Cimarron elementary School Replacement

GALENA PARK INDEPENDENT SCHOOL DISTRICT

ISSUE FOR CSP

BOARD OF TRUSTEES

Ramon Garza
President

Linda Clark Sherrard
Vice President

Jose Jimenez
Secretary

Noe Esparza
Member

Amenda Erebia
Member

Norma Hernandez
Member

Adrian Stephens
Member

ADMINISTRATION

Dr. John C. Moore
Superintendent of Schools

Dr. Wanna Giacona
Chief Administrative Officer

Ben Pape
Chief Financial Officer

Michael Mckay
Assistant Superintendent for Operations

Holli Malloy
Associate Superintendent for Academic Support

Dr. Mechelle Epps
Assistant Superintendent for School Support Services

Jerid Link
Assistant Superintendent for Human Resources

Dr. Kim Martin
Executive Director for Accountability and Academic Support

Amicha Williams
Executive Director for Business Support Services

Edgardo S. Martir
Director for Facility Planning & Construction

CONSULTANTS

Talon Engineers
Civil Consulting

CJG Engineers
Structural Engineers

Stanton Engineering Group, LLC
Mechanical & Electrical Engineers

Foodservice Design Professionals
Food Service Consultant

Vitro Design Studio LLC
Landscape Architect

ARCHITECT

S. Chu Architects, Inc.

PROGRAM MANAGER

Rice & Gardner Consultants, Inc.

REGISTERED ARCHITECT
STATE OF TEXAS
1985

10/24/2025

INDEX OF DRAWINGS

VOL I

COVER SHEET

G1.00 PROJECT SUMMARY/DRAWING CONVENTIONS
G1.01 EGRESS PLANS

SITE/CIVIL

C0.01 GENERAL NOTES
C0.02 TOPOGRAPHIC SURVEY (REFERENCE ONLY)
C0.03 DEMOLITION PLAN-INTERIM PHASE
C0.04 DEMOLITION PLAN-FULL BUILDOUT
C0.05 UTILITY REROUTE & TEMP. ACCESS RD.- INTERIM PHASE

C1.00 OVERALL LAYOUT
C1.01 SITE LAYOUT
C1.02 SITE LAYOUT
C1.03 FIRE ACCESS LAYOUT
C2.01 GRADING LAYOUT
C2.02 GRADING LAYOUT

C3.01 STORM SEWER LAYOUT
C3.02 STORM SEWER LAYOUT
C3.03 STORM SEWER & DETENTION CALCULATION
C3.04 SWPPP
C3.05 DRAINAGE AREA MAP
C3.04 SWPPP

C4.01 WATER LINE & SANITARY SEWER LAYOUT
C5.01 PAVEMENT JOINT LAYOUT
C5.02 PAVEMENT JOINT LAYOUT
C7.01 PAVING DETAILS
C7.02 STORM SEWER DETAILS
C7.03 WATER LINE DETAILS
C7.04 SANITARY SEWER DETAILS
C7.05 SWPPP DETAILS
C7.06 CITY OF HOUSTON PAVEMENT DETAILS
C7.07 UNDERGROUND DETENTION DETAILS
C7.08 UNDERGROUND DETENTION DETAILS
C7.09 UNDERGROUND DETENTION DETAILS

PLAN & PROFILE DRAWINGS ARE INCLUDED AS REFERENCE

LANDSCAPING

TP1.0 TREE PROTECTION PLAN
L1.0 IRRIGATION PLAN
L 2.0 PLANTING PLAN
L 3.0 LANDSCAPING NOTES & DETAILS
L 3.0 LANDSCAPING SPECIFICATIONS

ARCHITECTURAL

CA1.01 ARCHITECTURAL DEMOLITION SITE PLAN
CA1.02 ARCHITECTURAL SITE PLAN- INTERIM PHASE
CA1.03 ARCHITECTURAL SITE PLAN- OVERALL
CA2.01 SITE DETAILS
A1.01 COMPOSITE FLOOR PLANS
A2.01 FLOOR PLAN- AREA "A" 1ST FLOOR
A2.02 FLOOR PLAN- AREA "A" 2ND FLOOR
A2.03 FLOOR PLAN- AREA "B"
A2.04 FLOOR PLAN- AREA "C"
A2.05 FLOOR PLAN- AREAS "B" & "C" 2ND FLOOR
A3.01 COLUMN PLANS
A3.02 ROOM FINISH SCHEDULES
A3.03 ROOM FINISH SCHEDULES
A3.04 DOOR SCHEDULES
A3.05 WINDOW SCHEDULES
A3.06 HARDWARE SCHEDULES
A4.01 ROOF PLAN & ROOF DETAILS
A5.01 ENLARGED RESTROOM PLANS
A5.02 ENLARGED RESTROOMS, ELEVATOR & STAIRS
A5.03 LEARNING STAIRS, RAMPS & DETAILS
A6.00 PARTITION TYPES
A6.01 WALL SECTIONS
A6.02 WALL SECTIONS
A6.03 WALL SECTIONS
A6.04 WALL SECTIONS
A6.05 WALL SECTIONS
A6.06 WALL SECTIONS
A6.07 WALL SECTIONS
A6.08 WALL SECTIONS
A6.08 DETAILS
A6.08 DETAILS
A7.01 EXTERIOR ELEVATIONS
A7.02 EXTERIOR ELEVATIONS
A7.03 EXTERIOR & INTERIOR ELEVATIONS
A7.04 INTERIOR ELEVATIONS
A7.05 INTERIOR ELEVATIONS
A8.01 EDUCATIONAL CASEWORK
A8.02 EDUCATIONAL CASEWORK
A9.01 DOOR & FRAME TYPES
A9.02 FRAME TYPES
A10.01 RCP-AREA "A" 1ST FLOOR
A10.02 RCP-AREA "A" 2ND FLOOR
A10.03 RCP-AREA "B"
A10.04 RCP-AREA "C"
A11.01 FLOOR PATTERNS-AREA "A" 1ST FLOOR
A11.02 FLOOR PATTERNS-AREA "A" 2ND FLOOR
A11.03 FLOOR PATTERNS-AREA "B"
A11.04 FLOOR PATTERNS-AREA "C"

FOOD SERVICE

QF.1 FS GENERAL COORDINATION NOTES
QF1.0 FS EQUIPMENT PLAN
QF1.1 FS FACILITY MODEL
QF1.2 FS EQUIPMENT MODEL
QF1.3 FS SPECIAL CONDITIONS & MECH. PLAN
QF1.4 FS PLUMBING PLAN
QF1.5 FS ELECTRICAL PLAN
QF1.6 FS EXHAUST HOODS
QF1.7 FS CONDENSING UNITS
QF1.8 FS WALK-INS
QF1.9 FS SERVING COUNTERS
QF1.9.1 FS SERVING COUNTERS
QF2.1 FS ELEVATIONS
QF2.2 FS ELEVATIONS
QF3.1 FS SECTIONS & DETAILS
QF3.2 FS DETAILS
QF3.3 FS DETAILS

VOL II

STRUCTURAL

S0.00 GENERAL NOTES
S0.01 GENERAL NOTES
S0.02 TESTING NOTES
S0.03 TYPICAL FOUNDATION DETAILS
S0.04 TYPICAL FRAMING DETAILS
S0.05 UPLIFT KEY PLAN

S1.00 COMPOSITE FOUNDATION PLAN
S1.01 AREA "A" FOUNDATION PLAN
S1.02 AREA "B" FOUNDATION PLAN
S1.03 AREA "C" FOUNDATION PLAN
S1.04 AREA "B" SERVICE YARD FOUNDATION PLAN
S1.01 AREA "A" FOUNDATION PLAN
S1.02 AREA "B" FOUNDATION PLAN
S1.03 AREA "C" FOUNDATION PLAN
S1.04 AREA "B" SERVICE YARD FOUNDATION PLAN
S2.00 COMPOSITE SECOND FLOOR & LOW ROOF FRAMING PLAN
S2.01 AREA "A" SECOND FLOOR & LOW ROOF FRAMING PLAN
S2.02 AREA "B" LOW ROOF FRAMING PLAN
S2.03 AREA "C" LOW ROOF FRAMING PLAN
S3.00 COMPOSITE ROOF FRAMING PLAN
S3.01 AREA "A" ROOF FRAMING PLAN
S3.02 AREA "B" ROOF FRAMING PLAN
S3.03 AREA "C" ROOF FRAMING PLAN
S4.01 FOUNDATION DETAILS
S4.02 FOUNDATION DETAILS
S4.03 FOUNDATION DETAILS
S5.01 FLOOR FRAMING DETAILS
S5.02 FLOOR FRAMING DETAILS
S6.01 ROOF FRAMING DETAILS
S6.02 ROOF FRAMING DETAILS
S6.03 ROOF FRAMING DETAILS

MECHANICAL

MEP1.00A MEP OVERALL SITE PLAN- PHASE I
MEP1.00B MEP OVERALL SITE PLAN- PHASE II
MEP1.00D MEP ENLARGED SITE PLAN
M1.01 MECHANICAL 1ST FLOOR PLAN AREA "A"
M1.02 MECHANICAL 2ND FLOOR PLAN AREA "A"
M1.03 MECHANICAL FLOOR PLAN AREA "B"
M1.04 MECHANICAL FLOOR PLAN AREA "C"
M2.00 ENLARGED MECHANICAL PLANS
M2.01 ENLARGED MECHANICAL PLANS
M2.02 CENTRAL PLANT
M3.00 MECHANICAL SYMBOLS, NOTES & SCHEDULES
M3.01 MECHANICAL SCHEDULES
M3.02 MECHANICAL DETAILS
M3.03 MECHANICAL DETAILS
M3.04 MECHANICAL DETAILS
M3.05 VENTILATION CALCULATIONS
M4.00 MECHANICAL SCHEMATICS
M4.01 MECHANICAL SCHEMATICS

ELECTRICAL

E1.01 LIGHTING 1ST FLOOR PLAN - AREA "A"
E1.02 LIGHTING 2ND FLOOR PLAN - AREA "A"
E1.03 LIGHTING FLOOR PLAN - AREA "B"
E1.04 LIGHTING 1ST FLOOR PLAN- AREA "C"
E1.04T THEATRICAL LIGHTING
E1.05 LIGHTING 2ND FLOOR PLAN - AREA "C"
E2.01 POWER & LOW VOLTAGE-1ST FLOOR AREA "A"
E2.02 POWER & LOW VOLTAGE- 2ND FLOOR AREA "A"
E2.02K ENLARGED KITCHEN FLOOR PLAN
E2.03 POWER & LOW VOLTAGE - AREA "B"
E2.04 POWER & LOW VOLTAGE- 1ST FLOOR AREA "C"
E2.05 POWER & LOW VOLTAGE- 2ND FLOOR AREA "C"

E3.11 LOCAL SOUND- FIRST FLOOR
E3.12 LOCAL SOUND- SECOND FLOOR
E3.21 PUBLIC ADDRESS- FIRST FLOOR
E3.22 PUBLIC ADDRESS- SECOND FLOOR
E3.31 FIRE ALARM FIRST FLOOR
E3.32 FIRE ALARM SECOND FLOOR
E3.41 SECURITY SYSTEM FIRST FLOOR
E3.42 SECURITY SYSTEM SECOND FLOOR

E4.00 ELECTRICAL RISERS AND SCHEDULES
E4.10 ELECTRICAL EQUIP AND PANEL SCHEDULES
E4.11 PANEL SCHEDULE 1ST FLOOR AREA A
E4.12 PANEL SCHEDULE AREA B
E4.13 PANEL SCHEDULE AREA B
E4.14 PANEL SCHEDULE AREA C
E4.21 PANEL SCHEDULE 2ND FLOOR AREA A

E5.00 SYMBOL, LEGEND & NOTES
E5.01 LOW VOLTAGE NOTES AND SCHEDULES
E5.10 ELECTRICAL DETAILS
E5.11 ELECTRICAL DETAILS
E5.12 ELECTRICAL DETAILS
E5.13 ELECTRICAL GROUNDING RISER
E5.14 ELECTRICAL DETAILS
E5.20 ELECTRICAL & VOLTAGE DEVICE DETAILS
E5.21 ELECTRICAL & LOW VOLTAGE DEVICE DETAILS
E5.22 ELECTRICAL & LOW VOLTAGE DEVICE DETAILS
E5.30 TELECOM GROUNDING RISER & DETAILS
E5.31 TELECOM BACKBONE & CONDUIT RISERS
E5.32 STRUCTURAL CABLING DETAILS
E5.33 STRUCTURAL CABLING DEVICE DETAILS
E5.40 SOUND SYSTEM RISER AND DETAILS
E5.41 SOUND SYSTEM RISER AND DETAILS
E5.42 SOUND SYSTEM RISER AND DETAILS
E5.50 SECURITY AND ACCESS CONTROL DETAILS
E5.51 SECURITY AND ACCESS CONTROL DETAILS

E6.00 LIGHT FIXTURE SCHEDULE
E6.01 LIGHT FIXTURE SCHEDULE & SEQUENCE OF OPERATIONS
E6.10 LIGHT DETAILS
E7.01 ELECTRICAL COORDINATION PLAN- 1ST FLOOR
E7.02 ELECTRICAL COORDINATION PLAN- 1ST FLOOR
E7.03 ELECTRICAL COORDINATION PLAN- 1ST FLOOR
E7.11 ENLARGED ELECTRICAL PLAN- 1ST FLOOR
E7.12 ENLARGED ELECTRICAL PLAN- 2ND FLOOR

PLUMBING

P1.01 PLUMBING 1ST FLOOR PLAN-AREA "A"
P1.02 PLUMBING 2ND FLOOR PLAN-AREA "A"
P1.03 PLUMBING FLOOR PLAN-AREA "B"
P1.03K ENLARGED KITCHEN PLAN
P1.04 PLUMBING 1ST FLOOR PLAN- AREA "C"
P1.05 PLUMBING 2ND FLOOR PLAN- AREA "C"
P3.00 PLUMBING SCHEDULES
P4.00 PLUMBING DETAILS & SCHEDULES
P4.01 PLUMBING DETAIL
P5.00 PLUMBING RISER DIAGRAMS AREA "A"
P5.01 PLUMBING RISER DIAGRAMS AREA "B"
P5.02 PLUMBING RISER DIAGRAMS AREA "C"
P6.00 PLUMBING STORM RISER DIAGRAMS

Cimarron E.S. Replacment

for

Galena Park Independent School District

816 Cimarron Street, Houston, Texas 77015

DOCUMENT REVIEW

PROJECT NO. 2502 (GPISD B101-101)
DATE 10/24/2025
ISSUE CSP

SET NUMBER

NORTH

NORTH SYMBOL

NO. — COLUMN LINE

FLOOR 0.00' ELEV — FINISH FLOOR LINE

MATCH LINE

2/8.04 — ELEVATION SYMBOL

A100-1 — DOOR DESIGNATION

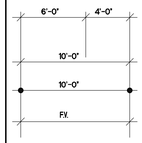
B100-A — WINDOW DESIGNATION

D.3 — PARTITION TYPE

REVISION NO. — REVISION NUMBER

3/A12 — ENLARGED PLAN OR DETAIL

7/A10 — VERTICAL SECTIONS AND SECTION DETAILS



DIMENSIONS
all dimensions to face of foundation, masonry, and fin. wal unless otherwise noted

Dot indicates dimen. to centerline of column

BRACKETS indicate existing dimensions contractor to field verify.

PROJECT AND CODE SUMMARY

APPLICABLE CODES

1. International Building Code 2021 With COH Amendments
2. Uniform Plumbing Code 2021 with COH Amendments
3. Uniform Mechanical Code 2021 with COH Amendments
4. National Electric Code 2023
5. 2021 International Energy Conservation Code with COH Amendments
6. 2012 International Fire Code with COH Amendments
7. COH Sign Code
8. ASHRAE 90.1–2013 with COH Amendments
9. Texas Accessibility Standards (TAS)
10. City of Houston Landscaping Ordinance

I. GENERAL DESCRIPTION

1. Demolish existing and replace with a new Elementary School for Galena Park I.S.D.
2. Size: 114,173 sq. ft.
3. Capacity: 700

II. BUILDING CLASSIFICATION

1. Occupancy Type: Educational
   (A room or space used for assembly purpose associated with a Group E are not considered separate occupancies, per Paragraph 303.1.3)

2. Construction Classification:
   Type IIA (Sprinklered)
   (Table 601)

III. ALLOWABLE HEIGHT AND BUILDING AREAS (Tables 504.3, 504.4 & 506.2)

	Max Allow. Area	Max. Allow. Stories/Ht.	Actual Stories/Ht.
TYPE IIA	79,500	4/85	2/30

Per Section 506 Area Modifications is allowed (Equation 5–1)
Allowable Building Area per story Aa= At+(NSxIf)= 79,500+(26,500x0.75) = 99,375 SF

Section 506.3 Frontage Increase is allowed:75%–100% of building perimeter is 55' or greater= 0.75

Actual Size– First Floor 88,555 s.f.
Second Floor 25,618 sf
TOTAL 114,173 sf.

IV. STRUCTURAL FIRE RESISTANCE REQUIREMENTS (Table 601)

Construction Type IIA (Sprinklered)

Primary Structural Frames: 1 hour (1 hour provided UL X790)

Bearing Wall– Exterior & Interior: 1 hour (NA)

Non–Bering Walls & Partitions– Interior: 0 hour

Floor Construction & Associated Secondary Members: 1 hour (1 hour provided UL G705)

Roof Construction & Associated Secondary Members: 1 hour (1 hour provided UL P922)

Incidental Use Areas: no rating is required when the building is equipped with an automatic sprinkler system.

Per Table 1020, no fire–resistance rating is required for corridor walls when the building is equipped with an automatic sprinkler system.

V. FIRE PROTECTION SYSTEMS

A. Fire Sprinkler System: provided– Entire School will have fire sprinkler system installed in accordance with NFPA13 except as provided in Section 903.3.1.1.1.
B. Fire Extinguishers: Provided at 75 feet maximum travel distance to extinguishers.
C. Fire Alarm System: Provided

VI SEPARATE PERMITS

A. Separate permits will be applied for Fire Sprinkler, Fire Alarm, Access Gates and Electronic Locks

OCCUPANCY TYPE AND LOAD

OCCUPANCY CLASSIFICATION	SPECIFIC USE	SQ. FT.	SF PER OCCUPANCY	DESIGN OCCUPANCY
FIRST FLOOR				
E	ADMIN.	5,831	100 GROSS	59
E	CLASSROOMS	33,936	20 NET	1,696
E	CAFETERIA	3,984	15	266
E	P.E.	3,966	50	79
E	PLATFORM	867	15 GROSS	58
E	KITCHEN	2,966	200 GROSS	15
E	STOR. & MECH.	5,315	300 GROSS	17
E	LRC	1,477 1,477	100 GROSS (STACKING AREA) 50 GROSS (READING AREA) FIXED SEATS	15 30 31
SUB–TOTAL (FIRST FLOOR)				2,266
E	ADMIN.	1,190	100 GROSS	12
E	CLASSROOMS	14,220	20 NET	711
E	STOR & MECH	1,596	300 GROSS	6
SUB–TOTAL (SECOND FLOOR)				729
TOTAL				2,995

PLUMBING FIXTURE COUNTS:

PLUMBING FIXTURE REQUIRED PER CHAPTER 29
(OCCUPANCY LOAD= 2,478):

WC+UR= 50 (MEN/BOYS=25; WOMEN/GIRLS=25) LAV= 50; EDF=25 ;
SERVICE SINK=1

PLUMBING FIXTURES PROVIDED:

WC+UR= 54 (MEN/BOYS 27; WOMEN/GIRLS 27) LAV=58
EDF= 30; SERVICE SINK= 4

DRAWING SYMBOLS

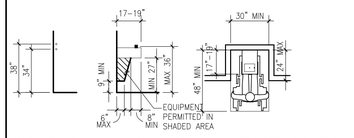
AFF	ABOVE FINISH FLOOR
CL. FENCE	CHAIN–LINK FENCE
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
IB	INTERACTIVE BOARD (DISPLAY)
LVT	LUXURY VINYL TILE
MB	MARKERBOARD
MH	MANHOLE
NIC	NOT INCLUDED IN CONTRACT
OFCI	OWNER FURNISH, CONTRACTOR INSTALL
OM. FENCE	ORNAMENTAL MEAL FENCE
REFRIG.	REFRIGERATOR
STM. SWR	STORM SEWER
SAN. SWR	SANITARY SEWER
TB	TACKBOARD
TS	TACK STRIP
TC	TEACHER'S CABINET
TOS	TOP OF STEEL
TOW	TOP OF WOOD
TOB	TOP OF BRICK
W/D	WASHER/DRYER

ABBREVIATIONS

LEGEND: HATCH PATTERNS

EARTH FILL
BRICK
STONE
CONCRETE MASONRY UNIT
CAST–IN–PLACE CONCRETE
STEEL
RIGID INSULATION
GYP. SHEATHING
GYPSUM BOARD
PLASTER
PLYWOOD
FINISHED WOOD
ACOUSTICAL TILE
RIGID INSULATION
BATT INSULATION
WOOD BLOCKING
WOOD FRAMING

2.1.1 ACCESSIBLE MOUNTING HEIGHTS–ADULT
(RE: SHEET A5.01 FOR MOUNTING HEIGHTS FOR STUDENTS)

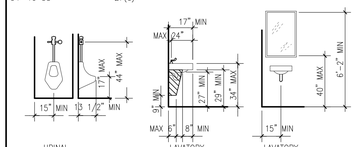


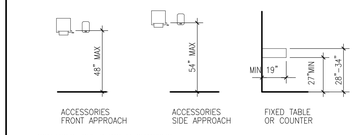
TOP OF HAND RAIL HEIGHT MAY VARY 34" TO 38"

DRINKING FOUNTAIN ACCESSIBLE Fig. 27(a)

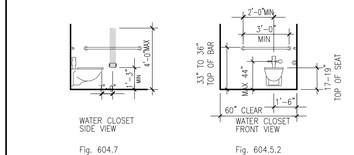
CLEAR FLOOR SPACE Fig. 27(b)

DRINKING FOUNTAIN STANDARD



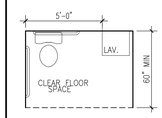


CONTROLS, OPERATING MECHANISMS, TELEPHONES, STORAGE

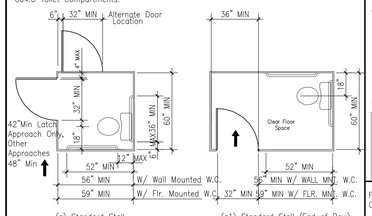


ACCESSIBLE MOUNTING HTS–ADULT

604.3 Water Closets Clearance



604.8 Toilet Compartments.



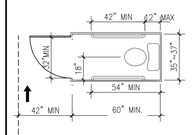


Fig. 604.8.2 Ambulatory Accessible Toilet Compartment

TOILETS

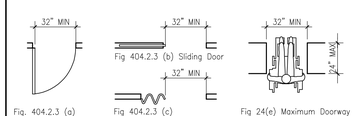
308 Reach Ranges.

