK ABOVE CEILING. PREPARE FOR A600 SERIES REFLECTED CEILING PLANS TO BE DEMOLISHED.

18.DEMO EXISTING ACT CEILING TILES. PROTECT EXISTING FIXTURES AND CEILING GRID.

DEMOLITION KEY NOTES

TAG#	NOTE

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- FLOOR TO BE SAW CUT AND REMOVED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 4 DEMO KEY NOTE
- AREA TO BE DEMOLISHED
- REMOVE EXISTING CARPET

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAMS
30113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

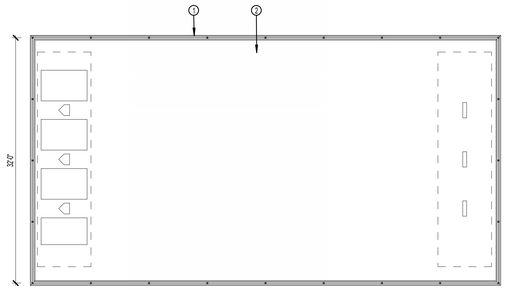
No.	Date	Description

100 % CD

A2.03-M
FLOOR PLAN HITTING CAGE

MARSHALL HIGH SCHOOL

12/5/2025 1:26:40 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_MARSHALL_FBISD ATHLETIC RENOVATIONS BP012-M_R25.rvt



TYPICAL TWO LANE HITTING CAGE 2
SCALE: 1/8" = 1'-0"

SITE PLAN GENERAL NOTES

1.REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.

2.RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS

3.RE: G0.04 & G0.05 FOR CODE PLAN

4.CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.

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SITE PLAN KEYNOTES

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10. PROVIDE TEMPORARY BARRICADES & OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNER'S PERSONNEL & GENERAL PUBLIC FROM INJURY DUE TO DEMOLITION. PROVIDE A PROPER MEANS OF EGRESS AS REQUIRED FOR OCCUPIED AREAS PER CODE THROUGH CONSTRUCTION. EGRESS MUST ALSO BE MAINTAINED WITH THE CONTRACTOR'S AREA.

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STRUCTURAL DEMOLITION

12. PROVIDE SHORING, BRACING, AND SUPPORTS AS REQUIRED TO MAINTAIN THE INTEGRITY OF EXISTING OR NEWLY INSTALLED CONSTRUCTION AS REQUIRED TO REMOVE EXISTING LOAD-BEARING OR NON-LOAD BEARING WALL, FOOTING, OR ROOF CONSTRUCTION. ASSUME RESPONSIBILITY FOR ACTUAL CONDITION OF EXISTING STRUCTURE TO BE DEMOLISHED.

13. UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DOCUMENTS, MAINTAIN THE INTEGRITY OF EXISTING CONSTRUCTION ADJACENT TO NEW STRUCTURAL SYSTEMS. WHERE EXISTING LOAD-BEARING OR NON-LOAD-BEARING, WHEN DEMOLISHED, PROVIDE STRUCTURAL SYSTEMS PER NEW STRUCTURAL & ARCHITECTURAL DOCUMENTS. REFER TO A500 SERIES FOR NEW WORK.

CUTTING AND PATCHING

1. PROVIDE MATERIALS FOR CUTTING AND PATCHING WHICH WILL RESULT IN EQUAL-OR-BETTER WORK THAN BEING CUT OR PATCHED.

2. REMOVE EXISTING CONSTRUCTION SO AS NOT TO DAMAGE EXISTING CONSTRUCTION THAT IS TO REMAIN. PATCH FLOORS, WALLS AND CEILINGS IN A RECTANGULAR PATTERN TO SOUND EXISTING CONDITIONS AND MAKE THEM READY TO RECEIVE ANY NEW FINISHES INDICATED.

3. CAP PLUMBING LINES THAT ARE TO BE REMOVED BELOW FLOOR OR BEHIND WALL OR REMOVE THEM COMPLETELY. PATCH FLOORS AND WALLS TO MATCH EXISTING CONDITIONS. REFER PLUMBING DOCUMENTS FOR ADDITIONAL REQUIREMENTS.

4. AT AREAS WHERE EXISTING FLOOR MOUNTED TOILET ROOM FIXTURES ARE TO BE REMOVED, ALSO REMOVE APPROXIMATELY 30 SF OF TILE FROM THE FLOOR AND 40 SF OF TILE FROM THE WALL. PREPARE THIS AREA TO RECEIVE NEW TILE. THE LAYOUT AND EXACT AMOUNT OF TILE TO BE REMOVED SHALL BE AT THE DIRECTION OF THE ARCHITECT.

5. AT AREAS WHERE EXISTING WALL MOUNTED TOILET ROOM FIXTURES ARE TO BE REMOVED, ALSO REMOVE APPROXIMATELY 40 SF OF TILE FROM THE WALL. PREPARE THIS AREA TO RECEIVE NEW TILE. THE LAYOUT AND EXACT AMOUNT OF TILE TO BE REMOVED SHALL BE AT THE DIRECTION OF THE ARCHITECT.

6. WHERE EXISTING FLOORING, CEILINGS OR WALL FINISHES ARE TO BE REMOVED AND REPLACED WITH NEW FINISHES, SURFACES TO REMAIN SHALL BE STRIPPED CLEAN OF ALL EXISTING FINISHES AND MADE READY TO RECEIVE NEW FINISHES.

7. INSPECT FLOORS TO RECEIVE NEW FINISHES PRIOR TO BID. COMPLETELY REMOVE FLOOR FINISHES TO BE REPLACED AND, CLEAN AND PROPERLY PREPARE THE EXISTING SUBSTRATE PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. STRIP, PATCH, AND FILL TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF BURRS AND ADHESIVE AND SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. UNDER CUT OR ADJUST DOORS TO ACCOMMODATE NEW FLOOR FINISH WHERE NEW FINISH IS THICKER THAN ORIGINAL FINISH.

8. THE NEW CONCRETE TOPPING IS TO BE PLACED OVER EXISTING CONCRETE SLAB, ABRADE EXISTING CONCRETE FINISH FOR BETTER BOND.

9. TOOTH IN MASONRY WHERE EXISTING MASONRY ABUTS NEW MASONRY IN THE SAME WALL PLANE. REFER TO ELEVATIONS ON A200 SERIES FOR NEW MASONRY COURSING AND BOND PATTERN.

10. PROVIDE A FINISHED EDGE BY TOOTHING IN NEW MASONRY TO MATCH EXISTING WHERE A PORTION OF AN EXISTING MASONRY WALL IS TO BE REMOVED (UON).

11. REMOVE EXISTING WINDOWS AND SILLS COMPLETELY PRIOR TO SEALING OPENINGS (UON).

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13. REMOVE EXPANSION JOINT COVERS (FLOOR, WALL, AND CEILING) THAT ARE DAMAGED DURING DEMOLITION AND REPLACE WITH NEW COVERS OF THE SAME TYPE AND FINISH (OR NEW AS DETAILED), WHERE INDICATED.

14. COORDINATE WITH ROOF PLAN SHEET A130 AND DETAILS FOR SELECTED DEMOLITION OF ROOF AREAS.

15. EXISTING DOORS, FRAMES, AND HARDWARE THAT ARE REMOVED MAY BE REUSED, WHERE INDICATED ON PLANS, IF IN GOOD CONDITION IN THE OPINION OF THE ARCHITECT AND OWNER.

16. WHERE INDICATED, REMOVE TACKBOARDS, SMART BOARDS, CHALKBOARDS, MISCELLANEOUS DISPLAY RAILS, AND TOILET ROOM ACCESSORIES. SALVAGE REMOVED ITEMS FOR OWNER OR REINSTALL AS INDICATED IN DRAWINGS AND SPECIFICATIONS. CLEAN AND REPAIR ITEMS AS REQUIRED FOR NEW EQUIPMENT OR TO RECEIVE A NEW FINISH.

17. REMOVE EXISTING LAY-IN CEILING AND GRID FROM AREAS WHERE THERE IS NEW MECHANICAL OR ELECTRICAL WORK ABOVE CEILING. PREPARE FOR A600 SERIES REFLECTED CEILING PLANS TO BE DEMOLISHED.

18.DEMO EXISTING ACT CEILING TILES. PROTECT EXISTING FIXTURES AND CEILING GRID.

DEMOLITION KEY NOTES

TAG#	NOTE

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- FLOOR TO BE SAW CUT AND REMOVED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 4 DEMO KEY NOTE
- AREA TO BE DEMOLISHED
- REMOVE EXISTING CARPET

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAMS
30113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100 % CD

A2.03-M
FLOOR PLAN HITTING CAGE

MARSHALL HIGH SCHOOL

12/5/2025 1:26:40 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_MARSHALL_FBISD ATHLETIC RENOVATIONS BP012-M_R25.rvt

12/4/2025 10:36:46 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_MARSHALL_FBISD ATHLETIC RENOVATIONS BP012-M_R25.rvt

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

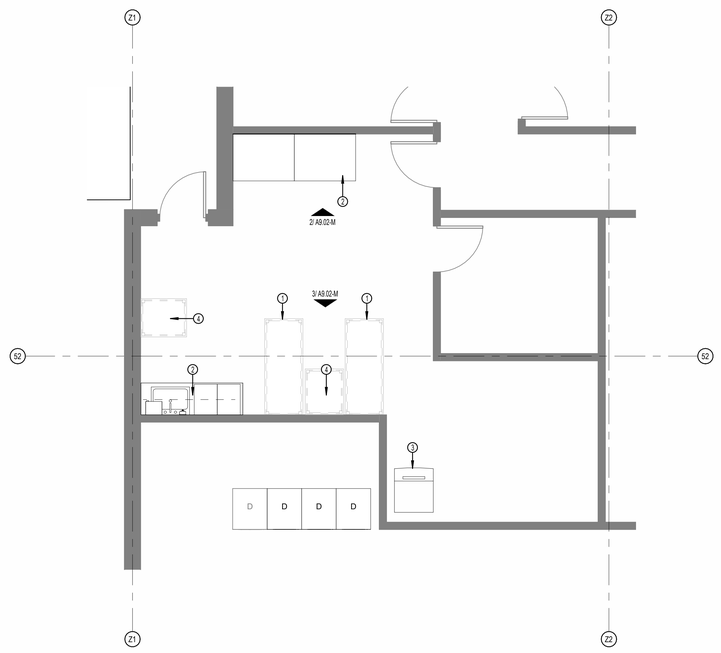
- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- COLUMN GRID
- EXTERIOR ELEVATION TAG (Ref / 20 / A101)
- INTERIOR ELEVATION TAG (1/ A101 Ref)
- BUILDING SECTION TAG (SIM / 1 / A101)
- WALL SECTION TAG (SIM / 1 / A101)
- ENLARGED CALL OUT (21 / A101 SIM)
- DOOR TAG (101)
- PARTITION TAG (AX)
- HOLLOW METAL WINDOW TAG (1)
- ALUMINUM WINDOW TAG (1)
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

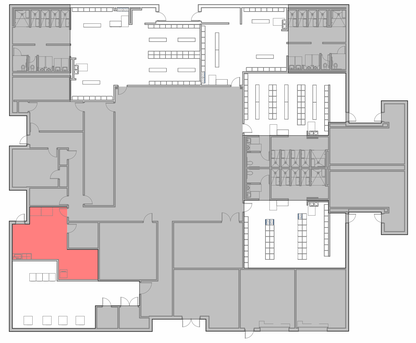
TAG #	NOTE
1	NEW FURNITURE
2	NEW CASEWORK
3	NEW ICE MACHINE; CFCI
4	NEW TRAINING ROOM FURNITURE; FFE

SPECIALTY EQUIPMENT

TAG	EQUIPMENT
A1	LOCKER - 24" W X 18" D X 72" H
A2	LOCKER - 24" W X 18" D X 72" H
A3	LOCKER - 24" W X 18" D X 72" H
A4	LOCKER - 12" W X 18" D X 72" H
B	LOCKER - 24" W X 18" D X 72" H
LB-1	LOCKER BENCH - 72" L X 15" W
LB-2	LOCKER BENCH - 96" L X 15" W
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK



FILED HOUSE TRAINING ROOM 1
SCALE: 1/4" = 1'-0"



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

	Date	Description

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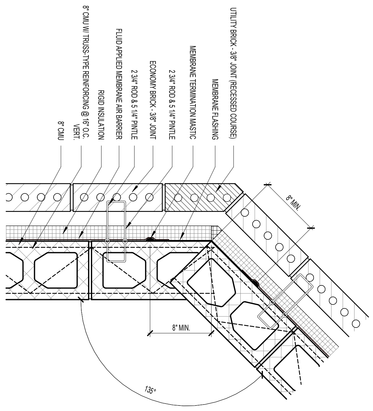
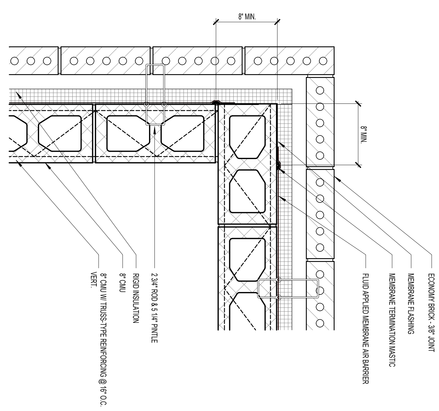
ENLARGED FLOOR PLAN FIELD HOUSE TRAINING

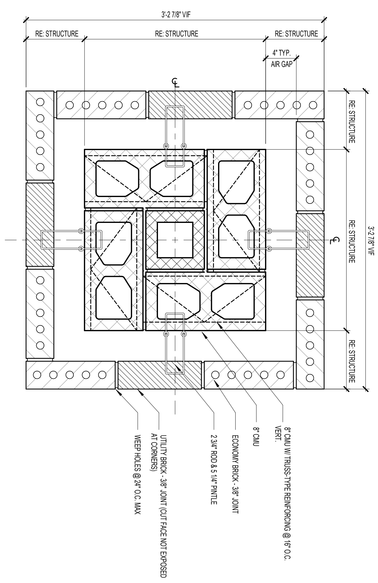
MARSHALL HIGH SCHOOL



PLAN DETAIL 45 DEGREE CORNER
SCALE: 1 1/2" = 1'-0"
3



PLAN DETAIL OUTWARD CORNER
SCALE: 1 1/2" = 1'-0"
2



PLAN DETAIL PILASTER
SCALE: 1 1/2" = 1'-0"
1

MARSHALL HIGH SCHOOL

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PLAN DETAILS

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Sugarland, TX 77479

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1220 Buffalo Run, Missouri City, TX 77489

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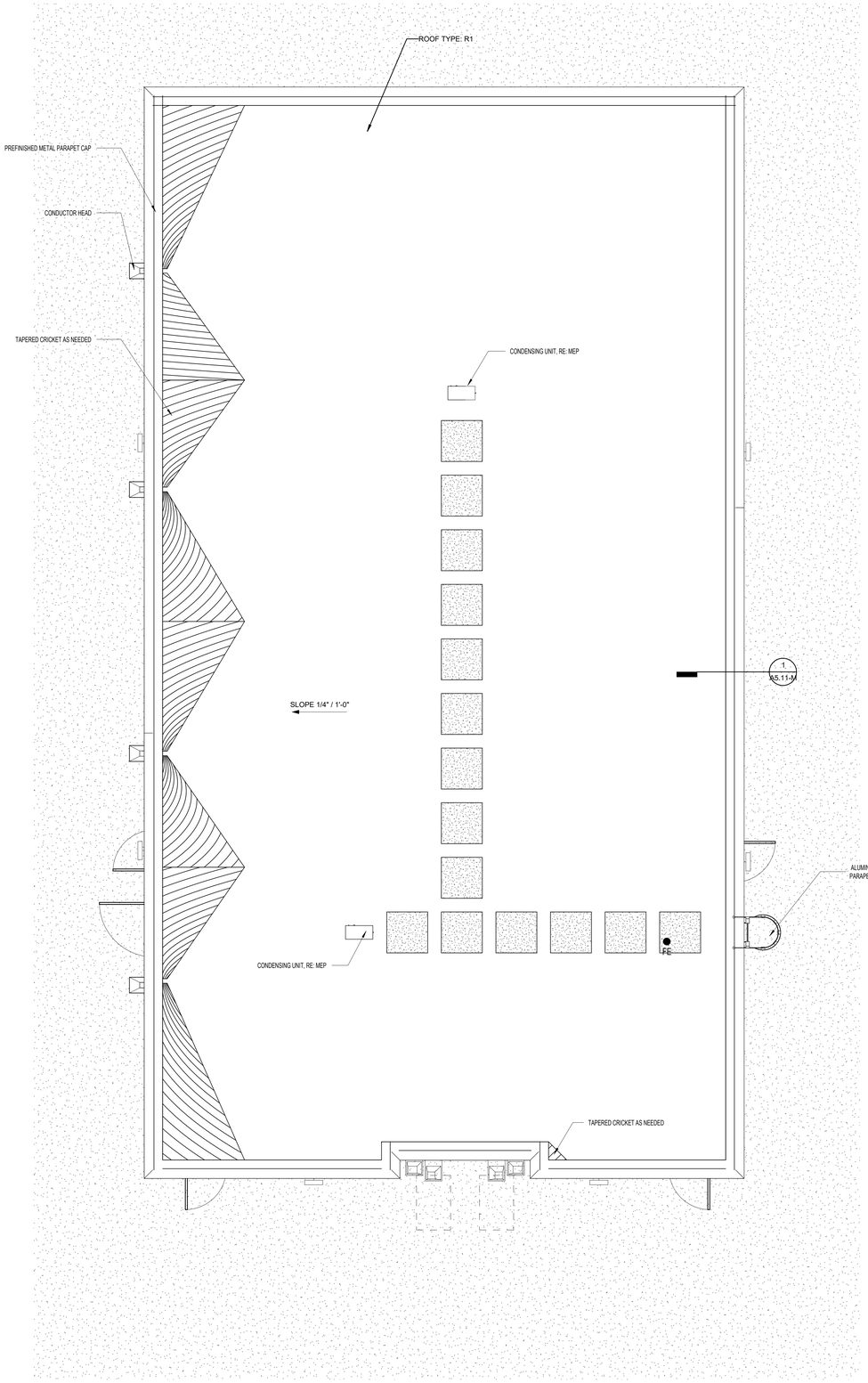
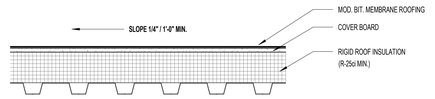
pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com



ROOF PLAN- CONCESSIONS 1
SCALE: 1/4" = 1'-0"



ROOF TYPE R1 2
SCALE: 1 1/2" = 1'-0"

ROOF PLAN GENERAL NOTES

1. FOR TYPICAL ROOF PENETRATIONS AND PIPE SUPPORTS DETAILS REFER TO SHEET A05.10
2. FOR ADDITIONAL ROOF PENETRATION DETAILS: REFER TO MEP DOCS.
3. REFER MEP DOCUMENTS FOR ROOFTOP EQUIPMENT NOT SHOWN. MECHANICAL, ELECTRICAL AND PLUMBING ROOF EQUIPMENT DEPICTED ON THIS SHEET IS FOR GENERAL ARCHITECTURAL INFORMATION ONLY. REFER TO THE MEP DOCUMENTS FOR ADDITIONAL REQUIREMENTS AND COORDINATION. REFER STRUCTURAL DOCUMENTS FOR EQUIPMENT SUPPORTS.
4. EXPOSED METAL FLASHING/TRIM PIECES ARE TO BE PREFINISHED GALVANIZED STEEL, UNLESS OTHERWISE NOTED. PAINT EXPOSED METAL FLASHING/TRIM PIECES THAT ARE NOT PREFINISHED, AS WELL AS ALL EXPOSED MISCELLANEOUS STEEL PIECES. REFER FINISH SCHEDULE AND NOTES.
5. TAPERED INSULATION SHALL BE 1/4"/FT MINIMUM SLOPE TO DRAIN. ROOF PLAN SHOWS TAPERED INSULATION AT NTS AND IS GRAPHIC ONLY, TO SHOW SLOPE AND APPROX LOCATION. (VERIFY INSULATION REQUIRED TO MAINTAIN SLOPE, PRIOR TO INSTALLATION).
6. PROVIDE TAPERED INSULATION CRICKETS (1/4"/FT MIN SLOPE) AT HIGH SIDE OF ALL MECHANICAL UNITS, SKYLIGHTS, ROOF HATCHES, AND MISCELLANEOUS ROOF PENETRATIONS, TO SHED WATER AROUND, AND TO INSURE POSITIVE ROOF DRAINAGE.
7. WOOD BLOCKING AT ROOF EDGES, RIDGES, ETC. SHALL BE FABRICATED FROM CONTINUOUS MINIMUM 2X6s PTWD BLOCKING. PROVIDE LARGER 2X PTWDS REQUIRED PER DETAIL DIMENSIONS. REFER ROOFING MANUFACTURER RECOMMENDATIONS.
8. WHERE WOOD BLOCKING EXCEEDS 8" THICKNESS AT TAPERED INSULATION, PROVIDE STEM WALL CONSTRUCTED OF 6" GALVANIZED CFMF AT 18"OC W/ CONTINUOUS TRACK TOP AND BOTTOM AND W/ 3/4" PT EXTERIOR GRADED PLYWOOD AT EACH SIDE, TOP TO SLOPE W/ TAPERED INSULATION.
9. PROVIDE STEP FLASHING AND COVER PLATE AT SLOPED ROOF HI/LO CONDITIONS.
10. VERIFY ELEVATION OF ROOF DRAIN RELATIVE TO OVERFLOW SCUPPER PRIOR TO INSTALLATION OF SCUPPERS.
11. STRUCTURAL SLOPES SHOWN ON PLAN ARE FOR GENERAL CONCEPT ONLY. REFER STRUCTURAL DRAWINGS FOR EXACT TOS/BOD ELEVATIONS.
12. REFER PLUMBING DOCUMENTS FOR ROOF DRAIN LEADERS, CONNECTIONS TO STORM DRAIN, AND NOZZLES.
13. FOR TYPICAL ROOF PENETRATION DETAILS: PROVIDE METAL ROOF MFRS STD ROOF CURBS AND PENETRATION DETAILS, FOR LOCATIONS, WEIGHTS, AND ANY OTHER ADDITIONAL INFO REFER TO MEP DOCS. COORDINATE FINAL SIZE.
    A. PROVIDE CURBS AND ALL SUPPORTS NOT INDICATED ON THE STRUCTURAL DOCUMENTS FOR NEW ROOF TOP MECH EQUIPMENT, INCLUDING BUT NOT LIMITED TO RTUS, CONDENSERS, AND FANS. REFER STRUCTURAL AND MEP DOCUMENTS.
    B. PROVIDE SUPPORTS AND FLASHING AS REQUIRED AT NEW GAS PIPING ON THE ROOF.
14. PROVIDE STD EAVE CLOSURES, AND MISCELLANEOUS TRIM REQUIRED FOR COMPLETE ASSEMBLY.
15. CONTRACTOR MAY DELETE WOOD BLOCKING SHOWN IN ROOFING DETAILS AS ALLOWED BY ROOFING MANUFACTURER RECOMMENDATIONS AND FACTORY MUTUAL WIND UPLIFT REQUIREMENTS.

ROOF PLAN LEGEND

- CRICKET
- WALK PADS
- MODIFIED BITUMEN ROOF

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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ROOF PLAN
CONCESSION

MARSHALL HIGH SCHOOL

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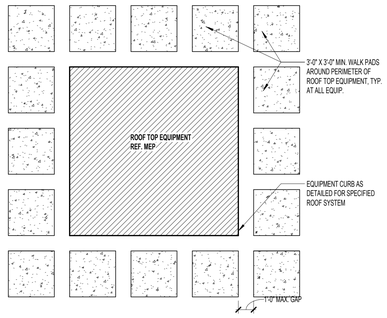
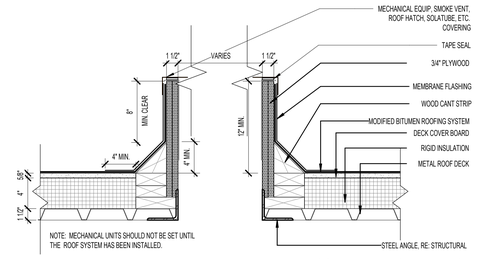


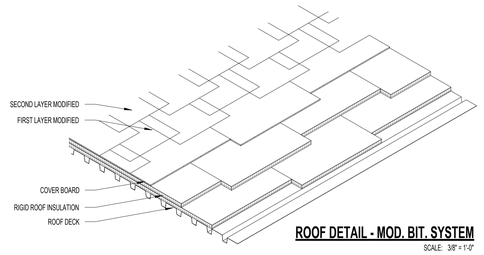
ROOF DETAIL - WALK PADS @ RTU 9

SCALE: 3" = 1'-0"



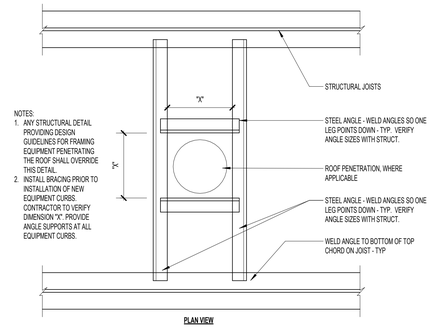
ROOF DETAIL - EQUIPMENT CURB 4

SCALE:1 1/2" = 1'-0"



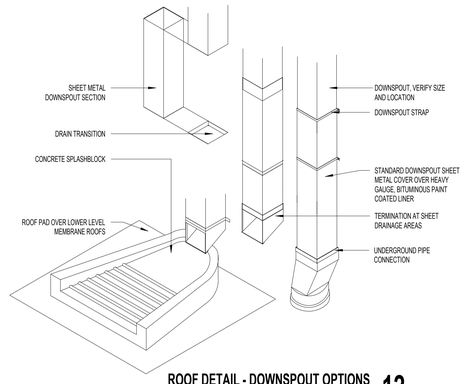
ROOF DETAIL - MOD. BIT. SYSTEM 8

SCALE: 3/8" = 1'-0"



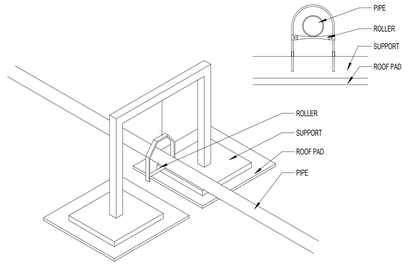
ROOF DETAIL - EQUIPMENT FRAMING 3

SCALE: 3" = 1'-0"



ROOF DETAIL - DOWNSPOUT OPTIONS 12

SCALE: 3/4" = 1'-0"

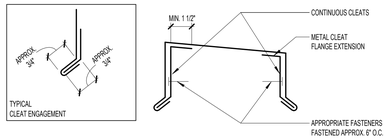


ROOF DETAIL - PIPE SUPPORTS 7

SCALE: 1/4" = 1'-0"

ROOF DETAIL - COLLECTOR HEAD 2

SCALE: 1" = 1'-0"



ROOF DETAIL - SHEET METAL PARAPET CAP 11

SCALE: 12" = 1'-0"

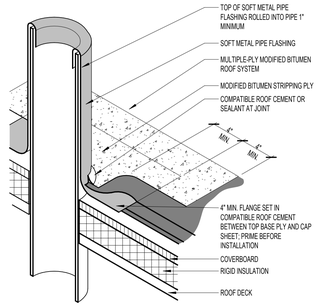
NOTES:

SOFT METAL FLASHING:
- SHEET LEAD: MINIMUM OF 2 1/2 LB. PER SQUARE FOOT, OR
-SHEET COPPER: MINIMUM 16 OZ.

PRECAUTIONS SHOULD BE TAKEN NOT TO DAMAGE THE SHEET LEAD WHEN USING HEAT-WELDED APPLICATION.

IF USING COPPER FLASHING OVER AN IRON OR STEEL PIPE, INSERT A SEPARATOR SHEET (E.G., ASPHALT-SATURATED ROOFING FELT), WRAPPED AROUND PIPE, TO SEPARATE THE COPPER FLASHING FROM DIRECT CONTACT WITH PIPE, TO REDUCE GALVANIC ACTION.

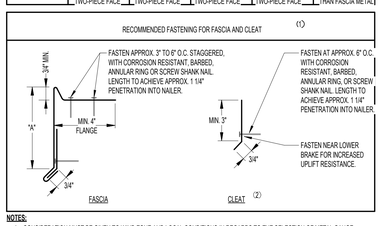
VENT STACKS AND OTHER PIPES SHOULD HAVE A MINIMUM OF 12 INCHES OF CLEARANCE ON ALL SIDES FROM WALLS, CURBS AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.



ROOF DETAIL - PIPE PENETRATION 6

SCALE: 3/4" = 1'-0"

RECOMMENDED MINIMUM GAUGES FOR FASCIA AND CLEAT (1)					
EXPOSED FACE WITHOUT BRAKES "A" DIMENSION	ALUMINUM ALLOY (3003)	COLD ROLLED COPPER	GALVANIZED OR COATED (G90) STEEL	STAINLESS STEEL (302 AND 304)	CLEAT (2)
UP TO 3" FACE	.040"	20 oz.	24 ga.	24 ga.	NOT REQUIRED
UP TO 3" FACE	.032"	16 oz.	24 ga.	26 ga.	SAME GAUGE AS FASCIA METAL
3" TO 6" FACE	.040"	16 oz.	24 ga.	24 ga.	SAME GAUGE AS FASCIA METAL
6" TO 8" FACE	.050"	20 oz.	24 ga.	24 ga.	ONE GAUGE HEAVIER THAN FASCIA METAL
8" TO 15" FACE	ADD BRAKES TO STIFFEN OR USE TWO-PIECE FACE	ADD BRAKES TO STIFFEN OR USE TWO-PIECE FACE	ADD BRAKES TO STIFFEN OR USE TWO-PIECE FACE	ADD BRAKES TO STIFFEN OR USE TWO-PIECE FACE	ONE GAUGE HEAVIER THAN FASCIA METAL

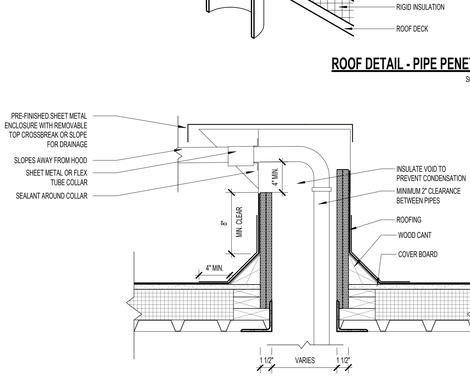


NOTES:

1. CONSIDERATION MUST BE GIVEN TO WIND ZONE AND LOCAL CONDITIONS IN REGARDS TO THE SELECTION OF METAL GAUGE, PROFILE AND FASTENING SCHEDULE. SEVERE CONDITIONS OR CODE AND REGULATORY BODIES MAY REQUIRE MORE CONSERVATIVE DESIGNS. WHEN USING THE ABOVE TABLE, ADDITIONAL ITEMS SHOULD BE CONSIDERED, SUCH AS FASTENING PATTERN.
2. ALL CLEATS SHALL BE CONTINUOUS WITH LENGTHS NOT TO EXCEED 12 FEET. ALLOW A 1/4" GAP BETWEEN PIECES. JOINTS IN CLEAT SHOULD NOT COINCIDE WITH JOINTS IN FASCIA METAL.

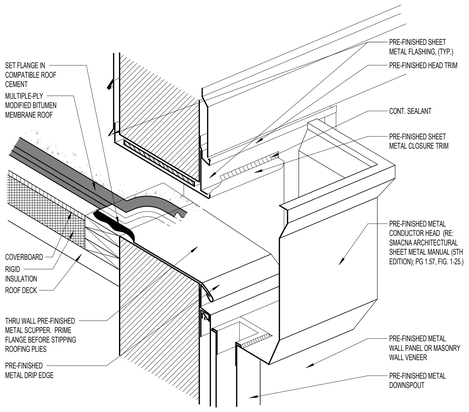
GUIDE FOR SHEET METAL FASCIA EDGES 10

SCALE: 12" = 1'-0"



ROOF DETAIL - PIPE ENCLOSURE 5

SCALE:1 1/2" = 1'-0"



THROUGH WALL SCUPPER W/ CONDUCTOR HEAD 1

SCALE: 1" = 1'-0"

ACCESS LADDER SCHEDULE

BASIS OF DESIGN: ALACO LADDER COMPANY

VERTICAL ACCESS LADDERS

MODEL			DESCRIPTION
0'-20' HT	>20' HT	>30' HT	
561-E	N/A	N/A	ELEVATOR PIT ACCESS LADDER. PROVIDE ONE AT EVERY ELEVATOR PIT
561	561-C	561-CP	INTERIOR PLATFORM OR ROOF LADDER WITH HANDRAILS OVER ROOF
561-SE	561-SE-C	561-SE-CP	INTERIOR PLATFORM OR ROOF LADDER WITH SIDE ACCESS AT TOP
564-PRPC	564-C	564-CP	ROOF LADDER AT PARAPET CONDITION. PARAPET RETURN WITH CROSSOVER PLATFORM
560	560-C	560-CP	ROOF HATCH ACCESS LADDER

SHIPS LADDERS

MODEL			DESCRIPTION
0'-20' HT			
M1000			PLATFORM ACCESS SHIPS LADDER - 75 DEG
H1000			ROOF HATCH ACCESS SHIPS LADDER - 75 DEG

NOTE:

1. ALL EXTERIOR LADDERS SHALL HAVE OPTIONAL MOUNTING AT BASE OF LADDER, HOLDING LADDER UP, ABOVE ROOF/GROUND
2. ALL VERTICAL ROOF ACCESS LADDERS EXTENDING TO GRADE SHALL HAVE OPTIONAL H300 SECURITY DOOR
3. ALL VERTICAL INTERIOR LADDERS SHALL HAVE OPTIONAL H300 SECURITY DOOR UNLESS LOCATED IN A SECURED ROOM
4. ALL WALL/PARTITION/FLOOR ATTACHMENTS SHALL BE COORDINATED WITH THE STRUCTURAL ENGINEER

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
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ROOF DETAILS

MARSHALL HIGH SCHOOL

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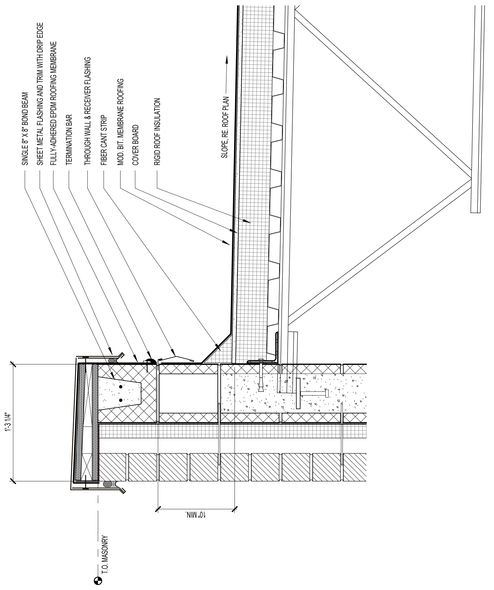
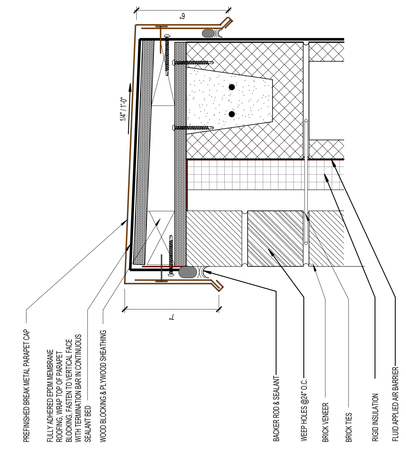


ROOF DETAIL - PARAPET 1

SCALE: 1 1/2" = 1'-0"



ROOF PARAPET DETAIL AT MASONRY VENEER 2

SCALE: 3" = 1'-0"

100 % CD

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ROOF PARAPET DETAILS

MARSHALL HIGH SCHOOL

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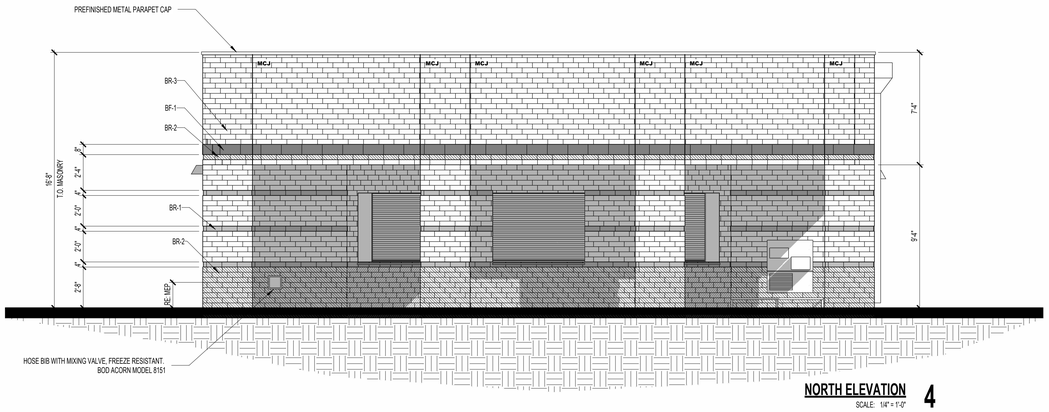
GENERAL NOTES - EXTERIOR ELEVATIONS

1. EXPOSED EXTERIOR STRUCTURAL STEEL MEMBERS SHALL BE PAINTED – COLOR SELECTED BY ARCHITECT.
2. STEEL MASONRY LINTELS SHALL BE GALVANIZED.
3. EXPOSED CONCRETE WALLS, COLUMNS, AND BEAMS, SHALL HAVE RUBBED GROUT FINISH.
4. MASONRY WEEP HOLES SHALL BE HAVE PVC HONEYCOMB VENTED WEEPS AT 16 " O.C. MAXIMUM.
5. EXTERIOR ALUMINUM STOREFRONT/CURTAIN WALL SYSTEM(S) SHALL HAVE ALUMINUM SUB-SILLS WITH SEALED END DAMS.
6. EXTERIOR ALUMINUM STOREFRONT/CURTAIN WALL SYSTEM(S) SHALL HAVE CONTINUOUS ALUMINUM BACKFILLERS.
7. FLEXIBLE MEMBRANE FLASHING AT WINDOWS SILLS AND LINTELS SHALL HAVE PRE-FORMED END DAMS.
8. CONTRACTOR SHALL PROVIDE FLEXIBLE MEMBRANE FLASHING ACROSS JOINTS BETWEEN DISSIMILAR MATERIALS TO INCLUDE, BUT NOT LIMITED TO, CMU TO STEEL FRAME, CMU TO STEEL DECKING, CMU TO EXTERIOR SHEATHING, ETC. TO PROVIDE COMPLETE AIR AND VAPOR BARRIER ACROSS BUILDING ENVELOPE.
9. MASONRY VENEER CONTROL JOINTS SHALL BE 3/8 ", AT INSIDE CORNERS, AT DISTANCES NOT TO EXCEED 3'-4" FROM OUTSIDE CORNERS, AND AT 30 '-0" O.C. MAXIMUM, UNLESS NOTED OTHERWISE. REFERENCE EXTERIOR ELEVATIONS.
10. GUTTERS, CONDUCTOR HEADS, AND DOWNSPOUTS SHALL BE PRE-FINISHED SHEET METAL. COLOR SELECTED BY ARCHITECT.
11. DOWNSPOUTS SHALL HAVE 16 GAUGE PRE-FINISHED DOWNSPOUT BOOTS TO 6 '-0" ABOVE FINISH GRADE. COLOR SELECTED BY ARCHITECT.
12. DOWNSPOUTS AND ROOF DRAINS SHALL BE CONNECTED TO STORM DRAIN SYSTEM UNLESS OTHERWISE NOTED. REFERENCE CIVIL FOR STORM DRAIN CONNECTION DETAILS AND LOCATIONS.
13. CONTRACTOR SHALL PROVIDE MOCK-UP FOR EACH EXTERIOR CONDITION AND CONSTRUCTION ASSEMBLY TYPE. MOCK-UP SHALL INCLUDE METAL FLASHINGS, VERTICAL AND HORIZONTAL FLEXIBLE MEMBRANE FLASHINGS, AND WINDOW INSTALLATIONS AS DETAILED IN CONSTRUCTION DOCUMENTS. MOCK-UP SHALL BE A MINIMUM OF 8 '-0" TALL X 16 '-0" LONG WITH AN EXTERIOR CORNER, INTERIOR CORNER, AND VERTICAL CONTROL JOINT. COORDINATE LOCATION OF MOCK-UP PANEL WITH ARCHITECT PRIOR TO CONSTRUCTION.
14. MECHANICAL ROOF TOP UNITS SHALL BE PAINTED. COLOR SELECTED BY ARCHITECT.

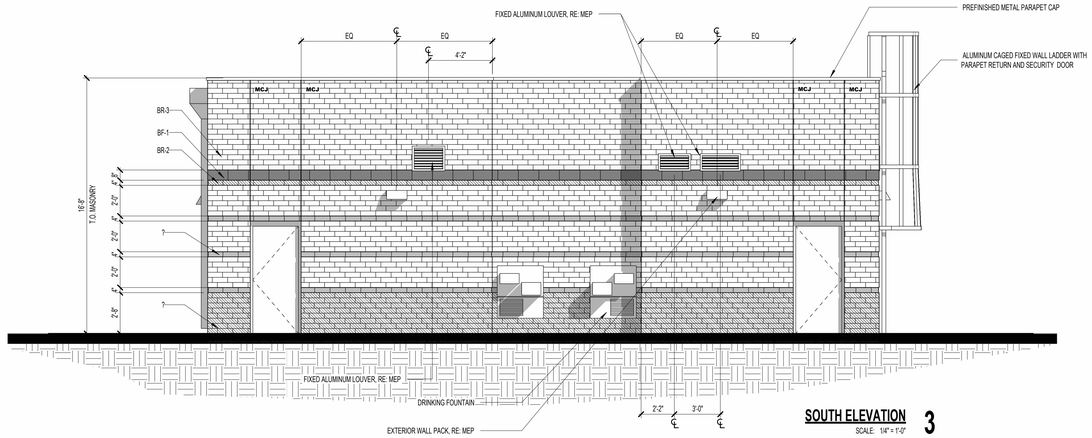
EXTERIOR MATERIAL LEGEND

- BRICK 1 (BR-1) UTILITY GOLDEN BLUFF, RUNNING BOND
- BRICK 1 (BR-2) UTILITY, RUNNING BOND
- BRICK 1 (BR-3) UTILITY, RUNNING BOND
- BURNISHED FACE BLOCK (BF-1), RUNNING BOND

EXTERIOR ACCENT PAINT (EP-1)



NORTH ELEVATION 4
SCALE: 1/4" = 1'-0"



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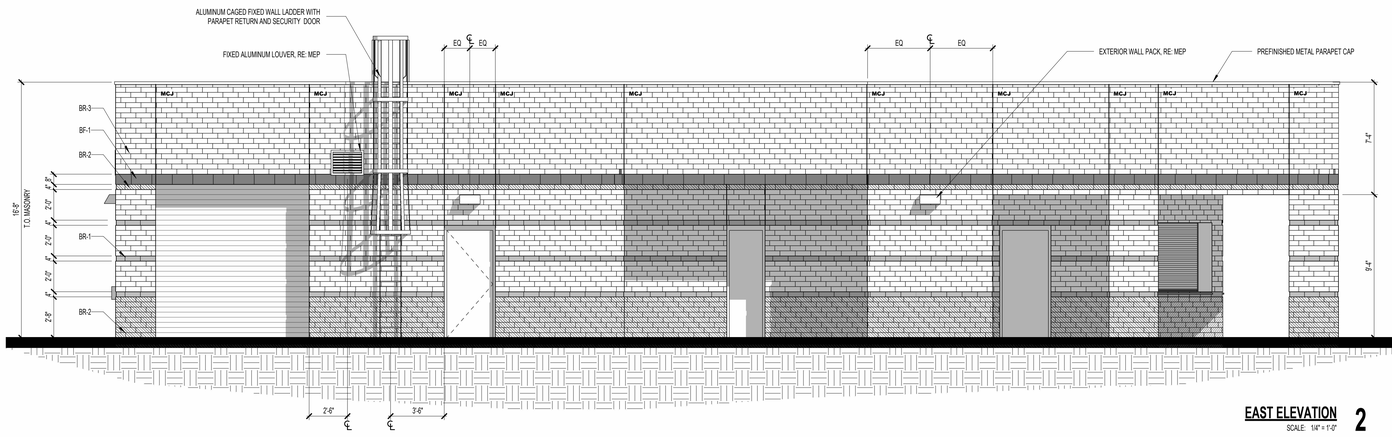

EAST ELEVATION 2
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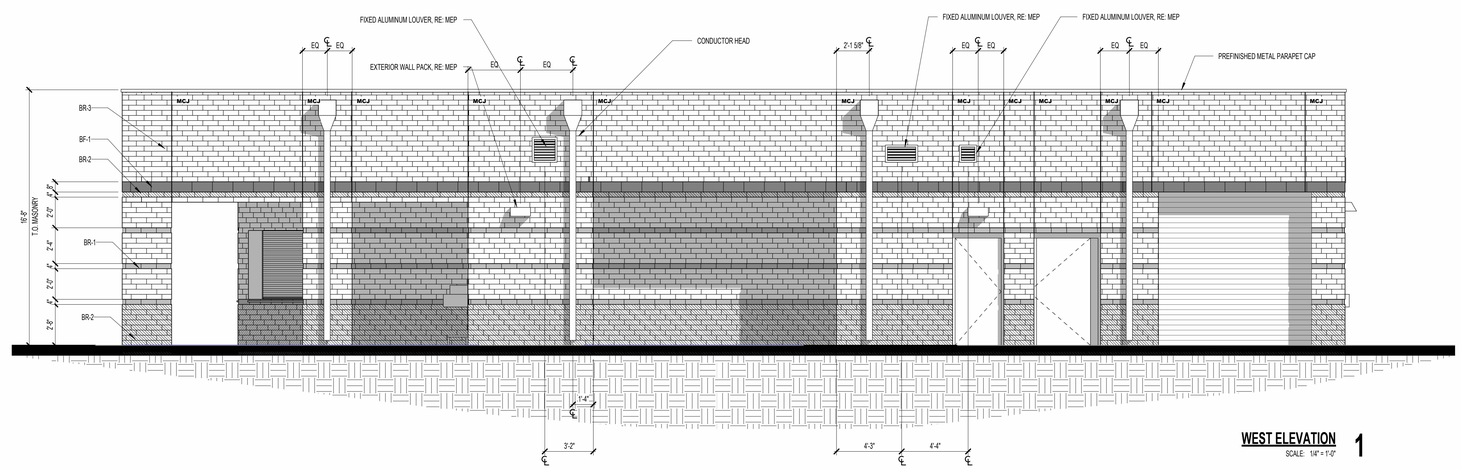

WEST ELEVATION 1
SCALE: 1/4" = 1'-0"

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BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
30113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

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A6.00-M
CONCESSIONS
EXTERIOR ELEVATIONS

MARSHALL HIGH SCHOOL

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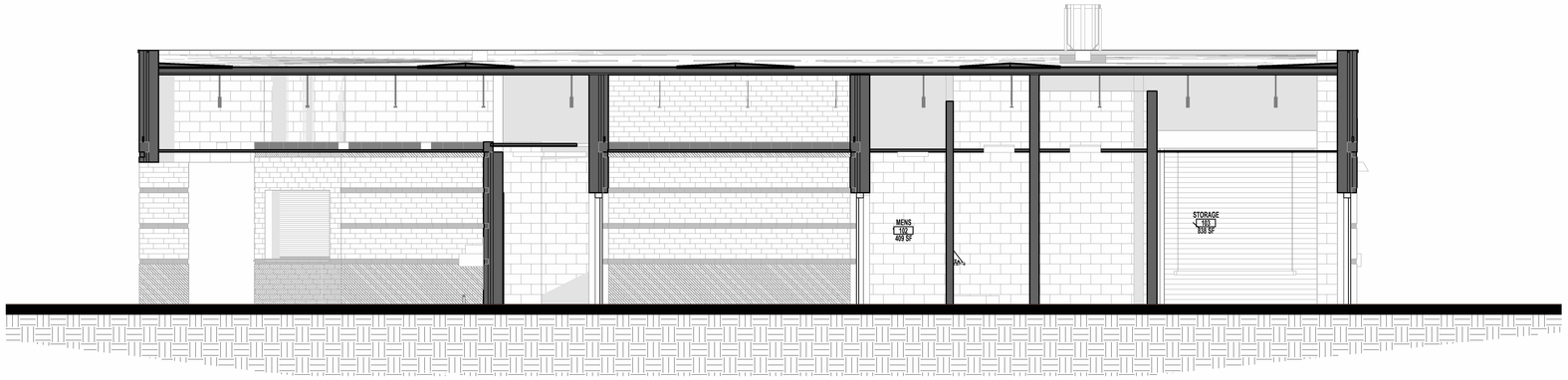

BUILDING SECTION 4 4
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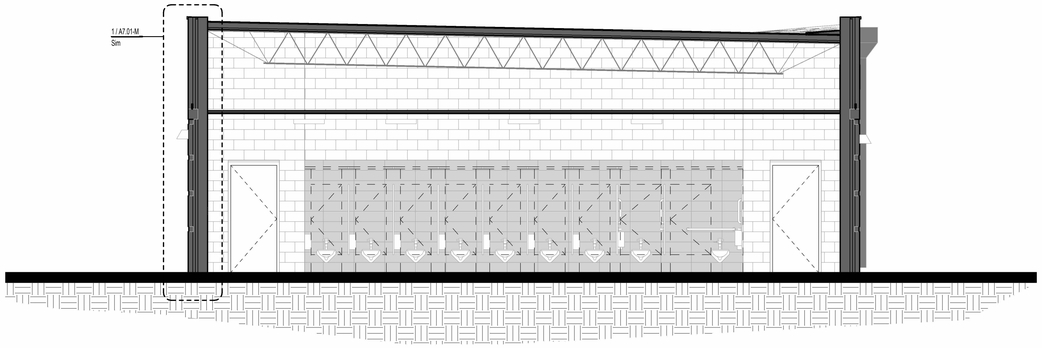

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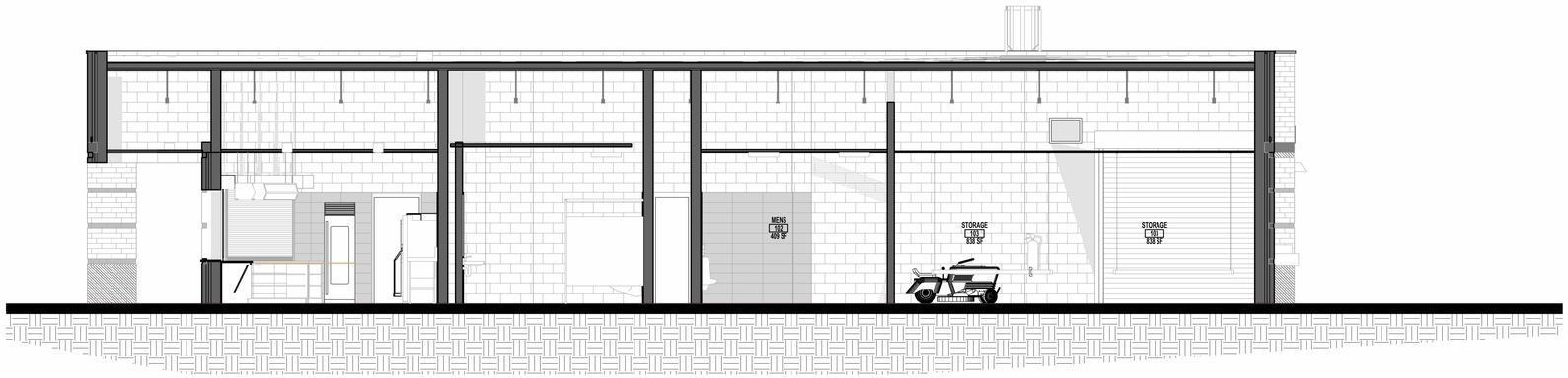

BUILDING SECTION 1 1
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BUILDING SECTIONS
CONCESSION

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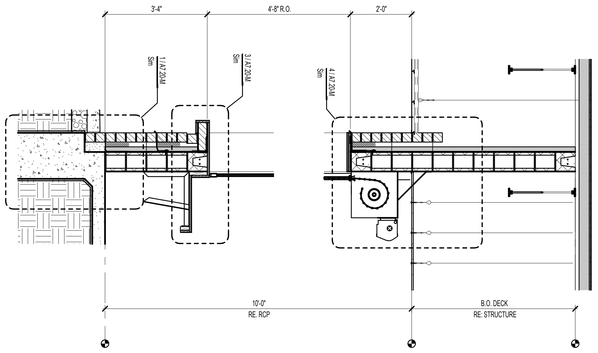
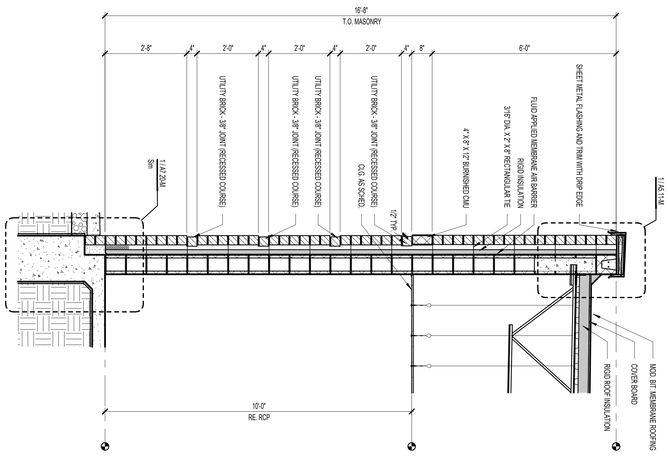


WALL SECTION 02
SCALE: 1/2" = 1'-0"
2



WALL SECTION 01
SCALE: 1/2" = 1'-0"
1

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office: 713.222.1141 I fax: 713.222.1174
2 Greenway Plaza, Suite 460
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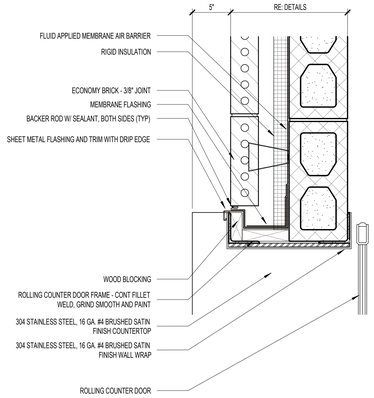
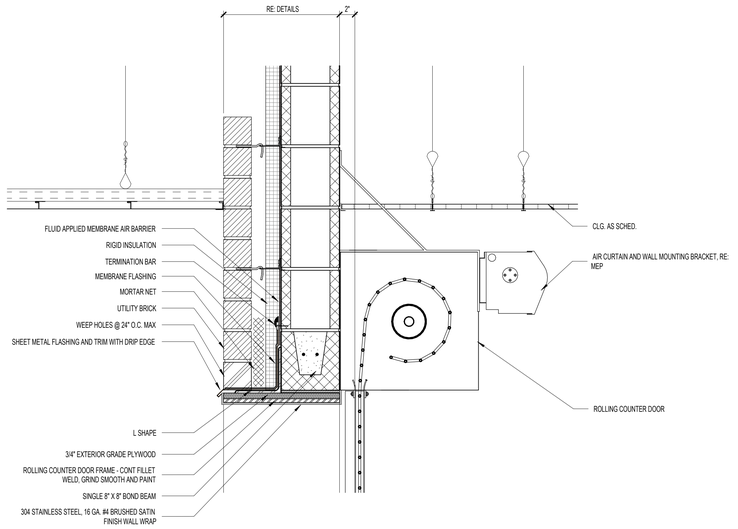
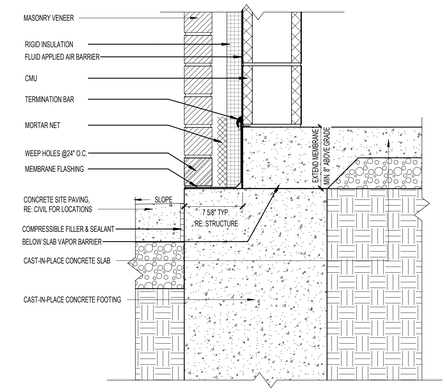


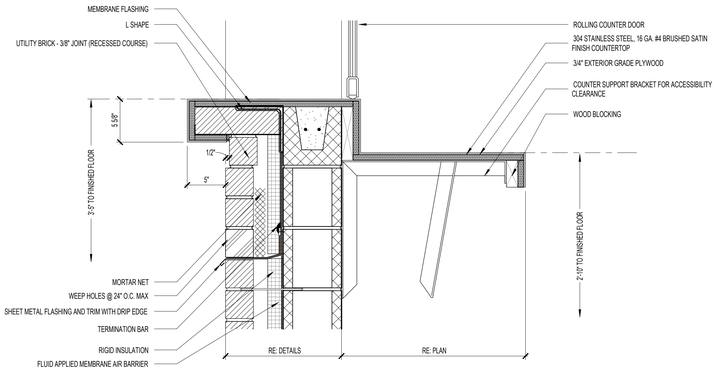
COUNTERTOP JAMB DETAIL 7
SCALE: 1 1/2" = 1'-0"



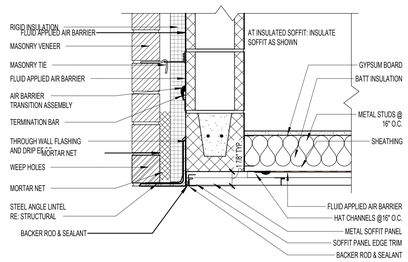
COUNTERTOP HEAD DETAIL 4
SCALE: 1 1/2" = 1'-0"



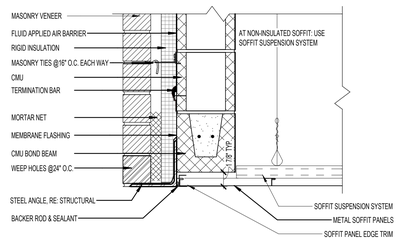
FOUNDATION DETAIL 2
SCALE: 1 1/2" = 1'-0"



COUNTERTOP SILL DETAIL 3
SCALE: 1 1/2" = 1'-0"



SECTION DETAIL - WALL RECESS 6
SCALE: 1 1/2" = 1'-0"



SECTION DETAIL - WALL RECESS 5
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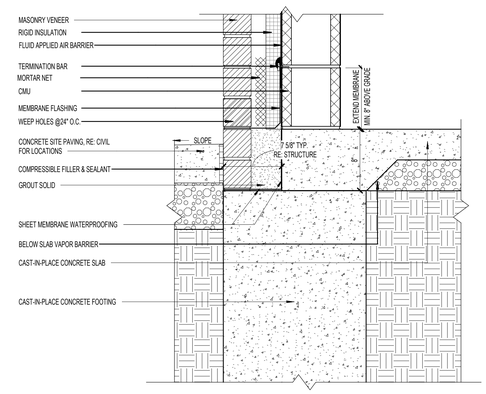

FOUNDATION DETAIL 1
SCALE: 1 1/2" = 1'-0"

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SECTION DETAILS

MARSHALL HIGH SCHOOL

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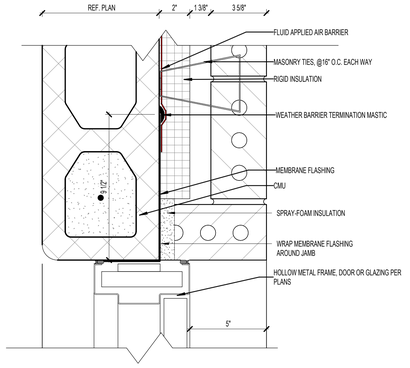
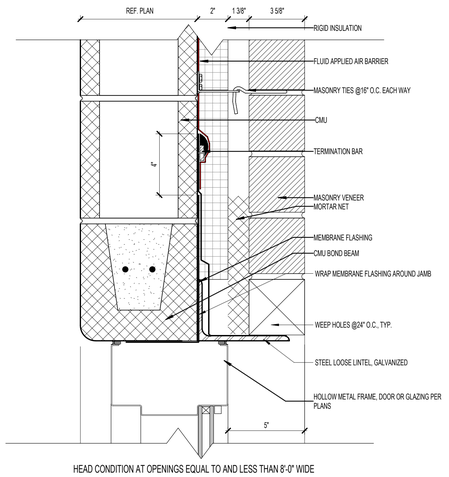


HM JAMB - MASONRY W/CMU 10

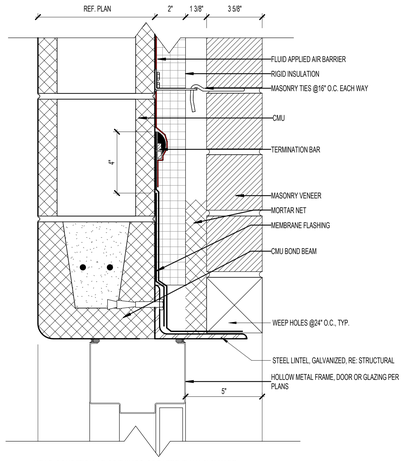
SCALE: 3" = 1'-0"



HEAD CONDITION AT OPENINGS EQUAL TO AND LESS THAN 8'-0" WIDE

HM HEAD - MASONRY W/CMU 5

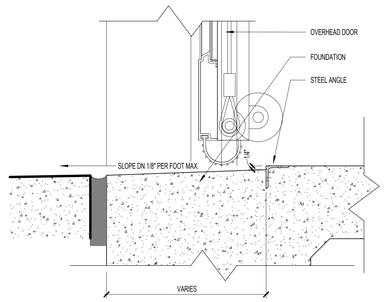
SCALE: 3" = 1'-0"



HEAD CONDITION AT OPENINGS GREATER THAN 8'-0" WIDE

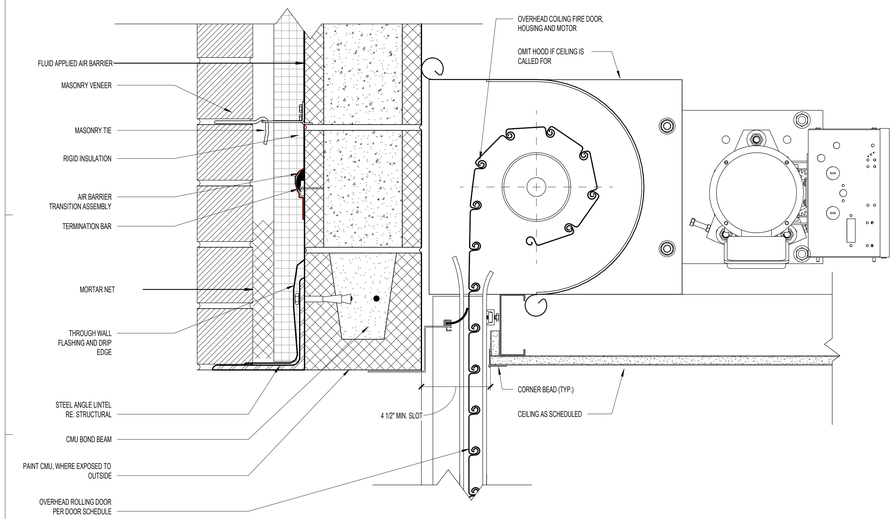
HM HEAD - MASONRY W/CMU STEEL LINTEL 9

SCALE: 3" = 1'-0"



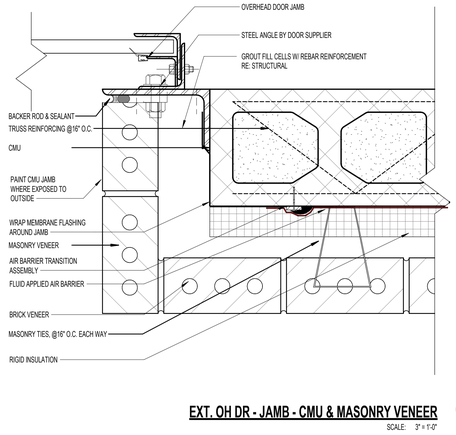
OVERHEAD DOOR THRESHOLD 8

SCALE: 3" = 1'-0"



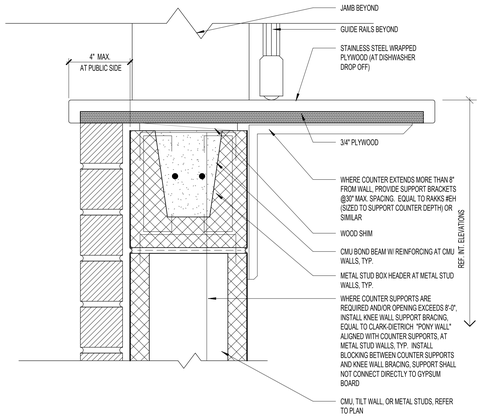
EXT. OVERHEAD DOOR HEAD @CMU & MASONRY VENEER 6

SCALE: 3" = 1'-0"



EXT. OH DR - JAMB - CMU & MASONRY VENEER 7

SCALE: 3" = 1'-0"

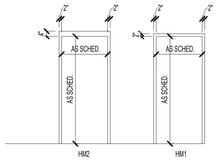


INT. COUNTER SHUTTER SILL - METAL STUD OR CMU WALL 2

SCALE: 3" = 1'-0"

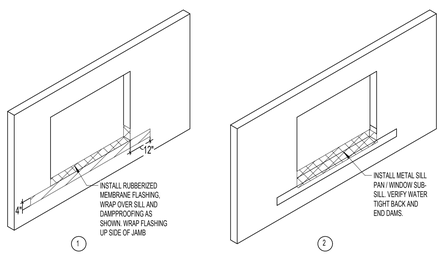
DOOR SCHEDULE

BUILDING	NUMBER	PANEL PAIR	WIDTH	PANEL HEIGHT	PANEL TYPE	PANEL MATERIAL	FRAME TYPE	FRAME MATERIAL	FIRE RATING	HARDWARE	DETAILS HEAD	DETAILS JAMB	DETAILS THRESHOLD	COMMENTS
CONCESSIONS														
CONCESSIONS	M100A		3'-0"	7'-0"	A	HM	HM2	HM		205	4/A8.01-M	5/A8.01-M		
CONCESSIONS	M100B			4'-8"	J	AL				001	1/A8.01-M	2/A8.01-M		INSULATED COILING COUNTER DOOR WITH JAMB LOCK
CONCESSIONS	M100C			4'-8"	J	AL				001	1/A8.01-M	2/A8.01-M		INSULATED COILING COUNTER DOOR WITH JAMB LOCK
CONCESSIONS	M100D			4'-8"	J	AL				001	1/A8.01-M	2/A8.01-M		INSULATED COILING COUNTER DOOR WITH JAMB LOCK
CONCESSIONS	M101A		3'-0"	7'-0"	A	HM	HM2	HM		805L	4/A8.01-M	5/A8.01-M		
CONCESSIONS	M101B		3'-0"	7'-0"	A	HM	HM2	HM		805L	4/A8.01-M	5/A8.01-M		
CONCESSIONS	M102A		3'-0"	7'-0"	A	HM	HM2	HM		805L	4/A8.01-M	5/A8.01-M		
CONCESSIONS	M102B		3'-0"	7'-0"	A	HM	HM2	HM		805L	4/A8.01-M	5/A8.01-M		
CONCESSIONS	M103A		3'-0"	7'-0"	A	HM	HM2	HM		205	4/A8.01-M	5/A8.01-M		
CONCESSIONS	M103B		3'-0"	7'-0"	A	HM	HM2	HM		205	4/A8.01-M	5/A8.01-M		
CONCESSIONS	M103C		10'-0"	10'-0"	K	AL	-	AL	-	001	1/A8.01-M	2/A8.01-M	3/A8.01-M	MOTORIZED INSULATED OVERHEAD COILING DOOR
CONCESSIONS	M103D		10'-0"	10'-0"	K	AL	-	AL	-	001	1/A8.01-M	2/A8.01-M	3/A8.01-M	MOTORIZED INSULATED OVERHEAD COILING DOOR
CONCESSIONS	M104		4'-0"	7'-0"	A	HM	HM2	HM		C205W	1/A8.01-M	2/A8.01-M		CARD READER ACCESS
CONCESSIONS	M105		3'-0"	7'-0"	A	HM	HM2	HM		205	4/A8.01-M	5/A8.01-M		
CONCESSIONS	M106		3'-0"	7'-0"	A	HM	HM2	HM		205	4/A8.01-M	5/A8.01-M		
CONCESSIONS	M107		2'-2"	7'-0"	A	HM	HM2	HM		205	4/A8.01-M	5/A8.01-M		
GYM LOCKERS														
GYM LOCKERS	M108		3'-0"	7'-0"	A	HM	HM2	HM						
GYM LOCKERS	M109		3'-0"	7'-0"	A	HM	HM2	HM						
GYM LOCKERS	M110		3'-0"	7'-0"	A	HM	HM2	HM						
GYM LOCKERS	M111		3'-0"	7'-0"	A	HM	HM2	HM						
GYM LOCKERS	M112		3'-0"	7'-0"	A	HM	HM2	HM						
GYM LOCKERS	M113		3'-0"	7'-0"	A	HM	HM2	HM						
GYM LOCKERS	M116		3'-0"	7'-0"	A	HM	HM2	HM						
GYM LOCKERS	M117		3'-0"	7'-0"	A	HM	HM2	HM						



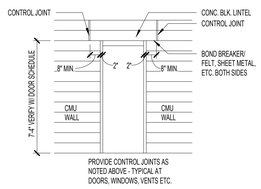
HOLLOW METAL FRAME TYPES 4

SCALE: 1/4" = 1'-0"



WINDOW FLASHING SEQUENCE 3

SCALE: 3/8" = 1'-0"



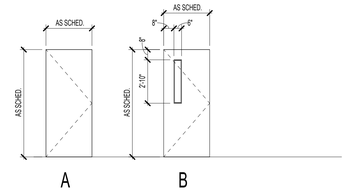
DOOR FRAME DETAIL @ MASONRY 1

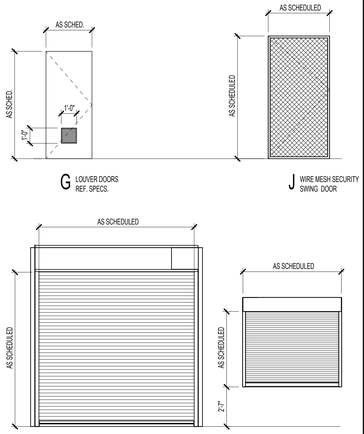
SCALE: 1/4" = 1'-0"

DOOR SCHEDULE GENERAL NOTES

1. REFER TO THE SPECIFICATIONS FOR HARDWARE DESCRIPTIONS
2. REFER TO A 8.02 FOR DOOR HEAD JAMB AND SILL DETAILS
3. REF. SPECIFICATIONS FOR GLAZING TYPES
4. ALL DOORS IN SMOKE RESISTANT PARTITIONS TO HAVE POSITIVE LATCHING AND BE SMOKE TIGHT (ST)
5. ALL DOORS TO HAVE BOXED HEADERS UNLESS STEEL CHANNELS ARE INDICATED IN THE COMMENT COLUMN OF THE DOOR SCHEDULE OR UNLESS OTHERWISE INDICATED BY HEAD DETAIL
6. ALL CLOSERS TO BE LOCATED ON THE ROOM SIDE OF THE DOOR WHERE INSTALLED AT CORRIDORS. IN NON CORRIDORS, CLOSERS TO BE INSTALLED AT THE ROOM SIDE FOR THE ROOM BEING SERVED BY THE OPENER
7. ALL FIRE RATINGS NOTED IN MINUTES

DOOR PANEL TYPES





DOOR SCHEDULE COMMENTS

1. PANIC HARDWARE
2. VACANT/OCCUPIED LIGHT OVER DOOR
3. ADA DOOR OPERATOR
4. PACKAGED DOOR ASSEMBLY, RE: SPECS
5. AUTOMATIC CARD READER AT DOOR, RE: SECURITY
6. MAGNETIC HOLD OPEN DEVICE TIED TO FIRE ALARM
7. MAGNETIC HOLD OPEN DEVICE - CONVENIENCE
8. MAGNETIC HOLD OPEN DEVICE TIED TO SECURITY
9. REMOTE ACTIVATED LATCH
10. BALLISTISTICS FILM APPLIED TO ALL GLAZING

DOOR SCHEDULE ABREVIATIONS

AL: ALUMINUM
HM: HOLLOW METAL
MTL: METAL
CL: CHAIN LINK
RM: REFER TO MANUFACTURER
ST: SMOKE TIGHT
SCW: SOLID CORE WOOD
FBC: POLYMER CORE
MIN: MINUTES
HW: HARDWARE

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
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DOOR SCHEDULE AND DETAILS

MARSHALL HIGH SCHOOL

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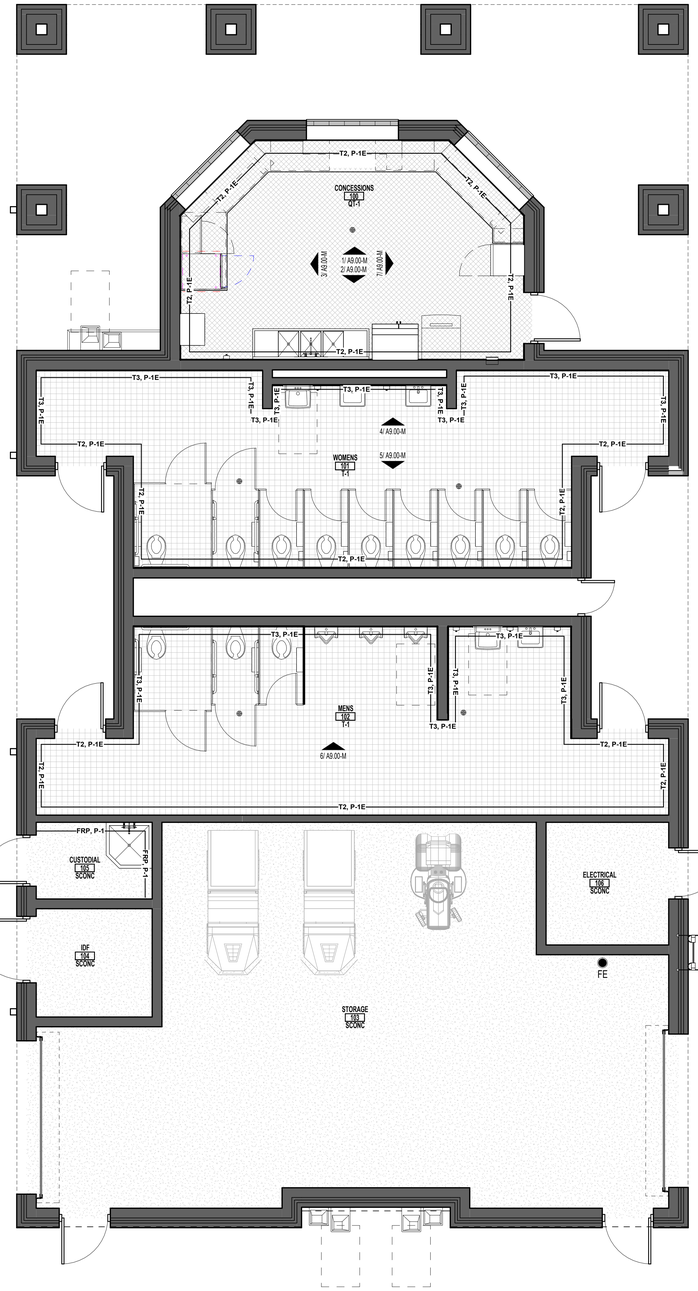
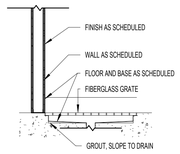


FINISH FLOOR PLAN- CONCESSIONS 8

SCALE: 1/4" = 1'-0"



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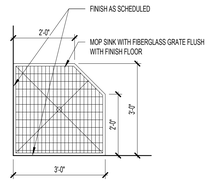
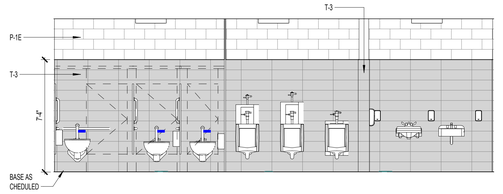


PLAN MOP SINK 9

SCALE: 1/2" = 1'-0"



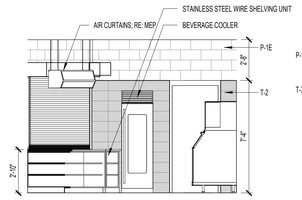
MENS - NORTH 6

SCALE: 1/4" = 1'-0"



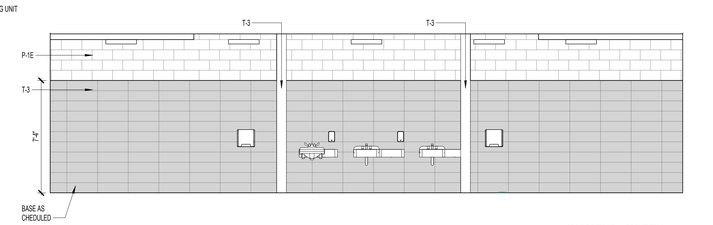
WOMENS - SOUTH 5

SCALE: 1/4" = 1'-0"



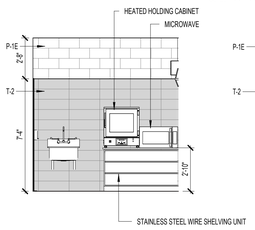
CONCESSIONS - EAST 7

SCALE: 1/4" = 1'-0"



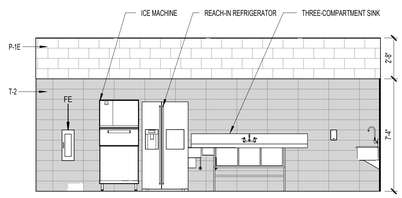
WOMENS - NORTH 4

SCALE: 1/4" = 1'-0"



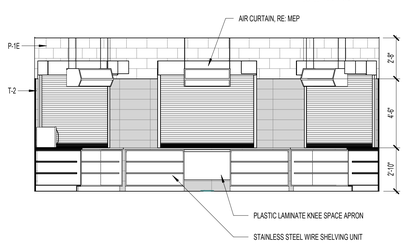
CONCESSIONS - WEST 3

SCALE: 1/4" = 1'-0"



CONCESSIONS - SOUTH 2

SCALE: 1/4" = 1'-0"



CONCESSIONS - NORTH 1

SCALE: 1/4" = 1'-0"

ROOM FINISH SCHEDULE - CONCESSIONS BUILDING

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	REMARKS
100	CONCESSIONS	QT-1	TB-2	T, P-1E	T, P-1E	T, P-1E	T, P-1E	7' HEIGHT WALL TILE AND P-1E ABOVE. REF TO FINISH PLAN
101	WOMENS	T-1	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	7' HEIGHT WALL TILE AND P-1E ABOVE. REF TO FINISH PLAN
102	MENS	T-1	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	7' HEIGHT WALL TILE AND P-1E ABOVE. REF TO FINISH PLAN
103	STORAGE	SCONC	RB-1	P-1	P-1	P-1	P-1	
104	IDF	SCONC	RB-1	P-1	P-1	P-1	P-1	
105	CUSTODIAL	SCONC	RB-1	FRP, P-1	FRP, P-1	P-1	P-1	7' HEIGHT FRP AND P-1 ABOVE. REF FINISH PLAN
106	ELECTRICAL	SCONC	RB-1	P-1	P-1	P-1	P-1	

MATERIAL FINISH LEGEND

T-1 (PORCELAIN TILE) — SCONC (SEALED CONCRETE)

QT-1 (QUARRY TILE)

PROVIDE CONTROL JOINTS (C.J.) AS SHOWN & AT COLOR CHANGES. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS

SYMBOLS

MW	MARKER WALL - DRY ERASE WALL-COVERING
CJ	CONTROL JOINT*
EJ	EXPANSION JOINT
CG	CORNER GUARD
HLB	HORIZONTAL LOUVER BLINDS
RS	ROLLER SHADES
CPT / VCT	FLOOR FINISH TRANSITION
	INSTALL DIRECTION
ROOM 100 PCON	FLOOR FINISH

* PROVIDE CONTROL JOINTS AS SHOWN. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS. REFER TO STRUCTURAL DWGS FOR DIMENSIONS. AT COLOR TRANSITIONS, PROVIDE SCORE LINE U.N.O.

** REFER TO ROOM FINISH SCHEDULE FOR FULL LIST OF FINISH WITHIN ROOM

WALL FINISH TYPES

P-1	PAINT
P-1E	EPOXY PAINT
T-2	WALL TILE
TB-1	WALL BASE
RB-1	RUBBER BASE

FLOOR FINISH TYPES

QT-1	QUARRY TILE
SCONC	SEALED CONCRETE
T1	FLOOR TILE

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

	Date	Description

100 % CD

A9.00-M

01 CONCESSION FINISH FLOOR AND INTERIOR ELEVATIONS

MARSHALL HIGH SCHOOL

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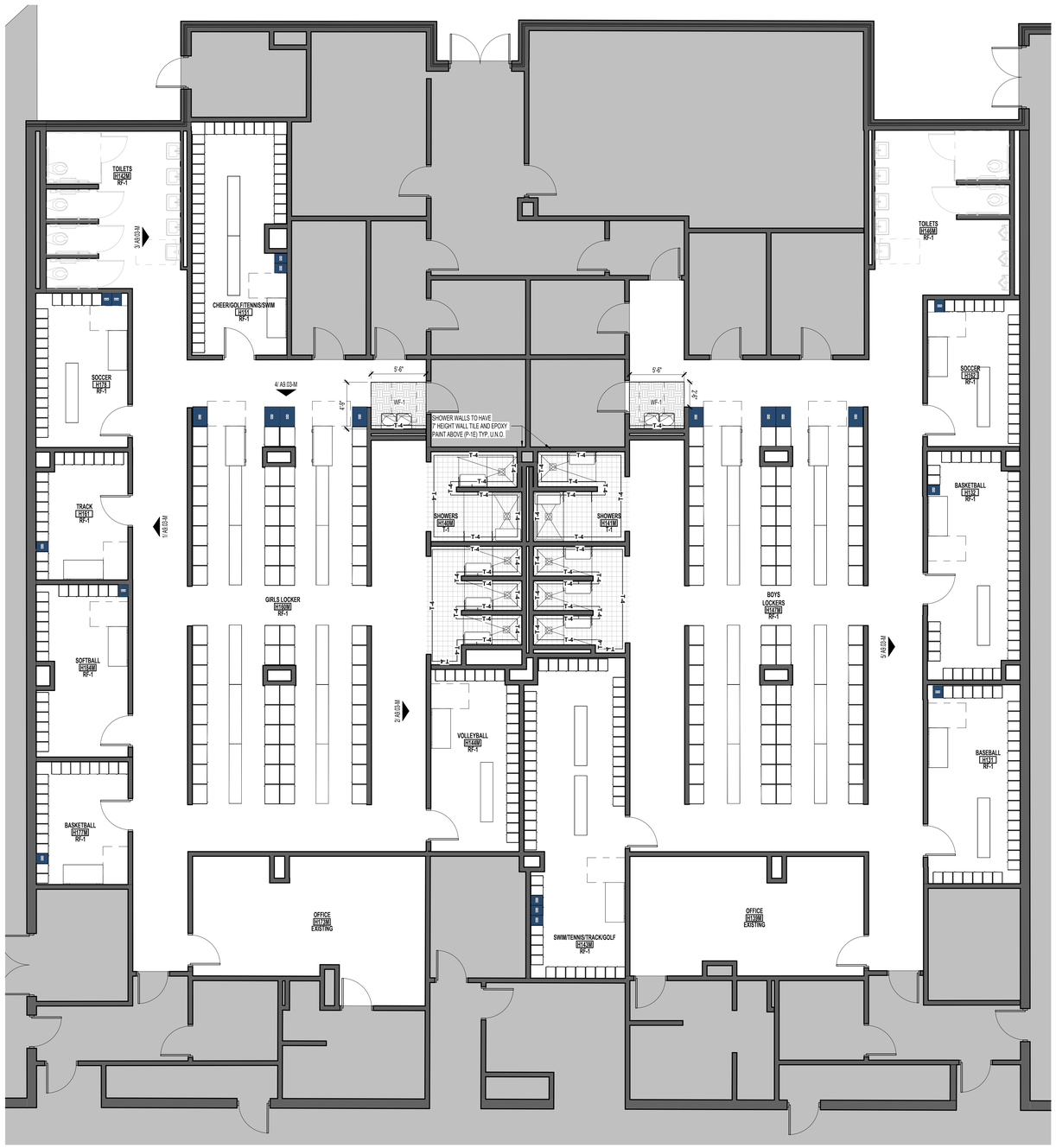

FINISH FLOOR PLAN LOCKER ROOM- M 1
SCALE: 3/16" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD FACE OF CMU FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- AB — COLUMN GRID
- Ref / 20 / A101 — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- SIM / 1 / A101 — BUILDING SECTION TAG
- SIM / 1 / A101 — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT
- 101 — DOOR TAG
- AX1 — PARTITION TAG
- HOLLOW METAL WINDOW TAG
- 1 — ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE

SPECIALTY EQUIPMENT

TAG	EQUIPMENT
A1	LOCKER - 24" W X 18" D X 72" H
A2	LOCKER - 24" W X 16" D X 72" H
A3	LOCKER - 24" W X 16" D X 72" H
A4	LOCKER - 12" W X 16" D X 72" H
B	LOCKER - 24" W X 18" D X 72" H
LB-1	LOCKER BENCH - 72" L X 15" W
LB-2	LOCKER BENCH - 96" L X 15" W
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK

MATERIAL FINISH LEGEND

T-1 (PORCELAIN TILE) RF-1 (RESINOUS FLOORING)

PROVIDE CONTROL JOINTS (C.J.) AS SHOWN & AT COLOR CHANGES. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS

SYMBOLS

MW	MARKER WALL - DRY ERASE WALL-COVERING
CJ	CONTROL JOINT*
EJ	EXPANSION JOINT
CG	CORNER GUARD
HLB	HORIZONTAL LOUVER BLINDS
RS	ROLLER SHADES

CPT / VCT — FLOOR FINISH TRANSITION

INSTALL DIRECTION

ROOM 100 PCON — FLOOR FINISH

* PROVIDE CONTROL JOINTS AS SHOWN. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS. REFER TO STRUCTURAL DWGS FOR DIMENSIONS AT COLOR TRANSITIONS. PROVIDE SCORE LINE U.N.O.

** REFER TO ROOM FINISH SCHEDULE FOR FULL LIST OF FINISH WITHIN ROOM

WALL FINISH TYPES

P-1	PAINT
P-1E	EPOXY PAINT
T-2	WALL TILE
TB-1	WALL BASE
RB-1	RUBBER BASE

FLOOR FINISH TYPES

QT-1	QUARRY TILE
SCONC	SEALED CONCRETE
T1	FLOOR TILE

pfluger
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No.	Date	Description

100 % CD

A9.01-M
01 GYM FINISH FLOOR PLAN

MARSHALL HIGH SCHOOL

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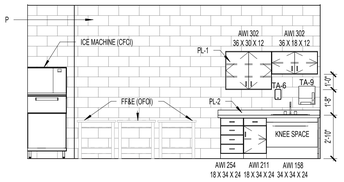
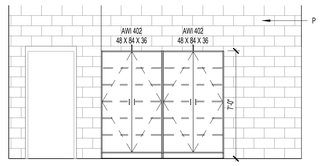
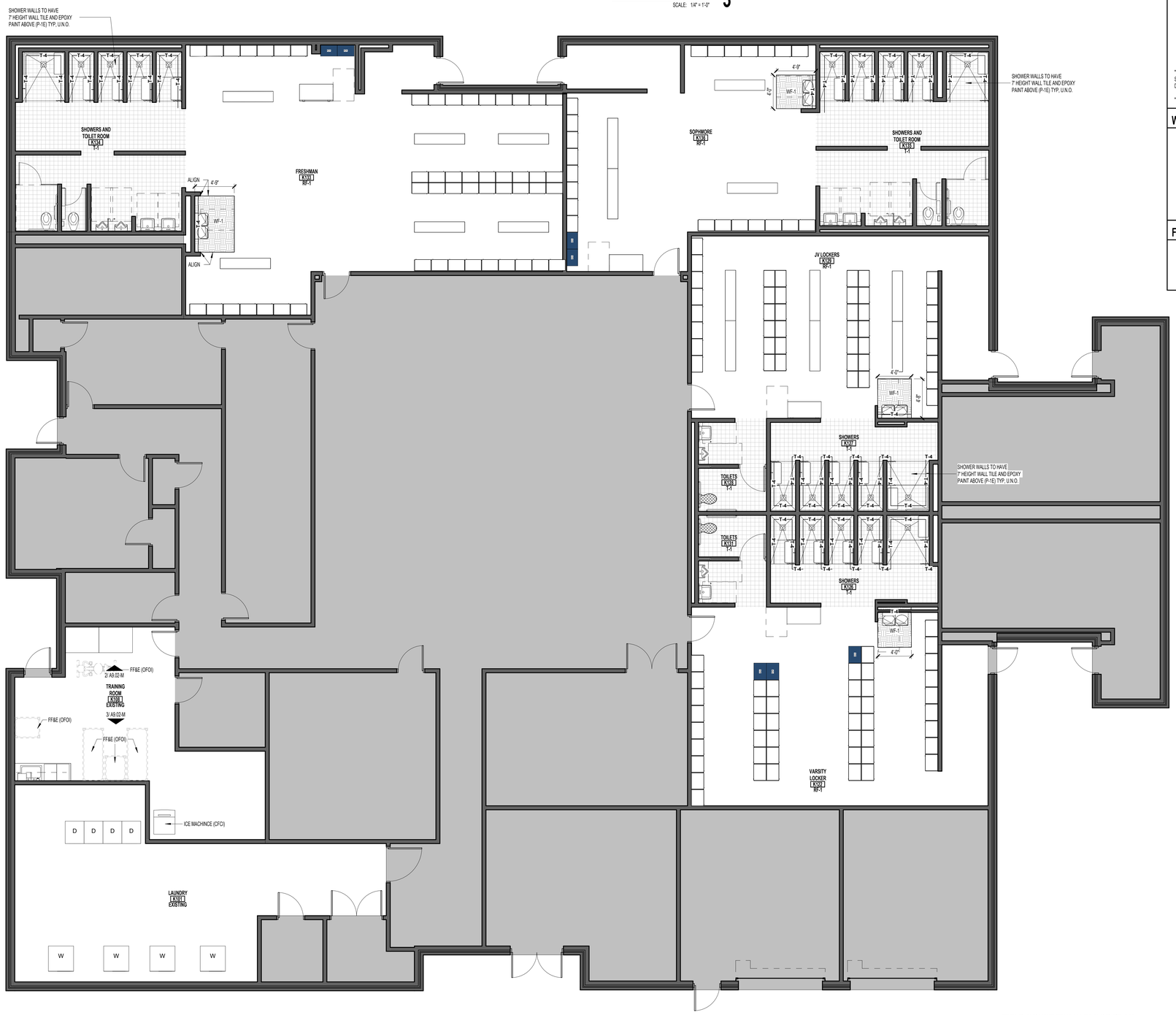


TRAINING ROOM - SOUTH 3
SCALE: 1/4" = 1'-0"



TRAINING ROOM - NORTH 2
SCALE: 1/4" = 1'-0"



FIELD HOUSE FINISH FLOOR PLAN 1
SCALE: 3/16" = 1'-0"

MATERIAL FINISH LEGEND

T-1 (PORCELAIN TILE)

RF-1 (RESINOUS FLOORING)

PROVIDE CONTROL JOINTS (C.J.) AS SHOWN & AT COLOR CHANGES. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS

SYMBOLS

MW	MARKER WALL - DRY ERASE WALL-COVERING
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CPT / VCT — FLOOR FINISH TRANSITION

INSTALL DIRECTION

ROOM 100 PCON — FLOOR FINISH

* PROVIDE CONTROL JOINTS AS SHOWN. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS. REFER TO STRUCTURAL DWGS FOR DIMENSIONS. AT COLOR TRANSITIONS, PROVIDE SCORE LINE U.N.O.

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WALL FINISH TYPES

P-1	PAINT
P-1E	EPOXY PAINT
T-2	WALL TILE
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RB-1	RUBBER BASE

FLOOR FINISH TYPES

QT-1	QUARRY TILE
SCONC	SEALED CONCRETE
T1	FLOOR TILE

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STATE OF TEXAS

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Date Description

100 % CD

A9.02-M

01 FIELD HOUSE FINISH FLOOR PLAN AND INTERIOR ELEVATIONS

MARSHALL HIGH SCHOOL

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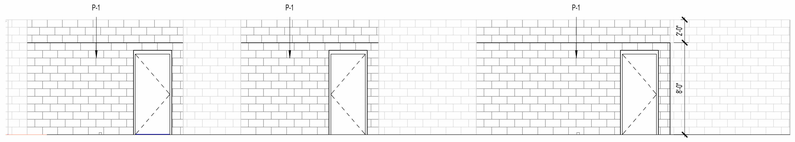
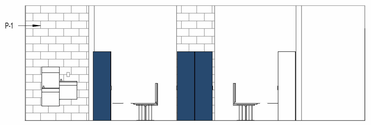
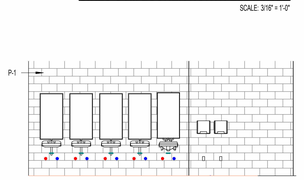


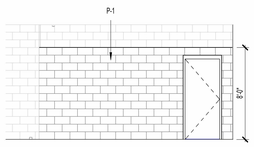
BOYS GYM LOCKERS CORRIDOR ELEVATION 5
SCALE: 3/16" = 1'-0"



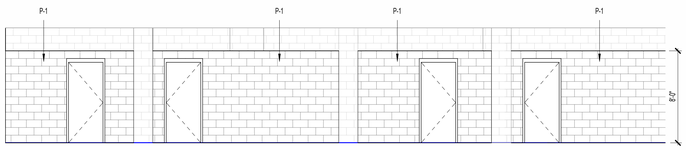
GIRLS GYM LOCKER NORTH ELEVATION 4
SCALE: 3/16" = 1'-0"



GIRLS RESTROOM GYM LOCKERS- EAST 3
SCALE: 3/16" = 1'-0"



CORRIDOR EAST ELEVATION 2
SCALE: 3/16" = 1'-0"



CORRIDOR WEST ELEVATION GIRLS GYM LOCKERS 1
SCALE: 3/16" = 1'-0"

FINISH SCHEDULE LEGEND

FLOORING
- T-1 FLOOR TILE
- CONC CONCRETE FINISH W/ SEALER
- CPT-1 CARPET
- CPT-2 CARPET - ACCENT COLOR
- CPTPAT CARPET PATTERN
- EF-1 EPOXY FLOORING
- EF-2 EPOXY BASE TYPE 2 (KITCHEN)
- LF LINOLEUM FLOORING
- LVT LUXURY VINYL TILE
- PC POLISHED CONCRETE
- PCPAT POLISHED CONCRETE W/ PATTERN
- RT RUBBER TILE
- RF RUBBER FLOOR
- SF SPORT FLOORING
- ST STAIR TREADS
- TRZ TERRAZZO FLOORING
- TRZPAT TERRAZZO FLOORING W/ PATTERN
- TRZST PRECAST TERRAZZO STAIR TREADS
- QT QUARRY TILE
- VCT VINYL COMPOSITION TILE
- VCTPAT VINYL COMPOSITION TILE W/ PATTERN
- WD WOOD FLOORING
- WM WALK-OFF MAT
- WSF WOOD STAGE FLOORING

BASE
- TB TILE BASE
- EB-1 EPOXY BASE TYPE 1
- EB-2 EPOXY BASE TYPE 2 (KITCHEN)
- RB RUBBER BASE (designate 4", 6" etc. if multiple types)
- RB-2 VENTED RUBBER BASE
- QB QUARRY TILE BASE
- WB STAINED WOOD BASE

WALL FINISHES
- T-2 WALL TILE
- T-3 WALL TILE
- TPAT TILE PATTERN
- EPX EPOXY PAINT
- EWC EPOXY WALL COATING
- FWP FABRIC WRAPPED ACOUSTICAL WALL PANEL
- FRP FIBERGLASS REINFORCED PANELS
- GP GLASS PARTITION
- P PAINT
- PLP PLASTIC LAMINATE PANEL SYSTEM (RE: INT. ELEVS FOR TYPES)
- SS STAINLESS STEEL
- SW SLAT WALL (RE: SPECS)
- TF TAPE & FLOAT WALLS ONLY - NO PAINT
- TWP PAINTED TECTUM WALL PANEL
- AWP ACOUSTIC WALL PANEL

CEILING SYSTEMS
- DIFF 48" X 48" SUSPENDED DIFFUSERS AS SPECIFIED
- EPX EPOXY PAINTED GYPSUM BOARD
- EXP-1 EXPOSED STRUCTURE, UNPAINTED
- EXP-2 EXPOSED STRUCTURE, DUCTWORK, CONDUIT, PIPING, ETC. TO BE PAINTED
- EXP-3 EXPOSED METAL DECK W/ TECTUM PANELS BELOW, PAINTED
- EXP-4 METAL DECK TO BE PAINTED FLAT BLACK. ALL EXPOSED STRUCTURE, DUCTWORK, CONDUIT & PIPING TO BE PAINTED SAME COLOR
- MPS METAL PANEL SOFFIT
- P PAINTED GYPSUM BOARD
- SAP-1 SUSPENDED ACOUSTICAL TILE, 2' X 2'
- SAP-2 SUSPENDED ACOUSTICAL TILE W/ PLASTIC FILM FINISH, 2' X 2'
- SAP-3 SUSPENDED ACOUSTICAL TILE, BLACK, 2' X 2'
- SAP-4 SUSPENDED ACOUSTICAL TILE W/ NUBBY TEXTURE, 2' X 2'
- SAP-5 SUSPENDED WOOD CEILING SYSTEM

FINISH SCHEDULE NOTES

1. REFER TO INTERIOR ELEVATIONS FOR LOCATION, SIZES & TYPES OF INTERIOR FINISHES.
2. PROVIDE FLOOR OR WALL PATTERNS. REFER TO INTERIOR PLANS (A0.1S) FOR DESIGN DETAILS.
3. PROVIDE ACOUSTIC PANELS. REFER TO INTERIOR ELEVATIONS FOR SIZES & TYPES.
4. REFER TO REFLECTED CEILING PLAN (A10 SERIES DWGS) FOR PAINTED GYP. BD. AND/OR SPECIALTY PORTIONS OF CEILING.
5. PROVIDE 4'H CERAMIC TILE (CT) WAINSCOT ON 2 WALLS ADJACENT TO MOP SINK AT JANITOR CLOSETS.
6. PROVIDE CERAMIC TILE WAINSCOT TO 4'- 4"A.F.F. WITH PAINT ABOVE. RE: X/A9.X FOR PATTERN.
7. PROVIDE ACCENT TILE (CTA) RE: X/A.9.X FOR PATTERN.
8. PROVIDE ACCENT WALL. REFER TO INTERIOR PLANS FOR ACCENT PAINT LOCATIONS.
9. AT MDF ROOMS, PROVIDE 8'-0"H, 3/4" PLYWOOD ON ALL WALL SURFACES. PAINT SIDES AND EDGES BLACK.
10. AT ALL STORAGE ROOMS, PROVIDE 2" HIGH, CONTINUOUS RED STRIPE 18" BELOW CEILING OR STRUCTURE. AT 6' INTERVALS (AND NOT LESS THAN ONCE PER WALL) STENCIL THE WORDS "NO STORAGE ABOVE LINE."
11. ABOVE CEILING AT ALL FIRE RATED WALLS, PROVIDE 4" HIGH, STENCIL EVERY 8' AND AT LEAST ONE PER WALL READING "FIRE WALL". IN RED PAINT. ALSO PROVIDE STENCIL AT 10' AFF IN MECHANICAL, HOUSEKEEPING, TECHNOLOGY, ELECTRICAL AND STORAGE SPACES THAT DO NOT HAVE A CEILING. STENCIL IS NOT REQUIRED WHERE THE FIRE WALL DOES NOT HAVE AN ADJACENT CEILING AND THE SPACE IS AN OCCUPIED, FINISHED SPACE.

GENERAL NOTES

A. REFER TO REFLECTED CEILING PLAN (A10 SERIES DWGS) FOR CEILING HEIGHTS & ADDITIONAL INFORMATION.

B. ALL FINISHES SUBJECT TO ARCHITECT'S APPROVAL.

C. REFERENCE FOOD SERVICE DRAWINGS (K SERIES) FOR KITCHEN AND SERVING LINE EQUIPMENT & FINISH INFORMATION.

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- AB — COLUMN GRID
- Ref 20 / A101 — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- SIM 1 / A101 — BUILDING SECTION TAG
- SIM 1 / A101 — WALL SECTION TAG
- 21 / A101 SIM — ENLARGED CALL OUT
- 101 — DOOR TAG
- AX — PARTITION TAG
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE

SPECIALTY EQUIPMENT

MATERIAL FINISH LEGEND

TAG	EQUIPMENT	
A1	T-1 LOCKER - 24" W X 18" D X 72" H	RF-1 (RESINOUS FLOORING)
A2	LOCKER - 24" W X 18" D X 72" H	
A3	LOCKER - 24" W X 18" D X 72" H	
	LOCKER - 24" W X 18" D X 72" H	
LB	~~LOCKER BENCH - 72" L X 15" W~~	
LB-1	LOCKER BENCH - 96" L X 15" W	
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL	
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK	

PROVIDE CONTROL JOINTS (C.J.) AS SHOWN & AT COLOR CHANGES. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS

SYMBOLS

- MW MARKER WALL - DRY ERASE WALL-COVERING
- CJ CONTROL JOINT*
- EJ EXPANSION JOINT*
- CG CORNER GUARD
- HLB HORIZONTAL LOUVER BLINDS
- RS ROLLER SHADES
- CPT * VCT — FLOOR FINISH TRANSITION
- INSTALL DIRECTION
- ROOM 100 PCON — FLOOR FINISH

* PROVIDE CONTROL JOINTS AS SHOWN. WHERE CONTROL JOINTS ARE NOT SHOWN, REFER TO STRUCTURAL DWGS. REFER TO STRUCTURAL DWGS FOR DIMENSIONS. AT COLOR TRANSITIONS, PROVIDE SCORE LINE U.N.O.

** REFER TO ROOM FINISH SCHEDULE FOR FULL LIST OF FINISH WITHIN ROOM

WALL FINISH TYPES

- P-1 PAINT
- P-1E EPOXY PAINT
- T-2 WALL TILE
- TB-1 WALL BASE
- RB-1 RUBBER BASE

FLOOR FINISH TYPES

- QT-1 QUARRY TILE
- SCONC SEALED CONCRETE
- T1 FLOOR TILE

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2 Greenway Plaza, Suite 460
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BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

NO.	Date	Description

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A9.03-M
01 GYM LOCKERS
INTERIOR ELEVATIONS

MARSHALL HIGH SCHOOL

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ROOM FINISH SCHEDULE - GYM LOCKERS

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	REMARKS
H131	BASEBALL	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H132	BASKETBALL	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H140M	SHOWERS	T-1	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	SHOWERS TO RECEIVE 7' HEIGHT WALL TILE AND P-1E ABOVE. REF TO FINISH PLAN
H141M	SHOWERS	T-1	TB-1	T, P-1E	T, P-1E	T, P-1E	T, P-1E	SHOWERS TO RECEIVE 7' HEIGHT WALL TILE AND P-1E ABOVE. REF TO FINISH PLAN
H142M	TOILETS	RF-1	RB9-1	P-1E	P-1E	P-1E	P-1E	
H143M	SWIMTEAMSTRACKGOLF	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H144M	VOLLEYBALL	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H145M	TOILETS	RF-1	RB9-1	P-1E	P-1E	P-1E	P-1E	
H146M	LOCKER ROOMS	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H161	CHEERSOCCERTRACKSWIM	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H160M	GIRLS LOCKER	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H161	TRACK	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H162	SOCCER	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H163	STORAGE	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H174	STORAGE	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H175N	BASKETBALL	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H178	SOCCER	RF-1	RB9-1	P-1	P-1	P-1	P-1	
H184M	SOFTBALL	RF-1	RB9-1	P-1	P-1	P-1	P-1	

ROOM FINISH SCHEDULE - FIELD HOUSE

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	REMARKS
K133	LOBBY/LOCKER	RF-1	RB9-1	P-1	P-1	P-1	P-1	
K136	SHOWERS	T-1	TB-1	P-1E, T	P-1E, T	P-1E	P-1E, T	SHOWERS TO RECEIVE 7' HEIGHT WALL TILE AND P-1E ABOVE REF TO FINISH PLAN
K138	TOILETS	T-1	TB-1	P-1E	P-1E	P-1E	P-1E	
K139	TOILET/LOCKERS	RF-1	RB9-1	P-1	P-1	P-1	P-1	
K131	TOILETS	T-1	TB-1	P-1E	P-1E	P-1E	P-1E	
K132	FRESHMAN	RF-1	RB9-1	P-1	P-1	P-1	P-1	
K134	SHOWERS AND TOILET ROOM	T-1	TB-1	P-1E, T	P-1E, T	P-1E	P-1E, T	SHOWERS TO RECEIVE 7' HEIGHT WALL TILE AND P-1E ABOVE REF TO FINISH PLAN
K135	SHOWERS AND TOILET ROOM	T-1	TB-1	P-1E, T	P-1E, T	P-1E	P-1E, T	SHOWERS TO RECEIVE 7' HEIGHT WALL TILE AND P-1E ABOVE REF TO FINISH PLAN
K136	SOPHMORE	RF-1	RB9-1	P-1	P-1	P-1	P-1	

MATERIAL SCHEDULE

MARK	MATERIAL	MANUFACTURER	STYLE	COLOR	SPECS	REMARKS
D1 FLOOR FINISH						
QT1	QUARRY TILE	AMERICAN OLEAN	4" COVE BASE	COLOR: TBD	4" HEIGHT	FIELD RUBBER BASE
RS-1	RESINOUS FLOORING	STONHARD	STONSHIELD STL	CUSTOM (GRAY BASE AND SCHOOL COLOR ACCENT)	EMI EPOXY COAT OVER	CONCESSION BUILDING LOCKER ROOME EPOXY FLOORING
SCONC	SEALED CONCRETE					MEN'S STORAGE ROOMS
T-1	PORCELAIN TILE	AMERICAN OLEAN			ZXO MOSAIC	MEN'S RESTROOMS
WF-1	VINAL/CPT CARPET	TARKETT	ABRASIVE ACTION II		POWERBOND ROLL	AT DRINKING FOUNTAINS
D2 BASE						
RB9-1	RUBBER BASE	JOHNSONITE	4" COVE BASE	COLOR: TBD	4" HEIGHT	FIELD RUBBER BASE
RB9-1	RESINOUS FLOORING BASE	STONHARD	STONSHIELD STL	CUSTOM (GRAY BASE AND SCHOOL COLOR ACCENT)	COVE BASE	AT WALLS AND LOCKER BASE
TB-1	TILE BASE	AMERICAN OLEAN				RESTROOMS
TB-2	QUARRY TILE BASE	AMERICAN OLEAN				CONCESSION BUILDING
D3 WALL FINISH						
FRP	FIBERGLASS REINFORCED PANEL	SHERWIN WILLIAMS				AT MOP SINK. REF TO FINISH PLAN
P-1E	EPOXY PAINT	SHERWIN WILLIAMS		MATCH FIELD PAINT, U.N.O.		FIELD PAINT AT WET AREAS
P-2	PAINT	SHERWIN WILLIAMS				ACCENT
T-2	VINAL TILE	AMERICAN OLEAN	FIELD		12X24	MEN'S RESTROOMS, CONCESSIONS
T-3	VINAL TILE	AMERICAN OLEAN	ACCENT		12X24	MEN'S RESTROOMS
T-5	VINAL TILE	AMERICAN OLEAN	FIELD		8X24	SHOWERS AND DRINKING FOUNTAINS
			ACCENT			SHOWERS
D4 CEILING						
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	FIRE RESISTED, SCHOOL ZONE	WHITE	2X2 SQUARE EDGE	CONSESSION BUILDING
ACT-2	ACOUSTIC CEILING TILE	ARMSTRONG	CLEAN ROOM (4, MUR)	WHITE	2X2 SQUARE EDGE	CONCESSION, FOOD PREP AREA
ACT-3	ACOUSTIC CEILING TILE	ARMSTRONG	CLEAN ROOM (4, MUR)	WHITE	2X2 SQUARE EDGE	RESTROOMS
EXP-1	EXPOSED CEILING			TO BE PAINTED P-1 U.N.O.		CONSESSION BUILDING
MCS-1	METAL CEILING SYSTEM	CERTAINTEED	BOX SERRIES 6 EXTERIOR			SOFFIT AT CONCESSION BUILDING
D5 MISC FINISHES						
	LOCKERS	LIST INDUSTRIES		BLACK		REF TO LOCKER SCHEDULE
	BENCHES					
D6 TRANSITION						
TR-1	ALUMINUM TRANSITION	SCHLUTER	JOLLY	ANODIZED		AT TILE EDGES
TR-2	ALUMINUM TRANSITION	SCHLUTER				CARPET TO RESINOUS FLOOR
D7 EXTERIOR						
BR-1	BRICK	KANSAS BRICK & TILE	UTILITY	565A SAHK	Belvedere BAND	
BR-2	BRICK	KANSAS BRICK & TILE	UTILITY	565 CHARCOAL	RUNNING BOND	
BR-3	BRICK	KANSAS BRICK & TILE	UTILITY	558 PARK	RUNNING BOND	
CMU-1	BURNISHED FACE BLOCK					EXTERIOR
CMU-2	SMOOTH FACE					CMU INTERIOR WALLS
EP-1	METAL PANEL ACCENT PAINT	SHERWIN WILLIAMS				
MP-1	METAL PANEL	BERRIDGE				
MP-4	METAL PANEL	BERRIDGE				

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1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

pfluger
office: 713.222.1141 I fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

REGISTERED ARCHITECT 2013 CONSTRUCTION DOCUMENTS

DATE: 12/4/2025

PROJECT NO: 25.006
DATE: 12/4/2025
DRAWN BY: DRH
CHECKED BY: CHK

No.	Date	Description
1		

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A9.04-M
MATERIAL AND ROOM FINISH SCHEDULES

MARSHALL HIGH SCHOOL

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

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INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

pflueger
Office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

REGISTERED ARCHITECT MICHAEL ADAME 2015 STATE OF TEXAS

DATE: 12/4/2025

PROJECT NO. 25-006
DATE: 12/4/2025
DRAWN BY: DKP CHECKED BY: MA
REVISIONS
1 Date Description

100 % CD

A10.01-M
01 REFLECTED CEILING PLAN GYM LOCKERS-M

MARSHALL HIGH SCHOOL

REFLECTED CEILING PLAN LEGEND

- 2' X 4' LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (SUSPENDED)
- LINEAR LED FIXTURE (SURFACE MOUNTED)
- RECESSED CAN FIXTURE
- PENDANT LIGHT FIXTURE
- SURFACE MOUNTED CAN LIGHT FIXTURE
- WALL SCONCE
- SOLATUBE
- CEILING FAN
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- SUSPENDED GYPSUM BOARD
- SUSPENDED CEILING SYSTEM WITH LAY-IN ACOUSTICAL PANELS
- SUSPENDED CEILING SYSTEM WITH LAY-IN VINYL FACED PANELS
- METAL SOFFIT
- EXPOSED STRUCTURE

GENERAL NOTES:
1. ALL CEILINGS TO BE 10'-0" UNLESS OTHERWISE NOTED.
2. SEE SHEET A10.01 FOR CEILING DETAILS
3. REFER TO INTERIOR AND EXTERIOR ELEVATIONS FOR LIGHT FIXTURE MOUNTING HEIGHTS.
4. MEP & ARCHITECT TO REVIEW AND APPROVE SPRINKLER KEYSOT AND HEAD LOCATIONS PRIOR TO CONSTRUCTION. SUBMIT PLAN TO ARCHITECT'S RCP'S.
5. AT AREAS WHERE CEILING IS EXPOSED - EXPOSED CONDUIT TO BE LOCATED NEAT LY. ARCHITECT TO APPROVE LAYOUTS.
6. COORDINATE CEILING ACCESS PANELS WITH MEP CONTRACTOR. LOCATE WHERE NECESSARY.
7. ALL EXISTING CEILING MOUNTED LIGHTS TO BE REMOVED FOR RENOVATION SHALL BE REINSTALLED IN THEIR ORIGINAL CONDITION UNLESS OTHERWISE DIRECTED.
8. REFER TO A0.01 FOR MORE INFO ON SIGNAGE TYPES.



REFLECTED CEILING PANEL - GYM LOCKERS 1
SCALE: 3/16" = 1'-0"



REFLECTED CEILING PLAN FIELD HOUSE- M 1

SCALE: 3/16" = 1'-0"

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Austin, Texas 78704
pflugerarchitects.com

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1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

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Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CKP CHECKED BY: MA
REVISIONS:

No.	Date	Description

100 % CD

A10.02-M

01 REFLECTED CEILING PLAN FIELD HOUSE-M

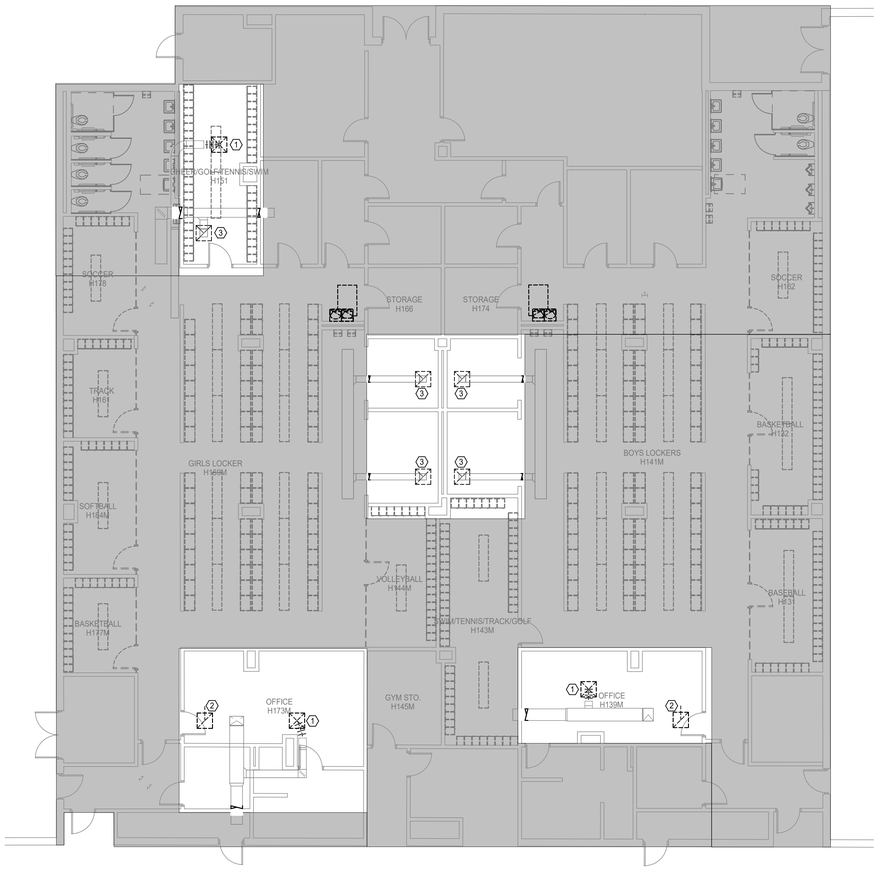
MARSHALL HIGH SCHOOL

MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING-SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, DUST COLLECTORS, AND AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

MECHANICAL DEMOLITION KEYED NOTES

1. REMOVE EXISTING SUPPLY AIR GRILLE. SET ASIDE AND PROTECT DIFFUSER SO IT CAN BE REINSTALLED DURING NEW CONSTRUCTION.
2. REMOVE EXISTING RETURN AIR GRILLE. SET ASIDE AND PROTECT GRILLE SO IT CAN BE REINSTALLED DURING NEW CONSTRUCTION.
3. REMOVE EXISTING EXHAUST AIR GRILLE. SET ASIDE AND PROTECT GRILLE SO IT CAN BE REINSTALLED DURING NEW CONSTRUCTION.



N

1 **MECHANICAL DEMOLITON FLOOR PLAN - LEVEL 1 - LOCKER ROOM**
Scale: 1/8" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS — STATE OF TEXAS — 80219 — LICENSED — PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Editor CHECKED BY: Checker
REVISIONS:

No.	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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M0.01-M
MECHANICAL DEMOLITION FLOOR PLAN -LEVEL 1 - LOCKER ROOM
MARSHALL HIGH SCHOOL

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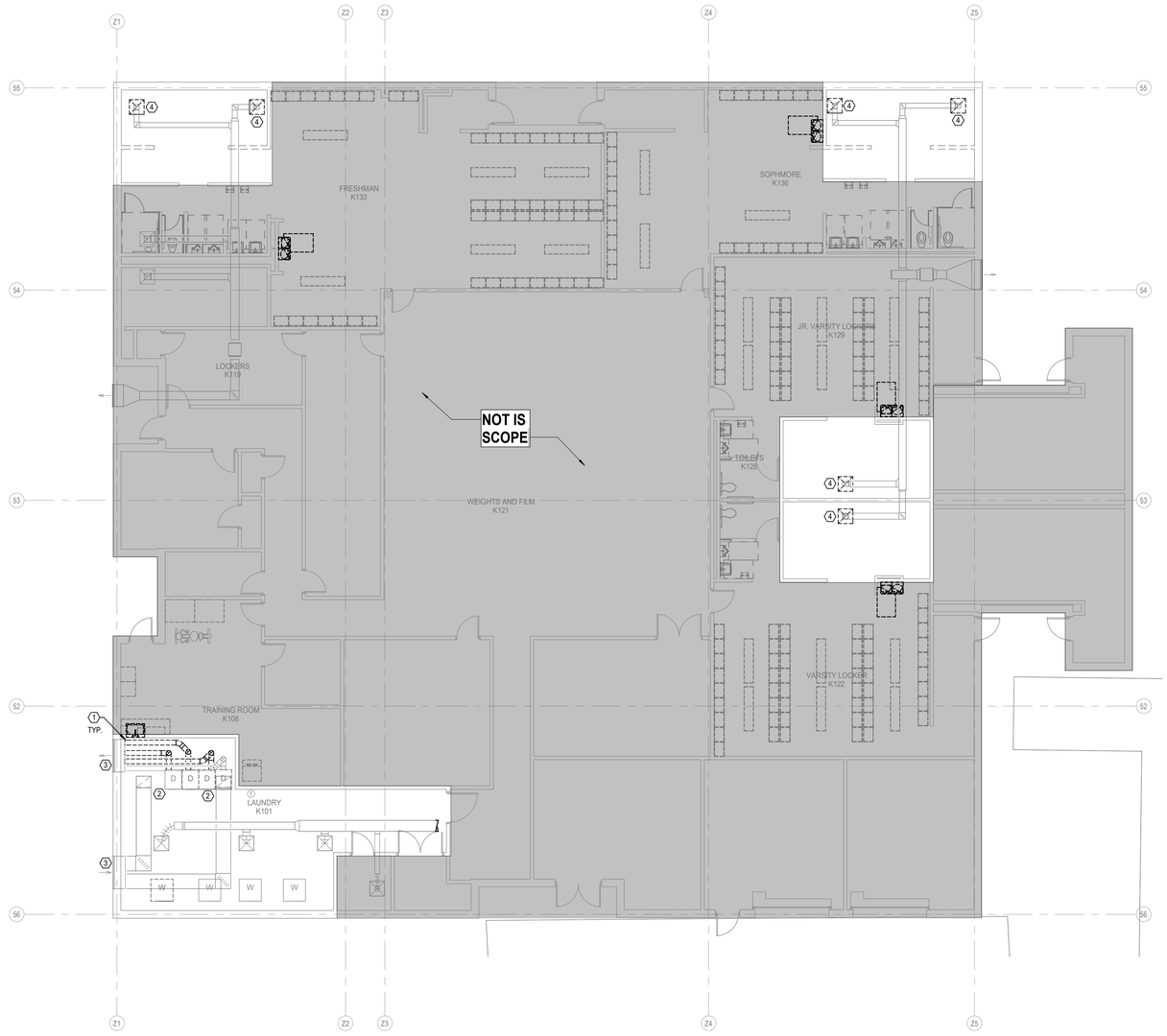
MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, DUST COLLECTORS, AND AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

MECHANICAL DEMOLITION KEYED NOTES

1. EXISTING DRYER VENT DUCTWORK SHALL BE REMOVED.
2. EXISTING INTAKE DUCTWORK SHALL REMAIN.
3. EXISTING LOUVER SHALL REMAIN.
4. EXHAUST AIR GRILLE SHALL BE REMOVED.



N

1 **MECHANICAL DEMOLITON FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

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2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

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Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

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M0.02-M
MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE
MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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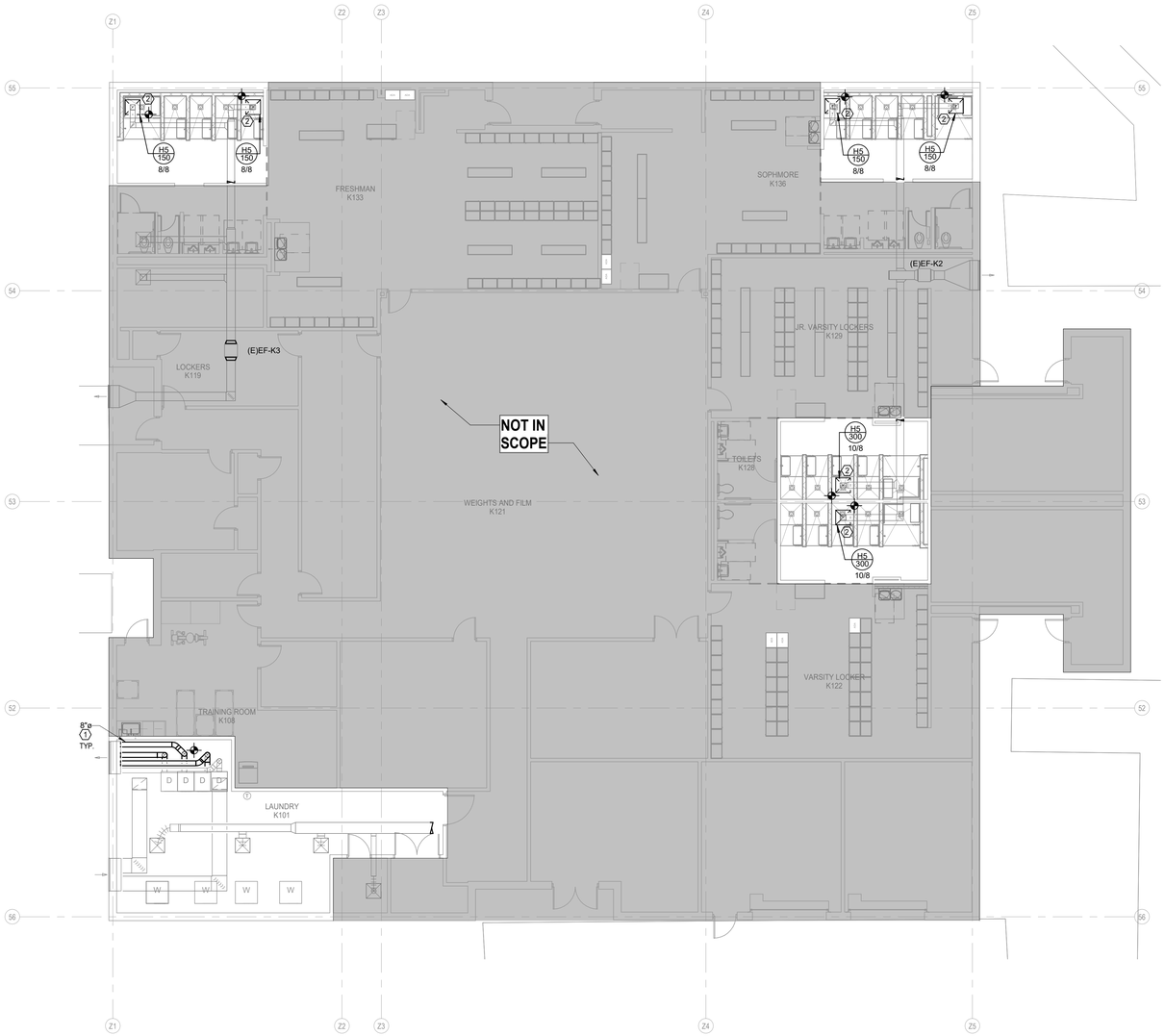
MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR), UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. CONNECT NEW DRYER VENT DUCTWORK TO NEW DRYER.
2. REPLACE EXHAUST AIR GRILLE AND CONNECT TO EXISTING DUCTWORK. ADD NEW EXHAUST HARD DUCTWORK IF NEEDED TO FINAL CONNECTION.



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Houston, Texas 77046
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Sugarland, TX 77479

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M2.02-M
MECHANICAL FLOOR PLAN - LEVEL 1 - FIELD HOUSE

MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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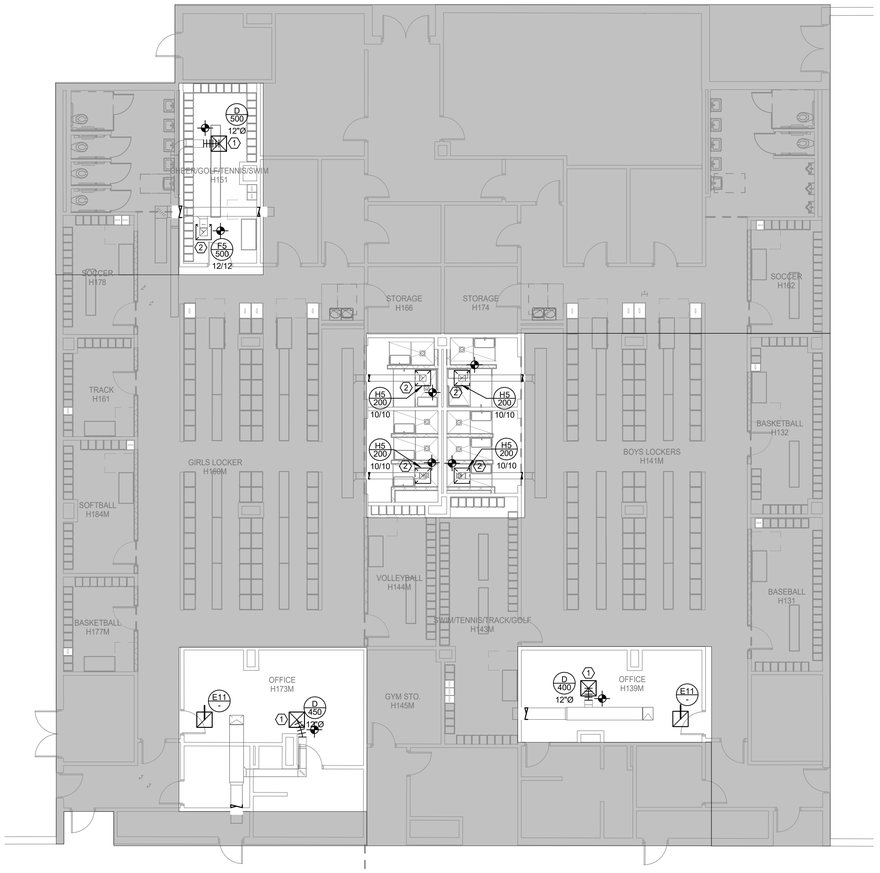
MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR), UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. CONNECT SUPPLY AIR DIFFUSER TO EXISTING DUCTWORK. ADD NEW FLEX/HARD DUCTWORK IF NEEDED TO FINAL CONNECTION. RE-INSULATE, PATCH, AND SEAL AIR TIGHT TO MATCH EXISTING.
2. CONNECT EXHAUST GRILLE TO EXISTING DUCTWORK. ADD NEW EXHAUST HARD DUCTWORK IF NEEDED TO FINAL CONNECTION. RE-INSULATE, PATCH, AND SEAL AIR TIGHT TO MATCH EXISTING.



N

1 **MECHANICAL FLOOR PLAN - LEVEL 1 - LOCKER ROOM**
Scale: 1/8" = 1'-0"

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Houston, Texas 77046
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PROJECT NO. 25-006
DATE: 12/04/2025
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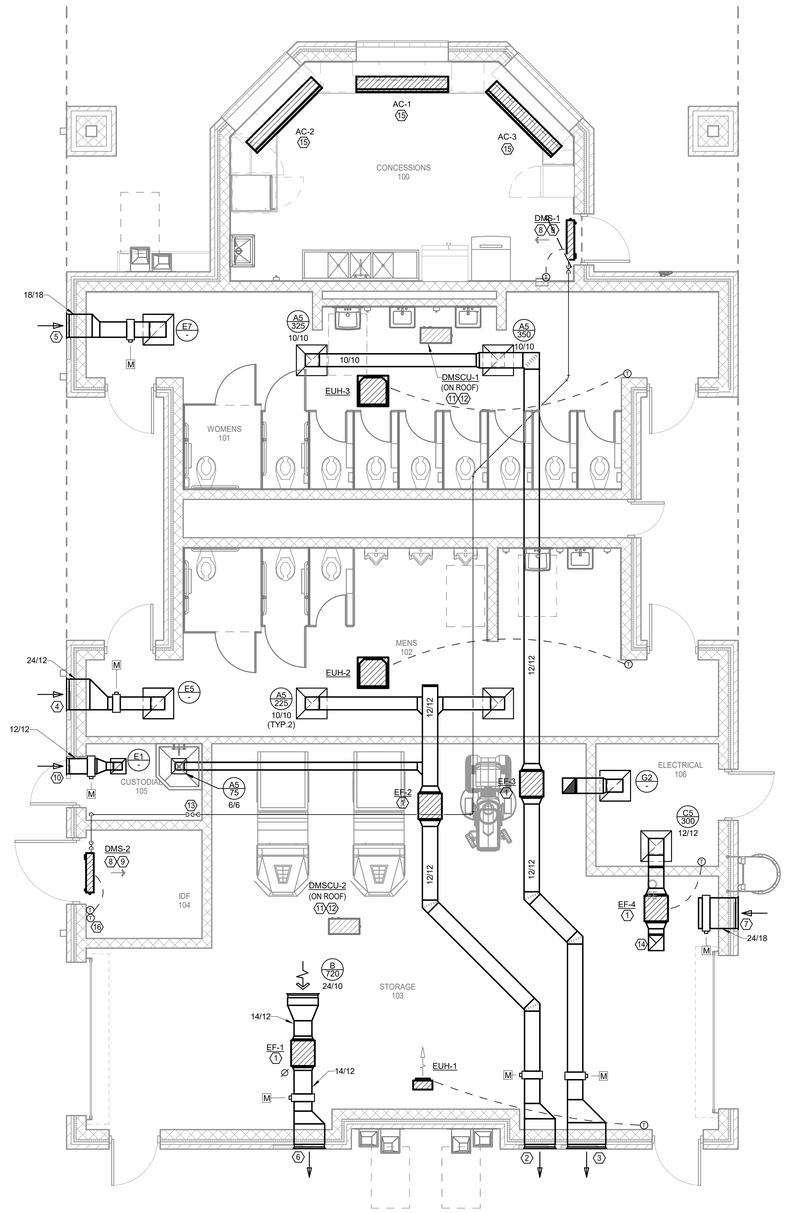
M2.03-M
MECHANICAL FLOOR PLAN - LEVEL 1 - LOCKER ROOM

MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 6:58:47 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/MARSHALL_MEPT_R25.rvt



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1 MECHANICAL FLOOR PLAN - LEVEL 1 - CONCESSIONS

Scale: 1/4" = 1'-0"

MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR), UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. VERIFY SERVICE CLEARANCES WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADE NOT TO OBSTRUCT.
2. PROVIDE 24"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .67 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
3. PROVIDE 30"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .67 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
4. PROVIDE 24"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT OUTSIDE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .67 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
5. PROVIDE 18"X 18" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT OUTSIDE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .87 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
6. PROVIDE 24"X 18" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF 1.22 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
7. PROVIDE 24"X 18" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT OUTSIDE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF 1.22 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
8. VERIFY SERVICE CLEARANCES FOR AIR FILTER, FAN SHAFT AND COIL REMOVAL WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADES NOT TO OBSTRUCT.
9. ROUTE REFRIGERANT LINES TO ASSOCIATED CONDENSING UNIT ON GROUND. SIZE LINES PER MANUFACTURER'S RECOMMENDATION.
10. PROVIDE 12"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT OUTSIDE AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .29 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. BOTTOM OF LOUVER 10' A.F.F. COORDINATE FINAL LOCATION WITH ARCHITECT.
11. MOUNT ON WIND RESISTANT ROOF CURB. RE: 2/M3.01M FOR MORE INFORMATION.
12. ROUTE REFRIGERANT PIPING TO ASSOCIATED INDOOR UNIT. PROVIDE PIPE SUPPORT.
13. ROUTE FULL SIZE CONDENSATE PIPE TO FLOOR DRAIN.REFER TO PLUMBING DRAWINGS FOR EXACT LOCATION.
14. TRIM EXHAUST AIR OPEN ELBOW 6" BELOW BOTTOM OF STRUCTURE.
15. PROVIDE 6FT LENGTH BERNER AIR CURTAIN MODELL PN260-1U*-OB. ELECTRICAL SHALL BE 208/1/60. INSTALL AS PER MANUFACTURER'S RECOMMENDATION.
16. PROVIDE AND INSTALL NEW BMCS TEMPERATURE SENSOR. SENSOR SHALL BE INTEGRATED TO EXISTING BMCS TO MONITOR ROOM TEMPERATURE AND SEND AN ALARM IF TEMPERATURE IS 2° F ABOVE SETPOINT (ADJUSTABLE).

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

STATE OF TEXAS
BRADLEY KALMANS
80210
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

100% CD

M2.04-M

MECHANICAL FLOOR PLAN - LEVEL 1 - CONCESSIONS

MARSHALL HIGH SCHOOL

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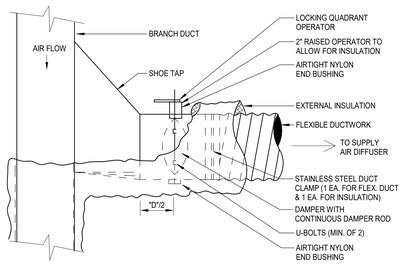
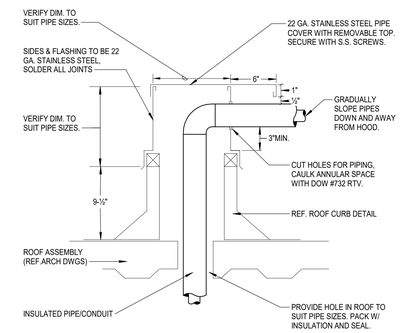


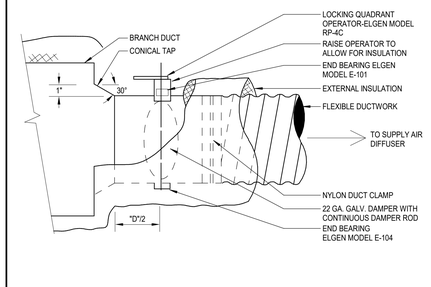
4 FLEXIBLE DUCT TAP - SHOE

SCALE: NONE



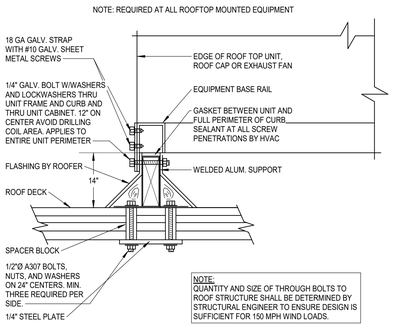
7 INSULATED PIPE THRU ROOF

SCALE: NONE



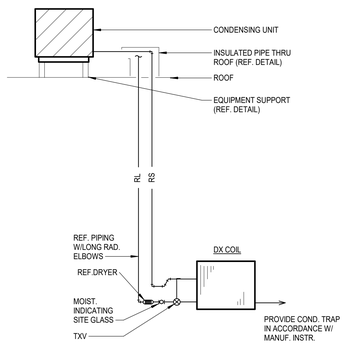
3 FLEXIBLE DUCT TAP - CONICAL

SCALE: NONE



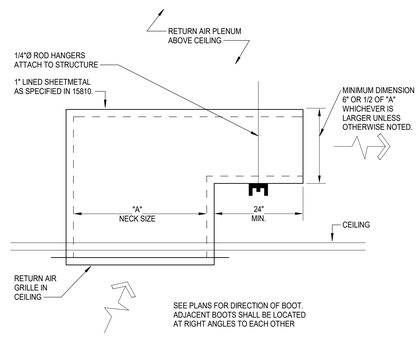
6 WIND RESISTANT EQUIPMENT SUPPORT

SCALE: NONE



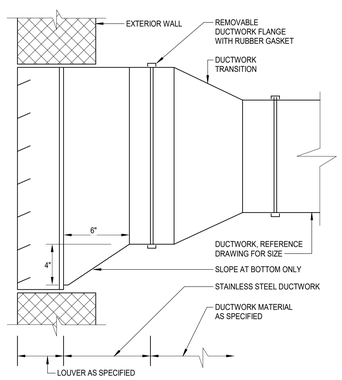
2 REFRIGERANT PIPING DIAGRAM

SCALE: NONE



5 RETURN AIR GRILLE BOOT

SCALE: NONE



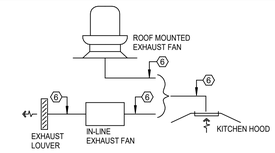
1 DUCTWORK AT LOUVER

SCALE: NONE

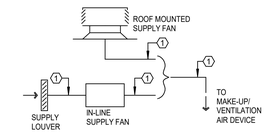
SYMBOL LEGEND

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
GENERAL	
(#)	KEY NOTE TAG
(A)	REVISION TAG
	NEW EQUIPMENT
DUCTWORK	
	SUPPLY AIR DUCTWORK
	RETURN AIR AND OUTSIDE AIR DUCTWORK
	EXHAUST AIR DUCTWORK
	FLEXIBLE DUCTWORK
	SUPPLY AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	RETURN AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	EXHAUST AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	FIRE DAMPER (VERTICAL)
	FIRE DAMPER (HORIZONTAL)
(SD)	SMOKE DAMPER (VERTICAL)
(SD)	SMOKE DAMPER (HORIZONTAL)
(FSD)	COMBINATION FIRE & SMOKE DAMPER (VERTICAL)
(FSD)	COMBINATION FIRE & SMOKE DAMPER (HORIZONTAL)
	MANUAL BALANCING DAMPER (SEE DAMPER SCHEDULE)
M	MOTORIZED DAMPER (SEE DAMPER SCHEDULE)
SENSORS	
(T)	THERMOSTAT AND TEMPERATURE SENSOR
(H)	HUMIDISTAT
(SD)	SMOKE DETECTOR
(HD)	HEAT DETECTOR
AIR DEVICES	
(-)	GRILLE SIZE TAG (REFER TO GRILLE SIZE LEGEND)
	SUPPLY AIR GRILLE WITH FOUR-WAY THROW
	SUPPLY AIR GRILLE WITH THREE-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY CORNER THROW
	SUPPLY AIR GRILLE WITH ONE-WAY THROW
	RETURN AIR GRILLE
	RETURN AIR GRILLE WITH SOUND BOOT
	EXHAUST AIR GRILLE
	SUPPLY AIR SIDEWALL GRILLE
	RETURN AIR SIDEWALL GRILLE
20X12	RETURN AIR OPENING ABOVE CEILING
PIPING	
–CWS&R–	CONDENSER WATER SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–CWS–	CONDENSER WATER SUPPLY
–CWR–	CONDENSER WATER RETURN
–CHWS&R–	CHILLED WATER SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–CHWS–	CHILLED WATER SUPPLY
–CHWR–	CHILLED WATER RETURN
–HWS&R–	HOT WATER FOR HYDRONIC HEATING SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–HWS–	HOT WATER FOR HYDRONIC HEATING SUPPLY
–HWR–	HOT WATER FOR HYDRONIC HEATING RETURN
—D—	CONDENSATE DRAIN LINE
—AD—	AUXILIARY CONDENSATE DRAIN LINE
—RLR—	REFRIGERANT LIQUID & GAS RECIRCULATION LINE (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
—RL—	REFRIGERANT LIQUID LINE
—HG—	REFRIGERANT HOT GAS LINE
—RS—	REFRIGERANT SUCTION LINE
	ELBOW UP
	ELBOW DOWN
	90° ELBOW
	45° ELBOW
	TEE
	TEE DOWN
	TEE UP
	TOP BRANCH CONNECTION
	BOTTOM BRANCH CONNECTION
	FLANGE
	CAP
	CONTINUATION
	FLOOR DRAIN (REFER TO PLUMBING DRAWINGS)
	GATE VALVE
	GLOBE VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	BUTTERFLY VALVE WITH OPERATOR
	PLUG VALVE
	TWO-WAY CONTROL VALVE
	THREE-WAY CONTROL VALVE
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	BALL VALVE
	STRAINER
	UNION
	THERMOMETER WELL
	PETE'S PLUG
	PRESSURE GAUGE
	TEMPERATURE SENSOR IN PIPE
	VENTURI FLOW METER
	FLOW SWITCH
(FM)	FLOW MEASURING STATION
	EXPANSION JOINT
	FLEXIBLE CONNECTION
G.C.	GAUGE COCK
	SITE GLASS
	DIFFERENTIAL PRESSURE SENSOR
	TURBINE FLOW METER
	ANCHOR
	PIPE GUIDE
SUBSCRIPTS AND ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
CFM	CUBIC FEET PER MINUTE
EA	EXHAUST AIR
FPM	FEET PER MINUTE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR

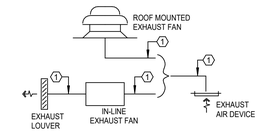
DUCT LINER AND INSULATION



KITCHEN HOOD EXHAUST AIR SYSTEMS



MAKE-UP/VENTILATION AIR SYSTEMS

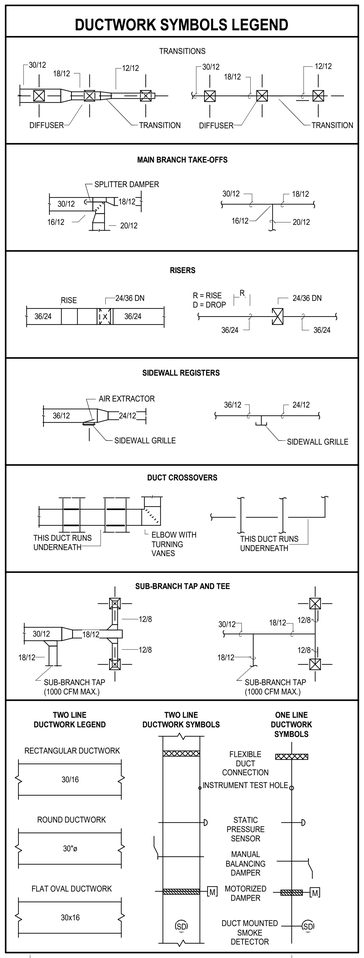


EXHAUST AIR SYSTEMS

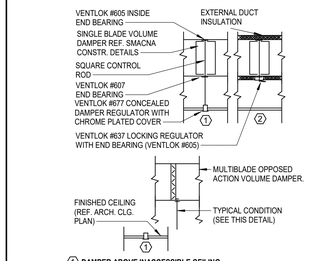
KEYED NOTES:

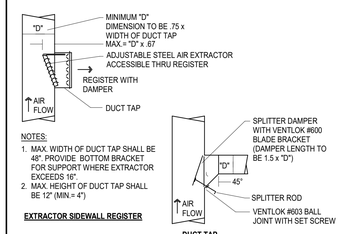
1. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
2. SHEETMETAL DUCTWORK RETURN AIR PLENUM WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
3. FLEXIBLE DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
4. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT DISCHARGE TO 10'-0" DOWNSTREAM.
5. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT INLET TO 10'-0" UPSTREAM.
6. EXHAUST DUCTWORK AS SPECIFIED WITH FIREBOARD INSULATION AS SPECIFIED.
7. SHEETMETAL DUCTWORK ONLY. NO INSULATION REQUIRED.

DUCTWORK SYMBOLS LEGEND



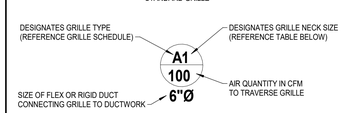
DUCTWORK CONSTRUCTION DETAILS





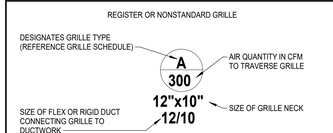
GRILLE SIZING SCHEDULE

STANDARD GRILLE



ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN.

REGISTER OR NONSTANDARD GRILLE



ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN. ALL REGISTERS SHALL HAVE A 45° HORIZONTAL DEFLECTION UNLESS OTHERWISE SHOWN.

GRILLE SIZE DESIGNATION	GRILLE NECK SIZE	GRILLE SIZE DESIGNATION	GRILLE NECK SIZE
1	6" x 6"	7	15" x 15"
2	8" x 8"	8	16" x 16"
3	9" x 9"	9	18" x 18"
4	10" x 10"	10	20" x 20"
5	12" x 12"	11	22" x 22"
6	14" x 14"	12	24" x 24"

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BRADLEY KALMANS — LICENSED PROFESSIONAL ENGINEER — 80219 — STATE OF TEXAS

12/04/2025

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MECHANICAL DETAILS, AND LEGEND

MARSHALL HIGH SCHOOL

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FAN SCHEDULE

TAG	LOCATION	CFM	EXT. STATIC PRESSURE (IN.W.C.)	MAX RPM	HORSE POWER	CURRENT CHAR			LOCALLY SWITCHED	INTERLOCK WITH	FAN TYPE	DRIVE TYPE	MANUFACTURER	MODEL NUMBER	REMARKS
						V	P	F							
(E)EF-K2	-	0	0.00	0	0	120	1	60	-	-	INLINE	BELT	COOK	SQN	
(E)EF-K3	-	0	0.00	0	0	120	1	60	-	-	INLINE	BELT	COOK	SQN	
EF-1	STORAGE 103	860	0.40	1102	0.25	120	1	60	-	LIGHTS	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6
EF-2	STORAGE 103	525	0.40	1500	0.25	120	1	60	-	LIGHTS	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6
EF-3	STORAGE 103	675	0.40	1139	0.25	120	1	60	-	LIGHTS	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6
EF-4	STORAGE 103	675	0.40	1139	0.25	120	1	60	-	LIGHTS	INLINE	DIRECT	COOK	SQND	1,3,4,5,6

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MINIMUM RECOMMENDED CLEARANCE AROUND UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH DISCONNECT
2. PROVIDE WITH MOTORIZED DAMPER.
3. PROVIDE WITH SPEED CONTROLLER.
4. PROVIDE WITH EC MOTOR.
5. PROVIDE WITH LINE VOLTAGE TSTAT.
6. SUSPEND UNIT WITH FOUR THREADED HANGER RODS ATTACHED TO TWO UNISTRUT RUNNERS SECURED TO STRUCTURE. PROVIDE SPRING ISOLATION. REFER TO MANUFACTURER FOR MORE DETAILS.

DUCTLESS MINI-SPLIT - OUTDOOR UNIT

MARK	MIN. TOTAL CAPACITY (BTUH)	OUTDOOR AIR TEMP. (°F)	MINIMUM EER/ SEER	CURRENT CHARAC.			RELATED UNIT MARK	REMARKS
				V	PH	F		
DMSCU-1	17,100	95	-/15.2	208	1	60	DMS-1	1,2,3
DMSCU-2	17,100	95	-/15.2	208	1	60	DMS-1	1,2,3

GENERAL NOTES:
1. MINIMUM RECOMMENDED CLEARANCE AROUND ROOFTOP UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE FOR CONDENSER AIR FLOW AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH LOW AMBIENT CONTROL DOWN TO 20°F.
2. PROVIDE WITH DISCONNECT SWITCH.
3. REFRIGERANT LINES TO BE SIZED PER MANUFACTURER'S REQUIREMENTS.

DUCTLESS MINI-SPLIT - INDOOR UNIT

MARK	FAN				CURRENT CHARAC.			AIR TEMPERATURE (°F)		COOLING			HEATING			REMARKS
	SUPPLY AIR CFM	OUTSIDE AIR CFM	EXT.STATIC PRESSURE (IN. W.C.)	HORSE POWER	V	P	F	ENTERING DRY BULB	ENTERING WET BULB	MIN. TOTAL CAPACITY (BTUH)	MIN. SENS. CAPACITY (BTUH)	MINIMUM EER/ SEER	ENTERING AIR TEMP.(°F)	MINIMUM CAPACITY (BTUH)	KW	
DMS-1	370	0	0.10	40.0	208	1	60	75.0	62.5	17,100	13,680	-/15.2	72	7,290	2	1,2,3,4,5,6,7
DMS-2	370	0	0.10	40.0	208	1	60	75.0	62.5	17,100	13,680	-/15.2	0	0	0	1,2,3,4,5,6,7

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MAINTAIN MINIMUM CLEARANCE FOR COIL PULL AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. UNIT TO BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. CONTROLLED BY PROGRAMMABLE WIRED THERMOSTAT.
3. REFRIGERANT LINES TO BE SIZED PER MANUFACTURER'S REQUIREMENTS.
4. INDOOR UNIT IS POWERED FROM OUTDOOR UNIT.
5. PROVIDE MODEL "MINI WHITE" CONDENSATE PUMP BY ASPEN PUMPS OR APPROVED EQUAL TO BE FITTED BENEATH AND EXTERNALLY FROM HIGH WALL INDOOR UNIT. CONDENSATE PUMP SHALL BE PROVIDED WITH A HIGH LEVEL SAFETY SWITCH WIRED TO DEACTIVATE INDOOR HIGH WALL UNIT IN THE EVENT OF PUMP FAILURE OR OBSTRUCTED CONDENSATE LINE. REFER TO MANUFACTURER INSTALLATION INSTRUCTIONS OF ADDITIONAL INFORMATION.
6. PROVIDE CONDENSATE OVERFLOW SWITCH TO DEACTIVATE UNIT IN THE EVENT OF AN OVERFLOW CONDITION.
7. HEAT PUMP WALL MOUNTED UNIT.
8. COOLING ONLY WALL MOUNTED UNIT.

AIR CURTAIN

TAG	LOCATION	CFM	EXT. STATIC PRESSURE (IN.W.C.)	MAX RPM	HORSE POWER	CURRENT CHAR			LOCALLY SWITCHED	MANUFACTURER	MODEL NUMBER	REMARKS
						V	P	F				
AC-1	CONCESSIONS 100	1960	0.20	3260	0.2	120	1	60	MAG SWITCH	POWERED AIRE	EVE-2-72	1,2,3,4
AC-2	CONCESSIONS 100	1960	0.20	3260	0.2	120	1	60	MAG SWITCH	POWERED AIRE	EVE-2-72	1,2,3,4
AC-3	CONCESSIONS 100	1960	0.20	3260	0.2	120	1	60	MAG SWITCH	POWERED AIRE	EVE-2-72	1,2,3,4

GENERAL NOTES:
1. MINIMUM RECOMMENDED CLEARANCE AROUND UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE TOP MOUNT FROM STRUCTURE WITH FOUR 3/8 GALVANIZED THREADED RODS. COORDINATE FINAL UNIT LOCATION AND MOUNTING METHOD WITH THE ARCHITECT. CONTRACTOR SHALL PROVIDE ALL REQUIRED MOUNTING HARDWARE AND ACCESSORIES. INSTALL IN COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION MANUAL AND APPROVED MOUNTING DETAILS.
2. PROVIDE WITH UNIT MOUNTED VARIABLE SPEED SWITCH.
3. PROVIDE WITH FILTER.
4. PROVIDE WITH SM300 MAG SWITCH WITH TIME DELAY.

GRILLE

MARK	SERVICE	TYPE	DAMPER	CONSTRUCTION MATERIAL	FINISH COLOR	MANUFACTURER	MODEL NUMBER	DESCRIPTION
A	EXHAUST AIR	GRILLE	-	STEEL	-	TITUS	PAR	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" OR 12"X12" FACE. PERFORATED FACE.
B	EXHAUST AIR	GRILLE	-	STEEL	-	TITUS	350RL	DOUBLE DEFLECTION SIDEWALL GRILLE WITH HORIZONTAL FRONT BARS. SURFACE MOUNTED (1)
C	EXHAUST AIR	GRILLE	-	STEEL	-	TITUS	PAR	SURFACE MOUNT CEILING FRAME STYLE WITH 18"X18" OR 12"X12" FACE. PERFERATED FACE.
D	SUPPLY AIR	DIFFUSER	UL	STEEL	-	TITUS	OMNI	EXPOSED T-BAR CEILING FRAME STYLE WITH 24"X24" OR 12"X12" FACE.
E	RETURN AIR	GRILLE	UL	STEEL	-	TITUS	PAR	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" FACE. PERFORATED.
F	EXHAUST AIR	GRILLE	UL	STEEL	-	TITUS	PAR	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" OR 12"X12" FACE. PERFORATED FACE.
G	RETURN AIR	GRILLE	-	STEEL	-	TITUS	PAR	SURFACE MOUNT CEILING FRAME STYLE WITH 24"X24".
H	EXHAUST AIR	GRILLE	UL	ALUMINUM	-	TITUS	PAR-AA	SURFACE MOUNT CEILING FRAME STYLE WITH 24"X24".

GENERAL NOTES:
1. DAMPERS NOTED AS U.L. SHALLBE A 'U.L.' CLASSIFIED CEILING RADIATION DAMPER WITH THERMAL BLANKET.
2. COORDINATE FINAL AIR DEVICE LOCATION AND FINISH COLOR WITH ARCHITECT.

REMARKS:
1. N/A

DAMPER

MARK	ACTUATOR	DUTY	BLADE ACTION	MANUFACTURER	MODEL NUMBER	REMARKS
D-1	MANUAL BALANCING	UNDER 9" WIDE	N/A	N/A	N/A	SEE SMACNA CONSTRUCTION DETAILS REFERENCED "TYPICAL CONSTRUCTION DETAILS FOR LOW VELOCITY DUCTS."
D-2	MANUAL BALANCING	OVER 9" WIDE	OPPOSED	RUSKIN	MD-35	MANUAL DAMPER WITH STANDARD CONSTRUCTION FEATURES AND VENTLOCK #639 LOCKING REGULATOR.
D-3	MOTORIZED	OVER 9" WIDE	OPPOSED	RUSKIN	CD-60	LOW LEAKAGE DAMPER WITH BLADE SEALS

NOTES:
N/A - NOT APPLICABLE

UNIT HEATER - ELECTRIC

MARK	MINIMUM CAPACITY (BTUH)	KW	NUMBER OF STAGES	CURRENT CHAR.			CFM	MANUFACTURER	MODEL	REMARKS
				V	P	F				
EUH-1	17,065	5	2	480	3	60	480	REZNOR	EUH	1,2
EUH-2	17,075	5	2	480	3	60	310	REZNOR	ECR	1,2
EUH-3	17,075	5	2	480	3	60	310	REZNOR	ECR	1,2

REMARKS:
1. PROVIDE WITH WALL MOUNTED THERMOSTAT.
2. PROVIDE WITH DISCONNECT SWITCH.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD
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16431 Lexington Blvd.
Sugarland, TX 77479



PROJECT NO. 25-006
DATE: 12/04/2025
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REVISIONS:

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M4.01-M
MECHANICAL SCHEDULES

MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX. 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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FIRE DETECTION AND ALARM SYSTEM:

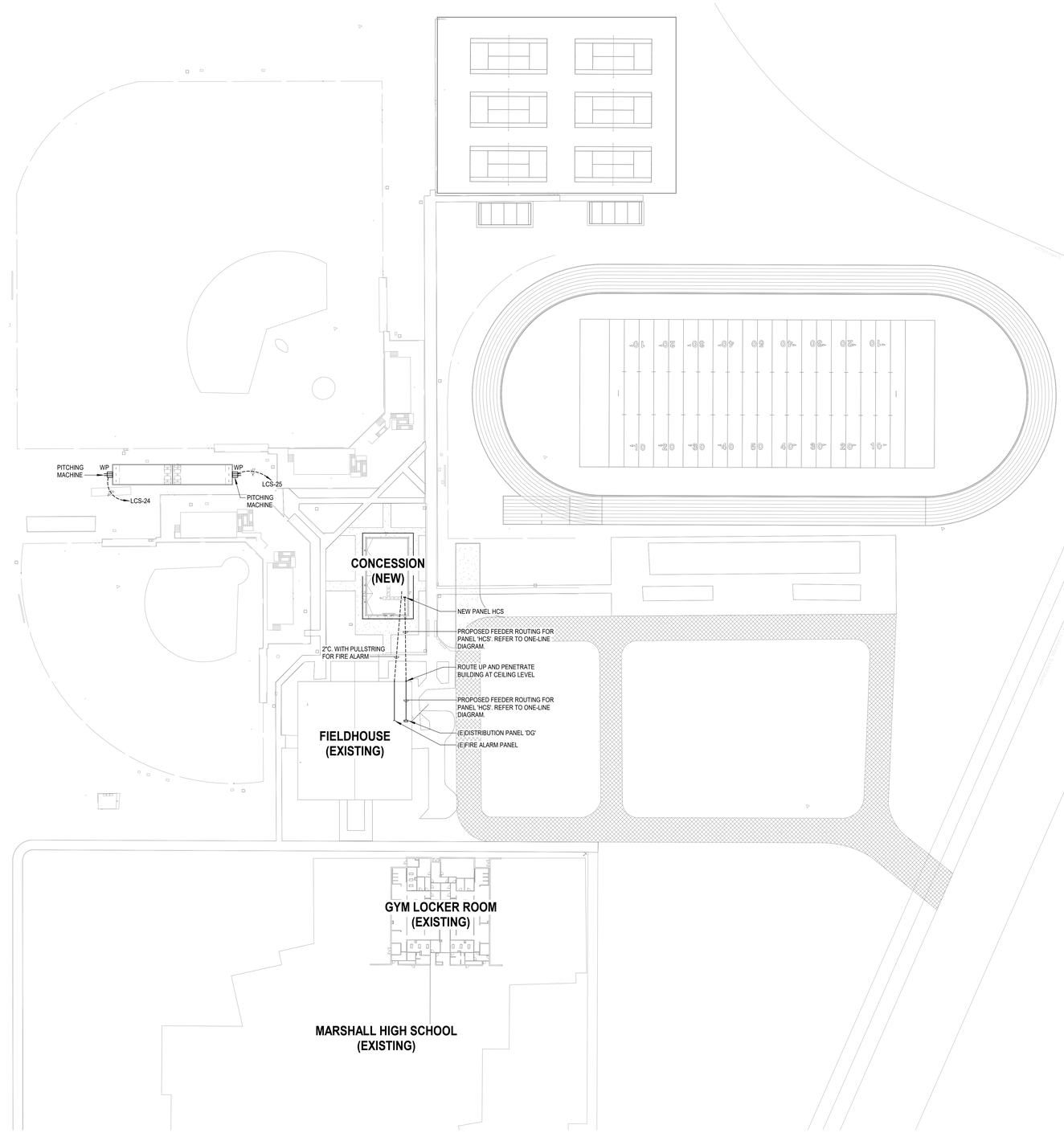
- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF NEW CONDUITS WITH ALL OTHER TRADES PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO CIVIL DRAWINGS FOR FINAL ROUTING AND DEPTH OF ALL UNDERGROUND UTILITIES.
3. REFER TO TECHNOLOGY DRAWINGS, DIVISION 27 AND 28 FOR TELECOMMUNICATION PATHWAYS AND OTHER REQUIREMENTS TO PROVIDED BY DIVISION 26.
4. CONTRACTOR IS RESPONSIBLE OF CALLING 811 TO HAVE ALL EXISTING UTILITIES MARKED PRIOR TO DIGGING.



N

1 **ELECTRICAL SITE PLAN**
Scale: 1" = 50'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

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LICENSED PROFESSIONAL ENGINEER
80219
12/04/2025

PROJECT NO. 25-006
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ELECTRICAL SITE PLAN

MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
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LINETYPE LEGEND	
———	EXISTING TO REMAIN
- - - - - - - - -	DISCONNECT AND REMOVE

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

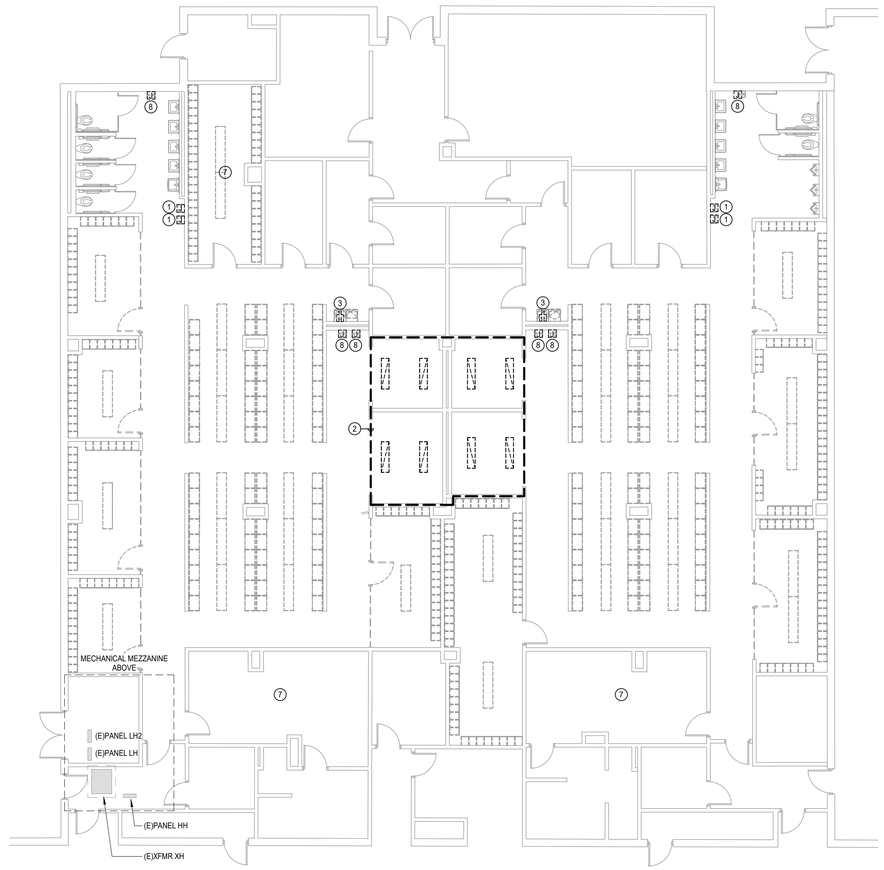
1. DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
2. DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
3. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC...SHALL REMAIN.
4. DISCONNECT AND REMOVE ALL ELECTRICAL FROM WALLS SCHEDULED TO BE DEMOLISHED AND AS SHOWN. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT EXTENT OF WALL DEMOLITION.
5. EXCEPT AS OTHERWISE NOTED, ELECTRICAL WORK OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS. OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. ANY CONDUITS OUT OF MASONRY SURFACE SHALL BE CUT INTO SURFACE AND PATCHED.
6. CONTRACTOR TO FILL IN ALL HOLES LEFT BY THE DEMOLITION OF EXISTING CONDUIT PENETRATIONS.

ELECTRICAL KEYED NOTES:

1. DISCONNECT AND REMOVE ELECTRICAL TO EXISTING HAND DRYER. LEAVE CIRCUITRY INTACT FOR CONNECTION OF NEW HAND DRYER.
2. DISCONNECT AND REMOVE EXISTING RECESSED LIGHTING FIXTURES AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX ABOVE CEILING. ALL EXISTING LIGHTING BRANCH CIRCUITS (NORMAL/EMERGENCY) SHALL REMAIN AND BE RE-USED.
3. DISCONNECT AND REMOVE EXISTING WIRING DEVICE. EXISTING OUTLET BOX SHALL REMAIN AND SHALL BE RE-USED AS PRACTICAL FOR NEW WIRING DEVICE.
4. DISCONNECT ELECTRICAL TO EXISTING COMMERCIAL DRYER. EXISTING RECEPTACLE SHALL REMAIN FOR CONNECTION OF NEW DRYER.
5. DISCONNECT ELECTRICAL TO EXISTING COMMERCIAL WASHER AND ASSOCIATED CONDUIT/WIRE BACK TO DISCONNECT SWITCH, LEAVE CIRCUIT INTACT FOR RE-USE. REMOVE DISCONNECT SWITCH AND REPLACE WITH NEW.
6. DISCONNECT ELECTRICAL TO EXISTING ICE MACHINE. EXISTING RECEPTACLE SHALL REMAIN FOR CONNECTION OF NEW ICE MACHINE.
7. SUSPEND OR REMOVE AND STORE ALL CEILING MOUNTED ELECTRICAL DEVICES TO FACILITATE DEMOLITION OF CEILING. DEVICES INCLUDE BUT ARE NOT LIMITED TO: LIGHTING FIXTURES, EXIT SIGNS, FIRE ALARM DEVICES, LIGHTING CONTROLS/OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REMOVED.
8. DISCONNECT AND REMOVE ELECTRICAL TO EXISTING HAND DRYER/HAIR DRYER AND ASSOCIATED CONDUIT/WIRE BACK TO SOURCE. RE-LABEL CIRCUIT BREAKER AS 'SPARE'. PROVIDE OUTLET WITH BLANK STAINLESS STEEL COVERPLATE.



N 2 **ELECTRICAL DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"



N 1 **ELECTRICAL DEMOLITION FLOOR PLAN - LEVEL 1 - LOCKER ROOM**
Scale: 1/8" = 1'-0"

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
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16431 Lexington Blvd.
Sugarland, TX 77479

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
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BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

PROJECT NO. 25-006
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ELECTRICAL DEMOLITION FLOOR PLANS - LEVEL 1

MARSHALL HIGH SCHOOL

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FIRE DETECTION AND ALARM SYSTEM:

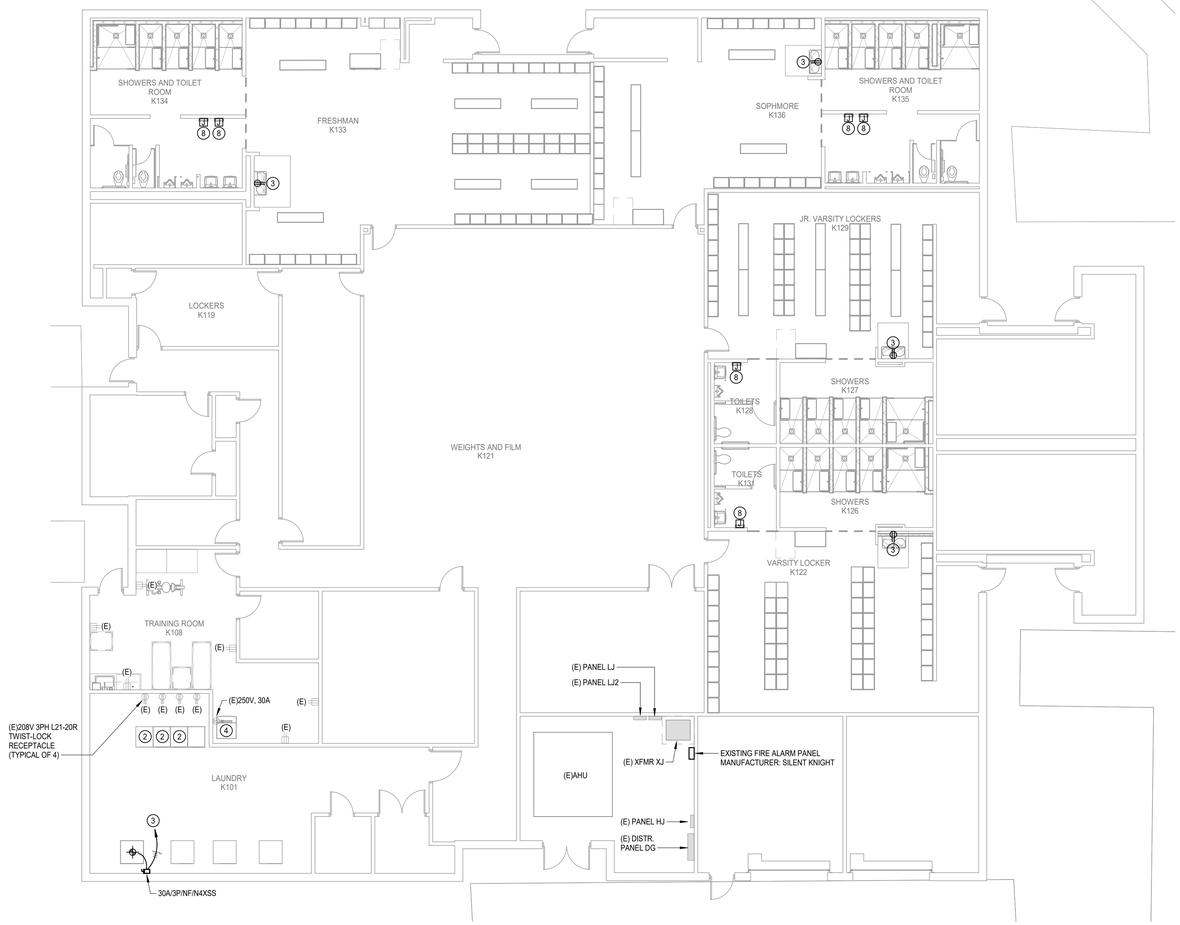
- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL KEYED NOTES:

1. PROVIDE NEW DUPLEX RECEPTACLE FOR DRINKING FOUNTAIN; PROVIDE CIRCUIT BREAKER WITH NEW 20A/1P GFCI.
2. NEW COMMERCIAL DRYER LOCATION; PROVIDE DRYER WITH TWIST-LOCK CORD/PLUG TO MATCH EXISTING RECEPTACLE CONNECTION.
3. CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION. EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
4. NEW ICE MACHINE LOCATION; PROVIDE ICE MACHINE WITH TWIST-LOCK CORD/PLUG TO MATCH EXISTING RECEPTACLE CONNECTION.
5. CONNECT NEW LIGHT FIXTURES TO EXISTING NORMAL AND EMERGENCY CIRCUITS LEFT IN PLACE AFTER DEMOLITION OR NEW AS SHOWN. PROVIDE EMERGENCY CIRCUIT FOR HATCHED FIXTURES AND/OR EXIT SIGNS. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT TO EXISTING LOCATION AND/OR NEW FIXTURES. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 15-AMPERES.
6. PROVIDE NEW DRYWALL KIT FOR EXISTING RECESSED LIGHTING FIXTURE. VERIFY EXACT LOCATION WITH ARCHITECTURAL RCP.
7. REINSTALL ALL EXISTING CEILING MOUNTED ELECTRICAL IN NEW CEILINGS WHERE APPLICABLE. DEVICES INCLUDE BUT ARE NOT LIMITED TO: LIGHTING FIXTURES, EXIT SIGNS, FIRE ALARM DEVICES, LIGHTING CONTROLS/OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REPLACED.
8. EXISTING ELECTRIC HAND DRYER LOCATION; CONNECT REPLACEMENT HAND DRYER TO EXISTING CIRCUITRY PRESERVED DURING DEMOLITION. PROVIDE CIRCUIT BREAKER WITH NEW "LOCK-OFF" DEVICE.

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC... SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.
4. LOCATION OF NEW / REPLACEMENT LIGHT FIXTURES SHALL RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTURE WHIPS AS PRACTICAL. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT AND PROVIDE NEW J-BOX ABOVE ACCESSIBLE CEILING WITH ½-INCH FLEXIBLE STEEL CONDUIT OR STEEL MC CABLE, LENGTH NOT TO EXCEED 6-FEET, 'DAISY CHAINING'LIGHT FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS NOT ALLOWED. FOR NON-ACCESSIBLE CEILINGS, LIGHT FIXTURE WHIPS SHALL BE ½-INCH FLEXIBLE STEEL CONDUIT, LENGTH AS REQUIRED TO MAKE A TAP AT AN ACCESSIBLE J-BOX. RECESSED LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MAY BE DAISY CHAINED USING THE LIGHT FIXTURE'S INTEGRAL, UL LISTED J-BOX OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THROUGH FIXTURE FROM BELOW THE CEILING. REFER TO SPECIFICATION SECTION 26 05 33 CONDUIT SYSTEMS.
5. LIGHTING CONTROLS WHERE PROVIDED SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
6. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED POWER FOR EMERGENCY RELAYS, BATTERY PACKS AND / OR EXIT SIGNS.
7. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL. LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
8. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED. CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.



2 **ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"



1 **ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1174
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12/04/2025

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ELECTRICAL FLOOR PLAN - LEVEL 1 - FIELD HOUSE

MARSHALL HIGH SCHOOL

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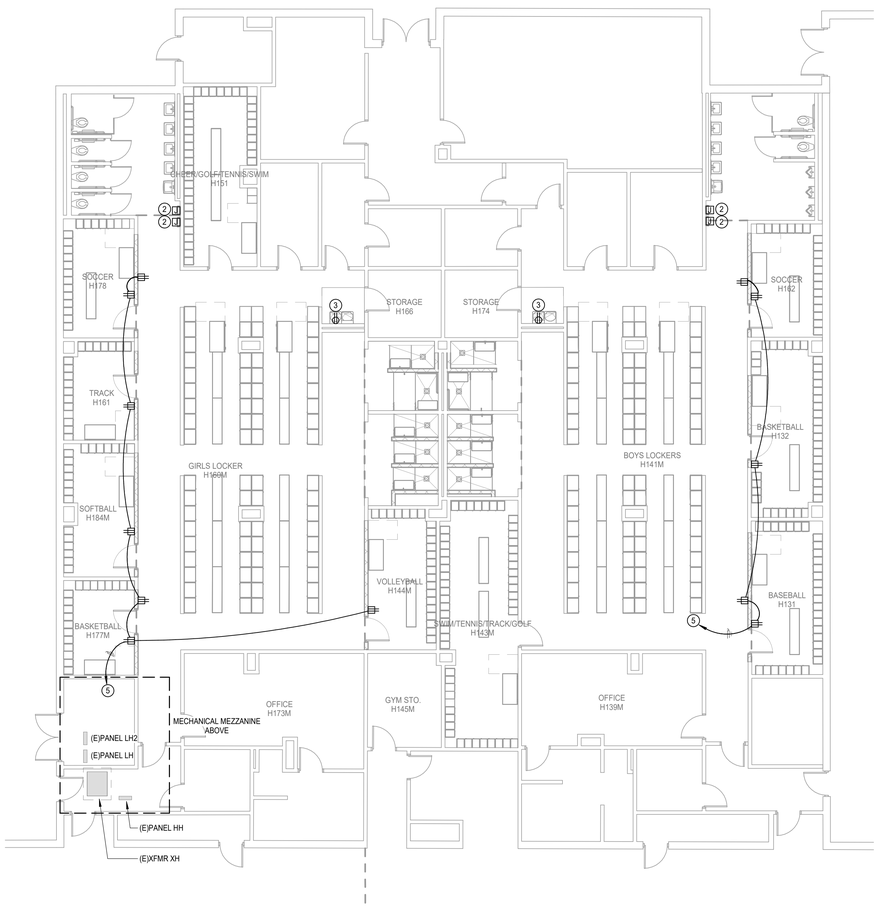
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL KEYED NOTES:

1. CONNECT NEW LIGHT FIXTURES TO EXISTING NORMAL AND EMERGENCY CIRCUITS LEFT IN PLACE AFTER DEMOLITION OR NEW AS SHOWN. PROVIDE EMERGENCY CIRCUIT FOR HATCHED FIXTURES AND/OR EXIT SIGNS. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT TO EXISTING LOCATION AND/OR NEW FIXTURES. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 15-AMPERES.
2. EXISTING ELECTRIC HAND DRYER LOCATION; CONNECT REPLACEMENT HAND DRYER TO EXISTING CIRCUITRY PRESERVED DURING DEMOLITION. PROVIDE CIRCUIT BREAKER WITH NEW "LOCK-OFF" DEVICE.
3. PROVIDE NEW DUPLEX RECEPTACLE FOR DRINKING FOUNTAIN; PROVIDE CIRCUIT BREAKER WITH NEW 20A/1P GFCI.
4. REINSTALL ALL EXISTING CEILING MOUNTED ELECTRICAL IN NEW CEILINGS WHERE APPLICABLE. DEVICES INCLUDE BUT ARE NOT LIMITED TO: LIGHTING FIXTURES, EXIT SIGNS, FIRE ALARM DEVICES, LIGHTING CONTROLS/OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REPLACED.
5. ROUTE 2#12, 1#12G., 3/4"C. TO NEW 20A/1P CIRCUIT BREAKER IN EXISTING PANEL LH2.
6. PROVIDE NEW DRYWALL KITS FOR EXISTING RECESSED LIGHTING FIXTURE. VERIFY EXACT LOCATION WITH ARCHITECTURAL RCP.

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC... SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.
4. LOCATION OF NEW / REPLACEMENT LIGHT FIXTURES SHALL RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTURE WHIPS AS PRACTICAL. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT AND PROVIDE NEW J-BOX ABOVE ACCESSIBLE CEILING WITH ½-INCH FLEXIBLE STEEL CONDUIT OR STEEL MC CABLE, LENGTH NOT TO EXCEED 6-FEET. 'DAISY CHAINING'LIGHT FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS NOT ALLOWED. FOR NON-ACCESSIBLE CEILINGS, LIGHT FIXTURE WHIPS SHALL BE ½-INCH FLEXIBLE STEEL CONDUIT, LENGTH AS REQUIRED TO MAKE A TAP AT AN ACCESSIBLE J-BOX. RECESSED LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MAY BE DAISY CHAINED USING THE LIGHT FIXTURE'S INTEGRAL, UL LISTED J-BOX OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THROUGH FIXTURE FROM BELOW THE CEILING. REFER TO SPECIFICATION SECTION 26 05 33 CONDUIT SYSTEMS.
5. LIGHTING CONTROLS WHERE PROVIDED SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
6. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED POWER FOR EMERGENCY RELAYS, BATTERY PACKS AND / OR EXIT SIGNS.
7. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL. LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
8. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED, CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.



