FORT BEND ISD
BP010 TURF AND ATHLETICS

ISSUED FOR CONSTRUCTION

PROJECT NO: 25-005

SCHOOL LOGO

STEPHEN F. AUSTIN HIGH SCHOOL

DULLES HIGH SCHOOL

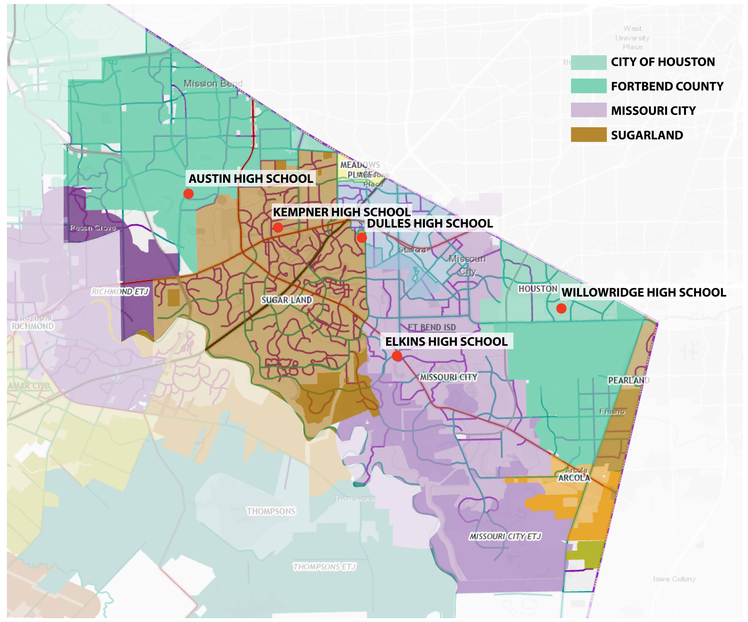
KEMPNER

WILLOWRIDGE

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

LOCATION MAPS



SCHOOL ADDRESS

Austin HS, 3434 Pheasant Creek Dr, Sugar Land, TX 77498
Dulles HS, 550 Dulles Ave, Sugar Land, TX 77478
Elkins HS, 7007 Knights Ct, Missouri City, TX 77459
Kempner HS, 14777 Voss Rd, Sugar Land, TX 77498
Willowridge HS, 16301 Chimney Rock Rd, Houston, TX 77053

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BP010 TURF AND ATHLETICS

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Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 10/09/2025

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REVISIONS:

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COVER

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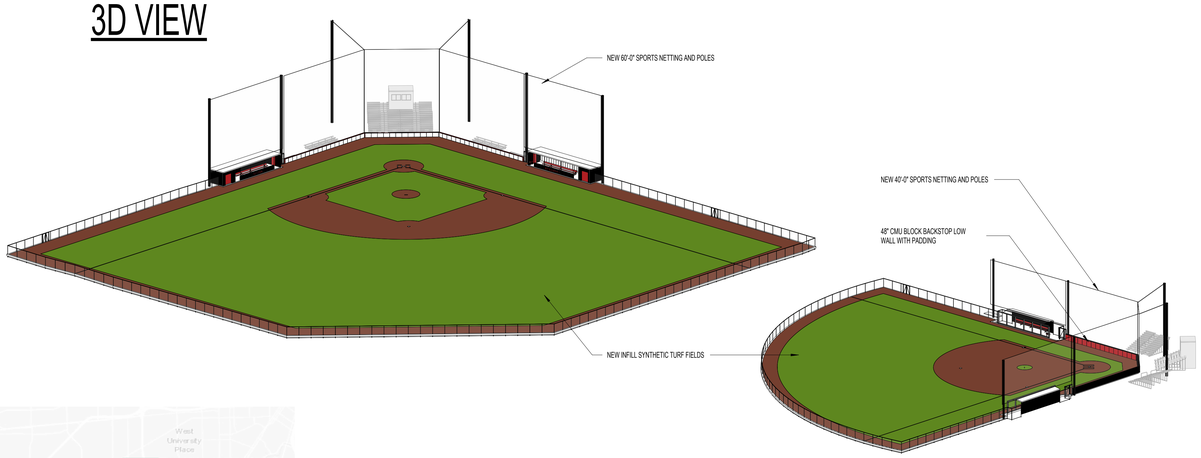
FORT BEND ISD
BP010 TURF AND ATHLETICS

ISSUED FOR CONSTRUCTION
AUSTIN HIGH SCHOOL

SCHOOL LOGO

STEPHEN F. AUSTIN
HIGH SCHOOL

3D VIEW



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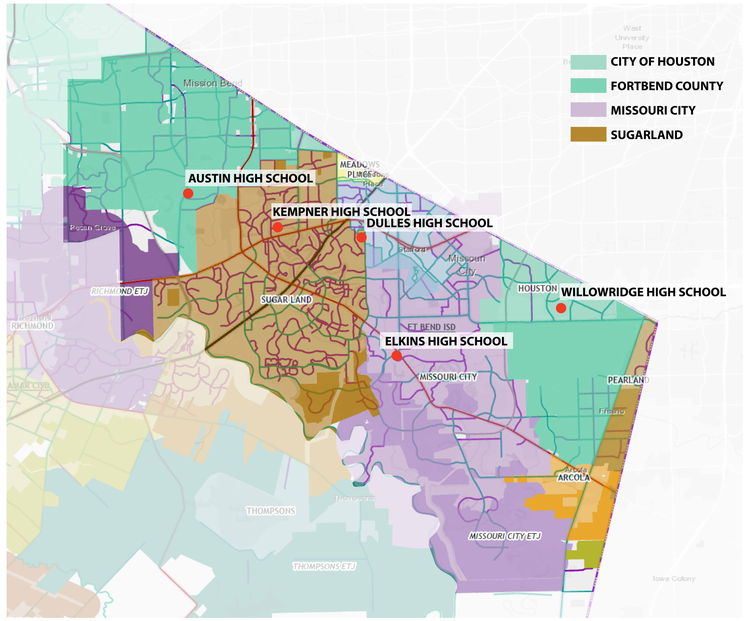
LOCATION MAPS



SCOPE OF WORK

SID 10503
REPLACE NATURAL GRASS BASEBALL AND SOFTBALL FIELDS WITH SYNTHETIC TURF

SID 10508
RENOVATE BASEBALL AND SOFTBALL BACKSTOPS, DUGOUTS, AND NETTING

SCHOOL ADDRESS

Austin HS, 3434 Pheasant Creek Dr, Sugar Land, TX 77498

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BP010 TURF AND ATHLETICS

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G0.00-A
COVER

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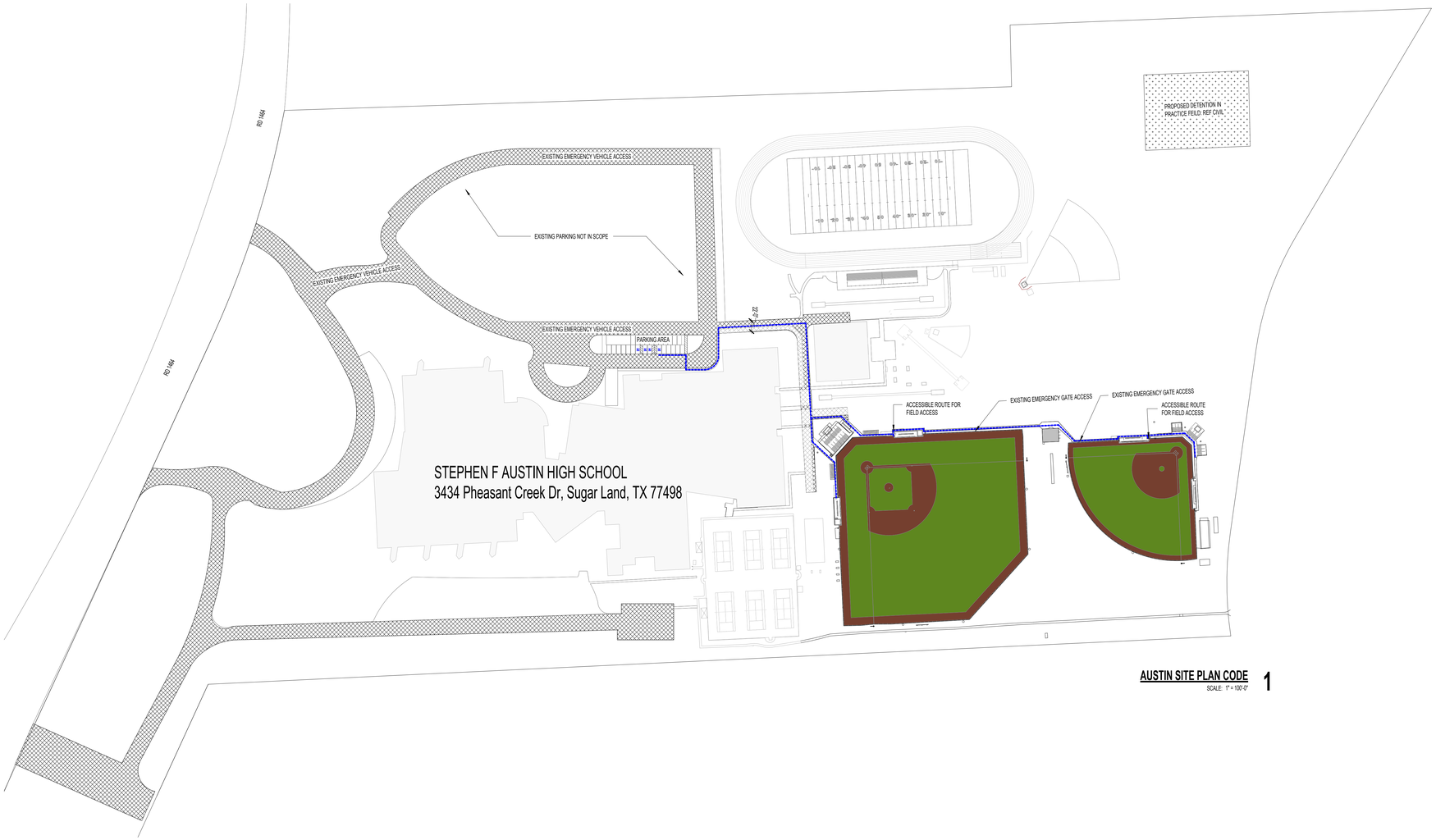


AUSTIN SITE PLAN CODE 1
SCALE: 1" = 100'-0"

GENERAL NOTES

1.ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.

2. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.

3.PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, IN COMPLIANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURSDICTION (AHJ). COORDINATE WITH LOCAL FIRE DEPARTMENT FOR APPROVED LOCK TYPE AND INSTALLATION LOCATION.

APPLICABLE CODES

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 101 LIFE SAFETY CODE (CHAPTER 43 - 2006 NFPA 101)
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 170 STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 70 NATIONAL ELECTRICAL CODE
2021 ASHRAE STANDARD 90.1 - ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)
2023 NATIONAL ELECTRICAL 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 – EDUCATION GROUP E

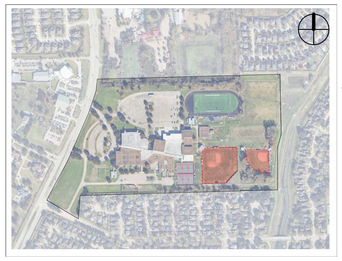
CHAPTER 6 - TYPES OF CONSTRUCTION

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

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

EXISTING EMERGENCY ACCESS PATH PERVIOUS
EXISTING EMERGENCY ACCESS PATH IMPERVIOUS
EXISTING ACCESSIBLE ROUTE



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

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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.

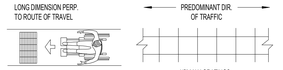
TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

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

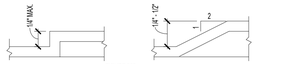


FIGURE 303

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)

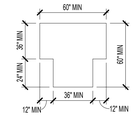
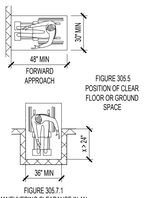


FIGURE 304.3.2 T-SHAPED TURNING SPACE

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 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 OR G

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.

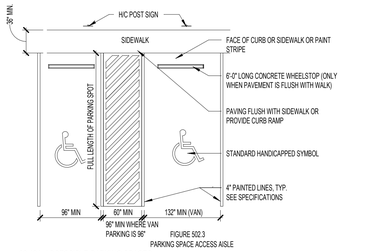
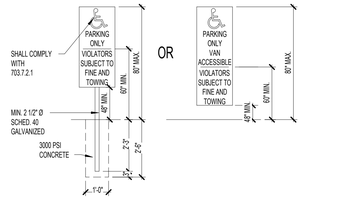


FIGURE 502.3
PARKING SPACE ACCESS AISLE

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.

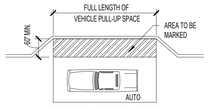
(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).



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.

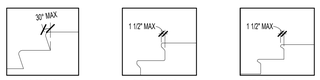


FIGURE 504.5
STAIR NOSINGS

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.

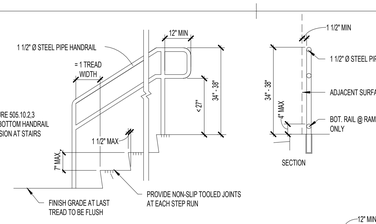


FIGURE 505.10.2,3
TOP AND BOTTOM HANDRAIL EXTENSION AT STAIRS

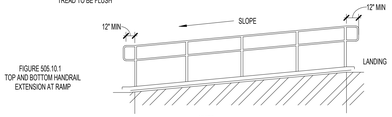


FIGURE 505.10.1
TOP AND BOTTOM HANDRAIL EXTENSION AT RAMP

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)

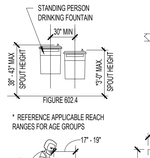
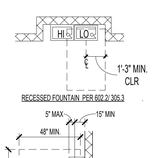


FIGURE 602.4



RECESSED FOUNTAIN, PER 602.2; 305.3

* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS

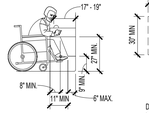




FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION

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

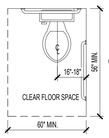


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

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.

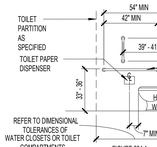


FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

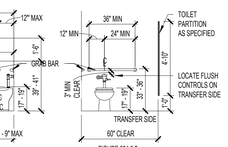


FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

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.

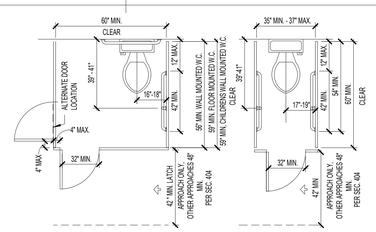


FIGURE 604.8.2
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

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.

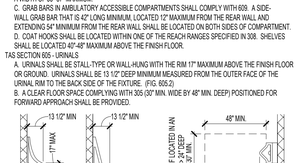
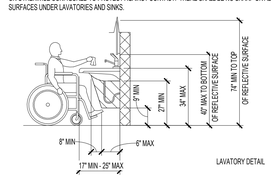
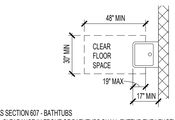


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

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.

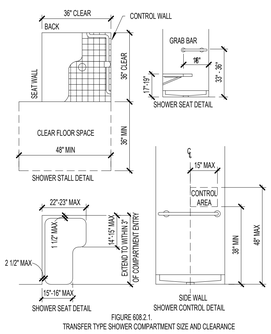


FIGURE 608.2.1
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

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. 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

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 LINE "A"

GINL–1
GRATE INLET
TOP 76.27
24" FL(N) 71.37
24" FL(S) 72.32
6" FL(W) 73.47

GINL–2
GRATE INLET
TOP 76.90
FL 73.30

GINL–3
GRATE INLET
TOP 79.77
6" FL(N) 78.17
12" FL(S) 75.52
6" FL(W) 77.32

GINL–4
GRATE INLET
TOP 79.06
FL 74.26

GINL–5
GRATE INLET
TOP 77.70
FL 73.65

MHSN–1
SAN. MANHOLE
RIM 78.76
12" FL(N&S) 71.36
8" FL(NW) 71.56

MHSN–2
SAN. MANHOLE
RIM 78.70
8" FL(E&W) 73.35

CP–1 CP–2 CP–3 CP–4 CP–5 CP–6 CP–8 CP–9 CP–10

BLOCK 1
RESTRICTED RESERVE "A"
PECAN MEADOW ESTATES
SECTION ONE
SLIDE 1236B AND 1237A
FORT BEND COUNTY PLAT RECORDS

10' H.L.&P. COMPANY EASEMENT
ADJOINING 11'–6" AERIAL ESMT. 16' UPWOARD
FILE NO. 9517191, O.P.R.F.B.C.

25' DRAINAGE EASEMENT
SLIDE NO. 1236B, F.B.C.P.R.

RED GULLY
(220' WIDE)
VOL. 865, PG. 601, F.B.C.D.R.

15'X20' SANITARY
SEWER EASEMENT
FILE NO. 9513483,
O.P.R.F.B.C.

3' GUY EASEMENT

STADIUM LIGHT
4"X4" WOOD POST
4"X4" WOOD POST
4"X4" WOOD POST
4"X4" WOOD POST
4"X4" WOOD POST

RESTRICTED RESERVE "H"
LANDSCAPE, OPEN SPACE

RESTRICTED RESERVE "I"
LANDSCAPE, OPEN SPACE

16' UTILITY EASEMENT
SLIDE NO. 1559A,
F.B.C.P.R.

16' UTILITY EASEMENT
SLIDE NO. 1559A
F.B.C.P.R.

BLOCK 3
SUMMERFIELD SECTION FOUR
SLIDE NO. 1559A
FORT BEND COUNTY PLAT RECORDS

8' UTILITY EASEMENT
SLIDE NO. 1294A&B,
F.B.C.P.R.

BLOCK 5
SUMMERFIELD SECTION ONE
SLIDE NO. 1294A&B
FORT BEND COUNTY PLAT RECORDS

15' TEMPORARY SANITARY
SEWER EASEMENT
VOL. 2490, PG. 92,
F.B.C.D.R.

16' UTILITY EASEMENT
SLIDE NO. 1294A&B,
F.B.C.P.R.

16' UTILITY EASEMENT
SLIDE NO. 1294A&B,
F.B.C.P.R.

25' DRAINAGE EASEMENT
SLIDE NO. 1294A&B,
F.B.C.P.R.

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:\2023\2320161 Austin HS\CADD\Austin HS Topo.dwg

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

DATE: JANUARY 2024
SCALE: 1" = 40'
DRAWING No.: –D–
JOB No.: 2320161.00
SHEET No. : 1 OF 2

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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

THIS SURVEY IS PROVIDED FOR REFERENCE ONLY. ALL SURVEY INFORMATION INCLUDING BUT NOT LIMITED TO PHYSICAL CHARACTERISTICS, LEGAL LIMITS, UTILITY LOCATIONS AND BENCHMARKS FOR THE PROJECT WAS PROVIDED BY THE OWNER. THE ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY AND EXTENT OF ALL SURVEY INFORMATION PREPARED BY OTHERS AND FURTHER DISCLAIM RESPONSIBILITY FOR INTERPRETATION OF THAT DATA BY BIDDERS AND CONTRACTORS.

PROJECT NO. BP010
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
1 Date Description

Project Status
C 0.02-A
CIVIL SPORTS
SURVEY
REFERENCE ONLY

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 # 2507



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.

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

FBC Engineering Approval

25' 50' 50' 0 100'

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SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED

10/09/2025

PROJECT NO. BP010
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status

C 0.03-A

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-A THROUGH C 5.03-A FOR DETAILS.

FBC Engineering Approval

25' 50'
50' 0 100'

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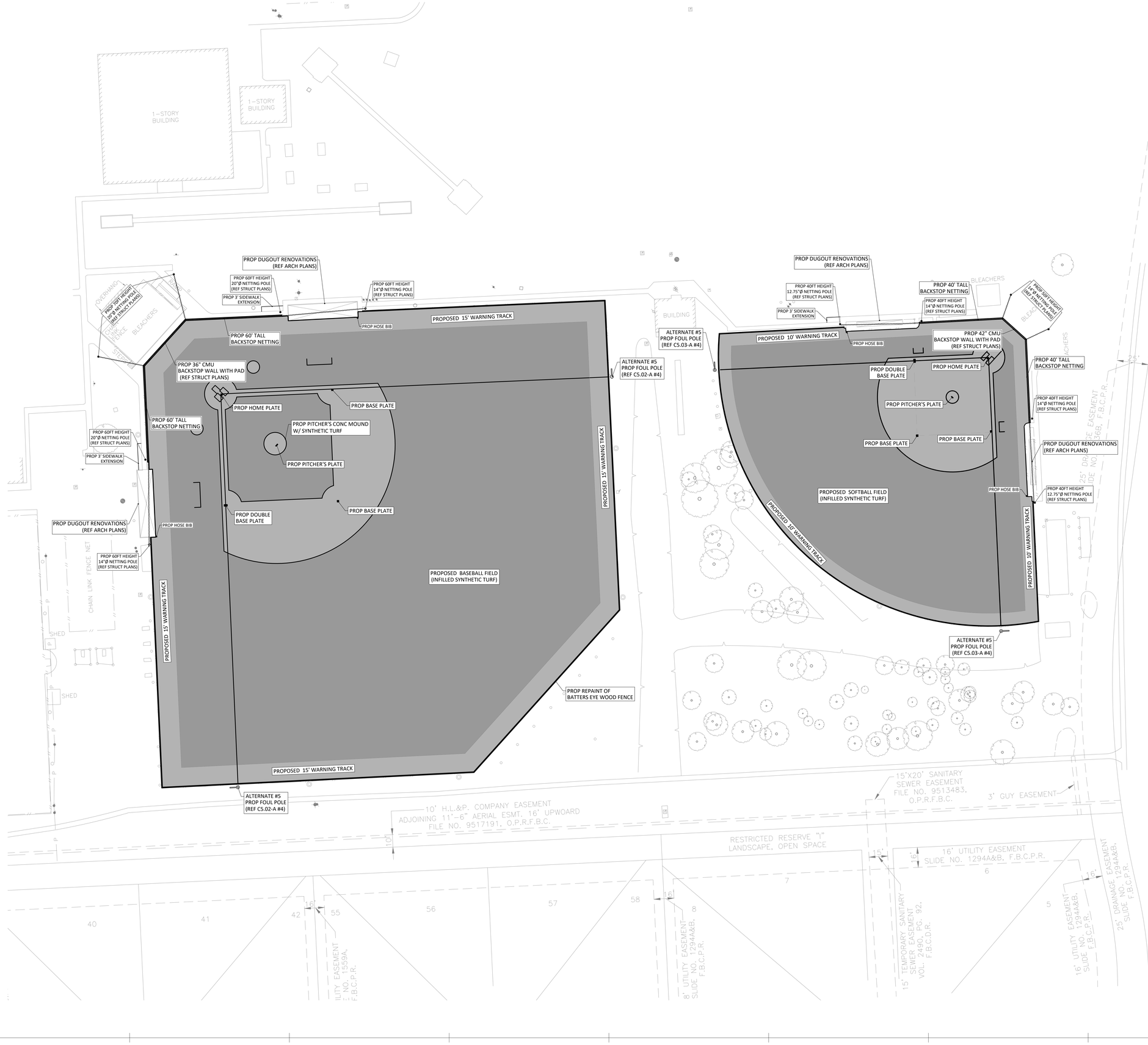
KENNETH I. JURADO
119993
LICENSED PROFESSIONAL ENGINEER
10/09/2025

PROJECT NO. BP010
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status

C 1.00-A
CIVIL SPORTS
OVERALL SITE 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-A THROUGH C 5.03-A FOR DETAILS.

FBC Engineering Approval

15' 30' 0 30' 60'

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10/09/2025

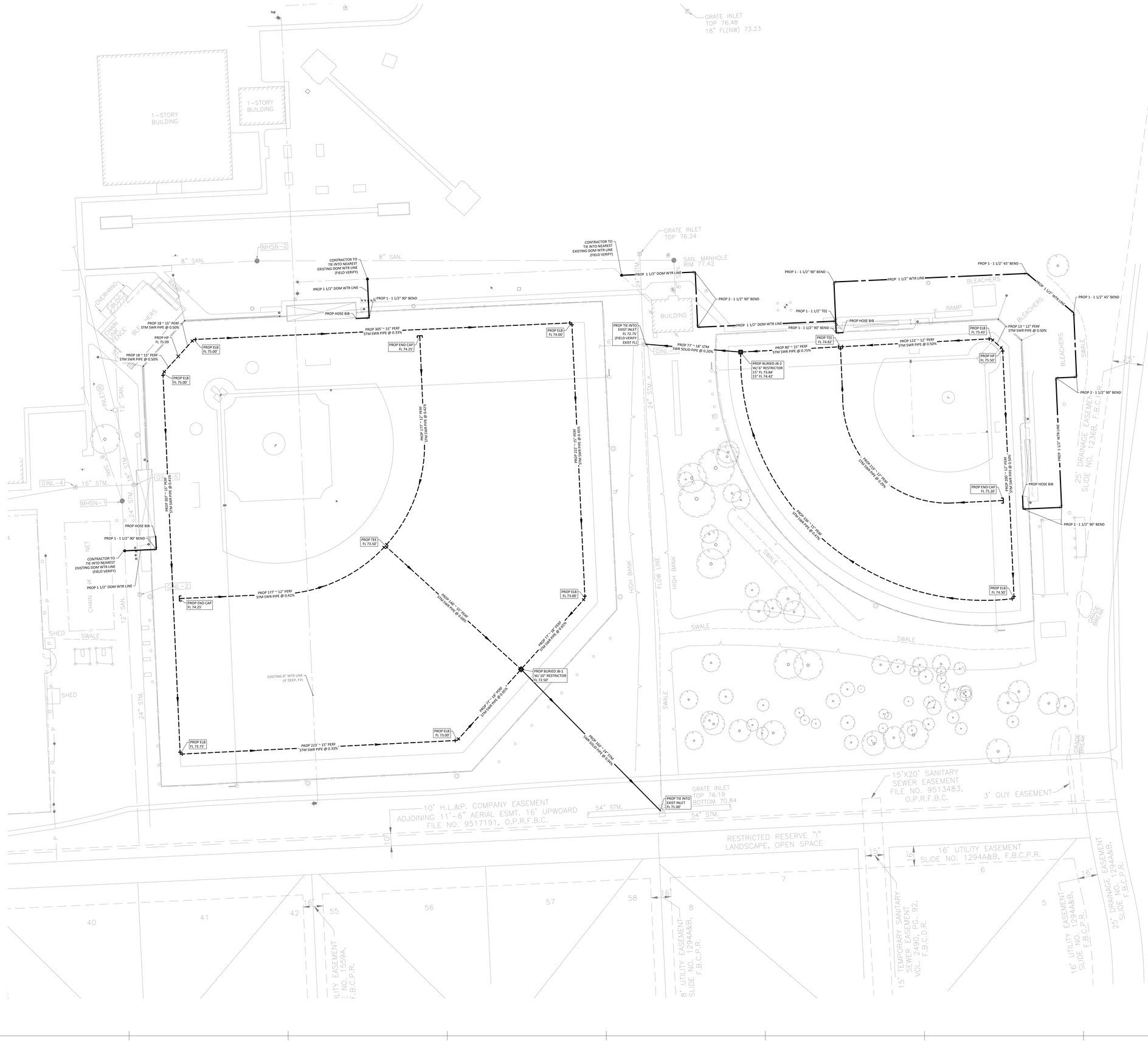
PROJECT NO. BP010
DATE JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ

REVISIONS:

#	Date	Description

Project Status

C 1.01-A
CIVIL SPORTS SITE PLAN


1-STORY BUILDING
1-STORY BUILDING
GRATE_INLET TOP 76.48 18" FL(NW) 73.23
GRATE_INLET TOP 76.24
SAN. MANHOLE RIM 77.42
MHSN-2
8" SAN.
8" SAN.
CONTRACTOR TO TIE INTO NEAREST EXISTING DOM WTR LINE (FIELD VERIFY)
CONTRACTOR TO TIE INTO NEAREST EXISTING DOM WTR LINE (FIELD VERIFY)
PROP 1 1/2" DOM WTR LINE
PROP 1 - 1 1/2" 90° BEND
PROP HOSE BIB
PROP 1 1/2" DOM WTR LINE
PROP 2 - 1 1/2" 90° BEND
PROP 1 - 1 1/2" 90° BEND
PROP 1 1/2" WTR LINE
PROP 1 - 1 1/2" 45° BEND
PROP 1 - 1 1/2" 45° BEND
PROP 1 1/2" WTR LINE
PROP 1 - 1 1/2" TEE
PROP HOSE BIB
PROP 1 - 1 1/2" 90° BEND
PROP 1 1/2" DOM WTR LINE
PROP 2 - 1 1/2" 90° BEND
PROP 1 - 1 1/2" 45° BEND
PROP 1 1/2" WTR LINE
PROP 1 - 1 1/2" 90° BEND
PROP 1 1/2" DOM WTR LINE
PROP 1 - 1 1/2" 90° BEND
PROP HOSE BIB



PRE-DEVELOPMENT DRAINAGE AREA PLAN

LEGEND:

- A-X / X.XX — AREA - (No.) / AREA - (AC)
- DRAINAGE AREA BOUNDARY
- EXTREME EVENT FLOW

FBC Engineering Approval

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KENNETH I. JURADO
119993
STATE OF TEXAS
10/09/2025

PROJECT NO. BP010
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status

C 2.11-A

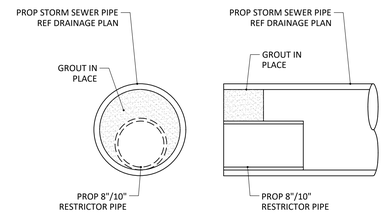
CIVIL SPORTS
PRE - DEVELOPMENT
DRAINAGE AREA MAP



POST-DEVELOPMENT DRAINAGE AREA PLAN

STATEMENT ON INSPECTION AND MAINTENANCE :

1. INITIAL INSPECTION OF POROUS PAVEMENT SHALL BE MONTHLY FOR THE FIRST 3 MONTHS POST CONSTRUCTION.
2. SEMI ANNUAL INSPECTION TO ENSURE PAVEMENT SURFACE IS FREE OF SEDIMENT.
3. VACUUM SWEEP HARD POROUS PAVEMENT FOLLOWED BY HIGH PRESSURE HOSING TO KEEP VOIDS FREE OF SEDIMENT QUARTERLY.
4. ANNUALLY INSPECT PAVEMENT SURFACE AND SUBSURFACE DRAINAGE SYSTEM (IF ANY) FOR DETERIORATION, SPALLING OR MALFUNCTIONING.
5. RESPONSIBILITY FOR MAINTENANCE OF THE DETENTION FACILITY WILL BE BY THE PROPERTY OWNER.
6. SUBSURFACE DRAINAGE SYSTEMS ARE REQUIRED TO BE DRAINED IN 48 HOURS.



1 N.T.S. STORM SEWER RESTRICTOR PIPE DETAIL

LEGEND:

- A-X / X.XX — AREA - (No.) / AREA - (AC)
- DRAINAGE AREA BOUNDARY
- EXTREME EVENT FLOW
- MANHOLE (MH-X)
- BURIED JUNCTION BOX (JB-X)
- AREA INLET (AI-X)
- INLINE DRAIN (ID-X)
- STM SWR LINE
- STM SWR PERF

FBC Engineering Approval

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KENNETH I. JURADO 119993 LICENSED STATE OF TEXAS

10/09/2025

PROJECT NO. BP010
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

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TSCE PROJECT # 2507

Project Status

C 2.12-A

CIVIL SPORTS POST DEVELOPMENT DRAINAGE AREA MAP

FORT BEND COUNTY
STORM SEWER CALCULATIONS

Storm Frequency: 25 year

Runoff Coefficient: ASPHALT/CONCRETE 0.80

Project: Austin HS - Baseball Field
Job No.:
By: BG
Date: 8/7/2025

Max. HGL Starting Elev. = 76.57
I(Intensity Per Table 2-7)= 9.1 IN/HR

Total Drainage Area = 3.00 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-2	180.00	15	HDPE	0.28%	15,400	0.35	0.80	0.35	6.0	9.10	2.57	3.69	3.01	2.10	0.135%	0.24	78.65	76.57	76.33	75.00	74.50	2.08	2.40	2.90	1.43
A-2	A-3	125.00	15	HDPE	0.40%	9,382	0.22	0.80	0.57	5.6	9.10	4.14	4.43	3.61	3.38	0.350%	0.44	78.25	76.33	75.89	74.50	74.00	1.92	2.50	3.00	0.62
A-3	A-4	180.00	15	HDPE	0.56%	12,545	0.29	0.80	0.86	5.7	9.10	6.24	5.22	4.25	5.08	0.795%	1.43	77.85	75.89	74.46	74.00	73.00	1.96	2.60	3.60	0.59
A-4	A-5	112.00	18	HDPE	0.45%	6,309	0.14	0.80	1.00	5.4	9.10	7.29	7.60	4.30	4.13	0.411%	0.46	77.65	74.46	74.00	73.00	72.50	3.19	3.15	3.65	0.45
A-6	A-7	140.00	15	HDPE	0.36%	13,293	0.31	0.80	0.31	5.7	9.10	2.22	4.18	3.41	1.81	0.101%	0.14	78.65	76.32	76.18	75.00	74.50	2.33	2.40	2.90	1.29
A-7	A-8	216.00	15	HDPE	0.35%	9,881	0.23	0.80	0.53	6.1	9.10	3.87	4.12	3.36	3.16	0.306%	0.66	78.25	76.18	75.52	74.50	73.75	2.07	2.50	3.25	1.14
A-8	A-9	125.00	15	HDPE	0.60%	13,313	0.31	0.80	0.84	5.5	9.10	6.10	5.42	4.42	4.97	0.759%	0.95	77.85	75.52	74.57	73.75	73.00	2.33	2.85	3.60	0.42
A-9	A-5	131.00	18	HDPE	0.38%	8,372	0.19	0.80	1.03	5.5	9.10	7.50	7.03	3.98	4.24	0.434%	0.57	77.65	74.57	74.00	73.00	72.50	3.08	3.15	3.65	0.51
A-10	A-5	147.00	15	HDPE	0.68%	32,111	0.74	0.80	0.74	5.5	9.10	5.37	5.77	4.70	4.37	0.588%	0.86	78.00	75.14	74.27	73.50	72.50	2.86	3.25	4.25	0.56
A-5	OUT-1	160.00	24	HDPE	0.94%	10,166	0.23	0.80	3.00	5.4	9.10	21.86	23.73	7.55	6.96	0.795%	1.27	77.65	74.27	73.00	72.50	71.00	3.38	3.15	4.65	0.38

FORT BEND COUNTY
STORM SEWER CALCULATIONS

Storm Frequency: 100 year

Runoff Coefficient: ASPHALT/CONCRETE 0.80

Project: Austin HS - Baseball Field
Job No.:
By: BG
Date: 8/7/2025

Max. HGL Starting Elev. = 77.17
I(Intensity Per Table 2-7)= 10.1 IN/HR

Total Drainage Area = 3.00 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-2	180.00	15	HDPE	0.28%	15,400	0.35	0.80	0.35	6.0	10.10	2.86	3.69	3.01	2.33	0.167%	0.30	78.65	77.17	76.87	75.00	74.50	1.48	2.40	2.90	1.29
A-2	A-3	125.00	15	HDPE	0.40%	9,382	0.22	0.80	0.57	5.6	10.10	4.60	4.43	3.61	3.75	0.431%	0.54	78.25	76.87	76.33	74.50	74.00	1.38	2.50	3.00	0.56
A-3	A-4	180.00	15	HDPE	0.56%	12,545	0.29	0.80	0.86	5.7	10.10	6.92	5.22	4.25	5.64	0.979%	1.76	77.85	76.33	74.57	74.00	73.00	1.52	2.60	3.60	0.53
A-4	A-5	112.00	18	HDPE	0.45%	6,309	0.14	0.80	1.00	5.4	10.10	8.09	7.60	4.30	4.58	0.506%	0.57	77.65	74.57	74.00	73.00	72.50	3.08	3.15	3.65	0.41
A-6	A-7	140.00	15	HDPE	0.36%	13,293	0.31	0.80	0.31	5.7	10.10	2.47	4.18	3.41	2.01	0.124%	0.17	78.65	76.86	76.68	75.00	74.50	1.79	2.40	2.90	1.16
A-7	A-8	216.00	15	HDPE	0.35%	9,881	0.23	0.80	0.53	6.1	10.10	4.30	4.12	3.36	3.50	0.377%	0.81	78.25	76.68	75.87	74.50	73.75	1.57	2.50	3.25	1.03
A-8	A-9	125.00	15	HDPE	0.60%	13,313	0.31	0.80	0.84	5.5	10.10	6.77	5.42	4.42	5.52	0.935%	1.17	77.85	75.87	74.70	73.75	73.00	1.98	2.85	3.60	0.38
A-9	A-5	131.00	18	HDPE	0.38%	8,372	0.19	0.80	1.03	5.5	10.10	8.32	7.03	3.98	4.71	0.535%	0.70	77.65	74.70	74.00	73.00	72.50	2.95	3.15	3.65	0.46
A-10	A-5	147.00	15	HDPE	0.68%	32,111	0.74	0.80	0.74	5.5	10.10	5.96	5.77	4.70	4.85	0.724%	1.06	78.00	75.63	74.57	73.50	72.50	2.37	3.25	4.25	0.50
A-5	OUT-1	160.00	24	HDPE	0.94%	10,166	0.23	0.80	3.00	5.4	10.10	24.26	23.73	7.55	7.72	0.980%	1.57	77.65	74.57	73.00	72.50	71.00	3.08	3.15	4.65	0.35

FBC Engineering Approval

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AUSTIN HIGH SCHOOL
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16431 LEXINGTON BLVD.
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KENNETH I. JURADO 119993

10/09/2025

PROJECT NO. BP010
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
#	Date	Description

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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TSCE PROJECT # 2507

Project Status
C 2.13-A
CIVIL SPORTS
DRAINAGE CALCS
SHEET 1 OF 2

FORT BEND COUNTY
STORM SEWER CALCULATIONS

Project: Austin HS - Softball Field
Job No.:
By: BG
Date: 8/7/2025

Storm Frequency: 25 year

Runoff Coefficient: ASPHALT/CONCRETE 0.80

Max. HGL Starting Elev. = 76.16
I(Intensity Per Table 2-7)= 9.1 IN/HR

Total Drainage Area = 1.14 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-2	133.00	12	HDPE	0.38%	8,014	0.18	0.80	0.18	5.7	9.10	1.34	2.37	3.01	1.71	0.120%	0.16	78.65	76.16	76.00	74.00	73.50	2.49	3.65	4.15	1.30
A-2	A-3	215.00	15	HDPE	0.28%	11,398	0.26	0.80	0.45	6.2	9.10	3.24	3.70	3.01	2.64	0.215%	0.46	78.25	76.00	75.53	73.50	72.90	2.25	3.50	4.10	1.36
A-4	A-3	250.00	12	HDPE	0.64%	15,475	0.36	0.80	0.36	6.1	9.10	2.59	3.09	3.93	3.29	0.449%	1.12	77.85	75.53	74.41	74.50	72.90	2.32	2.35	3.95	1.27
A-3	OUT-2	77.00	18	HDPE	0.52%	14,873	0.34	0.80	1.14	5.3	9.10	8.32	8.20	4.64	4.71	0.534%	0.41	77.65	74.41	74.00	72.90	72.50	3.24	3.25	3.65	0.27

FORT BEND COUNTY
STORM SEWER CALCULATIONS

Project: Austin HS - Softball Field
Job No.:
By: BG
Date: 8/7/2025

Storm Frequency: 100 year

Runoff Coefficient: ASPHALT/CONCRETE 0.80

Max. HGL Starting Elev. = 76.66
I(Intensity Per Table 2-7)= 10.1 IN/HR

Total Drainage Area = 1.14 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-2	133.00	12	HDPE	0.38%	8,014	0.18	0.80	0.18	5.7	10.10	1.49	2.37	3.01	1.89	0.148%	0.20	78.65	76.66	76.46	74.00	73.50	1.99	3.65	4.15	1.17
A-2	A-3	215.00	15	HDPE	0.28%	11,398	0.26	0.80	0.45	6.2	10.10	3.60	3.70	3.01	2.93	0.265%	0.57	78.25	76.46	75.89	73.50	72.90	1.79	3.50	4.10	1.22
A-4	A-3	250.00	12	HDPE	0.64%	15,475	0.36	0.80	0.36	6.1	10.10	2.87	3.09	3.93	3.65	0.553%	1.38	77.85	75.89	74.51	74.50	72.90	1.96	2.35	3.95	1.14
A-3	OUT-2	77.00	18	HDPE	0.52%	14,873	0.34	0.80	1.14	5.3	10.10	9.23	8.20	4.64	5.22	0.658%	0.51	77.65	74.51	74.00	72.90	72.50	3.14	3.25	3.65	0.25

FBC Engineering Approval

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KENNETH I. JURADO
119993
10/09/2025

PROJECT NO. BP010
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
#	Date	Description

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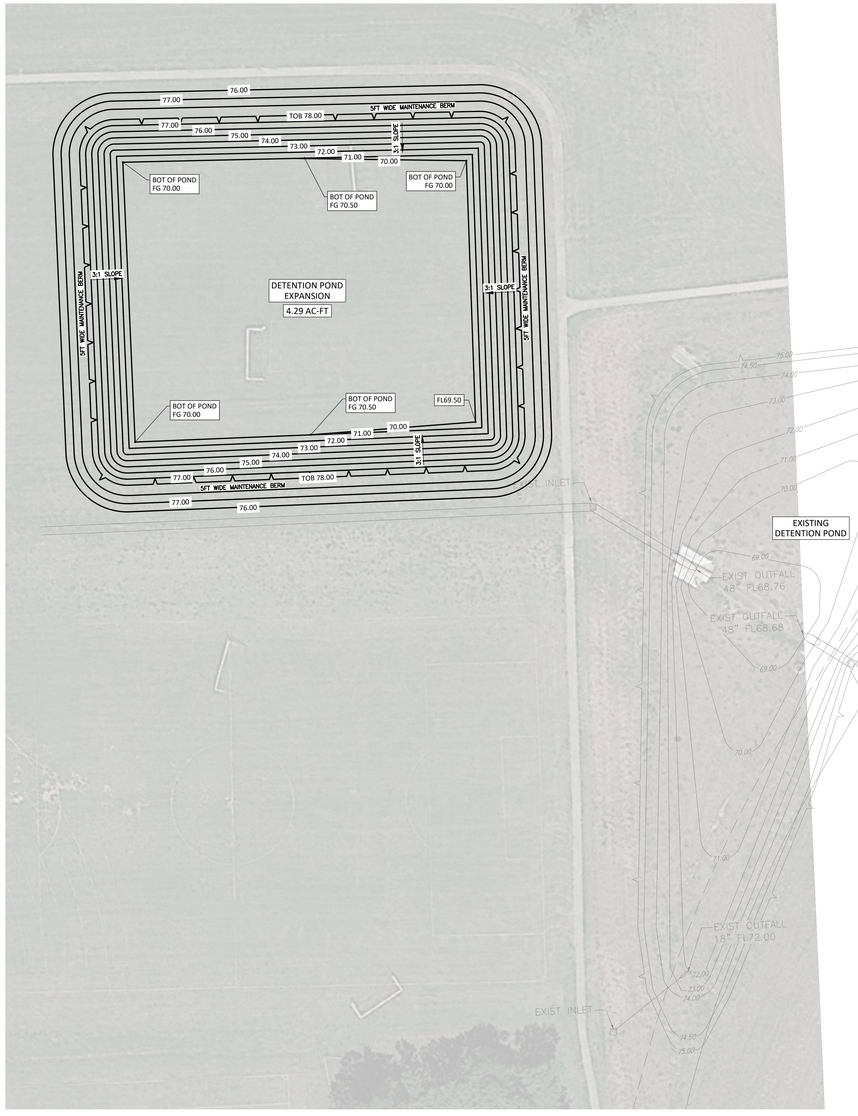
TSCE PROJECT # 2507

Project Status
C 2.14-A
CIVIL SPORTS
DRAINAGE CALCS
SHEET 2 OF 2



DETENTION REQUIREMENTS

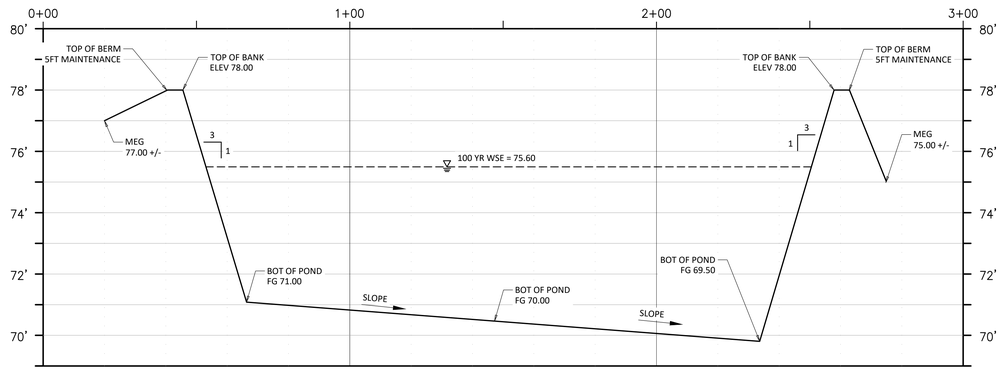
DETENTION NEEDED = 4.61 AC-FT

DETENTION UNDERNEATH FIELDS 8" OF ROCK = 1.12 AC-FT

DETENTION IMPERVIOUS = 0.31 AC-FT

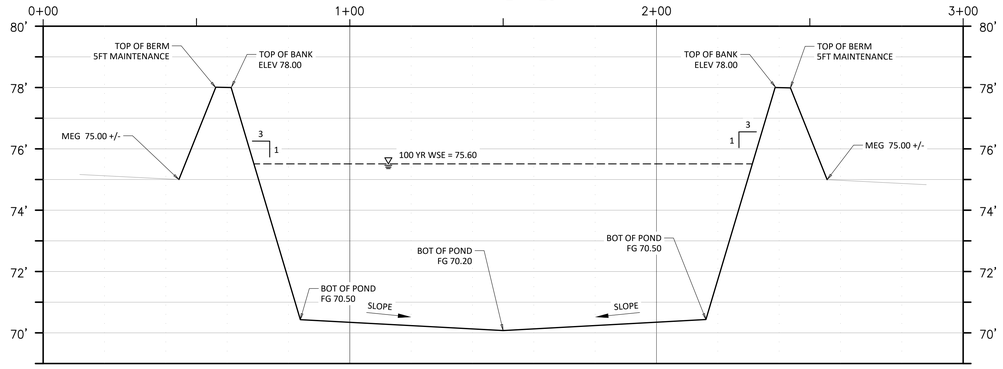
4.61 - 1.12 = 3.49 AC.FT + 0.31 = 4.29 AC.FT

VOLUME PROVIDED & NEEDED = 4.29AC-FT



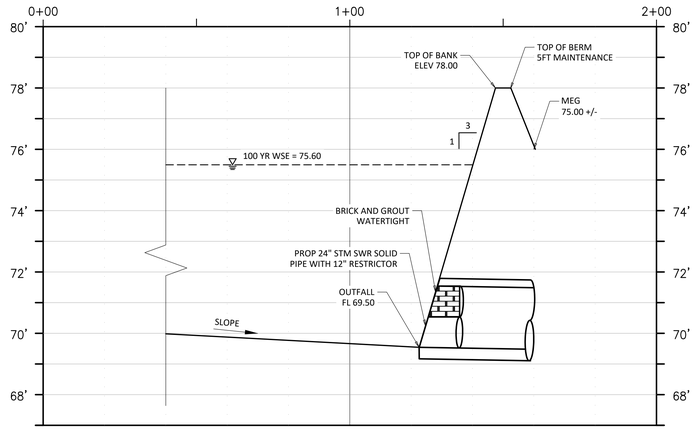
DETENTION POND (SECTION A - A)

SCALE = 1" = 2' / 1" = 20'



DETENTION POND (SECTION B - B)

SCALE = 1" = 2' / 1" = 20'



DETENTION POND (SECTION C - C)

SCALE = 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

FBC Engineering Approval

15' 30' 30' 0 60'

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TSCE PROJECT # 2507

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KENNETH I. JURADO 119993 STATE OF TEXAS

10/09/2025

PROJECT NO. BP010
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 2.21-A
CIVIL SPORTS
DETENTION POND PLAN AND CROSS-SECTIONS

BASEBALL FIELD

TIME OF CONCENTRATION

PRE-DEVELOPED:

L=	420
S=	0.0028
V=	0.5
TC=	14

$$T_{ch} = \frac{D_F}{60 * V}$$

VELOCITY PER FORT BEND COUNTY DRAINAGE CRITERIA MANUAL SECTION 2.0 FIGURE 2-6

POST-DEVELOPED:

L=	755
S=	0.002013
V=	3
TC=	4.19 ~ (5 Minutes Min. Used)

INTENSITY

100 YEAR

PRE-DEVELOPED:	8.10
POST-DEVELOPED:	10.10

25 YEAR

PRE-DEVELOPED:	7.10
POST-DEVELOPED:	9.10

INTENSITY PER FORT BEND COUNTY DRAINAGE MANUAL SECTION 2.0 FIGURE 2-7

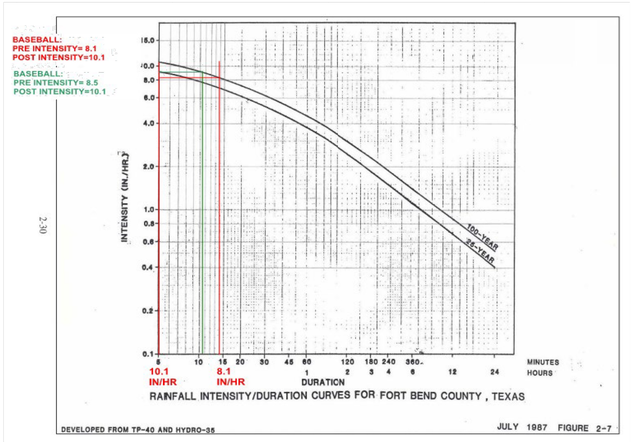
RUNOFF CALCULATIONS

RATIONAL METHOD: Q=CIA

TOTAL DISTURBED IMPERVIOUS AREA=	2.98 ACRES
PRE-DEVELOPED "C"=	0.35
POST-DEVELOPED "C"	0.75
PRE-DEVELOPED "Q" (ALLOWABLE)=	8.45 CFS
POST-DEVELOPED "Q"=	22.57 CFS

RESTRICTOR CALCULATIONS

PIPE=	10	INCH
C=	0.6	ORIFICE COEFF.
AREA=	0.545	SQ-FT
HEAD=	5.65	FT
Q=	**6.242**	CFS < ALLOWABLE 8.45 CFS



STAGE STORAGE DISCHARGE TABLE					
Stage Elevation (ft)	Surface Area (sq. ft)	Incremental Storage (ft3)	Cumulative Storage (ft3)	Cumulative Storage (ac-ft)	Discharge (ft3/s)
70	22,158.87	0.00	0.00	0	
71	23,062.43	22,610.65	22,610.65	0.52	
72	24,932.90	23,997.66	46,608.32	1.07	
73	26,871.96	25,902.43	72,510.74	1.66	
74	28,868.41	27,870.18	100,380.93	2.3	
75	30,921.42	29,894.92	130,275.84	2.99	
76	33,030.97	31,976.20	162,252.04	3.72	
77	35,197.07	34,114.02	196,366.06	4.51	
78	37,425.53	36,311.30	232,677.36	5.34	

SOFTBALL FIELD

TIME OF CONCENTRATION

PRE-DEVELOPED:

L=	370
S=	0.0073
V=	0.5
TC=	12.33

$$T_{ch} = \frac{D_F}{60 * V}$$

VELOCITY PER FORT BEND COUNTY DRAINAGE CRITERIA MANUAL SECTION 2.0 FIGURE 2-6

POST-DEVELOPED:

L=	407
S=	0.0013
V=	3
TC=	2.26 ~ (5 Minutes Min. Used)

INTENSITY

100 YEAR

PRE-DEVELOPED:	8.10
POST-DEVELOPED:	10.10

25 YEAR

PRE-DEVELOPED:	7.10
POST-DEVELOPED:	9.10

INTENSITY PER FORT BEND COUNTY DRAINAGE MANUAL SECTION 2.0 FIGURE 2-7

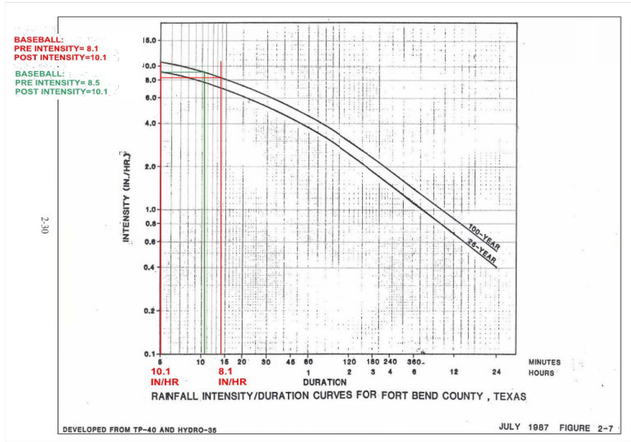
RUNOFF CALCULATIONS

RATIONAL METHOD: Q=CIA

TOTAL DISTURBED IMPERVIOUS AREA=	1.14 ACRES
PRE-DEVELOPED "C"=	0.35
POST-DEVELOPED "C"	0.75
PRE-DEVELOPED "Q" (ALLOWABLE)=	3.23 CFS
POST-DEVELOPED "Q"=	8.64 CFS

RESTRICTOR CALCULATIONS

PIPE=	6	INCH
C=	0.6	ORIFICE COEFF.
AREA=	0.196	SQ-FT
HEAD=	5.15	FT
Q=	**2.145**	CFS < ALLOWABLE 3.20 CFS



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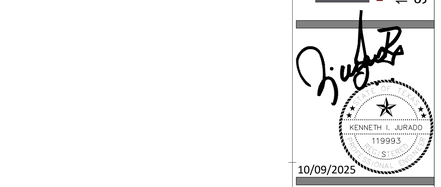

10/09/2025

PROJECT NO. BP010
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 2.22-A
CIVIL SPORTS DETENTION POND CALCS

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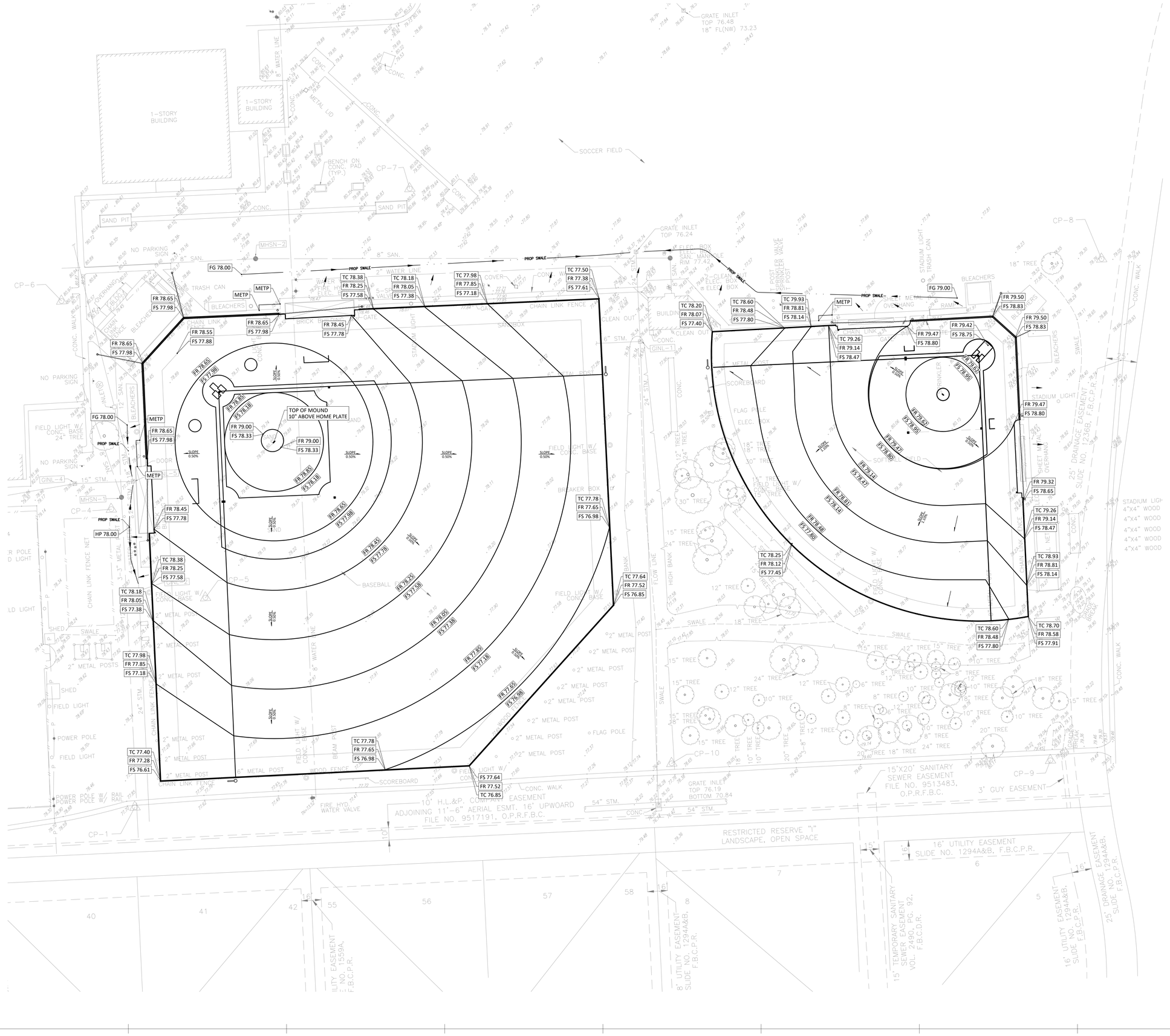

NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.
2. CONTRACTOR TO MAKE SURE THERE IS POSITIVE DRAINAGE FROM THE DUGOUT TO EXIST INLET OR SWALE.

LEGEND:

TC XX.XX'	TOP OF CURB
METP	MATCH EXISTING TOP OF PAVEMENT
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FR XX.XX'	FINISH ROCK
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

FBC Engineering Approval

15' 30' 30' 0 60'

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 # 2507

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

10/09/2025

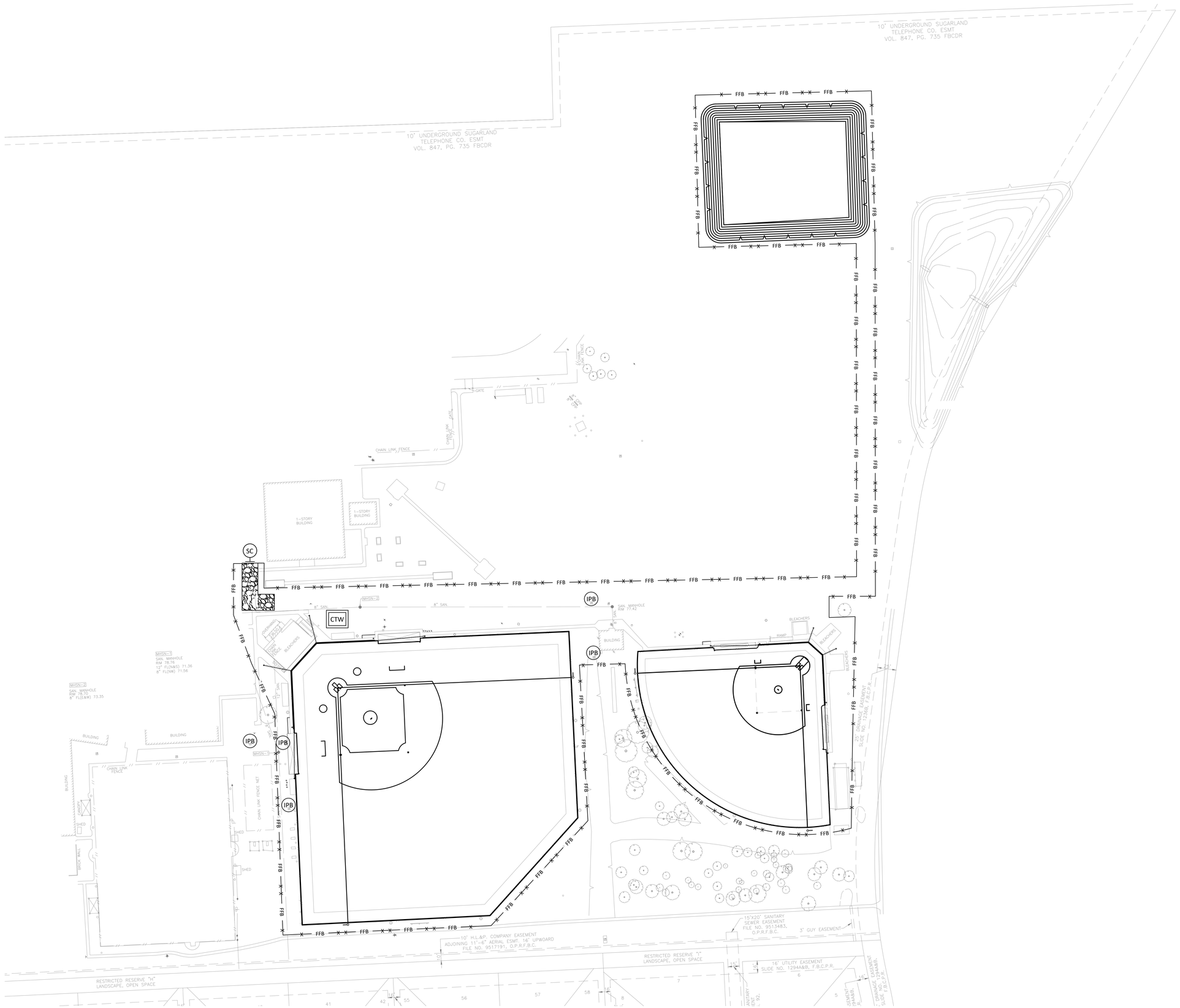
PROJECT NO. BP010
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status

C 3.01-A

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

FBC Engineering Approval

25' 50' 50' 0 100'

TEXAS SPORTS & CIVIL ENGINEERING
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DATE: JUNE 04, 2025
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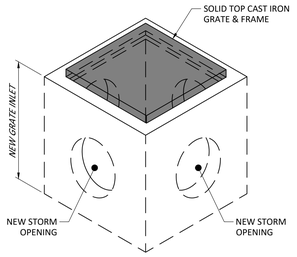
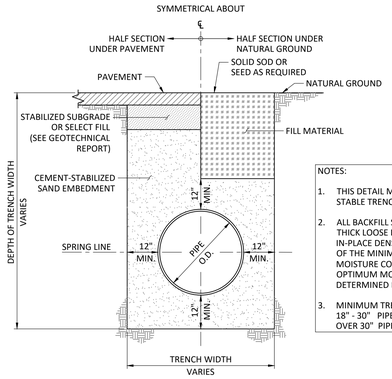
Project Status

C 4.01-A

CIVIL SPORTS SWPP PLAN



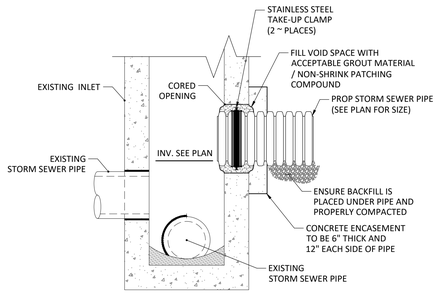
1 JUNCTION BOX
N.T.S.



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.
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

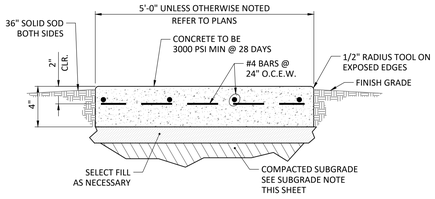
2 STORM SEWER BEDDING AND BACKFILL DETAIL
N.T.S.



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.

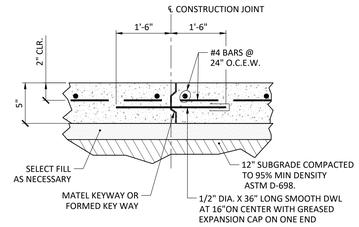
3 STORM SEWER PIPE CONNECTION INTO EXISTING INLET
N.T.S.



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.

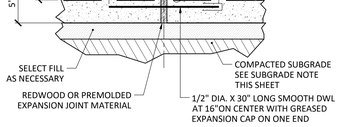
4 CONCRETE SIDEWALK DETAIL
N.T.S.



NOTES:

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

5 CONSTRUCTION JOINT DETAIL
N.T.S.



NOTES:

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

6 EXPANSION 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—

7 FILTER FABRIC BARRIER
N.T.S.



PLAN VIEW

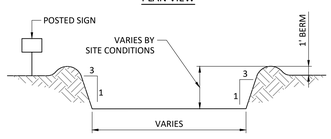
SECTION A - A

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

8 INLET PROTECTION BARRIER
N.T.S.



PLAN VIEW

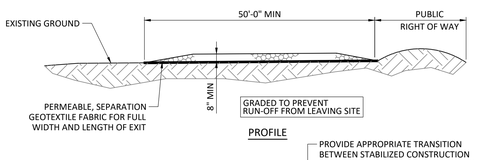
SECTION A - A

CTW

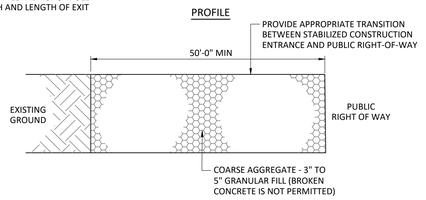
9 CONCRETE TRUCK WASHOUT AREA
N.T.S.

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



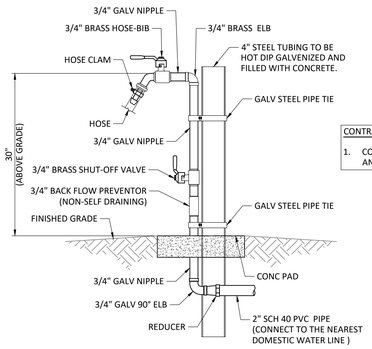
PLAN VIEW

SC

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.

10 STABILIZED CONSTRUCTION ACCESS
N.T.S.



CONTRACTOR NOTES:

1. CONTRACTOR TO INCLUDE ANTI-FREEZE AND ANTI-SIPHON FOR ALL HOSE BIBS.

11 HOSE BIB DETAIL
N.T.S.

FBC Engineering Approval

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119993
LICENSED
STATE OF TEXAS
SURVEYOR

10/09/2025

PROJECT NO. BP010
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 5.01-A
CIVIL SPORTS DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
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HOUSTON, TEXAS 77079
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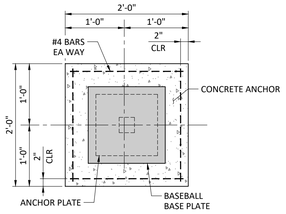
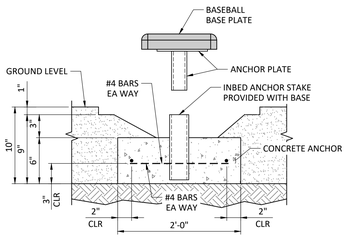
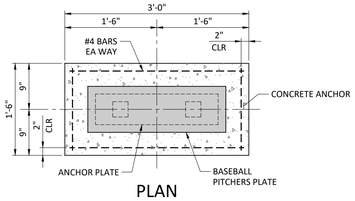


PLAN

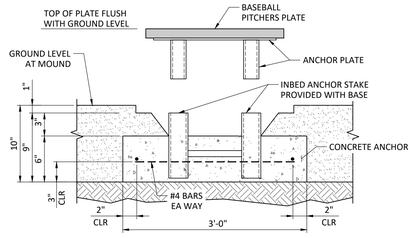


SECTION

1 N.T.S. BASEBALL BASE PLATE ANCHOR

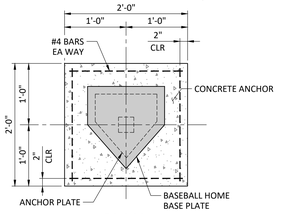


PLAN

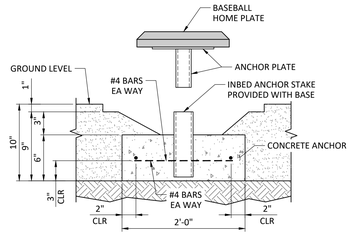


SECTION

2 N.T.S. BASEBALL PITCHER'S PLATE ANCHOR

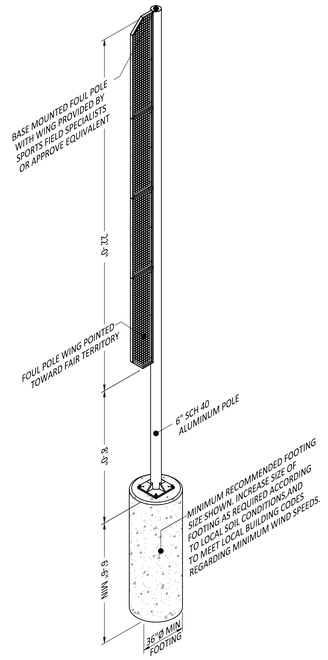


PLAN



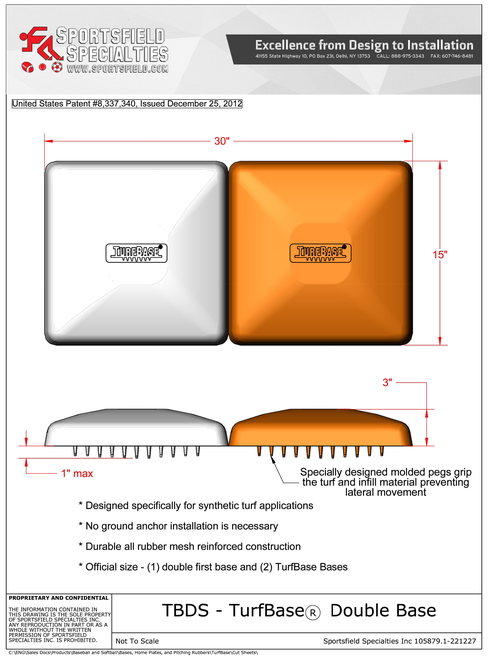
SECTION

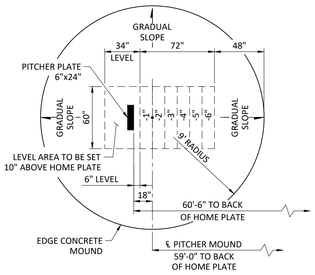
3 N.T.S. BASEBALL HOME PLATE ANCHOR



NOTE:
1. ALIGN FOUL POLE WITH FOUL LINE.

4 N.T.S. BASEBALL 30FT FOUL POLE (ALTERNATE #5)





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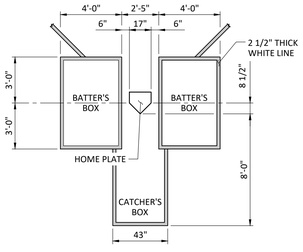
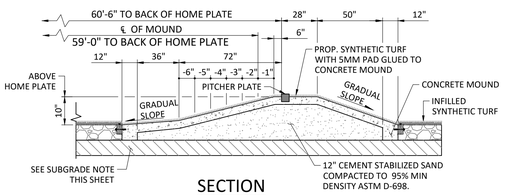
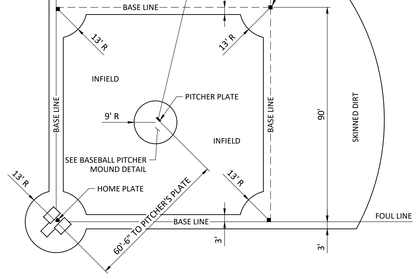




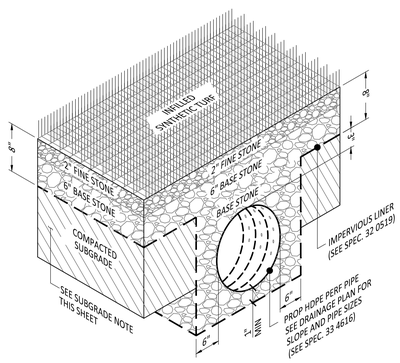
SECTION

5 N.T.S. BASEBALL BATTER'S AND CATCHER'S BOX

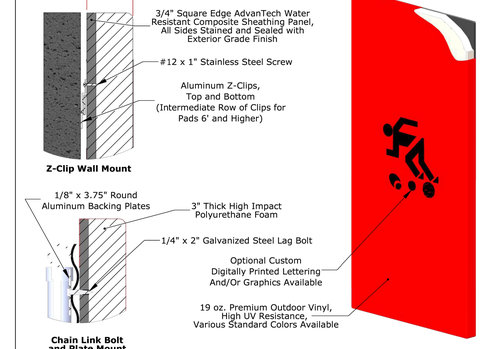
6 N.T.S. BASEBALL PITCHER CONCRETE MOUND WITH SYNTHETIC TURF



7 N.T.S. BASEBALL INFIELD LAYOUT



8 N.T.S. INFILLED SYNTHETIC TURF TRENCH SECTION



Part Numbers *	Size	Attachment
BFWPZ44/BFWPZ44DG	4'W x 4'L x 3.75"D	Z-Clip Wall Mount
BFWPZ46/BFWPZ46DG	4'W x 6'L x 3.75"D	Z-Clip Wall Mount
BFWPZ48/BFWPZ48DG	4'W x 8'L x 3.75"D	Z-Clip Wall Mount
BFWPZ-NSS/BFWPZDG-NSS	_'W x _'L x 3.75"D	Z-Clip Wall Mount
BFWPCL44/BFWPCL44DG	4'W x 4'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL46/BFWPCL46DG	4'W x 6'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL48/BFWPCL48DG	4'W x 8'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL-NSS/BFWPCLDG-NSS	_'W x _'L x 3.75"D	Chain Link Bolt and Plate Mount

*DG Part Number Denotes Custom Digitally Printed Graphics

Final Layout and/or Graphic Rendering to be Completed upon Verification of Field Measurements

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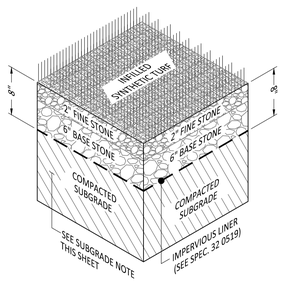
BaseZone® Field Wall Padding

Not To Scale

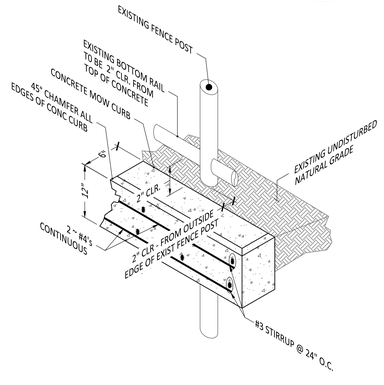
Sportsfield Specialties Inc 08182021

SUBGRADE NOTE:
1. CONTRACTOR MUST TREAT 42 INCHES OF EXISTING SUBGRADE (8% LIME) COMPACTED TO 95% MIN DENSITY.

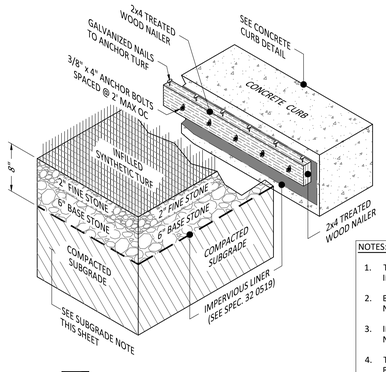
FBC Engineering Approval



9 N.T.S. INFILLED SYNTHETIC TURF SECTION "FIELD AND BULLPEN"



10 N.T.S. CONCRETE MOW CURB AT EXISTING FENCE



NOTES:
1. TREATED WOOD NAILER TO BE RATED FOR USE IN SUBTERRANEAN CONDITIONS.
2. BASE STONE TO BE FLUSH WITH TOP OF NAILER.
3. IMPERVIOUS LINER SHALL EXTEND TO TOP OF NAILER BETWEEN NAILER AND CONCRTE CURB.
4. TREATED WOOD NAILER TO BE PLACED 2" BELOW THE CONCRETE CURB OR THE THICKNESS OF THE TURF PRODUCT TO BE USED.

11 N.T.S. WOOD NAILER SECTION

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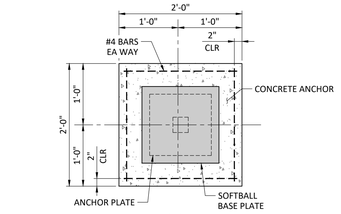
KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER
10/09/2025

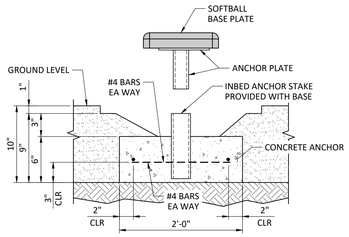
PROJECT NO. BP010
DATE: JUNE 04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 5.02-A
CIVIL SPORTS BASEBALL DETAILS

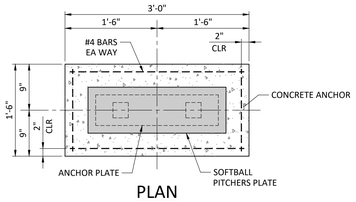


PLAN



SECTION

1 N.T.S. SOFTBALL BASE PLATE ANCHOR



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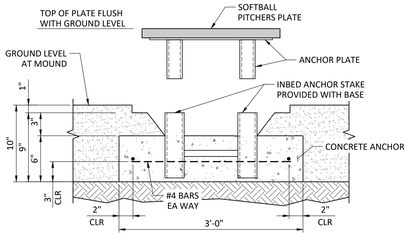
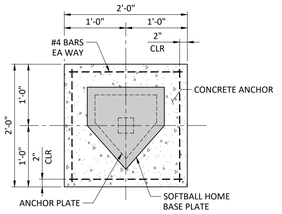
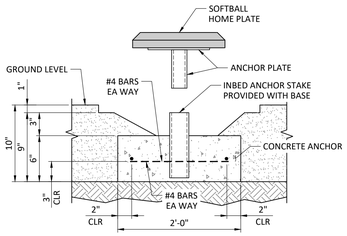


SECTION

2 N.T.S. SOFTBALL PITCHER'S PLATE ANCHOR

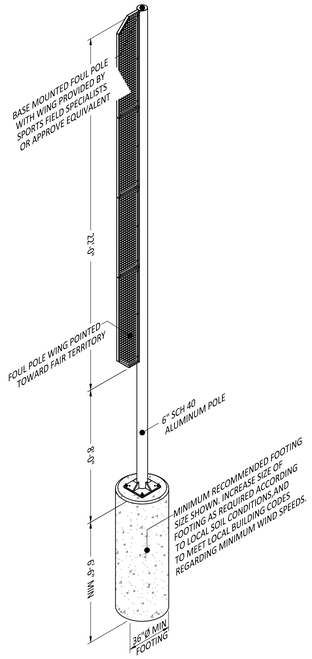


PLAN



SECTION

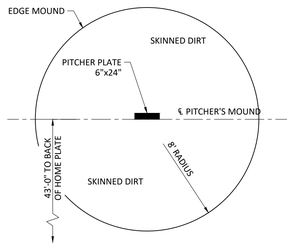
3 N.T.S. SOFTBALL HOME PLATE ANCHOR



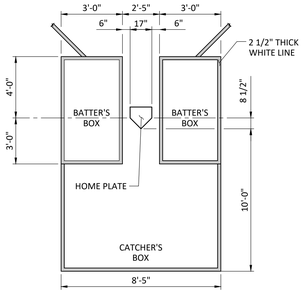
NOTE:

1. ALIGN FOUL POLE WITH FOUL LINE.

4 N.T.S. SOFTBALL 30FT FOUL POLE (ALTERNATE #5)

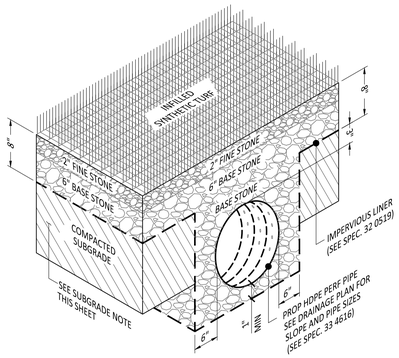


5 N.T.S. SOFTBALL PITCHER'S MOUND

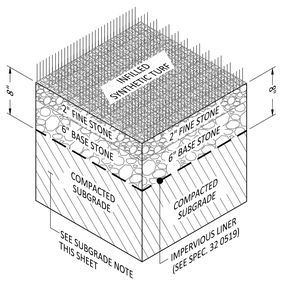


6 N.T.S. SOFTBALL BATTER'S AND CATCHER'S BOX

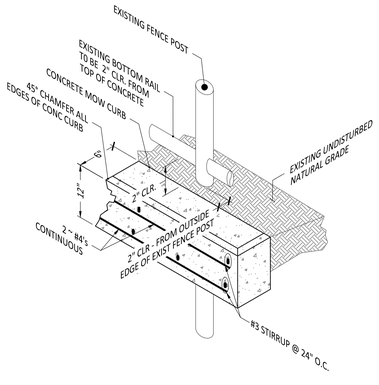
7 N.T.S. SOFTBALL INFIELD LAYOUT



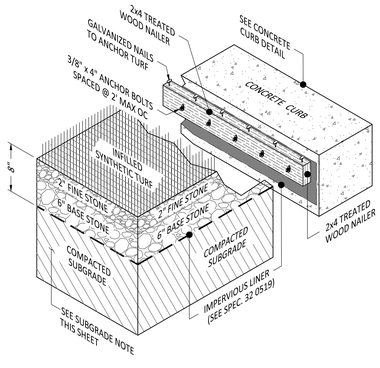
8 N.T.S. INFILLED SYNTHETIC TURF TRENCH SECTION



9 N.T.S. INFILLED SYNTHETIC TURF SECTION "FIELD AND BULLPEN"



10 N.T.S. CONCRETE MOW CURB AT EXISTING FENCE



11 N.T.S. WOOD NAILER SECTION

NOTES:

1. TREATED WOOD NAILER TO BE RATED FOR USE IN SUBTERRANEAN CONDITIONS.
2. BASE STONE TO BE FLUSH WITH TOP OF NAILER.
3. IMPERVIOUS LINER SHALL EXTEND TO TOP OF NAILER BETWEEN NAILER AND CONCRTE CURB.
4. TREATED WOOD NAILER TO BE PLACED 2" BELOW THE CONCRETE CURB OR THE THICKNESS OF THE TURF PRODUCT TO BE USED.

SUBGRADE NOTE:

1. CONTRACTOR MUST TREAT 42 INCHES OF EXISTING SUBGRADE (8% LIME) COMPACTED TO 95% MIN DENSITY.

FBC Engineering Approval

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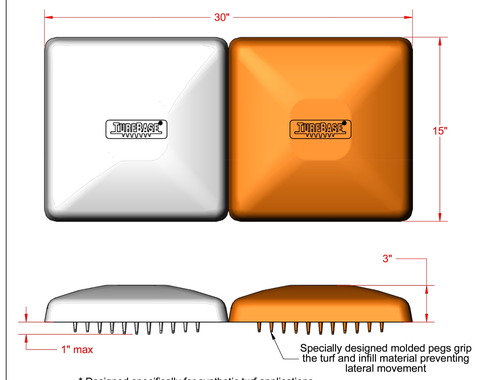
4155 State Highway 15, PO Box 236, Delhi, NY 13753 CALL: 888-975-3343 FAX: 607-746-8481

United States Patent #8,337,340, Issued December 25, 2012



* Designed specifically for synthetic turf applications
* No ground anchor installation is necessary
* Durable all rubber mesh reinforced construction
* Official size - (1) double first base and (2) TurfBase Bases

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TBDS - TurfBase® Double Base

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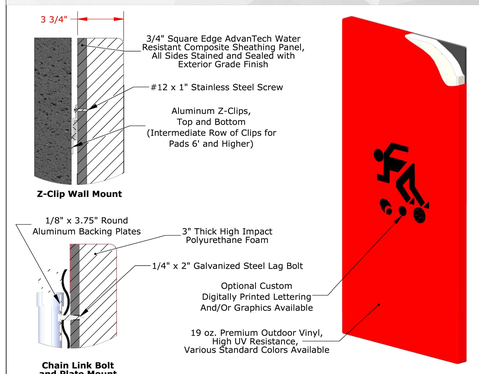

Part Numbers *	Size	Attachment
BFWPZ44/BFWPZ44DG	4'W x 4'L x 3.75"D	Z-Clip Wall Mount
BFWPZ46/BFWPZ46DG	4'W x 6'L x 3.75"D	Z-Clip Wall Mount
BFWPZ48/BFWPZ48DG	4'W x 8'L x 3.75"D	Z-Clip Wall Mount
BFWPZ-NSS/BFWPZDG-NSS	_'W x _'L x 3.75"D	Z-Clip Wall Mount
BFWPCL44/BFWPCL44DG	4'W x 4'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL46/BFWPCL46DG	4'W x 6'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL48/BFWPCL48DG	4'W x 8'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL-NSS/BFWPCLDG-NSS	_'W x _'L x 3.75"D	Chain Link Bolt and Plate Mount

*DG Part Number Denotes Custom Digitally Printed Graphics

Final Layout and/or Graphic Rendering to be Completed upon Verification of Field Measurements

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BaseZone® Field Wall Padding

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10/09/2025

PROJECT NO. BP010
DATE: JUNE04, 2025
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 5.03-A
CIVIL SPORTS SOFTBALL DETAILS

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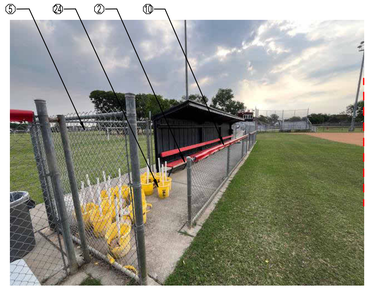


PHOTO OF EXISTING SOFTBALL FIELD RIGHT SIDE DUGOUT



PHOTO OF EXISTING SOFTBALL FIELD LEFT SIDE DUGOUT



PHOTO OF EXISTING SOFTBALL FIELD LEFT SIDE DUGOUT - CHAIN LINK FENCE DEMO WILL EXTEND TO THE ENTRANCE TO THE DUGOUT (KEYNOTE 1)- FENCE GATE AND SUPPORT TO REMAIN

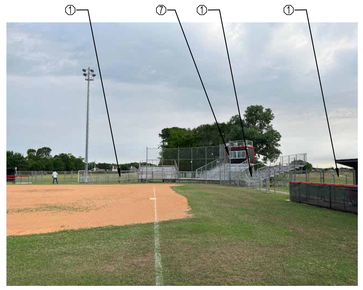


PHOTO OF EXISTING SOFTBALL FIELD BACKSTOP







PHOTO OF EXISTING SOFTBALL FIELD LEFT SIDE FENCE GATE-FENCE GATE TO REMAIN

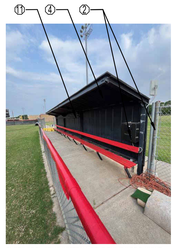


PHOTO OF EXISTING SOFTBALL FIELD RIGHT SIDE DUGOUT



PHOTO OF EXISTING BASEBALL FIELD OUTFIELD FENCE AND FOUL POLE



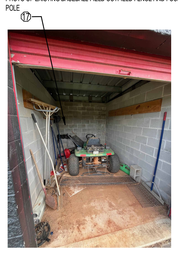


PHOTO OF EXISTING BASEBALL FIELD RIGHT SIDE DUGOUT STORAGE



PHOTO OF EXISTING BASEBALL FIELD RIGHT SIDE DUGOUT



PHOTO OF EXISTING BASEBALL FIELD LEFT SIDE DUGOUT



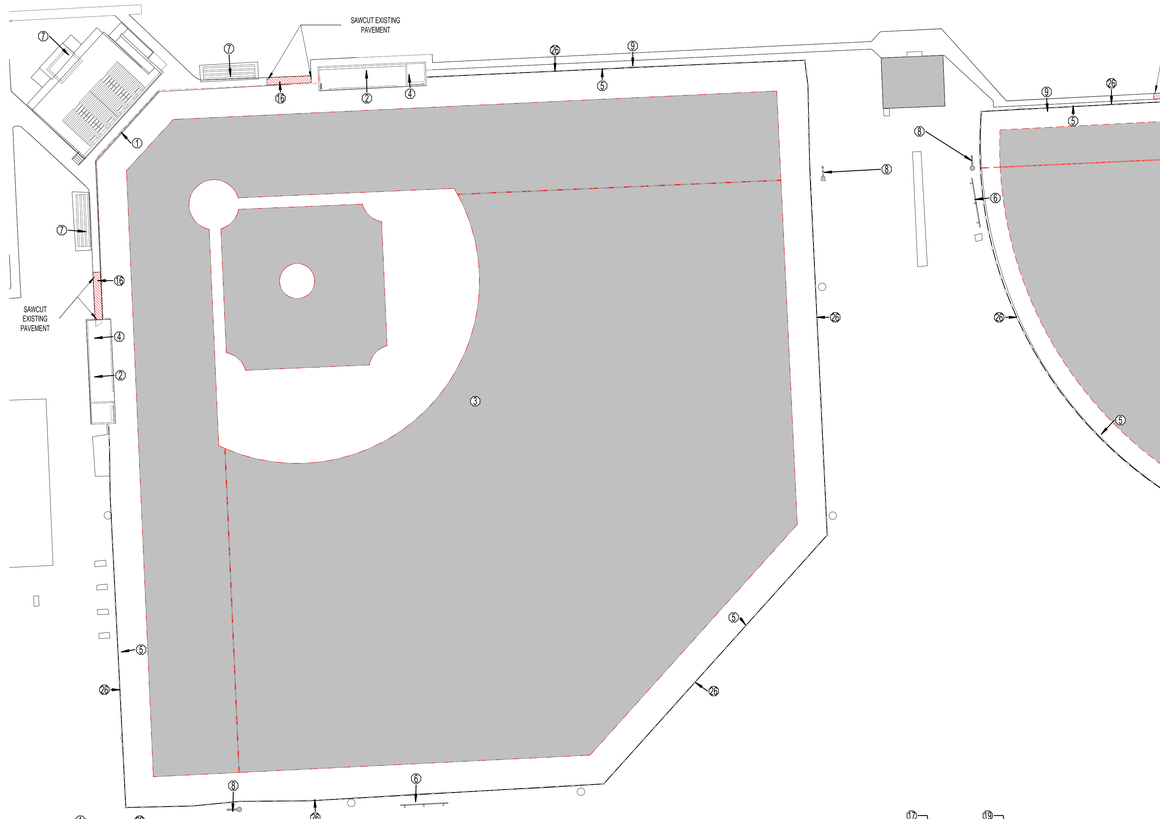
PHOTO OF EXISTING BASEBALL FIELD LEFT SIDE DUGOUT



PHOTO OF EXISTING BASEBALL FIELD LEFT SIDE DUGOUT



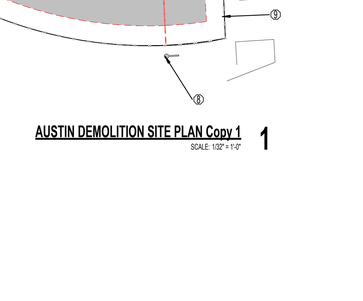
PHOTO OF EXISTING BASEBALL FIELD BACKSTOP



AUSTIN DEMOLITION SITE PLAN Copy 1

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

1



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- REMOVE EXISTING CONCRETE PAVING, ASPHALT, AND SIDEWALK
- DEMOLISHED STRUCTURES

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/GRAPHICS AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS UNLESS OTHERWISE NOTED
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. DISPOSE OF ALL REMOVED MATERIALS OFF-SITE IN ACCORDANCE WITH LOCAL REGULATIONS.

DEMOLITION KEY NOTES

TAG #	NOTES

1. DEMOLISH EXISTING CHAINLINK BACKSTOP FENCE AND POSTS. REMOVE ALL EXISTING CHAINLINK FENCING, LINE POSTS, CORNER POSTS, TERMINAL POSTS, TOP RAILS, TENSION WIRE, GATES, AND ASSOCIATED HARDWARE WITHIN THE LIMITS OF DEMOLITION AS SHOWN ON THE DRAWINGS. REMOVAL SHALL INCLUDE ALL CONCRETE FOOTINGS AND EMBEDDED MATERIALS.
2. DEMOLISH EXISTING WOOD BENCH PLATFORM. REMOVE ALL WOOD PLANKS, FASTENERS, AND ASSOCIATED MATERIALS DOWN TO THE EXISTING STEEL SUPPORT FRAME. STEEL FRAME TO REMAIN IN PLACE. PROTECT EXISTING STEEL BENCH STRUCTURE. ELECTRICAL OUTLETS, CONDUITS, AND ANY WIRING MOUNTED TO OR BEHIND THE BENCH DURING DEMOLITION.
3. REMOVE EXISTING NATURAL TURF FIELDS, SOIL, AND EXISTING SUBGRADE TO DEPTHS NOTED ON CIVIL GRADING DRAWINGS. CONTRACTOR IS RESPONSIBLE TO REVIEW SURVEYS PROVIDED IN CONSTRUCTION DOCUMENTS TO REMOVE AND RELOCATE UNDERGROUND UTILITY LINES, LOW VOLTAGE RACEWAYS, AND IRRIGATION LINES WITHIN THE LIMITS OF DEMOLITION AS SHOWN ON THE DRAWINGS. REMOVE ALL ORGANIC MATERIAL, ROOTS, BASE PLATES, AND ANY EXISTING SITE ELEMENTS OR OBSTRUCTIONS ENCOUNTERED DURING DEMOLITION. GRADE AREAS TO MAINTAIN POSITIVE DRAINAGE AND PROVIDE SMOOTH TRANSITION TO ADJACENT SURFACES AS NOTED ON CIVIL GRADING DRAWINGS.
4. EXISTING DUGOUTS TO REMAIN. PROTECT ALL EXISTING DUGOUT STRUCTURES, INCLUDING CMU WALLS, METAL ROOFING, STEEL FRAMING, DOORS, PAINTED FINISHES, ELECTRICAL CONDUITS, LIGHT FIXTURES, AND ACCESSORIES FROM CONSTRUCTION TRAFFIC.
5. EXISTING OUTFIELD FENCE TO REMAIN. PROTECT ALL SECTIONS OF EXISTING OUTFIELD FENCE, INCLUDING CHAIN LINK AND WOOD PANEL SECTIONS, POSTS, TOP RAILS, TENSION WIRE, AND ANY SAFETY CAP ALONG THE TOP EDGE.
6. EXISTING SCOREBOARDS TO REMAIN. PROTECT EXISTING BASEBALL AND SOFTBALL SCOREBOARDS, INCLUDING ALL SUPPORT POLES, ELECTRICAL CONNECTIONS, CONTROL CABLING, AND MOUNTED COMPONENTS THROUGHOUT DEMOLITION AND CONSTRUCTION. NO WORK IS INCLUDED IN THE SCOPE FOR THE SCOREBOARDS.
7. EXISTING BLEACHERS, PRESS BOXES, AND HITTING CAGES TO REMAIN. PROTECT ALL EXISTING BLEACHER STRUCTURES, PRESS BOXES, AND HITTING CAGES FOR BOTH BASEBALL AND SOFTBALL FIELDS. PROTECTION SHALL INCLUDE METAL FRAMING, SEATING, HANDRAILS, STAIRS, CONCRETE FOUNDATIONS, ELECTRICAL CONNECTIONS, BATTING CAGE NETTING, POSTS, AND ANY ASSOCIATED EQUIPMENT OR ACCESSORIES.

8. **ALTERNATE NO.05** INSTALL NEW FOUL POLES. DEMOLISH EXISTING FOUL POLES IN THEIR ENTIRETY, INCLUDING ASSOCIATED HARDWARE AND ACCESSORIES. EXISTING FOUNDATIONS SHALL BE REMOVED TO FULL DEPTH TO AVOID INTERFERENCE WITH NEW WORK. RESTORE SURROUNDING AREAS TO MATCH ADJACENT CONDITIONS AFTER REMOVAL.
9. EXISTING DOUBLE CHAIN LINK FENCE GATES AND POSTS TO REMAIN. PROTECT IN PLACE DURING CONSTRUCTION.
10. DEMOLISH EXISTING CHAIN LINK FENCE IN FRONT OF DUGOUT IN ITS ENTIRETY, INCLUDING POSTS, FOOTINGS, AND HARDWARE. REMOVE ALL COMPONENTS AS REQUIRED TO ACCOMMODATE NEW WORK.
11. DEMOLISH EXISTING SHELVES IN THEIR ENTIRETY, INCLUDING ALL SUPPORTS, BRACKETS, AND FASTENERS. REMOVE WITHOUT DAMAGING THE WALL SURFACE THEY ARE MOUNTED ON. PATCH AND REPAIR ANY SURFACES AFFECTED BY REMOVAL.
12. DEMOLISH EXISTING CHAIN LINK FENCE AND GATE UP TO THE EDGE OF THE DUGOUT AS SHOWN. REMOVE ALL POSTS, FOUNDATIONS, HARDWARE, AND ACCESSORIES IN THEIR ENTIRETY. FOUNDATIONS SHALL BE REMOVED TO FULL DEPTH.
13. DEMOLISH SITE ELEMENTS AS REQUIRED FOR PROPOSED DETENTION. CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UNDERGROUND ELECTRICAL LINES PRIOR TO EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING OR PROTECTING EXISTING LINES IF REQUIRED TO ACCOMMODATE NEW WORK. REFER : C2.21-A CIVIL DRAWINGS FOR LIMITS OF DETENTION AREA.
14. EXISTING BAT RACK TO REMAIN. CLEAN, PREPARE, AND REPAINT BAT RACK. REF MATERIAL SCHEDULE: PROTECT EXISTING GRAPHIC.
15. EXISTING CONCRETE PAVEMENT TO REMAIN. REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO MATCH EXISTING FINISH AND ELEVATION. CLEAN SURFACES AFTER COMPLETION OF WORK.
16. DEMOLISH EXISTING CONCRETE PAVEMENT. REFER TO DEMOLITION DRAWING 1/AD1.00-A FOR LIMITS OF REMOVAL. REMOVE CONCRETE TO FULL DEPTH INCLUDING BASE MATERIALS. PREPARE SUBGRADE FOR NEW CONCRETE PAVEMENT PER PLANS. COORDINATE WITH NEW WORK TO MAINTAIN CLEAN TRANSITIONS AND PROPER DRAINAGE.
17. EXISTING STORAGE ROOM AND OVERHEAD COILING DOOR TO REMAIN. CONTRACTOR SHALL COORDINATE WITH OWNER TO REMOVE ALL ITEMS FROM STORAGE PRIOR TO START OF WORK. PREPARE INTERIOR SURFACES, INCLUDING WALLS, FLOORS, AND CEILING, FOR NEW PAINT AND FINISHES AS INDICATED IN MATERIAL SCHEDULE.
18. DEMOLISH EXISTING BAT HOLDER IN ITS ENTIRETY, INCLUDING MOUNTING HARDWARE AND ANCHORS. PATCH AND REPAIR ANY DAMAGE TO WALL SURFACE AFTER REMOVAL.
19. EXISTING PONY WALL TO REMAIN. PROTECT WALL AND ADJACENT STRUCTURES DURING ALL DEMOLITION AND RENOVATION ACTIVITIES. REPAIR ANY CRACKS, CHIPS, OR DAMAGED AREAS TO MATCH EXISTING CONDITIONS.
20. EXISTING HAT AND BAT STORAGE TO REMAIN. PROTECT STORAGE UNIT AND SURROUNDING SURFACES DURING DEMOLITION AND RENOVATION WORK. CLEAN, SAND, AND PREPARE EXISTING SHELVING, SUPPORTS, AND PANELS FOR NEW PAINT FINISH AS INDICATED IN MATERIAL SCHEDULE. MAINTAIN EXISTING STRUCTURAL SUPPORTS, FASTENERS, AND DIVIDERS IN PLACE. REPAIR ANY DAMAGED OR LOOSE COMPONENTS TO ENSURE STABILITY AND FUNCTIONALITY.
21. EXISTING WOODEN OUTFIELD FENCE TO REMAIN. PROTECT ALL WOOD FENCE SURFACES DURING DEMOLITION AND RENOVATION WORK.
22. EXISTING DOOR TO REMAIN. CONTRACTOR SHALL PROTECT ALL EXISTING GRAPHICS, DECALS, AND FINISHES ON DOOR AND ADJACENT WALL SURFACES DURING DEMOLITION AND RENOVATION WORK.
23. DEMOLISH EXISTING WOOD STORAGE SHELVES IN THEIR ENTIRETY, INCLUDING ALL SUPPORTS, BRACKETS, AND FASTENERS ANCHORED TO THE WALL OR CEILING STRUCTURE. PATCH AND REPAIR ALL SURFACES AFFECTED BY REMOVAL TO MATCH ADJACENT CMU OR METAL PANEL FINISH.
24. CONTRACTOR SHALL COORDINATE WITH OWNER TO IDENTIFY AND REMOVE ALL EXISTING SITE ELEMENTS THAT ARE TO BE REUSED OR RELOCATED PRIOR TO DEMOLITION ACTIVITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, GARBAGE BINS, WORKOUT OR MAINTENANCE EQUIPMENT, PORTABLE STORAGE ITEMS, AND MISCELLANEOUS FIELD ACCESSORIES. ALL ITEMS DESIGNATED FOR REUSE SHALL BE SAFELY STORED AND REINSTALLED AS DIRECTED BY OWNER. ANY ITEMS NOT IDENTIFIED FOR REUSE SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH LOCAL REGULATIONS.
25. **ALTERNATE 07** (A): APPLY A NEW GALVANIZED FINISH TO EXISTING CHAINLINK FENCE. REFER TO MATERIAL SCHEDULE FOR GALVANIZED PAINT TYPE. CONTRACTOR SHALL REMOVE ANY ATTACHED ACCESSORIES, SIGNAGE, OR SAFETY CAPS AS REQUIRED TO PREPARE THE FENCE TO APPLY A NEW FINISH. (B) PAINT EXISTING WOOD FENCE. CLEAN, SCRAPE, AND REMOVE LOOSE OR PEELING PAINT. REPAIR ANY DAMAGED WOOD OR SURFACE AREAS PRIOR TO REFINISHING. REFER TO MATERIALS SCHEDULE FOR PAINT TYPE.

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BP010 TURF AND ATHLETICS

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INSPIRE•EQUIP•IMAGINE
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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO.	25-005
DATE:	10/09/2025
DRAWN BY: DRW	CHECKED BY: CHK

REVISIONS:

	Date	Description

ISSUED FOR CONSTRUCTION

AD1.00-A
DEMOLITION SITE PLAN

DEMO NOTES AUSTIN

SCALE: 1" = 100'-0"

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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
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 FV/WTCH — ROOM TAG WITH ROOM FINISH
- 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
- REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC P.PROVIDED REQ — 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 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
2. 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
3. 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.
4. 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
5. 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
6. 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.
7. 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.
8. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
9. 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
10. 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.
11. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
12. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
13. PROVIDE FIRE STOPS WHERE VER 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.
14. 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.
15. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
16. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
17. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
18. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
19. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
20. 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.
21. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
22. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
23. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
24. 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.
25. 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
26. 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.
27. 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
28. 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
29. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
30. 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.
31. 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

- A — DRAWING SHEET DISCIPLINE
  - G GENERAL
  - C CIVIL
  - S STRUCTURAL
  - AD ARCH DEMOLITION
  - A ARCHITECTURE
  - E ELECTRICAL
- XX — CAMPUS DESIGNATOR
- 2 — SHEET NUMBER IN DISCIPLINE

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BP010 TURF AND ATHLETICS

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ARCHITECT: TANNER ADAME
ARCHITECT REG. NO: 20113
DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

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A0.00-A
SYMBOLS & ABBREVIATIONS

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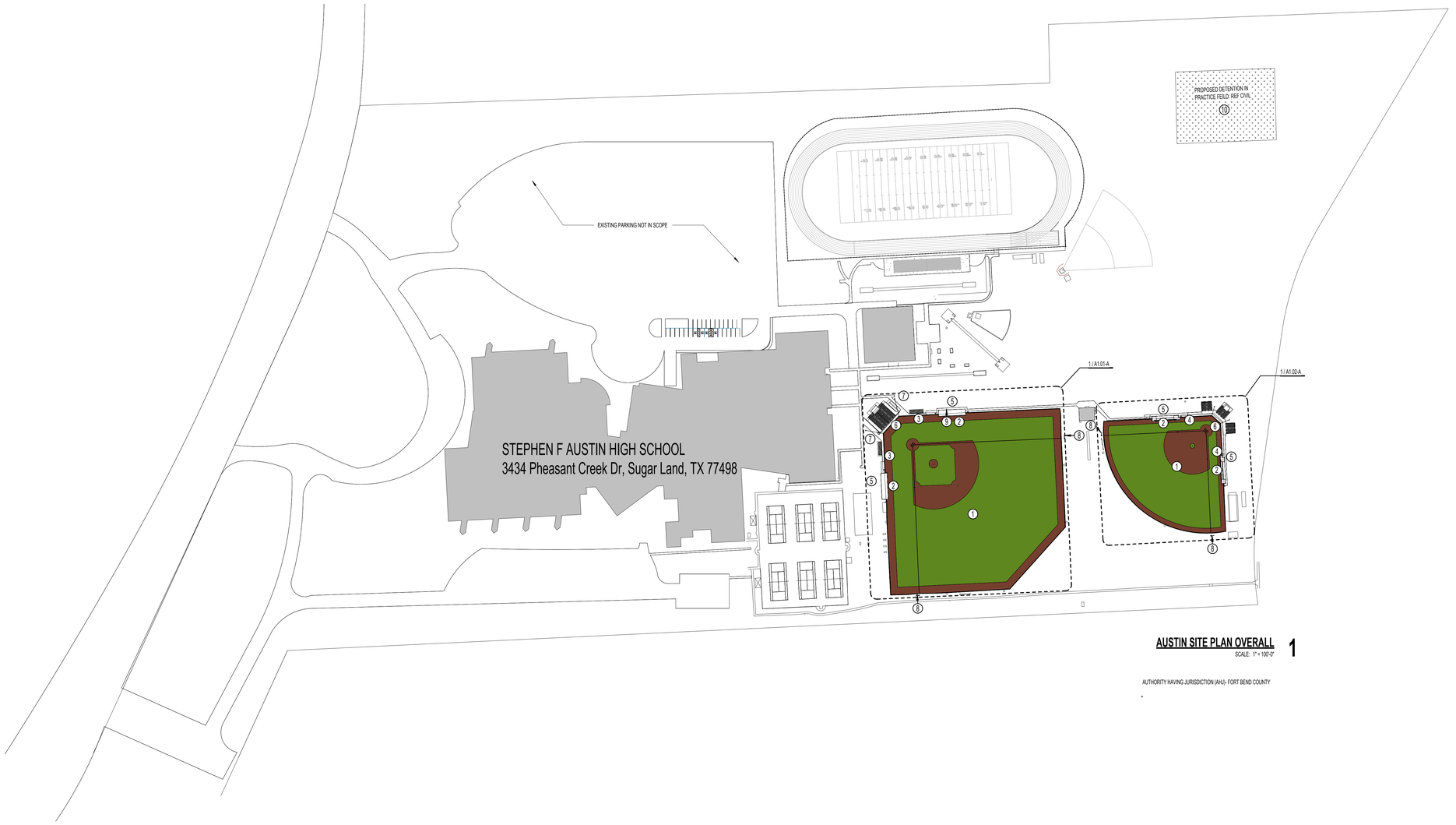
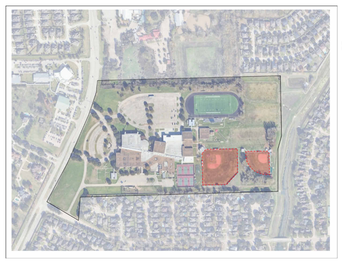


AUSTIN SITE PLAN OVERALL 1

SCALE: 1" = 100'-0"

AUTHORITY HAVING JURISDICTION (AHJ)- FORT BEND COUNTY



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00-D FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURISDICTION.
5. ALL NEW FENCING SHALL BE VINYL COATED CHAIN LINK,REF DRAWINGS FOR HEIGHT.
6. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.

9.PROVIDE 12" CONCRETE CURB AROUND PERIMETER OF ALL FIELDS 6" CENTERED ON ALL EXISTING AND NEW FENCING.

10.REFER TO CIVIL DRAWINGS FOR ALL GRADING AND SUBSURFACE UTILITY, DRAINAGE AND OTHER WORK.

11.PROVIDE CONTROL JOINTS AT ALL CONCRETE WALKS AS INDICATED. IF NO INDICATION OF JOINT PATTERN, SPACING, ETC., REFER TO SPECIFICATIONS. IF NO DIRECTION IS PROVIDED, CONTROL JOINTS SHALL BE TOOLED AT 5'-0" O.C. WITH EXPANSION JOINTS EVERY 20'-0". PROVIDE JOINT LAYOUT PLAN TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF CONCRETE.

12. PROVIDE EXPANSION FILLER STRIPS AND SEALANT AT ALL FLATWORK TO BUILDING, COLUMN, ADJACENT FLATWORK, OR OTHER ADJACENT SURFACE AS REQUIRED TO PROVIDE PROPER EXPANSION CONTROL. COORDINATE WITH ADJACENT SURFACE TO PROVIDE AS INCONSPICUOUS EXPANSION JOINT AS POSSIBLE. COORDINATE EXPANSION STRIP MATERIAL AND SEALANT WITH ADJACENT MATERIAL COLOR.

13.DELIVERIES / HEAVY TRAFFIC SHALL BE COORDINATED SO AS NOT TO DISRUPT CAMPUS ACTIVITIES. DELIVERIES / HEAVY TRAFFIC SHALL NOT OCCUR BETWEEN THE HOURS OF 7:30 AM - 9:00 AM OR 3:00 PM.

14.PROVIDE MIN. 1/2" EXPANSION JOINT WITH FILLER AT ALL TRANSITIONS BETWEEN CIVIL AND STRUCTURAL CONCRETE WORK, WHETHER ILLUSTRATED OR NOT.

15.SCORE LINES SHOWN ON PLANS MAY NOT BE FULLY INDICATIVE OF ALL SCORE LINES REQUIRED TO ENSURE THAT CONCRETE FLATWORK DOES NOT CRACK / FRACTURE. REFER TO PROJECT SPECIFICATIONS AND CIVIL DRAWINGS FOR FURTHER SCORE LINE REQUIREMENTS.

16.REFER TO A1.01 AND A1.02 ENLARGED SITE PLAN FOR TURF LAYOUT

17. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING ANY WORK. ANY DISCREPANCIES, CONFLICTS, OR UNFORESEEN CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT AND ENGINEER FOR CLARIFICATION AND RESOLUTION

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
- FV — FIELD VERIFY
- PROPOSED DETENTION

SITE PLAN KEYNOTES

TAG #	NOTES
1.	INSTALL INFILL SYNTHETIC TURF. THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 32 18 23 FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS. REFER TO COLOR RENDERINGS ON SHEET G0.01-A FOR TURF COLOR AND DETAIL LAYOUTS. REFER TO CIVIL DRAWINGS FOR TURF DETAILS.
2.	PRESSURE WASH ALL SIDES OF EXISTING DUGOUT CMU, CONCRETE SLAB FLOOR, METAL ROOFING AND ROOF STRUCTURE. REPAIR AND PREPARE ALL SURFACES TO BE PAINTED PER SPECIFICATION SECTION 09 90 00 FOR EXTERIOR MASONRY, WOOD, AND METAL SURFACES.
3.	INSTALL 60'-0" BACKSTOP NETTING AND CMU WALL WITH PADDING. REFER TO SPECIFICATION SECTION 11 68 50. REFER TO STRUCTURAL DRAWINGS FOR POLE FOUNDATIONS, REINFORCEMENT, AND TIE-DOWN LOCATIONS. INSTALL WALL PADDING PER MANUFACTURER'S RECOMMENDATIONS FOR CMU SURFACE.
4.	INSTALL 40'-0" NETTING, CMU BACKSTOP, AND WALL PADDING. INSTALL NETTING SYSTEM AND PADDING AS SPECIFIED IN SECTION 11 68 50. REFER TO STRUCTURAL AND CIVIL DRAWINGS FOR PIER AND FOUNDATION REQUIREMENTS.
5.	**ALTERNATE NO.6:** INSTALL NEW ELECTRICAL LIGHTING AS NOTED IN ELECTRICAL DRAWINGS.
6.	INSTALL NEW 12" CMU BLOCK WALL 36" FOR BASEBALL AND 48" FOR SOFTBALL. REFER TO STRUCTURAL DRAWINGS FOR FOUNDATION AND REINFORCEMENT. FINISH AND COLOR AS INDICATED IN MATERIAL SCHEDULE.
7.	INSTALL NEW 70'-0" BACKSTOP STEEL NETTING POLE. REFER TO SPECIFICATION SECTION 11 68 50 AND STRUCTURAL DRAWINGS FOR PIER AND REINFORCEMENT REQUIREMENTS. REFER TO MATERIAL SCHEDULE FOR COLOR AND FINISH.
8.	**ALTERNATE NO. 5:** INSTALL NEW 30'-0" FOUL POLE. REFER TO SPECIFICATION SECTION 11 68 50 AND CIVIL DRAWINGS FOR FOUNDATION AND LOCATION REQUIREMENTS.
9.	EXISTING HELMET STORAGE SHELVES TO REMAIN. CLEAN, SAND, AND REFINISH ALL EXPOSED SURFACES SMOOTH AND FREE OF DIRT, RUST, AND GREASE. FILL SURFACE IMPERFECTIONS AND APPLY PRIMER AND FINISH COATS PER SECTION 09 90 00.
10.	PROPOSED DETENTION AREA. REFER TO CIVIL DRAWINGS FOR LAYOUT, GRADING, AND DRAINAGE DETAILS. VERIFY EXISTING SITE CONDITIONS PRIOR TO EXCAVATION. CONTRACTOR TO REFER TO UNDERGROUND RADAR SURVEY FOR PROPOSED DETENTION AREA. VERIFY ALL EXISTING UNDERGROUND UTILITIES, ELECTRICAL CONDUITS, DRAINAGE LINES, AND OTHER SUBSURFACE ELEMENTS PRIOR TO EXCAVATION. CONTRACTOR SHALL COORDINATE WITH CIVIL ENGINEER TO CONFIRM EXTENTS AND DEPTHS OF PROPOSED DETENTION SYSTEM. ANY EXISTING UTILITIES OR STRUCTURES ENCOUNTERED SHALL BE PROTECTED, RELOCATED, OR REMOVED AS REQUIRED TO ACCOMMODATE NEW WORK. REFER TO CIVIL DRAWINGS FOR LIMITS OF EXCAVATION, GRADING, AND CONNECTION DETAILS.

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

ISSUED FOR CONSTRUCTION

A1.00-A
ARCHITECTURAL SITE PLAN

Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt
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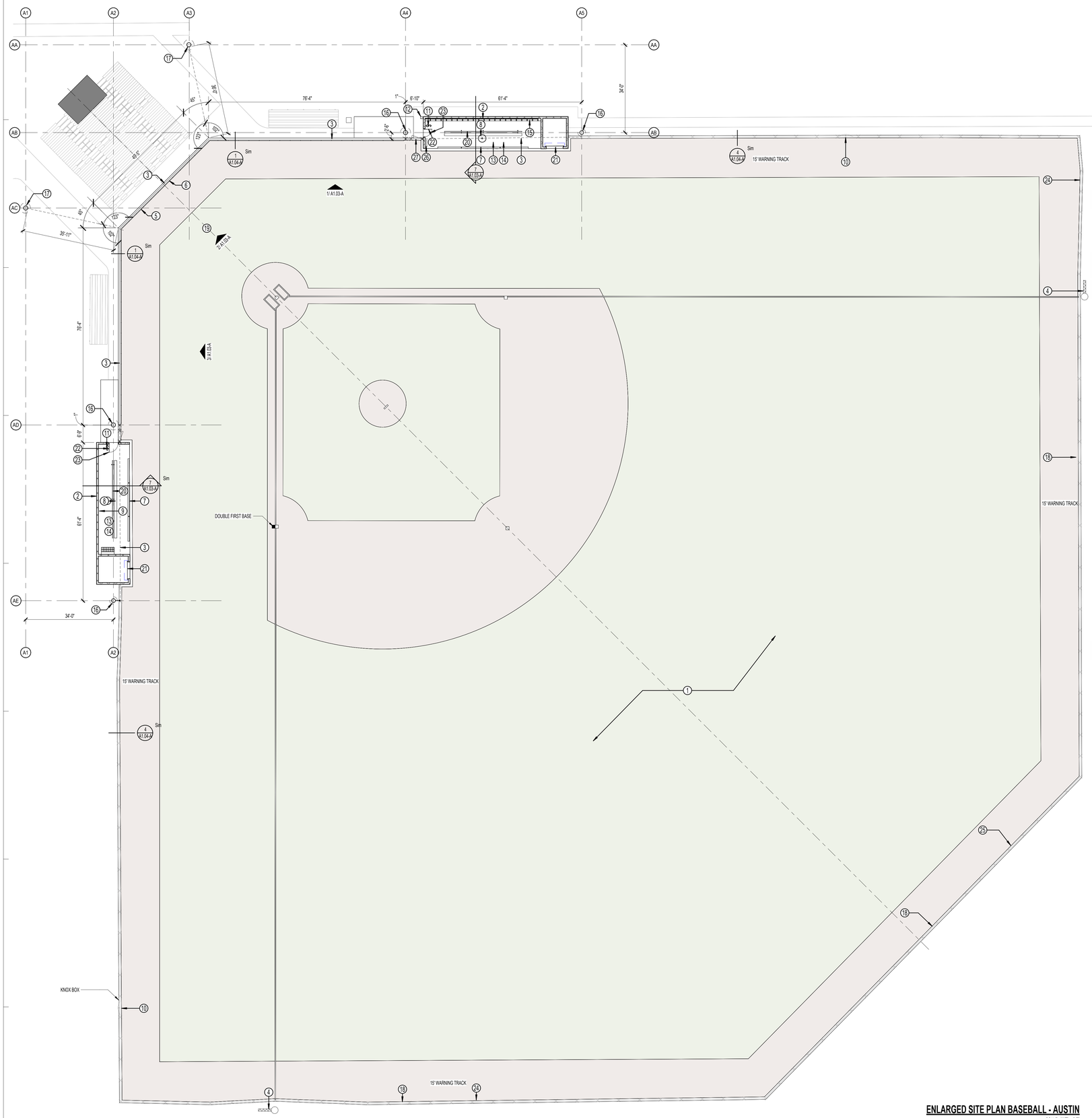

ENLARGED SITE PLAN BASEBALL - AUSTIN 1
SCALE: 1/16" = 1'-0"

ADD 60' BACKSTOP NETTING AND SUPPORT POLES - REF SHEET A1.02

RENOVATE EXISTING DUGOUT. PRESSURE WASH AND PAINT.

ALTERNATE NO.6: POWER AND LIGHTING - REF MEP

WATER HYDRANT - REF MEP

FINISH AND PAINT HAT AND BAT STORAGE

NEW WOODEN SEATING ON EXISTING METAL FRAME

ALTERNATE NO.6: ADD EXTERIOR GRADE SELF LEVELING MATERIAL TO EVEN FLOOR SURFACE

ALTERNATE NO.6: ARTIFICIAL TURF GLUED ON CONCRETE

EXISTING GRAPHICS TO REMAIN

ADD SAFETY NETTING TO EXISTING CMU PONY WALL

PAINT EXISTING POLES- PAINT TO MATCH EXISTING



PHOTO OF EXISTING BASEBALL LEFT DUGOUT

60' NETTING - REF SHEET A1.02

RENOVATE EXISTING DUGOUT. PRESSURE WASH AND PAINT.

ALTERNATE NO.6: POWER AND LIGHTING - REF MEP

NEW HAT AND BACK RACKS - REF TO CIVIL

NEW WOODEN SEATING ON EXISTING METAL FRAME

ADD SAFETY NETTING TO EXISTING CMU PONY WALL

ALTERNATE NO.6: ADD EXTERIOR GRADE SELF LEVELING MATERIAL TO EVEN FLOOR SURFACE

ALTERNATE NO.6: ARTIFICIAL TURF GLUED ON CONCRETE



PHOTO OF EXISTING BASEBALL RIGHT DUGOUT

60' NETTING - REF SHEET A1.02

NEW CMU BACKSTOP WALL, BURNISHED RED COLOR

NEW BACKSTOP PADDING - COLOR TO MATCH SCHOOL LOGO

EXISTING BLEACHERS TO REMAIN- THE BLEACHERS ON BOTH SIDES ARE LOW

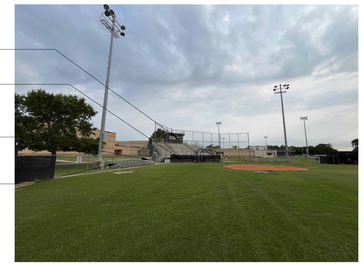

PHOTO OF EXISTING BASEBALL FENCED BACKSTOP



KEY PLAN - BASEBALL AREA OF WORK

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00-A FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURISDICTION.
5. ALL NEW FENCING SHALL BE PVC-COATED CHAIN LINK TO MATCH NETTING COLOR REF SECTION 32 31 15 . REFER TO DRAWINGS FOR HEIGHT.
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. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.
8. FLAGPOLES SHALL HAVE MIN. 9' DIAMETER PAVING AROUND THEM AND A PATH TO A BUILDING ENTRANCE. PATH AND PAVING SHALL BE TAS REQUIREMENTS FOR WIDTH AND GRADING.

SITE PLAN LEGEND

- NEW CHAINLINK FENCE
- EXISTING CHAIN LINK FENCE
- SIM / A101 — BUILDING SECTION TAG
- 1 / A101 — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT
- FV — FIELD VERIFY

ENLARGED SITE PLAN KEYNOTES

TAG # NOTES

1. INSTALL INFILL SYNTHETIC TURF. THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYNTHETIC TURF SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 321823 FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS. REFER TO THE COLOR RENDERINGS ON SHEET G0.01-A FOR TURF COLOR AND DETAIL LAYOUTS. REFER TO CIVIL DRAWINGS FOR TURF DETAILS.
2. PRESSURE WASH ALL SIDES OF EXISTING DUGOUT. CMU, CONCRETE SLAB FLOOR, METAL ROOFING AND ROOFING STRUCTURE. REPAIR EXTERIOR METAL ROOF FLASHING, REPAIR CMU WALLS WITH FILLER AND PRIMER. PREPARE ALL SURFACES TO BE PAINTED ACCORING TO SPEC SECTION 099600 FOR EXTERIOR MASONRY, WOOD AND METAL SURFACES.
3. INSTALL 60' BACK STOP NETTING AND POLES AS NOTED IN PM SECTION 116850. INSTALL 70' 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.
4. **ALTERNATE NO.5**: INSTALL 30' FOUL POLE AS NOTED IN PM SECTIONS 116850. REFER TO STRUCTURAL DRAWINGS FOR PIER SCHEDULE AND DETAILS.
5. INSTALL BACKSTOP PADDING AS NOTED IN PM SECTIONS 116850. REFER TO DETAIL 1&3/ A1.04-A. REFER TO CIVIL FOR PRODUCT DATA. ATTACH PADDING PER MANUFACTURER'S RECOMMENDATIONS FOR MASONRY FACE BRICK AND CMU BACKSTOPS.
6. INSTALL 12" THICK CMU BLOCK WALL 36" TALL BACKSTOP. REFER TO MATERIAL SCHEDULE FOR BRICK TYPE. REFER TO DETAIL SECTION 1&3/ A1 .04-A. REFER TO STRUCTURAL FOR FOUNDATIONS AND REINFORCEMENT REQUIREMENTS.
7. ADD SAFETY NETTING TO MATCH THE BACKSTOP NETTING. REFER TO SHEET A1.03-A FOR LOCATIONS AND DIMENSIONS. REFER TO 11 68 50 BACKSTOP NETTING FOR SPECIFICATIONS. REFER TO MANUFACTURER DETAILS FOR ATTACHMENT RECOMMENDATIONS.
8. POWER WASH SEATING METAL FRAME. REPAIR, CLEAN, PRIME AND PAINT EXISTING METAL FRAME PER PM SECTION 09 90 00.
9. INSTALL NEW HAT AND BAT RACKS REFER TO DETAILS 11 68 50. REFER TO SPEC 11 68 50. REFER TO FINISH SCHEDULE FOR COLORS REQUIREMENTS.
10. EMERGENCY SWING GATE TO REMAIN. POWER WASH CLEAN, REPAIR RE-COAT AND RE-GALVANIZE AS NOTED IN PM SECTION 09 90 00.
11. **ALTERNATE NO.6**: INSTALL NEW ELECTRICAL LIGHTING AS NOTED IN ELECTRICAL DRAWINGS.
12. INSTALL NEW ANTI SIPHON AND ANTI-FREEZE WATER HYDRANT. REFER TO MEP DRAWING AND SPECIFICATIONS.
13. **ALTERNATE NO.6**: CONTRACTOR/INSTALLER SHALL ACID WASH EXISTING DUGOUT CONCRETE FLOOR. REMOVE SUB-FLOOR RIDGES AND BUMPS. FILL MINOR LOW SPOTS, CRACKS, JOINTS, HOLES, AND OTHER DEFECTS WITH SUB-FLOOR FILLER TO ACHIEVE SMOOTH SURFACE. VERIFY THAT SUBSTRATES ARE DRY ENOUGH AND READY FOR FLOORING INSTALLATION BY TESTING FOR MOISTURE AND PH. ADD EXTERIOR GRADE SELF LEVELING MATERIAL TO EVEN FLOOR SURFACE. PREPARE FLOOR TO RECEIVED GLUE DOWN SYNTHETIC TURF FLOORING.
14. **ALTERNATE NO.6**: PLACE GLUE DOWN SYNTHETIC TURF. REFER TO PM SECTION 12 18 20.
15. EXISTING HELMET AND BAT STORAGE TO REMAIN. CLEAN AND REFINISH ALL EXPOSED SURFACES TO BE SMOOTH AND FREE OF DIRT, RUST, GREASE, ROUGH SPOTS. FILL ALL NAIL HOLES AND OTHER INDENTATIONS WITH COMPATIBLE WOOD FILLER TO MATCH WOOD AND SAND SMOOTH. PRIME AS SOON AS POSSIBLE TO APPLY EXTERIOR ACRYLIC ENAMEL AS NOTED IN PM SECTION 09900. SURFACE SHALL BE PREPARED IN A THOROUGH MANNER IN ORDER THAT THE NEW FINISH SHALL BE AS FINISHED AS IF THE SURFACE HAD BEEN NEW WITH ALL THE REPARATION FOR NEW PAINT OR VARNISH.
16. INSTALL NEW 60'-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.
17. INSTALL NEW 70'-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.
18. **ALTERNATE NO.7**: REFINISH AND PAINT EXISTING OUTFIELD WOOD FENCE AS NOTED IN PM SECTION 09 90 00.
19. ALL DIMENSIONS ARE BASED ON EXISTING DRAWINGS AND ON SURVEYOR DRAWINGS ISSUED BY CLIENT. CONTRACTION TO FIELD VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.
20. REMOVE EXISTING 2X WOOD BENCH SEATS. EXISTING METAL FRAME ALL METAL SHALL BE THOROUGHLY PREPARED TO ENSURE ADHESION OF NEW PAINT TO THE PREPARED SURFACE. PAINT ALL METAL SURFACES PER PM SECTION 099600. INSTALL NEW WOOD 2X SEATING. ALL WOOD SURFACES MUST BE SCRAPED, SANDED, AND SPOT PRIMED BEFORE A FULL PRIMING COAT IS APPLIED AND PAINT ACCORDING TO PM SECTION 09 90 00.
21. CLEAN EXISTING OVERHEAD COILING DOOR. ALL METAL SHALL BE THOROUGHLY PREPARED TO ENSURE ADHESION OF NEW PAINT TO THE PREPARED SURFACE. PAINT ACCORDING TO PM SECTION 099000.
22. PROTECT EXISTING GRAPHICS TO REMAIN FROM CONSTRUCTION TRAFFIC.
23. PAINT EXISTING HOLLOW METAL DOOR ACCORDING TO PM SECTION 09 90 00.
24. 12" CONCRETE CURB AROUND EXISTING PERIMETER.
25. **ALTERNATE NO.7**: EXISTING 6'-0" PERIMETER CHAINLINK FENCE TO REMAIN. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR GALVANIZED METALS.
26. EXISTING BAT STORAGE TO REMAIN. CLEAN AND REFINISH ALL EXPOSED SURFACES TO BE SMOOTH AND FREE OF DIRT, RUST, GREASE, ROUGH SPOTS. FILL ALL NAIL HOLES AND OTHER INDENTATIONS WITH COMPATIBLE WOOD FILLER TO MATCH WOOD AND SAND SMOOTH. PRIME AS SOON AS POSSIBLE TO APPLY EXTERIOR ACRYLIC ENAMEL AS NOTED IN PM SECTION 09 90 00. SURFACE SHALL BE PREPARED IN A THOROUGH MANNER IN ORDER THAT THE NEW FINISH SHALL BE AS FINISHED AS IF THE SURFACE HAD BEEN NEW WITH ALL THE REPARATION FOR NEW PAINT OR VARNISH
27. PROVIDE NEW 7'-0" FENCE GATE AND SURROUNDING 7'-0" SUPPORT STRUCTURE. PREPARE ALL SURFACES TO BE PAINTED ACCORING TO SPEC SECTION 09 90 00 FOR GALVANIZED METALS. ALL SWING GATES SHALL OPEN OUTSIDE OF THE FIELD AND SHALL HAVE STOPS INSTALLED TO PREVENT GATES SWINGING INTO THE FIELD.

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BP010 TURF AND ATHLETICS

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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

ISSUED FOR CONSTRUCTION

A1.01-A
ENLARGED SITE PLAN BASEBALL

10/9/2025 5:52:58 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt



PHOTO OF EXISTING SOFTBALL RIGHT DUGOUT

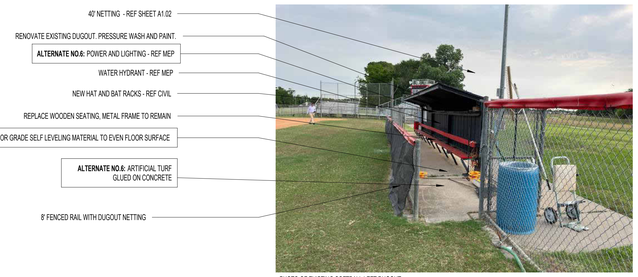
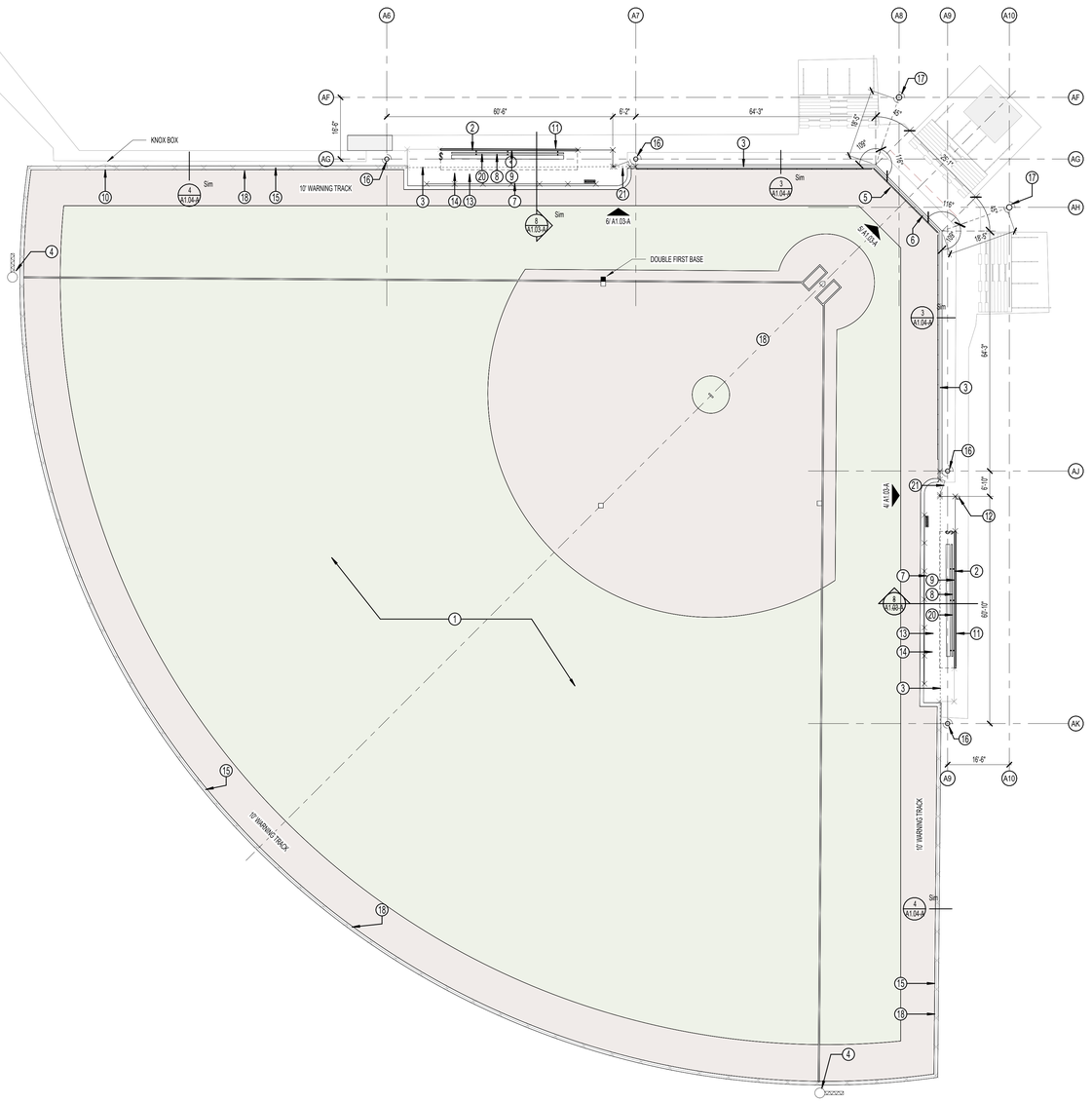


PHOTO OF EXISTING SOFTBALL LEFT DUGOUT



PHOTO OF EXISTING SOFTBALL FENCE BACKSTOP



ENLARGED SITE PLAN SOFTBALL -AUSTIN 1

SCALE: 1/16" = 1'-0"



KEY PLAN - SOFTBALL AREA OF WORK

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00-A FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURSDICTION.
5. ALL NEW FENCING SHALL BE PVC-COATED CHAIN LINK TO MATCH NETTING COLOR REF SECTION 32 31 15 . REFER TO DRAWINGS FOR HEIGHT.
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. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.
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.

SITE PLAN LEGEND

- NEW CHAINLINK FENCE
- EXISTING CHAIN LINK FENCE
- BUILDING SECTION TAG (SIM / A101)
- WALL SECTION TAG (1 / A101, SIM)
- ENLARGED CALL OUT (21 / A101, SIM.)
- FV — FIELD VERIFY

ENLARGED SITE PLAN KEYNOTES

TAG # — NOTES

1. INSTALL INFILL SYNTHETIC TURF. THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYNTHETIC TURF SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 321823 FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS. REFER TO THE COLOR RENDERINGS ON SHEET G0.01-A FOR TURF COLOR AND DETAIL LAYOUTS. REFER TO CIVIL DRAWINGS FOR TURF DETAILS.
2. PRESSURE WASH ALL SIDES OF EXISTING DUGOUT, CONCRETE SLAB FLOOR, METAL ROOFING AND ROOFING STRUCTURE. REPAIR EXTERIOR METAL ROOF FLASHING, REPAIR METAL WALLS WITH FILLER AND PRIMER. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR EXTERIOR WOOD AND METAL SURFACES.
3. 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.
4. **ALTERNATE NO.5:** INSTALL 30' FOUL POLE AS NOTED IN PM SECTIONS 116850. REFER TO STRUCTURAL DRAWINGS FOR PIER SCHEDULE AND DETAILS.
5. INSTALL BACKSTOP PADDING AS NOTED IN PM SECTIONS 116850. REFER TO DETAIL 1&3 A1.04-A. REFER TO CIVIL FOR PRODUCT DATA. ATTACH PADDING PER MANUFACTURER'S RECOMMENDATIONS FOR MASONRY FACE BRICK AND CMU BACKSTOPS.
6. INSTALL 12" THICK CMU BLOCK WALL 48" TALL BACKSTOP. REFER TO MATERIAL SCHEDULE FOR BRICK TYPE. REFER TO DETAIL SECTION 1&3 A1 .04-A. REFER TO STRUCTURAL FOR FOUNDATIONS AND REINFORCEMENT REQUIREMENTS.
7. ADD SAFETY NETTING TO MATCH THE BACKSTOP NETTING. REFER TO SHEET A1.03-A FOR LOCATIONS AND DIMENSIONS. REFER TO 116850 BACKSTOP NETTING FOR SPECIFICATIONS. REFER TO MANUFACTURER DETAILS FOR ATTACHMENT RECOMMENDATIONS.
8. POWER WASH SEATING METAL FRAME, REPAIR, CLEAN, PRIME AND PAINT EXISTING METAL FRAME PER PM SECTION 099000.
9. INSTALL NEW HAT AND BAT RACKS REFER TO DETAILS XX.XX-A. REFER TO SPEC 11 68 50. REFER TO FINISH SCHEDULE FOR COLORS REQUIREMENTS.
10. EMERGENCY SWING GATE TO REMAIN. POWER WASH CLEAN, REPAIR. RE-COAT AND RE-GALVANIZE AS NOTED IN PM SECTION 099000.
11. **ALTERNATE NO.6:** INSTALL NEW ELECTRICAL LIGHTING AS NOTED IN ELECTRICAL DRAWINGS.
12. INSTALL NEW ANTI SIPHON AND ANTI-FREEZE WATER HYDRANT. REFER TO MEP DRAWING AND SPECIFICATIONS.
13. **ALTERNATE NO.6:** CONTRACTOR/INSTALLER SHALL ACID WASH EXISTING DUGOUT CONCRETE FLOOR. REMOVE SUB-FLOOR RIDGES AND BUMPS. FILL MINOR LOW SPOTS, CRACKS, JOINTS, HOLES, AND OTHER DEFECTS WITH SUB-FLOOR FILLER TO ACHIEVE SMOOTH SURFACE. VERIFY THAT SUBSTRATES ARE DRY ENOUGH AND READY FOR FLOORING INSTALLATION BY TESTING FOR MOISTURE AND PH. ADD EXTERIOR GRADE SELF LEVELING MATERIAL TO EVEN FLOOR SURFACE. PREPARE FLOOR TO RECEIVED GLUE DOWN SYNTHETIC TURF FLOORING.
14. **ALTERNATE NO.6:** PLACE GLUE DOWN SYNTHETIC TURF. REFER TO PM SECTION 12 18 20.
15. **ALTERNATE NO.7:** EXISTING 6'-0" PERIMETER CHAINLINK FENCE TO REMAIN. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 09 90 00 FOR GALVANIZED METALS.
16. 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.
17. 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.
18. 12" CONCRETE CURB AROUND EXISTING PERIMETER.
19. ALL DIMENSIONS ARE BASED ON EXISTING DRAWINGS AND ON SURVEYOR DRAWINGS ISSUED BY CLIENT. CONTRACTION TO FIELD VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.
20. REMOVE EXISTING 2X WOOD BENCH SEATS. EXISTING METAL FRAME ALL METAL SHALL BE THOROUGHLY PREPARED TO ENSURE ADHESION OF NEW PAINT TO THE PREPARED SURFACE. PAINT ALL METAL SURFACES PER PM SECTION 09 90 00. INSTALL NEW WOOD 2X SEATING. ALL WOOD SURFACES MUST BE SCRAPED, SANDED, AND SPOT PRIMED BEFORE A FULL PRIMING COAT IS APPLIED AND PAINT ACCORDING TO PM SECTION 09 90 00.
21. 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.

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

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A1.02-A
ENLARGED SITE PLAN SOFTBALL

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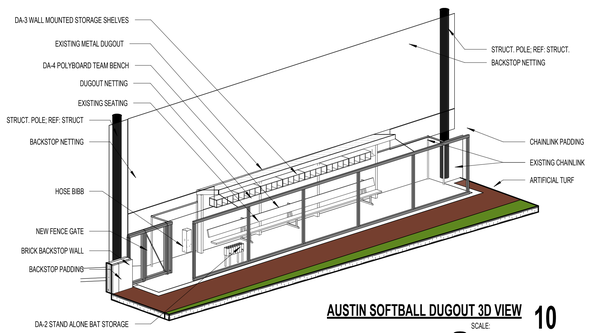
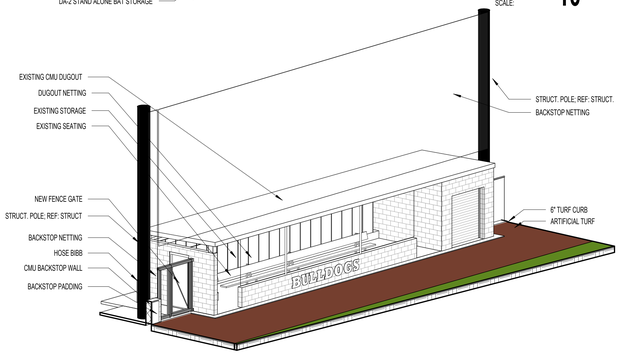


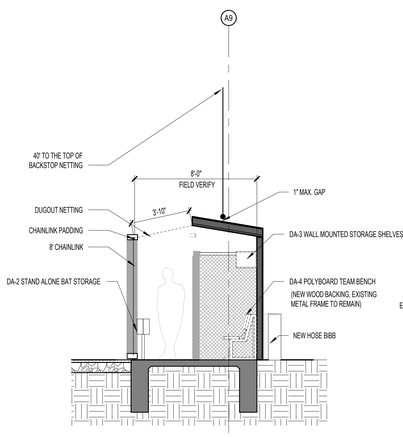
AUSTIN SOFTBALL DUGOUT 3D VIEW 10

SCALE:



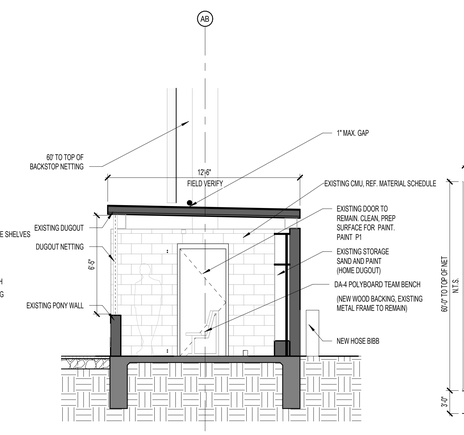
AUSTIN BASEBALL DUGOUT 3D VIEW 9

SCALE:



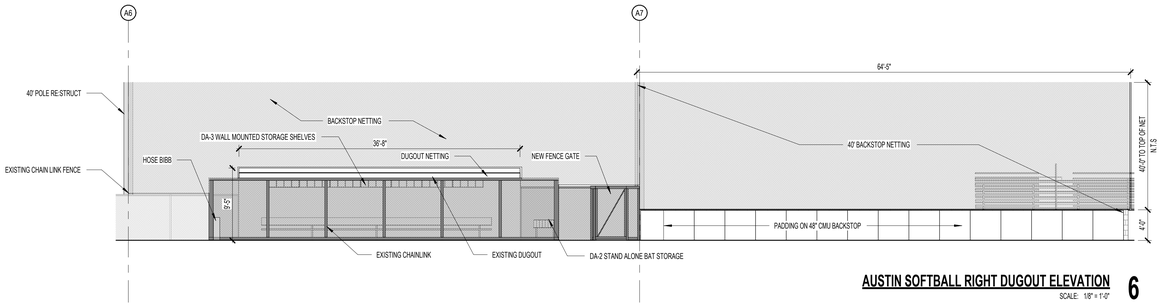
AUSTIN SOFTBALL DUGOUT SECTION 8

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



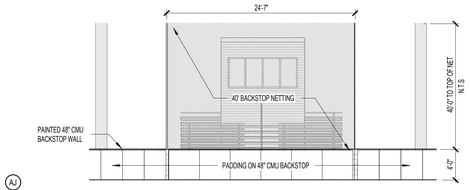
AUSTIN BASEBALL LEFT DUGOUT SECTION 7

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



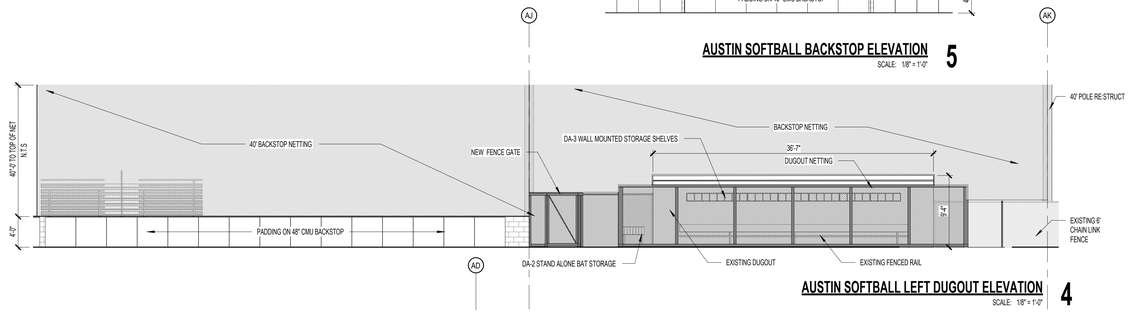
AUSTIN SOFTBALL RIGHT DUGOUT ELEVATION 6

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



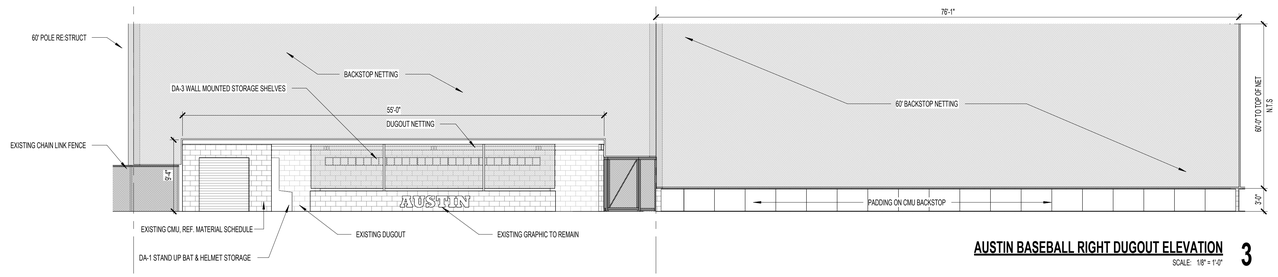
AUSTIN SOFTBALL BACKSTOP ELEVATION 5

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



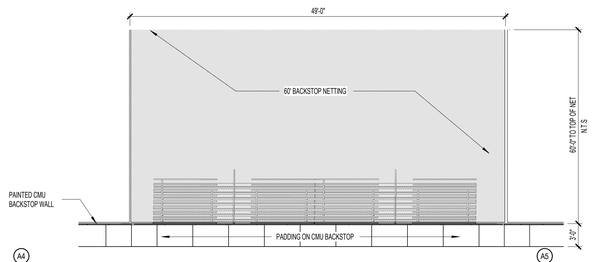
AUSTIN SOFTBALL LEFT DUGOUT ELEVATION 4

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



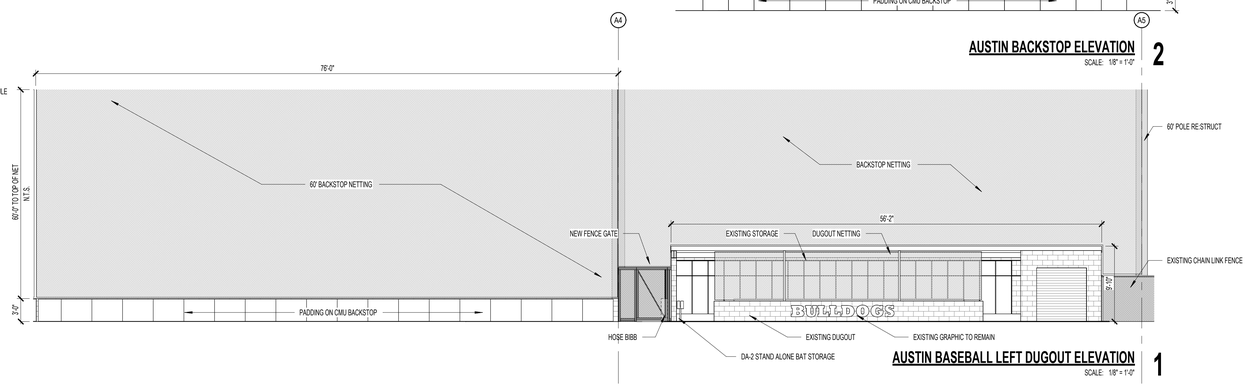
AUSTIN BASEBALL RIGHT DUGOUT ELEVATION 3

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



AUSTIN BACKSTOP ELEVATION 2

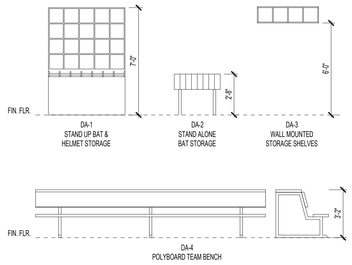
SCALE: 1/8" = 1'-0"



AUSTIN BASEBALL LEFT DUGOUT ELEVATION 1

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

DUGOUT EQUIPMENT LEGEND



DUGOUT EQUIPMENT: GENERAL NOTES

1. REFER TO MATERIAL AND EQUIPMENT SCHEDULE FOR COLOR SELECTIONS AND FINISHES PER SCHOOL.

EXTERIOR MATERIAL LEGEND

- BRICK (BR-1) UTILITY SIZE, RUNNING BOND, COLOR VARIES
- SMOOTH FACE BLOCK (CMU-1), RUNNING BOND
- CHAINLINK/NETTING

REFER TO MATERIAL SCHEDULE FOR ALL COLORS AND FINISHES, TYP.

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A1.03-A
BASEBALL AND SOFTBALL ELEVATIONS

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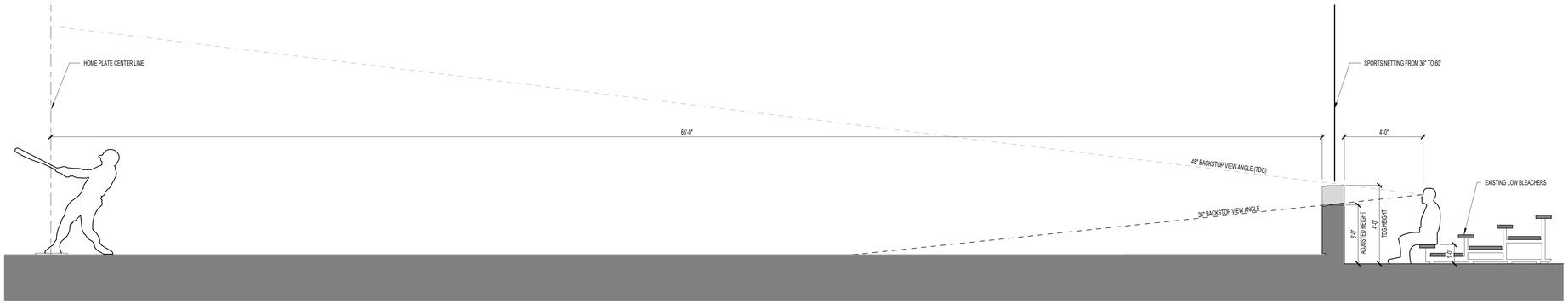
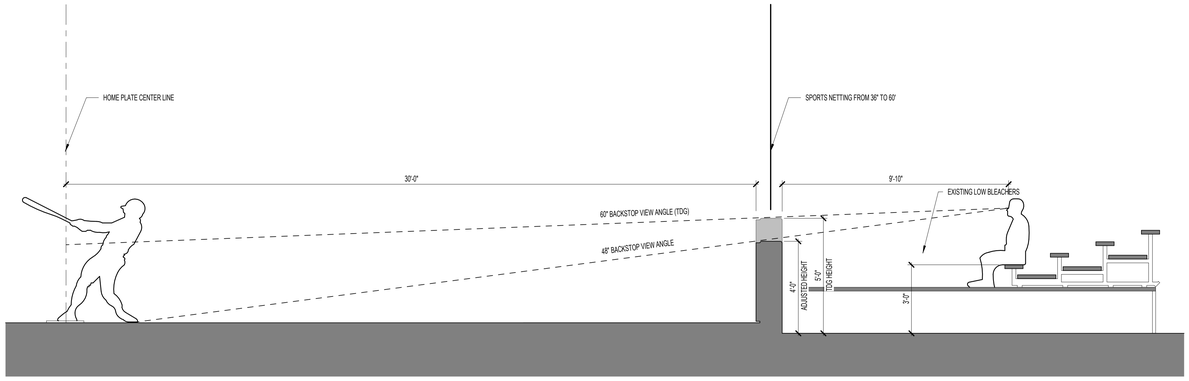
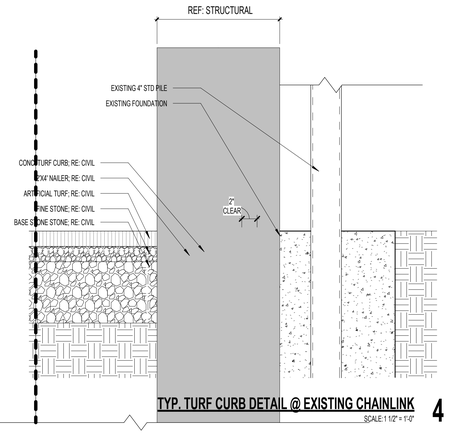


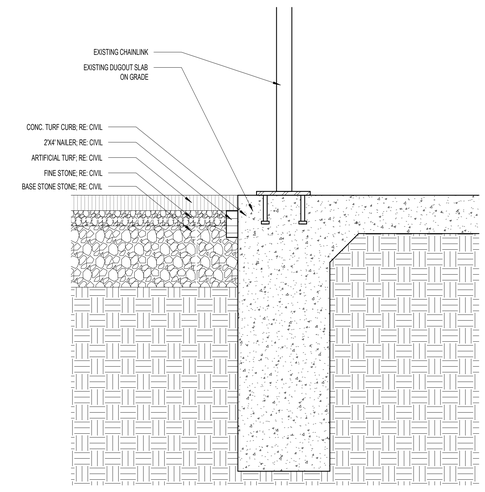
LOW BLEACHERS SIGHT LINES DIAGRAM 6
SCALE: 3/8" = 1'-0"



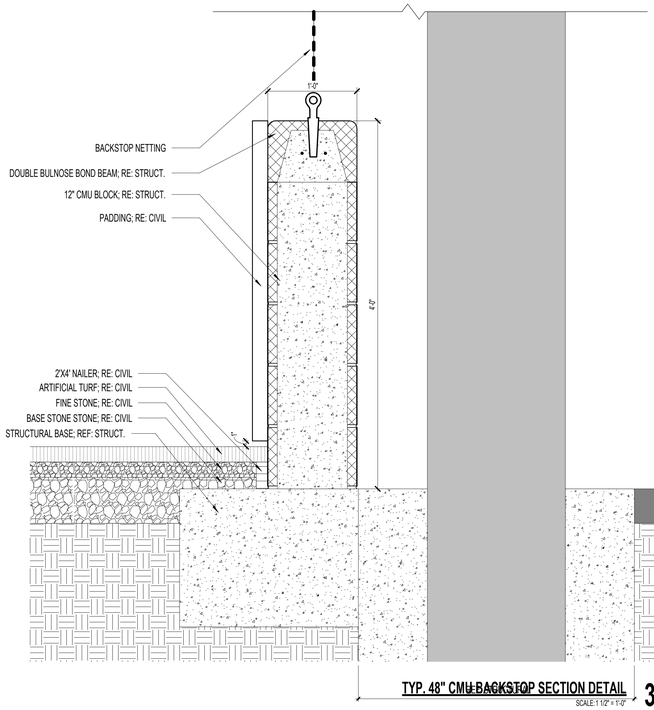
RAISED BLEACHERS SIGHT LINES DIAGRAM 5
SCALE: 3/8" = 1'-0"



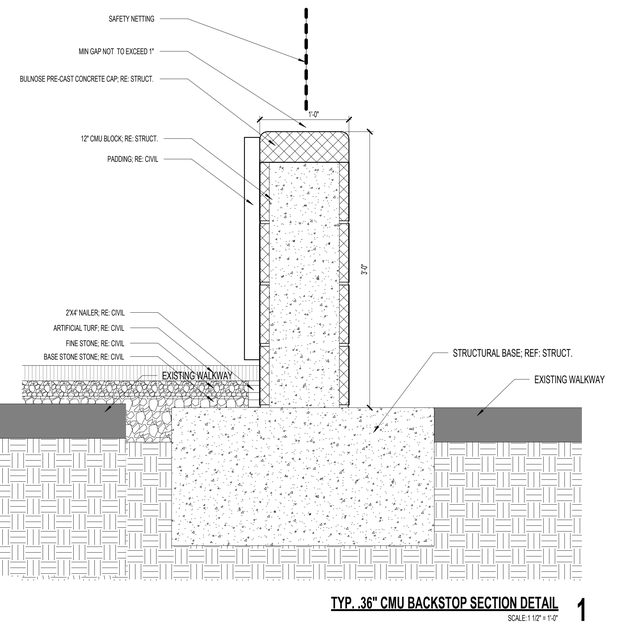
TYP. TURF CURB DETAIL @ EXISTING CHAINLINK 4
SCALE: 1 1/2" = 1'-0"



TYP. TURF DETAIL @ EXISTING SLAB 2
SCALE: 1 1/2" = 1'-0"



TYP. 48" CMU BACKSTOP SECTION DETAIL 3
SCALE: 1 1/2" = 1'-0"



TYP. .36" CMU BACKSTOP SECTION DETAIL 1
SCALE: 1 1/2" = 1'-0"

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A1.04-A
TYPICAL FIELD DETAILS

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MATERIAL & EQUIPMENT SCHEDULE NOTES

1. REFER TO EXTERIOR ELEVATIONS FOR LOCATION, SIZES & TYPES OF EXTERIOR FINISHES.
2. ARCHITECT TO SELECT COLORS. CONTRACTOR TO COORDINATE LEAD TIMES FOR ALL MATERIALS TO MAINTAIN PROJECT SCHEDULE.
3. FIELD VERIFY ALL DIMENSIONS AS APPLICABLE TO ASSURE PROPER FIT W/ AS-BUILT CONDITIONS.
4. VERIFY W/ OWNER EXACT SIZE OF ALL EQUIPMENT FURNISHED BY OWNER FOR PROPER FIT.
5. PROVIDE CONTROL JOINTS AS SHOWN AND SPECIFIED.
6. REFERENCE DOOR TYPES AS SPECIFIED FOR EXACT DIMENSIONS AND TYPES OF EACH ITEM.
7. REFERENCE A100 SERIES FOR ADDITIONAL INFORMATION.
8. REFER TO G0.02 & G0.03 FOR REQUIRED MOUNTING HEIGHTS PER T.A.S

GENERAL NOTES

A. ALL FINISHES SUBJECT TO ARCHITECTS APPROVAL.

B. OWNER TO APPROVE FINAL MANUFACTURER AND MODEL FOR ALL ATHLETICS EQUIPMENT.

C. A MASTER MATERIAL AND EQUIPMENT SCHEDULE IS PROVIDED. REFER TO THE COLUMN LABELED WITH THE SCHOOL NAME TO IDENTIFY APPLICABLE COLORS AND NOTES FOR EACH SCHOOL, TYPICAL.

MATERIAL AND EQUIPMENT SCHEDULE

MARK	MATERIAL	MANUFACTURER	STYLE	AUSTIN HS	DULLES HS	ELKINS HS	KEMPNER HS	WILLOWRIDGE HS	SPECS	COMMENTS	ALTERNATE
01 EXTERIOR											
BR-1	BRICK	KANSAS BRICK & TILE CO.	UTILITY SIZE		530 MM			500 MIT GRAY		BACKSTOP	
CMU	EXISTING CMU			TO BE PAINTED BLACK (P-2)		TO BE PAINTED SCHOOL COLOR (P-3) REFER COLOR DIAGRAM FOR P-1 LOCATIONS			PAINT FINISH: EXTERIOR ACRYLIC ENAMEL. REF SPECS	EXISTING	
CMU-1	CONCRETE MASONRY UNIT	BEST BLOCK	SMOOTH FACE	TO BE PAINTED BLACK (P-2)		TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3) REFER COLOR DIAGRAM FOR P-1 LOCATIONS		PAINT FINISH: EXTERIOR ACRYLIC ENAMEL. REF SPECS	BACKSTOP	
M-1	METAL ROOF & STRUCTURE			TO BE PAINTED BLACK (P-2),	TO BE PAINTED SCHOOL COLOR (P-4)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	PAINT FINISH: EXTERIOR METAL FINISH, REF SPECS		
PM-1	PREFINISHED METAL			TO BE PAINTED BLACK (P-2)	TO BE PAINTED SCHOOL COLOR (P-4)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	PAINT FINISH: EXTERIOR METAL FINISH, REF SPECS	ALL EXTERIOR METAL	
02 PAINT											
P-1	EXTERIOR PAINT	SHERWIN WILLIAMS		DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166		WHITE, FIELD	
P-2	EXTERIOR PAINT	SHERWIN WILLIAMS		TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258		ACCENT, BLACK	
P-3	EXTERIOR PAINT	SHERWIN WILLIAMS		REAL RED, SW 6868	SHOW STOPPER, SW 7588	FRANK BLUE, SW 6967	FINE WINE, SW 6307	FRANK BLUE, SW 6967		ACCENT, SCHOOL COLOR	
P-4	EXTERIOR PAINT	SHERWIN WILLIAMS			HONORABLE BLUE, SW 6811	GLITZY GOLD, SW 6691	GRAY MATTERS, SW 7066	CADET, SW 9143		ACCENT, SCHOOL COLOR	
P-5	EXTERIOR PAINT	SHERWIN WILLIAMS		CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911			
03 FLOORING											
TF-1	SYNTHETIC TURF									GREEN, FIELD	
TF-2	SYNTHETIC TURF									ACCENT, BROWN	
TF-3	SYNTHETIC TURF									ACCENT, WHITE	
EQUIPMENT											
	WALL MOUNTED STORAGE SHELVES	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	STAND ALONE BAT STORAGE	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	STAND UP BAT & HELMET STORAGE	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	PADDING AROUND FENCE	SPORTSFIELD SPECIALITIES	PROZONE OUTDOOR	RED 186C	RED 186C	ROYAL BLUE 661C	GREY 8401C	ROYAL BLUE 661C			
	BENCHES	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)			REF SPECS FOR PAINT FINISH WHERE APPLICABLE	WOOD BACKING, WOOD SEAT, METAL FRAME TO MATCH SCHOOL COLOR AS INDICATED	
	WALL PADDING	SPORTSFIELD SPECIALITIES	PROZONE OUTDOOR	RED 186C	RED 186C	ROYAL BLUE 661C	GREY 8401C	ROYAL BLUE 661C			
OTHER											
	NETTING POLES			TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	SUPER-DURABLE POWDER COAT, REF SPECS		
	FENCE GATE			TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	PVC (VYNIL) - COATED, REF SPECS	AT DUGOUT ENTRANCE	
	FOUL POLE			TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	POWDER COAT, REF SPECS		ALTERNATE 05
	NEW CHAIN-LINK FENCE			TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	PVC (VYNIL) - COATED, REF SPECS	AT DUGOUT ENTRANCE	
	WOOD FENCE (BATTER'S EYE/OUTFIELD)			TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)			BASEBALL ONLY	ALTERNATE 07
	CONCRETE CURB			TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)		REF TO SPECS FOR PAINT FINISH		
	NETTING		#36 UDR2 DYNEEMA	BLACK	BLACK	BLACK	BLACK				
	EXISTING CHAIN-LINK FENCE			ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND		GALVANIZED FINISH, REF SPECS	FIELD PERIMETER	ALTERNATE 07

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A1.05-A
MATERIAL AND EQUIPMENT SCHEDULE

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PHOTO OF EXISTING PANEL 'LS'



PHOTO OF EXISTING PANEL 'LS'

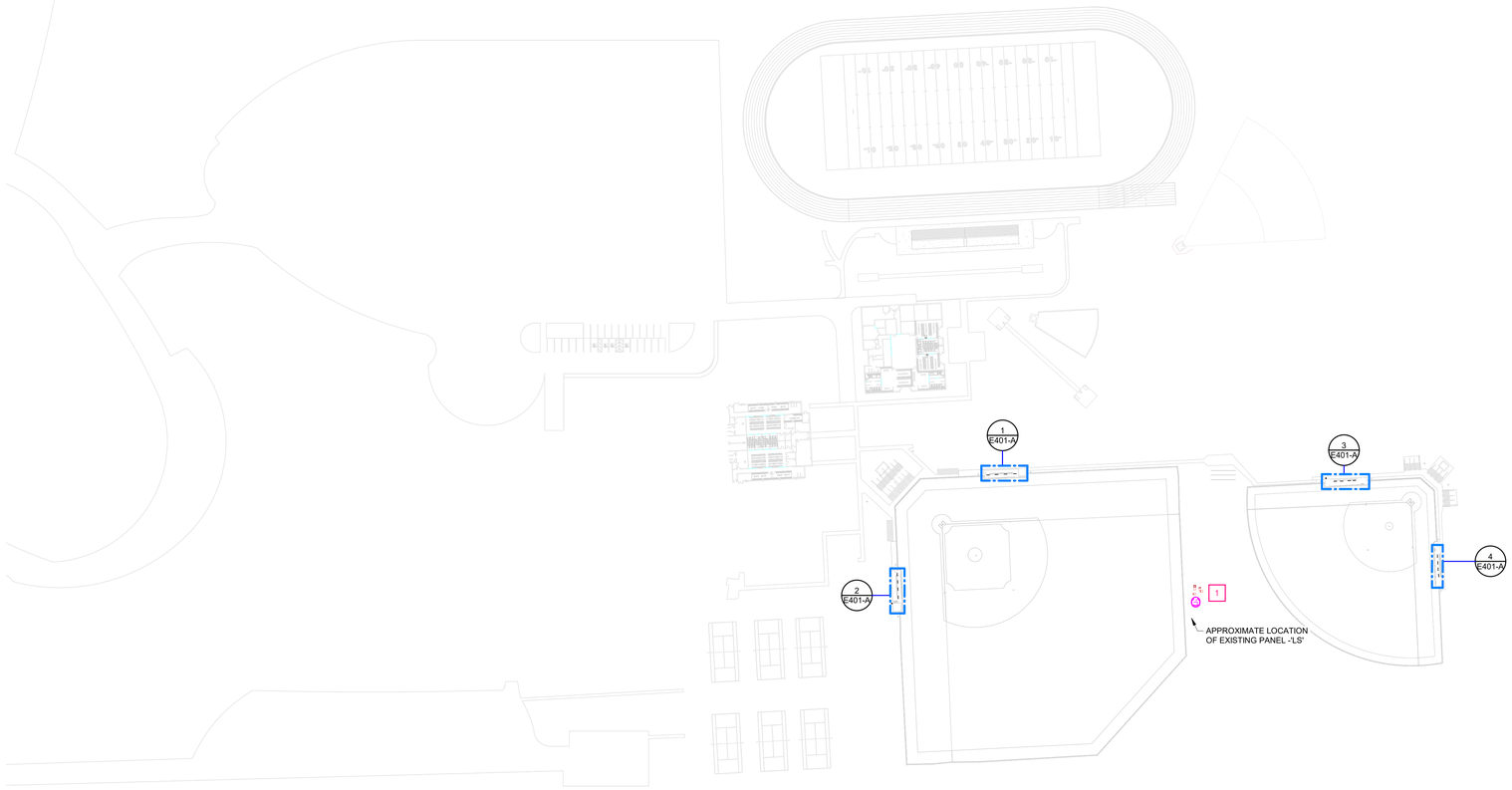
E. SITE PLAN NOTES

1. UNDERGROUND CONDUIT ROUTING SHALL BE COORDINATED WITH EXISTING PAVEMENT AND UNDERGROUND UTILITIES. COORDINATE WITH CIVIL PLANS FOR MORE INFORMATION. PROVIDE PULL STRING FOR ALL UNDERGROUND EMPTY CONDUITS. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS.
2. THE GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES TO ENSURE THE FULL PROJECT SCOPE IS REVIEWED PRIOR TO EXCAVATION. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER REGARDING THE WORK SCHEDULE, REQUIRED FENCING, AND PROTECTIVE MEASURES. THE GENERAL CONTRACTOR SHALL VERIFY EXISTING SITE UTILITIES AND CONDITIONS WITH CIVIL ENGINEER DRAWINGS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND UTILITIES. IF A SUBCONTRACTOR CAUSES DAMAGE, REPAIRS TO RESTORE FULL FUNCTIONALITY SHALL BE AT THE CONTRACTOR'S EXPENSE.
3. PRIOR TO TRENCHING, THE CONTRACTOR SHALL COORDINATE UNDERGROUND CONDUIT ROUTING WITH EXISTING AND PROPOSED IMPROVEMENTS. TREES, ROOT SYSTEMS, AND UNDERGROUND UTILITIES, AND OBTAIN OWNER APPROVAL FOR THE ROUTING PATH. PROTECTION OF EXISTING PLANTINGS AND PREVENTION OF ROOT ZONE COMPACTION ARE HIGH PRIORITIES FOR THE OWNER. ANY PLANT DAMAGE, AS DETERMINED BY THE OWNER, SHALL BE REPLACED WITH MATERIAL OF LIKE SIZE AT THE CONTRACTOR'S EXPENSE. COORDINATE WITH CIVIL PLANS FOR ADDITIONAL DETAILS. PROVIDE PULL ROPE IN ALL EMPTY UNDERGROUND CONDUITS. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS. THE CONTRACTOR SHALL MEET WITH THE OWNER'S ELECTRICIAN PRIOR TO STARTING WORK.

#	E - KEYED NOTES
1	PROVIDE ELECTRICAL CONNECTION FOR RECEPTACLES AND LIGHTING FROM EXISTING PANEL. ROUTE (1) CIRCUIT PER DUGOUT BOX TO NEAREST 120V/208V PANEL.

E - SHEET LIST

SHEET NUMBER	SHEET NAME
E001-A	ELECTRICAL SITE PLAN - AUSTIN HS FIELDS
E101-A	GENERAL NOTES, ABBREV., & LEGEND
E110-A	ELECTRICAL
E401-A	ENLARGED PLANS - AUSTIN HS FIELDS - ELECTRICAL
E001-D	ELECTRICAL SITE PLAN - DULLES HS FIELDS
E101-D	GENERAL NOTES, ABBREV., & LEGEND
E110-D	ELECTRICAL
E401-D	ENLARGED PLANS - DULLES HS FIELDS - ELECTRICAL
E001-E	ELECTRICAL SITE PLAN - ELKINS HS FIELDS
E101-E	GENERAL NOTES, ABBREV., & LEGEND
E110-E	ELECTRICAL
E401-E	ENLARGED PLANS - ELKINS HS FIELDS - ELECTRICAL
E001-K	ELECTRICAL SITE PLAN - KEMPNER HS FIELDS
E101-K	GENERAL NOTES, ABBREV., & LEGEND
E110-K	ELECTRICAL
E401-K	ENLARGED PLANS - KEMPNER HS FIELDS - ELECTRICAL
E001-W	ELECTRICAL SITE PLAN - WILLOWRIDGE HS FIELDS
E101-W	GENERAL NOTES, ABBREV., & LEGEND
E110-W	ELECTRICAL
E401-W	ENLARGED PLANS - WILLOWRIDGE HS FIELDS - ELECTRICAL



1 ELECTRICAL SITE PLAN - AUSTIN HS FIELDS
1" = 80'-0"

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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INTERIM REVIEW ONLY
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Not intended for permit or construction
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DATE: 10/09/2025

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DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

No.	Date	Description
1	10/09/2025	100% CD

PROJECT STATUS

E001-A
ELECTRICAL SITE PLAN - AUSTIN HS FIELDS

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GENERAL ELECTRICAL NOTES:

1. CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE, AND APPLICABLE CODES. 2023 NEC, 2021 IBC, NFPA, ETC., AND ALL OTHER LOCAL CODES AND AMENDMENTS WHERE THERE ARE CONFLICTS BETWEEN CODES, STANDARDS, DRAWINGS AND SPECIFICATIONS ARISE, THE MORE STRINGENT SHALL APPLY.
2. ALL DRAWINGS AND SPECIFICATIONS (INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING, ETC) ARE DEVELOPED TO BE AN INCLUSIVE SET. ANY CONFLICTS WITHIN SHALL BE BROUGHT TO THE DESIGN'S TEAM ATTENTION. CONTRACTOR SHALL NOT MAKE ANY CHANGES TO THE DESIGN OR CONTRACT WITHOUT WRITTEN CONSENT FROM THE OWNER. THE CONTRACTOR WILL PROVIDE SUBMITTALS OF EQUIPMENT AND MATERIAL AT THE REQUEST OF THE OWNER, ARCHITECT, OR ENGINEER PRIOR TO PURCHASE (VERIFY WHICH SUBMITTALS ARE REQUIRED).
3. WORK SHALL BE INSTALLED IN A WORKMANLIKE FASHION. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS.
4. MAINTAIN THE CONSTRUCTION PREMISES IN A NEAT AND ORDERLY CONDITION. CONTRACTOR SHALL PROTECT THEIR WORK AGAINST WEATHER, THEFT, AND DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
5. ALL PRODUCTS SHALL COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND UL 723.
6. ELECTRICAL DRAWINGS ARE SCHEMATIC IN NATURE, APPROXIMATE LOCATIONS OF EQUIPMENT AND CONDUIT ARE SHOWN. THE ELECTRICAL CONTRACTOR SHALL LAYOUT ALL EQUIPMENT ROOMS TO MAKE ENSURE PROPER CLEARANCES REQUIRED BY THE NEC, PRIOR TO ORDERING OF EQUIPMENT. EXACT LOCATION OF ALL EQUIPMENT SHALL BE VERIFIED IN THE FIELD.
7. SUBSTITUTIONS SHALL BE EVALUATED AND APPROVED BY OWNER AND ENGINEER PRIOR TO CONTRACTOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AMONG TRADES AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. CONDUIT PENETRATIONS BETWEEN NON-CONDITIONED AND CONDITIONED SPACES SHALL BE SEALED TO ELIMINATE MOISTURE MITIGATION, BETWEEN INSIDE AND OUTSIDE BUILDINGS, NON-CONDITIONED BOILER ROOMS, INTO REFRIGERATORS / FREEZERS, ETC. PER NEC 300.7(A).
9. CITY NOTE: ELECTRICAL MATERIAL AND EQUIPMENT: NO ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THE CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, THE LAWS OF THE STATE OF TEXAS AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUTES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVED AGENCY.

ELECTRICAL EQUIPMENT
1. ALL PACKAGED EQUIPMENT SHALL BE INDEPENDENTLY THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A (UL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS, AS WELL AS NFPA PAMPHLET NO. 70, AND THE NATIONAL ELECTRICAL CODE (NEC).
2. ALL SYSTEMS SHALL BE A COMPLETE AND OPERABLE SYSTEM PROVIDE THE NECESSARY ADAPTORS, FITTINGS, DEVICES, ETC. PROVIDE COMPLETE WITH BASES, ISOLATORS, SUPPORTS AND OTHER REQUIRED ACCESSORIES.
3. THE CONTRACTOR SHALL COORDINATE WITH ALL TRADES FOR ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT AND DEVICES AS REQUIRED FOR PROPER FUNCTIONING SYSTEM.
4. CONTRACTOR SHALL COORDINATE THE REQUIREMENT OF HOUSEKEEPING PADS WITH GENERAL CONTRACTOR. ALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH A 4" HOUSEKEEPING PAD THAT EXTENDS A MINIMUM OF 4" ALL THE WAY AROUND THE EQUIPMENT.

LABELING
1. PROVIDE PERMANENTLY ADHERED PHENOLIC NAMEPLATES FOR ALL EQUIPMENT (PANEL BOARDS, SWITCHBOARDS, STARTERS, DISCONNECTS, ETC.) WITH BLACK PLATES AND WHITE 3/8" HIGH LETTERS.
2. PROVIDE LABELING ON ALL DEVICE OUTLETS AND SWITCH COVERS INCLUDING THE PANEL NAME AND CIRCUIT NUMBER. LABELS SHALL BE CLEAR PLASTIC LABELS AND BLACK LETTERING.
3. CONDUCTORS IN PANELBOARDS SHALL BE LABELED WITH CIRCUIT NUMBER LABELS.
4. CONDUCTORS IN JBOXES SHALL BE LABELED WITH CIRCUIT NUMBER LABELS. (220.4(A)(B).

CUTTING AND PATCHING
1. CUTTING SHALL BE IN A NEAT AND WORKMANLIKE MANNER. COORDINATE WITH OTHER TRADES PRIOR TO COMMENCING WORK. PATCH AND FINISH TO MATCH ADJACENT AREAS.

CONDUCTORS
1. CONDUCTORS SHALL HAVE CONTINUOUS INSULATION COLOR, AS LISTED BELOW. CONDUCTORS SHALL BE SOFT ANNEALED COPPER INSULATED FOR 600 VOLTS UNLESS SPECIFICALLY INDICATED OTHERWISE.

	208/120 VOLT SYSTEM	240 VOLT SYSTEM	480/277 VOLT SYSTEM
PHASE A	BLACK	BLACK	PURPLE
PHASE B	RED	ORANGE (HIGH LEG)	BROWN
PHASE C	BLUE	RED	YELLOW
NEUTRAL	WHITE	WHITE	WHITE
GROUND	GREEN	GREEN	GREEN

2. INSULATION TYPE SHALL BE TYPE THW FOR WIRE SIZES #8 AWG AND LARGER AND THWN FOR #10 AWG AND SMALLER. ALL EXTERIOR UNDERGROUND CONDUCTORS SHALL BE XHHW TYPE.
3. PROVIDE #12 CONDUCTORS, UNLESS OTHERWISE INDICATED. CONTROL CONDUCTORS SHALL BE #14 MINIMUM FOR NEC CLASS 1 AND #16 FOR NEC CLASS 11. CONDUCTORS #6 AWG AND LARGER SHALL BE STRANDED. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID.
4. WIRE JOINT OR SPLICES IN SWITCHBOARDS OR PANELBOARDS ARE NOT ALLOWED, NOR ARE SPLICE FOR ANY DISTRIBUTION FEEDERS. SPLICES ONLY ALLOWED FOR DROPS TO DEVICES. FORM AND TIE ALL WIRING WITHIN BOARDS.

BRANCH CIRCUITS
1. ALL BRANCH CIRCUIT SIZES ARE BASED ON RACEWAY LENGTH OF 65 FEET FOR 120V BRANCH CIRCUITS AND 150FEET FOR 277 VOLT. IF THE LENGTH EXCEEDS 65 FEET (120V CIRCUITS) OR 150FT (277V CIRCUITS) THEN USE THE WIRE SIZES DENTED BELOW AND ADJUST THE CONDUIT SIZE ACCORDING BASED ON 40% MAX CONDUIT FILL. IF THE TERMINAL LUGS WILL NOT ACCEPT THE LARGER CONDUCTOR PROVIDE CONDUCTOR REDUCING ADAPTERS (SIMILAR TO GREAVES STEP-DOWN COPPER COMPRESSION ADAPTERS) IN A J-BOX PRIOR TO THE DEVICE TERMINATION. SEE TABLE BELOW, UNLESS NOTED OTHERWISE IN PLANS
2. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR, SHARED NEUTRALS ARE NOT ALLOWED.
3. BREAKER TIES ARE REQUIRED FOR MULTI-CIRCUIT EQUIPMENT, SUCH AS POWER FURNITURE.

CIRCUIT LENGTH SCHEDULE

THEN LARGER OF TWO APPLIES.

WIRE SIZE	120V CIRCUITS	277V CIRCUITS
#12	60 TO 100 FEET	100 TO 150 FEET
#10	65 TO 120 FEET	151 TO 240 FEET
#8	121 TO 180 FEET	241 TO 400 FEET
#6	181 TO 250 FEET	401 TO 640 FEET
#4	251 TO 375 FEET	-
#2	376 TO 560 FEET	-

RACEWAYS
1. WIRE RUNS SHALL BE ACCORDING TO CODE IN INTERMEDIATE METAL CONDUIT (IMC) OR ELECTRICAL METALLIC TUBING (EMT) CABLING UNLESS OTHERWISE SPECIFICALLY STATED HEREIN. CONDUIT SHALL BE A MINIMUM OF 3/4" UNLESS OTHERWISE NOTED. CONDUIT IN EXPOSED LOCATIONS SHALL NOT BE ACCEPTABLE UNLESS OTHERWISE NOTES, REFER TO ARCHITECT.
2. RIGID, THREADED, GALVANIZED, HEAVY WALL TYPE CONDUIT SHALL BE UTILIZED IN EXTERIOR WALLS, AREAS EXPOSED TO THE WEATHER OR OTHER DAMP/WET LOCATIONS.
3. UTILIZE SCHEDULE 40 PVC CONDUIT WITH GROUND WIRE FOR UNDERGROUND APPLICATIONS. PVC CONDUIT SHALL NOT BE RUN IN OR ABOVE FLOOR SLAB. PVC CONDUIT SHALL TERMINATE BELOW FLOOR SLAB WITH RIGID, THREADED METAL CONDUIT ADAPTER. ALL CONDUIT ABOVE SLAB SHALL BE METAL AND SHALL BE CONCEALED IN WALLS, FLOORS AND CEILINGS WHEREVER POSSIBLE. PROVIDE RIGHT ANGLE TURNS USING FITTINGS OR SYMMETRICAL BENDS. SUPPORT CONDUITS WITHIN 1" OF ALL CHANGES IN DIRECTION.
4. MC MAY BE UTILIZED FOR EXISTING WALL SITUATIONS, 6' FOR LIGHTING WHIPS, OR WHERE APPROVED BY OWNER.
5. CONNECTIONS TO MOTORS AND OTHER EQUIPMENT SUBJECT TO VIBRATION AND IN AREAS SUBJECT TO MOISTURE SHALL UTILIZE LIQUID TIGHT METAL CONDUIT.
6. USE WATERTIGHT JOINTS WITH BURIED AND CONCRETE ENCASED CONDUIT. ALL BURIED CONDUITS OUTSIDE OF BUILDINGS SHALL HAVE A MINIMUM OF 24" OF COVER. METAL CONDUITS BURIED IN EARTH SHALL BE PAINTED WITH TWO COATS OF HEAVY ASPHALTUM PAINT.
7. HORIZONTAL PORTIONS OF CONDUIT EXPOSED ON THE ROOF AND FEEDING EQUIPMENT SHALL NOT BE MORE THAN 5'-0" IN LENGTH.
8. PROVIDE LUBRICATION / SEALANT ON OUTDOOR AND UNDERGROUND THREADED METAL JOINTS.
9. COORDINATE CONDUIT RUNS PRIOR TO ROUGH IN WITH OTHER TRADES AND AVOID INTERFERENCE.

BOXES
1. INSTALL PULL AND JUNCTION BOXES WHERE REQUIRED FOR CHANGES IN DIRECTION, AT JUNCTION POINTS TO FACILITATE WIRE PULLING, AND WHERE SHOWN ON THE DRAWINGS. BOX SIZES SHALL BE IN ACCORDANCE WITH NEC UNLESS LARGER BOXES ARE NOTED.
2. FOR INTERIOR CONCEALED LOCATIONS - USE SHEET STEEL BOXES, ZINC COATED OR CADMIUM PLATED.
3. WALL BOX SIZES SHALL BE MINIMUM 4" SQUARE X 2-1/2" DEEP. FIXTURE OUTLETS IN CEILING SHALL BE MINIMUM 4" OCTAGONAL X 1-1/2" DEEP (4-11/16" OCTAGONAL X 2-1/2" DEEP WHERE REQUIRED TO ACCOMMODATE LARGER CONDUIT OR LARGER NUMBER OF WIRES). GANG BOXES SHALL BE ONE PIECE MINIMUM 2-1/8" DEEP.
4. PROVIDE FLUSH MOUNT BOXES IN ALL FINISHED WALLS, INSTALL THE PLASTER RINGS IN DRYWALLED WALLS AND RAISED COVERS AS REQUIRED IN WALLS WITH OTHER FINISHES SO THAT THE COVER PLATES FIT TIGHTLY AGAINST BOXES OR RINGS. 3/16" MAXIMUM GAPS ARE ALLOWED FOR NONCOMBUSTIBLE WALLS. SUPPORT ALL BOXES TO MAINTAIN PROPER ALIGNMENT AND RIGIDITY. BEFORE INSTALLATION OR WIRING OF DEVICES, CLEAN BOXES OF FOREIGN MATTER.

DEVICES
1. PROVIDE TOTALLY ENCLOSED, SPECIFICATION GRADE, 20 AMPERE, 120/277 VOLT QUIET A/C GENERAL USE SWITCHES MANUFACTURED BY HUBBELL OR OTHER APPROVED MANUFACTURER.
2. PROVIDE SPECIFICATION GRADE NEMA CONFIGURATION 5-20R DUPLEX 125-VOLT GROUNDING TYPE RECEPTACLES UNLESS OTHERWISE NOTED ON THE DRAWINGS. MANUFACTURED BY HUBBELL OR OTHER APPROVED MANUFACTURER.
3. LIGHTING SWITCHES SHALL BE MOUNTED WITHIN 6" OF DOOR JAM ON STRIKE SIDE UNLESS APPROVED OTHERWISE. MOUNT AT 42" OR AS ADA DICTATES.
4. LOCATE RECEPTACLES APPROXIMATELY 1'-6" ABOVE THE FINISHED FLOOR ELEVATION OR NEAREST BLOCK COURSE (WITHIN ADA REQUIREMENTS), UNLESS OTHERWISE NOTED. THE LONG DIMENSION OF THE RECEPTACLE SHALL BE VERTICAL. ALL DEVICES SHALL BE FLUSH MOUNTED U.N.O. GROUND PIN SHALL BE MOUNTED UP (OR NEUTRAL UP IF HORIZONTALLY INSTALLED)
5. RECEPTACLES IN KITCHEN AREAS, BATHROOMS, AND RECEPTACLES WITHIN 6' OF SINKS SHALL BE GFCI TYPE (NOT WIRED IN SERIES, SEE NOTE 6). ALL DEVICES INSTALLED OUTDOORS SHALL BE WEATHERPROOF AND GFCI PROTECTED.
6. CONTRACTOR TO PROVIDE "PIG TAIL" SPLICES TO ALL RECEPTACLE DEVICES (DO NOT WIRE IN SERIES THRU THE DEVICE) - SEE DETAILS.
7. REFER TO ARCHITECT ELEVATIONS PRIOR TO ROUGH-IN TO VERIFY MOUNTING HEIGHTS

SAFETY SWITCHES
1. PROVIDE DISCONNECT SWITCHES FOR ALL EQUIPMENT, WHERE REQUIRED BY CODE, AND THEY SHALL BE OF THE SAME MANUFACTURER. MANUFACTURER SHALL BE SQUARE D, SIEMENS, G.E., OR CUTLER-HAMMER.
2. SAFETY SWITCHES SHALL BE THE ENCLOSED HEAVY-DUTY TYPE WITH QUICK-MAKE, QUICK-BREAK MECHANISM AND EXTERNAL PAD LOCKABLE OPERATING HANDLE.
3. SAFETY SWITCHES SHALL BE RATED FOR 240 OR 600 VOLTS AS APPLICABLE. THEY SHALL BE HORSEPOWER RATED WHEN USED IN MOTOR CIRCUITS. SAFETY SWITCHES SHALL BE FUSIBLE OR NONFUSIBLE 2, 3 OR 4 POLE AS INDICATED ON THE DRAWINGS. SAFETY SWITCHES SHALL BE SINGLE THROW, UNO. ENCLOSURES SHALL BE NEMA 1 INDOORS AND NEMA 3R OUTDOORS (U.N.O.).
4. MOUNT THE SAFETY SWITCHES SECURELY BETWEEN 3' - 6' LEVELS ABOVE THE FLOOR UNLESS OTHERWISE NOTED IN THE DRAWINGS. SWITCHES ON BLOCK WALLS SHALL BE PROVIDED WITH AND MOUNTED ON A 3/4" PLYWOOD BACKBOARD. WHERE LOCATED INDOORS.
5. THE CONTRACTOR SHALL FURNISH A COMPLETE SET OF FUSES FOR ALL FUSIBLE SWITCHES, PLUS FUSIBLE EQUIPMENT FURNISHED BY OTHER TRADES. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, THE FUSES SHALL BE OF THE FOLLOWING TYPE:
   - o FUSES 601 TO 6000 AMPS SHALL BE UL CLASS RK5. TRADE TYPE SHALL BE KRP-C AS MANUFACTURED BY THE BUSSMANN COMPANY.
   - o FUSES 1/10 TO 600 AMPS SHALL BE UL CLASS RK1. TRADE TYPE SHALL BE LOW PEAK LPS-RK (600V) AND LPN-RK (250C) AS MANUFACTURED BY BUSSMANN COMPANY.
   - o ALL OTHER FUSES SHALL BE DUAL ELEMENT CURRENT LIMITING TYPE WITH 200,000 AMPERES SYMMETRICAL INTERRUPTING CAPACITY.

DISTRIBUTION PANELS
1. DISTRIBUTION PANELS SHALL BE DEAD FRONT TYPE WITH CIRCUIT BREAKERS, COMPRISED OF FUSES AND HEAVY-DUTY SWITCHES OF SIZE AND NUMBER INDICATED ON THE PANELS. PANELS SHALL BE MANUFACTURED AS A COMPLETE UNIT. ALL BUSS BARS SHALL BE RECTANGULAR AND MADE OF SOLID COPPER. ALL LUGS SHALL BE UL APPROVED CU/AL TYPE. VERTICAL BUSSING SHALL BE EXTENDED THE FULL LENGTH OF THE PANEL.
2. ALL PANELS SHALL BE CAPABLE OF ACCEPTING SWITCH SIZES UP TO AND INCLUDING 600 AMPS.
3. DISTRIBUTION PANELS SHALL BE G.E., SQUARE "D", OR SIEMENS.
4. INSTALL PANELS SUCH THAT HANDLE FOR THE TOP SWITCH DOES NOT EXCEED 6'-6" ABOVE FINISHED FLOOR PER NEC.
5. SURFACE-MOUNTED PANELS SHALL BE MOUNTED ON UNISTRUT RAILS. FLOOR-MOUNTED PANELS SHALL BE MOUNTED ON A 4" HIGH CONCRETE PAD.
6. ALL BOLTED CONNECTIONS SHALL BE TORQUED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS. RE-TORQUE CONNECTIONS ONE MONTH OR MORE AFTER INITIAL TORQUE. TORQUE RECORDS SHALL BE HANDED TO OWNER AT SUBSTANTIAL COMPLETION.

PANELBOARDS
1. PANELBOARDS SHALL BE MANUFACTURED BY SQ.D., G.E., EATON OR APPROVED EQUAL, ENCLOSED DEAD FRONT SAFETY DOOR IN DOOR TYPE WITH FEATURES AND RATINGS AS SCHEDULED ON DRAWINGS. ALL BUS BARS SHALL BE RECTANGULAR SOLID COPPER. LOAD CENTERS SHALL NOT BE ALLOWED. MANUFACTURER SHALL BE SQUARE D, SIEMENS, GE OR CUTLER-HAMMER. PANELS WILL BE SIMILAR OR EQUAL TO NQ/NF BOARDS NOT LOAD CENTERS (UNLESS SPECIFIED). PANELS SHALL BE FULLY RATED
2. ALL BREAKERS SHALL BE BOLT ON TYPE, AND SHALL BE TORQUED IN ACCORDANCE WITH MANUFACTURERS STANDARDS. RE-TORQUE ALL CONNECTIONS ONE MONTH AFTER INITIAL TORQUE.
3. INSTALL CABINETS SO THAT CENTER OF THE TOP BREAKER DOES NOT EXCEED 6'-6" ABOVE THE FINISHED FLOOR PER NEC. PROVIDE (3) SPARE 1" CONDUITS INTO ACCESSIBLE CEILING.
4. ELECTRICAL CONTRACTOR SHALL FOLLOW DRAWING CIRCUIT NUMBERS AS NEAR AS POSSIBLE. PRIOR TO SUBSTANTIAL COMPLETION, ELECTRICAL CONTRACTOR SHALL TAKE CURRENT READING CHECKS OF RESPECTIVE PHASES AND SUBMIT TO ENGINEER FOR APPROVAL.
5. CIRCUIT DESCRIPTIONS (PANEL CARDS) SHALL BE TYPED AND ACCURATE TO FIELD CONDITIONS. ROOM NAMES SHALL MATCH FINAL INSTALLED ROOM NAMES IF DIFFERENT FROM PLANS.
6. AVAILABLE FAULT CURRENT LABELING. IN LIEU OF THE MAXIMUM AVAILABLE FAULT CURRENT MARKING AS REQUIRED BY 110.24, A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2" X 3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.
7. ALL PANELS WILL BE INSTALLED WITH INTEGRAL TVSS - 400A AND LESS WILL HAVE 60 KA / MODE

TRANSFORMERS
1. DRY TYPE TRANSFORMERS SHALL BE MANUFACTURED BY SQ.D, GE, OR APPROVED EQUAL HAVING (2)2.5% TAPS ABOVE AND (4)2.5% TAPS BELOW THE RATING OF THE TRANSFORMER. THEY SHALL HAVE COPPER WINDINGS. A BONDING JUMPER BETWEEN THE SECONDARY NEUTRAL AND THE METAL CASE. TRANSFORMERS SHALL HAVE R CLASS INSULATION OF UL 220 DEGREE RATING AND 115 DEGREE RISE.
2. GROUND MOUNTED TRANSFORMERS SHALL BE INSTALLED ON 3" HOUSE KEEPING PAD AND NEOPRENE GASKETS.

GROUNDING
1. GROUND ALL EQUIPMENT PER NEC.
2. GROUND EACH OUTSIDE LIGHTING STANDARD SEPARATELY WITH ONE GROUND ROD AND A #6 GROUND WIRE.
3. ALL CONDUITS SHALL CONTAIN A CODE SIZED GROUND WIRE SIZE PER NEC IN ADDITION TO THE CONDUCTORS SHOWN ON THE PLANS. WHERE CIRCUIT CONDUCTORS ARE INCREASED IN SIZE THE GROUND WIRE SIZE SHALL BE INCREASED PROPORTIONALLY.

STARTUP AND INSTRUCTIONS
1. AFTER INSTALLATION, CHECK ALL EQUIPMENT, AND PERFORM START UP IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. NOTIFY ENGINEER OF ALL START-UP. ALL EQUIPMENT SHALL BE ONE AND OPERATIONAL AT COMPLETION OF PROJECT.
2. TESTS SHALL INCLUDE THE FOLLOWING:
   - o MEASURE THE LOAD ON EACH PHASE OF THE MAIN SERVICE AND EACH PHASE OF EVERY FEEDER UNDER FULL LOAD CONDITIONS
   - o MEASURE THE NO-LOAD AND FULL-LOAD VOLTAGES (PHASE TO PHASE, PHASE TO NEUTRAL AND PHASE TO GROUND FOR EACH PHASE OF EACH SERVICE, OF EACH SEPARATELY DERIVED SYSTEM, AND AT EACH PANELBOARDOR TRANSFORMER).
   - o MEASURE THE GROUND RESISTANCE OF THE MAIN SERVICE GROUNDING ELECTRODE AND THE GROUND RESISTANCE OF EACH SEPARATELY DERIVED SYSTEM'S GROUNDING ELECTRODE.
   - o MAKE INSULATION RESISTANCE TESTS ON ALL DRY TYPE TRANSFORMERS AND MOTORS.
3. CLEAN ALL ELECTRICAL EQUIPMENT AND FIXTURES PRIOR TO PROJECT COMPLETION.
4. PROVIDE OWNER TRAINING AND DEMONSTRATION OF ALL ELECTRICAL SYSTEMS AND EQUIPMENT.
5. INSTRUCT OWNER ON PROPER OPERATION AND PREVENTATIVE MAINTENANCE OF SYSTEM. SUBMIT OPERATING AND MAINTENANCE MANUAL ON ALL EQUIPMENT AND SYSTEMS.

MISCELLANEOUS
1. ALL GENERATOR TRANSFER DEVICES (GTD'S), IF APPLICABLE, ARE TO BE MOUNTED ABOVE ACCESSIBLE CEILINGS AT A LEVEL WHICH CAN BE REACHED WITHOUT A LIFT (UNDER 15').
2. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING 120V POWER TO ALL LOW VOLTAGE TRANSFORMERS (PROVIDED BY THE PLUMBING CONTRACTOR), FOR AUTOMATIC FLUSH VALVES, TO EITHER THE CIRCUIT NOTED ON THE PLANS OR THE NEAREST RECEPTACLE CIRCUIT.
3. ALL THREE PHASE FAN POWER TERMINAL / BOXES REQUIRE 5 CONDUCTORS (INCLUDING NEUTRAL).
4. EC SHALL POWER ALL 120V MOTORIZED DAMPERS FOR MECHANICAL FANS AND EQUIPMENT, LOWS, AND ACTUATORS.

WARRANTY
1. FULLY WARRANT ALL MATERIALS, EQUIPMENT AND WORKMANSHIP FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE OR AS REQUIRED IN SPECIFICATIONS. EXTEND ALL MANUFACTURER'S WARRANTIES TO OWNER, INCLUDING ALL EXTENDED WARRANTIES.
2. REPAIR OR REPLACE WITHOUT CHARGE TO THE OWNER ALL ITEMS FOUND DEFECTIVE DURING THE WARRANTY PERIOD. IN THE CASE OF REPLACEMENT OR REPAIR DUE TO FAILURE WITHIN THE WARRANTY PERIOD, THE WARRANTY ON THAT PORTION OF THE WORK SHALL BE EXTENDED FOR A MINIMUM PERIOD OF ONE (1) YEAR FROM THE DATE OF SUCH REPLACEMENT OR REPAIR.

ELECTRICAL ABBREVIATIONS

1PH	SINGLE-PHASE
1P	SINGLE POLE
2/C	TWO-CONDUCTOR
3/C	THREE-CONDUCTOR
3PH	THREE-PHASE
4/C	FOUR-CONDUCTOR
4W	FOUR-WIRE
A/C UNIT	AIR CONDITIONING UNIT
A/E	ARCHITECT/ENGINEER
AC	ALTERNATING CURRENT OR ARMORED CABLE
AF	AMPERE FRAME OR AMP FUSE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
ALT	ALTERNATE
AMP	AMPERE
ARCH	ARCHITECT
ASC	AMPS SHORT CIRCUIT
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AV	AUDIO VISUAL
BD	BOARD
BFF	BELOW FINISH FLOOR
BFG	BELOW FINISH GRADE
BLDG	BUILDING
BRKR	BREAKER
BYP	BY PASS
C	CONDUIT
CAB	CABINET
CALC	CALCULATE
CAP	CONTRACTOR FURNISHED /CONTRACTOR INSTALLED
CAT	CLOSED CIRCUIT TELEVISION
CCTV	CANDELA
cd	CONSTRUCTION DOCUMENTS
CD	CONTRACTOR FURNISHED
CF	CONTRACTOR FURNISHED /OWNER INSTALLED
CF/OI	CHILLED WATER
CHW	CHILLED WATER PUMP
CHWP	CIRCUIT
CKT	CIRCUIT BREAKER
CKT BRKR	CURRENT LIMITING FUSE
CLF	CEILING
CLG	CONCRETE MASONRY UNIT
CMU	COAX CABLE
COAX	COMMUNICATION
COMM	CONCRETE
CONC	CONTINUE
CONT	CONTROL POWER TRANSFORMER
CPT	COLOR RENDERING INDEX
CRI	CURRENT TRANSFORMER
CT	CABLE TELEVISION
CTV	COPPER
CU	CUBIC FEET
CU FT	DECIBEL
dB	DIRECT CURRENT
DC	DIMMER CONTROL PANEL
DCP	DEGREES CELSIUS
DEG C	DEGREES FAHRENHEIT
DEG F	DEMOLITION
DEMO (D)	DIRECT DIGITAL CONTROL PANEL
DDC	DIAGRAM
DIAG	DISCONNECT
DISC	DOUBLE POLE, DOUBLE THROW
DPDT	DOUBLE POLE, SINGLE THROW
DPST	DOOR SWITCH
DRSW	DISCONNECT SWITCH
DS	DRAWING
DWG	EXHAUST FAN
EF	ELEVATION
EL	ELECTRIC OR ELECTRICAL
ELEC	ELEVATOR
ELEV	EMERGENCY
EMER	ELECTRICAL METALLIC TUBING
EMT	ENCLOSURE
ENCL	EMERGENCY POWER OFF
EPO	EASEMENT
ESMT	ELECTRIC DRINKING FOUNTAIN
EDF	ELECTRIC WATER HEATER
EWH	EXISTING TO REMAIN
ETR	EXISTING
(E)	FIRE ALARM
FA	FIRE ALARM ANNUNCIATOR PANEL
FAAP	FIRE ALARM CONTROL PANEL
FACP	FOOTCANDLE
FC	FIXTURE
FIXT	FULL LOAD AMPS
FLA	FLEXIBLE METALLIC CONDUIT
FMC	FLUORESCENT
FLUOR	FIRE PROTECTION
FP	FEET OR FOOT
FT	FUSED SWITCH
FU SW	FULL VOLTAGE NON-REVERSING
FVNR	GROUND OR GENERATOR
G OR GND	GENERATOR
GEN	GROUND FAULT CIRCUIT INTERRUPTER
GFCI	GROUND TERMINAL BOX
GTB	HIGH INTENSITY DISCHARGE
HID	HAND-OFF-AUTOMATIC
HOA	HORSEPOWER
HP	HEIGHT
HT	HERTZ
HZ	INTERMEDIATE METAL CONDUIT
IMC	INCANDESCENT
INCAND	INFRARED
IR	INSTANTANEOUS WATER HEATER
IWH	JUNCTION BOX
J-BOX	KILOVOLT
kV	KILOVOLT AMPERE
kVA	KILOVOLT AMPERE PER HOUR
kVAH	KILOVOLT AMPERE REACTIVE
kVAR	KILOWATT
kW	KILOWATT HOUR
kWH	KILOWATT HOUR METER
kWHM	LIGHT EMITTING DIODE
LED	LINEAR FEET (FOOT)
LF	LUMEN
LM	LOCKED ROTOR AMPS
LRA	LIGHTING
LTG	LIGHTING PANEL
LTG PNL	LIGHTNING
LTNG	LOW VOLTAGE
LV	MAXIMUM
MAX	METAL-CLAD
MC	MINIMUM CIRCUIT AMPS
MCA	MAIN CIRCUIT BREAKER
MCB	MOTOR CONTROL CENTER
MCC	MAIN DISTRIBUTION PANEL
MDP	MECHANICAL
MECH	MANHOLE
MH	MINIMUM
MIN	MAXIMUM OVERCURRENT PROTECTION
MOCP	MAIN LUGS ONLY
MLO	MOUNTED
MTD	MANUAL TRANSFER SWITCH
MTS	MEDIUM VOLTAGE
MV	NEW
(N)	NOT APPLICABLE
NA	NATIONAL ELECTRICAL CODE
NEC	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEMA	NEUTRAL
NEUT	NATIONAL FIRE PROTECTION ASSOCIATION
NFPA	NOT IN CONTRACT
NIC	NIGHT LIGHT
NL	NORMALLY OPEN
NO	NO SCALE
NS	NON SWITCHED HOT LEG
NSL	NOT TO SCALE
NTS	ON CENTER
OC	OUTSIDE DIAMETER
OD	OVERLOAD
OL	POLE OR PHASE
P	PUBLIC ADDRESS
PA	PULL BOX OR PUSHBUTTON
PB	POLYCHLORINATED BIPHENYL
PCB	PHOTOELECTRIC CELL
PEC	PEDESTAL
PED	PENDANT
PEND	POWER FACTOR
PF	PHASE
PH	PANEL
PNL	POTENTIAL TRANSFORMER
PT	POLYVINYL CHLORIDE (PLASTIC)
PVC	POWER
PWR	RELOCATE
(R)	REFLECTED CEILING PLAN
RCP	RECEPTACLE
RECPT	RIGID GALVANIZED STEEL
RGS	ROOM
RM	ROOT MEAN SQUARE
RMS	REQUIRED
REQD	SHORT CIRCUIT CAPACITY
SCC	SMOKE DETECTOR
SD	SQUARE FOOT (FEET)
SF	SPECIFICATION
SPEC	SINGLE POLE, SINGLE THROW
SPST	SURFACE
SURF	SWITCH
SW	SWITCHBOARD
SWBD	SWITCHGEAR
SWGR	TIME CLOCK
TC	TELEPHONE
TEL	TWISTED PAIR
TP	TWISTED PAIR SHIELDED
TPS	TELEPHONE TERMINAL BOARD
TTB	TELEVISION
TV	TYPICAL
TYP	UNDERGROUND
UGND	UNDERWRITERS LABORATORY
UL	UNLESS OTHERWISE NOTED
UON	UNINTERRUPTIBLE POWER SUPPLY
UPS	UTILITY
UTIL	VOLT
V	VOLT AMPERE
VA	VOLT AMPERE REACTIVE
VAR	VARIABLE FREQUENCY DRIVE
VFD	VOLTAGE
VOLT	WATT
W	WEATHERPROOF
WP	TRANSFER
XFER	TRANSFORMER
XFMR	

SECURITY

CAM	CAMERA
H/S	HORN STROB
WAP	WIRELESS ACCESS POINT
S	SPEAKER

ENERGY CODE REQUIREMENTS:

1. [C103.2] THESE PLANS, SPECIFICATIONS, AND/OR CALCULATIONS PROVIDE ALL INFORMAT

ELECTRICAL SERVICE LOAD ANALYSIS

L.A. - AUSTIN HS

#	CONNECTED PANELS	LOAD
1	AUSTIN - LS	9.4 kVA
	TOTAL CONNECTED (KVA):	9.4 kVA
	TOTAL CONNECTED (A)	26 A

TAG	DESCRIPTION	NEC	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
L	LIGHTING	NEC 220.12	0.77 kVA	125.00%	0.96 kVA
R	GENERAL RECEPTPACLES	NEC 220.44	0.90 kVA	100.00%	0.90 kVA
SH	HVAC SPLIT SYSTEM HEATING	NEC 220.01, 424.3	0.00 kVA	0.00%	0.00 kVA
SC	HVAC SPLIT SYSTEM COOLING	NEC 220.01, 424.3	0.00 kVA	0.00%	0.00 kVA
HP	HVAC PACKAGE UNITS	NEC 220.01, 424.3	0.00 kVA	0.00%	0.00 kVA
HC	HVAC COOLING ONLY	NEC 220.01, 424.3	0.00 kVA	0.00%	0.00 kVA
EH	ELECTRIC HEAT		0.00 kVA	0.00%	0.00 kVA
K	KITCHEN EQUIPMENT	NEC220.56	0.00 kVA	0.00%	0.00 kVA
M	MOTORS	NEC 430.24	0.00 kVA	0.00%	0.00 kVA
NC	NON-CONTINUOUS LOADS		7.68 kVA	100.00%	7.68 kVA

TOTAL LOAD ANALYSIS

EST. SER. DEMAND (KVA):	10
EST. SERVCE DEMAND...	26
SERVICE VOLTAGE (V):	120/208 WYE
MIN REQ'D SERVICE SIZE:	50 A

NOTES:

EXISTING PANEL: AUSTIN - LS

LOCATION:
SUPPLY FROM: L.A. - AUSTIN HS
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 120/240 SINGLE
PHASE: 1
WIRE: 3

A.I.C. RATING: EXISTING
BUS RATING: 50 A
MCB 50 A

CKT	CIRCUIT DESCRIPTION	LC	CT	TRIP	POLES	A (KVA)		B (KVA)		POLES	TRIP	CT	LC	CIRCUIT DESCRIPTION	CKT
1	MAIN MCB	NC	1	50 A	2	0.0	0.6			1	20 A	6	L; R	(2) RCPT & LTG - DUGOUT 1 [#10AWG]	2
3								0.0	0.4	1	20 A	5	L; R	(2) RCPT & LTG - DUGOUT 2 [#10AWG]	4
5	(E) BASEBALL	NC	1	30 A	1	2.3	0.4			1	20 A	5	L; R	(2) RCPT & LTG - DUGOUT 3 [#10AWG]	6
7	(E) SOFTBALL	NC	1	30 A	1			2.3	0.4	1	20 A	5	L; R	(2) RCPT & LTG - DUGOUT 4 [#10AWG]	8
9	SPACE	--	--	--	1	--	1.5			1	20 A	1	NC	(E) LOAD	10
11	SPACE	--	--	--	1			--	1.5	1	20 A	1	NC	(E) LOAD	12
13															14
15															16
				TOTAL LOAD:		4.77 kVA		4.59 kVA							
				TOTAL AMPS:		40 A		38 A							

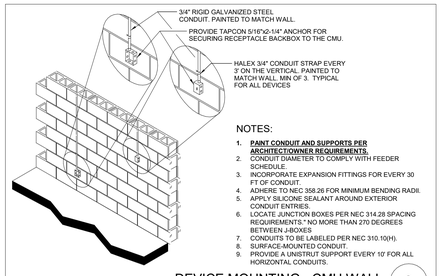
LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
L	0.77 kVA	125.00%	0.96 kVA	
R	0.90 kVA	100.00%	0.90 kVA	TOTAL CONN. LOAD: 9.35 kVA
NC	7.68 kVA	100.00%	7.68 kVA	TOTAL EST. DEMAND: 9.54 kVA
				TOTAL CONN..: 39 A
				TOTAL EST. DEMAND: 40 A

NOTES:
USE 2#12O_d + 1#12G IN 3/4" FOR 20A/1P BREAKER U.O.N. MAX 3 SINGLE PHASE CIRCUITS PER CONDUIT - 9 CONDUCTORS
* GFI BREAKER
**NON-COINCIDENT LOADS (LARGER OF TWO CALCULATED)
L - LIGHTING; R - RECEPTACLE; SH - HVAC SPLIT SYSTEMS (HEATING) SC - HVAC SPLIT SYSTEMS (COOLING); HP - HVAC PACKAGE UNITS; HC - HVAC COOLING ONLY; EH - ELECTRIC HEAT; K - KITCHEN EQUIPMENT; M - MOTOR; NC - NON-CONTINUOUS LOADS

EXISTING FEEDER SCHEDULE

TAG	SETS	QUANTITY / AWG	GROUND / AWG	CONDUIT SIZE	SETS	QUANTITY / AWG	GROUND / AWG	CONDUIT SIZE
		CONDUIT WITH COPPER CONDUCTORS				CONDUIT WITH ALUMINUM CONDUCTORS		
20 / 20D	1 1	4#12 3#12	#12	3/4"			#12	3/4"
30 / 30D	1 1	4#10 3#10	#10	3/4"			#10	3/4"
40 / 40D	1 1	4#8 3#8	#8	1"			#8	1"
50 / 50D	1 1	4#6 3#6	#8	1-1/4"			#8	1-1/4"
60 / 60D	1 1	4#4 3#4	#6	1-1/2"			#8	1-1/4"
80 / 80D	1 1	4#2 3#2	#6	1-1/2"			#6	1-1/2"
100 / 100D	1 1	4#1 3#1	#6	1-1/2"	1 1	4#1/0 3#1/0	#6	2"
130 / 130D	1 1	4#1 3#1	#6	1-1/2"	1 1	4#2/0 3#2/0	#4	2-1/2"
150 / 150D	1 1	4#1/0 3#1/0	#6	2"	1 1	4#3/0 3#3/0	#4	2-1/2"
175 / 175D	1 1	4#2/0 3#2/0	#4	2-1/2"	1 1	4#4/0 3#4/0	#2	2-1/2"
200 / 200D	1 1	4#3/0 3#3/0	#4	2-1/2"	1 1	4#250 kcmil 3#250 kcmil	#2	2-1/2"
225 / 225D	1 1	4#4/0 3#4/0	#2	2-1/2"	1 1	4#300 kcmil 3#300 kcmil	#2	3"
250 / 250D	1 1	4#250 kcmil 3#250 kcmil	#2	2-1/2"	1 1	4#350 kcmil 3#350 kcmil	#1/0	4"
310 / 310D	1 1	4#350 kcmil 3#350 kcmil	#2	3"	2 2	4#3/0 or 1 SET 500 kcmil 3#3/0 or 1 SET 500 kcmil	#1/0	2-1/2" or 4"
380 / 380D	1 1	4#500 kcmil 3#500 kcmil	#1/0	4"	2 2	4#250 kcmil 3#250 kcmil	#2/0	2-1/2"
400 / 400D	2 2	4#3/0 3#3/0	#1/0	2-1/2"	2 2	4#250 kcmil 3#250 kcmil	#2/0	3"
500 / 500D	2 2	4#250 kcmil 3#250 kcmil	#2/0	2-1/2"	2 2	4#350 KCMIL 3#350 KCMIL	#2/0	4"
600 / 600D	2 2	4#350 kcmil 3#350 kcmil	#2/0	3"	2 2	4#500 kcmil 3#500 kcmil	#2/0	3"
750 / 750D	2 2	4#500 KCMIL 3#500 KCMIL	#2/0	4"	3 3	4#350 kcmil 3#350 kcmil	#3/0	4"
800 / 800D	3 3	4#350 kcmil 3#350 kcmil	#2/0	3"	3 3	4#400 kcmil 3#400 kcmil	#3/0	3"
1000 / 1000D	3 3	4#500 kcmil 3#500 kcmil	#3/0	4"	4 4	4#350 kcmil 3#350 kcmil	#4/0	4"
1200 / 1200D	4 4	4#350 kcmil 3#350 kcmil	#3/0	3"	5 5	4#350 kcmil 3#350 kcmil	#4/0	4"
2000 / 2000D	6 6	4#500 kcmil 3#500 kcmil	#4/0	4"	8 8	4#350 kcmil 3#350 kcmil	#4/0	4"
2500 / 2500D	7 7	4#500 kcmil 3#500 kcmil	#4/0	4"	10 10	4#350 kcmil 3#350 kcmil	#4/0	4"
3000 / 3000D	8 8	4#500 kcmil 3#500 kcmil	#4/0	4"	12 12	4#350 kcmil 3#350 kcmil	#4/0	4"
3500 / 3500D	10 10	4#500 kcmil 3#500 kcmil	#4/0	4"			#4/0	4"
4000 / 4000D	11 11	4#500 kcmil 3#500 kcmil	#4/0	4"			#4/0	4"

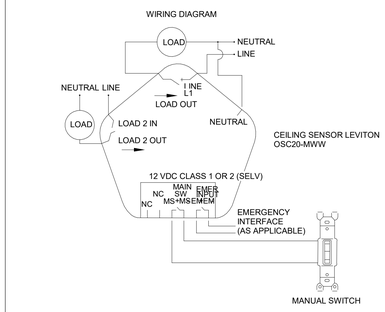
ALL PANELS SHALL BE INSTALLED WITH INTEGRAL SPD -
400A AND LESS SHALL HAVE 60 kA / MODE
SEE GENERAL SPECS FOR MORE CONDUCTOR REQUIREMENTS.



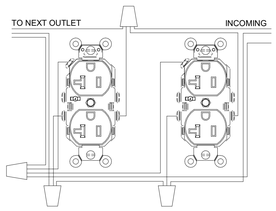
NOTES:

1. **PAINT CONDUIT AND SUPPORTS PER ARCHITECT/OWNER REQUIREMENTS.**
2. CONDUIT DIAMETER TO COMPLY WITH FEEDER SCHEDULE.
3. INCORPORATE EXPANSION FITTINGS FOR EVERY 30 FT OF CONDUIT.
4. ADHERE TO NEC 358.26 FOR MINIMUM BENDING RADII.
5. APPLY SILICONE SEALANT AROUND EXTERIOR CONDUIT ENTRIES.
6. LOCATE JUNCTION BOXES PER NEC 314.28 SPACING REQUIREMENTS." NO MORE THAN 270 DEGREES BETWEEN J-BOXES
7. CONDUITS TO BE LABELED PER NEC 310.10(H).
8. SURFACE-MOUNTED CONDUIT.
9. PROVIDE A UNISTRUT SUPPORT EVERY 10' FOR ALL HORIZONTAL CONDUITS.

DEVICE MOUNTING - CMU WALL
NOT TO SCALE
3



CEILING OCCUPANCY/VACANCY SENSOR
NOT TO SCALE
2



NOTES:
1. CIRCUITING TO ALL NON DEDICATED ELECTRICAL RECEPTACLES AND SWITCHES ARE REQUIRED TO UTILIZE PARALLEL CIRCUITING BY THE USE OF "PIG TAILS" TO EACH DEVICE SO THAT IF AN OUTLET IS REMOVED OR FAILS ELECTRICAL CONTINUITY THE CIRCUIT WILL NOT BE COMPROMISED.

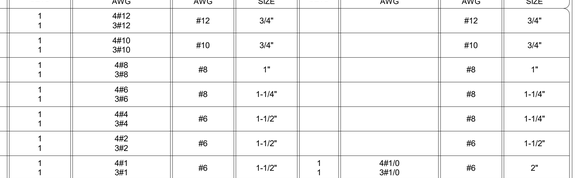
2. ALL ELECTRICAL WIRING MUST BE PROPERLY SPLICED BY TWISTING THE WIRES TOGETHER AND USE OF APPROVED AND LISTED COMPRESSION WIRE NUTS FOR ANY WIRING.

RECEPTACLE INSTALLATION - PIG TAIL
NOT TO SCALE
1

A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2"x3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.

LOCATIONS OF DISCONNECT SHALL BE APPROVED BY THE LANDLORD PRIOR TO ROUGH IN. STACK AS SHOWN IF POSSIBLE TO CONSERVE SPACE.

ALL EXPOSED CONDUITS, BOXES, GUTTERS AND PANELS WILL BE PAINTED PER ARCHITECT / OWNER REQUIREMENTS.