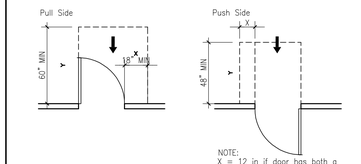
IF THE REACH IS OVER AN OBSTRUCTION, X IS THE REACH DEPTH, Y IS THE REACH HEIGHT AND Z IS THE DEPTH OF THE OBSTRUCTION: X SHALL BE LESS THAN OR EQUAL TO 25 INCHES; Z SHALL BE GREATER THAN OR EQUAL TO X. WHEN X IS LESS OR EQUAL TO 20 INCHES THEN Y SHALL BE 48 INCHES MAXIMUM. WHEN X IS 20 TO 25 INCHES, THEN Y SHALL BE 44 INCHES MAXIMUM.

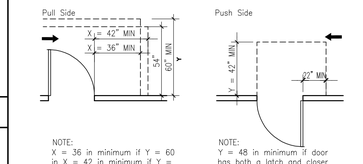
IF THE CLEAR FLOOR SPACE ALLOWS FORWARD APPROACH TO AN OBJECT, THE MAXIMUM HIGH FORWARD REACH SHALL BE 48 INCHES AND THE MINIMUM LOW SHALL BE NO LESS THAN 15 INCHES. IF THE CLEAR FLOOR SPACE ALLOWS PARALLEL APPROACH TO AN OBJECT, THE MAXIMUM HIGH SIDE REACH SHALL BE 54 INCHES AND THE MINIMUM LOW SHALL BE NO LESS THAN 9 INCHES.

ACCESSIBLE REACH RANGES

404 Doors, Doorways and Gates







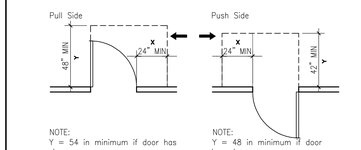


Fig A4.2.4.1 Maneuvering Clearances at Doors & Gates

NOTE:
All doors in alcoves shall comply with the clearances for front approaches

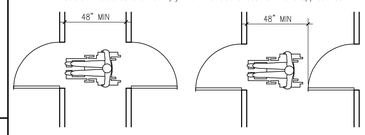


Fig 404.2.6 Doors in Series

DOORS

307 Protruding Objects.

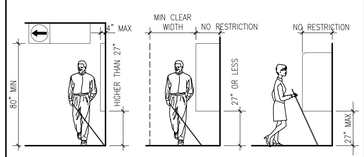


Figure 307.2 Limits of Protruding Objects

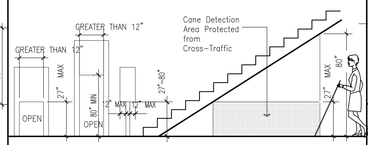


Fig. 307.3 Post Mounted Protruding Objects

Fig. 307.4 Vertical Clearance

PROTRUDING OBJECTS

4.1.2 Accessible Sites and Exterior Facilities: New Construction

Table 208.2– Required Minimum Number of Accessible Parking Spaces Per Total Spaces in Lot

Total Spaces	1–25	26–50	51–75	76–100	101–150	151–200	201–300	301–400	401–500	501–1000	1001 Plus
Required Accessible Spaces	1	2	3	4	5	6	7	8	9	2%	20 Plus 1 Per 100

4.6 Parking and Passenger Loading Zones.

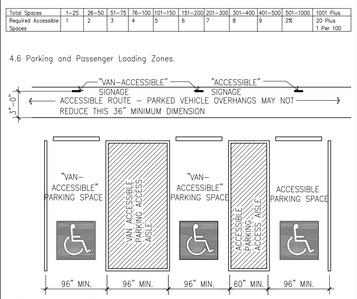
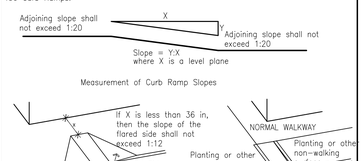


Fig. 502.2 Vehicle Parking Spaces

PARKING

406 Curb Ramps.



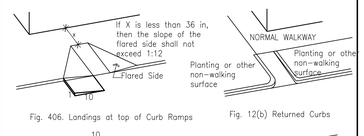


Fig. 406. Landings at top of Curb Ramps

Fig. 12(b) Returned Curbs

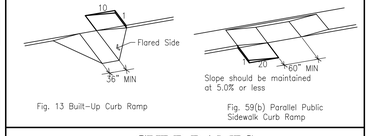
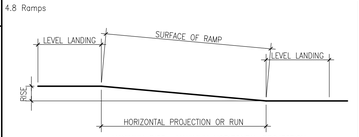


Fig. 13 Built–Up Curb Ramp

Fig. 59(b) Parallel Public Sidewalk Curb Ramp

CURB RAMPS

4.8 Ramps



SLOPE	MAXIMUM RISE INCH	MM	MAXIMUM HORIZONTAL PROJECTION FEET	METER
1:12 TO 1:16	30	760	30	9
1:16 TO 1:20	30	760	40	12

Fig. 16 Components of a single ramp run and sample dimensions

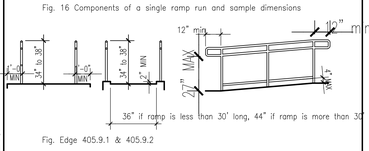


Fig. Edge 405.9.1 & 405.9.2

RAMPS AND HANDRAILS

302 Floor or Ground Surfaces



Fig. 302.2 Carpet Pile Thickness

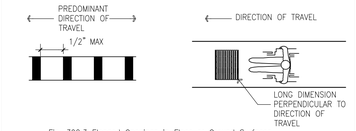


Fig. 302.3 Elonged Openings in Floor or Ground Surfaces

FLOOR AND GROUND SURFACES

CONSULTANTS

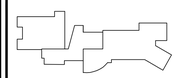
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

REGISTERED ARCHITECT STATE OF TEXAS 24600

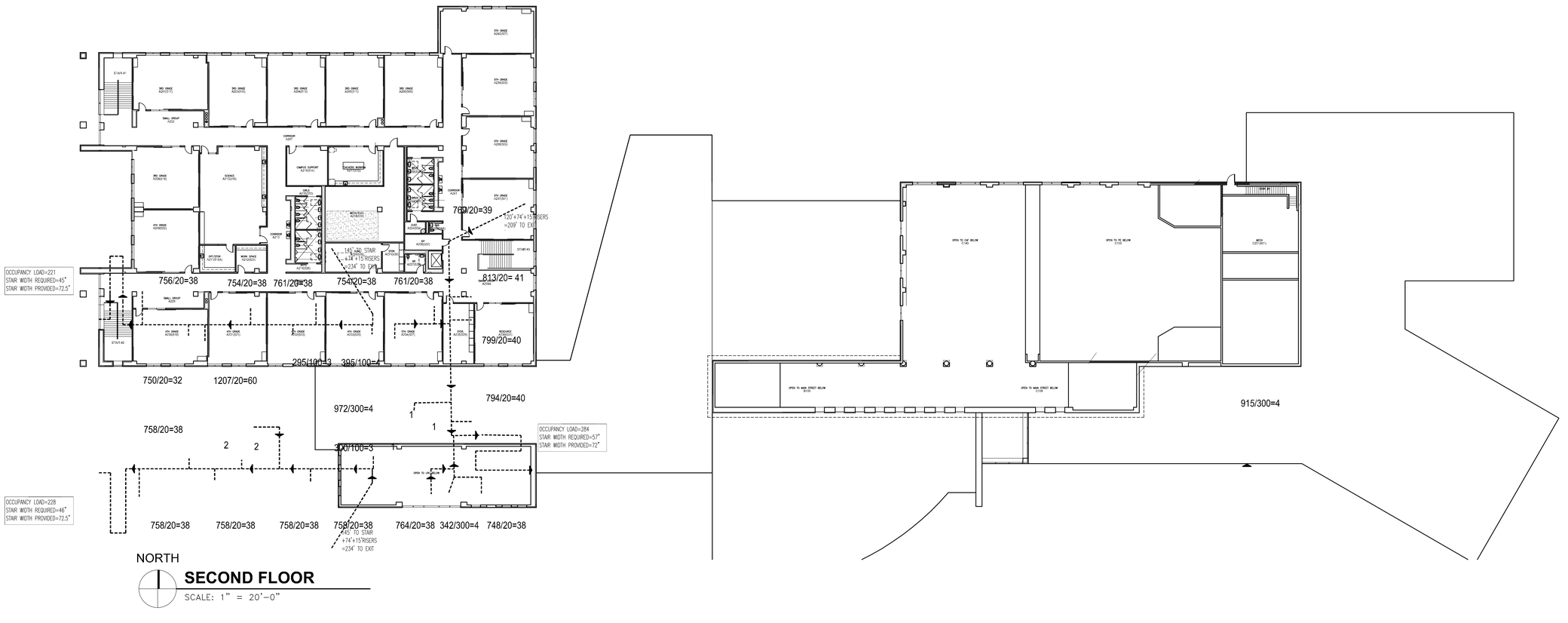
10/24/2025

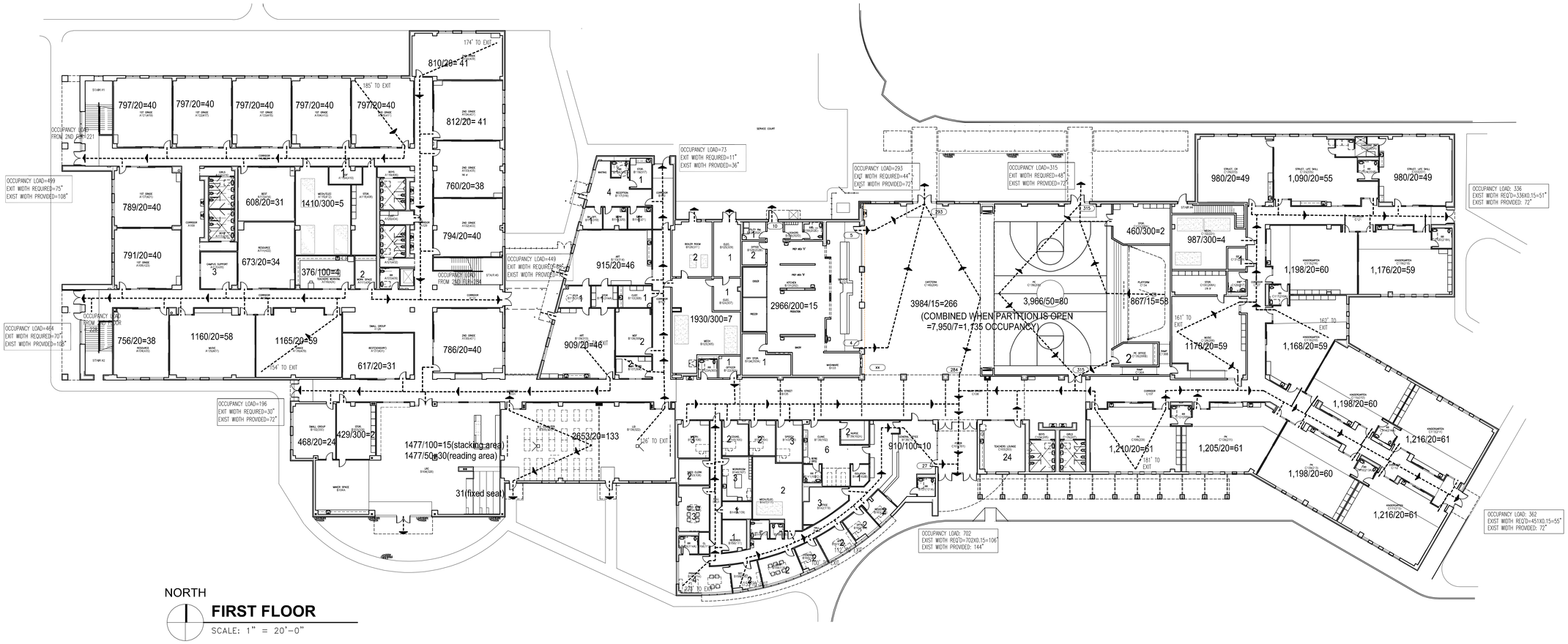
PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

G1.00

CODE SUMMARY
DRAWING CONVENTIONS





CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

REGISTERED ARCHITECT CHU PAO SHIN 23685 STATE OF TEXAS
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN XXX
CHECKED XXX

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

G1.01

LIFE SAFETY
EGRESS PLANS

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION SCHEDULE WITH THE ENGINEER AND/OR ARCHITECT PRIOR TO COMMENCING WORK.
2. CONTRACTOR SHALL CONTACT ALL GOVERNING AGENCIES A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION AND COORDINATE ALL WORK WITH THE SAME.
3. WHETHER SHOWN ON DRAWINGS OR NOT THE CONTRACTOR SHALL PROVIDE ALL PIPING, APPURTENANCES, AND MISCELLANEOUS FITTINGS REQUIRED TO ACCOMPLISH THE DESIGN AS DRAWN AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL CONTACT ENGINEER IF UNSURE OF PIPING LAYOUT, SIZES OR LENGTHS.
4. VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD BEFORE COMMENCING ANY WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPORT ANY DISCREPANCIES TO THE ENGINEER IN A TIMELY MANNER.
5. ALL DIMENSIONS SHOWN ARE APPROXIMATE AND ARE TO BE VERIFIED BY THE CONTRACTOR. CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENT ARE TO BE APPROVED BY THE ENGINEER.
6. THE DRAWINGS SHOW AS MUCH INFORMATION AS CAN BE REASONABLY OBTAINED FROM AN ON THE GROUND OBSERVATION, SURVEY AND EXISTING CONSTRUCTION DRAWINGS REGARDING THE TOPOGRAPHIC FEATURES, ELEVATIONS AS WELL AS THE LOCATION AND NATURE OF PIPELINES, NATURAL GAS LINES, UNDERGROUND CABLES, UTILITIES, ETC. HOWEVER, THE ACCURACY OF OR COMPLETENESS OF SUCH INFORMATION IS NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION TO PRECLUDE DAMAGE TO EXISTING UTILITIES. IN THE EVENT THAT UNDERGROUND UTILITIES NOT SHOWN ON THE DRAWINGS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
7. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN THE AREA A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK IN ANY RIGHT-OF-WAY OR EXISTING EASEMENT. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567, 1-800-545-6005 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
8. SOME OF THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON HAVE NOT BEEN FIELD VERIFIED.
9. CONTRACTOR SHALL UNCOVER EXISTING UTILITIES AT ALL "POINTS OF CROSSING" TO DETERMINE IF CONFLICT EXISTS BEFORE COMMENCING ANY CONSTRUCTION. NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICT.
10. IN THE EVENT OF DAMAGE TO UNDERGROUND UTILITIES OR FACILITIES, WHETHER SHOWN OR NOT ON THE DRAWINGS, THE CONTRACTOR SHALL MAKE THE NECESSARY REPAIRS TO REPLACE THE UTILITY OR FACILITY BACK IN SERVICE AT NO INCREASE IN THE CONTRACT PRICE. ALL SUCH REPAIRS SHALL CONFORM TO THE REQUIREMENTS OF THE COMPANY OR AGENCY SERVICING THE FACILITY.
11. ALL EXISTING POWER POLES, LIGHT STANDARDS, SIGNS, ETC. WHICH AFFECT THE PROPOSED CONSTRUCTION, SHALL BE REMOVED AND/OR RELOCATED AS REQUIRED WHETHER SHOWN ON DRAWINGS OR NOT AT NO ADDITIONAL COST TO THE OWNER.
12. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL ADHERE TO THE STANDARDS OF THE GOVERNING AUTHORITY.
13. INGRESS AND EGRESS SHALL BE PROVIDED AT ALL TIMES FOR THE PROPERTY OWNERS AND BUSINESSES OF THE ABUTTING PROPERTY AND THE CROSS STREETS WHICH ARE AFFECTED BY THE CONSTRUCTION OF THIS PROJECT.
14. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR MAINTAINING A SAFE PROJECT SITE 24 HOURS A DAY.
15. DURING THE ENTIRE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL MAINTAIN CONSTRUCTION WARNING SIGNS AT EACH END OF THE PROJECT TO WARN MOTORING AND PEDESTRIAN TRAFFIC THAT CONSTRUCTION IS IN PROGRESS AND OF POSSIBLE HAZARDOUS CONDITIONS GENERATED BY THE CONSTRUCTION.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DELINEATING THE PERIMETER OF CONSTRUCTION AREA WITH CONSTRUCTION FENCING AT NO ADDITIONAL COST. CONSTRUCTION FENCING SHALL BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED UPON COMPLETION.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING TRAFFIC IN THE IMMEDIATE VICINITY OF CONSTRUCTION. ALL WORK SHALL BE IN SUCH A MANNER AND SEQUENCE AS TO PROVIDE MAXIMUM PROTECTION TO TRAFFIC AND PEDESTRIANS. CONTROLS SHALL BE CONSISTENT WITH THE TYPE OF WORK BEING PERFORMED.
18. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (TEXAS M.U.T.C.D. MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
19. DELINEATORS SHALL BE INSTALLED ALONG THE PAVEMENT EDGE TO WARN TRAFFIC OF ANY ROADSIDE OBJECTS OR HAZARDS AND TO DELINEATE THE ROADWAY EDGE DURING HOURS OF DARKNESS.
20. THE WORK AREA SHALL BE BARRICADED AND ILLUMINATED DURING DARKNESS AND PERIODS OF INACTIVITY, WHEN IN AN AREA OF DIRECT PUBLIC ACCESS.
21. UNOCCUPIED TRENCHES SHALL BE SECURED WITH SAFETY "SNOW" FENCING OR OTHER APPROPRIATE MEANS AT ALL TIMES. TRENCHES WHICH ARE NOT IMMEDIATELY BACKFILLED SHALL BE SECURELY COVERED OVERNIGHT AND BE SURROUNDED BY SAFETY "SNOW" FENCING.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING REQUIRED SECURITY TO PROTECT HIS OWN PROPERTY, EQUIPMENT, AND WORK IN PROGRESS.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ADEQUATE DRAINAGE BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE GOVERNING AUTHORITY AND/OR ENGINEER. THE CONTRACTOR SHALL ALSO MAINTAIN DRAINAGE AROUND BUILDING AS TO NOT HOLD WATER ADJACENT TO ANY POINT NEAR BUILDING.
24. CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION OF ANY TEMPORARY DITCH OR DRAINAGE FACILITIES REQUIRED TO MAINTAIN ADEQUATE SITE DRAINAGE DURING CONSTRUCTION AT NO ADDITIONAL COST TO OWNER
25. THE CONTRACTOR IS TO INSTALL GROUND WATER CONTROL FACILITIES IF NEEDED, AT DIRECTION OF ENGINEER AT NO ADDITIONAL COST TO OWNER.
26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS REQUIRED BY ALL GOVERNING AGENCIES.
27. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETION AND SUBMISSION OF ALL APPLICABLE STATE AND FEDERAL FORMS REQUIRED FOR STORM WATER POLLUTION PREVENTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION, IMPLEMENTATION, MAINTENANCE, AND INSPECTION OF STORM WATER POLLUTION PREVENTION CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, EROSION AND SEDIMENT CONTROLS, STORM WATER MANAGEMENT PLANS, WASTE COLLECTION AND DISPOSAL, OFF-SITE VEHICLE TRACKING, AND OTHER PRACTICES.
28. THE CONTRACTOR SHALL COMPLY WITH OSHA REGULATIONS AND STATE OF TEXAS LAW CONCERNING EXCAVATION, TRENCHING AND SHORING.
29. THE CONTRACTOR SHALL DESIGN AND PROVIDE A TRENCH SAFETY SYSTEM TO MEET APPROPRIATE REQUIREMENTS ESTABLISHED IN OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) SAFETY & HEALTH REGULATIONS, 29 CFR 1926, SUBPART P – EXCAVATIONS, TRENCHING AND SHORING, AND OSHA'S PROPOSED STANDARDS ON TRENCHING, EXCAVATION PUBLISHED IN VOLUME 52, NO. 72 OF THE FEDERAL REGISTER, APRIL 15, 1987, PAGES 12288-12339. SHOULD THE REFERENCED OSHA STANDARDS BE MODIFIED OR AMENDED, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.
30. CONTRACTOR SHALL PROVIDE SHEETING, SHORING AND BRACING AS NECESSARY TO PROTECT WORKMEN AND EXISTING UTILITIES DURING ALL PHASES OF CONSTRUCTION.
31. IN ORDER TO COMPLY WITH HANDICAP REGULATIONS, THE CONTRACTOR SHALL ENSURE THAT THE SLOPE OF THE SIDEWALK AND/OR PAVING IN THE FIRST FIVE FEET OUTSIDE ANY DOOR DOES NOT EXCEED 2% IN ANY DIRECTION.
32. THE TEXAS DEPARTMENT OF TRANSPORTATION TxDOT 2004 STANDARD SPECIFICATIONS AND STANDARDS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES SHALL BE CONSIDERED PART OF THESE PLANS AND USED AS THE SPECIFICATIONS FOR ITEMS EXCEPT AS SHOWN OTHERWISE ON PLANS OR IN THE PROJECT SPECIFICATIONS.
33. NO CONSTRUCTION WHICH BLOCKS TRAFFIC ON ANY STREET, ALLEY, OR DRIVEWAY WILL BE ALLOWED DURING THE HOURS OF 6:30 A.M. – 8:30 A.M. AND 2:30-6:00 P.M.
34. THE CONTRACTOR MUST CLEAN MUD, DIRT OR DEBRIS TRACKED ONTO EXISTING STREETS BY HIMSELF OR SUBCONTRACTOR'S VEHICLES AND EQUIPMENT DAILY OR AS DIRECTED BY ENGINEER.
35. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF JOB SHALL BE AS GOOD OR BETTER THAN PRIOR TO STARTING WORK.
36. ALL AREAS DISTURBED BY CONSTRUCTION WHICH ARE NOT TO BE REPAVED OR OTHERWISE COVERED SHALL BE HYDROMULCHED.
37. CONTRACTOR SHALL STRIP AND STOCKPILE TOPSOIL. TOPSOIL SHALL BE SPREAD OVER ALL AREAS RECEIVING SOD AND OR HYDROMULCH. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AN 85% STAND OF GRASS WITH NO AREAS OF EROSION BEFORE FINAL ACCEPTANCE.
38. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL WASTE MATERIAL GENERATED DURING CONSTRUCTION. WASTE MATERIAL MUST BE REMOVED FROM THE WORK SITE AND DISPOSED OF IN SUCH A MANNER AS TO NOT DAMAGE THE OWNER OR OTHER PERSONS AT NO ADDITIONAL COST.
39. ALL FILL PLACED ON SITE SHALL BE SELECT FILL PER THE RECOMMENDATION OF THE SOILS REPORT OR AS INDICATED IN THE SPECIFICATIONS.
40. FINISH GRADE ELEVATIONS INDICATE FINAL GRADE OF PROPOSED MATERIAL (I.E. SOD, DIRT, MULCH, ETC.). LANDSCAPED AREAS ADJACENT TO BUILDING, INCLUDING, DIRT, MULCH, AND/OR BEDDING MATERIALS SHALL NOT COVER WEEPHOLES. AREAS ADJACENT TO BUILDING, LANDSCAPED, OR OTHERWISE SHALL SHEET FLOW AWAY FROM BUILDING WITH NO AREAS OF STANDING WATER ADJACENT TO BUILDING.
41. GRADING AROUND BUILDINGS INCLUDING WALKWAYS SHALL BE COORDINATED WITH ENGINEER AND/OR ARCHITECT AND FINAL APPROVAL OF GRADES IN GRASS AREAS AND SWALES SHALL BE APPROVED BY ENGINEER PRIOR TO INSTALLATION OF LANDSCAPING MATERIALS.
42. AFTER INSTALLATION OF DRAINAGE SYSTEM, CONTRACTOR SHALL PERFORM FINAL GRADING AS SHOWN ON THE PLANS AND/OR AS DIRECTED BY ENGINEER OR OWNER TO INSURE POSITIVE DRAINAGE OF ENTIRE SITE. FINAL GRADING SHALL BE APPROVED BY ENGINEER PRIOR TO INSTALLATION OF GRASS.
43. THE CONTRACTOR SHALL COORDINATE FINAL GRADING OF LANDSCAPED AREAS WITH THE LANDSCAPE ARCHITECT.
44. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING FINAL GRADES TO ENSURE POSITIVE DRAINAGE.
45. PLACE BACKFILL AS PROMPTLY AS PRACTICABLE AFTER COMPLETION OF EACH STRUCTURE OR PORTION OF A STRUCTURE. DO NOT PLACE BACKFILL AGAINST CONCRETE WALLS OR SIMILAR STRUCTURES UNTIL CONCRETE HAS CURED AT LEAST SEVEN (7) DAYS.
46. ALL STRUCTURES AND SEWER PIPE UNDER OR WITHIN TWO (2) FEET OF PROPOSED OR FUTURE PAVEMENT SHALL BE BEDDED AND BACKFILLED WITH CEMENT STABILIZED SAND UP TO THE BOTTOM OF THE PAVEMENT SUBGRADE.
47. CEMENT-SAND BACKFILL SHALL CONSIST OF NOT LESS THAN 1-1/2 SACKS OF CEMENT PER TON OF SAND WITH SUFFICIENT WATER TO HYDRATE THE CEMENT. THE MATERIAL SHALL BE PLACED IN LIFTS EIGHT (8) INCHES THICK MAXIMUM AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
48. WHERE PAVEMENT OR CURB IS BEING REMOVED AND REPLACED FULL DEPTH SAW CUT SHALL BE PERFORMED AT STREET CONNECTION.
49. CONCRETE PAVEMENT SHALL HAVE MINIMUM OF FIVE AND ONE-HALF SACKS OF CEMENT PER CUBIC YARD AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 28 DAYS.
50. ALL STEEL REINFORCEMENT SHALL CONFORM TO ASTM A615 GRADE 60.
51. DETAILING AND FABRICATION OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI-318 LATEST EDITION.
52. LAP ALL CONTINUOUS REINFORCING STEEL 36 DIAMETERS AT SPLICES, TEES, AND CORNERS UNLESS NOTED OTHERWISE ON PLANS.
53. WHERE CONCRETE CURB OR WALK IS INDICATED, ELEVATION SHALL BE 6 INCHES ABOVE TOP OF PAVEMENT ELEVATION SHOWN, UNLESS OTHERWISE SHOWN ON DRAWINGS.
54. MOW STRIPS SHALL BE INSTALLED SO AS NOT TO BLOCK ANY SHEET FLOW PATTERNS AS DESIGNED. ANY MOW STRIPS THAT BLOCK DRAINAGE SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER. IF CONTRACTOR HAS ANY QUESTIONS ON CORRECT ELEVATIONS FOR MOW STRIPS, CONTACT ENGINEER OR ARCHITECT.
55. A FIBERBOARD EXPANSION JOINT SHALL BE PLACED BETWEEN THE BUILDING FOUNDATION AND THE CONCRETE PAVEMENT.
56. THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL PROPOSED UTILITIES EXITING BUILDING PRIOR TO COMMENCING WORK ON SITE UTILITIES. UPON ANY DISCREPANCIES, ENGINEER IS TO BE NOTIFIED.
57. ELECTRIC METER AND SERVICE LINE INSTALLATION TO BE COORDINATED WITH ELECTRICAL PROVIDER BY THE CONTRACTOR.
58. GAS METER AND SERVICE LINE INSTALLATION TO BE COORDINATED WITH GAS COMPANY BY THE CONTRACTOR.
59. IF WITHIN THE CITY OF HOUSTON A STORM WATER QUALITY PERMIT IS REQUIRED FOR THIS PROJECT, THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING ITEMS:

    A.) PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL PROVIDE THE CITY OF HOUSTON WITH A PERFORMANCE BOND FOR ALL STORM WATER QUALITY PERMITS ISSUED BY THE CITY OF HOUSTON STORM WATER QUALITY DEPARTMENT.
60. THE CONTRACTOR WILL JET ALL DEBRIS OUT OF THE FLOATABLES COLLECTION SCREEN UNITS INSTALLED AND WILL PROVIDE THE ENGINEER WITH AN AS-BUILT SURVEY, SIGNED AND SEALED BY A REGISTERED LAND SURVEYOR, SHOWING POSITIVE DRAINAGE PRIOR TO ENGINEER ISSUING AN AS-BUILT CERTIFICATE TO THE GOVERNING AGENCY.
61. CONTRACTOR IS RESPONSIBLE FOR PUMPING OUT STORM WATER QUALITY UNITS AND PROVIDING THE ENGINEER WITH A MANIFEST STATING THAT THE SILT AND DEBRIS WAS DISPOSED OF IN A LEGAL MANNER. MANIFEST AND TIME STAMPED PICTURES OF THE CLEAN UNITS MUST BE PROVIDED PRIOR TO ENGINEER SUBMITTING THE STORM WATER QUALITY AS-BUILT CERTIFICATE. CONTRACTOR TO NOTIFY ENGINEER WHEN PUMP OUT WILL TAKE PLACE.

STORM SEWER CONSTRUCTION NOTES

1. ON SITE STORM SEWERS 12-INCH DIAMETER AND LARGER SHALL BE CORRUGATED HIGH DENSITY POLYETHYLENE (PER AASHTO M-294, TYPE S, HANCOR SURE-LOK F477 PIPE, OR APPROVED EQUAL,) UNLESS OTHERWISE SHOWN ON PLANS. PRODUCT MUST HAVE GASKET JOINTS.
2. ON SITE STORM SEWERS 10-INCH DIAMETER AND LESS SHALL BE PVC (POLY-VINYL CHLORIDE) PIPE MEETING A.S.T.M. SPECIFICATIONS, ASTM D3034 AND HAVING A S.D.R. OF 26, UNLESS OTHERWISE SHOWN ON PLANS.
3. ANY CONCRETE PIPE USED ON THIS PROJECT SHALL BE REINFORCED CONCRETE MEETING ASTM C-76 CLASS III, AND HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS. CONCRETE PIPE IS ONLY TO BE USED WHERE REQUIRED IN PUBLIC RIGHT-OF-WAY AND/OR AT TIES TO PUBLIC STORM SEWER SYSTEMS. BEDDING BACKFILLING AND INSTALLATION OF PIPE AND CONSTRUCTION OF APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CIVIL DETAIL SHEETS.
4. THE CONTRACTOR SHALL USE PRECAST 4000 PSI REINFORCED CONCRETE STORM SEWER MANHOLES AND INLETS. INVERT SHALL BE INSTALLED WITH NON-SHRINK GROUT AND SLOPED TO ENSURE POSITIVE DRAINAGE FROM INLET TO STORM SEWER LINE WITH SMOOTH FINISH AND NO STANDING WATER IN INLET. BRICK MANHOLES AND/OR INLETS MAY BE USED AS APPROVED BY THE ENGINEER WHEN SETTING STRUCTURES ON EXISTING UTILITY LINE. BRICK STRUCTURES MUST BE MORTARED INSIDE AND OUT. COORDINATE EACH INCIDENT WITH ENGINEER.
5. ALL INLETS, MANHOLES, CLEANOUTS, AND HEADWALLS SHALL BE BACKFILLED WITH CEMENT STABILIZED SAND. CEMENT STABILIZED SAND FILL SHALL BE AT LEAST 12" ON BOTTOM OF STRUCTURE AND 12" AROUND OUTSIDE OF STRUCTURE.
6. NO CORNER CONNECTIONS WILL BE ALLOWED TO ANY INLETS, JUNCTION BOXES OR BOX MANHOLES.
7. CONTRACTOR SHALL CUT OFF PIPE FLUSH WITH INSIDE FACE OF INLETS AND MANHOLES. ALL PIPE PENETRATIONS SHALL BE GROUTED INSIDE AND OUT WITH NON-SHRINK GROUT. INVERTS SHAPED TO PROMOTE FLOW-NO STANDING WATER.
8. CONCRETE FOR DRAINAGE STRUCTURES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
9. CULVERT CROSSINGS LOCATED WITHIN 30 FEET OF THE RIGHT-OF-WAY SHALL HAVE MINIMUM 6:1 SLOPING ENDS KNOWN AS SAFETY END TREATMENTS (SETS). THE CULVERT SHALL HAVE SUFFICIENT LENGTH TO ALLOW THE 6:1 SLOPE TO BE ACHIEVED FROM THE EDGE OF PAVEMENT TO THE FLOWLINE AT THE END OF THE SET.
10. CULVERTS LARGER THAN SINGLE 30-INCH DIAMETER (OR LARGER THAN MULTIPLE 24-INCH DIAMETER CULVERTS) SHALL REQUIRE SAFETY PIPE RUNNERS.
11. CONTRACTOR SHALL FLUSH AND CLEAN ALL STORM SEWER LINES AND STRUCTURES PRIOR TO ACCEPTANCE.
12. UTILITIES ARE TO BE TAKEN TO WITHIN FIVE (5) FEET OF BUILDING. SEE PLUMBING SHEETS FOR CONTINUATION OF SERVICE CONNECTIONS INTO BUILDING.
13. TIE-INS TO EXISTING MANHOLES SHALL BE MADE SUCH THAT THE FINAL CONDITIONS UPON COMPLETION OF THE JOB SHALL BE AS GOOD OR BETTER THAN PRIOR TO STARTING WORK.
14. THE CONTRACTOR IS TO INSTALL WATER-TIGHT ADAPTORS OF A TYPE COMPATIBLE WITH THE MATERIALS BEING JOINED AT THE POINT OF CONNECTION OF THE SERVICE LINE TO THE BUILDING PLUMBING. NO CEMENT GROUT MATERIALS ARE PERMITTED.
15. THE CONTRACTOR IS TO INSTALL EACH CLEANOUT SO THAT IT OPENS IN A DIRECTION OPPOSITE TO THE FLOW OF THE WASTE AND, EXCEPT IN THE CASE OF A "WYE" BRANCH AND END-OF-THE-LINE CLEANOUTS, CLEANOUTS WILL BE INSTALLED VERTICALLY ABOVE THE FLOW LINE OF THE PIPE. CLEANOUTS WILL BE MADE WITH AIR-TIGHT MECHANICAL PLUG.
16. ALL STORM SEWER MANHOLES LOCATED OUTSIDE OF PAVED AREAS SHALL BE SET AT FINISH GRADE WITH CONCRETE COLLAR UNLESS OTHERWISE NOTED ON PLANS.
17. ALL INLETS AND JUNCTION BOXES LOCATED OUTSIDE OF PAVED AREAS SHALL HAVE A PRE-CAST TOP WITH CAST-IN FRAME.
18. CONTRACTOR SHALL GROUT ALL JOINTS INSIDE OF ALL INLETS, JUNCTION BOXES, AND MANHOLES WITH NON-SHRINK GROUT.
19. ALL TYPE "A" GRATE INLETS SHALL HAVE SLOTTED GRATE TOPS (MODEL V-4880-3). GRATE TOPS IN WALK AREAS SHALL HAVE ADA COMPLIANT GRATES.
20. CEMENT-SAND BACKFILL SHALL CONSIST OF NOT LESS THAN 1-1/2 SACKS OF CEMENT PER TON OF SAND WITH SUFFICIENT WATER TO HYDRATE THE CEMENT. THE MATERIAL SHALL BE PLACED IN LIFTS EIGHT (8) INCHES THICK MAXIMUM AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
21. CONTRACTOR IS RESPONSIBLE FOR PUMPING OUT STORM WATER QUALITY UNITS AND PROVIDING THE ENGINEER WITH A MANIFEST STATING THAT THE SILT AND DEBRIS WAS DISPOSED OF IN A LEGAL MANNER. MANIFEST AND TIME STAMPED PICTURES OF THE CLEAN UNITS MUST BE PROVIDED PRIOR TO ENGINEER SUBMITTING THE STORM WATER QUALITY AS-BUILT CERTIFICATE. CONTRACTOR TO NOTIFY ENGINEER WHEN PUMP OUT WILL TAKE PLACE.
22. TRUE SDR-PVC OR SDR-HDPE FITTINGS ARE REQUIRED. NO RUBBER/FERNCO TYPE FITTINGS WILL BE ALLOWED.

SWPPP CONSTRUCTION NOTES

1 CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPP) PLANS TO KEEP SILT AND OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM.

2 DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATION 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 FORM THE EXCAVATED AREA.

4 CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT, ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.

5 CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN(14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.

- DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
- STRUCTURAL CONTROL MEASURES.
- LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

6 CONTRACTOR TO BE RESPONSIBLE TO MAINTAIN EXISTING DITCHES AND OR CULVERTS FOR UNOBSTRUCTED DRAINAGE AT ALL TIMES. WHERE SODDING IS DISTURBED BY EXCAVATION ON BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SEEDING OR SODDING. SLOPES 4:1 OR STEEPER SHALL BE REPLACED BY BLOCK SODDING.

SURVEY NOTE

ALL SURVEY INFORMATION, INCLUDING BUT NOT LIMITED TO DESCRIPTIONS OF PHYSICAL CHARACTERISTICS, LEGAL LIMITS, UTILITY LOCATIONS AND PERMANENT BENCHMARK FOR THE SITE OF THE PROJECT, WAS PROVIDED BY THE OWNER. THE ARCHITECTS AND 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 CONTRACTOR.

SANITARY SEWER CONSTRUCTION NOTES

1. SANITARY SEWER SHALL BE PVC (POLY-VINYL CHLORIDE) PIPE MEETING A.S.T.M. SPECIFICATIONS, D-3034-08 AND HAVING A S.D.R. OF 26 UNLESS OTHERWISE SHOWN ON PLANS. BEDDING BACKFILLING AND INSTALLATION OF PIPE AND CONSTRUCTION OF APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CIVIL DETAIL SHEETS.
2. THE CONTRACTOR SHALL USE 4000 PSI REINFORCED CONCRETE PRECAST SANITARY SEWER MANHOLES.
3. ALL MANHOLES, AND CLEANOUTS SHALL BE BACKFILLED WITH CEMENT STABILIZED SAND. CEMENT STABILIZED SAND FILL SHALL BE AT LEAST 12" ON BOTTOM OF STRUCTURE AND 12" AROUND OUTSIDE OF STRUCTURE.
4. CONTRACTOR SHALL CUT OFF PIPE FLUSH WITH INSIDE FACE OF MANHOLES. ALL PIPE PENETRATIONS SHALL BE GROUTED INSIDE AND OUT WITH NON-SHRINK GROUT.
5. CONTRACTOR SHALL SEAL INTERIOR SURFACE OF PROPOSED SANITARY SEWER MANHOLES WITH THANECOAT FE-100, OR APPROVED EQUAL AS PER MANUFACTURER'S SPECIFICATIONS.
6. ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED.
7. ALL SANITARY SEWER LINES SHALL BE MANDREL AND AIR TESTED. ALL SANITARY SEWER LINES SHALL ALSO BE INSPECTED VIA CAMERA.
8. UTILITIES ARE TO BE TAKEN TO WITHIN FIVE (5) FEET OF BUILDING. SEE PLUMBING SHEETS FOR CONTINUATION OF SERVICE CONNECTIONS INTO BUILDING.
9. TIE-INS TO EXISTING MANHOLES SHALL BE MADE SUCH THAT THE FINAL CONDITIONS UPON COMPLETION OF THE JOB SHALL BE AS GOOD OR BETTER THAN PRIOR TO STARTING WORK.
10. THE CONTRACTOR IS TO INSTALL WATER-TIGHT ADAPTORS OF A TYPE COMPATIBLE WITH THE MATERIALS BEING JOINED AT THE POINT OF CONNECTION OF THE SERVICE LINE TO THE BUILDING PLUMBING. NO CEMENT GROUT MATERIALS ARE PERMITTED.
11. THE CONTRACTOR IS TO INSTALL EACH CLEANOUT SO THAT IT OPENS IN A DIRECTION OPPOSITE TO THE FLOW OF THE WASTE AND, EXCEPT IN THE CASE OF A "WYE" BRANCH AND END-OF-THE-LINE CLEANOUTS, CLEANOUTS WILL BE INSTALLED VERTICALLY ABOVE THE FLOW LINE OF THE PIPE. CLEANOUTS WILL BE MADE WITH AIR-TIGHT MECHANICAL PLUG.
12. ALL SANITARY SEWER MANHOLES LOCATED OUTSIDE OF PAVED AREAS SHALL BE SET 3" ABOVE FINISHED GRADE WITH CONCRETE COLLAR.
13. CEMENT-SAND BACKFILL SHALL CONSIST OF NOT LESS THAN 1-1/2 SACKS OF CEMENT PER TON OF SAND WITH SUFFICIENT WATER TO HYDRATE THE CEMENT. THE MATERIAL SHALL BE PLACED IN LIFTS EIGHT (8) INCHES THICK MAXIMUM AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
14. PVC TO SDR TRUE TRANSITION FITTINGS ARE REQUIRED.

WATER LINE CONSTRUCTION NOTES

1. DOMESTIC OR FIRE WATER LINES 6" AND SMALLER SHALL BE PVC SCH 40. PIPE SIZES 8" AND LARGER MAY BE SDR 35 OR SDR 26.
2. ALL VALVES SHALL BE LEFT HAND (COUNTERCLOCKWISE) OPEN.
3. SEE DETAIL SHEET FOR THRUST BLOCK DETAILS.
4. CONTRACTOR SHALL INSTALL METALLIC TRACER WIRE ON ALL UNDERGROUND PVC PIPING AND SECURE WIRE ENDS AT ALL VALVE BOXES.
5. CONTRACTOR SHALL ADJUST ELEVATION OF WATER LINES AS REQUIRED TO CLEAR OTHER UTILITIES. ADJUSTMENT MUST MEET TCEQ REQUIREMENTS FOR MINIMUM CLEARANCES, TYPE OF PIPE, ETC.
6. MINIMUM VERTICAL CLEARANCE BETWEEN WATER LINES AND OTHER UTILITIES SHALL BE TWELVE INCHES, UNLESS OTHERWISE NOTED ON THE PLANS.
7. EXISTING WATER SERVICES SHALL NOT BE INTERRUPTED DURING CONSTRUCTION.
8. NO CONNECTIONS SHALL BE MADE TO EXISTING WATER LINES UNTIL ALL PROPOSED WATER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED, DISINFECTED AND APPROVED. ALL TESTING PROCEDURES SHALL CONFORM TO THE GOVERNING AGENCY.
9. UTILITIES ARE TO BE TAKEN TO WITHIN FIVE (5) FEET OF BUILDING. SEE PLUMBING SHEETS FOR CONTINUATION OF SERVICE CONNECTIONS INTO BUILDING.
10. METER AND BACKFLOW VAULTS SHALL BE SET 3" ABOVE FINISHED GRADE.
11. CONTRACTOR TO COORDINATE APPROPRIATE NOZZLE SIZE AND TYPE WITH LOCAL FIRE MARSHAL/FIRE INSPECTOR PRIOR TO OBTAINING FIRE HYDRANT.

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

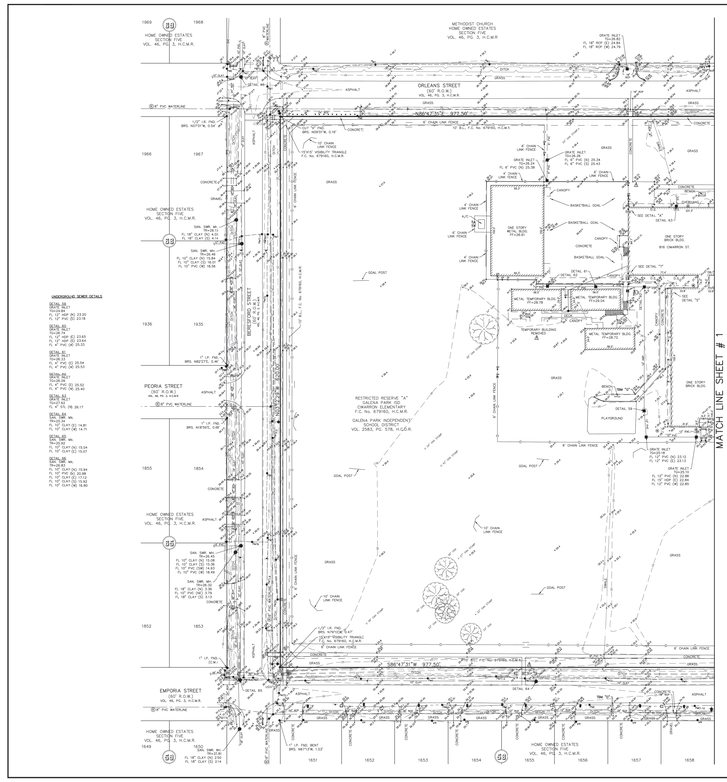
LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

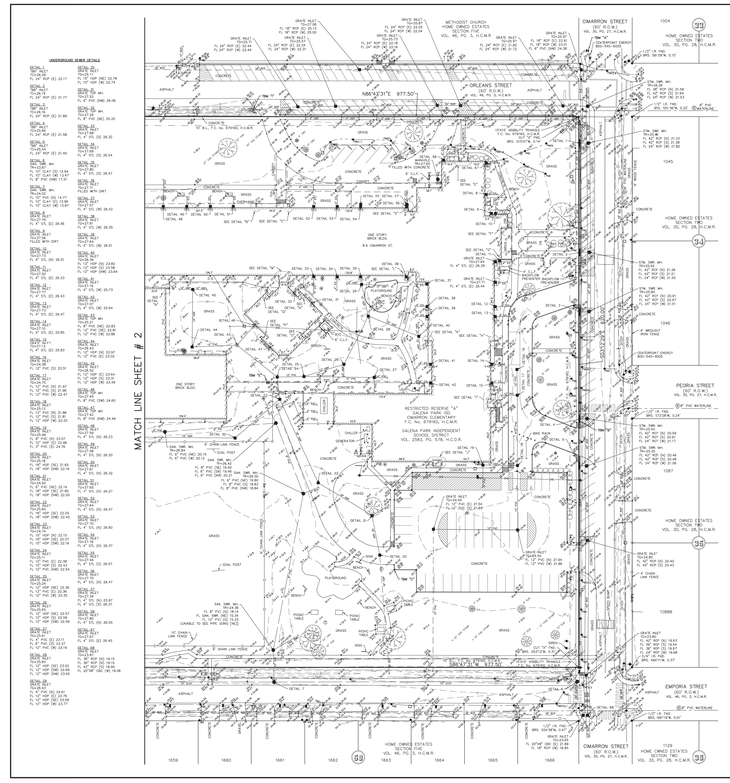
Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-





SURVEYOR'S NOTES:

1. THE BEARINGS SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE 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 COORDINATES, AND WAS CREATED BY APPLYING TO GRID BY SCALING THE DRAWING BY THE FOLLOWING COMBINED SCALE FACTOR OF 0.99987.