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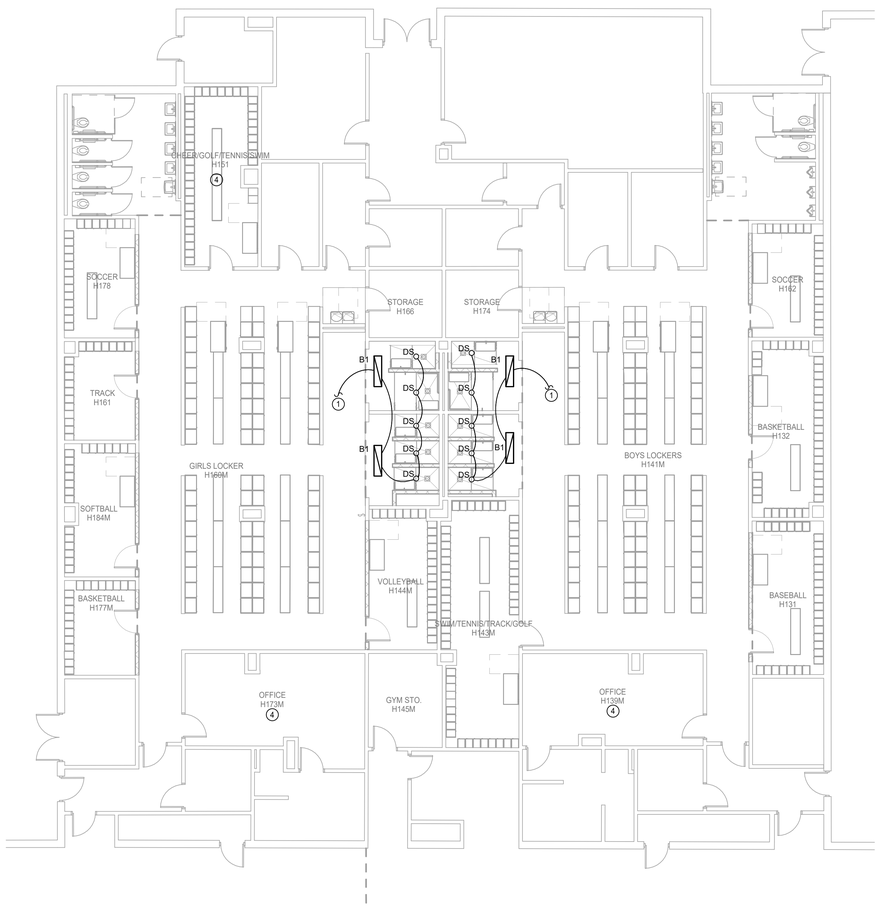
2 **ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - LOCKER ROOM**
Scale: 1/8" = 1'-0"



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1 **ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - LOCKER ROOM**
Scale: 1/8" = 1'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

100% CD

E3.02-M
ELECTRICAL FLOOR PLAN - LEVEL 1 - LOCKER ROOM

MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX. 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 6:59:06 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/MARSHALL_MEPT_R25.rvt

FIRE DETECTION AND ALARM SYSTEM:

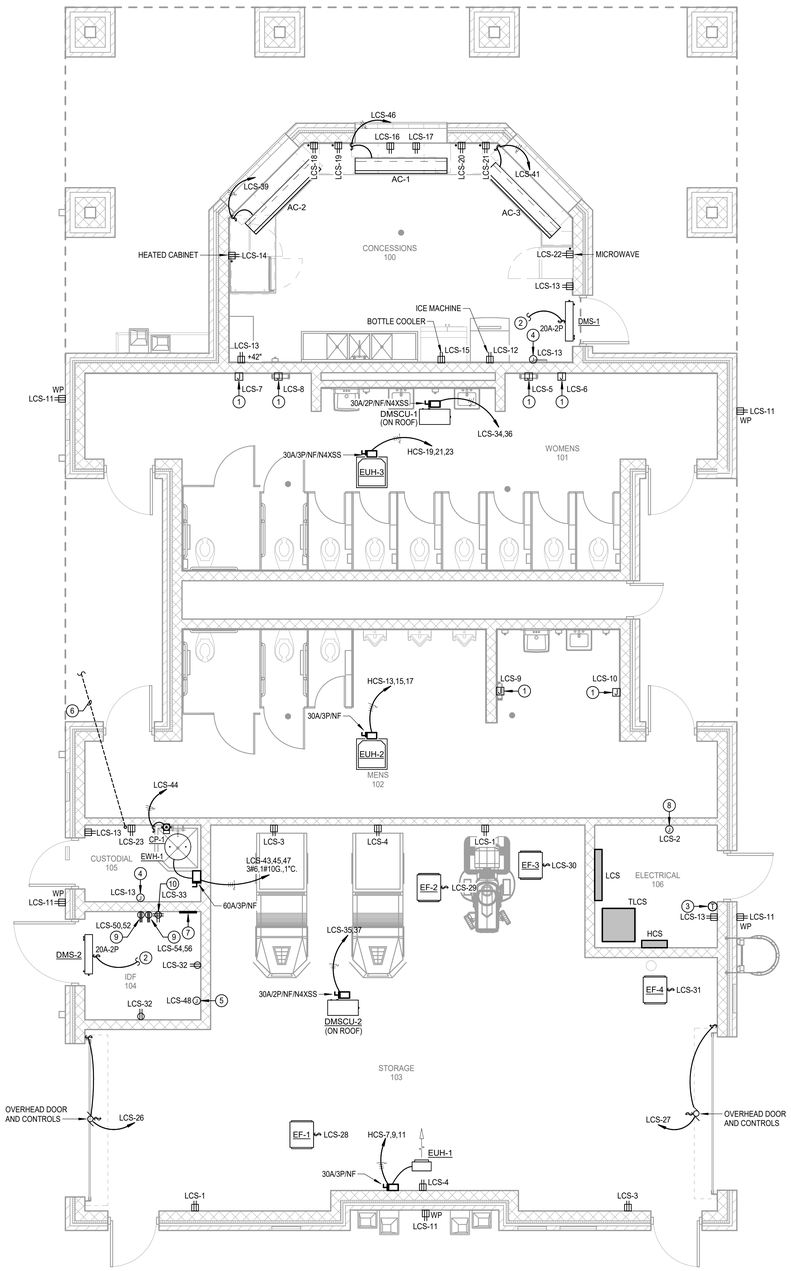
- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL GENERAL NOTES:

1. LIGHTING CONTROLS SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
2. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED POWER FOR EMERGENCY BATTERY PACKS AND / OR EXIT SIGNS.
3. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE. INDICATE AS: DLM.
4. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED, CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.
5. SPACES WITH MULTIPLE OCCUPANCY / VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
6. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.
7. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
8. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.

ELECTRICAL KEYED NOTES:

1. PROVIDE A JUNCTION BOX FOR CONNECTION OF NEW ELECTRIC HAND DRYER. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
2. ROUTE 2#12,1#12G.,3/4"C. FROM INDOOR DMS MINISPLIT TO ASSOCIATED OUTDOOR DMSCU; INDOOR UNIT IS POWERED BY OUTDOOR UNIT.
3. LINE VOLTAGE THERMOSTAT PROVIDED BY DIVISION 23, INSTALLED BY DIVISION 26. MAKE FINAL CONNECTION TO FAN.
4. PROVIDE A JUNCTION BOX FOR CONNECTION OF ELECTRONIC TRAP PRIMER. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
5. PROVIDE A JUNCTION BOX FOR CONNECTION OF ACCESS CONTROL PANEL. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
6. ROUTE (1)1"C. W/ PULLSTRING TO GREASE TRAP FOR HIGH LEVEL ALARM CABLING. PROVIDE SEALS AT EACH END. REFER TO PLUMBING.
7. PROVIDE GROUNDING BUS BAR. REFER TO GROUNDING SPECIFICATIONS AND TECHNOLOGY DRAWINGS FOR ADDITIONAL SCOPE OF WORK.
8. PROVIDE A JUNCTION BOX FOR CONNECTION OF FIRE ALARM BOOSTER PANEL. VERIFY EXACT LOCATION AND MAKE FINAL CONNECTION.
9. PROVIDE NEMA L6-30R RECEPTACLE LOCATED BEHIND DATA RACK. COORDINATE EXACT MOUNTING LOCATION WITH OWNER.
10. PROVIDE NEMA 5-20R DOUBLE DUPLEX RECEPTACLE LOCATED BEHIND DATA RACK. COORDINATE EXACT MOUNTING LOCATION WITH OWNER.



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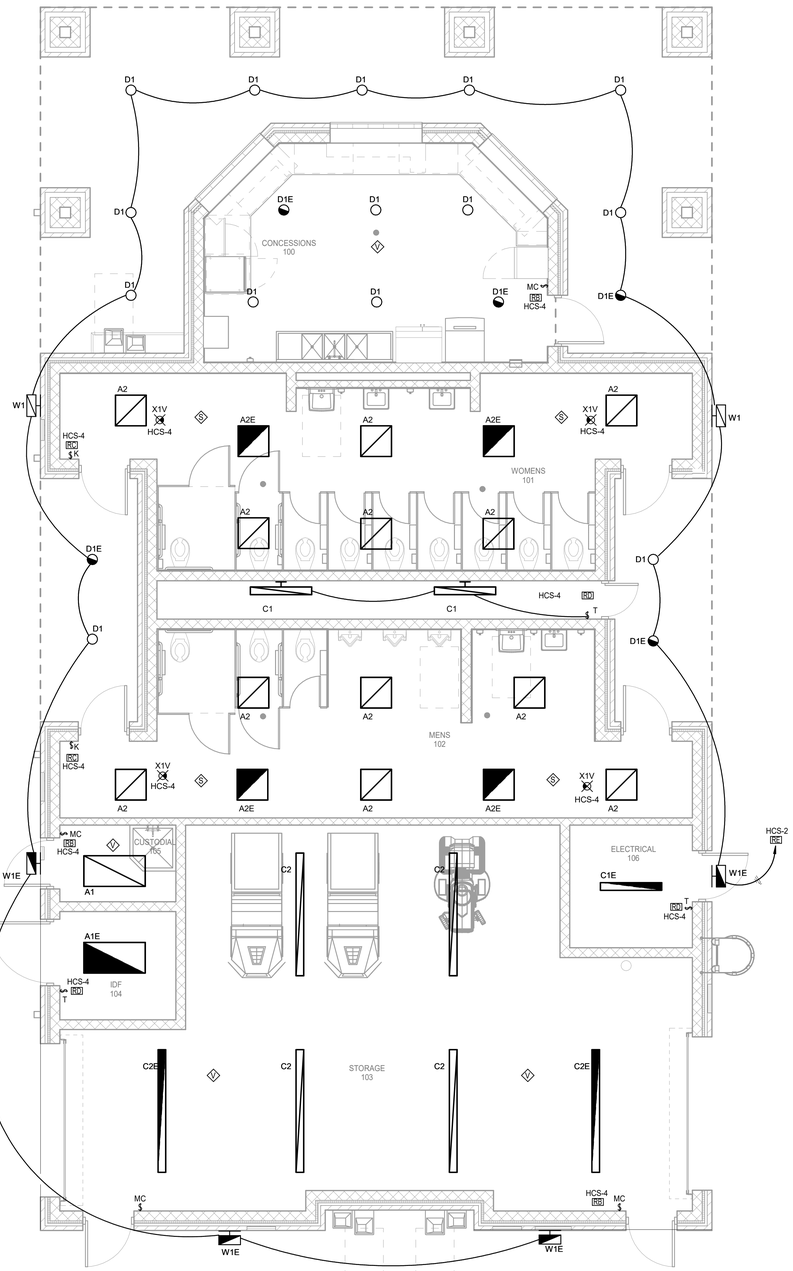
2 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - CONCESSIONS

Scale: 1/4" = 1'-0"



N

1 ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - CONCESSIONS

Scale: 1/4" = 1'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

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16431 Lexington Blvd.
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80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

100% CD

E3.03-M

ELECTRICAL FLOOR PLAN - LEVEL 1 - CONCESSIONS

MARSHALL HIGH SCHOOL

Salas O'Brien

Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111

Salas O'Brien Project Number: 2550-00810-00

12/3/2025 6:59:10 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/MARSHALL_MEPT_R25.rvt

Branch Panel: LCS

NEW

Location: ELECTRICAL 106 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TLCS | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 150A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Receptacles	#12	20	1	0.7 / 0.1			1	20	#12 Fire Alarm	2	LO
	3	Receptacles	#12	20	1		0.7 / 0.7		1	20	#12 Receptacles	4	
LF	5	Elec Hand Dryer	#10	30	1			1.5 / 1.5	1	30	#10 Elec Hand Dryer	6	LF
LF	7	Elec Hand Dryer	#10	30	1	1.5 / 1.5			1	30	#10 Elec Hand Dryer	8	LF
LF	9	Elec Hand Dryer	#10	30	1		1.5 / 1.5		1	30	#10 Elec Hand Dryer	10	LF
	11	Receptacles	#12	20	1			0.9 / 1.5	1	20	#12 Ice Machine	12	
	13	Receptacles	#12	20	1	0.9 / 2.2			1	20	#12 Receptacles CONCESSIONS 100	14	
	15	Bottle Cooler	#12	20	1		1.0 / 0.2		1	20	#12 Dedicated Recept.	16	
	17	Dedicated Recept.	#12	20	1			0.2 / 0.2	1	20	#12 Dedicated Recept.	18	
	19	Dedicated Recept.	#12	20	1	0.2 / 0.2			1	20	#12 Dedicated Recept.	20	
	21	Dedicated Recept.	#12	20	1		0.2 / 0.2		1	20	#12 Receptacles CONCESSIONS 100	22	
	23	High Level Alarm	#12	20	1			0.2 / 1.0	1	20	#8 Pitching Machine	24	
	25	Pitching Machine	#8	20	1	1.0 / 0.5			1	20	#12 Overhead Door	26	
	27	Overhead Door	#12	20	1		0.5 / 0.2		1	20	#12 EF-1	28	
	29	EF-2	#12	20	1			0.2 / 0.2	1	20	#12 EF-3	30	
	31	EF-4	#12	20	1	0.2 / 0.4			1	20	#12 Receptacles IDF 138	32	
LO	33	Data Rack	#12	20	1		0.4 / 1.2		2	20	#12 DMSCU-1/DMS-1	34	
	35	DMSCU-2/DMS-2	#12	20	2			1.2 / 1.2				36	
	37					1.2 / 0.0						38	
	39	Air Curtain	#12	20	1		0.1 / 0.0		3	30	-- SPDL	40	--
	41	Air Curtain	#12	20	1			0.1 / 0.0				42	
	43					5.0 / 0.1			1	20	#12 Circ. Pump. CP-1	44	
	45	EWH-1	#6	60	3		5.0 / 0.1		1	20	#12 Air Curtain	46	
	47							5.0 / 0.1	1	20	#12 Access Control Panel	48	
--	49	SPARE	--	20	1	0.0 / 0.1			2	30	#10 Data Rack	50	
--	51	SPARE	--	20	1		0.0 / 0.1					52	LO
--	53	SPARE	--	20	1			0.0 / 0.1	2	30	#10 Data Rack	54	LO
--	55	SPARE	--	20	1	0.0 / 0.1						56	
--	57	SPARE	--	20	1		0.0 / 0.0		1	--	-- SPACE	58	--
--	59	SPARE	--	20	1			0.0 / 0.0	1	--	-- SPACE	60	--
--	61	SPARE	--	20	1	0.0 / 0.0			1	--	-- SPACE	62	--
--	63	SPARE	--	20	1		0.0 / 0.0		1	--	-- SPACE	64	--
--	65	SPARE	--	20	1			0.0 / 0.0	1	--	-- SPACE	66	--
--	67	SPARE	--	20	1	0.0 / 0.0			1	--	-- SPACE	68	--
--	69	SPARE	--	20	1		0.0 / 0.0		1	--	-- SPACE	70	--
--	71	SPARE	--	20	1			0.0 / 0.0	1	--	-- SPACE	72	--
--	73	SPARE	--	20	1	0.0 / 0.0			1	--	-- SPACE	74	--
--	75	SPARE	--	20	1		0.0 / 0.0		1	--	-- SPACE	76	--
--	77	SPARE	--	20	1			0.0 / 0.0	1	--	-- SPACE	78	--
--	79	SPARE	--	20	1	0.0 / 0.0			1	--	-- SPACE	80	--
--	81	SPARE	--	20	1		0.0 / 0.0		1	--	-- SPACE	82	--
--	83	SPARE	--	20	1			0.0 / 0.0	1	--	-- SPACE	84	--
			Total Load:			15.9 kVA	13.6 kVA	15.1 kVA					
			Total Amps:			134 A	113 A	128 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	21.3 kVA	100.00%	21.3 kVA		
Miscellaneous	17.1 kVA	100.00%	17.1 kVA	**Total Conn. Load:**	44.6 kVA
Receptacles	6.2 kVA	100.00%	6.2 kVA	**Total Est. Demand:**	44.6 kVA
				Total Conn. Current:	124 A
				Total Est. Demand Current:	124 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE

Branch Panel: HCS

NEW

Location: ELECTRICAL 106 | **Volts:** 277/480 Wye | **A.I.C. Rating:** 18,000
Supply From: | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 225A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker		A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1					15.9 / 0.3			1	20	#12 Exterior Lighting	2	C
	3	XFMR TLCS	1L	70	3		13.6 / 1.1		1	20	#12 Lighting	4	
	5							15.1 / 0.0	1	20	-- SPARE	6	--
	7					1.7 / 0.0			1	20	-- SPARE	8	--
	9	EUH-1	#12	20	3		1.7 / 0.0		1	20	-- SPARE	10	--
	11							1.7 / 0.0	1	20	-- SPARE	12	--
	13					1.7 / 0.0			1	--	-- SPACE	14	--
	15	EUH-2	#12	20	3		1.7 / 0.0		1	--	-- SPACE	16	--
	17							1.7 / 0.0	1	--	-- SPACE	18	--
	19					1.7 / 0.0			1	--	-- SPACE	20	--
	21	EUH-3	#12	20	3		1.7 / 0.0		1	--	-- SPACE	22	--
	23							1.7 / 0.0	1	--	-- SPACE	24	--
	25					0.0 / 0.0			1	--	-- SPACE	26	--
	27						0.0 / 0.0		1	--	-- SPACE	28	--
	29							0.0 / 0.0	1	--	-- SPACE	30	--
--	31	SPACE	--	--	1	0.0 / 0.0			1	--	-- SPACE	32	--
--	33	SPACE	--	--	1		0.0 / 0.0		1	--	-- SPACE	34	--
--	35	SPACE	--	--	1			0.0 / 0.0	1	--	-- SPACE	36	--
--	37	SPACE	--	--	1	0.0 / 0.0						38	
--	39	SPACE	--	--	1		0.0 / 0.0		3	30	-- SPDL	40	--
--	41	SPACE	--	--	1			0.0 / 0.0				42	
			Total Load:			21.1 kVA	19.7 kVA	20.1 kVA					
			Total Amps:			76 A	71 A	73 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	31.3 kVA	100.00%	31.3 kVA		
Heating	5.0 kVA	100.00%	5.0 kVA	**Total Conn. Load:**	61.0 kVA
Lighting	1.4 kVA	125.00%	1.7 kVA	**Total Est. Demand:**	61.3 kVA
Miscellaneous	17.1 kVA	100.00%	17.1 kVA	**Total Conn. Current:**	73 A
Receptacles	6.2 kVA	100.00%	6.2 kVA	**Total Est. Demand Current:**	74 A

Notes:

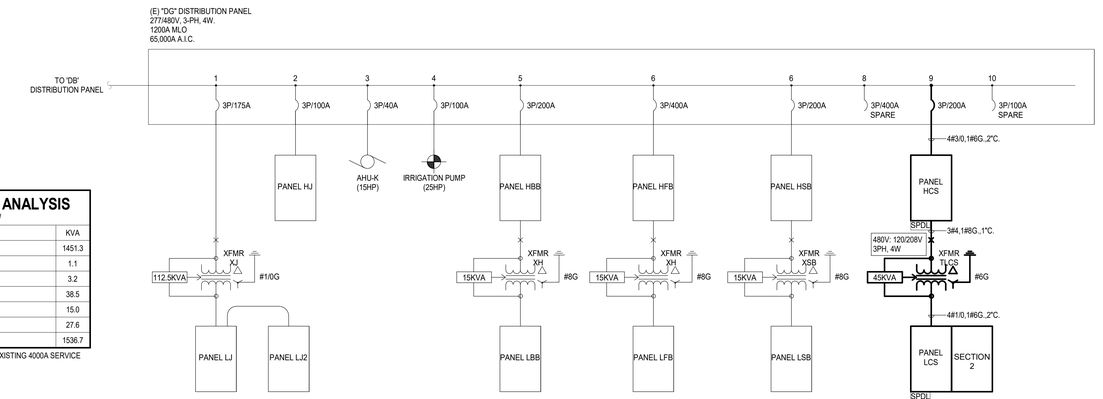
Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
M - PROVIDE METERING DEVICE
1L - REFER TO ONE-LINE DIAGRAM

ELECTRICAL LOAD ANALYSIS

277/480V. 3PH., 4W

LOAD DESCRIPTION:	KVA
PEAK KVA @ 125%	1451.3
NEW LIGHTING LOAD @ 125%	1.1
NEW RECEPTACLE LOAD @ 100%	3.2
NEW MISCELLANEOUS LOAD @ 100%	38.5
NEW ELEC. HEAT LOAD @ 100%	15.0
NEW HVAC LOAD @ 100%	27.6
TOTAL	1536.7

TOTAL / (480 X √3) = 1,849.2 AMPS EXISTING 4000A SERVICE



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1 **PARTIAL ONE LINE DIAGRAM - CONCESSIONS**
Scale: N.T.S.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
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BRADLEY KALMANS — 80219 — LICENSED — PROFESSIONAL ENGINEER — STATE OF TEXAS
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

Mark	Date	Description

100% CD

E4.01-M
ELECTRICAL ONE-LINE DIAGRAM

MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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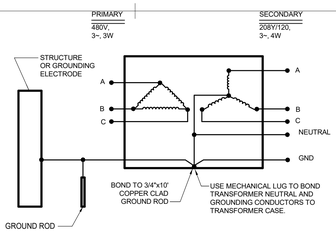
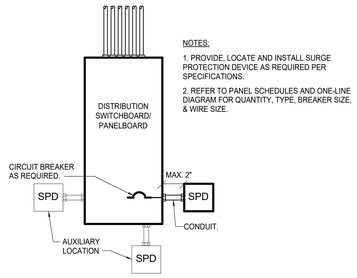
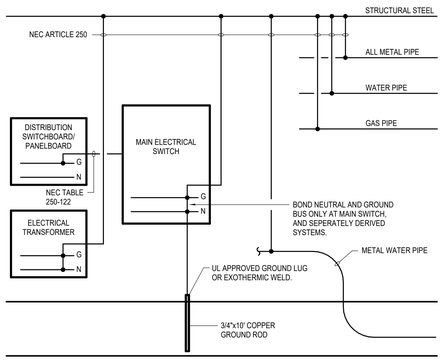


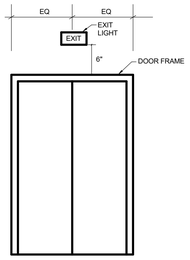
4 TRANSFORMER GROUNDING DETAIL
SCALE: NONE



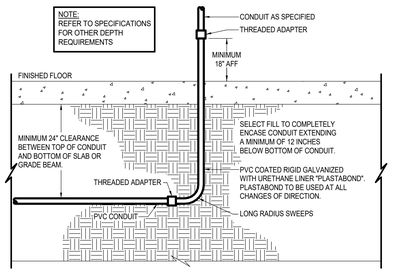
3 SURGE PROTECTION DETAIL
SCALE: NONE



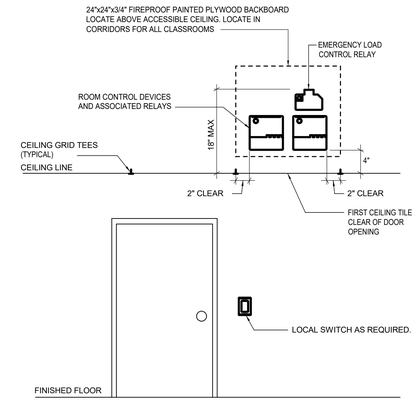
2 GROUNDING DETAIL
SCALE: NONE



8 TYPICAL EXIT SIGN LOCATION
SCALE: NONE



7 CONDUIT BELOW BUILDING SLAB
SCALE: NONE



1 TYPICAL LIGHTING CONTROLS ELEVATION
SCALE: NONE

LIGHTING CONTROLS SCHEDULE

Type	Sensor Operation	# of Lighting Zones	Description
RB	VACANCY - MANUAL ON / AUTO OFF	1	ON/OFF MOMENTARY CONTACT SWITCH, NO DIMMING.
RC	OCCUPANCY - AUTO ON / AUTO OFF	1	ON/OFF KEYED SWITCY, NO DIMMING.
RD	NONE	1	ON/OFF SPRING WOUND TIMER SWITCH, 12-HOUR WITH HOLD; PROVIDE INTERMATIC #FD12HHW. WHERE MULTIPLE SWITCHES ARE USE, WIRE SWITCHES IN PARALLEL FOR SIMULTANTEOUS OPERATION.
RE	NONE	1	CONTACTOR CONTROLLED WITH BMCS ON/OFF INTERFACE FOR PHOTOCELL / SCHEDULE. EXTERIOR LIGHTING SHALL AUTOMATICALLY SHUTOFF WHEN DAYLIGHT IS PRESENT; IN ADDITION, EXTERIOR LIGHTING SHALL BE TURNED OFF FROM 12:00 AM TO 6:00 AM OR FROM 1 HOUR AFTER CLOSING TO 1 HOUR BEFORE OPENING.

LIGHTING FIXTURE SCHEDULE

Type Mark	CATALOG NUMBER MANUFACTURER	MODEL	MOUNTING	LAMP TYPE	CCT	CRI	VOLTAGE	LOAD	REMARKS
A1	METALUX	24FP4740C	RECESSED	4700L LED	4000 K	80	277 V	42 W	2X4 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED.
A1E	METALUX	24FP4740C + EL14W	RECESSED	4700L LED	4000 K	80	277 V	42 W	2X4 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
A1F	METALUX	24FP4740C + DF24WU	RECESSED	4700L LED	4000 K	80	277 V	42 W	2X4 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DRYWALL FLANGE KIT, DLC LISTED.
A1FE	METALUX	24FP4740C24FP4740C + DF24WU + EL14W	RECESSED	4700L LED	4000 K	80	277 V	42 W	2X4 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DRYWALL FLANGE KIT, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
A2	METALUX	22FP4240C	RECESSED	4200L LED	4000 K	80	277 V	38 W	2X2 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED.
A2E	METALUX	22FP4240C + EL14W	RECESSED	4200L LED	4000 K	80	277 V	38 W	2X2 FLAT PANEL, OPAQUE LENS, 0-10V DIMMING, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
B1	METALUX	14GR-FA-LD5-36-A19/156-UNV-L840-CD1-U-DF-14W-U	RECESSED	3600L LED	4000 K	80	277 V	35 W	1X4 STATIC TROFFER, 0.156" A19 LENS, TRIPLE GASKET, ALUMINUM DOORFRAME, 0-10V DIMMING, DRYWALL FLANGE KIT, DLC LISTED.
B1E	METALUX	14GR-FA-LD5-36-A19/156-UNV-EL14W-L840-CD1-U-DF-14W-U	RECESSED	3600L LED	4000 K	80	277 V	35 W	1X4 STATIC TROFFER, 0.156" A19 LENS, TRIPLE GASKET, ALUMINUM DOORFRAME, 0-10V DIMMING, DRYWALL FLANGE KIT, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
C1	METALUX	4SNX-51SL-LW-UNV-L840-CD1-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	5100L LED	4000 K	80	277 V	32 W	4-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED.
C1E	METALUX	4SNX-51SL-LW-UNV-L840-CD1-EL14W-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	5100L LED	4000 K	80	277 V	32 W	4-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
C2	METALUX	8SNX-96SL-LW-UNV-L840-CD1-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	9600L LED	4000 K	80	277 V	32 W	8-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED.
C2E	METALUX	8SNX-96SL-LW-UNV-L840-CD1EL14W(2)-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	9600L LED	4000 K	80	277 V	32 W	8-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
D1	HALO	HC620D010-HM60525840-61WDC	RECESSED	2000L LED	4000 K	80	277 V	21 W	6-INCH DOWNLIGHT, WIDE BEAM, SEMI-SPECULAR TRIM, ENERGY STAR RATED.
D1E	HALO	HC620D010-IEM14-HM60525840-61WDC	RECESSED	2000L LED	4000 K	80	277 V	21 W	6-INCH DOWNLIGHT, WIDE BEAM, SEMI-SPECULAR TRIM, ENERGY STAR RATED. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
DS	HALO	HC620D010-HM60525840-61PSMDW	RECESSED	2000L LED	4000 K	80	277 V	21 W	6-INCH SHOWER DOWNLIGHT, MEDIUM BEAM, NON-CONDUCTIVE TRIM, ENERGY STAR RATED.
W1	McGRAW EDISON	IST-SA1E-740-U-T4FT-BZ-LCF	WALL	7099L LED	4000 K	70	277 V	30 W	ARCHITECTURAL WALL SCONCE, FORWARD THROW DISTRIBUTION, BRONZE FINISH.
W1E	McGRAW EDISON	IST-SA1E-740-U-T4FT-BZ-LCF-CBP	WALL	7099L LED	4000 K	70	277 V	30 W	ARCHITECTURAL WALL SCONCE, FORWARD THROW DISTRIBUTION, BRONZE FINISH. PROVIDE WITH HIGH LUMEN EMERGENCY BATTERY PACK.
X1V	SURE-LITES	UX71WH	SURFACE	LED	-	80	277 V	1 W	VANDAL PROOF EXIT SIGN, WHITE HOUSING, RED LETTERING. PROVIDE WITH EMERGENCY BATTERY PACK.

APPROVED LIGHTING MANUFACTURERS:
- LED / FLUORESCENT: LITHONIA, COLUMBIA, METALUX, AXIS, DAYBRITE, HE WILLIAMS, LSI, CREE
- EXIT SIGNS: LITHONIA, CHLORIDE, EMERGI-LITE, DUAL-LITE, SURE LITES, H.E. WILLIAMS
- ARCHITECTURAL HIGH PERFORMANCE FLOOD LIGHTS: WIDE-LITE, HADCO, KIM, McGRAW EDISON, GARDCO, LSI
- INDUSTRIAL: METALUX, LITHONIA, EXCELINE, G.E., HUBBELL, LUMARK, STONCO
- DOWNTRACK LIGHTING: LIGHTOLIER, LITHONIA-GOTHAM, HALO ARCHITECTURAL, PRESCOLITE, HE WILLIAMS, INDY
- SECURITY (WALLPACKS): LITHONIA, McGRAW EDISON, G.E., LSI, HUBBELL, STONCO, GARDCO
- ARCHITECTURAL LINEAR: PEERLESS, LITECONTROL, ALERA, LAM, AMERICAN LINEAR LIGHTING, LEDALITE
- ARCHITECTURAL INDIRECT: INSIGHT, ORIGINAL CAST LIGHTING, SPI, LAM

- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT INDICATED IN THE LIGHT FIXTURE SCHEDULE. WHERE THERE IS AN INCONSISTENCY BETWEEN THE LIGHT SCHEDULE AND THE SPECIFICATIONS, THE BETTER QUALITY OF WORK SHALL BE INCLUDED IN THE PROPOSAL.
- THE ABOVE LIGHTING MANUFACTURERS LIST DOES NOT IMPLY APPROVAL. APPROVAL WILL BE DETERMINED AFTER REVIEW OF SHOP DRAWING TO DETERMINE IF THE FIXTURE OR POLE SUBMITTED MEETS OR EXCEEDS THE DESIGN STANDARDS AND PERFORMANCE REQUIRED OF THE FIXTURE SPECIFIED IN THE LIGHT FIXTURE SCHEDULE OR SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE SPECIFIED LIGHT FIXTURE IF A SUBSTITUTION IS NOT APPROVED WITHOUT ANY ADDITIONAL COST TO THE OWNER. WHERE SPECIFIC OPTIONS/ACESSORIES ARE SPECIFIED OR REQUIRED, THEY SHALL BE PROVIDED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- DUE TO THE WIDE RANGE OF FIXTURE QUALITIES OFFERED BY EACH MANUFACTURER, THE APPROVED LIGHTING MANUFACTURERS SUBSTITUTION LIST IS NOT INTENDED TO INDICATE THAT ANY OR ALL MANUFACTURERS LISTED WILL HAVE SUITABLE SUBSTITUTIONS FOR THE LIGHT FIXTURES OR POLES SPECIFIED IN THE LIGHT FIXTURE SCHEDULE. SHOP DRAWING AND CONSTRUCTION DELAYS AS A RESULT OF INAPPROPRIATE SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT RESULT IN ANY ADDITIONAL COST TO THE OWNER.

SYMBOL SCHEDULE

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED ON EMERGENCY CIRCUIT
	DOWNLIGHT FIXTURE
	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
	LIGHT FIXTURE - WALL MOUNTED
	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - CEILING MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - WALL MOUNTED ON EMERGENCY CIRCUIT
LIGHTING CONTROLS & DEVICES	
$	LINE VOLTAGE SINGLE POLE SWITCH
$3	LINE VOLTAGE 3-WAY SWITCH
$4	LINE VOLTAGE 4-WAY SWITCH
$K	LINE VOLTAGE MOMENTARY DPST KEYED SWITCH
$D	LINE VOLTAGE DIMMER SWITCH, SIZE AND TYPE AS REQUIRED
$P	LINE VOLTAGE SWITCH WITH PILOT LIGHT
$T	6-HOUR ROTARY TIMER SWITCH WITH NO HOLD U.N.O.
	PUSH BUTTON EPO SWITCH WITH COVER
$MC	LOW VOLTAGE MOMENTARY CONTACT SWITCH
$R	LOW VOLTAGE DIGITAL KEYPAD
$B	LOW VOLTAGE BUILDING MANAGEMENT (BMCS) LOCAL OVERRIDE SWITCH
	OCCUPANCY SENSOR (AUTO ON / AUTO OFF WITHIN 20-MINUTES)
	VACANCY SENSOR (MANUAL ON / AUTO OFF WITHIN 20-MINUTES)
	PHOTOCELL SENSOR
RF	LIGHTING CONTROL SYSTEM. ('R' DENOTES TYPE - SEE LIGHTING CONTROLS SCHEDULE)
ER	EMERGENCY LOAD CONTROL RELAY. MINIMUM 16A AND 0-10V COMPATIBLE. PROVIDE U.L. 924 U.N.O.
RECEPTACLES AND OUTLETS	
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
U	DUPLEX RECEPTACLE WITH TWO USB CHARGING PORTS.
	125/250 VOLT, 1 PHASE, 3-WIRE, 20 AMPS UNLESS NOTED OTHERWISE
	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
U	DOUBLE DUPLEX WITH TWO USB CHARGING PORTS IN 2-GANG BOX WITH SINGLE COVER PLATE
	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	FLUSH FLOOR DUPLEX RECEPTACLE OUTLET
	FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE OUTLET
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	JUNCTION BOX
	FLUSH REMOTE GFCI DEVICE (LOCATE IN READILY ACCESSIBLE LOCATION)
MOTOR CONTROLLERS AND EQUIPMENT	
	MOTOR, MAKE FINAL MOTOR CONNECTION
$	MOTOR-RATED SWITCH. 20A UNLESS INDICATED OTHERWISE.
J	DISCONNECT SWITCH AS REQUIRED
J	COMBINATION MOTOR STARTER/DISCONNECT SWITCH AS REQUIRED
	MOTOR STARTER
	PREWIRED DEVICE, MAKE ELECTRICAL FINAL CONNECTIONS
VFD	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
HF	HIGH EFFICIENCY HARMONIC FILTER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
T	LOW VOLTAGE TRANSFORMER, SIZE AND TYPE AS REQUIRED.
	CHIME/BUZZER
ELECTRICAL EQUIPMENT	
	ELECTRICAL PANELBOARD; REFER TO FLOOR PLANS FOR VOLTAGE.
	DRY TYPE TRANSFORMER
	PLYWOOD TELEPHONE BACKBOARD
CIRCUITING	
	CONDUIT
	CONDUIT BELOW FLOOR, SLAB, OR GRADE
	3/4"C. UNLESS OTHERWISE NOTED; LONG HATCH, NEUTRAL; SHORT HATCH, PHASE; LONG HATCH & HOOK, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN.
	PARTIAL ELECTRICAL HOME RUN
SUBSCRIPTS AND ABBREVIATIONS	
WP	INDICATES 'WEATHERPROOF'
H	INDICATES 'HORIZONTAL'
NL	INDICATES 'NIGHT LIGHT'.
TP	INDICATES 'TAMPER PROOF'
(KS)	INDICATES 'KNEE SPACE'. LOCATE WIRING DEVICE IN KNEESPACE
U.N.O.	INDICATES 'UNLESS NOTED OTHERWISE'
(E)	INDICATES EXISTING TO REMAIN
(R)	INDICATES REPLACE DEVICE AND COVERPLATE.
•	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL MILLWORK DRAWINGS AND OTHER TRADES

GENERAL NOTES:
-ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-4X MINIMUM.
-ALL EXTERIOR RECEPTACLES SHALL BE WATER RESISTANT TYPE.

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES.
2. ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
3. ALL EMPTY CONDUIT SHALL HAVE PULL STRING.
4. EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
5. VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 6" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
6. ALL FIRE ALARM DEVICES, RECEPTACLES, SWITCHES, AND WIRING DEVICES IN MECHANICAL AND ELECTRICAL ROOMS ARE TO BE RECESSED IN WALLS.
7. ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
10. CENTER ALL EXIT SIGNS OVER DOORS.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

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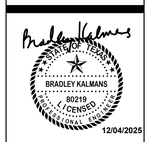

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:
	Date	Description

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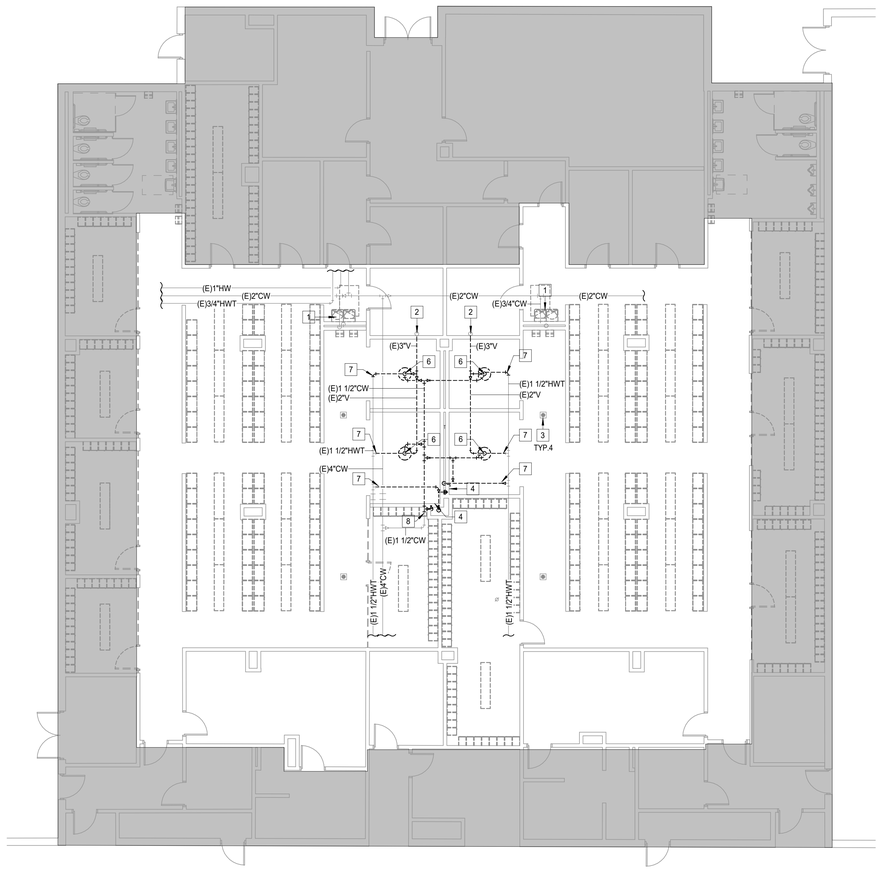
E5.01-M
ELECTRICAL SCHEDULES, DETAILS, AND LEGENDS
MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 6:59:13 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/MARSHALL_MEPT_R25.rvt

PLUMBING KEYED NOTES

1	EXISTING ELECTRONIC DRINKING FOUNTAIN TO BE REMOVED AND REPLACED. CAP UTILITIES FOR FUTURE CONNECTION. REFER TO ARCHITECTURAL DRAWING.
2	EXISTING VTR TO REMAIN. REMOVE ALL VENT PIPING SERVING VTR. PREPARE VTR FOR CONNECTION OF NEW VENT PIPING.
3	EXISTING FLOOR DRAIN TO REMAIN.
4	EXISTING ADA SHOWER TO BE REMOVED CAP UTILITIES BACK TO POINT INDICATED FOR FUTURE CONNECTION.
6	EXISTING COLUMN SHOWER TO BE REMOVED CAP UTILITIES BACK TO POINT INDICATED FOR FUTURE CONNECTION.
7	REMOVE EXISTING HW BACK TO THIS POINT.
8	REMOVE EXISTING CW BACK TO THIS POINT.



1 **PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - LOCKER ROOM**
Scale: 1/8" = 1'-0"

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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PLUMBING DEMOLITION FLOOR PLAN - GYM LOCKER ROOM

MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
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Houston, TX 77064
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PLUMBING KEYED NOTES

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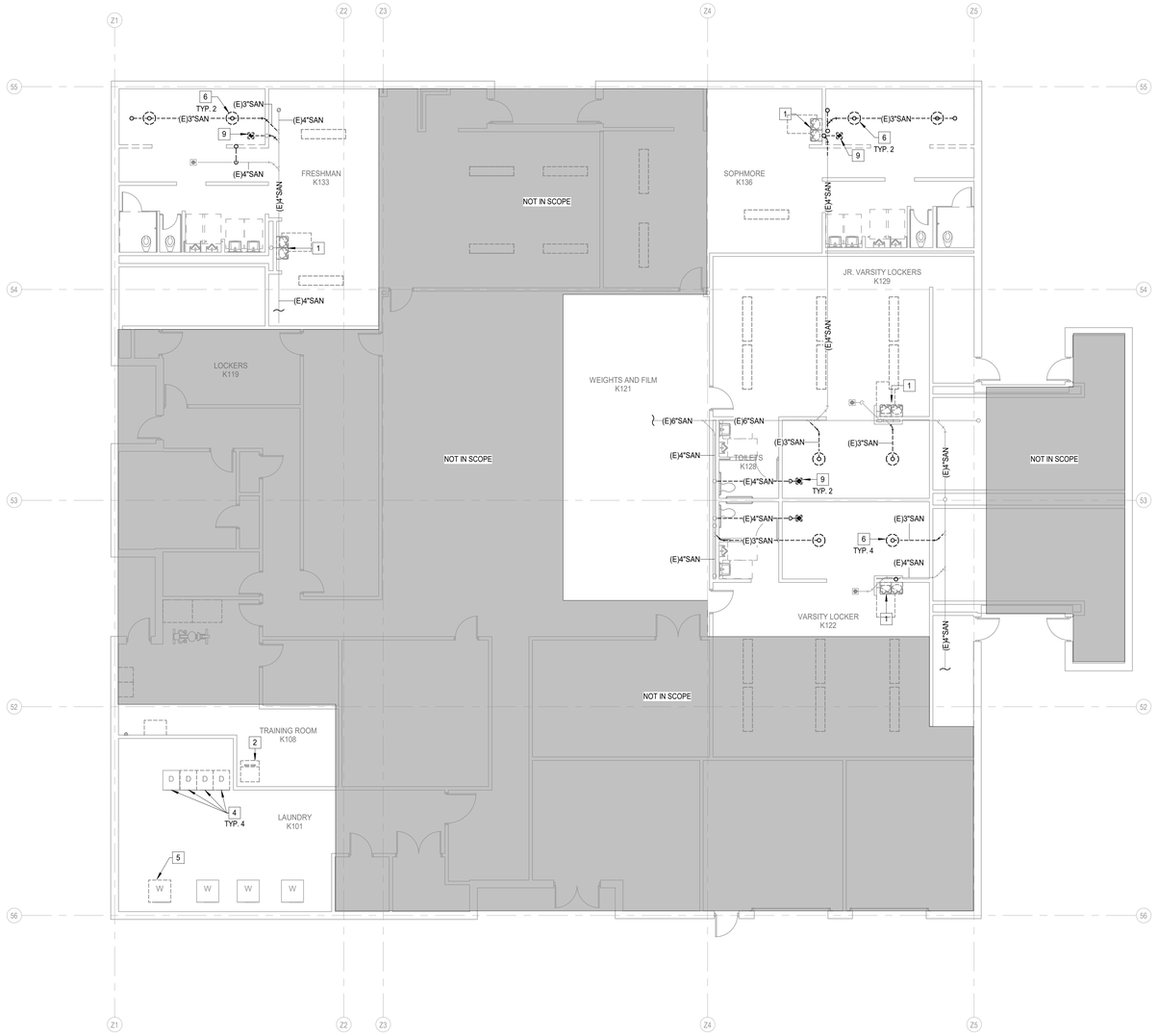
2	EXISTING ICE MACHINE CONNECTION TO BE REMOVED. REMOVE CW TO POINT INDICATED.
4	EXISTING CLOTHES DRYER TO BE REMOVED AND REPLACED. CAP UTILITIES FOR FUTURE CONNECTION.
5	EXISTING CLOTHES WASHER TO BE REMOVED AND REPLACED. SHUT OFF HW & CW CONNECTIONS AT VALVE BOX AND DISCONNECT UTILITIES FOR FUTURE CONNECTION.
6	EXISTING COLUMN SHOWER TO BE REMOVED. REMOVE CW AND HW PIPING BACK TO MAIN. DRAIN TO BE REMOVED AND CAPPED BELOW SLAB.
9	EXISTING FLOOR DRAIN TO BE REMOVED.



1 **PLUMBING DEMOLITION UNDERFLOOR PLAN - LEVEL 1 - FIELD HOUSE Copy 1**
Scale: 1/8" = 1'-0"

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Houston
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Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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PLUMBING DEMOLITION UNDERFLOOR PLAN - FIELD HOUSE

MARSHALL HIGH SCHOOL

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PLUMBING KEYED NOTES

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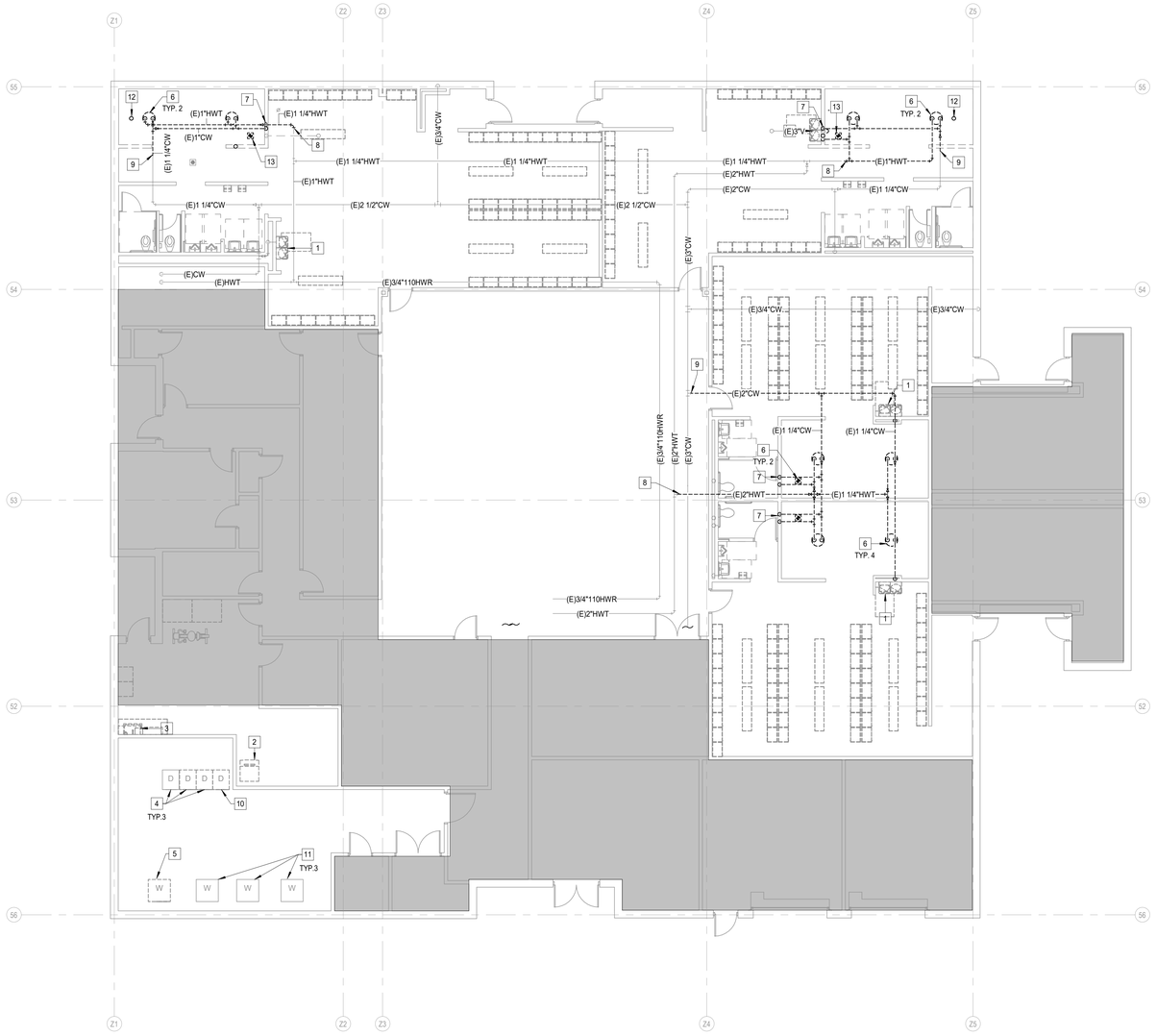
2	EXISTING ICE MACHINE CONNECTION TO BE REMOVED. REMOVE CW TO POINT INDICATED.
3	EXISTING SINK TO BE REMOVED AND REPLACED. CAP UTILITIES FOR FUTURE CONNECTION.
4	EXISTING CLOTHES DRYER TO BE REMOVED AND REPLACED. CAP UTILITIES FOR FUTURE CONNECTION.
5	EXISTING CLOTHES WASHER TO BE REMOVED AND REPLACED. SHUT OFF HW & CW CONNECTIONS AT VALVE BOX, AND DISCONNECT UTILITIES FOR FUTURE CONNECTION.
6	EXISTING COLUMN SHOWER TO BE REMOVED. REMOVE CW AND HW PIPING BACK TO MAIN. DRAIN TO BE REMOVED AND CAPPED BELOW SLAB.
7	EXISTING ADA SHOWER TO BE REMOVED CAP UTILITIES BACK TO POINT INDICATED FOR FUTURE CONNECTION.
8	EXISTING HW TO BE REMOVED BACK TO POINT INDICATED.
9	EXISTING CW TO BE REMOVED BACK TO POINT INDICATED.
10	EXISTING DRYER TO BE REMOVED. REMOVE ALL UTILITIES BACK TO MAIN AND CAP.
11	EXISTING CLOTHES WASHER TO BE REMOVED. REMOVE UTILITIES BACK TO MAIN AND CAP.
12	EXISTING FLOOR CLEANOUT TO BE REMOVED.
13	EXISTING FLOOR DRAIN TO BE REMOVED.



1 **PLUMBING DEMOLITION FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
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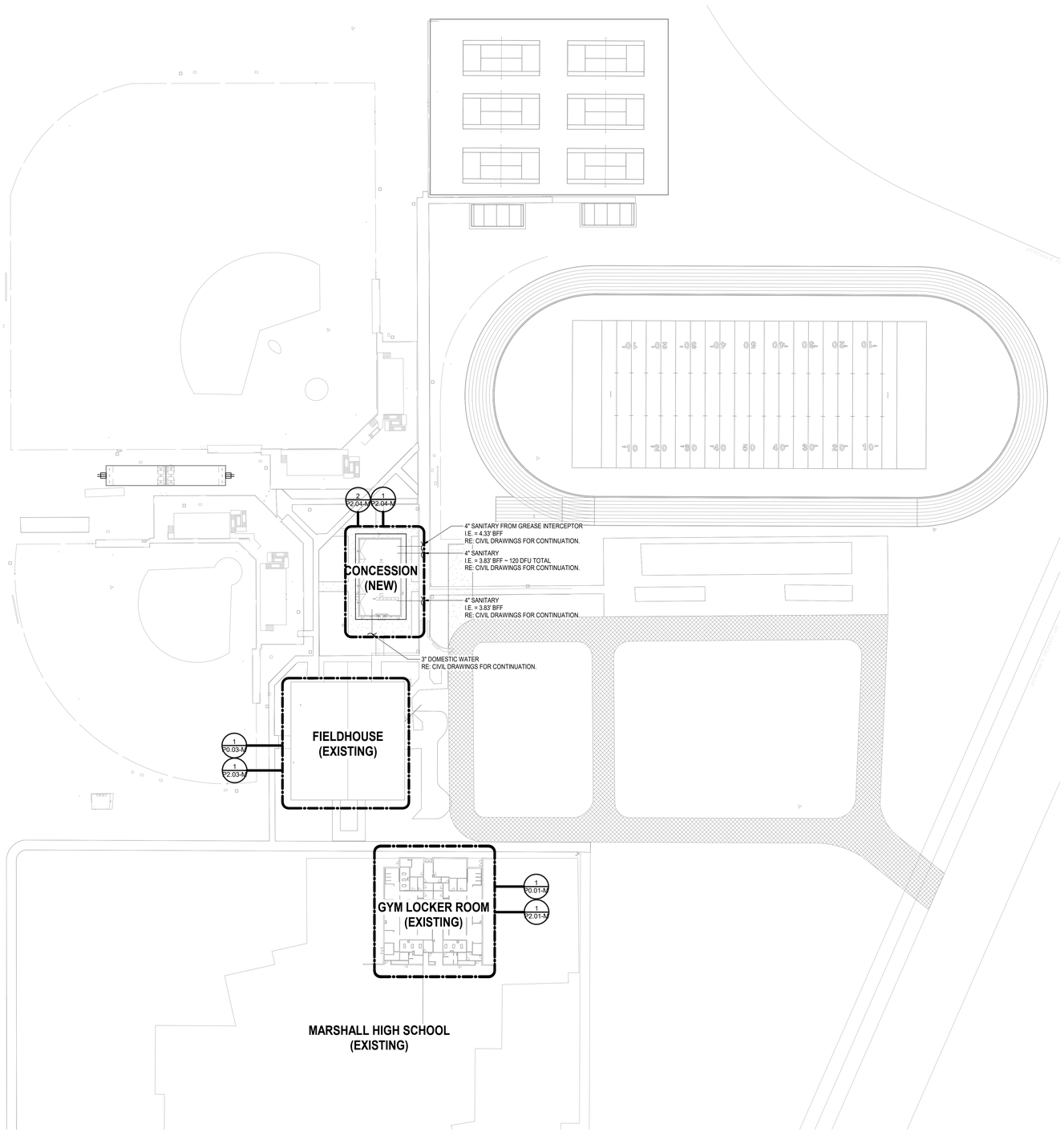
PLUMBING DEMOLITION FLOOR PLAN - FIELD HOUSE

MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 6:59:20 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/MARSHALL_MEPT_R25.rvt



N

1 **PLUMGING SITE PLAN**
Scale: 1" = 50'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD
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16431 Lexington Blvd.
Sugarland, TX 77479

STATE OF TEXAS
BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:

No.	Date	Description

100% CD

P1.00-M
PLUMBING SITE PLAN

MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
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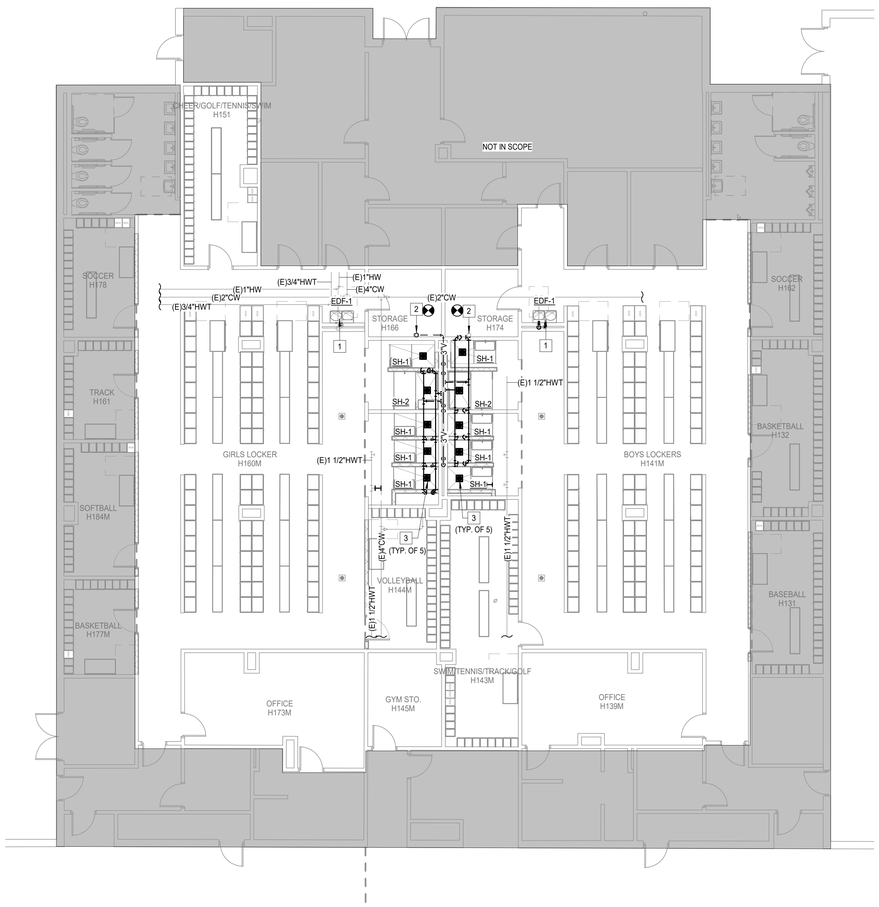
PLUMBING KEYED NOTES

1	PROVIDE AND INSTALL NEW ELECTRONIC DRINKING FOUNTAIN. CONNECT EXISTING UTILITIES (CW, SANITARY AND VENT.)
2	2" VENT UP TO 2'-1" VTR.
3	PROVIDE AND INSTALL NEW SHOWER. CONNECT EXISTING UTILITIES (HW, CW, SANITARY, AND VENT.)



1 **PLUMBING FLOOR PLAN - LEVEL 1 - LOCKER ROOM**
Scale: 1/8" = 1'-0"

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REVISIONS:

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P2.01-M

PLUMBING FLOOR PLAN - GYM LOCKER ROOM

MARSHALL HIGH SCHOOL

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10930 W. Sam Houston Pkwy North, Suite 900
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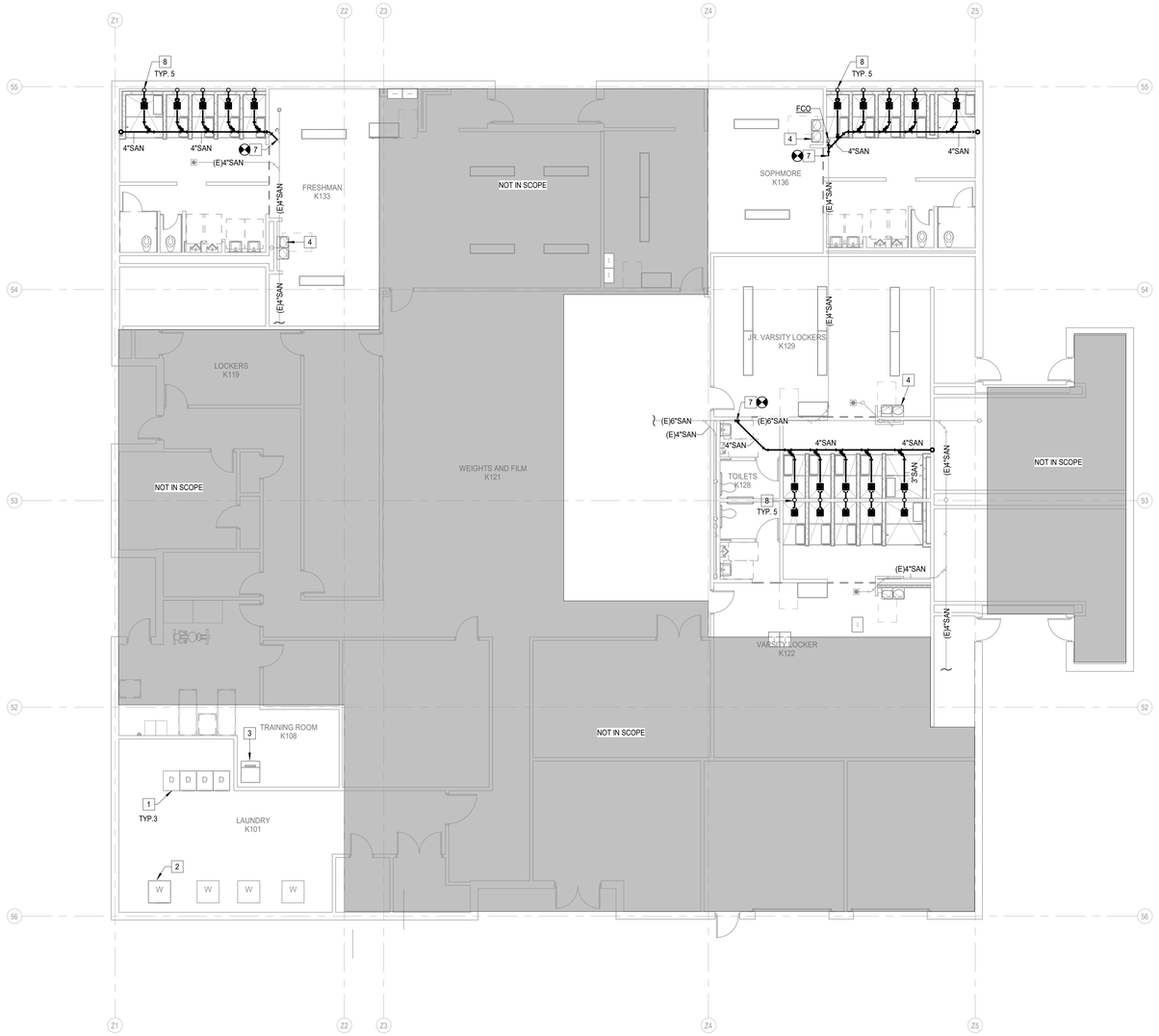
PLUMBING KEYED NOTES

1	CONNECT NEW DRYER TO EXISTING UTILITIES.
2	CONNECT NEW WASHER TO EXISTING UTILITIES.
3	NEW ICE MACHINE. CONNECT CW PER MANUFACTURERS SPECIFICATION.
4	PROVIDE AND INSTALL NEW ELECTRONIC DRINKING FOUNTAIN. CONNECT EXISTING UTILITIES (CW, SANITARY AND VENT.)
7	CONNECT NEW 4" SANITARY TO EXISTING MAIN.
8	2" VENT UP.



1 PLUMBING UNDERFLOOR PLAN - LEVEL 1 - FIELD HOUSE
Scale: 1/8" = 1'-0"

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12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
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No.	Date	Description

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Houston
10930 W. Sam Houston Pkwy North, Suite 900
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Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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P2.02-M

PLUMBING UNDERFLOOR PLAN - FIELD HOUSE

MARSHALL HIGH SCHOOL

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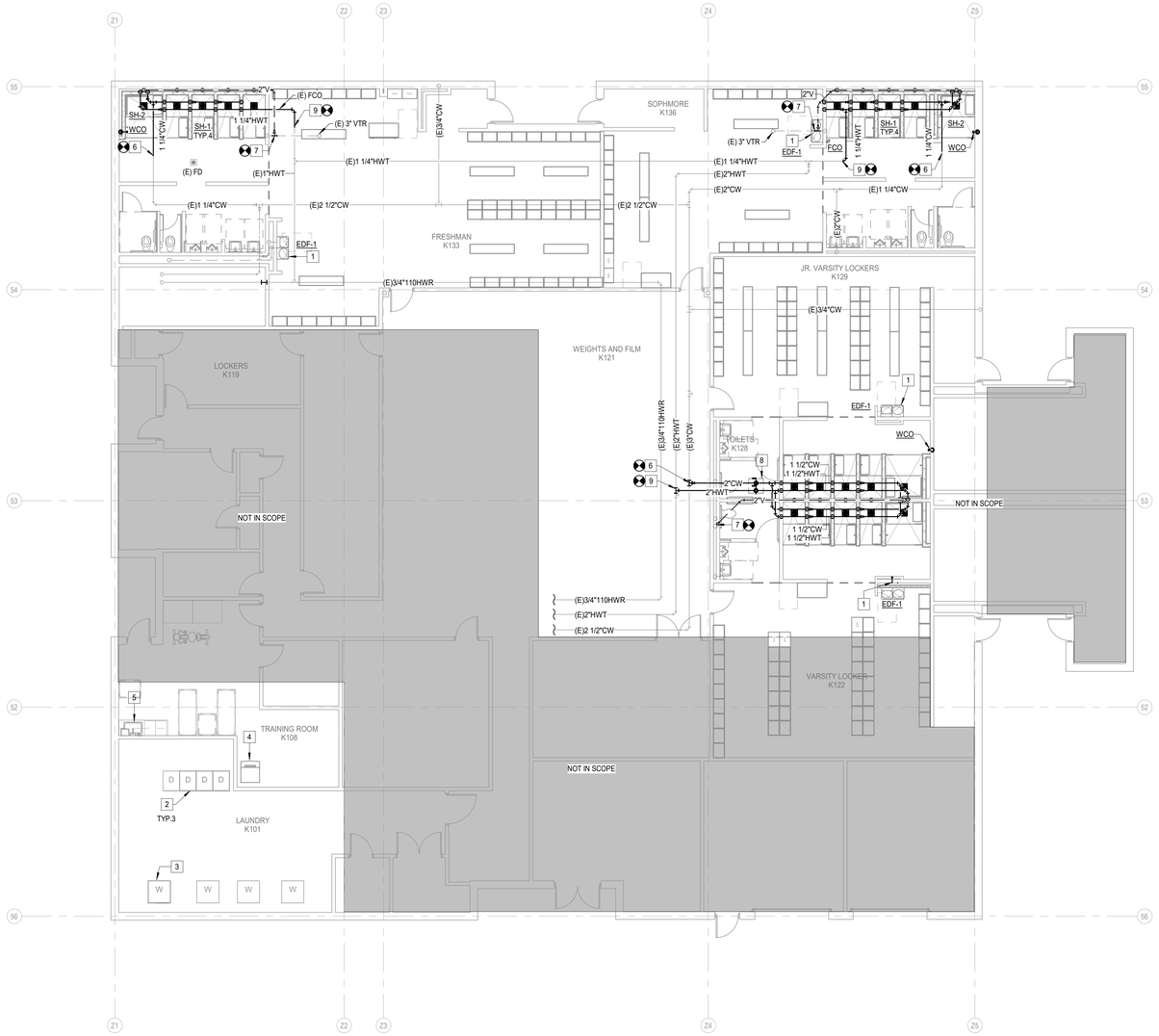
PLUMBING KEYED NOTES

1	PROVIDE AND INSTALL NEW ELECTRONIC DRINKING FOUNTAIN. CONNECT EXISTING UTILITIES (CW, SANITARY AND VENT.)
2	CONNECT NEW DRYER TO EXISTING UTILITIES.
3	CONNECT NEW WASHER TO EXISTING UTILITIES.
4	NEW ICE MACHINE. CONNECT CW PER MANUFACTURERS SPECIFICATION.
5	PROVIDE AND INSTALL NEW SINK. CONNECT EXISTING UTILITIES (CW, HW, SANITARY AND VENT).
6	CONNECT NEW CW SERVICE TO EXISTING UTILITY AT LOCATION NOTED.
7	CONNECT NEW 2" VENT TO EXISTING VTR.
8	PROVIDE A 24"X24" ACCESS PANEL.
9	CONNECT NEW HW SERVICE TO EXISTING UTILITY AT LOCATION NOTED.



1 PLUMBING FLOOR PLAN - LEVEL 1 - FIELD HOUSE
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P2.03-M
PLUMBING FLOOR PLAN - FIELD HOUSE

MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
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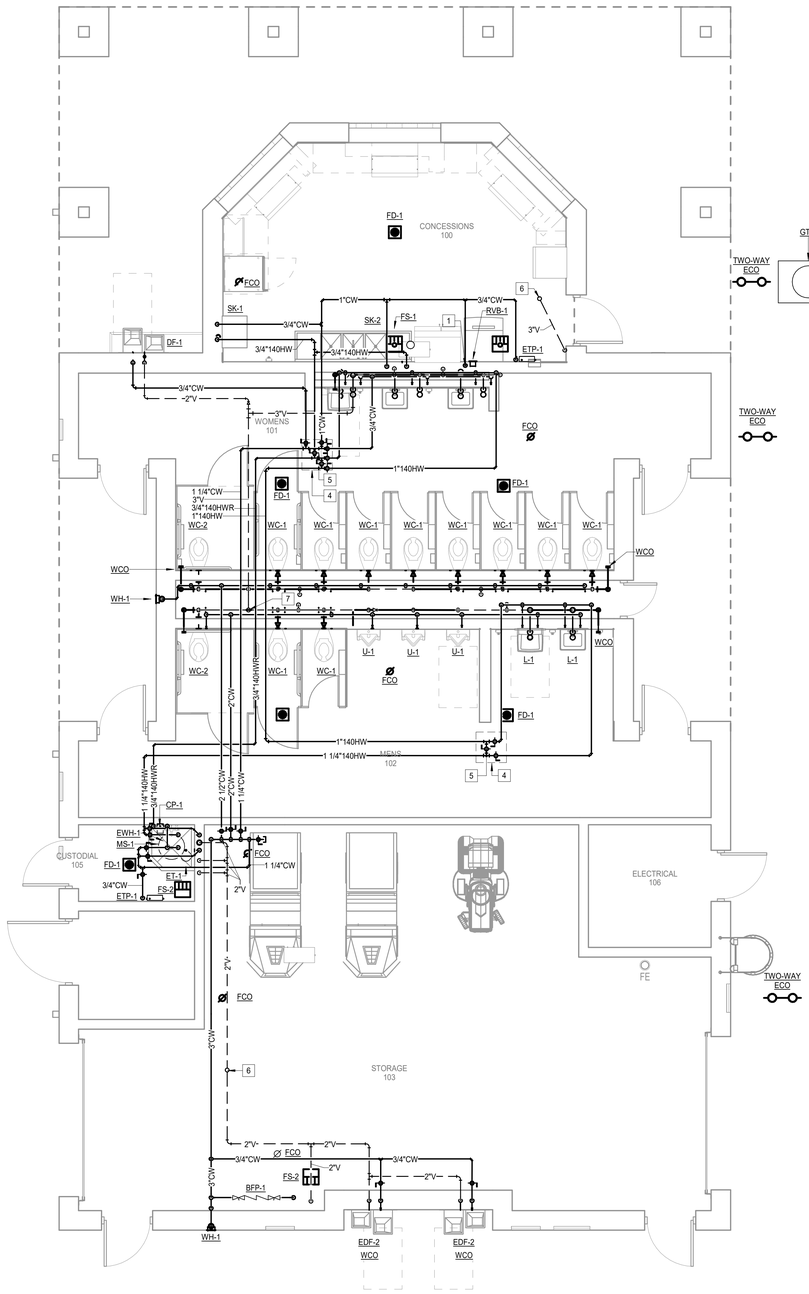
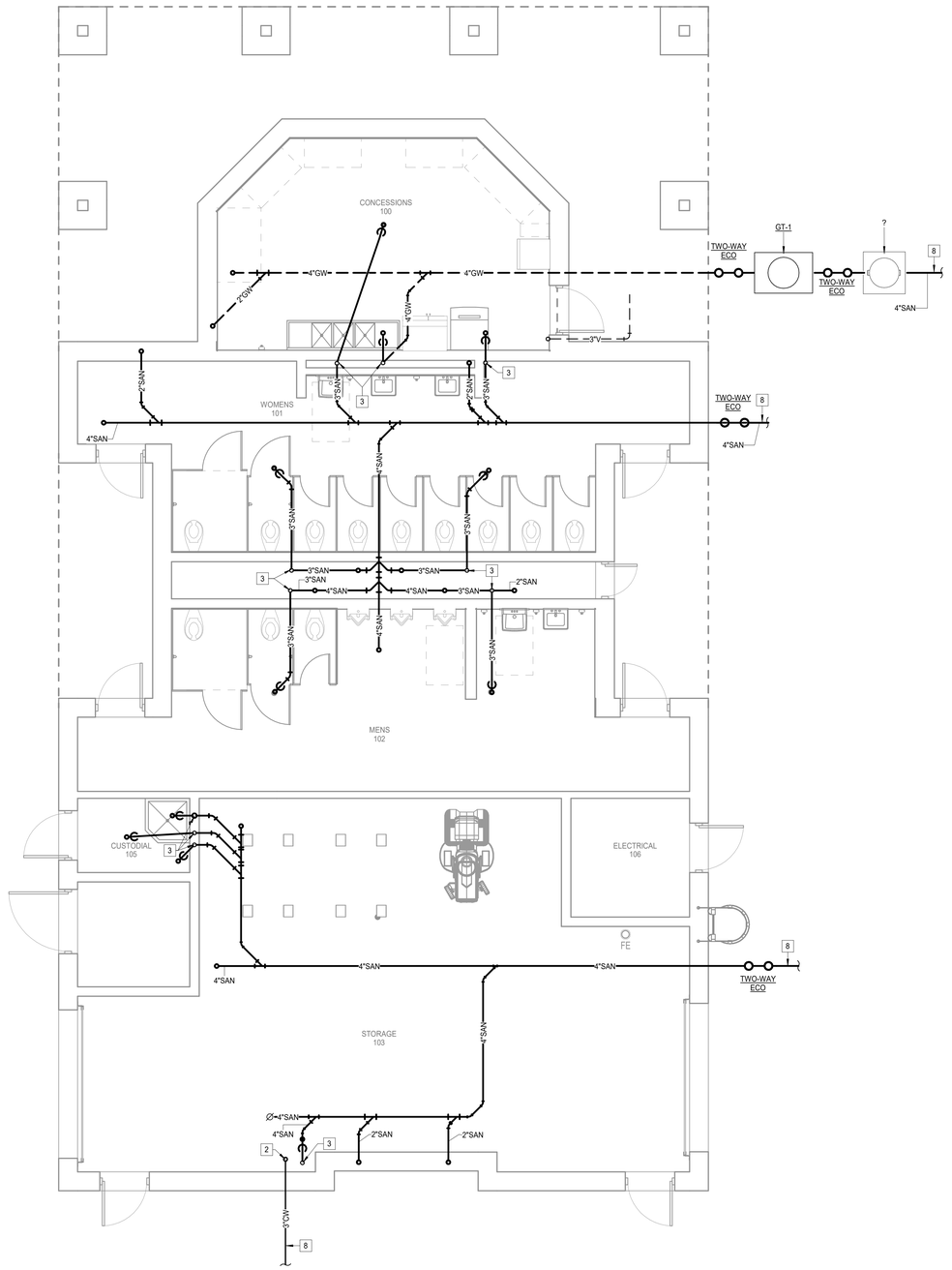
PLUMBING KEYED NOTES

1	NEW ICE MACHINE. CONNECT CW PER MANUFACTURERS SPECIFICATION.
2	1/2" CW FROM BELOW SLAB. 3" WATER ENTRY. REFER TO DETAIL 10/P5.01.
3	2" VENT UP.
4	PROVIDE A 24"X24" ACCESS PANEL.
5	BYPASS VALVE NORMALLY CLOSED.
6	3" VENT UP TO 4" VTR.
7	4" VENT UP TO 4" VTR.
8	REFER TO SHEET P1.00-M FOR CONTINUATION.



2 **PLUMBING FLOOR PLAN - LEVEL 1 CONCESSION**
Scale: 1/4" = 1'-0"



1 **PLUMBING UNDERFLOOR PLAN - CONCESSIONS**
Scale: 1/4" = 1'-0"

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12/04/2025

PROJECT NO.	25-006
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REVISIONS:	
Δ Date	Description

100% CD

P2.04-M
PLUMBING FLOOR PLAN - CONCESSION

MARSHALL HIGH SCHOOL

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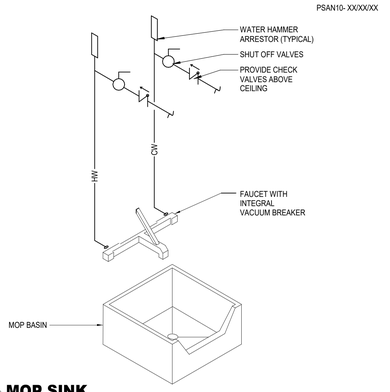
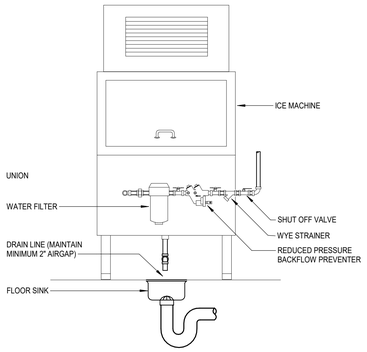
PSAN10- XX/XX/XX



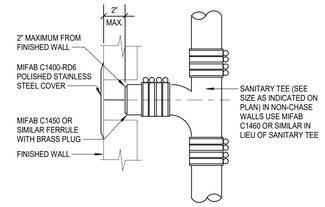
16 MOP SINK
SCALE: NONE

PSAN25- XX/XX/XX



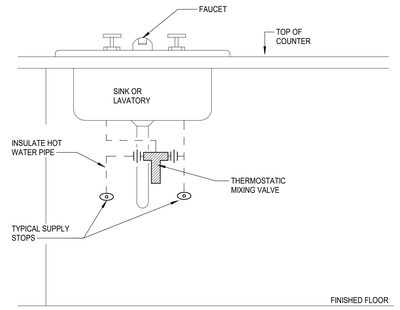
12 ICE MACHINE CONNECTION
SCALE: NONE

PSAN03- XX/XX/XX



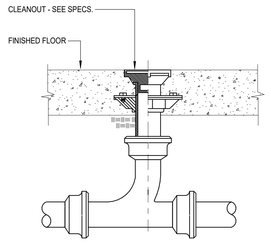
8 WALL CLEANOUT
SCALE: NONE

PHW04 - 08/10/20



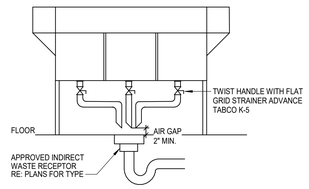
4 THERMOSTATIC MIXING VALVE AT SINK/LAVATORY DUAL TEMPERATURE
SCALE: NONE

PSAN01- XX/XX/XX



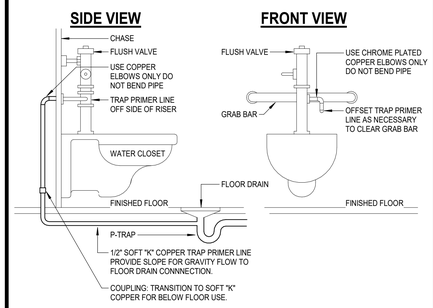
15 FLOOR CLEANOUT
SCALE: NONE

PSAN10- XX/XX/XX

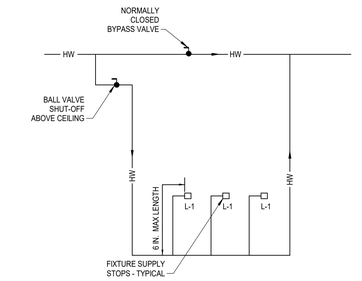


11 THREE COMPARTMENT SINK
SCALE: NONE

PTP03 - XX/XX/XX

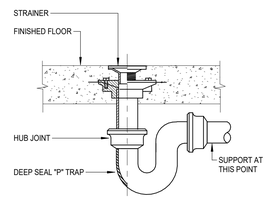


7 FLUSH VALVE TRAP PRIMER
SCALE: NONE



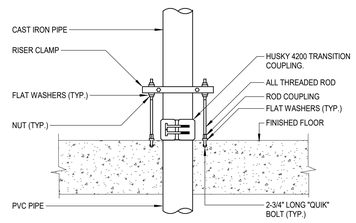
3 HW CIRCULATION FOR PUBLIC LAVATORIES
SCALE: NONE

PSAN07- XX/XX/XX



14 FLOOR DRAIN
SCALE: NONE

PSAN12- 05/16/24

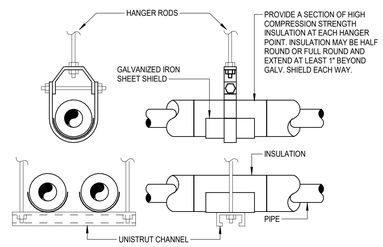


NOTE:
1. MAKE CONNECTION FROM PVC BELOW SLAB TO CAST IRON ABOVE SLAB WITH HUSKY 4200 TRANSITION COUPLING.
2. THERE IS TO BE NO EXPOSED PVC ABOVE SLAB.

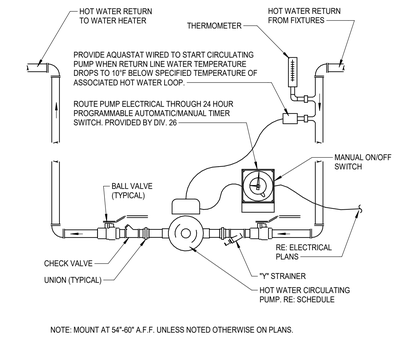
10 CAST IRON TO PVC TRANSITION
SCALE: NONE

PP01 - XX/XX/XX

MINIMUM DIMENSIONS OF GALVANIZED SHEETMETAL PROTECTION SHIELDS AT PIPE HANGERS		
NOMINAL SIZE PIPE	SHIELD LENGTH (IN.)	GAUGE THICKNESS
1/2" & 3/4"	12	18
1" - 2-1/2"	12	18
3" - 4"	16	18
6"	18	16



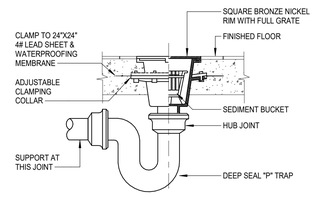
6 PIPE SHIELDS FOR INSULATED PIPING
SCALE: NONE



NOTE: MOUNT AT 54"-60" A.F.F. UNLESS NOTED OTHERWISE ON PLANS.

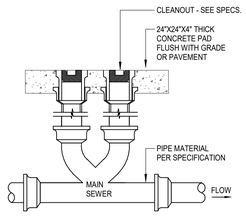
2 HOT WATER CIRCULATING PUMP
SCALE: NONE

PSAN08- XX/XX/XX



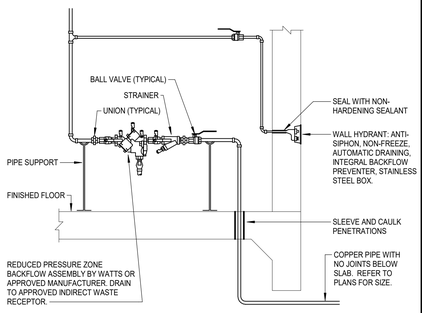
13 FLOOR SINK
SCALE: NONE

PSAN05- XX/XX/XX

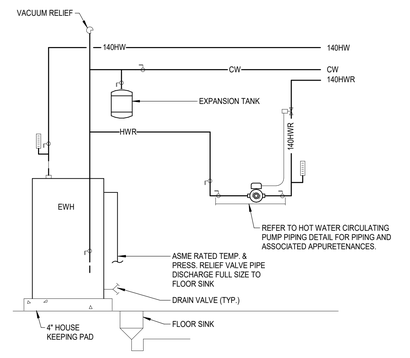


9 TWO-WAY EXTERIOR CLEANOUT
SCALE: NONE

PWE10 - 03/20/18



5 DOMESTIC WATER ENTRY WITH BACKFLOW PREVENTER
SCALE: NONE



1 ELECTRIC WATER HEATER PIPING
SCALE: NONE

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office: 713.222.1141 | fax: 713.222.1174
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P5.01-M
PLUMBING DETAILS

MARSHALL HIGH SCHOOL

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ELECTRIC WATER HEATER SCHEDULE

MARK	BASIS OF DESIGN MANUFACTURER	MODEL	STORAGE CAPACITY	KW	WH GALS. PER HR. RECOVERY RATE 80°F RISE	STORED WATER TEMP	ELECTRICAL CHAR. V	P
EWH-1	AO SMITH	DRE-52	50 GAL	15.0	77	140	208	3
*	IF THE MAXIMUM FUSE SIZE OF THE EQUIPMENT PROVIDED EXCEEDS THE SPECIFIED AMOUNT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL COSTS RELATED TO INCREASED FUSE SIZE / WIRE SIZE.							

CIRCULATION PUMP SCHEDULE

MARK	BASIS OF DESIGN MANUFACTURER	MODEL	DESCRIPTION	TYPE	GPM	HEAD FEET	ELECTRICAL CHAR. V	P
CP-1	GRUNDFOS	ALPHA HWR15-29	CIRCULATION PUMP	STAINLESS STEEL/FLANGE	3	3'	120	1

DOMESTIC HW EXPANSION TANK SCHEDULE

MARK	BASIS OF DESIGN MANUFACTURER	MODEL	DESCRIPTION	MAX WORK PRESSURE (PSI)	TANK VOLUME GALLONS	MAX. ACCEPT. GALLONS	DIAMETER (INCHES)
ET-1	WATTS	PLT-5	HOT WATER EXPANSION TANK	150	2.1	0	8"
1	PROVIDE ASME POTABLE WATER EXPANSION TANK ON THE COLD WATER SUPPLY LINE, DOWNSTREAM OF THE CHECK VALVE.						
2	PROVIDE HOUSEKEEPING PAD.						
3	PROVIDE UNION CONNECTION.						

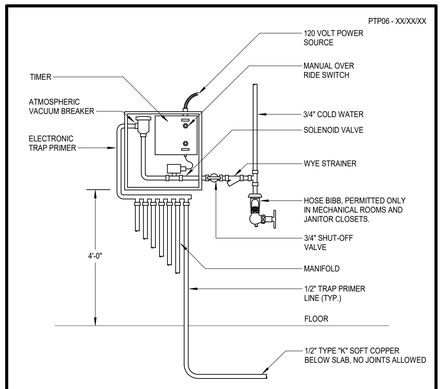
THERMOSTATIC MIXING VALVE SCHEDULE

MARK	BASIS OF DESIGN MANUFACTURER	MODEL	TEMP. IN (DEG. F)	TEMP. OUT (DEG. F)	MIN. FLOW GPM	DESIGN FLOW GPM	VALVE FINISH	THERMOMETER	UNION CONNECTION	PRESSURE DIFFERENTIAL
TMV-1	POWERS	LFMM433	140	110	0.5	23.3	CP	YES	YES	5.0
1	MAKE WATER CONNECTIONS TO THERMOSTATIC MIXING VALVE(S) IN ACCRODANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.									
2	PROVIDE PIPE INCREASERS AND/OR VALVES AS REQUIRED.									
3	PROVIDE UNION CONNECTIONS AND OUTLET THERMOMETER UNLESS INDICATED OTHERWISE.									
4	REFER TO DETAIL FOR MORE INFORMATION.									
5	PROVIDE MIXING VALVE CABINET WITH INTEGRATED PRE-PIPED RETURN LINE, BOTTOM INLET AND TOP OUTLET CONNECTIONS.									

SHOCK ARRESTOR SCHEDULE

P.D.I. SYMBOLS:	FIXTURE UNITS:	THREADED CONNECTION	CERTIFICATION
A	1 - 11	1/2"	ASSE 1010
B	12 - 32	3/4"	ASSE 1010
C	33 - 60	1"	ASSE 1010
D	61 - 113	1"	ASSE 1010
E	114 - 154	1"	ASSE 1010
F	155 - 330	1"	ASSE 1010

PTP06 - XX/XX/XX



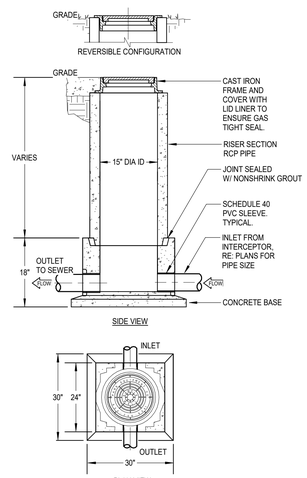
2 **ELECTRONIC TRAP PRIMER**
SCALE: NONE

PSAN30 - XX/XX/XX

NOTES AND SPECIFICATIONS:

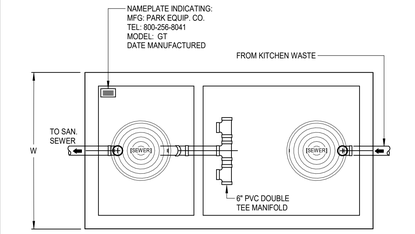
1. USE 15" T&G R.C.P. FOR INSTALLATION FOR INSTALLATION 6'-0" DEEP AND LESS.
2. USE 24" T&G R.C.P. FOR INSTALLATION GREATER THAN 6'-0" DEEP. (STANDARD RING AND M.H. COVER REQUIRED)
3. SAMPLING WELL MUST BE SET IN A CIRCULAR OR SQUARE CONCRETE PAD (1'-0" GREATER THAN OUTSIDE DIAMETER OF PIPE.)
4. LAWN INSTALLATION MUST BE 4" ABOVE FINISHED GRADE.
5. DRIVE & SIDEWALK INSTALLATION MUST BE BROUGHT TO FINISHED GRADE.
6. CONCRETE SHALL BE CLASS 1 WITH A DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT SHALL BE OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.
7. CAST IRON FRAMES AND GRATES SHALL BE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 30, HEAVY DUTY AASHTO H-20.

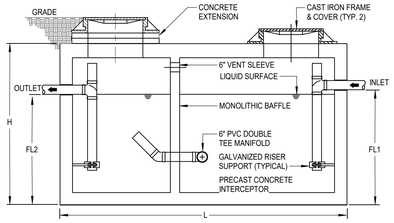
MANUFACTURER/ MODEL
PARK EQUIPMENT SWB-15



3 **SAMPLE WELL**
SCALE: NONE

PSAN20 - XX/XX/XX





GREASE INTERCEPTOR (GI-1) SCHEDULE								
MODEL NO. / MANUFACTURER	CAPACITY US/Gal	GREASE CAP. (LBS)	EMPTY WT (LBS)	LENGTH L	WIDTH W	HEIGHT H	INLET FL1	OUTLET FL2
PARK USA GT-750	750	1,700	9,500	7-10"	4'-4"	6'-0"	4'-5"	4'-2"

DESIGNER NOTE: EDIT ABOVE SCHEDULE PER GREASE TRAP SELECTED

1 **GREASE TRAP**
SCALE: NONE

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:

No.	Date	Description

100% CD

P5.02-M
PLUMBING DETAILS & SCHEDULES

MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 6:59:39 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/MARSHALL_MEPT_R25.rvt

PLUMBING PIPING LEGEND

SYMBOLS	DESCRIPTION
SAN	SANITARY OR WASTE PIPING ABOVE GRADE (SAN)
SAN	SANITARY OR WASTE PIPING BELOW GRADE (SAN)
GW	GREASE WASTE PIPING (GW)
GW	GREASE WASTE PIPING BELOW GRADE (GW)
SD	STORM DRAIN PIPING (SD)
SD	STORM DRAIN PIPING BELOW GRADE (GW)
SSD	SUB-SOIL DRAIN OR FOOTING DRAIN (SSD)
AW	ACID WASTE PIPING (AW)
AW	ACID WASTE PIPING BELOW GRADE (AW)
PD	PUMPED DISCHARGE (PD)
CD	CONDENSATE DRAIN PIPING (CD)
D	CONDENSATE - INDIRECT DRAIN PIPING (D)
	VENT PIPING (V)
CW	COLD WATER PIPING (CW)
HW	HOT WATER PIPING (HW)
HWR	HOT WATER RETURN PIPING (HWR)
SCW	SOFT COLD WATER PIPING (SCW)
CDW	CHILLED DRINKING WATER PIPING (CDW)
TP	TRAP PRIMER LINE (TP)
F	FIRE PROTECTION PIPING (F)
AS	AUTOMATIC SPRINKLER PIPING (AS)
GAS	NATURAL GAS PIPING (G)
GV	GAS VENT PIPING (GV)
AIR	COMPRESSED AIR PIPING (A)
	FLOW DIRECTIONAL ARROW
	SHUT-OFF VALVE
BV	BALANCING VALVE (BV)
SV	SOLENOID VALVE (SV)
	BALL VALVE (BV)
	BUTTERFLY VALVE
	LUBRICATED PACKED PLUG STOP STOP COCK (PC)
	HORIZONTAL SWING CHECK
	UNION
	HORIZONTAL SWING CHECK
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
RPBFP	REDUCED PRESSURE BACKFLOW PREVENTER (RPBFP)
	PIPING DOWN
	RISE OR DROP PIPING
	PIPING UP -OR- PIPING UP & DOWN
	CAP ON END OF PIPE
CO	CLEANOUT (WALL OR CEILING) (CO)
FCO	FLOOR CLEANOUT (FCO)
ECO	EXTERIOR CLEANOUT WITH 18"x18"x4" CONCRETE PAD (ECO)
	TWO-WAY CLEANOUT (PROVIDE 18"x24"x4" CONCRETE PAD OUTSIDE)
	FIRE DEPARTMENT VALVE AT RISER
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
PRV	PRESSURE REDUCING VALVE (PRV)
	BRANCH CONNECTION OUT OF TOP
	BRANCH CONNECTION OUT OF BOTTOM
	BRANCH CONNECTION OUT OF SIDE
	WYE & 1/8TH BEND BRANCH CONNECTION
	WYE BRANCH CONNECTION
	HOSE BIBB
	PRESSURE GAUGE WITH COCK
	THERMOMETER
	GAS PRESSURE REGULATOR
	TEST COCK
	GAS METER
	WALL HYDRANT
	VALVE IN RISE
	ASME TEMPERATURE & PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE
	ANGLE VALVE
	OS&Y VALVE
	ROOF DRAIN
1	REFER TO KEYED NOTE
FS	FLOW SWITCH
	FLOOR SINK (FS)
	FLOOR DRAIN (FD)
	FLOOR DRAIN WITH P-TRAP (FD)
	FLOOR DRAIN WITH P-TRAP AT 45° ANGLE (FD)
	HUB DRAIN (HD)
	ACCESS PANEL FOR TRAP PRIMER OR SHOCK ABSORBER
AP1	ACCESS PANEL LOCATION SYMBOL
A	SHOCK ABSORBER
	AIR CHAMBER
(E)	EXISTING
(N)	NEW
VTR	VENT THRU ROOF
B.F.F.	BELOW FINISHED FLOOR
A.F.F.	ABOVE FINISHED FLOOR
	NEW CONNECTION
IE=100.00"	INVERT ELEVATION
1	DELTA CHANGE SYMBOL
P 1	4" VTR RISER FLAG

PLUMBING FIXTURE SCHEDULE

TYPE: WC-1 (STANDARD HEIGHT)
DESCRIPTION: WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA WITH ANTIMICROBIAL SURFACE, 1.28 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD AFWALL #3351.101
SEAT: ELONGATED OPEN FRONT SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. REFER TO ARCHITECTURAL DRAWINGS FOR SEAT COLOR. BEMIS #1955SSCT.
FLUSH VALVE: 1.28 GALLON FLUSH CYCLE. EXPOSED, DIAPHRAGM TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. SLOAN ROYAL 111-1.28.
CARRIER: WADE 311 (HORIZONTAL) AND 330 (VERTICAL) SERIES WITH 300 LB WEIGHT CAPACITY AND FLUSH VALVE SUPPORT (-AM1).
ROUGH-IN: 4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT REQUIREMENTS.

TYPE: WC-2 (T.A.S. / ADA COMPLIANT)
DESCRIPTION: WATER CLOSET, WALL HUNG, WHITE VITREOUS CHINA WITH ANTIMICROBIAL SURFACE, 1.28 GALLON PER FLUSH SIPHON JET ACTION, ELONGATED CLOSET BOWL WITH 1- 1/2" TOP SPUD AND BOLT COVERS. AMERICAN STANDARD AFWALL #3351.101
SEAT: ELONGATED OPEN FRONT SEAT WITH SELF SUSTAINING CONCEALED CHECK HINGES. REFER TO ARCHITECTURAL DRAWINGS FOR SEAT COLOR. BEMIS #1955SSCT.
FLUSH VALVE: 1.28 GALLON FLUSH CYCLE. EXPOSED, DIAPHRAGM TYPE, CHROME PLATED CLOSET FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 1-1/2" TOP SPUD. PROVIDE OFFSET TAILPIECE AND TRAP PRIMER CONNECTION. SLOAN ROYAL 111-1.28.
CARRIER: WADE 311 (HORIZONTAL) AND 330 (VERTICAL) SERIES WITH 300 LB WEIGHT CAPACITY AND FLUSH VALVE SUPPORT (-AM1).
ROUGH-IN: 4" WASTE, 2" VENT, 1" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT REQUIREMENTS.

TYPE: U-1 (T.A.S. COMPLIANT)
DESCRIPTION: URINAL, WALL HUNG, WHITE VITREOUS CHINA, 0.5 GALLON PER FLUSH, WASHOUT FLUSH ACTION, INTEGRAL TRAP, REMOVABLE DOMED STRAINER, AMERICAN STANDARD "WASHBROOK" 6590.001
FLUSH VALVE: 0.5 GALLON FLUSH CYCLE. EXPOSED, MANUAL TYPE, CHROME PLATED URINAL FLUSHOMETER. VACUUM BREAKER, SPUD COUPLING FOR 3/4" TOP SPUD. SLOAN ROYAL 186-0.5
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 4" SQUARE BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, UPPER AND LOWER BEARING PLATES WITH THREADED STUDS. WADE 401-AM1-M36.
ROUGH-IN: 2" WASTE, 2" VENT, 3/4" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: L-1 (T.A.S. COMPLIANT) PUBLIC/STUDENT
DESCRIPTION: LAVATORY, WALL HUNG, WHITE VITRECUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, 4" CENTERSET FAUCET HOLES. AMERICAN STANDARD LUCERNE #0355.012.
FAUCET: CHROME PLATED, VANDAL RESISTANT 0.5 GPM NON-AERATING LAMINAR FLOW OUTLET 4" SPOUT, VANDAL PROOF SINGLE PUSH BUTTON METERING, 4" CENTERS. CHICAGO #857-E2805-665PSHAB.
MIXING VALVE: POINT OF USE 1070 CERTIFIED, BRASS BODY, ADJUSTABLE TEMPERATURE CONTROL, WAX FILLED THERMOSAT AND MOUNTING BRACKET, (110 F). BRADLEY S59-4007
STRAINER: 1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP: 1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE #8872C.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE #LFH2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE 520-08.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD AND HOT WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SK-1 (T.A.S. COMPLIANT) - KITCHEN HAND WASH
DESCRIPTION: HAND SINK, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, 4" CENTERSET FAUCET HOLES. AMERICAN STANDARD LUCERNE #0355.012.
FAUCET: SINK FAUCET FOR HOT AND COLD WATER, DECK-MOUNTED WITH 4" FIXED CENTERS, CHROME PLATED. INCLUDES POPUP WASTE, RIGID/SWING GOOSENECK SPOUT, 3-1/2" CENTER-TO-CENTER, 4" METAL, VANDAL-PROOF, WRISTBLADE HANDLES WITH SIXTEEN-POINT, TAPERED BROACH AND SECURED BLUE AND RED INDEX BUTTONS. NPSM SUPPLY INLETS AND COUPLING NUT FOR 3/8" OR 1/2" FLEXIBLE RISER. COMPRESSION OPERATING CARTRIDGE(S) FOR FLOW CONTROL.
1/2" QUATURN STRAINER: 1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP: 1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE 8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 4" SQUARE BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE 520-08.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SK-2 - CONCESSIONS THREE COMPARTMENT SINK
DESCRIPTION: SINK, STAND-ALONE, STAINLESS-STEEL 88" X 25-13/16" X 43-3/4", 18 GAUGE THREE COMPARTMENT SINK W/ 18" LEFT AND RIGHT DRAINBOARDS AND 4 STAINLESS-STEEL LEGS. CENTER SET DRAIN, WITH 9" BACK-SPLASH AND 8" ON-CENTER FAUCET HOLES. ELKAY MODEL ESC16X2D-2-18X.
FAUCET: CHROME PLATED BRASS CENTERSET WALL MOUNTED FAUCET FITTING. 12" ARC TUBE SPOUT, 6" WRIST BLADE HANDLES AND QUARTER TURN CERAMIC VALVE CARTRIDGES. ELKAY MODEL LK940AT12TBH.
STRAINER: (1) ROTARY LEVER OPERATED DRAIN FITTINGS, EACH WITH STAINLESS STEEL PERFORATED GRID STRAINER AND 3-1/2" IPS DRAIN OUTLET. (3) ADVANCE TABCO K-15.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
ROUGH-IN: 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS. REFER TO PLUMBING PLANS FOR LOCATION AND TYPE OF INDIRECT DRAINAGE RECEPTOR, SPECIFIED SEPARATELY.

TYPE: MS-1
DESCRIPTION: MOP SINK BASIN, 36" X 36" X 12" HIGH CORNER TYPE, PRECAST TERRAZZO WITH 6" DROPPED FRONT, STAINLESS STEEL THRESHOLD CAP, AND DOUBLE STAINLESS STEEL WALL GUARDS. STERN-WILLIAMS "CORLOW" SBC-1750.
FAUCET: CHROME PLATED BRASS WALL MOUNTED FITTING WITH CHECK IN STOPS, ADJUSTABLE SUPPLY ARMS, VACUUM BREAKER SPOUT WITH PAIL HOOK AND WALL BRACE, 2-1/2" INDEXED LEVER HANDLES ON 8" CENTERS. QUARTER TURN CARTRIDGES, 3/4" MALE HOSE THREAD OUTLET. CHICAGO 445-897-XKCP.
ROUGH-IN: 3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER.

TYPE: EDF-1 (ADA COMPLIANT)
DESCRIPTION: BOTTLE FILLING STATION & BI-LEVEL HIGH EFFICIENCY VANDAL RESISTANT COOLER FILTERED REFRIGERATED STAINLESS. CHILLING CAPACITY OF 8.0 GPH OF 50°F DRINKING WATER, BASED ON 80°F INLET WATER AND 90°F AMBIENT. INCLUDE ANTIMICROBIAL, FILTERED, GREEN TICKER, HANDS FREE, HIGH EFFICIENCY, LAMINAR FLOW, REAL DRAIN, VANDAL RESISTANT, VISUAL FILTER MONITOR. ELECTRONIC BOTTLE FILLER SENSOR WITH MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. ELKAY MODEL #LVRCGRNTLBWSK.
P-TRAP: 1-1/4" CHROME PLATED CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON. MCGUIRE 8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE SLAB WITH (4) 1/2" BOLTS. ADJUSTABLE SLEEVE FOR CONNECTION TO HANGER PLATE PROVIDED BY FIXTURE MANUFACTURER. WADE 400.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: DF-1 (ADA COMPLIANT)
DESCRIPTION: WALL HUNG, VANDAL-RESISTANT BOTTLE FILLING STATION & BI-LEVEL DRINKING FOUNTAIN, FILTERED, NON-REFRIGERATED STAINLESS STEEL. LAMINAR FLOW, MECHANICALLY ACTIVATED, VANDAL RESISTANT BUBBLER. MECHANICAL BOTTLE FILLER BUTTON WITH MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. ELKAY MODEL #LVRCTLDDMWSK.
P-TRAP: 1-1/4" CHROME PLATED CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON. MCGUIRE 8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 3" X 4-1/2" BASE ANCHORED TO CONCRETE SLAB WITH (4) 1/2" BOLTS. ADJUSTABLE SLEEVE FOR CONNECTION TO HANGER PLATE PROVIDED BY FIXTURE MANUFACTURER. WADE 400.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SH-1 - INDIVIDUAL SHOWER STATION
DESCRIPTION: SHOWER, JOB BUILT BASE INSTALLED PER ARCHITECTURAL DRAWINGS.
CONTROLS: PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH INTEGRAL CHECKSTOPS. STAINLESS STEEL, ALUMINUM OR CHROME PLATED BRASS ESCUTCHEON. VANDAL RESISTANT 2.5 GPM SHOWER HEAD. ACORN 532-GX-P.
DRAIN: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. SEE FD-1 FOR ADDITIONAL INFORMATION.
TRAP SEAL: PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN: 3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: SH-2 (T.A.S. COMPLIANT) - INDIVIDUAL SHOWER STATION
DESCRIPTION: SHOWER, JOB BUILT BASE INSTALLED PER ARCHITECTURAL DRAWINGS.
CONTROLS: PRESSURE BALANCING HOT AND COLD WATER SHOWER CONTROL VALVE WITH LEVER HANDLE AND INTEGRAL CHECKSTOPS. STAINLESS STEEL, ALUMINUM OR CHROME PLATED BRASS ESCUTCHEON. 2.5 GPM HAND HELD SHOWER WITH 60" FLEXIBLE STAINLESS STEEL CLAD HOSE, VACUUM BREAKER, MOUNTING BRACKET, AND 24" SLIDE BAR. ACORN 532-GX-FX-SB-LVR.
DRAIN: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. SEE FD-1 FOR ADDITIONAL INFORMATION.
TRAP SEAL: PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN: 3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: IMC-1
DESCRIPTION: ICE MACHINE CONNECTION, WATER SUPPLY VALVED AT WALL. PROVIDE DOUBLE CHECK VALVE TYPE BACKFLOW PREVENTER AND WATER FILTER. WATTS 1/2" 007-S BACKFLOW PREVENTER AND AQUA-PURE #ICE 140-S FILTER. ROUTE BACKFLOW PREVENTER DISCHARGE TO FLOOR SINK SERVING ICE MACHINE.
ROUGH-IN: 3/4" COLD WATER. COORDINATE ROUGH-IN LOCATION/HEIGHT, FINAL CONNECTION WITH EQUIPMENT BEING INSTALLED AND WITH ARCHITECTURAL/CASEWORK DRAWINGS.

TYPE: WH-1
DESCRIPTION: WALL HYDRANT IS S.S. BOX, 3/4" NON FREEZE, HALF TURN CERAMIC DISC CARTRIDGE, STAINLESS STEEL FINISH WITH ANTI SIPHON VACUUM BREAKER AND LOOSE TEE KEY. INSTALL WITH BOTTOM OF HYDRANT 18" A.F.F. WADE #8701-MT-175.
ROUGH-IN: 3/4" COLD WATER

TYPE: FD-1
SERVICE: GENERAL USE
DESCRIPTION: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 5" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. WADE 1100-MR5.
TRAP PRIMER: SERVED BY ELECTRONIC PPP PRIME-TIME TRAP PRIMER. REFER TO DETAILS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION AND INSTALLATION WITH ARCHITECTURAL DRAWINGS / FLOOR CONSTRUCTION.

TYPE: FD-2
SERVICE: MECHANICAL ROOM CONDENSATE, T&P VALVE DISCHARGE
DESCRIPTION: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 7" DIAMETER STAINLESS STEEL STRAINER WITH EXTENDED RIM AND VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. WADE 1100-ER7.
TRAP PRIMER: SERVED BY ELECTRONIC PPP PRIME-TIME TRAP PRIMER. REFER TO DETAILS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION WITH EQUIPMENT PLACEMENT.

TYPE: FD-3
SERVICE: KITCHEN AREA DRAIN
DESCRIPTION: FLOOR DRAIN, CAST IRON BODY, 8" DIAMETER STAINLESS STEEL STRAINER, 6" DEEP SUMP, A.R.C. INTERIOR, A.R.C. SEDIMENT BUCKET, CLAMPING COLLAR, ALUMINUM DOME STRAINER. WADE #9010-6-26-27-85-110.
TRAP PRIMER: SERVED BY ELECTRONIC PPP PRIME-TIME TRAP PRIMER. REFER TO DETAILS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION WITH EQUIPMENT PLACEMENT.

TYPE: FS-1
SERVICE: ICE MACHINE DRAIN / BACKFLOW PREVENTER DISCHARGE
DESCRIPTION: CAST IRON 8" SQUARE FLOOR SINK WITH 6" DEEP SUMP, A.R.E. INTERIOR, ALUMINUM DOME BOTTOM STRAINER, 1/2 STAINLESS STEEL HALF TOP GRATE, CLAMPING DEVICE. WADE 9110-6-15-26-27-85.
TRAP PRIMER: SERVED BY ELECTRONIC TRAP PRIMER. REFER TO PLANS.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION WITH ARCHITECTURAL DRAWINGS / EQUIPMENT PLACEMENT.

TYPE: BFP-1 (2" AND SMALLER)
DESCRIPTION: BACKFLOW PREVENTER, REDUCED PRESSURE ZONE TYPE WITH TWO INLINE INDEPENDENT CHECK VALVES WITH AN INTERMEDIATE RELIEF VALVE. COMPLETE WITH TWO FULL PORTED BALL VALVE SHUT-OFFS AND BALL TYPE TEST COCKS. BRONZE STRAINER ON INLET. REFER TO FLOOR PLANS FOR SIZES. MOUNT AT 48" A.F.F. UNLESS NOTED OTHERWISE ON DRAWINGS. PROVIDE AIR GAP WITH DRAIN PIPE TO NEAREST FLOOR DRAIN. WATTS 909-QT-S.

TYPE: BFP-2 (2 1/2" AND LARGER)
DESCRIPTION: BACKFLOW PREVENTER, REDUCED PRESSURE ZONE TYPE WITH TWO INLINE INDEPENDENT CHECK VALVES WITH AN INTERMEDIATE RELIEF VALVE. COMPLETE WITH TWO FULL PORTED BALL VALVE SHUT-OFFS AND BALL TYPE TEST COCKS. BRONZE STRAINER ON INLET. PROVIDE AIR GAP WITH DRAIN PIPE TO NEAREST FLOOR DRAIN. WATTS 909 SERIES.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. MOUNT AT 48" A.F.F. UNLESS NOTED OTHERWISE ON DRAWINGS.

TYPE: FCO
DESCRIPTION: FLOOR CLEANOUT. CAST IRON BODY AND ADJUSTABLE TOP ASSEMBLY WITH GASKET SEAL, AND ROUND SCORIATED STAINLESS STEEL COVER. WADE 6000-153. FOR CARPETED FLOORS PROVIDE WADE 6000-CM.

TYPE: ECO
DESCRIPTION: EXTERIOR CLEANOUT TO GRADE. CAST IRON BODY WITH ADJUSTABLE TOP ASSEMBLY WITH GASKET SEAL, AND ROUND SCORIATED VANDAL RESISTANT DUCTILE IRON TRACTOR TYPE COVER. IF LOCATED IN ASPHALT OR DIRT PROVIDE 18"X18"X12" CONCRETE PAD. WADE 6000-Z.

TYPE: WCO
DESCRIPTION: WALL CLEANOUT. CAST IRON CLEANOUT FERRULE WITH DUCTILE IRON COMBINED COVER/PLUG AND ROUND STAINLESS COVER PLATE WITH CENTER SECURING SCREW. WADE 8550 WITH 8480-R6. PROVIDE WADE 8560 CAST IRON CLEANOUT TEE IN LIEU OF FERRULE AS REQUIRED FOR WALL CONSTRUCTION.

GENERAL NOTES

ALL LAVATORIES AND SINKS SHALL BE SUPPLIED WITH HOT AND COLD WATER (UNLESS NOTED TO BE COLD WATER ONLY) TO FAUCETS AS INDICATED ON PLANS AND FIXTURE SCHEDULE. PROVIDE CHROME PLATED BRASS SUPPLY STOPS WITH LOOSE KEYS AND WALL ESCUTCHEONS. PROVIDE CHROME PLATED FLEXIBLE RISERS OF SIZE REQUIRED TO PROPERLY CONNECT FIXTURES. PROVIDE 17 GAUGE CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON (UNLESS NOTED TO BE AN ACID WASTE FIXTURE). REFER TO FIXTURE SCHEDULE FOR MINIMUM SIZES OF PLUMBING FIXTURE ROUGH-INS.

INSULATION KITS AT ALL LAVATORIES AND SINKS REQUIRED TO BE T.A.S. ACCESSIBLE (MCGUIRE OR TRUEBRO). ALL SUCH FIXTURES AND FINAL INSTALLATIONS SHALL COMPLY WITH THE STATE ACCESSIBILITY STANDARDS REQUIREMENTS.

INSERT TRAP GUARDS AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS-TIGHT SEAL. FOR DRAIN RODDING AFTER INSTALLATION. INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

DISREGARD FIXTURES LISTED THAT ARE NOT ON THIS JOB.

GENERAL NOTES

1. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE AND INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.
2. THIS CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THIS CONTRACTOR SHALL NOTIFY THE ARCHITECT/ ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.

PLUMBING GENERAL NOTES

1. WITHIN THE EXISTING BUILDING, EXISTING WATER, WASTE AND VENT SERVICES ARE TO BE MODIFIED AS REQUIRED AND REUSED FOR THE INSTALLATION OF NEW AND/OR RELOCATED PLUMBING FIXTURES. REFER TO PLUMBING FLOOR PLANS FOR POINTS OF CONNECTION.
2. WITHIN THE EXISTING BUILDING, SAWCUT AND REMOVE EXISTING FLOOR SLAB AS REQUIRED TO PROVIDE NEW AND/OR RELOCATED PLUMBING FIXTURES, CLEANOUTS, AND UNDERSLAB WASTE AND VENT PIPING. PATCH AND REFINISH FLOOR TO MATCH EXISTING.
3. IN AREAS WHERE THE FLOOR SLAB IS REMOVED, CONTRACTOR SHALL ALSO REMOVE UNDERSLAB WASTE AND VENT PIPING WHICH SERVES FIXTURES DESIGNATED FOR REMOVAL PRIOR TO ANY REMOVAL, FIELD VERIFY THAT LINES TO BE REMOVED DO NOT SERVE ANY EXISTING FIXTURES TO REMAIN OR NEW FIXTURES TO BE INSTALLED.
4. IN AREAS WHERE THE FLOOR SLAB IS NOT REMOVED, CONTRACTOR SHALL ABANDON IN PLACE ANY UNDERSLAB WASTE AND VENT PIPING NO LONGER NEEDED, UNLESS THE PIPING MUST BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION. IF NEW WORK DOES NOT NECESSITATE THEIR REMOVAL, CUT AND PLUG SUCH LINES BELOW SLAB, AND PATCH FLOOR TO MATCH EXISTING.
5. FIELD VERIFY EXACT LOCATION, SIZE, DEPTH, DIRECTION OF FLOW, CAPACITY, PIPE MATERIAL AND CONDITION OF EXISTING WASTE PIPING PRIOR TO BEGINNING CONSTRUCTION. ENSURE THAT PROPER CONNECTIONS TO AND EXTENSION OF SUCH UTILITIES CAN BE MADE.
6. WASTE LINES TO BE RE-USED OR RECONNECTED TO SHALL BE THOROUGHLY RODDED OUT AND FLUSHED TO ENSURE THEY ARE FREE FROM BLOCKAGES.
7. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING BELOW SLAB WITH COLUMN FOOTINGS, GRADE BEAMS, UNDERGROUND PLUMBING AND ELECTRICAL UTILITIES, AND OTHER SUB-SURFACE BUILDING ELEMENTS.
8. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.
9. CONTRACTOR TO COORDINATE ALL REMODEL WORK WITH THE WORK OF OTHER TRADES TO AVOID CONFLICTS AND TO MINIMIZE INTERRUPTION OF SERVICES.
10. COORDINATE ALL FIXTURE AND EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS WITH LATEST ARCHITECTURAL DRAWINGS AND SPECIFICATIONS PRIOR TO ANY ROUGH-INS.
11. DO NOT ROUGH-IN FROM THESE DRAWINGS. REFER TO LATEST ARCHITECTURAL DRAWINGS FOR DIMENSIONED LOCATIONS.
12. CONTRACTOR TO FIELD VERIFY AS NECESSARY THE EXACT ROUTING AND SIZES OF ALL PIPING.
13. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE, INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.
14. THE PROPER INSTALLATION OF NEW FIXTURES AND THE PROPER CONTINUED OPERATION OF EXISTING FIXTURES TO REMAIN SHALL DETERMINE THE EXTENT AND NATURE OF PLUMBING REMODEL WORK.
15. EACH VENT SHALL TERMINATE VERTICALLY NOT LESS THAN 6" ABOVE ROOF, MAINTAIN MINIMUM 10'-0" DISTANCE BETWEEN VENT TERMINALS THROUGH ROOF AND ALL FRESH AIR INTAKES, AND A MINIMUM 5'-0" FROM ANY EXTERIOR WALL.
16. PRIOR TO BEGINNING CONSTRUCTION, COORDINATE BUILDING BACKFLOW PREVENTION REQUIREMENTS WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PROVIDE AS DIRECTED.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

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INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CHECKED BY:
REVISIONS:

	Date	Description
1		

100% CD

P5.03-M
PLUMBING SCHEDULES

MARSHALL HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX. 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 6:59:41 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath//MARSHALL_MEPT_R25.rvt

TECHNOLOGY SYMBOLS & LEGEND

VOICE SYMBOLS

	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS PER LOCATION.
W	SINGLE VOICE OUTLET FOR WALL-MOUNTED PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +52-INCHES A.F.F. UNLESS OTHERWISE NOTED.

DATA SYMBOLS

	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF DATA OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
W	SINGLE DATA OUTLET FOR WALL-MOUNTED IP PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +42-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X COW	DATA CABLE FOR COMPUTER ON WHEELS, CABLE TYPE AS SPECIFIED MOUNTED + 18-INCHES A.F.F UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
X WAPW	DATA CABLE FOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPC	DATA CABLE FOR CEILING MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMW	DATA CABLE FOR INTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMC	DATA CABLE FOR CEILING MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

X CAME	DATA CABLE FOR EXTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLLATION.
X PRJW	DATA CABLE FOR WALL MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
PRJC	DATA CABLE FOR CEILING MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X AVCE	DATA CABLE FOR CEILING MOUNTED AUDIO/VISUAL EQUIPMENT ENCLOSURE, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A BLUE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
R	POWER POLE WITH ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
WAP	WIRELESS ACCESS POINT. EQUIPMENT AS SPECIFIED.

GENERAL SYMBOLS

# SHEET DRAWING TITLE SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
SHEET #	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES TELECOMMUNICATIONS REGION

VOICE/DATA SYMBOLS

	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF VOICE TERMINATIONS , Y = NUMBER OF DATA TERMINATIONS PER LOCATION.
	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF VOICE OUTLETS AND Y = NUMBER OF DATA OUTLETS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET AND SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X Y	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X Y	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS PER LOCATION.

FIBER OPTIC SYMBOLS

	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF FIBER OPTIC OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
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X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.

CABLE PLANT & RISER DIAGRAM

	MAINTENANCE HOLE, SIZE & TYPE AS SPECIFIED.
	PULLBOX, SIZE AND TYPE AS SPECIFIED.
UGC	DIRECT BURIED COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
AER	AERIAL COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
	CONDUIT, SIZE AND TYPE AS SPECIFIED.

COMMUNICATION AND SECURITY CABLING JACKET COLOR CODE

TYPICAL WORK AREA OUTET	BLUE - REFERENCE SPEC SECTION 27 10 00
WIRELESS ACCESS POINT	GREEN - REFERENCE SPEC SECTION 27 10 00
SECURITY(INTRUSION, ACCESS CONTROL, VIDEO SURVEILLANCE)	ORANGE - REFERENCE SPEC SECTION 28 13 00, 28 16 00, AND 27 10 00
BUILDING WIDE PUBLIC ADDRESS / INTERCOM	WHITE - REFERENCE SPEC SECTION 27 51 00
AUDIOVISUAL	BLACK - REFERENCE SPEC SECTION 27 41 16
LIGHTING CONTROL	LIME GREEN - REFERENCE MEP SPECIFICATIONS
BAS	YELLOW - REFERENCE MEP SPECIFICATIONS
FIRE ALARM	RED - REFERENCE MEP SPECIFICATIONS

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
DEMARC	DEMARCATION POINT
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
GIP	GALVANIZED IRON PIPE
HE	PA/INTERCOM HEAD-END
IMC	INTERMEDIATE METAL CONDUIT
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MH	MAINTENANCE HOLE
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PVC	POLYVINYL CHLORIDE
RSC	RIGID STEEL CONDUIT
SM	SINGLE MODE
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
TR	TELECOMMUNICATION REGION
UGC	UNDERGROUND COMMUNICATION
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR

NOTES

1. THE CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF TECHNOLOGY DRAWINGS IS PROVIDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. TECHNOLOGY DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.

INDEX OF DRAWINGS

T000-M TECHNOLOGY SYMBOLS & LEGEND
TD100-M TECHNOLOGY DEMOLITION SITE PLAN
TD101-M TECHNOLOGY DEMOLITION FLOOR PLAN GYM LOCKER
T100-M TECHNOLOGY SITE PLAN
T101-M TECHNOLOGY COMPOSITE FLOOR PLAN
T201-M TECHNOLOGY LEVEL 01 FLOOR PLAN CONCESSION
T202-M TECHNOLOGY LEVEL 01 FLOOR PLAN GYM LOCKER
T300-M TECHNOLOGY ENLARGED VIEWS
T400-M TECHNOLOGY TYPICAL DETAILS
T401-M TECHNOLOGY TYPICAL DETAILS
T402-M TECHNOLOGY TYPICAL DETAILS
T500-M TECHNOLOGY TYPICAL LABELING SCHEME

pfluger
office. 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL AGNANE 30113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
No. Date Description

100% CD

T000-M
TECHNOLOGY
SYMBOLS & LEGEND

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pflugerarchitects.com
2 Greenway Plaza, Suite 460
Houston, Texas 77046
office: 713.222.1141 | fax: 713.222.1174

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

16431 Lexington Blvd.
Sugarland, TX 77479

12/5/2025

PROJECT NO. 25-006
DATE 12/5/2025
DRAWN BY: BP CHECKED BY: CCG

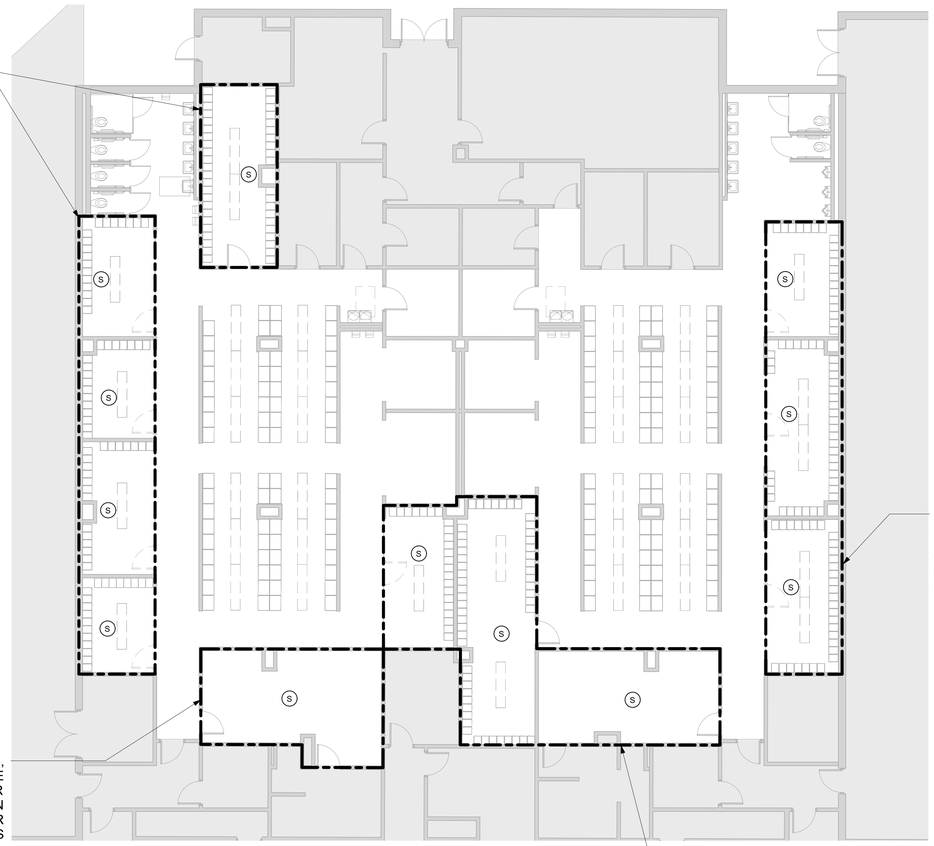
Description	Date

100% CD

TD100-M
TECHNOLOGY
DEMOLITION SITE PLAN



1 TECHNOLOGY DEMOLITION SITE PLAN
TD100-M 1" = 100'-0"



AREA OF RENOVATIONS. ALL EXISTING PUBLIC ADDRESS, WIRELESS ACCESS POINTS, AND SECURITY DEVICES IN THE CEILING TO BE DEMOLOISHED WILL REMAIN. CONTRACTOR SHALL TEST EACH SYSTEM PRE AND POST CONSTRCTUION FOR FUNCTIONALITY. REFERENCE SPECIFICATIONS FOR CONTRACTOR QUALIFICATIONS

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1 TD101-M TECHNOLOGY DEMOLITION FLOOR PLAN GYM LOCKER
1/8" = 1'-0"

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pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

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1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:

	Date	Description

100% CD

TD101-M
TECHNOLOGY DEMOLITION FLOOR PLAN GYM LOCKER



1 T100-M TECHNOLOGY SITE PLAN
1" = 100'-0"

TECHNOLOGY SITE PLAN GENERAL NOTES

1. ALL CONDUIT PATHWAYS, ROUGH-INS, CONDUIT SLEEVES, ETC. INDICATED ON TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
2. ALL POWER INDICATED ON THE TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
3. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING BACK TO THE ORIGINAL RATING.
4. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING FOR SOUND ATTENUATION TO REDUCE NOISE TRAVELING THROUGH PENETRATIONS.
5. THE CONTRACTOR SHALL RESTORE ALL THE PENETRATIONS PROVIDED THROUGH WALLS/STRUCTURES FOR TECHNOLOGY CABLING TO PREVENT WATER INFILTRATION INTO THE SPACE.
6. CONDUITS SHALL MAINTAIN A MINIMUM OF 12-INCHES OF WELL TAMPED EARTH OR 3-INCHES OF CONCRETE SEPARATION BETWEEN ANY FOREIGN CONDUITS AND/OR PIPES THROUGHOUT THE ENTIRE CONDUIT PATHWAY.
7. CONDUIT SEGMENTS SHALL BE NO MORE THAN 600-FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
8. CONDUITS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUITS GREATER THAN 2-INCHES.
9. THE CONTRACTOR SHALL PROVIDE A DETECTABLE WARNING TAPE 12-INCHES BELOW GRADE ON TOP OF ALL CONDUITS THROUGHOUT THE ENTIRE CONDUIT TRENCH.
10. THE CONTRACTOR SHALL COORDINATE ALL CONDUIT PATHWAYS WITH THE ARCHITECT, CIVIL AND LANDSCAPE PLANS PRIOR TO BEGINNING ANY TRENCHING.
11. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR PULLING OF THE CABLE.
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. THE CONTRACTOR SHALL CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.

TECHNOLOGY SITE PLAN KEYED NOTES

1. APPROXIMATE LOCATION OF SECOND FLOOR MDF.
2. PROVIDE FIBER OPTIC BACKBONE TO NEW CONCESSIONS BUILDING.
3. EXIT THE BUILDING PLENUM AND TURN DOWN BUILDING EXTERIOR AT THIS LOCATION.
4. PROVIDE (3) 2-INCH SCHEDULE 80 PVC CONDUIT BURIED 36-INCHES BELOW FINAL FINISHED GRADE FROM BUILDING EXTERIOR. THE CONTRACTOR SHALL PROVIDE PULL STRING INSIDE EACH CONDUIT. THE CONTRACTOR SHALL PROVIDE NYLON BUSHINGS AND PROTECTIVE CAPS ON EACH END OF THE CONDUIT. ONE 2-INCH CONDUIT WILL BE PROVIDED WITH (1) 2-INCH, THREE-CELL MAXCELL INNERDUCT, (BY DIV. 26).
5. (24)-INCH X (18)-INCH X (36)-INCH HAND HOLE WITH LOCKABLE COVER RATED FOR ENVIRONMENT STAMPED WITH TELECOMMUNICATIONS. COVER OF HANDHOLE SHALL BE FLUSH WITH A FINAL FINISHED GRADE. (BY DIV. 26).
6. APPROXIMATE LOCATION OF CONCESSIONS BUILDING IDF

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

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T100-M
TECHNOLOGY SITE PLAN

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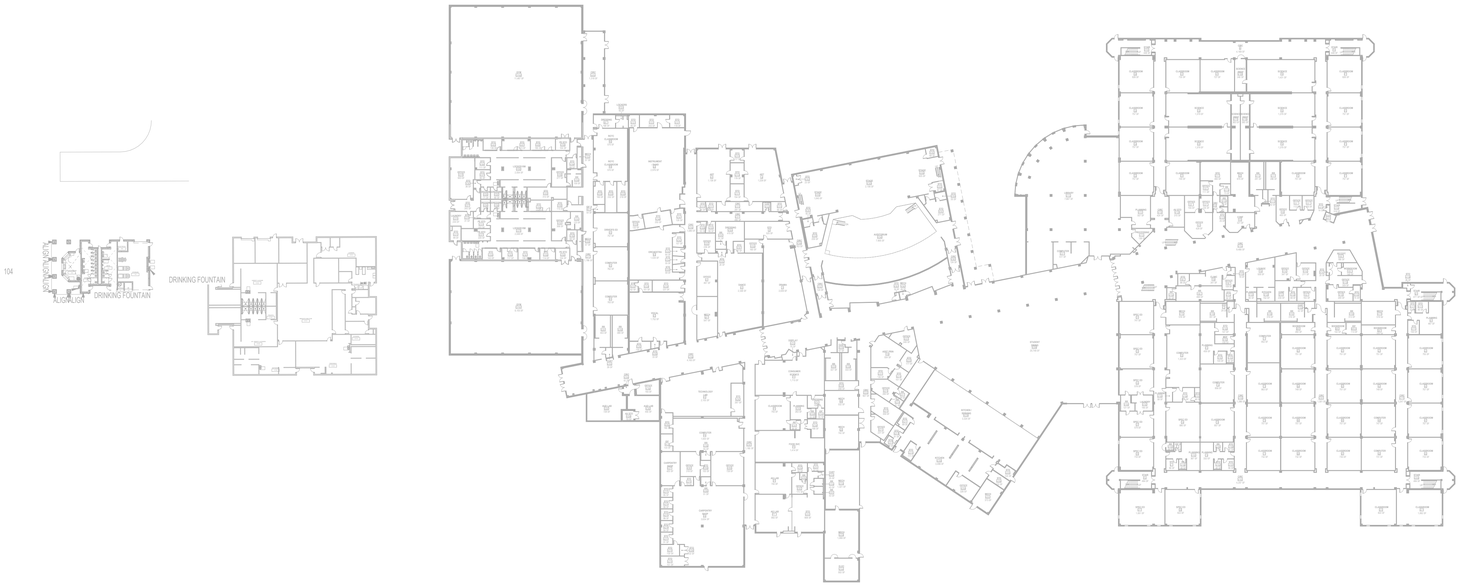

1 T101-M TECH COMPOSITE FIRST FLOOR PLAN
1" = 50'-0"



2 T101-M TECH COMPOSITE SECOND FLOOR PLAN
1" = 50'-0"

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
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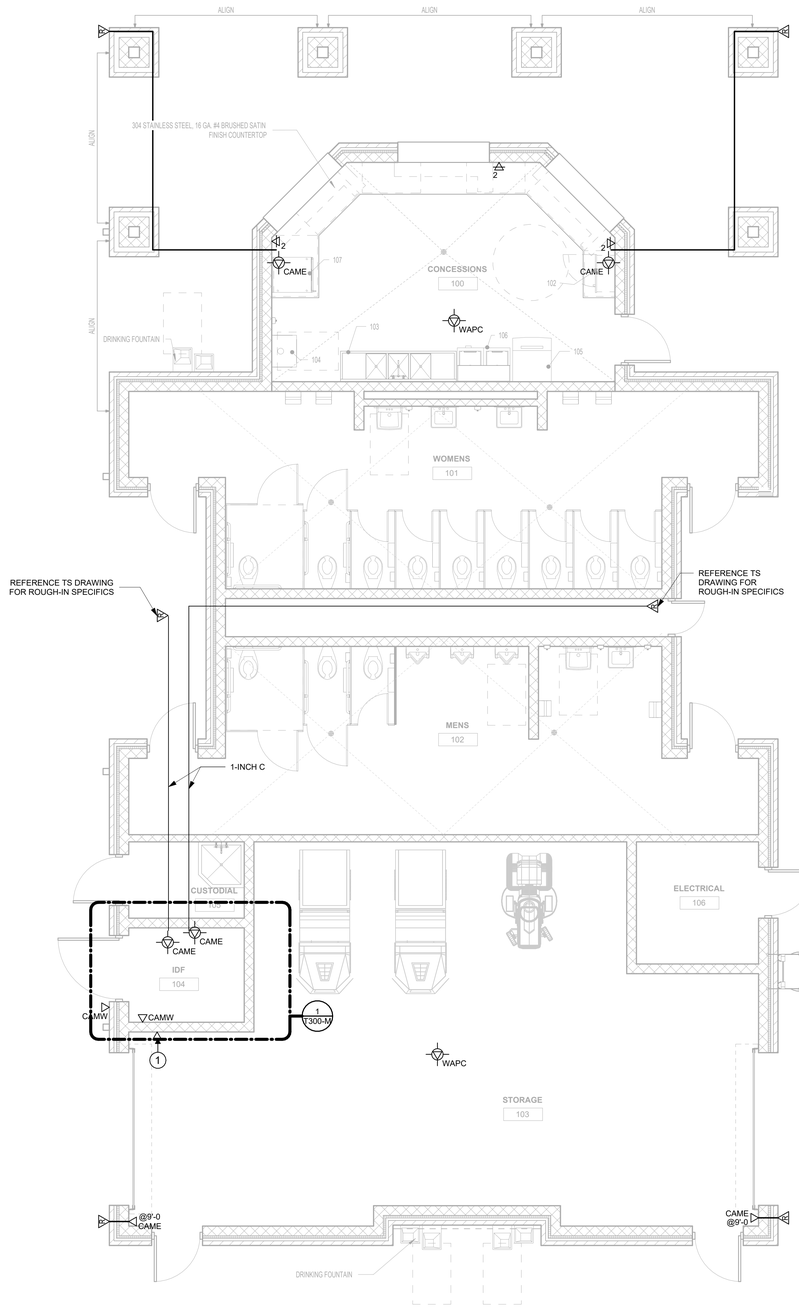
T101-M
TECHNOLOGY COMPOSITE FLOOR PLAN



1 T201-M TECHNOLOGY LEVEL 01 FLOOR PLAN CONCESSION
1/4" = 1'-0"

TECHNOLOGY FLOOR PLAN GENERAL NOTES

1. THE TECHNOLOGY REGION / WIRING BOUNDARIES ARE IDENTIFIED ON THE OVERALL SHEETS ONLY AND NOT ON THE ENLARGED SHEETS. THE CONTRACTOR SHALL REFER TO THE OVERALL SHEETS FOR ALL TECHNOLOGY REGIONS / WIRING BOUNDARIES.
2. ALL CONDUIT PATHWAYS, ROUGH-INS, BACKBOXES, FLOOR BOXES, CONDUIT SLEEVES, ETC. INDICATED ON TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
3. ALL POWER INDICATED ON THE TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
4. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING BACK TO THE ORIGINAL RATING.
5. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING FOR SOUND ATTENUATION TO REDUCE NOISE TRAVELING THROUGH PENETRATIONS.
6. TECHNOLOGY CABLING SHALL BE ROUTED IN SEPARATE PATHWAYS IN J-HOOKS, CONDUITS, CONDUIT SLEEVES, CORES, ETC. THROUGHOUT THE ENTIRE PATHWAY. DIFFERENT MEDIA TYPES (DATA, VIDEO, SECURITY, ETC.) SHALL NOT SHARE THE SAME J-HOOK, CONDUIT, CONDUIT SLEEVE, CORE, ETC.
7. UNLESS NOTED OTHERWISE, ALL CONDUITS FOR TECHNOLOGY DEVICES SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE AN ACCESSIBLE CEILING (AN OPEN CEILING OR CLOUD TYPE CEILING IS NOT CONSIDERED AN ACCESSIBLE CEILING) IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF A MAIN CORRIDOR. CONDUIT PATHWAYS SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF / IDF ROOM TO MINIMIZE CABLE LENGTHS ENSURING CABLE LENGTHS DO NOT EXCEED 275 FEET.
8. UNLESS NOTED OTHERWISE ALL CONDUITS SHALL BE HOMERUN FROM THE DEVICE LOCATION AND NO DAISY CHAINING OF DEVICES / ROUGH-INS SHALL BE ALLOWED.
9. CONDUIT SEGMENTS SHALL BE NO MORE THAN 100 FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
10. CONDUITS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUITS GREATER THAN 2-INCHES.
11. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR PULLING OF THE CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
13. EQUIPMENT NOT RELATED TO THE SUPPORT OF THE TELECOMMUNICATIONS ROOM (E.G., PIPING, DUCTWORK, PNEUMATIC TUBING) SHALL NOT BE INSTALLED IN, PASS THROUGH, OR ENTER THE TELECOMMUNICATIONS ROOM.
14. ALL CONDUITS FOR TECHNOLOGY DEVICES SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE A LAY- IN TYPE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE A LAY-IN TYPE CEILING TO PREVENT THE CABLES FROM BEING EXPOSED, THE CONDUIT SHALL ROUTE TO THE NEAREST LAY-IN TYPE CEILING OFF A MAIN CORRIDOR OR THE NEAREST MDF/IDF. THE CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE MAIN CORRIDOR OR THE NEAREST MDF/IDF TO MINIMIZE THE CABLE LENGTH ENSURING THE CABLE LENGTH DOES NOT EXCEED 275 FEET. CONDUIT, CONNECTIONS, J-BOXES, SUSPENSION, ANCHORAGES, AND OTHER CONDUIT COMPONENTS EXPOSED TO VIEW IN PUBLIC SPACES SHALL BE ROUTED AND INSTALLED CAREFULLY TO MINIMIZE VISUAL IMPACT AND SHALL BE FULLY PAINTED TO MATCH UNLESS NOTED OTHERWISE.
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16. NO GRID WIRE SHALL BE UTILIZED FOR SUPPORTS ONLY USE SOLID SUPPORTS (CLIPS, ALL-THREAD, ANCHORS, ETC.).
17. WIRE BASKET TRAY SHALL HAVE A 6" CLEARANCE FROM CEILING TILE TO THE BOTTOM OF BASKET TRAY, 12" CLEARANCE FROM THE TOP OF THE BASKET TRAY TO HVAC UNITS, HVAC DUCTS, HEATING DUCTS, AND HEATING EQUIPMENT, ETC., AND 12" CLEARANCE FROM THE SIDE OF THE BASKET TRAY TO HVAC UNITS, HVAC DUCTS, HEATING DUCTS, AND HEATING EQUIPMENT, ETC. WIRE BASKET TRAY SHALL BE PROPERLY GROUNDED AND BONDED AS PER INDUSTRY STANDARDS (BY DIV. 26).

TECHNOLOGY KEYED NOTES

1. DATA CABLE WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK FOR OWNER PROVIDED / OWNER INSTALLED ACCESS CONTROL GATEWAY / CONTROLLER WITH ACCESSIBLE CEILING. REFER TO SECURITY DRAWINGS FOR EXACT LOCATION AND CONDUIT ROUGH-IN REQUIREMENTS.

pfluger
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T201-M
TECHNOLOGY LEVEL 01
FLOOR PLAN
CONCESSION

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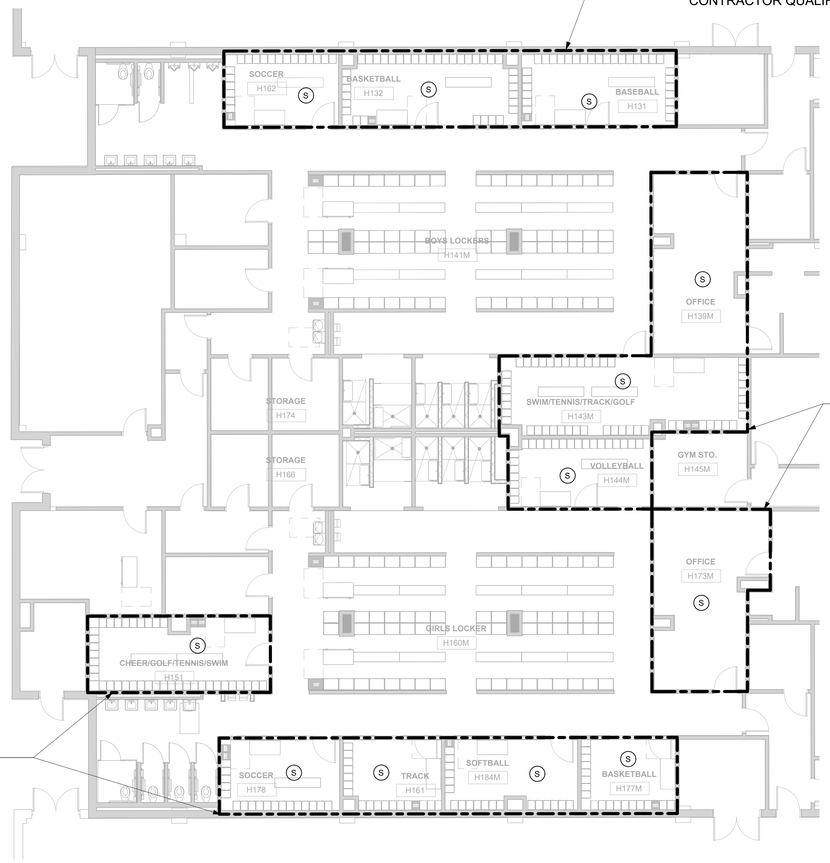

AREA OF RENOVATIONS. ALL EXISTING PUBLIC ADDRESS, WIRELESS ACCESS POINTS, AND SECURITY DEVICES IN THE CEILING TO BE DEMOLOISHED WILL REMAIN. CONTRACTOR SHALL TEST EACH SYSTEM PRE AND POST CONSTRCTUION FOR FUNCTIONALITY. REFERENCE SPECIFICATIONS FOR CONTRACTOR QUALIFICATIONS

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1 T202-M TECHNOLOGY LEVEL 01 FLOOR PLAN GYM LOCKER
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T202-M
TECHNOLOGY LEVEL 01 FLOOR PLAN GYM LOCKER

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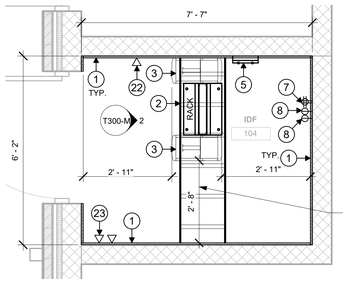
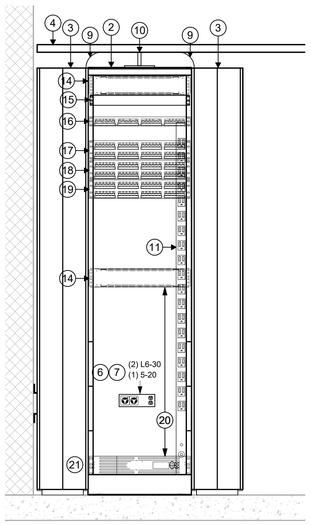


2-INCHES SHY OF BICSI RECOMMENED 32" AISLEWAY FOR MAINTENANCE.

WE COULD USE 8-INCH VERTICAL MANAGERS WHICH ARE NON STANDARD EQUIPMENT FOR FBISD. DOING SO WOULD YEILD 4-INCHES RESULTING IN THE 32" OF CLEARANCE NEEDED

1 T300-M CONCESSION BUILDING IDF ENLARGED PLAN
1/2" = 1'-0"



2 T300-M CONCESSIONS BUILDING NETWORK RACK ELEVATION
1" = 1'-0"

MDF / IDF GENERAL NOTES

1. IN THE EVENT THE CONTRACTOR PROVIDES AND INSTALLS 2-POST EQUIPMENT RACKS IN THE MDF/IDF ROOMS, THE DIVISION 27 CONTRACTOR SHALL COORDINATE WITH THE OWNER TO DETERMINE IF THE OWNER NEEDS ADDITIONAL EQUIPMENT RACK SUPPORT SUCH AS RAILS OR DEEP SHELVING TO SUPPORT FUTURE OWNER PROVIDED/OWNER INSTALLED UPS SYSTEM EQUIPMENT.
2. CONTRACTOR SHALL CONFIRM PATCH PANEL COUNTS WITH CABLE QUANTITIES PRIOR TO BIDDING. PATCH PANEL QUANTITY SHALL BE BASED OF OFF DEVICE QUANTITY SHOWN ON FLOOR PLANS AND REQUIRED SPARE PORTS. PATCH PANEL QUANTITY SHOWN ON RACKS ARE FOR REFERENCE ONLY.
3. EQUIPMENT NOT RELATED TO THE SUPPORT OF THE TELECOMMUNICATIONS ROOM (E.G., PIPING, DUCTWORK, PNEUMATIC TUBING) SHALL NOT BE INSTALLED IN, PASS THROUGH, OR ENTER THE TELECOMMUNICATIONS ROOM.
4. A VERTICAL SECTION OF LADDER RACK SHALL BE ATTACHED TO THE WALLBOARD TO MANAGE BACKBONE CABLES, SERVICE PROVIDER CABLES, OR CABLES AS THEY TRANSITION FROM THE ENTRANCE CONDUITS TO OVERHEAD LADDER RACK.
5. MAX (5) DATA PATCH PANELS ON INITIAL INSTALLATION ANY ADDITIONAL PATCH PANEL WILL BE PLACE ON THE NEXT RACK.
6. ALL RACK EQUIPMENT AND PATCH PANELS SHALL BE MOCKED UP AND COORDINATED WITH OWNER AND CONSULTANT PRIOR TO PERMANENT ATTACHMENT AND OR INSTALLATION.

IDF ROOM KEYED NOTES

1. 4-FEET X 8-FEET X 3/4-INCH A-B GRADE, VOID FREE, FIRE RATED PLYWOOD INSTALLED VERTICALLY STARTING AT 24-INCHES ABOVE FINISHED FLOOR ON ALL PERIMETER WALLS. PAINT WITH (2) COATS OF FIRE RETARDANT PAINT. (BY DIV. 27)
2. 19-INCH X 84-INCH RELAY RACK (BY DIV. 27)
3. 10-INCH VERTICAL WIRE MANAGERS. (BY DIV. 27)
4. 12-INCH LADDER RACK MOUNTED AT 87-INCHES ABOVE FINISHED FLOOR. LADDER RACK SHALL BE SUPPORTED PER MANUFACTURE AND INDUSTRY STANDARDS. (BY DIV. 27)
5. GROUND BUS BAR MOUNTED AT 84-INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
6. DEDICATED 20 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH DUPLEX NEMA 5-20R RECEPTACLE MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR BEHIND THE EQUIPMENT RACKS. (BY DIV. 26)
7. DEDICATED 30 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH SIMPLEX NEMA L6-30R TWIST LOCK RECEPTACLE MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR BEHIND THE EQUIPMENT RACKS. (BY DIV. 26)
8. 20 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH DUPLEX NEMA 5-20R RECEPTACLE FLUSH MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR. (BY DIV.26)
9. CABLE RUNWAY RADIUS DROP CROSS MEMBER (BY DIV. 27)
10. CABLE RUNWAY ELEVATION KIT (BY DIV. 27)
11. VERTICAL POWER STRIP WITH STAND-OFF BRACKET(S), MOUNTED ON THE BACK SIDE OF RELAY RACKS. VERTICAL POWER AND STAND-OFF BRACKETS SHALL NOT INTERFERE WITH NETWORK SWITCHES. (BY DIV. 27)
12. FLOOR MOUNTED HVAC UNIT. PIPING SHALL EXIT THE ROOM IN THE CORNER. THE DISCONNECT AND HAVC PANEL SHALL BE LOCATED ABOVE THE FLOOR MOUNTED HAVC UNIT. (BY DIV. 23)
13. (3) 4-INCH CONDUIT TO ACCESSIBLE CEILING
14. 2RU HORIZONTAL WIRE MANAGER (BY DIV. 27)
15. 2RU RACK MOUNTED FIBER OPTIC ENCLOSURE (BY DIV. 27)
16. 1RU VOICE BACKBONE 24 PORT ANGLED PATCH PANEL (BY DIV. 27)
17. 2RU 48 PORT ANGLED PATCH PANEL FOR VIDEO SURVEILLANCE CABLES (BY DIV. 27)
18. 2RU 48 PORT ANGLED PATCH PANEL FOR WIRELESS ACCESS POINT CABLES (BY DIV. 27)
19. 2RU 48 PORT ANGLED PATCH PANEL FOR DATA CABLES (BY DIV. 27)
20. CISCO DATA NETWORK EQUIPMENT (BY OWNER)
21. UNINTERRUPTABLE POWER SUPPLY (BY OWNER)
22. WALL MOUNTED PHONE. INSALL OUTLET AT 48" AFF. ENSURE A 12- INCH CLEAR SPACE AROUND OUTLET. COORDINATE LOCATION WITH OWNER AND CONSULTANT PRIOR TO ROUGH-IN
23. WALL MOUNTED SURVEILLANCE CAMERA. INSTALL OUTLET AT 6" BELOW CABLE RUNWAY ENSURE A 12-INCH CLEAR SPACE AROUND OUTLET. COORDINATE LOCATION WITH OWNER AND CONSULTANT PRIOR TO ROUGH-IN

pfluger
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2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

12-05-2025

PROJECT NO.	25-006
DATE:	12-05-2025
DRAWN BY: BP	CHECKED BY: CCG

REVISIONS:

	Date	Description

100% CD

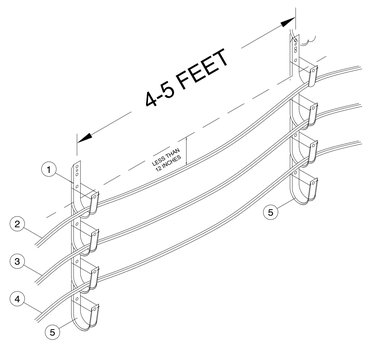
T300-M

TECHNOLOGY
ENLARGED VIEWS

12/4/2025 6:05:17 AM C:\Users\Admin\Documents\25-006_MARSHALL_FBISD ATHLETIC RENOVATIONS BP012-M_COMBS_R25_AEC-5.rvt

NOTE TO CONTRACTOR:
UNLESS OTHERWISE NOTED, LOW VOLTAGE CABLING SHALL BE INSTALLED WITHIN 6-INCHES OF THE CEILING AND LAST VERTICALLY SITUATED J-HOOK SHALL BE NO HIGHER THAN 18" OF CEILING. CABLES AND SUPPORTS SHELL BE ACCESSIBLE BY TECHNICIAN ON A STANDARD A-FRAME LADDER.

CONTRACTOR SHALL MAINTAIN AT LEAST 6-INCHES OF SEPARATION BETWEEN CABLING BUNDLES AND MECHANICAL DUCTWORKS, EQUIPMENT, PIPING OR OTHER SYSTEMS IN THE CEILING PLENUM

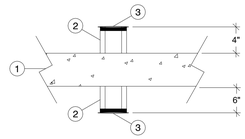


KEYED NOTES:

1. J-HOOK WITH RETAINER CLIP ABOVE ACCESSIBLE CEILING (BY DIV 27).
2. DATA CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).
3. A/V CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).
4. SECURITY CABLE ABOVE ACCESSIBLE CEILING (BY DIV 28).
5. SPARE J-HOOK (BY DIV 27).

1 / T400-M TYPICAL J-HOOK CABLE PATHWAY

SCALE: N.T.S.

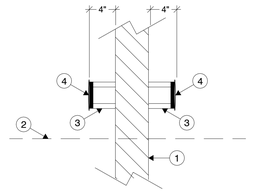


KEYED NOTES:

1. SCHEDULED FLOOR OR DECK.
2. CONDUIT SLEEVE (BY DIV 26).
3. NYLON BUSHING (BY DIV 26).

2 / T400-M TYPICAL CONDUIT SLEEVE THROUGH FLOOR OR DECK DETAIL

SCALE: N.T.S.

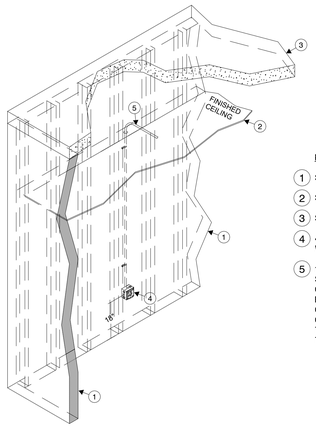


KEYED NOTES:

1. SCHEDULED WALL.
2. SCHEDULED CEILING.
3. CONDUIT SLEEVE (BY DIV 26).
4. NYLON BUSHING (BY DIV 26).

3 / T400-M TYPICAL CONDUIT SLEEVE GOING THROUGH WALL

SCALE: N.T.S.

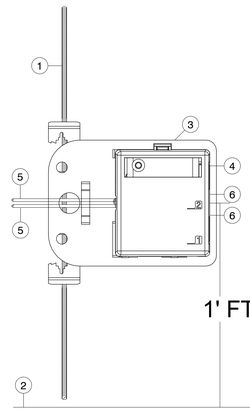


KEYED NOTES:

1. SCHEDULED WALL.
2. SCHEDULED CEILING.
3. SCHEDULED DECK ABOVE.
4. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX WITH DOUBLE GANG PLASTER RING (BY DIV 26).
5. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH. (BY DIV 26).

4 / T400-M TYPICAL TECHNOLOGY CONDUIT ROUGH-IN

SCALE: N.T.S.

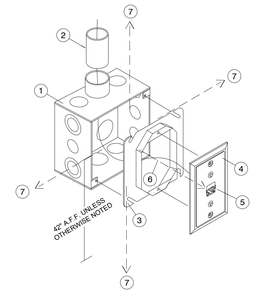


KEYED NOTES:

1. ALL THREAD TO BUILDING STRUCTURE (BY DIV. 27)
2. SCHEDULING CEILING
3. IN-PLENUM CEILING BRACKET PN 49223-CBC ATTACHED TO ALL THREAD (BY DIV. 27)
4. SURFACE MOUNT BOX ABOVE ACCESSIBLE CEILING SECURED TO BRACKET (BY DIV. 27)
5. DATA CABLE (BY DIV. 27)
6. DATA INSERT (BY DIV. 27)

5 / T400-M TYPICAL ABOVE CEILING DATA OUTLET

SCALE: N.T.S.

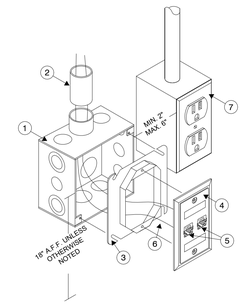


KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH PHONE STUDS (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. PROVIDE A MINIMUM OF 8-INCHES OF CLEARANCE AROUND BACK-BOX TO ACCOMODATE PHONE APPLIANCE THAT WILL BE INSTALLED ON THIS OUTLET

6 / T400-M TYPICAL WALL PHONE OUTLET CONFIGURATION

SCALE: N.T.S.



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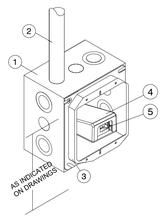
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

7 / T400-M TYPICAL DUAL DATA OUTLET CONFIGURATION

SCALE: N.T.S.



KEYED NOTES:

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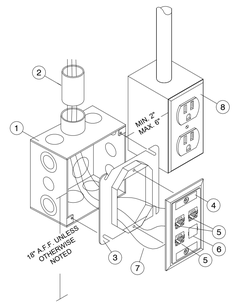
3. DOUBLE GANG PLASTER RING (BY DIV 26).
4. SURFACE MOUNT BOX INSIDE THE 4 11/16-INCH X 4 11/16-INCH X 2 1/8-INCH DOUBLE GANG BOX (BY DIV 27).
5. RJ-45 INSERT (BY DIV 27).

8 / T400-M TYPICAL WALL-MOUNTED WIRELESS ACCESS POINT

SCALE: N.T.S.



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3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. BLANK INSERT (BY DIV 27).
7. CABLE AS SPECIFIED (BY DIV 27).
8. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

9 / T400-M TYPICAL THREE DATA OUTLET CONFIGURATION

SCALE: N.T.S.

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
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100% CD

T400-M
TECHNOLOGY TYPICAL DETAILS

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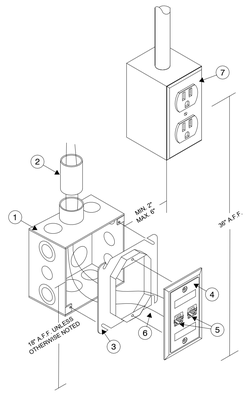

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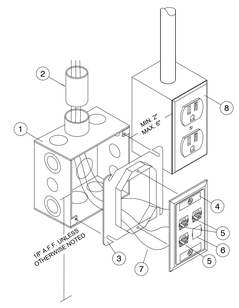
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26). ELECTRICAL RECEPTACLE TO BE INSTALLED AT 36" A.F.F. AND ADJACENT TO COW / SECONDARY TEACHING OUTLET LOCATION.

1 T401-M TYPICAL COW / SECONDARY TEACHER'S DATA OUTLET CONFIGURATION

SCALE: N.T.S.



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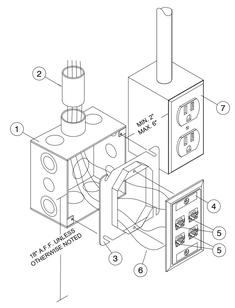
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. BLANK INSERT (BY DIV 27).
7. CABLE AS SPECIFIED (BY DIV 27).
8. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

2 T401-M TYPICAL THREE DATA OUTLET CONFIGURATION

SCALE: N.T.S.



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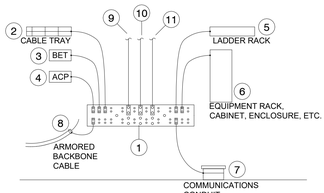
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

3 T401-M TYPICAL FOUR DATA OUTLET CONFIGURATION

SCALE: N.T.S.

GENERAL NOTES:

1. MAKE ALL BONDING CONNECTIONS WITH TWO-HOLE COMPRESSION LUGS.
2. SIZE ALL BONDING CONDUCTORS PER TELECOM BONDING CONDUCTOR SIZING TABLE.
3. THIS IS A TYPICAL DETAIL, NOT ALL EQUIPMENT REQUIRING BONDING MAY BE PRESENT IN EACH TELECOM ROOM.



KEYED NOTES:

1. TELECOMMUNICATIONS GROUNDING BUSBAR WITH BICSI STYLE HOLE PATTERN, SIZED PER [DRAWINGS/SPECIFICATIONS] (BY DIV 27).
2. BOND TO CABLE TRAY IN CORRIDOR. (BY DIV 26)
3. BOND TO BUILDING ENTRANCE TERMINALS AND PROTECTORS. (BY DIV 27)
4. BOND TO ACCESS CONTROL PANELS AND OTHER SECURITY ENCLOSURES. (BY DIV 28)
5. BOND TO OVERHEAD LADDER RACK; ENSURE ALL LADDER RACK SECTIONS ARE BONDED TOGETHER. (BY DIV 27)
6. BOND TO EACH EQUIPMENT RACK, CABINET, ENCLOSURE, ETC. (BY DIV 27)
7. BOND TO EACH CONTINUOUS COMMUNICATIONS CONDUIT THAT ENTERS THE TELECOM ROOM. (SLEEVES DO NOT NEED TO BE BONDED). (BY DIV 26)
8. BOND TO EACH ARMORED BACKBONE CABLE THAT TERMINATES IN THE TELECOM ROOM. (BY DIV 27)
9. FOR TELECOMMUNICATIONS MAIN GROUNDING BUSBAR, PROVIDE BONDING CONDUCTOR FOR TELECOMMUNICATIONS TO MAIN ELECTRICAL GROUND. (BY DIV 26)
10. FOR TELECOMMUNICATIONS GROUNDING BUSBARS ONLY: BONDING CONDUCTOR TO [BUILDING STEEL] [TELECOMMUNICATIONS BONDING BACKBONE] [GROUND BUS OF ELECTRICAL PANEL SERVING TELECOM ROOM POWER]. (BY DIV 26)
11. [FOR TELECOMMUNICATIONS MAIN GROUNDING BUSBAR, PROVIDE TELECOMMUNICATIONS BONDING BACKBONE PER TYPICAL GROUNDING DIAGRAM.] (BY DIV 26)

4 T401-M TELECOMMUNICATIONS BONDING BUSBAR DETAIL

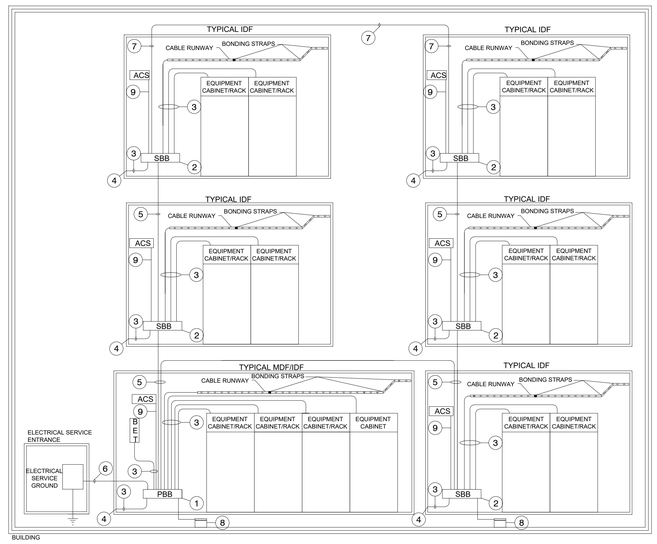
SCALE: N.T.S.

TBB/GE CONDUCTOR SIZING	
LENGTH IN LINEAR M (FT)	SIZE (AWG)
LESS THAN 4 (13)	6
4 - 6 (14-20)	4
6 - 8 (21 - 26)	3
8 - 10 (27 - 33)	2
10 - 13 (34 - 41)	1
13 - 16 (42 - 52)	1/0
16 - 20 (53 - 66)	2/0
20 - 26 (67 - 84)	3/0
26 - 32 (85 - 105)	4/0
32 - 38 (106 - 125)	250 kcmil
38 - 46 (126 - 150)	300 kcmil
46 - 53 (151 - 175)	350 kcmil
53 - 76 (176 - 250)	500 kcmil
76 - 91 (251 - 300)	600 kcmil
GREATER THAN 91 (301)	750 kcmil

ROUTE THE TBB TO EACH TGB IN AS STRAIGHT A PATH AS POSSIBLE. THE TBB SHOULD BE INSTALLED AS A CONTINUOUS CONDUCTOR, AVOIDING SPLICES WHERE POSSIBLE.

5 T401-M TBB CONDUCTOR SIZING

SCALE: N.T.S.

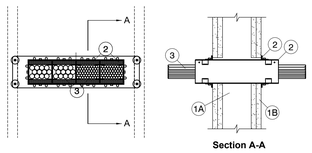


1. TELECOMMUNICATIONS MAIN GROUNDING BUS BAR (PBB)(BY DIV. 27)
2. TELECOMMUNICATIONS GROUNDING BUS BAR (SBB) (BY DIV 27)
3. TELECOMMUNICATIONS BONDING CONDUCTOR (TBC). REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS (BY DIV 27)
4. CONNECT TO GROUNDED BUILDING STEEL WHEN EXPOSED IN ROOM.
5. TELECOMMUNICATIONS BONDING BACKBONE (TBB). REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS (BY DIV 26)
6. TELECOMMUNICATIONS BONDING CONDUCTOR (TBC). BY ELECTRICAL CONTRACTOR.REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS.
7. GROUNDING EQUALIZER CONDUCTOR (GEC)(BY DIV 26)
8. BOUND WITH GROUDING COLLARS TO EACH CONTINUOUS CONDUIT THAT ENTERS THE TELECOM ROOM. (BY DIV 26).
9. BOND TO EACH ACCESS CONTROL PANEL AND OTHER SECURITY PANELS IN HE TELECOM ROOM. (BY DIV 27)

6 T401-M TYPICAL GROUNDING DIAGRAM

SCALE: N.T.S.

System No. W-L-3218
F Ratings - 1, 2, 3 and 4 Hr (See Items 1 and 3)
T Ratings - 3/4 and 1 Hr (See Item 3)
L Rating At Ambient - Less Than 1, 1.3, 4 or 7 CFM (See Item 3)
L Rating At 400 F - Less Than 1, 2 or 3 CFM (See Item 3)



Section A-A

1. Wall Assembly - The 1, 2, 3 or 4 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described within the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall incorporate the following construction features:
   A. Studs - Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* - Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Opening in gypsum board to be max 1/4 in. (6 mm) larger then width and height dimensions of firestop device(s).

   The hourly F Rating of the firestop system is dependent upon the hourly rating of the wall in which it is installed.
2. Firestop Device* - One, two, three, four or seven firestop device modules ganged together. Each firestop device module consists of a 3 by 3 by 10-1/2 in. (76 by 76 by 267 mm) long galv steel tube with an intumescent material lining. Firestop device modules to be installed in accordance with the accompanying installation instructions. The space between the firestop device module(s) and the periphery of the opening shall be min 0 in. (0 mm, point contact) to max 1/8 in. (3.2 mm). In round openings, the space between the firestop device and the periphery of the opening shall be min 0 in. (point contact) to max 1/2 in. (13 mm). Firestop device module(s) secured in place by means of steel wall plates installed with gasketing material supplied with product. Steel wall plates installed on both sides of wall and secured to each device by means of steel set screws provided with device. Each four- and seven-gang steel wall plate shall be fastened to the studs with steel screws sized to extend through the gypsum board layers and penetrate 1/2 in. (13 mm) into the framing member. Each firestop device module is to be installed with ends projecting an equal distance beyond each surface of the wall assembly.

   As an alternate, the four- and seven-gang steel wall plates may be installed directly against the studs for walls having 16 and 24 in. (406 and 610 mm) center-to-center stud spacing, respectively, prior to installation of the gypsum board layers. The steel wall plates shall be secured to the stud by means of steel screws. After installation of the steel wall plates and firestop device modules, the gypsum board shall be installed as specified in the individual U300 or U400 Design with a maximum 1/8 in. (3.2 mm) gap between the firestop device module and the cutout in the gypsum board. Gap between the firestop device module and the cutout in the gypsum board may be filled with gypsum joint compound or fill material (Item 4).

   SPECIFIED TECHNOLOGIES INC - EZ PATH Series 33 Fire Rated Pathway

2A. Firestop Device* - Extension Module - (Optional, Not Shown) - Module attached to ends of 3 by 3 by 10-1/2 in. (76 by 76 by 267 mm) long firestop device (Item 3) to increase its length to facilitate installation in thicker walls. Each module consists of a 3 by 3 by 6 in. (76 by 76 by 152 mm) long galv steel tube with an intumescent material lining. Extension module to be installed in accordance with the accompanying installation instructions. When module is used, firestop device (Item 2) and extension module(s) secured in place by means of steel wall plates installed with gasketing material supplied with product. Steel wall plates installed on both sides of wall and secured to each device or extension module(s) by means of steel set screws provided with wall plates. Firestop device and extension module(s) assembly to be installed with ends projecting an equal distance beyond each surface of the wall assembly.

   SPECIFIED TECHNOLOGIES INC - EZ PATH Extension

3. Cables - Within the loading area for each firestop device module, the cables may represent a 0 to 100 percent visual fill. Cable fill to be distributed at a uniform height across the width of the firestop device module. Cables to be rigidly supported on both sides of the wall assembly. Any combination of the following types of cables may be used:
   A. Max 400 pair No. 24 AWG (or smaller) copper conductor telecommunication cable with polyvinyl chloride (PVC) jacketing and insulation.
   B. Max 350 kcmil single copper conductor power cable with XLPE jacket and insulation
   C. Max 7/C No. 12 AWG copper conductor control cable with PVC or XLPE jacket and insulation.
   D. Max 3/C No. 10 AWG metal clad or armored cable with steel or aluminum jacket.
   E. Max 3/C No. 8 AWG NM cable (Romex) with PVC insulation and jacket.
   F. Max four pair No. 22 AWG (or smaller) copper conductor data cable with PVC or plenum rated jacketing and insulation.
   G. Max RG/U coaxial cable with fluorinated ethylene insulation and jacketing.
   H. Fiber optic cable with PVC or polyethylene (PE) jacket and insulation having a max diam of 5/8 in. (16 mm).
   I. Optical Fiber Raceway+ - Max 1-1/2 in. (38 mm) diam (or smaller) optical fiber raceway ("innerduct") formed of either PVC or polyvinylidene fluoride (PVDF) with optical fiber cable fill. Raceways installed in accordance with the National Electrical Code (NFPA 70).

   When the hourly rating of the wall assembly is 1 hr, the T Rating is 3/4 hr. When the hourly fire rating of the wall assembly is greater than 1 hr, the T Rating is 3/4 hr when Item 3A, 3B, 3C, 3D or 3E is used. Otherwise the T Rating is 1 hr. When Item 3A, 3B, 3C, 3D or 3E is used, the maximum F Rating is 2 hr. When max 200 pair No. 24 AWG telecommunication cable is used or when Item 3F, 3G, 3H or 3I is used, the maximum F Rating is 4 hr.

   The L Rating for each empty firestop device module is less than 1 cfm at ambient and at 400F. When Item 3A is used, the L Rating for each firestop device module with 100 percent visual fill is 4 cfm at ambient and 3 cfm at 400F. When Item 3F is used, the L Rating for each firestop device module with 100 percent visual fill is 1.3 cfm at ambient and 1 cfm at 400F. When Item 3G or 3H is used, the L Rating for each firestop device module with 100 percent visual fill is 7 cfm at ambient and 2 cfm at 400F.
4. Fill, Void or Cavity Material* - Sealant or Putty - (Not Shown) - As an alternate to gypsum joint compound, the gap between the firestop device module and the cutout in the gypsum board may be sealed with fill material on each side of the wall assembly when four- and seven-gang steel wall plates are installed directly against the wood or steel studs.

   SPECIFIED TECHNOLOGIES INC - SpecSeal Series SSS Sealant, SpecSeal LCI Sealant, SpecSeal Putty

   *Bearing the UL Classification Mark

7 T401-M TYPICAL STI EZ-PATH SLEEVE DETAIL

SCALE: N.T.S.

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL J. ANDERSON 20113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
1 Date Description

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T401-M
TECHNOLOGY TYPICAL DETAILS

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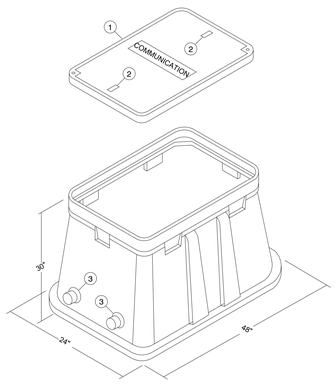
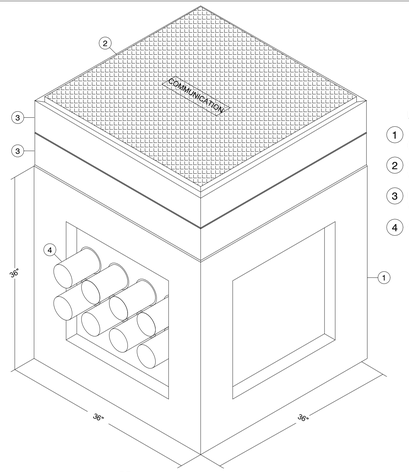


KEYED NOTES:

1. 40-INCH X 18-INCH COVER RATED FOR ENVIRONMENT WITH "COMMUNICATION" STENCILED ON TOP (BY DIV 26).
2. LIFTING EYE (BY DIV 26).
3. 4-INCH TERMINATOR (BY DIV 26).

1 T402-M TYPICAL TECHNOLOGY HANDHOLES (HH)

SCALE: N.T.S.

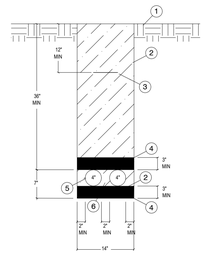


KEYED NOTES:

1. 36-INCH X 36-INCH X 36-INCH PRECAST HANDHOLE (BY DIV 26).
2. 36-INCH X 36-INCH COVER RATED FOR ENVIRONMENT WITH "COMMUNICATION" STENCILED ON TOP (BY DIV 26).
3. PRECAST EXTENSION AS REQUIRED TO MOUNT FLUSH WITH GRADE (BY DIV 26).
4. 4-INCH TERMINATOR (BY DIV 26).

2 T402-M TYPICAL TECHNOLOGY HANDHOLE (HH)

SCALE: N.T.S.

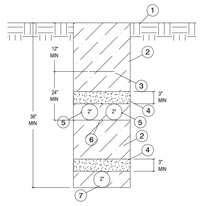


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. SELECT COMPACTED BACKFILL (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. COMMUNICATIONS CONDUIT (BY DIV 26).
6. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).

3 T402-M TYPICAL COMMUNICATIONS DUCT BANK DETAIL - (2) 4-INCH CONDUITS

SCALE: N.T.S.

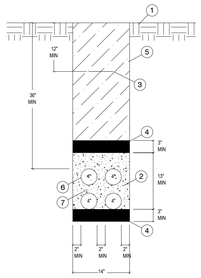


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. SELECT COMPACTED BACKFILL (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. COMMUNICATIONS CONDUIT (BY DIV 26).
6. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).
7. ELECTRICAL CONDUIT (BY DIV 26)

4 T402-M 12-INCH SEPARATION COMMUNICATION AND ELECTRICAL SHARED DUCT BANK DETAIL

SCALE: N.T.S.

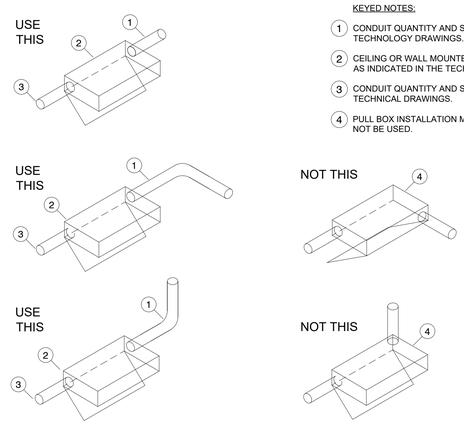


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. 3000 PSI CONCRETE (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. SELECT COMPACTED BACKFILL (BY DIV 26).
6. COMMUNICATIONS CONDUIT (BY DIV 26).
7. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).

5 T402-M TYPICAL COMMUNICATIONS CONCRETE ENCASED DUCT BANK DETAIL - (4) 4-INCH CONDUITS

SCALE: N.T.S.



KEYED NOTES:

1. CONDUIT QUANTITY AND SIZE AS INDICATED IN THE TECHNOLOGY DRAWINGS.
2. CEILING OR WALL MOUNTED PULL BOX WITH LOCKING COVER AS INDICATED IN THE TECHNOLOGY DRAWINGS.
3. CONDUIT QUANTITY AND SIZE AND INDICATED IN THE TECHNICAL DRAWINGS.
4. PULL BOX INSTALLATION MEANS AND METHODS THAT SHALL NOT BE USED.

6 T402-M TYPICAL PULL BOX ENTRANCE POINT MEANS AND METHODS DETAIL

SCALE: N.T.S.

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

12-05-2025

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T402-M

TECHNOLOGY TYPICAL DETAILS

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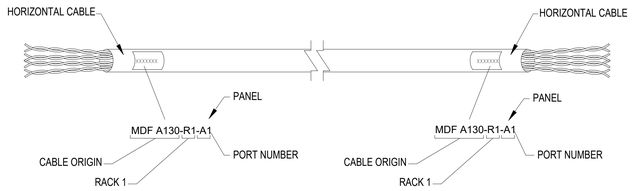
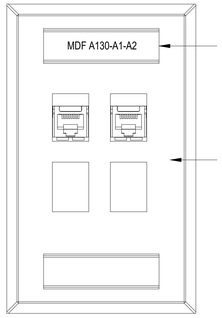
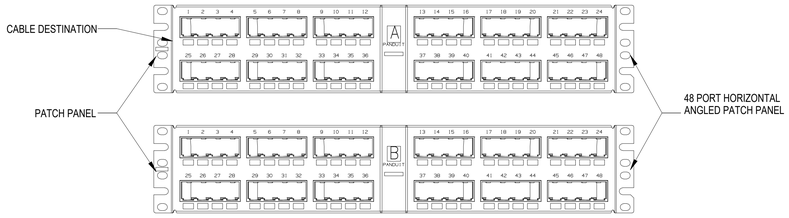


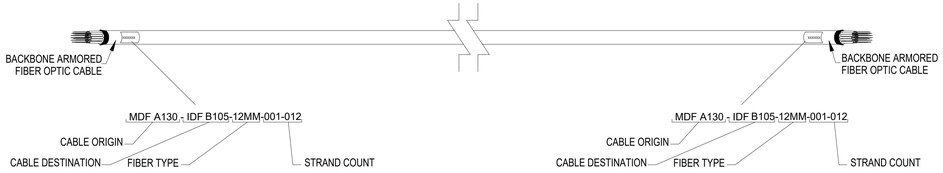


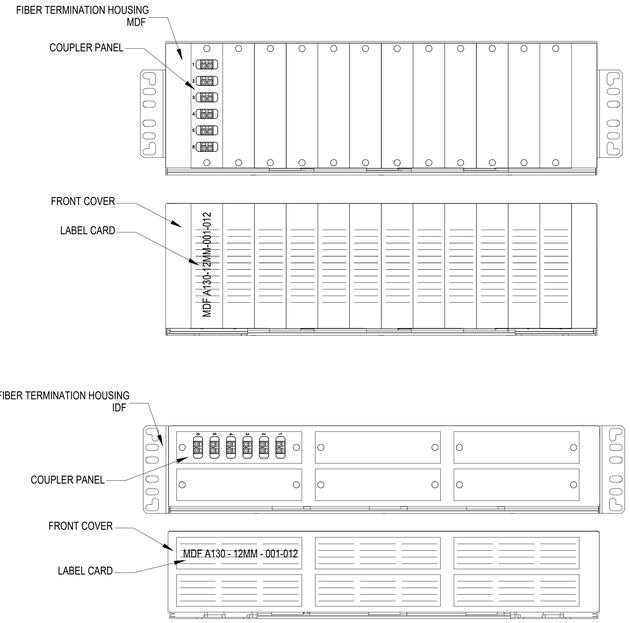


1 T-500-M

TYPICAL HORIZONTAL DATA CABLE LABELING SCHEME

SCALE: N.T.S.

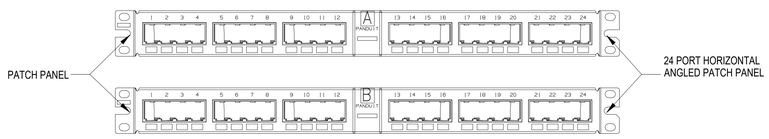




2 T-500-M

TYPICAL FIBER BACKBONE LABELING SCHEME

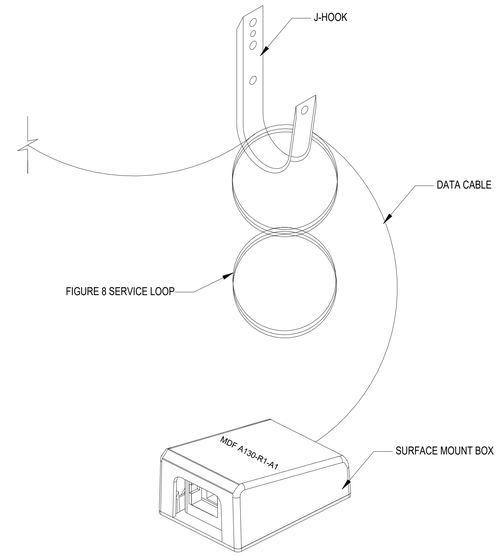
SCALE: N.T.S.