ONE LINE KEY NOTES

1 THIS EXISTING PANEL SHALL BE USED FOR THIS SCOPE

1 ONE LINE DIAGRAM
SCALE: NTS

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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Sugarland, TX 77479

INTERIM REVIEW ONLY
Document is Incomplete
Not released for permit or construction
Engineer: DAVIA GERNAND
PE License No: 109903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-069
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

No.	Date	Description
	10/09/2025	100% CD

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GK PROJECT # 2025.044
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PROJECT STATUS
E110-A
ELECTRICAL

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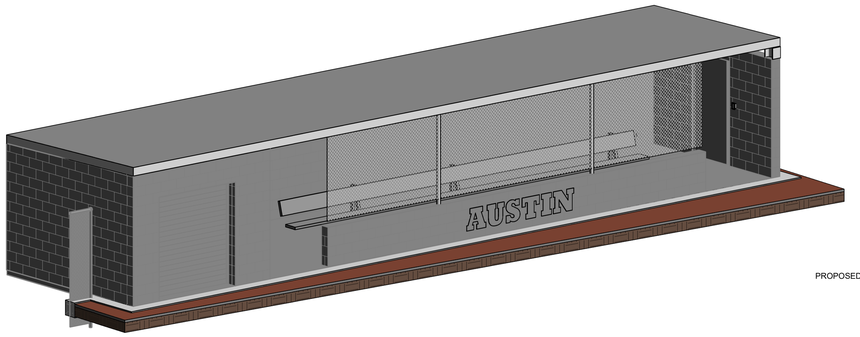
LIGHTING FIXTURE SCHEDULE

CONTRACTOR SHALL COORDINATE WITH ARCHITECT/OWNER FOR ALL FINAL SELECTIONS, LOCATIONS, QUANTITIES, ETC.

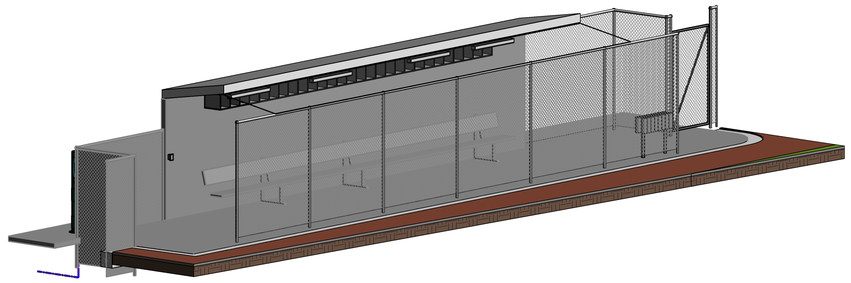
Tag	Manufacturer	Model Number	Mounting	Voltage	Wattage	Lamp Type	Description
A	ORACLE LIGHTING	4-OWVS1-LED-5000L-DIM10-MVOLT-50K-85-TPS	SURFACE	120 V	46 W	LED	VAPOR TIGHT LINEAR LED

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

1. REFER TO ARCHITECTURAL PLANS FOR GRID/FLANGE AREAS, PRIOR TO BIDDING OF LIGHT FIXTURES. CONTRACTOR IS RESPONSIBLE FOR QUANTITY OF EACH.
2. COORDINATE MOUNTING HEIGHT OF ALL FIXTURES WITH ARCHITECTURAL DRAWINGS.
3. PROVIDE AN ADDITIONAL NON-SWITCHED HOT LEG TO ALL EMERGENCY FIXTURES FOR BATTERY CHARGING AND POWER-LOSS DETECTION.
4. PROVIDE AN EXTRA HOT AND SPLICE AROUND CONTRACTORS/COINTROLLERS IF NECESSARY.
5. ALL EXIT SIGNS ARE TO BE NON-SWITCHED.
6. ALL FIXTURE SUBSTITUTIONS SHALL BE SUBMITTED TO THE A/E PRIOR TO BID. EQUALS MUST CONFORM TO LUMENS PER WATT AND PHOTOMETRIC PERFORMANCE.



5 3D VIEW - BASEBALL DUGOUT - AUSTIN



6 3D VIEW - SOFTBALL DUGOUT - AUSTIN

RENOVATION OF EXISTING DUGOUT. RE: ARCHITECTURAL DRAWINGS

EXISTING RECEPTACLE TO REMAIN



PHOTO OF EXISTING RIGHT SOFTBALL DUGOUT



PHOTO OF EXISTING RIGHT BASEBALL DUGOUT

EXISTING RECEPTACLE TO REMAIN

PROPOSED LOCATION OF RECEPTACLE

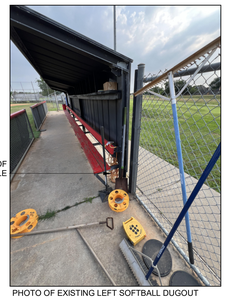


PHOTO OF EXISTING LEFT SOFTBALL DUGOUT

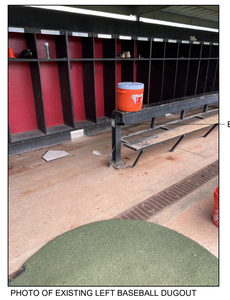
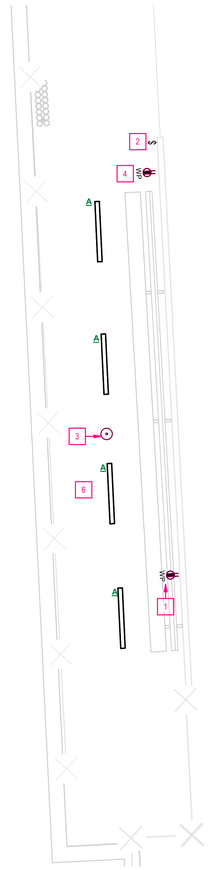


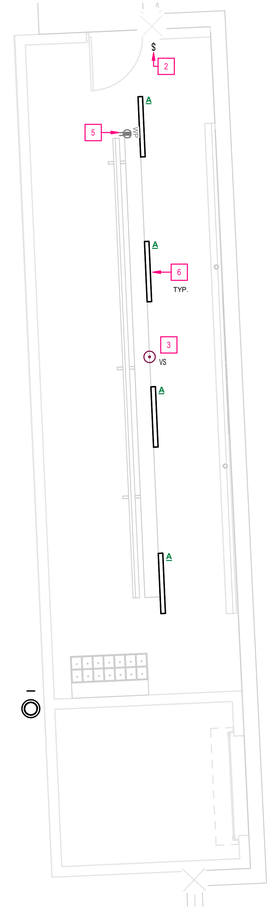
PHOTO OF EXISTING LEFT BASEBALL DUGOUT

EXISTING RECEPTACLE TO REMAIN

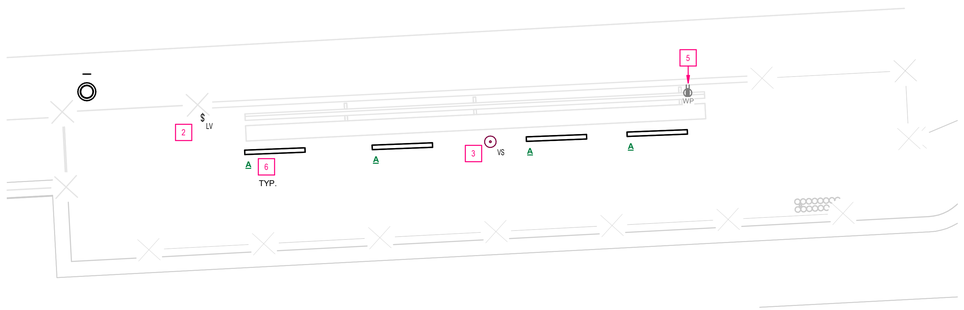
#	E - KEYED NOTES
1	RELOCATE EXISTING RECEPTACLE TO NEW AREA AND RECONNECT TO EXISTING CIRCUIT. VERIFY CIRCUIT CAPACITY AND BREAKER SIZE PRIOR TO RELOCATION. COORDINATE FINAL RECEPTACLE LOCATION WITH ARCHITECT PRIOR TO INSTALLATION. NOTIFY ENGINEER OF ANY CONFLICTS OR INSUFFICIENT CAPACITY PRIOR TO START OF WORK.
2	PROVIDE SINGLE GANG WEATHER RESISTANT COVER FOR LIGHTING CONTROL DIMMER SWITCH.
3	PROVIDE VACANCY CONTROLS FOR DUGOUT AREA. PROVIDE OUTDOOR RATED CEILING MOUNTED VACANCY SENSOR SIMILAR TO LEGRAND - HBL2W. CONTROLS SHALL BE AUTO OFF AFTER 20 MIN / MANUAL ON / PUSH TO DIM. REFER TO ELECTRICAL DETAILS FOR ALL COMPONANTS.
4	PROVIDE VANDAL RESISTANT STAINLESS STEEL RECEPTACLE PLATE WITH OUTDOOR RATED ENCLOSURE.
5	EXISTING RECEPTACLE TO REMAIN.
6	UTILIZE EXISTING RECEPTACLE CIRCUIT TO POWER NEW LIGHT FIXTURES AT DUGOUT. VERIFY CIRCUIT CAPACITY AND BREAKER SIZE PRIOR TO CONNECTION. NOTIFY ENGINEER OF ANY CONFLICTS OR INSUFFICIENT CAPACITY PRIOR TO START OF WORK.



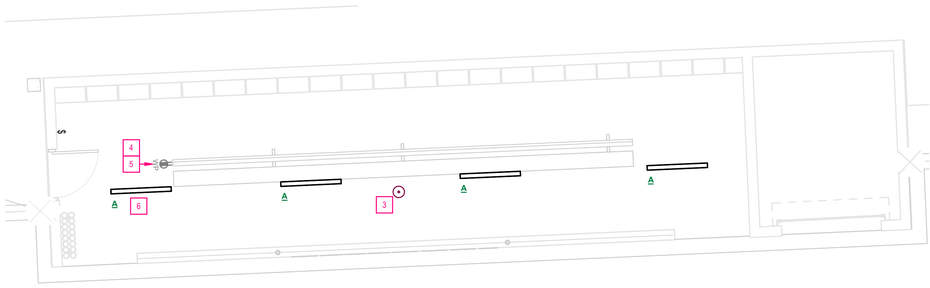
4 ENLARGED PLAN - AUSTIN HS - SOFTBALL LEFT DUGOUT
1/4" = 1'-0"



2 ENLARGED PLAN - AUSTIN HS - BASEBALL RIGHT DUGOUT
1/4" = 1'-0"



3 ENLARGED PLAN - AUSTIN HS - SOFTBALL RIGHT DUGOUT
1/4" = 1'-0"



1 ENLARGED PLAN - AUSTIN HS - BASEBALL LEFT DUGOUT
1/4" = 1'-0"

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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GK PROJECT # 2025.044

BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

INTERIM REVIEW ONLY
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Not intended for permit or construction
Engineer: DAIVA GERNAND
PE License No: 105903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-099
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

No.	Date	Description
1	10/09/2025	100% CD

PROJECT STATUS

E401-A

ENLARGED PLANS - AUSTIN HS FIELDS - ELECTRICAL

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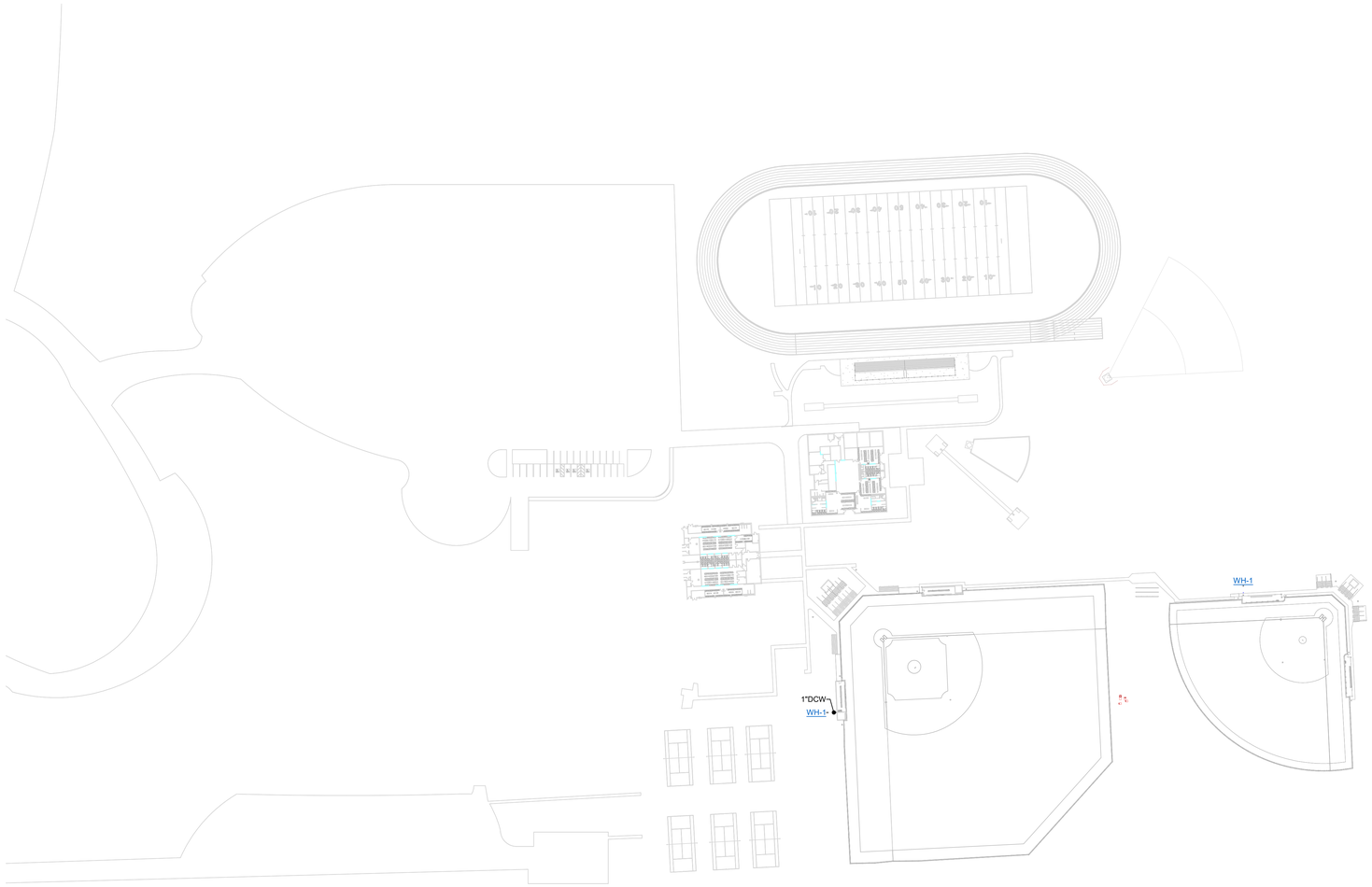
SITE PLAN NOTES

1. UNDERGROUND PLUMBING ROUTING SHALL BE COORDINATED WITH UNDERGROUND UTILITIES. COORDINATE WITH CIVIL PLANS FOR MORE INFORMATION. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS. ALL PIPING 5'-0" OUTSIDE THE BUILDING SHALL BE DESIGNED BY THE CIVIL ENGINEER ALL PIPING SHOWN ON THIS PLAN IS ONLY FOR GENERAL PURPOSE.ALL PIPING WITH-IN 5'-0" AND BELOW BUILDING IS APART OF THE PLUMBING DESIGN.
2. PLUMBING CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF PLUMBING GAS SERVICE ENTRANCE AND PRESSURE REDUCING REGULATORS AS REQUIRED FOR THE PROJECT. CONTRACTOR SHALL SUBMIT INFORMATION DEVELOPED BY ENGINEER IN FORM OF SITE PLAN DRAWINGS TO THE GAS COMPANY REPRESENTATIVE FOR PROCESSING SERVICE REQUEST. PROVIDE AN ADDITIONAL $8,000 ALLOWANCE FOR FEES ASSOCIATED WITH THE GAS SERVICE ENTRANCE.
3. ALL LINES 5 FEET OUTSIDE THE BUILDING SHALL BE COORDINATED BY THE CIVIL ENGINEER THAT NO INTERRUPTIONS WILL BE TAKING PLACE.

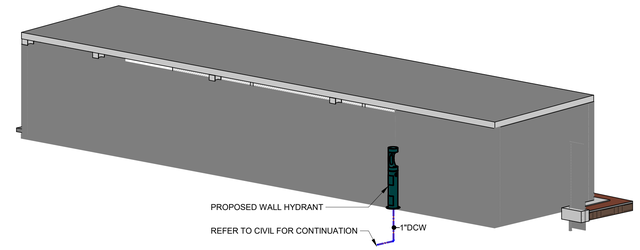
P - SHEET LIST

SHEET NUMBER	SHEET NAME
P001-A	PLUMBING SITE PLAN - AUSTIN HS FIELDS
P101-A	GENERAL NOTES, ABBREV., & LEGEND
P001-D	PLUMBING SITE PLAN - DULLES HS FIELDS
P101-D	GENERAL NOTES, ABBREV., & LEGEND
P001-E	PLUMBING SITE PLAN - ELKINS HS FIELDS
P101-E	GENERAL NOTES, ABBREV., & LEGEND
P001-K	PLUMBING SITE PLAN - KEMPNER HS FIELDS
P101-K	GENERAL NOTES, ABBREV., & LEGEND
P001-W	PLUMBING SITE PLAN - WILLOWRIDGE HS FIELDS
P101-W	GENERAL NOTES, ABBREV., & LEGEND

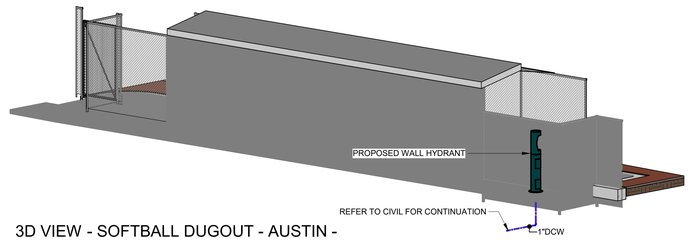
(#) PLUMBING KEYED NOTES



1 PLUMBING SITE PLAN - AUSTIN HS FIELDS
1" = 80'-0"



3 3D VIEW - BASEBALL DUGOUT - AUSTIN - PLUMBING



2 3D VIEW - SOFTBALL DUGOUT - AUSTIN - PLUMBING

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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INTERIM REVIEW ONLY
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Not intended for permit or construction
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DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-099
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

No.	Date	Description
1	10/09/2025	100% CD

PROJECT STATUS
P001-A
PLUMBING SITE PLAN - AUSTIN HS FIELDS

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GENERAL PLUMBING NOTES:

GENERAL

1. CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE, AND APPLICABLE AHJ ADOPTED CODES, ALL OTHER LOCAL CODES AND AMENDMENTS WHERE THERE ARE CONFLICTS BETWEEN CODES, STANDARDS, DRAWINGS AND SPECIFICATIONS ARISE, THE MORE STRINGENT SHALL APPLY.
2. PLUMBING EQUIPMENT SHALL BE LISTED, LABELED, AND MARKED FOR USE BY AN APPROVED THIRD-PARTY CERTIFICATION AGENCY AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC. ALL PLUMBING PRODUCTS AND MATERIALS SHALL BE LISTED BY A THIRD – PARTY CERTIFICATION AGENCY AS COMPLYING WITH THE REFERENCED STANDARDS.
3. ALL DRAWINGS AND SPECIFICATIONS (INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING, ETC) ARE DEVELOPED TO BE AN INCLUSIVE SET. ANY CONFLICTS WITHIN SHALL BE BROUGHT TO THE DESIGN'S TEAM ATTENTION. CONTRACTOR SHALL NOT MAKE ANY CHANGES TO THE DESIGN OR CONTRACT WITHOUT WRITTEN CONSENT FROM THE OWNER.
4. WORK SHALL BE INSTALLED IN A WORKMAN LIKE FASHION. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS.
5. MAINTAIN THE CONSTRUCTION PREMISES IN A NEAT AND ORDERLY CONDITION. CONTRACTOR SHALL PROTECT THEIR WORK AGAINST WEATHER, THEFT, AND DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
6. ALL PRODUCTS SHALL COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND UL 723.
7. QUALITY CONTROL
   7.1. INSTALLER: QUALIFIED WITH AT LEAST 5 YEARS OF SUCCESSFUL INSTALLATION EXPERIENCE ON PROJECTS WITH WORK SIMILAR TO THAT REQUIRED FOR THIS PROJECT.
   7.2. UL COMPLIANCE: PROVIDE COMPONENTS WITH UL LISTING AND LABELING WHEN THERE IS AN APPLICABLE UL CATEGORY.
   7.3. COMPLY WITH THE MINIMUM STANDARDS PRESCRIBED IN REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS: UNDERWRITER'S LABORATORIES, INC. STANDARDS., INTERNATIONAL PLUMBING CODE CURRENT EDITION AND OTHER CODES, ORDINANCES, AND LAWS APPLICABLE TO THE PLACE OF THE WORK.
8. SUBMITTALS - SUBMIT 4 COPIES (OR ELECTRONIC) OF DATA FOR REVIEW AND COMMENT BY OWNER PRIOR TO ORDERING. INCLUDE MANUFACTURER'S STANDARD SUBMITTAL DATA WITH MANUFACTURER'S NAME AND MODEL NUMBERS, COLOR, FINISH, SIZE AND ALL OPTIONS CLEARLY MARKED.
9. SUBSTITUTIONS SHALL BE EVALUATED AND APPROVED BY OWNER AND ENGINEER PRIOR TO CONTRACTOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AMONG TRADES AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. PENETRATIONS BETWEEN NON-CONDITIONED AND CONDITIONED SPACES WILL BE SEALED TO ELIMINATE MOISTURE MITIGATION, SUCH AS BETWEEN INSIDE AND OUTSIDE BUILDINGS, NON-CONDITIONED BOILER ROOMS, INTO REFRIGERATORS / FREEZERS, ETC.
11. CITY NOTE: PLUMBING MATERIAL AND EQUIPMENT: NO MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THE CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, THE LAWS OF THE STATE OF TEXAS AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUTES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVED AGENCY.

PLUMBING PIPING SYSTEMS

1. ALL PACKAGED EQUIPMENT SHALL BE INDEPENDENTLY THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A (UL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS, AS WELL AS NFPA PAMPHLET NO. 70, AND THE NATIONAL ELECTRICAL CODE (NEC).
2. ALL SYSTEMS SHALL BE A COMPLETE AND OPERABLE SYSTEM PROVIDE THE NECESSARY ADAPTORS, FITTINGS, DEVICES, ETC. PROVIDE COMPLETE WITH BASES, ISOLATORS, SUPPORTS AND OTHER REQUIRED ACCESSORIES.
3. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES FOR REQUIREMENTS OF ALL EQUIPMENT AND DEVICES AS REQUIRED FOR PROPER FUNCTIONING SYSTEM.
4. ALL ABOVE GRADE PIPING SHALL BE INSTALLED PARALLEL TO BUILDING WALLS U.N.O.
5. ALL PIPING TO BE INSTALLED WITH A UNIFORM SLOPE TO MITIGATE UN DRAINABLE LOW POINTS.
6. DI-ELECTRIC UNIONS AND COUPLINGS ARE REQUIRED FOR DISSIMILAR METALS SUCH AS CONNECTIONS BETWEEN COPPER AND STEEL OR IRON PIPES.

DOMESTIC WATER SYSTEM

LEAD-FREE PRODUCTS:

1. PROVIDE MATERIALS, PRODUCTS, AND FABRICATIONS THAT COMPLY WITH ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS AND RECOMMENDATIONS REGARDING LEAD CONTENT AND CONTRIBUTION OF LEAD TO POTABLE WATER, THAT HAVE NO LEAD OR LEAD ALLOYS IN CONTACT WITH POTABLE WATER, AND THAT DO NOT CONTRIBUTE TO OR CAUSE LEAD IN POTABLE WATER.
2. SOLDER: LEAD FREE, ASTM B32 95-5 TIN-ANTIMONY OR GRADE SN96 TIN-SILVER SOLDER.
3. FLUX: CONTAINING NOT MORE THAN 0.2 PERCENT LEAD, MEETING NSF 61.

PIPING, INTERIOR TO 5' OUTSIDE:

COPPER:

STRAIGHT WATER TUBE, K OR L, ASTM B88 OR B543.
WROUGHT COPPER AND BRONZE SOLDER-JOINT PRESSURE FITTINGS, ANSI B16.22.

WHERE INDICATED ON DRAWINGS TO BE BELOW, IN, OR THROUGH SLAB-ON-GRADE:
COPPER, COILED WATER TUBE, K OR L, ASTM B88.
WROUGHT COPPER AND BRONZE SOLDER-JOINT PRESSURE FITTINGS, ANSI B16.22.
PIPE 1.5" OR SMALLER, IN OR UNDER SLABS-ON-FILL: CONTINUOUS, WITHOUT JOINTS OR FITTINGS.

PIPE 2" OR LARGER, IN OR UNDER SLABS-ON-FILL: BRAZED JOINTS.
PEX: IF APPROVED INDICATE ON BID FORM ALTERNATE PRICING FOR USE OF PEX PIPING AND FITTINGS.
   a. USE ABOVE GRADE WHERE CONCEALED IN WALLS OR ABOVE CEILING ONLY.
   b. PROVIDE WITH MANUFACTURERS STANDARD LEAD-FREE BRONZE FITTINGS WITH DISCONNECT FEATURE.

LEAD-FREE BALL VALVES, POTABLE WATER SYSTEM.

1. BALL VALVES: TWO-PIECE BODY, FULL PORT, BLOWOUT-PROOF STEM, PTFE SEATS, CONFORMS TO MSS SP-110, SILICON PERFORMANCE BRONZE ALLOY, SIZE RANGE: 1/4" - 2", PRESSURE RATING: 600 PSI CWP. SWEAT-TO-CRIMP LEAD FREE ADAPTERS AT VALVES. COMPLY WITH LEAD-FREE REQUIREMENTS OF NSF-61-G FOR PARTS OF VALVES AND FITTINGS COMING IN CONTACT WITH POTABLE WATER.
2. ACCESS DOOR: WHERE VALVES ARE CONCEALED ABOVE HARD CEILINGS OR IN WALLS PROVIDE THIN-FLANGED, FRAMED ACCESS DOOR, MINIMUM OF 10 INCHES SQUARE OR ADEQUATE TO SERVICE THE DEVICE, 18-8 STAINLESS STEEL CONSTRUCTION WITH NO. 4 FINISH; SMITH 4762.
3. IDENTIFICATION: WHERE VALVES ARE CONCEALED ABOVE CEILINGS ORIN WALLS, PROVIDE ENGRAVED LAMINATED PLASTIC LABLES WITH 1/2" HIGH LETTERS TO INDICATE LOCATION OF VALVE. AFFIX LABEL TO CEILING OR WALL WHERE VALVES ARE CONCEALED.

SANITARY WASTE AND VENT PIPING

1. MATERIAL: REFER TO MATERIAL LEGEND. IF CAST IRON REFER TO CHAPTER IV OF CISPI "CAST IRON SOIL PIPE AND FITTINGS HANDBOOK".
2. INSTALLATION: INSTALL WASTE AND VENT PIPING AT A MINIMUM SLOPE AS INDICATED UNLESS OTHERWISE INDICATED ON THE PLANS:
3. SANITARY PIPE: 2 PERCENT DOWNWARD IN DIRECTION OF FLOW FOR PIPING 2-1/2" AND SMALLER; 1 PERCENT DOWNWARD IN DIRECTION OF FLOW FOR PIPING 3" TO 6".
4. VENT PIPE: 1 PERCENT DOWN TOWARDS THE VERTICAL FIXTURE VENT OR TOWARD THE VENT STACK.

FOUNDATIONS, HANGERS AND SUPPORTS

1. GENERAL PURPOSE: MANUFACTURERS STANDARDIZATION SOCIETY SP-69 OR FEDERAL SPECIFICATION WW-H-171D, TYPES AS RECOMMENDED OR REQUIRED. PERFORATED OR PLAIN METAL STRAP AND WIRE ARE NOT ACCEPTABLE.
2. HANGERS IN CONTACT WITH COPPER PIPE: SAME AS FOR GENERAL PURPOSE, COPPER OR COPPER PLATED WITH PLASTIC COATING.

INSULATION - HOT AND COLD PIPE:

(1) FLEXIBLE CELLULAR INSULATION (FOAMED PLASTIC): FOAMED PLASTIC, FLEXIBLE, K OF 0.25 AT 75EF, 220EF TEMPERATURE LIMIT, DENSITY OF 5.8PCF, ASTM C534, R4.0.
(2) UL LISTED FOR FLAME SPREAD 25, SMOKE DEVELOPED 50, FUEL CONTRIBUTED 50.
(3) PROVIDE THICKNESSES AND INSTALL AS RECOMMENDED BY MANUFACTURER.
(4) BUTT INSULATION TOGETHER AND ADHERE IN PLACE WITH MANUFACTURER'S RECOMMENDED CONTACT CEMENT. WHERE POSSIBLE, SLIP TUBING ON WITHOUT SLITTING. WHERE INSULATION TERMINATES, NEATLY BEVEL AND FINISH.
(5) ROOF DRAINS AND INTERIOR DOWNSPOUTS: VERTICAL PIPING, EXCEPT BETWEEN ROOF-DECK DRAIN AND FIRST ELBOW AND WITHIN TWO FEET OF NON-VERTICAL PIPING, NEED NOT BE INSULATED; INSULATE OTHER RD AND DS PIPING, AND INSULATE THE ROOF-DECK DRAIN (RD) SUMPS WITH SHEET INSULATION. HORIZONTAL PIPING WITHIN CRAWL-SPACE NEED NOT BE INSULATED.
(6) HOT AND COLD WATER, HOT WATER CIRCULATING: PROVIDE THICKNESS RECOMMENDED BY MANUFACTURER. MAINTAIN VAPOR BARRIER ON COLD WATER PIPING INSULATION.
(7) WHERE EXPOSED TO VIEW, BENEATH THE BUILDING, OR EXPOSED TO WEATHER:

A. PAINT WITH INSULATION MANUFACTURER'S PAINT FINISH, TINTED AS SELECTED BY ARCHITECT-ENGINEER, SPECIFICALLY FORMULATED IF EXPOSED OUTDOORS.

B. PROVIDE 16 GAGE ALUMINUM OR STAINLESS STEEL COVER WITH MATCHING ALUMINUM OR STAINLESS STEEL BANDS SPACED 18 INCHES OVER PIPE AND FITTINGS WHERE EXPOSED TO WEATHER OR EXPOSED TO OCCUPANTS AND WITHIN 84 INCHES OF THE FLOOR.

(1) PRODUCT; ARMSTRONG ARMAFLEX WITH WB ARMAFLEX FINISH INDOORS, ARMSTRONG ARMAFLEX WITH SB ARMAFLEX FINISH OUTDOORS.

EXISTING UTILITIES

1. THE LOCATIONS, SIZES AND ELEVATIONS OF EXISTING UTILIZES SHOWN ON THE PLANS ARE BASED ON INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF DESIGN AND MAY NOT REFLECT REAL WORLD CONDITIONS, HOWEVER THE CONTRACTOR IS RESPONSIBLE FOR FIELD DISCOVERY AND MAKING ADJUSTMENTS AS NECESSARY TO PERFORM THE REQUIRED SCOPE OF WORK. HOWEVER, PRIOR TO MAKING ANY ADJUSTMENTS OR PERFORMING WORK THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER AND/OR ARCHITECT FOR APPROVAL.

COPPER PIPING

1. MATERIAL: REFER TO MATERIAL LEGEND. IF TYPE L, THE PIPE JOINTS MUST BE SOLDERED UTILIZING LEAD FREE SOLDER AND NON-ACID FLUX PASTE.

TRAPEZE PIPE HANGERS

DESCRIPTION: MSS SP-58, TYPE 59, SHOP- OR FIELD-FABRICATED PIPE-SUPPORT ASSEMBLY, MADE FROM STRUCTURAL-CARBON-STEEL SHAPES, WITH MSS SP-58 CARBON-STEEL HANGER RODS, NUTS, SADDLES, AND U-BOLTS.

CARBON-STEEL PIPE HANGERS AND SUPPORTS:

1. DESCRIPTION: MSS SP-58, TYPES 1 THROUGH 58, FACTORY-FABRICATED COMPONENTS.
2. GALVANIZED METALLIC COATINGS: PRE-GALVANIZED, HOT-DIP GALVANIZED, OR ELECTRO-GALVANIZED.
3. NONMETALLIC COATINGS: PLASTIC COATED OR EPOXY POWDER COATED.
4. PADDED HANGERS: HANGER WITH FIBERGLASS OR OTHER PIPE INSULATION PAD OR CUSHION TO SUPPORT BEARING SURFACE OF PIPING.
5. HANGER RODS: CONTINUOUS-THREAD ROD, NUTS, AND WASHER MADE OF CARBON STEEL

COPPER PIPE AND TUBE HANGERS:

1. DESCRIPTION: MSS SP-58, TYPES 1 THROUGH 58, COPPER-COATED-STEEL, FACTORY-FABRICATED COMPONENTS
2. HANGER RODS: CONTINUOUS-THREAD ROD, NUTS, AND WASHER MADE OF COPPER-COATED STEEL.

HANGER AND SUPPORT INSTALLATION

A. METAL PIPE-HANGER INSTALLATION: COMPLY WITH MSS SP-58. INSTALL HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS AS REQUIRED TO PROPERLY SUPPORT PIPING FROM BUILDING STRUCTURE.

B. METAL TRAPEZE PIPE-HANGER INSTALLATION: COMPLY WITH MSS SP-58. ARRANGE FOR GROUPING OF PARALLEL RUNS OF HORIZONTAL PIPING, AND SUPPORT TOGETHER ON FIELD-FABRICATED TRAPEZE PIPE HANGERS.

C. PIPES OF VARIOUS SIZES: SUPPORT TOGETHER AND SPACE TRAPEZES FOR SMALLEST PIPE SIZE, OR INSTALL INTERMEDIATE SUPPORTS FOR SMALLER-DIAMETER PIPES AS SPECIFIED FOR INDIVIDUAL PIPE HANGERS.

D. FIELD FABRICATE FROM ASTM A36/A36M CARBON-STEEL SHAPES SELECTED FOR LOADS BEING SUPPORTED, WELD STEEL ACCORDING TO AWS D1.1/D1.1M.

E. INSTALL HANGERS AND SUPPORTS COMPLETE WITH NECESSARY ATTACHMENTS, INSERTS, BOLTS, RODS, NUTS, WASHERS, AND OTHER ACCESSORIES.

F. INSTALL HANGERS AND SUPPORTS TO ALLOW CONTROLLED THERMAL AND SEISMIC MOVEMENT OF PIPING SYSTEMS, TO PERMIT FREEDOM OF MOVEMENT BETWEEN PIPE ANCHORS, AND TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, EXPANSION BENDS, AND SIMILAR UNITS.

G. INSTALL LATERAL BRACING WITH PIPE HANGERS AND SUPPORTS TO PREVENT SWAYING.

CLEANUP AND PAINTING

1. AFTER COMPLETION OF THE WORK THE PLUMBING CONTRACTOR SHALL REMOVE ALL EXTRA MATERIALS, FITTINGS, PIPES, ETC, WHICH HAVE BEEN BROUGHT TO THE SITE FOR COMPLETION OF THEIR SCOPE OF WORK. ALL DEBRIS CREATED BASED ON THEIR CONSTRUCTION EFFORT SHALL BE REMOVED.
2. ALL UNINSULATED PIPING AND EQUIPMENT SHALL BE CLEANED OF OIL, GREASE AND DIRT. ALL SURFACES SHALL BE CLEAN AND FREE OF DIRT AND CORROSION, READY FOR PAINTING BY OTHERS (UNLESS THE PLUMBING CONTRACTOR HAS BEEN TASKED BY THE GENERAL CONTRACTOR FOR PAINTING OF THEIR OWN EQUIPMENT AND EXPOSED PIPING).

TESTING

1. ALL CONCEALED WORK SHALL REMAIN UNCOVERED UNTIL ALL REQUIRED TESTS HAVE BEEN COMPLETED. NOTE THAT THIS TESTING MAY BE DONE IN PHASED AREAS AS DEEMED NECESSARY BY THE GENERAL CONTRACTOR. THE CONTRACTOR WILL REPAIR ANY DEFECTS WHICH ARE DISCOVERED AS A RESULT OF INSPECTION OR TEST WITH NEW MATERIAL. CAULKING OF SCREWED JOINTS, CRACKS OR HOLES WILL NOT BE ACCEPTABLE. THE TEST MUST BE REPEATED AFTER REPLACEMENT AND DEFECTS HAVE BEEN ELIMINATED.
2. POTABLE WATER SHALL BE TESTED BEFORE FIXTURES AND FAUCETS ARE CONNECTED AND/OR BEFORE CONNECTING TO ANY EXISTING PIPING SYSTEM. THE SYSTEM WILL BE FILLED WITH WATER AND PRESSURE TESTED TO 150 PSI FOR A MINIMUM OF ONE HOUR WITHOUT ANY LEAKS OR PRESSURE LOSS.

PLUMBING DEMOLITION NOTES:

1. THE CONTRACTOR WILL VISIT THE SITE TO REVIEW THE EXISTING CONDITIONS ASSOCIATED WITH THE SCOPE OF WORK TO DETERMINE THE EXTENTS OF DIFFICULTY REQUIRED TO PERFORM THE REQUIRED SERVICES SO THAT LATER CLAIMS ABOUT UNFORESEEN CONDITIONS WILL BE MITIGATED TO THE FULLEST EXTENT POSSIBLE.
2. DEMOLITION IS INCLUSIVE OF ALL MATERIAL, CONNECTIONS, CUTTING, REPAIRING AND ADAPTING THE SYSTEMS WHICH ARE TO REMAIN IN OPERATION SO THAT A FULL AND COMPLETE SYSTEM IS PROVIDED ONCE THE PROJECT IS COMPLETE.
3. THE CONTRACTOR IS RESPONSIBLE TO RELOCATING AND RECONNECTING EXISTING WORK WHICH INTERFERES WITH THE NEW PLUMBING (INCLUDING BUT NOT LIMITED TO ELECTRICAL, MECHANICAL, BUILDING ELEMENTS, ETC), USING MATERIAL IN CONFORMANCE WITH THE CURRENT CODES AND/OR THE PROJECT DOCUMENTS. FULL COORDINATION IS REQUIRED WITH ALL OTHER TRADES PRIOR TO THE OF ANY START OF WORK.
4. REMOVE ALL EQUIPMENT AND FIXTURES AS NOTED ON THE ARCHITECTURAL DRAWINGS (NOT ONLY THOSE NOTED ON THE PLUMBING PLANS) AND PROVIDE TEMPORARY SERVICES (WATER, SANITARY, ETC.) SO THAT OTHER AREAS NOT LOCATED IN THE SCOPE OF WORK REMAIN IN SERVICE THROUGHOUT DURATION OF THE PROJECT.
5. ANY BASE BUILDING PIPING WHICH IS ABANDONED WITHIN THE SCOPE OF WORK AREA SHALL BE REMOVED BACK TO THE EXISTING WET COLUMN. COORDINATE WITH THE BUILDING OWNER FOR REMOVAL OF ALL ITEMS SO THAT NO SYSTEMS OUTSIDE THE OUTSIDE OF THE SCOPE OF WORK AREA HAVE AN OUTAGE.

PLUMBING ABBREVIATIONS

CODES:

ADA	AMERICANS WITH DISABILITIES ACT
AHJ	AUTHORITY HAVING JURISDICTION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
IBC	INTERNATIONAL PLUMBING CODE
IECC	INTERNATIONAL ENERGY CONSERVATION CODE
IPC	INTERNATIONAL PLUMBING CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
OSHA	OCCUPATIONAL SAFETY
TAS	TEXAS ACCESSIBILITY STANDARDS
UPC	UNIFORM PLUMBING CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
RME	LICENSED RESPONSIBLE MANAGING EMPLOYEE

GENERAL:

SD	SCHEMATIC DESIGN
DD	DESIGN DEVELOPMENT
CD	CONSTRUCTION DOCUMENTS
REV	REVISION
(D)	DEMOLITION
(E)	EXISTING
(N)	NEW
(R)	RELOCATE
A/E	ARCHITECT/ENGINEER
AFF	ABOVE FINISHED FLOOR
FWFF	FLUSH WITH FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AP	ACCESS PANEL
BD	BLOW DOWN
BFF	BELOW FINISH FLOOR
BFG	BELOW FINISH GRADE
BOP	BOTTOM OF PIPE
BT	BLADDER TANK
BTUH	BRITISH THERMAL UNITS PER HOUR
BYP	BYPASS
C-C	CENTER LINE
CFH	CUBIC FEET PER HOUR
CL	CENTERLINE
C&S	CAP & SEAL
DEG	DEGREE
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN THRU FLOOR
DRN	DRAIN
DWG	DRAWING
EA	EACH
EL	ELEVATION
ENG.	ENGINEER
EQ	EQUAL
F	FAHRENHEIT
FFL	FINISHED FLOOR LEVEL
FIN	FINISH
FOG	FATS, OILS AND GREASE
FP	FIRE PROTECTION
GA	GAUGE
GEN	GENERATOR
GPD	GALLONS PER DAY
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MIN
I-D	INSIDE DIAMETER
I.L.F.F.F.	INVERT LEVEL FROM FINISHED FLOOR
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
MECH	MECHANICAL
MIN	MINIMUM
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OS&Y	OUTSIDE SCREW & YOKE
PH	PHASE
PPB	PARTS PER BILLION
PPM	PARTS PER MILLION
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
RCP	REFLECTED CEILING PLAN
RS	RISING STEM
SPEC	SPECIFICATION
SWG	SWAGE
TC	TIME CLOCK
TG	TRAP GUARD <- ENG. RECOMMENDED
TMEP	TEMPERATURE
TOC	TOP OF CONCRETE
TOP	TOP OF PIPE
TP	TRAP PRIMER
TYP	TYPICAL
UP	UP THRU FLOOR
VTR	VENT THRU ROOF
"WC	INCHES OF WATER COLUMN
WHA	WATER HAMMER ARRESTOR
WP	WEATHERPROOF

EQUIPMENT TAGS:

GWH	GAS WATER HEATER
IGWH	INSTANTANEOUS GAS WATER HEATER
EWH	ELECTRICAL WATER HEATER
IH	INSTANTANEOUS WATER HEATER
CP	CIRCULATING PUMP
DBP	DOMESTIC BOOSTER PUMP
GT	GREASE TRAP
GI	GREASE INTERCEPTOR
SI	SAND OIL INTERCEPTOR
LT	LINT TRAP
ANT	ACID NEUTRALIZATION TANK
SW	SAMPLE WELL
WM	WATER METER

FIXTURE TAGS:

WC	WATER CLOSET
U	URINAL
LAV, L	LAVATORY
SK	SINK
MS	MOP SINK
SH	SHOWER
WB	WASHER BOX
BT	BATH TUB
VB	VALVE BOX
EDF	ELECTRIC DRINKING FOUNTAIN
FD	FLOOR DRAIN
FS	FLOOR SINK
FFD	FABRICATED FUNNEL DRAIN
GD	GARAGE DRAIN
VB	VACUUM BREAKER
BFP	BACKFLOW PREVENTER
RPZ	REDUCED PRESSURE ZONE DEVICE
WCO	WALL CLEANOUT
ECO	EXTERIOR CLEANOUT
FCO	FLOOR CLEANOUT
TCO	TRAFFIC CLEANOUT
END CO	END CLEANOUT
WH	WALL HYDRANT
HB	HOSE BIBB
RH	ROOF HYDRANT
GH	GROUND HYDRANT
BAV	BALL VALVE
BFV	BUTTER FLY VALVE
BV	BALANCING VALVE
CV	CHECK VALE
GC	GAS COCK
GV	GATE VALVE
PRV	PRESSURE REDUCING VALVE
CS	CIRCUIT SOLVER

PIPING SYSTEMS:

[O]	OVERFLOW
[P]	PRIMARY
A	AIR
C.D.	CONDENSATE DRAINAGE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
FW	FILTERED WATER
GRW	GRAY WATER
GW	GREASE WASTE
HWR	HOT WATER RETURN
ID	INDIRECT DRAINAGE
NG	NATURAL GAS
LPG	LIQUEFIED PETROLEUM GAS
OS	SUDS STACK
OSD	OVERFLOW STORM DRAINAGE
PW	POTABLE WATER
RHS	RAIN HARVESTING SYSTEM
SAN / S	SANITARY DRAINAGE
STORM, ST	STORM DRAINAGE
SW	SOFT WATER
TW	TEMPERED WATER
TWR	TEMPERED WATER RETURN
V	VENT
VS	VENT STACK
WS	WASTE STACK

MAINTENANCE SHOP PIPING SYSTEMS:

AF	ANTI-FREEZE
TF	TRANSMISSION FLUID
DF	DEFFERENTIAL FLUID
EO	ENGINE OIL
EO-DIL	DIESEL MOTOR OIL
EO-CNG	CNG MOTOR OIL
GO	GEAR OIL
GR	GREASE
HO	HYDRAULIC OIL
WAF	WASTE ANTI-FREEZE
WO	WASTE OIL
WW	WINDSHIELD WIPER FLUID

MATERIALS:

ABS	ACRYLONITRILE BUTADIENE STYRENE
AL	ALUMINUM
CI	CAST IRON
CS	CARBON STEEL
CU	COPPER
DI	DUCTILE IRON
GALV	GALVANIZED
PVC	POLYVINYL CHLORIDE (PLASTIC)
PVDF	POLYVINYLIDENE FLUORIDE
RGS	RIGID GALVANIZED STEEL
SS	STAINLESS STEEL
PP	POLYPROPYLENE
PTFE	POLYTETRAFLUOROETHYLENE
PVDC	POLYVINYLIDENE CHLORIDE

PLUMBING LEGEND

XX-1	PLUMBING FIXTURE TAG
X"XX-1	OUTLET SIZE / DRAIN TAG
XX-1	HYDRANT / HOSE BIBB
XX-1	EQUIPMENT TAG
(D)	EXISITNG TO BE DEMOLISHED
(E)	EXISTING TO REMAIN
X1 / X"	RISER TAG # / PIPE SIZE
X"DCW	DOMESTIC COLD WATER
X"DHW	DOMESTIC HOT WATER
X"HWR	HOT WATER RETURN
X"SW	SOFT WATER
X"RO	REVERSE OSMOSIS WATER
X"DI	DEIONIZED WATER
X"DH2O	DISTILLED WATER
X"NP-CW	NON-POTABLE COLD WATER
X"NP-HW	NON-POTABLE HOT WATER
X"OSD	OVERFLOW STORM DRAINAGE
X"SD	STORM DRAINAGE (BELOW SLAB)
X"SD	STORM DRAINAGE (ABOVE SLAB)
X"V	VENT (ABOVE SLAB)
X"V	VENT (BELOW SLAB)
X"SAN	SANITARY DRAINAGE (BELOW SLAB)
X"SAN	SANITARY DRAINAGE (ABOVE SLAB)
X"D	DRAINAGE
X"GW	GREASE WASTE (BELOW SLAB)
X"GW	GREASE WASTE (ABOVE SLAB)
X"CD	CONDENSATE - RE: HVAC PLANS
X"AV	ACID VENT (BELOW SLAB)
X"AV	ACID VENT (ABOVE SLAB)
X"AW	ACID WASTE (BELOW SLAB)
X"AW	ACID WASTE (ABOVE SLAB)
X"NG	NATURAL GAS
X"LPG	LIQUID PROPANE GAS
X"C-VAC	CENTRAL VACCUM

FLOOR CLEANOUT
EXTERIOR CLEANOUT
FLOOR DRAIN
FLOOR DRAIN W/ FUNNEL
FLOOR SINK FULL GRATE
FLOOR SINK 1/2 GRATE
RH-1
WH-1 HB-1
FULL PORT BALL VALVE
CHECK VALVE
WHA RE: DETAIL
X PIPE ACCESSORY TAG
AVOID ANY PLUMBING IN THIS AREA
ENLARGED PLAN / SCOPE OF WORK

PLUMBING - FIXTURE SCHEDULE

TAG	ADA	FLOW RATE	DESCRIPTION	MANUFACTURER - MODEL #	FLUSH VALVE OR FAUCET	TRAP	WASTE	VENT	CW	HW	*TMV	NOTES
WH-1	No	10 GPM	FREE STANDING HOSE BIB	MDF 24-8 SMSS	-	-	-	-	3/4"	-		

MATERIAL LEGEND

1. **DOMESTIC WATER**:
   TYPE "L" COPPER TUBING WITH WROUGHT COPPER FITTINGS AND 95/5 (TIN/ANTIMONY) SOLDER JOINTS.

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

GK ENGINEERS
G:\ PROJECT # 2025.044
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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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INTERIM REVIEW ONLY
Document is Incomplete
Not intended for permit or construction
Engineer: DAVIA GERNAND
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DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-059
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

Date	Description
10/09/2025	100% CD

PROJECT STATUS
P101-A
GENERAL NOTES, ABBREV., & LEGEND

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I DESIGN CRITERIA

A. GENERAL BUILDING CODE

1. THE CONSTRUCTION DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE 2021 WITH AMENDMENTS.

B. DEAD LOADS

1. HANGING CEILING AND MECHANICAL LOADS: FOLLOWING ALLOWANCES HAVE BEEN MADE FOR HANGING CEILING AND MEHCANICAL EQUIPMENT LOADS SUCH AS DUCT WORK AND SPRINKLER PIPES.
   a. ROOF 10 PSF
   b. MEP SYSTEMS 4 PSF.

C. LIVE LOADS

1. DESIGN LIVE LOADS ARE LISTED BELOW
   a. ROOF 20 PSF (REDUCIBLE)
   b. FLOOR 100 psf

D. WIND LOADS
1. WIND PRESSURES ARE BASED ON THE PROVISIONS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE 7-22 AND THE FOLLOWING CRITERIA:
   a. ULTIMATE DESIGN WIND SPEED (VULT): 139 MPH (3 SECOND GUST)
   b. BUILDING RISK CATEGORY: III
   c. WIND EXPOSURE CATEGORY: B
   d. INTERNAL PRESSURE COEFFICIENT (GCPI): [+0.55/-0.55]

2. WIND PRESSURE USED IN THE DESIGN OF THE CLADDING ARE SHOWN ON THE STRUCTURAL DRAWINGS, SHEET S-002

E. HANDRAILS AND GUARDS

1. THE STRUCTURAL STRENGTH OF GRAB BARS, TUB AND SHOWER SEATS, FASTENERS, AND MOUNTING DEVICES SHALL MEET THE FOLLOWING SPECIFICATION:
   a. BENDING STRESS IN A GRAB BAR OR SEAT INDUCED BY THE MAXIMUM BENDING MOMENT FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE STRESS FOR THE MATERIAL OF THE GRAB BAR OR SEAT.
   b. SHEAR STRESS INDUCED IN A GRAB BAR OR SEAT BY THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE SHEAR STRESS FOR THE MATERIAL OF THE GRAB BAR OR SEAT. IF THE CONNECTION BETWEEN THE GRAB BAR OR SEAT AND ITS MOUNTING BRACKET OR OTHER SUPPORT IS CONSIDERED TO BE FULLY RESTRAINED, THEN DIRECT AND TORSIONAL SHEAR STRESSES SHALL BE TOTALED FOR THE COMBINED SHEAR STRESS, WHICH SHALL NOT EXCEED THE ALLOWABLE SHEAR STRESS.
   c. SHEAR FORCE INDUCED IN A FASTENER OR MOUNTING DEVICE FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE LATERAL LOAD OF EITHER THE FASTENER OR MOUNTING DEVICE OR THE SUPPORTING STRUCTURE, WHICHEVER IS THE SMALLER ALLOWABLE LOAD.
   d. TENSILE FORCE INDUCED IN A FASTENER BY A DIRECT TENSION FORCE OF 250 LBF PLUS THE MAXIMUM MOMENT FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE WITHDRAWAL LOAD BETWEEN THE FASTENER AND THE SUPPORTING STRUCTURE.
   e. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

F. HANDRAILS AND GUARDS

1. THE HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED FOR 50 PLF OR A CONCENTRATED LOAD OF 200 POUNDS AT ANY POINT APPLIED IN ANY DIRECTION AT THE TOP AND TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE. THESE LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.

G. BUILDING MOVEMENT AND DEFLECTIONS

1. THE BUILDING MOVEMENT SPECIFIED HEREIN IS ANTICIPATED TO OCCUR AND SHOULD BE CONSIDERED BY THE CONTRACTOR IN THE PERFORMANCE OF THE WORK.

2. SPANDREL BEAM DEFLECTIONS. THE FOLLOWING PROVISION SHOULD BE MADE FOR SUPERIMPOSED LOAD DEFLECTION OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR IN THE DESIGN, FABRICATION, AND ERECTION OF THE BUILDING CLADDING:
   a. TYPICAL SPANDREL BEAM: 3/8"

   SUPERIMPOSED LOAD DEFLECTION IS DEFINED AS ALL DEFLECTION ANTICIPATED TO OCCUR AFTER THE CLADDING HAS BEEN ERECTED. THE RELATIVE DEFLECTION ABOVE DOES NOT INCLUDE THE FLOOR DEFLECTION CAUSED BY THE WEIGHT OF THE CLADDING ITSELF OR THE DEAD LOAD DEFLECTION OF THE FLOOR FRAMING ITSELF, NOR DOES IT INCLUDE ANY ALLOWANCE FOR FABRICATION OR ERECTION TOLERANCES.

3. FLOOR DEFLECTIONS: THE FOLLOWING PROVISION FOR SUPERIMPOSED LOAD DEFLECTIONS SHALL BE MADE IN THE DESIGN, FABRICATION, AND INSTALLATION OF ALL PARTITIONS, GLASS WALLS, AND OTHER ELEMENTS SUPPORTED BY AND ATTACHED TO THE STRUCTURE:
   a. TYPICAL FLOOR MEMBERS: SPAN/360 BUT NOT LESS THAN 3/8 "
   b. TYPICAL ROOF MEMBERS: SPAN/360 BUT NOT LESS THAN 3/8 "

4. LATERAL FRAME WIND DEFLECTION (DRIFT): THE FOLLOWING PROVISION FOR LATERAL FRAME DEFLECTION IN THE PLANE OF THE WALL OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR SHALL BE MADE IN THE DESIGN, FABRICATION AND INSTALLATION OF THE BUILDING CLADDING:
   a. TYPICAL FLOOR TO FLOOR: FLOOR HEIGHT/400 THE DEFLECTIONS LISTED ABOVE ARE BASED ON WIND LOADS WITH A 10-YEAR MEAN RECURRENCE INTERVAL.

II FOUNDATION (AUSTIN HS)

A. GEOTECHNICAL REPORT

1. - THE GEO TECH REPORT IS PREPARED BY AVILES ENGINEERING CORP.
   - REPORT IS PREPARED FOR FBISD ATHLETIC FACILITES RENOVATIONS AUSTIN HIGH SCHOOL (3434 PHEASANT CREEK DRIVE,SUGARLAND , TEXAS
   -GEO TECH REPORT DATED FEBRUARY 2025
   - GEO TECH REPORT NUMBER /PROJECT NUMBER G136-23A

B- FOUNDATION APPROVAL AND INSPECTION BY AUTHORIZED INSPECTOR

1. 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.

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

A. GRADE BEAMS
1. GRADE BEAM SIDE FORMS
   a. FORM EXPOSED FACES OF GRADE BEAMS.
2. 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.

3. 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 ON TABLES OR TYPICAL DETAILS. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

D. STRUCTURAL SLAB ON 10" VOID BOX
1. STRUCTURAL SLAB SUPPORTED ON GRADE BEAM AND DRILLED PIERS

2. PROVIDE MIN 10" VOID BOX UNDER GRADE BEAMS

A. PROVIDE (2) #4 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

E. VAPOR RETARDER

1. 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.

   • STEGO WRAP VAPOR BARRIER (15 MILS) VAPORGUARD BY REEF INDUSTRIES ECOSHEILD-E 15 MIL BY EPRO SERVICES
2. ALL 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.

2. THE GEOTECHNICAL REPORT IS AVAILABLE TO THE GENERAL CONTRACTOR UPON REQUEST TO THE OWNER. THE INFORMATION INCLUDED THEREIN MAY BE USED BY THE GENERAL CONTRACTOR FOR HIS GENERAL INFORMATION ONLY. THE ARCHITECT AND ENGINEER WILL NOT BE RESPONSIBLE FOR THE ACCURACY OR APPLICABILITY OF SUCH DATA THEREIN.

B. CONSTRUCTION DEWATERING

1. THE CONTRACTOR SHALL DETERMINE THE EXTENT OF CONSTRUCTION DEWATERING REQUIRED FOR THE EXCAVATION. THE CONTRACTOR SHALL SUBMIT TO THE GEOTECHNICAL ENGINEER FOR REVIEW THE PROPOSED PLAN FOR CONSTRUCTION DEWATERING, PRIOR TO BEGINNING THE EXCAVATION. CONTRACTOR SHALL INCLUDED CASING INTO THE BID , IN CASE SLOSHING OCCURS. IF IT DOES NOT OCCUR, CREDIT SHALL BE GIVEN TO THE CLIENT.

DRILLED PIER FOUNDATION

BELL TO SHAFT RATIO RECOMMENDED = 2 : 1
DRILLED PIER TO SUPPORT DUGOUTS GRADE BEAM , STRUCTURAL SLAB AND SUPERSTRUCTURE (APPLIES WHERE IT IS SHOWN IN PLAN)
DRILLED PIER DEPTH = 10 FT BELOW NATURAL GRADE ,
SUSTAINED ALLOWABLE BEARING CAPACITY WITH (FS = 3) = 1900 PSF
TOTAL ALLOWABLE BEARING CAPACITY = 2850 PSF

NETTING POLES STRAIGHT NET - ALLOWABLE FOR SUSTAINED LOAS = 2000 PSF; FOR TOTAL = 3000 PSF.
EMBEDMENT IS CALCULATED BASED ON IBC 1807.3.2.1

III REINFORCED CONCRETE

A. CLASSES OF CONCRETE

1. ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE "CLASSES OF CONCRETE MATRIX" ON SHEET 300 SERIES UNLESS NOTED OTHERWISE ON THE DRAWING (IF NOT NOTE MIN 3500 PSI CONCRETE SHALL BE USED FOR ALL CONCRETE WORK).

B. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS

1. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ANY CONCRETE POURS UNLESS SHOWN ON THE DRAWINGS. THE ARCHITECT/ENGINEER SHALL APPROVE ALL DEVIATIONS OR ADDITIONAL JOINTS IN WRITING.

C. REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE ASTM A 615 GRADE 60 UNLESS NOTED OTHERWISE ON THE DRAWINGS OR IN THESE NOTES.

2. REINFORCING STEEL: PROVIDE REINFORCING STEEL CONFORMING TO ASTM A 706 FOR ALL REINFORCING STEEL REQUIRED TO BE WELDED AND WHERE NOTED ON THE DRAWINGS.
   a. FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LADBS FOR REINFORCING STEEL. CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
   b. SHOP WELDS MUST BE PERFORMED IN AN LADBS-LICENSED FABRICATION SHOP.

3. EPOXY-COATED REINFORCING STEEL: PROVIDE EPOXY-COATED REINFORCING STEEL ACCORDING TO ASTM A 775 WHERE NOTED ON THE DRAWINGS. REINFORCING STEEL FOR COOLING TOWER CONCRETE BASINS SHALL BE EPOXY-COATED.

4. DEFORMED BAR ANCHORS: AWS D1.1 TYPE C (TABLE 7.1) STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 496 WITH A MINIMUM YIELD STRENGTH 70,000 PSI. REINFORCING BARS SHALL NOT BE SUBSTITUTED FOR DEFORMED BAR ANCHORS.

5. HEADED STUD ANCHORS FOR EMBEDDED PLATES: AWS D1.1 TYPE A STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 29 WITH A MINIMUM YIELD STRENGTH OF 61,000 PSI.

6. SMOOTH WELDED WIRE REINFORCEMENT: ASTM A 185, YIELD STRENGTH 65,000 PSI.

D. PLACEMENT OF WELDED WIRE REINFORCEMENT

1. WHEREVER WELDED WIRE REINFORCEMENT IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED PER ACI 318, 12.18 AND 12.19.

E. REINFORCING STEEL COVERAGE

1. REINFORCING STEEL COVERAGE SHOULD CONFORM TO THE REQUIREMENTS SPECIFIED IN DETAILS LABELED "TYPICAL CLEAR CONCRETE COVER" ON SHEET S-300 UNLESS NOTED OTHERWISE ON THE DRAWINGS. COVER SPECIFIED SHALL BE CONSIDERED MINIMUMS THAT MAY REQUIRE INCREASING WHERE REINFORCING STEEL INTERSECTS FOR DIFFERENT MEMBER TYPES. COVER IN STRUCTURAL MEMBERS NOT SPECIFIED IN THE DETAILS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS. THE REINFORCING STEEL DETAILER SHALL ADJUST REINFORCING STEEL CAGE SIZES AT INTERSECTING STRUCTURAL MEMBERS AS REQUIRED TO ALLOW CLEARANCE FOR INTERSECTING REINFORCING BAR LAYERS WITH MINIMUM SPECIFIED COVER.

F. SPLICES AND HOOKS IN REINFORCING STEEL

1. SPLICE LOCATION AND TYPE AND HOOKS FOR UNSCHEDULED BEAMS, SLABS AND WALLS:
   a. BEAMS AND SLABS. UNSCHEDULED BEAMS AND SLABS, INCLUDING GRADE BEAMS, SHALL HAVE CONTINUOUS TOP BARS LAPPED AT MIDSPAN BETWEEN SUPPORTS WITH A CLASS A TENSION SPLICE. BOTTOM BARS SHALL BE LAPPED AT THE SUPPORTS WITH A CLASS A TENSION SPLICE. ALL BEAM BARS SHALL BE HOOKED AT DISCONTINUOUS END, UNLESS NOTED OTHERWISE.
   b. BASEMENT WALLS. VERTICAL BARS PLACED ON THE DIRT FACE SIDE SHALL BE LAPPED AT MIDSPAN BETWEEN SUPPORTS WITH A CLASS B TENSION SPLICE. VERTICAL BARS PLACED OPPOSITE THE DIRT FACE SIDE SHALL BE LAPPED AT THE SUPPORTS WITH A CLASS B TENSION SPLICE. HORIZONTAL BARS SHALL HAVE A CLASS B TENSION SPLICE.

IV CONCRETE MASONRY

A. SCOPE

1. REFER TO ARCHITECT'S DRAWINGS FOR THE EXTENT OF MASONRY WALLS. NON-LOAD BEARING WALLS MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS.

2. REINFORCED CONCRETE MASONRY SHALL BE USED AS LOAD BEARING ERIMETER WALLS FOR STANDALONE CONCESSIONS AND RESTROOM BUILDINGS, AND ELSEWHERE INDICATED ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS. SEE ARCHITECTURAL WALL SECTIONS.

3. PROVIDE ONE-COURSE HORIZONTAL BOND BEAM REINFORCE WITH 1-#5 CONTINUOUS AT EVERY FLOOR LEVEL, ROOF LEVEL, AND PARAPET, MINIMUM.

4. RE ARCH FOR LOACTION OF POLISHED MASONRY WALLS.

B. CONCRETE MASONRY UNITS.

1. CONCRETE STRENGTH OF MASONRY UNITS (BASED ON NET AREA) SHALL BE 1,900 PSI MINIMUM.

2. UNITS SHALL CONFORM TO ASTM C 55 OR ASTM C 90 AND SAMPLED IN ACCORDANCE WITH ASTM C 140.

C. MORTAR

1. USE ONLY PORTLAND CEMENT/LIME, TYPE M OR S, MORTAR CONFORMING TO ASTM C 270. PROVIDE AN AVERAGE COMPRESSIVE STRENGTH AT 28 DAYS OF 1,800 PSI MINIMUM.

D. GROUT

1. MIX DESIGNS:

   a. FOR FILLING SPACES 4" OR LARGER IN BOTH HORIZONTAL DIRECTIONS, USE "COARSE GROUT" WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI. THE GROUT SHALL BE TESTED IN ACCORDANCE WITH ASTM C1019. FOR FILLING SPACES LESS THAN 4 " IN ONE OR BOTH HORIZONTAL DIRECTIONS, USE "FINE GROUT" PROPORTIONED PER ASTM C 476.

   b. USE 3,000 PSI NORMALWEIGHT CONCRETE FOR FILLING SPACES 10 " AND LARGER IN BOTH DIRECTIONS. THE GROUT SHALL BE TESTED IN ACCORDANCE WITH ASTM C 1019.

   c. ALL GROUT MIX DESIGN SUBMITTALS SHALL INCLUDE THE RESULTS OF THE TESTS PERFORMED IN ACCORDANCE WITH ASTM C 1019.

   d. SLUMP RANGE AT POINT OF FINAL DISCHARGE: 8 " TO 11".

   e. THE USE OF AIR ENTRAINING ADMIXTURES IS NOT ALLOWED.

E. MINIMUM REINFORCEMENT FOR CONCRETE MASONRY UNITS

1. PROVIDE VERTICAL REINFORCEMENT IN CELLS OF CONCRETE MASONRY UNITS (FULLY EMBEDDED IN GROUT) AS SHOWN ON THE PLANS AND OTHER DETAILS. MINIMUM REINFORCEMENT OF INTERIOR MASONRY SHALL BE AS FOLLOWS:
   a. 1-#5 AT A MAXIMUM SPACING OF 48 INCHES
   b. 1-#5 AT EACH CORNER
   c. 1-#5 AT EACH SIDE OF OPENINGS UP TO 12 FEET WIDE
   d. 2-#5 OR 1-#7 AT BOTH SIDES OF OPENINGS OVER 12 FEET WIDE
   e. HEAVIER REINFORCEMENT MAY BE REQUIRED BY PLAN NOTES OR DETAILS IN THE DRAWINGS.

2. PROVIDE HORIZONTAL REINFORCEMENT IN BED JOINTS EVERY OTHER COURSE (MAXIMUM 16 SPACING) IN TYPICAL WALLS AND IN EVERY COURSE (MAXIMUM 8 " SPACING) IN PARAPETS AND CANTILEVERED WALLS.

3. TERMINATION OF REINFORCING STEEL:
   a. ALL VERTICAL REINFORCEMENT SHALL HAVE STANDARD HOOK INTO BOND BEAM. TERMINATE AT HIGHEST BOND BEAM IF MASONRY DOES NOT EXTEND TO ROOF OR GROUTED CELL IS NOT CONTINUOUS TO ROOF. HOOK SHALL EXTEND TO THE UPPERMOST HORIZONTAL REINFORCEMENT OF THE BOND BEAM AND HAVE A MINIMUM EMBEDMENT OF 6 "
   b. ALL HORIZONTAL REINFORCEMENT AT ENDS OF BOND BEAMS SHALL HAVE STANDARD HOOK INTO VERTICAL GROUTED CELL. PROVIDE CORNER BARS SUCH THAT HORIZONTAL REINFORCEMENT IS CONTINUOUS AROUND CORNERS.

F. REINFORCING STEEL COVERAGE

1. COVER TO REINFORCING STEEL WITHIN MASONRY ELEMENTS SHALL NOT BE LESS THAN THE FOLLOWING:
   a. EXPOSED TO EARTH OR WEATHER: 2 " (#6 AND LARGER BARS), 1.5" (#5 AND SMALLER BARS).
   b. NOT EXPOSED TO EARTH OR WEATHER: 1.5 "
   c. LONGITUDINAL WIRES OF JOINT REINFORCEMENT SHALL BE FULLY EMBEDDED IN MORTAR OR GROUT WITH A MINIMUM COVER OF 5/8 " WHEN EXPOSED TO EARTH AND WEATHER AND 1/2" WHEN NOT EXPOSED TO EARTH OR WEATHER.
   d. STABILITY AND BRACING OF MASONRY WALLS DURING CONSTRUCTION.

2. ALL MASONRY WALLS SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES APPLIED TO THEM IN THE FINAL CONSTRUCTED CONFIGURATION ONLY ASSUMING FULL BRACING TOP, BOTTOM, AND/OR SIDE OF WALL AS SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY AND ADEQUATELY BRACE ALL MASONRY WALLS AT ALL STAGES DURING CONSTRUCTION TO RESIST ERECTION LOADS AND LATERAL LOADS THAT COULD POSSIBLY BE APPLIED PRIOR TO COMPLETION OF CONSTRUCTION.

V STRUCTURAL STEEL

A. MATERIAL

1. HOT ROLLED STRUCTURAL MEMBERS: ALL HOT ROLLED STEEL PLATES, SHAPES, SHEET PILING, AND BARS SHALL BE NEW STEEL CONFORMING TO ASTM SPECIFICATION A 6.

2. ASTM SPECIFICATION AND GRADE: CLEARLY MARK THE GRADE OF STEEL ON EACH PIECE, WITH A DISTINGUISHING MARK VISIBLE FROM FLOOR SURFACES, FOR THE PURPOSE OF FIELD INSPECTION OF PROPER GRADE OF STEEL. UNLESS NOTED OTHERWISE ON THE DRAWINGS, STRUCTURAL STEEL SHALL BE AS FOLLOWS:
   a. W- AND WT-SHAPES: ASTM A 992
   b. M- AND S-SHAPES: ASTM A 36
   c. C-SHAPES: ASTM A 36
   d. L-SHAPES: ASTM A 36
   e. HSS: ASTM A 500, GRADE B (FY=46 KSI) EXCEPT POLES FOR THE NETS WITH FY = 90KSI)
   f. BASE PLATES: ALL BASE PLATES SHALL CONFORM TO ASTM A 36 UNLESS NOTED OTHERWISE ON THE DRAWINGS.
   g. EDGE ANGLES, BENT PLATES, ANGLE HANGERS, AND ANGLE KICKERS: ASTM A 36.
   h. CONNECTION MATERIAL:
      1) BEAM COLUMN CONTINUITY PLATES AND DOUBLER PLATES: ASTM A 572, GRADE 50.
      2) ALL CONNECTION MATERIAL, EXCEPT AS NOTED OTHERWISE HEREIN OR ON THE DRAWINGS, INCLUDING BEARING PLATES, GUSSET PLATES, STIFFENER PLATES, FILLER PLATES, ANGLES, ETC. SHALL CONFORM TO ASTM A 36 UNLESS A HIGHER GRADE OF STEEL IS REQUIRED BY STRENGTH AND PROVIDED THE RESULTING SIZES ARE COMPATIBLE WITH THE CONNECTED MEMBERS.
         aa. OTHER STEEL: ANY OTHER STEEL NOT INDICATED OTHERWISE SHALL CONFORM TO ASTM A 992 OR ASTM A 572, GRADE 50, EXCEPT PLATES AND ANGLES THAT SHALL BE ASTM A 36.

B. CONNECTIONS

1. CONNECTION DETAILS NOT COMPLETELY DETAILED ON THE DRAWINGS INCLUDING MATERIAL GRADE AND SIZES, WELD SIZES, AND NUMBER OF BOLTS SHALL BE DESIGNED BY THE CONTRACTOR PER THE SPECIFICATIONS. CONCEPTUAL CONNECTION DETAILS WITH THE REQUIRED MEMBER DESIGN FORCES ARE SHOWN ON THE DRAWINGS AND ARE APPLICABLE TO ALL CONNECTIONS NOT DESIGNED AND FULLY DETAILED ON THE DRAWINGS. THE CONCEPTUAL DETAILS ARE PROVIDED ONLY TO INDICATE THE CONNECTION TYPE REQUIRED AND MAY NOT FULLY REPRESENT THE COMPLEXITY OF THE CONNECTION AS REQUIRED BY THE FINAL CONNECTION DESIGN FOR THE FORCES THEY MUST RESIST. ADDITIONAL CONNECTION ELEMENTS MAY NOT BE SPECIFICALLY SHOWN IN THE CONCEPTUAL DETAILS BUT MAY BE REQUIRED BY THE FINAL CONNECTION DESIGN; SUCH AS STIFFENER PLATES, DOUBLER PLATES, SUPPLEMENT/REINFORCING PLATES OR OTHER CONNECTION MATERIAL. THE FABRICATOR IS RESPONSIBLE FOR ENGAGING THE SERVICES OF A CONNECTION SPECIALTY ENGINEER TO PREPARE A FINAL CONNECTION DESIGN FOR SUBMISSION THAT MEETS THE REQUIREMENTS OF THE CONCEPTUAL CONNECTION DETAILS AND RESISTS THE INDICATED DESIGN FORCES.

2. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

3. REACTIONS NOTED ON THE PLANS ARE BASED ON FACTORED LOADS AND ARE INTENDED FOR USE WITH THE LOAD AND RESISTANCE FACTOR DESIGN METHOD.

C. STRUCTURAL BOLTS AND THREADED FASTENERS

1. A 325 BOLTS: ALL BOLTS IN STRUCTURAL CONNECTIONS SHALL CONFORM TO ASTM A 325 TYPE 1, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

2. A 490 BOLTS: SEE DRAWINGS FOR LOCATIONS REQUIRING ASTM A 490 TYPE 1 BOLTS.

3. THREADED ROUND STOCK: THREADED RODS SHALL CONFORM TO:
   a. ASTM A 36.

D. WELDING

1. UNLESS NOTED OTHERWISE, ELECTRODES FOR WELDING SHALL CONFORM TO E70XX (SMAW), F7XX-EXXX (SAW), ER70S-X (GMAW), OR E7XT-X (FCAW).

E. ANCHOR RODS

1. UNLESS INDICATED OTHERWISE IN THE COLUMN SCHEDULE OR ON THE DRAWINGS, ANCHOR RODS SHALL CONFORM TO ASTM F 1554 GRADE 55 (WITH SUPPLEMENTARY REQUIREMENT S1) AND THE SIZE SHALL BE 3/4" DIAMETER AND SHALL EMBED INTO THE CONCRETE FOUNDATION A DISTANCE OF 1'-0" WITH A HEAVY HEX NUT AT THE EMBEDDED END. STRIKE BOLT THREADS AT THE EMBEDDED END AT TWO PLACES BELOW THE NUT.

F. GROUT

1. GROUT BELOW STRUCTURAL STEEL BASE PLATES SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH A MINIMUM STRENGTH OF 6,000 PSI WHEN BEARING ON 3,000 PSI CONCRETE OR LESS, A STRENGTH OF 8,000 PSI WHEN BEARING ON CONCRETE BETWEEN 3,000 AND 4,000 PSI, AND, UNLESS NOTED OTHERWISE ON THE DRAWINGS, A STRENGTH OF 8,000 PSI WHEN BEARING ON CONCRETE GREATER THAN 4,000 PSI.

VI STEEL DECK -ROOF

A. ROOF DECK

1. SCHEDULE:

LOCATION	DEPTH	GAGE	TYPE YIELD STRENGTH (FY)
TYPICAL	3"	20	3N - G90

NOTE:

NR: NARROW RIB, TYPE A
IR: INTERMEDIATE RIB, TYPE F
WR: WIDE RIB, TYPE B
3DR 3 INCH, DEEP RIB, TYPE N
ALL DECK SHALL BE 50 KSI UNLESS NOTED OTHERWISE.

B. SPECIFICATION

1. THE DESIGN, FABRICATION, AND ERECTION OF ALL ROOF DECK SHALL CONFORM TO THE STEEL DECK INSTITUTE DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, AND ROOF DECKS AS PUBLISHED BY THE STEEL DECK INSTITUTE (SDI).
2. STEEL DECK SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A 653-94 STRUCTURAL QUALITY GRADE 33 OR HIGHER.
3. STEEL DECK SHALL BE GALVANIZED WITH A PROTECTIVE ZINC COATING CONFORMING TO ASTM A 653-94 G90 CLASS.

C. ATTACHMENT OF DECK:

A. FASTENING OF DECK TO EACH SUPPORT MEMBER:

1. FASTENER PATTERN
   5/8" PUDDLE WELD 12"OC AT INTERIOR
   5/8" PUDDLE WELD 6"OC AT SIDES (EVERY DECK RIB)
   (2) 5/8" PUDDLE WELD 6"OC AT CORNERS (EVERY DECK RIB)
   (DOUBLE STITCH)

2. FASTENING OF DECK TO SUPPORT MEMBERS PARALLEL TO DECK RIBS WHERE SHOWN ON PLAN:
   FASTENER PATTERN
   5/8" PUDDLE WELD 12"

3. PROVIDE A MINIMUM END BEARING OF 2 INCHES OVER SUPPORTS.
4. END LAPS OF SHEETS SHALL BE A MINIMUM OF TWO INCHES AND SHALL OCCUR OVER SUPPORTS.
5. 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.

B. MINIMUM ATTACHMENT AT SIDE LAPS: SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED FM APPROVED FASTENERS AT A MAXIMUM OF 12 ", UNLESS NOTED OTHERWISE.

3. FLAT, RIDGE, AND VALLEY PLATES:
UNLESS NOTED OTHERWISE, CONTRACTOR SHALL PROVIDE FLAT PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF DECK CHANGES DIRECTION AND RIDGE OR VALLEY PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF SLOPE EXCEEDS 1/2" PER FOOT.

D. DECK SPANS
1. METAL DECK SPANS SHALL NOT EXCEED THE MAXIMUM CENTER TO CENTER SPANS AS REQUIRED BY SDI CRITERIA. 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.

E. ACCESSORIES
1. 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.

F. ROOF OPENINGS
1. ROOF OPENINGS LESS THAN 6 INCH SQUARE OR DIAMETER REQUIRE NO REINFORCEMENT. OPENINGS 6 INCH TO 10 INCH INCLUSIVE SHALL BE REINFORCED WITH A 20 GAUGE GALVANIZED PLATE WELDED TO THE DECK AT EACH CORNER AND 6 INCH MAXIMUM CENTERS WITH A 5/8 INCH DIAMETER PUDDLE WELD OR SHEET METAL SCREWS. UNLESS INDICATED OTHERWISE ON THE DRAWINGS, OPENINGS OVER 10 INCH WIDE OR DIAMETER SHALL BE REINFORCED WITH AN ANGLE 2 1/2 X 2 1/2 X 1/4 FRAMING EACH SIDE OF THE OPENING AND SPANNING BETWEEN SUPPORTS FOR SPANS 4 FEET OR LESS AND L 3 X 3 X 1/4 FOR SPANS GREATER THAN 4 FEET BUT LESS THAN 6 FEET UNLESS SPECIFIED OTHERWISE ON DRAWINGS. LARGER OPENINGS SHALL BE REFERRED TO THE ENGINEER FOR FRAMING

VII NON-SHRINK GROUT FOR BASE PLATES AND BEARING PLATES

A. SPECIFICATIONS

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.

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107333
LICENSED PROFESSIONAL ENGINEER
DATE: 10/09/2025

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REVISIONS:

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GENERAL NOTES

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- SPECIAL INSPECTIONS

A. THE DISTRICT'S TESTING LABORATORY SHALL PROVIDE SPECIAL INSPECTIONS SERVICES IN ACCORDANCE WITH CBC 1704.A BY A DSA-CERTIFIED SPECIAL INSPECTOR. FOR SPECIFIC REQUIREMENTS, REFER TO THE SPECIFICATIONS.

B. THE OWNER'S TESTING LABORATORY SHALL PROVIDE SPECIAL INSPECTION SERVICES IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE FOR THE FOLLOWING ITEMS.
1. STEEL CONSTRUCTION:
   a. ALL FIELD WELDING
   b. HIGH-STRENGTH BOLTING
   c. INSPECTION OF STRUCTURAL STEEL, BOLTING, WELDING MATERIAL
   d. WELDING OF STRUCTURAL STEEL
2. CONCRETE CONSTRUCTION:
   a. BOLTS INSTALLED IN CONCRETE
   b. CONCRETE WORK
   c. CONTINUOUS INSPECTION OF REINFORCING STEEL PLACING
   d. EPOXY BOLTS
   e. FORMWORK
   f. REINFORCING STEEL PLACEMENT
   g. WELDING OF REINFORCING STEEL
3. SOILS:
   a. PREPARED EARTH FILL
4. SPRAYED FIRE-RESISTANT MATERIALS
5. MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS
6. WIND REQUIREMENTS:
   a. MAIN WINDFORCE-RESISTING SYSTEMS
   b. ROOF CLADDING
   c. WINDFORCE-RESISTING SYSTEM CONNECTIONS TO FOUNDATION
   d. WIND-RESISTING COMPONENTS

C. STATEMENT OF SPECIAL INSPECTIONS
1. SPECIAL INSPECTION IS REQUIRED FOR THE ITEMS LISTED ABOVE. REFER TO SPECIFICATION SECTION **014529** FOR TYPE AND EXTENT OF EACH SPECIAL INSPECTION AND EACH TEST. THE SPECIFICATION ALSO INDICATES WHETHER CONTINUOUS OR PERIODIC INSPECTION IS REQUIRED FOR THE ITEMS LISTED ABOVE ADDITIONAL INFORMATION.

- SUBMITTALS

A. SUBMITTAL LIST AND SCHEDULE

1. THE GENERAL CONTRACTOR SHALL PREPARE A DETAILED LIST AND SCHEDULE OF ALL SUBMITTAL ITEMS TO BE SENT TO THE STRUCTURAL ENGINEER PRIOR TO THE START OF CONSTRUCTION. THIS LIST SHALL BE UPDATED AND REVISED AND KEPT CURRENT AS THE JOB PROGRESSES. THE SUBMITTAL LIST SHALL BE ORGANIZED AS SHOWN BELOW:
   a. SHOP DRAWINGS
   b. DESIGN CALCULATIONS
   c. PRODUCT DATA, CERTIFICATES, REPORTS, AND OTHER LITERATURE

B. SUBMITTALS TO BE PROVIDED TO STRUCTURAL ENGINEER

1. STRUCTURAL SUBMITTALS: IN ADDITION TO THE SUBMITTALS REQUIRED BY THE STRUCTURAL SPECIFICATIONS, THE FOLLOWING SUBMITTALS SHALL BE PROVIDED:
   a. LAYOUT OF EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS.
   b. LAYOUT OF MECHANICAL, ELECTRICAL, AND PLUMBING OPENINGS IN FLAT SLABS.
   c. LAYOUT OF PENETRATIONS IN BEAMS AND JOISTS.
2. DEFERRED SUBMITTALS:
   a. THE FOLLOWING ITEMS ARE CONSIDERED DEFERRED SUBMITTALS BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE:
      1. EXTERIOR WINDOW WALL SYSTEM (S&S, REC)
      2. FORMWORK, SHORING, AND BACKSHORING (S&S, REC)
      3. STRUCTURAL STEEL CONNECTIONS (S&S)

   NOTES:

   (S&S) ITEMS MARKED THUS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SEALED PER THE PROJECT SPECIFICATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

   (REC) ITEMS MARKED THUS SHALL BE SUBMITTED TO ENGINEER FOR RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED.

   b. DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE FORWARDED TO THE BUILDING OFFICIAL.

   c. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

3. SHOP DRAWINGS

1. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
   a. CONCRETE MIX DESIGNS (~)
   b. CONSTRUCTION JOINT LOCATIONS IN STRUCTURAL FLOORS AND SLABS ON GRADE
   c. EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS (REC)
   d. REINFORCING STEEL
   e. ROOF METAL DECK (STANDING SEAM ROOF DECK)
   f. STRUCTURAL STEEL, SHOP AND ERECTION DRAWINGS (S&S)
   g. T & G ROOF DECKING PATTERN, PRODUCT SPECIFICATION AND SHEATING ATTACHEMENT PATERNS

   NOTES:

   (S&S) ITEMS MARKED THUS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SEALED PER THE PROJECT SPECIFICATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

   (REC) ITEMS MARKED THUS SHALL BE SUBMITTED TO ENGINEER FOR RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED.

   (~) ITEMS MARKED THUS SHALL BE SUBMITTED TO THE OWNER 'S TESTING AGENCY FOR THEIR REVIEW.

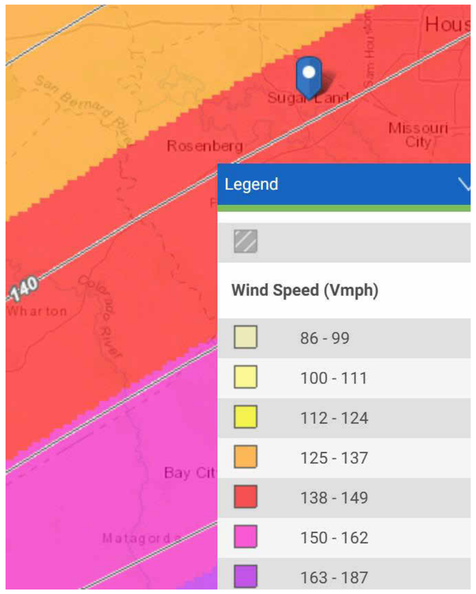
   (^) ITEMS MARKED THUS SHALL BE SUBMITTED TO THE CONSTRUCTION GEOTECHNICAL ENGINEER FOR THEIR REVIEW.

4. SUBMITTAL REQUIREMENTS:

   a. ALL SHOP DRAWINGS MUST BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
   b. CONTRACTOR SHALL SUBMIT THREE SETS OF PRINTS FOR ALL SHOP DRAWINGS SPECIFIED TO BE RETURNED BY THE ENGINEER.
   c. CONTRACTOR SHALL PROVIDE THE SUBMITTAL IN ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) PER THE SPECIFICATIONS.
   d. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS 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.

C. REPRODUCTION

1. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEMSELVES TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.



Wind Details

Wind Speed	139 Vmph	**use 139 mph**
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	179 Vmph	

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GENERAL NOTES

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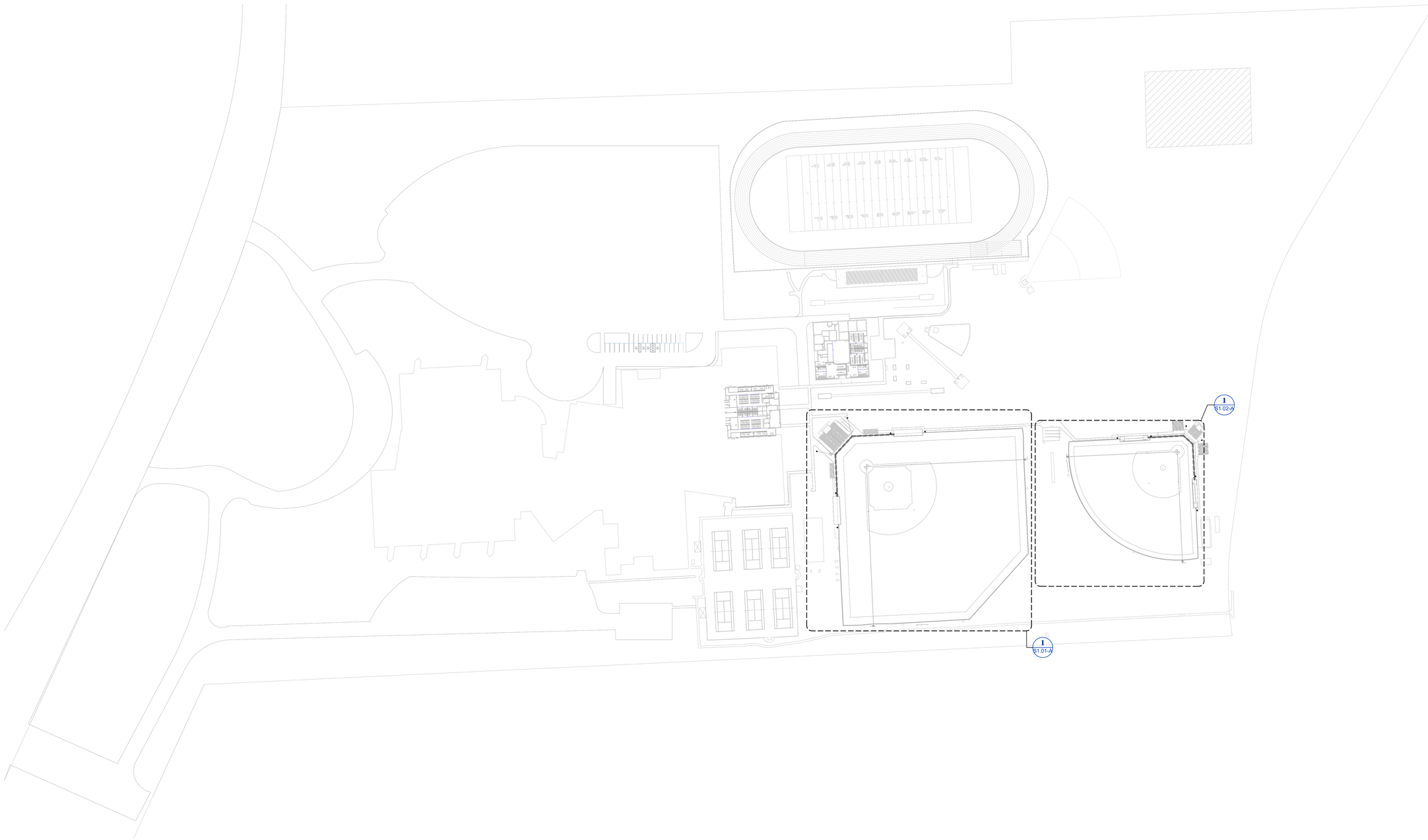

1 **AUSTIN OVERALL SITE PLAN**
1" = 80'-0"

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S1.00-A
OVERALL SITE PLAN

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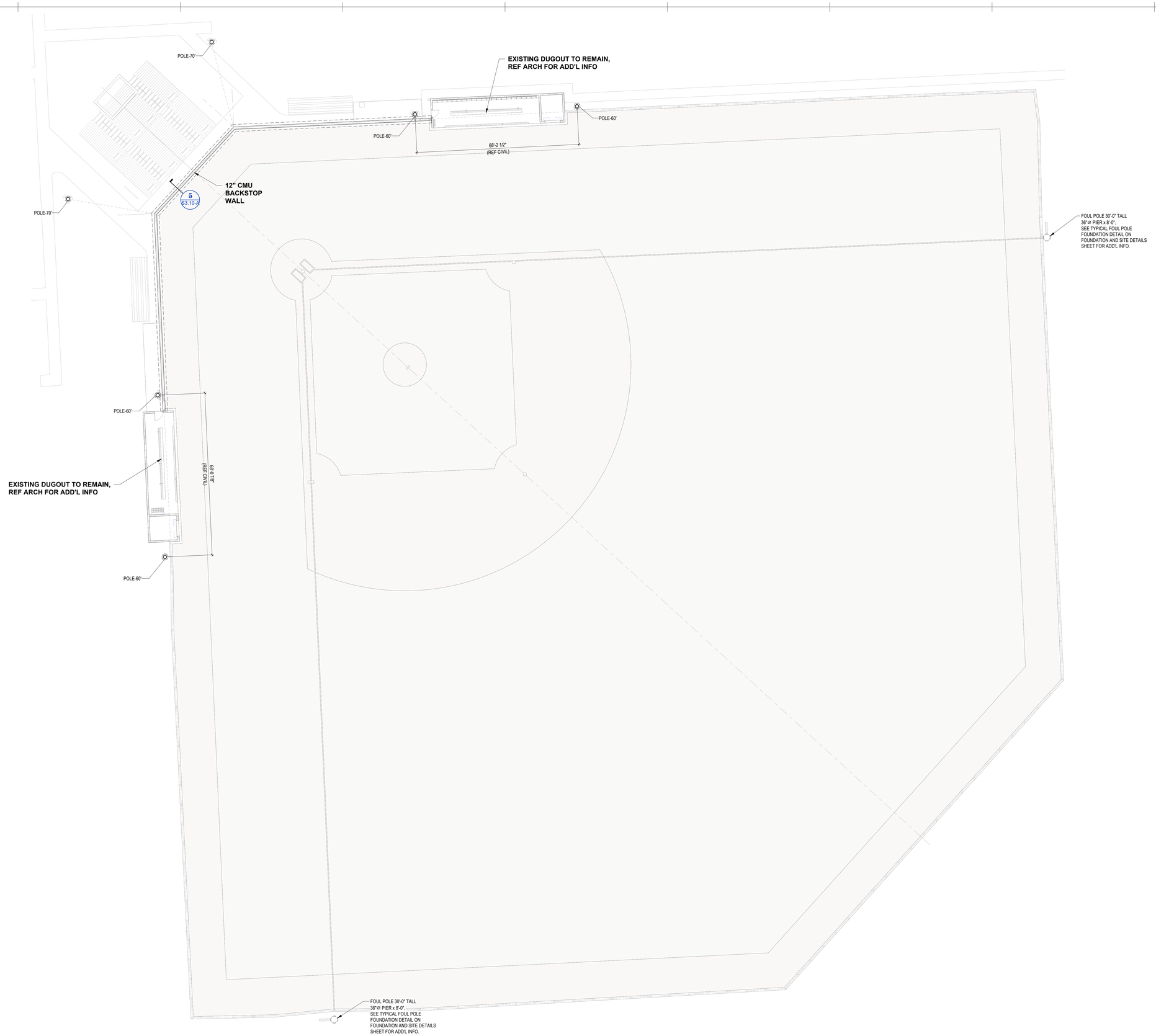

1 BASEBALL FOUNDATION PLAN

1/16" = 1'-0"

NOTE:
1. **REFER SHEET S3.10-D FOR POLE SCHEDULE AND FOUNDATION PIER SCHEDULE SUPPORTING THE POLES.**

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S1.01-A
BASEBALL FOUNDATION PLAN

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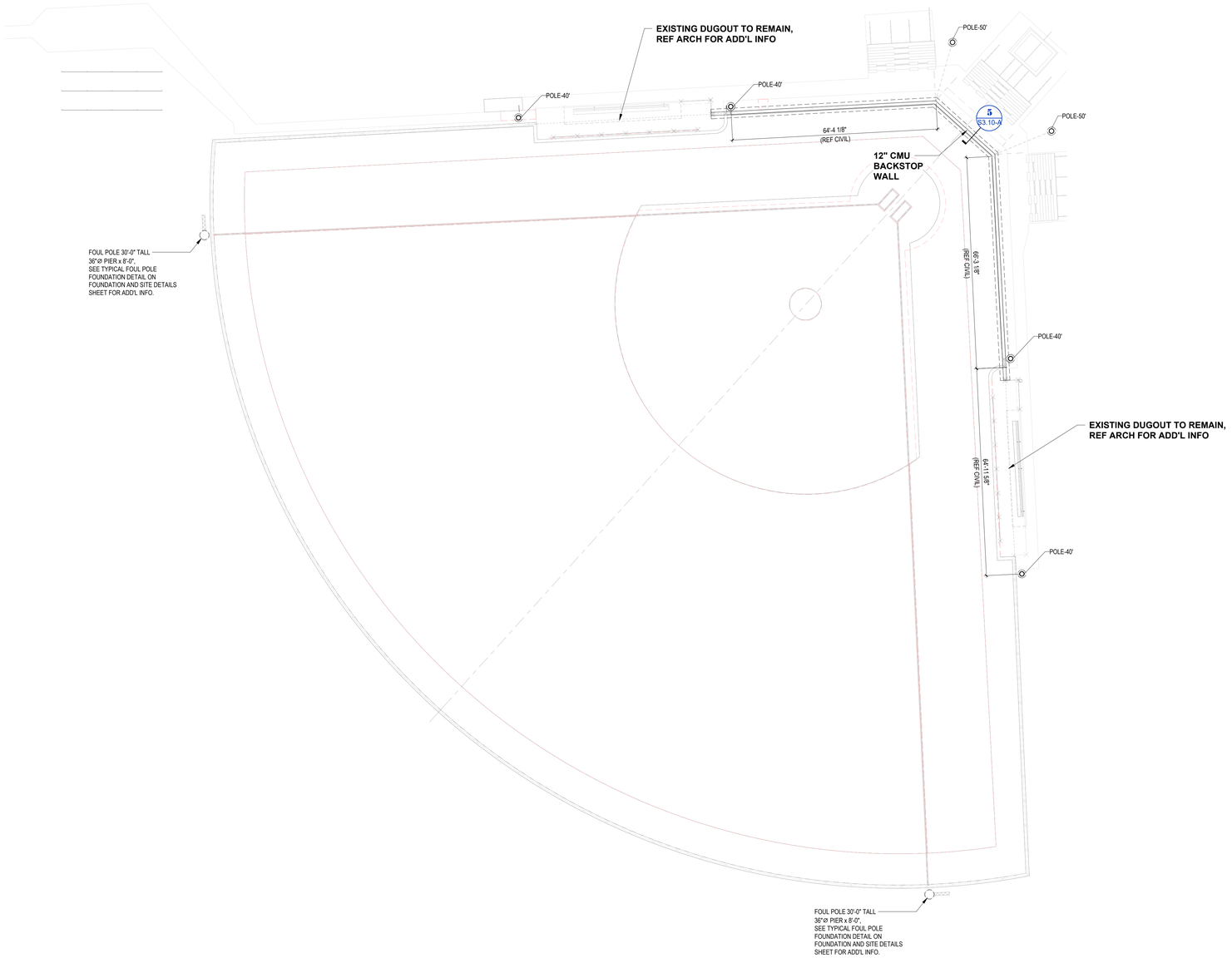

1 SOFTBALL FOUNDATION PLAN

1/16" = 1'-0"

NOTE:
1. **REFER SHEET S3.10-D FOR POLE SCHEDULE AND FOUNDATION PIER SCHEDULE SUPPORTING THE POLES.**

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SOFTBALL FOUNDATION PLAN

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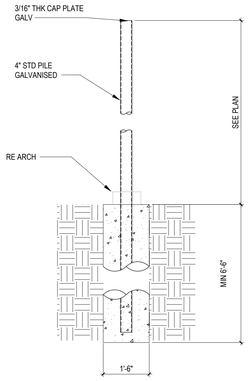
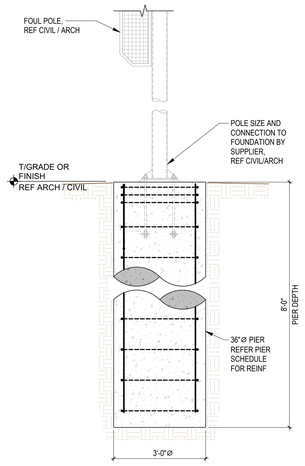
POLE AND PIER SCHEDULE

POLE NAME/LOCATION	POLE HEIGHT (H)	POLE LENGTH H1 (FT)	POLE LENGTH H2 (FT)	POLE SIZE FOR H1	POLE SIZE FOR H2	DRILLED PIER SHAFT DIAMETER	PIER DEPTH BELOW GRADE	VERTICAL REINF	TIES	LOCATION
POLE-70 BEHIND PRESS BOX	70'-0"	35'-0"	35'-0"	20"Ø HSS20X0.5	20"Ø HSS20X0.375	48"Ø	18'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (2 POLES BEHIND PRESS BOX) - TYP @60 FT TALL NETTING
POLE-60 MIDDLE	60'-0"	30'-0"	30'-0"	20"Ø HSS20X0.05	20"Ø HSS20X0.375	48"Ø	18'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @60 FT TALL NETTING
POLE-60 FRONT	60'-0"	30'-0"	30'-0"	18"Ø HSS18X0.375	16"Ø HSS16X0.375	36"Ø	16'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @60 FT TALL NETTING
POLE-50 BEHIND PRESS BOX	50'-0"	25'-0"	25'-0"	18"Ø HSS18X0.375	16"Ø HSS16X0.375	36"Ø	15'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ SOFT BALL (2 POLES BEHIND PRESS BOX) - TYP @40 FT TALL NETTING
POLE-40 MIDDLE	40'-0"	20'-0"	20'-0"	14"Ø HSS14X0.375	14"Ø HSS14X0.375	36"Ø	15'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (2 POLES AT MIDDLE TYP @40 FT TALL NETTING
POLE-40 FRONT	40'-0"	20'-0"	20'-0"	14"Ø HSS14X0.312	14"Ø HSS14X0.312	30"Ø	13'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @40 FT TALL NETTING

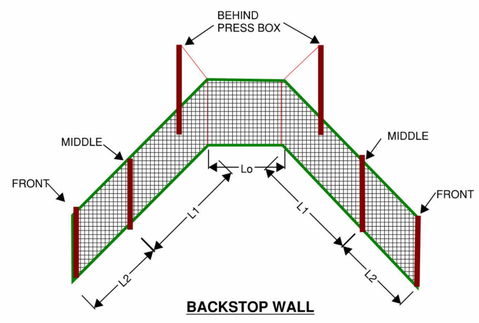
NOTE:
ALL STEEL POLES ARE GRADE 90 (FY= 90 KSI)



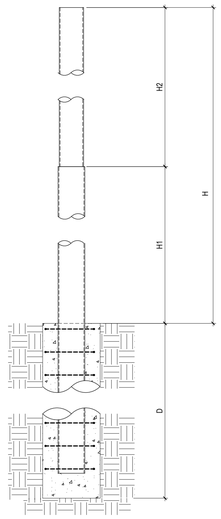
3 TYPICAL AT CHAINLINK POST OR SCREEEN WALL
1/2" = 1'-0"



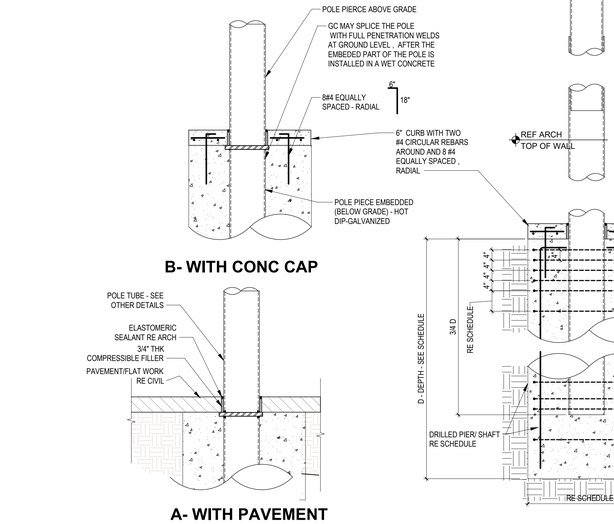
2 TYPICAL FOUL POLE FOUNDATION
1/2" = 1'-0"



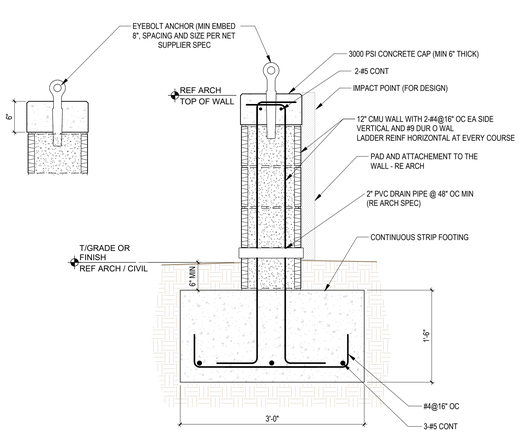
BACKSTOP WALL



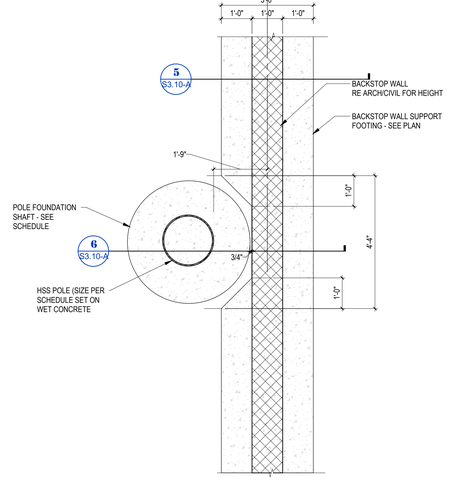
1 SECTION
3/8" = 1'-0"



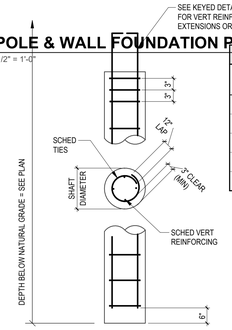
6 POLE /BACKSTOP FOUNDATION_A
1/2" = 1'-0"



5 TYPICAL BACKSTOP WALL & FOUNDAITON
1" = 1'-0"



4 POLE & WALL FOUNDATION PLAN A
1/2" = 1'-0"



DRILLED PIER SCHEDULE

SHAFT DIA	VERTICAL REINF	TIES
18"Ø	(5)#6	#3@12" O.C.
24"Ø	(6)#6	#3@12" O.C.
30"Ø	(8)#7	#3@12" O.C.
36"Ø	(10)#7	#3@14" O.C.
42/48"Ø	(12)#7	#3@16" O.C.

NOTE

NOTIFY STRUCTURAL ENGINEER 24 HOURS PRIOR TO DRILLING & POURING FOOTINGS.

7 DRILLED PIER REINF SCHEDULE
NTS

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office: 713.222.1141 | fax: 713.222.1174
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Houston, Texas 77046
pflugerarchitects.com

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STRUCTURAL ENGINEERS
TBPE Firm Registration No. F-23438
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Houston Texas, 77079
Ph: 346 691 3033
www.bmgstructural.com

AUSTIN HIGH SCHOOL

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INSPIRE•EQUIP•IMAGINE
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Sugarland, TX 77479

TBPE Firm Reg. No.23438



DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/02/2025
DRAWN BY: HG CHECKED BY: BM
REVISIONS:
Date Description

100% CD

S3.10-A
FOUNDATION AND SITE DETAILS

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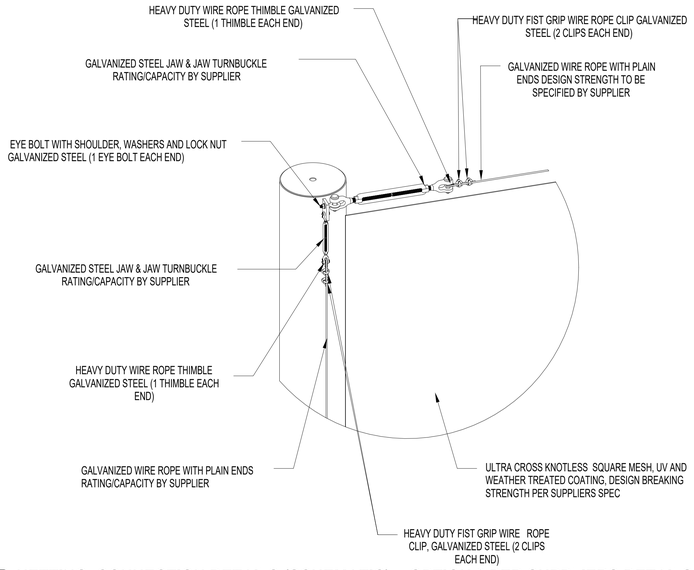
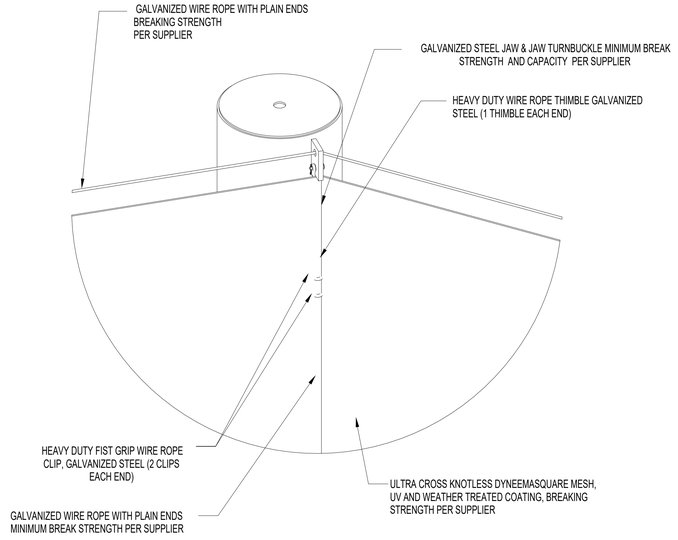
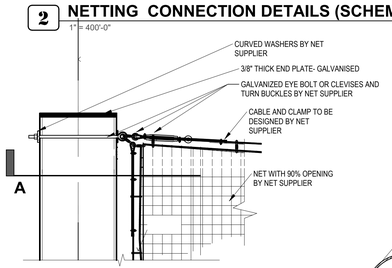
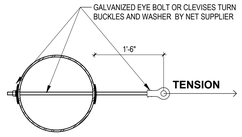




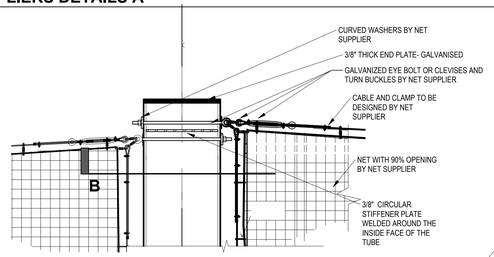
2 NETTING CONNECTION DETAILS (SCHEMATIC) - OPTION 2 PER SUPPLIERS DETAILS A

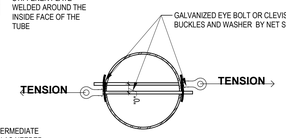
1" = 400'-0"



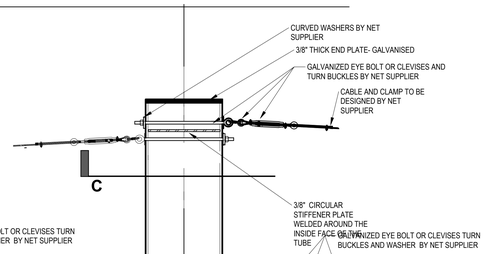


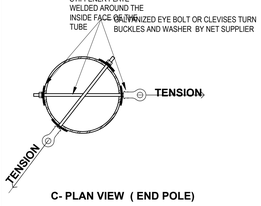
A- PLAN VIEW (END POLE)



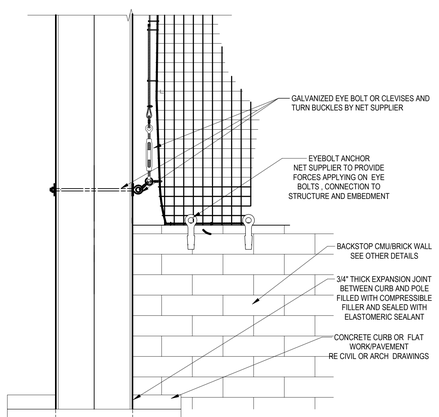


B- PLAN VIEW (END POLE)

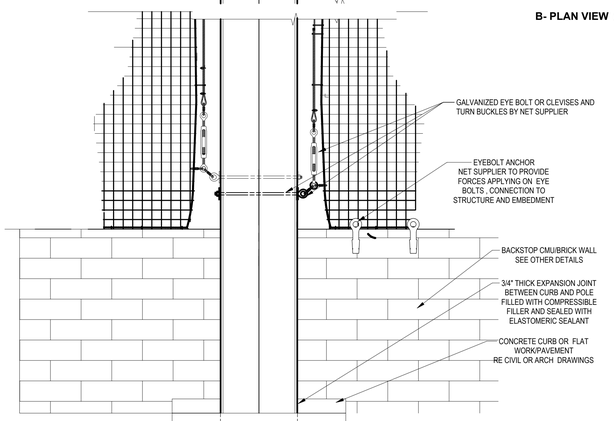




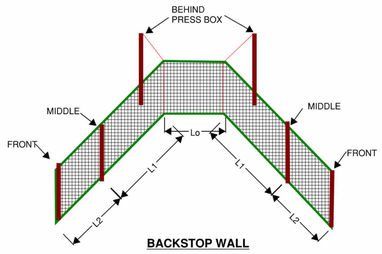
C- PLAN VIEW (END POLE)



I - FRONT POLE (END POLE)



II- MIDDLE POLE



III - POLE BEHIND PRESS BOX

NOTE

1- NET SUPPLIER SHALL SPECIFY AND DESIGN THE NET AND CONNECTION ELEMENTS TO THE STRUCTURE.

2 - REFER TO GENERAL NOTES FOR WIND LOAD CRITERIA THE WEIGHT OF THE NET TO COME UP WITH 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 NETTING POLE AND CONNECTION SCHEMATIC DETAILS - OPTION 1)

3/4" = 1'-0"

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www.bmgstructural.com

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16431 Lexington Blvd.
Sugarland, TX 77479

TBPE Firm Reg. No.23438

STATE OF TEXAS
BINIAM O. GHEBREAB
107333
LICENSED PROFESSIONAL ENGINEER
DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/02/2025
DRAWN BY: HG CHECKED BY: BM
REVISIONS:

No.	Date	Description

100% CD

S3.11-A
FOUNDATION AND SITE DETAILS

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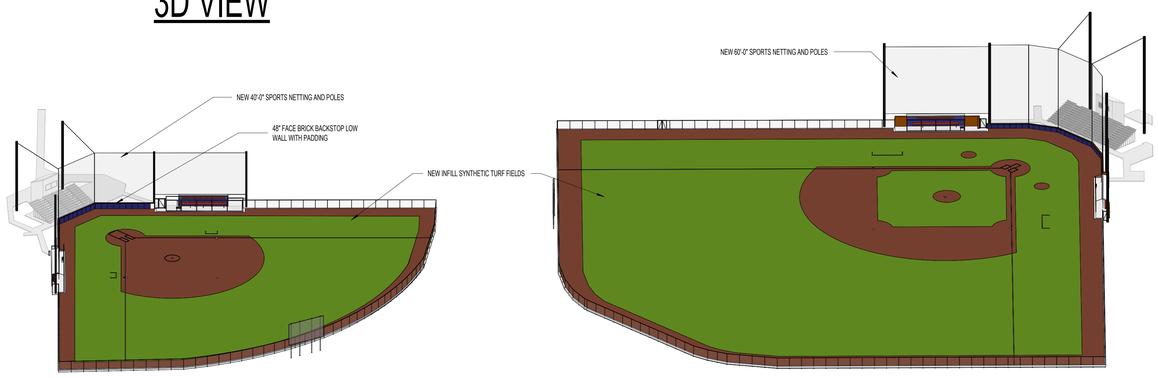
BP010 TURF AND ATHLETICS

ISSUED FOR CONSTRUCTION
DULLES HIGH SCHOOL

SCHOOL LOGOS

3D VIEW



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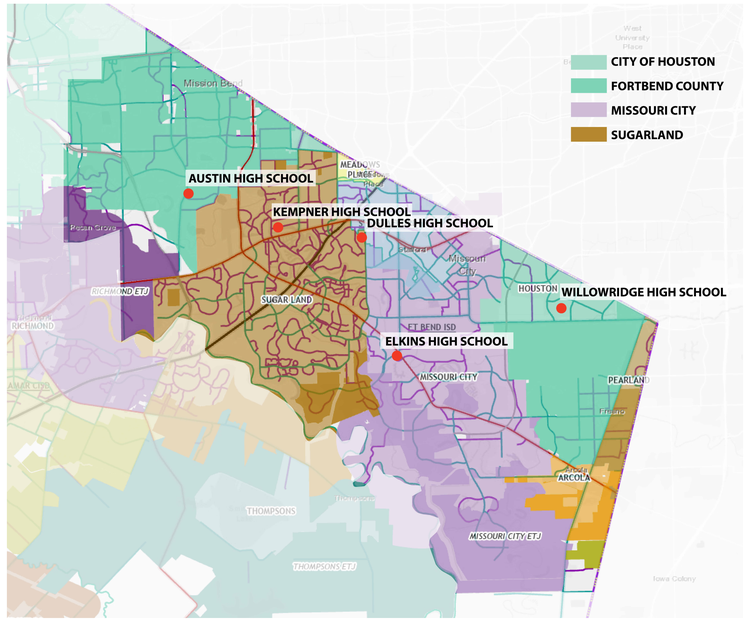
LOCATION MAPS



SCOPE OF WORK

SID 10505
REPLACE NATURAL GRASS BASEBALL AND SOFTBALL FIELDS WITH SYNTHETIC TURF

SID 10510
RENOVATE BASEBALL AND SOFTBALL BACKSTOPS, DUGOUTS, AND NETTING

SCHOOL ADDRESS

Dulles HS, 550 Dulles Ave, Sugar Land, TX 77478

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G0.03-D	TAS 2 OF 2
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C0.01-D	GENERAL NOTES AND DRAWING INDEX
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S3.10-D	FOUNDATION AND SITE SITE DETAILS
S3.11-D	FOUNDATION AND SITE SITE DETAILS

ELECTRICAL ENGINEER

GK ENGINEERS, LLC
5959 WEST LOOP, #350
BELLAIRE, TX 77401
P: 832-713-8674
HTTPS://GK-MEP.COM

STRUCTURAL ENGINEER

BMG STRUCTURAL ENGINEERS
11111 KATY FREEWAY, SUITE 910
HOUSTON, TX 77079
P: 770-329-2276
WWW.BMGSTRUCTURAL.COM

CIVIL ENGINEERING

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FREEWAY, SUITE 1112
HOUSTON, TX 77079
P: 346-204-4854
WWW.TEXSCE.COM

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Houston, Texas 77046
pflugerarchitects.com

BP010 TURF AND ATHLETICS

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

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: MS CHECKED BY: PA
REVISIONS:

No.	Date	Description

ISSUED FOR CONSTRUCTION

G0.00-D
COVER

Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt
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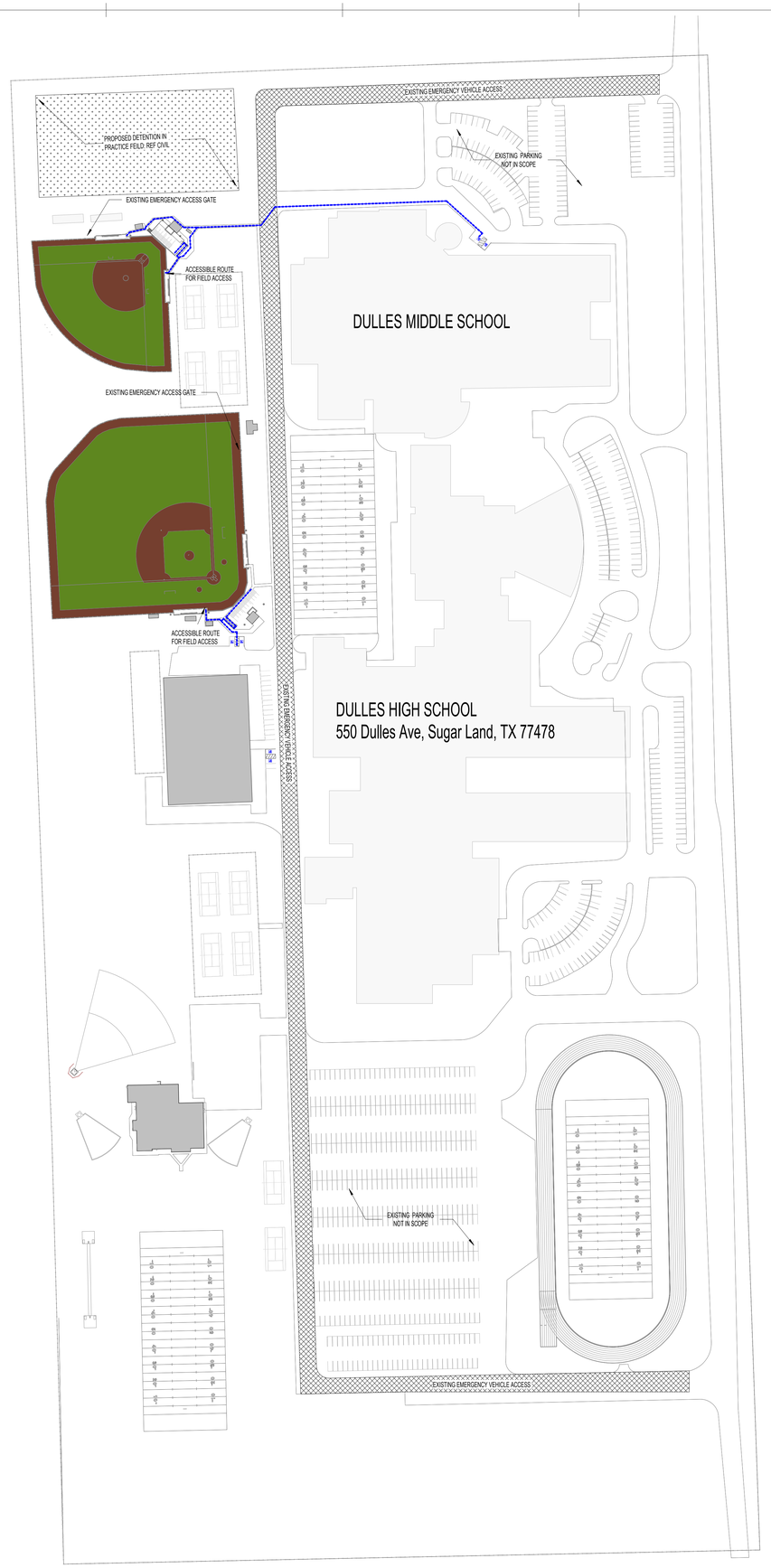


GENERAL NOTES

1. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
2. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.
3. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, IN COMPLIANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION (AHJ). COORDINATE WITH LOCAL FIRE DEPARTMENT FOR APPROVED LOCK TYPE AND INSTALLATION LOCATION.

APPLICABLE CODES

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 101 LIFE SAFETY CODE (CHAPTER 43 - 2006 NFPA 101)
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 170 STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 70 NATIONAL ELECTRICAL CODE
2021 ASHRAE STANDARD 90.1 - ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)
2023 NATIONAL ELECTRICAL CODE

LEGEND

- 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
- EXISTING EMERGENCY ACCESS PATH UNPAVED
- EXISTING EMERGENCY ACCESS PATH PAVED
- EXISTING ACCESSIBLE ROUTE

CODE REVIEW: IBC 2021 - EXISTING BUILDING

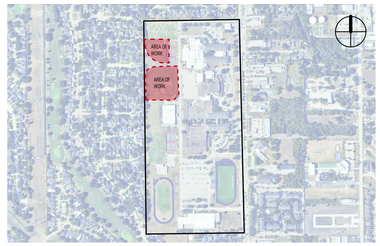
CHAPTER 6 - REPAIRS
NEW AND REPLACEMENT MATERIALS (SEC 602.2)
LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS, PROVIDED NO DANGEROUS OR UNSAFE CONDITION, AS DEFINED IN CHAPTER 2, IS CREATED

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.

CODE PLAN - D 2
SCALE: 1" = 100'-0"



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 10/09/2025

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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

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CODE PLAN

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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.

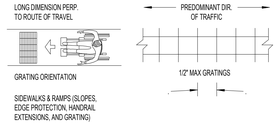
TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

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

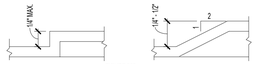


FIGURE 303

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)

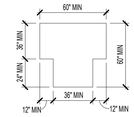


FIGURE 304.3.2 T-SHAPED TURNING SPACE

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

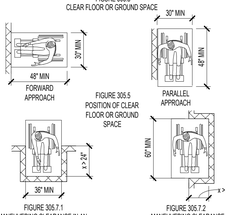


FIGURE 306.1 MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH
FIGURE 305.2 MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

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 OR GROUND, AND 8" D

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.

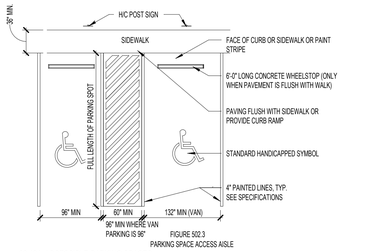
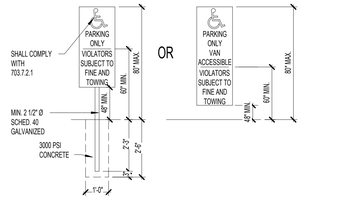


FIGURE 502.3
PARKING SPACE ACCESS AISLE

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.

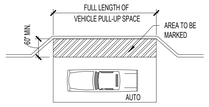
(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).



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.

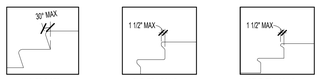


FIGURE 504.5
STAIR NOSINGS

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.

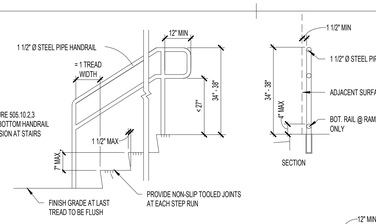


FIGURE 505.10.2,3
TOP AND BOTTOM HANDRAIL EXTENSION AT STAIRS

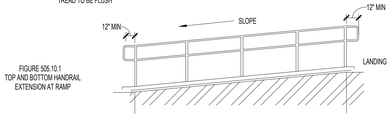


FIGURE 505.10.1
TOP AND BOTTOM HANDRAIL EXTENSION AT RAMP

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)

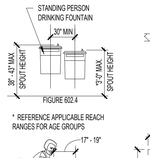
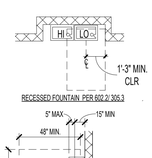


FIGURE 602.4



RECESSED FOUNTAIN, PER 602.2; 305.3

* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS

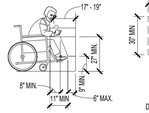




FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION

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

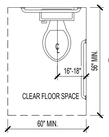


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

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.

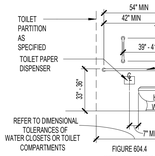


FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

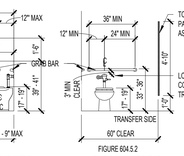


FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

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.

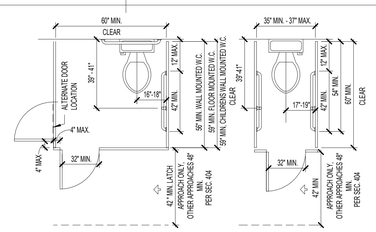


FIGURE 604.8.2
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

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.

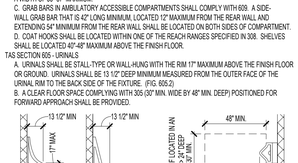
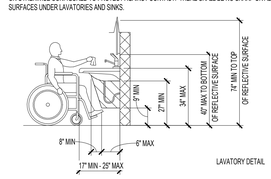
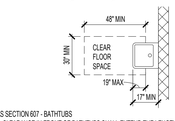


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

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.

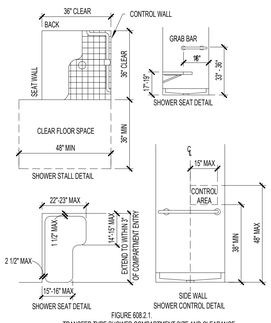


FIGURE 608.2.1
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

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. 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 A

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.

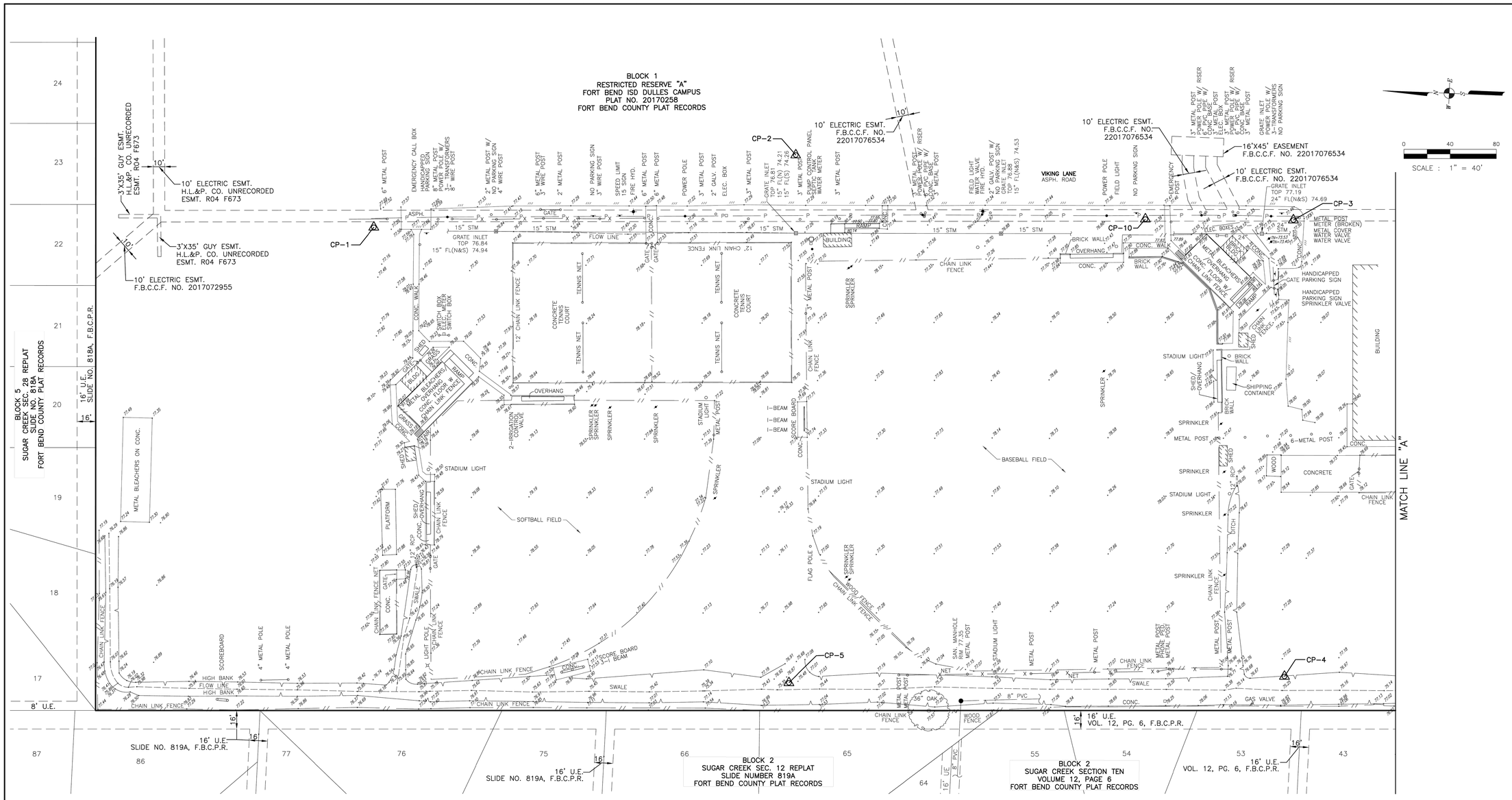
SANITARY SEWER NOTES:

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


BLOCK 1
RESTRICTED RESERVE "A"
FORT BEND ISD DULLES CAMPUS
PLAT NO. 20170258
FORT BEND COUNTY PLAT RECORDS
BLOCK 5
SUGAR CREEK SEC. 2B REPLAT
SLIDE NO. 818A
FORT BEND COUNTY PLAT RECORDS
16' U.E.
SLIDE NO. 818A, F.B.C.P.R.
3"X35' GUY ESMT.
H.L.&P. CO. UNRECORDED
ESMT. R04 F673
10' ELECTRIC ESMT.
H.L.&P. CO. UNRECORDED
ESMT. R04 F673
3"X35' GUY ESMT.
H.L.&P. CO. UNRECORDED
ESMT. R04 F673
10' ELECTRIC ESMT.
F.B.C.C.F. NO. 2017072955
10' ELECTRIC ESMT.
F.B.C.C.F. NO.
22017076534
10' ELECTRIC ESMT.
F.B.C.C.F. NO.
22017076534
16'X45' EASEMENT
F.B.C.C.F. NO. 22017076534
10' ELECTRIC ESMT.
F.B.C.C.F. NO. 22017076534
VIKING LANE
ASPH. ROAD
CP-1
CP-2
CP-3
CP-4
CP-5
CP-10
SCALE : 1" = 40'
0
40
80
MATCH LINE "A"
BLOCK 2
SUGAR CREEK SEC. 12 REPLAT
SLIDE NUMBER 819A
FORT BEND COUNTY PLAT RECORDS
BLOCK 2
SUGAR CREEK SECTION TEN
VOLUME 12, PAGE 6
FORT BEND COUNTY PLAT RECORDS
16' U.E.
SLIDE NO. 819A, F.B.C.P.R.
16' U.E.
VOL. 12, PG. 6, F.B.C.P.R.
BASEBALL FIELD
SOFTBALL FIELD
BUILDING
SCOREBOARD
CONCRETE TENNIS COURT
TENNIS NET
CHAIN LINK FENCE
SPRINKLER
STADIUM LIGHT
SHIPPING CONTAINER
BRICK WALL
CONCRETE
GRASS
SWALE
FLOW LINE
HIGH BANK
WOOD FENCE
GATE
RAMP
SHED
PLATFORM
METAL BLEACHERS ON CONC.
SAN. MANHOLE
RIM ELEV. 77.15
36" OAK
8" PVC
GAS VALVE
SURVEY CONTROL MONUMENTS

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
CP-1	13,791,715.00	3,053,605.67	77.11'	SET 5/8" W/ CAP STAMPED "LANDTECH"
CP-2	13,791,353.12	3,053,682.66	77.99'	SET 5/8" W/ CAP STAMPED "LANDTECH"
CP-3	13,790,921.04	3,053,643.84	77.29'	SET 5/8" W/ CAP STAMPED "LANDTECH"
CP-4	13,790,912.91	3,053,249.69	76.73'	SET 5/8" W/ CAP STAMPED "LANDTECH"
CP-5	13,791,340.73	3,053,226.98	76.02'	SET 5/8" W/ CAP STAMPED "LANDTECH"
CP-10	13,791,048.87	3,053,639.53	77.37'	SET 3/8" W/ CAP STAMPED "LANDTECH"

BENCHMARK:

CITY OF SUGAR LAND MONUMENT NO. SGR-RM003: BRASS DISK LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF DULLES AVENUE AND AVENUE E, SOUTH OF THE AMERICAN CANAL.
ELEVATION = 80.18' (NAVD88/GEOID18)

TOPOGRAPHIC SURVEY
FORT BEND ISD DULLES CAMPUS
FORT BEND COUNTY, TEXAS

S:\2023\2320159 Dulles HS\CADD\Dulles Ball Field Topo.dwg

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

DATE: JANUARY 2024
SCALE: 1" = 40'
DRAWING No.: -D-
JOB No.: 2320159.00
SHEET No. : 1 OF 2

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

DULLES HIGH SCHOOL

Project Info Additional Text Line

500 Dulles AVE, Sugar Land, TX 77478

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

THIS SURVEY IS PROVIDED FOR REFERENCE ONLY. ALL SURVEY INFORMATION INCLUDING BUT NOT LIMITED TO PHYSICAL CHARACTERISTICS, LEGAL LIMITS, UTILITY LOCATIONS AND BENCHMARKS FOR THE PROJECT WAS PROVIDED BY THE OWNER. THE ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY AND EXTENT OF ALL SURVEY INFORMATION PREPARED BY OTHERS AND FURTHER DISCLAIM RESPONSIBILITY FOR INTERPRETATION OF THAT DATA BY BIDDERS AND CONTRACTORS.

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

#	Date	Description

Project Status
C 0.02-D
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 # 2507


STRIP AND REMOVE
EXISTING GRASS FIELD
TO THE REQUIRED SUBGRADE ELEVATIONS
STRIP AND REMOVE
EXISTING GRASS SOFTBALL FIELD
TO THE REQUIRED SUBGRADE ELEVATIONS
STRIP AND REMOVE
EXISTING GRASS BASEBALL FIELD
TO THE REQUIRED SUBGRADE ELEVATIONS
EXISTING UNDERGROUND POWER LINE
TO BE RE-ROUTE
(FIELD VERIFY)
EXISTING UNDERGROUND POWER LINE
TO BE RE-ROUTE
(FIELD VERIFY)
METAL BLEACHERS ON CONC.
CHAIN LINK FENCE
16' U.E.
SLIDE NO. 818A, F.B.C.P.R.
3' GAS LINE ESMT.
SLIDE NO. 819A, 16' U.E. F.B.C.P.R.
SUGAR CREEK BLOCK 2 12 REPLAT
SLIDE NUMBER 819A
FORT BEND COUNTY PLAT RECORDS
SUGAR CREEK BLOCK 2
VOLUME 12, PAGE 6
FORT BEND COUNTY PLAT RECORDS
BLOCK 1
RESTRICTED RESERVE "A"
FORT BEND ISD CAREER CAMPUS
PLAT NO. 20170258
FORT BEND COUNTY PLAT RECORDS
EXISTING FOUL POLE
TO BE REMOVED
EXISTING DUGOUT
TO REMAIN
EXISTING BACKSTOP WALL
TO BE REMOVED
EXISTING BRICK BACK STOP WALL
TO BE REMAIN
EXISTING SHIPPING CONTAINER
TO BE RELOCATED
CONCRETE TENNIS COURT
TENNIS NET
SOFTBALL FIELD
SCORE BOARD
STADIUM LIGHT
FLAG POLE
SHED/ OVERHANG
CONC. WALK
CONC. RAMP
GATE
PLATFORM
SWALE
DITCH
SPRINKLER
METAL POST
WOOD FENCE
SAN. MANHOLE
RIM 77.35
8" PVC
12" RCP
15" RCP
6" METAL POST
EMERGENCY CALL BOX
HANDICAPPED PARKING SIGN
8" METAL POST
POWER POLE W/ 3~ TRANSFORMERS
8" WIRE POST
SWITCH BOX
ELEC. METER
SWITCH BOX
2" METAL POST W/ NO PARKING SIGN
4" WIRE POST
2"-4" REDUCTION
PNEUMATIC VALVE
12' CHAIN LINK FENCE
6" METAL POST
3" WIRE POST
2" METAL POST
NO PARKING SIGN
3" WIRE POST
SPEED LIMIT 15 SIGN
FIRE HYD.
6" METAL POST
GATE
6" METAL POST
POWER POLE
3" METAL POST
2" GALV. POST
ELEC. BOX
3" METAL POST
GRATE INLET
TOP 76.81
15" FL(N) 74.21
15" FL(S) 74.26
3" METAL POST
PUMP CONTROL PANEL
SEPTIC TANK
WATER METER
3" METAL POST
3" METAL POST
POWER POLE W/ RISER
6" PVC PIPE W/
CONC. BASE
3" METAL POST
FIELD LIGHT
WATER VALVE
FIRE HYD.
2" GALV. POST W/
NO PARKING SIGN
GRATE INLET
TOP 76.88
15" FL(N&S) 74.53
POWER POLE
FIELD LIGHT
NO PARKING SIGN
EMERGENCY POST
3" METAL POST
POWER POLE W/ RISER
6" PVC PIPE W/
CONC. BASE
3" METAL POST
ELEC. BOX
3" METAL POST
POWER POLE W/ RISER
6" PVC PIPE W/
CONC. BASE
3" METAL POST
GRATE INLET
POWER POLE W/
3~TRANSFORMERS
NO PARKING SIGN
10' ELECTRIC ESMT
VOL. 2227, PG. 760
F.B.C.C.F. NO. 2007070534
10' ELECTRIC ESMT
VOL. 2227, PG. 754
F.B.C.C.F. NO. 2007070534
15'X30' EASEMENT
F.B.C.C.F. NO. 2007070534
3'X35' GUY ESMT.
H.L.&P. CO. UNRECORDED
ESMT. ROI FB73
10' ELECTRIC ESMT
H.L.&P. CO. UNRECORDED
ESMT. ROI FB73
15' ELECTRIC EASEMENT
F.B.C.C.F. NO. 2007070534
10' ELECTRIC ESMT
H.L.&P. CO. UNRECORDED
ESMT. ROI FB73
CP-1
CP-2
CP-3
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CP-36
CP-37
CP-38
CP-39
CP-40

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DULLES HIGH SCHOOL

Project Info Additional Text Line
500 Dulles AVE, Sugar Land, TX 77478

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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH L. JURADO
119993
10/09/2025

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

Project Status
C 1.00-D
CIVIL SPORTS
OVERALL SITE PLAN

TSCE PROJECT # 2507

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-D THROUGH C 5.03-D FOR DETAILS.

40' 20' 0 40' 80'

TEXAS SPORTS & CIVIL ENGINEERING
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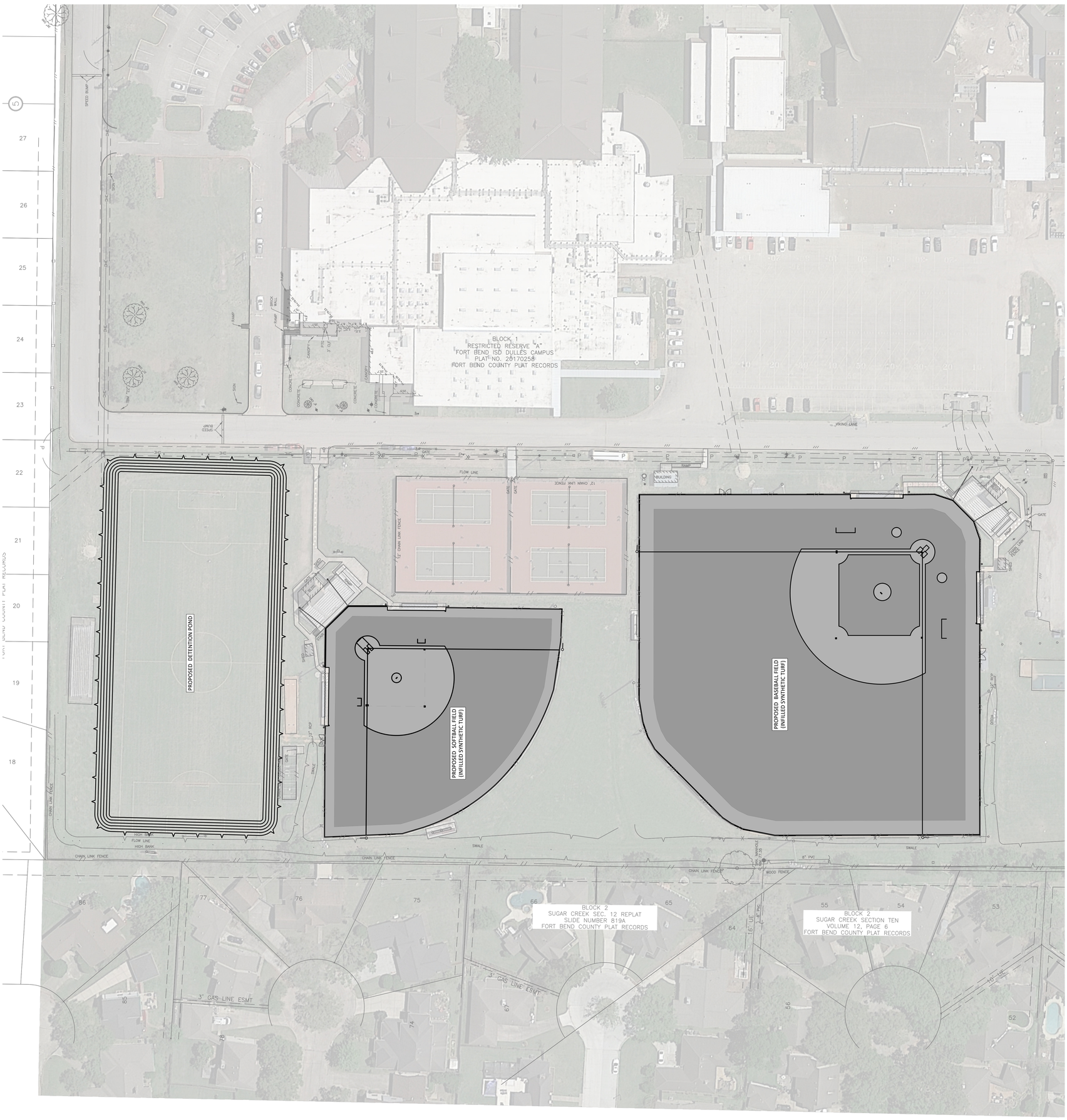

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SUGAR LAND, TX 77479

KENNETH L. JURADO
119993
STATE OF TEXAS
10/09/2025

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

Project Status
C 1.01-D
CIVIL SPORTS
SITE PLAN

TSCE PROJECT # 2507

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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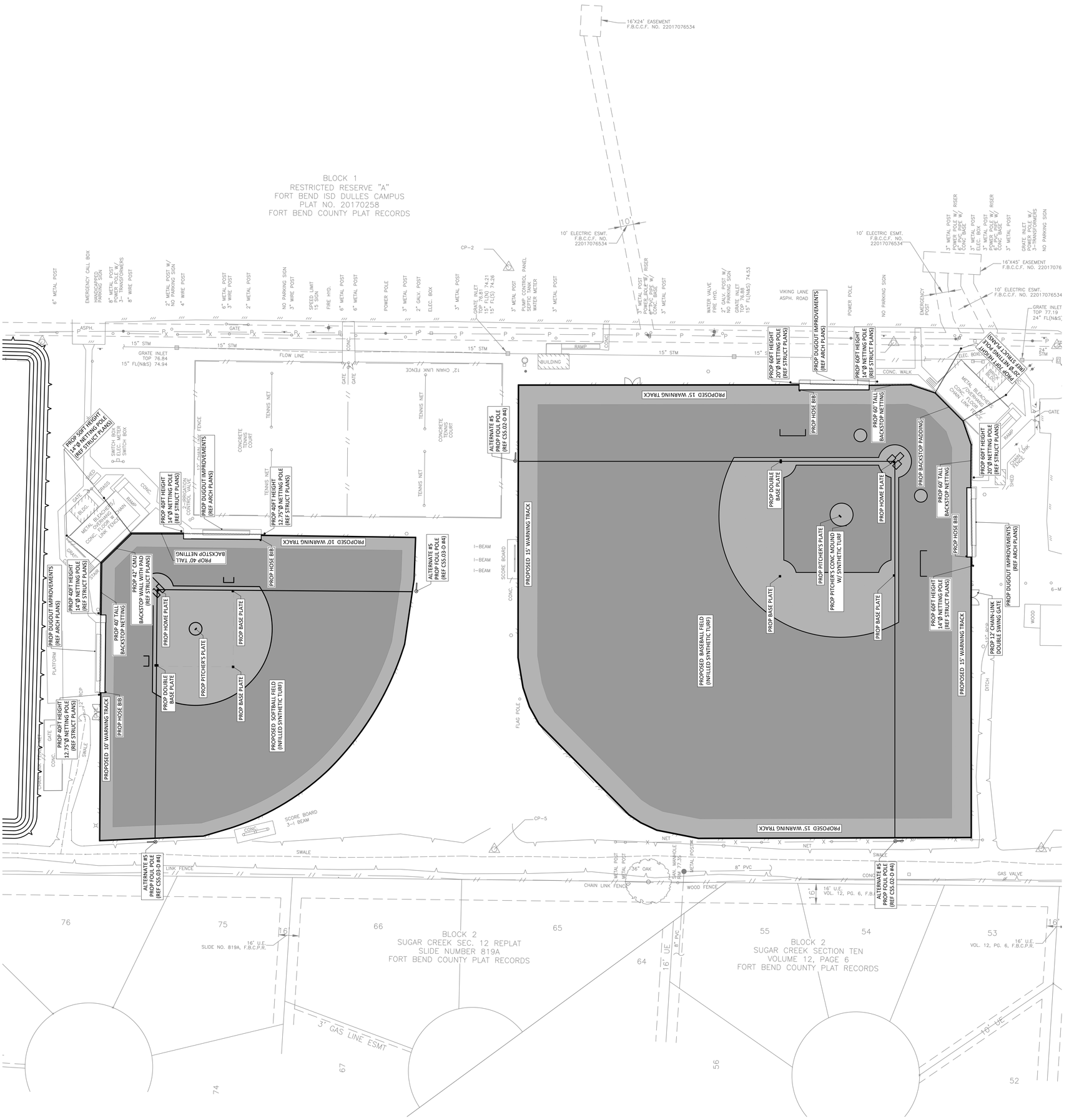
NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING CONDITIONS AND GROUND ELEVATIONS.
2. CONTRACTOR TO SEE SHEET C 5.01-D THROUGH C 5.03-D FOR DETAILS.

15' 30' 0 30' 60'



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DULLES HIGH SCHOOL
Project Info Additional Text Line
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SUGAR LAND, TX 77479

KENNETH L. JURADO 119931 LICENSED STATE LAND SURVEYOR
10/09/2025

PROJECT NO. BBY12
DATE NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS
1 Date Description

Project Status
C 2.01-D
CIVIL SPORTS
DRAINAGE PLAN

TSCE PROJECT # 2507

TEXAS SPORTS & CIVIL ENGINEERING
11910 GREENS CROSSING, SUITE 112
HOUSTON, TEXAS 77067
PHONE No. 346.204.4854
FIRM No. 19645 WWW.TXSCE.COM
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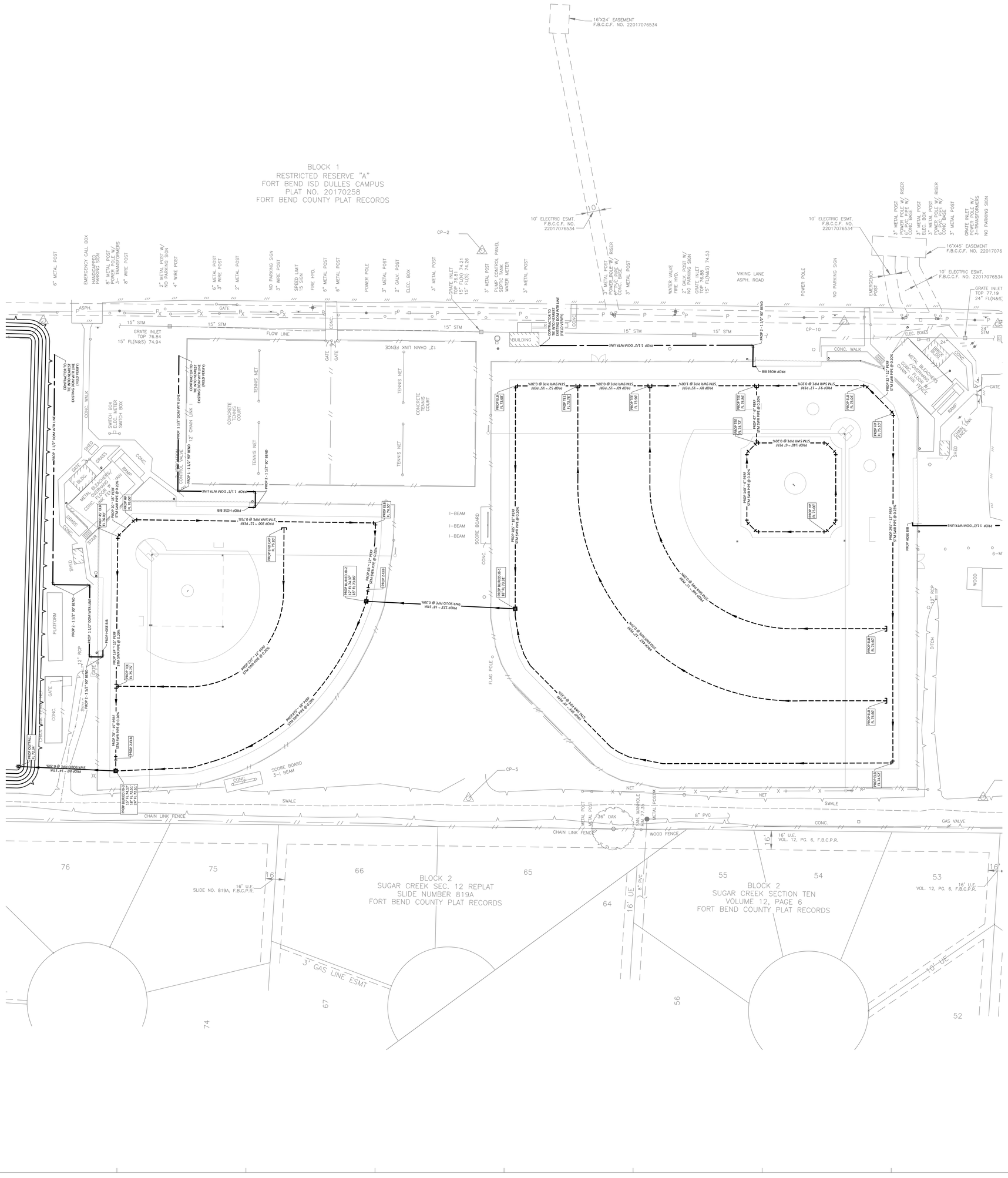
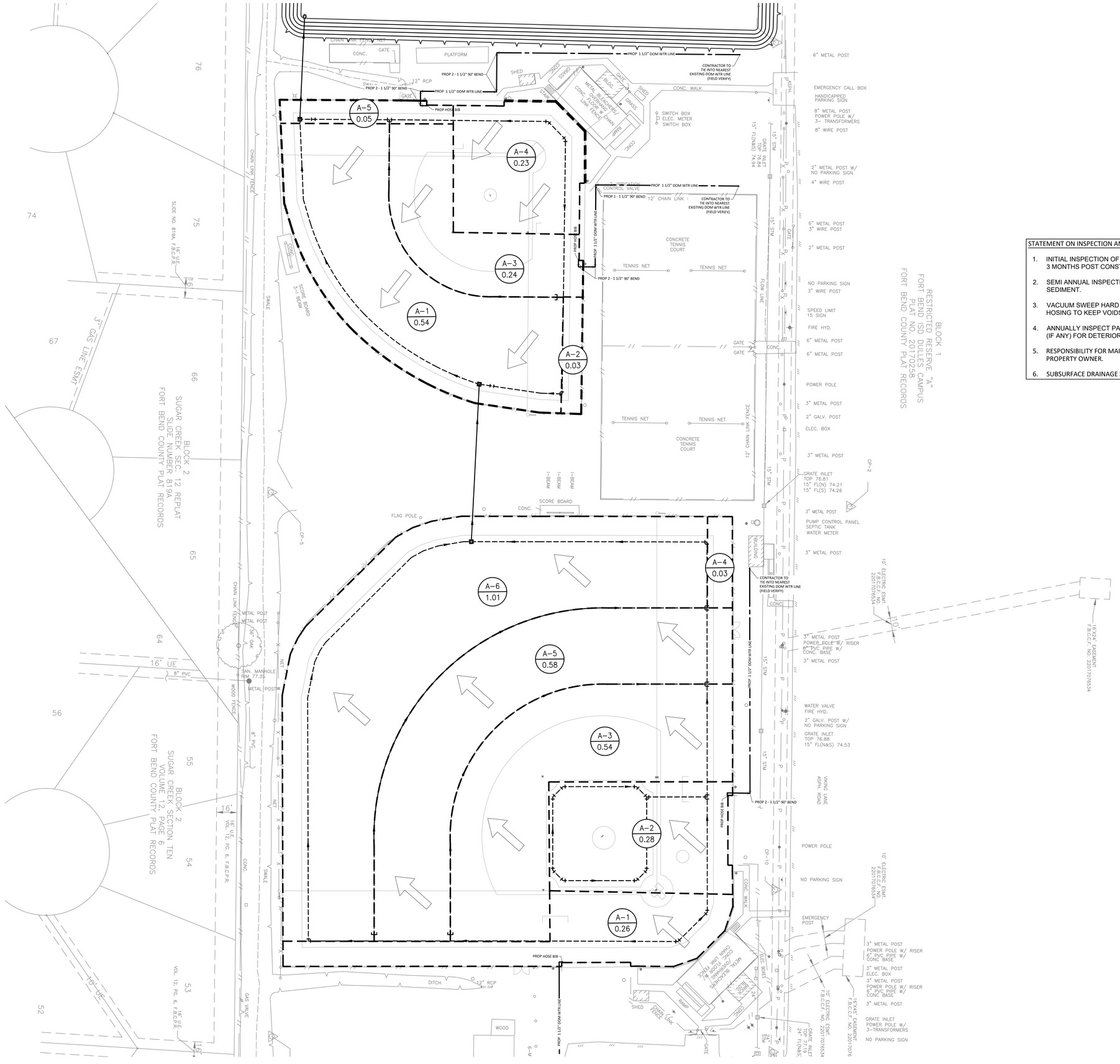
NOTES:
1. CONTRACTOR TO CONTACT ENGINEER IF THE EXISTING CONDITIONS SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.

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' 0 30' 60'

N





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DULLES HIGH SCHOOL

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SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER

10/09/2025

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

#	Date	Description

Project Status

C 2.11-D

CIVIL SPORTS DRAINAGE AREA MAP

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
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TSCE PROJECT # 2507

CITY OF SUGAR LAND
STORM SEWER CALCULATIONS

Storm Frequency: 2 year

Runoff Coefficient: Turf 0.70

Project: Dulles HS - Baseball Field
Job No.:
By: BG
Date: 9/18/2025

b = 45.19
d = 8.51
e = 0.7122

Max. HGL Starting Elev. = 76.03

Total Drainage Area = 2.74 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-2	320.00	12	HDPE	0.23%	12,107	0.28	0.70	0.28	23.0	3.87	0.75	1.84	2.34	0.96	0.038%	0.12	77.50	76.00	75.88	75.60	74.88	1.50	0.90	1.62	5.56
A-2	A-3	91.00	12	HDPE	0.20%	12,583	0.29	0.70	0.57	28.5	3.45	1.37	1.72	2.19	1.74	0.126%	0.11	77.50	75.81	75.70	74.88	74.70	1.69	1.62	1.80	0.87
A-3	A-5	89.00	12	HDPE	0.28%	23,641	0.54	0.70	1.11	29.4	3.39	2.64	2.05	2.61	3.36	0.466%	0.41	77.50	75.86	75.45	74.70	74.45	1.64	1.80	2.05	0.44
A-5	A-4	60.00	15	HDPE	0.23%	25,162	0.58	0.70	1.69	29.9	3.36	3.97	6.78	2.76	3.24	0.322%	0.19	77.50	75.75	75.56	74.45	74.31	1.75	1.80	1.94	0.31
A-6	A-4	500.00	18	HDPE	0.24%	44,515	1.02	0.70	1.02	30.2	3.35	2.39	5.61	3.18	1.35	0.044%	0.22	77.50	76.03	75.81	75.52	74.31	1.47	0.48	1.69	6.15
A-4	OUT-1	52.00	15	HDPE	0.19%	1,443	0.03	0.70	2.74	36.3	3.01	5.78	3.08	2.51	4.71	0.682%	0.35	77.50	75.81	75.46	74.31	74.21	1.69	1.94	2.04	0.18

CITY OF SUGAR LAND
STORM SEWER CALCULATIONS

Storm Frequency: 100 year

Runoff Coefficient: Turf 0.70

Project: Dulles HS - Baseball Field
Job No.:
By: BG
Date: 9/18/2025

b = 42.99
d = 1.08
e = 0.5274

Max. HGL Starting Elev. = 77.50

Total Drainage Area = 2.74 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-2	320.00	12	HDPE	0.23%	12,107	0.28	0.70	0.28	23.0	8.03	1.56	1.84	2.34	1.99	0.164%	0.52	77.50	76.40	75.88	75.60	74.88	1.10	0.90	1.62	2.68
A-2	A-3	91.00	12	HDPE	0.20%	12,583	0.29	0.70	0.57	25.7	7.60	3.01	1.72	2.19	3.84	0.610%	0.56	77.50	76.26	75.70	74.88	74.70	1.24	1.62	1.80	0.40
A-3	A-5	89.00	12	HDPE	0.28%	23,641	0.54	0.70	1.11	26.1	7.54	5.86	2.05	2.61	7.46	2.301%	2.05	77.50	77.50	75.45	74.70	74.45	0.00	1.80	2.05	0.20
A-5	A-4	60.00	15	HDPE	0.23%	25,162	0.58	0.70	1.69	26.3	7.51	8.87	6.78	2.76	7.23	1.606%	0.96	77.50	76.52	75.56	74.45	74.31	0.98	1.80	1.94	0.14
A-6	A-4	500.00	18	HDPE	0.24%	44,515	1.02	0.70	1.02	26.4	7.49	5.36	5.61	3.18	3.03	0.222%	1.11	77.50	76.92	75.81	75.52	74.31	0.58	0.48	1.69	2.75
A-4	OUT-1	52.00	15	HDPE	0.19%	1,443	0.03	0.70	2.74	29.1	7.12	13.67	3.08	2.51	11.14	3.817%	1.98	77.50	77.44	75.46	74.31	74.21	0.06	1.94	2.04	0.08

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KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER
10/09/2025

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

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TSCE PROJECT # 2507

Project Status
C 2.12-D
CIVIL SPORTS BASEBALL CALCULATIONS

CITY OF SUGAR LAND
STORM SEWER CALCULATIONS

Storm Frequency: 2 year

Runoff Coefficient: Turf 0.70

Project: Dulles HS - Softball Field
Job No.:
By: BG
Date: 9/18/2025

b = 45.19
d = 8.51
e = 0.7122

Max. HGL Starting Elev. = 77.00

Total Drainage Area = 1.13 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-2	340.00	15	HDPE	0.20%	23,924	0.55	0.70	0.55	24.0	3.79	1.46	3.14	2.56	1.19	0.043%	0.15	77.75	77.00	76.85	76.28	75.60	0.75	0.22	0.90	4.78
A-2	A-3	76.00	15	HDPE	0.20%	1,462	0.03	0.70	0.58	28.8	3.43	1.40	3.12	2.54	1.14	0.040%	0.03	78.00	76.73	76.70	75.60	75.45	1.27	1.15	1.30	1.11
A-3	A-4	97.00	15	HDPE	0.20%	10,594	0.24	0.70	0.83	29.9	3.36	1.94	3.11	2.53	1.58	0.077%	0.07	77.50	76.58	76.51	75.45	75.26	0.92	0.80	0.99	1.02
A-5	A-4	196.00	12	HDPE	0.24%	2,538	0.06	0.70	0.06	30.9	3.30	0.13	3.83	2.44	0.17	0.001%	0.00	78.00	76.26	76.26	75.74	75.26	1.74	1.26	1.74	19.06
A-4	OUT-2	160.00	15	HDPE	0.20%	10,514	0.24	0.70	1.13	50.0	2.49	1.96	3.14	2.56	1.60	0.079%	0.13	78.30	76.32	76.19	75.26	74.94	1.98	1.79	2.11	1.67

CITY OF SUGAR LAND
STORM SEWER CALCULATIONS

Storm Frequency: 100 year

Runoff Coefficient: Turf 0.70

Project: Dulles HS - Softball Field
Job No.:
By: BG
Date: 9/18/2025

b = 42.99
d = 1.08
e = 0.5274

Max. HGL Starting Elev. = 77.48

Total Drainage Area = 1.13 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-2	340.00	15	HDPE	0.20%	23,924	0.55	0.70	0.55	24.0	7.86	3.02	3.14	2.56	2.46	0.186%	0.63	77.75	77.48	76.85	76.28	75.60	0.27	0.22	0.90	2.30
A-2	A-3	76.00	15	HDPE	0.20%	1,462	0.03	0.70	0.58	26.3	7.50	3.06	3.12	2.54	2.49	0.191%	0.15	78.00	76.85	76.70	75.60	75.45	1.15	1.15	1.30	0.51
A-3	A-4	97.00	15	HDPE	0.20%	10,594	0.24	0.70	0.83	26.8	7.43	4.30	3.11	2.53	3.50	0.377%	0.37	77.50	76.88	76.51	75.45	75.26	0.62	0.80	0.99	0.46
A-5	A-4	196.00	12	HDPE	0.24%	2,538	0.06	0.70	0.06	27.3	7.37	0.30	3.83	2.44	0.38	0.006%	0.01	78.00	76.27	76.26	75.74	75.26	1.73	1.26	1.74	8.54
A-4	OUT-2	160.00	15	HDPE	0.20%	10,514	0.24	0.70	1.13	35.8	6.41	5.05	3.14	2.56	4.12	0.521%	0.83	78.30	77.02	76.19	75.26	74.94	1.28	1.79	2.11	0.65

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KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
ENGINEER
10/09/2025

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

Project Status
C 2.13-D
CIVIL SPORTS
SOFTBALL
CALCULATIONS

TEXAS SPORTS & CIVIL ENGINEERING
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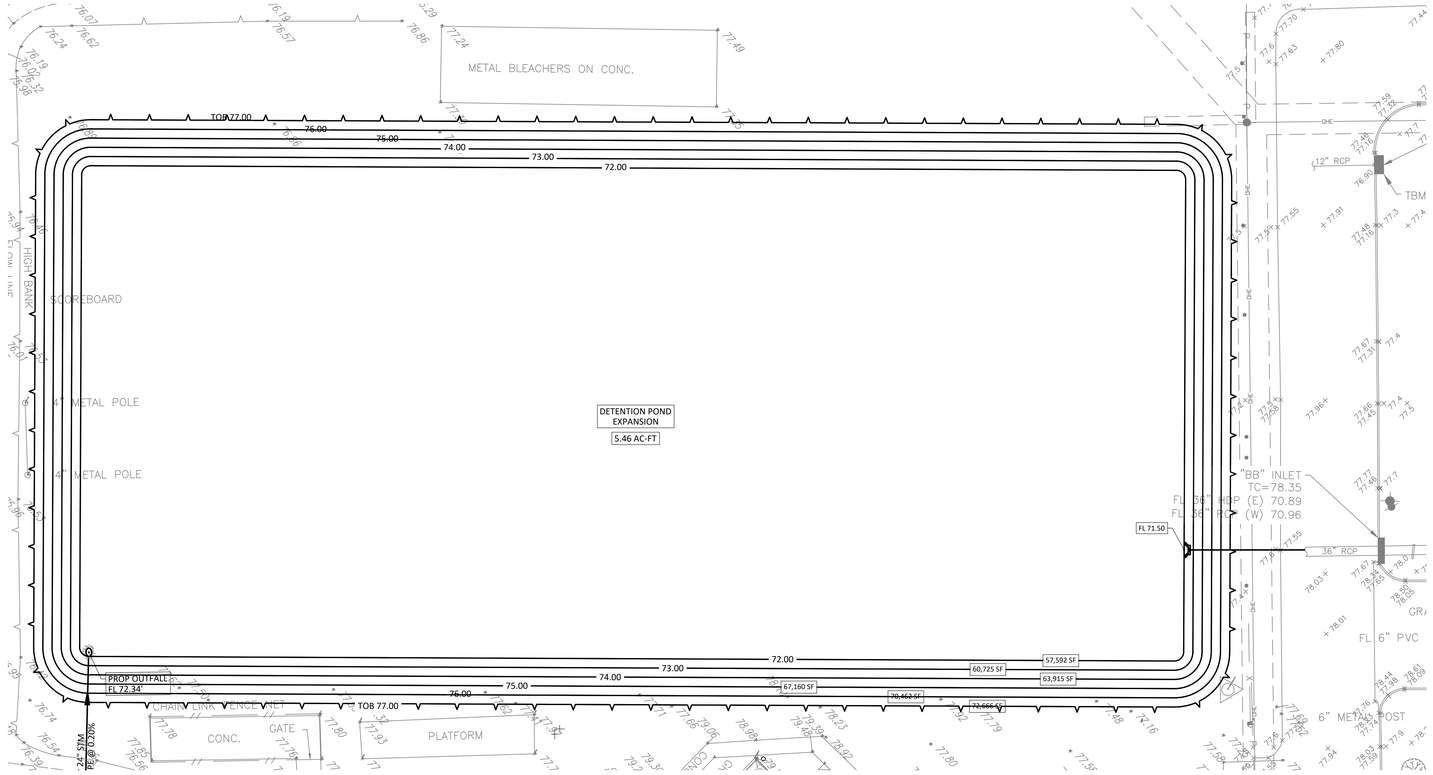

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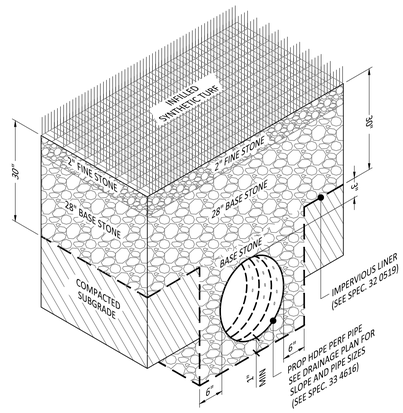
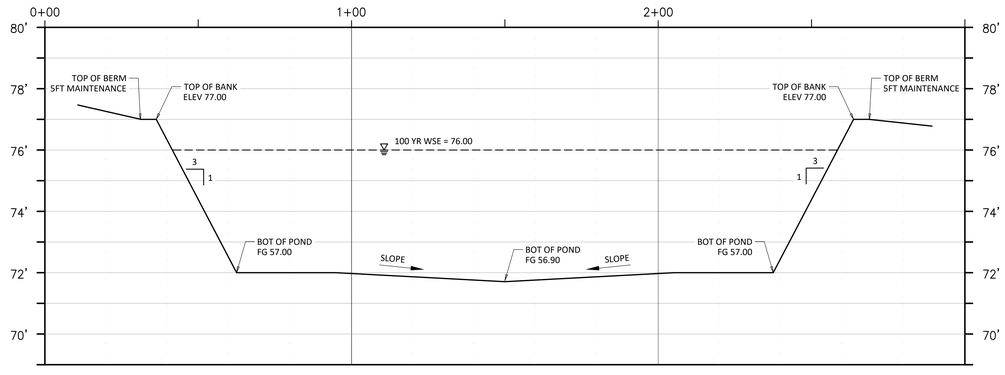


X N.T.S. INFILLED SYNTHETIC TURF TRENCH SECTION (ALTERNATE #3)



DETENTION POND (SECTION A - A)

SCALE = 1" = 2' / 1" = 20'

DETENTION REQUIREMENTS

DETENTION NEEDED = 4.99 AC-FT
DETENTION UNDERNEATH FIELDS 8" OF ROCK = 1.12 AC-FT
DETENTION IMPERVIOUS = 1.59 AC-FT
4.99 - 1.12 = 3.87 AC.FT + 1.59 = 5.46 AC.FT
VOLUME PROVIDED & NEEDED = 5.46 AC-FT

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' 20' 20' 0 40'

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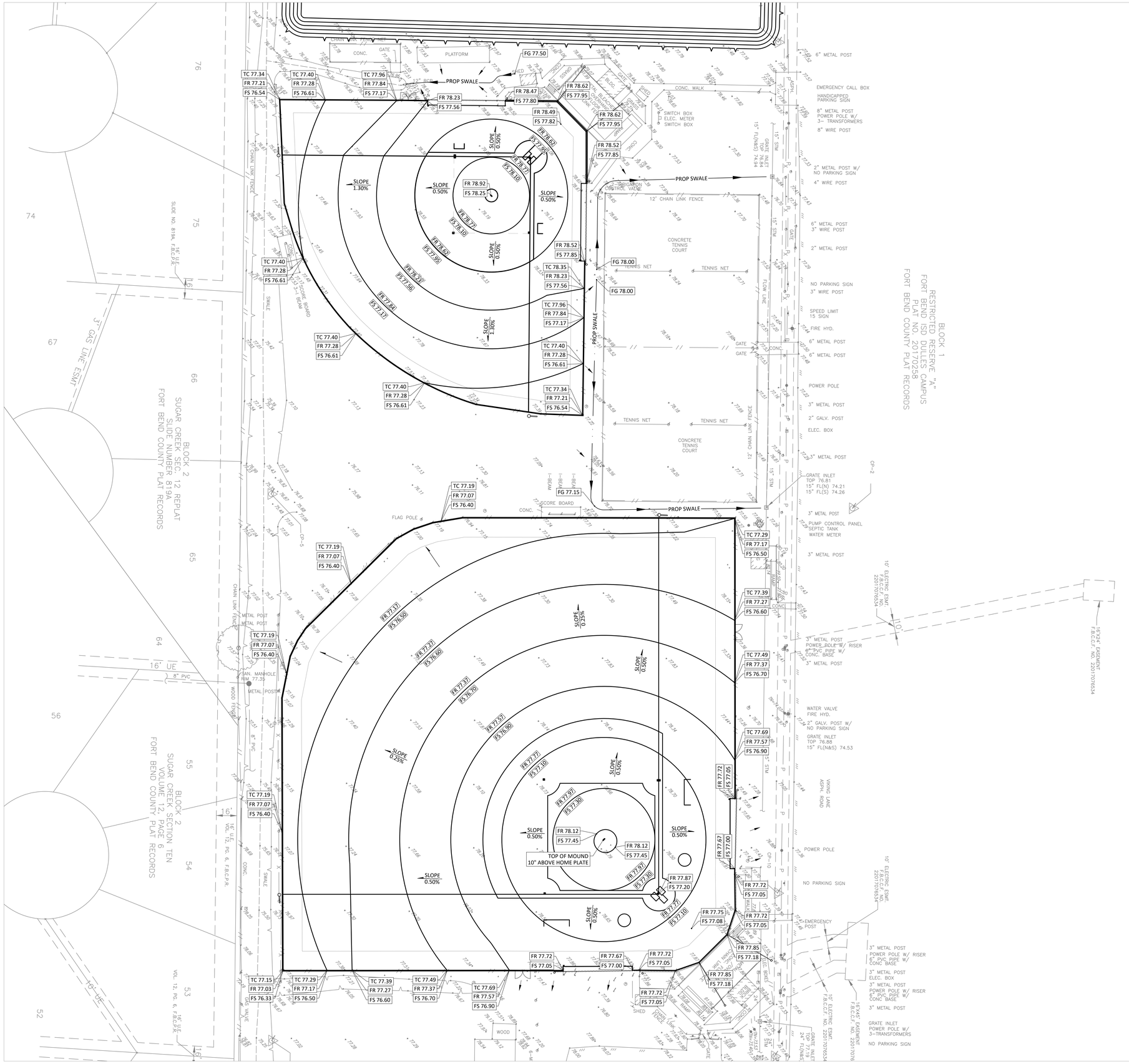
10/09/2025

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

Project Status
C 2.11-D
CIVIL SPORTS DETENTION POND



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 THERE IS POSITIVE DRAINAGE FROM THE DUGOUT TO EXIST INLET OR SWALE.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FR XX.XX'	FINISH ROCK
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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KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

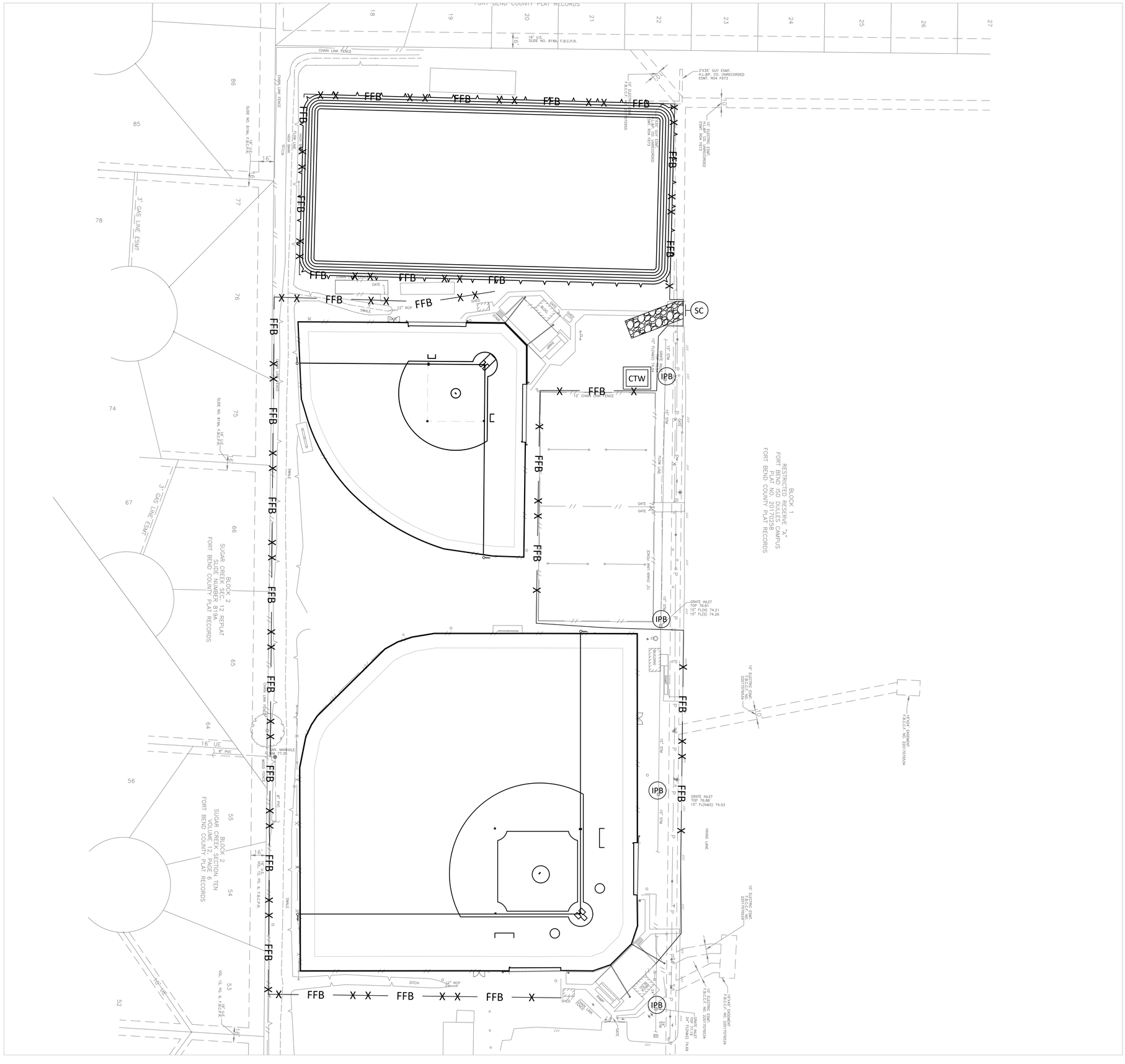
10/09/2025

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

#	Date	Description

Project Status

C 3.01-D
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' 40'
40' 0 80'

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REGISTERED PROFESSIONAL ENGINEER

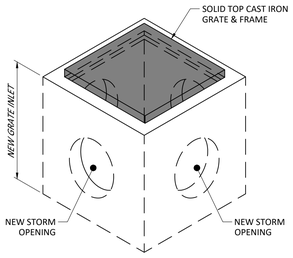
10/09/2025

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

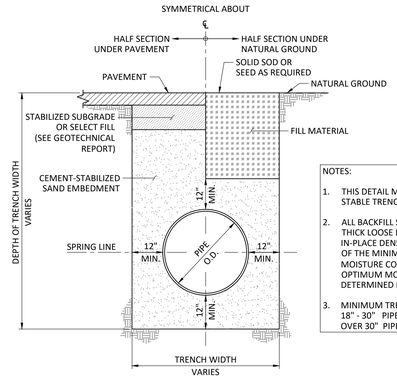
#	Date	Description

Project Status

C 4.01-D
CIVIL SPORTS
SWPP PLAN



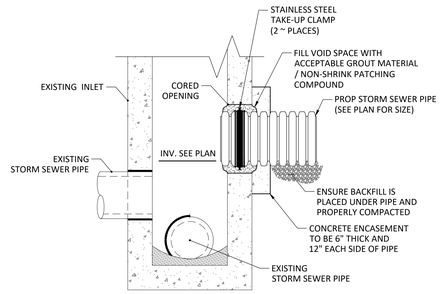
1 JUNCTION BOX
N.T.S.



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.
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

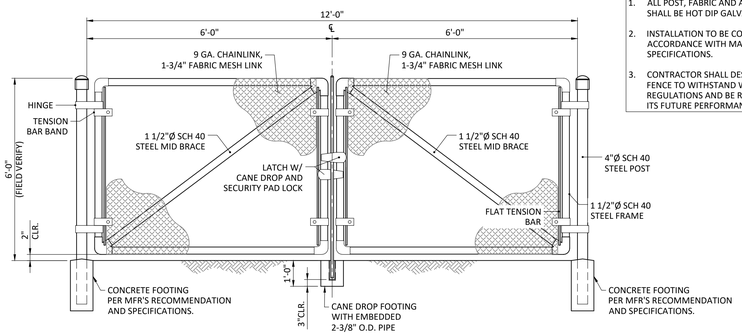
2 STORM SEWER BEDDING AND BACKFILL DETAIL
N.T.S.



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.

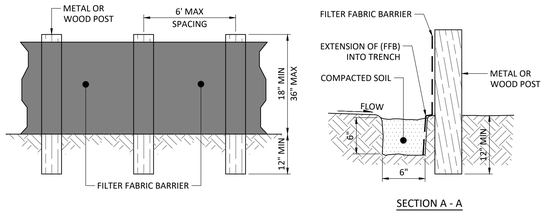
3 STORM SEWER PIPE CONNECTION INTO EXISTING INLET
N.T.S.



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.

7 TYPICAL 12' CHAINLINK SWING GATE
N.T.S.



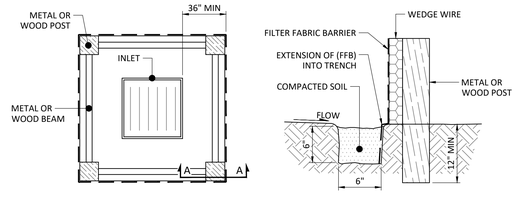
SECTION A - A

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.



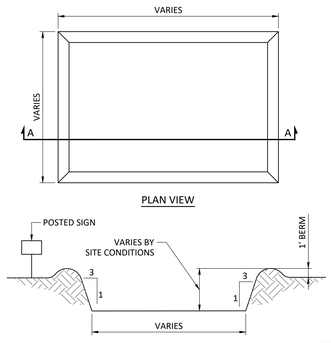
PLAN VIEW SECTION A - A

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.



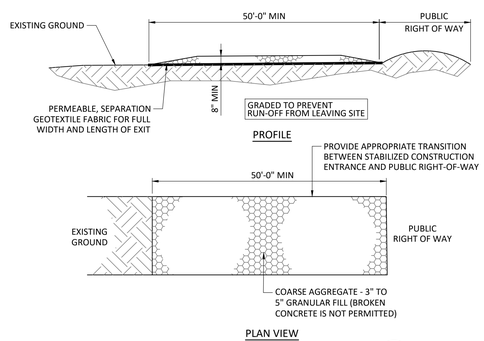
PLAN VIEW SECTION A - A

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.



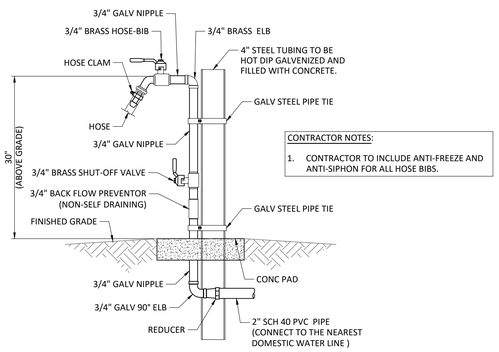
PLAN VIEW

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.



CONTRACTOR NOTES:

1. CONTRACTOR TO INCLUDE ANTI-FREEZE AND ANTI-SIPHON FOR ALL HOSE BIBS.

12 HOSE BIB DETAIL
N.T.S.

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

DULLES HIGH SCHOOL
Project Info Additional Text Line
500 Dulles AVE, Sugar Land, TX 77478

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

KENNETH I. JURADO 119993 LICENSED STATE
10/09/2025

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

#	Date	Description

Project Status
C 5.01-D
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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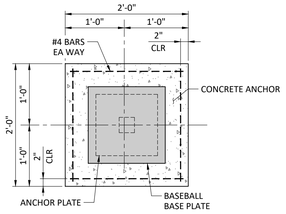

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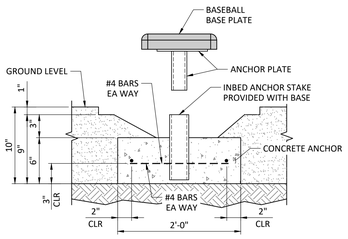

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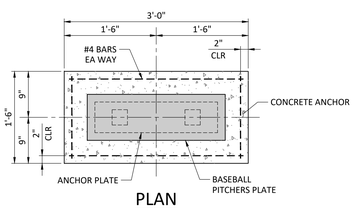
1 N.T.S. BASEBALL BASE PLATE ANCHOR



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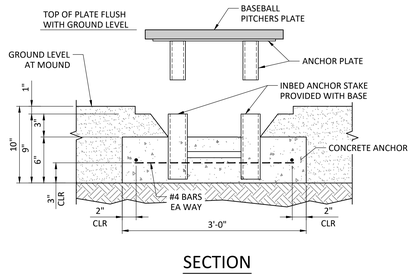
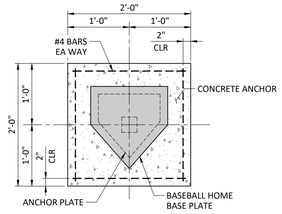


SECTION

2 N.T.S. BASEBALL PITCHER'S PLATE ANCHOR



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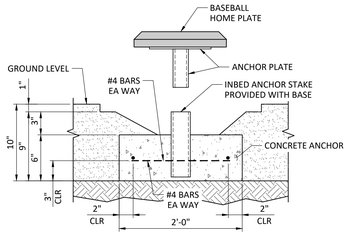

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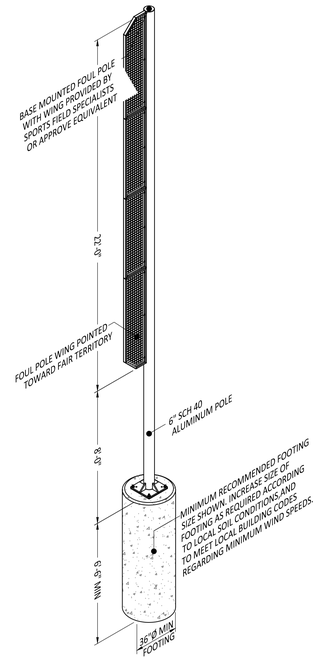
3 N.T.S. BASEBALL HOME PLATE ANCHOR



NOTE:
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4 N.T.S. BASEBALL 30FT FOUL POLE (ALTERNATE #5)

SUBGRADE NOTE:
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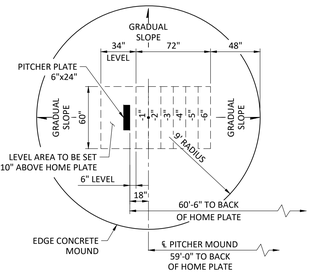

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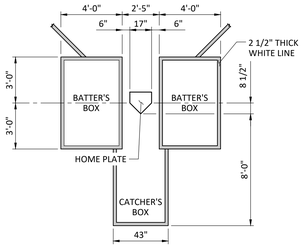
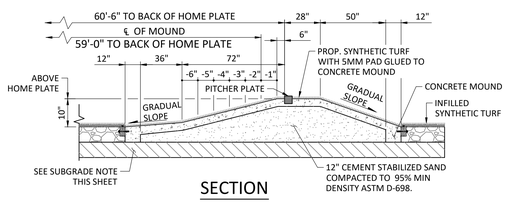
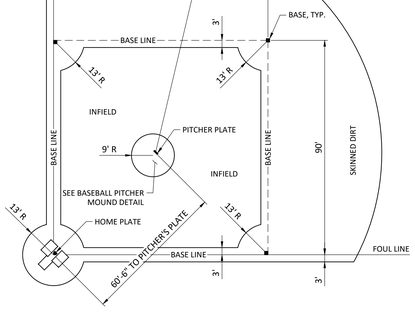


5 N.T.S. BASEBALL BATTER'S AND CATCHER'S BOX

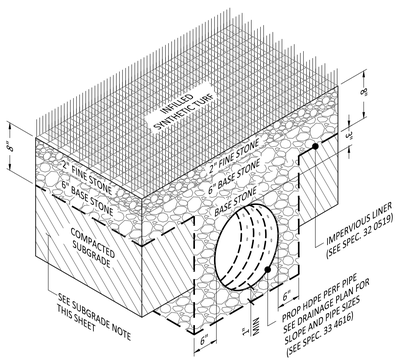


SECTION

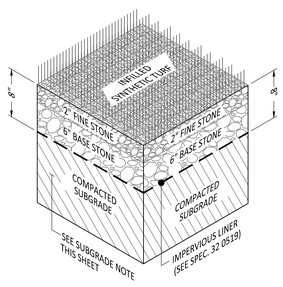
6 N.T.S. BASEBALL PITCHER CONCRETE MOUND WITH SYNTHETIC TURF



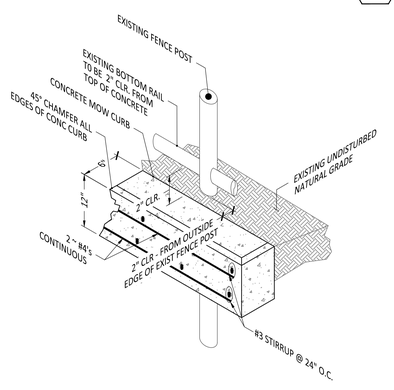
7 N.T.S. BASEBALL INFIELD LAYOUT



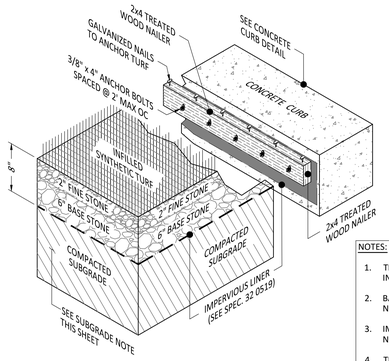
8 N.T.S. INFILLED SYNTHETIC TURF TRENCH SECTION



9 N.T.S. INFILLED SYNTHETIC TURF SECTION "FIELD AND BULLPEN"



10 N.T.S. CONCRETE MOW CURB AT EXISTING FENCE



11 N.T.S. WOOD NAILER SECTION

NOTES:
1. TREATED WOOD NAILER TO BE RATED FOR USE IN SUBTERRANEAN CONDITIONS.
2. BASE STONE TO BE FLUSH WITH TOP OF NAILER.
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4. TREATED WOOD NAILER TO BE PLACED 2" BELOW THE CONCRETE CURB OR THE THICKNESS OF THE TURF PRODUCT TO BE USED.

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United States Patent #8,337,340, Issued December 25, 2012



* Designed specifically for synthetic turf applications
* No ground anchor installation is necessary
* Durable all rubber mesh reinforced construction
* Official size - (1) double first base and (2) TurfBase Bases

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TBDS - TurfBase® Double Base

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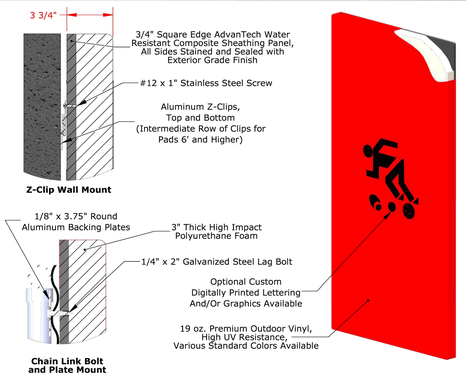

Part Numbers *	Size	Attachment
BFWPZ44/BFWPZ44DG	4'W x 4'L x 3.75"D	Z-Clip Wall Mount
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BFWPZ48/BFWPZ48DG	4'W x 8'L x 3.75"D	Z-Clip Wall Mount
BFWPZ-NSS/BFWPZDG-NSS	_'W x _'L x 3.75"D	Z-Clip Wall Mount
BFWPCL44/BFWPCL44DG	4'W x 4'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL46/BFWPCL46DG	4'W x 6'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL48/BFWPCL48DG	4'W x 8'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL-NSS/BFWPCLDG-NSS	_'W x _'L x 3.75"D	Chain Link Bolt and Plate Mount

*DG Part Number Denotes Custom Digitally Printed Graphics

Final Layout and/or Graphic Rendering to be Completed upon Verification of Field Measurements

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BaseZone® Field Wall Padding

Not To Scale — Sportsfield Specialties Inc 08182021

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TSCE PROJECT # 2507

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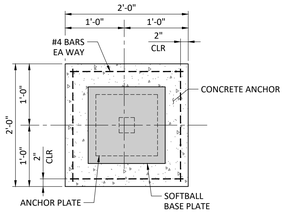
KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

10/09/2025

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

#	Date	Description

Project Status
C 5.02-D
CIVIL SPORTS BASEBALL DETAILS



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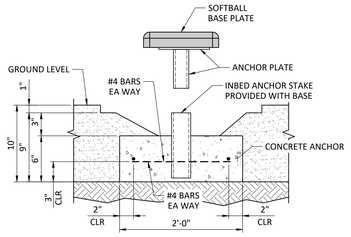
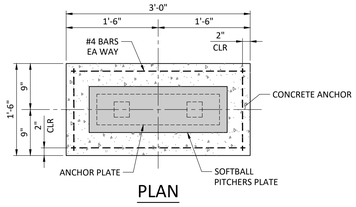


SECTION

1 N.T.S. SOFTBALL BASE PLATE ANCHOR



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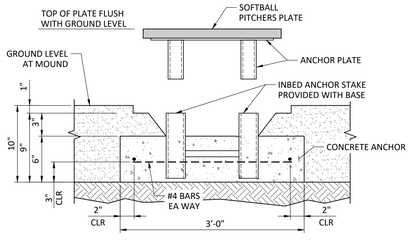

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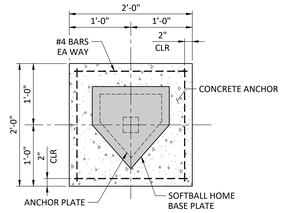
2 N.T.S. SOFTBALL PITCHER'S PLATE ANCHOR



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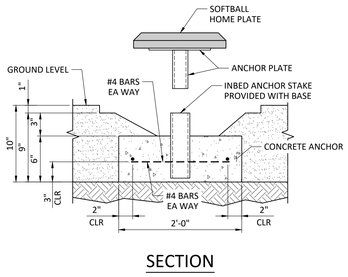

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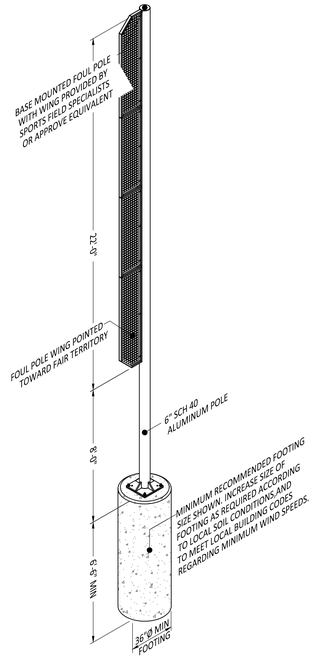
3 N.T.S. SOFTBALL HOME PLATE ANCHOR



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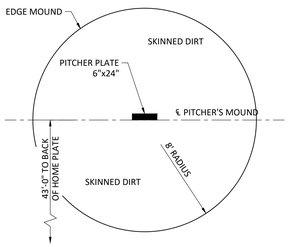
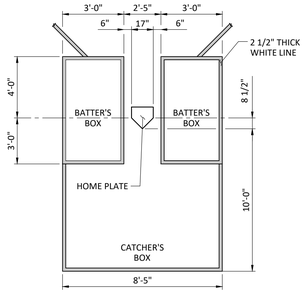
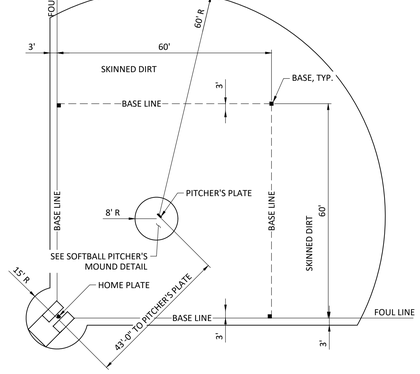


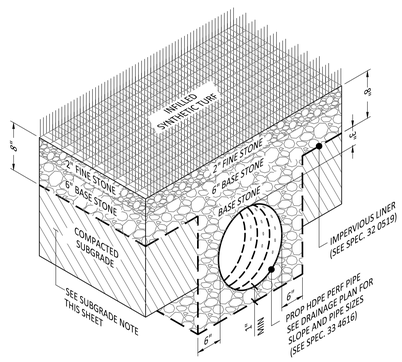
5 N.T.S. SOFTBALL PITCHER'S MOUND



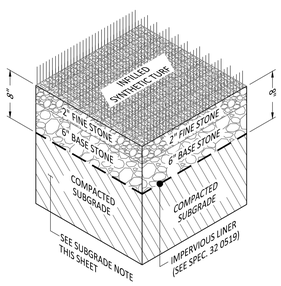
6 N.T.S. SOFTBALL BATTER'S AND CATCHER'S BOX



7 N.T.S. SOFTBALL INFIELD LAYOUT



8 N.T.S. INFILLED SYNTHETIC TURF TRENCH SECTION



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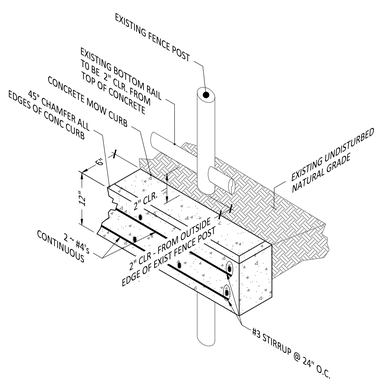
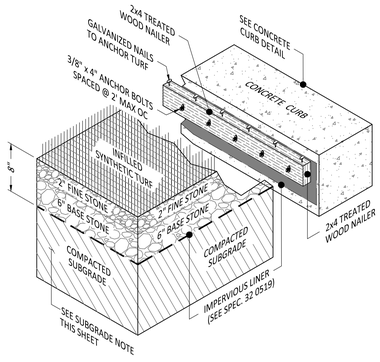


10 N.T.S. CONCRETE MOW CURB AT EXISTING FENCE



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United States Patent #8,337,340, Issued December 25, 2012



* Designed specifically for synthetic turf applications
* No ground anchor installation is necessary
* Durable all rubber mesh reinforced construction
* Official size - (1) double first base and (2) TurfBase Bases

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TBDS - TurfBase® Double Base

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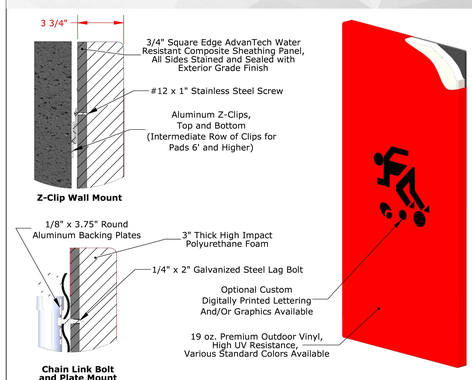

Part Numbers *	Size	Attachment
BFWPZ44/BFWPZ44DG	4'W x 4'L x 3.75"D	Z-Clip Wall Mount
BFWPZ46/BFWPZ46DG	4'W x 6'L x 3.75"D	Z-Clip Wall Mount
BFWPZ48/BFWPZ48DG	4'W x 8'L x 3.75"D	Z-Clip Wall Mount
BFWPZ-NSS/BFWPZDG-NSS	_'W x _'L x 3.75"D	Z-Clip Wall Mount
BFWPCL44/BFWPCL44DG	4'W x 4'L x 3.75"D	Chain Link Bolt and Plate Mount
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REVISIONS:
Date Description

Project Status
C 5.03-D
CIVIL SPORTS SOFTBALL DETAILS

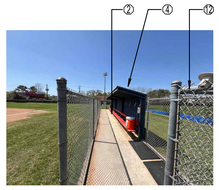


PHOTO OF EXISTING SOFTBALL DUGOUT



PHOTO OF EXISTING SOFTBALL FENCE BACKSTOP

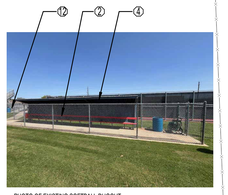


PHOTO OF EXISTING SOFTBALL DUGOUT

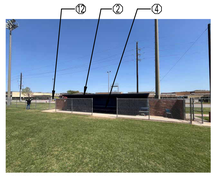


PHOTO OF EXISTING BASEBALL DUGOUT



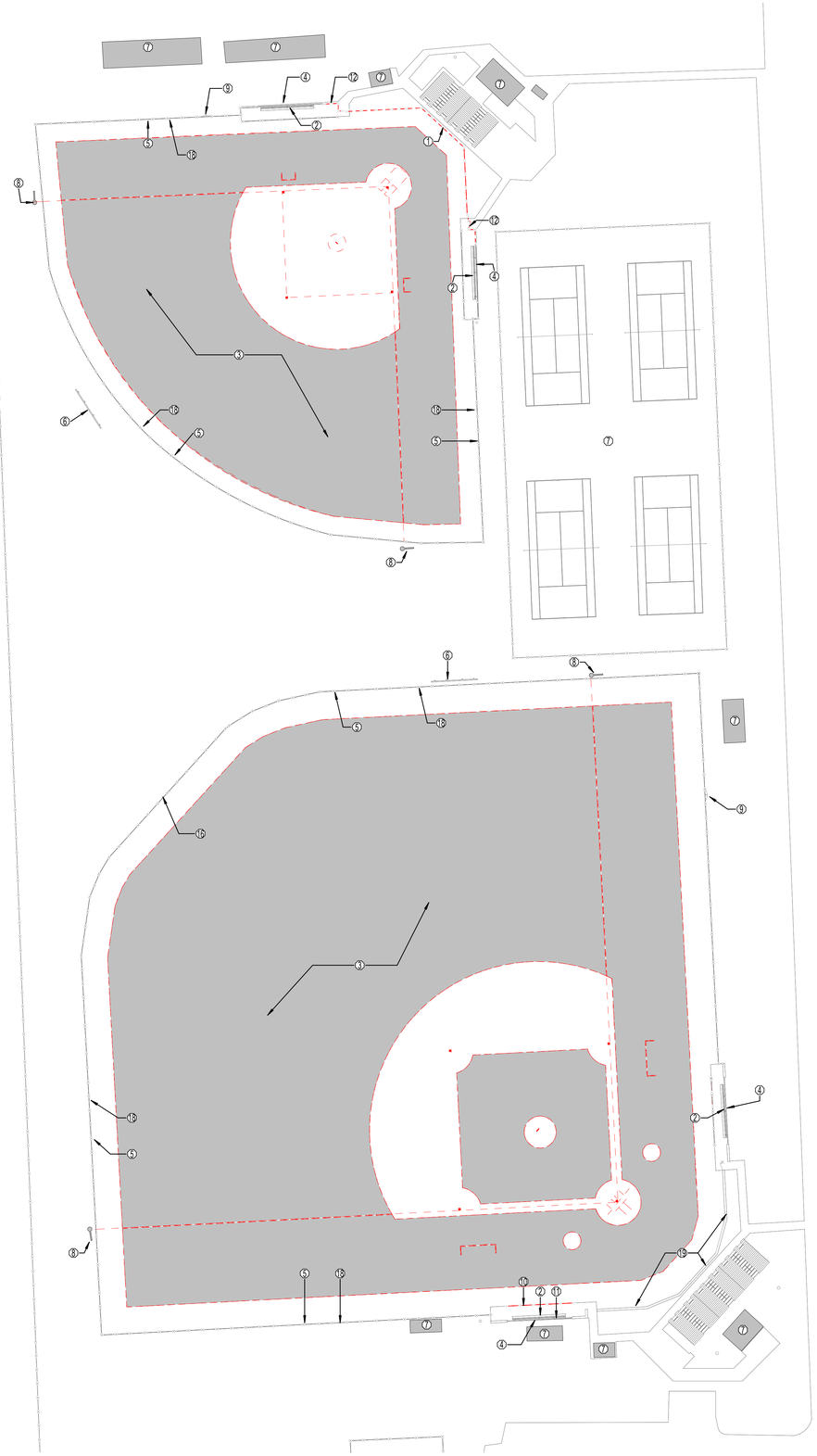
PHOTO OF EXISTING BASEBALL BACKSTOP AND NETTING



PHOTO OF EXISTING BASEBALL BACKSTOP AND NETTING



PHOTO OF EXISTING BASEBALL DUGOUT





KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- REMOVE EXISTING CONCRETE PAVING, ASPHALT, AND SIDEWALK
- DEMOLISHED STRUCTURES

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/GRAPHICS AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS UNLESS OTHERWISE NOTED.
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. DISPOSE OF ALL REMOVED MATERIALS OFF-SITE IN ACCORDANCE WITH LOCAL REGULATIONS.

DEMOLITION KEY NOTES

TAG # NOTES

1. DEMOLISH EXISTING CHAINLINK BACKSTOP FENCE AND POSTS. REMOVE ALL EXISTING CHAINLINK FENCING, LINE POSTS, CORNER POSTS, TERMINAL POSTS, TOP RAILS, TENSION WIRE, GATES, AND ASSOCIATED HARDWARE WITHIN THE LIMITS OF DEMOLITION AS SHOWN ON THE DRAWINGS. REMOVAL SHALL INCLUDE ALL CONCRETE FOOTINGS AND EMBEDDED MATERIALS.
2. DEMOLISH EXISTING WOOD BENCH PLATFORM. REMOVE ALL WOOD PLANKS, FASTENERS, AND ASSOCIATED MATERIALS DOWN TO THE EXISTING STEEL SUPPORT FRAME. STEEL FRAME TO REMAIN IN PLACE. PROTECT EXISTING STEEL BENCH STRUCTURE. ELECTRICAL OUTLETS, CONDUITS, AND ANY WIRING MOUNTED TO OR BEHIND THE BENCH DURING DEMOLITION.
3. REMOVE EXISTING NATURAL TURF FIELDS, SOIL, AND EXISTING SUBGRADE TO DEPTHS NOTED ON CIVIL GRADING DRAWINGS. CONTRACTOR IS RESPONSIBLE TO REVIEW SURVEYS PROVIDED IN CONSTRUCTION DOCUMENTS TO REMOVE AND RELOCATE UNDERGROUND UTILITY LINES, LOW VOLTAGE RACEWAYS, AND IRRIGATION LINES WITHIN THE LIMITS OF DEMOLITION AS SHOWN ON THE DRAWINGS. REMOVE ALL ORGANIC MATERIAL, ROOTS, BASE PLATES, AND ANY EXISTING SITE ELEMENTS OR OBSTRUCTIONS ENCOUNTERED DURING DEMOLITION. GRADE AREAS TO MAINTAIN POSITIVE DRAINAGE AND PROVIDE SMOOTH TRANSITION TO ADJACENT SURFACES AS NOTED ON CIVIL GRADING DRAWINGS.
4. EXISTING DUGOUTS TO REMAIN. PROTECT ALL EXISTING DUGOUT STRUCTURES, INCLUDING CMU WALLS, METAL ROOFING, STEEL FRAMING, DOORS, PAINTED FINISHES, ELECTRICAL CONDUITS, LIGHT FIXTURES, AND ACCESSORIES FROM CONSTRUCTION TRAFFIC.
5. EXISTING OUTFIELD FENCE TO REMAIN. PROTECT ALL SECTIONS OF EXISTING OUTFIELD FENCE, INCLUDING CHAIN LINK AND WOOD PANEL SECTIONS, POSTS, TOP RAILS, TENSION WIRE, AND ANY SAFETY CAP ALONG THE TOP EDGE.
6. EXISTING SCOREBOARDS TO REMAIN. PROTECT EXISTING BASEBALL AND SOFTBALL SCOREBOARDS, INCLUDING ALL SUPPORT POLES, ELECTRICAL CONNECTIONS, CONTROLS, CABLING, AND MOUNTED COMPONENTS THROUGHOUT DEMOLITION AND CONSTRUCTION. NO WORK IS INCLUDED IN THE SCOPE FOR THE SCOREBOARDS.
7. EXISTING BLEACHERS, PRESS BOXES, AND HITTING CAGES TO REMAIN. PROTECT ALL EXISTING BLEACHER STRUCTURES, PRESS BOXES, AND HITTING CAGES FOR BOTH BASEBALL AND SOFTBALL FIELDS. PROTECTION SHALL INCLUDE METAL FRAMING, SEATING, HANDRAILS, STAIRS, CONCRETE FOUNDATIONS, ELECTRICAL CONNECTIONS, BATTING CAGE NETTING, POSTS, AND ANY ASSOCIATED EQUIPMENT OR ACCESSORIES.
8. **ALTERNATE NO. 05** INSTALL NEW FOUL POLES. DEMOLISH EXISTING FOUL POLES IN THEIR ENTIRETY, INCLUDING ASSOCIATED HARDWARE AND ACCESSORIES. EXISTING FOUNDATIONS SHALL BE REMOVED TO FULL DEPTH TO AVOID INTERFERENCE WITH NEW WORK. RESTORE SURROUNDING AREAS TO MATCH ADJACENT CONDITIONS AFTER REMOVAL.
9. EXISTING DOUBLE CHAIN LINK FENCE GATES AND POSTS TO REMAIN. PROTECT IN PLACE DURING CONSTRUCTION.
10. DEMOLISH EXISTING CHAIN LINK FENCE IN FRONT OF DUGOUT IN ITS ENTIRETY, INCLUDING POSTS, FOOTINGS, AND HARDWARE. REMOVE ALL COMPONENTS AS REQUIRED TO ACCOMMODATE NEW WORK.
11. DEMOLISH EXISTING SHELVES IN THEIR ENTIRETY, INCLUDING ALL SUPPORTS, BRACKETS, AND FASTENERS. REMOVE WITHOUT DAMAGING THE WALL SURFACE THEY ARE MOUNTED ON. PATCH AND REPAIR ANY SURFACES AFFECTED BY REMOVAL.
12. DEMOLISH EXISTING CHAIN LINK FENCE AND GATE UP TO THE EDGE OF THE DUGOUT AS SHOWN. REMOVE ALL POSTS, FOUNDATIONS, HARDWARE, AND ACCESSORIES IN THEIR ENTIRETY. FOUNDATIONS SHALL BE REMOVED TO FULL DEPTH.
13. DEMOLISH SITE ELEMENTS AS REQUIRED FOR PROPOSED DETENTION. CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UNDERGROUND ELECTRICAL LINES PRIOR TO EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING OR PROTECTING EXISTING LINES IF REQUIRED TO ACCOMMODATE NEW WORK. REFER : C2.21-A CIVIL DRAWINGS FOR LIMITS OF DETENTION AREA.
14. EXISTING CONCRETE PAVEMENT TO REMAIN. REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO MATCH EXISTING FINISH AND ELEVATION. CLEAN SURFACES AFTER COMPLETION OF WORK.
15. DEMOLISH EXISTING CONCRETE PAVEMENT: REFER TO DEMOLITION DRAWING 1/AD1.01-A FOR LIMITS OF REMOVAL. REMOVE CONCRETE TO FULL DEPTH INCLUDING BASE MATERIALS. PREPARE SUBGRADE FOR NEW CONCRETE PAVEMENT PER PLANS. COORDINATE WITH NEW WORK TO MAINTAIN CLEAN TRANSITIONS AND PROPER DRAINAGE.
16. EXISTING WOODEN OUTFIELD FENCE TO REMAIN. PROTECT ALL WOOD FENCE SURFACES DURING DEMOLITION AND RENOVATION WORK.
17. CONTRACTOR SHALL COORDINATE WITH OWNER TO IDENTIFY AND REMOVE ALL EXISTING SITE ELEMENTS THAT ARE TO BE REUSED OR RELOCATED PRIOR TO DEMOLITION ACTIVITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, GARBAGE BINS, WORKOUT OR MAINTENANCE EQUIPMENT, PORTABLE STORAGE ITEMS, AND MISCELLANEOUS FIELD ACCESSORIES. ALL ITEMS DESIGNATED FOR REUSE SHALL BE SAFELY STORED AND REINSTALLED AS DIRECTED BY OWNER. ANY ITEMS NOT IDENTIFIED FOR REUSE SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH LOCAL REGULATIONS.
18. **ALTERNATE 07** (A): APPLY A NEW GALVANIZED FINISH TO EXISTING CHAINLINK FENCE. REFER TO MATERIAL SCHEDULE FOR GALVANIZED PAINT TYPE. CONTRACTOR SHALL REMOVE ANY ATTACHED ACCESSORIES, SIGNAGE, OR SAFETY CAPS AS REQUIRED TO PREPARE THE FENCE TO APPLY A NEW FINISH. (B): PAINT EXISTING WOOD FENCE. CLEAN, SCRAPE, AND REMOVE LOOSE OR PEELING PAINT. REPAIR ANY DAMAGED WOOD OR SURFACE AREAS PRIOR TO REFINISHING. REFER TO MATERIALS SCHEDULE FOR PAINT TYPE.
19. CONTRACTOR TO CAREFULLY DEMO EXISTING BACKSTOP NETTING AND POLES. REMOVE POLE 6" BELOW FACE BRICK OF ROWLOCK. REPLACE MISSING ROWLOCK WITH MATCHING BRICK.

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BP010 TURF AND ATHLETICS

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

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

Date	Description

ISSUED FOR CONSTRUCTION

AD1.00-D
DEMOLITION SITE PLAN

10/9/2025 5:53:09 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_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 / FV(WTCH) — ROOM TAG WITH ROOM FINISH
- 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
- REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC P.PROVIDED REQ — 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 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
2. 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
3. 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.
4. 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
5. 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
6. 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.
7. 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.
8. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
9. 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
10. 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.
11. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
12. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
13. 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.
14. 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.
15. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
16. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
17. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
18. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
19. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
20. 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.
21. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
22. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
23. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
24. 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.
25. 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
26. 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.
27. 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
28. 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
29. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
30. 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.
31. 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

- A — DRAWING SHEET DISCIPLINE
  - G GENERAL
  - C CIVIL
  - S STRUCTURAL
  - AD ARCH DEMOLITION
  - A ARCHITECTURE
  - E ELECTRICAL
- XX — CAMPUS DESIGNATOR
- 2 — SHEET NUMBER IN DISCIPLINE

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BP010 TURF AND ATHLETICS

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ARCHITECT: TANNER ADAME
ARCHITECT REG. NO: 20113
DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

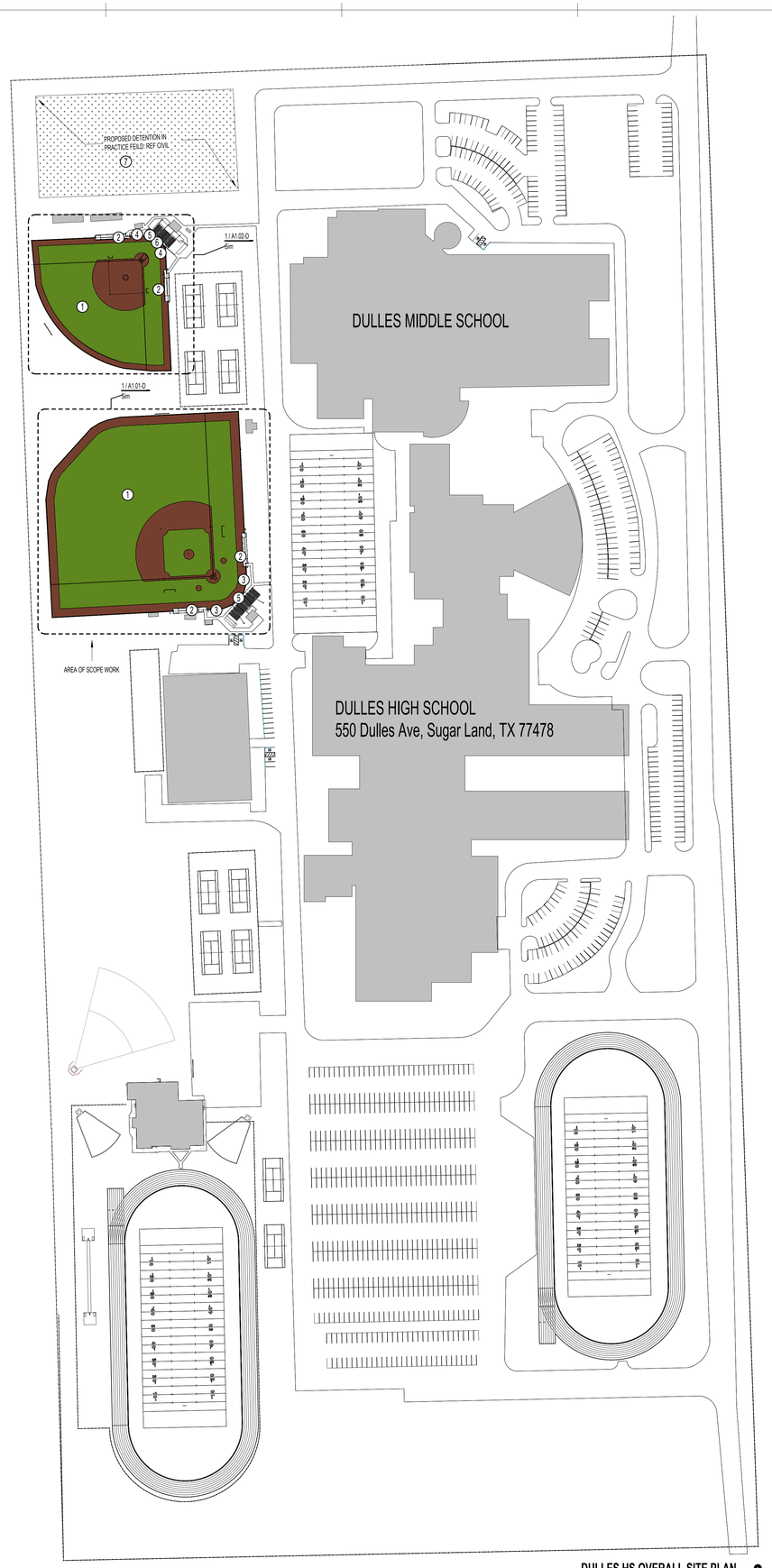
No.	Date	Description

ISSUED FOR CONSTRUCTION

A0.00-D
SYMBOLS & ABBREVIATIONS

UPDATED 08-21-21

10/9/2025 5:53:14 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt



DULLES HS OVERALL SITE PLAN 2

SCALE: 1" = 100'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00-D FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURISDICTION.
5. ALL NEW FENCING SHALL BE VINYL COATED CHAIN LINK,REF DRAWINGS FOR HEIGHT.
6. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.

9.PROVIDE 12" CONCRETE CURB AROUND PERIMETER OF ALL FIELDS 6" CENTERED ON ALL EXISTING AND NEW FENCING.

10.REFER TO CIVIL DRAWINGS FOR ALL GRADING AND SUBSURFACE UTILITY, DRAINAGE AND OTHER WORK.

11.PROVIDE CONTROL JOINTS AT ALL CONCRETE WALKS AS INDICATED. IF NO INDICATION OF JOINT PATTERN, SPACING, ETC., REFER TO SPECIFICATIONS. IF NO DIRECTION IS PROVIDED, CONTROL JOINTS SHALL BE TOOLED AT 5'-0" O.C. WITH EXPANSION JOINTS EVERY 20'-0". PROVIDE JOINT LAYOUT PLAN TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF CONCRETE.

12. PROVIDE EXPANSION FILLER STRIPS AND SEALANT AT ALL FLATWORK TO BUILDING, COLUMN, ADJACENT FLATWORK, OR OTHER ADJACENT SURFACE AS REQUIRED TO PROVIDE PROPER EXPANSION CONTROL. COORDINATE WITH ADJACENT SURFACE TO PROVIDE AS INCONSPICUOUS EXPANSION JOINT AS POSSIBLE. COORDINATE EXPANSION STRIP MATERIAL AND SEALANT WITH ADJACENT MATERIAL COLOR.

13.DELIVERIES / HEAVY TRAFFIC SHALL BE COORDINATED SO AS NOT TO DISRUPT CAMPUS ACTIVITIES. DELIVERIES / HEAVY TRAFFIC SHALL NOT OCCUR BETWEEN THE HOURS OF 7:30 AM - 9:00 AM OR 3:00 PM.

14.PROVIDE MIN. 1/2" EXPANSION JOINT WITH FILLER AT ALL TRANSITIONS BETWEEN CIVIL AND STRUCTURAL CONCRETE WORK, WHETHER ILLUSTRATED OR NOT.