3. ACCORDING TO F.I.R.M. MAP NO. 48201C0770K (COMMUNITY-PANEL NO. 480296 0770 K), MAP REVISED DATE: JANUARY 5, 2015, THE SUBJECT PROPERTY LIES WITHIN ZONE "X" (SHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

4. ALL UTILITIES SHOWN HEREON ARE LOCATED USING "APPARENT & VISIBLE" EVIDENCE ONLY. SITE OBSERVATION UNLESS OTHERWISE NOTED.

5. THE SUBJECT TRACT IS AFFECTED BY THE CITY OF HOUSTON ORDINANCE No. 85-1878, AMENDED BY ORDINANCE No. 1999-282.

6. UNDERGROUND UTILITY LOCATIONS PROVIDED BY LONESTAR LOCATING, LLC. ALL UNDERGROUND UTILITY LOCATIONS INDICATES COVER (TEST AND HACKED) DETERMINED BY ELECTRONIC TONING.

ALWAYS CONTACT TEXAS 811 PRIOR TO DIGGING. SOME UTILITIES SUCH AS FIBER OPTIC, W/O TRACER, PLASTIC GAS, FIBERGLASS/PVC ARE NOT LOCATABLE BY TRANSMISSION SIGNAL.

( ) = INDICATES AN UNDERGROUND SEWER STRUCTURE WITH UNKNOWN SIZE OR LOCATION OR A POSSIBLE STUB-OUT.

& @ INDICATES RECORD UTILITIES PLOTTED FROM MAPS PROVIDED BY CITY OF HOUSTON ONLINE GIMS SYSTEM.

REFERENCE BENCHMARK:

PMTS0020 – BRASS DISK STAMPED "PY00 BM02" LOCATED ON CONCRETE WALL NEXT TO THE SIDEWALK AT THE NORTHEAST CORNER OF THE INTERSECTION OF CIMARRON STREET AND ORLEANS STREET, AT CENTER LINE OF STREAM IN KEY MAP #497 W. IN THE GREENS ROAD AREA, 0.3 MILES NORTH OF BEAVERLEY PARKWAY. ELEVATION = 27.50' (NAVD 1988, 2001 ADJ.)

TEMPORARY BENCHMARKS:

TBM "A" – BOX CUT ON CONCRETE SIDEWALK AT THE NORTHEAST CORNER OF THE INTERSECTION OF CIMARRON STREET AND ORLEANS STREET. ELEVATION = 25.51'

TBM "B" – BOX CUT ON THE "NE" INLET LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION WITH PEORIA STREET. ELEVATION = 25.74'

TBM "C" – BOX CUT ON BACK OF CURB LOCATED AT THE MOST WESTERLY SOUTHWEST CORNER OF THE MAIN CHILLER FOR THE PARKING LOT OF THE SCHOOL. ELEVATION = 25.87'

TBM "D" – BOX CUT ON THE WEST END OF AN 18" ROP CULVERT LOCATED ON THE NORTH SIDE OF THE CONCRETE DRIVEWAY FOR 13126 CIMARRON STREET. ELEVATION = 24.61'

TBM "E" – BOX CUT ON THE NORTH SIDE OF THE CONCRETE SIDEWALK LOCATED EAST OF THE NORTHWEST OF THE MAIN CHILLER FOR THE SCHOOL. ELEVATION = 26.12'

TBM "F" – BOX CUT ON THE NORTH SIDE OF THE CONCRETE SIDEWALK LOCATED AT THE MOST WESTERLY PLAYGROUND JUST SOUTH OF THE SOUTHEAST CORNER OF THE SOUTHEAST TEMPORARY BUILDING. ELEVATION = 26.08'

TBM "G" – BOX CUT ON THE EAST SIDE OF THE CONCRETE SIDEWALK JUF EAST OF THE NORTHEAST CORNER OF THE NORTHEAST TEMPORARY BUILDING. ELEVATION = 25.77'

TBM "I" – BOX CUT ON CONCRETE HEADWALL LOCATED ON THE SOUTH SIDE OF ORLEANS STREET AT THE WEST SIDE OF THE MOST EASTERLY DRIVE TO THE SCHOOL. ELEVATION = 25.31'

GALENA PARK INDEPENDENT SCHOOL DISTRICT

TOPOGRAPHIC SURVEY

CIMARRON ELEMENTARY SCHOOL OUT OF THE SAMUEL C. HIROMS SURVEY ABSTRACT NO. 33 CITY OF HOUSTON HARRIS COUNTY, TEXAS

WEST BELT SURVEYING, INC.

NO.	DATE	REVISIONS	BY

A SCALED, EDITED TOPOGRAPHIC SURVEY

DRAWN BY: MG | CHECKED BY: MM

SURVEY TYPE: N.T.S.

PROJECT NO. 5420-00ATC | DATE: OCTOBER 16, 2024

SHEET 1 OF 2

SHEET 2 OF 2

TO GALENA PARK INDEPENDENT SCHOOL DISTRICT

THIS SURVEY SUBSTANTIALLY COMPLIES WITH THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS MANUAL OF PRACTICE FOR LAND BOUNDARY SURVEYS. I CERTIFY THAT THIS SURVEY AND THE CURRENT MINIMUM REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYING ACT.

8/4/25
DATE

JOEL D. WALKER, 5715
TEXAS REGISTRATION NO. 5189

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-2428

BRIAN W. REED
92433
LICENSED
PROFESSIONAL ENGINEER

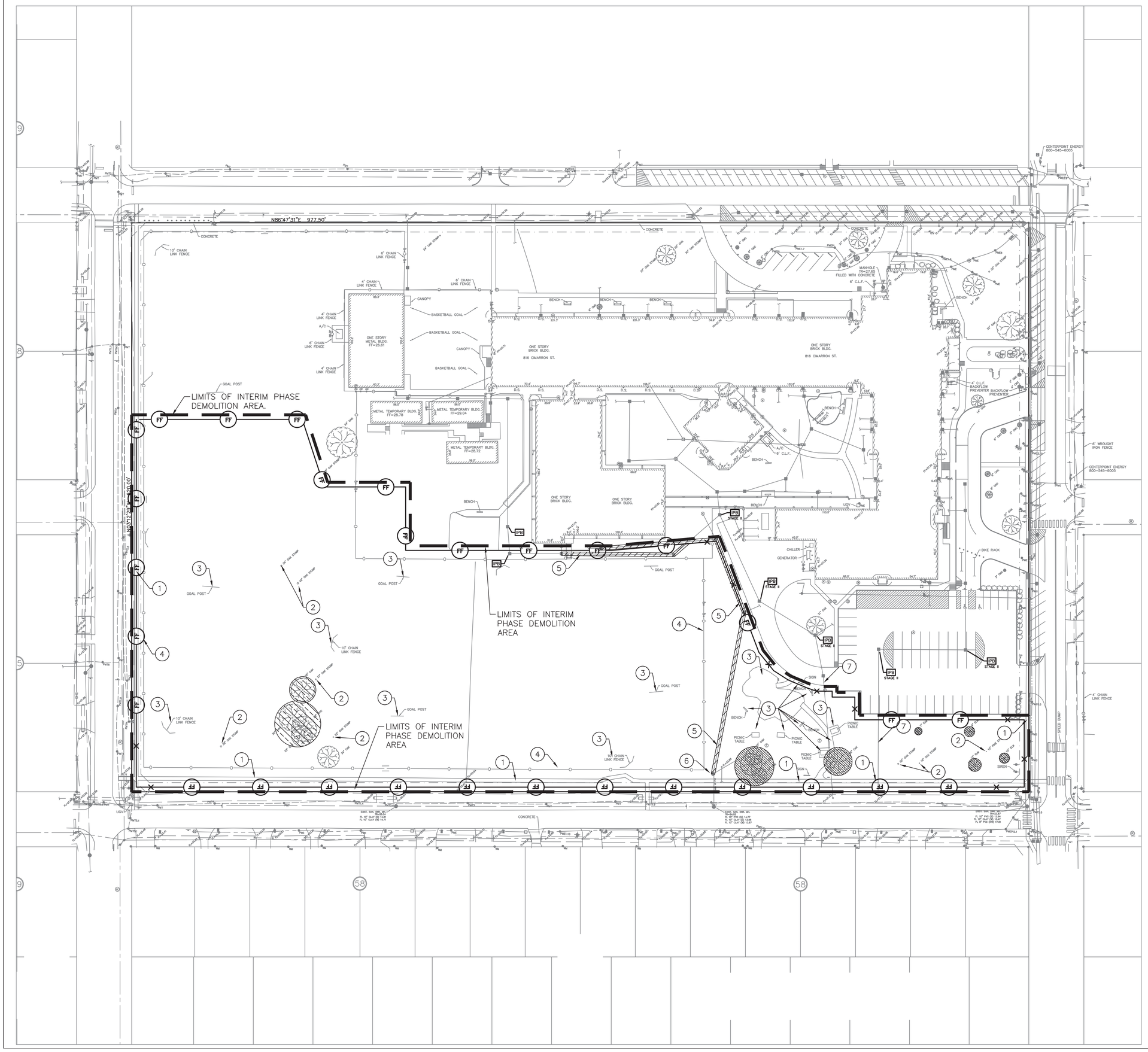
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C0.02

TOPOGRAPHIC SURVEY



LEGEND:

- EXIST. UNDERGROUND UTILITIES TO BE REMOVED
- EXIST. VEGETATION/TREES TO BE REMOVED

KEYED DEMO NOTES TO SHEET:

1. EXISTING SIDEWALK AROUND PERIMETER OF SITE TO REMAIN IN PLACE.
2. EXISTING TREE STUMPS TO BE REMOVED ENTIRELY & STUMP GROUND.
3. EXISTING PLAYGROUND EQUIPMENT & SITE EQUIPMENT TO BE REMOVED.
4. EXISTING FENCE TO BE REMOVED.
5. EXISTING STORM SEWER & SANITARY SEWER TO BE REMOVED TO ALLOW FOR REROUTE OF UTILITY TO FACILITATE CONSTRUCTION OF NEW BUILDING. REFER TO SHEET C0.0S.
6. EXISTING SANITARY SEWER MANHOLE TO REMAIN DURING PHASE 1.
7. EXISTING STORM SEWER TO REMAIN DURING PHASE 1.

LEGEND:

- PROPOSED INLET
- FF — PROPOSED FILTER FABRIC FENCE (SILT FENCE)
- SBF — PROPOSED STRAW BALE FENCE
- SC — STABILIZED CONSTRUCTION ACCESS
- IPB — INLET PROTECTION BARRIER
- IPB STAGE II — INLET PROTECTION BARRIER (CURB INLET/INLET IN PAVEMENT)
- CONCRETE WASHOUT PIT

KEY NOTES:

1. CONTRACTOR TO COORDINATE FINAL PLACEMENT OF STABILIZED CONSTRUCTION ENTRANCE AND WASH OUT PIT WITH OWNER.

CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION, MAINTENANCE, MODIFICATION AND INSPECTION OF STORM WATER POLLUTION PREVENTION DEVICES AND STRUCTURES TO ENSURE NO SILT OR CONTAMINATED WATER LEAVES THE PROJECT SITE.

SWPPP CONSTRUCTION NOTES

1 CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPP) PLANS TO KEEP SILT AND OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM.

2 DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATION 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 FORM THE EXCAVATED AREA.

4 CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT, ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.

5 CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN(14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.

- DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
- STRUCTURAL CONTROL MEASURES.
- LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

6 CONTRACTOR TO BE RESPONSIBLE TO MAINTAIN EXISTING DITCHES AND OR CULVERTS FOR UNOBSTRUCTED DRAINAGE AT ALL TIMES. WHERE SODDING IS DISTURBED BY EXCAVATION ON BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SEEDING OR SODDING. SLOPES 4:1 OR STEEPER SHALL BE REPLACED BY BLOCK SODDING.

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE CALL SYSTEM — TEXAS LAW REQUIRES ONE CALL BEFORE YOU DIG

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

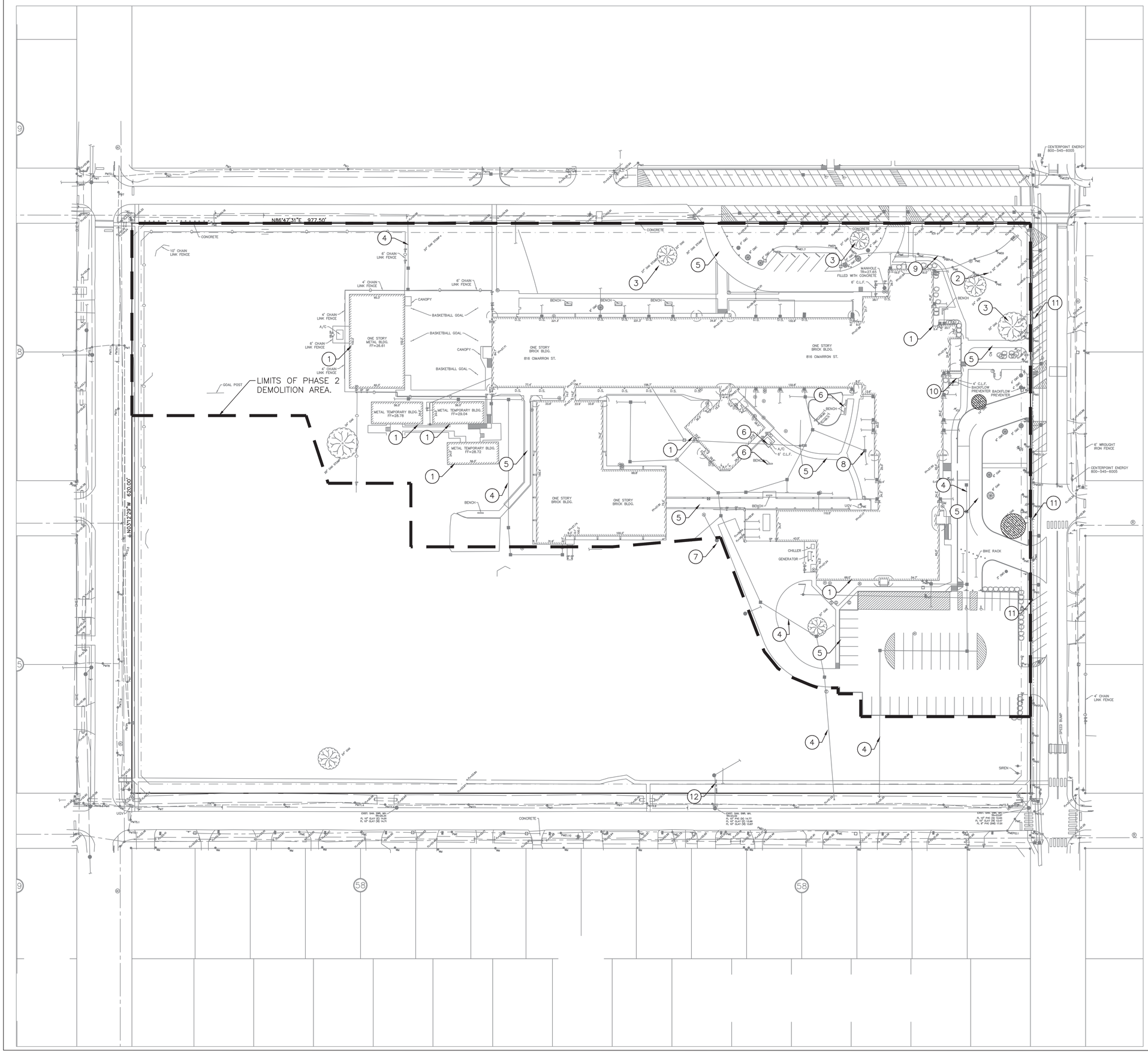
TALON ENGINEERING, LLC
F-24281
BRIAN W. REED
127633
LICENSED PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C0.03

DEMOLITION PLAN - INTERIM PHASE



40 0 20 40

SCALE: 1"= 40'

LEGEND:

EXIST. UNDERGROUND UTILITIES TO BE REMOVED

EXIST. VEGETATION/TREES TO BE REMOVED

KEYED DEMO NOTES TO SHEET:

1. ALL EXISTING BUILDING & STRUCTURES TO BE REMOVED (TYPICAL).
2. EXISTING TREE STUMPS TO BE REMOVED ENTIRELY & STUMP GROUND.
3. EXISTING TREE TO REMAIN. ALL REMAINING TREES NOT NOTED TO REMAIN SHALL BE REMOVED.
4. ALL EXISTING ON SITE UTILITIES TO BE REMOVED IN THEIR ENTIRETY AND HAUL OFF SITE.
5. ALL EXISTING PAVEMENT, DRIVE AISLES, AND SIDEWALK TO BE COMPLETELY REMOVED. ALL ASSOCIATED PAVEMENT AND CANOPY TO BE REMOVED. HAUL OFF SITE.
6. ALL EXISTING MISC. EQUIPMENT ON SITE TO BE REMOVED.
7. EXISTING GRAVITY SANITARY SEWER LINES TO BE COMPLETELY REMOVED AND DISPOSED OF OFF-SITE.
8. EXISTING STORM SEWER LINES TO BE COMPLETELY REMOVED AND DISPOSED OF OFF-SITE.
9. EXISTING UNDERGROUND ELECTRIC LINES. COORDINATE WITH ELECTRICAL PLAN. EXISTING UNDERGROUND ELECTRIC TO BE COMPLETELY REMOVED AND DISPOSED OF OFF-SITE.
10. EXISTING WATER METERS THAT SERVED THE EXISTING CIMARRON E.S. ARE TO BE COMPLETELY REMOVED. PROPOSED 6-INCH FIRE RATED METER TO SERVE THE PROPOSED BUILDING SHOWN ON SHEET C4.01.
11. CONTRACTOR TO COORDINATE ON RELOCATION OF ALL EXISTING POWER POLES IF NECESSARY.
12. EXISTING SANITARY SEWER 10" LINE TO REMAIN. MANHOLE SHALL BE REPLACED PER SHEET C4.01.

GENERAL DEMO NOTES

1. A BUILDING DEMOLITION & SEWER DISCONNECT PERMIT FROM THE CITY OF HOUSTON IS REQUIRED FOR EACH EXISTING BUILDING ON-SITE THAT IS TO BE REMOVED. AN ASBESTOS SURVEY OF EACH BUILDING WILL BE REQUIRED WHEN APPLYING FOR THE PERMITS.

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE CALL SYSTEM
811 OR 1-800-245-4545
CALL BEFORE YOU DIG!

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281

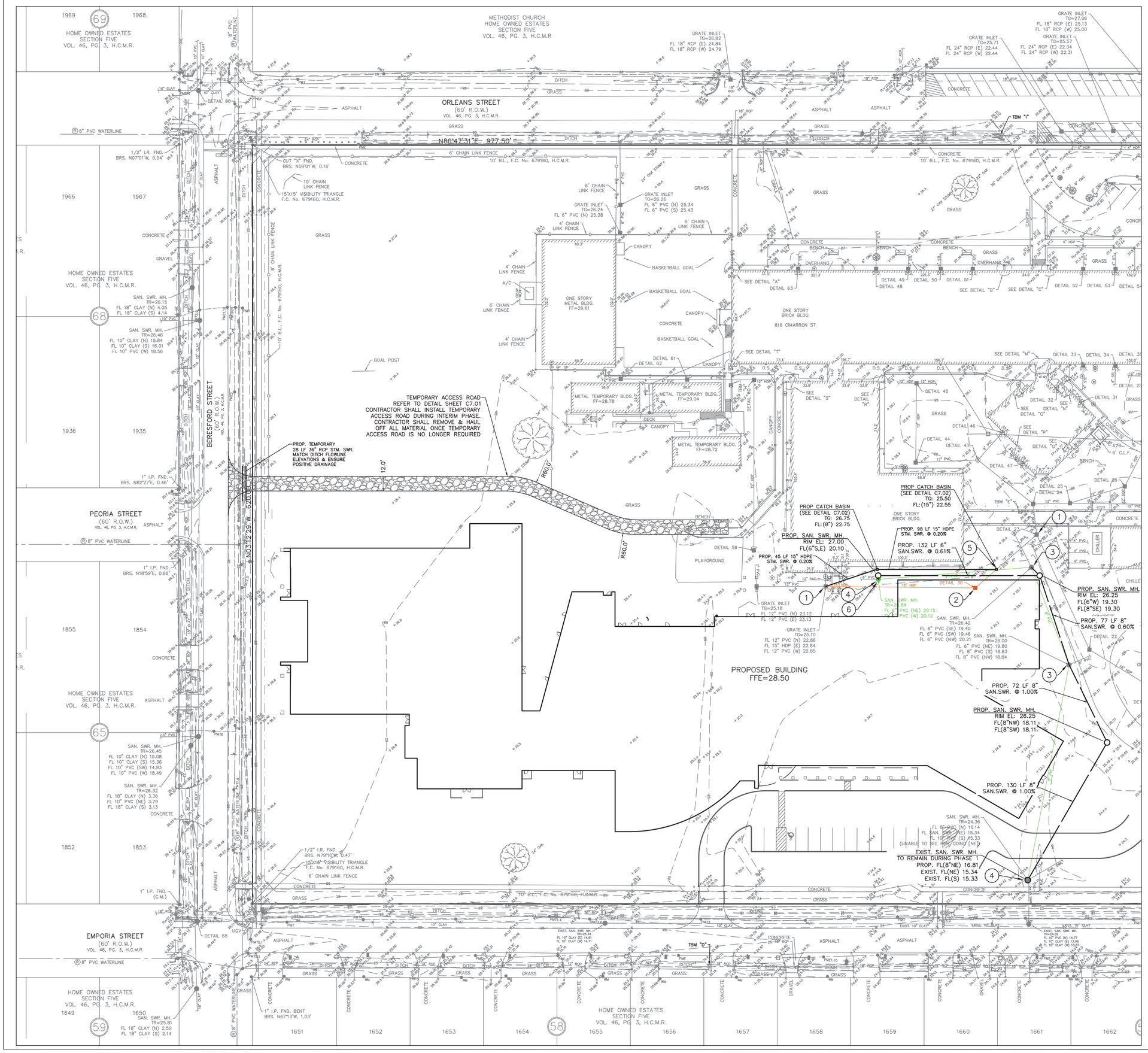
BRIAN W. REED
120033
LICENSED PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO. 2502 (B101-101)	
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C0.04

DEMOLITION PLAN - FULL BUILDOUT



LEGEND:

- PROPOSED MANHOLE
- PROPOSED CLEANOUT
- PROPOSED FIRE HYDRANT
- PROPOSED GATE VALVE
- PROPOSED T.S.&V.
- FL FLOW LINE
- DIRECTION OF FLOW
- EXISTING SANITARY SEWER TO BE REMOVED
- EXISTING STORM SEWER TO BE REMOVED
- TEMPORARY GRAVEL ACCESS ROAD SEE DETAIL ON SHEET C7.01

KEYED NOTES TO SHEET:

1. EXISTING STORM SEWER INLET TO REMAIN
2. EXISTING STORM SEWER INLET TO BE REMOVED
3. EXISTING SANITARY SEWER MANHOLE TO REMAIN. PROPOSED 8" SAN.SWR. TO MATCH EXISTING FLOWLINE OF 18.83.
4. EXISTING SANITARY SEWER MANHOLE TO REMAIN DURING REROUTE/PHASE 1. PLUG EXISTING 8" LINE THAT IS TO BE REMOVED.
5. PROPOSED CATCH BASIN CONSTRUCTED ON EXISTING 15" STORM SEWER LINE AT FLOWLINE: 22.55± SEE DETAIL SHEET C7.02 FOR PARK EQUIPMENT CATCH BASIN DETAIL.
6. PROPOSED 5LF 6" SAN.SWR. ROUTED TO PROPOSED SAN.SWR. MANHOLE. CONTRACTOR SHALL INSTALL 2 45° BENDS & 1 CLEANOUT PRIOR TO CONNECTION TO PROPOSED MANHOLE.