3 T-500-M

TYPICAL COPPER BACKBONE LABELING SCHEME

SCALE: N.T.S.



4 T-500-M

ABOVE ASSESSIBLE CEILING LABELING SCHEME

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2 Greenway Plaza, Suite 480
Houston, Texas 77046
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THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
30113
STATE OF TEXAS

12-05-2025

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T500-M

TECHNOLOGY TYPICAL LABELING SCHEME

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SECURITY SYMBOLS & LEGEND

ACCESS CONTROL SYMBOLS

AD	INTERFACE TO AUTOMATIC DOOR CONTROL AND MONITORING.
BI	INTERFACE TO RETRACTABLE VEHICLE BOLLARD.
BR	BIOMETRIC READER.
CH	DOOR BELL CHIME.
CR	CARD READER.
CR1	CARD READER MULLION MOUNT.
CR2	ELEVATOR CARD READER.
CR3	CARD READER/INTERCOM UNIT.
CR4	CARD READER/INTERCOM PEDESTRIAN PEDESTAL.
D	DURESS BUTTON MOUNTED IN KNEE SPACE OF DESK, TABLE OR COUNTER PROVIDE ARMORED CABLE FROM DURESS BUTTON TO JUNCTION BOX.
D	WALL MOUNTED DURESS BUTTON.
DB	DOOR BELL.
DC	DOOR CONTACT.
DC1	OVERHEAD DOOR CONTACT. PROVIDE ARMORED CABLE FROM SWITCH TO JUNCTION BOX.
DMA	DOOR MANAGEMENT ANNUNCIATOR.
DR	SINGLE DOOR RELEASE PUSHBUTTON UNDER COUNTER. ARMORED CABLE FROM PUSHBUTTON TO JUNCTION BOX.
EL	INTERFACE TO ELEVATOR CONTROL/MONITORING.
FA	INTERFACE TO FIRE ALARM SYSTEM.
GC	INTERFACE TO PARKING GATE CONTROL/MONITORING.
IC	AUDIO INTERCOM SUBSTATION.
IM	INTERCOM MASTER STATION AS INDICATED BLOCK DIAGRAM AND/OR DETAILS.
KS	KEYSWITCH.
LD	LOCKDOWN BUTTON UNDER COUNTER. ARMORED CABLE FROM LOCKDOWN BUTTON TO JUNCTION BOX.
LD	LOCKDOWN BUTTON.
OD	INTERFACE TO OVERHEAD DOOR CONTROL/MONITORING.
RD	INTERFACE TO MOTORIZED REVOLVING DOOR CONTROL/MONITORING.
REX	REQUEST-TO-EXIT IS INTEGRAL WITH ELECTRIFIED LOCKING HARDWARE. PROVIDED AND INSTALLED BY OTHERS.
RX	REQUEST-TO-EXIT MOTION SENSOR MOUNTED CEILING-MOUNTED.
RX	REQUEST-TO-EXIT MOTION SENSOR DOOR FRAME-MOUNTED.
SD	INTERFACE TO SLIDING DOOR CONTROL/MONITORING.
SR	SECURITY SYSTEM RISER, DATA GATHERING PANEL AND LOW VOLTAGE POWER SUPPLY DISTRIBUTION LOCATION.
VI	VIDEO INTERCOM SUBSTATION.
VM	DESKTOP VIDEO INTERCOM MASTER STATION.
WD	WIRELESS DURESS BUTTON MOUNTED IN KNEE SPACE OF DESK, TABLE, OR COUNTER.

ACCESS CONTROL SYMBOLS

WDRR	WIRELESS DOOR RELEASE RECEIVER DEVICE.
WDRT	WIRELESS DOOR RELEASE TRANSMITTER DEVICE.
WR	WIRELESS DURESS BUTTON RECEIVER DEVICE.
WT	WIRELESS DURESS BUTTON TRANSMITTER DEVICE.
	PRE-WIRE AND BLANK COVER PLATE FOR FUTURE DEVICE.

INTRUSION DETECTION SYMBOLS

AL	ALARM ANNUNCIATOR LIGHT.
AP	ANNUNCIATOR PANEL AS INDICATED IN BLOCK DIAGRAMS AND/OR DETAILS.
AV	AUDIO VISUAL ANNUNCIATOR.
FA	INTERFACE TO FREEZER/TEMPERATURE ALARM. PROVIDED AND INSTALLED BY OTHERS.
FC	FUTURE CABLE AS SPECIFIED.
GB	CEILING-MOUNTED GLASS BREAK SENSOR.
GB	GLASS BREAK SENSOR.
KP	PERSONAL IDENTIFICATION NUMBER KEYPAD.
M	SOUND DETECTION MICROPHONE.
MD	360° MOTION DETECTOR MOUNTED TO CEILING.
MD	MOTION DETECTOR.
MD LR	LONG RANGE MOTION DETECTOR.
RA	INTERFACE TO REFRIGERATOR/TEMPERATURE ALARM. PROVIDED AND INSTALLED BY OTHERS.
ST	STROBE LIGHT SURFACE MOUNTED TO CEILING.
ST	STROBE LIGHT.
V	VIBRATION DETECTOR.

ELECTRONIC SURVEILLANCE SYMBOLS

	FIXED SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	CEILING-MOUNTED FIXED SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	180° SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	CEILING-MOUNTED 180° SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	360° SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	CEILING-MOUNTED 360° SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
	PAN, TILT & ZOOM SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.
CLG	CEILING-MOUNTED PAN, TILT & ZOOM SURVEILLANCE CAMERA, CAMERA MODEL AND MOUNTING HEIGHT AS SPECIFIED.

MISCELLANEOUS SECURITY SYMBOLS

B	ALERTUS BEACON MOUNTED AT 60" A.F.F. UNLESS OTHERWISE NOTED
EP	EMERGENCY PHONE.
LS	FLOOR MOUNTED LIQUID SENSOR. PROVIDE ARMORED CABLE FROM SENSOR TO JUNCTION BOX.
S	INTERCOM SPEAKER FLUSH MOUNTED IN CEILING.
	ALERTUS LED MARQUEE (SINGLE SIDED)
	ALERTUS LED MARQUEE (DOUBLE SIDED)

GENERAL SYMBOLS

# SHEET — DRAWING TITLE — SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
SHEET #	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES SECURITY REGION

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
B	BURIED
CAT.3/5	CATEGORY 3/5
CATV	COMMUNITY ANTENNA TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CLT	CLOSET
CO	CENTRAL OFFICE
DEMARC	DEMARCATION POINT
DPDT	DOUBLE PULL DOUBLE THROW
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
GIP	GALVANIZED IRON PIPE
HE	PA/INTERCOM HEAD-END
IRC	INTERMEDIATE RIGID CONDUIT
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MH	MANHOLE
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PBX	PRIVATE BRANCH EXCHANGE
PVC	POLYVINYL CHLORIDE
SM	SINGLE MODE
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
UTP	UNSHIELDED TWISTED PAIR

NOTES

1. CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF SECURITY DRAWINGS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. SECURITY DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECTDESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECTDESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.
5. ANY REFERENCE TO OR INDICATION OF DOOR HARDWARE IS SHOWN FOR REFERENCE ONLY. COORDINATE WITH THE DIVISION 8 ENGINEER/CONSULTANT FOR DOOR HARDWARE CLARIFICATION OR INFORMATION (BY DIV. 8).

INDEX OF DRAWINGS

TS000-M	SECURITY SYMBOLS & LEGEND
TS201-M	SECURITY LEVEL 01 FLOOR PLAN CONCESSION
TS400-M	SECURITY TYPICAL DETAILS
TS500-M	SECURITY SCHEDULES

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
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TS000-M
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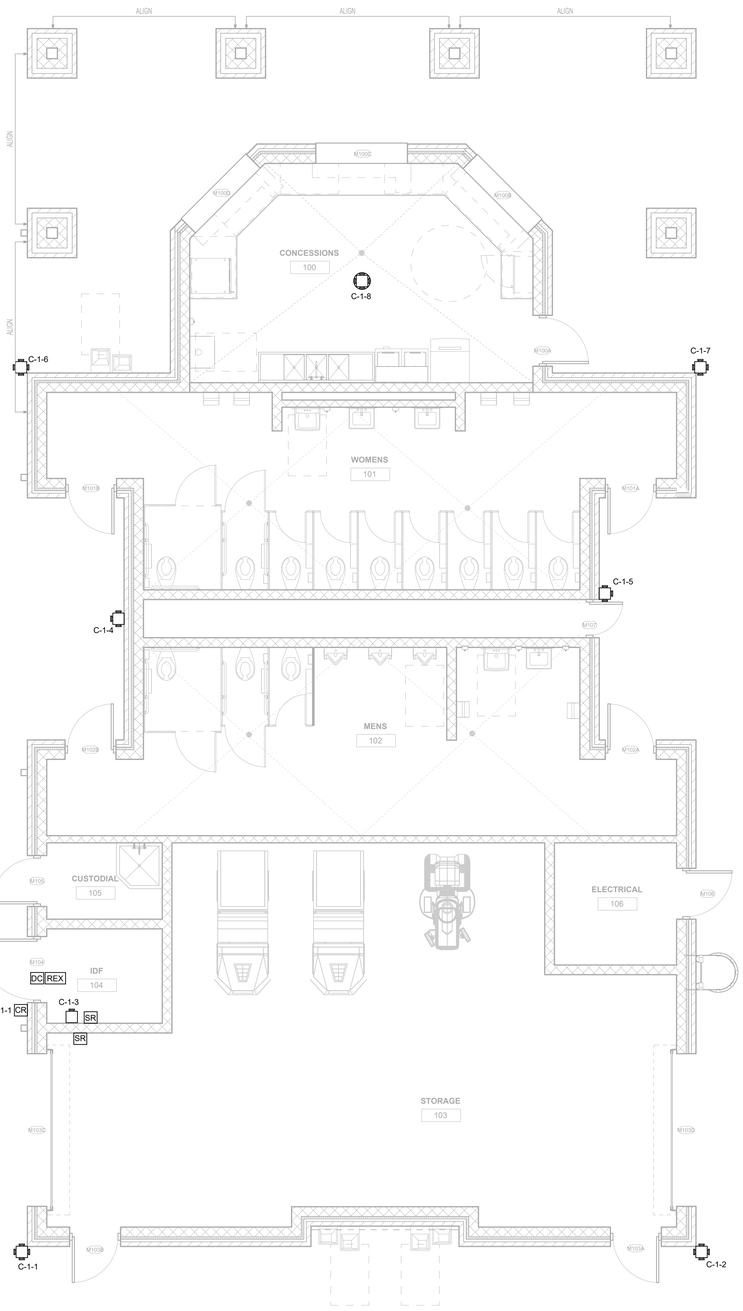

1 SECURITY LEVEL 01 FLOOR PLAN CONCESSION
TS201-M 1/4" = 1'-0"

GENERAL NOTES:

1. ALL SECURITY INSTALLATIONS SHALL COMPLY WITH LOCAL CODES AND PERMITTING REQUIREMENTS FOR LOW-VOLTAGE, CCTV, AND ACCESS CONTROL SYSTEMS. CONTRACTOR SHALL VERIFY AND OBTAIN ALL REQUIRED PERMITS PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL PROVIDE AND INSTALL ALL REQUIRED BOXES, CONDUIT, CABLING, SUPPORTS, TERMINATIONS, AND ACCESSORIES FOR A COMPLETE AND CODE-COMPLIANT SECURITY SYSTEM, WHETHER OR NOT EACH ITEM IS SPECIFICALLY SHOWN.
3. ALL CONDUIT PATHWAYS, ROUGH-INS, SLEEVES, AND ASSOCIATED INFRASTRUCTURE SHOWN ON SECURITY DRAWINGS SHALL BE INSTALLED BY DIVISION 26 (ELECTRICAL).
4. ALL POWER TO SECURITY DEVICES, PANELS, AND EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY DIVISION 26 (ELECTRICAL) UNLESS OTHERWISE NOTED.
5. SECURITY DATA NETWORK CABLING, FIBER CONNECTIVITY, AND ASSOCIATED EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY DIVISION 27 (COMMUNICATIONS). REFER TO T-SERIES DRAWINGS FOR ROUTING AND REQUIREMENTS.
6. ELECTRIFIED DOOR HARDWARE INDICATED ON SECURITY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 8. REFER TO DOOR HARDWARE SCHEDULES FOR MODEL TYPES, POWER TRANSFER DEVICES, AND CONTROL INTERFACE REQUIREMENTS.
7. VEHICLE GATE EQUIPMENT AND OPERATORS SHALL BE PROVIDED AND INSTALLED BY DIVISION 11. COORDINATE ALL SECURITY-RELATED RELAY CABLING AND TERMINATIONS IN THE FIELD.
8. ELEVATOR SECURITY INTERFACES, INCLUDING CARD READER FLOOR ACCESS, HALL CALL CONTROL, AND CAMERAS, SHALL BE COORDINATED WITH THE ELEVATOR VENDOR. TRAVEL CABLES AND ASSOCIATED TERMINATIONS SHALL BE PROVIDED AND INSTALLED BY THE ELEVATOR CONTRACTOR. REFER TO ELEVATOR SHOP DRAWINGS AND SPECIFICATIONS FOR INTERFACE REQUIREMENTS.
9. WHERE SYSTEMS INTERFACE WITH EMERGENCY SERVICES (E.G., GATES, EGRESS HARDWARE, OR INTERCOMS), COORDINATION WITH THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) IS REQUIRED PRIOR TO COMMISSIONING.
10. WHERE INTEGRATION WITH BUILDING SYSTEMS IS REQUIRED (E.G., BMS, ELEVATOR RECALL, INTERCOM, OR FIRE ALARM), COORDINATION SHALL BE PERFORMED WITH THE RESPECTIVE SYSTEM VENDORS PRIOR TO ROUGH-IN.
11. SECURITY EQUIPMENT SHALL BE POWERED FROM DEDICATED CIRCUITS UNLESS OTHERWISE NOTED. COORDINATE PANEL LOCATIONS, BREAKER REQUIREMENTS, AND UPS BACKUP (IF REQUIRED) WITH DIVISION 26.
12. ALL SECURITY SYSTEM COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER MANUFACTURER REQUIREMENTS AND APPLICABLE ELECTRICAL CODES.
13. CONTRACTOR SHALL COORDINATE ALL CONDUIT ROUTES WITH ARCHITECTURAL, CIVIL, ELECTRICAL, AND LANDSCAPE DRAWINGS PRIOR TO INSTALLATION OR TRENCHING.
14. ALL PENETRATIONS THROUGH FIRE-RATED WALLS OR STRUCTURES FOR SECURITY CABLING SHALL BE SEALED TO RESTORE ORIGINAL FIRE-RESISTANCE RATINGS.
15. PENETRATIONS THROUGH NON-RATED WALLS SHALL BE SEALED TO REDUCE ACOUSTIC TRANSMISSION BETWEEN SPACES.
16. ALL WALL AND FLOOR PENETRATIONS SHALL BE SEALED TO PREVENT WATER INTRUSION INTO INTERIOR OR CONDITIONED SPACES.
17. CONTRACTOR SHALL RESTORE ALL SURFACES (E.G., WALLS, PAVEMENT, LANDSCAPING) AFFECTED BY SECURITY INSTALLATION TO ORIGINAL OR BETTER CONDITION.
18. ALL SECURITY DEVICE LOCATIONS SHOWN ARE DIAGRAMMATIC AND NOT TO SCALE. FINAL PLACEMENT SHALL BE COORDINATED WITH THE ARCHITECT OR SECURITY DESIGN CONSULTANT PRIOR TO ROUGH-IN.
19. COORDINATE ALL EXTERIOR CAMERA LOCATIONS WITH LANDSCAPING AND ADJACENT BUILDING ELEMENTS. ENSURE CLEAR FIELDS OF VIEW FREE FROM OBSTRUCTIONS SUCH AS TREES, DOWNSPOUTS, OR SIGNAGE.
20. DEVICE MOUNTING HEIGHTS, INCLUDING ACCESS CONTROL AND INTERCOMS, SHALL COMPLY WITH ADA ACCESSIBILITY STANDARDS AND APPLICABLE LOCAL AND STATE CODES.
21. VERIFY EXACT MOUNTING CONDITIONS IN THE FIELD AND COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS WITH STRUCTURE, FINISHES, OR UTILITIES.
22. ALL INSTALLED SYSTEMS AND COMPONENTS SHALL BE TESTED FOR FULL FUNCTIONALITY, INTEGRATION, AND COMPLIANCE WITH SPECIFICATIONS PRIOR TO FINAL TURNOVER.
23. CONTRACTOR SHALL COORDINATE FINAL TERMINATIONS, PROGRAMMING, AND SYSTEM COMMISSIONING WITH THE SECURITY VENDOR OR INTEGRATOR. SYSTEM FUNCTIONALITY SHALL BE DEMONSTRATED AND ACCEPTED BY THE OWNER PER WRITTEN SPECIFICATIONS.
24. CONTRACTOR SHALL REFER TO T-SERIES TECHNOLOGY OR STRUCTURED CABLING DRAWINGS FOR DEVICE DATA NETWORK CABLING, RISER INFORMATION, AND ADDITIONAL SYSTEM-SPECIFIC REQUIREMENTS.
25. CONTRACTOR SHALL SUBMIT PRODUCT DATA SHEETS, SHOP DRAWINGS, AND DEVICE CUT SHEETS FOR ALL SECURITY EQUIPMENT FOR REVIEW AND APPROVAL PRIOR TO ORDERING.
26. UPON COMPLETION, PROVIDE RECORD DRAWINGS (AS-BUILTS), INCLUDING CONDUIT ROUTING, DEVICE LOCATIONS, CABLE IDS, AND PANEL TERMINATIONS. LABEL ALL DEVICES IN THE FIELD TO MATCH RECORD DOCUMENTS.
27. CONTRACTOR SHALL NOTIFY THE SECURITY CONSULTANT AND/OR ARCHITECT OF ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS PRIOR TO INSTALLATION. UNAUTHORIZED SUBSTITUTIONS OR RELOCATIONS MAY BE SUBJECT TO REMOVAL AND CORRECTION AT THE CONTRACTOR'S EXPENSE.

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
THURGOOD MARSHALL HIGH SCHOOL

FBISD INSPIRE+EQUIP+IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
25113
STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
No. Date Description

100% CD

TS201-M
SECURITY LEVEL 01
FLOOR PLAN
CONCESSION

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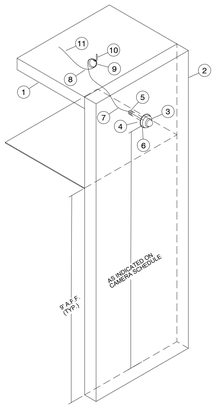


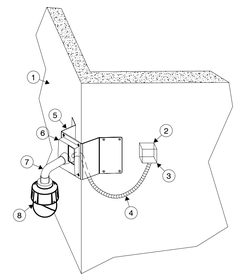
KEYED NOTES:

1. CEILING DECK AS SCHEDULED.
2. EXTERIOR WALL AS SCHEDULED.
3. EXTERIOR WALL MOUNTED IP VIDEO SURVEILLANCE DOME CAMERA (REFERENCE SPECIFICATION)
4. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
5. 3/4-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING (BY DIV 26).
6. WEATHERTIGHT GASKET FOR WEATHERPROOF BACKBOX (BY DIV 26).
7. PATCH CORD AS SPECIFIED.
8. SURFACE MOUNT BOX ABOVE ACCESSIBLE CEILING (BY DIV 27).
9. 20 FOOT SERVICE LOOP ABOVE ACCESSIBLE CEILING NEATLY COILED AND SECURED TO J-HOOK (BY DIV 27).
10. J-HOOK ABOVE ACCESSIBLE CEILING (BY DIV 27).
11. DATA CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).

TYPICAL EXTERIOR WALL MOUNTED SURVEILLANCE CAMERA

1 TS400-M

SCALE: N.T.S.



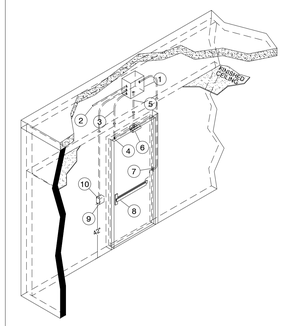
KEYED NOTES:

1. SCHEDULED EXTERIOR WALL.
2. 4 11/16" X 4 11/16" X 2 1/8" DOUBLE GANG WATER PROOF BACKBOX INSTALLED FLUSH WITH THE BUILDING CONTRACTOR SHALL INSTALL BACKBOX NO FURTHER THAN 18-INCHES FROM THE CORNER OF THE BUILDING (BY DIV. 26).
3. ADJUSTABLE SEAL TIGHT BACKBOX WATER PROOF COVER PLATE (BY DIV. 26).
4. 3/4-INCH SEAL TIGHT FROM 4 11/16" X 4 11/16" X 2 1/8" DOUBLE GANG WATER PROOF BACKBOX COVER PLATE TO WALL MOUNTED CORNER BRACKET (BY DIV. 26).
5. CORNER MOUNT BRACKET.
6. WALL MOUNT BRACKET.
7. PENDANT KIT.
8. SURVEILLANCE CAMERA.

TYPICAL EXTERIOR CORNER MOUNTED SURVEILLANCE CAMERA

2 TS400-M

SCALE: N.T.S.



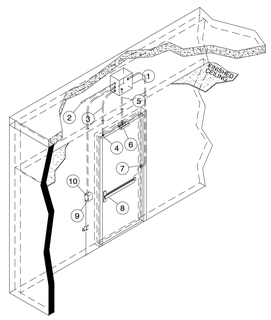
KEYED NOTES:

1. (1) 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX MOUNTED ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR (BY DIV. 26).
2. (1) 1-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX TO ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR FOR ACCESS CONTROL CABLE (BY DIV. 26).
3. (1) 1/2-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX TO HEAD OF DOOR FRAME FOR CONCEALED DOOR POSITION SWITCH. STUB CONDUIT INTO HEAD OF DOOR FRAME 6-INCHES FROM THE STRIKE SIDE OF THE DOOR. PROVIDE A 3-INCH BLOCKOUT FOR GROUTED DOORS (BY DIV. 26).
4. CONCEALED DOOR POSITION SWITCH (BY DIV. 28).
5. (1) 1/2-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 12-INCH DEEP JUNCTION BOX TO A RECESSED SINGLE GANG BOX WITH A SINGLE GANG PLASTER RING INSTALLED HORIZONTALLY 6-INCHES ABOVE HEAD OF DOOR FRAME ON CENTERLINE OF DOOR AND ON SECURE SIDE OF DOOR FOR REQUEST TO EXIT MOTION SENSOR (BY DIV. 26).
6. (1) REQUEST TO EXIT MOTION SENSOR ON SECURE SIDE OF DOOR (BY DIV. 28).
7. (1) 3/4-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX DOWN DOOR FRAME FOR POWER TRANSFER HINGE (BY DIV. 26).
8. (1) ELECTRIFIED EXIT DEVICE ON SECURE SIDE OF DOOR (BY DIV. 8).
9. (1) 3/4-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX TO A RECESSED DOUBLE GANG BOX WITH A SINGLE GANG PLASTER RING FOR CARD READER ON UNSECURE SIDE OF DOOR (BY DIV. 26).
10. (1) CARD READER ON UNSECURE SIDE OF DOOR (BY DIV. 28).

WALL MOUNTED CARD READER WITH ELECTRIFIED EXIT DEVICE AND FRAME MOUNTED REQUEST TO EXIT MOTION SENSOR

3 TS400-M

SCALE: N.T.S.



KEYED NOTES:

1. (1) 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX MOUNTED ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR (BY DIV. 26).
2. (1) 1-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX TO ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR FOR ACCESS CONTROL CABLE (BY DIV. 26).
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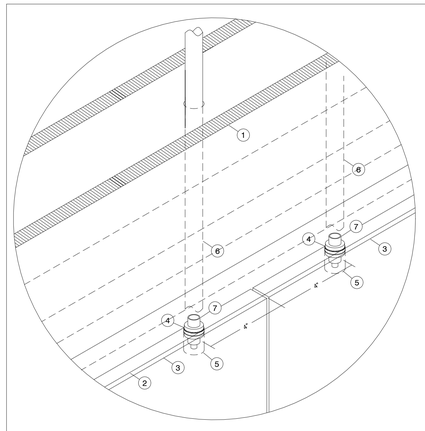
4. CONCEALED DOOR POSITION SWITCH (BY DIV. 28).
5. (1) 1/2-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 12-INCH DEEP JUNCTION BOX TO A RECESSED SINGLE GANG BOX WITH A SINGLE GANG PLASTER RING INSTALLED HORIZONTALLY 6-INCHES ABOVE HEAD OF DOOR FRAME ON CENTERLINE OF DOOR AND ON SECURE SIDE OF DOOR FOR REQUEST TO EXIT MOTION SENSOR (BY DIV. 26).
6. (1) REQUEST TO EXIT MOTION SENSOR ON SECURE SIDE OF DOOR (BY DIV. 28).
7. (1) 3/4-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX DOWN DOOR FRAME FOR POWER TRANSFER HINGE (BY DIV. 26).
8. (1) ELECTRIFIED EXIT DEVICE ON SECURE SIDE OF DOOR (BY DIV. 8).
9. (1) 3/4-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX TO A RECESSED DOUBLE GANG BOX WITH A SINGLE GANG PLASTER RING FOR CARD READER ON UNSECURE SIDE OF DOOR (BY DIV. 26).
10. (1) CARD READER ON UNSECURE SIDE OF DOOR (BY DIV. 28).

WALL MOUNTED CARD READER WITH ELECTRIFIED EXIT DEVICE AND FRAME MOUNTED REQUEST TO EXIT MOTION SENSOR

4 TS400-M

SCALE: N.T.S.



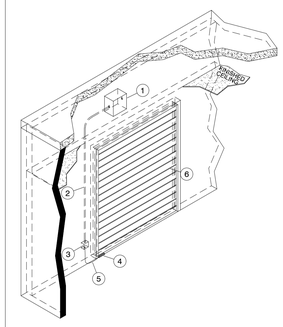
KEYED NOTES:

1. SCHEDULED PARTITION.
2. HEAD OF DOOR FRAME. PROVIDE TAB AT DOOR FRAME TO SECURE CONDUIT DIRECTLY ABOVE DOOR POSITION SWITCH.
3. SCHEDULED DOOR.
4. 15/16" DIAMETER HOLE IN THE HEAD OF FRAME FOR CONCEALED DOOR CONTACT.
5. 15/16" DIAMETER X 1 5/8" DEEP HOLE IN TOP OF DOOR FOR CONCEALED DOOR CONTACT MAGNET.
6. 1/2" CONDUIT FROM 6" X 6" X 4" JUNCTION BOX ABOVE DOOR (BY DIV 26).
7. DOOR CONTACT (REFERENCE SPECIFICATION).

DOOR CONTACT - DOUBLE DOOR RECESSED

5 TS400-M

SCALE: SCALE



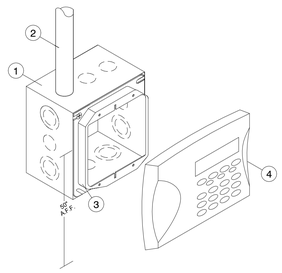
KEYED NOTES:

1. (1) 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX MOUNTED ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR (BY DIV. 26).
2. (1) 1-INCH EMT CONDUIT FROM 12-INCH WIDE X 12-INCH HIGH X 8-INCH DEEP JUNCTION BOX MOUNTED ABOVE ACCESSIBLE CEILING ON SECURE SIDE OF DOOR FOR OVERHEAD DOOR CONTACT CABLE (BY DIV. 26).
3. (1) 4-INCH WIDE X 4-INCH HIGH X 2 1/8" DEEP JUNCTION BOX SURFACE MOUNTED AT 1'-0" A.F.F. ON SECURE SIDE OF DOOR (BY DIV. 26).
4. OVERHEAD DOOR POSITION SWITCH SUFACE MOUNTED AND FASTENED TO FLOOR (BY DIV. 28).
5. ARMORED CABLE (BY DIV. 28).
6. OVERHEAD ROLL UP DOOR AS SCHEDULED.

DOOR CONTACT OVERHEAD DOOR (FLOOR MOUNT)

6 TS400-M

SCALE: N.T.S.



KEYED NOTES:

1. 4 1/16-INCH x 4 1/16-INCH x 2 1/8-INCH DOUBLE GANG BOX (BY DIV 26). RECESS WHEN POSSIBLE.
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED TO CABLE TRAY (BY DIV 26).
3. DOUBLE GANG PLASTER RING (BY DIV 26).
4. SCHEDULED ARM/DISARM KEYPAD (REFERENCE SPECIFICATION).

TYPICAL ARM/DISARM KEYPAD DETAIL

7 TS400-M

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pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
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BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL A. JAMES
20113
STATE OF TEXAS

12-05-2025

PROJECT NO.	25-006
DATE:	12-05-2025
DRAWN BY: BP	CHECKED BY: CCG

REVISIONS:

	Date	Description

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SECURITY TYPICAL DETAILS

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FBISD - FIELD HOUSE AND ATHLETICS - MARSHALL HS
VIDEO SURVEILLANCE SYSTEM DEVICE SCHEDULE

C-1-1	360° MULTI-DIRECTIONAL LENS	EXTERIOR	CORNER	12-FEET A.F.F.	
C-1-2	360° MULTI-DIRECTIONAL LENS	EXTERIOR	CORNER	12-FEET A.F.F.	
C-1-3	SINGLE LENS DOME	INTERIOR	WALL	9-FEET A.F.F.	
C-1-4	180° PANORAMIC	EXTERIOR	WALL	9-FEET A.F.F.	
C-1-5	180° PANORAMIC	EXTERIOR	WALL	9-FEET A.F.F.	
C-1-6	360° MULTI-DIRECTIONAL LENS	EXTERIOR	CORNER	12-FEET A.F.F.	
C-1-7	360° MULTI-DIRECTIONAL LENS	EXTERIOR	CORNER	12-FEET A.F.F.	
C-1-8	360° MULTI-DIRECTIONAL LENS	INTERIOR	CEILING	SEE TYPICAL DETAIL	

FBISD - FIELD HOUSE AND ATHLETICS - MARSHALL HS
ACCESS CONTROL SYSTEM DEVICE SCHEDULE

CR-1-1	CARD READER	WALL	M104	SINGLE	48-INCHES A.F.F.	COORDINATE WITH OWNER	

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

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Sugarland, TX 77479

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SECURITY SCHEDULES

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FORT BEND ISD
BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

RIDGEPOINT HIGH SCHOOL
100% CONSTRUCTION DOCUMENTS

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- G0.01-R TAS 1 OF 2
- G0.02-R TAS 2 OF 2
- G0.03-R 01 CODE PLAN - CONCESSION

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- C 0.02-R CIVIL SPORTS SURVEY (REFERENCE ONLY)
- C 0.04-R CIVIL SPORTS DEMOLITION PLAN
- C 1.01-R CIVIL SPORTS SITE PLAN
- C 4.01-R CIVIL SPORTS SWPP PLAN
- C 5.01-R CIVIL SPORTS DETAILS
- C 5.02-R CIVIL SPORTS DETAILS

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- S1.01-R GENERAL NOTES
- S1.02-R GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SCHEDULES
- S2.01-R FOUNDATION AND FRAMING PLAN - STORAGE FOR TENNIS
- S3.01-R TYPICAL FOUNDATION DETAILS
- S3.02-R TYPICAL FOUNDATION DETAILS
- S3.03-R TYPICAL FOUNDATION DETAILS
- S3.11-R FOUNDATION SITE DETAILS
- S4.01-R TYPICAL CMU WALL DETAILS

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- A2.02-R MATERIAL SCHEDULE & INTERIOR DETAILS
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- E1.01-R ELECTRICAL SITE PLAN
- E2.01-R ELECTRICAL SCHEDULES, DETAILS, AND LEGENDS

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- T000-T TECHNOLOGY SYMBOLS & LEGEND
- T100-R TECHNOLOGY SITE PLAN
- T201-R TECHNOLOGY FLOOR PLAN FIELD HOUSE

SCOPE OF WORK

SID12514 - REPLACE SPORTS FIELD LIGHTS WITH LED LIGHTING
- NEW FIXTURES UTILIZING EXISTING POLES

SID12523 - TENNIS COURT IMPROVEMENTS
- NEW FENCING
- **ALTERNATE NO. 6 -** CONCRETE PAD AROUND STORAGE
- **ALTERNATE NO. 6 -** NEW CMU STORAGE SHED

SECTION 2
- REPLACE LOCKERS IN FIELDHOUSE LOCKER ROOMS
- RESURFACE TRACK

BOARD OF TRUSTEES

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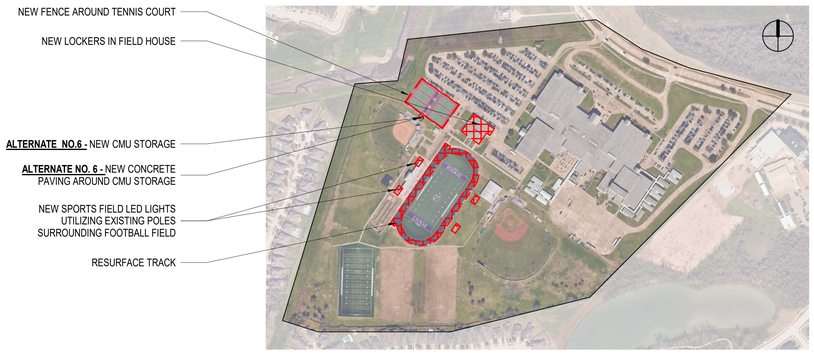
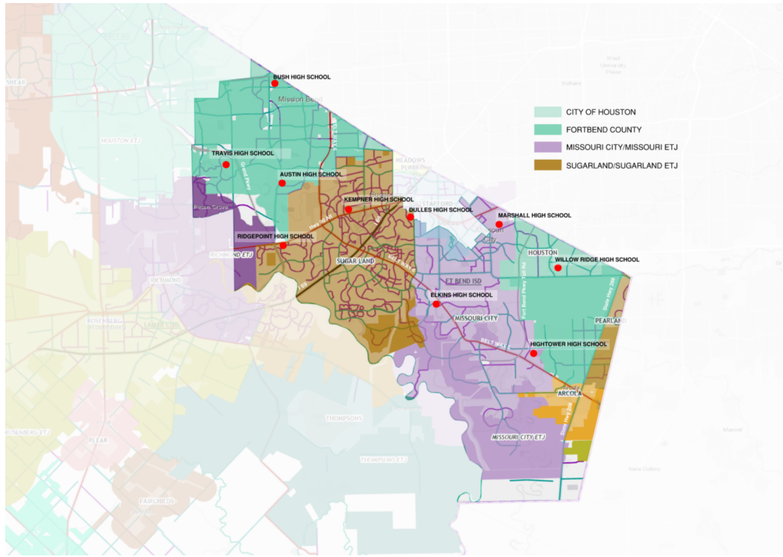
RIDGEPOINT HIGH SCHOOL CAMPUS KEY PLAN



LOCATION MAP



ALTERNATES

ALTERNATE NO. 6 - RIDGEPOINT HIGH SCHOOL: CMU STORAGE AND CONCRETE PAVEMENT NEAR TENNIS COURT.

CIVIL

TEXAS SPORTS AND CIVIL ENGINEERING
11767 Katy Freeway, Suite 1112
Houston, TX 77079
P: 346.204.4854
www.texsce.com

MEPT

SALAS O'BRIEN
10930 W. San Houston Pkwy N. Suite 900
HOUSTON, TX 77064
P: (866) 768 4625
https://salasobrien.com

STRUCTURAL

MATRIX STRUCTURAL
5177 Richmond Ave Ste 670
HOUSTON, TX 77056
P: (713) 664-0130
matrixstructural.com

PFLUGER ARCHITECTS

PFLUGER ARCHITECTS
2 GREENWAY PLAZA #460
HOUSTON, TX 77046
P:(713) 222-1141
www.pflugerarchitects.com

pfluger
office: 713.222.1141 | fax: 713.222.1177
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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RIDGEPOINT HIGH SCHOOL

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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

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RIDGEPOINT HIGH SCHOOL

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THE FOLLOWING SECTION OF DETAILS PROVIDES INFORMATION ON REQUIREMENTS FOR DISABLED ACCESSIBILITY. THE REQUIREMENTS COMBINE MINIMUM REQUIREMENTS OF STATE AND FEDERAL AGENCIES. THE PURPOSE OF THIS SECTION IS TO HELP AVOID INSTALLATION OF MATERIALS ON CONSTRUCTION PROJECTS THAT WOULD LIMIT ACCESSIBILITY. THE SCOPE OF THIS SECTION IS LIMITED AND THE INDIVIDUALS WORKING ON THE PROJECT SHOULD FAMILIARIZE THEMSELVES WITH TEXAS ACCESSIBILITY STANDARD (TAS) AND AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COPIES OF THESE DOCUMENTS MAY BE OBTAINED BY CONTACTING THE FOLLOWING:

TAS:
TEXAS DEPT. OF LICENSING & REGULATION
P.O. BOX 12157
AUSTIN, TEXAS 78711
(800) 803-9202
TDD (800) 735-2989
WWW.LICENSE.STATE.TX.US

ADAAG:
SOUTHWEST DISABILITY AND BUSINESS
TECHNICAL ASSISTANCE CENTER FOR
REGION VI,
2323 S. SHEPERD, SUITE 1000
HOUSTON, TEXAS 77019
ADA HOTLINE: (800) 949-4232
TDD: (713) 520-5136 -OR- (713) 520-0232
FAX: (713) 520-5785

IN THE EVENT THE INFORMATION ON THE PLAN SHEETS DOES NOT MEET THE MINIMUM REQUIREMENTS OF THE SECTION, THEN THE INFORMATION SHALL BE PRESENTED TO THE ARCHITECT FOR CLARIFICATION PRIOR TO CONSTRUCTION OF SPECIFIC AREA OF WORK.

ELIMINATION OF ARCHITECTURAL BARRIERS
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (ADA)

IN ACCORDANCE WITH ACCESSIBILITY REQUIREMENTS, THE FOLLOWING STANDARDS SHALL BE INCLUDED WHEN BIDDING ON PROJECTS INVOLVING RENOVATION OF OR NEW FACILITIES FOR PUBLIC ACCOMMODATION OR COMMERCIAL FACILITIES. ANY ITEMS NOT CONFORMING TO THESE OR ANY OTHER STANDARDS, CODES, OR ORDINANCES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT FOR HIS INTERPRETATION. IN THE EVENT THE INFORMATION LISTED IN THIS DOCUMENT CONFLICTS WITH ANY PORTION OF THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT, IN WRITING, OF HIS NEED FOR A SOLUTION TO RESOLVE THE CONFLICT. THE MOUNTING HEIGHTS INDICATED ARE FOR ITEMS THAT REQUIRE ACCESSIBILITY BY DISABLED INDIVIDUALS. WHERE TWO OR MORE ITEMS ARE GROUPED IN ONE AREA (MIRRORS, SINKS, TOILETS, DRINKING FOUNTAINS, URINALS, SHELVES, TELEPHONES, ETC.) NOT ALL ITEMS IN THE AREA HAVE TO BE MOUNTED AT HANDICAP HEIGHT. CONTRACTOR TO COORDINATE THESE INSTALLATION HEIGHTS WITH OTHER MATERIALS FOR NEAT, TRIMMED OUT AND FINISHED APPEARANCE. ITEMS FOR DISABLED INDIVIDUAL USE SHALL BE MOUNTED AT HEIGHT INDICATED FOR AGE LEVEL AS NOTED.

CHAPTER 1: APPLICATION AND ADMINISTRATION

TAS SECTION 104 - CONVENTIONS
A. ALL DIMENSIONS ARE SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES EXCEPT WHERE THE REQUIREMENT IS STATED AS A RANGE WITH SPECIFIC MINIMUM AND MAXIMUM POINTS.
B. UNLESS SPECIFICALLY STATED OTHERWISE, FIGURES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

CHAPTER 2: SCOPING REQUIREMENTS

TAS SECTION 201.1 - SCOPE
A. ALL AREAS OF NEWLY DESIGNED AND NEWLY CONSTRUCTED BUILDINGS AND FACILITIES AN ALTERED PORTIONS OF EXISTING BUILDINGS AND FACILITIES SHALL COMPLY WITH THESE REQUIREMENTS.

TAS SECTION 202 - EXISTING BUILDINGS AND FACILITIES
A. EACH ADDITION TO AN EXISTING BUILDING OR FACILITY SHALL COMPLY WITH THE REQUIREMENTS FOR NEW CONSTRUCTION. EACH ADDITION THAT AFFECTS OR COULD EFFECT THE USABILITY OF OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL COMPLY WITH 202.4.
B. WHERE EXISTING ELEMENTS, SPACES, OR COMMON USE AREAS ARE ALTERED, EACH ALTERED ELEMENT, SPACE, OR COMMON USE AREA SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 2.
C. AN ALTERATION THAT DECREASES THE ACCESSIBILITY OF A BUILDING OR FACILITY BELOW THE REQUIREMENTS FOR NEW CONSTRUCTION AT THE TIME OF THE ALTERATION IS PROHIBITED.
D. AN ALTERATION OF AN EXISTING ELEMENT, SPACE, OR AREA OF A BUILDING OR FACILITY SHALL NOT IMPOSE A REQUIREMENT FOR ACCESSIBILITY GREATER THAN REQUIRED FOR NEW CONSTRUCTION.
E. ALTERATIONS THAT AFFECT THE USABILITY OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL BE MADE SO AS TO ENSURE USAGE BY INDIVIDUALS WITH DISABILITIES.

TAS SECTION 204 - PROTRUDING OBJECTS
A. WITHIN AREAS OF ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOM AND SPACES SHALL COMPLY WITH 309.
B. WITHIN AREAS OF SPORTS ACTIVITY, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307.
C. WITHIN PLAY AREAS, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307 PROVIDED THAT GROUND LEVEL ACCESSIBLE ROUTES PROVIDE VERTICAL CLEARANCE IN COMPLIANCE WITH 1008.2.

TAS SECTION 205 - OPERABLE PARTS
A. OPERABLE PARTS ON ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOMS AND SPACES SHALL COMPLY WITH 309.
B. OPERABLE PARTS INTENDED FOR USE ONLY BY SERVICE OR MAINTENANCE PERSONNEL SHALL NOT BE REQUIRED TO COMPLY WITH 309.
C. ELECTRICAL OR COMMUNICATION RECEPTACLES SERVING A DEDICATED USE SHALL NOT BE REQUIRED TO COMPLY WITH 309.

TAS SECTION 206 - ACCESSIBLE ROUTES
A. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
B. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE
C. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH STORY AND MEZZANINE IN MULTI-STORY BUILDINGS AND FACILITIES.
D. IN RESTAURANTS AND CAFETERIAS, AN ACCESSIBLE ROUTE SHALL BE PROVIDED TO ALL DINING AREAS, INCLUDING RAISED OR SUNKEN DINING AREAS, AND OUTDOOR DINING AREAS.
E. WHERE A CIRCULATION PATH DIRECTLY CONNECTS A PERFORMANCE AREA TO AN ASSEMBLY AREA, AN ACCESSIBLE ROUTE SHALL DIRECTLY CONNECT THE ASSEMBLY SEATING AREA WITH THE PERFORMANCE AREA. AN ACCESSIBLE ROUTE SHALL BE PROVIDED FROM PERFORMANCE AREAS TO ANCILLARY AREAS OR FACILITIES USED BY PERFORMERS.

TAS SECTION 207 - ACCESSIBLE MEANS OF EGRESS
A. MEANS OF EGRESS SHALL COMPLY WITH SECTION 1003.2.13 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION.)
B. STANDBY POWER SHALL BE PROVIDED FOR PLATFORM LIFTS PERMITTED BY SECTION 1003.2.13.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007.5 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO SERVE AS A PART OF AN ACCESSIBLE MEANS OF EGRESS.

TAS SECTION 208 - PARKING SPACES
A. PARKING SPACES SHALL COMPLY WITH 502 AND SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 208.2 EXCEPT REQUIRED BY 208.2.1, 208.2.2, AND 208.2.3. WHERE MORE THAN ONE PARKING FACILITY IS PROVIDED ON A SITE, THE NUMBER OF ACCESSIBLE SPACES PROVIDED ON THE SITE SHALL BE CALCULATED ACCORDING TO THE NUMBER OF SPACES REQUIRED FOR EACH PARKING FACILITY.

TABLE 208.2 PARKING SPACES

TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES	TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES
1 TO 25	1	201 TO 300	7
26 TO 50	2	301 TO 400	8
51 TO 75	3	401 TO 500	9
76 TO 100	4	501 TO 1000	2 PERCENT OF TOTAL
101 TO 150	5	1000 AND OVER	20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000
151 TO 200	6		

TAS SECTION 208.2.4 - VAN PARKING SPACES
A. FOR EVERY SIX OR FRACTION OF SIX PARKING SPACES REQUIRED BY 208.2 TO COMPLY WITH 502, AT LEAST ONE SHALL BE A VAN PARKING SPACE COMPLYING WITH 502.

TAS SECTION 208.3 - LOCATION
A. PARKING SPACES COMPLYING WITH 502 THAT SERVE A PARTICULAR BUILDING OR FACILITY SHALL BE LOCATED ON THE SHORTEST POSSIBLE ACCESSIBLE ROUTE FROM PARKING LOT TO AN ENTRANCE. WHERE PARKING SERVES MORE THAN ONE ACCESSIBLE ENTRANCE, PARKING SPACES COMPLYING WITH 502 SHALL BE DISPERSED AND LOCATED AT THE SHORTEST ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCES.

TAS SECTION 209 - PASSENGER LOADING ZONES AND BUS STOPS
A. PASSENGER LOADING ZONES, EXCEPT THOSE REQUIRED TO COMPLY WITH 209.2.2 AND 209.2.3, SHALL PROVIDE AT LEAST ONE PASSENGER LOADING ZONE COMPLYING WITH 503 IN EVERY CONTINUOUS 100 LINEAR FEET (30M) OF LOADING ZONE SPACE, OR FRACTION THEREOF.
B. IN BUS LOADING ZONES RESTRICTED TO USE BY DESIGNATED OR SPECIFIED PUBLIC TRANSPORTATION VEHICLES, EACH BUS BAY, BUS STOP, OR OTHER AREA DESIGNATED FOR LIFT OR RAMP DEPLOYMENT SHALL COMPLY WITH 810.2

TAS SECTION 210 - STAIRWAYS
A. INTERIOR AND EXTERIOR STAIRS THAT ARE PART OF A MEANS OF EGRESS SHALL COMPLY WITH 504. ALTHOUGH HANDRAILS ON STAIRS THAT ARE NOT PART OF A MEANS OF EGRESS, STATE OR LOCAL BUILDING CODES MAY REQUIRE HANDRAILS OR GUARDS.

TAS SECTION 211 - DRINKING FOUNTAINS
A. NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED.
B. MORE THAN THE MINIMUM NUMBER OF DRINKING FOUNTAINS SPECIFIED IN 211.2 ARE PROVIDED, 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.1 THROUGH 602.6, AND 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.7

TAS SECTION 212 - KITCHENS, KITCHENETTES, AND SINKS
A. KITCHENS AND KITCHENETTES SHALL COMPLY WITH 804.
B. WHERE SINKS ARE PROVIDED, AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE, OF EACH TYPE PROVIDED IN EACH ACCESSIBLE ROOM OR SPACE SHALL COMPLY WITH 606.

TAS SECTION 213 - TOILET FACILITIES AND BATHING FACILITIES
A. WHERE TOILET FACILITIES AND BATHING FACILITIES ARE PROVIDED, THEY SHALL COMPLY WITH 213. TOILET FACILITIES AND BATHING FACILITIES SHALL BE PROVIDED ON A STORY CONNECTED BY AN ACCESSIBLE ROUTE TO AN ACCESSIBLE ENTRANCE.
B. TOILET RESTROOMS AND BATHING ROOMS SHALL COMPLY WITH 603.
C. WHERE MULTIPLE SINGLE USER TOILET ROOMS ARE CLUSTERED AT A SINGLE LOCATION, NO MORE THAN 50% OF THE SINGLE USER TOILET ROOMS FOR EACH USE AT EACH CLUSTER SHALL BE REQUIRED TO COMPLY WITH 603.
D. UNISEX TOILET ROOMS AND UNISEX BATHING ROOMS SHALL CONTAIN NOT MORE THAN ONE LAVATORY, AND TWO WATER CLOSETS WITHOUT URINALS OR ONE WATER CLOSET AND ONE URINAL. UNISEX BATHING ROOMS CONTAIN ONE SHOWER OR ONE SHOWER AND ONE BATHTUB, ONE LAVATORY, AND ONE WATER CLOSET. DOORS TO UNISEX RESTROOMS AND BATHING ROOMS SHALL HAVE PRIVACY LATCHES.

TAS SECTION 214 - WASHING MACHINES AND CLOTHES DRYERS
A. WHERE 3 OR FEWER WASHING MACHINES ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 WASHING MACHINES ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
B. WHERE 3 OR FEWER CLOTHES DRYERS ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 CLOTHES DRYERS ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.

TAS SECTION 215 - FIRE ALARM SYSTEMS
A. ALARMS IN PUBLIC USE AREAS AND COMMON USE AREAS SHALL COMPLY WITH 702.
B. WHERE EMPLOYEE WORK AREAS HAVE AUDIBLE ALARM COVERAGE, THE WIRING SYSTEM SHALL BE DESIGNED SO THAT THE VISIBLE ALARMS COMPLYING WITH 702 CAN BE INTEGRATED INTO THE ALARM SYSTEM.

TAS SECTION 216 - SIGNS
A. SIGNS SHALL COMPLY WITH 703. BUILDING DIRECTORIES, MENUS, SEAT AND ROW DESIGNATIONS IN ASSEMBLY AREAS, OCCUPANT NAMES, BUILDING ADDRESSES, AND COMPANY NAMES AND LOGOS SHALL NOT BE REQUIRED TO COMPLY WITH 216.
B. SIGNS REQUIRED BY SECTION 1003.2.13.5.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 1007.6.4 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE INSTRUCTIONS IN AREAS OF REFUGE SHALL COMPLY WITH 703.5.
C. DIRECTIONAL SIGNS REQUIRED BY SECTION 1003.2.13.6 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 707.7 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE DIRECTIONS TO ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 703.5.
D. WHERE NOT ALL ENTRANCES COMPLY WITH 404, ENTRANCES COMPLYING WITH 404 SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1. DIRECTIONAL SIGNS COMPLYING WITH 703.5 THAT INDICATE THE LOCATION OF THE NEAREST ENTRANCE COMPLYING WITH 404 SHALL BE PROVIDED AT ENTRANCES THAT DO NOT COMPLY WITH 404.

TAS SECTION 217 - TELEPHONES
A. WHERE PUBLIC TELEPHONE ARE PROVIDED, WHEELCHAIR ACCESSIBLE TELEPHONES COMPLYING WITH 704.2 SHALL BE PROVIDED.

CHAPTER 2: SCOPING REQUIREMENTS (CONTINUED)

TAS SECTION 219 - ASSISTIVE LISTENING SYSTEMS
A. IN EACH ASSEMBLY AREA WHERE AUDIBLE COMMUNICATION IS INTEGRAL TO THE USE OF THE SPACE, AN ASSISTIVE LISTENING SYSTEM SHALL BE PROVIDED.
B. WHERE ALL SEATS IN AN ASSEMBLY AREA ARE SERVED BY AN INTRODUCTION LOOP ASSISTIVE LEARNING SYSTEM, THE MINIMUM NUMBER OF RECEIVERS REQUIRED BY TABLE 219.3 TO BE HEARING-AID COMPATIBLE SHALL NOT BE REQUIRED TO BE PROVIDED.

TAS SECTION 220 - AUTOMATIC TELLER MACHINES AND FARE MACHINES
A. WHERE AUTOMATIC TELLER MACHINES OR SELF-SERVICE FARE VENDING, COLLECTION, OR ADJUSTMENT MACHINES ARE PROVIDED, AT LEAST ONE OF EACH TYPE PROVIDED AT EACH LOCATION SHALL COMPLY WITH 707. WHERE BINS ARE PROVIDED FOR ENVELOPES, WASTE PAPER, OR OTHER PURPOSES, AT LEAST ONE OF EACH SHALL COMPLY WITH 811.

TAS SECTION 221 - ASSEMBLY AREAS
A. ASSEMBLY AREAS SHALL PROVIDE WHEELCHAIR SPACES, COMPANION SEATS, AND DESIGNATED AISLE SEATS COMPLYING WITH 221 AND 802.
B. WHEELCHAIR SPACES COMPLYING WITH 802.1 SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 221.2.1.1.
C. WHEELCHAIR SPACES SHALL BE AN INTEGRAL PART OF THE SEATING PLAN.
D. WHEELCHAIR SPACES SHALL PROVIDE LINES OF SIGHT COMPLYING WITH 802.2. IN PROVIDING LINES OF SIGHT, WHEELCHAIR SPACES SHALL BE DISPERSED. WHEELCHAIR SPACES SHALL PROVIDE SPECTATORS WITH CHOICES OF SEATING LOCATIONS OR VIEWING ANGLES EQUAL TO OR BETTER THAN SEATING LOCATIONS AND VIEWING ANGLES OF OTHER SPECTATORS.
E. AT LEAST 5% OF THE TOTAL NUMBER OF AISLE SEATS PROVIDED SHALL COMPLY WITH 802.4 AND SHALL BE THE AISLE SEATS LOCATED CLOSEST TO THE ACCESSIBLE ROUTES.

TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES	NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES
4 TO 25	1	301 TO 500	6
26 TO 50	2	501 TO 5000	6, PLUS 1 FOR EACH 150, OR FRACTION THEREOF, BETWEEN 501 THROUGH 5000
51 TO 150	4	5001 AND OVER	36, PLUS 1 FOR EACH 200, OR FRACTION THEREOF, OVER 5000
151 TO 300	5		

TAS SECTION 222 - DRESSING, FITTING, AND LOCKER ROOMS
A. WHERE DRESSING ROOMS, FITTING ROOMS, OR LOCKER ROOMS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE, OF EACH TYPE OF USE IN EACH CLUSTER PROVIDED SHALL COMPLY WITH 803.
B. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN DRESSING FITTING OR LOCKER ROOMS W/O INDIVIDUAL COMPARTMENTS, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 803.5. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN INDIVIDUAL COMPARTMENTS AT LEAST ONE OF EACH TYPE SHALL BE PROVIDED IN ACCORDANCE WITH 223.

TAS SECTION 223 - MEDICAL CARE AND LONG-TERM CARE FACILITIES
A. IN LICENSED MEDICAL CARE FACILITIES AND LICENSED LONG-TERM CARE FACILITIES WHERE THE PERIOD OF STAY EXCEEDS TWENTY-FOUR HOURS, PATIENT OR RESIDENT SLEEPING ROOMS SHALL BE PROVIDED IN ACCORDANCE WITH 223. TOILET ROOMS PART OF CRITICAL OR INTENSIVE CARE PATIENT SLEEPING ROOMS SHALL NOT BE REQUIRED TO COMPLY WITH 603.

TAS SECTION 224 - TRANSIENT LODGING FACILITIES AND GUEST ROOMS
A. TRANSIENT LODGING FACILITIES SHALL PROVIDE GUEST ROOMS IN ACCORDANCE WITH 224. PLACES OF LODGING AND HOUSING AT A PLACE OF EDUCATION SHALL COMPLY WITH THE PROVISIONS APPLICABLE TO TRANSIENT LODGING, INCLUDING, BUT NOT LIMITED TO, THE REQUIREMENTS FOR TRANSIENT LODGING GUEST ROOMS IN SECTIONS 224 AND 806.
B. ENTRANCES, DOORS, AND DOORWAYS PROVIDING USER PASSAGE INTO AND WITHIN THE GUEST ROOMS THAT ARE NOT REQUIRED TO PROVIDE MOBILITY FEATURES COMPLYING WITH 806.2 SHALL COMPLY WITH 404.2.3.
C. IN GUEST ROOMS HAVING MORE THAN 25 BEDS, 5% MINIMUM OF THE BEDS SHALL HAVE CLEAR FLOOR SPACE COMPLYING WITH 806.2.3.

TAS SECTION 225 - STORAGE
A. WHERE STORAGE IS PROVIDED, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 811.
B. WHERE LOCKERS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE, SHALL COMPLY WITH 811.

TAS SECTION 226 - DINING SURFACES AND WORK SURFACES
A. WHERE DINING SURFACES ARE PROVIDED FOR THE CONSUMPTION OF FOOD OR DRINK, AT LEAST 5% OF THE SEATING SPACES AND STANDING SPACES AT THE DINING SURFACES SHALL COMPLY WITH 902. IN ADDITION, WHERE WORK SURFACES ARE PROVIDED FOR USE BY OTHER THAN EMPLOYEES, AT LEAST 5% SHALL COMPLY WITH 902.

TAS SECTION 227 - SALES AND SERVICE
A. WHERE PROVIDED, CHECK-OUT AISLES, SALES COUNTERS, SERVICE COUNTERS, FOOD SERVICE LINES, QUEUES, AND WAITING LINES SHALL COMPLY WITH 227 AND 904.
B. WHERE COUNTERS ARE PROVIDED, AT LEAST ONE OF EACH TYPE OF SALES COUNTER AND SERVICE COUNTER SHALL COMPLY WITH 904.4. WHERE COUNTERS ARE DISPERSED THROUGHOUT THE FACILITY, COUNTERS COMPLYING WITH 904.4 SHALL ALSO BE DISPERSED.
C. QUEUES AND WAITING LINES SERVICING COUNTERS OR CHECK-OUT AISLES REQUIRED TO COMPLY WITH 904.3 OR 904.4 SHALL COMPLY WITH 403.

TAS SECTION 228 - DEPOSITORIES, VENDING MACHINES, CHANGE MACHINES, MAIL BOXES
A. WHERE PROVIDED, AT LEAST ONE OF EACH TYPE OF DEPOSITORY, VENDING MACHINE, CHANGE MACHINE, AND FUEL DISPENSER SHALL COMPLY WITH 309.
B. WHERE MAIL BOXES ARE PROVIDED IN AN INTERIOR LOCATION, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE SHALL COMPLY WITH 309.

TAS SECTION 229 - WINDOWS
A. WHERE GLAZED OPENINGS ARE PROVIDED IN ACCESSIBLE ROOMS OR SPACES FOR OPERATION BY OCCUPANTS, AT LEAST ONE MUST OPENING SHALL COMPLY WITH 309. EACH GLAZED OPENING REQUIRED BY AN ADMINISTRATIVE AUTHORITY TO BE OPERABLE SHALL COMPLY WITH 309.

TAS SECTION 230 - TWO-WAY COMMUNICATION SYSTEMS
A. WHERE A TWO-WAY COMMUNICATION SYSTEM IS PROVIDED TO GAIN ADMITTANCE TO A BUILDING OR FACILITY OR TO BE RESTRICTED AREAS WITHIN A BUILDING OR FACILITY, THE SYSTEM SHALL COMPLY WITH 708.

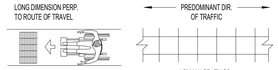
TAS SECTION 240 - PLAY AREAS
A. WHERE GROUND LEVEL PLAY COMPONENTS ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
B. WHEN ELEVATED PLAY COMPONENTS ARE PROVIDED, AT LEAST 50% SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4

TAS SECTION 242 - SWIMMING POOLS, WADING POOLS, AND SPAS
A. AT LEAST TWO ACCESSIBLE MEANS OF ENTRY SHALL BE PROVIDED FOR SWIMMING POOLS.
B. AT LEAST ONE ACCESSIBLE MEANS FOR ENTRY FOR WADING POOLS AND SPAS.

TAS SECTION 243 - SHOOTING FACILITIES WITH FIRING POSITIONS
A. WHERE SHOOTING FACILITIES WITH FIRING POSITIONS ARE DESIGNED AND CONSTRUCTED AT A SITE, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE OF FIRING POSITION SHALL COMPLY WITH 1010.

CHAPTER 3: BUILDING BLOCKS

TAS SECTION 302 - FLOOR OR GROUND SURFACES
A. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
B. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE.
C. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3, AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.



TAS SECTION 303 - CHANGES IN LEVEL
A. CHANGES IN LEVEL OF 1/4" HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL. (FIG. 303)
B. CHANGES IN LEVEL BETWEEN 1/4"-1/2" MAXIMUM SHALL BE BEVELED AT A SLOPE NOT STEEPER THAN 1:2 (FIG. 303)
C. CHANGES IN LEVEL GREATER THAN 1/2" HIGH SHALL BE RAMPED AND COMPLY WITH 405 OR 406

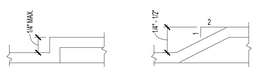


FIGURE 303

TAS SECTION 304 - TURNING SPACE
A. THE TURNING SPACE SHALL BE A SPACE 60" DIAMETER MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306.
B. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. DOORS SHALL BE PERMITTED TO SWING INTO TURNING SPACES.
D. THE T-SHAPED TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60" SQUARE MINIMUM WITH ARMS AND BASE 36" WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12" MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24" MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM. (FIG. 304.3.2)

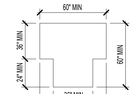
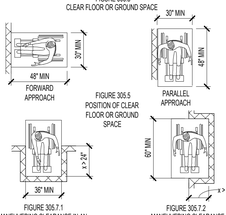


FIGURE 304.3.2 T-SHAPED TURNING SPACE

TAS SECTION 305 - CLEAR FLOOR OR GROUND SPACE
A. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM.
B. FLOOR OF GROUND SURFACES OF A CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM. (FIG. 305.3)
D. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCES COMPLYING WITH 306.
E. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT. (FIG. 305.5)
F. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE.
G. WHERE A CLEAR FLOOR OR GROUND SPACE IS LOCATED IN AN ALCOVE OR OTHERWISE CONFINED ON ALL OR PART OF 3 SIDES, ADDITIONAL MANEUVERING CLEARANCE SHALL BE PROVIDED IN ACCORDANCE WITH BELOW:
1. ALCOVES SHALL BE 36" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24" FOR FORWARD APPROACH (FIG. 315.7.1)
2. ALCOVES SHALL BE 60" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15" FOR PARALLEL APPROACH (FIG. 305.7.2)

CHAPTER 3: SCOPING REQUIREMENTS (CONTINUED)


FIGURE 305.3 CLEAR FLOOR OR GROUND SPACE



TAS SECTION 306 - KNEE AND TOE CLEARANCE
A. WHERE SPACE BENEATH AN ELEMENT IS INCLUDED AS PART OF CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE, THE SPACE SHALL COMPLY WITH 306. ADDITIONAL SPACE SHALL NOT BE PROHIBITED BENEATH AN ELEMENT BUT SHALL NOT BE CONSIDERED AS PART OF THE CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE.

TAS SECTION 306.2 - TOE CLEARANCE
A. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9" ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE.
B. TOE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT
C. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17" MINIMUM UNDER THE ELEMENT.
D. SPACE EXTENDING GREATER THAN 9" BEYOND THE AVAILABLE KNEE CLEARANCE AT 9" ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.
E. TOE CLEARANCE SHALL BE 30" WIDE MINIMUM.

TAS SECTION 306.3 - KNEE CLEARANCE
A. SPACE UNDER AN ELEMENT 9"-27" ABOVE THE FINISH FLOOR SHALL BE CONSIDERED KNEE CLEARANCE.
B. KNEE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT AT 9" ABOVE THE FINISH FLOOR.
C. WHERE KNEE CLEARANCE IS REQUIRED UNDER AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE KNEE CLEARANCE SHALL BE 11" DEEP MINIMUM AT 9" ABOVE THE FINISH FLOOR OR GROUND,

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

TAS SECTION 502 - PARKING SPACES (REFERENCE FIGURE 502.3)

A. ACCESSIBLE CAR PARKING SPACES SHALL BE AT LEAST 96" MINIMUM WIDE AND VAN ACCESSIBLE PARKING SHALL BE 132" MINIMUM WIDE.
   1. VAN PARKING SPACES MAY BE 96" WIDE MINIMUM WHERE THERE IS AN ACCESS AISLE 96" WIDE MINIMUM.
   2. ACCESS AISLES SERVING CAR AND VAN PARKING SHALL BE A MINIMUM 60" WIDE AND SHALL ADJOIN AN ACCESSIBLE ROUTE.
   3. ACCESS AISLES SHOULD BE MARKED TO DISCOURAGE PEOPLE FROM PARKING IN THEM AND EXTEND THE FULL LENGTH OF THE PARKING SPACE.
B. SURFACE SLOPE SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS (NOTE: NO BUILT UP CURB RAMP MAY BE LOCATED IN AN ACCESSIBLE PARKING ACCESS AISLE.)
C. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY.
D. ACCESS AISLES SHALL BE PERIMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES, WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACE.

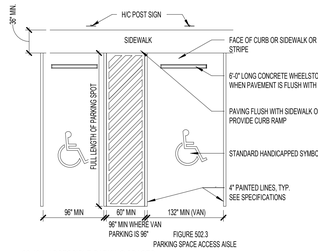
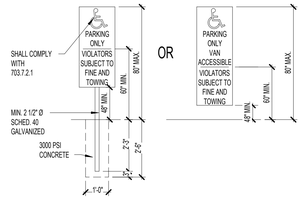


FIGURE 502.3
PARKING SPACE ACCESS AISLE

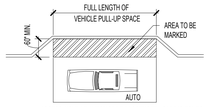
68.104: ACCESSIBLE PARKING SPACES

(A) A PAVED ACCESSIBLE PARKING SPACE MUST INCLUDE:
   (1) THE INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED CONSPICUOUSLY ON THE SURFACE IN A COLOR THAT CONTRASTS THE PAVEMENT;
   (2) THE WORDS "NO PARKING" PAINTED ON ANY ACCESS AISLE ADJACENT TO THE PARKING SPACE. THE WORDS MUST BE PAINTED:
      (A) IN ALL CAPITAL LETTERS;
      (B) WITH A LETTER HEIGHT OF AT LEAST TWELVE INCHES, AND A STROKE WIDTH OF AT LEAST TWO INCHES; AND
      (C) CENTERED WITHIN EACH ACCESS AISLE ADJACENT TO THE PARKING SPACE; AND
   (3) A SIGN IDENTIFYING THE CONSEQUENCES OF PARKING ILLEGALLY IN A PAVED ACCESSIBLE PARKING SPACE. THE SIGN MUST:
      (A) AT A MINIMUM STATE "VIOLATORS SUBJECT TO FINE AND TOWING " IN A LETTER HEIGHT OF AT LEAST ONE INCH;
      (B) BE MOUNTED ON A POLE, POST, WALL OR FREESTANDING BOARD;
      (C) BE NO MORE THAN EIGHT INCHES BELOW A SIGN REQUIRED BY TEXAS ACCESSIBILITY STANDARDS, 502.6; AND
      (D) BE INSTALLED SO THAT THE BOTTOM EDGE OF THE SIGN IS NO LOWER THAN 48 INCHES AND NO HIGHER THAN 80 INCHES ABOVE GROUND LEVEL.
(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).



NOTE: PROVIDE ONE SIGN AT EACH DISABLED (DESIGNATED) PARKING SPACE

TAS SECTION 503 - PASSENGER LOADING ZONES
A. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96" WIDE MINIMUM AND 20' LONG MINIMUM.
TAS SECTION 503.3 - ACCESS AISLE (REFERENCE FIGURE 503.3)
A. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 503 ADJACENT TO THE VEHICLE PULL UP SPACE. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.
   1. ACCESS AISLES SERVING VEHICULAR PULL-UP SPACES SHALL BE 60" WIDE MINIMUM AND EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE
   2. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED. CHANGES IN LEVEL OF THE FLOOR AND GROUND SURFACE ARE NOT PERMITTED.
B. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 144" MINIMUM.



ACCESS AISLE AT AUTOMOBILE PASSENGER LOADING ZONES

FIGURE 503.3
PASSENGER LOADING ZONE ACCESS AISLE

TAS SECTION 504 - STAIRWAYS
TAS SECTIONS 504.2 - TREADS AND RISERS
A. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND TREAD WIDTHS
   1. MINIMUM TREAD DEPTH SHALL BE 11". MEASURED FROM RISER TO RISER (NOT INCLUDING NOSING)
   2. OPEN RISERS ARE NOT PERMITTED
   3. RISERS SHALL BE 4" HIGH MIN. - 7" HIGH MAX.
TAS SECTIONS 504.5 - NOSINGS (REFERENCE FIGURE 504.5)
A. RADIUS OF THE CURVATURE AT THE LEADING EDGE SHALL BE 1/2" MAXIMUM. RISERS SHALL BE PERMITTED TO SLOPE UNDER THE TREAD AT AN ANGLE OF 30 DEGREES MAXIMUM FROM VERTICAL. THE PERMITTED PROJECTION OF THE NOSING SHALL EXTEND 1 1/2" MAXIMUM OVER THE TREAD BELOW.

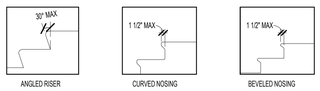
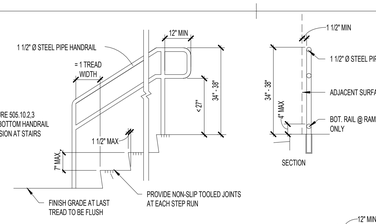
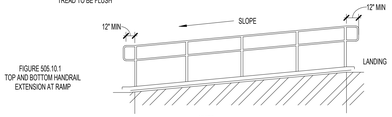


FIGURE 504.5
STAIR NOSINGS

TAS SECTION 505 - HANDRAILS (REFERENCE FIGURES 505.10.1, 505.10.2, 3)
A. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS. NON-CONTINUOUS STAIR HANDRAILS SHALL EXTEND 12" BEYOND THE TOP RISER AND THE WIDTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT THE TOP, THE EXTENSION SHALL BE PARALLEL TO THE FLOOR. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF ONE TREAD WIDTH. NON CONTINUOUS RAMP HANDRAILS SHALL EXTEND 12" MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS.
B. HEIGHT: 34"-38", MEASURED FROM THE STAIR NOSING.
C. CLEARANCE BETWEEN HANDRAIL AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM.
D. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
E. HANDRAILS ARE REQUIRED ON RAMP RUNS GREATER THAN 6" IN RISE.





CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

TAS SECTION 602 - DRINKING FOUNTAINS
A. DRINKING FOUNTAINS SHALL COMPLY WITH 307 (PROTRUDING OBJECTS) AND 602.
B. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCES MUST COMPLY WITH 306. OPERABLE PARTS SHALL COMPLY WITH 309. (FIG. 602.5)
TAS SECTION 602.4 - SPOUT HEIGHT (REFERENCE FIGURE 602.4 FOR ACCESSIBLE UNIT)
A. ACCESSIBLE SPOUTS SHALL BE A MAXIMUM 36" ABOVE THE FINISH FLOOR OR GROUND.
TAS SECTION 602.5 - SPOUT LOCATION (REFERENCE FIGURE 602.5)
A. THE SPOUT SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.
B. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4" HIGH AND SHALL BE LOCATED 5" MAXIMUMFROM THE FRONT OF THE UNIT.
C. WHERE SPOUTS ARE LOCATED LESS THAN 2" FROM THE FRONT OF THE UNIT, THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE THE SPOUT IS LOCATED BETWEEN 2"-5" MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.
TAS SECTION 602.7 - DRINKING FOUNTAINS FOR STANDING PERSONS
A. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. (FIG. 602.4)

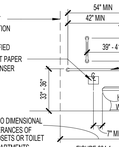
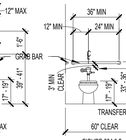


FIGURE 602.4



RECESSED FOUNTAIN, PER 602.2; 305.3



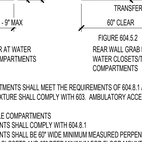


FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION

TAS SECTION 603 - TOILET AND BATHING ROOMS
A. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM. (60" DIAMETER OR T-SHAPED SPACE PER 304.3.2)
B. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP.
C. DOOR SWINGS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS CAN SWING INTO THE REQUIRED TURNING SPACE.
TAS SECTION 603.3 - MIRRORS
A. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED SO THE BOTTOM EDGE OF THE REFLECTING SURFACE IS 40" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT INSTALLED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE 35" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
TAS SECTION 603.4 - COAT HOOKS AND SHELVES
A. COAT HOOKS SHALL BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" ABOVE THE FINISH FLOOR.
TAS SECTION 604 - WATER CLOSETS AND TOILET COMPARTMENTS
A. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16" MINIMUM AND 18" MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT IN AN AMBULATORY ACCESSIBLE TOILET COMPARTMENT WHERE THE CENTERLINE OF THE WATER CLOSET MAY BE 17" MINIMUM AND 19" MAXIMUM FROM THE SIDE WALL OR PARTITION. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT-HAND OR RIGHT-HAND APPROACH. (FIG. 604.3.1, 604.8.2)
TAS SECTION 604.3 - CLEARANCE
A. CLEARANCES AROUND WATER CLOSETS AND IN TOILET COMPARTMENTS SHALL COMPLY WITH FIGURE 604.3.1

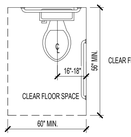


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

TAS SECTION 604.3.2 - OVERLAP
A. THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.
TAS SECTION 604.4 - SEATS (REFERENCE FIGURE 604.4)
A. THE SEAT HEIGHT OF A WATER CLOSET ABOVE FINISH FLOOR SHALL BE 17"-19" MAXIMUM MEASURED TO THE TOP OF SEAT.
   1. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION
TAS SECTION 604.5 - GRAB BARS (REFERENCE FIGURES 604.4, 604.5.2)
A. GRAB BARS SHALL COMPLY WITH 609 AND BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL.
   1. GRAB BARS SHALL NOT BE REQUIRED IN A TOILET ROOM FOR A SINGLE USE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON OR PUBLIC USE PROVIDED THAT REINFORCEMENT HAS BEEN INSTALLED IN WALLS AND LOCATED SO AS TO PERMIT THE INSTALLATION OF GRAB BARS COMPLYING WITH 604.5
B. FOR WATER CLOSETS NOT LOCATED IN TOILET STALLS, THE FOLLOWING GRAB BARS SHALL BE PROVIDED, 33"-36" ABOVE THE FINISH FLOOR"
   1. SIDE WALL: 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM BACK WALL. NOTE: INCLUDE 18" VERTICAL GRAB BAR PER ICC A117.1.
   2. REAR WALL: 36" LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON ONE SIDE AND 24" MINIMUM ON THE OTHER SIDE. REFER TO 609 GRAB BARS FOR SIZE AND STRUCTURAL ELEMENTS.
TAS SECTION 604.5.2 - REAR WALL
A. THE REAR GRAB BAR SHALL BE PERMITTED TO BE 24 INCHES LONG MINIMUM, CENTERED ON THE WATER CLOSET WHERE WALL SPACE DOES NOT PERMIT A LENGTH OF 36 INCHES MINIMUM DUE TO THE LOCATION OF A RECESSED FIXTURE ADJACENT TO THE WATER CLOSET.
B. WHERE AN ADMINISTRATIVE AUTHORITY REQUIRES FLUSH CONTROLS FOR FLUSH VALVES TO BE LOCATED IN A POSITION THAT CONFLICTS WITH THE LOCATION OF THE REAR GRAB BAR, THEN THE REAR GRAB BAR SHALL BE PERMITTED TO BE SPLIT OR SHIFTED TO THE OPEN SIDE OF THE TOILET AREA.
TAS SECTION 604.6 - FLUSH CONTROLS (REFERENCE FIGURE 604.5.2)
A. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.
TAS SECTION 604.7 - DISPENSERS (REFERENCE FIGURE 604.4)
A. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7" MINIMUM AND 9" MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS THAT CONTROL DELIVERY OR DO NOT PERMIT CONTINUOUS PAPER FLOW SHALL NOT BE USED.

FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

TAS SECTION 604.8 - TOILET COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.
TAS SECTION 604.8.1 - WHEELCHAIR ACCESSIBLE COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1
B. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL AND 56" DEEP MINIMUM FOR WALL-HUNG WATER CLOSETS AND 59" DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDREN'S USE SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE WALL AND 59" DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.

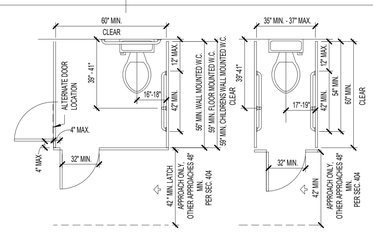


FIGURE 604.8.2
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

CLEARANCES INDICATED ARE MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REFER TO TOILET ROOMS AND LAVATORY DETAILS FOR MOUNTING HEIGHTS.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES (CONTINUED)

TAS SECTION 604.8.1.2 - DOORS (REFERENCE FIGURES 604.8.1.2, 604.8.2)
A. TOILET COMPARTMENTS DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42" MINIMUM. DOORS SHALL BE LOCATED IN THE FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE FRONT PARTITION. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.
B. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET.
TAS SECTION 604.8.1.4 - TOE CLEARANCE
A. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9" MINIMUM ABOVE FINISH FLOOR AND 6" DEEP MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDRENS USE SHALL PROVIDE 12" MINIMUM TOE CLEARANCE ABOVE FINISH FLOOR.
TAS SECTION 604.8.2 - AMBULATORY ACCESSIBLE COMPARTMENTS
A. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH FIGURE 604.8.2
B. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60" MINIMUM AND A WIDTH OF 35"-37" MAXIMUM.
C. GRAB BARS IN AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR THAT IS 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM THE REAR WALL AND EXTENDING 54" MINIMUM FROM THE REAR WALL SHALL BE LOCATED ON BOTH SIDES OF COMPARTMENT.
D. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" MAXIMUM ABOVE THE FINISH FLOOR.
TAS SECTION 605 - URINALS
A. URINALS SHALL BE STALL-TYPE OR WALL-HUNG WITH THE RIM 17" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13 1/2" DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK SIDE OF THE FIXTURE. (FIG. 605.2)
B. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.

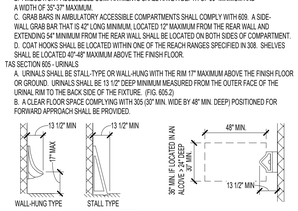
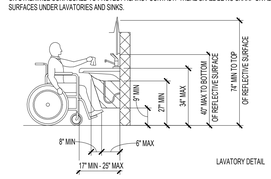
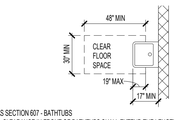


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

TAS SECTION 606 - LAVATORIES AND SINKS
A. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCES COMPLYING WITH 306 SHALL BE PROVIDED.
   1. SOAP AND TOWEL DISPENSERS MUST ALSO BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. LOCATE SOAP AND TOWEL DISPENSERS SO THEY ARE EASY TO USE BY A PERSON AT THE ACCESSIBLE LAVATORY.
B. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER RIM OR COUNTER SURFACE 34" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
C. CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND-OPERATED METERING FAUCETS SHALL REMAIN FOR 10 SECONDS MINIMUM.
D. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.



LAVATORY DETAIL



TAS SECTION 607 - BATHTUBS
A. CLEARANCE IN FRONT OF BATHTUBS SHALL EXTEND THE LENGTH OF THE BATHTUB AND SHALL BE 30 INCHES WIDE MINIMUM. A LAVATORY COMPLYING WITH 606 SHALL BE PERMITTED AT THE CONTROL END OF THE CLEARANCE. WHERE A PERMANENT SEAT IS PROVIDED AT THE HEAD END OF THE BATHTUB, THE CLEARANCE SHALL EXTEND 12" MINIMUM BEYOND THE WALL AT THE HEAD END OF THE BATHTUB.
B. A PERMANENT SEAT AT THE HEAD END OF THE BATHTUB OR A REMOVABLE IN-TUB SEAT SHALL BE PROVIDED. SEATS SHALL COMPLY WITH 610.
C. GRAB BARS FOR BATHTUBS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH FIGURES 607.4.1

TAS SECTION 608 - SHOWER COMPARTMENTS
A. SHOWER STALLS SHALL BE 36" X 36" CLEAR INSIDE DIMENSION AT TRANSFER TYPE SHOWER COMPARTMENTS AND HAVE A 36" MINIMUM WIDE BY 48" MINIMUM LONG CLEARANCE MEASURED FROM THE CONTROL WALL. ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 30" MINIMUM WIDE BY 60" MINIMUM LONG AND SHALL HAVE A 30" MIN WIDE X 60" MIN LONG ENTRY ON THE FACE OF THE SHOWER COMPARTMENT. ALTERNATE ROLL-IN SHOWER TYPE COMPARTMENTS SHALL BE 36" MINIMUM WIDE AND 60" MINIMUM DEEP CLEAR INSIDE DIMENSIONS WITH A 36" WIDE MINIMUM ENTRY PROVIDED AT ONE END OF THE LONG SIDE OF THE COMPARTMENT.

TAS SECTION 608.3.1 - TRANSFER TYPE SHOWER COMPARTMENT
A. IN TRANSFER TYPE COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND BACK WALL TO A POINT 18" FROM THE CONTROL WALL.
B. A FOLDING OR NON-FOLDING SEAT SHALL BE PROVIDED IN TRANSFER TYPE SHOWER COMPARTMENTS.
C. CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS SHALL COMPLY WITH 309.4
TAS SECTION 608.7 - THRESHOLDS
A. THRESHOLDS IN ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 1/2" HIGH MAXIMUM IN ACCORDANCE WITH 308. IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" HIGH SHALL BE BEVELED, ROUNDED, OR VERTICAL.

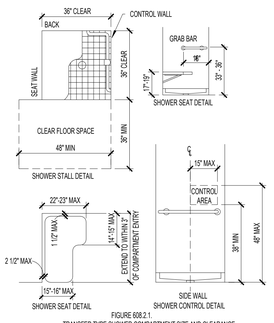


FIGURE 608.2.1.
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

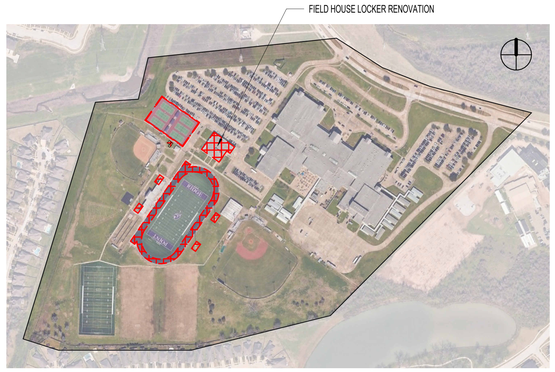
TAS SECTION 609 - GRAB BARS
A. GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2" MAXIMUM AND A PERIMETER DIMENSION OF 4" MINIMUM AND 4.8" MAXIMUM.
B. THE SPACE BETWEEN THE WALL AND GRAB BAR SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW SHALL BE 1 1/2" MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12" MINIMUM.
C. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33" MINIMUM AND 36" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. REFER TO CHART FOR CHILDREN ACCESSIBLE HEIGHTS FOR EXCEPTIONS.
D. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A HORIZONTAL OR VERTICAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT OF THE GRAB BAR OR ANY OF ITS COMPONENTS.
TAS SECTION 610.2 - BATHTUB SEATS
A. SEAT SHALL BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 POUNDS AND SHALL HAVE THE FOLLOWING FEATURES:
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. REMOVABLE SEATS SHALL BE 15"-16" DEEP AND CAPABLE OF SECURE PLACEMENT.
   3. PERMANENT SEATS SHALL BE 15" DEEP MINIMUM AND EXTEND FROM THE BACK WALL TO OR BEYOND THE OUTER EDGE OF THE BATHTUB.
TAS SECTION 610.3 - SHOWER SEATS
A. SEATS SHALL BE L-SHAPED WITH THE REAR EDGE 2 1/2" MAXIMUM FROM THE WALL AND 15"-16" MAXIMUM FROM THE SEAT WALL. THE REAR EDGE OF THE "L" PORTION SHALL BE 1 1/2" MAXIMUM FROM THE WALL AND THE FRONT EDGE SHALL BE 14"-15" FROM THE WALL. THE END OF THE "L" SHALL BE 22"-23" FROM THE MAIN SEAT WALL. SEATS SHALL HAVE BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 LBS.
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. WHERE A SEAT IS PROVIDED IN A ROLL IN TYPE SHOWER IT MUST BE THE FOLD-UP TYPE.
TAS SECTION 611 - WASHING MACHINES AND CLOTHES DRYERS
A. TOP LOADING MACHINES SHALL HAVE THE DOOR TO THE LAUNDRY COMPARTMEN



01 CODE PLAN - FIELD HOUSE 1

SCALE: 1/8" = 1'-0"

FIELD HOUSE LOCKER RENOVATION



LEGEND

- 1 HOUR FIRE-RESISTANCE RATING
- 2 HOUR FIRE-RESISTANCE RATING
- RATED DOOR/ WINDOW REF. DOOR SCHEDULE FOR MORE INFO.
- NON RATED ELEMENT
- RATED EXIT ENCLOSURE
- LONGEST EXIT ROUTE PER LEVEL
- EXIT ROUTE
- EXIT POINT WITH WIDTH INDICATED IN INCHES (20 / P 36" / R 36") — OCCUPANT LOAD SHOWN VERTICAL; P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT; R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER - SURFACE MOUNTED

CODE REVIEW: IBC 2015 - EXISTING BUILDING

CHAPTER 6 - REPAIRS

NEW AND REPLACEMENT MATERIALS (SEC 602.2)
EXCEPT AS OTHERWISE REQUIRED OR PERMITTED BY THIS CODE, MATERIALS PERMITTED BY THE APPLICABLE CODE FOR NEW CONSTRUCTION SHALL BE USED. LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS, PROVIDED NO DANGEROUS OR UNSAFE CONDITION, AS DEFINED IN CHAPTER 2, IS CREATED. HAZARDOUS MATERIALS, SUCH AS ASBESTOS AND LEAD-BASED PAINT, SHALL NOT BE USED WHERE THE CODE FOR NEW CONSTRUCTION WOULD NOT PERMIT THEIR USE IN BUILDINGS OF SIMILAR OCCUPANCY, PURPOSE AND LOCATION.

GENERAL ACCESSIBILITY (SEC 605.1)
REPAIRS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF ACCESSIBILITY PROVIDED.

CHAPTER 7 - ALTERATIONS - LEVEL 1

CONFORMANCE (SEC 701.2)
AN EXISTING BUILDING OR PORTION THEREOF SHALL NOT BE ALTERED SUCH THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITION.
EXCEPTION: WHERE THE CURRENT LEVEL OF SAFETY OR SANITATION IS PROPOSED TO BE REDUCED, THE PORTION ALTERED SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

INTERIOR FINISHES (SEC 702.2)
NEW INTERIOR FLOOR FINISH, INCLUDING NEW CARPETING USED AS AN INTERIOR FLOOR FINISH MATERIAL, SHALL COMPLY WITH SECTION 804 OF THE INTERNATIONAL BUILDING CODE.

CHAPTER 8 - ALTERATIONS - LEVEL 2

COMPLIANCE (SEC 801.3)
ALL NEW CONSTRUCTION ELEMENTS, COMPONENTS, SYSTEMS, AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

EXCEPTIONS:
WINDOWS MAY BE ADDED WITHOUT REQUIRING COMPLIANCE WITH THE LIGHT AND VENTILATION REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.
NEWLY INSTALLED ELECTRICAL EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 808.
THE LENGTH OF DEAD-END CORRIDORS IN NEWLY CONSTRUCTED SPACES SHALL ONLY BE REQUIRED TO COMPLY WITH THE PROVISIONS OF SECTION 805.6.
THE MINIMUM CEILING HEIGHT OF THE NEWLY CREATED HABITABLE AND OCCUPIABLE SPACES AND CORRIDORS SHALL BE 7 FEET (2134 MM).

FIRE ALARM AND DETECTION (SEC 804.4)
AN APPROVED FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH SECTIONS 804.4.1 THROUGH 804.4.3..

GROUP E OCCUPANCY (SEC 804.4.1.1)
A FIRE ALARM SYSTEM SHALL BE INSTALLED IN WORK AREAS OF GROUP E OCCUPANCIES AS REQUIRED BY THE INTERNATIONAL FIRE CODE FOR EXISTING GROUP E OCCUPANCIES.

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00 FOR DOOR SCHEDULE IDENTIFING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL.
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES - FORTBEND COUNTY

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2014 NFPA (NATIONAL FIRE PROTECTION AGENCY) 70 NATIONAL ELECTRICAL CODE
2013 ASHRAE STANDARD 90.01 - ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)
2021 INTERNATIONAL FIRE CODE
CHAPTER 3 - USE AND OCCUPANCY CLASSIFICATION
SECTION 3021 – EDUCATIONAL GROUP E

2021 IBC COMPLIANCE DATA

CHAPTER 3 - USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AREAS
TABLE 504.3 & 504.4 & 506.2
GROUP E, TYPE I FIRE RESISTIVE CONSTRUCTION , UNSPRINKLED (EXCEPT STAGE).
BUILDING HEIGHT: 75' ALLOWED; **40' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 3 STORIES ALLOWED; **1 STORIES ACTUAL**

BUILDING AREA ACTUAL : 294,662 SQUARE FEET
BUILDING AREA RENOVATION: 6235 SQUARE FEET

SECTION 508 - MIXED USE AND OCCUPANCY
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 – FOR CONSTRUCTION TYPE I-B: FIRE-RESISTANCE RATING REQUIREMENTS APPLY TO PRIMARY STRUCTURAL FRAME, INTERIOR AND EXTERIOR BEARING WALLS, FLOOR CONSTRUCTION, AND ROOF CONSTRUCTION AS LISTED IN TABLE 601.

SECTION 602 - CONSTRUCTION CLASSIFICATION
- EXTERIOR BEARING WALLS – 2 HOUR RATING
- INTERIOR BEARING WALLS – 2 HOUR RATING
- EXTERIOR NON-BEARING WALLS – 0 HOUR RATING (BASED ON FIRE SEPARATION DISTANCE PER SECTION 602)
- INTERIOR NON-BEARING WALLS & PARTITIONS – 0 HOUR RATING
- STRUCTURAL FRAME – 2 HOUR RATING
- FLOOR CONSTRUCTION – 2 HOUR RATING
- ROOF CONSTRUCTION – 1 HOUR RATING

EXIT ACCESS TRAVEL DISTANCE: 200 FT (TABLE 1017.2), PROVIDED <131 FT

CHAPTER 6 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE 2B - PER TABLES 601 & 602:
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED. PRIMARY STRUCTURE, BEARING & NONBEARING WALLS PARTITIONS (INTERIOR & EXTERIOR), FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTABLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL
TABLE 706.4 - FIRE WALL FIRE-RESISTANCE RATINGS: 2 HOUR IN IB CONSTRUCTION, GROUP E

SECTION 707 - FIRE BARRIERS
707.3.1 - SHAFT ENCLOSURES (INCLUDING ELEVATOR HOISTWAY): 1 HOUR FIRE BARRIER
707.3.3 - ENCLOSURES FOR EXIT ACCESS STAIRWAY ENCLOSURES: 1 HOUR BARRIER
PER SECTION 1019 EXIT ACCESS STAIRWAYS ARE NOT REQUIRED TO BE ENCLOSED FOR THIS BUILDING TYPE

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT)
ALL SHAFT ENCLOSURES SHALL BE CONSTRUCTED AS FIRE BARRIERS AND SHALL BE 1 HOUR FIRE RATED. SUPPORTING CONSTRUCTION SHALL BE RATED TO THE SAME DEGREE AS THE WALLS.

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS
FOR FIRE WALLS & FIRE BARRIERS WITH A 2 HR FIRE RATING, OPENINGS SHALL HAVE A 1.5 HR FIRE RATING, MAX. 100 SQ IN OF GLAZING
FOR FIRE BARRIERS AT EXIT COMPONENTS WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 1 HR FIRE RATING
FOR FIRE BARRIERS AT OTHER LOCATION WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 3/4 HR FIRE RATING

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES; NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES; BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE.

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS FULLY SPRINKLERED

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
1004.1.2 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT
STORAGE, MECHANICAL — 300 SQ. FT., GROSS
ASSEMBY WITH FIXED SEATS — 18" PER OCCUPANT IN BLEACHERS
ASSEMBLY WITHOUT FIXED SEATS
(TABLES AND CHAIRS) — 15 SQ. FT. NET
BUSINESS — 100 SQ. FT. GROSS
EDUCATION, CLASSROOM — 20 SQ. FT. GROSS
EDUCATION, VOCATIONAL — 50 SQ. FT. NET
LIBRARY
(READING ROOMS): — 50 SQ. FT. NET
(STACK AREAS) — 100 SQ. FT. GROSS
STAGES & PLATFORMS — 500 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.1 - FOR STAIRWAYS: 0.2 IN. PER OCCUPANT
OCCUPANTS 2,436
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.1 - FOR OCCUPANT LOAD PER STORY:
BUILDING A / LEVEL 1: 3 EXITS REQUIRED, 3 EXITS PROVIDED
BUILDING B / LEVEL 1: 4 EXITS REQUIRED, 4 EXITS PROVIDED
BUILDING C / LEVEL 1: 3 EXITS REQUIRED, 3 EXITS PROVIDED
BUILDING A / LEVEL 2: 3 EXITS REQUIRED, 3 EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1009 - ACCESSIBLE MEANS OF EGRESS
1009.3 - FOR SPRINKLERED BUILDINGS, 48 IN. CLEAR HANDRAIL WIDTH IN EXIT STAIRS NOT REQUIRED
1009.3 - FOR SPRINKLERED BUILDINGS, AREAS OF REFUGE IN EXIT STAIRS NOT REQUIRED

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.6 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1011 - STAIRWAYS
1011.2 - MINIMUM STAIRWAY WIDTH OF 44 IN.
1011.3 - MINIMUM STAIRWAY HEADROOM CLEARANCE OF 80 IN
1011.5.2 - MAXIMUM RISER HEIGHT OF 7 IN, MINIMUM TREAD DEPTH OF 11 IN.
1011.6 - WIDTH OF LANDINGS SHALL BE NOT LESS THAN THE WIDTH OF STAIRWAY SERVED
1011.6 - LANDING DEPTH NEED NOT EXCEED 48 IN. FOR STRAIGHT-RUN STAIRS
1011.8 - A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE GREATER THAN 12 FT. BETWEEN FLOOR LEVELS AND LANDINGS

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
1017.2 - FOR GROUP E W/ SPRINKLER SYSTEM: EXIT TRAVEL DISTANCE IS 250 FT.

SECTION 1020 - CORRIDORS
1020.1 - FOR GROUP E W/ SPRINKLER SYSTEM: NO REQUIRED FIRE-RESISTANCE RATING
1020.2 - FOR GROUP E W/ OCCUPANT LOAD OF 100 OR MORE: MINIMUM WIDTH OF 72 IN.
1020.2 - FOR AN OCCUPANT LOAD LESS THAN 50: MINIMUM WIDTH OF 36 IN.
1020.2 - FOR ACCESS TO AND UTILIZATION OF MECHANICAL, PLUMBING, OR ELECTRICAL SYSTEMS OR EQUIPMENT: MINIMUM WIDTH OF 24 IN.
1020.2 - FOR ALL OTHER CONDITIONS: MINIMUM WIDTH OF 44 IN.
1020.4 - FOR GROUP E W/ SPRINKLER SYSTEM: DEAD ENDS MAY BE 50 FT. IN LENGTH

2021 IECC COMPLIANCE DATA

CHAPTER 3 - GENERAL REQUIREMENTS

SECTION C301.1 - GENERAL
C301.1 - CLIMATE ZONE 2A

CHAPTER 4 - COMMERCIAL ENERGY EFFICIENCY

SECTION C402 - BUILDING ENVELOPE REQUIREMENTS
C402.1.3 - FOR ROOFS WITH INSULATION ENTIRELY ABOVE DEC K : R-25CI, **R-25CI PROVIDED**
C402.1.3 - FOR ABOVE GRADE, METAL-FRAMED WALLS: R-13 + R-5CI, **R-19 + R-10 CI PROVIDED**
C402.1.3 - FOR JOIST/FRAME FLOORS: R-30, **R-30 PROVIDED**
C402.1.3 - FOR UNHEATED SLAB-ON-GRADE FLOORS: NR
C402.1.3 - FOR NONSWINGING OPAQUE DOORS: R-4.75
C402.1.4.1 - EFFECTIVE R-VALUES FOR STEEL STUD WALL ASSEMBLIES

NOMINAL DEPTH	FRAMING SPACING	CAVITY R-VALUE	EFF. R-VALUE
3 1/2	16	13 / 15	5.98 / 6.45
3 1/2	24	13 / 15	7.15 / 7.80
6	16	19 / 21	7.03 / 7.35
6	24	19 / 21	8.55 / 9.03
8	16 / 24	25	7.75 / 9.50

C402.3 - EITHER THREE-YEAR AGED SOLAR REFLECTANCE OF 0.55 AND 3-YEAR AGED
THERMAL EMITTANCE OF 0.75 OR THREE-YEAR AGED SOLAR REFLECTANCE INDEX OF 64.
C402.4 - FOR CLIMATE ZONE 2 AND FIXED FENESTRATION: U-FACTOR OF 0.5
C402.4 - SOLAR HEAT GAIN COEFFIECINT REQUIREMENTS

PROJECTION FACTOR	SEW	N
PF <0.2	0.25	0.33
0.2 <= PF < 0.5	0.30	0.37
PF >= 0.5	0.40	0.40

SHGC OF SPECIFIED GLAZING = 0.25
U-VALUE OF SPECIFIED GLAZING = 0.33

C402.4.1 VERTICAL FENESTRATION SHALL NOT BE GREATER THAN 30 PERCENT OF GROSS
ABOVE-GRADE WALL AREA.

2021 IPC COMPLIANCE DATA

		OCCUPANCY	STUDENTS	STAFF
		293	2436	NA
WATER CLOSETS	MENS*	REQ'D	3	
		PROVIDED	2 (3 URINALS)	
	LADIES	REQ'D	3	
		PROVIDED	5	
LAVATORIES	MENS	REQ'D	3	
		PROVIDED	5	
	LADIES	REQ'D	3	
		PROVIDED	5	
EF'S		REQ'D	4	
		PROVIDED W BOTTLE FILLERS	4	
SERVICE SINK		REQ'D	1	
		PROVIDED	6	

NOTE: PLUMBING COUNTS INCLUDE ALL GROUP TOILETS AVAILABLE TO THE GENERAL SCHOOL. FIXTURES LOCATED WITHIN CLASSROOMS, NURSES OFFICE, AND THOSE DEDICATED FOR PLAYGROUNDS ARE NOT INCLUDED.

* 419.2 SUBSTITUTION FOR WATER CLOSETS. IN EACH BATHROOM OR TOILET ROOM, URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 67 PERCENT OF THE REQUIRED WATER CLOSETS IN ASSEMBLY AND EDUCATIONAL OCCUPANCIES. URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50 PERCENT OF THE REQUIRED WATER CLOSETS IN ALL OTHER OCCUPANCIES.

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
500 Waters Lk Blvd, Missouri City, TX 77459
RIDGEPOINT HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

100% CD
G0.03-R
CODE REVIEW

RIDGEPOINT HIGH SCHOOL

12/4/2025 10:41:42 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_RIDGEPOINT_ARCH_FBISD ATHLETIC RENOVATIONS BP012-R_R25.rvt

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL SIZES, LOCATIONS AND ELEVATIONS NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS PRIOR TO SUBMITTING PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR FROM PERFORMING THE WORK REQUIRED UNDER THIS CONTRACT. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE OWNER/ENGINEER.
2. SOME UTILITIES MAY NOT BE SHOWN ON THE PLANS. FIELD VERIFY AND IDENTIFY LOCATIONS OF PIPING AND ALL UTILITIES NOT NOTED ON THE PLANS. NOTIFY THE OWNER/ENGINEER OF ANY POTENTIAL CONFLICTS PRIOR TO STARTING CONSTRUCTION.
3. ALL GENERAL AND SUB-CONTRACTORS ARE ENCOURAGED TO VISIT AND INSPECT THE SITE PRIOR TO SUBMITTING A PROPOSAL TO COMPLETE.
4. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES, TRAFFIC CONTROL DEVICES AND PAVING. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITY'S ENGINEERING STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAWINGS, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR AND MAKE SURE THE CORRECT BENCHMARK IS USED.
7. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
9. CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
10. CONTRACTOR SHALL MAINTAIN A SHEET OF REDLINE DRAWINGS RECORDING AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINES MARKED DRAWINGS WILL BE SUBMITTED TO THE ENGINEER WHO WILL MAKE THE CHANGES ON THE ORIGINAL DRAWINGS. LABELING EACH SHEET IN THE SET AS "RECORD DRAWINGS".
11. CONTRACTORS SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
12. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICAS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
13. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALK, ETC.) SHALL BE STABILIZED WITH PLANTINGS OR OTHERWISE RECEIVE 6 INCHES OF MULCH OR LOAM AND SEED AS DIRECTED BY THE ENGINEER.
14. CONTRACTOR SHALL PREVENT DUST, SEDIMENT AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
15. SAFETY - NEITHER THE OWNER NOR THE ENGINEER OF RECORD WILL BE RESPONSIBLE FOR COMPLIANCE WITH SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, FEDERAL, AND CONTRACTUAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ANY SCHOOL CHILDREN OUT OF THE WORK AREA.
17. STANDARD SPECIFICATIONS - ALL CONSTRUCTION WORK AND INSTALLATION SHALL CONFORM TO THE PROJECT SPECIFICATIONS PROVIDED WITH THE CONTRACT DOCUMENTS AND ANY STANDARD SPECIFICATIONS AS INDICATED ON THESE PLANS.
18. INSPECTIONS - THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR REQUIRED INSPECTIONS. THE PRESENCE OR ABSENCE OF AN INSPECTOR WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE PROPER PERFORMANCE OF WORK.
19. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVE OR ANY OTHER AGENCY HAVING JURISDICTION FOR ALL ACTIVITIES ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH OSHA PERFORMANCE CRITERIA.
20. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS.

SITEWORK GENERAL NOTES:

1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D698:
   A. UNDER STRUCTURES: SCARIFY AND RE COMPACT 12 INCHES OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   B. UNDER WALKWAYS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   C. UNDER TURF OR UNPAVED AREAS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 90% SPD.
   D. UTILITY TRENCHES: BACKFILL SHALL BE IN 8 INCHES LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS ON EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% SPD IN PAVED AREAS AND 90% SPD IN UNPAVED AREAS OR AS INDICATED IN THE DRAWINGS.
2. DIMENSIONS IN THE DOCUMENTS SHALL GOVERN.

CIVIL GRADING NOTES:

1. CLEAR AND GRUB WITHIN THE GRADING LIMITS SHOWN IN THE CIVIL DRAWINGS. REMOVE STUMPS AND ROOTS 3 INCHES IN DIAMETER AND LARGER AND NONPERISHABLE SOLID OBJECTS A MINIMUM 3 FEET BELOW SUBGRADE OR FINISHED EMBANKMENT.
2. STRIP AND STOCKPILE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES WITHIN THE LIMITS OF EARTHWORK OPERATIONS.
3. STRUCTURAL EXCAVATION: EXCAVATE TO INDICATE ELEVATIONS WITHIN A TOLERANCE OF 1 INCH. EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORM WORK AND FOR INSPECTIONS.

UTILITIES:

1. THE LOCATIONS, SIZES AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATE CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN IN THE PLANS. PRIOR TO ORDERING MATERIAL AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZED AND ELEVATIONS OF THE POINT OF CONNECTIONS TO EXISTING UTILITIES AND SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND PROPOSED UTILITY ROUTES. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 1-800-245-4545 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.

PAVING NOTES:

1. RIM ELEVATIONS FOR MANHOLES AND SEWER CLEANOUTS, WATER VALVE COVERS, ELECTRIC AND TELEPHONE PULL BOXES AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: 1 INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.

STORM SEWER CONSTRUCTION NOTES:

1. STORM SEWERS SHALL BE INSTALLED, BEDDED, AND BACKFILLED ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
2. STORM SEWERS LOCATED WITHIN PUBLIC R.O.W. OR SIDE LOT EASEMENTS SHALL BE REINFORCED CONCRETE PIPE (24-INCH AND LARGER) (C-76. CLASS III). AND SHALL BE INSTALLED, BEDDED, AND BACKFILLED IN ACCORDANCE WITH THE GOVERNING ENTITIES STANDARD DETAILS AND SPECIFICATIONS. UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
3. ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABILIZED SAND TO ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH ALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
4. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
5. ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES AND INLETS ARE TO PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL PROVIDE 18" MINIMUM CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
7. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF LOCAL GOVERNING ENTITY STANDARDS AND SPECIFICATIONS FOR JUSTING MANHOLES, INLETS AND VALVE BOXES TO GRADE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACKSLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF HIS WORK.
9. ALL DITCHES SHALL BE REGRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.

SWPPP CONSTRUCTION NOTES:

1. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG THE ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPPP) PLANS TO KEEP SILT AND/ OR EXCAVATIONS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM SEWER.
2. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.
3. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK, TRACKED FROM THE EXCAVATED AREA.
4. CONTRACTOR SHALL FOLLOW GOOD HOUSE KEEPING PRACTICES DURING THE CONSTRUCTION PHASE OF THE PROJECT ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
5. CONTRACTOR IS TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5-INCHES OR GREATER:
   A. DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
   B. AREAS USED FOR STORAGE THAT ARE EXPOSED TO PRECIPITATION.
   C. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
6. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS, AND CORRECTIVE ACTION IF SUCH OCCURS.

TRAFFIC NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. ALL TRAFFIC CLOSURES SHALL BE SCHEDULED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITIES APPROPRIATE HOURS.
3. NO LANES ON MAJOR THOROUGHFARES MAY BE BLOCKED FROM 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM UNLESS APPROVED BY THE LOCAL GOVERNING ENTITY.
4. NO TRAFFIC LANES SHALL BE CLOSED IN ALL RESIDENTIAL AREAS FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS.
6. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND OPEN THE LANES FOR NORMAL TRAFFIC FLOW.
7. OFF-DUTY UNIFORMED POLICE OFFICER(S)/FLAGGER(S) ARE REQUIRED TO DIRECT TRAFFIC WHEN THE LANES ARE BLOCKED.
8. IN THE EVEN THAT NO "TRAFFIC CONTROL PLANS" EXIST AS PART OF CONTRACT DRAWINGS. CONTRACT MAY PREPARE PLANS AND SUBMIT TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN-DAYS (10) PRIOR TO IMPLEMENTATION.
9. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS. HE/SHE SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING AN ALTERNATE SET OF PLANS* TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN (10) WORKING DAYS PRIOR TO IMPLEMENTATION.
10. APPROVED COPIES OF THE TRAFFIC CONTROL PLANS AND REQUIRED PERMITS SHALL BE MADE AVAILABLE FOR INSPECTION AT THE JOB SITE AT ALL TIMES. CONTRACTORS MUST SECURE REQUIRED PERMITS FROM THE LOCAL GOVERNING ENTITY'S TRAFFIC MANAGEMENT AND MAINTENANCE BRANCH BEFORE CLOSING A LANE/SIDEWALK. THE REQUEST MUST BE MADE AT LEAST TEN (10) DAYS IN ADVANCE OF THE CLOSURE. NOTE THAT WORKING HOURS MAY BE RESTRICTED OR THE REQUEST MAY BE DENIED.
    A. THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLAR AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME PART OF THE CONTRACT DRAWINGS.

WARNING: OVERHEAD ELECTRICAL LINES:

1. OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:
   A. ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
   B. OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
2. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222. ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-6248 OR (713) 207-5769.

CENTERPOINT ENERGY:
CAUTION: UNDERGROUND GAS FACILITIES:

1. LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, LLC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 OR 1-800-669-8344 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
   A. WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 945-8036 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
   B. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
   C. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
   D. FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3522 OR (713) 207-4200.
   E. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

AT&T TEXAS/SBC FACILITIES:

1. THE LOCATIONS OF AT&T TEXAS/SBC FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SBC FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANICAL EXCAVATION PROCEDURES. WHEN BORING THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SBC FACILITIES.
4. WHEN AT&T TEXAS/SBC FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SBC UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURY CABLES OR OTHER CABLES IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713)456-4552 OR EMAIL HIM AT rl7259@att.com, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR AT&T TEXAS/SWBT FACILITIES.

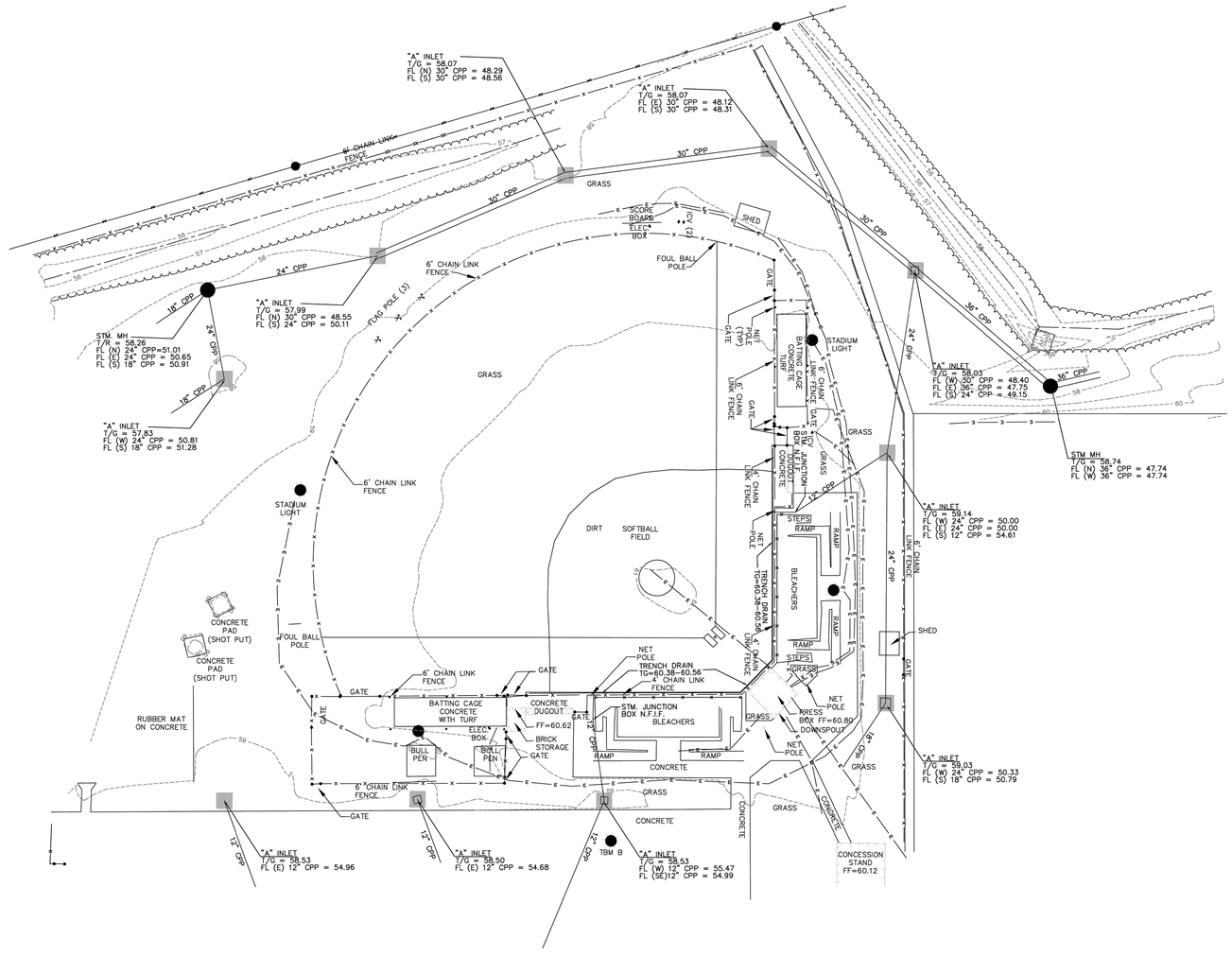
SANITARY SEWER NOTES:

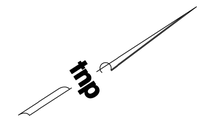
1. ALL SEWERS SHALL BE TESTED FOR EXCESS DEFLECTION IN PIPE CROSS SECTION, FOR LATERAL AND VERTICAL PIPE OBSTRUCTION, AND FOR JOINT OFFSETS, BY PULLING A MANDREL THROUGH THE PIPE BY HAND. THE MANDREL SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILLING HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. OBSTRUCTIONS ENCOUNTERED SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. MANDREL AND TEST EQUIPMENT SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONDUCTING THE TEST.
2. USE BEDDING AND BACKFILL PER DETAILS PROVIDED IN THE CONTRACT DRAWINGS UNLESS FIELD CONDITIONS DICTATE OTHERWISE. CONTRACTOR TO NOTIFY ENGINEER OF WET TRENCH CONDITIONS PRIOR TO LAYING PIPE. USE CEMENT STABILIZED SAND AND BACKFILL TO WITHIN 1 FOOT OF PROPOSED OR EXISTING PAVEMENT SUBGRADE. BEDDING, CEMENT STABILIZED SAND AND/OR BACKFILL SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM FOR PIPE AND SHALL NOT BE PAID FOR DIRECTLY.
3. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 24 INCHES OF VERTICAL CLEARANCE AND 9 FEET HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND WATER LINES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 12 INCHES OF VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND STORM SEWER LINES.
4. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM THE MANHOLE RIM PER ASTM F477.
5. UNLESS OTHERWISE NOTED, ALL SANITARY SEWERS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE (PVC) SCH 40, CONFORMING TO ASTM D1785, OR APPROVED EQUAL. ALL SANITARY SEWERS SHALL HAVE RUBBER GASKET BELL AND SPIGOT CONNECTIONS.
6. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES SHALL BE PRECAST CONCRETE MANHOLES.
7. NO CONNECTIONS SHALL BE MADE TO EXISTING SANITARY SEWER LINES UNTIL ALL PROPOSED SEWER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED AND APPROVED BY THE LOCAL GOVERNING ENTITY.
8. WHENEVER THE MANHOLE COVERS ARE LOCATED BELOW THE 100 YEAR FLOOD PLAIN ELEVATION THEY SHALL BE GASKETED AND BOLTED AS DESCRIBED IN 317.2. OF THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES.
9. LOW-PRESSURE AIR TEST. THIS TEST SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM C-828, ASTM C-924 OR OTHER APPROPRIATE PROCEDURES. FOR SAFETY REASONS, AIR TESTING OF SECTIONS OF PIPE SHALL BE LIMITED TO LINES LESS THAN 36-INCH AVERAGE INSIDE DIAMETER. LINES 36-INCH AVERAGE INSIDE DIAMETER AND LARGER MAY BE AIR TESTED AT EACH JOINT. THE MAXIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE DURING A JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR SECTION OF PIPE LESS THAN 36-INCH AVERAGE INSIDE DIAMETER, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE SHALL BE COMPUTED BY THE FOLLOWING EQUATIONS:

   T = 0.0850(D)(K)/(Q) WHERE T = TIME FOR PRESSURE TO DROP 1.0 POUNDS PER SQUARE INCH GAUGE IN SECONDS
   K = 0.000419(D)(L), BUT NOT LESS THAN 1.0
   D = AVERAGE INSIDE DIAMETER IN INCHES
   L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET
   Q = RATE OF LOSS, ASSUME 0.0015 CU FT/MIN/SQ FT INTERNAL SURFACE
10. SDR-26 PVC PIPE TO USE "FULL BODIED" SDR-26 FITTINGS.
11. ALL PVC PIPE TO HAVE CELL CLASS 12454 A OR B AS PER ASTM D1784.
12. NO MORE THAN 2 HOURS SHALL ELAPSE BETWEEN MIXING AND PLACEMENT OF CEMENT STABILIZED SAND.
13. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% SPD, ±2% OF OPTIMUM MOISTURE CONTENT, IN MAXIMUM 8-INCH LIFTS.

WATER SYSTEM CONSTRUCTION NOTES:

1. METERS AND BACKFLOW BOXES SHALL BE SET A MINIMUM OF 3 INCHES ABOVE FINISHED GRADE WITH SLOPED BACKFILL TO DIRECT STORM WATER AWAY FROM BOX. BOXES SHALL BE BACKFILLED WITH A MINIMUM 12 INCHES OF CEMENT STABILIZED SAND AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. FIRE SPRINKLER LINES SHALL BE INSTALLED AND TESTED BY A CONTRACTOR LICENSED BY THE STATE TO PERFORM SUCH WORK UNDER SECTION 4(A) & (B) OF ARTICLE 5.43-3 OF THE TEXAS INSURANCE CODE. CONTRACTOR SHALL FURNISH OWN CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING AS REQUIRED BY THE TEXAS COMMISSION ON FIRE PROTECTION.
3. ALL PVC PIPE USED IN WATER SYSTEMS SHALL BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL.
4. WATER LINE PIPE AND FITTING MATERIALS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:
   A. LESS THAN 4 INCH POTABLE WATER LINE SHALL BE SCHEDULE 40, PVC 1120, PER ASTM D-1785, EXCEPT THAT THREADED PIPE SHALL BE SCHEDULE 80. 3 INCH POTABLE WATER MAY BE SDR 21 PVC (200 P.S.I.) WITH GASKETED JOINTS.
   B. SITE 4 INCH AND LARGER POTABLE WATER LINE SHALL BE AWWA C900, DR 18, CLASS 235 PVC.
   C. FIRE SPRINKLER LINE SHALL BE AWWA C900, DR 14, CLASS 305 PVC.
   D. FITTINGS FOR LESS THAN 3 INCH AND LARGER WATER LINE SHALL BE ASTM D-2466 SCHEDULE 40 PVC. THREADED FITTINGS SHALL BE SCHEDULE 80 PER ASTM D-2467.
   E. FITTINGS FOR 3 INCH AND LARGER WATER LINE SHALL BE ALL-BELL, PUSH-ON, DUCTILE IRON MECHANICAL JOINT FITTINGS WITH MEGA-LUG.
5. VALVES:
   A. 1 1/2 INCH AND SMALLER SHALL BE 125 P.S.I.G., BRONZE, RISING STEM, SINGLE-WEDGE, DISC TYPE, SCREWED ENDS, CRANE NO. 428 OR APPROVED EQUAL.
   B. 2 INCH THRU 2 1/2 INCH VALVES SHALL BE IRON BODY, DOUBLE GATE, NON-RISING STEM, 150 P.S.I.G. TEST; 2 INCH SQUARE NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
   C. 3 INCH AND LARGER VALVES SHALL BE 200 P.S.I.G. GATE VALVES PER AWWA C500 OR C509, PUSH-ON BELL ENDS WITH RUBBER JOINT RINGS; 2 INCH NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
6. POLYETHYLENE WRAP ALL CAST AND DUCTILE IRON PIPE AND FITTINGS PER SPECIFICATIONS.
7. WATER LINES SHALL HAVE A MINIMUM COVER OF 4 FEET BELOW NATURAL GROUND, FINISH GRADE, OR MEAN ELEVATION OF NEARBY DITCH, WHICHEVER IS LOWER. ALL WATER LINES SHALL MAINTAIN A MINIMUM 12 INCH CLEARANCE TO OTHER UTILITIES AT CROSSINGS UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINES INSTALLED OVER 8 FEET DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS. CONTRACTOR SHALL PROVIDE THRUST BLOCKING TO WITHSTAND 125% OF TEST PRESSURES.
8. SEPARATION DISTANCE FOR ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS CHAPTER 290.44, HARRIS COUNTY, AND TCEQ REQUIREMENTS, LATEST PRINTING.
9. WHERE A DOMESTIC WATERLINE CROSSES A SANITARY SEWER, INSTALL ONE JOINT (MINIMUM 18 FOOT LENGTH) OF WATERLINE PIP CENTERED ON THE SEWER.
10. CONTRACTOR SHALL TAKE SANITARY PRECAUTIONS D





0' 15' 30' 60'

LEGEND

These standard symbols will may be found in the drawing.

- CHAIN LINK FENCE
- HIGH BANK
- BUILDING
- BURIED ELECTRIC LINE
- OHP — OVERHEAD POWER
- FLAG POLE
- FENCE / GATE POST
- IRRIGATION CONTROL VALVE "ICV"
- STORM INLET
- LIGHT POLE
- MANHOLE STORM SEWER
- JUNCTION BOX STORM
- NET POST
- NET POST
- POWER POLE
- ELECTRIC PULL BOX
- TREE OTHER
- OAK TREE

GENERAL NOTES:

1. BEARINGS SHOWN HEREON ARE BASED ON GPS OBSERVATIONS THE LEICA GPS NETWORK TEXAS COORDINATE SYSTEM SOUTH CENTRAL ZONE, 4204, NAD83 (2011 ADJ.) ALL DISTANCES, BEARINGS & COORDINATES ARE SURFACE AND CAN BE CONVERTED TO GRID BY APPLYING THE AVERAGE SCALE FACTOR OF 0.999870017.

2. THIS SURVEY IS A TOPOGRAPHICAL SURVEY AND DOES INCLUDE A BOUNDARY SURVEY. EASEMENTS, ENCUMBRANCES AND BOUNDARY LINES MAY EXIST THAT HAVE NOT BEEN SHOWN HEREON.

3. THIS SURVEY DOES NOT PROVIDE ANY DETERMINATION CONCERNING WETLANDS, FAULT LINES, TOXIC WASTE OR ANY OTHER ENVIRONMENTAL ISSUES. SUCH MATTERS SHOULD BE DIRECTED BY THE CLIENT OR PROSPECTIVE PURCHASER TO AN EXPERT CONSULTANT.

4. UTILITY LOCATIONS ARE LIMITED TO VISIBLE UTILITIES AND TONE LOCATION BY LONESTAR LOCATING (A PRIVATE UTILITY LOCATOR) AND AVAILABLE AS BUILT DRAWINGS. THERE MAY BE OTHER UTILITIES NOT SHOWN. ADDITIONAL UTILITIES MAY EXIST THAT HAVE NOT BEEN SHOWN HEREON.

5. TRACT IS SUBJECT TO THE DEVELOPMENT REQUIREMENTS OF MISSOURI CITY, TEXAS AND FORT BEND COUNTY.

6. THE SUBJECT TRACT IS LOCATED CROSSHATCHED ZONE X, ON THE FEMA MAP NO. 48201C0435L, DATED: 04/02/2014, AND IS SHOWN TO BE LOCATED IN AN AREA WITH REDUCED FLOOD RISK DUE TO LEVEE.

7. SOFTBALL FIELD AND BASEBALL FIELD HAVE AN UNDERGROUND IRRIGATION SYSTEM WITH IRRIGATION LINES, SPRINKLER HEADS AND VALVES. THESE IRRIGATIONS LINES ARE NOT ABLE TO BE TRACED WITH UTILITY DESIGNATING EQUIPMENT AND THE OWNER WAS NOT ABLE TO PROVIDE RECORD DRAWINGS SHOWING THEIR LOCATIONS. IRRIGATION LINES EXIST THAT HAVE NOT BEEN SHOWN HEREON.

8. WATER LINES AND SANITARY SEWER LINES MAY EXIST THAT HAVE NOT BEEN SHOWN HEREON. RECORD PLANS FOR WATER AND SANITARY WERE NOT AVAILABLE AT THE TIME OF THE SURVEY.

VERTICAL CONTROL:

BENCHMARK :
CITY OF MISSOURI CITY PRIMARY CONTROL MARK NO. PCM-11, BEING A 4-INCH DISC IN CONCRETE AT THE WEST SIDE OF WATERS LAKE BOULEVARD SOUTH SIDE OF THE CONCRETE DRIVEWAY INTO FIRE STATION NO. 5.
PUBLISHED ELEV.=59.97' NAVD88 2001 ADJUSTMENT.

CITY OF MISSOURI CITY SECONDARY CONTROL MONUMENT NO. 11015, BEING A 3-1/2-INCH DISC IN CONCRETE LOCATED AT THE SOUTHWEST CORNER OF WATERS LAKE BOULEVARD AND THE EAST ENTRANCE TO THE RIDGE POINT HIGH SCHOOL IN SIENNA, 2.3 FEET SOUTH OF THE SIDEWALK.

PUBLISHED ELEV. = 59.15 NAVD 1988, 2001 ADJUSTMENT.

TBM A:
SET BOX CUT IN TOP ON CONCRETE LIGHT STANDARD LOCATED SOUTH OF THE WESTERNMOST BLEACHERS OF THE SOFTBALL FIELD AS SHOWN ON THE SURVEY.

ESTABLISHED ELEVATION=61.18'

TBM B:
SET BOX CUT IN TOP ON CONCRETE LIGHT STANDARD LOCATED ON THE EAST SIDE OF THE BASEBALL FIELD, NEAR THE SOUTHWEST CORNER OF THE EXISTING PARKING LOT, AS SHOWN ON THE SURVEY.

ESTABLISHED ELEVATION=60.98'

D. FITZGERALD SURVEY
ABSTRACT NO. 25

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND, THAT THIS PLAT DRAWING CORRECTLY REPRESENTS THE FACTS FOUND AT THE TIME OF SURVEY AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS STANDARDS AND SPECIFICATIONS FOR A CATEGORY 6, CONDITION II LIMITED TOPOGRAPHIC SURVEY.

STATE OF TEXAS · REGISTERED · BRIAN J. MADDOX · 5430 · LICENSED PROFESSIONAL LAND SURVEYOR

THIS SURVEY IS FINAL AS AUTHORIZED BY BRIAN J. MADDOX, RPLS TX REG. No. 5430 ON NOVEMBER 16, 2023

THE OFFICIAL DRAWING IS SIGNED AND SEALED IN SURVEYOR'S OFFICE

TSPS CATEGORY 6, CONDITION II
LIMITED TOPOGRAPHIC SURVEY
FORT BEND I.S.D. RIDGE POINT HIGH SCHOOL
BASEBALL AND SOFTBALL FIELDS

500 WATERS LAKE BOULEVARD
MISSOURI CITY, FORT BEND COUNTY, TEXAS 77459

DATE: NOVEMBER 16, 2023
SCALE: 1" = 30'

PROJECT INFORMATION
Project No.:
Date: November 15, 2023
Drawn By: HL
Scale: 1"=30'
Sheet: 1 of 2

tnp

SURVEYOR
TEAGUE NALL AND PERKINS, INC.
1221 Park West Green Drive, Suite 100
Katy, Texas 77493
832.220.1205 ph 214.461.9864 fx
TBPLS Registration No. 10194381
www.tnpinc.com

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1312
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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RIDGE POINT HIGH SCHOOL
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FBISD
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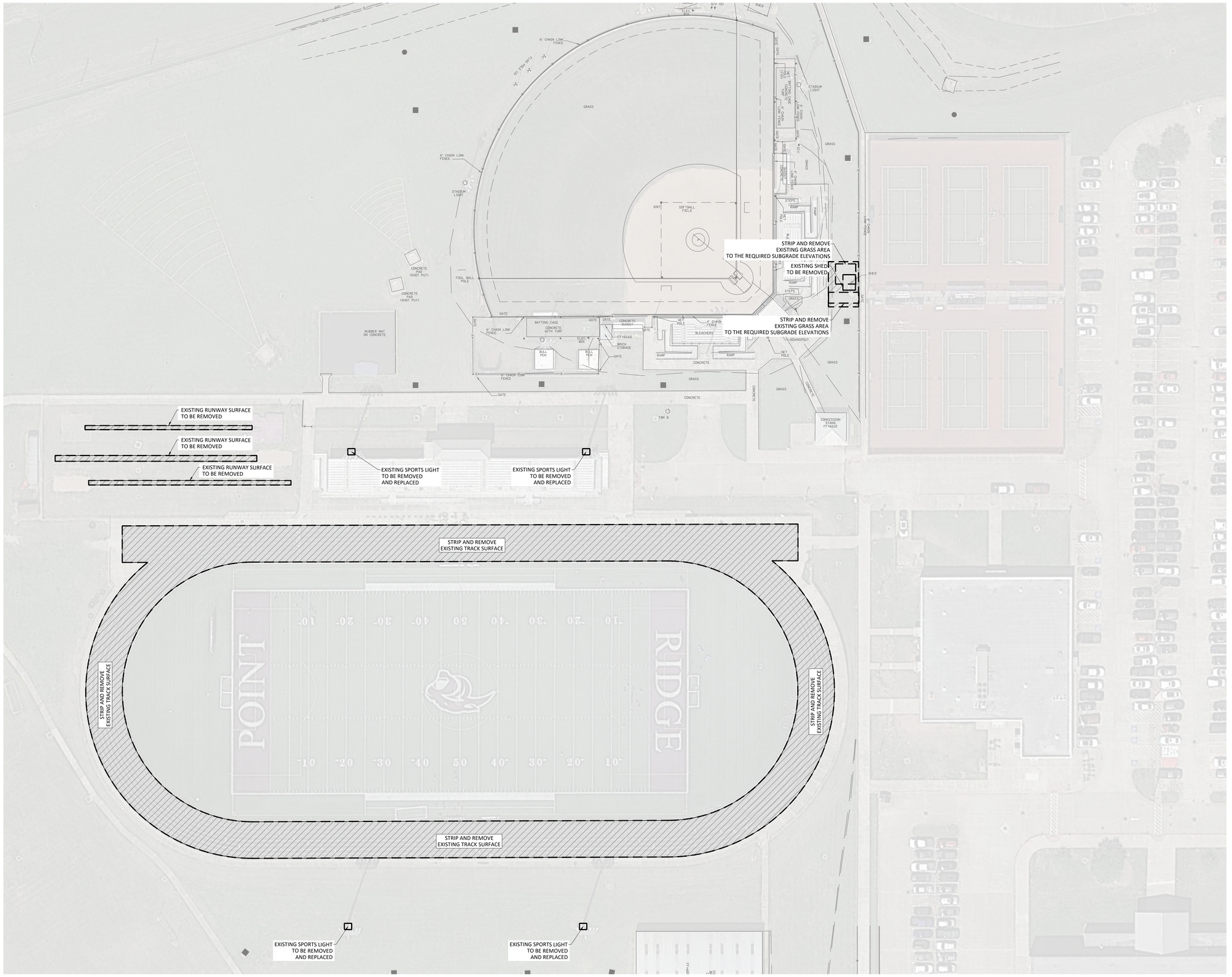
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

PROJECT NO. BP012
DATE JUNE 04, 2025
DRAWN BY EJS CHECKED BY KJ
REVISIONS:
1 Date Description

100% CD
C 0.02-R
CIVIL SPORTS SURVEY (REFERENCE ONLY)



NOTES:

1. ALL DEMOLITION ITEMS INCLUDING ALL SOILS TO BE HAULED OFF OF SITE OR AS DIRECTED BY CLIENT.
2. IF ANY DAMAGE IS DONE TO ANY AREA NOT ON SCOPE OF WORK IT SHALL BE THE CONTRACTOR'S DUTY TO FIX IT AT ITS OWN EXPENSE.
3. CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND EXISTING STRUCTURES.
4. CONTRACTOR SHALL MAINTAIN ALL PUBLIC STREET AND RIGHT OF WAY FREE OF DEBRIS, SILT AND SOILS AT ALL TIMES.
5. ALL WASTED SPILLED FROM TRUCKS SHALL BE REMOVED IMMEDIATELY AND NOT WASHED INTO STORM SEWER SYSTEM.
6. INLET PROTECTION WILL BE REQUIRED AT INLETS DOWNSTREAM OF THE WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.

LEGEND:

STRIP AND REMOVAL OF MATERIALS

REMOVAL AND DISPOSAL OF ITEMS

15' 30'
30' 0 60'

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KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

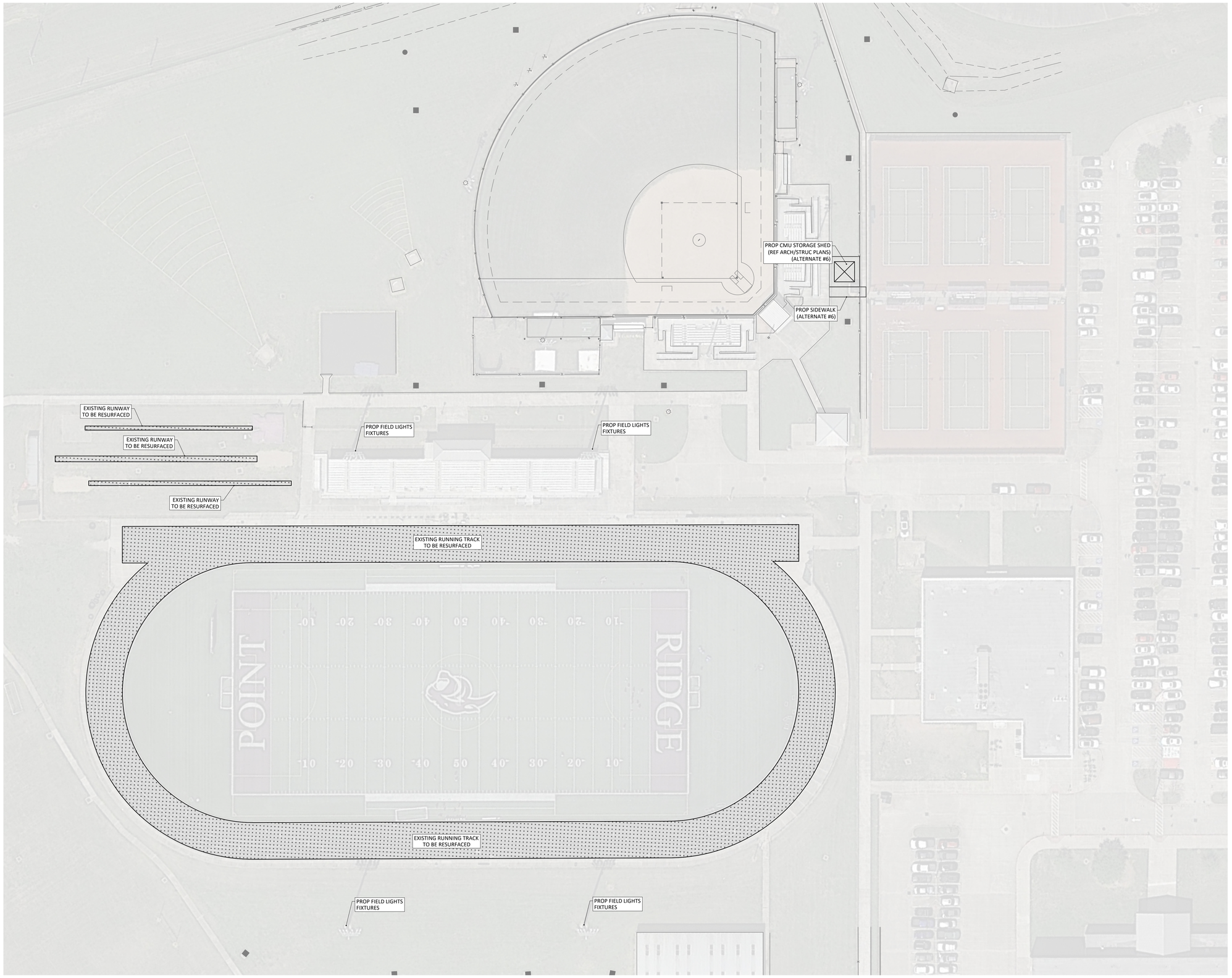
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 0.04-R
CIVIL SPORTS
DEMOLITION PLAN



NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS AND GROUND ELEVATIONS.
2. CONTRACTOR TO SEE SHEET C 5.01-R TO C 5.02 FOR DETAILS.

15' 30'
30' 0 60'

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STATE OF TEXAS

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

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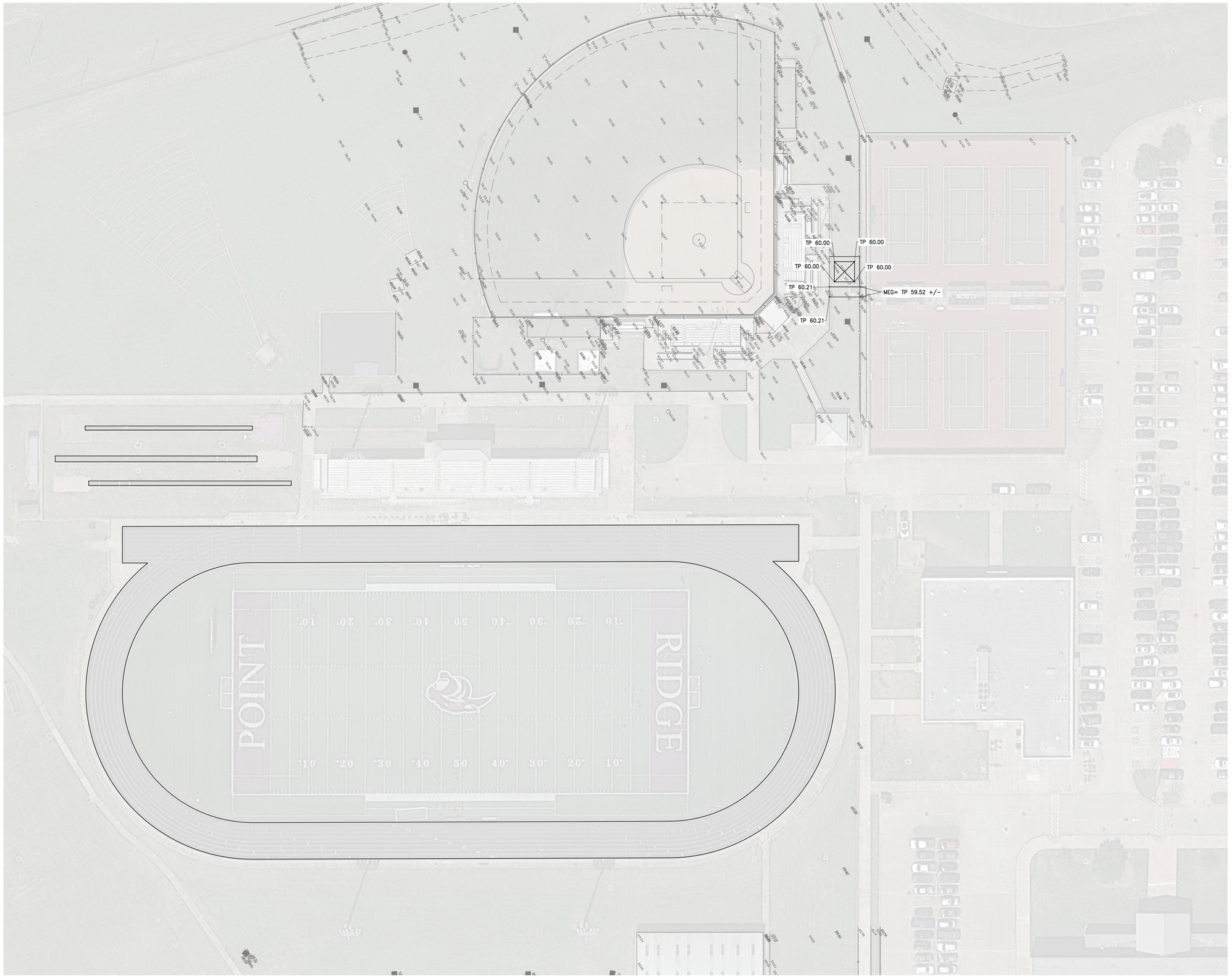
C 1.01-R
CIVIL SPORTS
SITE PLAN



N

NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.
2. CONTRACTOR TO MAKE SURE EXISTING SIDEWALK HAS POSITIVE DRAINAGE AWAY FROM THE EXISTING TENNIS COURTS.
3. CONTRACTOR TO PLACE A SWALE BETWEEN STORAGE & SIDEWALK & MAINTAIN POSITIVE DRAINAGE.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

15' 30'
30' 0 60'

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Project Info Additional Text Line
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119993
12/04/2025

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DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

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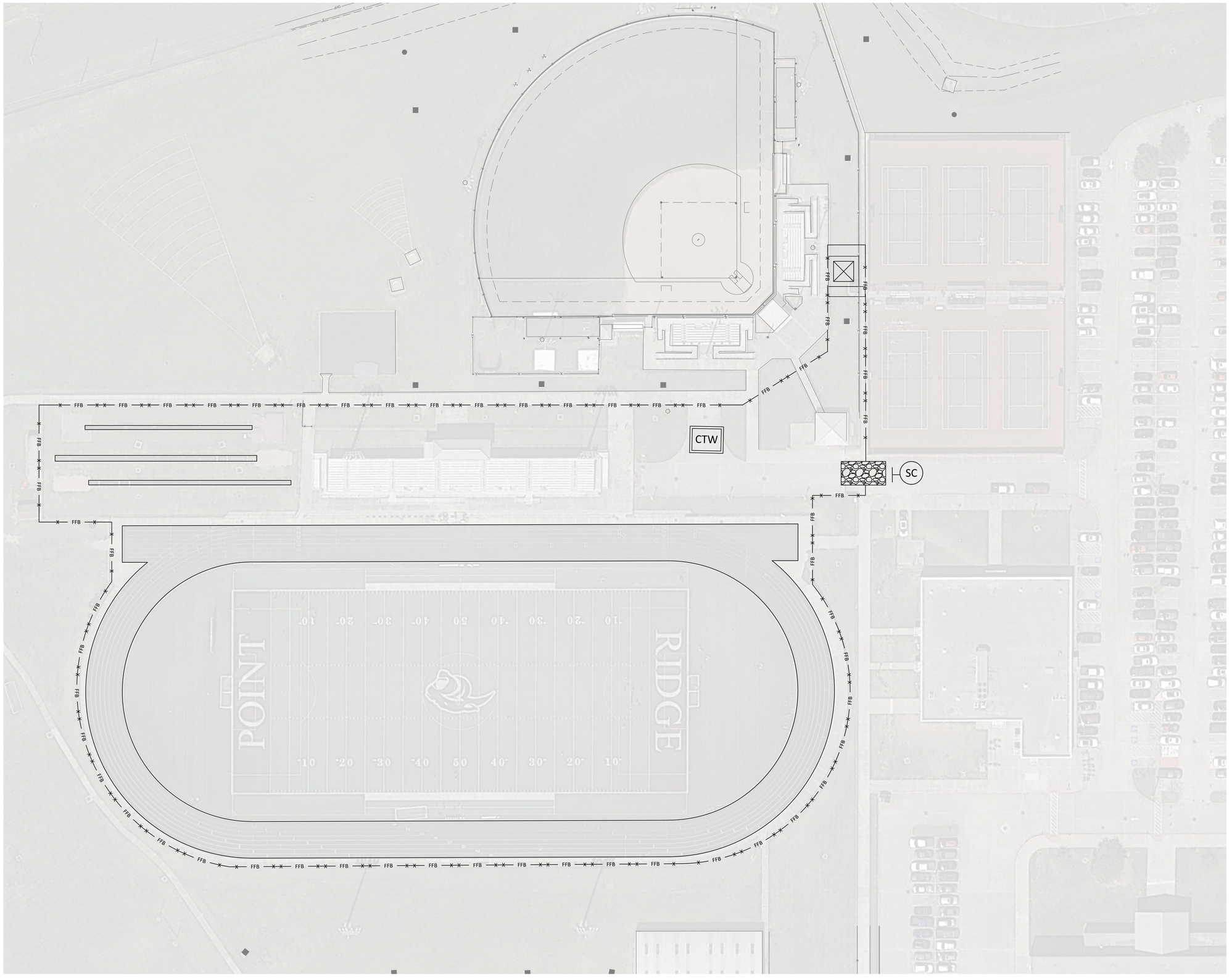
C 3.01-R
CIVIL SPORTS GRADING PLAN



NOTES:

1. CONTRACTOR TO PLACE "IPB" IN ALL SURROUNDING INLETS.

LEGEND:

- IPB — INLET PROTECTION BARRIER STAGE I
- IPB — INLET PROTECTION BARRIER STAGE II
- SC — STABILIZED CONSTRUCTION ACCESS
- CTW — CONCRETE TRUCK WASHOUT AREA
- FFB — FFB — FFB — FILTER FABRIC BARRIER

15' 30' 30' 0 60'

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2 Greenway Plaza, Suite 480
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Project Info Additional Text Line

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KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

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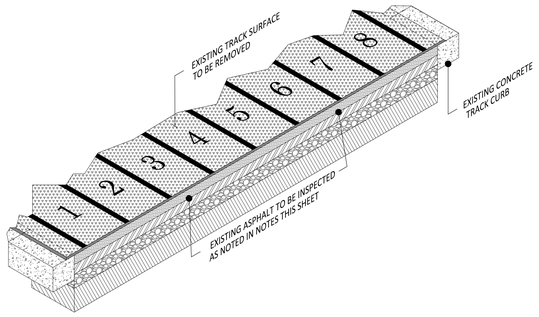
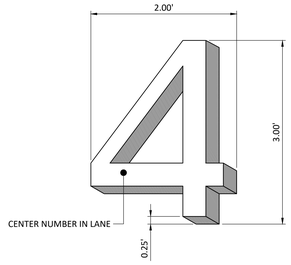
C 4.01-R

CIVIL SPORTS SWPP PLAN



1 TRACK SURFACE SECTION
N.T.S.



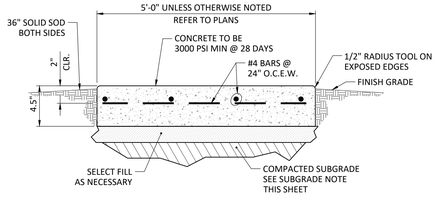
2 TRACK NUMBER DETAIL
N.T.S.

NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.
2. CONTRACTOR TO REMOVE THE EXISTING TRACK SURFACE FOR THE EXISTING TRACK AND FIELD EVENTS ALL THE WAY DOWN TO THE ASPHALT. ONCE ALL SURFACE HAS BEEN REMOVED, CONTRACTOR SHALL CONTACT THE ENGINEER TO INSPECT THE CONDITION OF THE EXISTING ASPHALT AND CONCRETE CURBS TO FIND THE AREAS THAT NEED TO BE FIXED OR REPLACED BEFORE ADDING ANY OTHER SURFACE.
3. CONTRACTOR TO APPLY THE PROPOSED TRACK SURFACE PER SPEC. (STRUCTURAL SPRAY).

SUBGRADE TREATMENT NOTE:

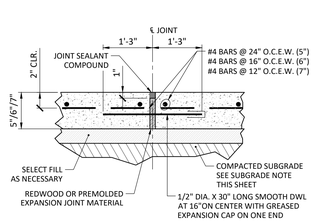
1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.



NOTES:

1. PROVIDE GROOVED JOINT AT 4' ON CENTER.
2. PROVIDE 1/2" EXPANSION JOINT AT 15' ON CENTER.
3. PROVIDE CONTROL JOINTS AT 5' MAXIMUM.

3 CONCRETE SIDEWALK DETAIL
N.T.S.

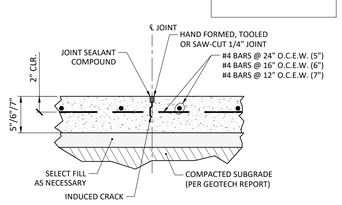


NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

4 EXPANSION JOINT DETAIL
N.T.S.

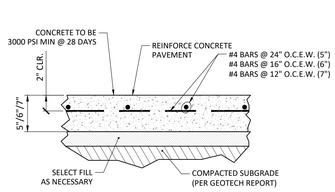
NOTE: SEE GEOTECH REPORT FOR REFERENCE



NOTES:

1. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

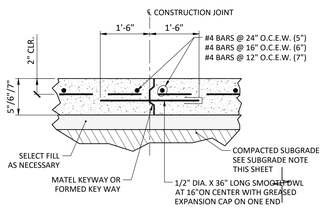
5 CONSTRUCTION JOINT DETAIL
N.T.S.



NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.
2. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

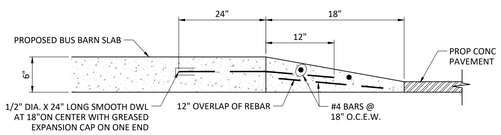
6 CONCRETE PAVEMENT DETAIL
N.T.S.



NOTES:

1. CONSTRUCTION JOINT SHALL BE PLACED AT THE END OF EACH DAYS POUR AND IN BETWEEN POURS AS SPECIFIED.

7 CONTROL JOINT DETAIL
N.T.S.



8 MOUNTABLE CURB DETAIL
N.T.S.

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500 Waters Lake BLVD, Missouri City, TX 77459

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SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

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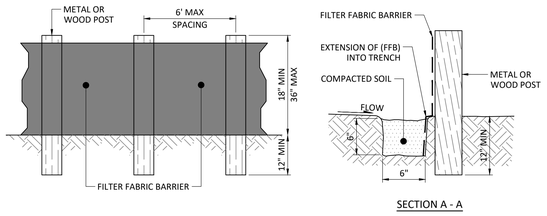
C 5.01-R
CIVIL SPORTS DETAILS



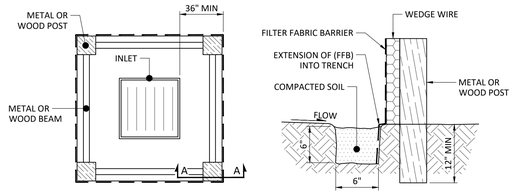
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

XX FFB XX

1 N.T.S. FILTER FABRIC BARRIER



PLAN VIEW

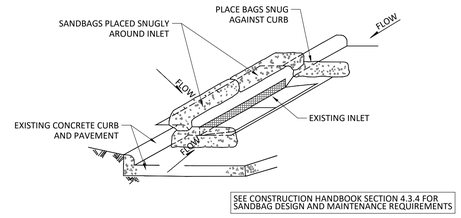
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

IPB

2 N.T.S. INLET PROTECTION BARRIER



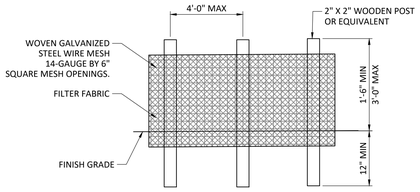
SEE CONSTRUCTION HANDBOOK SECTION 4.3.4 FOR SANDBAG DESIGN AND MAINTENANCE REQUIREMENTS

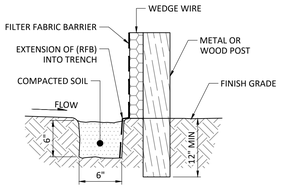
GENERAL NOTES:

1. BAGS OR WATTLES CAN BE USED FOR THIS APPLICATION.
2. PROVIDE WOVEN OR UNWOVEN GEOTEXTILE FILTER FABRIC FOR BAGS.
3. PROVIDE COARSE SAND AND AGGREGATE MIX FOR FILL MATERIAL FOR BAGS. USE ONLY PARTICLES CONSISTING OF CLEAN, HARD, DURABLE MATERIALS FREE FROM ADHERENT COATINGS, SALT, ALKALI, DIRT, CLAY, LOAM, SHALE, SOFT OR FLAKY MATERIALS, OR ORGANIC AND INJURIOUS MATTER.
4. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE BARRIER.

IPB

3 N.T.S. INLET PROTECTION BARRIER STAGE II



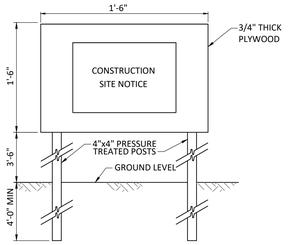


NOTES:

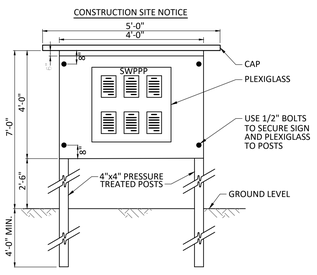
1. SET POSTS AT 4-FEET MAXIMUM SPACING. IF FACTORY PREASSEMBLED FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAXIMUM
2. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT THE POST, FOLD TOGETHER, AND ATTACH TO THE POSTS.
3. REMOVE SEDIMENT DEPOSITS WHEN SILT DEPTH REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE.

XX RFB XX

4 N.T.S. REINFORCE FILTER FABRIC BARRIER



CONSTRUCTION SITE NOTICE



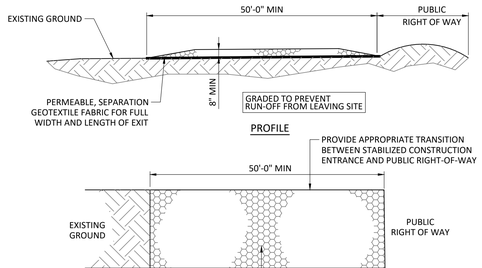
SWPPP SIGN

GENERAL NOTES:

1. COORDINATE CONSTRUCTION SITE AND SWPPP SIGN INFORMATION AND LAYOUT REQUIREMENTS WITH OWNER.

SC

5 N.T.S. PROJECT SIGN DETAIL



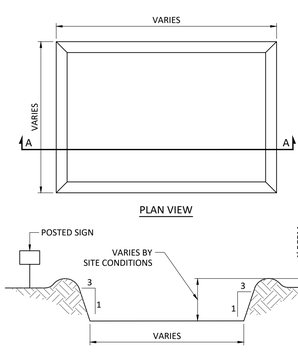
PLAN VIEW

SC

6 N.T.S. STABILIZED CONSTRUCTION ACCESS

GENERAL NOTES:

1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
2. MINIMUM WIDTH OF 14 FEET FOR ONE-WAY TRAFFIC, 20 FEET FOR TWO-WAY TRAFFIC.
3. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
4. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
5. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
6. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
7. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
8. ALTERNATIVE METHODS OF CONSTRUCTION INCLUDE
   -CEMENT STABILIZED SOIL: COMPACTED CEMENT STABILIZED SOIL, LIMESTONE AGGREGATE, OR OTHER FILL MATERIAL IN AN APPLICATION OF THICKNESS OF 8 INCHES.
   -WOOD MATS: OAK OR OTHER HARDWOOD TIMBERS PLACED EDGE TO EDGE AND ACROSS SUPPORT WOODEN BEAMS WHICH ARE PLACED ON TOP OF EXISTING SOIL IN AN APPLICATION THICKNESS OF 6 INCHES.
   -STEEL MATS: PERFORATED MATS PLACED ACROSS PERPENDICULAR SUPPORT MEMBERS.
9. CONSTRUCT CONSTRUCTION EXIT ON LEVEL GROUND WHEN POSSIBLE.
10. PROVIDE PERIODIC STREET SWEEPING AT CONJUCTION WITH PUBLIC RIGHT-OF-WAY.
11. LIMIT SPEED OF VEHICLES TO CONTROL DUST.
12. UTILIZE TEMPORARY PIPE CULVERTS AS NEEDED TO PREVENT IMPEDING POSITIVE DRAINAGE.
13. VERIFY STABILIZED CONSTRUCTION ACCESS LOCATION WITH OWNER PRIOR TO CONSTRUCTION.



PLAN VIEW

SECTION A - A

CTW

7 N.T.S. CONCRETE TRUCK WASHOUT AREA

GENERAL NOTES:

1. POST A SIGN READING "WARNING: CONCRETE WASH OUT PIT" NEXT TO EVERY PIT, MAKE SIGN VISIBLE TO NEAREST SIDEWALK OR ROAD.
2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.
3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.
6. LOCATE CONCRETE WASH OUT PITS AWAY FROM PLAYGROUND STRUCTURES.
7. VERIFY CONCRETE TRUCK WASHOUT AREA LOCATION WITH OWNER PRIOR TO CONSTRUCTION.

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

RIDGE POINT HIGH SCHOOL
Project Info Additional Text Line
500 Waters Lake BLVD, Missouri City, TX 77459

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 5.02-R
CIVIL SPORTS DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

TSCE PROJECT # 2508

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GENERAL

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES. THE CODES LISTED SHALL INCLUDE ALL AMENDMENTS AND ADDENDA IN FORCE AT THE DATE OF THE CONTRACT DOCUMENTS.

   2021 EDITION OF THE INTERNATIONAL BUILDING CODE

2. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL AND ARCHITECTURAL CONTRACT DOCUMENTS THE STRICTEST REQUIREMENTS SHALL GOVERN.
3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE AND REPORT ANY DISCREPANCIES OR INCONSISTENCIES FROM ASSUMED CONDITIONS TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.
4. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT THEY ARE CUT AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER.
5. DO NOT SCALE THE DRAWINGS.
6. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.
7. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.
8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, AND CONSTRUCTION EQUIPMENT. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE.
10. IT IS THE DESIGN INTENT FOR ALL CONCRETE POURS TO HAPPEN IN SEQUENTIAL ORDER FROM FOUNDATIONS THROUGH ROOF. THE GENERAL CONTRACTOR SHALL DISCUSS WITH THE A/E TEAM THE FEASIBILITY OF NON-SEQUENTIAL POURING OF CONCRETE AND ITS IMPACT ON THE DESIGN INTENT AND ALLOW SUFFICIENT TIME FOR SUCH SCHEME TO BE INVESTIGATED OR REVIEWED.
11. PERIODIC SITE OBSERVATION BY THE ENGINEER IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.
12. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBERS.
13. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, WALLS, SLABS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF STRUCTURAL ENGINEER.
14. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS, WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.
15. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

    SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS,
    SIZE AND LOCATION OF INTERIOR AND EXTERIOR NON-LOAD BEARING PARTITIONS, SIZE AND LOCATION OF CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHAMFERS, GROOVES, INSERTS, ETC., SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS, FLOOR AND ROOF FINISHES,
    STAIR FRAMING AND DETAILS. DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, CEILING AND EXTERIOR WALL ASSEMBLIES.
16. SEE THE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

    PIPES, SLEEVES, HANGERS, TRENCHES, WALL, FLOOR AND ROOF OPENINGS, DUCT PENETRATIONS, ETC., EXCEPT AS SHOWN OR NOTED OTHERWISE
    ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS, CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL, OR PLUMBING FIXTURES, SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES AND ANCHOR BOLTS FOR MOUNTS.

DESIGN CRITERIA

1. DEAD LOAD MATERIALS ASSUMED IN THE DESIGN ARE SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
2. AN ALLOWANCE OF 15 PSF HAS BEEN MADE FOR PARTITIONS AS A UNIFORMLY DISTRIBUTED LIVE LOAD, WHEREVER PARTITIONS ARE USED AND LOCATION SUBJECT TO CHANGE EXCLUDING PUBLIC LOBBIES, CORRIDORS, RESTROOMS, AND PLACES OF PUBLIC ASSEMBLY.
3. LIVE LOADS:

LOCATION	UNIFORM LOAD	CONCENTRATED LOAD
ROOF	20 PSF REDUCIBLE	300 LBS
GROUND FLR, COMMON AREAS	100 PSF REDUCIBLE	
HANDRAILS AND GUARDRAILS	50 PLF OR 200 LBS APPLIED AT TOP RAIL IN ANY DIRECTION. 50 LBS IN ANY DIRECTION APPLIED AT INTERMEDIATE RAILS.	
GRAB BARS		250 LBS ANY DIRECTION

4. WIND LOADS

ULTIMATE WIND SPEED	140 MPH (3-SEC GUST)
NOMINAL WIND SPEED	108 MPH (3-SEC GUST)
RISK CATEGORY	II
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFF.	+/- 0.18
COMPONENTS & CLADDING	SEE DIAGRAM

5. SEISMIC LOADS

RISK CATEGORY	II
IMPORTANCE FACTOR	1.00
MAPPED ACCELERATION PARAMETERS	
SS	0.065
S1	0.037
SPECTRAL RESPONSE COEFFICIENTS	
SDS	0.07
SD1	0.06
SEISMIC DESIGN CATEGORY	A

6. HANDRAILS, GUARDRAILS AND GRAB BARS (INCLUDING ATTACHMENT TO STRUCTURE) SHALL BE DESIGNED BY THE FABRICATOR FOR THE LOADS INDICATED IN THE REFERENCED BUILDING CODE. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF WHERE THE PROJECT IS LOCATED, REPRESENTING THE FABRICATOR.

FOUNDATION

1. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT (AND ANY ADDENDA) PREPARED BY THE FOLLOWING COMPANY:

   COMPANY HVJ ASSOCIATES
   REPORT NO. HG1810383.17 –C
   DATED FEBRUARY 09, 2024

   ALL RECOMMENDATIONS THEREIN THAT RELATE TO THE WORK SHOWN ON THESE DRAWINGS SHALL BE FOLLOWED.
2. THE FOUNDATION SYSTEM IS DESIGNED BASED ON THE FOLLOWING

   ALLOWABLE BEARING PRESSURE
   SUSTAINED LOADS 1500
   TOTAL LOADS 2200
   DESIGN PLASTICITY INDEX (PI) 28
   SOIL SUPPORT INDEX 0.12
   CLIMATIC RATING 25
3. THE GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR FOR REVIEW OF FOUNDATION BEARING SURFACE, INSPECTION OF FOUNDATION INSTALLATION, AND PLACEMENT OF REINFORCING STEEL. THE CONTRACTOR SHALL NOT PLACE CONCRETE WITHOUT INSPECTOR'S APPROVAL.
4. THE CONTRACTOR SHALL NOTIFY THE AUTHORIZED INSPECTOR 48 HOURS IN ADVANCE OF ANY MAJOR FOUNDATION POUR.
5. FORM EXPOSED FACES OF GRADE BEAMS.
6. GRADE BEAM BOTTOM STEEL SHALL BE CHAIRED AT 5 FOOT MAXIMUM CENTERS USING BEAM BOLSTERS PROVIDING 3 INCH BOTTOM COVER TO REINFORCING STEEL. BEAM BOLSTERS USED SHALL BE INTENDED FOR SUPPORT ON SOIL.
7. BOTTOM BARS OF GRADE BEAM SHALL BE SPLICED (WHERE REQUIRED) AT THE PIERS ONLY. TOP BARS SHALL BE SPLICED (WHERE REQUIRED) AT THE MIDSPAN OF THE GRADE BEAMS. LAP LENGTH SHALL BE 44 TIMES BAR DIAMETER UNLESS SPECIFIED OTHERWISE. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.
8. ALL REINFORCING STEEL FOR SLABS SHALL BE CHAIRED WITH SLAB BOLSTERS FOR SUPPORT ON SOIL AT 4'-0" MAXIMUM CENTERS EACH WAY FOR REINFORCING FOR SLABS. DEPTH OF CHAIRS SHALL PROVIDE COVER TO REINFORCING AS NOTED ON PLANS/DETAILS.
9. SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R. PROVIDE (3) #3 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.
10. SUBGRADE PREPARATION SHALL CONFORM TO THE SOILS REPORT NOTED ABOVE. IF REPORT DOES NOT SPECIFY THE AMOUNT OF SELECT FILL, PROVIDE FILL AS REQUIRED ABOVE TO REDUCE PVR TO 1 INCH.
11. VAPOR RETARDER SHALL HAVE NO MORE THAN 0.01 PERMS AS TESTED BEFORE AND AFTER MANDATORY CONDITIONING (ASTM E 1745 SECTION 7.1 AND SUB-PARAGRAPHS 7.1.2-5), MEET OR EXCEED THE REQUIREMENTS OF ASTM E 1745 CLASS A AND BE NO LESS THAN 15 MILS THICK.
12. THE CONTRACTOR SHALL ENSURE THE SELECT FILL MATERIAL IS PROPERLY MIXED TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER AND TESTING LAB AND SHALL MAKE PROVISIONS FOR SOIL PULVERIZATION OR OTHER MIXING METHODS AS REQUIRED.
13. THE BEARING STRATUM OF EACH DRILLED PIER SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR PRIOR TO POURING OF CONCRETE.
14. THE BOTTOM ELEVATION OF PIERS IS SHOWN ON THE DRAWINGS FOR BID PURPOSES. THE ACTUAL REQUIRED BEARING ELEVATION MAY VARY AS REQUIRED TO PROVIDE PROPER CAPACITY AS DETERMINED BY THE GEOTECHNICAL ENGINEER. FOOTINGS SHALL BE POURED IMMEDIATELY AFTER EXCAVATION.
15. PROVIDE AND INSTALL 1/8 INCH STEEL TEMPLATES TO ACCURATELY SET VERTICAL PIER REINFORCING STEEL, AND ANCHOR BOLTS FOR STEEL COLUMNS.
16. THE PRESENCE OF SAND SEAMS AND SLICKENSIDES IN THE LAYERS MAY CAUSE SLOUGHING DURING PIER EXCAVATION. THIS MAY REQUIRE THE USE OF TEMPORARY STEEL CASING.
17. REDUCING THE POTENTIAL FOR CAVING OF THE BELL CAN BE ACHIEVED BY LIMITING THE BELL TO SHAFT DIAMETER RATIO TO 2:1 OR INSTALLING STRAIGHT SHAFT FOOTINGS.
18. THE GROUNDWATER LEVELS MAY FLUCTUATE SEASONALLY AND WITH CLIMATIC CHANGES. SEEPAGE OF GROUNDWATER INTO THE EXCAVATIONS IS POSSIBLE AND SEEPAGE FROM "PERCHED" WATER TRAPPED IN THE SOILS MAY ALSO OCCUR. THE CONTRACTOR SHALL MAKE PROVISIONS FOR DEWATERING THE FOOTING EXCAVATION IF GROUNDWATER IS ENCOUNTERED.
19. CONCRETE SHALL BE PLACED AS SOON AS POSSIBLE AFTER THE FOOTING EXCAVATIONS ARE COMPLETED TO REDUCE THE POTENTIAL FOR WATER SEEPAGE AND TO MINIMIZE THE DISTURBANCE TO THE BEARING AREA. IN NO CASE, SHOULD AN EXCAVATION BE LEFT OPEN OVERNIGHT.

CONCRETE

1. ALL ASPECTS OF WORK RELATING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CURRENT EDITION OF ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
   CRSI MANUAL OF STANDARD PRACTICE
2. STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTHS AND TYPES ARE AS FOLLOWS:

LOCATION	STRENGTH	TYPE	AGGREGATE SIZE	EXPOSURE CLASS
FOUNDATIONS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0
GRADE BEAMS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0
SLAB-ON-GRADE	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0

3. THERE SHALL BE NO HORIZONTAL COLD JOINT IN ANY CONCRETE POUR.
4. ADMIXTURES USED SHALL BE COMPATIBLE WITH FLOOR TREATMENTS. FINISH APPLICATOR SHALL APPROVE ADMIXTURES AND CURING COMPOUNDS PRIOR TO USE.
5. EXPOSURE CLASSES FOR FREEZING AND THAWING (F), SULFATE (S), WATER (W), AND CORROSION PROTECTION (C) HAVE BEEN PROVIDED. CONCRETE MIXES SHALL CONFORM TO ALL ACI 318 REQUIREMENTS BASED ON EXPSURE CLASS, INCLUDING, BUT NOT LIMITED TO WATER CEMENT RATIO, COMPRESSION STRENGTH, AIR CONTENT, CEMENTITIOUS MATERIALS, CALCIUM CLORIDE ADMIXTURES, AND WATER-SOLUABLE CHLORIDE ION CONTENT.
6. CONCRETE FOR SLAB-ON-GRADE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.45. ALL OTHER CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.50. ADJUST CONCRETE STRENGTH BEYOND MINIMUM SPECIFIED ABOVE TO MAINTAIN MAXIMUM WATER-CEMENT RATIO.
7. CONCRETE FOR SLAB-ON-GRADE AND METAL DECK SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.04% (400 MICROSTATIONS) AT 28 DAYS OF DRYING. LENGTH CHANGE SHALL BE MEASURED IN ACCORDANCE WITH ASTM C157.
8. FLY ASH CONFORMING TO ASTM C618, MAY BE USED UNLESS NOTED OTHERWISE. THE MAXIMUM AMOUNT OF FLY ASH SHALL BE 25% OF THE TOTAL CEMENTITIOUS MATERIAL BY WEIGHT.
9. AT POLISHED OR STAINED CONCRETE THE FLOOR FLATNESS (FF) SHALL BE 40 OR BETTER AND THE FLOOR LEVELNESS (FL) SHALL BE 30 OR BETTER UNLESS MORE STRINGENT REQUIREMENTS ARE PROVIDED IN THE SPECIFICATIONS.
10. CONCRETE FORMS SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS INDICATED ON THE STRUCTURAL DRAWINGS.
11. CONCRETE FOR SLABS TO RECEIVE A HARD-TROWELED FINISH SHALL NOT CONTAIN AIR-ENTRAINING ADMIXTURES OR HAVE A TOTAL AIR CONTENT GREATER THAN 3 PERCENT.
12. SUBMIT SHOP DRAWINGS TO ARCHITECT AND ENGINEER INDICATING LOCATIONS OF CONCRETE JOINTS TO REVIEW PRIOR TO PLACING CONCRETE. PLACE JOINTS AT LOCATIONS TO MINIMIZE THE EFFECTS OF SHRINKAGE AS WELL AS BEING PLACED AT POINTS OF LOW STRESS.
13. ROUGHEN CONCRETE SURFACES TO 1/4 INCH AMPLITUDE WHERE MASONRY WALLS INTERSECT CONCRETE OR WHERE NEW CONCRETE INTERFACES WITH EXISTING CONCRETE.
14. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB-ON-GRADE, CONCRETE ON METAL DECK, FRAMED CONCRETE FLOORS, AND WALLS DO NOT REQUIRE SLEEVES UNLESS NOTED OTHERWISE ON THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE ARCHITECT AND ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH CONCRETE BEAMS OR COLUMNS UNLESS SPECIFICALLY DETAILED.
15. WITH THE EXCEPTION OF SLABS ON GRADE AND CONCRETE ON METAL DECK, THE OUTSIDE DIAMETER OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS (OTHER THAN THOSE PASSING THROUGH) SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS AND SHALL BE CENTERED BETWEEN THE TOP AND BOTTOM REINFORCING UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED. CONDUIT AND PIPE SHALL BE SPACED AT 3" OR 3 DIAMETERS ON CENTER, WHICHEVER IS GREATER.
16. FOR SLABS ON GRADE AND METAL DECK SLABS NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB UNLESS SPECIFICALLY DETAILED OTHERWISE.
17. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING WHEN TEMPORARY SUPPORTS, SHORES, BACKSHORES, AND OTHER BRACING MAY BE SAFELY REMOVED.

REINFORCING STEEL

1. ALL ASPECTS OF WORK RELATING TO THE REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CRSI MANUAL OF STANDARD PRACTICE
2. DEFORMED BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.
3. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185, YIELD STRENGTH 65,000 PSI. WELDED DEFORMED WIRE FABRIC FOR ASTM A497, YIELD STRENGTH 70,000 PSI. ALL WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS ONLY. WHEREVER WELDED WIRE FABRIC IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED ONE CROSS WIRE SPACING PLUS 2 INCHES.
4. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ONE HALF, WHICHEVER IS GREATER.
5. WELDING OF REINFORCING IS PERMITTED ONLY WHERE SHOWN ON THE DRAWINGS OR WHEN APPROVED BY THE ENGINEER OF RECORD. WELDING OF REINFORCING BARS SHALL BE WITH LOW HYDROGEN ELECTRODES IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF AWS D1.4.
6. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
7. REINFORCING DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME NUMBER, SIZE, SPACING, AND GRADE AS THE SPECIFIED VERTICAL REINFORCING, UNO.
8. IN ADDITION TO ALL OF THE REINFORCING STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF REINFORCING BARS TO BE FURNISHED, FABRICATED, AND PLACED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.
9. CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS SHALL BE AS FOLLOWS:

LOCATION OF CONCRETE	MINIMUM COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #18 BAR	2"
#5 BAR AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND	
SLABS, WALLS, JOISTS	3/4"
BEAMS, COLUMNS (INCLUDING TIES)	1 1/2"
SLAB ON GRADE	SEE DETAILS
PRESTRESSED CONCRETE	SEE IBC 1907.7.3

COLD-FORMED STEEL

1. ALL ASPECTS OF WORK RELATING TO COLD-FORMED (LIGHT GAGE) STEEL CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF THE AISI SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, INCLUDING ANY SUPPLEMENTS.
2. COLD-FORMED STEEL MEMBERS SHALL BE OF THE SIZE, GAUGE, AND SPACING SHOWN ON THE DRAWINGS. FLANGE WIDTHS SHALL BE 1 5/8" WITH 1/2" RETURNS UNLESS SPECIFIED OTHERWISE.
3. ALL FRAMING MEMBERS SHALL BE MANUFACTURED FROM CORROSION RESISTANT STEEL CONFORMING TO ASTM A653 (G60). 25 GAUGE THROUGH 18 GAUGE MEMBERS SHALL BE FORMED FROM STEEL HAVING A MINIMUM 33 KSI YIELD POINT PER ASTM A653 GRADE 33. 16 GAUGE THROUGH 12 GAUGE MEMBERS SHALL BE FORMED FROM STEEL HAVING A MINIMUM 50 KSI YIELD POINT PER ASTM A446 GRADE 50.
4. SPLICES IN FRAMING COMPONENTS EXCEPT RUNNERS AND TRACKS SHALL NOT BE PERMITTED.
5. AT LOAD BEARING WALLS SUPPORTING FLOOR OR ROOF JOISTS, LOCATE STUDS DIRECTLY UNDER THE JOISTS OR PROVIDE LOAD DISTRIBUTING MEMBER BETWEEN STUDS TO SUPPORT JOISTS.
6. FASTENING OF COMPONENTS SHALL BE WITH SELF-DRILLING SCREWS OR WELDING. WELDING SHALL BE DONE USING FILLET, PLUG, BUTT OR SEAM WELDS WITH A MINIMUM 3/32 IN. AWS TYPE 60/13 WELDING RODS. WELD AREAS SHOULD BE RE-TOUCHED WITH THE APPROPRIATE PAINT OR COLD-GALVANIZING TO RETAIN CORROSION RESISTANCE. ALL WORK SHALL BE COMPLETED BY QUALIFIED WELDERS IN ACCORDANCE WITH AWS D1.3 STANDARDS.
7. PROVIDE HORIZONTAL BRIDGING IN ALL STUD SYSTEMS AT 4'-0" O.C. VERTICALLY FOR AXIALLY LOADED STUDS AND AT 6'-0" O.C. FOR NON-LOAD BEARING STUDS. WELD AT EACH STUD INTERSECTION.
8. SCREWS SHALL BE SELF-DRILLING AND OF TYPE S-12, ASTM C-954, EXCEPT THAT TYPE S, ASTM C-1002 MAY BE USED FOR 20 GAUGE OR 22 GAUGE MATERIAL ONLY. SCREWS SHALL BE 3/8" TO 1/2" LONGER THAT TOTAL MATERIAL THICKNESS.
9. SHEATHING MATERIALS FOR SHEAR WALLS MUST EXTEND AND BE CONNECTED TO THE TOP AND BOTTOM TRACKS.
10. STEEL STRUCTURAL STUD TRACK OF THE SAME GAUGE AS THE STUDS SHALL BE USED AT THE TOP AND BOTTOM OF ALL STUD WALLS UNLESS NOTED OTHERWISE. STUDS SHALL SIT FLAT AGAINST THE WEB OF THE STUD TRACK AND BE ATTACHED WITH 1-#8 X 5/8" SCREW EACH SIDE OF EACH STUD.
11. WEB PUNCH-OUTS SHOULD BE COORDINATED WITH BRACING AND UTILITY REQUIREMENTS. WEB PUNCH-OUTS OR WEB OPENINGS SHALL BE LOCATED A MINIMUM OF 6" OR MEMBER DEPTH, WHICHEVER IS GREATER, FROM STUD OR JOIST BEARING POINTS.
12. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS, OR AS REQUIRED FOR AN ANGULAR FIT AGAINST ABUTTING MEMBERS.
13. FOR NON-LOAD BEARING STUDS, CONNECTIONS SHALL ACCOUNT FOR THE DEFLECTION OF THE STRUCTURAL MEMBERS TO WHICH THE STUDS ARE ATTACHED (1" MINIMUM). PROVIDE SLIDING CLIPS AND/OR SLIP TRACKS.
14. JACK STUDS OR CRIPPLES SHALL BE INSTALLED BELOW WINDOW SILLS, ABOVE WINDOW AND DOOR HEADS, AND ELSEWHERE TO FURNISH SUPPORT, AND SHALL BE SECURELY ATTACHED TO CONNECTING MEMBERS.
15. PRIOR TO FABRICATION, THE CONTRACTOR SHALL SUBMIT ERECTION DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD FOR REVIEW AND APPROVAL.
16. TRACK SHALL BE SECURELY ANCHORED TO THE SUPPORTING STRUCTURE. ABUTTING PIECES OF TRACK SHALL BE SECURELY SPLICED TOGETHER.
17. THE DESIGN OF ALL COLD-FORMED STEEL SHALL BE PERFORMED BY THE COLD-FORMED METAL CONTRACTOR. THE DESIGN SHALL INCLUDE MEMBER SIZES AND CONNECTION. THE DESIGN SHALL CONSIDER MEMBER DIMENSIONS NOTED ON THE DRAWINGS. THE COLD-FORMED METAL CONTRACTOR SHALL SUPPLY DRAWINGS SEALED BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. THE OUT-OF-PLANE DEFLECTION OF STUDS SHALL BE LIMITED TO H/600 (H = UNSUPPORTED HEIGHT OF STUDS) IF USED FOR MASONRY OR STONE BACKUP. H/720 FOR ADHERED VENEER, FOR OTHER CONDITIONS THE DEFLECTION SHALL BE LIMITED TO H/360.
18. COLD-FORMED STEEL FRAMING SHALL HAVE A MINIMUM BASE METAL THICKNESS OF 43 MIL (18 GA.) IF USED FOR MASONRY OR STONE BACKUP.
19. DO NOT HANG STUD FRAMING FROM METAL DECK ROOF. FRAMING SHALL BE SUPPORTED BETWEEN ROOF FRAMING MEMBERS.