15.SCORE LINES SHOWN ON PLANS MAY NOT BE FULLY INDICATIVE OF ALL SCORE LINES REQUIRED TO ENSURE THAT CONCRETE FLATWORK DOES NOT CRACK / FRACTURE. REFER TO PROJECT SPECIFICATIONS AND CIVIL DRAWINGS FOR FURTHER SCORE LINE REQUIREMENTS.

16.REFER TO A1.01 AND A1.02 ENLARGED SITE PLAN FOR TURF LAYOUT

17. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING ANY WORK. ANY DISCREPANCIES, CONFLICTS, OR UNFORESEEN CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT AND ENGINEER FOR CLARIFICATION AND RESOLUTION

SITE PLAN LEGEND

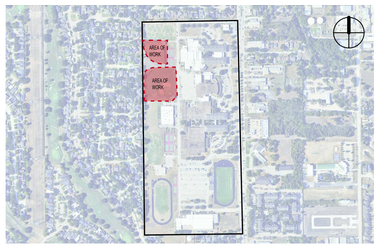
- VINYL COATED CHAIN LINK FENCE, 48" HIGH
- VINYL COATED CHAIN LINK FENCE, 72" HIGH
- BLACK WROUGHT IRON FENCE, 48" HIGH
- BLACK WROUGHT IRON FENCE, 72" HIGH
- SIM / A101 — BUILDING SECTION TAG
- SIM / A101 — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT
- FV — FIELD VERIFY
- PROPOSED DETENTION

SITE PLAN KEYNOTES

TAG #	NOTES
1	REPLACE FIELD WITH SYNTHETIC TURF.INSTALL INFILL SYNTHETIC TURF SYSTEM CONSISTING OF RUBBER-SAND INFILL OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 32 18 23 FOR INSTALLATION REQUIREMENTS AND CIVIL DRAWINGS FOR GRADING AND DRAINAGE DETAILS.
2	RENOVATE EXISTING DUGOUT.PRESSURE WASH ALL EXTERIOR AND INTERIOR SURFACES INCLUDING CMU WALLS, ROOF STRUCTURE, AND CONCRETE FLOOR. REPAIR AND REFINISH ALL SURFACES IN ACCORDANCE WITH PM SECTION 09 90 00. PROTECT EXISTING DOORS, LIGHT FIXTURES, AND ELECTRICAL CONDUITS.
3	60' NETTING.INSTALL NEW 60'-0" HIGH BACKSTOP NETTING SYSTEM IN ACCORDANCE WITH PM SECTION 11 68 50. REFER TO STRUCTURAL DRAWINGS FOR POLE FOUNDATIONS AND TIE-DOWN DETAILS. PROVIDE EYEBOLT CONNECTIONS AND HARDWARE PER NETTING MANUFACTURER REQUIREMENTS.
4	40' NETTING.INSTALL NEW 40'-0" HIGH NETTING EXTENSIONS TO MATCH BACKSTOP SYSTEM. REFER TO STRUCTURAL DRAWINGS FOR FOUNDATION AND SUPPORT DETAILS. COORDINATE NETTING INSTALLATION WITH ADJACENT CMU WALLS AND SAFETY FENCING.
5	BACKSTOP PADDING.INSTALL NEW BACKSTOP PADDING ON CMU SURFACES AS INDICATED. REFER TO DETAIL 1 & 3/A1.04-A AND PM SECTION 11 68 50 FOR ATTACHMENT REQUIREMENTS. COLOR AND FINISH PER MATERIAL SCHEDULE.
6	NEW FACE BRICK BACKSTOP WALL.SOFTBALL FIELD TO RECEIVE NEW 48" TALL FACE BRICK BACKSTOP WALL. REFER TO MATERIAL SCHEDULE FOR BRICK TYPE, COLOR, AND FINISH. BASEBALL FIELD BACKSTOP TO REMAIN CLEAN AND REPAIR AS REQUIRED.
7	PROPOSED DETENTION. REF CIVIL. CONTRACTOR TO REFER TO UNDERGROUND RADAR SURVEY FOR PROPOSED DETENTION AREA. VERIFY ALL EXISTING UNDERGROUND UTILITIES, ELECTRICAL CONDUITS, DRAINAGE LINES, AND OTHER SUBSURFACE ELEMENTS PRIOR TO EXCAVATION. CONTRACTOR SHALL COORDINATE WITH CIVIL ENGINEER TO CONFIRM EXTENTS AND DEPTHS OF PROPOSED DETENTION SYSTEM. ANY EXISTING UTILITIES OR STRUCTURES ENCOUNTERED SHALL BE PROTECTED, RELOCATED, OR REMOVED AS REQUIRED TO ACCOMMODATE NEW WORK. REFER TO CIVIL DRAWINGS FOR LIMITS OF EXCAVATION, GRADING, AND CONNECTION DETAILS.

AUTHORITY HAVING JURISDICTION (AHJ)- CITY OF SUGARLAND

- 2021 International Building Code
- 2021 International Fire Cod
- 2021 International Plumbing Code
- 2021 International Mechanical Code
- 2021 International Energy Conservation Code
- 2021 International Existing Building Code
- 2021 International Property Maintenance Code
- 2023 National Electric Code



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

ISSUED FOR CONSTRUCTION

A1.00-D
ARCHITECTURAL SITE PLAN

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60' NETTING - REF SHEET A1.02
RENOVATE EXISTING DUGOUT. PRESSURE WASH AND PAINT.
ALTERNATE NO.6: POWER AND LIGHTING - REF MEP
HOSE BIB - REF MEP
FINISH AND PAINT HAT AND BAT STORAGE
NEW WOODEN SEATING ON EXISTING METAL FRAME
ALTERNATE NO.6: ADD EXTERIOR GRADE SELF LEVELING MATERIAL TO EVEN FLOOR SURFACE
ALTERNATE NO.6: ARTIFICIAL TURF GLUED ON CONCRETE
ADD SAFETY NETTING TO EXISTING CHAIN LINK

PHOTO OF EXISTING BASEBALL RIGHT DUGOUT



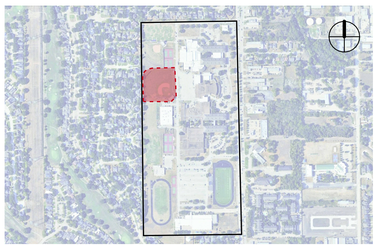
60' NETTING - REF SHEET A1.02
RENOVATE EXISTING DUGOUT. PRESSURE WASH AND PAINT.
ALTERNATE NO.6: POWER AND LIGHTING - REF MEP
NEW HAT AND BACK RACKS - REF CIVIL
NEW WOODEN SEATING ON EXISTING METAL FRAME
ALTERNATE NO.6: ADD EXTERIOR GRADE SELF LEVELING MATERIAL TO EVEN FLOOR SURFACE
ALTERNATE NO.6: ARTIFICIAL TURF GLUED ON CONCRETE
8' CHAINLINK WITH SAFETY NETTING

PHOTO OF EXISTING BASEBALL LEFT DUGOUT

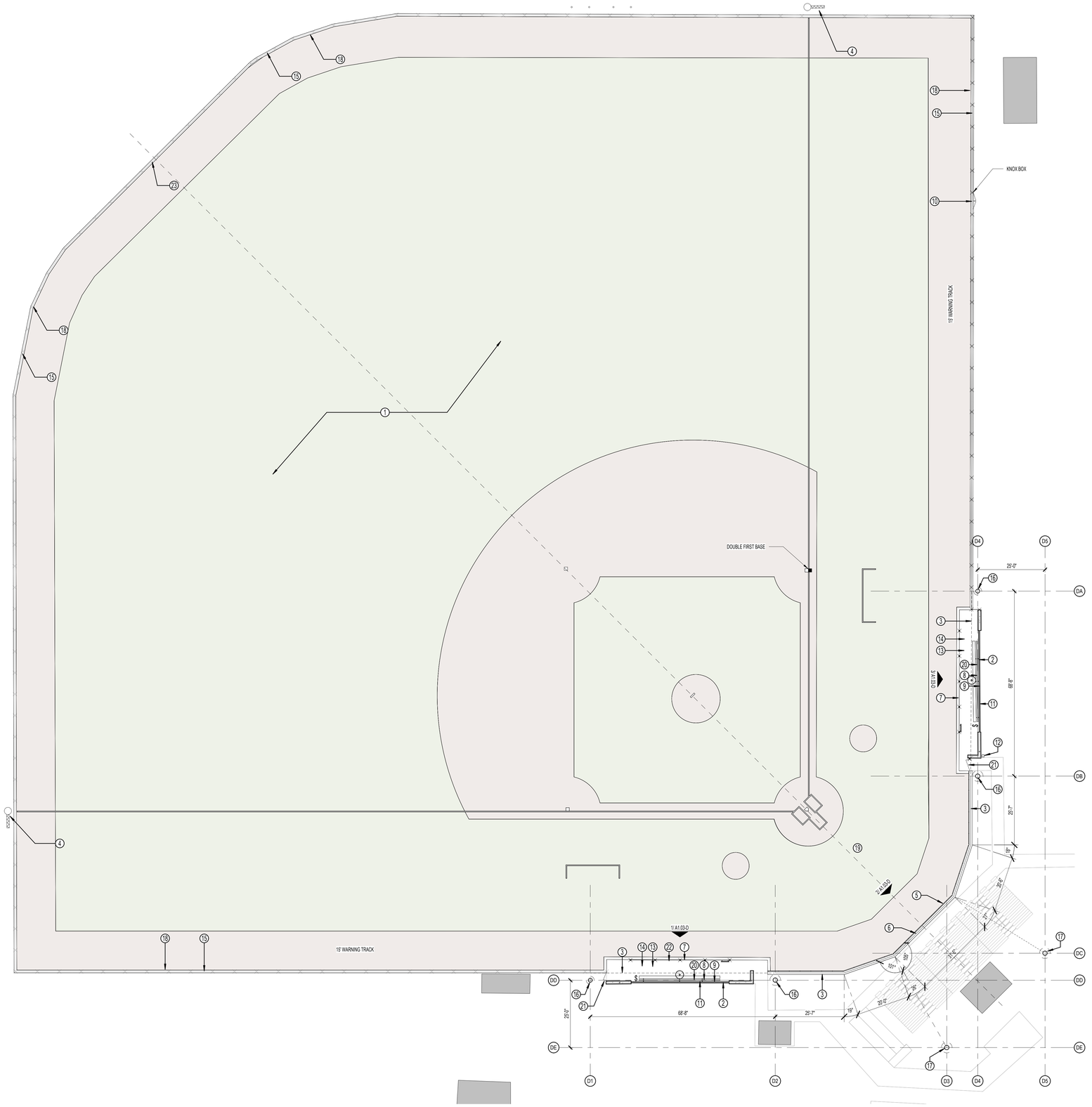


60' NETTING - REF SHEET A1.02
EXISTING BACKSTOP TO REMAIN
NEW BACKSTOP PADDING

PHOTO OF EXISTING BASEBALL FENCED BACKSTOP



KEY PLAN - BASEBALL SOFTBALL AREA OF WORK



DULLES HS-BASEBALL ENLARGED SITE PLAN 1
SCALE: 1/16" = 1'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A.0.00-A FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURISDICTION.
5. ALL NEW FENCING SHALL BE PVC-COATED CHAIN LINK TO MATCH NETTING COLOR REF SECTION 32 31 15 . REFER TO DRAWINGS FOR HEIGHT.
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. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.
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.

SITE PLAN LEGEND

- NEW CHAINLINK FENCE
- EXISTING CHAIN LINK FENCE
- SIM / 1 / A101 — BUILDING SECTION TAG
- SIM / 1 / A101 — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT
- FV — FIELD VERIFY

ENLARGED SITE PLAN KEYNOTES

TAG # — NOTES

1. INSTALL INFILL SYNTHETIC TURF. THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYNTHETIC TURF SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 32 18 23 FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS. REFER TO THE COLOR RENDERINGS ON SHEET G0.01-A FOR TURF COLOR AND DETAIL LAYOUTS. REFER TO CIVIL DRAWINGS FOR TURF DETAILS.
2. PRESSURE WASH ALL SIDES OF EXISTING DUGOUT, CONCRETE SLAB FLOOR, METAL ROOFING AND ROOFING STRUCTURE. REPAIR EXTERIOR METAL ROOF FLASHING. REPAIR METAL WALLS WITH FILLER AND PRIMER. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR EXTERIOR WOOD AND METAL SURFACES.
3. 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.
4. **ALTERNATE NO.5:** INSTALL 30' FOUL POLE AS NOTED IN PM SECTIONS 11 68 50. REFER TO STRUCTURAL DRAWINGS FOR PIER SCHEDULE AND DETAILS.
5. INSTALL BACKSTOP PADDING AS NOTED IN PM SECTIONS 11 68 50. REFER TO DETAIL 1&3/ A1.04-A. REFER TO CIVIL FOR PRODUCT DATA. ATTACH PADDING PER MANUFACTURER'S RECOMMENDATIONS FOR MASONRY FACE BRICK AND CMU BACKSTOPS.
6. EXISTING BRICK BACKTOP TO REMAIN. CLEAN AND PRESSURE WASH ALL SIDES.
7. ADD SAFETY NETTING TO MATCH THE BACKSTOP NETTING. REFER TO SHEET A1.03-A FOR LOCATIONS AND DIMENSIONS. REFER TO 116850 BACKSTOP NETTING FOR SPECIFICATIONS. REFER TO MANUFACTURER DETAILS FOR ATTACHMENT RECOMMENDATIONS.
8. POWER WASH SEATING METAL FRAME. REPAIR, CLEAN, PRIME AND PAINT EXISTING METAL FRAME PER PM SECTION 099000.
9. INSTALL NEW HAT AND BAT RACKS REFER TO DETAILS XX.XX-A. REFER TO SPEC 11 68 50. REFER TO FINISH SCHEDULE FOR COLORS REQUIREMENTS.
10. EMERGENCY SWING GATE TO REMAIN. POWER WASH CLEAN, REPAIR. RE-COAT AND RE-GALVANIZE AS NOTED IN PM SECTION 099000.
11. **ALTERNATE NO.6:** INSTALL NEW ELECTRICAL LIGHTING AS NOTED IN ELECTRICAL DRAWINGS.
12. INSTALL NEW ANTI SIPHON AND ANTI-FREEZE WATER HYDRANT. REFER TO MEP DRAWING AND SPECIFICATIONS.
13. **ALTERNATE NO.6:** CONTRACTOR/INSTALLER SHALL ACID WASH EXISTING DUGOUT CONCRETE FLOOR. REMOVE SUB-FLOOR RIDGES AND BUMPS. FILL MINOR LOW SPOTS, CRACKS, JOINTS, HOLES, AND OTHER DEFECTS WITH SUB-FLOOR FILLER TO ACHIEVE SMOOTH SURFACE. VERIFY THAT SUBSTRATES ARE DRY ENOUGH AND READY FOR FLOORING INSTALLATION BY TESTING FOR MOISTURE AND PH. ADD EXTERIOR GRADE SELF LEVELING MATERIAL TO EVEN FLOOR SURFACE. PREPARE FLOOR TO RECEIVED GLUE DOWN SYNTHETIC TURF FLOORING.
14. **ALTERNATE NO.6:** PLACE GLUE DOWN SYNTHETIC TURF. REFER TO PM SECTION 32 18 20.
15. **ALTERNATE NO.7:** EXISTING 6'-0" PERIMETER CHAINLINK FENCE TO REMAIN. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR GALVANIZED METALS.
16. INSTALL NEW 60'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
17. INSTALL NEW 70'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
18. 12" CONCRETE CURB AROUND EXISTING PERIMETER.
19. ALL DIMENSIONS ARE BASED ON EXISTING DRAWINGS AND ON SURVEYOR DRAWINGS ISSUED BY CLIENT. CONTRACTION TO FIELD VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.
20. REMOVE EXISTING 2X WOOD BENCH SEATS. EXISTING METAL FRAME ALL METAL SHALL BE THOROUGHLY PREPARED TO ENSURE ADHESION OF NEW PAINT TO THE PREPARED SURFACE. PAINT ALL METAL SURFACES PER PM SECTION 116850. INSTALL NEW WOOD 2X SEATING. ALL WOOD SURFACES MUST BE SCRAPED, SANDED, AND SPOT PRIMED BEFORE A FULL PRIMING COAT IS APPLIED AND PAINT ACCORDING TO PM SECTION 099000.
21. EXISTING 7'-0" FENCE GATE AND SURROUNDING 7'-0" SUPPORT STRUCTURE TO REMAIN. 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.
22. INSTALL NEW 8'-0" CHAINLINK IN FRONT OF DUGOUT IN PLACE OF EXISTING FENCING.
23. REFINISH AND PAINT EXISTING OUTFIELD WOOD FENCE AS NOTED IN PM SECTION 09900.

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REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

Date	Description

ISSUED FOR CONSTRUCTION

A1.01-D
ENLARGED SITE PLAN BASEBALL

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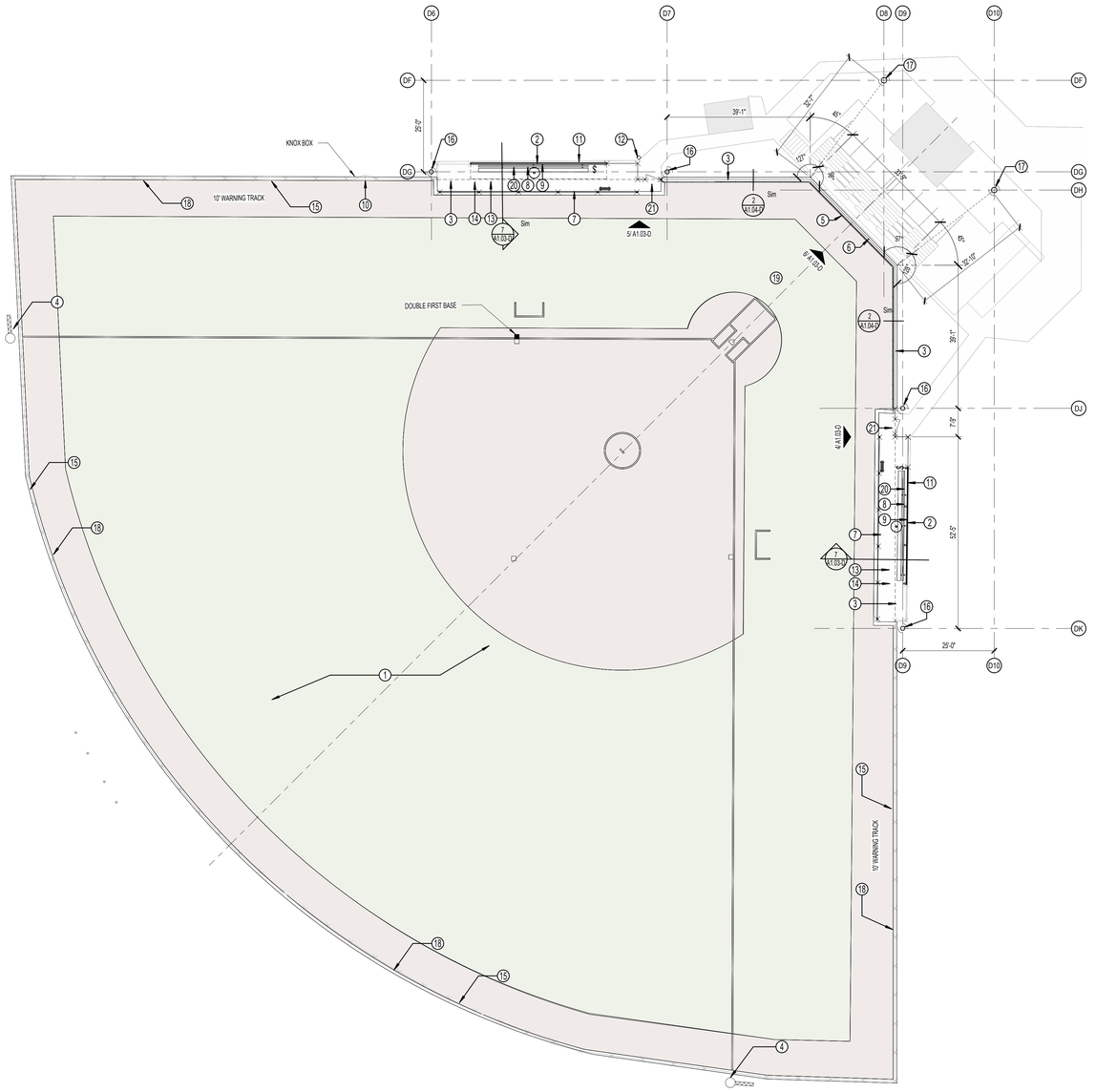
KNOX BOX
10' WARNING TRACK
DOUBLE FIRST BASE
39'-1"
25'-0"
97'
45°
30°
25'-0"
10' WARNING TRACK
Sim
5' A1.03-D
97' A1.03-D
A1.03-C2
A1.03-C3
A1.03-C4
A1.03-C5
A1.03-C6
A1.03-C7
A1.03-C8
A1.03-C9
A1.03-C10
A1.03-C11
A1.03-C12
A1.03-C13
A1.03-C14
A1.03-C15
A1.03-C16
A1.03-C17
A1.03-C18
A1.03-C19
A1.03-C20
A1.03-C21
A1.03-C22
A1.03-C23
A1.03-C24
A1.03-C25
A1.03-C26
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A1.03-C33
A1.03-C34
A1.03-C35
A1.03-C36
A1.03-C37
A1.03-C38
A1.03-C39
A1.03-C40
A1.03-C41

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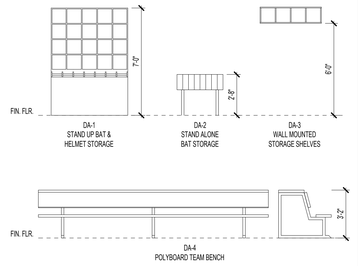
DUGOUT EQUIPMENT LEGEND



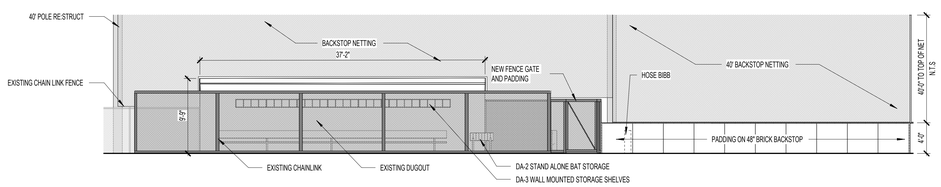
DUGOUT EQUIPMENT: GENERAL NOTES

1. REFER TO MATERIAL AND EQUIPMENT SCHEDULE FOR COLOR SELECTIONS AND FINISHES PER SCHOOL.

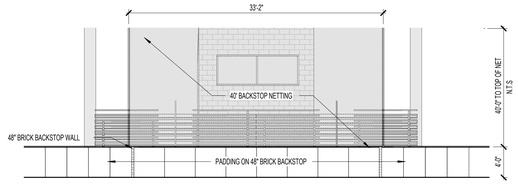
EXTERIOR MATERIAL LEGEND

- BRICK (BR-1) UTILITY SIZE, RUNNING BOND, COLOR VARIES
- SMOOTH FACE BLOCK (CMU-1), RUNNING BOND
- CHAINLINK/NETTING

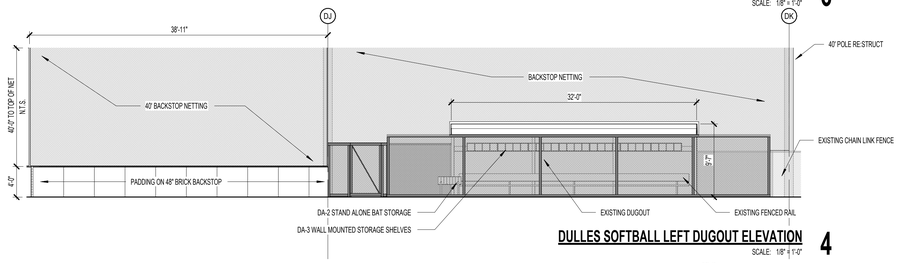
REFER TO MATERIAL SCHEDULE FOR ALL COLORS AND FINISHES, TYP.



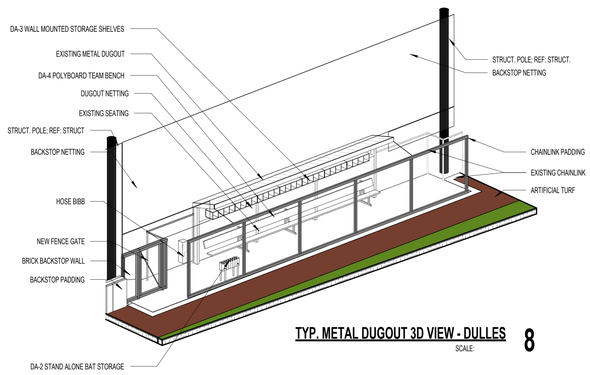
DULLES SOFTBALL RIGHT DUGOUT ELEVATION 5
SCALE: 1/8" = 1'-0"



DULLES SOFTBALL BACKSTOP ELEVATION 6
SCALE: 1/8" = 1'-0"

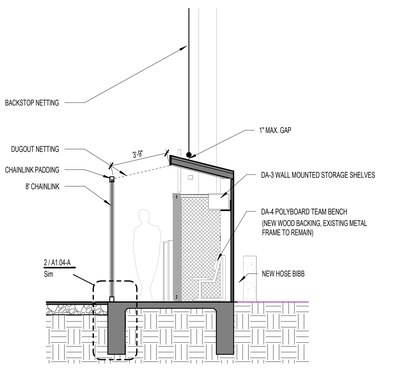


DULLES SOFTBALL LEFT DUGOUT ELEVATION 4
SCALE: 1/8" = 1'-0"

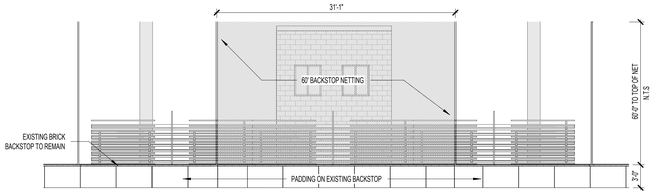


TYP. METAL DUGOUT 3D VIEW - DULLES 8
SCALE:

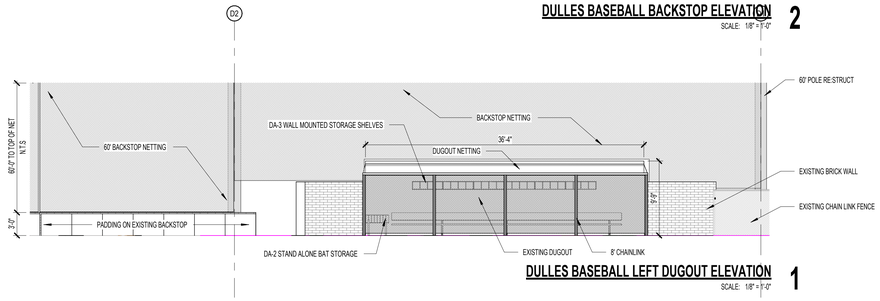
DULLES BASEBALL RIGHT DUGOUT ELEVATION 3
SCALE: 1/8" = 1'-0"



TYP. METAL DUGOUT SECTION 7
SCALE: 1/4" = 1'-0"



DULLES BASEBALL BACKSTOP ELEVATION 2
SCALE: 1/8" = 1'-0"



DULLES BASEBALL LEFT DUGOUT ELEVATION 1
SCALE: 1/8" = 1'-0"

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BP010 TURF AND ATHLETICS

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

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

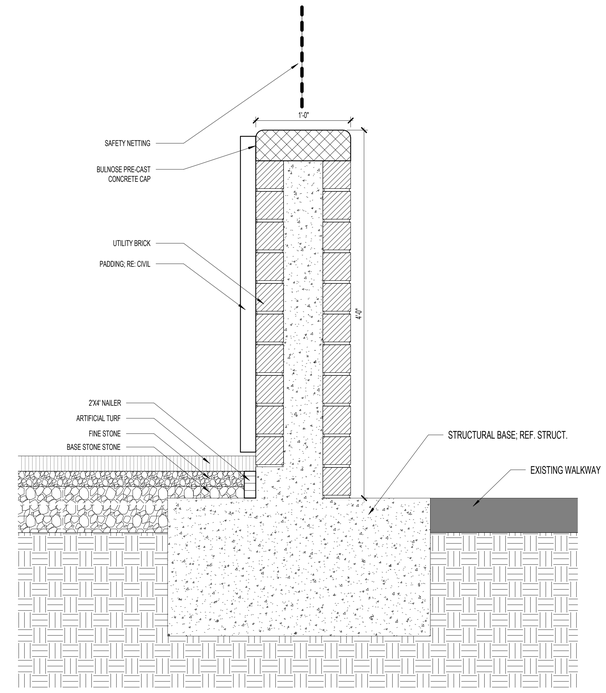
DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

	Date	Description
1		

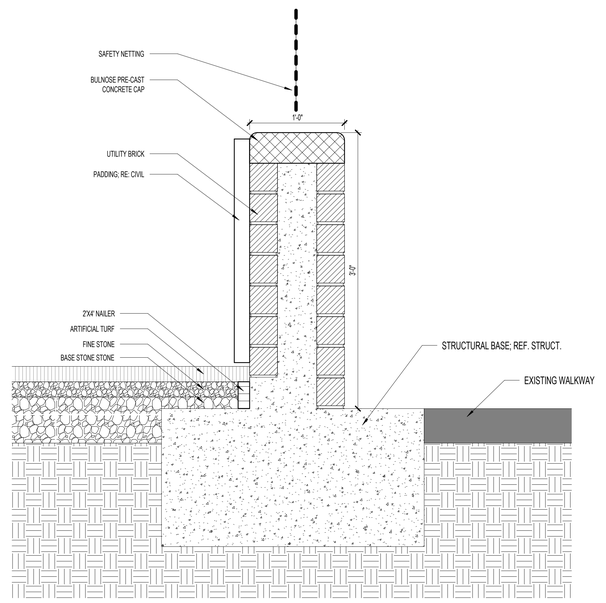
ISSUED FOR CONSTRUCTION

A1.03-D
BASEBALL AND SOFTBALL ELEVATIONS



TYP. 48" BRICK BACKSTOP SECTION DETAIL 2

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



TYP. 36" BRICK BACKSTOP SECTION DETAIL 1

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

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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

ISSUED FOR CONSTRUCTION

A1.04-D
TYPICAL FIELD DETAILS

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MATERIAL & EQUIPMENT SCHEDULE NOTES

1. REFER TO EXTERIOR ELEVATIONS FOR LOCATION, SIZES & TYPES OF EXTERIOR FINISHES.
2. ARCHITECT TO SELECT COLORS. CONTRACTOR TO COORDINATE LEAD TIMES FOR ALL MATERIALS TO MAINTAIN PROJECT SCHEDULE.
3. FIELD VERIFY ALL DIMENSIONS AS APPLICABLE TO ASSURE PROPER FIT W/ AS-BUILT CONDITIONS.
4. VERIFY W/ OWNER EXACT SIZE OF ALL EQUIPMENT FURNISHED BY OWNER FOR PROPER FIT.
5. PROVIDE CONTROL JOINTS AS SHOWN AND SPECIFIED.
6. REFERENCE DOOR TYPES AS SPECIFIED FOR EXACT DIMENSIONS AND TYPES OF EACH ITEM.
7. REFERENCE A100 SERIES FOR ADDITIONAL INFORMATION.
8. REFER TO G0.02 & G0.03 FOR REQUIRED MOUNTING HEIGHTS PER T.A.S

GENERAL NOTES

A. ALL FINISHES SUBJECT TO ARCHITECTS APPROVAL.

B. OWNER TO APPROVE FINAL MANUFACTURER AND MODEL FOR ALL ATHLETICS EQUIPMENT.

C. A MASTER MATERIAL AND EQUIPMENT SCHEDULE IS PROVIDED. REFER TO THE COLUMN LABELED WITH THE SCHOOL NAME TO IDENTIFY APPLICABLE COLORS AND NOTES FOR EACH SCHOOL, TYPICAL.

MATERIAL AND EQUIPMENT SCHEDULE

MARK	MATERIAL	MANUFACTURER	STYLE	AUSTIN HS	DULLES HS	ELKINS HS	KEMPNER HS	WILLOWRIDGE HS	SPECS	COMMENTS	ALTERNATE
01 EXTERIOR											
BR-1	BRICK	KANSAS BRICK & TILE CO.	UTILITY SIZE		530 MM			500 MIT GRAY		BACKSTOP	
CMU	EXISTING CMU			TO BE PAINTED BLACK (P-2)		TO BE PAINTED SCHOOL COLOR (P-3) REFER COLOR DIAGRAM FOR P-1 LOCATIONS			PAINT FINISH: EXTERIOR ACRYLIC ENAMEL. REF SPECS	EXISTING	
CMU-1	CONCRETE MASONRY UNIT	BEST BLOCK	SMOOTH FACE	TO BE PAINTED BLACK (P-2)		TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3) REFER COLOR DIAGRAM FOR P-1 LOCATIONS		PAINT FINISH: EXTERIOR ACRYLIC ENAMEL. REF SPECS	BACKSTOP	
M-1	METAL ROOF & STRUCTURE			TO BE PAINTED BLACK (P-2),	TO BE PAINTED SCHOOL COLOR (P-4)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	PAINT FINISH: EXTERIOR METAL FINISH, REF SPECS		
PM-1	PREFINISHED METAL			TO BE PAINTED BLACK (P-2)	TO BE PAINTED SCHOOL COLOR (P-4)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	PAINT FINISH: EXTERIOR METAL FINISH, REF SPECS	ALL EXTERIOR METAL	
02 PAINT											
P-1	EXTERIOR PAINT	SHERWIN WILLIAMS		DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166		WHITE, FIELD	
P-2	EXTERIOR PAINT	SHERWIN WILLIAMS		TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258		ACCENT, BLACK	
P-3	EXTERIOR PAINT	SHERWIN WILLIAMS		REAL RED, SW 6868	SHOW STOPPER, SW 7588	FRANK BLUE, SW 6967	FINE WINE, SW 6307	FRANK BLUE, SW 6967		ACCENT, SCHOOL COLOR	
P-4	EXTERIOR PAINT	SHERWIN WILLIAMS			HONORABLE BLUE, SW 6811	GLITZY GOLD, SW 6691	GRAY MATTERS, SW 7066	CADET, SW 9143		ACCENT, SCHOOL COLOR	
P-5	EXTERIOR PAINT	SHERWIN WILLIAMS		CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911			
03 FLOORING											
TF-1	SYNTHETIC TURF									GREEN, FIELD	
TF-2	SYNTHETIC TURF									ACCENT, BROWN	
TF-3	SYNTHETIC TURF									ACCENT, WHITE	
EQUIPMENT											
	WALL MOUNTED STORAGE SHELVES	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	STAND ALONE BAT STORAGE	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	STAND UP BAT & HELMET STORAGE	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	PADDING AROUND FENCE	SPORTSFIELD SPECIALITIES	PROZONE OUTDOOR	RED 186C	RED 186C	ROYAL BLUE 661C	GREY 8401C	ROYAL BLUE 661C			
	BENCHES	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)			REF SPECS FOR PAINT FINISH WHERE APPLICABLE	WOOD BACKING, WOOD SEAT, METAL FRAME TO MATCH SCHOOL COLOR AS INDICATED	
	WALL PADDING	SPORTSFIELD SPECIALITIES	PROZONE OUTDOOR	RED 186C	RED 186C	ROYAL BLUE 661C	GREY 8401C	ROYAL BLUE 661C			
OTHER											
	NETTING POLES			TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	SUPER-DURABLE POWDER COAT, REF SPECS		
	FENCE GATE			TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	PVC (VYNIL) - COATED, REF SPECS	AT DUGOUT ENTRANCE	
	FOUL POLE			TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	POWDER COAT, REF SPECS		ALTERNATE 05
	NEW CHAIN-LINK FENCE			TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	PVC (VYNIL) - COATED, REF SPECS	AT DUGOUT ENTRANCE	
	WOOD FENCE (BATTER'S EYE/OUTFIELD)			TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)			BASEBALL ONLY	ALTERNATE 07
	CONCRETE CURB			TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)		REF TO SPECS FOR PAINT FINISH		
	NETTING		#36 UDR2 DYNEEMA	BLACK	BLACK	BLACK	BLACK				
	EXISTING CHAIN-LINK FENCE			ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND		GALVANIZED FINISH, REF SPECS	FIELD PERIMETER	ALTERNATE 07

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

ISSUED FOR CONSTRUCTION

A1.05-D
MATERIAL AND EQUIPMENT SCHEDULE

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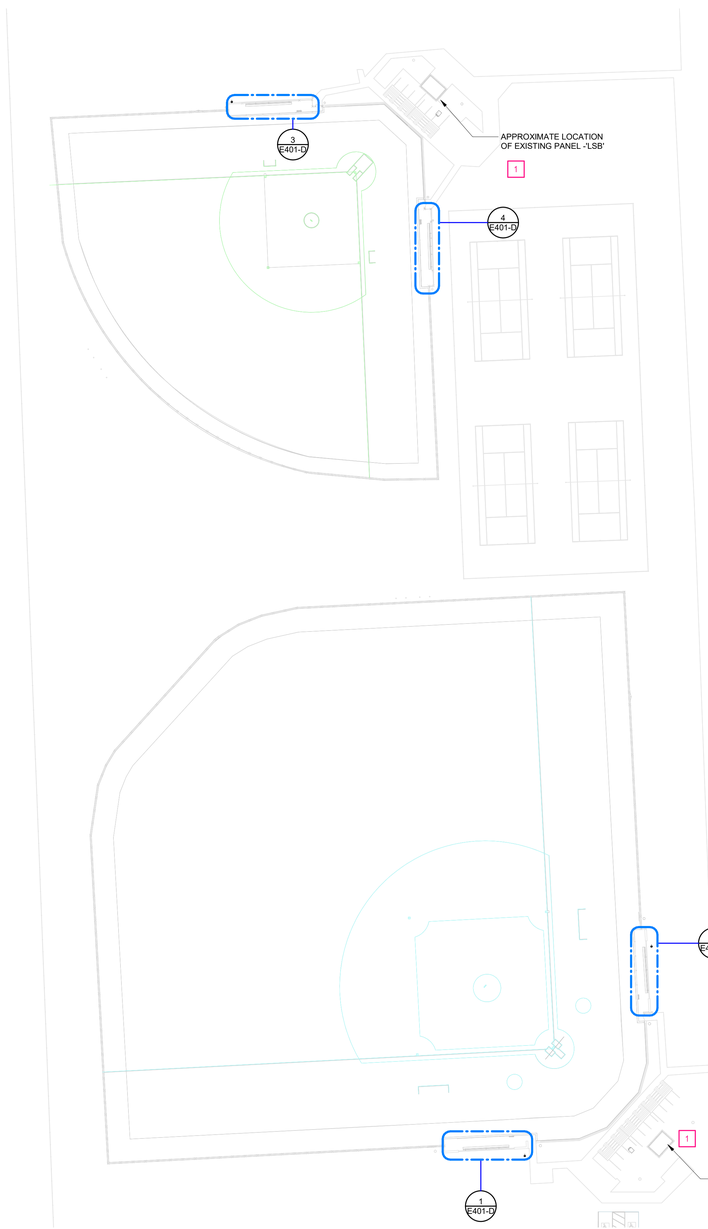

1 ELECTRICAL SITE PLAN - DULLES HS FIELDS
1" = 40'-0"



PHOTO OF EXISTING TO REMAIN ELECTRICAL PANELS - SOFTBALL PRESSBOX



PHOTO OF EXISTING ELECTRICAL PANELS - BASEBALL



PHOTO OF EXISTING ELECTRICAL SERVICE - SOFTBALL



PHOTO OF EXISTING ELECTRICAL SERVICE - BASEBALL

E. SITE PLAN NOTES

1. UNDERGROUND CONDUIT ROUTING SHALL BE COORDINATED WITH EXISTING PAVEMENT AND UNDERGROUND UTILITIES. COORDINATE WITH CIVIL PLANS FOR MORE INFORMATION. PROVIDE PULL STRING FOR ALL UNDERGROUND EMPTY CONDUITS. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS.
2. THE GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES TO ENSURE THE FULL PROJECT SCOPE IS REVIEWED PRIOR TO EXCAVATION. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER REGARDING THE WORK SCHEDULE, REQUIRED FENCING, AND PROTECTIVE MEASURES. THE GENERAL CONTRACTOR SHALL VERIFY EXISTING SITE UTILITIES AND CONDITIONS WITH CIVIL ENGINEER DRAWINGS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND UTILITIES. IF A SUBCONTRACTOR CAUSES DAMAGE, REPAIRS TO RESTORE FULL FUNCTIONALITY SHALL BE AT THE CONTRACTOR'S EXPENSE.
3. PRIOR TO TRENCHING, THE CONTRACTOR SHALL COORDINATE UNDERGROUND CONDUIT ROUTING WITH EXISTING AND PROPOSED IMPROVEMENTS, TREES, ROOT SYSTEMS, AND UNDERGROUND UTILITIES, AND OBTAIN OWNER APPROVAL FOR THE ROUTING PATH. PROTECTION OF EXISTING PLANTINGS AND PREVENTION OF ROOT ZONE COMPACTION ARE HIGH PRIORITIES FOR THE OWNER. ANY PLANT DAMAGE, AS DETERMINED BY THE OWNER, SHALL BE REPLACED WITH MATERIAL OF LIKE SIZE AT THE CONTRACTOR'S EXPENSE. COORDINATE WITH CIVIL PLANS FOR ADDITIONAL DETAILS. PROVIDE PULL ROPE IN ALL EMPTY UNDERGROUND CONDUITS. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS. THE CONTRACTOR SHALL MEET WITH THE OWNER'S ELECTRICIAN PRIOR TO STARTING WORK.

E - SHEET LIST

SHEET NUMBER	SHEET NAME
E001-A	ELECTRICAL SITE PLAN - AUSTIN HS FIELDS
E101-A	GENERAL NOTES, ABBREV., & LEGEND
E110-A	ELECTRICAL
E401-A	ENLARGED PLANS - AUSTIN HS FIELDS - ELECTRICAL
E001-D	ELECTRICAL SITE PLAN - DULLES HS FIELDS
E101-D	GENERAL NOTES, ABBREV., & LEGEND
E110-D	ELECTRICAL
E401-D	ENLARGED PLANS - DULLES HS FIELDS - ELECTRICAL
E001-E	ELECTRICAL SITE PLAN - ELKINS HS FIELDS
E101-E	GENERAL NOTES, ABBREV., & LEGEND
E110-E	ELECTRICAL
E401-E	ENLARGED PLANS - ELKINS HS FIELDS - ELECTRICAL
E001-K	ELECTRICAL SITE PLAN - KEMPNER HS FIELDS
E101-K	GENERAL NOTES, ABBREV., & LEGEND
E110-K	ELECTRICAL
E401-K	ENLARGED PLANS - KEMPNER HS FIELDS - ELECTRICAL
E001-W	ELECTRICAL SITE PLAN - WILLOWRIDGE HS FIELDS
E101-W	GENERAL NOTES, ABBREV., & LEGEND
E110-W	ELECTRICAL
E401-W	ENLARGED PLANS - WILLOWRIDGE HS FIELDS - ELECTRICAL

E - KEYED NOTES

#	
1	PROVIDE ELECTRICAL CONNECTION FOR RECEPTACLES AND LIGHTING FROM EXISTING PANEL. ROUTE (1) CIRCUIT PER DUGOUT BOX TO NEAREST 120V/208V PANEL.

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

ENGINEERS
MEP CONSULTANT:
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Bellaire, TX 77401
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GKEngineers@gk-mep.com
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GK PROJECT # 2025.044

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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INTERIM REVIEW ONLY
Document is Incomplete
Not intended for permit or construction
Engineer: DAVIA GERNAND
PE License No: 109903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-069
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

No.	Date	Description
	10/09/2025	100% CD

PROJECT STATUS
E001-D
ELECTRICAL SITE PLAN - DULLES HS FIELDS

10/9/2025 3:22:07 PM C:\Users\PEspi\Documents\GK - 2025.044 - E - R25 - Sports Fields FBISD_detached_PEspinozaGLSEJ.rvt

GENERAL ELECTRICAL NOTES:

1. CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE, AND APPLICABLE CODES, 2023 NEC, 2021 IBC, NFPA, ETC., AND ALL OTHER LOCAL CODES AND AMENDMENTS WHERE THERE ARE CONFLICTS BETWEEN CODES, STANDARDS, DRAWINGS AND SPECIFICATIONS ARISE, THE MORE STRINGENT SHALL APPLY.
2. ALL DRAWINGS AND SPECIFICATIONS (INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING, ETC) ARE DEVELOPED TO BE AN INCLUSIVE SET. ANY CONFLICTS WITHIN SHALL BE BROUGHT TO THE DESIGN'S TEAM ATTENTION. CONTRACTOR SHALL NOT MAKE ANY CHANGES TO THE DESIGN OR CONTRACT WITHOUT WRITTEN CONSENT FROM THE OWNER. THE CONTRACTOR WILL PROVIDE SUBMITTALS OF EQUIPMENT AND MATERIAL AT THE REQUEST OF THE OWNER, ARCHITECT, OR ENGINEER PRIOR TO PURCHASE (VERIFY WHICH SUBMITTALS ARE REQUIRED).
3. WORK SHALL BE INSTALLED IN A WORKMANLIKE FASHION. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS.
4. MAINTAIN THE CONSTRUCTION PREMISES IN A NEAT AND ORDERLY CONDITION. CONTRACTOR SHALL PROTECT THEIR WORK AGAINST WEATHER, THEFT, AND DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
5. ALL PRODUCTS SHALL COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND UL 723.
6. ELECTRICAL DRAWINGS ARE SCHEMATIC IN NATURE, APPROXIMATE LOCATIONS OF EQUIPMENT AND CONDUIT ARE SHOWN. THE ELECTRICAL CONTRACTOR SHALL LAYOUT ALL EQUIPMENT ROOMS TO MAKE ENSURE PROPER CLEARANCES REQUIRED BY THE NEC, PRIOR TO ORDERING OF EQUIPMENT. EXACT LOCATION OF ALL EQUIPMENT SHALL BE VERIFIED IN THE FIELD.
7. SUBSTITUTIONS SHALL BE EVALUATED AND APPROVED BY OWNER AND ENGINEER PRIOR TO CONTRACTOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AMONG TRADES AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. CONDUIT PENETRATIONS BETWEEN NON-CONDITIONED AND CONDITIONED SPACES SHALL BE SEALED TO ELIMINATE MOISTURE MITIGATION, BETWEEN INSIDE AND OUTSIDE BUILDINGS, NON-CONDITONED BOILER ROOMS, INTO REFRIGERATORS / FREEZERS, ETC. PER NEC 300.7(A).
9. CITY NOTE: ELECTRICAL MATERIAL AND EQUIPMENT: NO ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THE CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, THE LAWS OF THE STATE OF TEXAS AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUTES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVED AGENCY.

ELECTRICAL EQUIPMENT

1. ALL PACKAGED EQUIPMENT SHALL BE INDEPENDENTLY THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A (UL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS, AS WELL AS NFPA PAMPHLET NO. 70, AND THE NATIONAL ELECTRICAL CODE (NEC).
2. ALL SYSTEMS SHALL BE A COMPLETE AND OPERABLE SYSTEM PROVIDE THE NECESSARY ADAPTORS, FITTINGS, DEVICES, ETC. PROVIDE COMPLETE WITH BASES, ISOLATORS, SUPPORTS AND OTHER REQUIRED ACCESSORIES.
3. THE CONTRACTOR SHALL COORDINATE WITH ALL TRADES FOR ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT AND DEVICES AS REQUIRED FOR PROPER FUNCTIONING SYSTEM.
4. CONTRACTOR SHALL COORDINATE THE REQUIREMENT OF HOUSEKEEPING PADS WITH GENERAL CONTRACTOR. ALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH A 4" HOUSEKEEPING PAD THAT EXTENDS A MINIMUM OF 4" ALL THE WAY AROUND THE EQUIPMENT.

LABELING

1. PROVIDE PERMANENTLY ADHERED PHENOLIC NAMEPLATES FOR ALL EQUIPMENT (PANEL BOARDS, SWITCHBOARDS, STARTERS, DISCONNECTS, ETC.) WITH BLACK PLATES AND WHITE 3/8" HIGH LETTERS.
2. PROVIDE LABELING ON ALL DEVICE OUTLETS AND SWITCH COVERS INCLUDING THE PANEL NAME AND CIRCUIT NUMBER. LABELS SHALL BE CLEAR PLASTIC LABELS AND BLACK LETTERING.
3. CONDUCTORS IN PANELBOARDS SHALL BE LABELED WITH CIRCUIT NUMBER LABELS.
4. CONDUCTORS IN JBOXES SHALL BE LABELED WITH CIRCUIT NUMBER LABELS. (220.4(A)(B).

CUTTING AND PATCHING

1. CUTTING SHALL BE IN A NEAT AND WORKMANLIKE MANNER. COORDINATE WITH OTHER TRADES PRIOR TO COMMENCING WORK. PATCH AND FINISH TO MATCH ADJACENT AREAS.

CONDUCTORS

1. CONDUCTORS SHALL HAVE CONTINUOUS INSULATION COLOR, AS LISTED BELOW. CONDUCTORS SHALL BE SOFT ANNEALED COPPER INSULATED FOR 600 VOLTS UNLESS SPECIFICALLY INDICATED OTHERWISE.

	208/120 VOLT SYSTEM	240 VOLT SYSTEM	480/277 VOLT SYSTEM
PHASE A	BLACK	BLACK	PURPLE
PHASE B	RED	ORANGE (HIGH LEG)	BROWN
PHASE C	BLUE	RED	YELLOW
NEUTRAL	WHITE	WHITE	WHITE
GROUND	GREEN	GREEN	GREEN

2. INSULATION TYPE SHALL BE TYPE THW FOR WIRE SIZES #8 AWG AND LARGER AND THWN FOR #10 AWG AND SMALLER. ALL EXTERIOR UNDERGROUND CONDUCTORS SHALL BE XHHW TYPE.
3. PROVIDE #12 CONDUCTORS, UNLESS OTHERWISE INDICATED. CONTROL CONDUCTORS SHALL BE #14 MINIMUM FOR NEC CLASS 1 AND #16 FOR NEC CLASS 11. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID.
4. WIRE JOINT OR SPLICES IN SWITCHBOARDS OR PANELBOARDS ARE NOT ALLOWED, NOR ARE SPLICE FOR ANY DISTRIBUTION FEEDERS. SPLICES ONLY ALLOWED FOR DROPS TO DEVICES. FORM AND TIE ALL WIRING WITHIN BOARDS.

BRANCH CIRCUITS

1. ALL BRANCH CIRCUIT SIZES ARE BASED ON RACEWAY LENGTH OF 65 FEET FOR 120V BRANCH CIRCUITS AND 150FEET FOR 277 VOLT. IF THE LENGTH EXCEEDS 65 FEET (120V CIRCUITS) OR 150FT (277V CIRCUITS) THEN USE THE WIRE SIZES DENTED BELOW AND ADJUST THE CONDUIT SIZE ACCORDING BASED ON 40% MAX CONDUIT FILL. IF THE TERMINAL LUGS WILL NOT ACCEPT THE LARGER CONDUCTOR PROVIDE CONDUCTOR REDUCING ADAPTERS (SIMILAR TO GREAVES STEP-DOWN COPPER COMPRESSION ADAPTERS) IN A J-BOX PRIOR TO THE DEVICE TERMINATION. SEE TABLE BELOW, UNLESS NOTED OTHERWISE IN PLANS
2. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR, SHARED NEUTRALS ARE ALLOWED.
3. BREAKER TIES ARE REQUIRED FOR MULTI-CIRCUIT EQUIPMENT, SUCH AS POWER FURNITURE, THEN LARGER OF TWO APPLIES. NOT

CIRCUIT LENGTH SCHEDULE

WIRE SIZE	120V CIRCUITS	277V CIRCUITS
#12	60 TO 100 FEET	100 TO 150 FEET
#10	65 TO 120 FEET	151 TO 240 FEET
#8	121 TO 180 FEET	241 TO 400 FEET
#6	181 TO 250 FEET	401 TO 640 FEET
#4	251 TO 375 FEET	-
#2	376 TO 560 FEET	-

RACEWAYS

1. WIRE RUNS SHALL BE ACCORDING TO CODE IN INTERMEDIATE METAL CONDUIT (IMC) OR ELECTRICAL METALLIC TUBING (EMT) CABLING UNLESS OTHERWISE SPECIFICALLY STATED HEREIN. CONDUIT SHALL BE A MINIMUM OF 3/4" UNLESS OTHERWISE NOTED. CONDUIT IN EXPOSED LOCATIONS SHALL NOT BE ACCEPTABLE UNLESS OTHERWISE NOTES, REFER TO ARCHITECT.
2. RIGID, THREADED, GALVANIZED, HEAVY WALL TYPE CONDUIT SHALL BE UTILIZED IN EXTERIOR WALLS, AREAS EXPOSED TO THE WEATHER OR OTHER DAMP/WET LOCATIONS.
3. UTILIZE SCHEDULE 40 PVC CONDUIT WITH GROUND WIRE FOR UNDERGROUND APPLICATIONS. PVC CONDUIT SHALL NOT BE RUN IN OR ABOVE FLOOR SLAB. PVC CONDUIT SHALL TERMINATE BELOW FLOOR SLAB WITH RIGID, THREADED METAL CONDUIT ADAPTER. ALL CONDUIT ABOVE SLAB SHALL BE METAL AND SHALL BE CONCEALED IN WALLS, FLOORS AND CEILINGS WHEREVER POSSIBLE. PROVIDE RIGHT ANGLE TURNS USING FITTINGS OR SYMMETRICAL BENDS. SUPPORT CONDUITS WITHIN 1' OF ALL CHANGES IN DIRECTION.
4. MC MAY BE UTILIZED FOR EXISTING WALL SITUATIONS, 6' FOR LIGHTING WHIPS, OR WHERE APPROVED BY OWNER.
5. CONNECTIONS TO MOTORS AND OTHER EQUIPMENT SUBJECT TO VIBRATION AND IN AREAS SUBJECT TO MOISTURE SHALL UTILIZE LIQUID TIGHT METAL CONDUIT.
6. USE WATERTIGHT JOINTS WITH BURIED AND CONCRETE ENCASED CONDUIT. ALL BURIED CONDUITS OUTSIDE OF BUILDINGS SHALL HAVE A MINIMUM OF 24" OF COVER. METAL CONDUITS BURIED IN EARTH SHALL BE PAINTED WITH TWO COATS OF HEAVY ASPHALTUM PAINT.
7. HORIZONTAL PORTIONS OF CONDUIT EXPOSED ON THE ROOF AND FEEDING EQUIPMENT SHALL NOT BE MORE THAN 5'-0" IN LENGTH.
8. PROVIDE LUBRICATION / SEALANT ON OUTDOOR AND UNDERGROUND THREADED METAL JOINTS.
9. COORDINATE CONDUIT RUNS PRIOR TO ROUGH IN WITH OTHER TRADES AND AVOID INTERFERENCE.

BOXES

1. INSTALL PULL AND JUNCTION BOXES WHERE REQUIRED FOR CHANGES IN DIRECTION, AT JUNCTION POINTS TO FACILITATE WIRE PULLING, AND WHERE SHOWN ON THE DRAWINGS. BOX SIZES SHALL BE IN ACCORDANCE WITH NEC UNLESS LARGER BOXES ARE NOTED.
2. FOR INTERIOR CONCEALED LOCATIONS - USE SHEET STEEL BOXES, ZINC COATED OR CADMIUM PLATED.
3. WALL BOX SIZES SHALL BE MINIMUM 4" SQUARE X 2-1/2" DEEP. FIXTURE OUTLETS IN CEILING SHALL BE MINIMUM 4" OCTAGONAL X 1-1/2" DEEP (4-11/16" OCTAGONAL X 2-1/2" DEEP WHERE REQUIRED TO ACCOMMODATE LARGER CONDUIT OR LARGER NUMBER OF WIRES). GANG BOXES SHALL BE ONE PIECE MINIMUM 2-1/8" DEEP.
4. PROVIDE FLUSH MOUNT BOXES IN ALL FINISHED WALLS, INSTALL THE PLASTER RINGS IN DRYWALLED WALLS AND RAISED COVERS AS REQUIRED IN WALLS WITH OTHER FINISHES SO THAT THE COVER PLATES FIT TIGHTLY AGAINST BOXES OR RINGS. 3/16" MAXIMUM GAPS ARE ALLOWED FOR NONCOMBUSTIBLE WALLS. SUPPORT ALL BOXES TO MAINTAIN PROPER ALIGNMENT AND RIGIDITY. BEFORE INSTALLATION OR WIRING OF DEVICES, CLEAN BOXES OF FOREIGN MATTER.

DEVICES

1. PROVIDE TOTALLY ENCLOSED, SPECIFICATION GRADE, 20 AMPERE, 120/277 VOLT QUIET A/C GENERAL USE SWITCHES MANUFACTURED BY HUBBELL OR OTHER APPROVED MANUFACTURER.
2. PROVIDE SPECIFICATION GRADE NEMA CONFIEGURATION 5-20R DUPLEX 125-VOLT GROUNDING TYPE RECEPTACLES UNLESS OTHERWISE NOTED ON THE DRAWINGS. MANUFACTURED BY HUBBELL OR OTHER APPROVED MANUFACTURER.
3. LIGHTING SWITCHES SHALL BE MOUNTED WITHIN 6" OF DOOR JAM ON STRIKE SIDE UNLESS APPROVED OTHERWISE. MOUNT AT 42" OR AS ADA DICTATES.
4. LOCATE RECEPTACLES APPROXIMATELY 1'-6" ABOVE THE FINISHED FLOOR ELEVATION OR NEAREST BLOCK COURSE (WITHIN ADA REQUIREMENTS), UNLESS OTHERWISE NOTED. THE LONG DIMENSION OF THE RECEPTACLE SHALL BE VERTICAL. ALL DEVICES SHALL BE FLUSH MOUNTED U.N.O. GROUND PIN SHALL BE MOUNTED UP (OR NEUTRAL UP IF HORIZONTALLY INSTALLED)
5. RECEPTACLES IN KITCHEN AREAS, BATHROOMS, AND RECEPTACLES WITHIN 6' OF SINKS SHALL BE GFCI TYPE (NOT WIRED IN SERIES, SEE NOTE 6). ALL DEVICES INSTALLED OUTDOORS SHALL BE WEATHERPROOF AND GFCI PROTECTED.
6. CONTRACTOR TO PROVIDE "PIG TAIL" SPLICES TO ALL RECEPTACLE DEVICES (DO NOT WIRE IN SERIES THRU THE DEVICE) - SEE DETAILS.
7. REFER TO ARCHITECT ELEVATIONS PRIOR TO ROUGH-IN TO VERIFY MOUNTING HEIGHTS

SAFETY SWITCHES

1. PROVIDE DISCONNECT SWITCHES FOR ALL EQUIPMENT, WHERE REQUIRED BY CODE, AND THEY SHALL BE OF THE SAME MANUFACTURER. MANUFACTURER SHALL BE SQUARE D, SIEMENS, G.E., OR CUTLER-HAMMER.
2. SAFETY SWITCHES SHALL BE THE CLOSED HEAVY-DUTY TYPE WITH QUICK-MAKE, QUICK-BREAK MECHANISM AND EXTERNAL PAD LOCKABLE OPERATING HANDLE.
3. SAFETY SWITCHES SHALL BE RATED FOR 240 OR 600 VOLTS AS APPLICABLE. THEY SHALL BE HORSEPOWER RATED WHEN USED IN MOTOR CIRCUITS. SAFETY SWITCHES SHALL BE FUSIBLE OR NONFUSIBLE 2, 3 OR 4 POLE AS INDICATED ON THE DRAWINGS. SWITCHES SHALL BE SINGLE THROW, UNO. ENCLOSURES SHALL BE NEMA 1 INDOORS AND NEMA 3R OUTDOORS (U.N.O.).
4. MOUNT THE SAFETY SWITCHES SECURELY BETWEEN 3' - 6' LEVELS ABOVE THE FLOOR UNLESS OTHERWISE NOTED IN THE DRAWINGS. SWITCHES ON BLOCK WALLS SHALL BE PROVIDED WITH AND MOUNTED ON A 3/4" PLYWOOD BACKBOARD, WHERE LOCATED INDOORS.
5. THE CONTRACTOR SHALL FURNISH A COMPLETE SET OF FUSES FOR ALL FUSIBLE SWITCHES, PLUS FUSIBLE EQUIPMENT FURNISHED BY OTHER TRADES. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, THE FUSES SHALL BE OF THE FOLLOWING TYPE:
   - o FUSES 601 TO 6000 AMPS SHALL BE UL CLASS RK5. TRADE TYPE SHALL BE KRP-C AS MANUFACTURED BY THE BUSSMANN COMPANY.
   - o FUSES 1/10 TO 600 AMPS SHALL BE UL CLASS RK1. TRADE TYPE SHALL BE LOW PEAK LPS-RK (600V) AND LPN-RK (250C) AS MANUFACTURED BY BUSSMANN COMPANY.
   - o ALL OTHER FUSES SHALL BE DUAL ELEMENT CURRENT LIMITING TYPE WITH 200,000 AMPERES SYMMETRICAL INTERRUPTING CAPACITY.

DISTRIBUTION PANELS

1. DISTRIBUTION PANELS SHALL BE DEAD FRONT TYPE WITH CIRCUIT BREAKERS, COMPRISED OF FUSES AND HEAVY-DUTY SWITCHES OF SIZE AND NUMBER INDICATED ON THE PANELS. PANELS SHALL BE MANUFACTURED AS A COMPLETE UNIT. ALL BUSS BARS SHALL BE RECTANGULAR AND MADE OF SOLID COPPER. ALL LUGS SHALL BE UL APPROVED CUIAL TYPE. VERTICAL BUSSING SHALL BE EXTENDED THE FULL LENGTH OF THE PANEL.
2. ALL PANELS SHALL BE CAPABLE OF ACCEPTING SWITCH SIZES UP TO AND INCLUDING 600 AMPS.
3. DISTRIBUTION PANELS SHALL BE G.E., SQUARE "D", OR SIEMENS.
4. INSTALL PANELS SUCH THAT HANDLE FOR THE TOP SWITCH DOES NOT EXCEED 6'-6" ABOVE FINISHED FLOOR PER NEC.
5. SURFACE-MOUNTED PANELS SHALL BE MOUNTED ON UNISTRUT RAILS. FLOOR-MOUNTED PANELS SHALL BE MOUNTED ON A 4" HIGH CONCRETE PAD.
6. ALL BOLTED CONNECTIONS SHALL BE TORQUED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS. RE-TORQUE CONNECTIONS ONE MONTH OR MORE AFTER INITIAL TORQUE. TORQUE RECORDS SHALL BE HANDED TO OWNER AT SUBSTANTIAL COMPLETION.

PANELBOARDS

1. PANELBOARDS SHALL BE MANUFACTURED BY SQ.D., G.E., EATON OR APPROVED EQUAL, ENCLOSED DEAD FRONT SAFETY DOOR IN DOOR TYPE WITH FEATURES AND RATINGS AS SCHEDULED ON DRAWINGS. ALL BUS BARS SHALL BE RECTANGULAR SOLID COPPER. LOAD CENTERS SHALL NOT BE ALLOWED. MANUFACTURER SHALL BE SQUARE D, SIEMENS, GE OR CUTLER-HAMMER. PANELS WILL BE SIMILAR OR EQUAL TO NQ/NF BOARDS NOT LOAD CENTERS (UNLESS SPECIFIED). PANELS SHALL BE FULLY RATED
2. ALL BRANCHES SHALL BOLT ON TYPE, AND SHALL BE TORQUED IN ACCORDANCE WITH MANUFACTURERS STANDARDS. RE-TORQUE ALL CONNECTIONS ONE MONTH AFTER INITIAL TORQUE.
3. INSTALL CABINETS SO THAT CENTER OF THE TOP BREAKER DOES NOT EXCEED 6'-6" ABOVE THE FINISHED FLOOR PER NEC. PROVIDE (3) SPARE 1" CONDUITS INTO ACCESSIBLE CEILING.
4. ELECTRICAL CONTRACTOR SHALL FOLLOW DRAWING CIRCUIT NUMBERS AS NEAR AS POSSIBLE. PRIOR TO SUBSTANTIAL COMPLETION, ELECTRICAL CONTRACTOR SHALL TAKE CURRENT READING CHECKS OF RESPECTIVE PHASES AND SUBMIT TO ENGINEER FOR APPROVAL.
5. CIRCUIT DESCRIPTIONS (PANEL CARDS) SHALL BE TYPED AND ACCURATE TO FIELD CONDITIONS. ROOM NAMES SHALL MATCH FINAL INSTALLED ROOM NAMES IF DIFFERENT FROM PLANS.
6. AVAILABLE FAULT CURRENT LABELING IN LIEU OF THE MAXIMUM AVAILABLE FAULT CURRENT MARKING AS REQUIRED BY 110.24, A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2" X 3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.
7. ALL PANELS WILL BE INSTALLED WITH INTEGRAL TVSS - 400A AND LESS WILL HAVE 60 KA / MODE

TRANSFORMERS

1. DRY TYPE TRANSFORMERS SHALL BE MANUFACTURED BY SQ.D, GE, OR APPROVED EQUAL HAVING (2)2.5% TAPS ABOVE AND (4)2.5% TAPS BELOW THE RATING OF THE TRANSFORMER. THEY SHALL HAVE COPPER WINDINGS. A BONDING JUMPER BETWEEN THE SECONDARY NEUTRAL AND THE METAL CASE. TRANSFORMERS SHALL HAVE R CLASS INSULATION OF UL 220 DEGREE RATING AND 115 DEGREE RISE.
2. GROUND MOUNTED TRANSFORMERS SHALL BE INSTALLED ON 3" HOUSE KEEPING PAD AND NEOPRENE GASKETS.

GROUNDING

1. GROUND ALL EQUIPMENT PER NEC.
2. GROUND EACH OUTSIDE LIGHTING STANDARD SEPARATELY WITH ONE GROUND ROD AND A #6 GROUND WIRE.
3. ALL CONDUITS SHALL CONTAIN A CODE SIZED GROUND WIRE SIZE PER NEC IN ADDITION TO THE CONDUCTORS SHOWN ON THE PLANS. WHERE CIRCUIT CONDUCTORS ARE INCREASED IN SIZE THE GROUND WIRE SIZE SHALL BE INCREASED PROPORTIONALLY.

STARTUP AND INSTRUCTIONS

1. AFTER INSTALLATION, CHECK ALL EQUIPMENT, AND PERFORM START UP IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. NOTIFY ENGINEER OF ALL START-UP. ALL EQUIPMENT SHALL BE ONE AND OPERATIONAL AT COMPLETION OF PROJECT.
2. TESTS SHALL INCLUDE THE FOLLOWING:
   - o MEASURE THE LOAD ON EACH PHASE OF THE MAIN SERVICE AND EACH PHASE OF EVERY FEEDER UNDER FULL LOAD CONDITIONS
   - o MEASURE THE NO-LOAD AND FULL-LOAD VOLTAGES (PHASE TO PHASE, PHASE TO NEUTRAL AND PHASE TO GROUND FOR EACH PHASE OF SERVICE, OF EACH SEPARATELY DERIVED SYSTEM, AND AT EACH PANELBOARDOR TRANSFORMER).
   - o MEASURE THE GROUND RESISTANCE OF THE MAIN SERVICE GROUNDING ELECTRODE AND THE GROUND RESISTANCE OF EACH SEPARATELY DERIVED SYSTEM'S GROUNDING ELECTRODE.
   - o MAKE INSULATION RESISTANCE TESTS ON ALL DRY TYPE TRANSFORMERS AND MOTORS.
3. CLEAN ALL ELECTRICAL EQUIPMENT AND FIXTURES PRIOR TO PROJECT COMPLETION.
4. PROVIDE OWNER TRAINING AND DEMONSTRATION OF ALL ELECTRICAL SYSTEMS AND EQUIPMENT.
5. INSTRUCT OWNER ON PROPER OPERATION AND PREVENTATIVE MAINTENANCE OF SYSTEM. SUBMIT OPERATING AND MAINTENANCE MANUAL ON ALL EQUIPMENT AND SYSTEMS.

MISCELLANEOUS

1. ALL GENERATOR TRANSFER DEVICES (GTD'S), IF APPLICABLE, ARE TO BE MOUNTED ABOVE ACCESSIBLE CEILINGS AT A LEVEL WHICH CAN BE REACHED WITHOUT A LIFT (UNDER 15').
2. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING 120V POWER TO ALL LOW VOLTAGE TRANSFORMERS (PROVIDED BY THE PLUMBING CONTRACTOR), FOR AUTOMATIC FLUSH VALVES, TO EITHER THE CIRCUIT NOTED ON THE PLANS OR THE NEAREST RECEPTACLE CIRCUIT.
3. ALL THREE PHASE FAN POWER TERMINAL / BOXES REQUIRE 5 CONDUCTORS (INCLUDING NEUTRAL).
4. EC SHALL POWER ALL 120V MOTORIZED DAMPERS FOR MECHANICAL FANS AND LOUVERS, AND ACTUATORS.

WARRANTY

1. FULLY WARRANT ALL MATERIALS, EQUIPMENT AND WORKMANSHIP FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE OR AS REQUIRED IN SPECIFICATIONS. EXTEND ALL MANUFACTURER'S WARRANTIES TO OWNER, INCLUDING ALL EXTENDED WARRANTIES.
2. REPAIR OR REPLACE WITHOUT CHARGE TO THE OWNER ALL ITEMS FOUND DEFECTIVE DURING THE WARRANTY PERIOD. IN THE CASE OF REPLACEMENT OR REPAIR DUE TO FAILURE WITHIN THE WARRANTY PERIOD, THE WARRANTY ON THAT PORTION OF THE WORK SHALL BE EXTENDED FOR A MINIMUM PERIOD OF ONE (1) YEAR FROM THE DATE OF SUCH REPLACEMENT OR REPAIR.

ELECTRICAL ABBREVIATIONS

1PH	SINGLE-PHASE
1P	SINGLE POLE
2/C	TWO-CONDUCTOR
3/C	THREE-CONDUCTOR
3PH	THREE-PHASE
4/C	FOUR-CONDUCTOR
4W	FOUR-WIRE
A/C UNIT	AIR CONDITIONING UNIT
A/E	ARCHITECT/ENGINEER
AC	ALTERNATING CURRENT OR ARMORED CABLE
AF	AMPERE FRAME OR AMP FUSE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
ALT	ALTERNATE
AMP	AMPERE
ARCH	ARCHITECT
ASC	AMPS SHORT CIRCUIT
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AV	AUDIO VISUAL
BD	BOARD
BFF	BELOW FINISH FLOOR
BFG	BELOW FINISH GRADE
BLDG	BUILDING
BRKR	BREAKER
BYP	BY PASS
C	CONDUIT
CAB	CABINET
CALC	CALCULATE
CAP	CONTRACTOR FURNISHED
CAT	/CONTRACTOR INSTALLED
CCTV	CLOSED CIRCUIT TELEVISION
cd	CANDELA
CD	CONSTRUCTION DOCUMENTS
CF	CONTRACTOR FURNISHED
CF/OI	CONTRACTOR FURNISHED /OWNER INSTALLED
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CKT	CIRCUIT
CKT BRKR	CIRCUIT BREAKER
CLF	CURRENT LIMITING FUSE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COAX	COAX CABLE
COMM	COMMUNICATION
CONC	CONCRETE
CONT	CONTINUE
CPT	CONTROL POWER TRANSFORMER
CRI	COLOR RENDERING INDEX
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
CU FT	CUBIC FEET
dB	DECIBEL
DC	DIRECT CURRENT
DCP	DIMMER CONTROL PANEL
DEG C	DEGREES CELSIUS
DEG F	DEGREES FAHRENHEIT
DEMO (D)	DEMOLITION
DDC	DIRECT DIGITAL CONTROL PANEL
DIAG	DIAGRAM
DISC	DISCONNECT
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DRSW	DOOR SWITCH
DS	DISCONNECT SWITCH
DWG	DRAWING
EF	EXHAUST FAN
EL	ELEVATION
ELEC	ELECTRIC OR ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EPO	EMERGENCY POWER OFF
ESMT	EASEMENT
EDF	ELECTRIC DRINKING FOUNTAIN
EWH	ELECTRIC WATER HEATER
ETR	EXISTING TO REMAIN
(E)	EXISTING
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FMC	FLEXIBLE METALLIC CONDUIT
FLUOR	FLUORESCENT
FP	FIRE PROTECTION
FT	FEET OR FOOT
FU SW	FUSED SWITCH
FVNR	FULL VOLTAGE NON-REVERSING
G OR GND	GROUND OR GENERATOR
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GTB	GROUND TERMINAL BOX
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HT	HEIGHT
HZ	HERTZ
IMC	INTERMEDIATE METAL CONDUIT
INCAND	INCANDESCENT
IR	INFRARED
IWH	INSTANTANEOUS WATER HEATER
J-BOX	JUNCTION BOX
kV	KILOVOLT
kVA	KILOVOLT AMPERE
kVAH	KILOVOLT AMPERE PER HOUR
kVAR	KILOVOLT AMPERE REACTIVE
kW	KILOWATT
kWH	KILOWATT HOUR
kWHM	KILOWATT HOUR METER
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET (FOOT)
LM	LUMEN
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
LTG PNL	LIGHTING PANEL
LTNG	LIGHTNING
LV	LOW VOLTAGE
MAX	MAXIMUM
MC	METAL-CLAD
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
(N)	NEW
NA	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NS	NO SCALE
NSL	NON SWITCHED HOT LEG
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OL	OVERLOAD
P	POLE OR PHASE
PA	PUBLIC ADDRESS
PB	PULL BOX, OR PUSHBUTTON
PCB	POLYCHLORINATED BIPHENYL
PEC	PHOTOELECTRIC CELL
PED	PEDESTAL
PEND	PENDANT
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE (PLASTIC)
PWR	POWER
(R)	RELOCATE
RCP	REFLECTED CEILING PLAN
RECPT	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMS	ROOT MEAN SQUARE
REQD	REQUIRED
SCC	SHORT CIRCUIT CAPACITY
SD	SMOKE DETECTOR
SF	SQUARE FOOT (FEET)
SPEC	SPECIFICATION
SPST	SINGLE POLE, SINGLE THROW
SURF	SURFACE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME CLOCK
TEL	TELEPHONE
TP	TWISTED PAIR
TPS	TWISTED PAIR SHIELDED
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP	TYPICAL
UGND	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTIL	UTILITY
V	VOLT
VA	VOLT AMPERE
VAR	VOLT AMPERE REACTIVE
VFD	VARIABLE FREQUENCY DRIVE
VOLT	VOLTAGE
W	WATT
WP	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER

SECURITY

CAM	CAMERA
HS	HORN STROB
WAP	WIRELESS ACCESS POINT
S	SPEAKER

ENERGY CODE REQUIREMENTS:

1. [C103.2] THESE PLANS, SPECIFICATIONS, AND/OR CALCULATIONS PROVIDE ALL INFORMATION WITH WHICH COMPLIANCE CAN BE

PANEL: LBB

LOCATION:
SUPPLY FROM: DULLES - LOAD ANL. BF
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 120/208 WYE
PHASE: 3
WIRE: 4

A.I.C. RATING: 10,000
BUS RATING: 125 A
MCB 100 A

CKT	CIRCUIT DESCRIPTION	LC	CT	TRIP	POLES	A (KVA)		B (KVA)		C (KVA)		POLES	TRIP	CT	LC	CIRCUIT DESCRIPTION	CKT
1	(E) SOUND SYSTEM	R	1	20 A	1	1.5	0.2					1	20 A	1	R	(E) RECEPTACLE	2
3	(E) LOAD	R	1	20 A	1			1.5	0.2			1	20 A	1	R	(E) RECEPTACLE	4
5	(E) ELEV. LIGHTS	R	1	20 A	1					0.5	0.2	1	20 A	1	R	(E) RECEPTACLE	6
7	(E) LOAD	R	1	20 A	1	1.5	1.5					1	20 A	1	R	(E) LOAD	8
9								3.1	1.5			1	20 A	1	R	(E) GFCI OUTSIDE	10
11	(E) ELEVATOR	R	1	40 A	3					3.1	1.5	1	20 A	1	R	(E) LOAD	12
13						3.1	1.5					1	20 A	1	R	(E) LOAD	14
15	(E) CONCESSION STAND	R	1	30 A	2			2.0	3.1			1	40 A	1	R	(E) SCOREBOARD	16
17										2.0	0.6	1	20 A	6	L; R	(2) RCPT & LTG - DUGOUT 3 [#10 AWG]	18
19	(2) RCPT & LTG - DUGOUT 4 [#10 AWG]	L; R	6	20 A	1	0.6											20
21																	22
23																	24
25																	26
27																	28
29																	30
31																	32
33																	34
35																	36
37																	38
39																	40
41																	42
				TOTAL LOAD:		9.83 kVA		11.34 kVA		7.82 kVA							
				TOTAL AMPS:		84 A		97 A		65 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
L	0.39 kVA	125.00%	0.48 kVA		
R	28.60 kVA	67.48%	19.30 kVA	TOTAL CONN. LOAD:	28.99 kVA
				TOTAL EST. DEMAND:	19.78 kVA
				TOTAL CONN..:	80 A
				TOTAL EST. DEMAND:	55 A

NOTES:
USE 2#12Cu + 1#12G IN 3/4" FOR 20A/1P BREAKER U.O.N. MAX 3 SINGLE PHASE CIRCUITS PER CONDUIT - 9 CONDUCTORS
* GFI BREAKER
**NON-COINCIDENT LOADS (LARGER OF TWO CALCULATED)
L - LIGHTING; R - RECEPTACLE; SH - HVAC SPLIT SYSTEMS (HEATING) SC - HVAC SPLIT SYSTEMS (COOLING); HP - HVAC PACKAGE UNITS; HC - HVAC COOLING ONLY; EH - ELECTRIC HEAT; K - KITCHEN EQUIPMENT; M - MOTOR; NC - NON-CONTINUOUS LOADS

PANEL: LSB

LOCATION:
SUPPLY FROM: DULLES - LOAD ANL. SF
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 120/208 WYE
PHASE: 3
WIRE: 4

A.I.C. RATING: 10,000
BUS RATING: 125 A
MCB 100 A

CKT	CIRCUIT DESCRIPTION	LC	CT	TRIP	POLES	A (KVA)		B (KVA)		C (KVA)		POLES	TRIP	CT	LC	CIRCUIT DESCRIPTION	CKT
1	(E) SOUND SYSTEM	R	1	20 A	1	1.5	0.2					1	20 A	1	R	(E) RECEPTACLE	2
3	(E) LOAD	R	1	20 A	1			1.5	0.2			1	20 A	1	R	(E) RECEPTACLE	4
5	(E) ELEVATOR LIGHTS	R	1	20 A	1					0.5	0.2	1	20 A	1	R	(E) RECEPTACLE	6
7	(E) LOAD	R	1	20 A	1	1.5	1.5					1	20 A	1	R	(E) SPRINKLER SYSTEM	8
9	(E) LOAD	R	1	20 A	1			1.5	1.5			1	20 A	1	R	(E) CONCESSION	10
11	(E) LIGHTS	L	1	20 A	1					1.5	1.5	1	20 A	1	R	(E) LOAD	12
13						3.1	0.6					1	20 A	6	L; R	(2) RCPT & LTG - DUGOUT 1 [#10 AWG]	14
15	(E) ELEVATOR	R	1	40 A	3			3.1	0.6			1	20 A	6	L; R	(2) RCPT & LTG - DUGOUT 2 [#10 AWG]	16
17										3.1							18
19																	20
21																	22
23																	24
25																	26
27																	28
29																	30
31																	32
33																	34
35																	36
37																	38
39																	40
41																	42
				TOTAL LOAD:		8.33 kVA		8.33 kVA		6.77 kVA							
				TOTAL AMPS:		71 A		71 A		56 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
L	1.89 kVA	125.00%	2.36 kVA		
R	21.54 kVA	73.21%	15.77 kVA	TOTAL CONN. LOAD:	23.43 kVA
				TOTAL EST. DEMAND:	18.13 kVA
				TOTAL CONN..:	65 A
				TOTAL EST. DEMAND:	50 A

NOTES:
USE 2#12Cu + 1#12G IN 3/4" FOR 20A/1P BREAKER U.O.N. MAX 3 SINGLE PHASE CIRCUITS PER CONDUIT - 9 CONDUCTORS
* GFI BREAKER
**NON-COINCIDENT LOADS (LARGER OF TWO CALCULATED)
L - LIGHTING; R - RECEPTACLE; SH - HVAC SPLIT SYSTEMS (HEATING) SC - HVAC SPLIT SYSTEMS (COOLING); HP - HVAC PACKAGE UNITS; HC - HVAC COOLING ONLY; EH - ELECTRIC HEAT; K - KITCHEN EQUIPMENT; M - MOTOR; NC - NON-CONTINUOUS LOADS

ELECTRICAL SERVICE LOAD ANALYSIS

DULLES - LOAD ANL. BF

#	CONNECTED PANELS	LOAD
1	PANEL - 'LBB'	29.0 kVA
	TOTAL CONNECTED (KVA):	29.0 kVA
	TOTAL CONNECTED (A)	80 A

TAG	DESCRIPTION	NEC	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTAL LOAD ANALYSIS	
L	LIGHTING	NEC:220.12	0.39 kVA	125.00%	0.48 kVA		
R	GENERAL RECEPTPACLES	NEC:220.44	28.60 kVA	67.48%	19.30 kVA		
SH	HVAC SPLIT SYSTEM HEATING	NEC:220.51-424.3	0.00 kVA	0.00%	0.00 kVA	EST. SER. DEMAND (KVA):	20
SC	HVAC SPLIT SYSTEM COOLING	NEC:220.51-424.3	0.00 kVA	0.00%	0.00 kVA		
HP	HVAC PACKAGE UNITS	NEC:220.51-424.3	0.00 kVA	0.00%	0.00 kVA	EST. SERVCE DEMAND...	55
HC	HVAC COOLING ONLY	NEC:220.51-424.3	0.00 kVA	0.00%	0.00 kVA		
EH	ELECTRIC HEAT		0.00 kVA	0.00%	0.00 kVA	SERVICE VOLTAGE (V):	120/208 WYE
K	KITCHEN EQUIPMENT	NEC:220.56	0.00 kVA	0.00%	0.00 kVA		
M	MOTORS	NEC:430.24	0.00 kVA	0.00%	0.00 kVA	MIN REQ'D SERVICE SIZE:	100 A
NC	NON-CONTINUOUS LOADS		0.00 kVA	0.00%	0.00 kVA		

NOTES:

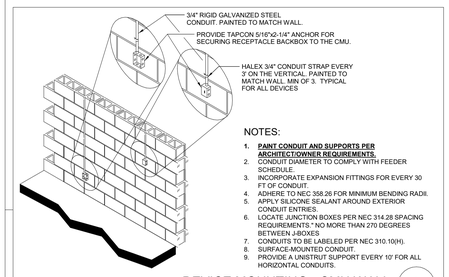
ELECTRICAL SERVICE LOAD ANALYSIS

DULLES - LOAD ANL. SF

#	CONNECTED PANELS	LOAD
1	PANEL - 'LSB'	23.4 kVA
	TOTAL CONNECTED (KVA):	23.4 kVA
	TOTAL CONNECTED (A)	65 A

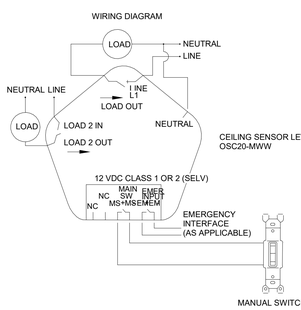
TAG	DESCRIPTION	NEC	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTAL LOAD ANALYSIS	
L	LIGHTING	NEC:220.12	1.89 kVA	125.00%	2.36 kVA		
R	GENERAL RECEPTPACLES	NEC:220.44	21.54 kVA	73.21%	15.77 kVA		
SH	HVAC SPLIT SYSTEM HEATING	NEC:220.51-424.3	0.00 kVA	0.00%	0.00 kVA	EST. SER. DEMAND (KVA):	18
SC	HVAC SPLIT SYSTEM COOLING	NEC:220.51-424.3	0.00 kVA	0.00%	0.00 kVA		
HP	HVAC PACKAGE UNITS	NEC:220.51-424.3	0.00 kVA	0.00%	0.00 kVA	EST. SERVCE DEMAND...	50
HC	HVAC COOLING ONLY	NEC:220.51-424.3	0.00 kVA	0.00%	0.00 kVA		
EH	ELECTRIC HEAT		0.00 kVA	0.00%	0.00 kVA	SERVICE VOLTAGE (V):	120/208 WYE
K	KITCHEN EQUIPMENT	NEC:220.56	0.00 kVA	0.00%	0.00 kVA		
M	MOTORS	NEC:430.24	0.00 kVA	0.00%	0.00 kVA	MIN REQ'D SERVICE SIZE:	100 A
NC	NON-CONTINUOUS LOADS		0.00 kVA	0.00%	0.00 kVA		

NOTES:

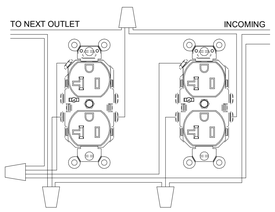


NOTES:
1. **PAINT CONDUIT AND SUPPORTS PER ARCHITECTIOWNER REQUIREMENTS.**
2. CONDUIT DIAMETER TO COMPLY WITH FEEDER SCHEDULE.
3. INCORPORATE EXPANSION FITTINGS FOR EVERY 30 FT OF CONDUIT.
4. ADHERE TO NEC 358.26 FOR MINIMUM BENDING RADII.
5. APPLY SILICONE SEALANT AROUND EXTERIOR CONDUIT ENTRIES.
6. LOCATE JUNCTION BOXES PER NEC 314.28 SPACING REQUIREMENTS." NO MORE THAN 270 DEGREES BETWEEN J-BOXES
7. CONDUITS TO BE LABELED PER NEC 310.10(H).
8. SURFACE-MOUNTED CONDUIT.
9. PROVIDE A UNISTRUT SUPPORT EVERY 10' FOR ALL HORIZONTAL CONDUITS.

DEVICE MOUNTING - CMU WALL 3
NOT TO SCALE



CEILING OCCUPANCY/VACANCY SENSOR 2
NOT TO SCALE



NOTES:
1. CIRCUITING TO ALL NON DEDICATED ELECTRICAL RECEPTACLES AND SWITCHES ARE REQUIRED TO UTILIZE PARALLEL CIRCUITING BY THE USE OF "PIG TAILS" TO EACH DEVICE SO THAT IF AN OUTLET IS REMOVED OR FAILS ELECTRICAL CONTINUITY THE CIRCUIT WILL NOT BE COMPROMISED.

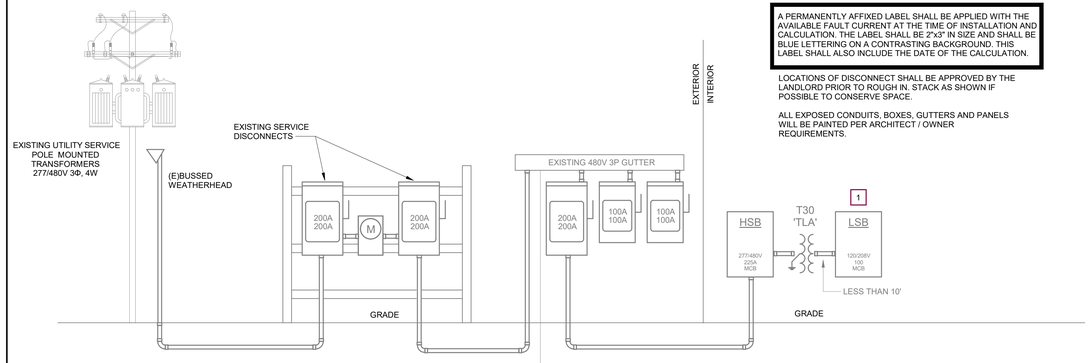
2. ALL ELECTRICAL WIRING MUST BE PROPERLY SPLICED BY TWISTING THE WIRES TOGETHER AND USE OF APPROVED AND LISTED COMPRESSION WIRE NUTS FOR ANY WIRING.

RECEPTACLE INSTALLATION - PIG TAIL 1
NOT TO SCALE

EXISTING FEEDER SCHEDULE

TAG	CONDUIT WITH COPPER CONDUCTORS: SETS	QUANTITY / AWG	GROUND / AWG	CONDUIT SIZE	CONDUIT WITH ALUMINUM CONDUCTORS: SETS	QUANTITY / AWG	GROUND / AWG	CONDUIT SIZE
20 / 20D	1 / 1	4#12 / 3#12	#12	3/4"			#12	3/4"
30 / 30D	1 / 1	4#10 / 3#10	#10	3/4"			#10	3/4"
40 / 40D	1 / 1	4#8 / 3#8	#8	1"			#8	1"
50 / 50D	1 / 1	4#6 / 3#6	#8	1-1/4"			#8	1-1/4"
60 / 60D	1 / 1	4#4 / 3#4	#6	1-1/2"			#8	1-1/4"
80 / 80D	1 / 1	4#2 / 3#2	#6	1-1/2"			#6	1-1/2"
100 / 100D	1 / 1	4#1 / 3#1	#6	1-1/2"	1 / 1	4#1/0 / 3#1/0	#6	2"
130 / 130D	1 / 1	4#1 / 3#1	#6	1-1/2"	1 / 1	4#2/0 / 3#2/0	#4	2-1/2"
150 / 150D	1 / 1	4#1/0 / 3#1/0	#6	2"	1 / 1	4#3/0 / 3#3/0	#4	2-1/2"
175 / 175D	1 / 1	4#2/0 / 3#2/0	#4	2-1/2"	1 / 1	4#4/0 / 3#4/0	#2	2-1/2"
200 / 200D	1 / 1	4#3/0 / 3#3/0	#4	2-1/2"	1 / 1	4#250 kcmil / 3#250 kcmil	#2	2-1/2"
225 / 225D	1 / 1	4#4/0 / 3#4/0	#2	2-1/2"	1 / 1	4#300 kcmil / 3#300 kcmil	#2	3"
250 / 250D	1 / 1	4#250 kcmil / 3#250 kcmil	#2	2-1/2"	1 / 1	4#350 kcmil / 3#350 kcmil	#1/0	4"
310 / 310D	1 / 1	4#350 kcmil / 3#350 kcmil	#2	3"	2 / 2	4#3/0 or 1 SET 500 kcmil / 3#3/0 or 1 SET 500 kcmil	#1/0	2-1/2" or 4"
380 / 380D	1 / 1	4#500 kcmil / 3#500 kcmil	#1/0	4"	2 / 2	4#250 kcmil / 3#250 kcmil	#2/0	2-1/2"
400 / 400D	2 / 2	4#3/0 / 3#3/0	#1/0	2-1/2"	2 / 2	4#250 kcmil / 3#250 kcmil	#2/0	3"
500 / 500D	2 / 2	4#250 kcmil / 3#250 kcmil	#2/0	2-1/2"	2 / 2	4#350 KCMIL / 3#350 KCMIL	#2/0	4"
600 / 600D	2 / 2	4#350 kcmil / 3#350 kcmil	#2/0	3"	2 / 2	4#500 kcmil / 3#500 kcmil	#2/0	3"
750 / 750D	2 / 2	4#500 KCMIL / 3#500 KCMIL	#2/0	4"	3 / 3	4#350 kcmil / 3#350 kcmil	#3/0	4"
800 / 800D	3 / 3	4#350 kcmil / 3#350 kcmil	#2/0	3"	3 / 3	4#400 kcmil / 3#400 kcmil	#3/0	3"
1000 / 1000D	3 / 3	4#500 kcmil / 3#500 kcmil	#3/0	4"	4 / 4	4#350 kcmil / 3#350 kcmil	#4/0	4"
1200 / 1200D	4 / 4	4#350 kcmil / 3#350 kcmil	#3/0	3"	5 / 5	4#350 kcmil / 3#350 kcmil	#4/0	4"
2000 / 2000D	6 / 6	4#500 kcmil / 3#500 kcmil	#4/0	4"	8 / 8	4#350 kcmil / 3#350 kcmil	#4/0	4"
2500 / 2500D	7 / 7	4#500 kcmil / 3#500 kcmil	#4/0	4"	10 / 10	4#350 kcmil / 3#350 kcmil	#4/0	4"
3000 / 3000D	8 / 8	4#500 kcmil / 3#500 kcmil	#4/0	4"	12 / 12	4#350 kcmil / 3#350 kcmil	#4/0	4"
3500 / 3500D	10 / 10	4#500 kcmil / 3#500 kcmil	#4/0	4"			#4/0	4"
4000 / 4000D	11 / 11	4#500 kcmil / 3#500 kcmil	#4/0	4"			#4/0	4"

ALL PANELS SHALL BE INSTALLED WITH INTEGRAL SPD -
400A AND LESS SHALL HAVE 60 kA / MODE
SEE GENERAL SPECS FOR MORE CONDUCTOR REQUIREMENTS.



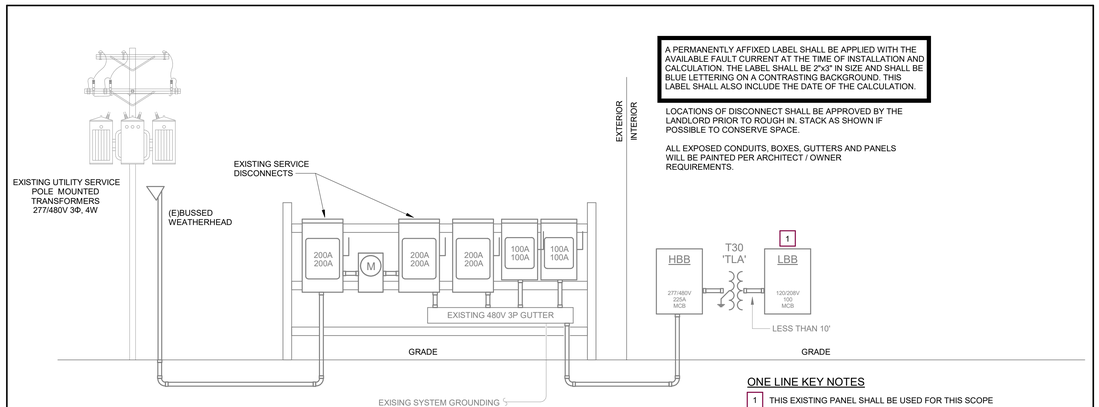
A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2"x3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.

LOCATIONS OF DISCONNECT SHALL BE APPROVED BY THE LANDLORD PRIOR TO ROUGH IN. STACK AS SHOWN IF POSSIBLE TO CONSERVE SPACE.

ALL EXPOSED CONDUITS, BOXES, GUTTERS AND PANELS WILL BE PAINTED PER ARCHITECT / OWNER REQUIREMENTS.

ONE LINE KEY NOTES
1 THIS EXISTING PANEL SHALL BE USED FOR THIS SCOPE

2 ONE LINE DIAGRAM - SOFTBALL FIELD
SCALE: NTS



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LOCATIONS OF DISCONNECT SHALL BE APPROVED BY THE LANDLORD PRIOR TO ROUGH IN. STACK AS SHOWN IF POSSIBLE TO CONSERVE SPACE.

ALL EXPOSED CONDUITS, BOXES, GUTTERS AND PANELS WILL BE PAINTED PER ARCHITECT / OWNER REQUIREMENTS.

ONE LINE KEY NOTES
1 THIS EXISTING PANEL SHALL BE USED FOR THIS SCOPE

1 ONE LINE DIAGRAM - BASEBALL FIELD
SCALE: NTS

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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

BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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

INTERIM REVIEW ONLY
Document is Incomplete
Not intended for permit or construction.
Engineer: DAVA GERNAND
PE License No. 109003 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-059
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

Δ	Date	Description
1	10/09/2025	100% CD

PROJECT STATUS
E110-D
ELECTRICAL

GK ENGINEERS
MEP CONSULTANT:
GK Engineers, LLC
TBPE # F-18854
5959 West Loop South, Suite 350
Bellaire, TX 77401
Phone: 713.988.8894
GKEngineers@gk-mep.com
HUB / MWBE CERTIFIED

G:\ PROJECT # 2025.044

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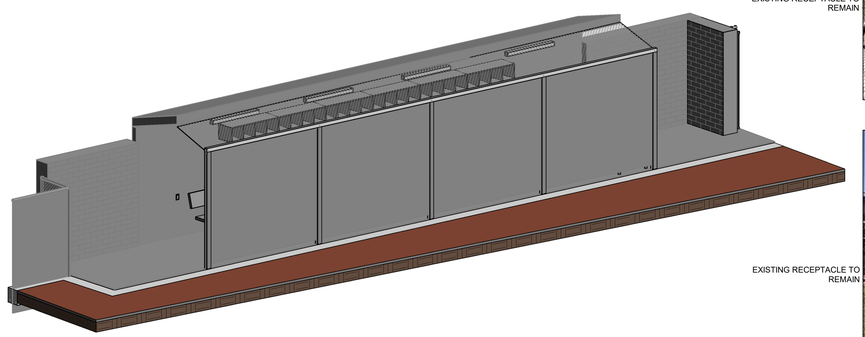
LIGHTING FIXTURE SCHEDULE

CONTRACTOR SHALL COORDINATE WITH ARCHITECT/OWNER FOR ALL FINAL SELECTIONS, LOCATIONS, QUANTITIES, ETC.

Tag	Manufacturer	Model Number	Mounting	Voltage	Wattage	Lamp Type	Description
A	ORACLE LIGHTING	4-OWVS1-LED-5000L-DIM10-MVOLT-50K-85-TPS	SURFACE	120 V	46 W	LED	VAPOR TIGHT LINEAR LED

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

1. REFER TO ARCHITECTURAL PLANS FOR GRID/FLANGE AREAS. PRIOR TO BIDDING OF LIGHT FIXTURES. CONTRACTOR IS RESPONSIBLE FOR QUANTITY OF EACH.
2. COORDINATE MOUNTING HEIGHT OF ALL FIXTURES WITH ARCHITECTURAL DRAWINGS.
3. PROVIDE AN ADDITIONAL NON-SWITCHED HOT LEG TO ALL EMERGENCY FIXTURES FOR BATTERY CHARGING AND POWER-LOSS DETECTION.
4. PROVIDE AN EXTRA HOT AND SPLICE AROUND CONTRACTORS/CONTROLLERS IF NECESSARY.
5. ALL EXIT SIGNS ARE TO BE NON-SWITCHED.
6. ALL FIXTURE SUBSTITUTIONS SHALL BE SUBMITTED TO THE A/E PRIOR TO BID. EQUALS MUST CONFORM TO LUMENS PER WATT AND PHOTOMETRIC PERFORMANCE.



5 3D VIEW - BASEBALL DUGOUT - DULLES



6 3D VIEW - SOFTBALL DUGOUT - DULLES

RENOVATION OF EXISTING DUGOUT. RE: ARCHITECTURAL DRAWINGS

EXISTING RECEPTACLE TO REMAIN



PHOTO OF EXISTING RIGHT SOFTBALL DUGOUT



PHOTO OF EXISTING RIGHT BASEBALL DUGOUT

RENOVATION OF EXISTING DUGOUT. RE: ARCHITECTURAL DRAWINGS

EXISTING RECEPTACLE TO REMAIN

EXISTING RECEPTACLE TO REMAIN

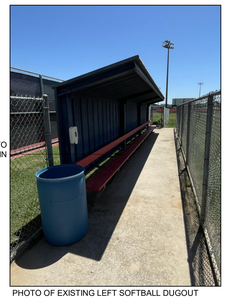


PHOTO OF EXISTING LEFT SOFTBALL DUGOUT



PHOTO OF EXISTING LEFT BASEBALL DUGOUT

EXISTING RECEPTACLE TO REMAIN

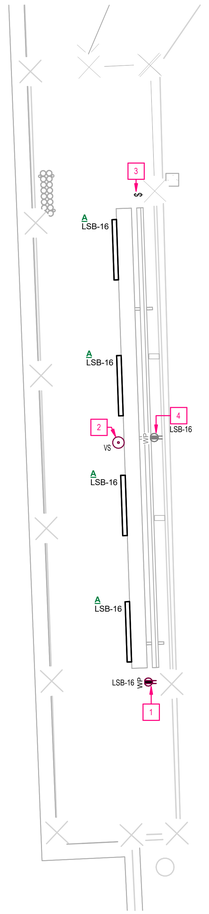


PHOTO OF EXISTING TO REMAIN RECEPTACLE - SOFTBALL

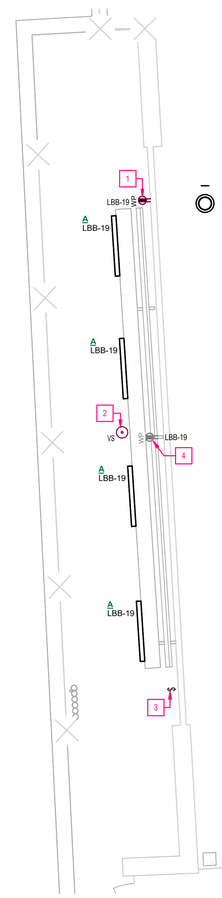


PHOTO OF EXISTING TO REMAIN RECEPTACLE - BASEBALL

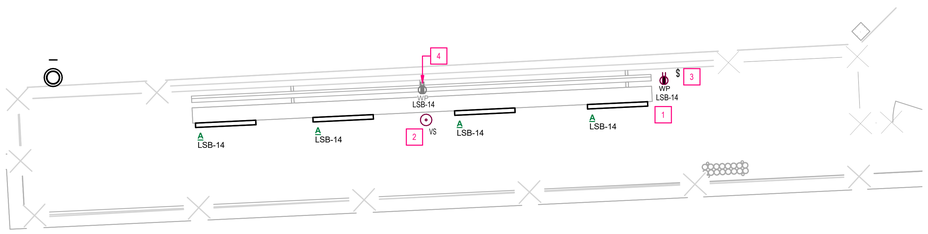
#	E - KEYED NOTES
1	PROVIDE VANDAL RESISTANT STAINLESS STEEL RECEPTACLE PLATE WITH OUTDOOR RATED ENCLOSURE.
2	PROVIDE VACANCY CONTROLS FOR DUGOUT AREA. PROVIDE OUTDOOR RATED CEILING MOUNTED VACANCY SENSOR SIMILAR TO LEGRAND - HBLZW. CONTROLS SHALL BE AUTO OFF AFTER 20 MIN / MANUAL ON / PUSH TO DIM. REFER TO ELECTRICAL DETAILS FOR ALL COMPONANTS.
3	PROVIDE SINGLE GANG WEATHER RESISTANT COVER FOR LIGHTING CONTROL DIMMER SWITCH.
4	EXISTING RECEPTACLE TO REMAIN.



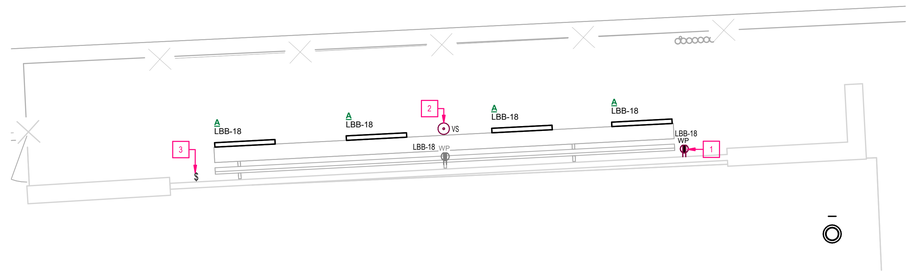
4 ENLARGED PLAN - DULLES HS - SOFTBALL LEFT DUGOUT
1/4" = 1'-0"



2 ENLARGED PLAN - DULLES HS - BASEBALL RIGHT DUGOUT
1/4" = 1'-0"



3 ENLARGED PLAN - DULLES HS - SOFTBALL RIGHT DUGOUT
1/4" = 1'-0"



1 ENLARGED PLAN - DULLES HS - BASEBALL LEFT DUGOUT
1/4" = 1'-0"

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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INTERIM REVIEW ONLY
Document is Incomplete
Not intended for permit or construction
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DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-099
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

No.	Date	Description
	10/09/2025	100% CD

PROJECT STATUS

E401-D
ENLARGED PLANS - DULLES HS FIELDS - ELECTRICAL

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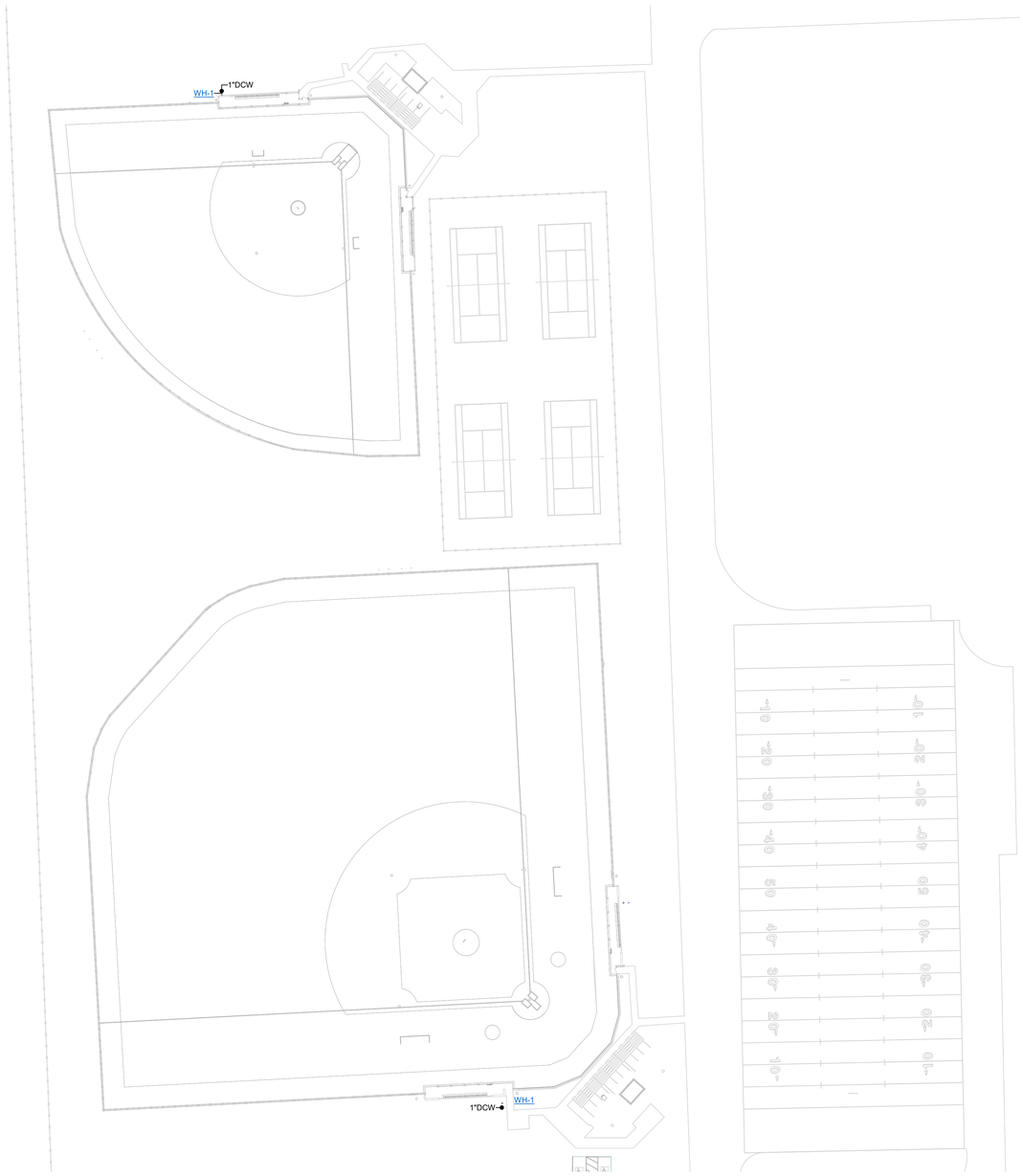


1 PLUMBING SITE PLAN - DULLES HS FIELDS
1" = 40'-0"

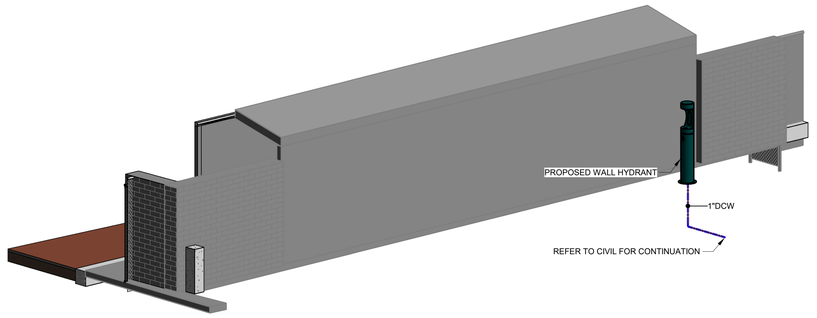
PLUMBING KEYED NOTES

SITE PLAN NOTES

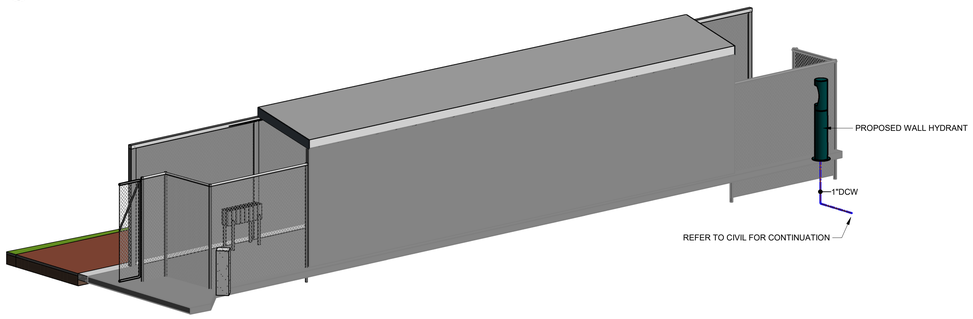
1. UNDERGROUND PLUMBING ROUTING SHALL BE COORDINATED WITH UNDERGROUND UTILITIES. COORDINATE WITH CIVIL PLANS FOR MORE INFORMATION. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS. ALL PIPING 5'-0" OUTSIDE THE BUILDING SHALL BE DESIGNED BY THE CIVIL ENGINEER ALL PIPING SHOWN ON THIS PLAN IS ONLY FOR GENERAL PURPOSE.ALL PIPING WITH-IN 5'-0" AND BELOW BUILDING IS APART OF THE PLUMBING DESIGN.
2. PLUMBING CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF PLUMBING GAS SERVICE ENTRANCE AND PRESSURE REDUCING REGULATORS AS REQUIRED FOR THE PROJECT. CONTRACTOR SHALL SUBMIT INFORMATION DEVELOPED BY ENGINEER IN FORM OF SITE PLAN DRAWINGS TO THE GAS COMPANY REPRESENTATIVE FOR PROCESSING SERVICE REQUEST. PROVIDE AN ADDITIONAL $8,000 ALLOWANCE FOR FEES ASSOCIATED WITH THE GAS SERVICE ENTRANCE.
3. ALL LINES 5 FEET OUTSIDE THE BUILDING SHALL BE COORDINATED BY THE CIVIL ENGINEER THAT NO INTERRUPTIONS WILL BE TAKING PLACE.

P - SHEET LIST

SHEET NUMBER	SHEET NAME
P001-A	PLUMBING SITE PLAN - AUSTIN HS FIELDS
P101-A	GENERAL NOTES, ABBREV., & LEGEND
P001-D	PLUMBING SITE PLAN - DULLES HS FIELDS
P101-D	GENERAL NOTES, ABBREV., & LEGEND
P001-E	PLUMBING SITE PLAN - ELKINS HS FIELDS
P101-E	GENERAL NOTES, ABBREV., & LEGEND
P001-K	PLUMBING SITE PLAN - KEMPNER HS FIELDS
P101-K	GENERAL NOTES, ABBREV., & LEGEND
P001-W	PLUMBING SITE PLAN - WILLOWRIDGE HS FIELDS
P101-W	GENERAL NOTES, ABBREV., & LEGEND



3 3D VIEW - BASEBALL DUGOUT - DULLES - PLUMBING



2 3D VIEW - SOFTBALL DUGOUT - DULLES - PLUMBING

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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Document Is Incomplete
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Engineer: DAVIA GERNAND
PE License No: 109903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-059
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

	Date	Description
1	10/09/2025	100% CD

PROJECT STATUS
P001-D
PLUMBING SITE PLAN - DULLES HS FIELDS

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GENERAL PLUMBING NOTES:

GENERAL

1. CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE, AND APPLICABLE AHJ ADOPTED CODES, ALL OTHER LOCAL CODES AND AMENDMENTS WHERE THERE ARE CONFLICTS BETWEEN CODES, STANDARDS, DRAWINGS AND SPECIFICATIONS ARISE, THE MORE STRINGENT SHALL APPLY.
2. PLUMBING EQUIPMENT SHALL BE LISTED, LABELED, AND MARKED FOR USE BY AN APPROVED THIRD-PARTY CERTIFICATION AGENCY AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC. ALL PLUMBING PRODUCTS AND MATERIALS SHALL BE LISTED BY A THIRD – PARTY CERTIFICATION AGENCY AS COMPLYING WITH THE REFERENCED STANDARDS.
3. ALL DRAWINGS AND SPECIFICATIONS (INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING, ETC) ARE DEVELOPED TO BE AN INCLUSIVE SET. ANY CONFLICTS WITHIN SHALL BE BROUGHT TO THE DESIGN'S TEAM ATTENTION. CONTRACTOR SHALL NOT MAKE ANY CHANGES TO THE DESIGN OR CONTRACT WITHOUT WRITTEN CONSENT FROM THE OWNER.
4. WORK SHALL BE INSTALLED IN A WORKMAN LIKE FASHION. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS.
5. MAINTAIN THE CONSTRUCTION PREMISES IN A NEAT AND ORDERLY CONDITION. CONTRACTOR SHALL PROTECT THEIR WORK AGAINST WEATHER, THEFT, AND DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
6. ALL PRODUCTS SHALL COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND UL 723.
7. QUALITY CONTROL
   7.1. INSTALLER: QUALIFIED WITH AT LEAST 5 YEARS OF SUCCESSFUL INSTALLATION EXPERIENCE ON PROJECTS WITH WORK SIMILAR TO THAT REQUIRED FOR THIS PROJECT.
   7.2. UL COMPLIANCE: PROVIDE COMPONENTS WITH UL LISTING AND LABELING WHEN THERE IS AN APPLICABLE UL CATEGORY.
   7.3. COMPLY WITH THE MINIMUM STANDARDS PRESCRIBED IN REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS: UNDERWRITER'S LABORATORIES, INC. STANDARDS., INTERNATIONAL PLUMBING CODE CURRENT EDITION AND OTHER CODES, ORDINANCES, AND LAWS APPLICABLE TO THE PLACE OF THE WORK.
8. SUBMITTALS - SUBMIT 4 COPIES (OR ELECTRONIC) OF DATA FOR REVIEW AND COMMENT BY OWNER PRIOR TO ORDERING. INCLUDE MANUFACTURER'S STANDARD SUBMITTAL DATA WITH MANUFACTURER'S NAME AND MODEL NUMBERS, COLOR, FINISH, SIZE AND ALL OPTIONS CLEARLY MARKED.
9. SUBSTITUTIONS SHALL BE EVALUATED AND APPROVED BY OWNER AND ENGINEER PRIOR TO CONTRACTOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AMONG TRADES AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. PENETRATIONS BETWEEN NON-CONDITIONED AND CONDITIONED SPACES WILL BE SEALED TO ELIMINATE MOISTURE MITIGATION, SUCH AS BETWEEN INSIDE AND OUTSIDE BUILDINGS, NON-CONDITIONED BOILER ROOMS, INTO REFRIGERATORS / FREEZERS, ETC.
11. CITY NOTE: PLUMBING MATERIAL AND EQUIPMENT: NO MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THE CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, THE LAWS OF THE STATE OF TEXAS AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUTES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVED AGENCY.

PLUMBING PIPING SYSTEMS

1. ALL PACKAGED EQUIPMENT SHALL BE INDEPENDENTLY THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A (UL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS, AS WELL AS NFPA PAMPHLET NO. 70, AND THE NATIONAL ELECTRICAL CODE (NEC).
2. ALL SYSTEMS SHALL BE A COMPLETE AND OPERABLE SYSTEM PROVIDE THE NECESSARY ADAPTORS, FITTINGS, DEVICES, ETC. PROVIDE COMPLETE WITH BASES, ISOLATORS, SUPPORTS AND OTHER REQUIRED ACCESSORIES.
3. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES FOR REQUIREMENTS OF ALL EQUIPMENT AND DEVICES AS REQUIRED FOR PROPER FUNCTIONING SYSTEM.
4. ALL ABOVE GRADE PIPING SHALL BE INSTALLED PARALLEL TO BUILDING WALLS U.N.O.
5. ALL PIPING TO BE INSTALLED WITH A UNIFORM SLOPE TO MITIGATE UN DRAINABLE LOW POINTS.
6. DI-ELECTRIC UNIONS AND COUPLINGS ARE REQUIRED FOR DISSIMILAR METALS SUCH AS CONNECTIONS BETWEEN COPPER AND STEEL OR IRON PIPES.

DOMESTIC WATER SYSTEM

LEAD-FREE PRODUCTS:

1. PROVIDE MATERIALS, PRODUCTS, AND FABRICATIONS THAT COMPLY WITH ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS AND RECOMMENDATIONS REGARDING LEAD CONTENT AND CONTRIBUTION OF LEAD TO POTABLE WATER, THAT HAVE NO LEAD OR LEAD ALLOYS IN CONTACT WITH POTABLE WATER, AND THAT DO NOT CONTRIBUTE TO OR CAUSE LEAD IN POTABLE WATER.
2. SOLDER: LEAD FREE, ASTM B32 95-5 TIN-ANTIMONY OR GRADE SN96 TIN-SILVER SOLDER.
3. FLUX: CONTAINING NOT MORE THAN 0.2 PERCENT LEAD, MEETING NSF 61.

PIPING, INTERIOR TO 5' OUTSIDE:

COPPER:
STRAIGHT WATER TUBE, K OR L, ASTM B88 OR B543.
WROUGHT COPPER AND BRONZE SOLDER-JOINT PRESSURE FITTINGS, ANSI B16.22.
WHERE INDICATED ON DRAWINGS TO BE BELOW, IN, OR THROUGH SLAB-ON-GRADE:
COPPER, COILED WATER TUBE, K OR L, ASTM B88.
WROUGHT COPPER AND BRONZE SOLDER-JOINT PRESSURE FITTINGS, ANSI B16.22.
PIPE 1.5" OR SMALLER, IN OR UNDER SLABS-ON-FILL: CONTINUOUS, WITHOUT JOINTS OR FITTINGS.
PIPE 2" OR LARGER, IN OR UNDER SLABS-ON-FILL: BRAZED JOINTS.
PEX: IF APPROVED INDICATE ON BID FORM ALTERNATE PRICING FOR USE OF PEX PIPING AND FITTINGS.
a. USE ABOVE GRADE WHERE CONCEALED IN WALLS OR ABOVE CEILING ONLY.
b. PROVIDE WITH MANUFACTURERS STANDARD LEAD-FREE BRONZE FITTINGS WITH DISCONNECT FEATURE.

LEAD-FREE BALL VALVES, POTABLE WATER SYSTEM.

1. BALL VALVES: TWO-PIECE BODY, FULL PORT, BLOWOUT-PROOF STEM, PTFE SEATS, CONFORMS TO MSS SP-110, SILICON PERFORMANCE BRONZE ALLOY, SIZE RANGE: 1/4" - 2", PRESSURE RATING: 600 PSI CWP. SWEAT-TO-CRIMP LEAD FREE ADAPTERS AT VALVES. COMPLY WITH LEAD-FREE REQUIREMENTS OF NSF-61-G FOR PARTS OF VALVES AND FITTINGS COMING IN CONTACT WITH POTABLE WATER.
2. ACCESS DOOR: WHERE VALVES ARE CONCEALED ABOVE HARD CEILINGS OR IN WALLS PROVIDE THIN-FLANGED, FRAMED ACCESS DOOR, MINIMUM OF 10 INCHES SQUARE OR ADEQUATE TO SERVICE THE DEVICE, 18-8 STAINLESS STEEL CONSTRUCTION WITH NO. 4 FINISH; SMITH 4762.
3. IDENTIFICATION: WHERE VALVES ARE CONCEALED ABOVE CEILINGS ORIN WALLS, PROVIDE ENGRAVED LAMINATED PLASTIC LABLES WITH 1/2" HIGH LETTERS TO INDICATE LOCATION OF VALVE. AFFIX LABEL TO CEILING OR WALL WHERE VALVES ARE CONCEALED.

SANITARY WASTE AND VENT PIPING

1. MATERIAL: REFER TO MATERIAL LEGEND. IF CAST IRON REFER TO CHAPTER IV OF CISPI "CAST IRON SOIL PIPE AND FITTINGS HANDBOOK".
2. INSTALLATION: INSTALL WASTE AND VENT PIPING AT A MINIMUM SLOPE AS INDICATED UNLESS OTHERWISE INDICATED ON THE PLANS:
3. SANITARY PIPE: 2 PERCENT DOWNWARD IN DIRECTION OF FLOW FOR PIPING 2-1/2" AND SMALLER; 1 PERCENT DOWNWARD IN DIRECTION OF FLOW FOR PIPING 3" TO 6".
4. VENT PIPE: 1 PERCENT DOWN TOWARDS THE VERTICAL FIXTURE VENT OR TOWARD THE VENT STACK.

FOUNDATIONS, HANGERS AND SUPPORTS

1. GENERAL PURPOSE: MANUFACTURERS STANDARDIZATION SOCIETY SP-69 OR FEDERAL SPECIFICATION WW-H-171D, TYPES AS RECOMMENDED OR REQUIRED. PERFORATED OR PLAIN METAL STRAP AND WIRE ARE NOT ACCEPTABLE.
2. HANGERS IN CONTACT WITH COPPER PIPE: SAME AS FOR GENERAL PURPOSE, COPPER OR COPPER PLATED WITH PLASTIC COATING.

INSULATION - HOT AND COLD PIPE:

(1) FLEXIBLE CELLULAR INSULATION (FOAMED PLASTIC): FOAMED PLASTIC, FLEXIBLE, K OF 0.25 AT 75EF, 220EF TEMPERATURE LIMIT, DENSITY OF 5.8PCF, ASTM C534, R4.0.
(2) UL LISTED FOR FLAME SPREAD 25, SMOKE DEVELOPED 50, FUEL CONTRIBUTED 50.
(3) PROVIDE THICKNESSES AND INSTALL AS RECOMMENDED BY MANUFACTURER.
(4) BUTT INSULATION TOGETHER AND ADHERE IN PLACE WITH MANUFACTURER'S RECOMMENDED CONTACT CEMENT. WHERE POSSIBLE, SLIP TUBING ON WITHOUT SLITTING. WHERE INSULATION TERMINATES, NEATLY BEVEL AND FINISH.
(5) ROOF DRAINS AND INTERIOR DOWNSPOUTS: VERTICAL PIPING, EXCEPT BETWEEN ROOF-DECK DRAIN AND FIRST ELBOW AND WITHIN TWO FEET OF NON-VERTICAL PIPING, NEED NOT BE INSULATED; INSULATE OTHER RD AND DS PIPING, AND INSULATE THE ROOF-DECK DRAIN (RD) SUMPS WITH SHEET INSULATION. HORIZONTAL PIPING WITHIN CRAWL-SPACE NEED NOT BE INSULATED.
(6) HOT AND COLD WATER, HOT WATER CIRCULATING: PROVIDE THICKNESS RECOMMENDED BY MANUFACTURER. MAINTAIN VAPOR BARRIER ON COLD WATER PIPING INSULATION.
(7) WHERE EXPOSED TO VIEW, BENEATH THE BUILDING, OR EXPOSED TO WEATHER:

A. PAINT WITH INSULATION MANUFACTURER'S PAINT FINISH, TINTED AS SELECTED BY ARCHITECT-ENGINEER, SPECIFICALLY FORMULATED IF EXPOSED OUTDOORS.

B. PROVIDE 16 GAGE ALUMINUM OR STAINLESS STEEL COVER WITH MATCHING ALUMINUM OR STAINLESS STEEL BANDS SPACED 18 INCHES OVER PIPE AND FITTINGS WHERE EXPOSED TO WEATHER OR EXPOSED TO OCCUPANTS AND WITHIN 84 INCHES OF THE FLOOR.

(1) PRODUCT; ARMSTRONG ARMAFLEX WITH WB ARMAFLEX FINISH INDOORS, ARMSTRONG ARMAFLEX WITH SB ARMAFLEX FINISH OUTDOORS.

EXISTING UTILITIES

1. THE LOCATIONS, SIZES AND ELEVATIONS OF EXISTING UTILIZES SHOWN ON THE PLANS ARE BASED ON INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF DESIGN AND MAY NOT REFLECT REAL WORLD CONDITIONS, HOWEVER THE CONTRACTOR IS RESPONSIBLE FOR FIELD DISCOVERY AND MAKING ADJUSTMENTS AS NECESSARY TO PERFORM THE REQUIRED SCOPE OF WORK. HOWEVER, PRIOR TO MAKING ANY ADJUSTMENTS OR PERFORMING WORK THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER AND/OR ARCHITECT FOR APPROVAL.

COPPER PIPING

1. MATERIAL: REFER TO MATERIAL LEGEND. IF TYPE L, THE PIPE JOINTS MUST BE SOLDERED UTILIZING LEAD FREE SOLDER AND NON-ACID FLUX PASTE.

TRAPEZE PIPE HANGERS

DESCRIPTION: MSS SP-58, TYPE 59, SHOP- OR FIELD-FABRICATED PIPE-SUPPORT ASSEMBLY, MADE FROM STRUCTURAL-CARBON-STEEL SHAPES, WITH MSS SP-58 CARBON-STEEL HANGER RODS, NUTS, SADDLES, AND U-BOLTS.

CARBON-STEEL PIPE HANGERS AND SUPPORTS:

1. DESCRIPTION: MSS SP-58, TYPES 1 THROUGH 58, FACTORY-FABRICATED COMPONENTS.
2. GALVANIZED METALLIC COATINGS: PRE-GALVANIZED, HOT-DIP GALVANIZED, OR ELECTRO-GALVANIZED.
3. NONMETALLIC COATINGS: PLASTIC COATED OR EPOXY POWDER COATED.
4. PADDED HANGERS: HANGER WITH FIBERGLASS OR OTHER PIPE INSULATION PAD OR CUSHION TO SUPPORT BEARING SURFACE OF PIPING.
5. HANGER RODS: CONTINUOUS-THREAD ROD, NUTS, AND WASHER MADE OF CARBON STEEL

COPPER PIPE AND TUBE HANGERS:

1. DESCRIPTION: MSS SP-58, TYPES 1 THROUGH 58, COPPER-COATED-STEEL, FACTORY-FABRICATED COMPONENTS
2. HANGER RODS: CONTINUOUS-THREAD ROD, NUTS, AND WASHER MADE OF COPPER-COATED STEEL.

HANGER AND SUPPORT INSTALLATION

A. METAL PIPE-HANGER INSTALLATION: COMPLY WITH MSS SP-58. INSTALL HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS AS REQUIRED TO PROPERLY SUPPORT PIPING FROM BUILDING STRUCTURE.

B. METAL TRAPEZE PIPE-HANGER INSTALLATION: COMPLY WITH MSS SP-58. ARRANGE FOR GROUPING OF PARALLEL RUNS OF HORIZONTAL PIPING, AND SUPPORT TOGETHER ON FIELD-FABRICATED TRAPEZE PIPE HANGERS.

C. PIPES OF VARIOUS SIZES: SUPPORT TOGETHER AND SPACE TRAPEZES FOR SMALLEST PIPE SIZE, OR INSTALL INTERMEDIATE SUPPORTS FOR SMALLER-DIAMETER PIPES AS SPECIFIED FOR INDIVIDUAL PIPE HANGERS.

D. FIELD FABRICATE FROM ASTM A36/A36M CARBON-STEEL SHAPES SELECTED FOR LOADS BEING SUPPORTED, WELD STEEL ACCORDING TO AWS D1.1/D1.1M.

E. INSTALL HANGERS AND SUPPORTS COMPLETE WITH NECESSARY ATTACHMENTS, INSERTS, BOLTS, RODS, NUTS, WASHERS, AND OTHER ACCESSORIES.

F. INSTALL HANGERS AND SUPPORTS TO ALLOW CONTROLLED THERMAL AND SEISMIC MOVEMENT OF PIPING SYSTEMS, TO PERMIT FREEDOM OF MOVEMENT BETWEEN PIPE ANCHORS, AND TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, EXPANSION BENDS, AND SIMILAR UNITS.

G. INSTALL LATERAL BRACING WITH PIPE HANGERS AND SUPPORTS TO PREVENT SWAYING.

CLEANUP AND PAINTING

1. AFTER COMPLETION OF THE WORK THE PLUMBING CONTRACTOR SHALL REMOVE ALL EXTRA MATERIALS, FITTINGS, PIPES, ETC, WHICH HAVE BEEN BROUGHT TO THE SITE FOR COMPLETION OF THEIR SCOPE OF WORK. ALL DEBRIS CREATED BASED ON THEIR CONSTRUCTION EFFORT SHALL BE REMOVED.
2. ALL UNINSULATED PIPING AND EQUIPMENT SHALL BE CLEANED OF OIL, GREASE AND DIRT. ALL SURFACES SHALL BE CLEAN AND FREE OF DIRT AND CORROSION, READY FOR PAINTING BY OTHERS (UNLESS THE PLUMBING CONTRACTOR HAS BEEN TASKED BY THE GENERAL CONTRACTOR FOR PAINTING OF THEIR OWN EQUIPMENT AND EXPOSED PIPING).

TESTING

1. ALL CONCEALED WORK SHALL REMAIN UNCOVERED UNTIL ALL REQUIRED TESTS HAVE BEEN COMPLETED. NOTE THAT THIS TESTING MAY BE DONE IN PHASED AREAS AS DEEMED NECESSARY BY THE GENERAL CONTRACTOR. THE CONTRACTOR WILL REPAIR ANY DEFECTS WHICH ARE DISCOVERED AS A RESULT OF INSPECTION OR TEST WITH NEW MATERIAL. CAULKING OF SCREWED JOINTS, CRACKS OR HOLES WILL NOT BE ACCEPTABLE. THE TEST MUST BE REPEATED AFTER REPLACEMENT AND DEFECTS HAVE BEEN ELIMINATED.
2. POTABLE WATER SHALL BE TESTED BEFORE FIXTURES AND FAUCETS ARE CONNECTED AND/OR BEFORE CONNECTING TO ANY EXISTING PIPING SYSTEM. THE SYSTEM WILL BE FILLED WITH WATER AND PRESSURE TESTED TO 150 PSI FOR A MINIMUM OF ONE HOUR WITHOUT ANY LEAKS OR PRESSURE LOSS.

PLUMBING DEMOLITION NOTES:

1. THE CONTRACTOR WILL VISIT THE SITE TO REVIEW THE EXISTING CONDITIONS ASSOCIATED WITH THE SCOPE OF WORK TO DETERMINE THE EXTENTS OF DIFFICULTY REQUIRED TO PERFORM THE REQUIRED SERVICES SO THAT LATER CLAIMS ABOUT UNFORESEEN CONDITIONS WILL BE MITIGATED TO THE FULLEST EXTENT POSSIBLE.
2. DEMOLITION IS INCLUSIVE OF ALL MATERIAL, CONNECTIONS, CUTTING, REPAIRING AND ADAPTING THE SYSTEMS WHICH ARE TO REMAIN IN OPERATION SO THAT A FULL AND COMPLETE SYSTEM IS PROVIDED ONCE THE PROJECT IS COMPLETE.
3. THE CONTRACTOR IS RESPONSIBLE TO RELOCATING AND RECONNECTING EXISTING WORK WHICH INTERFERES WITH THE NEW PLUMBING (INCLUDING BUT NOT LIMITED TO ELECTRICAL, MECHANICAL, BUILDING ELEMENTS, ETC), USING MATERIAL IN CONFORMANCE WITH THE CURRENT CODES AND/OR THE PROJECT DOCUMENTS. FULL COORDINATION IS REQUIRED WITH ALL OTHER TRADES PRIOR TO THE OF ANY START OF WORK.
4. REMOVE ALL EQUIPMENT AND FIXTURES AS NOTED ON THE ARCHITECTURAL DRAWINGS (NOT ONLY THOSE NOTED ON THE PLUMBING PLANS) AND PROVIDE TEMPORARY SERVICES (WATER, SANITARY, ETC.) SO THAT OTHER AREAS NOT LOCATED IN THE SCOPE OF WORK REMAIN IN SERVICE THROUGHOUT DURATION OF THE PROJECT.
5. ANY BASE BUILDING PIPING WHICH IS ABANDONED WITHIN THE SCOPE OF WORK AREA SHALL BE REMOVED BACK TO THE EXISTING WET COLUMN. COORDINATE WITH THE BUILDING OWNER FOR REMOVAL OF ALL ITEMS SO THAT NO SYSTEMS OUTSIDE THE OUTSIDE OF THE SCOPE OF WORK AREA HAVE AN OUTAGE.

PLUMBING ABBREVIATIONS

CODES:

ADA	AMERICANS WITH DISABILITIES ACT
AHJ	AUTHORITY HAVING JURISDICTION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
IBC	INTERNATIONAL PLUMBING CODE
IECC	INTERNATIONAL ENERGY CONSERVATION CODE
IPC	INTERNATIONAL PLUMBING CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
OSHA	OCCUPATIONAL SAFETY
TAS	TEXAS ACCESSIBILITY STANDARDS
UPC	UNIFORM PLUMBING CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
RME	LICENSED RESPONSIBLE MANAGING EMPLOYEE

GENERAL:

SD	SCHEMATIC DESIGN
DD	DESIGN DEVELOPMENT
CD	CONSTRUCTION DOCUMENTS
REV	REVISION
(D)	DEMOLITION
(E)	EXISTING
(N)	NEW
(R)	RELOCATE
A/E	ARCHITECT/ENGINEER
AFF	ABOVE FINISHED FLOOR
FWFF	FLUSH WITH FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AP	ACCESS PANEL
BD	BLOW DOWN
BFF	BELOW FINISH FLOOR
BFG	BELOW FINISH GRADE
BOP	BOTTOM OF PIPE
BT	BLADDER TANK
BTUH	BRITISH THERMAL UNITS PER HOUR
BYP	BYPASS
C-C	CENTER LINE
CFH	CUBIC FEET PER HOUR
CL	CENTERLINE
C&S	CAP & SEAL
DEG	DEGREE
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN THRU FLOOR
DRN	DRAIN
DWG	DRAWING
EA	EACH
EL	ELEVATION
ENG.	ENGINEER
EQ	EQUAL
F	FAHRENHEIT
FFL	FINISHED FLOOR LEVEL
FIN	FINISH
FOG	FATS, OILS AND GREASE
FP	FIRE PROTECTION
GA	GAUGE
GEN	GENERATOR
GPD	GALLONS PER DAY
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MIN
I-D	INSIDE DIAMETER
I.L.F.F.F.	INVERT LEVEL FROM FINISHED FLOOR
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
MECH	MECHANICAL
MIN	MINIMUM
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OS&Y	OUTSIDE SCREW & YOKE
PH	PHASE
PPB	PARTS PER BILLION
PPM	PARTS PER MILLION
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
RCP	REFLECTED CEILING PLAN
RS	RISING STEM
SPEC	SPECIFICATION
SWG	SWAGE
TC	TIME CLOCK
TG	TRAP GUARD <- ENG. RECOMMENDED
TMEP	TEMPERATURE
TOC	TOP OF CONCRETE
TOP	TOP OF PIPE
TP	TRAP PRIMER
TYP	TYPICAL
UP	UP THRU FLOOR
VTR	VENT THRU ROOF
"WC	INCHES OF WATER COLUMN
WHA	WATER HAMMER ARRESTOR
WP	WEATHERPROOF

EQUIPMENT TAGS:

GWH	GAS WATER HEATER
IGWH	INSTANTANEOUS GAS WATER HEATER
EWH	ELECTRICAL WATER HEATER
IH	INSTANTANEOUS WATER HEATER
CP	CIRCULATING PUMP
DBP	DOMESTIC BOOSTER PUMP
GT	GREASE TRAP
GI	GREASE INTERCEPTOR
SI	SAND OIL INTERCEPTOR
LT	LINT TRAP
ANT	ACID NEUTRALIZATION TANK
SW	SAMPLE WELL
WM	WATER METER

FIXTURE TAGS:

WC	WATER CLOSET
U	URINAL
LAV, L	LAVATORY
SK	SINK
MS	MOP SINK
SH	SHOWER
WB	WASHER BOX
BT	BATH TUB
VB	VALVE BOX
EDF	ELECTRIC DRINKING FOUNTAIN
FD	FLOOR DRAIN
FS	FLOOR SINK
FFD	FABRICATED FUNNEL DRAIN
GD	GARAGE DRAIN
VB	VACUUM BREAKER
BFP	BACKFLOW PREVENTER
RPZ	REDUCED PRESSURE ZONE DEVICE
WCO	WALL CLEANOUT
ECO	EXTERIOR CLEANOUT
FCO	FLOOR CLEANOUT
TCO	TRAFFIC CLEANOUT
END CO	END CLEANOUT
WH	WALL HYDRANT
HB	HOSE BIBB
RH	ROOF HYDRANT
GH	GROUND HYDRANT
BAV	BALL VALVE
BFV	BUTTER FLY VALVE
BV	BALANCING VALVE
CV	CHECK VALE
GC	GAS COCK
GV	GATE VALVE
PRV	PRESSURE REDUCING VALVE
CS	CIRCUIT SOLVER

PIPING SYSTEMS:

[O]	OVERFLOW
[P]	PRIMARY
A	AIR
C.D.	CONDENSATE DRAINAGE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
FW	FILTERED WATER
GRW	GRAY WATER
GW	GREASE WASTE
HWR	HOT WATER RETURN
ID	INDIRECT DRAINAGE
NG	NATURAL GAS
LPG	LIQUEFIED PETROLEUM GAS
OS	SUDS STACK
OSD	OVERFLOW STORM DRAINAGE
PW	POTABLE WATER
RHS	RAIN HARVESTING SYSTEM
SAN / S	SANITARY DRAINAGE
STORM, ST	STORM DRAINAGE
SW	SOFT WATER
TW	TEMPERED WATER
TWR	TEMPERED WATER RETURN
V	VENT
VS	VENT STACK
WS	WASTE STACK

MAINTENANCE SHOP PIPING SYSTEMS:

AF	ANTI-FREEZE
TF	TRANSMISSION FLUID
DF	DEFFERENTIAL FLUID
EO	ENGINE OIL
EO-DIL	DIESEL MOTOR OIL
EO-CNG	CNG MOTOR OIL
GO	GEAR OIL
GR	GREASE
HO	HYDRAULIC OIL
WAF	WASTE ANTI-FREEZE
WO	WASTE OIL
WW	WINDSHIELD WIPER FLUID

MATERIALS:

ABS	ACRYLONITRILE BUTADIENE STYRENE
AL	ALUMINUM
CI	CAST IRON
CS	CARBON STEEL
CU	COPPER
DI	DUCTILE IRON
GALV	GALVANIZED
PVC	POLYVINYL CHLORIDE (PLASTIC)
PVDF	POLYVINYLIDENE FLUORIDE
RGS	RIGID GALVANIZED STEEL
SS	STAINLESS STEEL
PP	POLYPROPYLENE
PTFE	POLYTETRAFLUOROETHYLENE
PVDC	POLYVINYLIDENE CHLORIDE

PLUMBING LEGEND

XX-1	PLUMBING FIXTURE TAG
X"XX-1	OUTLET SIZE / DRAIN TAG
XX-1	HYDRANT / HOSE BIBB
XX-1	EQUIPMENT TAG
(D)	EXISITNG TO BE DEMOLISHED
(E)	EXISTING TO REMAIN
X1 / X"	RISER TAG # / PIPE SIZE
X"DCW	DOMESTIC COLD WATER
X"DHW	DOMESTIC HOT WATER
X"HWR	HOT WATER RETURN
X"SW	SOFT WATER
X"RO	REVERSE OSMOSIS WATER
X"DI	DEIONIZED WATER
X"DH2O	DISTILLED WATER
X"NP-CW	NON-POTABLE COLD WATER
X"NP-HW	NON-POTABLE HOT WATER
X"OSD	OVERFLOW STORM DRAINAGE
X"SD	STORM DRAINAGE (BELOW SLAB)
X"SD	STORM DRAINAGE (ABOVE SLAB)
X"V	VENT (ABOVE SLAB)
X"V	VENT (BELOW SLAB)
X"SAN	SANITARY DRAINAGE (BELOW SLAB)
X"SAN	SANITARY DRAINAGE (ABOVE SLAB)
X"D	DRAINAGE
X"GW	GREASE WASTE (BELOW SLAB)
X"GW	GREASE WASTE (ABOVE SLAB)
X"CD	CONDENSATE - RE: HVAC PLANS
X"AV	ACID VENT (BELOW SLAB)
X"AV	ACID VENT (ABOVE SLAB)
X"AW	ACID WASTE (BELOW SLAB)
X"AW	ACID WASTE (ABOVE SLAB)
X"NG	NATURAL GAS
X"LPG	LIQUID PROPANE GAS
X"C-VAC	CENTRAL VACCUM

FLOOR CLEANOUT
EXTERIOR CLEANOUT
FLOOR DRAIN
FLOOR DRAIN W/ FUNNEL
FLOOR SINK FULL GRATE
FLOOR SINK 1/2 GRATE
RH-1
WH-1 HB-1
FULL PORT BALL VALVE
CHECK VALVE
WHA RE: DETAIL
X PIPE ACCESSORY TAG
AVOID ANY PLUMBING IN THIS AREA
ENLARGED PLAN / SCOPE OF WORK

PLUMBING - FIXTURE SCHEDULE

TAG	ADA	FLOW RATE	DESCRIPTION	MANUFACTURER - MODEL #	FLUSH VALVE OR FAUCET	TRAP	WASTE	VENT	CW	HW	*TMV	NOTES
WH-1	No	10 GPM	FREE STANDING HOSE BIB	MDF 24-8 SMSS	-	-	-	-	3/4"	-		

MATERIAL LEGEND

1. **DOMESTIC WATER**:
   TYPE "L" COPPER TUBING WITH WROUGHT COPPER FITTINGS AND 95/5 (TIN/ANTIMONY) SOLDER JOINTS.

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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G:\ PROJECT # 2025.044
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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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INTERIM REVIEW ONLY
Document is Incomplete
Not intended for permit or construction
Engineer: DAVIA GERNAND
PE License No. 109903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-059
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

Date	Description
10/09/2025	100% CD

PROJECT STATUS
P101-D
GENERAL NOTES, ABBREV., & LEGEND

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I DESIGN CRITERIA

A. GENERAL BUILDING CODE

1. THE CONSTRUCTION DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE 2021 WITH AMENDMENTS.

B. DEAD LOADS

1. HANGING CEILING AND MECHANICAL LOADS: FOLLOWING ALLOWANCES HAVE BEEN MADE FOR HANGING CEILING AND MEHCANICAL EQUIPMENT LOADS SUCH AS DUCT WORK AND SPRINKLER PIPES.
   a. ROOF 10 PSF
   b. MEP SYSTEMS 4 PSF.

C. LIVE LOADS

1. DESIGN LIVE LOADS ARE LISTED BELOW
   a. ROOF 20 PSF (REDUCIBLE)
   b. FLOOR 100 psf

D. WIND LOADS
1. WIND PRESSURES ARE BASED ON THE PROVISIONS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE 7-22 AND THE FOLLOWING CRITERIA:
   a. ULTIMATE DESIGN WIND SPEED (VULT): 140 MPH (3 SECOND GUST)
   b. BUILDING RISK CATEGORY: III
   c. WIND EXPOSURE CATEGORY: B
   d. INTERNAL PRESSURE COEFFICIENT (GCPI): [+0.55/-0.55]

2. WIND PRESSURE USED IN THE DESIGN OF THE CLADDING ARE SHOWN ON THE STRUCTURAL DRAWINGS, SHEET S-002

E. HANDRAILS AND GUARDS

1. THE STRUCTURAL STRENGTH OF GRAB BARS, TUB AND SHOWER SEATS, FASTENERS, AND MOUNTING DEVICES SHALL MEET THE FOLLOWING SPECIFICATION:
   a. BENDING STRESS IN A GRAB BAR OR SEAT INDUCED BY THE MAXIMUM BENDING MOMENT FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE STRESS FOR THE MATERIAL OF THE GRAB BAR OR SEAT.
   b. SHEAR STRESS INDUCED IN A GRAB BAR OR SEAT BY THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE SHEAR STRESS FOR THE MATERIAL OF THE GRAB BAR OR SEAT. IF THE CONNECTION BETWEEN THE GRAB BAR OR SEAT AND ITS MOUNTING BRACKET OR OTHER SUPPORT IS CONSIDERED TO BE FULLY RESTRAINED, THEN DIRECT AND TORSIONAL SHEAR STRESSES SHALL BE TOTALED FOR THE COMBINED SHEAR STRESS, WHICH SHALL NOT EXCEED THE ALLOWABLE SHEAR STRESS.
   c. SHEAR FORCE INDUCED IN A FASTENER OR MOUNTING DEVICE FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE LATERAL LOAD OF EITHER THE FASTENER OR MOUNTING DEVICE OR THE SUPPORTING STRUCTURE, WHICHEVER IS THE SMALLER ALLOWABLE LOAD.
   d. TENSILE FORCE INDUCED IN A FASTENER BY A DIRECT TENSION FORCE OF 250 LBF PLUS THE MAXIMUM MOMENT FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE WITHDRAWAL LOAD BETWEEN THE FASTENER AND THE SUPPORTING STRUCTURE.
   e. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

F. HANDRAILS AND GUARDS

1. THE HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED FOR 50 PLF OR A CONCENTRATED LOAD OF 200 POUNDS AT ANY POINT APPLIED IN ANY DIRECTION AT THE TOP AND TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE. THESE LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.

G. BUILDING MOVEMENT AND DEFLECTIONS

1. THE BUILDING MOVEMENT SPECIFIED HEREIN IS ANTICIPATED TO OCCUR AND SHOULD BE CONSIDERED BY THE CONTRACTOR IN THE PERFORMANCE OF THE WORK.

2. SPANDREL BEAM DEFLECTIONS. THE FOLLOWING PROVISION SHOULD BE MADE FOR SUPERIMPOSED LOAD DEFLECTION OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR IN THE DESIGN, FABRICATION, AND ERECTION OF THE BUILDING CLADDING:
   a. TYPICAL SPANDREL BEAM: 3/8"

   SUPERIMPOSED LOAD DEFLECTION IS DEFINED AS ALL DEFLECTION ANTICIPATED TO OCCUR AFTER THE CLADDING HAS BEEN ERECTED. THE RELATIVE DEFLECTION ABOVE DOES NOT INCLUDE THE FLOOR DEFLECTION CAUSED BY THE WEIGHT OF THE CLADDING ITSELF OR THE DEAD LOAD DEFLECTION OF THE FLOOR FRAMING ITSELF, NOR DOES IT INCLUDE ANY ALLOWANCE FOR FABRICATION OR ERECTION TOLERANCES.

3. FLOOR DEFLECTIONS: THE FOLLOWING PROVISION FOR SUPERIMPOSED LOAD DEFLECTIONS SHALL BE MADE IN THE DESIGN, FABRICATION, AND INSTALLATION OF ALL PARTITIONS, GLASS WALLS, AND OTHER ELEMENTS SUPPORTED BY AND ATTACHED TO THE STRUCTURE:
   a. TYPICAL FLOOR MEMBERS: SPAN/360 BUT NOT LESS THAN 3/8 "
   b. TYPICAL ROOF MEMBERS: SPAN/360 BUT NOT LESS THAN 3/8 "

4. LATERAL FRAME WIND DEFLECTION (DRIFT): THE FOLLOWING PROVISION FOR LATERAL FRAME DEFLECTION IN THE PLANE OF THE WALL OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR SHALL BE MADE IN THE DESIGN, FABRICATION AND INSTALLATION OF THE BUILDING CLADDING:
   a. TYPICAL FLOOR TO FLOOR: FLOOR HEIGHT/400 THE DEFLECTIONS LISTED ABOVE ARE BASED ON WIND LOADS WITH A 10-YEAR MEAN RECURRENCE INTERVAL.

II FOUNDATION (DULLES)

A. GEOTECHNICAL REPORT

1. - THE GEO TECH REPORT IS PREPARED BY AVILES ENGINEERING CORP.
   - REPORT IS PREPARED FOR FBISD ATHLETIC FACILITES RENOVATIONS DULLES HIGH SCHOOL (550 DULLES AVENUE, SUGARLAND , TEXAS
   -GEO TECH REPORT DATED FEBRUARY 2025
   - GEO TECH REPORT NUMBER /PROJECT NUMBER G136-23B

B- FOUNDATION APPROVAL AND INSPECTION BY AUTHORIZED INSPECTOR

1. 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.

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

A. GRADE BEAMS
1. GRADE BEAM SIDE FORMS
   a. FORM EXPOSED FACES OF GRADE BEAMS.
2. 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.

3. 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 ON TABLES OR TYPICAL DETAILS. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

D. STRUCTURAL SLAB ON 10" VOID BOX
1. STRUCTURAL SLAB SUPPORTED ON GRADE BEAM AND DRILLED PIERS

2. PROVIDE MIN 10" VOID BOX UNDER GRADE BEAMS

A. PROVIDE (2) #4 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

E. VAPOR RETARDER

1. 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.

   • STEGO WRAP VAPOR BARRIER (15 MILS) VAPORGUARD BY REEF INDUSTRIES ECOSHEILD-E 15 MIL BY EPRO SERVICES
2. ALL 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.

2. THE GEOTECHNICAL REPORT IS AVAILABLE TO THE GENERAL CONTRACTOR UPON REQUEST TO THE OWNER. THE INFORMATION INCLUDED THEREIN MAY BE USED BY THE GENERAL CONTRACTOR FOR HIS GENERAL INFORMATION ONLY. THE ARCHITECT AND ENGINEER WILL NOT BE RESPONSIBLE FOR THE ACCURACY OR APPLICABILITY OF SUCH DATA THEREIN.

B. CONSTRUCTION DEWATERING

1. THE CONTRACTOR SHALL DETERMINE THE EXTENT OF CONSTRUCTION DEWATERING REQUIRED FOR THE EXCAVATION. THE CONTRACTOR SHALL SUBMIT TO THE GEOTECHNICAL ENGINEER FOR REVIEW THE PROPOSED PLAN FOR CONSTRUCTION DEWATERING, PRIOR TO BEGINNING THE EXCAVATION. CONTRACTOR SHALL INCLUDED CASING INTO THE BID , IN CASE SLOSHING OCCURS. IF IT DOES NOT OCCUR, CREDIT SHALL BE GIVEN TO THE CLIENT.

DRILLED PIER FOUNDATION

BELL TO SHAFT RATIO RECOMMENDED = 2 : 1
DRILLED PIER TO SUPPORT DUGOUTS GRADE BEAM , STRUCTURAL SLAB AND SUPERSTRUCTURE

Table 2. Drilled and Underreamed Footing Bearing Depth and Net Allowable Bearing Capacities

Buildings	Nearest Boring	Bearing Depth below Existing Grade (ft)	Net Allowable Bearing Capacity, Sustained Load (FS=3), psf	Net Allowable Bearing Capacity, Total Load (FS=2), psf
Baseball Field Dugouts and Ticket Booth	B-1	10	2,800	4,200
Softball Field Ticket Booth	B-4	10	2.600	3,900

NETTING POLES STRAIGHT NET - ALLOWABLE FOR SUSTAINED LOAS = 2000 PSF; FOR TOTAL = 3000 PSF.
EMBEDMENT IS CALCULATED BASED ON IBC 1807.3.2.1

III REINFORCED CONCRETE

A. CLASSES OF CONCRETE

1. ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE "CLASSES OF CONCRETE MATRIX" ON SHEET 300 SERIES UNLESS NOTED OTHERWISE ON THE DRAWING (IF NOT NOTE MIN 3500 PSI CONCRETE SHALL BE USED FOR ALL CONCRETE WORK).

B. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS

1. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ANY CONCRETE POURS UNLESS SHOWN ON THE DRAWINGS. THE ARCHITECT/ENGINEER SHALL APPROVE ALL DEVIATIONS OR ADDITIONAL JOINTS IN WRITING.

C. REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE ASTM A 615 GRADE 60 UNLESS NOTED OTHERWISE ON THE DRAWINGS OR IN THESE NOTES.

2. REINFORCING STEEL: PROVIDE REINFORCING STEEL CONFORMING TO ASTM A 706 FOR ALL REINFORCING STEEL REQUIRED TO BE WELDED AND WHERE NOTED ON THE DRAWINGS.
   a. FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LADBS FOR REINFORCING STEEL. CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
   b. SHOP WELDS MUST BE PERFORMED IN AN LADBS-LICENSED FABRICATION SHOP.

3. EPOXY-COATED REINFORCING STEEL: PROVIDE EPOXY-COATED REINFORCING STEEL ACCORDING TO ASTM A 775 WHERE NOTED ON THE DRAWINGS. REINFORCING STEEL FOR COOLING TOWER CONCRETE BASINS SHALL BE EPOXY-COATED.

4. DEFORMED BAR ANCHORS: AWS D1.1 TYPE C (TABLE 7.1) STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 496 WITH A MINIMUM YIELD STRENGTH 70,000 PSI. REINFORCING BARS SHALL NOT BE SUBSTITUTED FOR DEFORMED BAR ANCHORS.

5. HEADED STUD ANCHORS FOR EMBEDDED PLATES: AWS D1.1 TYPE A STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 29 WITH A MINIMUM YIELD STRENGTH OF 61,000 PSI.

6. SMOOTH WELDED WIRE REINFORCEMENT: ASTM A 185, YIELD STRENGTH 65,000 PSI.

D. PLACEMENT OF WELDED WIRE REINFORCEMENT

1. WHEREVER WELDED WIRE REINFORCEMENT IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED PER ACI 318, 12.18 AND 12.19.

E. REINFORCING STEEL COVERAGE

1. REINFORCING STEEL COVERAGE SHOULD CONFORM TO THE REQUIREMENTS SPECIFIED IN DETAILS LABELED "TYPICAL CLEAR CONCRETE COVER" ON SHEET S-300 UNLESS NOTED OTHERWISE ON THE DRAWINGS. COVER SPECIFIED SHALL BE CONSIDERED MINIMUMS THAT MAY REQUIRE INCREASING WHERE REINFORCING STEEL INTERSECTS FOR DIFFERENT MEMBER TYPES. COVER IN STRUCTURAL MEMBERS NOT SPECIFIED IN THE DETAILS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS. THE REINFORCING STEEL DETAILER SHALL ADJUST REINFORCING STEEL CAGE SIZES AT INTERSECTING STRUCTURAL MEMBERS AS REQUIRED TO ALLOW CLEARANCE FOR INTERSECTING REINFORCING BAR LAYERS WITH MINIMUM SPECIFIED COVER.

F. SPLICES AND HOOKS IN REINFORCING STEEL

1. SPLICE LOCATION AND TYPE AND HOOKS FOR UNSCHEDULED BEAMS, SLABS AND WALLS:
   a. BEAMS AND SLABS. UNSCHEDULED BEAMS AND SLABS, INCLUDING GRADE BEAMS, SHALL HAVE CONTINUOUS TOP BARS LAPPED AT MIDSPAN BETWEEN SUPPORTS WITH A CLASS A TENSION SPLICE. BOTTOM BARS SHALL BE LAPPED AT THE SUPPORTS WITH A CLASS A TENSION SPLICE. ALL BEAM BARS SHALL BE HOOKED AT DISCONTINUOUS END, UNLESS NOTED OTHERWISE.
   b. BASEMENT WALLS. VERTICAL BARS PLACED ON THE DIRT FACE SIDE SHALL BE LAPPED AT MIDSPAN BETWEEN SUPPORTS WITH A CLASS B TENSION SPLICE. VERTICAL BARS PLACED OPPOSITE THE DIRT FACE SIDE SHALL BE LAPPED AT THE SUPPORTS WITH A CLASS B TENSION SPLICE. HORIZONTAL BARS SHALL HAVE A CLASS B TENSION SPLICE.

IV CONCRETE MASONRY

A. SCOPE

1. REFER TO ARCHITECT'S DRAWINGS FOR THE EXTENT OF MASONRY WALLS. NON-LOAD BEARING WALLS MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS.

2. REINFORCED CONCRETE MASONRY SHALL BE USED AS LOAD BEARING ERIMETER WALLS FOR STANDALONE CONCESSIONS AND RESTROOM BUILDINGS, AND ELSEWHERE INDICATED ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS. SEE ARCHITECTURAL WALL SECTIONS.

3. PROVIDE ONE-COURSE HORIZONTAL BOND BEAM REINFORCE WITH 1-#5 CONTINUOUS AT EVERY FLOOR LEVEL, ROOF LEVEL, AND PARAPET, MINIMUM.

4. RE ARCH FOR LOACTION OF POLISHED MASONRY WALLS.

B. CONCRETE MASONRY UNITS.

1. CONCRETE STRENGTH OF MASONRY UNITS (BASED ON NET AREA) SHALL BE 1,900 PSI MINIMUM.

2. UNITS SHALL CONFORM TO ASTM C 55 OR ASTM C 90 AND SAMPLED IN ACCORDANCE WITH ASTM C 140.

C. MORTAR

1. USE ONLY PORTLAND CEMENT/LIME, TYPE M OR S, MORTAR CONFORMING TO ASTM C 270. PROVIDE AN AVERAGE COMPRESSIVE STRENGTH AT 28 DAYS OF 1,800 PSI MINIMUM.

D. GROUT

1. MIX DESIGNS:

   a. FOR FILLING SPACES 4" OR LARGER IN BOTH HORIZONTAL DIRECTIONS, USE "COARSE GROUT" WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI. THE GROUT SHALL BE TESTED IN ACCORDANCE WITH ASTM C1019. FOR FILLING SPACES LESS THAN 4 " IN ONE OR BOTH HORIZONTAL DIRECTIONS, USE "FINE GROUT" PROPORTIONED PER ASTM C 476.

   b. USE 3,000 PSI NORMALWEIGHT CONCRETE FOR FILLING SPACES 10 " AND LARGER IN BOTH DIRECTIONS. THE GROUT SHALL BE TESTED IN ACCORDANCE WITH ASTM C 1019.

   c. ALL GROUT MIX DESIGN SUBMITTALS SHALL INCLUDE THE RESULTS OF THE TESTS PERFORMED IN ACCORDANCE WITH ASTM C 1019.

   d. SLUMP RANGE AT POINT OF FINAL DISCHARGE: 8" TO 11".

   e. THE USE OF AIR ENTRAINING ADMIXTURES IS NOT ALLOWED.

E. MINIMUM REINFORCEMENT FOR CONCRETE MASONRY UNITS

1. PROVIDE VERTICAL REINFORCEMENT IN CELLS OF CONCRETE MASONRY UNITS (FULLY EMBEDDED IN GROUT) AS SHOWN ON THE PLANS AND OTHER DETAILS. MINIMUM REINFORCEMENT OF INTERIOR MASONRY SHALL BE AS FOLLOWS:
   a. 1-#5 AT A MAXIMUM SPACING OF 48 INCHES
   b. 1-#5 AT EACH CORNER
   c. 1-#5 AT EACH SIDE OF OPENINGS UP TO 12 FEET WIDE
   d. 2-#5 OR 1-#7 AT BOTH SIDES OF OPENINGS OVER 12 FEET WIDE
   e. HEAVIER REINFORCEMENT MAY BE REQUIRED BY PLAN NOTES OR DETAILS IN THE DRAWINGS.

2. PROVIDE HORIZONTAL REINFORCEMENT IN BED JOINTS EVERY OTHER COURSE (MAXIMUM 16 SPACING) IN TYPICAL WALLS AND IN EVERY COURSE (MAXIMUM 8 " SPACING) IN PARAPETS AND CANTILEVERED WALLS.

3. TERMINATION OF REINFORCING STEEL:
   a. ALL VERTICAL REINFORCEMENT SHALL HAVE STANDARD HOOK INTO BOND BEAM. TERMINATE AT HIGHEST BOND BEAM IF MASONRY DOES NOT EXTEND TO ROOF OR GROUTED CELL IS NOT CONTINUOUS TO ROOF. HOOK SHALL EXTEND TO THE UPPERMOST HORIZONTAL REINFORCEMENT OF THE BOND BEAM AND HAVE A MINIMUM EMBEDMENT OF 6 "
   b. ALL HORIZONTAL REINFORCEMENT AT ENDS OF BOND BEAMS SHALL HAVE STANDARD HOOK INTO VERTICAL GROUTED CELL. PROVIDE CORNER BARS SUCH THAT HORIZONTAL REINFORCEMENT IS CONTINUOUS AROUND CORNERS.

F. REINFORCING STEEL COVERAGE

1. COVER TO REINFORCING STEEL WITHIN MASONRY ELEMENTS SHALL NOT BE LESS THAN THE FOLLOWING:
   a. EXPOSED TO EARTH OR WEATHER: 2 " (#6 AND LARGER BARS), 1.5" (#5 AND SMALLER BARS).
   b. NOT EXPOSED TO EARTH OR WEATHER: 1.5 "
   c. LONGITUDINAL WIRES OF JOINT REINFORCEMENT SHALL BE FULLY EMBEDDED IN MORTAR OR GROUT WITH A MINIMUM COVER OF 5/8 " WHEN EXPOSED TO EARTH AND WEATHER AND 1/2" WHEN NOT EXPOSED TO EARTH OR WEATHER.
   d. STABILITY AND BRACING OF MASONRY WALLS DURING CONSTRUCTION.

2. ALL MASONRY WALLS SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES APPLIED TO THEM IN THE FINAL CONSTRUCTED CONFIGURATION ONLY ASSUMING FULL BRACING TOP, BOTTOM, AND/OR SIDE OF WALL AS SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY AND ADEQUATELY BRACE ALL MASONRY WALLS AT ALL STAGES DURING CONSTRUCTION TO RESIST ERECTION LOADS AND LATERAL LOADS THAT COULD POSSIBLY BE APPLIED PRIOR TO COMPLETION OF CONSTRUCTION.

V STRUCTURAL STEEL

A. MATERIAL

1. HOT ROLLED STRUCTURAL MEMBERS: ALL HOT ROLLED STEEL PLATES, SHAPES, SHEET PILING, AND BARS SHALL BE NEW STEEL CONFORMING TO ASTM SPECIFICATION A 6.

2. ASTM SPECIFICATION AND GRADE: CLEARLY MARK THE GRADE OF STEEL ON EACH PIECE, WITH A DISTINGUISHING MARK VISIBLE FROM FLOOR SURFACES, FOR THE PURPOSE OF FIELD INSPECTION OF PROPER GRADE OF STEEL. UNLESS NOTED OTHERWISE ON THE DRAWINGS, STRUCTURAL STEEL SHALL BE AS FOLLOWS:
   a. W- AND WT-SHAPES: ASTM A 992
   b. M- AND S-SHAPES: ASTM A 36
   c. C-SHAPES: ASTM A 36
   d. L-SHAPES: ASTM A 36
   e. HSS: ASTM A 500, GRADE B (FY=46 KSI)
   f. BASE PLATES: ALL BASE PLATES SHALL CONFORM TO ASTM A 36 UNLESS NOTED OTHERWISE ON THE DRAWINGS.
   g. EDGE ANGLES, BENT PLATES, ANGLE HANGERS, AND ANGLE KICKERS: ASTM A 36.
   h. CONNECTION MATERIAL:
      1) BEAM COLUMN CONTINUITY PLATES AND DOUBLER PLATES: ASTM A 572, GRADE 50.
      2) ALL CONNECTION MATERIAL, EXCEPT AS NOTED OTHERWISE HEREIN OR ON THE DRAWINGS, INCLUDING BEARING PLATES, GUSSET PLATES, STIFFENER PLATES, FILLER PLATES, ANGLES, ETC. SHALL CONFORM TO ASTM A 36 UNLESS A HIGHER GRADE OF STEEL IS REQUIRED BY STRENGTH AND PROVIDED THE RESULTING SIZES ARE COMPATIBLE WITH THE CONNECTED MEMBERS.
         aa. OTHER STEEL: ANY OTHER STEEL NOT INDICATED OTHERWISE SHALL CONFORM TO ASTM A 992 OR ASTM A 572, GRADE 50, EXCEPT PLATES AND ANGLES THAT SHALL BE ASTM A 36.

B. CONNECTIONS

1. CONNECTION DETAILS NOT COMPLETELY DETAILED ON THE DRAWINGS INCLUDING MATERIAL GRADE AND SIZES, WELD SIZES, AND NUMBER OF BOLTS SHALL BE DESIGNED BY THE CONTRACTOR PER THE SPECIFICATIONS. CONCEPTUAL CONNECTION DETAILS WITH THE REQUIRED MEMBER DESIGN FORCES ARE SHOWN ON THE DRAWINGS AND ARE APPLICABLE TO ALL CONNECTIONS NOT DESIGNED AND FULLY DETAILED ON THE DRAWINGS. THE CONCEPTUAL DETAILS ARE PROVIDED ONLY TO INDICATE THE CONNECTION TYPE REQUIRED AND MAY NOT FULLY REPRESENT THE COMPLEXITY OF THE CONNECTION AS REQUIRED BY THE FINAL CONNECTION DESIGN FOR THE FORCES THEY MUST RESIST. ADDITIONAL CONNECTION ELEMENTS MAY NOT BE SPECIFICALLY SHOWN IN THE CONCEPTUAL DETAILS BUT MAY BE REQUIRED BY THE FINAL CONNECTION DESIGN; SUCH AS STIFFENER PLATES, DOUBLER PLATES, SUPPLEMENT/REINFORCING PLATES OR OTHER CONNECTION MATERIAL. THE FABRICATOR IS RESPONSIBLE FOR ENGAGING THE SERVICES OF A CONNECTION SPECIALTY ENGINEER TO PREPARE A FINAL CONNECTION DESIGN FOR SUBMISSION THAT MEETS THE REQUIREMENTS OF THE CONCEPTUAL CONNECTION DETAILS AND RESISTS THE INDICATED DESIGN FORCES.

2. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

3. REACTIONS NOTED ON THE PLANS ARE BASED ON FACTORED LOADS AND ARE INTENDED FOR USE WITH THE LOAD AND RESISTANCE FACTOR DESIGN METHOD.

C. STRUCTURAL BOLTS AND THREADED FASTENERS

1. A 325 BOLTS: ALL BOLTS IN STRUCTURAL CONNECTIONS SHALL CONFORM TO ASTM A 325 TYPE 1, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

2. A 490 BOLTS: SEE DRAWINGS FOR LOCATIONS REQUIRING ASTM A 490 TYPE 1 BOLTS.

3. THREADED ROUND STOCK: THREADED RODS SHALL CONFORM TO:
   a. ASTM A 36.

D. WELDING

1. UNLESS NOTED OTHERWISE, ELECTRODES FOR WELDING SHALL CONFORM TO E70XX (SMAW), F7XX-EXXX (SAW), ER70S-X (GMAW), OR E7XT-X (FCAW).

E. ANCHOR RODS

1. UNLESS INDICATED OTHERWISE IN THE COLUMN SCHEDULE OR ON THE DRAWINGS, ANCHOR RODS SHALL CONFORM TO ASTM F 1554 GRADE 55 (WITH SUPPLEMENTARY REQUIREMENT S1) AND THE SIZE SHALL BE 3/4" DIAMETER AND SHALL EMBED INTO THE CONCRETE FOUNDATION A DISTANCE OF 1'-0" WITH A HEAVY HEX NUT AT THE EMBEDDED END. STRIKE BOLT THREADS AT THE EMBEDDED END AT TWO PLACES BELOW THE NUT.

F. GROUT

1. GROUT BELOW STRUCTURAL STEEL BASE PLATES SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH A MINIMUM STRENGTH OF 6,000 PSI WHEN BEARING ON 3,000 PSI CONCRETE OR LESS, A STRENGTH OF 8,000 PSI WHEN BEARING ON CONCRETE BETWEEN 3,000 AND 4,000 PSI, AND, UNLESS NOTED OTHERWISE ON THE DRAWINGS, A STRENGTH OF 8,000 PSI WHEN BEARING ON CONCRETE GREATER THAN 4,000 PSI.

VI STEEL DECK -ROOF

A. ROOF DECK

1. SCHEDULE:

LOCATION	DEPTH	GAGE	TYPE YIELD STRENGTH (FY)
TYPICAL	3"	20	3N - G90

NOTE:

NR: NARROW RIB, TYPE A
IR: INTERMEDIATE RIB, TYPE F
WR: WIDE RIB, TYPE B
3DR 3 INCH, DEEP RIB, TYPE N
ALL DECK SHALL BE 50 KSI UNLESS NOTED OTHERWISE.

B. SPECIFICATION

1. THE DESIGN, FABRICATION, AND ERECTION OF ALL ROOF DECK SHALL CONFORM TO THE STEEL DECK INSTITUTE DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, AND ROOF DECKS AS PUBLISHED BY THE STEEL DECK INSTITUTE (SDI).
2. STEEL DECK SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A 653-94 STRUCTURAL QUALITY GRADE 33 OR HIGHER.
3. STEEL DECK SHALL BE GALVANIZED WITH A PROTECTIVE ZINC COATING CONFORMING TO ASTM A 653-94 G90 CLASS.

C. ATTACHMENT OF DECK:

A. FASTENING OF DECK TO EACH SUPPORT MEMBER:

1. FASTENER PATTERN
   5/8" PUDDLE WELD 12"OC AT INTERIOR
   5/8" PUDDLE WELD 6"OC AT SIDES (EVERY DECK RIB)
   (2) 5/8" PUDDLE WELD 6"OC AT CORNERS (EVERY DECK RIB)
   (DOUBLE STITCH)

2. FASTENING OF DECK TO SUPPORT MEMBERS PARALLEL TO DECK RIBS WHERE SHOWN ON PLAN:
   FASTENER PATTERN
   5/8" PUDDLE WELD 12"

3. PROVIDE A MINIMUM END BEARING OF 2 INCHES OVER SUPPORTS.
4. END LAPS OF SHEETS SHALL BE A MINIMUM OF TWO INCHES AND SHALL OCCUR OVER SUPPORTS.
5. 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.

B. MINIMUM ATTACHMENT AT SIDE LAPS: SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED FM APPROVED FASTENERS AT A MAXIMUM OF 12 ", UNLESS NOTED OTHERWISE.

3. FLAT, RIDGE, AND VALLEY PLATES:
UNLESS NOTED OTHERWISE, CONTRACTOR SHALL PROVIDE FLAT PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF DECK CHANGES DIRECTION AND RIDGE OR VALLEY PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF SLOPE EXCEEDS 1/2" PER FOOT.

D. DECK SPANS
1. METAL DECK SPANS SHALL NOT EXCEED THE MAXIMUM CENTER TO CENTER SPANS AS REQUIRED BY SDI CRITERIA. 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.

E. ACCESSORIES
1. 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.

F. ROOF OPENINGS
1. ROOF OPENINGS LESS THAN 6 INCH SQUARE OR DIAMETER REQUIRE NO REINFORCEMENT. OPENINGS 6 INCH TO 10 INCH INCLUSIVE SHALL BE REINFORCED WITH A 20 GAUGE GALVANIZED PLATE WELDED TO THE DECK AT EACH CORNER AND 6 INCH MAXIMUM CENTERS WITH A 5/8 INCH DIAMETER PUDDLE WELD OR SHEET METAL SCREWS. UNLESS INDICATED OTHERWISE ON THE DRAWINGS, OPENINGS OVER 10 INCH WIDE OR DIAMETER SHALL BE REINFORCED WITH AN ANGLE 2 1/2 X 2 1/2 X 1/4 FRAMING EACH SIDE OF THE OPENING AND SPANNING BETWEEN SUPPORTS FOR SPANS 4 FEET OR LESS AND L 3 X 3 X 1/4 FOR SPANS GREATER THAN 4 FEET BUT LESS THAN 6 FEET UNLESS SPECIFIED OTHERWISE ON DRAWINGS. LARGER OPENINGS SHALL BE REFERRED TO THE ENGINEER FOR FRAMING

VII NON-SHRINK GROUT FOR BASE PLATES AND BEARING PLATES

A. SPECIFICATIONS

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.

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107333
LICENSED PROFESSIONAL ENGINEER
DATE: 10/09/2025

PROJECT NO.	25-005
DATE:	10/02/2025
DRAWN BY: HG	CHECKED BY: BM

REVISIONS:

No.	Date	Description

100% CD

1S.01-D
GENERAL NOTES

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- SPECIAL INSPECTIONS

A. THE DISTRICT'S TESTING LABORATORY SHALL PROVIDE SPECIAL INSPECTIONS SERVICES IN ACCORDANCE WITH CBC 1704.A BY A DSA-CERTIFIED SPECIAL INSPECTOR. FOR SPECIFIC REQUIREMENTS, REFER TO THE SPECIFICATIONS.

B. THE OWNER'S TESTING LABORATORY SHALL PROVIDE SPECIAL INSPECTION SERVICES IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE FOR THE FOLLOWING ITEMS.
1. STEEL CONSTRUCTION:
   a. ALL FIELD WELDING
   b. HIGH-STRENGTH BOLTING
   c. INSPECTION OF STRUCTURAL STEEL, BOLTING, WELDING MATERIAL
   d. WELDING OF STRUCTURAL STEEL
2. CONCRETE CONSTRUCTION:
   a. BOLTS INSTALLED IN CONCRETE
   b. CONCRETE WORK
   c. CONTINUOUS INSPECTION OF REINFORCING STEEL PLACING
   d. EPOXY BOLTS
   e. FORMWORK
   f. REINFORCING STEEL PLACEMENT
   g. WELDING OF REINFORCING STEEL
3. SOILS:
   a. PREPARED EARTH FILL
4. SPRAYED FIRE-RESISTANT MATERIALS
5. MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS
6. WIND REQUIREMENTS:
   a. MAIN WINDFORCE-RESISTING SYSTEMS
   b. ROOF CLADDING
   c. WINDFORCE-RESISTING SYSTEM CONNECTIONS TO FOUNDATION
   d. WIND-RESISTING COMPONENTS

C. STATEMENT OF SPECIAL INSPECTIONS
1. SPECIAL INSPECTION IS REQUIRED FOR THE ITEMS LISTED ABOVE. REFER TO SPECIFICATION SECTION **014529** FOR TYPE AND EXTENT OF EACH SPECIAL INSPECTION AND EACH TEST. THE SPECIFICATION ALSO INDICATES WHETHER CONTINUOUS OR PERIODIC INSPECTION IS REQUIRED FOR THE ITEMS LISTED ABOVE ADDITIONAL INFORMATION.

- SUBMITTALS

A. SUBMITTAL LIST AND SCHEDULE

1. THE GENERAL CONTRACTOR SHALL PREPARE A DETAILED LIST AND SCHEDULE OF ALL SUBMITTAL ITEMS TO BE SENT TO THE STRUCTURAL ENGINEER PRIOR TO THE START OF CONSTRUCTION. THIS LIST SHALL BE UPDATED AND REVISED AND KEPT CURRENT AS THE JOB PROGRESSES. THE SUBMITTAL LIST SHALL BE ORGANIZED AS SHOWN BELOW:
   a. SHOP DRAWINGS
   b. DESIGN CALCULATIONS
   c. PRODUCT DATA, CERTIFICATES, REPORTS, AND OTHER LITERATURE

B. SUBMITTALS TO BE PROVIDED TO STRUCTURAL ENGINEER

1. STRUCTURAL SUBMITTALS: IN ADDITION TO THE SUBMITTALS REQUIRED BY THE STRUCTURAL SPECIFICATIONS, THE FOLLOWING SUBMITTALS SHALL BE PROVIDED:
   a. LAYOUT OF EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS.
   b. LAYOUT OF MECHANICAL, ELECTRICAL, AND PLUMBING OPENINGS IN FLAT SLABS.
   c. LAYOUT OF PENETRATIONS IN BEAMS AND JOISTS.
2. DEFERRED SUBMITTALS:
   a. THE FOLLOWING ITEMS ARE CONSIDERED DEFERRED SUBMITTALS BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE:
      1. EXTERIOR WINDOW WALL SYSTEM (S&S, REC)
      2. FORMWORK, SHORING, AND BACKSHORING (S&S, REC)
      3. STRUCTURAL STEEL CONNECTIONS (S&S)

   NOTES:

   (S&S) ITEMS MARKED THUS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SEALED PER THE PROJECT SPECIFICATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

   (REC) ITEMS MARKED THUS SHALL BE SUBMITTED TO ENGINEER FOR RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED.

   b. DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE FORWARDED TO THE BUILDING OFFICIAL.

   c. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
3. SHOP DRAWINGS
   1. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
      a. CONCRETE MIX DESIGNS (~)
      b. CONSTRUCTION JOINT LOCATIONS IN STRUCTURAL FLOORS AND SLABS ON GRADE
      c. EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS (REC)
      d. REINFORCING STEEL
      e. ROOF METAL DECK (STANDING SEAM ROOF DECK)
      f. STRUCTURAL STEEL, SHOP AND ERECTION DRAWINGS (S&S)
      g. T & G ROOF DECKING PATTERN, PRODUCT SPECIFICATION AND SHEATING ATTACHEMENT PATERNS

   NOTES:

   (S&S) ITEMS MARKED THUS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SEALED PER THE PROJECT SPECIFICATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

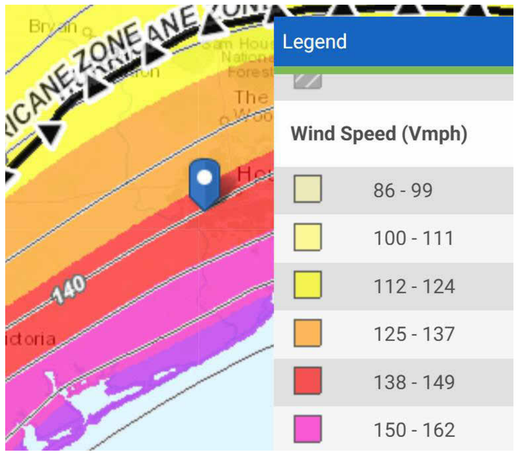
   (REC) ITEMS MARKED THUS SHALL BE SUBMITTED TO ENGINEER FOR RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED.

   (~) ITEMS MARKED THUS SHALL BE SUBMITTED TO THE OWNER'S TESTING AGENCY FOR THEIR REVIEW.

   (^) ITEMS MARKED THUS SHALL BE SUBMITTED TO THE CONSTRUCTION GEOTECHNICAL ENGINEER FOR THEIR REVIEW.
4. SUBMITTAL REQUIREMENTS:
   a. ALL SHOP DRAWINGS MUST BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
   b. CONTRACTOR SHALL SUBMIT THREE SETS OF PRINTS FOR ALL SHOP DRAWINGS SPECIFIED TO BE RETURNED BY THE ENGINEER.
   c. CONTRACTOR SHALL PROVIDE THE SUBMITTAL IN ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) PER THE SPECIFICATIONS.
   d. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS 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.

C. REPRODUCTION

1. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEMSELVES TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.



ASCE HAZARD TOOL

Location
550 Dulles Ave, Sugar Land, Texas, 77478

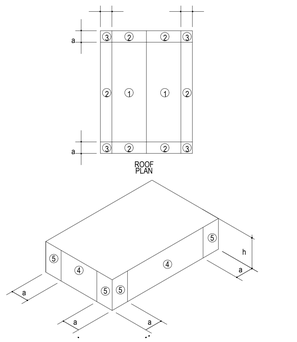
Elevation	77 ft with respect to North American Vertical Datum of 1988 (NAVD 88)
Lat:	29.620198
Long:	-95.582778
Standard:	ASCE/SEI 7-22
Risk Category:	III
Soil Class:	CD

Wind Overlay

141 Vmph DETAILS

Wind Details

Wind Speed	141 Vmph
10-year MRI	77 Vmph
25-year MRI	91 Vmph
50-year MRI	105 Vmph
100-year MRI	114 Vmph
300-year MRI	127 Vmph
700-year MRI	135 Vmph
1,700-year MRI	141 Vmph
3,000-year MRI	147 Vmph
10,000-year MRI	155 Vmph
100,000-year MRI	170 Vmph
1,000,000-year MRI	182 Vmph



DUGOUTS ENCLOSURE = PARTIAL

COMPONENT AND CLADDING WIND PRESSURES		
	ROOF	
ZONE	0-10 sqft	>100 sq ft
1	+25.4,-46.3	+22.4,-43.3
2	+25.4,-70.2	+22.4,-49.3
3	+25.4,-100.1	+22.4,-49.3
	WALL	
ZONE	0-10 sqft	>100 sqft
4	+43.3,-46.0	+38.6,-41.3
5	+43.3,-54.1	+38.6,-44.6

a =3'-0"

NOTE;
1- ALL BUILDING COMPONENTS, CLADDING, FINISHES AND CONNECTIONS SHALL BE DESIGNED FOR WIND PRESSURES INDICATED FOR THE CORRESPONDING ZONE. CALCULATIONS AND/OR DESIGN DATA MUST BE AVAILABLE FOR REVIEW BY THE STRUCTURAL ENGINEER OFRECORD IF REQUIRED. NOTE THAT THE WIND PRESSURES TABULATED ARE ULTIMATE AND SHALL BE MULTIPLIED BY 0.6 FOR ALLOWABLE STRESS DESIGN (ASD)

2- POSITIVE AND NEGATIVE SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACE, RESPECTIVELY.

3- LINEAR INTERPOLATION BETWEEN VALUES OF EFFECTIVE WIND AREA IS PERMISSIBLE.

4- ALL PARAPETS SHALL BE DESIGNED IN ACCORDANCE WITH THE WIND PRESSURES DETERMINED FROM ASCE 7

5- FOR JOIST OR PURLIN UPLIFT DESIGN, 3 PSF DEAD LOAD SHALL BE USED FOR NET UPLIFT DETERMINATION. NET UPLIFT SHALL BE DETERMINED WITH THE "0.6D+0.6W" LOAD COMBINATION FOR "ASD" DESIGNS OR LOAD COMBINATION " 0.9D+1.0W" FOR LRFD /ULTIMATE LOAD DESIGNS.

1 DULLES HS. C&C WIND PRESSURE
1/2" = 1'-0"

SEE SHEET S3.11 FOR OPTIONAL SCHEMATIC NETTING CONNECTION DETAILS

FINAL CONNECTION AND DETAILS TO BE PROVIDED BY NETTING SUPPLIER

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STATE OF TEXAS
BINIAM O. GHEBREAB
107333
LICENSED PROFESSIONAL ENGINEER
DATE: 10/09/2025

PROJECT NO. 25-005
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DRAWN BY: HG CHECKED BY: BM
REVISIONS:
No. Date Description

100% CD

S0.02-D
GENERAL NOTES

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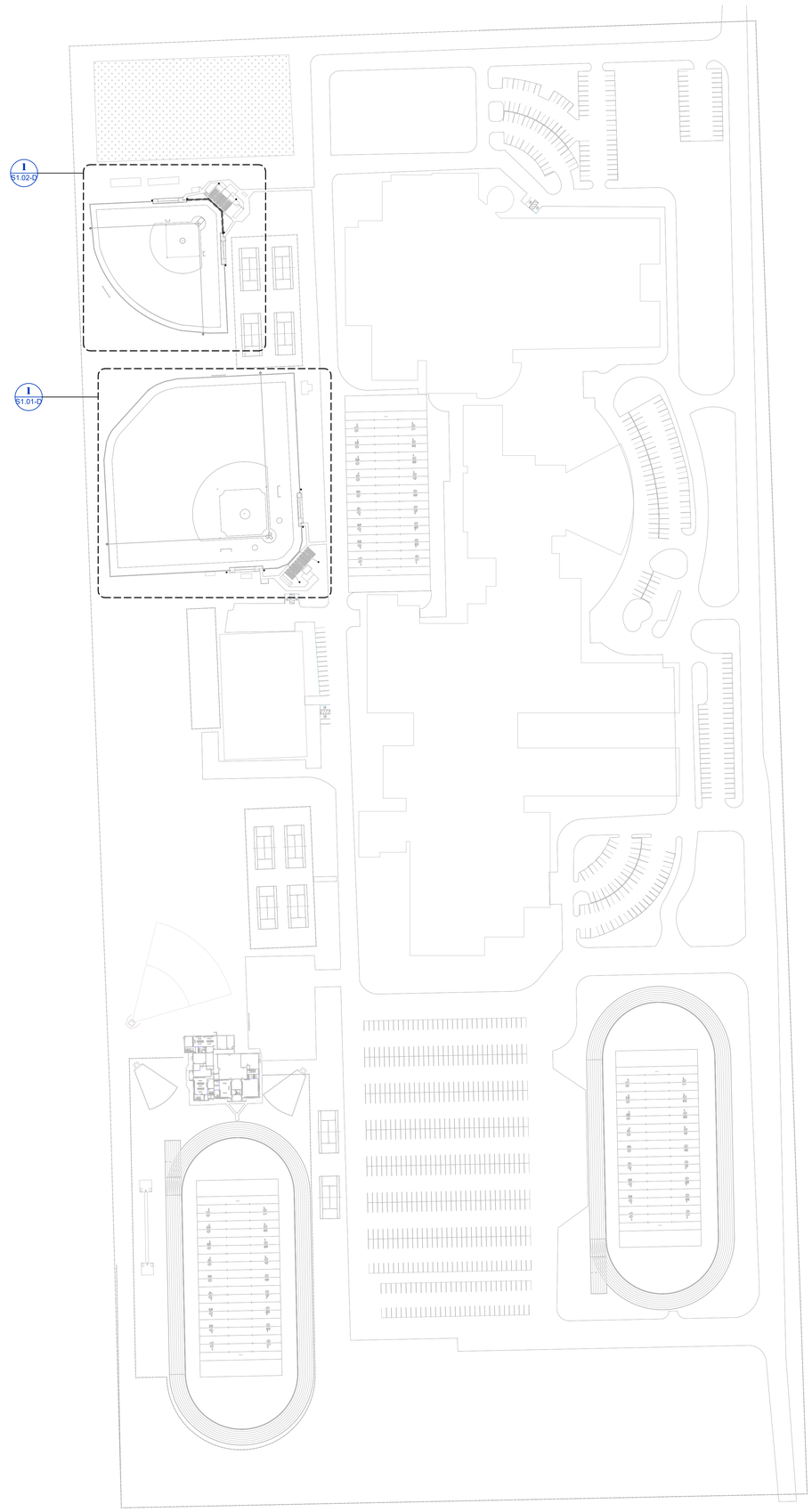

1 **DULLES OVERALL SITE PLAN**
1" = 100'-0"

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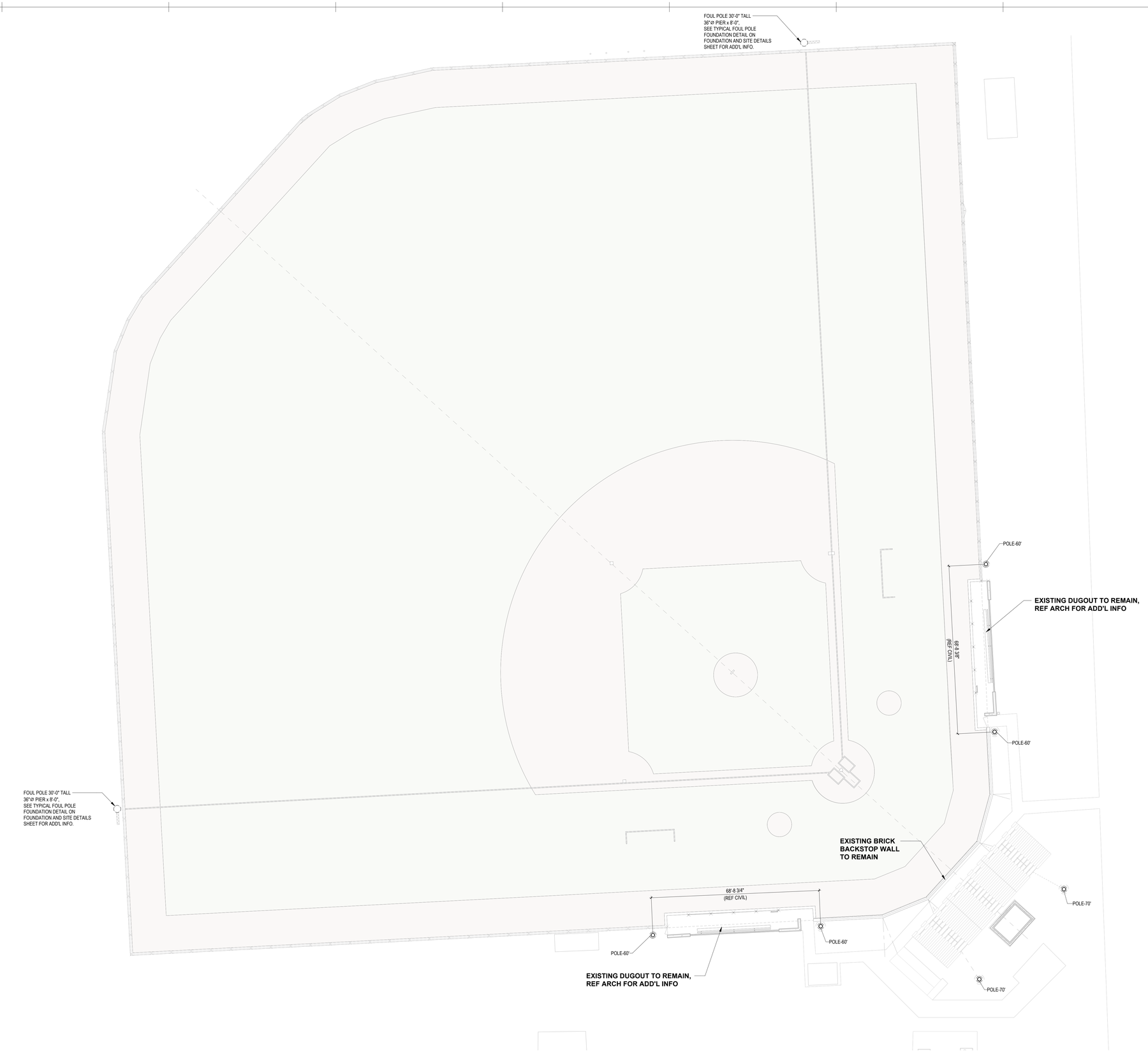
S1.00-D
OVERALL SITE PLAN



1 BASEBALL FOUNDATION PLAN

1/16" = 1'-0"

NOTE:
1. REFER SHEET S3.10-D FOR POLE SCHEDULE AND FOUNDATION PIER SCHEDULE SUPPORTING THE POLES.

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S1.01-D
BASEBALL FOUNDATION PLAN

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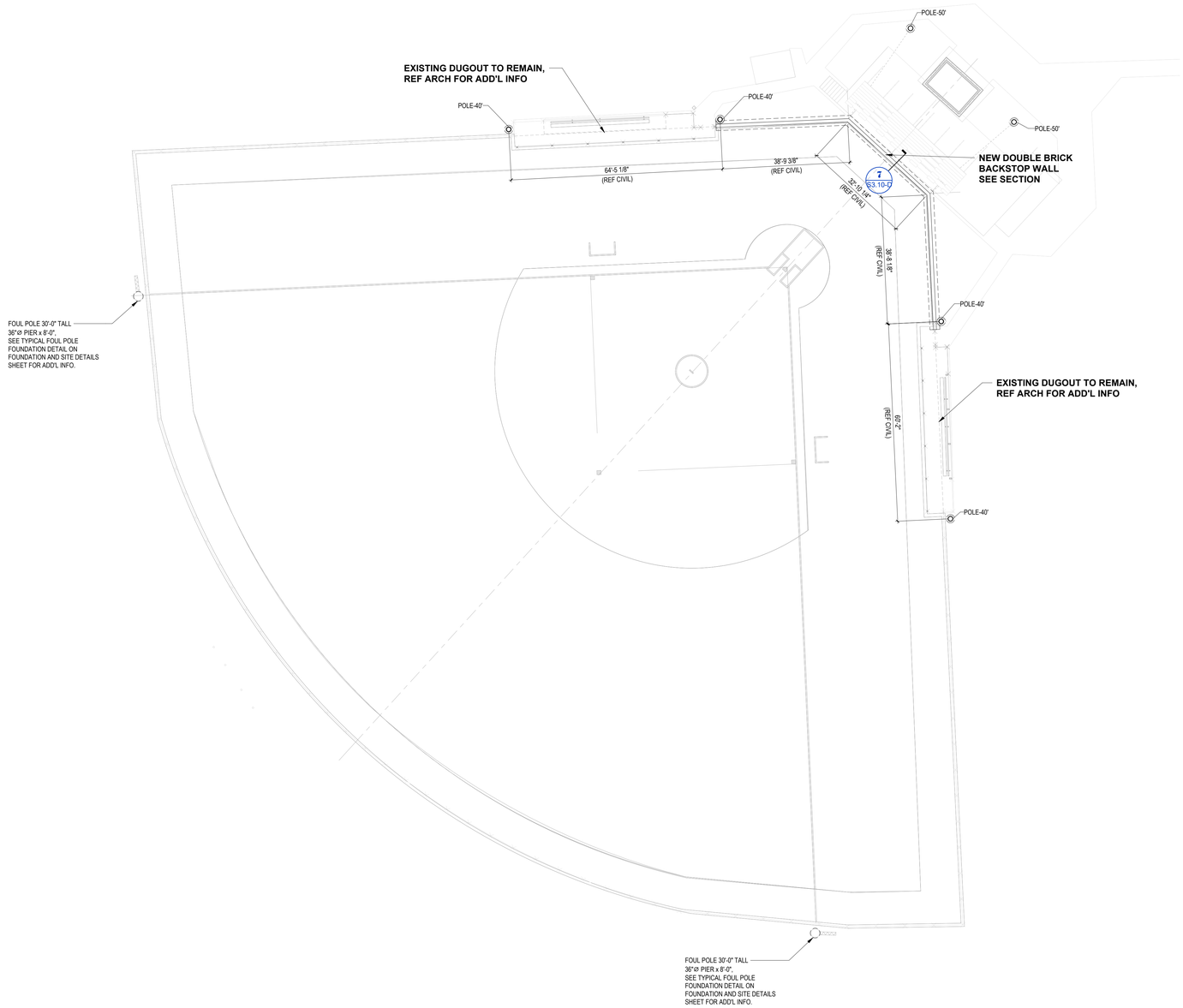

1 SOFTBALL FOUNDATION PLAN

1/16" = 1'-0"

NOTE:
1. **REFER SHEET S3.10-D FOR POLE SCHEDULE AND FOUNDATION PIER SCHEDULE SUPPORTING THE POLES.**

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TBPE Firm Reg. No.23438

STATE OF TEXAS
BINIAM O. GHEBREAB
107333
LICENSED
PROFESSIONAL ENGINEER
DATE: 10/09/2025

PROJECT NO.	25-005
DATE:	10/02/2025
DRAWN BY: HG	CHECKED BY: BM

REVISIONS:

No.	Date	Description

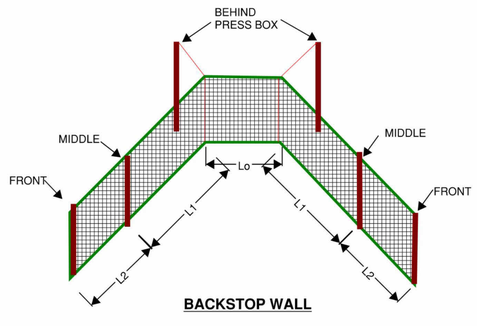
100% CD

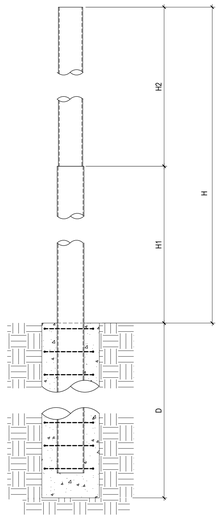
S1.02-D
SOFTBALL FOUNDATION PLAN

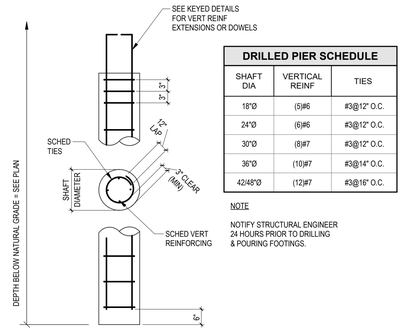
POLE AND PIER SCHEDULE

POLE NAME/LOCATION	POLE HEIGHT (H)	POLE LENGTH H1 (FT)	POLE LENGTH H2 (FT)	POLE SIZE FOR H1	POLE SIZE FOR H2	DRILLED PIER SHAFT DIAMETER	PIER DEPTH BELOW GRADE	VERTICAL REINF	TIES	LOCATION
POLE-70 BEHIND PRESS BOX	70'-0"	35'-0"	35'-0"	20"Ø HSS20X0.5	20"Ø HSS20X0.375	42"Ø	18'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (2 POLES BEHIND PRESS BOX) - TYP @60 FT TALL NETTING
POLE-60 MIDDLE	60'-0"	30'-0"	30'-0"	20"Ø HSS20X0.05	20"Ø HSS20X0.375	42"Ø	18'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @60 FT TALL NETTING
POLE-60 FRONT	60'-0"	30'-0"	30'-0"	18"Ø HSS18X0.375	16"Ø HSS16X0.375	36"Ø	18'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @60 FT TALL NETTING
POLE-50 BEHIND PRESS BOX	50'-0"	25'-0"	25'-0"	18"Ø HSS18X0.375	16"Ø HSS16X0.375	36"Ø	15'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ SOFT BALL (2 POLES BEHIND PRESS BOX) - TYP @40 FT TALL NETTING
POLE-40 MIDDLE	40'-0"	20'-0"	20'-0"	14"Ø HSS14X0.375	14"Ø HSS14X0.375	36"Ø	15'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (2 POLES AT MIDDLE TYP @40 FT TALL NETTING
POLE-40 FRONT	40'-0"	20'-0"	20'-0"	14"Ø HSS14X0.312	14"Ø HSS14X0.312	30"Ø	13'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @40 FT TALL NETTING

NOTE:
ALL STEEL POLES ARE GRADE 90 (FY= 90 KSI)



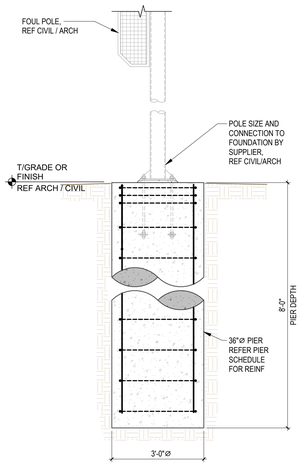




DRILLED PIER SCHEDULE		
SHAFT DIA	VERTICAL REINF	TIES
18"Ø	(5)#6	#3@12" O.C.
24"Ø	(6)#6	#3@12" O.C.
30"Ø	(8)#7	#3@12" O.C.
36"Ø	(10)#7	#3@14" O.C.
42/48"Ø	(12)#7	#3@16" O.C.

NOTE

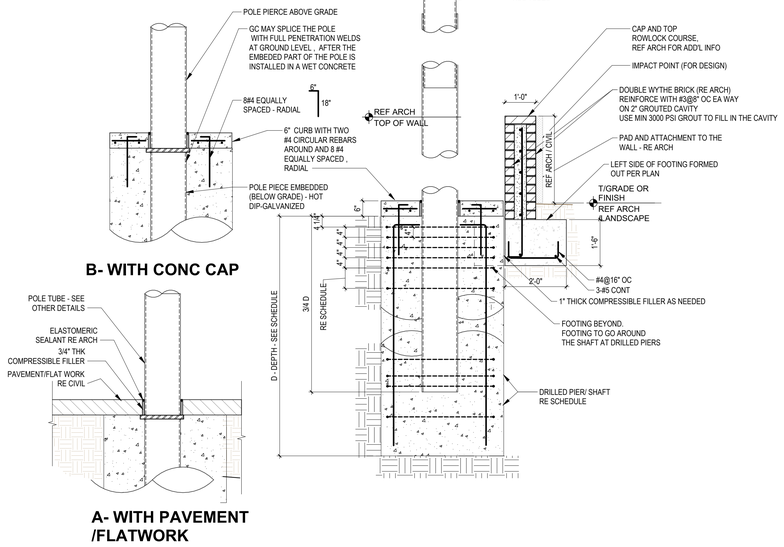
NOTIFY STRUCTURAL ENGINEER
24 HOURS PRIOR TO DRILLING
& POURING FOOTINGS.



4 TYPICAL FOUL POLE FOUNDATION
1/2" = 1'-0"

2 SECTION
3/8" = 1'-0"

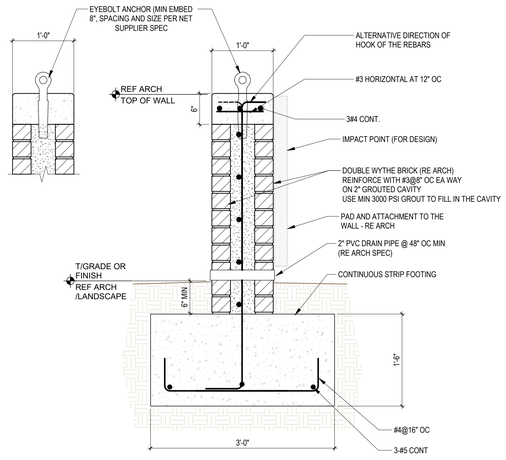
1 DRILLED PIER REINF SCHEDULE
3/4" = 1'-0"



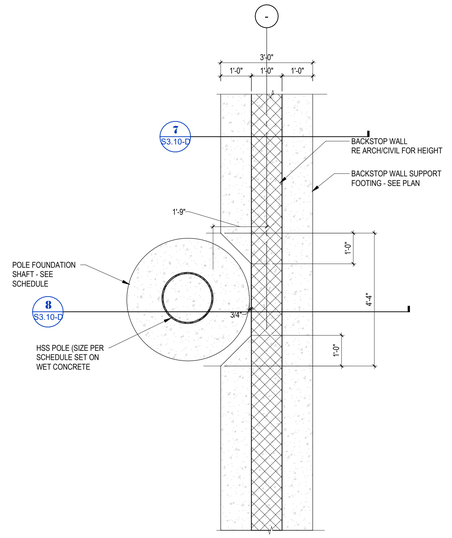
B- WITH CONC CAP

A- WITH PAVEMENT /FLATWORK

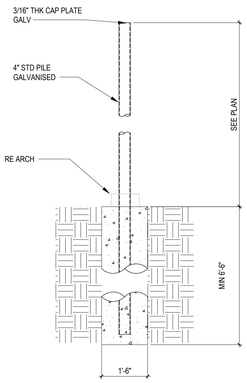
8 POLE /BACKSTOP FOUNDATION_D
1/2" = 1'-0"



7 TYPICAL BACKSTOP WALL & FOUNDAITON
1" = 1'-0"



6 POLE & WALL FOUNDATION PLAN D
1/2" = 1'-0"



5 TYPICAL AT CHAINLINK POST OR SCREEEN WALL
1/2" = 1'-0"

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S3.10-D
FOUNDATION AND SITE DETAILS

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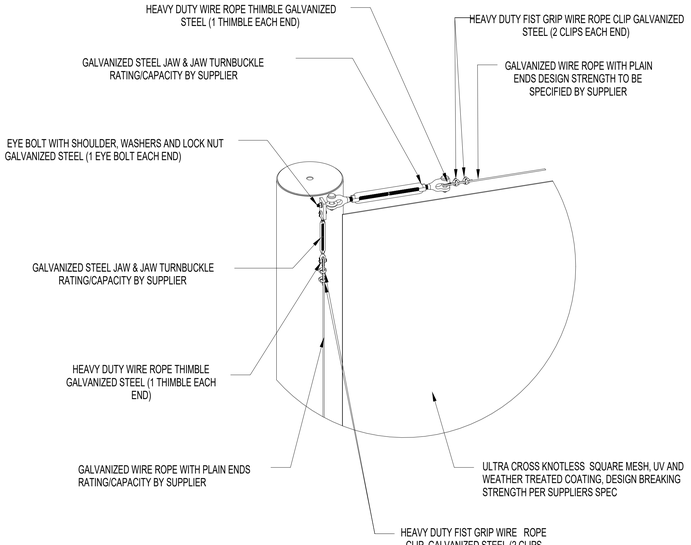
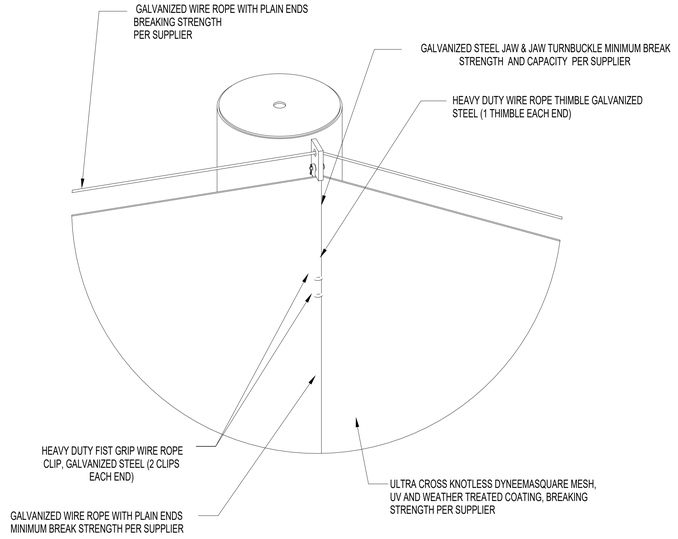
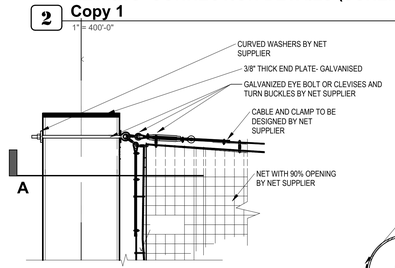


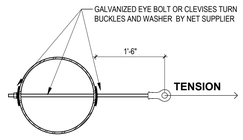


NETTING CONNECTION DETAILS (SCHEMATIC) - OPTION 2 PER SUPPLIERS DETAILS A

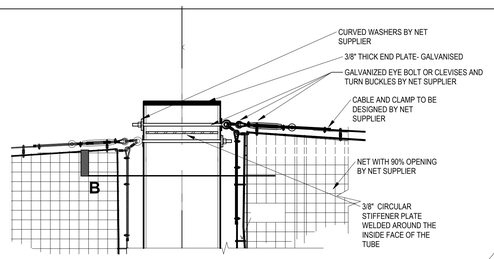
2 Copy 1

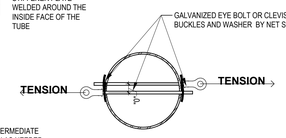
1" = 400'-0"



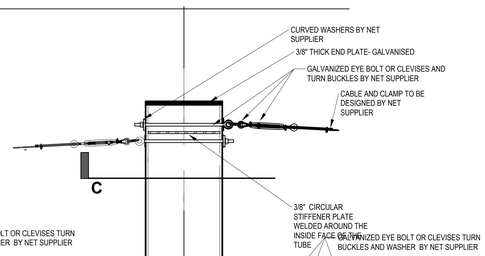


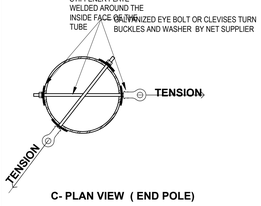
A- PLAN VIEW (END POLE)



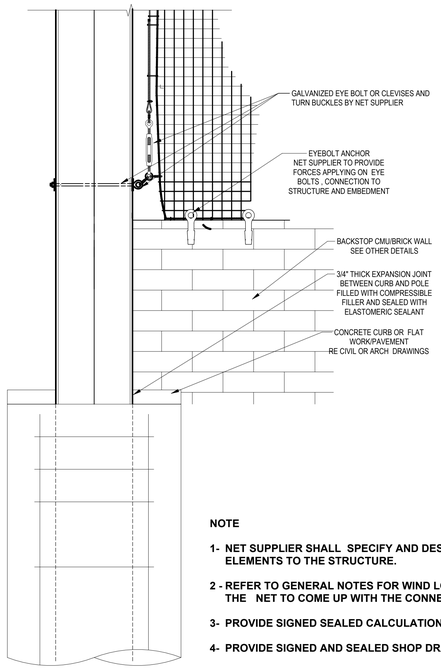


B- PLAN VIEW (END POLE)

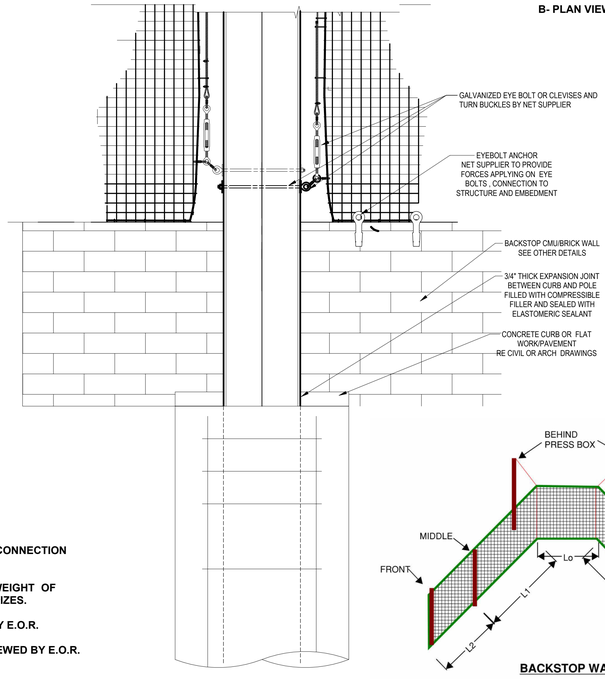




C- PLAN VIEW (END POLE)



I - FRONT POLE (END POLE)



II- MIDDLE POLE

BACKSTOP WALL

III - POLE BEHIND PRESS BOX

NOTE

1- NET SUPPLIER SHALL SPECIFY AND DESIGN THE NET AND CONNECTION ELEMENTS TO THE STRUCTURE.

2 - REFER TO GENERAL NOTES FOR WIND LOAD CRITERIA THE WEIGHT OF THE NET TO COME UP WITH 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

I NETTING POLE AND CONNECTION SCHEMATIC DETAILS - OPTION 1) Copy 1

3/4" = 1'-0"

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S3.11-D
FOUNDATION AND SITE DETAILS

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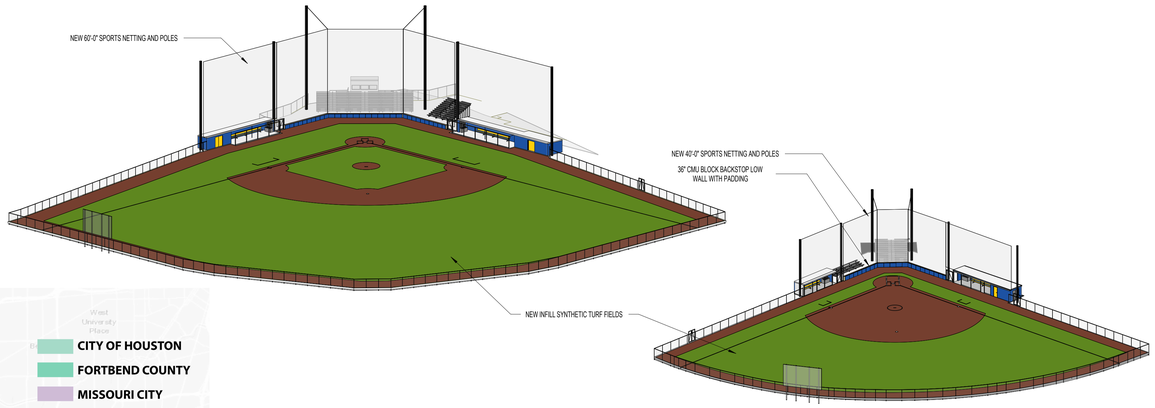
ISSUED FOR CONSTRUCTION
ELKINS HIGH SCHOOL

SCHOOL LOGOS

3D VIEW



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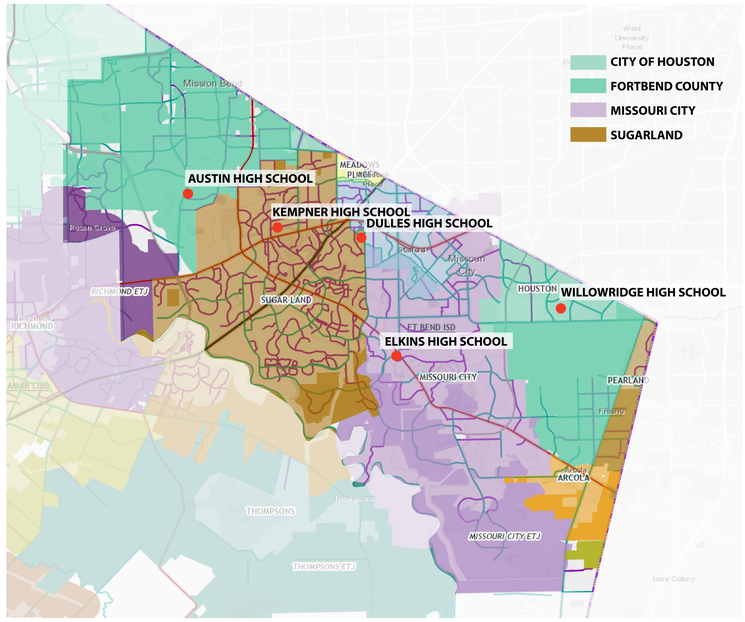
LOCATION MAPS



SCOPE OF WORK

SID 10501

REPLACE NATURAL GRASS BASEBALL AND SOFTBALL FIELDS WITH SYNTHETIC TURF

SID 10506

RENOVATE BASEBALL AND SOFTBALL BACKSTOPS, DUGOUTS, AND NETTING

SCHOOL ADDRESS

Elkins HS, 7007 Knights Ct, Missouri City, TX 77459

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G0.03-E	TAS 2 OF 2
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S1.04-E	DUGOUT ROOF FRAMING PLAN
S3.10-E	FOUNDATION AND ROOF DETAILS
S3.11-E	FOUNDATION AND SITE DETAILS

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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
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REVISIONS:

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COVER

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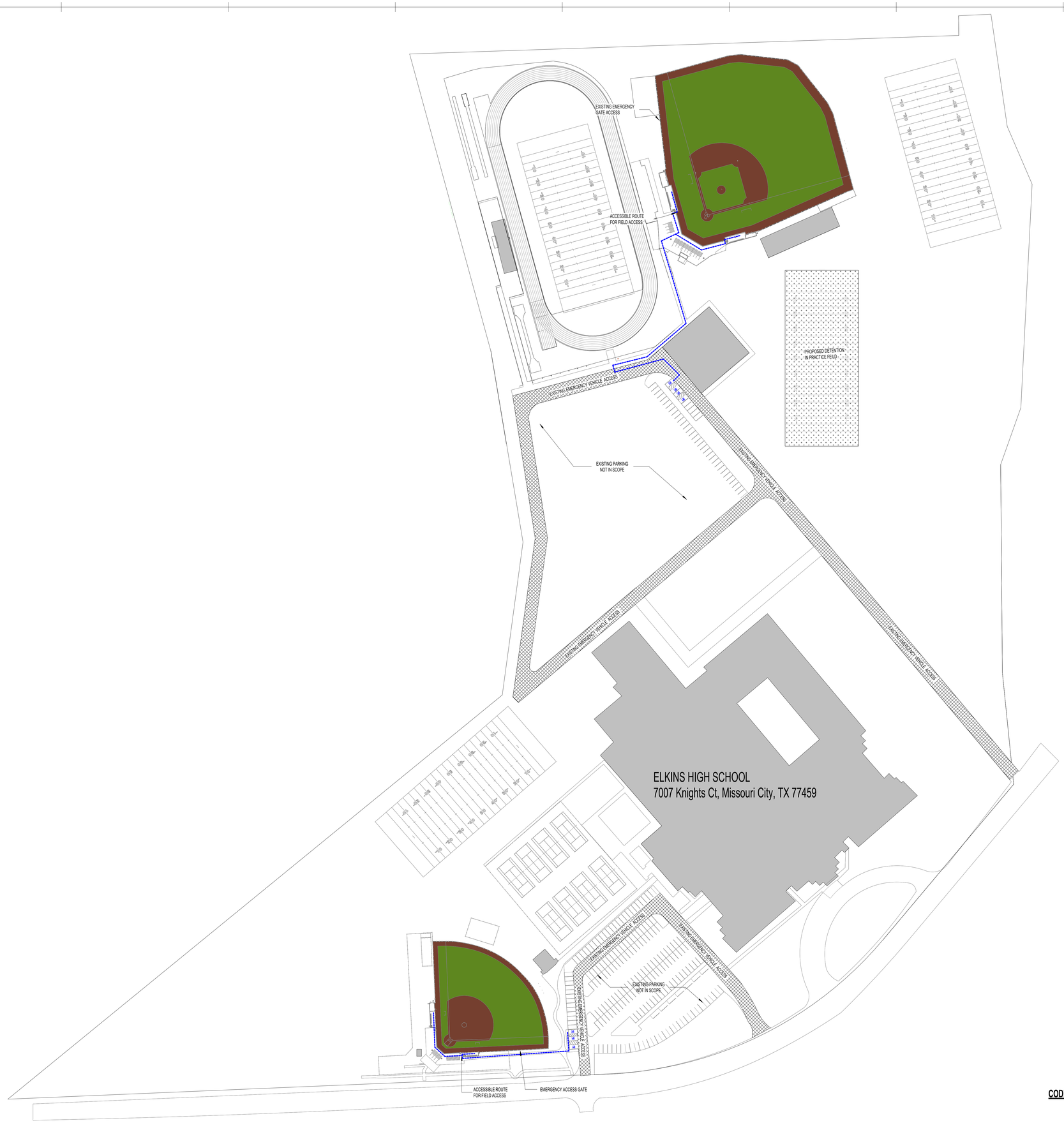


CODE PLAN - E 1
SCALE: 1" = 80'-0"

GENERAL NOTES

1. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
2. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.
3. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, IN COMPLIANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION (AHJ). COORDINATE WITH LOCAL FIRE DEPARTMENT FOR APPROVED LOCK TYPE AND INSTALLATION LOCATION.