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE CALL SYSTEM
811
TEXAS LAW REQUIRES YOU TO CALL BEFORE YOU DIG

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281

BRIAN W. REED
120433
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C0.05

UTILITY REROUTE & TEMPORARY ACCESS ROAD FOR INTERIM PHASE

PROPOSED PAVEMENT AREA ON SITE

* Sidewalk Pavement On Site	28,615.74	SF
* Parking Lot/Drive On Site	104,007.70	SF

PROPOSED BUILDING
FFE=25.50

ORLEANS STREET (60' R.O.W.) VOL. 46, PG. 3, H.C.M.R.

BERESFORD STREET (60' R.O.W.) VOL. 46, PG. 3, H.C.M.R.

CIMARRON STREET (60' R.O.W.) VOL. 30, PG. 27, H.C.M.R.

EMPORIA STREET (60' R.O.W.) VOL. 46, PG. 3, H.C.M.R.

METHODIST CHURCH HOME OWNED ESTATES SECTION FIVE VOL. 46, PG. 3, H.C.M.R

HOME OWNED ESTATES SECTION FIVE VOL. 46, PG. 3, H.C.M.R.

HOME OWNED ESTATES SECTION FOUR VOL. 38, PG. 56, H.C.M.R.

HOME OWNED ESTATES SECTION TWO VOL. 30, PG. 28, H.C.M.

N86°47'31"E 977.50'

N03°12'29"W 620.00'

SCALE: 1"= 40'

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281

BRYAN W. REED
120433
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

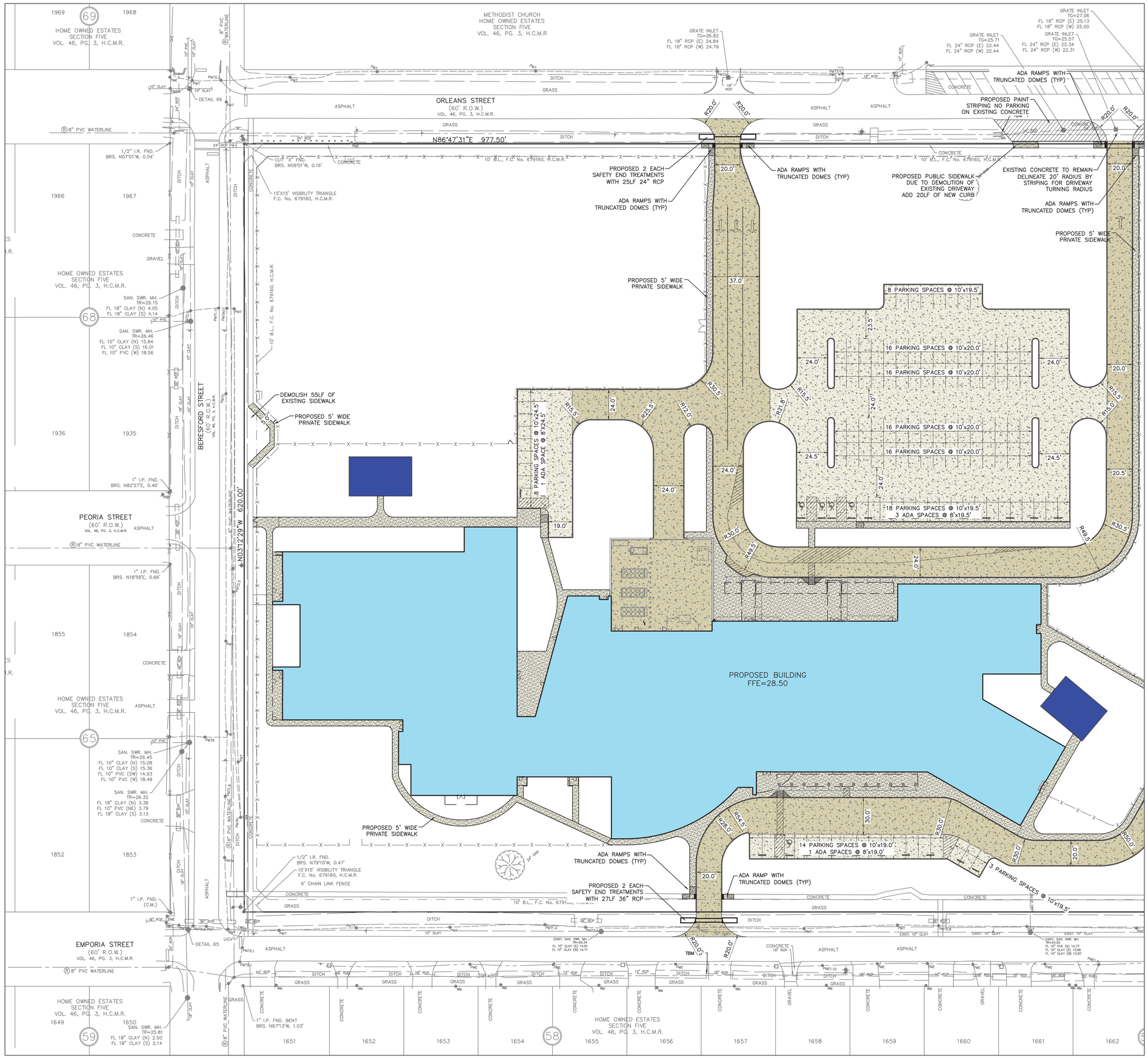
UTILITY ONE CALL

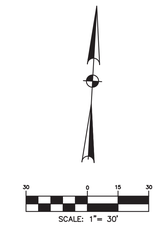
CONTRACTOR TO CALL BEFORE DIGGING!!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE CALL SYSTEM
811 CALL BEFORE YOU DIG

C1.00

OVERALL LAYOUT





LEGEND:

- PROPOSED BUILDING FOOTPRINT
- 8" REINFORCED CONCRETE PAVEMENT
- 6" REINFORCED CONCRETE PAVEMENT
- 4.5" REINFORCED SIDEWALK
- PROPOSED PLAYGROUND

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE CALL SYSTEM
811
TEXAS LAW REQUIRES YOU TO CALL BEFORE YOU DIG

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

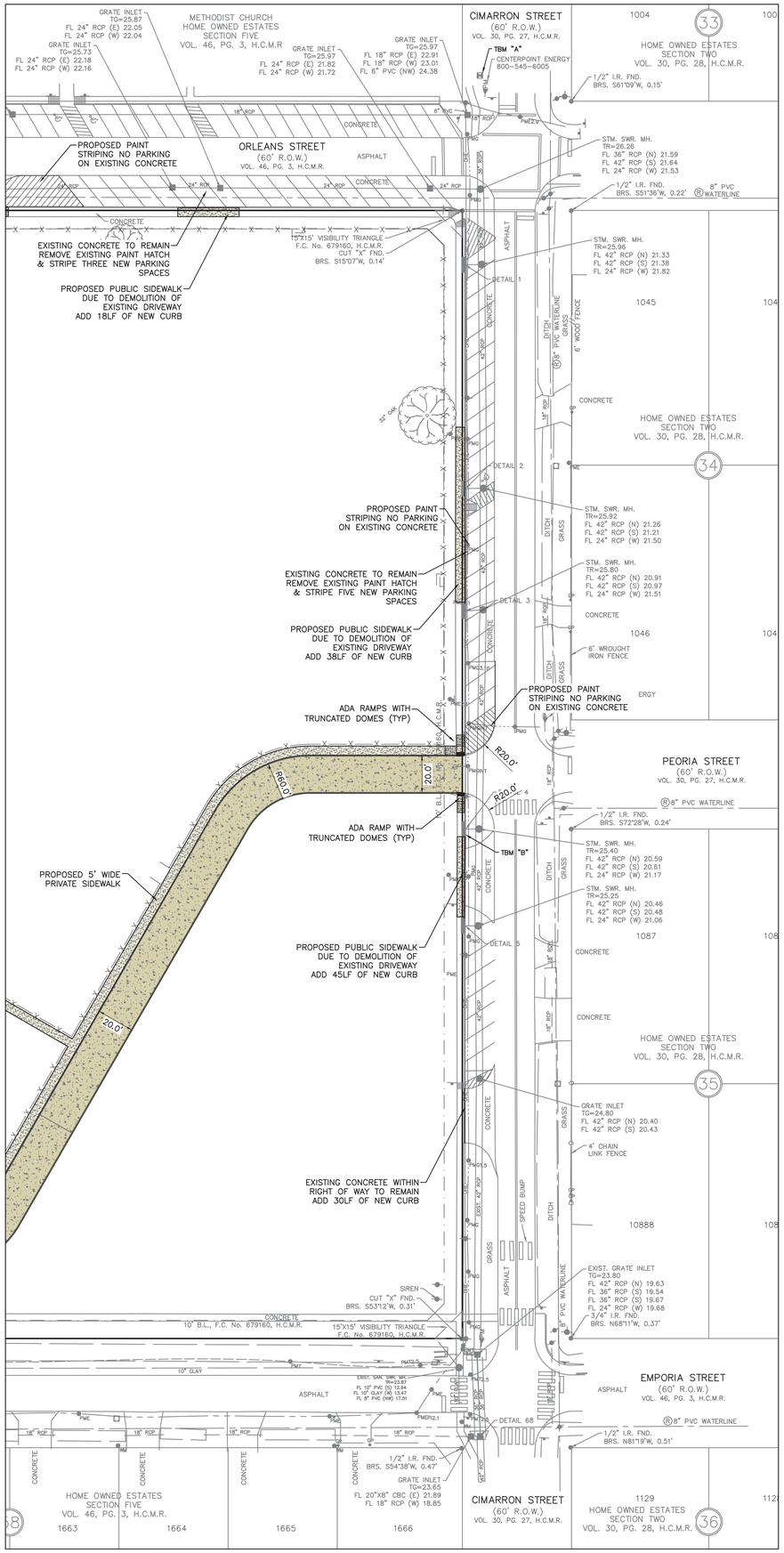
TALON ENGINEERING, LLC
F-24281
BRIAN W. REED
120433
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C1.01

SITE LAYOUT (SHEET 1 OF 2)





LEGEND:

- PROPOSED BUILDING FOOTPRINT
- 8" REINFORCED CONCRETE PAVEMENT
- 6" REINFORCED CONCRETE PAVEMENT
- 4.5" REINFORCED SIDEWALK
- PROPOSED PLAYGROUND

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS) DIAL 811
(OUTSIDE TEXAS) DIAL 1-800-344-8377

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

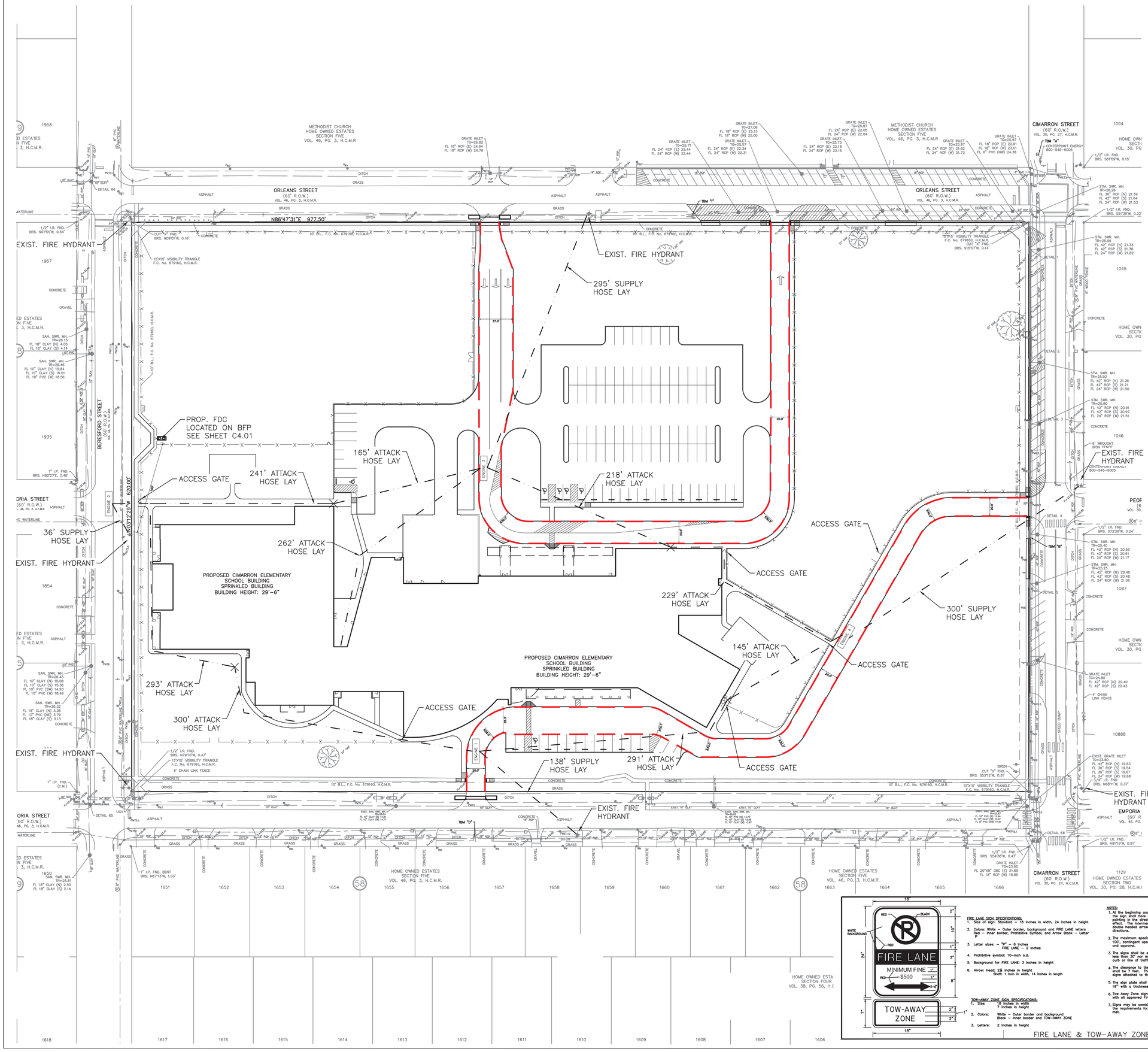
TALON ENGINEERING, LLC
F-24281
BRIAN W. REED
120033
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C1.02

SITE LAYOUT (SHEET 2 OF 2)



SCALE: 1"= 40'

LEGEND:

SYMBOL	DESCRIPTION
— — —	ACCESS ROAD/FIRE LANE PAINT RED LANE STRIPE
◆	EXISTING FIRE HYDRANT

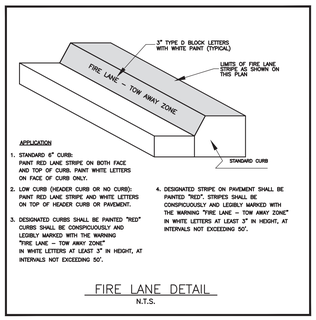
FIRE LANE NOTES

CURBS LOCATED ON EITHER SIDE OF A FIRE LANE SHALL BE PAINTED RED OR A RED STRIPE SHALL BE PLACED ALONG THE PAVEMENT WHERE THERE IS NO CURB. WHERE A FIRE LANE PASSES BETWEEN HEAD IN PARKING SPACES, THE RED STRIPE SHOULD BE PLACED ALONG THE REAR OF THESE SPACES CLEARLY DEFINING THE FIRE LANE. PAINTED CURBS AND FIRE LANE STRIPES SHALL ALSO BE CONSPICUOUSLY AND LEGIBLY MARKED WITH THE WARNING "FIRE LANE – TOW AWAY ZONE" IN WHITE LETTERS AT LEAST THREE (3) INCHES IN HEIGHT, AT INTERVALS NOT EXCEEDING (50) FEET. WHERE FIRE LANES ARE NOT CLEARLY DEFINED BY CURB/PAVEMENT STRIPING, FIRE LANE SIGNS ARE REQUIRED. FIRE LANE SIGNS SHOULD BE PLACED EVERY (100) FEET MAXIMUM, ALTERNATING PLACEMENT OF SIGNS ON EACH SIDE OF FIRE ACCESS LANE.

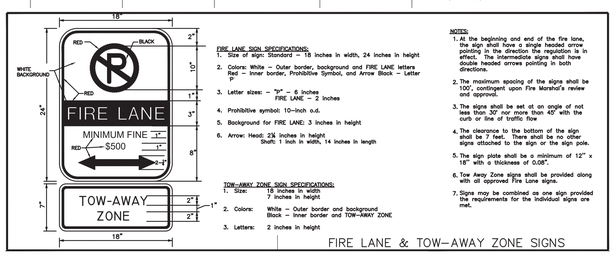
ANY COLOR OTHER THAN RED MAY BE USED IN "NO PARKING" AREAS THAT ARE NOT APPROVED FIRE LANES. RED COLORED CURBS; PAVEMENT STRIPING OR WHEEL STOPS SHALL BE USED ONLY TO DESIGNATE APPROVED FIRE LANES. THE PLANS WILL BE APPROVED WITH THE CIVIL SITE–PLAN REVIEW BUT MAY BE REVISED AT FIRE CODE REVIEW, BY THE BUILDING OFFICIAL.

CONTRACTOR TO PLACE FIRE LANE SIGN AT A MAXIMUM INTERVAL OF 100' ALONG PROPOSED FIRE LANE. CONTRACTOR TO COORDINATE WITH LOCAL FIRE MARSHAL/FIRE INSPECTOR FOR FINAL LOCATION OF PROPOSED SIGNAGE.

ALL FIRE LANE SHOWN SHALL BE 7" REINFORCED CONCRETE PAVEMENT & SHALL MEET LOAD CAPACITY OF 90,000 POUNDS.



FIRE LANE DETAIL
N.T.S.



FIRE LANE SIGN SPECIFICATIONS:
1. Size of sign: Standard – 18 inches in width, 24 inches in height
2. Colors: White – Outer border, background and FIRE LANE letters Red – Inner border, Prohibitive Symbol, and Arrow Black – Letter Red
3. Letter sizes: – "F" – 6 inches FIRE LANE – 2 inches
4. Prohibitive symbol: 10–inch o.d.
5. Background for FIRE LANE: 3 inches in height
6. Arrow: Head: 2X inches in height Shaft: 1 inch in width, 14 inches in length

TOW–AWAY ZONE SIGN SPECIFICATIONS:
1. Size: 18 inches in width 7 inches in height
2. Colors: White – Outer border and background Black – Inner border and TOW–AWAY ZONE
3. Letters: 2 inches in height

NOTES:
1. At the beginning and end of the fire lane, the sign shall have a single headed arrow, pointing in the direction the regulation is in effect. The intermediate signs shall have double headed arrows pointing in both directions.
2. The maximum spacing of the signs shall be 100', contingent upon Fire Marshal's review and approval.
3. The signs shall be set at an angle of not less than 30° nor more than 45° with the curb or line of traffic flow.
4. The clearance to the bottom of the sign shall be 7 feet. There shall be no other signs attached to the sign or the sign pole.
5. The sign plate shall be a minimum of 12" x 18" with a thickness of 0.08".
6. Tow Away Zone signs shall be provided along with all approved Fire Lane signs.
7. Signs may be combined as one sign provided the requirements for the individual signs are met.