CONCRETE MASONRY

1. ALL MASONRY MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION AND THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF TMS-402 CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES
2. ALL CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C90. UNLESS SPECIFIED OTHERWISE, CMU SHALL BE NORMALWEIGHT (LESS THAN 125 PCF, OVEN DRY UNIT WEIGHT). THE MINIMUM COMPRESSIVE STRENGTH OF MASONRY (F'M) SHALL BE 2000 PSI AS DETERMINED BY THE UNIT STRENGTH METHOD OR BY THE PRISM TEST METHOD.
3. UNLESS SPECIFIED OTHERWISE, ALL MORTARS AND THE MATERIALS THEREIN SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF MASONRY UNITS, ASTM C270, TYPE S EXCEPT FOR MASONRY IN CONTACT WITH THE EARTH SHALL BE TYPE M.
4. ALL GROUT SHALL BE FINE GROUT CONTAINING SAND, PORTLAND CEMENT, AND LIME (OPTIONAL) FOR GROUT SPACES LESS THAN 2 INCHES IN ANY HORIZONTAL DIRECTION, UNLESS SPECIFIED OTHERWISE. GROUT SHALL ATTAIN A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 2500 PSI TESTED ACCORDING TO ASTM C476.
5. CONTROL JOINTS SHALL BE LOCATED PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS OR AT A MAXIMUM SPACING OF 24 FEET ON CENTERS OR 3 TIMES THE WALL HEIGHT, WHICHEVER IS LESS. ALL MASONRY UNITS SHALL BE PLACED IN RUNNING BOND.
6. PROVIDE HORIZONTAL JOINT REINFORCING (TRUSS OR LADDER TYPE, 9 GAUGE) AT 16 INCHES ON CENTER FOR ALL CMU WALLS LAID IN A RUNNING BOND AND AT 8 INCHES ON CENTER FOR ALL CMU WALL NOT LAID IN A RUNNING BOND. HORIZONTAL JOINT REINFORCING SHALL BE LAPPED A MINIMUM OF 6". REINFORCEMENT SHALL CONFORM TO ASTM A951 AND SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.
7. ALL HORIZONTAL REINFORCING STEEL IN BOND BEAMS AND LINTEL BLOCK UNITS SHALL BE CONTINUOUS AND UNITS SHALL BE SOLID GROUTED. PROVIDE 48 TIMES BAR DIAMETER LAP FOR HORIZONTAL REINFORCING IN BOND BEAMS. NO SPLICES SHALL BE PROVIDED FOR HORIZONTAL REINFORCING IN BLOCK LINTELS.
8. GROUT CELLS SOLID WHERE VERTICAL BARS ARE SHOWN ON THE DRAWINGS. VERTICAL BARS SHALL EXTEND FROM BOTTOM TO THE TOP OF THE WALL. AT EACH VERTICAL BAR, PROVIDE MATCHING BAR SIZE DOWEL INTO FOUNDATIONS. PROVIDE MINIMUM 48 TIMES BAR DIAMETER SPLICE FOR VERTICAL BARS WHERE REQUIRED AND/OR SHOWN ON THE DRAWINGS UNLESS NOTED OTHERWISE.
9. GROUT LIFTS SHALL TERMINATE TO FORM A GROUT KEY A MINIMUM OF 1 1/2" BELOW MORTAR JOINTS WHEN SUBSEQUENT GROUT LIFTS WILL HAPPEN AFTER PREVIOUS GROUT LIFTS HAVE SET. GROUT KEYS IN BOND BEAMS OR LINTELS SHALL NOT BE PERMITTED.
10. MAXIMUM GROUT POUR HEIGHT SHALL BE 5' - 4" (8 BLOCK COURSES).
11. PROVIDE A BOND BEAM AT THE TOP OF ALL CMU WALLS AND REINFORCE WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE. ALL EXTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #5 CONTINUOUS AND ALL INTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #4 CONTINUOUS. BOND BEAM REINFORCING SHALL NOT BE CONTINUED THROUGH CONTROL JOINT LOCATIONS.
12. PROVIDE BOND BEAMS AT A MAXIMUM OF 48 INCHES ON CENTER I

SPECIAL INSPECTION

1. ALL ASPECTS OF WORK RELATING TO SPECIAL INSPECTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   2021 INTERNATIONAL BUILDING CODE (CHAPTER 17).

2. THE OWNER'S SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

3. PRIOR TO THE BEGINNING OF CONSTRUCTION, THE ARCHITECT (OR ENGINEER) SHALL CALL A PRE-CONSTRUCTION MEETING WITH THE ARCHITECT, ENGINEER, BUILDING OFFICIAL, CONTRACTOR AND SPECIAL INSPECTORS TO REVIEW THE SPECIAL INSPECTION REQUIREMENTS.

4. DUTIES OF THE OWNER'S SPECIAL INSPECTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. ACKNOWLEDGE THE SPECIAL INSPECTION AND TESTING AGREEMENT PROVIDED BY THE LOCAL JURISDICTION.

   B. THE OWNER'S SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN, IF UNCORRECTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND TO THE BUILDING OFFICIAL.

   C. THE OWNER'S SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, ARCHITECT, REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, CONTRACTOR AND (OTHER DESIGNATED PARTIES), IN A TIMELY MANNER, AS ESTABLISHED AT THE PRE-CONSTRUCTION MEETING.

   D. THE OWNER'S SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE.

5. DUTIES OF THE CONTRACTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. NOTIFY THE SPECIAL INSPECTOR THAT THE WORK IS READY FOR INSPECTION AT LEAST 24 HOURS BEFORE SUCH INSPECTION.

   B. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED AND INDICATED TO BE IN CONFORMANCE BY THE SPECIAL INSPECTOR AND APPROVED BY THE BUILDING OFFICIAL.

   C. PROVIDE THE SPECIAL INSPECTOR WITH ACCESS TO APPROVED CONSTRUCTION DOCUMENTS AT JOBSITE.

   D. MAINTAIN AT THE JOBSITE COPIES OF ALL REPORTS SUBMITTED BY THE SPECIAL INSPECTOR.

6. CONTINUOUS SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS CONTINUOUSLY PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED.

7. PERIODIC SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.

8. SPECIAL INSPECTIONS AND TESTING SHALL BE REQUIRED FOR THE FOLLOWING TYPES OF WORK LISTED BELOW. SPECIAL INSPECTIONS AND TESTING SHALL FOLLOW THE REQUIREMENTS OF THE BUILDING AND MATERIAL CODE REFERENCES AND TABLES. IN THE EVENT OF A CONFLICT BETWEEN REFERENCES, THE OWNER'S SPECIAL INSPECTOR SHALL FOLLOW THE MORE STRINGENT REQUIREMENT.

SOILS	IBC 1705.6 AND TABLE 1705.6, APPROVED GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS
CAST-IN-PLACE DEEP FOUNDATIONS	IBC 1705.8 AND TABLE 1705.8 APPROVED GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS
CONCRETE	IBC 1705.3 AND TABLE 1705.3
STEEL	IBC 1705.2 AND TABLE 1705.2.3 AND AISC 360 CHAPTER N AND SDI QA/QC DOCUMENT
SHOP FABRICATION	IBC 1704.2.5 (NOT REQUIRED IF FABRICATOR IS APPROVED IN ACCORDANCE WITH IBC 1704.2.5.1.
MASONRY	IBC 1705.4, TMS 402/ACI 530/ASCE 5 SECTION 3.1 AND TABLE 3.1.2, TMS 602/ACI 530.1/ASCE 6 SECTION 1.6 AND TABLE 4
WOOD	IBC 1705.5
EXPANSION/EPOXY ANCHORS	MANUFACTURER'S ICC REPORT
WIND RESISTANCE	IBC 1705.11

STRUCTURAL STEEL

1. ALL ASPECTS OF WORK RELATING TO THE DESIGN, FABRICATION, DETAILING, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF THE AISC STEEL CONSTRUCTION MANUAL LATEST EDITION OF THE ANSI/AWS D1.1

2. STRUCTURAL STEEL MATERIALS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

WIDE FLANGE, CHANNELS	ASTM A992
ANGLES, PLATES, BARS	ASTM A572 GR 50
PIPES	ASTM A53 GR B
HSS (RECTANGULAR OR SQUARE)	ASTM A500 GR B (Fy = 46 KSI) OR GR C (Fy = 50 KSI)
HSS (ROUND)	ASTM A500 GR B (Fy = 42 KSI) OR GR C (Fy = 50 KSI)
ANCHOR RODS	ASTM F1554-36 U.N.O
HIGH STRENGTH BOLTS	ASTM F3125 GR A325 OR GR F1852 U.N.O.
HEADED STUD ANCHORS (HSA)	ASTM A108
DEFORMED BAR ANCHORS (DBA)	ASTM A496

3. THE DESIGN OF ALL STEEL CONNECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED, EMPLOYED BY THE FABRICATOR. CALCULATIONS SEALED BY THE FABRICATOR'S PROFESSIONAL ENGINEER MUST BE SUBMITTED IF REQUESTED.

4. SURFACES WHICH ARE TO BE FIREPROOFED WITH SPRAY-ON FIREPROOFING OR EMBEDDED IN CONCRETE SHALL NOT BE SHOP PAINTED. DO NOT PAINT TOP FLANGES OF COMPOSITE BEAMS NOR SURFACES OF MEMBERS WHERE WELDING OR HIGH STRENGTH FRICTION BOLTING WILL OCCUR. COORDINATE ALL SHOP PAINTING OF STRUCTURAL STEEL WITH ARCHITECT'S PAINTING REQUIREMENTS AS SPECIFIED ON THE ARCHITECTURAL DRAWINGS AND IN THE SPECIFICATIONS.

5. IT IS THE INTENTION OF THE PLANS AND SPECIFICATIONS THAT SHOP CONNECTIONS BE WELDED OR BOLTED AND THAT FIELD CONNECTIONS BE BOLTED, UNLESS DETAILED OTHERWISE ON THE DRAWINGS.

6. ALL TYPICAL BEAM SIMPLE CONNECTIONS SHALL BE STANDARD DOUBLE ANGLE OR SINGLE ANGLE FRAMED BEAM CONNECTIONS UNLESS NOTED OTHERWISE. SHEAR TAB CONNECTIONS MAY BE USED AT LOCATIONS WHERE DOUBLE ANGLE CONNECTIONS ARE NOT POSSIBLE. SEATED BEAM CONNECTIONS SHALL NOT BE USED UNLESS INDICATED ON THE DRAWINGS. PROVIDE FULL DEPTH SHEAR TAB IF BEAM FRAMES ON ONLY ONE SIDE OF A GIRDER.

7. DESIGN CONNECTIONS OF NON-COMPOSITE BEAMS TO SUPPORT A REACTION R (UNLESS SPECIFIED OTHERWISE) EQUAL TO ONE HALF THE TOTAL UNIFORM LOAD CAPACITY FROM THE TABLE OF UNIFORM LOAD CONSTANTS IN THE AISC MANUAL.

8. ADD TO THE REACTION LISTED ABOVE, ANY LOADS OR REACTIONS OF MEMBERS SUPPORTED BY THE BEAM WITHIN THREE FEET OF BEAM END AND THE VERTICAL COMPONENTS OF FORCES IN BRACE MEMBERS FRAMING INTO THE BEAMS.

9. BRACING CONNECTIONS SHALL DEVELOP FULL TENSILE FORCES AT EACH END OF THE BRACING MEMBER UNLESS BRACING FORCES ARE SPECIFIED ON THE DRAWINGS.

10. ALL WELDING SHALL COMPLY TO THE AMERICAN WELDING SOCIETY STANDARD (AWS D1.1). ALL WELDED JOINTS SHALL BE DETAILED AS INDICATED BY THE PREQUALIFIED JOINT DETAILS IN THE STRUCTURAL WELDING CODE. WELD LENGTHS CALLED FOR ON THE PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED. ALL WELDS SHALL USE MINIMUM E70XX ELECTRODES.

11. ALL WELDING SHALL BE PERFORMED BY A WELDER CERTIFIED IN ACCORDANCE WITH THE AWS STANDARDS.

12. MISCELLANEOUS STEEL CONNECTIONS SHALL BE WELDED ALL AROUND WITH AISC MINIMUM FILLET WELD UNLESS A LARGER WELD IS SPECIFIED. STEEL MEMBERS CONTINUOUSLY ATTACHED SHALL BE STITCH WELDED TOGETHER WITH AISC MINIMUM 2" LONG FILLET WELD AT 12" O.C. UNLESS A LARGER WELD OR DIFFERENT GAGE IS SPECIFIED.

13. ALL BOLTS SHALL BE DESIGNED AS BEARING BOLTS WITH THREADS INCLUDED IN THE SHEAR PLANE. ALL BOLTS SHALL BE NEW AND NOT RE-USED. BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER THAN NOMINAL SIZE OF BOLT USED, EXCEPT ANCHOR ROD HOLES. MINIMUM BOLT DIAMETER SHALL BE 3/4 INCH. ALL BOLTS SHALL BE TIGHTENED TO A SNUG-TIGHT POSITION, EXCEPT AT BRACES, MOMENT CONNECTIONS AND CONNECTIONS MARKED AS SLIP CRITICAL (SC) SHALL BE TIGHTENED USING LOAD INDICATING WASHERS OR TENSION BOLTS.

14. ALL STEEL EXPOSED TO WEATHER OR OUTSIDE THE BUILDING'S WATERPROOFING, SUCH AS BRICK SHELF ANGLES, SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION AS SPECIFIED BY THE STEEL STRUCTURES PAINTING COUNCIL (SSPC). THE ZINC COATING FOR STEEL SHAPES AND PLATES SHALL AVERAGE NOT LESS THAN 2.3 OZ. WITH NO INDIVIDUAL THICKNESS LESS THAN 2.0 OZ.

15. GALVANIZE ALL NUTS, BOLTS, AND WASHERS USED IN THE CONNECTION OF GALVANIZED STEEL.

16. GALVANIZED MEMBERS SHALL HAVE "Z.R.C. COLD GALVANIZING COMPOUND OR APPROVED EQUIVALENT APPLIED TO FIELD WELDED CONNECTIONS. SURFACE AREAS TO RECEIVE COLD GALVANIZING COMPOUND SHALL BE CLEAN OF DIRT AND DEBRIS PRIOR TO COMPOUND APPLICATION. SEE MANUFACTURER'S LITERATURE FOR ADDITIONAL RECOMMENDATIONS.

17. THE APPLICATION OF THE FIREPROOFING TO THE STEEL MEMBERS AND STEEL DECK IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST ENFORCE THE REQUIREMENTS OF THE MANUFACTURER AND NOT IMPOSE ADDITIONAL LOADS, INCLUDING CONSTRUCTION LIVE LOADS, DURING THE APPLICATION AND CURING OF THE FIREPROOFING.

18. IN ADDITION TO ALL OF THE STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF STEEL TO BE FURNISHED, FABRICATED, DETAILED, AND ERECTED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

19. THE CONTRACTOR SHALL MAKE AN ALLOWANCE FOR THE ADJUSTMENT AND DETAILING OF STEEL DURING THE SHOP DRAWING REVIEW PROCESS.

ABBREVIATIONS

ABBR.	ABBREVIATION
A.F.F.	ABOVE FINISH FLOOR
ADDN'L	ADDITIONAL
AHU	AIR HANDLING UNIT
ALT.	ALTERNATE
ANCH.	ANCHOR
A.B.	ANCHOR BOLT
A.R.	ANCHOR ROD
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT(URAL)
BM.	BEAM
BRG.	BEARING
BTW	BETWEEN
BOT.	BOTTOM
B.F.B.	BOTTOM FLANGE BRACE
B.O.	BOTTOM OF
BRDG.	BRIDGING
BLDG	BUILDING
C	CAMBER
CANT.	CANTILEVER
C.I.P.	CAST IN PLACE
C/C	CENTER TO CENTER
CL	CENTERLINE
CH	CHANNEL
CLR.	CLEAR(ANCE)
CFMF	COLD FORMED METAL FRAMING
COL.	COLUMN
CJP	COMPLETE JOINT PENETRATION
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONST.	CONSTRUCTION
C.J.	CONSTRUCTION / CONTRACTION JOINT
CONT.	CONTINUOUS
COORD.	COORDINATE
DL	DEAD LOAD
DBA	DEFORM BAR ANCHOR
D	DEPTH
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
DWL	DOWEL
D.N.	DOWN
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
E.W.	EACH WAY
EL.	ELEVATION
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
ENGR.	ENGINEER
EOR	ENGINEER OF RECORD
EQ.	EQUAL
EQUIP.	EQUIPMENT
EQUIV.	EQUIVALENT
EXIST.	EXISTING
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
f'c=	28 DAY CONCRETE STRENGTH
FAB.	FABRICATE
F.S.	FAR SIDE
FIN	FINISH/FINISHED
FLR	FLOOR
F.D.	FLOOR DRAIN
FTG.	FOOTING
Fy=	YIELD STRENGTH
GALV.	GALVANIZED
GA.	GAUGE
GEN	GENERAL
G.C.	GENERAL CONTRACTOR
GFRC	GLASS FIBER REINFORCED CONCRETE
GR.	GRADE/GRADING
HGR.	HANGER
HSA	HEADED STUD ANCHOR
HI	HIGH
HSS	HOLLOW STRUCTURAL SECTION
HORIZ. OR (H)	HORIZONTAL
H	HORIZONTAL REACTION
IN	INCH
INFO.	INFORMATION
ID	INSIDE DIAMETER
I.F.	INSIDE FACE
INT.	INTERIOR
JT.	JOINT
JST.	JOIST
K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
Ld	DEVELOPMENT LENGTH
LWC	LIGHTWEIGHT CONCRETE
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLV	LONG LEG VERTICAL
LLH	LONG LGE HORIZONTAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LONG	LONGITUDINAL
LO	LOW
LBS	POUNDS
MFR. / MNFR.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM

MECH.	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M	MOMENT
M.C.	MOMENT CONNECTION
N.S.	NEAR SIDE
NWC	NORMAL WEIGHT CONCRETE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
O.C.	ON CENTER(S)
OPNG.	OPENING
OPP.	OPPOSITE
OPH.	OPPOSITE HAND
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OA	OVERALL
O.H.	OVERHEAD
OVS.	OVERSIZED HOLE
P	AXIAL LOAD
P.J.	PANEL JOINT
PAR.	PARALLEL
PRKG.	PARKING
PJP	PARTIAL JOINT PENETRATION
PVMT	PAVEMENT
PVG	PAVING
PERP.	PERPENDICULAR
PL.	PLATE
PLBG	PLUMBING
PT	POST-TENSION(ED)
PCF	POUNDS PER CUBIC FOOT/FEET
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT/FEET
PSI	POUNDS PER SQUARE INCH
P/C	PRECAST CONCRETE
PRELIM.	PRELIMINARY
P.L.	PROPERTY LINE
QTY	QUANTITY
R	RADIUS, REACTION, REMAINDER
REC.	RECESSED
RE:	REFER TO
REF.	REFERENCE
REINF.	REINFORCED / REINFORCING
REBAR	REINFORCING BAR
REQ'D	REQUIRED
REV.	REVISION
R.D.	ROOF DRAIN
RTU	ROOF TOP UNIT
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SLBB	SHORT LEG BACK TO BACK
SIM.	SIMILAR
SC	SLIP CRITICAL, SHEAR CONNECTOR
SPA.	SPACING
SPEC.	SPECIFICATION
SQ.	SQUARE
SF.	SQUARE FOOT/FEET
STD	STANDARD
STL	STEEL
STIFF.	STIFFENER
STIR.	STIRRUP
STRUCT.	STRUCTURE/STRUCTURAL
TEMP.	TEMPERED
THK	THICK(NESS)
t	THICKNESS, TREAD
THD	THREADED
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
VERT. OR (V)	VERTICAL
WT.	WEIGHT
WWR	WELD WIRE REINF.
WF	WIDE FLANGE
W	WIDTH
WL	WIND LOAD
W.P.	WORK POINT
XXS	DOUBLE EXTRA STRONG
XS	EXTRA STRONG
&	AND
≈	APPROXIMATELY EQUAL
@	AT
°	DEGREE
=	EQUAL
≥	GREATER THAN or EQUAL
≤	LESS THAN or EQUAL
#	NUMBER or POUNDS
/	PER
±	PLUS or MINUS
Ø	ROUND/DIAMETER

SYMBOLS LEGEND

SYMBOLS	DESCRIPTION
N	NORTH ARROW
XX / S-X.XX	ENLARGE FLOOR PLAN REFERENCE OR ENLARGE DETAIL REFERENCE
XX / S-X.XX	DETAIL SECTION (STRUCTURAL)
XX/SX.XX	BRACING ELEVATION
11 5/8" / 5"	DIMENSIONS
XX/S-X.XX / XX/S-X.XX	MATCHLINE
1	REVISION NUMBER & AFFECTED AREA
LEVEL NAME 0' - 0"	VERTICAL ELEVATION
EX: 152' - 6"	EXISTING ELEVATION
152' - 6"	NEW ELEVATION
	M.C. OR MOMENT CONNECTION
	DEPRESSION
	PANEL WALL TAG
12/36	BELL DIAMETER (IN) / BELLED PIER / SHAFT DIAMETER (IN)
P1	PILE SHAFT
F3	FOOTING

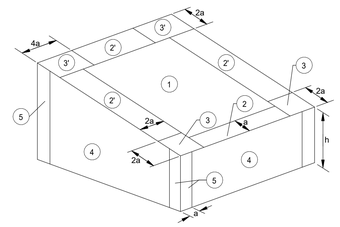
STRUCTURAL SHEET INDEX

SHEET NUMBER	SHEET NAME	Current Revision
S1.01-R	GENERAL NOTES	
S1.02-R	GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX	
S2.01-R	FOUNDATION AND FRAMING PLAN - STORAGE FOR TENNIS	
S3.01-R	TYPICAL FOUNDATION DETAILS	
S3.02-R	TYPICAL FOUNDATION DETAILS	
S3.03-R	TYPICAL FOUNDATION DETAILS	
S3.11-R	FOUNDATION SITE DETAILS	
S4.01-R	TYPICAL CMU WALL DETAILS	

Grand total: 8

ROOF PRESSURE (GROSS)						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
1	+17,-46	+16,-46	+16,-46	+16,-46	+16,-46	+16,-46
2	+17,-54	+16,-52	+16,-51	+16,-50	+16,-50	+16,-50
3	+17,-72	+16,-65	+16,-57	+16,-50	+16,-50	+16,-50
2'	+17,-64	+16,-63	+16,-62	+16,-61	+16,-61	+16,-61
3'	+17,-101	+16,-90	+16,-75	+16,-64	+16,-64	+16,-64

WALL PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
4	+39,-42	+37,-41	+35,-38	+33,-37	+29,-33	+29,-33
5	+39,-52	+37,-49	+35,-44	+33,-41	+29,-33	+29,-33



NOTES:
1. (0-10 SQ. FT.) EXAMPLE DENOTES EFFECTIVE WIND AREA.
2. + AND - SIGNS SIGNIFY PRESSURES ACTING TOWARD OR AWAY FROM THE SURFACES, RESPECTIVELY. ALL VALUES SHOWN ARE IN PSF.
3. WIND PRESSURE FOR EFFECTIVE WIND AREAS BETWEEN THE SPECIFIED RANGES MAY BE DETERMINED BY INTERPOLATION, OTHERWISE, USE THE VALUE ASSOCIATED WITH THE LOWER EFFECTIVE AREA.
4. h = EAVE HEIGHT.
5. ELEMENTS WITH TRIBUTARY AREAS GREATER THAN 700 SQ. FEET MAY BE DESIGNED USING MWFRS PROVISIONS.
6. VALUES SHOWN ARE BASED ON IBC 2018 / ASCE 7-16 WIND CALCULATIONS FOR COMPONENTS AND CLADDING AND ARE ULTIMATE VALUES (LRFD). VALUES SHOWN ARE FOR USE IN ASCE 7-16 LOAD COMBINATIONS SHOWN IN SECTION 2.3.1 (1.0W).
7. THE BUILDING LAYOUT SHOWN IS INTENDED TO BE SCHEMATIC, APPLY WIND PRESSURE PROVIDED SIMILARLY TO THE BUILDING(S) AT THIS PROJECT.
8. UNLESS OTHERWISE SPECIFIED, ROOF DEAD LOAD TO BE USED FOR NET UPLIFT CALCULATIONS SHALL NOT EXCEED 12 PSF. NET UPLIFT PRESSURE SHALL NOT BE LESS THAN 16 PSF.

COMPONENTS & CLADDING PRESSURES

ASCE HAZARD TOOLS

Address:
500 Waters Lake Blvd
Missouri City, Texas
77459

ASCE Hazards Report

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)

Latitude: 29.483941
Longitude: -95.516895
Elevation: 59.24720653501816 ft (NAVD 88)





Wind

Results:

Wind Speed	140 Vmph
10-year MRI	77 Vmph
25-year MRI	93 Vmph
50-year MRI	106 Vmph
100-year MRI	117 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Tue Jun 10 2025

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0100
NSE - 25074

BP-012 FIELD HOUSE AND ATHLETIC RENOVATIONS

500 Waters Lk Blvd, Missouri City, TX 77459

RIDGEPOINT HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137127
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO. 26-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S1.02-R

GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX

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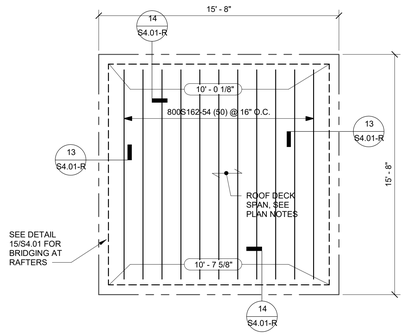
ROOF FRAMING PLAN NOTES:

1. LOCATIONS SHOWN THUS: ( ) INDICATES TOP OF STEEL (T.O.S.) ELEVATION (TOP OF STEEL = TOP OF JOIST OR BOTTOM OF DECK).
2. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
3. SPACE CFMF EQUALLY, U.N.O.
4. REFER TO ARCHITECTURAL DRAWINGS / MEP FOR LOCATIONS OF ROOF DRAINS, OVERFLOW DRAINS AND TAPERED INSULATION.
5. ROOF SHALL BE 0.6C, 22GA DECK AS MANUFACTURED BY VULCRAFT OR EQUIVALENT. SEE ARCHITECTURAL DRAWINGS FOR INSULATION, ROOFING, ETC. FASTEN DECK USING #12 SELF DRIVING SCREWS:
   a. PERPENDICULAR BEARING: 36/7 PATTERN.
   b. PARALLEL BEARINGS AND EDGE: AT 6"O.C.
   c. SIDE SEAMS: #10 TEK SCREWS AT 12"O.C.

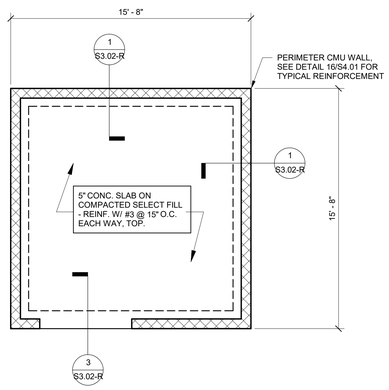
FOUNDATION PLAN NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
2. COORDINATE ALL BRICK LEDGES AND DEPTH WITH ARCHITECTURAL DRAWINGS.
3. LOCATIONS NOTED THUS: 0' - 0" INDICATES TOP OF SLAB ELEVATION.
4. REF. ELEVATION = 0' - 0" CORRESPONDS TO CIVIL ELEVATION _____. VERIFY WITH CIVIL.
5. SEE 5/S3.03, 7/S3.03 & 10/S3.03 FOR ADDITIONAL REBAR AT OPENINGS, DISCONTINUOUS JOINTS, AND RE-ENTRANT CORNERS IN SLAB-ON-GRADE.
6. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
7. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.



2 ROOF FRAMING PLAN - STORAGE FOR TENNIS - NEW

SCALE: 1/4" = 1'-0"



1 FOUNDATION PLAN - STORAGE FOR TENNIS - NEW

SCALE: 1/4" = 1'-0"

ALTERNATE #6 - STORAGE

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130

NSE - 25074

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12/04/2025

PROJECT NO.	26-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

No.	Date	Description
	12/04/2025	100% CD

100% CD

S2.01-R

FOUNDATION AND FRAMING PLAN - STORAGE FOR TENNIS

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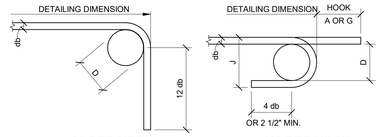


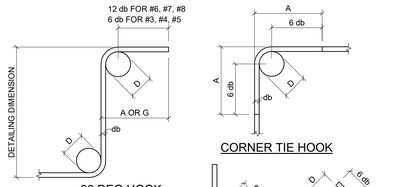
90 DEG HOOK　　180 DEG HOOK

BAR SIZE	FINISHED BEND DIAMETER D, (IN.)	180 DEG HOOKS		90 DEG HOOKS
		A OR G, (IN.)	J, (IN.)	A OR G, (IN.)
#3	2 1/4	5	3	6
#4	3	6	4	8
#5	3 3/4	7	5	10
#6	4 1/2	8	6	12
#7	5 1/4	10	7	14
#8	6	11	8	16
#9	9 1/2	15	11 3/4	19
#10	10 3/4	17	13 1/4	22
#11	12	19	14 3/4	24
#14	18 1/4	27	21 3/4	31
#18	24	36	28 1/2	41

D = INSIDE DIAMETER OF BEND

20 SCALE: N.T.S.

END HOOK TYPES

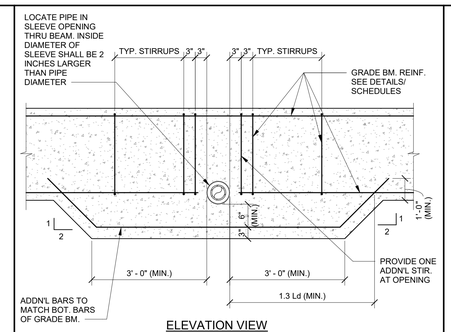


STIRRUP & TIE HOOK SCHEDULE			
BAR SIZE	D (IN.)	90 DEG HOOK A OR G (IN.)	135 DEG HOOK A OR G (IN.)
#3	1 1/2	4	4
#4	2	4 1/2	4 1/2
#5	2 1/2	6	5 1/2
#6	4 1/2	12	8
#7	5 1/4	14	9
#8	6	16	10 1/2

D=INSIDE DIAMETER OF BEND

16 SCALE: N.T.S.

STIRRUP AND TIE HOOK TYPES



ELEVATION VIEW

8 SCALE: N.T.S.

TYPICAL DETAIL OPENING THRU GRADE BEAM THAT CONFLICTS WITH BOTTOM REINFORCEMENT

DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

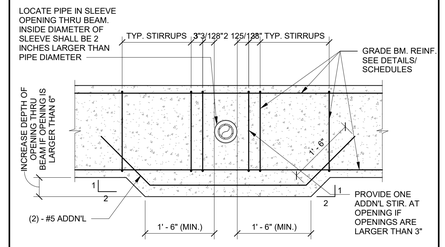
BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb
#3	9	6	8	6	7	6	6	6	6	6	6	6	6	6	6	6
#4	11	8	10	7	9	6	8	6	8	6	7	6	7	6	6	6
#5	14	10	12	9	11	8	10	7	9	7	9	6	8	6	8	6
#6	17	12	15	10	13	9	12	9	11	8	11	8	10	7	9	7
#7	20	14	17	12	15	11	14	10	13	9	12	9	12	8	11	8
#8	22	16	19	14	17	12	16	11	15	11	14	10	13	9	12	9
#9	25	18	22	15	20	14	18	13	17	12	16	11	15	10	14	10
#10	28	20	25	17	22	16	20	14	19	13	18	12	17	12	16	11
#11	31	22	27	19	24	17	22	16	21	15	19	14	18	13	17	12



NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Lhb = TENSION DEVELOPMENT LENGTH.
3. Ldh = Lhb, UNLESS CONDITIONS OF ITEM 4 ARE SATISFIED.
4. Ldh = 0.7 Lhb, WHEN SIDE COVER NORMAL TO PLANE OF HOOK IS NOT LESS THAN 2 1/2 INCHES AND FOR 90° HOOK, COVER ON BAR EXTENSION BEYOND HOOK SHALL NOT BE LESS THAN 2 INCHES.
5. HOOKS SHALL NOT BE CONSIDERED EFFECTIVE IN DEVELOPING BARS IN COMPRESSION.

TYPICAL DETAIL DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (NORMAL WEIGHT CONCRETE)

19 SCALE: N.T.S.



ELEVATION OF GRADE BEAM

7 SCALE: N.T.S.

TYPICAL DETAIL OPENING THRU GRADE BEAM

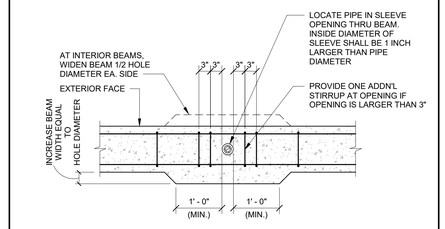
COMPRESSION DEVELOPMENT LENGTHS
AND COMPRESSION LAP SPLICE LENGTHS
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c ≥ 5000		BAR SIZE
	Ldc	Splice	Ldc	Splice	Ldc	Splice	
#3	9	12	8	12	8	12	#3
#4	11	15	10	15	9	15	#4
#5	14	19	12	19	12	19	#5
#6	17	23	15	23	14	23	#6
#7	20	27	17	27	16	27	#7
#8	22	30	19	30	18	30	#8
#9	25	34	22	34	21	34	#9
#10	28	39	25	39	23	39	#10
#11	31	43	27	43	26	43	#11
#14	38	51	33	51	31	51	#14
#18	50	68	43	68	41	68	#18

NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ldc = COMPRESSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN COMPRESSION, SPLICE LENGTH SHALL BE THE LARGER OF Ldc OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
5. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6 IN.

TYPICAL DETAIL COMPRESSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

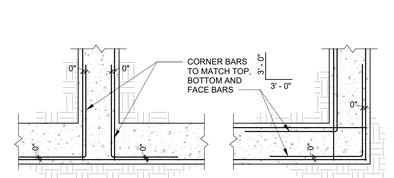
18 SCALE: N.T.S.



PLAN VIEW

6 SCALE: N.T.S.

TYPICAL DETAIL VERTICAL HOLE THRU GRADE BEAM LARGER THAN 3" DIAMETER



PLAN VIEW GRADE BEAM "T" INTERSECTION　　PLAN VIEW GRADE BEAM CORNER

2 SCALE: N.T.S.

TYPICAL DETAIL GRADE BEAM REINFORCEMENT STEEL CORNER BARS

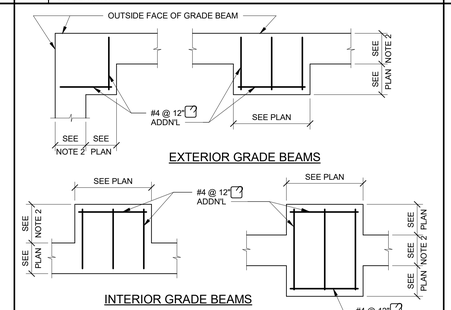
TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPLICE LENGTHS
GRADE 60 (UNCOATED) REINFORCEMENT
(NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld
#3	17	22	15	19	13	17	12	16	12	16	12	16	12	16	12	16
#4	22	29	19	25	17	23	16	21	15	19	14	18	13	17	12	16
#5	28	36	24	31	22	28	20	26	18	24	17	22	16	21	15	20
#6	33	43	29	37	26	34	24	31	22	28	21	27	19	25	18	24
#7	48	63	42	54	38	49	34	45	32	41	30	39	28	36	27	35
#8	55	72	48	62	43	56	39	51	36	47	34	44	32	42	30	39
#9	62	81	54	70	48	63	44	57	41	53	38	50	36	47	34	44
#10	70	91	61	79	54	71	50	64	46	60	43	56	41	53	39	50
#11	78	101	67	87	60	78	55	71	51	66	48	62	45	58	43	55

NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ld = TENSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. FOR TOP BARS, MULTIPLY THE SPLICE LENGTHS BY 1.30. TOP BARS REQUIRE A MINIMUM OF 12" OF FRESH CONCRETE BELOW BAR.
5. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN TENSION, SPLICE LENGTH SHALL BE THE LARGER OF Ld OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
6. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6

TYPICAL DETAIL TENSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

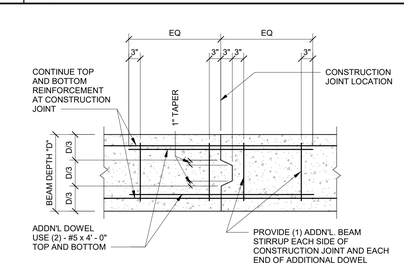
17 SCALE: N.T.S.



NOTES:
1. PLAN VIEWS FOR TYPICAL WIDENED GRADE BEAMS ARE SHOWN. FOR SIMILAR CONDITION NOT SHOWN, PROVIDE [ ] ADDN'L. @ 12" O.C. MAX. IN WIDENED SECTION.
2. SEE DETAIL SHEETS FOR GRADE BEAM WIDTH.

5 SCALE: N.T.S.

TYPICAL DETAIL ADDITIONAL BARS AT WIDENED GRADE BEAM (PLAN VIEW)



NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT DESIRED CONSTRUCTION JOINT LAYOUT AS A SHOP DRAWING FOR APPROVAL A MINIMUM OF TWO WEEKS PRIOR TO POUR.
2. CONSTRUCTION JOINT LOCATIONS SHALL BE COORDINATED WITH REINFORCING STEEL SUPPLIER AND ERECTOR.
3. JOINT LOCATIONS SHALL BE WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN.
4. FOR JOINT LOCATIONS OTHER THAN WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE ENGINEER ON THE SHOP DRAWINGS.

1 SCALE: N.T.S.

TYPICAL DETAIL GRADE BEAM CONSTRUCTION JOINT

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

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500 Waters Lk Blvd, Missouri City, TX 77459
RIDGEPOINT HIGH SCHOOL

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16431 Lexington Blvd.
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Matrix Structural Engineers
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12/04/2025

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REVISIONS:	

No.	Date	Description
	12/04/2025	100% CD

100% CD

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TYPICAL FOUNDATION DETAILS

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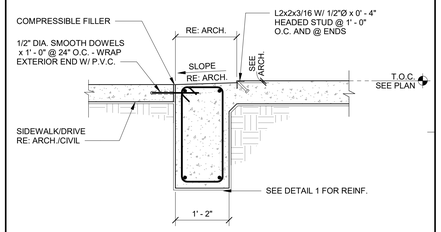
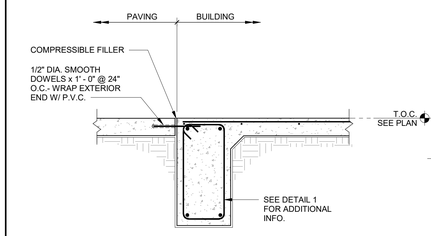


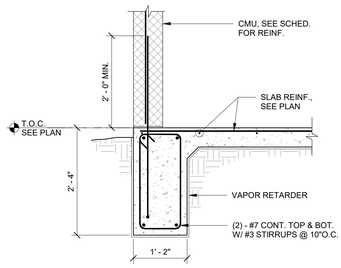
TYPICAL DETAIL
EXTERIOR GRADE BEAM AT OVERHEAD DOOR

3 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM
AT DOORS/FLATWORK

2 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
EXTERIOR GRADE BEAM

1 SCALE: 3/4" = 1'-0"

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5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
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PROFESSIONAL
ENGINEER

12/04/2025

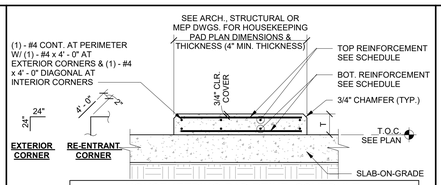
PROJECT NO. 26-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S3.02-R
TYPICAL FOUNDATION DETAILS

12/3/2025 10:54:28 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_RIDGEPOINT_STRUCT_R25.rvt

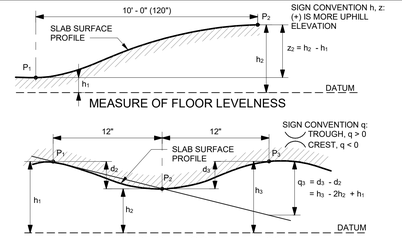


HOUSEKEEPING PAD REINF. SCHEDULE		
PAD THICKNESS	TOP REINFORCEMENT	BOTTOM REINF.
T ≤ 4"	WWR 4x4-W2.9xW2.9 OR #3 @12" E.W.	NONE
4" < T ≤ 6"	WWR 4x4-W4xW4 OR #4 @18" E.W.	NONE
6" < T ≤ 8"	WWR 4x4-W6xW6 OR #4 @12" E.W.	NONE
8" < T ≤ 12"	#4 @ 18" E.W.	#4 @ 18" E.W.
12" < T ≤ 16"	#4 @ 12" E.W.	#4 @ 12" E.W.

NOTES:
1. GENERAL CONTRACTOR TO COORDINATE WITH MECHANICAL DRAWINGS AND SPECIFICATIONS TO DETERMINE REQUIREMENTS FOR HOUSEKEEPING PADS OVER SLAB-ON-GRADE AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT. COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AS REQUIRED.
2. PAD SHALL NOT BE POURED UNTIL AFTER SLAB HAS REACHED ITS SPECIFIED 28 DAYS STRENGTH.
3. CONCRETE FOR HOUSEKEEPING PAD SHALL BE NORMAL WEIGHT CONCRETE WITH f'c = 3,000 PSI.

TYPICAL DETAIL
CONCRETE ISLAND OR HOUSEKEEPING PAD SLAB-ON-GRADE

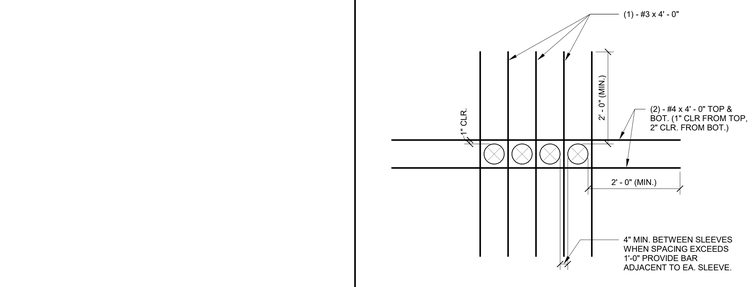
8 SCALE: N.T.S.



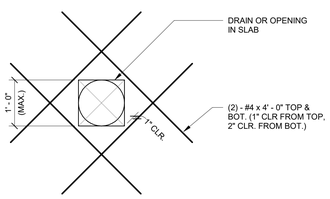
NOTES:
1. F_L = LEVELNESS F-NUMBER
   $F_L = \frac{12.5}{(3 \times S_Z) + z}$ WHERE z = MEAN VALUE OF ALL z FLOOR READINGS. S_z = STANDARD DEVIATION OF ALL z FLOOR READINGS.
2. F_F = LEVELNESS F-NUMBER
   $F_F = \frac{4.57}{(3 \times S_Q) + \bar{q}}$ WHERE $\bar{q}$ = MEAN VALUE OF ALL z FLOOR READINGS. S_z = STANDARD DEVIATION OF ALL q FLOOR READINGS
3. F_L AND F_F SHALL BE STATISTICALLY DETERMINED ACCORDING TO ASTM E 1155 "STANDARD TEST METHOD FOR DETERMINING FLOOR FLATNESS AND LEVELNESS USING THE F-NUMBER SYSTEM."
4. REFER TO CONCRETE SPECIFICATIONS FOR REQUIRED F_F AND F_L VALUES.

TYPICAL DETAIL
SLAB SURFACE TOLERANCE

4 SCALE: N.T.S.



MULTIPLE OPENINGS (PIPE SLEEVES)

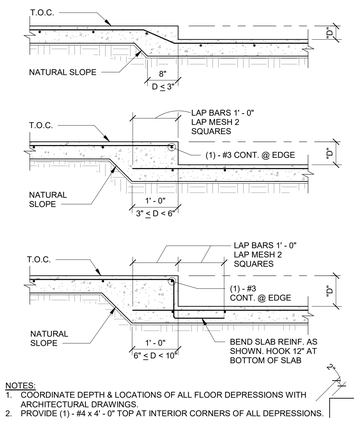


SINGLE DRAIN OR OPENING

NOTES:
1. COORDINATE OPENING SIZE AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONDUIT & PIPES OF ALUMINUM SHALL NOT BE PLACED IN CONCRETE UNLESS EFFECTIVELY COATED W/ PROTECTIVE MATERIAL TO PREVENT CHEMICAL REACTION.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT OPENINGS AT SLAB-ON-GRADE

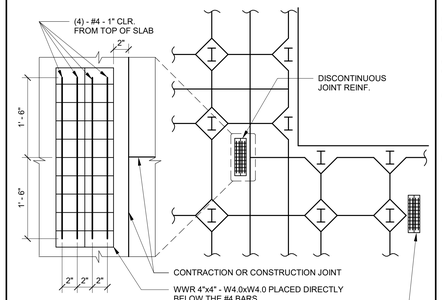
10 SCALE: N.T.S.



NOTES:
1. COORDINATE DEPTH & LOCATIONS OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE (1) - #4 x 4' - 0" TOP AT INTERIOR CORNERS OF ALL DEPRESSIONS.

TYPICAL DETAIL
AT FLOOR DEPRESSIONS

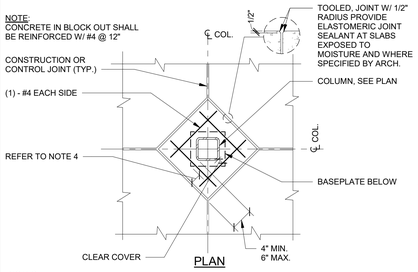
9 SCALE: N.T.S.



NOTE:
DISCONTINUOUS CONTRACTION OR CONSTRUCTION JOINTS SHOULD BE AVOIDED WHERE POSSIBLE.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT DISCONTINUOUS JOINT IN SLAB-ON-GRADE

7 SCALE: N.T.S.



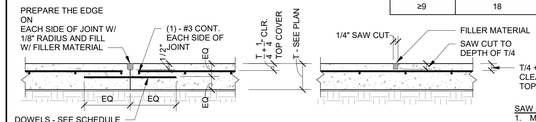
NOTES :
1. GENERAL CONTRACTOR TO COORDINATE REQUIRED SIZE OF BLOCK OUT FOR COLUMNS. SUBMIT THE DESIRED BLOCK OUT SIZE TO ARCHITECT FOR APPROVAL.
2. PROVIDE 3" MINIMUM CONCRETE COVER ALL AROUND COLUMN.
3. BLOCKOUT SHALL BE SIZED TO PROVIDE 3" MINIMUM CONCRETE COVER ALL AROUND COLUMN AND BASE PLATE.
4. GENERAL CONTRACTOR TO INCREASE COLUMN BLOCK-OUT DIMENSIONS AS REQUIRED TO ACCOMMODATE GUSSET PLATES AT BRACE FRAMES.

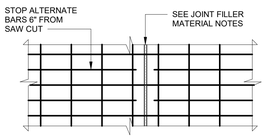
TYPICAL DETAIL
BLOCK-OUT AROUND COLUMN (SLAB-ON-GRADE)

3 SCALE: N.T.S.

DOWEL SCHEDULE			
SLAB DEPTH (IN.)	DOWEL DIAMETER (IN.)	TOTAL DOWEL LENGTH (IN.)	DOWEL SPACING CENTER TO CENTER (IN.)
5-6	3/4	16	12
7-8	1	18	12
9-11	1 1/4	18	12

CONTRACTION JOINT SPACING	
SLAB THK. (IN.)	JOINT SPACING (FT)
4	11
5	13
6	14
7	16
8	17
≥9	18





CONSTRUCTION JOINT NOTES:
1. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
2. BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDE WITH FORM OIL.
3. SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.
4. ALL DOWELS IN THIS DETAIL SHALL BE SMOOTH BAR DOWELS.

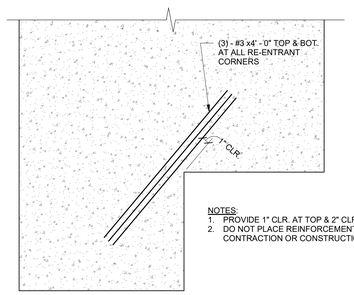
JOINT SPACING NOTE:
1. PROVIDE CONTRACTION AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN CENTERLINE AND AT A MAXIMUM SPACING AS SCHEDULED. ASPECT RATIOS OF SLAB PANELS ENCLOSED BY CONTROL JOINTS SHALL NOT EXCEED 1.5 TO 1.

SAW CONTRACTION JOINT NOTES:
1. MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB.
2. ALL JOINTS SHALL BE CONTINUOUS. DO NOT OFF-SET OR STAGGER JOINTS.
3. CLEAN JOINT PRIOR TO FILLING THE JOINT.

JOINT FILLER MATERIAL NOTES:
1. FILLER MATERIAL USED SHALL BE EPOXY RESINS WITH A MINIMUM SHORE "A" HARDNESS OF 80 AND SHALL CONFORM TO ASTM D2240. JOINT FILLER SHALL BE APPROVED BY ENGINEER PRIOR TO APPLICATION. INSTALL JOINT FILLER PER MANUFACTURER'S SPECIFICATIONS.
2. WHERE POSSIBLE, FILLER MATERIAL SHALL BE APPLIED WHEN BUILDING IS UNDER PERMANENT TEMPERATURE CONTROL. THIS SHALL BE EITHER AT THE END OF CONSTRUCTION OF THE COMPLETE BUILDING SHELL, OR A MINIMUM OF 90 DAYS AFTER SLAB CONSTRUCTION.
3. ALL EXPOSED SLAB JOINTS SHALL BE FILLED WITH FILLER MATERIAL.

TYPICAL DETAIL
CONSTRUCTION AND CONTRACTION JOINTS SLAB-ON-GRADE

6 SCALE: N.T.S.

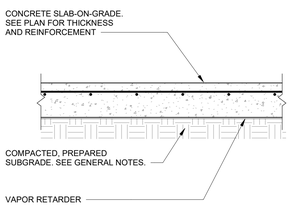


NOTES:
1. PROVIDE 1" CLR. AT TOP & 2" CLR. AT BOT.
2. DO NOT PLACE REINFORCEMENT ACROSS CONTRACTION OR CONSTRUCTION JOINTS.

SCHEMATIC SLAB-ON-GRADE

TYPICAL DETAIL
RE-ENTRANT CORNER BARS AT SLAB-ON-GRADE

5 SCALE: N.T.S.



NOTE:
1. UNLESS SPECIFIED ELSEWHERE, VAPOR RETARDER SHALL BE A MINIMUM OF 15 MILS THICK (UNLESS THICKER SPECIFIED IN SPECS/ARCH. DRAWINGS) MEETING OR EXCEEDING ASTM E-1745, CLASS C, AND HAVE NO MORE THAN 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E-96.

TYPICAL DETAIL
SLAB-ON-GRADE CONSTRUCTION SUBGRADE PREPARATION

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

BP-012 FIELD HOUSE AND ATHLETIC RENOVATIONS

500 Waters Lk Blvd, Missouri City, TX 77459

RIDGEPOINT HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137127
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
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100% CD

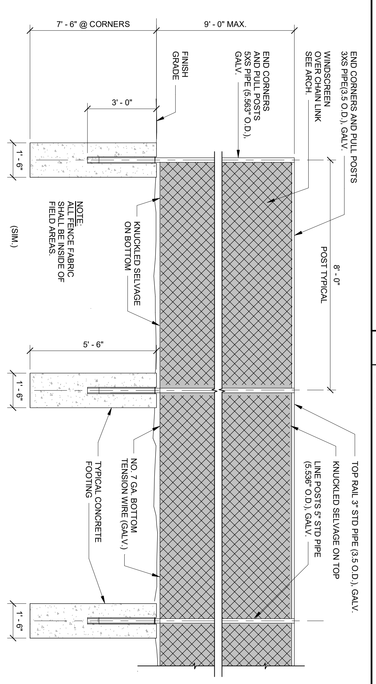
S3.03-R
TYPICAL FOUNDATION DETAILS

12/3/2025 10:54:29 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_RIDGEPOINT_STRUCT_R25.rvt

5

SCALE: N.T.S.

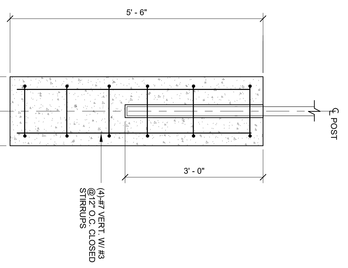
CHAIN LINK FENCE WITH WINDSCREEN



2

SCALE: N.T.S.

FENCE DETAIL



100% CD

S3.11-R

FOUNDATION SITE DETAILS

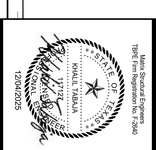
No	Date	Description
	12/4/2025	100% CD

REVISIONS

DRAWN BY: RJC CHECKED BY: KT

PROJECT NO: 25.008

DATE: 12/4/2025



Matrix Structural Engineers
TBPE Firm Registration No: F-2640

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

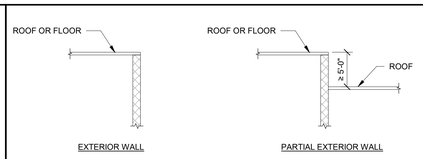
BP-012 FIELD HOUSE AND ATHLETIC RENOVATIONS

500 Waters Lk Blvd, Missouri City, TX 77459

RIDGEPOINT HIGH SCHOOL

MATRIX STRUCTURAL

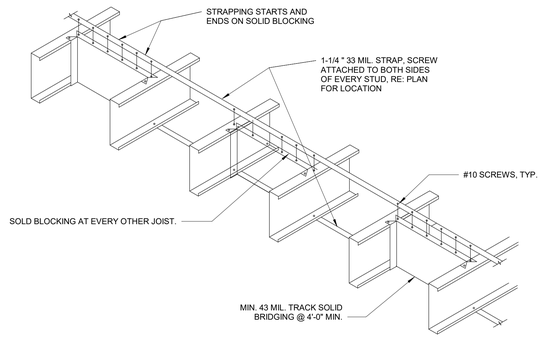
5177 Richmond Avenue, Suite 670
Houston, TX 77046-2401
Tel: 713.664.0130
MSE - 25074



NOTES:
1. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
2. ALL REINFORCING STEEL SHALL BE CONTINUOUS BETWEEN FOUNDATION AND TOP OF CMU. SPLICE REINFORCING PER GENERAL NOTES. ALL REINFORCED CELLS SHALL BE GROUTED SOLID.
3. AT FOUNDATION, PROVIDE DOWELS TO MATCH SIZE AND SPACING OF VERTICAL BARS.
4. CONSULT WITH ARCH./EOR WHEN HEIGHT OF WALL EXCEEDS THE HEIGHT SHOWN HERE.
5. PROVIDE CONTINUOUS BOND BEAMS AT THE TOP OF WALLS. REINFORCE BOND BEAMS WITH (2) - #5, UNLESS NOTED OTHERWISE.

16 TYPICAL DETAIL - EXTERIOR CMU WALL

SCALE: N.T.S.



12 TYPICAL DETAIL RAFTER/JOIST BRIDGING

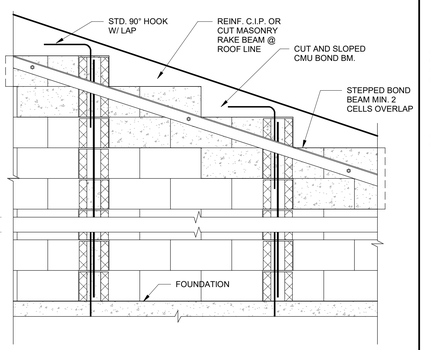
SCALE: 1 1/2" = 1'-0"

BAR SIZE	MINIMUM LAP SPLICE LENGTH				REINFORCEMENT OFF CENTER	HOOKED BAR DEVELOPMENT LENGTH
	REINFORCEMENT AT CENTER OF WALL					
	6" CMU	8" CMU	10" CMU	12" CMU	ANY	ANY
3	12	12	12	12	17	5
4	18	13	12	12	29	7
5	28[4]	20	16	13	45	9
6	51[4]	37	29	24	54	10
7	NA[5]	50	39	32	63	12
8	NA[5]	72	58	48	72	13

NOTES:
1. TABLE FOR USE WITH GRADE 60 UNCOATED REINF. BARS IN CMU (fm = 2000 psi)
2. BARS SPLICED BY NON-CONTACT LAP SPLICE SHALL NOT BE SPACED FARTHER APART THAN ONE FIFTH THE REQUIRED LAP LENGTH, OR 8".
3. LAP LENGTHS PER IBC 2018.
4. PERMITTED ONLY IF ALL MORTAR FINS ARE REMOVED ROM THE CELL TO BE GROUTED.
5. BAR EXCEEDS MAX. ALLOWABLE SIZE.
6. DEVELOPMENT LENGTH OF EPOXY COATED BARS SHALL BE TAKEN AS 1.5 TIMES THE VALUES IN THE CHART.

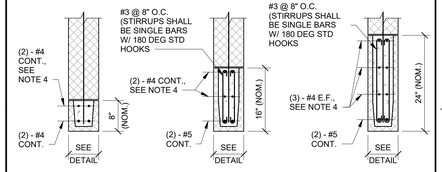
4 TYPICAL DETAIL MASONRY TENSION LAP SPLICE (INCHES)

SCALE: N.T.S.



15 TYPICAL DETAIL MASONRY EDGE AT SLOPES AND GABLES

SCALE: N.T.S.



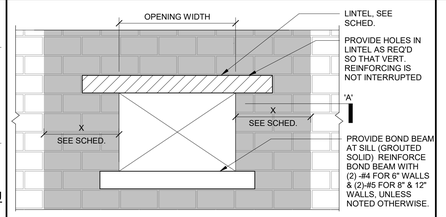
TYPE 1 AT 8" CMU | TYPE 2 AT 8" CMU | TYPE 3 AT 8" CMU

BOND BEAM MAX CLEAR SPAN SCHEDULE				
CMU	WALL GROUT SPACING	TYPE 1 RUNNING BOND	TYPE 2 RUNNING BOND	TYPE 3 RUNNING BOND
8"	16" O.C.	6'-4"	9'-4"	13'-4"
	>32" O.C.	7'-0"	10'-4"	14'-0"

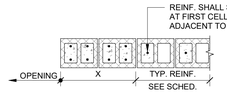
NOTES:
1. SEE ARCH. DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING @ EACH JAMB FOR EACH FOOT OF CLEARSPAN BUT NOT LESS THAN 8" REINF. SHALL PROJECT A MIN. OF 6" ONTO THE BEARING CMU.
3. BOND BEAMS SHALL BE FULLY GROUTED (2500 PSI @ 28 DAYS).
4. THE #4 FACE BARS ARE ONLY REQUIRED AT EXTERIOR CMU WALLS.

11 TYPICAL DETAIL BLOCK LINTEL AT EXTERIOR OR LOAD BEARING WALLS

SCALE: N.T.S.



NOTE:
NO CONTROL JOINTS ALLOWED WITHIN SHADED AREA.

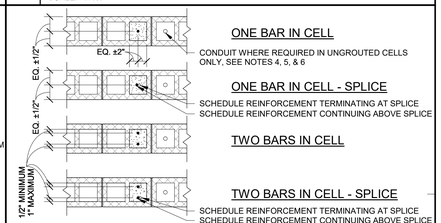


SECTION 'A'

OPENING SIZE	JAMB WIDTH 'X'	JAMB REINF.
≤ 6' - 0"	2' - 0"	(2) - #5 @ 8" O.C.
>10' - 0"	3' - 0"	(2) - #5 @ 8" O.C.

7 CMU JAMB REINFORCING SCHEDULE

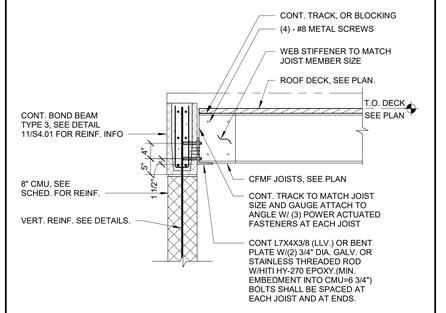
SCALE: N.T.S.



NOTES:
1. REINFORCEMENT MUST BE PLACED USING REINFORCING BAR POSITIONERS THAT LOCATE THE BAR AS SPECIFIED AND PREVENT MOVEMENT OF THE BAR DURING CONSTRUCTION.
2. SPLICED REINFORCEMENT MUST BE A CONTACT LAP SPLICE WITH SPLICED BARS ALIGNED PARALLEL TO THE WALL AS SHOWN.
3. THE ENGINEER MUST BE NOTIFIED PRIOR TO PLACEMENT OF REINFORCEMENT THAT IS REQUIRED TO BE PLACED OUTSIDE OF THE TOLERANCES OF THIS DETAIL SUCH AS TO AVOID INTERFERENCE WITH OTHER REINFORCEMENT, CONDUITS, OR EMBEDDED ITEMS.
4. CONDUIT, PIPES AND SLEEVES SHALL BE NO CLOSER THAN 3 DIAMETERS ON CENTER (USE LARGER DIAMETER WHERE MULTIPLE SIZES ARE USED).
5. ALUMINUM PIPES MAY NOT BE USED UNLESS EFFECTIVELY COATED TO PREVENT CHEMICAL REACTION.
6. PIPES SHALL NOT BE EMBEDDED IN MASONRY WHEN:
   (a) CONTAINING LIQUIDS, GAS, OR VAPORS AT A TEMPERATURE HIGHER THAN 150°F (66°C).
   (b) UNDER PRESSURE IN EXCESS OF 55 PSI (379 KPA).
   (c) CONTAINING WATER OR OTHER LIQUIDS SUBJECT TO FREEZING.

3 TYPICAL DETAIL CMU VERTICAL BAR PLACEMENT

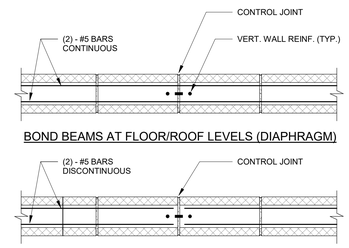
SCALE: N.T.S.



14 TYPICAL ROOF FRAMING AT CMU WALL

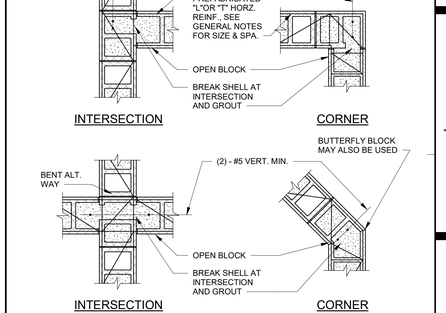
SCALE: 3/4" = 1'-0"

NOTE:
COORDINATE CONTROL JOINT LOCATIONS WITH ARCHITECTURAL DRAWINGS.



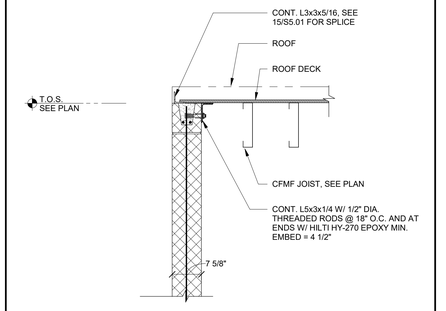
6 TYPICAL BOND BEAM AT CONTROL JOINTS

SCALE: N.T.S.



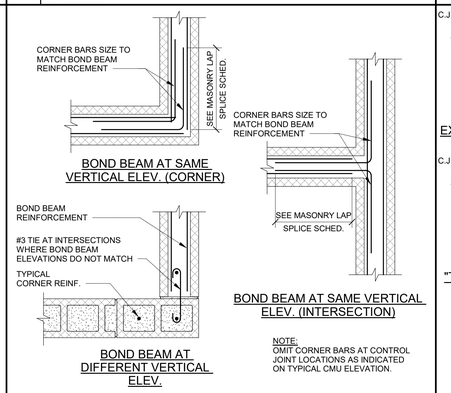
2 CMU WALL INTERSECTIONS

SCALE: N.T.S.



13 TYPICAL ROOF FRAMING AT CMU WALL

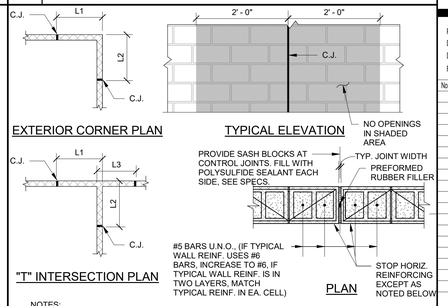
SCALE: 3/4" = 1'-0"



NOTE:
OMIT CORNER BARS AT CONTROL JOINT LOCATIONS AS INDICATED ON TYPICAL CMU ELEVATION.

5 TYPICAL CMU BOND BEAM REINFORCEMENT

SCALE: N.T.S.



NOTES:
1. CONTRACTOR SHALL OBTAIN ARCHITECT'S APPROVAL OF JOINT LOCATIONS, WHICH SHALL NOT EXCEED THE MINIMUM OF 1.5 TIMES THE WALL HEIGHT OR 20'-0".
2. HORIZONTAL REINFORCING AT FLOOR AND ROOF LINES SHALL BE CONTINUOUS THRU JOINT.
3. CONCRETE BLOCK SHOWN - BRICK SIMILAR.
4. SAWCUT BLOCK OR BRICK AS REQUIRED.
5. AT EXTERIOR CORNERS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0".
6. AT EXTERIOR "T" INTERSECTIONS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0", L2 + L3 ≤ 20' - 0" AND L1 + L3 - WALL THICKNESS ≤ 20' - 0"

1 MASONRY WALL CONTROL JOINT

SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25074

BP-012 FIELD HOUSE AND ATHLETIC RENOVATIONS

500 Waters Lk Blvd, Missouri City, TX 77459
RIDGEPOINT HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137127
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO.	26-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT
REVISIONS:	

No.	Date	Description
	12/04/2025	100% CD

100% CD

S4.01-R

TYPICAL CMU WALL DETAILS

12/3/2025 10:54:30 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_RIDGEPOINT_STRUCT_R25.rvt

ABBREVIATIONS

A	
A.F.F.	ABOVE FINISH FLOOR
ACC.FL.	ACCESS FLOOR
A.P.	ACCESS PANEL
ACOUS.	ACOUSTICAL
ACT.	ACOUSTICAL CEILING TILE
ADD.	ADDENDUM
ADJNT.	ADJACENT
ADJ.	ADJUSTABLE
ADMIN.	ADMINISTRATION
AGG.	AGGREGATE
A/C	AIR CONDITIONING
ALT.	ALTERNATE, ALTERNATIVE
ALUM.	ALUMINUM
ANCH.	ANCHOR, ANCHORAGE
ANOD.	ANODIZED
APPROX.	APPROXIMATE
ARCH.	ARCHITECT
A.D.	AREA DRAIN
ASPH.	ASPHALT
AUTO.	AUTOMATIC
B	
BSMT.	BASEMENT
BM.	BENCH MARK
BTWN.	BETWEEN
BEV.	BEVEL
BIT.	BITUMINOUS
BLK.	BLOCKING
BD.	BOARD
B.S.	BOTH SIDES
B.W.	BOTH WAYS
B.O.D.	BOTTOM OF DECK
BRK.	BRACKET
BRZ.	BRONZE
BLDG.	BUILDING
BUR.	BUILT UP ROOFING
C	
CAB.	CABINET
CPT.	CARPET
CSMT.	CASEMENT
CIP.	CAST IN PLACE CONCRETE
C.B.	CATCH BASIN
CLG.	CEILING
CLG. HT.	CEILING HEIGHT
CEM.	CEMENT
CL	CENTERLINE
CT	CERAMIC TILE
C.O.	CLEAN OUT
CLR.	CLEAR(ANCE)
CLO.	CLOSET
COL.	COLUMN
COMPT.	COMPARTMENT
COMPR.	COMPRESS
COMP.	COMPUTER
CONC.	CONCRETE
CMU.	CONCRETE MASONRY UNIT
CONST.	CONSTRUCTION
CONT	CONTINUOUS
CONTR.	CONTRACT/CONTRACTOR
CFCI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
C.J.	CONTROL JOINT
CPR.	COPPER
CG.	CORNER GUARD
CORR.	CORRIDOR
CTR.	COUNTER
C. FL.	COUNTER FLASHING
CTR. SNK.	COUNTER SUNK
CRS.	COURSE
CU. FT.	CUBIC FEET
CU. YD.	CUBIC YARD
D	
D.P.	DAMP PROOFING
DPR.	DAMPER
DL.	DEAD LOAD
DEMO	DEMOLISH, DEMOLITION
DEP.	DEPRESS
DTL.	DETAIL
DIAG.	DIAGONAL
DIAM.	DIAMETER
DW.	DISH WASHER
DISPR.	DISPENSER
DIV.	DIVISION
DR.	DOOR
DBL.	DOUBLE
DH.	DOUBLE HUNG
DN.	DOWN
DS.	DOWNSPOUT
DRN.	DRAIN
DRN. BD.	DRAIN BOARD
DRN. TL.	DRAIN TILE
DWR.	DRAWER
DWG.	DRAWING
DF	DRINKING FOUNTAIN
E	
EA	EACH
EA. FA.	EACH FACE
E.	EAST
ELEC.	ELECTRIC
EDF.	ELECTRIC DRINKING FOUNTAIN
EP.	ELECTRICAL PANEL
ELEV.	ELEVATION
EMERG.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EXCAV.	EXCAVATE
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EJ	EXPANSION JOINT
EXT.	EXTERIOR
EPS	EXTRUDED POLY STYRENE
F	
FAB	FABRICATED
FV.	FIELD VERIFY
FIN.	FINISH
FIN. FLR.	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FA.	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FE.	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHS.	FIRE HOSE CABINET
FPL.	FIRE PLACE
FP.	FIRE PROOFING
FRC.	FIRE RESISTANT COATING
F. RT.	FIRE RETARDANT
FLSHG.	FLASHING
FLEX	FLEXIBLE
FLR.	FLOOR
FLR. C.O.	FLOOR CLEAN OUT
FD.	FLOOR DRAIN
FLR. JT.	FLOOR JOINT
FLR. PLT.	FLOOR PLATE
FLOUR.	FLUORESCENT
FTG.	FOOTING
FRMG.	FRAMING
FBO.	FURNISHED BY OWNER
FURR.	FURRED (ING)
FUT.	FUTURE
FRG.	REFRIGERATOR
G	
GALV.	GALVANIZED
GSKT.	GASKET
GA.	GAUGE
GC.	GENERAL CONTRACTOR
GLS.	GLASS
GL. BLK.	GLASS BLOCK
GL. CMU.	GLAZED CONCRETE MASONRY UNIT
GST.	GLAZED STRUCTURAL TILE
GB.	GRAB BAR
GBLK.	GREEN BLOCK
GRT.	GROUT
GYPCTE.	GYPCRETE
GYP. PL.	GYPSUM PLASTER
GYP. T.	GYPSUM TILE
GWB.	GYPSUM WALL BOARD
H	
HD. BD.	HARD BOARD
HD. JT.	HARD JOINT
HDW.	HARDWARE
HDWD.	HARDWOOD
HDR.	HEADER
HTG.	HEATING
HVAC.	HEATING, VENTILATION, AIR CONDITIONING
HVY. D.	HEAVY DUTY
HT.	HEIGHT
HC.	HOLLOW CORE
HM.	HOLLOW METAL
HORIZ.	HORIZONTAL
HB.	HOSE BIB
HWH.	HOT WATER HEATER
HR.	HOUR
I	
INCL.	INCLUDE
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INTERM.	INTERMEDIATE
INV.	INVERT
J	
JAN.	JANITOR
J.C.	JANITORS CLOSET
JT.	JOINT
JF.	JOINT FILLER
JST.	JOIST
K	
K. PL.	KICK PLATE
KIT.	KITCHEN
K.O.	KNOCK OUT
L	
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LH.	LEFT HAND
LC.	LIGHT CONTROL
LT. WT.	LIGHT WEIGHT
LT.	LIGHT, RE: ELECTRICAL
LT. CONC.	LIGHTWEIGHT CONCRETE
LMSTN	LIMESTONE
LTL.	LINTEL
LL.	LIVE LOAD
LB.	LOAD BEARING
LPT.	LOW POINT
M	
MH.	MAN HOLE
MFR.	MANUFACTURE
MRB.	MARBLE
MB	MARKER BOARD
MAS.	MASONRY
M.O.	MASONRY OPENING
MU	MASONRY UNIT
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP	MECHANICAL/ELECTRICAL/ PLUMBING
M.C.	MEDICINE CABINET
MEMB.	MEMBRANE
MTL.	METAL
MFD.	METAL FLOOR DECK
MRD.	METAL ROOF DECK
M. THR.	METAL THRESHOLD
MWK.	MILLWORK
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MOD.	MODULAR
MLDG.	MOLDING
MT.	MOUNT
MTD.	MOUNTED
MOV.	MOVE
MULL.	MULLION
N	
NAT.	NATURAL
NR.	NOISE REDUCTION
NOM.	NOMINAL
N.	NORTH
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
O	
OC.	ON CENTER
OCEW	ON CENTER EACH WAY
OPG.	OPENING
OPP.	OPPOSITE
OH	OPPOSITE HAND
OH.	OPPOSITE HAND
O.A.	OVER ALL
OVRHD.	OVER HEAD
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	
PNT.	PAINT
PTD.	PAINTED
PNL.	PANEL
PB.	PANIC BAR
PTDIS.	PAPER TOWEL DISPENSER
PTR.	PAPER TOWEL RECEPTACLE
PAR.	PARALLEL
PKG.	PARKING
P. BD.	PARTICLE BOARD
PARTN.	PARTITION
PVT.	PAVEMENT
PERF.	PERFORATED
PERIM.	PERIMETER
PLAS.	PLASTER
PLAM	PLASTIC LAMINATE
PL.	PLATE
PLY.	PLYWOOD
PVC.	POLYVINYL CHLORIDE
PREFAB.	PREFABRICATED
PREFIN.	PREFINISHED
P.L.	PROPERTY LINE
Q	
QT.	QUARRY TILE
R	
RAD.	RADIUS
REF.	REFERENCE
RFL.	REFLECTED
REG.	REGISTRAR
REINF.	REINFORCING
REM.	REMOVE
REQ'D.	REQUIRED
RES.	RESILIENT
RET.	RETURN
RA.	RETURN AIR
RVS.	REVERSE
REV.	REVISION
RH.	RIGHT HAND
R.O.W.	RIGHT OF WAY
RD.	ROOF DRAIN
RF. HT.	ROOF HEIGHT
RFG.	ROOFING
RM.	ROOM
RO.	ROUGH OPENING
RB.	RUBBER BASE
S	
SF. GL.	SAFETY GLASS
SCHED.	SCHEDULE
SLNT.	SEALANT
STG.	SEATING
SCTN.	SECTION
SHTH.	SHEATHING
SHT.	SHEET
SH. GL.	SHEET GLASS
SHR.	SHORING
SIM.	SIMILAR
SKYLT.	SKYLIGHT
SLV.	SLEEVE
SC.	SOLID CORE
SCW	SOLID CORE WOOD
S.	SOUTH
SPCR.	SPACER
SPKR.	SPEAKER
SPEC.	SPECIFICATIONS
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STA.	STATION
STL.	STEEL
STN.	STONE
STOR.	STORAGE
SD.	STORM DRAIN
STRUCT.	STRUCTURE (TURAL)
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
SYN.	SYNTHETIC
SYS.	SYSTEM
T	
TB.	TACK BOARD
TK. STP.	TACK STRIP
TEL.	TELEPHONE
TV	TELEVISION
THK.	THICK
THR.	THRESHOLD
TO. COL.	TOP OF COLUMN
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.J.	TOP OF JOIST
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
TG.	TOUNG AND GROOVE
TR.	TREAD
TYP.	TYPICAL
U	
UC.	UNDER CUT
UNFIN.	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR.	URINAL
V	
VB.	VAPOR BARRIER
VAR.	VARIES
VNR.	VENEER
VIF.	VERIFY IN FIELD
VERT.	VERTICAL
VG.	VERTICAL GRAIN
VIN.	VINYL
VIN. B.	VINYL BASE
VCT	VINYL COMPOSITION TILE
VIN. F.	VINYL FABRIC
VIN. T.	VINYL TILE
W	
WSCT.	WAINSCOT
WH.	WALL HUNG
WC.	WATER CLOSET
WPRF.	WATER PROOFING
WRP.	WATER REPELLENT
WS.	WATER STOP
WWF.	WELDED WIRE FABRIC
WWM.	WELDED WIRE MESH
W.	WEST
WDW.	WINDOW
WGLS.	WIRE GLASS
WM.	WIRE MESH
W.	WITH
WO.	WITHOUT
WD.	WOOD
WD. B.	WOOD BASE
W. PT.	WORKING POINT

SYMBOLS & LEGENDS

ARCHITECTURAL DRAWING SYMBOLS

- Name 101 150 SF — ROOM TAG WITH ROOM FINISH
- Name 101 XXX SF/ XXX(P) — ROOM TAG WITH OCCUPANCY SF=SQUARE FEET P=PEOPLE
- 101 — DOOR TAG
- XX1 — PARTITION TAG
- HOLLOW METAL FRAME TAG
- 1 — ALUMINUM FRAME TAG
- EXPANSION JOINT
- 21 / A101 SIM. — ENLARGED CALL OUT
- SIM, 1 / A101 — BUILDING SECTION TAG
- SIM, 1 / A101 — WALL SECTION TAG
- SIM, 1 / A101 — DETAIL SECTION TAG
- Ref, 20 / A101 — EXTERIOR ELEVATION TAG
- 1 / A101 Ref — INTERIOR ELEVATION TAG
- 15/ A 9.24 — VIEW REFERENCE DETAIL
- Elevation Name — ELEVATION/ LEVEL TAG
- AB — COLUMN GRID
- 5' DIAMETER ADA TURN AROUND
- REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC P RQ R EQ — EXIT POINT WITH WIDTH INDICATED IN INCHES OCCUPANT LOAD SHOWN VERTICAL P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- CENTER LINE
- MATCH LINE
- ITEM SHOWN IS ABOVE/BELOW OR TO BE REMOVED(ON DEMO SHTS) U.N.O.
- PROPERTY LINE
- BREAK LINE
- LONGEST TRAVEL DISTANCE TO EXIT
- BUILDING EXIT

WALL LEGEND

- EXISTING WALL TO REMAIN
- METAL STUD PARTITION
- CMU PARTITION
- 1 HR WALL CONSTRUCTION
- 1 HR CMU WALL CONSTRUCTION
- 2 HR WALL CONSTRUCTION
- 2 HR CMU WALL CONSTRUCTION

MATERIALS LEGEND

- EARTH (COMPACTED)
- POUROUS FILL (STONE OR GRAVEL)
- CONCRETE
- PLASTER/SAND/CEMENT/ GROUT
- BRICK (COMMON OR FACE)
- CONCRETE MASONRY UNIT (CMU)
- METAL (LARGE SCALE)
- METAL (SMALL SCALE)
- BATT INSULATION
- RIGID BOARD OR SPRAY FOAM INSULATION
- ROUGH WOOD (CONTINUOUS)
- ROUGH WOOD (NON-CONTINUOUS)
- FINISH WOOD
- PLYWOOD

PROJECT GENERAL NOTES

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A WATERTIGHT & WEATHERTIGHT BUILDING
2. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A PLUM, LEVEL AND SQUARE STRUCTURE UNLESS OTHERWISE NOTED ANY DEVIATION FROM THIS GENERAL INTENT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
3. THE BUILDING SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL THE APPLICABLE CODES, ORDINANCES AND REGULATIONS AS WELL AS THE DRAWINGS & SPECIFICATION. ANY CODE DEFICIENCIES IN THE DRAWINGS RECOGNIZED BY THE CONTRACTOR SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
4. THE CONTRACTOR SHALL VISIT PROJECT SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ANY AMBIGUOUS ITEMS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO SUBMITTING PROPOSAL.
5. THE CONTRACTOR IS TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES REQUIREMENTS, AND COMPLETE TEXAS HEALTH DEPARTMENT NOTIFICATIONS AND SUBMIT FORMS AND REQUIRED INFORMATION TO MEET " TEXAS COMMISSION ON ENVIRONMENTAL QUALITY" (TCEQ) REQUIREMENTS PRIOR TO START OF PROJECT
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF THE BUILDING ON THE SITE AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE BIDDING THE PROJECT OR THE COMMENCEMENT OF WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR CHANGES TO THE WORK DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HIS/HER SELF WITH EXISTING CONDITIONS
7. DO NOT SCALE DRAWINGS: ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE AND BE FIELD VERIFIED AND COORDINATED WITH WORK OF ALL TRADES. IF NO DIMENSIONS ARE GIVEN OR DISCREPANCIES FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION BEFORE BIDDING OR COMMENCING THE WORK.
8. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, ALL INCLUDED AS PART OF THE WORK.
9. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
10. THE CONTRACTOR SHALL VERIFY THE SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS AND BASES, AS WELL AS POWER, WATER AND DRAIN REQUIREMENTS FOR SUCH EQUIPMENT WITH EQUIPMENT MFG. DEVIATION OF BEFORE MENTIONED REQUIREMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
11. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE WITH THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. REVIEW ALL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
12. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
13. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
14. PROVIDE FIRE STOPS WHEREVER INTERIOR AND EXTERIOR WALLS AND PARTITIONS INTERSECT FLOORS, CEILINGS, AND ROOFS. ALSO PROVIDE AT ALL OPENINGS AROUND PENETRATIONS TO PREVENT VERTICAL & HORIZONTAL COMMUNICATION OF FIRE ALONG LINES OF CORRIDORS, OCCUPANCY CHANGES, AND SIMILAR SEPARATIONS.
15. ALL WALL WIDTHS ARE SHOWN AND DIMENSIONED WITH ACTUAL DIMENSIONS. DIMENSIONS FOR FRAMED WALLS ARE SHOWN TO FACE OF STUDS AND/OR FACE OF BLOCK U.N.O.
16. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
17. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
18. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
19. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
20. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
21. DIFFUSERS, LIGHT FIXTURES, ETC., ARE INDICATED ON THE REFLECTED CEILING PLAN FOR LOCATION AND COORDINATION. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
22. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
23. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
24. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
25. CLASSROOM FURNITURE INDICATED ON THE FLOOR PLANS, NOT INDICATED AS "BUILT-IN", ARE NOT IN PROJECT CONTRACT. FURNITURE IS SHOWN FOR TYPICAL CLASSROOM ARRANGEMENT, ONLY.
26. GENERAL CONTRACTORS AND SUB-CONTRACTORS ARE TO SCHEDULE AND COMPLETE THEIR WORK SO AS TO KEEP MECHANICAL, ELECTRICAL, TELEPHONE, DATA, HVAC CONTROL, INTERCOM, AND OTHER EXISTING SYSTEMS OPERATIONAL IN AREAS OCCUPIED BY THE OWNER DURING THE RENOVATION AND CONSTRUCTION OF THE PROJECT
27. WHERE EXISTING OR NEW EXPANSION JOINTS ARE EXPOSED DUE TO NEW CONSTRUCTION OR RENOVATION, PROVIDE APPROVED FLOOR, WALL, AND/OR CEILING EXPANSION JOINT COVER ASSEMBLIES AS REQUIRED.
28. WHERE NEW FLOORING IS TO BE INSTALLED ON TOP OF EXISTING FLOOR SLAB, PROVIDE FLOOR LEVELING COMPOUND AS REQUIRED TO PROVIDE LEVEL WORKABLE SURFACE FOR NEW FINISHES
29. CONTRACTOR IS TO ENSURE THAT NEW AND/OR EXISTING MECHANICAL, ELECTRICAL, DATA, AND CONTROL SYSTEMS ARE CONCEALED TO THE GREATEST EXTENT AS POSSIBLE UNLESS OTHERWISE NOTED
30. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
31. ALL EXPOSED METALS EXCEPT GALVANIZED AND PRE-FINISHED ITEMS, SHALL BE FINISH PAINTED - COLOR TO BE SELECTED BY ARCHITECT. REF SPECS FOR FIELD WELDS AT GALV.
32. WHERE THE WORDS "PATCH", "MATCH", "REPAIR", "REPLACE", ARE USED,SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT COLORS, TEXTURES AND FINISH OF DISTURBED AREAS SHALL MATCH IN ALL RESPECTS. REPLACE IS DEFINED AS REMOVE EXISTING AND INSTALL NEW INCLUDING ALL APPROPRIATE ELECTRICAL CONNECTIONS AND WITH MATCHING OR COMPATIBLE EQUIPMENT OR MATERIALS AS SHOWN, SPECIFIED OR REQUIRED FOR COMPLETE INSTALLATION.

SHEET NAMING CONVENTION

A2-XX

- A2 — DRAWING SHEET DISCIPLINE
- XX — SHEET NUMBER IN DISCIPLINE

G	GENERAL	P	PLUMBING
C	CIVIL	E	ELECTRICAL
L	LANDSCAPE	FP	FIRE PROTECTION
S	STRUCTURAL	FA	FIRE ALARM
IR	IRRIGAITON	T	TECHNOLOGY
AD	ARCH DEMOLITION	TE	THEATRICAL
A	ARCHITECTURE	FS	FOOD SERVICES
M	MECHANICAL	AV	AUDIO VISUAL

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
500 Waters Lk Blvd, Missouri City, TX 77459
RIDGEPOINT HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, Tx 77479

REGISTERED ARCHITECT MICHAEL ADAMS 30113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 26-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

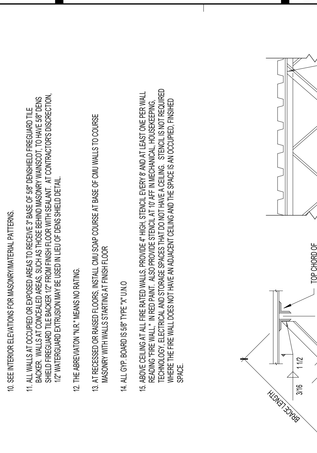
A0.00-R
SYMBOLS & ABBREVIATIONS

RIDGEPOINT HIGH SCHOOL

12/4/2025 10:41:44 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/25-006_RIDGEPOINT_ARCH_FBISD ATHLETIC RENOVATIONS BP012-R_R25.rvt

GENERAL PARTITION NOTES

1. SEE ABBREVIATIONS LIST ON SHEET A0.00 FOR ALL ABBREVIATIONS USED ON PLANS, ELEVATIONS & SECTIONS
2. SEE PARTITION TYPES ON SHEET A0.01 FOR ALL PARTITION TYPES SHOWN ON PLANS, ELEVATIONS & SECTIONS
3. SEE ROOM FINISH SCHEDULE FOR FINISHES AND CEILING HEIGHTS.
4. FIRE TAPE OR SEAL ALL PENETRATIONS IN FIRE RATED PARTITIONS.
5. ALL WALLS THAT ARE PERPENDICULAR TO ROOF DECK SHOULD BE SEALED TIGHT TO UNDERSIDE OF DECK W/ PACKED INSULATION AND FIRE SAFING. CORE SHEETROCK AROUND CONCRETE PAN.
6. ALL SOUND WALLS TO RECEIVE SEALANT AROUND CHASES & GAPS OF EDGES @ FLOOR, CEILING AND JUNCTION BOXES
7. PROVIDE BRACE AT END OF ALL CMU WALLS, EACH SIDE OF CONTROL JOINTS AND AT 8'-0" TYPICAL. IF AN INTERSECTING WALL IS LAYED AT THE SAME TIME - THE WALL MAY BE CONSIDERED A BRACE.
8. ALLOW FOR VERTICAL DEFLECTION OF THE STRUCTURE.
9. ALL METAL STUD ROOF DECK CONNECTIONS TO HAVE SLIP JOINT WITH DEEP LEG METAL STUD TRACK.
10. SEE INTERIOR ELEVATIONS FOR MASONRY/MATERIAL PATTERNS
11. ALL WALLS AT OCCUPIED OR EXPOSED AREAS TO RECEIVE 5" BASE OF 5/8" GRADE X GYPSUM BOARD W/ TILE BACKER. WALLS AT CONCEALED AREAS, SUCH AS THOSE BEHIND MASONRY WAINSCOT TO HAVE 5/8" FIBER SHIELD FIREGUARD TILE BACKER 12" FROM FINISH FLOOR WITH SEALANT. AT CONTRACTORS DISCRETION, 1/2" WATERGUARD EXTERIOR MAY BE USED IN LIEU OF FIBER SHIELD PER AI.
12. THE ABBREVIATION "N.R." MEANS NO RATING
13. AT RECESSED OR RAISED FLOORS, INSTALL CMU SOAP COURSE AT BASE OF CMU WALLS TO COURSE MASONRY WITH WALLS STARTING AT FINISH FLOOR
14. ALL GYP. BOARD IS 5/8" TYPE "X" U.N.O
15. ABOVE CEILING AT ALL FIRE RATED WALLS, PROVIDE #1 HOLA STENCIL EVERY 8' AND AT LEAST ONE PER WALL REQUIRING "FIRE WALL" IN RED PAINT. ALSO PROVIDE ETERCAL AT 10' AFF IN MECHANICAL, ROOFERPING, TECHNOLOGY, ELECTRICAL AND STORAGE SPACES THAT DO NOT HAVE A CEILING. STENCIL IS NOT REQUIRED WHERE THE FIRE WALL DOES NOT HAVE AN ADJACENT CEILING AND THE SPACE IS AN OCCUPIED / FINISHED SPACE.

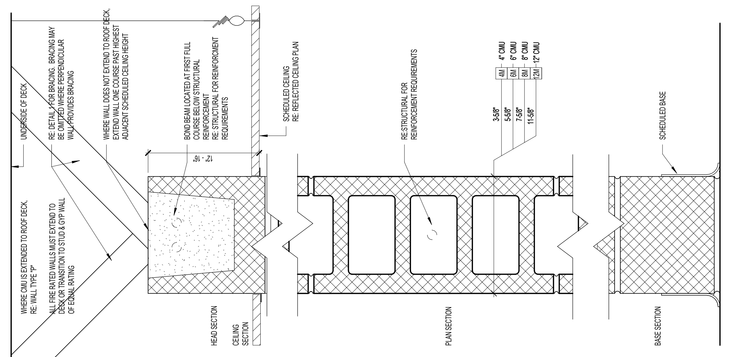


NOTE
BRACING NOT REQUIRED AT WALLS SUPPORTING CONCRETE CEILINGS & CATWALKS OR WHERE ADJOINING WALLS EXCEED HORIZ DIM OF CMU SCHEDULE

BRACE LENGTH	ANGLE SIZE
8'-0" OR LESS	L 2 1/2 X 2 1/2 X 3/16
8'-1" TO 12'-0"	L 3 X 3 X 3/16
12'-1" TO 15'-0"	L 3 1/2 X 3 1/2 X 1/4
15'-1" TO 18'-0"	2 - L 3 X 3 X 3/16

WALL BRACING 2

SCALE: 3/4" = 1'-0"



M	CONCRETE MASONRY UNITS W/ HORIZONTAL AND VERTICAL REINFORCING RE: STRUCTURAL FOR REINFORCING DETAILS							
	NON-RATED	PARTITION TYPE		LOAD LIMITING HEIGHT		FIRE RATING		STC
		RATED	BURNISHED	BLOCK DEPTH	MAX. HEIGHT	HOURS	UL LISTING	
	AI	4MR	4MB	3-5/8"	5'-10"	--	--	43
	BI	6MR	6MB	5-5/8"	9'-2"	2HR	U905	46
	CM	8MR	8MB	7-5/8"	11'-4"	2 HR	U905/U907	49
	DM	12MR	12MB	11-5/8"	18'-0"	2.4 HR	U905/U907	53

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INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

pfluger
Office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

500 Waters Lk Blvd, Missouri City, TX 77459

RIDGEPOINT HIGH SCHOOL

REGISTERED ARCHITECT MICHAEL LEMME 26115 STATE OF TEXAS

DATE: 12/4/2025

PROJECT NO.	25.006
DATE:	12/04/2025
DRAWN BY:	DRW
CHECKED BY:	CHK

REVISIONS		
	Date	Description

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A0.01-R

PARTITION TYPES

RIDGEPOINT HIGH SCHOOL

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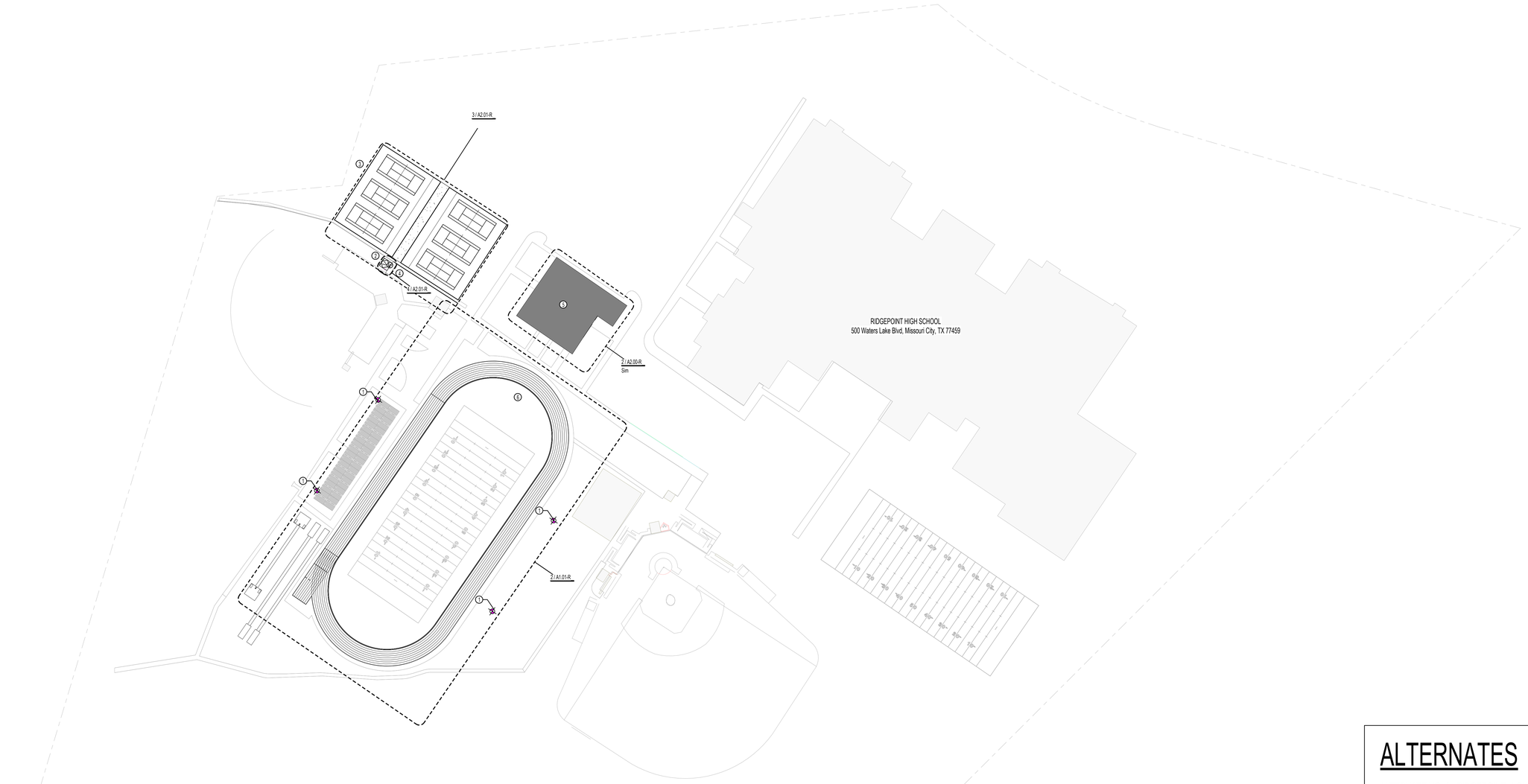


SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01 & G0.02 FOR TAS REQUIREMENTS
3. RE: G0.03 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 6' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

X - X	VINYL COATED CHAIN LINK FENCE, 48" HIGH
L - L	VINYL COATED CHAIN LINK FENCE, 72" HIGH
M - M	BLACK WROUGHT IRON FENCE, 48" HIGH
R - R	BLACK WROUGHT IRON FENCE, 72" HIGH
1 / A101 SIM	BUILDING SECTION TAG
1 / A101 SIM	WALL SECTION TAG
21 / A101 SIM	ENLARGED CALL OUT

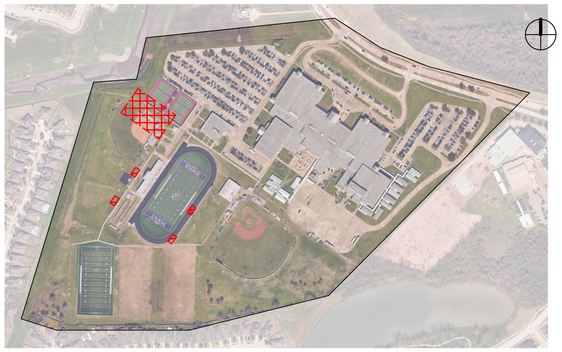
SITE PLAN NOTES BY NUMBER

TAG #	NOTE
1	NEW LED LIGHTS FOR FIELD FOR EXISTING POLES
2	ALTERNATE NO. 6 - NEW CMU STORAGE SHED
3	NEW FENCING
4	ALTERNATE NO. 6 - CONCRETE PAVING AROUND STORAGE SHED
5	REPLACE LOCKERS AND BENCHES IN FIELD HOUSE
6	RESURFACE TRACK

01 RIDGE POINT SITE
SCALE: 1" = 80'-0" 1

ALTERNATES

ALTERNATE NO. 6 - RIDGEPOINT HIGH SCHOOL: CMU STORAGE AND CONCRETE PAVEMENT NEAR TENNIS COURT.



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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500 Waters Lk Blvd, Missouri City, TX 77459

RIDGEPOINT HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

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A1.00-R
ARCHITECTURAL SITE PLAN

RIDGEPOINT HIGH SCHOOL

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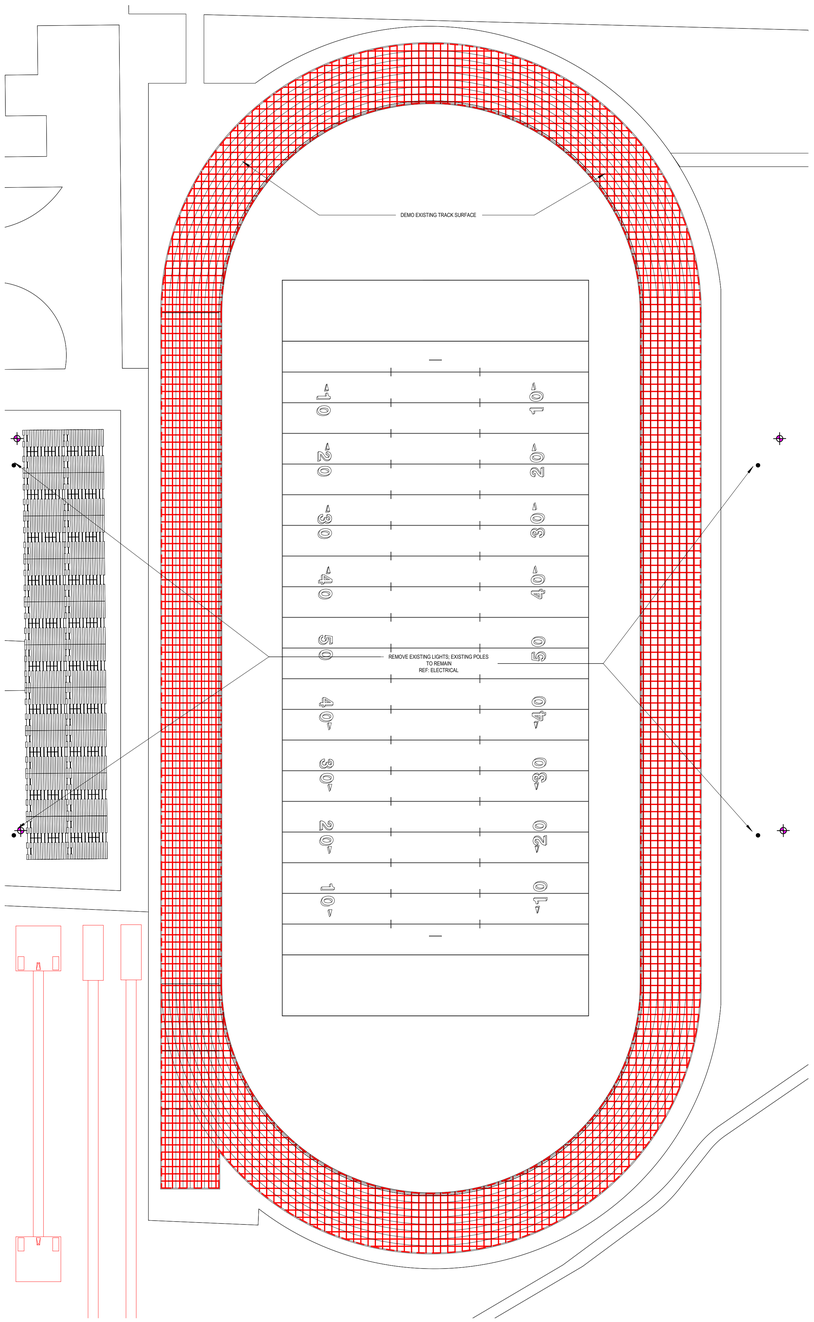
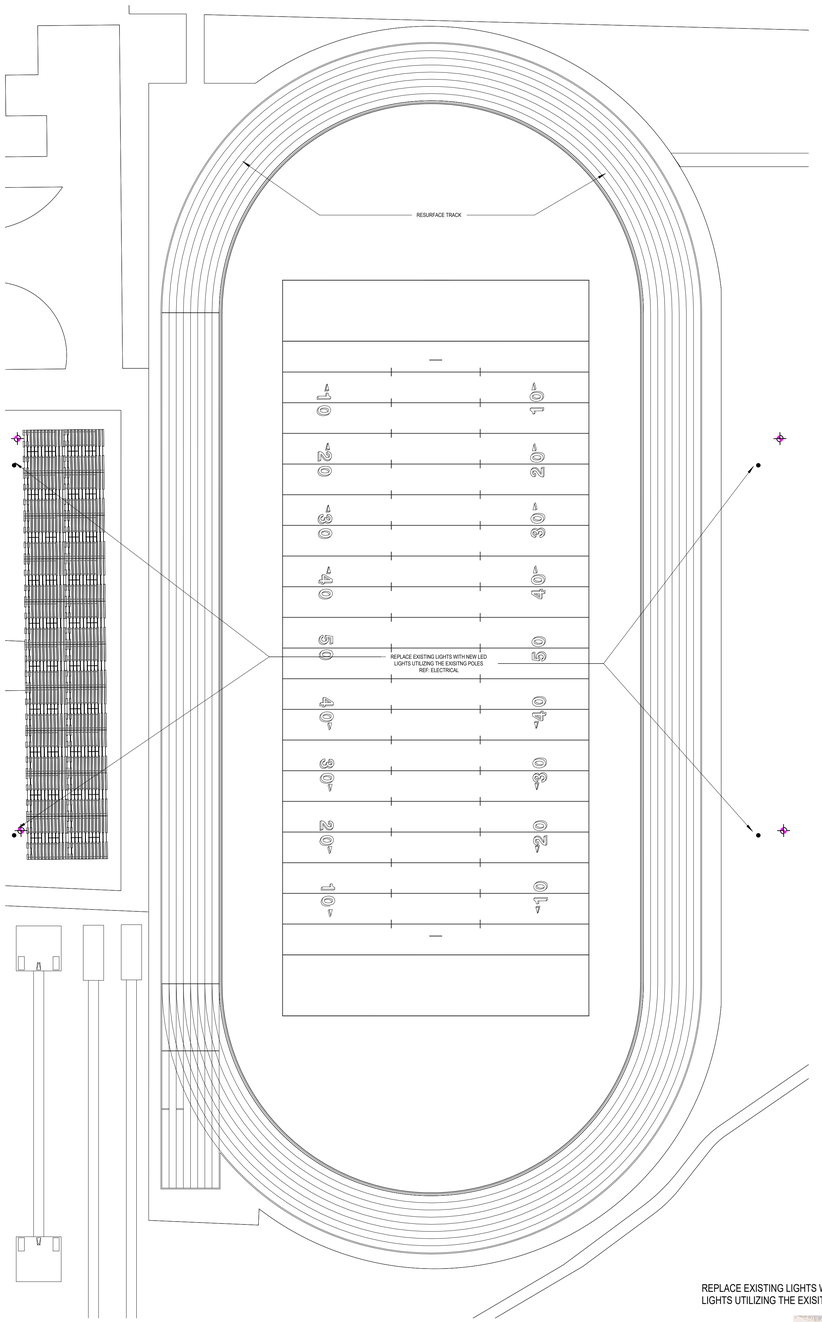


TRACK AND FIELD DEMO SITE PLAN 2
SCALE: 1" = 30'-0"

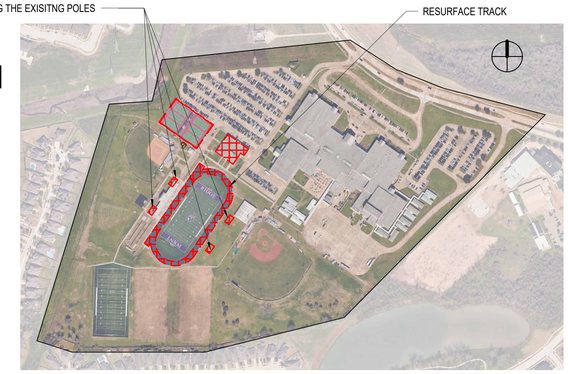


TRACK AND FIELD SITE PLAN 1
SCALE: 1" = 30'-0"





REPLACE EXISTING LIGHTS WITH NEW LED LIGHTS UTILIZING THE EXISITNG POLES



SITE PLAN GENERAL NOTES

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SITE PLAN LEGEND

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- L L — VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M M — BLACK WROUGHT IRON FENCE, 48" HIGH
- R R — BLACK WROUGHT IRON FENCE, 72" HIGH
- 1 / A101 SIM — BUILDING SECTION TAG
- 1 / A101 SIM — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT

SITE PLAN NOTES BY NUMBER

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
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DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 4 — DEMO KEY NOTE

DEMOLITION KEY NOTES

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

500 Waters Lk Blvd, Missouri City, TX 77459

RIDGEPOINT HIGH SCHOOL

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Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

A1.01-R
TRACK AND FIELD SITE PLAN

RIDGEPOINT HIGH SCHOOL

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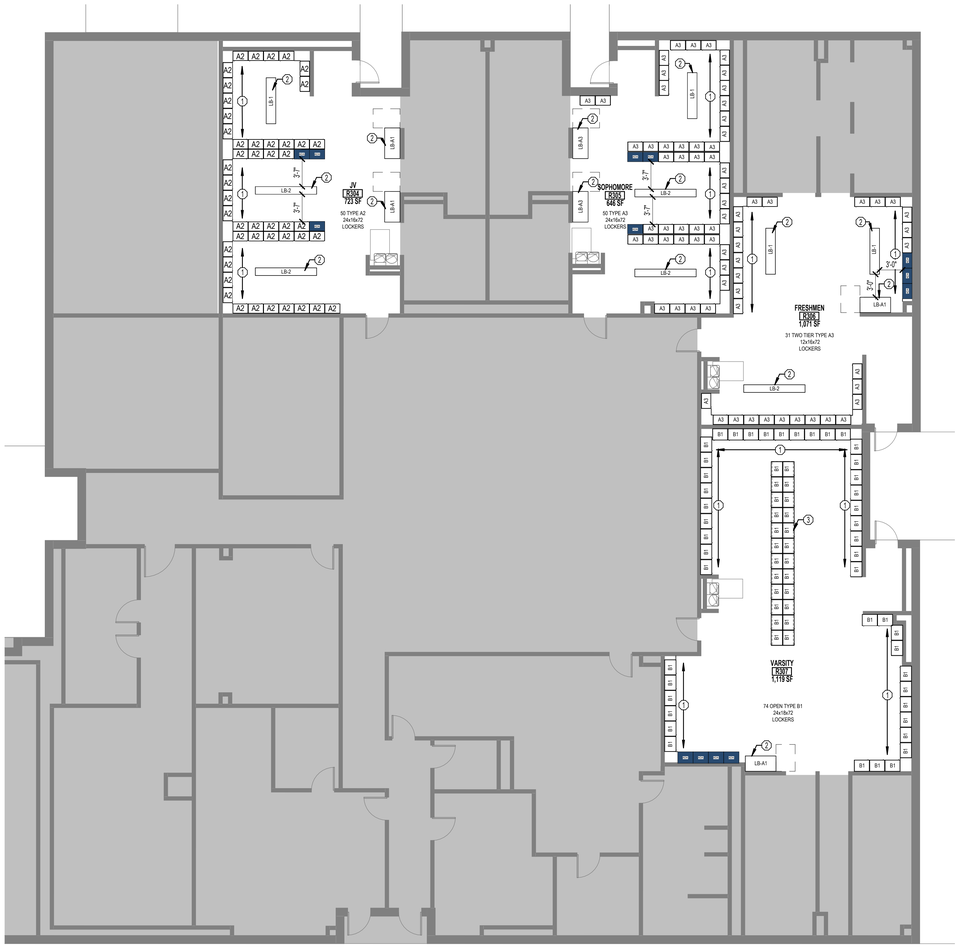
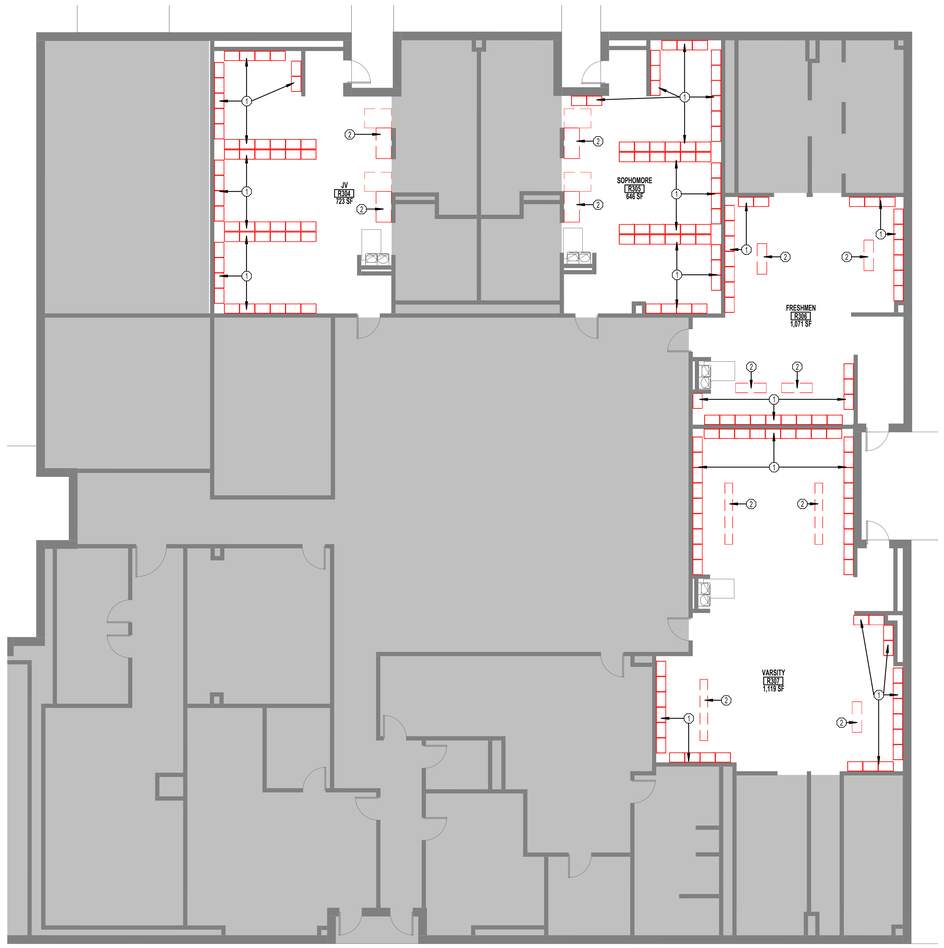


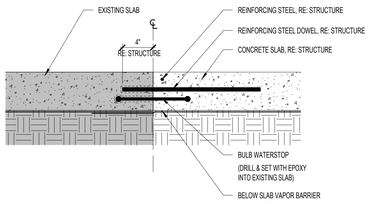
01 FLOOR PLAN - FIELD HOUSE 2

SCALE: 1/8" = 1'-0"



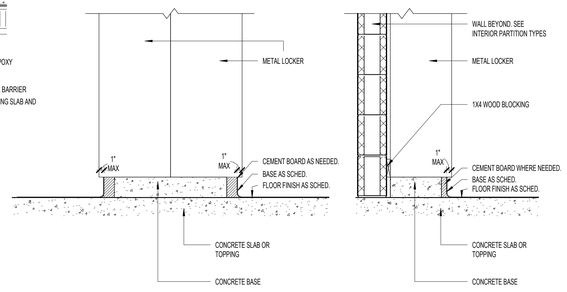
01 DEMO PLAN - FIELD HOUSE 1

SCALE: 1/8" = 1'-0"



SECTION DETAIL - NEW SLAB AT EXISTING SLAB 4

SCALE:1 1/2" = 1'-0"

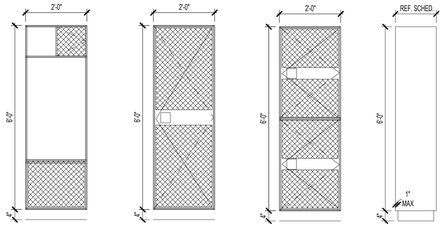


LOCKER CURB DETAIL 3

SCALE: 1" = 1'-0"

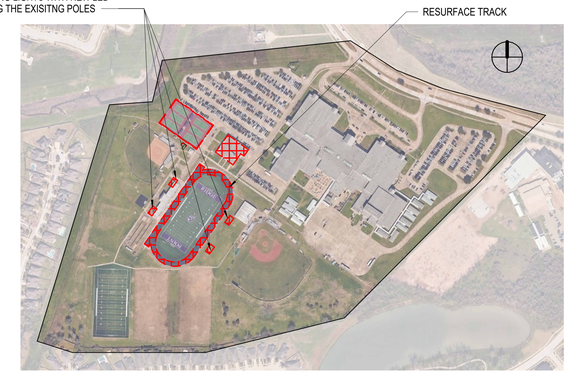
LOCKER SCHEDULE

1.PROVIDE SHOP APPLIED, BAKED EPOXY ENAMEL FINISH
2.REFER TO MATERIAL SHCEDULE FOR COLOR



REPLACE EXISTING LIGHTS WITH NEW LED
LIGHTS UTILIZING THE EXISITNG POLES

RESURFACE TRACK



GENERAL DEMOLITION NOTES

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5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
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DEMOLITION LEGEND

ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE

AREA OF FLOOR TO BE PATCHED

DEMOLITION KEY NOTES

1. REMOVE EXISTING LOCKERS. REPAIR AND PAINT ANY DAMAGES TO EXISTING CMU WALLS OR FLOORS. REFER TO MATERIAL SCHEDULE FOR P-1 PAINT COLOR.
2. DEMO EXISTING BENCHES. REPAIR AND PAINT ANY DAMAGES TO EXISTING WALLS OR FLOORS.

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-2" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS AS SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- COLUMN GRID
- EXTERIOR ELEVATION TAG
- INTERIOR ELEVATION TAG
- BUILDING SECTION TAG
- WALL SECTION TAG
- ENLARGED CALL OUT
- DOOR TAG
- PARTITION TAG
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

1. NEW LOCKERS
2. NEW BENCH
3. NEW CONCRETE LOCKER CURB 4"

SPECIALTY EQUIPMENT

TAG	EQUIPMENT
A2	LOCKER - 24" W X 18" D X 72" H
A3	LOCKER - 24" W X 18" D X 72" H
B1	LOCKER - 24" W X 18" D X 72" H
LB-1	LOCKER BENCH - 72" L X 15" W
LB-2	LOCKER BENCH - 96" L X 15" W
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK

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A2.00-R
01 FLOOR PLAN - FIELD HOUSE

RIDGEPOINT HIGH SCHOOL

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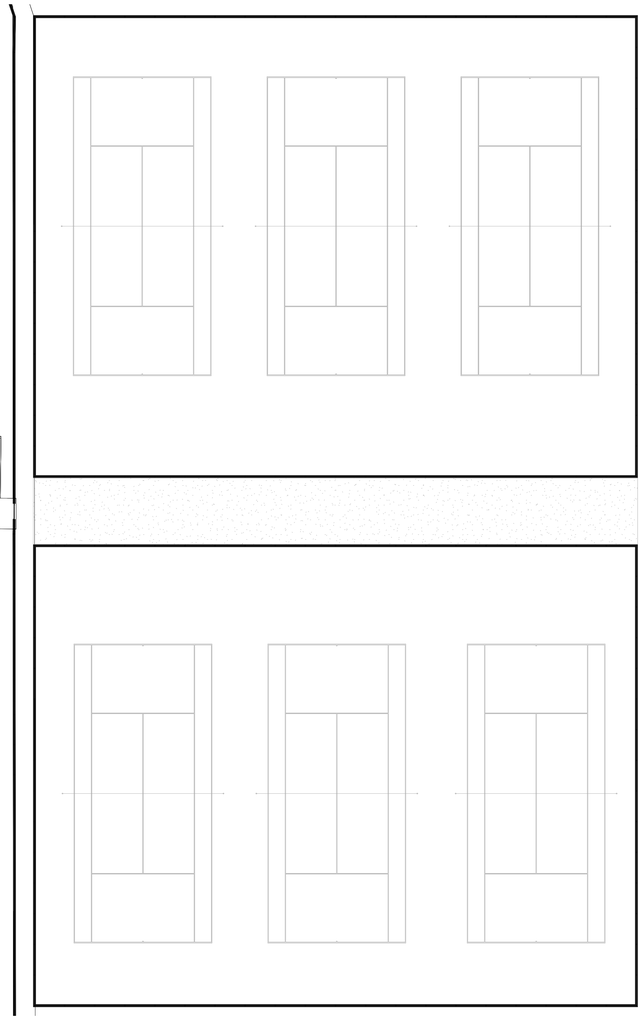
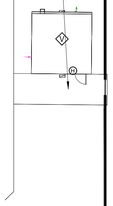
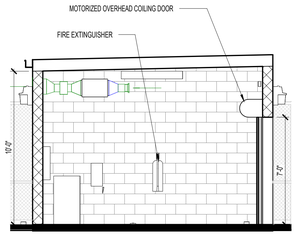


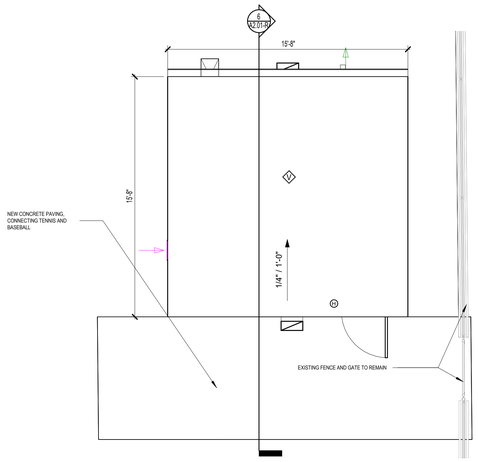
ALTERNATE NO. 6 -
CONCRETE PAVING
AROUND STORAGE



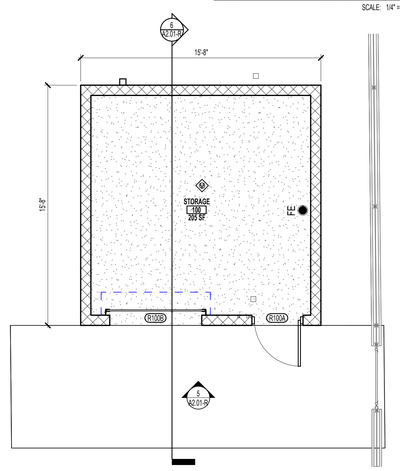
01 FLOOR PLAN - TENNIS COURT 3
SCALE: 1/16" = 1'-0"



TENNIS STORAGE SOUTH ELEVATION 5
SCALE: 1/4" = 1'-0"



ROOF PLAN - TENNIS STORAGE SHED 4
SCALE: 1/4" = 1'-0"



01 FLOOR PLAN - TENNIS STORAGE SHED 2
SCALE: 1/4" = 1'-0"

DEMO EXISTING STORAGE SHED AND REPLACE WITH NEW CMU STORAGE SHED

NEW FENCING AROUND TENNIS COURT; REF: CIVIL



SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01 & G0.02 FOR TAS REQUIREMENTS
3. RE: G0.03 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 6' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- X-X VINYL COATED CHAIN LINK FENCE, 48" HIGH
- L-L VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M-M BLACK WROUGHT IRON FENCE, 48" HIGH
- R-R BLACK WROUGHT IRON FENCE, 72" HIGH
- SIM / A101 — BUILDING SECTION TAG
- SIM / A101 — WALL SECTION TAG
- 21 / A101 SIM — ENLARGED CALL OUT

SITE PLAN NOTES BY NUMBER

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 4 — DEMO KEY NOTE

DEMOLITION KEY NOTES

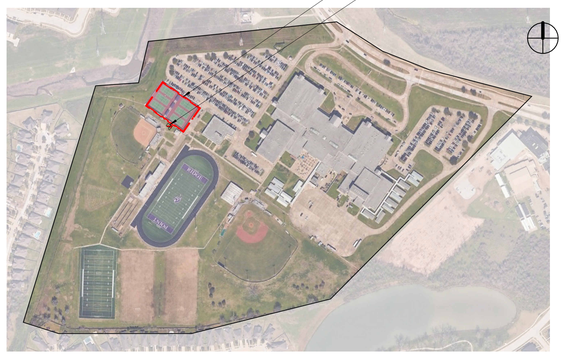
TAG #	NOTE

ALTERNATES

ALTERNATE NO. 6 - RIDGEPOINT HIGH SCHOOL: CMU STORAGE AND CONCRETE PAVEMENT NEAR TENNIS COURT.

NEW FENCING AROUND TENNIS COURT

ALTERNATE NO.6 - NEW CMU STORAGE AND CONCRETE PAVING AROUND STORAGE



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

500 Waters Lk Blvd, Missouri City, TX 77459
RIDGEPOINT HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
Date Description

100% CD

A2.01-R
STORAGE SHED/TENNIS COURT

RIDGEPOINT HIGH SCHOOL

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ROOM FINISH SCHEDULE - LOCKER ROOM

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	NOTES
R304	JV	EXISTING	RB-1	-	-	-	-	NEW RUBBER BASE AT NEW CONCRETE BASE ONLY
R305	SOPHOMORE	EXISTING	RB-1	-	-	-	-	NEW RUBBER BASE AT NEW CONCRETE BASE ONLY
R306	FRESHMEN	EXISTING	RB-1	-	-	-	-	NEW RUBBER BASE AT NEW CONCRETE BASE ONLY
R307	VARSITY	EXISTING	RB-1	-	-	-	-	NEW RUBBER BASE AT NEW CONCRETE BASE ONLY

ROOM FINISH SCHEDULE - STORAGE SHED

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	NOTES
100	STORAGE	SCONC-1	RB-2	P-1	P-1	P-1	P-1	

MATERIAL SCHEDULE

MARK	MATERIAL	MANUFACTURER	STYLE	COLOR	SPECS	REMARKS
01 FLOOR FINISH						
EP-1	EPOX-QUARTZ FLOORING	STONHARD	STONSHIELD SLT	MATCH EXISTING		PATCHING AS APPLICABLE
SCONC-1	SEALED CONCRETE					NEW STORAGE SHED
02 BASE						
RB-1	RUBBER BASE					MATCH EXISTING
RB-2	RUBBER BASE					NEW STORAGE SHED
03 WALL FINISH						
P-1	PAINT	SHERWIN WILLIAMS				FIELD PAINT
P-1E	EPOXY PAINT	SHERWIN WILLIAMS		MATCH FIELD PAINT, U.N.O.		EPOXY PAINT AT WET AREAS
P-2	PAINT	SHERWIN WILLIAMS				SCHOOL COLOR ACCENT
04 MISC FINISHES						
	LOCKERS	LIST INDUSTRIES		720 PEP RALLY PURPLE		REF TO LOCKER SCHEDULE
05 CEILING						
EXP-1				MATCH P-1 U.N.O.	REF SPECS FOR PAINT FINISH	NEW STORAGE SHED
05 EXTERIOR						
CMU-1		BEST BLOCK	BURNISHED FACE			NEW STORAGE SHED

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
500 Waters Lk Blvd, Missouri City, TX 77459
RIDGEPOINT HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

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PROJECT NO. 26-006
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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

A2.02-R
MATERIAL SCHEDULE & INTERIOR DETAILS

RIDGEPOINT HIGH SCHOOL

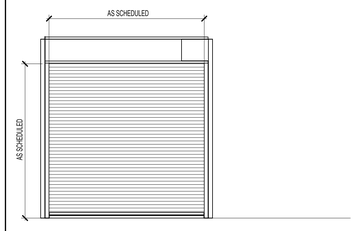
DOOR SCHEDULE

Level	BUILDING	NUMBER	PANEL PAIR	WIDTH	PANEL HEIGHT	PANEL TYPE	PANEL MATERIAL	FRAME TYPE	FRAME MATERIAL	FIRE RATING	HARDWARE	DETAILS HEAD	DETAILS JAMB	DETAILS THRESHOLD	COMMENTS
TENNIS STORAGE															
Level 01	TENNIS STORAGE	R100A		3'-0"	7'-0"	A	Aluminum, Anodized Silver	AL1	Default		205				
Level 01	TENNIS STORAGE	R100B			7'-0"	K	AL	-	AL		001				OVERHEAD COILING DOOR

DOOR SCHEDULE GENERAL NOTES

1. REFER TO THE SPECIFICATIONS FOR HARDWARE DESCRIPTIONS
2. ALL DOORS IN SMOKE RESISTANT PARTITIONS TO HAVE POSITIVE LATCHING AND BE SMOKE TIGHT (ST)
3. ALL DOORS TO HAVE BOXED HEADERS UNLESS STEEL CHANNELS ARE INDICATED IN THE COMMENT COLUMN OF THE DOOR SCHEDULE OR UNLESS OTHERWISE INDICATED BY HEAD DETAIL
4. ALL CLOSERS TO BE LOCATED ON THE ROOM SIDE OF THE DOOR WHERE INSTALLED AT CORRIDORS. IN NON CORRIDORS, CLOSERS TO BE INSTALLED AT THE ROOM SIDE FOR THE ROOM BEING SERVED BY THE OPENER
5. ALL FIRE RATINGS NOTED IN MINUTES

DOOR PANEL TYPES



K COILING OVERHEAD DOOR

DOOR SCHEDULE COMMENTS

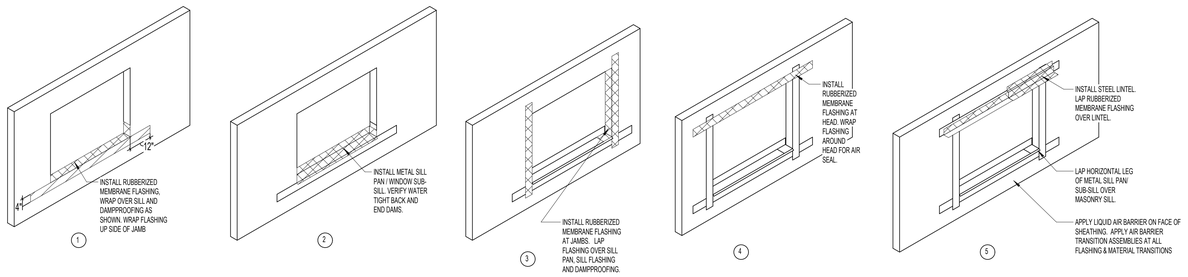
MODIFY/DELETE ITEMS AS NEEDED

1. PANIC HARDWARE
2. VACANT/OCCUPIED LIGHT OVER DOOR
3. ADA DOOR OPERATOR
4. PACKAGED DOOR ASSEMBLY, RE: SPECS
5. AUTOMATIC CARD READER AT DOOR, RE: SECURITY
6. MAGNETIC HOLD OPEN DEVICE TIED TO FIRE ALARM
7. MAGNETIC HOLD OPEN DEVICE - CONVENIENCE
8. MAGNETIC HOLD OPEN DEVICE TIED TO SECURITY
9. REMOTE ACTIVATED LATCH
10. BALLISTISTICS FILM APPLIED TO ALL GLAZING

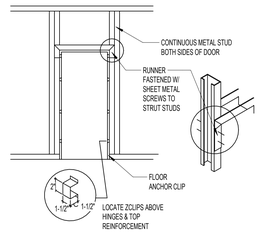
DOOR SCHEDULE ABREVIATIONS

MODIFY/DELETE ITEMS AS NEEDED

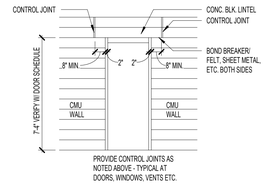
AL: ALUMINUM
HM: HOLLOW METAL
MTL: METAL
CL: CHAIN LINK
RM: REFER TO MANUFACTURER
ST: SMOKE TIGHT
SCW: SOLID CORE WOOD
FBC: POLYMER CORE
MIN: MINUTES
HW: HARDWARE



WINDOW FLASHING SEQUENCE 3
SCALE: 3/8" = 1'-0"



DOOR FRAME DETAIL @ METAL STUDS 2
SCALE: 1/4" = 1'-0"



DOOR FRAME DETAIL @ MASONRY 1
SCALE: 1/4" = 1'-0"

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

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A8.00-R
DOOR SCHEDULE

RIDGEPOINT HIGH SCHOOL

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FAN SCHEDULE

TAG	LOCATION	CFM	EXT. STATIC PRESSURE (IN.W.C.)	MAX RPM	HORSE POWER	CURRENT CHAR V	CURRENT CHAR P	CURRENT CHAR F	LOCALLY SWITCHED	INTERLOCK WITH	FAN TYPE	DRIVE TYPE	MANUFACTURER	MODEL NUMBER	REMARKS
EF-1	STORAGE	110	0.30	1420	0.25	120	1	60	-	HUMIDITY STAT	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MINIMUM RECOMMENDED CLEARANCE AROUND UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH DISCONNECT.
2. PROVIDE WITH MOTORIZED DAMPER.
3. PROVIDE WITH SPEED CONTROLLER.
4. PROVIDE WITH EC MOTOR.
5. SUSPEND UNIT WITH FOUR THREADED HANGER RODS ATTACHED TO TWO UNISTRUT RUNNERS SECURED TO STRUCTURE. PROVIDE SPRING ISOLATION. REFER TO MANUFACTURER FOR MORE DETAILS.
6. UNIT SHALL NOT BE PROVIDED IF ALTERNATE NO.6 HAS BEEN ACCEPTED.

GRILLE

MARK	SERVICE	TYPE	DAMPER	CONSTRUCTION MATERIAL	FINISH COLOR	MANUFACTURER	MODEL NUMBER	DESCRIPTION
A	EXHAUST AIR	GRILLE	-	STEEL	-	TITUS	350RL	DOUBLE DEFLECTION SIDEWALL GRILLE WITH HORIZONTAL FRONT BARS. SURFACE MOUNTED

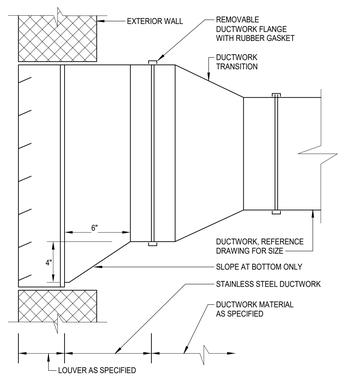
GENERAL NOTES:
1. DAMPERS NOTED AS U.L. SHALLBE A 'U.L.' CLASSIFIED CEILING RADIATION DAMPER WITH THERMAL BLANKET.
2. COORDINATE FINAL AIR DEVICE LOCATION AND FINISH COLOR WITH ARCHITECT.

REMARKS:
1. N/A

DAMPER

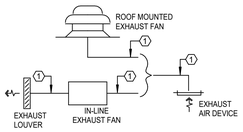
MARK	ACTUATOR	DUTY	BLADE ACTION	MANUFACTURER	MODEL NUMBER	REMARKS
D-1	MANUAL BALANCING	UNDER 9" WIDE	N/A	N/A	N/A	SEE SMACNA CONSTRUCTION DETAILS REFERENCED "TYPICAL CONSTRUCTION DETAILS FOR LOW VELOCITY DUCTS."
D-2	MANUAL BALANCING	OVER 9" WIDE	OPPOSED	RUSKIN	MD-35	MANUAL DAMPER WITH STANDARD CONSTRUCTION FEATURES AND VENTLOCK #639 LOCKING REGULATOR.
D-3	MOTORIZED	OVER 9" WIDE	OPPOSED	RUSKIN	CD-60	LOW LEAKAGE DAMPER WITH BLADE SEALS

NOTES:
N/A - NOT APPLICABLE



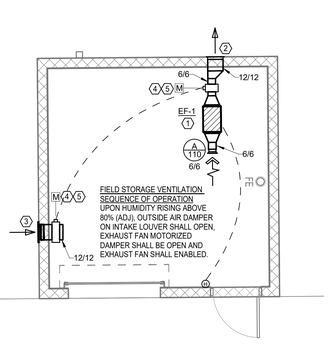
2 **DUCTWORK AT LOUVER**
SCALE: NONE

DUCT LINER AND INSULATION



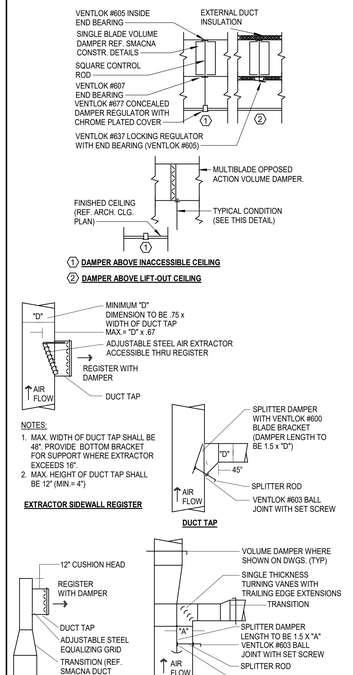
EXHAUST AIR SYSTEMS

KEYED NOTES:
1. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
2. SHEETMETAL DUCTWORK RETURN AIR PLENUM WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
3. FLEXIBLE DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
4. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT DISCHARGE TO 10'-0" DOWNSTREAM.
5. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT INLET TO 10'-0" UPSTREAM.
6. EXHAUST DUCTWORK AS SPECIFIED WITH FIREBOARD INSULATION AS SPECIFIED.
7. SHEETMETAL DUCTWORK ONLY. NO INSULATION REQUIRED.

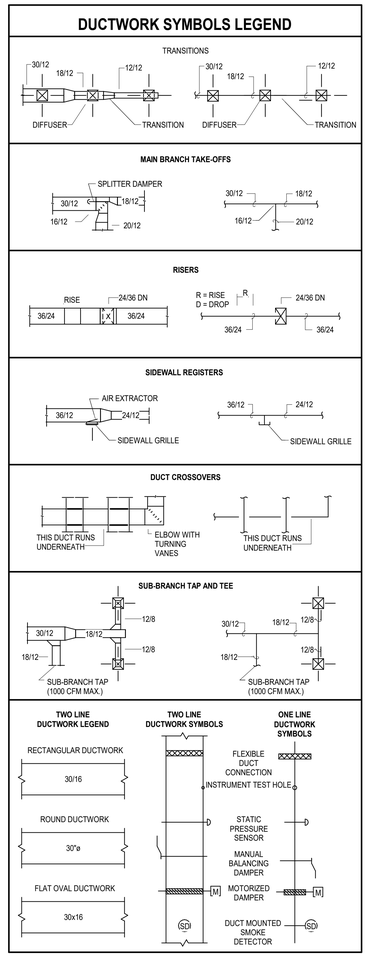


N
1 **MECHANICAL FLOOR PLAN - LEVEL 1 -TENNIS COURT STORAGE - ALTERNATE NO.6**
Scale: 1/4" = 1'-0"

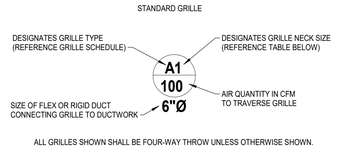
DUCTWORK CONSTRUCTION DETAILS



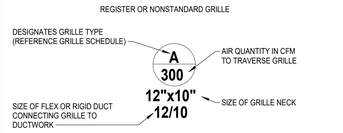
DUCTWORK SYMBOLS LEGEND



GRILLE SIZING SCHEDULE



ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN.



ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN. ALL REGISTERS SHALL HAVE A 45° HORIZONTAL DEFLECTION UNLESS OTHERWISE SHOWN.

GRILLE SIZE DESIGNATION	GRILLE NECK SIZE	GRILLE SIZE DESIGNATION	GRILLE NECK SIZE
1	6" x 6"	7	15" x 15"
2	8" x 8"	8	16" x 16"
3	9" x 9"	9	18" x 18"
4	10" x 10"	10	20" x 20"
5	12" x 12"	11	22" x 22"
6	14" x 14"	12	24" x 24"

MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR) UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. VERIFY SERVICE CLEARANCES WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADE NOT TO OBSTRUCT.
2. PROVIDE 12"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .29 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT.COORDINATE FINAL LOCATION WITH ARCHITECT.
3. PROVIDE 12"x 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .29 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT.COORDINATE FINAL LOCATION WITH ARCHITECT.
4. MOTORIZED DAMPER TO BE INTERLOCKED WITH EF-1. INTERLOCK SHALL OPERATE AS FOLLOWS, WHEN EF-1 IS ENERGIZED THE DAMPER SHALL OPEN. WHEN EF-2 IS DE-ENERGIZED THE DAMPER SHALL CLOSE.
5. MOTORIZED DAMPER SHALL BE ON SAME 120V CIRCUIT AS ASSOCIATED EXHAUST FAN. REEFER TO ELECTRICAL

SYMBOL LEGEND

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
GENERAL	
(#)	KEY NOTE TAG
A	REVISION TAG
	NEW EQUIPMENT
DUCTWORK	
	SUPPLY AIR DUCTWORK
	RETURN AIR AND OUTSIDE AIR DUCTWORK
	EXHAUST AIR DUCTWORK
	SUPPLY AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	RETURN AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	EXHAUST AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	FIRE DAMPER (VERTICAL)
	FIRE DAMPER (HORIZONTAL)
(S)	SMOKE DAMPER (VERTICAL)
(S)	SMOKE DAMPER (HORIZONTAL)
(FS)	COMBINATION FIRE & SMOKE DAMPER (VERTICAL)
FS	COMBINATION FIRE & SMOKE DAMPER (HORIZONTAL)
	MANUAL BALANCING DAMPER (SEE DAMPER SCHEDULE)
M	MOTORIZED DAMPER (SEE DAMPER SCHEDULE)
SENSORS	
T	THERMOSTAT AND TEMPERATURE SENSOR
H	HUMIDISTAT
SDI	SMOKE DETECTOR
HDI	HEAT DETECTOR
AIR DEVICES	
	GRILLE SIZE TAG (REFER TO GRILLE SIZE LEGEND)
	SUPPLY AIR SIDEWALL GRILLE
	RETURN AIR SIDEWALL GRILLE
20X12	RETURN AIR OPENING ABOVE CEILING
SUBSCRIPTS AND ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
BBS	BELOW BOTTOM OF STRUCTURE
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
CA	COMBUSTION AIR
CFM	CUBIC FEET PER MINUTE
EA	EXHAUST AIR
FPM	FEET PER MINUTE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
500 Waters Lk Blvd, Missouri City, TX 77459
RIDGEPOINT HIGH SCHOOL

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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
STATE OF TEXAS
80219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:
No.	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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M2.01-R
MECHANICAL FLOOR PLAN - LEVEL 1 - TENNIS COURT STORAGE - ALTERNATE NO.6
RIDGEPOINT HIGH SCHOOL

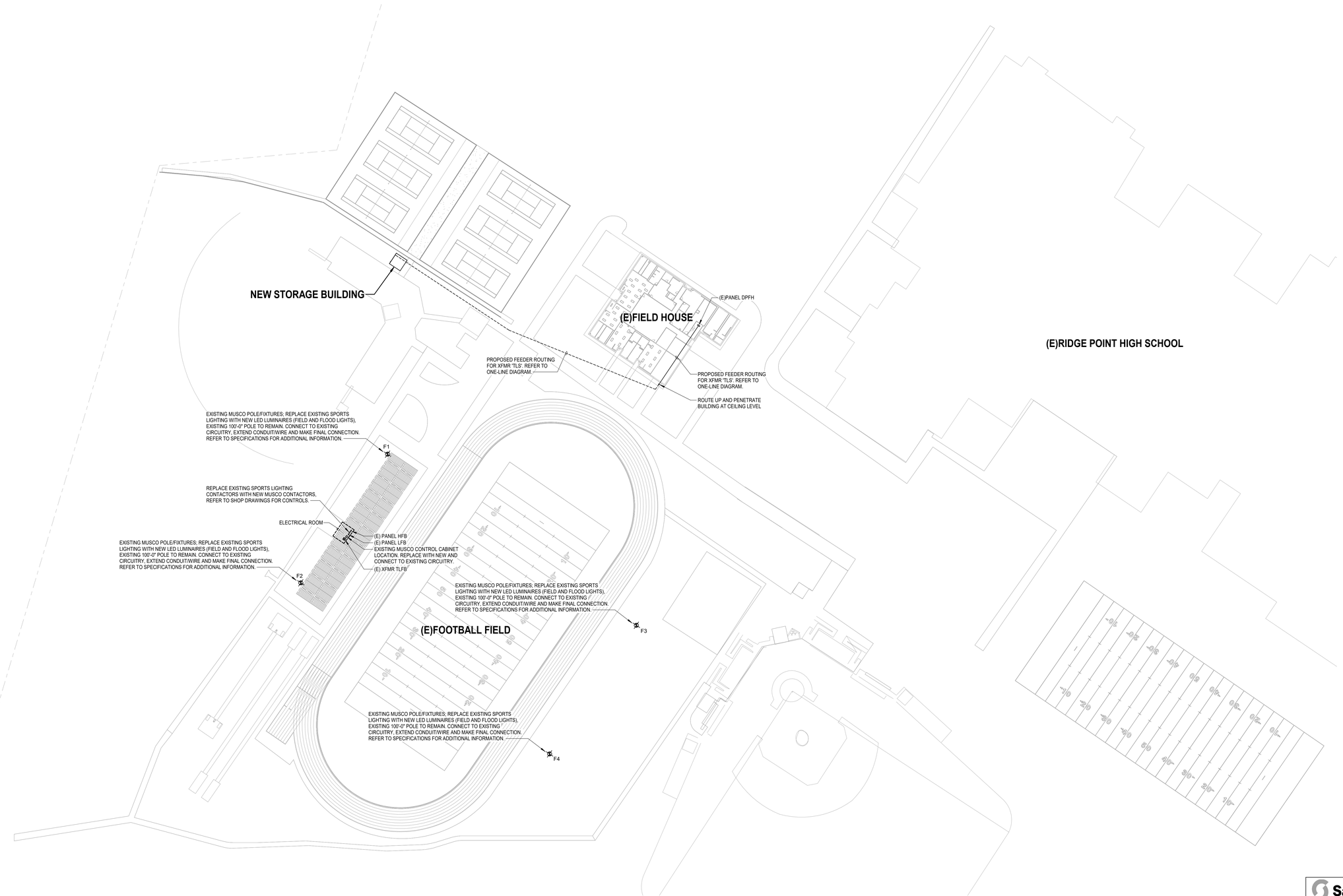
12/3/2025 7:06:45 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/RIDGEPOINT_MEPT_R25.rvt

DEMOLITION / EXISTING DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS ON FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR ON THE DRAWINGS OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.

OWNER OR ITS REPRESENTATIVE SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THIS PROJECT. CONTRACTOR TO NOTIFY A DISTRICT REPRESENTATIVE PRIOR TO DEMOLITION WORK TO DISCUSS ALL RETURNED ITEMS TO DISTRICT.

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC., SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.



1 **ELECTRICAL SITE PLAN**
Scale: 1" = 50'-0"

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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500 Waters Lk Blvd, Missouri City, TX 77459

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16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
STATE OF TEXAS
90219
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 26-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

Δ	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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ELECTRICAL SITE PLAN

RIDGEPOINT HIGH SCHOOL

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Branch Panel: LS

Location: STORAGE 100 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 50A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Receptacles	#12	20 1	0.5 / 0.1			1	20 #12	Lighting	2	
	3	Exterior Lighting	#12	20 1		0.1 / 0.2		1	20 #12	Receptacles	4	
	5	Overhead Door	#12	20 1			0.5 / 0.0	1	20 --	SPARE	6	--
	7	EF-1	#12	20 1	0.2 / 0.0			1	20 --	SPARE	8	--
--	9	SPACE	--	-- 1		0.0 / 0.0		1	20 --	SPARE	10	--
--	11	SPACE	--	-- 1			0.0 / 0.0	1	20 --	SPARE	12	--
--	13	SPACE	--	-- 1	0.0 / 0.0			1	20 --	SPARE	14	--
--	15	SPACE	--	-- 1		0.0 / 0.0		1	20 --	SPARE	16	--
--	17	SPACE	--	-- 1			0.0 / 0.0	1	20 --	SPARE	18	--
--	19	SPACE	--	-- 1	0.0 / 0.0						20	
--	21	SPACE	--	-- 1		0.0 / 0.0		3	30 --	SPDL	22	--
--	23	SPACE	--	-- 1			0.0 / 0.0				24	
			Total Load:		0.7 kVA	0.3 kVA	0.5 kVA					
			Total Amps:		6 A	2 A	4 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	0.2 kVA	100.00%	0.2 kVA		
Lighting	0.2 kVA	125.00%	0.2 kVA	**Total Conn. Load:**	1.5 kVA
Miscellaneous	0.6 kVA	100.00%	0.6 kVA	**Total Est. Demand:**	1.6 kVA
Receptacles	0.5 kVA	100.00%	0.5 kVA	**Total Conn. Current:**	4 A
				Total Est. Demand Current:	4 A

Notes:

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
M - PROVIDE METERING DEVICE

LIGHTING CONTROLS SCHEDULE

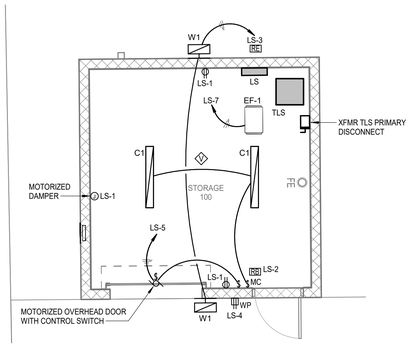
Type	Sensor Operation	# of Lighting Zones	Description
RB	VACANCY - MANUAL ON / AUTO OFF	1	ON/OFF MOMENTARY CONTACT SWITCH, NO DIMMING.
RE	NONE	1	CONTACTOR CONTROLLED WITH PHOTOCELL ON / TIMECLOCK OFF. EXTERIOR LIGHTING SHALL BE TURNED OFF FROM 12:00 AM TO 6:00 AM OR FROM 1 HOUR AFTER CLOSING TO 1 HOUR BEFORE OPENING.

LIGHTING FIXTURE SCHEDULE

Type Mark	CATALOG NUMBER MANUFACTURER	MODEL	MOUNTING	LAMP TYPE	CCT	CRI	VOLTAGE	LOAD	REMARKS
C1	METALUX	4SNX-51SL-LW-UNV-L840-CD1-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	5100L LED	4000 K	80	120 V	32 W	4-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED.
W1	McGRAW EDISON	IST-SA1E-740-U-T4FT-BZ-LCF	WALL	7099L LED	4000 K	70	120 V	58 W	ARCHITECTURAL WALL SCONCE, FORWARD THROW DISTRIBUTION, BRONZE FINISH.

APPROVED LIGHTING MANUFACTURERS:
- LED / FLUORESCENT: LITHONIA, COLUMBIA, METALUX, AXIS, DAYBRITE, HE WILLIAMS, LSI, CREE
- EXIT SIGNS: LITHONIA, CHLORIDE, EMERGI-LITE, DUAL-LITE, SURE LITES, H.E. WILLIAMS
- ARCHITECTURAL HIGH PERFORMANCE FLOOD LIGHTS: WIDE-LITE, HADCO, KIM, McGRAW EDISON, GARDCO, LSI
- INDUSTRIAL: METALUX, LITHONIA, EXCELINE, G.E., HUBBELL, LUMARK, STONCO
- DOWNTRACK LIGHTING: LIGHTOLIER, LITHONIA-GOTHAM, HALO ARCHITECTURAL, PRESCOLITE, HE WILLIAMS, INDY
- SECURITY (WALLPACKS): LITHONIA, McGRAW EDISON, G.E., LSI, HUBBELL, STONCO, GARDCO
- ARCHITECTURAL LINEAR: PEERLESS, LITECONTROL, ALERA, LAM, AMERICAN LINEAR LIGHTING, LEDALITE
- ARCHITECTURAL INDIRECT: INSIGHT, ORIGINAL CAST LIGHTING, SPI, LAM

- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT INDICATED IN THE LIGHT FIXTURE SCHEDULE. WHERE THERE IS AN INCONSISTENCY BETWEEN THE LIGHT SCHEDULE AND THE SPECIFICATIONS, THE BETTER QUALITY OF WORK SHALL BE INCLUDED IN THE PROPOSAL.
- THE ABOVE LISTING MANUFACTURERS LIST DOES NOT IMPLY APPROVAL. APPROVAL WILL BE DETERMINED AFTER REVIEW OF SHOP DRAWING TO DETERMINE IF THE FIXTURE OR POLE SUBMITTED MEETS OR EXCEEDS THE DESIGN STANDARDS AND PERFORMANCE REQUIRED OF THE FIXTURE SPECIFIED IN THE LIGHT FIXTURE SCHEDULE OR SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE SPECIFIED LIGHT FIXTURE IF A SUBSTITUTION IS NOT APPROVED WITHOUT ANY ADDITIONAL COST TO THE OWNER. WHERE SPECIFIC OPTIONS/ACCESORIES ARE SPECIFIED OR REQUIRED, THEY SHALL BE PROVIDED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- DUE TO THE WIDE RANGE OF FIXTURE QUALITIES OFFERED BY EACH MANUFACTURER, THE APPROVED LIGHTING MANUFACTURERS SUBSTITUTION LIST IS NOT INTENDED TO INDICATE THAT ANY OR ALL MANUFACTURERS LISTED WILL HAVE SUITABLE SUBSTITUTIONS FOR THE LIGHT FIXTURES OR POLES SPECIFIED IN THE LIGHT FIXTURE SCHEDULE. SHOP DRAWING AND CONSTRUCTION DELAYS AS A RESULT OF INAPPROPRIATE SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT RESULT IN ANY ADDITIONAL COST TO THE OWNER.



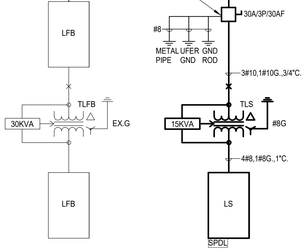
N

9 **ELECTRICAL FLOOR PLAN - LEVEL 1 -TENNIS COURT STORAGE**
Scale: 1/4" = 1'-0"

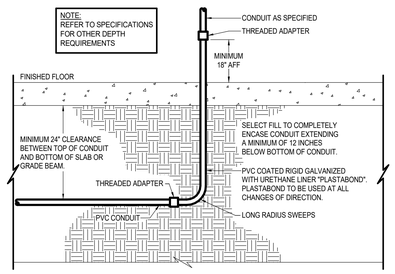
ELECTRICAL LOAD ANALYSIS
277/480V. 3PH., 4W

LOAD DESCRIPTION:	KVA
PEAK KVA @ 125%	1551.3
LOAD REMOVED @100%	-161.3
NEW LIGHTING LOAD @ 125%	69.3
NEW RECEPTACLE LOAD @ 100%	0.5
NEW MISCELLANEOUS LOAD @ 100%	0.8
TOTAL:	1460.6

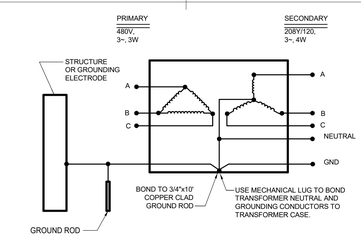
TOTAL / (480 X √3) = 1757.6 (EXISTING 4000-AMP SERVICE)



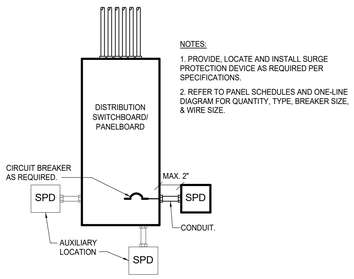
6 **PARTIAL ONE-LINE DIAGRAM**
SCALE: NONE



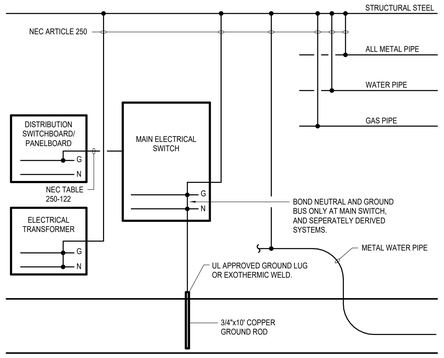
5 CONDUIT BELOW BUILDING SLAB
SCALE: NONE



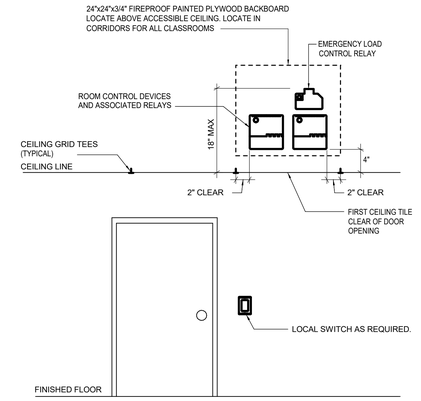
4 TRANSFORMER GROUNDING DETAIL
SCALE: NONE



3 SURGE PROTECTION DETAIL
SCALE: NONE



2 GROUNDING DETAIL
SCALE: NONE



1 TYPICAL LIGHTING CONTROLS ELEVATION
SCALE: NONE

SYMBOL SCHEDULE

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED ON EMERGENCY CIRCUIT
	DOWNLIGHT FIXTURE
	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
	LIGHT FIXTURE - WALL MOUNTED
	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - CEILING MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - WALL MOUNTED ON EMERGENCY CIRCUIT
LIGHTING CONTROLS & DEVICES	
$	LINE VOLTAGE SINGLE POLE SWITCH
$3	LINE VOLTAGE 3-WAY SWITCH
$4	LINE VOLTAGE 4-WAY SWITCH
$K	LINE VOLTAGE MOMENTARY DPST KEYED SWITCH
$D	LINE VOLTAGE DIMMER SWITCH, SIZE AND TYPE AS REQUIRED
$P	LINE VOLTAGE SWITCH WITH PILOT LIGHT
$T	6-HOUR ROTARY TIMER SWITCH WITH NO HOLD U.N.O.
	PUSH BUTTON EPO SWITCH WITH COVER
$MC	LOW VOLTAGE MOMENTARY CONTACT SWITCH
$R	LOW VOLTAGE DIGITAL KEYPAD
$B	LOW VOLTAGE BUILDING MANAGEMENT (BMCS) LOCAL OVERRIDE SWITCH
	OCCUPANCY SENSOR (AUTO ON / AUTO OFF WITHIN 20-MINUTES)
	VACANCY SENSOR (MANUAL ON / AUTO OFF WITHIN 20-MINUTES)
	PHOTOCELL SENSOR
RF	LIGHTING CONTROL SYSTEM. ('F' DENOTES TYPE - SEE LIGHTING CONTROLS SCHEDULE)
ER	EMERGENCY LOAD CONTROL RELAY. MINIMUM 16A AND 0-10V COMPATIBLE. PROVIDE U.L. 924 U.N.O.
RECEPTACLES AND OUTLETS	
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
U	DUPLEX RECEPTACLE WITH TWO USB CHARGING PORTS.
	125/250 VOLT, 1 PHASE, 3-WIRE, 20 AMPS UNLESS NOTED OTHERWISE
	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
U	DOUBLE DUPLEX WITH TWO USB CHARGING PORTS IN 2-GANG BOX WITH SINGLE COVER PLATE
	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	FLUSH FLOOR DUPLEX RECEPTACLE OUTLET
	FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE OUTLET
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	JUNCTION BOX
	FLUSH REMOTE GFCI DEVICE (LOCATE IN READILY ACCESSIBLE LOCATION)
MOTOR CONTROLLERS AND EQUIPMENT	
	MOTOR, MAKE FINAL MOTOR CONNECTION
$	MOTOR-RATED SWITCH. 20A UNLESS INDICATED OTHERWISE.
J	DISCONNECT SWITCH AS REQUIRED
J	COMBINATION MOTOR STARTER/DISCONNECT SWITCH AS REQUIRED
	MOTOR STARTER
	PREWIRED DEVICE, MAKE ELECTRICAL FINAL CONNECTIONS
VFD	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
HF	HIGH EFFICIENCY HARMONIC FILTER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
T	LOW VOLTAGE TRANSFORMER, SIZE AND TYPE AS REQUIRED.
Y	CHIME/BUZZER
ELECTRICAL EQUIPMENT	
	ELECTRICAL PANELBOARD; REFER TO FLOOR PLANS FOR VOLTAGE.
	DRY TYPE TRANSFORMER
	PLYWOOD TELEPHONE BACKBOARD
CIRCUITING	
	CONDUIT
	CONDUIT BELOW FLOOR, SLAB, OR GRADE
	3/4"C. UNLESS OTHERWISE NOTED; LONG HATCH, NEUTRAL; SHORT HATCH, PHASE; LONG HATCH & HOOK, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN.
	PARTIAL ELECTRICAL HOME RUN
SUBSCRIPTS AND ABBREVIATIONS	
WP	INDICATES 'WEATHERPROOF'
H	INDICATES 'HORIZONTAL'
NL	INDICATES 'NIGHT LIGHT'.
TP	INDICATES 'TAMPER PROOF'
(KS)	INDICATES 'KNEE SPACE'. LOCATE WIRING DEVICE IN KNEESPACE
U.N.O.	INDICATES 'UNLESS NOTED OTHERWISE'
(E)	INDICATES EXISTING TO REMAIN
(R)	INDICATES REPLACE DEVICE AND COVERPLATE.
•	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL MILLWORK DRAWINGS AND OTHER TRADES
GENERAL NOTES:	
-ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-4X MINIMUM. -ALL EXTERIOR RECEPTACLES SHALL BE WATER RESISTANT TYPE.	

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES.
2. ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
3. ALL EMPTY CONDUIT SHALL HAVE PULL STRING.
4. EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
5. VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 6" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
6. ALL FIRE ALARM DEVICES, RECEPTACLES, SWITCHES, AND WIRING DEVICES IN MECHANICAL AND ELECTRICAL ROOMS ARE TO BE RECESSED IN WALLS.
7. ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
10. CENTER ALL EXIT SIGNS OVER DOORS.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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FBISD
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REVISIONS:
No. Date Description

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E2.01-R
ELECTRICAL SCHEDULES, DETAILS, AND LEGENDS

RIDGEPOINT HIGH SCHOOL

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TECHNOLOGY SYMBOLS & LEGEND

VOICE SYMBOLS

	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS PER LOCATION.
W	SINGLE VOICE OUTLET FOR WALL-MOUNTED PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +52-INCHES A.F.F. UNLESS OTHERWISE NOTED.

DATA SYMBOLS

	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF DATA OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
W	SINGLE DATA OUTLET FOR WALL-MOUNTED IP PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +42-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X COW	DATA CABLE FOR COMPUTER ON WHEELS, CABLE TYPE AS SPECIFIED MOUNTED + 18-INCHES A.F.F UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
X WAPW	DATA CABLE FOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPC	DATA CABLE FOR CEILING MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMW	DATA CABLE FOR INTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMC	DATA CABLE FOR CEILING MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

X CAME	DATA CABLE FOR EXTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLLATION.
X PRJW	DATA CABLE FOR WALL MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
PRJC	DATA CABLE FOR CEILING MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X AVCE	DATA CABLE FOR CEILING MOUNTED AUDIO/VISUAL EQUIPMENT ENCLOSURE, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A BLUE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
R	POWER POLE WITH ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION. TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
WAP	WIRELESS ACCESS POINT. EQUIPMENT AS SPECIFIED.

GENERAL SYMBOLS

# SHEET DRAWING TITLE SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
SHEET #	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES TELECOMMUNICATIONS REGION

VOICE/DATA SYMBOLS

	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF VOICE TERMINATIONS , Y = NUMBER OF DATA TERMINATIONS PER LOCATION.
	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF VOICE OUTLETS AND Y = NUMBER OF DATA OUTLETS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET AND SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X Y	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X Y	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS PER LOCATION.

FIBER OPTIC SYMBOLS

	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF FIBER OPTIC OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.

CABLE PLANT & RISER DIAGRAM

	MAINTENANCE HOLE, SIZE & TYPE AS SPECIFIED.
	PULLBOX, SIZE AND TYPE AS SPECIFIED.
UGC	DIRECT BURIED COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
AER	AERIAL COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
	CONDUIT, SIZE AND TYPE AS SPECIFIED.

COMMUNICATION AND SECURITY CABLING JACKET COLOR CODE

TYPICAL WORK AREA OUTET	BLUE - REFERENCE SPEC SECTION 27 10 00
WIRELESS ACCESS POINT	GREEN - REFERENCE SPEC SECTION 27 10 00
SECURITY(INTRUSION, ACCESS CONTROL, VIDEO SURVEILLANCE)	ORANGE - REFERENCE SPEC SECTION 28 13 00, 28 16 00, AND 27 10 00
BUILDING WIDE PUBLIC ADDRESS / INTERCOM	WHITE - REFERENCE SPEC SECTION 27 51 00
AUDIOVISUAL	BLACK - REFERENCE SPEC SECTION 27 41 16
LIGHTING CONTROL	LIME GREEN - REFERENCE MEP SPECIFICATIONS
BAS	YELLOW - REFERENCE MEP SPECIFICATIONS
FIRE ALARM	RED - REFERENCE MEP SPECIFICATIONS

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
DEMARC	DEMARCATION POINT
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
GIP	GALVANIZED IRON PIPE
HE	PA/INTERCOM HEAD-END
IMC	INTERMEDIATE METAL CONDUIT
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MH	MAINTENANCE HOLE
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PVC	POLYVINYL CHLORIDE
RSC	RIGID STEEL CONDUIT
SM	SINGLE MODE
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
TR	TELECOMMUNICATION REGION
UGC	UNDERGROUND COMMUNICATION
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR

NOTES

1. CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF TECHNOLOGY DRAWINGS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. TECHNOLOGY DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.

INDEX OF DRAWINGS

T000-R TECHNOLOGY SYMBOLS & LEGEND
T100-R TECHNOLOGY SITE PLAN
T201-R TECHNOLOGY LEVEL 01 FLOOR PLAN - FIELD HOUSE

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
500 Walters Lk Blvd, Missouri City, TX 77459
RIDGEPOINT HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
No. Date Description

100% CD

T000-R
TECHNOLOGY
SYMBOLS & LEGEND

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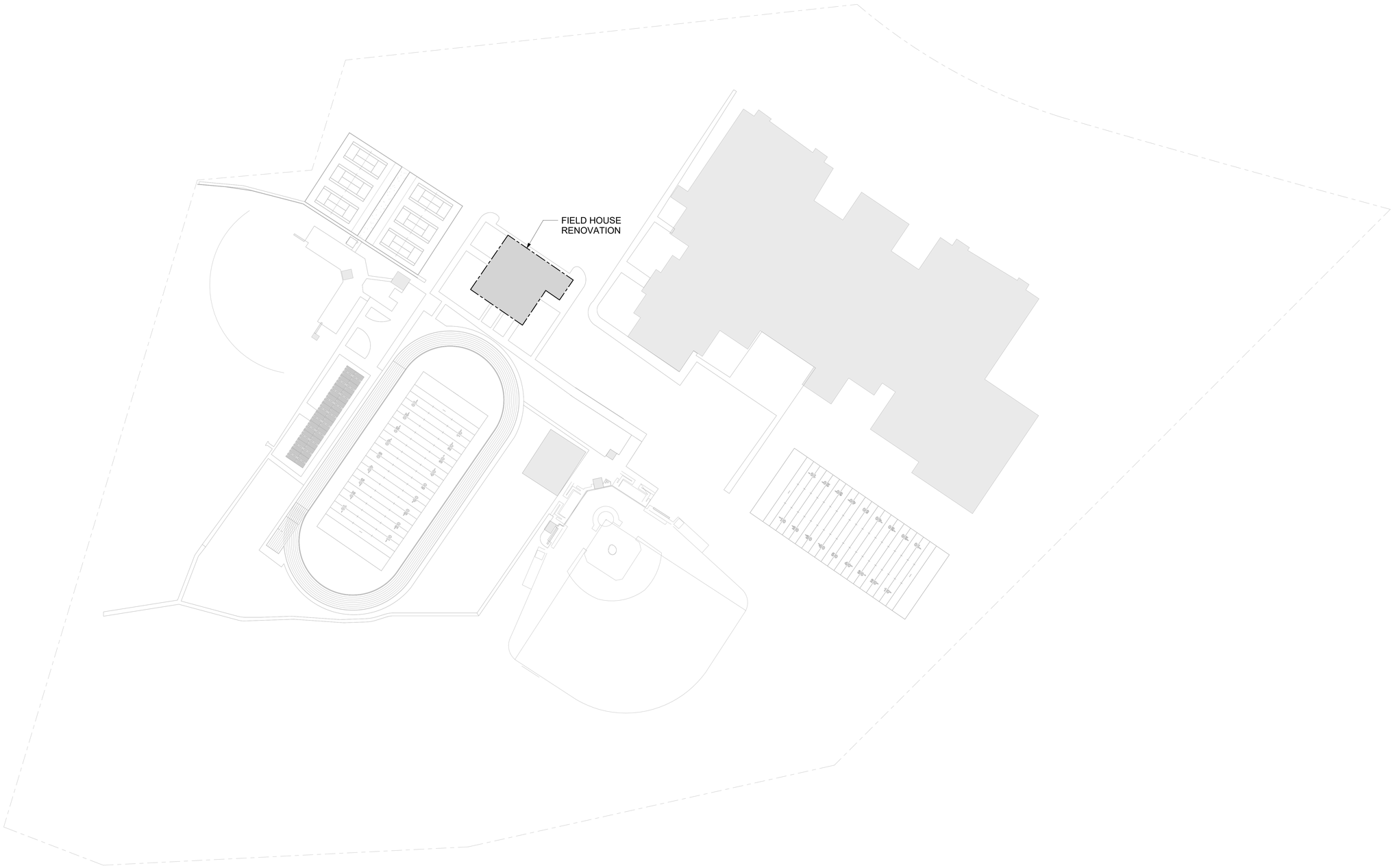

1 T100-R TECHNOLOGY SITE PLAN
1" = 80'-0"

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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500 Waters Lk Blvd, Missouri City, TX 77459
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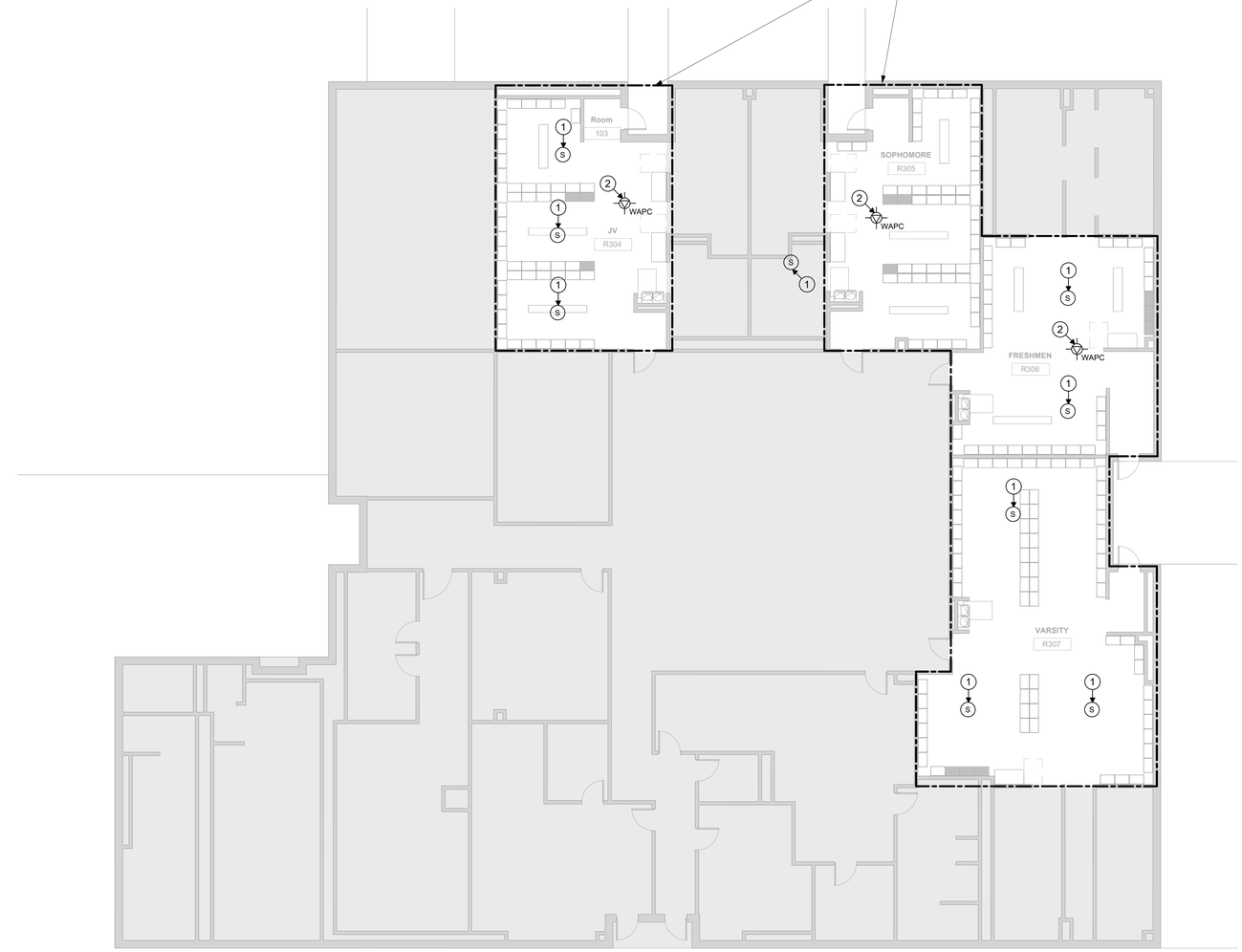
No.	Date	Description

100% CD
T100-R
TECHNOLOGY SITE PLAN

AREA OF RENOVATIONS. ALL EXISTING PUBLIC ADDRESS, WIRELESS ACCESS POINTS, AND SECURITY DEVICES IN THE CEILING TO BE DEMOLISHED WILL REMAIN. CONTRACTOR SHALL TEST EACH SYSTEM PRE AND POST CONSTRUCTION FOR FUNCTIONALITY. REFERENCE SPECIFICATIONS SECTIONS 27 10 00 STRUCTURED CABLING AND 27 51 00 PUBLIC ADDRESS AND CLOCK SYSTEM FOR CONTRACTOR QUALIFICATIONS



1 T201-R TECHNOLOGY LEVEL 01 FLOOR PLAN - FIELD HOUSE
1/8" = 1'-0"

TECHNOLOGY DEMOLITION GENRAL NOTES

1. ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS SHALL REMAIN OPERATIONAL AT ALL TIMES DURING BUSINESS HOURS. ANY SYSTEM DOWNTIME SHALL BE SCHEDULED WITH THE ARCHITECT/ENGINEER AND OWNER AT LEAST TEN (10) WORKING DAYS IN ADVANCE. THE CONTRACTOR SHALL DEVELOP A PHASING PLAN AND SCHEDULE OF ANY SYSTEM DOWNTIME REQUIRED FOR REVIEW AND APPROVAL BY THE ARCHITECT/ENGINEER AND OWNER PRIOR TO ANY CONSTRUCTION ACTIVITIES.
2. THE EQUIPMENT ROOMS AND TELECOM ROOMS ENVIRONMENTAL CONTROLS SHALL BE MAINTAINED AT ALL TIMES. THE EQUIPMENT ROOMS AND TELECOM ROOMS TEMPERATURE SHALL REMAIN BETWEEN 60-70 DEGREES F WITH RELATIVE HUMIDITY OF 30% - 50% NON-CONDENSING. THE TEMPERATURE RANGE OF THE EQUIPMENT ROOMS AND TELECOM ROOMS SHALL BE MAINTAINED BETWEEN + -9 DEGREES F FROM DISTRICT SETPOINT.
3. THE OWNER SHALL BE RESPONSIBLE FOR POWER DOWN AND START- UP OF ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS. THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/ENGINEER AND OWNER AND PROVIDE A MINIMUM OF TEN (10) WORKING DAYS NOTICE FOR SCHEDULING OF ANY REQUIRED DOWNTIME.
4. ALL EXISTING CONDITIONS AS SHOWN ARE APPROXIMATELY CORRECT. NOT ALL EXISTING CONDITIONS ARE SHOWN. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY ALL THE EXISTING CONDITIONS AS REQUIRED TO PROPERLY PROVIDE A BID/PROPOSAL AND PERFORM ALL REQUIRED WORK.
5. ALL EXISTING FIBER BACKBONE, HORIZONTAL DATA CABLE, HORIZONTAL VOICE CABLE AND J-HOOK PATHWAYS SHALL BE REMOVED IN THEIR ENTIRETY AS INDICATED ON TD-SERIES DRAWINGS. ALL OTHER FIBER OPTIC CABLE AND COPPER BACKBONE ARE CRITICAL COMPONENTS FOR THE CAMPUS AND THE DISTRICT FIBER RING AND SHALL REMAIN PROTECTED AND OPERATIONAL AT ALL TIMES.
6. ALL EXISTING COAXIAL CABLE (.500/ RG-6/RG-59) FOR CATV IS TO REMAIN IN PLACE AND OPERATIONAL.
7. ALL EXISTING WIRELESS ACCESS POINTS SHALL BE REMOVED AND RETURNED TO THE OWNER. THE CONTRACTOR SHALL RE-INSTALL ALL EXISTING AND NEW WIRELESS ACCESS POINTS AT THE COMPLETION OF THE PROJECT.
8. COORDINATE REMOVAL OF EXISTING CAMERA(S) WITH OWNER/ARCHITECT DURING CONSTRUCTION.

TECHNOLOGY DEMOLITION KEYED NOTES

(1) EXISTING BUILDING INTERCOM / PA SPEAKER AND /CABLES TO REMAIN. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

(2) EXISTING WIRELESS ACCESS POINT SHALL BE REMOVED AND RE- INSTALLED AT THE END OF THE PROJECT. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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16431 Lexington Blvd.
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REGISTERED ARCHITECT
MICHAEL A. CAMPE
20113
STATE OF TEXAS
12-05-2025

PROJECT NO.	26-006
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DRAWN BY: BP	CHECKED BY: CCG

REVISIONS:

	Date	Description

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T201-R
TECHNOLOGY LEVEL 01 FLOOR PLAN - FIELD HOUSE

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FORT BEND ISD
BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

TRAVIS HIGH SCHOOL

100% CONSTRUCTION DOCUMENTS

INDEX OF DRAWINGS

GENERAL
- G0.00-T COVER
- G0.01-T TAS 1 OF 2
- G0.02-T TAS 2 OF 2
- G0.03-T LEVEL 01 CODE PLAN COMPETITION GYM
- G0.04-T LEVEL 01 CODE PLAN FIELD HOUSE LOCKERS

CIVIL
- C 0.01-T CIVIL SPORTS GENERAL NOTES
- C 0.02-T CIVIL SPORTS SURVEY REFERENCE ONLY
- C 0.03-T CIVIL SPORTS SURVEY REFERENCE ONLY
- C 0.04-T CIVIL SPORTS DEMOLITION PLAN
- C 1.01-T CIVIL SPORTS SITE PLAN
- C 2.01-T CIVIL SPORTS DRAINAGE PLAN
- C3.01-T CIVIL SPORTS GRADING PLAN
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STRUCTURAL
- S1.01-T GENERAL NOTES
- S1.02-T GENERAL NOTES, ABBREVIATIONS, SYMBOLS
- S2.01-T FOUNDATION PLAN FIELD HOUSE
- S2.02-T FOUNDATION PLAN SOFTBALL FIELD
- S3.01-T TYPICAL FOUNDATION DETAILS
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- S4.01-T TYPICAL CMU WALL DETAILS

ARCHITECTURE
- A0.00-T SYMBOLS & ABBREVIATIONS
- A1.00-T ARCHITECTURAL SITE PLAN
- A1.01-T SITE DETAILS TRACK AND ENLARGED SITE PLAN
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- A2.00-T 01 FLOOR PLAN FIELDHOUSE STORAGE
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- A2.02-T 01 FLOOR PLAN ATHLETICS GYM
- A8.00-T DOOR SCHEDULE
- A9.00-T MATERIAL SCHEDULE & INTERIOR DETAILS
- A10.00-T REFLECTED CEILING PLAN FIELD HOUSE LOCKERS

MECHANICAL
- M1.01-T MECHANICAL FLOOR PLAN - STORAGE - T

ELECTRICAL
- E1.01-T ELECTRICAL FLOOR PLAN - FIELDHOUSE & STORAGE - T
- E2.01-T ELECTRICAL SCHEDULES, DETAILS, AND LEGENDS

TECHNOLOGY
- T000-T TECHNOLOGY SYMBOLS & LEGEND
- TD201-T TECHNOLOGY DEMO FLOOR PLAN FIELD HOUSE LOCKERS
- T100-R TECHNOLOGY SITE PLAN
- T201-R TECHNOLOGY FLOOR PLAN FIELD HOUSE LOCKERS

SCOPE OF WORK

SID12519-RENOVATE TRACK AND FIELD EVENT. RESURFACE TRACK
SID12532-REPAIR/REPLACE ATHLETIC ELEMENTS AT COMPETITION GYM
- WALL PADS
- WALL BASE
- BLEACHER REPAIRS

SID12542-PROVIDE NEW BACKSTOPS/NETTING FOR SOFTBALL FIELDS
- BACKSTOP NETTING (40')
- BACKSTOP PADDING
- CMU BLOCK WALL

SECTION 02: ALTERNATE NO. 7 -STORAGE NEAR FIELD HOUSE
- PREFAB METAL BUILDING

SECTION 02: NEW LOCKERS AND BENCHES IN FIELD HOUSE
- NEW LOCKERS
- NEW BENCHES
- NEW CEILING TILES

BOARD OF TRUSTEES

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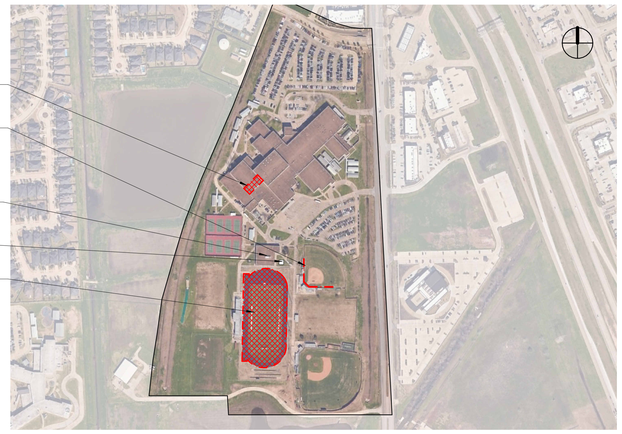
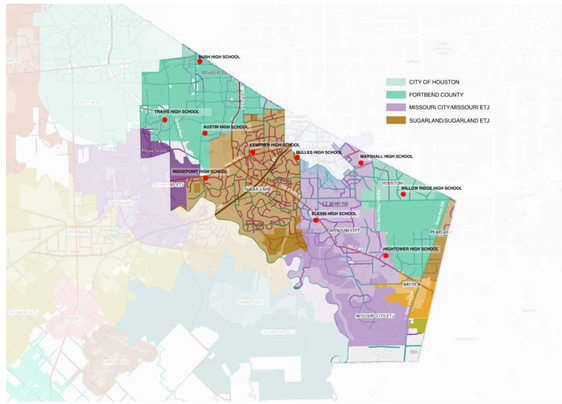
TRAVIS HIGH SCHOOL CAMPUS KEY PLAN



LOCATION MAP



ALTERNATES:

ALTERNATES NO. 7 - TRAVIS HIGH SCHOOL: METAL STORAGE NEAR FIELD HOUSE.