APPLICABLE CODES

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 101 LIFE SAFETY CODE (CHAPTER 43 - 2006 NFPA 101)
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 170 STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 70 NATIONAL ELECTRICAL CODE
2021 ASHRAE STANDARD 90.1 - ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)
2023 NATIONAL ELECTRICAL CODE

LEGEND

- LONGEST EXIT ROUTE PER LEVEL
- EXIT ROUTE
- EXIT POINT WITH WIDTH INDICATED IN INCHES (R2: 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
- EXISTING EMERGENCY ACCESS PATH UNPAVED
- EXISTING EMERGENCY ACCESS PATH PAVED
- EXISTING ACCESSIBLE ROUTE

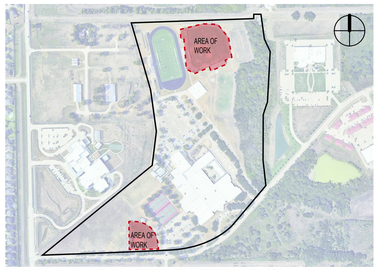
CODE REVIEW: IBC 2021 - EXISTING BUILDING

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.



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

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REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

DATE: 10/09/2025

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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.

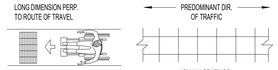
TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

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

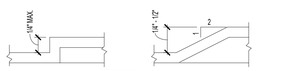


FIGURE 303

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)

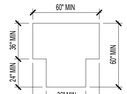


FIGURE 304.3.2
T-SHAPED
TURNING SPACE

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

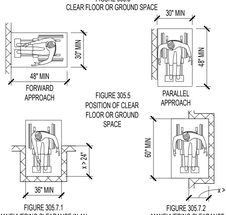


FIGURE 306.1
MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH
FIGURE 305.2
MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

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 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.

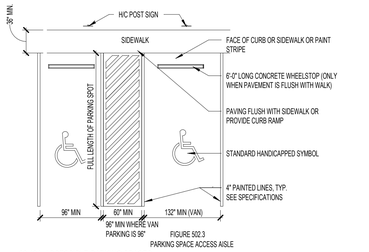
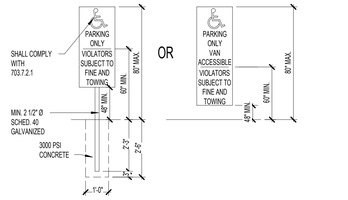


FIGURE 502.3
PARKING SPACE ACCESS AISLE

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.

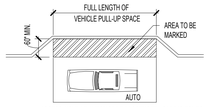
(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).



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.

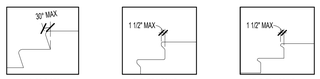


FIGURE 504.5
STAIR NOSINGS

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.

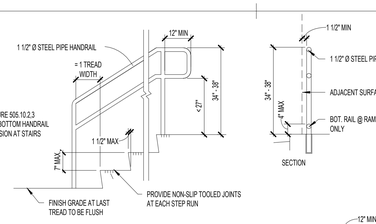


FIGURE 505.10.2,3
TOP AND BOTTOM HANDRAIL EXTENSION AT STAIRS

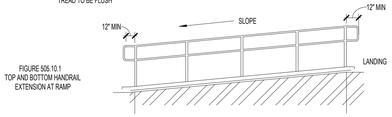


FIGURE 505.10.1
TOP AND BOTTOM HANDRAIL EXTENSION AT RAMP

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)

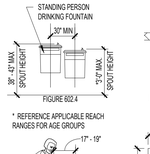
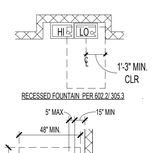
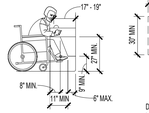


FIGURE 602.4



RECESSED FOUNTAIN, PER 602.2; 305.3

* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS



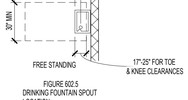


FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION

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

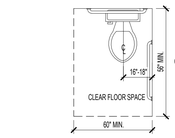


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

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 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.

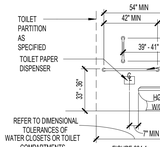


FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

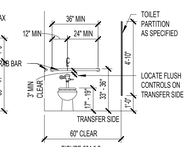


FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

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.

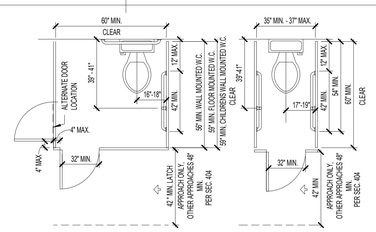


FIGURE 604.8.1
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

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.

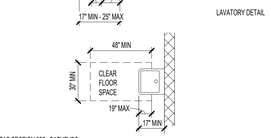
TAS SECTION 604.8.2 - AMBULATORY ACCESSIBLE COMPARTMENTS
- A. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY WITH FIGURE 604.8.2
- B. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL HAVE A DEPTH OF 60" MINIMUM AND A WIDTH OF 35"-37" MAXIMUM.
- C. GRAB BARS IN AMBULATORY ACCESSIBLE COMPARTMENTS SHALL COMPLY 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.

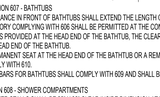


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

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.

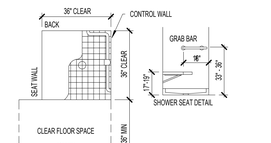


FIGURE 608.2.1.
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

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. 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 MU

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:

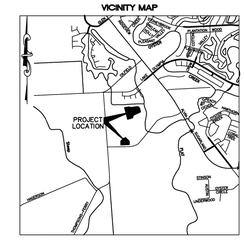
   T = 0.0850(D)(K)/(Q) WHERE T = TIME FOR PRESSURE TO DROP 1.0 POUNDS PER SQUARE INCH GAUGE IN SECONDS
   K = 0.000419(D)(L), BUT NOT LESS THAN 1.0
   D = AVERAGE INSIDE DIAMETER IN INCHES
   L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET
   Q = RATE OF LOSS, ASSUME 0.0015 CU FT/MIN/SQ FT INTERNAL SURFACE
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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HIGHWAY 45
HIGHWAY 249
HIGHWAY 1960
HIGHWAY 225
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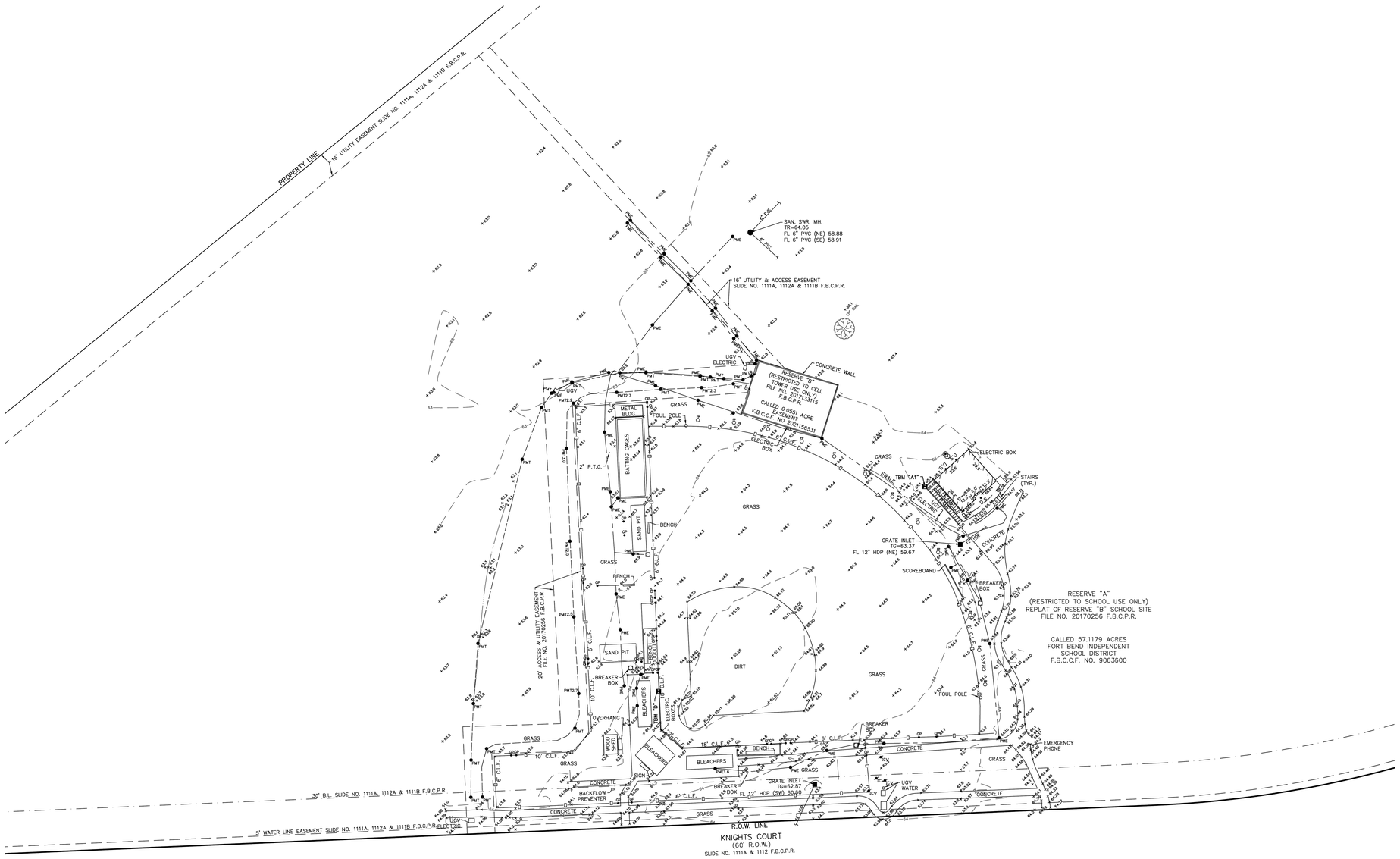

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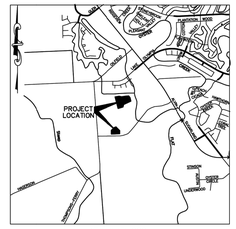

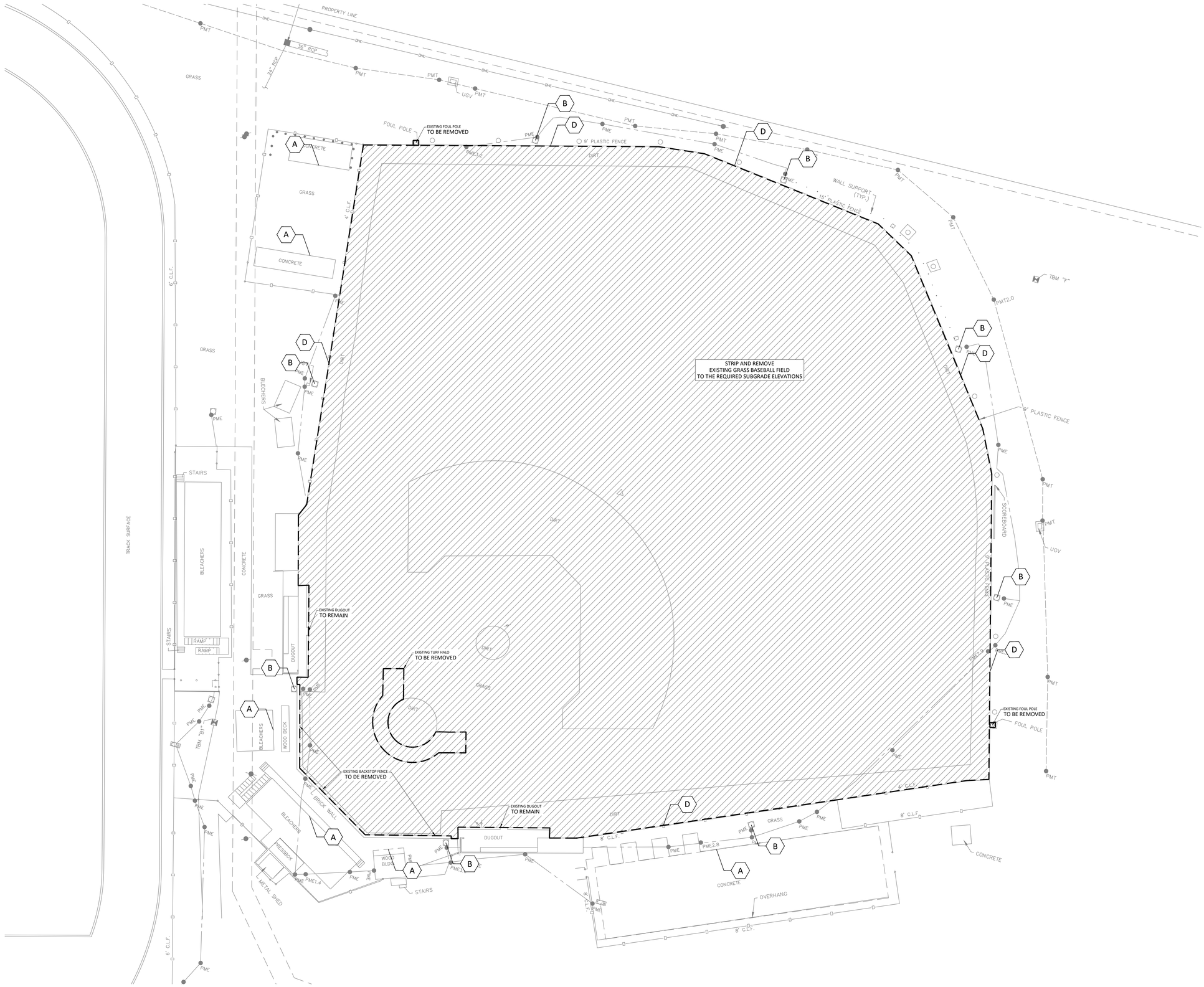

NOTES TO CONTRACTOR:

1. THE CONTRACTOR SHALL CAP AND DISPOSE OF ALL IRRIGATION WITHIN THE BASEBALL 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.

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' 0 20' 40'

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SURVEYOR

10/09/2025

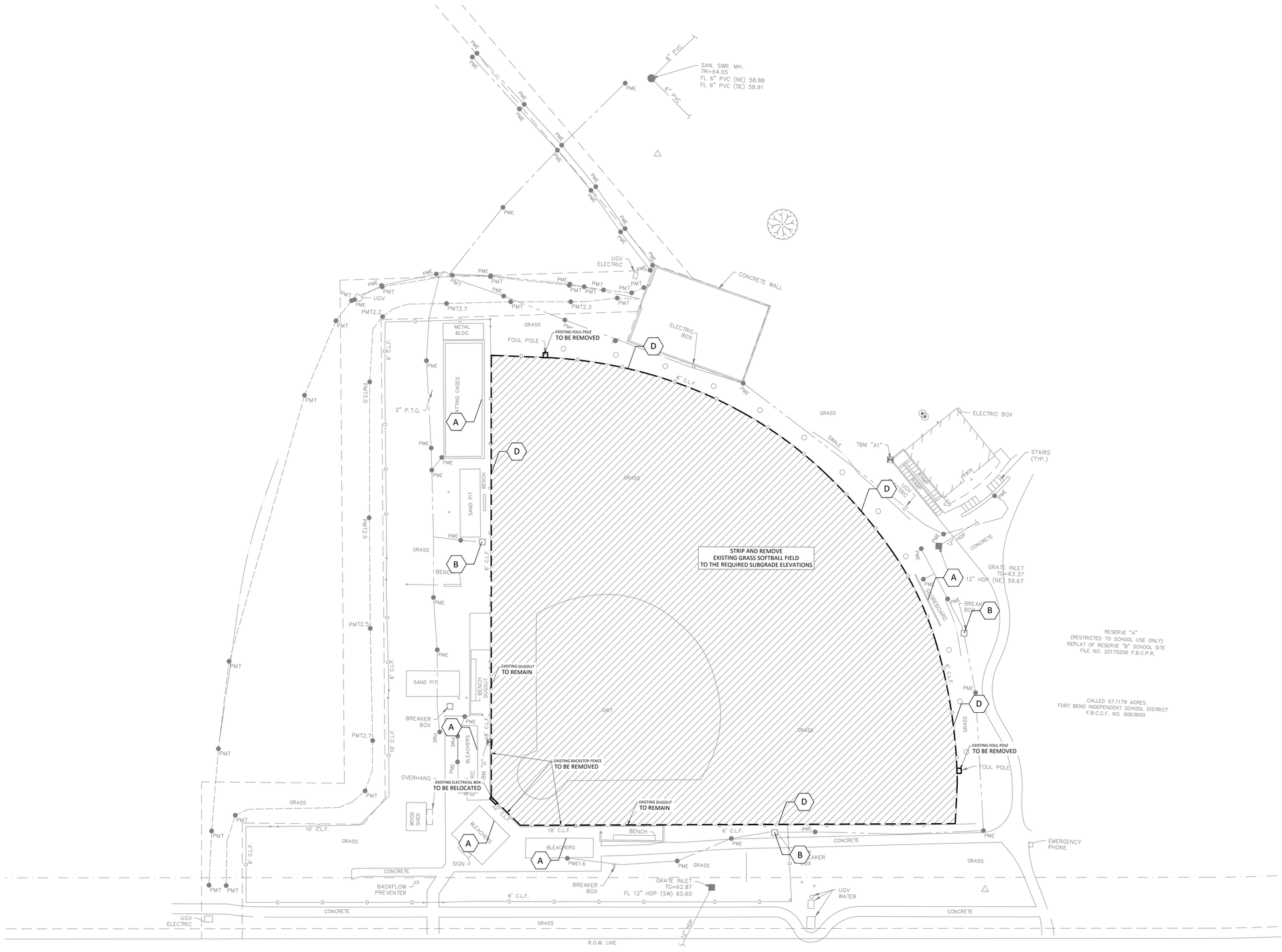
PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status

C 0.04-E

CIVIL SPORTS DEMOLITION PLAN BASEBALL FIELD



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NOTES TO CONTRACTOR:

1. THE CONTRACTOR SHALL CAP AND DISPOSE OF ALL IRRIGATION WITHIN THE SOFTBALL FIELD. ALL IRRIGATION OUTSIDE THE SCOPE OF WORK MUST REMAIN IN WORKING CONDITION.

DEMOLITION NOTES:

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LEGEND:

STRIP AND REMOVAL OF MATERIALS

REMOVAL AND DISPOSAL OF ITEMS

10' 20' 20' 0 40'

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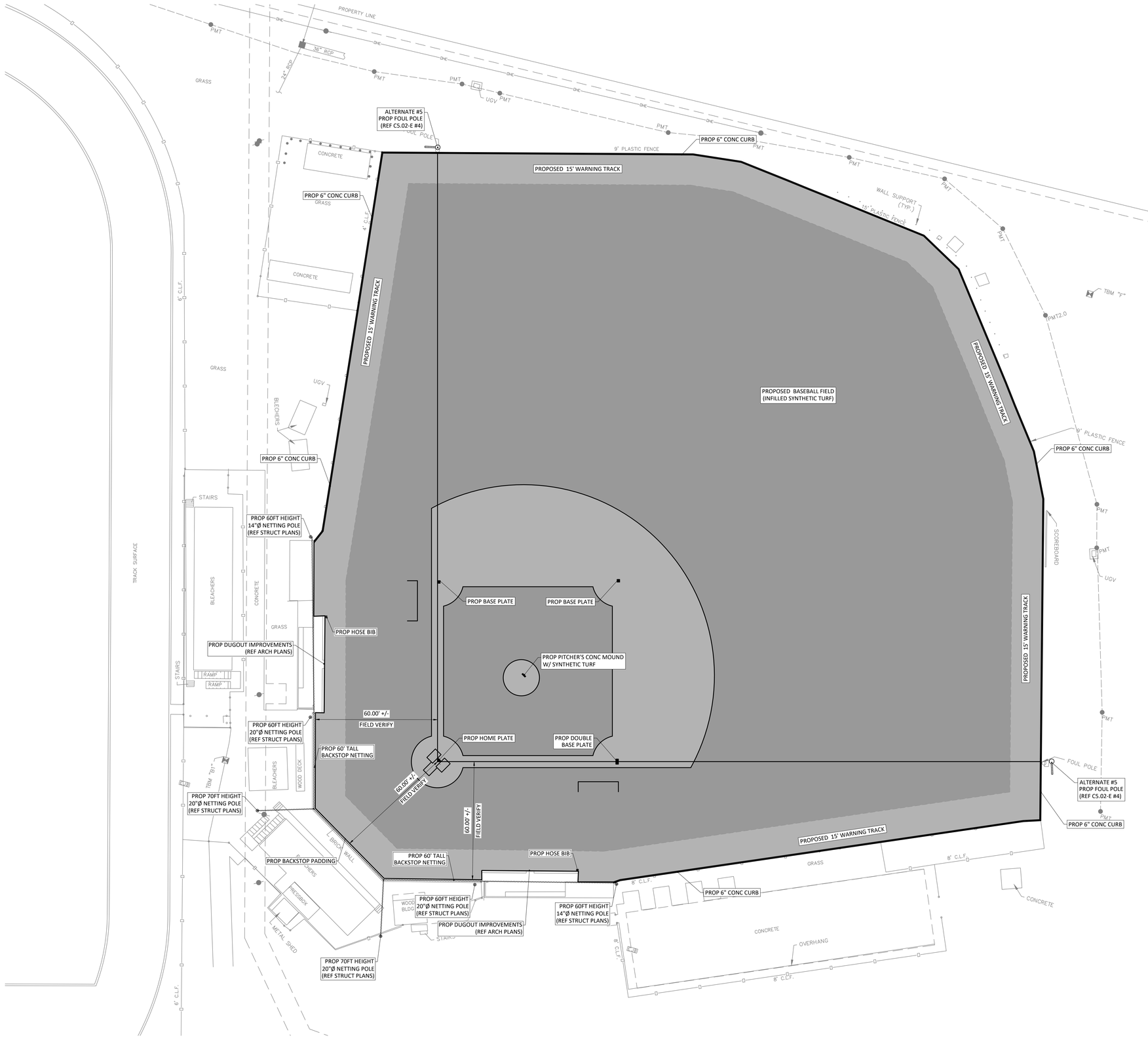
10/09/2025

PROJECT NO. BP010.
DATE NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status

C 0.05-E
CIVIL SPORTS
DEMOLITION PLAN
SOFTBALL FIELD



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 THROUGH C5.03-E FOR DETAILS.

10' 20'
20' 0 40'

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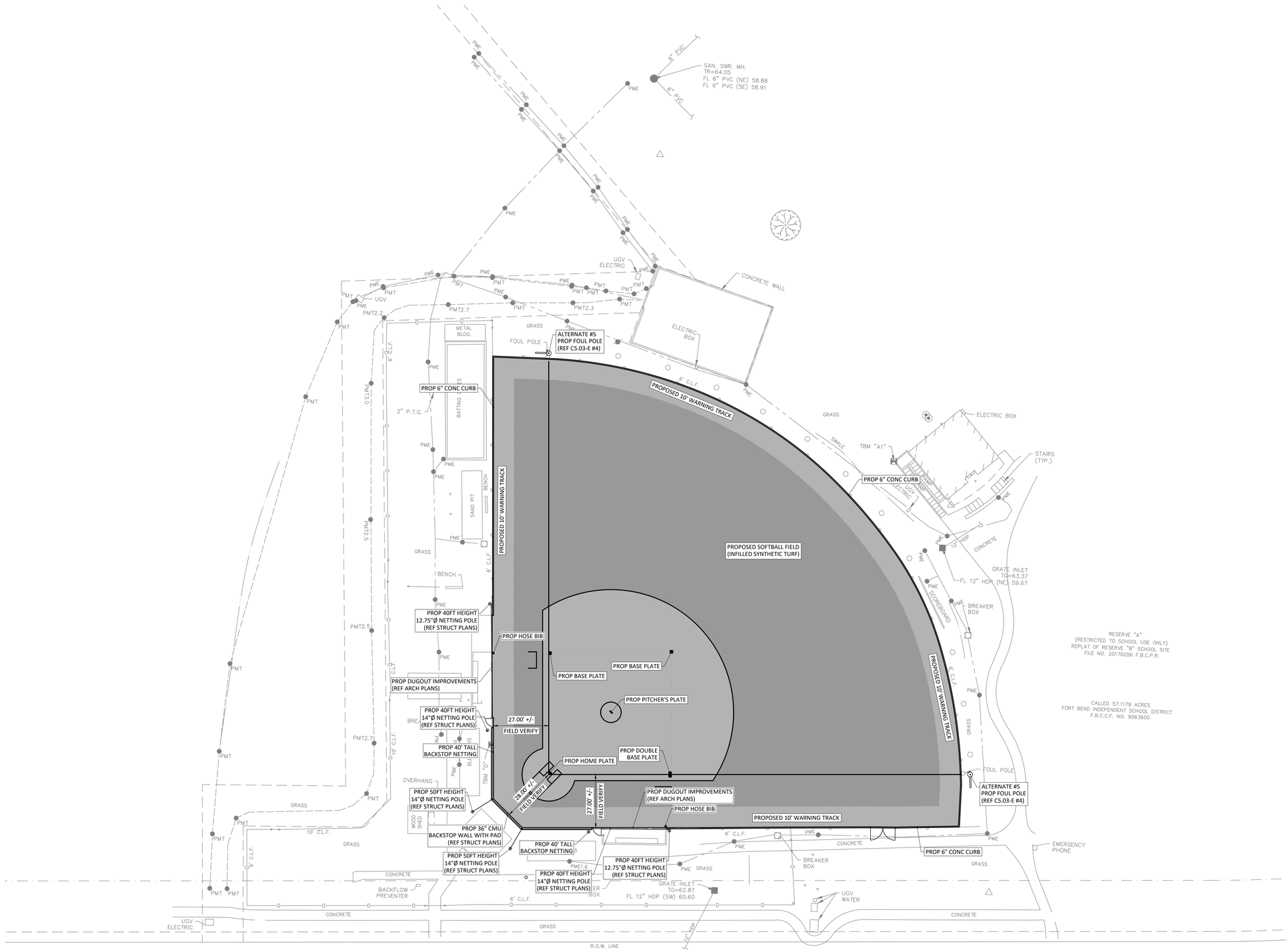
C 1.01-E

CIVIL SPORTS
SITE PLAN
BASEBALL FIELD



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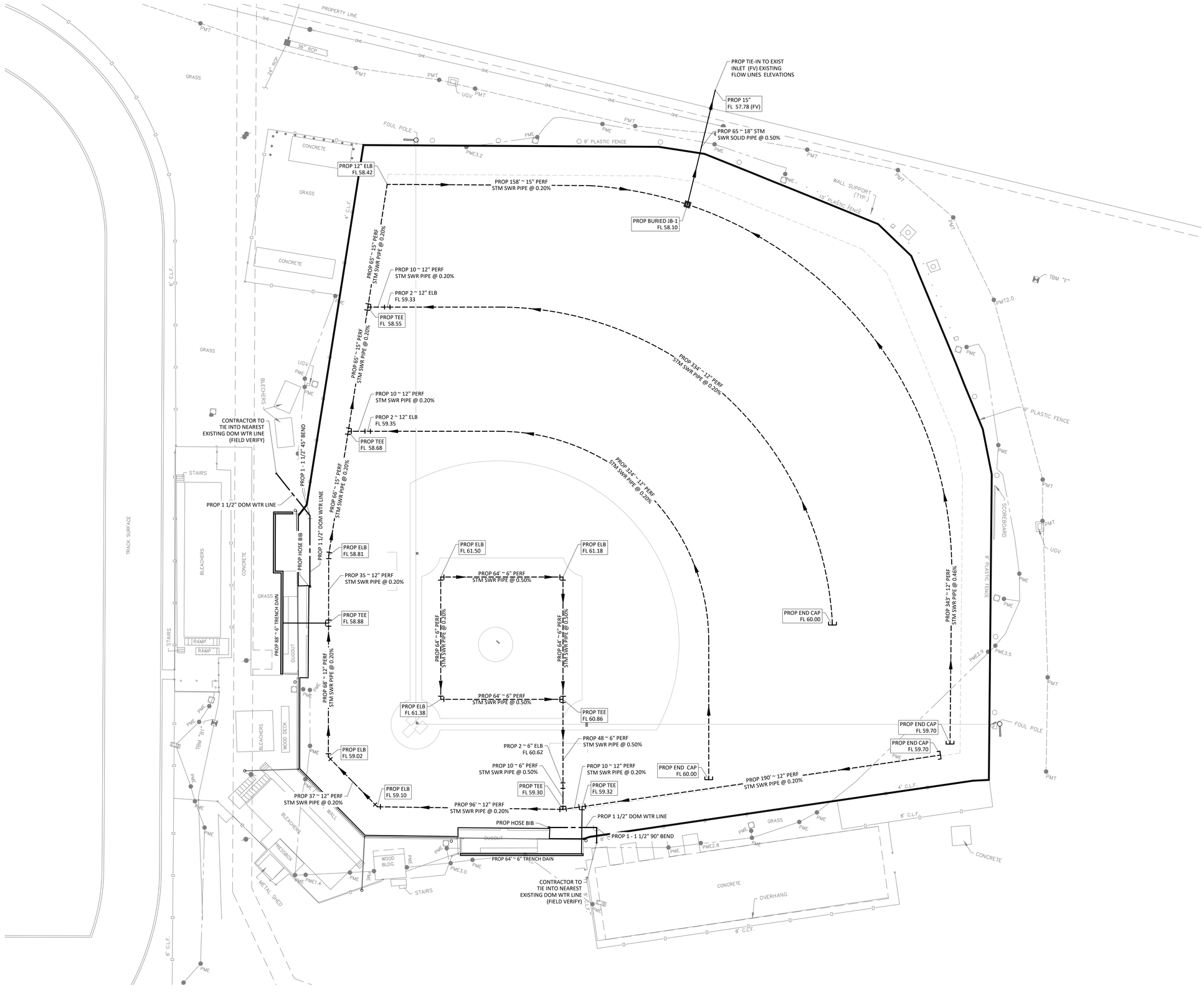
Project Status

C 1.02-E
CIVIL SPORTS
SITE PLAN
SOFTBALL FIELD



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NOTES:

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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' 20' 20' 0 40'

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10/09/2025

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DATE: NOVEMBER 15, 2023
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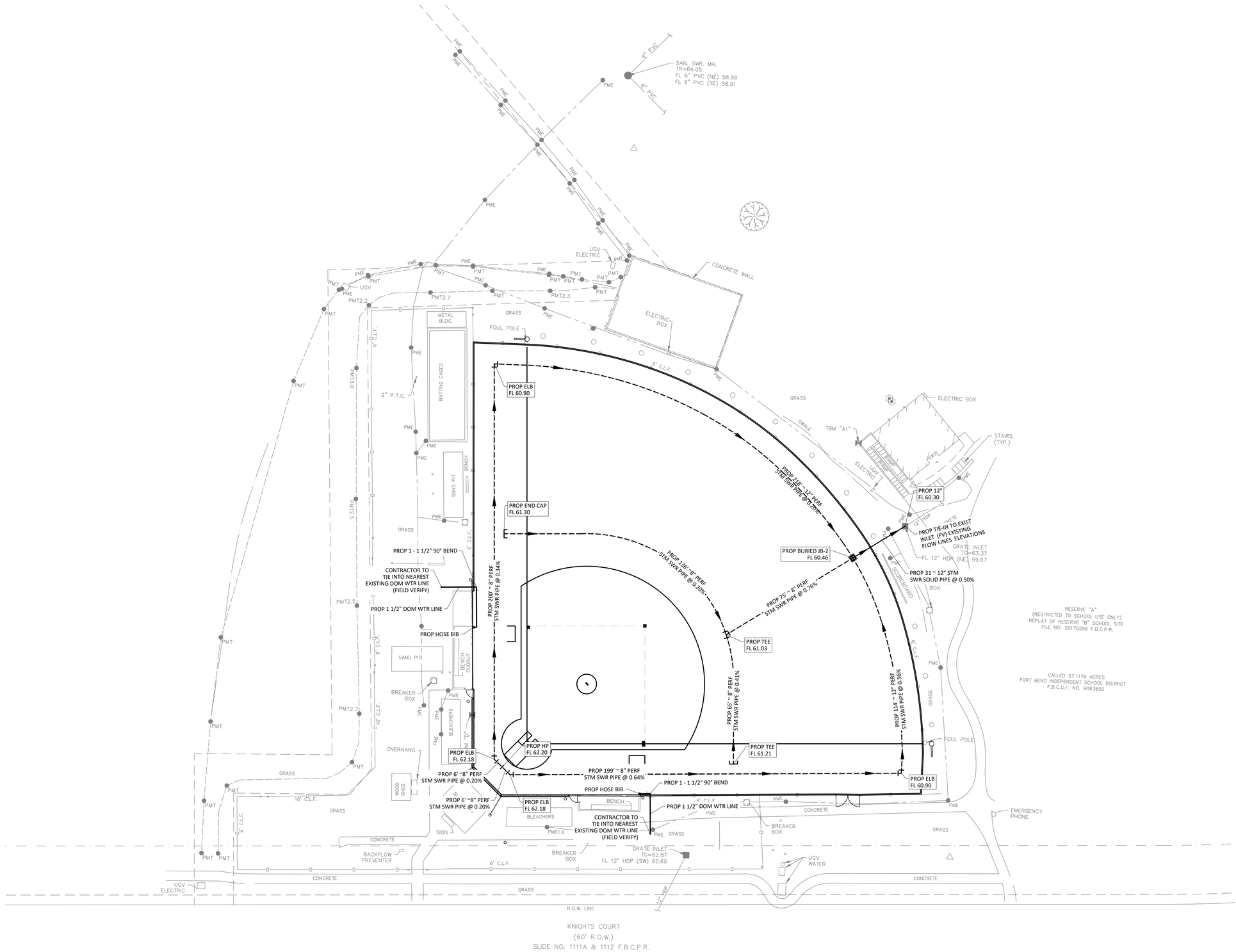
#	Date	Description

Project Status

C 2.01-E

CIVIL SPORTS
DRAINAGE PLAN
BASEBALL FIELD



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TR XX.XX'	TOP OF RIM
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	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' 20'
20' 0 40'

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C 2.02-E
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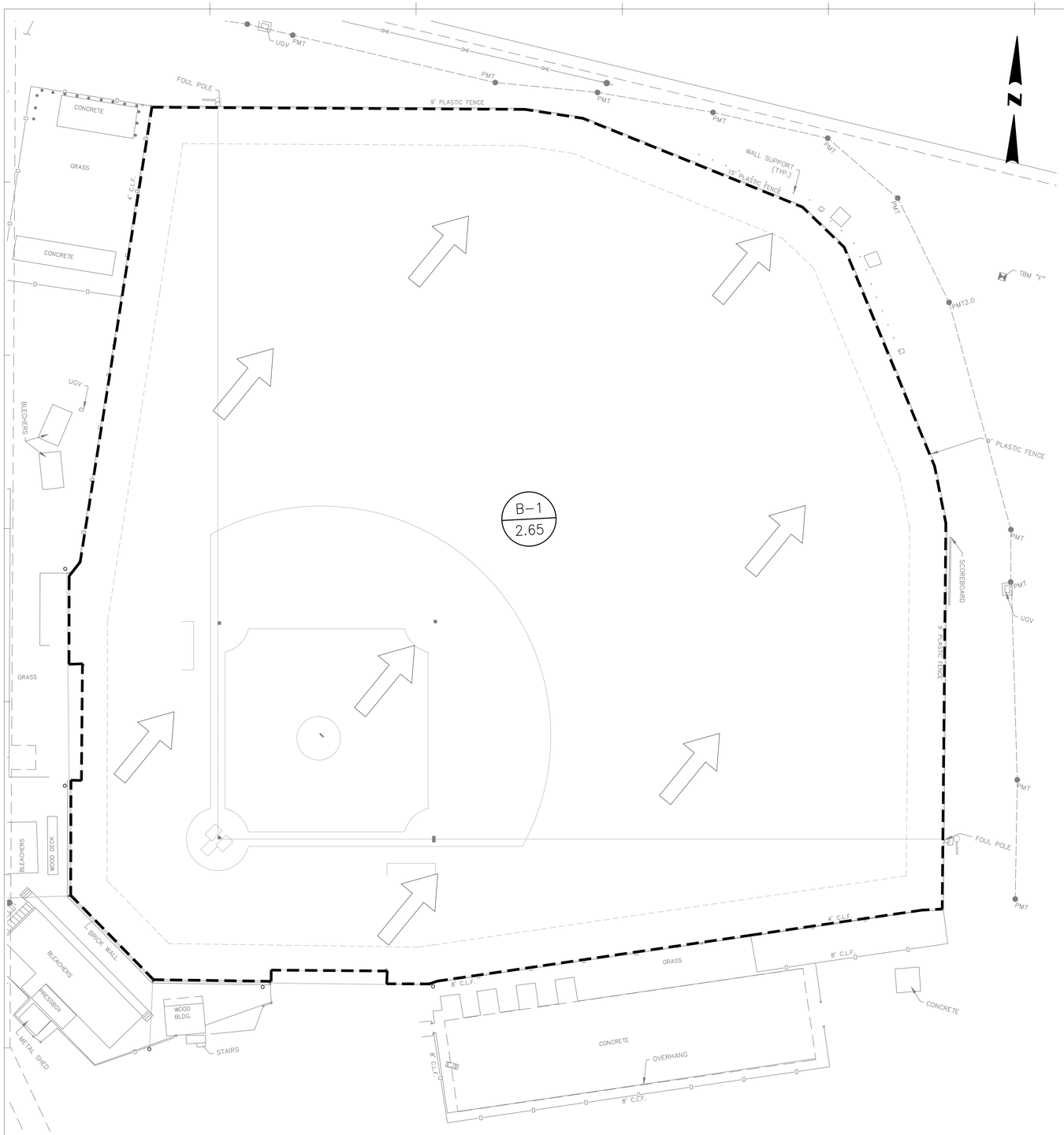
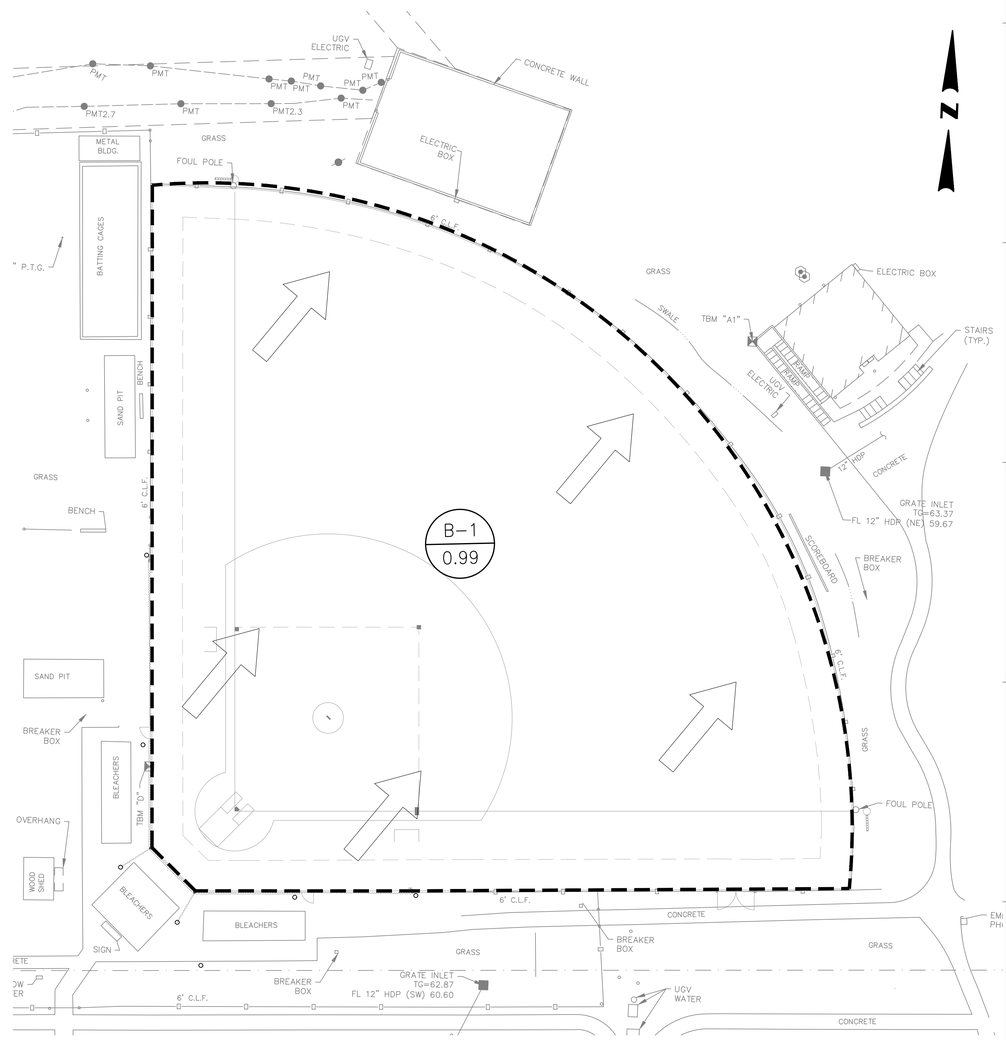
DRAINAGE PLAN
SOFTBALL FIELD





PRE-DEVELOPMENT DRAINAGE AREA PLAN

LEGEND:

- A-X / X.XX — AREA - (No.) / AREA - (AC)
- DRAINAGE AREA BOUNDARY
- EXTREME EVENT FLOW

10' 20' 0 20' 40'

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ELKINS HIGH SCHOOL

Project Info Additional Text Line

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

KENNETH I. JURADO 119993

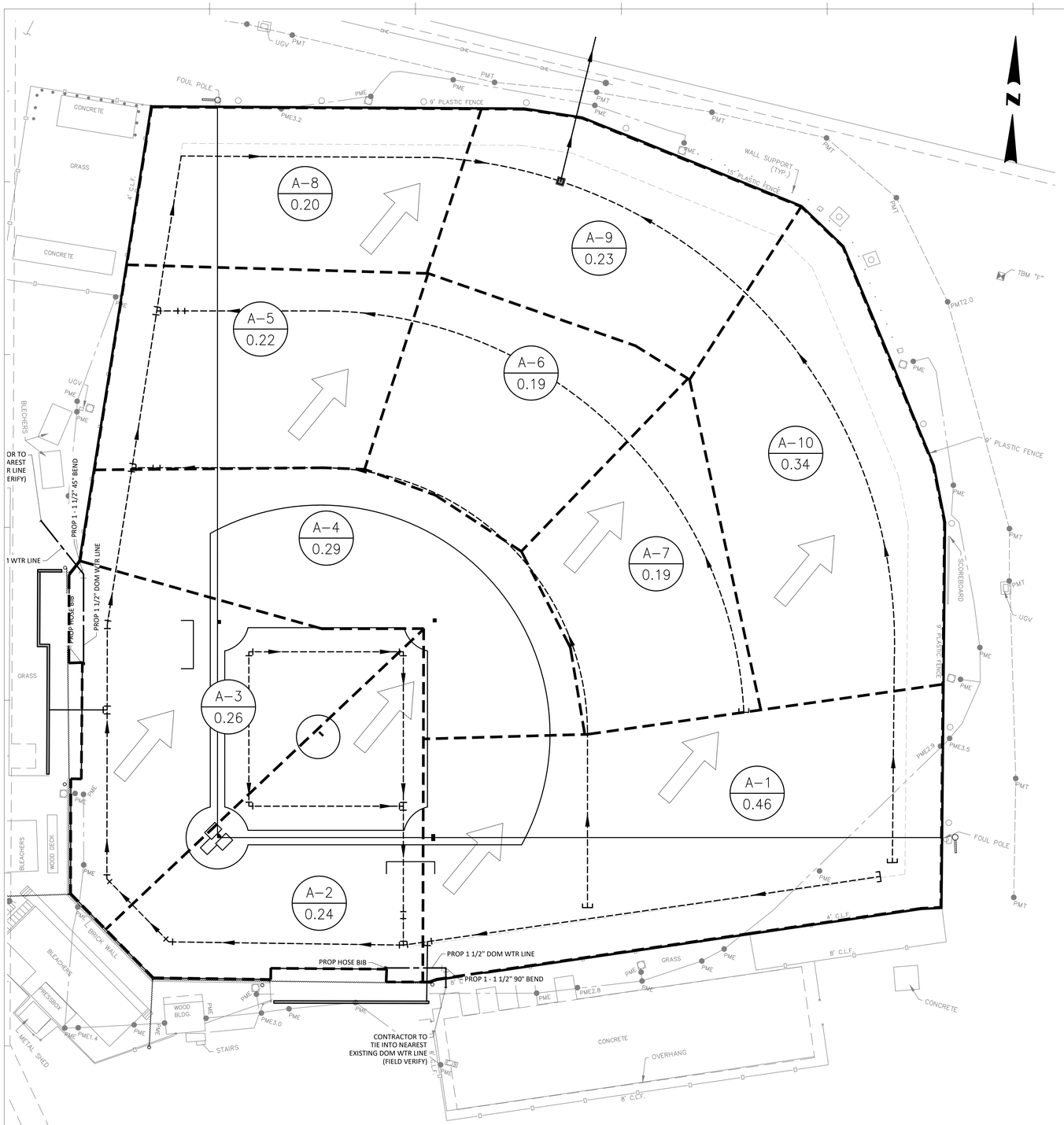
10/09/2025

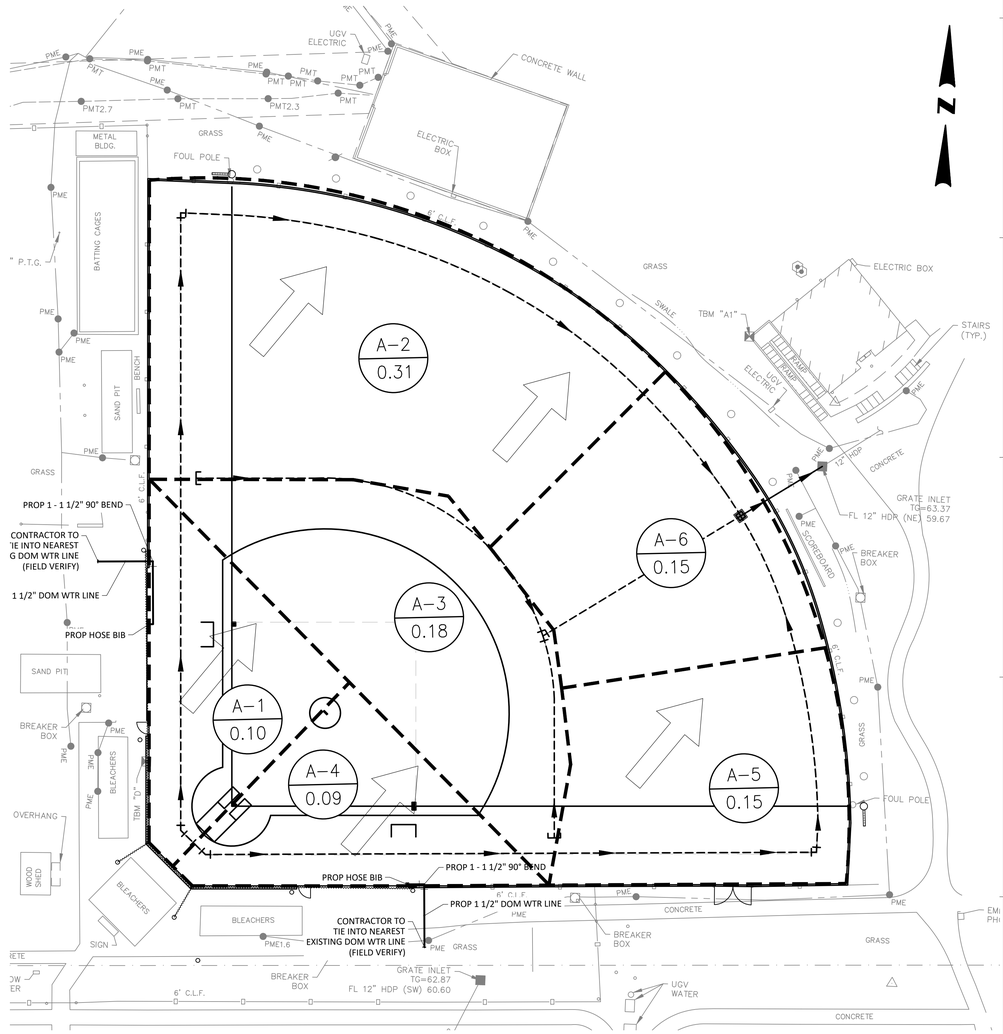
PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status

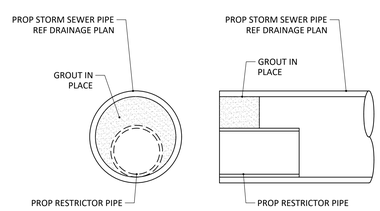
C 2.11-E
CIVIL SPORTS
PRE-DEVELOPMENT
DRAINAGE AREA MAP





STATEMENT ON INSPECTION AND MAINTENANCE :

1. INITIAL INSPECTION OF POROUS PAVEMENT SHALL BE MONTHLY FOR THE FIRST 3 MONTHS POST CONSTRUCTION.
2. SEMI ANNUAL INSPECTION TO ENSURE PAVEMENT SURFACE IS FREE OF SEDIMENT.
3. VACUUM SWEEP HARD POROUS PAVEMENT FOLLOWED BY HIGH PRESSURE HOSING TO KEEP VOIDS FREE OF SEDIMENT QUARTERLY.
4. ANNUALLY INSPECT PAVEMENT SURFACE AND SUBSURFACE DRAINAGE SYSTEM (IF ANY) FOR DETERIORATION, SPALLING OR MALFUNCTIONING.
5. RESPONSIBILITY FOR MAINTENANCE OF THE DETENTION FACILITY WILL BE BY THE PROPERTY OWNER.
6. SUBSURFACE DRAINAGE SYSTEMS ARE REQUIRED TO BE DRAINED IN 48 HOURS.



1 N.T.S. STORM SEWER RESTRICTOR PIPE DETAIL

LEGEND:

- A-X / X.XX — AREA - (No.) / AREA - (AC)
- DRAINAGE AREA BOUNDARY
- EXTREME EVENT FLOW
- MANHOLE (MH-X)
- BURIED JUNCTION BOX (JB-X)
- AREA INLET (AI-X)
- INLINE DRAIN (ID-X)
- STM SWR LINE
- STM SWR PERF

10' 20' 20' 0 40'

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STATE

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DATE: NOVEMBER 15, 2023
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REVISIONS:

#	Date	Description

Project Status
C 2.12-E
CIVIL SPORTS
POST-DEVELOPMENT
DRAINAGE AREA MAP

FORT BEND COUNTY
STORM SEWER CALCULATIONS

Project: ELKINS HS - Baseball Field
Job No.:
By: BG
Date: 8/7/2025

Storm Frequency: 25 year
Runoff Coefficient: ASPHALT/CONCRETE 0.80

Max. HGL Starting Elev. = 62.85
I(Intensity Per Table 2-7)= 9.1

Total Drainage Area = 2.67 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-2	180.00	12	HDPE	0.39%	20,377	0.47	0.80	0.47	6.0	9.10	3.41	2.41	3.06	4.34	0.779%	1.40	63.90	61.70	60.30	60.00	59.30	2.20	2.90	3.60	0.69
A-2	A-3	102.00	12	HDPE	0.27%	10,837	0.25	0.80	0.72	5.7	9.10	5.22	2.02	2.57	6.64	1.827%	1.86	63.90	61.88	60.02	59.30	59.02	2.02	3.60	3.88	0.26
A-3	A-4	90.00	12	HDPE	0.39%	11,752	0.27	0.80	0.99	5.5	9.10	7.18	2.41	3.06	9.14	3.461%	3.12	63.90	62.79	59.67	59.02	58.67	1.11	3.88	4.23	0.16
A-4	A-5	120.00	15	HDPE	1.11%	12,759	0.29	0.80	1.28	5.3	9.10	9.31	14.73	6.00	7.59	1.771%	2.13	63.90	62.05	59.92	60.00	58.67	1.85	2.65	3.98	0.26
A-7	A-6	131.00	10	HDPE	0.27%	8,335	0.19	0.80	0.19	6.0	9.10	1.39	1.23	2.25	2.55	0.344%	0.45	63.90	60.68	60.23	59.75	59.40	3.22	3.32	3.67	0.85
A-6	A-5	114.00	10	HDPE	0.35%	8,510	0.20	0.80	0.39	5.7	9.10	2.82	1.41	2.58	5.16	1.407%	1.60	63.90	61.44	59.83	59.40	59.00	2.46	3.67	4.07	0.37
A-5	A-8	80.00	15	HDPE	0.63%	9,865	0.23	0.80	1.89	5.3	9.10	13.78	5.53	4.51	11.23	3.876%	3.10	63.90	62.85	59.75	59.00	58.50	1.05	3.65	4.15	0.12
A-8	A-9	75.00	15	HDPE	0.80%	8,788	0.20	0.80	2.09	5.2	9.10	15.25	6.26	5.10	12.42	4.746%	3.56	63.90	62.71	59.15	58.50	57.90	1.19	4.15	4.75	0.10
A-10	A-9	200.00	10	HDPE	1.05%	14,838	0.34	0.80	0.34	5.7	9.10	2.48	2.43	4.46	4.55	1.092%	2.18	63.90	60.92	58.73	60.00	57.90	2.98	3.07	5.17	0.73
A-9	OUT-1	65.00	18	HDPE	0.22%	10,144	0.23	0.80	2.67	5.4	9.10	19.42	5.28	2.99	10.99	2.913%	1.89	63.90	61.15	59.26	57.90	57.76	2.75	4.50	4.64	0.10

FORT BEND COUNTY
STORM SEWER CALCULATIONS

Project: ELKINS HS - Baseball Field
Job No.:
By: BG
Date: 8/7/2025

Storm Frequency: 100 year
Runoff Coefficient: ASPHALT/CONCRETE 0.80

Max. HGL Starting Elev. = 63.89
I(Intensity Per Table 2-7)= 10.5

Total Drainage Area = 2.67 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-2	180.00	12	HDPE	0.39%	20,377	0.47	0.80	0.47	6.0	10.50	3.93	2.41	3.06	5.00	1.036%	1.87	63.90	62.17	60.30	60.00	59.30	1.73	2.90	3.60	0.60
A-2	A-3	102.00	12	HDPE	0.27%	10,837	0.25	0.80	0.72	5.7	10.50	6.02	2.02	2.57	7.66	2.432%	2.48	63.90	62.50	60.02	59.30	59.02	1.40	3.60	3.88	0.22
A-3	A-4	90.00	12	HDPE	0.39%	11,752	0.27	0.80	0.99	5.5	10.50	8.29	2.41	3.06	10.55	4.608%	4.15	63.90	63.82	59.67	59.02	58.67	0.08	3.88	4.23	0.14
A-4	A-5	120.00	15	HDPE	1.11%	12,759	0.29	0.80	1.28	5.3	10.50	10.75	14.73	6.00	8.76	2.358%	2.83	63.90	62.75	59.92	60.00	58.67	1.15	2.65	3.98	0.23
A-7	A-6	131.00	10	HDPE	0.27%	8,335	0.19	0.80	0.19	6.0	10.50	1.61	1.23	2.25	2.95	0.459%	0.60	63.90	60.83	60.23	59.75	59.40	3.07	3.32	3.67	0.74
A-6	A-5	114.00	10	HDPE	0.35%	8,510	0.20	0.80	0.39	5.7	10.50	3.25	1.41	2.58	5.96	1.873%	2.14	63.90	61.97	59.83	59.40	59.00	1.93	3.67	4.07	0.32
A-5	A-8	80.00	15	HDPE	0.63%	9,865	0.23	0.80	1.89	5.3	10.50	15.90	5.53	4.51	12.95	5.160%	4.13	63.90	63.88	59.75	59.00	58.50	0.02	3.65	4.15	0.10
A-8	A-9	75.00	15	HDPE	0.80%	8,788	0.20	0.80	2.09	5.2	10.50	17.59	6.26	5.10	14.33	6.319%	4.74	63.90	63.89	59.15	58.50	57.90	0.01	4.15	4.75	0.09
A-10	A-9	200.00	10	HDPE	1.05%	14,838	0.34	0.80	0.34	5.7	10.50	2.86	2.43	4.46	5.25	1.453%	2.91	63.90	61.64	58.73	60.00	57.90	2.26	3.07	5.17	0.64
A-9	OUT-1	65.00	18	HDPE	0.22%	10,144	0.23	0.80	2.67	5.4	10.50	22.41	5.28	2.99	12.68	3.878%	2.52	63.90	61.78	59.26	57.90	57.76	2.12	4.50	4.64	0.09

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KENNETH I. JURADO
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STATE OF TEXAS
SURVEYOR

10/09/2025

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DATE: NOVEMBER 15, 2023
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TSCE PROJECT # 2507

Project Status
C 2.13-E
CIVIL SPORTS
DRAINAGE CALCS
SHEET 1 OF 2

FORT BEND COUNTY
STORM SEWER CALCULATIONS

Project: Elkins HS - Softball Field
Job No.:
By: BG
Date: 8/15/2025

Storm Frequency: 25 year

Runoff Coefficient: Asphalt/Concrete 0.80

Max. HGL Starting Elev. = 63.55
I(Intensity Per Table 2-7)= 9.1 IN/HR

Total Drainage Area = 0.99 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-2	201.00	10	HDPE	0.38%	4,402	0.10	0.80	0.10	6.2	9.10	0.74	1.47	2.69	1.35	0.096%	0.19	64.25	63.55	63.36	62.27	61.50	0.70	1.15	1.92	2.48
A-2	A-6	218.00	12	HDPE	0.20%	13,435	0.31	0.80	0.41	6.6	9.10	2.98	1.73	2.21	3.80	0.597%	1.30	64.00	63.36	62.06	61.50	61.06	0.64	1.50	1.94	0.96
A-3	A-5	207.00	10	HDPE	0.20%	8,048	0.18	0.80	0.18	6.8	9.10	1.35	1.06	1.94	2.47	0.321%	0.66	64.50	63.09	62.42	62.00	61.59	1.41	1.67	2.08	1.40
A-4	A-5	114.00	8	HDPE	0.60%	4,237	0.10	0.80	0.10	5.7	9.10	0.71	1.01	2.90	2.03	0.293%	0.33	64.25	62.59	62.26	62.27	61.59	1.66	1.31	1.99	0.94
A-5	A-6	200.00	12	HDPE	0.27%	6,493	0.15	0.80	0.43	6.3	9.10	3.14	1.99	2.53	4.00	0.661%	1.32	64.25	63.38	62.06	61.59	61.06	0.87	1.66	2.19	0.83
A-6	OUT-2	31.00	12	HDPE	4.23%	6,512	0.15	0.80	0.99	5.1	9.10	7.21	7.93	10.10	9.18	3.487%	1.08	64.25	61.83	60.75	61.06	59.75	2.42	2.19	3.50	0.06

FORT BEND COUNTY
STORM SEWER CALCULATIONS

Project: Elkins HS - Softball Field
Job No.:
By: BG
Date: 8/15/2025

Storm Frequency: 100 year

Runoff Coefficient: Asphalt/Concrete 0.80

Max. HGL Starting Elev. = 64.05
I(Intensity Per Table 2-7)= 10.5 IN/HR

Total Drainage Area = 0.99 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-2	201.00	10	HDPE	0.38%	4,402	0.10	0.80	0.10	6.2	10.50	0.85	1.47	2.69	1.56	0.128%	0.26	64.25	64.05	63.79	62.27	61.50	0.20	1.15	1.92	2.15
A-2	A-6	218.00	12	HDPE	0.20%	13,435	0.31	0.80	0.41	6.6	10.50	3.44	1.73	2.21	4.38	0.794%	1.73	64.00	63.79	62.06	61.50	61.06	0.21	1.50	1.94	0.83
A-3	A-5	207.00	10	HDPE	0.20%	8,048	0.18	0.80	0.18	6.8	10.50	1.55	1.06	1.94	2.85	0.428%	0.88	64.50	63.31	62.42	62.00	61.59	1.19	1.67	2.08	1.21
A-4	A-5	114.00	8	HDPE	0.60%	4,237	0.10	0.80	0.10	5.7	10.50	0.82	1.01	2.90	2.34	0.390%	0.44	64.25	62.70	62.26	62.27	61.59	1.55	1.31	1.99	0.81
A-5	A-6	200.00	12	HDPE	0.27%	6,493	0.15	0.80	0.43	6.3	10.50	3.62	1.99	2.53	4.61	0.880%	1.76	64.25	63.95	62.19	61.59	61.06	0.30	1.66	2.19	0.72
A-6	OUT-2	31.00	12	HDPE	4.23%	6,512	0.15	0.80	0.99	5.1	10.50	8.32	7.93	10.10	10.59	4.643%	1.44	64.25	62.19	60.75	61.06	59.75	2.06	2.19	3.50	0.05

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10/09/2025

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DATE: NOVEMBER 15, 2023
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Project Status
C 2.14-E
CIVIL SPORTS
DRAINAGE CALCS
SHEET 2 OF 2

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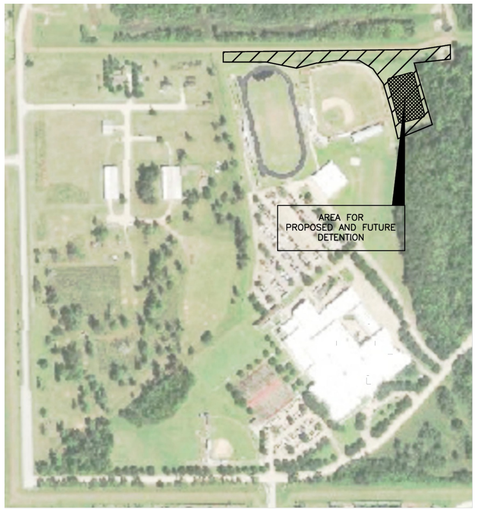
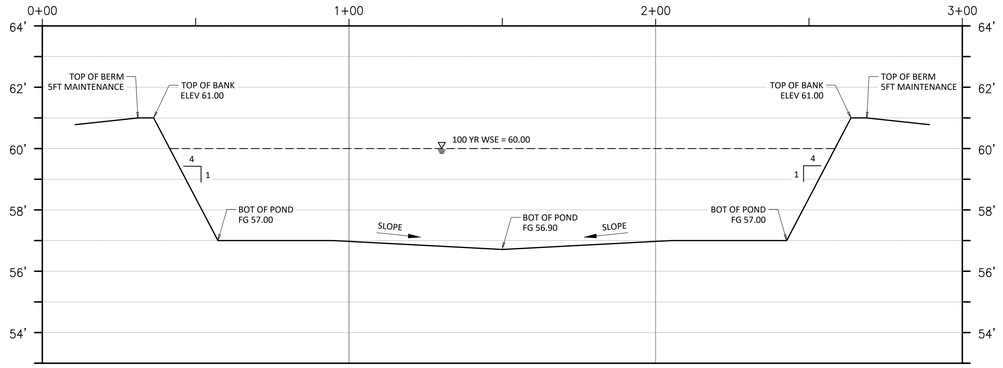
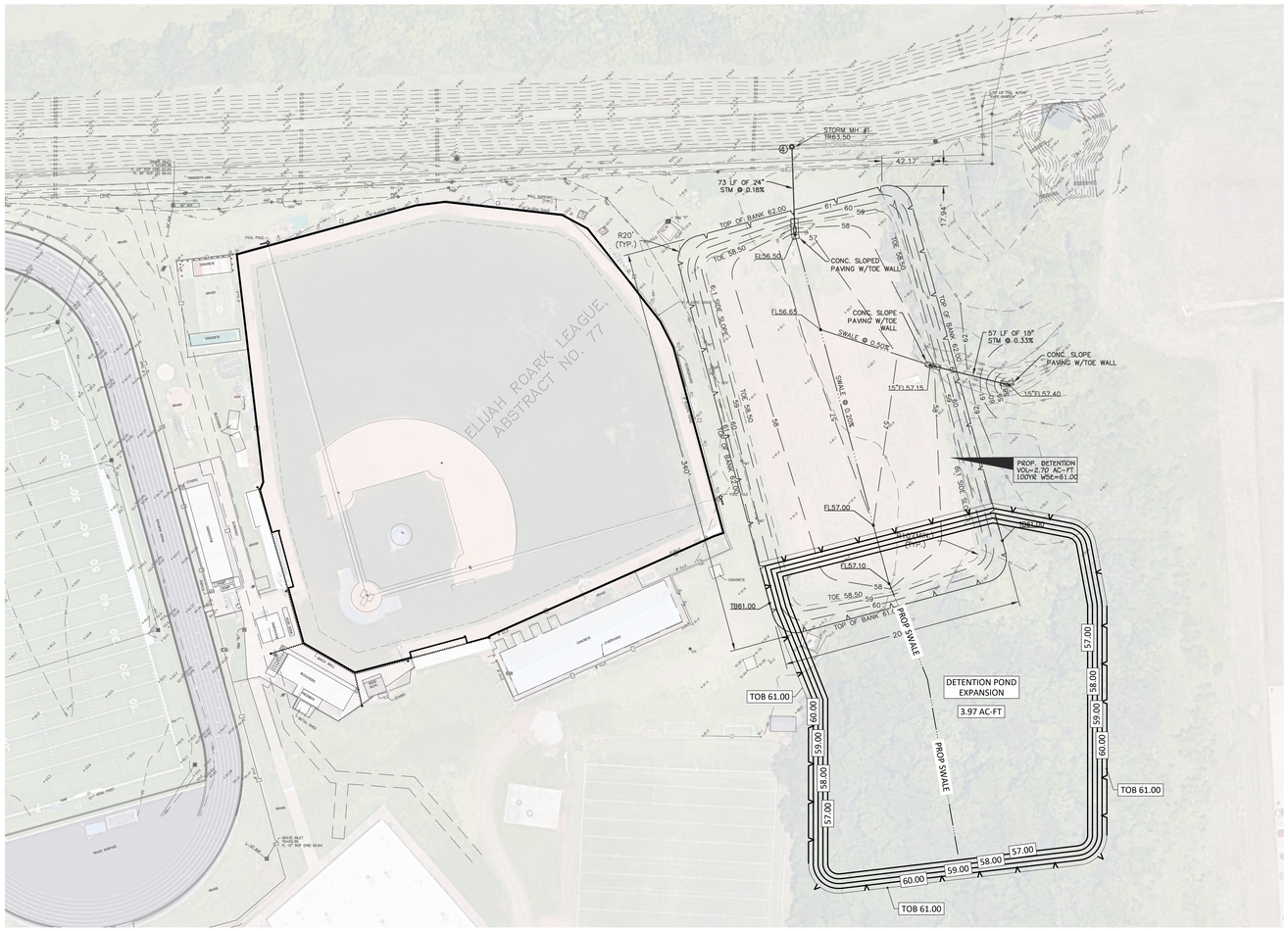




DETENTION POND (SECTION A - A)

SCALE = $\frac{1" = 2'}{1" = 20'}$



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TSCE PROJECT # 2507

Project Status
C 2.21-E
CIVIL SPORTS
DETENTION POND PLAN
& CROSS SECTIONS

BASEBALL FIELD

TIME OF CONCENTRATION

PRE-DEVELOPED:

L=	326
S=	0.0028
V=	0.5
TC=	10.86667

$$T_{ch} = \frac{D_F}{60 * V}$$

VELOCITY PER FORT BEND COUNTY DRAINAGE CRITERIA MANUAL SECTION 2.0 FIGURE 2-6

POST-DEVELOPED:

L=	326
S=	0.002
V=	3
TC=	1.81 ~ (5 Minutes Min. Used)

INTENSITY

100 YEAR

PRE-DEVELOPED:	9.00
POST-DEVELOPED:	10.50

25 YEAR

PRE-DEVELOPED:	7.80
POST-DEVELOPED:	9.10

INTENSITY PER FORT BEND COUNTY DRAINAGE MANUAL SECTION 2.0 FIGURE 2-7

RUNOFF CALCULATIONS

RATIONAL METHOD: Q=CIA

TOTAL DISTURBED IMPERVIOUS AREA=	2.97 ACRES
PRE-DEVELOPED "C"=	0.35
POST-DEVELOPED "C"	0.75
PRE-DEVELOPED "Q" (ALLOWABLE)=	9.36 CFS
POST-DEVELOPED "Q"=	23.39 CFS

RESTRICTOR CALCULATIONS

PIPE=	12	INCH
C=	0.6	ORIFICE COEFF.
AREA=	0.785	SQ-FT
HEAD=	2.25	FT
Q=	**5.673**	CFS < ALLOWABLE 9.36 CFS

DETENTION CALCULATIONS

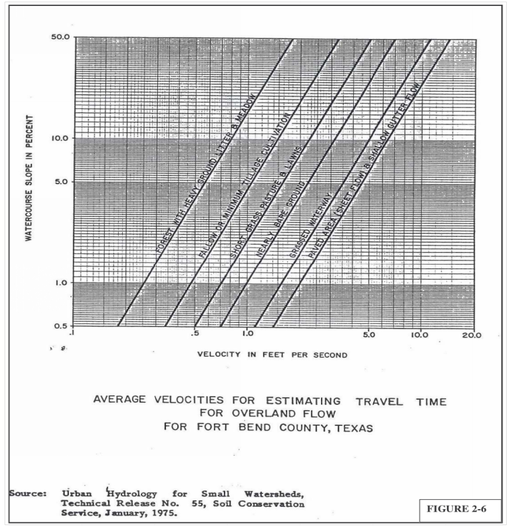
TOTAL DRAINAGE AREA	=	2.97	AC
DISTURBED AREA	=	2.97	AC
PROPOSED IMPERVIOUS AREA	=	2.97	AC
DETENTION RATE REQUIRED	=	0.98	AC-FT/AC
DETENTION RATE PROVIDED	=	0.98	AC-FT/AC
DETENTION VOLUME REQUIRED	=	126785.7	CF
DETENTION VOLUME REQUIRED	=	2.9106	AC-FT
DETENTION VOLUME PROVIDED W/ 8" THICK ROCK LAYER	=	0.79	CF
DETENTION VOLUME PROVIDED W/ DETENTION POND	=	2.12	CF
RESTRICTOR SIZE	=	12.00	IN

TABLE 2-1
POINT RAINFALL AMOUNTS (INCHES) FOR
VARYING DURATIONS AND FREQUENCIES
IN FORT BEND COUNTY, TEXAS

Duration	Rainfall Frequency 1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
5-minute	0.55	0.56	0.63	0.68	0.77	0.83	0.90
15-minute	1.10	1.20	1.37	1.50	1.70	1.85	2.01
30-minute	1.55	1.90	2.30	2.65	3.05	3.35	3.70
60-minute	1.95	2.30	2.82	3.18	3.72	4.14	4.55
2-hour	2.30	2.78	3.65	4.20	4.85	5.45	6.05
3-hour	2.50	3.15	4.00	4.70	5.45	6.10	6.85
6-hour	2.90	3.60	4.83	5.35	6.70	7.55	8.40
12-hour	3.35	4.20	5.75	3.80	8.20	9.25	10.45
24-hour	3.80	4.90	6.75	8.20	9.60	11.00	12.50
2-day	-	5.70	7.50	9.20	11.00	12.50	14.00
4-day	-	6.60	8.80	10.50	12.50	14.20	16.00
7-day	-	7.60	10.00	12.00	14.20	16.20	17.80
10-day	-	8.40	10.80	13.00	15.50	17.50	20.00

TABLE 2-3
RATIONAL METHOD RUNOFF COEFFICIENTS
FOR 5-10 YEAR FREQUENCY STORMS

Description of Area	Runoff Coefficients For Basin Slopes Less than 1%	1% - 3.5%	3.5%-5.5%
Residential Districts			
Single Family Areas (Lots greater than ½ acre)	0.30	0.35	0.40
Single Family Areas (Lots ¼ - ½ acre)	0.40	0.45	0.50
Single Family Areas (Lots less than ¼ acre)	0.50	0.55	0.60
Multi-Family Areas	0.60	0.65	0.70
Apartment Dwelling Areas	0.75	0.80	0.85
Business Districts			
Downtown Areas	0.85	0.87	0.90
Neighborhood Areas	0.75	0.80	0.85
Industrial Districts			
Light Areas	0.50	0.65	0.80
Heavy Areas	0.60	0.75	0.90
Railroad Yard Areas	0.20	0.30	0.40
Parks, Cemeteries	0.10	0.18	0.25
Playgrounds	0.20	0.28	0.35
Streets			
Asphalt	0.80	0.80	0.80
Concrete	0.85	0.85	0.85
Drives and Walks (Concrete)	0.85	0.85	0.85
Roofs	0.85	0.85	0.85
Lawn Areas			
Sandy Soil	0.05	0.08	0.12
Clay Soil	0.15	0.18	0.22
Undeveloped Areas			
Sandy Soil			
Woodlands	0.15	0.18	0.25
Pasture	0.25	0.35	0.40
Cultivated	0.30	0.55	0.70
Clay Soil			
Woodlands	0.18	0.20	0.30
Pasture	0.30	0.40	0.50
Cultivated	0.35	0.60	0.80



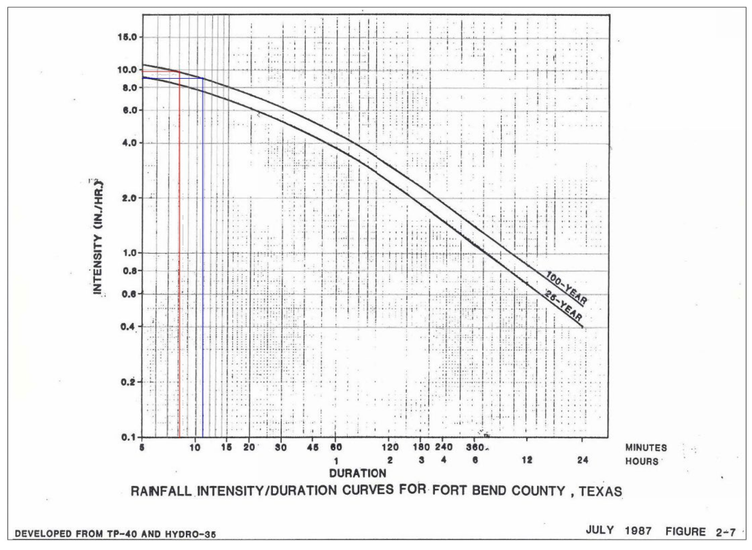
AVERAGE VELOCITIES FOR ESTIMATING TRAVEL TIME
FOR OVERLAND FLOW
FOR FORT BEND COUNTY, TEXAS

Source: Urban Hydrology for Small Watersheds, Technical Release No. 55, Soil Conservation Service, January, 1975.

FIGURE 2-6

BB100:
PRE=9.0
POST=10.1
BB25:
PRE=7.8
POST=9.1

SB100:
PRE=9.9
POST=10.1
BB25:
PRE=8.1
POST=9.1



RAINFALL INTENSITY/DURATION CURVES FOR FORT BEND COUNTY , TEXAS

DEVELOPED FROM TP-40 AND HYDRO-35 JULY 1987 FIGURE 2-7

2.30

DETENTION SUMMARY			
TOTAL DRAINAGE AREA	=	3.66	AC
DISTURBED AREA	=	3.66	AC
PROPOSED IMPERVIOUS AREA	=	3.66	AC
DETENTION RATE REQUIRED	=	0.98	AC-FT/AC
DETENTION RATE PROVIDED	=	0.98	AC-FT/AC
DETENTION VOLUME REQUIRED	=	156241.008	CF
DETENTION VOLUME REQUIRED	=	3.587	AC-FT/AC
DETENTION VOLUME PROVIDED W/ 8" THICK ROCK LAYER	=	1.05	CF
TOTAL DETENTION VOLUME PROVIDED W/ DETENTION POND	=	2.83	CF

SOFTBALL FIELD

TIME OF CONCENTRATION

PRE-DEVELOPED:

L=	250
S=	0.0086
V=	0.6
TC=	6.94

$$T_{ch} = \frac{D_F}{60 * V}$$

VELOCITY PER FORT BEND COUNTY DRAINAGE CRITERIA MANUAL SECTION 2.0 FIGURE 2-6

POST-DEVELOPED:

L=	250
S=	0.0020
V=	3
TC=	1.39 ~ (5 Minutes Min. Used)

INTENSITY

100 YEAR

PRE-DEVELOPED:	10.00
POST-DEVELOPED:	10.50

25 YEAR

PRE-DEVELOPED:	8.40
POST-DEVELOPED:	9.10

INTENSITY PER FORT BEND COUNTY DRAINAGE MANUAL SECTION 2.0 FIGURE 2-7

RUNOFF CALCULATIONS

100 YEAR
RATIONAL METHOD: Q=CIA

TOTAL DISTURBED IMPERVIOUS AREA=	0.99 ACRES
PRE-DEVELOPED "C"=	0.35
POST-DEVELOPED "C"	0.75
PRE-DEVELOPED "Q" (ALLOWABLE)=	3.47 CFS
POST-DEVELOPED "Q"=	7.80 CFS

RESTRICTOR CALCULATIONS

PIPE=	8	INCH
C=	0.6	ORIFICE COEFF.
AREA=	0.349	SQ-FT
HEAD=	4.25	FT
Q=	**3.465**	CFS < ALLOWABLE 3.47 CFS

DETENTION CALCULATIONS

TOTAL DRAINAGE AREA	=	0.99	AC
DISTURBED AREA	=	0.99	AC
PROPOSED IMPERVIOUS AREA	=	0.99	AC
DETENTION RATE REQUIRED	=	0.98	AC-FT/AC
DETENTION RATE PROVIDED	=	0.98	AC-FT/AC
DETENTION VOLUME REQUIRED	=	42261.91	CF
DETENTION VOLUME REQUIRED	=	0.9702	AC-FT
DETENTION VOLUME PROVIDED W/ 8" THICK ROCK LAYER	=	0.26	CF
DETENTION VOLUME PROVIDED W/ DETENTION POND	=	0.71	CF
RESTRICTOR SIZE	=	8.00	IN

TABLE 2-1
POINT RAINFALL AMOUNTS (INCHES) FOR
VARYING DURATIONS AND FREQUENCIES
IN FORT BEND COUNTY, TEXAS

Duration	Rainfall Frequency 1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
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15-minute	1.10	1.20	1.37	1.50	1.70	1.85	2.01
30-minute	1.55	1.90	2.30	2.65	3.05	3.35	3.70
60-minute	1.95	2.30	2.82	3.18	3.72	4.14	4.55
2-hour	2.30	2.78	3.65	4.20	4.85	5.45	6.05
3-hour	2.50	3.15	4.00	4.70	5.45	6.10	6.85
6-hour	2.90	3.60	4.83	5.35	6.70	7.55	8.40
12-hour	3.35	4.20	5.75	3.80	8.20	9.25	10.45
24-hour	3.80	4.90	6.75	8.20	9.60	11.00	12.50
2-day	-	5.70	7.50	9.20	11.00	12.50	14.00
4-day	-	6.60	8.80	10.50	12.50	14.20	16.00
7-day	-	7.60	10.00	12.00	14.20	16.20	17.80
10-day	-	8.40	10.80	13.00	15.50	17.50	20.00

TABLE 2-3
RATIONAL METHOD RUNOFF COEFFICIENTS
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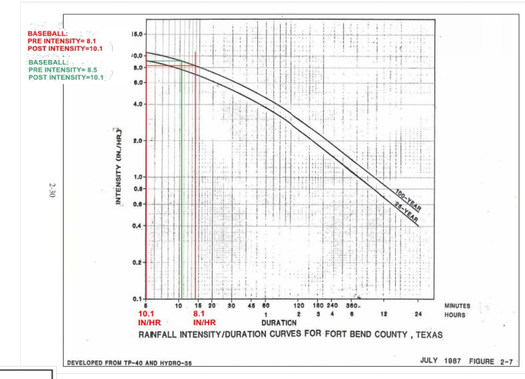
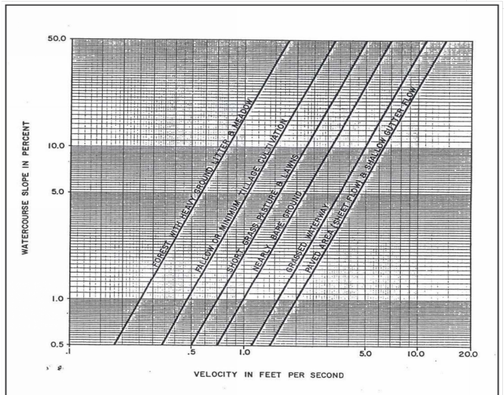
Single Family Areas (Lots ¼ - ½ acre)	0.40	0.45	0.50
Single Family Areas (Lots less than ¼ acre)	0.50	0.55	0.60
Multi-Family Areas	0.60	0.65	0.70
Apartment Dwelling Areas	0.75	0.80	0.85
Business Districts			
Downtown Areas	0.85	0.87	0.90
Neighborhood Areas	0.75	0.80	0.85
Industrial Districts			
Light Areas	0.50	0.65	0.80
Heavy Areas	0.60	0.75	0.90
Railroad Yard Areas	0.20	0.30	0.40
Parks, Cemeteries	0.10	0.18	0.25
Playgrounds	0.20	0.28	0.35
Streets			
Asphalt	0.80	0.80	0.80
Concrete	0.85	0.85	0.85
Drives and Walks (Concrete)	0.85	0.85	0.85
Roofs	0.85	0.85	0.85
Lawn Areas			
Sandy Soil	0.05	0.08	0.12
Clay Soil	0.15	0.18	0.22
Undeveloped Areas			
Sandy Soil			
Woodlands	0.15	0.18	0.25
Pasture	0.25	0.35	0.40
Cultivated	0.30	0.55	0.70
Clay Soil			
Woodlands	0.18	0.20	0.30
Pasture	0.30	0.40	0.50
Cultivated	0.35	0.60	0.80



RAINFALL INTENSITY/DURATION CURVES FOR FORT BEND COUNTY , TEXAS

DEVELOPED FROM TP-40 AND HYDRO-35 JULY 1987 FIGURE 2-7

2.30



AVERAGE VELOCITIES FOR ESTIMATING TRAVEL TIME
FOR OVERLAND FLOW
FOR FORT BEND COUNTY, TEXAS

Source: Urban Hydrology for Small Watersheds, Technical Release No. 55, Soil Conservation Service, January, 1975.

FIGURE 2-6

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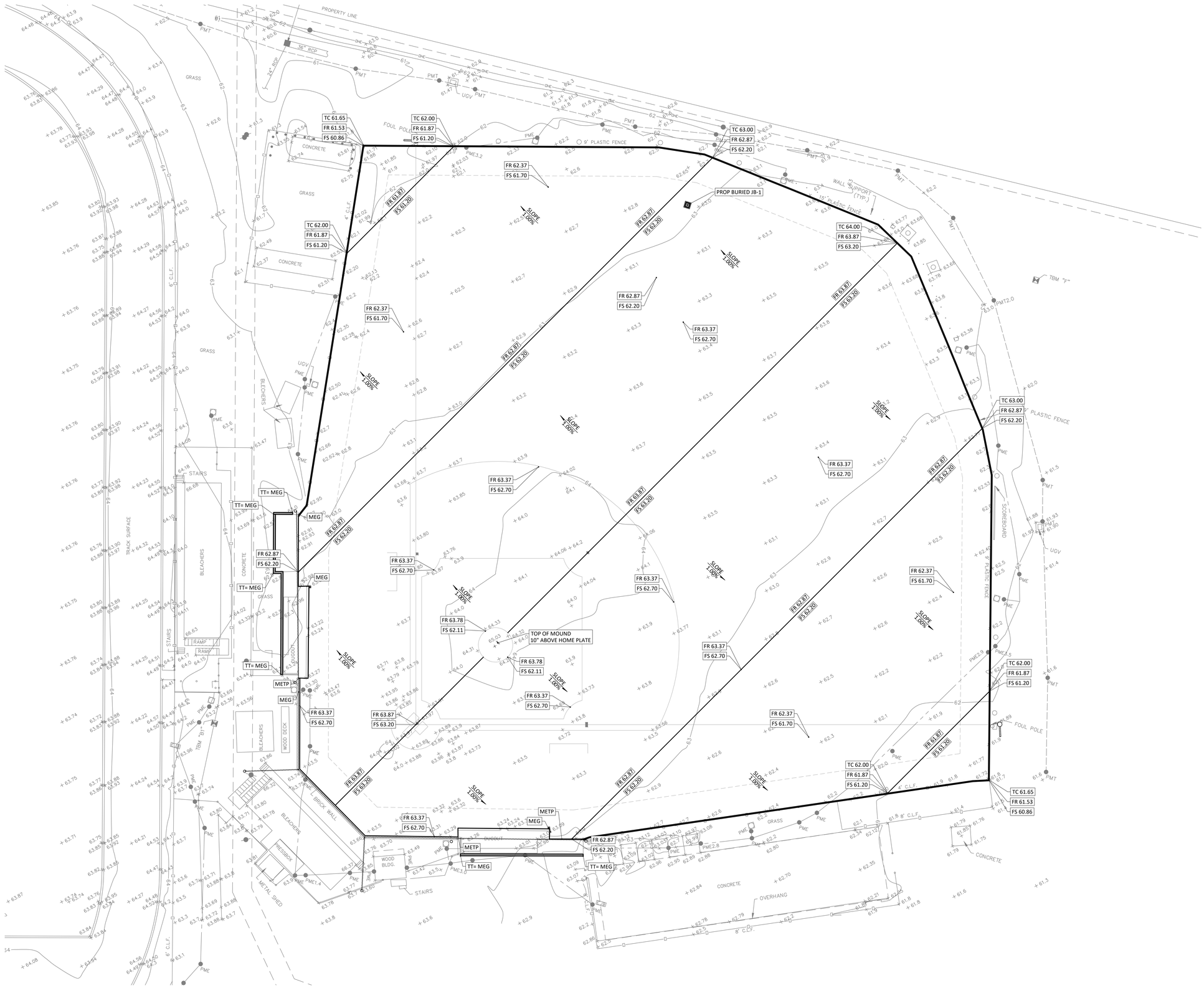
LICENSED
STATE OF TEXAS
ENGINEER

10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 2.22-E
CIVIL SPORTS DETENTION POND CALCULATIONS



NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.
2. CONTRACTOR TO MAKE SURE THERE IS POSITIVE DRAINAGE FROM THE DUGOUT TO EXIST INLET OR SWALE.

LEGEND:

TC XX.XX'	TOP OF CURB
TT XX.XX'	TOP OF TRENCH
METP	MATCH EXISTING TOP OF PAVEMENT
MEG	MATCH EXISTING GRADE
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FR XX.XX'	FINISH ROCK
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' 40'

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DATE: NOVEMBER 15, 2023
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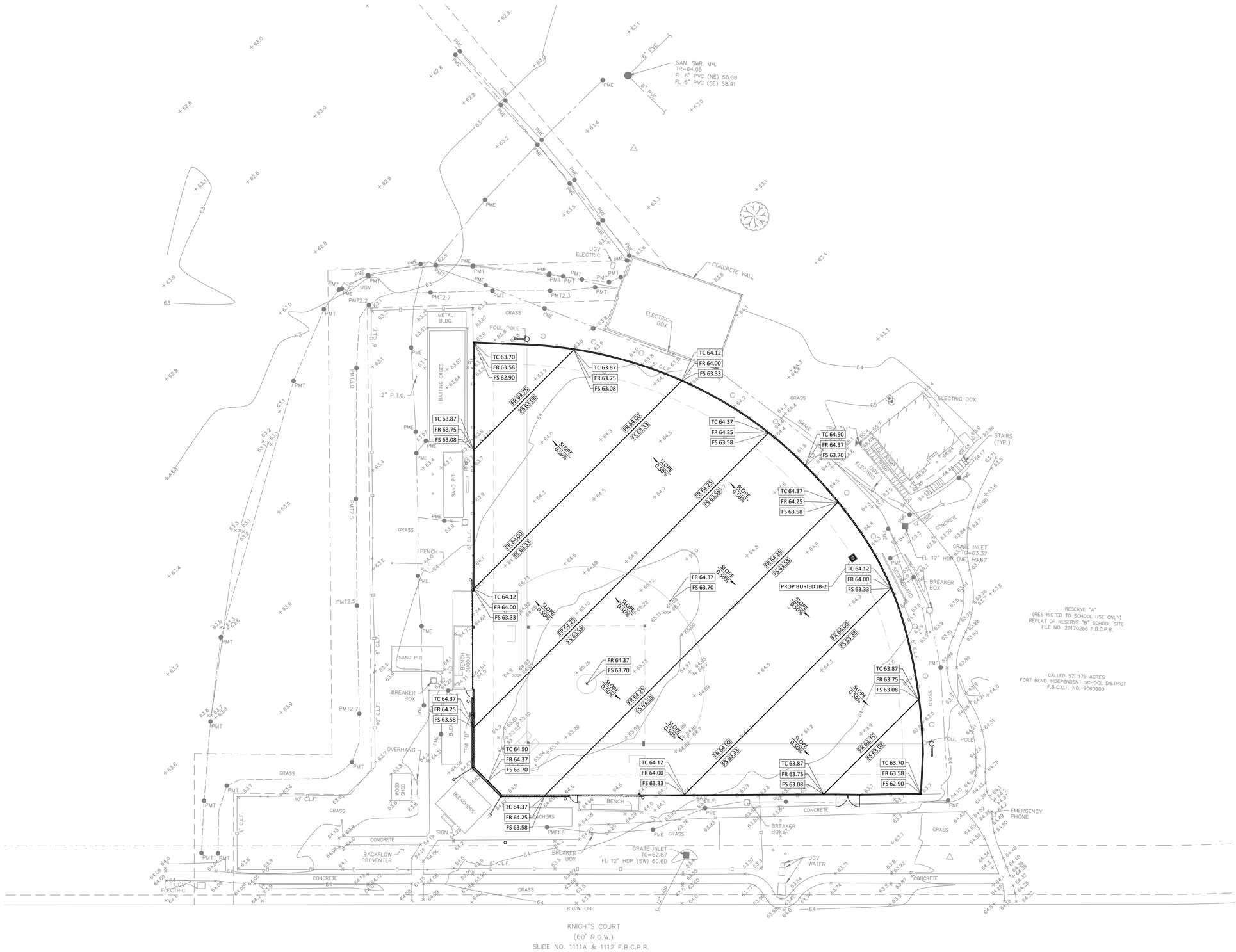
C 3.01-E

CIVIL SPORTS GRADING PLAN BASEBALL FIELD



N

NOTES:

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2. CONTRACTOR TO MAKE SURE THERE IS POSITIVE DRAINAGE FROM THE DUGOUT TO EXIST INLET OR SWALE.

LEGEND:

TC XX.XX'	TOP OF CURB
TT XX.XX'	TOP OF TRENCH
METP	MATCH EXISTING TOP OF PAVEMENT
MEG	MATCH EXISTING GRADE
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FR XX.XX'	FINISH ROCK
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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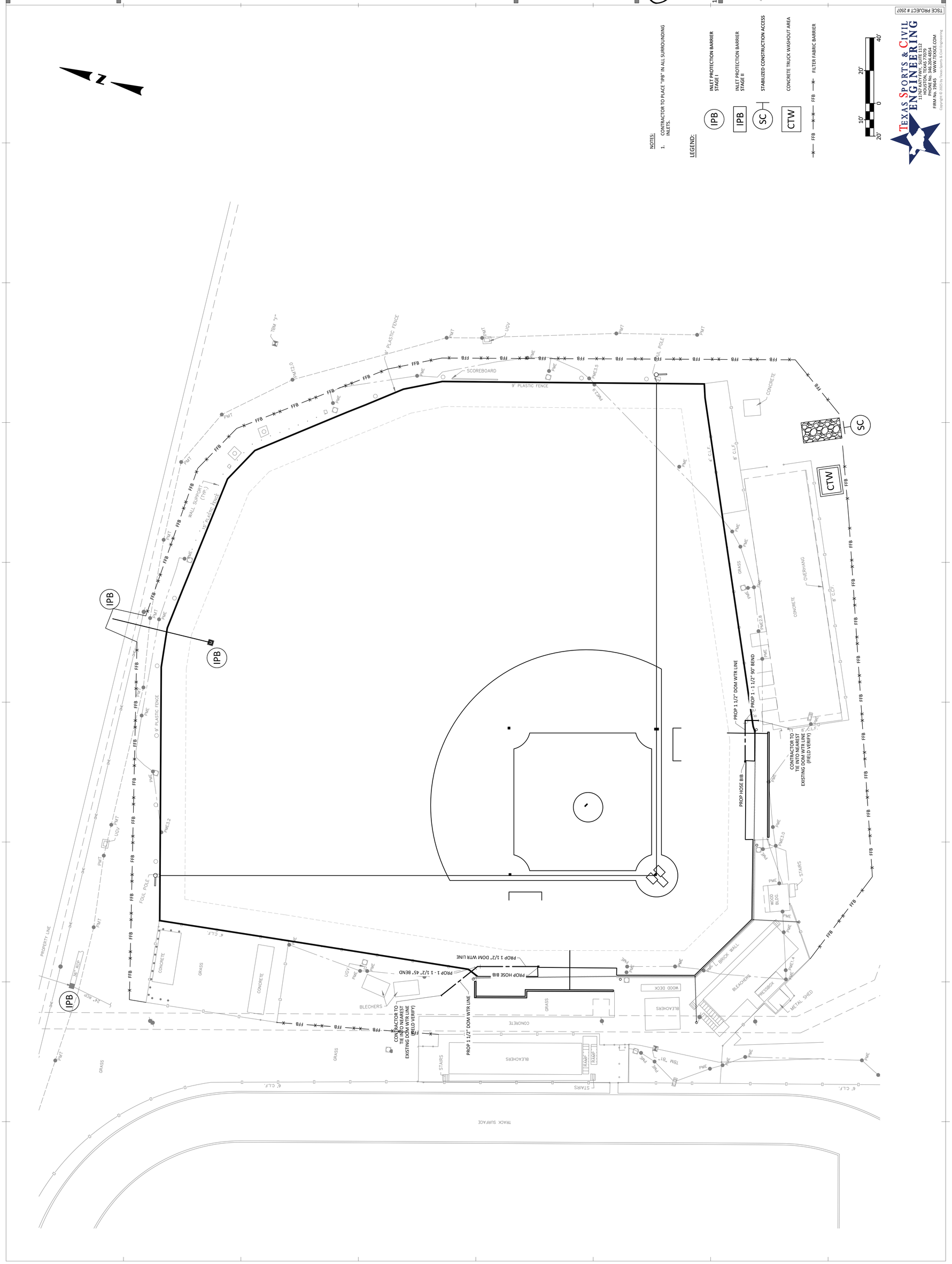
C 3.02-E
CIVIL SPORTS GRADING PLAN SOFTBALL FIELD



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' 0 20' 40'
20'
TEXAS SPORTS & CIVIL ENGINEERING
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HOUSTON, TEXAS 77079
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C 4.01-E
CIVIL SPORTS
SWPP PLAN
BASEBALL FIELD
PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS
CHECKED BY: KJ
REVISIONS:
Date
Description
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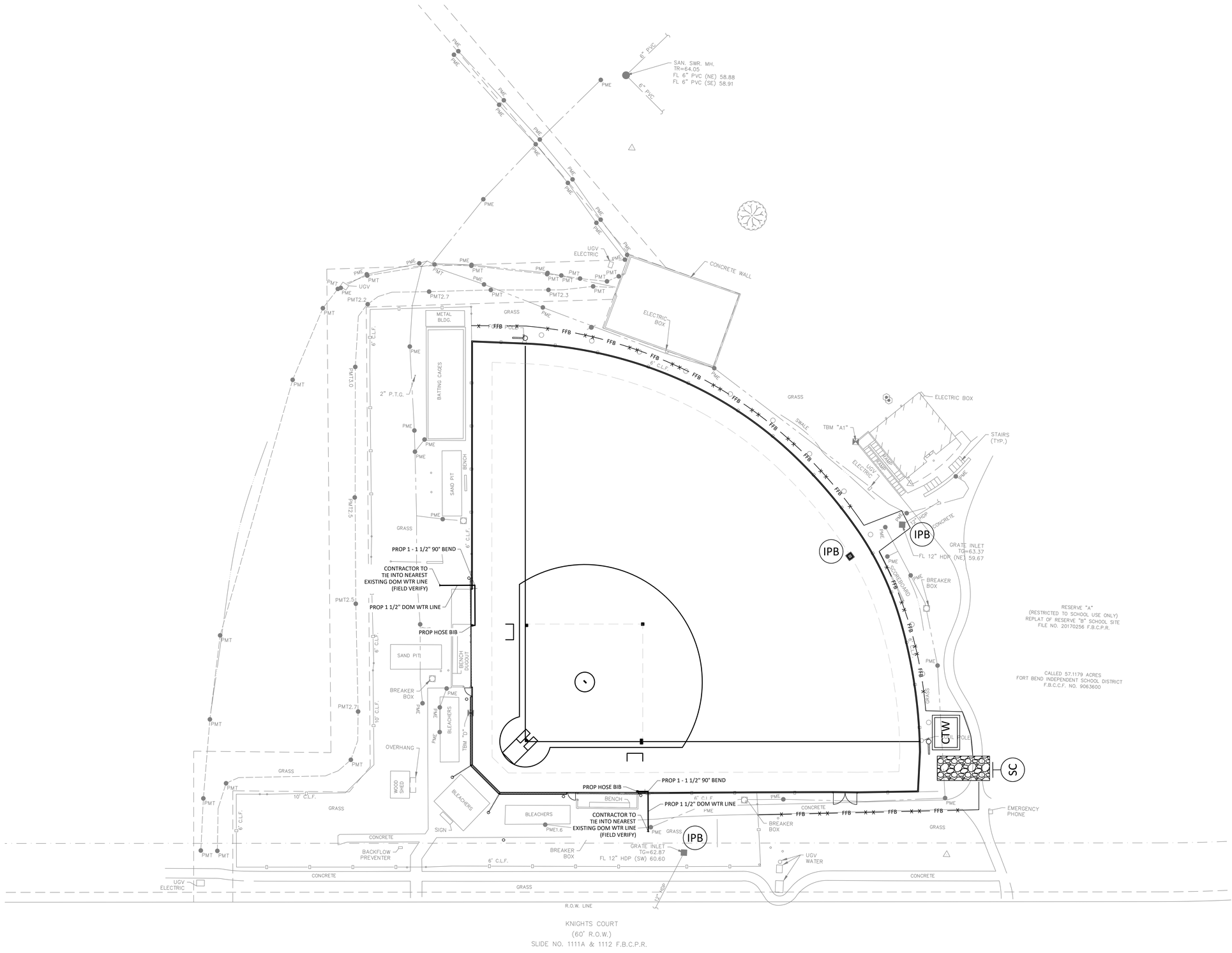
IPB
SC
CTW
SCOREBOARD
9' PLASTIC FENCE
CONCRETE
GRASS
BLEACHERS
STAIRS
WOOD DECK
BRICK WALL
PRESSBOX
METAL SHED
WOOD BLDG.
OVERHANG
FOUL POLE
WALL SUPPORT (TYP.)
PROPERTY LINE
TRACK SURFACE
PROP 1 1/2" DOM WTR LINE
PROP 1 - 1 1/2" 90° BEND
PROP HOSE BIB
CONTRACTOR TO TIE INTO NEAREST EXISTING DOM WTR LINE (FIELD VERIFY)
PROP 1 1/2" DOM WTR LINE
PROP 1 - 1 1/2" 45° BEND
PROP HOSE BIB
PROP 1 1/2" DOM WTR LINE



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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 — FFB — FFB — FILTER FABRIC BARRIER

10' 0 20' 20' 40'

TEXAS SPORTS & CIVIL ENGINEERING
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SUGAR LAND, TX 77479

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STATE OF TEXAS
SURVEYOR

10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
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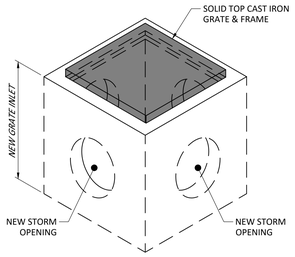
REVISIONS:

#	Date	Description

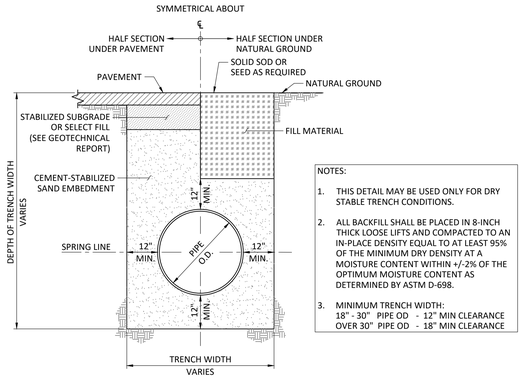
Project Status

C 4.02-E

CIVIL SPORTS SWPP PLAN SOFTBALL FIELD



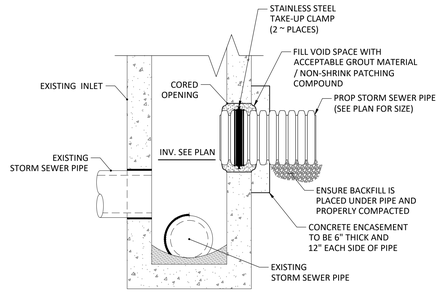
1 N.T.S. JUNCTION BOX



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

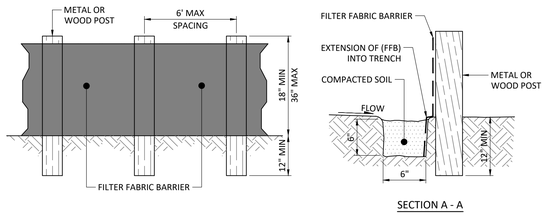
2 N.T.S. STORM SEWER BEDDING AND BACKFILL DETAIL



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.

3 N.T.S. STORM SEWER PIPE CONNECTION INTO EXISTING INLET



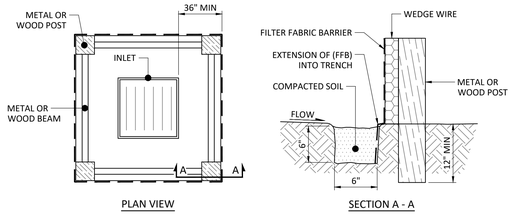
SECTION A - A

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

4 N.T.S. FILTER FABRIC BARRIER



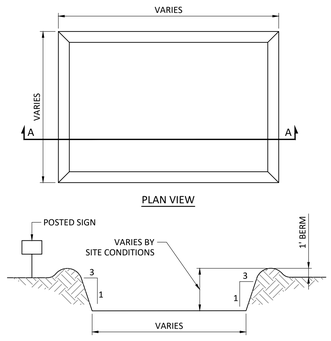
PLAN VIEW SECTION A - A

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

5 N.T.S. INLET PROTECTION BARRIER



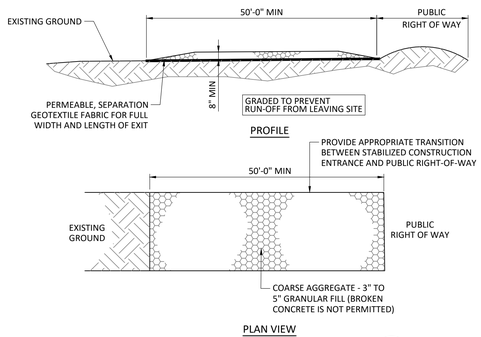
PLAN VIEW SECTION A - A

CTW

6 N.T.S. CONCRETE TRUCK WASHOUT AREA

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.

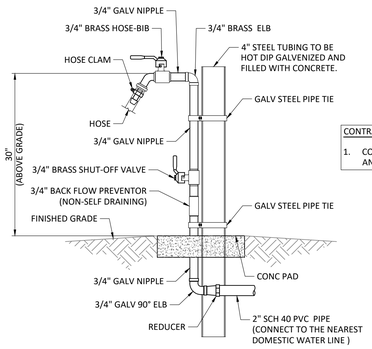


SC

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.

7 N.T.S. STABILIZED CONSTRUCTION ACCESS



CONTRACTOR NOTES:

1. CONTRACTOR TO INCLUDE ANTI-FREEZE AND ANTI-SIPHON FOR ALL HOSE BIBS.

8 N.T.S. HOSE BIB DETAIL

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
SURVEYOR

10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 5.01-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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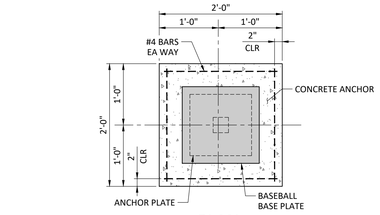
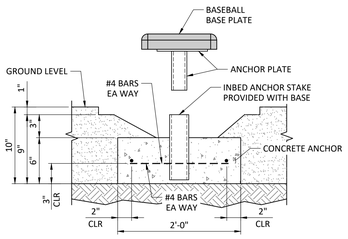
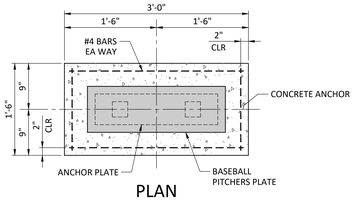


PLAN



SECTION

1 N.T.S. BASEBALL BASE PLATE ANCHOR



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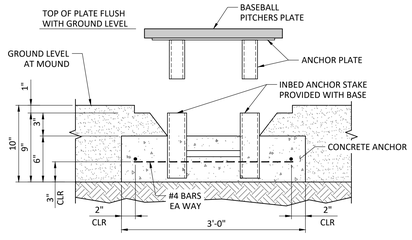
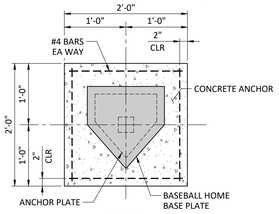


SECTION

2 N.T.S. BASEBALL PITCHER'S PLATE ANCHOR



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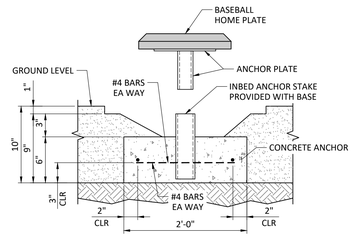

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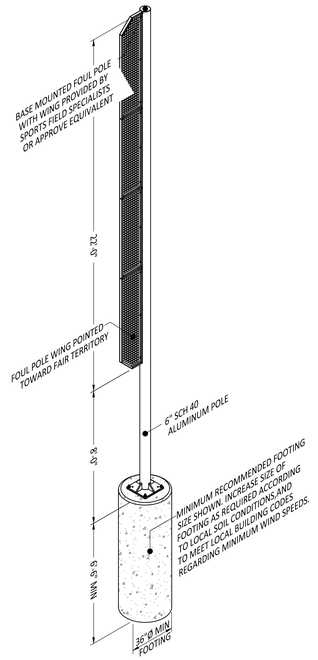
3 N.T.S. BASEBALL HOME PLATE ANCHOR



NOTE:

1. ALIGN FOUL POLE WITH FOUL LINE.

4 N.T.S. BASEBALL 30FT FOUL POLE (ALTERNATE #5)

SUBGRADE NOTE:

1. CONTRACTOR MUST TREAT 6 INCHES OF EXISTING SUBGRADE (8% LIME) COMPACTED TO 95% MIN DENSITY.

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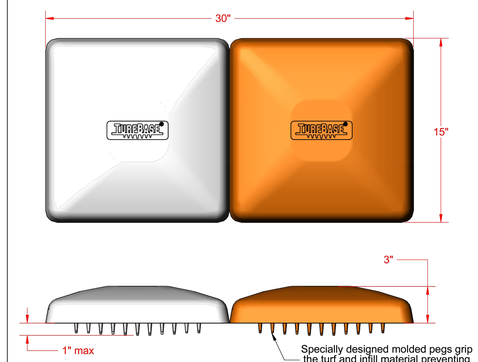
United States Patent #8,337,340, Issued December 25, 2012



* Designed specifically for synthetic turf applications
* No ground anchor installation is necessary
* Durable all rubber mesh reinforced construction
* Official size - (1) double first base and (2) TurfBase Bases

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TBDS - TurfBase® Double Base

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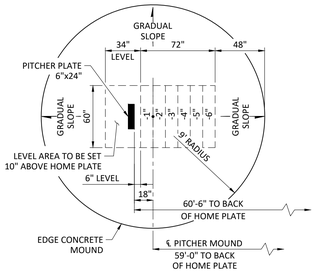
C:\ENG\Sales Docs\Products\Baseball and Softball\Bases, Home Plates, and Pitching Rubber\TurfBase\Cut Sheets\



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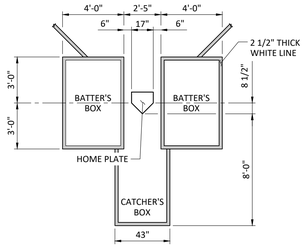
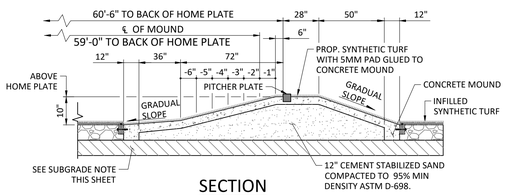


5 N.T.S. BASEBALL BATTER'S AND CATCHER'S BOX



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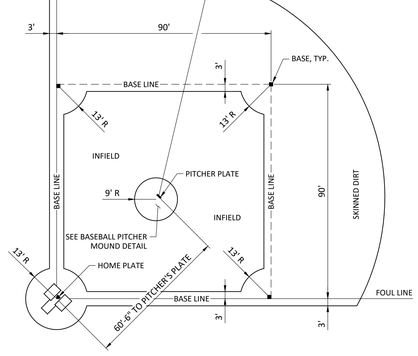
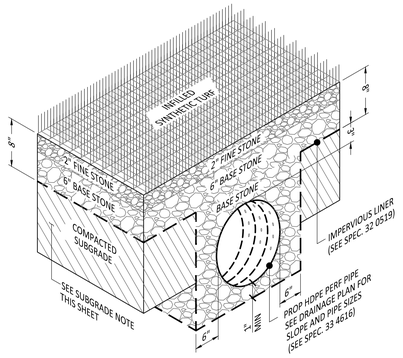
6 N.T.S. BASEBALL PITCHER CONCRETE MOUND WITH SYNTHETIC TURF



7 N.T.S. BASEBALL INFIELD LAYOUT



8 N.T.S. INFILLED SYNTHETIC TURF TRENCH SECTION

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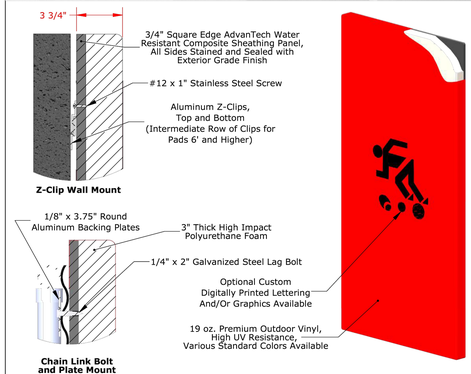

Part Numbers *	Size	Attachment
BFWPZ44/BFWPZ44DG	4'W x 4'L x 3.75"D	Z-Clip Wall Mount
BFWPZ46/BFWPZ46DG	4'W x 6'L x 3.75"D	Z-Clip Wall Mount
BFWPZ48/BFWPZ48DG	4'W x 8'L x 3.75"D	Z-Clip Wall Mount
BFWPZ-NSS/BFWPZDG-NSS	_'W x _'L x 3.75"D	Z-Clip Wall Mount
BFWPCL44/BFWPCL44DG	4'W x 4'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL46/BFWPCL46DG	4'W x 6'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL48/BFWPCL48DG	4'W x 8'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL-NSS/BFWPCLDG-NSS	_'W x _'L x 3.75"D	Chain Link Bolt and Plate Mount

*DG Part Number Denotes Custom Digitally Printed Graphics

Final Layout and/or Graphic Rendering to be Completed upon Verification of Field Measurements

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BaseZone® Field Wall Padding

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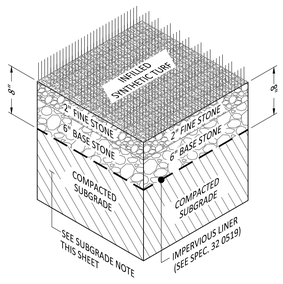
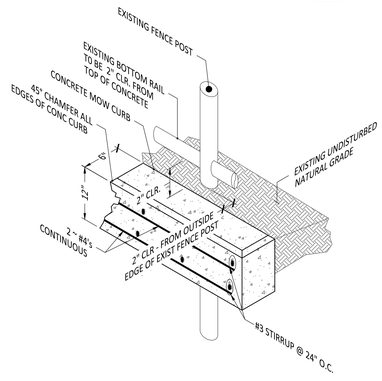
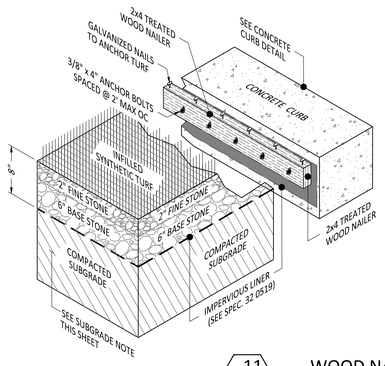


9 N.T.S. INFILLED SYNTHETIC TURF SECTION "FIELD AND BULLPEN"



10 N.T.S. CONCRETE MOW CURB AT EXISTING FENCE



NOTES:

1. TREATED WOOD NAILER TO BE RATED FOR USE IN SUBTERRANEAN CONDITIONS.
2. BASE STONE TO BE FLUSH WITH TOP OF NAILER.
3. IMPERVIOUS LINER SHALL EXTEND TO TOP OF NAILER BETWEEN NAILER AND CONCRTE CURB.
4. TREATED WOOD NAILER TO BE PLACED 2" BELOW THE CONCRETE CURB OR THE THICKNESS OF THE TURF PRODUCT TO BE USED.

11 N.T.S. WOOD NAILER SECTION

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 # 2507

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Houston, Texas 77046
pflugerarchitects.com

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Project Info Additional Text Line
7007 Knights CT, Missouri City, TX 77459

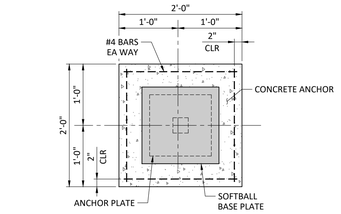
FBISD
INSPIRE•EQUIP•IMAGINE
16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
10/09/2025

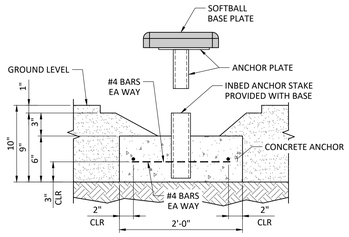
PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 5.02-E
CIVIL SPORTS
BASEBALL DETAILS

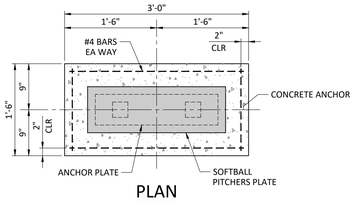


PLAN



SECTION

1 SOFTBALL BASE PLATE ANCHOR
N.T.S.



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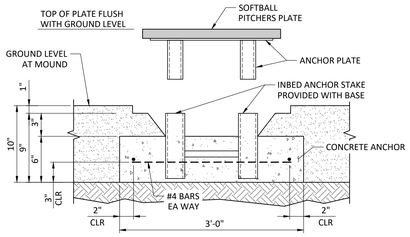

SECTION

2 SOFTBALL PITCHER'S PLATE ANCHOR
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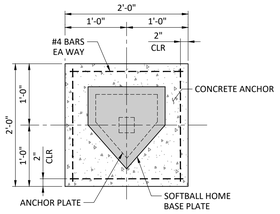

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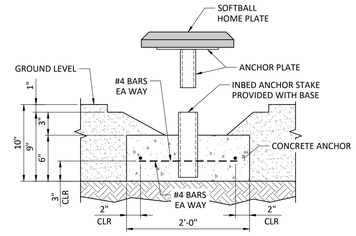
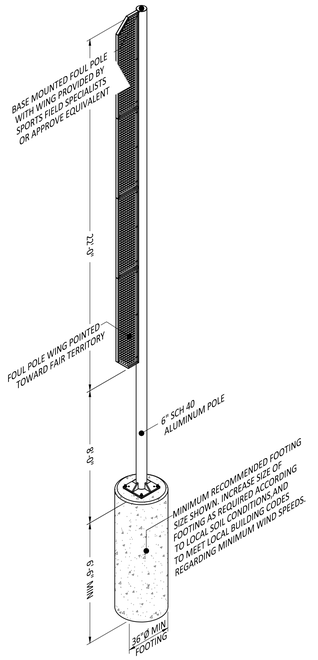


SECTION

3 SOFTBALL HOME PLATE ANCHOR
N.T.S.



NOTE:
1. ALIGN FOUL POLE WITH FOUL LINE.

4 SOFTBALL 30FT FOUL POLE (ALTERNATE #5)
N.T.S.

SUBGRADE NOTE:
1. CONTRACTOR MUST TREAT 16 INCHES OF EXISTING SUBGRADE (8% LIME) COMPACTED TO 95% MIN DENSITY.

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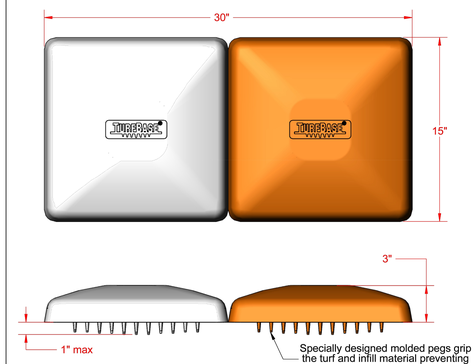
United States Patent #8,337,340, Issued December 25, 2012



* Designed specifically for synthetic turf applications
* No ground anchor installation is necessary
* Durable all rubber mesh reinforced construction
* Official size - (1) double first base and (2) TurfBase Bases

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TBDS - TurfBase® Double Base

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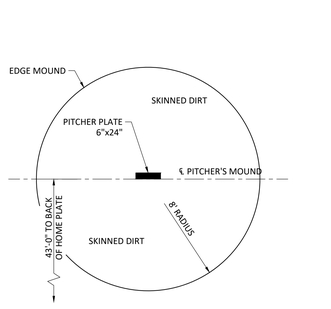
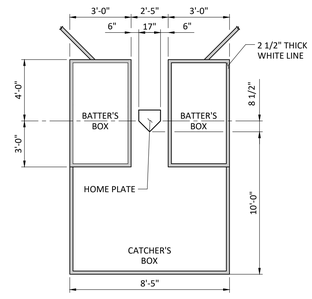
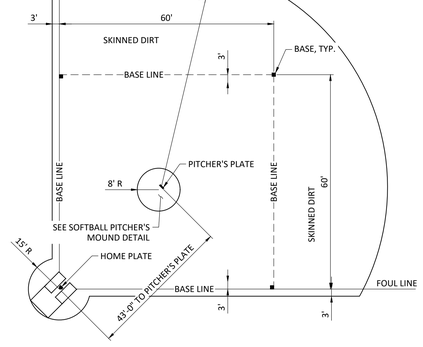


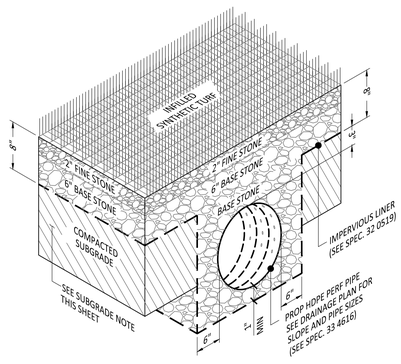
5 SOFTBALL PITCHER'S MOUND
N.T.S.



6 SOFTBALL BATTER'S AND CATCHER'S BOX
N.T.S.



7 SOFTBALL INFIELD LAYOUT
N.T.S.



8 INFILLED SYNTHETIC TURF TRENCH SECTION
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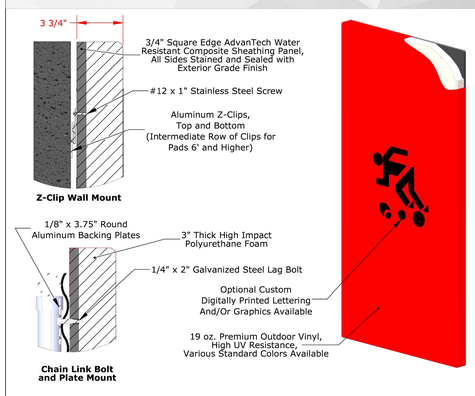

Part Numbers *	Size	Attachment
BFWPZ44/BFWPZ44DG	4'W x 4'L x 3.75"D	Z-Clip Wall Mount
BFWPZ46/BFWPZ46DG	4'W x 6'L x 3.75"D	Z-Clip Wall Mount
BFWPZ48/BFWPZ48DG	4'W x 8'L x 3.75"D	Z-Clip Wall Mount
BFWPZ-NSS/BFWPZDG-NSS	_'W x _'L x 3.75"D	Z-Clip Wall Mount
BFWPCL44/BFWPCL44DG	4'W x 4'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL46/BFWPCL46DG	4'W x 6'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL48/BFWPCL48DG	4'W x 8'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL-NSS/BFWPCLDG-NSS	_'W x _'L x 3.75"D	Chain Link Bolt and Plate Mount

*DG Part Number Denotes Custom Digitally Printed Graphics

Final Layout and/or Graphic Rendering to be Completed upon Verification of Field Measurements

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BaseZone® Field Wall Padding

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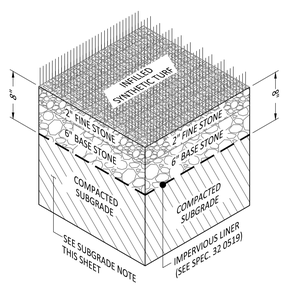
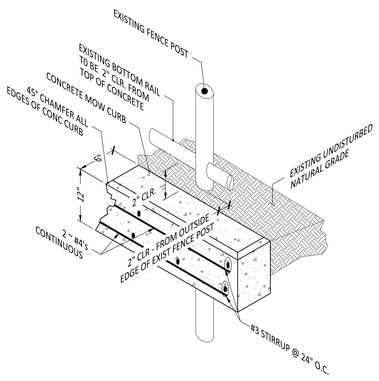
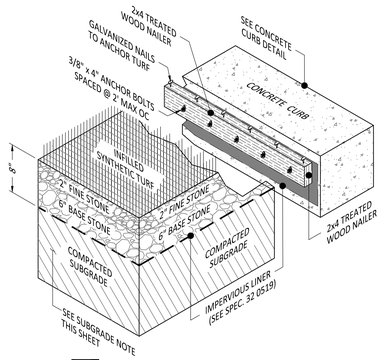


9 INFILLED SYNTHETIC TURF SECTION "FIELD AND BULLPEN"
N.T.S.



10 CONCRETE MOW CURB AT EXISTING FENCE
N.T.S.



NOTES:
1. TREATED WOOD NAILER TO BE RATED FOR USE IN SUBTERRANEAN CONDITIONS.
2. BASE STONE TO BE FLUSH WITH TOP OF NAILER.
3. IMPERVIOUS LINER SHALL EXTEND TO TOP OF NAILER BETWEEN NAILER AND CONCRTE CURB.
4. TREATED WOOD NAILER TO BE PLACED 2" BELOW THE CONCRETE CURB OR THE THICKNESS OF THE TURF PRODUCT TO BE USED.

11 WOOD NAILER SECTION
N.T.S.

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
PHONE No. 346.204.4854
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TSCE PROJECT # 2507

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KENNETH I. JURADO
119993
LICENSED
PROFESSIONAL
ENGINEER
10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

Project Status
C 5.03-E
CIVIL SPORTS SOFTBALL DETAILS



PHOTO OF EXISTING BASEBALL DUGOUT

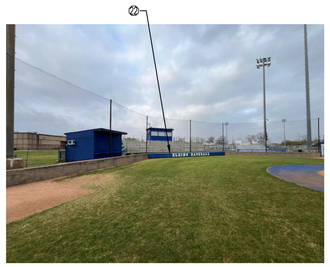


PHOTO OF EXISTING BASEBALL BACKSTOP



PHOTO OF EXISTING BASEBALL DUGOUT



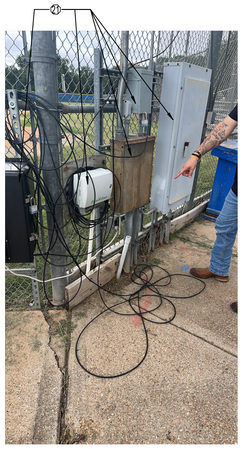
PHOTO OF EXISTING SOFTBALL DUGOUT

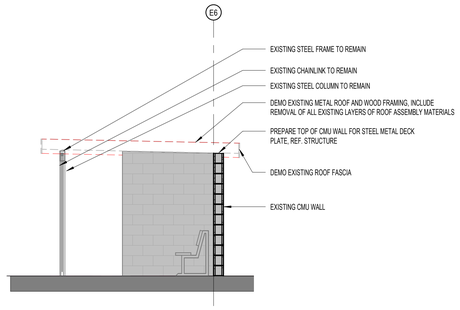


PHOTO OF EXISTING SOFTBALL BACKSTOP

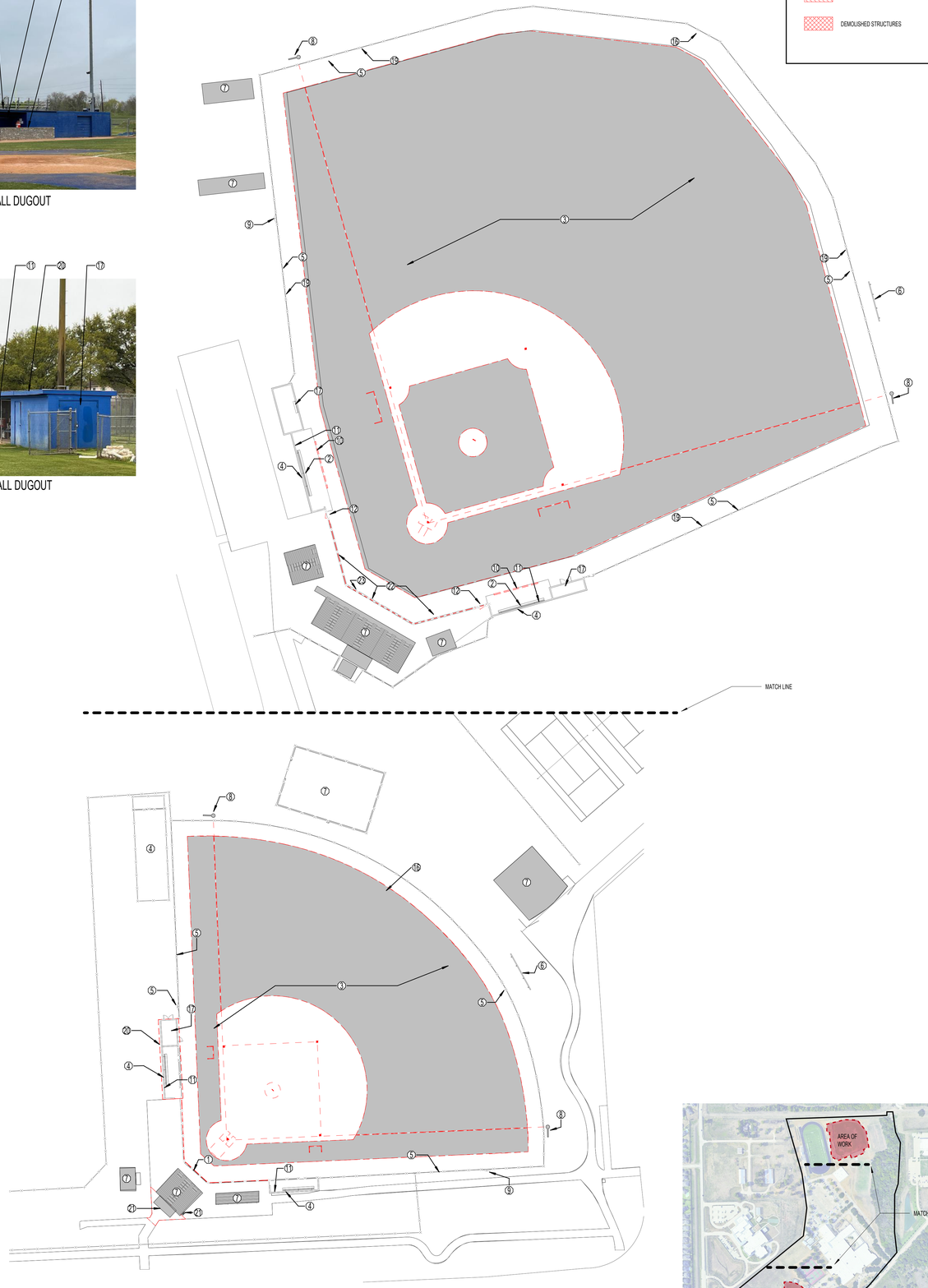


PHOTO OF EXISTING SOFTBALL DUGOUT





ELKINS SOFTBALL LEFT DUGOUT SECTION 2
SCALE: 1/4" = 1'-0"



ELKINS OVERALL DEMO 1
SCALE: 1/32" = 1'-0"

KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- REMOVE EXISTING CONCRETE PAVING, ASPHALT, AND SIDEWALK
- DEMOLISHED STRUCTURES

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/GRAPHICS AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS UNLESS OTHERWISE NOTED.
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. DISPOSE OF ALL REMOVED MATERIALS OFF-SITE IN ACCORDANCE WITH LOCAL REGULATIONS.

DEMOLITION KEY NOTES

TAG # NOTES

1. DEMOLISH EXISTING CHAINLINK BACKSTOP FENCE AND POSTS. REMOVE ALL EXISTING CHAINLINK FENCING, LINE POSTS, CORNER POSTS, TERMINAL POSTS, TOP RAILS, TENSION WIRE, GATES, AND ASSOCIATED HARDWARE WITHIN THE LIMITS OF DEMOLITION AS SHOWN ON THE DRAWINGS. REMOVAL SHALL INCLUDE ALL CONCRETE FOOTINGS AND EMBEDDED MATERIALS.
2. DEMOLISH EXISTING WOOD BENCH PLATFORM. REMOVE ALL WOOD PLANKS, FASTENERS, AND ASSOCIATED MATERIALS DOWN TO THE EXISTING STEEL SUPPORT FRAME. STEEL FRAME TO REMAIN IN PLACE. PROTECT EXISTING STEEL BENCH STRUCTURE, ELECTRICAL OUTLETS, CONDUITS, AND ANY WIRING MOUNTED TO OR BEHIND THE BENCH DURING DEMOLITION.
3. REMOVE EXISTING NATURAL TURF FIELDS, SOIL, AND EXISTING SUBGRADE TO DEPTHS NOTED ON CIVIL GRADING DRAWINGS. CONTRACTOR IS RESPONSIBLE TO REVIEW SURVEYS PROVIDED IN CONSTRUCTION DOCUMENTS TO REMOVE AND RELOCATE UNDERGROUND UTILITY LINES, LOW VOLTAGE RACEWAYS, AND IRRIGATION LINES WITHIN THE LIMITS OF DEMOLITION AS SHOWN ON THE DRAWINGS. REMOVE ALL ORGANIC MATERIAL, ROOTS, BASE PLATES, AND ANY EXISTING SITE ELEMENTS OR OBSTRUCTIONS ENCOUNTERED DURING DEMOLITION. GRADE AREAS TO MAINTAIN POSITIVE DRAINAGE AND PROVIDE SMOOTH TRANSITION TO ADJACENT SURFACES AS NOTED ON CIVIL GRADING DRAWINGS.
4. EXISTING DUGOUTS TO REMAIN. PROTECT ALL EXISTING DUGOUT STRUCTURES, INCLUDING CMU WALLS, METAL ROOFING, STEEL FRAMING, DOORS, PAINTED FINISHES, ELECTRICAL CONDUITS, LIGHT FIXTURES, AND ACCESSORIES FROM CONSTRUCTION TRAFFIC.
5. EXISTING OUTFIELD FENCE TO REMAIN. PROTECT ALL SECTIONS OF EXISTING OUTFIELD FENCE, INCLUDING CHAIN LINK AND WOOD PANEL SECTIONS, POSTS, TOP RAILS, TENSION WIRE, AND ANY SAFETY CAP ALONG THE TOP EDGE.
6. EXISTING SCOREBOARDS TO REMAIN. PROTECT EXISTING BASEBALL AND SOFTBALL SCOREBOARDS, INCLUDING ALL SUPPORT POLES, ELECTRICAL CONNECTIONS, CONTROL CABLING, AND MOUNTED COMPONENTS THROUGHOUT DEMOLITION AND CONSTRUCTION. NO WORK IS INCLUDED IN THE SCOPE FOR THE SCOREBOARDS.
7. EXISTING BLEACHERS, PRESS BOXES, AND HITTING CAGES TO REMAIN. PROTECT ALL EXISTING BLEACHER STRUCTURES, PRESS BOXES, AND HITTING CAGES FOR BOTH BASEBALL AND SOFTBALL FIELDS. PROTECTION SHALL INCLUDE METAL FRAMING, SEATING, HANDRAILS, STAIRS, CONCRETE FOUNDATIONS, ELECTRICAL CONNECTIONS, BATTING CAGE NETTING, POSTS, AND ANY ASSOCIATED EQUIPMENT OR ACCESSORIES.
8. **ALTERNATE NO. 05** INSTALL NEW FOUL POLES. DEMOLISH EXISTING FOUL POLES IN THEIR ENTIRETY, INCLUDING ASSOCIATED HARDWARE AND ACCESSORIES. EXISTING FOUNDATIONS SHALL BE REMOVED TO FULL DEPTH TO AVOID INTERFERENCE WITH NEW WORK. RESTORE SURROUNDING AREAS TO MATCH ADJACENT CONDITIONS AFTER REMOVAL.
9. EXISTING DOUBLE CHAIN LINK FENCE GATES AND POSTS TO REMAIN. PROTECT IN PLACE DURING CONSTRUCTION.
10. DEMOLISH EXISTING BRICK LOW WALL IN FRONT OF DUGOUT IN ITS ENTIRETY. REMOVE CONCRETE TO FULL DEPTH INCLUDING FOUNDATION. GRADE BEAMS AND PIERS. PREPARE SUBGRADE FOR NEW CONCRETE PAVEMENT PER PLANS. COORDINATE WITH NEW WORK TO MAINTAIN CLEAN TRANSITIONS AND PROPER DRAINAGE.
11. DEMOLISH EXISTING SHELVES IN THEIR ENTIRETY, INCLUDING ALL SUPPORTS, BRACKETS, AND FASTENERS. REMOVE WITHOUT DAMAGING THE WALL SURFACE THEY ARE MOUNTED ON. PATCH AND REPAIR ANY SURFACES AFFECTED BY REMOVAL.
12. DEMOLISH EXISTING CHAIN LINK FENCE AND GATE UP TO THE EDGE OF THE DUGOUT AS SHOWN. REMOVE ALL POSTS, FOUNDATIONS, HARDWARE, AND ACCESSORIES IN THEIR ENTIRETY. FOUNDATIONS SHALL BE REMOVED TO FULL DEPTH.
13. DEMOLISH SITE ELEMENTS AS REQUIRED FOR PROPOSED DETENTION. CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UNDERGROUND ELECTRICAL LINES PRIOR TO EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING OR PROTECTING EXISTING LINES IF REQUIRED TO ACCOMMODATE NEW WORK. REFER : C2.21-A CIVIL DRAWINGS FOR LIMITS OF DETENTION AREA.
14. EXISTING CONCRETE PAVEMENT TO REMAIN. REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO MATCH EXISTING FINISH AND ELEVATION. CLEAN SURFACES AFTER COMPLETION OF WORK.
15. DEMOLISH EXISTING CONCRETE PAVEMENT: REFER TO DEMOLITION DRAWING 1/AD1.00-D FOR LIMITS OF REMOVAL. REMOVE CONCRETE TO FULL DEPTH INCLUDING BASE MATERIALS. PREPARE SUBGRADE FOR NEW CONCRETE PAVEMENT PER PLANS. COORDINATE WITH NEW WORK TO MAINTAIN CLEAN TRANSITIONS AND PROPER DRAINAGE.
16. EXISTING WOODEN OUTFIELD FENCE TO REMAIN. PROTECT ALL WOOD FENCE SURFACES DURING DEMOLITION AND RENOVATION WORK.
17. EXISTING STORAGE ROOM AND OVERHEAD COILING DOOR TO REMAIN. CONTRACTOR SHALL COORDINATE WITH OWNER TO REMOVE ALL ITEMS FROM STORAGE PRIOR TO START OF WORK. PREPARE INTERIOR SURFACES, INCLUDING WALLS, FLOORS, AND CEILING, FOR NEW PAINT AND FINISHES AS INDICATED IN MATERIAL SCHEDULE.
18. CONTRACTOR SHALL COORDINATE WITH OWNER TO IDENTIFY AND REMOVE ALL EXISTING SITE ELEMENTS THAT ARE TO BE REUSED OR RELOCATED PRIOR TO DEMOLITION ACTIVITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, GARBAGE BINS, WORKOUT OR MAINTENANCE EQUIPMENT, PORTABLE STORAGE ITEMS, AND MISCELLANEOUS FIELD ACCESSORIES. ALL ITEMS DESIGNATED FOR REUSE SHALL BE SAFELY STORED AND REINSTALLED AS DIRECTED BY OWNER. ANY ITEMS NOT IDENTIFIED FOR REUSE SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH LOCAL REGULATIONS.
19. **ALTERNATE 07** (A) APPLY A NEW GALVANIZED FINISH TO EXISTING CHAINLINK FENCE. REFER TO MATERIAL SCHEDULE FOR GALVANIZED PAINT TYPE. CONTRACTOR SHALL REMOVE ANY ATTACHED ACCESSORIES, SIGNAGE, OR SAFETY CAPS AS REQUIRED TO PREPARE THE FENCE TO APPLY A NEW FINISH. (B) PAINT EXISTING WOOD FENCE. CLEAN, SCRAPE, AND REMOVE LOOSE OR PEELING PAINT. REPAIR ANY DAMAGED WOOD OR SURFACE AREAS PRIOR TO REFINISHING. REFER TO MATERIALS SCHEDULE FOR PAINT TYPE.
20. DEMOLISH EXISTING WOODEN ROOF AND WOODEN FRAME, ANCHORS, AND HARDWARE. REINSTALL NEW METAL ROOF AND FRAME. REFER TO SHEET AND SHEET S3.10-E. REFER TO MATERIAL SCHEDULE FOR PAINT COLOR.
21. CAREFULLY REMOVE EXISTING ELECTRICAL PANEL BOX, AUDIO/VISUAL EQUIPMENT BOXES, IRRIGATION EQUIPMENT BOXES. REMOVE ALL EXISTING ELECTRICAL WIRING/OUTLETS J-BOXES, AUDIO/VISUAL CABLING. SALVAGE ALL EQUIPMENT PANEL BOXES AND RELOCATE TO NEW LOCATION NOTED ON DRAWINGS. INSTALL NEW TEMPORARY POST AND RE-INSTALL EXISTING EQUIPMENT PANELS TO BE RELOCATED TO NEW TEMPORARY POST PER NEC 2023. ENSURE ALL EQUIPMENT IS CONNECTED TO ALL EXISTING EQUIPMENT AND WORKING AS ORIGINALLY INSTALLED.
22. CONTRACTOR TO CAREFULLY DEMO EXISTING BACKSTOP NETTING AND POLES. REMOVE NETTING POLES 6' BELOW EXISTING MASONRY WALL ROWLOCK CAP BRICK. REPAIR, REPLACE, AND FILL-IN MISSING ROWLOCK CAP BRICK WITH NEW MATCHING BRICK. ENSURE ALL NEW REPLACEMENT BRICK IS PLUMB WITH EXISTING AND ADJACENT SURFACES.
23. REMOVE EXISTING BACKSTOP PADDING. REMOVE EXISTING MOUNTING HARDWARE. REPAIR EXISTING BRICK MASONRY BACKSTOP WITH FILLER.

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BP010 TURF AND ATHLETICS

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

REGISTERED ARCHITECT MICHAEL ADAMS 20115 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

Δ	Date	Description

ISSUED FOR CONSTRUCTION

AD1.00-E
DEMOLITION SITE PLAN

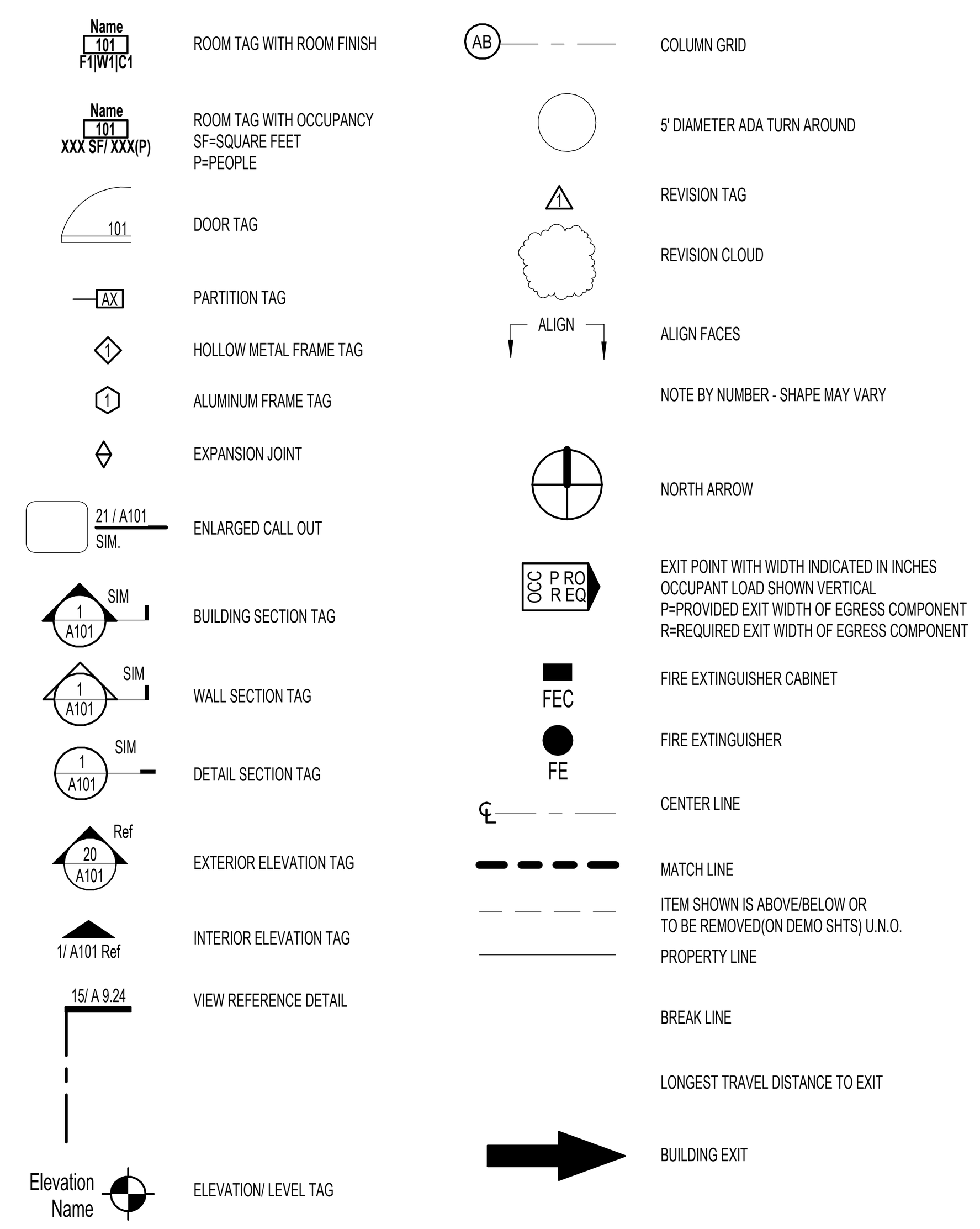
10/9/2025 5:57:32 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt

ABBREVIATIONS

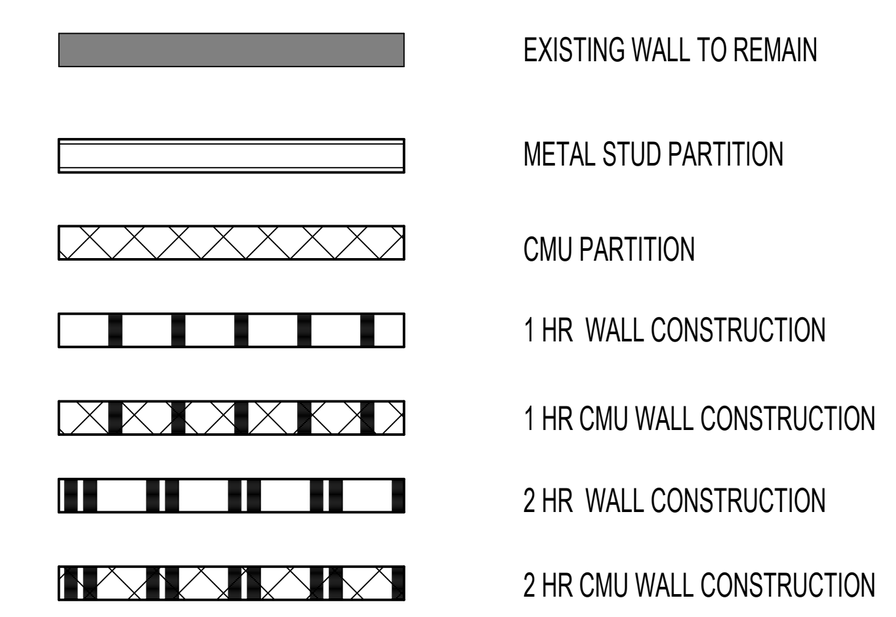
A	
A.F.F.	ABOVE FINISH FLOOR
ACC.FL.	ACCESS FLOOR
A.P.	ACCESS PANEL
ACOUS.	ACOUSTICAL
ACT.	ACOUSTICAL CEILING TILE
ADD.	ADDENDUM
ADJNT.	ADJACENT
ADJ.	ADJUSTABLE
ADMIN.	ADMINISTRATION
AGG.	AGGREGATE
A/C	AIR CONDITIONING
ALT.	ALTERNATE, ALTERNATIVE
ALUM.	ALUMINUM
ANCH.	ANCHOR, ANCHORAGE
ANOD.	ANODIZED
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
EQUP.	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
MAT'L.	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

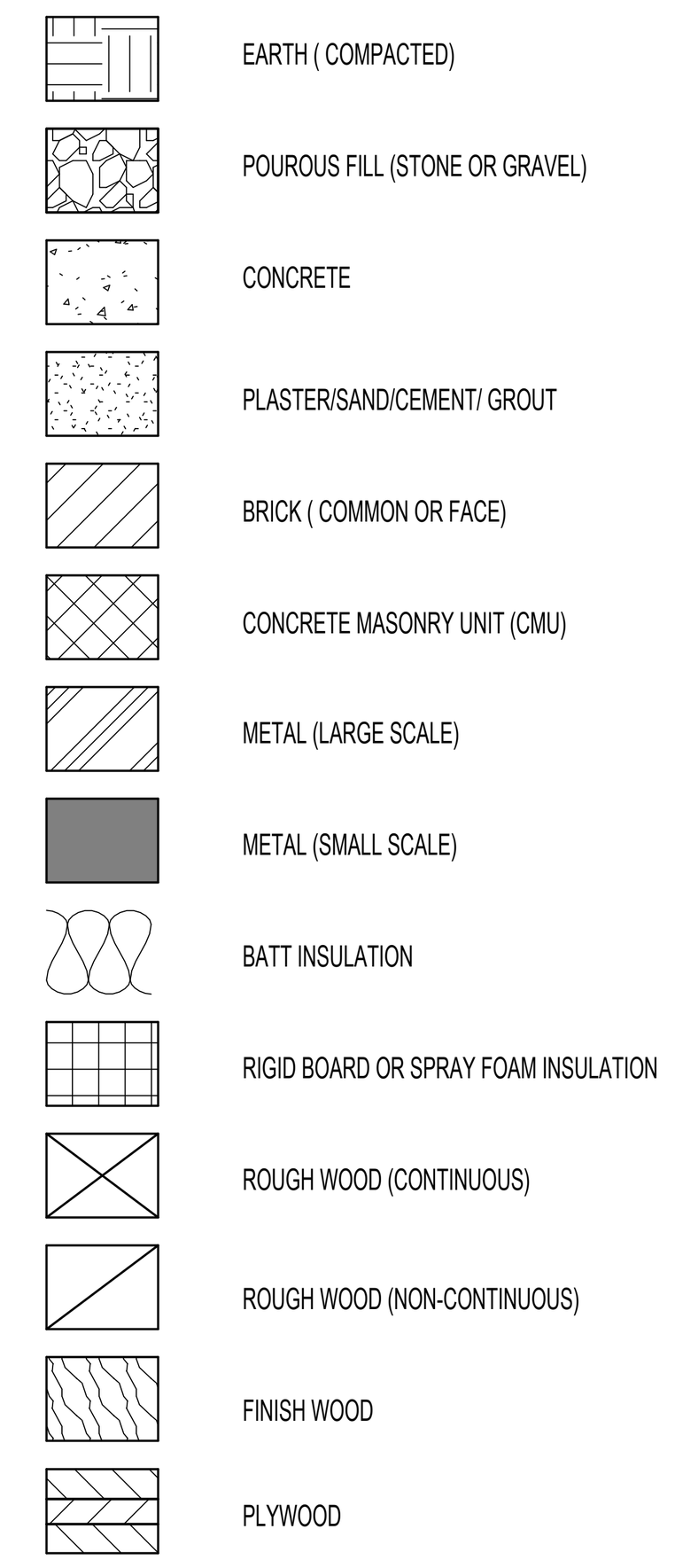
ARCHITECTURAL DRAWING SYMBOLS



WALL LEGEND



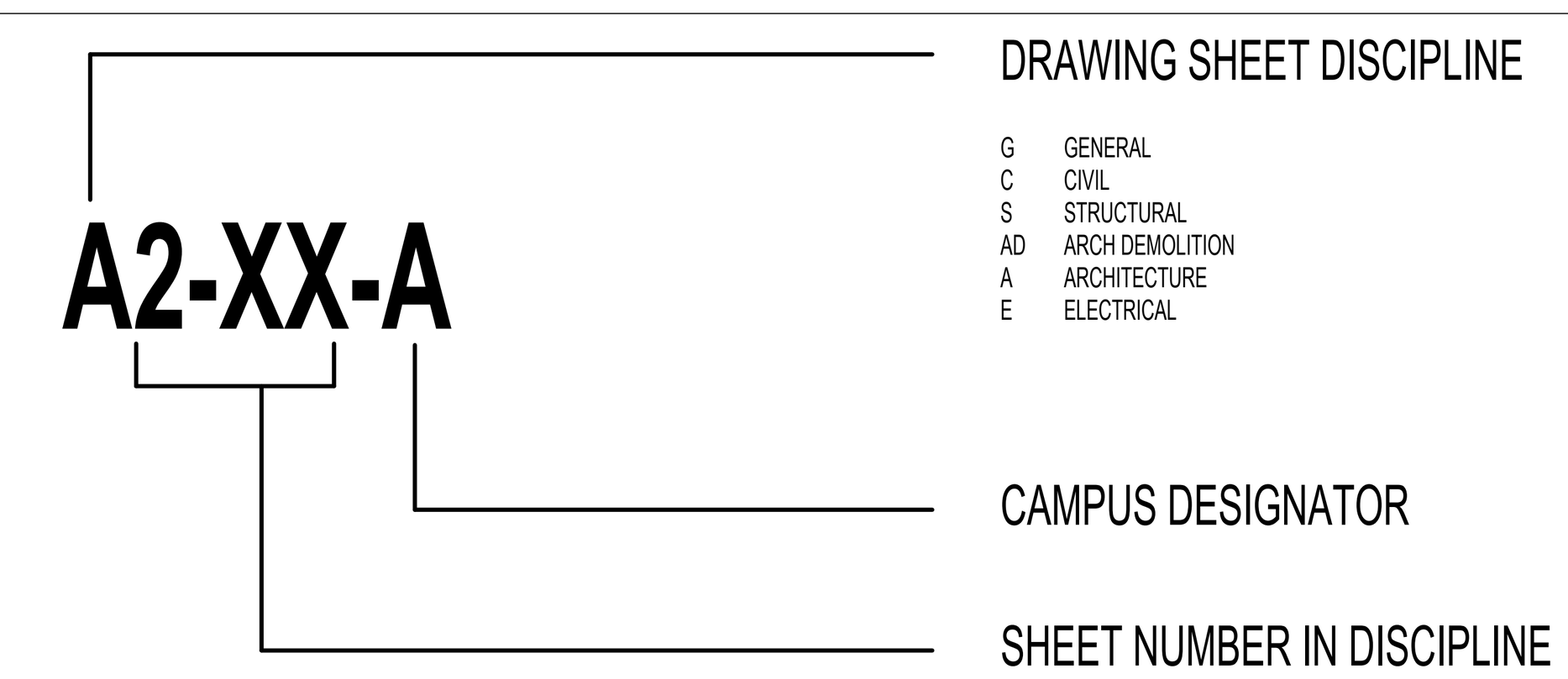
MATERIALS LEGEND



PROJECT GENERAL NOTES

1. 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
2. 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
3. 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.
4. 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
5. 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
6. 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.
7. 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.
8. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
9. 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
10. 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.
11. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
12. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
13. 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.
14. 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.
15. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
16. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
17. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
18. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
19. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
20. 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.
21. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
22. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
23. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
24. 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.
25. 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
26. 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.
27. 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
28. 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
29. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
30. 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.
31. 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



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BP010 TURF AND ATHLETICS

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ARCHITECT: MICHAEL ADAME
ARCHITECT REG. NO: 20113
DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
No. Date Description

ISSUED FOR CONSTRUCTION

A0.00-E
SYMBOLS & ABBREVIATIONS

UPDATED 08-21-21

10/9/2025 5:53:35 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt



ELKINS OVERALL- E 1
SCALE: 1" = 80'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00-D FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES. INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURISDICTION.
5. ALL NEW FENCING SHALL BE VINYL COATED CHAIN LINK,REF DRAWINGS FOR HEIGHT.
6. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.

9.PROVIDE 12" CONCRETE CURB AROUND PERIMETER OF ALL FIELDS 6" CENTERED ON ALL EXISTING AND NEW FENCING.

10.REFER TO CIVIL DRAWINGS FOR ALL GRADING AND SUBSURFACE UTILITY, DRAINAGE AND OTHER WORK.

11.PROVIDE CONTROL JOINTS AT ALL CONCRETE WALKS AS INDICATED. IF NO INDICATION OF JOINT PATTERN, SPACING, ETC., REFER TO SPECIFICATIONS. IF NO DIRECTION IS PROVIDED, CONTROL JOINTS SHALL BE TOOLED AT 5'-0" O.C. WITH EXPANSION JOINTS EVERY 20'-0". PROVIDE JOINT LAYOUT PLAN TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF CONCRETE.

12. PROVIDE EXPANSION FILLER STRIPS AND SEALANT AT ALL FLATWORK TO BUILDING, COLUMN, ADJACENT FLATWORK, OR OTHER ADJACENT SURFACE AS REQUIRED TO PROVIDE PROPER EXPANSION CONTROL. COORDINATE WITH ADJACENT SURFACE TO PROVIDE AS INCONSPICUOUS EXPANSION JOINT AS POSSIBLE. COORDINATE EXPANSION STRIP MATERIAL AND SEALANT WITH ADJACENT MATERIAL COLOR.

13.DELIVERIES / HEAVY TRAFFIC SHALL BE COORDINATED SO AS NOT TO DISRUPT CAMPUS ACTIVITIES. DELIVERIES / HEAVY TRAFFIC SHALL NOT OCCUR BETWEEN THE HOURS OF 7:30 AM - 9:00 AM OR 3:00 PM.

14.PROVIDE MIN. 1/2" EXPANSION JOINT WITH FILLER AT ALL TRANSITIONS BETWEEN CIVIL AND STRUCTURAL CONCRETE WORK, WHETHER ILLUSTRATED OR NOT.

15.SCORE LINES SHOWN ON PLANS MAY NOT BE FULLY INDICATIVE OF ALL SCORE LINES REQUIRED TO ENSURE THAT CONCRETE FLATWORK DOES NOT CRACK / FRACTURE. REFER TO PROJECT SPECIFICATIONS AND CIVIL DRAWINGS FOR FURTHER SCORE LINE REQUIREMENTS.

16.REFER TO A1.01 AND A1.02 ENLARGED SITE PLAN FOR TURF LAYOUT

17. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING ANY WORK. ANY DISCREPANCIES, CONFLICTS, OR UNFORESEEN CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT AND ENGINEER FOR CLARIFICATION AND RESOLUTION

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
- FV — FIELD VERIFY
- PROPOSED DETENTION

SITE PLAN KEYNOTES

TAG # NOTES

1.INSTALL INFILL SYNTHETIC TURF. THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYNTHETIC TURF SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 32 18 23 FOR INSTALLATION REQUIREMENTS. REFER TO CIVIL DRAWINGS FOR SUBGRADE PREPARATION AND DRAINAGE DETAILS.

2. RENOVATE EXISTING DUGOUT. PRESSURE WASH ALL INTERIOR AND EXTERIOR SURFACES INCLUDING CMU WALLS, ROOF STRUCTURE, AND CONCRETE FLOOR. REPAIR CRACKS OR DAMAGED AREAS. PREPARE AND REFINISH ALL SURFACES PER PM SECTION 09 90 00. PROTECT EXISTING ELECTRICAL, LIGHT FIXTURES, AND CONDUITS.

3. INSTALL NEW 60'-0" HIGH BACKSTOP NETTING SYSTEM IN ACCORDANCE WITH PM SECTION 11 68 50. REFER TO STRUCTURAL DRAWINGS FOR PIER DIMENSIONS, REINFORCEMENT, AND POLE FOUNDATION DETAILS. INSTALL ALL EYEBOLTS, TURNBUCKLES, AND HARDWARE REQUIRED TO SECURE THE SYSTEM.

4. INSTALL NEW 40'-0" HIGH SIDE NETTING SYSTEM TO MATCH BACKSTOP NETTING. REFER TO STRUCTURAL DRAWINGS FOR FOUNDATION AND CONNECTION DETAILS. COORDINATE INSTALLATION WITH ADJACENT CMU WALLS AND SAFETY FENCING.

5. INSTALL NEW BACKSTOP PADDING ON CMU WALL SURFACES. REFER TO PM SECTION 11 68 50 FOR COLOR AND FINISH REFER MATERIAL SCHEDULE.

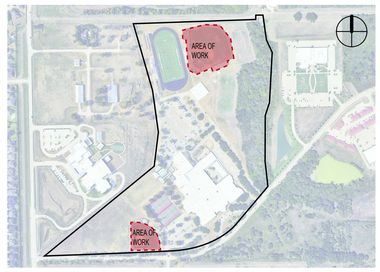
6. EXISTING CMU BLOCK WALL TO REMAIN. CLEAN ALL EXPOSED SURFACES AND REPAIR ANY DAMAGED AREAS. REFINISH IN ACCORDANCE WITH PM SECTION 09 90 00. PROTECT EXISTING WALLS THROUGHOUT CONSTRUCTION.

8. INSTALL NEW 12" CMU BLOCK WALL, 36" TALL, REINFORCED AND GROUTED PER STRUCTURAL DRAWINGS. REFER TO MATERIAL SCHEDULE FOR FINISH REQUIREMENTS. COORDINATE WITH FENCING AND BACKSTOP CONNECTIONS.

9. REMOVE EXISTING METAL ROOF AND INSTALL NEW PREFINISHED METAL ROOF PANELS IN ACCORDANCE WITH PM SECTION 07 41 13. PREPARE AND REFINISH EXISTING STRUCTURAL STEEL MEMBERS PER PM SECTION 09 90 00. REFER TO SHEET A1.04-E FOR ROOF DETAILS.

AUTHORITY HAVING JURISDICTION (AHJ)- MISSOURI CITY

- International Building Code 2021;
- International Fire Code 2021;
- International Mechanical Code 2021;
- International Plumbing Code 2021;
- International Energy Code 2021;
- International Fuel Gas Code 2021;
- National Electrical Code 2023



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

ISSUED FOR CONSTRUCTION

A1.00-E
ARCHITECTURAL SITE PLAN

10/9/2025 5:53:37 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt

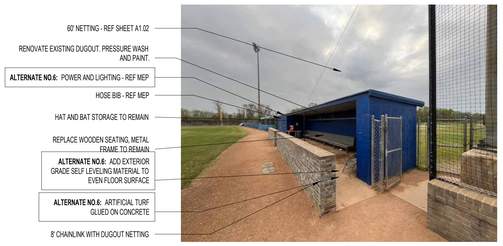


PHOTO OF EXISTING BASEBALL RIGHT DUGOUT

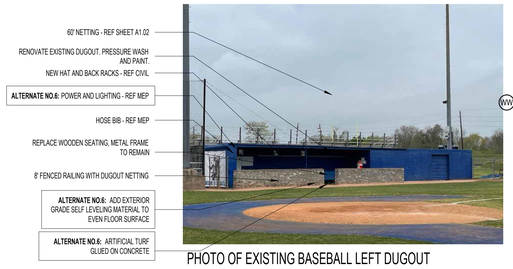


PHOTO OF EXISTING BASEBALL LEFT DUGOUT

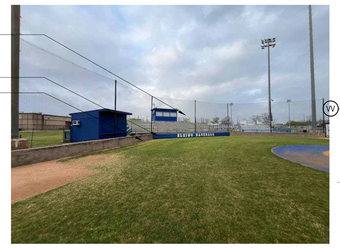
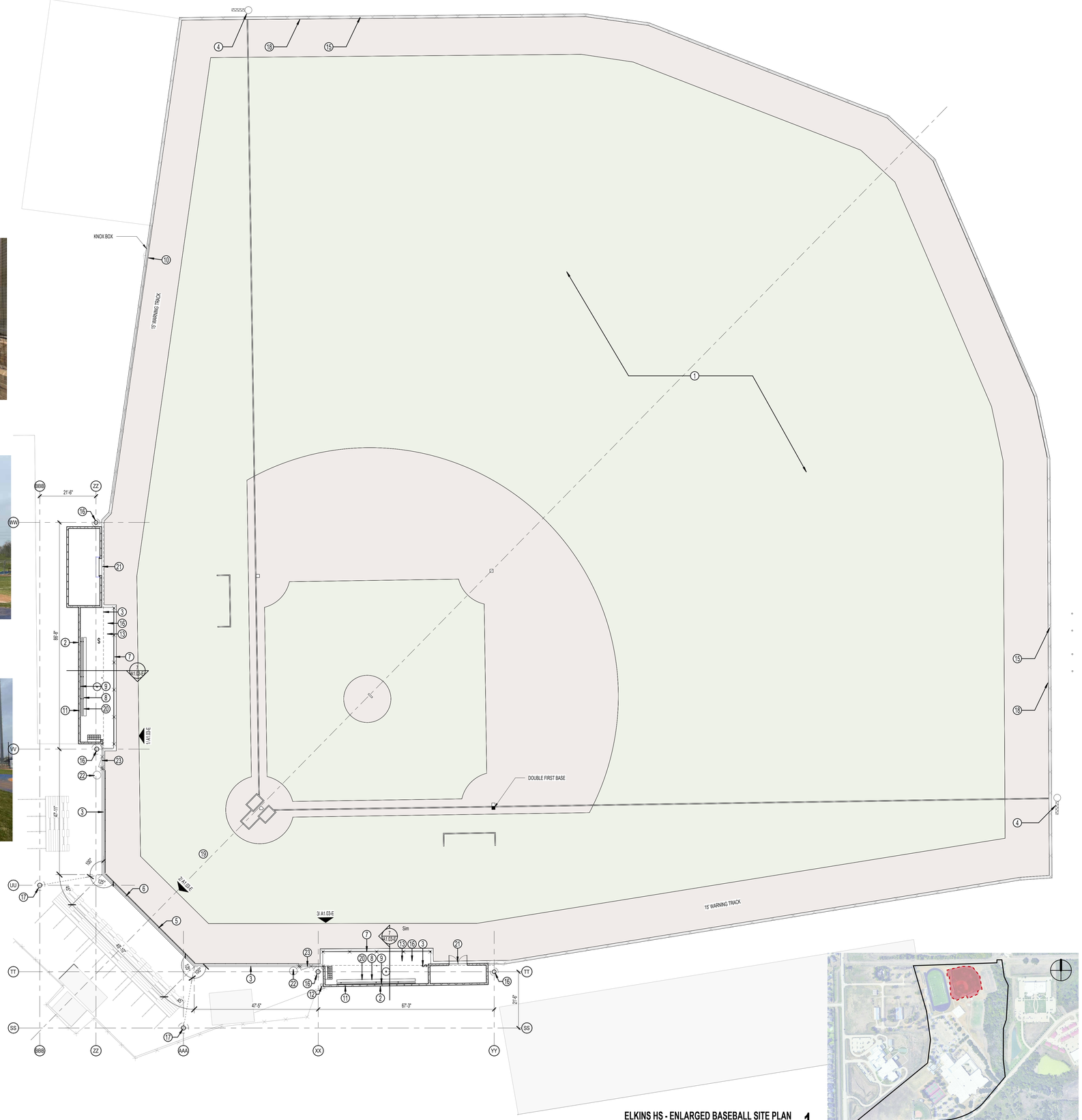


PHOTO OF EXISTING BASEBALL BACKSTOP



ELKINS HS - ENLARGED BASEBALL SITE PLAN

SCALE: 1/16" = 1'-0"

1

KEY PLAN - BASEBALL AREA OF WORK

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00-A FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURISDICTION.
5. ALL NEW FENCING SHALL BE PVC-COATED CHAIN LINK TO MATCH NETTING COLOR REF SECTION 32 31 15. REFER TO DRAWINGS FOR HEIGHT.
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. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.
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.

SITE PLAN LEGEND

- NEW CHAINLINK FENCE
- EXISTING CHAIN LINK FENCE
- 1 / A101 SIM. — BUILDING SECTION TAG
- 1 / A101 SIM. — WALL SECTION TAG
- 21 / A101 SIM. — ENLARGED CALL OUT
- FV — FIELD VERIFY

ENLARGED SITE PLAN KEYNOTES

TAG # — NOTES

1. INSTALL INFILL SYNTHETIC TURF. THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYNTHETIC TURF SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 321823 FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS. REFER TO THE COLOR RENDERINGS ON SHEET G0.01-A FOR TURF COLOR AND DETAIL LAYOUTS. REFER TO CIVIL DRAWINGS FOR TURF DETAILS.
2. PRESSURE WASH ALL SIDES OF EXISTING DUGOUT CMU, CONCRETE SLAB FLOOR, METAL ROOFING AND ROOFING STRUCTURE. REPAIR EXTERIOR METAL ROOF FLASHING. REPAIR CMU WALLS WITH FILLER AND PRIMER. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR EXTERIOR MASONRY, WOOD AND METAL SURFACES.
3. INSTALL 60' BACK STOP NETTING AND POLES AS NOTED IN PM SECTION 116850. INSTALL 70' POLES LOCATED ON DRAWINGS. REFER TO STRUCTURAL DRAWINGS FOR STRUCTURAL TIE-DOWN LOCATIONS, PIER SCHEDULE, REINFORCEMENT AND DETAILS. REFER TO NETTING MANUFACTURERS INSTALLATION INSTRUCTIONS FOR TIE-DOWN LOCATIONS AND TECHNIQUES.
4. **ALTERNATE NO.5:** INSTALL 30' FOUL POLE AS NOTED IN PM SECTIONS 116850. REFER TO STRUCTURAL DRAWINGS FOR PIER SCHEDULE AND DETAILS.
5. INSTALL BACKSTOP PADDING AS NOTED IN PM SECTIONS 116850. REFER TO DETAIL 1&3/ A1.04-A. REFER TO CIVIL FOR PRODUCT DATA. ATTACH PADDING PER MANUFACTURER'S RECOMMENDATIONS FOR MASONRY FACE BRICK AND CMU BACKSTOPS.
6. EXISTING BRICK BACKSTOP TO REMAIN. POWERWASH AND CLEAN.
7. PROVIDE NEW 8'-0" FENCE. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR GALVANIZED METALS. ADD SAFETY NETTING TO MATCH THE BACKSTOP NETTING. REFER TO SHEET A1.03-A FOR LOCATIONS AND DIMENSIONS. REFER TO 116850 BACKSTOP NETTING FOR SPECIFICATIONS. REFER TO MANUFACTURER DETAILS FOR ATTACHMENT RECOMMENDATIONS.
8. POWER WASH SEATING METAL FRAME, REPAIR, CLEAN, PRIME AND PAINT EXISTING METAL FRAME PER PM SECTION 099000.
9. INSTALL NEW HAT AND BAT RACKS REFER TO DETALS XX.XX-A. REFER TO SPEC 116850. REFER TO FINISH SCHEDULE FOR COLORS REQUIREMENTS.
10. EMERGENCY SWING GATE TO REMAIN. POWER WASH CLEAN, REPAIR. RE-COAT AND RE-GALVANIZE AS NOTED IN PM SECTION 099000.
11. **ALTERNATE NO.6:** INSTALL NEW ELECTRICAL LIGHTING AS NOTED IN ELECTRICAL DRAWINGS.
12. INSTALL NEW ANTI SIPHON AND ANTI-FREEZE WATER HYDRANT. REFER TO MEP DRAWING AND SPECIFICATIONS.
13. **ALTERNATE NO.6:** CONTRACTOR/INSTALLER SHALL ACID WASH EXISTING DUGOUT CONCRETE FLOOR. REMOVE SUB-FLOOR RIDGES AND BUMPS. FILL MINOR LOW SPOTS, CRACKS, JOINTS, HOLES, AND OTHER DEFECTS WITH SUB-FLOOR FILLER TO ACHIEVE SMOOTH SURFACE. VERIFY THAT SUBSTRATES ARE DRY ENOUGH AND READY FOR FLOORING INSTALLATION BY TESTING FOR MOISTURE AND PH. ADD EXTERIOR GRADE SELF LEVELING MATERIAL TO EVEN FLOOR SURFACE. PREPARE FLOOR TO RECEIVED GLUE DOWN SYNTHETIC TURF FLOORING.
14. **ALTERNATE NO.6:** PLACE GLUE DOWN SYNTHETIC TURF. REFER TO PM SECTION 32 18 20.
15. **ALTERNATE NO.7:** EXISTING 8'-0" PERIMETER CHAINLINK FENCE TO REMAIN. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR GALVANIZED METALS.
16. INSTALL NEW 60'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
17. INSTALL NEW 70'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
18. 12" CONCRETE CURB AROUND EXISTING PERIMETER.
19. ALL DIMENSIONS ARE BASED ON EXISTING DRAWINGS AND ON SURVEYOR DRAWINGS ISSUED BY CLIENT. CONTRACTOR TO FIELD VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.
20. REMOVE EXISTING 2X WOOD BENCH SEATS. EXISTING METAL FRAME ALL METAL SHALL BE THOROUGHLY PREPARED TO ENSURE ADHESION OF NEW PAINT TO THE PREPARED SURFACE. PAINT ALL METAL SURFACES PER PM SECTION 116850. INSTALL NEW WOOD 2X SEATING. ALL WOOD SURFACES MUST BE SCRAPED, SANDED, AND SPOT PRIMED BEFORE A FULL PRIMING COAT IS APPLIED AND PAINT ACCORDING TO PM SECTION 099000.
21. CLEAN EXISTING OVERHEAD COILING DOORS AND HOLLOW METAL DOORS. ALL METAL SHALL BE THOROUGHLY PREPARED TO ENSURE ADHESION OF NEW PAINT TO THE PREPARED SURFACE. PAINT ACCORDING TO PM SECTION 099000.
22. EXISTING LIGHT POLES TO REMAIN.
23. 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.

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

ISSUED FOR CONSTRUCTION

A1.01-E
ENLARGED SITE PLAN BASEBALL

Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt
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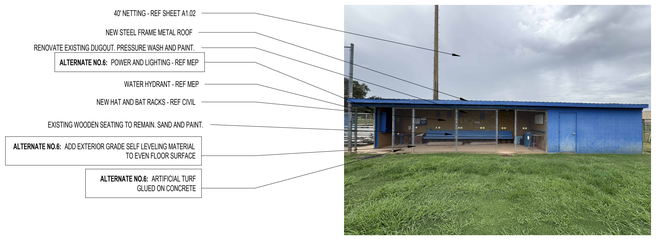


PHOTO OF EXISTING SOFTBALL LEFT DUGOUT

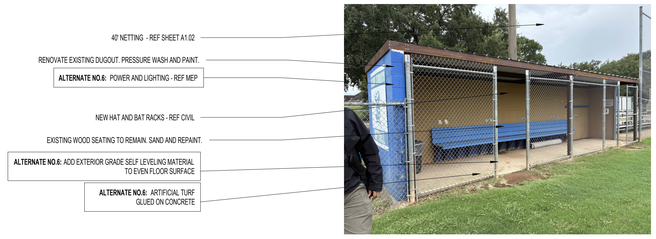


PHOTO OF EXISTING SOFTBALL RIGHT DUGOUT

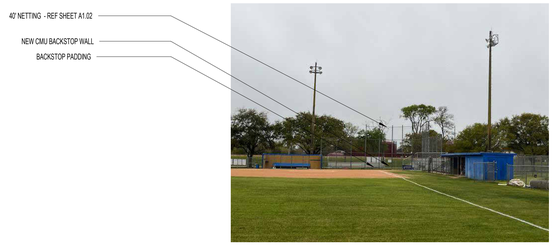
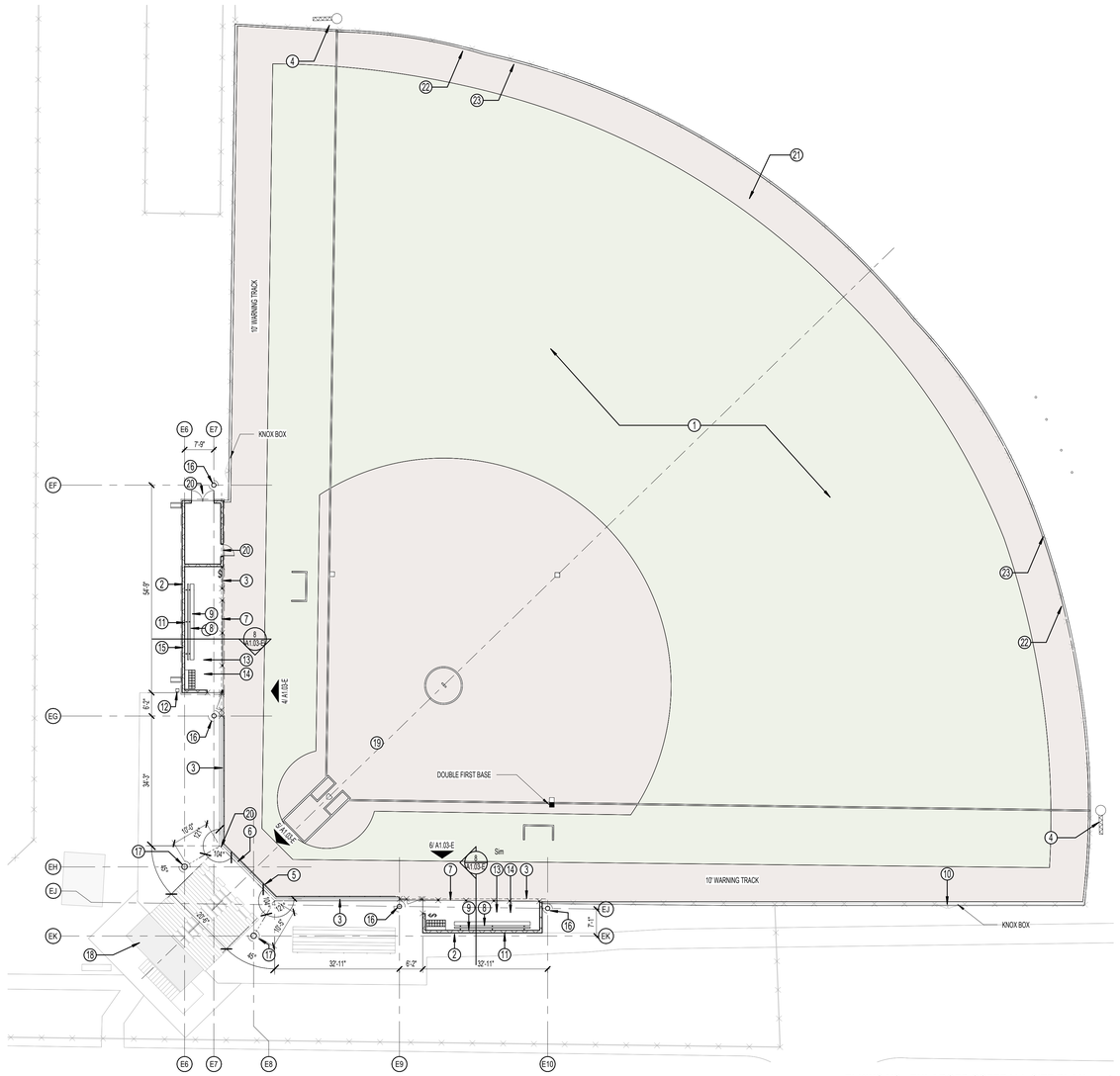
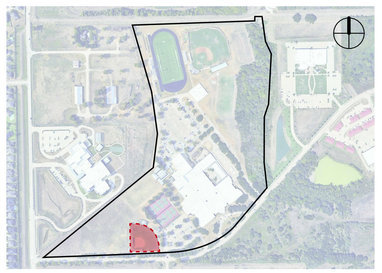


PHOTO OF EXISTING SOFTBALL BACKSTOP



ELKINS HS - ENLARGED SOFTBALL SITE PLAN 1

SCALE: 1/16" = 1'-0"



KEY PLAN - SOFTBALL AREA OF WORK

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00-A FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURISDICTION.
5. ALL NEW FENCING SHALL BE PVC-COATED CHAIN LINK TO MATCH NETTING COLOR REF SECTION:32 31 15. REFER TO DRAWINGS FOR HEIGHT.
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. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.
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.

SITE PLAN LEGEND

- NEW CHAINLINK FENCE
- EXISTING CHAIN LINK FENCE
- BUILDING SECTION TAG (1 / A101, SIM)
- WALL SECTION TAG (1 / A101, SIM)
- ENLARGED CALL OUT (21 / A101, SIM)
- FV — FIELD VERIFY

ENLARGED SITE PLAN KEYNOTES

TAG # — NOTES

1. INSTALL INFILL SYNTHETIC TURF. THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYNTHETIC TURF SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 321823 FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS. REFER TO THE COLOR RENDERINGS ON SHEET G0.01-A FOR TURF COLOR AND DETAIL LAYOUTS. REFER TO CIVIL DRAWINGS FOR TURF DETAILS.
2. PRESSURE WASH ALL SIDES OF EXISTING DUGOUT CMU, CONCRETE SLAB FLOOR, METAL ROOFING AND ROOFING STRUCTURE. REPAIR EXTERIOR METAL ROOF FLASHING, REPAIR CMU WALLS WITH FILLER AND PRIMER. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR EXTERIOR MASONRY, WOOD AND METAL SURFACES.
3. 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.
4. **ALTERNATE NO.5:** INSTALL 30' FOUL POLE AS NOTED IN PM SECTIONS 116850. REFER TO STRUCTURAL DRAWINGS FOR PIER SCHEDULE AND DETAILS.
5. INSTALL BACKSTOP PADDING AS NOTED IN PM SECTIONS 116850. REFER TO DETAIL 1&3 A1.04-A. REFER TO CIVIL FOR PRODUCT DATA. ATTACH PADDING PER MANUFACTURER'S RECOMMENDATIONS FOR MASONRY FACE BRICK AND CMU BACKSTOPS.
6. INSTALL 12" THICK CMU BLOCK WALL 38" TALL BACKSTOP. REFER TO MATERIAL SCHEDULE FOR BRICK TYPE. REFER TO DETAIL SECTION 1&3/ A1. 04-A. REFER TO STRUCTURAL FOR FOUNDATIONS AND REINFORCEMENT REQUIREMENTS.
7. EXISTING CHAINLINK FENCE IN FRONT OF DUGOUT TO REMAIN. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR GALVANIZED METALS.
8. POWER WASH, SAND AND REPAINT EXISTING WOODEN SEATING. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR EXTERIOR WOOD SURFACES.
9. INSTALL NEW HAT AND BAT RACKS REFER TO DETAILS XX.XX-A. REFER TO SPEC XXXXXX. REFER TO FINISH SCHEDULE FOR COLORS REQUIREMENTS.
10. EMERGENCY SWING GATE TO REMAIN. POWER WASH CLEAN, REPAIR, RE-COAT AND RE-GALVANIZE AS NOTED IN PM SECTION 099000.
11. **ALTERNATE NO.6:** INSTALL NEW ELECTRICAL LIGHTING AS NOTED IN ELECTRICAL DRAWINGS.
12. INSTALL NEW ANTI SIPHON AND ANTI-FREEZE WATER HYDRANT. REFER TO MEP DRAWING AND SPECIFICATIONS.
13. **ALTERNATE NO.6:** CONTRACTOR/INSTALLER SHALL ACID WASH EXISTING DUGOUT CONCRETE FLOOR. REMOVE SUB-FLOOR RIDGES AND BUMPS. FILL MINOR LOW SPOTS, CRACKS, JOINTS, HOLES, AND OTHER DEFECTS WITH SUB-FLOOR FILLER TO ACHIEVE SMOOTH SURFACE. VERIFY THAT SUBSTRATES ARE DRY ENOUGH AND READY FOR FLOORING INSTALLATION BY TESTING FOR MOISTURE AND PH. ADD EXTERIOR GRADE SELF LEVELING MATERIAL TO EVEN FLOOR SURFACE. PREPARE FLOOR TO RECEIVED GLUE DOWN SYNTHETIC TURF FLOORING.
14. **ALTERNATE NO.6 :** PLACE GLUE DOWN SYNTHETIC TURF. REFER TO PM SECTION 32 18 20.
15. REINSTALL NEW METAL ROOF AND FRAME. REFER TO SHEET AND SHEET S3.10-E. REFER TO MATERIAL SCHEDULE FOR PAINT COLOR.
16. INSTALL NEW 40'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
17. INSTALL NEW 50'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
18. NEW PRESSBOX AND PAVING PART OF BP012.
19. ALL DIMENSIONS ARE BASED ON EXISTING DRAWINGS AND ON SURVEYOR DRAWINGS ISSUED BY CLIENT. CONTRACTION TO FIELD VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.
20. CLEAN EXISTING HOLLOW METAL DOORS. ALL METAL SHALL BE THOROUGHLY PREPARED TO ENSURE ADHESION OF NEW PAINT TO THE PREPARED SURFACE. PAINT ACCORDING TO PM SECTION 099000.
21. CONTRACTOR SHALL REFER TO UNDERGROUND RADAR SURVEY TO LOCATE EXISTING ELECTRICAL LINES. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING LINES IF REQUIRED.
22. 12" CONCRETE CURB AROUND EXISTING PERIMETER.
23. **ALTERNATE NO.7:** EXISTING 6'-0" PERIMETER CHAINLINK FENCE TO REMAIN. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR GALVANIZED METALS.
24. 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.

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

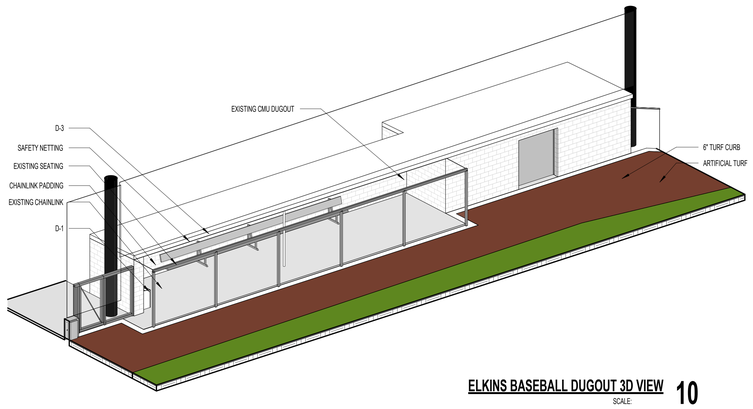
DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
1 Date Description

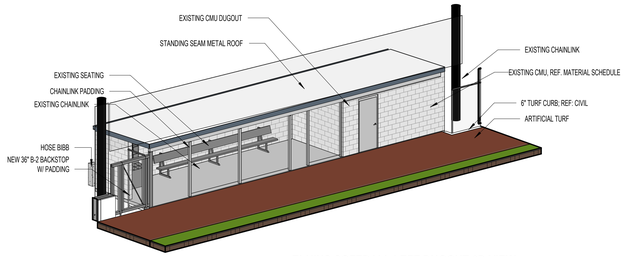
ISSUED FOR CONSTRUCTION

A1.02-E
ENLARGED SITE PLAN SOFTBALL

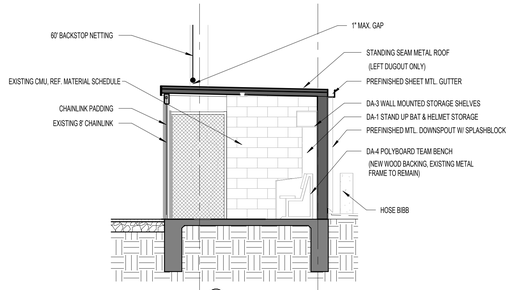
10/9/2025 5:53:42 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt



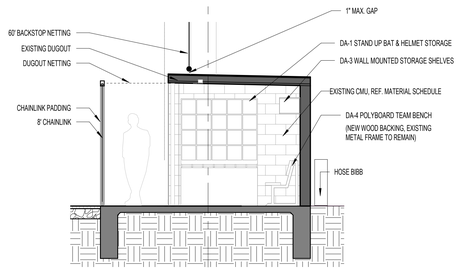
ELKINS BASEBALL DUGOUT 3D VIEW 10
SCALE:



ELKINS SOFTBALL LEFT DUGOUT 3D VIEW 9
SCALE:



ELKINS SOFTBALL DUGOUT SECTION 8
SCALE: 1/4" = 1'-0"



ELKINS BASEBALL DUGOUT SECTION 7
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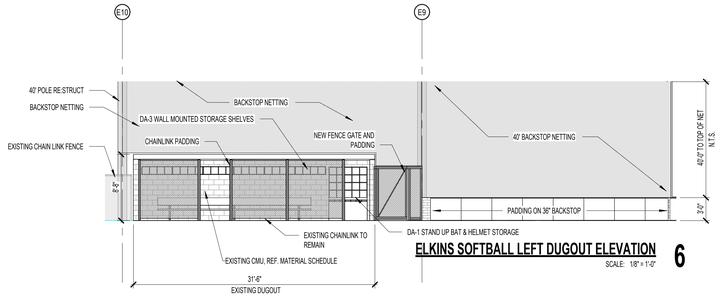
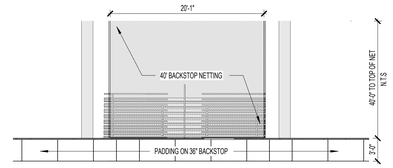
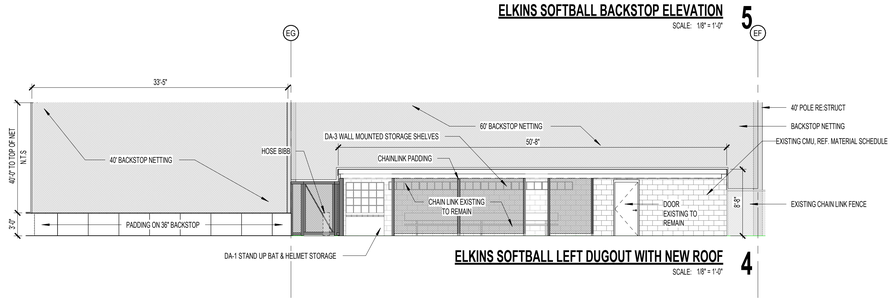


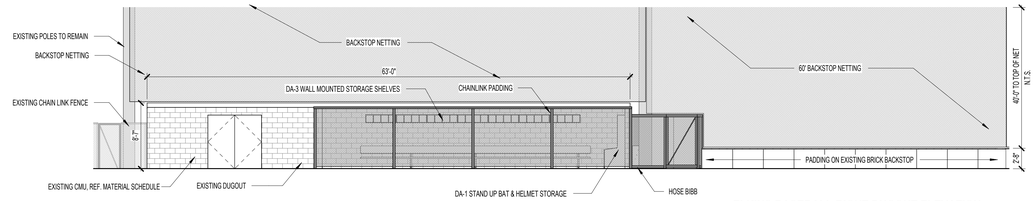
ELKINS SOFTBALL LEFT DUGOUT ELEVATION 6
SCALE: 1/8" = 1'-0"



ELKINS SOFTBALL BACKSTOP ELEVATION 5
SCALE: 1/8" = 1'-0"



ELKINS SOFTBALL LEFT DUGOUT WITH NEW ROOF 4
SCALE: 1/8" = 1'-0"



ELKINS BASEBALL RIGHT DUGOUT ELEVATION 3
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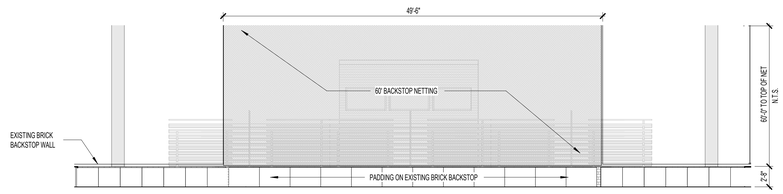

ELKINS BASEBALL BACKSTOP ELEVATION 2
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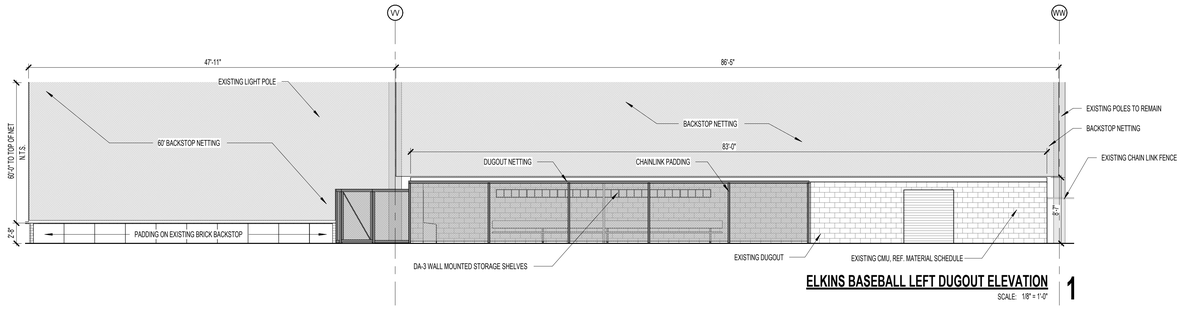
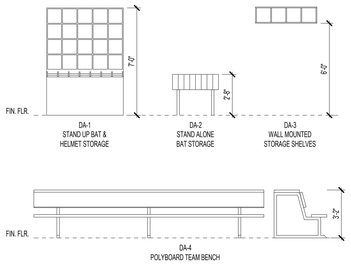


ELKINS BASEBALL LEFT DUGOUT ELEVATION 1
SCALE: 1/8" = 1'-0"

DUGOUT EQUIPMENT LEGEND



DUGOUT EQUIPMENT: GENERAL NOTES

1. REFER TO MATERIAL AND EQUIPMENT SCHEDULE FOR COLOR SELECTIONS AND FINISHES PER SCHOOL.

EXTERIOR MATERIAL LEGEND

- BRICK (BR-1) UTILITY SIZE, RUNNING BOND, COLOR VARIES
- SMOOTH FACE BLOCK (CMU-1), RUNNING BOND
- CHAINLINK/NETTING

REFER TO MATERIAL SCHEDULE FOR ALL COLORS AND FINISHES, TYP.

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REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

DATE: 10/09/2025

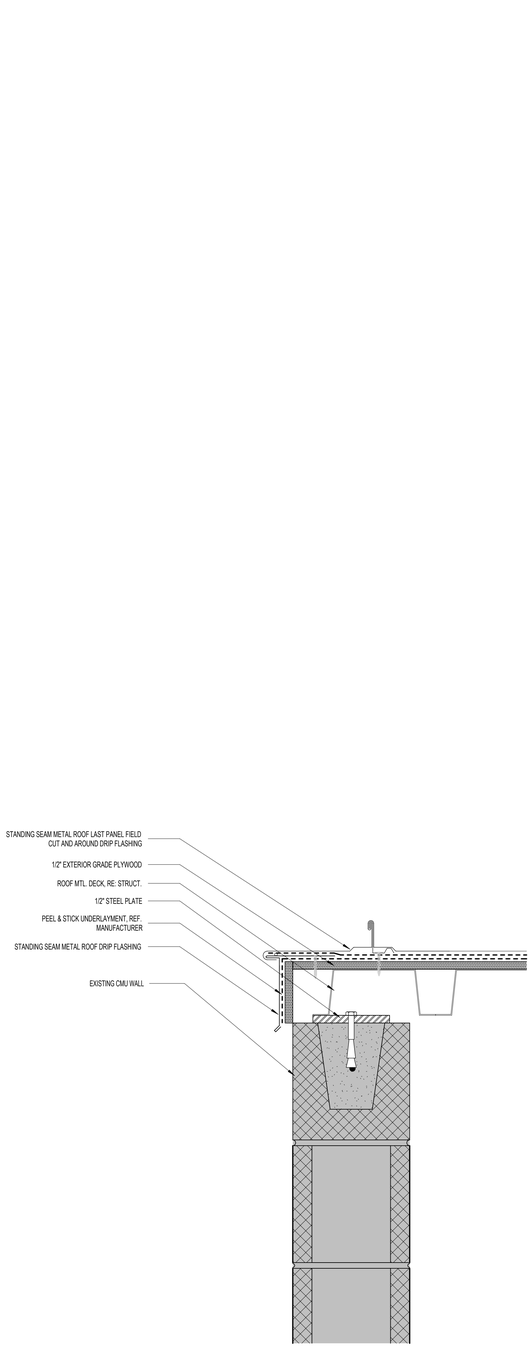
PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

ISSUED FOR CONSTRUCTION

A1.03-E
BASEBALL AND SOFTBALL ELEVATIONS

10/9/2025 5:53:44 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt



SECTION DETAIL - SSMR - DRIP EDGE 4
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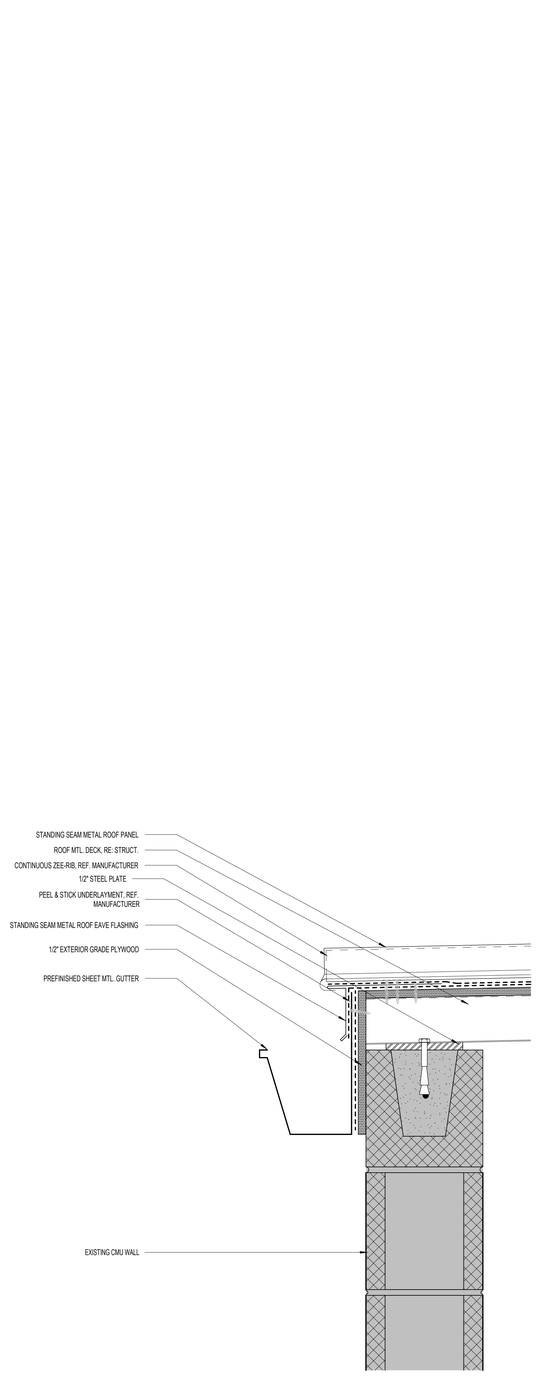

SECTION DETAIL - SSMR - EAVE WITH GUTTER 3
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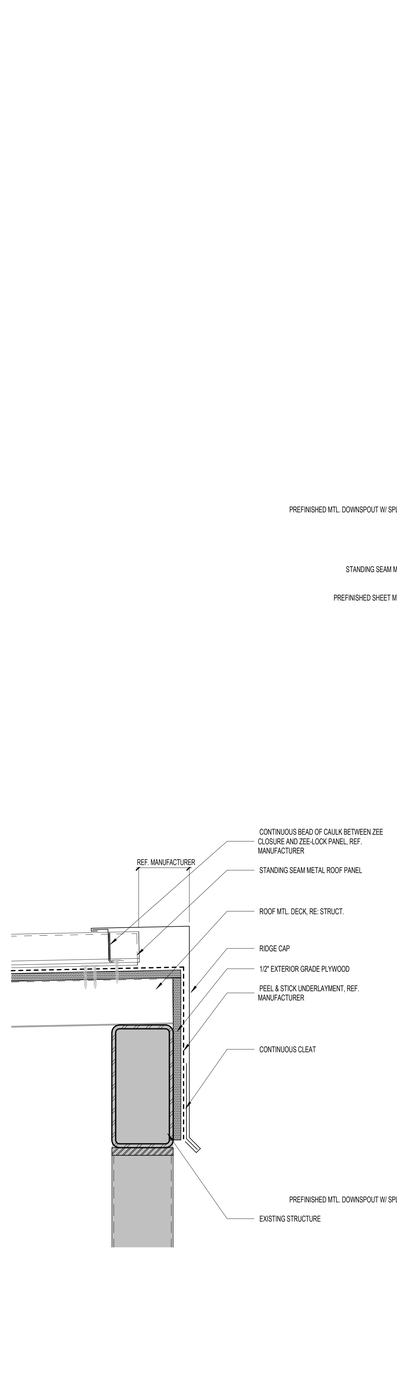

SECTION DETAIL - SSMR - RIDGE 2
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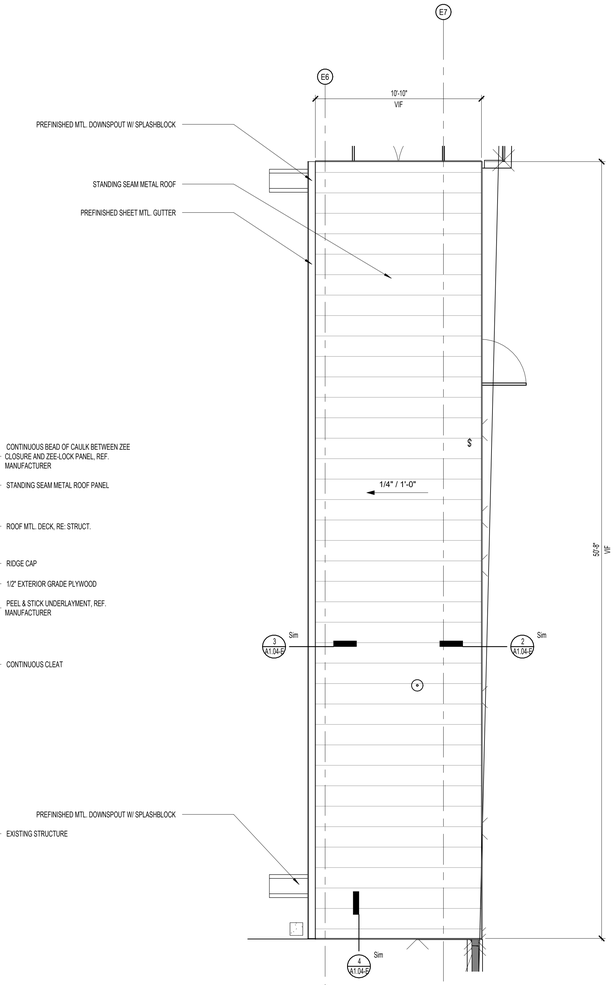

ELKINS SOFTBALL LEFT DUGOUT ROOF PLAN 1
(E6) SCALE: 1/4" = 1'-0"

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BP010 TURF AND ATHLETICS

FBISD
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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

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A1.04-E
BASEBALL AND SOFTBALL DETAILS

10/9/2025 5:53:45 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt

MATERIAL & EQUIPMENT SCHEDULE NOTES

1. REFER TO EXTERIOR ELEVATIONS FOR LOCATION, SIZES & TYPES OF EXTERIOR FINISHES.
2. ARCHITECT TO SELECT COLORS. CONTRACTOR TO COORDINATE LEAD TIMES FOR ALL MATERIALS TO MAINTAIN PROJECT SCHEDULE.
3. FIELD VERIFY ALL DIMENSIONS AS APPLICABLE TO ASSURE PROPER FIT W/ AS-BUILT CONDITIONS.
4. VERIFY W/ OWNER EXACT SIZE OF ALL EQUIPMENT FURNISHED BY OWNER FOR PROPER FIT.
5. PROVIDE CONTROL JOINTS AS SHOWN AND SPECIFIED.
6. REFERENCE DOOR TYPES AS SPECIFIED FOR EXACT DIMENSIONS AND TYPES OF EACH ITEM.
7. REFERENCE A100 SERIES FOR ADDITIONAL INFORMATION.
8. REFER TO G0.02 & G0.03 FOR REQUIRED MOUNTING HEIGHTS PER T.A.S

GENERAL NOTES

A. ALL FINISHES SUBJECT TO ARCHITECTS APPROVAL.

B. OWNER TO APPROVE FINAL MANUFACTURER AND MODEL FOR ALL ATHLETICS EQUIPMENT.

C. A MASTER MATERIAL AND EQUIPMENT SCHEDULE IS PROVIDED. REFER TO THE COLUMN LABELED WITH THE SCHOOL NAME TO IDENTIFY APPLICABLE COLORS AND NOTES FOR EACH SCHOOL, TYPICAL.

MATERIAL AND EQUIPMENT SCHEDULE

MARK	MATERIAL	MANUFACTURER	STYLE	AUSTIN HS	DULLES HS	ELKINS HS	KEMPNER HS	WILLOWRIDGE HS	SPECS	COMMENTS	ALTERNATE
01 EXTERIOR											
BR-1	BRICK	KANSAS BRICK & TILE CO.	UTILITY SIZE		530 MM			500 MIT GRAY		BACKSTOP	
CMU	EXISTING CMU			TO BE PAINTED BLACK (P-2)		TO BE PAINTED SCHOOL COLOR (P-3) REFER COLOR DIAGRAM FOR P-1 LOCATIONS			PAINT FINISH: EXTERIOR ACRYLIC ENAMEL. REF SPECS	EXISTING	
CMU-1	CONCRETE MASONRY UNIT	BEST BLOCK	SMOOTH FACE	TO BE PAINTED BLACK (P-2)		TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3) REFER COLOR DIAGRAM FOR P-1 LOCATIONS		PAINT FINISH: EXTERIOR ACRYLIC ENAMEL. REF SPECS	BACKSTOP	
M-1	METAL ROOF & STRUCTURE			TO BE PAINTED BLACK (P-2),	TO BE PAINTED SCHOOL COLOR (P-4)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	PAINT FINISH: EXTERIOR METAL FINISH, REF SPECS		
PM-1	PREFINISHED METAL			TO BE PAINTED BLACK (P-2)	TO BE PAINTED SCHOOL COLOR (P-4)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	PAINT FINISH: EXTERIOR METAL FINISH, REF SPECS	ALL EXTERIOR METAL	
02 PAINT											
P-1	EXTERIOR PAINT	SHERWIN WILLIAMS		DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166		WHITE, FIELD	
P-2	EXTERIOR PAINT	SHERWIN WILLIAMS		TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258		ACCENT, BLACK	
P-3	EXTERIOR PAINT	SHERWIN WILLIAMS		REAL RED, SW 6868	SHOW STOPPER, SW 7588	FRANK BLUE, SW 6967	FINE WINE, SW 6307	FRANK BLUE, SW 6967		ACCENT, SCHOOL COLOR	
P-4	EXTERIOR PAINT	SHERWIN WILLIAMS			HONORABLE BLUE, SW 6811	GLITZY GOLD, SW 6691	GRAY MATTERS, SW 7066	CADET, SW 9143		ACCENT, SCHOOL COLOR	
P-5	EXTERIOR PAINT	SHERWIN WILLIAMS		CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911			
03 FLOORING											
TF-1	SYNTHETIC TURF									GREEN, FIELD	
TF-2	SYNTHETIC TURF									ACCENT, BROWN	
TF-3	SYNTHETIC TURF									ACCENT, WHITE	
EQUIPMENT											
	WALL MOUNTED STORAGE SHELVES	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	STAND ALONE BAT STORAGE	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	STAND UP BAT & HELMET STORAGE	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	PADDING AROUND FENCE	SPORTSFIELD SPECIALITIES	PROZONE OUTDOOR	RED 186C	RED 186C	ROYAL BLUE 661C	GREY 8401C	ROYAL BLUE 661C			
	BENCHES	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)			REF SPECS FOR PAINT FINISH WHERE APPLICABLE	WOOD BACKING, WOOD SEAT, METAL FRAME TO MATCH SCHOOL COLOR AS INDICATED	
	WALL PADDING	SPORTSFIELD SPECIALITIES	PROZONE OUTDOOR	RED 186C	RED 186C	ROYAL BLUE 661C	GREY 8401C	ROYAL BLUE 661C			
OTHER											
	NETTING POLES			TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	SUPER-DURABLE POWDER COAT, REF SPECS		
	FENCE GATE			TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	PVC (VYNIL) - COATED, REF SPECS	AT DUGOUT ENTRANCE	
	FOUL POLE			TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	POWDER COAT, REF SPECS		ALTERNATE 05
	NEW CHAIN-LINK FENCE			TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	PVC (VYNIL) - COATED, REF SPECS	AT DUGOUT ENTRANCE	
	WOOD FENCE (BATTER'S EYE/OUTFIELD)			TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)			BASEBALL ONLY	ALTERNATE 07
	CONCRETE CURB			TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)		REF TO SPECS FOR PAINT FINISH		
	NETTING		#36 UDR2 DYNEEMA	BLACK	BLACK	BLACK	BLACK				
	EXISTING CHAIN-LINK FENCE			ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND		GALVANIZED FINISH, REF SPECS	FIELD PERIMETER	ALTERNATE 07

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A1.05-E
MATERIAL AND EQUIPMENT SCHEDULE

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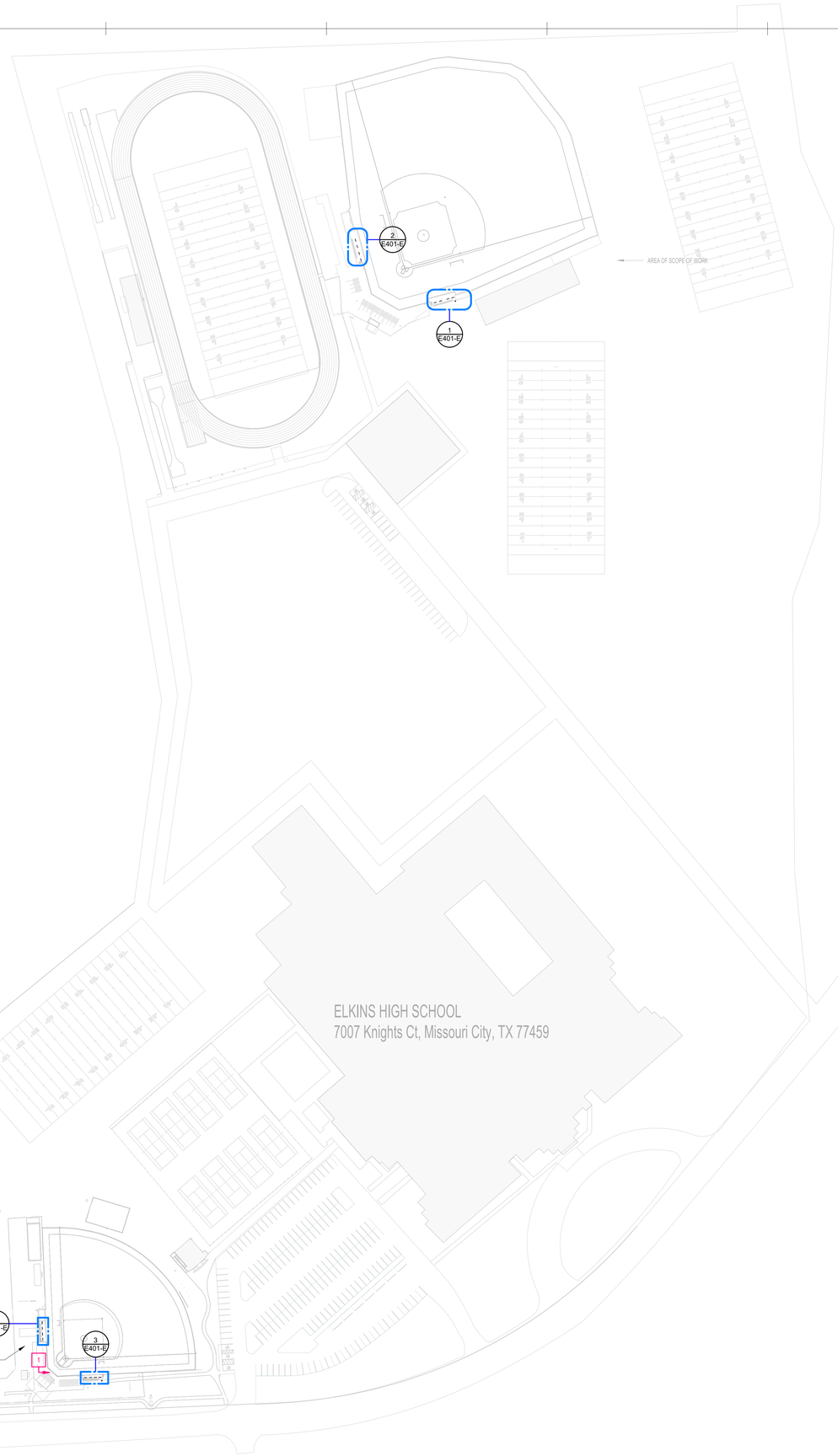

1 ELECTRICAL SITE PLAN - ELKINS HS FIELDS
1" = 80'-0"

E. SITE PLAN NOTES

1. UNDERGROUND CONDUIT ROUTING SHALL BE COORDINATED WITH EXISTING PAVEMENT AND UNDERGROUND UTILITIES. COORDINATE WITH CIVIL PLANS FOR MORE INFORMATION. PROVIDE PULL STRING FOR ALL UNDERGROUND EMPTY CONDUITS. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS.
2. THE GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES TO ENSURE THE FULL PROJECT SCOPE IS REVIEWED PRIOR TO EXCAVATION. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER REGARDING THE WORK SCHEDULE, REQUIRED FENCING, AND PROTECTIVE MEASURES. THE GENERAL CONTRACTOR SHALL VERIFY EXISTING SITE UTILITIES AND CONDITIONS WITH CIVIL ENGINEER DRAWINGS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND UTILITIES. IF A SUBCONTRACTOR CAUSES DAMAGE, REPAIRS TO RESTORE FULL FUNCTIONALITY SHALL BE AT THE CONTRACTOR'S EXPENSE.
3. PRIOR TO TRENCHING, THE CONTRACTOR SHALL COORDINATE UNDERGROUND CONDUIT ROUTING WITH EXISTING AND PROPOSED IMPROVEMENTS, TREES, ROOT SYSTEMS, AND UNDERGROUND UTILITIES, AND OBTAIN OWNER APPROVAL FOR THE ROUTING PATH. PROTECTION OF EXISTING PLANTINGS AND PREVENTION OF ROOT ZONE COMPACTION ARE HIGH PRIORITIES FOR THE OWNER. ANY PLANT DAMAGE, AS DETERMINED BY THE OWNER, SHALL BE REPLACED WITH MATERIAL OF LIKE SIZE AT THE CONTRACTOR'S EXPENSE. COORDINATE WITH CIVIL PLANS FOR ADDITIONAL DETAILS. PROVIDE PULL ROPE IN ALL EMPTY UNDERGROUND CONDUITS. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS. THE CONTRACTOR SHALL MEET WITH THE OWNER'S ELECTRICIAN PRIOR TO STARTING WORK.

E - SHEET LIST

SHEET NUMBER	SHEET NAME
E001-A	ELECTRICAL SITE PLAN - AUSTIN HS FIELDS
E101-A	GENERAL NOTES, ABBREV., & LEGEND
E110-A	ELECTRICAL
E401-A	ENLARGED PLANS - AUSTIN HS FIELDS - ELECTRICAL
E001-D	ELECTRICAL SITE PLAN - DULLES HS FIELDS
E101-D	GENERAL NOTES, ABBREV., & LEGEND
E110-D	ELECTRICAL
E401-D	ENLARGED PLANS - DULLES HS FIELDS - ELECTRICAL
E001-E	ELECTRICAL SITE PLAN - ELKINS HS FIELDS
E101-E	GENERAL NOTES, ABBREV., & LEGEND
E110-E	ELECTRICAL
E401-E	ENLARGED PLANS - ELKINS HS FIELDS - ELECTRICAL
E001-K	ELECTRICAL SITE PLAN - KEMPNER HS FIELDS
E101-K	GENERAL NOTES, ABBREV., & LEGEND
E110-K	ELECTRICAL
E401-K	ENLARGED PLANS - KEMPNER HS FIELDS - ELECTRICAL
E001-W	ELECTRICAL SITE PLAN - WILLOWRIDGE HS FIELDS
E101-W	GENERAL NOTES, ABBREV., & LEGEND
E110-W	ELECTRICAL
E401-W	ENLARGED PLANS - WILLOWRIDGE HS FIELDS - ELECTRICAL

E - KEYED NOTES

#	
1	CONRACTOR TO RELOCATE EXISTING PANELS TO PROPOSED LOCATION BEHIND PROPOSED DUGOUT. PROVIDE UNIFORM UNISTRUT RACK FOR ALL EQUIPMENT FOUND IN PHOTO E100-2.



2 EXITING PANEL RELOCATION
1/4" = 1'-0"

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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Document is Incomplete
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Engineer: DAIVA GERNAND
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DATE: 09 OCTOBER 2025

DATE: 10/09/2025

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DRAWN BY: PLE CHECKED BY: WK
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PROJECT STATUS
E001-E
ELECTRICAL SITE PLAN - ELKINS HS FIELDS

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GENERAL ELECTRICAL NOTES:

1. CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE, AND APPLICABLE CODES. 2023 NEC, 2021 IBC, NFPA, ETC., AND ALL OTHER LOCAL CODES AND AMENDMENTS WHERE THERE ARE CONFLICTS BETWEEN CODES, STANDARDS, DRAWINGS AND SPECIFICATIONS ARISE, THE MORE STRINGENT SHALL APPLY.
2. ALL DRAWINGS AND SPECIFICATIONS (INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING, ETC) ARE DEVELOPED TO BE AN INCLUSIVE SET. ANY CONFLICTS WITHIN SHALL BE BROUGHT TO THE DESIGN'S TEAM ATTENTION. CONTRACTOR SHALL NOT MAKE ANY CHANGES TO THE DESIGN OR CONTRACT WITHOUT WRITTEN CONSENT FROM THE OWNER. THE CONTRACTOR WILL PROVIDE SUBMITTALS OF EQUIPMENT AND MATERIAL AT THE REQUEST OF THE OWNER, ARCHITECT, OR ENGINEER PRIOR TO PURCHASE (VERIFY WHICH SUBMITTALS ARE REQUIRED).
3. WORK SHALL BE INSTALLED IN A WORKMANLIKE FASHION. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS.
4. MAINTAIN THE CONSTRUCTION PREMISES IN A NEAT AND ORDERLY CONDITION. CONTRACTOR SHALL PROTECT THEIR WORK AGAINST WEATHER, THEFT, AND DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
5. ALL PRODUCTS SHALL COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND UL 723.
6. ELECTRICAL DRAWINGS ARE SCHEMATIC IN NATURE, APPROXIMATE LOCATIONS OF EQUIPMENT AND CONDUIT ARE SHOWN. THE ELECTRICAL CONTRACTOR SHALL LAYOUT ALL EQUIPMENT ROOMS TO MAKE ENSURE PROPER CLEARANCES REQUIRED BY THE NEC, PRIOR TO ORDERING OF EQUIPMENT. EXACT LOCATION OF ALL EQUIPMENT SHALL BE VERIFIED IN THE FIELD.
7. SUBSTITUTIONS SHALL BE EVALUATED AND APPROVED BY OWNER AND ENGINEER PRIOR TO CONTRACTOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AMONG TRADES AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. CONDUIT PENETRATIONS BETWEEN NON-CONDITIONED AND CONDITIONED SPACES SHALL BE SEALED TO ELIMINATE MOISTURE MITIGATION, BETWEEN INSIDE AND OUTSIDE BUILDINGS, NON-CONDITIONED BOILER ROOMS, INTO REFRIGERATORS / FREEZERS, ETC. PER NEC 300.7(A).
9. CITY NOTE: ELECTRICAL MATERIAL AND EQUIPMENT: NO ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THE CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, THE LAWS OF THE STATE OF TEXAS AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUTES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVED AGENCY.

ELECTRICAL EQUIPMENT
1. ALL PACKAGED EQUIPMENT SHALL BE INDEPENDENTLY THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A (UL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS, AS WELL AS NFPA PAMPHLET NO. 70, AND THE NATIONAL ELECTRICAL CODE (NEC).
2. ALL SYSTEMS SHALL BE A COMPLETE AND OPERABLE SYSTEM PROVIDE THE NECESSARY ADAPTORS, FITTINGS, DEVICES, ETC. PROVIDE COMPLETE WITH BASES, ISOLATORS, SUPPORTS AND OTHER REQUIRED ACCESSORIES.
3. THE CONTRACTOR SHALL COORDINATE WITH ALL TRADES FOR ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT AND DEVICES AS REQUIRED FOR PROPER FUNCTIONING SYSTEM.
4. CONTRACTOR SHALL COORDINATE THE REQUIREMENT OF HOUSEKEEPING PADS WITH GENERAL CONTRACTOR. ALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH A 4" HOUSEKEEPING PAD THAT EXTENDS A MINIMUM OF 4" ALL THE WAY AROUND THE EQUIPMENT.