FIRE LANE & TOW–AWAY ZONE SIGNS

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1–800–344–8377

TEXAS ONE CALL SYSTEM
TEXAS LAW REQUIRES ONE WORKING DAY NOTICE CALL BEFORE YOU DIG

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

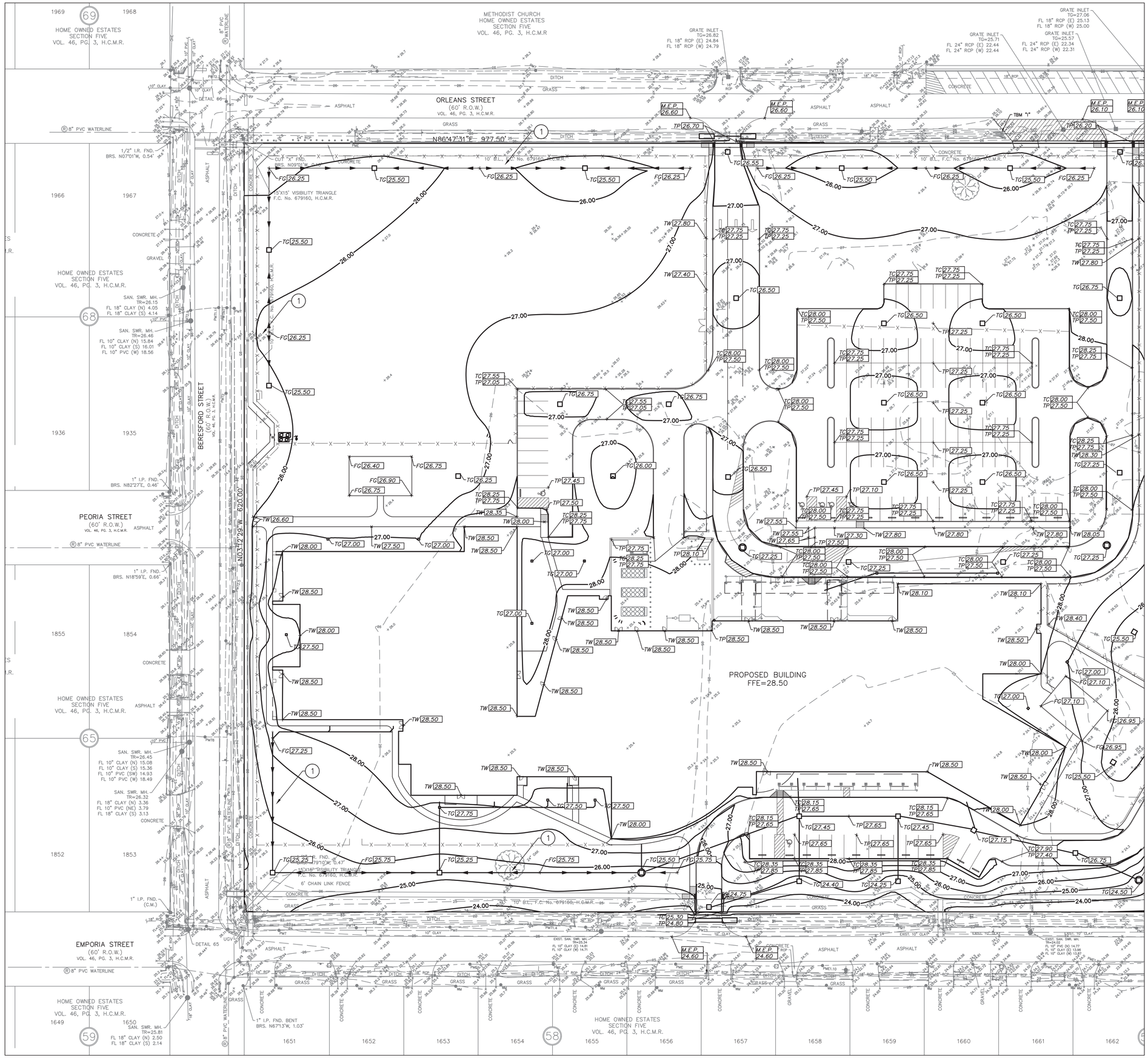
TALON ENGINEERING, LLC
F–24281
BRYAN W. REED
126933
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C1.03

FIRE ACCESS LAYOUT





LEGEND:

- PROPOSED GRATE/CURB INLET
- PROPOSED STORM SEWER MANHOLE WITH GRATE TOP
- EXISTING INLET
- TC 27.00 — PROPOSED TOP OF CURB ELEV.
- TP 27.00 — PROPOSED TOP OF PVMT ELEV.
- TW 27.00 — PROPOSED TOP OF WALK ELEV.
- FL 27.00 — PROPOSED FLOWLINE ELEV.
- FG 27.00 — PROPOSED FINISHED GRADE ELEV.
- TG 27.00 — PROPOSED TOP OF GRATE ELEV.
- 27.00 — PROPOSED CONTOUR
- M.E.C. — MATCH EXIST. CURB & GUTTER
- M.E.P. — MATCH EXIST. PAVEMENT
- M.E.W. — MATCH EXIST. WALK
- DIRECTION OF FLOW
- PROPOSED GRADE BREAK

KEYED NOTES TO SHEET:

1. ALL PROPOSED SWALES SHALL HAVE A MINIMUM 2-FOOT SETBACK FROM THE TOP OF CUT OF SWALE TO THE PROPERTY LINE.

   SWALE SHALL NOT BE ENGINEER COMPACTED AFTER EXCAVATION & WILL BE SODDED BACK. SEE DETAIL SHEET C7.02.

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE CALL SYSTEM
811
IT'S THE LAW!
TEXAS LAW REQUIRES YOU TO CALL BEFORE YOU DIG

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281

BRIAN W. REED
124433
LICENSED
PROFESSIONAL ENGINEER

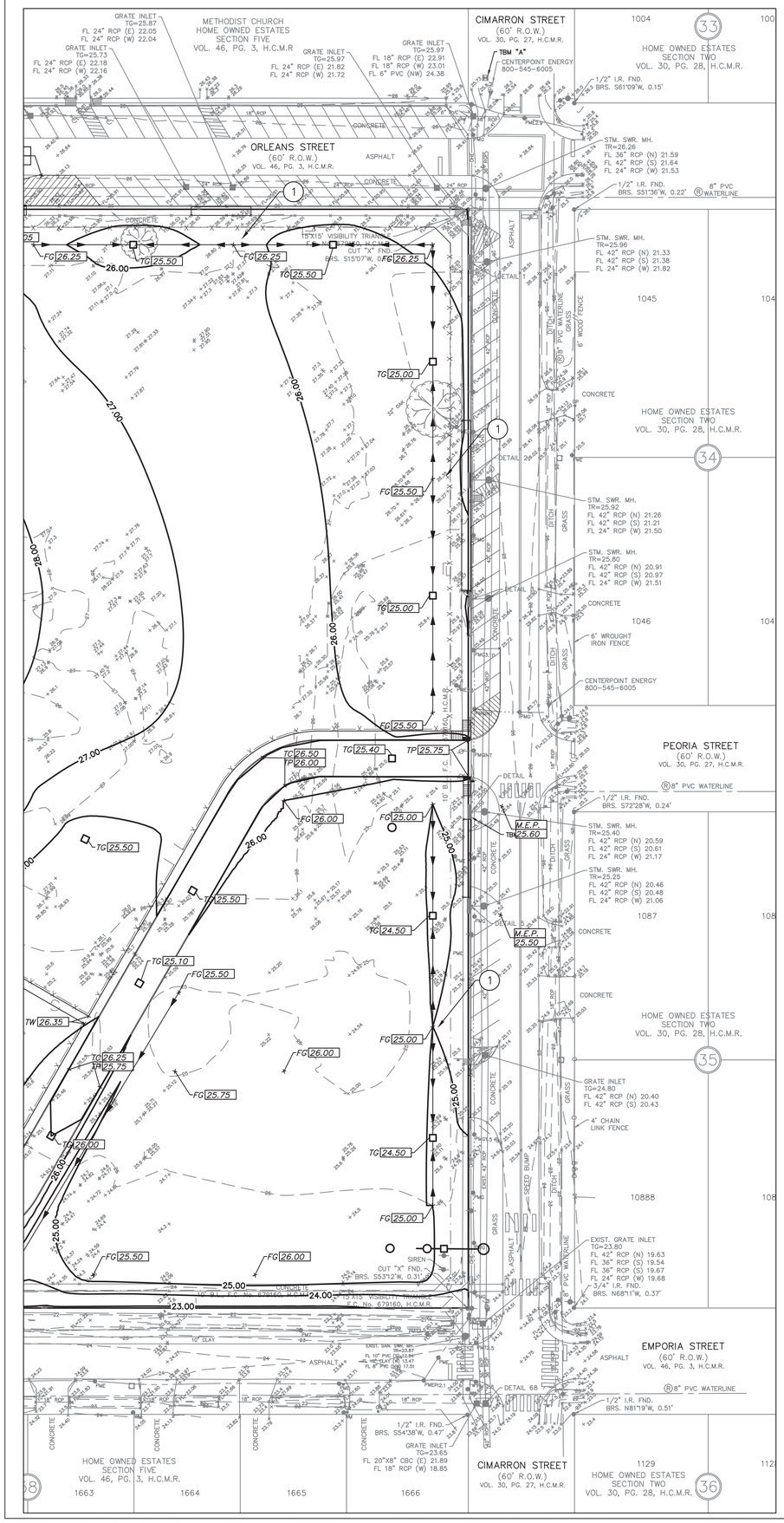
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C2.01

GRADING LAYOUT
(SHEET 1 OF 2)





LEGEND:

- PROPOSED GRATE/CURB INLET
- PROPOSED STORM SEWER MANHOLE WITH GRATE TOP
- EXISTING INLET
- TC 27.00 — PROPOSED TOP OF CURB ELEV.
- TP 27.00 — PROPOSED TOP OF PVMT ELEV.
- TW 27.00 — PROPOSED TOP OF WALK ELEV.
- FL 27.00 — PROPOSED FLOWLINE ELEV.
- FG 27.00 — PROPOSED FINISHED GRADE ELEV.
- TG 27.00 — PROPOSED TOP OF GRATE ELEV.
- 27.00 — PROPOSED CONTOUR
- M.E.C. — MATCH EXIST. CURB & GUTTER
- M.E.P. — MATCH EXIST. PAVEMENT
- M.E.W. — MATCH EXIST. WALK
- DIRECTION OF FLOW
- PROPOSED GRADE BREAK

KEYED NOTES TO SHEET:

(1) ALL PROPOSED SWALES SHALL HAVE A MINIMUM 2-FOOT SETBACK FROM THE TOP OF CUT OF SWALE TO THE PROPERTY LINE.

SWALE SHALL NOT BE ENGINEER COMPACTED AFTER EXCAVATION & WILL BE SODDED BACK. SEE DETAIL SHEET C7.02.

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE-CALL SYSTEM
TEXAS LAW REQUIRES YOU TO CALL BEFORE YOU DIG

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

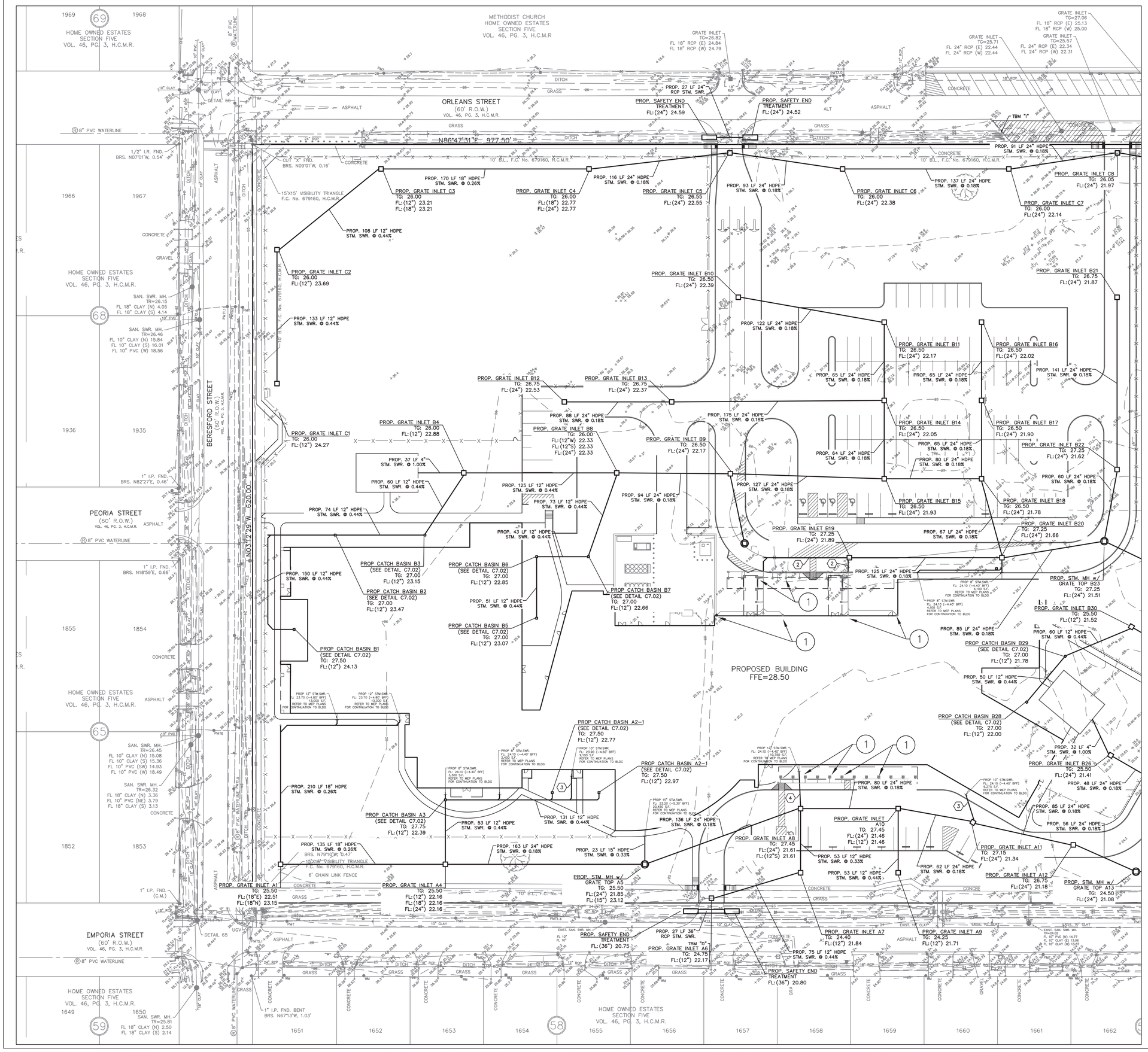
TALON ENGINEERING, LLC
F-24281
BRYAN W. REED
120433
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C2.02

GRADING LAYOUT
(SHEET 2 OF 2)





LEGEND:

- PROPOSED MANHOLE
- PROPOSED MANHOLE W/GRATE TOP
- PROPOSED GRATE/CURB INLET
- EXISTING INLET
- FL — FLOW LINE
- C.O. — PROPOSED CLEANOUT
- (1) — PROP. 6" STM. SWR. @ 1.00% MIN.
- (2) — PROP. 8" STM. SWR. @ 1.00% MIN.
- (3) — PROP. 10" STM. SWR. @ 1.00% MIN.
- (4) — PROP. 12" STM. SWR. @ 1.00% MIN.

KEYED STORM NOTES TO SHEET:

(1) CANOPY DOWNSPOUTS TO BE TAKEN TO UNDERGROUND STORM SEWER. REFER TO PLUMBING PLANS FOR DOWNSPOUT DESIGN.

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE CALL SYSTEM "TEXAS811.ORG" DIAL 811 OR 1-800-245-4545 CALL BEFORE YOU DIG

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

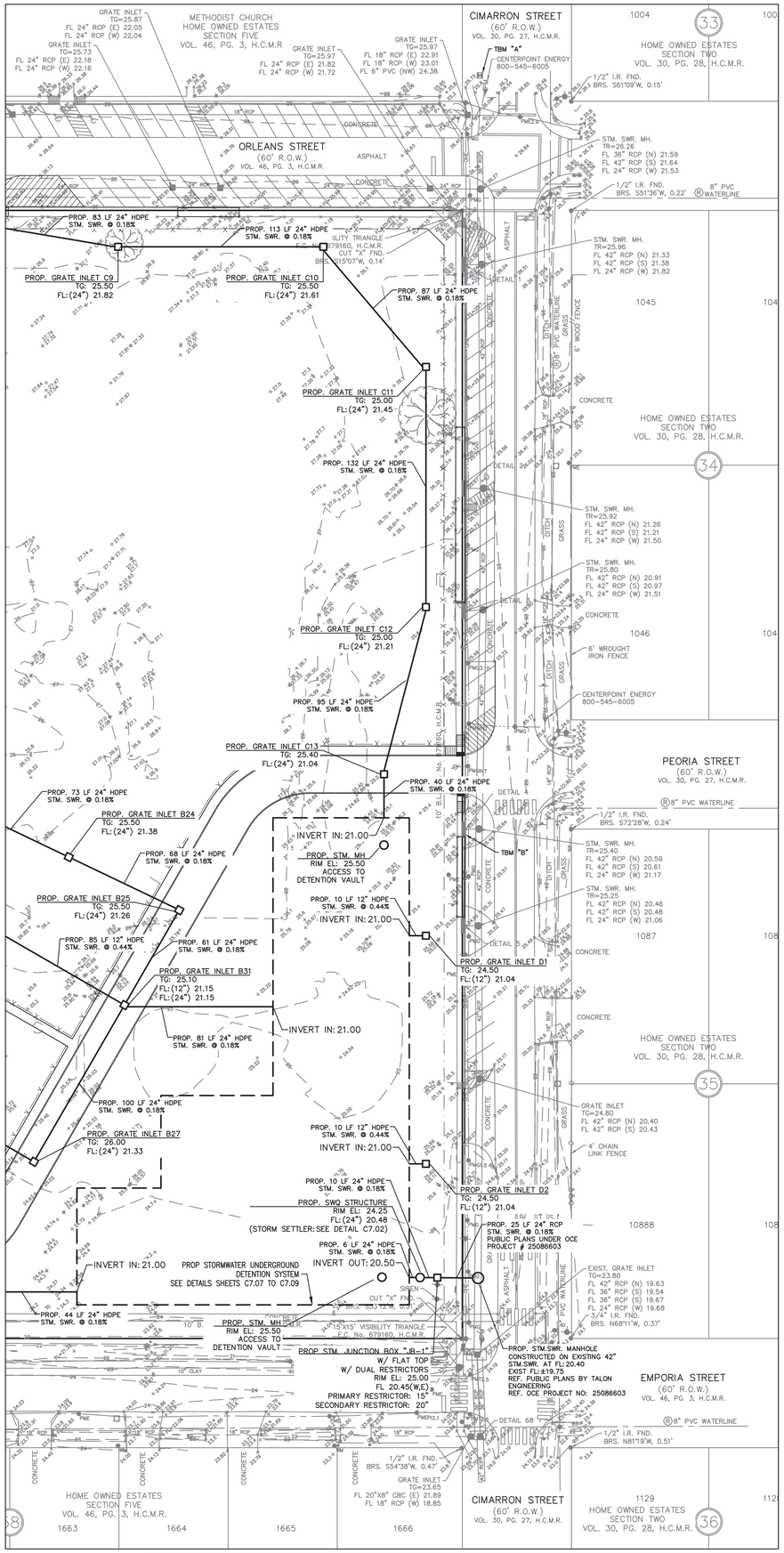
TALON ENGINEERING, LLC
F-24281
BRIAN W. REED
124433
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C3.01

STORM SEWER LAYOUT
(SHEET 1 OF 2)





LEGEND:

○	PROPOSED MANHOLE
◎	PROPOSED MANHOLE W/GRATE TOP
□	PROPOSED GRATE/CURB INLET
■	EXISTING INLET
FL	FLOW LINE
C.O.	PROPOSED CLEANOUT
①	PROP. 6" STM. SWR. @ 1.00% MIN.
②	PROP. 8" STM. SWR. @ 1.00% MIN.
③	PROP. 10" STM. SWR. @ 1.00% MIN.
④	PROP. 12" STM. SWR. @ 1.00% MIN.

DETENTION SYSTEM SHALL BE PROPERLY OPERATED AND MAINTAINED BY PROPERTY OWNER AFTER ACCEPTANCE.

DETENTION SYSTEM TO BE COMPLETELY DRAINED WITHIN 48-HOURS.

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE CALL SYSTEM
811 DIG SAFE
DIG SAFE BEFORE YOU DIG

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281

BRIAN W. REED
120623
LICENSED
PROFESSIONAL ENGINEER

10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C3.02

STORM SEWER LAYOUT
(SHEET 2 OF 2)

2-YEAR STORM SEWER CALCULATIONS

Talon Engineering, LLC — STORM SEWER CALCULATION SHEET

Project Information: Project: Cimarron Elementary School; Job No.: 248-0001; System: System "A"; Designed: BWR; Checked: BWR

HGL Tie-In (ft): 23.00; Frequency: 2; b = 48.35; d = 9.07; e = 0.7244

Line	Manholes/Inlets from	Manholes/Inlets to	Local Area acre	Bldg. Area acre	Total Area acre	C Factor Local Area	C Factor Bldg Area	Tc minutes	I in/hr	Local Q cfs	Add. Q cfs	Total Q cfs	Reach ft	Pipe Size in	Line Type	Slope %	n	Design Q cfs	Design V fps	Flowline Elevation upstrm	Flowline Elevation dwnstrm	HGL upstrm	HGL dwnstrm	TG elev	TG-HGL ft	Cover ft
A01	1	4	0.41	0.60	1.01	0.18	0.80	25.02	3.75	0.28	1.81	2.09	135	18	HDPE	0.26	0.012	5.82	3.29	22.51	22.16	24.23	24.19	25.50	1.27	1.49
A02-1	2-1	2-2	0.03	0.00	0.03	0.18	0.80	20.39	4.17	0.02	0.00	0.02	45	12	HDPE	0.44	0.012	2.57	3.27	22.97	22.77	24.27	24.27	27.50	3.23	3.53
A02-2	2-2	3	0.03	0.21	0.27	0.18	0.80	20.83	4.12	0.02	0.69	0.73	86	12	HDPE	0.44	0.012	2.57	3.27	22.77	22.39	24.27	24.24	27.50	3.23	3.73
A03	3	4	0.03	0.13	0.43	0.18	0.80	21.10	4.10	0.02	0.43	1.19	53	12	HDPE	0.44	0.012	2.57	3.27	22.39	22.16	24.24	24.19	27.75	3.51	4.36
A04	4	5	0.25	0.00	1.69	0.18	0.80	25.02	3.75	0.17	0.00	3.44	163	24	HDPE	0.18	0.012	10.43	3.32	22.16	21.85	24.19	24.16	25.50	1.31	1.34
A05	5	8	0.21	0.47	2.37	0.18	0.80	25.71	3.70	0.14	1.39	4.97	136	24	HDPE	0.18	0.012	10.43	3.32	21.85	21.61	23.91	23.85	25.50	1.59	1.65
A06	6	7	0.04	0.00	0.04	0.80	0.80	20.67	4.14	0.13	0.00	0.13	75	12	HDPE	0.44	0.012	2.57	3.27	22.17	21.84	23.66	23.66	24.75	1.09	1.58
A07	7	8	0.11	0.00	0.15	0.18	0.80	20.94	4.11	0.08	0.00	0.21	53	12	HDPE	0.44	0.012	2.57	3.27	21.84	21.61	23.66	23.66	24.40	0.74	1.56
A08	8	10	0.11	0.25	2.88	0.80	0.80	25.71	3.70	0.33	0.73	6.24	80	24	HDPE	0.18	0.012	10.43	3.32	21.61	21.46	23.66	23.61	27.45	3.79	3.84
A09	9	10	0.10	0.00	0.10	0.18	0.80	21.67	4.04	0.07	0.00	0.07	53	12	HDPE	0.44	0.012	2.57	3.27	21.71	21.46	23.51	23.51	24.25	0.74	1.54
A10	10	11	0.13	0.00	3.11	0.80	0.80	25.71	3.70	0.38	0.00	6.70	62	24	HDPE	0.18	0.012	10.43	3.32	21.46	21.34	23.51	23.46	27.45	3.94	3.99
A11	11	12	0.06	0.21	3.38	0.80	0.80	26.13	3.66	0.18	0.52	7.50	65	24	HDPE	0.18	0.012	10.43	3.32	21.34	21.18	23.42	23.34	27.15	3.73	3.81
A12	12	13	0.03	0.00	3.41	0.80	0.80	26.42	3.64	0.09	0.00	7.59	56	24	HDPE	0.18	0.012	10.43	3.32	21.18	21.08	23.23	23.18	26.75	3.52	3.57
A13	13	OF-A	0.13	0.00	3.54	0.18	0.80	26.64	3.63	0.08	0.00	7.67	44	24	HDPE	0.18	0.012	10.43	3.32	21.08	21.00	23.04	23.00	24.50	1.46	1.42

Talon Engineering, LLC — STORM SEWER CALCULATION SHEET

Project Information: Project: Cimarron Elementary School; Job No.: 248-0001; System: System "B"; Designed: BWR; Checked: BWR