CIVIL

TEXAS SPORTS AND CIVIL ENGINEERING
11767 Katy Freeway, Suite 1112
Houston, TX 77079
P: 346.204.4854
www.texsce.com

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HOUSTON, TX 77064
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HOUSTON, TX 77056
P: (713) 664-0130
matrixstructural.com

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PFLUGER ARCHITECTS
2 GREENWAY PLAZA #460
HOUSTON, TX 77046
P:(713) 222-1141
WWW.PFLUGERARCHITECTS.COM

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
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BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
11111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

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TRAVIS HIGH SCHOOL

12/4/2025 10:47:44 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_TRAVIS_ARCH_FBISD ATHLETIC RENOVATIONS BP012-T_R25.rvt

THE FOLLOWING SECTION OF DETAILS PROVIDES INFORMATION ON REQUIREMENTS FOR DISABLED ACCESSIBILITY. THE REQUIREMENTS COMBINE MINIMUM REQUIREMENTS OF STATE AND FEDERAL AGENCIES. THE PURPOSE OF THIS SECTION IS TO HELP AVOID INSTALLATION OF MATERIALS ON CONSTRUCTION PROJECTS THAT WOULD LIMIT ACCESSIBILITY. THE SCOPE OF THIS SECTION IS LIMITED AND THE INDIVIDUALS WORKING ON THE PROJECT SHOULD FAMILIARIZE THEMSELVES WITH TEXAS ACCESSIBILITY STANDARD (TAS) AND AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COPIES OF THESE DOCUMENTS MAY BE OBTAINED BY CONTACTING THE FOLLOWING:

TAS:
TEXAS DEPT. OF LICENSING & REGULATION
P.O. BOX 12157
AUSTIN, TEXAS 78711
(800) 803-9202
TDD (800) 735-2989
WWW.LICENSE.STATE.TX.US

ADAAG:
SOUTHWEST DISABILITY AND BUSINESS
TECHNICAL ASSISTANCE CENTER FOR
REGION VI.
2323 S. SHEPERD, SUITE 1000
HOUSTON, TEXAS 77019
ADA HOTLINE: (800) 949-4232
TDD: (713) 520-5136 -OR- (713) 520-0232
FAX: (713) 520-5785

IN THE EVENT THE INFORMATION ON THE PLAN SHEETS DOES NOT MEET THE MINIMUM REQUIREMENTS OF THE SECTION, THEN THE INFORMATION SHALL BE PRESENTED TO THE ARCHITECT FOR CLARIFICATION PRIOR TO CONSTRUCTION OF SPECIFIC AREA OF WORK.

ELIMINATION OF ARCHITECTURAL BARRIERS
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (ADA)

IN ACCORDANCE WITH ACCESSIBILITY REQUIREMENTS, THE FOLLOWING STANDARDS SHALL BE INCLUDED WHEN BIDDING ON PROJECTS INVOLVING RENOVATION OF OR NEW FACILITIES FOR PUBLIC ACCOMMODATION OR COMMERCIAL FACILITIES. ANY ITEMS NOT CONFORMING TO THESE OR ANY OTHER STANDARDS, CODES, OR ORDINANCES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT FOR HIS INTERPRETATION. IN THE EVENT THE INFORMATION LISTED IN THIS DOCUMENT CONFLICTS WITH ANY PORTION OF THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT, IN WRITING, OF HIS NEED FOR A SOLUTION TO RESOLVE THE CONFLICT. THE MOUNTING HEIGHTS INDICATED ARE FOR ITEMS THAT REQUIRE ACCESSIBILITY BY DISABLED INDIVIDUALS. WHERE TWO OR MORE ITEMS ARE GROUPED IN ONE AREA (MIRRORS, SINKS, TOILETS, DRINKING FOUNTAINS, URINALS, SHELVES, TELEPHONES, ETC.) NOT ALL ITEMS IN THE AREA HAVE TO BE MOUNTED AT HANDICAP HEIGHT. CONTRACTOR TO COORDINATE THESE INSTALLATION HEIGHTS WITH OTHER MATERIALS FOR NEAT, TRIMMED OUT AND FINISHED APPEARANCE. ITEMS FOR DISABLED INDIVIDUAL USE SHALL BE MOUNTED AT HEIGHT INDICATED FOR AGE LEVEL AS NOTED.

CHAPTER 1: APPLICATION AND ADMINISTRATION

TAS SECTION 104 - CONVENTIONS
A. ALL DIMENSIONS ARE SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES EXCEPT WHERE THE REQUIREMENT IS STATED AS A RANGE WITH SPECIFIC MINIMUM AND MAXIMUM POINTS.
B. UNLESS SPECIFICALLY STATED OTHERWISE, FIGURES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

CHAPTER 2: SCOPING REQUIREMENTS

TAS SECTION 201.1 - SCOPE
A. ALL AREAS OF NEWLY DESIGNED AND NEWLY CONSTRUCTED BUILDINGS AND FACILITIES AN ALTERED PORTIONS OF EXISTING BUILDINGS AND FACILITIES SHALL COMPLY WITH THESE REQUIREMENTS.
TAS SECTION 202 - EXISTING BUILDINGS AND FACILITIES
A. EACH ADDITION TO AN EXISTING BUILDING OR FACILITY SHALL COMPLY WITH THE REQUIREMENTS FOR NEW CONSTRUCTION. EACH ADDITION THAT AFFECTS OR COULD EFFECT THE USABILITY OF OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL COMPLY WITH 202.4.
B. WHERE EXISTING ELEMENTS, SPACES, OR COMMON USE AREAS ARE ALTERED, EACH ALTERED ELEMENT, SPACE, OR COMMON USE AREA SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 2.
C. AN ALTERATION THAT DECREASES THE ACCESSIBILITY OF A BUILDING OR FACILITY BELOW THE REQUIREMENTS FOR NEW CONSTRUCTION AT THE TIME OF THE ALTERATION IS PROHIBITED.
D. AN ALTERATION OF AN EXISTING ELEMENT, SPACE, OR AREA OF A BUILDING OR FACILITY SHALL NOT IMPOSE A REQUIREMENT FOR ACCESSIBILITY GREATER THAN REQUIRED FOR NEW CONSTRUCTION.
E. ALTERATIONS THAT AFFECT THE USABILITY OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL BE MADE SO AS TO ENSURE USAGE BY INDIVIDUALS WITH DISABILITIES.
TAS SECTION 204 - PROTRUDING OBJECTS
A. WITHIN AREAS OF ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOM AND SPACES SHALL COMPLY WITH 309.
B. WITHIN AREAS OF SPORTS ACTIVITY, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307.
C. WITHIN PLAY AREAS, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307 PROVIDED THAT GROUND LEVEL ACCESSIBLE ROUTES PROVIDE VERTICAL CLEARANCE IN COMPLIANCE WITH 1008.2.
TAS SECTION 205 - OPERABLE PARTS
A. OPERABLE PARTS ON ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOMS AND SPACES SHALL COMPLY WITH 309.
B. OPERABLE PARTS INTENDED FOR USE ONLY BY SERVICE OR MAINTENANCE PERSONNEL SHALL NOT BE REQUIRED TO COMPLY WITH 309.
C. ELECTRICAL OR COMMUNICATION RECEPTACLES SERVING A DEDICATED USE SHALL NOT BE REQUIRED TO COMPLY WITH 309.
TAS SECTION 206 - ACCESSIBLE ROUTES
A. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
B. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE
C. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH STORY AND MEZZANINE IN MULTI-STORY BUILDINGS AND FACILITIES.
D. IN RESTAURANTS AND CAFETERIAS, AN ACCESSIBLE ROUTE SHALL BE PROVIDED TO ALL DINING AREAS, INCLUDING RAISED OR SUNKEN DINING AREAS, AND OUTDOOR DINING AREAS.
E. WHERE A CIRCULATION PATH DIRECTLY CONNECTS A PERFORMANCE AREA TO AN ASSEMBLY AREA, AN ACCESSIBLE ROUTE SHALL DIRECTLY CONNECT THE ASSEMBLY SEATING AREA WITH THE PERFORMANCE AREA. AN ACCESSIBLE ROUTE SHALL BE PROVIDED FROM PERFORMANCE AREAS TO ANCILLARY AREAS OR FACILITIES USED BY PERFORMERS.
TAS SECTION 207 - ACCESSIBLE MEANS OF EGRESS
A. MEANS OF EGRESS SHALL COMPLY WITH SECTION 1003.2.13 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION.)
B. STANDBY POWER SHALL BE PROVIDED FOR PLATFORM LIFTS PERMITTED BY SECTION 1003.2.13.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007.5 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO SERVE AS A PART OF AN ACCESSIBLE MEANS OF EGRESS.
TAS SECTION 208 - PARKING SPACES
A. PARKING SPACES SHALL COMPLY WITH 502 AND SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 208.2 EXCEPT REQUIRED BY 208.2.1, 208.2.2, AND 208.2.3. WHERE MORE THAN ONE PARKING FACILITY IS PROVIDED ON A SITE, THE NUMBER OF ACCESSIBLE SPACES PROVIDED ON THE SITE SHALL BE CALCULATED ACCORDING TO THE NUMBER OF SPACES REQUIRED FOR EACH PARKING FACILITY.

TABLE 208.2 PARKING SPACES

TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES	TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES
1 TO 25	1	201 TO 300	7
26 TO 50	2	301 TO 400	8
51 TO 75	3	401 TO 500	9
76 TO 100	4	501 TO 1000	2 PERCENT OF TOTAL
101 TO 150	5	1000 AND OVER	20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000
151 TO 200	6		

TAS SECTION 208.2.4 - VAN PARKING SPACES
A. FOR EVERY SIX OR FRACTION OF SIX PARKING SPACES REQUIRED BY 208.2 TO COMPLY WITH 502, AT LEAST ONE SHALL BE A VAN PARKING SPACE COMPLYING WITH 502.
TAS SECTION 208.3 - LOCATION
A. PARKING SPACES COMPLYING WITH 502 THAT SERVE A PARTICULAR BUILDING OR FACILITY SHALL BE LOCATED ON THE SHORTEST POSSIBLE ACCESSIBLE ROUTE FROM PARKING LOT TO AN ENTRANCE. WHERE PARKING SERVES MORE THAN ONE ACCESSIBLE ENTRANCE, PARKING SPACES COMPLYING WITH 502 SHALL BE DISPERSED AND LOCATED AT THE SHORTEST ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCES.
TAS SECTION 209 - PASSENGER LOADING ZONES AND BUS STOPS
A. PASSENGER LOADING ZONES, EXCEPT THOSE REQUIRED TO COMPLY WITH 209.2.2 AND 209.2.3, SHALL PROVIDE AT LEAST ONE PASSENGER LOADING ZONE COMPLYING WITH 503 IN EVERY CONTINUOUS 100 LINEAR FEET (30M) OF LOADING ZONE SPACE, OR FRACTION THEREOF.
B. IN BUS LOADING ZONES RESTRICTED TO USE BY DESIGNATED OR SPECIFIED PUBLIC TRANSPORTATION VEHICLES, EACH BUS BAY, BUS STOP, OR OTHER AREA DESIGNATED FOR LIFT OR RAMP DEPLOYMENT SHALL COMPLY WITH 810.2
TAS SECTION 210 - STAIRWAYS
A. INTERIOR AND EXTERIOR STAIRS THAT ARE PART OF A MEANS OF EGRESS SHALL COMPLY WITH 504. ALTHOUGH HANDRAILS ON STAIRS THAT ARE NOT PART OF A MEANS OF EGRESS, STATE OR LOCAL BUILDING CODES MAY REQUIRE HANDRAILS OR GUARDS.
TAS SECTION 211 - DRINKING FOUNTAINS
A. NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED.
B. MORE THAN THE MINIMUM NUMBER OF DRINKING FOUNTAINS SPECIFIED IN 211.2 ARE PROVIDED, 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.1 THROUGH 602.6, AND 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.7
TAS SECTION 212 - KITCHENS, KITCHENETTES, AND SINKS
A. KITCHENS AND KITCHENETTES SHALL COMPLY WITH 804.
B. WHERE SINKS ARE PROVIDED, AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE, OF EACH TYPE PROVIDED IN EACH ACCESSIBLE ROOM OR SPACE SHALL COMPLY WITH 606.
TAS SECTION 213 - TOILET FACILITIES AND BATHING FACILITIES
A. WHERE TOILET FACILITIES AND BATHING FACILITIES ARE PROVIDED, THEY SHALL COMPLY WITH 213. TOILET FACILITIES AND BATHING FACILITIES SHALL BE PROVIDED ON A STORY CONNECTED BY AN ACCESSIBLE ROUTE TO AN ACCESSIBLE ENTRANCE.
B. TOILET RESTROOMS AND BATHING ROOMS SHALL COMPLY WITH 603.
C. WHERE MULTIPLE SINGLE USER TOILET ROOMS ARE CLUSTERED AT A SINGLE LOCATION, NO MORE THAN 50% OF THE SINGLE USER TOILET ROOMS FOR EACH USE AT EACH CLUSTER SHALL BE REQUIRED TO COMPLY WITH 603.
D. UNISEX TOILET ROOMS AND UNISEX BATHING ROOMS SHALL CONTAIN NOT MORE THAN ONE LAVATORY, AND TWO WATER CLOSETS WITHOUT URINALS OR ONE WATER CLOSET AND ONE URINAL. UNISEX BATHING ROOMS CONTAIN ONE SHOWER OR ONE SHOWER AND ONE BATHTUB, ONE LAVATORY, AND ONE WATER CLOSET. DOORS TO UNISEX RESTROOMS AND BATHING ROOMS SHALL HAVE PRIVACY LATCHES.
TAS SECTION 214 - WASHING MACHINES AND CLOTHES DRYERS
A. WHERE 3 OR FEWER WASHING MACHINES ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 WASHING MACHINES ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
B. WHERE 3 OR FEWER CLOTHES DRYERS ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 CLOTHES DRYERS ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
TAS SECTION 215 - FIRE ALARM SYSTEMS
A. ALARMS IN PUBLIC USE AREAS AND COMMON USE AREAS SHALL COMPLY WITH 702.
B. WHERE EMPLOYEE WORK AREAS HAVE AUDIBLE ALARM COVERAGE, THE WIRING SYSTEM SHALL BE DESIGNED SO THAT THE VISIBLE ALARMS COMPLYING WITH 702 CAN BE INTEGRATED INTO THE ALARM SYSTEM.
TAS SECTION 216 - SIGNS
A. SIGNS SHALL COMPLY WITH 703. BUILDING DIRECTORIES, MENUS, SEAT AND ROW DESIGNATIONS IN ASSEMBLY AREAS, OCCUPANT NAMES, BUILDING ADDRESSES, AND COMPANY NAMES AND LOGOS SHALL NOT BE REQUIRED TO COMPLY WITH 216.
B. SIGNS REQUIRED BY SECTION 1003.2.13.5.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 1007.6.4 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE INSTRUCTIONS IN AREAS OF REFUGE SHALL COMPLY WITH 703.5.
C. DIRECTIONAL SIGNS REQUIRED BY SECTION 1003.2.13.6 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 707.7 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE DIRECTIONS TO ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 703.5.
D. WHERE NOT ALL ENTRANCES COMPLY WITH 404, ENTRANCES COMPLYING WITH 404 SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1. DIRECTIONAL SIGNS COMPLYING WITH 703.5 THAT INDICATE THE LOCATION OF THE NEAREST ENTRANCE COMPLYING WITH 404 SHALL BE PROVIDED AT ENTRANCES THAT DO NOT COMPLY WITH 404.
TAS SECTION 217 - TELEPHONES
A. WHERE PUBLIC TELEPHONE ARE PROVIDED, WHEELCHAIR ACCESSIBLE TELEPHONES COMPLYING WITH 704.2 SHALL BE PROVIDED.

CHAPTER 2: SCOPING REQUIREMENTS (CONTINUED)

TAS SECTION 219 - ASSISTIVE LISTENING SYSTEMS
A. IN EACH ASSEMBLY AREA WHERE AUDIBLE COMMUNICATION IS INTEGRAL TO THE USE OF THE SPACE, AN ASSISTIVE LISTENING SYSTEM SHALL BE PROVIDED.
B. WHERE ALL SEATS IN AN ASSEMBLY AREA ARE SERVED BY AN INTRODUCTION LOOP ASSISTIVE LEARNING SYSTEM, THE MINIMUM NUMBER OF RECEIVERS REQUIRED BY TABLE 219.3 TO BE HEARING-AID COMPATIBLE SHALL NOT BE REQUIRED TO BE PROVIDED.
TAS SECTION 220 - AUTOMATIC TELLER MACHINES AND FARE MACHINES
A. WHERE AUTOMATIC TELLER MACHINES OR SELF-SERVICE FARE VENDING, COLLECTION, OR ADJUSTMENT MACHINES ARE PROVIDED, AT LEAST ONE OF EACH TYPE PROVIDED AT EACH LOCATION SHALL COMPLY WITH 707. WHERE BINS ARE PROVIDED FOR ENVELOPES, WASTE PAPER, OR OTHER PURPOSES, AT LEAST ONE OF EACH SHALL COMPLY WITH 811.
TAS SECTION 221 - ASSEMBLY AREAS
A. ASSEMBLY AREAS SHALL PROVIDE WHEELCHAIR SPACES, COMPANION SEATS, AND DESIGNATED AISLE SEATS COMPLYING WITH 221 AND 802.
B. WHEELCHAIR SPACES COMPLYING WITH 802.1 SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 221.2.1.1.
C. WHEELCHAIR SPACES SHALL BE AN INTEGRAL PART OF THE SEATING PLAN.
D. WHEELCHAIR SPACES SHALL PROVIDE LINES OF SIGHT COMPLYING WITH 802.2. IN PROVIDING LINES OF SIGHT, WHEELCHAIR SPACES SHALL BE DISPERSED. WHEELCHAIR SPACES SHALL PROVIDE SPECTATORS WITH CHOICES OF SEATING LOCATIONS OR VIEWING ANGLES EQUAL TO OR BETTER THAN SEATING LOCATIONS AND VIEWING ANGLES OF OTHER SPECTATORS.
E. AT LEAST 5% OF THE TOTAL NUMBER OF AISLE SEATS PROVIDED SHALL COMPLY WITH 802.4 AND SHALL BE THE AISLE SEATS LOCATED CLOSEST TO THE ACCESSIBLE ROUTES.

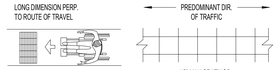
TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES	NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES
4 TO 25	1	301 TO 500	6
26 TO 50	2	501 TO 5000	6, PLUS 1 FOR EACH 150, OR FRACTION THEREOF, BETWEEN 501 THROUGH 5000
51 TO 150	4	5001 AND OVER	36, PLUS 1 FOR EACH 200, OR FRACTION THEREOF, OVER 5000
151 TO 300	5		

TAS SECTION 222 - DRESSING, FITTING, AND LOCKER ROOMS
A. WHERE DRESSING ROOMS, FITTING ROOMS, OR LOCKER ROOMS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE, OF EACH TYPE OF USE IN EACH CLUSTER PROVIDED SHALL COMPLY WITH 803.
B. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN DRESSING FITTING OR LOCKER ROOMS W/O INDIVIDUAL COMPARTMENTS, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 803.5. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN INDIVIDUAL COMPARTMENTS AT LEAST ONE OF EACH TYPE SHALL BE PROVIDED IN ACCORDANCE WITH 223.
TAS SECTION 223 - MEDICAL CARE AND LONG-TERM CARE FACILITIES
A. IN LICENSED MEDICAL CARE FACILITIES AND LICENSED LONG-TERM CARE FACILITIES WHERE THE PERIOD OF STAY EXCEEDS TWENTY-FOUR HOURS, PATIENT OR RESIDENT SLEEPING ROOMS SHALL BE PROVIDED IN ACCORDANCE WITH 223. TOILET ROOMS PART OF CRITICAL OR INTENSIVE CARE PATIENT SLEEPING ROOMS SHALL NOT BE REQUIRED TO COMPLY WITH 603.
TAS SECTION 224 - TRANSIENT LODGING FACILITIES AND GUEST ROOMS
A. TRANSIENT LODGING FACILITIES SHALL PROVIDE GUEST ROOMS IN ACCORDANCE WITH 224. PLACES OF LODGING AND HOUSING AT A PLACE OF EDUCATION SHALL COMPLY WITH THE PROVISIONS APPLICABLE TO TRANSIENT LODGING, INCLUDING, BUT NOT LIMITED TO, THE REQUIREMENTS FOR TRANSIENT LODGING GUEST ROOMS IN SECTIONS 224 AND 806.
B. ENTRANCES, DOORS, AND DOORWAYS PROVIDING USER PASSAGE INTO AND WITHIN THE GUEST ROOMS THAT ARE NOT REQUIRED TO PROVIDE MOBILITY FEATURES COMPLYING WITH 806.2 SHALL COMPLY WITH 404.2.3.
C. IN GUEST ROOMS HAVING MORE THAN 25 BEDS, 5% MINIMUM OF THE BEDS SHALL HAVE CLEAR FLOOR SPACE COMPLYING WITH 806.2.3.
TAS SECTION 225 - STORAGE
A. WHERE STORAGE IS PROVIDED, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 811.
B. WHERE LOCKERS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE, SHALL COMPLY WITH 811.
TAS SECTION 226 - DINING SURFACES AND WORK SURFACES
A. WHERE DINING SURFACES ARE PROVIDED FOR THE CONSUMPTION OF FOOD OR DRINK, AT LEAST 5% OF THE SEATING SPACES AND STANDING SPACES AT THE DINING SURFACES SHALL COMPLY WITH 902. IN ADDITION, WHERE WORK SURFACES ARE PROVIDED FOR USE BY OTHER THAN EMPLOYEES, AT LEAST 5% SHALL COMPLY WITH 902.
TAS SECTION 227 - SALES AND SERVICE
A. WHERE PROVIDED, CHECK-OUT AISLES, SALES COUNTERS, SERVICE COUNTERS, FOOD SERVICE LINES, QUEUES, AND WAITING LINES SHALL COMPLY WITH 227 AND 904.
B. WHERE COUNTERS ARE PROVIDED, AT LEAST ONE OF EACH TYPE OF SALES COUNTER AND SERVICE COUNTER SHALL COMPLY WITH 904.4. WHERE COUNTERS ARE DISPERSED THROUGHOUT THE FACILITY, COUNTERS COMPLYING WITH 904.4 SHALL ALSO BE DISPERSED.
C. QUEUES AND WAITING LINES SERVICING COUNTERS OR CHECK-OUT AISLES REQUIRED TO COMPLY WITH 904.3 OR 904.4 SHALL COMPLY WITH 403.
TAS SECTION 228 - DEPOSITORIES, VENDING MACHINES, CHANGE MACHINES, MAIL BOXES
A. WHERE PROVIDED, AT LEAST ONE OF EACH TYPE OF DEPOSITORY, VENDING MACHINE, CHANGE MACHINE, AND FUEL DISPENSER SHALL COMPLY WITH 309.
B. WHERE MAIL BOXES ARE PROVIDED IN AN INTERIOR LOCATION, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE SHALL COMPLY WITH 309.
TAS SECTION 229 - WINDOWS
A. WHERE GLAZED OPENINGS ARE PROVIDED IN ACCESSIBLE ROOMS OR SPACES FOR OPERATION BY OCCUPANTS, AT LEAST ONE MUST OPENING SHALL COMPLY WITH 309. EACH GLAZED OPENING REQUIRED BY AN ADMINISTRATIVE AUTHORITY TO BE OPERABLE SHALL COMPLY WITH 309.
TAS SECTION 230 - TWO-WAY COMMUNICATION SYSTEMS
A. WHERE A TWO-WAY COMMUNICATION SYSTEM IS PROVIDED TO GAIN ADMITTANCE TO A BUILDING OR FACILITY OR TO BE RESTRICTED AREAS WITHIN A BUILDING OR FACILITY, THE SYSTEM SHALL COMPLY WITH 708.
TAS SECTION 240 - PLAY AREAS
A. WHERE GROUND LEVEL PLAY COMPONENTS ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
B. WHEN ELEVATED PLAY COMPONENTS ARE PROVIDED, AT LEAST 50% SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
TAS SECTION 242 - SWIMMING POOLS, WADING POOLS, AND SPAS
A. AT LEAST TWO ACCESSIBLE MEANS OF ENTRY SHALL BE PROVIDED FOR SWIMMING POOLS.
B. AT LEAST ONE ACCESSIBLE MEANS FOR ENTRY FOR WADING POOLS AND SPAS.
TAS SECTION 243 - SHOOTING FACILITIES WITH FIRING POSITIONS
A. WHERE SHOOTING FACILITIES WITH FIRING POSITIONS ARE DESIGNED AND CONSTRUCTED AT A SITE, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE OF FIRING POSITION SHALL COMPLY WITH 1010.

CHAPTER 3: BUILDING BLOCKS

TAS SECTION 302 - FLOOR OR GROUND SURFACES
A. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
B. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE.
C. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3, AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.



TAS SECTION 303 - CHANGES IN LEVEL
A. CHANGES IN LEVEL OF 1/4" HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL. (FIG. 303)
B. CHANGES IN LEVEL BETWEEN 1/4"-1/2" MAXIMUM SHALL BE BEVELED AT A SLOPE NOT STEEPER THAN 1:2 (FIG. 303)
C. CHANGES IN LEVEL GREATER THAN 1/2" HIGH SHALL BE RAMPED AND COMPLY WITH 405 OR 406



FIGURE 303

TAS SECTION 304 - TURNING SPACE
A. THE TURNING SPACE SHALL BE A SPACE 60" DIAMETER MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306.
B. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. DOORS SHALL BE PERMITTED TO SWING INTO TURNING SPACES.
D. THE T-SHAPED TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60" SQUARE MINIMUM WITH ARMS AND BASE 36" WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12" MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24" MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM. (FIG. 304.3.2)

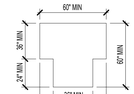


FIGURE 304.3.2 T-SHAPED TURNING SPACE

TAS SECTION 305 - CLEAR FLOOR OR GROUND SPACE
A. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM.
B. FLOOR OF GROUND SURFACES OF A CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM. (FIG. 305.3)
D. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCES COMPLYING WITH 306.
E. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT. (FIG. 305.5)
F. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE.
G. WHERE A CLEAR FLOOR OR GROUND SPACE IS LOCATED IN AN ALCOVE OR OTHERWISE CONFINED ON ALL OR PART OF 3 SIDES, ADDITIONAL MANEUVERING CLEARANCE SHALL BE PROVIDED IN ACCORDANCE WITH BELOW:
1. ALCOVES SHALL BE 36" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24" FOR FORWARD APPROACH (FIG. 315.7.1)
2. ALCOVES SHALL BE 60" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15" FOR PARALLEL APPROACH (FIG. 305.7.2)

CHAPTER 3: SCOPING REQUIREMENTS (CONTINUED)


FIGURE 305.3 CLEAR FLOOR OR GROUND SPACE

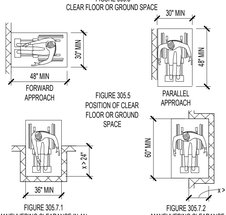


FIGURE 306.1 MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH
FIGURE 305.2 MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

TAS SECTION 306 - KNEE AND TOE CLEARANCE
A. WHERE SPACE BENEATH AN ELEMENT IS INCLUDED AS PART OF CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE, THE SPACE SHALL COMPLY WITH 306. ADDITIONAL SPACE SHALL NOT BE PROHIBITED BENEATH AN ELEMENT BUT SHALL NOT BE CONSIDERED AS PART OF THE CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE.
TAS SECTION 306.2 - TOE CLEARANCE
A. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9" ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE.
B. TOE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT
C. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17" MINIMUM UNDER THE ELEMENT.
D. SPACE EXTENDING GREATER THAN 8" BEYOND THE AVAILABLE KNEE CLEARANCE AT 9" ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.
E. TOE CLEARANCE SHALL BE 30" WIDE MINIMUM.
TAS SECTION 306.3 - KNEE CLEARANCE
A. SPACE UNDER AN ELEMENT 9"-27" ABOVE THE FINISH FLOOR SHALL BE CONSIDERED KNEE CLEARANCE.
B. KNEE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT AT 9" ABOVE THE FINISH FLOOR.
C. WHERE KNEE CLEARANCE IS REQUIRED UNDER AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE KNEE CLEARANCE SHALL BE 11" DEEP MINIMUM AT 9" ABOVE THE FINISH FLOOR

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

TAS SECTION 502 - PARKING SPACES (REFERENCE FIGURE 502.3)

A. ACCESSIBLE CAR PARKING SPACES SHALL BE AT LEAST 96" MINIMUM WIDE AND VAN ACCESSIBLE PARKING SHALL BE 132" MINIMUM WIDE.
   1. VAN PARKING SPACES MAY BE 96" WIDE MINIMUM WHERE THERE IS AN ACCESS AISLE 96" WIDE MINIMUM.
   2. ACCESS AISLES SERVING CAR AND VAN PARKING SHALL BE A MINIMUM 60" WIDE AND SHALL ADJOIN AN ACCESSIBLE ROUTE.
   3. ACCESS AISLES SHOULD BE MARKED TO DISCOURAGE PEOPLE FROM PARKING IN THEM AND EXTEND THE FULL LENGTH OF THE PARKING SPACE.
B. SURFACE SLOPE SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS (NOTE: NO BUILT UP CURB RAMP MAY BE LOCATED IN AN ACCESSIBLE PARKING ACCESS AISLE.)
C. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY.
D. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES, WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACE.

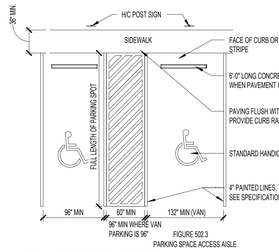
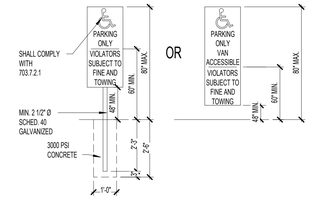


FIGURE 502.3
PARKING SPACE ACCESS AISLE

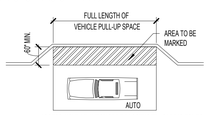
68.104: ACCESSIBLE PARKING SPACES

(A) A PAVED ACCESSIBLE PARKING SPACE MUST INCLUDE:
   (1) THE INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED CONSPICUOUSLY ON THE SURFACE IN A COLOR THAT CONTRASTS THE PAVEMENT;
   (2) THE WORDS "NO PARKING" PAINTED ON ANY ACCESS AISLE ADJACENT TO THE PARKING SPACE. THE WORDS MUST BE PAINTED:
      (A) IN ALL CAPITAL LETTERS;
      (B) WITH A LETTER HEIGHT OF AT LEAST TWELVE INCHES, AND A STROKE WIDTH OF AT LEAST TWO INCHES; AND
      (C) CENTERED WITHIN EACH ACCESS AISLE ADJACENT TO THE PARKING SPACE; AND
   (3) A SIGN IDENTIFYING THE CONSEQUENCES OF PARKING ILLEGALLY IN A PAVED ACCESSIBLE PARKING SPACE. THE SIGN MUST:
      (A) AT A MINIMUM STATE "VIOLATORS SUBJECT TO FINE AND TOWING " IN A LETTER HEIGHT OF AT LEAST ONE INCH;
      (B) BE MOUNTED ON A POLE, POST, WALL OR FREESTANDING BOARD;
      (C) BE NO MORE THAN EIGHT INCHES BELOW A SIGN REQUIRED BY TEXAS ACCESSIBILITY STANDARDS, 502.6; AND
      (D) BE INSTALLED SO THAT THE BOTTOM EDGE OF THE SIGN IS NO LOWER THAN 48 INCHES AND NO HIGHER THAN 80 INCHES ABOVE GROUND LEVEL.
(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).



NOTE: PROVIDE ONE SIGN AT EACH DISABLED (DESIGNATED) PARKING SPACE

TAS SECTION 503 - PASSENGER LOADING ZONES
A. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96" WIDE MINIMUM AND 20' LONG MINIMUM.
TAS SECTION 503.3 - ACCESS AISLE (REFERENCE FIGURE 503.3)
A. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 503 ADJACENT TO THE VEHICLE PULL UP SPACE. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.
   1. ACCESS AISLES SERVING VEHICULAR PULL-UP SPACES SHALL BE 60" WIDE MINIMUM AND EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE
   2. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED. CHANGES IN LEVEL OF THE FLOOR AND GROUND SURFACE ARE NOT PERMITTED.
B. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 144" MINIMUM.



ACCESS AISLE AT AUTOMOBILE PASSENGER LOADING ZONES
FIGURE 503.3
PASSENGER LOADING ZONE ACCESS AISLE

TAS SECTION 504 - STAIRWAYS
TAS SECTIONS 504.2 - TREADS AND RISERS
A. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND TREAD WIDTHS
   1. MINIMUM TREAD DEPTH SHALL BE 11", MEASURED FROM RISER TO RISER (NOT INCLUDING NOSING)
   2. OPEN RISERS ARE NOT PERMITTED
   3. RISERS SHALL BE 4" HIGH MIN. - 7" HIGH MAX.
TAS SECTIONS 504.5 - NOSINGS (REFERENCE FIGURE 504.5)
A. RADIUS OF THE CURVATURE AT THE LEADING EDGE SHALL BE 1/2" MAXIMUM. RISERS SHALL BE PERMITTED TO SLOPE UNDER THE TREAD AT AN ANGLE OF 30 DEGREES MAXIMUM FROM VERTICAL. THE PERMITTED PROJECTION OF THE NOSING SHALL EXTEND 1 1/2" MAXIMUM OVER THE TREAD BELOW.

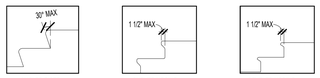
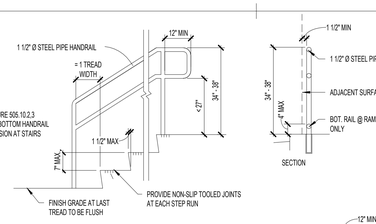
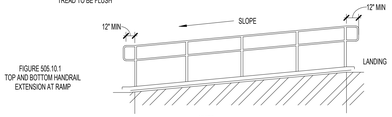


FIGURE 504.5
STAIR NOSINGS

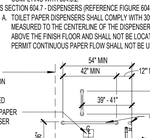
TAS SECTION 505 - HANDRAILS (REFERENCE FIGURES 505.10.1, 505.10.2, 3)
A. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS. NON-CONTINUOUS STAIR HANDRAILS SHALL EXTEND 12" BEYOND THE TOP RISER AND THE WIDTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT THE TOP, THE EXTENSION SHALL BE PARALLEL TO THE FLOOR. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF ONE TREAD WIDTH. NON CONTINUOUS RAMP HANDRAILS SHALL EXTEND 12" MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS.
B. HEIGHT: 34"-38", MEASURED FROM THE STAIR NOSING.
C. CLEARANCE BETWEEN HANDRAIL AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM.
D. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
E. HANDRAILS ARE REQUIRED ON RAMP RUNS GREATER THAN 6" IN RISE.

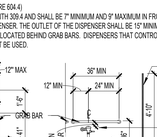




CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

TAS SECTION 602 - DRINKING FOUNTAINS
A. DRINKING FOUNTAINS SHALL COMPLY WITH 307 (PROTRUDING OBJECTS) AND 602.
B. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCES MUST COMPLY WITH 306. OPERABLE PARTS SHALL COMPLY WITH 309. (FIG. 602.5)
TAS SECTION 602.4 - SPOUT HEIGHT (REFERENCE FIGURE 602.4 FOR ACCESSIBLE UNIT)
A. ACCESSIBLE SPOUTS SHALL BE A MAXIMUM 36" ABOVE THE FINISH FLOOR OR GROUND.
TAS SECTION 602.5 - SPOUT LOCATION (REFERENCE FIGURE 602.5)
A. THE SPOUT SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.
B. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4" HIGH AND SHALL BE LOCATED 5" MAXIMUMFROM THE FRONT OF THE UNIT.
C. WHERE SPOUTS ARE LOCATED LESS THAN 2" FROM THE FRONT OF THE UNIT, THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE THE SPOUT IS LOCATED BETWEEN 2"-5" MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.
TAS SECTION 602.7 - DRINKING FOUNTAINS FOR STANDING PERSONS
A. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. (FIG. 602.4)





* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS

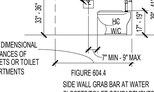
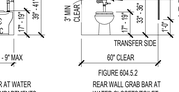


FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION



TAS SECTION 603 - TOILET AND BATHING ROOMS
A. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM. (60" DIAMETER OR T-SHAPED SPACE PER 304.3.2)
B. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP.
C. DOOR SWINGS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS CAN SWING INTO THE REQUIRED TURNING SPACE.
TAS SECTION 603.3 - MIRRORS
A. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED SO THE BOTTOM EDGE OF THE REFLECTING SURFACE IS 40" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT INSTALLED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE 35" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
TAS SECTION 603.4 - COAT HOOKS AND SHELVES
A. COAT HOOKS SHALL BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" ABOVE THE FINISH FLOOR.
TAS SECTION 604 - WATER CLOSETS AND TOILET COMPARTMENTS
A. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16" MINIMUM AND 18" MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT IN AN AMBULATORY ACCESSIBLE TOILET COMPARTMENT WHERE THE CENTERLINE OF THE WATER CLOSET MAY BE 17" MINIMUM AND 19" MAXIMUM FROM THE SIDE WALL OR PARTITION. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT-HAND OR RIGHT-HAND APPROACH. (FIG. 604.3.1, 604.8.2)
TAS SECTION 604.3 - CLEARANCE
A. CLEARANCES AROUND WATER CLOSETS AND IN TOILET COMPARTMENTS SHALL COMPLY WITH FIGURE 604.3.1

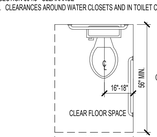


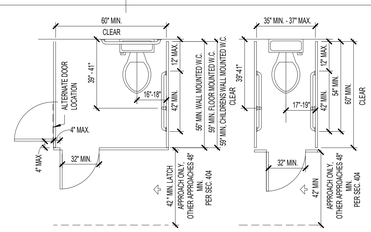
FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

TAS SECTION 604.3.2 - OVERLAP
A. THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.
TAS SECTION 604.4 - SEATS (REFERENCE FIGURE 604.4)
A. THE SEAT HEIGHT OF A WATER CLOSET ABOVE FINISH FLOOR SHALL BE 17"-19" MAXIMUM MEASURED TO THE TOP OF SEAT.
   1. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION
TAS SECTION 604.5 - GRAB BARS (REFERENCE FIGURES 604.4, 604.5.2)
A. GRAB BARS SHALL COMPLY WITH 609 AND BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL.
   1. GRAB BARS SHALL NOT BE REQUIRED IN A TOILET ROOM FOR A SINGLE USE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON OR PUBLIC USE PROVIDED THAT REINFORCEMENT HAS BEEN INSTALLED IN WALLS AND LOCATED SO AS TO FACILITATE THE INSTALLATION OF GRAB BARS COMPLYING WITH 604.5
B. FOR WATER CLOSETS NOT LOCATED IN TOILET STALLS, THE FOLLOWING GRAB BARS SHALL BE PROVIDED, 33"-36" ABOVE THE FINISH FLOOR:
   1. SIDE WALL: 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM BACK WALL. NOTE: INCLUDE 18" VERTICAL GRAB BAR PER ICC A117.1.
   2. REAR WALL: 36" LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON ONE SIDE AND 24" MINIMUM ON THE OTHER SIDE. REFER TO 609 GRAB BARS FOR SIZE AND STRUCTURAL ELEMENTS.
TAS SECTION 604.5.2 - REAR WALL
A. THE REAR GRAB BAR SHALL BE PERMITTED TO BE 24 INCHES LONG MINIMUM, CENTERED ON THE WATER CLOSET WHERE WALL SPACE DOES NOT PERMIT A LENGTH OF 36 INCHES MINIMUM DUE TO THE LOCATION OF A RECESSED FIXTURE ADJACENT TO THE WATER CLOSET.
B. WHERE AN ADMINISTRATIVE AUTHORITY REQUIRES FLUSH CONTROLS FOR FLUSH VALVES TO BE LOCATED IN A POSITION THAT CONFLICTS WITH THE LOCATION OF THE REAR GRAB BAR, THEN THE REAR GRAB BAR SHALL BE PERMITTED TO BE SPLIT OR SHIFTED TO THE OPEN SIDE OF THE TOILET AREA.
TAS SECTION 604.6 - FLUSH CONTROLS (REFERENCE FIGURE 604.5.2)
A. FLUSH CONTROLS SHALL BE HAND-OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.
TAS SECTION 604.7 - DISPENSERS (REFERENCE FIGURE 604.4)
A. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7" MINIMUM AND 9" MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS THAT CONTROL DELIVERY OR DO NOT PERMIT CONTINUOUS PAPER FLOW SHALL NOT BE USED.

FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

TAS SECTION 604.8 - TOILET COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.
TAS SECTION 604.8.1 - WHEELCHAIR ACCESSIBLE COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1
B. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL, AND 56" DEEP MINIMUM FOR WALL HUNG WATER CLOSETS AND 59" DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDREN'S USE SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE WALL AND 59" DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.



CLEARANCES INDICATED ARE MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REFER TO TOILET ROOMS AND LAVATORY DETAILS FOR MOUNTING HEIGHTS.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES (CONTINUED)

TAS SECTION 604.8.1.2 - DOORS (REFERENCE FIGURES 604.8.1.2, 604.8.2)
A. TOILET COMPARTMENTS DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42" MINIMUM. DOORS SHALL BE LOCATED IN THE FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE FRONT PARTITION. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.
B. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET.
TAS SECTION 604.8.1.4 - TOE CLEARANCE
A. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9" MINIMUM ABOVE FINISH FLOOR AND 6" (152 MM) MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDRENS USE SHALL PROVIDE 12" MINIMUM TOE CLEARANCE ABOVE FINISH FLOOR.
TAS SECTION 604.8.2 - AMBULATORY ACCESSIBLE COMPARTMENTS
A. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH FIGURE 604.8.2
B. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60" MINIMUM AND A WIDTH OF 35"-37" MAXIMUM.
C. GRAB BARS IN AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR THAT IS 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM THE REAR WALL AND EXTENDING 54" MINIMUM FROM THE REAR WALL SHALL BE LOCATED ON BOTH SIDES OF COMPARTMENT.
D. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" MAXIMUM ABOVE THE FINISH FLOOR.
TAS SECTION 605 - URINALS
A. URINALS SHALL BE STALL-TYPE OR WALL-HUNG WITH THE RIM 17" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13 1/2" DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK SIDE OF THE FIXTURE. (FIG. 605.2)
B. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.

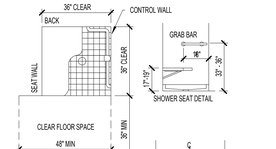


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

TAS SECTION 606 - LAVATORIES AND SINKS
A. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP), POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCES COMPLYING WITH 306 SHALL BE PROVIDED.
   1. SOAP AND TOWEL DISPENSERS MUST ALSO BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. LOCATE SOAP AND TOWEL DISPENSERS SO THEY ARE EASY TO USE BY A PERSON AT THE ACCESSIBLE LAVATORY.
B. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER RIM OR COUNTER SURFACE 34" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
C. CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND-OPERATED METERING FAUCETS SHALL REMAIN OPEN FOR 10 SECONDS MINIMUM.
D. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.

LAVATORY DETAIL

TAS SECTION 607 - BATHTUBS
A. CLEARANCE IN FRONT OF BATHTUBS SHALL EXTEND THE LENGTH OF THE BATHTUB AND SHALL BE 30 INCHES WIDE MINIMUM. A LAVATORY COMPLYING WITH 606 SHALL BE PERMITTED AT THE CONTROL END OF THE CLEARANCE. WHERE A PERMANENT SEAT IS PROVIDED AT THE HEAD END OF THE BATHTUB, THE CLEARANCE SHALL EXTEND 12" MINIMUM BEYOND THE WALL AT THE HEAD END OF THE BATHTUB.
B. A PERMANENT SEAT AT THE HEAD END OF THE BATHTUB OR A REMOVABLE IN-TUB SEAT SHALL BE PROVIDED. SEATS SHALL COMPLY WITH 610.
C. GRAB BARS FOR BATHTUBS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH FIGURES 607.4.1

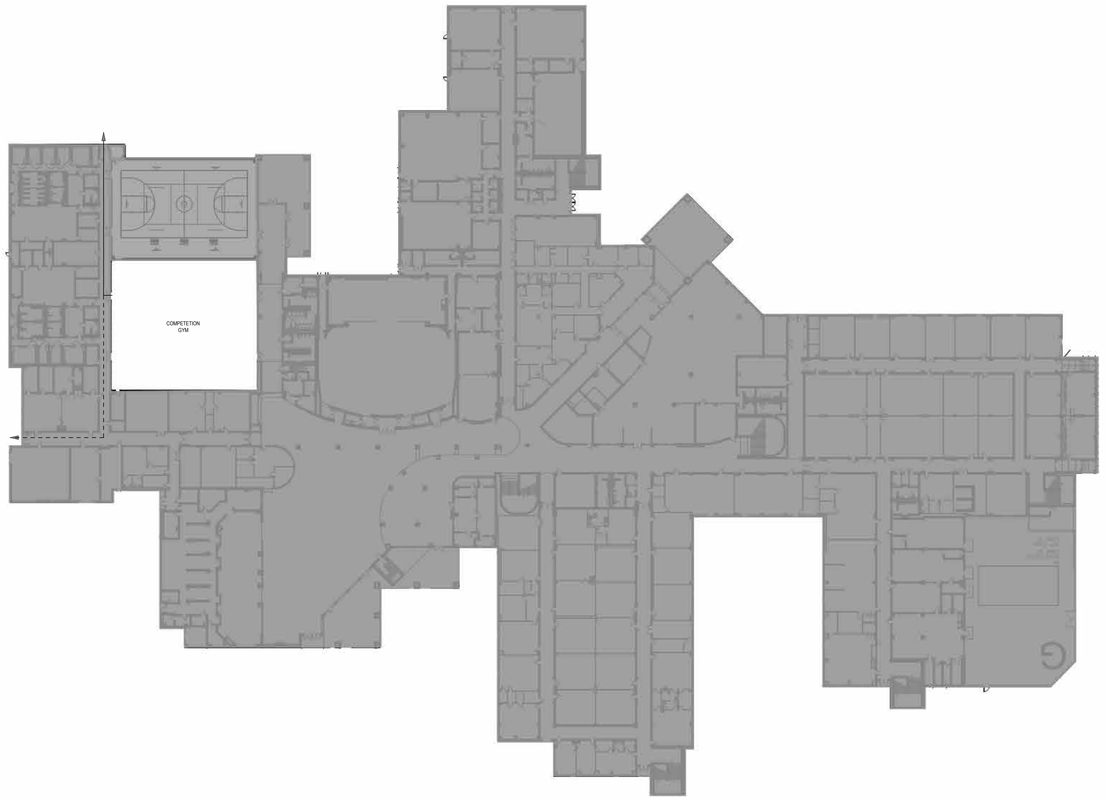
TAS SECTION 608 - SHOWER COMPARTMENTS
A. SHOWER STALLS SHALL BE 36" X 36" CLEAR INSIDE DIMENSION AT TRANSFER TYPE SHOWER COMPARTMENTS AND HAVE A 36" MINIMUM WIDE BY 48" MINIMUM LONG CLEARANCE MEASURED FROM THE CONTROL WALL. ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 30" MINIMUM WIDE BY 60" MINIMUM LONG AND HAVE A 30" MIN WIDE X 60" MIN LONG ENTRY ON THE FACE OF THE SHOWER COMPARTMENT. ALTERNATE ROLL-IN SHOWER TYPE COMPARTMENTS SHALL BE 36" MINIMUM WIDE AND 60" MINIMUM DEEP CLEAR INSIDE DIMENSIONS WITH A 36" WIDE MINIMUM ENTRY PROVIDED AT ONE END OF THE LONG SIDE OF THE COMPARTMENT.

TAS SECTION 608.3.1 - TRANSFER TYPE SHOWER COMPARTMENT
A. IN TRANSFER TYPE COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND BACK WALL TO A POINT 18" FROM THE CONTROL WALL.
B. A FOLDING OR NON-FOLDING SEAT SHALL BE PROVIDED IN TRANSFER TYPE SHOWER COMPARTMENTS.
C. CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS SHALL COMPLY WITH 309.4
TAS SECTION 608.7 - THRESHOLDS
A. THRESHOLDS IN ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 1/2" HIGH MAXIMUM IN ACCORDANCE WITH 308. IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" HIGH SHALL BE BEVELED, ROUNDED, OR VERTICAL.

FIGURE 608.2.1
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES (CONTINUED)

TAS SECTION 609 - GRAB BARS
A. GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2" MAXIMUM AND A PERIMETER DIMENSION OF 4" MINIMUM AND 4.8" MAXIMUM.
B. THE SPACE BETWEEN THE WALL AND GRAB BAR SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW SHALL BE 1 1/2" MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12" MINIMUM.
C. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33" MINIMUM AND 36" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. REFER TO CHART FOR CHILDREN ACCESSIBLE HEIGHTS FOR EXCEPTIONS.
D. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A HORIZONTAL OR VERTICAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT OF THE GRAB BAR OR ANY OF ITS COMPONENTS.
TAS SECTION 610.2 - BATHTUB SEATS
A. SEAT SHALL BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 POUNDS AND SHALL HAVE THE FOLLOWING FEATURES:
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. REMOVABLE SEATS SHALL BE 15"-16" DEEP AND CAPABLE OF SECURE PLACEMENT.
   3. PERMANENT SEATS SHALL BE 15" DEEP MINIMUM AND EXTEND FROM THE BACK WALL TO OR BEYOND THE OUTER EDGE OF THE BATHTUB.
TAS SECTION 610.3 - SHOWER SEATS
A. SEATS SHALL BE L-SHAPED WITH THE REAR EDGE 2 1/2" MAXIMUM FROM THE WALL AND 15"-16" MAXIMUM FROM THE SEAT WALL. THE REAR EDGE OF THE "L" PORTION SHALL BE 1 1/2" MAXIMUM FROM THE WALL AND THE FRONT EDGE SHALL BE 14"-15" FROM THE WALL. THE END OF THE "L" SHALL BE 22"-23" FROM THE MAIN SEAT WALL. SEATS SHALL HAVE BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 LBS.
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. W



CODE REVIEW-T

SCALE: 1" = 100'-0"

2

LEGEND

- 1 HOUR FIRE-RESISTANCE RATING
- 2 HOUR FIRE-RESISTANCE RATING
- RATED DOOR/ WINDOW REF. DOOR SCHEDULE FOR MORE INFO.
- NON RATED ELEMENT
- RATED EXIT ENCLOSURE
- LONGEST EXIT ROUTE PER LEVEL
- EXIT ROUTE
- EXIT POINT WITH WIDTH INDICATED IN INCHES (P 36" / R 36"): OCCUPANT LOAD SHOWN VERTICAL; P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT; R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER - SURFACE MOUNTED

CODE REVIEW: IBC 2015 - EXISTING BUILDING

CHAPTER 6 - REPAIRS

NEW AND REPLACEMENT MATERIALS (SEC 602.2)
EXCEPT AS OTHERWISE REQUIRED OR PERMITTED BY THIS CODE, MATERIALS PERMITTED BY THE APPLICABLE CODE FOR NEW CONSTRUCTION SHALL BE USED. LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS, PROVIDED NO DANGEROUS OR UNSAFE CONDITION, AS DEFINED IN CHAPTER 2, IS CREATED. HAZARDOUS MATERIALS, SUCH AS ASBESTOS AND LEAD-BASED PAINT, SHALL NOT BE USED WHERE THE CODE FOR NEW CONSTRUCTION WOULD NOT PERMIT THEIR USE IN BUILDINGS OF SIMILAR OCCUPANCY, PURPOSE AND LOCATION.

GENERAL ACCESSIBILITY (SEC 605.1)
REPAIRS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF ACCESSIBILITY PROVIDED.

CHAPTER 7 - ALTERATIONS - LEVEL 1

CONFORMANCE (SEC 701.2)
AN EXISTING BUILDING OR PORTION THEREOF SHALL NOT BE ALTERED SUCH THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITION.
EXCEPTION: WHERE THE CURRENT LEVEL OF SAFETY OR SANITATION IS PROPOSED TO BE REDUCED, THE PORTION ALTERED SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

INTERIOR FINISHES (SEC 703.2)
NEW INTERIOR FLOOR FINISH, INCLUDING NEW CARPETING USED AS AN INTERIOR FLOOR FINISH MATERIAL, SHALL COMPLY WITH SECTION 804 OF THE INTERNATIONAL BUILDING CODE.

CHAPTER 8 - ALTERATIONS - LEVEL 2

COMPLIANCE (SEC 801.3)
ALL NEW CONSTRUCTION ELEMENTS, COMPONENTS, SYSTEMS, AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

EXCEPTIONS:
WINDOWS MAY BE ADDED WITHOUT REQUIRING COMPLIANCE WITH THE LIGHT AND VENTILATION REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.
NEWLY INSTALLED ELECTRICAL EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 808.
THE LENGTH OF DEAD-END CORRIDORS IN NEWLY CONSTRUCTED SPACES SHALL ONLY BE REQUIRED TO COMPLY WITH THE PROVISIONS OF SECTION 805.6.
THE MINIMUM CEILING HEIGHT OF THE NEWLY CREATED HABITABLE AND OCCUPIABLE SPACES AND CORRIDORS SHALL BE 7 FEET (2134 MM).

FIRE ALARM AND DETECTION (SEC 804.4)
AN APPROVED FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH SECTIONS 804.4.1 THROUGH 804.4.3..

GROUP E OCCUPANCY (SEC 804.4.1.1)
A FIRE ALARM SYSTEM SHALL BE INSTALLED IN WORK AREAS OF GROUP E OCCUPANCIES AS REQUIRED BY THE INTERNATIONAL FIRE CODE FOR EXISTING GROUP E OCCUPANCIES.

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00 FOR DOOR SCHEDULE IDENTIFING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL.
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES- FORTBEND COUNTY- FORTBEND COUNTY

2015 IBC INTERNATIONAL BUILDING CODE
2015 IMC INTERNATIONAL MECHANICAL CODE
2015 IPC INTERNATIONAL PLUMBING CODE
2012 NFPA (NATIONAL FIRE PROTECTION AGENCY) 101 LIFE SAFETY CODE (CHAPTER 43 - 2006 NFPA 101)
2012 NFPA (NATIONAL FIRE PROTECTION AGENCY) 170 STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS
2014 NFPA (NATIONAL FIRE PROTECTION AGENCY) 70 NATIONAL ELECTRICAL CODE
2013 ASHRAE STANDARD 90.01 - ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)
2021 INTERNATIONAL FIRE CODE

2015 IBC COMPLIANCE DATA

CHAPTER 2 - DEFINITIONS
GRADE PLANE: A REFERENCE PLANE REPRESENTING THE AVERAGE OF FINISHED GROUND LEVEL ADJOINING THE BUILDING AT EXTERIOR WALLS. WHERE THE FINISHED GROUND LEVEL SLOPES AWAY FROM THE EXTERIOR WALLS, THE REFERENCE PLANE SHALL BE ESTABLISHED BY THE LOWEST POINTS WITHIN THE AREA BETWEEN THE BUILDING AND THE LOT LINE OR, WHERE THE LOT LINE IS MORE THAN 6 FEET (1829 MM) FROM THE BUILDING, BETWEEN THE BUILDING AND A POINT 6 FEET (1829 MM) FROM THE BUILDING.
GRADE PLANE = -7' BELOW PROJECT "0'-0" ELEVATION"

STORY ABOVE GRADE PLANE: ANY STORY HAVING ITS FINISHED FLOOR SURFACE ENTIRELY ABOVE GRADE PLANE, OR IN WHICH THE FINISHED SURFACE OF THE FLOOR NEXT ABOVE IS: 1. MORE THAN 6 FEET (1829 MM) ABOVE GRADE PLANE; OR 2. MORE THAN 12 FEET (3658 MM) ABOVE THE FINISHED GROUND LEVEL AT ANY POINT.

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS
TABLE 504.3 & 504.4 & 506.2
GROUP E, TYPE 2B, FULLY SPRINKLED:
BUILDING HEIGHT: 75' ALLOWED; **40' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 3 STORIES ALLOWED; **2 STORIES ACTUAL**
BUILDING AREA: 43,500 SQUARE FEET PER STORY ALLOWED (BEFORE AREA INCREASES)

SECTION 506.2.3: EQUATION 5-2 FOR ALLOWABLE TOTAL SQUARE FOOTAGE FOR SINGLE OCCUPANCY, MULTI-STORY BUILDING
Aa=At+ (NS x If) x Sa
Aa = 43,500 + (14,500 x 0.75) x 2
Aa = 108,750 SQUARE FEET ALLOWED FOR THE ENTIRE BUILDING
Aa = 54,375 SQUARE FEET ALLOWED PER STORY
NO INDIVIDUAL STORY SHALL EXCEED THE ALLOWABLE AREA (Aa) AS DETERMINED BY EQUATION 5-2 USING THE VALUE OF Sa=1

SECTION 506.3 - FRONTAGE INCREASE
If = (F/P-0.25)W/30
If = 0.75

BUILDING AREA ACTUAL

LEVEL 1: BUILDING A (SEGMENT A):	21,569 SQUARE FEET
LEVEL 1 BUILDING B (SEGMENTS B, C, D) :	44,280 SQUARE FEET
LEVEL 1: BUILDING C (SEGMENT E):	21,569 SQUARE FEET
LEVEL 2: BUILDING A (SEGMENT A):	21,569 SQUARE FEET
LEVEL 2: BUILDING B (SEGMENT A):	644 SQUARE FEET

SECTION 508 - MIXED USE AND OCCUPANCY
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 - FOR CONSTRUCTION TYPE IIB: 0 HOUR FIRE-RESISTANCE RATING REQUIREMENT FOR BUILDING ELEMENTS
NOTE: ELEMENTS INCLUDE PRIMARY STRUCTURAL FRAME, EXTERIOR AND INTERIOR WALLS, FLOOR AND ROOF CONSTRUCTION

SECTION 602 - CONSTRUCTION CLASSIFICATION
602 - FOR CONSTRUCTION TYPE IIB: 1 HOUR FIRE RESISTANCE RATING FOR EXTERIOR WALLS IF < 10 FT. FROM OTHER STRUCTURES, ELSE 0
602.4 - NOT APPLICABLE

CHAPTER 6 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE 2B - PER TABLES 601 & 602:
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED: PRIMARY STRUCTURE, BEARING & NONBEARING WALLS/ PARTITIONS (INTERIOR & EXTERIOR), FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTABLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL
TABLE 706.4 - FIRE WALL FIRE-RESISTANCE RATINGS: 2 HOUR IN IIB CONSTRUCTION, GROUP E

SECTION 707 - FIRE BARRIERS
707.3.1 - SHAFT ENCLOSURES (INCLUDING ELEVATOR HOISTWAY): 1 HOUR FIRE BARRIER
707.3.3 - ENCLOSURES FOR EXIT ACCESS STAIRWAY ENCLOSURES: 1 HOUR BARRIER
PER SECTION 1019 EXIT ACCESS STAIRWAYS ARE NOT REQUIRED TO BE ENCLOSED FOR THIS BUILDING TYPE

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT)
ALL SHAFT ENCLOSURES SHALL BE CONSTRUCTED AS FIRE BARRIERS AND SHALL BE 1 HOUR FIRE RATED. SUPPORTING CONSTRUCTION SHALL BE RATED TO THE SAME DEGREE AS THE WALLS.

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS
FOR FIRE WALLS & FIRE BARRIERS WITH A 2 HR FIRE RATING, OPENINGS SHALL HAVE A 1.5 HR FIRE RATING, MAX. 100 SQ IN OF GLAZING.
FOR FIRE BARRIERS AT EXIT COMPONENTS WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 1 HR FIRE RATING
FOR FIRE BARRIERS AT OTHER LOCATION WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 3/4 HR FIRE RATING

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES; NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES; BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE.

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS FULLY SPRINKLERED

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
1004.1.2 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

STORAGE, MECHANICAL	300 SQ. FT., GROSS
ASSEMBY WITH FIXED SEATS	18" PER OCCUPANT IN BLEACHERS
ASSEMBLY WITHOUT FIXED SEATS	
(TABLES AND CHAIRS)	15 SQ. FT. NET
BUSINESS	100 SQ. FT. GROSS
EDUCATION, CLASSROOM	20 SQ. FT. GROSS
EDUCATION, VOCATIONAL	50 SQ. FT. NET
LIBRARY	
(READING ROOMS)	50 SQ. FT. NET
(STACK AREAS)	100 SQ. FT. GROSS
STAGES & PLATFORMS	500 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.1 - FOR STAIRWAYS: 0.2 IN. PER OCCUPANT
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.1 - FOR OCCUPANT LOAD PER STORY:
BUILDING A / LEVEL 1: 3 EXITS REQUIRED, 3 EXITS PROVIDED
BUILDING B / LEVEL 1: 4 EXITS REQUIRED, 4 EXITS PROVIDED
BUILDING C / LEVEL 1: 3 EXITS REQUIRED, 3 EXITS PROVIDED
BUILDING A / LEVEL 2: 3 EXITS REQUIRED, 3 EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1009 - ACCESSIBLE MEANS OF EGRESS
1009.3 - FOR SPRINKLERED BUILDINGS, 48 IN. CLEAR HANDRAIL WIDTH IN EXIT STAIRS NOT REQUIRED.
1009.3 - FOR SPRINKLERED BUILDINGS, AREAS OF REFUGE IN EXIT STAIRS NOT REQUIRED

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.8 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1011 - STAIRWAYS
1011.2 - MINIMUM STAIRWAY WIDTH OF 44 IN.
1011.3 - MINIMUM STAIRWAY HEADROOM CLEARANCE OF 80 IN.
1011.5.2 - MAXIMUM RISER HEIGHT OF 7 IN., MINIMUM TREAD DEPTH OF 11 IN.
1011.6 - WIDTH OF LANDINGS SHALL BE NOT LESS THAN THE WIDTH OF STAIRWAY SERVED
1011.6 - LANDING DEPTH NEED NOT EXCEED 48 IN. FOR STRAIGHT-RUN STAIRS
1011.8 - A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE GREATER THAN 12 FT. BETWEEN FLOOR LEVELS AND LANDINGS

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
1017.2 - FOR GROUP E W/ SPRINKLER SYSTEM: EXIT TRAVEL DISTANCE IS 250 FT.

SECTION 1020 - CORRIDORS
1020.1 - FOR GROUP E W/ SPRINKLER SYSTEM: NO REQUIRED FIRE-RESISTANCE RATING
1020.2 - FOR GROUP E W/ OCCUPANT LOAD OF 100 OR MORE: MINIMUM WIDTH OF 72 IN.
1020.2 - FOR AN OCCUPANT LOAD LESS THAN 50: MINIMUM WIDTH OF 36 IN.
1020.2 - FOR ACCESS TO AND UTILIZATION OF MECHANICAL, PLUMBING, OR ELECTRICAL SYSTEMS OR EQUIPMENT: MINIMUM WIDTH OF 24 IN.
1020.2 - FOR ALL OTHER CONDITIONS: MINIMUM WIDTH OF 44 IN.
1020.4 - FOR GROUP E W/ SPRINKLER SYSTEM: DEAD ENDS MAY BE 50 FT. IN LENGTH

2015 IECC COMPLIANCE DATA

CHAPTER 3 - GENERAL REQUIREMENTS

SECTION C301.1 - GENERAL
C301.1 - CLIMATE ZONE 2A

CHAPTER 4 - COMMERCIAL ENERGY EFFICIENCY

SECTION C402 - BUILDING ENVELOPE REQUIREMENTS
C402.1.3 - FOR ROOFS WITH INSULATION ENTIRELY ABOVE DECK: R-25CI, **R-27CI PROVIDED**
C402.1.3 - FOR ABOVE GRADE, METAL-FRAMED WALLS: R-13 + R-5CI, **R-19 + R-10 CI PROVIDED**
C402.1.3 - FOR JOIST/FRAME FLOORS: R-30, **R-30 PROVIDED**
C402.1.3 - FOR UNHEATED SLAB-ON-GRADE FLOORS: NR
C402.1.3 - FOR NONSWINGING OPAQUE DOORS: R-4.75
C402.1.4.1 - EFFECTIVE R-VALUES FOR STEEL STUD WALL ASSEMBLIES

NOMINAL DEPTH	FRAMING SPACING	CAVITY R-VALUE	EFF. R-VALUE
3 1/2	16	13 / 15	5.98 / 6.45
3 1/2	24	13 / 15	7.15 / 7.80
6	16	19 / 21	7.03 / 7.35
6	24	19 / 21	8.55 / 9.03
8	16 / 24	25	7.75 / 9.50

C402.3 - EITHER THREE-YEAR AGED SOLAR REFLECTANCE OF 0.55 AND 3-YEAR AGED
THERMAL EMITTANCE OF 0.75 OR THREE-YEAR AGED SOLAR REFLECTANCE INDEX OF 64.
C402.4 - FOR CLIMATE ZONE 2 AND FIXED FENESTRATION: U-FACTOR OF 0.5
C402.4 - SOLAR HEAT GAIN COEFFIEICNT REQUIREMENTS

PROJECTION FACTOR	SEW	N
PF <0.2	0.25	0.33
0.2 <= PF < 0.5	0.30	0.37
PF >= 0.5	0.40	0.40

SHGC OF SPECIFIED GLAZING = 0.25
U-VALUE OF SPECIFIED GLAZING = 0.33

C402.4.1 VERTICAL FENESTRATION SHALL NOT BE GREATER THAN 30 PERCENT OF GROSS
ABOVE-GRADE WALL AREA.

2015 IPC COMPLIANCE DATA

		OCCUPANCY	STUDENTS	STAFF
			3205	NA
WATER CLOSETS	MENS*	REQD		
		PROVIDED		
	LADIES	REQD		
		PROVIDED		
LAVATORIES	MENS	REQD		
		PROVIDED		
	LADIES	REQD		
		PROVIDED		
EDP'S		REQD		
		PROVIDED		
SERVICE SINK		REQD		
		PROVIDED		

NOTE: PLUMBING COUNTS INCLUDE ALL GROUP TOILETS AVAILABLE TO THE GENERAL SCHOOL. FIXTURES LOCATED WITHIN CLASSROOMS, NURSES OFFICE, AND THOSE DEDICATED FOR PLAYGROUNDS ARE NOT INCLUDED.

* 419.2 SUBSTITUTION FOR WATER CLOSETS. IN EACH BATHROOM OR TOILET ROOM, URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 67 PERCENT OF THE REQUIRED WATER CLOSETS IN ASSEMBLY AND EDUCATIONAL OCCUPANCIES. URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50 PERCENT OF THE REQUIRED WATER CLOSETS IN ALL OTHER OCCUPANCIES.

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

11111 Harlem Rd, Richmond, TX 77406

TRAVIS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAMS
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

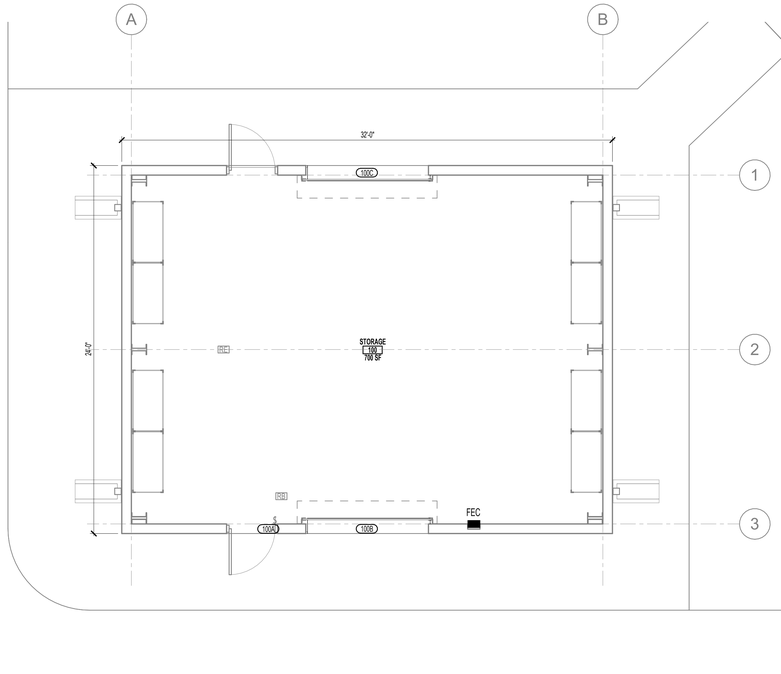
100% CD

G0.03-T

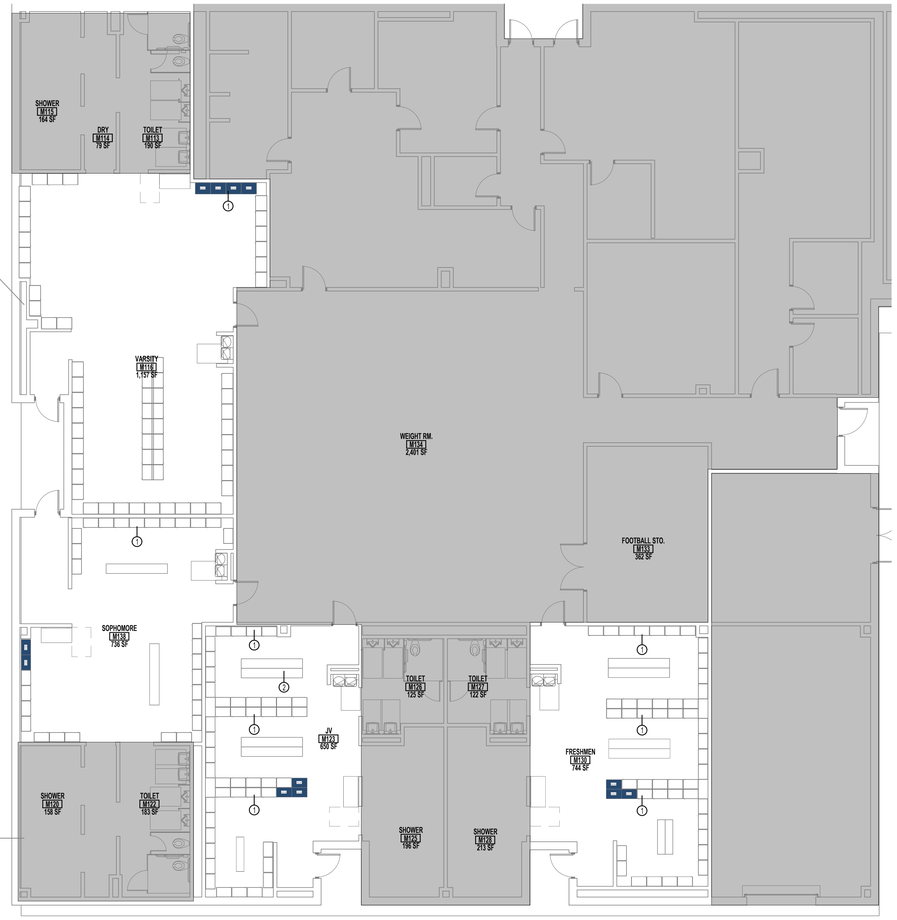
LEVEL 01 CODE PLAN COMPETITION GYM

TRAVIS HIGH SCHOOL

12/4/2025 10:47:49 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/25-006_TRAVIS_ARCH_FBISD ATHLETIC RENOVATIONS BP012-T_R25.rvt



FLOOR PLAN FIELD HOUSE STORAGE 3
SCALE: 1/4" = 1'-0"



FLOOR PLAN GYM LOCKERS Copy 1 2
SCALE: 1/8" = 1'-0"

LEGEND

- 1 HOUR FIRE-RESISTANCE RATING
- 2 HOUR FIRE-RESISTANCE RATING
- RATED DOOR/ WINDOW REF. DOOR SCHEDULE FOR MORE INFO.
- NON RATED ELEMENT
- RATED EXIT ENCLOSURE
- LONGEST EXIT ROUTE PER LEVEL
- EXIT ROUTE
- EXIT POINT WITH WIDTH INDICATED IN INCHES (20 | P: 30" R: 30"): OCCUPANT LOAD SHOWN VERTICAL; P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT; R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER - SURFACE MOUNTED

CODE REVIEW: IBC 2015 - EXISTING BUILDING

CHAPTER 6 - REPAIRS

NEW AND REPLACEMENT MATERIALS (SEC 602.2)
EXCEPT AS OTHERWISE REQUIRED OR PERMITTED BY THIS CODE, MATERIALS PERMITTED BY THE APPLICABLE CODE FOR NEW CONSTRUCTION SHALL BE USED. LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS, PROVIDED NO DANGEROUS OR UNSAFE CONDITION, AS DEFINED IN CHAPTER 2, IS CREATED. HAZARDOUS MATERIALS, SUCH AS ASBESTOS AND LEAD-BASED PAINT, SHALL NOT BE USED WHERE THE CODE FOR NEW CONSTRUCTION WOULD NOT PERMIT THEIR USE IN BUILDINGS OF SIMILAR OCCUPANCY, PURPOSE AND LOCATION.

GENERAL ACCESSIBILITY (SEC 605.1)
REPAIRS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF ACCESSIBILITY PROVIDED.

CHAPTER 7 - ALTERATIONS - LEVEL 1

CONFORMANCE (SEC 701.2)
AN EXISTING BUILDING OR PORTION THEREOF SHALL NOT BE ALTERED SUCH THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITION.
EXCEPTION: WHERE THE CURRENT LEVEL OF SAFETY OR SANITATION IS PROPOSED TO BE REDUCED, THE PORTION ALTERED SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

INTERIOR FINISHES (SEC 702.2)
NEW INTERIOR FLOOR FINISH, INCLUDING NEW CARPETING USED AS AN INTERIOR FLOOR FINISH MATERIAL, SHALL COMPLY WITH SECTION 804 OF THE INTERNATIONAL BUILDING CODE.

CHAPTER 8 - ALTERATIONS - LEVEL 2

COMPLIANCE (SEC 801.3)
ALL NEW CONSTRUCTION ELEMENTS, COMPONENTS, SYSTEMS, AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

EXCEPTIONS:
WINDOWS MAY BE ADDED WITHOUT REQUIRING COMPLIANCE WITH THE LIGHT AND VENTILATION REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.
NEWLY INSTALLED ELECTRICAL EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 808.
THE LENGTH OF DEAD-END CORRIDORS IN NEWLY CONSTRUCTED SPACES SHALL ONLY BE REQUIRED TO COMPLY WITH THE PROVISIONS OF SECTION 805.6.
THE MINIMUM CEILING HEIGHT OF THE NEWLY CREATED HABITABLE AND OCCUPIABLE SPACES AND CORRIDORS SHALL BE 7 FEET (2134 MM).

FIRE ALARM AND DETECTION (SEC 804.4)
AN APPROVED FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH SECTIONS 804.4.1 THROUGH 804.4.3..

GROUP E OCCUPANCY (SEC 804.4.1.1)
A FIRE ALARM SYSTEM SHALL BE INSTALLED IN WORK AREAS OF GROUP E OCCUPANCIES AS REQUIRED BY THE INTERNATIONAL FIRE CODE FOR EXISTING GROUP E OCCUPANCIES.

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00 FOR DOOR SCHEDULE IDENTIFING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL. ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL. ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL.
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES- FORTBEND COUNTY

2015 IBC INTERNATIONAL BUILDING CODE
2015 IMC INTERNATIONAL MECHANICAL CODE
2015 IPC INTERNATIONAL PLUMBING CODE
2012 NFPA (NATIONAL FIRE PROTECTION AGENCY) 101 LIFE SAFETY CODE (CHAPTER 43 - 2006 NFPA 101)
2012 NFPA (NATIONAL FIRE PROTECTION AGENCY) 170 STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS
2014 NFPA (NATIONAL FIRE PROTECTION AGENCY) 70 NATIONAL ELECTRICAL CODE
2013 ASHRAE STANDARD 90.01 - ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)
2021 INTERNATIONAL FIRE CODE

2015 IBC COMPLIANCE DATA

CHAPTER 2 - DEFINITIONS
GRADE PLANE: A REFERENCE PLANE REPRESENTING THE AVERAGE OF FINISHED GROUND LEVEL ADJOINING THE BUILDING AT EXTERIOR WALLS. WHERE THE FINISHED GROUND LEVEL SLOPES AWAY FROM THE EXTERIOR WALLS, THE REFERENCE PLANE SHALL BE ESTABLISHED BY THE LOWEST POINTS WITHIN THE AREA BETWEEN THE BUILDING AND THE LOT LINE OR, WHERE THE LOT LINE IS MORE THAN 6 FEET (1829 MM) FROM THE BUILDING, BETWEEN THE BUILDING AND A POINT 6 FEET (1829 MM) FROM THE BUILDING.
GRADE PLANE = -7 BELOW PROJECT "0" 0" ELEVATION"

STORY ABOVE GRADE PLANE: ANY STORY HAVING ITS FINISHED FLOOR SURFACE ENTIRELY ABOVE GRADE PLANE, OR IN WHICH THE FINISHED SURFACE OF THE FLOOR NEXT ABOVE IS: 1. MORE THAN 6 FEET (1829 MM) ABOVE GRADE PLANE; OR 2. MORE THAN 12 FEET (3658 MM) ABOVE THE FINISHED GROUND LEVEL AT ANY POINT.

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS
TABLE 504.3 & 504.4 & 506.2
GROUP E. TYPE 2B. FULLY SPRINKLED:
BUILDING HEIGHT: 72' ALLOWED; **40' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 3 STORIES ALLOWED; **2 STORIES ACTUAL**
BUILDING AREA: 43,500 SQUARE FEET PER STORY ALLOWED (BEFORE AREA INCREASES)

SECTION 506.2.3: EQUATION 5-2 FOR ALLOWABLE TOTAL SQUARE FOOTAGE FOR SINGLE OCCUPANCY, MULTI-STORY BUILDING
Aa=At+ (NS x If) x Sa
At = 43,500 = (14,500 x 0.75) x 2
Aa = 108,750 SQUARE FEET ALLOWED FOR THE ENTIRE BUILDING
Aa = 54,375 SQUARE FEET ALLOWED PER STORY
NO INDIVIDUAL STORY SHALL EXCEED THE ALLOWABLE AREA (Aa) AS DETERMINED BY EQUATION 5-2 USING THE VALUE OF Sa=1

SECTION 506.3 - FRONTAGE INCREASE
If = (F/P-0.25)W/30
If = 0.75

BUILDING AREA ACTUAL
LEVEL 1: BUILDING A (SEGMENT A): 21,569 SQUARE FEET
LEVEL 1 BUILDING B (SEGMENTS B, C, D): 44,260 SQUARE FEET
LEVEL 1: BUILDING C (SEGMENT E): 21,569 SQUARE FEET
LEVEL 2: BUILDING A (SEGMENT A): 21,569 SQUARE FEET
LEVEL 2: BUILDING B (SEGMENT A): 644 SQUARE FEET

SECTION 508 - MIXED USE AND OCCUPANCY
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 - FOR CONSTRUCTION TYPE IIB: 0 HOUR FIRE-RESISTANCE RATING REQUIREMENT FOR BUILDING ELEMENTS
NOTE: ELEMENTS INCLUDE PRIMARY STRUCTURAL FRAME, EXTERIOR AND INTERIOR WALLS, FLOOR AND ROOF CONSTRUCTION

SECTION 602 - CONSTRUCTION CLASSIFICATION
602 - FOR CONSTRUCTION TYPE IIB: 1 HOUR FIRE RESISTANCE RATING FOR EXTERIOR WALLS IF < 10 FT. FROM OTHER STRUCTURES, ELSE 0
602.4 - NOT APPLICABLE

CHAPTER 6 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE 2B - PER TABLES 601 & 602.
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED: PRIMARY STRUCTURE, BEARING & NONBEARING WALLS/ PARTITIONS (INTERIOR & EXTERIOR), FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTABLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL
TABLE 706.4 - FIRE WALL FIRE-RESISTANCE RATINGS: 2 HOUR IN IIB CONSTRUCTION, GROUP E

SECTION 707 - FIRE BARRIERS
707.3.1 - SHAFT ENCLOSURES (INCLUDING ELEVATOR HOISTWAY): 1 HOUR FIRE BARRIER
707.3.3 - ENCLOSURES FOR EXIT ACCESS STAIRWAY ENCLOSURES: 1 HOUR BARRIER
PER SECTION 1019 EXIT ACCESS STAIRWAYS ARE NOT REQUIRED TO BE ENCLOSED FOR THIS BUILDING TYPE

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT)
ALL SHAFT ENCLOSURES SHALL BE CONSTRUCTED AS FIRE BARRIERS AND SHALL BE 1 HOUR FIRE RATED. SUPPORTING CONSTRUCTION SHALL BE RATED TO THE SAME DEGREE AS THE WALLS.

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS
FOR FIRE WALLS & FIRE BARRIERS WITH A 2 HR FIRE RATING, OPENINGS SHALL HAVE A 1.5 HR FIRE RATING, MAX. 100 SQ IN OF GLAZING.
FOR FIRE BARRIERS AT EXIT COMPONENTS WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 1 HR FIRE RATING
FOR FIRE BARRIERS AT OTHER LOCATION WITH A 1 HR FIRE RATING, OPENINGS SHALL HAVE A 3/4 HR FIRE RATING

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES; NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES; BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE.

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS FULLY SPRINKLERED

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
1004.1.2 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

STORAGE, MECHANICAL	300 SQ. FT., GROSS
ASSEMBY WITH FIXED SEATS	18" PER OCCUPANT IN BLEACHERS
ASSEMBLY WITHOUT FIXED SEATS	
(TABLES AND CHAIRS)	15 SQ. FT. NET
BUSINESS	100 SQ. FT. GROSS
EDUCATION, CLASSROOM	20 SQ. FT. GROSS
EDUCATION, VOCATIONAL	50 SQ. FT. NET
LIBRARY	
(READING ROOMS)	50 SQ. FT. NET
(STACK AREAS)	100 SQ. FT. GROSS
STAGES & PLATFORMS	500 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.1 - FOR STAIRWAYS: 0.2 IN. PER OCCUPANT
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.1 - FOR OCCUPANT LOAD PER STORY:
BUILDING A / LEVEL 1: 3 EXITS REQUIRED, 3 EXITS PROVIDED
BUILDING B / LEVEL 1: 4 EXITS REQUIRED, 4 EXITS PROVIDED
BUILDING C / LEVEL 1: 3 EXITS REQUIRED, 3 EXITS PROVIDED
BUILDING A / LEVEL 2: 3 EXITS REQUIRED, 3 EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1009 - ACCESSIBLE MEANS OF EGRESS
1009.3 - FOR SPRINKLERED BUILDINGS, 48 IN. CLEAR HANDRAIL WIDTH IN EXIT STAIRS NOT REQUIRED.
1009.3 - FOR SPRINKLERED BUILDINGS, AREAS OF REFUGE IN EXIT STAIRS NOT REQUIRED

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.8 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1011 - STAIRWAYS
1011.2 - MINIMUM STAIRWAY WIDTH OF 44 IN.
1011.3 - MINIMUM STAIRWAY HEADROOM CLEARANCE OF 80 IN.
1011.5.2 - MAXIMUM RISER HEIGHT OF 7 IN., MINIMUM TREAD DEPTH OF 11 IN.
1011.6 - WIDTH OF LANDINGS SHALL BE NOT LESS THAN THE WIDTH OF STAIRWAY SERVED
1011.6 - LANDING DEPTH NEED NOT EXCEED 48 IN. FOR STRAIGHT-RUN STAIRS
1011.8 - A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE GREATER THAN 12 FT. BETWEEN FLOOR LEVELS AND LANDINGS

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
1017.2 - FOR GROUP E W/ SPRINKLER SYSTEM: EXIT TRAVEL DISTANCE IS 250 FT.

SECTION 1020 - CORRIDORS
1020.1 - FOR GROUP E W/ SPRINKLER SYSTEM: NO REQUIRED FIRE-RESISTANCE RATING
1020.2 - FOR GROUP E W/ OCCUPANT LOAD OF 100 OR MORE: MINIMUM WIDTH OF 72 IN.
1020.2 - FOR AN OCCUPANT LOAD LESS THAN 50: MINIMUM WIDTH OF 36 IN.
1020.3 - FOR ACCESS TO AND UTILIZATION OF MECHANICAL, PLUMBING, OR ELECTRICAL SYSTEMS OR EQUIPMENT: MINIMUM WIDTH OF 24 IN.
1020.2 - FOR ALL OTHER CONDITIONS: MINIMUM WIDTH OF 44 IN
1020.4 - FOR GROUP E W/ SPRINKLER SYSTEM: DEAD ENDS MAY BE 50 FT. IN LENGTH

2015 IECC COMPLIANCE DATA

CHAPTER 3 - GENERAL REQUIREMENTS

SECTION C301.1 - GENERAL
C301.1 - CLIMATE ZONE 2A

CHAPTER 4 - COMMERCIAL ENERGY EFFICIENCY

SECTION C402 - BUILDING ENVELOPE REQUIREMENTS
C402.1.3 - FOR ROOFS WITH INSULATION ENTIRELY ABOVE DEC K : R-25CI, **R-27CI PROVIDED**
C402.1.3 - FOR ABOVE GRADE, METAL-FRAMED WALLS: R-13 + R-5CI, **R-19 + R-10 CI PROVIDED**
C402.1.3 - FOR JOIST/FRAME FLOORS: R-30, **R-30 PROVIDED**
C402.1.3 - FOR UNHEATED SLAB-ON-GRADE FLOORS: NR
C402.1.3 - FOR NONSWINGING OPAQUE DOORS: R-4.75
C402.1.4.1 - EFFECTIVE R-VALUES FOR STEEL STUD WALL ASSEMBLIES

NOMINAL DEPTH	FRAMING SPACING	CAVITY R-VALUE	EFF. R-VALUE
3 1/2	16	13 / 15	5.88 / 6.45
3 1/2	24	13 / 15	7.15 / 7.80
6	16	19 / 21	7.03 / 7.35
6	24	19 / 21	8.55 / 9.03
8	16 / 24	25	7.75 / 9.50

C402.3 - EITHER THREE-YEAR AGED SOLAR REFLECTANCE OF 0.55 AND 3-YEAR AGED
THERMAL EMITTANCE OF 0.75 OR THREE-YEAR AGED SOLAR REFLECTANCE INDEX OF 64.
C402.4 - FOR CLIMATE ZONE 2 AND FIXED FENESTRATION: U-FACTOR OF 0.5
C402.4 - SOLAR HEAT GAIN COEFFICIENT REQUIREMENTS

PROJECTION FACTOR	SEW	N
PF <0.2	0.25	0.33
0.2 <= PF < 0.5	0.30	0.37
PF >= 0.5	0.40	0.40

SHGC OF SPECIFIED GLAZING = 0.25
U-VALUE OF SPECIFIED GLAZING = 0.33

C402.4.1 VERTICAL FENESTRATION SHALL NOT BE GREATER THAN 30 PERCENT OF GROSS
ABOVE-GRADE WALL AREA.

2015 IPC COMPLIANCE DATA

		OCCUPANCY	STUDENTS	STAFF
			3205	NA
WATER CLOSETS	MEN*	REQ'D		
		PROVIDED		
	LADIES	REQ'D		
		PROVIDED		
LAVATORIES	MENS	REQ'D		
		PROVIDED		
	LADIES	REQ'D		
		PROVIDED		
EDPS		REQ'D		
		PROVIDED		
SERVICE SINK		REQ'D		
		PROVIDED		

NOTE: PLUMBING COUNTS INCLUDE ALL GROUP TOILETS AVAILABLE TO THE GENERAL SCHOOL. FIXTURES LOCATED WITHIN CLASSROOMS, NURSES OFFICE, AND THOSE DEDICATED FOR PLAYGROUNDS ARE NOT INCLUDED.

* 419.2 SUBSTITUTION FOR WATER CLOSETS. IN EACH BATHROOM OR TOILET ROOM, URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 67 PERCENT OF THE REQUIRED WATER CLOSETS IN ASSEMBLY AND EDUCATIONAL OCCUPANCIES. URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50 PERCENT OF THE REQUIRED WATER CLOSETS IN ALL OTHER OCCUPANCIES.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
11111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

NO.	Date	Description

100% CD

G0.04 -T
LEVEL 01 CODE PLAN
FIELD HOUSE LOCKERS

TRAVIS HIGH SCHOOL

12/4/2025 10:47:50 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_TRAVIS_ARCH_FBISD ATHLETIC RENOVATIONS BP012-T_R25.rvt

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL SIZES, LOCATIONS AND ELEVATIONS NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS PRIOR TO SUBMITTING PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR FROM PERFORMING THE WORK REQUIRED UNDER THIS CONTRACT. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE OWNER/ENGINEER.
2. SOME UTILITIES MAY NOT BE SHOWN ON THE PLANS. FIELD VERIFY AND IDENTIFY LOCATIONS OF PIPING AND ALL UTILITIES NOT NOTED ON THE PLANS. NOTIFY THE OWNER/ENGINEER OF ANY POTENTIAL CONFLICTS PRIOR TO STARTING CONSTRUCTION.
3. ALL GENERAL AND SUB-CONTRACTORS ARE ENCOURAGED TO VISIT AND INSPECT THE SITE PRIOR TO SUBMITTING A PROPOSAL TO COMPLETE.
4. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES, TRAFFIC CONTROL DEVICES AND PAVING. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITY'S ENGINEERING STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAWINGS, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR AND MAKE SURE THE CORRECT BENCHMARK IS USED.
7. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
9. CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
10. CONTRACTOR SHALL MAINTAIN A SHEET OF REDLINE DRAWINGS RECORDING AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINES MARKED DRAWINGS WILL BE SUBMITTED TO THE ENGINEER WHO WILL MAKE THE CHANGES ON THE ORIGINAL DRAWINGS. LABELING EACH SHEET IN THE SET AS "RECORD DRAWINGS".
11. CONTRACTORS SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
12. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICAS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
13. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALK, ETC.) SHALL BE STABILIZED WITH PLANTINGS OR OTHERWISE RECEIVE 6 INCHES OF MULCH OR LOAM AND SEED AS DIRECTED BY THE ENGINEER.
14. CONTRACTOR SHALL PREVENT DUST, SEDIMENT AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
15. SAFETY - NEITHER THE OWNER NOR THE ENGINEER OF RECORD WILL BE RESPONSIBLE FOR COMPLIANCE WITH SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, FEDERAL, AND CONTRACTUAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ANY SCHOOL CHILDREN OUT OF THE WORK AREA.
17. STANDARD SPECIFICATIONS - ALL CONSTRUCTION WORK AND INSTALLATION SHALL CONFORM TO THE PROJECT SPECIFICATIONS PROVIDED WITH THE CONTRACT DOCUMENTS AND ANY STANDARD SPECIFICATIONS AS INDICATED ON THESE PLANS.
18. INSPECTIONS - THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR REQUIRED INSPECTIONS. THE PRESENCE OR ABSENCE OF AN INSPECTOR WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE PROPER PERFORMANCE OF WORK.
19. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVE OR ANY OTHER AGENCY HAVING JURISDICTION FOR ALL ACTIVITIES ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH OSHA PERFORMANCE CRITERIA.
20. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS.

SITEWORK GENERAL NOTES:

1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D698:
   A. UNDER STRUCTURES: SCARIFY AND RE COMPACT 12 INCHES OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   B. UNDER WALKWAYS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   C. UNDER TURF OR UNPAVED AREAS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 90% SPD.
   D. UTILITY TRENCHES: BACKFILL SHALL BE IN 8 INCHES LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS ON EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% SPD IN PAVED AREAS AND 90% SPD IN UNPAVED AREAS OR AS INDICATED IN THE DRAWINGS.
2. DIMENSIONS IN THE DOCUMENTS SHALL GOVERN.

CIVIL GRADING NOTES:

1. CLEAR AND GRUB WITHIN THE GRADING LIMITS SHOWN IN THE CIVIL DRAWINGS. REMOVE STUMPS AND ROOTS 3 INCHES IN DIAMETER AND LARGER AND NONPERISHABLE SOLID OBJECTS A MINIMUM 3 FEET BELOW SUBGRADE OR FINISHED EMBANKMENT.
2. STRIP AND STOCKPILE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES WITHIN THE LIMITS OF EARTHWORK OPERATIONS.
3. STRUCTURAL EXCAVATION: EXCAVATE TO INDICATE ELEVATIONS WITHIN A TOLERANCE OF 1 INCH. EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORM WORK AND FOR INSPECTIONS.

UTILITIES:

1. THE LOCATIONS, SIZES AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATE CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN IN THE PLANS. PRIOR TO ORDERING MATERIAL AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZED AND ELEVATIONS OF THE POINT OF CONNECTIONS TO EXISTING UTILITIES AND SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND PROPOSED UTILITY ROUTES. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 1-800-245-4545 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.

PAVING NOTES:

1. RIM ELEVATIONS FOR MANHOLES AND SEWER CLEANOUTS, WATER VALVE COVERS, ELECTRIC AND TELEPHONE PULL BOXES AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: 1 INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.

STORM SEWER CONSTRUCTION NOTES:

1. STORM SEWERS SHALL BE INSTALLED, BEDDED, AND BACKFILLED ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
2. STORM SEWERS LOCATED WITHIN PUBLIC R.O.W. OR SIDE LOT EASEMENTS SHALL BE REINFORCED CONCRETE PIPE (24-INCH AND LARGER) (C-76. CLASS III). AND SHALL BE INSTALLED, BEDDED, AND BACKFILLED IN ACCORDANCE WITH THE GOVERNING ENTITIES STANDARD DETAILS AND SPECIFICATIONS. UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
3. ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABILIZED SAND TO ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH ALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
4. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
5. ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES AND INLETS ARE TO PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL PROVIDE 18" MINIMUM CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
7. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF LOCAL GOVERNING ENTITY STANDARDS AND SPECIFICATIONS FOR JUSTING MANHOLES, INLETS AND VALVE BOXES TO GRADE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACKSLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF HIS WORK.
9. ALL DITCHES SHALL BE REGRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.

SWPPP CONSTRUCTION NOTES:

1. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG THE ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPPP) PLANS TO KEEP SILT AND/ OR EXCAVATIONS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM SEWER.
2. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.
3. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK, TRACKED FROM THE EXCAVATED AREA.
4. CONTRACTOR SHALL FOLLOW GOOD HOUSE KEEPING PRACTICES DURING THE CONSTRUCTION PHASE OF THE PROJECT ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
5. CONTRACTOR IS TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5-INCHES OR GREATER:
   A. DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
   B. AREAS USED FOR STORAGE THAT ARE EXPOSED TO PRECIPITATION.
   C. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
6. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS, AND CORRECTIVE ACTION IF SUCH OCCURS.

TRAFFIC NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. ALL TRAFFIC CLOSURES SHALL BE SCHEDULED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITIES APPROPRIATE HOURS.
3. NO LANES ON MAJOR THOROUGHFARES MAY BE BLOCKED FROM 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM UNLESS APPROVED BY THE LOCAL GOVERNING ENTITY.
4. NO TRAFFIC LANES SHALL BE CLOSED IN ALL RESIDENTIAL AREAS FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS.
6. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND OPEN THE LANES FOR NORMAL TRAFFIC FLOW.
7. OFF-DUTY UNIFORMED POLICE OFFICER(S)/FLAGGER(S) ARE REQUIRED TO DIRECT TRAFFIC WHEN THE LANES ARE BLOCKED.
8. IN THE EVEN THAT NO "TRAFFIC CONTROL PLANS" EXIST AS PART OF CONTRACT DRAWINGS. CONTRACT MAY PREPARE PLANS AND SUBMIT TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN-DAYS (10) PRIOR TO IMPLEMENTATION.
9. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS. HE/SHE SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING AN ALTERNATE SET OF PLANS* TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN (10) WORKING DAYS PRIOR TO IMPLEMENTATION.
10. APPROVED COPIES OF THE TRAFFIC CONTROL PLANS AND REQUIRED PERMITS SHALL BE MADE AVAILABLE FOR INSPECTION AT THE JOB SITE AT ALL TIMES. CONTRACTORS MUST SECURE REQUIRED PERMITS FROM THE LOCAL GOVERNING ENTITY'S TRAFFIC MANAGEMENT AND MAINTENANCE BRANCH BEFORE CLOSING A LANE/SIDEWALK. THE REQUEST MUST BE MADE AT LEAST TEN (10) DAYS IN ADVANCE OF THE CLOSURE. NOTE THAT WORKING HOURS MAY BE RESTRICTED OR THE REQUEST MAY BE DENIED.
    A. THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLAR AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME PART OF THE CONTRACT DRAWINGS.

WARNING: OVERHEAD ELECTRICAL LINES:

1. OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:
   A. ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
   B. OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
2. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222. ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-6248 OR (713) 207-5769.

CENTERPOINT ENERGY:
CAUTION: UNDERGROUND GAS FACILITIES:

1. LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, LLC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 OR 1-800-669-8344 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
   A. WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 945-8036 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
   B. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
   C. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
   D. FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3522 OR (713) 207-4200.
   E. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

AT&T TEXAS/SBC FACILITIES:

1. THE LOCATIONS OF AT&T TEXAS/SBC FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SBC FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANICAL EXCAVATION PROCEDURES. WHEN BORING THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SBC FACILITIES.
4. WHEN AT&T TEXAS/SBC FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SBC UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURY CABLES OR OTHER CABLES IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713)456-4552 OR EMAIL HIM AT rl7259@att.com, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR AT&T TEXAS/SWBT FACILITIES.

SANITARY SEWER NOTES:

1. ALL SEWERS SHALL BE TESTED FOR EXCESS DEFLECTION IN PIPE CROSS SECTION, FOR LATERAL AND VERTICAL PIPE OBSTRUCTION, AND FOR JOINT OFFSETS, BY PULLING A MANDREL THROUGH THE PIPE BY HAND. THE MANDREL SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILLING HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. OBSTRUCTIONS ENCOUNTERED SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. MANDREL AND TEST EQUIPMENT SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONDUCTING THE TEST.
2. USE BEDDING AND BACKFILL PER DETAILS PROVIDED IN THE CONTRACT DRAWINGS UNLESS FIELD CONDITIONS DICTATE OTHERWISE. CONTRACTOR TO NOTIFY ENGINEER OF WET TRENCH CONDITIONS PRIOR TO LAYING PIPE. USE CEMENT STABILIZED SAND AND BACKFILL TO WITHIN 1 FOOT OF PROPOSED OR EXISTING PAVEMENT SUBGRADE. BEDDING, CEMENT STABILIZED SAND AND/OR BACKFILL SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM FOR PIPE AND SHALL NOT BE PAID FOR DIRECTLY.
3. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 24 INCHES OF VERTICAL CLEARANCE AND 9 FEET HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND WATER LINES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 12 INCHES OF VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND STORM SEWER LINES.
4. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM THE MANHOLE RIM PER ASTM F477.
5. UNLESS OTHERWISE NOTED, ALL SANITARY SEWERS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE (PVC) SCH 40, CONFORMING TO ASTM D1785, OR APPROVED EQUAL. ALL SANITARY SEWERS SHALL HAVE RUBBER GASKET BELL AND SPIGOT CONNECTIONS.
6. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES SHALL BE PRECAST CONCRETE MANHOLES.
7. NO CONNECTIONS SHALL BE MADE TO EXISTING SANITARY SEWER LINES UNTIL ALL PROPOSED SEWER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED AND APPROVED BY THE LOCAL GOVERNING ENTITY.
8. WHENEVER THE MANHOLE COVERS ARE LOCATED BELOW THE 100 YEAR FLOOD PLAIN ELEVATION THEY SHALL BE GASKETED AND BOLTED AS DESCRIBED IN 317.2. OF THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES.
9. LOW-PRESSURE AIR TEST. THIS TEST SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM C-828, ASTM C-924 OR OTHER APPROPRIATE PROCEDURES. FOR SAFETY REASONS, AIR TESTING OF SECTIONS OF PIPE SHALL BE LIMITED TO LINES LESS THAN 36-INCH AVERAGE INSIDE DIAMETER. LINES 36-INCH AVERAGE INSIDE DIAMETER AND LARGER MAY BE AIR TESTED AT EACH JOINT. THE MAXIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE DURING A JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE SHALL BE COMPUTED BY THE FOLLOWING EQUATIONS:

   T = 0.0850(D)(K)/(Q) WHERE T = TIME FOR PRESSURE TO DROP 1.0 POUNDS PER SQUARE INCH GAUGE IN SECONDS
   K = 0.000419(D)(L), BUT NOT LESS THAN 1.0
   D = AVERAGE INSIDE DIAMETER IN INCHES
   L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET
   Q = RATE OF LOSS, ASSUME 0.0015 CU FT/MIN/SQ FT INTERNAL SURFACE
10. SDR-26 PVC PIPE TO USE "FULL BODIED" SDR-26 FITTINGS.
11. ALL PVC PIPE TO HAVE CELL CLASS 12454 A OR B AS PER ASTM D1784.
12. NO MORE THAN 2 HOURS SHALL ELAPSE BETWEEN MIXING AND PLACEMENT OF CEMENT STABILIZED SAND.
13. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% SPD, ±2% OF OPTIMUM MOISTURE CONTENT, IN MAXIMUM 8-INCH LIFTS.

WATER SYSTEM CONSTRUCTION NOTES:

1. METERS AND BACKFLOW BOXES SHALL BE SET A MINIMUM OF 3 INCHES ABOVE FINISHED GRADE WITH SLOPED BACKFILL TO DIRECT STORM WATER AWAY FROM BOX. BOXES SHALL BE BACKFILLED WITH A MINIMUM 12 INCHES OF CEMENT STABILIZED SAND AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. FIRE SPRINKLER LINES SHALL BE INSTALLED AND TESTED BY A CONTRACTOR LICENSED BY THE STATE TO PERFORM SUCH WORK UNDER SECTION 4(A) & (B) OF ARTICLE 5.43-3 OF THE TEXAS INSURANCE CODE. CONTRACTOR SHALL FURNISH OWN CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING AS REQUIRED BY THE TEXAS COMMISSION ON FIRE PROTECTION.
3. ALL PVC PIPE USED IN WATER SYSTEMS SHALL BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL.
4. WATER LINE PIPE AND FITTING MATERIALS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:
   A. LESS THAN 4 INCH POTABLE WATER LINE SHALL BE SCHEDULE 40, PVC 1120, PER ASTM D-1785, EXCEPT THAT THREADED PIPE SHALL BE SCHEDULE 80. 3 INCH POTABLE WATER MAY BE SDR 21 PVC (200 P.S.I.) WITH GASKETED JOINTS.
   B. SITE 4 INCH AND LARGER POTABLE WATER LINE SHALL BE AWWA C900, DR 18, CLASS 235 PVC.
   C. FIRE SPRINKLER LINE SHALL BE AWWA C900, DR 14, CLASS 305 PVC.
   D. FITTINGS FOR LESS THAN 3 INCH AND LARGER WATER LINE SHALL BE ASTM D-2466 SCHEDULE 40 PVC. THREADED FITTINGS SHALL BE SCHEDULE 80 PER ASTM D-2467.
   E. FITTINGS FOR 3 INCH AND LARGER WATER LINE SHALL BE ALL-BELL, PUSH-ON, DUCTILE IRON MECHANICAL JOINT FITTINGS WITH MEGA-LUG.
5. VALVES:
   A. 1 1/2 INCH AND SMALLER SHALL BE 125 P.S.I.G., BRONZE, RISING STEM, SINGLE-WEDGE, DISC TYPE, SCREWED ENDS, CRANE NO. 428 OR APPROVED EQUAL.
   B. 2 INCH THRU 2 1/2 INCH VALVES SHALL BE IRON BODY, DOUBLE GATE, NON-RISING STEM, 150 P.S.I.G. TEST; 2 INCH SQUARE NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
   C. 3 INCH AND LARGER VALVES SHALL BE 200 P.S.I.G. GATE VALVES PER AWWA C500 OR C509, PUSH-ON BELL ENDS WITH RUBBER JOINT RINGS; 2 INCH NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
6. POLYETHYLENE WRAP ALL CAST AND DUCTILE IRON PIPE AND FITTINGS PER SPECIFICATIONS.
7. WATER LINES SHALL HAVE A MINIMUM COVER OF 4 FEET BELOW NATURAL GROUND, FINISH GRADE, OR MEAN ELEVATION OF NEARBY DITCH, WHICHEVER IS LOWER. ALL WATER LINES SHALL MAINTAIN A MINIMUM 12 INCH CLEARANCE TO OTHER UTILITIES AT CROSSINGS UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINES INSTALLED OVER 8 FEET DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS. CONTRACTOR SHALL PROVIDE THRUST BLOCKING TO WITHSTAND 125% OF TEST PRESSURES.
8. SEPARATION DISTANCE FOR ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS CHAPTER 290.44, HARRIS COUNTY, AND TCEQ REQUIREMENTS, LATEST PRINTING.
9. WHERE A DOMESTIC WATERLINE CROSSES A SANITARY SEWER, INSTALL ONE JOINT (MINIMUM 18 FOOT LENGTH) OF WATERLINE PIP CENTERED ON THE SEWER.
10. CONTRACTOR SHALL TAKE SANITARY PRECAUTIONS DURING WATERLINE CONSTRUCTION AS CALLED FOR BY AWWA STANDARDS. PRECAUTIONS SHALL INCLUDE KEEPING PIPE CLEAN AND CAPPING, OR OTHERWISE EFF

VERTICAL CONTROL:

BENCHMARK :
FORT BEND COUNTY MARK NO. 89, BEING A BRASS DISC IN CONCRETE STAMPED "FORT BEND COUNTY ENGINEERING NO. 89" AT THE INTERSECTION OF LAKE CHARLOTTE COURT AND LAKE CHARLOTTE LANE PUBLISHED ELEV.=84.10' NAVD88 .

TBM A:
SET BOX CUT IN TOP ON CONCRETE HEADWALL NEAR THE EAST SIDE OF THE TRAVIS HIGH SCHOOL BASEBALL FIELD AS SHOWN ON THE SURVEY.

ESTABLISHED ELEVATION=85.19'

TBM B:
SET BOX CUT IN TOP ON CONCRETE LIGHT STANDARD LOCATED ON NORTHWEST OF THE TRAVIS HIGH SCHOOL SOFTBALL FIELD NEAR THE SOUTH SIDE OF THE EXISTING PARKING LOT, AS SHOWN ON THE SURVEY.

ESTABLISHED ELEVATION=90.57'

W. MORTON SURVEY
ABSTRACT NO. 62

GENERAL NOTES:

1. BEARINGS SHOWN HEREON ARE BASED ON GPS OBSERVATIONS THE LEICA GPS NETWORK TEXAS COORDINATE SYSTEM SOUTH CENTRAL ZONE, 4204, NAD83 (2011 ADJ.) ALL DISTANCES, BEARINGS & COORDINATES ARE SURFACE AND CAN BE CONVERTED TO GRID BY APPLYING THE AVERAGE SCALE FACTOR OF 0.999870017.

2. THIS SURVEY IS A TOPOGRAPHICAL SURVEY AND DOES INCLUDE A BOUNDARY SURVEY. EASEMENTS, ENCUMBRANCES AND BOUNDARY LINES EXIST THAT HAVE NOT BEEN SHOWN HEREON.

3. THIS SURVEY DOES NOT PROVIDE ANY DETERMINATION CONCERNING WETLANDS, FAULT LINES, TOXIC WASTE OR ANY OTHER ENVIRONMENTAL ISSUES. SUCH MATTERS SHOULD BE DIRECTED BY THE CLIENT OR PROSPECTIVE PURCHASER TO AN EXPERT CONSULTANT.

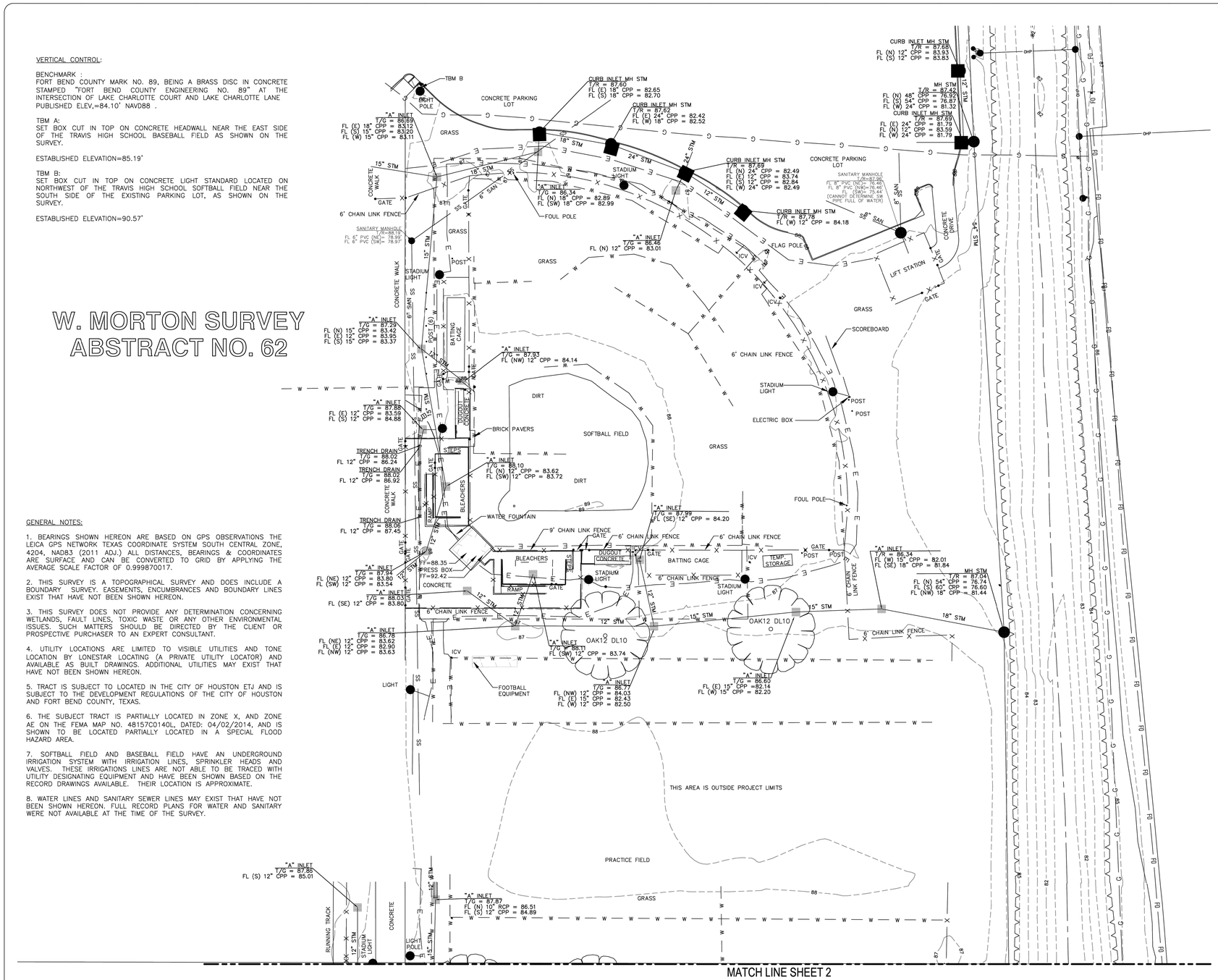
4. UTILITY LOCATIONS ARE LIMITED TO VISIBLE UTILITIES AND TONE LOCATION BY LONESTAR LOCATING (A PRIVATE UTILITY LOCATOR) AND AVAILABLE AS BUILT DRAWINGS. ADDITIONAL UTILITIES MAY EXIST THAT HAVE NOT BEEN SHOWN HEREON.

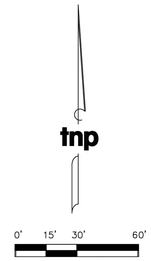
5. TRACT IS SUBJECT TO LOCATED IN THE CITY OF HOUSTON ETJ AND IS SUBJECT TO THE DEVELOPMENT REGULATIONS OF THE CITY OF HOUSTON AND FORT BEND COUNTY, TEXAS.

6. THE SUBJECT TRACT IS PARTIALLY LOCATED IN ZONE X, AND ZONE AE ON THE FEMA MAP NO. 48157C0140L, DATED: 04/02/2014, AND IS SHOWN TO BE LOCATED PARTIALLY LOCATED IN A SPECIAL FLOOD HAZARD AREA.

7. SOFTBALL FIELD AND BASEBALL FIELD HAVE AN UNDERGROUND IRRIGATION SYSTEM WITH IRRIGATION LINES, SPRINKLER HEADS AND VALVES. THESE IRRIGATIONS LINES ARE NOT ABLE TO BE TRACED WITH UTILITY DESIGNATING EQUIPMENT AND HAVE BEEN SHOWN BASED ON THE RECORD DRAWINGS AVAILABLE. THEIR LOCATION IS APPROXIMATE.

8. WATER LINES AND SANITARY SEWER LINES MAY EXIST THAT HAVE NOT BEEN SHOWN HEREON. FULL RECORD PLANS FOR WATER AND SANITARY WERE NOT AVAILABLE AT THE TIME OF THE SURVEY.





LEGEND

These standard symbols will may be found in the drawing.

- CHAIN LINK FENCE
- WOOD FENCE
- HIGH BANK
- BUILDING
- BURIED ELECTRIC LINE
- OVERHEAD POWER
- BURIED FIBER OPTIC LINE
- BURIED IRRIGATION LINE PER RECORD
- BURIED GAS LINE
- SANITARY SEWER LINE
- PER RECORD DRAWING
- FLAG POLE
- FENCE / GATE POST
- IRRIGATION CONTROL VALVE "ICV"
- STORM INLET
- LIGHT POLE
- MANHOLE
- NET POST
- POWER POLE
- ELECTRIC PULL BOX
- TREE OTHER
- OAK TREE

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND, THAT THIS PLAT DRAWING CORRECTLY REPRESENTS THE FACTS FOUND AT THE TIME OF SURVEY AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS STANDARDS AND SPECIFICATIONS FOR A CATEGORY 6, CONDITION II LIMITED TOPOGRAPHIC SURVEY.

THIS SURVEY IS FINAL AS AUTHORIZED BY BRIAN J. MADDOX, RPLS TX REG. No. 5430 ON DECEMBER 1, 2023

THE OFFICIAL DRAWING IS SIGNED AND SEALED IN SURVEYOR'S OFFICE

STATE OF TEXAS REGISTERED BRIAN J. MADDOX 5430 PROFESSIONAL LAND SURVEYOR

TSPS CATEGORY 6, CONDITION II
LIMITED TOPOGRAPHIC SURVEY
FORT BEND I.S.D. TRAVIS HIGH SCHOOL
BASEBALL AND SOFTBALL FIELDS

11111 HARLEM ROAD RICHMOND, FORT BEND COUNTY, TEXAS 77406

DATE: DECEMBER 01, 2023
SCALE: 1" = 30'

PROJECT INFORMATION
Project No.: FBI 23515
Date: DECEMBER 1, 2023
Drawn By: HL
Scale: 1"=30'
Sheet: 1 of 2

tnp

SURVEYOR
TEAGUE NALL AND PERKINS, INC.
1221 Park West Green Drive, Suite 100
Katy, Texas 77493
832.220.1205 ph
TBPELS Registration No. 10194381
www.tnpinc.com

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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TSCE PROJECT # 2598

pfluger
office 713.222.1141 | fax 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

TRAVIS HIGH SCHOOL
Project Info Additional Text Line
11111 Harlem Rd, Richmond, TX 77406

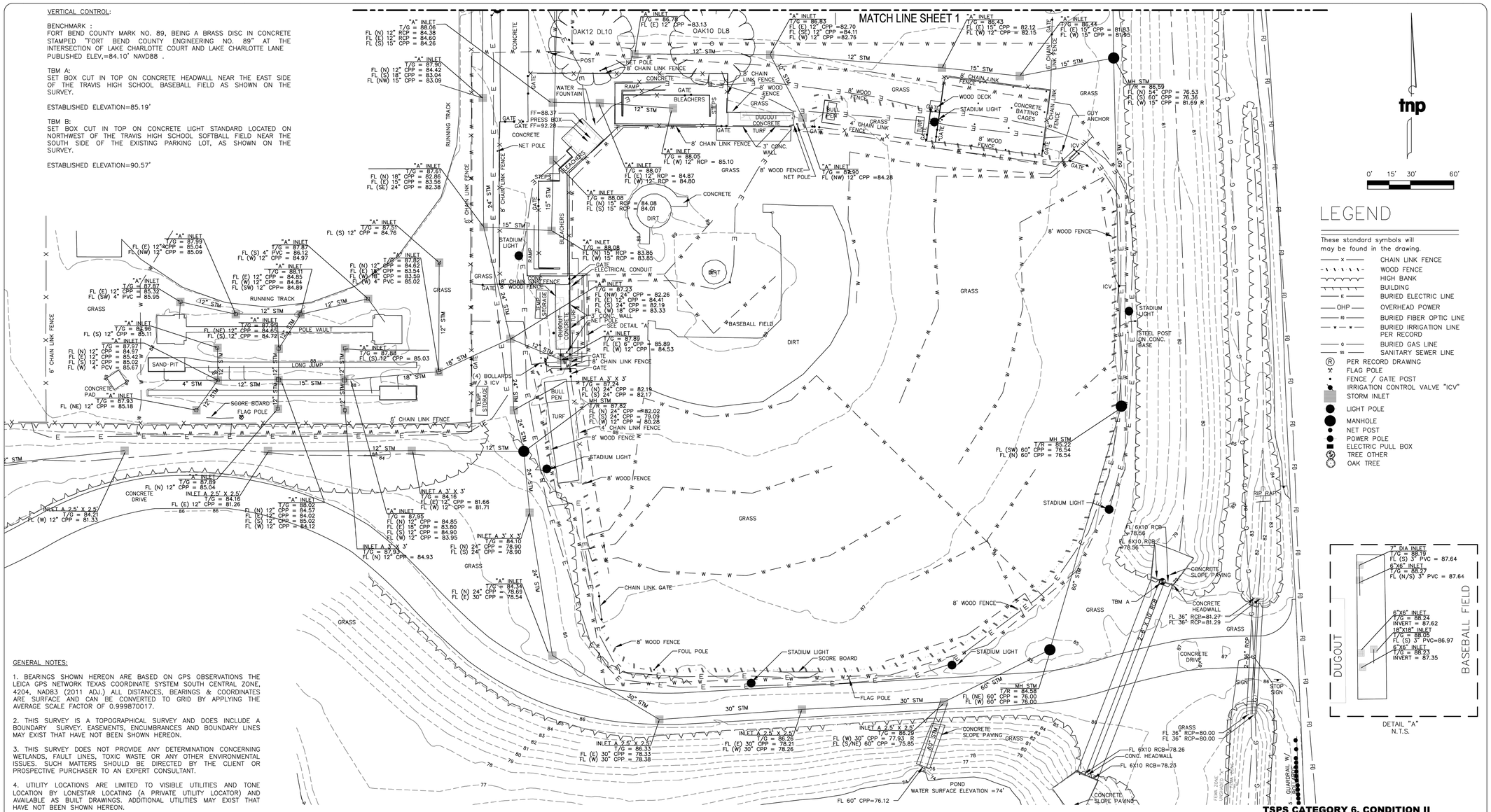
FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

100% CD
C 0.02-T
CIVIL SPORTS SURVEY
REFERENCE ONLY



VERTICAL CONTROL:

BENCHMARK :
FORT BEND COUNTY MARK NO. 89, BEING A BRASS DISC IN CONCRETE STAMPED "FORT BEND COUNTY ENGINEERING NO. 89" AT THE INTERSECTION OF LAKE CHARLOTTE COURT AND LAKE CHARLOTTE LANE PUBLISHED ELEV.=84.10' NAVD88 .

TBM A:
SET BOX CUT IN TOP ON CONCRETE HEADWALL NEAR THE EAST SIDE OF THE TRAVIS HIGH SCHOOL BASEBALL FIELD AS SHOWN ON THE SURVEY.

ESTABLISHED ELEVATION=85.19'

TBM B:
SET BOX CUT IN TOP ON CONCRETE LIGHT STANDARD LOCATED ON NORTHWEST OF THE TRAVIS HIGH SCHOOL SOFTBALL FIELD NEAR THE SOUTH SIDE OF THE EXISTING PARKING LOT, AS SHOWN ON THE SURVEY.

ESTABLISHED ELEVATION=90.57'

GENERAL NOTES:

1. BEARINGS SHOWN HEREON ARE BASED ON GPS OBSERVATIONS THE LEICA GPS NETWORK TEXAS COORDINATE SYSTEM SOUTH CENTRAL ZONE, 4204, NAD83 (2011 ADJ.) ALL DISTANCES, BEARINGS & COORDINATES ARE SURFACE AND CAN BE CONVERTED TO GRID BY APPLYING THE AVERAGE SCALE FACTOR OF 0.999870017.

2. THIS SURVEY IS A TOPOGRAPHICAL SURVEY AND DOES INCLUDE A BOUNDARY SURVEY. EASEMENTS, ENCUMBRANCES AND BOUNDARY LINES MAY EXIST THAT HAVE NOT BEEN SHOWN HEREON.

3. THIS SURVEY DOES NOT PROVIDE ANY DETERMINATION CONCERNING WETLANDS, FAULT LINES, TOXIC WASTE OR ANY OTHER ENVIRONMENTAL ISSUES. SUCH MATTERS SHOULD BE DIRECTED BY THE CLIENT OR PROSPECTIVE PURCHASER TO AN EXPERT CONSULTANT.

4. UTILITY LOCATIONS ARE LIMITED TO VISIBLE UTILITIES AND TONE LOCATION BY LONESTAR LOCATING (A PRIVATE UTILITY LOCATOR) AND AVAILABLE AS BUILT DRAWINGS. ADDITIONAL UTILITIES MAY EXIST THAT HAVE NOT BEEN SHOWN HEREON.

5. TRACT IS SUBJECT TO LOCATED IN THE CITY OF HOUSTON ETJ AND IS SUBJECT TO THE DEVELOPMENT REGULATIONS OF THE CITY OF HOUSTON AND FORT BEND COUNTY, TEXAS.

6. THE SUBJECT TRACT IS PARTIALLY LOCATED IN ZONE X, AND ZONE AE ON THE FEMA MAP NO. 48157C0140L, DATED: 04/02/2014, AND IS SHOWN TO BE LOCATED PARTIALLY LOCATED IN A SPECIAL FLOOD HAZARD AREA.

7. SOFTBALL FIELD AND BASEBALL FIELD HAVE AN UNDERGROUND IRRIGATION SYSTEM WITH IRRIGATION LINES, SPRINKLER HEADS AND VALVES. THESE IRRIGATIONS LINES ARE NOT ABLE TO BE TRACED WITH UTILITY DESIGNATING EQUIPMENT AND HAVE BEEN SHOWN BASED ON THE RECORD DRAWINGS AVAILABLE. THEIR LOCATION IS APPROXIMATE.

8. WATER LINES AND SANITARY SEWER LINES MAY EXIST THAT HAVE NOT BEEN SHOWN HEREON. FULL RECORD PLANS FOR WATER AND SANITARY WERE NOT AVAILABLE AT THE TIME OF THE SURVEY.

W. MORTON SURVEY
ABSTRACT NO. 62

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND, THAT THIS PLAT DRAWING CORRECTLY REPRESENTS THE FACTS FOUND AT THE TIME OF SURVEY AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS STANDARDS AND SPECIFICATIONS FOR A CATEGORY 6, CONDITION II LIMITED TOPOGRAPHIC SURVEY.

THIS SURVEY IS FINAL AS
AUTHORIZED BY BRIAN J. MADDOX, RPLS
TX REG. No. 5430 ON DECEMBER 1, 2023

THE OFFICIAL DRAWING IS SIGNED AND SEALED IN SURVEYOR'S OFFICE

STATE OF TEXAS REGISTERED BRIAN J. MADDOX 5430 PROFESSIONAL LAND SURVEYOR

0' 15' 30' 60'

LEGEND

These standard symbols will may be found in the drawing.

- CHAIN LINK FENCE
- WOOD FENCE
- HIGH BANK
- BUILDING
- BURIED ELECTRIC LINE
- OVERHEAD POWER
- BURIED FIBER OPTIC LINE
- BURIED IRRIGATION LINE PER RECORD
- BURIED GAS LINE
- SANITARY SEWER LINE
- PER RECORD DRAWING
- FLAG POLE
- FENCE / GATE POST
- IRRIGATION CONTROL VALVE "ICV"
- STORM INLET
- LIGHT POLE
- MANHOLE
- NET POST
- POWER POLE
- ELECTRIC PULL BOX
- TREE OTHER
- OAK TREE

TSPS CATEGORY 6, CONDITION II
LIMITED TOPOGRAPHIC SURVEY
FORT BEND I.S.D. TRAVIS HIGH SCHOOL
BASEBALL AND SOFTBALL FIELDS

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SUGAR LAND, TX 77479

KENNETH H. JURADO 119993 STATE OF TEXAS REGISTERED

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

100% CD
C 0.03-T
CIVIL SPORTS SURVEY
REFERENCE ONLY

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
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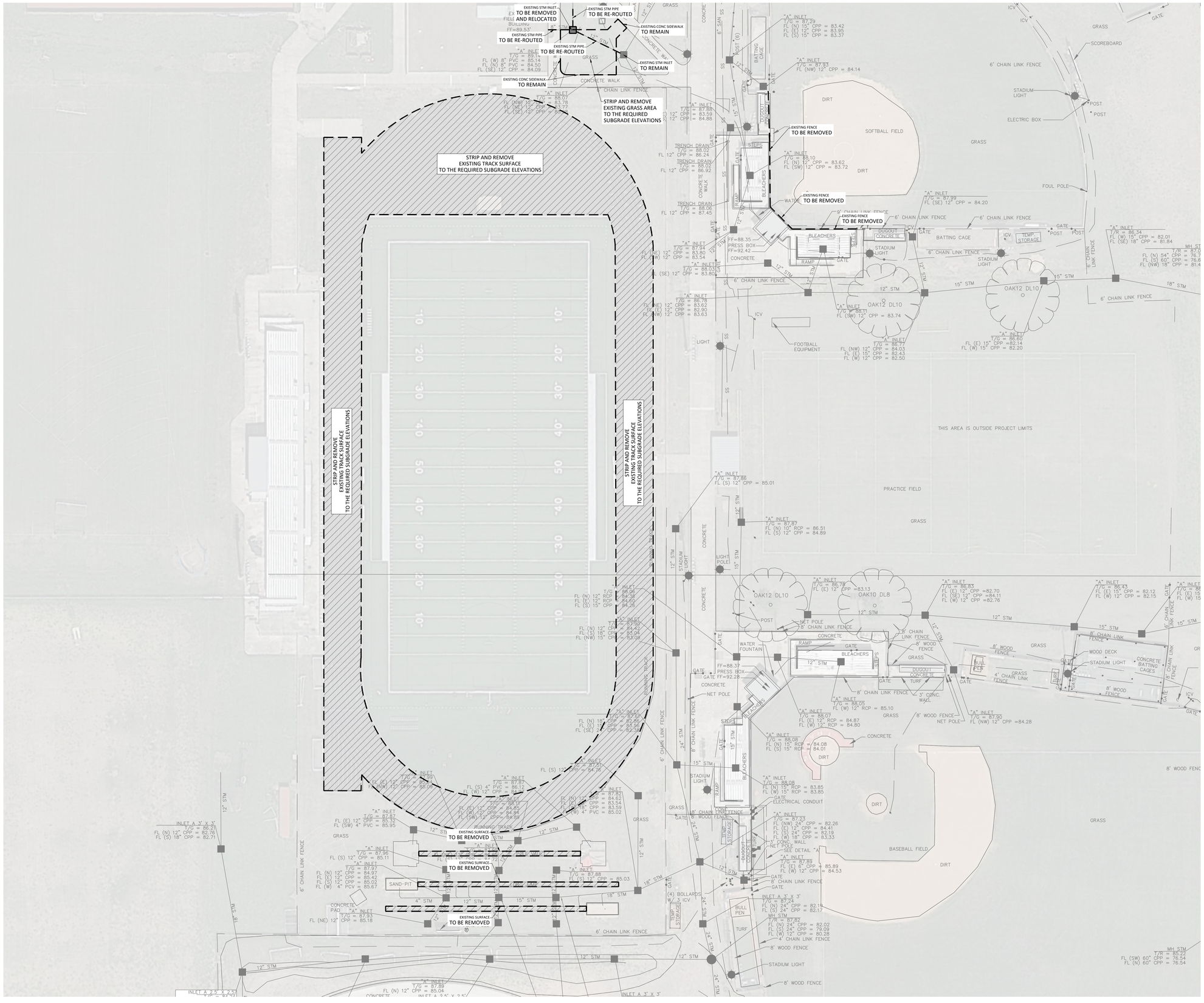
TSCE PROJECT # 2508



DEMOLITION NOTES:

A. EXISTING STRUCTURES TO REMAIN. CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND EXISTING STRUCTURES.

NOTES:

1. ALL DEMOLITION ITEMS INCLUDING ALL SOILS TO BE HAULED OFF OF SITE OR AS DIRECTED BY CLIENT.
2. IF ANY DAMAGE IS DONE TO ANY AREA NOT ON SCOPE OF WORK IT SHALL BE THE CONTRACTOR'S DUTY TO FIX IT AT ITS OWN EXPENSE.
3. CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND EXISTING STRUCTURES.
4. CONTRACTOR SHALL MAINTAIN ALL PUBLIC STREET AND RIGHT OF WAY FREE OF DEBRIS, SILT AND SOILS AT ALL TIMES.
5. ALL WASTED SPILLED FROM TRUCKS SHALL BE REMOVED IMMEDIATELY AND NOT WASHED INTO STORM SEWER SYSTEM.
6. INLET PROTECTION WILL BE REQUIRED AT INLETS DOWNSTREAM OF THE WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.

LEGEND:

STRIP AND REMOVAL OF MATERIALS

REMOVAL AND DISPOSAL OF ITEMS

15' 30' 30' 0 60'

TEXAS SPORTS & CIVIL ENGINEERING
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KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

12/04/2025

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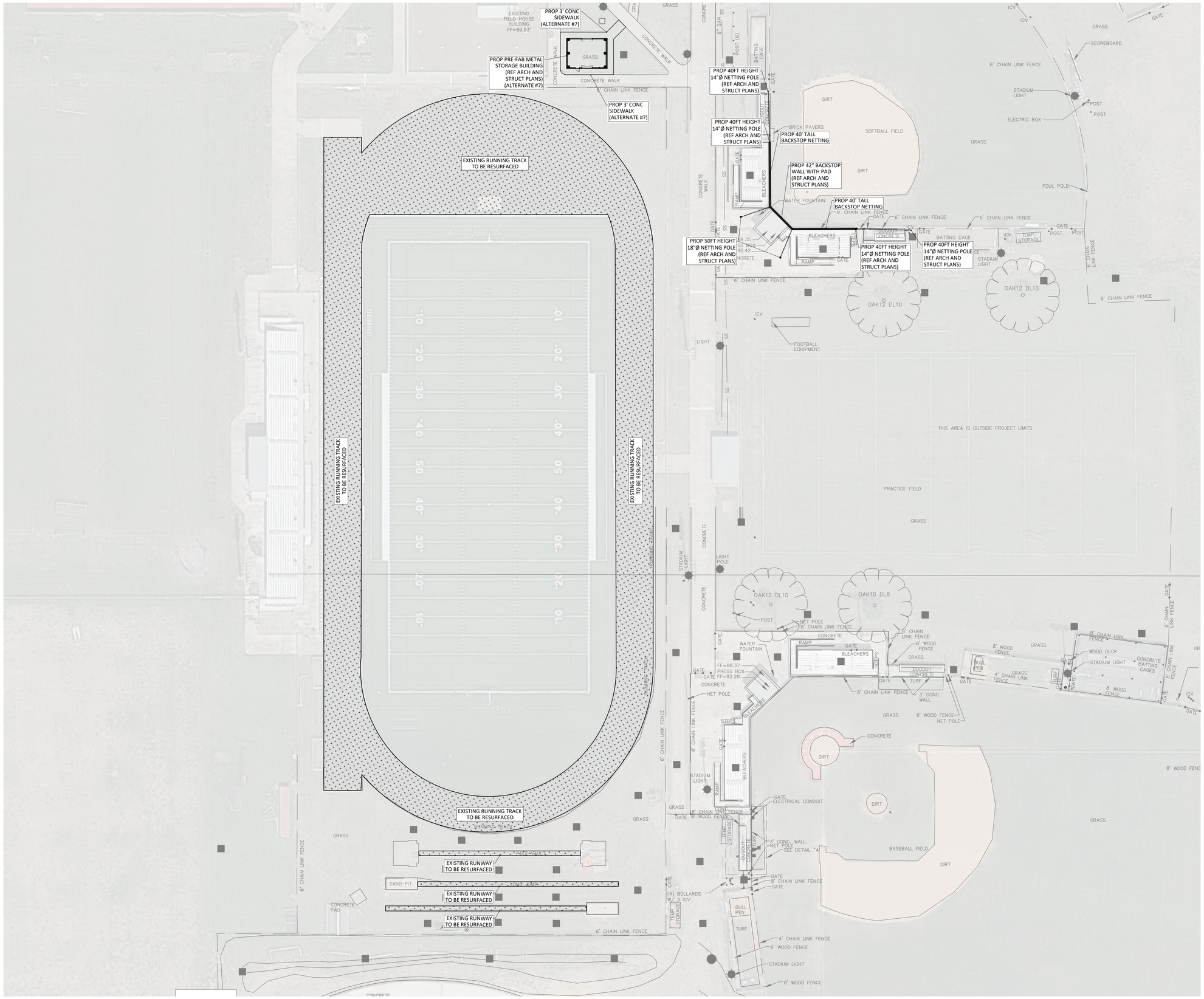
CIVIL SPORTS DEMOLITION PLAN



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pfluger
office 713.222.1141 | fax 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

TRAVIS HIGH SCHOOL

Project Info Additional Text Line

11111 Harlem Rd, Richmond, TX 77406

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INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
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KENNETH I. JURADO
119993
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 1.01-T
CIVIL SPORTS SITE PLAN

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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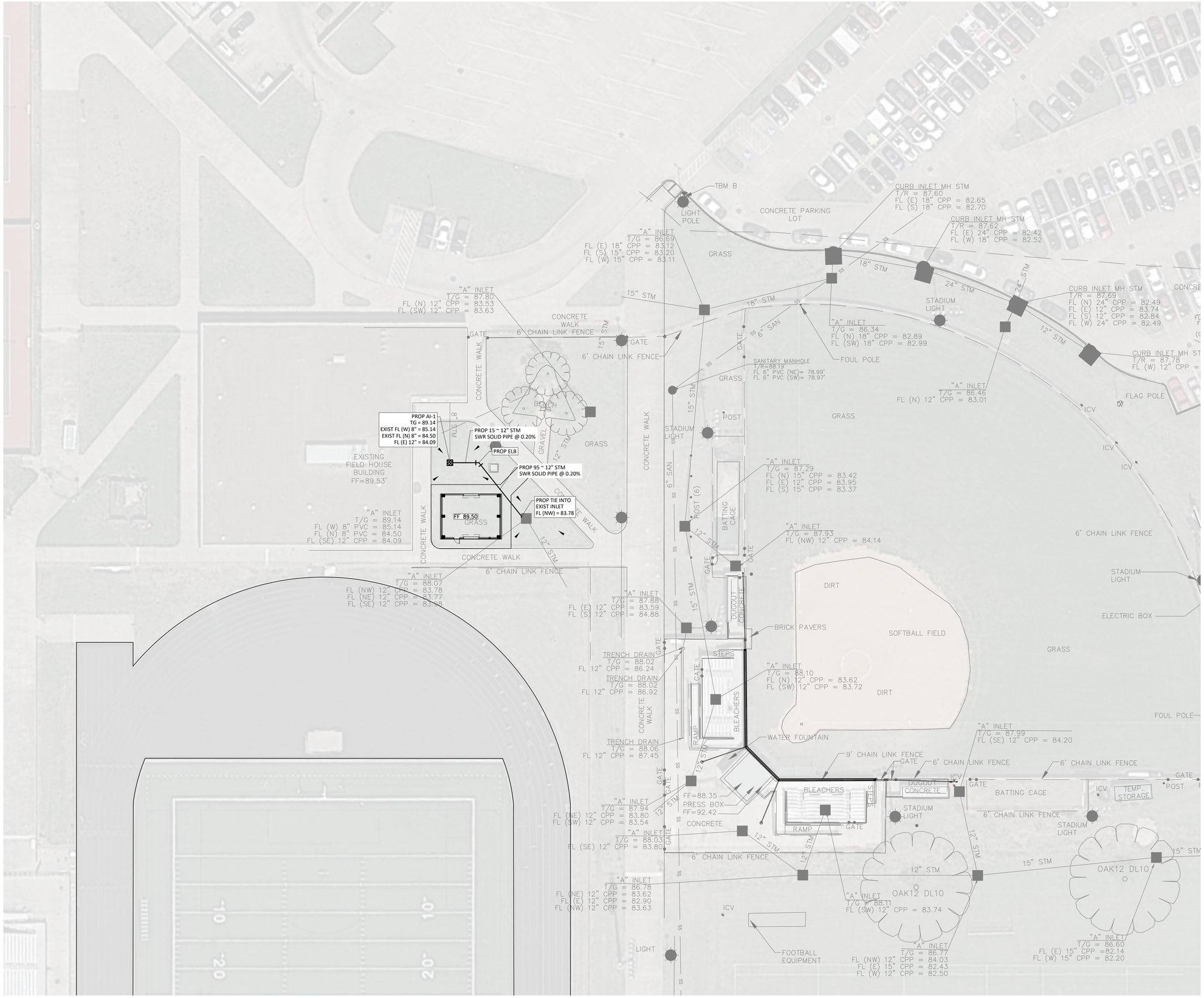

N

NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

10' 0 20' 20' 40'

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11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

TRAVIS HIGH SCHOOL
Project Info Additional Text Line
11111 Harlem Rd, Richmond, TX 77406

FBISD INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH E. JURADO 119993 LICENSED PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. BP012
DATE JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

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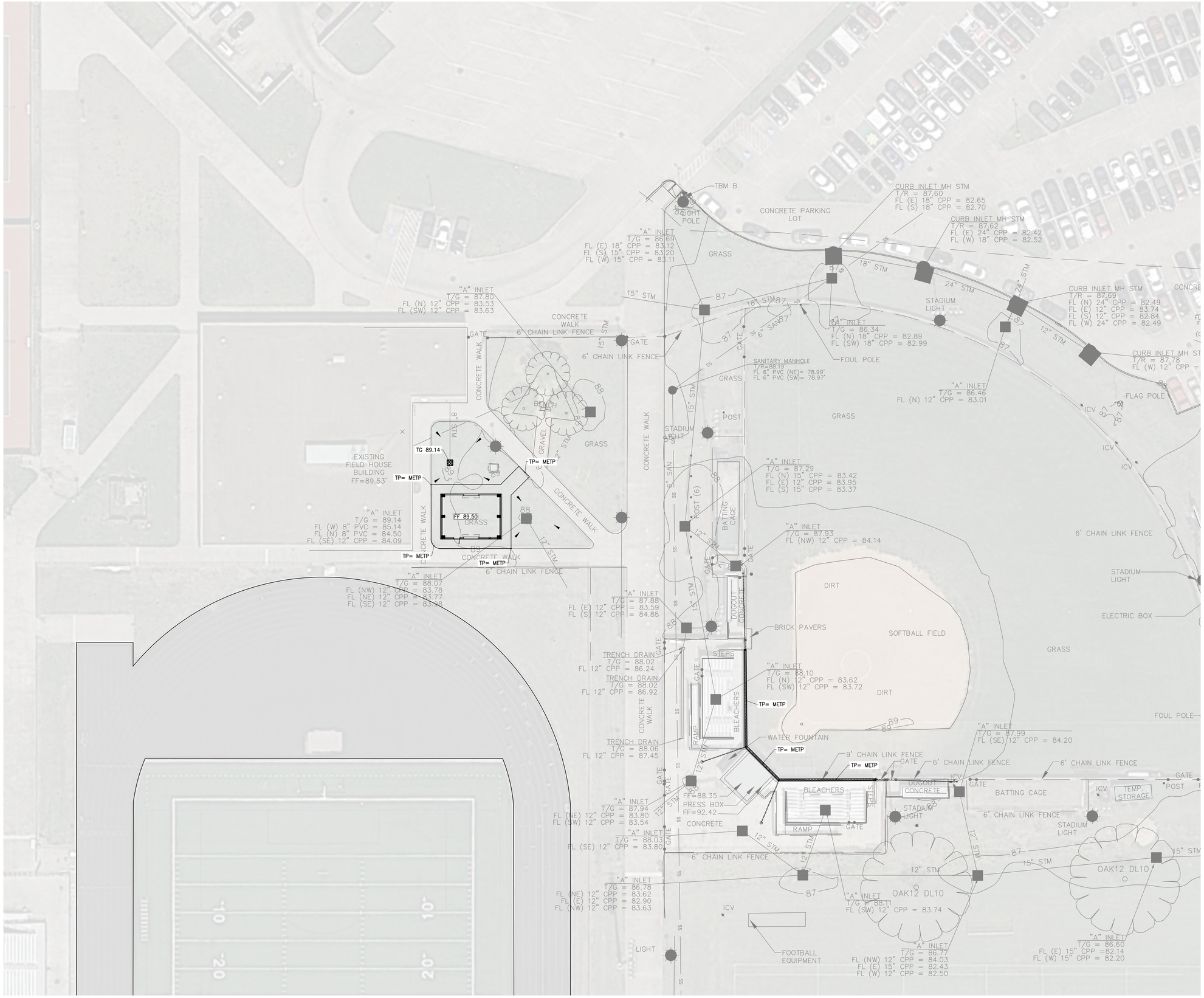
C 2.01-T
CIVIL SPORTS
DRAINAGE PLAN



N

NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.
2. CONTRACTOR TO MAKE SURE TO MAINTAIN POSITIVE DRAINAGE AROUND PROPOSED STORAGE

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRATE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

10' 0 10' 20' 20' 40'

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2 Greenway Plaza, Suite 460
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11111 Harlem Rd, Richmond, TX 77406

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH L. JURADO
11993
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

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DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
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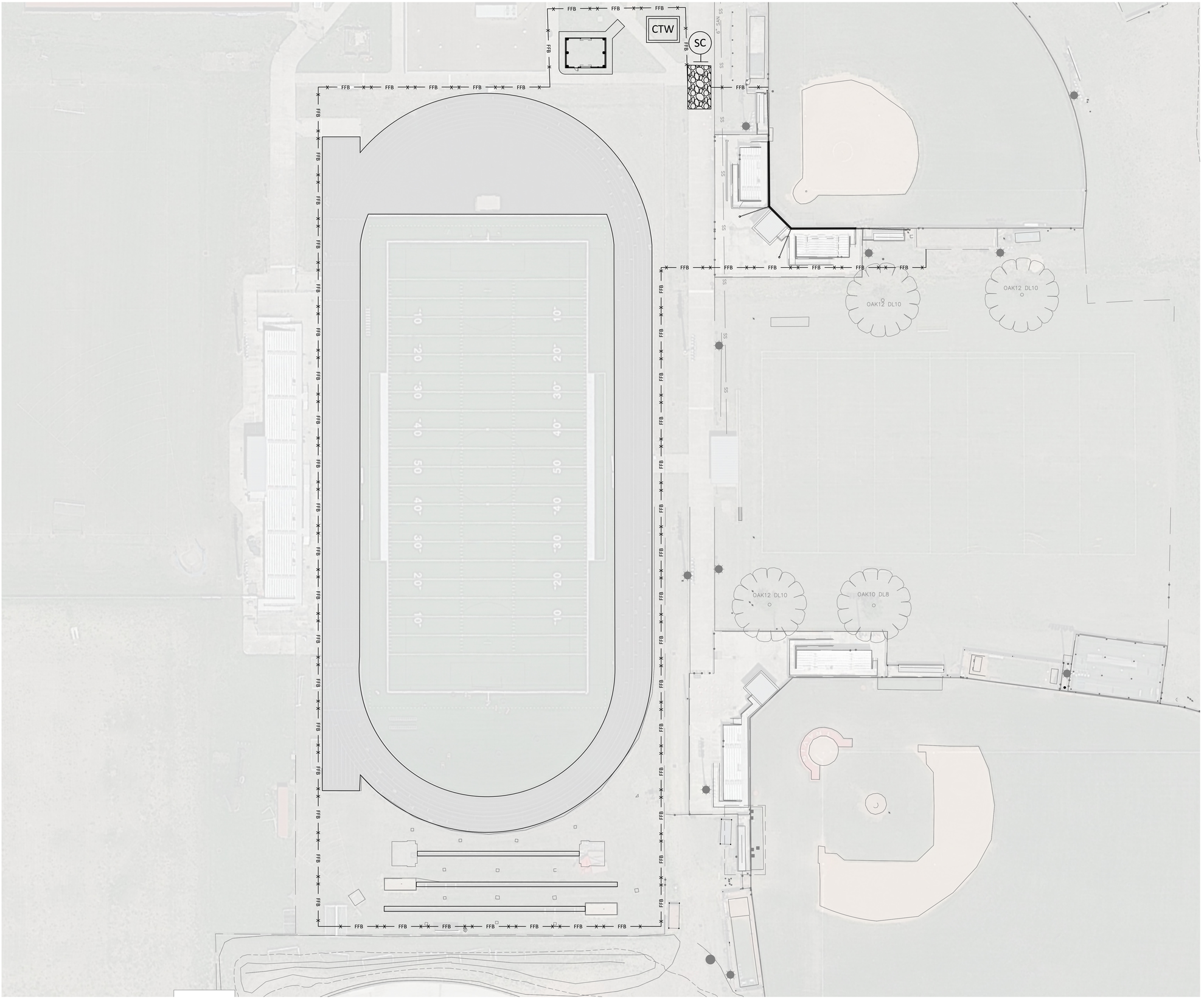
C 3.01-T
CIVIL SPORTS GRADING PLAN



NOTES:

1. CONTRACTOR TO PLACE "IPB" IN ALL SURROUNDING INLETS.

LEGEND:

IPB	INLET PROTECTION BARRIER STAGE I
IPB	INLET PROTECTION BARRIER STAGE II
SC	STABILIZED CONSTRUCTION ACCESS
CTW	CONCRETE TRUCK WASHOUT AREA
FFB	FILTER FABRIC BARRIER

15' 30'
30' 0 60'

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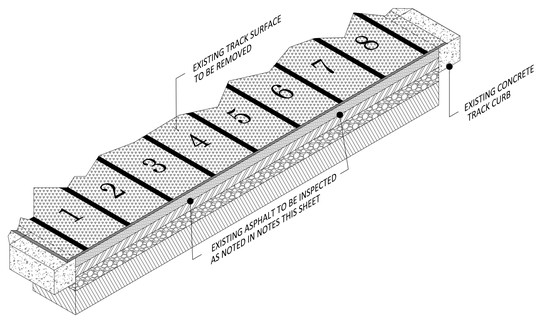
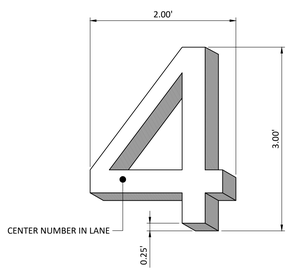
C 4.01-T
CIVIL SPORTS
SWPP PLAN



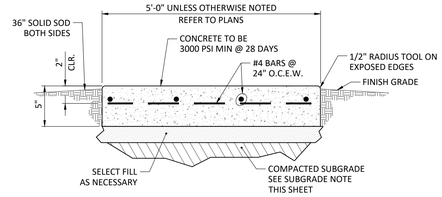
1 TRACK SURFACE SECTION
N.T.S.



2 TRACK NUMBER DETAIL
N.T.S.

NOTES:

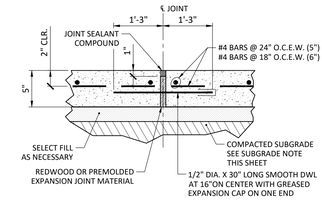
1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.
2. CONTRACTOR TO REMOVE THE EXISTING TRACK SURFACE FOR THE EXISTING TRACK AND FIELD EVENTS ALL THE WAY DOWN TO THE ASPHALT. ONCE ALL SURFACE HAS BEEN REMOVED, CONTRACTOR SHALL CONTACT THE ENGINEER TO INSPECT THE CONDITION OF THE EXISTING ASPHALT AND CONCRETE CURBS TO FIND THE AREAS THAT NEED TO BE FIXED OR REPLACED BEFORE ADDING ANY OTHER SURFACE.
3. CONTRACTOR TO APPLY THE PROPOSED TRACK SURFACE PER SPEC. (STRUCTURAL SPRAY).



NOTES:

1. PROVIDE GROOVED JOINT AT 4' ON CENTER.
2. PROVIDE 1/2" EXPANSION JOINT AT 15' ON CENTER.
3. PROVIDE CONTROL JOINTS AT 5' MAXIMUM.

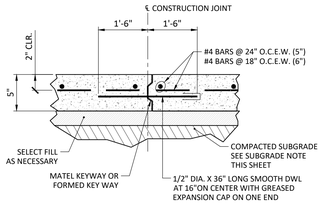
3 CONCRETE SIDEWALK DETAIL
N.T.S.



NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

4 EXPANSION JOINT DETAIL
N.T.S.

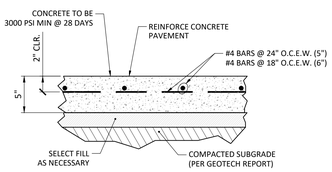


NOTES:

1. CONSTRUCTION JOINT SHALL BE PLACED AT THE END OF EACH DAYS POUR AND IN BETWEEN POURS AS SPECIFIED.

5 CONSTRUCTION JOINT DETAIL
N.T.S.

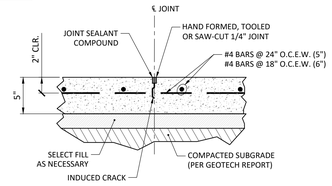
NOTE: SEE GEOTECH REPORT FOR REFERENCE



NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.
2. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

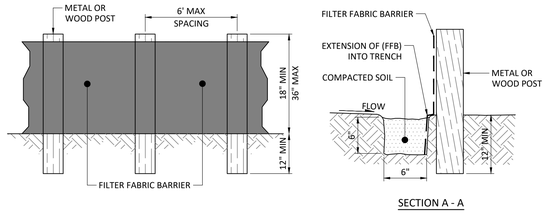
6 CONCRETE PAVEMENT DETAIL
N.T.S.



NOTES:

1. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

7 CONTROL JOINT DETAIL
N.T.S.



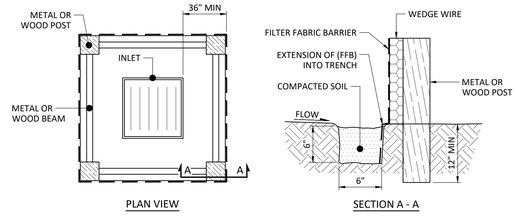
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

X FFB X

8 FILTER FABRIC BARRIER
N.T.S.



PLAN VIEW

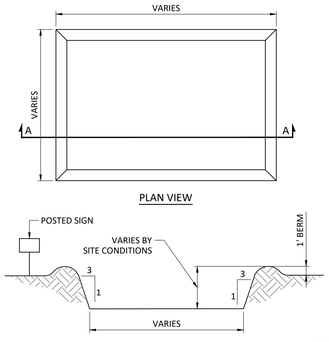
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

IPB

9 INLET PROTECTION BARRIER
N.T.S.



PLAN VIEW

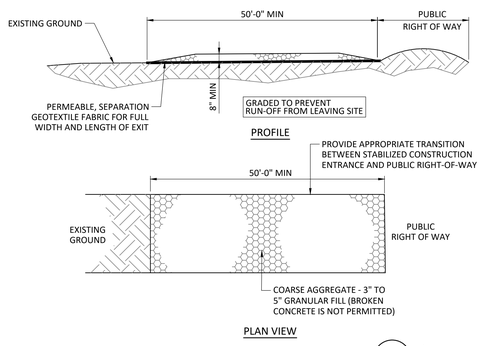
SECTION A - A

CTW

GENERAL NOTES:

1. POST A SIGN READING "CONCRETE WASH OUT PIT" NEXT TO THE PIT.
2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.
3. UNPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.

10 CONCRETE TRUCK WASHOUT AREA
N.T.S.



PLAN VIEW

SC

11 STABILIZED CONSTRUCTION ACCESS
N.T.S.

GENERAL NOTES:

1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
2. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
3. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
4. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
5. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
6. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
7. ALTERNATIVE METHODS OF CONSTRUCTION INCLUDE:
   - CEMENT STABILIZED SOIL: COMPACTED CEMENT STABILIZED SOIL, LIMESTONE AGGREGATE, OR OTHER FILL MATERIAL IN AN APPLICATION OF THICKNESS OF 8 INCHES.
   - WOOD MATS: OAK OR OTHER HARDWOOD TIMBERS PLACED EDGE TO EDGE AND ACROSS SUPPORT WOODEN BEAMS WHICH ARE PLACED ON TOP OF EXISTING SOIL IN AN APPLICATION THICKNESS OF 6 INCHES.
   - STEEL MATS: PERFORATED MATS PLACED ACROSS PERPENDICULAR SUPPORT MEMBERS.

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

TRAVIS HIGH SCHOOL
Project Info Additional Text Line
11111 Harlem Rd, Richmond, TX 77406

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
11999'3
LICENSED
STATE OF TEXAS

12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 5.01-T
CIVIL SPORTS DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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TSCE PROJECT # 2508

GENERAL

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES. THE CODES LISTED SHALL INCLUDE ALL AMENDMENTS AND ADDENDA IN FORCE AT THE DATE OF THE CONTRACT DOCUMENTS.

   2021 EDITION OF THE INTERNATIONAL BUILDING CODE

2. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL AND ARCHITECTURAL CONTRACT DOCUMENTS THE STRICTEST REQUIREMENTS SHALL GOVERN.

3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE AND REPORT ANY DISCREPANCIES OR INCONSISTENCIES FROM ASSUMED CONDITIONS TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.

4. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT THEY ARE CUT AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER.

5. DO NOT SCALE THE DRAWINGS.

6. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

7. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, AND CONSTRUCTION EQUIPMENT. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE.

10. IT IS THE DESIGN INTENT FOR ALL CONCRETE POURS TO HAPPEN IN SEQUENTIAL ORDER FROM FOUNDATIONS THROUGH ROOF. THE GENERAL CONTRACTOR SHALL DISCUSS WITH THE A/E TEAM THE FEASIBILITY OF NON-SEQUENTIAL POURING OF CONCRETE AND ITS IMPACT ON THE DESIGN INTENT AND ALLOW SUFFICIENT TIME FOR SUCH SCHEME TO BE INVESTIGATED OR REVIEWED.

11. PERIODIC SITE OBSERVATION BY THE ENGINEER IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

12. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBERS.

13. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, WALLS, SLABS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF STRUCTURAL ENGINEER.

14. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS, WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

15. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

    SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS,
    SIZE AND LOCATION OF INTERIOR AND EXTERIOR NON-LOAD BEARING PARTITIONS, SIZE AND LOCATION OF CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHAMFERS, GROOVES, INSERTS, ETC., SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS, FLOOR AND ROOF FINISHES,
    STAIR FRAMING AND DETAILS, DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, CEILING AND EXTERIOR WALL ASSEMBLIES.

16. SEE THE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

    PIPES, SLEEVES, HANGERS, TRENCHES, WALL, FLOOR AND ROOF OPENINGS, DUCT PENETRATIONS, ETC., EXCEPT AS SHOWN OR NOTED OTHERWISE
    ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS, CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL, OR PLUMBING FIXTURES, SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES AND ANCHOR BOLTS FOR MOUNTS.

DESIGN CRITERIA

1. DEAD LOAD MATERIALS ASSUMED IN THE DESIGN ARE SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

2. AN ALLOWANCE OF 15 PSF HAS BEEN MADE FOR PARTITIONS AS A UNIFORMLY DISTRIBUTED LIVE LOAD, WHEREVER PARTITIONS ARE USED AND LOCATION SUBJECT TO CHANGE EXCLUDING PUBLIC LOBBIES, CORRIDORS, RESTROOMS, AND PLACES OF PUBLIC ASSEMBLY.

3. LIVE LOADS:

LOCATION	UNIFORM LOAD	CONCENTRATED LOAD
ROOF	20 PSF REDUCIBLE	300 LBS
GROUND FLR, COMMON AREAS	100 PSF REDUCIBLE	
HANDRAILS AND GUARDRAILS	50 PLF OR 200 LBS APPLIED AT TOP RAIL IN ANY DIRECTION. 50 LBS IN ANY DIRECTION APPLIED AT INTERMEDIATE RAILS.	
GRAB BARS		250 LBS ANY DIRECTION

4. WIND LOADS

ULTIMATE WIND SPEED	134 MPH (3-SEC GUST)
NOMINAL WIND SPEED	104 MPH (3-SEC GUST)
RISK CATEGORY	II
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFF.	+/- 0.18
COMPONENTS & CLADDING	SEE DIAGRAM

5. SEISMIC LOADS

RISK CATEGORY	II
IMPORTANCE FACTOR	1.00
MAPPED ACCELERATION PARAMETERS	
SS	0.066
S1	0.038
SPECTRAL RESPONSE COEFFICIENTS	
SDS	0.07
SD1	0.06
SEISMIC DESIGN CATEGORY	A

6. HANDRAILS, GUARDRAILS AND GRAB BARS (INCLUDING ATTACHMENT TO STRUCTURE) SHALL BE DESIGNED BY THE FABRICATOR FOR THE LOADS INDICATED IN THE REFERENCED BUILDING CODE. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF WHERE THE PROJECT IS LOCATED, REPRESENTING THE FABRICATOR.

FOUNDATION

1. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT (AND ANY ADDENDA) PREPARED BY THE FOLLOWING COMPANY:

   COMPANY HVJ ASSOCIATES
   REPORT NO. HG1810383.17 –A
   DATED FEBRUARY 09, 2024

   ALL RECOMMENDATIONS THEREIN THAT RELATE TO THE WORK SHOWN ON THESE DRAWINGS SHALL BE FOLLOWED.

2. THE FOUNDATION SYSTEM IS DESIGNED BASED ON THE FOLLOWING

   ALLOWABLE BEARING PRESSURE:
   SPREAD FOOTING 2000 PSF
   BELLED PIER FOOTING 7000 PSF

3. THE GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR FOR REVIEW OF FOUNDATION BEARING SURFACE, INSPECTION OF FOUNDATION INSTALLATION, AND PLACEMENT OF REINFORCING STEEL. THE CONTRACTOR SHALL NOT PLACE CONCRETE WITHOUT INSPECTOR'S APPROVAL.

4. THE CONTRACTOR SHALL NOTIFY THE AUTHORIZED INSPECTOR 48 HOURS IN ADVANCE OF ANY MAJOR FOUNDATION POUR.

5. FORM EXPOSED FACES OF GRADE BEAMS.

6. GRADE BEAM BOTTOM STEEL SHALL BE CHAIRED AT 5 FOOT MAXIMUM CENTERS USING BEAM BOLSTERS PROVIDING 3 INCH BOTTOM COVER TO REINFORCING STEEL. BEAM BOLSTERS USED SHALL BE INTENDED FOR SUPPORT ON SOIL.

7. BOTTOM BARS OF GRADE BEAM SHALL BE SPLICED (WHERE REQUIRED) AT THE PIERS ONLY. TOP BARS SHALL BE SPLICED (WHERE REQUIRED) AT THE MIDSPAN OF THE GRADE BEAMS. LAP LENGTH SHALL BE 44 TIMES BAR DIAMETER UNLESS SPECIFIED OTHERWISE. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

8. ALL REINFORCING STEEL FOR SLABS SHALL BE CHAIRED WITH SLAB BOLSTERS FOR SUPPORT ON SOIL AT 4'-0" MAXIMUM CENTERS EACH WAY FOR REINFORCING FOR SLABS. DEPTH OF CHAIRS SHALL PROVIDE COVER TO REINFORCING AS NOTED ON PLANS/DETAILS.

9. SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R. PROVIDE (3) #3 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

10. SUBGRADE PREPARATION SHALL CONFORM TO THE SOILS REPORT NOTED ABOVE. IF REPORT DOES NOT SPECIFY THE AMOUNT OF SELECT FILL, PROVIDE FILL AS REQUIRED ABOVE TO REDUCE PVR TO 1 INCH.

11. VAPOR RETARDER SHALL HAVE NO MORE THAN 0.01 PERMS AS TESTED BEFORE AND AFTER MANDATORY CONDITIONING (ASTM E 1745 SECTION 7.1 AND SUB-PARAGRAPHS 7.1.2-5), MEET OR EXCEED THE REQUIREMENTS OF ASTM E 1745 CLASS A AND BE NO LESS THAN 15 MILS THICK.

12. ALL VAPOR RETARDER SEAMS SHALL BE OVERLAPPED A MINIMUM OF 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE. ALL PENETRATIONS, BLOCK-OUTS, AND OPENINGS SHALL BE SEALED USING A COMBINATION OF THE VAPOR RETARDER, MASTIC AND MANUFACTURER'S TAPE. DO NOT PENETRATE VAPOR RETARDER WITH FORMWORK STAKES. USE STEGO BEAST FORM STAKES OR EQUIVALENT WHERE REQUIRED.

13. THE BEARING STRATUM OF EACH DRILLED PIER SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR PRIOR TO POURING OF CONCRETE.

14. THE BOTTOM ELEVATION OF PIERS IS SHOWN ON THE DRAWINGS FOR BID PURPOSES. THE ACTUAL REQUIRED BEARING ELEVATION MAY VARY AS REQUIRED TO PROVIDE PROPER CAPACITY AS DETERMINED BY THE GEOTECHNICAL ENGINEER. FOOTINGS SHALL BE POURED IMMEDIATELY AFTER EXCAVATION.

15. PROVIDE AND INSTALL 1/8 INCH STEEL TEMPLATES TO ACCURATELY SET VERTICAL PIER REINFORCING STEEL, AND ANCHOR BOLTS FOR STEEL COLUMNS.

16. THE PRESENCE OF SAND SEAMS AND SLICKENSIDES IN THE LAYERS MAY CAUSE SLOUGHING DURING PIER EXCAVATION. THIS MAY REQUIRE THE USE OF TEMPORARY STEEL CASING.

17. THE GROUNDWATER LEVELS MAY FLUCTUATE SEASONALLY AND WITH CLIMATIC CHANGES. SEEPAGE OF GROUNDWATER INTO THE EXCAVATIONS IS POSSIBLE AND SEEPAGE FROM "PERCHED" WATER TRAPPED IN THE SOILS MAY ALSO OCCUR. THE CONTRACTOR SHALL MAKE PROVISIONS FOR DEWATERING THE FOOTING EXCAVATION IF GROUNDWATER IS ENCOUNTERED.

18. CONCRETE SHALL BE PLACED AS SOON AS POSSIBLE AFTER THE FOOTING EXCAVATIONS ARE COMPLETED TO REDUCE THE POTENTIAL FOR WATER SEEPAGE AND TO MINIMIZE THE DISTURBANCE TO THE BEARING AREA. IN NO CASE, SHOULD AN EXCAVATION BE LEFT OPEN OVERNIGHT.

STRUCTURAL STEEL

1. ALL ASPECTS OF WORK RELATING TO THE DESIGN, FABRICATION, DETAILING, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF THE AISC STEEL CONSTRUCTION MANUAL LATEST EDITION OF THE ANSI/AWS D1.1

2. STRUCTURAL STEEL MATERIALS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

WIDE FLANGE, CHANNELS	ASTM A992
ANGLES, PLATES, BARS	ASTM A572 GR 50
PIPES	ASTM A53 GR B
HSS (RECTANGULAR OR SQUARE)	ASTM A500 GR B (Fy = 46 KSI) OR GR C (Fy = 50 KSI)

3. SURFACES WHICH ARE TO BE FIREPROOFED WITH SPRAY-ON FIREPROOFING OR EMBEDDED IN CONCRETE SHALL NOT BE SHOP PAINTED. DO NOT PAINT TOP FLANGES OF COMPOSITE BEAMS NOR SURFACES OF MEMBERS WHERE WELDING OR HIGH STRENGTH FRICTION BOLTING WILL OCCUR. COORDINATE ALL SHOP PAINTING OF STRUCTURAL STEEL WITH ARCHITECTS PAINTING REQUIREMENTS AS SPECIFIED ON THE ARCHITECTURAL DRAWINGS AND IN THE SPECIFICATIONS.

4. ALL WELDING SHALL COMPLY TO THE AMERICAN WELDING SOCIETY STANDARD (AWS D1.1). ALL WELDED JOINTS SHALL BE DETAILED AS INDICATED BY THE PREQUALIFIED JOINT DETAILS IN THE STRUCTURAL WELDING CODE. WELD LENGTHS CALLED FOR ON THE PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED. ALL WELDS SHALL USE MINIMUM E70XX ELECTRODES.

5. ALL WELDING SHALL BE PERFORMED BY A WELDER CERTIFIED IN ACCORDANCE WITH THE AWS STANDARDS.

6. MISCELLANEOUS STEEL CONNECTIONS SHALL BE WELDED ALL AROUND WITH AISC MINIMUM FILLET WELD UNLESS A LARGER WELD IS SPECIFIED. STEEL MEMBERS CONTINUOUSLY ATTACHED SHALL BE STITCH WELDED TOGETHER WITH AISC MINIMUM 2" LONG FILLET WELD AT 12" O.C. UNLESS A LARGER WELD OR DIFFERENT GAGE IS SPECIFIED.

7. ALL STEEL EXPOSED TO WEATHER OR OUTSIDE THE BUILDING'S WATERPROOFING, SUCH AS BRICK SHELF ANGLES, SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION AS SPECIFIED BY THE STEEL STRUCTURES PAINTING COUNCIL (SSPC). THE ZINC COATING FOR STEEL SHAPES AND PLATES SHALL AVERAGE NOT LESS THAN 2.3 OZ. WITH NO INDIVIDUAL THICKNESS LESS THAN 2.0 OZ.

8. GALVANIZE ALL NUTS, BOLTS, AND WASHERS USED IN THE CONNECTION OF GALVANIZED STEEL.

9. GALVANIZED MEMBERS SHALL HAVE 'Z.R.C. COLD GALVANIZING COMPOUND OR APPROVED EQUIVALENT APPLIED TO FIELD WELDED CONNECTIONS. SURFACE AREAS TO RECEIVE COLD GALVANIZING COMPOUND SHALL BE CLEAN OF DIRT AND DEBRIS PRIOR TO COMPOUND APPLICATION. SEE MANUFACTURER'S LITERATURE FOR ADDITIONAL RECOMMENDATIONS.

CONCRETE

1. ALL ASPECTS OF WORK RELATING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CURRENT EDITION OF ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
   CRSI MANUAL OF STANDARD PRACTICE

2. STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTHS AND TYPES ARE AS FOLLOWS:

LOCATION	STRENGTH	TYPE	AGGREGATE SIZE	EXPOSURE CLASS
FOUNDATIONS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0

3. THERE SHALL BE NO HORIZONTAL COLD JOINT IN ANY CONCRETE POUR.

4. ADMIXTURES USED SHALL BE COMPATIBLE WITH FLOOR TREATMENTS. FINISH APPLICATOR SHALL APPROVE ADMIXTURES AND CURING COMPOUNDS PRIOR TO USE.

5. EXPOSURE CLASSES FOR FREEZING AND THAWING (F), SULFATE (S), WATER (W), AND CORROSION PROTECTION (C) HAVE BEEN PROVIDED. CONCRETE MIXES SHALL CONFORM TO ALL ACI 318 REQUIREMENTS BASED ON EXPSURE CLASS, INCLUDING, BUT NOT LIMITED TO WATER CEMENT RATIO, COMPRESSION STRENGTH, AIR CONTENT, CEMENTITIOUS MATERIALS, CALCIUM CLORIDE ADMIXTURES, AND WATER-SOLUABLE CHLORIDE ION CONTENT.

6. CONCRETE FOR SLAB-ON-GRADE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.45. ALL OTHER CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.50. ADJUST CONCRETE STRENGTH BEYOND MINIMUM SPECIFIED ABOVE TO MAINTAIN MAXIMUM WATER-CEMENT RATIO.

7. CONCRETE FOR SLAB-ON-GRADE AND METAL DECK SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.04% (400 MICROSTATIONS) AT 28 DAYS OF DRYING. LENGTH CHANGE SHALL BE MEASURED IN ACCORDANCE WITH ASTM C157.

8. FLY ASH CONFORMING TO ASTM C618, MAY BE USED UNLESS NOTED OTHERWISE. THE MAXIMUM AMOUNT OF FLY ASH SHALL BE 25% OF THE TOTAL CEMENTITIOUS MATERIAL BY WEIGHT.

9. AT POLISHED OR STAINED CONCRETE THE FLOOR FLATNESS (FF) SHALL BE 40 OR BETTER AND THE FLOOR LEVELNESS (FL) SHALL BE 30 OR BETTER UNLESS MORE STRINGENT REQUIREMENTS ARE PROVIDED IN THE SPECIFICATIONS.

10. CONCRETE FORMS SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS INDICATED ON THE STRUCTURAL DRAWINGS.

11. CONCRETE FOR SLABS TO RECEIVE A HARD-TROWELED FINISH SHALL NOT CONTAIN AIR-ENTRAINING ADMIXTURES OR HAVE A TOTAL AIR CONTENT GREATER THAN 3 PERCENT.

12. SUBMIT SHOP DRAWINGS TO ARCHITECT AND ENGINEER INDICATING LOCATIONS OF CONCRETE JOINTS TO REVIEW PRIOR TO PLACING CONCRETE. PLACE JOINTS AT LOCATIONS TO MINIMIZE THE EFFECTS OF SHRINKAGE AS WELL AS BEING PLACED AT POINTS OF LOW STRESS.

13. ROUGHEN CONCRETE SURFACES TO 1/4 INCH AMPLITUDE WHERE MASONRY WALLS INTERSECT CONCRETE OR WHERE NEW CONCRETE INTERFACES WITH EXISTING CONCRETE.

14. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB-ON-GRADE, CONCRETE ON METAL DECK, FRAMED CONCRETE FLOORS, AND WALLS DO NOT REQUIRE SLEEVES UNLESS NOTED OTHERWISE ON THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE ARCHITECT AND ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH CONCRETE BEAMS OR COLUMNS UNLESS SPECIFICALLY DETAILED.

15. WITH THE EXCEPTION OF SLABS ON GRADE AND CONCRETE ON METAL DECK, THE OUTSIDE DIAMETER OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS (OTHER THAN THOSE PASSING THROUGH) SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS AND SHALL BE CENTERED BETWEEN THE TOP AND BOTTOM REINFORCING UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED. CONDUIT AND PIPE SHALL BE SPACED AT 3" OR 3 DIAMETERS ON CENTER, WHICHEVER IS GREATER.

16. FOR SLABS ON GRADE AND METAL DECK SLABS NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB UNLESS SPECIFICALLY DETAILED OTHERWISE.

17. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING WHEN TEMPORARY SUPPORTS, SHORES, BACKSHORES, AND OTHER BRACING MAY BE SAFELY REMOVED.

REINFORCING STEEL

1. ALL ASPECTS OF WORK RELATING TO THE REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CRSI MANUAL OF STANDARD PRACTICE

2. DEFORMED BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.

3. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185, YIELD STRENGTH 65,000 PSI. WELDED DEFORMED WIRE FABRIC FOR ASTM A497, YIELD STRENGTH 70,000 PSI. ALL WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS ONLY. WHEREVER WELDED WIRE FABRIC IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED ONE CROSS WIRE SPACING PLUS 2 INCHES.

4. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ONE HALF, WHICHEVER IS GREATER.

5. WELDING OF REINFORCING IS PERMITTED ONLY WHERE SHOWN ON THE DRAWINGS OR WHEN APPROVED BY THE ENGINEER OF RECORD. WELDING OF REINFORCING BARS SHALL BE WITH LOW HYDROGEN ELECTRODES IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF AWS D1.4.

6. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.

7. REINFORCING DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME NUMBER, SIZE, SPACING, AND GRADE AS THE SPECIFIED VERTICAL REINFORCING, UNO.

8. IN ADDITION TO ALL OF THE REINFORCING STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF REINFORCING BARS TO BE FURNISHED, FABRICATED, AND PLACED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

9. CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS SHALL BE AS FOLLOWS:

LOCATION OF CONCRETE	MINIMUM COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #18 BAR	2"
#5 BAR AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND	
SLABS, WALLS, JOISTS	3/4"
BEAMS, COLUMNS (INCLUDING TIES)	1 1/2"
SLAB ON GRADE	SEE DETAILS
PRESTRESSED CONCRETE	SEE IBC 1907.7.3

SUBMITTALS

1. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:

   CONCRETE MIX DESIGNS AND ACCESSORIES
   REINFORCING STEEL
   PRE-ENGINEERED METAL BUILDING (*,#)
   LIGHT-GAGE FRAMING (*,^)
   CONCRETE MASONRY (MATERIAL AND REBAR REPLACEMENT PLANS)
   SLAB CONTRACTION JOINT LAYOUT
   NETTING POLE (*,^)

   ITEMS MARKED (*) SHALL HAVE SHOP DRAWINGS SEALED BY A REGISTERED ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED. ITEMS MARKED (#) SHALL BE SUBMITTED TO ENGINEER FOR OWNER'S RECORD ONLY AND WILL NOT HAVE ENGINEER'S SHOP DRAWING STAMP. ITEMS MARKED (^) SHALL HAVE SEALED STRUCTURAL CALCULATIONS SUBMITTED TO ENGINEER FOR OWNER'S RECORD.

2. ALL SHOP DRAWINGS MUST BE REVIEWED AND SEALED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.

3. CONTRACTOR SHALL SUBMIT ELECTRONIC COPIES (E.G. PDFS) OF ALL SHOP DRAWINGS SPECIFIED TO BE RETURNED BY THE ENGINEER.

4. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIAL REQUIRED BY THE CONTRACT DOCUMENTS TO BE FURNISHED SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.

5. SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN CONSTRUCTION ON THE PROJECT.

6. THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREIN AS CORRECT, AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREIN.

COLD-FORMED STEEL

1. ALL ASPECTS OF WORK RELATING TO COLD-FORMED (LIGHT GAGE) STEEL CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF THE AISI SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, INCLUDING ANY SUPPLEMENTS.

2. COLD-FORMED STEEL MEMBERS SHALL BE OF THE SIZE, GAUGE, AND SPACING SHOWN ON THE DRAWINGS. FLANGE WIDTHS SHALL BE 1 5/8" WITH 1/2" RETURNS UNLESS SPECIFIED OTHERWISE.

3. ALL FRAMING MEMBERS SHALL BE MANUFACTURED FROM CORROSION RESISTANT STEEL CONFORMING TO ASTM A653 (G60): 25 GAUGE THROUGH 18 GAUGE MEMBERS SHALL BE FORMED FROM STEEL HAVING A MINIMUM 33 KSI YIELD POINT PER ASTM A653 GRADE 33. 16 GAUGE THROUGH 12 GAUGE MEMBERS SHALL BE FORMED FROM STEEL HAVING A MINIMUM 50 KSI YIELD POINT PER ASTM A446 GRADE 50.

4. SPLICES IN FRAMING COMPONENTS EXCEPT RUNNERS AND TRACKS SHALL NOT BE PERMITTED.

5. AT LOAD BEARING WALLS SUPPORTING FLOOR OR ROOF JOISTS, LOCATE STUDS DIRECTLY UNDER THE JOISTS OR PROVIDE LOAD DISTRIBUTING MEMBER BETWEEN STUDS TO SUPPORT JOISTS.

6. FASTENING OF COMPONENTS SHALL BE WITH SELF-DRILLING SCREWS OR WELDING. WELDING SHALL BE DONE USING FILLET, PLUG, BUTT OR SEAM WELDS WITH A MINIMUM 3/32 IN. AWS TYPE 6013 WELDING RODS. WELD AREAS SHOULD BE RE-TOUCHED WITH THE APPROPRIATE PAINT OR COLD-GALVANIZING TO RETAIN CORROSION RESISTANCE. ALL WORK SHALL BE COMPLETED BY QUALIFIED WELDERS IN ACCORDANCE WITH AWS D1.3 STANDARDS.

7. PROVIDE HORIZONTAL BRIDGING IN ALL STUD SYSTEMS AT 4'-0" O.C. VERTICALLY FOR AXIALLY LOADED STUDS AND AT 6'-0" O.C. FOR NON-LOAD BEARING STUDS. WELD AT EACH STUD INTERSECTION.

8. SCREWS SHALL BE SELF-DRILLING AND OF TYPE S-12, ASTM C-954, EXCEPT THAT TYPE S, ASTM C-1002 MAY BE USED FOR 20 GAUGE OR 22 GAUGE MATERIAL ONLY. SCREWS SHALL BE 3/8" TO 1/2" LONGER THAT TOTAL MATERIAL THICKNESS.

9. SHEATHING MATERIALS FOR SHEAR WALLS MUST EXTEND AND BE CONNECTED TO THE TOP AND BOTTOM TRACKS.

10. STEEL STRUCTURAL STUD TRACK OF THE SAME GAUGE AS THE STUDS SHALL BE USED AT THE TOP AND BOTTOM OF ALL STUD WALLS UNLESS NOTED OTHERWISE. STUDS SHALL SIT FLAT AGAINST THE WEB OF THE STUD TRACK AND BE ATTACHED WITH 1-#8 X 5/8" SCREW EACH SIDE OF EACH STUD.

11. WEB PUNCH-OUTS SHOULD BE COORDINATED WITH BRACING AND UTILITY REQUIREMENTS. WEB PUNCH-OUTS OR WEB OPENINGS SHALL BE LOCATED A MINIMUM OF 6" OR MEMBER DEPTH, WHICHEVER IS GREATER, FROM STUD OR JOIST BEARING POINTS.

12. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS, OR AS REQUIRED FOR AN ANGULAR FIT AGAINST ABUTTING MEMBERS.

13. FOR NON-LOAD BEARING STUDS, CONNECTIONS SHALL ACCOUNT FOR THE DEFLECTION OF THE STRUCTURAL MEMBERS TO WHICH THE STUDS ARE ATTACHED (1" MINIMUM). PROVIDE SLIDING CLIPS AND/OR SLIP TRACKS.

14. JACK STUDS OR CRIPPLES SHALL BE INSTALLED BELOW WINDOW SILLS, ABOVE WINDOW AND DOOR HEADS, AND ELSEWHERE TO FURNISH SUPPORT, AND SHALL BE SECURELY ATTACHED TO CONNECTING MEMBERS.

15. PRIOR TO FABRICATION, THE CONTRACTOR SHALL SUBMIT ERECTION DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD FOR REVIEW AND APPROVAL.

16. TRACK SHALL BE SEC

CONCRETE MASONRY

1. ALL MASONRY MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION AND THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF TMS-402 CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES

2. ALL CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C90. UNLESS SPECIFIED OTHERWISE, CMU SHALL BE NORMALWEIGHT (LESS THAN 125 PCF, OVEN DRY UNIT WEIGHT). THE MINIMUM COMPRESSIVE STRENGTH OF MASONRY (F'M) SHALL BE 2000 PSI AS DETERMINED BY THE UNIT STRENGTH METHOD OR BY THE PRISM TEST METHOD.

3. UNLESS SPECIFIED OTHERWISE, ALL MORTARS AND THE MATERIALS THEREIN SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF MASONRY UNITS, ASTM C270, TYPE S EXCEPT FOR MASONRY IN CONTACT WITH THE EARTH SHALL BE TYPE M.