LABELING
1. PROVIDE PERMANENTLY ADHERED PHENOLIC NAMEPLATES FOR ALL EQUIPMENT (PANEL BOARDS, SWITCHBOARDS, STARTERS, DISCONNECTS, ETC.) WITH BLACK PLATES AND WHITE 3/8" HIGH LETTERS.
2. PROVIDE LABELING ON ALL DEVICE OUTLETS AND SWITCH COVERS INCLUDING THE PANEL NAME AND CIRCUIT NUMBER. LABELS SHALL BE CLEAR PLASTIC LABELS AND BLACK LETTERING.
3. CONDUCTORS IN PANELBOARDS SHALL BE LABELED WITH CIRCUIT NUMBER LABELS.
4. CONDUCTORS IN JBOXES SHALL BE LABELED WITH CIRCUIT NUMBER LABELS. (220.4(A)(B).

CUTTING AND PATCHING
1. CUTTING SHALL BE IN A NEAT AND WORKMANLIKE MANNER. COORDINATE WITH OTHER TRADES PRIOR TO COMMENCING WORK. PATCH AND FINISH TO MATCH ADJACENT AREAS.

CONDUCTORS
1. CONDUCTORS SHALL HAVE CONTINUOUS INSULATION COLOR, AS LISTED BELOW. CONDUCTORS SHALL BE SOFT ANNEALED COPPER INSULATED FOR 600 VOLTS UNLESS SPECIFICALLY INDICATED OTHERWISE.

	208/120 VOLT SYSTEM	240 VOLT SYSTEM	480/277 VOLT SYSTEM
PHASE A	BLACK	BLACK	PURPLE
PHASE B	RED	ORANGE (HIGH LEG)	BROWN
PHASE C	BLUE	RED	YELLOW
NEUTRAL	WHITE	WHITE	WHITE
GROUND	GREEN	GREEN	GREEN

2. INSULATION TYPE SHALL BE TYPE THW FOR WIRE SIZES #8 AWG AND LARGER AND THWN FOR #10 AWG AND SMALLER. ALL EXTERIOR UNDERGROUND CONDUCTORS SHALL BE XHHW TYPE.
3. PROVIDE #12 CONDUCTORS, UNLESS OTHERWISE INDICATED. CONTROL CONDUCTORS SHALL BE #14 MINIMUM FOR NEC CLASS 1 AND #16 FOR NEC CLASS 11. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID.
4. WIRE JOINT OR SPLICES IN SWITCHBOARDS OR PANELBOARDS ARE NOT ALLOWED, NOR ARE SPLICE FOR ANY DISTRIBUTION FEEDERS. SPLICES ONLY ALLOWED FOR DROPS TO DEVICES. FORM AND TIE ALL WIRING WITHIN BOARDS.

BRANCH CIRCUITS
1. ALL BRANCH CIRCUIT SIZES ARE BASED ON RACEWAY LENGTH OF 65 FEET FOR 120V BRANCH CIRCUITS AND 150FEET FOR 277 VOLT. IF THE LENGTH EXCEEDS 65 FEET (120V CIRCUITS) OR 150FT (277V CIRCUITS) THEN USE THE WIRE SIZES DENTED BELOW AND ADJUST THE CONDUIT SIZE ACCORDING BASED ON 40% MAX CONDUIT FILL. IF THE TERMINAL LUGS WILL NOT ACCEPT THE LARGER CONDUCTOR PROVIDE CONDUCTOR REDUCING ADAPTERS (SIMILAR TO GREAVES STEP-DOWN COPPER COMPRESSION ADAPTERS) IN A J-BOX PRIOR TO THE DEVICE TERMINATION. SEE TABLE BELOW, UNLESS NOTED OTHERWISE IN PLANS
2. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR, SHARED NEUTRALS ARE ALLOWED.
3. BREAKER TIES ARE REQUIRED FOR MULTI-CIRCUIT EQUIPMENT, SUCH AS POWER FURNITURE. THEN LARGER OF TWO APPLIES. NOT

CIRCUIT LENGTH SCHEDULE

WIRE SIZE	120V CIRCUITS	277V CIRCUITS
#12	60 TO 100 FEET	100 TO 150 FEET
#10	65 TO 120 FEET	151 TO 240 FEET
#8	121 TO 180 FEET	241 TO 400 FEET
#6	181 TO 250 FEET	401 TO 640 FEET
#4	251 TO 375 FEET	-
#2	376 TO 560 FEET	-

RACEWAYS
1. WIRE RUNS SHALL BE ACCORDING TO CODE IN INTERMEDIATE METAL CONDUIT (IMC) OR ELECTRICAL METALLIC TUBING (EMT) CABLING UNLESS OTHERWISE SPECIFICALLY STATED HEREIN. CONDUIT SHALL BE A MINIMUM OF 3/4" UNLESS OTHERWISE NOTED. CONDUIT IN EXPOSED LOCATIONS SHALL NOT BE ACCEPTABLE UNLESS OTHERWISE NOTES, REFER TO ARCHITECT.
2. RIGID, THREADED, GALVANIZED, HEAVY WALL TYPE CONDUIT SHALL BE UTILIZED IN EXTERIOR WALLS, AREAS EXPOSED TO THE WEATHER OR OTHER DAMP/WET LOCATIONS.
3. UTILIZE SCHEDULE 40 PVC CONDUIT WITH GROUND WIRE FOR UNDERGROUND APPLICATIONS. PVC CONDUIT SHALL NOT BE RUN IN OR ABOVE FLOOR SLAB. PVC CONDUIT SHALL TERMINATE BELOW FLOOR SLAB WITH RIGID, THREADED METAL CONDUIT ADAPTER. ALL CONDUIT ABOVE SLAB SHALL BE METAL AND SHALL BE CONCEALED IN WALLS, FLOORS AND CEILINGS WHEREVER POSSIBLE. PROVIDE RIGHT ANGLE TURNS USING FITTINGS OR SYMMETRICAL BENDS. SUPPORT CONDUITS WITHIN 1' OF ALL CHANGES IN DIRECTION.
4. MC MAY BE UTILIZED FOR EXISTING WALL SITUATIONS, 6' FOR LIGHTING WHIPS, OR WHERE APPROVED BY OWNER.
5. CONNECTIONS TO MOTORS AND OTHER EQUIPMENT SUBJECT TO VIBRATION AND IN AREAS SUBJECT TO MOISTURE SHALL UTILIZE LIQUID TIGHT METAL CONDUIT.
6. USE WATERTIGHT JOINTS WITH BURIED AND CONCRETE ENCASED CONDUIT. ALL BURIED CONDUITS OUTSIDE OF BUILDINGS SHALL HAVE A MINIMUM OF 24" OF COVER. METAL CONDUITS BURIED IN EARTH SHALL BE PAINTED WITH TWO COATS OF HEAVY ASPHALTUM PAINT.
7. HORIZONTAL PORTIONS OF CONDUIT EXPOSED ON THE ROOF AND FEEDING EQUIPMENT SHALL NOT BE MORE THAN 5'-0" IN LENGTH.
8. PROVIDE LUBRICATION / SEALANT ON OUTDOOR AND UNDERGROUND THREADED METAL JOINTS.
9. COORDINATE CONDUIT RUNS PRIOR TO ROUGH IN WITH OTHER TRADES AND AVOID INTERFERENCE.

BOXES
1. INSTALL PULL AND JUNCTION BOXES WHERE REQUIRED FOR CHANGES IN DIRECTION, AT JUNCTION POINTS TO FACILITATE WIRE PULLING, AND WHERE SHOWN ON THE DRAWINGS. BOX SIZES SHALL BE IN ACCORDANCE WITH NEC UNLESS LARGER BOXES ARE NOTED.
2. FOR INTERIOR CONCEALED LOCATIONS - USE SHEET STEEL BOXES, ZINC COATED OR CADMIUM PLATED.
3. WALL BOX SIZES SHALL BE MINIMUM 4" SQUARE X 2-1/2" DEEP. FIXTURE OUTLETS IN CEILING SHALL BE MINIMUM 4" OCTAGONAL X 1-1/2" DEEP (4-11/16" OCTAGONAL X 2-1/2" DEEP WHERE REQUIRED TO ACCOMMODATE LARGER CONDUIT OR LARGER NUMBER OF WIRES). GANG BOXES SHALL BE ONE PIECE MINIMUM 2-1/8" DEEP.
4. PROVIDE FLUSH MOUNT BOXES IN ALL FINISHED WALLS. INSTALL THE PLASTER RINGS IN DRYWALLED WALLS AND RAISED COVERS AS REQUIRED IN WALLS WITH OTHER FINISHES SO THAT THE COVER PLATES FIT TIGHTLY AGAINST BOXES OR RINGS. 3/16" MAXIMUM GAPS ARE ALLOWED FOR NONCOMBUSTIBLE WALLS. SUPPORT ALL BOXES TO MAINTAIN PROPER ALIGNMENT AND RIGIDITY. BEFORE INSTALLATION OR WIRING OF DEVICES, CLEAN BOXES OF FOREIGN MATTER.

DEVICES
1. PROVIDE TOTALLY ENCLOSED, SPECIFICATION GRADE, 20 AMPERE, 120/277 VOLT QUIET A/C GENERAL USE SWITCHES MANUFACTURED BY HUBBELL OR OTHER APPROVED MANUFACTURER.
2. PROVIDE SPECIFICATION GRADE NEMA CONFIGURATION 5-20R DUPLEX 125-VOLT GROUNDING TYPE RECEPTACLES UNLESS OTHERWISE NOTED ON THE DRAWINGS. MANUFACTURED BY HUBBELL OR OTHER APPROVED MANUFACTURER.
3. LIGHTING SWITCHES SHALL BE MOUNTED WITHIN 6" OF DOOR JAM ON STRIKE SIDE UNLESS APPROVED OTHERWISE. MOUNT AT 42" OR AS ADA DICTATES.
4. LOCATE RECEPTACLES APPROXIMATELY 1'-6" ABOVE THE FINISHED FLOOR ELEVATION OR NEAREST BLOCK COURSE (WITHIN ADA REQUIREMENTS), UNLESS OTHERWISE NOTED. THE LONG DIMENSION OF THE RECEPTACLE SHALL BE VERTICAL. ALL DEVICES SHALL BE FLUSH MOUNTED U.N.O. GROUND PIN SHALL BE MOUNTED UP (OR NEUTRAL UP IF HORIZONTALLY INSTALLED)
5. RECEPTACLES IN KITCHEN AREAS, BATHROOMS, AND RECEPTACLES WITHIN 6' OF SINKS SHALL BE GFCI TYPE (NOT WIRED IN SERIES, SEE NOTE 6). ALL DEVICES INSTALLED OUTDOORS SHALL BE WEATHERPROOF AND GFCI PROTECTED.
6. CONTRACTOR TO PROVIDE "PIG TAIL" SPLICES TO ALL RECEPTACLE DEVICES (DO NOT WIRE IN SERIES THRU THE DEVICE) - SEE DETAILS.
7. REFER TO ARCHITECT ELEVATIONS PRIOR TO ROUGH-IN TO VERIFY MOUNTING HEIGHTS

SAFETY SWITCHES
1. PROVIDE DISCONNECT SWITCHES FOR ALL EQUIPMENT, WHERE REQUIRED BY CODE, AND THEY SHALL BE OF THE SAME MANUFACTURER. MANUFACTURER SHALL BE SQUARE D, SIEMENS, G.E., OR CUTLER-HAMMER.
2. SAFETY SWITCHES SHALL BE THE ENCLOSED HEAVY-DUTY TYPE WITH QUICK-MAKE, QUICK-BREAK MECHANISM AND EXTERNAL PAD LOCKABLE OPERATING HANDLE.
3. SAFETY SWITCHES SHALL BE RATED FOR 240 OR 600 VOLTS AS APPLICABLE. THEY SHALL BE HORSEPOWER RATED WHEN USED IN MOTOR CIRCUITS. SAFETY SWITCHES SHALL BE FUSIBLE OR NONFUSIBLE 2, 3 OR 4 POLE AS INDICATED ON THE DRAWINGS. SAFETY SWITCHES SHALL BE SINGLE THROW, UNO. ENCLOSURES SHALL BE NEMA 1 INDOORS AND NEMA 3R OUTDOORS (U.N.O.).
4. MOUNT THE SAFETY SWITCHES SECURELY BETWEEN 3' - 6' LEVELS ABOVE THE FLOOR UNLESS OTHERWISE NOTED IN THE DRAWINGS. SAFETY SWITCHES SHALL BE SINGLE THROW, UNO. ENCLOSURES SHALL BE NEMA 1 INDOORS AND NEMA 3R OUTDOORS (U.N.O.).
5. THE CONTRACTOR SHALL FURNISH A COMPLETE SET OF FUSES FOR ALL FUSIBLE SWITCHES, PLUS FUSIBLE EQUIPMENT FURNISHED BY OTHER TRADES. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, THE FUSES SHALL BE THE FOLLOWING TYPE:
   - o FUSES 601 TO 6000 AMPS SHALL BE UL CLASS RK5. TRADE TYPE SHALL BE KRP-C AS MANUFACTURED BY THE BUSSMANN COMPANY.
   - o FUSES 1/10 TO 600 AMPS SHALL BE UL CLASS RK1. TRADE TYPE SHALL BE LOW PEAK LPS-RK (600V) AND LPN-RK (250C) AS MANUFACTURED BY BUSSMANN COMPANY.
   - o ALL OTHER FUSES SHALL BE DUAL ELEMENT CURRENT LIMITING TYPE WITH 200,000 AMPERES SYMMETRICAL INTERRUPTING CAPACITY.

DISTRIBUTION PANELS
1. DISTRIBUTION PANELS SHALL BE DEAD FRONT TYPE WITH CIRCUIT BREAKERS, COMPRISED OF FUSES AND HEAVY-DUTY SWITCHES OF SIZE AND NUMBER INDICATED ON THE PANELS. PANELS SHALL BE MANUFACTURED AS A COMPLETE UNIT. ALL BUSS BARS SHALL BE RECTANGULAR AND MADE OF SOLID COPPER. ALL LUGS SHALL BE UL APPROVED CU/AL TYPE. VERTICAL BUSSING SHALL BE EXTENDED THE FULL LENGTH OF THE PANEL.
2. ALL PANELS SHALL BE CAPABLE OF ACCEPTING SWITCH SIZES UP TO AND INCLUDING 600 AMPS.
3. DISTRIBUTION PANELS SHALL BE G.E., SQUARE "D", OR SIEMENS.
4. INSTALL PANELS SUCH THAT HANDLE FOR THE TOP SWITCH DOES NOT EXCEED 6'-6" ABOVE FINISHED FLOOR PER NEC.
5. SURFACE-MOUNTED PANELS SHALL BE MOUNTED ON UNISTRUT RAILS. FLOOR-MOUNTED PANELS SHALL BE MOUNTED ON A 4" HIGH CONCRETE PAD.
6. ALL BOLTED CONNECTIONS SHALL BE TORQUED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS. RE-TORQUE CONNECTIONS ONE MONTH OR MORE AFTER INITIAL TORQUE. TORQUE RECORDS SHALL BE HANDED TO OWNER AT SUBSTANTIAL COMPLETION.

PANELBOARDS
1. PANELBOARDS SHALL BE MANUFACTURED BY SQ.D., G.E., EATON OR APPROVED EQUAL, ENCLOSED DEAD FRONT SAFETY DOOR IN DOOR TYPE WITH FEATURES AND RATINGS AS SCHEDULED ON DRAWINGS. ALL BUS BARS SHALL BE REGULAR SOLID COPPER. LOAD CENTERS SHALL NOT BE ALLOWED. MANUFACTURER SHALL BE SQUARE D, SIEMENS, GE OR CUTLER-HAMMER. PANELS WILL BE SIMILAR OR EQUAL TO NQ/NF BOARDS NOT LOAD CENTERS (UNLESS SPECIFIED). PANELS SHALL BE FULLY RATED
2. ALL BREAKERS SHALL BE BOLT ON TYPE, AND SHALL BE TORQUED IN ACCORDANCE WITH MANUFACTURERS STANDARDS. RE-TORQUE ALL CONNECTIONS ONE MONTH AFTER INITIAL TORQUE.
3. INSTALL CABINETS SO THAT CENTER OF THE TOP BREAKER DOES NOT EXCEED 6'-6" ABOVE THE FINISHED FLOOR PER NEC. PROVIDE (3) SPARE 1" CONDUITS INTO ACCESSIBLE CEILING.
4. ELECTRICAL CONTRACTOR SHALL FOLLOW DRAWING CIRCUIT NUMBERS AS NEAR AS POSSIBLE. PRIOR TO SUBSTANTIAL COMPLETION, ELECTRICAL CONTRACTOR SHALL TAKE CURRENT READING CHECKS OF RESPECTIVE PHASES AND SUBMIT TO ENGINEER FOR APPROVAL.
5. CIRCUIT DESCRIPTIONS (PANEL CARDS) SHALL BE TYPED AND ACCURATE TO FIELD CONDITIONS. ROOM NAMES SHALL MATCH FINAL INSTALLED ROOM NAMES IF DIFFERENT FROM PLANS.
6. AVAILABLE FAULT CURRENT LABELING IN LIEU OF THE MAXIMUM AVAILABLE FAULT CURRENT MARKING AS REQUIRED BY 110.24, A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2" X 3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.
7. ALL PANELS WILL BE INSTALLED WITH INTEGRAL TVSS - 400A AND LESS WILL HAVE 60 KA / MODE

TRANSFORMERS
1. DRY TYPE TRANSFORMERS SHALL BE MANUFACTURED BY SQ.D, GE, OR APPROVED EQUAL HAVING (2)2.5% TAPS ABOVE AND (4)2.5% TAPS BELOW THE RATING OF THE TRANSFORMER. THEY SHALL HAVE COPPER WINDINGS & GROUNDING JUMPER BETWEEN THE SECONDARY NEUTRAL AND THE METAL CASE. TRANSFORMERS SHALL HAVE R CLASS INSULATION OF UL 220 DEGREE RATING AND 115 DEGREE RISE.
2. GROUND MOUNTED TRANSFORMERS SHALL BE INSTALLED ON 3" HOUSE KEEPING PAD AND NEOPRENE GASKETS.

GROUNDING
1. GROUND ALL EQUIPMENT PER NEC.
2. GROUND EACH OUTSIDE LIGHTING STANDARD SEPARATELY WITH ONE GROUND ROD AND A #6 GROUND WIRE.
3. ALL CONDUITS SHALL CONTAIN A CODE SIZED GROUND WIRE SIZE PER NEC IN ADDITION TO THE CONDUCTORS SHOWN ON THE PLANS. WHERE CIRCUIT CONDUCTORS ARE INCREASED IN SIZE THE GROUND WIRE SIZE SHALL BE INCREASED PROPORTIONALLY.

STARTUP AND INSTRUCTIONS
1. AFTER INSTALLATION, CHECK ALL EQUIPMENT, AND PERFORM START UP IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. NOTIFY ENGINEER OF ALL START-UP. ALL EQUIPMENT SHALL BE ONE AND OPERATIONAL AT COMPLETION OF PROJECT.
2. TESTS SHALL INCLUDE THE FOLLOWING:
   - o MEASURE THE LOAD ON EACH PHASE OF THE MAIN SERVICE AND EACH PHASE OF EVERY FEEDER UNDER FULL LOAD CONDITIONS
   - o MEASURE THE NO-LOAD AND FULL-LOAD VOLTAGES (PHASE TO PHASE, PHASE TO NEUTRAL AND PHASE TO GROUND FOR EACH PHASE OF EACH SERVICE, OF EACH SEPARATELY DERIVED SYSTEM, AND AT EACH PANELBOARDOR TRANSFORMER).
   - o MEASURE THE GROUND RESISTANCE OF THE MAIN SERVICE GROUNDING ELECTRODE AND THE GROUND RESISTANCE OF EACH SEPARATELY DERIVED SYSTEM'S GROUNDING ELECTRODE.
   - o MAKE INSULATION RESISTANCE TESTS ON ALL DRY TYPE TRANSFORMERS AND MOTORS.
3. CLEAN ALL ELECTRICAL EQUIPMENT AND FIXTURES PRIOR TO PROJECT COMPLETION.
4. PROVIDE OWNER TRAINING AND DEMONSTRATION OF ALL ELECTRICAL SYSTEMS AND EQUIPMENT.
5. INSTRUCT OWNER ON PROPER OPERATION AND PREVENTATIVE MAINTENANCE OF SYSTEM. SUBMIT OPERATING AND MAINTENANCE MANUAL ON ALL EQUIPMENT AND SYSTEMS.

MISCELLANEOUS
1. ALL GENERATOR TRANSFER DEVICES (GTD'S), IF APPLICABLE, ARE TO BE MOUNTED ABOVE ACCESSIBLE CEILINGS AT A LEVEL WHICH CAN BE REACHED WITHOUT A LIFT (UNDER 15').
2. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING 120V POWER TO ALL LOW VOLTAGE TRANSFORMERS (PROVIDED BY THE PLUMBING CONTRACTOR), FOR AUTOMATIC FLUSH VALVES, TO EITHER THE CIRCUIT NOTED ON THE PLANS OR THE NEAREST RECEPTACLE CIRCUIT.
3. ALL THREE PHASE FAN POWER TERMINAL / BOXES REQUIRE 5 CONDUCTORS (INCLUDING NEUTRAL).
4. EC SHALL POWER ALL 120V MOTORIZED DAMPERS FOR MECHANICAL FANS AND LOUVERS, AND ACTUATORS.

WARRANTY
1. FULLY WARRANT ALL MATERIALS, EQUIPMENT AND WORKMANSHIP FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE OR AS REQUIRED IN SPECIFICATIONS. EXTEND ALL MANUFACTURER'S WARRANTIES TO OWNER, INCLUDING ALL EXTENDED WARRANTIES.
2. REPAIR OR REPLACE WITHOUT CHARGE TO THE OWNER ALL ITEMS FOUND DEFECTIVE DURING THE WARRANTY PERIOD. IN THE CASE OF REPLACEMENT OR REPAIR DUE TO FAILURE WITHIN THE WARRANTY PERIOD, THE WARRANTY ON THAT PORTION OF THE WORK SHALL BE EXTENDED FOR A MINIMUM PERIOD OF ONE (1) YEAR FROM THE DATE OF SUCH REPLACEMENT OR REPAIR.

ELECTRICAL ABBREVIATIONS

1PH	SINGLE-PHASE	J-BOX	JUNCTION BOX
1P	SINGLE POLE	kV	KILOVOLT
2/C	TWO-CONDUCTOR	kVA	KILOVOLT AMPERE
3/C	THREE-CONDUCTOR	kVAH	KILOVOLT AMPERE PER HOUR
3PH	THREE-PHASE	kVAR	KILOVOLT AMPERE REACTIVE
4/C	FOUR-CONDUCTOR	kW	KILOWATT
4W	FOUR-WIRE	kWH	KILOWATT HOUR
A/C UNIT	AIR CONDITIONING UNIT	kWHM	KILOWATT HOUR METER
A/E	ARCHITECT/ENGINEER		
AC	ALTERNATING CURRENT OR ARMORED CABLE	LED	LIGHT EMITTING DIODE
		LF	LINEAR FEET (FOOT)
AF	AMPERE FRAME OR AMP FUSE	LM	LUMEN
AFF	ABOVE FINISHED FLOOR	LRA	LOCKED ROTOR AMPS
AFG	ABOVE FINISHED GRADE	LTG	LIGHTING
AHJ	AUTHORITY HAVING JURISDICTION	LTG PNL	LIGHTING PANEL
AIC	AMPERE INTERRUPTING CAPACITY	LTNG	LIGHTNING
ALT	ALTERNATE	LV	LOW VOLTAGE
AMP	AMPERE	MAX	MAXIMUM
ARCH	ARCHITECT	MC	METAL-CLAD
ASC	AMPS SHORT CIRCUIT	MCA	MINIMUM CIRCUIT AMPS
AT	AMPERE TRIP	MCB	MAIN CIRCUIT BREAKER
ATS	AUTOMATIC TRANSFER SWITCH	MCC	MOTOR CONTROL CENTER
AUTO	AUTOMATIC	MDP	MAIN DISTRIBUTION PANEL
AV	AUDIO VISUAL	MECH	MECHANICAL
BD	BOARD	MH	MANHOLE
BFF	BELOW FINISH FLOOR	MIN	MINIMUM
BFG	BELOW FINISH GRADE	MOCP	MAXIMUM OVERCURRENT PROTECTION
BLDG	BUILDING	MLO	MAIN LUGS ONLY
BRKR	BREAKER	MTD	MOUNTED
BYP	BY PASS	MTS	MANUAL TRANSFER SWITCH
C	CONDUIT	MV	MEDIUM VOLTAGE
CAB	CABINET	(N)	NEW
CALC	CALCULATE	NA	NOT APPLICABLE
CAP	CONTRACTOR FURNISHED /CONTRACTOR INSTALLED	NEC	NATIONAL ELECTRICAL CODE
CAT	CLOSED CIRCUIT TELEVISION	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
CCTV	CANDELA	NEUT	NEUTRAL
cd	CONSTRUCTION DOCUMENTS	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CD	CONTRACTOR FURNISHED	NIC	NOT IN CONTRACT
CF	CONTRACTOR FURNISHED /OWNER INSTALLED	NL	NIGHT LIGHT
CF/OI	CHILLED WATER	NO	NORMALLY OPEN
CHW	CHILLED WATER PUMP	NS	NO SCALE
CHWP	CIRCUIT	NSL	NON SWITCHED HOT LEG
CKT	CIRCUIT BREAKER	NTS	NOT TO SCALE
CKT BRKR	CURRENT LIMITING FUSE	OC	ON CENTER
CLF	CEILING	OD	OUTSIDE DIAMETER
CLG	CONCRETE MASONRY UNIT	OL	OVERLOAD
CMU	COAX CABLE	P	POLE OR PHASE
COAX	COMMUNICATION	PA	PUBLIC ADDRESS
COMM	CONCRETE	PB	PULL BOX, OR PUSHBUTTON
CONC	CONTINUE	PCB	POLYCHLORINATED BIPHENYL
CONT	CONTROL POWER TRANSFORMER	PEC	PHOTOELECTRIC CELL
CPT	COLOR RENDERING INDEX	PED	PEDESTAL
CRI	CURRENT TRANSFORMER	PEND	PENDANT
CT	CABLE TELEVISION	PF	POWER FACTOR
CTV	COPPER	PH	PHASE
CU	CUBIC FEET	PNL	PANEL
CU FT	DECIBEL	PT	POTENTIAL TRANSFORMER
dB	DIRECT CURRENT	PVC	POLYVINYL CHLORIDE (PLASTIC)
DC	DIMMER CONTROL PANEL	PWR	POWER
DCP	DEGREES CELSIUS	(R)	RELOCATE
DEG C	DEGREES FAHRENHEIT	RCP	REFLECTED CEILING PLAN
DEG F	DEMOLITION	RECPT	RECEPTACLE
DEMO (D)	DIRECT DIGITAL CONTROL PANEL	RGS	RIGID GALVANIZED STEEL
DDC	DIAGRAM	RM	ROOM
DIAG	DISCONNECT	RMS	ROOT MEAN SQUARE
DISC	DOUBLE POLE, DOUBLE THROW	REQD	REQUIRED
DPDT	DOUBLE POLE, SINGLE THROW	SCC	SHORT CIRCUIT CAPACITY
DPST	DOOR SWITCH	SD	SMOKE DETECTOR
DRSW	DISCONNECT SWITCH	SF	SQUARE FOOT (FEET)
DS	DRAWING	SPEC	SPECIFICATION
DWG	EXHAUST FAN	SPST	SINGLE POLE, SINGLE THROW
EF	ELEVATION	SURF	SURFACE
EL	ELECTRIC OR ELECTRICAL	SW	SWITCH
ELEC	ELEVATOR	SWBD	SWITCHBOARD
ELEV	EMERGENCY	SWGR	SWITCHGEAR
EMER	ELECTRICAL METALLIC TUBING	TC	TIME CLOCK
EMT	ENCLOSURE	TEL	TELEPHONE
ENCL	EMERGENCY POWER OFF	TP	TWISTED PAIR
EPO	EASEMENT	TPS	TWISTED PAIR SHIELDED
ESMT	ELECTRIC DRINKING FOUNTAIN	TTB	TELEPHONE TERMINAL BOARD
EDF	ELECTRIC WATER HEATER	TV	TELEVISION
EWH	EXISTING TO REMAIN	TYP	TYPICAL
ETR	EXISTING	UGND	UNDERGROUND
(E)	FIRE ALARM	UL	UNDERWRITERS LABORATORY
FA	FIRE ALARM ANNUNCIATOR PANEL	UON	UNLESS OTHERWISE NOTED
FAAP	FIRE ALARM CONTROL PANEL	UPS	UNINTERRUPTIBLE POWER SUPPLY
FACP	FOOTCANDLE	UTIL	UTILITY
FC	FIXTURE	V	VOLT
FIXT	FULL LOAD AMPS	VA	VOLT AMPERE
FLA	FLEXIBLE METALLIC CONDUIT	VAR	VOLT AMPERE REACTIVE
FMC	FLUORESCENT	VFD	VARIABLE FREQUENCY DRIVE
FLUOR	FIRE PROTECTION	VOLT	VOLTAGE
FP	FEET OR FOOT	W	WATT
FT	FUSED SWITCH	WP	WEATHERPROOF
FU SW	FULL VOLTAGE NON-REVERSING	XFER	TRANSFER
FVNR	GROUND OR GENERATOR	XFMR	TRANSFORMER
G OR GND	GENERATOR		
GEN	GROUND FAULT CIRCUIT INTERRUPTER		
GFCI	GROUND TERMINAL BOX		
GTB	HIGH INTENSITY DISCHARGE		
HID	HAND-OFF-AUTOMATIC		
HOA	HORSEPOWER		
HP	HEIGHT		
HT	HERTZ		
HZ	INTERMEDIATE METAL CONDUIT		
IMC	INCANDESCENT		
INCAND	INFRARED		
IR	INSTANTANEOUS WATER HEATER		
IWH			

SECURITY

CAM	CAMERA
H/S	HORN STROB
WAP	WIRELESS ACCESS POINT
S	SPEAKER

ENERGY CODE REQUIREMENTS:

1. [C103.2] THESE PLANS, SPECIFICATIONS, AND/OR CALCULATIONS PROVIDE ALL INFORMATION WITH WHICH COMPLIANCE CAN BE DETERMINED FOR THE INTERIOR LIGHTING AND ELECTRICAL SYSTEMS AND EQUIPMENT AND DOCUMENT WHERE EXCEPTIONS TO THE STANDARD ARE CLAIMED. INFORMATION PROVIDED ARE INCLUDE INTERIOR POWER CALCAULATIONS, WATTAGE, BALL

PANEL: LR

LOCATION: | **VOLTS:** 120/208 WYE | **A.I.C. RATING:**
SUPPLY FROM: LLR_2 | **PHASE:** 3 | **BUS RATING:** 100 A
MOUNTING: SURFACE | **WIRE:** 4 | **MCB** 100 A
ENCLOSURE: NEMA 1

CKT	CIRCUIT DESCRIPTION	LC	CT	TRIP	POLES	A (KVA)		B (KVA)		C (KVA)		POLES	TRIP	CT	LC	CIRCUIT DESCRIPTION	CKT
1						0.0	0.8					1	20 A	1	NC	(E) LOAD	2
3	MAIN BREAKER	NC	1	100 A	3			0.0	0.8			1	20 A	1	NC	(E) LOAD	4
5										0.0	0.8	1	20 A	1	NC	(E) LOAD	6
7	(E) LOAD	NC	1	20 A	1	0.8	0.8					1	20 A	1	NC	(E) LOAD	8
9	(E) LOAD	NC	1	100 A	2			0.4	0.8			1	20 A	1	NC	(E) LOAD	10
11										0.4	0.8	1	20 A	1	NC	(E) LOAD	12
13	(2) RCPT & LTG - DUGOUT 4 [#10AWG]	L; R	6	20 A	1	0.6	0.6					1	20 A	6	L; R	(2) RCPT & LTG - DUGOUT 3 [#10AWG]	14
15	SPARE	--	--	20 A	1			0.0	0.0			1	20 A	--	--	SPARE	16
				TOTAL LOAD:		3.51 kVA		2.00 kVA		2.00 kVA							
				TOTAL AMPS:		29 A		17 A		17 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
L	0.39 kVA	125.00%	0.48 kVA		
R	0.72 kVA	100.00%	0.72 kVA	TOTAL CONN. LOAD:	7.51 kVA
NC	6.40 kVA	100.00%	6.40 kVA	TOTAL EST. DEMAND:	7.60 kVA
				TOTAL CONN..:	21 A
				TOTAL EST. DEMAND:	21 A

NOTES:
USE 2#12Cu + 1#12G IN 3/4" FOR 20A/1P BREAKER U.O.N. MAX 3 SINGLE PHASE CIRCUITS PER CONDUIT - 9 CONDUCTORS
* GFI BREAKER
**NON-COINCIDENT LOADS (LARGER OF TWO CALCULATED)
L - LIGHTING; R - RECEPTACLE; SH - HVAC SPLIT SYSTEMS (HEATING) SC - HVAC SPLIT SYSTEMS (COOLING); HP - HVAC PACKAGE UNITS; HC - HVAC COOLING ONLY; EH - ELECTRIC HEAT; K - KITCHEN EQUIPMENT; M - MOTOR; NC - NON-CONTINUOUS LOADS

PANEL: LL

LOCATION: | **VOLTS:** 120/208 WYE | **A.I.C. RATING:** 10,000
SUPPLY FROM: LF | **PHASE:** 3 | **BUS RATING:** 225 A
MOUNTING: SURFACE | **WIRE:** 4 | **MLO** 225 A
ENCLOSURE: NEMA 1

CKT	CIRCUIT DESCRIPTION	LC	CT	TRIP	POLES	A (KVA)		B (KVA)		C (KVA)		POLES	TRIP	CT	LC	CIRCUIT DESCRIPTION	CKT
1						2.3	2.3										2
3	(E) WASHER	NC	1	30 A	3			2.3	2.3			3	30 A	1	NC	(E) WASHER	4
5										2.3	2.3						6
7						2.3	1.2										8
9	(E) WASHER	NC	1	30 A	3			2.3	1.2			3	15 A	1	NC	(E) WASHER	10
11										2.3	1.2						12
13	SPACE	--	--	--	1	--	1.5										14
15	SPACE	--	--	--	1			--	1.5			3	20 A	1	NC	(E) DRYER	16
17	(E) ICE MACHINE	NC	1	20 A	2					0.0	1.5						18
19						0.0	1.5										20
21	(2) RCPT & LTG - DUGOUT 2 #10AWG	L; R	6	20 A	1			0.6	1.5			3	20 A	1	NC	(E) DRYER	22
23	SPACE	--	--	--	1					--	1.5						24
25	SPACE	--	--	--	1	--	0.6					1	20 A	6	L; R	(2) RCPT & LTG - DUGOUT 1 #10AWG	26
27	SPACE	--	--	--	1			--	--			1	--	--	--	SPACE	28
29	SPACE	--	--	--	1					--	--	1	--	--	--	SPACE	30
31	SPACE	--	--	--	1	--	--					1	--	--	--	SPACE	32
33	SPACE	--	--	--	1			--	--			1	--	--	--	SPACE	34
35	SPACE	--	--	--	1					--	--	1	--	--	--	SPACE	36
37	SPACE	--	--	--	1	--	--					1	--	--	--	SPACE	38
39	SPACE	--	--	--	1			--	--			1	--	--	--	SPACE	40
41	SPACE	--	--	--	1					--	--	1	--	--	--	SPACE	42
				TOTAL LOAD:		11.69 kVA		11.69 kVA		11.14 kVA							
				TOTAL AMPS:		98 A		98 A		93 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
L	0.39 kVA	125.00%	0.48 kVA		
R	0.72 kVA	100.00%	0.72 kVA	TOTAL CONN. LOAD:	34.53 kVA
NC	33.42 kVA	100.00%	33.42 kVA	TOTAL EST. DEMAND:	34.63 kVA
				TOTAL CONN..:	96 A
				TOTAL EST. DEMAND:	96 A

NOTES:
USE 2#12Cu + 1#12G IN 3/4" FOR 20A/1P BREAKER U.O.N. MAX 3 SINGLE PHASE CIRCUITS PER CONDUIT - 9 CONDUCTORS
* GFI BREAKER
**NON-COINCIDENT LOADS (LARGER OF TWO CALCULATED)
L - LIGHTING; R - RECEPTACLE; SH - HVAC SPLIT SYSTEMS (HEATING) SC - HVAC SPLIT SYSTEMS (COOLING); HP - HVAC PACKAGE UNITS; HC - HVAC COOLING ONLY; EH - ELECTRIC HEAT; K - KITCHEN EQUIPMENT; M - MOTOR; NC - NON-CONTINUOUS LOADS

ELECTRICAL SERVICE LOAD ANALYSIS

LOAD ANALYSIS - ELKINS HS - SF

#	CONNECTED PANELS	LOAD
1	PANEL - 'HHR'	135.7 kVA
	TOTAL CONNECTED (KVA):	135.7 kVA
	TOTAL CONNECTED (A)	163 A

TAG	DESCRIPTION	NEC	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTAL LOAD ANALYSIS	
L	LIGHTING	NEC 220.12	74.87 kVA	125.00%	93.58 kVA		
R	GENERAL RECEPTACLES	NEC 220.44	0.72 kVA	100.00%	0.72 kVA		
SH	HVAC SPLIT SYSTEM HEATING	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA	EST. SER. DEMAND (KVA):	160
SC	HVAC SPLIT SYSTEM COOLING	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA		
HP	HVAC PACKAGE UNITS	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA	EST. SERVCE DEMAND...	193
HC	HVAC COOLING ONLY	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA		
EH	ELECTRIC HEAT		23.94 kVA	125.00%	29.93 kVA	SERVICE VOLTAGE (V):	277/480 WYE
K	KITCHEN EQUIPMENT	NEC220.55	0.00 kVA	0.00%	0.00 kVA		
M	MOTORS	NEC 430.24	0.00 kVA	0.00%	0.00 kVA	MIN REQ'D SERVICE SIZE:	225 A
NC	NON-CONTINUOUS LOADS		36.18 kVA	100.00%	36.18 kVA		

NOTES:

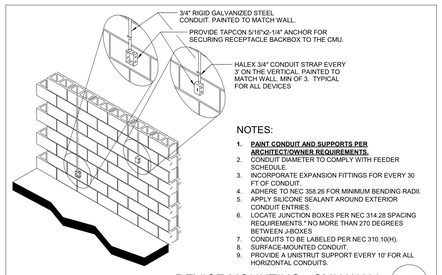
ELECTRICAL SERVICE LOAD ANALYSIS

LOAD ANALYSIS - ELKINS HS - FIELD...

#	CONNECTED PANELS	LOAD
1	PANEL - 'LL' VIA 75KVA XFMR 'XF'	60.2 kVA
	TOTAL CONNECTED (KVA):	60.2 kVA
	TOTAL CONNECTED (A)	72 A

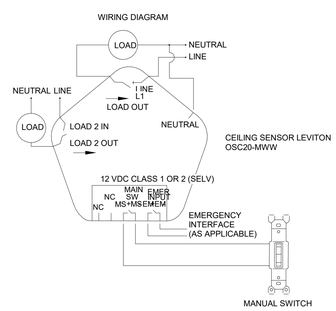
TAG	DESCRIPTION	NEC	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTAL LOAD ANALYSIS	
L	LIGHTING	NEC 220.12	1.59 kVA	125.00%	1.98 kVA		
R	GENERAL RECEPTACLES	NEC 220.44	12.51 kVA	89.97%	11.26 kVA		
SH	HVAC SPLIT SYSTEM HEATING	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA	EST. SER. DEMAND (KVA):	60
SC	HVAC SPLIT SYSTEM COOLING	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA		
HP	HVAC PACKAGE UNITS	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA	EST. SERVCE DEMAND...	72
HC	HVAC COOLING ONLY	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA		
EH	ELECTRIC HEAT		0.00 kVA	0.00%	0.00 kVA	SERVICE VOLTAGE (V):	277/480 WYE
K	KITCHEN EQUIPMENT	NEC220.55	0.00 kVA	0.00%	0.00 kVA		
M	MOTORS	NEC 430.24	10.08 kVA	102.98%	10.38 kVA	MIN REQ'D SERVICE SIZE:	225 A
NC	NON-CONTINUOUS LOADS		36.02 kVA	100.00%	36.02 kVA		

NOTES:

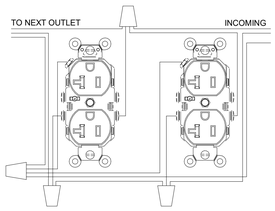


NOTES:
1. **PAINT CONDUIT AND SUPPORTS PER ARCHITECT/OWNER REQUIREMENTS.**
2. CONDUIT DIAMETER TO COMPLY WITH FEEDER SCHEDULE.
3. INCORPORATE EXPANSION FITTINGS FOR EVERY 30 FT OF CONDUIT.
4. ADHERE TO NEC 358.26 FOR MINIMUM BENDING RADII.
5. APPLY SILICONE SEALANT AROUND EXTERIOR CONDUIT ENTRIES.
6. LOCATE JUNCTION BOXES PER NEC 314.28 SPACING REQUIREMENTS." NO MORE THAN 270 DEGREES BETWEEN J-BOXES
7. CONDUITS TO BE LABELED PER NEC 310.10(H).
8. SURFACE-MOUNTED CONDUIT.
9. PROVIDE A UNISTRUT SUPPORT EVERY 10' FOR ALL HORIZONTAL CONDUITS.

DEVICE MOUNTING - CMU WALL
NOT TO SCALE
3



CEILING OCCUPANCY/VACANCY SENSOR
NOT TO SCALE
2



NOTES:
1. CIRCUITING TO ALL NON DEDICATED ELECTRICAL RECEPTACLES AND SWITCHES ARE REQUIRED TO UTILIZE PARALLEL CIRCUITING BY THE USE OF "PIG TAILS" TO EACH DEVICE SO THAT IF AN OUTLET IS REMOVED OR FAILS ELECTRICAL CONTINUITY THE CIRCUIT WILL NOT BE COMPROMISED.

2. ALL ELECTRICAL WIRING MUST BE PROPERLY SPLICED BY TWISTING THE WIRES TOGETHER AND USE OF APPROVED AND LISTED COMPRESSION WIRE NUTS FOR ANY WIRING.

RECEPTACLE INSTALLATION - PIG TAIL
NOT TO SCALE
1

EXISTING FEEDER SCHEDULE

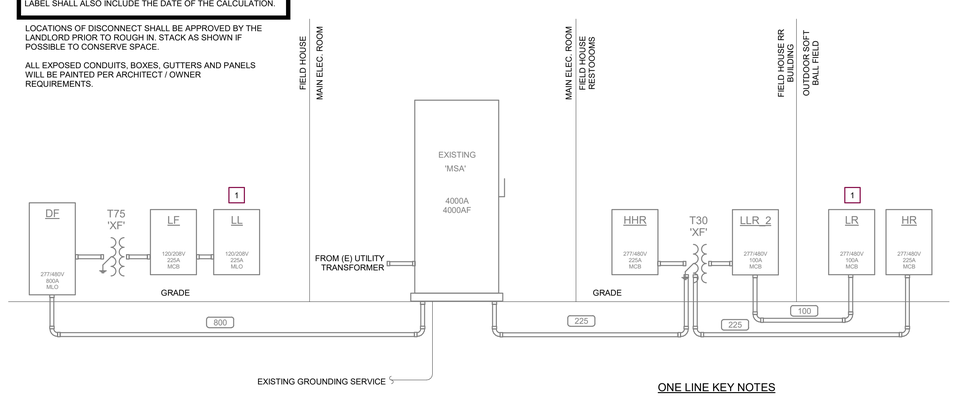
	CONDUIT WITH COPPER CONDUCTORS				CONDUIT WITH ALUMINUM CONDUCTORS			
TAG	SETS	QUANTITY / AWG	GROUND / AWG	CONDUIT SIZE	SETS	QUANTITY / AWG	GROUND / AWG	CONDUIT SIZE
20 / 20D	1 1	4#12 3#12	#12	3/4"			#12	3/4"
30 / 30D	1 1	4#10 3#10	#10	3/4"			#10	3/4"
40 / 40D	1 1	4#8 3#8	#8	1"			#8	1"
50 / 50D	1 1	4#6 3#6	#8	1-1/4"			#8	1-1/4"
60 / 60D	1 1	4#4 3#4	#6	1-1/2"			#8	1-1/4"
80 / 80D	1 1	4#2 3#2	#6	1-1/2"			#6	1-1/2"
100 / 100D	1 1	4#1 3#1	#6	1-1/2"	1 1	4#1/0 3#1/0	#6	2"
130 / 130D	1 1	4#1 3#1	#6	1-1/2"	1 1	4#2/0 3#2/0	#4	2-1/2"
150 / 150D	1 1	4#1/0 3#1/0	#6	2"	1 1	4#3/0 3#3/0	#4	2-1/2"
175 / 175D	1 1	4#2/0 3#2/0	#4	2-1/2"	1 1	4#4/0 3#4/0	#2	2-1/2"
200 / 200D	1 1	4#3/0 3#3/0	#4	2-1/2"	1 1	4#250 kcmil 3#250 kcmil	#2	2-1/2"
225 / 225D	1 1	4#4/0 3#4/0	#2	2-1/2"	1 1	4#300 kcmil 3#300 kcmil	#2	3"
250 / 250D	1 1	4#250 kcmil 3#250 kcmil	#2	2-1/2"	1 1	4#350 kcmil 3#350 kcmil	#1/0	4"
310 / 310D	1 1	4#350 kcmil 3#350 kcmil	#2	3"	2 2	4#3/0 or 1 SET 500 kcmil 3#3/0 or 1 SET 500 kcmil	#1/0	2-1/2" or 4"
380 / 380D	1 1	4#500 kcmil 3#500 kcmil	#1/0	4"	2 2	4#250 kcmil 3#250 kcmil	#2/0	2-1/2"
400 / 400D	2 2	4#3/0 3#3/0	#1/0	2-1/2"	2 2	4#250 kcmil 3#250 kcmil	#2/0	3"
500 / 500D	2 2	4#250 kcmil 3#250 kcmil	#2/0	2-1/2"	2 2	4#350 KCMIL 3#350 KCMIL	#2/0	4"
600 / 600D	2 2	4#350 kcmil 3#350 kcmil	#2/0	3"	2 2	4#500 kcmil 3#500 kcmil	#2/0	3"
750 / 750D	2 2	4#500 KCMIL 3#500 KCMIL	#2/0	4"	3 3	4#350 kcmil 3#350 kcmil	#3/0	4"
800 / 800D	3 3	4#350 kcmil 3#350 kcmil	#2/0	3"	3 3	4#400 kcmil 3#400 kcmil	#3/0	3"
1000 / 1000D	3 3	4#500 kcmil 3#500 kcmil	#3/0	4"	4 4	4#350 kcmil 3#350 kcmil	#4/0	4"
1200 / 1200D	4 4	4#350 kcmil 3#350 kcmil	#3/0	3"	5 5	4#350 kcmil 3#350 kcmil	#4/0	4"
2000 / 2000D	6 6	4#500 kcmil 3#500 kcmil	#4/0	4"	8 8	4#350 kcmil 3#350 kcmil	#4/0	4"
2500 / 2500D	7 7	4#500 kcmil 3#500 kcmil	#4/0	4"	10 10	4#350 kcmil 3#350 kcmil	#4/0	4"
3000 / 3000D	8 8	4#500 kcmil 3#500 kcmil	#4/0	4"	12 12	4#350 kcmil 3#350 kcmil	#4/0	4"
3500 / 3500D	10 10	4#500 kcmil 3#500 kcmil	#4/0	4"			#4/0	4"
4000 / 4000D	11 11	4#500 kcmil 3#500 kcmil	#4/0	4"			#4/0	4"

ALL PANELS SHALL BE INSTALLED WITH INTEGRAL SPD -
400A AND LESS SHALL HAVE 60 kA / MODE
SEE GENERAL SPECS FOR MORE CONDUCTOR REQUIREMENTS.

A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2"x3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.

LOCATIONS OF DISCONNECT SHALL BE APPROVED BY THE LANDLORD PRIOR TO ROUGH IN. STACK AS SHOWN IF POSSIBLE TO CONSERVE SPACE.

ALL EXPOSED CONDUITS, BOXES, GUTTERS AND PANELS WILL BE PAINTED PER ARCHITECT / OWNER REQUIREMENTS.



1 ONE LINE DIAGRAM
SCALE: NTS

ONE LINE KEY NOTES
1 USE THIS EXISTING PANEL FOR THIS SCOPE.

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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PE License No: 105903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-069
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

No.	Date	Description
1	10/09/2025	100% CD

PROJECT STATUS
E110-E
ELECTRICAL

BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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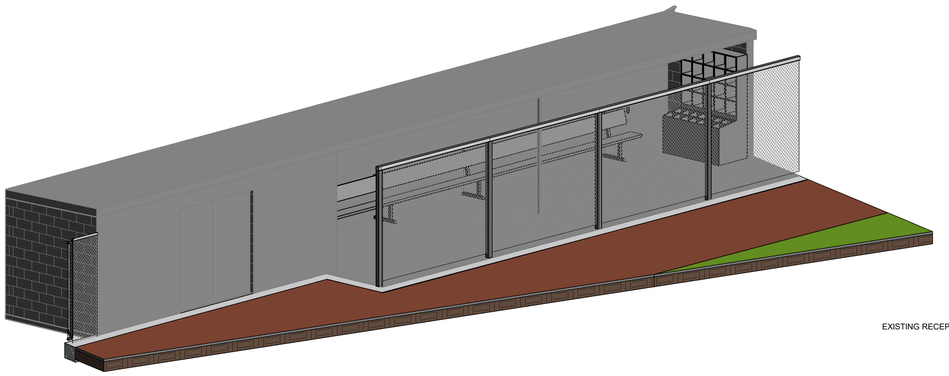
LIGHTING FIXTURE SCHEDULE

CONTRACTOR SHALL COORDINATE WITH ARCHITECT/OWNER FOR ALL FINAL SELECTIONS, LOCATIONS, QUANTITIES, ETC.

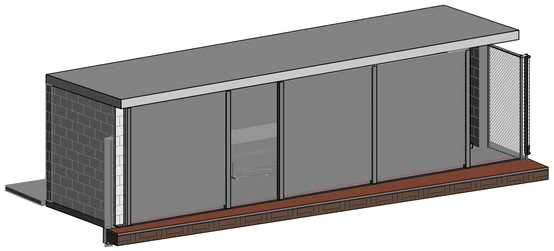
Tag	Manufacturer	Model Number	Mounting	Voltage	Wattage	Lamp Type	Description
A	ORACLE LIGHTING	4-OWVS1-LED-5000L-DIM10-MVOLT-50K-85-TPS	SURFACE	120 V	46 W	LED	VAPOR TIGHT LINEAR LED

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

1. REFER TO ARCHITECTURAL PLANS FOR GRID/FLANGE AREAS. PRIOR TO BIDDING OF LIGHT FIXTURES. CONTRACTOR IS RESPONSIBLE FOR QUANTITY OF EACH.
2. COORDINATE MOUNTING HEIGHT OF ALL FIXTURES WITH ARCHITECTURAL DRAWINGS.
3. PROVIDE AN ADDITIONAL NON-SWITCHED HOT LEG TO ALL EMERGENCY FIXTURES FOR BATTERY CHARGING AND POWER-LOSS DETECTION.
4. PROVIDE AN EXTRA HOT AND SPLICE AROUND CONTRACTORS/CONTROLLERS IF NECESSARY.
5. ALL EXIT SIGNS ARE TO BE NON-SWITCHED.
6. ALL FIXTURE SUBSTITUTIONS SHALL BE SUBMITTED TO THE A/E PRIOR TO BID. EQUALS MUST CONFORM TO LUMENS PER WATT AND PHOTOMETRIC PERFORMANCE.



5 3D VIEW - BASEBALL DUGOUT - ELKINS HS



6 3D VIEW - SOFTBALL DUGOUT - ELKINS HS



PHOTO OF EXISTING RIGHT SOFTBALL DUGOUT



PHOTO OF EXISTING RIGHT BASEBALL DUGOUT



PHOTO OF EXISTING LEFT SOFTBALL DUGOUT



PHOTO OF EXISTING LEFT BASEBALL DUGOUT

EXISTING RECEPTACLE TO REMAIN



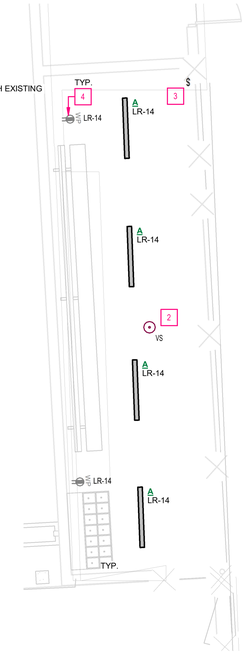
PHOTO OF EXISTING TO REMAIN RECEPTACLE - SOFTBALL



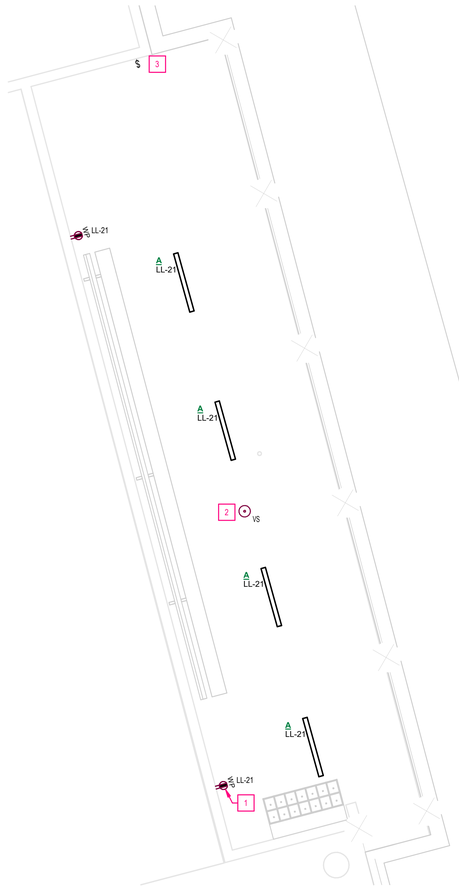
PHOTO OF EXISTING BASEBALL DUGOUT

DEMOLISH EXISTING LIGHT

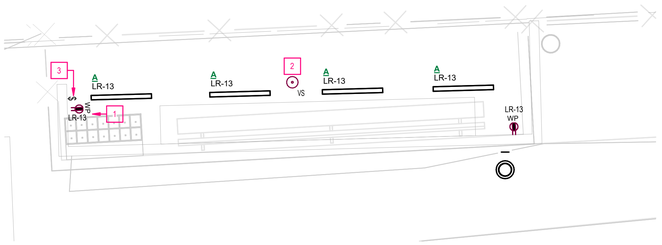
#	E - KEYED NOTES
1	PROVIDE VANDAL RESISTANT STAINLESS STEEL RECEPTACLE PLATE WITH OUTDOOR RATED ENCLOSURE.
2	PROVIDE VACANCY CONTROLS FOR DUGOUT AREA. PROVIDE OUTDOOR RATED CEILING MOUNTED VACANCY SENSOR SIMILAR TO LEGRAND - HBL2W. CONTROLS SHALL BE AUTO OFF AFTER 20 MIN / MANUAL ON / PUSH TO DIM. REFER TO ELECTRICAL DETAILS FOR ALL COMPONANTS.
3	PROVIDE SINGLE GANG WEATHER RESISTANT COVER FOR LIGHTING CONTROL DIMMER SWITCH.
4	UTILIZE EXISTING RECEPTACLE CIRCUIT TO POWER NEW LIGHT FIXTURES AT DUGOUT. VERIFY CIRCUIT CAPACITY AND BREAKER SIZE PRIOR TO CONNECTION. NOTIFY ENGINEER OF ANY CONFLICTS OR INSUFFICIENT CAPACITY PRIOR TO START OF WORK.



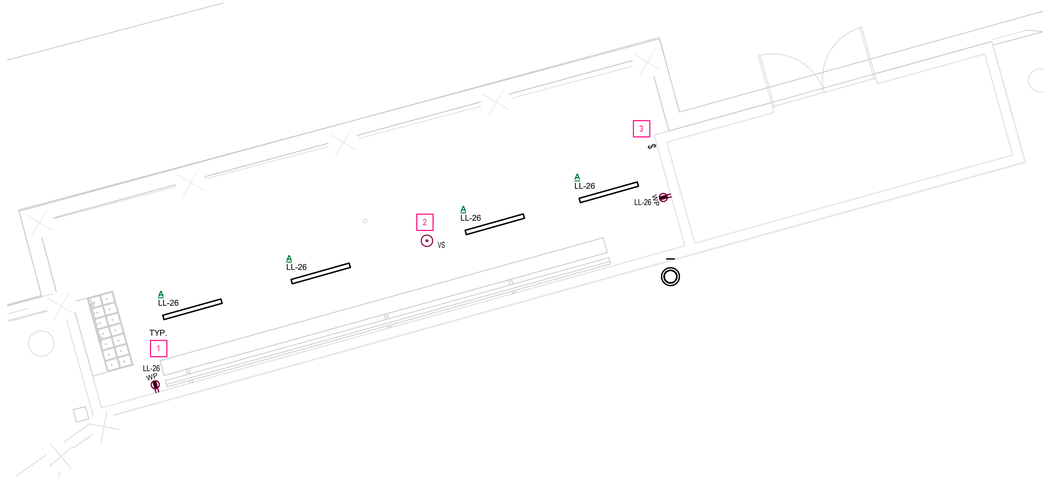
4 ENLARGED PLAN - ELKINS HS - SOFTBALL LEFT DUGOUT
1/4" = 1'-0"



2 ENLARGED PLAN - ELKINS HS - BASEBALL LEFT DUGOUT
1/4" = 1'-0"



3 ENLARGED PLAN - ELKINS HS - SOFTBALL RIGHT DUGOUT
1/4" = 1'-0"



1 ENLARGED PLAN - ELKINS HS - BASEBALL RIGHT DUGOUT
1/4" = 1'-0"

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-059
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

Date	Description
10/09/2025	100% CD

PROJECT STATUS

E401-E

ENLARGED PLANS - ELKINS HS FIELDS - ELECTRICAL

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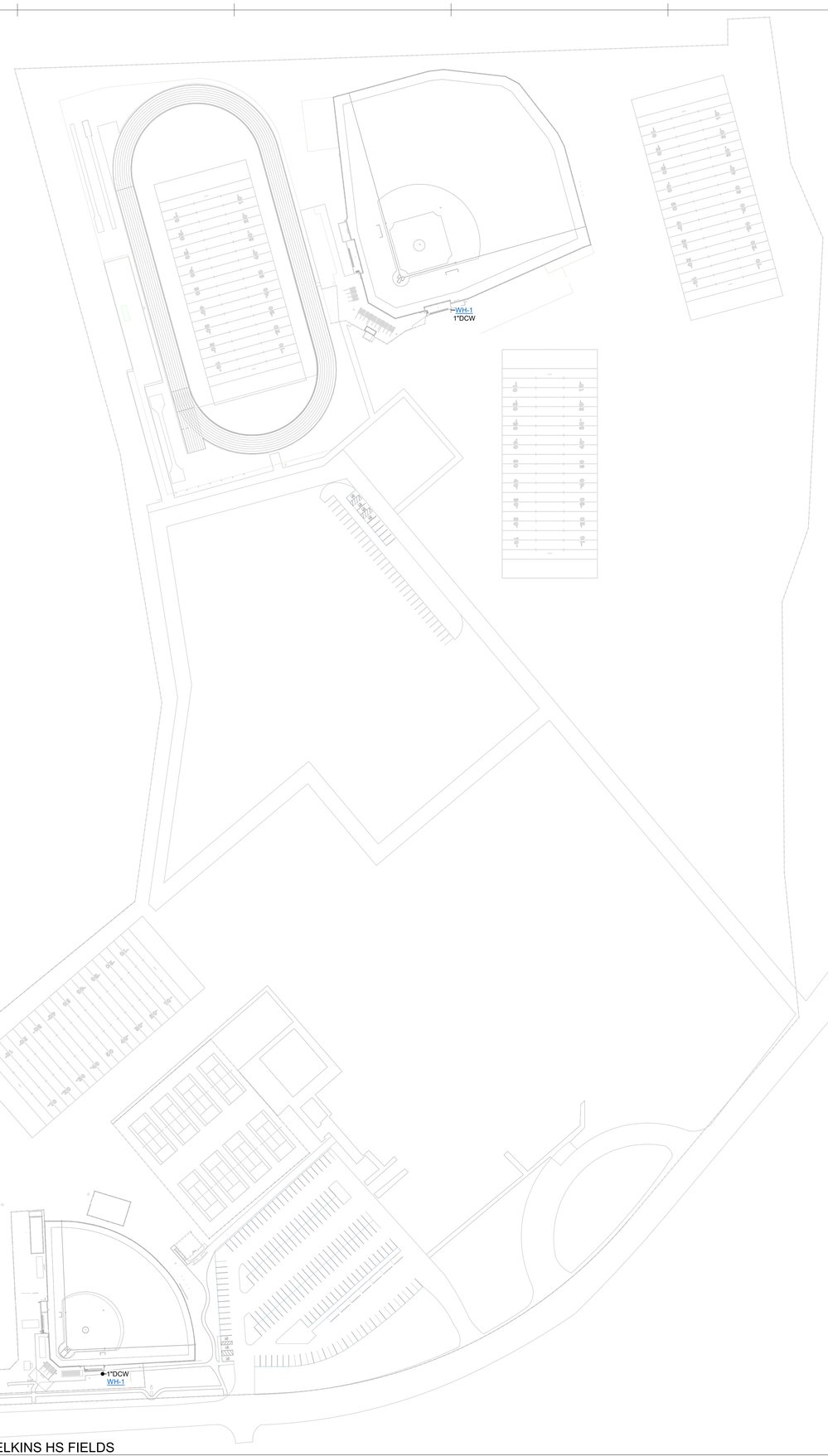


1 PLUMBING SITE PLAN - ELKINS HS FIELDS
1" = 80'-0"

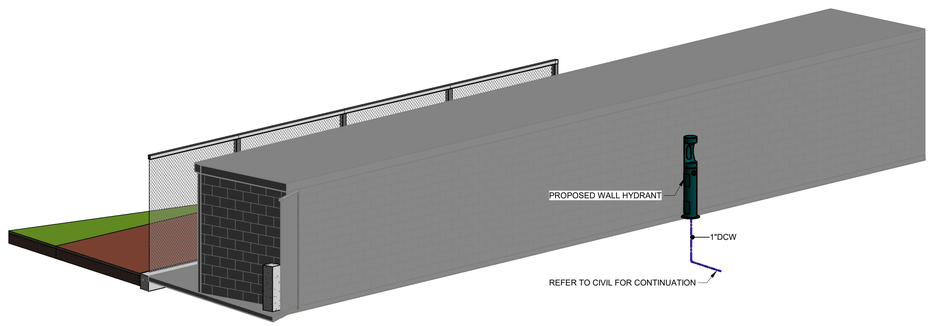
SITE PLAN NOTES

1. UNDERGROUND PLUMBING ROUTING SHALL BE COORDINATED WITH UNDERGROUND UTILITIES. COORDINATE WITH CIVIL PLANS FOR MORE INFORMATION. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS. ALL PIPING 5'-0" OUTSIDE THE BUILDING SHALL BE DESIGNED BY THE CIVIL ENGINEER.ALL PIPING SHOWN ON THIS PLAN IS ONLY FOR GENERAL PURPOSE.ALL PIPING WITH-IN 5'-0" AND BELOW BUILDING IS APART OF THE PLUMBING DESIGN.
2. PLUMBING CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF PLUMBING GAS SERVICE ENTRANCE AND PRESSURE REDUCING REGULATORS AS REQUIRED FOR THE PROJECT. CONTRACTOR SHALL SUBMIT INFORMATION DEVELOPED BY ENGINEER IN FORM OF SITE PLAN DRAWINGS TO THE GAS COMPANY REPRESENTATIVE FOR PROCESSING SERVICE REQUEST. PROVIDE AN ADDITIONAL $8,000 ALLOWANCE FOR FEES ASSOCIATED WITH THE GAS SERVICE ENTRANCE.
3. ALL LINES 5 FEET OUTSIDE THE BUILDING SHALL BE COORDINATED BY THE CIVIL ENGINEER THAT NO INTERRUPTIONS WILL BE TAKING PLACE.

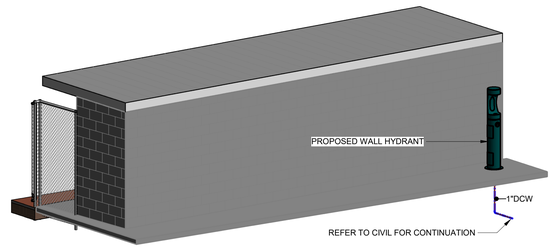
P - SHEET LIST

SHEET NUMBER	SHEET NAME
P001-A	PLUMBING SITE PLAN - AUSTIN HS FIELDS
P101-A	GENERAL NOTES, ABBREV., & LEGEND
P001-D	PLUMBING SITE PLAN - DULLES HS FIELDS
P101-D	GENERAL NOTES, ABBREV., & LEGEND
P001-E	PLUMBING SITE PLAN - ELKINS HS FIELDS
P101-E	GENERAL NOTES, ABBREV., & LEGEND
P001-K	PLUMBING SITE PLAN - KEMPNER HS FIELDS
P101-K	GENERAL NOTES, ABBREV., & LEGEND
P001-W	PLUMBING SITE PLAN - WILLOWRIDGE HS FIELDS
P101-W	GENERAL NOTES, ABBREV., & LEGEND

(#) PLUMBING KEYED NOTES



3 3D VIEW - BASEBALL DUGOUT - ELKINS HS - PLUMBING



2 3D VIEW - SOFTBALL DUGOUT - ELKINS HS - PLUMBING

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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PROJECT NO. 29-059
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

No.	Date	Description
	10/09/2025	100% CD

PROJECT STATUS
P001-E
PLUMBING SITE PLAN - ELKINS HS FIELDS

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GENERAL PLUMBING NOTES:

GENERAL

1. CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE, AND APPLICABLE AHJ ADOPTED CODES, ALL OTHER LOCAL CODES AND AMENDMENTS WHERE THERE ARE CONFLICTS BETWEEN CODES, STANDARDS, DRAWINGS AND SPECIFICATIONS ARISE, THE MORE STRINGENT SHALL APPLY.
2. PLUMBING EQUIPMENT SHALL BE LISTED, LABELED, AND MARKED FOR USE BY AN APPROVED THIRD-PARTY CERTIFICATION AGENCY AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC. ALL PLUMBING PRODUCTS AND MATERIALS SHALL BE LISTED BY A THIRD – PARTY CERTIFICATION AGENCY AS COMPLYING WITH THE REFERENCED STANDARDS.
3. ALL DRAWINGS AND SPECIFICATIONS (INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING, ETC) ARE DEVELOPED TO BE AN INCLUSIVE SET. ANY CONFLICTS WITHIN SHALL BE BROUGHT TO THE DESIGN'S TEAM ATTENTION. CONTRACTOR SHALL NOT MAKE ANY CHANGES TO THE DESIGN OR CONTRACT WITHOUT WRITTEN CONSENT FROM THE OWNER.
4. WORK SHALL BE INSTALLED IN A WORKMAN LIKE FASHION. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS.
5. MAINTAIN THE CONSTRUCTION PREMISES IN A NEAT AND ORDERLY CONDITION. CONTRACTOR SHALL PROTECT THEIR WORK AGAINST WEATHER, THEFT, AND DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
6. ALL PRODUCTS SHALL COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND UL 723.
7. QUALITY CONTROL
   7.1. INSTALLER: QUALIFIED WITH AT LEAST 5 YEARS OF SUCCESSFUL INSTALLATION EXPERIENCE ON PROJECTS WITH WORK SIMILAR TO THAT REQUIRED FOR THIS PROJECT.
   7.2. UL COMPLIANCE: PROVIDE COMPONENTS WITH UL LISTING AND LABELING WHEN THERE IS AN APPLICABLE UL CATEGORY.
   7.3. COMPLY WITH THE MINIMUM STANDARDS PRESCRIBED IN REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS: UNDERWRITER'S LABORATORIES, INC. STANDARDS., INTERNATIONAL PLUMBING CODE CURRENT EDITION AND OTHER CODES, ORDINANCES, AND LAWS APPLICABLE TO THE PLACE OF THE WORK.
8. SUBMITTALS - SUBMIT 4 COPIES (OR ELECTRONIC) OF DATA FOR REVIEW AND COMMENT BY OWNER PRIOR TO ORDERING. INCLUDE MANUFACTURER'S STANDARD SUBMITTAL DATA WITH MANUFACTURER'S NAME AND MODEL NUMBERS, COLOR, FINISH, SIZE AND ALL OPTIONS CLEARLY MARKED.
9. SUBSTITUTIONS SHALL BE EVALUATED AND APPROVED BY OWNER AND ENGINEER PRIOR TO CONTRACTOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AMONG TRADES AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. PENETRATIONS BETWEEN NON-CONDITIONED AND CONDITIONED SPACES WILL BE SEALED TO ELIMINATE MOISTURE MITIGATION, SUCH AS BETWEEN INSIDE AND OUTSIDE BUILDINGS, NON-CONDITIONED BOILER ROOMS, INTO REFRIGERATORS / FREEZERS, ETC.
11. CITY NOTE: PLUMBING MATERIAL AND EQUIPMENT: NO MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THE CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, THE LAWS OF THE STATE OF TEXAS AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUTES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVED AGENCY.

PLUMBING PIPING SYSTEMS

1. ALL PACKAGED EQUIPMENT SHALL BE INDEPENDENTLY THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A (UL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS, AS WELL AS NFPA PAMPHLET NO. 70, AND THE NATIONAL ELECTRICAL CODE (NEC).
2. ALL SYSTEMS SHALL BE A COMPLETE AND OPERABLE SYSTEM PROVIDE THE NECESSARY ADAPTORS, FITTINGS, DEVICES, ETC. PROVIDE COMPLETE WITH BASES, ISOLATORS, SUPPORTS AND OTHER REQUIRED ACCESSORIES.
3. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES FOR REQUIREMENTS OF ALL EQUIPMENT AND DEVICES AS REQUIRED FOR PROPER FUNCTIONING SYSTEM.
4. ALL ABOVE GRADE PIPING SHALL BE INSTALLED PARALLEL TO BUILDING WALLS U.N.O.
5. ALL PIPING TO BE INSTALLED WITH A UNIFORM SLOPE TO MITIGATE UN DRAINABLE LOW POINTS.
6. DI-ELECTRIC UNIONS AND COUPLINGS ARE REQUIRED FOR DISSIMILAR METALS SUCH AS CONNECTIONS BETWEEN COPPER AND STEEL OR IRON PIPES.

DOMESTIC WATER SYSTEM

LEAD-FREE PRODUCTS:

1. PROVIDE MATERIALS, PRODUCTS, AND FABRICATIONS THAT COMPLY WITH ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS AND RECOMMENDATIONS REGARDING LEAD CONTENT AND CONTRIBUTION OF LEAD TO POTABLE WATER, THAT HAVE NO LEAD OR LEAD ALLOYS IN CONTACT WITH POTABLE WATER, AND THAT DO NOT CONTRIBUTE TO OR CAUSE LEAD IN POTABLE WATER.
2. SOLDER: LEAD FREE, ASTM B32 95-5 TIN-ANTIMONY OR GRADE SN96 TIN-SILVER SOLDER.
3. FLUX: CONTAINING NOT MORE THAN 0.2 PERCENT LEAD, MEETING NSF 61.

PIPING, INTERIOR TO 5' OUTSIDE:

COPPER:
STRAIGHT WATER TUBE, K OR L, ASTM B88 OR B543.
WROUGHT COPPER AND BRONZE SOLDER-JOINT PRESSURE FITTINGS, ANSI B16.22.
WHERE INDICATED ON DRAWINGS TO BE BELOW, IN, OR THROUGH SLAB-ON-GRADE:
COPPER, COILED WATER TUBE, K OR L, ASTM B88.
WROUGHT COPPER AND BRONZE SOLDER-JOINT PRESSURE FITTINGS, ANSI B16.22.
PIPE 1.5" OR SMALLER, IN OR UNDER SLABS-ON-FILL: CONTINUOUS, WITHOUT JOINTS OR FITTINGS.
PIPE 2" OR LARGER, IN OR UNDER SLABS-ON-FILL: BRAZED JOINTS.
PEX: IF APPROVED INDICATE ON BID FORM ALTERNATE PRICING FOR USE OF PEX PIPING AND FITTINGS.
a. USE ABOVE GRADE WHERE CONCEALED IN WALLS OR ABOVE CEILING ONLY.
b. PROVIDE WITH MANUFACTURERS STANDARD LEAD-FREE BRONZE FITTINGS WITH DISCONNECT FEATURE.

LEAD-FREE BALL VALVES, POTABLE WATER SYSTEM.

1. BALL VALVES: TWO-PIECE BODY, FULL PORT, BLOWOUT-PROOF STEM, PTFE SEATS, CONFORMS TO MSS SP-110, SILICON PERFORMANCE BRONZE ALLOY, SIZE RANGE: 1/4" - 2", PRESSURE RATING: 600 PSI CWP. SWEAT-TO-CRIMP LEAD FREE ADAPTERS AT VALVES. COMPLY WITH LEAD-FREE REQUIREMENTS OF NSF-61-G FOR PARTS OF VALVES AND FITTINGS COMING IN CONTACT WITH POTABLE WATER.
2. ACCESS DOOR: WHERE VALVES ARE CONCEALED ABOVE HARD CEILINGS OR IN WALLS PROVIDE THIN-FLANGED, FRAMED ACCESS DOOR, MINIMUM OF 10 INCHES SQUARE OR ADEQUATE TO SERVICE THE DEVICE, 18-8 STAINLESS STEEL CONSTRUCTION WITH NO. 4 FINISH; SMITH 4762.
3. IDENTIFICATION: WHERE VALVES ARE CONCEALED ABOVE CEILINGS ORIN WALLS, PROVIDE ENGRAVED LAMINATED PLASTIC LABLES WITH 1/2" HIGH LETTERS TO INDICATE LOCATION OF VALVE. AFFIX LABEL TO CEILING OR WALL WHERE VALVES ARE CONCEALED.

SANITARY WASTE AND VENT PIPING

1. MATERIAL: REFER TO MATERIAL LEGEND. IF CAST IRON REFER TO CHAPTER IV OF CISPI "CAST IRON SOIL PIPE AND FITTINGS HANDBOOK".
2. INSTALLATION: INSTALL WASTE AND VENT PIPING AT A MINIMUM SLOPE AS INDICATED UNLESS OTHERWISE INDICATED ON THE PLANS:
3. SANITARY PIPE: 2 PERCENT DOWNWARD IN DIRECTION OF FLOW FOR PIPING 2-1/2" AND SMALLER; 1 PERCENT DOWNWARD IN DIRECTION OF FLOW FOR PIPING 3" TO 6".
4. VENT PIPE: 1 PERCENT DOWN TOWARDS THE VERTICAL FIXTURE VENT OR TOWARD THE VENT STACK.

FOUNDATIONS, HANGERS AND SUPPORTS

1. GENERAL PURPOSE: MANUFACTURERS STANDARDIZATION SOCIETY SP-69 OR FEDERAL SPECIFICATION WW-H-171D, TYPES AS RECOMMENDED OR REQUIRED. PERFORATED OR PLAIN METAL STRAP AND WIRE ARE NOT ACCEPTABLE.
2. HANGERS IN CONTACT WITH COPPER PIPE: SAME AS FOR GENERAL PURPOSE, COPPER OR COPPER PLATED WITH PLASTIC COATING.

INSULATION - HOT AND COLD PIPE:

(1) FLEXIBLE CELLULAR INSULATION (FOAMED PLASTIC): FOAMED PLASTIC, FLEXIBLE, K OF 0.25 AT 75EF, 220EF TEMPERATURE LIMIT, DENSITY OF 5.8PCF, ASTM C534, R4.0.
(2) UL LISTED FOR FLAME SPREAD 25, SMOKE DEVELOPED 50, FUEL CONTRIBUTED 50.
(3) PROVIDE THICKNESSES AND INSTALL AS RECOMMENDED BY MANUFACTURER.
(4) BUTT INSULATION TOGETHER AND ADHERE IN PLACE WITH MANUFACTURER'S RECOMMENDED CONTACT CEMENT. WHERE POSSIBLE, SLIP TUBING ON WITHOUT SLITTING. WHERE INSULATION TERMINATES, NEATLY BEVEL AND FINISH.
(5) ROOF DRAINS AND INTERIOR DOWNSPOUTS: VERTICAL PIPING, EXCEPT BETWEEN ROOF-DECK DRAIN AND FIRST ELBOW AND WITHIN TWO FEET OF NON-VERTICAL PIPING, NEED NOT BE INSULATED; INSULATE OTHER RD AND DS PIPING, AND INSULATE THE ROOF-DECK DRAIN (RD) SUMPS WITH SHEET INSULATION. HORIZONTAL PIPING WITHIN CRAWL-SPACE NEED NOT BE INSULATED.
(6) HOT AND COLD WATER, HOT WATER CIRCULATING: PROVIDE THICKNESS RECOMMENDED BY MANUFACTURER. MAINTAIN VAPOR BARRIER ON COLD WATER PIPING INSULATION.
(7) WHERE EXPOSED TO VIEW, BENEATH THE BUILDING, OR EXPOSED TO WEATHER:

A. PAINT WITH INSULATION MANUFACTURER'S PAINT FINISH, TINTED AS SELECTED BY ARCHITECT-ENGINEER, SPECIFICALLY FORMULATED IF EXPOSED OUTDOORS.

B. PROVIDE 16 GAGE ALUMINUM OR STAINLESS STEEL COVER WITH MATCHING ALUMINUM OR STAINLESS STEEL BANDS SPACED 18 INCHES OVER PIPE AND FITTINGS WHERE EXPOSED TO WEATHER OR EXPOSED TO OCCUPANTS AND WITHIN 84 INCHES OF THE FLOOR.

(1) PRODUCT; ARMSTRONG ARMAFLEX WITH WB ARMAFLEX FINISH INDOORS, ARMSTRONG ARMAFLEX WITH SB ARMAFLEX FINISH OUTDOORS.

EXISTING UTILITIES

1. THE LOCATIONS, SIZES AND ELEVATIONS OF EXISTING UTILIZES SHOWN ON THE PLANS ARE BASED ON INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF DESIGN AND MAY NOT REFLECT REAL WORLD CONDITIONS, HOWEVER THE CONTRACTOR IS RESPONSIBLE FOR FIELD DISCOVERY AND MAKING ADJUSTMENTS AS NECESSARY TO PERFORM THE REQUIRED SCOPE OF WORK. HOWEVER, PRIOR TO MAKING ANY ADJUSTMENTS OR PERFORMING WORK THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER AND/OR ARCHITECT FOR APPROVAL.

COPPER PIPING

1. MATERIAL: REFER TO MATERIAL LEGEND. IF TYPE L, THE PIPE JOINTS MUST BE SOLDERED UTILIZING LEAD FREE SOLDER AND NON-ACID FLUX PASTE.

TRAPEZE PIPE HANGERS

DESCRIPTION: MSS SP-58, TYPE 59, SHOP- OR FIELD-FABRICATED PIPE-SUPPORT ASSEMBLY, MADE FROM STRUCTURAL-CARBON-STEEL SHAPES, WITH MSS SP-58 CARBON-STEEL HANGER RODS, NUTS, SADDLES, AND U-BOLTS.

CARBON-STEEL PIPE HANGERS AND SUPPORTS:

1. DESCRIPTION: MSS SP-58, TYPES 1 THROUGH 58, FACTORY-FABRICATED COMPONENTS.
2. GALVANIZED METALLIC COATINGS: PRE-GALVANIZED, HOT-DIP GALVANIZED, OR ELECTRO-GALVANIZED.
3. NONMETALLIC COATINGS: PLASTIC COATED OR EPOXY POWDER COATED.
4. PADDED HANGERS: HANGER WITH FIBERGLASS OR OTHER PIPE INSULATION PAD OR CUSHION TO SUPPORT BEARING SURFACE OF PIPING.
5. HANGER RODS: CONTINUOUS-THREAD ROD, NUTS, AND WASHER MADE OF CARBON STEEL

COPPER PIPE AND TUBE HANGERS:

1. DESCRIPTION: MSS SP-58, TYPES 1 THROUGH 58, COPPER-COATED-STEEL, FACTORY-FABRICATED COMPONENTS
2. HANGER RODS: CONTINUOUS-THREAD ROD, NUTS, AND WASHER MADE OF COPPER-COATED STEEL.

HANGER AND SUPPORT INSTALLATION

A. METAL PIPE-HANGER INSTALLATION: COMPLY WITH MSS SP-58. INSTALL HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS AS REQUIRED TO PROPERLY SUPPORT PIPING FROM BUILDING STRUCTURE.

B. METAL TRAPEZE PIPE-HANGER INSTALLATION: COMPLY WITH MSS SP-58. ARRANGE FOR GROUPING OF PARALLEL RUNS OF HORIZONTAL PIPING, AND SUPPORT TOGETHER ON FIELD-FABRICATED TRAPEZE PIPE HANGERS.

C. PIPES OF VARIOUS SIZES: SUPPORT TOGETHER AND SPACE TRAPEZES FOR SMALLEST PIPE SIZE, OR INSTALL INTERMEDIATE SUPPORTS FOR SMALLER-DIAMETER PIPES AS SPECIFIED FOR INDIVIDUAL PIPE HANGERS.

D. FIELD FABRICATE FROM ASTM A36/A36M CARBON-STEEL SHAPES SELECTED FOR LOADS BEING SUPPORTED, WELD STEEL ACCORDING TO AWS D1.1/D1.1M.

E. INSTALL HANGERS AND SUPPORTS COMPLETE WITH NECESSARY ATTACHMENTS, INSERTS, BOLTS, RODS, NUTS, WASHERS, AND OTHER ACCESSORIES.

F. INSTALL HANGERS AND SUPPORTS TO ALLOW CONTROLLED THERMAL AND SEISMIC MOVEMENT OF PIPING SYSTEMS, TO PERMIT FREEDOM OF MOVEMENT BETWEEN PIPE ANCHORS, AND TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, EXPANSION BENDS, AND SIMILAR UNITS.

G. INSTALL LATERAL BRACING WITH PIPE HANGERS AND SUPPORTS TO PREVENT SWAYING.

CLEANUP AND PAINTING

1. AFTER COMPLETION OF THE WORK THE PLUMBING CONTRACTOR SHALL REMOVE ALL EXTRA MATERIALS, FITTINGS, PIPES, ETC, WHICH HAVE BEEN BROUGHT TO THE SITE FOR COMPLETION OF THEIR SCOPE OF WORK. ALL DEBRIS CREATED BASED ON THEIR CONSTRUCTION EFFORT SHALL BE REMOVED.
2. ALL UNINSULATED PIPING AND EQUIPMENT SHALL BE CLEANED OF OIL, GREASE AND DIRT. ALL SURFACES SHALL BE CLEAN AND FREE OF DIRT AND CORROSION, READY FOR PAINTING BY OTHERS (UNLESS THE PLUMBING CONTRACTOR HAS BEEN TASKED BY THE GENERAL CONTRACTOR FOR PAINTING OF THEIR OWN EQUIPMENT AND EXPOSED PIPING).

TESTING

1. ALL CONCEALED WORK SHALL REMAIN UNCOVERED UNTIL ALL REQUIRED TESTS HAVE BEEN COMPLETED. NOTE THAT THIS TESTING MAY BE DONE IN PHASED AREAS AS DEEMED NECESSARY BY THE GENERAL CONTRACTOR. THE CONTRACTOR WILL REPAIR ANY DEFECTS WHICH ARE DISCOVERED AS A RESULT OF INSPECTION OR TEST WITH NEW MATERIAL. CAULKING OF SCREWED JOINTS, CRACKS OR HOLES WILL NOT BE ACCEPTABLE. THE TEST MUST BE REPEATED AFTER REPLACEMENT AND DEFECTS HAVE BEEN ELIMINATED.
2. POTABLE WATER SHALL BE TESTED BEFORE FIXTURES AND FAUCETS ARE CONNECTED AND/OR BEFORE CONNECTING TO ANY EXISTING PIPING SYSTEM. THE SYSTEM WILL BE FILLED WITH WATER AND PRESSURE TESTED TO 150 PSI FOR A MINIMUM OF ONE HOUR WITHOUT ANY LEAKS OR PRESSURE LOSS.

PLUMBING DEMOLITION NOTES:

1. THE CONTRACTOR WILL VISIT THE SITE TO REVIEW THE EXISTING CONDITIONS ASSOCIATED WITH THE SCOPE OF WORK TO DETERMINE THE EXTENTS OF DIFFICULTY REQUIRED TO PERFORM THE REQUIRED SERVICES SO THAT LATER CLAIMS ABOUT UNFORESEEN CONDITIONS WILL BE MITIGATED TO THE FULLEST EXTENT POSSIBLE.
2. DEMOLITION IS INCLUSIVE OF ALL MATERIAL, CONNECTIONS, CUTTING, REPAIRING AND ADAPTING THE SYSTEMS WHICH ARE TO REMAIN IN OPERATION SO THAT A FULL AND COMPLETE SYSTEM IS PROVIDED ONCE THE PROJECT IS COMPLETE.
3. THE CONTRACTOR IS RESPONSIBLE TO RELOCATING AND RECONNECTING EXISTING WORK WHICH INTERFERES WITH THE NEW PLUMBING (INCLUDING BUT NOT LIMITED TO ELECTRICAL, MECHANICAL, BUILDING ELEMENTS, ETC), USING MATERIAL IN CONFORMANCE WITH THE CURRENT CODES AND/OR THE PROJECT DOCUMENTS. FULL COORDINATION IS REQUIRED WITH ALL OTHER TRADES PRIOR TO THE OF ANY START OF WORK.
4. REMOVE ALL EQUIPMENT AND FIXTURES AS NOTED ON THE ARCHITECTURAL DRAWINGS (NOT ONLY THOSE NOTED ON THE PLUMBING PLANS) AND PROVIDE TEMPORARY SERVICES (WATER, SANITARY, ETC.) SO THAT OTHER AREAS NOT LOCATED IN THE SCOPE OF WORK REMAIN IN SERVICE THROUGHOUT DURATION OF THE PROJECT.
5. ANY BASE BUILDING PIPING WHICH IS ABANDONED WITHIN THE SCOPE OF WORK AREA SHALL BE REMOVED BACK TO THE EXISTING WET COLUMN. COORDINATE WITH THE BUILDING OWNER FOR REMOVAL OF ALL ITEMS SO THAT NO SYSTEMS OUTSIDE THE OUTSIDE OF THE SCOPE OF WORK AREA HAVE AN OUTAGE.

PLUMBING ABBREVIATIONS

CODES:

ADA	AMERICANS WITH DISABILITIES ACT
AHJ	AUTHORITY HAVING JURISDICTION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
IBC	INTERNATIONAL PLUMBING CODE
IECC	INTERNATIONAL ENERGY CONSERVATION CODE
IPC	INTERNATIONAL PLUMBING CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
OSHA	OCCUPATIONAL SAFETY
TAS	TEXAS ACCESSIBILITY STANDARDS
UPC	UNIFORM PLUMBING CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
RME	LICENSED RESPONSIBLE MANAGING EMPLOYEE

GENERAL:

SD	SCHEMATIC DESIGN
DD	DESIGN DEVELOPMENT
CD	CONSTRUCTION DOCUMENTS
REV	REVISION
(D)	DEMOLITION
(E)	EXISTING
(N)	NEW
(R)	RELOCATE
A/E	ARCHITECT/ENGINEER
AFF	ABOVE FINISHED FLOOR
FWFF	FLUSH WITH FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AP	ACCESS PANEL
BD	BLOW DOWN
BFF	BELOW FINISH FLOOR
BFG	BELOW FINISH GRADE
BOP	BOTTOM OF PIPE
BT	BLADDER TANK
BTUH	BRITISH THERMAL UNITS PER HOUR
BYP	BYPASS
C-C	CENTER LINE
CFH	CUBIC FEET PER HOUR
CL	CENTERLINE
C&S	CAP & SEAL
DEG	DEGREE
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN THRU FLOOR
DRN	DRAIN
DWG	DRAWING
EA	EACH
EL	ELEVATION
ENG.	ENGINEER
EQ	EQUAL
F	FAHRENHEIT
FFL	FINISHED FLOOR LEVEL
FIN	FINISH
FOG	FATS, OILS AND GREASE
FP	FIRE PROTECTION
GA	GAUGE
GEN	GENERATOR
GPD	GALLONS PER DAY
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MIN
I-D	INSIDE DIAMETER
I.L.F.F.F.	INVERT LEVEL FROM FINISHED FLOOR
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
MECH	MECHANICAL
MIN	MINIMUM
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OS&Y	OUTSIDE SCREW & YOKE
PH	PHASE
PPB	PARTS PER BILLION
PPM	PARTS PER MILLION
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
RCP	REFLECTED CEILING PLAN
RS	RISING STEM
SPEC	SPECIFICATION
SWG	SWAGE
TC	TIME CLOCK
TG	TRAP GUARD <- ENG. RECOMMENDED
TMEP	TEMPERATURE
TOC	TOP OF CONCRETE
TOP	TOP OF PIPE
TP	TRAP PRIMER
TYP	TYPICAL
UP	UP THRU FLOOR
VTR	VENT THRU ROOF
"WC	INCHES OF WATER COLUMN
WHA	WATER HAMMER ARRESTOR
WP	WEATHERPROOF

EQUIPMENT TAGS:

GWH	GAS WATER HEATER
IGWH	INSTANTANEOUS GAS WATER HEATER
EWH	ELECTRICAL WATER HEATER
IH	INSTANTANEOUS WATER HEATER
CP	CIRCULATING PUMP
DBP	DOMESTIC BOOSTER PUMP
GT	GREASE TRAP
GI	GREASE INTERCEPTOR
SI	SAND OIL INTERCEPTOR
LT	LINT TRAP
ANT	ACID NEUTRALIZATION TANK
SW	SAMPLE WELL
WM	WATER METER

FIXTURE TAGS:

WC	WATER CLOSET
U	URINAL
LAV, L	LAVATORY
SK	SINK
MS	MOP SINK
SH	SHOWER
WB	WASHER BOX
BT	BATH TUB
VB	VALVE BOX
EDF	ELECTRIC DRINKING FOUNTAIN
FD	FLOOR DRAIN
FS	FLOOR SINK
FFD	FABRICATED FUNNEL DRAIN
GD	GARAGE DRAIN
VB	VACUUM BREAKER
BFP	BACKFLOW PREVENTER
RPZ	REDUCED PRESSURE ZONE DEVICE
WCO	WALL CLEANOUT
ECO	EXTERIOR CLEANOUT
FCO	FLOOR CLEANOUT
TCO	TRAFFIC CLEANOUT
END CO	END CLEANOUT
WH	WALL HYDRANT
HB	HOSE BIBB
RH	ROOF HYDRANT
GH	GROUND HYDRANT
BAV	BALL VALVE
BFV	BUTTER FLY VALVE
BV	BALANCING VALVE
CV	CHECK VALE
GC	GAS COCK
GV	GATE VALVE
PRV	PRESSURE REDUCING VALVE
CS	CIRCUIT SOLVER

PIPING SYSTEMS:

[O]	OVERFLOW
[P]	PRIMARY
A	AIR
C.D.	CONDENSATE DRAINAGE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
FW	FILTERED WATER
GRW	GRAY WATER
GW	GREASE WASTE
HWR	HOT WATER RETURN
ID	INDIRECT DRAINAGE
NG	NATURAL GAS
LPG	LIQUEFIED PETROLEUM GAS
OS	SUDS STACK
OSD	OVERFLOW STORM DRAINAGE
PW	POTABLE WATER
RHS	RAIN HARVESTING SYSTEM
SAN / S	SANITARY DRAINAGE
STORM, ST	STORM DRAINAGE
SW	SOFT WATER
TW	TEMPERED WATER
TWR	TEMPERED WATER RETURN
V	VENT
VS	VENT STACK
WS	WASTE STACK

MAINTENANCE SHOP PIPING SYSTEMS:

AF	ANTI-FREEZE
TF	TRANSMISSION FLUID
DF	DEFFERENTIAL FLUID
EO	ENGINE OIL
EO-DIL	DIESEL MOTOR OIL
EO-CNG	CNG MOTOR OIL
GO	GEAR OIL
GR	GREASE
HO	HYDRAULIC OIL
WAF	WASTE ANTI-FREEZE
WO	WASTE OIL
WW	WINDSHIELD WIPER FLUID

MATERIALS:

ABS	ACRYLONITRILE BUTADIENE STYRENE
AL	ALUMINUM
CI	CAST IRON
CS	CARBON STEEL
CU	COPPER
DI	DUCTILE IRON
GALV	GALVANIZED
PVC	POLYVINYL CHLORIDE (PLASTIC)
PVDF	POLYVINYLIDENE FLUORIDE
RGS	RIGID GALVANIZED STEEL
SS	STAINLESS STEEL
PP	POLYPROPYLENE
PTFE	POLYTETRAFLUOROETHYLENE
PVDC	POLYVINYLIDENE CHLORIDE

PLUMBING LEGEND

XX-1	PLUMBING FIXTURE TAG
X"XX-1	OUTLET SIZE / DRAIN TAG
XX-1	HYDRANT / HOSE BIBB
XX-1	EQUIPMENT TAG
(D)	EXISITNG TO BE DEMOLISHED
(E)	EXISTING TO REMAIN
X1 / X"	RISER TAG # / PIPE SIZE
X"DCW	DOMESTIC COLD WATER
X"DHW	DOMESTIC HOT WATER
X"HWR	HOT WATER RETURN
X"SW	SOFT WATER
X"RO	REVERSE OSMOSIS WATER
X"DI	DEIONIZED WATER
X"DH2O	DISTILLED WATER
X"NP-CW	NON-POTABLE COLD WATER
X"NP-HW	NON-POTABLE HOT WATER
X"OSD	OVERFLOW STORM DRAINAGE
X"SD	STORM DRAINAGE (BELOW SLAB)
X"SD	STORM DRAINAGE (ABOVE SLAB)
X"V	VENT (ABOVE SLAB)
X"V	VENT (BELOW SLAB)
X"SAN	SANITARY DRAINAGE (BELOW SLAB)
X"SAN	SANITARY DRAINAGE (ABOVE SLAB)
X"D	DRAINAGE
X"GW	GREASE WASTE (BELOW SLAB)
X"GW	GREASE WASTE (ABOVE SLAB)
X"CD	CONDENSATE - RE: HVAC PLANS
X"AV	ACID VENT (BELOW SLAB)
X"AV	ACID VENT (ABOVE SLAB)
X"AW	ACID WASTE (BELOW SLAB)
X"AW	ACID WASTE (ABOVE SLAB)
X"NG	NATURAL GAS
X"LPG	LIQUID PROPANE GAS
X"C-VAC	CENTRAL VACCUM

FLOOR CLEANOUT
EXTERIOR CLEANOUT
FLOOR DRAIN
FLOOR DRAIN W/ FUNNEL
FLOOR SINK FULL GRATE
FLOOR SINK 1/2 GRATE
RH-1
WH-1 HB-1
FULL PORT BALL VALVE
CHECK VALVE
WHA RE: DETAIL
X PIPE ACCESSORY TAG
AVOID ANY PLUMBING IN THIS AREA
ENLARGED PLAN / SCOPE OF WORK

PLUMBING - FIXTURE SCHEDULE

TAG	ADA	FLOW RATE	DESCRIPTION	MANUFACTURER - MODEL #	FLUSH VALVE OR FAUCET	TRAP	WASTE	VENT	CW	HW	*TMV	NOTES
WH-1	No	10 GPM	FREE STANDING HOSE BIB	MDF 24-8 SMSS	-	-	-	-	3/4"	-		

MATERIAL LEGEND

1. **DOMESTIC WATER:**
   TYPE "L" COPPER TUBING WITH WROUGHT COPPER FITTINGS AND 95/5 (TIN/ANTIMONY) SOLDER JOINTS.

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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G:\ PROJECT # 2025.044
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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

FBISD
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INTERIM REVIEW ONLY
Document is Incomplete
Not intended for permit or construction
Engineer: DAVIA GERNAND
PE License No. 109903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-059
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

Date	Description
10/09/2025	100% CD

PROJECT STATUS
P101-E
GENERAL NOTES, ABBREV., & LEGEND

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I DESIGN CRITERIA

A. GENERAL BUILDING CODE

1. THE CONSTRUCTION DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE 2021 WITH AMENDMENTS.

B. DEAD LOADS

1. HANGING CEILING AND MECHANICAL LOADS: FOLLOWING ALLOWANCES HAVE BEEN MADE FOR HANGING CEILING AND MEHCANICAL EQUIPMENT LOADS SUCH AS DUCT WORK AND SPRINKLER PIPES.
   a. ROOF 10 PSF
   b. MEP SYSTEMS 4 PSF.

C. LIVE LOADS

1. DESIGN LIVE LOADS ARE LISTED BELOW
   a. ROOF 20 PSF (REDUCIBLE)
   b. FLOOR 100 psf

D. WIND LOADS
1. WIND PRESSURES ARE BASED ON THE PROVISIONS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE 7-22 AND THE FOLLOWING CRITERIA:
   a. ULTIMATE DESIGN WIND SPEED (VULT): 140 MPH (3 SECOND GUST)
   b. BUILDING RISK CATEGORY: III
   c. WIND EXPOSURE CATEGORY: B
   d. INTERNAL PRESSURE COEFFICIENT (GCPI): [+0.55/-0.55]

2. WIND PRESSURE USED IN THE DESIGN OF THE CLADDING ARE SHOWN ON THE STRUCTURAL DRAWINGS, SHEET S-002

E. HANDRAILS AND GUARDS

1. THE STRUCTURAL STRENGTH OF GRAB BARS, TUB AND SHOWER SEATS, FASTENERS, AND MOUNTING DEVICES SHALL MEET THE FOLLOWING SPECIFICATION:
   a. BENDING STRESS IN A GRAB BAR OR SEAT INDUCED BY THE MAXIMUM BENDING MOMENT FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE STRESS FOR THE MATERIAL OF THE GRAB BAR OR SEAT.
   b. SHEAR STRESS INDUCED IN A GRAB BAR OR SEAT BY THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE SHEAR STRESS FOR THE MATERIAL OF THE GRAB BAR OR SEAT. IF THE CONNECTION BETWEEN THE GRAB BAR OR SEAT AND ITS MOUNTING BRACKET OR OTHER SUPPORT IS CONSIDERED TO BE FULLY RESTRAINED, THEN DIRECT AND TORSIONAL SHEAR STRESSES SHALL BE TOTALED FOR THE COMBINED SHEAR STRESS, WHICH SHALL NOT EXCEED THE ALLOWABLE SHEAR STRESS.
   c. SHEAR FORCE INDUCED IN A FASTENER OR MOUNTING DEVICE FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE LATERAL LOAD OF EITHER THE FASTENER OR MOUNTING DEVICE OR THE SUPPORTING STRUCTURE, WHICHEVER IS THE SMALLER ALLOWABLE LOAD.
   d. TENSILE FORCE INDUCED IN A FASTENER BY A DIRECT TENSION FORCE OF 250 LBF PLUS THE MAXIMUM MOMENT FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE WITHDRAWAL LOAD BETWEEN THE FASTENER AND THE SUPPORTING STRUCTURE.
   e. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

F. HANDRAILS AND GUARDS

1. THE HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED FOR 50 PLF OR A CONCENTRATED LOAD OF 200 POUNDS AT ANY POINT APPLIED IN ANY DIRECTION AT THE TOP AND TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE. THESE LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.

G. BUILDING MOVEMENT AND DEFLECTIONS

1. THE BUILDING MOVEMENT SPECIFIED HEREIN IS ANTICIPATED TO OCCUR AND SHOULD BE CONSIDERED BY THE CONTRACTOR IN THE PERFORMANCE OF THE WORK.

2. SPANDREL BEAM DEFLECTIONS. THE FOLLOWING PROVISION SHOULD BE MADE FOR SUPERIMPOSED LOAD DEFLECTION OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR IN THE DESIGN, FABRICATION, AND ERECTION OF THE BUILDING CLADDING:
   a. TYPICAL SPANDREL BEAM: 3/8"

   SUPERIMPOSED LOAD DEFLECTION IS DEFINED AS ALL DEFLECTION ANTICIPATED TO OCCUR AFTER THE CLADDING HAS BEEN ERECTED. THE RELATIVE DEFLECTION ABOVE DOES NOT INCLUDE THE FLOOR DEFLECTION CAUSED BY THE WEIGHT OF THE CLADDING ITSELF OR THE DEAD LOAD DEFLECTION OF THE FLOOR FRAMING ITSELF, NOR DOES IT INCLUDE ANY ALLOWANCE FOR FABRICATION OR ERECTION TOLERANCES.

3. FLOOR DEFLECTIONS: THE FOLLOWING PROVISION FOR SUPERIMPOSED LOAD DEFLECTIONS SHALL BE MADE IN THE DESIGN, FABRICATION, AND INSTALLATION OF ALL PARTITIONS, GLASS WALLS, AND OTHER ELEMENTS SUPPORTED BY AND ATTACHED TO THE STRUCTURE:
   a. TYPICAL FLOOR MEMBERS: SPAN/360 BUT NOT LESS THAN 3/8"
   b. TYPICAL ROOF MEMBERS: SPAN/360 BUT NOT LESS THAN 3/8"

4. LATERAL FRAME WIND DEFLECTION (DRIFT): THE FOLLOWING PROVISION FOR LATERAL FRAME DEFLECTION IN THE PLANE OF THE WALL OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR SHALL BE MADE IN THE DESIGN, FABRICATION AND INSTALLATION OF THE BUILDING CLADDING:
   a. TYPICAL FLOOR TO FLOOR: FLOOR HEIGHT/400 THE DEFLECTIONS LISTED ABOVE ARE BASED ON WIND LOADS WITH A 10-YEAR MEAN RECURRENCE INTERVAL.

II FOUNDATION (ELKINS)

A. GEOTECHNICAL REPORT

1. - THE GEO TECH REPORT IS PREPARED BY HVJ ASSOCIATES
   - REPORT IS PREPARED FOR FBISD SCHOOL IMPROVEMENTS TURF AND ATHLETICS ; ELKIN HIGHT SCHOOL FORT BEND COUNTRY , TEXAS
   -GEO TECH REPORT DATED FEBRUARY 9 ,2024
   - GEO TECH REPORT NUMBER /PROJECT NUMBER - HG1810383.17-E

B- FOUNDATION APPROVAL AND INSPECTION BY AUTHORIZED INSPECTOR

1. 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.

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

A. GRADE BEAMS
1. GRADE BEAM SIDE FORMS
   a. FORM EXPOSED FACES OF GRADE BEAMS.
2. 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.

3. 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 ON TABLES OR TYPICAL DETAILS. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

D. SLAB ON GRADE CONSTUCTION
1. SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R.

2. SUBGRADE PREPARATION SHALL CONFORM TO THE SOILS REPORT NOTED ABOVE.
   i- BASEBALL DUGOUT/CONCESSION USE SELECT FILL THICKNESS 2 FT THICK PREPARED BASED ON THE SOIL REPORT TO ACHIEVER 1" PVR.
   ii- BASEBALL DUGOUT/CONCESSION USE SELECT FILL THICKNESS OF 5 FT THICK PREPARED BASED ON THE SOIL REPORT TO ACHIEVE 1" PVR
3. EXTEND SELECT FILL PAD 5 FT BEYOND THE EDG OF THE PROPOSED STRUCTURE (DUGOUTS)

4. PROVIDE (2) #4 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

E. VAPOR RETARDER

1. 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.

   • STEGO WRAP VAPOR BARRIER (15 MILS) VAPORGUARD BY REEF INDUSTRIES ECOSHEILD-E 15 MIL BY EPRO SERVICES
2. ALL 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.

2. THE GEOTECHNICAL REPORT IS AVAILABLE TO THE GENERAL CONTRACTOR UPON REQUEST TO THE OWNER. THE INFORMATION INCLUDED THEREIN MAY BE USED BY THE GENERAL CONTRACTOR FOR HIS GENERAL INFORMATION ONLY. THE ARCHITECT AND ENGINEER WILL NOT BE RESPONSIBLE FOR THE ACCURACY OR APPLICABILITY OF SUCH DATA THEREIN.

B. CONSTRUCTION DEWATERING

1. THE CONTRACTOR SHALL DETERMINE THE EXTENT OF CONSTRUCTION DEWATERING REQUIRED FOR THE EXCAVATION. THE CONTRACTOR SHALL SUBMIT TO THE GEOTECHNICAL ENGINEER FOR REVIEW THE PROPOSED PLAN FOR CONSTRUCTION DEWATERING, PRIOR TO BEGINNING THE EXCAVATION. CONTRACTOR SHALL INCLUDED CASING INTO THE BID , IN CASE SLOSHING OCCURS. IF IT DOES NOT OCCUR, CREDIT SHALL BE GIVEN TO THE CLIENT.

A. SLAB ON GRADE FOUNDATION

• ALLOWABLE BEARING CAPACITY = 1500 PSF UNDER SUSTAINED LOADS

= 2200 PSF FOR TOTAL NET (DEAD + LIVE) LOADS
• MODULUS OF SUGRADE REACTION = 100 PCI FOR SOFTBALL DUGOUT
• MODULUS OF SUGRADE REACTION = 150 PCI FOR BASEBALL DUGOUT

B
• SOFTBALL AND BASE BALL NETTING POLES LATERAL CAPACITY
- FRICTION FACTOR = 0.20 FOR BASEBALL (NET POLE AND SCOREBOARD)
MAXIMUM PASSIVE PRESSURE = 750 PSF
ALLOWABLE BEARING PRESSURE = 2000 PSF

III REINFORCED CONCRETE

A. CLASSES OF CONCRETE

1. ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE "CLASSES OF CONCRETE MATRIX" ON SHEET 300 SERIES UNLESS NOTED OTHERWISE ON THE DRAWING (IF NOT NOTE MIN 3500 PSI CONCRETE SHALL BE USED FOR ALL CONCRETE WORK).

B. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS

1. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ANY CONCRETE POURS UNLESS SHOWN ON THE DRAWINGS. THE ARCHITECT/ENGINEER SHALL APPROVE ALL DEVIATIONS OR ADDITIONAL JOINTS IN WRITING.

C. REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE ASTM A 615 GRADE 60 UNLESS NOTED OTHERWISE ON THE DRAWINGS OR IN THESE NOTES.

2. REINFORCING STEEL: PROVIDE REINFORCING STEEL CONFORMING TO ASTM A 706 FOR ALL REINFORCING STEEL REQUIRED TO BE WELDED AND WHERE NOTED ON THE DRAWINGS.
   a. FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LADBS FOR REINFORCING STEEL. CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
   b. SHOP WELDS MUST BE PERFORMED IN AN LADBS-LICENSED FABRICATION SHOP.

3. EPOXY-COATED REINFORCING STEEL: PROVIDE EPOXY-COATED REINFORCING STEEL ACCORDING TO ASTM A 775 WHERE NOTED ON THE DRAWINGS. REINFORCING STEEL FOR COOLING TOWER CONCRETE BASINS SHALL BE EPOXY-COATED.

4. DEFORMED BAR ANCHORS: AWS D1.1 TYPE C (TABLE 7.1) STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 496 WITH A MINIMUM YIELD STRENGTH 70,000 PSI. REINFORCING BARS SHALL NOT BE SUBSTITUTED FOR DEFORMED BAR ANCHORS.

5. HEADED STUD ANCHORS FOR EMBEDDED PLATES: AWS D1.1 TYPE A STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 29 WITH A MINIMUM YIELD STRENGTH OF 61,000 PSI.

6. SMOOTH WELDED WIRE REINFORCEMENT: ASTM A 185, YIELD STRENGTH 65,000 PSI.

D. PLACEMENT OF WELDED WIRE REINFORCEMENT

1. WHEREVER WELDED WIRE REINFORCEMENT IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED PER ACI 318, 12.18 AND 12.19.

E. REINFORCING STEEL COVERAGE

1. REINFORCING STEEL COVERAGE SHOULD CONFORM TO THE REQUIREMENTS SPECIFIED IN DETAILS LABELED "TYPICAL CLEAR CONCRETE COVER" ON SHEET S-300 UNLESS NOTED OTHERWISE ON THE DRAWINGS. COVER SPECIFIED SHALL BE CONSIDERED MINIMUMS THAT MAY REQUIRE INCREASING WHERE REINFORCING STEEL INTERSECTS FOR DIFFERENT MEMBER TYPES. COVER IN STRUCTURAL MEMBERS NOT SPECIFIED IN THE DETAILS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS. THE REINFORCING STEEL DETAILER SHALL ADJUST REINFORCING STEEL CAGE SIZES AT INTERSECTING STRUCTURAL MEMBERS AS REQUIRED TO ALLOW CLEARANCE FOR INTERSECTING REINFORCING BAR LAYERS WITH MINIMUM SPECIFIED COVER.

F. SPLICES AND HOOKS IN REINFORCING STEEL

1. SPLICE LOCATION AND TYPE AND HOOKS FOR UNSCHEDULED BEAMS, SLABS AND WALLS:
   a. BEAMS AND SLABS. UNSCHEDULED BEAMS AND SLABS, INCLUDING GRADE BEAMS, SHALL HAVE CONTINUOUS TOP BARS LAPPED AT MIDSPAN BETWEEN SUPPORTS WITH A CLASS A TENSION SPLICE. BOTTOM BARS SHALL BE LAPPED AT THE SUPPORTS WITH A CLASS A TENSION SPLICE. ALL BEAM BARS SHALL BE HOOKED AT DISCONTINUOUS END, UNLESS NOTED OTHERWISE.
   b. BASEMENT WALLS. VERTICAL BARS PLACED ON THE DIRT FACE SIDE SHALL BE LAPPED AT MIDSPAN BETWEEN SUPPORTS WITH A CLASS B TENSION SPLICE. VERTICAL BARS PLACED OPPOSITE THE DIRT FACE SIDE SHALL BE LAPPED AT THE SUPPORTS WITH A CLASS B TENSION SPLICE. HORIZONTAL BARS SHALL HAVE A CLASS B TENSION SPLICE.

IV CONCRETE MASONRY

A. SCOPE

1. REFER TO ARCHITECT'S DRAWINGS FOR THE EXTENT OF MASONRY WALLS. NON-LOAD BEARING WALLS MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS.

2. REINFORCED CONCRETE MASONRY SHALL BE USED AS LOAD BEARING ERIMETER WALLS FOR STANDALONE CONCESSIONS AND RESTROOM BUILDINGS, AND ELSEWHERE INDICATED ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS. SEE ARCHITECTURAL WALL SECTIONS.

3. PROVIDE ONE-COURSE HORIZONTAL BOND BEAM REINFORCE WITH 1-#5 CONTINUOUS AT EVERY FLOOR LEVEL, ROOF LEVEL, AND PARAPET, MINIMUM.

4. RE ARCH FOR LOACTION OF POLISHED MASONRY WALLS.

B. CONCRETE MASONRY UNITS.

1. CONCRETE STRENGTH OF MASONRY UNITS (BASED ON NET AREA) SHALL BE 1,900 PSI MINIMUM.

2. UNITS SHALL CONFORM TO ASTM C 55 OR ASTM C 90 AND SAMPLED IN ACCORDANCE WITH ASTM C 140.

C. MORTAR

1. USE ONLY PORTLAND CEMENT/LIME, TYPE M OR S, MORTAR CONFORMING TO ASTM C 270. PROVIDE AN AVERAGE COMPRESSIVE STRENGTH AT 28 DAYS OF 1,800 PSI MINIMUM.

D. GROUT

1. MIX DESIGNS:

   a. FOR FILLING SPACES 4" OR LARGER IN BOTH HORIZONTAL DIRECTIONS, USE "COARSE GROUT" WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI. THE GROUT SHALL BE TESTED IN ACCORDANCE WITH ASTM C1019. FOR FILLING SPACES LESS THAN 4" IN ONE OR BOTH HORIZONTAL DIRECTIONS, USE "FINE GROUT" PROPORTIONED PER ASTM C 476.

   b. USE 3,000 PSI NORMALWEIGHT CONCRETE FOR FILLING SPACES 10" AND LARGER IN BOTH DIRECTIONS. THE GROUT SHALL BE TESTED IN ACCORDANCE WITH ASTM C 1019.

   c. ALL GROUT MIX DESIGN SUBMITTALS SHALL INCLUDE THE RESULTS OF THE TESTS PERFORMED IN ACCORDANCE WITH ASTM C 1019.

   d. SLUMP RANGE AT POINT OF FINAL DISCHARGE: 8" TO 11".

   e. THE USE OF AIR ENTRAINING ADMIXTURES IS NOT ALLOWED.

E. MINIMUM REINFORCEMENT FOR CONCRETE MASONRY UNITS

1. PROVIDE VERTICAL REINFORCEMENT IN CELLS OF CONCRETE MASONRY UNITS (FULLY EMBEDDED IN GROUT) AS SHOWN ON THE PLANS AND OTHER DETAILS. MINIMUM REINFORCEMENT OF INTERIOR MASONRY SHALL BE AS FOLLOWS:
   a. 1-#5 AT A MAXIMUM SPACING OF 48 INCHES
   b. 1-#5 AT EACH CORNER
   c. 1-#5 AT EACH SIDE OF OPENINGS UP TO 12 FEET WIDE
   d. 2-#5 OR 1-#7 AT BOTH SIDES OF OPENINGS OVER 12 FEET WIDE
   e. HEAVIER REINFORCEMENT MAY BE REQUIRED BY PLAN NOTES OR DETAILS IN THE DRAWINGS.

2. PROVIDE HORIZONTAL REINFORCEMENT IN BED JOINTS EVERY OTHER COURSE (MAXIMUM 16 SPACING) IN TYPICAL WALLS AND IN EVERY COURSE (MAXIMUM 8" SPACING) IN PARAPETS AND CANTILEVERED WALLS.

3. TERMINATION OF REINFORCING STEEL:
   a. ALL VERTICAL REINFORCEMENT SHALL HAVE STANDARD HOOK INTO BOND BEAM. TERMINATE AT HIGHEST BOND BEAM IF MASONRY DOES NOT EXTEND TO ROOF OR GROUTED CELL IS NOT CONTINUOUS TO ROOF. HOOK SHALL EXTEND TO THE UPPERMOST HORIZONTAL REINFORCEMENT OF THE BOND BEAM AND HAVE A MINIMUM EMBEDMENT OF 6".
   b. ALL HORIZONTAL REINFORCEMENT AT ENDS OF BOND BEAMS SHALL HAVE STANDARD HOOK INTO VERTICAL GROUTED CELL. PROVIDE CORNER BARS SUCH THAT HORIZONTAL REINFORCEMENT IS CONTINUOUS AROUND CORNERS.

F. REINFORCING STEEL COVERAGE

1. COVER TO REINFORCING STEEL WITHIN MASONRY ELEMENTS SHALL NOT BE LESS THAN THE FOLLOWING:
   a. EXPOSED TO EARTH OR WEATHER: 2" (#6 AND LARGER BARS), 1.5" (#5 AND SMALLER BARS).
   b. NOT EXPOSED TO EARTH OR WEATHER: 1.5"
   c. LONGITUDINAL WIRES OF JOINT REINFORCEMENT SHALL BE FULLY EMBEDDED IN MORTAR OR GROUT WITH A MINIMUM COVER OF 5/8" WHEN EXPOSED TO EARTH AND WEATHER AND 1/2" WHEN NOT EXPOSED TO EARTH OR WEATHER.
   d. STABILITY AND BRACING OF MASONRY WALLS DURING CONSTRUCTION.

2. ALL MASONRY WALLS SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES APPLIED TO THEM IN THE FINAL CONSTRUCTED CONFIGURATION ONLY ASSUMING FULL BRACING TOP, BOTTOM, AND/OR SIDE OF WALL AS SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY AND ADEQUATELY BRACE ALL MASONRY WALLS AT ALL STAGES DURING CONSTRUCTION TO RESIST ERECTION LOADS AND LATERAL LOADS THAT COULD POSSIBLY BE APPLIED PRIOR TO COMPLETION OF CONSTRUCTION.

V STRUCTURAL STEEL

A. MATERIAL

1. HOT ROLLED STRUCTURAL MEMBERS: ALL HOT ROLLED STEEL PLATES, SHAPES, SHEET PILING, AND BARS SHALL BE NEW STEEL CONFORMING TO ASTM SPECIFICATION A 6.

2. ASTM SPECIFICATION AND GRADE: CLEARLY MARK THE GRADE OF STEEL ON EACH PIECE, WITH A DISTINGUISHING MARK VISIBLE FROM FLOOR SURFACES, FOR THE PURPOSE OF FIELD INSPECTION OF PROPER GRADE OF STEEL. UNLESS NOTED OTHERWISE ON THE DRAWINGS, STRUCTURAL STEEL SHALL BE AS FOLLOWS:
   a. W- AND WT-SHAPES: ASTM A 992
   b. M- AND S-SHAPES: ASTM A 36
   c. C-SHAPES: ASTM A 36
   d. L-SHAPES: ASTM A 36
   e. HSS: ASTM A 500, GRADE B (FY=46 KSI)
   f. BASE PLATES: ALL BASE PLATES SHALL CONFORM TO ASTM A 36 UNLESS NOTED OTHERWISE ON THE DRAWINGS.
   g. EDGE ANGLES, BENT PLATES, ANGLE HANGERS, AND ANGLE KICKERS: ASTM A 36.
   h. CONNECTION MATERIAL:
      1) BEAM COLUMN CONTINUITY PLATES AND DOUBLER PLATES: ASTM A 572, GRADE 50.
      2) ALL CONNECTION MATERIAL, EXCEPT AS NOTED OTHERWISE HEREIN OR ON THE DRAWINGS, INCLUDING BEARING PLATES, GUSSET PLATES, STIFFENER PLATES, FILLER PLATES, ANGLES, ETC. SHALL CONFORM TO ASTM A 36 UNLESS A HIGHER GRADE OF STEEL IS REQUIRED BY STRENGTH AND PROVIDED THE RESULTING SIZES ARE COMPATIBLE WITH THE CONNECTED MEMBERS.
         aa. OTHER STEEL: ANY OTHER STEEL NOT INDICATED OTHERWISE SHALL CONFORM TO ASTM A 992 OR ASTM A 572, GRADE 50, EXCEPT PLATES AND ANGLES THAT SHALL BE ASTM A 36.

B. CONNECTIONS

1. CONNECTION DETAILS NOT COMPLETELY DETAILED ON THE DRAWINGS INCLUDING MATERIAL GRADE AND SIZES, WELD SIZES, AND NUMBER OF BOLTS SHALL BE DESIGNED BY THE CONTRACTOR PER THE SPECIFICATIONS. CONCEPTUAL CONNECTION DETAILS WITH THE REQUIRED MEMBER DESIGN FORCES ARE SHOWN ON THE DRAWINGS AND ARE APPLICABLE TO ALL CONNECTIONS NOT DESIGNED AND FULLY DETAILED ON THE DRAWINGS. THE CONCEPTUAL DETAILS ARE PROVIDED ONLY TO INDICATE THE CONNECTION TYPE REQUIRED AND MAY NOT FULLY REPRESENT THE COMPLEXITY OF THE CONNECTION AS REQUIRED BY THE FINAL CONNECTION DESIGN FOR THE FORCES THEY MUST RESIST. ADDITIONAL CONNECTION ELEMENTS MAY NOT BE SPECIFICALLY SHOWN IN THE CONCEPTUAL DETAILS BUT MAY BE REQUIRED BY THE FINAL CONNECTION DESIGN; SUCH AS STIFFENER PLATES, DOUBLER PLATES, SUPPLEMENT/REINFORCING PLATES OR OTHER CONNECTION MATERIAL. THE FABRICATOR IS RESPONSIBLE FOR ENGAGING THE SERVICES OF A CONNECTION SPECIALTY ENGINEER TO PREPARE A FINAL CONNECTION DESIGN FOR SUBMISSION THAT MEETS THE REQUIREMENTS OF THE CONCEPTUAL CONNECTION DETAILS AND RESISTS THE INDICATED DESIGN FORCES.

2. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

3. REACTIONS NOTED ON THE PLANS ARE BASED ON FACTORED LOADS AND ARE INTENDED FOR USE WITH THE LOAD AND RESISTANCE FACTOR DESIGN METHOD.

C. STRUCTURAL BOLTS AND THREADED FASTENERS

1. A 325 BOLTS: ALL BOLTS IN STRUCTURAL CONNECTIONS SHALL CONFORM TO ASTM A 325 TYPE 1, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

2. A 490 BOLTS: SEE DRAWINGS FOR LOCATIONS REQUIRING ASTM A 490 TYPE 1 BOLTS.

3. THREADED ROUND STOCK: THREADED RODS SHALL CONFORM TO:
   a. ASTM A 36.

D. WELDING

1. UNLESS NOTED OTHERWISE, ELECTRODES FOR WELDING SHALL CONFORM TO E70XX (SMAW), F7XX-EXXX (SAW), ER70S-X (GMAW), OR E7XT-X (FCAW).

E. ANCHOR RODS

1. UNLESS INDICATED OTHERWISE IN THE COLUMN SCHEDULE OR ON THE DRAWINGS, ANCHOR RODS SHALL CONFORM TO ASTM F 1554 GRADE 55 (WITH SUPPLEMENTARY REQUIREMENT S1) AND THE SIZE SHALL BE 3/4" DIAMETER AND SHALL EMBED INTO THE CONCRETE FOUNDATION A DISTANCE OF 1'-0" WITH A HEAVY HEX NUT AT THE EMBEDDED END. STRIKE BOLT THREADS AT THE EMBEDDED END AT TWO PLACES BELOW THE NUT.

F. GROUT

1. GROUT BELOW STRUCTURAL STEEL BASE PLATES SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH A MINIMUM STRENGTH OF 6,000 PSI WHEN BEARING ON 3,000 PSI CONCRETE OR LESS, A STRENGTH OF 8,000 PSI WHEN BEARING ON CONCRETE BETWEEN 3,000 AND 4,000 PSI, AND, UNLESS NOTED OTHERWISE ON THE DRAWINGS, A STRENGTH OF 8,000 PSI WHEN BEARING ON CONCRETE GREATER THAN 4,000 PSI.

VI STEEL DECK -ROOF

A. ROOF DECK

1. SCHEDULE:

LOCATION	DEPTH	GAGE	TYPE YIELD STRENGTH (FY)
TYPICAL	3"	20	3N - G90

NOTE:

NR: NARROW RIB, TYPE A
IR: INTERMEDIATE RIB, TYPE F
WR: WIDE RIB, TYPE B
3DR : 3 INCH, DEEP RIB, TYPE N
ALL DECK SHALL BE 50 KSI UNLESS NOTED OTHERWISE.

B. SPECIFICATION

1. THE DESIGN, FABRICATION, AND ERECTION OF ALL ROOF DECK SHALL CONFORM TO THE STEEL DECK INSTITUTE DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, AND ROOF DECKS AS PUBLISHED BY THE STEEL DECK INSTITUTE (SDI).
2. STEEL DECK SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A 653-94 STRUCTURAL QUALITY GRADE 33 OR HIGHER.
3. STEEL DECK SHALL BE GALVANIZED WITH A PROTECTIVE ZINC COATING CONFORMING TO ASTM A 653-94 G90 CLASS.

C. ATTACHMENT OF DECK:

A. FASTENING OF DECK TO EACH SUPPORT MEMBER:

1. FASTENER PATTERN
   5/8" PUDDLE WELD 12"OC AT INTERIOR
   5/8" PUDDLE WELD 6"OC AT SIDES (EVERY DECK RIB)
   (2) 5/8" PUDDLE WELD 6"OC AT CORNERS (EVERY DECK RIB)
   (DOUBLE STITCH)

2. FASTENING OF DECK TO SUPPORT MEMBERS PARALLEL TO DECK RIBS WHERE SHOWN ON PLAN:
   FASTENER PATTERN
   5/8" PUDDLE WELD 12"

3. PROVIDE A MINIMUM END BEARING OF 2 INCHES OVER SUPPORTS.
4. END LAPS OF SHEETS SHALL BE A MINIMUM OF TWO INCHES AND SHALL OCCUR OVER SUPPORTS.
5. 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.

B. MINIMUM ATTACHMENT AT SIDE LAPS: SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED FM APPROVED FASTENERS AT A MAXIMUM OF 12", UNLESS NOTED OTHERWISE.

3. FLAT, RIDGE, AND VALLEY PLATES:
   UNLESS NOTED OTHERWISE, CONTRACTOR SHALL PROVIDE FLAT PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF DECK CHANGES DIRECTION AND RIDGE OR VALLEY PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF SLOPE EXCEEDS 1/2" PER FOOT.

D. DECK SPANS
1. METAL DECK SPANS SHALL NOT EXCEED THE MAXIMUM CENTER TO CENTER SPANS AS REQUIRED BY SDI CRITERIA. 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.

E. ACCESSORIES
1. 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.

F. ROOF OPENINGS
1. ROOF OPENINGS LESS THAN 6 INCH SQUARE OR DIAMETER REQUIRE NO REINFORCEMENT. OPENINGS 6 INCH TO 10 INCH INCLUSIVE SHALL BE REINFORCED WITH A 20 GAUGE GALVANIZED PLATE WELDED TO THE DECK AT EACH CORNER AND 6 INCH MAXIMUM CENTERS WITH A 5/8 INCH DIAMETER PUDDLE WELD OR SHEET METAL SCREWS. UNLESS INDICATED OTHERWISE ON THE DRAWINGS, OPENINGS OVER 10 INCH WIDE OR DIAMETER SHALL BE REINFORCED WITH AN ANGLE 2 1/2 X 2 1/2 X 1/4 FRAMING EACH SIDE OF THE OPENING AND SPANNING BETWEEN SUPPORTS FOR SPANS 4 FEET OR LESS AND L 3 X 3 X 1/4 FOR SPANS GREATER THAN 4 FEET BUT LESS THAN 6 FEET UNLESS SPECIFIED OTHERWISE ON DRAWINGS. LARGER OPENINGS SHALL BE REFERRED TO THE ENGINEER FOR FRAMING

VII NON-SHRINK GROUT FOR BASE PLATES AND BEARING PLATES

A. SPECIFICATIONS

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.

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BINIAM O. GHEBREAB
107333
LICENSED
PROFESSIONAL ENGINEER
Bini

- SPECIAL INSPECTIONS

A. THE DISTRICT'S TESTING LABORATORY SHALL PROVIDE SPECIAL INSPECTIONS SERVICES IN ACCORDANCE WITH CBC 1704.A BY A DSA-CERTIFIED SPECIAL INSPECTOR. FOR SPECIFIC REQUIREMENTS, REFER TO THE SPECIFICATIONS.

B. THE OWNER'S TESTING LABORATORY SHALL PROVIDE SPECIAL INSPECTION SERVICES IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE FOR THE FOLLOWING ITEMS.

1. STEEL CONSTRUCTION:
   a. ALL FIELD WELDING
   b. HIGH-STRENGTH BOLTING
   c. INSPECTION OF STRUCTURAL STEEL, BOLTING, WELDING MATERIAL
   d. WELDING OF STRUCTURAL STEEL
2. CONCRETE CONSTRUCTION:
   a. BOLTS INSTALLED IN CONCRETE
   b. CONCRETE WORK
   c. CONTINUOUS INSPECTION OF REINFORCING STEEL PLACING
   d. EPOXY BOLTS
   e. FORMWORK
   f. REINFORCING STEEL PLACEMENT
   g. WELDING OF REINFORCING STEEL
3. SOILS:
   a. PREPARED EARTH FILL
4. SPRAYED FIRE-RESISTANT MATERIALS
5. MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS
6. WIND REQUIREMENTS:
   a. MAIN WINDFORCE-RESISTING SYSTEMS
   b. ROOF CLADDING
   c. WINDFORCE-RESISTING SYSTEM CONNECTIONS TO FOUNDATION
   d. WIND-RESISTING COMPONENTS

C. STATEMENT OF SPECIAL INSPECTIONS
1. SPECIAL INSPECTION IS REQUIRED FOR THE ITEMS LISTED ABOVE. REFER TO SPECIFICATION SECTION **014529** FOR TYPE AND EXTENT OF EACH SPECIAL INSPECTION AND EACH TEST. THE SPECIFICATION ALSO INDICATES WHETHER CONTINUOUS OR PERIODIC INSPECTION IS REQUIRED FOR THE ITEMS LISTED ABOVE ADDITIONAL INFORMATION.

- SUBMITTALS

A. SUBMITTAL LIST AND SCHEDULE

1. THE GENERAL CONTRACTOR SHALL PREPARE A DETAILED LIST AND SCHEDULE OF ALL SUBMITTAL ITEMS TO BE SENT TO THE STRUCTURAL ENGINEER PRIOR TO THE START OF CONSTRUCTION. THIS LIST SHALL BE UPDATED AND REVISED AND KEPT CURRENT AS THE JOB PROGRESSES. THE SUBMITTAL LIST SHALL BE ORGANIZED AS SHOWN BELOW:
   a. SHOP DRAWINGS
   b. DESIGN CALCULATIONS
   c. PRODUCT DATA, CERTIFICATES, REPORTS, AND OTHER LITERATURE

B. SUBMITTALS TO BE PROVIDED TO STRUCTURAL ENGINEER

1. STRUCTURAL SUBMITTALS: IN ADDITION TO THE SUBMITTALS REQUIRED BY THE STRUCTURAL SPECIFICATIONS, THE FOLLOWING SUBMITTALS SHALL BE PROVIDED:
   a. LAYOUT OF EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS.
   b. LAYOUT OF MECHANICAL, ELECTRICAL, AND PLUMBING OPENINGS IN FLAT SLABS.
   c. LAYOUT OF PENETRATIONS IN BEAMS AND JOISTS.
2. DEFERRED SUBMITTALS:
   a. THE FOLLOWING ITEMS ARE CONSIDERED DEFERRED SUBMITTALS BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE:
      1. EXTERIOR WINDOW WALL SYSTEM (S&S, REC)
      2. FORMWORK, SHORING, AND BACKSHORING (S&S, REC)
      3. STRUCTURAL STEEL CONNECTIONS (S&S)

   NOTES:

   (S&S) ITEMS MARKED THUS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SEALED PER THE PROJECT SPECIFICATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

   (REC) ITEMS MARKED THUS SHALL BE SUBMITTED TO ENGINEER FOR RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED.

   b. DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE FORWARDED TO THE BUILDING OFFICIAL.

   c. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

3. SHOP DRAWINGS

1. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
   a. CONCRETE MIX DESIGNS (~)
   b. CONSTRUCTION JOINT LOCATIONS IN STRUCTURAL FLOORS AND SLABS ON GRADE
   c. EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS (REC)
   d. REINFORCING STEEL
   e. ROOF METAL DECK (STANDING SEAM ROOF DECK)
   f. STRUCTURAL STEEL, SHOP AND ERECTION DRAWINGS (S&S)
   g. T & G ROOF DECKING PATTERN, PRODUCT SPECIFICATION AND SHEATING ATTACHEMENT PATERNS

NOTES:

(S&S) ITEMS MARKED THUS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SEALED PER THE PROJECT SPECIFICATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

(REC) ITEMS MARKED THUS SHALL BE SUBMITTED TO ENGINEER FOR RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED.

(~) ITEMS MARKED THUS SHALL BE SUBMITTED TO THE OWNER'S TESTING AGENCY FOR THEIR REVIEW.

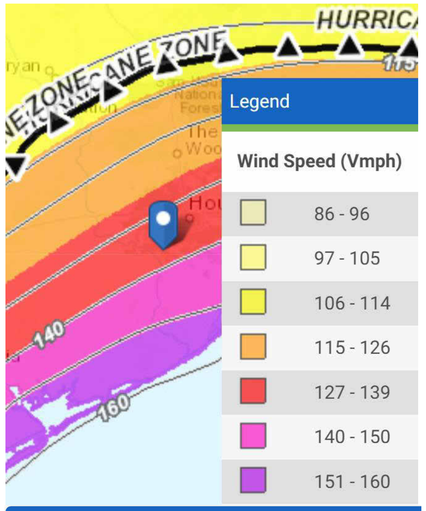
(^) ITEMS MARKED THUS SHALL BE SUBMITTED TO THE CONSTRUCTION GEOTECHNICAL ENGINEER FOR THEIR REVIEW.

4. SUBMITTAL REQUIREMENTS:

   a. ALL SHOP DRAWINGS MUST BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
   b. CONTRACTOR SHALL SUBMIT THREE SETS OF PRINTS FOR ALL SHOP DRAWINGS SPECIFIED TO BE RETURNED BY THE ENGINEER.
   c. CONTRACTOR SHALL PROVIDE THE SUBMITTAL IN ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) PER THE SPECIFICATIONS.
   d. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS 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.

C. REPRODUCTION

1. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEMSELVES TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.



ASCE HAZARD TOOL

Location
7007 Knights Ct, Missouri City, Texas, 77459

Elevation	66 ft with respect to North American Vertical Datum of 1988 (NAVD 88)
Lat:	29.5457
Long:	-95.558366
Standard:	ASCE/SEI 7-22
Risk Category:	II
Soil Class:	CD

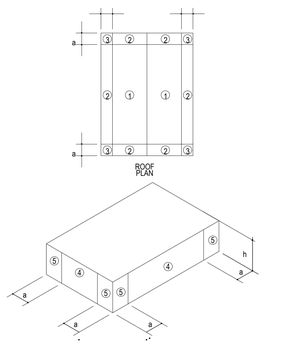
Wind Overlay

137 Vmph DETAILS

Wind Details

Wind Speed	137 Vmph
10-year MRI	77 Vmph
25-year MRI	92 Vmph
50-year MRI	106 Vmph
100-year MRI	116 Vmph
300-year MRI	129 Vmph
700-year MRI	137 Vmph
1,700-year MRI	144 Vmph
3,000-year MRI	149 Vmph
10,000-year MRI	158 Vmph
100,000-year MRI	173 Vmph
1,000,000-year MRI	185 Vmph

Value provided is 3-second gust wind speed



DUGOUTS ENCLOSURE = PARTIAL

a =3'-0"

COMPONENT AND CLADDING WIND PRESSURES		
	ROOF	
ZONE	0-10 sqft	>100 sq ft
1	+25.4,-46.3	+22.4,-43.3
2	+25.4,-70.2	+22.4,-49.3
3	+25.4,-100.1	+22.4,-49.3
	WALL	
ZONE	0-10 sqft	>100 sqft
4	+43.3,-46.0	-38.6,-41.3
5	+43.3,-54.1	-38.6,-44.6

NOTE:
1- ALL BUILDING COMPONENTS, CLADDING, FINISHES AND CONNECTIONS SHALL BE DESIGNED FOR WIND PRESSURES INDICATED FOR THE CORRESPONDING ZONE. CALCULATIONS AND/OR DESIGN DATA MUST BE AVAILABLE FOR REVIEW BY THE STRUCTURAL ENGINEER OFRECORD IF REQUIRED. NOTE THAT THE WIND PRESSURES TABULATED ARE ULTIMATE AND SHALL BE MULTIPLIED BY 0.6 FOR ALLOWABLE STRESS DESIGN (ASD)

2- POSITIVE AND NEGATIVE SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACE, RESPECTIVELY.

3- LINEAR INTERPOLATION BETWEEN VALUES OF EFFECTIVE WIND AREA IS PERMISSIBLE.

4- ALL PARAPETS SHALL BE DESIGNED IN ACCORDANCE WITH THE WIND PRESSURES DETERMINED FROM ASCE 7

5- FOR JOIST OR PURLIN UPLIFT DESIGN, 3 PSF DEAD LOAD SHALL BE USED FOR NET UPLIFT DETERMINATION. NET UPLIFT SHALL BE DETERMINED WITH THE "0.6D+0.6W" LOAD COMBINATION FOR "ASD" DESIGNS OR LOAD COMBINATION " 0.9D+1.0W" FOR LRFD /ULTIMATE LOAD DESIGNS.

1 ELKSINS HS -C & C WIND PRESSURE
1/2" = 1'-0"

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STATE OF TEXAS
BINIAM O. GHEBREAB
107333
LICENSED
PROFESSIONAL ENGINEER
DATE: 10/09/2025

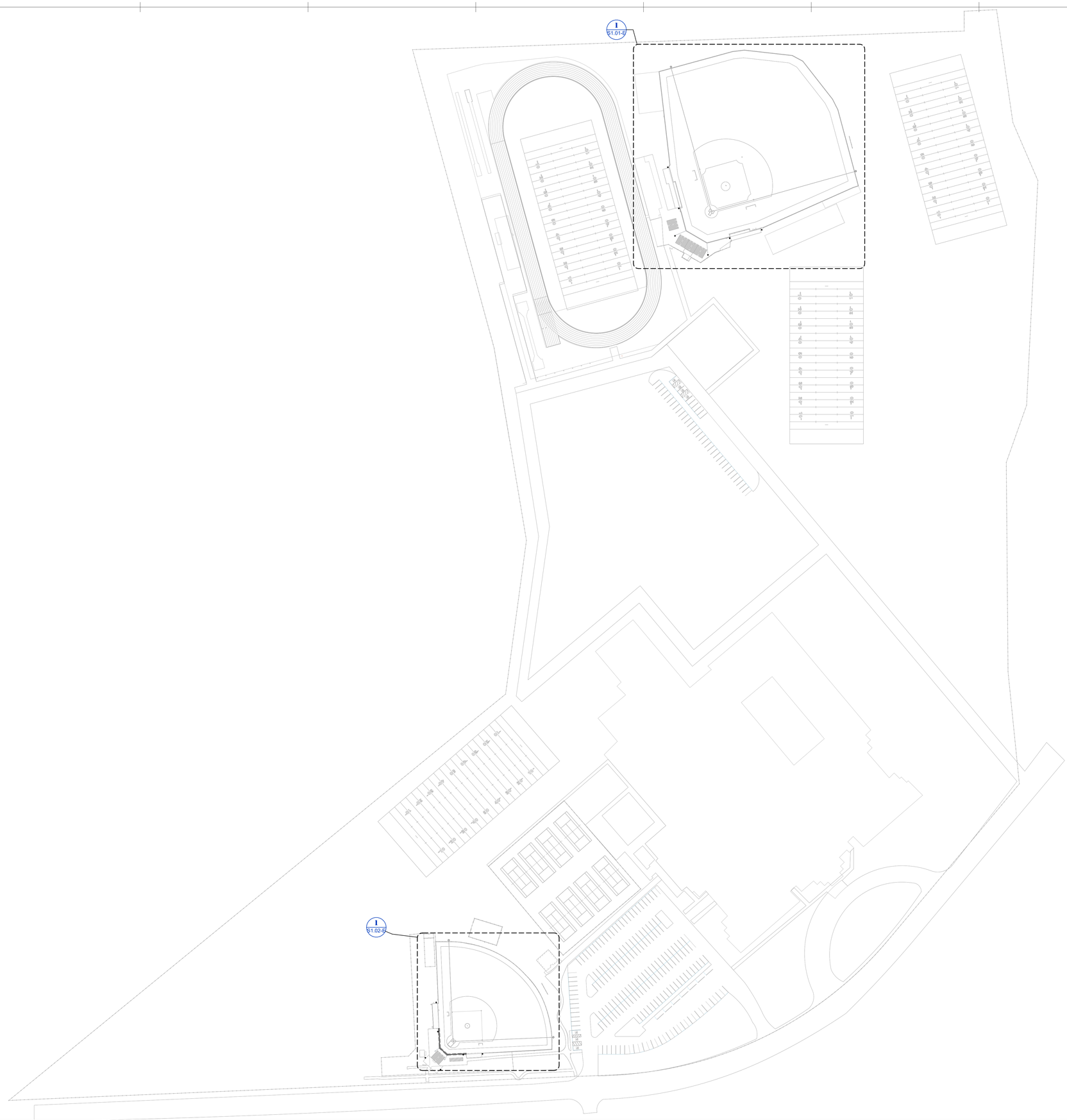
PROJECT NO. 25-005
DATE: 10/02/2025
DRAWN BY: HG CHECKED BY: BM
REVISIONS:

No.	Date	Description

100% CD

S0.02-E
GENERAL NOTES

10/9/2025 9:03:24 AM



1 **ELKINS OVERALL SITE PLAN**
1" = 80'-0"

10/9/2025 9:03:27 AM

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REVISIONS:

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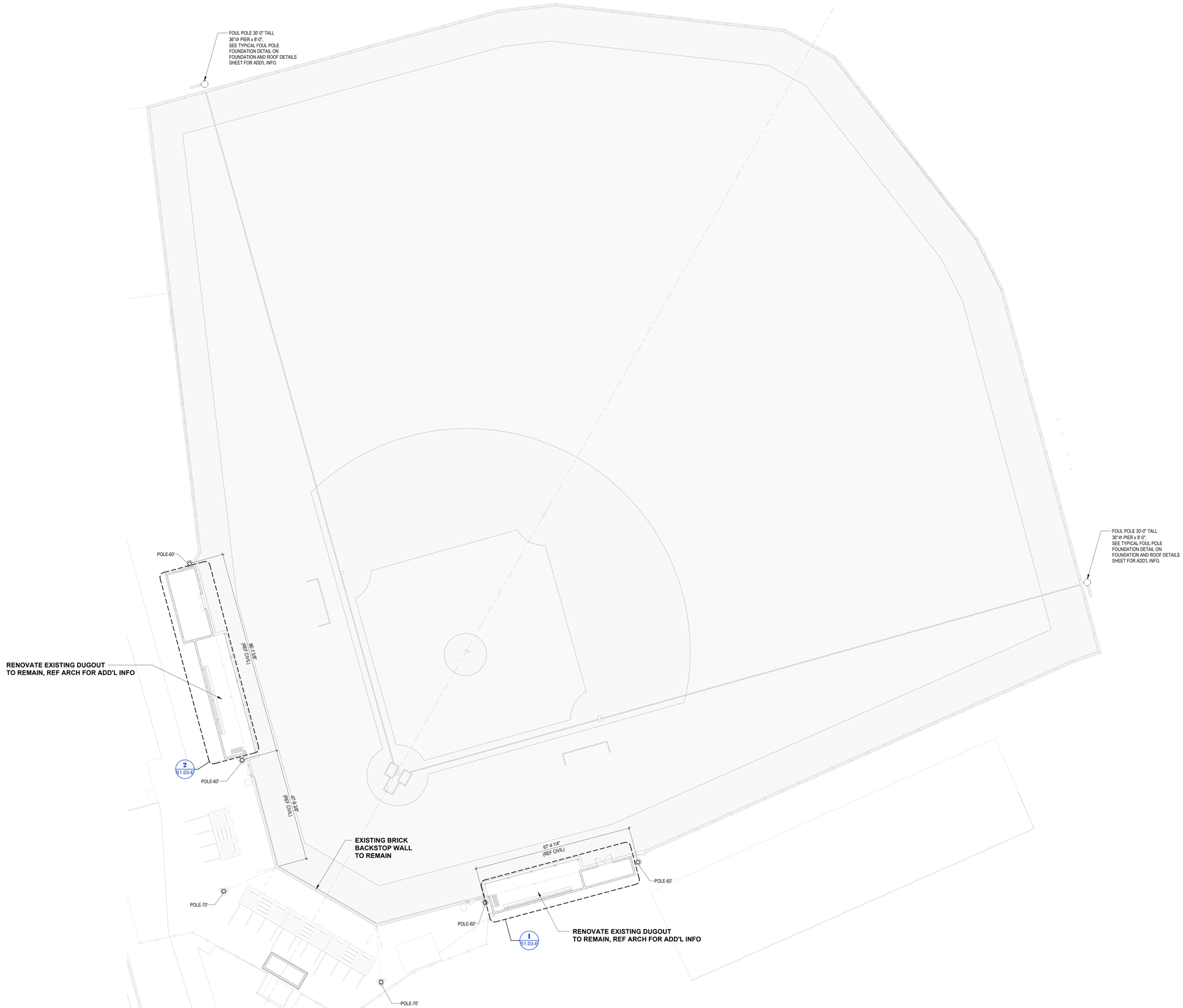
S1.00-E
OVERALL SITE PLAN



1 **BASEBALL FOUNDATION PLAN**
1/16" = 1'-0"

NOTE:
1. **REFER SHEET S3.10-E FOR POLE SCHEDULE AND FOUNDATION PIER SCHEDULE SUPPORTING THE POLES.**

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DATE: 10/02/2025
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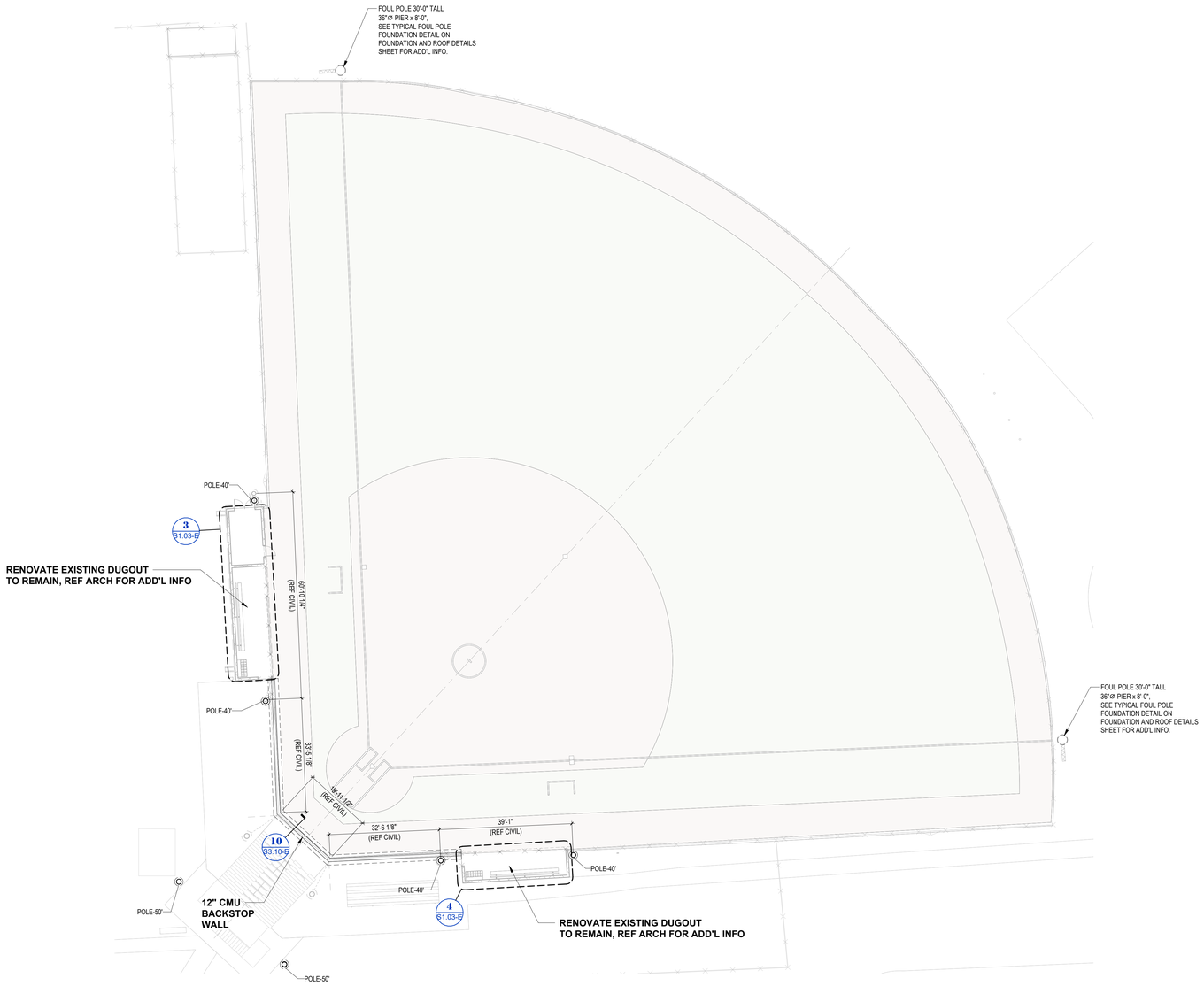
S1.01-E
BASEBALL FOUNDATION PLAN



1 SOFTBALL FOUNDATION PLAN

1/16" = 1'-0"

NOTE:
1. **REFER SHEET S3.10-E FOR POLE SCHEDULE AND FOUNDATION PIER SCHEDULE SUPPORTING THE POLES.**

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S1.02-E
SOFTBALL FOUNDATION PLAN

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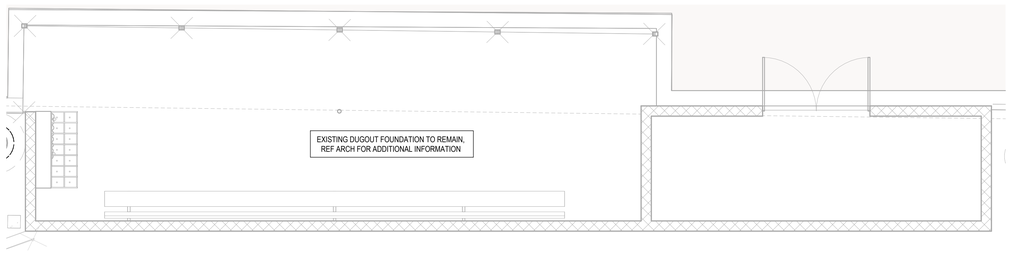


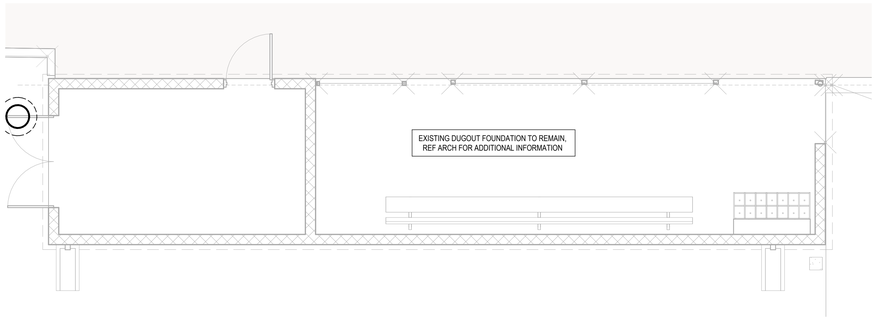
1 EXISTING BASEBALL DUGOUT FOUNDATION PLAN

1/4" = 1'-0"



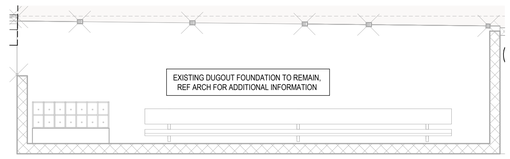
2 EXISTING BASEBALL DUGOUT FOUNDATION PLAN

1/4" = 1'-0"



3 EXISTING SOFTBALL DUGOUT FOUNDATION PLAN

1/4" = 1'-0"



4 EXISTING SOFTBALL DUGOUT FOUNDATION PLAN

1/4" = 1'-0"

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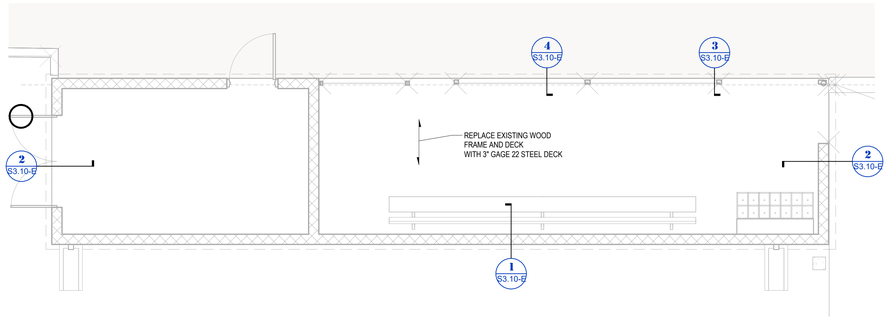
S1.03-E
DUGOUT FOUNDATION PLAN



1 SOFTBALL DUGOUT NEW ROOF FRAMING PLAN

1/4" = 1'-0"

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S1.04-E
DUGOUT ROOF
FRAMING PLAN

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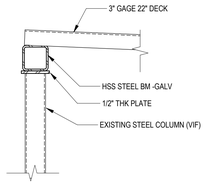
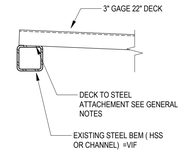
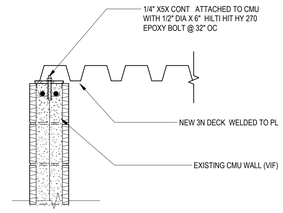


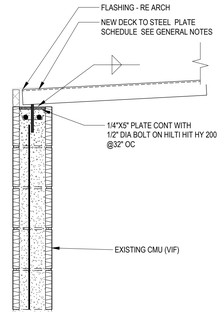
4 SECTION
1" = 1'-0"



3 SECTION
1" = 1'-0"



2 SECTION
1" = 1'-0"

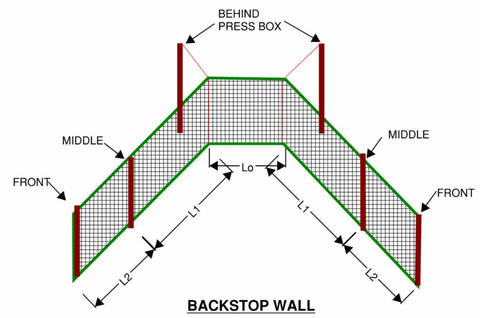


1 SECTION
1" = 1'-0"

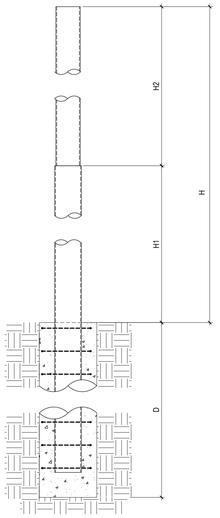
POLE AND PIER SCHEDULE

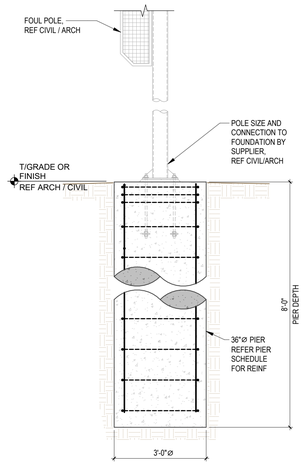
POLE NAME/LOCATION	POLE HEIGHT (H)	POLE LENGTH H1 (FT)	POLE LENGTH H2 (FT)	POLE SIZE FOR H1	POLE SIZE FOR H2	DRILLED PIER SHAFT DIAMETER	PIER DEPTH BELOW GRADE	VERTICAL REINF	TIES	LOCATION
POLE-70 BEHIND PRESS BOX	70'-0"	35'-0"	35'-0"	20"Ø HSS20X0.5	20"Ø HSS20X0.375	48"Ø	18'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (2 POLES BEHIND PRESS BOX) - TYP @60 FT TALL NETTING
POLE-60 MIDDLE	60'-0"	30'-0"	30'-0"	20"Ø HSS20X0.05	20"Ø HSS20X0.375	48"Ø	18'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @60 FT TALL NETTING
POLE-60 FRONT	60'-0"	30'-0"	30'-0"	18"Ø HSS18X0.375	16"Ø HSS16X0.375	36"Ø	18'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @60 FT TALL NETTING
POLE-50 BEHIND PRESS BOX	50'-0"	25'-0"	25'-0"	18"Ø HSS18X0.375	16"Ø HSS16X0.375	36"Ø	15'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ SOFT BALL (2 POLES BEHIND PRESS BOX) - TYP @40 FT TALL NETTING
POLE-40 MIDDLE	40'-0"	20'-0"	20'-0"	14"Ø HSS14X0.375	14"Ø HSS14X0.375	36"Ø	15'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (2 POLES AT MIDDLE TYP @40 FT TALL NETTING
POLE-40 FRONT	40'-0"	20'-0"	20'-0"	14"Ø HSS14X0.312	14"Ø HSS14X0.312	30"Ø	13'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @40 FT TALL NETTING

NOTE:
ALL STEEL POLES ARE GRADE 90 (FY= 90 KSI)

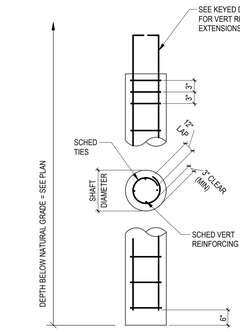


BACKSTOP WALL





7 TYPICAL FOUL POLE FOUNDATION
1/2" = 1'-0"

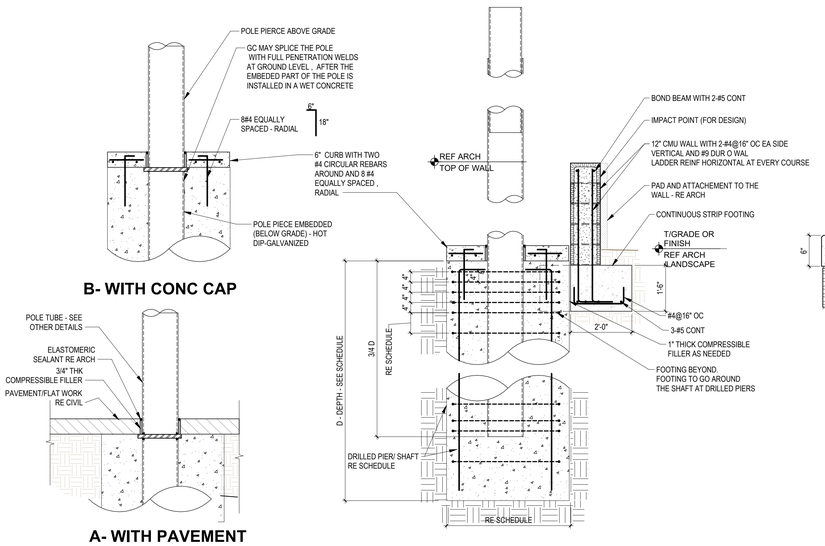


DRILLED PIER SCHEDULE		
SHAFT DIA	VERTICAL REINF	TIES
18"Ø	(5)#6	#3@12" O.C.
24"Ø	(6)#6	#3@12" O.C.
30"Ø	(8)#7	#3@12" O.C.
36"Ø	(10)#7	#3@14" O.C.
42/48"Ø	(12)#7	#3@16" O.C.

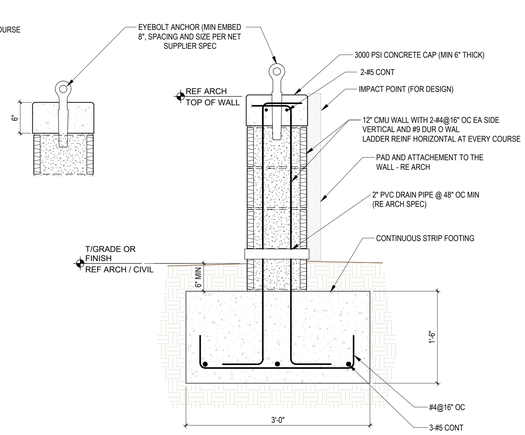
NOTE

NOTIFY STRUCTURAL ENGINEER 24 HOURS PRIOR TO DRILLING & POURING FOOTINGS.

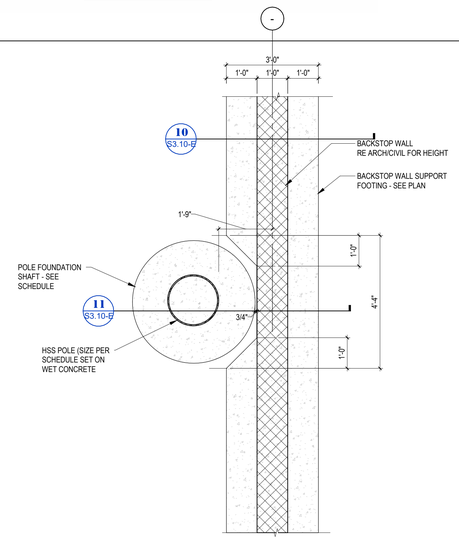
6 DRILLED PIER REINF SCHEDULE
NTS



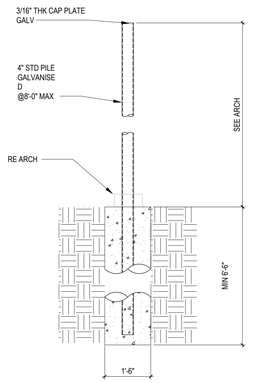
11 POLE /BACKSTOP FOUNDATION_E
1/2" = 1'-0"



10 6/S310E TYPICAL BACKSTOP WALL & FOUNDAITON.
1" = 1'-0"



9 POLE & WALL FOUNDATION PLAN E
1/2" = 1'-0"



8 TYPICAL AT CHAINLINK POST OR SCREEEN WALL.
1/2" = 1'-0"

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TBPE Firm Reg. No.23438

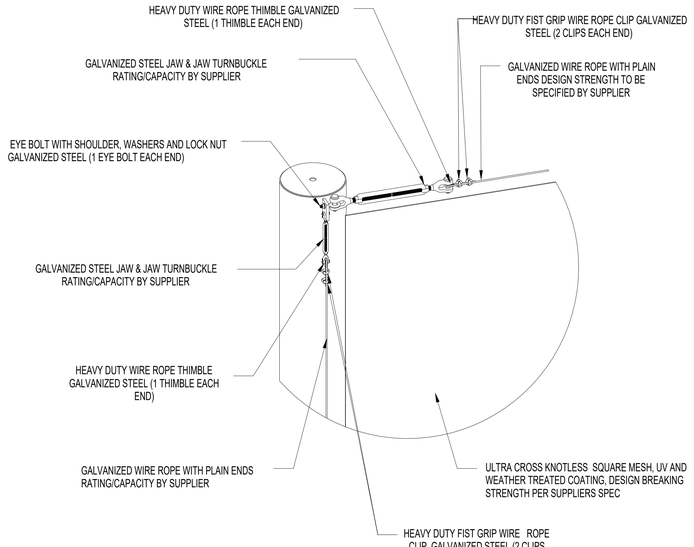
STATE OF TEXAS
BINIAM O. GHEBREAB
107333
LICENSED PROFESSIONAL ENGINEER
DATE: 10/09/2025

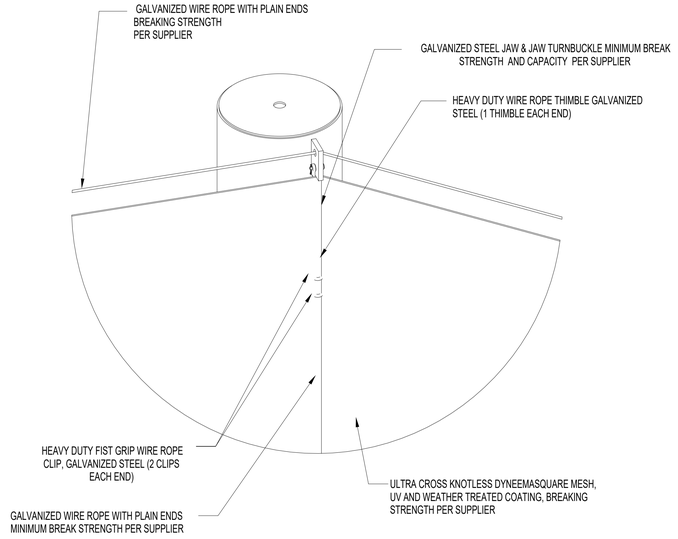
PROJECT NO. 25-005
DATE: 10/02/2025
DRAWN BY: HG CHECKED BY: BM
REVISIONS:

No.	Date	Description

100% CD

S3.10-E
FOUNDATION AND ROOF DETAILS

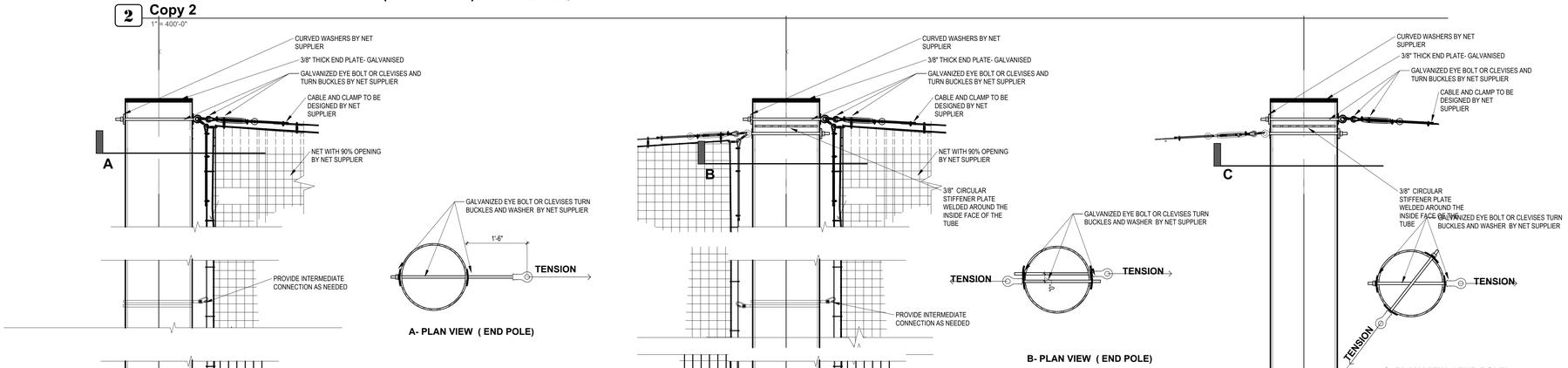




NETTING CONNECTION DETAILS (SCHEMATIC) - OPTION 2 PER SUPPLIERS DETAILS A

2 Copy 2

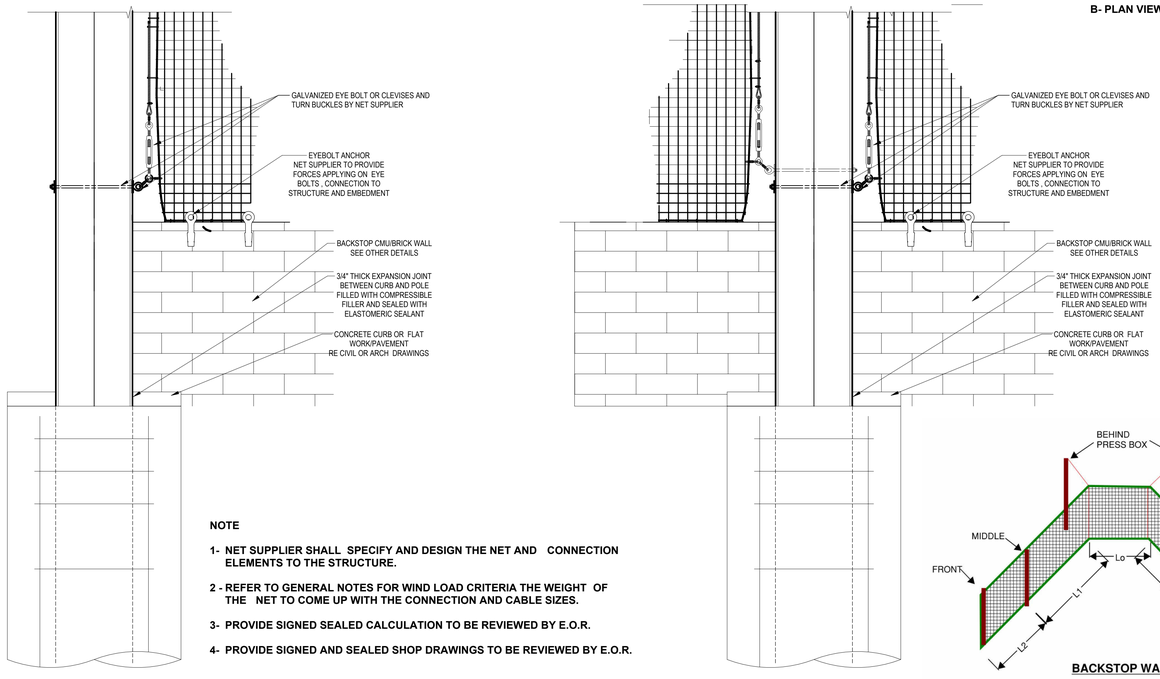
1" = 400'-0"



A- PLAN VIEW (END POLE)

B- PLAN VIEW (END POLE)

C- PLAN VIEW (END POLE)



NOTE

1- **NET SUPPLIER SHALL SPECIFY AND DESIGN THE NET AND CONNECTION ELEMENTS TO THE STRUCTURE.**

2 - **REFER TO GENERAL NOTES FOR WIND LOAD CRITERIA THE WEIGHT OF THE NET TO COME UP WITH 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.**

I - FRONT POLE (END POLE)

II- MIDDLE POLE

III - POLE BEHIND PRESS BOX

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

I NETTING POLE AND CONNECTION SCHEMATIC DETAILS - OPTION 1) Copy 2

3/4" = 1'-0"

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TBPE Firm Reg. No.23438

STATE OF TEXAS
BINIAM O. GHEBREAB
107333
LICENSED PROFESSIONAL ENGINEER

DATE: 10/09/2025

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100% CD

S3.11-E
FOUNDATION AND SITE DETAILS

FORT BEND ISD
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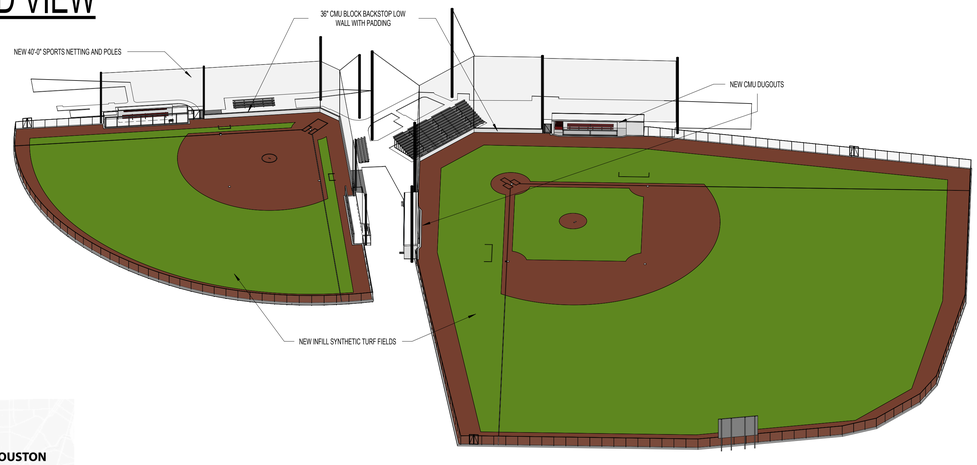
ISSUED FOR CONSTRUCTION
KEMPNER HIGH SCHOOL

SCHOOL LOGOS

KEMPNER

3D VIEW



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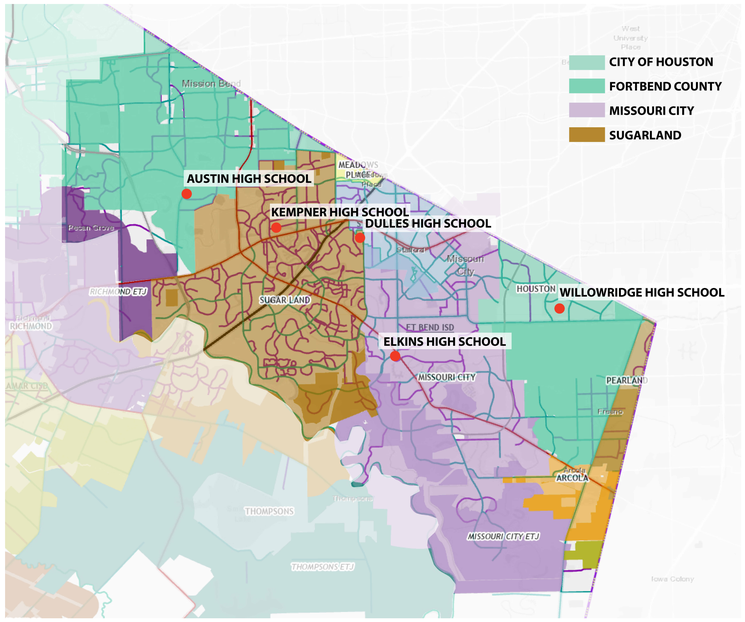
LOCATION MAPS



SCOPE OF WORK

SID 10520
REPLACE NATURAL GRASS BASEBALL AND SOFTBALL FIELDS WITH SYNTHETIC TURF
SID 10507
RENOVATE BASEBALL AND SOFTBALL BACKSTOPS, DUGOUTS, AND NETTING

SCHOOL ADDRESS

Kempner HS, 14777 Voss Rd, Sugar Land, TX 77498

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G0.03-K	TAS 2 OF 2
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C3.01-K	GRADING PLAN
C4.01-K	SWPP PLAN
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S3.10-K	FOUNDATION AND ROOF DETAILS
S3.11-K	FOUNDATION AND SITE DETAILS
S5.00-K	MASONRY TYPICAL DETAILS

ELECTRICAL ENGINEER
GK ENGINEERS, LLC
5959 WEST LOOP, #350
BELLAIRE, TX 77401
P: 832-713-8674
HTTPS://GK-MEP.COM

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BP010 TURF AND ATHLETICS

FBISD
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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: MS CHECKED BY: PA
REVISIONS:
1 Date Description

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G0.00-K
COVER

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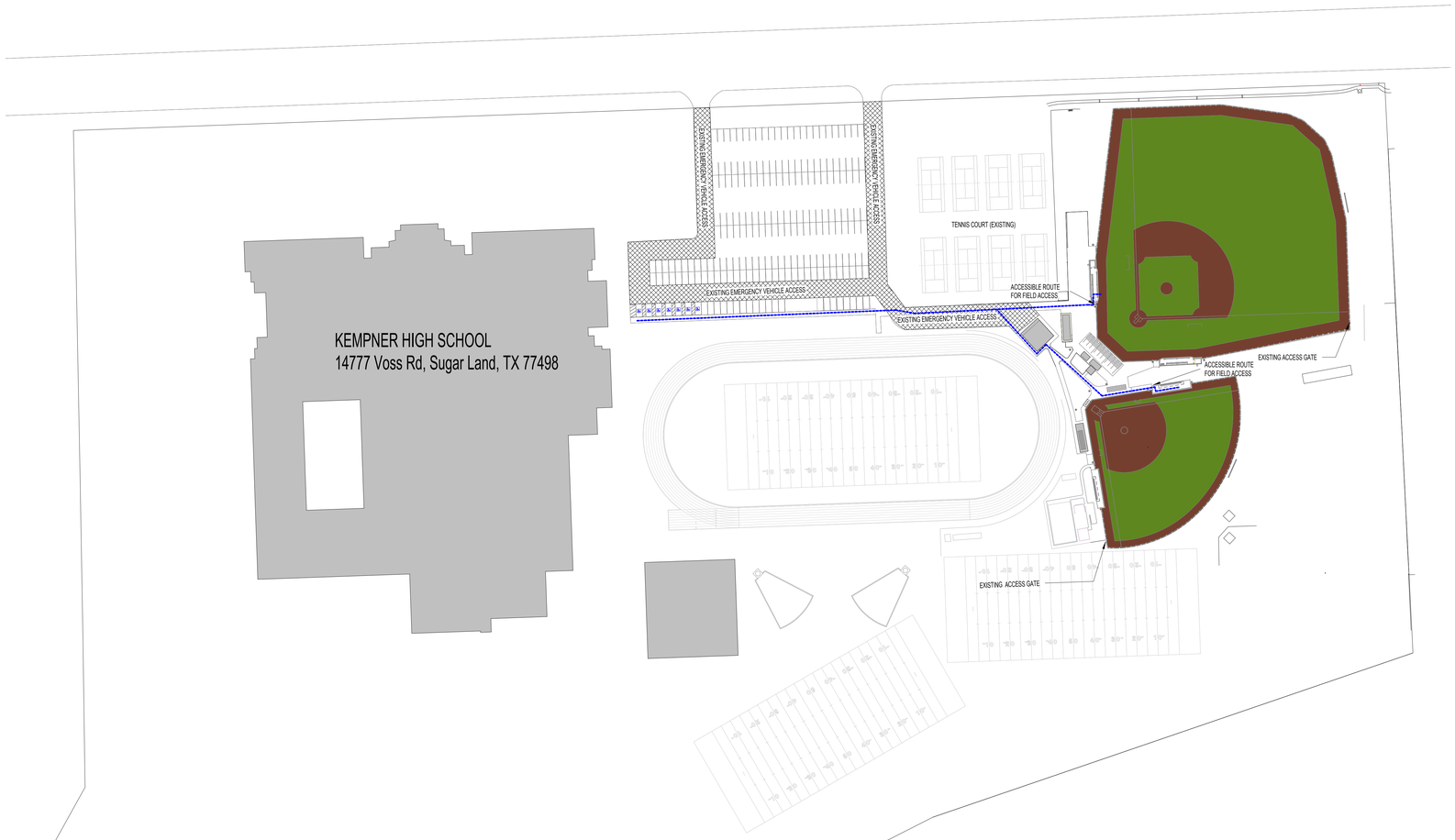

KEMPNER SITE OVERALL Copy 1 1
SCALE: 1" = 80'-0"

GENERAL NOTES

1. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
2. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.
3. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, IN COMPLIANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION (AHJ). COORDINATE WITH LOCAL FIRE DEPARTMENT FOR APPROVED LOCK TYPE AND INSTALLATION LOCATION.

APPLICABLE CODES

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 101 LIFE SAFETY CODE (CHAPTER 43 - 2006 NFPA 101)
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 170 STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 70 NATIONAL ELECTRICAL CODE
2021 ASHRAE STANDARD 90.1 - ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)
2023 NATIONAL ELECTRICAL CODE

LEGEND

- 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
- EXISTING EMERGENCY ACCESS PATH UNPAVED
- EXISTING EMERGENCY ACCESS PATH PAVED
- EXISTING ACCESSIBLE ROUTE

CODE REVIEW: IBC 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.

AUTHORITY HAVING JURISDICTION (AHJ)- CITY OF SUGARLAND

- 2021 International Building Code
- 2021 International Fire Cod
- 2021 International Plumbing Code
- 2021 International Mechanical Code
- 2021 International Energy Conservation Code
- 2021 International Existing Building Code
- 2021 International Property Maintenance Code
- 2023 National Electric Code



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

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REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

DATE: 10/09/2025

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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

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CODE PLAN

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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.

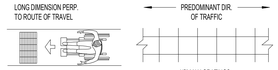
TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

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)

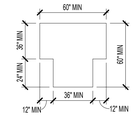


FIGURE 304.3.2 T-SHAPED TURNING SPACE

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

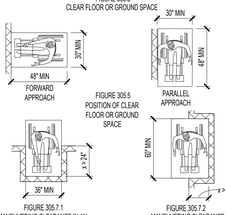


FIGURE 306.1 MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH
FIGURE 305.2 MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

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 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.

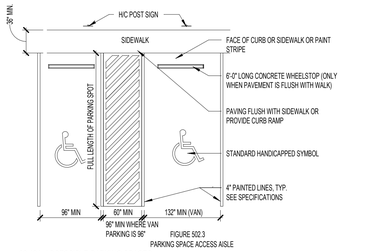
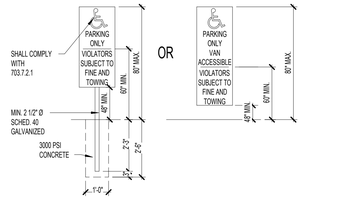


FIGURE 502.3
PARKING SPACE ACCESS AISLE

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.

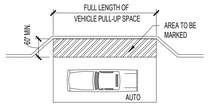
(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).



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.

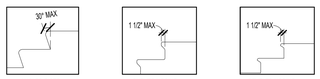


FIGURE 504.5
STAIR NOSINGS

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.

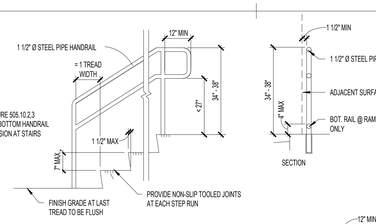


FIGURE 505.10.2,3
TOP AND BOTTOM HANDRAIL EXTENSION AT STAIRS

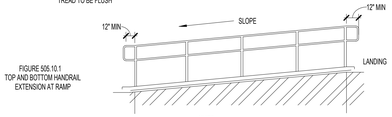


FIGURE 505.10.1
TOP AND BOTTOM HANDRAIL EXTENSION AT RAMP

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)

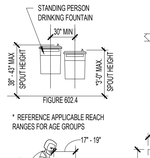
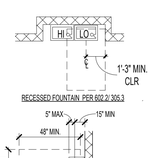


FIGURE 602.4



RECESSED FOUNTAIN, PER 602.2; 305.3

* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS

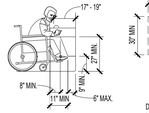




FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION

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

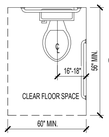


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

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.

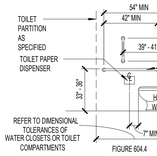


FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

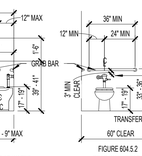


FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

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.

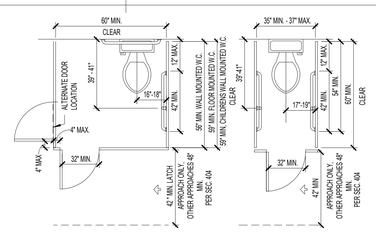


FIGURE 604.8.2
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

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.

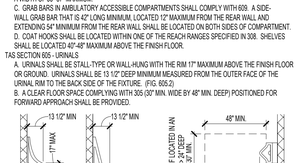
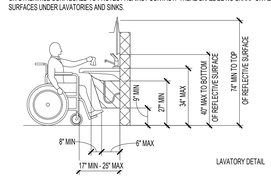
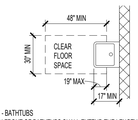


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

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.

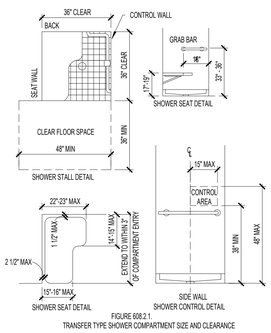


FIGURE 608.2.1
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

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. 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 MU

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.

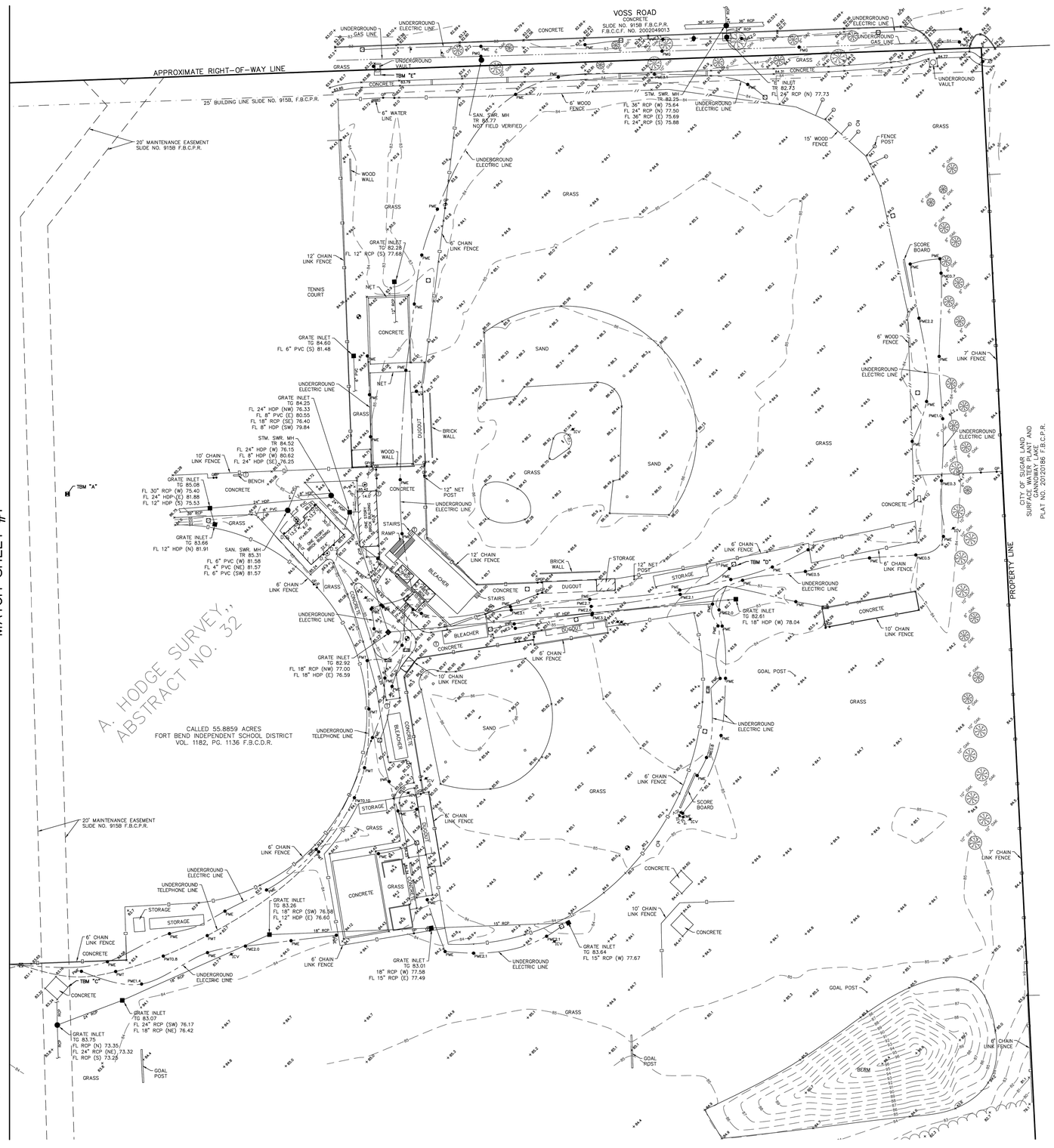
SANITARY SEWER NOTES:

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



SURVEYOR'S CERTIFICATE

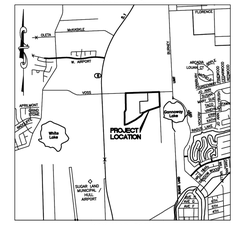
To: Fort Bend Independent School District

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"Ø" - 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'

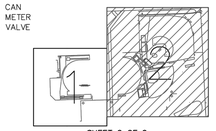
TBM"E" - BOX CUT ON THE SOUTHEAST CORNER OF UNDERGROUND VAULT LOCATED ON THE SOUTH SIDE OF VOSS ROAD ±60 FEET NORTHWEST OF THE NORTHWEST CORNER OF THE BASEBALL FIELD FENCE.
ELEVATION = 83.56'

LEGEND

- BENCHMARK
- BORE HOLE
- "C" INLET
- CLEANOUT
- D.S. DOWN SPOUT
- ELECTRIC JUNCTION BOX
- FIRE HYDRANT
- FLAG POLE
- GAS VALVE
- GATE POST
- GUY WIRE
- INLET
- IRCV IRRIGATION CONTROL VALVE
- LIGHT STANDARD
- MANHOLE
- PME PAINT MARKER (ELECTRIC)
- PMG PAINT MARKER (GAS)
- PMT PAINT MARKER (TELEPHONE)
- SIGN
- TRASH CAN
- WM WATER METER
- WV 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 2 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: 2 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
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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

THIS SURVEY IS PROVIDED FOR REFERENCE ONLY. ALL SURVEY INFORMATION INCLUDING BUT NOT LIMITED TO PHYSICAL CHARACTERISTICS, LEGAL LIMITS, UTILITY LOCATIONS AND BENCHMARKS FOR THE PROJECT WAS PROVIDED BY THE OWNER. THE ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY AND EXTENT OF ALL SURVEY INFORMATION PREPARED BY OTHERS AND FURTHER DISCLAIM RESPONSIBILITY FOR INTERPRETATION OF THAT DATA BY BIDDERS AND CONTRACTORS.

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
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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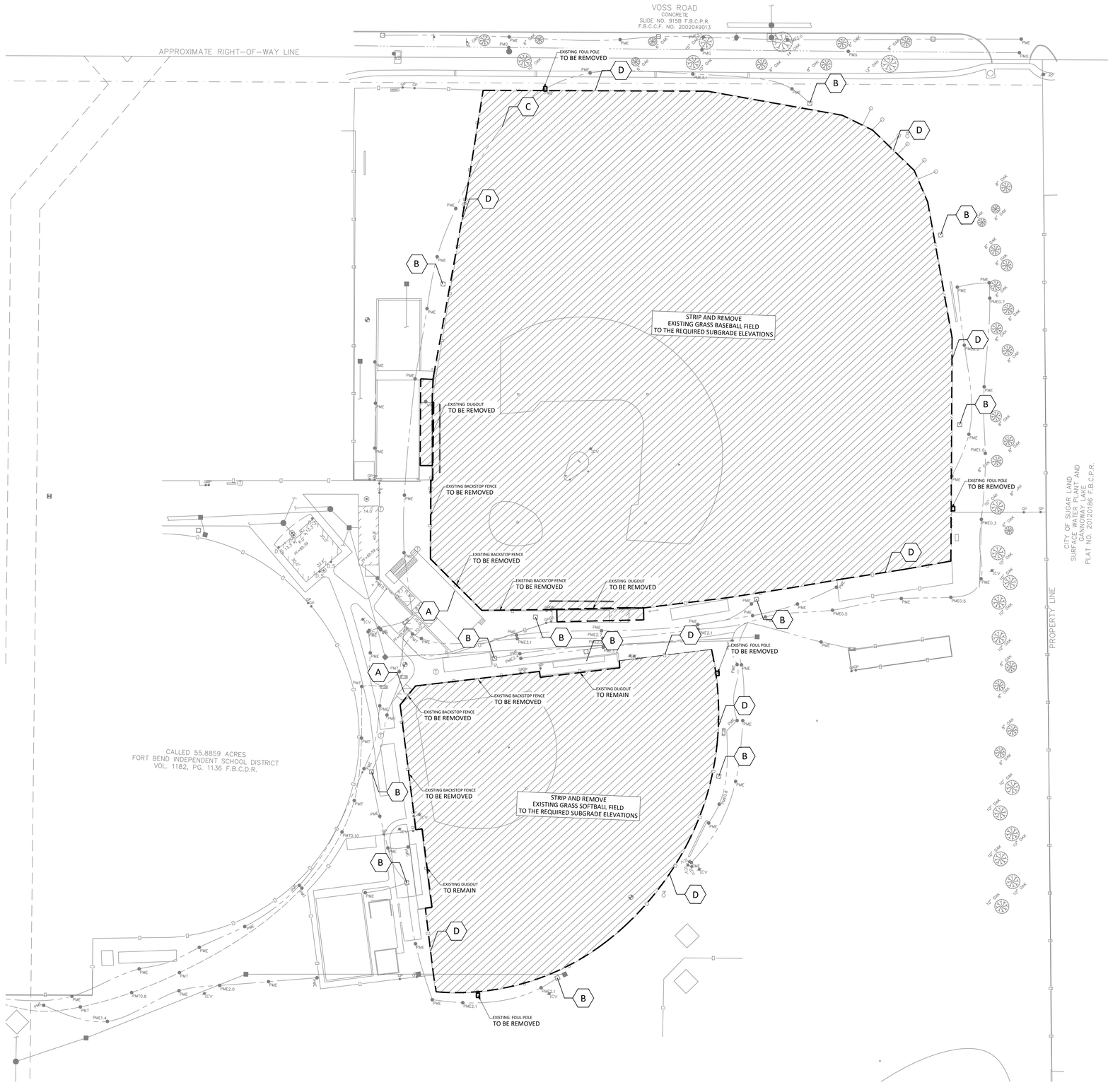
TSCE PROJECT # 2507

Project Status
C 0.02-K
CIVIL SPORTS SURVEY
(REFERENCE ONLY)



N

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 AND NET 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

15' 30' 30' 0 60'

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TSCE PROJECT # 2507

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KEMPNER HIGH SCHOOL

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KENNETH I. JURADO
119993
LICENSED PROFESSIONAL ENGINEER

10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status

C 0.03-K
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-K THROUGH C 5.03-K FOR DETAILS.

15' 30'
30' 0 60'

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KENNETH I. JURADO
119993
S

10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status

C 1.01-K
CIVIL SPORTS
SITE PLAN

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STATE OF TEXAS
SURVEYOR
10/09/2025

PROJECT NO. BBY10
DATE NOVEMBER 15, 2023
DRAWN BY EJS CHECKED BY KJ
REVISIONS
1 Date Description

Project Status
C 2.01-K
CIVIL SPORTS
DRAINAGE PLAN

TSCE PROJECT # 2507

TEXAS SPORTS & CIVIL ENGINEERING
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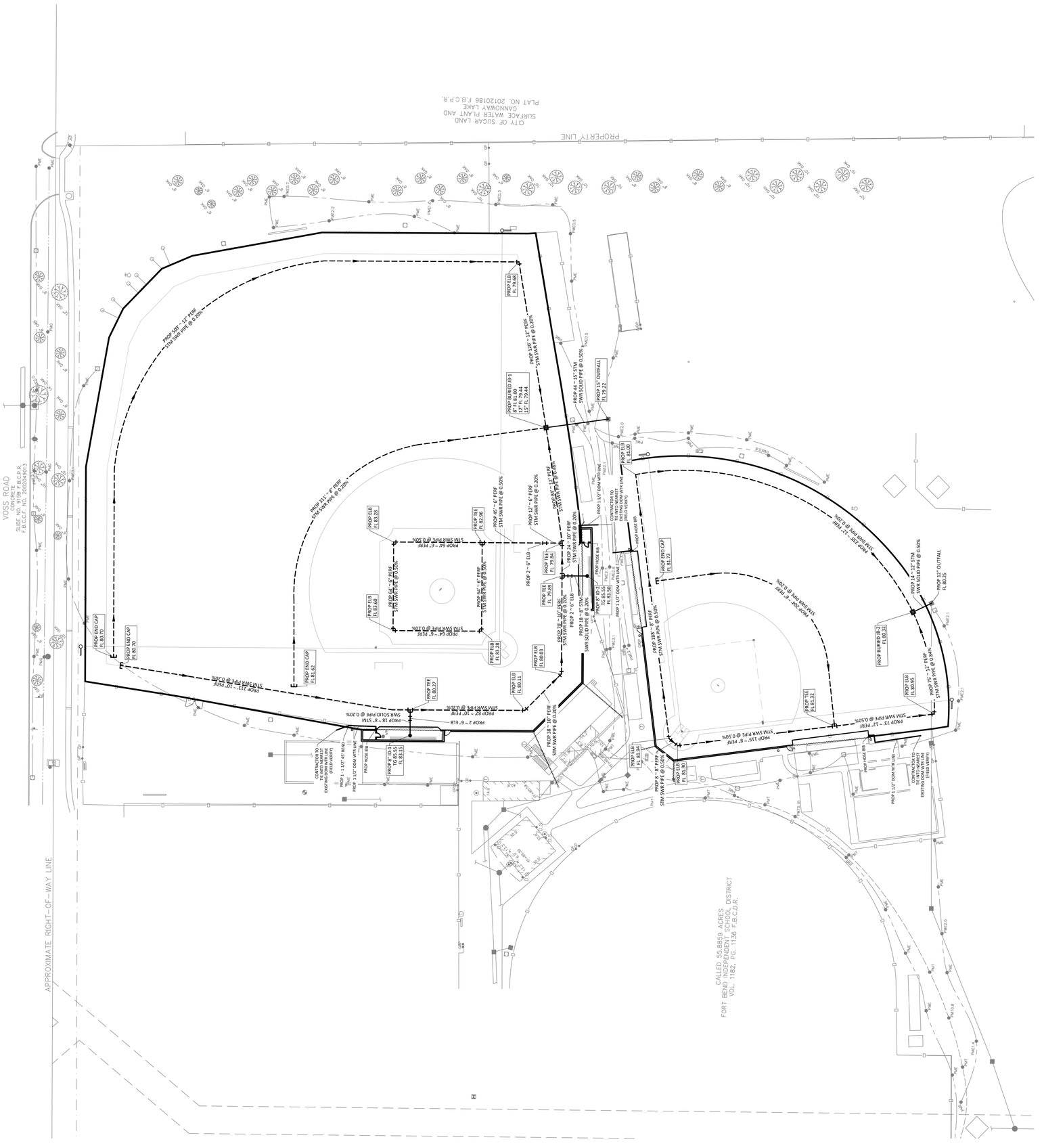
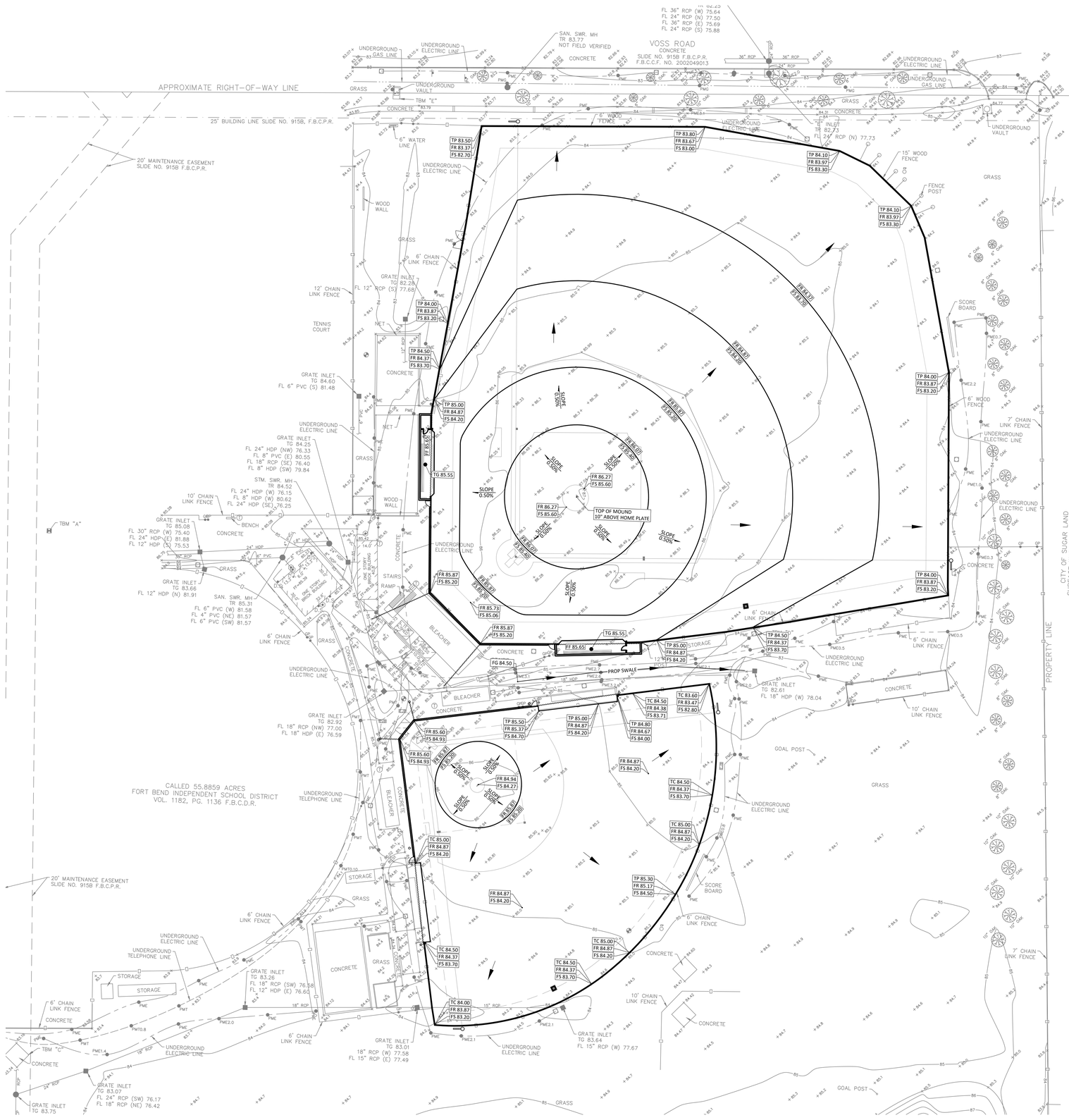
NOTES:
1. CONTRACTOR TO CONTACT ENGINEER IF THE EXISTING CONDITIONS VARY FROM WHAT'S ON SITE.

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' 0 30' 60'

N





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NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.
2. CONTRACTOR TO MAKE SURE THERE IS POSITIVE DRAINAGE FROM THE DUGOUT TO EXIST INLET OR SWALE.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FR XX.XX'	FINISH ROCK
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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SURVEYOR

10/09/2025

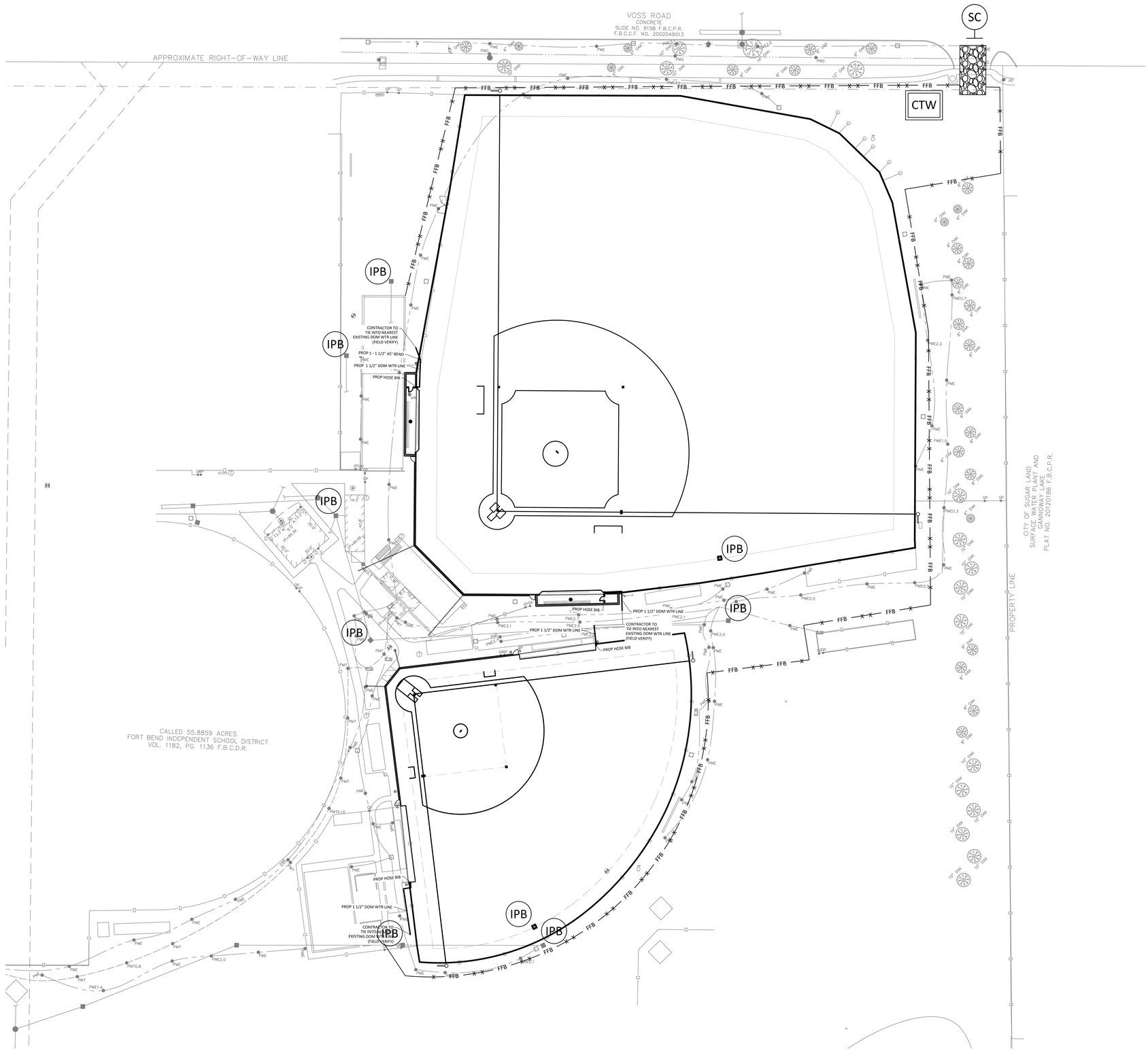
PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status

C 3.01-K

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'

TEXAS SPORTS & CIVIL ENGINEERING
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KENNETH I. JURADO
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10/09/2025

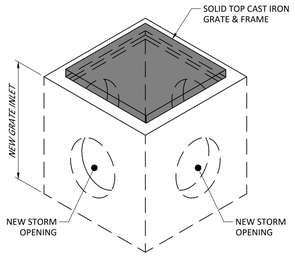
PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

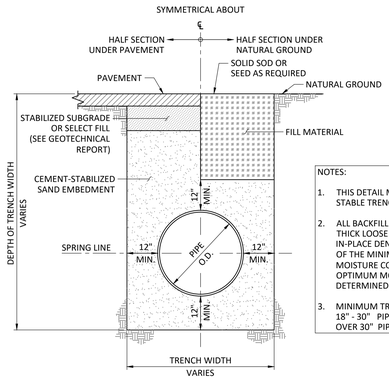
Project Status

C 4.01-K

CIVIL SPORTS SWPP PLAN

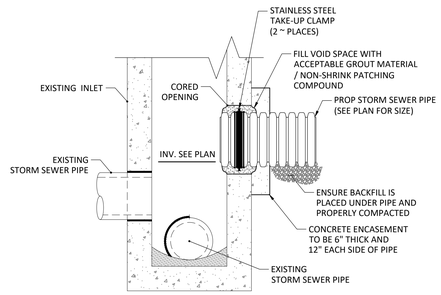


1 JUNCTION BOX
N.T.S.



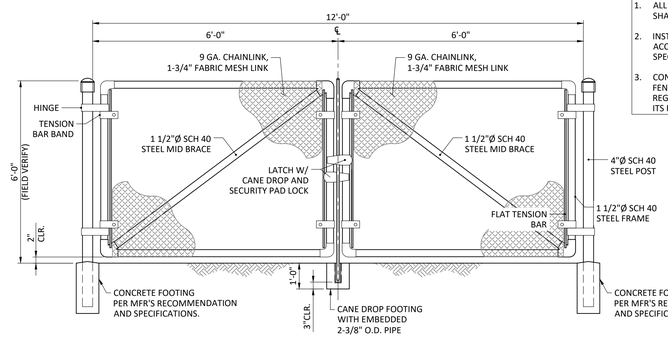
NOTES:
1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS.
2. ALL BACKFILL SHALL BE PLACED IN 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AN IN-PLACE DENSITY EQUAL TO AT LEAST 95% OF THE MINIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.
3. MINIMUM TRENCH WIDTH:
   18" - 30" PIPE OD - 12" MIN CLEARANCE
   OVER 30" PIPE OD - 18" MIN CLEARANCE

2 STORM SEWER BEDDING AND BACKFILL DETAIL
N.T.S.



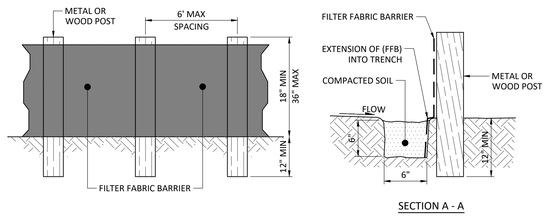
NOTES:
1. FORM CONCRETE ENCASEMENT ON UNDISTURBED MATERIAL OR STRUCTURALLY FIRM FOUNDATION.
2. PROVIDE WATER STOP WITH STAINLESS STEEL CLAMPS AROUND NEW PIPE FOR SANITARY SEWER FLOWS.
3. REWORK EXISTING MANHOLE INVERT TO ACCOMMODATE NEW FLOWS, IF NECESSARY.

3 STORM SEWER PIPE CONNECTION INTO EXISTING INLET
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 TYPICAL 12' CHAINLINK SWING GATE
N.T.S.

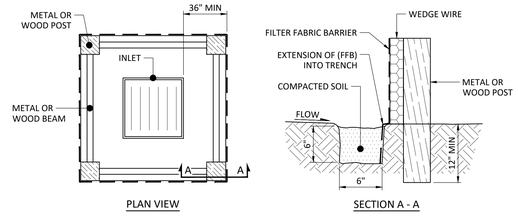


SECTION A - A

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

5 FILTER FABRIC BARRIER
N.T.S.

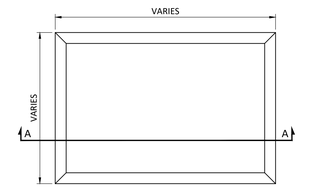


PLAN VIEW SECTION A - A

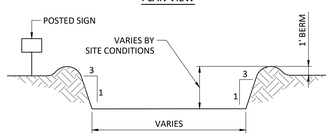
NOTES:
1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD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

IPB

6 INLET PROTECTION BARRIER
N.T.S.



PLAN VIEW

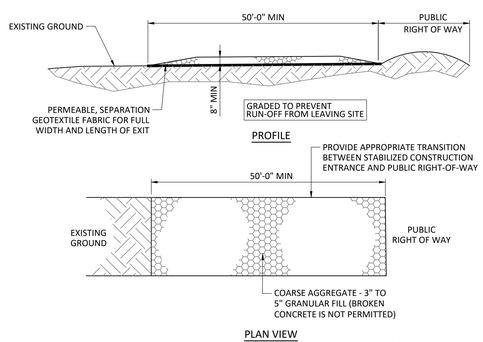


SECTION A - A

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.

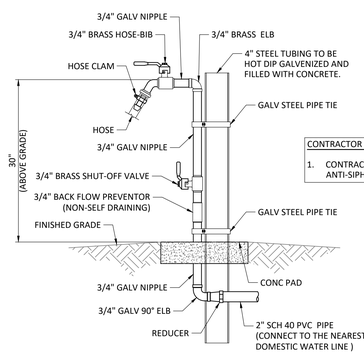
7 CONCRETE TRUCK WASHOUT AREA
N.T.S.



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.

8 STABILIZED CONSTRUCTION ACCESS
N.T.S.



CONTRACTOR NOTES:
1. CONTRACTOR TO INCLUDE ANTI-FREEZE AND ANTI-SIPHON FOR ALL HOSE BIBS.

9 HOSE BIB DETAIL
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
10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

Project Status
C 5.01-K
CIVIL SPORTS 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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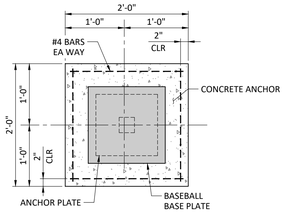
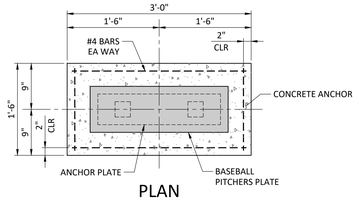
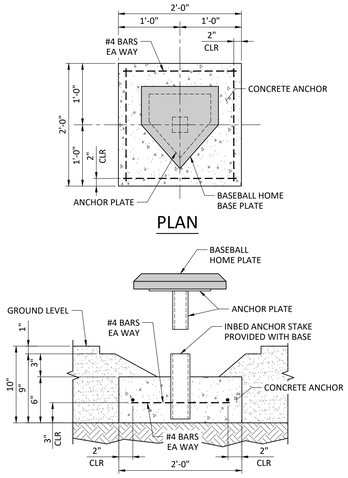
TSCE PROJECT # 2507



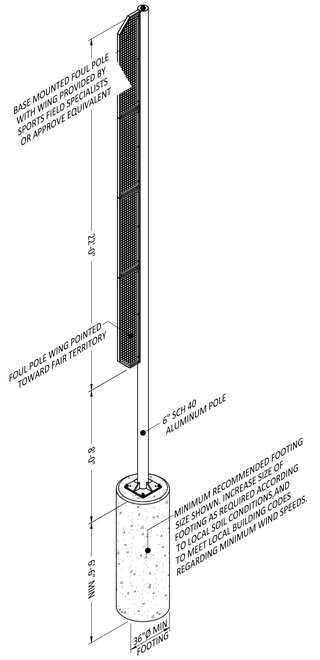
1 BASEBALL BASE PLATE ANCHOR
N.T.S.



2 BASEBALL PITCHER'S PLATE ANCHOR
N.T.S.



3 BASEBALL HOME PLATE ANCHOR
N.T.S.



NOTE:
1. ALIGN FOUL POLE WITH FOUL LINE.

4 BASEBALL 30FT FOUL POLE (ALTERNATE #5)
N.T.S.

SUBGRADE NOTE:
1. CONTRACTOR MUST TREAT 16 INCHES OF EXISTING SUBGRADE (8% LIME) COMPACTED TO 95% MIN DENSITY.

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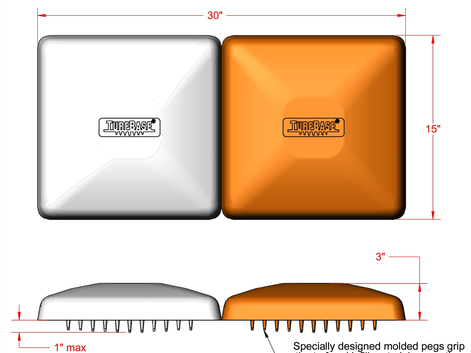
4055 State Highway 10, PO Box 239, Delhi, NY 13753 CALL: 866-975-3343 FAX: 607-746-8481

United States Patent #8,337,340, Issued December 25, 2012



* Designed specifically for synthetic turf applications
* No ground anchor installation is necessary
* Durable all rubber mesh reinforced construction
* Official size - (1) double first base and (2) TurfBase Bases

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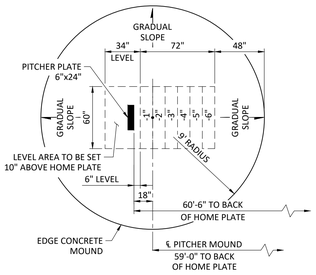
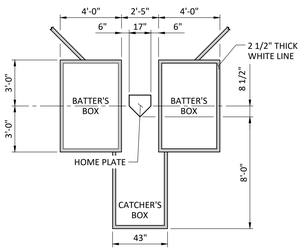
TBDS - TurfBase® Double Base

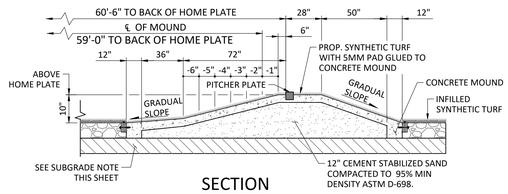
Not To Scale — Sportsfield Specialties Inc 105879.1-221227

C:\ENG\Sales Docs\Products\Baseball and Softball\Bases, Home Plates, and Pitching Rubber\TurfBase\Cut Sheets\

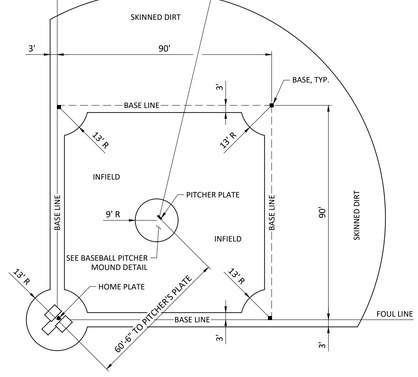




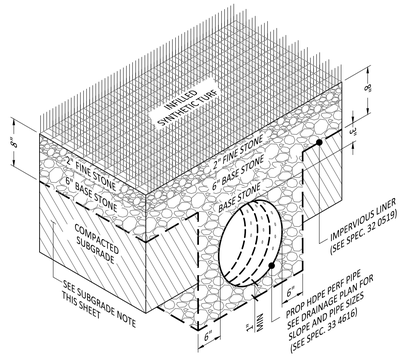
5 BASEBALL BATTER'S AND CATCHER'S BOX
N.T.S.



6 BASEBALL PITCHER CONCRETE MOUND WITH SYNTHETIC TURF
N.T.S.



7 BASEBALL INFIELD LAYOUT
N.T.S.



8 INFILLED SYNTHETIC TURF TRENCH SECTION
N.T.S.

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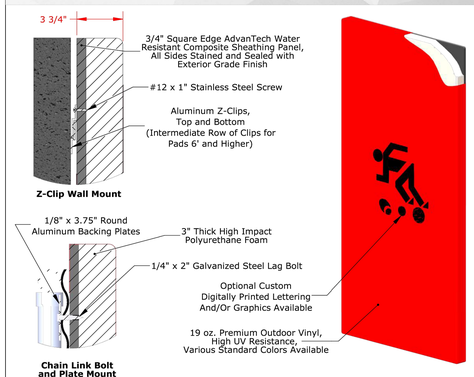

Part Numbers *	Size	Attachment
BFWPZ44/BFWPZ44DG	4'W x 4'L x 3.75"D	Z-Clip Wall Mount
BFWPZ46/BFWPZ46DG	4'W x 6'L x 3.75"D	Z-Clip Wall Mount
BFWPZ48/BFWPZ48DG	4'W x 8'L x 3.75"D	Z-Clip Wall Mount
BFWPZ-NSS/BFWPZDG-NSS	_'W x _'L x 3.75"D	Z-Clip Wall Mount
BFWPCL44/BFWPCL44DG	4'W x 4'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL46/BFWPCL46DG	4'W x 6'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL48/BFWPCL48DG	4'W x 8'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL-NSS/BFWPCLDG-NSS	_'W x _'L x 3.75"D	Chain Link Bolt and Plate Mount

*DG Part Number Denotes Custom Digitally Printed Graphics

Final Layout and/or Graphic Rendering to be Completed upon Verification of Field Measurements

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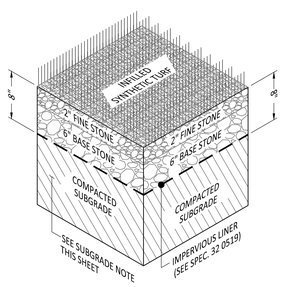
BaseZone® Field Wall Padding

Not To Scale — Sportsfield Specialties Inc 08182021



9 INFILLED SYNTHETIC TURF SECTION "FIELD AND BULLPEN"
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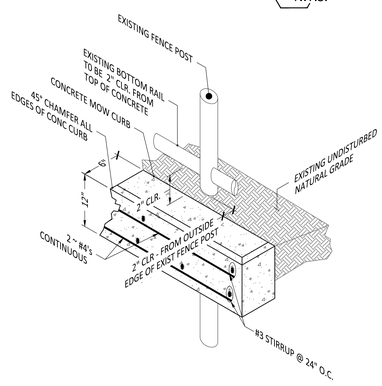
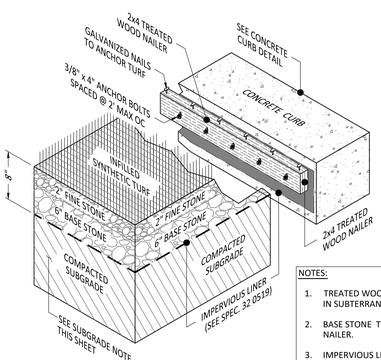


10 CONCRETE MOW CURB AT EXISTING FENCE
N.T.S.



NOTES:
1. TREATED WOOD NAILER TO BE RATED FOR USE IN SUBTERRANEAN CONDITIONS.
2. BASE STONE TO BE FLUSH WITH TOP OF NAILER.
3. IMPERVIOUS LINER SHALL EXTEND TO TOP OF NAILER BETWEEN NAILER AND CONCRTE CURB.
4. TREATED WOOD NAILER TO BE PLACED 2" BELOW THE CONCRETE CURB OR THE THICKNESS OF THE TURF PRODUCT TO BE USED.