HGL Tie-In (ft): 23.00; Frequency: 2; b = 48.35; d = 9.07; e = 0.7244

Line	Manholes/Inlets from	Manholes/Inlets to	Local Area acre	Bldg. Area acre	Total Area acre	C Factor Local Area	C Factor Bldg Area	Tc minutes	I in/hr	Local Q cfs	Add. Q cfs	Total Q cfs	Reach ft	Pipe Size in	Line Type	Slope %	n	Design Q cfs	Design V fps	Flowline Elevation upstrm	Flowline Elevation dwnstrm	HGL upstrm	HGL dwnstrm	TG elev	TG-HGL ft	Cover ft
B01	1	2	0.11	0.00	0.11	0.18	0.80	25.14	3.74	0.03	0.00	0.08	150	12	HDPE	0.44	0.012	2.57	3.27	24.13	23.47	25.14	25.13	27.50	2.36	2.37
B02	2	3	0.07	0.00	0.18	0.18	0.80	22.16	4.00	0.05	0.00	0.13	74	12	HDPE	0.44	0.012	2.57	3.27	23.47	23.15	24.48	24.47	27.00	2.52	2.53
B03	3	4	0.05	0.00	0.23	0.18	0.80	22.46	3.97	0.04	0.00	0.17	60	12	HDPE	0.44	0.012	2.57	3.27	23.15	22.88	24.34	24.34	27.00	2.66	2.85
B04	4	5	0.19	0.00	0.42	0.18	0.80	23.10	3.91	0.13	0.00	0.30	125	12	HDPE	0.44	0.012	2.57	3.27	22.88	22.33	24.34	24.34	27.00	2.66	3.12
B05	5	6	0.06	0.00	0.06	0.18	0.80	21.09	4.10	0.04	0.00	0.04	51	12	HDPE	0.44	0.012	2.57	3.27	23.07	22.85	24.34	24.34	27.00	2.66	2.93
B06	6	7	0.05	0.00	0.05	0.18	0.80	21.31	4.08	0.04	0.00	0.08	43	12	HDPE	0.44	0.012	2.57	3.27	22.85	22.66	24.34	24.34	27.00	2.66	3.15
B07	7	8	0.04	0.00	0.15	0.18	0.80	21.68	4.04	0.03	0.00	0.11	73	12	HDPE	0.44	0.012	2.57	3.27	22.66	22.33	24.34	24.34	27.00	2.66	3.34
B08	8	9	0.14	0.00	0.71	0.18	0.80	23.10	3.91	0.10	0.00	0.51	94	24	HDPE	0.18	0.012	10.43	3.32	22.33	22.17	24.34	24.33	26.00	1.66	1.67
B09	9	15	0.16	0.00	0.87	0.80	0.80	23.74	3.86	0.49	0.00	1.00	127	24	HDPE	0.18	0.012	10.43	3.32	22.17	21.93	24.17	24.17	26.50	2.33	2.33
B10	10	11	0.10	0.00	0.10	0.80	0.80	21.67	4.04	0.32	0.00	0.32	122	24	HDPE	0.18	0.012	10.43	3.32	22.39	22.17	24.39	24.39	26.50	2.11	2.11
B11	11	14	0.13	0.00	0.23	0.80	0.80	21.99	4.01	0.42	0.00	0.74	65	24	HDPE	0.18	0.012	10.43	3.32	22.17	22.05	24.17	24.17	26.50	2.33	2.33
B12	12	13	0.13	0.00	0.13	0.80	0.80	21.98	4.01	0.42	0.00	0.42	88	24	HDPE	0.18	0.012	10.43	3.32	22.53	22.37	24.53	24.53	26.75	2.22	2.22
B13	13	14	0.24	0.00	0.37	0.80	0.80	22.86	3.93	0.76	0.00	1.17	175	24	HDPE	0.18	0.012	10.43	3.32	22.37	22.05	24.37	24.37	26.75	2.38	2.38
B14	14	15	0.18	0.00	0.78	0.80	0.80	22.86	3.93	0.57	0.00	2.48	64	24	HDPE	0.18	0.012	10.43	3.32	22.05	21.93	24.06	24.05	26.50	2.44	2.45
B15	15	18	0.30	0.00	1.95	0.80	0.80	23.74	3.86	0.93	0.00	4.41	80	24	HDPE	0.18	0.012	10.43	3.32	21.93	21.78	23.95	23.93	26.50	2.55	2.57
B16	16	17	0.13	0.00	0.13	0.80	0.80	21.98	4.01	0.42	0.00	0.42	65	24	HDPE	0.18	0.012	10.43	3.32	22.02	21.90	24.02	24.02	26.50	2.48	2.48
B17	17	18	0.17	0.00	0.30	0.80	0.80	22.31	3.98	0.54	0.00	0.96	65	24	HDPE	0.18	0.012	10.43	3.32	21.90	21.78	23.90	23.90	26.50	2.60	2.60
B18	18	20	0.28	0.00	2.53	0.80	0.80	23.74	3.86	0.86	0.00	6.23	67	24	HDPE	0.18	0.012	10.43	3.32	21.78	21.66	23.83	23.78	26.50	2.67	2.72
B19	19	20	0.21	0.00	0.21	0.80	0.80	22.60	3.96	0.66	0.00	0.66	125	24	HDPE	0.18	0.012	10.43	3.32	21.89	21.66	23.89	23.89	27.25	3.36	3.36
B20	20	23	0.08	0.19	3.01	0.80	0.80	23.74	3.86	0.25	0.58	7.72	85	24	HDPE	0.18	0.012	10.43	3.32	21.66	21.51	23.75	23.66	27.25	3.50	3.59
B21	21	22	0.07	0.00	0.07	0.80	0.80	21.26	4.08	0.23	0.00	0.23	141	24	HDPE	0.18	0.012	10.43	3.32	21.87	21.62	23.87	23.87	26.75	2.88	2.88
B22	22	23	0.05	0.00	0.12	0.80	0.80	21.56	4.05	0.39	0.00	0.62	60	24	HDPE	0.18	0.012	10.43	3.32	21.62	21.51	23.62	23.62	27.25	3.63	3.63
B23	23	24	0.04	0.00	3.17	0.80	0.80	23.74	3.86	0.12	0.00	8.24	73	24	HDPE	0.18	0.012	10.43	3.32	21.51	21.38	23.59	23.51	27.25	3.66	3.74
B24	24	25	0.26	0.00	3.43	0.18	0.80	24.08	3.83	0.18	0.00	8.42	68	24	HDPE	0.18	0.012	10.43	3.32	21.38	21.26	23.46	23.38	25.50	2.04	2.12
B25	25	31	0.04	0.00	3.47	0.80	0.80	24.39	3.80	0.12	0.00	8.54	61	24	HDPE	0.18	0.012	10.43	3.32	21.26	21.15	23.33	23.26	25.50	2.17	2.24
B26	26	27	0.24	0.00	0.24	0.18	0.80	22.78	3.94	0.17	0.00	0.17	48	24	HDPE	0.18	0.012	10.43	3.32	21.41	21.33	23.41	23.41	25.50	2.09	2.09
B27	27	31	0.04	0.00	0.28	0.80	0.80	23.28	3.90	0.12	0.00	0.29	100	24	HDPE	0.18	0.012	10.43	3.32	21.33	21.15	23.33	23.33	26.00	2.67	2.67
B28	28	29	0.06	0.00	0.06	0.18	0.80	21.09	4.10	0.04	0.00	0.04	50	12	HDPE	0.44	0.012	2.57	3.27	22.00	21.78	23.12	23.12	27.00	3.88	4.00
B29	29	30	0.05	0.00	0.11	0.80	0.80	21.40	4.07	0.04	0.00	0.08	60	12	HDPE	0.44	0.012	2.57	3.27	21.78	21.52	23.12	27.00	3.88	4.22	
B30	30	31	0.23	0.00	0.34	0.18	0.80	21.83	4.03	0.17	0.00	0.25	85	12	HDPE	0.44	0.012	2.57	3.27	21.52	21.15	23.12	23.12	25.50	2.38	2.98
B31	31	OF-B	0.07	0.00	4.16	0.80	0.80	24.39	3.80	0.21	0.00	9.29	81	24	HDPE	0.18	0.012	10.43	3.32	21.15	21.00	23.00	23.00	25.10	1.98	1.95

Talon Engineering, LLC — STORM SEWER CALCULATION SHEET

Project Information: Project: Cimarron Elementary School; Job No.: 248-0001; System: System "C"; Designed: BWR; Checked: BWR

HGL Tie-In (ft): 23.00; Frequency: 2; b = 48.35; d = 9.07; e = 0.7244

Line	Manholes/Inlets from	Manholes/Inlets to	Local Area acre	Bldg. Area acre	Total Area acre	C Factor Local Area	C Factor Bldg Area	Tc minutes	I in/hr	Local Q cfs	Add. Q cfs	Total Q cfs	Reach ft	Pipe Size in	Line Type	Slope %	n	Design Q cfs	Design V fps	Flowline Elevation upstrm	Flowline Elevation dwnstrm	HGL upstrm	HGL dwnstrm	TG elev	TG-HGL ft	Cover ft
C01	1	2	0.54	0.00	0.54	0.18	0.80	23.97	3.84	0.37	0.00	0.37	133	12	HDPE	0.44	0.012	2.57	3.27	24.27	23.69	25.28	25.27	26.00	0.72	0.73
C02	2	3	0.30	0.00	0.84	0.18	0.80	24.52	3.79	0.20	0.00	0.56	108	12	HDPE	0.44	0.012	2.57	3.27	23.69	23.21	24.80	24.78	26.00	1.20	1.32
C03	3	4	0.37	0.00	1.21	0.18	0.80	25.38	3.72	0.25	0.00	0.83	170	18	HDPE	0.26	0.012	5.82	3.29	23.21	22.77	24.78	24.77	26.00	1.22	1.29
C04	4	5	0.84	0.00	2.05	0.18	0.80	25.97	3.68	0.56	0.00	1.38	116	24	HDPE	0.18	0.012	10.43	3.32	22.77	22.55	24.77	24.77	26.00	1.23	1.23
C05	5	6	0.06	0.00	2.11	0.80	0.80	26.43	3.64	0.17	0.00	1.56	93	24	HDPE	0.18	0.012	10.43	3.32	22.55	22.36	24.55	24.55	26.55	2.00	2.00
C06	6	7	0.45	0.00	2.56	0.18	0.18	27.12	3.59	0.29	0.00	1.85	137	24	HDPE	0.18	0.012	10.43	3.32	22.38	22.14	24.39	24.38	26.00	1.61	1.62
C07	7	8	0.47	0.00	3.03	0.18	0.80	27.58	3.56	0.30	0.00	2.15	91	24	HDPE	0.18	0.012	10.43	3.32	22.14	21.97	24.14	24.14	26.00	1.86	1.87
C08	8	9	0.04	0.00	3.07	0.80	0.80	27.99	3.53	0.11	0.00	2.26	83	24	HDPE	0.18	0.012	10.43	3.32	21.97	21.82	23.97	23.97	26.05	2.07	2.08
C09	9	10	0.65	0.00	3.72	0.18	0.80	28.56	3.49	0.41	0.00	2.67	113	24	HDPE	0.18	0.012	10.43	3.32	21.82	21.61	23.84	23.82	25.50	1.68	1.68
C10	10	11	0.23	0.00	3.95	0.18	0.80	29.00	3.46	0.14	0.00	2.81	87	24	HDPE	0.18	0.012	10.43	3.32	21.61	21.45	23.62	23.61	25.50	1.88	1.89
C11	11	12	0.23	0.00	4.18	0.18	0.80	29.66	3.42	0.14	0.00	2.96	132	24	HDPE	0.18	0.012	10.43	3.32	21.45	21.21	23.47	23.45	25.00	1.53	1.55
C12	12	13	0.66	0.00	4.84	0.18	0.80	30.14	3.39	0.40	0.00	3.36	95	24	HDPE	0.18	0.012	10.43	3.32	21.21	21.04	23.23	23.21	25.00	1.77	1.79
C13	13	OF-C	0.05	0.00	4.89	0.80	0.80	30.26	3.38	0.14	0.00	3.49	24	24	HDPE	0.18	0.012	10.43	3.32	21.04	21.00	23.00	23.00	25.40	2.40	2.36

Talon Engineering, LLC — STORM SEWER CALCULATION SHEET

Project Information: Project: Cimarron Elementary School; Job No.: 248-0001; System: System "D"; Designed: BWR; Checked: BWR

HGL Tie-In (ft): 22.00; Frequency: 2; b = 48.35; d = 9.07; e = 0.7244

Line	Manholes/Inlets from	Manholes/Inlets to	Local Area acre	Bldg. Area acre	Total Area acre	C Factor Local Area	C Factor Bldg Area	Tc minutes	I in/hr	Local Q cfs	Add. Q cfs	Total Q cfs	Reach ft	Pipe Size in	Line Type	Slope %	n	Design Q cfs	Design V fps	Flowline Elevation upstrm	Flowline Elevation dwnstrm	HGL upstrm	HGL dwnstrm	TG elev	TG-HGL ft	Cover ft
D01	1	OF-D	0.47	0.00	0.47	0.18	0.80	23.76	3.86	0.33	0.00	0.33	10	12	HDPE	0.44	0.012	2.57	3.27	21.04	21.00	22.00	22.00	24.50	2.50	2.46
D02	2	OF-D	0.82	0.00	0.82	0.18	0.80	24.66	3.78	0.56	0.00	0.56	10	12	HDPE	0.44	0.012	2.57	3.27	21.04	21.00	22.00	22.00	24.50	2.50	2.46

100-YEAR STORM CALCULATIONS

Talon Engineering, LLC — STORM SEWER CALCULATION SHEET

Project Information: Project: Cimarron Elementary School; Job No.: 248-0001; System: System "A"; Designed: BWR; Checked: BWR

HGL Tie-In (ft): 23.00; Frequency: 100; b = 60.66; d = 4.44; e = 0.5797

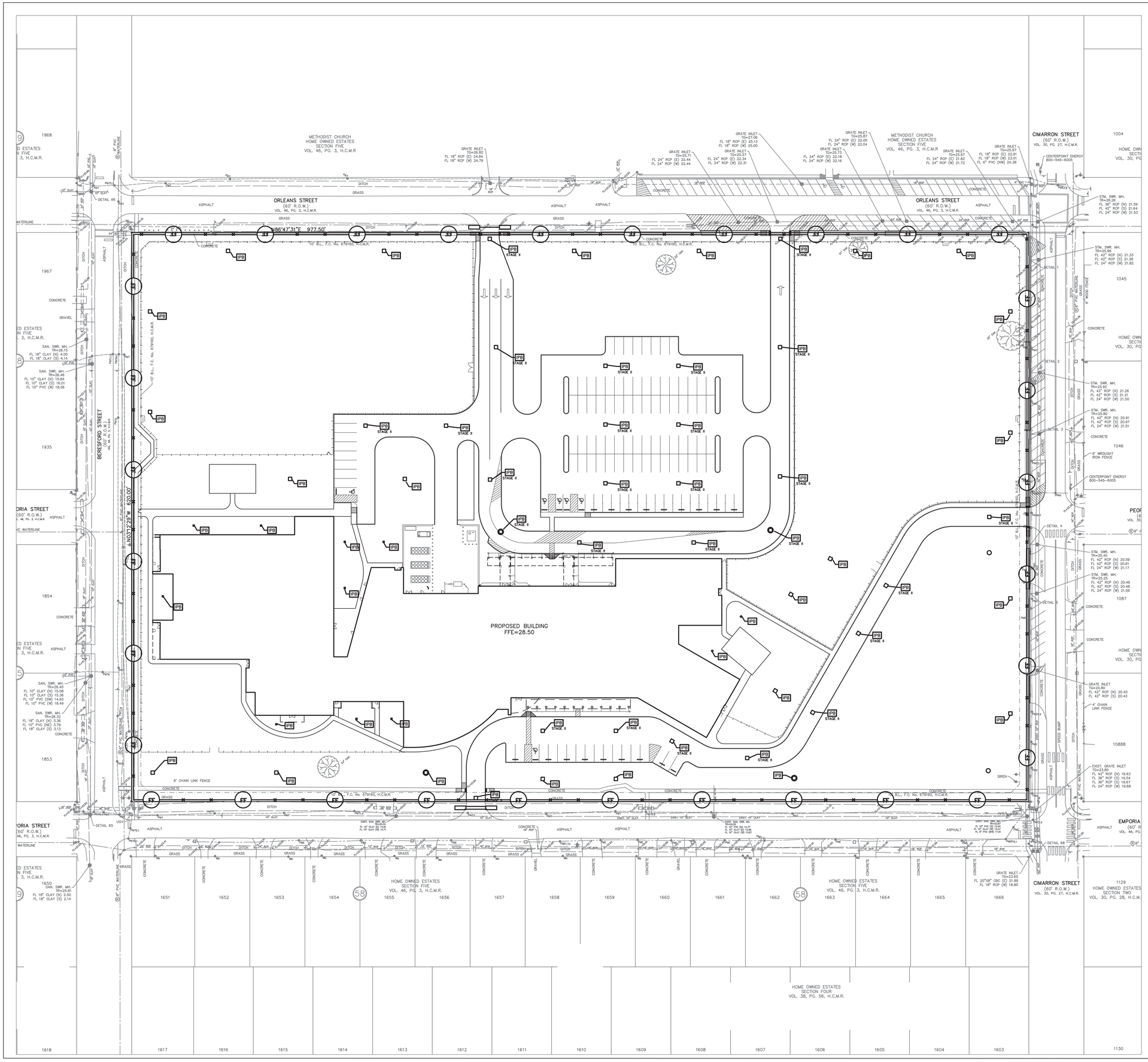
Line	Manholes/Inlets from	Manholes/Inlets to	Local Area acre	Bldg. Area acre	Total Area acre	C Factor Local Area	C Factor Bldg Area	Tc minutes	I in/hr	Local Q cfs	Add. Q cfs	Total Q cfs	Reach ft	Pipe Size in	Line Type	Slope %	n	Design Q cfs	Design V fps	Flowline Elevation upstrm	Flowline Elevation dwnstrm	HGL upstrm	HGL dwnstrm	TG elev	TG-HGL ft	Cover ft
A01	1	4	0.41	0.60	1.01	0.18	0.80	25.02	8.53	0.63	4.12	4.75	135	18	HDPE	0.26	0.012	5.82	3.29	22.51	22.16	25.10	24.86	25.50	0.40	1.49
A02-1	2-1	2-2	0.03	0.00	0.03	0.18	0.80	20.39	9.42	0.05	0.00	0.05	45	12	HDPE	0.44	0.012	2.57	3.27	22.97	22.77	25.28	25.28	27.50	2.22	3.53
A02-2	2-2	3	0.03	0.21	0.27	0.18	0.80	20.83	9.33	0.05	1.56	1.66	86	12	HDPE	0.44	0.012	2.57	3.27	22.77	22.39	25.28	25.12	27.50	2.22	3.73
A03	3	4	0.03	0.13	0.43	0.18	0.80	21.10	9.27	0.05	0.97	2.68	53	12	HDPE	0.44	0.012	2.57	3.27	22.39	22.16	25.12	24.96	27.75	2.63	4.36
A04	4	5	0.25	0.00	1.69	0.18	0.80	25.02	8.53	0.38	0.00	7.82	163	24	HDPE	0.18	0.012	10.43	3.32	22.16	21.85	24.86	24.70	25.50	0.64	1.34
A05	5	8	0.21	0.47	2.37	0.18	0.80	25.71	8.42	0.32	3.15	11.30	136	24	HDPE	0.18	0.012	10.43	3.32	21.85	21.61	24.70	24.41	25.50	0.80	1.65
A06	6	7	0.04	0.00	0.04	0.80	0.80	20.67	9.36	0.30	0.00	0.30	75	12	HDPE	0.44	0.012	2.57	3.27	22.17	21.84	24.42	24.42	24.75	0.33	1.58
A07	7	8	0.11	0.00	0.15	0.18	0.80	20.94	9.30	0.18	0.00	0.48	53	12	HDPE	0.44	0.012	2.57	3.27	21.84	21.61	24.42	24.41	24.40	-0.02	1.56
A08	8	10	0.11	0.25	2.88	0.80	0.80	25.71	8.42	0.74	1.66	14.19	80	24	HDPE	0.18	0.012	10.43	3.32	21.61	21.46	24.41	24.14	27.45	3.04	3.84
A09	9	10	0.10	0.00	0.10	0.18	0.80	21.67	9.15	0.16	0.00	0.16	53	12	HDPE	0.44	0.012	2.57	3.27	21.71	21.46	24.15	24.14	24.25	0.10	1.54
A10	10	11	0.13	0.00	3.11	0.80	0.80	25.71	8.42	0.88	0.00	15.23	62	24	HDPE	0.18	0.012	10.43	3.32	21.46	21.34	24.14	24.14	23.91	27.45	3.31	3.99
A11	11	12	0.06	0.21	3.38	0.80	0.80	26.13	8.35	0.40	1.42	17.05	65	24	HDPE	0.18	0.012	10.43	3.32	21.34	21.18	23.91	23.50	27.15	3.24	3.81
A12	12	13	0.03	0.00	3.41	0.80	0.80	26.42	8.31	0.20	0.00	17.25	56	24	HDPE	0.18	0.012	10.43	3.32	21.18	21.08	23.50	23.22	26.75	3.25	3.57
A13	13	OF-A	0.13	0.00	3.54	0.18	0.80	26.64	8.27	0.19	0.00	17.44	44	24	HDPE	0.18	0.012	10.43	3.32	21.08	21.00	23.22	23.00	24.50	1.28	1.42

Talon Engineering, LLC — STORM SEWER CALCULATION SHEET

Project Information: Project: Cimarron Elementary School; Job No.: 248-0001; System: System "B"; Designed: BWR; Checked: BWR