4. ALL GROUT SHALL BE FINE GROUT CONTAINING SAND, PORTLAND CEMENT, AND LIME (OPTIONAL) FOR GROUT SPACES LESS THAN 2 INCHES IN ANY HORIZONTAL DIRECTION, UNLESS SPECIFIED OTHERWISE. GROUT SHALL ATTAIN A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 2500 PSI TESTED ACCORDING TO ASTM C476.

5. CONTROL JOINTS SHALL BE LOCATED PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS OR AT A MAXIMUM SPACING OF 24 FEET ON CENTERS OR 3 TIMES THE WALL HEIGHT, WHICHEVER IS LESS. ALL MASONRY UNITS SHALL BE PLACED IN RUNNING BOND.

6. PROVIDE HORIZONTAL JOINT REINFORCING (TRUSS OR LADDER TYPE, 9 GAUGE) AT 16 INCHES ON CENTER FOR ALL CMU WALLS LAID IN A RUNNING BOND AND AT 8 INCHES ON CENTER FOR ALL CMU WALL NOT LAID IN A RUNNING BOND. HORIZONTAL JOINT REINFORCING SHALL BE LAPPED A MINIMUM OF 6". REINFORCEMENT SHALL CONFORM TO ASTM A951 AND SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.

7. ALL HORIZONTAL REINFORCING STEEL IN BOND BEAMS AND LINTEL BLOCK UNITS SHALL BE CONTINUOUS AND UNITS SHALL BE SOLID GROUTED. PROVIDE 48 TIMES BAR DIAMETER LAP FOR HORIZONTAL REINFORCING IN BOND BEAMS. NO SPLICES SHALL BE PROVIDED FOR HORIZONTAL REINFORCING IN BLOCK LINTELS.

8. GROUT CELLS SOLID WHERE VERTICAL BARS ARE SHOWN ON THE DRAWINGS. VERTICAL BARS SHALL EXTEND FROM BOTTOM TO THE TOP OF THE WALL. AT EACH VERTICAL BAR, PROVIDE MATCHING BAR SIZE DOWEL INTO FOUNDATIONS. PROVIDE MINIMUM 48 TIMES BAR DIAMETER SPLICE FOR VERTICAL BARS WHERE REQUIRED AND/OR SHOWN ON THE DRAWINGS UNLESS NOTED OTHERWISE.

9. GROUT LIFTS SHALL TERMINATE TO FORM A GROUT KEY A MINIMUM OF 1 1/2" BELOW MORTAR JOINTS WHEN SUBSEQUENT GROUT LIFTS WILL HAPPEN AFTER PREVIOUS GROUT LIFTS HAVE SET. GROUT KEYS IN BOND BEAMS OR LINTELS SHALL NOT BE PERMITTED.

10. MAXIMUM GROUT POUR HEIGHT SHALL BE 5' - 4" (8 BLOCK COURSES).

11. PROVIDE A BOND BEAM AT THE TOP OF ALL CMU WALLS AND REINFORCE WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE. UNLESS NOTED OTHERWISE, ALL EXTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #5 CONTINUOUS AND ALL INTERIOR BOND BEAMS SHALL BE REINFORCED WITH (2) - #4 CONTINUOUS. BOND BEAM REINFORCING SHALL NOT BE CONTINUED THROUGH CONTROL JOINT LOCATIONS.

12. PROVIDE BOND BEAMS AT A MAXIMUM OF 48 INCHES ON CENTER IN ALL EXTERIOR AND LOAD BEARING CMU WALLS NOT LAID IN A RUNNING BOND (E.G. STACK BOND). REINFORCED WITH (2) - #5 CONTINUOUS UNLESS NOTED OTHERWISE BOND BEAM REINFORCEMENT SHALL BE DISCONTINUED AT CONTROL JOINTS.

13. AT THE END OF EACH DAY AND DURING INCLEMENT WEATHER, ALL UNFINISHED MASONRY WORK SHALL BE COVERED AT THE TOP OF WALL AND EXTEND DOWN ALL SIDES A MINIMUM OF 24".

14. SEE TYPICAL DETAILS FOR INTERIOR WALL HEIGHT, BRACING AND REINFORCING REQUIREMENTS.

15. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH MASONRY WALLS DO NOT REQUIRE SLEEVES, UNLESS NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE GROUTING. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN GROUTED MASONRY IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH MASONRY LINTELS UNLESS SPECIFICALLY DETAILED.

16. ALL REINFORCED MASONRY WALLS WITH OPENINGS UP TO THREE (3) FEET WIDE, SHALL HAVE ONE VERTICAL BAR MINIMUM AT EACH SIDE OF OPENINGS. FOR OPENINGS LARGER THAN 3 FEET WIDE, PROVIDE TWO (2) VERTICAL BARS AT EACH SIDE OF OPENINGS UNLESS NOTED OTHERWISE. REINFORCING AT EDGES OF OPENING SHALL MATCH TYPICAL VERTICAL WALL REINFORCING (UNLESS NOTED OTHERWISE) AND SHALL EXTEND TO THE TOP OF WALL.

17. ALL REINFORCED MASONRY WALL CORNERS AND INTERSECTIONS SHALL HAVE ONE VERTICAL BAR (MINIMUM) IN GROUTED CELL. REINFORCING SHALL MATCH TYPICAL WALL VERTICAL REINFORCEMENT.

18. PROVIDE ONE VERTICAL BAR (MINIMUM) IN THE FIRST CELL EACH SIDE OF CONTROL JOINTS. REINFORCING SHALL MATCH TYPICAL VERTICAL WALL REINFORCING (UNLESS NOTED OTHERWISE) AND SHALL EXTEND TO THE TOP OF WALL.

19. FOR ANCHORED MASONRY VENEER, THE DISTANCE BETWEEN THE INSIDE FACE OF THE VENEER AND THE COLD-FORMED STEEL, MASONRY, WOOD, OR CONCRETE BACKUP SHALL BE AS SPECIFIED BY THE ARCHITECT, BUT NOT GREATER THAN 4 1/2". A MINIMUM 1 INCH AIR SPACE SHALL BE PROVIDED.

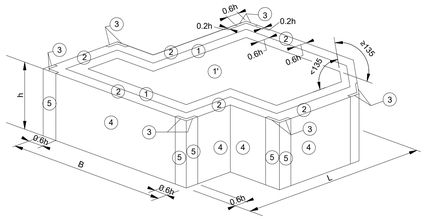
20. ANCHORED MASONRY VENEER NOT LAID IN A RUNNING BOND SHALL HAVE A JOINT REINFORCEMENT OF AT LEAST ONE WIRE, OF SIZE W1.7, SPACED AT A MAXIMUM OF 18 INCHES ON CENTER VERTICALLY.

21. ALL CONCRETE MASONRY AND MASONRY VENEER SHALL HAVE A MINIMUM BEARING WIDTH OF 2/3 THE WIDTH OF THE MASONRY UNIT.

22. SPECIAL INSPECTION, IN ACCORDANCE WITH THE BUILDING CODE REFERENCED ABOVE, SHALL BE PROVIDED FOR ALL CMU WALLS.

ROOF PRESSURE (GROSS)						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
1'	+17,-37	+16,-37	+16,-37	+16,-37	+16,-25	+16,-20
1	+17,-65	+16,-61	+16,-55	+16,-51	+16,-41	+16,-41
2	+17,-86	+16,-80	+16,-73	+16,-68	+16,-55	+16,-55
3	+17,-117	+16,-106	+16,-92	+16,-80	+16,-55	+16,-55

WALL PRESSURE						
ZONE	0-10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.	>1000 SQ. FT.
4	+37,-41	+36,-39	+34,-37	+32,-35	+28,-31	+28,-31
5	+37,-50	+36,-47	+34,-42	+32,-39	+28,-31	+28,-31



NOTES:
1. (0-10 SQ. FT.) EXAMPLE DENOTES EFFECTIVE WIND AREA.
2. + AND - SIGNS SIGNIFY PRESSURES ACTING TOWARD OR AWAY FROM THE SURFACES, RESPECTIVELY. ALL VALUES SHOWN ARE IN PSF.
3. WIND PRESSURE FOR EFFECTIVE WIND AREAS BETWEEN THE SPECIFIED RANGES MAY BE DETERMINED BY INTERPOLATION, OTHERWISE, USE THE VALUE ASSOCIATED WITH THE LOWER EFFECTIVE AREA.
4. h = EAVE HEIGHT.
5. ELEMENTS WITH TRIBUTARY AREAS GREATER THAN 700 SQ. FEET MAY BE DESIGNED USING MWFRS PROVISIONS.
6. VALUES SHOWN ARE BASED ON IBC 2018 / ASCE 7-16 WIND CALCULATIONS FOR COMPONENTS AND CLADDING AND ARE ULTIMATE VALUES (LRFD). VALUES SHOWN ARE FOR USE IN ASCE 7-16 LOAD COMBINATIONS SHOWN IN SECTION 2.3.1 (1.0W). IF NOMINAL (ASD) WIND LOADS ARE DESIRED OR REQUIRED FOR COMPARISON TO LOAD CAPACITIES OF FENESTRATIONS, CLADDING OR OTHER SYSTEMS, MULTIPLY THE VALUE ON THE CHART BY 0.625.
7. THE BUILDING LAYOUT SHOWN IS INTENDED TO BE SCHEMATIC, APPLY WIND PRESSURE PROVIDED SIMILARLY TO THE BUILDING(S) AT THIS PROJECT.
8. UNLESS OTHERWISE SPECIFIED, ROOF DEAD LOAD TO BE USED FOR NET UPLIFT CALCULATIONS SHALL NOT EXCEED 12 PSF. NET UPLIFT PRESSURE SHALL NOT BE LESS THAN 16 PSF.
9. ROOF ZONE 1' = INTERIOR
   ROOF ZONE 1 = FIELD
   ROOF ZONE 2 = PERIMETER
   ROOF ZONE 3 = CORNER
10. ROOF ZONE PRESSURES NOTED ABOVE ARE NOT INTENDED TO BE USED AS MINIMUM REQUIRED UPLIFT RATINGS FOR ROOF ASSEMBLIES. REFER TO SPECIFICATIONS FOR ROOF ASSEMBLY FOR WIND UPLIFT REQUIREMENTS.

COMPONENTS & CLADDING PRESSURES

ABBREVIATIONS

ABBR.	ABBREVIATION
A.F.F.	ABOVE FINISH FLOOR
ADDN'L	ADDITIONAL
AHU	AIR HANDLING UNIT
ALT.	ALTERNATE
ANCH.	ANCHOR
A.B.	ANCHOR BOLT
A.R.	ANCHOR ROD
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT(URAL)
BM.	BEAM
BRG.	BEARING
BTW	BETWEEN
BOT.	BOTTOM
B.F.B.	BOTTOM FLANGE BRACE
B.O.	BOTTOM OF
BRDG.	BRIDGING
BLDG	BUILDING
C	CAMBER
CANT.	CANTILEVER
C.I.P.	CAST IN PLACE
C/C	CENTER TO CENTER
CL	CENTERLINE
CH	CHANNEL
CLR.	CLEAR(ANCE)
CFMF	COLD FORMED METAL FRAMING
COL.	COLUMN
CJP	COMPLETE JOINT PENETRATION
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONST.	CONSTRUCTION
C.J.	CONSTRUCTION / CONTRACTION JOINT
CONT.	CONTINUOUS
COORD.	COORDINATE
DL	DEAD LOAD
DBA	DEFORM BAR ANCHOR
D	DEPTH
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
DWL	DOWEL
D.N.	DOWN
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
E.W.	EACH WAY
EL.	ELEVATION
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
ENGR.	ENGINEER
EOR	ENGINEER OF RECORD
EQ.	EQUAL
EQUIP.	EQUIPMENT
EQUIV.	EQUIVALENT
EXIST.	EXISTING
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
f'c=	28 DAY CONCRETE STRENGTH
FAB.	FABRICATE
F.S.	FAR SIDE
FIN	FINISH/FINISHED
FLR	FLOOR
F.D.	FLOOR DRAIN
FTG.	FOOTING
Fy=	YIELD STRENGTH
GALV.	GALVANIZED
GA.	GAUGE
GEN	GENERAL
G.C.	GENERAL CONTRACTOR
GFRC	GLASS FIBER REINFORCED CONCRETE
GR.	GRADE/GRADING
HGR.	HANGER
HSA	HEADED STUD ANCHOR
HI	HIGH
HSS	HOLLOW STRUCTURAL SECTION
HORIZ. OR (H)	HORIZONTAL
H	HORIZONTAL REACTION
IN	INCH
INFO.	INFORMATION
ID	INSIDE DIAMETER
I.F.	INSIDE FACE
INT.	INTERIOR
JT.	JOINT
JST.	JOIST
K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
Ld	DEVELOPMENT LENGTH
LWC	LIGHTWEIGHT CONCRETE
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLV	LONG LEG VERTICAL
LLH	LONG LGE HORIZONTAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LONG	LONGITUDINAL
LO	LOW
LBS	POUNDS
MFR. / MNFR.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM

MECH.	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M	MOMENT
M.C.	MOMENT CONNECTION
N.S.	NEAR SIDE
NWC	NORMAL WEIGHT CONCRETE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
O.C.	ON CENTER(S)
OPNG.	OPENING
OPP.	OPPOSITE
OPH.	OPPOSITE HAND
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OA	OVERALL
O.H.	OVERHEAD
OVS.	OVERSIZED HOLE
P	AXIAL LOAD
P.J.	PANEL JOINT
PAR.	PARALLEL
PRKG.	PARKING
PJP	PARTIAL JOINT PENETRATION
PVMT	PAVEMENT
PVG	PAVING
PERP.	PERPENDICULAR
PL.	PLATE
PLBG	PLUMBING
PT	POST-TENSION(ED)
PCF	POUNDS PER CUBIC FOOT/FEET
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT/FEET
PSI	POUNDS PER SQUARE INCH
P/C	PRECAST CONCRETE
PRELIM.	PRELIMINARY
P.L.	PROPERTY LINE
QTY	QUANTITY
R	RADIUS, REACTION, REMAINDER
REC.	RECESSED
RE:	REFER TO
REF.	REFERENCE
REINF.	REINFORCED / REINFORCING
REBAR	REINFORCING BAR
REQ'D	REQUIRED
REV.	REVISION
R.D.	ROOF DRAIN
RTU	ROOF TOP UNIT
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SLBB	SHORT LEG BACK TO BACK
SIM.	SIMILAR
SC	SLIP CRITICAL, SHEAR CONNECTOR
SPA.	SPACING
SPEC.	SPECIFICATION
SQ.	SQUARE
SF.	SQUARE FOOT/FEET
STD	STANDARD
STL	STEEL
STIFF.	STIFFENER
STIR.	STIRRUP
STRUCT.	STRUCTURE/STRUCTURAL
TEMP.	TEMPERED
THK	THICK(NESS)
t	THICKNESS, TREAD
THD	THREADED
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
VERT. OR (V)	VERTICAL
WT.	WEIGHT
WWR	WELD WIRE REINF.
WF	WIDE FLANGE
W	WIDTH
WL	WIND LOAD
W.P.	WORK POINT
XXS	DOUBLE EXTRA STRONG
XS	EXTRA STRONG
&	AND
≈	APPROXIMATELY EQUAL
@	AT
°	DEGREE
=	EQUAL
≥	GREATER THAN or EQUAL
≤	LESS THAN or EQUAL
#	NUMBER or POUNDS
/	PER
±	PLUS or MINUS
Ø	ROUND/DIAMETER

SYMBOLS LEGEND

SYMBOLS	DESCRIPTION
N	NORTH ARROW
XX S-X.XX	ENLARGE FLOOR PLAN REFERENCE OR ENLARGE DETAIL REFERENCE
XX S-X.XX	DETAIL SECTION (STRUCTURAL)
XX/SX.XX	BRACING ELEVATION
11 5/8" 5"	DIMENSIONS
XX/S-X.XX XX/S-X.XX	MATCHLINE
1	REVISION NUMBER & AFFECTED AREA
LEVEL NAME 0' - 0"	VERTICAL ELEVATION
EX: 152' - 6"	EXISTING ELEVATION
152' - 6"	NEW ELEVATION
	M.C. OR MOMENT CONNECTION
	DEPRESSION
	PANEL WALL TAG
12/36 BELL DIAMETER (IN) SHAFT DIAMETER (IN)	BELLED PIER
P1	PILE SHAFT
F3	FOOTING

STRUCTURAL SHEET INDEX

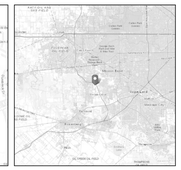
SHEET NUMBER	SHEET NAME	Current Revision
S1.01-T	GENERAL NOTES	
S1.02-T	GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX	
S2.01-T	FOUNDATION PLAN - FIELD HOUSE - NEW	
S2.02-T	FOUNDATION PLAN - SOFTBALL FIELD	
S3.01-T	TYPICAL FOUNDATION DETAILS	
S3.02-T	TYPICAL FOUNDATION DETAILS	
S3.03-T	TYPICAL FOUNDATION DETAILS	
S3.11-T	FOUNDATION SITE DETAILS	
S4.01-T	TYPICAL CMU WALL DETAILS	
Grand total: 9		

ASCE Hazards Report

Address: 11111 Harlem Rd Richmond, Texas 77406

Standard: ASCE/SEI 7-16
Risk Category: I
Soil Class: D - Default (see Section 11.4.3)

Latitude: 29.653503
Longitude: -95.716532
Elevation: 88.60966322592908 ft (NAVD 88)

Wind

Results:

Wind Speed	125 Vmph
10-year MRI	76 Vmph
25-year MRI	90 Vmph
50-year MRI	102 Vmph
100-year MRI	112 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1A and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Thu Jun 12 2025

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 15% probability of exceedance in 50 years (annual exceedance probability = 0.00333, MRI = 300 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25074

BP-012 FIELD HOUSE AND ATHLETIC RENOVATIONS

11111 Harlem Rd, Richmond, TX 77406

TRAVIS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
127177
LICENSED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

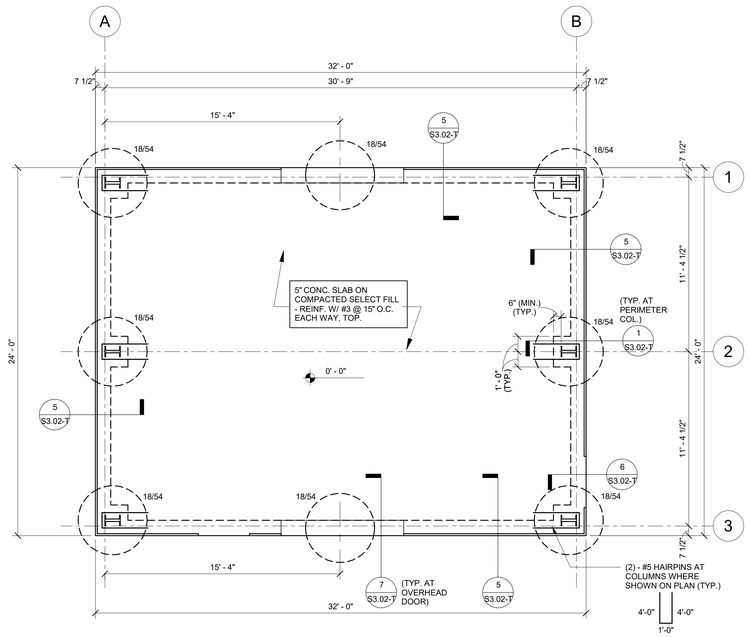
S1.02-T

GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX

12/3/2025 10:57:49 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_TRAVIS_STRUCT_R25.rvt

PEMB FOUNDATION PLAN NOTES:

1. ALL PIERS ARE CENTERED UNDER COLUMN CENTERLINES, U.N.O.
2. PIERS UNDER GRADE BEAM (WITHOUT COLUMNS) SHALL BE CENTERED UNDER GRADE BEAMS, U.N.O.
3. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
4. COORDINATE ALL BRICK LEDGES AND DEPTH WITH ARCHITECTURAL DRAWINGS.
5. LOCATIONS NOTED THUS: 0' - 0" INDICATES TOP OF SLAB ELEVATION.
6. SEE PEMB FOR BASE PLATE INFORMATION.
7. REFER TO PEMB FOR SIZE, LOCATION AND ORIENTATION OF ALL COLUMNS, ANCHOR BOLTS. NOTIFY ARCH. OF ANY DISCREPANCIES BETWEEN PLANS FOR RESOLUTION PRIOR TO FABRICATION AND INSTALLATION.
8. SEE 5/S3.03, 7/S3.03 & 10/S3.03 FOR ADDITIONAL REBAR AT OPENINGS, DISCONTINUOUS JOINTS, AND RE-ENTRANT CORNERS IN SLAB-ON-GRADE.
9. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.03.
10. REFER TO MEP FOR SLOPE - INVERT ELEVATION (I.E.) AT DRAINS.
11. TYPICAL SLOPE AT FLOOR IS 1/8" PER FOOT, U.N.O. ON ARCH.
12. PROVIDE (2)-#4X4'-0" TOP & BOT. AT ALL RE-ENTRANT CORNERS AT SLAB ON GRADE. TOP REINFORCING SHALL BE PLACED AT 1 1/4" CLEAR FROM THE TOP OF THE SLAB.
13. ——► WHERE SHOWN ON PLAN INDICATES SLOPE DIRECTION. SEE ARCH. FOR INFORMATION.
14. ALL COLUMN LOCATIONS SHOWN AND ASSOCIATED FOUNDATIONS ARE PLACEHOLDERS IN THE ABSENCE OF A COMPLETE METAL BUILDING DESIGN SUBMITTAL. SEE GENERAL NOTES FOR SUBMITTAL REQUIREMENTS.



1 FOUNDATION PLAN - FIELD HOUSE - NEW

SCALE: 1/4" = 1'-0"

ALTERNATE #7 - METAL STORAGE - FIELD HOUSE

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP-012 FIELD HOUSE AND ATHLETIC RENOVATIONS

11111 Harlem Rd, Richmond, TX 77406

TRAVIS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640



12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S2.01-T

FOUNDATION PLAN - FIELD HOUSE - NEW

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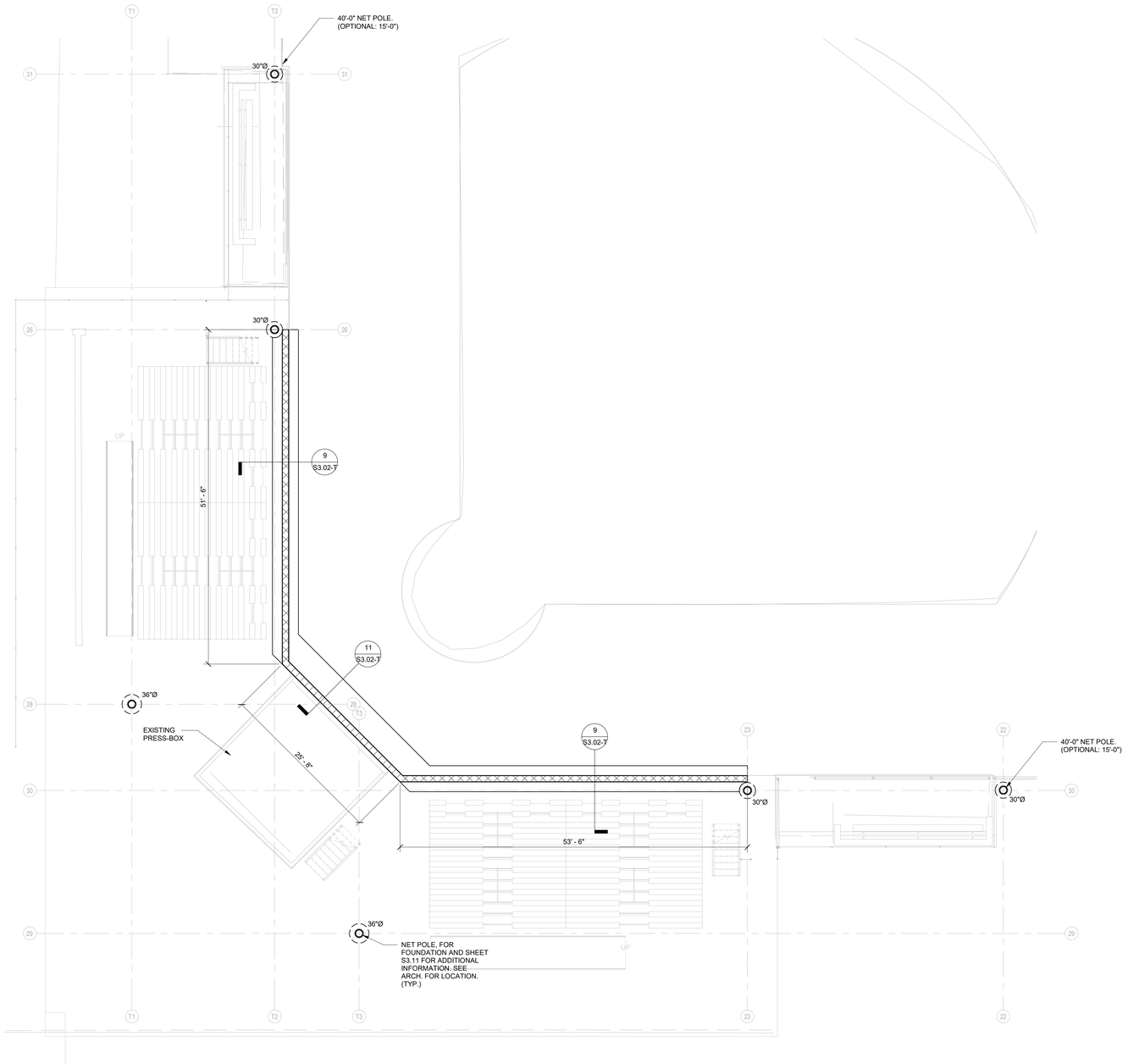
FOUNDATION PLAN NOTES:

1. ALL SPREAD FOOTINGS ARE CENTERED UNDER CMU WALL CENTERLINES, U.N.O.
2. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.



1 FOUNDATION PLAN - SOFTBALL FIELD - EXISTING
SCALE: 1/8" = 1'-0"

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

BP-012 FIELD HOUSE AND ATHLETIC RENOVATIONS

11111 Harlem Rd, Richmond, TX 77406

TRAVIS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
97175
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S2.02-T
FOUNDATION PLAN - SOFTBALL FIELD

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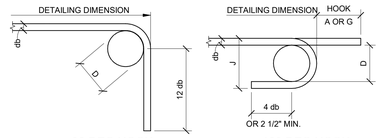


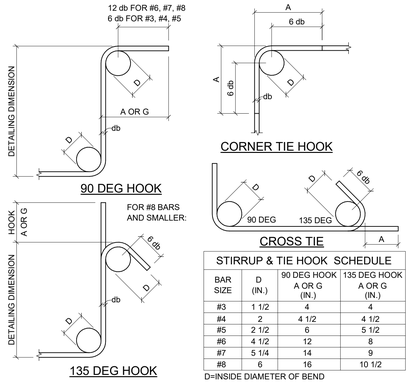
90 DEG HOOK 180 DEG HOOK

RECOMMENDED END HOOKS, ALL GRADES				
BAR SIZE	FINISHED BEND DIAMETER D, (IN.)	180 DEG HOOKS		90 DEG HOOKS
		A OR G, (IN.)	J, (IN.)	A OR G, (IN.)
#3	2 1/4	5	3	6
#4	3	6	4	8
#5	3 3/4	7	5	10
#6	4 1/2	8	6	12
#7	5 1/4	10	7	14
#8	6	11	8	16
#9	9 1/2	15	11 3/4	19
#10	10 3/4	17	13 1/4	22
#11	12	19	14 3/4	24
#14	18 1/4	27	21 3/4	31
#18	24	36	28 1/2	41

D = INSIDE DIAMETER OF BEND

END HOOK TYPES

20 SCALE: N.T.S.

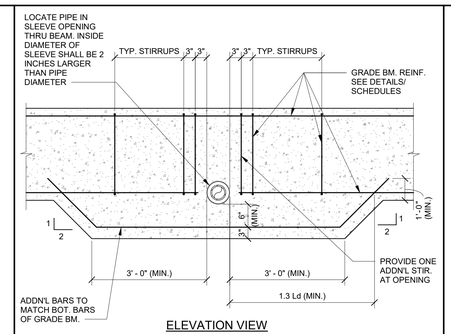


STIRRUP & TIE HOOK SCHEDULE			
BAR SIZE	D (IN.)	90 DEG HOOK A OR G (IN.)	135 DEG HOOK A OR G (IN.)
#3	1 1/2	4	4
#4	2	4 1/2	4 1/2
#5	2 1/2	6	5 1/2
#6	4 1/2	12	8
#7	5 1/4	14	9
#8	6	16	10 1/2

D=INSIDE DIAMETER OF BEND

STIRRUP AND TIE HOOK TYPES

16 SCALE: N.T.S.



ELEVATION VIEW

TYPICAL DETAIL OPENING THRU GRADE BEAM THAT CONFLICTS WITH BOTTOM REINFORCEMENT

8 SCALE: N.T.S.

DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION GRADE 60 (UNCOATED) REINFORCEMENT (NORMAL WEIGHT CONCRETE)															
BAR SIZE	F'c = 3000		F'c = 4000		F'c = 5000		F'c = 6000		F'c = 7000		F'c = 8000		F'c = 9000		F'c = 10000	
	Ldh	0.7Ldh	Ldh	0.7Ldh	Ldh	0.7Ldh	Ldh	0.7Ldh	Ldh	0.7Ldh	Ldh	0.7Ldh	Ldh	0.7Ldh	Ldh	0.7Ldh
#3	9	6	8	6	7	6	6	6	6	6	6	6	6	6	6	6
#4	11	8	10	7	9	6	8	6	8	6	7	6	7	6	6	6
#5	14	10	12	9	11	8	10	7	9	7	9	6	8	6	8	6
#6	17	12	15	10	13	9	12	9	11	8	11	8	10	7	9	7
#7	20	14	17	12	15	11	14	10	13	9	12	9	12	8	11	8
#8	22	16	19	14	17	12	16	11	15	11	14	10	13	9	12	9
#9	25	18	22	15	20	14	18	13	17	12	16	11	15	10	14	10
#10	28	20	25	17	22	16	20	14	19	13	18	12	17	12	16	11
#11	31	22	27	19	24	17	22	16	21	15	19	14	18	13	17	12

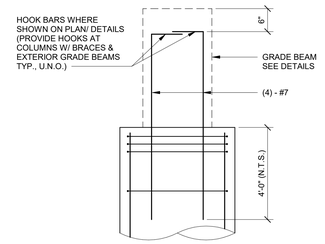
90° HOOKS 180° HOOKS



NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Lhb = TENSION DEVELOPMENT LENGTH.
3. Ldh = Lhb, UNLESS CONDITIONS OF ITEM 4 ARE SATISFIED.
4. Ldh = 0.7 Lhb, WHEN SIDE COVER NORMAL TO PLANE OF HOOK IS NOT LESS THAN 2 1/2 INCHES AND FOR 90° HOOK, COVER ON BAR EXTENSION BEYOND HOOK SHALL NOT BE LESS THAN 2 INCHES.
5. HOOKS SHALL NOT BE CONSIDERED EFFECTIVE IN DEVELOPING BARS IN COMPRESSION.

TYPICAL DETAIL DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (NORMAL WEIGHT CONCRETE)

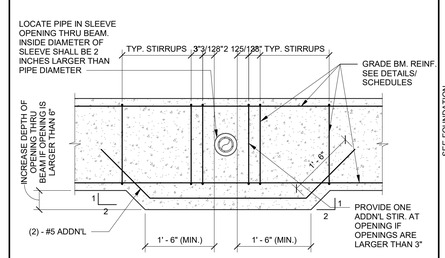
19 SCALE: N.T.S.



NOTES:
1. THIS DETAIL SHALL BE USED WHERE PIER REINFORCING STEEL CAN NOT BE ACCOMMODATED WITHIN WIDTH OF GRADE BEAMS.
2. SEE TYPICAL DRILLED PIER DETAIL FOR ADDITIONAL INFORMATION.

TYPICAL DETAIL SHAFT SIZE LARGER THAN GRADE BEAM WIDTH

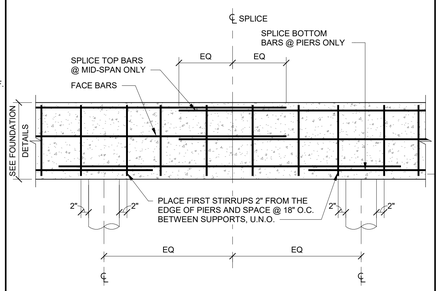
11 SCALE: N.T.S.



ELEVATION OF GRADE BEAM

TYPICAL DETAIL OPENING THRU GRADE BEAM

7 SCALE: N.T.S.



NOTES:
1. SLAB STEEL NOT SHOWN FOR CLARITY.
2. SEE TYPICAL DETAIL "TENSION DEVELOPMENT AND SPLICE LENGTH" FOR SPLICE DIMENSION.

TYPICAL DETAIL BEAM REINFORCING SPLICE DETAIL

3 SCALE:N.T.S.

COMPRESSION DEVELOPMENT LENGTHS AND COMPRESSION LAP SPLICE LENGTHS GRADE 60 (UNCOATED) REINFORCEMENT (NORMAL WEIGHT CONCRETE)							
BAR SIZE	F'c = 3000		F'c = 4000		F'c ≥ 5000		BAR SIZE
	Ldc	Splice	Ldc	Splice	Ldc	Splice	
#3	9	12	8	12	8	12	#3
#4	11	15	10	15	9	15	#4
#5	14	19	12	19	12	19	#5
#6	17	23	15	23	14	23	#6
#7	20	27	17	27	16	27	#7
#8	22	30	19	30	18	30	#8
#9	25	34	22	34	21	34	#9
#10	28	39	25	39	23	39	#10
#11	31	43	27	43	26	43	#11
#14	38	51	33	51	31	51	#14
#18	50	68	43	68	41	68	#18

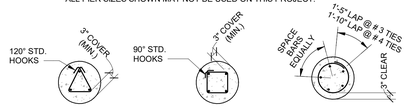
NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ldc = COMPRESSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN COMPRESSION, SPLICE LENGTH SHALL BE THE LARGER OF Ldc OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
5. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6 IN.

TYPICAL DETAIL COMPRESSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

18 SCALE: N.T.S.

DRILLED PIER VERTICAL REINFORCEMENT SCHEDULE		
SHAFT DIAMETER (INCHES)	VERTICAL REINFORCEMENT	TIES (USE #3 @ 12" U.N.O.)
12	3 - #5	#3 @ 10"
14, 16	4 - #5	#3 @ 10"
18, 20	4 - #6	
22, 24, 26	5 - #7	
28, 30	5 - #8	
36	5 - #9	
42	7 - #9	
48	7 - #10	
54	9 - #10	
60	9 - #11	#4 @ 12"
66	11 - #11	#4 @ 12"
72	13 - #11	#4 @ 12"

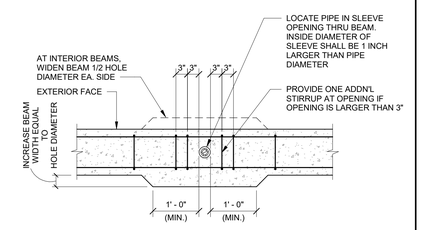
*ALL PIER SIZES SHOWN MAY NOT BE USED ON THIS PROJECT.



@ 3 BARS @ 4 BARS 5 OR MORE BARS

SHAFT BAR PLACEMENT PLANS

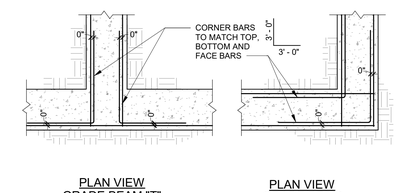
10 SCALE: N.T.S.



PLAN VIEW

TYPICAL DETAIL VERTICAL HOLE THRU GRADE BEAM LARGER THAN 3" DIAMETER

6 SCALE: N.T.S.



PLAN VIEW GRADE BEAM "T" INTERSECTION PLAN VIEW GRADE BEAM CORNER

TYPICAL DETAIL GRADE BEAM REINFORCEMENT STEEL CORNER BARS

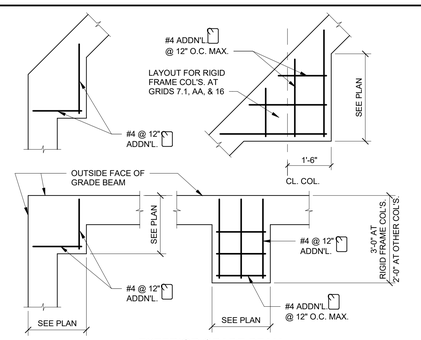
2 SCALE: N.T.S.

TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPLICE LENGTHS GRADE 60 (UNCOATED) REINFORCEMENT (NORMAL WEIGHT CONCRETE)																				
	F'c = 3000			F'c = 4000			F'c = 5000			F'c = 6000			F'c = 7000			F'c = 8000			F'c = 9000			F'c = 10000		
BAR SIZE	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld	CLASS A 1.0Ld	CLASS B 1.3Ld
#3	17	22	15	19	13	17	12	16	12	16	12	16	12	16	12	16	12	16	12	16
#4	22	29	19	25	17	23	16	21	15	19	14	18	13	17	12	16				
#5	28	36	24	31	22	28	20	26	18	24	17	22	16	21	15	20				
#6	33	43	29	37	26	34	24	31	22	28	21	27	19	25	18	24				
#7	48	63	42	54	38	49	34	45	32	41	30	39	28	36	27	35				
#8	55	72	48	62	43	56	39	51	36	47	34	44	32	42	30	39				
#9	62	81	54	70	48	63	44	57	41	53	38	50	36	47	34	44				
#10	70	91	61	79	54	71	50	64	46	60	43	56	41	53	39	50				
#11	78	101	67	87	60	78	55	71	51	66	48	62	45	58	43	55				

NOTES:
1. ALL LENGTHS SHOWN IN THE TABLE ARE IN INCHES.
2. Ld = TENSION DEVELOPMENT LENGTH.
3. THE ABOVE TABLE IS VALID FOR
   a. BEAMS AND COLUMNS WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 2db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.
   b. OTHER ELEMENTS SUCH AS SLABS, WALLS, ETC. WHERE CONCRETE COVER > = db, c/c BAR SPACING > = 3db.
4. FOR TOP BARS, MULTIPLY THE SPLICE LENGTHS BY 1.30. TOP BARS REQUIRE A MINIMUM OF 12" OF FRESH CONCRETE BELOW BAR.
5. WHEN BARS OF A DIFFERENT SIZE ARE LAP SPLICED IN TENSION, SPLICE LENGTH SHALL BE THE LARGER OF Ld OF THE LARGER BAR AND COMPRESSION LAP SPLICE LENGTH OF SMALLER BAR.
6. BARS SPLICED BY NON-CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH AND 6

TYPICAL DETAIL TENSION DEVELOPMENT AND SPLICE LENGTHS (NORMAL WEIGHT CONCRETE)

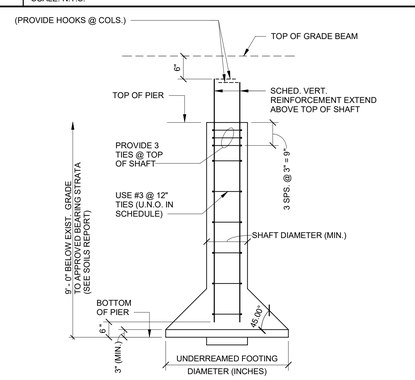
17 SCALE: N.T.S.



EXTERIOR GRADE BEAM

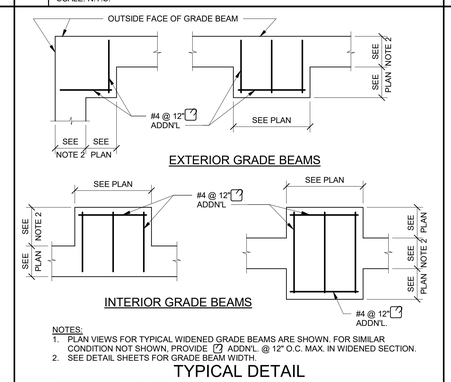
TYPICAL DETAIL ADDITIONAL BARS AT WIDENED GRADE BEAM (PLAN VIEW)

13 SCALE: N.T.S.



TYPICAL DETAIL DRILLED PIER

9 SCALE: N.T.S.

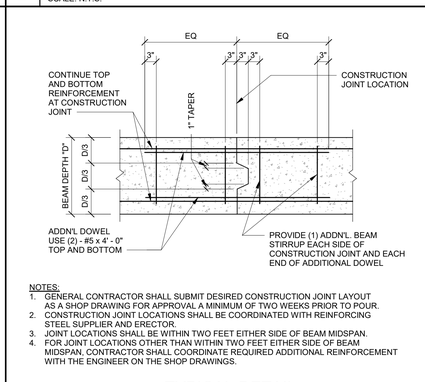


INTERIOR GRADE BEAMS

NOTES:
1. PLAN VIEWS FOR TYPICAL WIDENED GRADE BEAMS ARE SHOWN. FOR SIMILAR CONDITION NOT SHOWN, PROVIDE ☐ ADDN'L. @ 12" O.C. MAX. IN WIDENED SECTION.
2. SEE DETAIL SHEETS FOR GRADE BEAM WIDTH.

TYPICAL DETAIL ADDITIONAL BARS AT WIDENED GRADE BEAM (PLAN VIEW)

5 SCALE: N.T.S.



NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT DESIRED CONSTRUCTION JOINT LAYOUT AS A SHOP DRAWING FOR APPROVAL A MINIMUM OF TWO WEEKS PRIOR TO POUR.
2. CONSTRUCTION JOINT LOCATIONS SHALL BE COORDINATED WITH REINFORCING STEEL SUPPLIER AND ERECTOR.
3. JOINT LOCATIONS SHALL BE WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN.
4. FOR JOINT LOCATIONS OTHER THAN WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE ENGINEER ON THE SHOP DRAWINGS.

TYPICAL DETAIL GRADE BEAM CONSTRUCTION JOINT

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

BP-012 FIELD HOUSE AND ATHLETIC RENOVATIONS
11111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
117127
LICENSED
STRUCTURAL ENGINEER
12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT

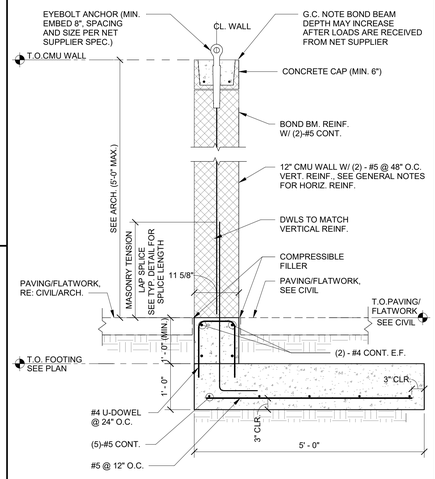
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

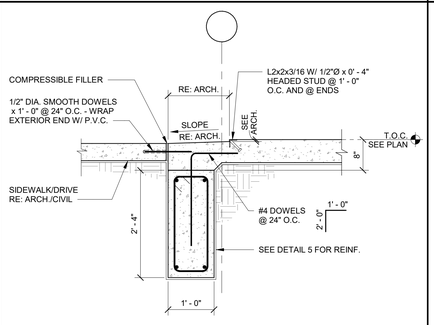
S3.01-T
TYPICAL FOUNDATION DETAILS

12/3/2025 10:57:52 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_TRAVIS_STRUCT_R25.rvt



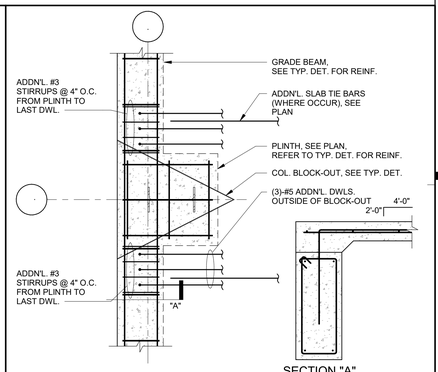
TYPICAL DETAIL CMU AT FREESTANDING WALL

11 SCALE: 3/4" = 1'-0"



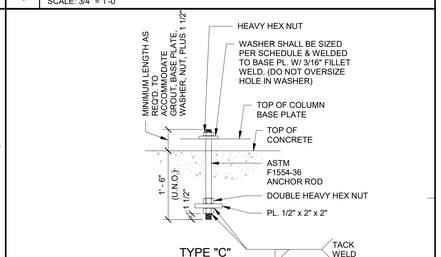
TYPICAL DETAIL EXTERIOR GRADE BEAM AT OVERHEAD DOOR

7 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL ADDITIONAL REINFORCING AT PERIMETER COLUMNS

4 SCALE: 3/4" = 1'-0"



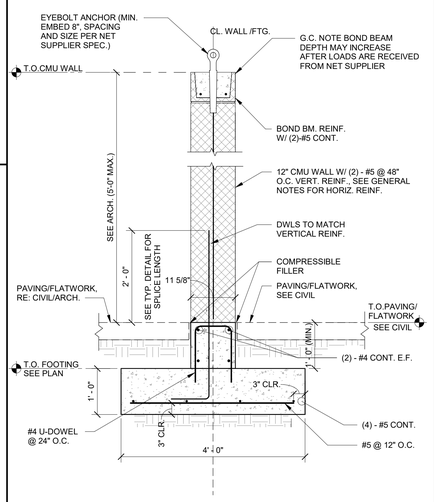
TYPE "B" WASHER SCHEDULE		
ANCHOR ROD DIA.	WASHER SIZE*	MIN. WASHER THICKNESS
3/4"	2"	1/4"
7/8"	2 1/2"	5/16"
1"	3"	3/8"
1 1/4"	3 1/2"	1/2"
1 1/2"	4"	1/2"
1 3/4"	4 1/2"	5/8"
2"	5"	3/4"
2 1/2"	5 1/2"	7/8"

NOTE:
USE TYPE "B" ANCHOR BOLTS AT COLUMNS WITH DIAGONAL BRACES, MOMENT CONNECTIONS, & AT CANOPY COLUMNS

*CIRCULAR OR SQUARE WASHERS MEETING WASHER SIZE ARE ACCEPTABLE

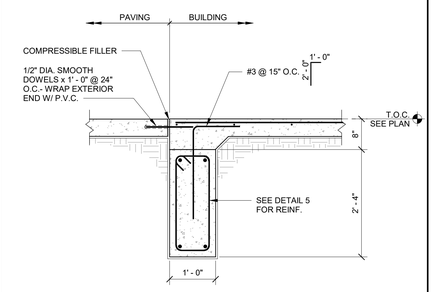
TYPICAL DETAIL ANCHOR BOLT

3 SCALE: N.T.S.



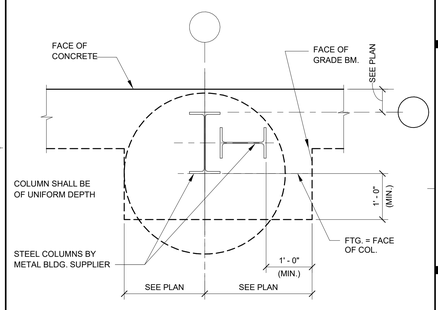
TYPICAL DETAIL CMU AT FREESTANDING WALL

9 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL EXTERIOR GRADE BEAM AT DOORS/FLATWORK

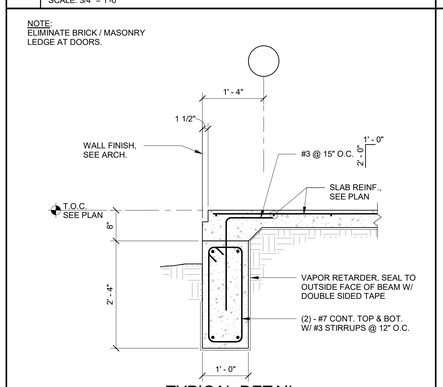
6 SCALE: 3/4" = 1'-0"



NOTE:
1. LOCATIONS OF PORTAL FRAMES ARE UNKNOWN UNTIL PEMB SHOP DRAWINGS ARE RECEIVED, G.C. TO COORDINATE LOCATIONS AND ADJUST PLINTH SIZES ACCORDINGLY

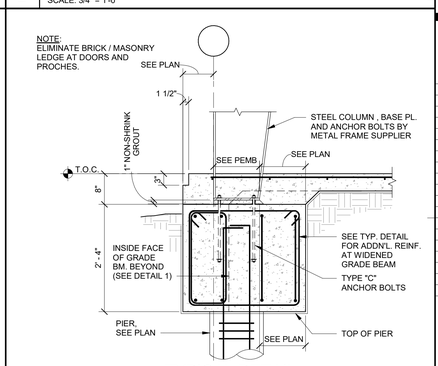
TYPICAL DETAIL PLAN AT PORTAL FRAME

2 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL EXTERIOR GRADE BEAM

5 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL WIDENED GRADE BEAM AT EXTERIOR PRE-ENGINEERED METAL BUILDING COLUMN

1 SCALE: 3/4" = 1'-0"

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5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
NSE - 25074

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11111 Harlem Rd, Richmond, TX 77406

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STATE OF TEXAS
KHALIL TABAJA
137122
LICENSED
PROFESSIONAL
ENGINEER

12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: RJC	CHECKED BY: KT

REVISIONS:

No.	Date	Description
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S3.02-T

TYPICAL FOUNDATION DETAILS

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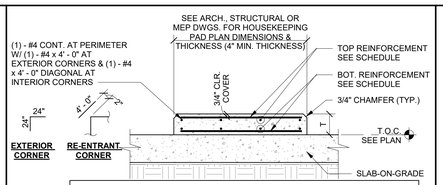
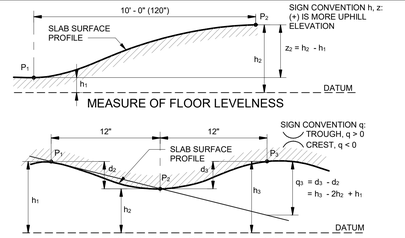


HOUSEKEEPING PAD REINF. SCHEDULE		
PAD THICKNESS	TOP REINFORCEMENT	BOTTOM REINF.
T ≤ 4"	WWR 4x4-W2.9xW2.9 OR #3 @12" E.W.	NONE
4" < T ≤ 6"	WWR 4x4-W4xW4 OR #4 @18" E.W.	NONE
6" < T ≤ 8"	WWR 4x4-W6xW6 OR #4 @12" E.W.	NONE
8" < T ≤ 12"	#4 @ 18" E.W.	#4 @ 18" E.W.
12" < T ≤ 16"	#4 @ 12" E.W.	#4 @ 12" E.W.

NOTES:
1. GENERAL CONTRACTOR TO COORDINATE WITH MECHANICAL DRAWINGS AND SPECIFICATIONS TO DETERMINE REQUIREMENTS FOR HOUSEKEEPING PADS OVER SLAB-ON-GRADE AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT. COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AS REQUIRED.
2. PAD SHALL NOT BE POURED UNTIL AFTER SLAB HAS REACHED ITS SPECIFIED 28 DAYS STRENGTH.
3. CONCRETE FOR HOUSEKEEPING PAD SHALL BE NORMAL WEIGHT CONCRETE WITH f'c = 3,000 PSI.

TYPICAL DETAIL
CONCRETE ISLAND OR HOUSEKEEPING PAD SLAB-ON-GRADE

8 SCALE: N.T.S.



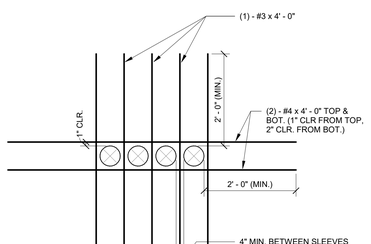
MEASURE OF FLOOR LEVELNESS

MEASURE OF FLOOR FLATNESS

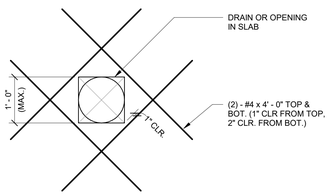
NOTES:
1. F_L = LEVELNESS F-NUMBER
   $F_L = \frac{12.5}{(3 \times S_Z) + z}$ WHERE z = MEAN VALUE OF ALL z FLOOR READINGS. S_z = STANDARD DEVIATION OF ALL z FLOOR READINGS.
2. F_F = LEVELNESS F-NUMBER
   $F_F = \frac{4.57}{(3 \times S_Q) + \bar{q}}$ WHERE $\bar{q}$ = MEAN VALUE OF ALL z FLOOR READINGS. S_z = STANDARD DEVIATION OF ALL q FLOOR READINGS
3. F_L AND F_F SHALL BE STATISTICALLY DETERMINED ACCORDING TO ASTM E 1155 "STANDARD TEST METHOD FOR DETERMINING FLOOR FLATNESS AND LEVELNESS USING THE F-NUMBER SYSTEM."
4. REFER TO CONCRETE SPECIFICATIONS FOR REQUIRED F_F AND F_L VALUES.

TYPICAL DETAIL
SLAB SURFACE TOLERANCE

4 SCALE: N.T.S.



MULTIPLE OPENINGS (PIPE SLEEVES)

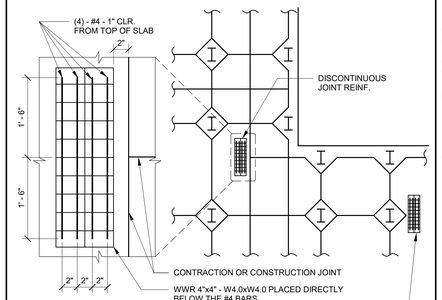


SINGLE DRAIN OR OPENING

NOTES:
1. COORDINATE OPENING SIZE AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONDUIT & PIPES OF ALUMINUM SHALL NOT BE PLACED IN CONCRETE UNLESS EFFECTIVELY COATED W/ PROTECTIVE MATERIAL TO PREVENT CHEMICAL REACTION.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT OPENINGS AT SLAB-ON-GRADE

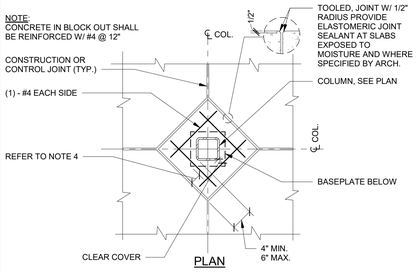
10 SCALE: N.T.S.



NOTE:
DISCONTINUOUS CONTRACTION OR CONSTRUCTION JOINTS SHOULD BE AVOIDED WHERE POSSIBLE.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT DISCONTINUOUS JOINT IN SLAB-ON-GRADE

7 SCALE: N.T.S.



PLAN

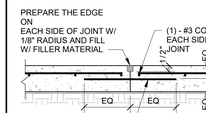
NOTES :
1. GENERAL CONTRACTOR TO COORDINATE REQUIRED SIZE OF BLOCK OUT FOR COLUMNS. SUBMIT THE DESIRED BLOCK OUT SIZE TO ARCHITECT FOR APPROVAL.
2. PROVIDE 3" MINIMUM CONCRETE COVER ALL AROUND COLUMN.
3. BLOCKOUT SHALL BE SIZED TO PROVIDE 3" MINIMUM CONCRETE COVER ALL AROUND COLUMN AND BASE PLATE.
4. GENERAL CONTRACTOR TO INCREASE COLUMN BLOCK-OUT DIMENSIONS AS REQUIRED TO ACCOMMODATE GUSSET PLATES AT BRACE FRAMES.

TYPICAL DETAIL
BLOCK-OUT AROUND COLUMN (SLAB-ON-GRADE)

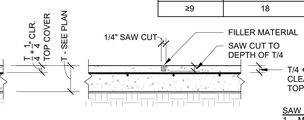
3 SCALE: N.T.S.

DOWEL SCHEDULE			
SLAB DEPTH (IN.)	DOWEL DIAMETER (IN.)	TOTAL DOWEL LENGTH (IN.)	DOWEL SPACING CENTER TO CENTER (IN.)
5-6	3/4	16	12
7-8	1	18	12
9-11	1 1/4	18	12

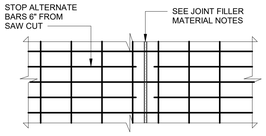
CONTRACTION JOINT SPACING	
SLAB THK. (IN.)	JOINT SPACING (FT)
4	11
5	13
6	14
7	16
8	17
≥9	18



CONSTRUCTION JOINT



CONTRACTION JOINT



CONTRACTION JOINT (PLAN VIEW)

CONSTRUCTION JOINT NOTES:
1. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
2. BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDE WITH FORM OIL.
3. SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.
4. ALL DOWELS IN THIS DETAIL SHALL BE SMOOTH BAR DOWELS.

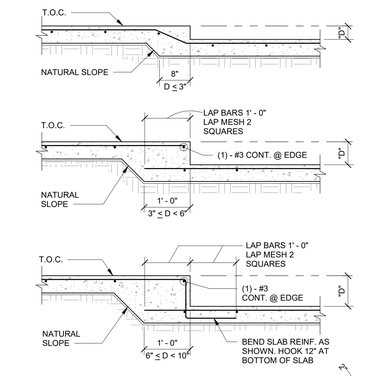
JOINT SPACING NOTE:
1. PROVIDE CONTRACTION AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN CENTERLINE AND AT A MAXIMUM SPACING AS SCHEDULED. ASPECT RATIOS OF SLAB PANELS ENCLOSED BY CONTROL JOINTS SHALL NOT EXCEED 1.5 TO 1.

SAW CONTRACTION JOINT NOTES:
1. MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB.
2. ALL JOINTS SHALL BE CONTINUOUS. DO NOT OFFSET OR STAGGER JOINTS.
3. CLEAN JOINT PRIOR TO FILLING THE JOINT.

JOINT FILLER MATERIAL NOTES:
1. FILLER MATERIAL USED SHALL BE EPOXY RESINS WITH A MINIMUM SHORE "A" HARDNESS OF 80 AND SHALL CONFORM TO ASTM D2240. JOINT FILLER SHALL BE APPROVED BY ENGINEER PRIOR TO APPLICATION. INSTALL JOINT FILLER PER MANUFACTURER'S SPECIFICATIONS.
2. WHERE POSSIBLE, FILLER MATERIAL SHALL BE APPLIED WHEN BUILDING IS UNDER PERMANENT TEMPERATURE CONTROL. THIS SHALL BE EITHER AT THE END OF CONSTRUCTION OF THE COMPLETE BUILDING SHELL, OR A MINIMUM OF 90 DAYS AFTER SLAB CONSTRUCTION.
3. ALL EXPOSED SLAB JOINTS SHALL BE FILLED WITH FILLER MATERIAL.

TYPICAL DETAIL
CONSTRUCTION AND CONTRACTION JOINTS SLAB-ON-GRADE

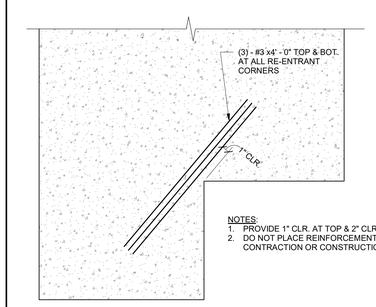
6 SCALE: N.T.S.



NOTES:
1. COORDINATE DEPTH & LOCATIONS OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE (1) - #4 x 4' - 0" TOP AT INTERIOR CORNERS OF ALL DEPRESSIONS.

TYPICAL DETAIL
AT FLOOR DEPRESSIONS

9 SCALE: N.T.S.

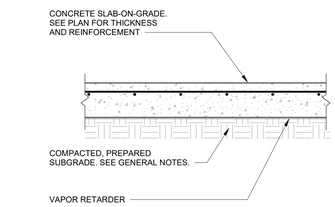


NOTES:
1. PROVIDE 1" CLR. AT TOP & 2" CLR. AT BOT.
2. DO NOT PLACE REINFORCEMENT ACROSS CONTRACTION OR CONSTRUCTION JOINTS.

SCHEMATIC SLAB-ON-GRADE

TYPICAL DETAIL
RE-ENTRANT CORNER BARS AT SLAB-ON-GRADE

5 SCALE: N.T.S.



NOTE:
1. UNLESS SPECIFIED ELSEWHERE, VAPOR RETARDER SHALL BE A MINIMUM OF 15 MILS THICK (UNLESS THICKER SPECIFIED IN SPECS/ARCH. DRAWINGS) MEETING OR EXCEEDING ASTM E-1745, CLASS C, AND HAVE NO MORE THAN 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E-96.

TYPICAL DETAIL
SLAB-ON-GRADE CONSTRUCTION SUBGRADE PREPARATION

1 SCALE: N.T.S.

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5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25014

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STATE OF TEXAS
KHALIL TABAJA
137127
LICENSED
PROFESSIONAL
ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

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S3.03-T
TYPICAL FOUNDATION DETAILS

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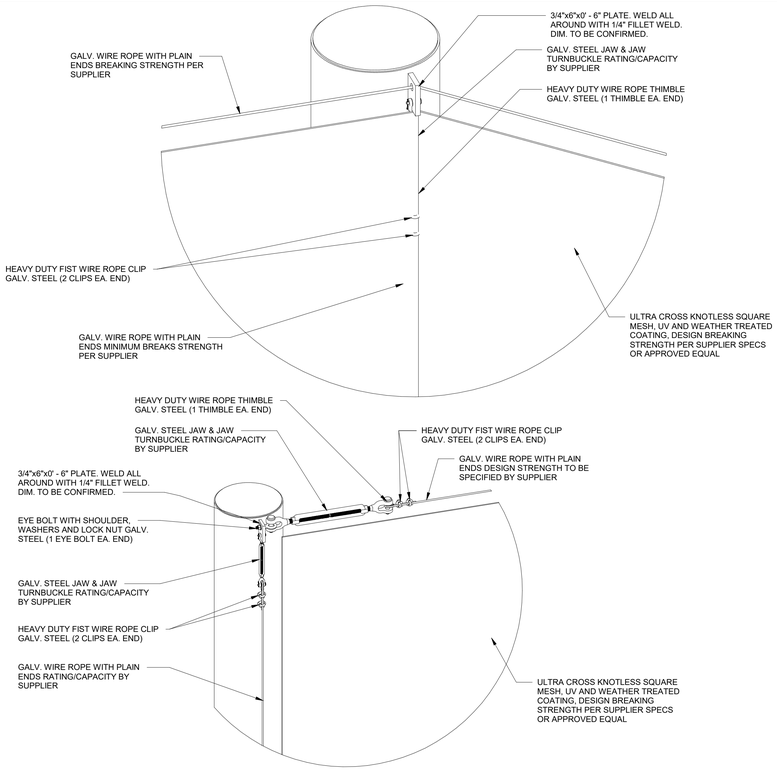
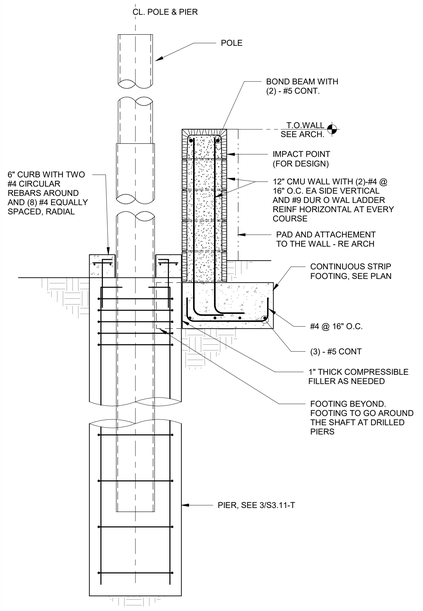


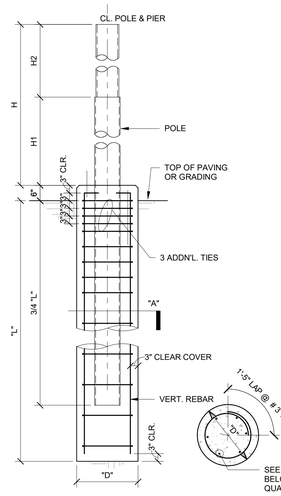
NETTING CONNECTIONS DETAILS (SCHEMATIC) - OPTION 2 PER SUPPLIERS DETAILS A

19 SCALE:N.T.S.



7 SCALE: 3/4" = 1'-0"

POLE BACKSTOP FOUNDATION



DETAIL "A"

POLE NAME/ LOCATION	POLE HEIGHT (H)	POLE LENGTH H1 (FT)	POLE LENGTH H2 (FT)	POLE SIZE FOR H1	POLE SIZE FOR H2	DRILL PIER SHAFT DIAMETER "D"	PIER DEPTH BELOW GRADE "L"	VERTICAL REINF.	TIES
FRONT	40'-0"	20'-0"	20'-0"	16"Ø PIPE16STD	16"Ø* PIPE16STD	30"Ø	14'-6"	(5)-#8	#3@12"
MIDDLE	40'-0"	20'-0"	20'-0"	16"Ø PIPE16STD	16"Ø* PIPE16STD	30"Ø	14'-6"	(5)-#8	#3@12"
BEHIND PRESS BOX	50'-0"	25'-0"	25'-0"	18"Ø PIPE18STD	16"Ø PIPE16STD	36"Ø	14'-6"	(7)-#8	#3@12"

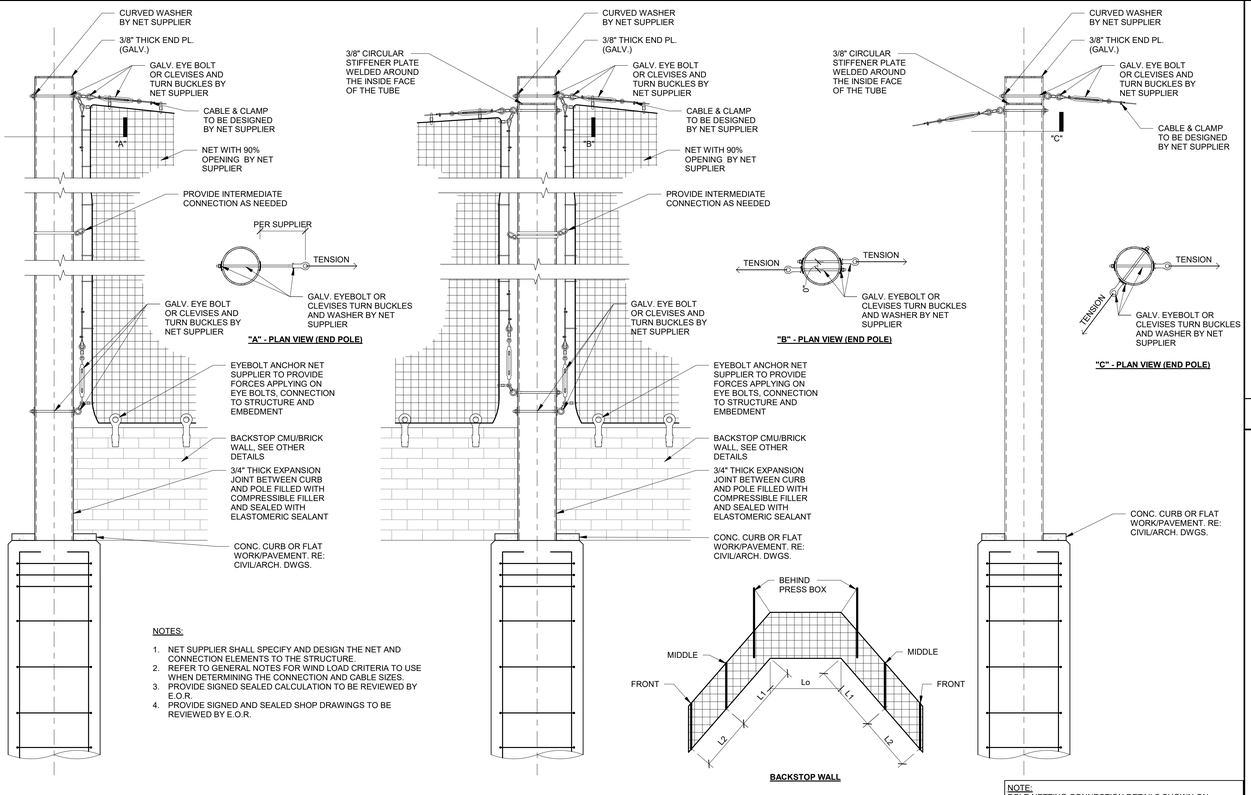
NOTES:

1. WIND LOAD CRITERIA IS PER IBC 2021. Vult = 134 MPH.
2. CONCRETE COMPRESSIVE STRENGTH, F'C = 3,000 PSI (NWC), WITH A MAX WATER/CEMENT RATIO OF 0.54.
3. STEEL REINFORCEMENT SHALL BE ASTM A615, GR. 60.
4. REFER TO ARCH DRAWINGS/CIVIL DRAWINGS FOR LOCATIONS OF LIGHT POLES.
5. THE PRESENCE OF SAND SEAMS AND SLICKENSIDES IN THE LAYERS MAY CAUSE SLOUGHING DURING PIER EXCAVATION. THIS MAY REQUIRE THE USE OF TEMPORARY STEEL CASING.
6. CONCRETE SHALL BE POURED IMMEDIATELY AFTER EXCAVATION.
7. ALL STEEL POLES ARE GRADE 90 (FY = 90 KSI)

* SPLICE IS OPTIONAL

3 SCALE: N.T.S.

TYPICAL DETAIL AT NET POLE



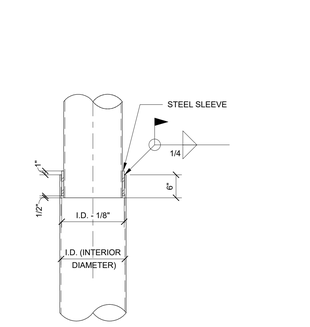
NOTES:

1. NET SUPPLIER SHALL SPECIFY AND DESIGN THE NET AND CONNECTION ELEMENTS TO THE STRUCTURE.
2. REFER TO GENERAL NOTES FOR WIND LOAD CRITERIA TO USE WHEN DETERMINING THE CONNECTION AND CABLE SIZES.
3. PROVIDE SIGNED SEALED CALCULATION TO BE REVIEWED BY E.O.R.
4. PROVIDE SIGNED AND SEALED SHOP DRAWINGS TO BE REVIEWED BY E.O.R.

NOTE:
POLE NETTING CONNECTION DETAILS SHOWN ON DETAILS 1 (OPTION-1) AND DETAILS 2 (OPTION 2) ARE SCHEMATIC. FINAL CONNECTION DESIGN, LAYOUT AND DETAILING SHALL BE PROVIDED BY THE NETTING SUPPLIER.

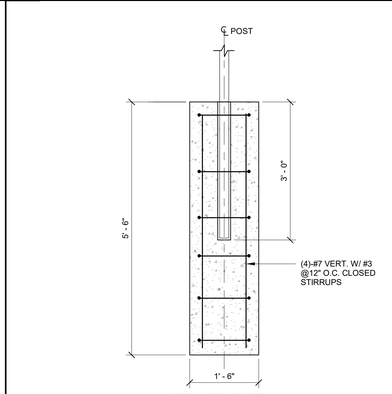
1 SCALE: 3/4" = 1'-0"

NETTING POLE AND CONNECTION SCHEMATIC DETAILS



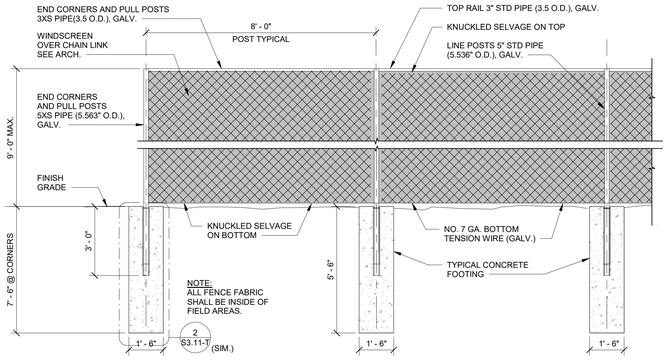
6 SCALE: 3/4" = 1'-0"

TRANSITION DETAIL AT NET POLE



2 SCALE: N.T.S.

FENCE DETAIL



5 SCALE: N.T.S.

CHAIN LINK FENCE WITH WINDSCREEN

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
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100% CD

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FOUNDATION SITE DETAILS

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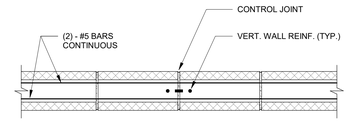
BAR SIZE	MINIMUM LAP SPLICE LENGTH: REINFORCEMENT AT CENTER OF WALL: 6" CMU	8" CMU	10" CMU	12" CMU	REINFORCEMENT OFF CENTER: ANY	HOOKED BAR DEVELOPMENT LENGTH: ANY
3	12	12	12	12	17	5
4	18	13	12	12	29	7
5	28[4]	20	16	13	45	9
6	51[4]	37	29	24	54	10
7	NA[5]	50	39	32	63	12
8	NA[5]	72	58	48	72	13

NOTES:
1. TABLE FOR USE WITH GRADE 60 UNCOATED REINF. BARS IN CMU (f'm = 2000 psi)
2. BARS SPLICED BY NON-CONTACT LAP SPLICE SHALL NOT BE SPACED FARTHER APART THAN, ONE-FIFTH THE REQUIRED LAP LENGTH, OR 8".
3. LAP LENGTHS PER IBC 2021.
4. PERMITTED ONLY IF ALL MORTAR FINS ARE REMOVED ROM THE CELL TO BE GROUTED.
5. BAR EXCEEDS MAX. ALLOWABLE SIZE.
6. DEVELOPMENT LENGTH OF EPOXY COATED BARS SHALL BE TAKEN AS 1.5 TIMES THE VALUES IN THE CHART.

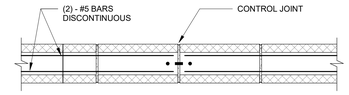
TYPICAL DETAIL MASONRY TENSION LAP SPLICE (INCHES)

3 SCALE: N.T.S.

NOTE:
COORDINATE CONTROL JOINT LOCATIONS WITH ARCHITECTURAL DRAWINGS.



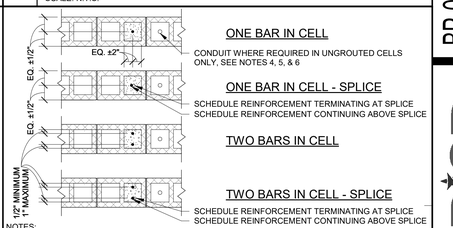
BOND BEAMS AT FLOOR/ROOF LEVELS (DIAPHRAGM)



BOND BEAMS AT INTERMEDIATE LEVELS

TYPICAL DETAIL BOND BEAM AT CONTROL JOINTS

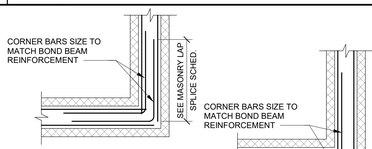
6 SCALE: N.T.S.



NOTES:
1. REINFORCEMENT MUST BE PLACED USING REINFORCING BAR POSITIONERS THAT LOCATE THE BAR AS SPECIFIED AND PREVENT MOVEMENT OF THE BAR DURING CONSTRUCTION.
2. SPLICED REINFORCEMENT MUST BE A CONTACT LAP SPLICE WITH SPLICED BARS ALIGNED PARALLEL TO THE WALL AS SHOWN.
3. THE ENGINEER MUST BE NOTIFIED PRIOR TO PLACEMENT OF REINFORCEMENT THAT IS REQUIRED TO BE PLACED OUTSIDE OF THE TOLERANCES OF THIS DETAIL SUCH AS TO AVOID INTERFERENCE WITH OTHER REINFORCEMENT, CONDUITS, OR EMBEDDED ITEMS.
4. CONDUIT, PIPES AND SLEEVES SHALL BE NO CLOSER THAN 3 DIAMETERS ON CENTER (USE LARGER DIAMETER WHERE MULTIPLE SIZES ARE USED).
5. ALUMINUM PIPES MAY NOT BE USED UNLESS EFFECTIVELY COATED TO PREVENT CHEMICAL REACTION.
6. PIPES SHALL NOT BE EMBEDDED IN MASONRY WHEN:
   (a) CONTAINING LIQUIDS, GAS, OR VAPORS AT A TEMPERATURE HIGHER THAN 150°F (66°C).
   (b) UNDER PRESSURE IN EXCESS OF 55 PSI (379 KPA).
   (c) CONTAINING WATER OR OTHER LIQUIDS SUBJECT TO FREEZING.

TYPICAL DETAIL CMU VERTICAL BAR PLACEMENT

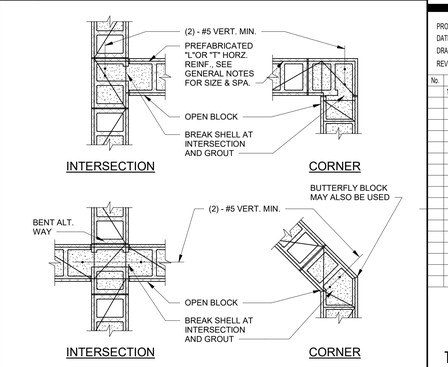
2 SCALE: N.T.S.



NOTE:
OMIT CORNER BARS AT CONTROL JOINT LOCATIONS AS INDICATED ON TYPICAL CMU ELEVATION.

TYPICAL DETAIL CMU BOND BEAM REINFORCEMENT

5 SCALE: N.T.S.



TYPICAL DETAIL CMU WALL INTERSECTIONS

1 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130
MSE - 25074

BP-012 FIELD HOUSE AND ATHLETIC RENOVATIONS

11111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
REGISTERED
PROFESSIONAL ENGINEER
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD

S4.01-T
TYPICAL CMU WALL DETAILS

12/3/2025 10:57:55 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath\25074_TRAVIS_STRUCT_R25.rvt

ABBREVIATIONS

A	
A.F.F.	ABOVE FINISH FLOOR
ACC.FL.	ACCESS FLOOR
A.P.	ACCESS PANEL
ACOUS.	ACOUSTICAL
ACT.	ACOUSTICAL CEILING TILE
ADD.	ADDENDUM
ADJNT.	ADJACENT
ADJ.	ADJUSTABLE
ADMIN.	ADMINISTRATION
AGG.	AGGREGATE
A/C	AIR CONDITIONING
ALT.	ALTERNATE, ALTERNATIVE
ALUM.	ALUMINUM
ANCH.	ANCHOR, ANCHORAGE
ANOD.	ANODIZED
APPROX.	APPROXIMATE
ARCH.	ARCHITECT
A.D.	AREA DRAIN
ASPH.	ASPHALT
AUTO.	AUTOMATIC
B	
BSMT.	BASEMENT
BM.	BENCH MARK
BTWN.	BETWEEN
BEV.	BEVEL
BIT.	BITUMINOUS
BLK.	BLOCKING
BD.	BOARD
B.S.	BOTH SIDES
B.W.	BOTH WAYS
B.O.D.	BOTTOM OF DECK
BRK.	BRACKET
BRZ.	BRONZE
BLDG.	BUILDING
BUR.	BUILT UP ROOFING
C	
CAB.	CABINET
CPT.	CARPET
CSMT.	CASEMENT
CIP.	CAST IN PLACE CONCRETE
C.B.	CATCH BASIN
CLG.	CEILING
CLG. HT.	CEILING HEIGHT
CEM.	CEMENT
CL	CENTERLINE
CT	CERAMIC TILE
C.O.	CLEAN OUT
CLR.	CLEAR(ANCE)
CLO.	CLOSET
COL.	COLUMN
COMPT.	COMPARTMENT
COMPR.	COMPRESS
COMP.	COMPUTER
CONC.	CONCRETE
CMU.	CONCRETE MASONRY UNIT
CONST.	CONSTRUCTION
CONT	CONTINUOUS
CONTR.	CONTRACT/CONTRACTOR
CFCI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
C.J.	CONTROL JOINT
CPR.	COPPER
CG.	CORNER GUARD
CORR.	CORRIDOR
CTR.	COUNTER
C. FL.	COUNTER FLASHING
CTR. SNK.	COUNTER SUNK
CRS.	COURSE
CU. FT.	CUBIC FEET
CU. YD.	CUBIC YARD
D	
D.P.	DAMP PROOFING
DPR.	DAMPER
DL.	DEAD LOAD
DEMO	DEMOLISH, DEMOLITION
DEP.	DEPRESS
DTL.	DETAIL
DIAG.	DIAGONAL
DIAM.	DIAMETER
DW.	DISH WASHER
DISPR.	DISPENSER
DIV.	DIVISION
DR.	DOOR
DBL.	DOUBLE
DH.	DOUBLE HUNG
DN.	DOWN
DS.	DOWNSPOUT
DRN.	DRAIN
DRN. BD.	DRAIN BOARD
DRN. TL.	DRAIN TILE
DWR.	DRAWER
DWG.	DRAWING
DF	DRINKING FOUNTAIN
E	
EA	EACH
EA. FA.	EACH FACE
E.	EAST
ELEC.	ELECTRIC
EDF.	ELECTRIC DRINKING FOUNTAIN
EP.	ELECTRICAL PANEL
ELEV.	ELEVATION
EMERG.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EXCAV.	EXCAVATE
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EJ	EXPANSION JOINT
EXT.	EXTERIOR
EPS	EXTRUDED POLY STYRENE
F	
FAB	FABRICATED
FV.	FIELD VERIFY
FIN.	FINISH
FIN. FLR.	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FA.	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FE.	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHS.	FIRE HOSE CABINET
FPL.	FIRE PLACE
FP.	FIRE PROOFING
FRC.	FIRE RESISTANT COATING
F. RT.	FIRE RETARDANT
FLSHG.	FLASHING
FLEX	FLEXIBLE
FLR.	FLOOR
FLR. C.O.	FLOOR CLEAN OUT
FD.	FLOOR DRAIN
FLR. JT.	FLOOR JOINT
FLR. PLT.	FLOOR PLATE
FLOUR.	FLUORESCENT
FTG.	FOOTING
FRMG.	FRAMING
FBO.	FURNISHED BY OWNER
FURR.	FURRED (ING)
FUT.	FUTURE
FRG.	REFRIGERATOR
G	
GALV.	GALVANIZED
GSKT.	GASKET
GA.	GAUGE
GC.	GENERAL CONTRACTOR
GLS.	GLASS
GL. BLK.	GLASS BLOCK
GL. CMU.	GLAZED CONCRETE MASONRY UNIT
GST.	GLAZED STRUCTURAL TILE
GB.	GRAB BAR
GBLK.	GREEN BLOCK
GRT.	GROUT
GYPCTE.	GYPCRETE
GYP. PL.	GYPSUM PLASTER
GYP. T.	GYPSUM TILE
GWB.	GYPSUM WALL BOARD
H	
HD. BD.	HARD BOARD
HD. JT.	HARD JOINT
HDW.	HARDWARE
HDWD.	HARDWOOD
HDR.	HEADER
HTG.	HEATING
HVAC.	HEATING, VENTILATION, AIR CONDITIONING
HVY. D.	HEAVY DUTY
HT.	HEIGHT
HC.	HOLLOW CORE
HM.	HOLLOW METAL
HORIZ.	HORIZONTAL
HB.	HOSE BIB
HWH.	HOT WATER HEATER
HR.	HOUR
I	
INCL.	INCLUDE
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INTERM.	INTERMEDIATE
INV.	INVERT
J	
JAN.	JANITOR
J.C.	JANITORS CLOSET
JT.	JOINT
JF.	JOINT FILLER
JST.	JOIST
K	
K. PL.	KICK PLATE
KIT.	KITCHEN
K.O.	KNOCK OUT
L	
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LH.	LEFT HAND
LC.	LIGHT CONTROL
LT. INT.	LIGHT INSIGHT
LT.	LIGHT, RE: ELECTRICAL
LT. CONC.	LIGHTWEIGHT CONCRETE
LMSTN	LIMESTONE
LTL.	LINTEL
LL.	LIVE LOAD
LB.	LOAD BEARING
LPT.	LOW POINT
M	
MH.	MAN HOLE
MFR.	MANUFACTURE
MRB.	MARBLE
MB	MARKER BOARD
MAS.	MASONRY
M.O.	MASONRY OPENING
MU	MASONRY UNIT
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP	MECHANICAL/ELECTRICAL/ PLUMBING
M.C.	MEDICINE CABINET
MEMB.	MEMBRANE
MTL.	METAL
MFD.	METAL FLOOR DECK
MRD.	METAL ROOF DECK
M. THR.	METAL THRESHOLD
MWK.	MILLWORK
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MOD.	MODULAR
MLDG.	MOLDING
MT.	MOUNT
MTD.	MOUNTED
MOV.	MOVE
MULL.	MULLION
N	
NAT.	NATURAL
NR.	NOISE REDUCTION
NOM.	NOMINAL
N.	NORTH
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
O	
OC.	ON CENTER
OCEW	ON CENTER EACH WAY
OPG.	OPENING
OPP.	OPPOSITE
OH	OPPOSITE HAND
OH.	OPPOSITE HAND
O.A.	OVER ALL
OVRHD.	OVER HEAD
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	
PNT.	PAINT
PTD.	PAINTED
PNL.	PANEL
PB.	PANIC BAR
PTDIS.	PAPER TOWEL DISPENSER
PTR.	PAPER TOWEL RECEPTACLE
PAR.	PARALLEL
PKG.	PARKING
P. BD.	PARTICLE BOARD
PARTN.	PARTITION
PVT.	PAVEMENT
PERF.	PERFORATED
PERIM.	PERIMETER
PLAS.	PLASTER
PLAM	PLASTIC LAMINATE
PL.	PLATE
PLY.	PLYWOOD
PVC.	POLYVINYL CHLORIDE
PREFAB.	PREFABRICATED
PREFIN.	PREFINISHED
P.L.	PROPERTY LINE
Q	
QT.	QUARRY TILE
R	
RAD.	RADIUS
REF.	REFERENCE
RFL.	REFLECTED
REG.	REGISTRAR
REINF.	REINFORCING
REM.	REMOVE
REQ'D.	REQUIRED
RES.	RESILIENT
RET.	RETURN
RA.	RETURN AIR
RVS.	REVERSE
REV.	REVISION
RH.	RIGHT HAND
R.O.W.	RIGHT OF WAY
RD.	ROOF DRAIN
RF. HT.	ROOF HEIGHT
RFG.	ROOFING
RM.	ROOM
RO.	ROUGH OPENING
RB.	RUBBER BASE
S	
SF. GL.	SAFETY GLASS
SCHED.	SCHEDULE
SLNT.	SEALANT
STG.	SEATING
SCTN.	SECTION
SHTH.	SHEATHING
SHT.	SHEET
SH. GL.	SHEET GLASS
SHR.	SHORING
SIM.	SIMILAR
SKYLT.	SKYLIGHT
SLV.	SLEEVE
SC.	SOLID CORE
SCW	SOLID CORE WOOD
S.	SOUTH
SPCR.	SPACER
SPKR.	SPEAKER
SPEC.	SPECIFICATIONS
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STA.	STATION
STL.	STEEL
STN.	STONE
STOR.	STORAGE
SD.	STORM DRAIN
STRUCT.	STRUCTURE (TURAL)
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
SYN.	SYNTHETIC
SYS.	SYSTEM
T	
TB.	TACK BOARD
TK. STP.	TACK STRIP
TEL.	TELEPHONE
TV	TELEVISION
THK.	THICK
THR.	THRESHOLD
TO. COL.	TOP OF COLUMN
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.J.	TOP OF JOIST
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
TG.	TOUNG AND GROOVE
TR.	TREAD
TYP.	TYPICAL
U	
UC.	UNDER CUT
UNFIN.	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR.	URINAL
V	
VB.	VAPOR BARRIER
VAR.	VARIES
VNR.	VENEER
VIF.	VERIFY IN FIELD
VERT.	VERTICAL
VG.	VERTICAL GRAIN
VIN.	VINYL
VIN. B.	VINYL BASE
VCT	VINYL COMPOSITION TILE
VIN. F.	VINYL FABRIC
VIN. T.	VINYL TILE
W	
WSCT.	WAINSCOT
WH.	WALL HUNG
WC.	WATER CLOSET
WPRF.	WATER PROOFING
WRP.	WATER REPELLENT
WS.	WATER STOP
WWF.	WELDED WIRE FABRIC
WWM.	WELDED WIRE MESH
W.	WEST
WDW.	WINDOW
WGLS.	WIRE GLASS
WM.	WIRE MESH
W.	WITH
WO.	WITHOUT
WD.	WOOD
WD. B.	WOOD BASE
W. PT.	WORKING POINT

SYMBOLS & LEGENDS

ARCHITECTURAL DRAWING SYMBOLS

- Name 101 150 SF — ROOM TAG WITH ROOM FINISH
- Name 101 XXX SF/ XXX(P) — ROOM TAG WITH OCCUPANCY SF=SQUARE FEET P=PEOPLE
- 101 — DOOR TAG
- XX1 — PARTITION TAG
- HOLLOW METAL FRAME TAG
- 1 — ALUMINUM FRAME TAG
- EXPANSION JOINT
- 21 / A101 SIM. — ENLARGED CALL OUT
- SIM, 1 / A101 — BUILDING SECTION TAG
- SIM, 1 / A101 — WALL SECTION TAG
- SIM, 1 / A101 — DETAIL SECTION TAG
- Ref, 20 / A101 — EXTERIOR ELEVATION TAG
- 1 / A101 Ref — INTERIOR ELEVATION TAG
- 15/ A 9.24 — VIEW REFERENCE DETAIL
- Elevation Name — ELEVATION/ LEVEL TAG
- AB — COLUMN GRID
- 5' DIAMETER ADA TURN AROUND
- REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC P RQ R EQ — EXIT POINT WITH WIDTH INDICATED IN INCHES OCCUPANT LOAD SHOWN VERTICAL P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- CENTER LINE
- MATCH LINE
- ITEM SHOWN IS ABOVE/BELOW OR TO BE REMOVED(ON DEMO SHTS) U.N.O.
- PROPERTY LINE
- BREAK LINE
- LONGEST TRAVEL DISTANCE TO EXIT
- BUILDING EXIT

WALL LEGEND

- EXISTING WALL TO REMAIN
- METAL STUD PARTITION
- CMU PARTITION
- 1 HR WALL CONSTRUCTION
- 1 HR CMU WALL CONSTRUCTION
- 2 HR WALL CONSTRUCTION
- 2 HR CMU WALL CONSTRUCTION

MATERIALS LEGEND

- EARTH (COMPACTED)
- POUROUS FILL (STONE OR GRAVEL)
- CONCRETE
- PLASTER/SAND/CEMENT/ GROUT
- BRICK (COMMON OR FACE)
- CONCRETE MASONRY UNIT (CMU)
- METAL (LARGE SCALE)
- METAL (SMALL SCALE)
- BATT INSULATION
- RIGID BOARD OR SPRAY FOAM INSULATION
- ROUGH WOOD (CONTINUOUS)
- ROUGH WOOD (NON-CONTINUOUS)
- FINISH WOOD
- PLYWOOD

PROJECT GENERAL NOTES

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A WATERTIGHT & WEATHERTIGHT BUILDING
2. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A PLUM, LEVEL AND SQUARE STRUCTURE UNLESS OTHERWISE NOTED ANY DEVIATION FROM THIS GENERAL INTENT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
3. THE BUILDING SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL THE APPLICABLE CODES, ORDINANCES AND REGULATIONS AS WELL AS THE DRAWINGS & SPECIFICATION. ANY CODE DEFICIENCIES IN THE DRAWINGS RECOGNIZED BY THE CONTRACTOR SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
4. THE CONTRACTOR SHALL VISIT PROJECT SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ANY AMBIGUOUS ITEMS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO SUBMITTING PROPOSAL.
5. THE CONTRACTOR IS TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES REQUIREMENTS, AND COMPLETE TEXAS HEALTH DEPARTMENT NOTIFICATIONS AND SUBMIT FORMS AND REQUIRED INFORMATION TO MEET " TEXAS COMMISSION ON ENVIRONMENTAL QUALITY" (TCEQ) REQUIREMENTS PRIOR TO START OF PROJECT
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF THE BUILDING ON THE SITE AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE BIDDING THE PROJECT OR THE COMMENCEMENT OF WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR CHANGES TO THE WORK DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HIS/HER SELF WITH EXISTING CONDITIONS
7. DO NOT SCALE DRAWINGS: ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE AND BE FIELD VERIFIED AND COORDINATED WITH WORK OF ALL TRADES. IF NO DIMENSIONS ARE GIVEN OR DISCREPANCIES FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION BEFORE BIDDING OR COMMENCING THE WORK.
8. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, ALL INCLUDED AS PART OF THE WORK.
9. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
10. THE CONTRACTOR SHALL VERIFY THE SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS AND BASES, AS WELL AS POWER, WATER AND DRAIN REQUIREMENTS FOR SUCH EQUIPMENT WITH EQUIPMENT MFG. DEVIATION OF BEFORE MENTIONED REQUIREMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
11. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE WITH THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. REVIEW ALL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
12. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
13. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
14. PROVIDE FIRE STOPS WHEREVER INTERIOR AND EXTERIOR WALLS AND PARTITIONS INTERSECT FLOORS, CEILINGS, AND ROOFS. ALSO PROVIDE AT ALL OPENINGS AROUND PENETRATIONS TO PREVENT VERTICAL & HORIZONTAL COMMUNICATION OF FIRE ALONG LINES OF CORRIDORS, OCCUPANCY CHANGES, AND SIMILAR SEPARATIONS.
15. ALL WALL WIDTHS ARE SHOWN AND DIMENSIONED WITH ACTUAL DIMENSIONS. DIMENSIONS FOR FRAMED WALLS ARE SHOWN TO FACE OF STUDS AND/OR FACE OF BLOCK U.N.O.
16. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
17. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
18. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
19. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
20. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
21. DIFFUSERS, LIGHT FIXTURES, ETC., ARE INDICATED ON THE REFLECTED CEILING PLAN FOR LOCATION AND COORDINATION. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
22. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
23. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
24. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
25. CLASSROOM FURNITURE INDICATED ON THE FLOOR PLANS, NOT INDICATED AS "BUILT-IN", ARE NOT IN PROJECT CONTRACT. FURNITURE IS SHOWN FOR TYPICAL CLASSROOM ARRANGEMENT, ONLY.
26. GENERAL CONTRACTORS AND SUB-CONTRACTORS ARE TO SCHEDULE AND COMPLETE THEIR WORK SO AS TO KEEP MECHANICAL, ELECTRICAL, TELEPHONE, DATA, HVAC CONTROL, INTERCOM, AND OTHER EXISTING SYSTEMS OPERATIONAL IN AREAS OCCUPIED BY THE OWNER DURING THE RENOVATION AND CONSTRUCTION OF THE PROJECT
27. WHERE EXISTING OR NEW EXPANSION JOINTS ARE EXPOSED DUE TO NEW CONSTRUCTION OR RENOVATION, PROVIDE APPROVED FLOOR, WALL, AND/OR CEILING EXPANSION JOINT COVER ASSEMBLIES AS REQUIRED.
28. WHERE NEW FLOORING IS TO BE INSTALLED ON TOP OF EXISTING FLOOR SLAB, PROVIDE FLOOR LEVELING COMPOUND AS REQUIRED TO PROVIDE LEVEL WORKABLE SURFACE FOR NEW FINISHES
29. CONTRACTOR IS TO ENSURE THAT NEW AND/OR EXISTING MECHANICAL, ELECTRICAL, DATA, AND CONTROL SYSTEMS ARE CONCEALED TO THE GREATEST EXTENT AS POSSIBLE UNLESS OTHERWISE NOTED
30. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
31. ALL EXPOSED METALS EXCEPT GALVANIZED AND PRE-FINISHED ITEMS, SHALL BE FINISH PAINTED - COLOR TO BE SELECTED BY ARCHITECT. REF SPECS FOR FIELD WELDS AT GALV.
32. WHERE THE WORDS "PATCH", "MATCH", "REPAIR", "REPLACE", ARE USED,SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT COLORS, TEXTURES AND FINISH OF DISTURBED AREAS SHALL MATCH IN ALL RESPECTS. REPLACE IS DEFINED AS REMOVE EXISTING AND INSTALL NEW INCLUDING ALL APPROPRIATE ELECTRICAL CONNECTIONS AND WITH MATCHING OR COMPATIBLE EQUIPMENT OR MATERIALS AS SHOWN, SPECIFIED OR REQUIRED FOR COMPLETE INSTALLATION.

SHEET NAMING CONVENTION

A2-XX

DRAWING SHEET DISCIPLINE

G	GENERAL	P	PLUMBING
C	CIVIL	E	ELECTRICAL
L	LANDSCAPE	FP	FIRE PROTECTION
S	STRUCTURAL	FA	FIRE ALARM
IR	IRRIGAITON	T	TECHNOLOGY
AD	ARCH DEMOLITION	TE	THEATRICAL
A	ARCHITECTURE	FS	FOOD SERVICES
M	MECHANICAL	AV	AUDIO VISUAL

SHEET NUMBER IN DISCIPLINE

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

500 Waters Lk Blvd, Missouri City, TX 77459

RIDGEPOINT HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 30113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO.	26-006
DATE:	12/04/2025
DRAWN BY: DRW	CHECKED BY: CHK
REVISIONS:	

No.	Date	Description

100% CD

A0.00-T

SYMBOLS & ABBREVIATIONS

TRAVIS HIGH SCHOOL

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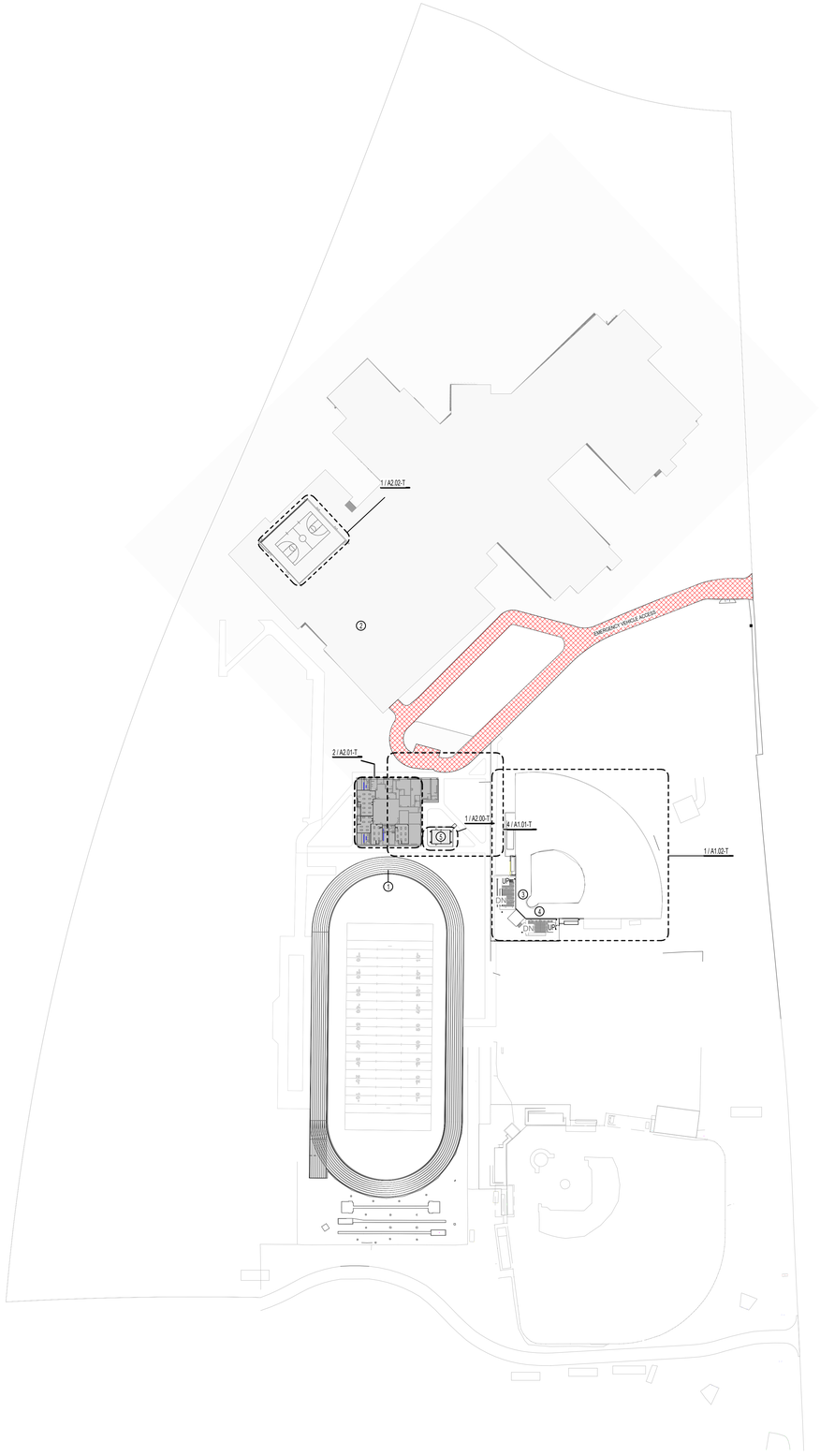

01 TRAVIS OVERALL
SCALE: 1" = 100'-0"

1

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01-T & G0.02-T FOR TAS REQUIREMENTS
3. RE: G0.03-T FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLAROS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 6' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- X X — VINYL COATED CHAIN LINK FENCE, 48" HIGH
- L L — VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M M — BLACK WROUGHT IRON FENCE, 48" HIGH
- R R — BLACK WROUGHT IRON FENCE, 72" HIGH
- 1 / A101 SIM. — BUILDING SECTION TAG
- 1 / A101 SIM. — WALL SECTION TAG
- 2 1 / A101 SIM. — ENLARGED CALL OUT
- 2% SLOPE

SITE PLAN KEYNOTES

TAG #	NOTE
1	RESURFACE TRACK
2	GYM RENOVATION
3	40' NETTING
4	BACKSTOPPING PADDING ON CMU BLOCK
5	ALTERNATE NO. 7 - METAL STORAGE NEAR FIELD HOUSE.

ALTERNATES:

ALTERNATES NO. 7 - TRAVIS HIGH SCHOOL: METAL STORAGE NEAR FIELD HOUSE.



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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11111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL

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16431 Lexington Blvd.
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REGISTERED ARCHITECT
MICHAEL ADAMS
20113
STATE OF TEXAS

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ARCHITECTURAL SITE PLAN

TRAVIS HIGH SCHOOL

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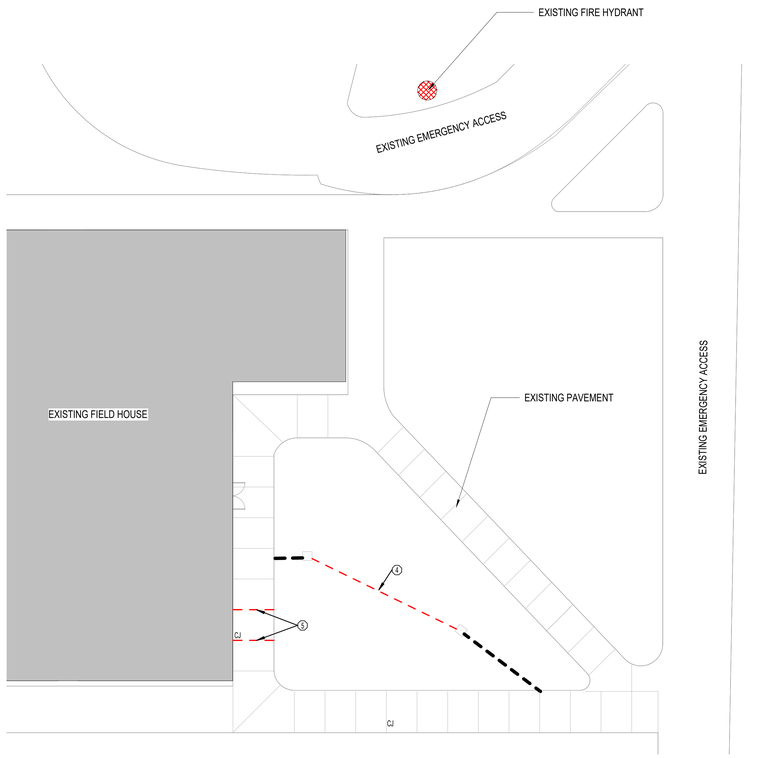
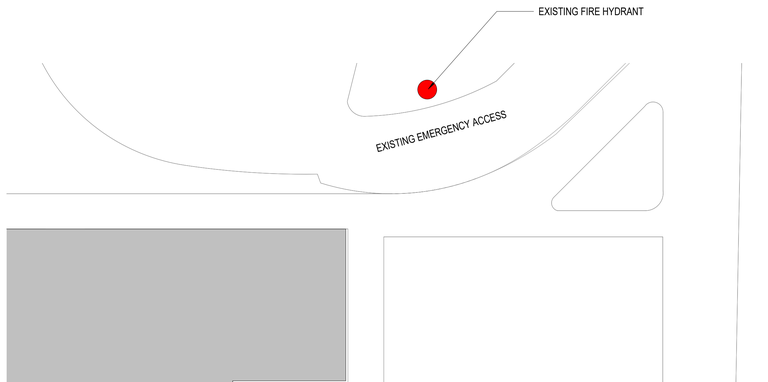


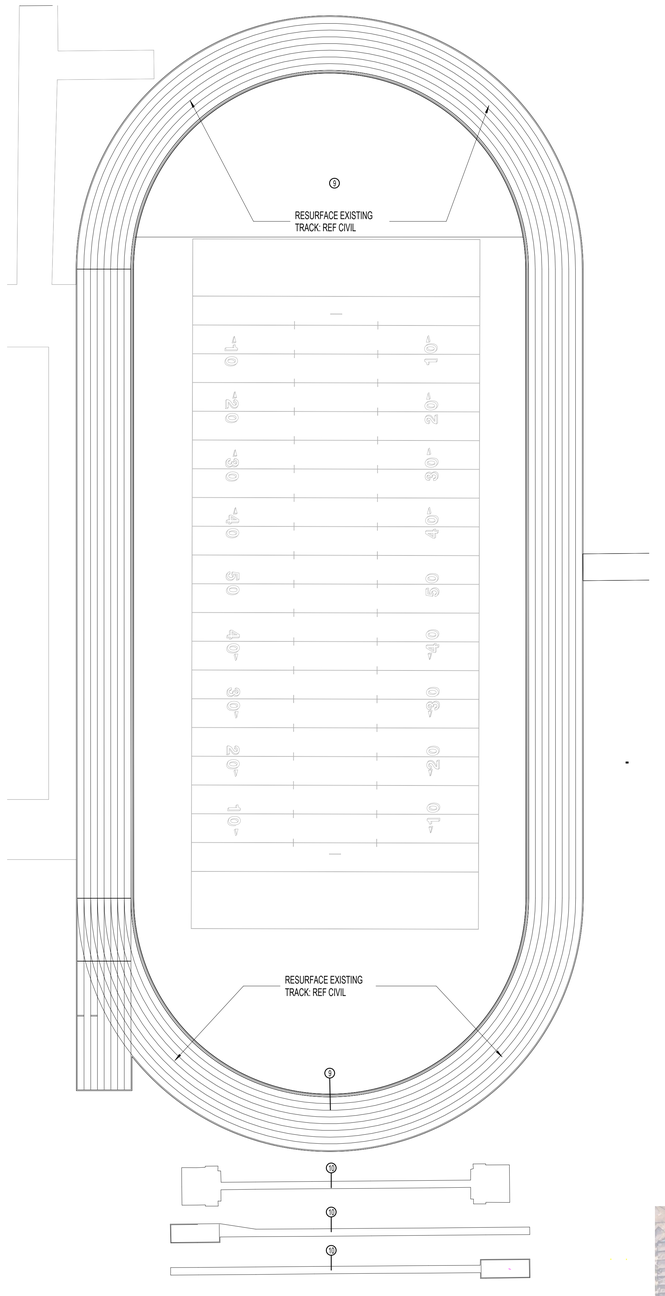
DEMO SITE PLAN FIELD HOUSE STORAGE 4

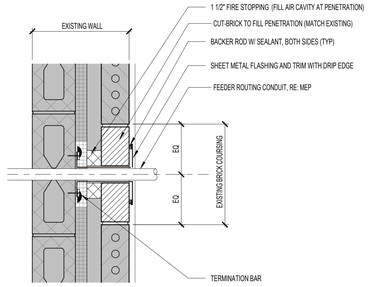
SCALE: 1/16" = 1'-0"



ENLARGED SITE PLAN -FIELD HOUSE STORAGE 3

SCALE: 1/16" = 1'-0"





WALL PENETRATION DETAIL 1

SCALE: 1 1/2" = 1'-0"



TRAVIS TRACK AND FIELD-T 2

SCALE: 1/32" = 1'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01-T & G0.02-T FOR TAS REQUIREMENTS
3. RE: G0.03-T FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
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10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
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SITE PLAN LEGEND

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- VINYL COATED CHAIN LINK FENCE, 72" HIGH
- BLACK WROUGHT IRON FENCE, 48" HIGH
- BLACK WROUGHT IRON FENCE, 72" HIGH
- BUILDING SECTION TAG (1 / A101, SIM)
- WALL SECTION TAG (1 / A101, SIM)
- ENLARGED CALL OUT (21 / A101 SIM.)
- 2% SLOPE

SITE PLAN KEYNOTES

TAG #	NOTE
1	RESURFACE TRACK :REF CIVIL
2	NEW CONCRETE PAVEMENT
3	NEW PEMB STORAGE:REF SPECS
4	DEMO EXISTING STORM SEWER LINE
5	SAW CUT CONTROL JOINT TO CONTROL JOINT FOR NEW POWER LINE. REPLACE WITH NEW CONCRETE
6	NEW SANITARY STORM LINE:REF CIVIL
7	NEW STORM INLET:REF CIVIL
8	REF ELECTRICAL FOR NEW CONDUIT LINE FOR POWER
9	RESURFACE TRACK :REF CIVIL
10	RESURFACE RUNWAYS :REF CIVIL

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER; DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) ISARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

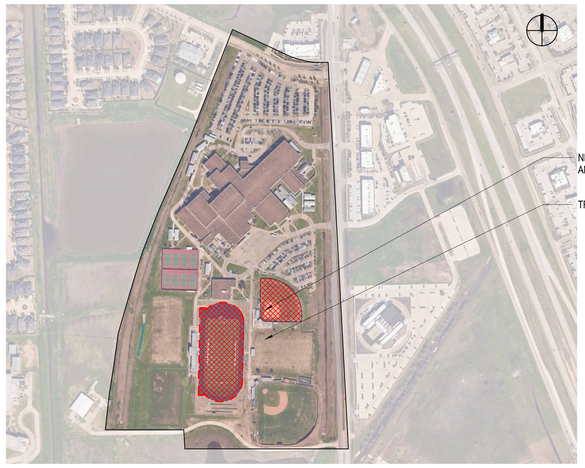
DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- DEMO KEY NOTE

DEMOLITION KEY NOTES

ALTERNATES:

ALTERNATES NO. 7 - TRAVIS HIGH SCHOOL: METAL STORAGE NEAR FIELD HOUSE.



SITE KEY PLAN
N.T.S

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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REVISIONS:

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SITE DETAILS TRACK AND ENLARGED SITE PLAN

TRAVIS HIGH SCHOOL

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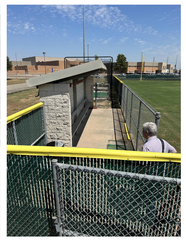
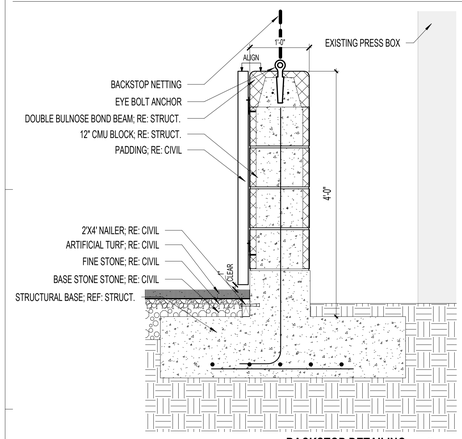
DEMO EXISTING BACKSTOP AND NETTING AT SOFTBALL AND REPLACE WITH 40' NETTING, CMU BACKSTOP AND PADDING

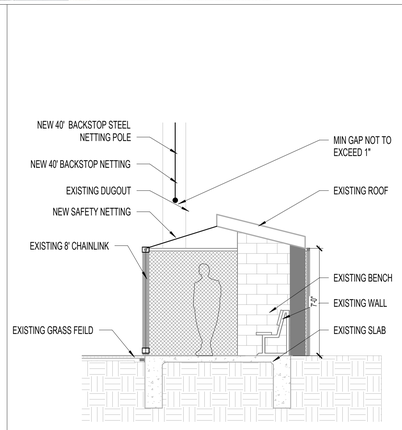




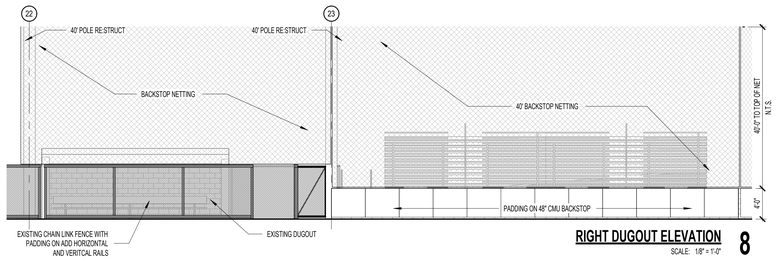




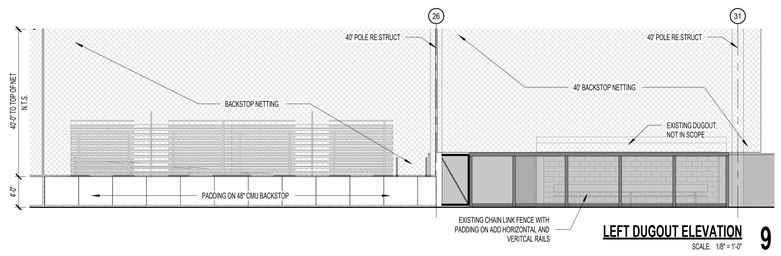
BACKSTOP DETAILING 6
SCALE: 1" = 1'-0"



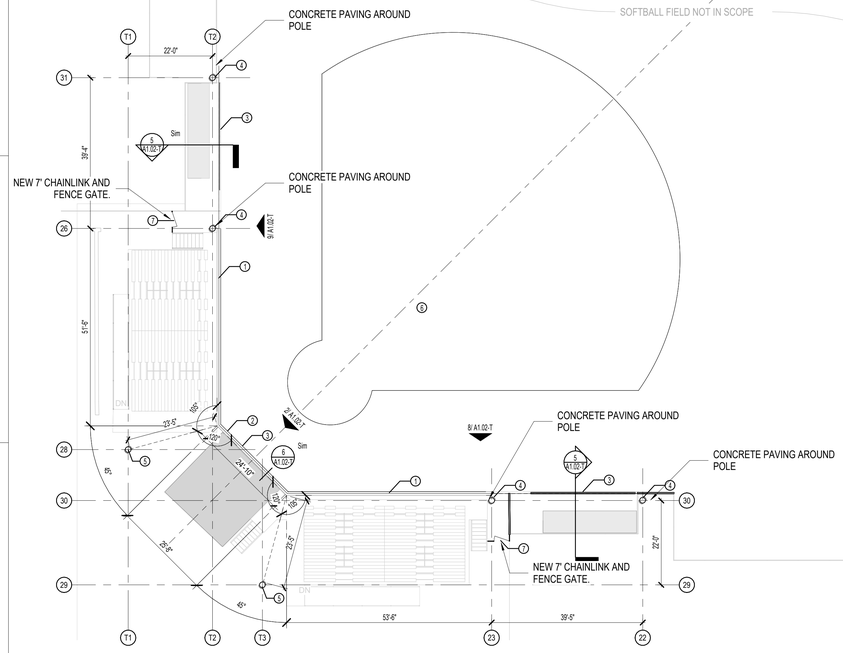
DUGOUT SECTION 5
SCALE: 1/4" = 1'-0"



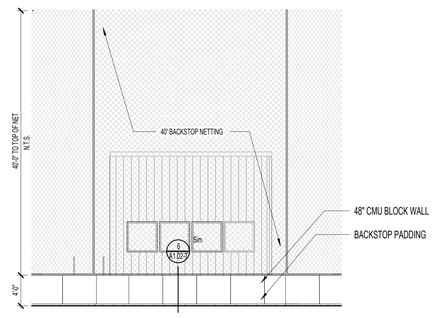
RIGHT DUGOUT ELEVATION 8
SCALE: 1/8" = 1'-0"



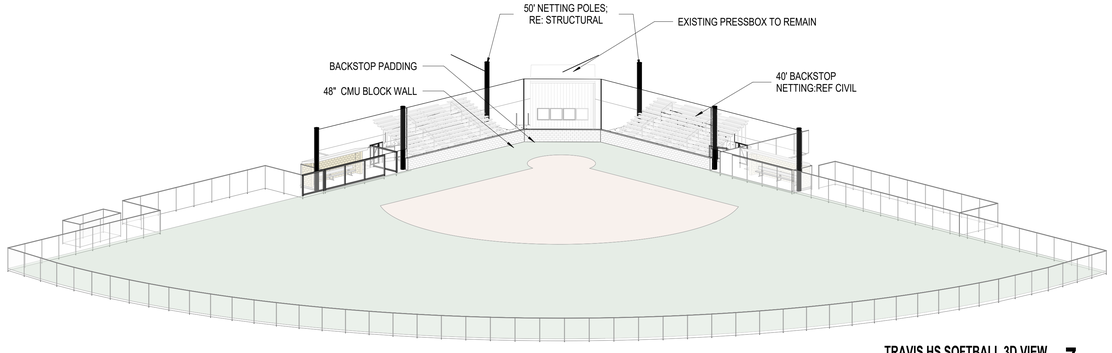
LEFT DUGOUT ELEVATION 9
SCALE: 1/8" = 1'-0"



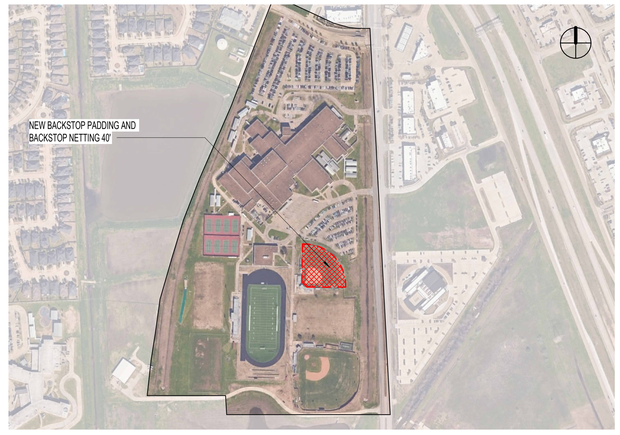
TRAVIS HS SOFTBALL FIELD 1
SCALE: 1/16" = 1'-0"



BACKTOP ELEVATION 2
SCALE: 1/8" = 1'-0"



TRAVIS HS SOFTBALL 3D VIEW 7
SCALE:



SITE KEY PLAN
N.T.S

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01-T & G0.02-T FOR TAS REQUIREMENTS
3. RE: G0.03-T FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH U.N.O.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
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SITE PLAN LEGEND

- X X — VINYL COATED CHAIN LINK FENCE, 48" HIGH
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- 1 / A101 SIM. — BUILDING SECTION TAG
- 1 / A101 SIM. — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT
- 2% SLOPE

SITE PLAN KEYNOTES

TAG # — NOTES

1. INSTALL 40' BACK STOP NETTING AND POLES AS NOTED IN PM SECTION 116850. INSTALL 50' POLES LOCATED ON DRAWINGS. REFER TO STRUCTURAL DRAWINGS FOR STRUCTURAL TIE-DOWN LOCATIONS, PIER SCHEDULE, REINFORCEMENT AND DETAILS. REFER TO NETTING MANUFACTURER INSTALLATION INSTRUCTIONS FOR TIE-DOWN LOCATIONS AND TECHNIQUES.
2. INSTALL 12" THICK CMU BLOCK WALL 48" TALL BACKSTOP. REFER TO MATERIAL SCHEDULE FOR CMU TYPE. REFER TO DETAIL SECTION 1&3/ A1 .04-A. REFER TO STRUCTURAL FOR FOUNDATIONS AND REINFORCEMENT REQUIREMENTS.
3. ADD SAFETY NETTING TO MATCH THE BACKSTOP NETTING. REFER TO SHEET A1.02-T FOR LOCATIONS AND DIMENSIONS. REFER TO 116850 BACKSTOP NETTING FOR SPECIFICATIONS. REFER TO MANUFACTURER DETAILS FOR ATTACHMENT RECOMMENDATIONS.
4. INSTALL NEW 40'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 11 68 50. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
5. INSTALL NEW 50'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 11 68 50. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
6. ALL DIMENSIONS ARE BASED ON EXISTING DRAWINGS AND ON SURVEYOR DRAWINGS ISSUED BY CLIENT. CONTRACTION TO FIELD VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.
7. PROVIDE NEW 7'-0" FENCE GATE AND SURROUNDING 7'-0" SUPPORT STRUCTURE. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR GALVANIZED METALS. ALL SWING GATES SHALL OPEN OUTSIDE OF THE FIELD AND SHALL HAVE STOPS INSTALLED TO PREVENT GATES SWINGING INTO THE FIELD.

pfluger
office: 713.222.1141 | fax: 713.222.1174
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A1.02-T
SITE PLAN - SOFTBALL FIELD

TRAVIS HIGH SCHOOL

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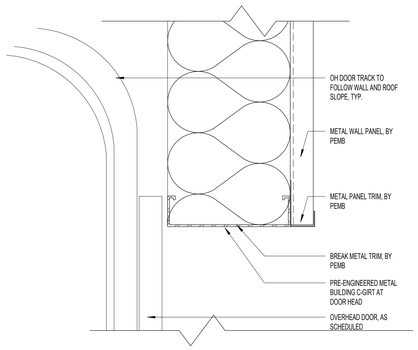
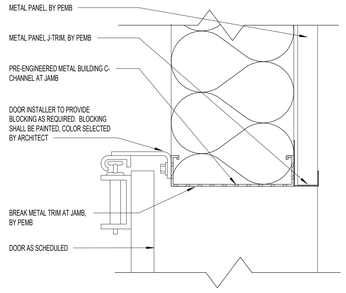
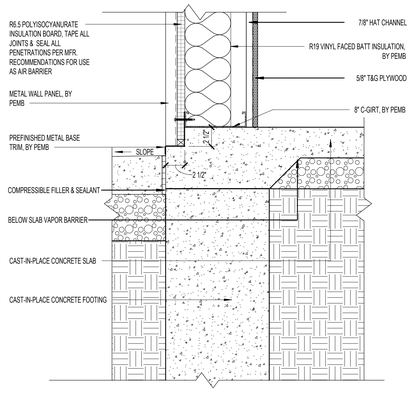


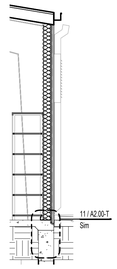
OVERHEAD DOOR HEAD - PEMB 13
SCALE: 3" = 1'-0"



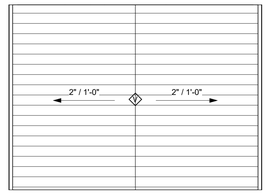
OVERHEAD DOOR JAMB - PEMB 12
SCALE: 3" = 1'-0"



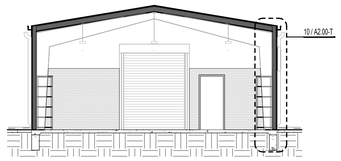
FOUNDATION DETAIL 11
SCALE: 1 1/2" = 1'-0"



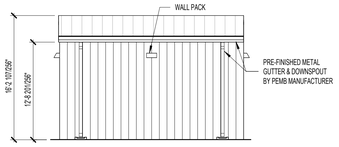
WALL SECTION 10
SCALE: 1/4" = 1'-0"



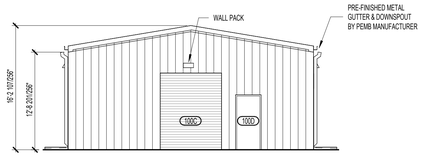
ROOF PLAN - FIELDHOUSE STORAGE 9
SCALE: 1/8" = 1'-0"



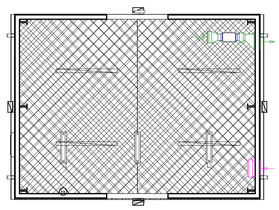
SECTION - FIELDHOUSE STORAGE 8
SCALE: 1/8" = 1'-0"



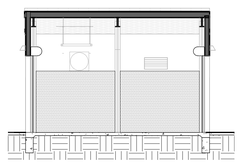
EAST ELEVATION - FIELDHOUSE STORAGE 7
SCALE: 1/8" = 1'-0"



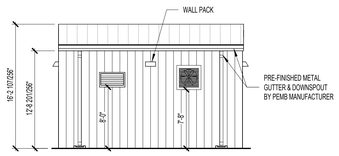
NORTH ELEVATION - FIELDHOUSE STORAGE 6
SCALE: 1/8" = 1'-0"



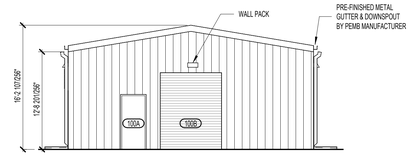
REFLECTED CEILING PLAN - FIELDHOUSE STORAGE 5
SCALE: 1/8" = 1'-0"



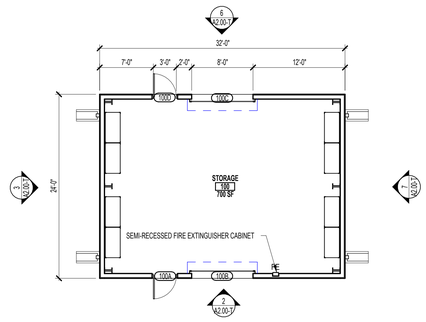
SECTION - FIELDHOUSE STORAGE 4
SCALE: 1/8" = 1'-0"



WEST ELEVATION - FIELDHOUSE STORAGE 3
SCALE: 1/8" = 1'-0"



SOUTH ELEVATION - FIELDHOUSE STORAGE 2
SCALE: 1/8" = 1'-0"



FLOOR PLAN FIELDHOUSE STORAGE 1
SCALE: 1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
2. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
3. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
4. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

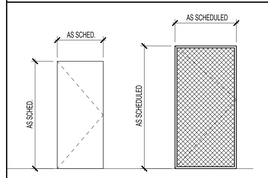
- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- COLUMN GRID (AB)
- EXTERIOR ELEVATION TAG (26 / A101 Ref)
- INTERIOR ELEVATION TAG (1/A101 Ref)
- BUILDING SECTION TAG (1 / A101 SIM)
- WALL SECTION TAG (1 / A101 SIM)
- ENLARGED CALL OUT (21 / A101 SIM)
- DOOR TAG (101)
- PARTITION TAG (AX)
- HOLLOW METAL WINDOW TAG (1)
- ALUMINUM WINDOW TAG (1)
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

DOOR SCHEDULE GENERAL NOTES

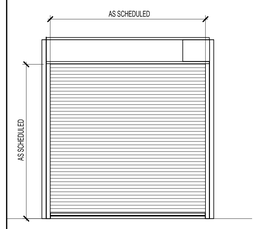
1. REFER TO THE SPECIFICATIONS FOR HARDWARE DESCRIPTIONS
2. REF. SPECIFICATIONS FOR GLAZING TYPES
3. ALL DOORS IN SMOKE RESISTANT PARTITIONS TO HAVE POSITIVE LATCHING AND BE SMOKE TIGHT (ST)
4. ALL DOORS TO HAVE BOXED HEADERS UNLESS STEEL CHANNELS ARE INDICATED IN THE COMMENT COLUMN OF THE DOOR SCHEDULE OR UNLESS OTHERWISE INDICATED BY HEAD DETAIL
5. ALL CLOSERS TO BE LOCATED ON THE ROOM SIDE OF THE DOOR WHERE INSTALLED AT CORRIDORS. IN NON CORRIDORS, CLOSERS TO BE INSTALLED AT THE ROOM SIDE FOR THE ROOM BEING SERVED BY THE OPENER
6. ALL FIRE RATINGS NOTED IN MINUTES

DOOR PANEL TYPES



A

J WIRE MESH SECURITY SWING DOOR



K COILING OVERHEAD DOOR

DOOR SCHEDULE COMMENTS

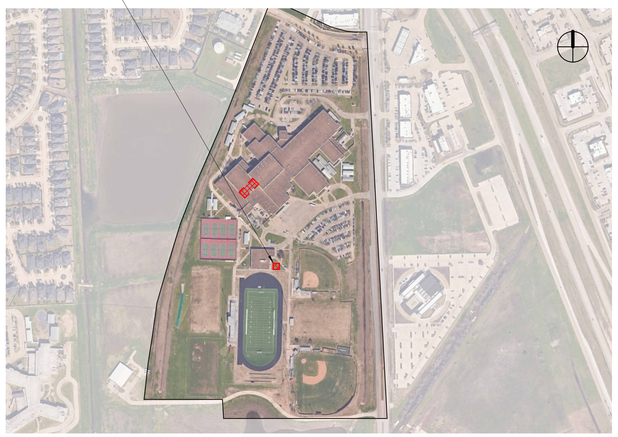
1. PANIC HARDWARE
2. VACANT/OCCUPIED LIGHT OVER DOOR
3. ADA DOOR OPERATOR
4. PACKAGED DOOR ASSEMBLY, RE: SPECS
5. AUTOMATIC CARD READER AT DOOR, RE: SECURITY

DOOR SCHEDULE ABREVIATIONS

AL: ALUMINUM	RM: REFER TO MANUFACTURER
HM: HOLLOW METAL	MIN: MINUTES
MTL: METAL	HW: HARDWARE
CL: CHAIN LINK	FBC: POLYMER CORE

ALTERNATES:

ALTERNATES NO. 7 - TRAVIS HIGH SCHOOL: METAL STORAGE NEAR FIELD HOUSE.



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

11111 Harlem Rd, Richmond, TX 77406

TRAVIS HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: DRW	CHECKED BY: CHK
REVISIONS:	
NO. Date	Description

100% CD

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01 FLOOR PLAN FIELD HOUSE STORAGE

TRAVIS HIGH SCHOOL

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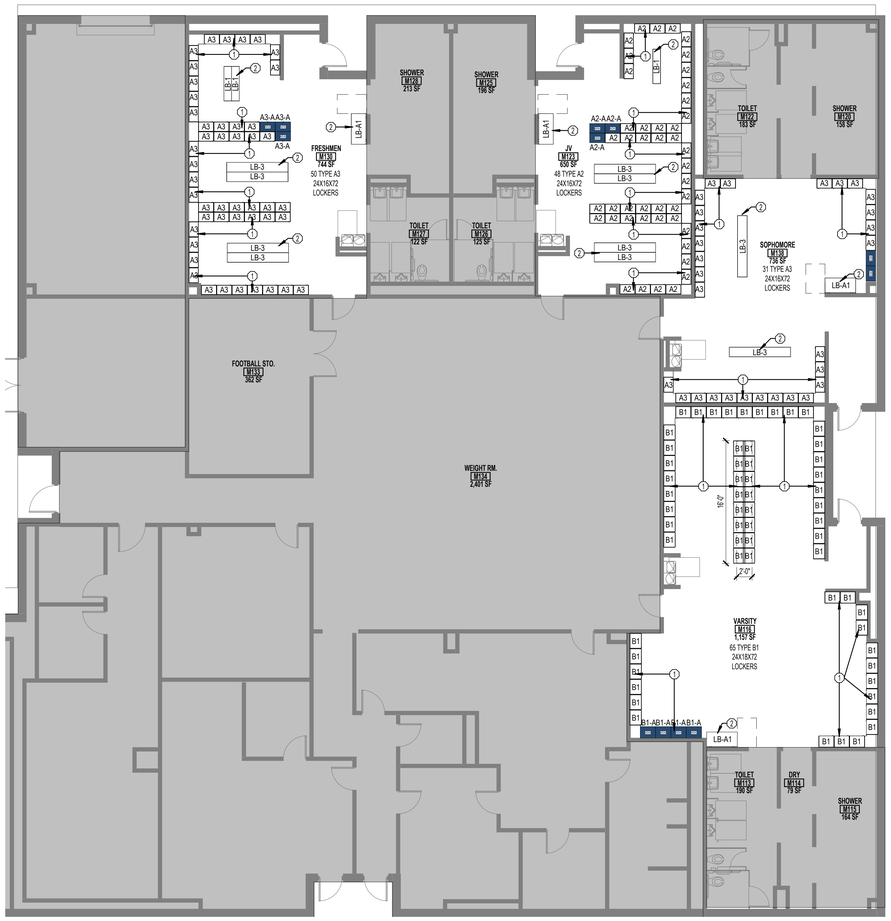
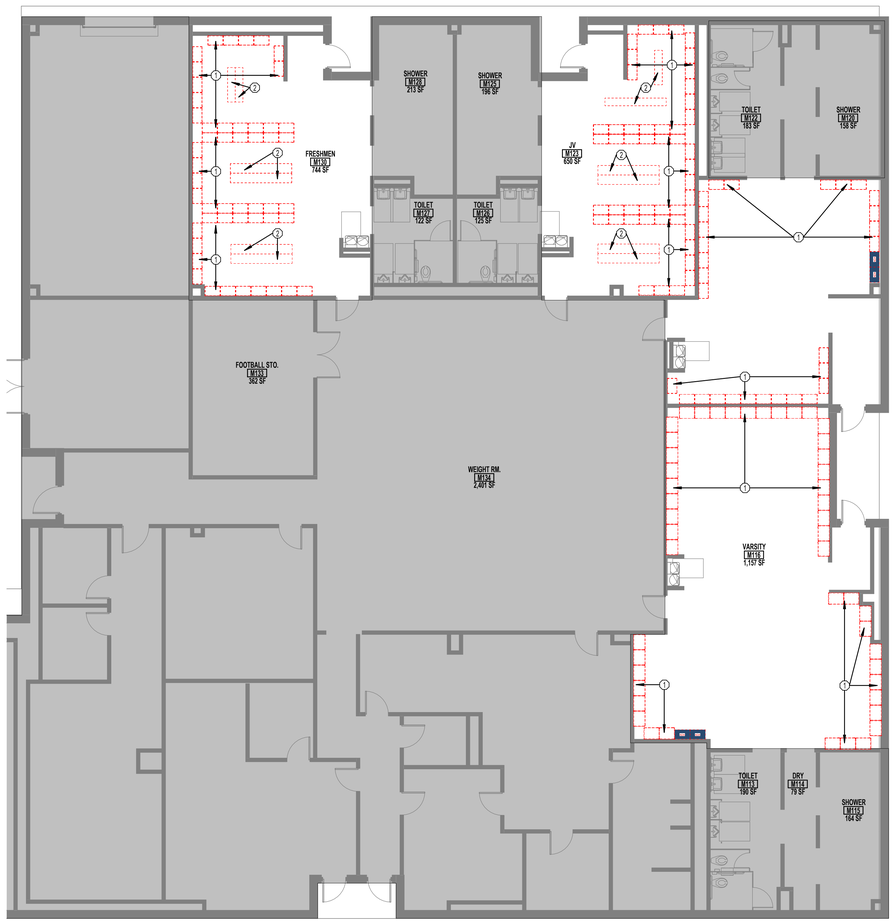


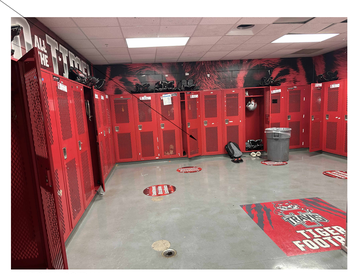
FLOOR PLAN GYM LOCKERS 2
SCALE: 1/8" = 1'-0"

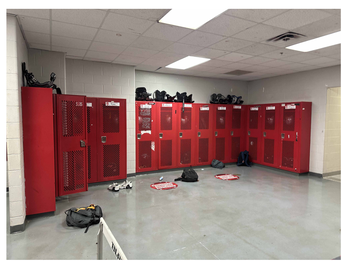


DEMO FLOOR PLAN GYM LOCKERS 1
SCALE: 1/8" = 1'-0"

DEMO EXISTING LOCKERS, CONCRETE BASE TO REMAIN


VARSITY FOOTBALL


VARSITY FOOTBALL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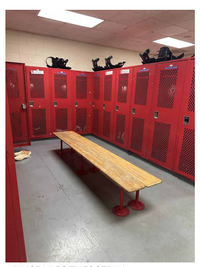
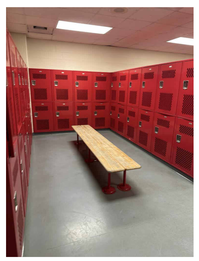
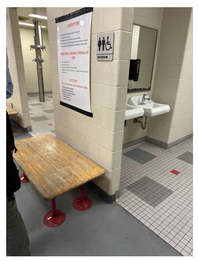

JUNIOR VARSITY FOOTBALL


FRESHMEN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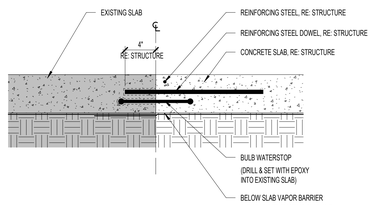
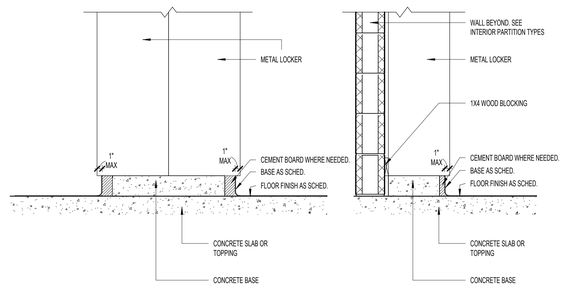


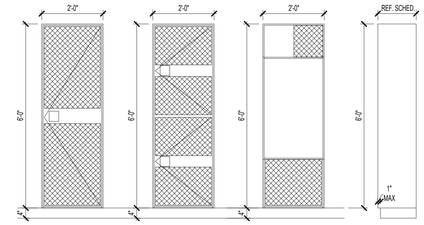
SECTION DETAIL - NEW SLAB AT EXISTING SLAB 5
SCALE: 1 1/2" = 1'-0"



LOCKER CURB DETAIL 4
SCALE: 1" = 1'-0"

LOCKER SCHEDULE

1 PROVIDE SHOP-APPLIED, BAKED EPOXY ENAMEL FINISH
2 REFER TO MATERIAL SCHEDULE FOR COLOR



TYPE A2
24"x16"x72"

JUNIOR VARSITY
EXISTING 48
PROVIDED 48
ADA REQUIRED: 3
ADA PROVIDED: 3

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

TYPE A3
24"x16"x72"

ROOM 183
EXISTING 31
PROVIDED 31
ADA REQUIRED: 2
ADA PROVIDED: 2

ROOM 130
EXISTING 31
PROVIDED 50
ADA REQUIRED: 3
ADA PROVIDED: 3

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

TYPE B1
24"x18"x72"

ROOM 116
EXISTING 50
PROVIDED 65
ADA REQUIRED: 4
ADA PROVIDED: 4

NOTE: PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS

PROFILE

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED; REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER; DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA OF FLOOR TO BE PATCHED

DEMOLITION KEY NOTES

1. REMOVE EXISTING LOCKERS. REPAIR AND PAINT ANY DAMAGES TO EXISTING CMU WALLS OR FLOORS. REFER TO MATERIAL SCHEDULE FOR P-1 PAINT COLOR.
2. REMOVE EXISTING BENCHES. REPAIR AND PAINT ANY DAMAGES TO EXISTING CMU WALLS OR FLOORS. REFER TO MATERIAL SCHEDULE FOR P-1 PAINT COLOR.

FLOOR PLAN GENERAL NOTES

1. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
2. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
3. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
4. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- COLUMN GRID
- EXTERIOR ELEVATION TAG
- INTERIOR ELEVATION TAG
- BUILDING SECTION TAG
- WALL SECTION TAG
- ENLARGED CALL OUT
- DOOR TAG
- PARTITION TAG
- HOLLOW METAL WINDOW TAG
- ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

1. NEW LOCKERS
2. NEW BENCHES
3. NEW 4" CONCRETE LOCKER CURB

LEGEND - SPECIALTY EQUIPMET

TAG	EQUIPMENT
A2	LOCKER - 24" W X 16" D X 72" H
A3	LOCKER - 24" W X 16" D X 72" H
B1	LOCKER - 24" W X 18" D X 91" H
LB-1	LOCKER BENCH - 54" L X 15" W
LB-2	LOCKER BENCH - 72" L X 15" W
LB-3	LOCKER BENCH - 96" L X 15" W
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

111111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

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01 FLOOR PLAN FIELD HOUSE LOCKERS

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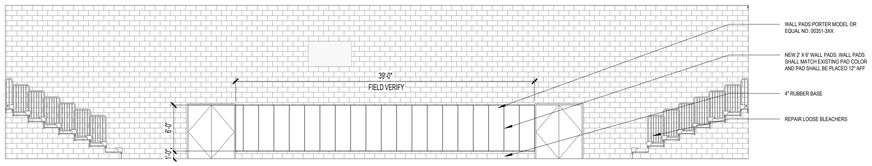
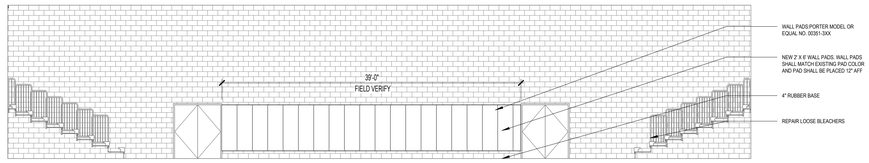
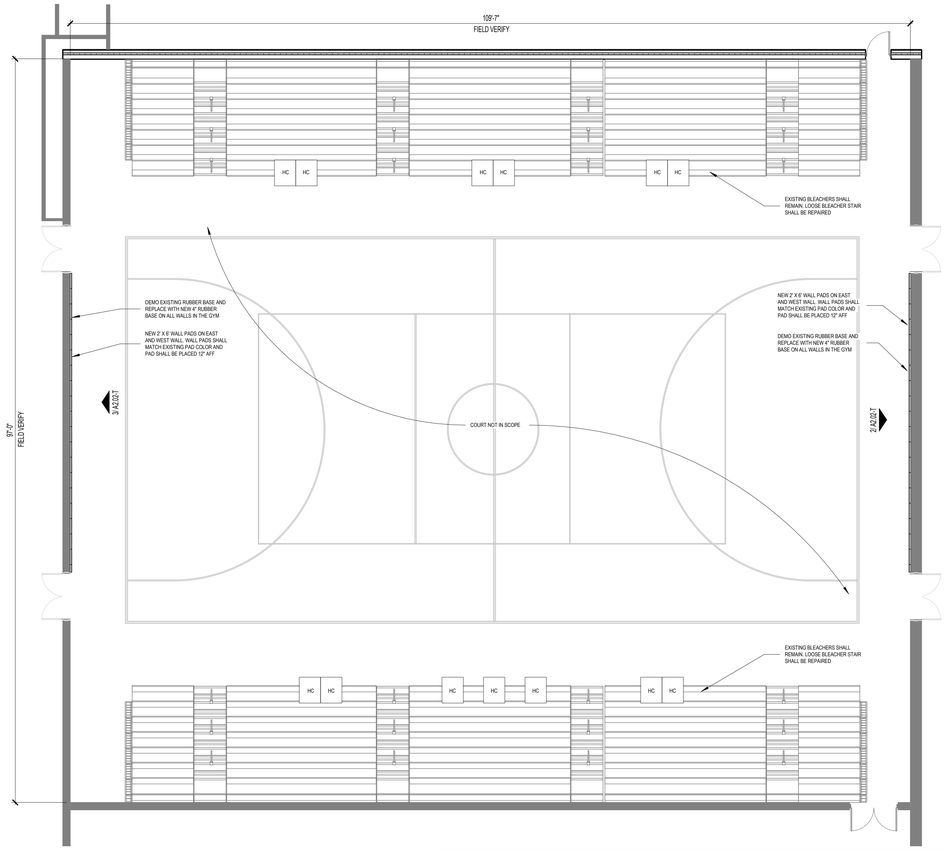
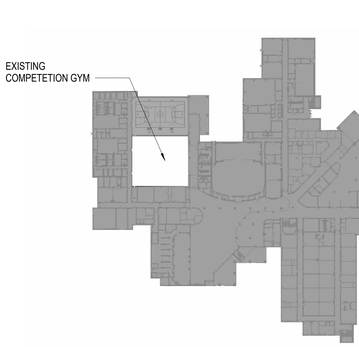


GYM WEST ELEVATION- T 3
SCALE: 1/8" = 1'-0"



GYM WEST ELEVATION -T 2
SCALE: 1/8" = 1'-0"





GYM FLOOR PLAN- T 1
SCALE: 1/8" = 1'-0"

BUILDING KEY PLAN
N.T.S



SITE KEY PLAN
N.T.S





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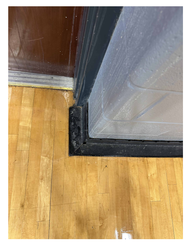

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FLOOR PLAN GENERAL NOTES

1. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD/FACE OF CMU/FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
2. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
3. REFER TO SHEETS A0 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
4. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-6" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- AB — COLUMN GRID
- Ref / 20 / A101 — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- SIM / 1 / A101 — BUILDING SECTION TAG
- SIM / 1 / A101 — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT
- 101 — DOOR TAG
- FAV — PARTITION TAG
- HOLLOW METAL WINDOW TAG
- 1 — ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

TAG #	NOTE
1	REPLACE WALL PADS
2	REPLACE RUBBER BASE

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 4 — DEMO KEY NOTE

DEMOLITION KEY NOTES

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

111111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

Date	Description

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A2.02-T
01 FLOOR PLAN
ATHLETICS GYM

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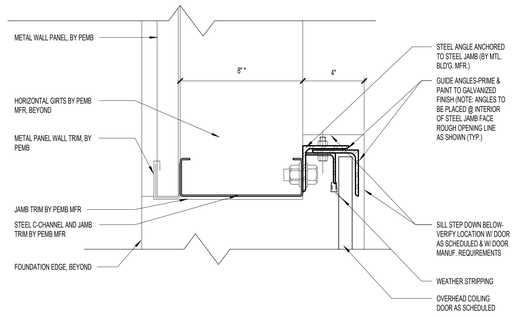
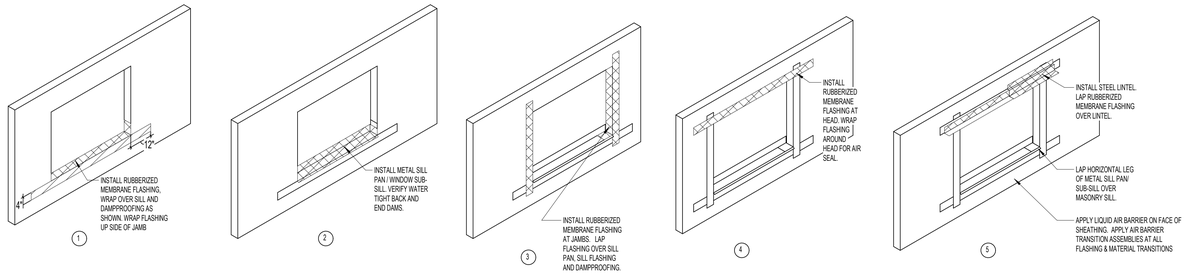


ROLL-UP DOOR JAMB - PEMB 10
SCALE: 3" = 1'-0"



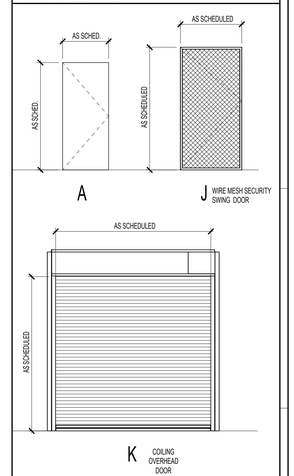
WINDOW FLASHING SEQUENCE 4
SCALE: 3/8" = 1'-0"

DOOR SCHEDULE															
			PANEL		PANEL			FRAME				DETAILS			
Level	BUILDING	NUMBER	PAIR	WIDTH	HEIGHT	TYPE	MATERIAL	TYPE	MATERIAL	FIRE RATING	HARDWARE	HEAD	JAMB	THRESHOLD	COMMENTS
STORAGE															
Level 01	STORAGE	100A		3'-0"	7'-0"	A	HM	HM1	HM		205				
Level 01	STORAGE	100B			10'-0"	K	AL	-	AL		001				OVERHEAD COILING DOOR
Level 01	STORAGE	100C			10'-0"	K	AL	-	AL		001				OVERHEAD COILING DOOR
Level 01	STORAGE	100D		3'-0"	7'-0"	A	HM	HM1	HM		205				

DOOR SCHEDULE GENERAL NOTES

1. REFER TO THE SPECIFICATIONS FOR HARDWARE DESCRIPTIONS
2. REF. SPECIFICATIONS FOR GLAZING TYPES
3. ALL DOORS IN SMOKE RESISTANT PARTITIONS TO HAVE POSITIVE LATCHING AND BE SMOKE TIGHT (ST)
4. ALL DOORS TO HAVE BOXED HEADERS UNLESS STEEL CHANNELS ARE INDICATED IN THE COMMENT COLUMN OF THE DOOR SCHEDULE OR UNLESS OTHERWISE INDICATED BY HEAD DETAIL
5. ALL CLOSERS TO BE LOCATED ON THE ROOM SIDE OF THE DOOR WHERE INSTALLED AT CORRIDORS. IN NON CORRIDORS, CLOSERS TO BE INSTALLED AT THE ROOM SIDE FOR THE ROOM BEING SERVED BY THE OPENER
6. ALL FIRE RATINGS NOTED IN MINUTES

DOOR PANEL TYPES

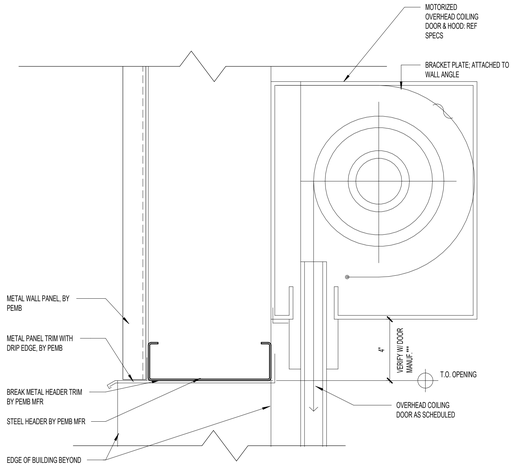


DOOR SCHEDULE COMMENTS

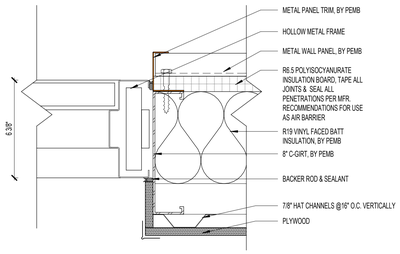
1. PANIC HARDWARE
2. VACANT/OCCUPIED LIGHT OVER DOOR
3. ADA DOOR OPERATOR
4. PACKAGED DOOR ASSEMBLY, RE: SPECS
5. AUTOMATIC CARD READER AT DOOR, RE: SECURITY

DOOR SCHEDULE ABREVIATIONS

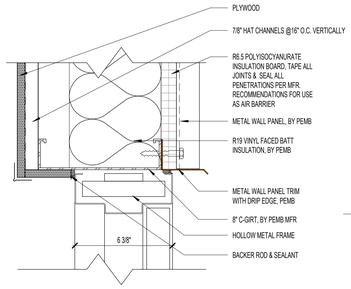
AL: ALUMINUM	RM: REFER TO MANUFACTURER
HM: HOLLOW METAL	MIN: MINUTES
MTL: METAL	HW: HARDWARE
CL: CHAIN LINK	FBC: POLYMER CORE



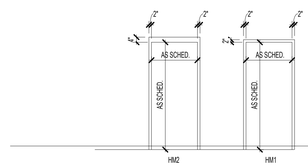
ROLL-UP DOOR HEAD - PEMB 9
SCALE: 3" = 1'-0"



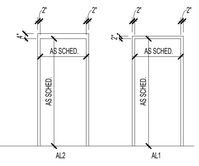
HM JAMB - INSULATED PEMB 2
SCALE: 3" = 1'-0"



HM HEAD - INSULATED PEMB 1
SCALE: 3" = 1'-0"



HOLLOW METAL FRAME TYPES 3
SCALE: 1/4" = 1'-0"



ALUMINUM FRAME TYPES 5
SCALE: 1/4" = 1'-0"

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
11111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
No. Date Description

100% CD

A8.00-T
DOOR SCHEDULE

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ROOM FINISH SCHEDULE - 2ND FLOOR

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	NOTES
M116	VARSITY			-	-	-	-	NEW BASE AT CONCRETE BASE
M123	JV			-	-	-	-	NEW BASE AT CONCRETE BASE
M130	FRESHMEN			-	-	-	-	NEW BASE AT CONCRETE BASE
M138	SOPHOMORE			-	-	-	-	NEW BASE AT CONCRETE BASE

ROOM FINISH SCHEDULE - STORAGE SHED

ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	NOTES
100	STORAGE	SCONC-1	RB-2	P-1 PLYWOOD PANEL	P-1 PLYWOOD PANEL	P-1 PLYWOOD PANEL	P-1 PLYWOOD PANEL	PLYWOOD PANEL, 8' HEIGHT

MATERIAL SCHEDULE

MARK	MATERIAL	MANUFACTURER	STYLE	COLOR	SPECS	REMARKS
01 FLOOR FINISH						
EP-1	EPOXY QUARTZ FLOORING	STONHARD	STONSHIELD SLT	MATCH EXISTING	TROWEL APPLIED	PATCHING AS APPLICABLE
SCONC-1	SEALED CONCRETE					FIELDHOUSE STORAGE
02 BASE						
RB-1	RUBBER BASE			TO MATCH EXISTING		AT CONCRETE BASE
RB-2	VENTED RUBBER BASE			TO MATCH EXISTING		AT GYM. ALL WALLS
RB-3	RUBBER BASE					FIELDHOUSE STORAGE
03 WALL FINISH						
P-1	PLYWOOD PANEL	SHERWIN WILLIAMS			5/8" THICKNESS	FIELDHOUSE STORAGE
P-1E	PAINT	SHERWIN WILLIAMS				FIELD PAINT
P-2	EPOXY PAINT	SHERWIN WILLIAMS		MATCH FIELD PAINT, U.N.O.		EPOXY PAINT AT WET AREAS
P-2	PAINT	SHERWIN WILLIAMS				SCHOOL COLOR ACCENT
04 CEILING						
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	CLEAN ROOM VL NO. 870	WHITE	2X2, SQUARE EDGE	LOCKER ROOMS
05 MISC FINISHES						
	LOCKERS	LIST INDUSTRIES		721 RELAY RED		REF TO LOCKER SCHEDULE
	BENCHES			BLACK		LOCKER ROOMS
WP-1	WALL PAD	PORTER		MATCH EXISTING	2'X6'	AT GYM. REF TO INT ELEVATIONS
06 EXTERIORS						
CMU-1		BEST BLOCK	SMOOTH FACE	TO BE PAINTED		BLOCK WALL
MP-1	METAL WALL PANEL	RED DOT BUILDINGS	SIGNATURE 300	SLATE GRAY	PEMB	FIELDHOUSE STORAGE
MP-1	METAL WALL PANEL	RED DOT BUILDINGS	SIGNATURE 300	BRITE RED, ACCENT COLOR	PEMB	FIELDHOUSE STORAGE
PM-1	PREFINISHED METAL	BERRIDGE				
WP-1	WALL PAD	PORTER		TO MATCH SCHOOL COLOR RED		BACKSTOP PADDING

100% CD

A9.00-T

MATERIAL SCHEDULE & INTERIOR DETAILS

TRAVIS HIGH SCHOOL

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
Date Description

DATE: 12/04/2025

REGISTERED ARCHITECT MICHAEL ALAN MILLER 2013 STATE OF TEXAS

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

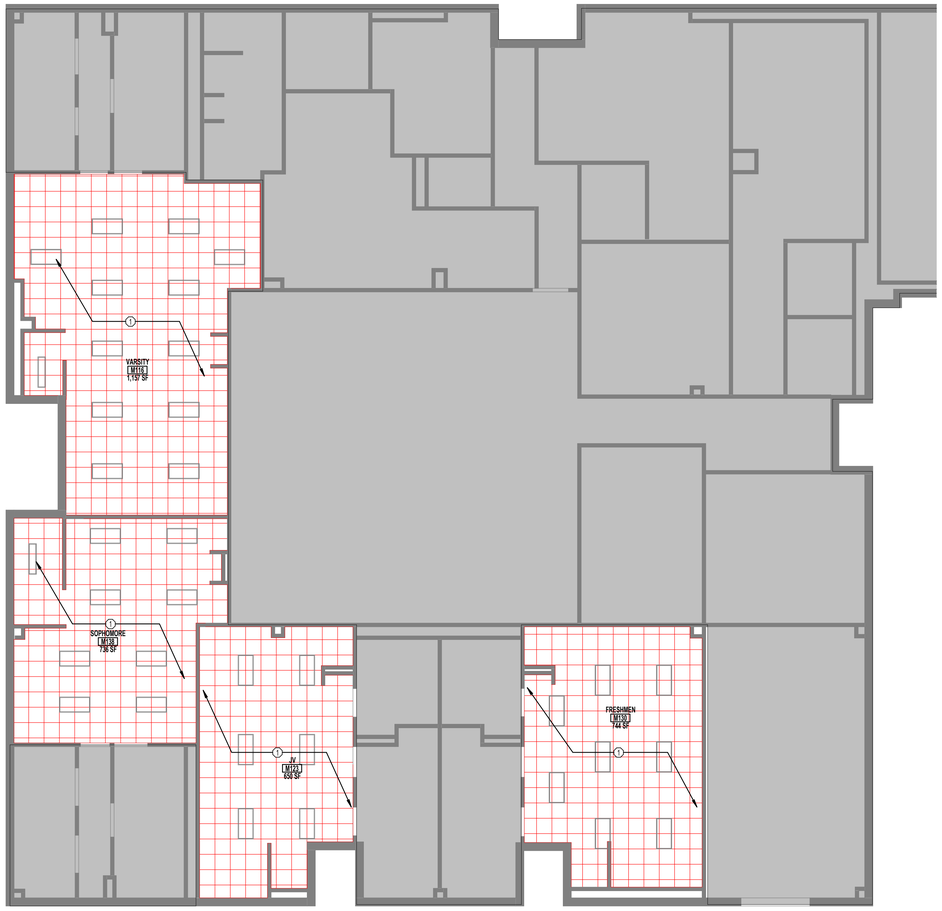
11111 Harlem Rd, Richmond, TX 77406

TRAVIS HIGH SCHOOL

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

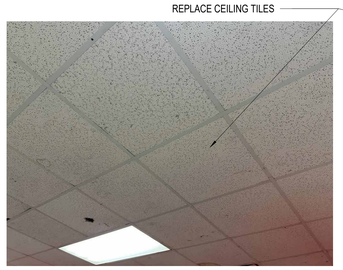


REFLECTED CEILING PLAN GYM LOCKERS 1
SCALE: 1/8" = 1'-0"

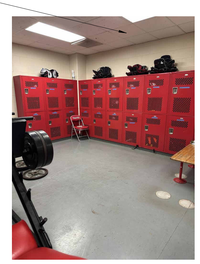


DEMO REFLECTED CEILING PLAN GYM LOCKERS 2
SCALE: 1/8" = 1'-0"

REPLACE CEILING TILES



FRESHMEN



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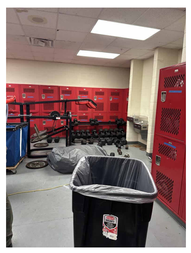

FRESHMEN



FRESHMEN

REFLECTED CEILING PLAN LEGEND

- 2' X 4' LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (RECESSED)
- LINEAR LED FIXTURE (SUSPENDED)
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- SUSPENDED CEILING SYSTEM WITH LAY-IN ACOUSTICAL PANELS
- SUSPENDED CEILING SYSTEM WITH LAY-IN VINYL FACED PANELS
- EXPOSED STRUCTURE

GENERAL NOTES:
1. ALL CEILINGS TO BE 9'-0" UNLESS OTHERWISE NOTED.
2. SEE SHEET A10.10 FOR CEILING DETAILS.
3. REFER TO INTERIOR AND EXTERIOR ELEVATIONS FOR LIGHT FIXTURE MOUNTING HEIGHTS.
4. MEP & ARCHITECT TO REVIEW AND APPROVE SPRINKLER KEYOUT AND HEAD LOCATIONS PRIOR TO CONSTRUCTION. SUBMIT PLAN USING ARCHITECTS RCPS.
5. AT AREAS WHERE CEILING IS EXPOSED - EXPOSED CONDUIT TO BE LOCATED NEATLY. ARCHITECT TO APPROVE LAYOUTS.
6. COORDINATE CEILING ACCESS PANELS WITH MEP CONTRACTOR. LOCATE WHERE NECESSARY.
7. PROJECTOR MOUNTS TO BE LOCATED BETWEEN 10'-0" TO 13'-0" FROM WALL, UNO.
8. REFER TO A9.01 FOR MORE INFO ON SIGNAGE TYPES.

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID, AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
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12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA OF FLOOR TO BE PATCHED

DEMOLITION KEY NOTES

TAG #	NOTE
1	REMOVE CEILING TILES. REPLACE CEILING TILES. EXISTING LIGHTING FIXTURES AND GRID TO REMAIN.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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11111 Harlem Rd, Richmond, TX 77406

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1 Date Description

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A10.00-T

REFLECTED CEILING PLAN FIELD HOUSE LOCKERS

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FAN SCHEDULE

TAG	LOCATION	CFM	EXT. STATIC PRESSURE (IN.W.C.)	MAX RPM	HORSE POWER	CURRENT CHAR V	CURRENT CHAR P	CURRENT CHAR F	LOCALLY SWITCHED	INTERLOCK WITH	FAN TYPE	DRIVE TYPE	MANUFACTURER	MODEL NUMBER	REMARKS
EF-1	STORAGE	460	0.30	1500	0.25	120	1	60	-	HUMIDITY STAT	INLINE	DIRECT	COOK	SQND	1,2,3,4,5,6

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MINIMUM RECOMMENDED CLEARANCE AROUND UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH DISCONNECT.
2. PROVIDE WITH MOTORIZED DAMPER.
3. PROVIDE WITH SPEED CONTROLLER.
4. PROVIDE WITH EC MOTOR.
5. SUSPEND UNIT WITH FOUR THREADED HANGER RODS ATTACHED TO TWO UNISTRUT RUNNERS SECURED TO STRUCTURE. PROVIDE SPRING ISOLATION. REFER TO MANUFACTURER FOR MORE DETAILS.
6. UNIT SHALL NOT BE PROVIDED IF ALTERNATE NO.7 HAS BEEN ACCEPTED.

GRILLE

MARK	SERVICE	TYPE	DAMPER	CONSTRUCTION MATERIAL	FINISH COLOR	MANUFACTURER	MODEL NUMBER	DESCRIPTION
A	EXHAUST AIR	GRILLE	-	STEEL	-	TITUS	350RL	DOUBLE DEFLECTION SIDEWALL GRILLE WITH HORIZONTAL FRONT BARS. SURFACE MOUNTED

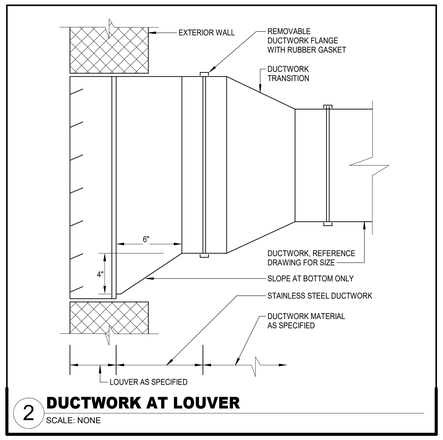
GENERAL NOTES:
1. DAMPERS NOTED AS U.L. SHALLBE A 'U.L.' CLASSIFIED CEILING RADIATION DAMPER WITH THERMAL BLANKET.
2. COORDINATE FINAL AIR DEVICE LOCATION AND FINISH COLOR WITH ARCHITECT.

REMARKS:
1. N/A

DAMPER

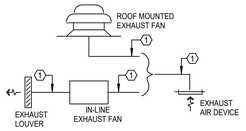
MARK	ACTUATOR	DUTY	BLADE ACTION	MANUFACTURER	MODEL NUMBER	REMARKS
D-1	MANUAL BALANCING	UNDER 9" WIDE	N/A	N/A	N/A	SEE SMACNA CONSTRUCTION DETAILS REFERENCED "TYPICAL CONSTRUCTION DETAILS FOR LOW VELOCITY DUCTS."
D-2	MANUAL BALANCING	OVER 9" WIDE	OPPOSED	RUSKIN	MD-35	MANUAL DAMPER WITH STANDARD CONSTRUCTION FEATURES AND VENTLOCK #639 LOCKING REGULATOR.
D-3	MOTORIZED	OVER 9" WIDE	OPPOSED	RUSKIN	CD-60	LOW LEAKAGE DAMPER WITH BLADE SEALS

NOTES:
N/A - NOT APPLICABLE



2 DUCTWORK AT LOUVER
SCALE: NONE

DUCT LINER AND INSULATION

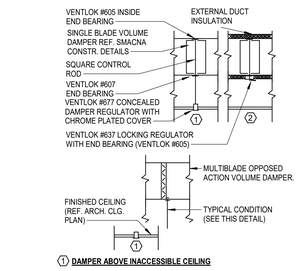


EXHAUST AIR SYSTEMS

KEYED NOTES:

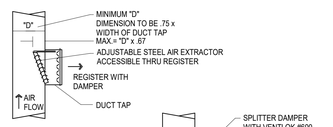
1. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
2. SHEETMETAL DUCTWORK RETURN AIR PLENUM WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
3. FLEXIBLE DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
4. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT DISCHARGE TO 10'-0" DOWNSTREAM.
5. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT INLET TO 10'-0" UPSTREAM.
6. EXHAUST DUCTWORK AS SPECIFIED WITH FIREBOARD INSULATION AS SPECIFIED.
7. SHEETMETAL DUCTWORK ONLY. NO INSULATION REQUIRED.

DUCTWORK CONSTRUCTION DETAILS



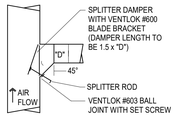
① DAMPER ABOVE INACCESSIBLE CEILING

② DAMPER ABOVE LIFT-OUT CEILING

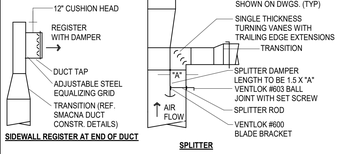


NOTES:
1. MAX. WIDTH OF DUCT TAP SHALL BE 48". PROVIDE BOTTOM BRACKET FOR SUPPORT WHERE EXTRACTOR EXCEEDS 16".
2. MAX. HEIGHT OF DUCT TAP SHALL BE 12" (MIN.= 4")

EXTRACTOR SIDEWALL REGISTER



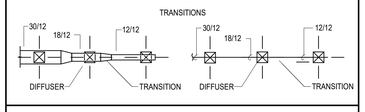
DUCT TAP

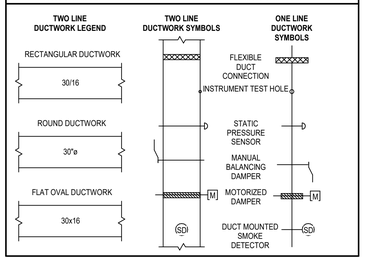


SIDEWALL REGISTER AT END OF DUCT

SPLITTER

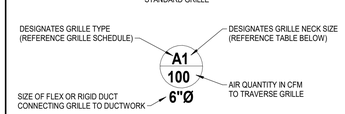
DUCTWORK SYMBOLS LEGEND





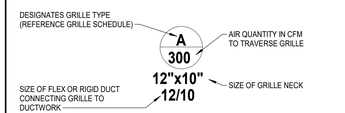
GRILLE SIZING SCHEDULE

STANDARD GRILLE



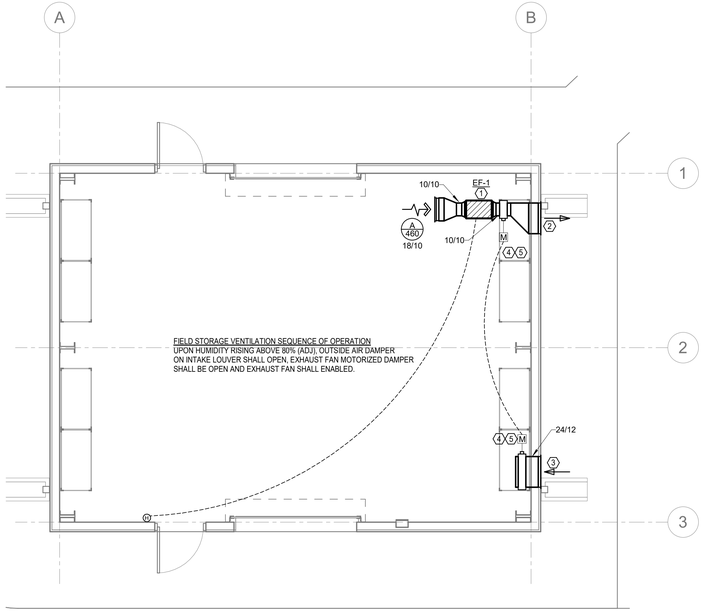
ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN.

REGISTER OR NONSTANDARD GRILLE



ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN. ALL REGISTERS SHALL HAVE A 45° HORIZONTAL DEFLECTION UNLESS OTHERWISE SHOWN.

GRILLE SIZE DESIGNATION	GRILLE NECK SIZE	GRILLE SIZE DESIGNATION	GRILLE NECK SIZE
1	6" x 6"	7	15" x 15"
2	8" x 8"	8	16" x 16"
3	9" x 9"	9	18" x 18"
4	10" x 10"	10	20" x 20"
5	12" x 12"	11	22" x 22"
6	14" x 14"	12	24" x 24"



N

1 MECHANICAL FLOOR PLAN - STORAGE - ALTERNATE NO.7
Scale: 1/4" = 1'-0"

MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR). UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. VERIFY SERVICE CLEARANCES WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADE NOT TO OBSTRUCT.
2. PROVIDE 24"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .67 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT.COORDINATE FINAL LOCATION WITH ARCHITECT.
3. PROVIDE 24"X 12" RUSKIN MODEL HZ700MD WIND-DRIVEN RAIN RESISTANT EXHAUST AIR STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF .67 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT.COORDINATE FINAL LOCATION WITH ARCHITECT.
4. MOTORIZED DAMPER TO BE INTERLOCKED WITH EF-1. INTERLOCK SHALL OPERATE AS FOLLOWS, WHEN EF-1 IS ENERGIZED THE DAMPER SHALL OPEN, WHEN EF-2 IS DE-ENERGIZED THE DAMPER SHALL CLOSE.
5. MOTORIZED DAMPER SHALL BE ON SAME 120V CIRCUIT AS ASSOCIATED EXHAUST FAN. REEFER TO ELECTRICAL

SYMBOL LEGEND

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
GENERAL	
(#)	KEY NOTE TAG
(#)	REVISION TAG
	NEW EQUIPMENT
DUCTWORK	
	SUPPLY AIR DUCTWORK
	RETURN AIR AND OUTSIDE AIR DUCTWORK
	EXHAUST AIR DUCTWORK
	SUPPLY AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	RETURN AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	EXHAUST AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	FIRE DAMPER (VERTICAL)
	FIRE DAMPER (HORIZONTAL)
SD	SMOKE DAMPER (VERTICAL)
SD	SMOKE DAMPER (HORIZONTAL)
FSD	COMBINATION FIRE & SMOKE DAMPER (VERTICAL)
FSD	COMBINATION FIRE & SMOKE DAMPER (HORIZONTAL)
	MANUAL BALANCING DAMPER (SEE DAMPER SCHEDULE)
M	MOTORIZED DAMPER (SEE DAMPER SCHEDULE)
SENSORS	
T	THERMOSTAT AND TEMPERATURE SENSOR
H	HUMIDISTAT
SD	SMOKE DETECTOR
HD	HEAT DETECTOR
AIR DEVICES	
	GRILLE SIZE TAG (REFER TO GRILLE SIZE LEGEND)
	SUPPLY AIR SIDEWALL GRILLE
	RETURN AIR SIDEWALL GRILLE
20X12	RETURN AIR OPENING ABOVE CEILING
SUBSCRIPTS AND ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
BBS	BELOW BOTTOM OF STRUCTURE
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
CA	COMBUSTION AIR
CFM	CUBIC FEET PER MINUTE
EA	EXHAUST AIR
FPM	FEET PER MINUTE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
11111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
60210
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:
No. Date Description

100% CD

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MECHANICAL FLOOR PLAN - STORAGE - ALTERNATE NO.7

TRAVIS HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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FIRE DETECTION AND ALARM SYSTEM:

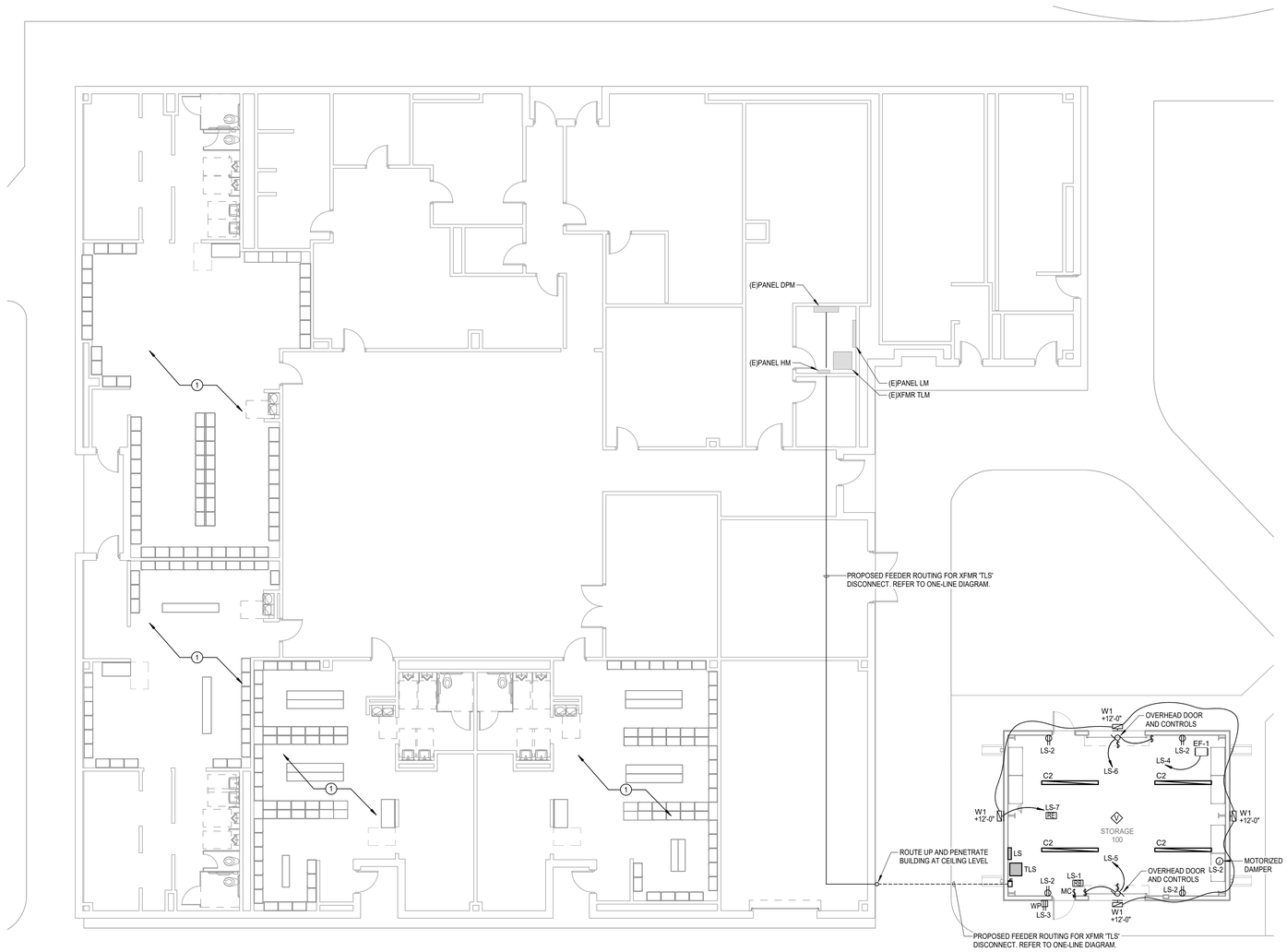
- LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL III, IN THE SUB FIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS. FURNISH AND INSTALL ALL REQUIRED FIRE ALARM DEVICES, AS REQUIRED BY CODE. VERIFY EXACT REQUIREMENTS IN THE FIELD. COORDINATE ALL LOCATIONS WITH DRAWINGS APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY OPERATIONAL THROUGHOUT ALL PHASES OF CONSTRUCTION.
- EXPAND EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE NEW FIRE ALARM DEVICES AND SYSTEM BOOSTER PANELS.

ELECTRICAL KEYED NOTES:

(1) SUSPEND OR REMOVE AND STORE ALL CEILING MOUNTED ELECTRICAL DEVICES TO FACILITATE DEMOLITION OF CEILING. AFTER CEILING HAS BEEN REPLACED, REINSTALL ALL EXISTING CEILING MOUNTED ELECTRICAL IN NEW CEILINGS WHERE APPLICABLE. DEVICES INCLUDE BUT ARE NOT LIMITED TO: EXIT SIGNS, FIRE ALARM DEVICES, LIGHTING CONTROLS/OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REMOVED/REPLACED.

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC., SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.
4. LIGHTING CONTROLS WHERE PROVIDED SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
5. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
6. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED. CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.
7. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.
8. CONTRACTOR SHALL PROVIDE CONSTANT UNSWITCHED POWER FOR BATTERY PACKS AND / OR EXIT SIGNAGE.



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1 **ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - STORAGE & FIELDHOUSE**
Scale: 1/8" = 1'-0"

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
111111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL - HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS
STATE OF TEXAS
60210
LICENSED
12/04/2025

PROJECT NO.	25-006
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DRAWN BY: Author	CHECKED BY: Checker

REVISIONS:

NO.	Date	Description

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

100% CD

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ELECTRICAL FLOOR PLAN - FIELDHOUSE & STORAGE

TRAVIS HIGH SCHOOL

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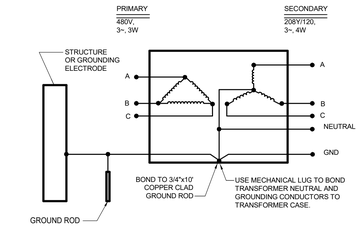
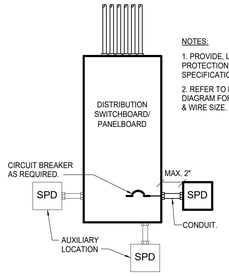
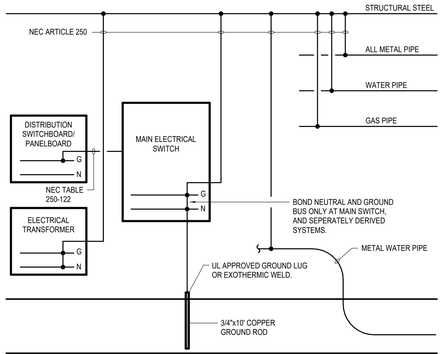


4 TRANSFORMER GROUNDING DETAIL
SCALE: NONE



NOTES:
1. PROVIDE, LOCATE AND INSTALL SURGE PROTECTION DEVICE AS REQUIRED PER SPECIFICATIONS.
2. REFER TO PANEL SCHEDULES AND ONE-LINE DIAGRAM FOR QUANTITY, TYPE, BREAKER SIZE, & WIRE SIZE.