11 WOOD NAILER SECTION
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
Project Info Additional Text Line
14777 Voss RD, Sugar Land, TX 77498

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

KENNETH H. JURADO 119993 LICENSED PROFESSIONAL ENGINEER
10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

Project Status
C 5.02-K
CIVIL SPORTS
BASEBALL 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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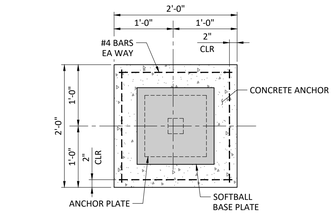
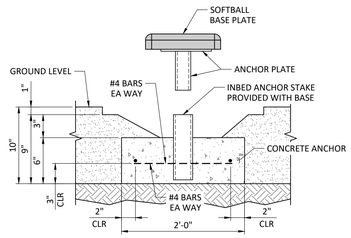
TSCE PROJECT # 25017

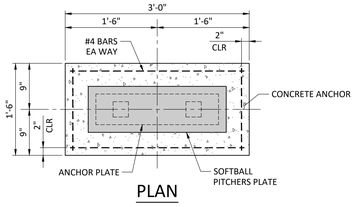


PLAN



SECTION

1 SOFTBALL BASE PLATE ANCHOR
N.T.S.



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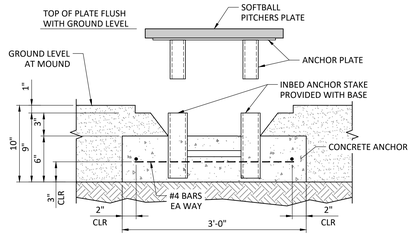

SECTION

2 SOFTBALL PITCHER'S PLATE ANCHOR
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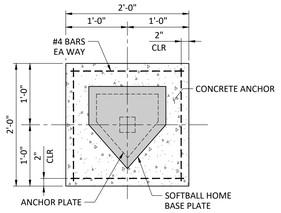

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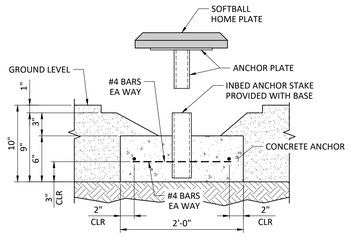
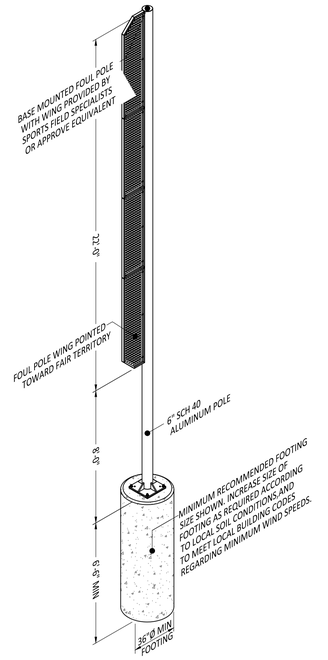


SECTION

3 SOFTBALL HOME PLATE ANCHOR
N.T.S.



NOTE:
1. ALIGN FOUL POLE WITH FOUL LINE.

4 SOFTBALL 30FT FOUL POLE (ALTERNATE #5)
N.T.S.

SUBGRADE NOTE:
1. CONTRACTOR MUST TREAT 8 INCHES OF EXISTING SUBGRADE (8% LIME) COMPACTED TO 95% MIN DENSITY.

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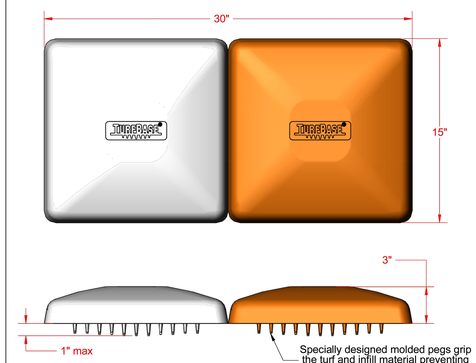
United States Patent #8,337,340, Issued December 25, 2012



* Designed specifically for synthetic turf applications
* No ground anchor installation is necessary
* Durable all rubber mesh reinforced construction
* Official size - (1) double first base and (2) TurfBase Bases

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TBDS - TurfBase® Double Base

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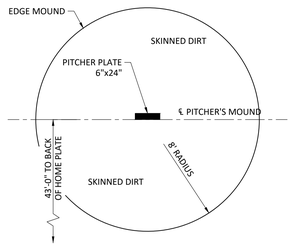
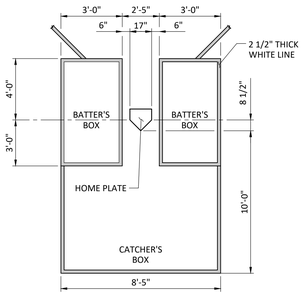
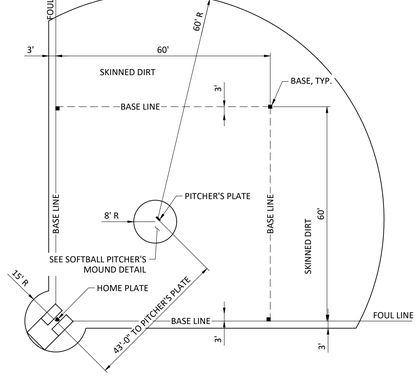


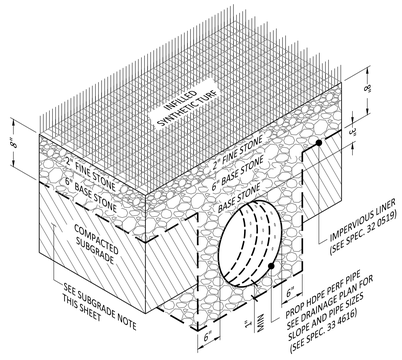
5 SOFTBALL PITCHER'S MOUND
N.T.S.



6 SOFTBALL BATTER'S AND CATCHER'S BOX
N.T.S.



7 SOFTBALL INFIELD LAYOUT
N.T.S.



8 INFILLED SYNTHETIC TURF TRENCH SECTION
N.T.S.

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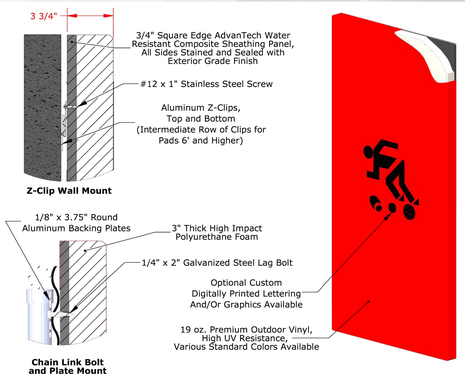
4155 State Highway 10, PO Box 224, Delhi, NY 13753 CALL: 888-975-3243 FAX: 607-746-8480



Part Numbers *	Size	Attachment
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BFWPZ46/BFWPZ46DG	4'W x 6'L x 3.75"D	Z-Clip Wall Mount
BFWPZ48/BFWPZ48DG	4'W x 8'L x 3.75"D	Z-Clip Wall Mount
BFWPZ-NSS/BFWPZDG-NSS	_'W x _'L x 3.75"D	Z-Clip Wall Mount
BFWPCL44/BFWPCL44DG	4'W x 4'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL46/BFWPCL46DG	4'W x 6'L x 3.75"D	Chain Link Bolt and Plate Mount
BFWPCL48/BFWPCL48DG	4'W x 8'L x 3.75"D	Chain Link Bolt and Plate Mount
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Final Layout and/or Graphic Rendering to be Completed upon Verification of Field Measurements

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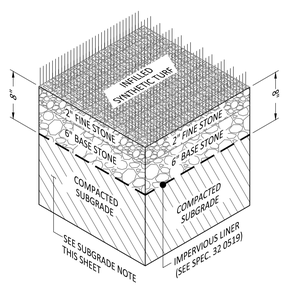
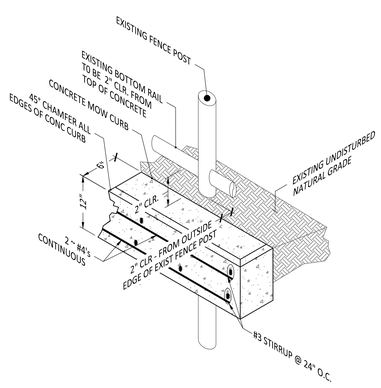
BaseZone® Field Wall Padding

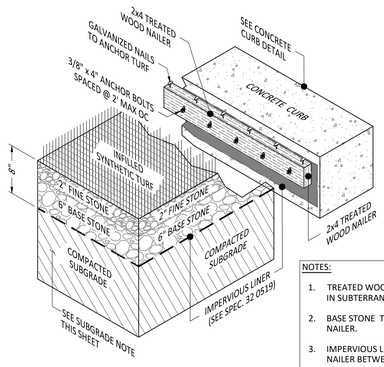
Not To Scale — Sportsfield Specialties Inc 08182021



9 INFILLED SYNTHETIC TURF SECTION "FIELD AND BULLPEN"
N.T.S.



10 CONCRETE MOW CURB AT EXISTING FENCE
N.T.S.



NOTES:
1. TREATED WOOD NAILER TO BE RATED FOR USE IN SUBTERRANEAN CONDITIONS.
2. BASE STONE TO BE FLUSH WITH TOP OF NAILER.
3. IMPERVIOUS LINER SHALL EXTEND TO TOP OF NAILER BETWEEN NAILER AND CONCRTE CURB.
4. TREATED WOOD NAILER TO BE PLACED 2" BELOW THE CONCRETE CURB OR THE THICKNESS OF THE TURF PRODUCT TO BE USED.

11 WOOD NAILER SECTION
N.T.S.

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Houston, Texas 77046
pflugerarchitects.com

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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH H. JURADO 119993 LICENSED PROFESSIONAL ENGINEER
10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

Project Status
C 5.03-K
CIVIL SPORTS SOFTBALL DETAILS

TEXAS SPORTS & CIVIL ENGINEERING
11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
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TSCE PROJECT # 2507



PHOTO OF EXISTING BASEBALL DUGOUT



PHOTO OF EXISTING BASEBALL BACKSTOP



PHOTO OF EXISTING BASEBALL DUGOUT

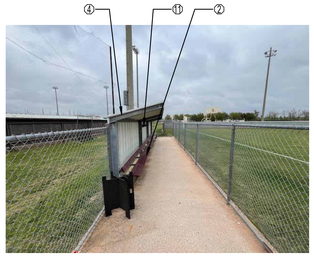


PHOTO OF EXISTING SOFTBALL DUGOUT

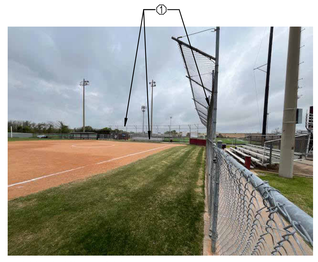
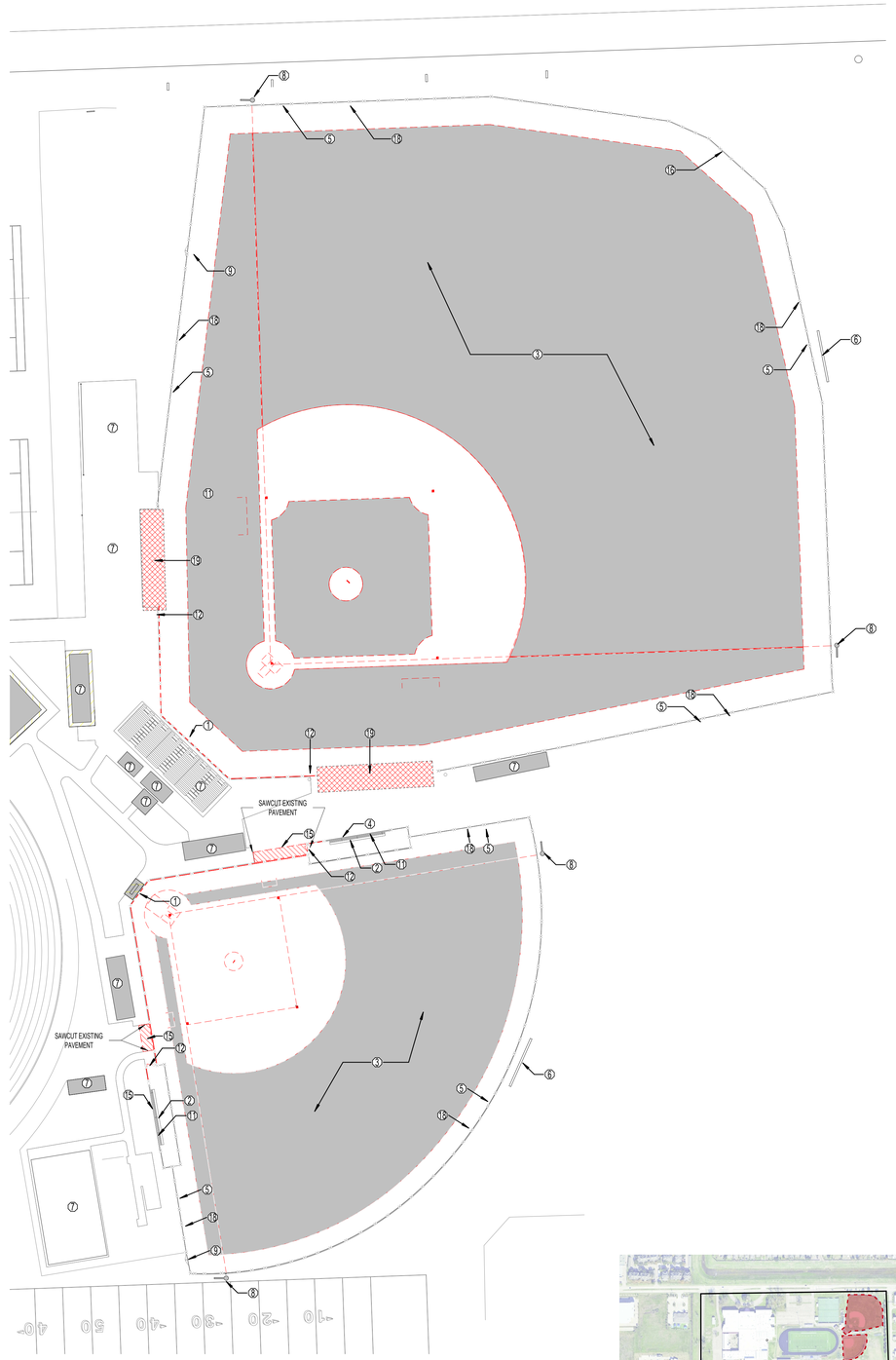


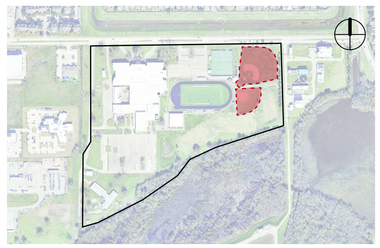
PHOTO OF EXISTING SOFTBALL BACKSTOP



PHOTO OF EXISTING SOFTBALL DUGOUT



KEMPNER OVERALL DEMO 1
SCALE: 1/32" = 1'-0"



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- REMOVE EXISTING CONCRETE PAVING, ASPHALT, AND SIDEWALK
- DEMOLISHED STRUCTURES

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/GRAPHICS AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS UNLESS OTHERWISE NOTED.
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. DISPOSE OF ALL REMOVED MATERIALS OFF-SITE IN ACCORDANCE WITH LOCAL REGULATIONS.

DEMOLITION KEY NOTES

TAG # NOTES

1. DEMOLISH EXISTING CHAINLINK BACKSTOP FENCE AND POSTS. REMOVE ALL EXISTING CHAINLINK FENCING, LINE POSTS, CORNER POSTS, TERMINAL POSTS, TOP RAILS, TENSION WIRE, GATES, AND ASSOCIATED HARDWARE WITHIN THE LIMITS OF DEMOLITION AS SHOWN ON THE DRAWINGS. REMOVAL SHALL INCLUDE ALL CONCRETE FOOTINGS AND EMBEDDED MATERIALS.
2. DEMOLISH EXISTING WOOD BENCH PLATFORM. REMOVE ALL WOOD PLANKS, FASTENERS, AND ASSOCIATED MATERIALS DOWN TO THE EXISTING STEEL SUPPORT FRAME. STEEL FRAME TO REMAIN IN PLACE. PROTECT EXISTING STEEL BENCH STRUCTURE, ELECTRICAL OUTLETS, CONDUITS, AND ANY WIRING MOUNTED TO OR BEHIND THE BENCH DURING DEMOLITION.
3. REMOVE EXISTING NATURAL TURF FIELDS, SOIL, AND EXISTING SUBGRADE TO DEPTHS NOTED ON CIVIL GRADING DRAWINGS. CONTRACTOR IS RESPONSIBLE TO REVIEW SURVEYS PROVIDED IN CONSTRUCTION DOCUMENTS TO REMOVE AND RELOCATE UNDERGROUND UTILITY LINES, LOW VOLTAGE RACEWAYS, AND IRRIGATION LINES WITHIN THE LIMITS OF DEMOLITION AS SHOWN ON THE DRAWINGS. REMOVE ALL ORGANIC MATERIAL, ROOTS, BASE PLATES, AND ANY EXISTING SITE ELEMENTS OR OBSTRUCTIONS ENCOUNTERED DURING DEMOLITION. GRADE AREAS TO MAINTAIN POSITIVE DRAINAGE AND PROVIDE SMOOTH TRANSITION TO ADJACENT SURFACES AS NOTED ON CIVIL GRADING DRAWINGS.
4. EXISTING DUGOUTS TO REMAIN. PROTECT ALL EXISTING DUGOUT STRUCTURES, INCLUDING CMU WALLS, METAL ROOFING, STEEL FRAMING, DOORS, PAINTED FINISHES, ELECTRICAL CONDUITS, LIGHT FIXTURES, AND ACCESSORIES FROM CONSTRUCTION TRAFFIC.
5. EXISTING OUTFIELD FENCE TO REMAIN. PROTECT ALL SECTIONS OF EXISTING OUTFIELD FENCE, INCLUDING CHAIN LINK AND WOOD PANEL SECTIONS, POSTS, TOP RAILS, TENSION WIRE, AND ANY SAFETY CAP ALONG THE TOP EDGE.
6. EXISTING SCOREBOARDS TO REMAIN. PROTECT EXISTING BASEBALL AND SOFTBALL SCOREBOARDS, INCLUDING ALL SUPPORT POLES, ELECTRICAL CONNECTIONS, CONTROL CABLING, AND MOUNTED COMPONENTS THROUGHOUT DEMOLITION AND CONSTRUCTION. NO WORK IS INCLUDED IN THE SCOPE FOR THE SCOREBOARDS.
7. EXISTING BLEACHERS, PRESS BOXES, AND HITTING CAGES TO REMAIN. PROTECT ALL EXISTING BLEACHER STRUCTURES, PRESS BOXES, AND HITTING CAGES FOR BOTH BASEBALL AND SOFTBALL FIELDS. PROTECTION SHALL INCLUDE METAL FRAMING, SEATING, HANDRAILS, STAIRS, CONCRETE FOUNDATIONS, ELECTRICAL CONNECTIONS, BATTING CAGE NETTING, POSTS, AND ANY ASSOCIATED EQUIPMENT OR ACCESSORIES.
8. **ALTERNATE NO. 05** INSTALL NEW FOUL POLES. DEMOLISH EXISTING FOUL POLES IN THEIR ENTIRETY, INCLUDING ASSOCIATED HARDWARE AND ACCESSORIES. EXISTING FOUNDATIONS SHALL BE REMOVED TO FULL DEPTH TO AVOID INTERFERENCE WITH NEW WORK. RESTORE SURROUNDING AREAS TO MATCH ADJACENT CONDITIONS AFTER REMOVAL.
9. EXISTING DOUBLE CHAIN LINK FENCE GATES AND POSTS TO REMAIN. PROTECT IN PLACE DURING CONSTRUCTION.
10. DEMOLISH EXISTING CHAIN LINK FENCE IN FRONT OF DUGOUT IN ITS ENTIRETY, INCLUDING POSTS, FOOTINGS, AND HARDWARE. REMOVE ALL COMPONENTS AS REQUIRED TO ACCOMMODATE NEW WORK.
11. DEMOLISH EXISTING SHELVES IN THEIR ENTIRETY, INCLUDING ALL SUPPORTS, BRACKETS, AND FASTENERS. REMOVE WITHOUT DAMAGING THE WALL SURFACE THEY ARE MOUNTED ON. PATCH AND REPAIR ANY SURFACES AFFECTED BY REMOVAL.
12. DEMOLISH EXISTING CHAIN LINK FENCE AND GATE UP TO THE EDGE OF THE DUGOUT AS SHOWN. REMOVE ALL POSTS, FOUNDATIONS, HARDWARE, AND ACCESSORIES IN THEIR ENTIRETY. FOUNDATIONS SHALL BE REMOVED TO FULL DEPTH.
13. DEMOLISH SITE ELEMENTS AS REQUIRED FOR PROPOSED DETENTION. CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UNDERGROUND ELECTRICAL LINES PRIOR TO EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING OR PROTECTING EXISTING LINES IF REQUIRED TO ACCOMMODATE NEW WORK. REFER : C2.21-A CIVIL DRAWINGS FOR LIMITS OF DETENTION AREA.
14. EXISTING CONCRETE PAVEMENT TO REMAIN. REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO MATCH EXISTING FINISH AND ELEVATION. CLEAN SURFACES AFTER COMPLETION OF WORK.
15. DEMOLISH EXISTING CONCRETE PAVEMENT: REFER TO DEMOLITION DRAWING 1/AD1.00-K FOR LIMITS OF REMOVAL. REMOVE CONCRETE TO FULL DEPTH INCLUDING BASE MATERIALS. PREPARE SUBGRADE FOR NEW CONCRETE PAVEMENT PER PLANS. COORDINATE WITH NEW WORK TO MAINTAIN CLEAN TRANSITIONS AND PROPER DRAINAGE.
16. EXISTING WOODEN OUTFIELD FENCE TO REMAIN. PROTECT ALL WOOD FENCE SURFACES DURING DEMOLITION AND RENOVATION WORK.
17. CONTRACTOR SHALL COORDINATE WITH OWNER TO IDENTIFY AND REMOVE ALL EXISTING SITE ELEMENTS THAT ARE TO BE REUSED OR RELOCATED PRIOR TO DEMOLITION ACTIVITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, GARBAGE BINS, WORKOUT OR MAINTENANCE EQUIPMENT, PORTABLE STORAGE ITEMS, AND MISCELLANEOUS FIELD ACCESSORIES. ALL ITEMS DESIGNATED FOR REUSE SHALL BE SAFELY STORED AND REINSTALLED AS DIRECTED BY OWNER. ANY ITEMS NOT IDENTIFIED FOR REUSE SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH LOCAL REGULATIONS.
18. **ALTERNATE #7** (A). APPLY A NEW GALVANIZED FINISH TO EXISTING CHAINLINK FENCE. REFER TO MATERIAL SCHEDULE FOR GALVANIZED PAINT TYPE. CONTRACTOR SHALL REMOVE ANY ATTACHED ACCESSORIES, SIGNAGE, OR SAFETY CAPS AS REQUIRED TO PREPARE THE FENCE TO APPLY A NEW FINISH. (B). PAINT EXISTING WOOD FENCE. CLEAN, SCRAPE, AND REMOVE LOOSE OR PEELING PAINT. REPAIR ANY DAMAGED WOOD OR SURFACE AREAS PRIOR TO REFINISHING. REFER TO MATERIALS SCHEDULE FOR PAINT TYPE.
19. DEMOLISH EXISTING DUGOUTS IN THEIR ENTIRETY. THIS INCLUDES METAL ROOF, COLUMNS, AND SIDING. DEMO ALL SPORTS EQUIPMENT ON THE INSIDE. DEMO CONCRETE SLAB, GRADE BEAMS, AND PIERS.

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BP010 TURF AND ATHLETICS

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

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

Date	Description

ISSUED FOR CONSTRUCTION

AD1.00-K
DEMOLITION SITE PLAN

10/9/2025 5:53:52 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_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
EQUP.	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
MAT'L.	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

Symbol	Description
Name 101 F1|W1|C1	ROOM TAG WITH ROOM FINISH
Name 101 XXX SF/ XXX(P)	ROOM TAG WITH OCCUPANCY SF=SQUARE FEET P=PEOPLE
101	DOOR TAG
AX	PARTITION TAG
1	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 RO 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 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
2. 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
3. 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.
4. 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
5. 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
6. 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.
7. 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.
8. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
9. 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
10. 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.
11. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
12. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
13. 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.
14. 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.
15. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
16. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
17. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
18. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
19. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
20. 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.
21. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
22. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
23. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
24. 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.
25. 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
26. 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.
27. 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
28. 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
29. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
30. 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.
31. 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

DRAWING SHEET DISCIPLINE

G	GENERAL
C	CIVIL
S	STRUCTURAL
AD	ARCH DEMOLITION
A	ARCHITECTURE
E	ELECTRICAL

CAMPUS DESIGNATOR

SHEET NUMBER IN DISCIPLINE

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

BP010 TURF AND ATHLETICS

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THIS DOCUMENT IS INCOMPLETE AND CANNOT BE USED FOR REGULATORY APPROVAL, PERMITTING, BIDDING OR CONSTRUCTION.
ARCHITECT: MICHAEL ADAME
ARCHITECT REG. NO: 20113
DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

ISSUED FOR CONSTRUCTION

A0.00-K
SYMBOLS & ABBREVIATIONS

UPDATED 08-21-21

Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt
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KEMPNER SITE OVERALL 1
SCALE: 1" = 80'-0"

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00-D FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURISDICTION.
5. ALL NEW FENCING SHALL BE VINYL COATED CHAIN LINK,REF DRAWINGS FOR HEIGHT.
6. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.
9. PROVIDE 12" CONCRETE CURB AROUND PERIMETER OF ALL FIELDS 6" CENTERED ON ALL EXISTING AND NEW FENCING.
10. REFER TO CIVIL DRAWINGS FOR ALL GRADING AND SUBSURFACE UTILITY, DRAINAGE AND OTHER WORK.
11. PROVIDE CONTROL JOINTS AT ALL CONCRETE WALKS AS INDICATED. IF NO INDICATION OF JOINT PATTERN, SPACING, ETC., REFER TO SPECIFICATIONS. IF NO DIRECTION IS PROVIDED, CONTROL JOINTS SHALL BE TOOLED AT 5'-0" O.C. WITH EXPANSION JOINTS EVERY 20'-0". PROVIDE JOINT LAYOUT PLAN TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF CONCRETE.
12. PROVIDE EXPANSION FILLER STRIPS AND SEALANT AT ALL FLATWORK TO BUILDING, COLUMN, ADJACENT FLATWORK, OR OTHER ADJACENT SURFACE AS REQUIRED TO PROVIDE PROPER EXPANSION CONTROL. COORDINATE WITH ADJACENT SURFACE TO PROVIDE AS INCONSPICUOUS EXPANSION JOINT AS POSSIBLE. COORDINATE EXPANSION STRIP MATERIAL AND SEALANT WITH ADJACENT MATERIAL COLOR.
13. DELIVERIES / HEAVY TRAFFIC SHALL BE COORDINATED SO AS NOT TO DISRUPT CAMPUS ACTIVITIES. DELIVERIES / HEAVY TRAFFIC SHALL NOT OCCUR BETWEEN THE HOURS OF 7:30 AM - 9:00 AM OR 3:00 PM.
14. PROVIDE MIN. 1/2" EXPANSION JOINT WITH FILLER AT ALL TRANSITIONS BETWEEN CIVIL AND STRUCTURAL CONCRETE WORK, WHETHER ILLUSTRATED OR NOT.
15. SCORE LINES SHOWN ON PLANS MAY NOT BE FULLY INDICATIVE OF ALL SCORE LINES REQUIRED TO ENSURE THAT CONCRETE FLATWORK DOES NOT CRACK / FRACTURE. REFER TO PROJECT SPECIFICATIONS AND CIVIL DRAWINGS FOR FURTHER SCORE LINE REQUIREMENTS.
16. REFER TO A1.01 AND A1.02 ENLARGED SITE PLAN FOR TURF LAYOUT
17. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING ANY WORK. ANY DISCREPANCIES, CONFLICTS, OR UNFORESEEN CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT AND ENGINEER FOR CLARIFICATION AND RESOLUTION

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
- FV FIELD VERIFY
- PROPOSED DETENTION

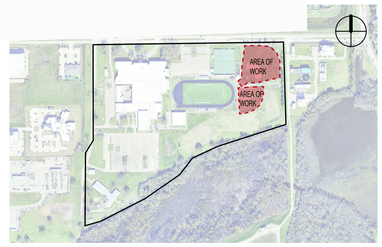
SITE PLAN KEYNOTES

TAG # NOTES

1. INSTALL INFILL SYNTHETIC TURF. THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYNTHETIC TURF SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 32 18 23 FOR MATERIAL AND INSTALLATION REQUIREMENTS. REFER TO CIVIL DRAWINGS FOR SUBGRADE PREPARATION, DRAINAGE DETAILS, AND FINISH GRADES.
2. CONSTRUCT NEW CMU DUGOUTS. REFER TO ARCHITECTURAL A1.03-K AND STRUCTURAL DRAWINGS FOR DIMENSIONS, ROOF CONNECTIONS, AND DETAILING REQUIREMENTS.
3. INSTALL NEW 60'-0" HIGH BACKSTOP NETTING SYSTEM IN ACCORDANCE WITH PM SECTION 11 68 50. REFER TO STRUCTURAL DRAWINGS FOR PIER DIMENSIONS, REINFORCEMENT, AND POLE FOUNDATION DETAILS. INSTALL ALL EYEBOLTS, TURNBUCKLES, AND HARDWARE REQUIRED TO SECURE THE SYSTEM. ALIGN NETTING WITH BACKSTOP AND EXISTING FENCE.
4. INSTALL NEW 40'-0" HIGH SIDE NETTING SYSTEM TO MATCH BACKSTOP NETTING. REFER TO STRUCTURAL DRAWINGS FOR FOUNDATION AND CONNECTION DETAILS. COORDINATE INSTALLATION WITH ADJACENT CMU WALLS AND SAFETY FENCING.
5. INSTALL NEW BACKSTOP PADDING ON CMU WALL SURFACES. REFER TO PM SECTION 11 68 50. COLOR, THICKNESS, AND FINISH PER MATERIAL SCHEDULE.
6. INSTALL NEW 12" CMU BACKSTOP WALL, 38" TALL, REINFORCED AND GROUTED PER STRUCTURAL DRAWINGS. REFER TO MATERIAL SCHEDULE FOR BRICK FINISH REQUIREMENTS. COORDINATE WITH BACKSTOP PADDING AND NETTING CONNECTIONS.
7. RENOVATE EXISTING DUGOUT. PRESSURE WASH ALL SURFACES INCLUDING CMU WALLS, ROOF STRUCTURE, AND CONCRETE FLOOR. REPAIR CRACKS OR DAMAGED AREAS. PREPARE AND REFINISH ALL SURFACES PER PM SECTION 09 90 00. PROTECT EXISTING ELECTRICAL, LIGHT FIXTURES, AND CONDUITS.
8. INSTALL NEW CONCRETE WALKWAY AT FIELD ENTRY. CONCRETE WALKWAY SHALL BE 5" THICK, REINFORCED WITH 6x6 W2.9xW2.9 WELDED WIRE FABRIC. PROVIDE CONTROL JOINTS AT 5'-0" INTERVALS AND TOOL ALL EDGES. REFER TO CIVIL DRAWINGS FOR ALIGNMENT, GRADING.

AUTHORITY HAVING JURISDICTION (AHJ)- CITY OF SUGARLAND

- 2021 International Building Code
- 2021 International Fire Cod
- 2021 International Plumbing Code
- 2021 International Mechanical Code
- 2021 International Energy Conservation Code
- 2021 International Existing Building Code
- 2021 International Property Maintenance Code
- 2023 National Electric Code



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

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BP010 TURF AND ATHLETICS

FBISD
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REGISTERED ARCHITECT MICHAEL ADAMS 20115 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

ISSUED FOR CONSTRUCTION

A1.00-K
ARCHITECTURAL SITE PLAN

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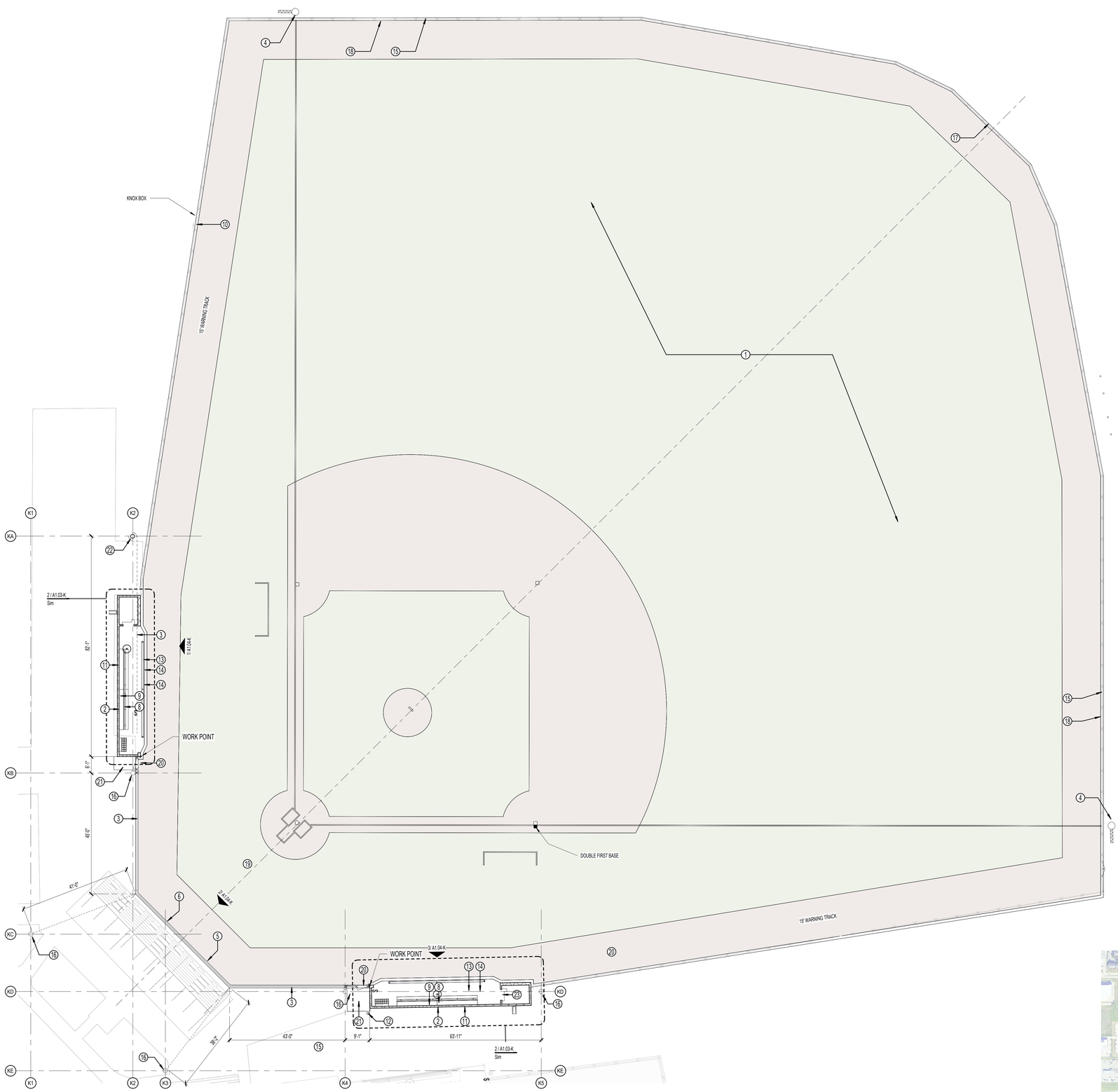
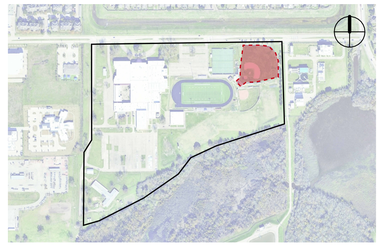


KEMPNER HS - BASEBALL ENLARGED SITE PLAN

SCALE: 1/16" = 1'-0"

1



KEY PLAN - BASEBALL AREA OF WORK

ENLARGED SITE PLAN LEGEND AND NOTES

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

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00-A FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURISDICTION.
5. ALL NEW FENCING SHALL BE PVC-COATED CHAIN LINK TO MATCH NETTING COLOR REF SECTION 32 31 15 . REFER TO DRAWINGS FOR HEIGHT.
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. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.
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.

SITE PLAN LEGEND

- NEW CHAINLINK FENCE
- EXISTING CHAIN LINK FENCE
- BUILDING SECTION TAG (1 / A101, SIM)
- WALL SECTION TAG (1 / A101, SIM)
- ENLARGED CALL OUT (2 / A101, SIM)
- FV — FIELD VERIFY

ENLARGED SITE PLAN KEYNOTES

TAG # — NOTES

1. INSTALL INFILL SYNTHETIC TURF. THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYNTHETIC TURF SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 321823 FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS. REFER TO THE COLOR RENDERINGS ON SHEET G0.01-A FOR TURF COLOR AND DETAIL LAYOUTS. REFER TO CIVIL DRAWINGS FOR TURF DETAILS.
2. NEW CMU DUGOUTS. REFER TO A1.04-A.
3. TIGHTEN EXISTING BACKSTOP NETTING ACCORDING TO MANUFACTURERS INSTRUCTIONS. REFER TO PM SECTION 11 68 50.
4. **ALTERNATE NO.5:** INSTALL 30' FOUL POLE AS NOTED IN PM SECTIONS 116850. REFER TO STRUCTURAL DRAWINGS FOR PIER SCHEDULE AND DETAILS.
5. INSTALL BACKSTOP PADDING AS NOTED IN PM SECTIONS 116850. REFER TO DETAIL 1&3/ A1.04-A. REFER TO CIVIL FOR PRODUCT DATA. ATTACH PADDING PER MANUFACTURERS RECOMMENDATIONS FOR MASONRY FACE BRICK AND CMU BACKSTOPS.
6. INSTALL 12" THICK CMU BLOCK WALL 38" TALL BACKSTOP. REFER TO MATERIAL SCHEDULE FOR BRICK TYPE. REFER TO DETAIL SECTION 1&3/ A1 .04-A. REFER TO STRUCTURAL FOR FOUNDATIONS AND REINFORCEMENT REQUIREMENTS.
7. ADD SAFETY NETTING TO MATCH THE BACKSTOP NETTING. REFER TO SHEET A1.03-A FOR LOCATIONS AND DIMENSIONS. REFER TO 116850 BACKSTOP NETTING FOR SPECIFICATIONS. REFER TO MANUFACTURER DETAILS FOR ATTACHMENT RECOMMENDATIONS.
8. INSTALL NEW SEATING FOR INSIDE DUGOUT. REFER TO PM SPECTION 11 68 50. REFER TO FINISH SCHEDULE FOR COLOR REQUIREMENTS.
9. INSTALL NEW HAT AND BAT RACKS REFER TO DETAILS XX.XX-A. REFER TO SPEC 11 68 50. REFER TO FINISH SCHEDULE FOR COLORS REQUIREMENTS.
10. INSTALL NEW EMERGENCY ACCESS SWING GATES. REFER TO PM SECTION 32 31 15.
11. **ALTERNATE NO.6:** INSTALL NEW ELECTRICAL LIGHTING AS NOTED IN ELECTRICAL DRAWINGS.
12. INSTALL NEW ANTI-SIPHON AND ANTI-FREEZE WATER HYDRANT. REFER TO MEP DRAWING AND SPECIFICATIONS.
13. **ALTERNATE NO.6:** CONTRACTOR/INSTALLER SHALL ACID WASH DUGOUT CONCRETE FLOOR. REMOVE SUB-FLOOR RIDGES AND BUMPS. FILL MINOR LOW SPOTS, CRACKS, JOINTS, HOLES, AND OTHER DEFECTS WITH SUB-FLOOR FILLER TO ACHIEVE SMOOTH SURFACE. VERIFY THAT SUBSTRATES ARE DRY ENOUGH AND READY FOR FLOORING INSTALLATION BY TESTING FOR MOISTURE AND PH. ADD EXTERIOR GRADE SELF-LEVELING MATERIAL TO EVEN FLOOR SURFACE. PREPARE FLOOR TO RECEIVED GLUE DOWN SYNTHETIC TURF FLOORING.
14. **ALTERNATE NO.6:** PLACE GLUE DOWN SYNTHETIC TURF. REFER TO PM SECTION 32 18 20.
15. **ALTERNATE NO.7:** EXISTING 6'-0" PERIMETER CHAINLINK FENCE TO REMAIN. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR GALVANIZED METALS.
16. EXISTING BACK STOP NETTING POLES TO REMAIN.
17. **ALTERNATE NO.7:** REFINISH AND PAINT EXISTING OUTFIELD WOOD FENCE AS NOTED IN PM SECTION 09900.
18. 12" CONCRETE CURB AROUND EXISTING PERIMETER.
19. ALL DIMENSIONS ARE BASED ON EXISTING DRAWINGS AND ON SURVEYOR DRAWINGS ISSUED BY CLIENT. CONTRACTION TO FIELD VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.
20. 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
21. PROVIDE NEW CONCRETE PAVING. REFER TO PM SECTION 32 13 13.
22. INSTALL NEW 60'-0" BACKSTOP STEEL NETTING POLE. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.

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BP010 TURF AND ATHLETICS

FBISD
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16431 Lexington Blvd.
Sugarland, TX 77479

REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

ISSUED FOR CONSTRUCTION

A1.01-K
ENLARGED SITE PLAN BASEBALL

10/9/2025 5:54:00 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt

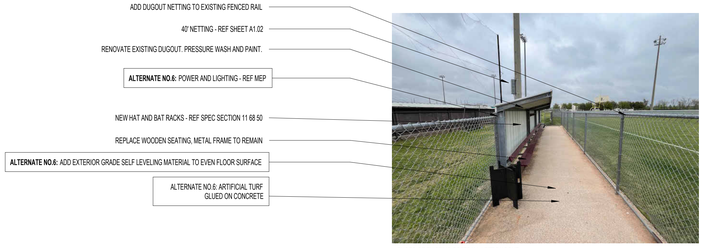


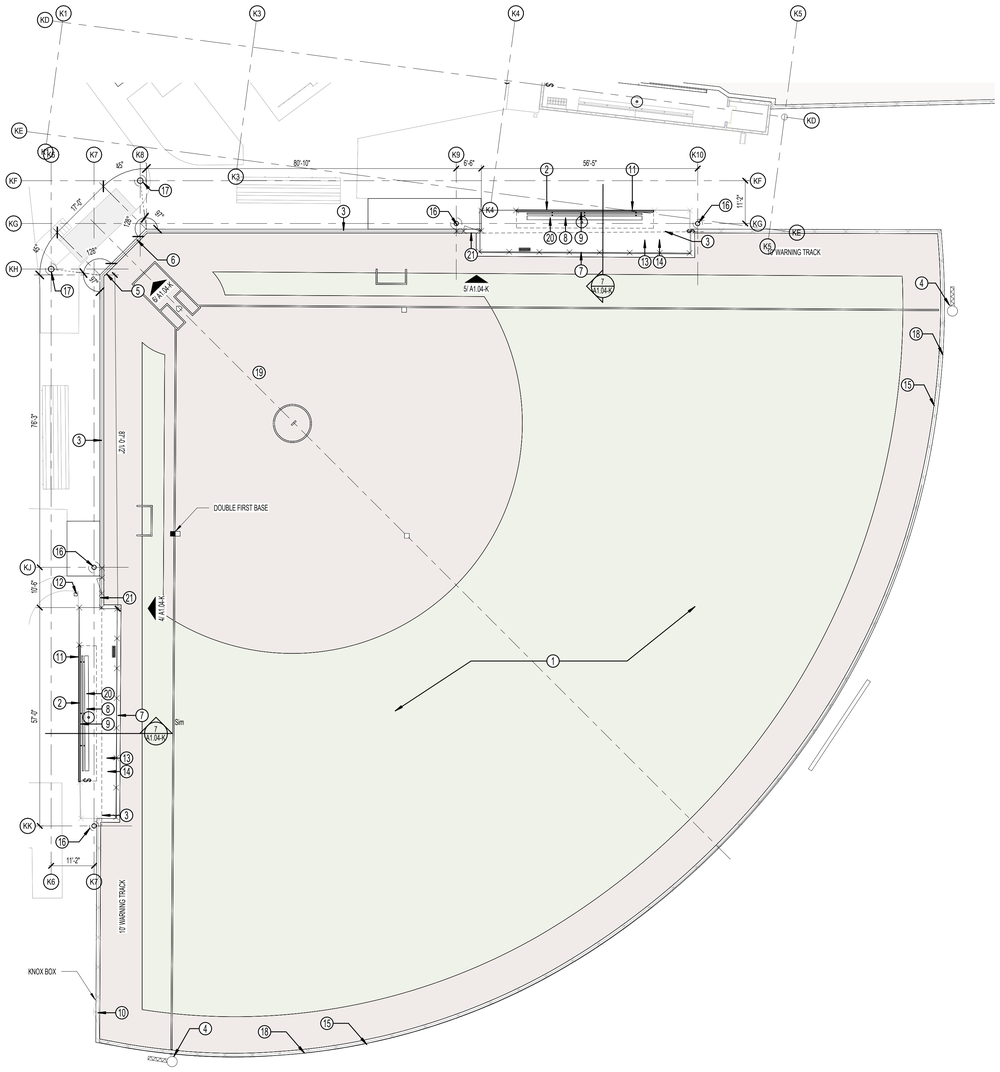
PHOTO OF EXISTING SOFTBALL LEFT DUGOUT



PHOTO OF EXISTING SOFTBALL RIGHT DUGOUT

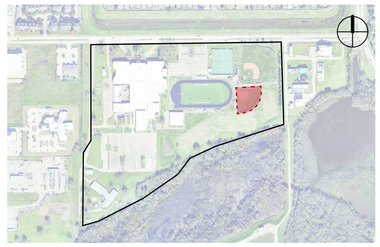


PHOTO OF EXISTING SOFTBALL FENCE BACKSTOP



KEMPNER HS - ENLARGED SOFTBALL SITE PLAN 1

SCALE: 1/16" = 1'-0"



KEY PLAN - SOFTBALL AREA OF WORK

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00-A FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURISDICTION.
5. ALL NEW FENCING SHALL BE PVC-COATED CHAIN LINK TO MATCH NETTING COLOR REF SECTION 32 31 15 . REFER TO DRAWINGS FOR HEIGHT.
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. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.
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.

SITE PLAN LEGEND

- NEW CHAINLINK FENCE
- EXISTING CHAIN LINK FENCE
- BUILDING SECTION TAG
- WALL SECTION TAG
- ENLARGED CALL OUT
- FV — FIELD VERIFY

ENLARGED SITE PLAN KEYNOTES

TAG # — NOTES

1. INSTALL INFILL SYNTHETIC TURF . THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYNTHETIC TURF SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 321823 FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS. REFER TO THE COLOR RENDERINGS ON SHEET G0.01-A FOR TURF COLOR AND DETAIL LAYOUTS. REFER TO CIVIL DRAWINGS FOR TURF DETAILS.
2. PRESSURE WASH ALL SIDES OF EXISTING DUGOUT. CONCRETE SLAB FLOOR, METAL ROOFING AND ROOFING STRUCTURE. REPAIR EXTERIOR METAL ROOF FLASHING, REPAIR METAL WALLS WITH FILLER AND PRIMER. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR EXTERIOR WOOD AND METAL SURFACES.
3. 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.
4. **ALTERNATE NO.5:** INSTALL 30' FOUL POLE AS NOTED IN PM SECTIONS 116850. REFER TO STRUCTURAL DRAWINGS FOR PIER SCHEDULE AND DETAILS.
5. INSTALL BACKSTOP PADDING AS NOTED IN PM SECTIONS 116850. REFER TO DETAIL 1&3/ A1.04-A. REFER TO CIVIL FOR PRODUCT DATA. ATTACH PADDING PER MANUFACTURER'S RECOMMENDATIONS FOR MASONRY FACE BRICK AND CMU BACKSTOPS.
6. INSTALL 12" CMU BLOCK WALL 36" TALL BACKSTOP. REFER TO MATERIAL SCHEDULE FOR BRICK TYPE. REFER TO DETAIL SECTION 1&3/ A1 .04-A. REFER TO STRUCTURAL FOR FOUNDATIONS AND REINFORCEMENT REQUIREMENTS.
7. ADD SAFETY NETTING TO MATCH THE BACKSTOP NETTING. REFER TO SHEET A1.03-A FOR LOCATIONS AND DIMENSIONS. REFER TO 116850 BACKSTOP NETTING FOR SPECIFICATIONS. REFER TO MANUFACTURER DETAILS FOR ATTACHMENT RECOMMENDATIONS.
8. POWER WASH SEATING METAL FRAME, REPAIR, CLEAN, PRIME AND PAINT EXISTING METAL FRAME PER PM SECTION 099000.
9. INSTALL NEW HAT AND BAT RACKS REFER TO DETAILS XX.XX-A. REFER TO SPEC XXXXXX. REFER TO FINISH SCHEDULE FOR COLORS REQUIREMENTS.
10. EMERGENCY SWING GATE TO REMAIN. POWER WASH CLEAN, REPAIR. RE-COAT AND RE-GALVANIZE AS NOTED IN PM SECTION 099000.
11. **ALTERNATE NO.6:** INSTALL NEW ELECTRICAL LIGHTING AS NOTED IN ELECTRICAL DRAWINGS.
12. INSTALL NEW ANTI SIPHON AND ANTI-FREEZE WATER HYDRANT. REFER TO MEP DRAWING AND SPECIFICATIONS.
13. **ALTERNATE NO.6:** CONTRACTOR/INSTALLER SHALL ACID WASH EXISTING DUGOUT CONCRETE FLOOR. REMOVE SUB-FLOOR RIDGES AND BUMPS. FILL MINOR LOW SPOTS, CRACKS, JOINTS, HOLES, AND OTHER DEFECTS WITH SUB-FLOOR FILLER TO ACHIEVE SMOOTH SURFACE. VERIFY THAT SUBSTRATES ARE DRY ENOUGH AND READY FOR FLOORING INSTALLATION BY TESTING FOR MOISTURE AND PH. ADD EXTERIOR GRADE SELF LEVELING MATERIAL TO EVEN FLOOR SURFACE. PREPARE FLOOR TO RECEIVED GLUE DOWN SYNTHETIC TURF FLOORING.
14. **ALTERNATE NO.6:** PLACE GLUE DOWN SYNTHETIC TURF. REFER TO PM SECTION 32 18 20.
15. **ALTERNATE NO.7:** EXISTING 6'-0" PERIMETER CHAINLINK FENCE TO REMAIN. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR GALVANIZED METALS.
16. INSTALL NEW 40'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
17. INSTALL NEW 50'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
18. 12" CONCRETE CURB AROUND EXISTING PERIMETER.
19. ALL DIMENSIONS ARE BASED ON EXISTING DRAWINGS AND ON SURVEYOR DRAWINGS ISSUED BY CLIENT. CONTRACTION TO FIELD VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.
20. REMOVE EXISTING 2X WOOD BENCH SEATS. EXISTING METAL FRAME ALL METAL SHALL BE THOROUGHLY PREPARED TO ENSURE ADHESION OF NEW PAINT TO THE PREPARED SURFACE. PAINT ALL METAL SURFACES PER PM SECTION 116850. INSTALL NEW WOOD 2X SEATING. ALL WOOD SURFACES MUST BE SCRAPED, SANDED, AND SPOT PRIMED BEFORE A FULL PRIMING COAT IS APPLIED AND PAINT ACCORDING TO PM SECTION 099000.
21. 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.

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO.	25-005
DATE:	10/09/2025
DRAWN BY: DRW	CHECKED BY: CHK

REVISIONS:

	Date	Description

ISSUED FOR CONSTRUCTION

A1.02-K
ENLARGED SITE PLAN SOFTBALL

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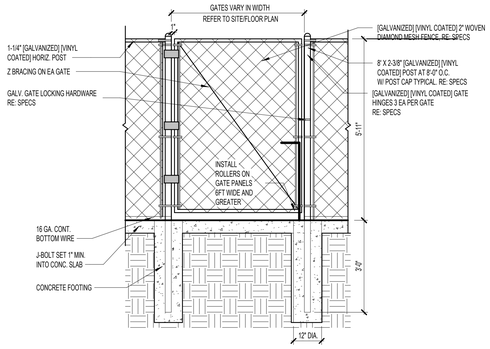
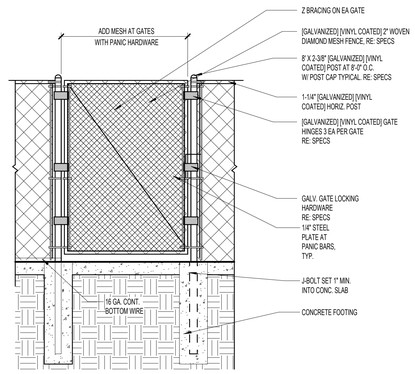


SITE DETAIL - CHAIN LINK GATE DETAIL, TYPICAL 9

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

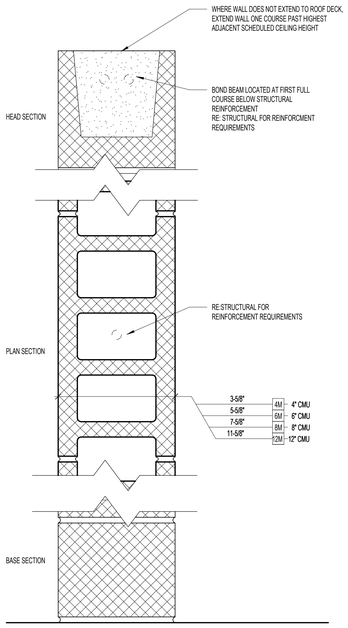


SITE DETAIL - CHAIN LINK GATE DETAIL, GATES WITH PANIC HARDWARE 8

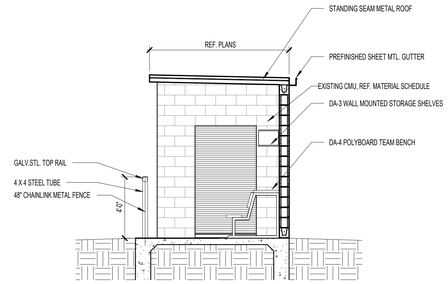
SCALE: 1/2" = 1'-0"

WHERE CMU IS EXTENDED TO ROOF DECK, RE: WALL TYPE "S"

ALL FIRE RATED WALLS MUST EXTEND TO DECK OR TRANSITION TO STUD & GYP WALL OF EQUAL RATING

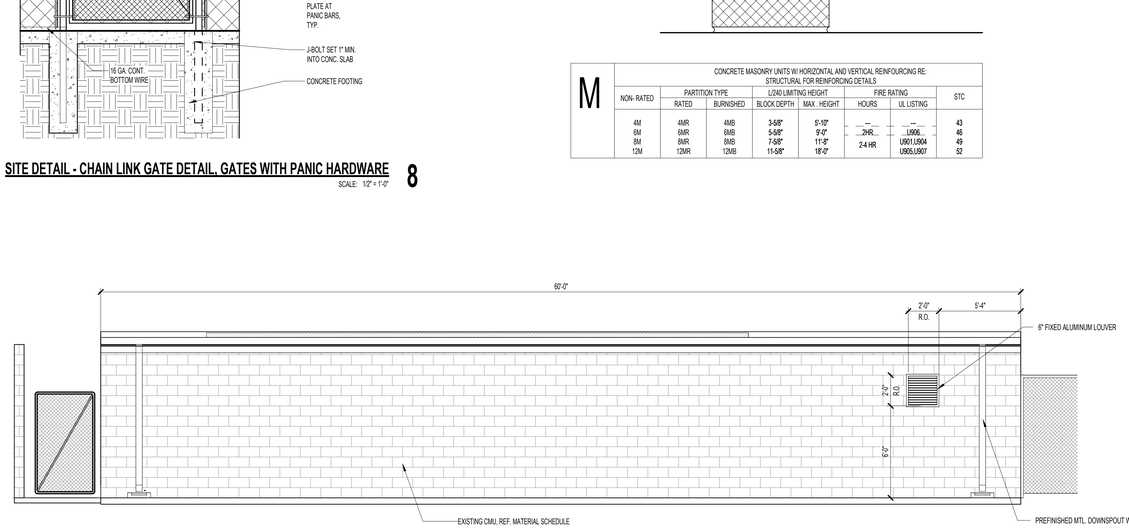


M	CONCRETE MASONRY UNITS W/ HORIZONTAL AND VERTICAL REINFOURCING RE: STRUCTURAL FOR REINFORCING DETAILS							
	NON- RATED	PARTITION TYPE		L/240 LIMITING HEIGHT		FIRE RATING		STC
		RATED	BURNISHED	BLOCK DEPTH	MAX. HEIGHT	HOURS	UL LISTING	
	4M	4MR	4MB	3-5/8"	5'-10"	----	----	43
	6M	6MR	6MB	5-5/8"	9'-0"	...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



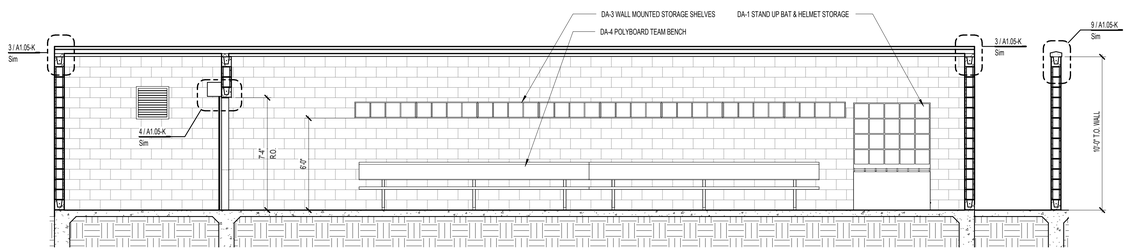
TYPICAL DUGOUT SECTION 6

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



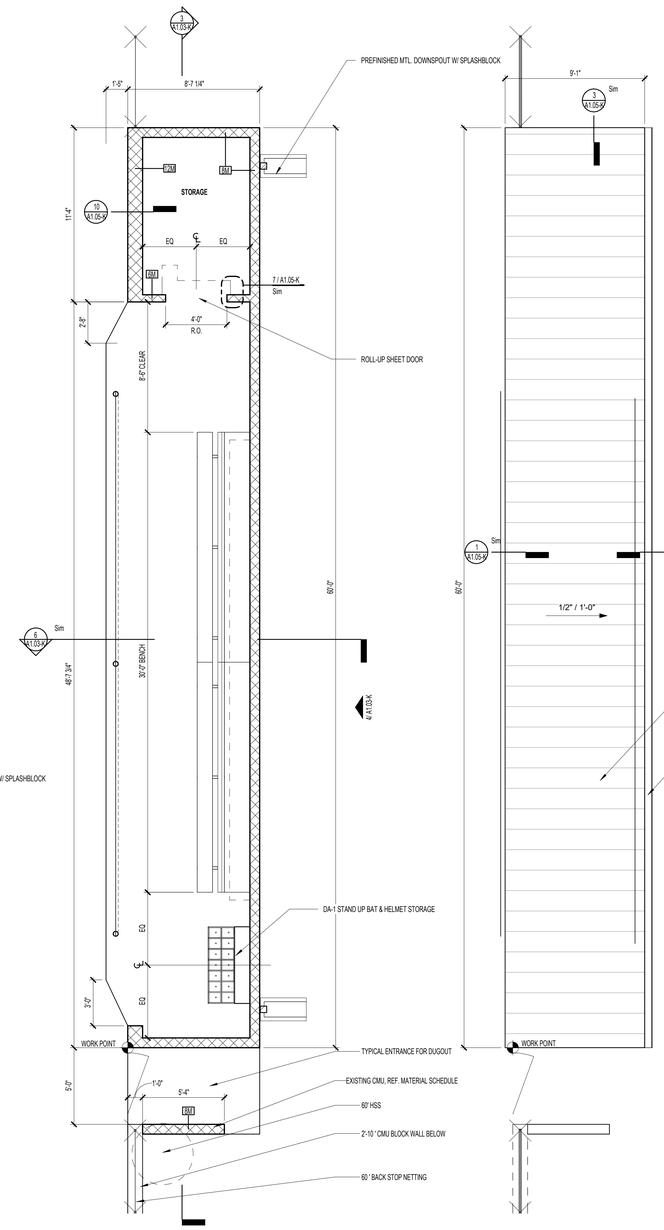
BACK OF KEMPNER BASEBALL DUGOUT ELEVATION 4

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



KEMPNER BASEBALL DUGOUT SECTION - A 3

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



KEMPNER BASEBALL DUGOUT DETAIL 2

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

KEMPNER BASEBALL DUGOUT ROOF PLAN DETAIL 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
- AB — COLUMN GRID
- 20 / A101 Ref — EXTERIOR ELEVATION TAG
- 1/ A101 Ref — INTERIOR ELEVATION TAG
- A101 SIM — BUILDING SECTION TAG
- 1 / A101 SIM — WALL SECTION TAG
- 21 / A101 SIM — ENLARGED CALL OUT
- 101 — DOOR TAG
- AX1 — PARTITION TAG
- 1 — HOLLOW METAL WINDOW TAG
- 1 — ALUMINUM WINDOW TAG
- 5' DIAMETER ADA TURN AROUND

FLOOR PLAN NOTES BY NUMBER

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

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A1.03-K
BASEBALL DUGOUT PLANS AND DETAILS

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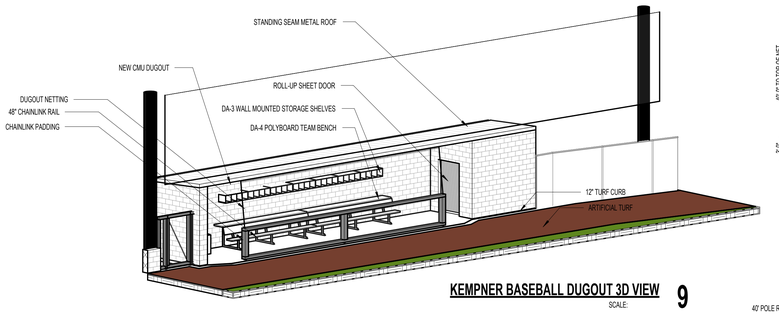
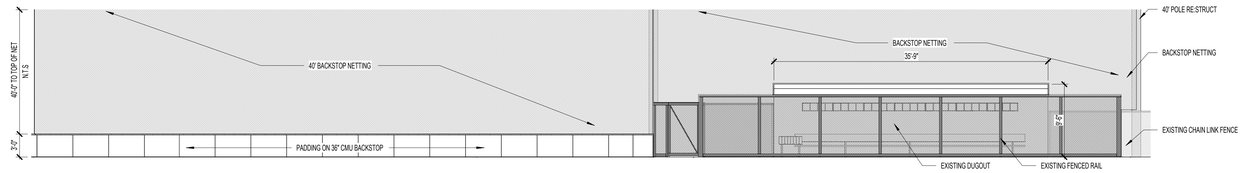
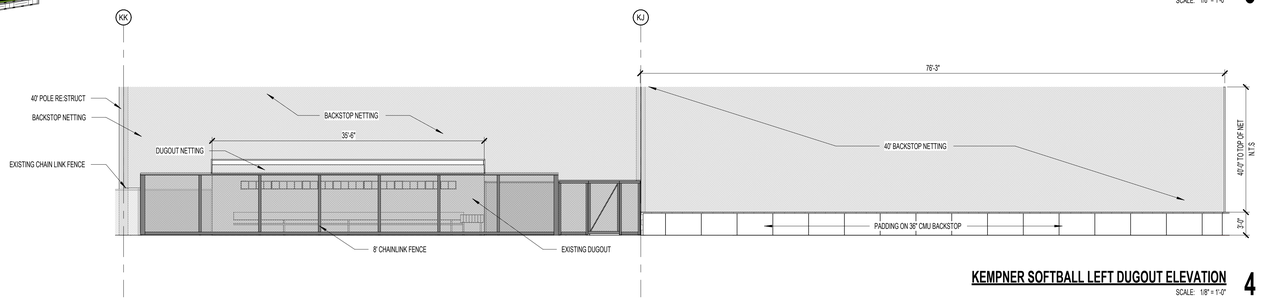


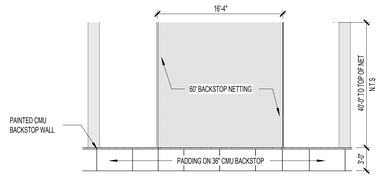
KEMPNER BASEBALL DUGOUT 3D VIEW 9
SCALE:



KEMPNER SOFTBALL RIGHT DUGOUT ELEVATION 5
SCALE: 1/8" = 1'-0"

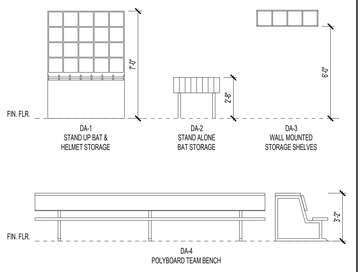


KEMPNER SOFTBALL LEFT DUGOUT ELEVATION 4
SCALE: 1/8" = 1'-0"



KEMPNER SOFTBALL BACKSTOP ELEVATION 6
SCALE: 1/8" = 1'-0"

DUGOUT EQUIPMENT LEGEND



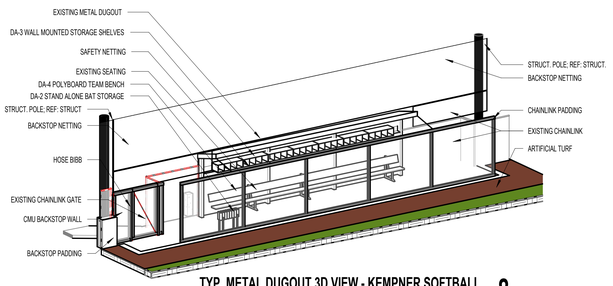
DUGOUT EQUIPMENT: GENERAL NOTES

1. REFER TO MATERIAL AND EQUIPMENT SCHEDULE FOR COLOR SELECTIONS AND FINISHES PER SCHOOL.

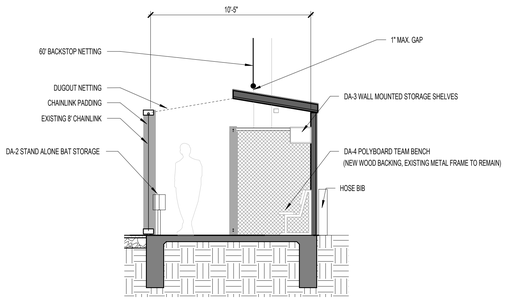
EXTERIOR MATERIAL LEGEND

- BRICK (BR-1) UTILITY SIZE, RUNNING BOND, COLOR VARIES
- SMOOTH FACE BLOCK (CMU-1), RUNNING BOND
- CHAINLINK/NETTING

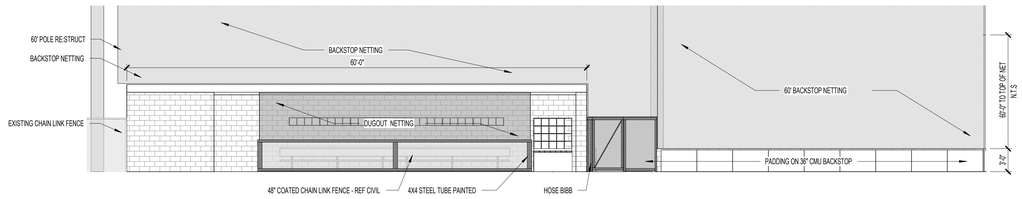
REFER TO MATERIAL SCHEDULE FOR ALL COLORS AND FINISHES, TYP.



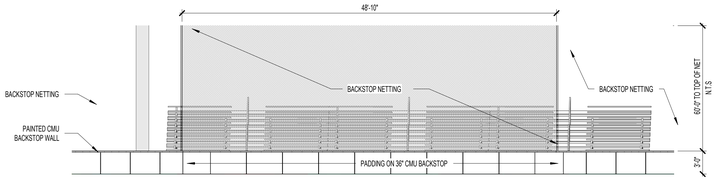
TYP. METAL DUGOUT 3D VIEW - KEMPNER SOFTBALL 8
SCALE:



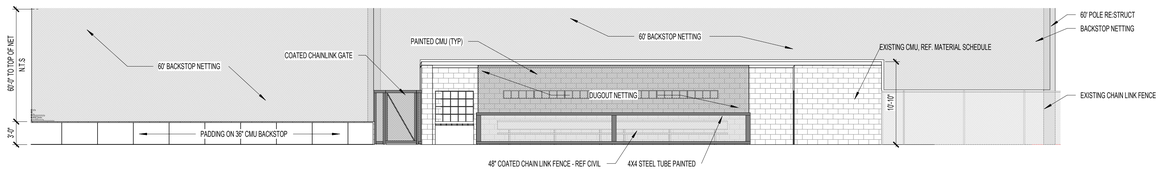
KEMPNER SOFTBALL DUGOUT SECTION 7
SCALE: 1/4" = 1'-0"



KEMPNER BASEBALL NEW RIGHT DUGOUT ELEVATION 3
SCALE: 1/8" = 1'-0"



KEMPNER BASEBALL NEW BACKSTOP ELEVATION 2
SCALE: 1/8" = 1'-0"



KEMPNER BASEBALL NEW LEFT DUGOUT ELEVATION 1
SCALE: 1/8" = 1'-0"

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REGISTERED ARCHITECT
MICHAEL ADAMS
20113
STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

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A1.04-K
BASEBALL AND SOFTBALL ELEVATIONS

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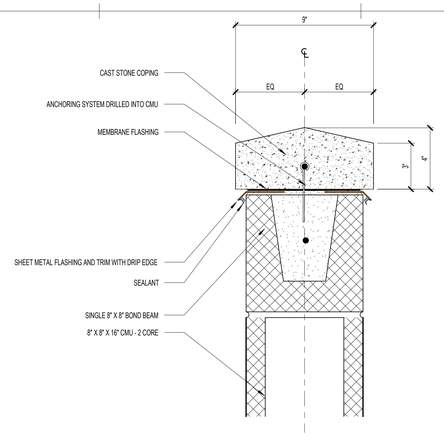
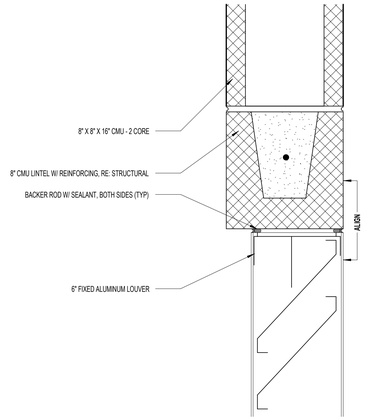
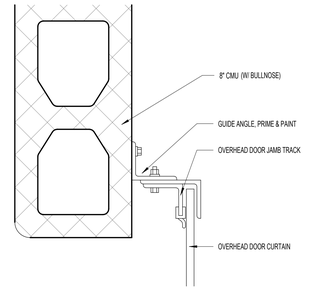


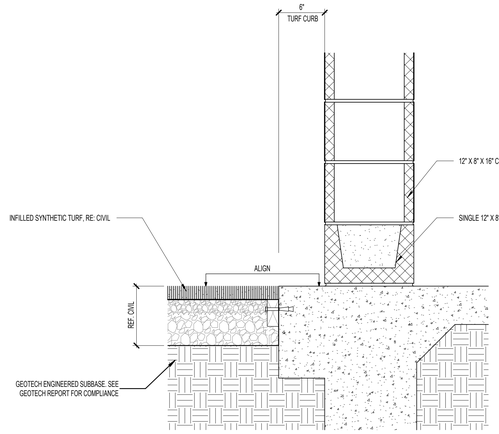
CAST STONE CAP AT WING WALL 9
SCALE: 3" = 1'-0"



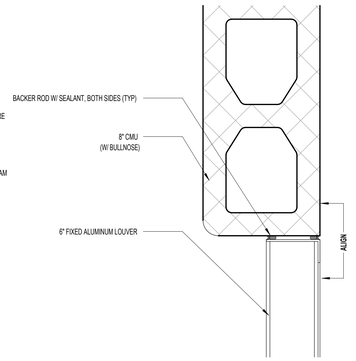
LOUVER - HEAD 8
SCALE: 3" = 1'-0"



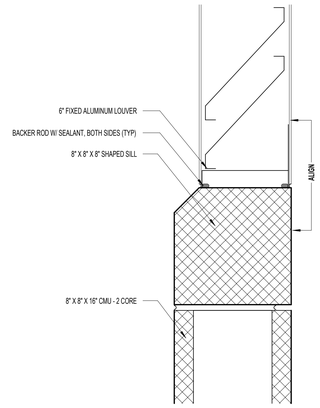
EXTERIOR OVERHEAD COILING DOOR JAMB 7
SCALE: 3" = 1'-0"



TURF CURB 10
SCALE: 1 1/2" = 1'-0"



LOUVER- JAMB 6
SCALE: 3" = 1'-0"



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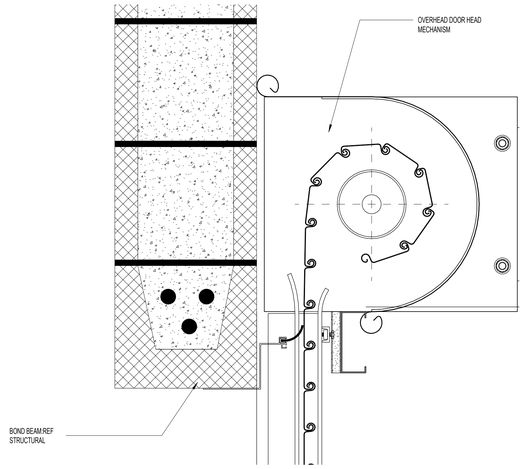

EXTERIOR OVERHEAD COILING DOOR HEAD 4
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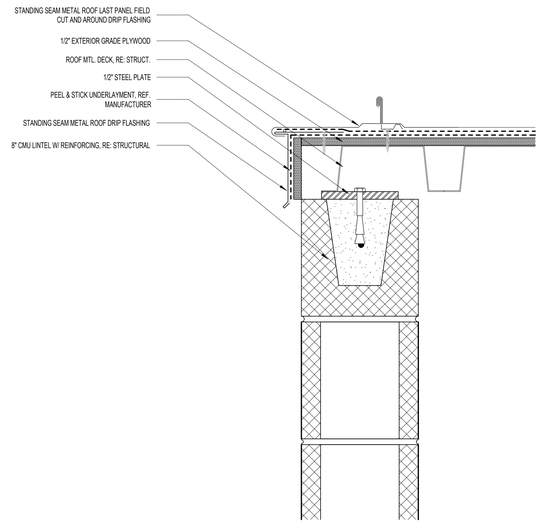

SECTION DETAIL - SSMR - DRIP EDGE 3
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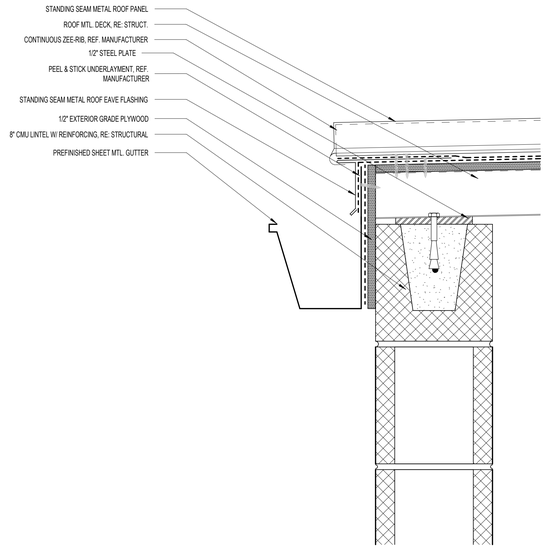

SECTION DETAIL - SSMR - EAVE WITH GUTTER 2
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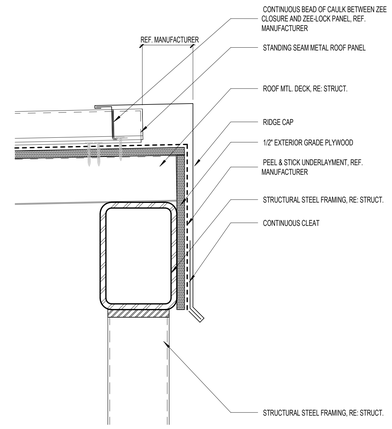

SECTION DETAIL - SSMR - RIDGE 1
SCALE: 3" = 1'-0"

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO.	25-005
DATE:	10/09/2025
DRAWN BY: Author	CHECKED BY: Checker

REVISIONS:

	Date	Description

ISSUED FOR CONSTRUCTION

A1.05-K
BASEBALL AND SOFTBALL DETAILS

10/9/2025 5:54:21 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt

MATERIAL & EQUIPMENT SCHEDULE NOTES

1. REFER TO EXTERIOR ELEVATIONS FOR LOCATION, SIZES & TYPES OF EXTERIOR FINISHES.
2. ARCHITECT TO SELECT COLORS. CONTRACTOR TO COORDINATE LEAD TIMES FOR ALL MATERIALS TO MAINTAIN PROJECT SCHEDULE.
3. FIELD VERIFY ALL DIMENSIONS AS APPLICABLE TO ASSURE PROPER FIT W/ AS-BUILT CONDITIONS.
4. VERIFY W/ OWNER EXACT SIZE OF ALL EQUIPMENT FURNISHED BY OWNER FOR PROPER FIT.
5. PROVIDE CONTROL JOINTS AS SHOWN AND SPECIFIED.
6. REFERENCE DOOR TYPES AS SPECIFIED FOR EXACT DIMENSIONS AND TYPES OF EACH ITEM.
7. REFERENCE A100 SERIES FOR ADDITIONAL INFORMATION.
8. REFER TO G0.02 & G0.03 FOR REQUIRED MOUNTING HEIGHTS PER T.A.S

GENERAL NOTES

A. ALL FINISHES SUBJECT TO ARCHITECTS APPROVAL.

B. OWNER TO APPROVE FINAL MANUFACTURER AND MODEL FOR ALL ATHLETICS EQUIPMENT.

C. A MASTER MATERIAL AND EQUIPMENT SCHEDULE IS PROVIDED. REFER TO THE COLUMN LABELED WITH THE SCHOOL NAME TO IDENTIFY APPLICABLE COLORS AND NOTES FOR EACH SCHOOL, TYPICAL.

MATERIAL AND EQUIPMENT SCHEDULE

MARK	MATERIAL	MANUFACTURER	STYLE	AUSTIN HS	DULLES HS	ELKINS HS	KEMPNER HS	WILLOWRIDGE HS	SPECS	COMMENTS	ALTERNATE
01 EXTERIOR											
BR-1	BRICK	KANSAS BRICK & TILE CO.	UTILITY SIZE		530 MM			500 MIT GRAY		BACKSTOP	
CMU	EXISTING CMU			TO BE PAINTED BLACK (P-2)		TO BE PAINTED SCHOOL COLOR (P-3) REFER COLOR DIAGRAM FOR P-1 LOCATIONS			PAINT FINISH: EXTERIOR ACRYLIC ENAMEL. REF SPECS	EXISTING	
CMU-1	CONCRETE MASONRY UNIT	BEST BLOCK	SMOOTH FACE	TO BE PAINTED BLACK (P-2)		TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3) REFER COLOR DIAGRAM FOR P-1 LOCATIONS		PAINT FINISH: EXTERIOR ACRYLIC ENAMEL. REF SPECS	BACKSTOP	
M-1	METAL ROOF & STRUCTURE			TO BE PAINTED BLACK (P-2),	TO BE PAINTED SCHOOL COLOR (P-4)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	PAINT FINISH: EXTERIOR METAL FINISH, REF SPECS		
PM-1	PREFINISHED METAL			TO BE PAINTED BLACK (P-2)	TO BE PAINTED SCHOOL COLOR (P-4)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	PAINT FINISH: EXTERIOR METAL FINISH, REF SPECS	ALL EXTERIOR METAL	
02 PAINT											
P-1	EXTERIOR PAINT	SHERWIN WILLIAMS		DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166		WHITE, FIELD	
P-2	EXTERIOR PAINT	SHERWIN WILLIAMS		TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258		ACCENT, BLACK	
P-3	EXTERIOR PAINT	SHERWIN WILLIAMS		REAL RED, SW 6868	SHOW STOPPER, SW 7588	FRANK BLUE, SW 6967	FINE WINE, SW 6307	FRANK BLUE, SW 6967		ACCENT, SCHOOL COLOR	
P-4	EXTERIOR PAINT	SHERWIN WILLIAMS			HONORABLE BLUE, SW 6811	GLITZY GOLD, SW 6691	GRAY MATTERS, SW 7066	CADET, SW 9143		ACCENT, SCHOOL COLOR	
P-5	EXTERIOR PAINT	SHERWIN WILLIAMS		CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911			
03 FLOORING											
TF-1	SYNTHETIC TURF									GREEN, FIELD	
TF-2	SYNTHETIC TURF									ACCENT, BROWN	
TF-3	SYNTHETIC TURF									ACCENT, WHITE	
EQUIPMENT											
	WALL MOUNTED STORAGE SHELVES	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	STAND ALONE BAT STORAGE	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	STAND UP BAT & HELMET STORAGE	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	PADDING AROUND FENCE	SPORTSFIELD SPECIALITIES	PROZONE OUTDOOR	RED 186C	RED 186C	ROYAL BLUE 661C	GREY 8401C	ROYAL BLUE 661C			
	BENCHES	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)			REF SPECS FOR PAINT FINISH WHERE APPLICABLE	WOOD BACKING, WOOD SEAT, METAL FRAME TO MATCH SCHOOL COLOR AS INDICATED	
	WALL PADDING	SPORTSFIELD SPECIALITIES	PROZONE OUTDOOR	RED 186C	RED 186C	ROYAL BLUE 661C	GREY 8401C	ROYAL BLUE 661C			
OTHER											
	NETTING POLES			TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	SUPER-DURABLE POWDER COAT, REF SPECS		
	FENCE GATE			TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	PVC (VYNIL) - COATED, REF SPECS	AT DUGOUT ENTRANCE	
	FOUL POLE			TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	POWDER COAT, REF SPECS		ALTERNATE 05
	NEW CHAIN-LINK FENCE			TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	PVC (VYNIL) - COATED, REF SPECS	AT DUGOUT ENTRANCE	
	WOOD FENCE (BATTER'S EYE/OUTFIELD)			TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)			BASEBALL ONLY	ALTERNATE 07
	CONCRETE CURB			TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)		REF TO SPECS FOR PAINT FINISH		
	NETTING		#36 UDR2 DYNEEMA	BLACK	BLACK	BLACK	BLACK				
	EXISTING CHAIN-LINK FENCE			ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND		GALVANIZED FINISH, REF SPECS	FIELD PERIMETER	ALTERNATE 07

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT
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STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: Author CHECKED BY: Checker
REVISIONS:

No.	Date	Description

ISSUED FOR CONSTRUCTION

A1.06-K
MATERIAL AND EQUIPMENT SCHEDULE

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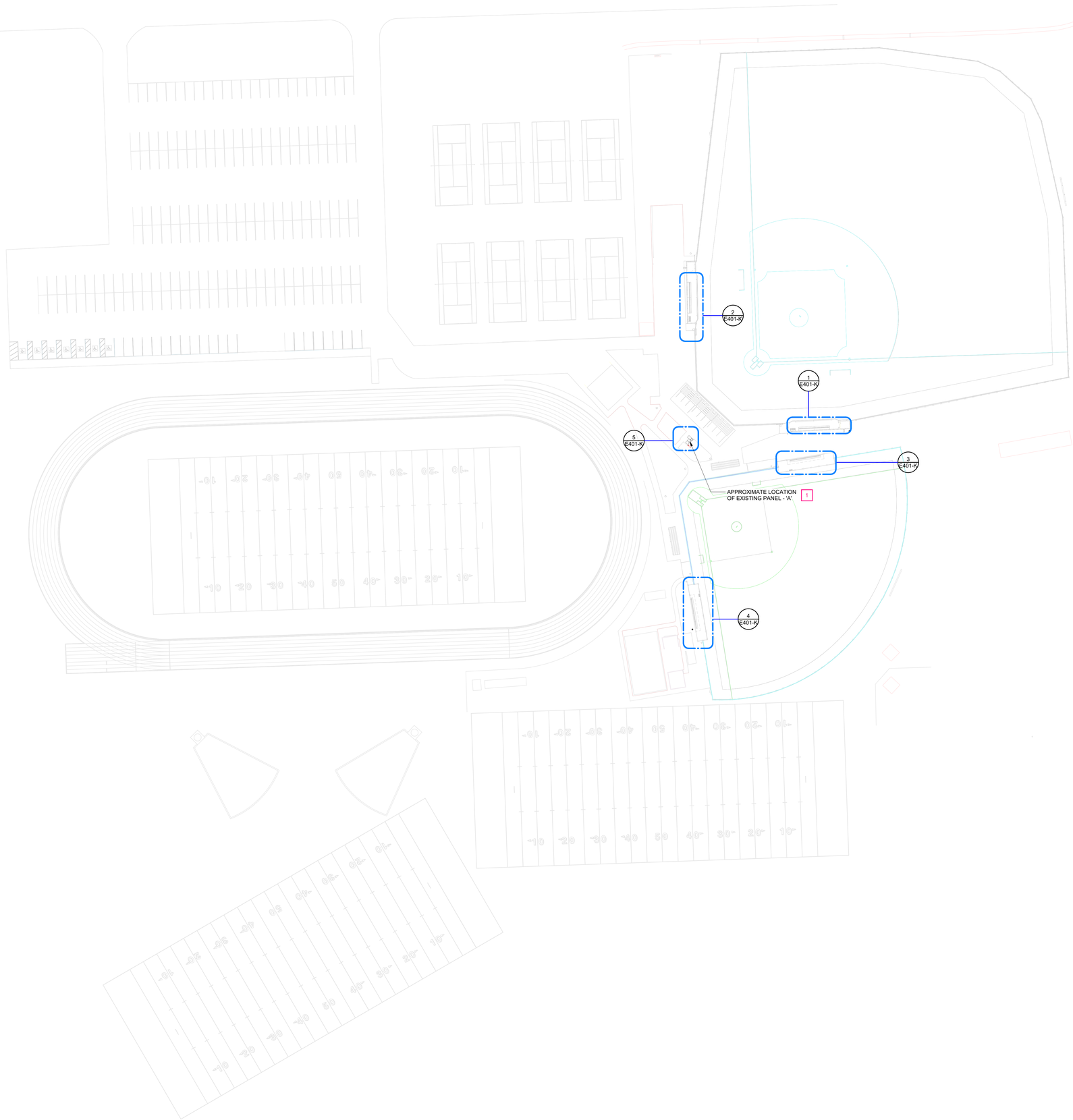

1 ELECTRICAL SITE PLAN - KEMPNER HS FIELDS
1" = 40'-0"

E. SITE PLAN NOTES

1. UNDERGROUND CONDUIT ROUTING SHALL BE COORDINATED WITH EXISTING PAVEMENT AND UNDERGROUND UTILITIES. COORDINATE WITH CIVIL PLANS FOR MORE INFORMATION. PROVIDE PULL STRING FOR ALL UNDERGROUND EMPTY CONDUITS. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS.
2. THE GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES TO ENSURE THE FULL PROJECT SCOPE IS REVIEWED PRIOR TO EXCAVATION. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER REGARDING THE WORK SCHEDULE, REQUIRED FENCING, AND PROTECTIVE MEASURES. THE GENERAL CONTRACTOR SHALL VERIFY EXISTING SITE UTILITIES AND CONDITIONS WITH CIVIL ENGINEER DRAWINGS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND UTILITIES. IF A SUBCONTRACTOR CAUSES DAMAGE, REPAIRS TO RESTORE FULL FUNCTIONALITY SHALL BE AT THE CONTRACTOR'S EXPENSE.
3. PRIOR TO TRENCHING, THE CONTRACTOR SHALL COORDINATE UNDERGROUND CONDUIT ROUTING WITH EXISTING AND PROPOSED IMPROVEMENTS, TREES, ROOT SYSTEMS, AND UNDERGROUND UTILITIES, AND OBTAIN OWNER APPROVAL FOR THE ROUTING PATH. PROTECTION OF EXISTING PLANTINGS AND PREVENTION OF ROOT ZONE COMPACTION ARE HIGH PRIORITIES FOR THE OWNER. ANY PLANT DAMAGE, AS DETERMINED BY THE OWNER, SHALL BE REPLACED WITH MATERIAL OF LIKE SIZE AT THE CONTRACTOR'S EXPENSE. COORDINATE WITH CIVIL PLANS FOR ADDITIONAL DETAILS. PROVIDE PULL ROPE IN ALL EMPTY UNDERGROUND CONDUITS. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS. THE CONTRACTOR SHALL MEET WITH THE OWNER'S ELECTRICIAN PRIOR TO STARTING WORK.

E - SHEET LIST

SHEET NUMBER	SHEET NAME
E001-A	ELECTRICAL SITE PLAN - AUSTIN HS FIELDS
E101-A	GENERAL NOTES, ABBREV., & LEGEND
E110-A	ELECTRICAL
E401-A	ENLARGED PLANS - AUSTIN HS FIELDS - ELECTRICAL
E001-D	ELECTRICAL SITE PLAN - DULLES HS FIELDS
E101-D	GENERAL NOTES, ABBREV., & LEGEND
E110-D	ELECTRICAL
E401-D	ENLARGED PLANS - DULLES HS FIELDS - ELECTRICAL
E001-E	ELECTRICAL SITE PLAN - ELKINS HS FIELDS
E101-E	GENERAL NOTES, ABBREV., & LEGEND
E110-E	ELECTRICAL
E401-E	ENLARGED PLANS - ELKINS HS FIELDS - ELECTRICAL
E001-K	ELECTRICAL SITE PLAN - KEMPNER HS FIELDS
E101-K	GENERAL NOTES, ABBREV., & LEGEND
E110-K	ELECTRICAL
E401-K	ENLARGED PLANS - KEMPNER HS FIELDS - ELECTRICAL
E001-W	ELECTRICAL SITE PLAN - WILLOWRIDGE HS FIELDS
E101-W	GENERAL NOTES, ABBREV., & LEGEND
E110-W	ELECTRICAL
E401-W	ENLARGED PLANS - WILLOWRIDGE HS FIELDS - ELECTRICAL

E - KEYED NOTES

#	
1	PROVIDE ELECTRICAL CONNECTION FOR RECEPTACLES AND LIGHTING FROM EXISTING PANEL. ROUTE (1) CIRCUIT PER DUGOUT BOX TO NEAREST 120V/208V PANEL.


PHOTO OF EXISTING ELECTRICAL PANELS


PHOTO OF EXISTING ELECTRICAL PANEL SHED

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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INTERIM REVIEW ONLY
Document is Incomplete
Not intended for permit or construction
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DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-059
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

No.	Date	Description
	10/09/2025	100% CD

PROJECT STATUS

E001-K
ELECTRICAL SITE PLAN - KEMPNER HS FIELDS

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GENERAL ELECTRICAL NOTES:

1. CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE, AND APPLICABLE CODES. 2023 NEC, 2021 IBC, NFPA, ETC., AND ALL OTHER LOCAL CODES AND AMENDMENTS WHERE THERE ARE CONFLICTS BETWEEN CODES, STANDARDS, DRAWINGS AND SPECIFICATIONS ARISE, THE MORE STRINGENT SHALL APPLY.
2. ALL DRAWINGS AND SPECIFICATIONS (INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING, ETC) ARE DEVELOPED TO BE AN INCLUSIVE SET. ANY CONFLICTS WITHIN SHALL BE BROUGHT TO THE DESIGN'S TEAM ATTENTION. CONTRACTOR SHALL NOT MAKE ANY CHANGES TO THE DESIGN OR CONTRACT WITHOUT WRITTEN CONSENT FROM THE OWNER. THE CONTRACTOR WILL PROVIDE SUBMITTALS OF EQUIPMENT AND MATERIAL AT THE REQUEST OF THE OWNER, ARCHITECT, OR ENGINEER PRIOR TO PURCHASE (VERIFY WHICH SUBMITTALS ARE REQUIRED).
3. WORK SHALL BE INSTALLED IN A WORKMANLIKE FASHION. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS.
4. MAINTAIN THE CONSTRUCTION PREMISES IN A NEAT AND ORDERLY CONDITION. CONTRACTOR SHALL PROTECT THEIR WORK AGAINST WEATHER, THEFT, AND DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
5. ALL PRODUCTS SHALL COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND UL 723.
6. ELECTRICAL DRAWINGS ARE SCHEMATIC IN NATURE, APPROXIMATE LOCATIONS OF EQUIPMENT AND CONDUIT ARE SHOWN. THE ELECTRICAL CONTRACTOR SHALL LAYOUT ALL EQUIPMENT ROOMS TO MAKE ENSURE PROPER CLEARANCES REQUIRED BY THE NEC, PRIOR TO ORDERING OF EQUIPMENT. EXACT LOCATION OF ALL EQUIPMENT SHALL BE VERIFIED IN THE FIELD.
7. SUBSTITUTIONS SHALL BE EVALUATED AND APPROVED BY OWNER AND ENGINEER PRIOR TO CONTRACTOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AMONG TRADES AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. CONDUIT PENETRATIONS BETWEEN NON-CONDITIONED AND CONDITIONED SPACES SHALL BE SEALED TO ELIMINATE MOISTURE MITIGATION, BETWEEN INSIDE AND OUTSIDE BUILDINGS, NON-CONDITIONED BOILER ROOMS, INTO REFRIGERATORS / FREEZERS, ETC. PER NEC 300.7(A).
9. CITY NOTE: ELECTRICAL MATERIAL AND EQUIPMENT: NO ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THE CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, THE LAWS OF THE STATE OF TEXAS AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUTES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVED AGENCY.

ELECTRICAL EQUIPMENT
1. ALL PACKAGED EQUIPMENT SHALL BE INDEPENDENTLY THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A (UL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS, AS WELL AS NFPA PAMPHLET NO. 70, AND THE NATIONAL ELECTRICAL CODE (NEC).
2. ALL SYSTEMS SHALL BE A COMPLETE AND OPERABLE SYSTEM PROVIDE THE NECESSARY ADAPTORS, FITTINGS, DEVICES, ETC. PROVIDE COMPLETE WITH BASES, ISOLATORS, SUPPORTS AND OTHER REQUIRED ACCESSORIES.
3. THE CONTRACTOR SHALL COORDINATE WITH ALL TRADES FOR ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT AND DEVICES AS REQUIRED FOR PROPER FUNCTIONING SYSTEM.
4. CONTRACTOR SHALL COORDINATE THE REQUIREMENT OF HOUSEKEEPING PADS WITH GENERAL CONTRACTOR. ALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH A 4" HOUSEKEEPING PAD THAT EXTENDS A MINIMUM OF 4" ALL THE WAY AROUND THE EQUIPMENT.

LABELING
1. PROVIDE PERMANENTLY ADHERED PHENOLIC NAMEPLATES FOR ALL EQUIPMENT (PANEL BOARDS, SWITCHBOARDS, STARTERS, DISCONNECTS, ETC.) WITH BLACK PLATES AND WHITE 3/8" HIGH LETTERS.
2. PROVIDE LABELING ON ALL DEVICE OUTLETS AND SWITCH COVERS INCLUDING THE PANEL NAME AND CIRCUIT NUMBER. LABELS SHALL BE CLEAR PLASTIC LABELS AND BLACK LETTERING.
3. CONDUCTORS IN PANELBOARDS SHALL BE LABELED WITH CIRCUIT NUMBER LABELS.
4. CONDUCTORS IN JBOXES SHALL BE LABELED WITH CIRCUIT NUMBER LABELS. (220.4(A)(B).

CUTTING AND PATCHING
1. CUTTING SHALL BE IN A NEAT AND WORKMANLIKE MANNER. COORDINATE WITH OTHER TRADES PRIOR TO COMMENCING WORK. PATCH AND FINISH TO MATCH ADJACENT AREAS.

CONDUCTORS
1. CONDUCTORS SHALL HAVE CONTINUOUS INSULATION COLOR, AS LISTED BELOW. CONDUCTORS SHALL BE SOFT ANNEALED COPPER INSULATED FOR 600 VOLTS UNLESS SPECIFICALLY INDICATED OTHERWISE.

	208/120 VOLT SYSTEM	240 VOLT SYSTEM	480/277 VOLT SYSTEM
PHASE A	BLACK	BLACK	PURPLE
PHASE B	RED	ORANGE (HIGH LEG)	BROWN
PHASE C	BLUE	RED	YELLOW
NEUTRAL	WHITE	WHITE	WHITE
GROUND	GREEN	GREEN	GREEN

2. INSULATION TYPE SHALL BE TYPE THW FOR WIRE SIZES #8 AWG AND LARGER AND THWN FOR #10 AWG AND SMALLER. ALL EXTERIOR UNDERGROUND CONDUCTORS SHALL BE XHHW TYPE.
3. PROVIDE #12 CONDUCTORS, UNLESS OTHERWISE INDICATED. CONTROL CONDUCTORS SHALL BE #14 MINIMUM FOR NEC CLASS 1 AND #16 FOR NEC CLASS 11. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID.
4. WIRE JOINT OR SPLICES IN SWITCHBOARDS OR PANELBOARDS ARE NOT ALLOWED, NOR ARE SPLICE FOR ANY DISTRIBUTION FEEDERS. SPLICES ONLY ALLOWED FOR DROPS TO DEVICES. FORM AND TIE ALL WIRING WITHIN BOARDS.

BRANCH CIRCUITS
1. ALL BRANCH CIRCUIT SIZES ARE BASED ON RACEWAY LENGTH OF 65 FEET FOR 120V BRANCH CIRCUITS AND 150FEET FOR 277 VOLT. IF THE LENGTH EXCEEDS 65 FEET (120V CIRCUITS) OR 150FT (277V CIRCUITS) THEN USE THE WIRE SIZES DENTED BELOW AND ADJUST THE CONDUIT SIZE ACCORDING BASED ON 40% MAX CONDUIT FILL. IF THE TERMINAL LUGS WILL NOT ACCEPT THE LARGER CONDUCTOR PROVIDE CONDUCTOR REDUCING ADAPTERS (SIMILAR TO GREAVESS STEP-DOWN COPPER COMPRESSION ADAPTERS) IN A J-BOX PRIOR TO THE DEVICE TERMINATION. SEE TABLE BELOW, UNLESS NOTED OTHERWISE IN PLANS
2. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR, SHARED NEUTRALS ARE NOT ALLOWED.
3. BREAKER TIES ARE REQUIRED FOR MULTI-CIRCUIT EQUIPMENT, SUCH AS POWER FURNITURE. THEN LARGER OF TWO APPLIES.

CIRCUIT LENGTH SCHEDULE

WIRE SIZE	120V CIRCUITS	277V CIRCUITS
#12	60 TO 100 FEET	100 TO 150 FEET
#10	65 TO 120 FEET	151 TO 240 FEET
#8	121 TO 180 FEET	241 TO 400 FEET
#6	181 TO 250 FEET	401 TO 640 FEET
#4	251 TO 375 FEET	-
#2	376 TO 560 FEET	-

RACEWAYS
1. WIRE RUNS SHALL BE ACCORDING TO CODE IN INTERMEDIATE METAL CONDUIT (IMC) OR ELECTRICAL METALLIC TUBING (EMT) CABLING UNLESS OTHERWISE SPECIFICALLY STATED HEREIN. CONDUIT SHALL BE A MINIMUM OF 3/4" UNLESS OTHERWISE NOTED. CONDUIT IN EXPOSED LOCATIONS SHALL NOT BE ACCEPTABLE UNLESS OTHERWISE NOTES, REFER TO ARCHITECT.
2. RIGID, THREADED, GALVANIZED, HEAVY WALL TYPE CONDUIT SHALL BE UTILIZED IN EXTERIOR WALLS, AREAS EXPOSED TO THE WEATHER OR OTHER DAMP/WET LOCATIONS.
3. UTILIZE SCHEDULE 40 PVC CONDUIT WITH GROUND WIRE FOR UNDERGROUND APPLICATIONS. PVC CONDUIT SHALL NOT BE RUN IN OR ABOVE FLOOR SLAB. PVC CONDUIT SHALL TERMINATE BELOW FLOOR SLAB WITH RIGID, THREADED METAL CONDUIT ADAPTER. ALL CONDUIT ABOVE SLAB SHALL BE METAL AND SHALL BE CONCEALED IN WALLS. FLOORS AND CEILINGS WHEREVER POSSIBLE. PROVIDE RIGHT ANGLE TURNS USING FITTINGS OR SYMMETRICAL BENDS. SUPPORT CONDUITS WITHIN 1' OF ALL CHANGES IN DIRECTION.
4. MC MAY BE UTILIZED FOR EXISTING WALL SITUATIONS, 6' FOR LIGHTING WHIPS, OR WHERE APPROVED BY OWNER.
5. CONNECTIONS TO MOTORS AND OTHER EQUIPMENT SUBJECT TO VIBRATION AND IN AREAS SUBJECT TO MOISTURE SHALL UTILIZE LIQUID TIGHT METAL CONDUIT.
6. USE WATERTIGHT JOINTS WITH BURIED AND CONCRETE ENCASED CONDUIT. ALL BURIED CONDUITS OUTSIDE OF BUILDINGS SHALL HAVE A MINIMUM OF 24" OF COVER. METAL CONDUITS BURIED IN EARTH SHALL BE PAINTED WITH TWO COATS OF HEAVY ASPHALTUM PAINT.
7. HORIZONTAL PORTIONS OF CONDUIT EXPOSED ON THE ROOF AND FEEDING EQUIPMENT SHALL NOT BE MORE THAN 5'-0" IN LENGTH.
8. PROVIDE LUBRICATION / SEALANT ON OUTDOOR AND UNDERGROUND THREADED METAL JOINTS.
9. COORDINATE CONDUIT RUNS PRIOR TO ROUGH IN WITH OTHER TRADES AND AVOID INTERFERENCE.

BOXES
1. INSTALL PULL AND JUNCTION BOXES WHERE REQUIRED FOR CHANGES IN DIRECTION, AT JUNCTION POINTS TO FACILITATE WIRE PULLING, AND WHERE SHOWN ON THE DRAWINGS. BOX SIZES SHALL BE IN ACCORDANCE WITH NEC UNLESS LARGER BOXES ARE NOTED.
2. FOR INTERIOR CONCEALED LOCATIONS - USE SHEET STEEL BOXES, ZINC COATED OR CADMIUM PLATED.
3. WALL BOX SIZES SHALL BE MINIMUM 4" SQUARE X 2-1/2" DEEP. FIXTURE OUTLETS IN CEILING SHALL BE MINIMUM 4" OCTAGONAL X 1-1/2" DEEP (4-11/16" OCTAGONAL X 2-1/2" DEEP WHERE REQUIRED TO ACCOMMODATE LARGER CONDUIT OR LARGER NUMBER OF WIRES). GANG BOXES SHALL BE ONE PIECE MINIMUM 2-1/8" DEEP.
4. PROVIDE FLUSH MOUNT BOXES IN ALL FINISHED WALLS. INSTALL THE PLASTER RINGS IN DRYWALLED WALLS AND RAISED COVERS AS REQUIRED IN WALLS WITH OTHER FINISHES SO THAT THE COVER PLATES FIT TIGHTLY AGAINST BOXES OR RINGS. 3/16" MAXIMUM GAPS ARE ALLOWED FOR NONCOMBUSTIBLE WALLS. SUPPORT ALL BOXES TO MAINTAIN PROPER ALIGNMENT AND RIGIDITY. BEFORE INSTALLATION OR WIRING OF DEVICES, CLEAN BOXES OF FOREIGN MATTER.

DEVICES
1. PROVIDE TOTALLY ENCLOSED, SPECIFICATION GRADE, 20 AMPERE, 120/277 VOLT QUIET A/C GENERAL USE SWITCHES MANUFACTURED BY HUBBELL OR OTHER APPROVED MANUFACTURER.
2. PROVIDE SPECIFICATION GRADE NEMA CONFIGURATION 5-20R DUPLEX 125-VOLT GROUNDING TYPE RECEPTACLES UNLESS OTHERWISE NOTED ON THE DRAWINGS. MANUFACTURED BY HUBBELL OR OTHER APPROVED MANUFACTURER.
3. LIGHTING SWITCHES SHALL BE MOUNTED WITHIN 6" OF DOOR JAM ON STRIKE SIDE UNLESS APPROVED OTHERWISE. MOUNT AT 42" OR AS ADA DICTATES.
4. LOCATE RECEPTACLES APPROXIMATELY 1'-6" ABOVE THE FINISHED FLOOR ELEVATION OR NEAREST BLOCK COURSE (WITHIN ADA REQUIREMENTS), UNLESS OTHERWISE NOTED. THE LONG DIMENSION OF THE RECEPTACLE SHALL BE VERTICAL. ALL DEVICES SHALL BE FLUSH MOUNTED U.N.O. GROUND PIN SHALL BE MOUNTED UP (OR NEUTRAL UP IF HORIZONTALLY INSTALLED)
5. RECEPTACLES IN KITCHEN AREAS, BATHROOMS, AND RECEPTACLES WITHIN 6' OF SINKS SHALL BE GFCI TYPE (NOT WIRED IN SERIES, SEE NOTE 6). ALL DEVICES INSTALLED OUTDOORS SHALL BE WEATHERPROOF AND GFCI PROTECTED.
6. CONTRACTOR TO PROVIDE "PIG TAIL" SPLICES TO ALL RECEPTACLE DEVICES (DO NOT WIRE IN SERIES THRU THE DEVICE) - SEE DETAILS.
7. REFER TO ARCHITECT ELEVATIONS PRIOR TO ROUGH-IN TO VERIFY MOUNTING HEIGHTS

SAFETY SWITCHES
1. PROVIDE DISCONNECT SWITCHES FOR ALL EQUIPMENT, WHERE REQUIRED BY CODE, AND THEY SHALL BE OF THE SAME MANUFACTURER. MANUFACTURER SHALL BE SQUARE D, SIEMENS, G.E., OR CUTLER-HAMMER.
2. SAFETY SWITCHES SHALL BE THE ENCLOSED HEAVY-DUTY TYPE WITH QUICK-MAKE, QUICK-BREAK MECHANISM AND EXTERNAL PAD LOCKABLE OPERATING HANDLE.
3. SAFETY SWITCHES SHALL BE RATED FOR 240 OR 600 VOLTS AS APPLICABLE. THEY SHALL BE HORSEPOWER RATED WHEN USED IN MOTOR CIRCUITS. SAFETY SWITCHES SHALL BE FUSIBLE OR NONFUSIBLE 2, 3 OR 4 POLE AS INDICATED ON THE DRAWINGS. SAFETY SWITCHES SHALL BE SINGLE THROW, UNO. ENCLOSURES SHALL BE NEMA 1 INDOORS AND NEMA 3R OUTDOORS (U.N.O.).
4. MOUNT THE SAFETY SWITCHES SECURELY BETWEEN 3' - 6' LEVELS ABOVE THE FLOOR UNLESS OTHERWISE NOTED IN THE DRAWINGS. SWITCHES ON BLOCK WALLS SHALL BE PROVIDED WITH AND MOUNTED ON A 3/4" PLYWOOD BACKBOARD, WHERE LOCATED INDOORS.
5. THE CONTRACTOR SHALL FURNISH A COMPLETE SET OF FUSES FOR ALL FUSIBLE SWITCHES, PLUS FUSIBLE EQUIPMENT FURNISHED BY OTHER TRADES. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, THE FUSES SHALL BE OF THE FOLLOWING TYPE:
   - o FUSES 601 TO 6000 AMPS SHALL BE UL CLASS RK5. TRADE TYPE SHALL BE KRP-C AS MANUFACTURED BY THE BUSSMANN COMPANY.
   - o FUSES 1/10 TO 600 AMPS SHALL BE UL CLASS RK1. TRADE TYPE SHALL BE LOW PEAK LPS-RK (600V) AND LPN-RK (250C) AS MANUFACTURED BY BUSSMANN COMPANY.
   - o ALL OTHER FUSES SHALL BE DUAL ELEMENT CURRENT LIMITING TYPE WITH 200,000 AMPERES SYMMETRICAL INTERRUPTING CAPACITY.

DISTRIBUTION PANELS
1. DISTRIBUTION PANELS SHALL BE DEAD FRONT TYPE WITH CIRCUIT BREAKERS, COMPRISED OF FUSES AND HEAVY-DUTY SWITCHES OF SIZE AND NUMBER INDICATED ON THE PANELS. PANELS SHALL BE MANUFACTURED AS A COMPLETE UNIT. ALL BUSS BARS SHALL BE RECTANGULAR AND MADE OF SOLID COPPER. ALL LUGS SHALL BE UL APPROVED CU/AL TYPE. VERTICAL BUSSING SHALL BE EXTENDED THE FULL LENGTH OF THE PANEL.
2. ALL PANELS SHALL BE CAPABLE OF ACCEPTING SWITCH SIZES UP TO AND INCLUDING 600 AMPS.
3. DISTRIBUTION PANELS SHALL BE G.E., SQUARE "D", OR SIEMENS.
4. INSTALL PANELS SUCH THAT HANDLE FOR THE TOP SWITCH DOES NOT EXCEED 6'-6" ABOVE FINISHED FLOOR PER NEC.
5. SURFACE-MOUNTED PANELS SHALL BE MOUNTED ON UNISTRUT RAILS. FLOOR-MOUNTED PANELS SHALL BE MOUNTED ON A 4" HIGH CONCRETE PAD.
6. ALL BOLTED CONNECTIONS SHALL BE TORQUED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS. RE-TORQUE CONNECTIONS ONE MONTH OR MORE AFTER INITIAL TORQUE. TORQUE RECORDS SHALL BE HANDED TO OWNER AT SUBSTANTIAL COMPLETION.

PANELBOARDS
1. PANELBOARDS SHALL BE MANUFACTURED BY SQ.D., G.E., EATON OR APPROVED EQUAL, ENCLOSED DEAD FRONT SAFETY DOOR IN DOOR TYPE WITH FEATURES AND RATINGS AS SCHEDULED ON DRAWINGS. ALL BUS BARS SHALL BE RECTANGULAR AND MADE OF SOLID COPPER. PANELBOARD NEUTRAL BUS BAR SHALL BE SQUARE D, SIEMENS, GE OR CUTLER-HAMMER. PANELS WILL BE SIMILAR OR EQUAL TO NQ/NF BOARDS NOT LOAD CENTERS (UNLESS SPECIFIED). PANELS SHALL BE FULLY RATED
2. ALL BREAKERS SHALL BE BOLT-ON TYPE, AND SHALL BE TORQUED IN ACCORDANCE WITH MANUFACTURERS STANDARDS. RE-TORQUE ALL CONNECTIONS ONE MONTH AFTER INITIAL TORQUE.
3. INSTALL CABINETS SO THAT CENTER OF THE TOP BREAKER DOES NOT EXCEED 6'-6" ABOVE THE FINISHED FLOOR PER NEC. PROVIDE (3) SPARE 1" CONDUITS INTO ACCESSIBLE CEILING.
4. ELECTRICAL CONTRACTOR SHALL FOLLOW DRAWING CIRCUIT NUMBERS AS NEAR AS POSSIBLE. PRIOR TO SUBSTANTIAL COMPLETION, ELECTRICAL CONTRACTOR SHALL TAKE CURRENT READING CHECKS OF RESPECTIVE PHASES AND SUBMIT TO ENGINEER FOR APPROVAL.
5. CIRCUIT DESCRIPTIONS (PANEL CARDS) SHALL BE TYPED AND ACCURATE TO FIELD CONDITIONS. ROOM NAMES SHALL MATCH FINAL INSTALLED ROOM NAMES IF DIFFERENT FROM PLANS.
6. AVAILABLE FAULT CURRENT LABELING IN LIEU OF THE MAXIMUM AVAILABLE FAULT CURRENT MARKING AS REQUIRED BY 110.24, A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2" X 3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCLN.
7. ALL PANELS WILL BE INSTALLED WITH INTEGRAL TVSS - 400A AND LESS WILL HAVE 60 KA / MODE

TRANSFORMERS
1. DRY TYPE TRANSFORMERS SHALL BE MANUFACTURED BY SQ.D, GE, OR APPROVED EQUAL HAVING (2)2.5% TAPS ABOVE AND (4)2.5% TAPS BELOW THE RATING OF THE TRANSFORMER. THEY SHALL HAVE COPPER WINDINGS. A BONDING JUMPER BETWEEN THE SECONDARY NEUTRAL AND THE METAL CASE. TRANSFORMERS SHALL HAVE R CLASS INSULATION OF UL 220 DEGREE RATING AND 115 DEGREE RISE.
2. GROUND MOUNTED TRANSFORMERS SHALL BE INSTALLED ON 3" HOUSE KEEPING PAD AND NEOPRENE GASKETS.

GROUNDING
1. GROUND ALL EQUIPMENT PER NEC.
2. GROUND EACH OUTSIDE LIGHTING STANDARD SEPARATELY WITH ONE GROUND ROD AND A #6 GROUND WIRE.
3. ALL CONDUITS SHALL CONTAIN A CODE SIZED GROUND WIRE SIZE PER NEC IN ADDITION TO THE CONDUCTORS SHOWN ON THE PLANS. WHERE CIRCUIT CONDUCTORS ARE INCREASED IN SIZE THE GROUND WIRE SIZE SHALL BE INCREASED PROPORTIONALLY.

STARTUP AND INSTRUCTIONS
1. AFTER INSTALLATION, CHECK ALL EQUIPMENT, AND PERFORM START UP IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. NOTIFY ENGINEER OF ALL START-UP. ALL EQUIPMENT SHALL BE ONE AND OPERATIONAL AT COMPLETION OF PROJECT.
2. TESTS SHALL INCLUDE THE FOLLOWING:
   - o MEASURE THE LOAD ON EACH PHASE OF THE MAIN SERVICE AND EACH PHASE OF EVERY FEEDER UNDER FULL LOAD CONDITIONS
   - o MEASURE THE NO-LOAD AND FULL-LOAD VOLTAGES (PHASE TO PHASE, PHASE TO NEUTRAL AND PHASE TO GROUND FOR EACH PHASE OF EACH SERVICE, OF EACH SEPARATELY DERIVED SYSTEM, AND AT EACH PANELBOARDOR TRANSFORMER).
   - o MEASURE THE GROUND RESISTANCE OF THE MAIN SERVICE GROUNDING ELECTRODE AND THE GROUND RESISTANCE OF EACH SEPARATELY DERIVED SYSTEM'S GROUNDING ELECTRODE.
   - o MEASURE INSULATION RESISTANCE TESTS ON ALL DRY TYPE TRANSFORMERS AND MOTORS.
3. CLEAN ALL ELECTRICAL EQUIPMENT AND FIXTURES PRIOR TO PROJECT COMPLETION.
4. PROVIDE OWNER TRAINING AND DEMONSTRATION OF ALL ELECTRICAL SYSTEMS AND EQUIPMENT.
5. INSTRUCT OWNER ON PROPER OPERATION AND PREVENTATIVE MAINTENANCE OF SYSTEM. SUBMIT OPERATING AND MAINTENANCE MANUAL ON ALL EQUIPMENT AND SYSTEMS.

MISCELLANEOUS
1. ALL GENERATOR TRANSFER DEVICES (GTD'S), IF APPLICABLE, ARE TO BE MOUNTED ABOVE ACCESSIBLE CEILINGS AT A LEVEL WHICH CAN BE REACHED WITHOUT A LIFT (UNDER 15').
2. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING 120V POWER TO ALL LOW VOLTAGE TRANSFORMERS (PROVIDED BY THE PLUMBING CONTRACTOR), FOR AUTOMATIC FLUSH VALVES, TO EITHER THE CIRCUIT NOTED ON THE PLANS OR THE NEAREST RECEPTACLE CIRCUIT.
3. ALL THREE PHASE FAN POWER TERMINAL / BOXES REQUIRE 5 CONDUCTORS (INCLUDING NEUTRAL).
4. EC SHALL POWER ALL 120V MOTORIZED DAMPERS FOR MECHANICAL FANS AND LOUVERS, AND ACTUATORS.

WARRANTY
1. FULLY WARRANT ALL MATERIALS, EQUIPMENT AND WORKMANSHIP FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE OR AS REQUIRED IN SPECIFICATIONS. EXTEND ALL MANUFACTURER'S WARRANTIES TO OWNER, INCLUDING ALL EXTENDED WARRANTIES.
2. REPAIR OR REPLACE WITHOUT CHARGE TO THE OWNER ALL ITEMS FOUND DEFECTIVE DURING THE WARRANTY PERIOD. IN THE CASE OF REPLACEMENT OR REPAIR DUE TO FAILURE WITHIN THE WARRANTY PERIOD, THE WARRANTY ON THAT PORTION OF THE WORK SHALL BE EXTENDED FOR A MINIMUM PERIOD OF ONE (1) YEAR FROM THE DATE OF SUCH REPLACEMENT OR REPAIR.

ELECTRICAL ABBREVIATIONS

1PH	SINGLE-PHASE
1P	SINGLE POLE
2/C	TWO-CONDUCTOR
3/C	THREE-CONDUCTOR
3PH	THREE-PHASE
4/C	FOUR-CONDUCTOR
4W	FOUR-WIRE
A/C UNIT	AIR CONDITIONING UNIT
A/E	ARCHITECT/ENGINEER
AC	ALTERNATING CURRENT OR ARMORED CABLE
AF	AMPERE FRAME OR AMP FUSE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
ALT	ALTERNATE
AMP	AMPERE
ARCH	ARCHITECT
ASC	AMPS SHORT CIRCUIT
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AV	AUDIO VISUAL
BD	BOARD
BFF	BELOW FINISH FLOOR
BFG	BELOW FINISH GRADE
BLDG	BUILDING
BRKR	BREAKER
BYP	BY PASS
C	CONDUIT
CAB	CABINET
CALC	CALCULATE
CAP	CONTRACTOR FURNISHED
CAT	/CONTRACTOR INSTALLED
CCTV	CLOSED CIRCUIT TELEVISION
cd	CANDELA
CD	CONSTRUCTION DOCUMENTS
CF	CONTRACTOR FURNISHED
CF/OI	CONTRACTOR FURNISHED /OWNER INSTALLED
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CKT	CIRCUIT
CKT BRKR	CIRCUIT BREAKER
CLF	CURRENT LIMITING FUSE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COAX	COAX CABLE
COMM	COMMUNICATION
CONC	CONCRETE
CONT	CONTINUE
CPT	CONTROL POWER TRANSFORMER
CRI	COLOR RENDERING INDEX
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
CU FT	CUBIC FEET
dB	DECIBEL
DC	DIRECT CURRENT
DCP	DIMMER CONTROL PANEL
DEG C	DEGREES CELSIUS
DEG F	DEGREES FAHRENHEIT
DEMO (D)	DEMOLITION
DDC	DIRECT DIGITAL CONTROL PANEL
DIAG	DIAGRAM
DISC	DISCONNECT
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DRSW	DOOR SWITCH
DS	DISCONNECT SWITCH
DWG	DRAWING
EF	EXHAUST FAN
EL	ELEVATION
ELEC	ELECTRIC OR ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EPO	EMERGENCY POWER OFF
ESMT	EASEMENT
EDF	ELECTRIC DRINKING FOUNTAIN
EWH	ELECTRIC WATER HEATER
ETR	EXISTING TO REMAIN
(E)	EXISTING
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FMC	FLEXIBLE METALLIC CONDUIT
FLUOR	FLUORESCENT
FP	FIRE PROTECTION
FT	FEET OR FOOT
FU SW	FUSED SWITCH
FVNR	FULL VOLTAGE NON-REVERSING
G OR GND	GROUND OR GENERATOR
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GTB	GROUND TERMINAL BOX
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HT	HEIGHT
HZ	HERTZ
IMC	INTERMEDIATE METAL CONDUIT
INCAND	INCANDESCENT
IR	INFRARED
IWH	INSTANTANEOUS WATER HEATER
J-BOX	JUNCTION BOX
kV	KILOVOLT
kVA	KILOVOLT AMPERE
kVAH	KILOVOLT AMPERE PER HOUR
kVAR	KILOVOLT AMPERE REACTIVE
kW	KILOWATT
kWH	KILOWATT HOUR
kWHM	KILOWATT HOUR METER
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET (FOOT)
LM	LUMEN
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
LTG PNL	LIGHTING PANEL
LTNG	LIGHTNING
LV	LOW VOLTAGE
MAX	MAXIMUM
MC	METAL-CLAD
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
(N)	NEW
NA	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NS	NO SCALE
NSL	NON SWITCHED HOT LEG
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OL	OVERLOAD
P	POLE OR PHASE
PA	PUBLIC ADDRESS
PB	PULL BOX, OR PUSHBUTTON
PCB	POLYCHLORINATED BIPHENYL
PEC	PHOTOELECTRIC CELL
PED	PEDESTAL
PEND	PENDANT
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE (PLASTIC)
PWR	POWER
(R)	RELOCATE
RCP	REFLECTED CEILING PLAN
RECPT	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMS	ROOT MEAN SQUARE
REQD	REQUIRED
SCC	SHORT CIRCUIT CAPACITY
SD	SMOKE DETECTOR
SF	SQUARE FOOT (FEET)
SPEC	SPECIFICATION
SPST	SINGLE POLE, SINGLE THROW
SURF	SURFACE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME CLOCK
TEL	TELEPHONE
TP	TWISTED PAIR
TPS	TWISTED PAIR SHIELDED
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP	TYPICAL
UGND	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTIL	UTILITY
V	VOLT
VA	VOLT AMPERE
VAR	VOLT AMPERE REACTIVE
VFD	VARIABLE FREQUENCY DRIVE
VOLT	VOLTAGE
W	WATT
WP	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER

SECURITY

CAM	CAMERA
H/S	HORN STROB
WAP	WIRELESS ACCESS POINT
S	SPEAKER

SYMBOL LEGEND

- DASHED RED LINE DENOTES DEMO (ONLY ON DEMO SHEETS)
- SOLID GREY LINE DENOTES EXISTING TO REMAIN
- SOLID MA

EXISTING FEEDER SCHEDULE

	CONDUIT WITH COPPER CONDUCTORS					CONDUIT WITH ALUMINUM CONDUCTORS			
TAG	SETS	QUANTITY / AWG	GROUND / AWG	CONDUIT SIZE	SETS	QUANTITY / AWG	GROUND / AWG	CONDUIT SIZE
20 / 20D	1 1	4#12 3#12	#12	3/4"			#12	3/4"
30 / 30D	1 1	4#10 3#10	#10	3/4"			#10	3/4"
40 / 40D	1 1	4#8 3#8	#8	1"			#8	1"
50 / 50D	1 1	4#6 3#6	#8	1-1/4"			#8	1-1/4"
60 / 60D	1 1	4#4 3#4	#6	1-1/2"			#8	1-1/4"
80 / 80D	1 1	4#2 3#2	#6	1-1/2"			#6	1-1/2"
100 / 100D	1 1	4#1 3#1	#6	1-1/2"	1 1	4#1/0 3#1/0	#6	2"
130 / 130D	1 1	4#1 3#1	#6	1-1/2"	1 1	4#2/0 3#2/0	#4	2-1/2"
150 / 150D	1 1	4#1/0 3#1/0	#6	2"	1 1	4#3/0 3#3/0	#4	2-1/2"
175 / 175D	1 1	4#2/0 3#2/0	#4	2-1/2"	1 1	4#4/0 3#4/0	#2	2-1/2"
200 / 200D	1 1	4#3/0 3#3/0	#4	2-1/2"	1 1	4#250 kcmil 3#250 kcmil	#2	2-1/2"
225 / 225D	1 1	4#4/0 3#4/0	#2	2-1/2"	1 1	4#300 kcmil 3#300 kcmil	#2	3"
250 / 250D	1 1	4#250 kcmil 3#250 kcmil	#2	2-1/2"	1 1	4#350 kcmil 3#350 kcmil	#1/0	4"
310 / 310D	1 1	4#350 kcmil 3#350 kcmil	#2	3"	2 2	4#3/0 or 1 SET 500 kcmil 3#3/0 or 1 SET 500 kcmil	#1/0	2-1/2" or 4"
380 / 380D	1 1	4#500 kcmil 3#500 kcmil	#1/0	4"	2 2	4#250 kcmil 3#250 kcmil	#2/0	2-1/2"
400 / 400D	2 2	4#3/0 3#3/0	#1/0	2-1/2"	2 2	4#250 kcmil 3#250 kcmil	#2/0	3"
500 / 500D	2 2	4#250 kcmil 3#250 kcmil	#2/0	2-1/2"	2 2	4#350 KCMIL 3#350 KCMIL	#2/0	4"
600 / 600D	2 2	4#350 kcmil 3#350 kcmil	#2/0	3"	2 2	4#500 kcmil 3#500 kcmil	#2/0	3"
750 / 750D	2 2	4#500 KCMIL 3#500 KCMIL	#2/0	4"	3 3	4#350 kcmil 3#350 kcmil	#3/0	4"
800 / 800D	3 3	4#350 kcmil 3#350 kcmil	#2/0	3"	3 3	4#400 kcmil 3#400 kcmil	#3/0	3"
1000 / 1000D	3 3	4#500 kcmil 3#500 kcmil	#3/0	4"	4 4	4#350 kcmil 3#350 kcmil	#4/0	4"
1200 / 1200D	4 4	4#350 kcmil 3#350 kcmil	#3/0	3"	5 5	4#350 kcmil 3#350 kcmil	#4/0	4"
2000 / 2000D	6 6	4#500 kcmil 3#500 kcmil	#4/0	4"	8 8	4#350 kcmil 3#350 kcmil	#4/0	4"
2500 / 2500D	7 7	4#500 kcmil 3#500 kcmil	#4/0	4"	10 10	4#350 kcmil 3#350 kcmil	#4/0	4"
3000 / 3000D	8 8	4#500 kcmil 3#500 kcmil	#4/0	4"	12 12	4#350 kcmil 3#350 kcmil	#4/0	4"
3500 / 3500D	10 10	4#500 kcmil 3#500 kcmil	#4/0	4"			#4/0	4"
4000 / 4000D	11 11	4#500 kcmil 3#500 kcmil	#4/0	4"			#4/0	4"

ALL PANELS SHALL BE INSTALLED WITH INTEGRAL SPD -
400A AND LESS SHALL HAVE 60 kA / MODE
SEE GENERAL SPECS FOR MORE CONDUCTOR REQUIREMENTS.

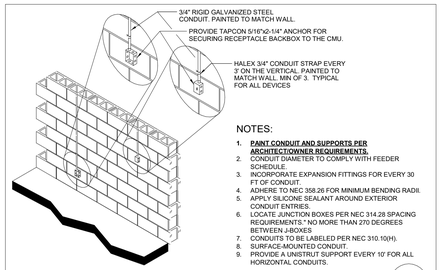
ELECTRICAL SERVICE LOAD ANALYSIS

KEMPNER - LOAD ANL.

#	CONNECTED PANELS	LOAD
1	PANEL - 'A'	11.4 kVA
	TOTAL CONNECTED (KVA):	11.4 kVA
	TOTAL CONNECTED (A)	32 A

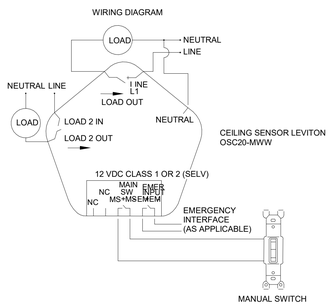
TAG	DESCRIPTION	NEC	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTAL LOAD ANALYSIS	
L	LIGHTING	NEC 220.12	0.77 kVA	125.00%	0.96 kVA		
R	GENERAL RECEPTPACLES	NEC 220.44	1.44 kVA	100.00%	1.44 kVA		
SH	HVAC SPLIT SYSTEM HEATING	NEC 220.51; 424.3	0.00 kVA	0.00%	0.00 kVA	EST. SER. DEMAND (KVA):	12
SC	HVAC SPLIT SYSTEM COOLING	NEC 220.51; 424.3	0.00 kVA	0.00%	0.00 kVA		
HP	HVAC PACKAGE UNITS	NEC 220.51; 424.3	0.00 kVA	0.00%	0.00 kVA	EST. SERVCE DEMAND...	32
HC	HVAC COOLING ONLY	NEC 220.51; 424.3	0.00 kVA	0.00%	0.00 kVA		
EH	ELECTRIC HEAT		0.00 kVA	0.00%	0.00 kVA	SERVICE VOLTAGE (V):	120/208 WYE
K	KITCHEN EQUIPMENT	NEC220.56	0.00 kVA	0.00%	0.00 kVA		
M	MOTORS	NEC 430.24	0.00 kVA	0.00%	0.00 kVA	MIN REQ'D SERVICE SIZE:	100 A
NC	NON-CONTINUOUS LOADS		9.22 kVA	100.00%	9.22 kVA		

NOTES:

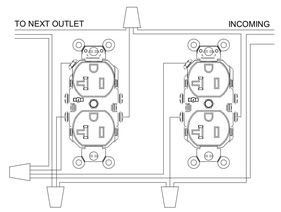


NOTES:
1. **PAINT CONDUIT AND SUPPORTS PER ARCHITECT/OWNER REQUIREMENTS.**
2. CONDUIT DIAMETER TO COMPLY WITH FEEDER SCHEDULE.
3. INCORPORATE EXPANSION FITTINGS FOR EVERY 30 FT OF CONDUIT.
4. ADHERE TO NEC 358.26 FOR MINIMUM BENDING RADII.
5. APPLY SILICONE SEALANT AROUND EXTERIOR CONDUIT ENTRIES.
6. LOCATE JUNCTION BOXES PER NEC 314.28 SPACING REQUIREMENTS.* NO MORE THAN 270 DEGREES BETWEEN J-BOXES
7. CONDUITS TO BE LABELED PER NEC 310.10(H).
8. SURFACE-MOUNTED CONDUIT.
9. PROVIDE A UNISTRUT SUPPORT EVERY 10' FOR ALL HORIZONTAL CONDUITS.

DEVICE MOUNTING - CMU WALL 3
NOT TO SCALE



CEILING OCCUPANCY/VACANCY SENSOR 2
NOT TO SCALE



NOTES:
1. CIRCUITING TO ALL NON DEDICATED ELECTRICAL RECEPTACLES AND SWITCHES ARE REQUIRED TO UTILIZE PARALLEL CIRCUITING BY THE USE OF "PIG TAILS" TO EACH DEVICE SO THAT IF AN OUTLET IS REMOVED OR FAILS ELECTRICAL CONTINUITY THE CIRCUIT WILL NOT BE COMPROMISED.

2. ALL ELECTRICAL WIRING MUST BE PROPERLY SPLICED BY TWISTING THE WIRES TOGETHER AND USE OF APPROVED AND LISTED COMPRESSION WIRE NUTS FOR ANY WIRING.

RECEPTACLE INSTALLATION - PIG TAIL 1
NOT TO SCALE

PANEL: A

LOCATION:
SUPPLY FROM: KEMPNER - LOAD ANL.
MOUNTING: SURFACE
ENCLOSURE: NEMA 1

VOLTS: 120/208 WYE
PHASE: 3
WIRE: 4

A.I.C. RATING: 10,000
BUS RATING: 100 A
MCB 100 A

CKT	CIRCUIT DESCRIPTION	LC	CT	TRIP	POLES	A (KVA)		B (KVA)		C (KVA)		POLES	TRIP	CT	LC	CIRCUIT DESCRIPTION	CKT
1	(E) BATTING CAGES	NC	1	20 A	1	1.5	1.5					1	20 A	1	NC	(E) OLD RAIN BIRD	2
3	(E) BATTING CAGES	NC	1	20 A	1			1.5	1.5			1	20 A	1	NC	(E) BATTING CAGES	4
5	(E) NEW RAIN BIRD	NC	1	20 A	1					1.5	1.5	1	20 A	1	NC	(E) SOFTBALL LIGHTING CONTROL	6
7	(2) RCPT & LTG - DUGOUT 1 [#10 AWG]	L/ R	6	20 A	1	0.6	0.6					1	20 A	6	L/ R	(2) RCPT & LTG - DUGOUT 3 [#10 AWG]	8
9	(2) RCPT & LTG - DUGOUT 2 [#10 AWG]	L/ R	6	20 A	1			0.6	0.6			1	20 A	6	L/ R	(2) RCPT & LTG - DUGOUT 4 [#10 AWG]	10
11	SPACE	--	--	--	1					--	--	1	--	--	--	SPACE	12
13	SPACE	--	--	--	1	--	--					1	--	--	--	SPACE	14
15	SPACE	--	--	--	1			--	--			1	--	--	--	SPACE	16
17	SPACE	--	--	--	1					--	--	1	--	--	--	SPACE	18
19	SPACE	--	--	--	1	--	--					1	--	--	--	SPACE	20
21	SPACE	--	--	--	1			--	--			1	--	--	--	SPACE	22
23	SPACE **EXISTING**	--	--	--	1					--	--	1	--	--	--	SPACE	24
				TOTAL LOAD:		4.18 kVA		4.18 kVA		3.07 kVA							
				TOTAL AMPS:		36 A		36 A		26 A							

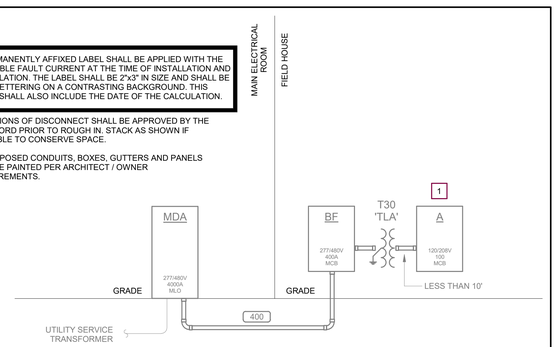
LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
L	0.77 kVA	125.00%	0.96 kVA		
R	1.44 kVA	100.00%	1.44 kVA	**TOTAL CONN. LOAD:**	11.43 kVA
NC	9.22 kVA	100.00%	9.22 kVA	**TOTAL EST. DEMAND:**	11.62 kVA
				TOTAL CONN.:	32 A
				TOTAL EST. DEMAND:	32 A

NOTES:
USE 2#12Cu + 1#12G IN 3/4" FOR 20A/1P BREAKER U.O.N. MAX 3 SINGLE PHASE CIRCUITS PER CONDUIT - 9 CONDUCTORS
* GFI BREAKER
**NON-COINCIDENT LOADS (LARGER OF TWO CALCULATED)
L - LIGHTING; R - RECEPTACLE; SH - HVAC SPLIT SYSTEMS (HEATING) SC - HVAC SPLIT SYSTEMS (COOLING); HP - HVAC PACKAGE UNITS; HC - HVAC COOLING ONLY; EH - ELECTRIC HEAT; K - KITCHEN EQUIPMENT; M - MOTOR; NC - NON-CONTINUOUS LOADS

A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2"x3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.

LOCATIONS OF DISCONNECT SHALL BE APPROVED BY THE LANDLORD PRIOR TO ROUGH IN. STACK AS SHOWN IF POSSIBLE TO CONSERVE SPACE.

ALL EXPOSED CONDUITS, BOXES, GUTTERS AND PANELS WILL BE PAINTED PER ARCHITECT / OWNER REQUIREMENTS.



ONE LINE KEY NOTES
1 THIS EXISTING PANEL SHALL BE USED FOR THIS SCOPE

1 ONE LINE DIAGRAM
SCALE: NTS

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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Not intended for permit or construction
Engineer: DAVIA GERNAND
PE License No. 109903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

PROJECT NO. 29-059
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

	Date	Description
1	10/09/2025	100% CD

GK ENGINEERS
G.K. PROJECT # 2025.044
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PROJECT STATUS
E110-K
ELECTRICAL

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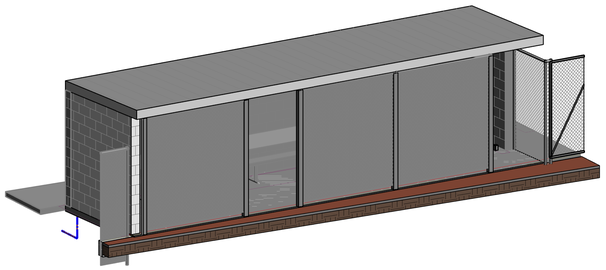
LIGHTING FIXTURE SCHEDULE

CONTRACTOR SHALL COORDINATE WITH ARCHITECT/OWNER FOR ALL FINAL SELECTIONS, LOCATIONS, QUANTITIES, ETC.

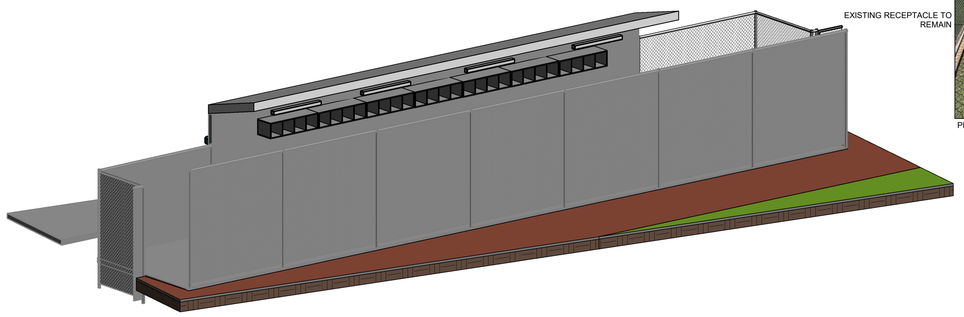
Tag	Manufacturer	Model Number	Mounting	Voltage	Wattage	Lamp Type	Description
A	ORACLE LIGHTING	4-OWVS1-LED-5000L-DIM10-MVOLT-50K-85-TPS	SURFACE	120 V	46 W	LED	VAPOR TIGHT LINEAR LED

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

1. REFER TO ARCHITECTURAL PLANS FOR GRID/FLANGE AREAS, PRIOR TO BIDDING OF LIGHT FIXTURES. CONTRACTOR IS RESPONSIBLE FOR QUANTITY OF EACH.
2. COORDINATE MOUNTING HEIGHT OF ALL FIXTURES WITH ARCHITECTURAL DRAWINGS.
3. PROVIDE AN ADDITIONAL NON-SWITCHED HOT LEG TO ALL EMERGENCY FIXTURES FOR BATTERY CHARGING AND POWER-LOSS DETECTION.
4. PROVIDE AN EXTRA HOT AND SPLICE AROUND CONTRACTORS/CONTROLLERS IF NECESSARY.
5. ALL EXIT SIGNS ARE TO BE NON-SWITCHED.
6. ALL FIXTURE SUBSTITUTIONS SHALL BE SUBMITTED TO THE A/E PRIOR TO BID. EQUALS MUST CONFORM TO LUMENS PER WATT AND PHOTOMETRIC PERFORMANCE.



8 3D VIEW - BASEBALL DUGOUT - KEMPNER HS



7 3D VIEW - SOFTBALL DUGOUT - KEMPNER HS

EXISTING RECEPTACLE TO REMAIN



PHOTO OF EXISTING RIGHT SOFTBALL DUGOUT



PHOTO OF EXISTING RIGHT BASEBALL DUGOUT

EXISTING RECEPTACLE TO REMAIN

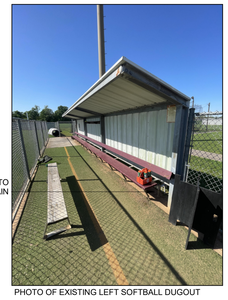
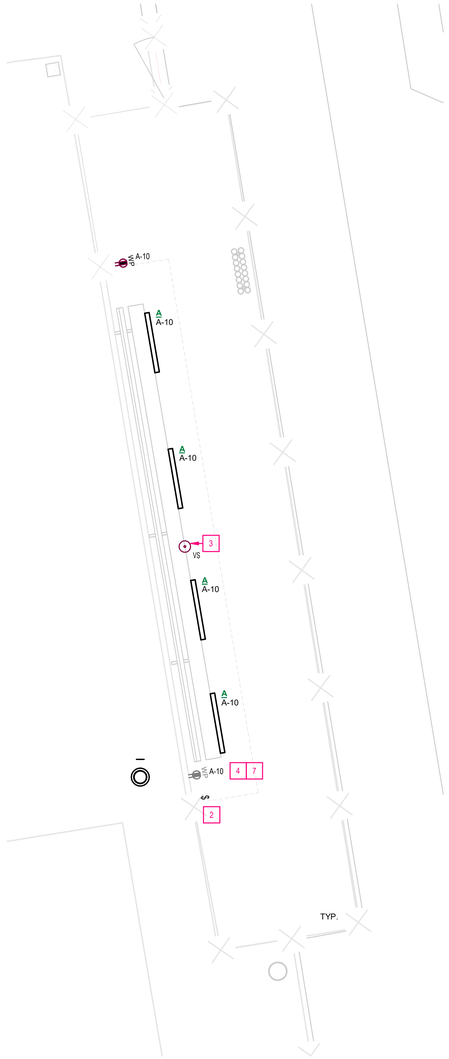


PHOTO OF EXISTING LEFT SOFTBALL DUGOUT

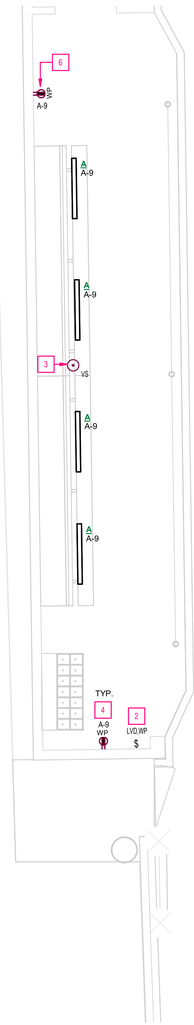


PHOTO OF EXISTING LEFT BASEBALL DUGOUT

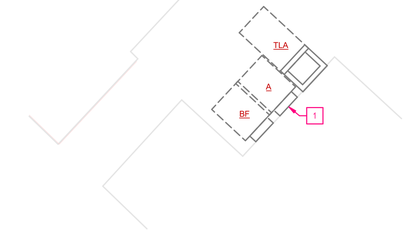
#	E - KEYED NOTES
1	PROVIDE ELECTRICAL CONNECTION FOR RECEPTACLES AND LIGHTING FROM EXISTING PANEL. ROUTE (1) CIRCUIT PER DUGOUT BOX TO NEAREST 120V/208V PANEL.
2	PROVIDE SINGLE GANG WEATHER RESISTANT COVER FOR LIGHTING CONTROL DIMMER SWITCH.
3	PROVIDE VACANCY CONTROLS FOR DUGOUT AREA. PROVIDE OUTDOOR RATED CEILING MOUNTED VACANCY SENSOR SIMILAR TO LEGRAND - HBL2W. CONTROLS SHALL BE AUTO OFF AFTER 20 MIN / MANUAL ON / PUSH TO DIM. REFER TO ELECTRICAL DETAILS FOR ALL COMPONANTS.
4	PROVIDE VANDAL RESISTANT STAINLESS STEEL RECEPTACLE PLATE WITH OUTDOOR RATED ENCLOSURE.
5	UTILIZE EXISTING RECEPTACLE CIRCUIT TO POWER NEW LIGHT FIXTURES AT DUGOUT. VERIFY CIRCUIT CAPACITY AND BREAKER SIZE PRIOR TO CONNECTION. NOTIFY ENGINEER OF ANY CONFLICTS OR INSUFFICIENT CAPACITY PRIOR TO START OF WORK.
6	RELOCATE EXISTING RECEPTACLE TO NEW AREA AND RECONNECT TO EXISTING CIRCUIT. VERIFY CIRCUIT CAPACITY AND BREAKER SIZE PRIOR TO RELOCATION. COORDINATE FINAL RECEPTACLE LOCATION WITH ARCHITECT PRIOR TO INSTALLATION. NOTIFY ENGINEER OF ANY CONFLICTS OR INSUFFICIENT CAPACITY PRIOR TO START OF WORK.
7	EXISTING RECEPTACLE TO REMAIN.



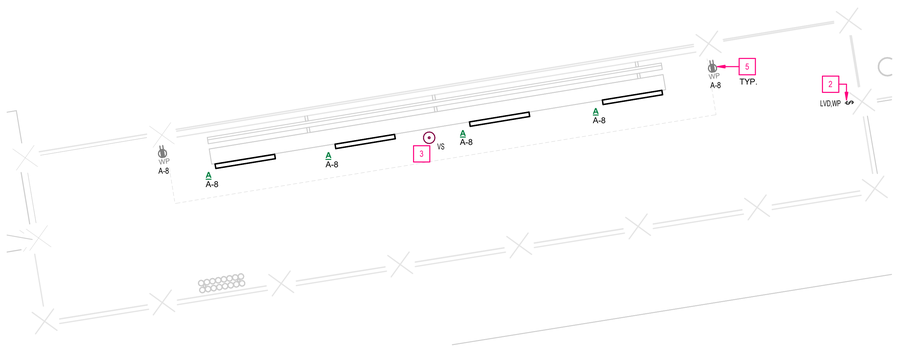
ENLARGED PLAN - KEMPNER HS - SOFTBALL RIGHT DUGOUT
1/4" = 1'-0"



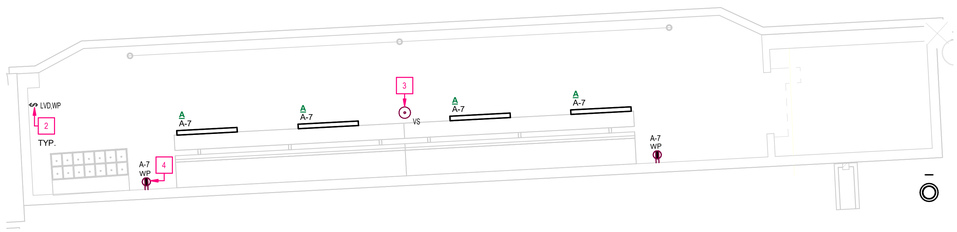
ENLARGED PLAN - KEMPNER HS - BASEBALL LEFT DUGOUT
1/4" = 1'-0"



5 ENLARGED PLAN - KEPMNER HS - FIELD SHED - ELECTRICAL
1/4" = 1'-0"



ENLARGED PLAN - KEMPNER HS - SOFTBALL LEFT DUGOUT
1/4" = 1'-0"



ENLARGED PLAN - KEMPNER HS - BASEBALL RIGHT DUGOUT
1/4" = 1'-0"

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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Not intended for permit or construction.
Engineer: DAIVA GERNAND
PE License No: 109903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-059
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

Date	Description
10/09/2025	100% CD

BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

PROJECT STATUS

E401-K

ENLARGED PLANS - KEMPNER HS FIELDS - ELECTRICAL

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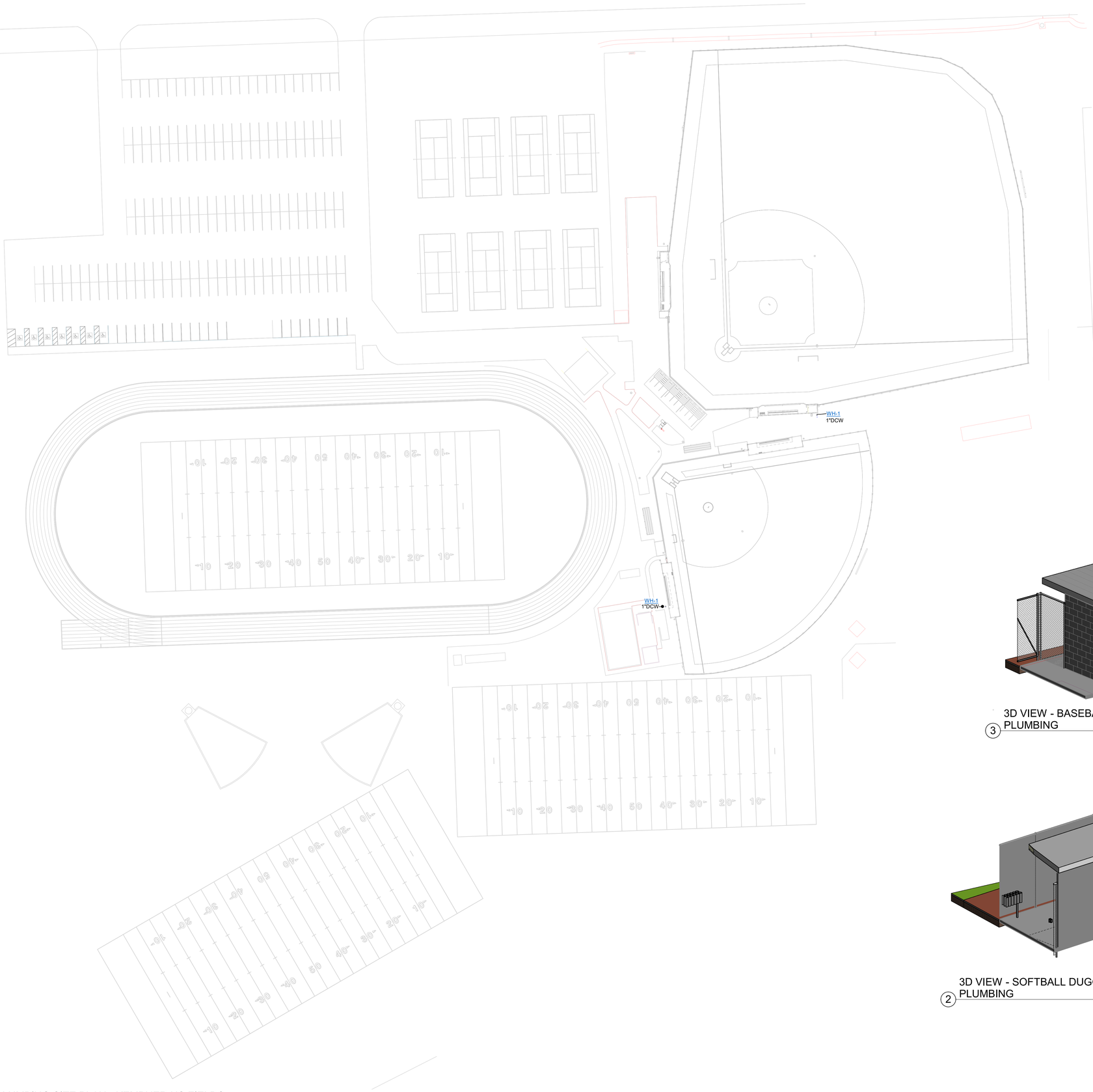


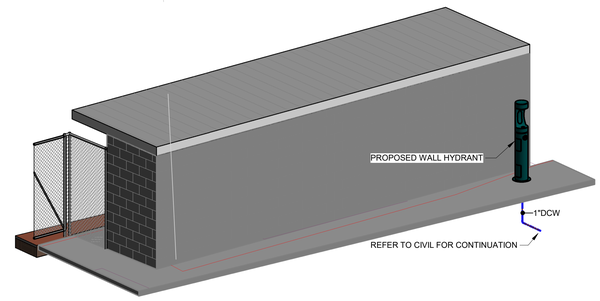
1 PLUMBING SITE PLAN - KEMPNER HS FIELDS
1" = 40'-0"

SITE PLAN NOTES

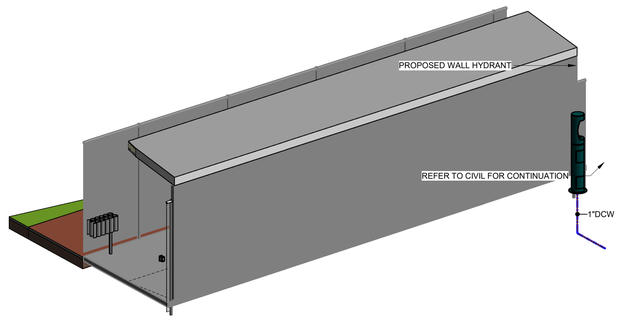
1. UNDERGROUND PLUMBING ROUTING SHALL BE COORDINATED WITH UNDERGROUND UTILITIES. COORDINATE WITH CIVIL PLANS FOR MORE INFORMATION. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS. ALL PIPING 5'-0" OUTSIDE THE BUILDING SHALL BE DESIGNED BY THE CIVIL ENGINEER ALL PIPING SHOWN ON THIS PLAN IS ONLY FOR GENERAL PURPOSE ALL PIPING WITH-IN 5'-0" AND BELOW BUILDING IS APART OF THE PLUMBING DESIGN.
2. PLUMBING CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF PLUMBING GAS SERVICE ENTRANCE AND PRESSURE REDUCING REGULATORS AS REQUIRED FOR THE PROJECT. CONTRACTOR SHALL SUBMIT INFORMATION DEVELOPED BY ENGINEER IN FORM OF SITE PLAN DRAWINGS TO THE GAS COMPANY REPRESENTATIVE FOR PROCESSING SERVICE REQUEST. PROVIDE AN ADDITIONAL $8,000 ALLOWANCE FOR FEES ASSOCIATED WITH THE GAS SERVICE ENTRANCE.
3. ALL LINES 5 FEET OUTSIDE THE BUILDING SHALL BE COORDINATED BY THE CIVIL ENGINEER THAT NO INTERRUPTIONS WILL BE TAKING PLACE.

P - SHEET LIST

SHEET NUMBER	SHEET NAME
P001-A	PLUMBING SITE PLAN - AUSTIN HS FIELDS
P101-A	GENERAL NOTES, ABBREV., & LEGEND
P001-D	PLUMBING SITE PLAN - DULLES HS FIELDS
P101-D	GENERAL NOTES, ABBREV., & LEGEND
P001-E	PLUMBING SITE PLAN - ELKINS HS FIELDS
P101-E	GENERAL NOTES, ABBREV., & LEGEND
P001-K	PLUMBING SITE PLAN - KEMPNER HS FIELDS
P101-K	GENERAL NOTES, ABBREV., & LEGEND
P001-W	PLUMBING SITE PLAN - WILLOWRIDGE HS FIELDS
P101-W	GENERAL NOTES, ABBREV., & LEGEND



3 3D VIEW - BASEBALL DUGOUT - KEMPNER HS - PLUMBING



2 3D VIEW - SOFTBALL DUGOUT - KEMPNER HS - PLUMBING

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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Not intended for permit or construction
Engineer: DAVIA GERNAND
PE License No: 109003 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-069
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

No.	Date	Description
	10/09/2025	100% CD

PROJECT STATUS
P001-K
PLUMBING SITE PLAN - KEMPNER HS FIELDS

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GENERAL PLUMBING NOTES:

GENERAL

1. CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE, AND APPLICABLE AHJ ADOPTED CODES, ALL OTHER LOCAL CODES AND AMENDMENTS WHERE THERE ARE CONFLICTS BETWEEN CODES, STANDARDS, DRAWINGS AND SPECIFICATIONS ARISE, THE MORE STRINGENT SHALL APPLY.
2. PLUMBING EQUIPMENT SHALL BE LISTED, LABELED, AND MARKED FOR USE BY AN APPROVED THIRD-PARTY CERTIFICATION AGENCY AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC. ALL PLUMBING PRODUCTS AND MATERIALS SHALL BE LISTED BY A THIRD – PARTY CERTIFICATION AGENCY AS COMPLYING WITH THE REFERENCED STANDARDS.
3. ALL DRAWINGS AND SPECIFICATIONS (INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING, ETC) ARE DEVELOPED TO BE AN INCLUSIVE SET. ANY CONFLICTS WITHIN SHALL BE BROUGHT TO THE DESIGN'S TEAM ATTENTION. CONTRACTOR SHALL NOT MAKE ANY CHANGES TO THE DESIGN OR CONTRACT WITHOUT WRITTEN CONSENT FROM THE OWNER.
4. WORK SHALL BE INSTALLED IN A WORKMAN LIKE FASHION. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS.
5. MAINTAIN THE CONSTRUCTION PREMISES IN A NEAT AND ORDERLY CONDITION. CONTRACTOR SHALL PROTECT THEIR WORK AGAINST WEATHER, THEFT, AND DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
6. ALL PRODUCTS SHALL COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND UL 723.
7. QUALITY CONTROL
   7.1. INSTALLER: QUALIFIED WITH AT LEAST 5 YEARS OF SUCCESSFUL INSTALLATION EXPERIENCE ON PROJECTS WITH WORK SIMILAR TO THAT REQUIRED FOR THIS PROJECT.
   7.2. UL COMPLIANCE: PROVIDE COMPONENTS WITH UL LISTING AND LABELING WHEN THERE IS AN APPLICABLE UL CATEGORY.
   7.3. COMPLY WITH THE MINIMUM STANDARDS PRESCRIBED IN REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS: UNDERWRITER'S LABORATORIES, INC. STANDARDS., INTERNATIONAL PLUMBING CODE CURRENT EDITION AND OTHER CODES, ORDINANCES, AND LAWS APPLICABLE TO THE PLACE OF THE WORK.
8. SUBMITTALS - SUBMIT 4 COPIES (OR ELECTRONIC) OF DATA FOR REVIEW AND COMMENT BY OWNER PRIOR TO ORDERING. INCLUDE MANUFACTURER'S STANDARD SUBMITTAL DATA WITH MANUFACTURER'S NAME AND MODEL NUMBERS, COLOR, FINISH, SIZE AND ALL OPTIONS CLEARLY MARKED.
9. SUBSTITUTIONS SHALL BE EVALUATED AND APPROVED BY OWNER AND ENGINEER PRIOR TO CONTRACTOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AMONG TRADES AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. PENETRATIONS BETWEEN NON-CONDITIONED AND CONDITIONED SPACES WILL BE SEALED TO ELIMINATE MOISTURE MITIGATION, SUCH AS BETWEEN INSIDE AND OUTSIDE BUILDINGS, NON-CONDITIONED BOILER ROOMS, INTO REFRIGERATORS / FREEZERS, ETC.
11. CITY NOTE: PLUMBING MATERIAL AND EQUIPMENT: NO MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THE CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, THE LAWS OF THE STATE OF TEXAS AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUTES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVED AGENCY.

PLUMBING PIPING SYSTEMS

1. ALL PACKAGED EQUIPMENT SHALL BE INDEPENDENTLY THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A (UL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS, AS WELL AS NFPA PAMPHLET NO. 70, AND THE NATIONAL ELECTRICAL CODE (NEC).
2. ALL SYSTEMS SHALL BE A COMPLETE AND OPERABLE SYSTEM PROVIDE THE NECESSARY ADAPTORS, FITTINGS, DEVICES, ETC. PROVIDE COMPLETE WITH BASES, ISOLATORS, SUPPORTS AND OTHER REQUIRED ACCESSORIES.
3. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES FOR REQUIREMENTS OF ALL EQUIPMENT AND DEVICES AS REQUIRED FOR PROPER FUNCTIONING SYSTEM.
4. ALL ABOVE GRADE PIPING SHALL BE INSTALLED PARALLEL TO BUILDING WALLS U.N.O.
5. ALL PIPING TO BE INSTALLED WITH A UNIFORM SLOPE TO MITIGATE UN DRAINABLE LOW POINTS.
6. DI-ELECTRIC UNIONS AND COUPLINGS ARE REQUIRED FOR DISSIMILAR METALS SUCH AS CONNECTIONS BETWEEN COPPER AND STEEL OR IRON PIPES.

DOMESTIC WATER SYSTEM

LEAD-FREE PRODUCTS:

1. PROVIDE MATERIALS, PRODUCTS, AND FABRICATIONS THAT COMPLY WITH ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS AND RECOMMENDATIONS REGARDING LEAD CONTENT AND CONTRIBUTION OF LEAD TO POTABLE WATER, THAT HAVE NO LEAD OR LEAD ALLOYS IN CONTACT WITH POTABLE WATER, AND THAT DO NOT CONTRIBUTE TO OR CAUSE LEAD IN POTABLE WATER.
2. SOLDER: LEAD FREE, ASTM B32 95-5 TIN-ANTIMONY OR GRADE SN96 TIN-SILVER SOLDER.
3. FLUX: CONTAINING NOT MORE THAN 0.2 PERCENT LEAD, MEETING NSF 61.

PIPING, INTERIOR TO 5' OUTSIDE:

COPPER:
STRAIGHT WATER TUBE, K OR L, ASTM B88 OR B543.
WROUGHT COPPER AND BRONZE SOLDER-JOINT PRESSURE FITTINGS, ANSI B16.22.
WHERE INDICATED ON DRAWINGS TO BE BELOW, IN, OR THROUGH SLAB-ON-GRADE:
COPPER, COILED WATER TUBE, K OR L, ASTM B88.
WROUGHT COPPER AND BRONZE SOLDER-JOINT PRESSURE FITTINGS, ANSI B16.22.
PIPE 1.5" OR SMALLER, IN OR UNDER SLABS-ON-FILL: CONTINUOUS, WITHOUT JOINTS OR FITTINGS.
PIPE 2" OR LARGER, IN OR UNDER SLABS-ON-FILL: BRAZED JOINTS.
PEX: IF APPROVED INDICATE ON BID FORM ALTERNATE PRICING FOR USE OF PEX PIPING AND FITTINGS.
a. USE ABOVE GRADE WHERE CONCEALED IN WALLS OR ABOVE CEILING ONLY.
b. PROVIDE WITH MANUFACTURERS STANDARD LEAD-FREE BRONZE FITTINGS WITH DISCONNECT FEATURE.

LEAD-FREE BALL VALVES, POTABLE WATER SYSTEM.

1. BALL VALVES: TWO-PIECE BODY, FULL PORT, BLOWOUT-PROOF STEM, PTFE SEATS, CONFORMS TO MSS SP-110, SILICON PERFORMANCE BRONZE ALLOY, SIZE RANGE: 1/4" - 2", PRESSURE RATING: 600 PSI CWP. SWEAT-TO-CRIMP LEAD FREE ADAPTERS AT VALVES. COMPLY WITH LEAD-FREE REQUIREMENTS OF NSF-61-G FOR PARTS OF VALVES AND FITTINGS COMING IN CONTACT WITH POTABLE WATER.
2. ACCESS DOOR: WHERE VALVES ARE CONCEALED ABOVE HARD CEILINGS OR IN WALLS PROVIDE THIN-FLANGED, FRAMED ACCESS DOOR, MINIMUM OF 10 INCHES SQUARE OR ADEQUATE TO SERVICE THE DEVICE, 18-8 STAINLESS STEEL CONSTRUCTION WITH NO. 4 FINISH; SMITH 4762.
3. IDENTIFICATION: WHERE VALVES ARE CONCEALED ABOVE CEILINGS ORIN WALLS, PROVIDE ENGRAVED LAMINATED PLASTIC LABLES WITH 1/2" HIGH LETTERS TO INDICATE LOCATION OF VALVE. AFFIX LABEL TO CEILING OR WALL WHERE VALVES ARE CONCEALED.

SANITARY WASTE AND VENT PIPING

1. MATERIAL: REFER TO MATERIAL LEGEND. IF CAST IRON REFER TO CHAPTER IV OF CISPI "CAST IRON SOIL PIPE AND FITTINGS HANDBOOK".
2. INSTALLATION: INSTALL WASTE AND VENT PIPING AT A MINIMUM SLOPE AS INDICATED UNLESS OTHERWISE INDICATED ON THE PLANS:
3. SANITARY PIPE: 2 PERCENT DOWNWARD IN DIRECTION OF FLOW FOR PIPING 2-1/2" AND SMALLER; 1 PERCENT DOWNWARD IN DIRECTION OF FLOW FOR PIPING 3" TO 6".
4. VENT PIPE: 1 PERCENT DOWN TOWARDS THE VERTICAL FIXTURE VENT OR TOWARD THE VENT STACK.

FOUNDATIONS, HANGERS AND SUPPORTS

1. GENERAL PURPOSE: MANUFACTURERS STANDARDIZATION SOCIETY SP-69 OR FEDERAL SPECIFICATION WW-H-171D, TYPES AS RECOMMENDED OR REQUIRED. PERFORATED OR PLAIN METAL STRAP AND WIRE ARE NOT ACCEPTABLE.
2. HANGERS IN CONTACT WITH COPPER PIPE: SAME AS FOR GENERAL PURPOSE, COPPER OR COPPER PLATED WITH PLASTIC COATING.

INSULATION - HOT AND COLD PIPE:

(1) FLEXIBLE CELLULAR INSULATION (FOAMED PLASTIC): FOAMED PLASTIC, FLEXIBLE, K OF 0.25 AT 75EF, 220EF TEMPERATURE LIMIT, DENSITY OF 5.8PCF, ASTM C534, R4.0.
(2) UL LISTED FOR FLAME SPREAD 25, SMOKE DEVELOPED 50, FUEL CONTRIBUTED 50.
(3) PROVIDE THICKNESSES AND INSTALL AS RECOMMENDED BY MANUFACTURER.
(4) BUTT INSULATION TOGETHER AND ADHERE IN PLACE WITH MANUFACTURER'S RECOMMENDED CONTACT CEMENT. WHERE POSSIBLE, SLIP TUBING ON WITHOUT SLITTING. WHERE INSULATION TERMINATES, NEATLY BEVEL AND FINISH.
(5) ROOF DRAINS AND INTERIOR DOWNSPOUTS: VERTICAL PIPING, EXCEPT BETWEEN ROOF-DECK DRAIN AND FIRST ELBOW AND WITHIN TWO FEET OF NON-VERTICAL PIPING, NEED NOT BE INSULATED; INSULATE OTHER RD AND DS PIPING, AND INSULATE THE ROOF-DECK DRAIN (RD) SUMPS WITH SHEET INSULATION. HORIZONTAL PIPING WITHIN CRAWL-SPACE NEED NOT BE INSULATED.
(6) HOT AND COLD WATER, HOT WATER CIRCULATING: PROVIDE THICKNESS RECOMMENDED BY MANUFACTURER. MAINTAIN VAPOR BARRIER ON COLD WATER PIPING INSULATION.
(7) WHERE EXPOSED TO VIEW, BENEATH THE BUILDING, OR EXPOSED TO WEATHER:

A. PAINT WITH INSULATION MANUFACTURER'S PAINT FINISH, TINTED AS SELECTED BY ARCHITECT-ENGINEER, SPECIFICALLY FORMULATED IF EXPOSED OUTDOORS.

B. PROVIDE 16 GAGE ALUMINUM OR STAINLESS STEEL COVER WITH MATCHING ALUMINUM OR STAINLESS STEEL BANDS SPACED 18 INCHES OVER PIPE AND FITTINGS WHERE EXPOSED TO WEATHER OR EXPOSED TO OCCUPANTS AND WITHIN 84 INCHES OF THE FLOOR.

(1) PRODUCT; ARMSTRONG ARMAFLEX WITH WB ARMAFLEX FINISH INDOORS, ARMSTRONG ARMAFLEX WITH SB ARMAFLEX FINISH OUTDOORS.

EXISTING UTILITIES

1. THE LOCATIONS, SIZES AND ELEVATIONS OF EXISTING UTILIZES SHOWN ON THE PLANS ARE BASED ON INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF DESIGN AND MAY NOT REFLECT REAL WORLD CONDITIONS, HOWEVER THE CONTRACTOR IS RESPONSIBLE FOR FIELD DISCOVERY AND MAKING ADJUSTMENTS AS NECESSARY TO PERFORM THE REQUIRED SCOPE OF WORK. HOWEVER, PRIOR TO MAKING ANY ADJUSTMENTS OR PERFORMING WORK THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER AND/OR ARCHITECT FOR APPROVAL.

COPPER PIPING

1. MATERIAL: REFER TO MATERIAL LEGEND. IF TYPE L, THE PIPE JOINTS MUST BE SOLDERED UTILIZING LEAD FREE SOLDER AND NON-ACID FLUX PASTE.

TRAPEZE PIPE HANGERS

DESCRIPTION: MSS SP-58, TYPE 59, SHOP- OR FIELD-FABRICATED PIPE-SUPPORT ASSEMBLY, MADE FROM STRUCTURAL-CARBON-STEEL SHAPES, WITH MSS SP-58 CARBON-STEEL HANGER RODS, NUTS, SADDLES, AND U-BOLTS.

CARBON-STEEL PIPE HANGERS AND SUPPORTS:

1. DESCRIPTION: MSS SP-58, TYPES 1 THROUGH 58, FACTORY-FABRICATED COMPONENTS.
2. GALVANIZED METALLIC COATINGS: PRE-GALVANIZED, HOT-DIP GALVANIZED, OR ELECTRO-GALVANIZED.
3. NONMETALLIC COATINGS: PLASTIC COATED OR EPOXY POWDER COATED.
4. PADDED HANGERS: HANGER WITH FIBERGLASS OR OTHER PIPE INSULATION PAD OR CUSHION TO SUPPORT BEARING SURFACE OF PIPING.
5. HANGER RODS: CONTINUOUS-THREAD ROD, NUTS, AND WASHER MADE OF CARBON STEEL

COPPER PIPE AND TUBE HANGERS:

1. DESCRIPTION: MSS SP-58, TYPES 1 THROUGH 58, COPPER-COATED-STEEL, FACTORY-FABRICATED COMPONENTS
2. HANGER RODS: CONTINUOUS-THREAD ROD, NUTS, AND WASHER MADE OF COPPER-COATED STEEL.

HANGER AND SUPPORT INSTALLATION

A. METAL PIPE-HANGER INSTALLATION: COMPLY WITH MSS SP-58. INSTALL HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS AS REQUIRED TO PROPERLY SUPPORT PIPING FROM BUILDING STRUCTURE.

B. METAL TRAPEZE PIPE-HANGER INSTALLATION: COMPLY WITH MSS SP-58. ARRANGE FOR GROUPING OF PARALLEL RUNS OF HORIZONTAL PIPING, AND SUPPORT TOGETHER ON FIELD-FABRICATED TRAPEZE PIPE HANGERS.

C. PIPES OF VARIOUS SIZES: SUPPORT TOGETHER AND SPACE TRAPEZES FOR SMALLEST PIPE SIZE, OR INSTALL INTERMEDIATE SUPPORTS FOR SMALLER-DIAMETER PIPES AS SPECIFIED FOR INDIVIDUAL PIPE HANGERS.

D. FIELD FABRICATE FROM ASTM A36/A36M CARBON-STEEL SHAPES SELECTED FOR LOADS BEING SUPPORTED, WELD STEEL ACCORDING TO AWS D1.1/D1.1M.

E. INSTALL HANGERS AND SUPPORTS COMPLETE WITH NECESSARY ATTACHMENTS, INSERTS, BOLTS, RODS, NUTS, WASHERS, AND OTHER ACCESSORIES.

F. INSTALL HANGERS AND SUPPORTS TO ALLOW CONTROLLED THERMAL AND SEISMIC MOVEMENT OF PIPING SYSTEMS, TO PERMIT FREEDOM OF MOVEMENT BETWEEN PIPE ANCHORS, AND TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, EXPANSION BENDS, AND SIMILAR UNITS.

G. INSTALL LATERAL BRACING WITH PIPE HANGERS AND SUPPORTS TO PREVENT SWAYING.

CLEANUP AND PAINTING

1. AFTER COMPLETION OF THE WORK THE PLUMBING CONTRACTOR SHALL REMOVE ALL EXTRA MATERIALS, FITTINGS, PIPES, ETC, WHICH HAVE BEEN BROUGHT TO THE SITE FOR COMPLETION OF THEIR SCOPE OF WORK. ALL DEBRIS CREATED BASED ON THEIR CONSTRUCTION EFFORT SHALL BE REMOVED.
2. ALL UNINSULATED PIPING AND EQUIPMENT SHALL BE CLEANED OF OIL, GREASE AND DIRT. ALL SURFACES SHALL BE CLEAN AND FREE OF DIRT AND CORROSION, READY FOR PAINTING BY OTHERS (UNLESS THE PLUMBING CONTRACTOR HAS BEEN TASKED BY THE GENERAL CONTRACTOR FOR PAINTING OF THEIR OWN EQUIPMENT AND EXPOSED PIPING).

TESTING

1. ALL CONCEALED WORK SHALL REMAIN UNCOVERED UNTIL ALL REQUIRED TESTS HAVE BEEN COMPLETED. NOTE THAT THIS TESTING MAY BE DONE IN PHASED AREAS AS DEEMED NECESSARY BY THE GENERAL CONTRACTOR. THE CONTRACTOR WILL REPAIR ANY DEFECTS WHICH ARE DISCOVERED AS A RESULT OF INSPECTION OR TEST WITH NEW MATERIAL. CAULKING OF SCREWED JOINTS, CRACKS OR HOLES WILL NOT BE ACCEPTABLE. THE TEST MUST BE REPEATED AFTER REPLACEMENT AND DEFECTS HAVE BEEN ELIMINATED.
2. POTABLE WATER SHALL BE TESTED BEFORE FIXTURES AND FAUCETS ARE CONNECTED AND/OR BEFORE CONNECTING TO ANY EXISTING PIPING SYSTEM. THE SYSTEM WILL BE FILLED WITH WATER AND PRESSURE TESTED TO 150 PSI FOR A MINIMUM OF ONE HOUR WITHOUT ANY LEAKS OR PRESSURE LOSS.

PLUMBING DEMOLITION NOTES:

1. THE CONTRACTOR WILL VISIT THE SITE TO REVIEW THE EXISTING CONDITIONS ASSOCIATED WITH THE SCOPE OF WORK TO DETERMINE THE EXTENTS OF DIFFICULTY REQUIRED TO PERFORM THE REQUIRED SERVICES SO THAT LATER CLAIMS ABOUT UNFORESEEN CONDITIONS WILL BE MITIGATED TO THE FULLEST EXTENT POSSIBLE.
2. DEMOLITION IS INCLUSIVE OF ALL MATERIAL, CONNECTIONS, CUTTING, REPAIRING AND ADAPTING THE SYSTEMS WHICH ARE TO REMAIN IN OPERATION SO THAT A FULL AND COMPLETE SYSTEM IS PROVIDED ONCE THE PROJECT IS COMPLETE.
3. THE CONTRACTOR IS RESPONSIBLE TO RELOCATING AND RECONNECTING EXISTING WORK WHICH INTERFERES WITH THE NEW PLUMBING (INCLUDING BUT NOT LIMITED TO ELECTRICAL, MECHANICAL, BUILDING ELEMENTS, ETC), USING MATERIAL IN CONFORMANCE WITH THE CURRENT CODES AND/OR THE PROJECT DOCUMENTS. FULL COORDINATION IS REQUIRED WITH ALL OTHER TRADES PRIOR TO THE OF ANY START OF WORK.
4. REMOVE ALL EQUIPMENT AND FIXTURES AS NOTED ON THE ARCHITECTURAL DRAWINGS (NOT ONLY THOSE NOTED ON THE PLUMBING PLANS) AND PROVIDE TEMPORARY SERVICES (WATER, SANITARY, ETC.) SO THAT OTHER AREAS NOT LOCATED IN THE SCOPE OF WORK REMAIN IN SERVICE THROUGHOUT DURATION OF THE PROJECT.
5. ANY BASE BUILDING PIPING WHICH IS ABANDONED WITHIN THE SCOPE OF WORK AREA SHALL BE REMOVED BACK TO THE EXISTING WET COLUMN. COORDINATE WITH THE BUILDING OWNER FOR REMOVAL OF ALL ITEMS SO THAT NO SYSTEMS OUTSIDE THE OUTSIDE OF THE SCOPE OF WORK AREA HAVE AN OUTAGE.

PLUMBING ABBREVIATIONS

CODES:

ADA	AMERICANS WITH DISABILITIES ACT
AHJ	AUTHORITY HAVING JURISDICTION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
IBC	INTERNATIONAL PLUMBING CODE
IECC	INTERNATIONAL ENERGY CONSERVATION CODE
IPC	INTERNATIONAL PLUMBING CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
OSHA	OCCUPATIONAL SAFETY
TAS	TEXAS ACCESSIBILITY STANDARDS
UPC	UNIFORM PLUMBING CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
RME	LICENSED RESPONSIBLE MANAGING EMPLOYEE

GENERAL:

SD	SCHEMATIC DESIGN
DD	DESIGN DEVELOPMENT
CD	CONSTRUCTION DOCUMENTS
REV	REVISION
(D)	DEMOLITION
(E)	EXISTING
(N)	NEW
(R)	RELOCATE
A/E	ARCHITECT/ENGINEER
AFF	ABOVE FINISHED FLOOR
FWFF	FLUSH WITH FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AP	ACCESS PANEL
BD	BLOW DOWN
BFF	BELOW FINISH FLOOR
BFG	BELOW FINISH GRADE
BOP	BOTTOM OF PIPE
BT	BLADDER TANK
BTUH	BRITISH THERMAL UNITS PER HOUR
BYP	BYPASS
C-C	CENTER LINE
CFH	CUBIC FEET PER HOUR
CL	CENTERLINE
C&S	CAP & SEAL
DEG	DEGREE
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN THRU FLOOR
DRN	DRAIN
DWG	DRAWING
EA	EACH
EL	ELEVATION
ENG.	ENGINEER
EQ	EQUAL
F	FAHRENHEIT
FFL	FINISHED FLOOR LEVEL
FIN	FINISH
FOG	FATS, OILS AND GREASE
FP	FIRE PROTECTION
GA	GAUGE
GEN	GENERATOR
GPD	GALLONS PER DAY
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MIN
I-D	INSIDE DIAMETER
I.L.F.F.F.	INVERT LEVEL FROM FINISHED FLOOR
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
MECH	MECHANICAL
MIN	MINIMUM
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OS&Y	OUTSIDE SCREW & YOKE
PH	PHASE
PPB	PARTS PER BILLION
PPM	PARTS PER MILLION
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
RCP	REFLECTED CEILING PLAN
RS	RISING STEM
SPEC	SPECIFICATION
SWG	SWAGE
TC	TIME CLOCK
TG	TRAP GUARD <- ENG. RECOMMENDED
TMEP	TEMPERATURE
TOC	TOP OF CONCRETE
TOP	TOP OF PIPE
TP	TRAP PRIMER
TYP	TYPICAL
UP	UP THRU FLOOR
VTR	VENT THRU ROOF
"WC	INCHES OF WATER COLUMN
WHA	WATER HAMMER ARRESTOR
WP	WEATHERPROOF

EQUIPMENT TAGS:

GWH	GAS WATER HEATER
IGWH	INSTANTANEOUS GAS WATER HEATER
EWH	ELECTRICAL WATER HEATER
IH	INSTANTANEOUS WATER HEATER
CP	CIRCULATING PUMP
DBP	DOMESTIC BOOSTER PUMP
GT	GREASE TRAP
GI	GREASE INTERCEPTOR
SI	SAND OIL INTERCEPTOR
LT	LINT TRAP
ANT	ACID NEUTRALIZATION TANK
SW	SAMPLE WELL
WM	WATER METER

FIXTURE TAGS:

WC	WATER CLOSET
U	URINAL
LAV, L	LAVATORY
SK	SINK
MS	MOP SINK
SH	SHOWER
WB	WASHER BOX
BT	BATH TUB
VB	VALVE BOX
EDF	ELECTRIC DRINKING FOUNTAIN
FD	FLOOR DRAIN
FS	FLOOR SINK
FFD	FABRICATED FUNNEL DRAIN
GD	GARAGE DRAIN
VB	VACUUM BREAKER
BFP	BACKFLOW PREVENTER
RPZ	REDUCED PRESSURE ZONE DEVICE
WCO	WALL CLEANOUT
ECO	EXTERIOR CLEANOUT
FCO	FLOOR CLEANOUT
TCO	TRAFFIC CLEANOUT
END CO	END CLEANOUT
WH	WALL HYDRANT
HB	HOSE BIBB
RH	ROOF HYDRANT
GH	GROUND HYDRANT
BAV	BALL VALVE
BFV	BUTTER FLY VALVE
BV	BALANCING VALVE
CV	CHECK VALE
GC	GAS COCK
GV	GATE VALVE
PRV	PRESSURE REDUCING VALVE
CS	CIRCUIT SOLVER

PIPING SYSTEMS:

[O]	OVERFLOW
[P]	PRIMARY
A	AIR
C.D.	CONDENSATE DRAINAGE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
FW	FILTERED WATER
GRW	GRAY WATER
GW	GREASE WASTE
HWR	HOT WATER RETURN
ID	INDIRECT DRAINAGE
NG	NATURAL GAS
LPG	LIQUEFIED PETROLEUM GAS
OS	SUDS STACK
OSD	OVERFLOW STORM DRAINAGE
PW	POTABLE WATER
RHS	RAIN HARVESTING SYSTEM
SAN / S	SANITARY DRAINAGE
STORM, ST	STORM DRAINAGE
SW	SOFT WATER
TW	TEMPERED WATER
TWR	TEMPERED WATER RETURN
V	VENT
VS	VENT STACK
WS	WASTE STACK

MAINTENANCE SHOP PIPING SYSTEMS:

AF	ANTI-FREEZE
TF	TRANSMISSION FLUID
DF	DEFFERENTIAL FLUID
EO	ENGINE OIL
EO-DIL	DIESEL MOTOR OIL
EO-CNG	CNG MOTOR OIL
GO	GEAR OIL
GR	GREASE
HO	HYDRAULIC OIL
WAF	WASTE ANTI-FREEZE
WO	WASTE OIL
WW	WINDSHIELD WIPER FLUID

MATERIALS:

ABS	ACRYLONITRILE BUTADIENE STYRENE
AL	ALUMINUM
CI	CAST IRON
CS	CARBON STEEL
CU	COPPER
DI	DUCTILE IRON
GALV	GALVANIZED
PVC	POLYVINYL CHLORIDE (PLASTIC)
PVDF	POLYVINYLIDENE FLUORIDE
RGS	RIGID GALVANIZED STEEL
SS	STAINLESS STEEL
PP	POLYPROPYLENE
PTFE	POLYTETRAFLUOROETHYLENE
PVDC	POLYVINYLIDENE CHLORIDE

PLUMBING LEGEND

XX-1	PLUMBING FIXTURE TAG
X"XX-1	OUTLET SIZE / DRAIN TAG
XX-1	HYDRANT / HOSE BIBB
XX-1	EQUIPMENT TAG
(D)	EXISITNG TO BE DEMOLISHED
(E)	EXISTING TO REMAIN
X1 / X"	RISER TAG # / PIPE SIZE
X"DCW	DOMESTIC COLD WATER
X"DHW	DOMESTIC HOT WATER
X"HWR	HOT WATER RETURN
X"SW	SOFT WATER
X"RO	REVERSE OSMOSIS WATER
X"DI	DEIONIZED WATER
X"DH2O	DISTILLED WATER
X"NP-CW	NON-POTABLE COLD WATER
X"NP-HW	NON-POTABLE HOT WATER
X"OSD	OVERFLOW STORM DRAINAGE
X"SD	STORM DRAINAGE (BELOW SLAB)
X"SD	STORM DRAINAGE (ABOVE SLAB)
X"V	VENT (ABOVE SLAB)
X"V	VENT (BELOW SLAB)
X"SAN	SANITARY DRAINAGE (BELOW SLAB)
X"SAN	SANITARY DRAINAGE (ABOVE SLAB)
X"D	DRAINAGE
X"GW	GREASE WASTE (BELOW SLAB)
X"GW	GREASE WASTE (ABOVE SLAB)
X"CD	CONDENSATE - RE: HVAC PLANS
X"AV	ACID VENT (BELOW SLAB)
X"AV	ACID VENT (ABOVE SLAB)
X"AW	ACID WASTE (BELOW SLAB)
X"AW	ACID WASTE (ABOVE SLAB)
X"NG	NATURAL GAS
X"LPG	LIQUID PROPANE GAS
X"C-VAC	CENTRAL VACCUM

FLOOR CLEANOUT
EXTERIOR CLEANOUT
FLOOR DRAIN
FLOOR DRAIN W/ FUNNEL
FLOOR SINK FULL GRATE
FLOOR SINK 1/2 GRATE
RH-1
WH-1 HB-1
FULL PORT BALL VALVE
CHECK VALVE
WHA RE: DETAIL
X PIPE ACCESSORY TAG
AVOID ANY PLUMBING IN THIS AREA
ENLARGED PLAN / SCOPE OF WORK

PLUMBING - FIXTURE SCHEDULE

TAG	ADA	FLOW RATE	DESCRIPTION	MANUFACTURER - MODEL #	FLUSH VALVE OR FAUCET	TRAP	WASTE	VENT	CW	HW	*TMV	NOTES
WH-1	No	10 GPM	FREE STANDING HOSE BIB	MDF 24-8 SMSS	-	-	-	-	3/4"	-		

MATERIAL LEGEND

1. **DOMESTIC WATER:**
   TYPE "L" COPPER TUBING WITH WROUGHT COPPER FITTINGS AND 95/5 (TIN/ANTIMONY) SOLDER JOINTS.

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

FBISD
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INTERIM REVIEW ONLY
Document is Incomplete
Not intended for permit or construction
Engineer: DAVIA GERNAND
PE License No. 109903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-059
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

Date	Description
10/09/2025	100% CD

PROJECT STATUS
P101-K
GENERAL NOTES, ABBREV., & LEGEND

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I DESIGN CRITERIA

A. GENERAL BUILDING CODE

1. THE CONSTRUCTION DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE 2021 WITH AMENDMENTS.

B. DEAD LOADS

1. HANGING CEILING AND MECHANICAL LOADS: FOLLOWING ALLOWANCES HAVE BEEN MADE FOR HANGING CEILING AND MEHCANICAL EQUIPMENT LOADS SUCH AS DUCT WORK AND SPRINKLER PIPES.
   a. ROOF 10 PSF
   b. MEP SYSTEMS 4 PSF.

C. LIVE LOADS

1. DESIGN LIVE LOADS ARE LISTED BELOW
   a. ROOF 20 PSF (REDUCIBLE)
   b. FLOOR 100 psf

D. WIND LOADS
1. WIND PRESSURES ARE BASED ON THE PROVISIONS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE 7-22 AND THE FOLLOWING CRITERIA:
   a. ULTIMATE DESIGN WIND SPEED (VULT): 140 MPH (3 SECOND GUST)
   b. BUILDING RISK CATEGORY: III
   c. WIND EXPOSURE CATEGORY: B
   d. INTERNAL PRESSURE COEFFICIENT (GCPI): [+0.55/-0.55]

2. WIND PRESSURE USED IN THE DESIGN OF THE CLADDING ARE SHOWN ON THE STRUCTURAL DRAWINGS, SHEET S-002

E. HANDRAILS AND GUARDS

1. THE STRUCTURAL STRENGTH OF GRAB BARS, TUB AND SHOWER SEATS, FASTENERS, AND MOUNTING DEVICES SHALL MEET THE FOLLOWING SPECIFICATION:
   a. BENDING STRESS IN A GRAB BAR OR SEAT INDUCED BY THE MAXIMUM BENDING MOMENT FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE STRESS FOR THE MATERIAL OF THE GRAB BAR OR SEAT.
   b. SHEAR STRESS INDUCED IN A GRAB BAR OR SEAT BY THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE SHEAR STRESS FOR THE MATERIAL OF THE GRAB BAR OR SEAT. IF THE CONNECTION BETWEEN THE GRAB BAR OR SEAT AND ITS MOUNTING BRACKET OR OTHER SUPPORT IS CONSIDERED TO BE FULLY RESTRAINED, THEN DIRECT AND TORSIONAL SHEAR STRESSES SHALL BE TOTALED FOR THE COMBINED SHEAR STRESS, WHICH SHALL NOT EXCEED THE ALLOWABLE SHEAR STRESS.
   c. SHEAR FORCE INDUCED IN A FASTENER OR MOUNTING DEVICE FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE LATERAL LOAD OF EITHER THE FASTENER OR MOUNTING DEVICE OR THE SUPPORTING STRUCTURE, WHICHEVER IS THE SMALLER ALLOWABLE LOAD.
   d. TENSILE FORCE INDUCED IN A FASTENER BY A DIRECT TENSION FORCE OF 250 LBF PLUS THE MAXIMUM MOMENT FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE WITHDRAWAL LOAD BETWEEN THE FASTENER AND THE SUPPORTING STRUCTURE.
   e. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

F. HANDRAILS AND GUARDS

1. THE HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED FOR 50 PLF OR A CONCENTRATED LOAD OF 200 POUNDS AT ANY POINT APPLIED IN ANY DIRECTION AT THE TOP AND TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE. THESE LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.

G. BUILDING MOVEMENT AND DEFLECTIONS

1. THE BUILDING MOVEMENT SPECIFIED HEREIN IS ANTICIPATED TO OCCUR AND SHOULD BE CONSIDERED BY THE CONTRACTOR IN THE PERFORMANCE OF THE WORK.

2. SPANDREL BEAM DEFLECTIONS. THE FOLLOWING PROVISION SHOULD BE MADE FOR SUPERIMPOSED LOAD DEFLECTION OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR IN THE DESIGN, FABRICATION, AND ERECTION OF THE BUILDING CLADDING:
   a. TYPICAL SPANDREL BEAM: 3/8"

   SUPERIMPOSED LOAD DEFLECTION IS DEFINED AS ALL DEFLECTION ANTICIPATED TO OCCUR AFTER THE CLADDING HAS BEEN ERECTED. THE RELATIVE DEFLECTION ABOVE DOES NOT INCLUDE THE FLOOR DEFLECTION CAUSED BY THE WEIGHT OF THE CLADDING ITSELF OR THE DEAD LOAD DEFLECTION OF THE FLOOR FRAMING ITSELF, NOR DOES IT INCLUDE ANY ALLOWANCE FOR FABRICATION OR ERECTION TOLERANCES.

3. FLOOR DEFLECTIONS: THE FOLLOWING PROVISION FOR SUPERIMPOSED LOAD DEFLECTIONS SHALL BE MADE IN THE DESIGN, FABRICATION, AND INSTALLATION OF ALL PARTITIONS, GLASS WALLS, AND OTHER ELEMENTS SUPPORTED BY AND ATTACHED TO THE STRUCTURE:
   a. TYPICAL FLOOR MEMBERS: SPAN/360 BUT NOT LESS THAN 3/8 "
   b. TYPICAL ROOF MEMBERS: SPAN/360 BUT NOT LESS THAN 3/8 "

4. LATERAL FRAME WIND DEFLECTION (DRIFT): THE FOLLOWING PROVISION FOR LATERAL FRAME DEFLECTION IN THE PLANE OF THE WALL OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR SHALL BE MADE IN THE DESIGN, FABRICATION AND INSTALLATION OF THE BUILDING CLADDING:
   a. TYPICAL FLOOR TO FLOOR: FLOOR HEIGHT/400 THE DEFLECTIONS LISTED ABOVE ARE BASED ON WIND LOADS WITH A 10-YEAR MEAN RECURRENCE INTERVAL.

II FOUNDATION (KEMPNER)

A. GEOTECHNICAL REPORT

1. - THE GEO TECH REPORT IS PREPARED BY HVJ ASSOCIATES
   - REPORT IS PREPARED FOR FBISD SCHOOL IMPROVEMENTS TURF AND ATHLETICS ; KEMPNER HIGH SCHOOL FORT BEND COUNTRY , TEXAS
   -GEO TECH REPORT DATED FEBRUARY 9 ,2024
   - GEO TECH REPORT NUMBER /PROJECT NUMBER - HG1810383.17-G

B- FOUNDATION APPROVAL AND INSPECTION BY AUTHORIZED INSPECTOR

1. 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.

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

A. GRADE BEAMS
1. GRADE BEAM SIDE FORMS
   a. FORM EXPOSED FACES OF GRADE BEAMS.
2. 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.

3. 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 ON TABLES OR TYPICAL DETAILS. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

D. SLAB ON GRADE CONSTUCTION
1. SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R.

2. SUBGRADE PREPARATION SHALL CONFORM TO THE SOILS REPORT NOTED ABOVE.
   i- BASEBALL AND SOFTBALL DUGOUTS USE SELECT FILL THICKNESS 5 FT THICK PREPARED BASED ON THE SOIL REPORT TO ACHIEVER 1" PVR.

3. EXTEND SELECT FILL PAD 5 FT BEYOND THE EDG OF THE PROPOSED STRUCTURE (DUGOUTS)

4. PROVIDE (2) #4 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

E. VAPOR RETARDER

1. 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.

   • STEGO WRAP VAPOR BARRIER (15 MILS) VAPORGUARD BY REEF INDUSTRIES ECOSHEILD-E 15 MIL BY EPRO SERVICES
2. ALL 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.

2. THE GEOTECHNICAL REPORT IS AVAILABLE TO THE GENERAL CONTRACTOR UPON REQUEST TO THE OWNER. THE INFORMATION INCLUDED THEREIN MAY BE USED BY THE GENERAL CONTRACTOR FOR HIS GENERAL INFORMATION ONLY. THE ARCHITECT AND ENGINEER WILL NOT BE RESPONSIBLE FOR THE ACCURACY OR APPLICABILITY OF SUCH DATA THEREIN.

B. CONSTRUCTION DEWATERING

1. THE CONTRACTOR SHALL DETERMINE THE EXTENT OF CONSTRUCTION DEWATERING REQUIRED FOR THE EXCAVATION. THE CONTRACTOR SHALL SUBMIT TO THE GEOTECHNICAL ENGINEER FOR REVIEW THE PROPOSED PLAN FOR CONSTRUCTION DEWATERING, PRIOR TO BEGINNING THE EXCAVATION. CONTRACTOR SHALL INCLUDED CASING INTO THE BID . IN CASE SLOSHING OCCURS. IF IT DOES NOT OCCUR, CREDIT SHALL BE GIVEN TO THE CLIENT.

A. SLAB ON GRADE FOUNDATION

• ALLOWABLE BEARING CAPACITY = 1500 PSF UNDER SUSTAINED LOADS

  = 2200 PSF FOR TOTAL NET (DEAD + LIVE) LOADS
• MODULUS OF SUGRADE REACTION = 100 PCI FOR DUGOUTS
• M

B

• SOFTBALL AND BASE BALL NETTING POLES LATERAL CAPACITY
  - FRICTION FACTOR = 0.20 FOR BASEBALL (NET POLE AND SCOREBOARD)
  MAXIMUM PASSIVE PRESSURE = 750 PSF
  ALLOWABLE BEARING PRESSURE = 2000 PSF

III REINFORCED CONCRETE

A. CLASSES OF CONCRETE

1. ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE "CLASSES OF CONCRETE MATRIX" ON SHEET 300 SERIES UNLESS NOTED OTHERWISE ON THE DRAWING (IF NOT NOTE MIN 3500 PSI CONCRETE SHALL BE USED FOR ALL CONCRETE WORK).

B. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS

1. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ANY CONCRETE POURS UNLESS SHOWN ON THE DRAWINGS. THE ARCHITECT/ENGINEER SHALL APPROVE ALL DEVIATIONS OR ADDITIONAL JOINTS IN WRITING.

C. REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE ASTM A 615 GRADE 60 UNLESS NOTED OTHERWISE ON THE DRAWINGS OR IN THESE NOTES.

2. REINFORCING STEEL: PROVIDE REINFORCING STEEL CONFORMING TO ASTM A 706 FOR ALL REINFORCING STEEL REQUIRED TO BE WELDED AND WHERE NOTED ON THE DRAWINGS.
   a. FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LADBS FOR REINFORCING STEEL. CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
   b. SHOP WELDS MUST BE PERFORMED IN AN LADBS-LICENSED FABRICATION SHOP.

3. EPOXY-COATED REINFORCING STEEL: PROVIDE EPOXY-COATED REINFORCING STEEL ACCORDING TO ASTM A 775 WHERE NOTED ON THE DRAWINGS. REINFORCING STEEL FOR COOLING TOWER CONCRETE BASINS SHALL BE EPOXY-COATED.

4. DEFORMED BAR ANCHORS: AWS D1.1 TYPE C (TABLE 7.1) STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 496 WITH A MINIMUM YIELD STRENGTH 70,000 PSI. REINFORCING BARS SHALL NOT BE SUBSTITUTED FOR DEFORMED BAR ANCHORS.

5. HEADED STUD ANCHORS FOR EMBEDDED PLATES: AWS D1.1 TYPE A STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 29 WITH A MINIMUM YIELD STRENGTH OF 61,000 PSI.

6. SMOOTH WELDED WIRE REINFORCEMENT: ASTM A 185, YIELD STRENGTH 65,000 PSI.

D. PLACEMENT OF WELDED WIRE REINFORCEMENT

1. WHEREVER WELDED WIRE REINFORCEMENT IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED PER ACI 318, 12.18 AND 12.19.

E. REINFORCING STEEL COVERAGE

1. REINFORCING STEEL COVERAGE SHOULD CONFORM TO THE REQUIREMENTS SPECIFIED IN DETAILS LABELED "TYPICAL CLEAR CONCRETE COVER" ON SHEET S-300 UNLESS NOTED OTHERWISE ON THE DRAWINGS. COVER SPECIFIED SHALL BE CONSIDERED MINIMUMS THAT MAY REQUIRE INCREASING WHERE REINFORCING STEEL INTERSECTS FOR DIFFERENT MEMBER TYPES. COVER IN STRUCTURAL MEMBERS NOT SPECIFIED IN THE DETAILS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS. THE REINFORCING STEEL DETAILER SHALL ADJUST REINFORCING STEEL CAGE SIZES AT INTERSECTING STRUCTURAL MEMBERS AS REQUIRED TO ALLOW CLEARANCE FOR INTERSECTING REINFORCING BAR LAYERS WITH MINIMUM SPECIFIED COVER.

F. SPLICES AND HOOKS IN REINFORCING STEEL

1. SPLICE LOCATION AND TYPE AND HOOKS FOR UNSCHEDULED BEAMS, SLABS AND WALLS:
   a. BEAMS AND SLABS. UNSCHEDULED BEAMS AND SLABS, INCLUDING GRADE BEAMS, SHALL HAVE CONTINUOUS TOP BARS LAPPED AT MIDSPAN BETWEEN SUPPORTS WITH A CLASS A TENSION SPLICE. BOTTOM BARS SHALL BE LAPPED AT THE SUPPORTS WITH A CLASS A TENSION SPLICE. ALL BEAM BARS SHALL BE HOOKED AT DISCONTINUOUS END, UNLESS NOTED OTHERWISE.
   b. BASEMENT WALLS. VERTICAL BARS PLACED ON THE DIRT FACE SIDE SHALL BE LAPPED AT MIDSPAN BETWEEN SUPPORTS WITH A CLASS B TENSION SPLICE. VERTICAL BARS PLACED OPPOSITE THE DIRT FACE SIDE SHALL BE LAPPED AT THE SUPPORTS WITH A CLASS B TENSION SPLICE. HORIZONTAL BARS SHALL HAVE A CLASS B TENSION SPLICE.

IV CONCRETE MASONRY

A. SCOPE

1. REFER TO ARCHITECT'S DRAWINGS FOR THE EXTENT OF MASONRY WALLS. NON-LOAD BEARING WALLS MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS.

2. REINFORCED CONCRETE MASONRY SHALL BE USED AS LOAD BEARING ERIMETER WALLS FOR STANDALONE CONCESSIONS AND RESTROOM BUILDINGS, AND ELSEWHERE INDICATED ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS. SEE ARCHITECTURAL WALL SECTIONS.

3. PROVIDE ONE-COURSE HORIZONTAL BOND BEAM REINFORCE WITH 1-#5 CONTINUOUS AT EVERY FLOOR LEVEL, ROOF LEVEL, AND PARAPET, MINIMUM.

4. RE ARCH FOR LOACTION OF POLISHED MASONRY WALLS.

B. CONCRETE MASONRY UNITS.

1. CONCRETE STRENGTH OF MASONRY UNITS (BASED ON NET AREA) SHALL BE 1,900 PSI MINIMUM.

2. UNITS SHALL CONFORM TO ASTM C 55 OR ASTM C 90 AND SAMPLED IN ACCORDANCE WITH ASTM C 140.

C. MORTAR

1. USE ONLY PORTLAND CEMENT/LIME, TYPE M OR S, MORTAR CONFORMING TO ASTM C 270. PROVIDE AN AVERAGE COMPRESSIVE STRENGTH AT 28 DAYS OF 1,800 PSI MINIMUM.

D. GROUT

1. MIX DESIGNS:

   a. FOR FILLING SPACES 4" OR LARGER IN BOTH HORIZONTAL DIRECTIONS, USE "COARSE GROUT " WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI. THE GROUT SHALL BE TESTED IN ACCORDANCE WITH ASTM C1019. FOR FILLING SPACES LESS THAN 4 " IN ONE OR BOTH HORIZONTAL DIRECTIONS, USE "FINE GROUT" PROPORTIONED PER ASTM C 476.

   b. USE 3,000 PSI NORMALWEIGHT CONCRETE FOR FILLING SPACES 10 " AND LARGER IN BOTH DIRECTIONS. THE GROUT SHALL BE TESTED IN ACCORDANCE WITH ASTM C 1019.

   c. ALL GROUT MIX DESIGN SUBMITTALS SHALL INCLUDE THE RESULTS OF THE TESTS PERFORMED IN ACCORDANCE WITH ASTM C 1019.

   d. SLUMP RANGE AT POINT OF FINAL DISCHARGE: 8" TO 11".

   e. THE USE OF AIR ENTRAINING ADMIXTURES IS NOT ALLOWED.

E. MINIMUM REINFORCEMENT FOR CONCRETE MASONRY UNITS

1. PROVIDE VERTICAL REINFORCEMENT IN CELLS OF CONCRETE MASONRY UNITS (FULLY EMBEDDED IN GROUT) AS SHOWN ON THE PLANS AND OTHER DETAILS. MINIMUM REINFORCEMENT OF INTERIOR MASONRY SHALL BE AS FOLLOWS:
   a. 1-#5 AT A MAXIMUM SPACING OF 48 INCHES
   b. 1-#5 AT EACH CORNER
   c. 1-#5 AT EACH SIDE OF OPENINGS UP TO 12 FEET WIDE
   d. 2-#5 OR 1-#7 AT BOTH SIDES OF OPENINGS OVER 12 FEET WIDE
   e. HEAVIER REINFORCEMENT MAY BE REQUIRED BY PLAN NOTES OR DETAILS IN THE DRAWINGS.

2. PROVIDE HORIZONTAL REINFORCEMENT IN BED JOINTS EVERY OTHER COURSE (MAXIMUM 16 SPACING) IN TYPICAL WALLS AND IN EVERY COURSE (MAXIMUM 8 " SPACING) IN PARAPETS AND CANTILEVERED WALLS.

3. TERMINATION OF REINFORCING STEEL:
   a. ALL VERTICAL REINFORCEMENT SHALL HAVE STANDARD HOOK INTO BOND BEAM. TERMINATE AT HIGHEST BOND BEAM IF MASONRY DOES NOT EXTEND TO ROOF OR GROUTED CELL IS NOT CONTINUOUS TO ROOF. HOOK SHALL EXTEND TO THE UPPERMOST HORIZONTAL REINFORCEMENT OF THE BOND BEAM AND HAVE A MINIMUM EMBEDMENT OF 6 ".
   b. ALL HORIZONTAL REINFORCEMENT AT ENDS OF BOND BEAMS SHALL HAVE STANDARD HOOK INTO VERTICAL GROUTED CELL. PROVIDE CORNER BARS SUCH THAT HORIZONTAL REINFORCEMENT IS CONTINUOUS AROUND CORNERS.

F. REINFORCING STEEL COVERAGE

1. COVER TO REINFORCING STEEL WITHIN MASONRY ELEMENTS SHALL NOT BE LESS THAN THE FOLLOWING:
   a. EXPOSED TO EARTH OR WEATHER: 2 " (#6 AND LARGER BARS), 1.5" (#5 AND SMALLER BARS).
   b. NOT EXPOSED TO EARTH OR WEATHER: 1.5 "
   c. LONGITUDINAL WIRES OF JOINT REINFORCEMENT SHALL BE FULLY EMBEDDED IN MORTAR OR GROUT WITH A MINIMUM COVER OF 5/8 " WHEN EXPOSED TO EARTH AND WEATHER AND 1/2" WHEN NOT EXPOSED TO EARTH OR WEATHER.
   d. STABILITY AND BRACING OF MASONRY WALLS DURING CONSTRUCTION.

2. ALL MASONRY WALLS SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES APPLIED TO THEM IN THE FINAL CONSTRUCTED CONFIGURATION ONLY ASSUMING FULL BRACING TOP, BOTTOM, AND/OR SIDE OF WALL AS SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY AND ADEQUATELY BRACE ALL MASONRY WALLS AT ALL STAGES DURING CONSTRUCTION TO RESIST ERECTION LOADS AND LATERAL LOADS THAT COULD POSSIBLY BE APPLIED PRIOR TO COMPLETION OF CONSTRUCTION.

V STRUCTURAL STEEL

A. MATERIAL

1. HOT ROLLED STRUCTURAL MEMBERS: ALL HOT ROLLED STEEL PLATES, SHAPES, SHEET PILING, AND BARS SHALL BE NEW STEEL CONFORMING TO ASTM SPECIFICATION A 6.

2. ASTM SPECIFICATION AND GRADE: CLEARLY MARK THE GRADE OF STEEL ON EACH PIECE, WITH A DISTINGUISHING MARK VISIBLE FROM FLOOR SURFACES, FOR THE PURPOSE OF FIELD INSPECTION OF PROPER GRADE OF STEEL. UNLESS NOTED OTHERWISE ON THE DRAWINGS, STRUCTURAL STEEL SHALL BE AS FOLLOWS:
   a. W- AND WT-SHAPES: ASTM A 992
   b. M- AND S-SHAPES: ASTM A 36
   c. C-SHAPES: ASTM A 36
   d. L-SHAPES: ASTM A 36
   e. HSS: ASTM A 500, GRADE B (FY=46 KSI)
   f. BASE PLATES: ALL BASE PLATES SHALL CONFORM TO ASTM A 36 UNLESS NOTED OTHERWISE ON THE DRAWINGS.
   g. EDGE ANGLES, BENT PLATES, ANGLE HANGERS, AND ANGLE KICKERS: ASTM A 36.
   h. CONNECTION MATERIAL:
      1) BEAM COLUMN CONTINUITY PLATES AND DOUBLER PLATES: ASTM A 572, GRADE 50.
      2) ALL CONNECTION MATERIAL, EXCEPT AS NOTED OTHERWISE HEREIN OR ON THE DRAWINGS, INCLUDING BEARING PLATES, GUSSET PLATES, STIFFENER PLATES, FILLER PLATES, ANGLES, ETC. SHALL CONFORM TO ASTM A 36 UNLESS A HIGHER GRADE OF STEEL IS REQUIRED BY STRENGTH AND PROVIDED THE RESULTING SIZES ARE COMPATIBLE WITH THE CONNECTED MEMBERS.
         aa. OTHER STEEL: ANY OTHER STEEL NOT INDICATED OTHERWISE SHALL CONFORM TO ASTM A 992 OR ASTM A 572, GRADE 50, EXCEPT PLATES AND ANGLES THAT SHALL BE ASTM A 36.

B. CONNECTIONS

1. CONNECTION DETAILS NOT COMPLETELY DETAILED ON THE DRAWINGS INCLUDING MATERIAL GRADE AND SIZES, WELD SIZES, AND NUMBER OF BOLTS SHALL BE DESIGNED BY THE CONTRACTOR PER THE SPECIFICATIONS. CONCEPTUAL CONNECTION DETAILS WITH THE REQUIRED MEMBER DESIGN FORCES ARE SHOWN ON THE DRAWINGS AND ARE APPLICABLE TO ALL CONNECTIONS NOT DESIGNED AND FULLY DETAILED ON THE DRAWINGS. THE CONCEPTUAL DETAILS ARE PROVIDED ONLY TO INDICATE THE CONNECTION TYPE REQUIRED AND MAY NOT FULLY REPRESENT THE COMPLEXITY OF THE CONNECTION AS REQUIRED BY THE FINAL CONNECTION DESIGN FOR THE FORCES THEY MUST RESIST. ADDITIONAL CONNECTION ELEMENTS MAY NOT BE SPECIFICALLY SHOWN IN THE CONCEPTUAL DETAILS BUT MAY BE REQUIRED BY THE FINAL CONNECTION DESIGN; SUCH AS STIFFENER PLATES, DOUBLER PLATES, SUPPLEMENT/REINFORCING PLATES OR OTHER CONNECTION MATERIAL. THE FABRICATOR IS RESPONSIBLE FOR ENGAGING THE SERVICES OF A CONNECTION SPECIALTY ENGINEER TO PREPARE A FINAL CONNECTION DESIGN FOR SUBMISSION THAT MEETS THE REQUIREMENTS OF THE CONCEPTUAL CONNECTION DETAILS AND RESISTS THE INDICATED DESIGN FORCES.

2. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

3. REACTIONS NOTED ON THE PLANS ARE BASED ON FACTORED LOADS AND ARE INTENDED FOR USE WITH THE LOAD AND RESISTANCE FACTOR DESIGN METHOD.

C. STRUCTURAL BOLTS AND THREADED FASTENERS

1. A 325 BOLTS: ALL BOLTS IN STRUCTURAL CONNECTIONS SHALL CONFORM TO ASTM A 325 TYPE 1, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

2. A 490 BOLTS: SEE DRAWINGS FOR LOCATIONS REQUIRING ASTM A 490 TYPE 1 BOLTS.

3. THREADED ROUND STOCK: THREADED RODS SHALL CONFORM TO:
   a. ASTM A 36.

D. WELDING

1. UNLESS NOTED OTHERWISE, ELECTRODES FOR WELDING SHALL CONFORM TO E70XX (SMAW), F7XX-EXXX (SAW), ER70S-X (GMAW), OR E7XT-X (FCAW).

E. ANCHOR RODS

1. UNLESS INDICATED OTHERWISE IN THE COLUMN SCHEDULE OR ON THE DRAWINGS, ANCHOR RODS SHALL CONFORM TO ASTM F 1554 GRADE 55 (WITH SUPPLEMENTARY REQUIREMENT S1) AND THE SIZE SHALL BE 3/4" DIAMETER AND SHALL EMBED INTO THE CONCRETE FOUNDATION A DISTANCE OF 1'-0" WITH A HEAVY HEX NUT AT THE EMBEDDED END. STRIKE BOLT THREADS AT THE EMBEDDED END AT TWO PLACES BELOW THE NUT.

F. GROUT

1. GROUT BELOW STRUCTURAL STEEL BASE PLATES SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH A MINIMUM STRENGTH OF 6,000 PSI WHEN BEARING ON 3,000 PSI CONCRETE OR LESS, A STRENGTH OF 8,000 PSI WHEN BEARING ON CONCRETE BETWEEN 3,000 AND 4,000 PSI, AND, UNLESS NOTED OTHERWISE ON THE DRAWINGS, A STRENGTH OF 8,000 PSI WHEN BEARING ON CONCRETE GREATER THAN 4,000 PSI.

VI STEEL DECK -ROOF

A. ROOF DECK

1. SCHEDULE:

LOCATION	DEPTH	GAGE	TYPE YIELD STRENGTH (FY)
TYPICAL	3"	20	3N - G90

NOTE:

NR: NARROW RIB, TYPE A
IR: INTERMEDIATE RIB, TYPE F
WR: WIDE RIB, TYPE B
3DR : 3 INCH, DEEP RIB, TYPE N
ALL DECK SHALL BE 50 KSI UNLESS NOTED OTHERWISE.

B. SPECIFICATION

1. THE DESIGN, FABRICATION, AND ERECTION OF ALL ROOF DECK SHALL CONFORM TO THE STEEL DECK INSTITUTE DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, AND ROOF DECKS AS PUBLISHED BY THE STEEL DECK INSTITUTE (SDI).
2. STEEL DECK SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A 653-94 STRUCTURAL QUALITY GRADE 33 OR HIGHER.
3. STEEL DECK SHALL BE GALVANIZED WITH A PROTECTIVE ZINC COATING CONFORMING TO ASTM A 653-94 G90 CLASS.

C. ATTACHMENT OF DECK:

A. FASTENING OF DECK TO EACH SUPPORT MEMBER:

1. FASTENER PATTERN
   5/8" PUDDLE WELD 12"OC AT INTERIOR
   5/8" PUDDLE WELD 6"OC AT SIDES (EVERY DECK RIB)
   (2) 5/8" PUDDLE WELD 6"OC AT CORNERS (EVERY DECK RIB)
   (DOUBLE STITCH)

2. FASTENING OF DECK TO SUPPORT MEMBERS PARALLEL TO DECK RIBS WHERE SHOWN ON PLAN:
   FASTENER PATTERN
   5/8" PUDDLE WELD 12"

3. PROVIDE A MINIMUM END BEARING OF 2 INCHES OVER SUPPORTS.
4. END LAPS OF SHEETS SHALL BE A MINIMUM OF TWO INCHES AND SHALL OCCUR OVER SUPPORTS.
5. 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.

B. MINIMUM ATTACHMENT AT SIDE LAPS: SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED FM APPROVED FASTENERS AT A MAXIMUM OF 12 ", UNLESS NOTED OTHERWISE.

3. FLAT, RIDGE, AND VALLEY PLATES:
   UNLESS NOTED OTHERWISE, CONTRACTOR SHALL PROVIDE FLAT PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF DECK CHANGES DIRECTION AND RIDGE OR VALLEY PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF SLOPE EXCEEDS 1/2" PER FOOT.

D. DECK SPANS
1. METAL DECK SPANS SHALL NOT EXCEED THE MAXIMUM CENTER TO CENTER SPANS AS REQUIRED BY SDI CRITERIA. 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.

E. ACCESSORIES
1. 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.

F. ROOF OPENINGS
1. ROOF OPENINGS LESS THAN 6 INCH SQUARE OR DIAMETER REQUIRE NO REINFORCEMENT. OPENINGS 6 INCH TO 10 INCH INCLUSIVE SHALL BE REINFORCED WITH A 20 GAUGE GALVANIZED PLATE WELDED TO THE DECK AT EACH CORNER AND 6 INCH MAXIMUM CENTERS WITH A 5/8 INCH DIAMETER PUDDLE WELD OR SHEET METAL SCREWS. UNLESS INDICATED OTHERWISE ON THE DRAWINGS, OPENINGS OVER 10 INCH WIDE OR DIAMETER SHALL BE REINFORCED WITH AN ANGLE 2 1/2 X 2 1/2 X 1/4 FRAMING EACH SIDE OF THE OPENING AND SPANNING BETWEEN SUPPORTS FOR SPANS 4 FEET OR LESS AND L 3 X 3 X 1/4 FOR SPANS GREATER THAN 4 FEET BUT LESS THAN 6 FEET UNLESS SPECIFIED OTHERWISE ON DRAWINGS. LARGER OPENINGS SHALL BE REFERRED TO THE ENGINEER FOR FRAMING

VII NON-SHRINK GROUT FOR BASE PLATES AND BEARING PLATES

A. SPECIFICATIONS

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.

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STATE OF TEXAS
BINIAM O. GHEBREAB
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PROFESSIONAL ENGINEER
Biniam
DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/02/2025
DRAWN BY: HG CHECKED BY: BM
REVISIONS:

No.	Date	Description

100% CD

S0.01-K
GENERAL

- SPECIAL INSPECTIONS

A. THE DISTRICT'S TESTING LABORATORY SHALL PROVIDE SPECIAL INSPECTIONS SERVICES IN ACCORDANCE WITH CBC 1704.A BY A DSA-CERTIFIED SPECIAL INSPECTOR. FOR SPECIFIC REQUIREMENTS, REFER TO THE SPECIFICATIONS.

B. THE OWNER'S TESTING LABORATORY SHALL PROVIDE SPECIAL INSPECTION SERVICES IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE FOR THE FOLLOWING ITEMS.
1. STEEL CONSTRUCTION:
   a. ALL FIELD WELDING
   b. HIGH-STRENGTH BOLTING
   c. INSPECTION OF STRUCTURAL STEEL, BOLTING, WELDING MATERIAL
   d. WELDING OF STRUCTURAL STEEL
2. CONCRETE CONSTRUCTION:
   a. BOLTS INSTALLED IN CONCRETE
   b. CONCRETE WORK
   c. CONTINUOUS INSPECTION OF REINFORCING STEEL PLACING
   d. EPOXY BOLTS
   e. FORMWORK
   f. REINFORCING STEEL PLACEMENT
   g. WELDING OF REINFORCING STEEL
3. SOILS:
   a. PREPARED EARTH FILL
4. SPRAYED FIRE-RESISTANT MATERIALS
5. MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS
6. WIND REQUIREMENTS:
   a. MAIN WINDFORCE-RESISTING SYSTEMS
   b. ROOF CLADDING
   c. WINDFORCE-RESISTING SYSTEM CONNECTIONS TO FOUNDATION
   d. WIND-RESISTING COMPONENTS

C. STATEMENT OF SPECIAL INSPECTIONS
1. SPECIAL INSPECTION IS REQUIRED FOR THE ITEMS LISTED ABOVE. REFER TO SPECIFICATION SECTION **014529** FOR TYPE AND EXTENT OF EACH SPECIAL INSPECTION AND EACH TEST. THE SPECIFICATION ALSO INDICATES WHETHER CONTINUOUS OR PERIODIC INSPECTION IS REQUIRED FOR THE ITEMS LISTED ABOVE ADDITIONAL INFORMATION.