3 SURGE PROTECTION DETAIL
SCALE: NONE



2 GROUNDING DETAIL
SCALE: NONE

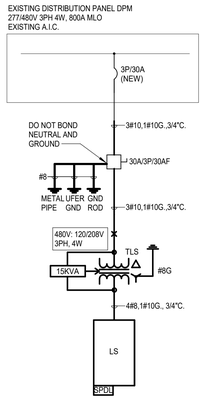
1 TYPICAL LIGHTING CONTROLS ELEVATION
SCALE: NONE

SYMBOL SCHEDULE

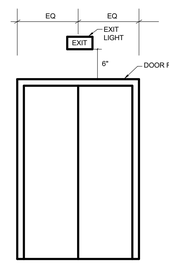
SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED ON EMERGENCY CIRCUIT
	DOWNLIGHT FIXTURE
	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
	LIGHT FIXTURE - WALL MOUNTED
	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - CEILING MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - WALL MOUNTED ON EMERGENCY CIRCUIT
LIGHTING CONTROLS & DEVICES	
$	LINE VOLTAGE SINGLE POLE SWITCH
$3	LINE VOLTAGE 3-WAY SWITCH
$4	LINE VOLTAGE 4-WAY SWITCH
$K	LINE VOLTAGE MOMENTARY DPST KEYED SWITCH
$D	LINE VOLTAGE DIMMER SWITCH, SIZE AND TYPE AS REQUIRED
$P	LINE VOLTAGE SWITCH WITH PILOT LIGHT
$T	6-HOUR ROTARY TIMER SWITCH WITH NO HOLD U.N.O.
	PUSH BUTTON EPO SWITCH WITH COVER
$MC	LOW VOLTAGE MOMENTARY CONTACT SWITCH
$R	LOW VOLTAGE DIGITAL KEYPAD
$B	LOW VOLTAGE BUILDING MANAGEMENT (BMCS) LOCAL OVERRIDE SWITCH
	OCCUPANCY SENSOR (AUTO ON / AUTO OFF WITHIN 20-MINUTES)
	VACANCY SENSOR (MANUAL ON / AUTO OFF WITHIN 20-MINUTES)
	PHOTOCELL SENSOR
[#]	LIGHTING CONTROL SYSTEM. ('#' DENOTES TYPE - SEE LIGHTING CONTROLS SCHEDULE)
[ER]	EMERGENCY LOAD CONTROL RELAY. MINIMUM 16A AND 0-10V COMPATIBLE. PROVIDE U.L. 924 U.N.O.
RECEPTACLES AND OUTLETS	
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
U	DUPLEX RECEPTACLE WITH TWO USB CHARGING PORTS.
	125/250 VOLT, 1 PHASE, 3-WIRE, 20 AMPS UNLESS NOTED OTHERWISE
	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
U	DOUBLE DUPLEX WITH TWO USB CHARGING PORTS IN 2-GANG BOX WITH SINGLE COVER PLATE
	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	FLUSH FLOOR DUPLEX RECEPTACLE OUTLET
	FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE OUTLET
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	JUNCTION BOX
	FLUSH REMOTE GFCI DEVICE (LOCATE IN READILY ACCESSIBLE LOCATION)
MOTOR CONTROLLERS AND EQUIPMENT	
	MOTOR, MAKE FINAL MOTOR CONNECTION
$	MOTOR-RATED SWITCH. 20A UNLESS INDICATED OTHERWISE.
	DISCONNECT SWITCH AS REQUIRED
	COMBINATION MOTOR STARTER/DISCONNECT SWITCH AS REQUIRED
	MOTOR STARTER
	PREWIRED DEVICE, MAKE ELECTRICAL FINAL CONNECTIONS
[VFD]	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
[HF]	HIGH EFFICIENCY HARMONIC FILTER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
[T]	LOW VOLTAGE TRANSFORMER, SIZE AND TYPE AS REQUIRED.
	CHIME/BUZZER
ELECTRICAL EQUIPMENT	
	ELECTRICAL PANELBOARD; REFER TO FLOOR PLANS FOR VOLTAGE.
	DRY TYPE TRANSFORMER
	PLYWOOD TELEPHONE BACKBOARD
CIRCUITING	
	CONDUIT
	CONDUIT BELOW FLOOR, SLAB, OR GRADE
	3/4"C. UNLESS OTHERWISE NOTED; LONG HATCH, NEUTRAL; SHORT HATCH, PHASE; LONG HATCH & HOOK, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN.
	PARTIAL ELECTRICAL HOME RUN
SUBSCRIPTS AND ABBREVIATIONS	
WP	INDICATES 'WEATHERPROOF'
H	INDICATES 'HORIZONTAL'
NL	INDICATES 'NIGHT LIGHT'.
TP	INDICATES 'TAMPER PROOF'
(KS)	INDICATES 'KNEE SPACE'. LOCATE WIRING DEVICE IN KNEESPACE
U.N.O.	INDICATES 'UNLESS NOTED OTHERWISE'
(E)	INDICATES EXISTING TO REMAIN
(R)	INDICATES REPLACE DEVICE AND COVERPLATE.
•	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL MILLWORK DRAWINGS AND OTHER TRADES
GENERAL NOTES:	
-ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-4X MINIMUM. -ALL EXTERIOR RECEPTACLES SHALL BE WATER RESISTANT TYPE.	

ELECTRICAL GENERAL NOTES:

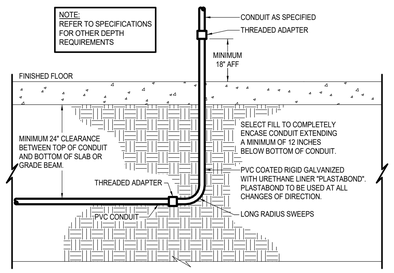
1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES.
2. ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
3. ALL EMPTY CONDUIT SHALL HAVE PULL STRING.
4. EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
5. VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 6" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
6. ALL FIRE ALARM DEVICES, RECEPTACLES, SWITCHES, AND WIRING DEVICES IN MECHANICAL AND ELECTRICAL ROOMS ARE TO BE RECESSED IN WALLS.
7. ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
10. CENTER ALL EXIT SIGNS OVER DOORS.



9 PARTIAL ONE-LINE DIAGRAM - FIELDHOUSE
Scale: N.T.S.



8 TYPICAL EXIT SIGN LOCATION
SCALE: NONE



7 CONDUIT BELOW BUILDING SLAB
SCALE: NONE

Branch Panel: LS — NEW

Location: STORAGE 100 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TLS | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 50A MCB
Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Lighting	#12	20 1	0.1 / 0.8			1	20 #12	Receptacles	2	
	3	Receptacles	#12	20 1		0.2 / 0.2		1	20 #12	EF-1	4	
	5	Overhead Door	#12	20 1			0.5 / 0.5	1	20 #12	Overhead Door	6	
C	7	Exterior Lighting	#12	20 1	0.2 / 0.0			1	20 --	SPARE	8	--
--	9	SPACE	--	-- 1		0.0 / 0.0		1	20 --	SPARE	10	--
--	11	SPACE	--	-- 1			0.0 / 0.0	1	20 --	SPARE	12	--
--	13	SPACE	--	-- 1	0.0 / 0.0			1	20 --	SPARE	14	--
--	15	SPACE	--	-- 1		0.0 / 0.0		1	20 --	SPARE	16	--
--	17	SPACE	--	-- 1			0.0 / 0.0	1	20 --	SPARE	18	--
--	19	SPACE	--	-- 1	0.0 / 0.0						20	
--	21	SPACE	--	-- 1		0.0 / 0.0		3	30 --	SPDL	22	--
--	23	SPACE	--	-- 1			0.0 / 0.0				24	
		Total Load:			1.2 kVA	0.4 kVA	1.0 kVA					
		Total Amps:			11 A	3 A	9 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	0.2 kVA	100.00%	0.2 kVA		
Lighting	0.4 kVA	125.00%	0.5 kVA	**Total Conn. Load:**	2.5 kVA
Miscellaneous	1.1 kVA	100.00%	1.1 kVA	**Total Est. Demand:**	2.6 kVA
Receptacles	0.9 kVA	100.00%	0.9 kVA	**Total Conn. Current:**	7 A
				Total Est. Demand Current:	7 A

Notes:

Abbrevations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
C - CONTACTOR CONTROLLED

LIGHTING CONTROLS SCHEDULE

Type	Sensor Operation	# of Lighting Zones	Description
RB	VACANCY - MANUAL ON / AUTO OFF	1	ON/OFF MOMENTARY CONTACT SWITCH.
RE	-	1	CONTACTOR CONTROLLED WITH PHOTOCELL ON / TIMECLOCK OFF. EXTERIOR LIGHTING SHALL BE TURNED OFF FROM 12:00 AM TO 6:00 AM OR FROM 1 HOUR AFTER CLOSING TO 1 HOUR BEFORE OPENING.

LIGHTING FIXTURE SCHEDULE

Type Mark	CATALOG NUMBER MANUFACTURER	MODEL	MOUNTING	LAMP TYPE	CCT	CRI	VOLTAGE	LOAD	REMARKS
C2	METALUX	8SNX-96SL-LW-UNV-L840-CD1-U + AYC/CHAIN-SET-U	SURFACE / PENDANT	9600L LED	4000 K	80	120 V	32 W	8-FOOT LINEAR STRIP, ROUND FROSTED OPAQUE LENS, 0-10V DIMMING, WIRE GUARD, DLC LISTED.
W1	MCGRAW EDISON	IST-SA1E-740-U-T4FT-BZ-LCF	WALL	7099L LED	4000 K	70	120 V	58 W	ARCHITECTURAL WALL SCONCE, FORWARD THROW DISTRIBUTION, BRONZE FINISH.

APPROVED LIGHTING MANUFACTURERS:
- LED / FLUORESCENT: LITHONIA, COLUMBIA, METALUX, AXIS, DAYBRITE, HE WILLIAMS, LSI, CREE
- EXIT SIGNS: LITHONIA, CHLORIDE, EMERGI-LITE, DUAL-LITE, SURE LITES, H.E. WILLIAMS
- ARCHITECTURAL HIGH PERFORMANCE FLOOD LIGHTS: WIDE-LITE, HADCO, KIM, McGRAW EDISON, GARDCO, LSI
- INDUSTRIAL: METALUX, LITHONIA, EXCELINE, G.E., HUBBELL, LUMARK, STONCO
- DOWNTRACK LIGHTING: LIGHTOLIER, LITHONIA-GOTHAM, HALO ARCHITECTURAL, PRESCOLITE, HE WILLIAMS, INDY
- SECURITY (WALLPACKS): LITHONIA, McGRAW EDISON, G.E., LSI, HUBBELL, STONCO, GARDCO
- ARCHITECTURAL LINEAR: PEERLESS, LITECONTROL, ALERA, LAM, AMERICAN LINEAR LIGHTING, LEDALITE
- ARCHITECTURAL INDIRECT: INSIGHT, ORIGINAL CAST LIGHTING, SPI, LAM

- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT INDICATED IN THE LIGHT FIXTURE SCHEDULE. WHERE THERE IS AN INCONSISTENCY BETWEEN THE LIGHT SCHEDULE AND THE SPECIFICATIONS, THE BETTER QUALITY OF WORK SHALL BE INCLUDED IN THE PROPOSAL.
- THE ABOVE LIGHTING MANUFACTURERS LIST DOES NOT IMPLY APPROVAL. APPROVAL WILL BE DETERMINED AFTER REVIEW OF SHOP DRAWING TO DETERMINE IF THE FIXTURE OR POLE SUBMITTED MEETS OR EXCEEDS THE DESIGN STANDARDS AND PERFORMANCE REQUIRED OF THE FIXTURE SPECIFIED IN THE LIGHT FIXTURE SCHEDULE OR SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE SPECIFIED LIGHT FIXTURE IF A SUBSTITUTION IS NOT APPROVED WITHOUT ANY ADDITIONAL COST TO THE OWNER. WHERE SPECIFIC OPTIONS/ACCESORIES ARE SPECIFIED OR REQUIRED, THEY SHALL BE PROVIDED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- DUE TO THE WIDE RANGE OF FIXTURE QUALITIES OFFERED BY EACH MANUFACTURER, THE APPROVED LIGHTING MANUFACTURERS SUBSTITUTION LIST IS NOT INTENDED TO INDICATE THAT ANY OR ALL MANUFACTURERS LISTED WILL HAVE SUITABLE SUBSTITUTIONS FOR THE LIGHT FIXTURES OR POLES SPECIFIED IN THE LIGHT FIXTURE SCHEDULE. SHOP DRAWING AND CONSTRUCTION DELAYS AS A RESULT OF INAPPROPRIATE SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT RESULT IN ANY ADDITIONAL COST TO THE OWNER.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
11111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

BRADLEY KALMANS — 90219 — LICENSED — 12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: Author	CHECKED BY: Checker
REVISIONS:	
No. Date	Description

100% CD
E2.01-T
ELECTRICAL SCHEDULES, DETAILS, AND LEGENDS
TRAVIS HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

12/3/2025 5:48:33 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/TRAVIS_MEPT_R25.rvt

TECHNOLOGY SYMBOLS & LEGEND

VOICE SYMBOLS

	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS PER LOCATION.
W	SINGLE VOICE OUTLET FOR WALL-MOUNTED PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +52-INCHES A.F.F. UNLESS OTHERWISE NOTED.

DATA SYMBOLS

	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF DATA OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
W	SINGLE DATA OUTLET FOR WALL-MOUNTED IP PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +52-INCHES A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE ABOVE CEILING DATA OUTLET, CABLE TYPE AS SPECIFIED.
X	ABOVE CEILING DATA OUTLET, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.

ROUGH-IN & MISC. SYMBOLS

	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
	POWER POLE WITH ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	ROUGH-IN LOCATION, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
WAP	WIRELESS ACCESS POINT. EQUIPMENT AS SPECIFIED.

GENERAL SYMBOLS

# SHEET — DRAWING TITLE — SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
SHEET #	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES TELECOMMUNICATIONS REGION

VOICE/DATA SYMBOLS

	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF VOICE TERMINATIONS , Y = NUMBER OF DATA TERMINATIONS PER LOCATION.
	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF VOICE OUTLETS AND Y = NUMBER OF DATA OUTLETS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET AND SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X Y	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X Y	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS PER LOCATION.

FIBER OPTIC SYMBOLS

	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF FIBER OPTIC OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.

CABLE PLANT & RISER DIAGRAM

	MAINTENANCE HOLE, SIZE & TYPE AS SPECIFIED.
	PULLBOX, SIZE AND TYPE AS SPECIFIED.
UGC	DIRECT BURIED COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
AER	AERIAL COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
	CONDUIT, SIZE AND TYPE AS SPECIFIED.

COMMUNICATION AND SECURITY CABLING JACKET COLOR CODE

TYPICAL WORK AREA OUTET	BLUE - REFERENCE SPEC SECTION 27 10 00
WIRELESS ACCESS POINT	GREEN - REFERENCE SPEC SECTION 27 10 00
SECURITY(INTRUSION, ACCESS CONTROL, VIDEO SURVEILLANCE)	ORANGE - REFERENCE SPEC SECTION 28 13 00, 28 16 00, AND 27 10 00
BUILDING WIDE PUBLIC ADDRESS / INTERCOM	WHITE - REFERENCE SPEC SECTION 27 51 00
AUDIOVISUAL	BLACK - REFERENCE SPEC SECTION 27 41 16
LIGHTING CONTROL	LIME GREEN - REFERENCE MEP SPECIFICATIONS
BAS	YELLOW - REFERENCE MEP SPECIFICATIONS
FIRE ALARM	RED - REFERENCE MEP SPECIFICATIONS

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
DEMARC	DEMARCATION POINT
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
GIP	GALVANIZED IRON PIPE
HE	PAINTERCOM HEAD-END
IMC	INTERMEDIATE METAL CONDUIT
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MH	MAINTENANCE HOLE
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PVC	POLYVINYL CHLORIDE
RSC	RIGID STEEL CONDUIT
SM	SINGLE MODE
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
TR	TELECOMMUNICATION REGION
UGC	UNDERGROUND COMMUNICATION
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR

NOTES

1. CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF TECHNOLOGY DRAWINGS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. TECHNOLOGY DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.

INDEX OF DRAWINGS

T000-T TECHNOLOGY SYMBOLS & LEGEND
TD201-T TECHNOLOGY DEMO FLOOR PLAN FIELD HOUSE LOCKERS
T100-T TECHNOLOGY SITE PLAN
T201-T TECHNOLOGY FLOOR PLAN FIELD HOUSE LOCKERS

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
11111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 30113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
No. Date Description

100%CD

T000-T
TECHNOLOGY
SYMBOLS & LEGEND

TRAVIS HIGH SCHOOL

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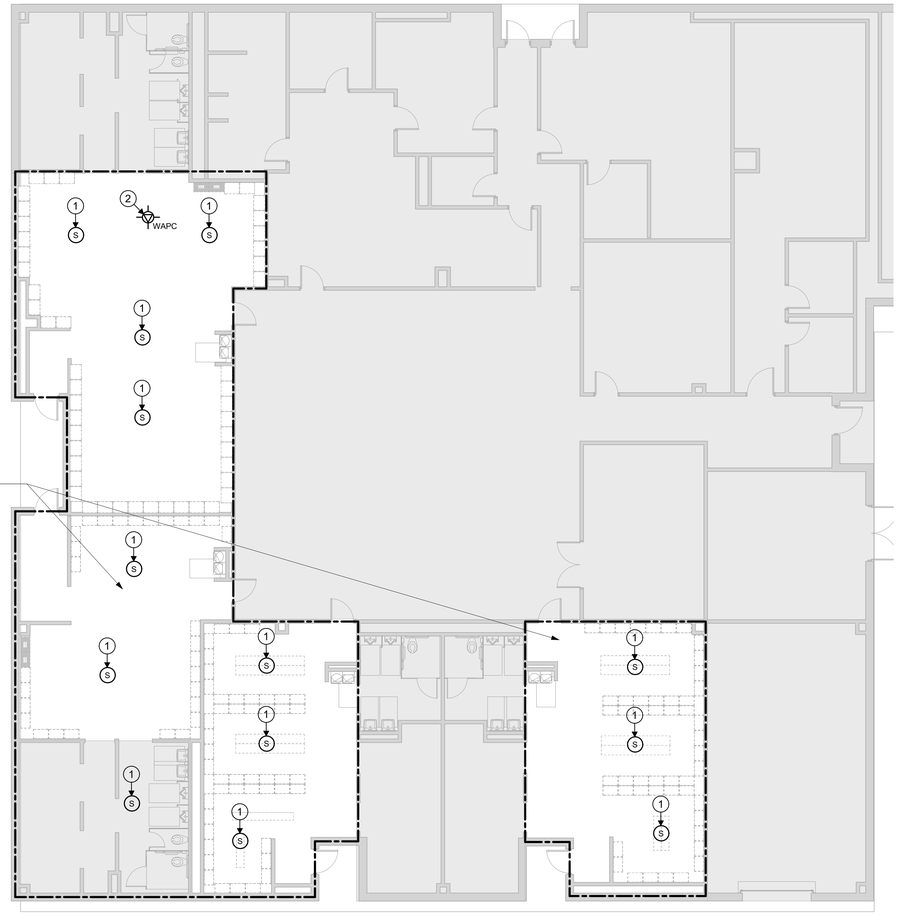
AREA OF RENOVATIONS. ALL EXISTING PUBLIC ADDRESS, WIRELESS ACCESS POINTS, AND SECURITY DEVICES IN THE CEILING TO BE DEMOLISHED WILL REMAIN. CONTRACTOR SHALL TEST EACH SYSTEM PRE AND POST CONSTRUCTION FOR FUNCTIONALITY. REFERENCE SPECIFICATIONS SECTIONS 27 10 00 STRUCTURED CABLING AND 27 51 00 PUBLIC ADDRESS AND CLOCK SYSTEM FOR CONTRACTOR QUALIFICATIONS



1 TD201-T TECHNOLOGY LEVEL 01 DEMO FLOOR PLAN - GYM LOCKERS
1/8" = 1'-0"

TECHNOLOGY DEMOLITION GENRAL NOTES

1. ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS SHALL REMAIN OPERATIONAL AT ALL TIMES DURING BUSINESS HOURS. ANY SYSTEM DOWNTIME SHALL BE SCHEDULED WITH THE ARCHITECT/ENGINEER AND OWNER AT LEAST TEN (10) WORKING DAYS IN ADVANCE. THE CONTRACTOR SHALL DEVELOP A PHASING PLAN AND SCHEDULE OF ANY SYSTEM DOWNTIME REQUIRED FOR REVIEW AND APPROVAL BY THE ARCHITECT/ENGINEER AND OWNER PRIOR TO ANY CONSTRUCTION ACTIVITIES.
2. THE EQUIPMENT ROOMS AND TELECOM ROOMS ENVIRONMENTAL CONTROLS SHALL BE MAINTAINED AT ALL TIMES. THE EQUIPMENT ROOMS AND TELECOM ROOMS TEMPERATURE SHALL REMAIN BETWEEN 60-70 DEGREES F WITH RELATIVE HUMIDITY OF 30% - 50% NON-CONDENSING. THE TEMPERATURE RANGE OF THE EQUIPMENT ROOMS AND TELECOM ROOMS SHALL BE MAINTAINED BETWEEN + -9 DEGREES F FROM DISTRICT SETPOINT.
3. THE OWNER SHALL BE RESPONSIBLE FOR POWER DOWN AND START- UP OF ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS. THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/ENGINEER AND OWNER AND PROVIDE A MINIMUM OF TEN (10) WORKING DAYS NOTICE FOR SCHEDULING OF ANY REQUIRED DOWNTIME.
4. ALL EXISTING CONDITIONS AS SHOWN ARE APPROXIMATELY CORRECT. NOT ALL EXISTING CONDITIONS ARE SHOWN. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY ALL THE EXISTING CONDITIONS AS REQUIRED TO PROPERLY PROVIDE A BID/PROPOSAL AND PERFORM ALL REQUIRED WORK.
5. ALL EXISTING FIBER BACKBONE, HORIZONTAL DATA CABLE, HORIZONTAL VOICE CABLE AND J-HOOK PATHWAYS SHALL BE REMOVED IN THEIR ENTIRETY AS INDICATED ON TD-SERIES DRAWINGS. ALL OTHER FIBER OPTIC CABLE AND COPPER BACKBONE ARE CRITICAL COMPONENTS FOR THE CAMPUS AND THE DISTRICT FIBER RING AND SHALL REMAIN PROTECTED AND OPERATIONAL AT ALL TIMES.
6. ALL EXISTING COAXIAL CABLE (.500/ RG-6/RG-59) FOR CATV IS TO REMAIN IN PLACE AND OPERATIONAL.
7. ALL EXISTING WIRELESS ACCESS POINTS SHALL BE REMOVED AND RETURNED TO THE OWNER. THE CONTRACTOR SHALL RE-INSTALL ALL EXISTING AND NEW WIRELESS ACCESS POINTS AT THE COMPLETION OF THE PROJECT.
8. COORDINATE REMOVAL OF EXISTING CAMERA(S) WITH OWNER/ARCHITECT DURING CONSTRUCTION.

TECHNOLOGY DEMOLITION KEYED NOTES

(1) EXISTING BUILDING INTERCOM / PA SPEAKER AND /CABLES TO REMAIN. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

(2) EXISTING WIRELESS ACCESS POINT SHALL BE REMOVED AND RE- INSTALLED AT THE END OF THE PROJECT. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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11111 Harlem Rd, Richmond, TX 77406

TRAVIS HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:

No.	Date	Description

100%CD

TD201-T

TECHNOLOGY DEMO FLOOR PLAN FIELD HOUSE LOCKERS

TRAVIS HIGH SCHOOL

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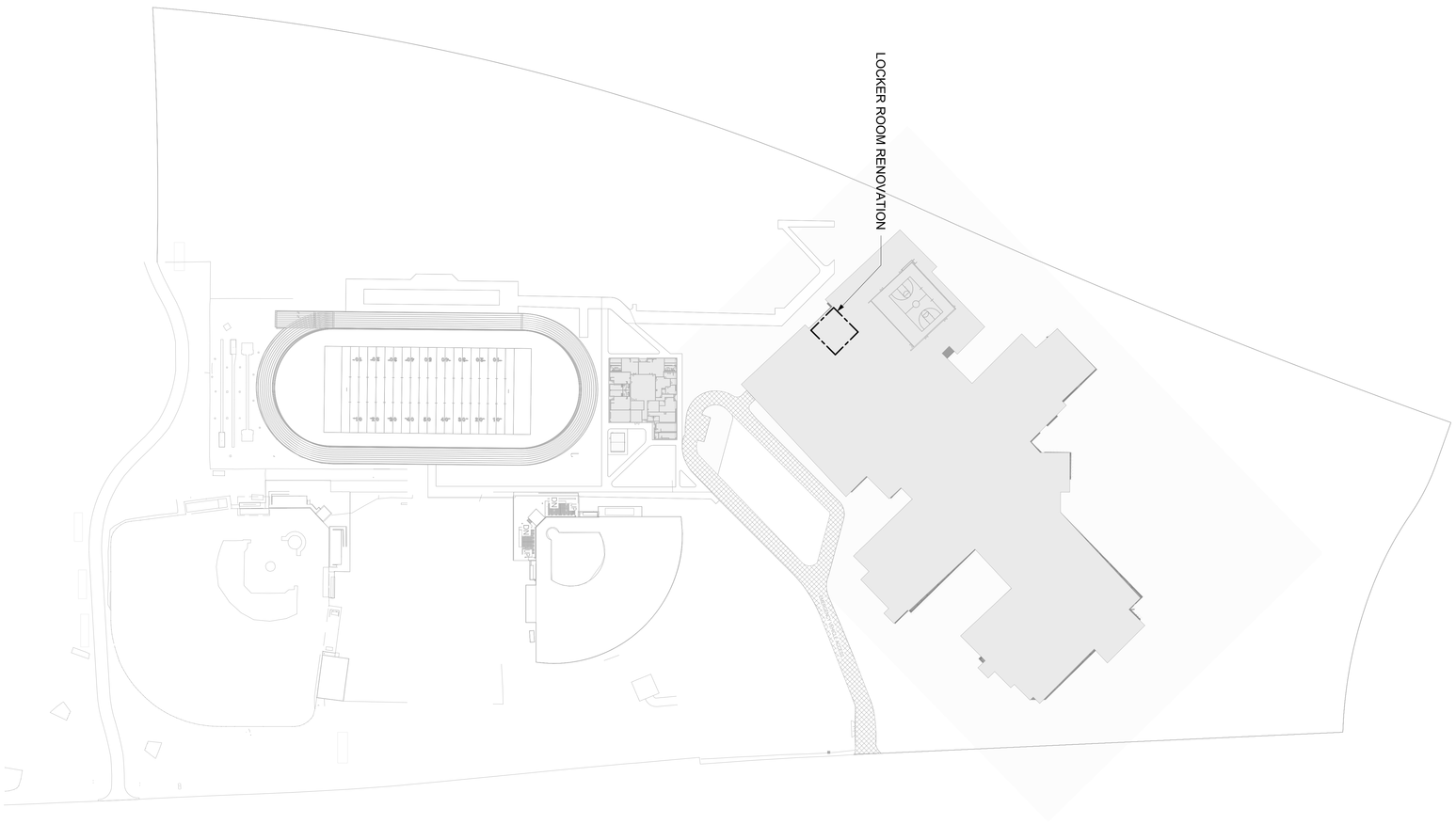
1 TECHNOLOGY SITE PLAN
1" = 100'-0"



100%CD
T100-T
TECHNOLOGY SITE PLAN
TRAVIS HIGH SCHOOL

PROJECT NO. 25-006
DATE 12-04-2025
DRAWN BY BP
CHECKED BY CCG

REVISIONS
	Date	Description

REGISTERED ARCHITECT MICHAEL E. PFLUGER STATE OF TEXAS
12-04-2025

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
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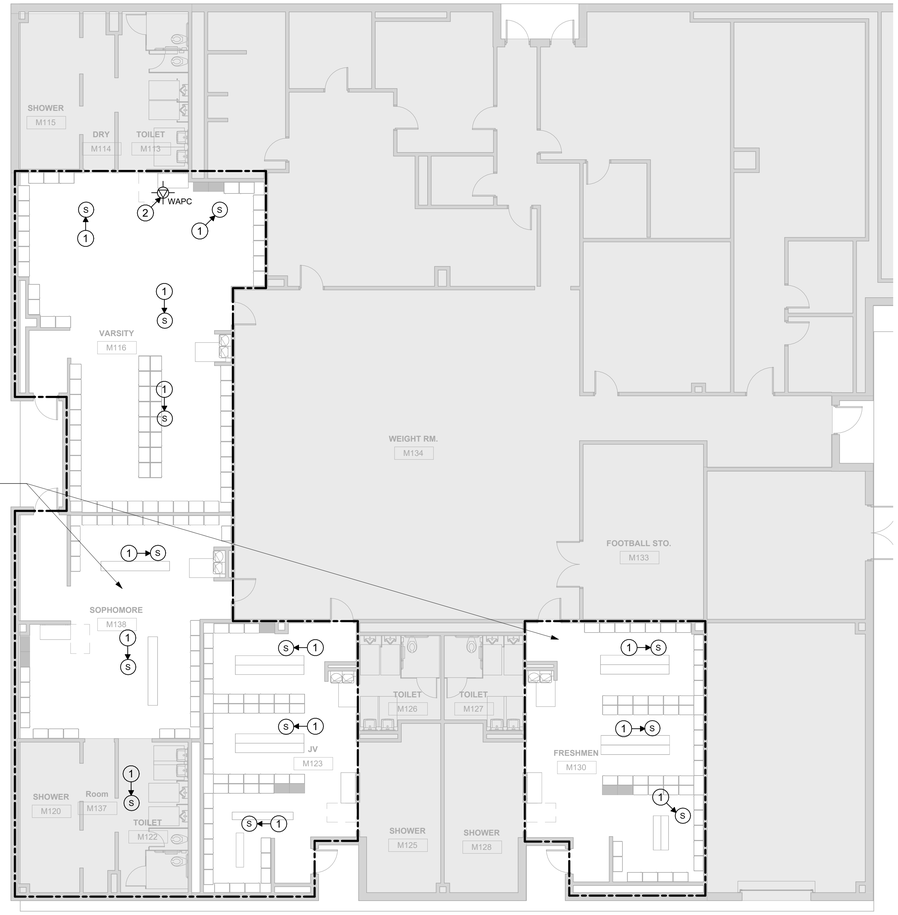

1 T201-T TECHNOLOGY LEVEL 01 FLOOR PLAN - GYM LOCKERS
1/8" = 1'-0"

TECHNOLOGY GENRAL NOTES

1. ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS SHALL REMAIN OPERATIONAL AT ALL TIMES DURING BUSINESS HOURS. ANY SYSTEM DOWNTIME SHALL BE SCHEDULED WITH THE ARCHITECT/ENGINEER AND OWNER AT LEAST TEN (10) WORKING DAYS IN ADVANCE. THE CONTRACTOR SHALL DEVELOP A PHASING PLAN AND SCHEDULE OF ANY SYSTEM DOWNTIME REQUIRED FOR REVIEW AND APPROVAL BY THE ARCHITECT/ENGINEER AND OWNER PRIOR TO ANY CONSTRUCTION ACTIVITIES.
2. THE EQUIPMENT ROOMS AND TELECOM ROOMS ENVIRONMENTAL CONTROLS SHALL BE MAINTAINED AT ALL TIMES. THE EQUIPMENT ROOMS AND TELECOM ROOMS TEMPERATURE SHALL REMAIN BETWEEN 60-70 DEGREES F WITH RELATIVE HUMIDITY OF 30% - 50% NON-CONDENSING. THE TEMPERATURE RANGE OF THE EQUIPMENT ROOMS AND TELECOM ROOMS SHALL BE MAINTAINED BETWEEN + -9 DEGREES F FROM DISTRICT SETPOINT.
3. THE OWNER SHALL BE RESPONSIBLE FOR POWER DOWN AND START- UP OF ALL DATA, VOICE, VIDEO AND SECURITY SYSTEMS. THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/ENGINEER AND OWNER AND PROVIDE A MINIMUM OF TEN (10) WORKING DAYS NOTICE FOR SCHEDULING OF ANY REQUIRED DOWNTIME.
4. ALL EXISTING CONDITIONS AS SHOWN ARE APPROXIMATELY CORRECT. NOT ALL EXISTING CONDITIONS ARE SHOWN. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY ALL THE EXISTING CONDITIONS AS REQUIRED TO PROPERLY PROVIDE A BID/PROPOSAL AND PERFORM ALL REQUIRED WORK.
5. ALL EXISTING FIBER BACKBONE, HORIZONTAL DATA CABLE, HORIZONTAL VOICE CABLE AND J-HOOK PATHWAYS SHALL BE REMOVED IN THEIR ENTIRETY AS INDICATED ON TD-SERIES DRAWINGS. ALL OTHER FIBER OPTIC CABLE AND COPPER BACKBONE ARE CRITICAL COMPONENTS FOR THE CAMPUS AND THE DISTRICT FIBER RING AND SHALL REMAIN PROTECTED AND OPERATIONAL AT ALL TIMES.
6. ALL EXISTING COAXIAL CABLE (.500/ RG-6/RG-59) FOR CATV IS TO REMAIN IN PLACE AND OPERATIONAL.
7. ALL EXISTING WIRELESS ACCESS POINTS SHALL BE REMOVED AND RETURNED TO THE OWNER. THE CONTRACTOR SHALL RE-INSTALL ALL EXISTING AND NEW WIRELESS ACCESS POINTS AT THE COMPLETION OF THE PROJECT.
8. COORDINATE REMOVAL OF EXISTING CAMERA(S) WITH OWNER/ARCHITECT DURING CONSTRUCTION.

TECHNOLOGY KEYED NOTES

(1) EXISTING BUILDING INTERCOM / PA SPEAKER AND /CABLES TO REMAIN. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

(2) EXISTING WIRELESS ACCESS POINT SHALL BE REMOVED AND RE- INSTALLED AT THE END OF THE PROJECT. CABLES SHALL BE TESTED PRIOR TO CONSTRUCTION BEGINNING AND AFTER COMPLETION, AND PROPERLY PROTECTED FOR THE DURATION OF CONSTRUCTION.

pfluger
office : 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
11111 Harlem Rd, Richmond, TX 77406
TRAVIS HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ALAIMO 20113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12-05-2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
No. Date Description

100%CD

T201-T
TECHNOLOGY FLOOR PLAN FIELD HOUSE LOCKERS
TRAVIS HIGH SCHOOL

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FORT BEND ISD
BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

WILLOWRIDGE HIGH SCHOOL

100% CONSTRUCTION DOCUMENTS

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SID12510 - RENOVATE TRACK AND FIELD EVENTS. RENOVATE FOOTBALL PRESS BOX.
- RESURFACE TRACK
- POWER AND DATA IN PRESS BOX
- NEW DISCUSS CAGE NETTING
- RENOVATED SHOTPUT RINK
- NEW DISCUSS CONCRETE PAVING
- RENOVATE BLEACHERS

SID12516 - RENOVATE TRAINING ROOM
- ICE BATHING, WET AREA RENOVATION
- CASEWORK FOR SHELVES
- LOCKERS FOR TRAINERS
- RENOVATE TRAINING ROOM
- DISHWASHER

SID12526 - RESURFACE TENNIS COURTS AND PROVIDE IMPROVEMENTS
- RESURFACE TENNIS COURT
- FENCE GATES
- NEW TENNIS COURT FENCE
- WINDSCREEN
- COURT BENCHES
- CONCRETE PAVING FOR BLEACHERS
- NEW BLEACHER

SID12527 - RENOVATE BASEBALL AND SOFTBALL PRESSBOXES
- SOFTBALL PRESSBOX
- BASEBALL PRESSBOX

SID12535 - PROVIDE GROOMER FOR BASEBALL/SOFTBALL FIELD

SECTION 2
- **ALTERNATE NO. 8 -** CONCRETE PATH CONNECTING HIGH SCHOOL AND MIDDLE SCHOOL
- REPAIR PRESSBOX ELEVATORS

BOARD OF TRUSTEES

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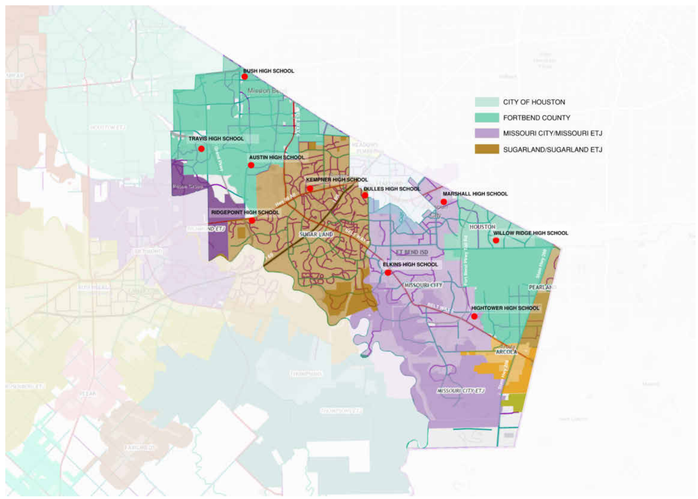
LOCATION MAP



WILLOWRIDGE HIGH SCHOOL CAMPUS KEY PLAN



ALTERNATES:

ALTERNATE NO. 8 - WILLOWRIDGE HIGH SCHOOL: CONCRETE PAVEMENT BETWEEN MIDDLE SCHOOL AND HIGH SCHOOL.

CIVIL

TEXAS SPORTS AND CIVIL ENGINEERING
11767 Katy Freeway, Suite 1112
Houston, TX 77079
P: (346) 204 4854
texsce.com

MEPT

SALAS O'BRIEN
10930 W. San Houston Pkwy N. Suite 900
HOUSTON, TX 77064
P: (866) 768 4625
salasobrien.com

STRUCTURAL

MATRIX STRUCTURAL
5177 Richmond Ave Ste 670
HOUSTON, TX 77056
P: (713) 664-0130
matrixstructural.com

PFLUGER ARCHITECTS

PFLUGER ARCHITECTS
2 GREENWAY PLAZA #460
HOUSTON, TX 77046
P:(713) 222-1141
www.pflugerarchitects.com

pfluger
office: 713.222.1141 | fax: 713.222.1177
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
16301 Chimney Rock Rd, Houston, TX 77053
WILLOWRIDGE HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAMS
30113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: CK CHECKED BY: CH
REVISIONS:

No.	Date	Description

100% CD

G0.00-W
COVER

WILLOWRIDGE HS

12/4/2025 10:54:00 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_WILLOWRIDGE_ARCH_FBISD ATHLETIC RENOVATIONS BP012-W_R25.rvt

THE FOLLOWING SECTION OF DETAILS PROVIDES INFORMATION ON REQUIREMENTS FOR DISABLED ACCESSIBILITY. THE REQUIREMENTS COMBINE MINIMUM REQUIREMENTS OF STATE AND FEDERAL AGENCIES. THE PURPOSE OF THIS SECTION IS TO HELP AVOID INSTALLATION OF MATERIALS ON CONSTRUCTION PROJECTS THAT WOULD LIMIT ACCESSIBILITY. THE SCOPE OF THIS SECTION IS LIMITED AND THE INDIVIDUALS WORKING ON THE PROJECT SHOULD FAMILIARIZE THEMSELVES WITH TEXAS ACCESSIBILITY STANDARD (TAS) AND AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COPIES OF THESE DOCUMENTS MAY BE OBTAINED BY CONTACTING THE FOLLOWING:

TAS:
TEXAS DEPT. OF LICENSING & REGULATION
P.O. BOX 12157
AUSTIN, TEXAS 78711
(800) 803-9202
TDD (800) 735-2989
WWW.LICENSE.STATE.TX.US

ADAAG:
SOUTHWEST DISABILITY AND BUSINESS
TECHNICAL ASSISTANCE CENTER FOR
REGION VI.
2323 S. SHEPERD, SUITE 1000
HOUSTON, TEXAS 77019
ADA HOTLINE: (800) 949-4232
TDD: (713) 520-5136 -OR- (713) 520-0232
FAX: (713) 520-5785

IN THE EVENT THE INFORMATION ON THE PLAN SHEETS DOES NOT MEET THE MINIMUM REQUIREMENTS OF THE SECTION, THEN THE INFORMATION SHALL BE PRESENTED TO THE ARCHITECT FOR CLARIFICATION PRIOR TO CONSTRUCTION OF SPECIFIC AREA OF WORK.

ELIMINATION OF ARCHITECTURAL BARRIERS
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (ADA)

IN ACCORDANCE WITH ACCESSIBILITY REQUIREMENTS, THE FOLLOWING STANDARDS SHALL BE INCLUDED WHEN BIDDING ON PROJECTS INVOLVING RENOVATION OF OR NEW FACILITIES FOR PUBLIC ACCOMMODATION OR COMMERCIAL FACILITIES. ANY ITEMS NOT CONFORMING TO THESE OR ANY OTHER STANDARDS, CODES, OR ORDINANCES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT FOR HIS INTERPRETATION. IN THE EVENT THE INFORMATION LISTED IN THIS DOCUMENT CONFLICTS WITH ANY PORTION OF THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT, IN WRITING, OF HIS NEED FOR A SOLUTION TO RESOLVE THE CONFLICT. THE MOUNTING HEIGHTS INDICATED ARE FOR ITEMS THAT REQUIRE ACCESSIBILITY BY DISABLED INDIVIDUALS. WHERE TWO OR MORE ITEMS ARE GROUPED IN ONE AREA (MIRRORS, SINKS, TOILETS, DRINKING FOUNTAINS, URINALS, SHELVES, TELEPHONES, ETC.) NOT ALL ITEMS IN THE AREA HAVE TO BE MOUNTED AT HANDICAP HEIGHT. CONTRACTOR TO COORDINATE THESE INSTALLATION HEIGHTS WITH OTHER MATERIALS FOR NEAT, TRIMMED OUT AND FINISHED APPEARANCE. ITEMS FOR DISABLED INDIVIDUAL USE SHALL BE MOUNTED AT HEIGHT INDICATED FOR AGE LEVEL AS NOTED.

CHAPTER 1: APPLICATION AND ADMINISTRATION

TAS SECTION 104 - CONVENTIONS
A. ALL DIMENSIONS ARE SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES EXCEPT WHERE THE REQUIREMENT IS STATED AS A RANGE WITH SPECIFIC MINIMUM AND MAXIMUM POINTS.
B. UNLESS SPECIFICALLY STATED OTHERWISE, FIGURES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

CHAPTER 2: SCOPING REQUIREMENTS

TAS SECTION 201.1 - SCOPE
A. ALL AREAS OF NEWLY DESIGNED AND NEWLY CONSTRUCTED BUILDINGS AND FACILITIES AN ALTERED PORTIONS OF EXISTING BUILDINGS AND FACILITIES SHALL COMPLY WITH THESE REQUIREMENTS.
TAS SECTION 202 - EXISTING BUILDINGS AND FACILITIES
A. EACH ADDITION TO AN EXISTING BUILDING OR FACILITY SHALL COMPLY WITH THE REQUIREMENTS FOR NEW CONSTRUCTION. EACH ADDITION THAT AFFECTS OR COULD EFFECT THE USABILITY OF OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL COMPLY WITH 202.4.
B. WHERE EXISTING ELEMENTS, SPACES, OR COMMON USE AREAS ARE ALTERED, EACH ALTERED ELEMENT, SPACE, OR COMMON USE AREA SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 2.
C. AN ALTERATION THAT DECREASES THE ACCESSIBILITY OF A BUILDING OR FACILITY BELOW THE REQUIREMENTS FOR NEW CONSTRUCTION AT THE TIME OF THE ALTERATION IS PROHIBITED.
D. AN ALTERATION OF AN EXISTING ELEMENT, SPACE, OR AREA OF A BUILDING OR FACILITY SHALL NOT IMPOSE A REQUIREMENT FOR ACCESSIBILITY GREATER THAN REQUIRED FOR NEW CONSTRUCTION.
E. ALTERATIONS THAT AFFECT THE USABILITY OR ACCESS TO AN AREA CONTAINING A PRIMARY FUNCTION SHALL BE MADE SO AS TO ENSURE USAGE BY INDIVIDUALS WITH DISABILITIES.
TAS SECTION 204 - PROTRUDING OBJECTS
A. WITHIN AREAS OF ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOM AND SPACES SHALL COMPLY WITH 309.
B. WITHIN AREAS OF SPORTS ACTIVITY, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307.
C. WITHIN PLAY AREAS, PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL NOT BE REQUIRED TO COMPLY WITH 307 PROVIDED THAT GROUND LEVEL ACCESSIBLE ROUTES PROVIDE VERTICAL CLEARANCE IN COMPLIANCE WITH 1008.2.
TAS SECTION 205 - OPERABLE PARTS
A. OPERABLE PARTS ON ACCESSIBLE ELEMENTS, ACCESSIBLE ROUTES, AND IN ACCESSIBLE ROOMS AND SPACES SHALL COMPLY WITH 309.
B. OPERABLE PARTS INTENDED FOR USE ONLY BY SERVICE OR MAINTENANCE PERSONNEL SHALL NOT BE REQUIRED TO COMPLY WITH 309.
C. ELECTRICAL OR COMMUNICATION RECEPTACLES SERVING A DEDICATED USE SHALL NOT BE REQUIRED TO COMPLY WITH 309.
TAS SECTION 206 - ACCESSIBLE ROUTES
A. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
B. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE
C. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH STORY AND MEZZANINE IN MULTI-STORY BUILDINGS AND FACILITIES.
D. IN RESTAURANTS AND CAFETERIAS, AN ACCESSIBLE ROUTE SHALL BE PROVIDED TO ALL DINING AREAS, INCLUDING RAISED OR SUNKEN DINING AREAS, AND OUTDOOR DINING AREAS.
E. WHERE A CIRCULATION PATH DIRECTLY CONNECTS A PERFORMANCE AREA TO AN ASSEMBLY AREA, AN ACCESSIBLE ROUTE SHALL DIRECTLY CONNECT THE ASSEMBLY SEATING AREA WITH THE PERFORMANCE AREA. AN ACCESSIBLE ROUTE SHALL BE PROVIDED FROM PERFORMANCE AREAS TO ANCILLARY AREAS OR FACILITIES USED BY PERFORMERS.
TAS SECTION 207 - ACCESSIBLE MEANS OF EGRESS
A. MEANS OF EGRESS SHALL COMPLY WITH SECTION 1003.2.13 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION.)
B. STANDBY POWER SHALL BE PROVIDED FOR PLATFORM LIFTS PERMITTED BY SECTION 1003.2.13.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007.5 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO SERVE AS A PART OF AN ACCESSIBLE MEANS OF EGRESS.
TAS SECTION 208 - PARKING SPACES
A. PARKING SPACES SHALL COMPLY WITH 502 AND SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 208.2 EXCEPT REQUIRED BY 208.2.1, 208.2.2, AND 208.2.3. WHERE MORE THAN ONE PARKING FACILITY IS PROVIDED ON A SITE, THE NUMBER OF ACCESSIBLE SPACES PROVIDED ON THE SITE SHALL BE CALCULATED ACCORDING TO THE NUMBER OF SPACES REQUIRED FOR EACH PARKING FACILITY.

TABLE 208.2 PARKING SPACES

TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES	TOTAL PARKING IN LOT	REQUIRED MIN. NUMBER OF ACCESSIBLE SPACES
1 TO 25	1	201 TO 300	7
26 TO 50	2	301 TO 400	8
51 TO 75	3	401 TO 500	9
76 TO 100	4	501 TO 1000	2 PERCENT OF TOTAL
101 TO 150	5	1000 AND OVER	20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000
151 TO 200	6		

TAS SECTION 208.2.4 - VAN PARKING SPACES
A. FOR EVERY SIX OR FRACTION OF SIX PARKING SPACES REQUIRED BY 208.2 TO COMPLY WITH 502, AT LEAST ONE SHALL BE A VAN PARKING SPACE COMPLYING WITH 502.
TAS SECTION 208.3 - LOCATION
A. PARKING SPACES COMPLYING WITH 502 THAT SERVE A PARTICULAR BUILDING OR FACILITY SHALL BE LOCATED ON THE SHORTEST POSSIBLE ACCESSIBLE ROUTE FROM PARKING LOT TO AN ENTRANCE. WHERE PARKING SERVES MORE THAN ONE ACCESSIBLE ENTRANCE, PARKING SPACES COMPLYING WITH 502 SHALL BE DISPERSED AND LOCATED AT THE SHORTEST ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCES.
TAS SECTION 209 - PASSENGER LOADING ZONES AND BUS STOPS
A. PASSENGER LOADING ZONES, EXCEPT THOSE REQUIRED TO COMPLY WITH 209.2.2 AND 209.2.3, SHALL PROVIDE AT LEAST ONE PASSENGER LOADING ZONE COMPLYING WITH 503 IN EVERY CONTINUOUS 100 LINEAR FEET (30M) OF LOADING ZONE SPACE, OR FRACTION THEREOF.
B. IN BUS LOADING ZONES RESTRICTED TO USE BY DESIGNATED OR SPECIFIED PUBLIC TRANSPORTATION VEHICLES, EACH BUS BAY, BUS STOP, OR OTHER AREA DESIGNATED FOR LIFT OR RAMP DEPLOYMENT SHALL COMPLY WITH 810.2
TAS SECTION 210 - STAIRWAYS
A. INTERIOR AND EXTERIOR STAIRS THAT ARE PART OF A MEANS OF EGRESS SHALL COMPLY WITH 504. ALTHOUGH HANDRAILS ON STAIRS THAT ARE NOT PART OF A MEANS OF EGRESS, STATE OR LOCAL BUILDING CODES MAY REQUIRE HANDRAILS OR GUARDS.
TAS SECTION 211 - DRINKING FOUNTAINS
A. NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED.
B. MORE THAN THE MINIMUM NUMBER OF DRINKING FOUNTAINS SPECIFIED IN 211.2 ARE PROVIDED, 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.1 THROUGH 602.6, AND 50 PERCENT OF THE TOTAL NUMBER OF DRINKING FOUNTAINS PROVIDED SHALL COMPLY WITH 602.7
TAS SECTION 212 - KITCHENS, KITCHENETTES, AND SINKS
A. KITCHENS AND KITCHENETTES SHALL COMPLY WITH 804.
B. WHERE SINKS ARE PROVIDED, AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE, OF EACH TYPE PROVIDED IN EACH ACCESSIBLE ROOM OR SPACE SHALL COMPLY WITH 606.
TAS SECTION 213 - TOILET FACILITIES AND BATHING FACILITIES
A. WHERE TOILET FACILITIES AND BATHING FACILITIES ARE PROVIDED, THEY SHALL COMPLY WITH 213. TOILET FACILITIES AND BATHING FACILITIES SHALL BE PROVIDED ON A STORY CONNECTED BY AN ACCESSIBLE ROUTE TO AN ACCESSIBLE ENTRANCE.
B. TOILET RESTROOMS AND BATHING ROOMS SHALL COMPLY WITH 603.
C. WHERE MULTIPLE SINGLE USER TOILET ROOMS ARE CLUSTERED AT A SINGLE LOCATION, NO MORE THAN 50% OF THE SINGLE USER TOILET ROOMS FOR EACH USE AT EACH CLUSTER SHALL BE REQUIRED TO COMPLY WITH 603.
D. UNISEX TOILET ROOMS AND UNISEX BATHING ROOMS SHALL CONTAIN NOT MORE THAN ONE LAVATORY, AND TWO WATER CLOSETS WITHOUT URINALS OR ONE WATER CLOSET AND ONE URINAL. UNISEX BATHING ROOMS CONTAIN ONE SHOWER OR ONE SHOWER AND ONE BATHTUB, ONE LAVATORY, AND ONE WATER CLOSET. DOORS TO UNISEX RESTROOMS AND BATHING ROOMS SHALL HAVE PRIVACY LATCHES.
TAS SECTION 214 - WASHING MACHINES AND CLOTHES DRYERS
A. WHERE 3 OR FEWER WASHING MACHINES ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 WASHING MACHINES ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
B. WHERE 3 OR FEWER CLOTHES DRYERS ARE PROVIDED, AT LEAST ONE SHALL COMPLY WITH 611. WHERE MORE THAN 3 CLOTHES DRYERS ARE PROVIDED, AT LEAST TWO SHALL COMPLY WITH 611.
TAS SECTION 215 - FIRE ALARM SYSTEMS
A. ALARMS IN PUBLIC USE AREAS AND COMMON USE AREAS SHALL COMPLY WITH 702.
B. WHERE EMPLOYEE WORK AREAS HAVE AUDIBLE ALARM COVERAGE, THE WIRING SYSTEM SHALL BE DESIGNED SO THAT THE VISIBLE ALARMS COMPLYING WITH 702 CAN BE INTEGRATED INTO THE ALARM SYSTEM.
TAS SECTION 216 - SIGNS
A. SIGNS SHALL COMPLY WITH 703. BUILDING DIRECTORIES, MENUS, SEAT AND ROW DESIGNATIONS IN ASSEMBLY AREAS, OCCUPANT NAMES, BUILDING ADDRESSES, AND COMPANY NAMES AND LOGOS SHALL NOT BE REQUIRED TO COMPLY WITH 216.
B. SIGNS REQUIRED BY SECTION 1003.2.13.5.4 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 1007.6.4 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE INSTRUCTIONS IN AREAS OF REFUGE SHALL COMPLY WITH 703.5.
C. DIRECTIONAL SIGNS REQUIRED BY SECTION 1003.2.13.6 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION) OR SECTION 707.7 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) TO PROVIDE DIRECTIONS TO ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 703.5.
D. WHERE NOT ALL ENTRANCES COMPLY WITH 404, ENTRANCES COMPLYING WITH 404 SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1. DIRECTIONAL SIGNS COMPLYING WITH 703.5 THAT INDICATE THE LOCATION OF THE NEAREST ENTRANCE COMPLYING WITH 404 SHALL BE PROVIDED AT ENTRANCES THAT DO NOT COMPLY WITH 404.
TAS SECTION 217 - TELEPHONES
A. WHERE PUBLIC TELEPHONE ARE PROVIDED, WHEELCHAIR ACCESSIBLE TELEPHONES COMPLYING WITH 704.2 SHALL BE PROVIDED.

CHAPTER 2: SCOPING REQUIREMENTS (CONTINUED)

TAS SECTION 219 - ASSISTIVE LISTENING SYSTEMS
A. IN EACH ASSEMBLY AREA WHERE AUDIBLE COMMUNICATION IS INTEGRAL TO THE USE OF THE SPACE, AN ASSISTIVE LISTENING SYSTEM SHALL BE PROVIDED.
B. WHERE ALL SEATS IN AN ASSEMBLY AREA ARE SERVED BY AN INTRODUCTION LOOP ASSISTIVE LEARNING SYSTEM, THE MINIMUM NUMBER OF RECEIVERS REQUIRED BY TABLE 219.3 TO BE HEARING-AID COMPATIBLE SHALL NOT BE REQUIRED TO BE PROVIDED.
TAS SECTION 220 - AUTOMATIC TELLER MACHINES AND FARE MACHINES
A. WHERE AUTOMATIC TELLER MACHINES OR SELF-SERVICE FARE VENDING, COLLECTION, OR ADJUSTMENT MACHINES ARE PROVIDED, AT LEAST ONE OF EACH TYPE PROVIDED AT EACH LOCATION SHALL COMPLY WITH 707. WHERE BINS ARE PROVIDED FOR ENVELOPES, WASTE PAPER, OR OTHER PURPOSES, AT LEAST ONE OF EACH SHALL COMPLY WITH 811.
TAS SECTION 221 - ASSEMBLY AREAS
A. ASSEMBLY AREAS SHALL PROVIDE WHEELCHAIR SPACES, COMPANION SEATS, AND DESIGNATED AISLE SEATS COMPLYING WITH 221 AND 802.
B. WHEELCHAIR SPACES COMPLYING WITH 802.1 SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 221.2.1.1.
C. WHEELCHAIR SPACES SHALL BE AN INTEGRAL PART OF THE SEATING PLAN.
D. WHEELCHAIR SPACES SHALL PROVIDE LINES OF SIGHT COMPLYING WITH 802.2. IN PROVIDING LINES OF SIGHT, WHEELCHAIR SPACES SHALL BE DISPERSED. WHEELCHAIR SPACES SHALL PROVIDE SPECTATORS WITH CHOICES OF SEATING LOCATIONS OR VIEWING ANGLES EQUAL TO OR BETTER THAN SEATING LOCATIONS AND VIEWING ANGLES OF OTHER SPECTATORS.
E. AT LEAST 5% OF THE TOTAL NUMBER OF AISLE SEATS PROVIDED SHALL COMPLY WITH 802.4 AND SHALL BE THE AISLE SEATS LOCATED CLOSEST TO THE ACCESSIBLE ROUTES.

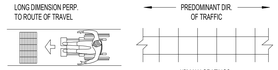
TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES	NUMBER OF SEATS	REQUIRED MIN. NUMBER OF WHEELCHAIR SPACES
4 TO 25	1	301 TO 500	6
26 TO 50	2	501 TO 5000	6, PLUS 1 FOR EACH 150, OR FRACTION THEREOF, BETWEEN 501 THROUGH 5000
51 TO 150	4	5001 AND OVER	36, PLUS 1 FOR EACH 200, OR FRACTION THEREOF, OVER 5000
151 TO 300	5		

TAS SECTION 222 - DRESSING, FITTING, AND LOCKER ROOMS
A. WHERE DRESSING ROOMS, FITTING ROOMS, OR LOCKER ROOMS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE, OF EACH TYPE OF USE IN EACH CLUSTER PROVIDED SHALL COMPLY WITH 803.
B. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN DRESSING FITTING OR LOCKER ROOMS W/O INDIVIDUAL COMPARTMENTS, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 803.5. WHERE COAT HOOKS OR SHELVES ARE PROVIDED IN INDIVIDUAL COMPARTMENTS AT LEAST ONE OF EACH TYPE SHALL BE PROVIDED IN ACCORDANCE WITH 223.
TAS SECTION 223 - MEDICAL CARE AND LONG-TERM CARE FACILITIES
A. IN LICENSED MEDICAL CARE FACILITIES AND LICENSED LONG-TERM CARE FACILITIES WHERE THE PERIOD OF STAY EXCEEDS TWENTY-FOUR HOURS, PATIENT OR RESIDENT SLEEPING ROOMS SHALL BE PROVIDED IN ACCORDANCE WITH 223. TOILET ROOMS PART OF CRITICAL OR INTENSIVE CARE PATIENT SLEEPING ROOMS SHALL NOT BE REQUIRED TO COMPLY WITH 603.
TAS SECTION 224 - TRANSIENT LODGING FACILITIES AND GUEST ROOMS
A. TRANSIENT LODGING FACILITIES SHALL PROVIDE GUEST ROOMS IN ACCORDANCE WITH 224. PLACES OF LODGING AND HOUSING AT A PLACE OF EDUCATION SHALL COMPLY WITH THE PROVISIONS APPLICABLE TO TRANSIENT LODGING, INCLUDING, BUT NOT LIMITED TO, THE REQUIREMENTS FOR TRANSIENT LODGING GUEST ROOMS IN SECTIONS 224 AND 806.
B. ENTRANCES, DOORS, AND DOORWAYS PROVIDING USER PASSAGE INTO AND WITHIN THE GUEST ROOMS THAT ARE NOT REQUIRED TO PROVIDE MOBILITY FEATURES COMPLYING WITH 806.2 SHALL COMPLY WITH 404.2.3.
C. IN GUEST ROOMS HAVING MORE THAN 25 BEDS, 5% MINIMUM OF THE BEDS SHALL HAVE CLEAR FLOOR SPACE COMPLYING WITH 806.2.3.
TAS SECTION 225 - STORAGE
A. WHERE STORAGE IS PROVIDED, AT LEAST ONE OF EACH TYPE SHALL COMPLY WITH 811.
B. WHERE LOCKERS ARE PROVIDED, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE, SHALL COMPLY WITH 811.
TAS SECTION 226 - DINING SURFACES AND WORK SURFACES
A. WHERE DINING SURFACES ARE PROVIDED FOR THE CONSUMPTION OF FOOD OR DRINK, AT LEAST 5% OF THE SEATING SPACES AND STANDING SPACES AT THE DINING SURFACES SHALL COMPLY WITH 902. IN ADDITION, WHERE WORK SURFACES ARE PROVIDED FOR USE BY OTHER THAN EMPLOYEES, AT LEAST 5% SHALL COMPLY WITH 902.
TAS SECTION 227 - SALES AND SERVICE
A. WHERE PROVIDED, CHECK-OUT AISLES, SALES COUNTERS, SERVICE COUNTERS, FOOD SERVICE LINES, QUEUES, AND WAITING LINES SHALL COMPLY WITH 227 AND 904.
B. WHERE COUNTERS ARE PROVIDED, AT LEAST ONE OF EACH TYPE OF SALES COUNTER AND SERVICE COUNTER SHALL COMPLY WITH 904.4. WHERE COUNTERS ARE DISPERSED THROUGHOUT THE FACILITY, COUNTERS COMPLYING WITH 904.4 SHALL ALSO BE DISPERSED.
C. QUEUES AND WAITING LINES SERVICING COUNTERS OR CHECK-OUT AISLES REQUIRED TO COMPLY WITH 904.3 OR 904.4 SHALL COMPLY WITH 403.
TAS SECTION 228 - DEPOSITORIES, VENDING MACHINES, CHANGE MACHINES, MAIL BOXES
A. WHERE PROVIDED, AT LEAST ONE OF EACH TYPE OF DEPOSITORY, VENDING MACHINE, CHANGE MACHINE, AND FUEL DISPENSER SHALL COMPLY WITH 309.
B. WHERE MAIL BOXES ARE PROVIDED IN AN INTERIOR LOCATION, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE SHALL COMPLY WITH 309.
TAS SECTION 229 - WINDOWS
A. WHERE GLAZED OPENINGS ARE PROVIDED IN ACCESSIBLE ROOMS OR SPACES FOR OPERATION BY OCCUPANTS, AT LEAST ONE MUST OPENING SHALL COMPLY WITH 309. EACH GLAZED OPENING REQUIRED BY AN ADMINISTRATIVE AUTHORITY TO BE OPERABLE SHALL COMPLY WITH 309.
TAS SECTION 230 - TWO-WAY COMMUNICATION SYSTEMS
A. WHERE A TWO-WAY COMMUNICATION SYSTEM IS PROVIDED TO GAIN ADMITTANCE TO A BUILDING OR FACILITY OR TO BE RESTRICTED AREAS WITHIN A BUILDING OR FACILITY, THE SYSTEM SHALL COMPLY WITH 708.
TAS SECTION 240 - PLAY AREAS
A. WHERE GROUND LEVEL PLAY COMPONENTS ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
B. WHEN ELEVATED PLAY COMPONENTS ARE PROVIDED, AT LEAST 50% SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH 1008.4
TAS SECTION 242 - SWIMMING POOLS, WADING POOLS, AND SPAS
A. AT LEAST TWO ACCESSIBLE MEANS OF ENTRY SHALL BE PROVIDED FOR SWIMMING POOLS.
B. AT LEAST ONE ACCESSIBLE MEANS FOR ENTRY FOR WADING POOLS AND SPAS.
TAS SECTION 243 - SHOOTING FACILITIES WITH FIRING POSITIONS
A. WHERE SHOOTING FACILITIES WITH FIRING POSITIONS ARE DESIGNED AND CONSTRUCTED AT A SITE, AT LEAST 5%, BUT NO FEWER THAN ONE OF EACH TYPE OF FIRING POSITION SHALL COMPLY WITH 1010.

CHAPTER 3: BUILDING BLOCKS

TAS SECTION 302 - FLOOR OR GROUND SURFACES
A. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
B. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE.
C. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 409.4.3, 410.4, 810.5.3, AND 810.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.



TAS SECTION 303 - CHANGES IN LEVEL
A. CHANGES IN LEVEL OF 1/4" HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL. (FIG. 303)
B. CHANGES IN LEVEL BETWEEN 1/4"-1/2" MAXIMUM SHALL BE BEVELED AT A SLOPE NOT STEEPER THAN 1:2 (FIG. 303)
C. CHANGES IN LEVEL GREATER THAN 1/2" HIGH SHALL BE RAMPED AND COMPLY WITH 405 OR 406

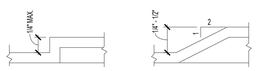


FIGURE 303

TAS SECTION 304 - TURNING SPACE
A. THE TURNING SPACE SHALL BE A SPACE 60" DIAMETER MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306.
B. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. DOORS SHALL BE PERMITTED TO SWING INTO TURNING SPACES.
D. THE T-SHAPED TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60" SQUARE MINIMUM WITH ARMS AND BASE 36" WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12" MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24" MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM. (FIG. 304.3.2)

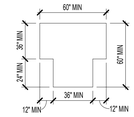


FIGURE 304.3.2 T-SHAPED TURNING SPACE

TAS SECTION 305 - CLEAR FLOOR OR GROUND SPACE
A. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM.
B. FLOOR OF GROUND SURFACES OF A CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED.
C. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30" MINIMUM BY 48" MINIMUM. (FIG. 305.3)
D. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCES COMPLYING WITH 306.
E. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT. (FIG. 305.5)
F. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE.
G. WHERE A CLEAR FLOOR OR GROUND SPACE IS LOCATED IN AN ALCOVE OR OTHERWISE CONFINED ON ALL OR PART OF 3 SIDES, ADDITIONAL MANEUVERING CLEARANCE SHALL BE PROVIDED IN ACCORDANCE WITH BELOW:
1. ALCOVES SHALL BE 36" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24" FOR FORWARD APPROACH (FIG. 315.7.1)
2. ALCOVES SHALL BE 60" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15" FOR PARALLEL APPROACH (FIG. 305.7.2)

CHAPTER 3: SCOPING REQUIREMENTS (CONTINUED)


FIGURE 305.3 CLEAR FLOOR OR GROUND SPACE

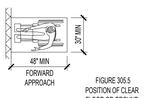


FIGURE 305.5 POSITION OF CLEAR FLOOR OR GROUND SPACE

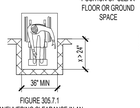


FIGURE 305.7.1 MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH

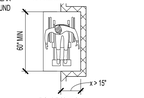


FIGURE 305.7.2 MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

TAS SECTION 306 - KNEE AND TOE CLEARANCE
A. WHERE SPACE BENEATH AN ELEMENT IS INCLUDED AS PART OF CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE, THE SPACE SHALL COMPLY WITH 306. ADDITIONAL SPACE SHALL NOT BE PROHIBITED BENEATH AN ELEMENT BUT SHALL NOT BE CONSIDERED AS PART OF THE CLEAR FLOOR OR GROUND SPACE OR TURNING SPACE.
TAS SECTION 306.2 - TOE CLEARANCE
A. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9" ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE.
B. TOE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT
C. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17" MINIMUM UNDER THE ELEMENT.
D. SPACE EXTENDING GREATER THAN 9" BEYOND THE AVAILABLE KNEE CLEARANCE AT 9" ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.
E. TOE CLEARANCE SHALL BE 30" WIDE MINIMUM.
TAS SECTION 306.3 - KNEE CLEARANCE
A. SPACE UNDER AN ELEMENT 9"-27" ABOVE THE FINISH FLOOR SHALL BE CONSIDERED KNEE CLEARANCE.
B. KNEE CLEARANCE SHALL EXTEND 25" MAXIMUM UNDER AN ELEMENT AT 9" ABOVE THE FINISH FLOOR.
C

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

TAS SECTION 502 - PARKING SPACES (REFERENCE FIGURE 502.3)
A. ACCESSIBLE CAR PARKING SPACES SHALL BE AT LEAST 96" MINIMUM WIDE AND VAN ACCESSIBLE PARKING SHALL BE 132" MINIMUM WIDE.
   1. VAN PARKING SPACES MAY BE 96" WIDE MINIMUM WHERE THERE IS AN ACCESS AISLE 96" WIDE MINIMUM.
   2. ACCESS AISLES SERVING CAR AND VAN PARKING SHALL BE A MINIMUM 60" WIDE AND SHALL ADJOIN AN ACCESSIBLE ROUTE.
   3. ACCESS AISLES SHOULD BE MARKED TO DISCOURAGE PEOPLE FROM PARKING IN THEM AND EXTEND THE FULL LENGTH OF THE PARKING SPACE.
B. SURFACE SLOPE SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS (NOTE: NO BUILT UP CURB RAMP MAY BE LOCATED IN AN ACCESSIBLE PARKING ACCESS AISLE.)
C. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY.
D. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES, WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACE.

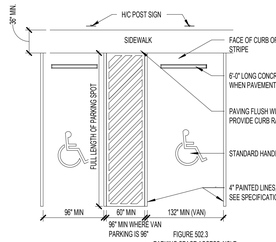
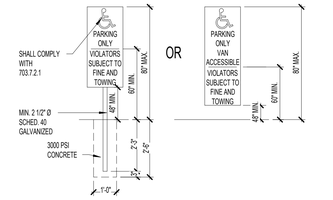


FIGURE 502.3
PARKING SPACE ACCESS AISLE

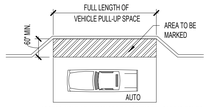
68.104: ACCESSIBLE PARKING SPACES

(A) A PAVED ACCESSIBLE PARKING SPACE MUST INCLUDE:
   (1) THE INTERNATIONAL SYMBOL OF ACCESSIBILITY PAINTED CONSPICUOUSLY ON THE SURFACE IN A COLOR THAT CONTRASTS THE PAVEMENT;
   (2) THE WORDS "NO PARKING" PAINTED ON ANY ACCESS AISLE ADJACENT TO THE PARKING SPACE. THE WORDS MUST BE PAINTED:
      (A) IN ALL CAPITAL LETTERS;
      (B) WITH A LETTER HEIGHT OF AT LEAST TWELVE INCHES, AND A STROKE WIDTH OF AT LEAST TWO INCHES; AND
      (C) CENTERED WITHIN EACH ACCESS AISLE ADJACENT TO THE PARKING SPACE; AND
   (3) A SIGN IDENTIFYING THE CONSEQUENCES OF PARKING ILLEGALLY IN A PAVED ACCESSIBLE PARKING SPACE. THE SIGN MUST:
      (A) AT A MINIMUM STATE "VIOLATORS SUBJECT TO FINE AND TOWING " IN A LETTER HEIGHT OF AT LEAST ONE INCH;
      (B) BE MOUNTED ON A POLE, POST, WALL OR FREESTANDING BOARD;
      (C) BE NO MORE THAN EIGHT INCHES BELOW A SIGN REQUIRED BY TEXAS ACCESSIBILITY STANDARDS, 502.6; AND
      (D) BE INSTALLED SO THAT THE BOTTOM EDGE OF THE SIGN IS NO LOWER THAN 48 INCHES AND NO HIGHER THAN 80 INCHES ABOVE GROUND LEVEL.
(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).



NOTE: PROVIDE ONE SIGN AT EACH DISABLED (DESIGNATED) PARKING SPACE

TAS SECTION 503 - PASSENGER LOADING ZONES
A. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96" WIDE MINIMUM AND 20' LONG MINIMUM.
TAS SECTION 503.3 - ACCESS AISLE (REFERENCE FIGURE 503.3)
A. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 503 ADJACENT TO THE VEHICLE PULL UP SPACE. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.
   1. ACCESS AISLES SERVING VEHICULAR PULL-UP SPACES SHALL BE 60" WIDE MINIMUM AND EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE
   2. SLOPES STEEPER THAN 1:48 ARE NOT PERMITTED. CHANGES IN LEVEL OF THE FLOOR AND GROUND SURFACE ARE NOT PERMITTED.
B. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 144" MINIMUM.



ACCESS AISLE AT AUTOMOBILE PASSENGER LOADING ZONES

FIGURE 503.3
PASSENGER LOADING ZONE ACCESS AISLE

TAS SECTION 504 - STAIRWAYS
TAS SECTIONS 504.2 - TREADS AND RISERS
A. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND TREAD WIDTHS
   1. MINIMUM TREAD DEPTH SHALL BE 11", MEASURED FROM RISER TO RISER (NOT INCLUDING NOSING)
   2. OPEN RISERS ARE NOT PERMITTED
   3. RISERS SHALL BE 4" HIGH MIN. - 7" HIGH MAX.
TAS SECTIONS 504.5 - NOSINGS (REFERENCE FIGURE 504.5)
A. RADIUS OF THE CURVATURE AT THE LEADING EDGE SHALL BE 1/2" MAXIMUM. RISERS SHALL BE PERMITTED TO SLOPE UNDER THE TREAD AT AN ANGLE OF 30 DEGREES MAXIMUM FROM VERTICAL. THE PERMITTED PROJECTION OF THE NOSING SHALL EXTEND 1 1/2" MAXIMUM OVER THE TREAD BELOW.

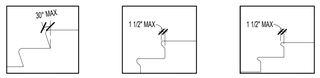
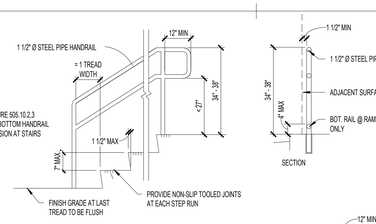
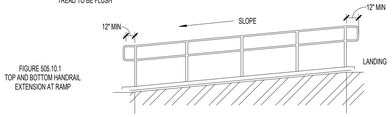


FIGURE 504.5
STAIR NOSINGS

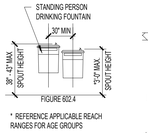
TAS SECTION 505 - HANDRAILS (REFERENCE FIGURES 505.10.1, 505.10.2, 3)
A. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS AND RAMPS. NON-CONTINUOUS STAIR HANDRAILS SHALL EXTEND 12" BEYOND THE TOP RISER AND THE WIDTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT THE TOP, THE EXTENSION SHALL BE PARALLEL TO THE FLOOR. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF ONE TREAD WIDTH. NON CONTINUOUS RAMP HANDRAILS SHALL EXTEND 12" MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS.
B. HEIGHT: 34"-38", MEASURED FROM THE STAIR NOSING.
C. CLEARANCE BETWEEN HANDRAIL AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM.
D. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
E. HANDRAILS ARE REQUIRED ON RAMP RUNS GREATER THAN 6" IN RISE.

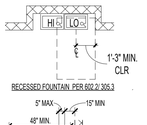




CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

TAS SECTION 602 - DRINKING FOUNTAINS
A. DRINKING FOUNTAINS SHALL COMPLY WITH 307 (PROTRUDING OBJECTS) AND 602.
B. UNITS SHALL HAVE A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 POSITIONED FOR A FORWARD APPROACH AND CENTERED ON THE UNIT. KNEE AND TOE CLEARANCES MUST COMPLY WITH 306. OPERABLE PARTS SHALL COMPLY WITH 309. (FIG. 602.5)
TAS SECTION 602.4 - SPOUT HEIGHT (REFERENCE FIGURE 602.4 FOR ACCESSIBLE UNIT)
A. ACCESSIBLE SPOUTS SHALL BE A MAXIMUM 36" ABOVE THE FINISH FLOOR OR GROUND.
TAS SECTION 602.5 - SPOUT LOCATION (REFERENCE FIGURE 602.5)
A. THE SPOUT SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE UNIT, INCLUDING BUMPERS.
B. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4" HIGH AND SHALL BE LOCATED 5" MAXIMUMFROM THE FRONT OF THE UNIT.
C. WHERE SPOUTS ARE LOCATED LESS THAN 2" FROM THE FRONT OF THE UNIT, THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE THE SPOUT IS LOCATED BETWEEN 2"-5" MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.
TAS SECTION 602.7 - DRINKING FOUNTAINS FOR STANDING PERSONS
A. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. (FIG. 602.4)





* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS

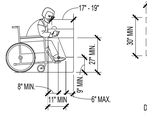


FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION



TAS SECTION 603 - TOILET AND BATHING ROOMS
A. TURNING SPACE COMPLYING WITH 304 SHALL BE PROVIDED WITHIN THE ROOM. (60" DIAMETER OR T-SHAPED SPACE PER 304.3.2)
B. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP.
C. DOOR SWINGS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE. DOORS CAN SWING INTO THE REQUIRED TURNING SPACE.
TAS SECTION 603.3 - MIRRORS
A. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED SO THE BOTTOM EDGE OF THE REFLECTING SURFACE IS 40" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. MIRRORS NOT INSTALLED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE 35" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
TAS SECTION 603.4 - COAT HOOKS AND SHELVES
A. COAT HOOKS SHALL BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" ABOVE THE FINISH FLOOR.
TAS SECTION 604 - WATER CLOSETS AND TOILET COMPARTMENTS
A. THE WATER CLOSET SHALL BE POSITIONED WITH A WALL OR PARTITION TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 16" MINIMUM AND 18" MAXIMUM FROM THE SIDE WALL OR PARTITION, EXCEPT IN AN AMBULATORY ACCESSIBLE TOILET COMPARTMENT WHERE THE CENTERLINE OF THE WATER CLOSET MAY BE 17" MINIMUM AND 19" MAXIMUM FROM THE SIDE WALL OR PARTITION. WATER CLOSETS SHALL BE ARRANGED FOR A LEFT-HAND OR RIGHT-HAND APPROACH. (FIG. 604.3.1, 604.8.2)
TAS SECTION 604.3 - CLEARANCE
A. CLEARANCES AROUND WATER CLOSETS AND IN TOILET COMPARTMENTS SHALL COMPLY WITH FIGURE 604.3.1

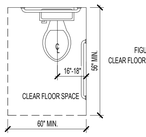


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

TAS SECTION 604.3.2 - OVERLAP
A. THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, DISPENSERS, SANITARY NAPKIN DISPOSAL UNITS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.
TAS SECTION 604.4 - SEATS (REFERENCE FIGURE 604.4)
A. THE SEAT HEIGHT OF A WATER CLOSET ABOVE FINISH FLOOR SHALL BE 17"-19" MAXIMUM MEASURED TO THE TOP OF SEAT.
   1. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION
TAS SECTION 604.5 - GRAB BARS (REFERENCE FIGURES 604.4, 604.5.2)
A. GRAB BARS SHALL COMPLY WITH 609 AND BE PROVIDED ON THE SIDE WALL CLOSEST TO THE WATER CLOSET AND ON THE REAR WALL.
   1. GRAB BARS SHALL NOT BE REQUIRED IN A TOILET ROOM FOR A SINGLE USE OCCUPANT ACCESSED ONLY THROUGH A PRIVATE OFFICE AND NOT FOR COMMON OR PUBLIC USE PROVIDED THAT REINFORCEMENT HAS BEEN INSTALLED IN WALLS AND LOCATED SO AS TO FACILITATE THE INSTALLATION OF GRAB BARS COMPLYING WITH 604.5
B. FOR WATER CLOSETS NOT LOCATED IN TOILET STALLS, THE FOLLOWING GRAB BARS SHALL BE PROVIDED, 33"-36" ABOVE THE FINISH FLOOR:
   1. SIDE WALL: 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM BACK WALL. NOTE: INCLUDE 18" VERTICAL GRAB BAR PER ICC A117.1.
   2. REAR WALL: 36" LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON ONE SIDE AND 24" MINIMUM ON THE OTHER SIDE. REFER TO 609 GRAB BARS FOR SIZE AND STRUCTURAL ELEMENTS.
TAS SECTION 604.5.2 - REAR WALL
A. THE REAR GRAB BAR SHALL BE PERMITTED TO BE 24 INCHES LONG MINIMUM, CENTERED ON THE WATER CLOSET WHERE WALL SPACE DOES NOT PERMIT A LENGTH OF 36 INCHES MINIMUM DUE TO THE LOCATION OF A RECESSED FIXTURE ADJACENT TO THE WATER CLOSET.
B. WHERE AN ADMINISTRATIVE AUTHORITY REQUIRES FLUSH CONTROLS FOR FLUSH VALVES TO BE LOCATED IN A POSITION THAT CONFLICTS WITH THE LOCATION OF THE REAR GRAB BAR, THEN THE REAR GRAB BAR SHALL BE PERMITTED TO BE SPLIT OR SHIFTED TO THE OPEN SIDE OF THE TOILET AREA.
TAS SECTION 604.6 - FLUSH CONTROLS (REFERENCE FIGURE 604.5.2)
A. FLUSH CONTROLS SHALL BE HAND-OPERATED OR AUTOMATIC. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH 309. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS COMPLYING WITH 604.8.2.
TAS SECTION 604.7 - DISPENSERS (REFERENCE FIGURE 604.4)
A. TOILET PAPER DISPENSERS SHALL COMPLY WITH 309.4 AND SHALL BE 7" MINIMUM AND 9" MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 15" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS THAT CONTROL DELIVERY OR DO NOT PERMIT CONTINUOUS PAPER FLOW SHALL NOT BE USED.



FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

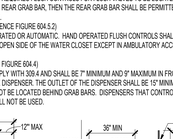
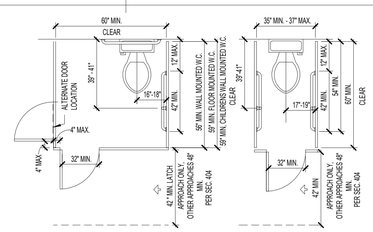


FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

TAS SECTION 604.8 - TOILET COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS SHALL MEET THE REQUIREMENTS OF 604.8.1 AND 604.8.3. COMPARTMENTS CONTAINING MORE THAN ONE PLUMBING FIXTURE SHALL COMPLY WITH 603. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.2 AND 604.8.3.
TAS SECTION 604.8.1 - WHEELCHAIR ACCESSIBLE COMPARTMENTS
A. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 604.8.1
B. WHEELCHAIR ACCESSIBLE COMPARTMENTS SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE SIDE WALL, AND 56" DEEP MINIMUM FOR WALL HUNG WATER CLOSETS AND 59" DEEP MINIMUM FOR FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL. WHEELCHAIR ACCESSIBLE COMPARTMENTS FOR CHILDREN'S USE SHALL BE 60" WIDE MINIMUM MEASURED PERPENDICULAR TO THE WALL AND 59" DEEP MINIMUM FOR WALL HUNG AND FLOOR MOUNTED WATER CLOSETS MEASURED PERPENDICULAR TO THE REAR WALL.



CLEARANCES INDICATED ARE MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REFER TO TOILET ROOMS AND LAVATORY DETAILS FOR MOUNTING HEIGHTS.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES (CONTINUED)

TAS SECTION 604.8.1.2 - DOORS (REFERENCE FIGURES 604.8.1.2, 604.8.2)
A. TOILET COMPARTMENTS DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH 404 EXCEPT THAT IF THE APPROACH IS TO THE LATCH SIDE OF THE COMPARTMENT DOOR, CLEARANCE BETWEEN THE DOOR SIDE OF THE COMPARTMENT AND ANY OBSTRUCTION SHALL BE 42" MINIMUM. DOORS SHALL BE LOCATED IN THE FRONT PARTITION OR IN THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE FRONT PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE SIDE WALL OR PARTITION FARTHEST FROM THE WATER CLOSET. WHERE LOCATED IN THE SIDE WALL OR PARTITION, THE DOOR OPENING SHALL BE 4" MAXIMUM FROM THE FRONT PARTITION. THE DOOR SHALL BE SELF-CLOSING. A DOOR PULL COMPLYING WITH 404.2.7 SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH. TOILET COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.
B. COMPARTMENTS SHALL BE ARRANGED FOR LEFT-HAND OR RIGHT-HAND APPROACH TO THE WATER CLOSET.
TAS SECTION 604.8.1.4 - TOE CLEARANCE
A. THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9" MINIMUM ABOVE FINISH FLOOR AND 6" (152 MM) MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION, EXCLUSIVE OF PARTITION SUPPORT MEMBERS. COMPARTMENTS FOR CHILDRENS USE SHALL PROVIDE 12" MINIMUM TOE CLEARANCE ABOVE FINISH FLOOR.
TAS SECTION 604.8.2 - AMBULATORY ACCESSIBLE COMPARTMENTS
A. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH FIGURE 604.8.2
B. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60" MINIMUM AND A WIDTH OF 35"-37" MAXIMUM.
C. GRAB BARS IN AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH 609. A SIDE-WALL GRAB BAR THAT IS 42" LONG MINIMUM, LOCATED 12" MAXIMUM FROM THE REAR WALL AND EXTENDING 54" MINIMUM FROM THE REAR WALL SHALL BE LOCATED ON BOTH SIDES OF COMPARTMENT.
D. COAT HOOKS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308. SHELVES SHALL BE LOCATED 40"-48" MAXIMUM ABOVE THE FINISH FLOOR.
TAS SECTION 605 - URINALS
A. URINALS SHALL BE STALL-TYPE OR WALL-HUNG WITH THE RIM 17" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. URINALS SHALL BE 13 1/2" DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK SIDE OF THE FIXTURE. (FIG. 605.2)
B. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP) POSITIONED FOR FORWARD APPROACH SHALL BE PROVIDED.

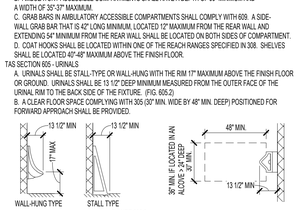
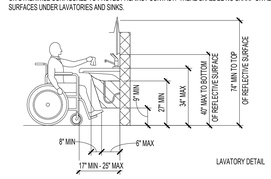
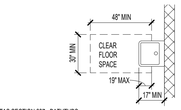


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

TAS SECTION 606 - LAVATORIES AND SINKS
A. A CLEAR FLOOR SPACE COMPLYING WITH 305 (30" MIN. WIDE BY 48" MIN. DEEP), POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCES COMPLYING WITH 306 SHALL BE PROVIDED.
   1. SOAP AND TOWEL DISPENSERS MUST ALSO BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN 308. LOCATE SOAP AND TOWEL DISPENSERS SO THEY ARE EASY TO USE BY A PERSON AT THE ACCESSIBLE LAVATORY.
B. LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER RIM OR COUNTER SURFACE 34" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.
C. CONTROLS FOR FAUCETS SHALL COMPLY WITH 309. HAND-OPERATED METERING FAUCETS SHALL REMAIN FOR 10 SECONDS MINIMUM.
D. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.



LAVATORY DETAIL



TAS SECTION 607 - BATHTUBS
A. CLEARANCE IN FRONT OF BATHTUBS SHALL EXTEND THE LENGTH OF THE BATHTUB AND SHALL BE 30 INCHES WIDE MINIMUM. A LAVATORY COMPLYING WITH 606 SHALL BE PERMITTED AT THE CONTROL END OF THE CLEARANCE. WHERE A PERMANENT SEAT IS PROVIDED AT THE HEAD END OF THE BATHTUB, THE CLEARANCE SHALL EXTEND 12" MINIMUM BEYOND THE WALL AT THE HEAD END OF THE BATHTUB.
B. A PERMANENT SEAT AT THE HEAD END OF THE BATHTUB OR A REMOVABLE IN-TUB SEAT SHALL BE PROVIDED. SEATS SHALL COMPLY WITH 610.
C. GRAB BARS FOR BATHTUBS SHALL COMPLY WITH 609 AND SHALL BE PROVIDED IN ACCORDANCE WITH FIGURES 607.4.1

TAS SECTION 608 - SHOWER COMPARTMENTS
A. SHOWER STALLS SHALL BE 36" X 36" CLEAR INSIDE DIMENSION AT TRANSFER TYPE SHOWER COMPARTMENTS AND HAVE A 36" MINIMUM WIDE BY 48" MINIMUM LONG CLEARANCE MEASURED FROM THE CONTROL WALL. ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 30" MINIMUM WIDE BY 60" MINIMUM LONG AND SHALL HAVE A 30" MIN WIDE X 60" MIN LONG ENTRY ON THE FACE OF THE SHOWER COMPARTMENT. ALTERNATE ROLL-IN SHOWER TYPE COMPARTMENTS SHALL BE 36" MINIMUM WIDE AND 60" MINIMUM DEEP CLEAR INSIDE DIMENSIONS WITH A 36" WIDE MINIMUM ENTRY PROVIDED AT ONE END OF THE LONG SIDE OF THE COMPARTMENT.

TAS SECTION 608.3.1 - TRANSFER TYPE SHOWER COMPARTMENT
A. IN TRANSFER TYPE COMPARTMENTS, GRAB BARS SHALL BE PROVIDED ACROSS THE CONTROL WALL AND BACK WALL TO A POINT 18" FROM THE CONTROL WALL.
B. A FOLDING OR NON-FOLDING SEAT SHALL BE PROVIDED IN TRANSFER TYPE SHOWER COMPARTMENTS.
C. CONTROLS, FAUCETS, AND SHOWER SPRAY UNITS SHALL COMPLY WITH 309.4
TAS SECTION 608.7 - THRESHOLDS
A. THRESHOLDS IN ROLL-IN TYPE SHOWER COMPARTMENTS SHALL BE 1/2" HIGH MAXIMUM IN ACCORDANCE WITH 308. IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" HIGH SHALL BE BEVELED, ROUNDED, OR VERTICAL.

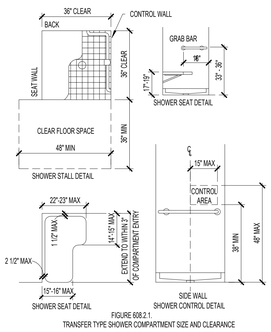
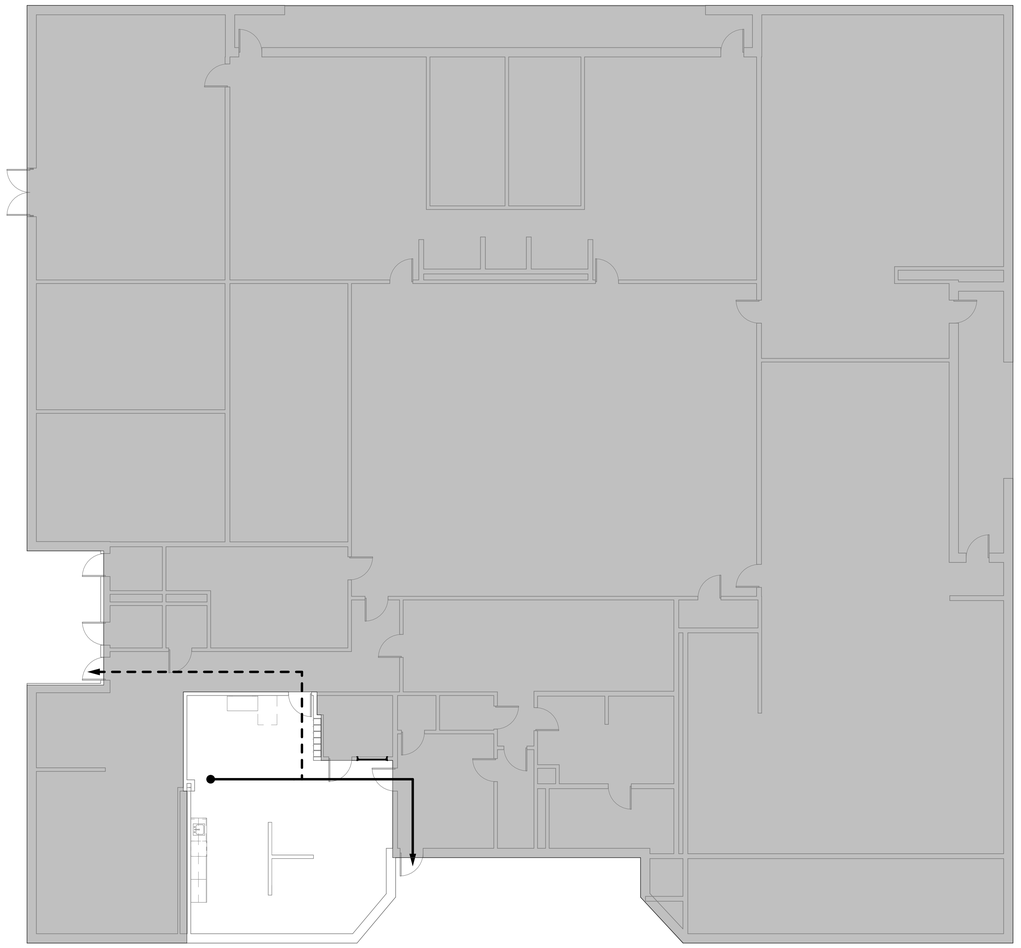


FIGURE 608.2.1
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

TAS SECTION 609 - GRAB BARS
A. GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2" MAXIMUM AND A PERIMETER DIMENSION OF 4" MINIMUM AND 4.8" MAXIMUM.
B. THE SPACE BETWEEN THE WALL AND GRAB BAR SHALL BE 1 1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW SHALL BE 1 1/2" MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12" MINIMUM.
C. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33" MINIMUM AND 36" MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE. REFER TO CHART FOR CHILDREN ACCESSIBLE HEIGHTS FOR EXCEPTIONS.
D. ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A HORIZONTAL OR VERTICAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT OF THE GRAB BAR OR ANY OF ITS COMPONENTS.
TAS SECTION 610.2 - BATHTUB SEATS
A. SEAT SHALL BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 POUNDS AND SHALL HAVE THE FOLLOWING FEATURES:
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. REMOVABLE SEATS SHALL BE 15"-16" DEEP AND CAPABLE OF SECURE PLACEMENT.
   3. PERMANENT SEATS SHALL BE 15" DEEP MINIMUM AND EXTEND FROM THE BACK WALL TO OR BEYOND THE OUTER EDGE OF THE BATHTUB.
TAS SECTION 610.3 - SHOWER SEATS
A. SEATS SHALL BE L-SHAPED WITH THE REAR EDGE 2 1/2" MAXIMUM FROM THE WALL AND 15"-16" MAXIMUM FROM THE SEAT WALL. THE REAR EDGE OF THE "L" PORTION SHALL BE 1 1/2" MAXIMUM FROM THE WALL AND THE FRONT EDGE SHALL BE 14"-15" FROM THE WALL. THE END OF THE "L" SHALL BE 22"-23" FROM THE MAIN SEAT WALL. SEATS SHALL HAVE BE ABLE TO STAND VERTICAL AND HORIZONTAL FORCES OF 250 LBS.
   1. SHALL BE 17"-19" ABOVE FINISH FLOOR
   2. WHERE A SEAT IS PROVIDED IN A ROLL IN TYPE SHOWER IT MUST BE THE FOLD-UP TYPE.
TAS SECTION 611 - WASHING MACHINES AND CLOTHES DRYERS
A. TOP LOADING MACHINES SHAL



WILLOWRIDGE FIELD HOUSE CODE- W 2

SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS AND QUANTITY OF SMOKE DETECTORS AND ILLUMINATED EXIT SIGNS.
2. REFER TO A0.01 FOR COMPOSITION OF RATED PARTITIONS.
3. REFER TO A8.00 FOR DOOR SCHEDULE IDENTIFYING FIRE RATING RATINGS
4. IF AN OPENING OCCURS IN A RATED WALL, REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
5. FIRE SPRINKLER SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL. ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE SPRINKLER SYSTEM
6. FIRE ALARM SYSTEM WILL REQUIRE SEPARATE PERMIT AND SUBMITTAL. ISSUANCE OF A BUILDING PERMIT DOES NOT IMPLY APPROVAL TO INSTALL THE FIRE ALARM SYSTEM. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 14 AND THE COUNTY FIRE MARSHALL
7. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
8. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

APPLICABLE CODES - CITY OF HOUSTON

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2023 NATIONAL ELECTRICAL CODE
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)

CHAPTER 3 - USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

2021 IBC COMPLIANCE DATA

CHAPTER 2 - DEFINITIONS
GRADE PLANE: A REFERENCE PLANE REPRESENTING THE AVERAGE OF FINISHED GROUND LEVEL ADJOINING THE BUILDING AT EXTERIOR WALLS. WHERE THE FINISHED GROUND LEVEL SLOPES AWAY FROM THE EXTERIOR WALLS, THE REFERENCE PLANE SHALL BE ESTABLISHED BY THE LOWEST POINTS WITHIN THE AREA BETWEEN THE BUILDING AND THE LOT LINE OR, WHERE THE LOT LINE IS MORE THAN 6 FEET (1829 MM) FROM THE BUILDING, BETWEEN THE BUILDING AND A POINT 6 FEET (1829 MM) FROM THE BUILDING.
GRADE PLANE = 7' BELOW PROJECT "0' 0" ELEVATION"

STORY ABOVE GRADE PLANE: ANY STORY HAVING ITS FINISHED FLOOR SURFACE ENTIRELY ABOVE GRADE PLANE, OR IN WHICH THE FINISHED SURFACE OF THE FLOOR NEXT ABOVE IS: 1. MORE THAN 6 FEET (1829 MM) ABOVE GRADE PLANE; OR 2. MORE THAN 12 FEET (3658 MM) ABOVE THE FINISHED GROUND LEVEL AT ANY POINT.

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION
SECTION 302.1 – EDUCATIONAL GROUP E

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS - NEW CONCESSION BUILDING
TABLE 504.3 & 504.4 & 506.2
GROUP E, TYPE II B, NOT SPRINKLED:
BUILDING HEIGHT: 55' ALLOWED; **15' ACTUAL (ABOVE GRADE PLANE)**
BUILDING STORIES: 2 STORIES ALLOWED; **1 STORIES ACTUAL**
BUILDING AREA: **14,500** SQUARE FEET PER STORY

TOTAL SF BUILDING: 4,393 SQUARE FEET

SECTION 508 - INCIDENTAL USES
508.4 - NO SEPARATION BETWEEN GROUP E OCCUPANCIES

TABLE 509 - MIXED USE AND OCCUPANCY
ELECTRICAL INSTALLATIONS AND TRANSFORMERS (SEE SECTIONS 110.26 THROUGH 110.34 AND SECTIONS 450.8 THROUGH 450.48 OF NFPA 70 FOR PROTECTION AND SEPARATION REQUIREMENTS.

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION 601 - GENERAL
601 - FOR CONSTRUCTION TYPE II B: 0 HOUR FIRE-RESISTANCE RATING REQUIREMENT FOR BUILDING ELEMENTS
NOTE: ELEMENTS INCLUDE PRIMARY STRUCTURAL FRAME, EXTERIOR AND INTERIOR WALLS, FLOOR AND ROOF CONSTRUCTION

SECTION 602 - CONSTRUCTION CLASSIFICATION
602 - FOR CONSTRUCTION TYPE II B: 0 HOUR FIRE RESISTANCE RATING FOR EXTERIOR WALLS IF < 10 FT. FROM OTHER STRUCTURES, ELSE 0

CHAPTER 6 – TYPES OF CONSTRUCTION
CONSTRUCTION TYPE II B - PER TABLES 601 & 602:
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: NO RATING REQUIRED FOR ANY BUILDING ELEMENT LISTED. PRIMARY STRUCTURE, BEARING & NONBEARING WALLS/ PARTITIONS (INTERIOR & EXTERIOR), FLOOR CONSTRUCTION AND SECONDARY MEMBERS, ROOF CONSTRUCTION AND SECONDARY MEMBERS

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

SECTION 705 - EXTERIOR WALLS
705.2 - PROJECTION SEPARATION DISTANCE FROM FSD LINE FOR FSD OF 30 FT: 20 FT. MINIMUM / **30 FT. ACTUAL**
705.2.1 - PROJECTIONS FROM TYPE II CONSTRUCTION SHALL BE OF NON-COMBUSTIBLE MATERIALS
705.8.1 - EXCEPTION 1: BUILDINGS WHOSE EXTERIOR BEARING WALLS, EXTERIOR NONBEARING WALLS, AND EXTERIOR PRIMARY STRUCTURAL FRAME ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS.

SECTION 706 - FIRE WALL - N/A

SECTION 707 - FIRE BARRIERS - N/A

SECTION 713 - SHAFT ENCLOSURES (ELEVATOR SHAFT) - N/A

TABLE 716.5 - OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE: 1 HOUR IF <30 FT FROM OTHER STRUCTURES; NO RATING REQUIRED IF >30 FT FROM OTHER STRUCTURES; BUILDING IS HUNDREDS OF FEET FROM ANOTHER STRUCTURE.

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
903.2.3 - FOR GROUP E: REQUIRED FOR FIRE AREAS GREATER THAN 12,000 SQ. FT., BUILDING IS NOT SPRINKLERED, BUILDING AREA IS LESS THAN 12,000 SQ. FT.

SECTION 906 - PORTABLE FIRE EXTINGUISHERS
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 75 FT. MAX. DISTANCE TO TRAVEL TO EXTINGUISHER
906.3(1) - FOR LIGHT HAZARD OCCUPANCY: 11,250 SQ. FT. MAX FLOOR AREA FOR EXTINGUISHER

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
TABLE 1004.5 - MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

STORAGE, MECHANICAL	300 SQ. FT., GROSS
EDUCATION, CLASSROOM	20 SQ. FT. GROSS

SECTION 1005 - MEANS OF EGRESS SIZING
1005.3.2 - FOR OTHER EGRESS COMPONENTS: 0.15 IN. PER OCCUPANT

SECTION 1006 - NUMBER OF EXITS AND EXIT ACCESS DOORWAYS
1006.2.1 - FOR SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY, SEE CODE PLAN
1006.3.2 - FOR OCCUPANT LOAD PER STORY:
CONCESSION BUILDING / LEVEL 1: 3 EXITS REQUIRED, 7 EXITS PROVIDED

SECTION 1007 - EXIT AND EXIT ACCESS DOORWAY CONFIGURATION
107.1.1 - FOR DISTANCE BETWEEN EXITS, SEE CODE PLAN

SECTION 1010 - DOORS, GATES, AND TURNSTILES
1010.1.1 - MINIMUM EGRESS DOOR WITH OF 32"
1010.1.2.1 - EGRESS DOORS SHALL SWING IN THE DIRECTION OF TRAVEL
1010.1.8 - DOORS IN SERIES MUST BE SEPARATED A MINIMUM OF 48 IN. PLUS THE SWING OF THE DOOR

SECTION 1017 - EXIT ACCESS TRAVEL DISTANCE
1017.2 - FOR GROUP E W/O SPRINKLER SYSTEM: EXIT TRAVEL DISTANCE IS 200 FT.

CHAPTER 17: SPECIAL INSPECTIONS AND TESTS

STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS REQUIRING SPECIAL INSPECTIONS PER SECTION 705 OF THE IBC HAVE NOT BEEN LISTED HERE. REFER TO STRUCTURAL/MECHANICAL/ELECTRICAL FOR SPECIAL INSPECTION REQUIREMENTS FOR THESE COMPONENTS.
ITEMS OF ARCHITECTURAL CONSTRUCTION WHICH REQUIRE SPECIAL INSPECTION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1705.14 SPRAYED FIRE-RESISTANT MATERIALS
1705.15 MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS
1705.16.1 WATER-RESISTIVE BARRIER COATING
1705.17 FIRE-RESISTANT PENETRATIONS AND JOINTS
1705.18 TESTING FOR SMOKE CONTROL

2021 IECC COMPLIANCE DATA

CHAPTER 3 - GENERAL REQUIREMENTS

SECTION C301.1 - GENERAL
C301.1 - CLIMATE ZONE 2A

CHAPTER 4 - COMMERCIAL ENERGY EFFICIENCY

REFER TO COMCHECK FOR COMPLIANCE

C402.3 - EITHER THREE-YEAR AGED SOLAR REFLECTANCE OF 0.55 AND 3-YEAR AGED
THERMAL EMITTANCE OF 0.75 OR THREE-YEAR AGED SOLAR REFLECTANCE INDEX OF 64.
C402.4 - FOR CLIMATE ZONE 2 AND FIXED FENESTRATION: U-FACTOR OF 0.5
C402.4 - SOLAR HEAT GAIN COEFFICIENT REQUIREMENTS

PROJECTION FACTOR	SEW	N
PF <0.2	0.25	0.33
0.2 <= PF < 0.5	0.30	0.37
PF >= 0.5	0.40	0.40

SHGC OF SPECIFIED GLAZING = 0.25
U-VALUE OF SPECIFIED GLAZING = 0.33

C402.4.1 VERTICAL FENESTRATION SHALL NOT BE GREATER THAN 30 PERCENT OF GROSS
ABOVE-GRADE WALL AREA.

LEGEND

- LONGEST EXIT ROUTE PER LEVEL
- EXIT ROUTE
- P 36"
  R 36"
- FEC — FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER - SURFACE MOUNTED

CODE REVIEW: IEBC 2021 - EXISTING BUILDING

CHAPTER 6 - REPAIRS

NEW AND REPLACEMENT MATERIALS (SEC 602.2)	LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS, PROVIDED NO DANGEROUS OR UNSAFE CONDITION, AS DEFINED IN CHAPTER 2, IS CREATED.
GENERAL ACCESSIBILITY (SEC 605.1)	REPAIRS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF ACCESSIBILITY PROVIDED.

CHAPTER 7 - ALTERATIONS - LEVEL 1

CONFORMANCE (SEC 701.2)	AN EXISTING BUILDING OR PORTION THEREOF SHALL NOT BE ALTERED SUCH THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITION. WHERE THE CURRENT LEVEL OF SAFETY OR SANITATION IS PROPOSED TO BE REDUCED, THE PORTION ALTERED SHALL CONFORM TO THE REQUIREMENTS OF THE IBC 2021.
INTERIOR FINISHES (SEC 702.2)	ALL NEWLY INSTALLED INTERIOR WALL AND CEILING FINISHES SHALL COMPLY WITH CHAPTER 8 OF THE IBC 2021. NEW INTERIOR FLOOR FINISH, INCLUDING CARPET USED AS AN INTERIOR FLOOR FINISH MATERIAL, SHALL COMPLY WITH SECTION 804 AND FOR IBC 2021.

CHAPTER 8 - ALTERATIONS - LEVEL 2

COMPLIANCE (SEC 801.3)	ALL NEW CONSTRUCTION ELEMENTS, COMPONENTS, SYSTEMS, AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF THE IBC 2021.
FIRE ALARM AND DETECTION (SEC 804.4)	AN APPROVED AUTOMATIC FIRE DETECTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THIS CODE AND NFPA 72.
GROUP E OCCUPANCY (SEC 804.4.1.1)	A FIRE ALARM SYSTEM SHALL BE INSTALLED IN WORK AREAS OF GROUP E AS REQUIRED BY THE INTERNATIONAL FIRE CODE.

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

16301 Chimney Rock Rd, Houston, TX 77053

WILLOWRIDGE HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

G0.03-W
01 CODE PLAN - FIELD HOUSE

WILLOWRIDGE HIGH SCHOOL

12/4/2025 10:54:05 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-006_WILLOWRIDGE_ARCH_FBISD ATHLETIC RENOVATIONS BP012-W_R25.rvt

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL SIZES, LOCATIONS AND ELEVATIONS NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS PRIOR TO SUBMITTING PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR FROM PERFORMING THE WORK REQUIRED UNDER THIS CONTRACT. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE OWNER/ENGINEER.
2. SOME UTILITIES MAY NOT BE SHOWN ON THE PLANS. FIELD VERIFY AND IDENTIFY LOCATIONS OF PIPING AND ALL UTILITIES NOT NOTED ON THE PLANS. NOTIFY THE OWNER/ENGINEER OF ANY POTENTIAL CONFLICTS PRIOR TO STARTING CONSTRUCTION.
3. ALL GENERAL AND SUB-CONTRACTORS ARE ENCOURAGED TO VISIT AND INSPECT THE SITE PRIOR TO SUBMITTING A PROPOSAL TO COMPLETE.
4. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES, TRAFFIC CONTROL DEVICES AND PAVING. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITY'S ENGINEERING STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAWINGS, AND STREET PAVING AND STATEWATER CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR AND MAKE SURE THE CORRECT BENCHMARK IS USED.
7. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
9. CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
10. CONTRACTOR SHALL MAINTAIN A SHEET OF REDLINE DRAWINGS RECORDING AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINES MARKED DRAWINGS WILL BE SUBMITTED TO THE ENGINEER WHO WILL MAKE THE CHANGES ON THE ORIGINAL DRAWINGS. LABELING EACH SHEET IN THE SET AS "RECORD DRAWINGS".
11. CONTRACTORS SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
12. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICAS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
13. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALK, ETC.) SHALL BE STABILIZED WITH PLANTINGS OR OTHERWISE RECEIVE 6 INCHES OF MULCH OR LOAM AND SEED AS DIRECTED BY THE ENGINEER.
14. CONTRACTOR SHALL PREVENT DUST, SEDIMENT AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
15. SAFETY - NEITHER THE OWNER NOR THE ENGINEER OF RECORD WILL BE RESPONSIBLE FOR COMPLIANCE WITH SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, FEDERAL, AND CONTRACTUAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ANY SCHOOL CHILDREN OUT OF THE WORK AREA.
17. STANDARD SPECIFICATIONS - ALL CONSTRUCTION WORK AND INSTALLATION SHALL CONFORM TO THE PROJECT SPECIFICATIONS PROVIDED WITH THE CONTRACT DOCUMENTS AND ANY STANDARD SPECIFICATIONS AS INDICATED ON THESE PLANS.
18. INSPECTIONS - THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR REQUIRED INSPECTIONS. THE PRESENCE OR ABSENCE OF AN INSPECTOR WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE PROPER PERFORMANCE OF WORK.
19. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVE OR ANY OTHER AGENCY HAVING JURISDICTION FOR ALL ACTIVITIES ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH OSHA PERFORMANCE CRITERIA.
20. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS.

SITEWORK GENERAL NOTES:

1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D698:
   A. UNDER STRUCTURES: SCARIFY AND RE COMPACT 12 INCHES OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   B. UNDER WALKWAYS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 95% SPD.
   C. UNDER TURF OR UNPAVED AREAS: SCARIFY AND RE COMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL MATERIAL TO 90% SPD.
   D. UTILITY TRENCHES: BACKFILL SHALL BE IN 8 INCHES LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS ON EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% SPD IN PAVED AREAS AND 90% SPD IN UNPAVED AREAS OR AS INDICATED IN THE DRAWINGS.
2. DIMENSIONS IN THE DOCUMENTS SHALL GOVERN.

CIVIL GRADING NOTES:

1. CLEAR AND GRUB WITHIN THE GRADING LIMITS SHOWN IN THE CIVIL DRAWINGS. REMOVE STUMPS AND ROOTS 3 INCHES IN DIAMETER AND LARGER AND NONPERISHABLE SOLID OBJECTS A MINIMUM 3 FEET BELOW SUBGRADE OR FINISHED EMBANKMENT.
2. STRIP AND STOCKPILE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES WITHIN THE LIMITS OF EARTHWORK OPERATIONS.
3. STRUCTURAL EXCAVATION: EXCAVATE TO INDICATE ELEVATIONS WITHIN A TOLERANCE OF 1 INCH. EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORM WORK AND FOR INSPECTIONS.

UTILITIES:

1. THE LOCATIONS, SIZES AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATE CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN IN THE PLANS. PRIOR TO ORDERING MATERIAL AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZED AND ELEVATIONS OF THE POINT OF CONNECTIONS TO EXISTING UTILITIES AND SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND PROPOSED UTILITY ROUTES. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 1-800-245-4545 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.

PAVING NOTES:

1. RIM ELEVATIONS FOR MANHOLES AND SEWER CLEANOUTS, WATER VALVE COVERS, ELECTRIC AND TELEPHONE PULL BOXES AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: 1 INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.

STORM SEWER CONSTRUCTION NOTES:

1. STORM SEWERS SHALL BE INSTALLED, BEDDED, AND BACKFILLED ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
2. STORM SEWERS LOCATED WITHIN PUBLIC R.O.W. OR SIDE LOT EASEMENTS SHALL BE REINFORCED CONCRETE PIPE (24-INCH AND LARGER) (C-76. CLASS III). AND SHALL BE INSTALLED, BEDDED, AND BACKFILLED IN ACCORDANCE WITH THE GOVERNING ENTITIES STANDARD DETAILS AND SPECIFICATIONS. UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
3. ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABILIZED SAND TO ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH ALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
4. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
5. ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES AND INLETS ARE TO PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL PROVIDE 18" MINIMUM CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
7. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF LOCAL GOVERNING ENTITY STANDARDS AND SPECIFICATIONS FOR JUSTING MANHOLES, INLETS AND VALVE BOXES TO GRADE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACKSLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF HIS WORK.
9. ALL DITCHES SHALL BE REGRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.

SWPPP CONSTRUCTION NOTES:

1. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG THE ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPPP) PLANS TO KEEP SILT AND/ OR EXCAVATIONS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM SEWER.
2. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.
3. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK, TRACKED FROM THE EXCAVATED AREA.
4. CONTRACTOR SHALL FOLLOW GOOD HOUSE KEEPING PRACTICES DURING THE CONSTRUCTION PHASE OF THE PROJECT ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
5. CONTRACTOR IS TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5-INCHES OR GREATER:
   A. DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
   B. AREAS USED FOR STORAGE THAT ARE EXPOSED TO PRECIPITATION.
   C. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
6. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS, AND CORRECTIVE ACTION IF SUCH OCCURS.

TRAFFIC NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. ALL TRAFFIC CLOSURES SHALL BE SCHEDULED IN ACCORDANCE WITH THE LOCAL GOVERNING ENTITIES APPROPRIATE HOURS.
3. NO LANES ON MAJOR THOROUGHFARES MAY BE BLOCKED FROM 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM UNLESS APPROVED BY THE LOCAL GOVERNING ENTITY.
4. NO TRAFFIC LANES SHALL BE CLOSED IN ALL RESIDENTIAL AREAS FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS.
6. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND OPEN THE LANES FOR NORMAL TRAFFIC FLOW.
7. OFF-DUTY UNIFORMED POLICE OFFICER(S)/FLAGGER(S) ARE REQUIRED TO DIRECT TRAFFIC WHEN THE LANES ARE BLOCKED.
8. IN THE EVEN THAT NO "TRAFFIC CONTROL PLANS" EXIST AS PART OF CONTRACT DRAWINGS. CONTRACT MAY PREPARE PLANS AND SUBMIT TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN-DAYS (10) PRIOR TO IMPLEMENTATION.
9. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS. HE/SHE SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING AN ALTERNATE SET OF PLANS* TO THE LOCAL GOVERNING ENTITY FOR APPROVAL TEN (10) WORKING DAYS PRIOR TO IMPLEMENTATION.
10. APPROVED COPIES OF THE TRAFFIC CONTROL PLANS AND REQUIRED PERMITS SHALL BE MADE AVAILABLE FOR INSPECTION AT THE JOB SITE AT ALL TIMES. CONTRACTORS MUST SECURE REQUIRED PERMITS FROM THE LOCAL GOVERNING ENTITY'S TRAFFIC MANAGEMENT AND MAINTENANCE BRANCH BEFORE CLOSING A LANE/SIDEWALK. THE REQUEST MUST BE MADE AT LEAST TEN (10) DAYS IN ADVANCE OF THE CLOSURE. NOTE THAT WORKING HOURS MAY BE RESTRICTED OR THE REQUEST MAY BE DENIED.
    A. THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLAR AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME PART OF THE CONTRACT DRAWINGS.

WARNING: OVERHEAD ELECTRICAL LINES:

1. OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:
   A. ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
   B. OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
2. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222. ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-6248 OR (713) 207-5769.

CENTERPOINT ENERGY:
CAUTION: UNDERGROUND GAS FACILITIES:

1. LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, LLC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 OR 1-800-669-8344 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
   A. WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 945-8036 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
   B. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
   C. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
   D. FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3522 OR (713) 207-4200.
   E. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

AT&T TEXAS/SBC FACILITIES:

1. THE LOCATIONS OF AT&T TEXAS/SBC FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SBC FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANICAL EXCAVATION PROCEDURES. WHEN BORING THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SBC FACILITIES.
4. WHEN AT&T TEXAS/SBC FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SBC UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURY CABLES OR OTHER CABLES IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713)456-4552 OR EMAIL HIM AT rl7259@att.com, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR AT&T TEXAS/SWBT FACILITIES.

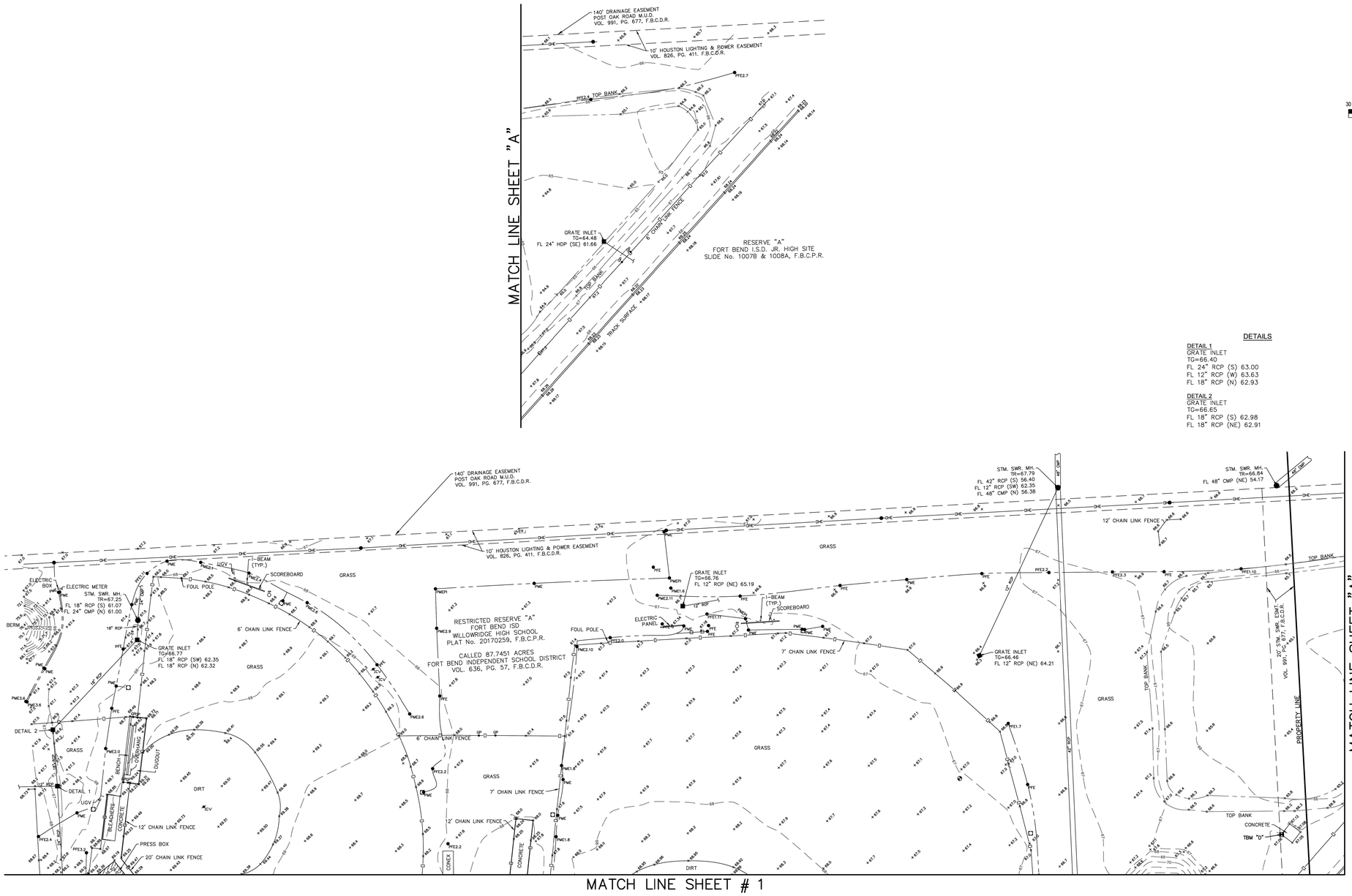
SANITARY SEWER NOTES:

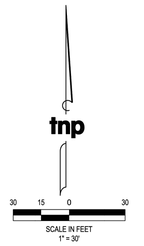
1. ALL SEWERS SHALL BE TESTED FOR EXCESS DEFLECTION IN PIPE CROSS SECTION, FOR LATERAL AND VERTICAL PIPE OBSTRUCTION, AND FOR JOINT OFFSETS, BY PULLING A MANDREL THROUGH THE PIPE BY HAND. THE MANDREL SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILLING HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. OBSTRUCTIONS ENCOUNTERED SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. MANDREL AND TEST EQUIPMENT SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONDUCTING THE TEST.
2. USE BEDDING AND BACKFILL PER DETAILS PROVIDED IN THE CONTRACT DRAWINGS UNLESS FIELD CONDITIONS DICTATE OTHERWISE. CONTRACTOR TO NOTIFY ENGINEER OF WET TRENCH CONDITIONS PRIOR TO LAYING PIPE. USE CEMENT STABILIZED SAND AND BACKFILL TO WITHIN 1 FOOT OF PROPOSED OR EXISTING PAVEMENT SUBGRADE. BEDDING, CEMENT STABILIZED SAND AND/OR BACKFILL SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM FOR PIPE AND SHALL NOT BE PAID FOR DIRECTLY.
3. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 24 INCHES OF VERTICAL CLEARANCE AND 9 FEET HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND WATER LINES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 12 INCHES OF VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND STORM SEWER LINES.
4. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM THE MANHOLE RIM PER ASTM F477.
5. UNLESS OTHERWISE NOTED, ALL SANITARY SEWERS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE (PVC) SCH 40, CONFORMING TO ASTM D1785, OR APPROVED EQUAL. ALL SANITARY SEWERS SHALL HAVE RUBBER GASKET BELL AND SPIGOT CONNECTIONS.
6. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES SHALL BE PRECAST CONCRETE MANHOLES.
7. NO CONNECTIONS SHALL BE MADE TO EXISTING SANITARY SEWER LINES UNTIL ALL PROPOSED SEWER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED AND APPROVED BY THE LOCAL GOVERNING ENTITY.
8. WHENEVER THE MANHOLE COVERS ARE LOCATED BELOW THE 100 YEAR FLOOD PLAIN ELEVATION THEY SHALL BE GASKETED AND BOLTED AS DESCRIBED IN 317.2. OF THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES.
9. LOW-PRESSURE AIR TEST. THIS TEST SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM C-828, ASTM C-924 OR OTHER APPROPRIATE PROCEDURES. FOR SAFETY REASONS, AIR TESTING OF SECTIONS OF PIPE SHALL BE LIMITED TO LINES LESS THAN 36-INCH AVERAGE INSIDE DIAMETER. LINES 36-INCH AVERAGE INSIDE DIAMETER AND LARGER MAY BE AIR TESTED AT EACH JOINT. THE MAXIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE DURING A JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR SECTION OF PIPE LESS THAN 36-INCH AVERAGE INSIDE DIAMETER, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE SHALL BE COMPUTED BY THE FOLLOWING EQUATIONS:

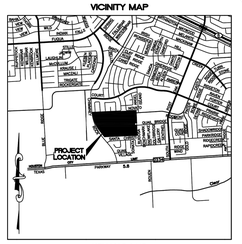
   T = 0.0850(D)(K)/(Q) WHERE T = TIME FOR PRESSURE TO DROP 1.0 POUNDS PER SQUARE INCH GAUGE IN SECONDS
   K = 0.000419(D)(L), BUT NOT LESS THAN 1.0
   D = AVERAGE INSIDE DIAMETER IN INCHES
   L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET
   Q = RATE OF LOSS, ASSUME 0.0015 CU FT/MIN/SQ FT INTERNAL SURFACE
10. SDR-26 PVC PIPE TO USE "FULL BODIED" SDR-26 FITTINGS.
11. ALL PVC PIPE TO HAVE CELL CLASS 12454 A OR B AS PER ASTM D1784.
12. NO MORE THAN 2 HOURS SHALL ELAPSE BETWEEN MIXING AND PLACEMENT OF CEMENT STABILIZED SAND.
13. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% SPD, ±2% OF OPTIMUM MOISTURE CONTENT, IN MAXIMUM 8-INCH LIFTS.

WATER SYSTEM CONSTRUCTION NOTES:

1. METERS AND BACKFLOW BOXES SHALL BE SET A MINIMUM OF 3 INCHES ABOVE FINISHED GRADE WITH SLOPED BACKFILL TO DIRECT STORM WATER AWAY FROM BOX. BOXES SHALL BE BACKFILLED WITH A MINIMUM 12 INCHES OF CEMENT STABILIZED SAND AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. FIRE SPRINKLER LINES SHALL BE INSTALLED AND TESTED BY A CONTRACTOR LICENSED BY THE STATE TO PERFORM SUCH WORK UNDER SECTION 4(A) & (B) OF ARTICLE 5.43-3 OF THE TEXAS INSURANCE CODE. CONTRACTOR SHALL FURNISH OWN CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING AS REQUIRED BY THE TEXAS COMMISSION ON FIRE PROTECTION.
3. ALL PVC PIPE USED IN WATER SYSTEMS SHALL BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL.
4. WATER LINE PIPE AND FITTING MATERIALS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:
   A. LESS THAN 4 INCH POTABLE WATER LINE SHALL BE SCHEDULE 40, PVC 1120, PER ASTM D-1785, EXCEPT THAT THREADED PIPE SHALL BE SCHEDULE 80. 3 INCH POTABLE WATER MAY BE SDR 21 PVC (200 P.S.I.) WITH GASKETED JOINTS.
   B. SITE 4 INCH AND LARGER POTABLE WATER LINE SHALL BE AWWA C900, DR 18, CLASS 235 PVC.
   C. FIRE SPRINKLER LINE SHALL BE AWWA C900, DR 14, CLASS 305 PVC.
   D. FITTINGS FOR LESS THAN 3 INCH AND LARGER WATER LINE SHALL BE ASTM D-2466 SCHEDULE 40 PVC. THREADED FITTINGS SHALL BE SCHEDULE 80 PER ASTM D-2467.
   E. FITTINGS FOR 3 INCH AND LARGER WATER LINE SHALL BE ALL-BELL, PUSH-ON, DUCTILE IRON MECHANICAL JOINT FITTINGS WITH MEGA-LUG.
5. VALVES:
   A. 1 1/2 INCH AND SMALLER SHALL BE 125 P.S.I.G., BRONZE, RISING STEM, SINGLE-WEDGE, DISC TYPE, SCREWED ENDS, CRANE NO. 428 OR APPROVED EQUAL.
   B. 2 INCH THRU 2 1/2 INCH VALVES SHALL BE IRON BODY, DOUBLE GATE, NON-RISING STEM, 150 P.S.I.G. TEST; 2 INCH SQUARE NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
   C. 3 INCH AND LARGER VALVES SHALL BE 200 P.S.I.G. GATE VALVES PER AWWA C500 OR C509, PUSH-ON BELL ENDS WITH RUBBER JOINT RINGS; 2 INCH NUT TO OPEN. CONTRACTOR TO VERIFY WITH LOCAL JURISDICTION AND OWNER ON OPENING DIRECTION.
6. POLYETHYLENE WRAP ALL CAST AND DUCTILE IRON PIPE AND FITTINGS PER SPECIFICATIONS.
7. WATER LINES SHALL HAVE A MINIMUM COVER OF 4 FEET BELOW NATURAL GROUND, FINISH GRADE, OR MEAN ELEVATION OF NEARBY DITCH, WHICHEVER IS LOWER. ALL WATER LINES SHALL MAINTAIN A MINIMUM 12 INCH CLEARANCE TO OTHER UTILITIES AT CROSSINGS UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINES INSTALLED OVER 8 FEET DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS. CONTRACTOR SHALL PROVIDE THRUST BLOCKING TO WITHSTAND 125% OF TEST PRESSURES.
8. SEPARATION DISTANCE FOR ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS CHAPTER 290.44, HARRIS COUNTY, AND TCEQ REQUIREMENTS, LATEST PRINTING.
9. WHERE A DOMESTIC WATERLINE CROSSES A SANITARY SEWER, INSTALL ONE JOINT (MINIMUM 18 FOOT LENGTH) OF WATERLINE PIP CENTERED ON THE SEWER.
10. CONTRACTOR SHALL TAKE SANITARY PRECAUTIONS







LEGEND

BM	BENCHMARK	ICV	IRRIGATION CONTROL VALVE
•	BOLLARD		LIGHT STANDARD
	BORE HOLE		MANHOLE
	CLEANOUT	PME	PAINT MARKER (ELECTRIC)
D.S.	DOWN SPOUT		PEDESTAL
EJB	ELECTRIC JUNCTION BOX	PFC	PIN FLAG COMMUNICATION
	FLAG POLE	PFE	PIN FLAG ELECTRIC
	GATE POST		POWER POLE
	INLET		SIGN
		WM	WATER METER

ABBREVIATIONS

CMP-CORRUGATED METAL PIPE	PVC-POLYVINYL CHLORIDE PIPE
F.B.C.D.R.-FORT BEND COUNTY DEED RECORDS	RCP-REINFORCED CONCRETE PIPE
F.B.C.P.R.-FORT BEND COUNTY PLAT RECORDS	R.O.W.-RIGHT-OF-WAY
FF-FINISH FLOOR	SAN.-SANITARY
FL-FLOW LINE	STM.-STORM
FND.-FOUND	SWR.-SEWER
HDP-HIGH DENSITY POLYETHYLENE PIPE	TG-TOP OF GRATE
I.R.-IRON ROD	TR-TOP OF RIM
MH-MANHOLE	TYP.-TYPICAL
OHE-OVERHEAD ELECTRIC	UGV-UNDERGROUND VAULT
PG.-PAGE	VOL.-VOLUME

DETAILS

DETAIL 1
GRATE INLET
TG=66.40
FL 24" RCP (S) 63.00
FL 12" RCP (W) 63.63
FL 18" RCP (N) 62.93

DETAIL 2
GRATE INLET
TG=66.65
FL 18" RCP (S) 62.98
FL 18" RCP (NE) 62.91

SURVEYOR'S NOTES:

1. THE BEARINGS SHOWN HEREON ARE BASED ON THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NAD 83.

2. THE CAD FILE OF THE DRAWING SHOWN HEREIN IS BASED ON TEXAS SOUTH CENTRAL ZONE NO. 4204, STATE PLANE SURFACE VALUE (NAD83) AND MAY BE CONVERTED TO GRID BY SCALING THE DRAWING BY THE FOLLOWING COMBINED SCALE FACTOR OF 0.99987410737.

3. ACCORDING TO F.I.R.M. MAP NO. 48157C0305M (COMMUNITY-PANEL NO. 480296030SM), VERSION NO. 2.3.3.3, MAP REVISED DATE: JANUARY 29, 2021. THE SUBJECT PROPERTY LIES WITHIN THE AREA DESIGNATED AS ZONE "X" UNSHADED. DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD.

THIS STATEMENT IS BASED ON SCALING THE LOCATION OF THE SUBJECT TRACT ON THE ABOVE REFERENCED MAP. THIS INFORMATION IS TO DETERMINE FLOOD INSURANCE RATES ONLY AND IS NOT INTENDED TO IDENTIFY SPECIFIC FLOODING CONDITIONS.

4. ALL UTILITIES SHOWN HEREON ARE LOCATED USING "APPARENT & VISIBLE" EVIDENCE BY ON-SITE OBSERVATION UNLESS OTHERWISE NOTED.

5. —I— INDICATES AN UNDERGROUND SEWER LINE WITH UNKNOWN DIRECTION, SIZE OR LOCATION OR A POSSIBLE STUB-OUT.

6. UNDERGROUND UTILITY LOCATIONS PROVIDED BY LONESTAR LOCATING, LLC. PAINT MARKS WITH NUMERIC VALUES INDICATES COVER (FEET AND INCHES) DETERMINED BY ELECTRONIC TONING.

ALWAYS CONTACT TEXAS 811 PRIOR TO DIGGING. SOME UTILITIES SUCH AS FIBER OPTIC W/O TRACERS, PLASTIC GAS, FIBERGLASS/PVC ARE NOT LOCATABLE BY TRANSMISSION SIGNAL.

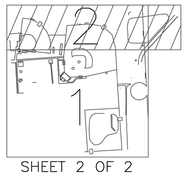
7. THE SUBJECT TRACT IS AFFECTED BY THE CITY OF HOUSTON ORDINANCE No. 85-1878, AMENDED BY ORDINANCE No. 1999-262.

REFERENCE BENCHMARK:

NGS PID AW2041 - BRASS DISK STAMPED "Q 1214 1973" LOCATED 2.4 MILES SOUTH ALONG F.M. 521 FROM THE JUNCTION OF ANDERSON ROAD AT ALMEDA, AT THE JUNCTION OF AN ASPHALT ROAD WEST TO HEATRON STEEL PLANT, ON TOP OF THE CENTER OF THE SOUTH CONCRETE HEADWALL OF 1.36' PIPE CULVERT, 164' WEST AND ACROSS THE MISSOURI PACIFIC RAILROAD FROM THE CENTERLINE OF THE HIGHWAY, 23.5' SOUTH OF THE CENTERLINE OF THE ROAD, 6.5' SOUTHEAST OF THE SOUTH METAL GATE POST, 42.1' WEST OF THE WEST RAIL AND LEVEL WITH THE HIGHWAY.
ELEVATION = 62.40' (NAVD 88)

TEMPORARY BENCHMARKS:

TBM "D" - BOX CUT ON WEST CORNER OF CONCRETE PAD LOCATED SOUTH OF THE MOST NORTHERLY DETENTION POND.
ELEVATION=67.09'



SHEET 2 OF 2

TSPS CATEGORY 6, CONDITION II
LIMITED TOPOGRAPHIC SURVEY

FORT BEND INDEPENDENT SCHOOL DISTRICT
WILLOWRIDGE HIGH SCHOOL

SITUATED IN THE
J. POITEVENT SURVEY, ABSTRACT NUMBER 305
CITY OF HOUSTON
FORT BEND COUNTY, TEXAS

PROJECT INFORMATION
Project No. FBI23515
Date: December 6, 2023
Drawn By: DB
Checked By: JDW
Scale: 1"=30'
Sheet: 2 of 2

SURVEYOR
TEAGUE NALL AND PERKINS, INC.
1221 Park West Green Drive, Suite 100
Katy, Texas 77493
832.220.1205 ph 214.461.9864 fx
TBPLS Registration No. 10194381
www.tnpinc.com

SURVEYOR'S CERTIFICATE

To: Fort Bend Independent School District

I, Brian J. Maddox, a Registered Professional Land Surveyor in the State of Texas, do hereby certify that I have prepared this map from an actual on the ground survey of the land, and the monuments shown thereon were found under my personal supervision in accordance with the Surveying Rules and Regulations of the State of Texas. This survey substantially conforms to a Category 6, Condition II Topographic Survey.

Brian J. Maddox
Registered Professional Land Surveyor No. 5430
Surveyed on the ground December 6, 2023

STATE OF TEXAS
REGISTERED
BRIAN J. MADDOX
5430
PROFESSIONAL
LAND SURVEYOR

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
TSCE PROJECT # 2508

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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

WILLOWRIDGE HIGH SCHOOL

Project Info Additional Text Line

16301 Chimney Rock RD, Houston, TX 77053

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH H. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

12/04/2025

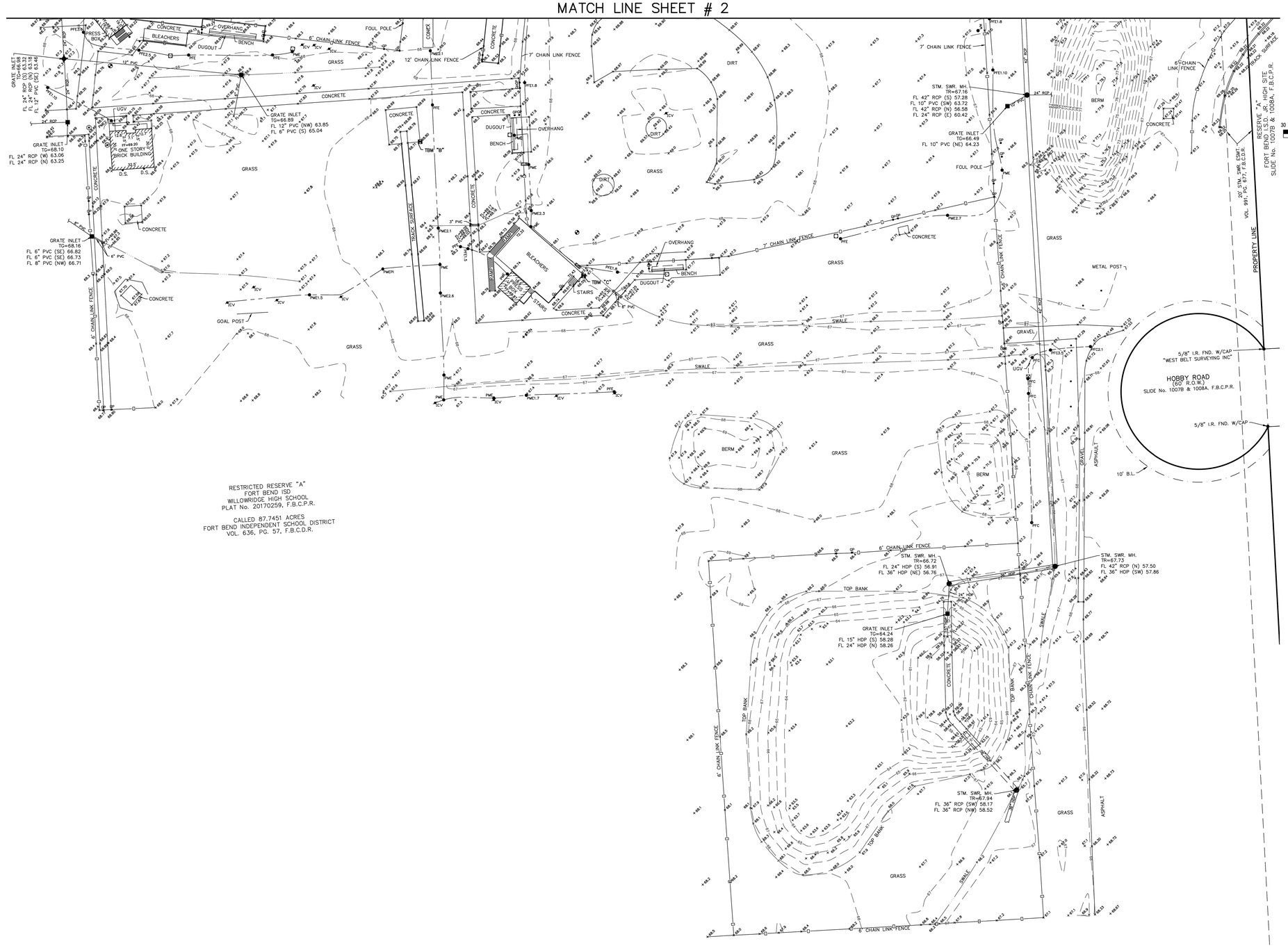
PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 0.03-W
CIVIL SPORTS
SURVEY
(REFERENCE ONLY)

MATCH LINE SHEET # 2



SURVEYOR'S NOTES:

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ELEVATION = 62.40' (NAVD 88)

TEMPORARY BENCHMARKS:

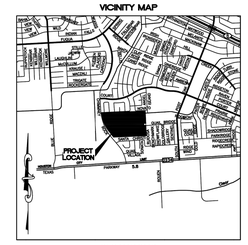
TBM "B" - BOX CUT ON SOUTHEAST CORNER OF CONCRETE PAD LOCATED ±72' SOUTH FROM THE SOUTHEAST CORNER OF SOFTBALL FIELD.
ELEVATION=68.77'

TBM "C" - BOX CUT ON CONCRETE LOCATED AT THE NORTHEAST CORNER OF BLEACHERS FOR BASEBALL FIELD.
ELEVATION=69.28'

tnp

30 15 0 30
SCALE IN FEET
1" = 30'

VICINITY MAP



KEY MAP 611B
SCALE 1" = 3000'

LEGEND

BM	BENCHMARK	ICV	IRRIGATION CONTROL VALVE
•	BOLLARD		LIGHT STANDARD
	BORE HOLE		MANHOLE
	CLEANOUT	PME	PAINT MARKER (ELECTRIC)
D.S.	DOWN SPOUT		PEDESTAL
	ELECTRIC JUNCTION BOX	PFC	PIN FLAG COMMUNICATION
	FLAG POLE	PFE	PIN FLAG ELECTRIC
	GATE POST		POWER POLE
	INLET		SIGN
		WM	WATER METER

ABBREVIATIONS

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I.R.-IRON ROD	TR-TOP OF RIM
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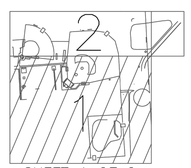
OHE-OVERHEAD ELECTRIC	UGV-UNDERGROUND VAULT
PG.-PAGE	VOL.-VOLUME



SHEET 1 OF 2

TSPS CATEGORY 6, CONDITION II
LIMITED TOPOGRAPHIC SURVEY

FORT BEND INDEPENDENT SCHOOL DISTRICT
WILLOWRIDGE HIGH SCHOOL

SITUATED IN THE
J. POITEVENT SURVEY, ABSTRACT NUMBER 305
CITY OF HOUSTON
FORT BEND COUNTY, TEXAS

SURVEYOR'S CERTIFICATE

To: Fort Bend Independent School District

I, Brian J. Maddox, a Registered Professional Land Surveyor in the State of Texas, do hereby certify that I have prepared this map from an actual on the ground survey of the land, and the monuments shown thereon were found under my personal supervision in accordance with the Surveying Rules and Regulations of the State of Texas. This survey substantially conforms to a Category 6, Condition II Topographic Survey.

Brian J. Maddox
Registered Professional Land Surveyor No. 5430
Surveyed on the ground December 6, 2023

STATE OF TEXAS
REGISTERED
BRIAN J. MADDOX
5430
PROFESSIONAL
LAND SURVEYOR

PROJECT INFORMATION
Project No. FB023515
Date: December 6, 2023
Drawn By: DB
Checked By: JDW
Scale: 1"=30'
Sheet: 1 of 2

SURVEYOR
TEAGUE NALL AND PERKINS, INC.
1221 Park West Green Drive, Suite 100
Katy, Texas 77493
832.220.1205 ph 214.461.9864 fx
TBPLS Registration No. 10194381
www.tnpinc.com

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
TSCE PROJECT # 2508

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pfluger
office 713.222.1141 | fax 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

WILLOWRIDGE HIGH SCHOOL
Project Info Additional Text Line
16301 Chimney Rock RD, Houston, TX 77053

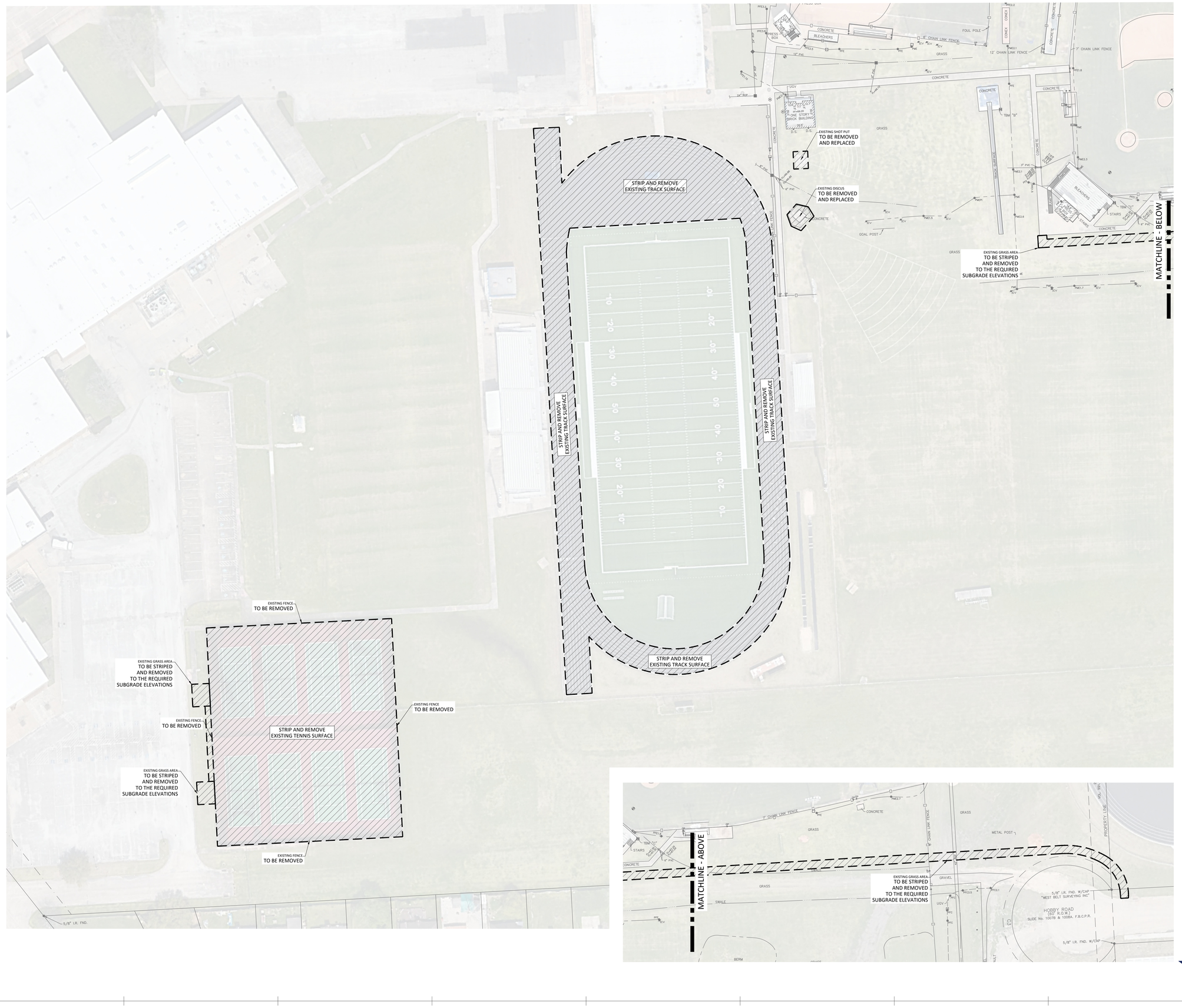
FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
SURVEYOR

12/04/2025

PROJECT NO. BP012
DATE JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS
#	Date	Description

100% CD
C 0.02-W
CIVIL SPORTS
SURVEY
(REFERENCE ONLY)



NOTES TO CONTRACTOR:

1. THE CONTRACTOR SHALL CAP AND DISPOSE OF ALL IRRIGATION WITHIN THE BASEBALL AND SOFTBALL FIELD. ALL IRRIGATION OUTSIDE THE SCOPE OF WORK MUST REMAIN IN WORKING CONDITION.

DEMOLITION NOTES:

- (A) EXISTING STRUCTURES TO REMAIN. CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND EXISTING STRUCTURES.
- (B) CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND EXISTING LIGHT POLES.
- (C) CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND EXISTING ELECTRICAL BOX.
- (D) EXISTING FENCE TO REMAIN. CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND.
- (E) EXISTING FOUL POLES TO REMAIN. CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND.

NOTES:

1. ALL DEMOLITION ITEMS INCLUDING ALL SOILS TO BE HAULED OFF OF SITE OR AS DIRECTED BY CLIENT.
2. IF ANY DAMAGE IS DONE TO ANY AREA NOT ON SCOPE OF WORK IT SHALL BE THE CONTRACTOR'S DUTY TO FIX IT AT ITS OWN EXPENSE.
3. CONTRACTOR SHALL HAVE EXTREME CAUTION WHEN DOING WORK AROUND EXISTING STRUCTURES.
4. CONTRACTOR SHALL MAINTAIN ALL PUBLIC STREET AND RIGHT OF WAY FREE OF DEBRIS, SILT AND SOILS AT ALL TIMES.
5. ALL WASTED SPILLED FROM TRUCKS SHALL BE REMOVED IMMEDIATELY AND NOT WASHED INTO STORM SEWER SYSTEM.
6. INLET PROTECTION WILL BE REQUIRED AT INLETS DOWNSTREAM OF THE WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.

LEGEND:

STRIP AND REMOVAL OF MATERIALS

REMOVAL AND DISPOSAL OF ITEMS

20' 40' 40' 0 80'

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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TSCE PROJECT # 2508

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

WILLOWRIDGE HIGH SCHOOL

Project Info Additional Text Line

16301 Chimney Rock RD, Houston, TX 77053

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER

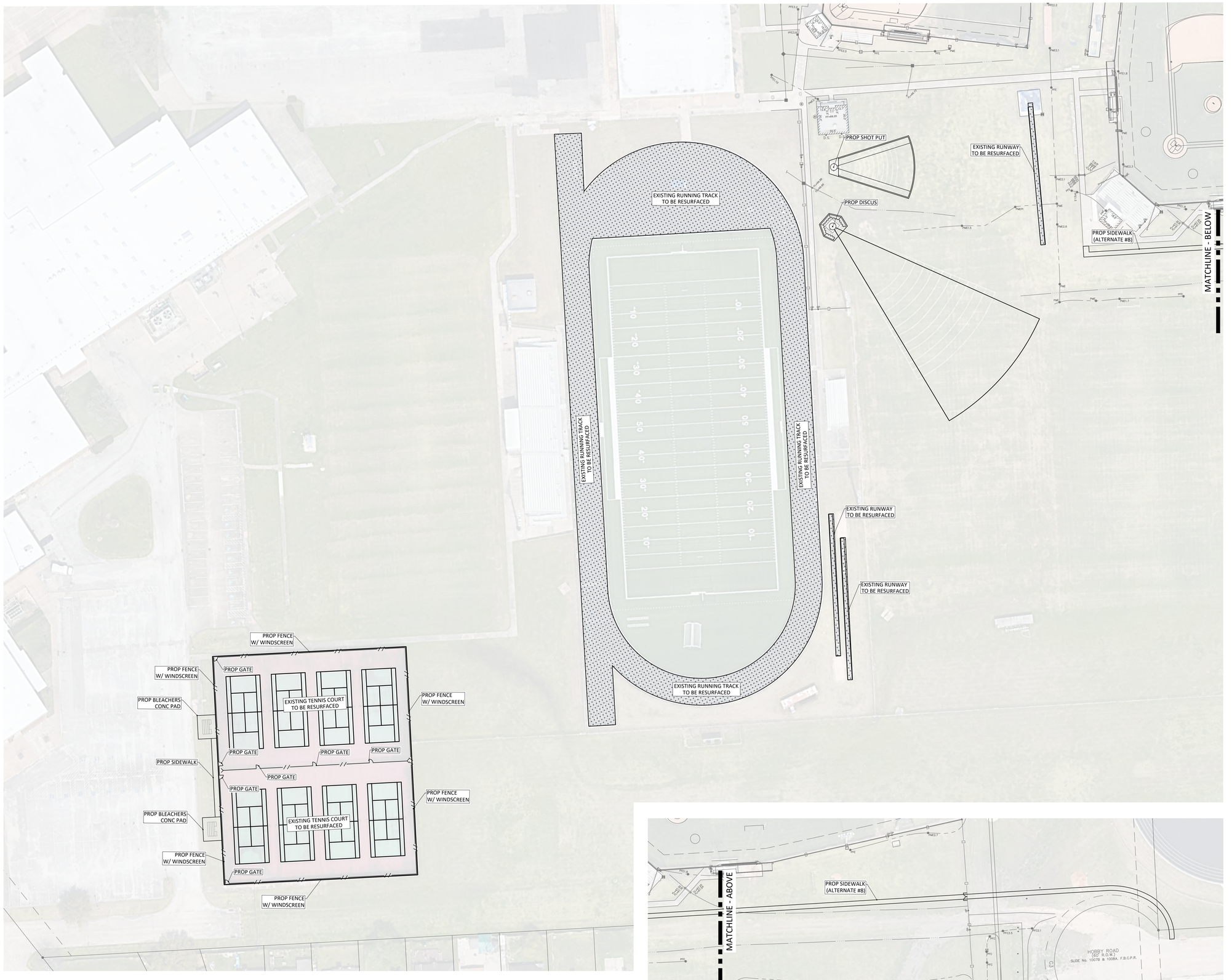
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 0.04-W
CIVIL SPORTS
DEMOLITION PLAN



N

NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS AND GROUND ELEVATIONS.
2. CONTRACTOR TO SEE SHEET C 5.01-W TO C5.02-W FOR DETAILS.

20' 40'
40' 0 80'

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM

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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS

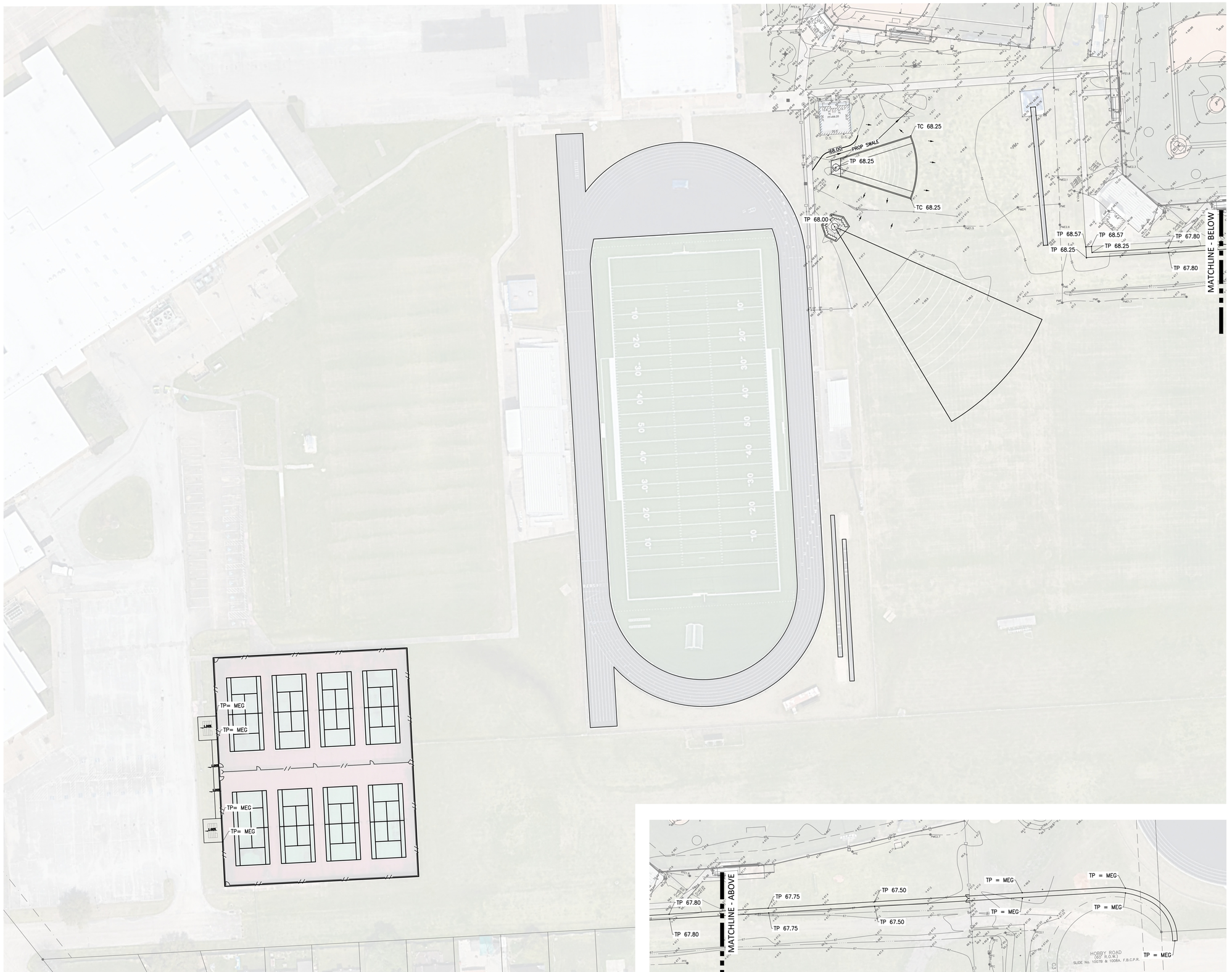
12/04/2025

PROJECT NO. BP012
DATE JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 1.01-W
CIVIL SPORTS
SITE PLAN



N

NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FS XX.XX'	FINISH SUBGRADE
TR XX.XX'	TOP OF RIM
TG XX.XX'	TOP OF GRADE
	MANHOLE (MH-X)
	BURIED JUNCTION BOX (JB-X)
	AREA INLET (AI-X)
	INLINE DRAIN (ID-X)
	90° ELB
	TEE
	REDUCER
	FLOW ARROW
	2-ELBOWS
	SWALE

20' 40'
40' 0 80'

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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TSCE PROJECT # 2509

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

WILLOWRIDGE HIGH SCHOOL

Project Info Additional Text Line

16301 Chimney Rock RD, Houston, TX 77053

FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
PROFESSIONAL
ENGINEER

12/04/2025

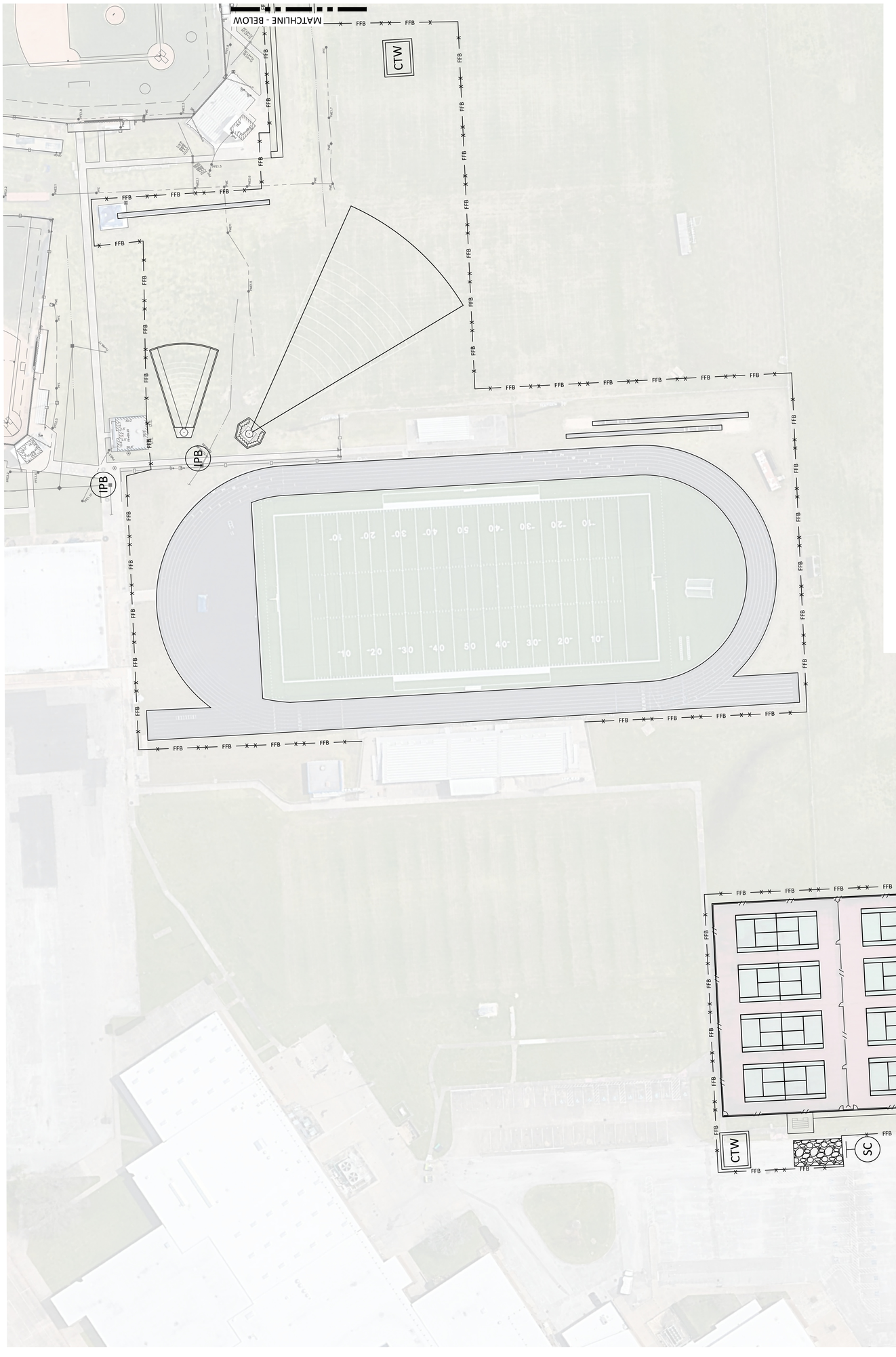
PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

100% CD

C 3.01-W

CIVIL SPORTS GRADING PLAN



NOTES:

1. CONTRACTOR TO PLACE "IPB" IN ALL SURROUNDING INLETS.

LEGEND:

- IPB — INLET PROTECTION BARRIER STAGE I
- IPB — INLET PROTECTION BARRIER STAGE II
- SC — STABILIZED CONSTRUCTION ACCESS
- CTW — CONCRETE TRUCK WASHOUT AREA
- FFB — FILTER FABRIC BARRIER

20' 0 40' 80'

TEXAS SPORTS & CIVIL ENGINEERING
11200 RICHMOND AVE, SUITE 112
HOUSTON, TEXAS 77070
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TESCE.COM

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TSCE PROJECT # 2508

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C 4.01-W
CIVIL SPORTS
SWPP PLAN

PROJECT NO. BBPV2
DATE JUNE 04, 2025
DRAWN BY: EJS
CHECKED BY: KJ
REVISIONS
1 Date Description

12/04/2025

KENNETH L. JURADO
119933
LICENSED PROFESSIONAL ENGINEER

FBISD
INSPIRE • EQUIP • IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

WILLOWRIDGE HIGH SCHOOL

Project Info Additional Text Line

16301 Chimney Rock RD, Houston, TX 77053

pflueger
Office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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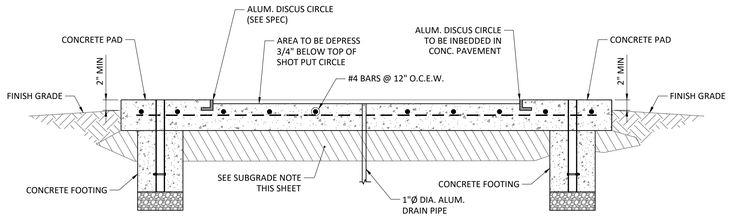
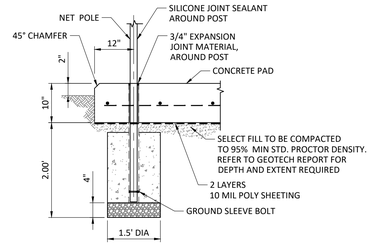
pflugerarchitects.com

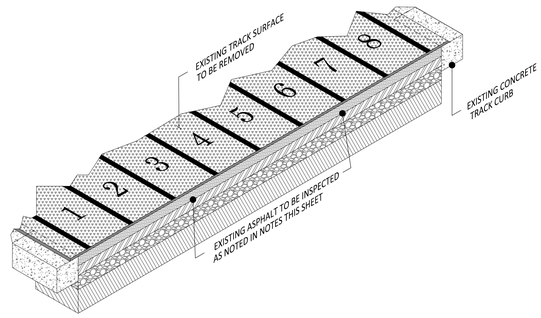


SECTION A-A



CONCRETE FOOTING DETAIL

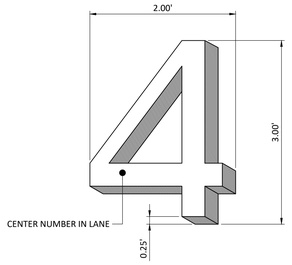
1 DISCUS CONCRETE PAD DETAIL
N.T.S.



2 TRACK SURFACE SECTION
N.T.S.

NOTES:

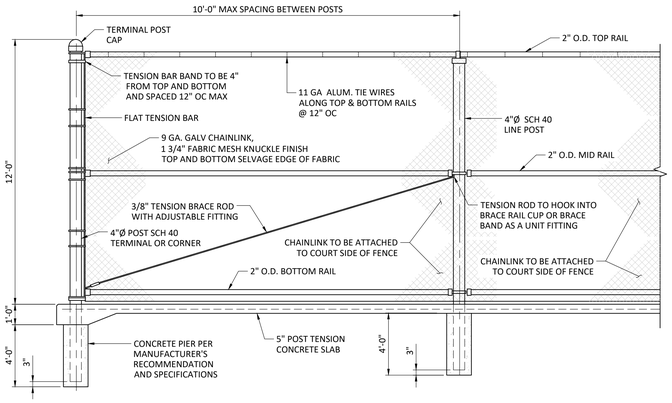
1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS SHOWN ON THIS SHEET.
2. CONTRACTOR TO REMOVE THE EXISTING TRACK SURFACE FOR THE EXISTING TRACK AND FIELD EVENTS ALL THE WAY DOWN TO THE ASPHALT. ONCE ALL SURFACE HAS BEEN REMOVED, CONTRACTOR SHALL CONTACT THE ENGINEER TO INSPECT THE CONDITION OF THE EXISTING ASPHALT AND CONCRETE CURBS TO FIND THE AREAS THAT NEED TO BE FIXED OR REPLACED BEFORE ADDING ANY OTHER SURFACE.
3. CONTRACTOR TO APPLY THE PROPOSED TRACK SURFACE PER SPEC. (STRUCTURAL SPRAY).



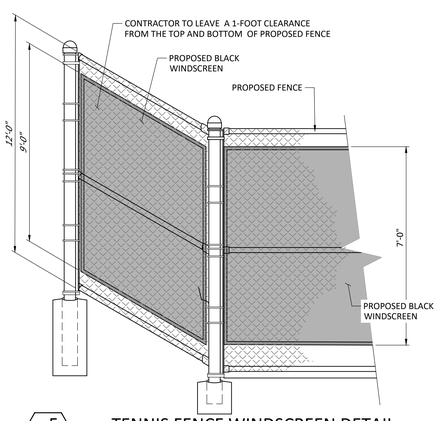
3 TRACK NUMBER DETAIL
N.T.S.

NOTES:

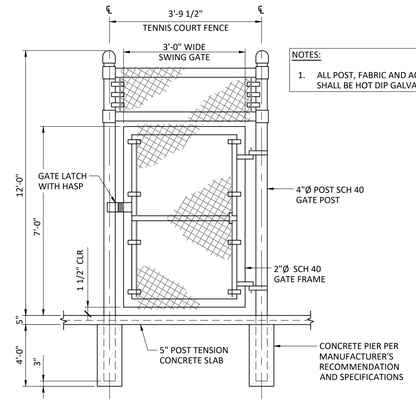
1. ALL POST, FABRIC AND ACCESSORY SHALL BE HOT DIP GALVANIZED.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
3. CONTRACTOR SHALL DESIGN AND BUILD FENCE TO WITHSTAND WIND LOADS PER REGULATIONS AND BE RESPONSIBLE FOR ITS FUTURE PERFORMANCE.



4 TENNIS FENCE DETAIL
N.T.S.



5 TENNIS FENCE WINDSCREEN DETAIL
N.T.S.



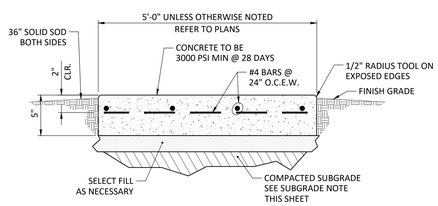
NOTES:

1. ALL POST, FABRIC AND ACCESSORY SHALL BE HOT DIP GALVANIZED.

6 TENNIS 3' WIDE GATE DETAIL
N.T.S.

SUBGRADE TREATMENT NOTE:

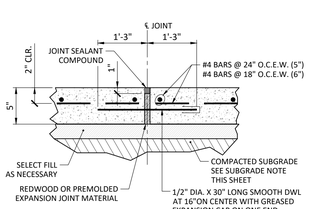
1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.



NOTES:

1. PROVIDE GROOVED JOINT AT 4' ON CENTER.
2. PROVIDE 1/2" EXPANSION JOINT AT 15' ON CENTER.
3. PROVIDE CONTROL JOINTS AT 5' MAXIMUM.

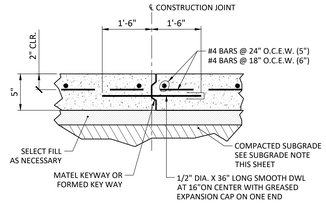
7 CONCRETE SIDEWALK DETAIL
N.T.S.



NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

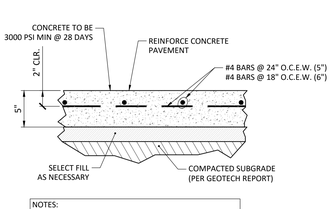
8 EXPANSION JOINT DETAIL
N.T.S.



NOTES:

1. CONSTRUCTION JOINT SHALL BE PLACED AT THE END OF EACH DAYS POUR AND IN BETWEEN POURS AS SPECIFIED.

9 CONSTRUCTION JOINT DETAIL
N.T.S.

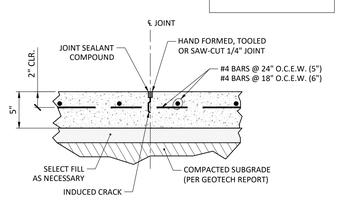


NOTES:

1. PROVIDE 3/4" EXPANSION JOINTS AT 60' ON CENTER EACH WAY UNLESS NOTED OTHERWISE.
2. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

10 CONCRETE PAVEMENT DETAIL
N.T.S.

NOTE: SEE GEOTECH REPORT FOR REFERENCE



NOTES:

1. PROVIDE 1/4" CONTROL JOINTS AT 20' MAXIMUM ON CENTER EACH WAY UNLESS NOTED OTHERWISE.

11 CONTROL JOINT DETAIL
N.T.S.

pfluger
office 713.222.1141 | fax 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

WILLOWRIDGE HIGH SCHOOL
Project Info Additional Text Line
16301 Chimney Rock RD, Houston, TX 77053

FBISD INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED
12/04/2025

PROJECT NO. BP012
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
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100% CD
C 5.01-W
CIVIL SPORTS DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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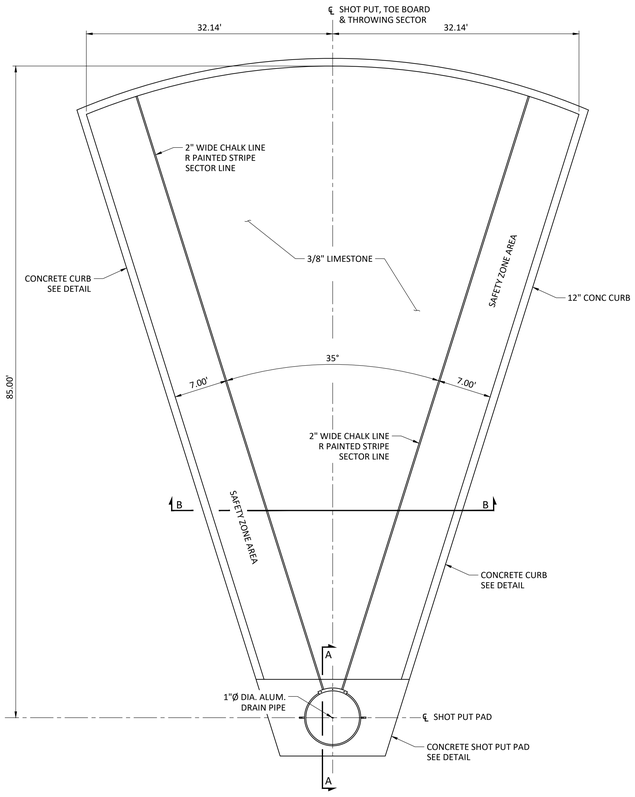
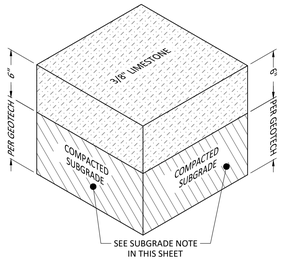
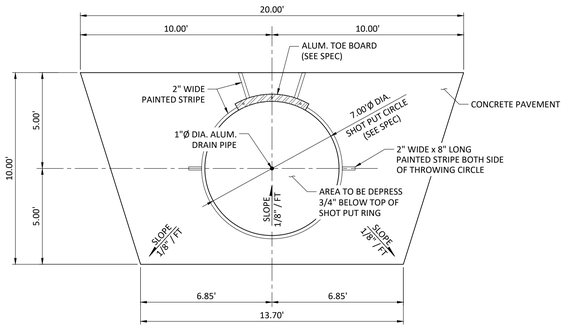


SHOT PUT PLAN



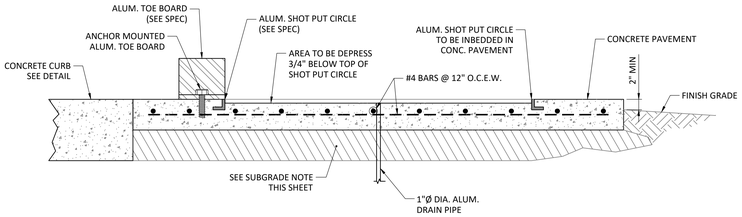
LIMESTONE



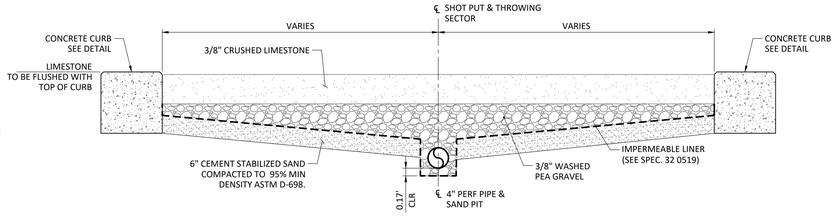
SHOT PUT PAD

CONCRETE CURB DETAIL

1 SHOT PUT DETAIL
N.T.S.



SECTION A - A



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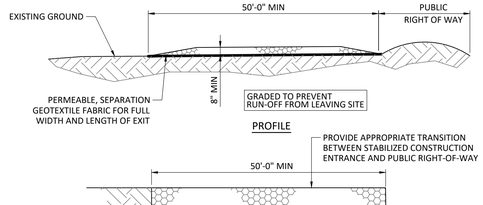
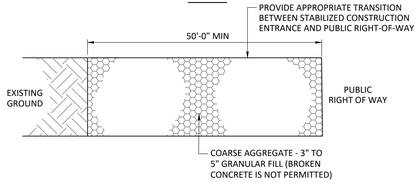


PROFILE



PLAN VIEW

SC

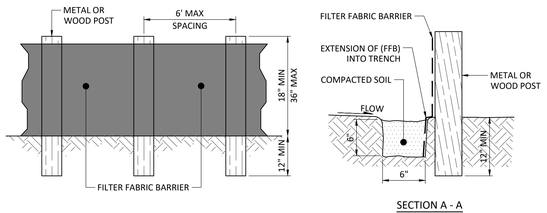
GENERAL NOTES:

1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
2. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
3. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
4. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
5. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
6. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
7. ALTERNATIVE METHODS OF CONSTRUCTION INCLUDE:
   - CEMENT STABILIZED SOIL: COMPACTED CEMENT STABILIZED SOIL, LIMESTONE AGGREGATE, OR OTHER FILL MATERIAL IN AN APPLICATION OF THICKNESS OF 8 INCHES.
   - WOOD MATS: OAK OR OTHER HARDWOOD TIMBERS PLACED EDGE TO EDGE AND ACROSS SUPPORT WOODEN BEAMS WHICH ARE PLACED ON TOP OF EXISTING SOIL IN AN APPLICATION THICKNESS OF 6 INCHES.
   - STEEL MATS: PERFORATED MATS PLACED ACROSS PERPENDICULAR SUPPORT MEMBERS.

2 STABILIZED CONSTRUCTION ACCESS
N.T.S.

SUBGRADE TREATMENT NOTE:

1. CONTRACTOR TO TREAT SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATION.



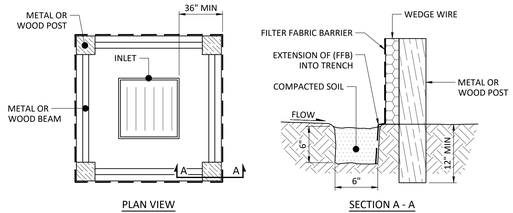
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

—X— FFB —X—

3 FILTER FABRIC BARRIER
N.T.S.



PLAN VIEW

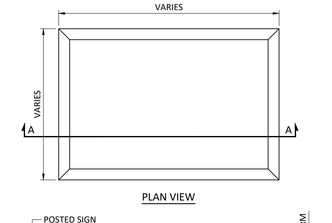
SECTION A - A

NOTES:

1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

IPB

4 INLET PROTECTION BARRIER
N.T.S.



PLAN VIEW

SECTION A - A

CTW

GENERAL NOTES:

1. POST A SIGN READING "CONCRETE WASH OUT PIT" NEXT TO THE PIT.
2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.
3. UNPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.

5 CONCRETE TRUCK WASHOUT AREA
N.T.S.

pfluger
office 713.222.1141 | fax 713.222.1174
2 Greenway Plaza, Suite 480
Houston, Texas 77046
pflugerarchitects.com

WILLOWRIDGE HIGH SCHOOL
Project Info Additional Text Line
16301 Chimney Rock RD, Houston, TX 77053

FBISD
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KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS

12/04/2025

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CIVIL SPORTS DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TEXSCE.COM
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GENERAL

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES. THE CODES LISTED SHALL INCLUDE ALL AMENDMENTS AND ADDENDA IN FORCE AT THE DATE OF THE CONTRACT DOCUMENTS.

   2021 EDITION OF THE INTERNATIONAL BUILDING CODE

2. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL AND ARCHITECTURAL CONTRACT DOCUMENTS THE STRICTEST REQUIREMENTS SHALL GOVERN.

3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE AND REPORT ANY DISCREPANCIES OR INCONSISTENCIES FROM ASSUMED CONDITIONS TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.

4. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT THEY ARE CUT AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER.

5. DO NOT SCALE THE DRAWINGS.

6. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

7. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, AND CONSTRUCTION EQUIPMENT. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE.

10. IT IS THE DESIGN INTENT FOR ALL CONCRETE POURS TO HAPPEN IN SEQUENTIAL ORDER FROM FOUNDATIONS THROUGH ROOF. THE GENERAL CONTRACTOR SHALL DISCUSS WITH THE A/E TEAM THE FEASIBILITY OF NON-SEQUENTIAL POURING OF CONCRETE AND ITS IMPACT ON THE DESIGN INTENT AND ALLOW SUFFICIENT TIME FOR SUCH SCHEME TO BE INVESTIGATED OR REVIEWED.

11. PERIODIC SITE OBSERVATION BY THE ENGINEER IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

12. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBERS.

13. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, WALLS, SLABS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF STRUCTURAL ENGINEER.

14. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

15. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

    SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS,
    SIZE AND LOCATION OF INTERIOR AND EXTERIOR NON-LOAD BEARING PARTITIONS, SIZE AND LOCATION OF CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHAMFERS, GROOVES, INSERTS, ETC., SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS, FLOOR AND ROOF FINISHES,
    STAIR FRAMING AND DETAILS, DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, CEILING AND EXTERIOR WALL ASSEMBLIES.

16. SEE THE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

    PIPES, SLEEVES, HANGERS, TRENCHES, WALL, FLOOR AND ROOF OPENINGS, DUCT PENETRATIONS, ETC., EXCEPT AS SHOWN OR NOTED OTHERWISE ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS, CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL, OR PLUMBING FIXTURES, SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES AND ANCHOR BOLTS FOR MOUNTS.

DESIGN CRITERIA

1. DEAD LOAD MATERIALS ASSUMED IN THE DESIGN ARE SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

2. AN ALLOWANCE OF 15 PSF HAS BEEN MADE FOR PARTITIONS AS A UNIFORMLY DISTRIBUTED LIVE LOAD, WHEREVER PARTITIONS ARE USED AND LOCATION SUBJECT TO CHANGE EXCLUDING PUBLIC LOBBIES, CORRIDORS, RESTROOMS, AND PLACES OF PUBLIC ASSEMBLY.

3. LIVE LOADS:

LOCATION	UNIFORM LOAD	CONCENTRATED LOAD
ROOF	20 PSF REDUCIBLE	300 LBS
HANDRAILS AND GUARDRAILS	50 PLF OR 200 LBS APPLIED AT TOP RAIL IN ANY DIRECTION. 50 LBS IN ANY DIRECTION APPLIED AT INTERMEDIATE RAILS.	
GRAB BARS		250 LBS ANY DIRECTION

4. WIND LOADS

ULTIMATE WIND SPEED	129 MPH (3-SEC GUST)
NOMINAL WIND SPEED	100 MPH (3-SEC GUST)
RISK CATEGORY	I
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFF.	+/- 0.18
COMPONENTS & CLADDING	SEE DIAGRAM

5. SEISMIC LOADS

RISK CATEGORY	I
IMPORTANCE FACTOR	1.00
MAPPED ACCELERATION PARAMETERS	
SS	0.066
S1	0.038
SPECTRAL RESPONSE COEFFICIENTS	
SDS	0.07
SD1	0.06
SEISMIC DESIGN CATEGORY	A

6. HANDRAILS, GUARDRAILS AND GRAB BARS (INCLUDING ATTACHMENT TO STRUCTURE) SHALL BE DESIGNED BY THE FABRICATOR FOR THE LOADS INDICATED IN THE REFERENCED BUILDING CODE. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF WHERE THE PROJECT IS LOCATED, REPRESENTING THE FABRICATOR.

FOUNDATION

1. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT (AND ANY ADDENDA) PREPARED BY THE FOLLOWING COMPANY:

   COMPANY HVJ ASSOCIATES, INC.
   REPORT NO. HG1810383.17 –D
   DATED FEBRUARY 09, 2024

   ALL RECOMMENDATIONS THEREIN THAT RELATE TO THE WORK SHOWN ON THESE DRAWINGS SHALL BE FOLLOWED.

2. THE FOUNDATION SYSTEM IS DESIGNED BASED ON THE FOLLOWING

   ALLOWABLE BEARING PRESSURE 2000PSF

3. THE GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER OR OTHER AUTHORIZED INSPECTOR FOR REVIEW OF FOUNDATION BEARING SURFACE, INSPECTION OF FOUNDATION INSTALLATION, AND PLACEMENT OF REINFORCING STEEL. THE CONTRACTOR SHALL NOT PLACE CONCRETE WITHOUT INSPECTOR'S APPROVAL.

4. THE CONTRACTOR SHALL NOTIFY THE AUTHORIZED INSPECTOR 48 HOURS IN ADVANCE OF ANY MAJOR FOUNDATION POUR.

5. FORM EXPOSED FACES OF GRADE BEAMS.

6. GRADE BEAM BOTTOM STEEL SHALL BE CHAIRED AT 5 FOOT MAXIMUM CENTERS USING BEAM BOLSTERS PROVIDING 3 INCH BOTTOM COVER TO REINFORCING STEEL. BEAM BOLSTERS USED SHALL BE INTENDED FOR SUPPORT ON SOIL.

7. BOTTOM BARS OF GRADE BEAM SHALL BE SPLICED (WHERE REQUIRED) AT THE PIERS ONLY. TOP BARS SHALL BE SPLICED (WHERE REQUIRED) AT THE MIDSPAN OF THE GRADE BEAMS. LAP LENGTH SHALL BE 44 TIMES BAR DIAMETER UNLESS SPECIFIED OTHERWISE. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

8. ALL REINFORCING STEEL FOR SLABS SHALL BE CHAIRED WITH SLAB BOLSTERS FOR SUPPORT ON SOIL AT 4'-0" MAXIMUM CENTERS EACH WAY FOR REINFORCING FOR SLABS. DEPTH OF CHAIRS SHALL PROVIDE COVER TO REINFORCING AS NOTED ON PLANS/DETAILS.

9. SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R. PROVIDE (3) #3 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

10. SUBGRADE PREPARATION SHALL CONFORM TO THE SOILS REPORT NOTED ABOVE. IF REPORT DOES NOT SPECIFY THE AMOUNT OF SELECT FILL, PROVIDE FILL AS REQUIRED ABOVE TO REDUCE PVR TO 1 INCH.

11. VAPOR RETARDER SHALL HAVE NO MORE THAN 0.01 PERMS AS TESTED BEFORE AND AFTER MANDATORY CONDITIONING (ASTM E 1745 SECTION 7.1 AND SUB-PARAGRAPHS 7.1.2-5), MEET OR EXCEED THE REQUIREMENTS OF ASTM E 1745 CLASS A AND BE NO LESS THAN 15 MILS THICK.

12. ALL VAPOR RETARDER SEAMS SHALL BE OVERLAPPED A MINIMUM OF 6 INCHES AND TAPED WITH MANUFACTURER'S TAPE. ALL PENETRATIONS, BLOCK-OUTS, AND OPENINGS SHALL BE SEALED USING A COMBINATION OF THE VAPOR RETARDER, MASTIC AND MANUFACTURER'S TAPE. DO NOT PENETRATE VAPOR RETARDER WITH FORMWORK STAKES. USE STEGO BEAST FORM STAKES OR EQUIVALENT WHERE REQUIRED.

13. THE GROUNDWATER LEVELS MAY FLUCTUATE SEASONALLY AND WITH CLIMATIC CHANGES. SEEPAGE OF GROUNDWATER INTO THE EXCAVATIONS IS POSSIBLE AND SEEPAGE FROM "PERCHED" WATER TRAPPED IN THE SOILS MAY ALSO OCCUR. THE CONTRACTOR SHALL MAKE PROVISIONS FOR DEWATERING THE FOOTING EXCAVATION IF GROUNDWATER IS ENCOUNTERED.

14. CONCRETE SHALL BE PLACED AS SOON AS POSSIBLE AFTER THE FOOTING EXCAVATIONS ARE COMPLETED TO REDUCE THE POTENTIAL FOR WATER SEEPAGE AND TO MINIMIZE THE DISTURBANCE TO THE BEARING AREA. IN NO CASE, SHOULD AN EXCAVATION BE LEFT OPEN OVERNIGHT.

STRUCTURAL STEEL

1. ALL ASPECTS OF WORK RELATING TO THE DESIGN, FABRICATION, DETAILING, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF THE AISC STEEL CONSTRUCTION MANUAL LATEST EDITION OF THE ANSI/AWS D1.1

2. STRUCTURAL STEEL MATERIALS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

WIDE FLANGE, CHANNELS	ASTM A992
ANGLES, PLATES, BARS	ASTM A572 GR 50
PIPES	ASTM A53 GR B
HSS (RECTANGULAR OR SQUARE)	ASTM A500 GR B (Fy = 46 KSI) OR GR C (Fy = 50 KSI)

3. SURFACES WHICH ARE TO BE FIREPROOFED WITH SPRAY-ON FIREPROOFING OR EMBEDDED IN CONCRETE SHALL NOT BE SHOP PAINTED. DO NOT PAINT TOP FLANGES OF COMPOSITE BEAMS NOR SURFACES OF MEMBERS WHERE WELDING OR HIGH STRENGTH FRICTION BOLTING WILL OCCUR. COORDINATE ALL SHOP PAINTING OF STRUCTURAL STEEL WITH ARCHITECT'S PAINTING REQUIREMENTS AS SPECIFIED ON THE ARCHITECTURAL DRAWINGS AND IN THE SPECIFICATIONS.

4. IT IS THE INTENTION OF THE PLANS AND SPECIFICATIONS THAT SHOP CONNECTIONS BE WELDED OR BOLTED AND THAT FIELD CONNECTIONS BE BOLTED, UNLESS DETAILED OTHERWISE ON THE DRAWINGS.

5. ALL WELDING SHALL COMPLY TO THE AMERICAN WELDING SOCIETY STANDARD (AWS D1.1). ALL WELDED JOINTS SHALL BE DETAILED AS INDICATED BY THE PREQUALIFIED JOINT DETAILS IN THE STRUCTURAL WELDING CODE. WELD LENGTHS CALLED FOR ON THE PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED. ALL WELDS SHALL USE MINIMUM E70XX ELECTRODES.

6. ALL WELDING SHALL BE PERFORMED BY A WELDER CERTIFIED IN ACCORDANCE WITH THE AWS STANDARDS.

7. MISCELLANEOUS STEEL CONNECTIONS SHALL BE WELDED ALL AROUND WITH AISC MINIMUM FILLET WELD UNLESS A LARGER WELD IS SPECIFIED. STEEL MEMBERS CONTINUOUSLY ATTACHED SHALL BE STITCH WELDED TOGETHER WITH AISC MINIMUM 2" LONG FILLET WELD AT 12" O.C. UNLESS A LARGER WELD OR DIFFERENT GAGE IS SPECIFIED.

8. ALL STEEL EXPOSED TO WEATHER OR OUTSIDE THE BUILDING'S WATERPROOFING, SUCH AS BRICK SHELF ANGLES, SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION AS SPECIFIED BY THE STEEL STRUCTURES PAINTING COUNCIL (SSPC). THE ZINC COATING FOR STEEL SHAPES AND PLATES SHALL AVERAGE NOT LESS THAN 2.3 OZ. WITH NO INDIVIDUAL THICKNESS LESS THAN 2.0 OZ.

9. GALVANIZE ALL NUTS, BOLTS, AND WASHERS USED IN THE CONNECTION OF GALVANIZED STEEL.

10. GALVANIZED MEMBERS SHALL HAVE "Z.R.C. COLD GALVANIZING COMPOUND OR APPROVED EQUIVALENT APPLIED TO FIELD WELDED CONNECTIONS. SURFACE AREAS TO RECEIVE COLD GALVANIZING COMPOUND SHALL BE CLEAN OF DIRT AND DEBRIS PRIOR TO COMPOUND APPLICATION. SEE MANUFACTURER'S LITERATURE FOR ADDITIONAL RECOMMENDATIONS.

11. THE APPLICATION OF THE FIREPROOFING TO THE STEEL MEMBERS AND STEEL DECK IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST ENFORCE THE REQUIREMENTS OF THE MANUFACTURER AND NOT IMPOSE ADDITIONAL LOADS, INCLUDING CONSTRUCTION LIVE LOADS, DURING THE APPLICATION AND CURING OF THE FIREPROOFING.

12. IN ADDITION TO ALL OF THE STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET HALF TON OF STEEL TO BE FURNISHED, FABRICATED, DETAILED, AND ERECTED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

13. THE CONTRACTOR SHALL MAKE AN ALLOWANCE FOR THE ADJUSTMENT AND DETAILING OF STEEL DURING THE SHOP DRAWING REVIEW PROCESS.

CONCRETE

1. ALL ASPECTS OF WORK RELATING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CURRENT EDITION OF ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
   CRSI MANUAL OF STANDARD PRACTICE

2. STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTHS AND TYPES ARE AS FOLLOWS:

LOCATION	STRENGTH	TYPE	AGGREGATE SIZE	EXPOSURE CLASS
FOUNDATIONS	3000 PSI	NORMAL WT	1 1/2"	F0, S0, W0, C0

3. THERE SHALL BE NO HORIZONTAL COLD JOINT IN ANY CONCRETE POUR.

4. ADMIXTURES USED SHALL BE COMPATIBLE WITH FLOOR TREATMENTS. FINISH APPLICATOR SHALL APPROVE ADMIXTURES AND CURING COMPOUNDS PRIOR TO USE.

5. EXPOSURE CLASSES FOR FREEZING AND THAWING (F), SULFATE (S), WATER (W), AND CORROSION PROTECTION (C) HAVE BEEN PROVIDED. CONCRETE MIXES SHALL CONFORM TO ALL ACI 318 REQUIREMENTS BASED ON EXPSURE CLASS, INCLUDING, BUT NOT LIMITED TO WATER CEMENT RATIO, COMPRESSION STRENGTH, AIR CONTENT, CEMENTITIOUS MATERIALS, CALCIUM CLORIDE ADMIXTURES, AND WATER-SOLUABLE CHLORIDE ION CONTENT.

6. CONCRETE FOR SLAB-ON-GRADE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.45. ALL OTHER CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.50. ADJUST CONCRETE STRENGTH BEYOND MINIMUM SPECIFIED ABOVE TO MAINTAIN MAXIMUM WATER-CEMENT RATIO.

7. CONCRETE FOR SLAB-ON-GRADE AND METAL DECK SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.04% (400 MICROSTATIONS) AT 28 DAYS OF DRYING. LENGTH CHANGE SHALL BE MEASURED IN ACCORDANCE WITH ASTM C157.

8. FLY ASH CONFORMING TO ASTM C618, MAY BE USED UNLESS NOTED OTHERWISE. THE MAXIMUM AMOUNT OF FLY ASH SHALL BE 25% OF THE TOTAL CEMENTITIOUS MATERIAL BY WEIGHT.

9. AT POLISHED OR STAINED CONCRETE THE FLOOR FLATNESS (FF) SHALL BE 40 OR BETTER AND THE FLOOR LEVELNESS (FL) SHALL BE 30 OR BETTER UNLESS MORE STRINGENT REQUIREMENTS ARE PROVIDED IN THE SPECIFICATIONS.

10. CONCRETE FORMS SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS INDICATED ON THE STRUCTURAL DRAWINGS.

11. CONCRETE FOR SLABS TO RECEIVE A HARD-TROWELED FINISH SHALL NOT CONTAIN AIR-ENTRAINING ADMIXTURES OR HAVE A TOTAL AIR CONTENT GREATER THAN 3 PERCENT.

12. SUBMIT SHOP DRAWINGS TO ARCHITECT AND ENGINEER INDICATING LOCATIONS OF CONCRETE JOINTS TO REVIEW PRIOR TO PLACING CONCRETE. PLACE JOINTS AT LOCATIONS TO MINIMIZE THE EFFECTS OF SHRINKAGE AS WELL AS BEING PLACED AT POINTS OF LOW STRESS.

13. ROUGHEN CONCRETE SURFACES TO 1/4 INCH AMPLITUDE WHERE MASONRY WALLS INTERSECT CONCRETE OR WHERE NEW CONCRETE INTERFACES WITH EXISTING CONCRETE.

14. MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB-ON-GRADE, CONCRETE ON METAL DECK, FRAMED CONCRETE FLOORS, AND WALLS DO NOT REQUIRE SLEEVES UNLESS NOTED OTHERWISE ON THE PROJECT SPECIFICATIONS, MECHANICAL OR ELECTRICAL DRAWINGS. IF SLEEVES ARE REQUIRED, INSTALL SLEEVES BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE ARCHITECT AND ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. NO PIPES OR ELECTRICAL CONDUIT SHALL PASS THROUGH CONCRETE BEAMS OR COLUMNS UNLESS SPECIFICALLY DETAILED.

15. WITH THE EXCEPTION OF SLABS ON GRADE AND CONCRETE ON METAL DECK, THE OUTSIDE DIAMETER OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS (OTHER THAN THOSE PASSING THROUGH) SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS AND SHALL BE CENTERED BETWEEN THE TOP AND BOTTOM REINFORCING UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF MECHANICAL PIPES AND/OR ELECTRICAL CONDUITS SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED. CONDUIT AND PIPE SHALL BE SPACED AT 3" OR 3 DIAMETERS ON CENTER, WHICHEVER IS GREATER.

16. FOR SLABS ON GRADE AND METAL DECK SLABS NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB UNLESS SPECIFICALLY DETAILED OTHERWISE.

17. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING WHEN TEMPORARY SUPPORTS, SHORES, BACKSHORES, AND OTHER BRACING MAY BE SAFELY REMOVED.

REINFORCING STEEL

1. ALL ASPECTS OF WORK RELATING TO THE REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   CURRENT EDITION OF ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   CRSI MANUAL OF STANDARD PRACTICE

2. DEFORMED BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.

3. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185, YIELD STRENGTH 65,000 PSI. WELDED DEFORMED WIRE FABRIC FOR ASTM A497, YIELD STRENGTH 70,000 PSI. ALL WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS ONLY. WHEREVER WELDED WIRE FABRIC IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED ONE CROSS WIRE SPACING PLUS 2 INCHES.

4. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ONE HALF, WHICHEVER IS GREATER.

5. WELDING OF REINFORCING IS PERMITTED ONLY WHERE SHOWN ON THE DRAWINGS OR WHEN APPROVED BY THE ENGINEER OF RECORD. WELDING OF REINFORCING BARS SHALL BE WITH LOW HYDROGEN ELECTRODES IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF AWS D1.4.

6. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.

7. REINFORCING DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME NUMBER, SIZE, SPACING, AND GRADE AS THE SPECIFIED VERTICAL REINFORCING, UNO.

8. IN ADDITION TO ALL OF THE REINFORCING STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF A NET NET HALF TON OF REINFORCING BARS TO BE FURNISHED, FABRICATED, AND PLACED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE ENGINEER OF RECORD.

9. CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS SHALL BE AS FOLLOWS:

LOCATION OF CONCRETE	MINIMUM COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #18 BAR	2"
#5 BAR AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND	
SLABS, WALLS, JOISTS	3/4"
BEAMS, COLUMNS (INCLUDING TIES)	1 1/2"
SLAB ON GRADE	SEE DETAILS
PRESTRESSED CONCRETE	SEE IBC 1907.7.3

SUBMITTALS

1. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:

   CONCRETE MIX DESIGNS AND ACCESSORIES
   MISCELLANEOUS STEEL
   REINFORCING STEEL

   ITEMS MARKED (*) SHALL HAVE SHOP DRAWINGS SEALED BY A REGISTERED ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED. ITEMS MARKED (#) SHALL BE SUBMITTED TO ENGINEER FOR OWNER'S RECORD ONLY AND WILL NOT HAVE ENGINEER'S SHOP DRAWING STAMP. ITEMS MARKED (*) SHALL HAVE SEALED STRUCTURAL CALCULATIONS SUBMITTED TO ENGINEER FOR OWNER'S RECORD.

2. ALL SHOP DRAWINGS MUST BE REVIEWED AND SEALED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.

3. CONTRACTOR SHALL SUBMIT ELECTRONIC COPIES (E.G. PDFS) OF ALL SHOP DRAWINGS SPECIFIED TO BE RETURNED BY THE ENGINEER.

4. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIAL REQUIRED BY THE CONTRACT DOCUMENTS TO BE FURNISHED SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.

5. SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN CONSTRUCTION ON THE PROJECT.

6. THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREIN AS CORRECT, AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREIN.

SPECIAL INSPECTION

1. ALL ASPECTS OF WORK RELATING TO SPECIAL INSPECTION SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS:

   2021 INTERNATIONAL BUILDING CODE (CHAPTER 17).

2. THE OWNER'S SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

3. PRIOR TO THE BEGINNING OF CONSTRUCTION, THE ARCHITECT (OR ENGINEER) SHALL CALL A PRE-CONSTRUCTION MEETING WITH THE ARCHITECT, ENGINEER, BUILDING OFFICIAL, CONTRACTOR AND SPECIAL INSPECTORS TO REVIEW THE SPECIAL INSPECTION REQUIREMENTS.

4. DUTIES OF THE OWNER'S SPECIAL INSPECTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. ACKNOWLEDGE THE SPECIAL INSPECTION AND TESTING AGREEMENT PROVIDED BY THE LOCAL JURISDICTION.

   B. THE OWNER'S SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND TO THE BUILDING OFFICIAL.

   C. THE OWNER'S SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, ARCHITECT, REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, CONTRACTOR AND (OTHER DESIGNATED PARTIES), IN A TIMELY MANNER, AS ESTABLISHED AT THE PRE-CONSTRUCTION MEETING.

   D. THE OWNER'S SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE.

5. DUTIES OF THE CONTRACTOR INCLUDE (BUT ARE NOT LIMITED TO):

   A. NOTIFY THE SPECIAL INSPECTOR THAT THE WORK IS READY FOR INSPECTION AT LEAST 24 HOURS BEFORE SUCH INSPECTION.

   B. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED AND INDICATED TO BE IN CONFORMANCE BY THE SPECIAL INSPECTOR AND APPROVED BY THE BUILDING OFFICIAL.

   C. PROVIDE THE SPECIAL INSPECTOR WITH ACCESS TO APPROVED CONSTRUCTION DOCUMENTS AT JOBSITE.

   D. MAINTAIN AT THE JOBSITE COPIES OF ALL REPORTS SUBMITTED BY THE SPECIAL INSPECTOR.

6. CONTINUOUS SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS CONTINUOUSLY PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED.

7. PERIODIC SPECIAL INSPECTION REFERS TO INSPECTIONS BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.

8. SPECIAL INSPECTIONS AND TESTING SHALL BE REQUIRED FOR THE FOLLOWING TYPES OF WORK LISTED BELOW. SPECIAL INSPECTIONS AND TESTING SHALL FOLLOW THE REQUIREMENTS OF THE BUILDING AND MATERIAL CODE REFERENCES AND TABLES. IN THE EVENT OF A CONFLICT BETWEEN REFERENCES, THE OWNER'S SPECIAL INSPECTOR SHALL FOLLOW THE MORE STRINGENT REQUIREMENT.

SOILS	IBC 1705.6 AND TABLE 1705.6, APPROVED GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS
CAST-IN-PLACE DEEP FOUNDATIONS	IBC 1705.8 AND TABLE 1705.8 APPROVED GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS
CONCRETE	IBC 1705.3 AND TABLE 1705.3
STEEL	IBC 1705.2 AND T

ABBREVIATIONS

ABBR.	ABBREVIATION
A.F.F.	ABOVE FINISH FLOOR
ADDN'L	ADDITIONAL
AHU	AIR HANDLING UNIT
ALT.	ALTERNATE
ANCH.	ANCHOR
A.B.	ANCHOR BOLT
A.R.	ANCHOR ROD
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT(URAL)
BM.	BEAM
BRG.	BEARING
BTW	BETWEEN
BOT.	BOTTOM
B.F.B.	BOTTOM FLANGE BRACE
B.O.	BOTTOM OF
BRDG.	BRIDGING
BLDG	BUILDING
C	CAMBER
CANT.	CANTILEVER
C.I.P.	CAST IN PLACE
C/C	CENTER TO CENTER
CL	CENTERLINE
CH	CHANNEL
CLR.	CLEAR(ANCE)
CFMF	COLD FORMED METAL FRAMING
COL.	COLUMN
CJP	COMPLETE JOINT PENETRATION
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONST.	CONSTRUCTION
C.J.	CONSTRUCTION / CONTRACTION JOINT
CONT.	CONTINUOUS
COORD.	COORDINATE
DL	DEAD LOAD
DBA	DEFORM BAR ANCHOR
D	DEPTH
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
DWL	DOWEL
D.N.	DOWN
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
E.W.	EACH WAY
EL.	ELEVATION
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
ENGR.	ENGINEER
EOR	ENGINEER OF RECORD
EQ.	EQUAL
EQUIP.	EQUIPMENT
EQUIV.	EQUIVALENT
EXIST.	EXISTING
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
f'c=	28 DAY CONCRETE STRENGTH
FAB.	FABRICATE
F.S.	FAR SIDE
FIN	FINISH/FINISHED
FLR	FLOOR
F.D.	FLOOR DRAIN
FTG.	FOOTING
Fy=	YIELD STRENGTH
GALV.	GALVANIZED
GA.	GAUGE
GEN	GENERAL
G.C.	GENERAL CONTRACTOR
GFRC	GLASS FIBER REINFORCED CONCRETE
GR.	GRADE/GRADING
HGR.	HANGER
HSA	HEADED STUD ANCHOR
HI	HIGH
HSS	HOLLOW STRUCTURAL SECTION
HORIZ. OR (H)	HORIZONTAL
H	HORIZONTAL REACTION
IN	INCH
INFO.	INFORMATION
ID	INSIDE DIAMETER
I.F.	INSIDE FACE
INT.	INTERIOR
JT.	JOINT
JST.	JOIST
K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
Ld	DEVELOPMENT LENGTH
LWC	LIGHTWEIGHT CONCRETE
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLV	LONG LEG VERTICAL
LLH	LONG LGE HORIZONTAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LONG	LONGITUDINAL
LO	LOW
LBS	POUNDS
MFR. / MNFR.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM

MECH.	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M	MOMENT
M.C.	MOMENT CONNECTION
N.S.	NEAR SIDE
NWC	NORMAL WEIGHT CONCRETE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
O.C.	ON CENTER(S)
OPNG.	OPENING
OPP.	OPPOSITE
OPH.	OPPOSITE HAND
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OA	OVERALL
O.H.	OVERHEAD
OVS.	OVERSIZED HOLE
P	AXIAL LOAD
P.J.	PANEL JOINT
PAR.	PARALLEL
PRKG.	PARKING
PJP	PARTIAL JOINT PENETRATION
PVMT	PAVEMENT
PVG	PAVING
PERP.	PERPENDICULAR
PL.	PLATE
PLBG	PLUMBING
PT	POST-TENSION(ED)
PCF	POUNDS PER CUBIC FOOT/FEET
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT/FEET
PSI	POUNDS PER SQUARE INCH
P/C	PRECAST CONCRETE
PRELIM.	PRELIMINARY
P.L.	PROPERTY LINE
QTY	QUANTITY
R	RADIUS, REACTION, REMAINDER
REC.	RECESSED
RE:	REFER TO
REF.	REFERENCE
REINF.	REINFORCED / REINFORCING
REBAR	REINFORCING BAR
REQ'D	REQUIRED
REV.	REVISION
R.D.	ROOF DRAIN
RTU	ROOF TOP UNIT
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SLBB	SHORT LEG BACK TO BACK
SIM.	SIMILAR
SC	SLIP CRITICAL, SHEAR CONNECTOR
SPA.	SPACING
SPEC.	SPECIFICATION
SQ.	SQUARE
SF.	SQUARE FOOT/FEET
STD	STANDARD
STL	STEEL
STIFF.	STIFFENER
STIR.	STIRRUP
STRUCT.	STRUCTURE/STRUCTURAL
TEMP.	TEMPERED
THK	THICK(NESS)
t	THICKNESS, TREAD
THD	THREADED
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
VERT. OR (V)	VERTICAL
WT.	WEIGHT
WWR	WELD WIRE REINF.
WF	WIDE FLANGE
W	WIDTH
WL	WIND LOAD
W.P.	WORK POINT
XXS	DOUBLE EXTRA STRONG
XS	EXTRA STRONG
&	AND
≈	APPROXIMATELY EQUAL
@	AT
°	DEGREE
=	EQUAL
≥	GREATER THAN or EQUAL
≤	LESS THAN or EQUAL
#	NUMBER or POUNDS
/	PER
±	PLUS or MINUS
Ø	ROUND/DIAMETER

SYMBOLS LEGEND

SYMBOLS	DESCRIPTION
N	NORTH ARROW
XX S-X.XX	ENLARGE FLOOR PLAN REFERENCE OR ENLARGE DETAIL REFERENCE
XX S-X.XX	DETAIL SECTION (STRUCTURAL)
XX/SX.XX	BRACING ELEVATION
11 5/8" / 5"	DIMENSIONS
XX/S-X.XX / XX/S-X.XX	MATCHLINE
1	REVISION NUMBER & AFFECTED AREA
LEVEL NAME 0' - 0"	VERTICAL ELEVATION
EX: 152' - 6"	EXISTING ELEVATION
152' - 6"	NEW ELEVATION
	M.C. OR MOMENT CONNECTION
	DEPRESSION
	PANEL WALL TAG
12/36	BELL DIAMETER (IN) / BELLED PIER / SHAFT DIAMETER (IN)
P1	PILE SHAFT
F3	FOOTING

STRUCTURAL SHEET INDEX

SHEET NUMBER	SHEET NAME	Current Revision
S1.01-W	GENERAL NOTES	
S1.02-W	GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX	
S2.01-W	FOUNDATION SITE DETAILS	
Grand total: 3		

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77056-2401
Tel: 713.664.0130

NSE - 25014

BP-012 FIELD HOUSE AND ATHLETIC RENOVATIONS

1220 Buffalo Run, Missouri City, TX 77489

THURGOOD MARSHALL HIGH SCHOOL

FBISD
INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
137122
LICENSED
PROFESSIONAL
12/04/2025

ASCE Hazards Report

Address: 1220 Buffalo Run Missouri City, Texas 77489
Standard: ASCE/SEI 7-16
Risk Category: I
Soil Class: D - Default (see Section 11.4.3)
Latitude: 29.61144
Longitude: -95.522532
Elevation: 73.394277122238 ft (NAVD 88)





Wind

Results:

Wind Speed	129 Vmph
10-year MRI	77 Vmph
25-year MRI	92 Vmph
50-year MRI	105 Vmph
100-year MRI	115 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1A and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Thu Jun 12 2025

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 15% probability of exceedance in 50 years (annual exceedance probability = 0.00333, MRI = 300 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

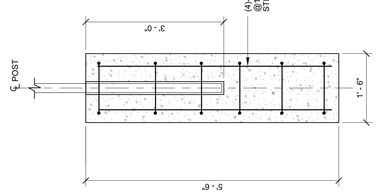
No.	Date	Description
	12/04/2025	100% CD

100% CD

S1.02-W

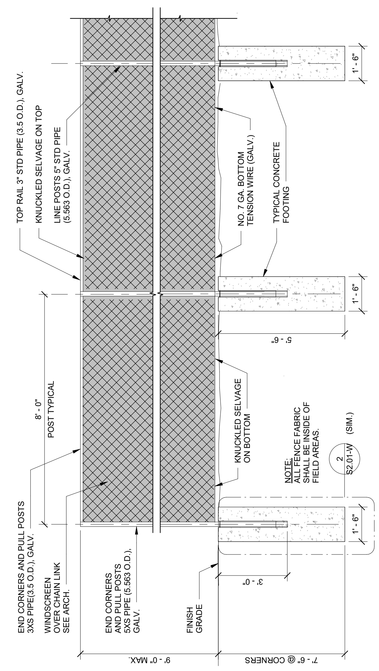
GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND SHEET INDEX

12/3/2025 11:01:58 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_WILLOWRIDGE_STRUCT_R25.rvt



FENCE DETAIL

2 SCALE: N.T.S.



CHAIN LINK FENCE WITH WINDSCREEN

5 SCALE: N.T.S.

MATRIX STRUCTURAL
5177 Richmond Avenue, Suite 670
Houston, TX 77046-2401
Tel: 713.664.0130
MSE - 25074

BP-012 FIELD HOUSE AND ATHLETIC RENOVATIONS
1220 Buffalo Run, Missouri City, TX 77489
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FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

Matrix Structural Engineers
TBPE Firm Registration No. F-2640
STATE OF TEXAS
KHALIL TABAJA
12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: RJC CHECKED BY: KT
REVISIONS:

No.	Date	Description
	12/04/2025	100% CD

100% CD
S2.01-W
FOUNDATION SITE DETAILS

12/3/2025 11:01:59 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25074_WILLOWRIDGE_STRUCT_R25.rvt

ABBREVIATIONS

A	
A.F.F.	ABOVE FINISH FLOOR
ACC.FL.	ACCESS FLOOR
A.P.	ACCESS PANEL
ACOUS.	ACOUSTICAL
ACT.	ACOUSTICAL CEILING TILE
ADD.	ADDENDUM
ADJNT.	ADJACENT
ADJ.	ADJUSTABLE
ADMIN.	ADMINISTRATION
AGG.	AGGREGATE
A/C	AIR CONDITIONING
ALT.	ALTERNATE, ALTERNATIVE
ALUM.	ALUMINUM
ANCH.	ANCHOR, ANCHORAGE
ANOD.	ANODIZED
APPROX.	APPROXIMATE
ARCH.	ARCHITECT
A.D.	AREA DRAIN
ASPH.	ASPHALT
AUTO.	AUTOMATIC
B	
BSMT.	BASEMENT
BM.	BENCH MARK
BTWN.	BETWEEN
BEV.	BEVEL
BIT.	BITUMINOUS
BLK.	BLOCKING
BD.	BOARD
B.S.	BOTH SIDES
B.W.	BOTH WAYS
B.O.D.	BOTTOM OF DECK
BRK.	BRACKET
BRZ.	BRONZE
BLDG.	BUILDING
BUR.	BUILT UP ROOFING
C	
CAB.	CABINET
CPT.	CARPET
CSMT.	CASEMENT
CIP.	CAST IN PLACE CONCRETE
C.B.	CATCH BASIN
CLG.	CEILING
CLG. HT.	CEILING HEIGHT
CEM.	CEMENT
CL	CENTERLINE
CT	CERAMIC TILE
C.O.	CLEAN OUT
CLR.	CLEAR(ANCE)
CLO.	CLOSET
COL.	COLUMN
COMPT.	COMPARTMENT
COMPR.	COMPRESS
COMP.	COMPUTER
CONC.	CONCRETE
CMU.	CONCRETE MASONRY UNIT
CONST.	CONSTRUCTION
CONT	CONTINUOUS
CONTR.	CONTRACT/CONTRACTOR
CFCI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
C.J.	CONTROL JOINT
CPR.	COPPER
CG.	CORNER GUARD
CORR.	CORRIDOR
CTR.	COUNTER
C. FL.	COUNTER FLASHING
CTR. SNK.	COUNTER SUNK
CRS.	COURSE
CU. FT.	CUBIC FEET
CU. YD.	CUBIC YARD
D	
D.P.	DAMP PROOFING
DPR.	DAMPER
DL.	DEAD LOAD
DEMO.	DEMOLISH, DEMOLITION
DEP.	DEPRESS
DTL.	DETAIL
DIAG.	DIAGONAL
DIAM.	DIAMETER
DW.	DISH WASHER
DISPR.	DISPENSER
DIV.	DIVISION
DR.	DOOR
DBL.	DOUBLE
DH.	DOUBLE HUNG
DN.	DOWN
DS.	DOWNSPOUT
DRN.	DRAIN
DRN. BD.	DRAIN BOARD
DRN. TL.	DRAIN TILE
DWR.	DRAWER
DWG.	DRAWING
DF	DRINKING FOUNTAIN
E	
EA	EACH
EA. FA.	EACH FACE
E.	EAST
ELEC.	ELECTRIC
EDF.	ELECTRIC DRINKING FOUNTAIN
EP.	ELECTRICAL PANEL
ELEV.	ELEVATION
EMERG.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EXCAV.	EXCAVATE
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EJ	EXPANSION JOINT
EXT.	EXTERIOR
EPS	EXTRUDED POLY STYRENE
F	
FAB	FABRICATED
FV.	FIELD VERIFY
FIN.	FINISH
FIN. FLR.	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FA.	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FE.	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHS.	FIRE HOSE CABINET
FPL.	FIRE PLACE
FP.	FIRE PROOFING
FRC.	FIRE RESISTANT COATING
F. RT.	FIRE RETARDANT
FLSHG.	FLASHING
FLEX	FLEXIBLE
FLR.	FLOOR
FLR. C.O.	FLOOR CLEAN OUT
FD.	FLOOR DRAIN
FLR. JT.	FLOOR JOINT
FLR. PLT.	FLOOR PLATE
FLOUR.	FLUORESCENT
FTG.	FOOTING
FRMG.	FRAMING
FBO.	FURNISHED BY OWNER
FURR.	FURRED (ING)
FUT.	FUTURE
FRG.	REFRIGERATOR
G	
GALV.	GALVANIZED
GSKT.	GASKET
GA.	GAUGE
GC.	GENERAL CONTRACTOR
GLS.	GLASS
GL. BLK.	GLASS BLOCK
GL. CMU.	GLAZED CONCRETE MASONRY UNIT
GST.	GLAZED STRUCTURAL TILE
GB.	GRAB BAR
GBLK.	GREEN BLOCK
GRT.	GROUT
GYPCTE.	GYPCRETE
GYP. PL.	GYPSUM PLASTER
GYP. T.	GYPSUM TILE
GWB.	GYPSUM WALL BOARD
H	
HD. BD.	HARD BOARD
HD. JT.	HARD JOINT
HDW.	HARDWARE
HDWD.	HARDWOOD
HDR.	HEADER
HTG.	HEATING
HVAC.	HEATING, VENTILATION, AIR CONDITIONING
HVY. D.	HEAVY DUTY
HT.	HEIGHT
HC.	HOLLOW CORE
HM.	HOLLOW METAL
HORIZ.	HORIZONTAL
HB.	HOSE BIB
HWH.	HOT WATER HEATER
HR.	HOUR
I	
INCL.	INCLUDE
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INTERM.	INTERMEDIATE
INV.	INVERT
J	
JAN.	JANITOR
J.C.	JANITORS CLOSET
JT.	JOINT
JF.	JOINT FILLER
JST.	JOIST
K	
K. PL.	KICK PLATE
KIT.	KITCHEN
K.O.	KNOCK OUT
L	
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LH.	LEFT HAND
LC.	LIGHT CONTROL
LT. INT.	LIGHT INSIGHT
LT.	LIGHT, RE: ELECTRICAL
LT. CONC.	LIGHTWEIGHT CONCRETE
LMSTN	LIMESTONE
LTL.	LINTEL
LL.	LIVE LOAD
LB.	LOAD BEARING
LPT.	LOW POINT
M	
MH.	MAN HOLE
MFR.	MANUFACTURE
MRB.	MARBLE
MB	MARKER BOARD
MAS.	MASONRY
M.O.	MASONRY OPENING
MU	MASONRY UNIT
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP	MECHANICAL/ELECTRICAL/ PLUMBING
M.C.	MEDICINE CABINET
MEMB.	MEMBRANE
MTL.	METAL
MFD.	METAL FLOOR DECK
MRD.	METAL ROOF DECK
M. THR.	METAL THRESHOLD
MWK.	MILLWORK
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MOD.	MODULAR
MLDG.	MOLDING
MT.	MOUNT
MTD.	MOUNTED
MOV.	MOVE
MULL.	MULLION
N	
NAT.	NATURAL
NR.	NOISE REDUCTION
NOM.	NOMINAL
N.	NORTH
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
O	
OC.	ON CENTER
OCEW	ON CENTER EACH WAY
OPG.	OPENING
OPP.	OPPOSITE
OH	OPPOSITE HAND
OH.	OPPOSITE HAND
O.A.	OVER ALL
OVRHD.	OVER HEAD
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	
PNT.	PAINT
PTD.	PAINTED
PNL.	PANEL
PB.	PANIC BAR
PTDIS.	PAPER TOWEL DISPENSER
PTR.	PAPER TOWEL RECEPTACLE
PAR.	PARALLEL
PKG.	PARKING
P. BD.	PARTICLE BOARD
PARTN.	PARTITION
PVT.	PAVEMENT
PERF.	PERFORATED
PERIM.	PERIMETER
PLAS.	PLASTER
PLAM	PLASTIC LAMINATE
PL.	PLATE
PLY.	PLYWOOD
PVC.	POLYVINYL CHLORIDE
PREFAB.	PREFABRICATED
PREFIN.	PREFINISHED
P.L.	PROPERTY LINE
Q	
QT.	QUARRY TILE
R	
RAD.	RADIUS
REF.	REFERENCE
RFL.	REFLECTED
REG.	REGISTRAR
REINF.	REINFORCING
REM.	REMOVE
REQ'D.	REQUIRED
RES.	RESILIENT
RET.	RETURN
RA.	RETURN AIR
RVS.	REVERSE
REV.	REVISION
RH.	RIGHT HAND
R.O.W.	RIGHT OF WAY
RD.	ROOF DRAIN
RF. HT.	ROOF HEIGHT
RFG.	ROOFING
RM.	ROOM
RO.	ROUGH OPENING
RB.	RUBBER BASE
S	
SF. GL.	SAFETY GLASS
SCHED.	SCHEDULE
SLNT.	SEALANT
STG.	SEATING
SCTN.	SECTION
SHTH.	SHEATHING
SHT.	SHEET
SH. GL.	SHEET GLASS
SHR.	SHORING
SIM.	SIMILAR
SKYLT.	SKYLIGHT
SLV.	SLEEVE
SC.	SOLID CORE
SCW	SOLID CORE WOOD
S.	SOUTH
SPCR.	SPACER
SPKR.	SPEAKER
SPEC.	SPECIFICATIONS
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STA.	STATION
STL.	STEEL
STN.	STONE
STOR.	STORAGE
SD.	STORM DRAIN
STRUCT.	STRUCTURE (TURAL)
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
SYN.	SYNTHETIC
SYS.	SYSTEM
T	
TB.	TACK BOARD
TK. STP.	TACK STRIP
TEL.	TELEPHONE
TV	TELEVISION
THK.	THICK
THR.	THRESHOLD
TO. COL.	TOP OF COLUMN
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.J.	TOP OF JOIST
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
TG.	TOUNG AND GROOVE
TR.	TREAD
TYP.	TYPICAL
U	
UC.	UNDER CUT
UNFIN.	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR.	URINAL
V	
VB.	VAPOR BARRIER
VAR.	VARIES
VNR.	VENEER
VIF.	VERIFY IN FIELD
VERT.	VERTICAL
VG.	VERTICAL GRAIN
VIN.	VINYL
VIN. B.	VINYL BASE
VCT	VINYL COMPOSITION TILE
VIN. F.	VINYL FABRIC
VIN. T.	VINYL TILE
W	
WSCT.	WAINSCOT
WH.	WALL HUNG
WC.	WATER CLOSET
WPRF.	WATER PROOFING
WRP.	WATER REPELLENT
WS.	WATER STOP
WWF.	WELDED WIRE FABRIC
WWM.	WELDED WIRE MESH
W.	WEST
WDW.	WINDOW
WGLS.	WIRE GLASS
WM.	WIRE MESH
W.	WITH
WO.	WITHOUT
WD.	WOOD
WD. B.	WOOD BASE
W. PT.	WORKING POINT

SYMBOLS & LEGENDS

ARCHITECTURAL DRAWING SYMBOLS

- Name / 101 / 150 SF — ROOM TAG WITH ROOM FINISH
- Name / 101 / XXX SF/ XXX(P) — ROOM TAG WITH OCCUPANCY SF=SQUARE FEET P=PEOPLE
- 101 — DOOR TAG
- XX1 — PARTITION TAG
- HOLLOW METAL FRAME TAG
- 1 — ALUMINUM FRAME TAG
- EXPANSION JOINT
- 21 / A101 SIM. — ENLARGED CALL OUT
- SIM, 1, A101 — BUILDING SECTION TAG
- SIM, 1, A101 — WALL SECTION TAG
- SIM, 1, A101 — DETAIL SECTION TAG
- Ref, 20, A101 — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- 15/ A 9.24 — VIEW REFERENCE DETAIL
- Elevation Name — ELEVATION/ LEVEL TAG
- AB — COLUMN GRID
- 5' DIAMETER ADA TURN AROUND
- REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC P RQ R EQ — EXIT POINT WITH WIDTH INDICATED IN INCHES OCCUPANT LOAD SHOWN VERTICAL P=PROVIDED EXIT WIDTH OF EGRESS COMPONENT R=REQUIRED EXIT WIDTH OF EGRESS COMPONENT
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- CENTER LINE
- MATCH LINE
- ITEM SHOWN IS ABOVE/BELOW OR TO BE REMOVED(ON DEMO SHTS) U.N.O.
- PROPERTY LINE
- BREAK LINE
- LONGEST TRAVEL DISTANCE TO EXIT
- BUILDING EXIT

WALL LEGEND

- EXISTING WALL TO REMAIN
- METAL STUD PARTITION
- CMU PARTITION
- 1 HR WALL CONSTRUCTION
- 1 HR CMU WALL CONSTRUCTION
- 2 HR WALL CONSTRUCTION
- 2 HR CMU WALL CONSTRUCTION

MATERIALS LEGEND

- EARTH (COMPACTED)
- POUROUS FILL (STONE OR GRAVEL)
- CONCRETE
- PLASTER/SAND/CEMENT/ GROUT
- BRICK (COMMON OR FACE)
- CONCRETE MASONRY UNIT (CMU)
- METAL (LARGE SCALE)
- METAL (SMALL SCALE)
- BATT INSULATION
- RIGID BOARD OR SPRAY FOAM INSULATION
- ROUGH WOOD (CONTINUOUS)
- ROUGH WOOD (NON-CONTINUOUS)
- FINISH WOOD
- PLYWOOD

PROJECT GENERAL NOTES

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A WATERTIGHT & WEATHERTIGHT BUILDING
2. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE A PLUM, LEVEL AND SQUARE STRUCTURE UNLESS OTHERWISE NOTED ANY DEVIATION FROM THIS GENERAL INTENT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
3. THE BUILDING SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL THE APPLICABLE CODES, ORDINANCES AND REGULATIONS AS WELL AS THE DRAWINGS & SPECIFICATION. ANY CODE DEFICIENCIES IN THE DRAWINGS RECOGNIZED BY THE CONTRACTOR SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
4. THE CONTRACTOR SHALL VISIT PROJECT SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ANY AMBIGUOUS ITEMS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO SUBMITTING PROPOSAL.
5. THE CONTRACTOR IS TO COMPLY WITH FEDERAL, STATE, AND LOCAL CODES REQUIREMENTS, AND COMPLETE TEXAS HEALTH DEPARTMENT NOTIFICATIONS AND SUBMIT FORMS AND REQUIRED INFORMATION TO MEET * TEXAS COMMISSION ON ENVIRONMENTAL QUALITY* (TCEQ) REQUIREMENTS PRIOR TO START OF PROJECT
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF THE BUILDING ON THE SITE AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE BIDDING THE PROJECT OR THE COMMENCEMENT OF WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR CHANGES TO THE WORK DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HIS/HER SELF WITH EXISTING CONDITIONS
7. DO NOT SCALE DRAWINGS: ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE AND BE FIELD VERIFIED AND COORDINATED WITH WORK OF ALL TRADES. IF NO DIMENSIONS ARE GIVEN OR DISCREPANCIES FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION BEFORE BIDDING OR COMMENCING THE WORK.
8. DETAILS ARE INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, ALL INCLUDED AS PART OF THE WORK.
9. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
10. THE CONTRACTOR SHALL VERIFY THE SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS AND BASES, AS WELL AS POWER, WATER AND DRAIN REQUIREMENTS FOR SUCH EQUIPMENT WITH EQUIPMENT MFG. DEVIATION OF BEFORE MENTIONED REQUIREMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION
11. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE WITH THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. REVIEW ALL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
12. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
13. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
14. PROVIDE FIRE STOPS WHEREVER INTERIOR AND EXTERIOR WALLS AND PARTITIONS INTERSECT FLOORS, CEILINGS, AND ROOFS. ALSO PROVIDE AT ALL OPENINGS AROUND PENETRATIONS TO PREVENT VERTICAL & HORIZONTAL COMMUNICATION OF FIRE ALONG LINES OF CORRIDORS, OCCUPANCY CHANGES, AND SIMILAR SEPARATIONS.
15. ALL WALL WIDTHS ARE SHOWN AND DIMENSIONED WITH ACTUAL DIMENSIONS. DIMENSIONS FOR FRAMED WALLS ARE SHOWN TO FACE OF STUDS AND/OR FACE OF BLOCK U.N.O.
16. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
17. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
18. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
19. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
20. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
21. DIFFUSERS, LIGHT FIXTURES, ETC., ARE INDICATED ON THE REFLECTED CEILING PLAN FOR LOCATION AND COORDINATION. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
22. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
23. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET * SMACNA* DETAIL REQUIREMENTS
24. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
25. CLASSROOM FURNITURE INDICATED ON THE FLOOR PLANS, NOT INDICATED AS "BUILT-IN", ARE NOT IN PROJECT CONTRACT. FURNITURE IS SHOWN FOR TYPICAL CLASSROOM ARRANGEMENT, ONLY.
26. GENERAL CONTRACTORS AND SUB-CONTRACTORS ARE TO SCHEDULE AND COMPLETE THEIR WORK SO AS TO KEEP MECHANICAL, ELECTRICAL, TELEPHONE, DATA, HVAC CONTROL, INTERCOM, AND OTHER EXISTING SYSTEMS OPERATIONAL IN AREAS OCCUPIED BY THE OWNER DURING THE RENOVATION AND CONSTRUCTION OF THE PROJECT
27. WHERE EXISTING OR NEW EXPANSION JOINTS ARE EXPOSED DUE TO NEW CONSTRUCTION OR RENOVATION, PROVIDE APPROVED FLOOR, WALL, AND/OR CEILING EXPANSION JOINT COVER ASSEMBLIES AS REQUIRED.
28. WHERE NEW FLOORING IS TO BE INSTALLED ON TOP OF EXISTING FLOOR SLAB, PROVIDE FLOOR LEVELING COMPOUND AS REQUIRED TO PROVIDE LEVEL WORKABLE SURFACE FOR NEW FINISHES
29. CONTRACTOR IS TO ENSURE THAT NEW AND/OR EXISTING MECHANICAL, ELECTRICAL, DATA, AND CONTROL SYSTEMS ARE CONCEALED TO THE GREATEST EXTENT AS POSSIBLE UNLESS OTHERWISE NOTED
30. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
31. ALL EXPOSED METALS EXCEPT GALVANIZED AND PRE-FINISHED ITEMS, SHALL BE FINISH PAINTED - COLOR TO BE SELECTED BY ARCHITECT. REF SPECS FOR FIELD WELDS AT GALV.
32. WHERE THE WORDS "PATCH", "MATCH", "REPAIR", "REPLACE", ARE USED,SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT COLORS, TEXTURES AND FINISH OF DISTURBED AREAS SHALL MATCH IN ALL RESPECTS. REPLACE IS DEFINED AS REMOVE EXISTING AND INSTALL NEW INCLUDING ALL APPROPRIATE ELECTRICAL CONNECTIONS AND WITH MATCHING OR COMPATIBLE EQUIPMENT OR MATERIALS AS SHOWN, SPECIFIED OR REQUIRED FOR COMPLETE INSTALLATION.

SHEET NAMING CONVENTION

A2-XX

- A2 — DRAWING SHEET DISCIPLINE
- XX — SHEET NUMBER IN DISCIPLINE

G	GENERAL	P	PLUMBING
C	CIVIL	E	ELECTRICAL
L	LANDSCAPE	FP	FIRE PROTECTION
S	STRUCTURAL	FA	FIRE ALARM
IR	IRRIGAITON	T	TECHNOLOGY
AD	ARCH DEMOLITION	TE	THEATRICAL
A	ARCHITECTURE	FS	FOOD SERVICES
M	MECHANICAL	AV	AUDIO VISUAL

pfluger
office: 512.476.4040 | fax: 512.476.4289
209 E. Riverside Drive
Austin, Texas 78704
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
16301 Chimney Rock Rd, Houston, TX 77053
WILLOWRIDGE HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, Tx 77479

REGISTERED ARCHITECT MICHAEL ADAMS 30113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

A0.00-W
SYMBOLS & ABBREVIATIONS

WILLOWRIDGE HIGH SCHOOL

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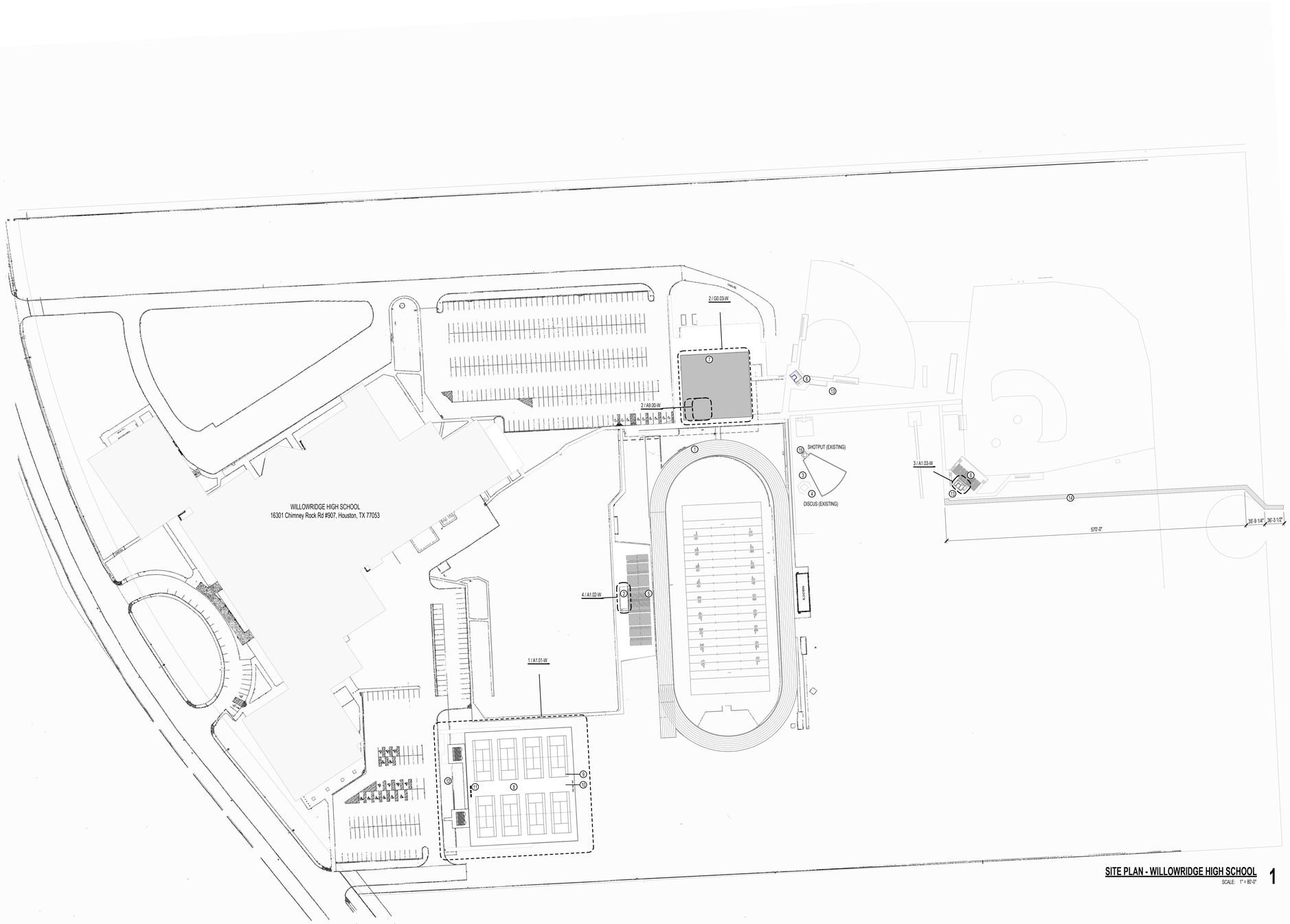

SITE PLAN - WILLOWRIDGE HIGH SCHOOL 1
SCALE: 1" = 80'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01-W & G0.02-W FOR TAS REQUIREMENTS
3. RE: G0.03-W FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 8' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 8' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- VINYL COATED CHAIN LINK FENCE, 48" HIGH
- VINYL COATED CHAIN LINK FENCE, 72" HIGH
- BLACK WROUGHT IRON FENCE, 48" HIGH
- BLACK WROUGHT IRON FENCE, 72" HIGH
- BUILDING SECTION TAG (SIM. / A101)
- WALL SECTION TAG (SIM. / A101)
- ENLARGED CALL OUT (21 / A101 SIM.)

SITE PLAN KEYNOTES

TAG #	NOTE
1	RESURFACE TRACK
2	POWER AND DATA IN PRESSBOX TOWER
3	NEW DISCUSS CAGE NETTING
4	DISCUSS CONCRETE PAVING
5	RENOVATE BLEACHERS
6	RENOVATE PRESS BOX
7	RENNOVATE FIELDHOUSE TRAINING ROOM
8	RESURFACE TENNIS COURTS
9	NEW FENCE AND GATE
10	NEW TENNIS WINDSCREEN
11	COURT BENCHES
12	CONCRETE PAVING UNDER BLEACHERS
13	NEW GROOMER FOR TURF
14	ALTERNATE NO. 8 - NEW CONCRETE PATH CONNECTING HIGH SCHOOL AND MIDDLE SCHOOL
15	RENOVATE SHOTPUT

ALTERNATES:

ALTERNATE NO. 8 - WILLOWRIDGE HIGH SCHOOL: CONCRETE PAVEMENT BETWEEN MIDDLE SCHOOL AND HIGH SCHOOL.



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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16301 Chimney Rock Rd, Houston, TX 77053
WILLOWRIDGE HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL A. ADAMS 20113 STATE OF TEXAS

DATE: 12/04/2025

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DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

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100% CD

A1.00-W
ARCHITECTURAL SITE PLAN

WILLOWRIDGE HIGH SCHOOL

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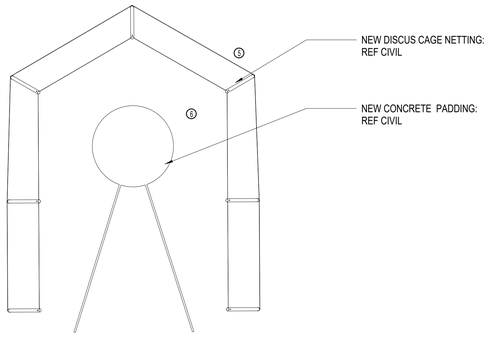
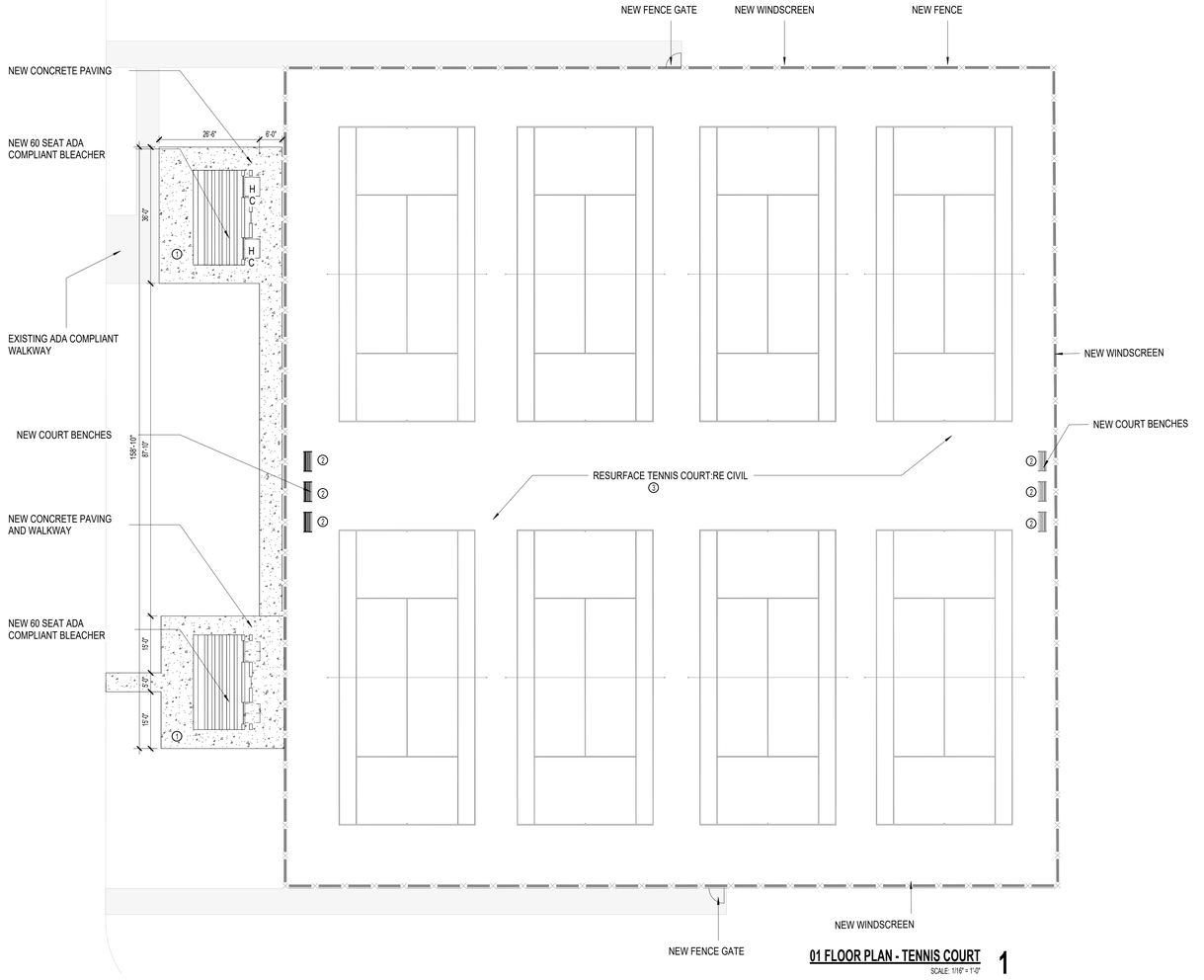


01 FLOOR PLAN - DISCUS CAGE 2
SCALE: 1/8" = 1'-0"



01 FLOOR PLAN - TENNIS COURT 1
SCALE: 1/16" = 1'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01-W & G0.02-W FOR TAS REQUIREMENTS
3. RE: G0.03-W FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 6' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- X-X VINYL COATED CHAIN LINK FENCE, 48" HIGH
- L-L VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M-M BLACK WROUGHT IRON FENCE, 48" HIGH
- R-R BLACK WROUGHT IRON FENCE, 72" HIGH
- 1 A101 SIM — BUILDING SECTION TAG
- 1 A101 SIM — WALL SECTION TAG
- 21 / A101 SIM — ENLARGED CALL OUT

SITE PLAN KEYNOTES

TAG #	NOTE
1	NEW CONCRETE PADDING AND 30 SEATER ADA COMPLIANT BLEACHER
2	COURT BENCHES
3	RESURFACE TENNIS COURTS
4	NEW FENCE AND GATE
5	<varies>
6	DISCUS CONCRETE PADDING

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

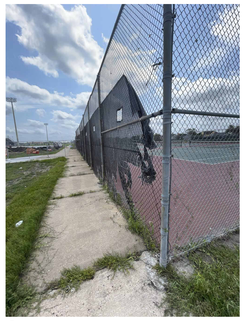
DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 6 — DEMO KEY NOTE

DEMOLITION KEY NOTES

1. DEMO EXISTING ACT CEILING TILES AND RETAIN EXISTING CEILING GRID. RETAIN AND PROTECT ALL EXISTING CEILING FIXTURES NOT CALLED FOR DEMOLITION IN ARCH OR MEP DRAWINGS
2. REMOVE AND REINSTALL EXISTING RECESSED CEILING FIXTURES, REF. MEP FOR ASSOCIATED DEMO SCOPE
3. DEMO EXISTING VCT TILE. CLEAN AND PREPARE FLOORING FOR NEW TILE.

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pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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16301 Chimney Rock Rd, Houston, TX 77053

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Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO.	25-006
DATE:	12/04/2025
DRAWN BY: DRW	CHECKED BY: CHK

REVISIONS:

#	Date	Description

100% CD

A1.01-W
SITE PLAN TENNIS COURT AND DISCUS

WILLOWRIDGE HIGH SCHOOL

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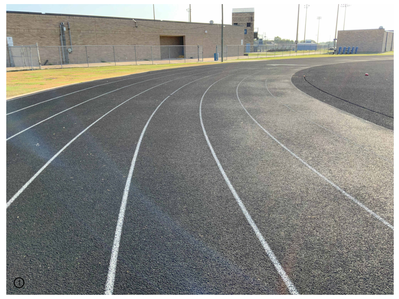
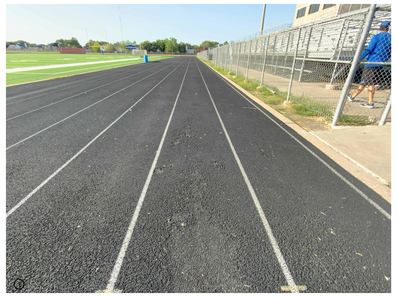
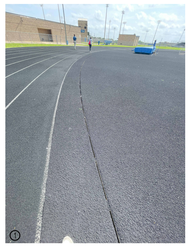
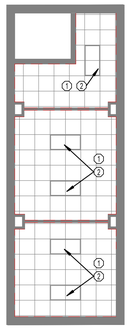




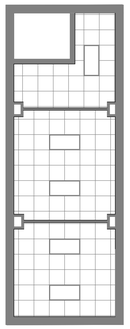




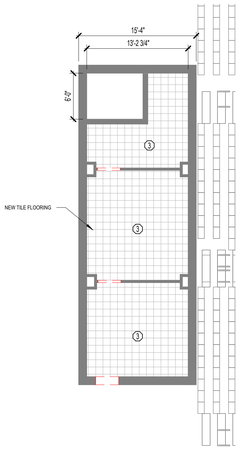
① RESURFACE TRACK : REF CIVIL



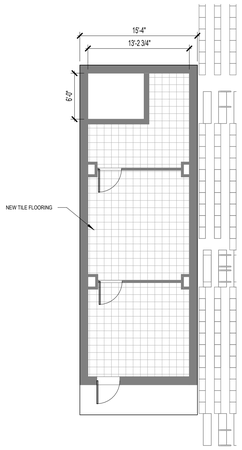
DEMO RCP - FOOTBALL PRESSBOX 6
SCALE: 1/8" = 1'-0"



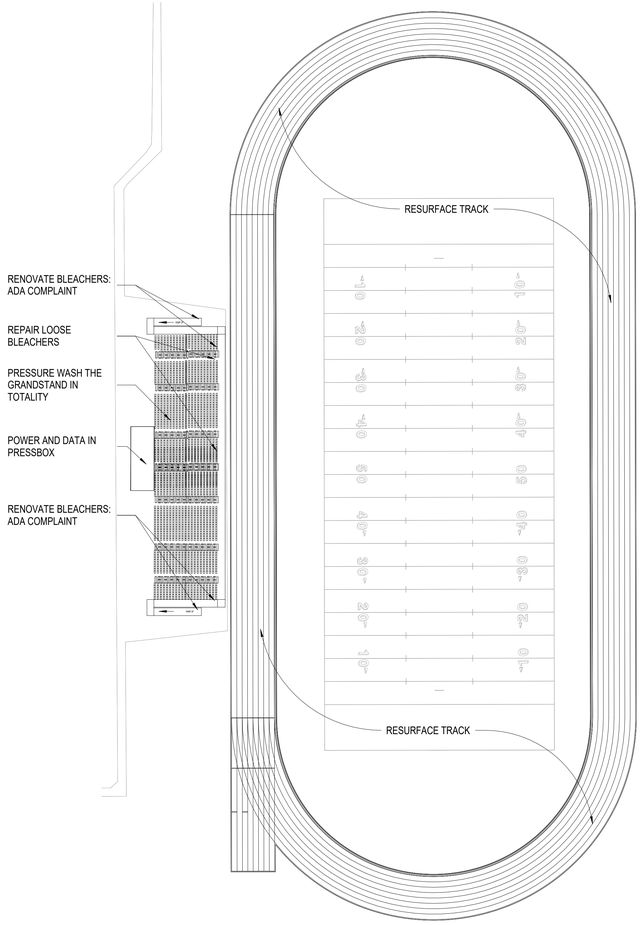
RCP - FOOTBALL PRESSBOX 3
SCALE: 1/8" = 1'-0"



01 DEMO PLAN - FOOTBALL PRESSBOX 4
SCALE: 1/8" = 1'-0"



01 FLOOR PLAN - FOOTBALL PRESSBOX 2
SCALE: 1/8" = 1'-0"



SITE PLAN - FOOTBALL 1
SCALE: 1" = 40'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01-W & G0.02-W FOR TAS REQUIREMENTS
3. RE: G0.03-W FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 6' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 6' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- X-X VINYL COATED CHAIN LINK FENCE, 48" HIGH
- L-L VINYL COATED CHAIN LINK FENCE, 72" HIGH
- M-M BLACK WROUGHT IRON FENCE, 48" HIGH
- R-R BLACK WROUGHT IRON FENCE, 72" HIGH
- SIM / A101 — BUILDING SECTION TAG
- SIM / A101 — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT

SITE PLAN KEYNOTES

TAG #	NOTE
1	<varies>
2	<varies>
3	<varies>
4	DISCUSS CONCRETE PADDING
5	RENOVATE BLEACHERS

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTORS UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
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10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) ISARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
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14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

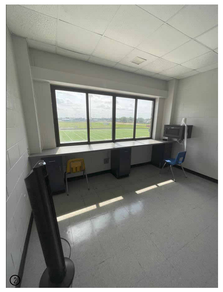
- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA TO BE DEMOLISHED
- NOT IN SCOPE
- SCOPE OF DEMOLITION
- 4 — DEMO KEY NOTE

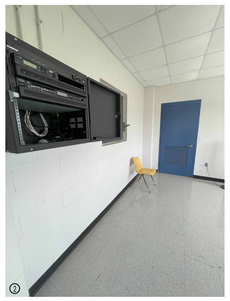
DEMOLITION KEY NOTES

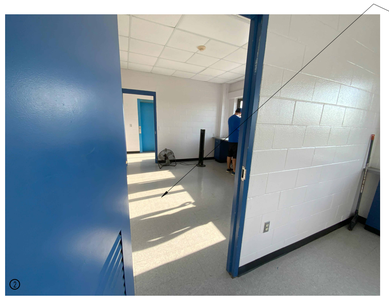
1. DEMO EXISTING ACT CEILING TILES AND RETAIN EXISTING CEILING GRID. RETAIN AND PROTECT ALL EXISTING CEILING FIXTURES NOT CALLED FOR DEMOLITION IN ARCH OR MEP DRAWINGS
2. REMOVE AND REINSTALL EXISTING RECESSED CEILING FIXTURES, REF. MEP FOR ASSOCIATED DEMO SCOPE
3. DEMO EXISTING VCT TILE. CLEAN AND PREPARE FLOORING FOR NEW TILE.

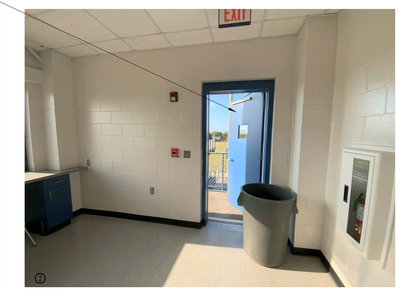
FOOTBALL PRESSBOX : THE EXTENT OF RENOVATION IN THE PRESS BOX IS UNCLEAR. THE CURRENT SCOPE INCLUDED IN THE DESIGN DEVELOPMENT DOCUMENTS IS LIMITED TO PROVIDING POWER AND DATA.

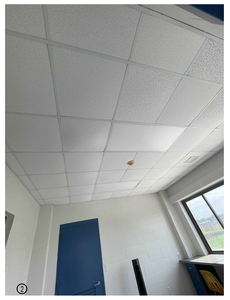
*SCOPE IS TO INCLUDE REPLACEMENT OF CEILING TILES, PAINTING OF FRAMES, AND CLEANING OF EXISTING FLOORING TO ACHIEVE A CONSISTENT LEVEL OF FINISH.

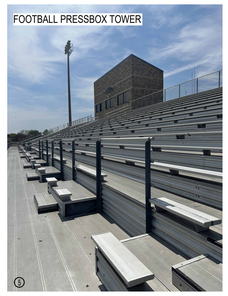


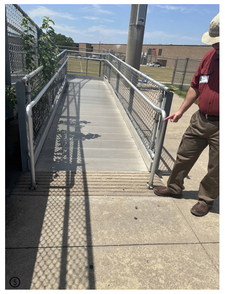






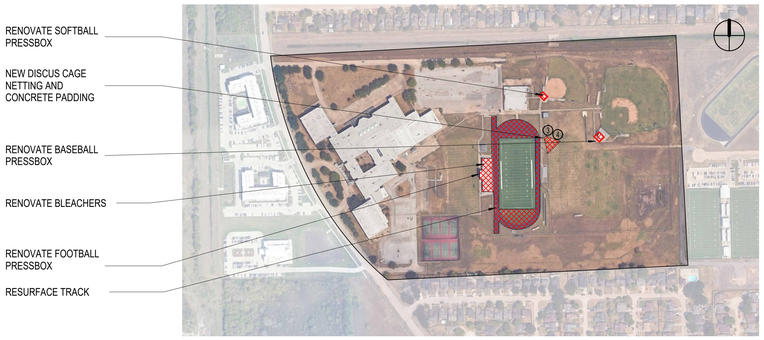












pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
16301 Chimney Rock Rd, Houston, TX 77053
WILLOWRIDGE HIGH SCHOOL

FBISD INSPIRE•EQUIP•IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAMS 30113 STATE OF TEXAS
DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

100% CD

A1.02-W
SITE PLAN - FOOTBALL FIELD AND PRESSBOX
WILLOWRIDGE HIGH SCHOOL

12/4/2025 10:54:33 AM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath\25-006_WILLOWRIDGE_ARCH_FBISD ATHLETIC RENOVATIONS BP012-W_R25.rvt

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SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.01-W & G0.02-W FOR TAS REQUIREMENTS
3. RE: G0.03-W FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL VEHICULAR GATES. PROVIDE BOLLARDS AT LATCH SIDES OF VEHICULAR GATES WHEN THEY ARE OPEN AND HASP TO LOCK OPEN GATE TO BOLLARD.
5. ALL FENCING SHALL BE VINYL COATED CHAIN LINK, 48" HIGH UNO.
6. PROVIDE 48" HIGH, 4" DIA. CONCRETE FILLED STEEL BOLLARDS SPACED 8' O.C. AROUND SIDES AND BACK OF DUMPSTER YARDS, AROUND ELECTRICAL TRANSFORMER AS REQUIRED BY ELECTRICAL PROVIDER, AND AT BOTH SIDES OF EXTERIOR ROLL-UP/GARAGE DOORS.
7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED.
8. FLAGPOLES SHALL HAVE MIN. 8' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.
9. ALL RETAINING WALLS SHALL HAVE BACKSIDE WATERPROOFING AND DRAINAGE
10. ALL EXIT GATES SHALL BE PROVIDED WITH PANIC HARDWARE AND WIRED FOR CARD READERS AND ELECTRIFIED HARDWARE.
11. PROVIDE 24" CONCRETE MOW STRIP AROUND PERIMETER OF ALL BUILDINGS WHERE NO OTHER PAVING IS CALLED FOR. PROVIDE 12" MOW STRIP CENTERED ON ALL FENCING.

SITE PLAN LEGEND

- VINYL COATED CHAIN LINK FENCE, 48" HIGH
- VINYL COATED CHAIN LINK FENCE, 72" HIGH
- BLACK WROUGHT IRON FENCE, 48" HIGH
- BLACK WROUGHT IRON FENCE, 72" HIGH
- BUILDING SECTION TAG (1 / A101 SIM.)
- WALL SECTION TAG (1 / A101 SIM.)
- ENLARGED CALL OUT (21 / A101 SIM.)

SITE PLAN KEYNOTES

TAG #	NOTE
1	DISCUSS CONCRETE PADDING
2	DISCUSS CONCRETE PADDING
3	<varies>
4	DISCUSS CONCRETE PADDING
6	RENOVATE SOFTBALL PRESS BOX
7	RENOVATE BASEBALL PRESS BOX

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) IS/ARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- SCOPE OF DEMOLITION
- DEMO KEY NOTE

TAG #	NOTE
2	DISCUSS CONCRETE PADDING
3	<varies>
4	DISCUSS CONCRETE PADDING
6	RENOVATE SOFTBALL PRESS BOX
7	RENOVATE BASEBALL PRESS BOX

DEMOLITION KEY NOTES

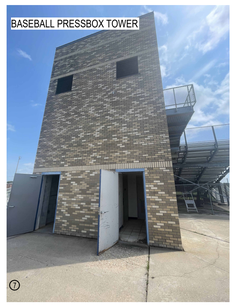
1. DEMO EXISTING ACT CEILING TILES AND RETAIN EXISTING CEILING GRID. RETAIN AND PROTECT ALL EXISTING CEILING FIXTURES NOT CALLED FOR DEMOLITION IN ARCH OR MEP DRAWINGS

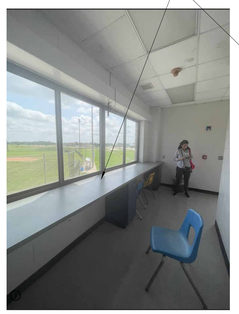
2. REMOVE AND REINSTALL EXISTING RECESSED CEILING FIXTURES, REF. MEP FOR ASSOCIATED DEMO SCOPE

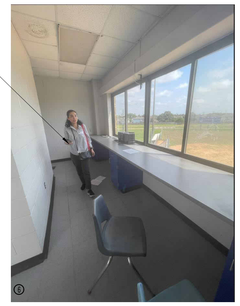
3. DEMO EXISTING VCT TILE. CLEAN AND PREPARE FLOORING FOR NEW TILE.

POWER, DATA AND NEW PAINT IN SOFTBALL AND BASEBALL PRESSBOXES

BASEBALL PRESSBOX TOWER







HANDRAILS LEADING TO BASEBALL AND SOFTBALL PRESSBOX TOWERS SHALL BE PAINTED AND STAIRS SHALL BE PRESSURE WASHED

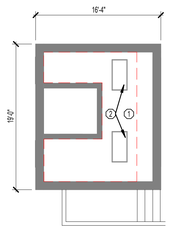
SOFTBALL PRESSBOX TOWER



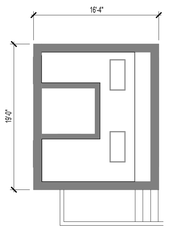




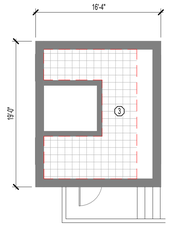
BASEBALL AND SOFTBALL PRESSBOX: EXTENT OF RENOVATION EXPECTATION IS UNCLEAR. FOR DD, SCOPE INCLUDES POWER AND DATA IN PRESS BOX, GENERAL CLEANING OF PRESS BOX, PAINTING OF HANDRAILS AND STAIR TOWER, AND PRESSURE WASHING OF STAIRS. SUGGESTED SCOPE INCLUDES CEILING TILE REPLACEMENTS IN THE PRESS BOX COMMENTARY ROOMS.



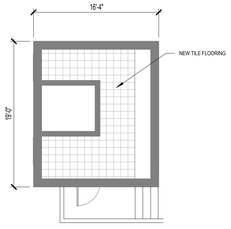
02 DEMO RCP - BASEBALL PRESSBOX 4
SCALE: 1/8" = 1'-0"



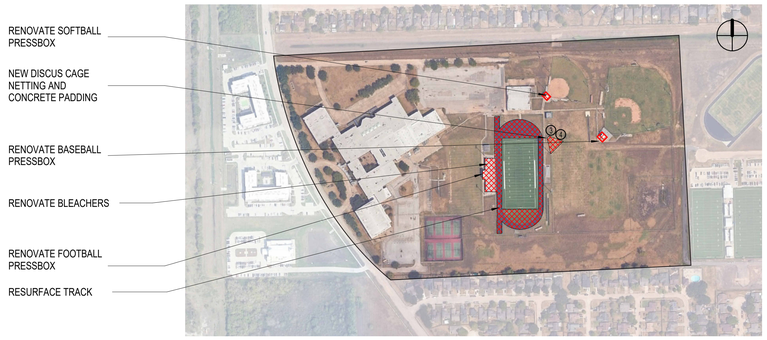
02 RCP - BASEBALL PRESSBOX 3
SCALE: 1/8" = 1'-0"



02 DEMO FLOOR PLAN - BASEBALL PRESSBOX 2
SCALE: 1/8" = 1'-0"



02 FLOOR PLAN - BASEBALL PRESSBOX 1
SCALE: 1/8" = 1'-0"



pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

16301 Chimney Rock Rd, Houston, TX 77053
WILLOWRIDGE HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 30113 STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

100% CD

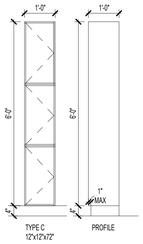
A1.03-W

SITE PLAN - BASEBALL & SOFTBALL FIELD AND PRESSBOX

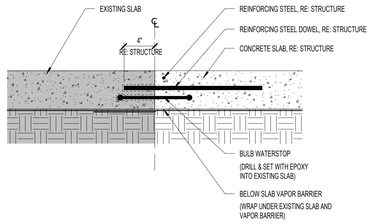
WILLOWRIDGE HIGH SCHOOL

LOCKER SCHEDULE

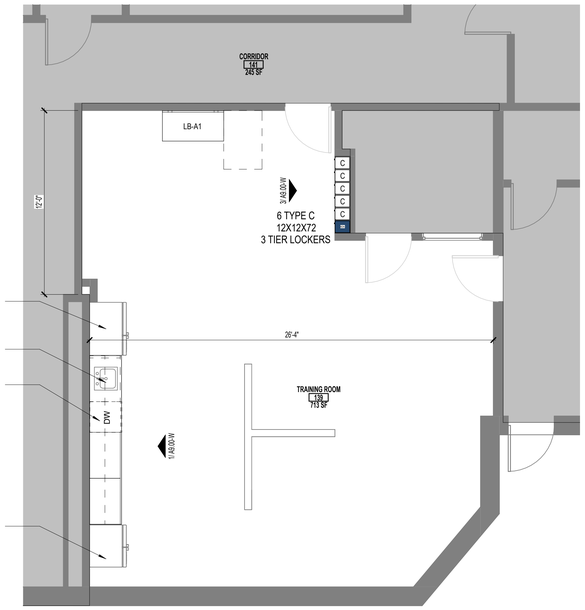
1.PROVIDE SHOP APPLIED, BAKED EPOXY ENAMEL FINISH
2.REFER TO MATERIAL SCHEDULE FOR COLOR
3.PROVIDE FILLER PANEL AS NEEDED IN ALL LOCKERS.



ROOM 139
EXISTING: 6
PROVIDED: 6
ADA REQUIRED: 1
ADA PROVIDED: 1



SECTION DETAIL - NEW SLAB AT EXISTING SLAB 3
SCALE: 1 1/2" = 1'-0"



01 FLOOR PLAN - FIELD HOUSE TRAINING ROOM 2
SCALE: 1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00 FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET A 0.05 FOR PARTITION TYPE SCHEDULE
3. RE: A0.03 & A0.04 SHEETS FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS.
4. RE: SHEET A0.30 & SPECIFICATIONS FOR LOCATION OF SOUND ATTENUATION BLANKETS.
5. DIMENSIONS SHOWN ON THE FLOOR PLANS ARE TO THE FACE OF STUD FACE OF CMU FACE OF TILT WALL OF INTERIOR WALLS, UNLESS OTHERWISE INDICATED.
6. ALL SINKS AND LAVATORIES SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE FIXTURE IS 1'-3" MIN. TO THE FACE OF ADJACENT FIXED EQUIPMENT, PARTITIONS, CASEWORK, WALLS, ETC. AND 1'-3" MIN. TO THE CENTER OF AN ADJACENT FIXTURE.
7. REFER TO SHEETS A3 SHEETS FOR TOILET ROOM DESIGNATIONS, TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES AND TOILET ACCESSORIES.
8. PROVIDE MINIMUM 1'-0" CLEAR FLOOR SPACE AT THE PUSH SIDE OF EVERY DOOR WITH A CLOSER & LATCH. PROVIDE MINIMUM 1'-0" CLEAR AT THE PULL SIDE OF EVERY DOOR, UNLESS SPECIFICALLY DIMENSIONED, NOTED, OR SHOWN OTHERWISE.

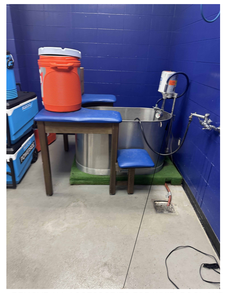
FLOOR PLAN LEGEND

- NEW CONSTRUCTION
- EXISTING/ NOT IN SCOPE
- EXPANSION JOINT
- AB — COLUMN GRID
- Ref / 10 / A101 — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- SIM / 1 / A101 — BUILDING SECTION TAG
- SIM / 1 / A101 — WALL SECTION TAG
- 21 / A101 SIM — ENLARGED CALL OUT
- 101 — DOOR TAG
- AX — PARTITION TAG
- HOLLOW METAL WINDOW TAG
- 1 — ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

SPECIALTY EQUIPMENT

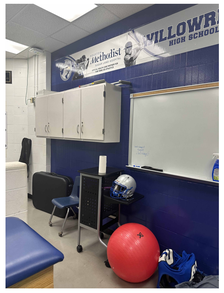
TAG	EQUIPMENT
A1	LOCKER - 24" W X 18" D X 72" H
A4	LOCKER - 12" W X 18" D X 72" H
B1	LOCKER - 24" W X 18" D X 72" H
LB-1	LOCKER BENCH - 72" L X 15" W
LB-2	LOCKER BENCH - 96" L X 15" W
LB-A1	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT WALL
LB-A2	LOCKER BENCH ACCESSIBLE - 48" L X 24" W AT BACK

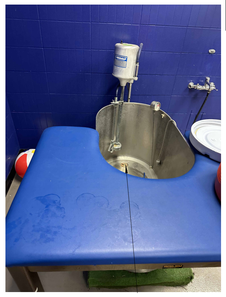


REMOVE ALL ACCESSORIES FOR WHIRLPOOL AND RETURN TO OWNER.



EXISTING ICE MACHINE TO REMAIN





REMOVE EXISTING WHIRLPOOL AND RETURN TO OWNER.



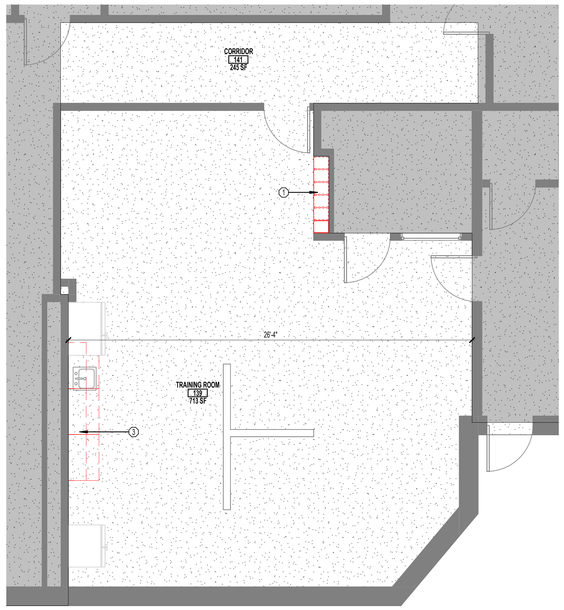
DEMO AND REPLACE EXISTING LOCKERS - ONE LOCKER SHALL BE ADA COMPLIANT



DEMO AND REPLACE EXISTING CABINETS AND COUNTERTOP. ADD UNDER THE COUNTER ADA COMPLIANT DISHWASHER



EXISTING CMU ISLAND AND ELEVATED BEDS ARE NOT IN SCOPE (PRESENTED FOR CONTEXT STUDY), THE MIRROR PRESENT IN THE ROOM IS ADA COMPLIANT



01 DEMO PLAN - FIELD HOUSE TRAINING ROOM 1
SCALE: 1/4" = 1'-0"

GENERAL DEMOLITION NOTES

1. CONTRACTOR TO VISIT THE SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AS THEY EXIST. SUBMISSION OF BID INDICATES THE CONTRACTOR'S UNDERSTANDING OF EXISTING CONDITIONS AND WILLINGNESS TO WORK WITH THESE CONDITIONS.
2. REMOVE, REMOVE AND SALVAGE, AND REMOVE AND REINSTALL ITEMS INDICATED GRAPHICALLY ACCORDING TO DEMOLITION LEGEND AND AS INDICATED.
3. REFER TO ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING DRAWINGS FOR DEMOLITION OF ELECTRICAL, FIRE PROTECTION, MECHANICAL, AND PLUMBING ITEMS.
4. DETACH ALL WALL AND CEILING MOUNTED ITEMS THAT ARE AFFECTED BY WORK AND NOT SPECIFICALLY ADDRESSED, REINSTALL OR SALVAGE ITEMS AS DIRECTED BY OWNER, DISPOSE OF ALL OTHERS.
5. WHERE A SEAMLESS PATCH BETWEEN EXISTING AND NEW SURFACES AND ITEMS IS NOT POSSIBLE OR PRACTICAL, REMOVE EXISTING ELEMENT BACK TO NEAREST JOINT OR CORNER AND REPLACE WITH NEW TO MATCH.
6. REMOVE ALL ABANDONED ITEMS EXPOSED BY DEMOLITION.
7. GENERAL CONTRACTOR TO SALVAGE EXTRA LIGHT FIXTURES TO OWNER.
8. CONTRACTOR RESPONSIBLE TO REPAIR DAMAGED WALL SURFACES THAT HAPPEN DURING THE DEMOLITION/CONSTRUCTION PROCESS.
9. DURING DEMOLITION, RETAIN STRUCTURAL INTEGRITY FOR INTERIOR/EXTERIOR WALLS. CONTACT ARCHITECT SHOULD QUESTIONS/PROBLEMS ARISE.
10. REFERENCE ARCHITECTURAL, MEP AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING BUILDING DEMOLITION/RENOVATIONS.
11. IF WALL(S) OR SUB-WALL SURFACE(S) ISIARE DAMAGED DURING REMOVAL OR DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR PLACEMENT OF WALL MATERIAL(S) TO ENSURE A LEVEL AND SMOOTH WALL SURFACE. MATCH ADJACENT WALL FINISH WHEN POSSIBLE.
12. CONTRACTOR RESPONSIBLE FOR CAPPING REMOVED PLUMBING LINES BELOW FINISH FLOOR AND PREPARING FLOOR SURFACE TO RECEIVE SCHEDULED FINISH.
13. CONTRACTOR RESPONSIBLE FOR DISCONNECTING AND CAPPING ELECTRICAL WIRING PRIOR TO DEMOLITION OF WALL(S).
14. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING SURFACES AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS.
15. CONTRACTOR RESPONSIBLE FOR CEILING PATCHING AND CEILING PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
16. CONTRACTOR RESPONSIBLE FOR WALL PATCHING AND WALL PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.
17. CONTRACTOR RESPONSIBLE FOR FLOOR PATCHING AND FLOOR PREP IN AREAS AFFECTED BY DEMOLITION/CONSTRUCTION.

DEMOLITION LEGEND

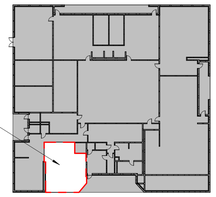
- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- AREA OF FLOOR TO BE PATCHED

DEMOLITION KEY NOTES

1.DEMO EXISTING LOCKERS, RETAIN AND PROTECT BASE

2. DEMO EXISTING CASEWORK AND COUNTERTOP, REUSE EXISTING SINK. REPAIR AND REFINISH WALLS AND FLOORING.

RENOVATE TRAINING AREA



BUILDING KEY PLAN
N.T.S



SITE KEY PLAN
N.T.S

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2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

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WILLOWRIDGE HIGH SCHOOL

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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 12/04/2025

PROJECT NO. 25-006
DATE: 12/04/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

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A2.00-W
01 FLOOR PLAN - FIELD HOUSE TRAINING ROOM

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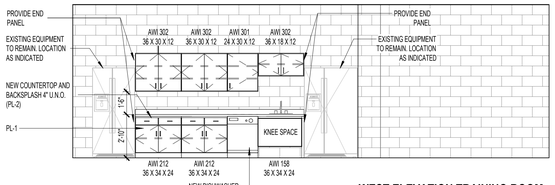
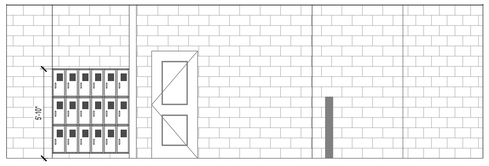


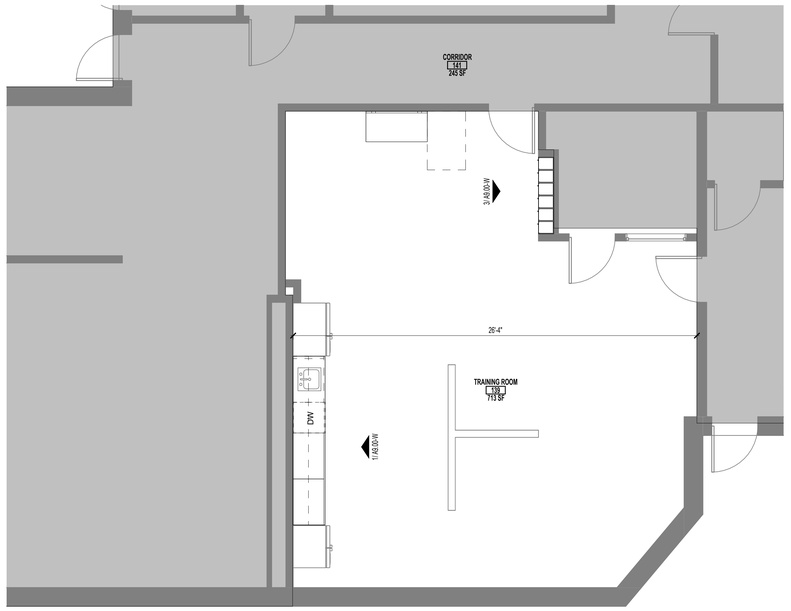
WEST ELEVATION TRAINING ROOM 1

SCALE: 1/4" = 1'-0"



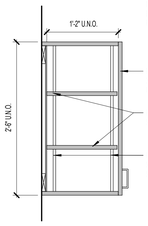
EAST ELAVATION TRAINING ROOM -W 3

SCALE: 1/4" = 1'-0"



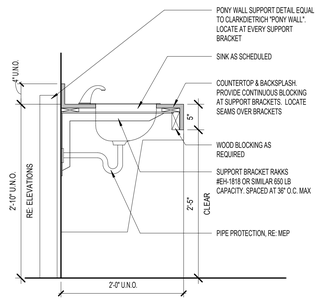
01 FINISH PLAN - FIELD HOUSE TRAINING ROOM 2

SCALE: 1/4" = 1'-0"



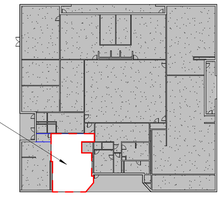
CABINET DETAIL 4

SCALE: 1" = 1'-0"



COUNTER DETAIL 5

SCALE: 1" = 1'-0"



BUILDING KEY PLAN
N.T.S



SITE KEY PLAN
N.T.S

FINISH SCHEDULE LEGEND

FLOORING

T-1	FLOOR TILE
CONC	CONCRETE FINISH W/ SEALER
CPT-1	CARPET
CPT-2	CARPET - ACCENT COLOR
CPTPAT	CARPET PATTERN
EF-1	EPOXY FLOORING
EF-2	EPOXY BASE TYPE 2 (KITCHEN)
LF	LINOLEUM FLOORING
LVT	LUXURY VINYL TILE
PC	POLISHED CONCRETE
PCPAT	POLISHED CONCRETE W/ PATTERN
RT	RUBBER TILE
RF	RUBBER FLOOR
SF	SPORT FLOORING
ST	STAIR TREADS
TRZ	TERRAZZO FLOORING
TRZPAT	TERRAZZO FLOORING W/ PATTERN
TRZST	PRECAST TERRAZZO STAIR TREADS
QT	QUARRY TILE
VCT	VINYL COMPOSITION TILE
VCTPAT	VINYL COMPOSITION TILE W/ PATTERN
WD	WOOD FLOORING
WM	WALK-OFF MAT
WSF	WOOD STAGE FLOORING

BASE

TB	TILE BASE
EB-1	EPOXY BASE TYPE 1
EB-2	EPOXY BASE TYPE 2 (KITCHEN)
RB	RUBBER BASE (designate 4", 6" etc. if multiple types)
RB-2	VENTED RUBBER BASE
QB	QUARRY TILE BASE
WB	STAINED WOOD BASE

WALL FINISHES

T-2	WALL TILE
T-3	WALL TILE
TPAT	TILE PATTERN
EPX	EPOXY PAINT
EWC	EPOXY WALL COATING
FWP	FABRIC WRAPPED ACOUSTICAL WALL PANEL
FRP	FIBERGLASS REINFORCED PANELS
GP	GLASS PARTITION
P	PAINT
PLP	PLASTIC LAMINATE PANEL SYSTEM (RE: INT. ELEVS FOR TYPES)
SS	STAINLESS STEEL
SW	SLAT WALL (RE: SPECS)
TF	TAPE & FLOAT WALLS ONLY - NO PAINT
TWP	PAINTED TECTUM WALL PANEL
AWP	ACOUSTIC WALL PANEL

CEILING SYSTEMS

DIFF	48" X 48" SUSPENDED DIFFUSERS AS SPECIFIED
EPX	EPOXY PAINTED GYPSUM BOARD
EXP-1	EXPOSED STRUCTURE, UNPAINTED
EXP-2	EXPOSED STRUCTURE, DUCTWORK, CONDUIT, PIPING, ETC. TO BE PAINTED
EXP-3	EXPOSED METAL DECK W/ TECTUM PANELS BELOW, PAINTED
EXP-4	METAL DECK TO BE PAINTED FLAT BLACK. ALL EXPOSED STRUCTURE, DUCTWORK, CONDUIT & PIPING TO BE PAINTED SAME COLOR
MPS	METAL PANEL SOFFIT
P	PAINTED GYPSUM BOARD
SAP-1	SUSPENDED ACOUSTICAL TILE, 2' X 2'
SAP-2	SUSPENDED ACOUSTICAL TILE W/ PLASTIC FILM FINISH, 2' X 2'
SAP-3	SUSPENDED ACOUSTICAL TILE, BLACK, 2' X 2'
SAP-4	SUSPENDED ACOUSTICAL TILE W/ NUBBY TEXTURE, 2' X 2'
SAP-5	SUSPENDED WOOD CEILING SYSTEM

FINISH SCHEDULE NOTES

1. REFER TO INTERIOR ELEVATIONS FOR LOCATION, SIZES & TYPES OF INTERIOR FINISHES.
2. PROVIDE FLOOR OR WALL PATTERNS. REFER TO INTERIOR PLANS (A9.1S) FOR DESIGN DETAILS.
3. PROVIDE ACOUSTIC PANELS. REFER TO INTERIOR ELEVATIONS FOR SIZES & TYPES.
4. REFER TO REFLECTED CEILING PLAN (A10 SERIES DWGS) FOR PAINTED GYP. BD. AND/OR SPECIALTY PORTIONS OF CEILING.
5. PROVIDE 6"H CERAMIC TILE (CT) WAINSCOT ON 2 WALLS ADJACENT TO MOP SINK AT JANITORS CLOSETS.
6. PROVIDE CERAMIC TILE WAINSCOT TO 4'-4"A.F.F. WITH PAINT ABOVE. RE: X/A9.X FOR PATTERN.
7. PROVIDE ACCENT TILE (CTA) RE: X/A.9.X FOR PATTERN.
8. PROVIDE ACCENT WALL. REFER TO INTERIOR PLANS FOR ACCENT PAINT LOCATIONS.
9. AT MDF ROOMS, PROVIDE 8'-0"H, 3/4" PLYWOOD ON ALL WALL SURFACES. PAINT SIDES AND EDGES BLACK.
10. AT ALL STORAGE ROOMS, PROVIDE 2" HIGH, CONTINUOUS RED STRIPE 18" BELOW CEILING OR STRUCTURE. AT 6' INTERVALS (AND NOT LESS THAN ONCE PER WALL) STENCIL THE WORDS "NO STORAGE ABOVE LINE."
11. ABOVE CEILING AT ALL FIRE RATED WALLS, PROVIDE 4" HIGH, STENCIL EVERY 8' AND AT LEAST ONE PER WALL READING "FIRE WALL." IN RED PAINT. ALSO PROVIDE STENCIL AT 10' AFF IN MECHANICAL, HOUSEKEEPING, TECHNOLOGY, ELECTRICAL AND STORAGE SPACES THAT DO NOT HAVE A CEILING. STENCIL IS NOT REQUIRED WHERE THE FIRE WALL DOES NOT HAVE AN ADJACENT CEILING AND THE SPACE IS AN OCCUPIED, FINISHED SPACE.

GENERAL NOTES

A. REFER TO REFLECTED CEILING PLAN (A10 SERIES DWGS), FOR CEILING HEIGHTS & ADDITIONAL INFORMATION.

B. ALL FINISHES SUBJECT TO ARCHITECT'S APPROVAL.

C. REFERENCE FOOD SERVICE DRAWINGS (K SERIES) FOR KITCHEN AND SERVING LINE EQUIPMENT & FINISH INFORMATION.

pfluger
office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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16301 Chimney Rock Rd, Houston, TX 77053

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Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

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REVISIONS:

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A9.00-W

FINISH FLOOR PLAN - FIELD HOUSE

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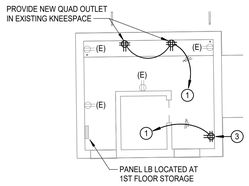
ELECTRICAL KEYED NOTES:

1. ROUTE 2#12, 1#12G., 3/4"C. TO NEW 20A/1P CIRCUIT BREAKER IN EXISTING PRESSBOX PANEL LOCATED IN STORAGE ROOM 1ST FLOOR.
2. ROUTE 2#12, 1#12G., 3/4"C. TO NEW 20A/1P CIRCUIT BREAKER IN EXISTING FIELDHOUSE PANEL LFH.
3. DEDICATED DOUBLE DUPLEX RECEPTACLE FOR CONNECTION OF WALL MOUNTED DATA RACK. VERIFY EXACT LOCATION WITH DIVISION 27.

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CONTACTORS, DISCONNECTS, ETC... SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.



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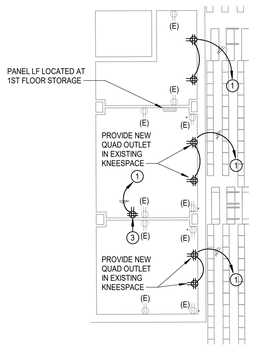
4 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - BASEBALL PRESSBOX

Scale: 1/8" = 1'-0"



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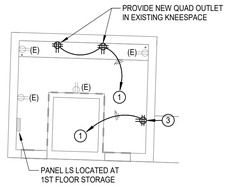
2 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - FOOTBALL PRESSBOX

Scale: 1/8" = 1'-0"



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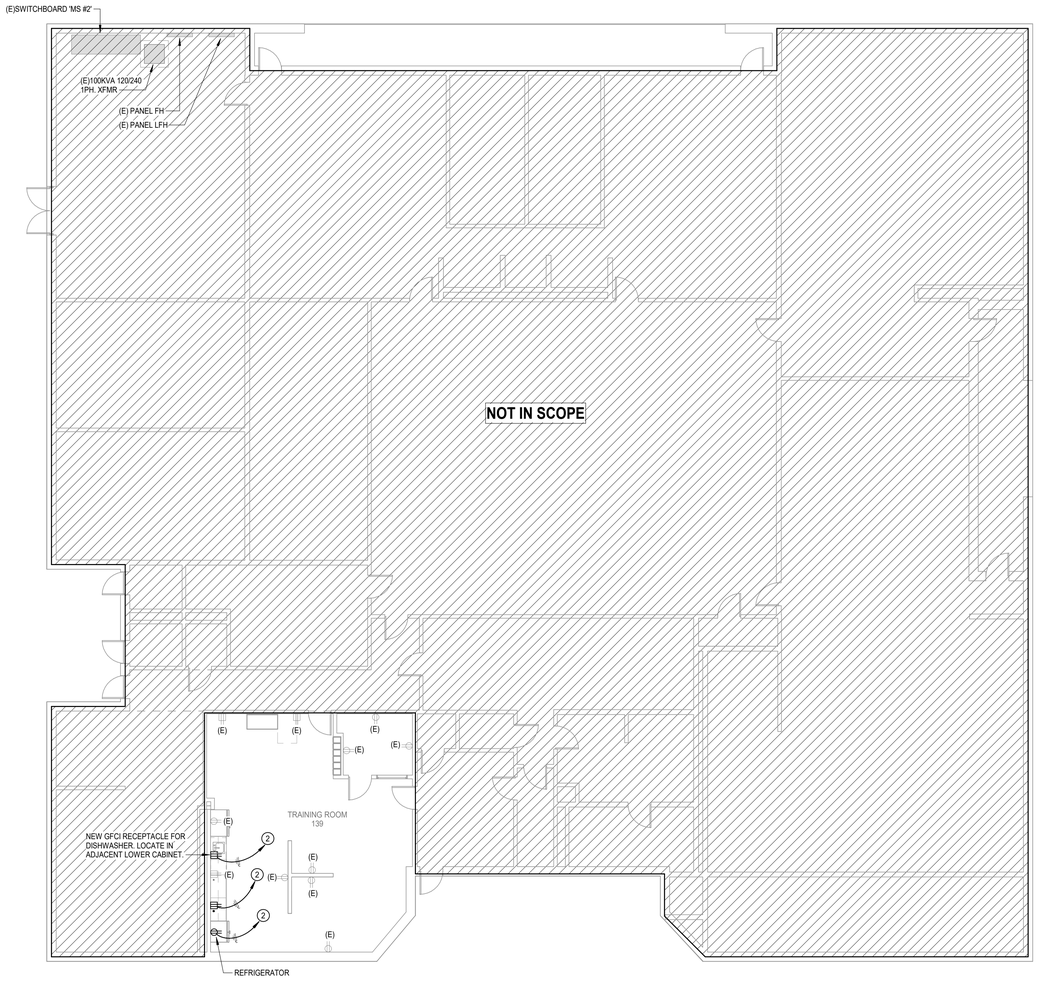
3 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - SOFTBALL PRESSBOX

Scale: 1/8" = 1'-0"



N

1 ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - FIELD HOUSE

Scale: 1/8" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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90219
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12/04/2025

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E1.01-W

ELECTRICAL FLOOR PLANS - LEVEL 1

WILLOWRIDGE HIGH SCHOOL

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX. 77064
Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

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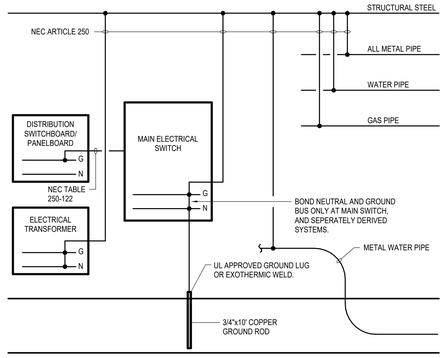
SYMBOL SCHEDULE

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED ON EMERGENCY CIRCUIT
	DOWNLIGHT FIXTURE
	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
	LIGHT FIXTURE - WALL MOUNTED
	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - CEILING MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - WALL MOUNTED ON EMERGENCY CIRCUIT
LIGHTING CONTROLS & DEVICES	
$	LINE VOLTAGE SINGLE POLE SWITCH
$3	LINE VOLTAGE 3-WAY SWITCH
$4	LINE VOLTAGE 4-WAY SWITCH
$K	LINE VOLTAGE MOMENTARY DPST KEYED SWITCH
$D	LINE VOLTAGE DIMMER SWITCH, SIZE AND TYPE AS REQUIRED
$P	LINE VOLTAGE SWITCH WITH PILOT LIGHT
$T	6-HOUR ROTARY TIMER SWITCH WITH NO HOLD U.N.O.
	PUSH BUTTON EPO SWITCH WITH COVER
$MC	LOW VOLTAGE MOMENTARY CONTACT SWITCH
$R	LOW VOLTAGE DIGITAL KEYPAD
$B	LOW VOLTAGE BUILDING MANAGEMENT (BMCS) LOCAL OVERRIDE SWITCH
	OCCUPANCY SENSOR (AUTO ON / AUTO OFF WITHIN 20-MINUTES)
	VACANCY SENSOR (MANUAL ON / AUTO OFF WITHIN 20-MINUTES)
	PHOTOCELL SENSOR
RF	LIGHTING CONTROL SYSTEM. ('F' DENOTES TYPE - SEE LIGHTING CONTROLS SCHEDULE)
ER	EMERGENCY LOAD CONTROL RELAY. MINIMUM 16A AND 0-10V COMPATIBLE. PROVIDE U.L. 924 U.N.O.
RECEPTACLES AND OUTLETS	
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
U	DUPLEX RECEPTACLE WITH TWO USB CHARGING PORTS.
	125/250 VOLT, 1 PHASE, 3-WIRE, 20 AMPS UNLESS NOTED OTHERWISE
	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
U	DOUBLE DUPLEX WITH TWO USB CHARGING PORTS IN 2-GANG BOX WITH SINGLE COVER PLATE
	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	FLUSH FLOOR DUPLEX RECEPTACLE OUTLET
	FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE OUTLET
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	JUNCTION BOX
G	FLUSH REMOTE GFCI DEVICE (LOCATE IN READILY ACCESSIBLE LOCATION)
MOTOR CONTROLLERS AND EQUIPMENT	
	MOTOR, MAKE FINAL MOTOR CONNECTION
$	MOTOR-RATED SWITCH, 20A UNLESS INDICATED OTHERWISE.
H	DISCONNECT SWITCH AS REQUIRED
H	COMBINATION MOTOR STARTER/DISCONNECT SWITCH AS REQUIRED
	MOTOR STARTER
	PREWIRED DEVICE, MAKE ELECTRICAL FINAL CONNECTIONS
VFD	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
HF	HIGH EFFICIENCY HARMONIC FILTER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
T	LOW VOLTAGE TRANSFORMER, SIZE AND TYPE AS REQUIRED.
Y	CHIME/BUZZER
ELECTRICAL EQUIPMENT	
	ELECTRICAL PANELBOARD; REFER TO FLOOR PLANS FOR VOLTAGE.
	DRY TYPE TRANSFORMER
	PLYWOOD TELEPHONE BACKBOARD
CIRCUITING	
	CONDUIT
	CONDUIT BELOW FLOOR, SLAB, OR GRADE
	3/4"C. UNLESS OTHERWISE NOTED; LONG HATCH, NEUTRAL; SHORT HATCH, PHASE; LONG HATCH & HOOK, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN.
	PARTIAL ELECTRICAL HOME RUN
SUBSCRIPTS AND ABBREVIATIONS	
WP	INDICATES 'WEATHERPROOF'
H	INDICATES 'HORIZONTAL'
NL	INDICATES 'NIGHT LIGHT'.
TP	INDICATES 'TAMPER PROOF'
(KS)	INDICATES 'KNEE SPACE'. LOCATE WIRING DEVICE IN KNEESPACE
U.N.O.	INDICATES 'UNLESS NOTED OTHERWISE'
(E)	INDICATES EXISTING TO REMAIN
(R)	INDICATES REPLACE DEVICE AND COVERPLATE.
•	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL MILLWORK DRAWINGS AND OTHER TRADES

GENERAL NOTES:
-ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-4X MINIMUM.
-ALL EXTERIOR RECEPTACLES SHALL BE WATER RESISTANT TYPE.



1 GROUNDING DETAIL
SCALE: NONE

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES.
2. ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
3. ALL EMPTY CONDUIT SHALL HAVE PULL STRING.
4. EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
5. VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 6" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
6. ALL FIRE ALARM DEVICES, RECEPTACLES, SWITCHES, AND WIRING DEVICES IN MECHANICAL AND ELECTRICAL ROOMS ARE TO BE RECESSED IN WALLS.
7. ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
10. CENTER ALL EXIT SIGNS OVER DOORS.

Salas O'Brien
Houston
10930 W. Sam Houston Pkwy North, Suite 900
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pfluger
office: 713.222.1141 | fax: 713.222.1174
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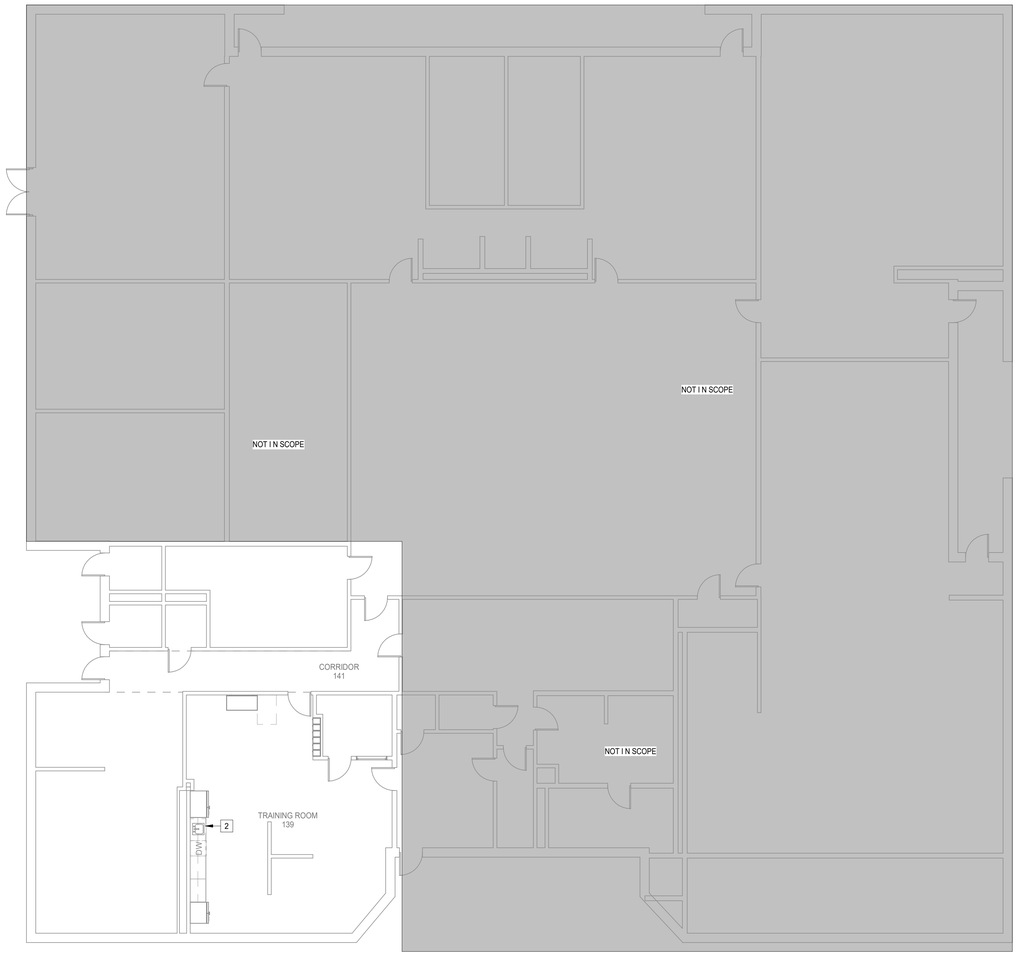
E2.01-W
ELECTRICAL
SCHEDULES, DETAILS, AND LEGENDS

WILLOWRIDGE HIGH SCHOOL

PLUMBING KEYED NOTES

2	PROVIDE AND INSTALL NEW DISHWASHER. CONNECT EXISTING UTILITIES (HW, SANITARY). REFER TO ARCHITECTURAL DRAWING.



1 **PLUMBING FLOOR PLAN - LEVEL 1 - FIELD HOUSE**
Scale: 1/8" = 1'-0"

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office: 713.222.1141 | fax: 713.222.1174
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PLUMBING FLOOR PLAN
- LEVEL 1 - W

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Salas O'Brien Registration: F-4111
Salas O'Brien Project Number: 2550-00810-00

WILLOWRIDGE HIGH SCHOOL

12/3/2025 5:52:16 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/WILLOWRIDGE_MEPT_R25.rvt

TECHNOLOGY SYMBOLS & LEGEND

VOICE SYMBOLS

	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS PER LOCATION.
W	SINGLE VOICE OUTLET FOR WALL-MOUNTED PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +52-INCHES A.F.F. UNLESS OTHERWISE NOTED.

DATA SYMBOLS

	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF DATA OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	DATA OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
W	SINGLE DATA OUTLET FOR WALL-MOUNTED IP PHONE, CABLE TYPE AS SPECIFIED, MOUNTED +42-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X COW	DATA CABLE FOR COMPUTER ON WHEELS, CABLE TYPE AS SPECIFIED MOUNTED + 18-INCHES A.F.F UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
X WAPW	DATA CABLE FOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPC	DATA CABLE FOR CEILING MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMW	DATA CABLE FOR INTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.
X CAMC	DATA CABLE FOR CEILING MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

X CAME	DATA CABLE FOR EXTERIOR WALL MOUNTED VIDEO SURVEILLANCE CAMERA, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A ORANGE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLLATION.
X PRJW	DATA CABLE FOR WALL MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
PRJC	DATA CABLE FOR CEILING MOUNTED PROJECTOR, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A PURPLE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X AVCE	DATA CABLE FOR CEILING MOUNTED AUDIO/VISUAL EQUIPMENT ENCLOSURE, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATIONS WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A BLUE ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACED MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW. REFER TO AUDIO/VISUAL DRAWINGS PRIOR TO INSTALLATION.
X WAPE	DATA CABLE FOR EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT, CABLE TYPE AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION WITH 20-FEET OF SLACK NEATLY COILED AND STORED ON J-HOOK ABOVE ACCESSIBLE CEILING. PLACE A GREEN ADHESIVE DOT AND LABEL MIRRORING THE LABEL ON THE SURFACE MOUNTED BOX ON THE CEILING GRID DIRECTLY BELOW, REFER TO SECURITY DRAWINGS PRIOR TO INSTALLATION.

ROUGH-IN & MISC. SYMBOLS

R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
R	POWER POLE WITH ROUGH-IN LOCATION, INFRASTRUCTURE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
R	ROUGH-IN LOCATION, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
WAP	WIRELESS ACCESS POINT. EQUIPMENT AS SPECIFIED.

GENERAL SYMBOLS

# SHEET — DRAWING TITLE — SCALE: SCALE	DRAWING TITLE CALLOUT, # = DETAIL NUMBER.
# SHEET	DETAIL CALLOUT, # = DETAIL NUMBER.
# SHEET	SECTION CALLOUT, # = DETAIL NUMBER.
SHEET #	ELEVATION CALLOUT, # = DETAIL NUMBER.
#	KEYED NOTE, # = KEYED NOTE NUMBER.
#	REVISION TRIANGLE, # = REVISION NUMBER (PER SHEET).
TR (IDF XXX)	INDICATES TELECOMMUNICATIONS REGION

VOICE/DATA SYMBOLS

	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF VOICE TERMINATIONS , Y = NUMBER OF DATA TERMINATIONS PER LOCATION.
	SINGLE VOICE & SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X Y	VOICE & DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF VOICE OUTLETS AND Y = NUMBER OF DATA OUTLETS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE VOICE OUTLET AND SINGLE DATA OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X Y	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X Y	VOICE OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF VOICE TERMINATIONS, Y = NUMBER OF DATA TERMINATIONS PER LOCATION.

FIBER OPTIC SYMBOLS

	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +18-INCHES A.F.F. UNLESS OTHERWISE NOTED. X = NUMBER OF CABLE TERMINATIONS PER LOCATION.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED +6-INCHES ABOVE COUNTER OR BACKSPLASH UNLESS OTHERWISE NOTED, X = NUMBER OF CABLE TERMINATIONS PER LOCATION AS INDICATED.
	POWER/COMMUNICATIONS POLE WITH A SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
X	POWER/COMMUNICATIONS POLE WITH X = NUMBER OF FIBER OPTIC OUTLETS, CABLE TYPE AS SPECIFIED, MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
	SINGLE FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE-THRU AS SPECIFIED.
X	FIBER OPTIC OUTLET, CABLE TYPE AS SPECIFIED, TERMINATED IN FLOOR BOX/POKE -THRU AS SPECIFIED WITH X = NUMBER OF CABLE TERMINATIONS PER LOCATION.

CABLE PLANT & RISER DIAGRAM

	MAINTENANCE HOLE, SIZE & TYPE AS SPECIFIED.
	PULLBOX, SIZE AND TYPE AS SPECIFIED.
UGC	DIRECT BURIED COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
AER	AERIAL COMMUNICATIONS, CABLE TYPE AS SPECIFIED.
	CONDUIT, SIZE AND TYPE AS SPECIFIED.

COMMUNICATION AND SECURITY CABLING JACKET COLOR CODE

TYPICAL WORK AREA OUTET	BLUE - REFERENCE SPEC SECTION 27 10 00
WIRELESS ACCESS POINT	GREEN - REFERENCE SPEC SECTION 27 10 00
SECURITY(INTRUSION, ACCESS CONTROL, VIDEO SURVEILLANCE)	ORANGE - REFERENCE SPEC SECTION 28 13 00, 28 16 00, AND 27 10 00
BUILDING WIDE PUBLIC ADDRESS / INTERCOM	WHITE - REFERENCE SPEC SECTION 27 51 00
AUDIOVISUAL	BLACK - REFERENCE SPEC SECTION 27 41 16
LIGHTING CONTROL	LIME GREEN - REFERENCE MEP SPECIFICATIONS
BAS	YELLOW - REFERENCE MEP SPECIFICATIONS
FIRE ALARM	RED - REFERENCE MEP SPECIFICATIONS

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AER	AERIAL
DEMARC	DEMARCATION POINT
EMT	ELECTRIC METALLIC TUBE
F.O.C.	FIBER OPTIC CABLE
GIP	GALVANIZED IRON PIPE
HE	PA/INTERCOM HEAD-END
IMC	INTERMEDIATE METAL CONDUIT
ISP	INSIDE CABLE PLANT
IDF	INTERMEDIATE DISTRIBUTION FRAME
MDF	MAIN DISTRIBUTION FRAME
MH	MAINTENANCE HOLE
MM	MULTIMODE
OSP	OUTSIDE CABLE PLANT
PB	PULLBOX
PR	PAIR
PVC	POLYVINYL CHLORIDE
RSC	RIGID STEEL CONDUIT
SM	SINGLE MODE
SP	SERVICE PROVIDER
STP	SHIELDED TWISTED PAIR
TB	TERMINAL BLOCK
TR	TELECOMMUNICATION REGION
UGC	UNDERGROUND COMMUNICATION
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR

NOTES

1. CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS THAT MAKE UP THE CONTRACT DOCUMENTS AND COMPLETE ALL WORK INCLUDED THEREIN.
2. SCALE OF TECHNOLOGY DRAWINGS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CABLE LENGTHS, SIZE OF PATHWAYS, DIMENSIONS, ETC.
3. TECHNOLOGY DRAWINGS SHALL BE USED TO COMPLEMENT THE WRITTEN SPECIFICATIONS.
4. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGN CONSULTANT AND SUBSEQUENTLY CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE ARCHITECT'S/DESIGN CONSULTANT'S INTERPRETATION.

INDEX OF DRAWINGS

T000-W TECHNOLOGY SYMBOLS & LEGEND
T100-W TECHNOLOGY SITE PLAN
T201-W TECHNOLOGY SITE PLAN - FIELD AND PRESSBOX
T300-W TECHNOLOGY ENLARGED VIEWS
T400-W TECHNOLOGY TYPICAL DETAILS
T401-W TECHNOLOGY TYPICAL DETAILS
T402-W TECHNOLOGY TYPICAL DETAILS
T500-W TECHNOLOGY TYPICAL LABELING SCHEME

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
16301 Chimney Rock Rd, Houston, TX 77053
WILLOWRIDGE HIGH SCHOOL

FBISD INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS
12-05-2025

PROJECT NO. 25-006
DATE: 12/05/2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:
	Date	Description

100% CD

T000-W
TECHNOLOGY
SYMBOLS & LEGEND

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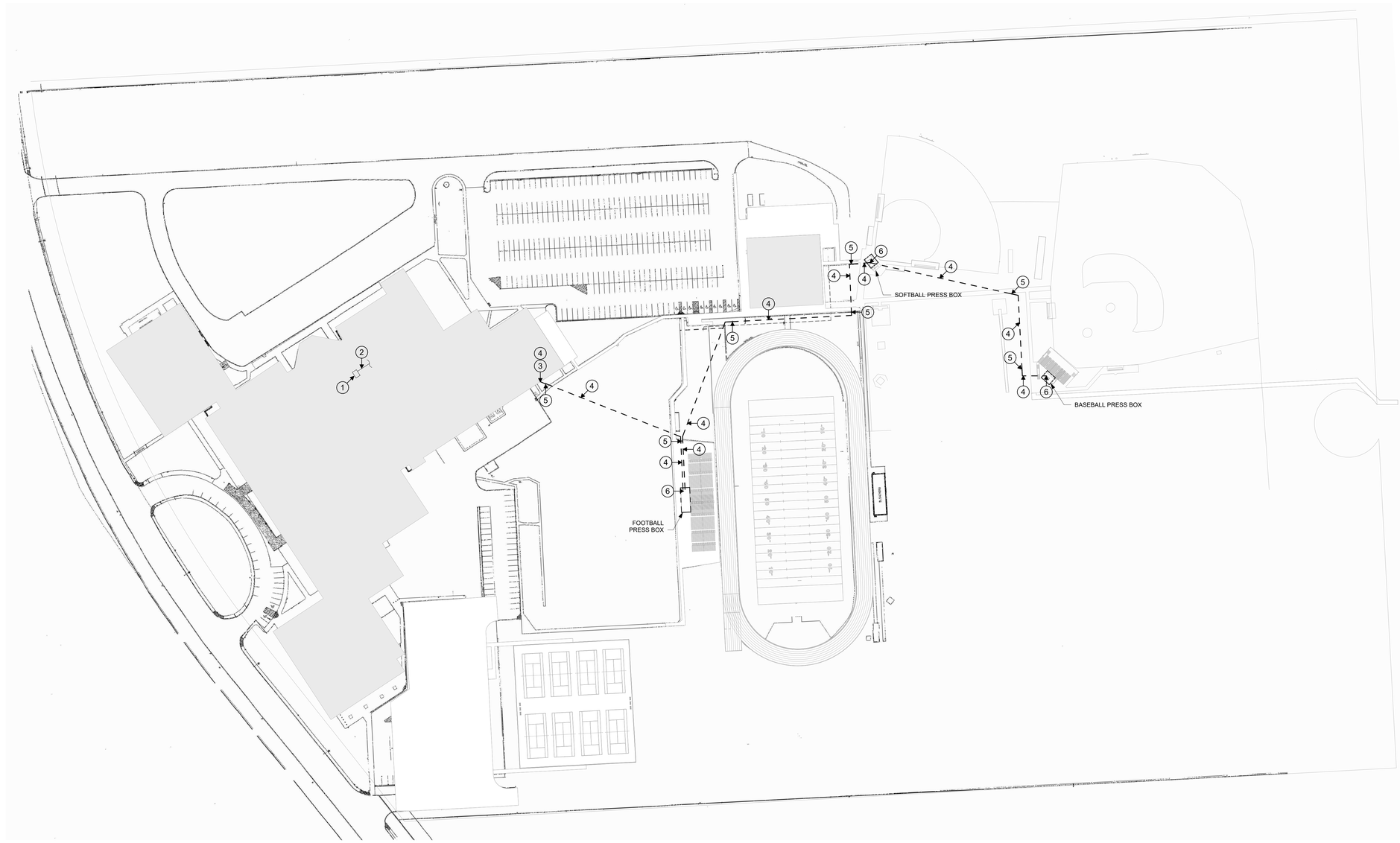

1 TECHNOLOGY SITE PLAN
T100-W 1" = 80'-0"

TECHNOLOGY SITE PLAN GENERAL NOTES

1. ALL CONDUIT PATHWAYS, ROUGH-INS, CONDUIT SLEEVES, ETC. INDICATED ON TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
2. ALL POWER INDICATED ON THE TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
3. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING BACK TO THE ORIGINAL RATING.
4. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING FOR SOUND ATTENUATION TO REDUCE NOISE TRAVELING THROUGH PENETRATIONS.
5. THE CONTRACTOR SHALL RESTORE ALL THE PENETRATIONS PROVIDED THROUGH WALLS/STRUCTURES FOR TECHNOLOGY CABLING TO PREVENT WATER INFILTRATION INTO THE SPACE.
6. CONDUITS SHALL MAINTAIN A MINIMUM OF 12-INCHES OF WELL TAMPED EARTH OR 3-INCHES OF CONCRETE SEPARATION BETWEEN ANY FOREIGN CONDUITS AND/OR PIPES THROUGHOUT THE ENTIRE CONDUIT PATHWAY.
7. CONDUIT SEGMENTS SHALL BE NO MORE THAN 600-FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
8. CONDUITS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUITS GREATER THAN 2-INCHES.
9. THE CONTRACTOR SHALL PROVIDE A DETECTABLE WARNING TAPE 12-INCHES BELOW GRADE ON TOP OF ALL CONDUITS THROUGHOUT THE ENTIRE CONDUIT TRENCH.
10. THE CONTRACTOR SHALL COORDINATE ALL CONDUIT PATHWAYS WITH THE ARCHITECT, CIVIL AND LANDSCAPE PLANS PRIOR TO BEGINNING ANY TRENCHING.
11. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR PULLING OF THE CABLE
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. THE CONTRACTOR SHALL CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.

TECHNOLOGY SITE PLAN KEYED NOTES

1. APPROXIMATE LOCATION OF SECOND FLOOR MDF.
2. PROVIDE FIBER OPTIC BACKBONE TO FOOTBALL AND BASEBALL PRESS BOXES
3. EXIT THE BUILDING PLENUM AND TURN DOWN BUILDING EXTERIOR AT THIS LOCATION.
4. PROVIDE (3) 2-INCH SCHEDULE 80 PVC CONDUIT BURIED 36-INCHES BELOW FINAL FINISHED GRADE FROM BUILDING EXTERIOR. THE CONTRACTOR SHALL PROVIDE PULL STRING INSIDE EACH CONDUIT. THE CONTRACTOR SHALL PROVIDE NYLON BUSHINGS AND PROTECTIVE CAPS ON EACH END OF THE CONDUIT. ONE 2-INCH CONDUIT WILL BE PROVIDED WITH (1) 2-INCH, THREE-CELL MAXCELL INNERDUCT, (BY DIV. 26).
5. (24)-INCH X (18)-INCH X (36)-INCH HAND HOLE WITH LOCKABLE COVER RATED FOR ENVIRONMENT STAMPED WITH TELECOMMUNICATIONS. COVER OF HANDHOLE SHALL BE FLUSH WITH A FINAL FINISHED GRADE. (BY DIV. 26).
6. TERMINATE INTERCONNECTING 2-INCH PATHWAYS NEAR NETWORK ENCLOSURE. COORDINATE FINAL LOCATION WITH OWNER, ARCHITECT, AND CONSULTANT PRIOR TO ROUGH-IN AND INSTALLATION

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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16431 Lexington Blvd.
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REGISTERED ARCHITECT
MICHAEL ADAMS
25113
STATE OF TEXAS

12-05-2025

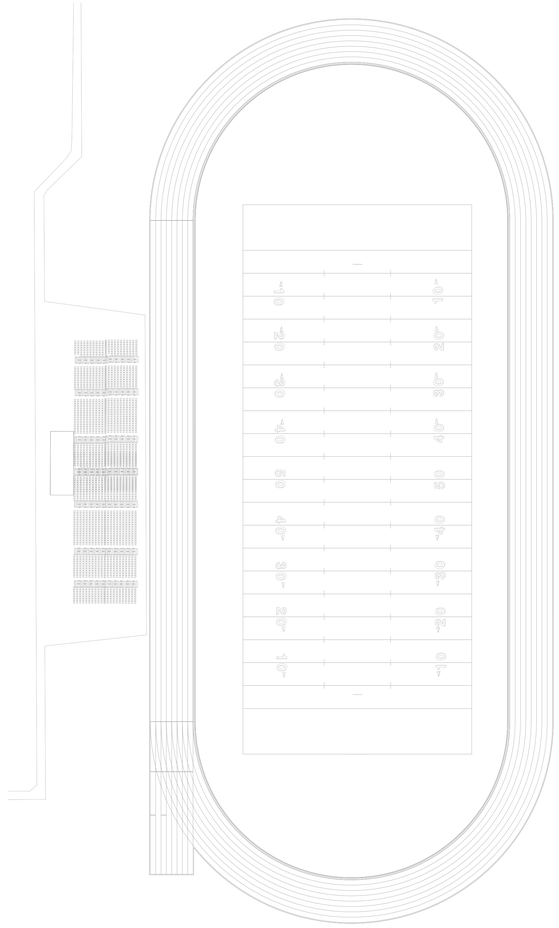
PROJECT NO.	25-006
DATE:	12/05/2025
DRAWN BY: BP	CHECKED BY: CCG

REVISIONS:

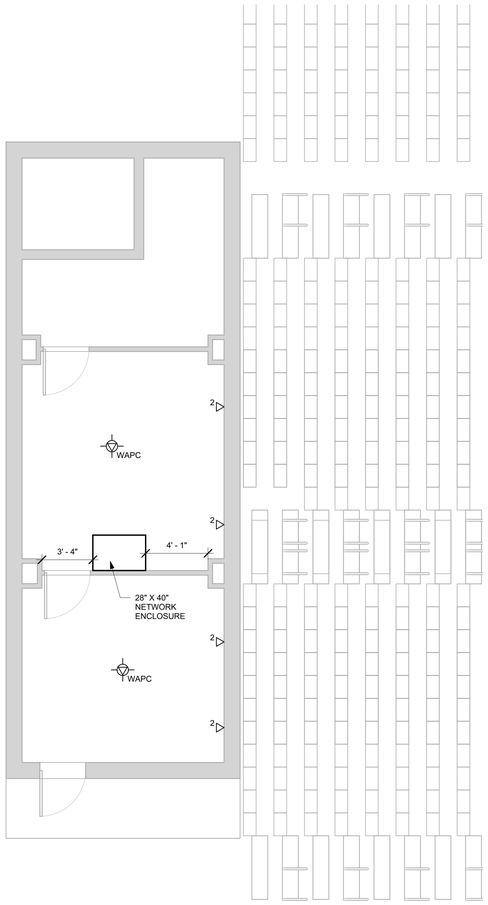
	Date	Description

100% CD

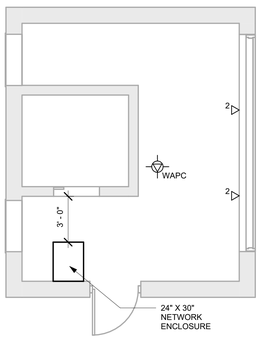
T100-W
TECHNOLOGY SITE PLAN



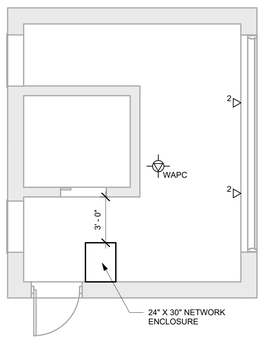
1 TECHNOLOGY SITE PLAN - FOOTBALL
T201-W 1" = 40'-0"



2 TECHNOLOGY LEVEL 01 FLOOR PLAN - FOOTBALL PRESSBOX
T201-W 1/4" = 1'-0"



3 TECHNOLOGY LEVEL 02 FLOOR PLAN - BASEBALL PRESSBOX
T201-W 1/4" = 1'-0"



4 TECHNOLOGY LEVEL 02 FLOOR PLAN - SOFTBALL PRESSBOX
T201-W 1/4" = 1'-0"

TECHNOLOGY FLOOR PLAN GENERAL NOTES

1. THE TECHNOLOGY REGION / WIRING BOUNDARIES ARE IDENTIFIED ON THE OVERALL SHEETS ONLY AND NOT ON THE ENLARGED SHEETS. THE CONTRACTOR SHALL REFER TO THE OVERALL SHEETS FOR ALL TECHNOLOGY REGIONS / WIRING BOUNDARIES.
2. ALL CONDUIT PATHWAYS, ROUGH-INS, BACKBOXES, FLOOR BOXES, CONDUIT SLEEVES, ETC. INDICATED ON TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
3. ALL POWER INDICATED ON THE TECHNOLOGY DRAWINGS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26.
4. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH FIRE-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING BACK TO THE ORIGINAL RATING.
5. THE CONTRACTOR SHALL RESTORE ALL PENETRATIONS PROVIDED THROUGH NON-RATED WALLS/STRUCTURES FOR TECHNOLOGY CABLING FOR SOUND ATTENUATION TO REDUCE NOISE TRAVELING THROUGH PENETRATIONS.
6. TECHNOLOGY CABLING SHALL BE ROUTED IN SEPARATE PATHWAYS IN J-HOOKS, CONDUITS, CONDUIT SLEEVES, CORES, ETC. THROUGHOUT THE ENTIRE PATHWAY. DIFFERENT MEDIA TYPES (DATA, VIDEO, SECURITY, ETC.) SHALL NOT SHARE THE SAME J-HOOK, CONDUIT, CONDUIT SLEEVE, CORE, ETC.
7. UNLESS NOTED OTHERWISE, ALL CONDUITS FOR TECHNOLOGY DEVICES SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE AN ACCESSIBLE CEILING (AN OPEN CEILING OR CLOUD TYPE CEILING IS NOT CONSIDERED AN ACCESSIBLE CEILING) IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF A MAIN CORRIDOR. CONDUIT PATHWAYS SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF / IDF ROOM TO MINIMIZE CABLE LENGTHS ENSURING CABLE LENGTHS DO NOT EXCEED 275 FEET.
8. UNLESS NOTED OTHERWISE ALL CONDUITS SHALL BE HOMERUN FROM THE DEVICE LOCATION AND NO DAISY CHAINING OF DEVICES / ROUGH-INS SHALL BE ALLOWED.
9. CONDUIT SEGMENTS SHALL BE NO MORE THAN 100 FEET IN LENGTH WITH NO MORE THAN THE EQUIVALENT OF (2) 90 DEGREE BENDS BETWEEN PULLING POINTS.
10. CONDUITS SHALL MAINTAIN A BEND RADIUS OF 6 TIMES THE DIAMETER OF CONDUITS 2-INCHES OR SMALLER AND 10 TIMES THE DIAMETER OF THE CONDUITS GREATER THAN 2-INCHES.
11. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR PULLING OF THE CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
12. ALL SPARE CONDUITS OR CONDUITS FILLED WITH LESS THAN THE MAXIMUM ALLOWED FILL RATIO SHALL HAVE A PULL STRING INSTALLED AND LEFT FOR FUTURE PULLING OF CABLE. CLEARLY LABEL AS "PULL STRING" INDICATING OPPOSITE END LOCATION.
13. EQUIPMENT NOT RELATED TO THE SUPPORT OF THE TELECOMMUNICATIONS ROOM (E.G., PIPING, DUCTWORK, PNEUMATIC TUBING) SHALL NOT BE INSTALLED IN, PASS THROUGH, OR ENTER THE TELECOMMUNICATIONS ROOM.
14. ALL CONDUITS FOR TECHNOLOGY DEVICES SHALL ROUTE FROM THE DEVICE LOCATION AND TERMINATE ABOVE A LAY- IN TYPE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE A LAY-IN TYPE CEILING TO PREVENT THE CABLES FROM BEING EXPOSED, THE CONDUIT SHALL ROUTE TO THE NEAREST LAY-IN TYPE CEILING OFF A MAIN CORRIDOR OR THE NEAREST MDF/IDF. THE CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE MAIN CORRIDOR OR THE NEAREST MDF/IDF TO MINIMIZE THE CABLE LENGTH ENSURING THE CABLE LENGTH DOES NOT EXCEED 275 FEET. CONDUIT, CONNECTIONS, J-BOXES, SUSPENSION, ANCHORAGES, AND OTHER CONDUIT COMPONENTS EXPOSED TO VIEW IN PUBLIC SPACES SHALL BE ROUTED AND INSTALLED CAREFULLY TO MINIMIZE VISUAL IMPACT AND SHALL BE FULLY PAINTED TO MATCH UNLESS NOTED OTHERWISE.
15. CONDUIT(S) INSTALLED IN-SLAB OR UNDER-SLAB TO FLOOR BOXES, POKE-THURS, AND TO WORKAREA OUTLETS, ETC. SHALL BE INSTALLED WITH WET RATED CABLE(S).
16. NO GRID WIRE SHALL BE UTILIZED FOR SUPPORTS ONLY USE SOLID SUPPORTS (CLIPS, ALL-THREAD, ANCHORS, ETC.).
17. WIRE BASKET TRAY SHALL HAVE A 6" CLEARANCE FROM CEILING TILE TO THE BOTTOM OF BASKET TRAY, 12" CLEARANCE FROM THE TOP OF THE BASKET TRAY TO HVAC UNITS, HVAC DUCTS, HEATING DUCTS, AND HEATING EQUIPMENT, ETC., AND 12" CLEARANCE FROM THE SIDE OF THE BASKET TRAY TO HVAC UNITS, HVAC DUCTS, HEATING DUCTS, AND HEATING EQUIPMENT, ETC. WIRE BASKET TRAY SHALL BE PROPERLY GROUNDED AND BONDED AS PER INDUSTRY STANDARDS (BY DIV. 26).

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

16301 Chimney Rock Rd, Houston, TX 77053

WILLOWRIDGE HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL A. POHLE
20113
STATE OF TEXAS

12-05-2025

PROJECT NO. 25-006
DATE: 12/05/2025
DRAWN BY: BP CHECKED BY: CCG
REVISIONS:

	Date	Description

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T201-W

TECHNOLOGY SITE PLAN - FIELD AND PRESSBOX

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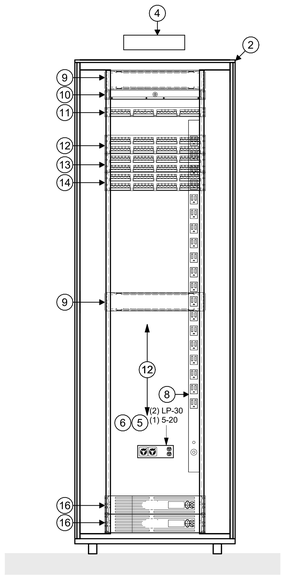
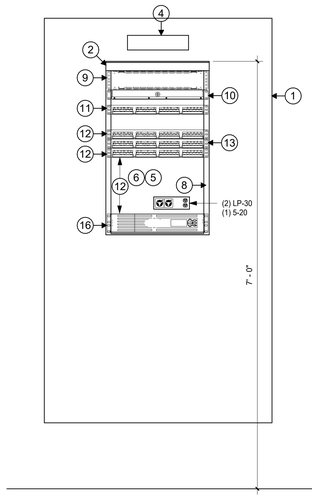


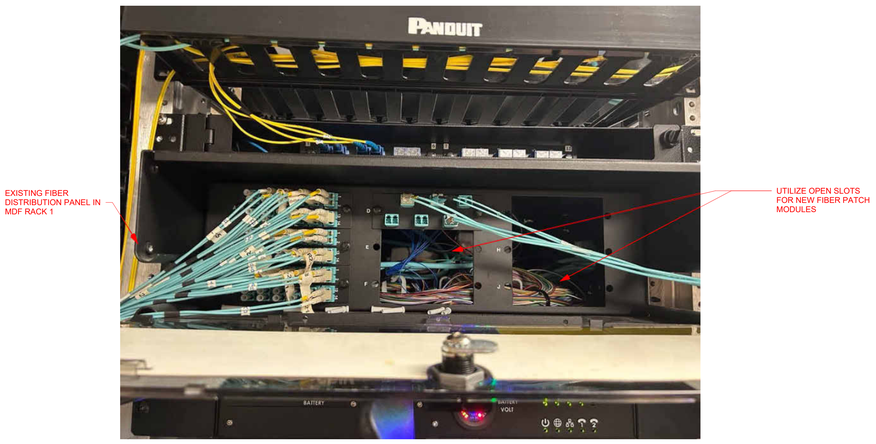
1 T300-W FREE-STANDING28" W X 40" DEEP NETWORK ENCLOSURE
N.T.S.



2 T300-W WALL MOUNTED 28" W X 40" DEEP NETWORK ENCLOSURE
N.T.S.



3 T300-W EXISTING MDF G116.5 RACK SYSTEM
N.T.S.



4 T300-W EXISTING MDF G116.5 FIBER DISTRIBUTION PANEL
N.T.S.

ENLARGED PLAN GENERAL NOTES

1. IN THE EVENT THE CONTRACTOR PROVIDES AND INSTALLS 2-POST EQUIPMENT RACKS IN THE MDFIDF ROOMS, THE DIMENSION 27 CONTRACTOR SHALL COORDINATE WITH THE OWNER TO DETERMINE IF THE OWNER NEEDS ADDITIONAL EQUIPMENT RACK SUPPORT SUCH AS RAILS OR DEEP SHELVING TO SUPPORT FUTURE OWNER PROVIDED/OWNER INSTALLED UPS SYSTEM EQUIPMENT.
2. CONTRACTOR SHALL CONFIRM PATCH PANEL COUNTS WITH CABLE QUANTITIES PRIOR TO BIDDING. PATCH PANEL QUANTITY SHALL BE BASED OF OFF DEVICE QUANTITY SHOWN ON FLOOR PLANS AND REQUIRED SPARE PORTS PATCH PANEL QUANTITY SHOWN ON RACKS ARE FOR REFERENCE ONLY.
3. EQUIPMENT NOT RELATED TO THE SUPPORT OF THE TELECOMMUNICATIONS ROOM IEG. PIPING, DUCTWORK PNEUMATIC TUBING) SHALL NOT BE INSTALLED IN, PASS THROUGH OR ENTER THE TELECOMMUNICATIONS ROOM.
4. A VERTICAL SECTION OF LADDER RACK SHALL BE ATTACHED TO THE WALLBOARD TO MANAGE BACKBONE CABLES, SERVICE PROVIDER CABLES, OR CABLES AS THEY TRANSITION FROM THE ENTRANCE CONDUITS TO OVERHEAD LADDER RACK.
5. MAX (5) DATA PATCH PANELS ON INITIAL INSTALLATION ANY ADDITIONAL PATCH PANEL WILL BE PLACE ON THE NEXT RACK.
6. ALL RACK EQUIPMENT AND PATCH PANELS SHALL BE MOCKED UP AND COORDINATED WITH OWNER AND CONSULTANT PRIOR TO PERMANENT ATTACHMENT AND OR INSTALLATION.

ENLARGED PLAN KEYED NOTES

1. 4-FEET X 8-FEET X ¾-INCH A-B GRADE, VOID FREE, FIRE RATED PLYWOOD INSTALLED VERTICALLY STARTING AT 24-INCHES ABOVE FINISHED FLOOR ON ALL PERIMETER WALLS. PAINT WITH (2) COATS OF FIRE RETARDANT PAINT. (BY DIV. 27)
2. FREE STANDING 28"W X 40" D NETWORK ENCLOSURE (BY DIV 27)
3. WALL MOUNTED 24"W X 30" D NETWORK ENCLOSURE (BY DIV 27)
4. GROUND BUS BAR MOUNTED AT 84-INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
5. DEDICATED 20 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH DUPLEX NEMA 5-20R RECEPTACLE MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR BEHIND THE EQUIPMENT RACKS. (BY DIV. 26)
6. DEDICATED 30 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH SIMPLEX NEMA L6-30R TWIST LOCK RECEPTACLE MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR BEHIND THE EQUIPMENT RACKS. (BY DIV. 26)
7. 20 AMP CIRCUIT ON EMERGENCY/GENERATOR BACK-UP WITH DUPLEX NEMA 5-20R RECEPTACLE FLUSH MOUNTED TO THE FINISHED WALL SURFACE AT 18-INCHES ABOVE FINISHED FLOOR. (BY DIV.26)
8. VERTICAL POWER STRIP WITH STAND-OFF BRACKET(S), MOUNTED ON THE BACK SIDE OF RELAY RACKS. VERTICAL POWER AND STAND-OFF BRACKETS SHALL NOT INTERFERE WITH NETWORK SWITCHES. (BY DIV. 27)
9. 2RU HORIZONTAL WIRE MANAGER (BY DIV. 27)
10. 1RU RACK MOUNTED FIBER OPTIC ENCLOSURE (BY DIV. 27)
11. 1RU VOICE BACKBONE 24 PORT ANGLED PATCH PANEL (BY DIV. 27)
12. ANGLED PATCH PANEL FOR VIDEO SURVEILLANCE CABLES (BY DIV. 27)
13. ANGLED PATCH PANEL FOR WIRELESS ACCESS POINT CABLES (BY DIV. 27)
14. ANGLED PATCH PANEL FOR DATA CABLES (BY DIV. 27)
15. CISCO DATA NETWORK EQUIPMENT (BY OWNER)
16. UNINTERRUPTIBLE POWER SUPPLY (BY OWNER)

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
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REGISTERED ARCHITECT
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T300-W
TECHNOLOGY
ENLARGED VIEWS

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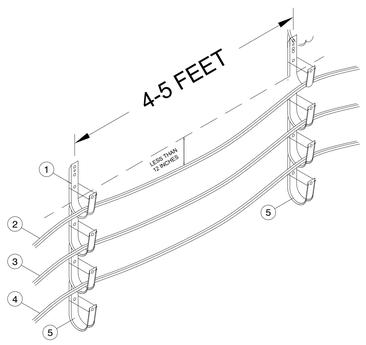
NOTE TO CONTRACTOR:
UNLESS OTHERWISE NOTED, LOW VOLTAGE CABLING SHALL BE INSTALLED WITHIN 6-INCHES OF THE CEILING AND LAST VERTICALLY SITUATED J-HOOK SHALL BE NO HIGHER THAN 18" OF CEILING. CABLES AND SUPPORTS SHELL BE ACCESSIBLE BY TECHNICIAN ON A STANDARD A-FRAME LADDER.

CONTRACTOR SHALL MAINTAIN AT LEAST 6-INCHES OF SEPARATION BETWEEN CABLING BUNDLES AND MECHANICAL DUCTWORKS, EQUIPMENT, PIPING OR OTHER SYSTEMS IN THE CEILING PLENUM

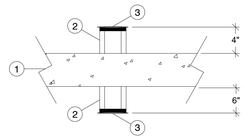


KEYED NOTES:

1. J-HOOK WITH RETAINER CLIP ABOVE ACCESSIBLE CEILING (BY DIV 27).
2. DATA CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).
3. A/V CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27).
4. SECURITY CABLE ABOVE ACCESSIBLE CEILING (BY DIV 28).
5. SPARE J-HOOK (BY DIV 27).

1 / T400-W TYPICAL J-HOOK CABLE PATHWAY

SCALE: N.T.S.

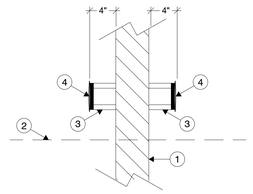


KEYED NOTES:

1. SCHEDULED FLOOR OR DECK.
2. CONDUIT SLEEVE (BY DIV 26).
3. NYLON BUSHING (BY DIV 26).

2 / T400-W TYPICAL CONDUIT SLEEVE THROUGH FLOOR OR DECK DETAIL

SCALE: N.T.S.

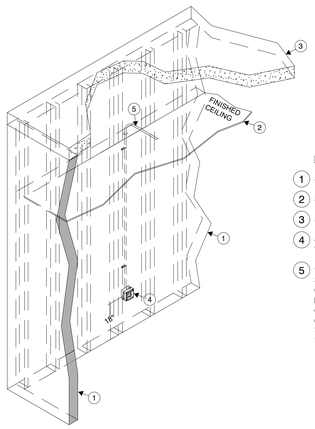


KEYED NOTES:

1. SCHEDULED WALL.
2. SCHEDULED CEILING.
3. CONDUIT SLEEVE (BY DIV 26).
4. NYLON BUSHING (BY DIV 26).

3 / T400-W TYPICAL CONDUIT SLEEVE GOING THROUGH WALL

SCALE: N.T.S.

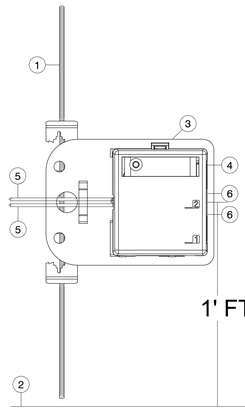


KEYED NOTES:

1. SCHEDULED WALL.
2. SCHEDULED CEILING.
3. SCHEDULED DECK ABOVE.
4. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX WITH DOUBLE GANG PLASTER RING (BY DIV 26).
5. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH. (BY DIV 26).

4 / T400-W TYPICAL TECHNOLOGY CONDUIT ROUGH-IN

SCALE: N.T.S.

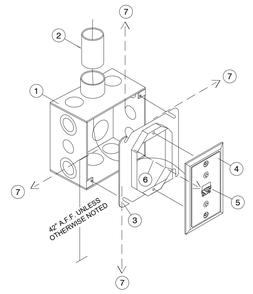


KEYED NOTES:

1. ALL THREAD TO BUILDING STRUCTURE (BY DIV. 27)
2. SCHEDULING CEILING
3. IN-PLENUM CEILING BRACKET PN 49223-CBC ATTACHED TO ALL THREAD (BY DIV. 27)
4. SURFACE MOUNT BOX ABOVE ACCESSIBLE CEILING SECURED TO BRACKET (BY DIV. 27)
5. DATA CABLE (BY DIV. 27)
6. DATA INSERT (BY DIV. 27)

5 / T400-W TYPICAL ABOVE CEILING DATA OUTLET

SCALE: N.T.S.

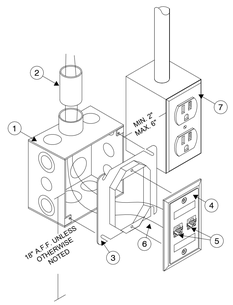


KEYED NOTES:

1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH PHONE STUDS (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. PROVIDE A MINIMUM OF 8-INCHES OF CLEARANCE AROUND BACK-BOX TO ACCOMODATE PHONE APPLIANCE THAT WILL BE INSTALLED ON THIS OUTLET

6 / T400-W TYPICAL WALL PHONE OUTLET CONFIGURATION

SCALE: N.T.S.



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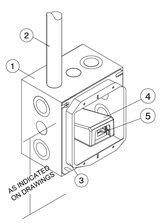
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

7 / T400-W TYPICAL DUAL DATA OUTLET CONFIGURATION

SCALE: N.T.S.



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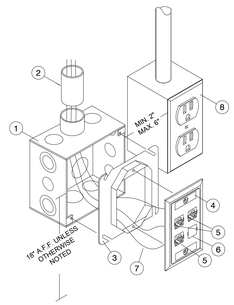
3. DOUBLE GANG PLASTER RING (BY DIV 26).
4. SURFACE MOUNT BOX INSIDE THE 4 11/16-INCH X 4 11/16-INCH X 2 1/8-INCH DOUBLE GANG BOX (BY DIV 27).
5. RJ-45 INSERT (BY DIV 27).

8 / T400-W TYPICAL WALL-MOUNTED WIRELESS ACCESS POINT

SCALE: N.T.S.



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3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. BLANK INSERT (BY DIV 27).
7. CABLE AS SPECIFIED (BY DIV 27).
8. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

9 / T400-W TYPICAL THREE DATA OUTLET CONFIGURATION

SCALE: N.T.S.

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office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
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REGISTERED ARCHITECT
MICHAEL A. ADAMS
20113
STATE OF TEXAS

12-05-2025

PROJECT NO.	25-006
DATE:	12/05/2025
DRAWN BY: BP	CHECKED BY: CCG

REVISIONS:

	Date	Description

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T400-W

TECHNOLOGY TYPICAL DETAILS

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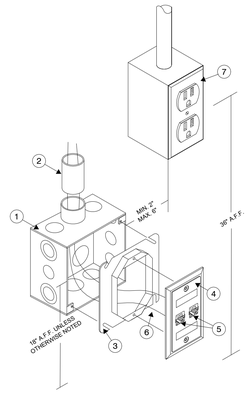

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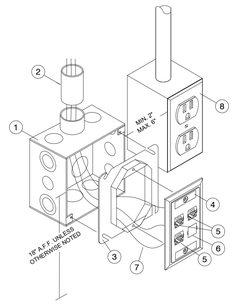
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26). ELECTRICAL RECEPTACLE TO BE INSTALLED AT 36" A.F.F AND ADJACENT TO COW / SECONDARY TEACHING OUTLET LOCATION.

TYPICAL COW / SECONDARY TEACHER'S DATA OUTLET CONFIGURATION

1 / T401-W SCALE: N.T.S.



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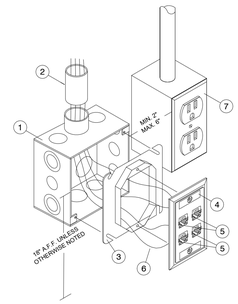
5. DATA INSERT (BY DIV 27).
6. BLANK INSERT (BY DIV 27).
7. CABLE AS SPECIFIED (BY DIV 27).
8. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

TYPICAL THREE DATA OUTLET CONFIGURATION

2 / T401-W SCALE: N.T.S.



KEYED NOTES:

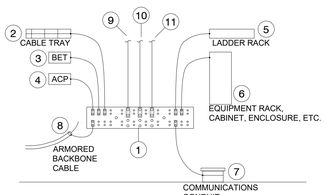
1. 4 11/16-INCH x 4 11/16-INCH x 2 1/8-INCH RECESSED DOUBLE GANG BOX (BY DIV 26).
2. 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH (BY DIV 26).
3. SINGLE GANG REDUCER RING (BY DIV 26).
4. SINGLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27).
5. DATA INSERT (BY DIV 27).
6. CABLE AS SPECIFIED (BY DIV 27).
7. ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26).

TYPICAL FOUR DATA OUTLET CONFIGURATION

3 / T401-W SCALE: N.T.S.

GENERAL NOTES:

1. MAKE ALL BONDING CONNECTIONS WITH TWO-HOLE COMPRESSION LUGS.
2. SIZE ALL BONDING CONDUCTORS PER TELECOM BONDING CONDUCTOR SIZING TABLE.
3. THIS IS A TYPICAL DETAIL, NOT ALL EQUIPMENT REQUIRING BONDING MAY BE PRESENT IN EACH TELECOM ROOM.



KEYED NOTES:

1. TELECOMMUNICATIONS GROUNDING BUSBAR WITH BICSI STYLE HOLE PATTERN, SIZED PER [DRAWINGS/SPECIFICATIONS] (BY DIV 27).
2. BOND TO CABLE TRAY IN CORRIDOR. (BY DIV 26)
3. BOND TO BUILDING ENTRANCE TERMINALS AND PROTECTORS. (BY DIV 27)
4. BOND TO ACCESS CONTROL PANELS AND OTHER SECURITY ENCLOSURES. (BY DIV 28)
5. BOND TO OVERHEAD LADDER RACK; ENSURE ALL LADDER RACK SECTIONS ARE BONDED TOGETHER. (BY DIV 27)
6. BOND TO EACH EQUIPMENT RACK, CABINET, ENCLOSURE, ETC. (BY DIV 27)
7. BOND TO EACH CONTINUOUS COMMUNICATIONS CONDUIT THAT ENTERS THE TELECOM ROOM. (SLEEVES DO NOT NEED TO BE BONDED). (BY DIV 26)
8. BOND TO EACH ARMORED BACKBONE CABLE THAT TERMINATES IN THE TELECOM ROOM. (BY DIV 27)
9. FOR TELECOMMUNICATIONS MAIN GROUNDING BUSBAR, PROVIDE BONDING CONDUCTOR FOR TELECOMMUNICATIONS TO MAIN ELECTRICAL GROUND. (BY DIV 26).
10. FOR TELECOMMUNICATIONS GROUNDING BUSBARS ONLY: BONDING CONDUCTOR TO [BUILDING STEEL] [TELECOMMUNICATIONS BONDING BACKBONE] [GROUND BUS OF ELECTRICAL PANEL SERVING TELECOM ROOM POWER]. (BY DIV 26)
11. [FOR TELECOMMUNICATIONS MAIN GROUNDING BUSBAR, PROVIDE TELECOMMUNICATIONS BONDING BACKBONE PER TYPICAL GROUNDING DIAGRAM.] (BY DIV 26)

TELECOMMUNICATIONS BONDING BUSBAR DETAIL

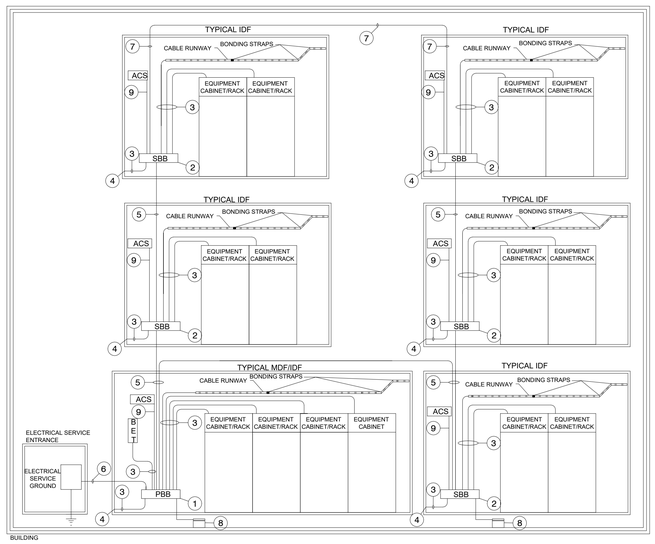
4 / T401-W SCALE: N.T.S.

TBB/GE CONDUCTOR SIZING	
LENGTH IN LINEAR M (FT)	SIZE (AWG)
LESS THAN 4 (13)	6
4 - 6 (14-20)	4
6 - 8 (21 - 26)	3
8 - 10 (27 - 33)	2
10 - 13 (34 - 41)	1
13 - 16 (42 - 52)	1/0
16 - 20 (53 - 66)	2/0
20 - 26 (67 - 84)	3/0
26 - 32 (85 - 105)	4/0
32 - 38 (106 - 125)	250 kcmil
38 - 46 (126 - 150)	300 kcmil
46 - 53 (151 - 175)	350 kcmil
53 - 76 (176 - 250)	500 kcmil
76 - 91 (251 - 300)	600 kcmil
GREATER THAN 91 (301)	750 kcmil

ROUTE THE TBB TO EACH TGB IN AS STRAIGHT A PATH AS POSSIBLE. THE TBB SHOULD BE INSTALLED AS A CONTINUOUS CONDUCTOR, AVOIDING SPLICES WHERE POSSIBLE.

TBB CONDUCTOR SIZING

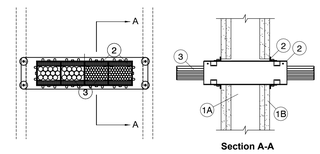
5 / T401-W SCALE: N.T.S.



1. TELECOMMUNICATIONS MAIN GROUNDING BUS BAR (PBB)(BY DIV. 27)
2. TELECOMMUNICATIONS GROUNDING BUS BAR (SBB) (BY DIV 27)
3. TELECOMMUNICATIONS BONDING CONDUCTOR (TBC). REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS (BY DIV 27)
4. CONNECT TO GROUNDED BUILDING STEEL WHEN EXPOSED IN ROOM.
5. TELECOMMUNICATIONS BONDING BACKBONE (TBB). REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS (BY DIV 26)
6. TELECOMMUNICATIONS BONDING CONDUCTOR (TBC). BY ELECTRICAL CONTRACTOR.REFER TO CONDUCTOR SIZING CHART FOR EXACT SIZE REQUIREMENTS.
7. GROUNDING EQUALIZER CONDUCTOR (GEC)(BY DIV 26)
8. BOUND WITH GROUDING COLLARS TO EACH CONTINUOUS CONDUIT THAT ENTERS THE TELECOM ROOM. (BY DIV 26).
9. BOND TO EACH ACCESS CONTROL PANEL AND OTHER SECURITY PANELS IN HE TELECOM ROOM. (BY DIV 27)

TYPICAL GROUNDING DIAGRAM

6 / T401-W SCALE: N.T.S.



Section A-A

System No. W-L-3218
F Ratings - 1, 2, 3 and 4 Hr (See Items 1 and 3)
T Ratings - 3/4 and 1 Hr (See Item 3)
L Rating At Ambient - Less Than 1, 1.3, 4 or 7 CFM (See Item 3)
L Rating At 400 F - Less Than 1, 2 or 3 CFM (See Item 3)

1. Wall Assembly - The 1, 2, 3 or 4 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described within the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall incorporate the following construction features:
   A. Studs - Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* - Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Opening in gypsum board to be max 1/4 in. (6 mm) larger then width and height dimensions of firestop device(s).

   The hourly F Rating of the firestop system is dependent upon the hourly rating of the wall in which it is installed.
2. Firestop Device* - One, two, three, four or seven firestop device modules ganged together. Each firestop device module consists of a 3 by 3 by 10-1/2 in. (76 by 76 by 267 mm) long galv steel tube with an intumescent material lining. Firestop device modules to be installed in accordance with the accompanying installation instructions. The space between the firestop device module(s) and the periphery of the opening shall be min 0 in. (0 mm, point contact) to max 1/8 in. (3.2 mm). In round openings, the space between the firestop device and the periphery of the opening shall be min 0 in. (point contact) to max 1/2 in. (13 mm). Firestop device module(s) secured in place by means of steel wall plates installed with gasketing material supplied with product. Steel wall plates installed on both sides of wall and secured to each device by means of steel set screws provided with device. Each four- and seven-gang steel wall plate shall be fastened to the studs with steel screws sized to extend through the gypsum board layers and penetrate 1/2 in. (13 mm) into the framing member. Each firestop device module is to be installed with ends projecting an equal distance beyond each surface of the wall assembly.

   As an alternate, the four- and seven-gang steel wall plates may be installed directly against the studs for walls having 16 and 24 in. (406 and 610 mm) center-to-center stud spacing, respectively, prior to installation of the gypsum board layers. The steel wall plates shall be secured to the stud by means of steel screws. After installation of the steel wall plates and firestop device modules, the gypsum board shall be installed as specified in the individual U300 or U400 Design with a maximum 1/8 in. (3.2 mm) gap between the firestop device module and the cutout in the gypsum board. Gap between the firestop device module and the cutout in the gypsum board may be filled with gypsum joint compound or fill material (Item 4).

   SPECIFIED TECHNOLOGIES INC - EZ PATH Series 33 Fire Rated Pathway

2A. Firestop Device* - Extension Module - (Optional, Not Shown) - Module attached to ends of 3 by 3 by 10-1/2 in. (76 by 76 by 267 mm) long firestop device (Item 3) to increase its length to facilitate installation in thicker walls. Each module consists of a 3 by 3 by 6 in. (76 by 76 by 152 mm) long galv steel tube with an intumescent material lining. Extension module to be installed in accordance with the accompanying installation instructions. When module is used, firestop device (Item 2) and extension module(s) secured in place by means of steel wall plates installed with gasketing material supplied with product. Steel wall plates installed on both sides of wall and secured to each device or extension module(s) by means of steel set screws provided with wall plates. Firestop device and extension module(s) assembly to be installed with ends projecting an equal distance beyond each surface of the wall assembly.

   SPECIFIED TECHNOLOGIES INC - EZ PATH Extension

3. Cables - Within the loading area for each firestop device module, the cables may represent a 0 to 100 percent visual fill. Cable fill to be distributed at a uniform height across the width of the firestop device module. Cables to be rigidly supported on both sides of the wall assembly. Any combination of the following types of cables may be used:
   A. Max 400 pair No. 24 AWG (or smaller) copper conductor telecommunication cable with polyvinyl chloride (PVC) jacketing and insulation.
   B. Max 350 kcmil single copper conductor power cable with XLPE jacket and insulation
   C. Max 7/C No. 12 AWG copper conductor control cable with PVC or XLPE jacket and insulation.
   D. Max 3/C No. 10 AWG metal clad or armored cable with steel or aluminum jacket.
   E. Max 3/C No. 8 AWG NM cable (Romex) with PVC insulation and jacket.
   F. Max four pair No. 22 AWG (or smaller) copper conductor data cable with PVC or plenum rated jacketing and insulation.
   G. Max RG/U coaxial cable with fluorinated ethylene insulation and jacketing.
   H. Fiber optic cable with PVC or polyethylene (PE) jacket and insulation having a max diam of 5/8 in. (16 mm).
   I. Optical Fiber Raceway+ - Max 1-1/2 in. (38 mm) diam (or smaller) optical fiber raceway ("innerduct") formed of either PVC or polyvinylidene fluoride (PVDF) with optical fiber cable fill. Raceways installed in accordance with the National Electrical Code (NFPA 70).

   When the hourly rating of the wall assembly is 1 hr, the T Rating is 3/4 hr. When the hourly fire rating of the wall assembly is greater than 1 hr, the T Rating is 3/4 hr when Item 3A, 3B, 3C, 3D or 3E is used. Otherwise the T Rating is 1 hr. When Item 3A, 3B, 3C, 3D or 3E is used, the maximum F Rating is 2 hr. When max 200 pair No. 24 AWG telecommunication cable is used or when Item 3F, 3G, 3H or 3I is used, the maximum F Rating is 4 hr.

   The L Rating for each empty firestop device module is less than 1 cfm at ambient and at 400F. When Item 3A is used, the L Rating for each firestop device module with 100 percent visual fill is 4 cfm at ambient and 3 cfm at 400F. When Item 3F is used, the L Rating for each firestop device module with 100 percent visual fill is 1.3 cfm at ambient and 1 cfm at 400F. When Item 3G or 3H is used, the L Rating for each firestop device module with 100 percent visual fill is 7 cfm at ambient and 2 cfm at 400F.
4. Fill, Void or Cavity Material* - Sealant or Putty - (Not Shown) - As an alternate to gypsum joint compound, the gap between the firestop device module and the cutout in the gypsum board may be sealed with fill material on each side of the wall assembly when four- and seven-gang steel wall plates are installed directly against the wood or steel studs.

   SPECIFIED TECHNOLOGIES INC - SpecSeal Series SSS Sealant, SpecSeal LCI Sealant, SpecSeal Putty

   *Bearing the UL Classification Mark

TYPICAL STI EZ-PATH SLEEVE DETAIL

7 / T401-W SCALE: N.T.S.

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS
16301 Chimney Rock Rd, Houston, TX 77053
WILLOWRIDGE HIGH SCHOOL

FBISD
INSPIRE • EQUIP • IMAGINE
16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS
12-05-2025

PROJECT NO.	25-006
DATE:	12/05/2025
DRAWN BY: BP	CHECKED BY: CCG
REVISIONS:	
1 Date	Description

100% CD

T401-W
TECHNOLOGY TYPICAL DETAILS

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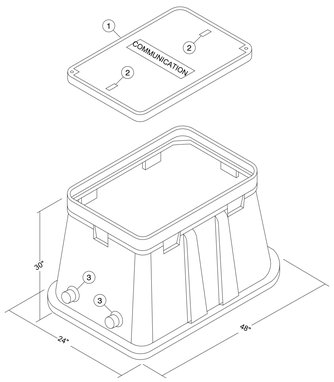
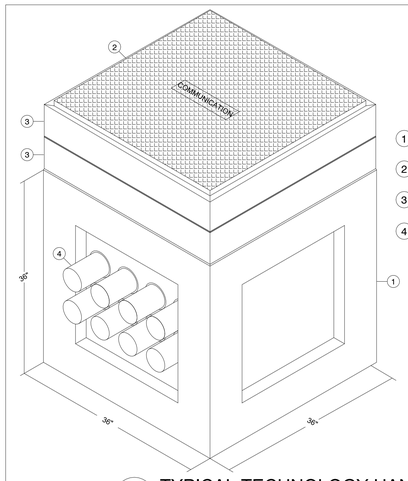


KEYED NOTES:

1. 40-INCH X 18-INCH COVER RATED FOR ENVIRONMENT WITH "COMMUNICATION" STENCILED ON TOP (BY DIV 26).
2. LIFTING EYE (BY DIV 26).
3. 4-INCH TERMINATOR (BY DIV 26).

1 / T402-W TYPICAL TECHNOLOGY HANDHOLES (HH)

SCALE: N.T.S.

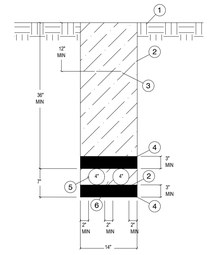


KEYED NOTES:

1. 36-INCH X 36-INCH X 36-INCH PRECAST HANDHOLE (BY DIV 26).
2. 36-INCH X 36-INCH COVER RATED FOR ENVIRONMENT WITH "COMMUNICATION" STENCILED ON TOP (BY DIV 26).
3. PRECAST EXTENSION AS REQUIRED TO MOUNT FLUSH WITH GRADE (BY DIV 26).
4. 4-INCH TERMINATOR (BY DIV 26).

2 / T402-W TYPICAL TECHNOLOGY HANDHOLE (HH)

SCALE: N.T.S.

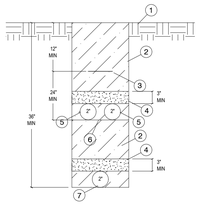


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. SELECT COMPACTED BACKFILL (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. COMMUNICATIONS CONDUIT (BY DIV 26).
6. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).

TYPICAL COMMUNICATIONS
3 / T402-W DUCT BANK DETAIL - (2) 4-INCH CONDUITS

SCALE: N.T.S.

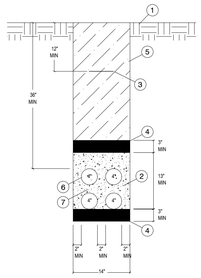


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. SELECT COMPACTED BACKFILL (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. COMMUNICATIONS CONDUIT (BY DIV 26).
6. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).
7. ELECTRICAL CONDUIT (BY DIV 26)

12-INCH SEPARATION COMMUNICATION
4 / T402-W AND ELECTRICAL SHARED DUCT BANK DETAIL

SCALE: N.T.S.

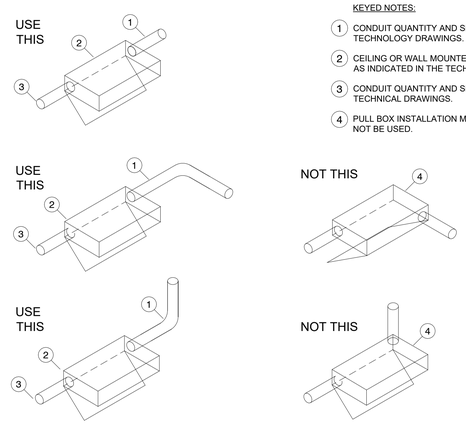


KEYED NOTES:

1. FINISHED GRADE (BY DIV 26).
2. 3000 PSI CONCRETE (BY DIV 26).
3. DETECTABLE WARNING TAPE (BY DIV 26).
4. COMPACTED SAND (BY DIV 26).
5. SELECT COMPACTED BACKFILL (BY DIV 26).
6. COMMUNICATIONS CONDUIT (BY DIV 26).
7. DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS) (BY DIV 26).

TYPICAL COMMUNICATIONS CONCRETE
5 / T402-W ENCASED DUCT BANK DETAIL - (4) 4-INCH CONDUITS

SCALE: N.T.S.



KEYED NOTES:

1. CONDUIT QUANTITY AND SIZE AS INDICATED IN THE TECHNOLOGY DRAWINGS.
2. CEILING OR WALL MOUNTED PULL BOX WITH LOCKING COVER AS INDICATED IN THE TECHNOLOGY DRAWINGS.
3. CONDUIT QUANTITY AND SIZE AND INDICATED IN THE TECHNICAL DRAWINGS.
4. PULL BOX INSTALLATION MEANS AND METHODS THAT SHALL NOT BE USED.

TYPICAL PULL BOX ENTRANCE
6 / T402-W POINT MEANS AND METHODS DETAIL

SCALE: N.T.S.

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

BP012 FIELD HOUSE AND ATHLETIC RENOVATIONS

16301 Chimney Rock Rd, Houston, TX 77053

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STATE OF TEXAS

12-05-2025

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REVISIONS:

No.	Date	Description

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T402-W
TECHNOLOGY TYPICAL DETAILS

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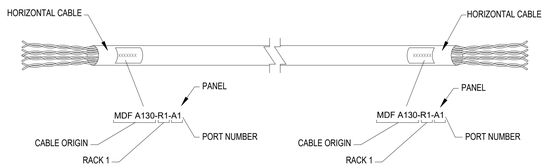
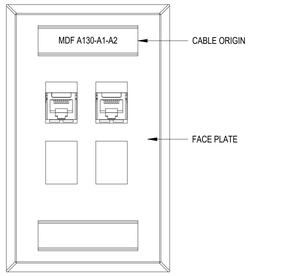
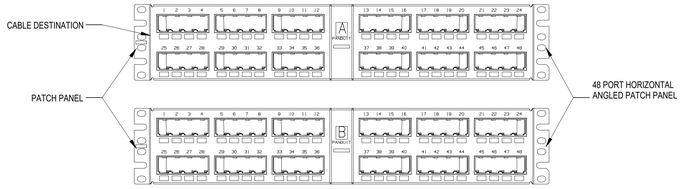
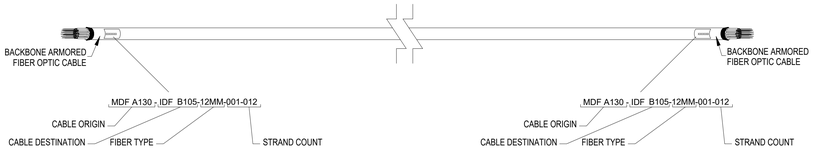


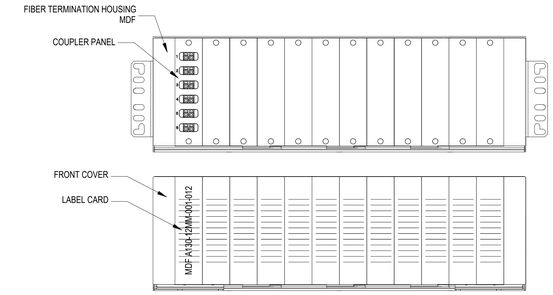




1 T500-W TYPICAL HORIZONTAL DATA CABLE LABELING SCHEME

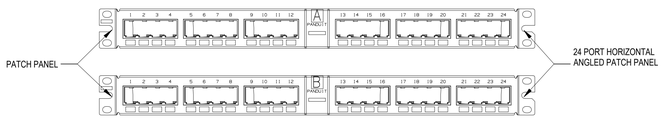
SCALE: N.T.S.





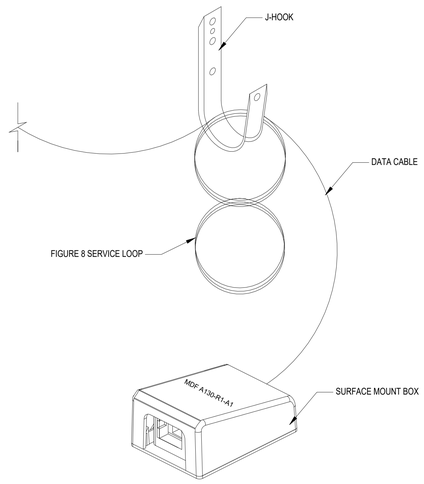
2 T500-W TYPICAL FIBER BACKBONE LABELING SCHEME

SCALE: N.T.S.



3 T500-W TYPICAL COPPER BACKBONE LABELING SCHEME

SCALE: N.T.S.



4 T500-W ABOVE ASSESSIBLE CEILING LABELING SCHEME

SCALE: N.T.S.

pfluger
office 713.222.1141 | fax: 713.222.1174
2 Greenway Plaza, Suite 460
Houston, Texas 77046
pflugerarchitects.com

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16301 Chimney Rock Rd, Houston, TX 77053
WILLOWRIDGE HIGH SCHOOL

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INSPIRE • EQUIP • IMAGINE
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Sugarland, TX 77479

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MICHAEL ADAM PFLUGER
20113
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REVISIONS:
	Date	Description

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T500-W
TECHNOLOGY TYPICAL LABELING SCHEME

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