- SUBMITTALS

A. SUBMITTAL LIST AND SCHEDULE

1. THE GENERAL CONTRACTOR SHALL PREPARE A DETAILED LIST AND SCHEDULE OF ALL SUBMITTAL ITEMS TO BE SENT TO THE STRUCTURAL ENGINEER PRIOR TO THE START OF CONSTRUCTION. THIS LIST SHALL BE UPDATED AND REVISED AND KEPT CURRENT AS THE JOB PROGRESSES. THE SUBMITTAL LIST SHALL BE ORGANIZED AS SHOWN BELOW:
   a. SHOP DRAWINGS
   b. DESIGN CALCULATIONS
   c. PRODUCT DATA, CERTIFICATES, REPORTS, AND OTHER LITERATURE

B. SUBMITTALS TO BE PROVIDED TO STRUCTURAL ENGINEER

1. STRUCTURAL SUBMITTALS: IN ADDITION TO THE SUBMITTALS REQUIRED BY THE STRUCTURAL SPECIFICATIONS, THE FOLLOWING SUBMITTALS SHALL BE PROVIDED:
   a. LAYOUT OF EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS.
   b. LAYOUT OF MECHANICAL, ELECTRICAL, AND PLUMBING OPENINGS IN FLAT SLABS.
   c. LAYOUT OF PENETRATIONS IN BEAMS AND JOISTS.
2. DEFERRED SUBMITTALS:
   a. THE FOLLOWING ITEMS ARE CONSIDERED DEFERRED SUBMITTALS BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE:
      1. EXTERIOR WINDOW WALL SYSTEM (S&S, REC)
      2. FORMWORK, SHORING, AND BACKSHORING (S&S, REC)
      3. STRUCTURAL STEEL CONNECTIONS (S&S)

   NOTES:

   (S&S) ITEMS MARKED THUS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SEALED PER THE PROJECT SPECIFICATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

   (REC) ITEMS MARKED THUS SHALL BE SUBMITTED TO ENGINEER FOR RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED.

   b. DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE FORWARDED TO THE BUILDING OFFICIAL.

   c. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
3. SHOP DRAWINGS

1. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
   a. CONCRETE MIX DESIGNS (~)
   b. CONSTRUCTION JOINT LOCATIONS IN STRUCTURAL FLOORS AND SLABS ON GRADE
   c. EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS (REC)
   d. REINFORCING STEEL
   e. ROOF METAL DECK (STANDING SEAM ROOF DECK)
   f. STRUCTURAL STEEL, SHOP AND ERECTION DRAWINGS (S&S)
   g. T & G ROOF DECKING PATTERN, PRODUCT SPECIFICATION AND SHEATING ATTACHEMENT PATERNS

NOTES:

(S&S) ITEMS MARKED THUS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SEALED PER THE PROJECT SPECIFICATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

(REC) ITEMS MARKED THUS SHALL BE SUBMITTED TO ENGINEER FOR RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED.

(~) ITEMS MARKED THUS SHALL BE SUBMITTED TO THE OWNER'S TESTING AGENCY FOR THEIR REVIEW.

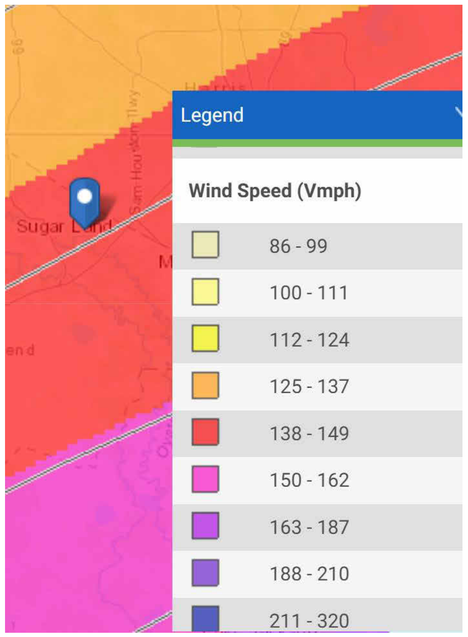
(^) ITEMS MARKED THUS SHALL BE SUBMITTED TO THE CONSTRUCTION GEOTECHNICAL ENGINEER FOR THEIR REVIEW.

4. SUBMITTAL REQUIREMENTS:

   a. ALL SHOP DRAWINGS MUST BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
   b. CONTRACTOR SHALL SUBMIT THREE SETS OF PRINTS FOR ALL SHOP DRAWINGS SPECIFIED TO BE RETURNED BY THE ENGINEER.
   c. CONTRACTOR SHALL PROVIDE THE SUBMITTAL IN ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) PER THE SPECIFICATIONS.
   d. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS 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.

C. REPRODUCTION

1. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEMSELVES TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.



ASCE HAZARD TOOL

Location
14777 Voss Rd, Sugar Land, Texas, 77498

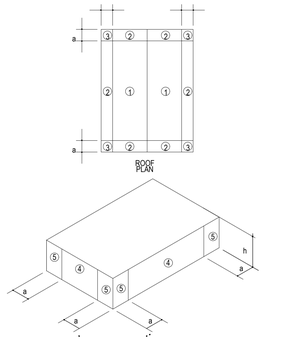
Elevation	84 ft with respect to North American Vertical Datum of 1988 (NAVD 88)
Lat:	29.642352
Long:	-95.644888
Standard:	ASCE/SEI 7-22
Risk Category:	III
Soil Class:	CD

Wind — Overlay

139 Vmph — DETAILS

d Details

d Speed	139 Vmph
/ear MRI	76 Vmph
/ear MRI	90 Vmph
/ear MRI	103 Vmph
-year MRI	113 Vmph
-year MRI	125 Vmph
-year MRI	133 Vmph
)0-year MRI	139 Vmph
)0-year MRI	145 Vmph
)00-year MRI	153 Vmph
,000-year MRI	168 Vmph
0,000-year MRI	180 Vmph



DUGOUTS ENCLOSURE = PARTIAL

a ='3'-0"

COMPONENT AND CLADDING WIND PRESSURES		
	ROOF	
ZONE	0-10 sqft	>100 sq ft
1	+25.4,-46.3	+22.4,-43.3
2	+25.4,-70.2	+22.4,-49.3
3	+25.4,-100.1	+22.4,-49.3
	WALL	
ZONE	0-10 sqft	>100 sqft
4	+43.3,-46.0	+38.6,-41.3
5	+43.3,-54.1	+38.6,-44.6

NOTE:
1- ALL BUILDING COMPONENTS, CLADDING, FINISHES AND CONNECTIONS SHALL BE DESIGNED FOR WIND PRESSURES INDICATED FOR THE CORRESPONDING ZONE. CALCULATIONS AND/OR DESIGN DATA MUST BE AVAILABLE FOR REVIEW BY THE STRUCTURAL ENGINEER OFRECORD IF REQUIRED. NOTE THAT THE WIND PRESSURES TABULATED ARE ULTIMATE AND SHALL BE MULTIPLIED BY 0.6 FOR ALLOWABLE STRESS DESIGN (ASD)

2- POSITIVE AND NEGATIVE SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACE, RESPECTIVELY.

3- LINEAR INTERPOLATION BETWEEN VALUES OF EFFECTIVE WIND AREA IS PERMISSIBLE.

4- ALL PARAPETS SHALL BE DESIGNED IN ACCORDANCE WITH THE WIND PRESSURES DETERMINED FROM ASCE 7

5- FOR JOIST OR PURLIN UPLIFT DESIGN, 3 PSF DEAD LOAD SHALL BE USED FOR NET UPLIFT DETERMINATION. NET UPLIFT SHALL BE DETERMINED WITH THE "0.6D+0.6W" LOAD COMBINATION FOR "ASD" DESIGNS OR LOAD COMBINATION " 0.9D+1.0W" FOR LRFD /ULTIMATE LOAD DESIGNS.

1 KEMPNER HS - C & C WIND PRESSURE
1/2" = 1'-0"

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107333
LICENSED
PROFESSIONAL ENGINEER
DATE: 10/09/2025

PROJECT NO.	25-005
DATE:	10/02/2025
DRAWN BY: HG	CHECKED BY: BM

REVISIONS:

	Date	Description

100% CD

S0.02-K
GENERAL NOTES

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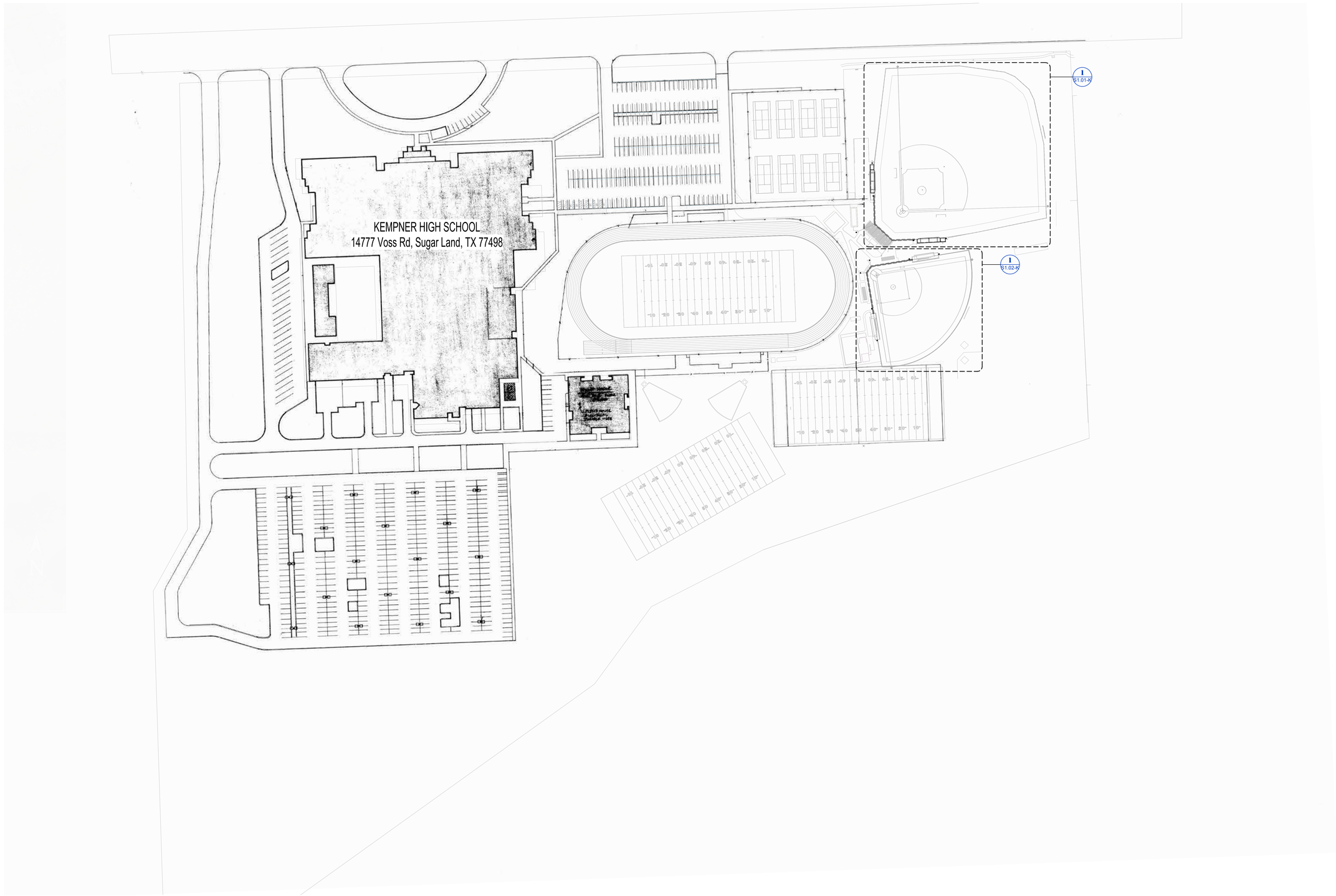

1 ELKINS OVERALL SITE PLAN
1" = 80'-0"

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REVISIONS:

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S1.00-K
OVERALL SITE PLAN

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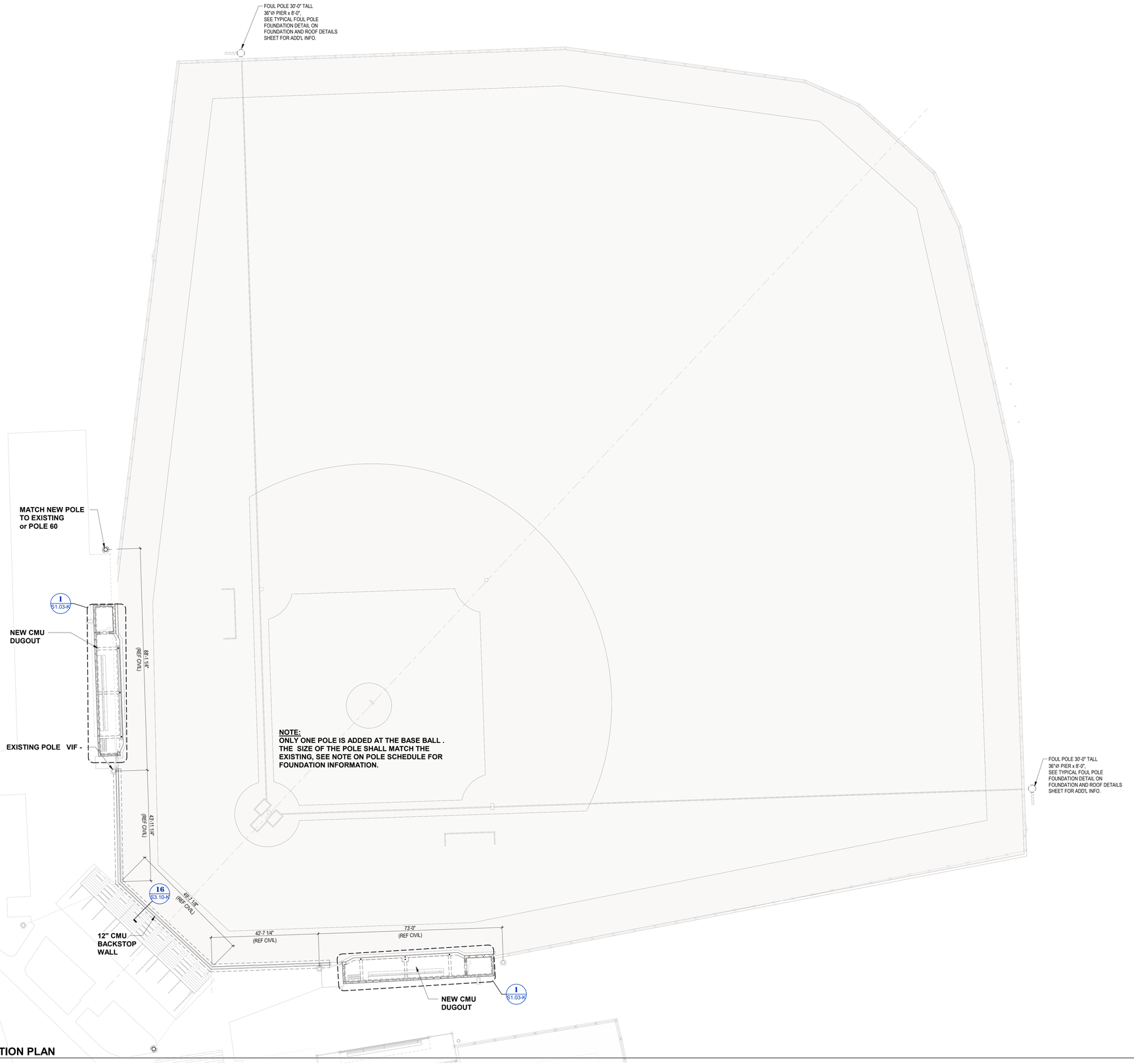

1 BASEBALL FOUNDATION PLAN

1/16" = 1'-0"

NOTE:
1. **REFER SHEET S3.10-"K" FOR POLE SCHEDULE AND FOUNDATION PIER SCHEDULE SUPPORTING THE POLES.**

10/9/2025 9:51:35 AM

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PROFESSIONAL ENGINEER
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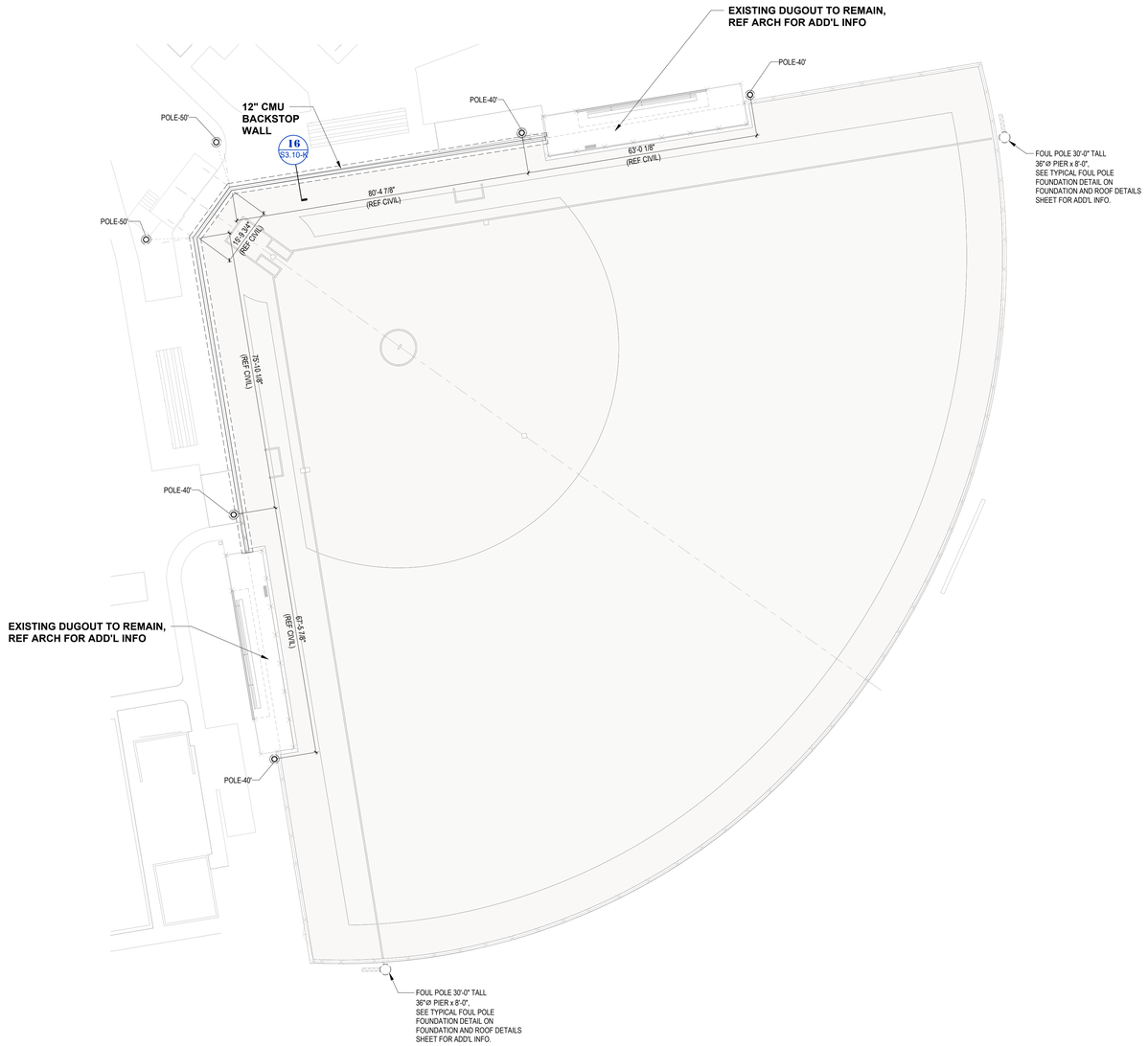
DRAWN BY: HG	CHECKED BY: BM

REVISIONS:

No.	Date	Description

100% CD

S1.01-K
BASEBALL FOUNDATION PLAN



1 SOFTBALL FOUNDATION PLAN

1/16" = 1'-0"

NOTE:
1. **REFER SHEET S3.10-K FOR POLE SCHEDULE AND FOUNDATION PIER SCHEDULE SUPPORTING THE POLES.**

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S1.02-K
SOFTBALL FOUNDATION PLAN

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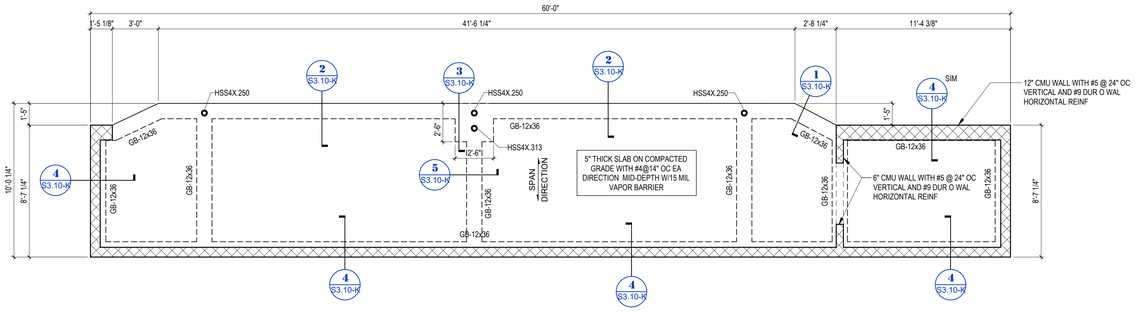

1 BASEBALL DUGOUT FOUNDATION PLAN

1/4" = 1'-0"

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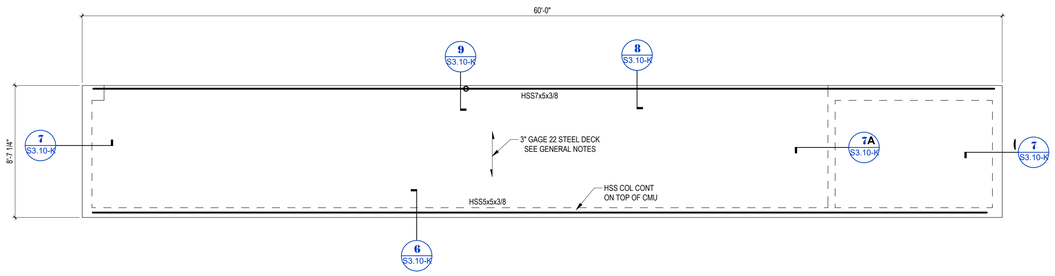
S1.03-K
DUGOUT FOUNDATION PLAN



1 BASEBALL DUGOUT ROOF FRAMING PLAN

1/4" = 1'-0"

10/9/2025 9:04:08 AM

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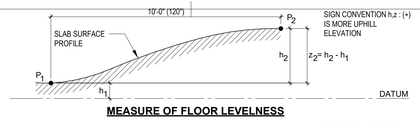
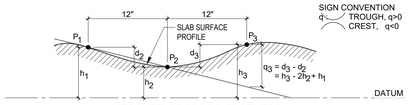
S1.04-K
DUGOUT ROOF
FRAMING PLAN



MEASURE OF FLOOR LEVELNESS



MEASURE OF FLOOR FLATNESS

NOTES:
1. F_L = LEVELNESS F-NUMBER
   $F_L = \frac{12.5}{(3 \times Sz) + 2}$ WHERE $\bar{z}$ = MEAN VALUE OF ALL z FLOOR READINGS; Sz = STANDARD DEVIATION OF ALL z FLOOR READINGS
2. F_L = FLATNESS F-NUMBER
   $F_L = \frac{4.57}{(3 \times Sq) + q}$ WHERE $\bar{q}$ = MEAN VALUE OF ALL q FLOOR READINGS; Sq = 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 $\bar{F}$ VALUES.

5 TYPICAL SLAB SURFACE TOLERANCE
NO SCALE

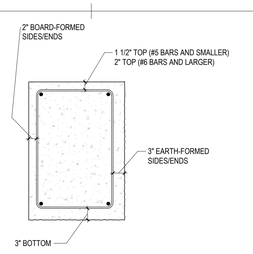
DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION
GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE

BAR SIZE	f'c=3000 PSI		f'c=4000 PSI		f'c=5000 PSI		f'c=6000 PSI		f'c=7000 PSI		f'c=8000 PSI		BAR SIZE
	Lhb	0.7 Lhb	Lhb	0.7 Lhb	Lhb	0.7 Lhb	Lhb	0.7 Lhb	Lhb	0.7 Lhb	Lhb	0.7 Lhb	
#3	9	7	8	6	7	6	6	6	6	6	6	6	#3
#4	11	8	10	7	9	7	8	6	8	6	7	6	#4
#5	14	10	12	9	11	8	10	7	9	7	9	7	#5
#6	17	12	15	11	13	10	12	9	11	8	11	8	#6
#7	20	14	17	12	15	11	14	10	13	10	12	9	#7
#8	22	16	19	14	17	12	16	12	15	11	14	10	#8
#9	25	18	22	16	20	14	18	13	17	12	16	12	#9
#10	28	20	25	18	22	16	20	14	19	14	18	13	#10
#11	31	22	27	19	24	17	22	16	21	15	19	14	#11
#14	38	-	33	-	29	-	27	-	25	-	23	-	#14
#18	50	-	43	-	39	-	35	-	33	-	31	-	#18



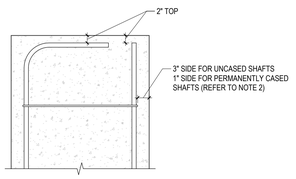
NOTES:
1. Ldh = DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (INCHES).
2. Ldh = Lhb UNLESS CONDITIONS OF NOTE 3 ARE SATISFIED.
3. Ldh = 0.7Lhb FOR #11 BARS AND SMALLER WHEN SIDE COVER (NORMAL TO PLANE OF HOOK) IS NOT LESS THAN 2 1/2 INCHES AND FOR 90° HOOKS COVER ON BAR EXTENSION BEYOND HOOK IS NOT LESS THAN 2 INCHES.
4. HOOKS ARE NOT CONSIDERED EFFECTIVE FOR DEVELOPING BARS IN COMPRESSION.
5. Ldh SHALL BE MULTIPLIED BY 1.2 FOR EPOXY-COATED HOOKED REINFORCING BARS.

9 TYPICAL DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION
NO SCALE



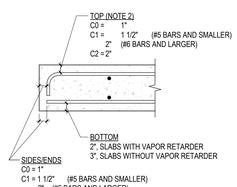
NOTES:
1. REFER TO "NOTES FOR TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL" FOR ADDITIONAL INFORMATION.

4 TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL IN GRADE BEAMS
NO SCALE



NOTES:
1. REFER TO "NOTES FOR TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL" FOR ADDITIONAL INFORMATION.
2. SIDE COVER FOR DEEP FOUNDATIONS CAST INSIDE OF STEEL CASING SHALL BE MEASURED FROM INSIDE FACE OF CASING.

3 TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL IN CAST-IN-PLACE DEEP FOUNDATIONS AND RETAINING PIERS
NO SCALE



NOTES:
1. REFER TO "NOTES FOR TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL" FOR ADDITIONAL INFORMATION.
2. REFER TO "TYPICAL CONSTRUCTION AND CONTROL JOINTS IN SLAB-ON-GRADE" FOR MORE STRINGENT TOP COVER REQUIREMENTS FOR SLABS-ON-GRADE WITH CONSTRUCTION OR CONTROL JOINTS.

2 TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL IN SLABS-ON-GRADE
NO SCALE

NOTES:
1. CONCRETE PROFILES AND REINFORCING STEEL CONFIGURATIONS ARE SCHEMATIC AND ARE PROVIDED FOR ESTABLISHING TYPICAL CLEAR CONCRETE COVERS ONLY. REFER TO STRUCTURAL PLANS AND DETAILS FOR ALL OTHER INFORMATION.
2. ALL COVERS SHOWN ARE CLEAR FROM THE OUTERMOST SURFACE OF REINFORCING STEEL TO THE CLOSEST OUTER SURFACE OF THE CONCRETE, INCLUDING REVEALS, DRIP GROOVES, OR RUSTICATIONS.
3. WHERE COVERS ARE DIFFERENT AS A FUNCTION OF BAR SIZE, DETAILER SHALL ADJUST LOCATION OF TRANSVERSE REINFORCING STEEL AS REQUIRED SUCH THAT CLEAR COVERS ARE MET FOR BOTH TRANSVERSE AND LONGITUDINAL STEEL.
4. C0, C1, AND C2 REFER TO THE CORROSION EXPOSURE CLASS OF THE CONCRETE ELEMENT. REFER TO THE CLASSES OF CONCRETE MATRIX AND GENERAL NOTES FOR ADDITIONAL INFORMATION.

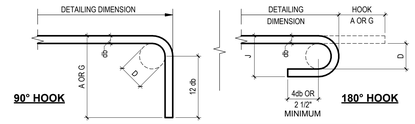
1 NOTES FOR TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL
NO SCALE

COMPRESSION DEVELOPMENT AND LAP SPLICE LENGTHS
GRADE 60 REINFORCEMENT

BAR SIZE	DEVELOPMENT LENGTH						LAP LENGTH
	f'c=3000 PSI	f'c=4000 PSI	f'c=5000 PSI	f'c=6000 PSI	f'c=7000 PSI	f'c=8000 PSI	ALL f'c
#3	9	8	8	8	8	8	12
#4	11	10	9	9	9	9	15
#5	14	12	12	12	12	12	19
#6	17	15	14	14	14	14	23
#7	20	17	16	16	16	16	27
#8	22	19	18	18	18	18	30
#9	25	22	21	21	21	21	34
#10	28	25	23	23	23	23	39
#11	31	27	26	26	26	26	43

NOTES:
1. ALL SPLICE LENGTHS ARE IN INCHES.
2. DEVELOPMENT LENGTHS LISTED ABOVE SHALL ONLY BE USED FOR BAR END TERMINATIONS (NOT LAPS) SPECIFICALLY DESIGNATED AS COMPRESSION BARS.
3. LAP LENGTHS LISTED ABOVE SHALL ONLY BE USED FOR BAR LAP SPLICES SPECIFICALLY DESIGNATED AS COMPRESSION SPLICES.
4. IF BAR TERMINATIONS OR SPLICES ARE NOT SPECIFICALLY DESIGNATED AS COMPRESSION, THE APPROPRIATE TENSION DEVELOPMENT LENGTH SHALL BE USED.
5. WHEN BARS OF DIFFERENT SIZE ARE LAP SPLICED, THE SPLICE LENGTH SHALL BE THE LARGER OF EITHER THE DEVELOPMENT LENGTH OF THE LARGER BAR OR THE LAP LENGTH OF THE SMALLER BAR.
6. LENGTHS LISTED ARE VALID FOR BOTH NORMALWEIGHT AND LIGHTWEIGHT CONCRETE.

8 TYPICAL COMPRESSION DEVELOPMENT AND LAP SPLICE LENGTHS
NO SCALE

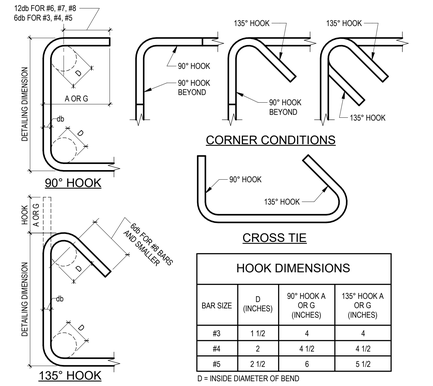


END HOOK DIMENSIONS

BAR SIZE	FINISHED BEND DIAMETER D, (INCHES)	180° HOOKS		90° HOOK
		A OR G, (INCHES)	J, (INCHES)	A OR G, (INCHES)
#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

7 TYPICAL END HOOK TYPES
NO SCALE



HOOK DIMENSIONS

BAR SIZE	D (INCHES)	90° HOOK A OR G (INCHES)	135° HOOK A OR G (INCHES)
#3	1 1/2	4	4
#4	2	4 1/2	4 1/2
#5	2 1/2	6	5 1/2

D = INSIDE DIAMETER OF BEND

6 TYPICAL STIRRUP AND HOOKS
NO SCALE

SLAB TENSION DEVELOPMENT AND LAP SPLICE LENGTHS
GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE

BAR SIZE	LAP CLASS	f'c = 3000 PSI		f'c = 4000 PSI		f'c = 5000 PSI		f'c = 6000 PSI		f'c = 7000 PSI		f'c = 8000 PSI	
		BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS
#3	A	12	13	12	12	12	12	12	12	12	12	12	12
	B	16	17	16	16	16	16	16	16	16	16	16	16
#4	A	17	22	15	19	13	17	12	16	12	14	12	14
	B	23	29	20	25	17	23	16	21	16	19	16	19
#5	A	25	32	21	28	19	25	18	23	16	21	15	20
	B	33	42	28	37	25	33	24	30	21	28	20	26
#6	A	33	43	29	37	26	34	24	31	22	28	21	27
	B	43	56	38	49	34	45	32	41	29	37	28	36
#7	A	53	69	46	60	42	54	38	49	35	46	33	43
	B	69	90	60	78	55	71	50	64	46	60	43	56
#8	A	66	86	57	74	51	67	47	61	44	56	41	53
	B	86	112	75	97	67	88	62	80	58	73	54	69
#9	A	80	104	69	90	62	81	57	74	53	68	49	64
	B	104	136	90	117	81	106	75	97	69	89	64	84
#10	A	96	125	83	108	75	97	68	88	63	82	59	77
	B	125	163	108	141	98	127	89	115	82	107	77	101
#11	A	113	146	98	127	87	114	80	104	74	96	69	90
	B	147	190	128	166	114	149	104	136	97	125	90	117

NOTES:
1. ALL SPLICE LENGTHS ARE IN INCHES.
2. THIS TABLE SHALL BE USED FOR SLABS ONLY. REFER TO OTHER DEVELOPMENT LENGTH TABLES FOR OTHER MEMBERS.
3. THE TENSION DEVELOPMENT LENGTH (Ld) IS EQUAL TO THE SCHEDULED "CLASS A" LAP SPLICE LENGTH.
4. A BOTTOM BAR IS DEFINED AS ANY BAR THAT DOES NOT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR.
5. OTHER BARS INCLUDE TOP BARS AND ALL OTHER BARS THAT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR. FOR TOP REINFORCEMENT IN SLABS THAT ARE 12" THICK OR LESS, TABULATED SPLICE LENGTHS FOR BOTTOM BARS SHALL BE USED.
6. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED SPLICE LENGTHS OF BOTTOM BARS BY 1.5 AND THE TABULATED SPLICE LENGTHS OF OTHER BARS BY 1.3.
7. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR BUT MAY NOT BE LESS THAN THE "CLASS A" SPLICE LENGTH OF THE LARGER BAR.
8. FOR CONCRETE STRENGTHS IN BETWEEN THOSE TABULATED HERE, USE DEVELOPMENT AND LAP SPLICE LENGTHS OF LOWER CONCRETE STRENGTH.

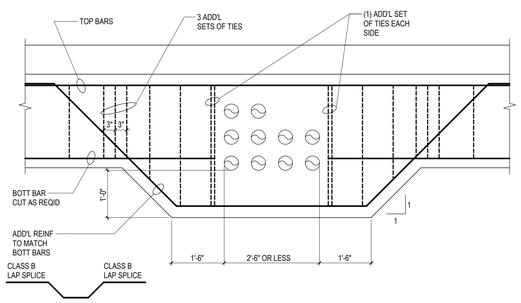
11 TYPICAL SLAB TENSION DEVELOPMENT AND LAP SPLICE LENGTHS
NO SCALE

BEAM AND GIRDER TENSION DEVELOPMENT AND LAP SPLICE LENGTHS
GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE

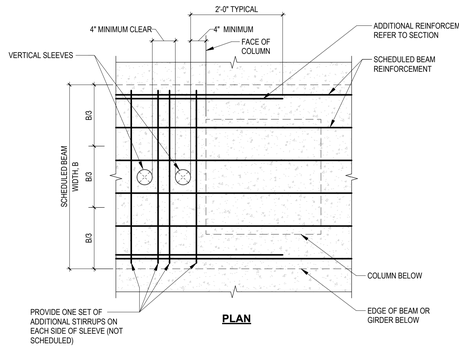
BAR SIZE	LAP CLASS	f'c = 3000 PSI		f'c = 4000 PSI		f'c = 5000 PSI		f'c = 6000 PSI		f'c = 7000 PSI		f'c = 8000 PSI	
		BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS
#3	A	12	13	12	12	12	12	12	12	12	12	12	12
	B	16	17	16	16	16	16	16	16	16	16	16	16
#4	A	16	20	14	18	12	16	12	15	12	14	12	13
	B	21	26	19	24	16	21	16	20	16	19	16	17
#5	A	23	29	20	25	18	23	16	21	15	19	14	18
	B	30	38	26	33	24	30	21	28	20	25	19	24
#6	A	31	40	27	35	24	31	22	28	20	26	19	25
	B	41	52	36	46	32	41	29	37	26	34	25	33
#7	A	46	60	40	52	36	46	33	42	30	39	28	37
	B	60	78	52	68	47	60	43	55	39	51	37	49
#8	A	60	78	52	67	46	60	42	55	39	51	37	48
	B	78	102	68	88	60	78	55	72	51	67	49	63
#9	A	64	84	56	72	50	65	46	59	42	55	40	51
	B	84	110	73	94	65	85	60	77	55	72	52	67
#10	A	72	93	62	81	56	72	51	66	47	61	44	57
	B	94	121	81	106	73	94	67	86	62	80	58	75
#11	A	85	110	74	96	66	86	60	78	56	72	52	68
	B	111	143	97	125	86	112	78	102	73	94	68	89

NOTES:
1. ALL SPLICE LENGTHS ARE IN INCHES.
2. THIS TABLE SHALL BE USED FOR BEAMS AND GIRDERS ONLY. REFER TO OTHER DEVELOPMENT LENGTH TABLES FOR OTHER MEMBERS.
3. THE TENSION DEVELOPMENT LENGTH (Ld) IS EQUAL TO THE SCHEDULED "CLASS A" LAP SPLICE LENGTH.
4. A BOTTOM BAR IS DEFINED AS ANY BAR THAT DOES NOT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR.
5. OTHER BARS INCLUDE TOP BARS, FACE BARS, AND ALL OTHER BARS THAT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR.
6. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED SPLICE LENGTHS OF BOTTOM BARS BY 1.5 AND THE TABULATED SPLICE LENGTHS OF OTHER BARS BY 1.3.
7. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR BUT MAY NOT BE LESS THAN THE "CLASS A" SPLICE LENGTH OF THE LARGER BAR.
8. FOR CONCRETE STRENGTHS IN BETWEEN THOSE TABULATED HERE, USE DEVELOPMENT AND LAP SPLICE LENGTHS OF LOWER CONCRETE STRENGTH.

10 TYPICAL BEAM AND GIRDER TENSION DEVELOPMENT AND LAP SPLICE LENGTHS
NO SCALE

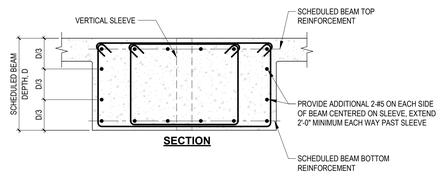


B. PIPING/CONDUIT THRU GRADE BEAM



PLAN

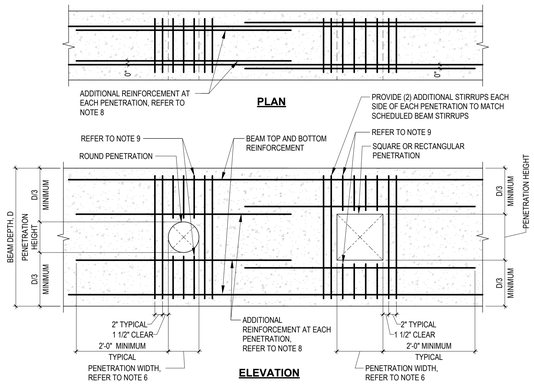
NOTES:
1. GENERAL CONTRACTOR SHALL COORDINATE REQUIRED BEAM SLEEVES WITH MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS. REQUIRED SLEEVES MAY OR MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS. GENERAL CONTRACTOR SHALL SUBMIT PLAN SHOWING LAYOUT OF ALL SLEEVES WITH FORMWORK SHOP DRAWING SUBMITTAL.
2. SLEEVES SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SCHEDULED BEAM WIDTH.
3. CONTINUOUS BEAM REINFORCEMENT MAY BE SLIGHTLY DISPLACED (3" MAXIMUM) OR ADJACENT BARS BUNDLED (2 BAR BUNDLES MAXIMUM) TO FACILITATE SLEEVE INSTALLATION. DO NOT CUT, OFFSET, OR BEND REINFORCEMENT.
4. SLEEVES OCCURRING ON OPPOSITE SIDES OF A COLUMN MUST BE IN LINE.
5. THE OUTSIDE DIAMETER OF A SLEEVE MAY NOT EXCEED 15% OF THE SCHEDULED WIDTH OF THE BEAM THROUGH WHICH IT MUST PASS.
6. THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD WHEN A SLEEVE SIZE OR LOCATION DOES NOT MEET THE ABOVE CONDITIONS.
7. SCHEDULED BEAM STIRRUPS NOT SHOWN FOR CLARITY.



SECTION

14 PIPING/CONDUIT AT GRADE BEAM LOCATIONS
3/4" = 1'-0"

13 TYPICAL VERTICAL PENETRATION IN CONCRETE BEAM
NO SCALE



ELEVATION

NOTES:
1. GENERAL CONTRACTOR SHALL COORDINATE LOCATION, SIZE, AND ELEVATION AND INCLUDE IN HIS CONTRACT PRICE ALL REQUIRED HORIZONTAL PENETRATIONS THROUGH CONCRETE BEAMS WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT.
2. WHERE BEAM PENETRATIONS ARE REQUIRED BUT ARE NOT SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS, CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING DIMENSIONS AND LOCATIONS OF ALL REQUIRED PENETRATIONS FOR REVIEW AND APPROVAL.
3. "D" DENOTES THE DEPTH OF BEAM.
4. CLEAR SPACING BETWEEN PENETRATIONS SHALL BE 24" MINIMUM UNLESS NOTED OTHERWISE BY THE STRUCTURAL ENGINEER.
5. PENETRATIONS SHALL BE LOCATED ACCORDING TO THE FOLLOWING CRITERIA:
   a. FOR BEAMS NOT SUPPORTING INTERSECTING BEAMS LOCATE PENETRATIONS WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN.
   b. FOR BEAMS SUPPORTING INTERSECTING BEAMS CHECK WITH STRUCTURAL ENGINEER.
6. PENETRATION WIDTH MUST NOT EXCEED PENETRATION HEIGHT, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.
7. FOR LOCATIONS AND/OR SIZES OF PENETRATIONS NOT CONFORMING TO THE ABOVE CRITERIA AND NOT OTHERWISE DETAILED ON THE STRUCTURAL DRAWINGS, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE STRUCTURAL ENGINEER.
8. PROVIDE THE FOLLOWING REINFORCEMENT AT EACH SLEEVE, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS:
   1-#5 TOP AND BOTTOM AT BEAMS WITH WIDTHS LESS THAN 9".
   2-#5 TOP AND BOTTOM AT BEAMS WITH 2-LEG STIRRUPS.
   4-#5 TOP AND BOTTOM AT BEAMS WITH 4-LEG STIRRUPS.
   "N"-#5 TOP AND BOTTOM AT BEAMS WITH "N"-LEG STIRRUPS.
9. PROVIDE ADDITIONAL STIRRUPS ABOVE AND BELOW PENETRATIONS AT SPACING NOT TO EXCEED ONE THIRD OF THE SCHEDULED STIRRUP SPACING, UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS.
10. SCHEDULED BEAM STIRRUPS NOT SHOWN FOR CLARITY.

12 TYPICAL HORIZONTAL PENETRATION IN CONCRETE BEAM
NO SCALE

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STATE OF TEXAS
BINIAM O. GHEBREAB
107333
LICENSED PROFESSIONAL ENGINEER
DATE: 10/09/2025

PROJECT NO.	25-005
DATE:	10/02/2025
DRAWN BY: HG	CHECKED BY: BM

REVISIONS:

No.	Date	Description

100% CD

S3.00-K
TYPICAL FOUNDATION DETAILS

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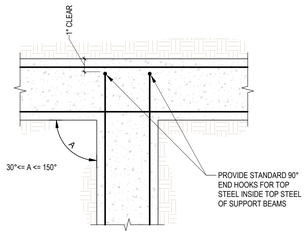
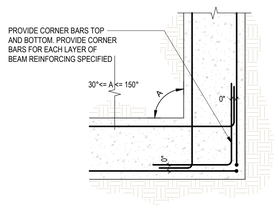


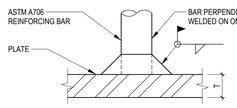
NOTES:
1. GRADE BEAMS SHALL BE POURED MONOLITHICALLY AT INTERSECTIONS. REFER TO TYPICAL GRADE BEAM CONSTRUCTION JOINT DETAIL FOR ACCEPTABLE CONSTRUCTION JOINT LOCATIONS.

5 TYPICAL GRADE BEAM "T" INTERSECTION TOP BAR PLACEMENT DIAGRAM (PLAN VIEW)
NO SCALE



NOTES:
1. GRADE BEAMS SHALL BE POURED MONOLITHICALLY AROUND CORNERS. REFER TO TYPICAL GRADE BEAM CONSTRUCTION JOINT DETAIL FOR ACCEPTABLE CONSTRUCTION JOINT LOCATIONS.

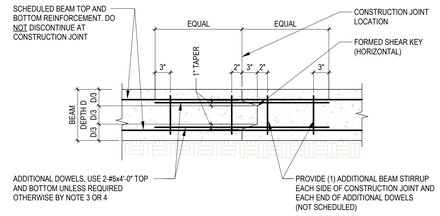
4 TYPICAL GRADE BEAM REINFORCING STEEL SPLICE AT CORNERS (PLAN VIEW)
NO SCALE



DEVELOPMENT OF WELDABLE REINFORCEMENT
GRADE 60 REINFORCEMENT, E70 ELECTRODE

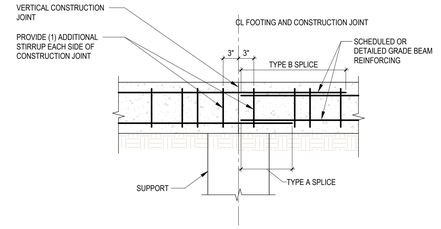
BAR SIZE	NOMINAL WELD SIZE (INCHES)	MINIMUM PLATE THICKNESS, T (INCHES)
#3	1/4	1/4
#4	5/16	1/4
#5	3/8	1/4
#6	7/16	5/16
#7	1/2	3/8
#8	9/16	7/16
#9	5/8	1/2
#10	11/16	9/16
#11	3/4	5/8

3 TYPICAL DEVELOPMENT OF WELDABLE REINFORCEMENT
NO SCALE



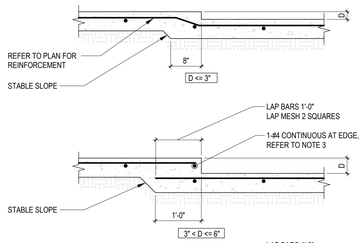
NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT DESIRED CONSTRUCTION JOINT LAYOUT AS A SHOP DRAWING FOR APPROVAL A MINIMUM OF TWO WEEK PRIOR TO POUR.
2. CONSTRUCTION JOINT LOCATIONS SHALL BE COORDINATED WITH REINFORCING STEEL SUPPLIER AND ERECTOR.
3. ACCEPTABLE JOINT LOCATIONS ARE AS FOLLOWS:
   a. FOR BEAMS NOT SUPPORTING INTERSECTING BEAMS: PLACE JOINT MIDDLE THIRD OF SPAN.
   b. FOR BEAMS SUPPORTING INTERSECTING BEAMS, CHECK WITH STRUCTURAL ENGINEER.
4. FOR JOINT LOCATIONS OTHER THAN WITHIN MIDDLE THIRD OF SPAN, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE ENGINEER ON THE SHOP DRAWINGS.

2 TYPICAL GRADE BEAM CONSTRUCTION JOINT
NO SCALE

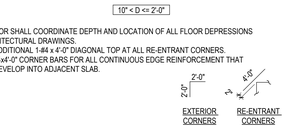


NOTES:
1. NORMAL GRADE BEAM REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.

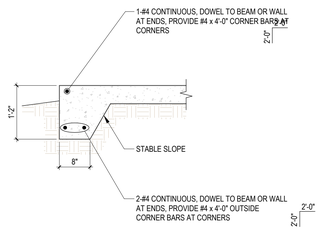
1 TYPICAL GRADE BEAM CONSTRUCTION JOINT ALTERNATE DETAIL
NO SCALE



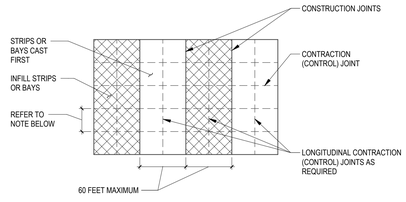
NOTES:
1. CONTRACTOR SHALL COORDINATE DEPTH AND LOCATION OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE ADDITIONAL 1-#4 x 4'-0" DIAGONAL TOP AT ALL RE-ENTRANT CORNERS.
3. PROVIDE #4x4'-0" CORNER BARS FOR ALL CONTINUOUS EDGE REINFORCEMENT THAT CAN NOT DEVELOP INTO ADJACENT SLAB.



10 TYPICAL SLAB-ON-GRADE DEPRESSIONS
NO SCALE

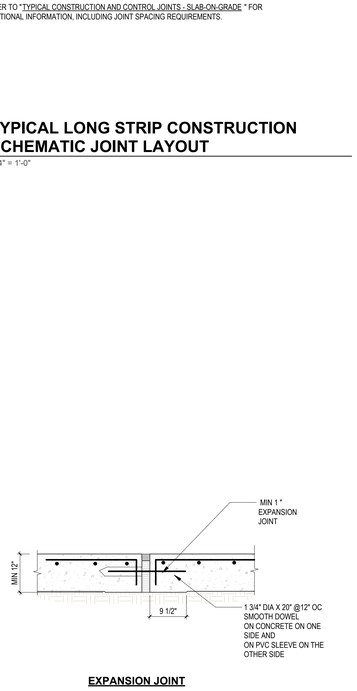


11 TYPICAL EXTERIOR SLAB-ON-GRADE TURNDOWN
NO SCALE

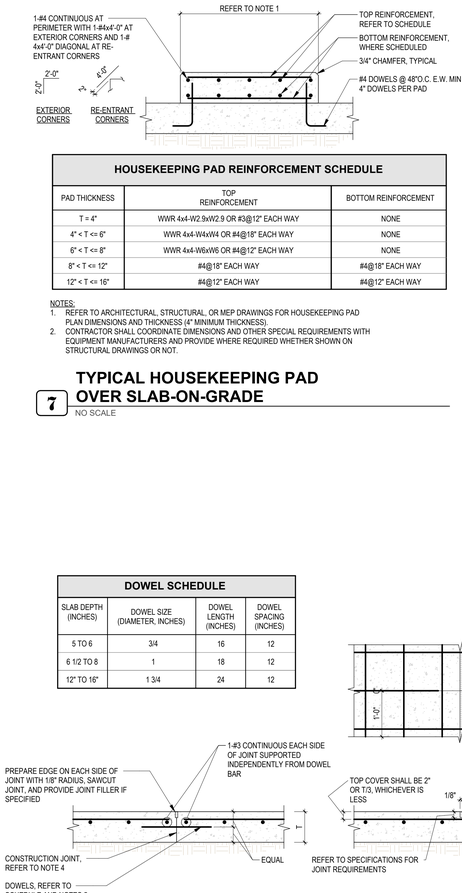


NOTES:
1. REFER TO "TYPICAL CONSTRUCTION AND CONTROL JOINTS - SLAB-ON-GRADE " FOR ADDITIONAL INFORMATION, INCLUDING JOINT SPACING REQUIREMENTS.

9 TYPICAL CONSTRUCTION AND CONTROL JOINTS - SLAB-ON-GRADE - LIGHT TRAFFIC
NO SCALE



EXPANSION JOINT

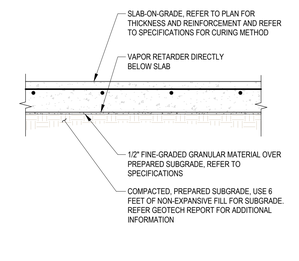


HOUSEKEEPING PAD REINFORCEMENT SCHEDULE

PAD THICKNESS	TOP REINFORCEMENT	BOTTOM REINFORCEMENT
T = 4"	WWR 4x4-W2.9xW2.9 OR #3@12" EACH WAY	NONE
4" < T <= 6"	WWR 4x4-W4xW4 OR #4@18" EACH WAY	NONE
6" < T <= 8"	WWR 4x4-W6xW6 OR #4@12" EACH WAY	NONE
8" < T <= 12"	#4@18" EACH WAY	#4@18" EACH WAY
12" < T <= 16"	#4@12" EACH WAY	#4@12" EACH WAY

NOTES:
1. REFER TO ARCHITECTURAL, STRUCTURAL, OR MEP DRAWINGS FOR HOUSEKEEPING PAD PLAN DIMENSIONS AND THICKNESS (4" MINIMUM THICKNESS).
2. CONTRACTOR SHALL COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT.

7 TYPICAL HOUSEKEEPING PAD OVER SLAB-ON-GRADE
NO SCALE



6 TYPICAL SLAB-ON-GRADE SUBGRADE PREPARATION
NO SCALE

DOWEL SCHEDULE

SLAB DEPTH (INCHES)	DOWEL SIZE (DIAMETER, INCHES)	DOWEL LENGTH (INCHES)	DOWEL SPACING (INCHES)
5 TO 6	3/4	16	12
6 1/2 TO 8	1	18	12
12" TO 16"	1 3/4	24	12

CONSTRUCTION JOINT **CONTRACTION (CONTROL) JOINT**

NOTES:
1. REFER TO PLAN FOR SLAB THICKNESS (T) AND REINFORCEMENT.
2. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
3. LONG STRIP CONSTRUCTION METHOD SHALL BE USED IN PLACING CONCRETE FOR ALL SLABS-ON-GRADE UNLESS NOTED OTHERWISE. REFER TO " TYPICAL LONG STRIP CONSTRUCTION SCHEMATIC JOINT LAYOUT " FOR COMPLETE PLACING SEQUENCE. AT CONTRACTOR'S OPTION, LARGER SLAB AREAS MAY BE POURED PROVIDED THE EARLY-ENTRY DRY-CUT METHOD OF INSTALLING CONTRACTION JOINTS IS USED. REFER TO SPECIFICATIONS.
4. AT CONSTRUCTION JOINTS, BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDES OF JOINT WITH A CURING COMPOUND, BONDBREAKER, OR FORM OIL.
5. DOWELS SHOULD BE SMOOTH, ALIGNED, AND SUPPORTED SO THEY WILL REMAIN PARALLEL IN BOTH THE HORIZONTAL AND VERTICAL PLANES.
6. TO PREVENT A BOND BETWEEN THE DOWEL AND THE CONCRETE, LIGHTLY COAT THE EXPOSED END OF THE DOWELS WITH A PARAFFIN-BASED LUBRICANT, ASPHALT EMULSION, FORM OIL, OR GREASE IMMEDIATELY BEFORE PLACING CONCRETE ON THE SECOND SIDE OF THE JOINT. ALTERNATIVELY, USE A PLASTIC OR METAL SLEEVE SPECIFICALLY MANUFACTURED FOR THIS PURPOSE. REFER TO SPECIFICATIONS.
7. AT CONTRACTION (CONTROL) JOINTS, MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB.
8. PROVIDE CONTRACTION OR CONSTRUCTION JOINTS AT EVERY COLUMN LINE AND IN BETWEEN THE COLUMN LINES SUCH THAT THE JOINT SPACING DOES NOT EXCEED 36 TIMES THE SLAB THICKNESS NOR 20 FEET, WHICHEVER IS LESS.

8 TYPICAL LONG STRIP CONSTRUCTION SCHEMATIC JOINT LAYOUT
3/4" = 1'-0"

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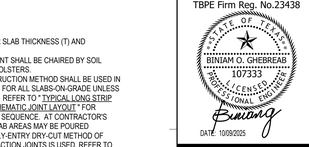

PROJECT NO. 25-005
DATE: 10/02/2025
DRAWN BY: HG CHECKED BY: BM
REVISIONS:

No.	Date	Description

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S3.01-K
TYPICAL FOUNDATION DETAILS - SLAB-ON-GRADE

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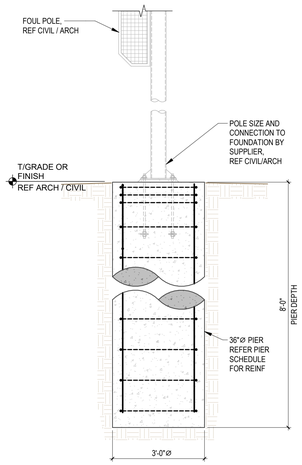
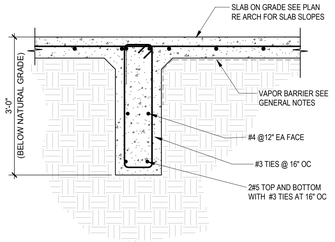
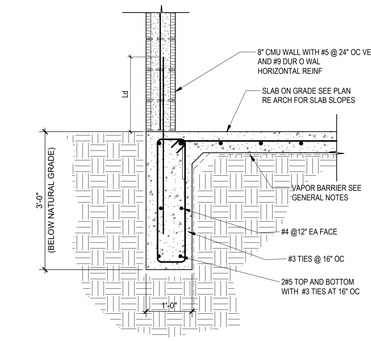


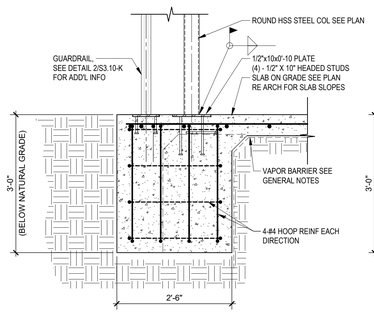
12 TYPICAL FOUL POLE FOUNDATION
1/2" = 1'-0"



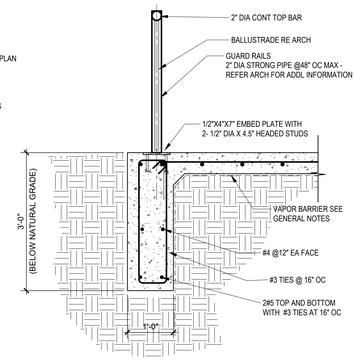
5 SECTION
3/4" = 1'-0"



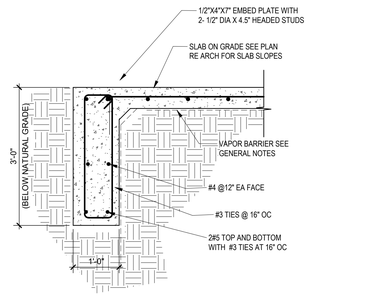
4 SECTION
3/4" = 1'-0"



3 SECTION
3/4" = 1'-0"



2 SECTION
3/4" = 1'-0"



1 SECTION
3/4" = 1'-0"

16 TYPICAL BACKSTOP WALL & FOUNDAITON
1" = 1'-0"

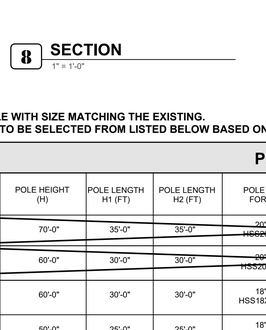
11 TYPICAL AT CHAINLINK POST OR SCREEEN WALL
1/2" = 1'-0"

DRILLED PIER SCHEDULE		
SHAFT DIA	VERTICAL REINF	TIES
18"Ø	(5)#6	#3@12" O.C.
24"Ø	(6)#6	#3@12" O.C.
30"Ø	(6)#7	#3@12" O.C.
36"Ø	(10)#7	#3@14" O.C.
42/48"Ø	(12)#7	#3@16" O.C.

NOTE

NOTIFY STRUCTURAL ENGINEER 24 HOURS PRIOR TO DRILLING & POURING FOOTINGS.

10 DRILLED PIER REINF SCHEDULE
NTS



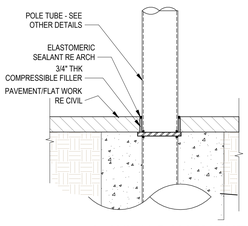
9 SECTION
1" = 1'-0"

8 SECTION
1" = 1'-0"

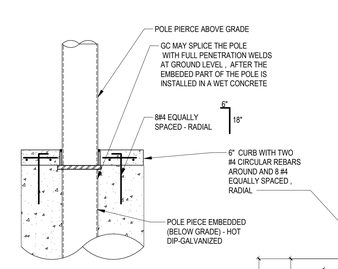
7A

7 SECTION
1" = 1'-0"

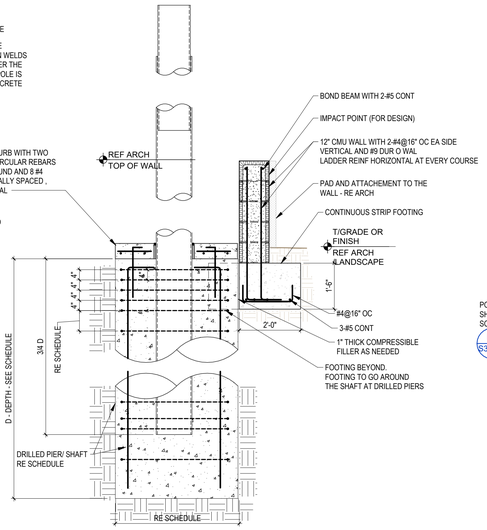
6 SECTION
1" = 1'-0"



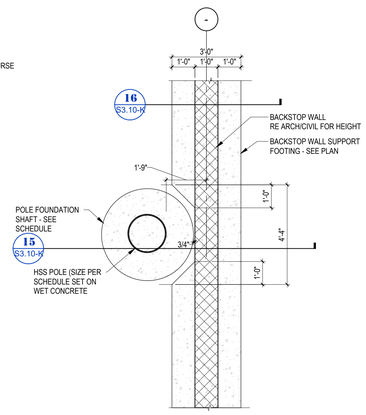
A- WITH PAVEMENT /FLATWORK



B- WITH CONC CAP



15 POLE/BACKSTOP FOUNDATION SECTION
1/2" = 1'-0"

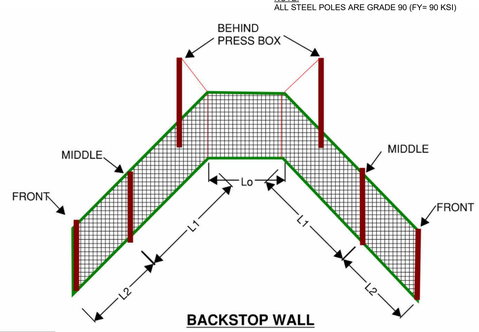


14 POLE & WALL FOUNDATION PLAN
3/8" = 1'-0"

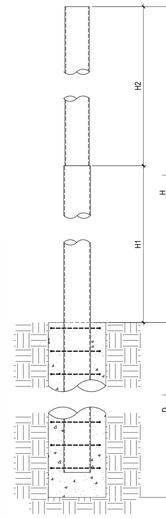
ADD NEW POLE WITH SIZE MATCHING THE EXISTING.
FOUNDATION TO BE SELECTED FROM LISTED BELOW BASED ON HEIGHT OF THE EXISTING POLE

POLE AND PIER SCHEDULE									
POLE NAME/LOCATION	POLE HEIGHT (H)	POLE LENGTH H1 (FT)	POLE LENGTH H2 (FT)	POLE SIZE FOR H1	POLE SIZE FOR H2	DRILLED PIER SHAFT DIAMETER	PIER DEPTH BELOW GRADE	VERTICAL REINF	TIES	LOCATION
~~POLE-70 BEHIND PRESS BOX~~	~~70'-0"~~	~~35'-0"~~	~~35'-0"~~	~~20"Ø HSS20X0.5~~	~~20"Ø HSS20X0.375~~	~~48"Ø~~	~~24'-0"~~	~~REF PIER SCHEDULE~~	~~REF PIER SCHEDULE~~	~~@ BASE BALL (2 POLES BEHIND PRESS BOX) - TYP @60 FT TALL NETTING~~
~~POLE-60 MIDDLE~~	~~60'-0"~~	~~30'-0"~~	~~30'-0"~~	~~20"Ø HSS20X0.5~~	~~20"Ø HSS20X0.375~~	~~48"Ø~~	~~24'-0"~~	~~REF PIER SCHEDULE~~	~~REF PIER SCHEDULE~~	~~@ BASE BALL (4 POLES AT FRONT TYP @60 FT TALL NETTING~~
POLE-60 FRONT	60'-0"	30'-0"	30'-0"	18"Ø HSS18X0.375	16"Ø HSS16X0.375	36"Ø	18'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @60 FT TALL NETTING
POLE-50 BEHIND PRESS BOX	50'-0"	25'-0"	25'-0"	18"Ø HSS18X0.375	16"Ø HSS16X0.375	36"Ø	15'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ SOFT BALL (2 POLES BEHIND PRESS BOX) - TYP @40 FT TALL NETTING
POLE-40 MIDDLE	40'-0"	20'-0"	20'-0"	14"Ø HSS14X0.375	14"Ø HSS14X0.375	36"Ø	16'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (2 POLES AT MIDDLE TYP @40 FT TALL NETTING
POLE-40 FRONT	40'-0"	20'-0"	20'-0"	14"Ø HSS14X0.312	14"Ø HSS14X0.312	30"Ø	13'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @40 FT TALL NETTING

NOTE:
ALL STEEL POLES ARE GRADE 90 (FY= 90 KSI)



BACKSTOP WALL



13 SCHEDULE
3/8" = 1'-0"

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BINIAM O. GHEBREAB
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DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/02/2025
DRAWN BY: HG CHECKED BY: BM
REVISIONS:

No.	Date	Description

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S3.10-K
FOUNDATION AND ROOF DETAILS

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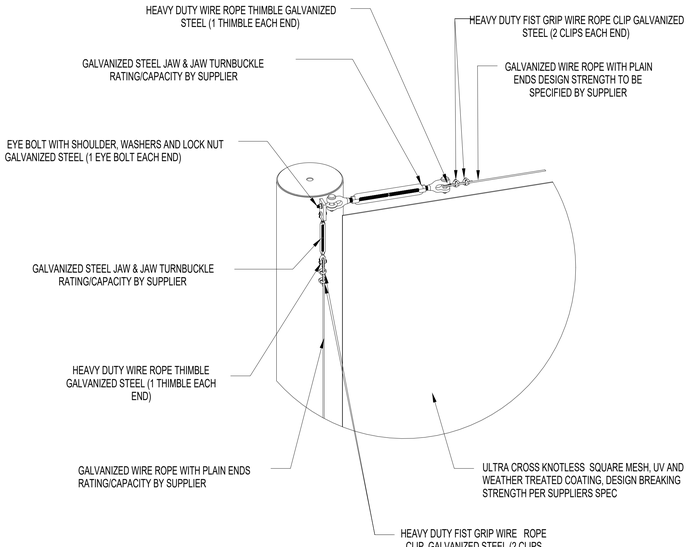
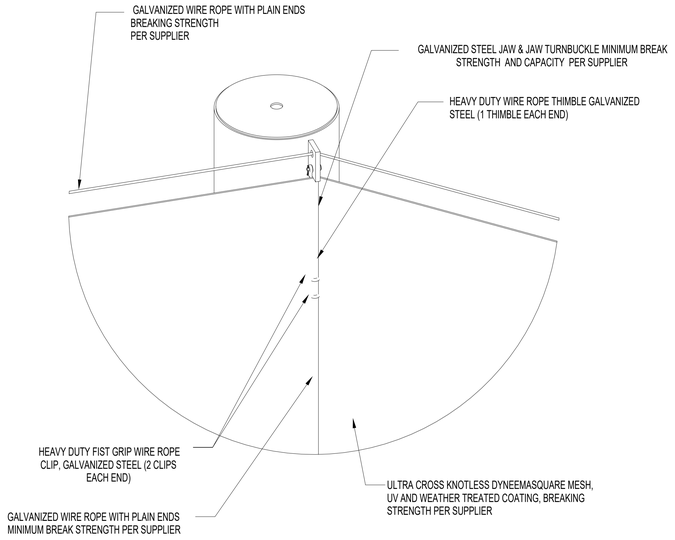
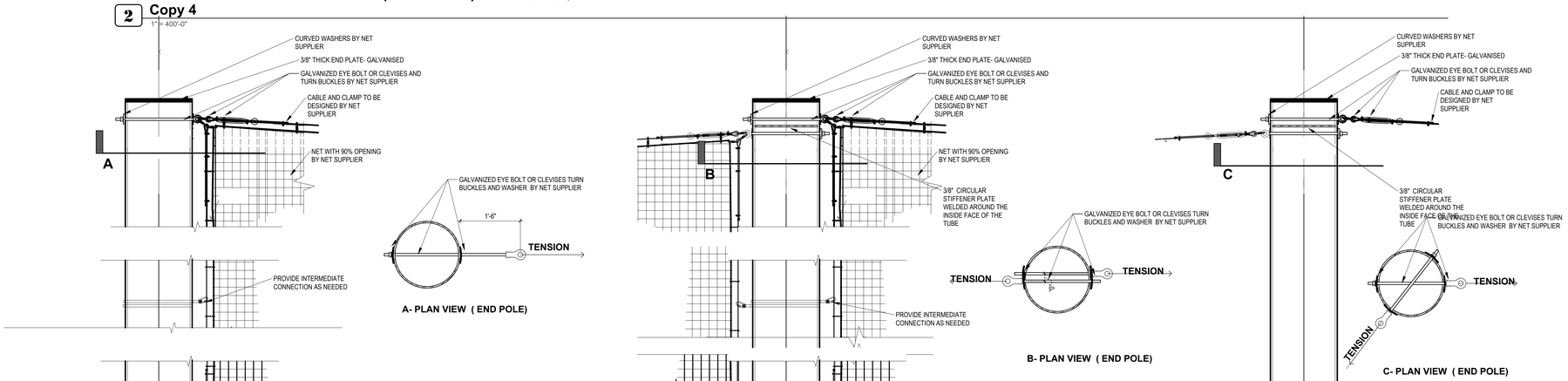




NETTING CONNECTION DETAILS (SCHEMATIC) - OPTION 2 PER SUPPLIERS DETAILS A

2 Copy 4

1" = 400'-0"



NOTE

1- NET SUPPLIER SHALL SPECIFY AND DESIGN THE NET AND CONNECTION ELEMENTS TO THE STRUCTURE.

2 - REFER TO GENERAL NOTES FOR WIND LOAD CRITERIA THE WEIGHT OF THE NET TO COME UP WITH 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 NETTING POLE AND CONNECTION SCHEMATIC DETAILS - OPTION 1) Copy 4

3/4" = 1'-0"

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STATE OF TEXAS
BINIAM O. GHEBREAB
107333
LICENSED PROFESSIONAL ENGINEER
DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/02/2025
DRAWN BY: HG CHECKED BY: BM
REVISIONS:
No. Date Description

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S3.11-K
FOUNDATION AND SITE DETAILS

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1. PROVIDE TEMPORARY SHORING WHILE PACING ALL OPENING LINTEL FRAMES AND BRICK ASSEMBLY.

2. PROVIDE HORIZONTAL REINFORCEMENT IN BE JOINTS EVERY AT 12" MAX. REINFORCEMENT SHALL BE LADDER TYPE WITH SIDE RAILS FABRICATED FROM HIGH-STRENGTH, COLD-DRAWN WIRE CONFORMING TO ASTM A82. TRUSSES SHALL BE GALVANIZED AFTER FABRICATION.

3. MASONRY WALLS SHALL BE BRACED EITHER BY INTERSECTING WALLS OR BY ANCHORS TO THE STRUCTURE ABOVE. REFER TO DETAILS FOR BRACING REQUIREMENTS FOR INTERIOR MASONRY WHERE THE INTEGRAL INTERSECTING SUPPORT WALLS AT EACH END OF THE WALL EXCEED A SPACING OF 36 TIMES THE NOMINAL WALL THICKNESS FOR INTERIOR WALLS AND 18 TIMES THE NOMINAL WALL THICKNESS FOR EXTERIOR WALLS (IF ANY).

4. GROUT LIFT LIMITS:

   GROUT POURS SHALL NOT EXCEED 5 FEET PER LIFT, UNLESS CLEANOUTS ARE PROVIDED IN THE BOTTOM COURSE OF EACH 5 FOOT LIFT.
   MECHANICALLY VIBRATE ALL LIFTS IN EXCESS OF 1 FOOT.
   GROUT LIFTS SHALL NOT BE STOPPED WITHIN 1 1/2" OF BED JOINT.

5. GROUT POURS SHALL NOT EXCEED 24 FEET WHEN GROUTING THE CELLS OF HOLLOW MASONRY. WHEN GROUTING THE SPACE BETWEEN MULTI-WYTHE WALLS, THE TOTAL POUR SHALL NOT EXCEED 24 FEET FOR 3" SPACES, 12 FEET FOR 2 1/2" SPACES, AND 5 FEET FOR 1 3/4" SPACES. ALL GROUT MUST BE PLACED WITHIN 1 1/2 HOURS FROM INTRODUCING WATER INTO THE MIXTURE.

6. ALL WALLS LOCATED ADJACENT TO EARTH FILL MUST BE FULLY GROUTED DIRECTLY ADJACENT TO, AND A LEAST 8" ABOVE, ALL SOIL IN CONTACT WITH THE WALL.

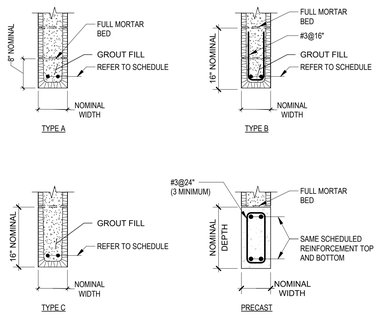
4 TYPICAL CMU REINFORCEMENT & PLACEMENT NOTES

1" = 1'-0"

INTERIOR NON-LOADBEARING CMU LINTELS

CLEAR SPAN	REINFORCING REQUIREMENTS IN NOMINAL LINTEL SECTION								
	4x8	6x8	6x16	8x8	8x16	10x8	10x16	12x8	12x16
3'-4"	1-#3	1-#3	UR	2-#3	2-#3	2-#3	UR	2-#3	UR
4'-0"	1-#3	1-#3	UR	2-#3	2-#3	2-#3	UR	2-#3	UR
4'-8"	1-#4	1-#4	UR	2-#3	2-#3	2-#3	UR	2-#4	UR
5'-4"	1-#4	2-#3	UR	2-#4	2-#4	2-#4	2-#3	2-#4	UR
6'-0"	1-#4	2-#4	1-#4	2-#4	2-#4	2-#5	2-#3	2-#5	2-#4
6'-8"	1-#5	2-#4	1-#4	2-#5	2-#4	2-#5	2-#4	2-#5	2-#4
7'-4"	NA	NA	1-#5	2-#5	2-#4	NA	2-#4	2-#6	2-#4
8'-0"	NA	NA	1-#5	NA	2-#4	NA	2-#4	NA	2-#5
8'-8"	NA	NA	1-#6	NA	2-#4	NA	2-#5	NA	2-#5
9'-4"	NA	NA	1-#6	NA	2-#5	NA	2-#5	NA	2-#6
10'-0"	NA	NA	1-#7	NA	2-#5	NA	2-#6	NA	2-#6

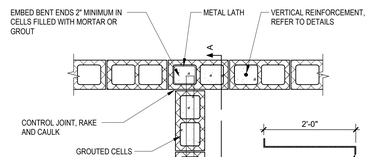
NOTES:
1. DEFINITIONS: UR = UNREINFORCED WALL (NO VERTICAL REINFORCEMENT IS REQUIRED, EXCEPT AS DETAILED ON DRAWINGS AT OPENINGS, ETC.)
   NA = NOT APPLICABLE, THICKER WALL REQUIRED FOR SPAN
2. REFER TO ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
3. PROVIDE 1" OF BEARING AT EACH JAMB FOR EACH FOOT OF CLEAR SPAN BUT NOT LESS THAN 7 5/8". REINFORCEMENT SHALL PROJECT A MINIMUM OF 6" ONTO THE BEARING.
4. MINIMUM MASONRY COMPRESSIVE STRENGTH OF GROUTED PRISM f'm=2000 PSI.
5. LINTELS SCHEDULED AS 16" HIGH MAY BE EITHER TYPE B OR TYPE C AS DETAILED BELOW.
6. PRECAST CONCRETE LINTELS AS SHOWN MAY BE USED WITH ARCHITECT APPROVAL. MINIMUM f'c=3000 PSI.
7. USE FOR RUNNING BOND ONLY.



EXTERIOR NON-LOADBEARING CMU WALL REINFORCEMENT

3 CMU LINTEL WALL SCHEDULE

3/4" = 1'-0"



2 ALTERNATE TYPICAL BRICK WALL INTERSECTION DETAIL

NO SCALE

TYPICAL WALL REINFORCING		JAMB REINFORCING AT OPENING (EACH SIDE)			
WALL HEIGHT	TYPICAL VERTICAL REINFORCING	OPENING SIZE			
		<8'-0"	10'-0"	12'-0"	14'-0"
<8'	REF PLAN OR DETAILS	2-#4	2-#4	2-#4	2-#5
10'		2-#4	2-#5	2-#5	2-#5
12'		2-#5	2-#5	2-#6	2-#6
15'		2-#6	2-#7	2-#7	4-#5
17'		2-#7	2-#8	4-#5	4-#7
18'		2-#8	4-#5	6-#5	6-#7
20'		N/A	N/A	N/A	N/A
22'		N/A	N/A	N/A	N/A

SILL REINFORCING				
SILL OPENING	<8'-0"	10'-0"	12'-0"	14'-0"
REINFORCING	2-#4	2-#5	2-#5	4-#5

1 JAMB REINFORCEMENT

12" = 1'-0"

CMU WALL, PILASTER, AND COLUMN VERTICAL BAR TENSION DEVELOPMENT AND LAP SPLICE LENGTHS

GRADE 60 REINFORCEMENT, STANDARD BLOCK (f'm = 1500 PSI)

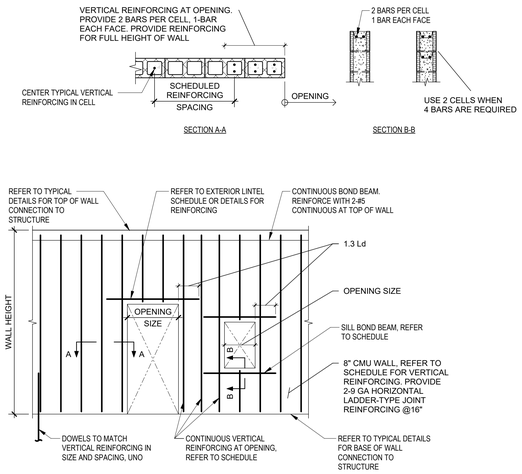
BAR SIZE	4" BRICK	6" CMU		8" CMU		10" CMU		12" CMU	
	1 BAR/ CELL	1 BAR/ CELL	2 BARS/ CELL	1 BAR/ CELL	2 BARS/ CELL	1 BAR/ CELL	2 BARS/ CELL	1 BAR/ CELL	2 BARS/ CELL
#3	19	16	19	16	17	16	17	16	17
#4	34	25	34	21	29	21	29	21	29
#5	NP	40	45	27	45	26	45	26	45
#6	NP	NP	NP	51	54	40	54	40	54
#7	NP	NP	NP	63	63	52	63	46	63
#8	NP	NP	NP	72	NP	72	72	63	72
#9	NP	NP	NP	NP	NP	NP	NP	81	81
#10	NP	NP	NP	NP	NP	NP	NP	NP	NP
#11	NP	NP	NP	NP	NP	NP	NP	NP	NP

NP = NOT PERMITTED

NOTES:
1. ALL DEVELOPMENT AND LAP SPLICE LENGTHS ARE IN INCHES.
2. THIS TABLE SHALL BE USED FOR ALL REINFORCED CMU WALLS, PILASTERS, AND COLUMNS UNLESS NOTED OTHERWISE IN DETAILS.
3. INCREASE TABULATED VALUES BY 50% FOR EPOXY COATED REINFORCEMENT.
4. WITH APPROVAL BY THE ENGINEER, WELDED SPLICES AND MECHANICAL SPLICES DEVELOPING AT LEAST 125% OF THE YIELD STRENGTH, Fy, OF THE BAR MAY BE SUBSTITUTED IN SOME LOCATIONS.
5. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR.
6. REFER TO "TYPICAL CMU VERTICAL BAR PLACEMENT" FOR BAR POSITIONING IN CELLS.

7 TYPICAL BRICK VERTICAL BAR TENSION DEVELOPMENT AND LAP SPLICE LENGTHS

NO SCALE



NOTES:
1. REFER TO PLAN AND DETAILS FOR REINFORCING IN WALLS TALLER THAN 18'-0".
2. GROUT REINFORCED CELLS WITH 2000 PSI GROUT.
3. "Ld" DENOTES DEVELOPMENT LENGTH OF BAR AS PER DETAIL 8S-6000

6 TYPICAL DETAIL OPENINGS AT EXTERIOR MASONRY WALLS

1/2" = 1'-0"

NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL CONTROL JOINTS. IF LOCATIONS ARE NOT SHOWN, CONTRACTOR SHALL SUBMIT PROPOSED LAYOUT FOR A/E APPROVAL. PLACE JOINTS IN ACCORDANCE WITH THE FOLLOWING GUIDELINES:
   A. MAXIMUM SPACING: 20 FEET
   B. MAXIMUM LENGTH/HEIGHT RATIO: 2 TO 1
   C. AT ALL CHANGES IN WALL HEIGHT GREATER THAN 4'-0"
   D. CHANGES IN WALL THICKNESS
   E. NEAR WALL INTERSECTIONS
   F. AT CORRESPONDING CONSTRUCTION JOINTS IN FOUNDATIONS, FLOOR, OR ROOF CONSTRUCTION
2. COORDINATE WATERPROOFING AND REQUIRED FIRE RATING OF CONTROL JOINTS WITH ARCHITECT.
3. STOP HORIZONTAL JOINT REINFORCEMENT 2" EACH SIDE OF JOINT. SEE DETAILS A-A FOR HORIZONTAL REINFORCEMENT AT TIE BEAMS AND BOND BEAMS.
4. USE HALF BLOCKS AT ALTERNATE COURSES SO JOINTS ARE CONSISTENT THROUGH WALLS.
5. FOUR OPTIONS ARE SHOWN FOR DETAIL B-B. ALTERNATE USED IS AT CONTRACTOR'S OPTION BUT SUBJECT TO APPROVAL BY ARCHITECT.
6. PROVIDE REINFORCED VERTICAL CELL EACH SIDE OF JOINT AS SHOWN. REINFORCEMENT TO MATCH OTHER WALL REINFORCEMENT.

5 TYPICAL VERTICAL CONTROL JOINTS IN MASONRY WALLS

NO SCALE

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STATE OF TEXAS
BINYAM D. GHEBREAB
107333
LICENSED PROFESSIONAL ENGINEER
DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/02/2025
DRAWN BY: HG CHECKED BY: BM
REVISIONS:
No.	Date	Description

100% CD

S5.00-K
MASONRY TYPICAL DETAILS

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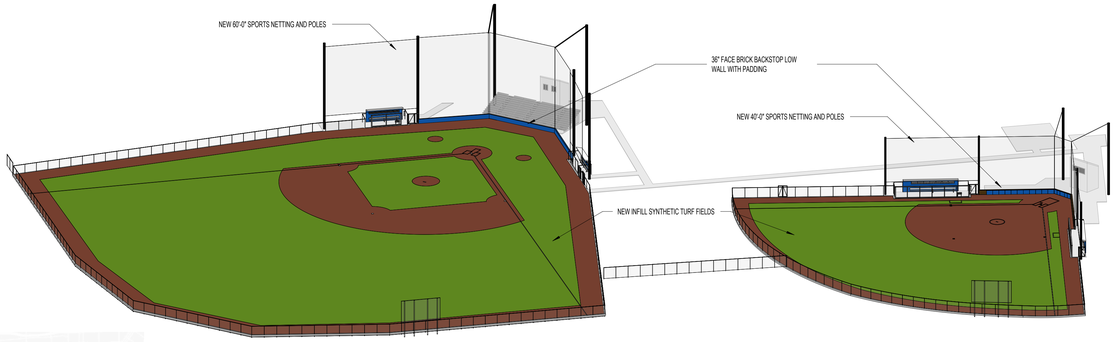
WILLOWRIDGE HIGH SCHOOL

SCHOOL LOGOS

3D VIEW



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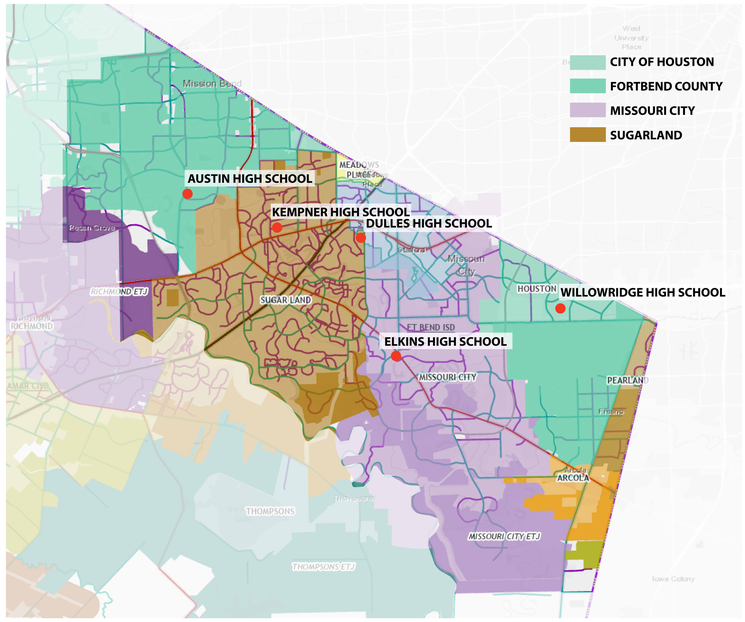
LOCATION MAPS



SCOPE OF WORK

SID 10504
REPLACE NATURAL GRASS BASEBALL AND SOFTBALL FIELDS WITH SYNTHETIC TURF

SID 10509
RENOVATE BASEBALL AND SOFTBALL BACKSTOPS, DUGOUTS, AND NETTING

SCHOOL ADDRESS

Willowridge HS, 16301 Chimney Rock Rd, Houston, TX 77053

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S3.11-W	FOUNDATION AND SITE DETAILS

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: MS CHECKED BY: PA
REVISIONS:

	Date	Description

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G0.00-W
COVER

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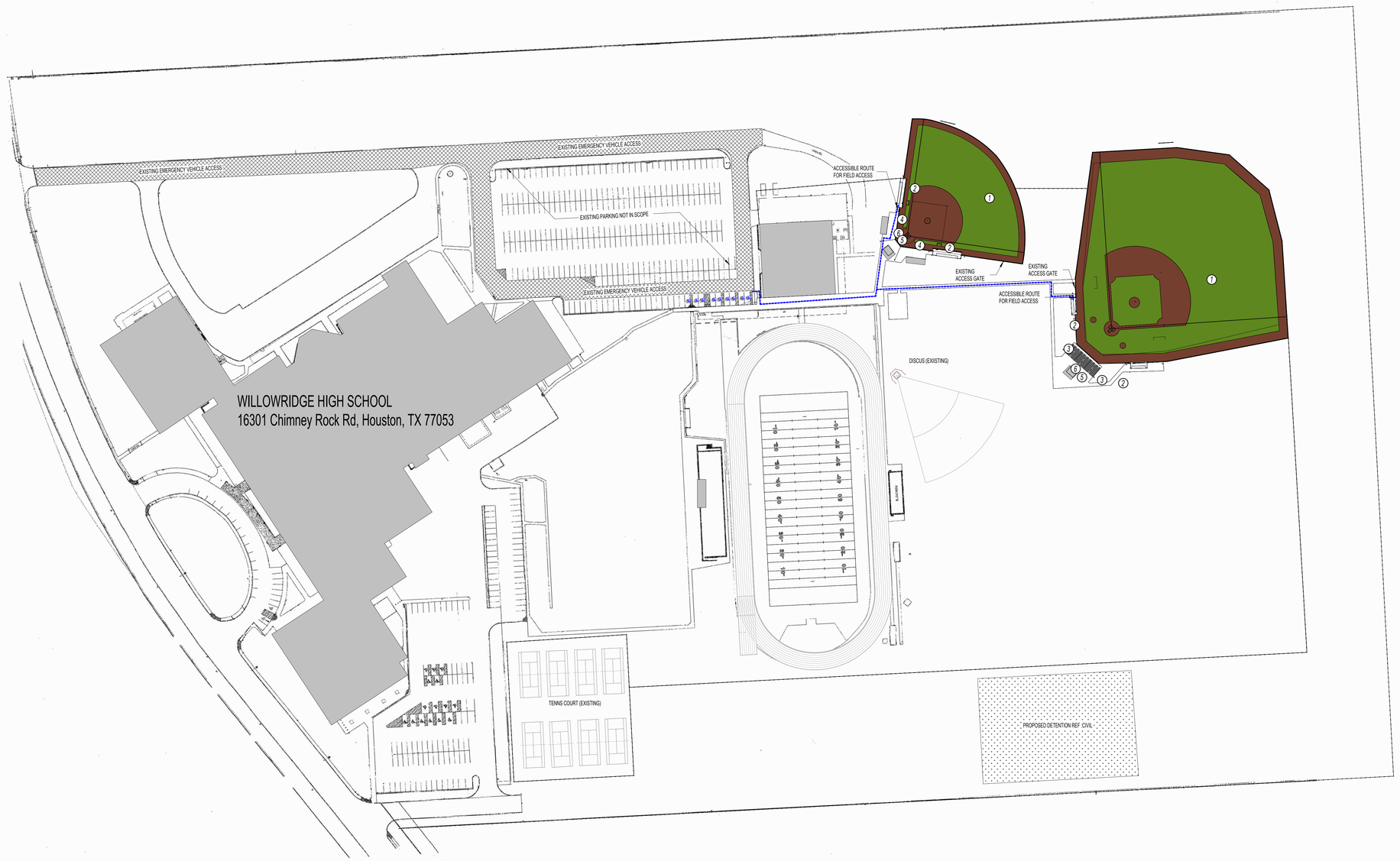
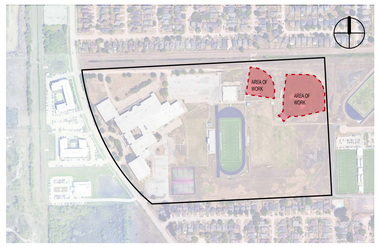


CODE PLAN - W
SCALE: 1" = 80'-0" 1



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

GENERAL NOTES

1. ALL EXITS SHALL COMPLY WITH ACCESSIBLE STANDARDS AND DISCHARGE TO A PAVED PUBLIC WAY, OR A PAVED SIDEWALK WHICH LEADS TO A PUBLIC WAY.
2. BUILDING WILL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY FIRE CODE AND REFERENCED DOCUMENTS.
3. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, IN COMPLIANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION (AHJ). COORDINATE WITH LOCAL FIRE DEPARTMENT FOR APPROVED LOCK TYPE AND INSTALLATION LOCATION.

APPLICABLE CODES

2021 IBC INTERNATIONAL BUILDING CODE
2021 IMC INTERNATIONAL MECHANICAL CODE
2021 IPC INTERNATIONAL PLUMBING CODE
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 101 LIFE SAFETY CODE (CHAPTER 43 - 2006 NFPA 101)
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 170 STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS
2021 NFPA (NATIONAL FIRE PROTECTION AGENCY) 70 NATIONAL ELECTRICAL CODE
2021 ASHRAE STANDARD 90.1 - ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS
TAS TEXAS ACCESSIBILITY STANDARDS (ADOPTED MARCH 2012)
2023 NATIONAL ELECTRICAL CODE

LEGEND

- 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
- FEC — FIRE EXTINGUISHER CABINET & FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER - SURFACE MOUNTED
- EXISTING EMERGENCY ACCESS PATH UNPAVED
- EXISTING EMERGENCY ACCESS PATH PAVED
- EXISTING ACCESSIBLE ROUTE

CODE REVIEW: IBC 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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20113
STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: CKP CHECKED BY: CHK
REVISIONS:

Date	Description

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CODE PLAN

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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.

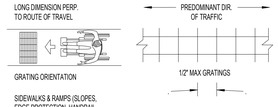
TABLE 221.2.1 NUMBER OF WHEELCHAIR SPACES IN ASSEMBLY AREAS

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

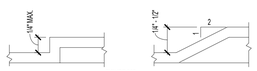


FIGURE 303

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)

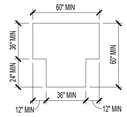


FIGURE 304.3.2 T-SHAPED TURNING SPACE

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

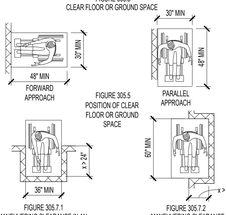


FIGURE 306.1 MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH
FIGURE 305.2 MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

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 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.

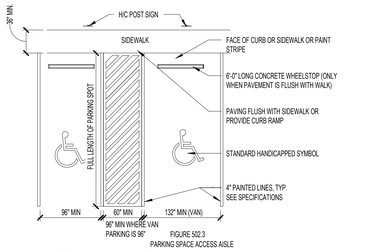
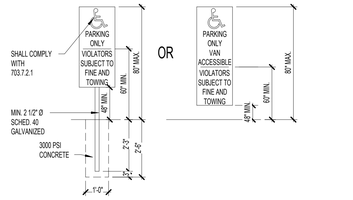


FIGURE 502.3
PARKING SPACE ACCESS AISLE

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.

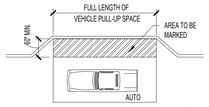
(B) A PARKING SPACE IDENTIFICATION SIGN THAT COMPLIES WITH TEXAS ACCESSIBILITY STANDARDS, 502.6, THAT INCLUDES THE REQUIREMENTS IN SUBSECTION (A)(3)(A) SATISFIES SUBSECTION (A)(3).



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.

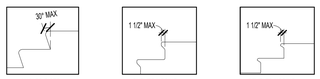


FIGURE 504.5
STAIR NOSINGS

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.

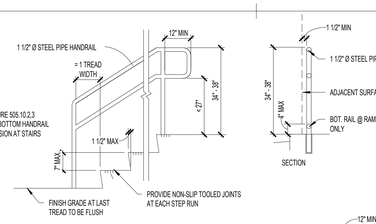


FIGURE 505.10.2,3
TOP AND BOTTOM HANDRAIL EXTENSION AT STAIRS

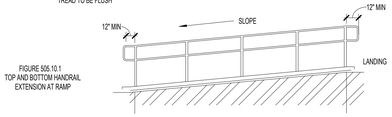


FIGURE 505.10.1
TOP AND BOTTOM HANDRAIL EXTENSION AT RAMP

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)

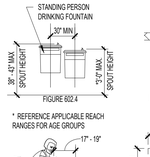
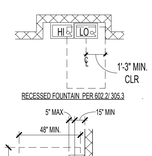


FIGURE 602.4



RECESSED FOUNTAIN, PER 602.2; 305.3

* REFERENCE APPLICABLE REACH RANGES FOR AGE GROUPS

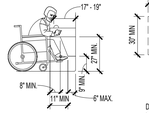




FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION

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

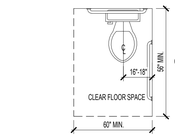


FIGURE 604.3.1
CLEAR FLOOR SPACE AT WATER CLOSETS

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.

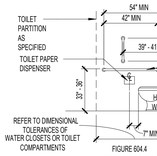


FIGURE 604.4
SIDE WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

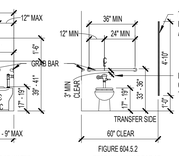


FIGURE 604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS/TOILET COMPARTMENTS

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

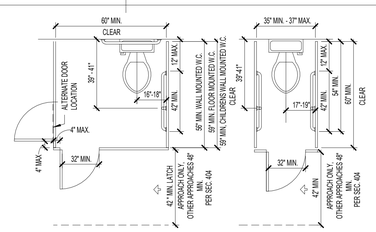


FIGURE 604.8.2
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

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.

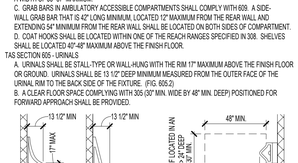
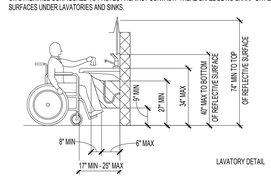
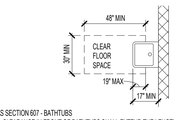


FIGURE 605.2
HEIGHT AND DEPTH OF URINALS

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.

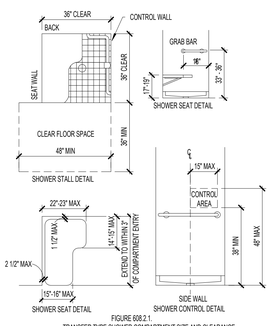


FIGURE 608.2.1.
TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE

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. 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 B

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:

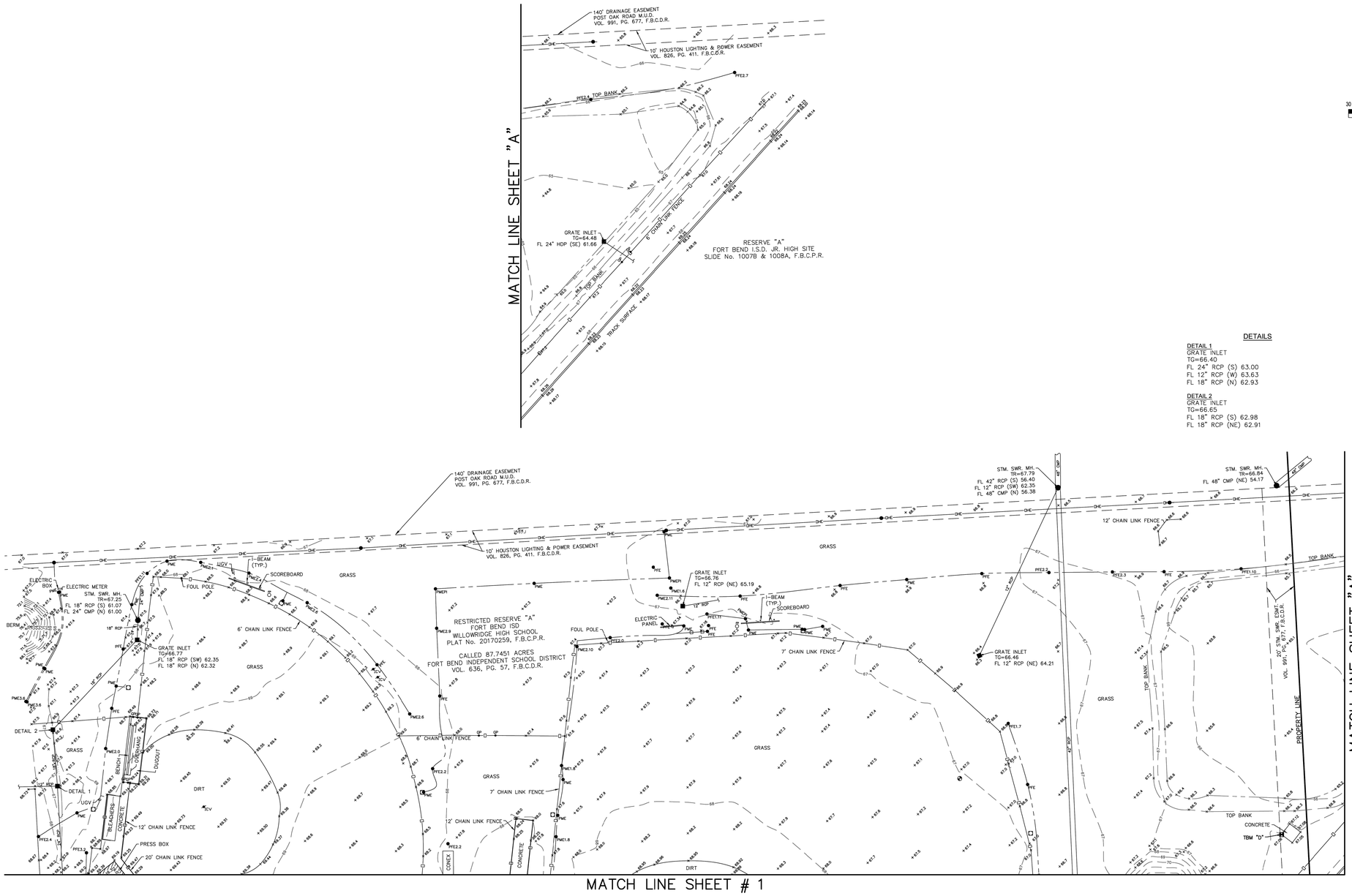
1. ALL SEWERS SHALL BE TESTED FOR EXCESS DEFLECTION IN PIPE CROSS SECTION, FOR LATERAL AND VERTICAL PIPE OBSTRUCTION, AND FOR JOINT OFFSETS, BY PULLING A MANDREL THROUGH THE PIPE BY HAND. THE MANDREL SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE CONDUCTED AFTER 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 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:

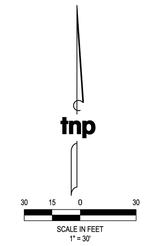
   T = 0.0850(D)(K)/(Q) WHERE T = TIME FOR PRESSURE TO DROP 1.0 POUNDS PER SQUARE INCH GAUGE IN SECONDS
   K = 0.000419(D)(L), BUT NOT LESS THAN 1.0
   D = AVERAGE INSIDE DIAMETER IN INCHES
   L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET
   Q = RATE OF LOSS, ASSUME 0.0015 CU FT/MIN/SQ FT INTERNAL SURFACE

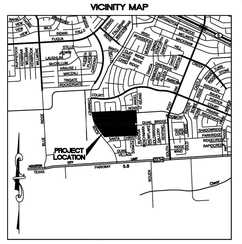
10. SDR-26 PVC PIPE TO USE "FULL BODIED" SDR-26 FITTINGS.
11. ALL PVC PIPE TO HAVE CELL CLASS 12454 A OR B AS PER ASTM D1784.
12. NO MORE THAN 2 HOURS SHALL ELAPSE BETWEEN MIXING AND PLACEMENT OF CEMENT STABILIZED SAND.
13. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% SPD, ±2% OF OPTIMUM MOISTURE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







LEGEND

BENCHMARK		IRRIGATION CONTROL VALVE	
BOLLARD		LIGHT STANDARD	
BORE HOLE		MANHOLE	
CLEANOUT		PAINT MARKER (ELECTRIC)	
DOWN SPOUT	D.S.	PEDESTAL	
ELECTRIC JUNCTION BOX		PIN FLAG COMMUNICATION	
FLAG POLE		PIN FLAG ELECTRIC	
GATE POST		POWER POLE	
INLET		SIGN	
		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.

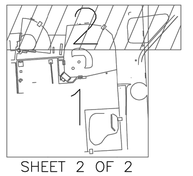
7. THE SUBJECT TRACT IS AFFECTED BY THE CITY OF HOUSTON ORDINANCE No. 85-1878, AMENDED BY ORDINANCE No. 1999-262.

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

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. FBI23515
Date: December 6, 2023
Drawn By: DB
Checked By: JDW
Scale: 1"=30'
Sheet: 2 of 2

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

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TSCE PROJECT # 2507

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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

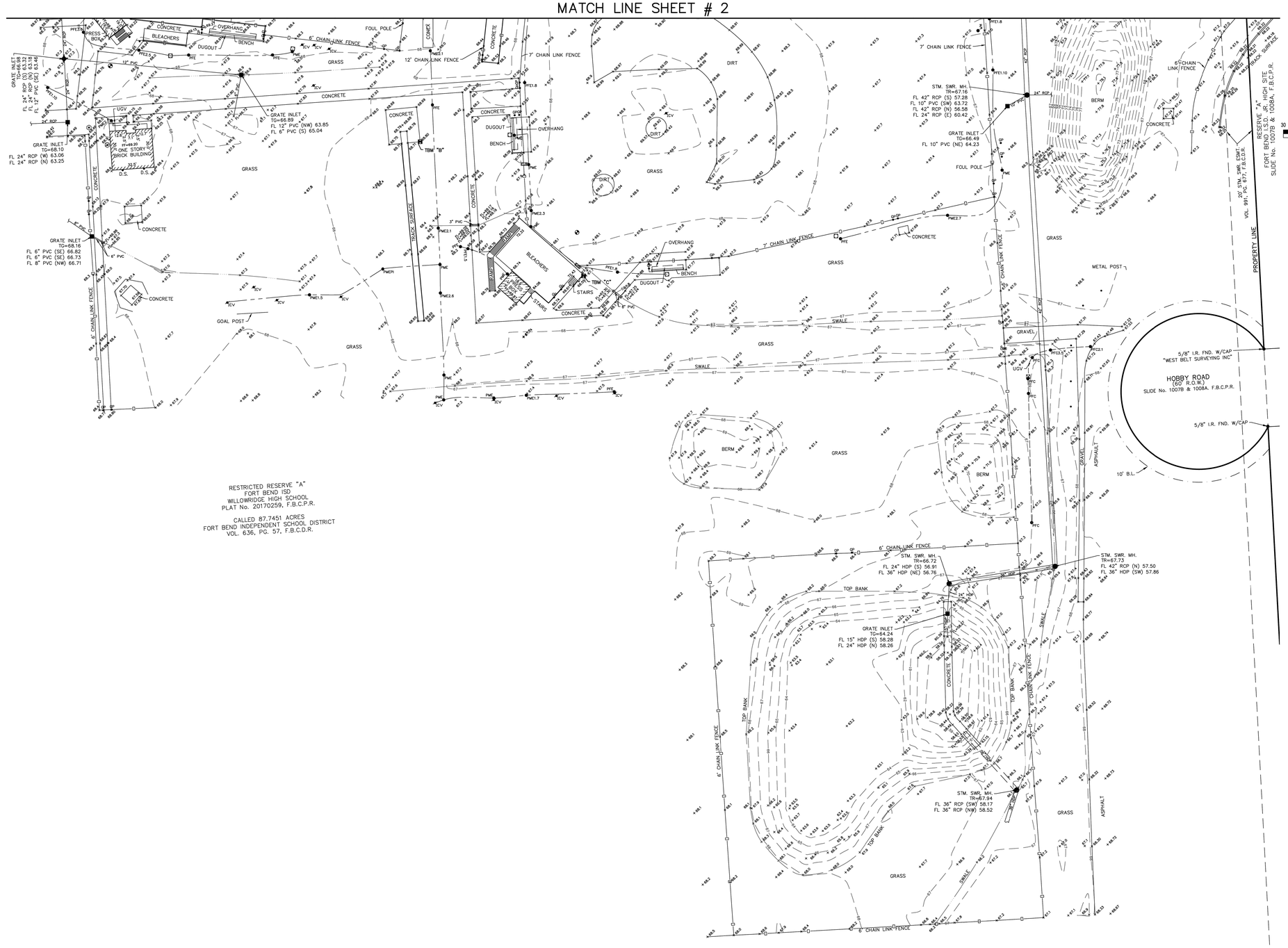
THIS SURVEY IS PROVIDED FOR REFERENCE ONLY. ALL SURVEY INFORMATION INCLUDING BUT NOT LIMITED TO PHYSICAL CHARACTERISTICS, LEGAL LIMITS, UTILITY LOCATIONS AND BENCHMARKS FOR THE PROJECT WAS PROVIDED BY THE OWNER. THE ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY AND EXTENT OF ALL SURVEY INFORMATION PREPARED BY OTHERS AND FURTHER DISCLAIM RESPONSIBILITY FOR INTERPRETATION OF THAT DATA BY BIDDERS AND CONTRACTORS.

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 0.02-W
CIVIL SPORTS SURVEY
(REFERENCE ONLY)

MATCH LINE SHEET # 2



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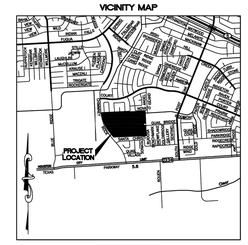
Brian J. Maddox
Registered Professional Land Surveyor No. 5430
Surveyed on the ground December 6, 2023

STATE OF TEXAS · REGISTERED · BRIAN J. MADDOX · 5430 · PROFESSIONAL LAND SURVEYOR

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	PMC	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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OHE-OVERHEAD ELECTRIC	UGV-UNDERGROUND VAULT
PG.-PAGE	VOL.-VOLUME

SURVEYOR'S NOTES:

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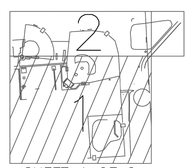
ELEVATION = 62.40' (NAVD 88)

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'



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

PROJECT INFORMATION
Project No. FBI23515
Date: December 6, 2023
Drawn By: DB
Checked By: JDW
Scale: 1"=30'
Sheet: 1 of 2

tnp

SURVEYOR
TEAGUE NALL AND PERKINS, INC.
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WILLOWRIDGE HIGH SCHOOL
Project Info Additional Text Line
16301 Chimney Rock RD, Houston, TX 77053

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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

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PROJECT NO. BP010
DATE NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS

#	Date	Description

Project Status
C 0.03-W
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 # 2507



N

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.

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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TSCE PROJECT # 2507

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
STATE OF TEXAS
SURVEYOR

10/09/2025

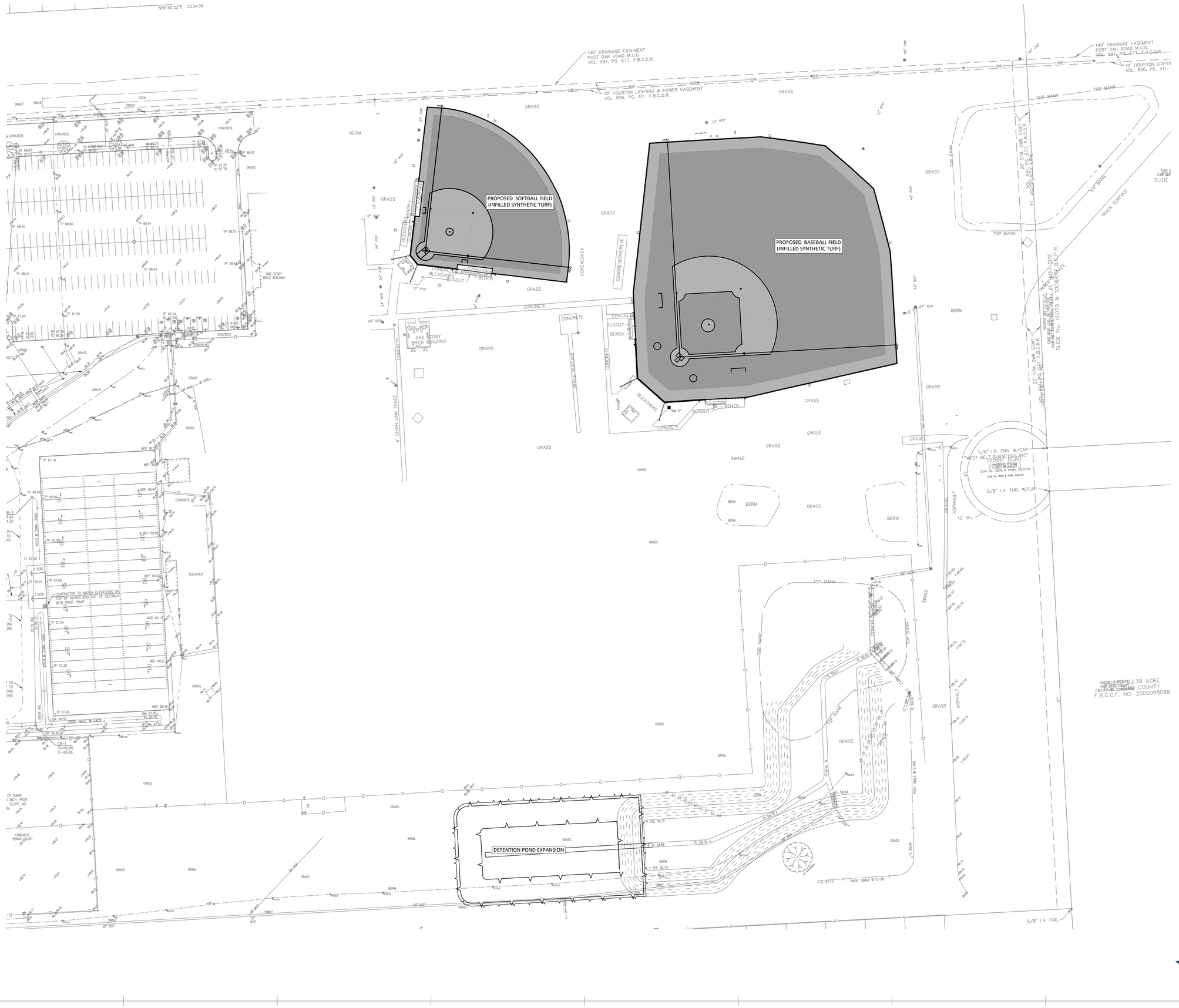
PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status

C 0.04-W

CIVIL SPORTS DEMOLITION PLAN



WILLOWRIDGE HIGH SCHOOL

Project Info Additional Text Line

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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR

10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

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 THROUGH C 5.03-W FOR DETAILS.

25' 50' 50' 0 100'

Project Status

C 1.01-W

CIVIL SPORTS SITE PLAN

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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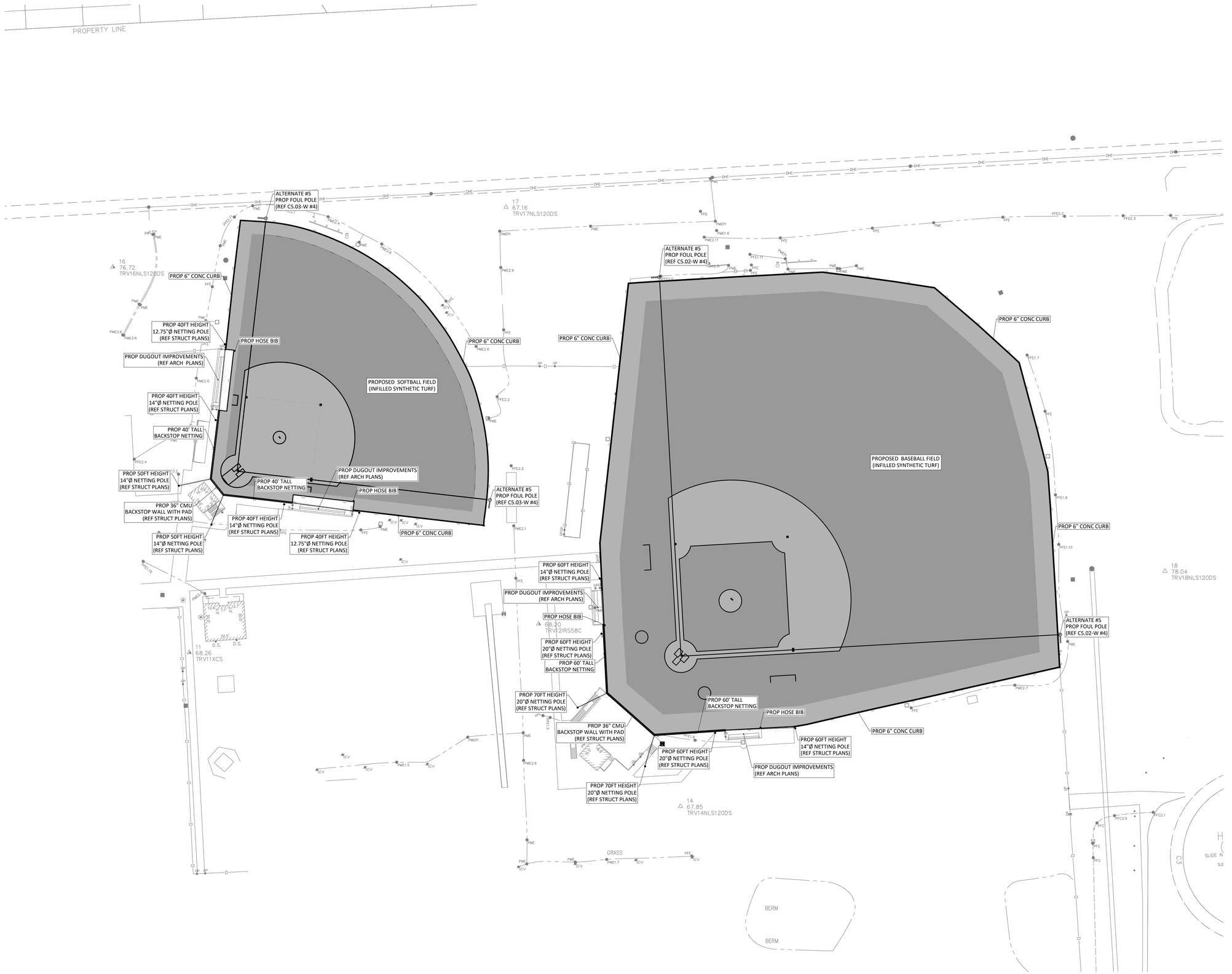
TSCE PROJECT # 2507



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 THROUGH C 5.03-W FOR DETAILS.

15' 30' 30' 0 60'

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 # 2507

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WILLOWRIDGE HIGH SCHOOL

Project Info Additional Text Line

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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS

10/09/2025

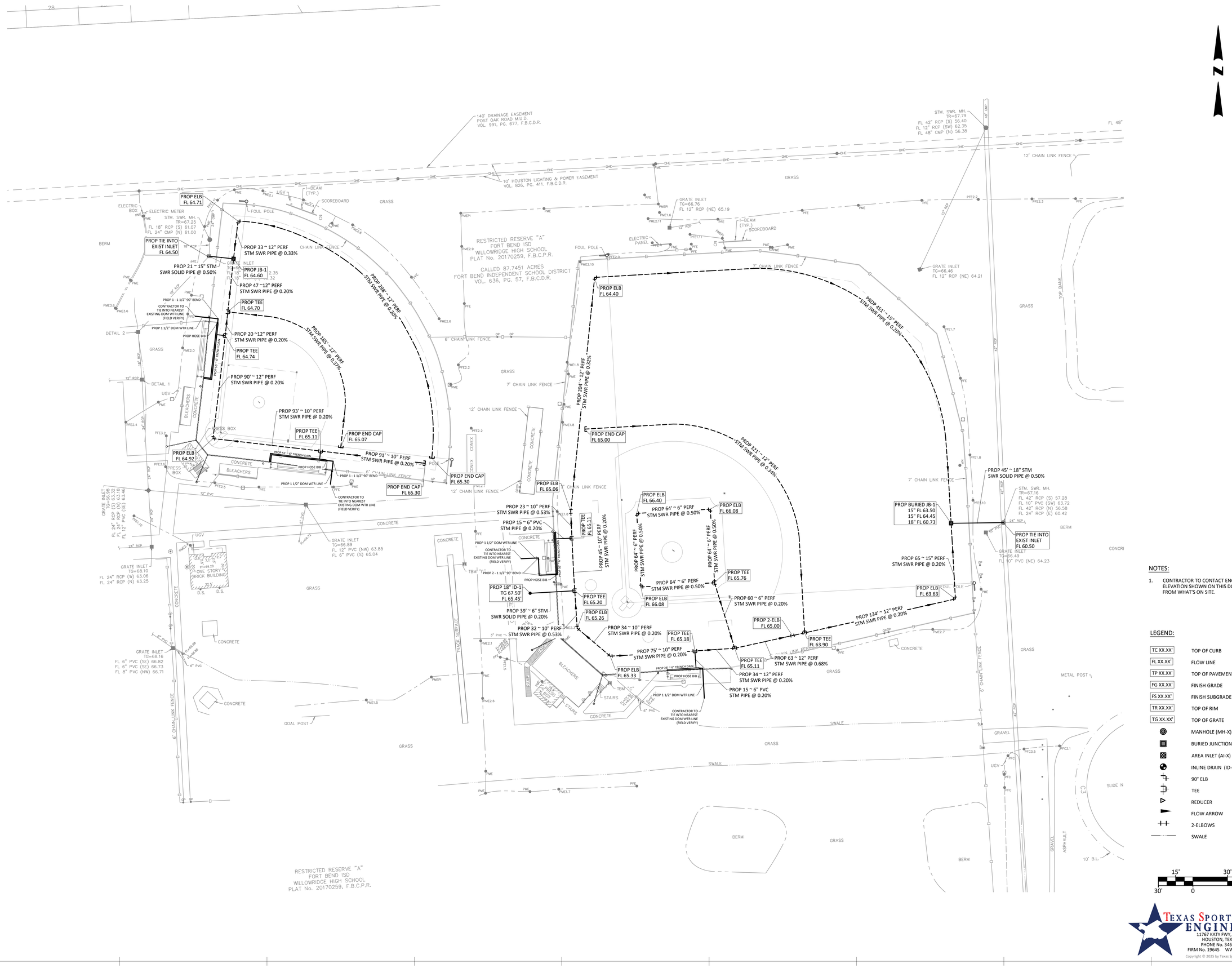
PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

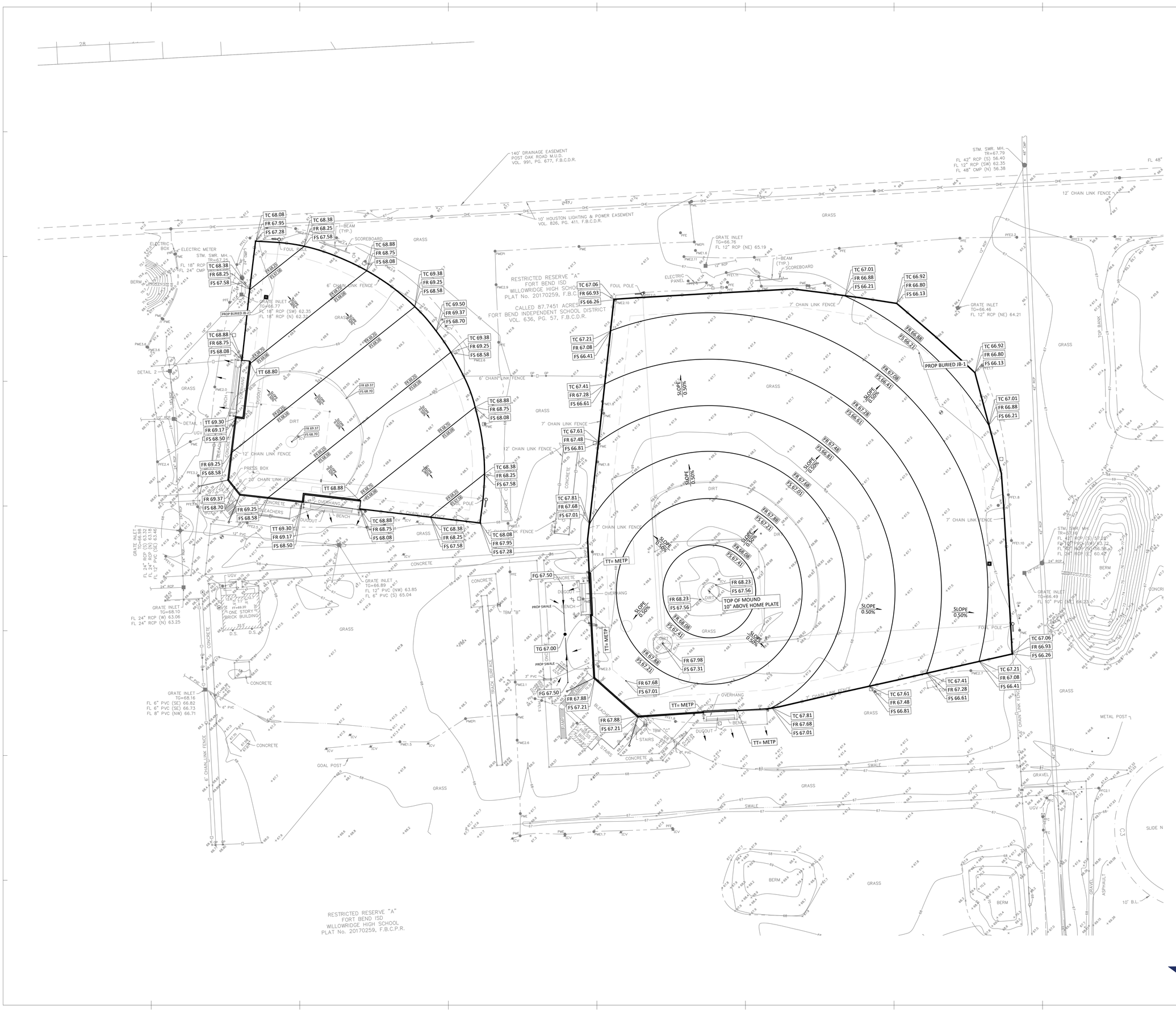
#	Date	Description

Project Status

C 1.01-W

CIVIL SPORTS SITE PLAN


140' DRAINAGE EASEMENT
POST OAK ROAD M.U.D.
VOL. 991, PG. 677, F.B.C.D.R.
10' HOUSTON LIGHTING & POWER EASEMENT
VOL. 826, PG. 411, F.B.C.D.R.
RESTRICTED RESERVE "A"
FORT BEND ISD
WILLOWRIDGE HIGH SCHOOL
PLAT No. 20170259, F.B.C.P.R.
CALLED 87.7451 ACRES
FORT BEND INDEPENDENT SCHOOL DISTRICT
VOL. 636, PG. 57, F.B.C.D.R.
STM. SWR. MH.
TR=67.79
FL 42" RCP (S) 56.40
FL 12" RCP (SW) 62.35
FL 48" CMP (N) 56.38
GRATE INLET
TG=66.46
FL 12" RCP (NE) 64.21
STM. SWR. MH.
TR=67.25
FL 18" RCP (S) 61.07
FL 24" CMP (N) 61.00
STM. SWR. MH.
TR=67.16
FL 42" RCP (S) 57.28
FL 10" PVC (SW) 63.72
FL 42" RCP (N) 56.58
FL 24" RCP (E) 60.42
GRATE INLET
TG=66.76
FL 12" RCP (NE) 65.19
GRATE INLET
TG=66.89
FL 12" PVC (NW) 63.85
FL 6" PVC (S) 65.04
GRATE INLET
TG=68.10
FL 6" PVC (SE) 66.82
FL 6" PVC (SE) 66.73
FL 8" PVC (NW) 66.71
GRATE INLET
TG=66.49
FL 10" PVC (NE) 64.23
GRATE INLET
FL 24" RCP (W) 63.06
FL 24" RCP (N) 63.25
GRATE INLET
FL 24" RCP (N) 63.18
FL 24" PVC (SE) 63.46
PROP ELB
FL 64.71
PROP TIE INTO
EXIST INLET
FL 64.50
PROP 21 ~ 15" STM
SWR SOLID PIPE @ 0.50%
PROP JB-1
FL 64.60
PROP 33 ~ 12" PERF
STM SWR PIPE @ 0.33%
PROP 47 ~12" PERF
STM SWR PIPE @ 0.20%
PROP TEE
FL 64.70
PROP 1 - 1 1/2" 90° BEND
CONTRACTOR TO
TIE INTO NEAREST
EXISTING DOM WTR LINE
(FIELD VERIFY)
PROP 1 1/2" DOM WTR LINE
PROP HOSE BIB
PROP 20 ~12" PERF
STM SWR PIPE @ 0.20%
PROP TEE
FL 64.74
PROP 90' ~ 12" PERF
STM SWR PIPE @ 0.20%
PROP 93' ~ 10" PERF
STM SWR PIPE @ 0.20%
PROP TEE
FL 65.11
PROP END CAP
FL 65.07
PROP ELB
FL 64.92
PROP 91' ~ 10" PERF
STM SWR PIPE @ 0.20%
PROP END CAP
FL 65.30
PROP END CAP
FL 65.30
PROP 185' ~ 12" PERF
STM SWR PIPE @ 0.20%
PROP 208' ~ 12" PERF
STM SWR PIPE @ 0.20%
PROP ELB
FL 64.40
PROP 204' ~ 12" PERF
STM SWR PIPE @ 0.32%
PROP END CAP
FL 65.00
PROP 221' ~ 12" PERF
STM SWR PIPE @ 0.34%
PROP 457' ~ 15" PERF
STM SWR PIPE @ 0.20%
PROP 45' ~ 18" STM
SWR SOLID PIPE @ 0.50%
PROP BURIED JB-1
15" FL 63.50
15" FL 64.45
18" FL 60.73
PROP TIE INTO
EXIST INLET
FL 60.50
PROP 65 ~ 15" PERF
STM SWR PIPE @ 0.20%
PROP ELB
FL 63.63
PROP 23 ~ 10" PERF
STM SWR PIPE @ 0.53%
PROP 15 ~ 6" PVC
STM PIPE @ 0.20%
PROP 18" ID-1
TG 67.50'
FL 65.45'
PROP 39' ~ 6" STM
SWR SOLID PIPE @ 0.20%
PROP TEE
FL 65.20
PROP ELB
FL 65.26
PROP 32 ~ 10" PERF
STM SWR PIPE @ 0.53%
PROP 34 ~ 10" PERF
STM SWR PIPE @ 0.20%
PROP TEE
FL 65.18
PROP 75' ~ 10" PERF
STM SWR PIPE @ 0.20%
PROP ELB
FL 65.33
PROP TEE
FL 65.11
PROP 63 ~ 12" PERF
STM SWR PIPE @ 0.68%
PROP 34 ~ 12" PERF
STM SWR PIPE @ 0.20%
PROP 15 ~ 6" PVC
STM PIPE @ 0.20%
PROP 2-ELB
FL 65.00
PROP TEE
FL 63.90
PROP 134' ~ 12" PERF
STM SWR PIPE @ 0.20%
PROP ELB
FL 65.06
PROP TEE
FL 65.11
PROP 45' ~ 10" PERF
STM SWR PIPE @ 0.20%
PROP ELB
FL 66.40
PROP 64' ~ 6" PERF
STM SWR PIPE @ 0.50%
PROP ELB
FL 66.08
PROP 64' ~ 6" PERF
STM SWR PIPE @ 0.50%
PROP 64' ~ 6" PERF
STM SWR PIPE @ 0.50%
PROP TEE
FL 65.76
PROP 64' ~ 6" PERF
STM SWR PIPE @ 0.50%
PROP ELB
FL 66.08
PROP 60 ~ 6" PERF
STM SWR PIPE @ 0.20%
PROP 45 ~ 18" STM
SWR SOLID PIPE @ 0.50%
PROP 1 1/2" DOM WTR LINE
CONTRACTOR TO
TIE INTO NEAREST
EXISTING DOM WTR LINE
(FIELD VERIFY)
PROP 2 - 1 1/2" 90° BEND
PROP HOSE BIB
PROP 29' ~ 6" TRENCH DRAIN
PROP 1 1/2" DOM WTR LINE
CONTRACTOR TO
TIE INTO NEAREST
EXISTING DOM WTR LINE
(FIELD VERIFY)
PROP 1 1/2" DOM WTR LINE
CONTRACTOR TO
TIE INTO NEAREST
EXISTING DOM WTR LINE
(FIELD VERIFY)
PROP 1 - 1 1/2" 90° BEND
PROP 1 1/2" DOM WTR LINE
PROP HOSE BIB
PROP 1 - 1 1/2" 90° BEND
PROP 1 1/2" DOM WTR LINE
PROP 55' ~ 6" TRENCH DRAIN
PROP HOSE BIB
PROP 1 1/2" DOM WTR LINE
CONTRACTOR TO
TIE INTO NEAREST
EXISTING DOM WTR LINE
(FIELD VERIFY)
PROP 29' ~ 6" TRENCH DRAIN
PROP HOSE BIB
PROP 1 1/2" DOM WTR LINE
CONTRACTOR TO
TIE INTO NEAREST
EXISTING DOM WTR LINE
(FIELD VERIFY)
PROP 1 1/2" DOM WTR LINE
PROP HOSE BIB
PROP 1 1/2" DOM WTR LINE
CONTRACTOR TO
TIE INTO NEAREST
EXISTING DOM WTR LINE
(FIELD VERIFY)



NOTES:

1. CONTRACTOR TO CONTACT ENGINEER IF THE ELEVATION SHOWN ON THIS DOCUMENT DIFFERS FROM WHAT'S ON SITE.
2. CONTRACTOR TO MAKE SURE THERE IS POSITIVE DRAINAGE FROM THE DUGOUT TO EXIST INLET OR SWALE.

LEGEND:

TC XX.XX'	TOP OF CURB
FL XX.XX'	FLOW LINE
TP XX.XX'	TOP OF PAVEMENT
FG XX.XX'	FINISH GRADE
FR XX.XX'	FINISH ROCK
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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TSCE PROJECT # 2507

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WILLOWRIDGE HIGH SCHOOL

Project Info Additional Text Line
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SUGAR LAND, TX 77479

KENNETH I. JURADO
119993
REGISTERED PROFESSIONAL ENGINEER

10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 3.01-W
CIVIL SPORTS
GRADING PLAN



N

CITY OF HOUSTON
STORM SEWER CALCULATIONS

Storm Frequency: 100 year

Runoff Coefficient: ASPHALT/CONCRETE 0.75

Project: WillowRidge HS - Baseball Field
Job No.:
By: BG
Date: 9/5/2025

b = 60.66
d = 4.44
e = 0.5797

Max. HGL Starting Elev. = 67.96

Total Drainage Area = 2.65 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-3	155.00	10	HDPE	0.48%	13,885	0.32	0.75	0.32	23.2	8.86	2.12	1.66	3.04	3.88	0.796%	1.23	68.00	67.82	66.58	66.50	65.75	0.18	0.67	1.42	0.67
A-2	A-3	134.00	12	HDPE	0.56%	17,160	0.39	0.75	0.39	23.8	8.74	2.58	2.90	3.69	3.29	0.448%	0.60	68.00	66.60	66.00	65.75	65.00	1.40	1.25	2.00	0.68
A-3	A-7	263.00	18	HDPE	0.23%	19,903	0.46	0.75	1.17	24.5	8.62	7.56	5.45	3.08	4.28	0.441%	1.16	67.50	66.91	65.75	65.00	64.40	0.59	1.00	1.60	1.02
A-4	A-5	102.00	10	HDPE	0.54%	14,978	0.34	0.75	0.34	25.5	8.45	2.18	3.50	3.20	3.99	0.842%	0.86	68.00	67.59	66.73	66.45	65.90	0.41	0.72	1.27	0.43
A-5	A-6	199.00	12	HDPE	0.40%	10,855	0.25	0.75	0.59	26.0	8.38	3.73	2.45	3.12	4.75	0.932%	1.86	68.00	67.96	66.10	65.90	65.10	0.04	1.10	1.90	0.70
A-6	A-7	253.00	15	HDPE	0.28%	9,610	0.22	0.75	0.81	26.7	8.27	5.05	3.69	3.01	4.11	0.520%	1.32	67.25	66.97	65.65	65.10	64.40	0.28	0.90	1.60	1.03
A-7	OUT-1	52.00	18	HDPE	0.29%	29,064	0.67	0.75	2.65	27.7	8.12	16.13	6.13	3.47	9.13	2.010%	1.05	66.88	66.80	65.75	64.40	64.25	0.08	0.98	1.13	0.09

CITY OF HOUSTON
STORM SEWER CALCULATIONS

Storm Frequency: 2 year

Runoff Coefficient: ASPHALT/CONCRETE 0.75

Project: WillowRidge HS - Baseball Field
Job No.:
By: BG
Date: 9/5/2025

b = 48.35
d = 9.07
e = 0.7244

Max. HGL Starting Elev. = 66.88

Total Drainage Area = 2.65 ACRES

M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Design Flow (cfs)	Design Velocity (fps)	Actual Velocity (fps)	Hydraulic Gradient (%)	Change in Head (feet)	Upstream Grade Elev (feet)	Hydraulic Grade M.H. From (feet)	Hydraulic Grade M.H. To (feet)	Pipe Flowline U.S. (feet)	Pipe Flowline D.S. (feet)	Depth from Gutter Line to HGL (feet)	Pipe Cover U.S. (feet)	Pipe Cover D.S. (feet)	Travel Time (minutes)
A-1	A-3	155.00	10	HDPE	0.48%	13,885	0.32	0.75	0.32	23.2	3.91	0.93	1.66	3.04	1.71	0.155%	0.24	68.00	66.82	66.58	66.50	65.75	1.18	0.67	1.42	1.51
A-2	A-3	134.00	12	HDPE	0.56%	17,160	0.39	0.75	0.39	24.7	3.78	1.12	2.90	3.69	1.42	0.084%	0.11	68.00	66.11	66.00	65.75	65.00	1.89	1.25	2.00	1.57
A-3	A-7	263.00	18	HDPE	0.23%	19,903	0.46	0.75	1.17	26.3	3.66	3.21	5.45	3.08	1.81	0.079%	0.21	67.50	65.96	65.75	65.00	64.40	1.54	1.00	1.60	2.42
A-4	A-5	102.00	10	HDPE	0.54%	14,978	0.34	0.75	0.34	28.7	3.48	0.90	3.50	3.20	1.65	0.143%	0.15	68.00	66.88	66.73	66.45	65.90	1.12	0.72	1.27	1.03
A-5	A-6	199.00	12	HDPE	0.40%	10,855	0.25	0.75	0.59	29.7	3.42	1.52	2.45	3.12	1.94	0.155%	0.31	68.00	66.41	66.10	65.90	65.10	1.59	1.10	1.90	1.71
A-6	A-7	253.00	15	HDPE	0.28%	9,610	0.22	0.75	0.81	31.4	3.31	2.02	3.69	3.01	1.65	0.083%	0.21	67.25	65.86	65.65	65.10	64.40	1.39	0.90	1.60	2.56
A-7	OUT-1	52.00	18	HDPE	0.29%	29,064	0.67	0.75	2.65	34.0	3.17	6.30	6.13	3.47	3.56	0.306%	0.16	66.88	65.91	65.75	64.40	64.25	0.97	0.98	1.13	0.24

STATEMENT ON UTILITY PLAN:

1. RESPONSIBILITY FOR MAINTENANCE OF THE DETENTION FACILITY WILL BE BY THE PROPERTY OWNER.
2. SUBSURFACE DRAINAGE SYSTEMS ARE REQUIRED TO BE DRAINED IN 48 HOURS. SIMILAR STATEMENT SHOULD BE ON THE PLANS.
3. INITIAL INSPECTION OF POROUS PAVEMENT SHALL BE MONTHLY FOR THE FIRST 3 MONTHS POST CONSTRUCTION.
4. SEMI ANNUAL INSPECTION TO ENSURE PAVEMENT SURFACE IS FREE OF SEDIMENT
5. VACUUM SWEEP HARD POROUS PAVEMENT FOLLOWED BY HIGH PRESSURE HOSING TO KEEP VOIDS FREE OF SEDIMENT QUARTERLY.
6. ANNUALLY INSPECT PAVEMENT SURFACE AND SUBSURFACE DRAINAGE SYSTEM (IF ANY) FOR DETERIORATION, SPALLING OR MALFUNCTIONING

TIME OF CONCENTRATION

PRE-DEVELOPED:
L= 315
S= 0.0028
V= 0.5
TC= 10.5

$$T_{ch} = \frac{D_f}{60 * V}$$

POST-DEVELOPED:
L= 620
S= 0.002
V= 3
TC= 3.44 ~ (5 Minutes Min. Used)

INTENSITY

100 YEAR
PRE-DEVELOPED: 12.65
POST-DEVELOPED: 16.51

2 YEAR
PRE-DEVELOPED: 5.61
POST-DEVELOPED: 7.12

INTENSITY PER CITY OF HOUSTON DRAINAGE MANUAL TABLE 9.1

RUNOFF CALCULATIONS

RATIONAL METHOD: Q=CIA

TOTAL DISTURBED IMPERVIOUS AREA= 2.65 ACRES

PRE-DEVELOPED "C"= 0.35
POST-DEVELOPED "C" 0.75

PRE-DEVELOPED "Q" (ALLOWABLE)= 11.73 CFS
POST-DEVELOPED "Q"= 32.81 CFS

RESTRICTOR CALCULATIONS

PIPE= 12 INCH
C= 0.8 ORIFICE COEFF.
AREA= 0.785 SQ-FT
HEAD= 2.25 FT

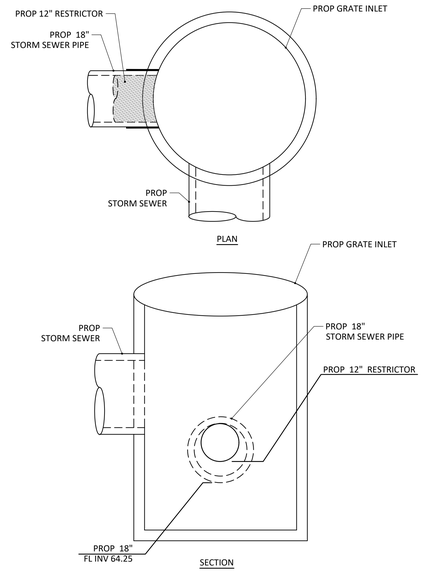
Q= **7.563** CFS < ALLOWABLE 8.35 CFS

DETENTION CALCULATIONS

TOTAL DRAINAGE AREA	=	2.65	AC
DISTURBED AREA	=	2.65	AC
PROPOSED IMPERVIOUS AREA	=	2.65	AC
DETENTION RATE REQUIRED	=	0.85	AC-FT/AC
DETENTION RATE PROVIDED	=	0.85	AC-FT/AC
DETENTION VOLUME REQUIRED	=	98118.9	CF
DETENTION VOLUME REQUIRED	=	2.2525	AC-FT
DETENTION VOLUME PROVIDED W/ 8" THICK ROCK LAYER	=	0.71	CF
DETENTION VOLUME PROVIDED W/ DETENTION POND	=	1.55	CF
RESTRICTOR SIZE	=	12.00	IN

DETENTION SUMMARY

TOTAL DRAINAGE AREA	=	3.56	AC
DISTURBED AREA	=	3.56	AC
PROPOSED IMPERVIOUS AREA	=	3.56	AC
DETENTION RATE REQUIRED	=	0.85	AC-FT/AC
DETENTION RATE PROVIDED	=	0.85	AC-FT/AC
DETENTION VOLUME REQUIRED	=	131812.56	CF
DETENTION VOLUME REQUIRED	=	3.026	AC-FT/AC
DETENTION VOLUME PROVIDED W/ 8" THICK ROCK LAYER	=	0.95	CF
TOTAL DETENTION VOLUME PROVIDED W/ DETENTION POND	=	2.08	CF



1 STORM SEWER RESTRICTOR PIPE DETAIL
N.T.S.

LEGEND:

- A-X / X.XX AC — AREA - (No.) / AREA - (AC)
- MANHOLE (MH-X)
- BURIED JUNCTION BOX (JB-X)
- AREA INLET (AI-X)
- SWALE
- 90° ELB
- TEE
- REDUCER
- FLOW ARROW
- 2-ELBOWS
- STM SWR LINE
- STM SWR PERF

20' 40' 40' 0 80'

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TSCE PROJECT # 2507

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pflugerarchitects.com

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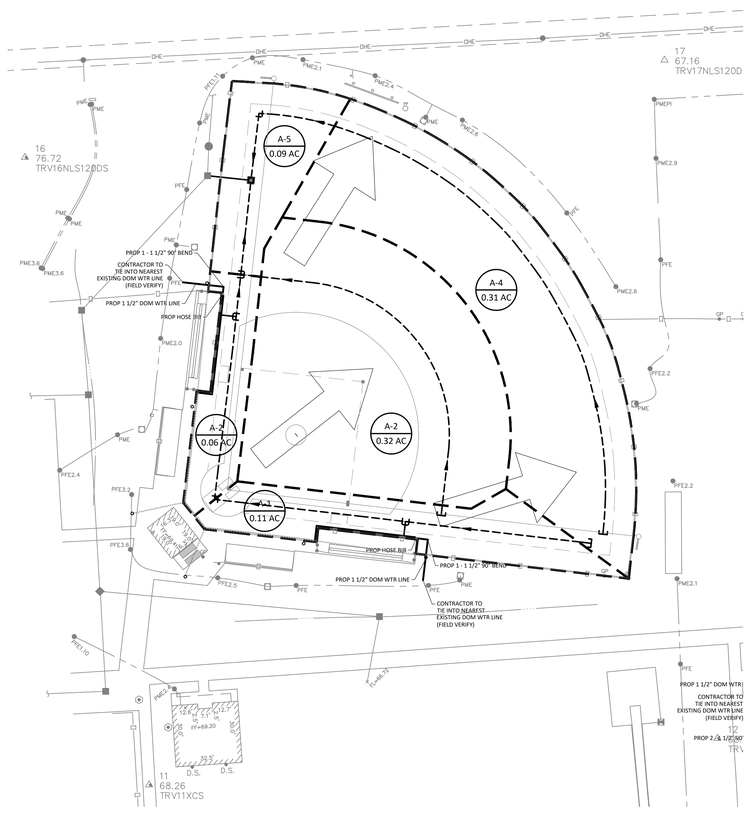
SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 LICENSED PROFESSIONAL ENGINEER
10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

Project Status
C 3.10-W
CIVIL SPORTS
DRAINAGE AREA MAP
& CALCULATIONS
BASEBALL



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CITY OF HOUSTON
STORM SEWER CALCULATIONS

Storm Frequency: 100 year

Runoff Coefficient: ASPHALT/CONCRETE 0.75

Project: WillowRidge HS - Softball Field
Job No.:
By: BG
Date: 9/5/2025

b = 60.66
d = 4.44
e = 0.5797

Max. HGL Starting Elev. = 67.16

Total Drainage Area = 0.91 ACRES

													Design		Actual	Hydraulic	Change	Upstream	Hydraulic Grade		Pipe Flowline		Depth from	Pipe Cover		Travel
M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Flow (cfs)	Velocity (fps)	Velocity (fps)	Gradient (%)	in Head (feet)	Grade Elev (feet)	M.H. From (feet)	M.H. To (feet)	U.S. (feet)	D.S. (feet)	Gutter Line to HGL (feet)	U.S. (feet)	D.S. (feet)	Time (minutes)
A-1	A-2	183.00	10	HDPE	0.55%	4,932	0.11	0.75	0.11	21.8	9.12	0.77	1.76	3.23	1.42	0.107%	0.19	68.25	66.78	66.58	66.75	65.75	1.47	0.67	1.67	2.15
A-2	A-5	108.00	12	HDPE	0.37%	2,755	0.06	0.75	0.18	24.0	8.72	1.15	2.36	3.00	1.47	0.089%	0.10	69.25	66.45	66.35	65.75	65.35	2.80	2.50	2.90	1.23
A-3	A-5	185.00	12	HDPE	0.41%	14,102	0.32	0.75	0.32	25.2	8.51	2.07	2.46	3.14	2.63	0.286%	0.53	69.25	66.28	65.75	66.10	65.35	2.97	2.15	2.90	1.17
A-4	A-5	298.00	12	HDPE	0.39%	14,023	0.32	0.75	0.32	26.4	8.32	2.01	4.81	3.06	2.56	0.271%	0.81	69.25	67.16	66.35	66.50	65.35	2.09	1.75	2.90	1.94
A-5	OUT-2	50.00	15	HDPE	0.28%	3,806	0.09	0.75	0.91	28.3	8.03	5.48	7.43	3.03	4.46	0.612%	0.31	68.25	66.77	66.46	65.35	65.21	1.48	1.65	1.79	0.19

CITY OF HOUSTON
STORM SEWER CALCULATIONS

Storm Frequency: 2 year

Runoff Coefficient: ASPHALT/CONCRETE 0.75

Project: WillowRidge HS - Softball Field
Job No.:
By: BG
Date: 9/5/2025

b = 48.35
d = 9.07
e = 0.7244

Max. HGL Starting Elev. = 66.62

Total Drainage Area = 0.91 ACRES

													Design		Actual	Hydraulic	Change	Upstream	Hydraulic Grade		Pipe Flowline		Depth from	Pipe Cover		Travel
M.H. From	M.H. To	Pipe Length (feet)	Pipe Size (inches)	Pipe Material	Pipe Slope %	Area (sf)	Area (acres)	Runoff Coeff. C	Total Area (acres)	Time of Conc. (min.)	Intensity I (in./hr.)	Sum of Flows (cfs)	Flow (cfs)	Velocity (fps)	Velocity (fps)	Gradient (%)	in Head (feet)	Grade Elev (feet)	M.H. From (feet)	M.H. To (feet)	U.S. (feet)	D.S. (feet)	Gutter Line to HGL (feet)	U.S. (feet)	D.S. (feet)	Time (minutes)
A-1	A-2	183.00	10	HDPE	0.55%	4,932	0.11	0.75	0.11	21.8	4.03	0.34	1.76	3.23	0.63	0.021%	0.04	68.25	66.62	66.58	66.75	65.75	1.63	0.67	1.67	4.86
A-2	A-5	108.00	12	HDPE	0.37%	2,755	0.06	0.75	0.18	26.7	3.62	0.48	2.36	3.00	0.61	0.015%	0.02	69.25	66.37	66.35	65.75	65.35	2.88	2.50	2.90	2.95
A-3	A-5	185.00	12	HDPE	0.41%	14,102	0.32	0.75	0.32	29.6	3.42	0.83	2.46	3.14	1.06	0.046%	0.09	69.25	65.84	65.75	66.10	65.35	3.41	2.15	2.90	2.91
A-4	A-5	298.00	12	HDPE	0.39%	14,023	0.32	0.75	0.32	32.5	3.25	0.78	4.81	3.06	1.00	0.041%	0.12	69.25	66.47	66.35	66.50	65.35	2.78	1.75	2.90	4.98
A-5	OUT-2	50.00	15	HDPE	0.28%	3,806	0.09	0.75	0.91	37.5	2.99	2.04	7.43	3.03	1.66	0.085%	0.04	68.25	66.50	66.46	65.35	65.21	1.75	1.65	1.79	0.50

NOTES:

1. SOFTBALL FIELD WOULD NEED 17.6 INCHES OF PERMEABLE ROCK AS DETENTION FOR THE PROPOSED TURF FIELD DETENTION REQUIREMENTS.

SOFTBALL DETENTION ANALYSIS:

REQUIRED VOLUME: 0.9 AC x 0.75 AC-FT/AC= 0.675 AC-FT

0.67 AC / .90AC= 0.74 FEET = 40% VOIDS
0.74/.40(40%) = (.86 FEET = 22 INCHES)
0.53 AC / 0.90AC = 0.58 FEET = 40% VOIDS
0.58 / .40 (40%) = 1.47 FEET = 17.6 INCHES

STATEMENT ON UTILITY PLAN:

1. RESPONSIBILITY FOR MAINTENANCE OF THE DETENTION FACILITY WILL BE BY THE PROPERTY OWNER.
2. SUBSURFACE DRAINAGE SYSTEMS ARE REQUIRED TO BE DRAINED IN 48 HOURS. SIMILAR STATEMENT SHOULD BE ON THE PLANS.
3. INITIAL INSPECTION OF POROUS PAVEMENT SHALL BE MONTHLY FOR THE FIRST 3 MONTHS POST CONSTRUCTION.
4. SEMI ANNUAL INSPECTION TO ENSURE PAVEMENT SURFACE IS FREE OF SEDIMENT
5. VACUUM SWEEP HARD POROUS PAVEMENT FOLLOWED BY HIGH PRESSURE HOSING TO KEEP VOIDS FREE OF SEDIMENT QUARTERLY.
6. ANNUALLY INSPECT PAVEMENT SURFACE AND SUBSURFACE DRAINAGE SYSTEM (IF ANY) FOR DETERIORATION, SPALLING OR MALFUNCTIONING

TIME OF CONCENTRATION

PRE-DEVELOPED:

L= 240
S= 0.01
V= 0.6
TC= 6.67

$$T_{ch} = \frac{D_E}{60 * V}$$

POST-DEVELOPED:

L= 360
S= 0.002
V= 3
TC= 2.00 ~ (5 Minutes Min. Used)

INTENSITY

100 YEAR
PRE-DEVELOPED: 15.02
POST-DEVELOPED: 16.51

2 YEAR
PRE-DEVELOPED: 6.57
POST-DEVELOPED: 7.12

INTENSITY PER CITY OF HOUSTON DRAINAGE MANUAL TABLE 9.1

RUNOFF CALCULATIONS

RATIONAL METHOD: Q=CIA

TOTAL DISTURBED IMPERVIOUS AREA= 0.91 ACRES

PRE-DEVELOPED "C"= 0.35
POST-DEVELOPED "C" 0.75

PRE-DEVELOPED "Q" (ALLOWABLE)= 4.79 CFS
POST-DEVELOPED "Q"= 11.27 CFS

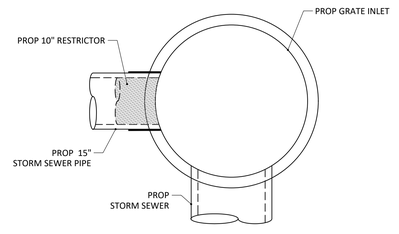
DETENTION CALCULATIONS

TOTAL DRAINAGE AREA	=	0.91	AC
DISTURBED AREA	=	0.91	AC
PROPOSED IMPERVIOUS AREA	=	0.91	AC
DETENTION RATE REQUIRED	=	0.85	AC-FT/AC
DETENTION RATE PROVIDED	=	0.85	AC-FT/AC
DETENTION VOLUME REQUIRED	=	33693.66	CF
DETENTION VOLUME REQUIRED	=	0.7735	AC-FT
DETENTION VOLUME PROVIDED W/ 8" THICK ROCK LAYER	=	0.24	CF
DETENTION VOLUME PROVIDED W/ DETENTION POND	=	0.53	CF
RESTRICTOR SIZE	=	10.00	IN

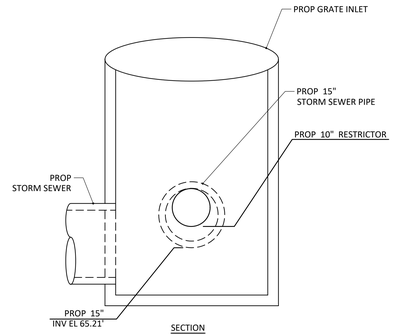
RESTRICTOR CALCULATIONS

PIPE= 10 INCH
C= 0.8 ORIFICE COEFF.
AREA= 0.545 SQ-FT
HEAD= 1.55 FT

Q= **4.359** CFS < ALLOWABLE 4.79 CFS



PLAN



SECTION

1 N.T.S. STORM SEWER RESTRICTOR PIPE DETAIL

LEGEND:

- A-X / X.XX AC — AREA - (No.) / AREA - (AC)
- MANHOLE (MH-X)
- BURIED JUNCTION BOX (JB-X)
- AREA INLET (AI-X)
- SWALE
- 90° ELB
- TEE
- REDUCER
- FLOW ARROW
- 2-ELBOWS
- STM SWR LINE
- STM SWR PERF

15' 30' 30' 0 60'

TEXAS SPORTS & CIVIL ENGINEERING
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TSCE PROJECT # 2507

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WILLOWRIDGE HIGH SCHOOL
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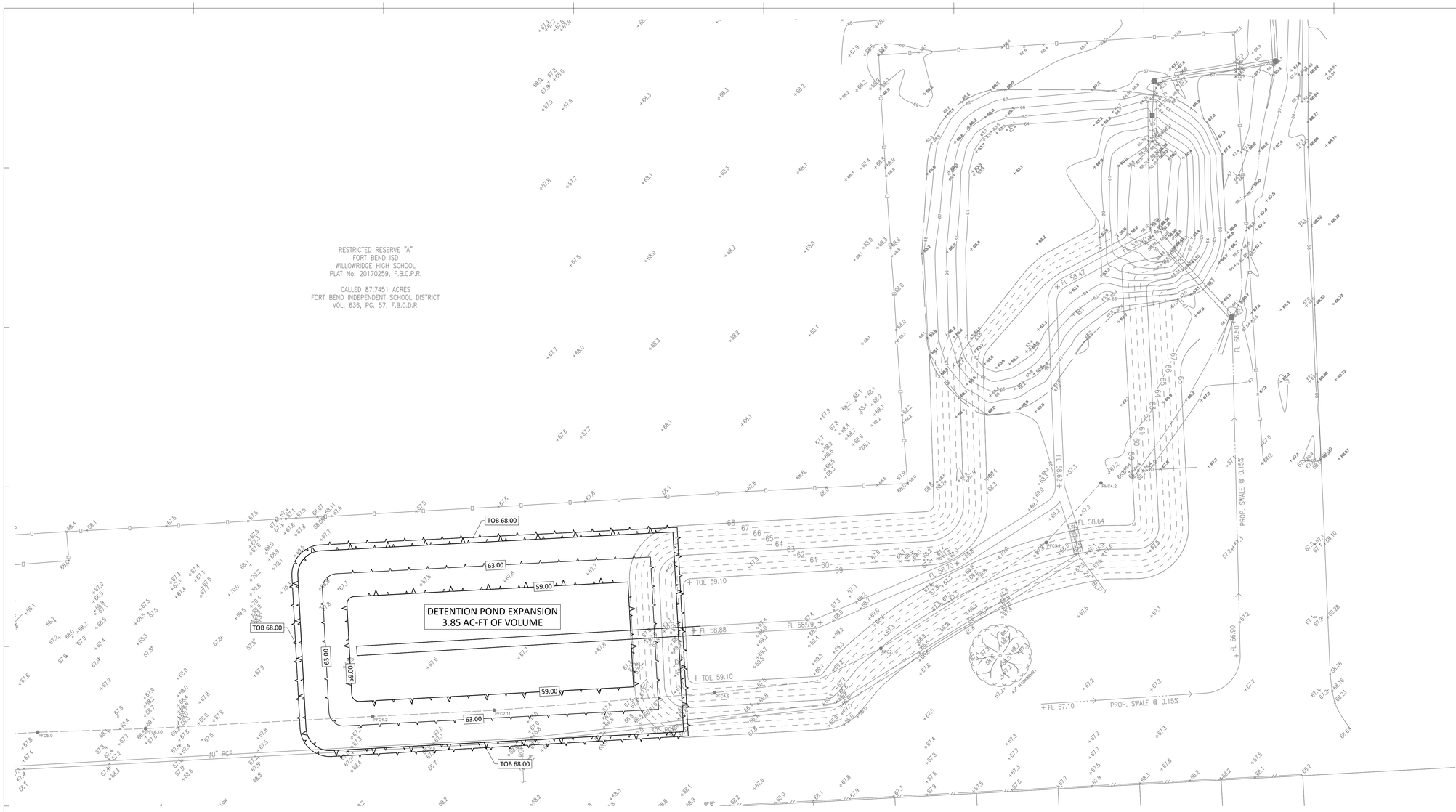
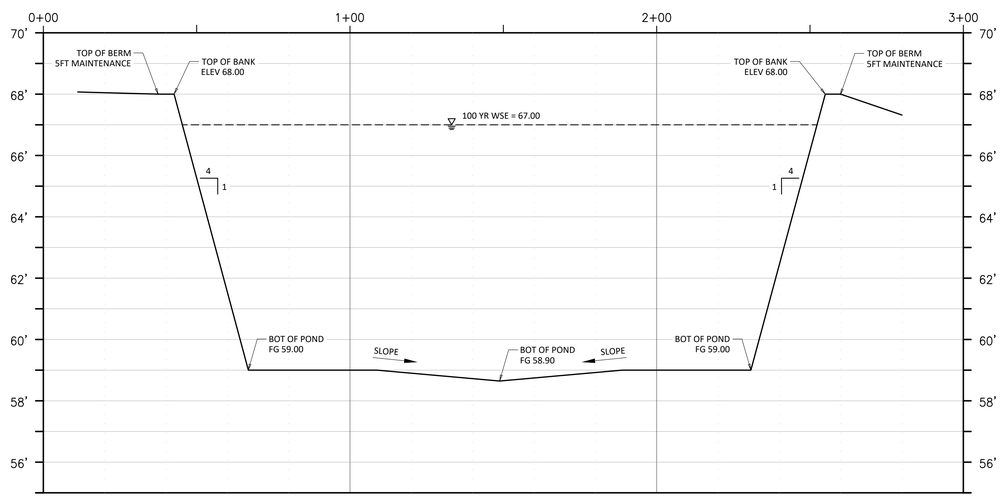
KENNETH I. JURADO 119993 LICENSED

10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
Date Description

Project Status
C 3.11-W
CIVIL SPORTS
DRAINAGE AREA MAP
& CALCULATIONS
SOFTBALL





DETENTION POND (SECTION A - A)

SCALE = 1" = 2' / 1" = 20'

N

15' 30'
30' 0 60'

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KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
SURVEYOR
10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:
| # | Date | Description |

Project Status
C 3.21-W
CIVIL SPORTS
DETENTION POND
EXPANSION

TEXAS SPORTS & CIVIL ENGINEERING
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HOUSTON, TEXAS 77079
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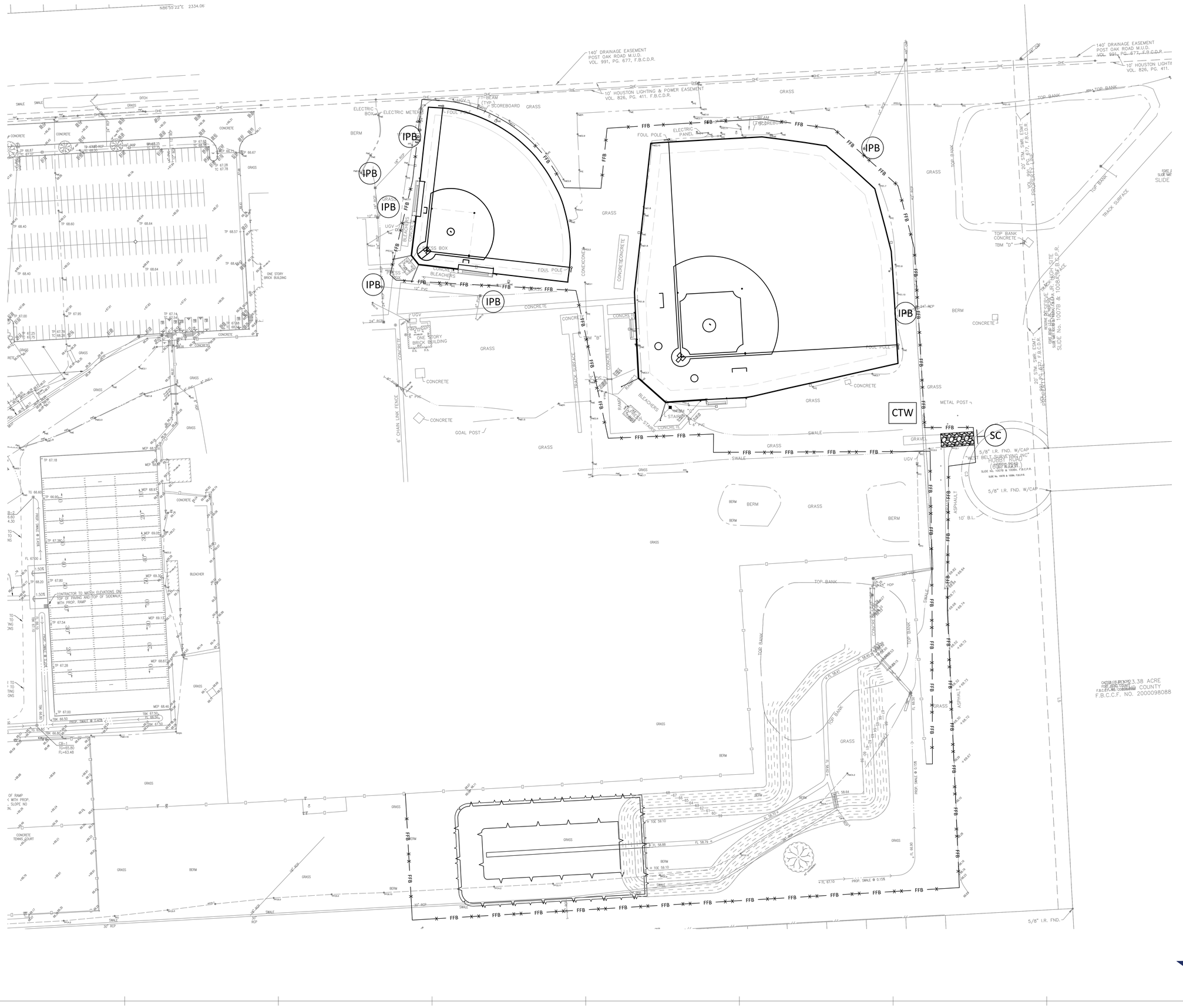
N86°55'22"E 2334.06'
140' DRAINAGE EASEMENT
POST OAK ROAD M.U.D.
VOL. 991, PG. 677, F.B.C.D.R.
10' HOUSTON LIGHTING & POWER EASEMENT
VOL. 826, PG. 411, F.B.C.D.R.
ELECTRIC BOX
ELECTRIC METER
BERM
IPB
SWALE
DITCH
GRASS
CONCRETE
BEAM (TYP.) SCOREBOARD
FOUL POLE
ELECTRIC PANEL
UGV
12" RCP
12" PVC
BLEACHERS
CONCRETE
CONCRETE BLEACHERS
CONCRETE
TBM "B"
ONE STORY BRICK BUILDING
24" RCP
6" PVC
6' CHAIN LINK FENCE
GOAL POST
RAMP
STAIRS
TBM "A"
METAL POST
CTW
SC
GRAVEL
5/8" I.R. FND. W/CAP
"WEST BELT SURVEYING INC"
HOBBY ROAD
(60' R.O.W.)
SLIDE NO. 10078 & 10084, F.B.C.P.R.
10' B.L.
ASPHALT
20' STM. SWR. ESMT.
VOL. 991, PG. 677, F.B.C.D.R.
PROPERTY LINE
TOP BANK
TOP BANK CONCRETE
TBM "D"
TRACK SURFACE
RESERVE "A" HIGH SITE
SLIDE No. 10078 & 10084, F.B.C.P.R.
BLEACHER
CONTRACTOR TO MATCH ELEVATIONS ON TOP OF PAVING AND TOP OF SIDEWALK WITH PROP. RAMP
PROP. SWALE @ 0.10%
PROP. SWALE @ 0.15%
CONCRETE TENNIS COURT
CATCH BASIN
FINISH GRADE
FL 58.47
FL 58.64
FL 58.88
FL 58.79
FL 66.90
FL 67.10
TOE 59.10
TOE 59.00
TOE 58.90
TOE 58.80
TOE 58.70
TOE 58.60
TOE 58.50
TOE 58.40
TOE 58.30
TOE 58.20
TOE 58.10
TOE 58.00
TOE 57.90
TOE 57.80
TOE 57.70
TOE 57.60
TOE 57.50
TOE 57.40
TOE 57.30
TOE 57.20
TOE 57.10
TOE 57.00
TOE 56.90
TOE 56.80
TOE 56.70
TOE 56.60
TOE 56.50
TOE 56.40
TOE 56.30
TOE 56.20
TOE 56.10
TOE 56.00
TOE 55.90
TOE 55.80
TOE 55.70
TOE 55.60
TOE 55.50
TOE 55.40
TOE 55.30
TOE 55.20
TOE 55.10
TOE 55.00
FFB
SILT FENCE
CONTRACTOR TO PLACE "IPB" IN ALL SURROUNDING INLETS.
CATCH BASIN
FINISH GRADE
CB-1
TG=65.80
FL=63.48
CB-2
TG=66.60
FL=64.30
CB-3
TG=67.00
FL=64.50
CB-4
TG=67.00
FL=64.50
CB-5
TG=67.00
FL=64.50
CB-6
TG=67.00
FL=64.50
CB-7
TG=67.00
FL=64.50
CB-8
TG=67.00
FL=64.50
CB-9
TG=67.00
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CB-10
TG=67.00
FL=64.50
CB-11
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CB-12
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FL=64.50
CB-13
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CB-14
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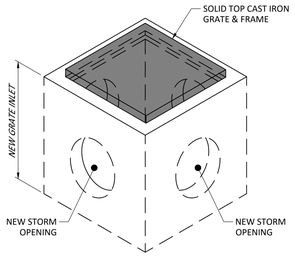
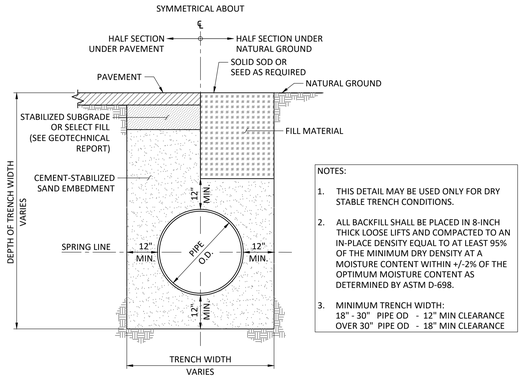
CB-15
TG=67.00
FL=64.50



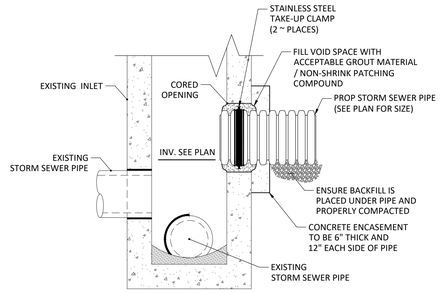
1 N.T.S. JUNCTION BOX



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

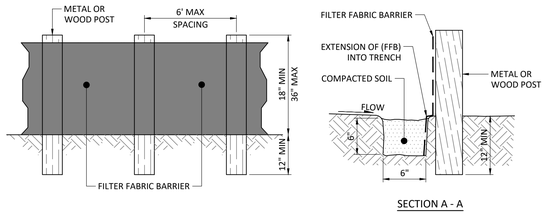
2 N.T.S. STORM SEWER BEDDING AND BACKFILL DETAIL



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.

3 N.T.S. STORM SEWER PIPE CONNECTION INTO EXISTING INLET



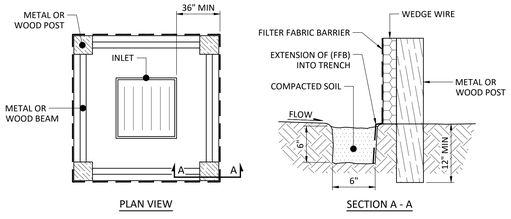
SECTION A - A

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

4 N.T.S. FILTER FABRIC BARRIER



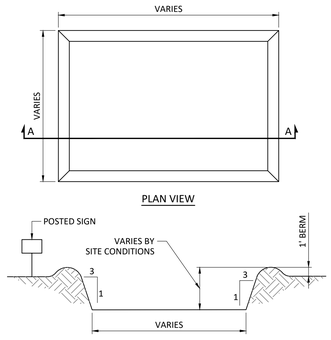
PLAN VIEW SECTION A - A

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

5 N.T.S. INLET PROTECTION BARRIER



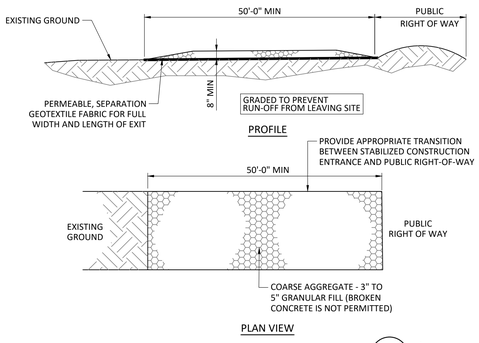
PLAN VIEW SECTION A - A

CTW

6 N.T.S. CONCRETE TRUCK WASHOUT AREA

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.

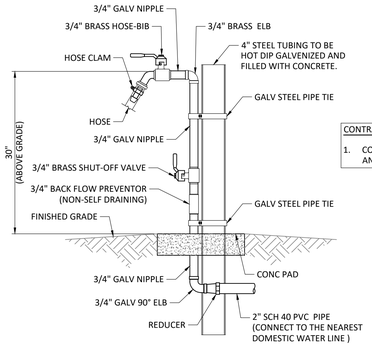


SC

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.

7 N.T.S. STABILIZED CONSTRUCTION ACCESS



CONTRACTOR NOTES:

1. CONTRACTOR TO INCLUDE ANTI-FREEZE AND ANTI-SIPHON FOR ALL HOSE BIBS.

8 N.T.S. HOSE BIB DETAIL

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WILLOWRIDGE HIGH SCHOOL

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SUGAR LAND, TX 77479

KENNETH I. JURADO 119993 STATE OF TEXAS

10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 5.01-W
CIVIL SPORTS DETAILS

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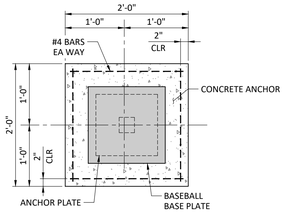

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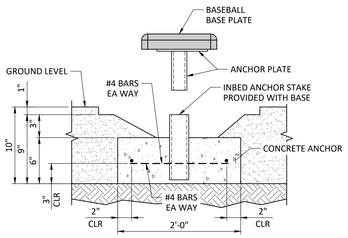
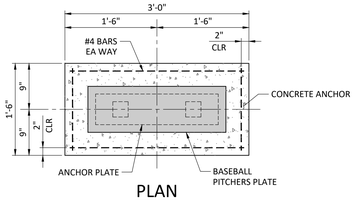


SECTION

1 BASEBALL BASE PLATE ANCHOR
N.T.S.



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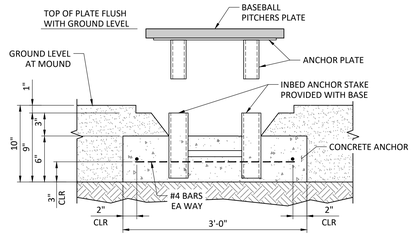
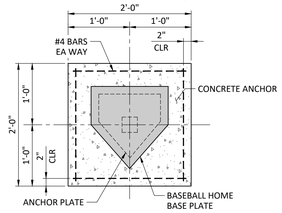


SECTION

2 BASEBALL PITCHER'S PLATE ANCHOR
N.T.S.



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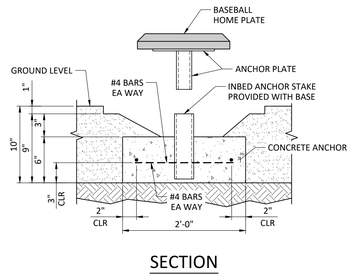
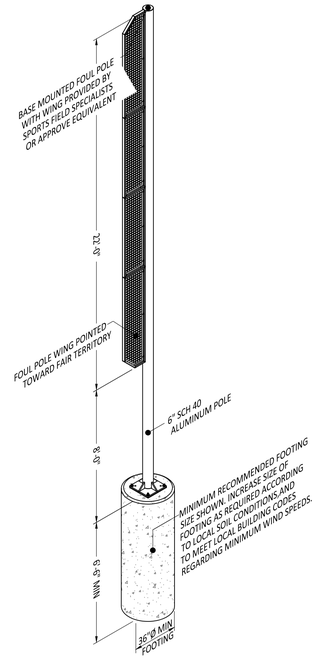


SECTION

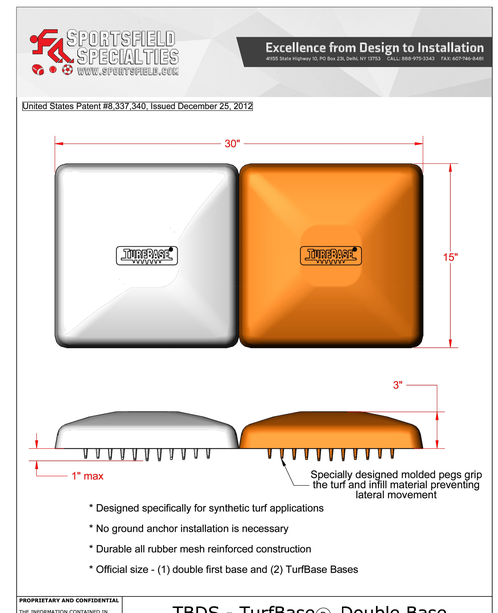
3 BASEBALL HOME PLATE ANCHOR
N.T.S.

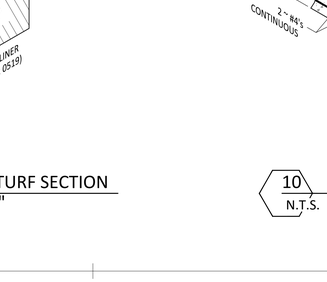


NOTE:
1. ALIGN FOUL POLE WITH FOUL LINE.

4 BASEBALL 30FT FOUL POLE (ALTERNATE #5)
N.T.S.

SUBGRADE NOTE:
1. CONTRACTOR MUST TREAT 8 INCHES OF EXISTING SUBGRADE (8% LIME) COMPACTED TO 95% MIN DENSITY.





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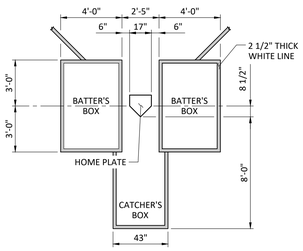
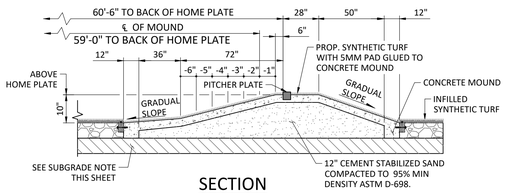
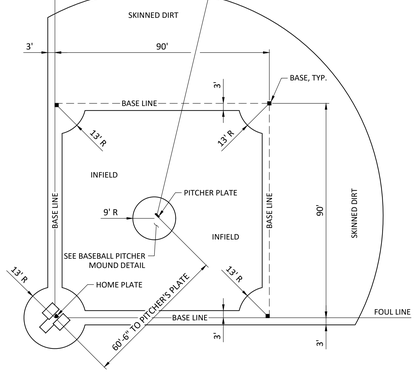


5 BASEBALL BATTER'S AND CATCHER'S BOX
N.T.S.

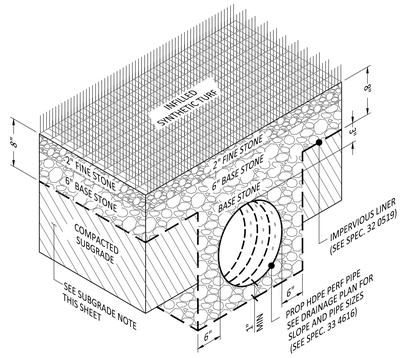


SECTION

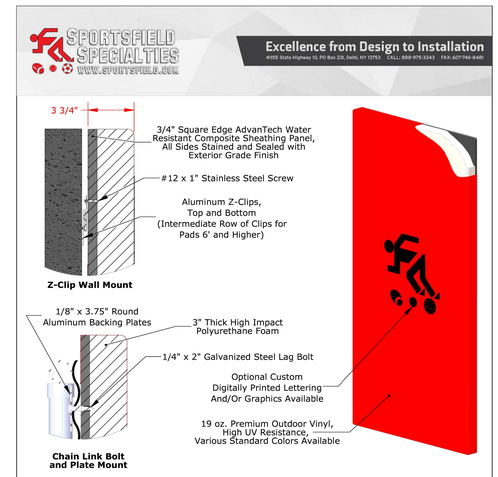
6 BASEBALL PITCHER CONCRETE MOUND WITH SYNTHETIC TURF
N.T.S.



7 BASEBALL INFIELD LAYOUT
N.T.S.



8 INFILLED SYNTHETIC TURF TRENCH SECTION
N.T.S.



Part Numbers *	Size	Attachment
BFWPZ44/BFWPZ44DG	4'W x 4'L x 3.75"D	Z-Clip Wall Mount
BFWPZ46/BFWPZ46DG	4'W x 6'L x 3.75"D	Z-Clip Wall Mount
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BFWPCL44/BFWPCL44DG	4'W x 4'L x 3.75"D	Chain Link Bolt and Plate Mount
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*DG Part Number Denotes Custom Digitally Printed Graphics

Final Layout and/or Graphic Rendering to be Completed upon Verification of Field Measurements

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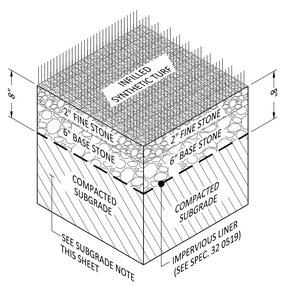
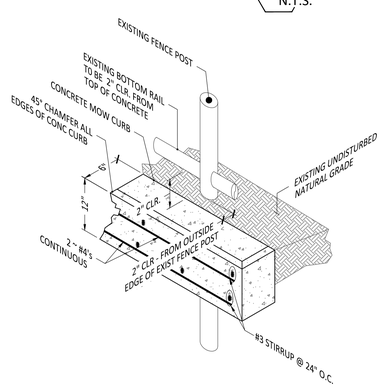
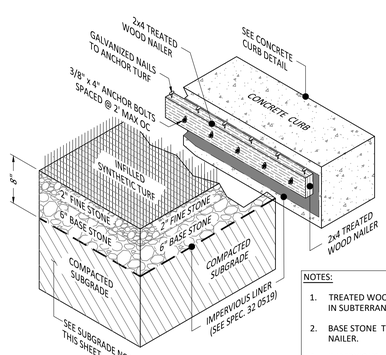
BaseZone® Field Wall Padding
Not To Scale
Sportsfield Specialties Inc 08182021



9 INFILLED SYNTHETIC TURF SECTION "FIELD AND BULLPEN"
N.T.S.



10 CONCRETE MOW CURB AT EXISTING FENCE
N.T.S.



NOTES:
1. TREATED WOOD NAILER TO BE RATED FOR USE IN SUBTERRANEAN CONDITIONS.
2. BASE STONE TO BE FLUSH WITH TOP OF NAILER.
3. IMPERVIOUS LINER SHALL EXTEND TO TOP OF NAILER BETWEEN NAILER AND CONCRTE CURB.
4. TREATED WOOD NAILER TO BE PLACED 2" BELOW THE CONCRETE CURB OR THE THICKNESS OF THE TURF PRODUCT TO BE USED.

11 WOOD NAILER SECTION
N.T.S.

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Houston, Texas 77046
pflugerarchitects.com

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KENNETH L. JURADO
119993
LICENSED
STATE OF TEXAS
ARCHITECT
10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
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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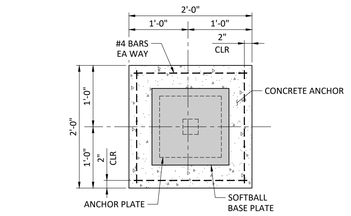
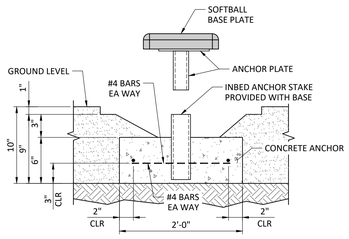
TSCE PROJECT # 2507

Project Status
C 5.02-W
CIVIL SPORTS
BASEBALL DETAILS



PLAN



SECTION

1 SOFTBALL BASE PLATE ANCHOR
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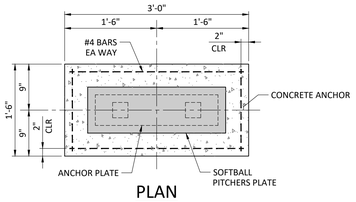
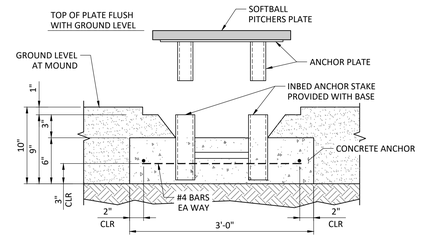


PLAN



SECTION

2 SOFTBALL PITCHER'S PLATE ANCHOR
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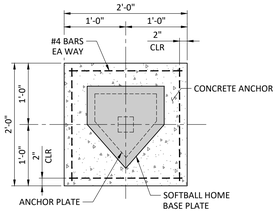
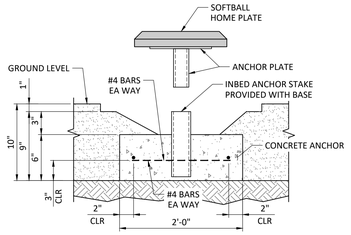


PLAN



SECTION

3 SOFTBALL HOME PLATE ANCHOR
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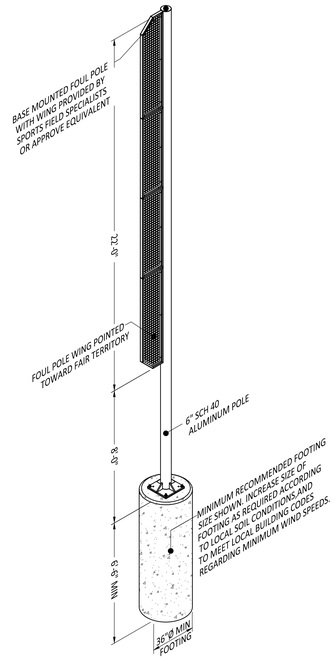
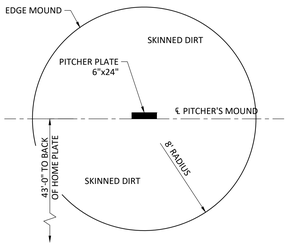


NOTE:
1. ALIGN FOUL POLE WITH FOUL LINE.

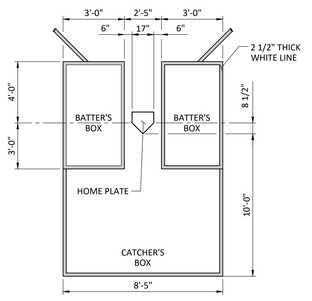
4 SOFTBALL 30FT FOUL POLE (ALTERNATE #5)
N.T.S.

SUBGRADE NOTE:

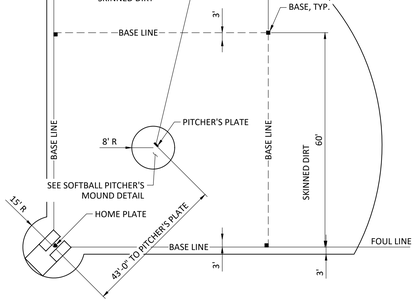
1. CONTRACTOR MUST TREAT 16 INCHES OF EXISTING SUBGRADE (8% LIME) COMPACTED TO 95% MIN DENSITY.



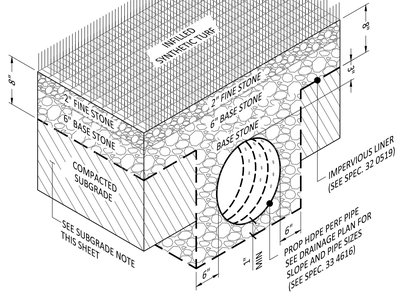
5 SOFTBALL PITCHER'S MOUND
N.T.S.



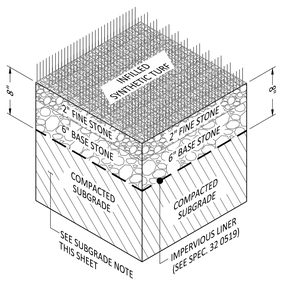
6 SOFTBALL BATTER'S AND CATCHER'S BOX
N.T.S.



7 SOFTBALL INFIELD LAYOUT
N.T.S.



8 INFILLED SYNTHETIC TURF TRENCH SECTION
N.T.S.



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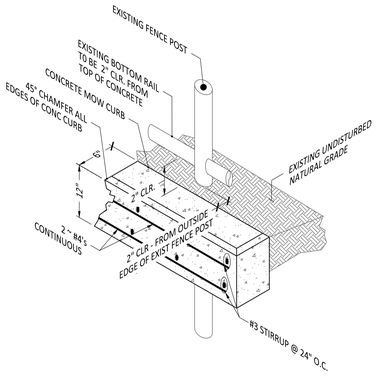
N.T.S.



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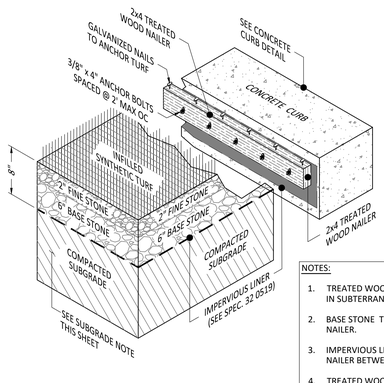

NOTES:
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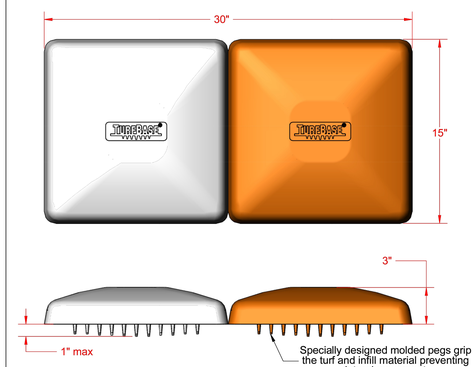
11 WOOD NAILER SECTION
N.T.S.

SPORTSFIELD SPECIALTIES
WWW.SPORTSFIELD.COM
Excellence from Design to Installation
4155 State Highway 10, PO Box 231, Delhi, NY 13753 CALL: 866-979-3343 FAX: 607-746-8481

United States Patent #8,337,340, Issued December 25, 2012



* Designed specifically for synthetic turf applications
* No ground anchor installation is necessary
* Durable all rubber mesh reinforced construction
* Official size - (1) double first base and (2) TurfBase Bases

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TBDS - TurfBase® Double Base

Not To Scale | Sportsfield Specialties Inc 105879.1-221227

C:\ENG\Sales Docs\Products\Baseball and Softball\Bases, Home Plates, and Pitching Rubbers\TurfBase\Cut Sheets\

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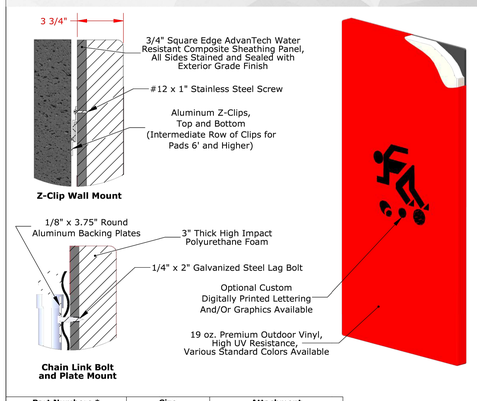

Part Numbers *	Size	Attachment
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Final Layout and/or Graphic Rendering to be Completed upon Verification of Field Measurements

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BaseZone® Field Wall Padding

Not To Scale | Sportsfield Specialties Inc 08182021

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11767 KATY FWY, SUITE 1112
HOUSTON, TEXAS 77079
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TSCE PROJECT # 2507

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Houston, Texas 77046
pflugerarchitects.com

WILLOWRIDGE HIGH SCHOOL
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16431 LEXINGTON BLVD.
SUGAR LAND, TX 77479

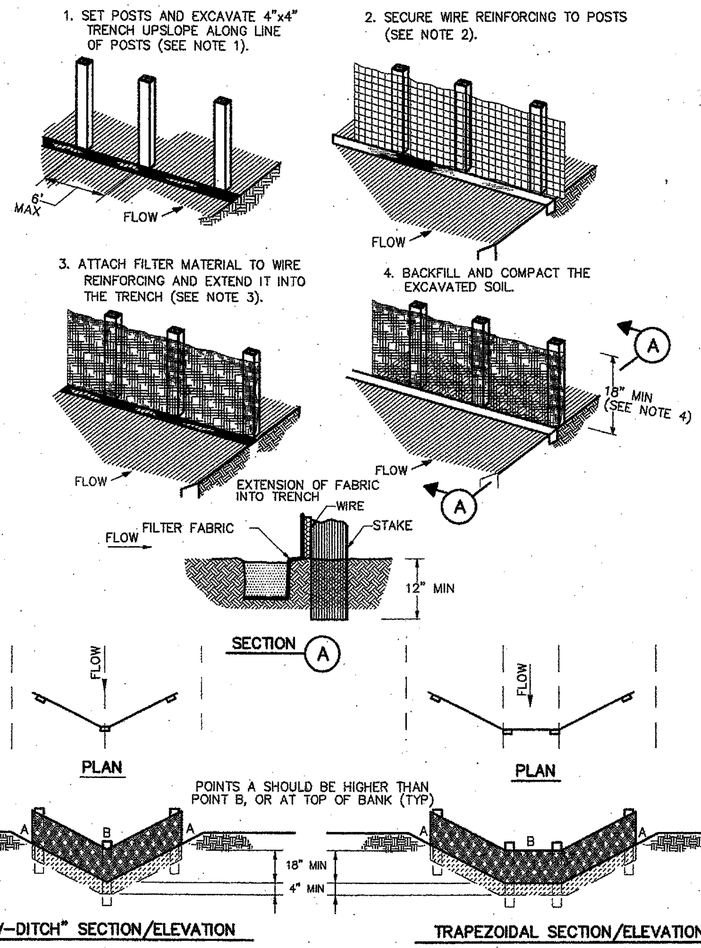
KENNETH L. JURADO 119993 LICENSED

10/09/2025

PROJECT NO. BP0110
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 5.03-W
CIVIL SPORTS SOFTBALL DETAILS

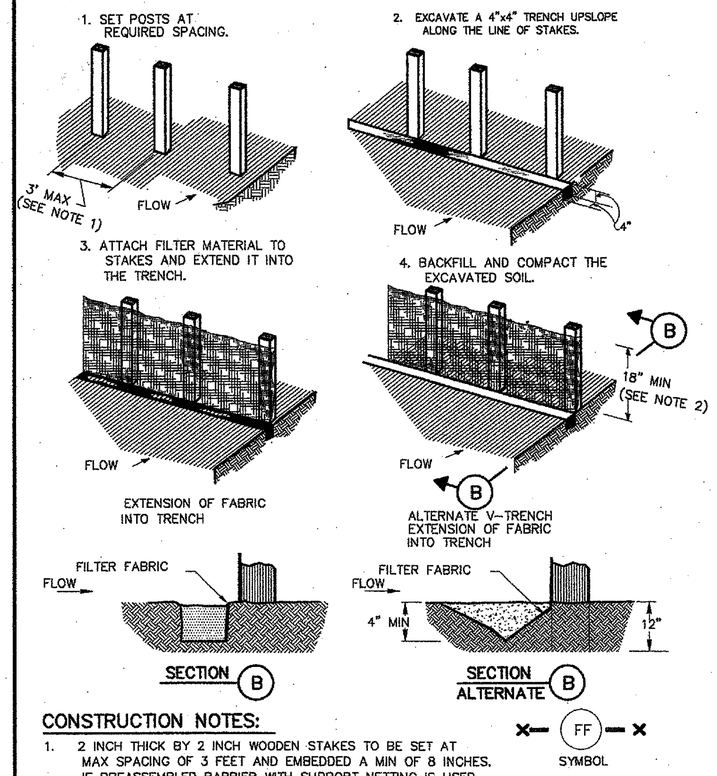


CONSTRUCTION NOTES:

1. SET 2 INCH BY 2 INCH WOODEN STAKES SPACED A MAX OF 6 FEET APART AND EMBEDDED A MIN OF 12 INCHES.
2. WOVEN WIRE REINFORCING TO BE FASTENED SECURELY TO BARRIER POSTS WITH STAPLES.
3. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE REINFORCING, WITH TIES SPACED EVERY 24 INCHES AT TOP AND MIDSECTION.
4. MINIMUM HEIGHT OF FILTER SHOULD BE 18 INCHES AND A MAXIMUM OF 36 INCHES ABOVE NATURAL GROUND.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.
6. SEE COH STANDARD SPECIFICATION FOR FILTER FABRIC BARRIER.

SYMBOL

REINFORCED FILTER FABRIC BARRIER

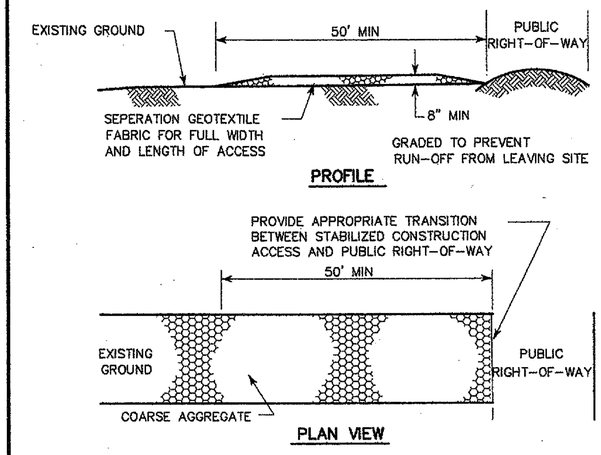


CONSTRUCTION NOTES:

1. 2 INCH THICK BY 2 INCH WOODEN STAKES TO BE SET AT MAX SPACING OF 3 FEET AND EMBEDDED A MIN OF 8 INCHES. IF PREASSEMBLED BARRIER WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAX.
2. ATTACH FILTER FABRIC TO WOODEN STAKES. FILTER FABRIC BARRIER SHALL HAVE A MIN HEIGHT OF 18 INCHES AND MAX HEIGHT OF 36 INCHES ABOVE NATURAL GROUND.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.
4. SEE COH STANDARD SPECIFICATION FOR FILTER FABRIC BARRIER.

SYMBOL

FILTER FABRIC BARRIER

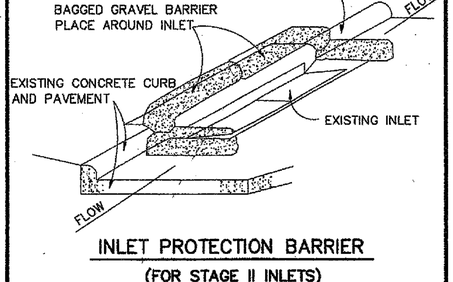


CONSTRUCTION NOTES:

1. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN 50 FEET.
2. THICKNESS SHALL BE NOT LESS THAN 8 INCHES.
3. WIDTH SHALL BE NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
4. STABILIZATION FOR OTHER AREAS SHALL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION ACCESS, UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
5. STABILIZED AREA MAY BE WIDENED OR LENGTHENED TO ACCOMODATE A WASHING AREA. AN OUTLET SEDIMENT TRAP MUST BE PROVIDED FOR THE WASHING AREA.
6. COH STANDARD SPECIFICATION FOR STABILIZED CONSTRUCTION ACCESS.
7. STABILIZED CONSTRUCTION ACCESS SHALL BE MAINTAINED FREE OF SEDIMENT FOR THE DURATION OF THE PROJECT.

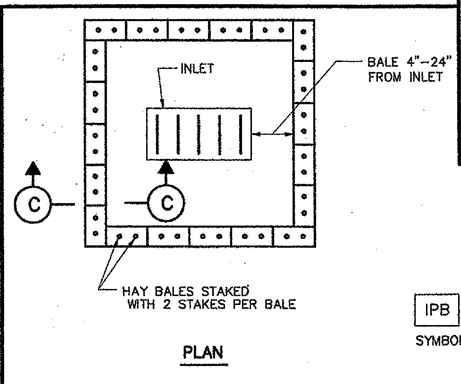
SYMBOL

STABILIZED CONSTRUCTION ACCESS

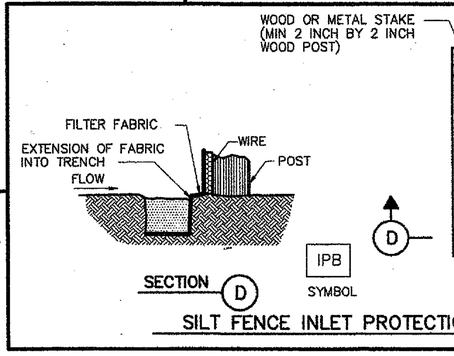


INLET PROTECTION BARRIER

(FOR STAGE II INLETS)
BAGGED GRAVEL BARRIER



HAY BALE INLET PROTECTION BARRIER



SILT FENCE INLET PROTECTION BARRIER

CONSTRUCTION NOTE:

1. SEE CONSTRUCTION NOTES FOR RFB.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

STORM WATER POLLUTION PREVENTION PLAN DETAILS

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010	DWG NO: 01571-01

COH

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

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KENNETH I. JURADO
119993
LICENSED
STATE OF TEXAS
10/09/2025

PROJECT NO. BP010
DATE: NOVEMBER 15, 2023
DRAWN BY: EJS CHECKED BY: KJ
REVISIONS:

#	Date	Description

Project Status
C 5.04-W
CIVIL SPORTS
SWPP 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 # 2507



PHOTO OF EXISTING BASEBALL DUGOUT



PHOTO OF EXISTING BASEBALL BACKSTOP

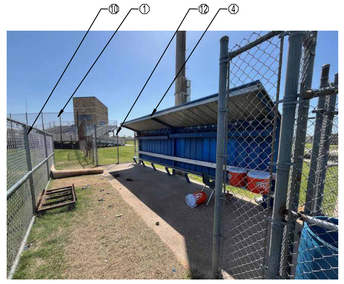
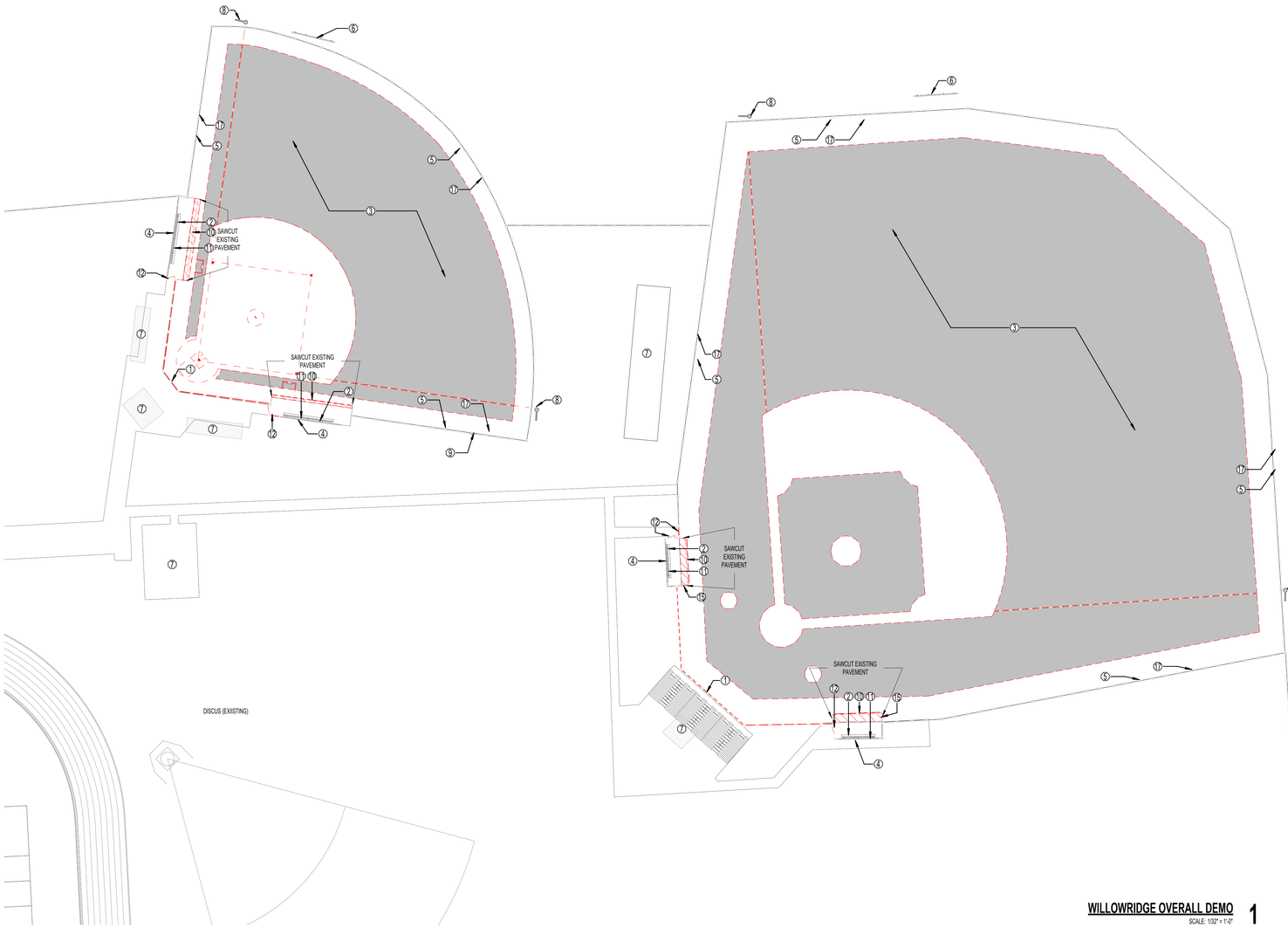


PHOTO OF EXISTING BASEBALL DUGOUT



WILLOWRIDGE OVERALL DEMO 1
SCALE: 1/32" = 1'-0"



PHOTO OF EXISTING SOFTBALL DUGOUT

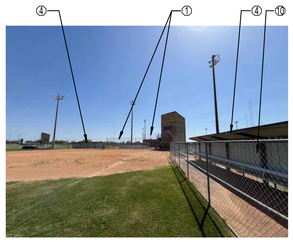
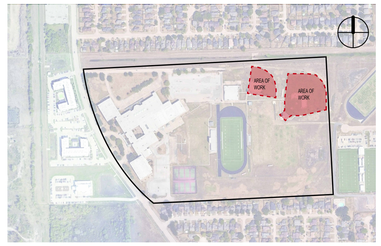


PHOTO OF EXISTING SOFTBALL BACKSTOP



PHOTO OF EXISTING SOFTBALL DUGOUT



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

DEMOLITION LEGEND

- ELEMENTS TO BE DEMOLISHED OR REMOVED FROM SPACE
- REMOVE EXISTING CONCRETE PAVING, ASPHALT, AND SIDEWALK
- DEMOLISHED STRUCTURES

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/GRAPHICS AND FINISHES DURING THE DEMOLITION/CONSTRUCTION PROCESS UNLESS OTHERWISE NOTED.
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. DISPOSE OF ALL REMOVED MATERIALS OFF-SITE IN ACCORDANCE WITH LOCAL REGULATIONS.

DEMOLITION KEY NOTES

TAG #	NOTES
1.	DEMOLISH EXISTING CHAINLINK BACKSTOP FENCE AND POSTS. REMOVE ALL EXISTING CHAINLINK FENCING, LINE POSTS, CORNER POSTS, TERMINAL POSTS, TOP RAILS, TENSION WIRE, GATES, AND ASSOCIATED HARDWARE WITHIN THE LIMITS OF DEMOLITION AS SHOWN ON THE DRAWINGS. REMOVAL SHALL INCLUDE ALL CONCRETE FOOTINGS AND EMBEDDED MATERIALS.
2.	PROTECT EXISTING STEEL BENCH STRUCTURE, ELECTRICAL OUTLETS, CONDUITS, AND ANY WIRING MOUNTED TO OR BEHIND THE BENCH DURING DEMOLITION.
3.	REMOVE EXISTING NATURAL TURF FIELDS, SOIL, AND EXISTING SUBGRADE TO DEPTHS NOTED ON CIVIL GRADING DRAWINGS. CONTRACTOR IS RESPONSIBLE TO REVIEW SURVEYS PROVIDED IN CONSTRUCTION DOCUMENTS TO REMOVE AND RELOCATE UNDERGROUND UTILITY LINES, LOW VOLTAGE RACEWAYS, AND IRRIGATION LINES WITHIN THE LIMITS OF DEMOLITION AS SHOWN ON THE DRAWINGS. REMOVE ALL ORGANIC MATERIAL, ROOTS, BASE PLATES, AND ANY EXISTING SITE ELEMENTS OR OBSTRUCTIONS ENCOUNTERED DURING DEMOLITION. GRADE AREAS TO MAINTAIN POSITIVE DRAINAGE AND PROVIDE SMOOTH TRANSITION TO ADJACENT SURFACES AS NOTED ON CIVIL GRADING DRAWINGS.
4.	EXISTING DUGOUTS TO REMAIN. PROTECT ALL EXISTING DUGOUT STRUCTURES, INCLUDING CMU WALLS, METAL ROOFING, STEEL FRAMING, DOORS, PAINTED FINISHES, ELECTRICAL CONDUITS, LIGHT FIXTURES, AND ACCESSORIES FROM CONSTRUCTION TRAFFIC.
5.	EXISTING OUTFIELD FENCE TO REMAIN. PROTECT ALL SECTIONS OF EXISTING OUTFIELD FENCE, INCLUDING CHAIN LINK AND WOOD PANEL SECTIONS, POSTS, TOP RAILS, TENSION WIRE, AND ANY SAFETY CAP ALONG THE TOP EDGE.
6.	EXISTING SCOREBOARDS TO REMAIN. PROTECT EXISTING BASEBALL AND SOFTBALL SCOREBOARDS, INCLUDING ALL SUPPORT POLES, ELECTRICAL CONNECTIONS, CONTROL CABLING, AND MOUNTED COMPONENTS THROUGHOUT DEMOLITION AND CONSTRUCTION. NO WORK IS INCLUDED IN THE SCOPE FOR THE SCOREBOARDS.
7.	EXISTING BLEACHERS, PRESS BOXES, AND HITTING CAGES TO REMAIN. PROTECT ALL EXISTING BLEACHER STRUCTURES, PRESS BOXES, AND HITTING CAGES FOR BOTH BASEBALL AND SOFTBALL FIELDS. PROTECTION SHALL INCLUDE METAL FRAMING, SEATING, HANDRAILS, STAIRS, CONCRETE FOUNDATIONS, ELECTRICAL CONNECTIONS, BATTING CAGE NETTING, POSTS, AND ANY ASSOCIATED EQUIPMENT OR ACCESSORIES.
8.	**ALTERNATE NO. 05** INSTALL NEW FOUL POLES. DEMOLISH EXISTING FOUL POLES IN THEIR ENTIRETY, INCLUDING ASSOCIATED HARDWARE AND ACCESSORIES. EXISTING FOUNDATIONS SHALL BE REMOVED TO FULL DEPTH TO AVOID INTERFERENCE WITH NEW WORK. RESTORE SURROUNDING AREAS TO MATCH ADJACENT CONDITIONS AFTER REMOVAL.
9.	EXISTING DOUBLE CHAIN LINK FENCE GATES AND POSTS TO REMAIN. PROTECT IN PLACE DURING CONSTRUCTION.
10.	RELOCATE EXISTING CHAIN LINK FENCE IN FRONT OF DUGOUT IN ITS ENTIRETY, INCLUDING POSTS, FOOTINGS, AND HARDWARE. REMOVE ALL COMPONENTS AS REQUIRED TO ACCOMMODATE NEW WORK.
11.	DEMOLISH EXISTING SHELVES IN THEIR ENTIRETY, INCLUDING ALL SUPPORTS, BRACKETS, AND FASTENERS. REMOVE WITHOUT DAMAGING THE WALL SURFACE THEY ARE MOUNTED ON. PATCH AND REPAIR ANY SURFACES AFFECTED BY REMOVAL.
12.	DEMOLISH EXISTING CHAIN LINK FENCE AND GATE UP TO THE EDGE OF THE DUGOUT AS SHOWN. REMOVE ALL POSTS, FOUNDATIONS, HARDWARE, AND ACCESSORIES IN THEIR ENTIRETY. FOUNDATIONS SHALL BE REMOVED TO FULL DEPTH.
13.	DEMOLISH SITE ELEMENTS AS REQUIRED FOR PROPOSED DETENTION. CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UNDERGROUND ELECTRICAL LINES PRIOR TO EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING OR PROTECTING EXISTING LINES IF REQUIRED TO ACCOMMODATE NEW WORK. REFER: C2.21-A CIVIL DRAWINGS FOR LIMITS OF DETENTION AREA.
14.	EXISTING CONCRETE PAVEMENT TO REMAIN. REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO MATCH EXISTING FINISH AND ELEVATION. CLEAN SURFACES AFTER COMPLETION OF WORK.
15.	DEMOLISH EXISTING CONCRETE PAVEMENT. REFER TO DEMOLITION DRAWING 1ADY DUW FOR LIMITS OF REMOVAL. REMOVE CONCRETE TO FULL DEPTH INCLUDING BASE MATERIALS. PREPARE SUBGRADE FOR NEW CONCRETE PAVEMENT PER PLANS. COORDINATE WITH NEW WORK TO MAINTAIN CLEAN TRANSITIONS AND PROPER DRAINAGE.
16.	CONTRACTOR SHALL COORDINATE WITH OWNER TO IDENTIFY AND REMOVE ALL EXISTING SITE ELEMENTS THAT ARE TO BE REUSED OR RELOCATED PRIOR TO DEMOLITION ACTIVITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, GARBAGE BINS, WORKOUT OR MAINTENANCE EQUIPMENT, PORTABLE STORAGE ITEMS, AND MISCELLANEOUS FIELD ACCESSORIES. ALL ITEMS DESIGNATED FOR REUSE SHALL BE SAFELY STORED AND REINSTALLED AS DIRECTED BY OWNER. ANY ITEMS NOT IDENTIFIED FOR REUSE SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH LOCAL REGULATIONS.
17.	**ALTERNATE 07** (A) APPLY A NEW GALVANIZED FINISH TO EXISTING CHAINLINK FENCE. REFER TO MATERIAL SCHEDULE FOR GALVANIZED PAINT TYPE. CONTRACTOR SHALL REMOVE ANY ATTACHED ACCESSORIES, SIGNAGE, OR SAFETY CAPS AS REQUIRED TO PREPARE THE FENCE TO APPLY A NEW FINISH. (B). PAINT EXISTING WOOD FENCE. CLEAN, SCRAPE, AND REMOVE LOOSE OR PEELING PAINT. REPAIR ANY DAMAGED WOOD OR SURFACE AREAS PRIOR TO REFINISHING. REFER TO MATERIALS SCHEDULE FOR PAINT TYPE.

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BP010 TURF AND ATHLETICS

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

REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

Date	Description

ISSUED FOR CONSTRUCTION

AD1.00-W
DEMOLITION SITE PLAN

10/9/2025 5:54:28 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt

ABBREVIATIONS

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

SYMBOLS & LEGENDS

ARCHITECTURAL DRAWING SYMBOLS

- Name 101 FY(WTCH) — ROOM TAG WITH ROOM FINISH
- 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
- REVISION TAG
- REVISION CLOUD
- ALIGN — ALIGN FACES
- NOTE BY NUMBER - SHAPE MAY VARY
- NORTH ARROW
- OCC P.PROV REQ — 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 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
2. 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
3. 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.
4. 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
5. 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
6. 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.
7. 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.
8. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS
9. 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
10. 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.
11. ALL INTERIOR INSULATION SHALL BE NON-COMBUSTIBLE
12. ALL WINDOW OPENING SILL FLASHING SHALL BE END DAMMED
13. PROVIDE FIRE STOPS WHERE VER 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.
14. 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.
15. CONTRACTOR IS TO PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT
16. CONTRACTOR IS TO DOUBLE- UP METAL STUDS AT ALL DOOR OR CASED OPENINGS
17. VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK
18. ALL CONSTRUCTION AND EQUIPMENT IS NEW, UNLESS NOTED OTHERWISE
19. WHERE APPLICABLE, INSTALL ACCESS PANELS FOR VALVES, DAMPERS,CONTROLS, ETC. AND OTHERWISE INDICATED. COORDINATE WITH ARCHITECT & MEP ENGINEER PRIOR TO SELECTION AND INSTALLATION
20. 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.
21. PROVIDE MARKERBOARDS AND TACKBOARDS IN NEW AND/OR RENOVATED CLASSROOMS REFERENCE FLOOR PLANS FOR SIZES AND LOCATIONS. REFERENCE INTERIOR ELEVATION FOR MOUNTING HEIGHTS.
22. COORDINATE ROOF PENETRATIONS WITH M.E.P. DRAWINGS-PENETRATIONS SHALL BE FLASHED TO MEET " SMACNA" DETAIL REQUIREMENTS
23. WHERE DISSIMILAR MATERIALS MEET, PROVIDE BACKER ROD AND SEALANT TO SEAL JOINT, TYPICAL AROUND ENTIRE CAMPUS
24. 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.
25. 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
26. 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.
27. 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
28. 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
29. CONTRACTOR SHALL CROSS REFERENCE STRUCTURAL COMPONENT DIMENSIONS WITH STRUCTURAL DRAWINGS AND NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO INSTALLATION.
30. 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.
31. 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

DRAWING SHEET 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

CAMPUS DESIGNATOR

SHEET NUMBER IN DISCIPLINE

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BP010 TURF AND ATHLETICS

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ARCHITECT: TANNER ADAME
ARCHITECT REG. NO: 20113
DATE: 10/09/2025

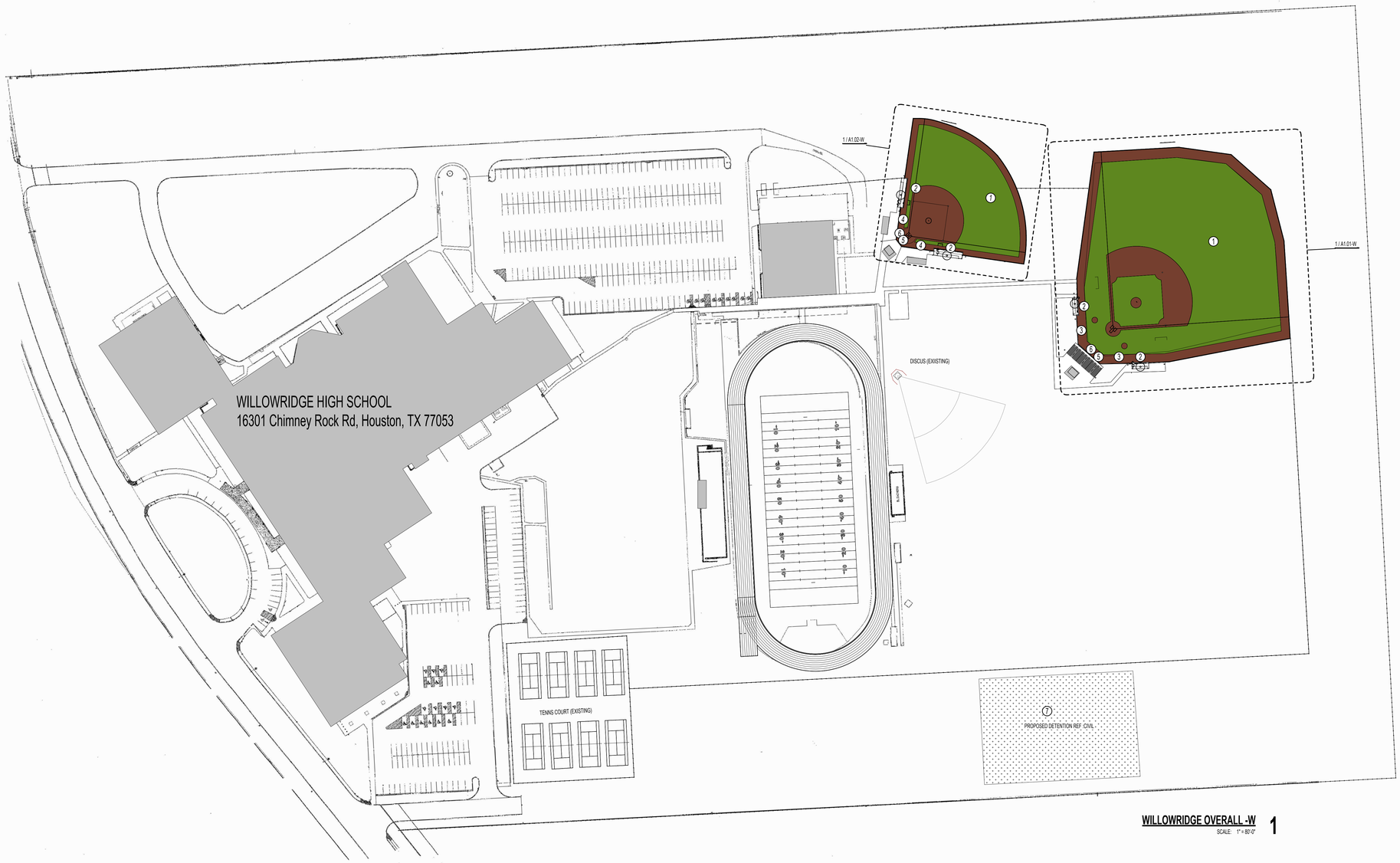
PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:
No. Date Description

ISSUED FOR CONSTRUCTION

A0.00-W
SYMBOLS & ABBREVIATIONS

UPDATED 08-21-21

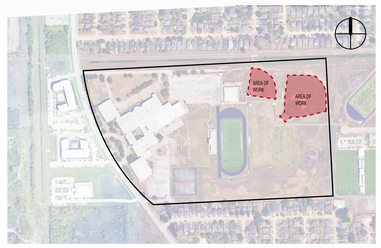
10/9/2025 5:54:35 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Ath/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt



WILLOWRIDGE OVERALL -W 1
SCALE: 1" = 80'-0"

AUTHORITY HAVING JURISDICTION (AHJ)- CITY OF HOUSTON

- 2021 International Building Code (with Houston Amendments)
- 2022 Minimum Design Loads & Associated Criteria for Buildings and Other Structures (ASCE-7)
- 2021 International Fire Code (with Houston Amendments)
- 2021 International Plumbing Code (with Houston Amendments)
- 2021 International Mechanical Code (with Houston Amendments)
- 2021 International Energy Conservation Code (with Houston Amendments)
- 2023 National Electric Code (State Mandated)



KEY PLAN - BASEBALL AND SOFTBALL AREA OF WORK

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00-D FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURISDICTION.
5. ALL NEW FENCING SHALL BE VINYL COATED CHAIN LINK,REF DRAWINGS FOR HEIGHT.
6. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.
9. PROVIDE 12" CONCRETE CURB AROUND PERIMETER OF ALL FIELDS 6" CENTERED ON ALL EXISTING AND NEW FENCING.
10. REFER TO CIVIL DRAWINGS FOR ALL GRADING AND SUBSURFACE UTILITY, DRAINAGE AND OTHER WORK.
11. PROVIDE CONTROL JOINTS AT ALL CONCRETE WALKS AS INDICATED. IF NO INDICATION OF JOINT PATTERN, SPACING, ETC., REFER TO SPECIFICATIONS. IF NO DIRECTION IS PROVIDED, CONTROL JOINTS SHALL BE TOOLED AT 5'-0" O.C. WITH EXPANSION JOINTS EVERY 20'-0". PROVIDE JOINT LAYOUT PLAN TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF CONCRETE.
12. PROVIDE EXPANSION FILLER STRIPS AND SEALANT AT ALL FLATWORK TO BUILDING, COLUMN, ADJACENT FLATWORK, OR OTHER ADJACENT SURFACE AS REQUIRED TO PROVIDE PROPER EXPANSION CONTROL. COORDINATE WITH ADJACENT SURFACE TO PROVIDE AS INCONSPICUOUS EXPANSION JOINT AS POSSIBLE. COORDINATE EXPANSION STRIP MATERIAL AND SEALANT WITH ADJACENT MATERIAL COLOR.
13. DELIVERIES / HEAVY TRAFFIC SHALL BE COORDINATED SO AS NOT TO DISRUPT CAMPUS ACTIVITIES. DELIVERIES / HEAVY TRAFFIC SHALL NOT OCCUR BETWEEN THE HOURS OF 7:30 AM - 9:00 AM OR 3:00 PM.
14. PROVIDE MIN. 1/2" EXPANSION JOINT WITH FILLER AT ALL TRANSITIONS BETWEEN CIVIL AND STRUCTURAL CONCRETE WORK, WHETHER ILLUSTRATED OR NOT.
15. SCORE LINES SHOWN ON PLANS MAY NOT BE FULLY INDICATIVE OF ALL SCORE LINES REQUIRED TO ENSURE THAT CONCRETE FLATWORK DOES NOT CRACK / FRACTURE. REFER TO PROJECT SPECIFICATIONS AND CIVIL DRAWINGS FOR FURTHER SCORE LINE REQUIREMENTS.
16. REFER TO A1.01 AND A1.02 ENLARGED SITE PLAN FOR TURF LAYOUT
17. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING ANY WORK. ANY DISCREPANCIES, CONFLICTS, OR UNFORESEEN CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT AND ENGINEER FOR CLARIFICATION AND RESOLUTION

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
- FV — FIELD VERIFY
- PROPOSED DETENTION

SITE PLAN KEYNOTES

TAG #	NOTES

1. INSTALL INFILL SYNTHETIC TURF. THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYNTHETIC TURF SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 32 18 23 FOR INSTALLATION REQUIREMENTS. REFER TO CIVIL DRAWINGS FOR SUBGRADE PREPARATION, DRAINAGE DETAILS, AND FINISH GRADES.
2. RENOVATE EXISTING DUGOUT. PRESSURE WASH ALL INTERIOR AND EXTERIOR SURFACES INCLUDING CMU WALLS, ROOF STRUCTURE, AND CONCRETE FLOOR. REPAIR CRACKS OR DAMAGED AREAS. PREPARE AND REFINISH ALL SURFACES PER PM SECTION 09 90 00. PROTECT EXISTING ELECTRICAL CONDUITS, FIXTURES, AND ACCESSORIES. REFER TO SHEET A1.04-E FOR ROOF DETAILS WHERE APPLICABLE.
3. INSTALL NEW 60'-0" HIGH BACKSTOP NETTING SYSTEM IN ACCORDANCE WITH PM SECTION 11 68 50. REFER TO STRUCTURAL DRAWINGS FOR PIER DIMENSIONS, REINFORCEMENT, AND POLE FOUNDATION DETAILS. INSTALL ALL EYEBOLTS, TURNBUCKLES, AND HARDWARE REQUIRED TO SECURE THE SYSTEM. ALIGN NETTING WITH BACKSTOP AND EXISTING FENCING TO ACHIEVE A CONTINUOUS SYSTEM.
4. INSTALL NEW 40'-0" HIGH SIDE NETTING SYSTEM TO MATCH BACKSTOP NETTING. REFER TO STRUCTURAL DRAWINGS FOR FOUNDATION AND CONNECTION DETAILS. COORDINATE INSTALLATION WITH ADJACENT CMU WALLS, SAFETY FENCING, AND EXISTING FIELD ELEMENTS TO MAINTAIN UNIFORM HEIGHT AND ALIGNMENT.
5. INSTALL NEW BACKSTOP PADDING ON CMU WALL SURFACES. REFER TO PM SECTION 11 68 50. COLOR, THICKNESS, AND FINISH PER MATERIAL SCHEDULE. ENSURE SEAMS ARE ALIGNED AND SECURELY FASTENED.
6. INSTALL NEW FACE BRICK 12" BACKSTOP WALL,36" TALL FOR BASEBALL AND 48" TALL FOR SOFTBALL. REFER TO MATERIAL SCHEDULE FOR BRICK TYPE, COLOR, AND FINISH. CONSTRUCT WALL PER STRUCTURAL DRAWINGS WITH REINFORCED CONCRETE FOOTING AND GROUTED CORES. COORDINATE WITH BACKSTOP PADDING AND NETTING INSTALLATION FOR CONTINUOUS ALIGNMENT.
7. PROPOSED DETENTION AREA. REFER TO CIVIL DRAWINGS FOR LAYOUT, GRADING, AND DRAINAGE DETAILS. VERIFY EXISTING SITE CONDITIONS PRIOR TO EXCAVATION. CONTRACTOR TO REFER TO UNDERGROUND RADAR SURVEY FOR PROPOSED DETENTION AREA. VERIFY ALL EXISTING UNDERGROUND UTILITIES, ELECTRICAL CONDUITS, DRAINAGE LINES, AND OTHER SUBSURFACE ELEMENTS PRIOR TO EXCAVATION. CONTRACTOR SHALL COORDINATE WITH CIVIL ENGINEER TO CONFIRM EXTENTS AND DEPTHS OF PROPOSED DETENTION SYSTEM. ANY EXISTING UTILITIES OR STRUCTURES ENCOUNTERED SHALL BE PROTECTED, RELOCATED, OR REMOVED AS REQUIRED TO ACCOMMODATE NEW WORK. REFER TO CIVIL DRAWINGS FOR LIMITS OF EXCAVATION, GRADING, AND CONNECTION DETAILS.

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: CKP CHECKED BY: CHK
REVISIONS:

	Date	Description

ISSUED FOR CONSTRUCTION

A1.00-W
ARCHITECTURAL SITE PLAN

10/9/2025 5:54:38 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt

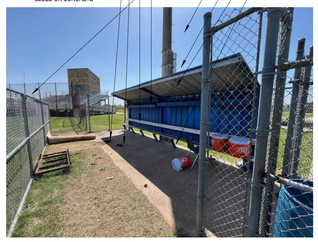


PHOTO OF EXISTING SOFTBALL LEFT DUGOUT

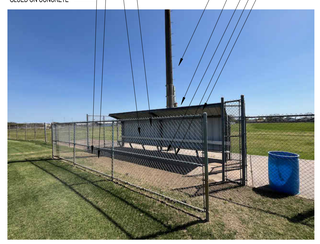
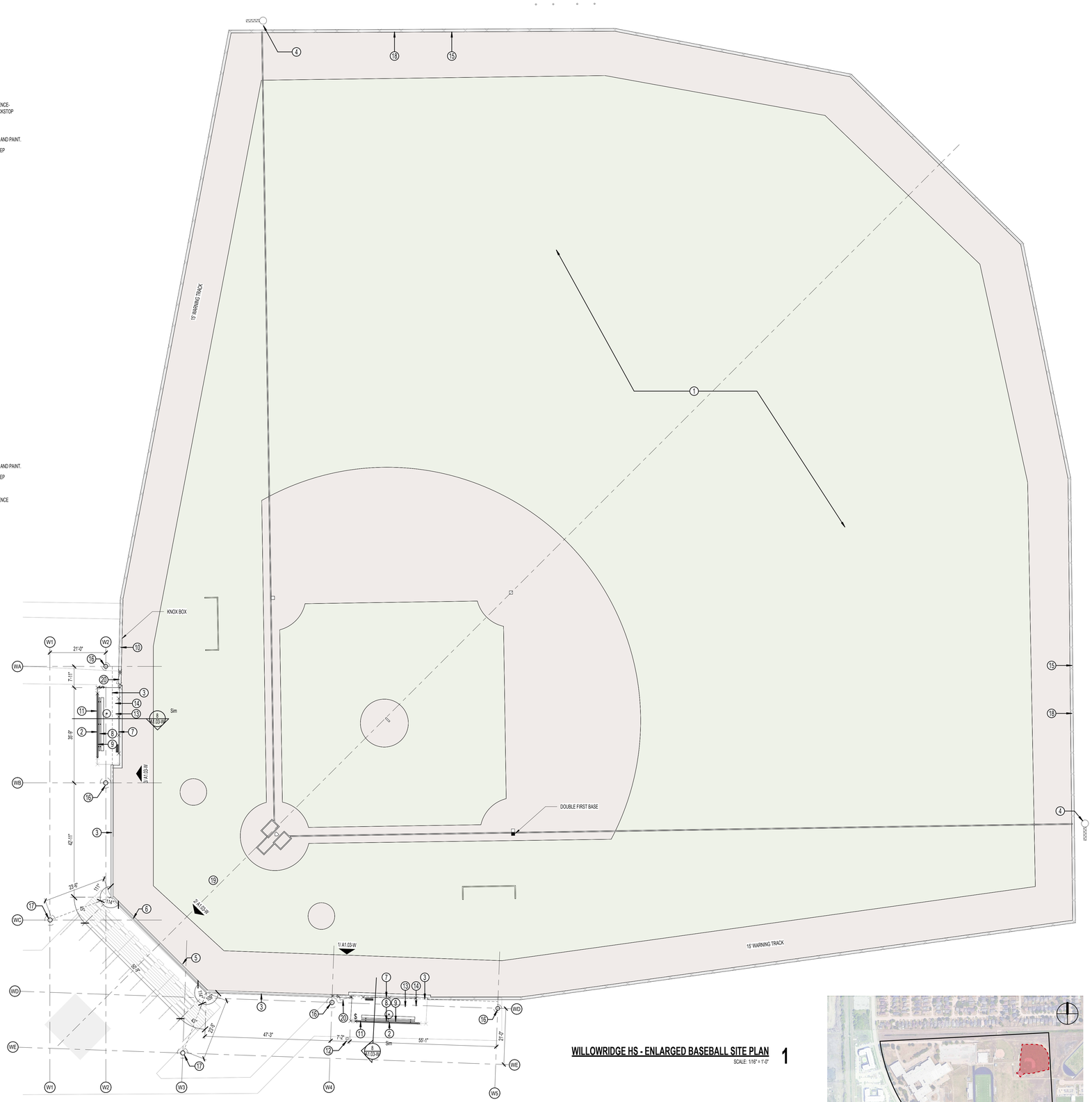


PHOTO OF EXISTING BASEBALL RIGHT DUGOUT



PHOTO OF EXISTING BASEBALL FENCE BACKSTOP



WILLOWRIDGE HS - ENLARGED BASEBALL SITE PLAN 1

SCALE: 1/16" = 1'-0"

KEY PLAN - BASEBALL AREA OF WORK

SITE PLAN GENERAL NOTES

1. REFER TO SHEET A 0.00-A FOR ADDITIONAL GENERAL NOTES.
2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
3. RE: G0.01 FOR CODE PLAN
4. PROVIDE KNOX PADLOCKS AT ALL FENCE GATES, INCLUDING MAN GATES AND EMERGENCY EXIT GATES, COMPLIABLE WITH THE AUTHORITY HAVING JURISDICTION.
5. ALL NEW FENCING SHALL BE PVC-COATED CHAIN LINK TO MATCH NETTING COLOR REF SECTION 32 31 15. REFER TO DRAWINGS FOR HEIGHT.
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. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.
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.

SITE PLAN LEGEND

	NEW CHAINLINK FENCE
	EXISTING CHAIN LINK FENCE
1 / A101 SIM	BUILDING SECTION TAG
1 / A101 SIM	WALL SECTION TAG
21 / A101 SIM	ENLARGED CALL OUT
FV	FIELD VERIFY

ENLARGED SITE PLAN KEYNOTES

TAG # NOTES

1. INSTALL INFILL SYNTHETIC TURF. THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYNTHETIC TURF SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 321823 FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS. REFER TO THE COLOR RENDERINGS ON SHEET G0.01-A FOR TURF COLOR AND DETAIL LAYOUTS. REFER TO CIVIL DRAWINGS FOR TURF DETAILS.
2. PRESSURE WASH ALL SIDES OF EXISTING DUGOUT, CONCRETE SLAB FLOOR, METAL ROOFING AND ROOFING STRUCTURE. REPAIR EXTERIOR METAL ROOF FLASHING. REPAIR METAL WALLS WITH FILLER AND PRIMER. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR EXTERIOR WOOD AND METAL SURFACES.
3. INSTALL 60' BACK STOP NETTING AND POLES AS NOTED IN PM SECTION 116850. INSTALL 70' 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.
4. **ALTERNATE NO.5:** INSTALL 30' FOUL POLE AS NOTED IN PM SECTIONS 116850. REFER TO STRUCTURAL DRAWINGS FOR PIER SCHEDULE AND DETAILS.
5. INSTALL BACKSTOP PADDING AS NOTED IN PM SECTIONS 116850. REFER TO DETAIL 1&3/ A1.04-A. REFER TO CIVIL FOR PRODUCT DATA. ATTACH PADDING PER MANUFACTURER'S RECOMMENDATIONS FOR MASONRY FACE BRICK AND CMU BACKSTOPS.
6. INSTALL 12" THICK FACE BRICK WALL 36" TALL BACKSTOP. REFER TO MATERIAL SCHEDULE FOR BRICK TYPE. REFER TO DETAIL SECTION 1&3/ A1 .04-A. REFER TO STRUCTURAL FOR FOUNDATIONS AND REINFORCEMENT REQUIREMENTS.
7. ADD SAFETY NETTING TO MATCH THE BACKSTOP NETTING. REFER TO SHEET A1.03-A FOR LOCATIONS AND DIMENSIONS. REFER TO 116850 BACKSTOP NETTING FOR SPECIFICATIONS. REFER TO MANUFACTURER DETAILS FOR ATTACHMENT RECOMMENDATIONS.
8. POWER WASH METAL SEATING, REPAIR, CLEAN.
9. INSTALL NEW HAT AND BAT RACKS REFER TO DETAILS XX.XX-A. REFER TO SPEC XXXXXX. REFER TO FINISH SCHEDULE FOR COLORS REQUIREMENTS.
10. EMERGENCY SWING GATE TO REMAIN. POWER WASH CLEAN, REPAIR, RE-COAT AND RE-GALVANIZE AS NOTED IN PM SECTION 099000.
11. **ALTERNATE NO.6:** INSTALL NEW ELECTRICAL LIGHTING AS NOTED IN ELECTRICAL DRAWINGS.
12. INSTALL NEW ANTI SIPHON AND ANTI-FREEZE WATER HYDRANT. REFER TO MEP DRAWING AND SPECIFICATIONS.
13. **ALTERNATE NO.6:** CONTRACTOR/INSTALLER SHALL ACID WASH EXISTING DUGOUT CONCRETE FLOOR. REMOVE SUB-FLOOR RIDGES AND BUMPS. FILL MINOR LOW SPOTS, CRACKS, JOINTS, HOLES, AND OTHER DEFECTS WITH SUB-FLOOR FILLER TO ACHIEVE SMOOTH SURFACE. VERIFY THAT SUBSTRATES ARE DRY ENOUGH AND READY FOR FLOORING INSTALLATION BY TESTING FOR MOISTURE AND PH. ADD EXTERIOR GRADE SELF LEVELING MATERIAL TO EVEN FLOOR SURFACE. PREPARE FLOOR TO RECEIVED GLUE DOWN SYNTHETIC TURF FLOORING.
14. **ALTERNATE NO.6:** PLACE GLUE DOWN SYNTHETIC TURF. REFER TO PM SECTION 32 18 20.
15. **ALTERNATE NO.7:** EXISTING 6'-0" PERIMETER CHAINLINK FENCE TO REMAIN. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR GALVANIZED METALS
16. INSTALL NEW 60'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
17. INSTALL NEW 70'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
18. 12" CONCRETE CURB AROUND EXISTING PERIMETER.
19. ALL DIMENSIONS ARE BASED ON EXISTING DRAWINGS AND ON SURVEYOR DRAWINGS ISSUED BY CLIENT. CONTRACTION TO FIELD VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.
20. 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.

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BP010 TURF AND ATHLETICS

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REGISTERED ARCHITECT MICHAEL ADAMS 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
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DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

ISSUED FOR CONSTRUCTION

A1.01-W
ENLARGED SITE PLAN
BASEBALL

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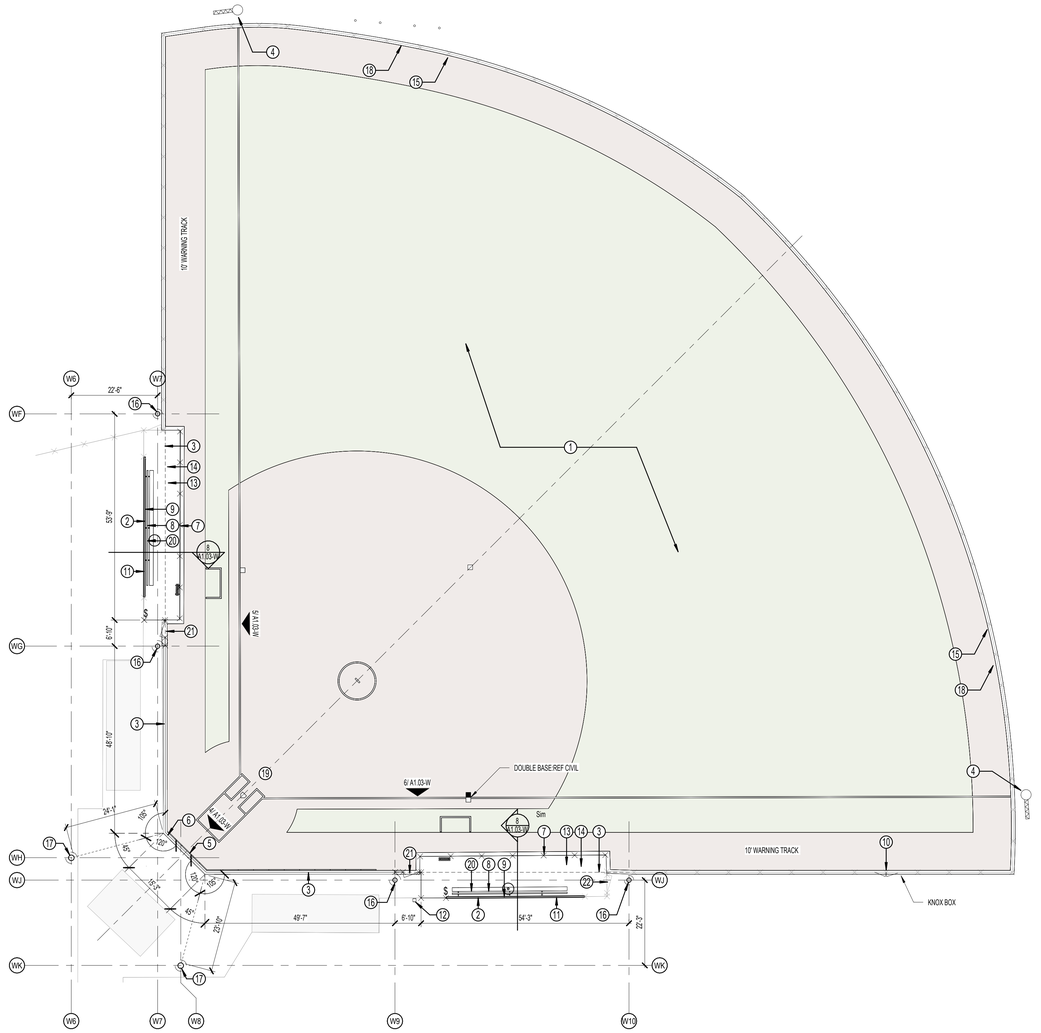
PHOTO OF EXISTING SOFTBALL RIGHT DUGOUT



PHOTO OF EXISTING SOFTBALL LEFT DUGOUT

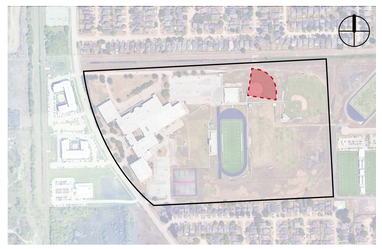


PHOTO OF EXISTING SOFTBALL FENCE BACKSTOP



WILLOWRIDGE HS - ENLARGED SOFTBALL SITE PLAN 1

SCALE: 1/16" = 1'-0"



KEY PLAN - SOFTBALL AREA OF WORK

SITE PLAN GENERAL NOTES

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2. RE: SHEET G0.02 & G0.03 FOR TAS REQUIREMENTS
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7. ALL DISTURBED AREAS SHALL BE FINISH GRADED, REVEGETATED, AND IRRIGATED. LARGE OPEN AREAS SHALL RECEIVE HYDROMULCH AND AREAS ALONG WALKWAYS OR PAVEMENT SHALL RECEIVE SOD.
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.

SITE PLAN LEGEND

- NEW CHAINLINK FENCE
- EXISTING CHAIN LINK FENCE
- BUILDING SECTION TAG (1 / A101, SIM)
- WALL SECTION TAG (1 / A101, SIM)
- ENLARGED CALL OUT (21 / A101, SIM)
- FV — FIELD VERIFY

ENLARGED SITE PLAN KEYNOTES

TAG # — NOTES

1. INSTALL INFILL SYNTHETIC TURF. THE SYNTHETIC TURF SYSTEM SHALL BE A RUBBER-SAND INFILL SYNTHETIC TURF SYSTEM INSTALLED OVER A FREE-DRAINING STONE BASE. REFER TO SPECIFICATION SECTION 321823 FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS. REFER TO THE COLOR RENDERINGS ON SHEET G0.01-A FOR TURF COLOR AND DETAIL LAYOUTS. REFER TO CIVIL DRAWINGS FOR TURF DETAILS.
2. PRESSURE WASH ALL SIDES OF EXISTING DUGOUT, CONCRETE SLAB FLOOR, METAL ROOFING AND ROOFING STRUCTURE. REPAIR EXTERIOR METAL ROOF FLASHING, REPAIR METAL WALLS WITH FILLER AND PRIMER. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR EXTERIOR WOOD AND METAL SURFACES.
3. 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.
4. **ALTERNATE NO.6:** INSTALL 30' FOUL POLE AS NOTED IN PM SECTIONS 116850. REFER TO STRUCTURAL DRAWINGS FOR PIER SCHEDULE AND DETAILS.
5. INSTALL BACKSTOP PADDING AS NOTED IN PM SECTIONS 116850. REFER TO DETAIL 1&3/ A1.04-A. REFER TO CIVIL FOR PRODUCT DATA. ATTACH PADDING PER MANUFACTURER'S RECOMMENDATIONS FOR MASONRY FACE BRICK AND CMU BACKSTOPS.
6. INSTALL 12" THICK FACE BRICK WALL 48" TALL BACKSTOP. REFER TO MATERIAL SCHEDULE FOR BRICK TYPE. REFER TO DETAIL SECTION 1&3/ A1. 04-A. REFER TO STRUCTURAL FOR FOUNDATIONS AND REINFORCEMENT REQUIREMENTS.
7. ADD SAFETY NETTING TO MATCH THE BACKSTOP NETTING. REFER TO SHEET A1.02-A FOR LOCATIONS AND DIMENSIONS. REFER TO 116850 BACKSTOP NETTING FOR SPECIFICATIONS. REFER TO MANUFACTURER DETAILS FOR ATTACHMENT RECOMMENDATIONS.
8. POWER WASH SEATING METAL FRAME. REPAIR, CLEAN, PRIME AND PAINT EXISTING METAL FRAME PER PM SECTION 099000.
9. INSTALL NEW HAT AND BAT RACKS REFER TO DETAILS XX.XX-A. REFER TO SPEC XXXXXX. REFER TO FINISH SCHEDULE FOR COLORS REQUIREMENTS.
10. EMERGENCY SWING GATE TO REMAIN. POWER WASH CLEAN, REPAIR. RE-COAT AND RE-GALVANIZE AS NOTED IN PM SECTION 099000.
11. **ALTERNATE NO.6:** INSTALL NEW ELECTRICAL LIGHTING AS NOTED IN ELECTRICAL DRAWINGS.
12. INSTALL NEW ANTI SIPHON AND ANTI-FREEZE WATER HYDRANT. REFER TO MEP DRAWING AND SPECIFICATIONS.
13. **ALTERNATE NO.6:** CONTRACTOR/INSTALLER SHALL ACID WASH EXISTING DUGOUT CONCRETE FLOOR. REMOVE SUB-FLOOR RIDGES AND BUMPS. FILL MINOR LOW SPOTS, CRACKS, JOINTS, HOLES, AND OTHER DEFECTS WITH SUB-FLOOR FILLER TO ACHIEVE SMOOTH SURFACE. VERIFY THAT SUBSTRATES ARE DRY ENOUGH AND READY FOR FLOORING INSTALLATION BY TESTING FOR MOISTURE AND PH. ADD EXTERIOR GRADE SELF LEVELING MATERIAL TO EVEN FLOOR SURFACE. PREPARE FLOOR TO RECEIVED GLUE DOWN SYNTHETIC TURF FLOORING.
14. **ALTERNATE NO.6:** PLACE GLUE DOWN SYNTHETIC TURF. REFER TO PM SECTION 32 18 20.
15. **ALTERNATE NO.7:** EXISTING 6'-0" PERIMETER CHAINLINK FENCE TO REMAIN. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR GALVANIZED METALS.
16. INSTALL NEW 40'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
17. INSTALL NEW 50'-0" BACKSTOP STEEL NETTING POLES. REFER TO REFER TO PM SECTION 116850. REF STRUCTURAL FOR PIERS AND REINFORCEMENT REQUIREMENTS. REFER MATERIAL SCHEDULE FOR PAINT AND COLORS. REFER TO BACKSTOP NETTING DETAILS FOR EYEBOLT DETAILS.
18. 12" CONCRETE CURB AROUND EXISTING PERIMETER.
19. ALL DIMENSIONS ARE BASED ON EXISTING DRAWINGS AND ON SURVEYOR DRAWINGS ISSUED BY CLIENT. CONTRACTION TO FIELD VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.
20. REMOVE EXISTING 2X WOOD BENCH SEATS. EXISTING METAL FRAME ALL METAL SHALL BE THOROUGHLY PREPARED TO ENSURE ADHESION OF NEW PAINT TO THE PREPARED SURFACE. PAINT ALL METAL SURFACES PER PM SECTION 116850. INSTALL NEW WOOD 2X SEATING. ALL WOOD SURFACES MUST BE SCRAPED, SANDED, AND SPOT PRIMED BEFORE A FULL PRIMING COAT IS APPLIED AND PAINT ACCORDING TO PM SECTION 099000.
21. 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.
22. EXISTING FENCE AND CHAINLINK FENCE TO REMAIN. PREPARE ALL SURFACES TO BE PAINTED ACCORDING TO SPEC SECTION 099000 FOR GALVANIZED METALS.

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BP010 TURF AND ATHLETICS

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16431 Lexington Blvd.
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REGISTERED ARCHITECT MICHAEL ADAME 20113 STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
DRAWN BY: DRW CHECKED BY: CHK
REVISIONS:

No.	Date	Description

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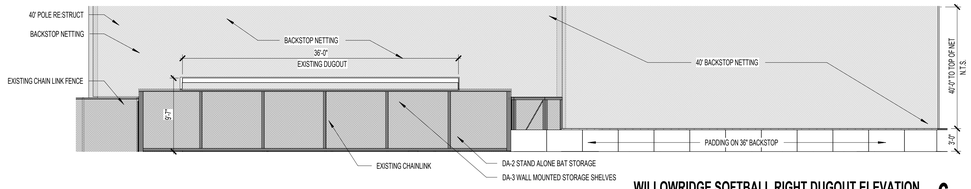
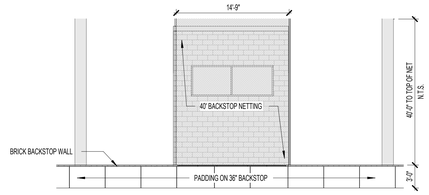
A1.02-W
ENLARGED SITE PLAN SOFTBALL

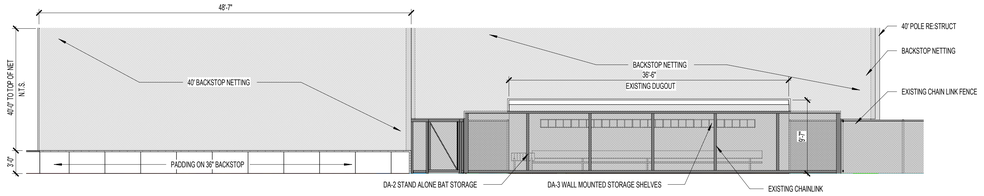
10/9/2025 5:54:41 PM Autodesk Docs://25-006 Fort Bend ISD - BP012 Field House & Athl/25-005_ARCH_FBISD ATHLETIC BP010_R25.rvt



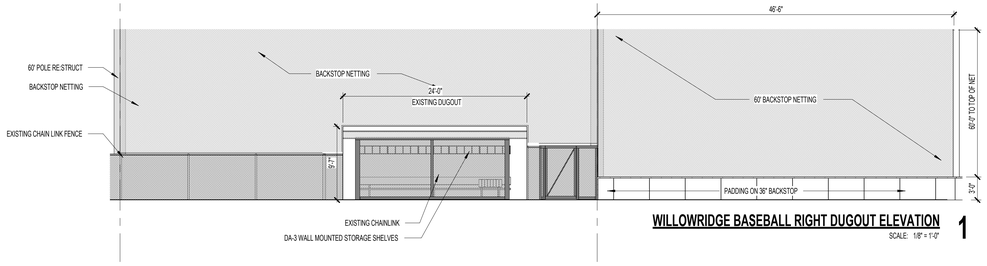
WILLOWRIDGE SOFTBALL RIGHT DUGOUT ELEVATION 6
SCALE: 1/8" = 1'-0"



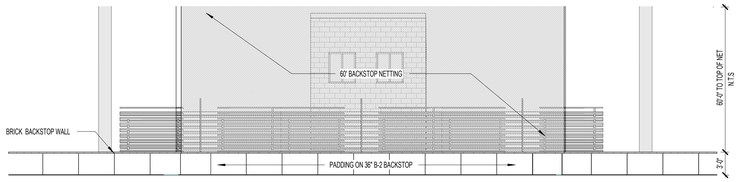
Elevation 10 - a 4
SCALE: 1/8" = 1'-0"



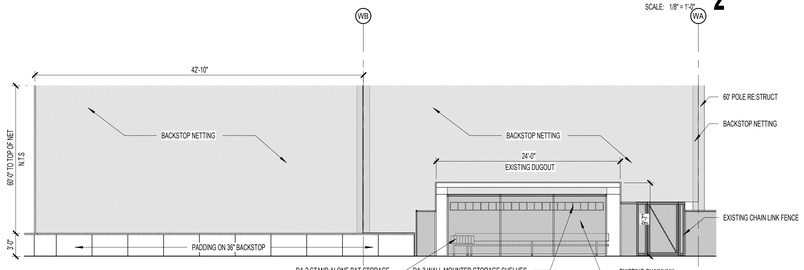
WILLOWRIDGE SOFTBALL LEFT DUGOUT ELEVATION 5
SCALE: 1/8" = 1'-0"



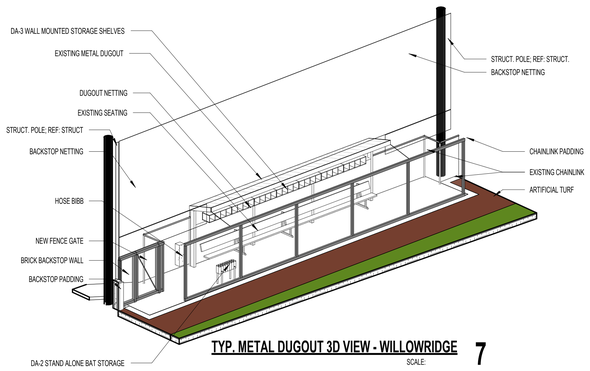
WILLOWRIDGE BASEBALL RIGHT DUGOUT ELEVATION 1
SCALE: 1/8" = 1'-0"



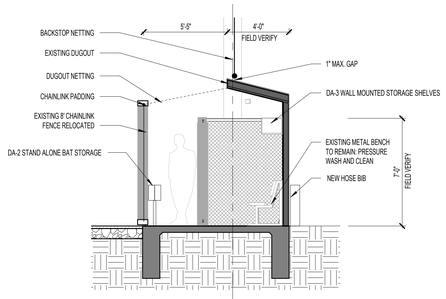
WILLOWRIDGE BASEBALL BACKSTOP ELEVATION 2
SCALE: 1/8" = 1'-0"



WILLOWRIDGE BASEBALL LEFT DUGOUT ELEVATION 3
SCALE: 1/8" = 1'-0"

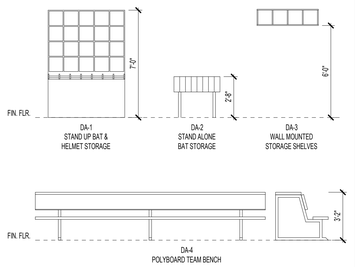


TYP. METAL DUGOUT 3D VIEW - WILLOWRIDGE 7
SCALE:



WILLOWRIDGE DUGOUT SECTION 8
SCALE: 1/4" = 1'-0"

DUGOUT EQUIPMENT LEGEND



DUGOUT EQUIPMENT: GENERAL NOTES

1. REFER TO MATERIAL AND EQUIPMENT SCHEDULE FOR COLOR SELECTIONS AND FINISHES PER SCHOOL.

EXTERIOR MATERIAL LEGEND

- BRICK (BR-1) UTILITY SIZE, RUNNING BOND, COLOR VARIES
- SMOOTH FACE BLOCK (CMU-1), RUNNING BOND
- CHAINLINK/NETTING

REFER TO MATERIAL SCHEDULE FOR ALL COLORS AND FINISHES, TYP.

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REGISTERED ARCHITECT
MICHAEL ADAME
20113
STATE OF TEXAS

DATE: 10/09/2025

PROJECT NO. 25-005
DATE: 10/09/2025
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REVISIONS:

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A1.03-W
BASEBALL AND SOFTBALL ELEVATIONS

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MATERIAL & EQUIPMENT SCHEDULE NOTES

1. REFER TO EXTERIOR ELEVATIONS FOR LOCATION, SIZES & TYPES OF EXTERIOR FINISHES.
2. ARCHITECT TO SELECT COLORS. CONTRACTOR TO COORDINATE LEAD TIMES FOR ALL MATERIALS TO MAINTAIN PROJECT SCHEDULE.
3. FIELD VERIFY ALL DIMENSIONS AS APPLICABLE TO ASSURE PROPER FIT W/ AS-BUILT CONDITIONS.
4. VERIFY W/ OWNER EXACT SIZE OF ALL EQUIPMENT FURNISHED BY OWNER FOR PROPER FIT.
5. PROVIDE CONTROL JOINTS AS SHOWN AND SPECIFIED.
6. REFERENCE DOOR TYPES AS SPECIFIED FOR EXACT DIMENSIONS AND TYPES OF EACH ITEM.
7. REFERENCE A100 SERIES FOR ADDITIONAL INFORMATION.
8. REFER TO G0.02 & G0.03 FOR REQUIRED MOUNTING HEIGHTS PER T.A.S

GENERAL NOTES

A. ALL FINISHES SUBJECT TO ARCHITECTS APPROVAL.

B. OWNER TO APPROVE FINAL MANUFACTURER AND MODEL FOR ALL ATHLETICS EQUIPMENT.

C. A MASTER MATERIAL AND EQUIPMENT SCHEDULE IS PROVIDED. REFER TO THE COLUMN LABELED WITH THE SCHOOL NAME TO IDENTIFY APPLICABLE COLORS AND NOTES FOR EACH SCHOOL, TYPICAL.

MATERIAL AND EQUIPMENT SCHEDULE

MARK	MATERIAL	MANUFACTURER	STYLE	AUSTIN HS	DULLES HS	ELKINS HS	KEMPNER HS	WILLOWRIDGE HS	SPECS	COMMENTS	ALTERNATE
01 EXTERIOR											
BR-1	BRICK	KANSAS BRICK & TILE CO.	UTILITY SIZE		530 MM			500 MIT GRAY		BACKSTOP	
CMU	EXISTING CMU			TO BE PAINTED BLACK (P-2)		TO BE PAINTED SCHOOL COLOR (P-3) REFER COLOR DIAGRAM FOR P-1 LOCATIONS			PAINT FINISH: EXTERIOR ACRYLIC ENAMEL. REF SPECS	EXISTING	
CMU-1	CONCRETE MASONRY UNIT	BEST BLOCK	SMOOTH FACE	TO BE PAINTED BLACK (P-2)		TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3) REFER COLOR DIAGRAM FOR P-1 LOCATIONS		PAINT FINISH: EXTERIOR ACRYLIC ENAMEL. REF SPECS	BACKSTOP	
M-1	METAL ROOF & STRUCTURE			TO BE PAINTED BLACK (P-2),	TO BE PAINTED SCHOOL COLOR (P-4)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	PAINT FINISH: EXTERIOR METAL FINISH, REF SPECS		
PM-1	PREFINISHED METAL			TO BE PAINTED BLACK (P-2)	TO BE PAINTED SCHOOL COLOR (P-4)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	TO BE PAINTED SCHOOL COLOR (P-3)	PAINT FINISH: EXTERIOR METAL FINISH, REF SPECS	ALL EXTERIOR METAL	
02 PAINT											
P-1	EXTERIOR PAINT	SHERWIN WILLIAMS		DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166	DRIFT OF MIST, SW 9166		WHITE, FIELD	
P-2	EXTERIOR PAINT	SHERWIN WILLIAMS		TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258	TRICORN BLACK, SW 6258		ACCENT, BLACK	
P-3	EXTERIOR PAINT	SHERWIN WILLIAMS		REAL RED, SW 6868	SHOW STOPPER, SW 7588	FRANK BLUE, SW 6967	FINE WINE, SW 6307	FRANK BLUE, SW 6967		ACCENT, SCHOOL COLOR	
P-4	EXTERIOR PAINT	SHERWIN WILLIAMS			HONORABLE BLUE, SW 6811	GLITZY GOLD, SW 6691	GRAY MATTERS, SW 7066	CADET, SW 9143		ACCENT, SCHOOL COLOR	
P-5	EXTERIOR PAINT	SHERWIN WILLIAMS		CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911	CONFIDENT YELLOW, SW 6911			
03 FLOORING											
TF-1	SYNTHETIC TURF									GREEN, FIELD	
TF-2	SYNTHETIC TURF									ACCENT, BROWN	
TF-3	SYNTHETIC TURF									ACCENT, WHITE	
EQUIPMENT											
	WALL MOUNTED STORAGE SHELVES	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	STAND ALONE BAT STORAGE	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	STAND UP BAT & HELMET STORAGE	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)	TO MATCH P-3 FOR BASEBALL AND P-4 FOR SOFTBALL	TO MATCH SCHOOL COLOR (P-4)			
	PADDING AROUND FENCE	SPORTSFIELD SPECIALITIES	PROZONE OUTDOOR	RED 186C	RED 186C	ROYAL BLUE 661C	GREY 8401C	ROYAL BLUE 661C			
	BENCHES	SPORTSFIELD SPECIALITIES		TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-3)	TO MATCH SCHOOL COLOR (P-4)			REF SPECS FOR PAINT FINISH WHERE APPLICABLE	WOOD BACKING, WOOD SEAT, METAL FRAME TO MATCH SCHOOL COLOR AS INDICATED	
	WALL PADDING	SPORTSFIELD SPECIALITIES	PROZONE OUTDOOR	RED 186C	RED 186C	ROYAL BLUE 661C	GREY 8401C	ROYAL BLUE 661C			
OTHER											
	NETTING POLES			TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	SUPER-DURABLE POWDER COAT, REF SPECS		
	FENCE GATE			TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	PVC (VYNIL) - COATED, REF SPECS	AT DUGOUT ENTRANCE	
	FOUL POLE			TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	TO BE PAINTED YELLOW (P-5)	POWDER COAT, REF SPECS		ALTERNATE 05
	NEW CHAIN-LINK FENCE			TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	TO BE PAINTED BLACK (P-2) BASEBALL AND SOFTBALL	PVC (VYNIL) - COATED, REF SPECS	AT DUGOUT ENTRANCE	
	WOOD FENCE (BATTER'S EYE/OUTFIELD)			TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)	TO BE PAINTED BLACK (P-2)			BASEBALL ONLY	ALTERNATE 07
	CONCRETE CURB			TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)	TO BE PAINTED WHITE (P-1)		REF TO SPECS FOR PAINT FINISH		
	NETTING		#36 UDR2 DYNEEMA	BLACK	BLACK	BLACK	BLACK				
	EXISTING CHAIN-LINK FENCE			ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND	ZINC-CLAD COLD GALVANIZING COMPOUND		GALVANIZED FINISH, REF SPECS	FIELD PERIMETER	ALTERNATE 07

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A1.04-W
MATERIAL AND EQUIPMENT SCHEDULE

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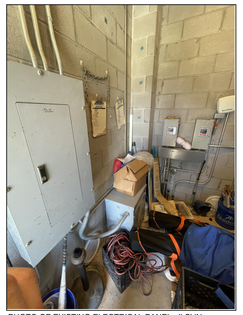


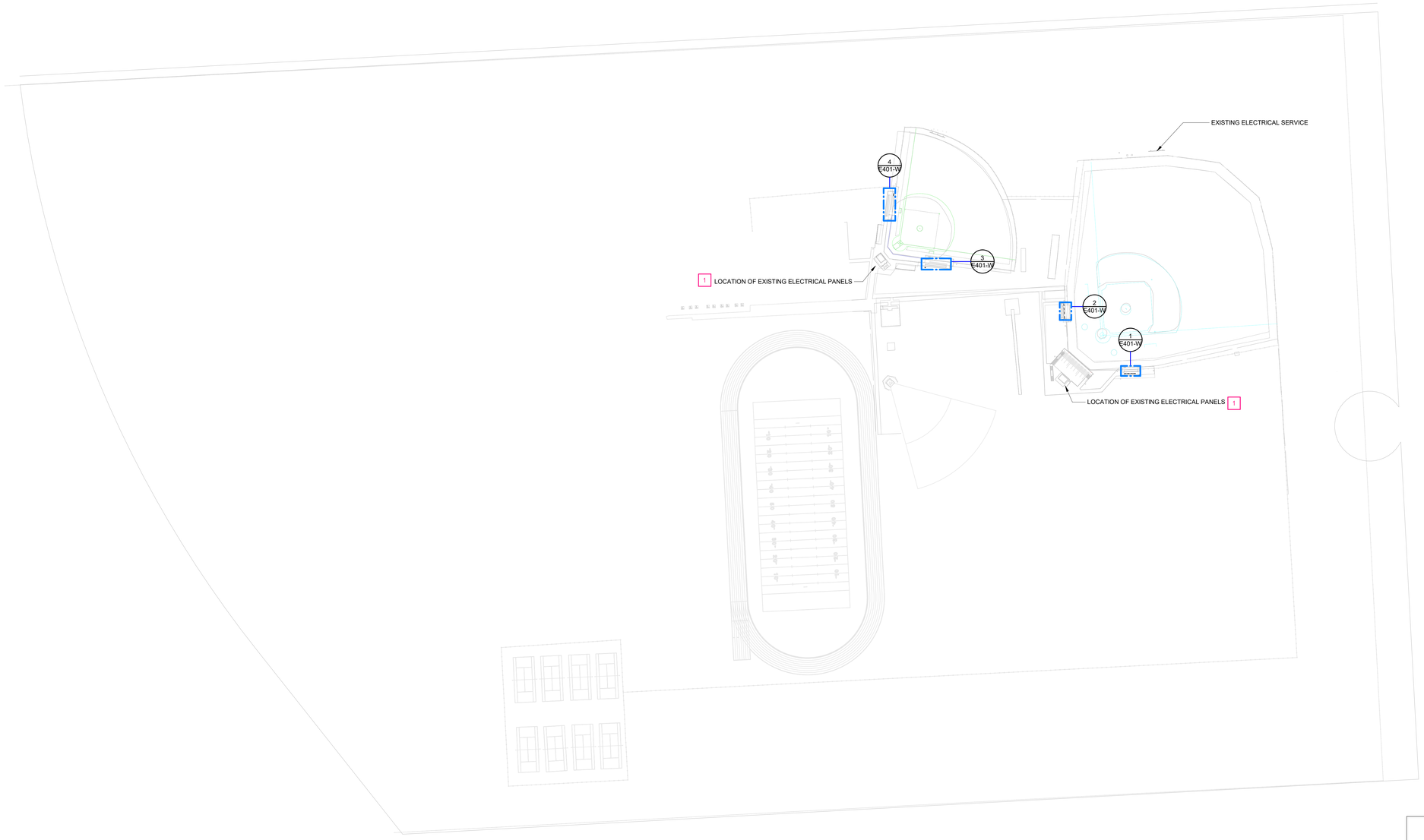
PHOTO OF EXISTING ELECTRICAL PANEL - 'LS' IN SOFTBALL PRESSBOX



PHOTO OF EXISTING ELECTRICAL PANEL - 'LB' IN BASEBALL PRESSBOX



PHOTO OF EXISTING ELECTRICAL SERVICE



1 ELECTRICAL SITE PLAN - WILLOWRIDGE HS FIELDS
1" = 80'-0"

E. SITE PLAN NOTES

1. UNDERGROUND CONDUIT ROUTING SHALL BE COORDINATED WITH EXISTING PAVEMENT AND UNDERGROUND UTILITIES. COORDINATE WITH CIVIL PLANS FOR MORE INFORMATION. PROVIDE PULL STRING FOR ALL UNDERGROUND EMPTY CONDUITS. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS.
2. THE GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES TO ENSURE THE FULL PROJECT SCOPE IS REVIEWED PRIOR TO EXCAVATION. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER REGARDING THE WORK SCHEDULE, REQUIRED FENCING, AND PROTECTIVE MEASURES. THE GENERAL CONTRACTOR SHALL VERIFY EXISTING SITE UTILITIES AND CONDITIONS WITH CIVIL ENGINEER DRAWINGS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND UTILITIES. IF A SUBCONTRACTOR CAUSES DAMAGE, REPAIRS TO RESTORE FULL FUNCTIONALITY SHALL BE AT THE CONTRACTOR'S EXPENSE.
3. PRIOR TO TRENCHING, THE CONTRACTOR SHALL COORDINATE UNDERGROUND CONDUIT ROUTING WITH EXISTING AND PROPOSED IMPROVEMENTS, TREES, ROOT SYSTEMS, AND UNDERGROUND UTILITIES, AND OBTAIN OWNER APPROVAL FOR THE ROUTING PATH. PROTECTION OF EXISTING PLANTINGS AND PREVENTION OF ROOT ZONE COMPACTION ARE HIGH PRIORITIES FOR THE OWNER. ANY PLANT DAMAGE, AS DETERMINED BY THE OWNER, SHALL BE REPLACED WITH MATERIAL OF LIKE SIZE AT THE CONTRACTOR'S EXPENSE. COORDINATE WITH CIVIL PLANS FOR ADDITIONAL DETAILS. PROVIDE PULL ROPE IN ALL EMPTY UNDERGROUND CONDUITS. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS. THE CONTRACTOR SHALL MEET WITH THE OWNER'S ELECTRICIAN PRIOR TO STARTING WORK.

E - SHEET LIST

SHEET NUMBER	SHEET NAME
E001-A	ELECTRICAL SITE PLAN - AUSTIN HS FIELDS
E101-A	GENERAL NOTES, ABBREV., & LEGEND
E110-A	ELECTRICAL
E401-A	ENLARGED PLANS - AUSTIN HS FIELDS - ELECTRICAL
E001-D	ELECTRICAL SITE PLAN - DULLES HS FIELDS
E101-D	GENERAL NOTES, ABBREV., & LEGEND
E110-D	ELECTRICAL
E401-D	ENLARGED PLANS - DULLES HS FIELDS - ELECTRICAL
E001-E	ELECTRICAL SITE PLAN - ELKINS HS FIELDS
E101-E	GENERAL NOTES, ABBREV., & LEGEND
E110-E	ELECTRICAL
E401-E	ENLARGED PLANS - ELKINS HS FIELDS - ELECTRICAL
E001-K	ELECTRICAL SITE PLAN - KEMPNER HS FIELDS
E101-K	GENERAL NOTES, ABBREV., & LEGEND
E110-K	ELECTRICAL
E401-K	ENLARGED PLANS - KEMPNER HS FIELDS - ELECTRICAL
E001-W	ELECTRICAL SITE PLAN - WILLOWRIDGE HS FIELDS
E101-W	GENERAL NOTES, ABBREV., & LEGEND
E110-W	ELECTRICAL
E401-W	ENLARGED PLANS - WILLOWRIDGE HS FIELDS - ELECTRICAL

E - KEYED NOTES

#	
1	PROVIDE ELECTRICAL CONNECTION FOR RECEPTACLES AND LIGHTING FROM EXISTING PANEL. ROUTE (1) CIRCUIT PER DUGOUT BOX TO NEAREST 120V/208V PANEL.

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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PROJECT STATUS

E001-W
ELECTRICAL SITE PLAN - WILLOWRIDGE HS FIELDS

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GENERAL ELECTRICAL NOTES:

1. CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE, AND APPLICABLE CODES, 2023 NEC, 2021 IBC, NFPA, ETC., AND ALL OTHER LOCAL CODES AND AMENDMENTS WHERE THERE ARE CONFLICTS BETWEEN CODES, STANDARDS, DRAWINGS AND SPECIFICATIONS ARISE, THE MORE STRINGENT SHALL APPLY.
2. ALL DRAWINGS AND SPECIFICATIONS (INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING, ETC) ARE DEVELOPED TO BE AN INCLUSIVE SET. ANY CONFLICTS WITHIN SHALL BE BROUGHT TO THE DESIGN'S TEAM ATTENTION. CONTRACTOR SHALL NOT MAKE ANY CHANGES TO THE DESIGN OR CONTRACT WITHOUT WRITTEN CONSENT FROM THE OWNER. THE CONTRACTOR WILL PROVIDE SUBMITTALS OF EQUIPMENT AND MATERIAL AT THE REQUEST OF THE OWNER, ARCHITECT, OR ENGINEER PRIOR TO PURCHASE (VERIFY WHICH SUBMITTALS ARE REQUIRED).
3. WORK SHALL BE INSTALLED IN A WORKMANLIKE FASHION. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS.
4. MAINTAIN THE CONSTRUCTION PREMISES IN A NEAT AND ORDERLY CONDITION. CONTRACTOR SHALL PROTECT THEIR WORK AGAINST WEATHER, THEFT, AND DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
5. ALL PRODUCTS SHALL COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND UL 723.
6. ELECTRICAL DRAWINGS ARE SCHEMATIC IN NATURE, APPROXIMATE LOCATIONS OF EQUIPMENT AND CONDUIT ARE SHOWN. THE ELECTRICAL CONTRACTOR SHALL LAYOUT ALL EQUIPMENT ROOMS TO MAKE ENSURE PROPER CLEARANCES REQUIRED BY THE NEC, PRIOR TO ORDERING OF EQUIPMENT. EXACT LOCATION OF ALL EQUIPMENT SHALL BE VERIFIED IN THE FIELD.
7. SUBSTITUTIONS SHALL BE EVALUATED AND APPROVED BY OWNER AND ENGINEER PRIOR TO CONTRACTOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AMONG TRADES AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. CONDUIT PENETRATIONS BETWEEN NON-CONDITIONED AND CONDITIONED SPACES SHALL BE SEALED TO ELIMINATE MOISTURE MITIGATION, BETWEEN INSIDE AND OUTSIDE BUILDINGS, NON-CONDITIONED BOILER ROOMS, INTO REFRIGERATORS / FREEZERS, ETC. PER NEC 300.7(A).
9. CITY NOTE: ELECTRICAL MATERIAL AND EQUIPMENT: NO ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THE CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, THE LAWS OF THE STATE OF TEXAS AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUTES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVED AGENCY.

ELECTRICAL EQUIPMENT
1. ALL PACKAGED EQUIPMENT SHALL BE INDEPENDENTLY THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A (UL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS, AS WELL AS NFPA PAMPHLET NO. 70, AND THE NATIONAL ELECTRICAL CODE (NEC).
2. ALL SYSTEMS SHALL BE A COMPLETE AND OPERABLE SYSTEM PROVIDE THE NECESSARY ADAPTORS, FITTINGS, DEVICES, ETC. PROVIDE COMPLETE WITH BASES, ISOLATORS, SUPPORTS AND OTHER REQUIRED ACCESSORIES.
3. THE CONTRACTOR SHALL COORDINATE WITH ALL TRADES FOR ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT AND DEVICES AS REQUIRED FOR PROPER FUNCTIONING SYSTEM.
4. CONTRACTOR SHALL COORDINATE THE REQUIREMENT OF HOUSEKEEPING PADS WITH GENERAL CONTRACTOR. ALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH A 4" HOUSEKEEPING PAD THAT EXTENDS A MINIMUM OF 4" ALL THE WAY AROUND THE EQUIPMENT.

LABELING
1. PROVIDE PERMANENTLY ADHERED PHENOLIC NAMEPLATES FOR ALL EQUIPMENT (PANEL BOARDS, SWITCHBOARDS, STARTERS, DISCONNECTS, ETC.) WITH BLACK PLATES AND WHITE 3/8" HIGH LETTERS.
2. PROVIDE LABELING ON ALL DEVICE OUTLETS AND SWITCH COVERS INCLUDING THE PANEL NAME AND CIRCUIT NUMBER. LABELS SHALL BE CLEAR PLASTIC LABELS AND BLACK LETTERING.
3. CONDUCTORS IN PANELBOARDS SHALL BE LABELED WITH CIRCUIT NUMBER LABELS.
4. CONDUCTORS IN JBOXES SHALL BE LABELED WITH CIRCUIT NUMBER LABELS. (220.4(A)(B).

CUTTING AND PATCHING
1. CUTTING SHALL BE IN A NEAT AND WORKMANLIKE MANNER. COORDINATE WITH OTHER TRADES PRIOR TO COMMENCING WORK. PATCH AND FINISH TO MATCH ADJACENT AREAS.

CONDUCTORS
1. CONDUCTORS SHALL HAVE CONTINUOUS INSULATION COLOR, AS LISTED BELOW. CONDUCTORS SHALL BE SOFT ANNEALED COPPER INSULATED FOR 600 VOLTS UNLESS SPECIFICALLY INDICATED OTHERWISE.

	208/120 VOLT SYSTEM	240 VOLT SYSTEM	480/277 VOLT SYSTEM
PHASE A	BLACK	BLACK	PURPLE
PHASE B	RED	ORANGE (HIGH LEG)	BROWN
PHASE C	BLUE	RED	YELLOW
NEUTRAL	WHITE	WHITE	WHITE
GROUND	GREEN	GREEN	GREEN

2. INSULATION TYPE SHALL BE TYPE THW FOR WIRE SIZES #8 AWG AND LARGER AND THWN FOR #10 AWG AND SMALLER. ALL EXTERIOR UNDERGROUND CONDUCTORS SHALL BE XHHW TYPE.
3. PROVIDE #12 CONDUCTORS, UNLESS OTHERWISE INDICATED. CONTROL CONDUCTORS SHALL BE #14 MINIMUM FOR NEC CLASS 1 AND #16 FOR NEC CLASS 11. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID.
4. WIRE JOINT OR SPLICES IN SWITCHBOARDS OR PANELBOARDS ARE NOT ALLOWED, NOR ARE SPLICE FOR ANY DISTRIBUTION FEEDERS. SPLICES ONLY ALLOWED FOR DROPS TO DEVICES. FORM AND TIE ALL WIRING WITHIN BOARDS.

BRANCH CIRCUITS
1. ALL BRANCH CIRCUIT SIZES ARE BASED ON RACEWAY LENGTH OF 65 FEET FOR 120V BRANCH CIRCUITS AND 150FEET FOR 277 VOLT. IF THE LENGTH EXCEEDS 65 FEET (120V CIRCUITS) OR 150FT (277V CIRCUITS) THEN USE THE WIRE SIZES DENTED BELOW AND ADJUST THE CONDUIT SIZE ACCORDING BASED ON 40% MAX CONDUIT FILL. IF THE TERMINAL LUGS WILL NOT ACCEPT THE LARGER CONDUCTOR PROVIDE CONDUCTOR REDUCING ADAPTERS (SIMILAR TO GREAVES STEP-DOWN COMPRESSION ADAPTERS) IN A J-BOX PRIOR TO THE DEVICE TERMINATION. SEE TABLE BELOW, UNLESS NOTED OTHERWISE IN PLANS
2. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR, SHARED NEUTRALS ARE NOT ALLOWED.
3. BREAKER TIES ARE REQUIRED FOR MULTI-CIRCUIT EQUIPMENT, SUCH AS POWER FURNITURE. THEN LARGER OF TWO APPLIES.

CIRCUIT LENGTH SCHEDULE

WIRE SIZE	120V CIRCUITS	277V CIRCUITS
#12	60 TO 100 FEET	100 TO 150 FEET
#10	65 TO 120 FEET	151 TO 240 FEET
#8	121 TO 180 FEET	241 TO 400 FEET
#6	181 TO 250 FEET	401 TO 640 FEET
#4	251 TO 375 FEET	-
#2	376 TO 560 FEET	-

RACEWAYS
1. WIRE RUNS SHALL BE ACCORDING TO CODE IN INTERMEDIATE METAL CONDUIT (IMC) OR ELECTRICAL METALLIC TUBING (EMT) CABLING UNLESS OTHERWISE SPECIFICALLY STATED HEREIN. CONDUIT SHALL BE A MINIMUM OF 3/4" UNLESS OTHERWISE NOTED. CONDUIT IN EXPOSED LOCATIONS SHALL NOT BE ACCEPTABLE UNLESS OTHERWISE NOTES, REFER TO ARCHITECT.
2. RIGID, THREADED, GALVANIZED, HEAVY WALL TYPE CONDUIT SHALL BE UTILIZED IN EXTERIOR WALLS, AREAS EXPOSED TO THE WEATHER OR OTHER DAMP/WET LOCATIONS.
3. UTILIZE SCHEDULE 40 PVC CONDUIT WITH GROUND WIRE FOR UNDERGROUND APPLICATIONS. PVC CONDUIT SHALL NOT BE RUN IN OR ABOVE FLOOR SLAB. PVC CONDUIT SHALL TERMINATE BELOW FLOOR SLAB WITH RIGID, THREADED METAL CONDUIT ADAPTER. ALL CONDUIT ABOVE SLAB SHALL BE METAL AND SHALL BE CONCEALED IN WALLS, FLOORS AND CEILINGS WHEREVER POSSIBLE. PROVIDE RIGHT ANGLE TURNS USING FITTINGS OR SYMMETRICAL BENDS. SUPPORT CONDUITS WITHIN 1' OF ALL CHANGES IN DIRECTION.
4. MC MAY BE UTILIZED FOR EXISTING WALL SITUATIONS, 6' FOR LIGHTING WHIPS, OR WHERE APPROVED BY OWNER.
5. CONNECTIONS TO MOTORS AND OTHER EQUIPMENT SUBJECT TO VIBRATION AND IN AREAS SUBJECT TO MOISTURE SHALL UTILIZE LIQUID TIGHT METAL CONDUIT.
6. USE WATERTIGHT JOINTS WITH BURIED AND CONCRETE ENCASED CONDUIT. ALL BURIED CONDUITS OUTSIDE OF BUILDINGS SHALL HAVE A MINIMUM OF 24" OF COVER. METAL CONDUITS BURIED IN EARTH SHALL BE PAINTED WITH TWO COATS OF HEAVY ASPHALTUM PAINT.
7. HORIZONTAL PORTIONS OF CONDUIT EXPOSED ON THE ROOF AND FEEDING EQUIPMENT SHALL NOT BE MORE THAN 5'-0" IN LENGTH.
8. PROVIDE LUBRICATION / SEALANT ON OUTDOOR AND UNDERGROUND THREADED METAL JOINTS.
9. COORDINATE CONDUIT RUNS PRIOR TO ROUGH IN WITH OTHER TRADES AND AVOID INTERFERENCE.

BOXES
1. INSTALL PULL AND JUNCTION BOXES WHERE REQUIRED FOR CHANGES IN DIRECTION, AT JUNCTION POINTS TO FACILITATE WIRE PULLING, AND WHERE SHOWN ON THE DRAWINGS. BOX SIZES SHALL BE IN ACCORDANCE WITH NEC UNLESS LARGER BOXES ARE NOTED.
2. FOR INTERIOR CONCEALED LOCATIONS - USE SHEET STEEL BOXES, ZINC COATED OR CADMIUM PLATED.
3. WALL BOX SIZES SHALL BE MINIMUM 4" SQUARE X 2-1/2" DEEP. FIXTURE OUTLETS IN CEILING SHALL BE MINIMUM 4" OCTAGONAL X 1-1/2" DEEP (4-11/16" OCTAGONAL X 2-1/2" DEEP WHERE REQUIRED TO ACCOMMODATE LARGER CONDUIT OR LARGER NUMBER OF WIRES). GANG BOXES SHALL BE ONE PIECE MINIMUM 2-1/8" DEEP.
4. PROVIDE FLUSH MOUNT BOXES IN ALL FINISHED WALLS, INSTALL THE PLASTER RINGS IN DRYWALLED WALLS AND RAISED COVERS AS REQUIRED IN WALLS WITH OTHER FINISHES SO THAT THE COVER PLATES FIT TIGHTLY AGAINST BOXES OR RINGS. 3/16" MAXIMUM GAPS ARE ALLOWED FOR NONCOMBUSTIBLE WALLS. SUPPORT ALL BOXES TO MAINTAIN PROPER ALIGNMENT AND RIGIDITY. BEFORE INSTALLATION OR WIRING OF DEVICES, CLEAN BOXES OF FOREIGN MATTER.

DEVICES
1. PROVIDE TOTALLY ENCLOSED, SPECIFICATION GRADE, 20 AMPERE, 120/277 VOLT QUIET A/C GENERAL USE SWITCHES MANUFACTURED BY HUBBELL OR OTHER APPROVED MANUFACTURER.
2. PROVIDE SPECIFICATION GRADE NEMA CONFIGURATION 5-20R DUPLEX 125-VOLT GROUNDING TYPE RECEPTACLES UNLESS OTHERWISE NOTED ON THE DRAWINGS. MANUFACTURED BY HUBBELL OR OTHER APPROVED MANUFACTURER.
3. LIGHTING SWITCHES SHALL BE MOUNTED WITHIN 6" OF DOOR JAM ON STRIKE SIDE UNLESS APPROVED OTHERWISE. MOUNT AT 42" OR AS ADA DICTATES.
4. LOCATE RECEPTACLES APPROXIMATELY 1'-6" ABOVE THE FINISHED FLOOR ELEVATION OR NEAREST BLOCK COURSE (WITHIN ADA REQUIREMENTS), UNLESS OTHERWISE NOTED. THE LONG DIMENSION OF THE RECEPTACLE SHALL BE VERTICAL. ALL DEVICES SHALL BE FLUSH MOUNTED U.N.O. GROUND PIN SHALL BE MOUNTED UP (OR NEUTRAL UP IF HORIZONTALLY INSTALLED)
5. RECEPTACLES IN KITCHEN AREAS, BATHROOMS, AND RECEPTACLES WITHIN 6' OF SINKS SHALL BE GFCI TYPE (NOT WIRED IN SERIES, SEE NOTE 6). ALL DEVICES INSTALLED OUTDOORS SHALL BE WEATHERPROOF AND GFCI PROTECTED.
6. CONTRACTOR TO PROVIDE "PIG TAIL" SPLICES TO ALL RECEPTACLE DEVICES (DO NOT WIRE IN SERIES THRU THE DEVICE) - SEE DETAILS.
7. REFER TO ARCHITECT ELEVATIONS PRIOR TO ROUGH-IN TO VERIFY MOUNTING HEIGHTS

SAFETY SWITCHES
1. PROVIDE DISCONNECT SWITCHES FOR ALL EQUIPMENT, WHERE REQUIRED BY CODE, AND THEY SHALL BE OF THE SAME MANUFACTURER. MANUFACTURER SHALL BE SQUARE D, SIEMENS, G.E., OR CUTLER-HAMMER.
2. SAFETY SWITCHES SHALL BE THE ENCLOSED HEAVY-DUTY TYPE WITH QUICK-MAKE, QUICK-BREAK MECHANISM AND EXTERNAL PAD LOCKABLE OPERATING HANDLE.
3. SAFETY SWITCHES SHALL BE RATED FOR 240 OR 600 VOLTS AS APPLICABLE. THEY SHALL BE HORSEPOWER RATED WHEN USED IN MOTOR CIRCUITS. SAFETY SWITCHES SHALL BE FUSIBLE OR NONFUSIBLE 2, 3 OR 4 POLE AS INDICATED ON THE DRAWINGS. SAFETY SWITCHES SHALL BE SINGLE THROW, UNO. ENCLOSURES SHALL BE NEMA 1 INDOORS AND NEMA 3R OUTDOORS (U.N.O.).
4. MOUNT THE SAFETY SWITCHES SECURELY BETWEEN 3' - 6' LEVELS ABOVE THE FLOOR UNLESS OTHERWISE NOTED IN THE DRAWINGS. SWITCHES ON BLOCK WALLS SHALL BE PROVIDED WITH AND MOUNTED ON A 3/4" PLYWOOD BACKBOARD, WHERE LOCATED INDOORS.
5. THE CONTRACTOR SHALL FURNISH A COMPLETE SET OF FUSES FOR ALL FUSIBLE SWITCHES, PLUS FUSIBLE EQUIPMENT FURNISHED BY OTHER TRADES. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, THE FUSES SHALL BE OF THE FOLLOWING TYPE:
   - o FUSES 601 TO 6000 AMPS SHALL BE UL CLASS RK5. TRADE TYPE SHALL BE KRP-C AS MANUFACTURED BY THE BUSSMANN COMPANY.
   - o FUSES 1/10 TO 600 AMPS SHALL BE UL CLASS RK1. TRADE TYPE SHALL BE LOW PEAK LPS-RK (600V) AND LPN-RK (250C) AS MANUFACTURED BY BUSSMANN COMPANY.
   - o ALL OTHER FUSES SHALL BE DUAL ELEMENT CURRENT LIMITING TYPE WITH 200,000 AMPERES SYMMETRICAL INTERRUPTING CAPACITY.

DISTRIBUTION PANELS
1. DISTRIBUTION PANELS SHALL BE DEAD FRONT TYPE WITH CIRCUIT BREAKERS, COMPRISED OF FUSES AND HEAVY-DUTY SWITCHES OF SIZE AND NUMBER INDICATED ON THE PANELS. PANELS SHALL BE MANUFACTURED AS A COMPLETE UNIT. ALL BUSS BARS SHALL BE RECTANGULAR AND MADE OF SOLID COPPER. ALL LUGS SHALL BE UL APPROVED CUAL TYPE. VERTICAL BUSSING SHALL BE EXTENDED THE FULL LENGTH OF THE PANEL.
2. ALL PANELS SHALL BE CAPABLE OF ACCEPTING SWITCH SIZES UP TO AND INCLUDING 600 AMPS.
3. DISTRIBUTION PANELS SHALL BE G.E., SQUARE "D", OR SIEMENS.
4. INSTALL PANELS SUCH THAT HANDLE FOR THE TOP SWITCH DOES NOT EXCEED 6'-6" ABOVE FINISHED FLOOR PER NEC.
5. SURFACE-MOUNTED PANELS SHALL BE MOUNTED ON UNISTRUT RAILS. FLOOR-MOUNTED PANELS SHALL BE MOUNTED ON A 4" HIGH CONCRETE PAD.
6. ALL BOLTED CONNECTIONS SHALL BE TORQUED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS. RE-TORQUE CONNECTIONS ONE MONTH OR MORE AFTER INITIAL TORQUE. TORQUE RECORDS SHALL BE HANDED TO OWNER AT SUBSTANTIAL COMPLETION.

PANELBOARDS
1. PANELBOARDS SHALL BE MANUFACTURED BY SQ.D., G.E., EATON OR APPROVED EQUAL, ENCLOSED DEAD FRONT SAFETY DOOR IN DOOR TYPE WITH FEATURES AND RATINGS AS SCHEDULED ON DRAWINGS. ALL BUS BARS SHALL BE RECTANGULAR SOLID COPPER. LOAD CENTERS SHALL NOT BE ALLOWED. MANUFACTURER SHALL BE SQUARE D, SIEMENS, GE OR CUTLER-HAMMER. PANELS WILL BE SIMILAR OR EQUAL TO NQ/NF BOARDS NOT LOAD CENTERS (UNLESS SPECIFIED). PANELS SHALL BE FULLY RATED
2. ALL BREAKERS SHALL BE BOLT ON TYPE, AND SHALL BE TORQUED IN ACCORDANCE WITH MANUFACTURERS STANDARDS. RE-TORQUE ALL CONNECTIONS ONE MONTH AFTER INITIAL TORQUE.
3. INSTALL CABINETS SO THAT CENTER OF THE TOP BREAKER DOES NOT EXCEED 6'-6" ABOVE THE FINISHED FLOOR PER NEC. PROVIDE (3) SPARE 1" CONDUITS INTO ACCESSIBLE CEILING.
4. ELECTRICAL CONTRACTOR SHALL FOLLOW DRAWING CIRCUIT NUMBERS AS NEAR AS POSSIBLE. PRIOR TO SUBSTANTIAL COMPLETION, ELECTRICAL CONTRACTOR SHALL TAKE CURRENT READING CHECKS OF RESPECTIVE PHASES AND SUBMIT TO ENGINEER FOR APPROVAL.
5. CIRCUIT DESCRIPTIONS (PANEL CARDS) SHALL BE TYPED AND ACCURATE TO FIELD CONDITIONS. ROOM NAMES SHALL MATCH FINAL INSTALLED ROOM NAMES IF DIFFERENT FROM PLANS.
6. AVAILABLE FAULT CURRENT LABELING IN LIEU OF THE MAXIMUM AVAILABLE FAULT CURRENT MARKING AS REQUIRED BY 110.24, A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2" X 3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.
7. ALL PANELS WILL BE INSTALLED WITH INTEGRAL TVSS - 400A AND LESS WILL HAVE 60 KA / MODE

TRANSFORMERS
1. DRY TYPE TRANSFORMERS SHALL BE MANUFACTURED BY SQ.D, GE, OR APPROVED EQUAL HAVING (2)2.5% TAPS ABOVE AND (4)2.5% TAPS BELOW THE RATING OF THE TRANSFORMER. THEY SHALL HAVE COPPER WINDINGS. A BONDING JUMPER BETWEEN THE SECONDARY NEUTRAL AND THE METAL CASE. TRANSFORMERS SHALL HAVE R CLASS INSULATION OF UL 220 DEGREE RATING AND 115 DEGREE RISE.
2. GROUND MOUNTED TRANSFORMERS SHALL BE INSTALLED ON 3" HOUSE KEEPING PAD AND NEOPRENE GASKETS.

GROUNDING
1. GROUND ALL EQUIPMENT PER NEC.
2. GROUND EACH OUTSIDE LIGHTING STANDARD SEPARATELY WITH ONE GROUND ROD AND A #6 GROUND WIRE.
3. ALL CONDUITS SHALL CONTAIN A CODE SIZED GROUND WIRE SIZE PER NEC IN ADDITION TO THE CONDUCTORS SHOWN ON THE PLANS. WHERE CIRCUIT CONDUCTORS ARE INCREASED IN SIZE THE GROUND WIRE SIZE SHALL BE INCREASED PROPORTIONALLY.

STARTUP AND INSTRUCTIONS
1. AFTER INSTALLATION, CHECK ALL EQUIPMENT, AND PERFORM START UP IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. NOTIFY ENGINEER OF ALL START-UP. ALL EQUIPMENT SHALL BE ONE AND OPERATIONAL AT COMPLETION OF PROJECT.
2. TESTS SHALL INCLUDE THE FOLLOWING:
   - o MEASURE THE LOAD ON EACH PHASE OF THE MAIN SERVICE AND EACH PHASE OF EVERY FEEDER UNDER FULL LOAD CONDITIONS
   - o MEASURE THE NO-LOAD AND FULL-LOAD VOLTAGES (PHASE TO PHASE, PHASE TO NEUTRAL AND PHASE TO GROUND FOR EACH PHASE OF EACH SERVICE, OF EACH SEPARATELY DERIVED SYSTEM, AND AT EACH PANELBOARDOR TRANSFORMER).
   - o MEASURE THE GROUND RESISTANCE OF THE MAIN SERVICE GROUNDING ELECTRODE AND THE GROUND RESISTANCE OF EACH SEPARATELY DERIVED SYSTEM'S GROUNDING ELECTRODE.
   - o MAKE INSULATION RESISTANCE TESTS ON ALL DRY TYPE TRANSFORMERS AND MOTORS.
3. CLEAN ALL ELECTRICAL EQUIPMENT AND FIXTURES PRIOR TO PROJECT COMPLETION.
4. PROVIDE OWNER TRAINING AND DEMONSTRATION OF ALL ELECTRICAL SYSTEMS AND EQUIPMENT.
5. INSTRUCT OWNER ON PROPER OPERATION AND PREVENTATIVE MAINTENANCE OF SYSTEM. SUBMIT OPERATING AND MAINTENANCE MANUAL ON ALL EQUIPMENT AND SYSTEMS.

MISCELLANEOUS
1. ALL GENERATOR TRANSFER DEVICES (GTD'S), IF APPLICABLE, ARE TO BE MOUNTED ABOVE ACCESSIBLE CEILINGS AT A LEVEL WHICH CAN BE REACHED WITHOUT A LIFT (UNDER 15').
2. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING 120V POWER TO ALL LOW VOLTAGE TRANSFORMERS (PROVIDED BY THE PLUMBING CONTRACTOR), FOR AUTOMATIC FLUSH VALVES, TO EITHER THE CIRCUIT NOTED ON THE PLANS OR THE NEAREST RECEPTACLE CIRCUIT.
3. ALL THREE PHASE FAN POWER TERMINAL / BOXES REQUIRE 5 CONDUCTORS (INCLUDING NEUTRAL).
4. EC SHALL POWER ALL 120V MOTORIZED DAMPERS FOR MECHANICAL FANS AND LOUVERS, AND ACTUATORS.

WARRANTY
1. FULLY WARRANT ALL MATERIALS, EQUIPMENT AND WORKMANSHIP FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE OR AS REQUIRED IN SPECIFICATIONS. EXTEND ALL MANUFACTURER'S WARRANTIES TO OWNER, INCLUDING ALL EXTENDED WARRANTIES.
2. REPAIR OR REPLACE WITHOUT CHARGE TO THE OWNER ALL ITEMS FOUND DEFECTIVE DURING THE WARRANTY PERIOD. IN THE CASE OF REPLACEMENT OR REPAIR DUE TO FAILURE WITHIN THE WARRANTY PERIOD, THE WARRANTY ON THAT PORTION OF THE WORK SHALL BE EXTENDED FOR A MINIMUM PERIOD OF ONE (1) YEAR FROM THE DATE OF SUCH REPLACEMENT OR REPAIR.

ELECTRICAL ABBREVIATIONS

1PH	SINGLE-PHASE
1P	SINGLE POLE
2/C	TWO-CONDUCTOR
3/C	THREE-CONDUCTOR
3PH	THREE-PHASE
4/C	FOUR-CONDUCTOR
4W	FOUR-WIRE
A/C UNIT	AIR CONDITIONING UNIT
A/E	ARCHITECT/ENGINEER
AC	ALTERNATING CURRENT OR ARMORED CABLE
AF	AMPERE FRAME OR AMP FUSE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
ALT	ALTERNATE
AMP	AMPERE
ARCH	ARCHITECT
ASC	AMPS SHORT CIRCUIT
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AV	AUDIO VISUAL
BD	BOARD
BFF	BELOW FINISH FLOOR
BFG	BELOW FINISH GRADE
BLDG	BUILDING
BRKR	BREAKER
BYP	BY PASS
C	CONDUIT
CAB	CABINET
CALC	CALCULATE
CAP	CONTRACTOR FURNISHED
CAT	CONTRACTOR INSTALLED
CCTV	CLOSED CIRCUIT TELEVISION
cd	CANDELA
CD	CONSTRUCTION DOCUMENTS
CF	CONTRACTOR FURNISHED
CF/OI	CONTRACTOR FURNISHED /OWNER INSTALLED
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CKT	CIRCUIT
CKT BRKR	CIRCUIT BREAKER
CLF	CURRENT LIMITING FUSE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COAX	COAX CABLE
COMM	COMMUNICATION
CONC	CONCRETE
CONT	CONTINUE
CPT	CONTROL POWER TRANSFORMER
CRI	COLOR RENDERING INDEX
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
CU FT	CUBIC FEET
dB	DECIBEL
DC	DIRECT CURRENT
DCP	DIMMER CONTROL PANEL
DEG C	DEGREES CELSIUS
DEG F	DEGREES FAHRENHEIT
DEMO (D)	DEMOLITION
DDC	DIRECT DIGITAL CONTROL PANEL
DIAG	DIAGRAM
DISC	DISCONNECT
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DRSW	DOOR SWITCH
DS	DISCONNECT SWITCH
DWG	DRAWING
EF	EXHAUST FAN
EL	ELEVATION
ELEC	ELECTRIC OR ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EPO	EMERGENCY POWER OFF
ESMT	EASEMENT
EDF	ELECTRIC DRINKING FOUNTAIN
EWH	ELECTRIC WATER HEATER
ETR	EXISTING TO REMAIN
(E)	EXISTING
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FMC	FLEXIBLE METALLIC CONDUIT
FLUOR	FLUORESCENT
FP	FIRE PROTECTION
FT	FEET OR FOOT
FU SW	FUSED SWITCH
FVNR	FULL VOLTAGE NON-REVERSING
G OR GND	GROUND OR GENERATOR
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GTB	GROUND TERMINAL BOX
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HT	HEIGHT
HZ	HERTZ
IMC	INTERMEDIATE METAL CONDUIT
INCAND	INCANDESCENT
IR	INFRARED
IWH	INSTANTANEOUS WATER HEATER
J-BOX	JUNCTION BOX
kV	KILOVOLT
kVA	KILOVOLT AMPERE
kVAH	KILOVOLT AMPERE PER HOUR
kVAR	KILOVOLT AMPERE REACTIVE
kW	KILOWATT
kWH	KILOWATT HOUR
kWHM	KILOWATT HOUR METER
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET (FOOT)
LM	LUMEN
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
LTG PNL	LIGHTING PANEL
LTNG	LIGHTNING
LV	LOW VOLTAGE
MAX	MAXIMUM
MC	METAL-CLAD
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
(N)	NEW
NA	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NS	NO SCALE
NSL	NON SWITCHED HOT LEG
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OL	OVERLOAD
P	POLE OR PHASE
PA	PUBLIC ADDRESS
PB	PULL BOX, OR PUSHBUTTON
PCB	POLYCHLORINATED BIPHENYL
PEC	PHOTOELECTRIC CELL
PED	PEDESTAL
PEND	PENDANT
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE (PLASTIC)
PWR	POWER
(R)	RELOCATE
RCP	REFLECTED CEILING PLAN
RECPT	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMS	ROOT MEAN SQUARE
REQD	REQUIRED
SCC	SHORT CIRCUIT CAPACITY
SD	SMOKE DETECTOR
SF	SQUARE FOOT (FEET)
SPEC	SPECIFICATION
SPST	SINGLE POLE, SINGLE THROW
SURF	SURFACE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME CLOCK
TEL	TELEPHONE
TP	TWISTED PAIR
TPS	TWISTED PAIR SHIELDED
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP	TYPICAL
UGND	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTIL	UTILITY
V	VOLT
VA	VOLT AMPERE
VAR	VOLT AMPERE REACTIVE
VFD	VARIABLE FREQUENCY DRIVE
VOLT	VOLTAGE
W	WATT
WP	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER

SECURITY

CAM	CAMERA
H/S	HORN STROB
WAP	WIRELESS ACCESS POINT
S	SPEAKER

ENERGY CODE REQUIREMENTS:

1. [C103.2] THESE PLANS, SPECIFICATIONS, AND/OR CALCULATIONS PROVIDE ALL INFORMATION WITH WHICH COMPLIAN

PANEL: LB

LOCATION: | **VOLTS:** 120/208 WYE | **A.I.C. RATING:** 10,000
SUPPLY FROM: TLB - W.R.HS | **PHASE:** 3 | **BUS RATING:** 100 A
MOUNTING: SURFACE | **WIRE:** 4 | **MCB** 60 A
ENCLOSURE: NEMA 1

CKT	CIRCUIT DESCRIPTION	LC	CT	TRIP	POLES	A (KVA)		B (KVA)		C (KVA)		POLES	TRIP	CT	LC	CIRCUIT DESCRIPTION	CKT
1						0.0	1.2					1	20 A	1	L	(E) LIGHTING	2
3	MAIN BREAKER	NC	1	60 A	3			0.0	1.2			1	20 A	1	L	(E) LIGHTING	4
5										0.0	0.2	1	20 A	1	R	(E) GFCI RECEPTACLE - OUTSIDE	6
7	(E) LIGHTING	L	1	20 A	1	1.2	0.2					1	20 A	1	R	(E) GFCI RECEPTACLE - 3RD BASE	8
9	(E) 2 RECEPTACLES	R	1	20 A	1			0.4	0.2			1	20 A	1	R	(E) GFCI RECEPTACLE - 1ST BASE	10
11	(E) GFCI RECEPTACLES	R	1	20 A	1					0.4	0.8	1	20 A	1	R	(E) LOAD	12
13	(E) 2 RECEPTACLES	R	1	20 A	1	0.4	0.8					1	20 A	1	R	(E) LOAD	14
15	(E) FACP	NC	1	20 A	1			0.2	0.8			1	20 A	1	R	(E) LOAD	16
17	(E) 2 RECEPTACLES	R	1	20 A	1					0.4	0.8	1	20 A	1	R	(E) LOAD	18
19	(E) LOAD	NC	1	20 A	1	0.8	0.8					1	20 A	1	R	(E) LOAD	20
21	(E) LOAD	R	1	20 A	1			0.8	0.6			1	20 A	6	L;R	(2) RCPT & LTG - DUGOUT 4 [#10 AWG]	22
23	(2) RCPT & LTG - DUGOUT 3 [#10 AWG]	L;R	6	20 A	1					0.6	--	1	--	--	--	SPACE	24
25	SPACE	--	--	--	1	--	--					1	--	--	--	SPACE	26
27	SPACE	--	--	--	1			--	--			1	--	--	--	SPACE	28
29	SPACE	--	--	--	1					--	--	1	--	--	--	SPACE	30
				TOTAL LOAD:		5.34 kVA		4.09 kVA		3.05 kVA							
				TOTAL AMPS:		46 A		35 A		25 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
L	3.99 kVA	125.00%	4.98 kVA		
R	7.50 kVA	100.00%	7.50 kVA	**TOTAL CONN. LOAD:**	12.49 kVA
NC	1.00 kVA	100.00%	1.00 kVA	**TOTAL EST. DEMAND:**	13.48 kVA
				TOTAL CONN..:	35 A
				TOTAL EST. DEMAND:	37 A

NOTES:
USE 2#12Cu + 1#12G IN 3/4" FOR 20A/1P BREAKER U.O.N. MAX 3 SINGLE PHASE CIRCUITS PER CONDUIT - 9 CONDUCTORS
* GFI BREAKER
**NON-COINCIDENT LOADS (LARGER OF TWO CALCULATED)
L - LIGHTING; R - RECEPTACLE; SH - HVAC SPLIT SYSTEMS (HEATING) SC - HVAC SPLIT SYSTEMS (COOLING); HP - HVAC PACKAGE UNITS; HC - HVAC COOLING ONLY; EH - ELECTRIC HEAT; K - KITCHEN EQUIPMENT; M - MOTOR; NC - NON-CONTINUOUS LOADS

PANEL: LS

LOCATION: | **VOLTS:** 120/208 WYE | **A.I.C. RATING:** 10,000
SUPPLY FROM: TLA-W.R.HS | **PHASE:** 3 | **BUS RATING:** 150 A
MOUNTING: SURFACE | **WIRE:** 4 | **MCB** 150 A
ENCLOSURE: NEMA 1

CKT	CIRCUIT DESCRIPTION	LC	CT	TRIP	POLES	A (KVA)		B (KVA)		C (KVA)		POLES	TRIP	CT	LC	CIRCUIT DESCRIPTION	CKT
1						0.0	0.8					1	20 A	1	L	(E) LIGHTING - 2ND FLOOR	2
3	MAIN BREAKER	NC	1	60 A	3			0.0	0.8			1	20 A	1	L	(E) LIGHTING - 1ST FLOOR	4
5										0.0	0.2	1	20 A	1	R	(E) TIME CLOCK	6
7	(E) ELEV. CNTL.	R	1	20 A	1	0.4	1.2					1	20 A	1	NC	(E) SOFTBALL SCOREBOARD	8
9	(E) 2 RECEPTACLES - EQUIPMENT ROOM	R	1	20 A	1			0.4	0.2			1	20 A	1	R	(2) GFCI RECEPTACLE - 3RD BASE	10
11	(E) 2 GFCI SUMP PUMP, LIGHT ELEV. PIT	R	1	20 A	1					0.4	0.2	1	20 A	1	R	(E) RECEPTACLE - 1ST BASE	12
13	(E) 2 RECEPTACLES - 2ND FLOOR PRESS BOX	R	1	20 A	1	0.4	0.8					1	20 A	1	R	(E) LOAD	14
15	(E) FIRE ALARM CONTROL PANEL	R	1	20 A	1			0.4	0.8			1	20 A	1	R	(E) LOAD	16
17	(E) RECEPT. 2ND FLOOR PRESS BOX	NC	1	20 A	1					0.2	0.8	1	20 A	1	R	(E) LOAD	18
19	(E) LOAD	R	1	20 A	1	0.4	0.6					1	20 A	6	L;R	(2) RCPT & LTG - DUGOUT 1 [#10 AWG]	20
21	(E) LOAD	NC	1	20 A	1			0.8	0.6			1	20 A	6	L;R	(2) RCPT & LTG - DUGOUT 2 [#10 AWG]	22
23	SPACE	--	--	--	1					--	--	1	--	--	--	SPACE	24
25	SPACE	--	--	--	1	--	--					1	--	--	--	SPACE	26
27	SPACE	--	--	--	1			--	--			1	--	--	--	SPACE	28
29	SPACE	--	--	--	1					--	--	1	--	--	--	SPACE	30
				TOTAL LOAD:		4.43 kVA		3.85 kVA		1.72 kVA							
				TOTAL AMPS:		40 A		35 A		14 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
L	1.99 kVA	125.00%	2.48 kVA		
R	5.82 kVA	100.00%	5.82 kVA	**TOTAL CONN. LOAD:**	10.01 kVA
NC	2.20 kVA	100.00%	2.20 kVA	**TOTAL EST. DEMAND:**	10.50 kVA
				TOTAL CONN..:	28 A
				TOTAL EST. DEMAND:	29 A

NOTES:
USE 2#12Cu + 1#12G IN 3/4" FOR 20A/1P BREAKER U.O.N. MAX 3 SINGLE PHASE CIRCUITS PER CONDUIT - 9 CONDUCTORS
* GFI BREAKER
**NON-COINCIDENT LOADS (LARGER OF TWO CALCULATED)
L - LIGHTING; R - RECEPTACLE; SH - HVAC SPLIT SYSTEMS (HEATING) SC - HVAC SPLIT SYSTEMS (COOLING); HP - HVAC PACKAGE UNITS; HC - HVAC COOLING ONLY; EH - ELECTRIC HEAT; K - KITCHEN EQUIPMENT; M - MOTOR; NC - NON-CONTINUOUS LOADS

ELECTRICAL SERVICE LOAD ANALYSIS

GUTTER - W.R.HS - BB

#	CONNECTED PANELS	LOAD
1	PANEL - 'LB'	12.5 kVA
	TOTAL CONNECTED (KVA):	12.5 kVA
	TOTAL CONNECTED (A)	15 A

TAG	DESCRIPTION	NEC	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTAL LOAD ANALYSIS	
L	LIGHTING	NEC 220.12	3.99 kVA	125.00%	4.98 kVA		
R	GENERAL RECEPTACLES	NEC 220.44	7.50 kVA	100.00%	7.50 kVA		
SH	HVAC SPLIT SYSTEM HEATING	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA	**EST. SER. DEMAND (KVA):**	**13**
SC	HVAC SPLIT SYSTEM COOLING	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA		
HP	HVAC PACKAGE UNITS	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA	**EST. SERVCE DEMAND...**	**16**
HC	HVAC COOLING ONLY	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA		
EH	ELECTRIC HEAT		0.00 kVA	0.00%	0.00 kVA	**SERVICE VOLTAGE (V):**	**277/480 WYE**
K	KITCHEN EQUIPMENT	NEC220.55	0.00 kVA	0.00%	0.00 kVA		
M	MOTORS	NEC 430.24	0.00 kVA	0.00%	0.00 kVA	**MIN REQ'D SERVICE SIZE:**	**60 A**
NC	NON-CONTINUOUS LOADS		1.00 kVA	100.00%	1.00 kVA		

NOTES:

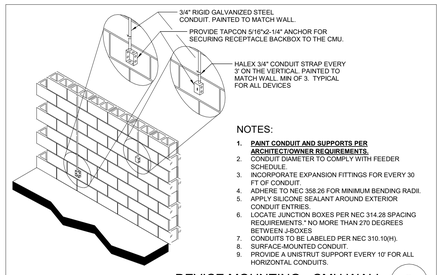
ELECTRICAL SERVICE LOAD ANALYSIS

GUTTER - WILLOWRIDGE HS - SF

#	CONNECTED PANELS	LOAD
1	PANEL - 'LS'	10.0 kVA
	TOTAL CONNECTED (KVA):	10.0 kVA
	TOTAL CONNECTED (A)	12 A

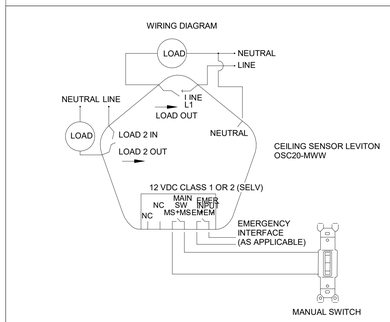
TAG	DESCRIPTION	NEC	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTAL LOAD ANALYSIS	
L	LIGHTING	NEC 220.12	1.99 kVA	125.00%	2.48 kVA		
R	GENERAL RECEPTACLES	NEC 220.44	5.82 kVA	100.00%	5.82 kVA		
SH	HVAC SPLIT SYSTEM HEATING	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA	**EST. SER. DEMAND (KVA):**	**11**
SC	HVAC SPLIT SYSTEM COOLING	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA		
HP	HVAC PACKAGE UNITS	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA	**EST. SERVCE DEMAND...**	**13**
HC	HVAC COOLING ONLY	NEC 220.51, 424.3	0.00 kVA	0.00%	0.00 kVA		
EH	ELECTRIC HEAT		0.00 kVA	0.00%	0.00 kVA	**SERVICE VOLTAGE (V):**	**277/480 WYE**
K	KITCHEN EQUIPMENT	NEC220.55	0.00 kVA	0.00%	0.00 kVA		
M	MOTORS	NEC 430.24	0.00 kVA	0.00%	0.00 kVA	**MIN REQ'D SERVICE SIZE:**	**60 A**
NC	NON-CONTINUOUS LOADS		2.20 kVA	100.00%	2.20 kVA		

NOTES:

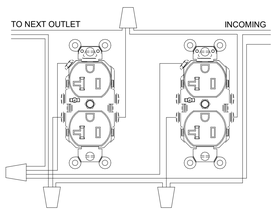


NOTES:
1. **PAINT CONDUIT AND SUPPORTS PER ARCHITECT/OWNER REQUIREMENTS.**
2. CONDUIT DIAMETER TO COMPLY WITH FEEDER SCHEDULE.
3. INCORPORATE EXPANSION FITTINGS FOR EVERY 30 FT OF CONDUIT.
4. ADHERE TO NEC 358.26 FOR MINIMUM BENDING RADII.
5. APPLY SILICONE SEALANT AROUND EXTERIOR CONDUIT ENTRIES.
6. LOCATE JUNCTION BOXES PER NEC 314.28 SPACING REQUIREMENTS.* NO MORE THAN 270 DEGREES BETWEEN J-BOXES
7. CONDUITS TO BE LABELED PER NEC 310.10(H).
8. SURFACE-MOUNTED CONDUIT.
9. PROVIDE A UNISTRUT SUPPORT EVERY 10' FOR ALL HORIZONTAL CONDUITS.

DEVICE MOUNTING - CMU WALL 3
NOT TO SCALE



CEILING OCCUPANCY/VACANCY SENSOR 2
NOT TO SCALE



NOTES:
1. CIRCUITING TO ALL NON DEDICATED ELECTRICAL RECEPTACLES AND SWITCHES ARE REQUIRED TO UTILIZE PARALLEL CIRCUITING BY THE USE OF "PIG TAILS" TO EACH DEVICE SO THAT IF AN OUTLET IS REMOVED OR FAILS ELECTRICAL CONTINUITY THE CIRCUIT WILL NOT BE COMPROMISED.

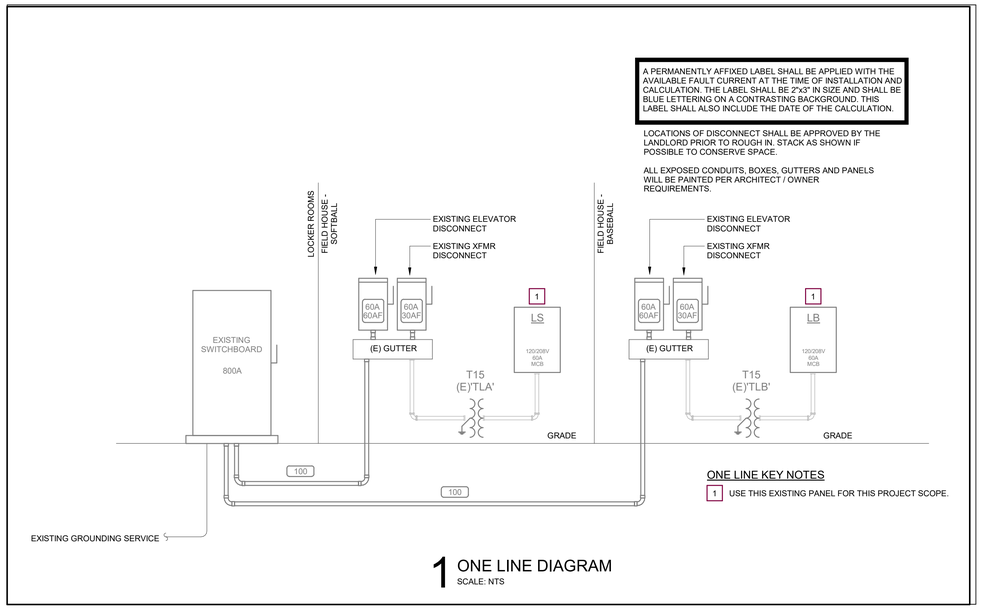
2. ALL ELECTRICAL WIRING MUST BE PROPERLY SPLICED BY TWISTING THE WIRES TOGETHER AND USE OF APPROVED AND LISTED COMPRESSION WIRE NUTS FOR ANY WIRING.

RECEPTACLE INSTALLATION - PIG TAIL 1
NOT TO SCALE

EXISTING FEEDER SCHEDULE

TAG	CONDUIT WITH COPPER CONDUCTORS: SETS	QUANTITY / AWG	GROUND / AWG	CONDUIT SIZE	CONDUIT WITH ALUMINUM CONDUCTORS: SETS	QUANTITY / AWG	GROUND / AWG	CONDUIT SIZE
20 / 20D	1 / 1	4#12 / 3#12	#12	3/4"			#12	3/4"
30 / 30D	1 / 1	4#10 / 3#10	#10	3/4"			#10	3/4"
40 / 40D	1 / 1	4#8 / 3#8	#8	1"			#8	1"
50 / 50D	1 / 1	4#6 / 3#6	#8	1-1/4"			#8	1-1/4"
60 / 60D	1 / 1	4#4 / 3#4	#6	1-1/2"			#8	1-1/4"
80 / 80D	1 / 1	4#2 / 3#2	#6	1-1/2"			#6	1-1/2"
100 / 100D	1 / 1	4#1 / 3#1	#6	1-1/2"	1 / 1	4#1/0 / 3#1/0	#6	2"
130 / 130D	1 / 1	4#1 / 3#1	#6	1-1/2"	1 / 1	4#2/0 / 3#2/0	#4	2-1/2"
150 / 150D	1 / 1	4#1/0 / 3#1/0	#6	2"	1 / 1	4#3/0 / 3#3/0	#4	2-1/2"
175 / 175D	1 / 1	4#2/0 / 3#2/0	#4	2-1/2"	1 / 1	4#4/0 / 3#4/0	#2	2-1/2"
200 / 200D	1 / 1	4#3/0 / 3#3/0	#4	2-1/2"	1 / 1	4#250 kcmil / 3#250 kcmil	#2	2-1/2"
225 / 225D	1 / 1	4#4/0 / 3#4/0	#2	2-1/2"	1 / 1	4#300 kcmil / 3#300 kcmil	#2	3"
250 / 250D	1 / 1	4#250 kcmil / 3#250 kcmil	#2	2-1/2"	1 / 1	4#350 kcmil / 3#350 kcmil	#1/0	4"
310 / 310D	1 / 1	4#350 kcmil / 3#350 kcmil	#2	3"	2 / 2	4#3/0 or 1 SET 500 kcmil / 3#3/0 or 1 SET 500 kcmil	#1/0	2-1/2" or 4"
380 / 380D	1 / 1	4#500 kcmil / 3#500 kcmil	#1/0	4"	2 / 2	4#250 kcmil / 3#250 kcmil	#2/0	2-1/2"
400 / 400D	2 / 2	4#3/0 / 3#3/0	#1/0	2-1/2"	2 / 2	4#250 kcmil / 3#250 kcmil	#2/0	3"
500 / 500D	2 / 2	4#250 kcmil / 3#250 kcmil	#2/0	2-1/2"	2 / 2	4#350 KCMIL / 3#350 KCMIL	#2/0	4"
600 / 600D	2 / 2	4#350 kcmil / 3#350 kcmil	#2/0	3"	2 / 2	4#500 kcmil / 3#500 kcmil	#2/0	3"
750 / 750D	2 / 2	4#500 KCMIL / 3#500 KCMIL	#2/0	4"	3 / 3	4#350 kcmil / 3#350 kcmil	#3/0	4"
800 / 800D	3 / 3	4#350 kcmil / 3#350 kcmil	#2/0	3"	3 / 3	4#400 kcmil / 3#400 kcmil	#3/0	3"
1000 / 1000D	3 / 3	4#500 kcmil / 3#500 kcmil	#3/0	4"	4 / 4	4#350 kcmil / 3#350 kcmil	#4/0	4"
1200 / 1200D	4 / 4	4#350 kcmil / 3#350 kcmil	#3/0	3"	5 / 5	4#350 kcmil / 3#350 kcmil	#4/0	4"
2000 / 2000D	6 / 6	4#500 kcmil / 3#500 kcmil	#4/0	4"	8 / 8	4#350 kcmil / 3#350 kcmil	#4/0	4"
2500 / 2500D	7 / 7	4#500 kcmil / 3#500 kcmil	#4/0	4"	10 / 10	4#350 kcmil / 3#350 kcmil	#4/0	4"
3000 / 3000D	8 / 8	4#500 kcmil / 3#500 kcmil	#4/0	4"	12 / 12	4#350 kcmil / 3#350 kcmil	#4/0	4"
3500 / 3500D	10 / 10	4#500 kcmil / 3#500 kcmil	#4/0	4"			#4/0	4"
4000 / 4000D	11 / 11	4#500 kcmil / 3#500 kcmil	#4/0	4"			#4/0	4"

ALL PANELS SHALL BE INSTALLED WITH INTEGRAL SPD -
400A AND LESS SHALL HAVE 60 kA / MODE
SEE GENERAL SPECS FOR MORE CONDUCTOR REQUIREMENTS.



1 ONE LINE DIAGRAM
SCALE: NTS

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

GK ENGINEERS
MEP CONSULTANT:
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GK PROJECT # 2025.044

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Austin, Texas 78704
pflugerarchitects.com

BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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

INTERIM REVIEW ONLY
Document is incomplete
Not intended for permit or construction
Engineer: DAVIA GERNAND
PE License No: 109903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-099
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:
No. Date Description
10/09/2025 100% CD

PROJECT STATUS
E110-W
ELECTRICAL

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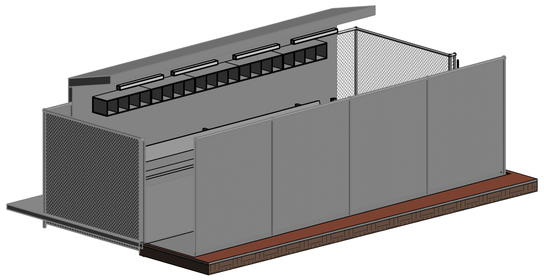
LIGHTING FIXTURE SCHEDULE

CONTRACTOR SHALL COORDINATE WITH ARCHITECT/OWNER FOR ALL FINAL SELECTIONS, LOCATIONS, QUANTITIES, ETC.

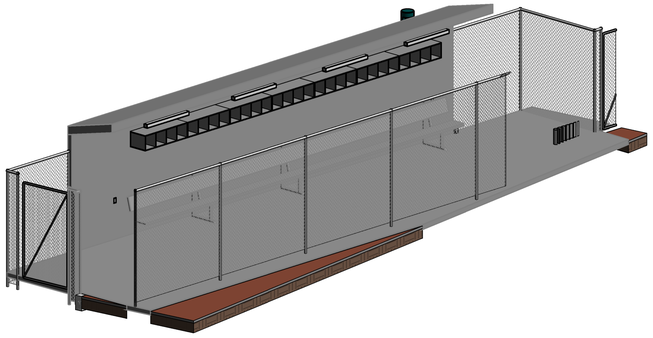
Tag	Manufacturer	Model Number	Mounting	Voltage	Wattage	Lamp Type	Description
A	ORACLE LIGHTING	4-OWVS1-LED-5000L-DIM10-MVOLT-50K-85-TPS	SURFACE	120 V	46 W	LED	VAPOR TIGHT LINEAR LED

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:
1. REFER TO ARCHITECTURAL PLANS FOR GRID/FLANGE AREAS, PRIOR TO BIDDING OF LIGHT FIXTURES. CONTRACTOR IS RESPONSIBLE FOR QUANTITY OF EACH.
2. COORDINATE MOUNTING HEIGHT OF ALL FIXTURES WITH ARCHITECTURAL DRAWINGS.
3. PROVIDE AN ADDITIONAL NON-SWITCHED HOT LEG TO ALL EMERGENCY FIXTURES FOR BATTERY CHARGING AND POWER-LOSS DETECTION.
4. PROVIDE AN EXTRA HOT AND SPLICE AROUND CONTRACTORS/CONTROLLERS IF NECESSARY.
5. ALL EXIT SIGNS ARE TO BE NON-SWITCHED.
6. ALL FIXTURE SUBSTITUTIONS SHALL BE SUBMITTED TO THE A/E PRIOR TO BID. EQUALS MUST CONFORM TO LUMENS PER WATT AND PHOTOMETRIC PERFORMANCE.

#	E - KEYED NOTES
1	PROVIDE VANDAL RESISTANT STAINLESS STEEL RECEPTACLE PLATE WITH OUTDOOR RATED ENCLOSURE.
2	PROVIDE SINGLE GANG WEATHER RESISTANT COVER FOR LIGHTING CONTROL DIMMER SWITCH.
3	PROVIDE VACANCY CONTROLS FOR DUGOUT AREA. PROVIDE OUTDOOR RATED CEILING MOUNTED VACANCY SENSOR SIMILAR TO LEGRAND - HBL2W. CONTROLS SHALL BE AUTO OFF AFTER 20 MIN / MANUAL ON / PUSH TO DIM. REFER TO ELECTRICAL DETAILS FOR ALL COMPONANTS.



5 3D VIEW - BASEBALL DUGOUT - WILLOWRIDGE



6 3D VIEW - SOFTBALL DUGOUT - WILLOWRIDGE



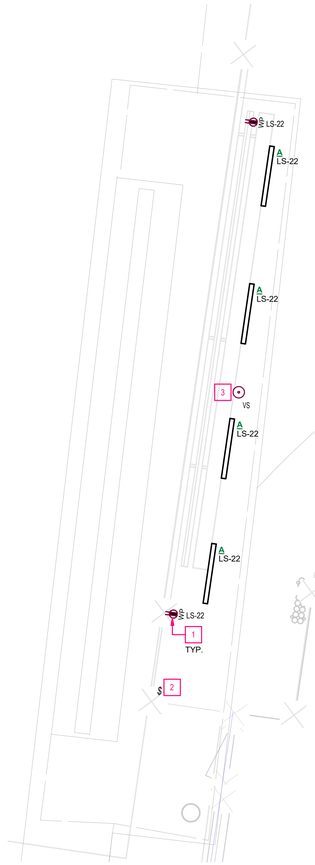
PHOTO OF EXISTING RIGHT SOFTBALL DUGOUT



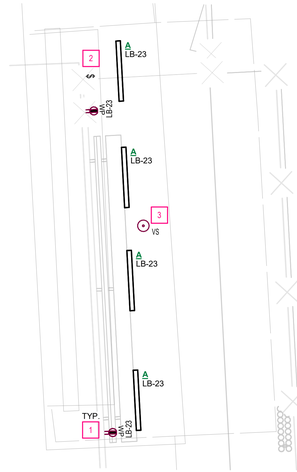
PHOTO OF EXISTING RIGHT BASEBALL DUGOUT



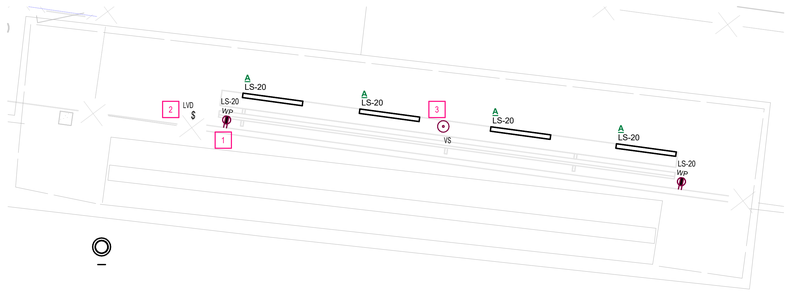
PHOTO OF EXISTING LEFT SOFTBALL DUGOUT



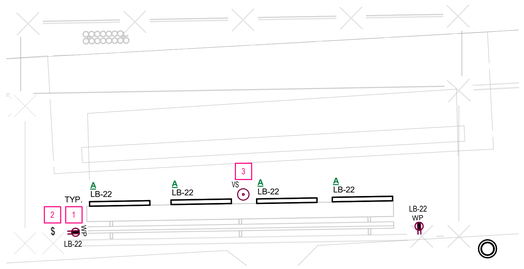
4 ENLARGED PLAN - WILLOWRIDGE HS - SOFTBALL LEFT DUGOUT
1/4" = 1'-0"



2 ENLARGED PLAN - WILLOWRIDGE HS - BASEBALL LEFT DUGOUT
1/4" = 1'-0"



3 ENLARGED PLAN - WILLOWRIDGE HS - SOFTBALL RIGHT DUGOUT
1/4" = 1'-0"



1 ENLARGED PLAN - WILLOWRIDGE HS - BASEBALL RIGHT DUGOUT
1/4" = 1'-0"

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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GK PROJECT # 2025.044

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

INTERIM REVIEW ONLY
Document is Incomplete
Not intended for permit or construction
Engineer: DAIVA GERNAND
PE License No: 109603 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-099
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

No.	Date	Description
1	10/09/2025	100% CD

PROJECT STATUS

E401-W
ENLARGED PLANS - WILLOWRIDGE HS FIELDS - ELECTRICAL

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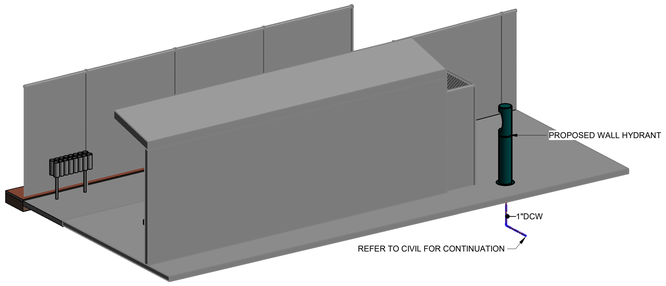
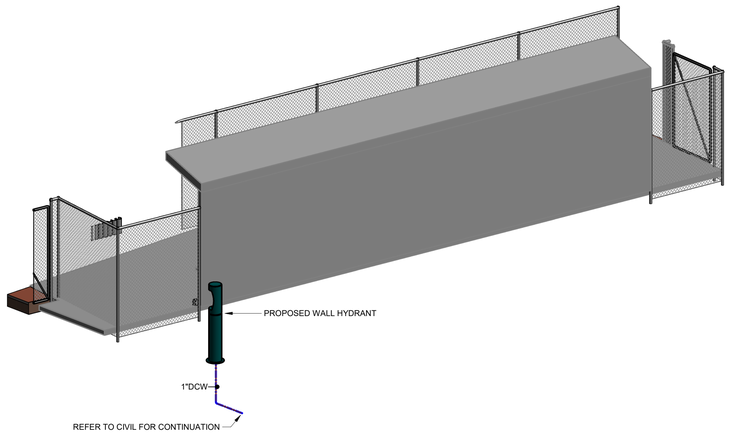
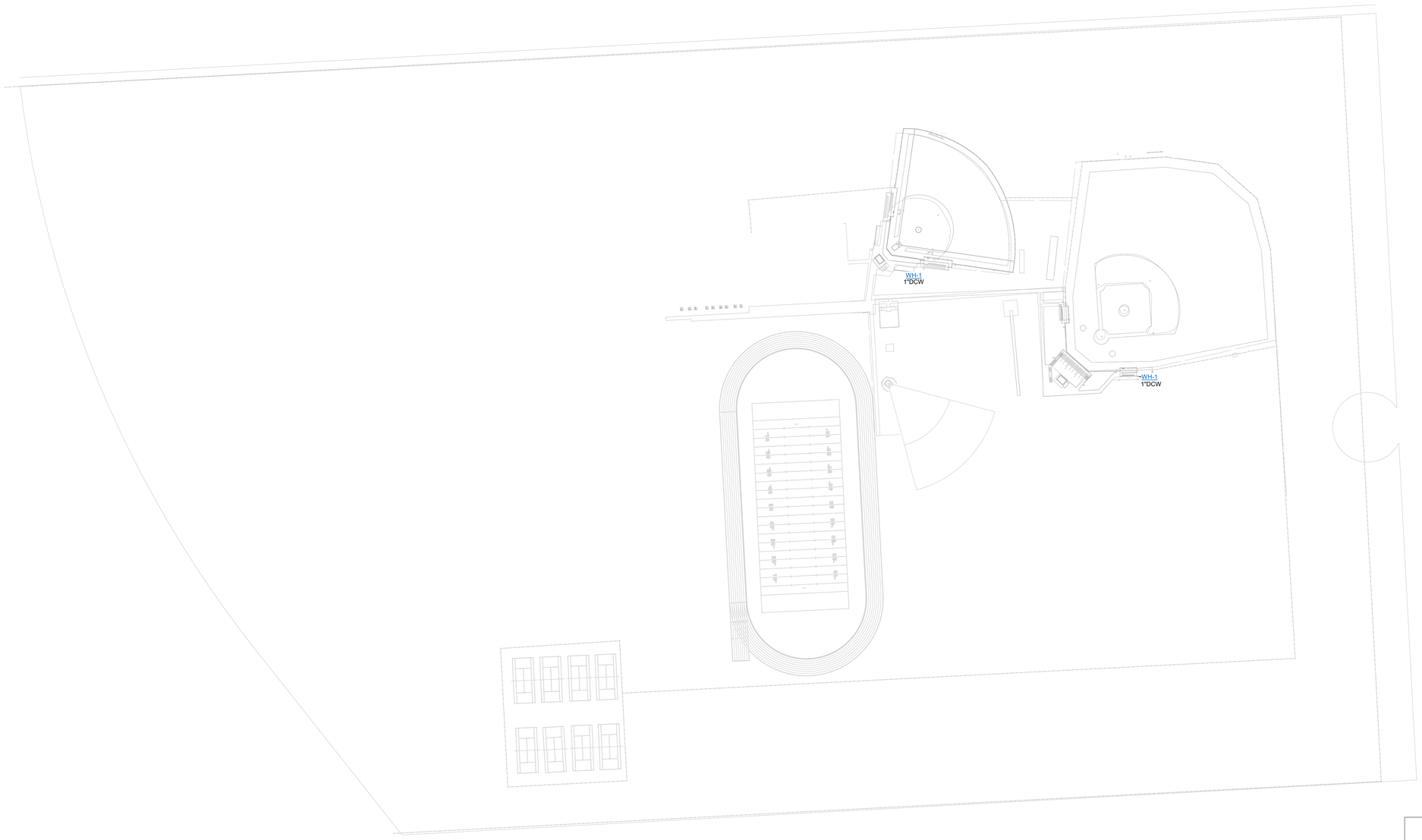


3 3D VIEW - BASEBALL DUGOUT - WILLOWRIDGE - PLUMBING



4 3D VIEW - SOFTBALL DUGOUT - WILLOWRIDGE - PLUMBING



1 PLUMBING SITE PLAN - WILLOWRIDGE HS FIELDS
1" = 80'-0"

SITE PLAN NOTES

1. UNDERGROUND PLUMBING ROUTING SHALL BE COORDINATED WITH UNDERGROUND UTILITIES. COORDINATE WITH CIVIL PLANS FOR MORE INFORMATION. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION METHODS AND MATERIALS. ALL PIPING 5'-0" OUTSIDE THE BUILDING SHALL BE DESIGNED BY THE CIVIL ENGINEER ALL PIPING SHOWN ON THIS PLAN IS ONLY FOR GENERAL PURPOSE.ALL PIPING WITH-IN 5'-0" AND BELOW BUILDING IS APART OF THE PLUMBING DESIGN.
2. PLUMBING CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF PLUMBING GAS SERVICE ENTRANCE AND PRESSURE REDUCING REGULATORS AS REQUIRED FOR THE PROJECT. CONTRACTOR SHALL SUBMIT INFORMATION DEVELOPED BY ENGINEER IN FORM OF SITE PLAN DRAWINGS TO THE GAS COMPANY REPRESENTATIVE FOR PROCESSING SERVICE REQUEST. PROVIDE AN ADDITIONAL $8,000 ALLOWANCE FOR FEES ASSOCIATED WITH THE GAS SERVICE ENTRANCE.
3. ALL LINES 5 FEET OUTSIDE THE BUILDING SHALL BE COORDINATED BY THE CIVIL ENGINEER THAT NO INTERRUPTIONS WILL BE TAKING PLACE.

P - SHEET LIST

SHEET NUMBER	SHEET NAME
P001-A	PLUMBING SITE PLAN - AUSTIN HS FIELDS
P101-A	GENERAL NOTES, ABBREV., & LEGEND
P001-D	PLUMBING SITE PLAN - DULLES HS FIELDS
P101-D	GENERAL NOTES, ABBREV., & LEGEND
P001-E	PLUMBING SITE PLAN - ELKINS HS FIELDS
P101-E	GENERAL NOTES, ABBREV., & LEGEND
P001-K	PLUMBING SITE PLAN - KEMPNER HS FIELDS
P101-K	GENERAL NOTES, ABBREV., & LEGEND
P001-W	PLUMBING SITE PLAN - WILLOWRIDGE HS FIELDS
P101-W	GENERAL NOTES, ABBREV., & LEGEND

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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GK PROJECT # 2025.044
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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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INTERIM REVIEW ONLY
Document is incomplete
Not released for permit or construction
Engineer: DAVIA GERNAND
PE License No: 109903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-069
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

No.	Date	Description
1	10/09/2025	100% CD

PROJECT STATUS
P001-W
PLUMBING SITE PLAN - WILLOWRIDGE HS FIELDS

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GENERAL PLUMBING NOTES:

GENERAL

1. CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE, AND APPLICABLE AHJ ADOPTED CODES, ALL OTHER LOCAL CODES AND AMENDMENTS WHERE THERE ARE CONFLICTS BETWEEN CODES, STANDARDS, DRAWINGS AND SPECIFICATIONS ARISE, THE MORE STRINGENT SHALL APPLY.
2. PLUMBING EQUIPMENT SHALL BE LISTED, LABELED, AND MARKED FOR USE BY AN APPROVED THIRD-PARTY CERTIFICATION AGENCY AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC. ALL PLUMBING PRODUCTS AND MATERIALS SHALL BE LISTED BY A THIRD – PARTY CERTIFICATION AGENCY AS COMPLYING WITH THE REFERENCED STANDARDS.
3. ALL DRAWINGS AND SPECIFICATIONS (INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING, ETC) ARE DEVELOPED TO BE AN INCLUSIVE SET. ANY CONFLICTS WITHIN SHALL BE BROUGHT TO THE DESIGN'S TEAM ATTENTION. CONTRACTOR SHALL NOT MAKE ANY CHANGES TO THE DESIGN OR CONTRACT WITHOUT WRITTEN CONSENT FROM THE OWNER.
4. WORK SHALL BE INSTALLED IN A WORKMAN LIKE FASHION. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS.
5. MAINTAIN THE CONSTRUCTION PREMISES IN A NEAT AND ORDERLY CONDITION. CONTRACTOR SHALL PROTECT THEIR WORK AGAINST WEATHER, THEFT, AND DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
6. ALL PRODUCTS SHALL COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND UL 723.
7. QUALITY CONTROL
   7.1. INSTALLER: QUALIFIED WITH AT LEAST 5 YEARS OF SUCCESSFUL INSTALLATION EXPERIENCE ON PROJECTS WITH WORK SIMILAR TO THAT REQUIRED FOR THIS PROJECT.
   7.2. UL COMPLIANCE: PROVIDE COMPONENTS WITH UL LISTING AND LABELING WHEN THERE IS AN APPLICABLE UL CATEGORY.
   7.3. COMPLY WITH THE MINIMUM STANDARDS PRESCRIBED IN REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS: UNDERWRITER'S LABORATORIES, INC. STANDARDS., INTERNATIONAL PLUMBING CODE CURRENT EDITION AND OTHER CODES, ORDINANCES, AND LAWS APPLICABLE TO THE PLACE OF THE WORK.
8. SUBMITTALS - SUBMIT 4 COPIES (OR ELECTRONIC) OF DATA FOR REVIEW AND COMMENT BY OWNER PRIOR TO ORDERING. INCLUDE MANUFACTURER'S STANDARD SUBMITTAL DATA WITH MANUFACTURER'S NAME AND MODEL NUMBERS, COLOR, FINISH, SIZE AND ALL OPTIONS CLEARLY MARKED.
9. SUBSTITUTIONS SHALL BE EVALUATED AND APPROVED BY OWNER AND ENGINEER PRIOR TO CONTRACTOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AMONG TRADES AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. PENETRATIONS BETWEEN NON-CONDITIONED AND CONDITIONED SPACES WILL BE SEALED TO ELIMINATE MOISTURE MITIGATION, SUCH AS BETWEEN INSIDE AND OUTSIDE BUILDINGS, NON-CONDITIONED BOILER ROOMS, INTO REFRIGERATORS / FREEZERS, ETC.
11. CITY NOTE: PLUMBING MATERIAL AND EQUIPMENT: NO MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THE CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, THE LAWS OF THE STATE OF TEXAS AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUTES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVED AGENCY.

PLUMBING PIPING SYSTEMS

1. ALL PACKAGED EQUIPMENT SHALL BE INDEPENDENTLY THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A (UL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS, AS WELL AS NFPA PAMPHLET NO. 70, AND THE NATIONAL ELECTRICAL CODE (NEC).
2. ALL SYSTEMS SHALL BE A COMPLETE AND OPERABLE SYSTEM PROVIDE THE NECESSARY ADAPTORS, FITTINGS, DEVICES, ETC. PROVIDE COMPLETE WITH BASES, ISOLATORS, SUPPORTS AND OTHER REQUIRED ACCESSORIES.
3. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES FOR REQUIREMENTS OF ALL EQUIPMENT AND DEVICES AS REQUIRED FOR PROPER FUNCTIONING SYSTEM.
4. ALL ABOVE GRADE PIPING SHALL BE INSTALLED PARALLEL TO BUILDING WALLS U.N.O.
5. ALL PIPING TO BE INSTALLED WITH A UNIFORM SLOPE TO MITIGATE UN DRAINABLE LOW POINTS.
6. DI-ELECTRIC UNIONS AND COUPLINGS ARE REQUIRED FOR DISSIMILAR METALS SUCH AS CONNECTIONS BETWEEN COPPER AND STEEL OR IRON PIPES.

DOMESTIC WATER SYSTEM

LEAD-FREE PRODUCTS:

1. PROVIDE MATERIALS, PRODUCTS, AND FABRICATIONS THAT COMPLY WITH ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS AND RECOMMENDATIONS REGARDING LEAD CONTENT AND CONTRIBUTION OF LEAD TO POTABLE WATER, THAT HAVE NO LEAD OR LEAD ALLOYS IN CONTACT WITH POTABLE WATER, AND THAT DO NOT CONTRIBUTE TO OR CAUSE LEAD IN POTABLE WATER.
2. SOLDER: LEAD FREE, ASTM B32 95-5 TIN-ANTIMONY OR GRADE SN96 TIN-SILVER SOLDER.
3. FLUX: CONTAINING NOT MORE THAN 0.2 PERCENT LEAD, MEETING NSF 61.

PIPING, INTERIOR TO 5' OUTSIDE:

COPPER:
STRAIGHT WATER TUBE, K OR L, ASTM B88 OR B543.
WROUGHT COPPER AND BRONZE SOLDER-JOINT PRESSURE FITTINGS, ANSI B16.22.
WHERE INDICATED ON DRAWINGS TO BE BELOW, IN, OR THROUGH SLAB-ON-GRADE:
COPPER, COILED WATER TUBE, K OR L, ASTM B88.
WROUGHT COPPER AND BRONZE SOLDER-JOINT PRESSURE FITTINGS, ANSI B16.22.
PIPE 1.5" OR SMALLER, IN OR UNDER SLABS-ON-FILL: CONTINUOUS, WITHOUT JOINTS OR FITTINGS.
PIPE 2" OR LARGER, IN OR UNDER SLABS-ON-FILL: BRAZED JOINTS.
PEX: IF APPROVED INDICATE ON BID FORM ALTERNATE PRICING FOR USE OF PEX PIPING AND FITTINGS.
a. USE ABOVE GRADE WHERE CONCEALED IN WALLS OR ABOVE CEILING ONLY.
b. PROVIDE WITH MANUFACTURERS STANDARD LEAD-FREE BRONZE FITTINGS WITH DISCONNECT FEATURE.

LEAD-FREE BALL VALVES, POTABLE WATER SYSTEM.

1. BALL VALVES: TWO-PIECE BODY, FULL PORT, BLOWOUT-PROOF STEM, PTFE SEATS, CONFORMS TO MSS SP-110, SILICON PERFORMANCE BRONZE ALLOY, SIZE RANGE: 1/4" - 2", PRESSURE RATING: 600 PSI CWP. SWEAT-TO-CRIMP LEAD FREE ADAPTERS AT VALVES. COMPLY WITH LEAD-FREE REQUIREMENTS OF NSF-61-G FOR PARTS OF VALVES AND FITTINGS COMING IN CONTACT WITH POTABLE WATER.
2. ACCESS DOOR: WHERE VALVES ARE CONCEALED ABOVE HARD CEILINGS OR IN WALLS PROVIDE THIN-FLANGED, FRAMED ACCESS DOOR, MINIMUM OF 10 INCHES SQUARE OR ADEQUATE TO SERVICE THE DEVICE, 18-8 STAINLESS STEEL CONSTRUCTION WITH NO. 4 FINISH; SMITH 4762.
3. IDENTIFICATION: WHERE VALVES ARE CONCEALED ABOVE CEILINGS ORIN WALLS, PROVIDE ENGRAVED LAMINATED PLASTIC LABLES WITH 1/2" HIGH LETTERS TO INDICATE LOCATION OF VALVE. AFFIX LABEL TO CEILING OR WALL WHERE VALVES ARE CONCEALED.

SANITARY WASTE AND VENT PIPING

1. MATERIAL: REFER TO MATERIAL LEGEND. IF CAST IRON REFER TO CHAPTER IV OF CISPI "CAST IRON SOIL PIPE AND FITTINGS HANDBOOK".
2. INSTALLATION: INSTALL WASTE AND VENT PIPING AT A MINIMUM SLOPE AS INDICATED UNLESS OTHERWISE INDICATED ON THE PLANS:
3. SANITARY PIPE: 2 PERCENT DOWNWARD IN DIRECTION OF FLOW FOR PIPING 2-1/2" AND SMALLER; 1 PERCENT DOWNWARD IN DIRECTION OF FLOW FOR PIPING 3" TO 6".
4. VENT PIPE: 1 PERCENT DOWN TOWARDS THE VERTICAL FIXTURE VENT OR TOWARD THE VENT STACK.

FOUNDATIONS, HANGERS AND SUPPORTS

1. GENERAL PURPOSE: MANUFACTURERS STANDARDIZATION SOCIETY SP-69 OR FEDERAL SPECIFICATION WW-H-171D, TYPES AS RECOMMENDED OR REQUIRED. PERFORATED OR PLAIN METAL STRAP AND WIRE ARE NOT ACCEPTABLE.
2. HANGERS IN CONTACT WITH COPPER PIPE: SAME AS FOR GENERAL PURPOSE, COPPER OR COPPER PLATED WITH PLASTIC COATING.

INSULATION - HOT AND COLD PIPE:

(1) FLEXIBLE CELLULAR INSULATION (FOAMED PLASTIC): FOAMED PLASTIC, FLEXIBLE, K OF 0.25 AT 75EF, 220EF TEMPERATURE LIMIT, DENSITY OF 5.8PCF, ASTM C534, R4.0.
(2) UL LISTED FOR FLAME SPREAD 25, SMOKE DEVELOPED 50, FUEL CONTRIBUTED 50.
(3) PROVIDE THICKNESSES AND INSTALL AS RECOMMENDED BY MANUFACTURER.
(4) BUTT INSULATION TOGETHER AND ADHERE IN PLACE WITH MANUFACTURER'S RECOMMENDED CONTACT CEMENT. WHERE POSSIBLE, SLIP TUBING ON WITHOUT SLITTING. WHERE INSULATION TERMINATES, NEATLY BEVEL AND FINISH.
(5) ROOF DRAINS AND INTERIOR DOWNSPOUTS: VERTICAL PIPING, EXCEPT BETWEEN ROOF-DECK DRAIN AND FIRST ELBOW AND WITHIN TWO FEET OF NON-VERTICAL PIPING, NEED NOT BE INSULATED; INSULATE OTHER RD AND DS PIPING, AND INSULATE THE ROOF-DECK DRAIN (RD) SUMPS WITH SHEET INSULATION. HORIZONTAL PIPING WITHIN CRAWL-SPACE NEED NOT BE INSULATED.
(6) HOT AND COLD WATER, HOT WATER CIRCULATING: PROVIDE THICKNESS RECOMMENDED BY MANUFACTURER. MAINTAIN VAPOR BARRIER ON COLD WATER PIPING INSULATION.
(7) WHERE EXPOSED TO VIEW, BENEATH THE BUILDING, OR EXPOSED TO WEATHER:

A. PAINT WITH INSULATION MANUFACTURER'S PAINT FINISH, TINTED AS SELECTED BY ARCHITECT-ENGINEER, SPECIFICALLY FORMULATED IF EXPOSED OUTDOORS.

B. PROVIDE 16 GAGE ALUMINUM OR STAINLESS STEEL COVER WITH MATCHING ALUMINUM OR STAINLESS STEEL BANDS SPACED 18 INCHES OVER PIPE AND FITTINGS WHERE EXPOSED TO WEATHER OR EXPOSED TO OCCUPANTS AND WITHIN 84 INCHES OF THE FLOOR.

(1) PRODUCT; ARMSTRONG ARMAFLEX WITH WB ARMAFLEX FINISH INDOORS, ARMSTRONG ARMAFLEX WITH SB ARMAFLEX FINISH OUTDOORS.

EXISTING UTILITIES

1. THE LOCATIONS, SIZES AND ELEVATIONS OF EXISTING UTILIZES SHOWN ON THE PLANS ARE BASED ON INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF DESIGN AND MAY NOT REFLECT REAL WORLD CONDITIONS, HOWEVER THE CONTRACTOR IS RESPONSIBLE FOR FIELD DISCOVERY AND MAKING ADJUSTMENTS AS NECESSARY TO PERFORM THE REQUIRED SCOPE OF WORK. HOWEVER, PRIOR TO MAKING ANY ADJUSTMENTS OR PERFORMING WORK THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER AND/OR ARCHITECT FOR APPROVAL.

COPPER PIPING

1. MATERIAL: REFER TO MATERIAL LEGEND. IF TYPE L, THE PIPE JOINTS MUST BE SOLDERED UTILIZING LEAD FREE SOLDER AND NON-ACID FLUX PASTE.

TRAPEZE PIPE HANGERS

DESCRIPTION: MSS SP-58, TYPE 59, SHOP- OR FIELD-FABRICATED PIPE-SUPPORT ASSEMBLY, MADE FROM STRUCTURAL-CARBON-STEEL SHAPES, WITH MSS SP-58 CARBON-STEEL HANGER RODS, NUTS, SADDLES, AND U-BOLTS.

CARBON-STEEL PIPE HANGERS AND SUPPORTS:

1. DESCRIPTION: MSS SP-58, TYPES 1 THROUGH 58, FACTORY-FABRICATED COMPONENTS.
2. GALVANIZED METALLIC COATINGS: PRE-GALVANIZED, HOT-DIP GALVANIZED, OR ELECTRO-GALVANIZED.
3. NONMETALLIC COATINGS: PLASTIC COATED OR EPOXY POWDER COATED.
4. PADDED HANGERS: HANGER WITH FIBERGLASS OR OTHER PIPE INSULATION PAD OR CUSHION TO SUPPORT BEARING SURFACE OF PIPING.
5. HANGER RODS: CONTINUOUS-THREAD ROD, NUTS, AND WASHER MADE OF CARBON STEEL

COPPER PIPE AND TUBE HANGERS:

1. DESCRIPTION: MSS SP-58, TYPES 1 THROUGH 58, COPPER-COATED-STEEL, FACTORY-FABRICATED COMPONENTS
2. HANGER RODS: CONTINUOUS-THREAD ROD, NUTS, AND WASHER MADE OF COPPER-COATED STEEL.

HANGER AND SUPPORT INSTALLATION

A. METAL PIPE-HANGER INSTALLATION: COMPLY WITH MSS SP-58. INSTALL HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS AS REQUIRED TO PROPERLY SUPPORT PIPING FROM BUILDING STRUCTURE.

B. METAL TRAPEZE PIPE-HANGER INSTALLATION: COMPLY WITH MSS SP-58. ARRANGE FOR GROUPING OF PARALLEL RUNS OF HORIZONTAL PIPING, AND SUPPORT TOGETHER ON FIELD-FABRICATED TRAPEZE PIPE HANGERS.

C. PIPES OF VARIOUS SIZES: SUPPORT TOGETHER AND SPACE TRAPEZES FOR SMALLEST PIPE SIZE, OR INSTALL INTERMEDIATE SUPPORTS FOR SMALLER-DIAMETER PIPES AS SPECIFIED FOR INDIVIDUAL PIPE HANGERS.

D. FIELD FABRICATE FROM ASTM A36/A36M CARBON-STEEL SHAPES SELECTED FOR LOADS BEING SUPPORTED, WELD STEEL ACCORDING TO AWS D1.1/D1.1M.

E. INSTALL HANGERS AND SUPPORTS COMPLETE WITH NECESSARY ATTACHMENTS, INSERTS, BOLTS, RODS, NUTS, WASHERS, AND OTHER ACCESSORIES.

F. INSTALL HANGERS AND SUPPORTS TO ALLOW CONTROLLED THERMAL AND SEISMIC MOVEMENT OF PIPING SYSTEMS, TO PERMIT FREEDOM OF MOVEMENT BETWEEN PIPE ANCHORS, AND TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, EXPANSION BENDS, AND SIMILAR UNITS.

G. INSTALL LATERAL BRACING WITH PIPE HANGERS AND SUPPORTS TO PREVENT SWAYING.

CLEANUP AND PAINTING

1. AFTER COMPLETION OF THE WORK THE PLUMBING CONTRACTOR SHALL REMOVE ALL EXTRA MATERIALS, FITTINGS, PIPES, ETC, WHICH HAVE BEEN BROUGHT TO THE SITE FOR COMPLETION OF THEIR SCOPE OF WORK. ALL DEBRIS CREATED BASED ON THEIR CONSTRUCTION EFFORT SHALL BE REMOVED.
2. ALL UNINSULATED PIPING AND EQUIPMENT SHALL BE CLEANED OF OIL, GREASE AND DIRT. ALL SURFACES SHALL BE CLEAN AND FREE OF DIRT AND CORROSION, READY FOR PAINTING BY OTHERS (UNLESS THE PLUMBING CONTRACTOR HAS BEEN TASKED BY THE GENERAL CONTRACTOR FOR PAINTING OF THEIR OWN EQUIPMENT AND EXPOSED PIPING).

TESTING

1. ALL CONCEALED WORK SHALL REMAIN UNCOVERED UNTIL ALL REQUIRED TESTS HAVE BEEN COMPLETED. NOTE THAT THIS TESTING MAY BE DONE IN PHASED AREAS AS DEEMED NECESSARY BY THE GENERAL CONTRACTOR. THE CONTRACTOR WILL REPAIR ANY DEFECTS WHICH ARE DISCOVERED AS A RESULT OF INSPECTION OR TEST WITH NEW MATERIAL. CAULKING OF SCREWED JOINTS, CRACKS OR HOLES WILL NOT BE ACCEPTABLE. THE TEST MUST BE REPEATED AFTER REPLACEMENT AND DEFECTS HAVE BEEN ELIMINATED.
2. POTABLE WATER SHALL BE TESTED BEFORE FIXTURES AND FAUCETS ARE CONNECTED AND/OR BEFORE CONNECTING TO ANY EXISTING PIPING SYSTEM. THE SYSTEM WILL BE FILLED WITH WATER AND PRESSURE TESTED TO 150 PSI FOR A MINIMUM OF ONE HOUR WITHOUT ANY LEAKS OR PRESSURE LOSS.

PLUMBING DEMOLITION NOTES:

1. THE CONTRACTOR WILL VISIT THE SITE TO REVIEW THE EXISTING CONDITIONS ASSOCIATED WITH THE SCOPE OF WORK TO DETERMINE THE EXTENTS OF DIFFICULTY REQUIRED TO PERFORM THE REQUIRED SERVICES SO THAT LATER CLAIMS ABOUT UNFORESEEN CONDITIONS WILL BE MITIGATED TO THE FULLEST EXTENT POSSIBLE.
2. DEMOLITION IS INCLUSIVE OF ALL MATERIAL, CONNECTIONS, CUTTING, REPAIRING AND ADAPTING THE SYSTEMS WHICH ARE TO REMAIN IN OPERATION SO THAT A FULL AND COMPLETE SYSTEM IS PROVIDED ONCE THE PROJECT IS COMPLETE.
3. THE CONTRACTOR IS RESPONSIBLE TO RELOCATING AND RECONNECTING EXISTING WORK WHICH INTERFERES WITH THE NEW PLUMBING (INCLUDING BUT NOT LIMITED TO ELECTRICAL, MECHANICAL, BUILDING ELEMENTS, ETC), USING MATERIAL IN CONFORMANCE WITH THE CURRENT CODES AND/OR THE PROJECT DOCUMENTS. FULL COORDINATION IS REQUIRED WITH ALL OTHER TRADES PRIOR TO THE OF ANY START OF WORK.
4. REMOVE ALL EQUIPMENT AND FIXTURES AS NOTED ON THE ARCHITECTURAL DRAWINGS (NOT ONLY THOSE NOTED ON THE PLUMBING PLANS) AND PROVIDE TEMPORARY SERVICES (WATER, SANITARY, ETC.) SO THAT OTHER AREAS NOT LOCATED IN THE SCOPE OF WORK REMAIN IN SERVICE THROUGHOUT DURATION OF THE PROJECT.
5. ANY BASE BUILDING PIPING WHICH IS ABANDONED WITHIN THE SCOPE OF WORK AREA SHALL BE REMOVED BACK TO THE EXISTING WET COLUMN. COORDINATE WITH THE BUILDING OWNER FOR REMOVAL OF ALL ITEMS SO THAT NO SYSTEMS OUTSIDE THE OUTSIDE OF THE SCOPE OF WORK AREA HAVE AN OUTAGE.

PLUMBING ABBREVIATIONS

CODES:

ADA	AMERICANS WITH DISABILITIES ACT
AHJ	AUTHORITY HAVING JURISDICTION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
IBC	INTERNATIONAL PLUMBING CODE
IECC	INTERNATIONAL ENERGY CONSERVATION CODE
IPC	INTERNATIONAL PLUMBING CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
OSHA	OCCUPATIONAL SAFETY
TAS	TEXAS ACCESSIBILITY STANDARDS
UPC	UNIFORM PLUMBING CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
RME	LICENSED RESPONSIBLE MANAGING EMPLOYEE

GENERAL:

SD	SCHEMATIC DESIGN
DD	DESIGN DEVELOPMENT
CD	CONSTRUCTION DOCUMENTS
REV	REVISION
(D)	DEMOLITION
(E)	EXISTING
(N)	NEW
(R)	RELOCATE
A/E	ARCHITECT/ENGINEER
AFF	ABOVE FINISHED FLOOR
FWFF	FLUSH WITH FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AP	ACCESS PANEL
BD	BLOW DOWN
BFF	BELOW FINISH FLOOR
BFG	BELOW FINISH GRADE
BOP	BOTTOM OF PIPE
BT	BLADDER TANK
BTUH	BRITISH THERMAL UNITS PER HOUR
BYP	BYPASS
C-C	CENTER LINE
CFH	CUBIC FEET PER HOUR
CL	CENTERLINE
C&S	CAP & SEAL
DEG	DEGREE
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN THRU FLOOR
DRN	DRAIN
DWG	DRAWING
EA	EACH
EL	ELEVATION
ENG.	ENGINEER
EQ	EQUAL
F	FAHRENHEIT
FFL	FINISHED FLOOR LEVEL
FIN	FINISH
FOG	FATS, OILS AND GREASE
FP	FIRE PROTECTION
GA	GAUGE
GEN	GENERATOR
GPD	GALLONS PER DAY
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MIN
I-D	INSIDE DIAMETER
I.L.F.F.F.	INVERT LEVEL FROM FINISHED FLOOR
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
MECH	MECHANICAL
MIN	MINIMUM
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OS&Y	OUTSIDE SCREW & YOKE
PH	PHASE
PPB	PARTS PER BILLION
PPM	PARTS PER MILLION
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
RCP	REFLECTED CEILING PLAN
RS	RISING STEM
SPEC	SPECIFICATION
SWG	SWAGE
TC	TIME CLOCK
TG	TRAP GUARD <- ENG. RECOMMENDED
TMEP	TEMPERATURE
TOC	TOP OF CONCRETE
TOP	TOP OF PIPE
TP	TRAP PRIMER
TYP	TYPICAL
UP	UP THRU FLOOR
VTR	VENT THRU ROOF
"WC	INCHES OF WATER COLUMN
WHA	WATER HAMMER ARRESTOR
WP	WEATHERPROOF

EQUIPMENT TAGS:

GWH	GAS WATER HEATER
IGWH	INSTANTANEOUS GAS WATER HEATER
EWH	ELECTRICAL WATER HEATER
IH	INSTANTANEOUS WATER HEATER
CP	CIRCULATING PUMP
DBP	DOMESTIC BOOSTER PUMP
GT	GREASE TRAP
GI	GREASE INTERCEPTOR
SI	SAND OIL INTERCEPTOR
LT	LINT TRAP
ANT	ACID NEUTRALIZATION TANK
SW	SAMPLE WELL
WM	WATER METER

FIXTURE TAGS:

WC	WATER CLOSET
U	URINAL
LAV, L	LAVATORY
SK	SINK
MS	MOP SINK
SH	SHOWER
WB	WASHER BOX
BT	BATH TUB
VB	VALVE BOX
EDF	ELECTRIC DRINKING FOUNTAIN
FD	FLOOR DRAIN
FS	FLOOR SINK
FFD	FABRICATED FUNNEL DRAIN
GD	GARAGE DRAIN
VB	VACUUM BREAKER
BFP	BACKFLOW PREVENTER
RPZ	REDUCED PRESSURE ZONE DEVICE
WCO	WALL CLEANOUT
ECO	EXTERIOR CLEANOUT
FCO	FLOOR CLEANOUT
TCO	TRAFFIC CLEANOUT
END CO	END CLEANOUT
WH	WALL HYDRANT
HB	HOSE BIBB
RH	ROOF HYDRANT
GH	GROUND HYDRANT
BAV	BALL VALVE
BFV	BUTTER FLY VALVE
BV	BALANCING VALVE
CV	CHECK VALE
GC	GAS COCK
GV	GATE VALVE
PRV	PRESSURE REDUCING VALVE
CS	CIRCUIT SOLVER

PIPING SYSTEMS:

[O]	OVERFLOW
[P]	PRIMARY
A	AIR
C.D.	CONDENSATE DRAINAGE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
FW	FILTERED WATER
GRW	GRAY WATER
GW	GREASE WASTE
HWR	HOT WATER RETURN
ID	INDIRECT DRAINAGE
NG	NATURAL GAS
LPG	LIQUEFIED PETROLEUM GAS
OS	SUDS STACK
OSD	OVERFLOW STORM DRAINAGE
PW	POTABLE WATER
RHS	RAIN HARVESTING SYSTEM
SAN / S	SANITARY DRAINAGE
STORM, ST	STORM DRAINAGE
SW	SOFT WATER
TW	TEMPERED WATER
TWR	TEMPERED WATER RETURN
V	VENT
VS	VENT STACK
WS	WASTE STACK

MAINTENANCE SHOP PIPING SYSTEMS:

AF	ANTI-FREEZE
TF	TRANSMISSION FLUID
DF	DEFFERENTIAL FLUID
EO	ENGINE OIL
EO-DIL	DIESEL MOTOR OIL
EO-CNG	CNG MOTOR OIL
GO	GEAR OIL
GR	GREASE
HO	HYDRAULIC OIL
WAF	WASTE ANTI-FREEZE
WO	WASTE OIL
WW	WINDSHIELD WIPER FLUID

MATERIALS:

ABS	ACRYLONITRILE BUTADIENE STYRENE
AL	ALUMINUM
CI	CAST IRON
CS	CARBON STEEL
CU	COPPER
DI	DUCTILE IRON
GALV	GALVANIZED
PVC	POLYVINYL CHLORIDE (PLASTIC)
PVDF	POLYVINYLIDENE FLUORIDE
RGS	RIGID GALVANIZED STEEL
SS	STAINLESS STEEL
PP	POLYPROPYLENE
PTFE	POLYTETRAFLUOROETHYLENE
PVDC	POLYVINYLIDENE CHLORIDE

PLUMBING LEGEND

XX-1	PLUMBING FIXTURE TAG
X"XX-1	OUTLET SIZE / DRAIN TAG
XX-1	HYDRANT / HOSE BIBB
XX-1	EQUIPMENT TAG
(D)	EXISITNG TO BE DEMOLISHED
(E)	EXISTING TO REMAIN
X1 / X"	RISER TAG # / PIPE SIZE
X"DCW	DOMESTIC COLD WATER
X"DHW	DOMESTIC HOT WATER
X"HWR	HOT WATER RETURN
X"SW	SOFT WATER
X"RO	REVERSE OSMOSIS WATER
X"DI	DEIONIZED WATER
X"DH2O	DISTILLED WATER
X"NP-CW	NON-POTABLE COLD WATER
X"NP-HW	NON-POTABLE HOT WATER
X"OSD	OVERFLOW STORM DRAINAGE
X"SD	STORM DRAINAGE (BELOW SLAB)
X"SD	STORM DRAINAGE (ABOVE SLAB)
X"V	VENT (ABOVE SLAB)
X"V	VENT (BELOW SLAB)
X"SAN	SANITARY DRAINAGE (BELOW SLAB)
X"SAN	SANITARY DRAINAGE (ABOVE SLAB)
X"D	DRAINAGE
X"GW	GREASE WASTE (BELOW SLAB)
X"GW	GREASE WASTE (ABOVE SLAB)
X"CD	CONDENSATE - RE: HVAC PLANS
X"AV	ACID VENT (BELOW SLAB)
X"AV	ACID VENT (ABOVE SLAB)
X"AW	ACID WASTE (BELOW SLAB)
X"AW	ACID WASTE (ABOVE SLAB)
X"NG	NATURAL GAS
X"LPG	LIQUID PROPANE GAS
X"C-VAC	CENTRAL VACCUM

FLOOR CLEANOUT
EXTERIOR CLEANOUT
FLOOR DRAIN
FLOOR DRAIN W/ FUNNEL
FLOOR SINK FULL GRATE
FLOOR SINK 1/2 GRATE
RH-1
WH-1 HB-1
FULL PORT BALL VALVE
CHECK VALVE
WHA RE: DETAIL
X PIPE ACCESSORY TAG
AVOID ANY PLUMBING IN THIS AREA
ENLARGED PLAN / SCOPE OF WORK

PLUMBING - FIXTURE SCHEDULE

TAG	ADA	FLOW RATE	DESCRIPTION	MANUFACTURER - MODEL #	FLUSH VALVE OR FAUCET	TRAP	WASTE	VENT	CW	HW	*TMV	NOTES
WH-1	No	10 GPM	FREE STANDING HOSE BIB	MDF 24-8 SMSS	-	-	-	-	3/4"	-		

MATERIAL LEGEND

1. **DOMESTIC WATER:**
   TYPE "L" COPPER TUBING WITH WROUGHT COPPER FITTINGS AND 95/5 (TIN/ANTIMONY) SOLDER JOINTS.

ALL ELECTRICAL TO BE TREATED AS "ALTERNATE No. 6"

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BP-010 FIELD HOUSE AND ATHLETIC RENOVATIONS

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INTERIM REVIEW ONLY
Document is Incomplete
Not intended for permit or construction
Engineer: DAVIA GERNAND
PE License No. 109903 TX
DATE: 09 OCTOBER 2025

DATE: 10/09/2025

PROJECT NO. 29-059
DATE: 07/14/2025
DRAWN BY: PLE CHECKED BY: WK
REVISIONS:

Date	Description
10/09/2025	100% CD

PROJECT STATUS
P101-W
GENERAL NOTES, ABBREV., & LEGEND

10/9/2025 3:26:00 PM C:\Users\PEspi\Documents\GK - 2025.044 - E - R25 - Sports Fields FBISD_detached_PEspinozaGLSEJ.rvt

I DESIGN CRITERIA

A. GENERAL BUILDING CODE

1. THE CONSTRUCTION DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE 2021 WITH AMENDMENTS.

B. DEAD LOADS

1. HANGING CEILING AND MECHANICAL LOADS: FOLLOWING ALLOWANCES HAVE BEEN MADE FOR HANGING CEILING AND MEHCANICAL EQUIPMENT LOADS SUCH AS DUCT WORK AND SPRINKLER PIPES.
   a. ROOF 10 PSF
   b. MEP SYSTEMS 4 PSF.

C. LIVE LOADS

1. DESIGN LIVE LOADS ARE LISTED BELOW
   a. ROOF 20 PSF (REDUCIBLE)
   b. FLOOR 100 psf

D. WIND LOADS
1. WIND PRESSURES ARE BASED ON THE PROVISIONS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE 7-22 AND THE FOLLOWING CRITERIA:
   a. ULTIMATE DESIGN WIND SPEED (VULT): 140 MPH (3 SECOND GUST)
   b. BUILDING RISK CATEGORY: III
   c. WIND EXPOSURE CATEGORY: B
   d. INTERNAL PRESSURE COEFFICIENT (GCPI): [+0.55/-0.55]

2. WIND PRESSURE USED IN THE DESIGN OF THE CLADDING ARE SHOWN ON THE STRUCTURAL DRAWINGS, SHEET S-002

E. HANDRAILS AND GUARDS

1. THE STRUCTURAL STRENGTH OF GRAB BARS, TUB AND SHOWER SEATS, FASTENERS, AND MOUNTING DEVICES SHALL MEET THE FOLLOWING SPECIFICATION:
   a. BENDING STRESS IN A GRAB BAR OR SEAT INDUCED BY THE MAXIMUM BENDING MOMENT FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE STRESS FOR THE MATERIAL OF THE GRAB BAR OR SEAT.
   b. SHEAR STRESS INDUCED IN A GRAB BAR OR SEAT BY THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE SHEAR STRESS FOR THE MATERIAL OF THE GRAB BAR OR SEAT. IF THE CONNECTION BETWEEN THE GRAB BAR OR SEAT AND ITS MOUNTING BRACKET OR OTHER SUPPORT IS CONSIDERED TO BE FULLY RESTRAINED, THEN DIRECT AND TORSIONAL SHEAR STRESSES SHALL BE TOTALED FOR THE COMBINED SHEAR STRESS, WHICH SHALL NOT EXCEED THE ALLOWABLE SHEAR STRESS.
   c. SHEAR FORCE INDUCED IN A FASTENER OR MOUNTING DEVICE FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE LATERAL LOAD OF EITHER THE FASTENER OR MOUNTING DEVICE OR THE SUPPORTING STRUCTURE, WHICHEVER IS THE SMALLER ALLOWABLE LOAD.
   d. TENSILE FORCE INDUCED IN A FASTENER BY A DIRECT TENSION FORCE OF 250 LBF PLUS THE MAXIMUM MOMENT FROM THE APPLICATION OF 250 LBF SHALL BE LESS THAN THE ALLOWABLE WITHDRAWAL LOAD BETWEEN THE FASTENER AND THE SUPPORTING STRUCTURE.
   e. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

F. HANDRAILS AND GUARDS

1. THE HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED FOR 50 PLF OR A CONCENTRATED LOAD OF 200 POUNDS AT ANY POINT APPLIED IN ANY DIRECTION AT THE TOP AND TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE. THESE LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.

G. BUILDING MOVEMENT AND DEFLECTIONS

1. THE BUILDING MOVEMENT SPECIFIED HEREIN IS ANTICIPATED TO OCCUR AND SHOULD BE CONSIDERED BY THE CONTRACTOR IN THE PERFORMANCE OF THE WORK.

2. SPANDREL BEAM DEFLECTIONS. THE FOLLOWING PROVISION SHOULD BE MADE FOR SUPERIMPOSED LOAD DEFLECTION OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR IN THE DESIGN, FABRICATION, AND ERECTION OF THE BUILDING CLADDING:
   a. TYPICAL SPANDREL BEAM: 3/8"

   SUPERIMPOSED LOAD DEFLECTION IS DEFINED AS ALL DEFLECTION ANTICIPATED TO OCCUR AFTER THE CLADDING HAS BEEN ERECTED. THE RELATIVE DEFLECTION ABOVE DOES NOT INCLUDE THE FLOOR DEFLECTION CAUSED BY THE WEIGHT OF THE CLADDING ITSELF OR THE DEAD LOAD DEFLECTION OF THE FLOOR FRAMING ITSELF, NOR DOES IT INCLUDE ANY ALLOWANCE FOR FABRICATION OR ERECTION TOLERANCES.

3. FLOOR DEFLECTIONS: THE FOLLOWING PROVISION FOR SUPERIMPOSED LOAD DEFLECTIONS SHALL BE MADE IN THE DESIGN, FABRICATION, AND INSTALLATION OF ALL PARTITIONS, GLASS WALLS, AND OTHER ELEMENTS SUPPORTED BY AND ATTACHED TO THE STRUCTURE:
   a. TYPICAL FLOOR MEMBERS: SPAN/360 BUT NOT LESS THAN 3/8 "
   b. TYPICAL ROOF MEMBERS: SPAN/360 BUT NOT LESS THAN 3/8 "

4. LATERAL FRAME WIND DEFLECTION (DRIFT): THE FOLLOWING PROVISION FOR LATERAL FRAME DEFLECTION IN THE PLANE OF THE WALL OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR SHALL BE MADE IN THE DESIGN, FABRICATION AND INSTALLATION OF THE BUILDING CLADDING:
   a. TYPICAL FLOOR TO FLOOR: FLOOR HEIGHT/400 THE DEFLECTIONS LISTED ABOVE ARE BASED ON WIND LOADS WITH A 10-YEAR MEAN RECURRENCE INTERVAL.

II FOUNDATION (WILLOWRIDGE)

A. GEOTECHNICAL REPORT

1. - THE GEO TECH REPORT IS PREPARED BY HVJ ASSOCIATES
   - REPORT IS PREPARED FOR FBISD SCHOOL IMPROVEMENTS TURF AND ATHLETICS ; WILLOW RIDGE HIGH SCHOOL FORT BEND COUNTRY , TEXAS
   -GEO TECH REPORT DATED FEBRUARY 9 ,2024
   - GEO TECH REPORT NUMBER /PROJECT NUMBER - HG1810383.17 --D

B- FOUNDATION APPROVAL AND INSPECTION BY AUTHORIZED INSPECTOR

1. 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.

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

A. GRADE BEAMS
1. GRADE BEAM SIDE FORMS
   a. FORM EXPOSED FACES OF GRADE BEAMS.
2. 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

3. 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 ON TABLES OR TYPICAL DETAILS. PROVIDE CORNER BARS TO MATCH TOP AND BOTTOM STEEL.

D. SLAB ON GRADE CONSTUCTION
1. SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R.

2. SUBGRADE PREPARATION SHALL CONFORM TO THE SOILS REPORT NOTED ABOVE.
   i- BASEBALL AND SOFTBALL DUGOUTS USE SELECT FILL THICKNESS 5 FT THICK PREPARED BASED ON THE SOIL REPORT TO ACHIEVER 1" PVR.

3. EXTEND SELECT FILL PAD 5 FT BEYOND THE EDG OF THE PROPOSED STRUCTURE (DUGOUTS)

4. PROVIDE (2) #4 X 4'-0" TOP AND BOTTOM AT ALL SLAB ON GRADE RE-ENTRANT CORNERS.

E. VAPOR RETARDER

1. 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.

   - STEGO WRAP VAPOR BARRIER (15 MILS) VAPORGUARD BY REEF INDUSTRIES ECOSHEILD-E 15 MIL BY EPRO SERVICES

2. ALL 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.

2. THE GEOTECHNICAL REPORT IS AVAILABLE TO THE GENERAL CONTRACTOR UPON REQUEST TO THE OWNER. THE INFORMATION INCLUDED THEREIN MAY BE USED BY THE GENERAL CONTRACTOR FOR HIS GENERAL INFORMATION ONLY. THE ARCHITECT AND ENGINEER WILL NOT BE RESPONSIBLE FOR THE ACCURACY OR APPLICABILITY OF SUCH DATA THEREIN.

B. CONSTRUCTION DEWATERING

1. THE CONTRACTOR SHALL DETERMINE THE EXTENT OF CONSTRUCTION DEWATERING REQUIRED FOR THE EXCAVATION. THE CONTRACTOR SHALL SUBMIT TO THE GEOTECHNICAL ENGINEER FOR REVIEW THE PROPOSED PLAN FOR CONSTRUCTION DEWATERING, PRIOR TO BEGINNING THE EXCAVATION. CONTRACTOR SHALL INCLUDED CASING INTO THE BID , IN CASE SLOSHING OCCURS. IF IT DOES NOT OCCUR, CREDIT SHALL BE GIVEN TO THE CLIENT.

A. SLAB ON GRADE FOUNDATION

- ALLOWABLE BEARING CAPACITY = 1500 PSF UNDER SUSTAINED LOADS
  = 2200 PSF FOR TOTAL NET (DEAD + LIVE) LOADS
- MODULUS OF SUGRADE REACTION = 100 PCI FOR DUGOUTS

B

- SOFTBALL AND BASE BALL NETTING POLES LATERAL CAPACITY
  - FRICTION FACTOR = 0.20 FOR BASEBALL (NET POLE AND SCOREBOARD)
  MAXIMUM PASSIVE PRESSURE = 750 PSF
  ALLOWABLE BEARING PRESSURE = 2000 PSF

III REINFORCED CONCRETE

A. CLASSES OF CONCRETE

1. ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE "CLASSES OF CONCRETE MATRIX" ON SHEET 300 SERIES UNLESS NOTED OTHERWISE ON THE DRAWING (IF NOT NOTE MIN 3500 PSI CONCRETE SHALL BE USED FOR ALL CONCRETE WORK).

B. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS

1. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ANY CONCRETE POURS UNLESS SHOWN ON THE DRAWINGS. THE ARCHITECT/ENGINEER SHALL APPROVE ALL DEVIATIONS OR ADDITIONAL JOINTS IN WRITING.

C. REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE ASTM A 615 GRADE 60 UNLESS NOTED OTHERWISE ON THE DRAWINGS OR IN THESE NOTES.

2. REINFORCING STEEL: PROVIDE REINFORCING STEEL CONFORMING TO ASTM A 706 FOR ALL REINFORCING STEEL REQUIRED TO BE WELDED AND WHERE NOTED ON THE DRAWINGS.
   a. FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LADBS FOR REINFORCING STEEL. CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
   b. SHOP WELDS MUST BE PERFORMED IN AN LADBS-LICENSED FABRICATION SHOP.

3. EPOXY-COATED REINFORCING STEEL: PROVIDE EPOXY-COATED REINFORCING STEEL ACCORDING TO ASTM A 775 WHERE NOTED ON THE DRAWINGS. REINFORCING STEEL FOR COOLING TOWER CONCRETE BASINS SHALL BE EPOXY-COATED.

4. DEFORMED BAR ANCHORS: AWS D1.1 TYPE C (TABLE 7.1) STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 496 WITH A MINIMUM YIELD STRENGTH 70,000 PSI. REINFORCING BARS SHALL NOT BE SUBSTITUTED FOR DEFORMED BAR ANCHORS.

5. HEADED STUD ANCHORS FOR EMBEDDED PLATES: AWS D1.1 TYPE A STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 29 WITH A MINIMUM YIELD STRENGTH OF 61,000 PSI.

6. SMOOTH WELDED WIRE REINFORCEMENT: ASTM A 185, YIELD STRENGTH 65,000 PSI.

D. PLACEMENT OF WELDED WIRE REINFORCEMENT

1. WHEREVER WELDED WIRE REINFORCEMENT IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED PER ACI 318, 12.18 AND 12.19.

E. REINFORCING STEEL COVERAGE

1. REINFORCING STEEL COVERAGE SHOULD CONFORM TO THE REQUIREMENTS SPECIFIED IN DETAILS LABELED "TYPICAL CLEAR CONCRETE COVER" ON SHEET S-300 UNLESS NOTED OTHERWISE ON THE DRAWINGS. COVER SPECIFIED SHALL BE CONSIDERED MINIMUMS THAT MAY REQUIRE INCREASING WHERE REINFORCING STEEL INTERSECTS FOR DIFFERENT MEMBER TYPES. COVER IN STRUCTURAL MEMBERS NOT SPECIFIED IN THE DETAILS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS. THE REINFORCING STEEL DETAILER SHALL ADJUST REINFORCING STEEL CAGE SIZES AT INTERSECTING STRUCTURAL MEMBERS AS REQUIRED TO ALLOW CLEARANCE FOR INTERSECTING REINFORCING BAR LAYERS WITH MINIMUM SPECIFIED COVER.

F. SPLICES AND HOOKS IN REINFORCING STEEL

1. SPLICE LOCATION AND TYPE AND HOOKS FOR UNSCHEDULED BEAMS, SLABS AND WALLS:
   a. BEAMS AND SLABS. UNSCHEDULED BEAMS AND SLABS, INCLUDING GRADE BEAMS, SHALL HAVE CONTINUOUS TOP BARS LAPPED AT MIDSPAN BETWEEN SUPPORTS WITH A CLASS A TENSION SPLICE. BOTTOM BARS SHALL BE LAPPED AT THE SUPPORTS WITH A CLASS A TENSION SPLICE. ALL BEAM BARS SHALL BE HOOKED AT DISCONTINUOUS END, UNLESS NOTED OTHERWISE.
   b. BASEMENT WALLS. VERTICAL BARS PLACED ON THE DIRT FACE SIDE SHALL BE LAPPED AT MIDSPAN BETWEEN SUPPORTS WITH A CLASS B TENSION SPLICE. VERTICAL BARS PLACED OPPOSITE THE DIRT FACE SIDE SHALL BE LAPPED AT THE SUPPORTS WITH A CLASS B TENSION SPLICE. HORIZONTAL BARS SHALL HAVE A CLASS B TENSION SPLICE.

IV CONCRETE MASONRY

A. SCOPE

1. REFER TO ARCHITECT'S DRAWINGS FOR THE EXTENT OF MASONRY WALLS. NON-LOAD BEARING WALLS MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS.

2. REINFORCED CONCRETE MASONRY SHALL BE USED AS LOAD BEARING ERIMETER WALLS FOR STANDALONE CONCESSIONS AND RESTROOM BUILDINGS, AND ELSEWHERE INDICATED ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS. SEE ARCHITECTURAL WALL SECTIONS.

3. PROVIDE ONE-COURSE HORIZONTAL BOND BEAM REINFORCE WITH 1-#5 CONTINUOUS AT EVERY FLOOR LEVEL, ROOF LEVEL, AND PARAPET, MINIMUM.

4. RE ARCH FOR LOACTION OF POLISHED MASONRY WALLS.

B. CONCRETE MASONRY UNITS.

1. CONCRETE STRENGTH OF MASONRY UNITS (BASED ON NET AREA) SHALL BE 1,900 PSI MINIMUM.

2. UNITS SHALL CONFORM TO ASTM C 55 OR ASTM C 90 AND SAMPLED IN ACCORDANCE WITH ASTM C 140.

C. MORTAR

1. USE ONLY PORTLAND CEMENT/LIME, TYPE M OR S, MORTAR CONFORMING TO ASTM C 270. PROVIDE AN AVERAGE COMPRESSIVE STRENGTH AT 28 DAYS OF 1,800 PSI MINIMUM.

D. GROUT

1. MIX DESIGNS:

   a. FOR FILLING SPACES 4" OR LARGER IN BOTH HORIZONTAL DIRECTIONS, USE "COARSE GROUT " WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI. THE GROUT SHALL BE TESTED IN ACCORDANCE WITH ASTM C1019. FOR FILLING SPACES LESS THAN 4 " IN ONE OR BOTH HORIZONTAL DIRECTIONS, USE "FINE GROUT" PROPORTIONED PER ASTM C 476.

   b. USE 3,000 PSI NORMALWEIGHT CONCRETE FOR FILLING SPACES 10 " AND LARGER IN BOTH DIRECTIONS. THE GROUT SHALL BE TESTED IN ACCORDANCE WITH ASTM C 1019.

   c. ALL GROUT MIX DESIGN SUBMITTALS SHALL INCLUDE THE RESULTS OF THE TESTS PERFORMED IN ACCORDANCE WITH ASTM C 1019.

   d. SLUMP RANGE AT POINT OF FINAL DISCHARGE: 8" TO 11".

   e. THE USE OF AIR ENTRAINING ADMIXTURES IS NOT ALLOWED.

E. MINIMUM REINFORCEMENT FOR CONCRETE MASONRY UNITS

1. PROVIDE VERTICAL REINFORCEMENT IN CELLS OF CONCRETE MASONRY UNITS (FULLY EMBEDDED IN GROUT) AS SHOWN ON THE PLANS AND OTHER DETAILS. MINIMUM REINFORCEMENT OF INTERIOR MASONRY SHALL BE AS FOLLOWS:
   a. 1-#5 AT A MAXIMUM SPACING OF 48 INCHES
   b. 1-#5 AT EACH CORNER
   c. 1-#5 AT EACH SIDE OF OPENINGS UP TO 12 FEET WIDE
   d. 2-#5 OR 1-#7 AT BOTH SIDES OF OPENINGS OVER 12 FEET WIDE
   e. HEAVIER REINFORCEMENT MAY BE REQUIRED BY PLAN NOTES OR DETAILS IN THE DRAWINGS.

2. PROVIDE HORIZONTAL REINFORCEMENT IN BED JOINTS EVERY OTHER COURSE (MAXIMUM 16 SPACING) IN TYPICAL WALLS AND IN EVERY COURSE (MAXIMUM 8" SPACING) IN PARAPETS AND CANTILEVERED WALLS.

3. TERMINATION OF REINFORCING STEEL:
   a. ALL VERTICAL REINFORCEMENT SHALL HAVE STANDARD HOOK INTO BOND BEAM. TERMINATE AT HIGHEST BOND BEAM IF MASONRY DOES NOT EXTEND TO ROOF OR GROUTED CELL IS NOT CONTINUOUS TO ROOF. HOOK SHALL EXTEND TO THE UPPERMOST HORIZONTAL REINFORCEMENT OF THE BOND BEAM AND HAVE A MINIMUM EMBEDMENT OF 6 ".
   b. ALL HORIZONTAL REINFORCEMENT AT ENDS OF BOND BEAMS SHALL HAVE STANDARD HOOK INTO VERTICAL GROUTED CELL. PROVIDE CORNER BARS SUCH THAT HORIZONTAL REINFORCEMENT IS CONTINUOUS AROUND CORNERS.

F. REINFORCING STEEL COVERAGE

1. COVER TO REINFORCING STEEL WITHIN MASONRY ELEMENTS SHALL NOT BE LESS THAN THE FOLLOWING:
   a. EXPOSED TO EARTH OR WEATHER: 2 " (#6 AND LARGER BARS), 1.5" (#5 AND SMALLER BARS).
   b. NOT EXPOSED TO EARTH OR WEATHER: 1.5 "
   c. LONGITUDINAL WIRES OF JOINT REINFORCEMENT SHALL BE FULLY EMBEDDED IN MORTAR OR GROUT WITH A MINIMUM COVER OF 5/8 " WHEN EXPOSED TO EARTH AND WEATHER AND 1/2" WHEN NOT EXPOSED TO EARTH OR WEATHER.
   d. STABILITY AND BRACING OF MASONRY WALLS DURING CONSTRUCTION.

2. ALL MASONRY WALLS SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES APPLIED TO THEM IN THE FINAL CONSTRUCTED CONFIGURATION ONLY ASSUMING FULL BRACING TOP, BOTTOM, AND/OR SIDE OF WALL AS SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY AND ADEQUATELY BRACE ALL MASONRY WALLS AT ALL STAGES DURING CONSTRUCTION TO RESIST ERECTION LOADS AND LATERAL LOADS THAT COULD POSSIBLY BE APPLIED PRIOR TO COMPLETION OF CONSTRUCTION.

V STRUCTURAL STEEL

A. MATERIAL

1. HOT ROLLED STRUCTURAL MEMBERS: ALL HOT ROLLED STEEL PLATES, SHAPES, SHEET PILING, AND BARS SHALL BE NEW STEEL CONFORMING TO ASTM SPECIFICATION A 6.

2. ASTM SPECIFICATION AND GRADE: CLEARLY MARK THE GRADE OF STEEL ON EACH PIECE, WITH A DISTINGUISHING MARK VISIBLE FROM FLOOR SURFACES, FOR THE PURPOSE OF FIELD INSPECTION OF PROPER GRADE OF STEEL. UNLESS NOTED OTHERWISE ON THE DRAWINGS, STRUCTURAL STEEL SHALL BE AS FOLLOWS:
   a. W- AND WT-SHAPES: ASTM A 992
   b. M- AND S-SHAPES: ASTM A 36
   c. C-SHAPES: ASTM A 36
   d. L-SHAPES: ASTM A 36
   e. HSS: ASTM A 500, GRADE B (FY=46 KSI)
   f. BASE PLATES: ALL BASE PLATES SHALL CONFORM TO ASTM A 36 UNLESS NOTED OTHERWISE ON THE DRAWINGS.
   g. EDGE ANGLES, BENT PLATES, ANGLE HANGERS, AND ANGLE KICKERS: ASTM A 36.
   h. CONNECTION MATERIAL:
      1) BEAM COLUMN CONTINUITY PLATES AND DOUBLER PLATES: ASTM A 572, GRADE 50.
      2) ALL CONNECTION MATERIAL, EXCEPT AS NOTED OTHERWISE HEREIN OR ON THE DRAWINGS, INCLUDING BEARING PLATES, GUSSET PLATES, STIFFENER PLATES, FILLER PLATES, ANGLES, ETC. SHALL CONFORM TO ASTM A 36 UNLESS A HIGHER GRADE OF STEEL IS REQUIRED BY STRENGTH AND PROVIDED THE RESULTING SIZES ARE COMPATIBLE WITH THE CONNECTED MEMBERS.
         aa. OTHER STEEL: ANY OTHER STEEL NOT INDICATED OTHERWISE SHALL CONFORM TO ASTM A 992 OR ASTM A 572, GRADE 50, EXCEPT PLATES AND ANGLES THAT SHALL BE ASTM A 36.

B. CONNECTIONS

1. CONNECTION DETAILS NOT COMPLETELY DETAILED ON THE DRAWINGS INCLUDING MATERIAL GRADE AND SIZES, WELD SIZES, AND NUMBER OF BOLTS SHALL BE DESIGNED BY THE CONTRACTOR PER THE SPECIFICATIONS. CONCEPTUAL CONNECTION DETAILS WITH THE REQUIRED MEMBER DESIGN FORCES ARE SHOWN ON THE DRAWINGS AND ARE APPLICABLE TO ALL CONNECTIONS NOT DESIGNED AND FULLY DETAILED ON THE DRAWINGS. THE CONCEPTUAL DETAILS ARE PROVIDED ONLY TO INDICATE THE CONNECTION TYPE REQUIRED AND MAY NOT FULLY REPRESENT THE COMPLEXITY OF THE CONNECTION AS REQUIRED BY THE FINAL CONNECTION DESIGN FOR THE FORCES THEY MUST RESIST. ADDITIONAL CONNECTION ELEMENTS MAY NOT BE SPECIFICALLY SHOWN IN THE CONCEPTUAL DETAILS BUT MAY BE REQUIRED BY THE FINAL CONNECTION DESIGN; SUCH AS STIFFENER PLATES, DOUBLER PLATES, SUPPLEMENT/REINFORCING PLATES OR OTHER CONNECTION MATERIAL. THE FABRICATOR IS RESPONSIBLE FOR ENGAGING THE SERVICES OF A CONNECTION SPECIALTY ENGINEER TO PREPARE A FINAL CONNECTION DESIGN FOR SUBMISSION THAT MEETS THE REQUIREMENTS OF THE CONCEPTUAL CONNECTION DETAILS AND RESISTS THE INDICATED DESIGN FORCES.

2. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

3. REACTIONS NOTED ON THE PLANS ARE BASED ON FACTORED LOADS AND ARE INTENDED FOR USE WITH THE LOAD AND RESISTANCE FACTOR DESIGN METHOD.

C. STRUCTURAL BOLTS AND THREADED FASTENERS

1. A 325 BOLTS: ALL BOLTS IN STRUCTURAL CONNECTIONS SHALL CONFORM TO ASTM A 325 TYPE 1, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

2. A 490 BOLTS: SEE DRAWINGS FOR LOCATIONS REQUIRING ASTM A 490 TYPE 1 BOLTS.

3. THREADED ROUND STOCK: THREADED RODS SHALL CONFORM TO:
   a. ASTM A 36.

D. WELDING

1. UNLESS NOTED OTHERWISE, ELECTRODES FOR WELDING SHALL CONFORM TO E70XX (SMAW), F7XX-EXXX (SAW), ER70S-X (GMAW), OR E7XT-X (FCAW).

E. ANCHOR RODS

1. UNLESS INDICATED OTHERWISE IN THE COLUMN SCHEDULE OR ON THE DRAWINGS, ANCHOR RODS SHALL CONFORM TO ASTM F 1554 GRADE 55 (WITH SUPPLEMENTARY REQUIREMENT S1) AND THE SIZE SHALL BE 3/4" DIAMETER AND SHALL EMBED INTO THE CONCRETE FOUNDATION A DISTANCE OF 1'-0" WITH A HEAVY HEX NUT AT THE EMBEDDED END. STRIKE BOLT THREADS AT THE EMBEDDED END AT TWO PLACES BELOW THE NUT.

F. GROUT

1. GROUT BELOW STRUCTURAL STEEL BASE PLATES SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH A MINIMUM STRENGTH OF 6,000 PSI WHEN BEARING ON 3,000 PSI CONCRETE OR LESS, A STRENGTH OF 8,000 PSI WHEN BEARING ON CONCRETE BETWEEN 3,000 AND 4,000 PSI, AND, UNLESS NOTED OTHERWISE ON THE DRAWINGS, A STRENGTH OF 8,000 PSI WHEN BEARING ON CONCRETE GREATER THAN 4,000 PSI.

VI STEEL DECK -ROOF

A. ROOF DECK

1. SCHEDULE:

LOCATION	DEPTH	GAGE	TYPE YIELD STRENGTH (FY)
TYPICAL	3"	20	3N - G90

NOTE:

NR: NARROW RIB, TYPE A
IR: INTERMEDIATE RIB, TYPE F
WR: WIDE RIB, TYPE B
3DR : 3 INCH, DEEP RIB, TYPE N
ALL DECK SHALL BE 50 KSI UNLESS NOTED OTHERWISE.

B. SPECIFICATION

1. THE DESIGN, FABRICATION, AND ERECTION OF ALL ROOF DECK SHALL CONFORM TO THE STEEL DECK INSTITUTE DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, AND ROOF DECKS AS PUBLISHED BY THE STEEL DECK INSTITUTE (SDI).
2. STEEL DECK SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A 653-94 STRUCTURAL QUALITY GRADE 33 OR HIGHER.
3. STEEL DECK SHALL BE GALVANIZED WITH A PROTECTIVE ZINC COATING CONFORMING TO ASTM A 653-94 G90 CLASS.

C. ATTACHMENT OF DECK:

A. FASTENING OF DECK TO EACH SUPPORT MEMBER:

1. FASTENER PATTERN
   5/8" PUDDLE WELD 12"OC AT INTERIOR
   5/8" PUDDLE WELD 6"OC AT SIDES (EVERY DECK RIB)
   (2) 5/8" PUDDLE WELD 6"OC AT CORNERS (EVERY DECK RIB)
   (DOUBLE STITCH)

2. FASTENING OF DECK TO SUPPORT MEMBERS PARALLEL TO DECK RIBS WHERE SHOWN ON PLAN:
   FASTENER PATTERN
   5/8" PUDDLE WELD 12"

3. PROVIDE A MINIMUM END BEARING OF 2 INCHES OVER SUPPORTS.
4. END LAPS OF SHEETS SHALL BE A MINIMUM OF TWO INCHES AND SHALL OCCUR OVER SUPPORTS.
5. 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.

B. MINIMUM ATTACHMENT AT SIDE LAPS: SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED FM APPROVED FASTENERS AT A MAXIMUM OF 12 ", UNLESS NOTED OTHERWISE.

3. FLAT, RIDGE, AND VALLEY PLATES:
   UNLESS NOTED OTHERWISE, CONTRACTOR SHALL PROVIDE FLAT PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF DECK CHANGES DIRECTION AND RIDGE OR VALLEY PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF SLOPE EXCEEDS 1/2" PER FOOT.

D. DECK SPANS
1. METAL DECK SPANS SHALL NOT EXCEED THE MAXIMUM CENTER TO CENTER SPANS AS REQUIRED BY SDI CRITERIA. 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.

E. ACCESSORIES
1. 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.

F. ROOF OPENINGS
1. ROOF OPENINGS LESS THAN 6 INCH SQUARE OR DIAMETER REQUIRE NO REINFORCEMENT. OPENINGS 6 INCH TO 10 INCH INCLUSIVE SHALL BE REINFORCED WITH A 20 GAUGE GALVANIZED PLATE WELDED TO THE DECK AT EACH CORNER AND 6 INCH MAXIMUM CENTERS WITH A 5/8 INCH DIAMETER PUDDLE WELD OR SHEET METAL SCREWS. UNLESS INDICATED OTHERWISE ON THE DRAWINGS, OPENINGS OVER 10 INCH WIDE OR DIAMETER SHALL BE REINFORCED WITH AN ANGLE 2 1/2 X 2 1/2 X 1/4 FRAMING EACH SIDE OF THE OPENING AND SPANNING BETWEEN SUPPORTS FOR SPANS 4 FEET OR LESS AND L 3 X 3 X 1/4 FOR SPANS GREATER THAN 4 FEET BUT LESS THAN 6 FEET UNLESS SPECIFIED OTHERWISE ON DRAWINGS. LARGER OPENINGS SHALL BE REFERRED TO THE ENGINEER FOR FRAMING

VII NON-SHRINK GROUT FOR BASE PLATES AND BEARING PLATES

A. SPECIFICATIONS

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.

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STATE OF TEXAS
BINIAM O. GHEBREAB
107333
LICENSED
PROFESSIONAL ENGINEER
DATE: 10/09/2025

PROJECT NO.	25-005
DATE:	10/02/2025
DRAWN BY: HG	CHECKED BY: BM

REVISIONS:

| No. | Date | Description |

- SPECIAL INSPECTIONS

A. THE DISTRICT'S TESTING LABORATORY SHALL PROVIDE SPECIAL INSPECTIONS SERVICES IN ACCORDANCE WITH CBC 1704.A BY A DSA-CERTIFIED SPECIAL INSPECTOR. FOR SPECIFIC REQUIREMENTS, REFER TO THE SPECIFICATIONS.

B. THE OWNER'S TESTING LABORATORY SHALL PROVIDE SPECIAL INSPECTION SERVICES IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE FOR THE FOLLOWING ITEMS.
1. STEEL CONSTRUCTION:
   a. ALL FIELD WELDING
   b. HIGH-STRENGTH BOLTING
   c. INSPECTION OF STRUCTURAL STEEL, BOLTING, WELDING MATERIAL
   d. WELDING OF STRUCTURAL STEEL
2. CONCRETE CONSTRUCTION:
   a. BOLTS INSTALLED IN CONCRETE
   b. CONCRETE WORK
   c. CONTINUOUS INSPECTION OF REINFORCING STEEL PLACING
   d. EPOXY BOLTS
   e. FORMWORK
   f. REINFORCING STEEL PLACEMENT
   g. WELDING OF REINFORCING STEEL
3. SOILS:
   a. PREPARED EARTH FILL
4. SPRAYED FIRE-RESISTANT MATERIALS
5. MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS
6. WIND REQUIREMENTS:
   a. MAIN WINDFORCE-RESISTING SYSTEMS
   b. ROOF CLADDING
   c. WINDFORCE-RESISTING SYSTEM CONNECTIONS TO FOUNDATION
   d. WIND-RESISTING COMPONENTS

C. STATEMENT OF SPECIAL INSPECTIONS
1. SPECIAL INSPECTION IS REQUIRED FOR THE ITEMS LISTED ABOVE. REFER TO SPECIFICATION SECTION **014529** FOR TYPE AND EXTENT OF EACH SPECIAL INSPECTION AND EACH TEST. THE SPECIFICATION ALSO INDICATES WHETHER CONTINUOUS OR PERIODIC INSPECTION IS REQUIRED FOR THE ITEMS LISTED ABOVE ADDITIONAL INFORMATION.

- SUBMITTALS

A. SUBMITTAL LIST AND SCHEDULE

1. THE GENERAL CONTRACTOR SHALL PREPARE A DETAILED LIST AND SCHEDULE OF ALL SUBMITTAL ITEMS TO BE SENT TO THE STRUCTURAL ENGINEER PRIOR TO THE START OF CONSTRUCTION. THIS LIST SHALL BE UPDATED AND REVISED AND KEPT CURRENT AS THE JOB PROGRESSES. THE SUBMITTAL LIST SHALL BE ORGANIZED AS SHOWN BELOW:
   a. SHOP DRAWINGS
   b. DESIGN CALCULATIONS
   c. PRODUCT DATA, CERTIFICATES, REPORTS, AND OTHER LITERATURE

B. SUBMITTALS TO BE PROVIDED TO STRUCTURAL ENGINEER

1. STRUCTURAL SUBMITTALS: IN ADDITION TO THE SUBMITTALS REQUIRED BY THE STRUCTURAL SPECIFICATIONS, THE FOLLOWING SUBMITTALS SHALL BE PROVIDED:
   a. LAYOUT OF EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS.
   b. LAYOUT OF MECHANICAL, ELECTRICAL, AND PLUMBING OPENINGS IN FLAT SLABS.
   c. LAYOUT OF PENETRATIONS IN BEAMS AND JOISTS.
2. DEFERRED SUBMITTALS:
   a. THE FOLLOWING ITEMS ARE CONSIDERED DEFERRED SUBMITTALS BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE:
      1. EXTERIOR WINDOW WALL SYSTEM (S&S, REC)
      2. FORMWORK, SHORING, AND BACKSHORING (S&S, REC)
      3. STRUCTURAL STEEL CONNECTIONS (S&S)

   NOTES:

   (S&S) ITEMS MARKED THUS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SEALED PER THE PROJECT SPECIFICATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

   (REC) ITEMS MARKED THUS SHALL BE SUBMITTED TO ENGINEER FOR RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED.

   b. DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE FORWARDED TO THE BUILDING OFFICIAL.

   c. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
3. SHOP DRAWINGS
   1. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
      a. CONCRETE MIX DESIGNS (~)
      b. CONSTRUCTION JOINT LOCATIONS IN STRUCTURAL FLOORS AND SLABS ON GRADE
      c. EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS (REC)
      d. REINFORCING STEEL
      e. ROOF METAL DECK (STANDING SEAM ROOF DECK)
      f. STRUCTURAL STEEL, SHOP AND ERECTION DRAWINGS (S&S)
      g. T & G ROOF DECKING PATTERN, PRODUCT SPECIFICATION AND SHEATING ATTACHEMENT PATERNS

   NOTES:

   (S&S) ITEMS MARKED THUS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SEALED PER THE PROJECT SPECIFICATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

   (REC) ITEMS MARKED THUS SHALL BE SUBMITTED TO ENGINEER FOR RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED.

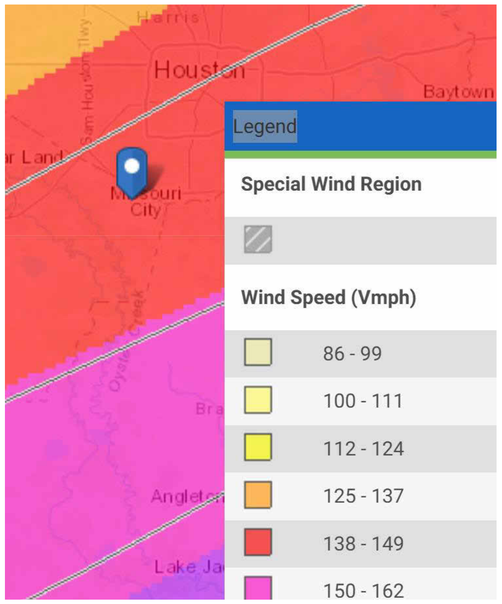
   (~) ITEMS MARKED THUS SHALL BE SUBMITTED TO THE OWNER 'S TESTING AGENCY FOR THEIR REVIEW.

   (^) ITEMS MARKED THUS SHALL BE SUBMITTED TO THE CONSTRUCTION GEOTECHNICAL ENGINEER FOR THEIR REVIEW.

4. SUBMITTAL REQUIREMENTS:
   a. ALL SHOP DRAWINGS MUST BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
   b. CONTRACTOR SHALL SUBMIT THREE SETS OF PRINTS FOR ALL SHOP DRAWINGS SPECIFIED TO BE RETURNED BY THE ENGINEER.
   c. CONTRACTOR SHALL PROVIDE THE SUBMITTAL IN ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) PER THE SPECIFICATIONS.
   d. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS 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.

C. REPRODUCTION

1. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEMSELVES TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.



ASCE HAZARD TOOL

Location
16301 Chimney Rock Rd, Houston, Texas, 77053

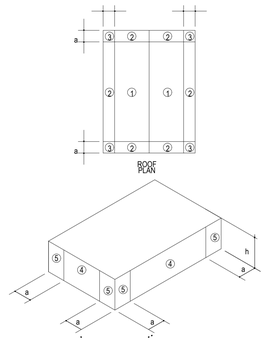
Elevation	66 ft with respect to North American Vertical Datum of 1988 (NAVD 88)
Lat:	29.58627
Long:	-95.483482
Standard:	ASCE/SEI 7-22
Risk Category:	III
Soil Class:	CD

Wind Overlay

143 Vmph DETAILS

Wind Details

Wind Speed	143 Vmph
10-year MRI	77 Vmph
25-year MRI	92 Vmph
50-year MRI	106 Vmph
100-year MRI	116 Vmph
300-year MRI	129 Vmph
700-year MRI	137 Vmph
1,700-year MRI	143 Vmph
3,000-year MRI	149 Vmph
10,000-year MRI	157 Vmph
100,000-year MRI	173 Vmph
1,000,000-year MRI	185 Vmph



DUGOUTS ENCLOSURE = PARTIAL

a =3'-0"

COMPONENT AND CLADDING WIND PRESSURES		
	ROOF	
ZONE	0-10 sqft	>100 sq ft
1	+25.4,-46.3	+22.4,-43.3
2	+25.4,-70.2	+22.4,-49.3
3	+25.4,-100.1	+22.4,-49.3
	WALL	
ZONE	0-10 sqft	>100 sqft
4	+43.3,-46.0	+38.6,-41.3
5	+43.3,-54.1	+38.6,-44.6

NOTE:
1- ALL BUILDING COMPONENTS, CLADDING, FINISHES AND CONNECTIONS SHALL BE DESIGNED FOR WIND PRESSURES INDICATED FOR THE CORRESPONDING ZONE. CALCULATIONS AND/OR DESIGN DATA MUST BE AVAILABLE FOR REVIEW BY THE STRUCTURAL ENGINEER OFRECORD IF REQUIRED. NOTE THAT THE WIND PRESSURES TABULATED ARE ULTIMATE AND SHALL BE MULTIPLIED BY 0.6 FOR ALLOWABLE STRESS DESIGN (ASD)

2- POSITIVE AND NEGATIVE SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACE, RESPECTIVELY.

3- LINEAR INTERPOLATION BETWEEN VALUES OF EFFECTIVE WIND AREA IS PERMISSIBLE.

4- ALL PARAPETS SHALL BE DESIGNED IN ACCORDANCE WITH THE WIND PRESSURES DETERMINED FROM ASCE 7

5- FOR JOIST OR PURLIN UPLIFT DESIGN, 3 PSF DEAD LOAD SHALL BE USED FOR NET UPLIFT DETERMINATION. NET UPLIFT SHALL BE DETERMINED WITH THE "0.6D+0.6W" LOAD COMBINATION FOR "ASD" DESIGNS OR LOAD COMBINATION " 0.9D+1.0W" FOR LRFD /ULTIMATE LOAD DESIGNS.

1 WILLOWRIDGE HS C & C WIND PRESSURE
1/2" = 1'-0"

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BINIAM O. GHEBREAB
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LICENSED PROFESSIONAL ENGINEER
DATE: 10/09/2025

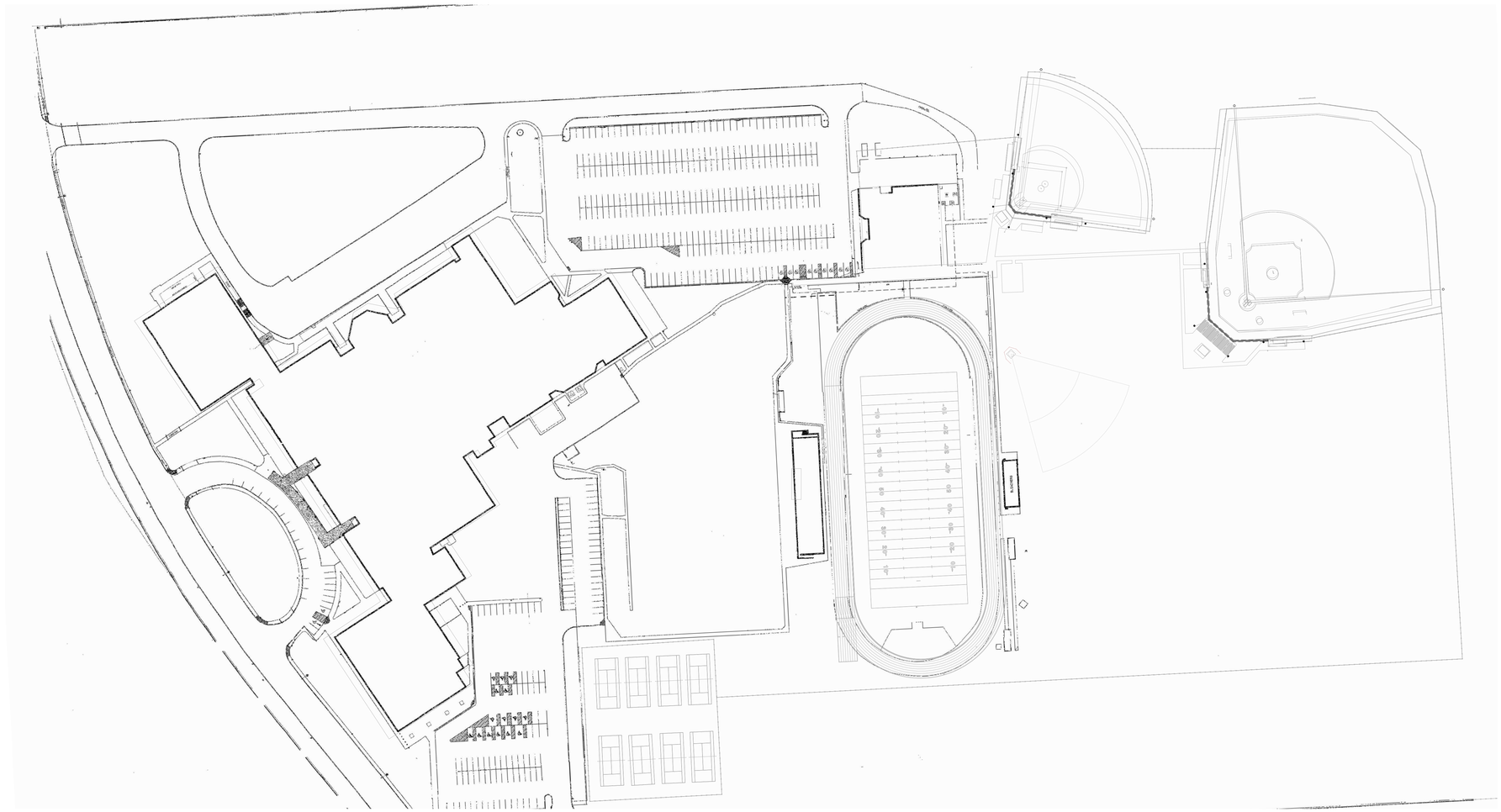
PROJECT NO. 25-005
DATE: 10/02/2025
DRAWN BY: HG CHECKED BY: BM
REVISIONS:

No.	Date	Description

100% CD

S0.02-W
GENERAL NOTES

10/9/2025 9:04:35 AM



1 **WILLOWRIDGE OVERALL SITE PLAN**
1" = 80'-0"

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TBPE Firm Reg. No.23438

STATE OF TEXAS
BINIAM O. GHEBREAB
107333
LICENSED
PROFESSIONAL ENGINEER
DATE: 10/09/2025

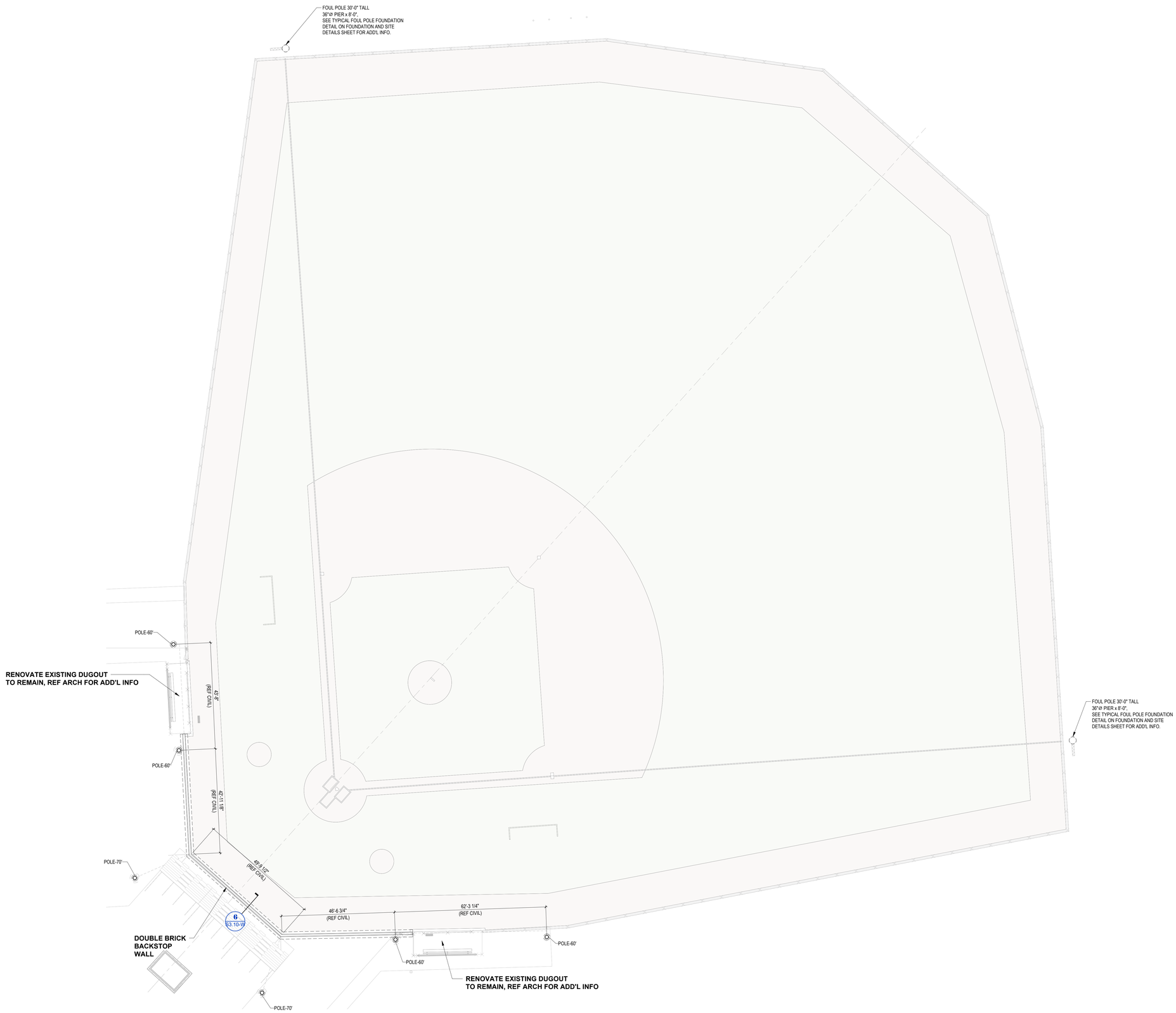
PROJECT NO. 25-005
DATE: 10/02/2025
DRAWN BY: HG CHECKED BY: BM
REVISIONS:

No.	Date	Description

100% CD

S1.00-W
OVERALL SITE PLAN

10/9/2025 9:04:42 AM



1 BASEBALL FOUNDATION PLAN

1/16" = 1'-0"

NOTE:
1. **REFER SHEET S3.10-W FOR POLE SCHEDULE AND FOUNDATION PIER SCHEDULE SUPPORTING THE POLES.**

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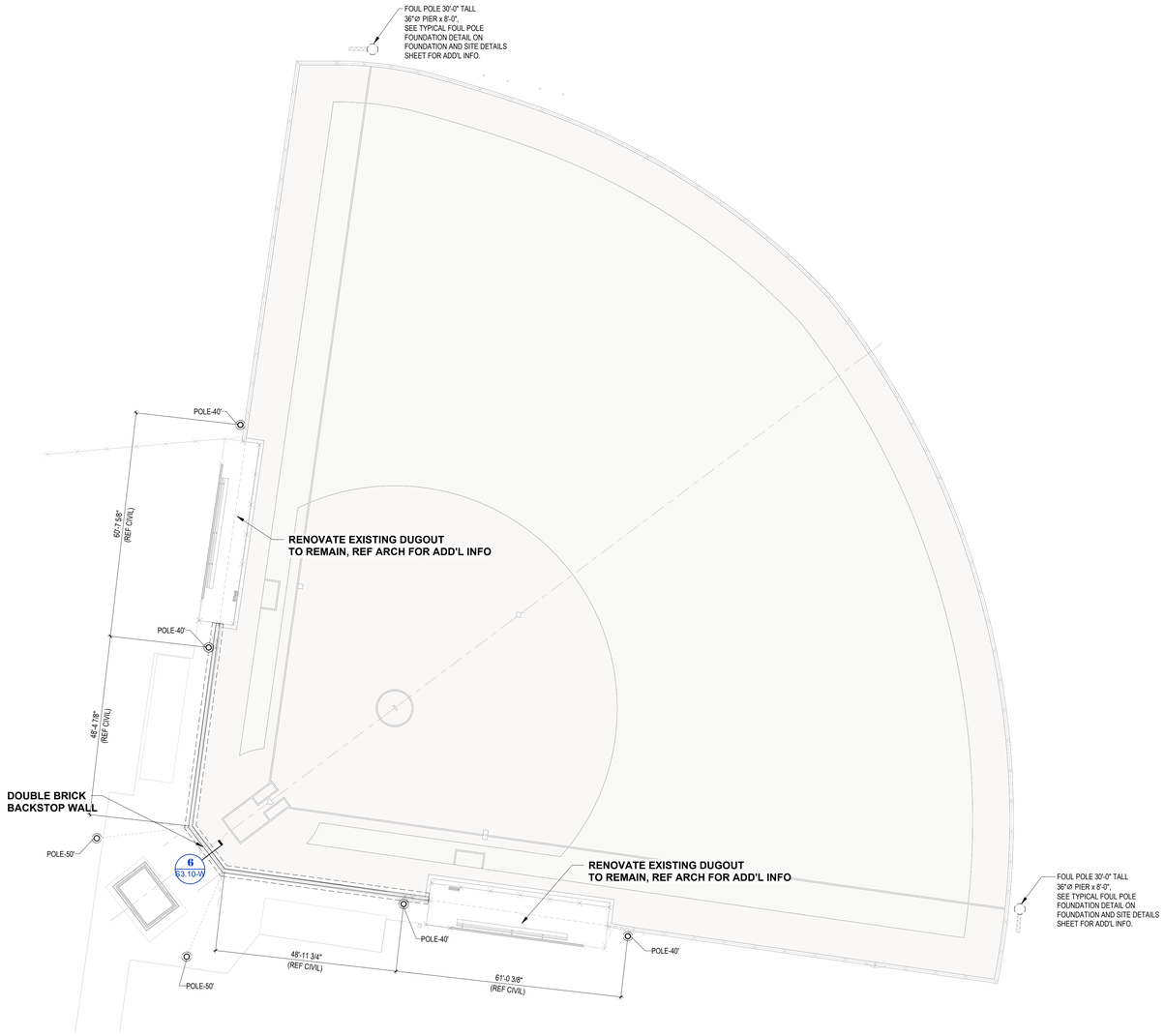
S1.01-W
BASEBALL FOUNDATION PLAN

10/9/2025 9:04:46 AM



1 SOFTBALL FOUNDATION PLAN

1/16" = 1'-0"

NOTE:
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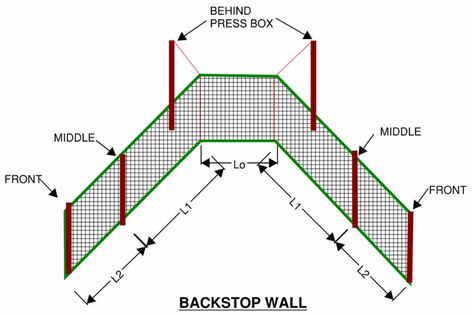
S1.02-W
SOFTBALL FOUNDATION PLAN

10/9/2025 9:04:49 AM

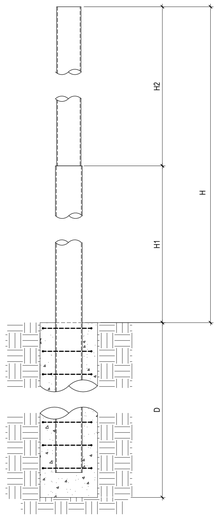
POLE AND PIER SCHEDULE

POLE NAME/LOCATION	POLE HEIGHT (H)	POLE LENGTH H1 (FT)	POLE LENGTH H2 (FT)	POLE SIZE FOR H1	POLE SIZE FOR H2	DRILLED PIER SHAFT DIAMETER	PIER DEPTH BELOW GRADE	VERTICAL REINF	TIES	LOCATION
POLE-70 BEHIND PRESS BOX	70'-0"	35'-0"	35'-0"	20"Ø HSS20X0.5	20"Ø HSS20X0.375	48"Ø	18'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (2 POLES BEHIND PRESS BOX) - TYP @60 FT TALL NETTING
POLE-60 MIDDLE	60'-0"	30'-0"	30'-0"	20"Ø HSS20X0.05	20"Ø HSS20X0.375	48"Ø	18'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @60 FT TALL NETTING
POLE-60 FRONT	60'-0"	30'-0"	30'-0"	18"Ø HSS18X0.375	16"Ø HSS16X0.375	36"Ø	18'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @60 FT TALL NETTING
POLE-50 BEHIND PRESS BOX	50'-0"	25'-0"	25'-0"	18"Ø HSS18X0.375	16"Ø HSS16X0.375	36"Ø	15'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ SOFT BALL (2 POLES BEHIND PRESS BOX) - TYP @40 FT TALL NETTING
POLE-40 MIDDLE	40'-0"	20'-0"	20'-0"	14"Ø HSS14X0.375	14"Ø HSS14X0.375	36"Ø	15'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (2 POLES AT MIDDLE TYP @40 FT TALL NETTING
POLE-40 FRONT	40'-0"	20'-0"	20'-0"	14"Ø HSS14X0.312	14"Ø HSS14X0.312	30"Ø	13'-0"	REF PIER SCHEDULE	REF PIER SCHEDULE	@ BASE BALL (4 POLES AT FRONT TYP @40 FT TALL NETTING

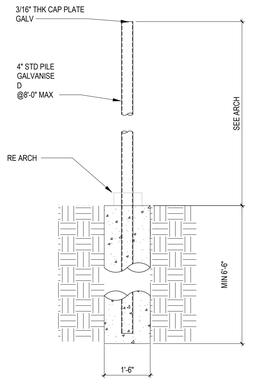
NOTE:
ALL STEEL POLES ARE GRADE 90 (FY= 90 KSI)



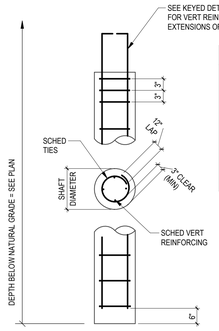
BACKSTOP WALL



1 SECTION
3/8" = 1'-0"



3 TYPICAL AT CHAINLINK POST OR SCREEEN WALL
1/2" = 1'-0"

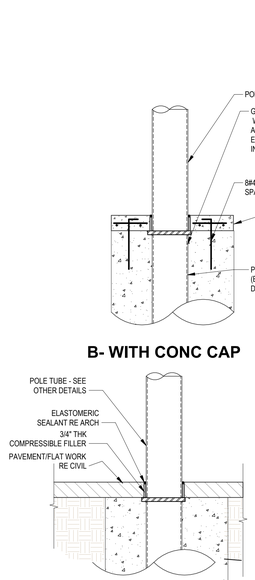


DRILLED PIER SCHEDULE		
SHAFT DIA	VERTICAL REINF	TIES
18"Ø	(5)#6	#3@12" O.C.
24"Ø	(6)#6	#3@12" O.C.
30"Ø	(8)#7	#3@12" O.C.
36"Ø	(10)#7	#3@14" O.C.
42/48"Ø	(12)#7	#3@16" O.C.

NOTE

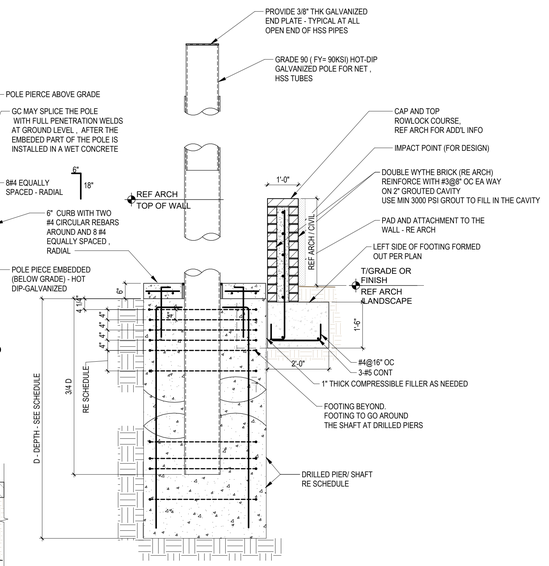
NOTIFY STRUCTURAL ENGINEER
24 HOURS PRIOR TO DRILLING
& POURING FOOTINGS.

2 DRILLED PIER REINF SCHEDULE
NTS

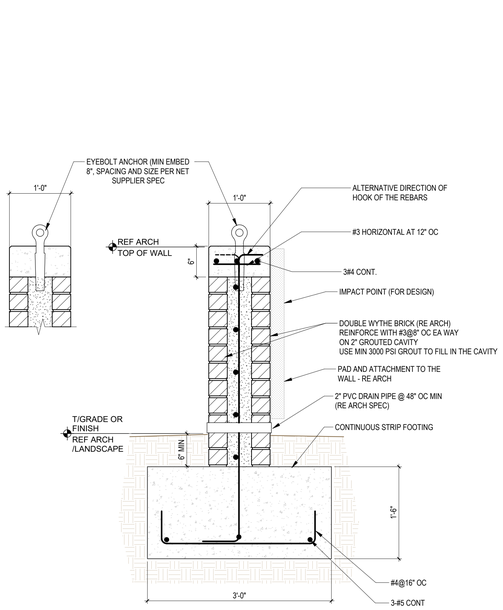


A- WITH PAVEMENT /FLATWORK

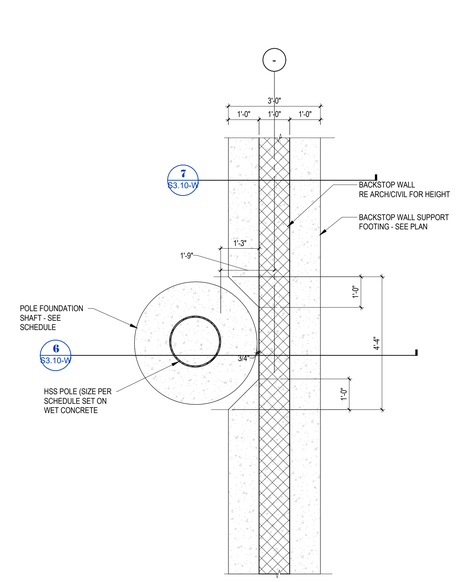
B- WITH CONC CAP



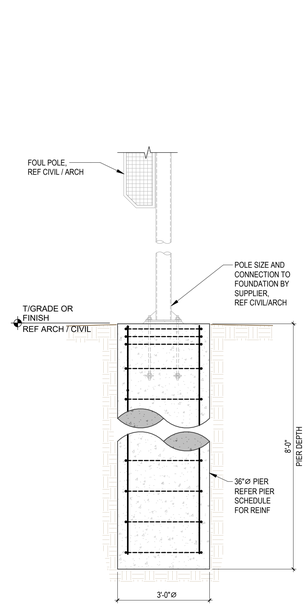
7 POLE /BACKSTOP FOUNDATION_W
1/2" = 1'-0"



6 TYPICAL BACKSTOP WALL & FOUNDAITON
1" = 1'-0"



5 POLE & WALL FOUNDATION PLAN W
1/2" = 1'-0"



4 TYPICAL FOUL POLE FOUNDATION
1/2" = 1'-0"

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S3.10-W
FOUNDATION AND SITE DETAILS

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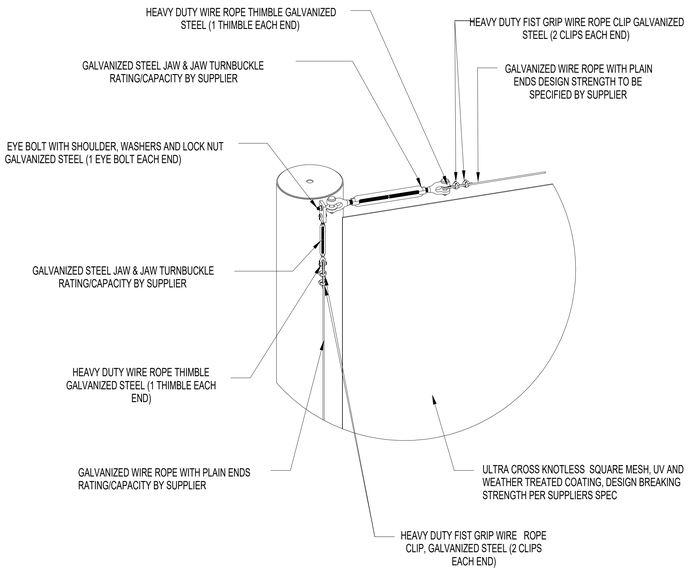
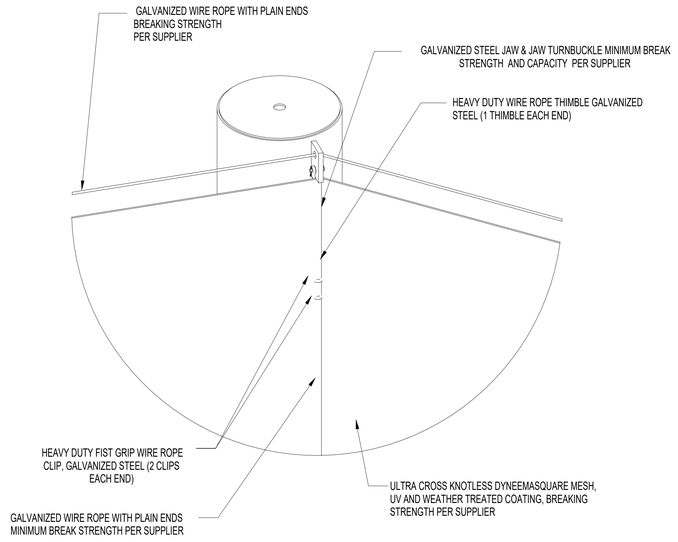
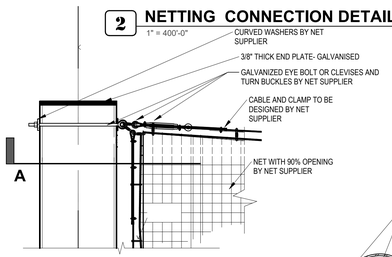
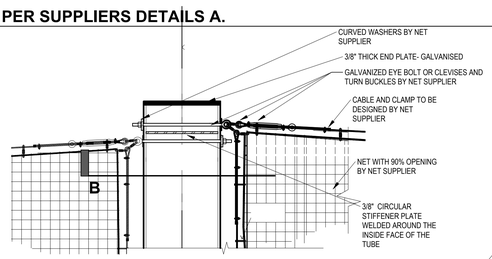


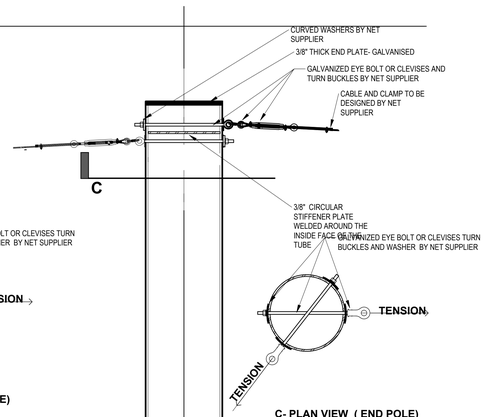


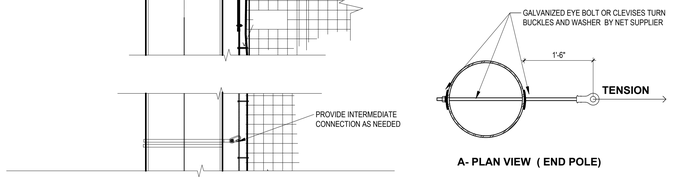
2 NETTING CONNECTION DETAILS (SCHEMATIC) - OPTION 2 PER SUPPLIERS DETAILS A.

1" = 400'-0"

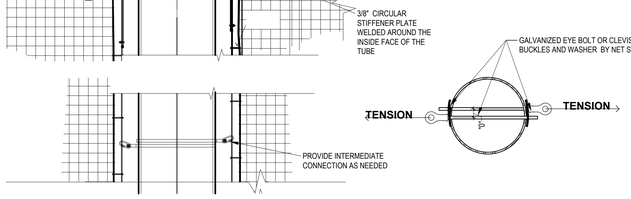






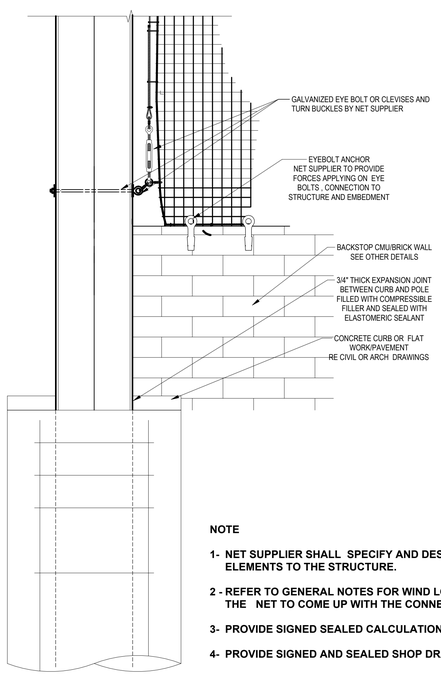


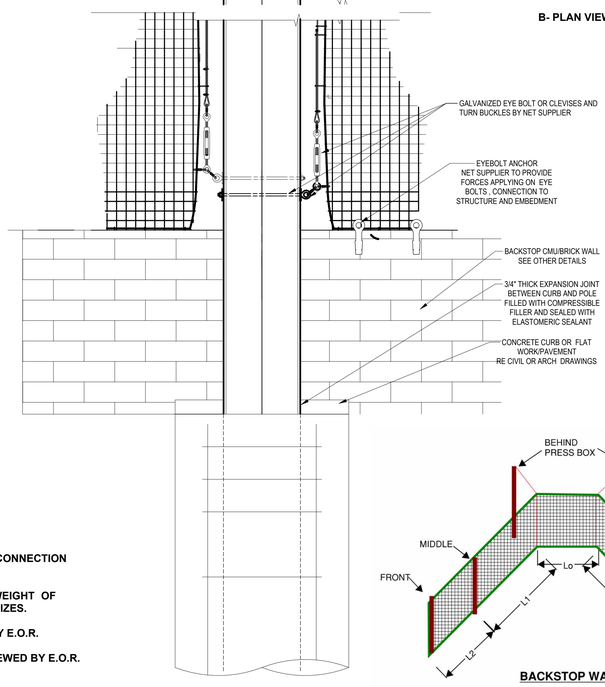
A- PLAN VIEW (END POLE)



B- PLAN VIEW (END POLE)

C- PLAN VIEW (END POLE)





NOTE

1- NET SUPPLIER SHALL SPECIFY AND DESIGN THE NET AND CONNECTION ELEMENTS TO THE STRUCTURE.

2 - REFER TO GENERAL NOTES FOR WIND LOAD CRITERIA THE WEIGHT OF THE NET TO COME UP WITH 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.

I - FRONT POLE (END POLE)

II- MIDDLE POLE

III - POLE BEHIND PRESS BOX

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 NETTING POLE AND CONNECTION SCHEMATIC DETAILS - OPTION 1) Copy 3

3/4" = 1'-0"

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S3.11-W
FOUNDATION AND SITE DETAILS