HGL Tie-In (ft): 23.00; Frequency: 100; b = 60.66; d = 4.44; e = 0.5797

Line	Manholes/Inlets from	Manholes/Inlets to	Local Area acre	Bldg. Area acre	Total Area acre	C Factor Local Area	C Factor Bldg Area	Tc minutes	I in/hr	Local Q cfs	Add. Q cfs	Total Q cfs	Reach ft	Pipe Size in	Line Type	Slope %	n	Design Q cfs	Design V fps	Flowline Elevation upstrm	Flowline Elevation dwnstrm	HGL upstrm	HGL dwnstrm	TG elev	TG-HGL ft	Cover ft
B01	1	2	0.11	0.00	0.11	0.18	0.80	25.14	8.43	0.15	0.00	0.92	150	12	HDPE	0.44	0.012	2.57	3.27	24.13	23.47	25.66	25.65	27.50	1.84	2.37
B02	2	3	0.07	0.00	0.18	0.18	0.80	22.16	9.06	0.11	0.00	0.29	74	12	HDPE	0.44	0.012	2.57	3.27	23.47	23.15	25.65	25.65	27.00	1.35	2.53
B03	3	4	0.05	0.00	0.23	0.18	0.80	22.46	9.00	0.08	0.00	0.38	60	12	HDPE	0.44	0.012	2.57	3.27	23.15	22.88	25.65	25.64	27.00	1.35	2.85
B04	4	5	0.19	0.00	0.42	0.18	0.80	23.10	8.87	0.30	0.00	0.68	125	12	HDPE	0.44	0.012	2.57	3.27	22.88	22.33	25.64	25.61	27.00	1.36	3.12
B05	5	6	0.06	0.00	0.06	0.18	0.80	21.09	9.27	0.10	0.00	0.10	51	12	HDPE	0.44	0.012	2.57	3.27	23.07	22.85	25.61	25.61	27.00	1.39	2.93
B06	6	7	0.05	0.00	0.05	0.18	0.80	21.31	9.23	0.08	0.00	0.18	43	12	HDPE	0.44	0.012	2.57	3.27	22.85	22.66	25.61	25.61	27.00	1.39	3.15
B07	7	8	0.04	0.00	0.15	0.18	0.80	21.68	9.15	0.07	0.00	0.25	73	12	HDPE	0.44	0.012	2.57	3.27	22.66	22.33	25.61	25.61	27.00	1.39	3.34
B08	8	9	0.14	0.00	0.71	0.18	0.80	23.10	8.87	0.22	0.00	1.15	94	24	HDPE	0.18	0.012	10.43	3.32	22.33	22.17	25.61	25.60	26.00	0.39	1.67
B09	9	15	0.16	0.00	0.87	0.80	0.80	23.74	8.76	1.12	0.00	2.27	127	24	HDPE	0.18	0.012	10.43	3.32	22.17	21.93	25.60	25.59	26.50	0.90	2.33
B10	10	11	0.10	0.00	0.10	0.80	0.80	21.67	9.15	0.73	0.00	0.73	122	24	HDPE	0.18	0.012	10.43	3.32	22.39	22.17	25.63	25.63	26.50	0.87	2.11
B11	11	14	0.13	0.00	0.23	0.80	0.80	21.99	9.09	0.95	0.00	1.68	65	24	HDPE	0.18	0.012	10.43	3.32	22.17	22.05	25.63	25.63	26.50	0.87	2.33
B12	12	13	0.13	0.00	0.13	0.80	0.80	21.98	9.09	0.95	0.00	0.95	88	24	HDPE	0.18	0.012	10.43	3.32	22.53	22.37	25.65	25.65	26.75	1.10	2.22
B13	13	14	0.24	0.00	0.37	0.80	0.80	22.86	8.92	1.71	0.00	2.66	175	24	HDPE	0.18	0.012	10.43	3.32	22.37	22.05	25.65	25.63	26.75	1.10	2.38
B14	14	15	0.18	0.00	0.78	0.80	0.80	22.86	8.92	1.26	0.00	3.62	64	24	HDPE	0.18	0.012	10.43	3.32	22.05	21.93	25.63	25.59	26.50	0.87	2.45
B15	15	18	0.30	0.00	1.95	0.80



40 0 20 40

SCALE: 1"= 40'

LEGEND:

- PROPOSED INLET
- FF — PROPOSED FILTER FABRIC FENCE (SILT FENCE)
- SBF — PROPOSED STRAW BALE FENCE
- SC — STABILIZED CONSTRUCTION ACCESS
- IPB — INLET PROTECTION BARRIER
- IPB STAGE II — INLET PROTECTION BARRIER (CURB INLET/INLET IN PAVEMENT)
- CONCRETE WASHOUT PIT

KEY NOTES:

1. CONTRACTOR TO COORDINATE FINAL PLACEMENT OF STABILIZED CONSTRUCTION ENTRANCE AND WASH OUT PIT WITH OWNER.

CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION, MAINTENANCE, MODIFICATION AND INSPECTION OF STORM WATER POLLUTION PREVENTION DEVICES AND STRUCTURES TO ENSURE NO SILT OR CONTAMINATED WATER LEAVES THE PROJECT SITE.

SWPPP CONSTRUCTION NOTES

1 CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPP) PLANS TO KEEP SILT AND OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM.

2 DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATION 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 FORM THE EXCAVATED AREA.

4 CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT, ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.

5 CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN(14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.

- DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
- STRUCTURAL CONTROL MEASURES.
- LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

6 CONTRACTOR TO BE RESPONSIBLE TO MAINTAIN EXISTING DITCHES AND OR CULVERTS FOR UNOBSTRUCTED DRAINAGE AT ALL TIMES. WHERE SODDING IS DISTURBED BY EXCAVATION ON BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SEEDING OR SODDING. SLOPES 4:1 OR STEEPER SHALL BE REPLACED BY BLOCK SODDING.

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE-CALL SYSTEM, INC. CALL BEFORE YOU DIG!

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281

BRIAN W. REED
120833
LICENSED
PROFESSIONAL ENGINEER

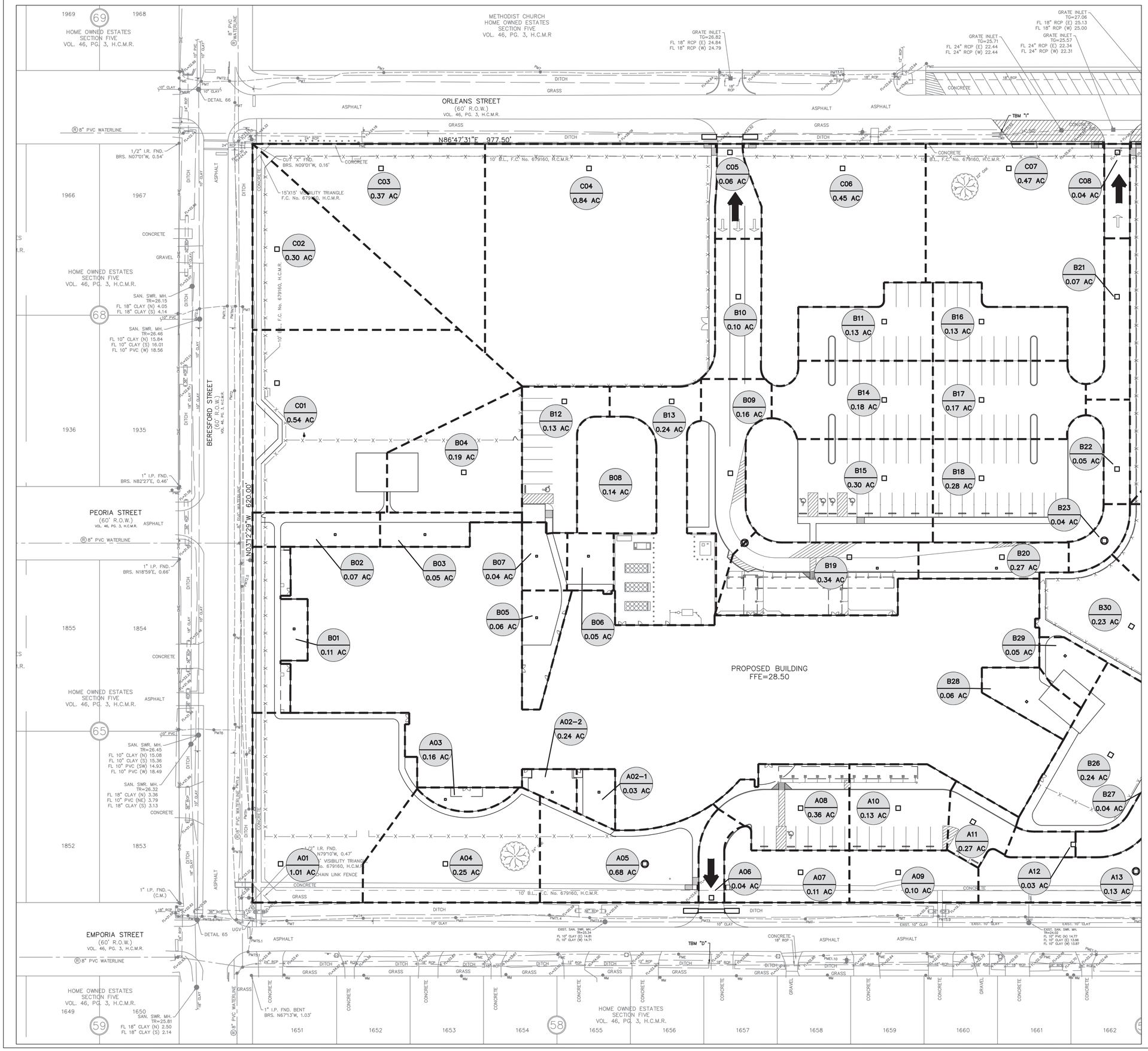
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C3.04

STORM WATER POLLUTION PREVENTION PLAN





LEGEND:

XX / 0.00 — AREA (No.) / AREA (AC)

SYSTEM AREA

EXTREME EVENT SHEET FLOW DIRECTION

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE CALL SYSTEM
811
CALL BEFORE YOU DIG

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281

BRIAN W. REED
125433
LICENSED
PROFESSIONAL ENGINEER

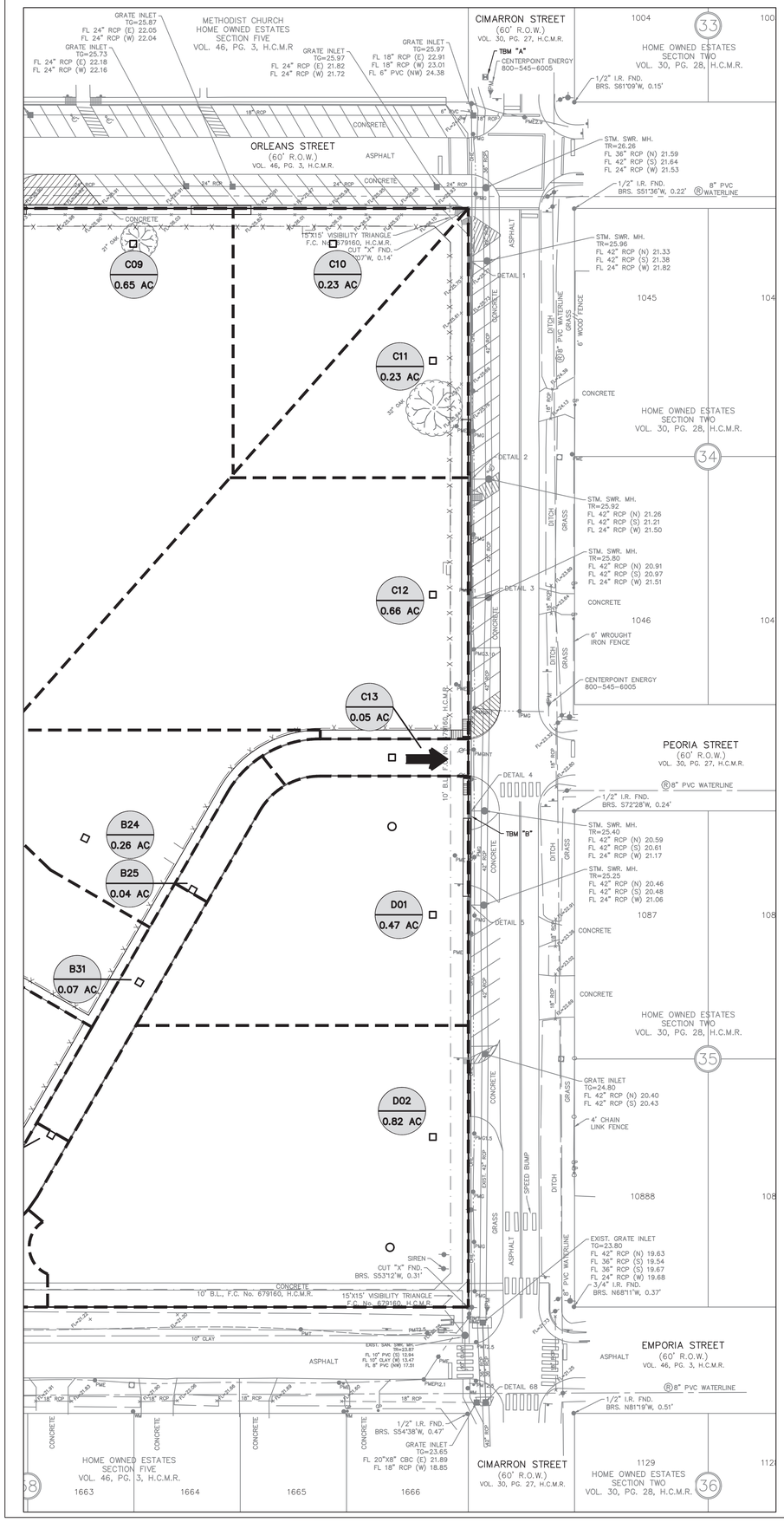
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C3.05

DRAINAGE AREA MAP
(SHEET 1 OF 2)



NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE CALL SYSTEM
811 DIAL BEFORE YOU DIG

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281

BRIAN W. REED
120433
LICENSED
PROFESSIONAL ENGINEER

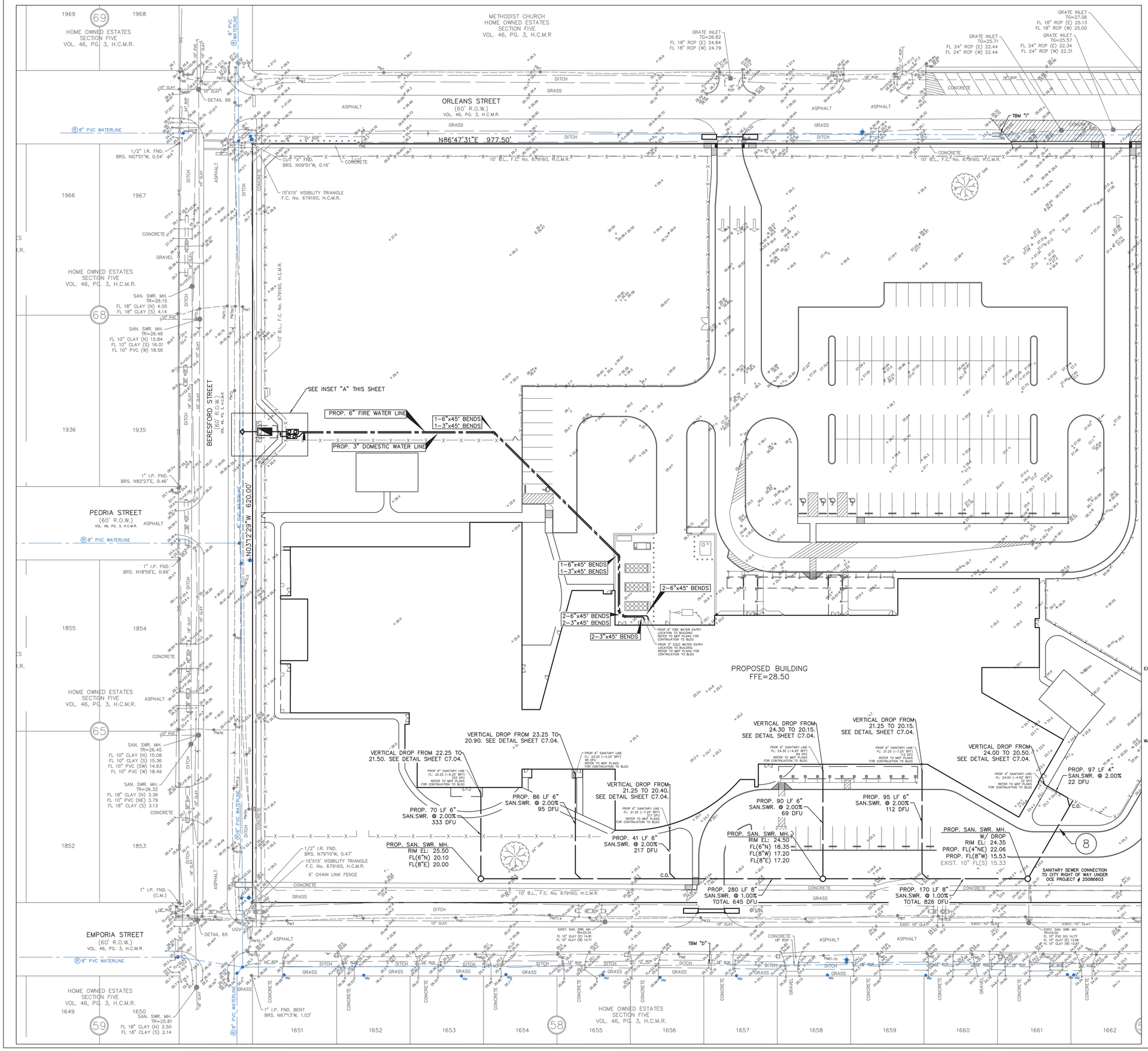
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C3.06

DRAINAGE AREA MAP
(SHEET 2 OF 2)





LEGEND:

- PROPOSED MANHOLE
- C.O. PROPOSED CLEANOUT
- PROPOSED FIRE HYDRANT
- PROPOSED GATE VALVE
- PROPOSED T.S.&V.
- FL FLOW LINE
- DIRECTION OF FLOW

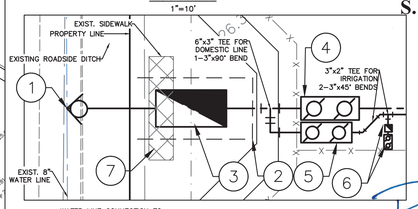
KEYED NOTES TO SHEET:

1. PROPOSED 8"x6" TS&V w/ BOX
2. PROPOSED 10'x20' WATER METER EASEMENT. RECORDED BY SEPARATE INSTRUMENT.
3. PROPOSED 6" COMBINATION FIRE & DOMESTIC WATER METER.
4. PROPOSED 6" FIRE LINE RPZ DOUBLE DETECTOR CHECK BACKFLOW PREVENTER WITH FDC & PIV.
5. PROPOSED 3" DOMESTIC RPZ BACKFLOW PREVENTER WITH ENCLOSURE.
6. PROPOSED 2" PRIVATE IRRIGATION METER. 2" RPZ BACKFLOW PREVENTER DOWNSTREAM OF METER FOR LANDSCAPE PURPOSES.
7. EXISTING SIDEWALK TO BE REMOVED & REROUTED TO FACILITATE NEW WATER METER & WATER METER EASEMENT.
8. 8" SAN.SWR. CONSTRUCTED AS PART OF THE UTILITY REROUTE TO BE REMOVED. SEE SHEET C0.05. CONTRACTOR SHALL RUN NEW 4" SANITARY SEWER TO PROPOSED MANHOLE @ 2.00%

GENERAL NOTES TO SHEET

1. CONTRACTOR SHALL CENTER JOINT OF WATER LINE AT PROPOSED SANITARY SEWER CROSSING. CONTRACTOR SHALL MAINTAIN MINIMUM OF 2' VERTICAL CLEARANCE.
2. CONTRACTOR SHALL CENTER JOINT OF SANITARY SEWER LINE AT PROPOSED WATER LINE CROSSING. CONTRACTOR SHALL MAINTAIN MINIMUM OF 2' VERTICAL CLEARANCE.
3. REFER TO PLUMBING PLANS FOR DOMESTIC AND FIRE WATER DESIGN INSIDE BUILDING.

INSET "A"
1"=10'



CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281
BRIAN W. REED
120433
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

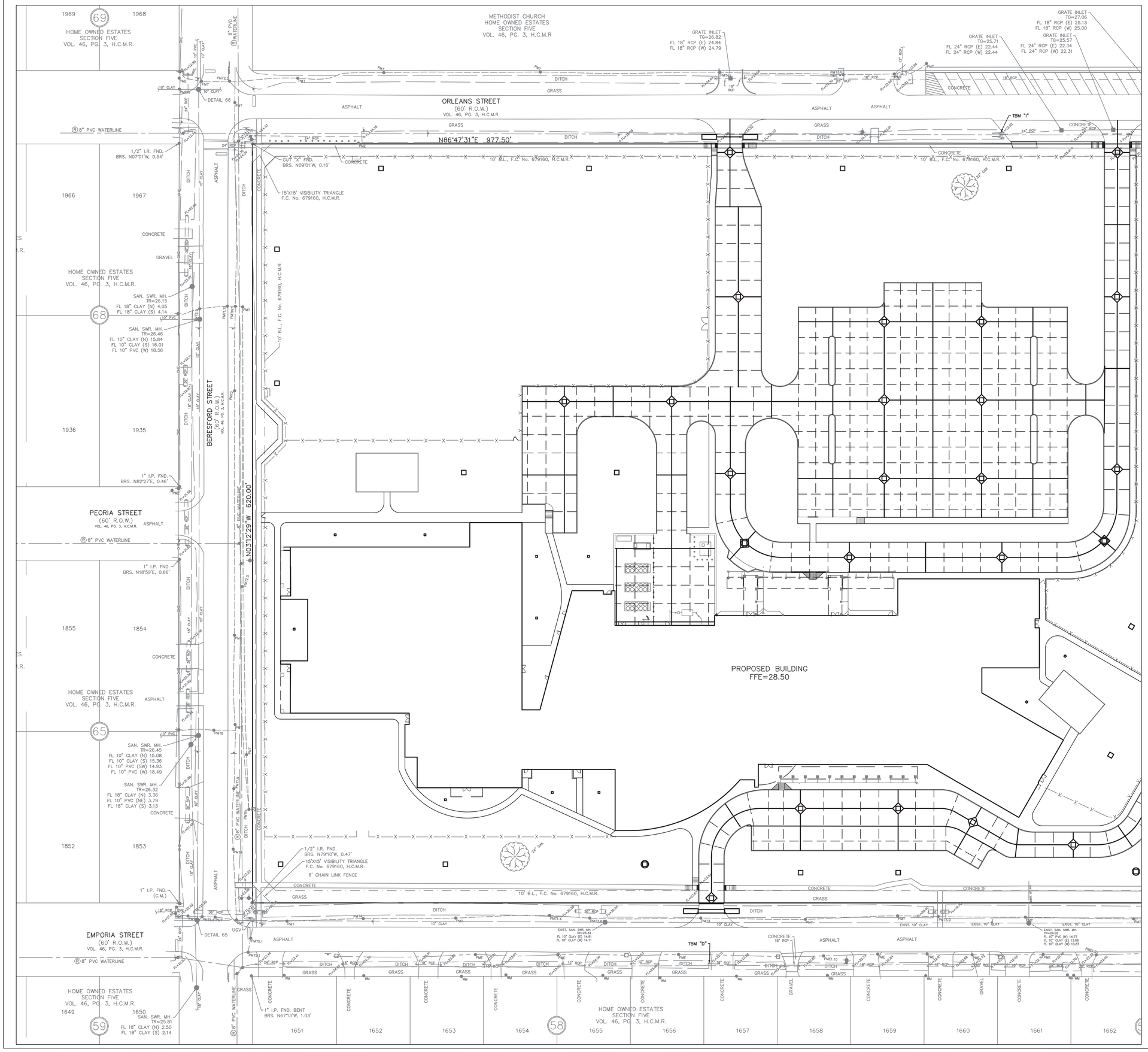
NOTES TO CONTRACTOR:

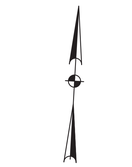
1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL
CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377
TEXAS ONE CALL SYSTEM
811 DIAL BEFORE YOU DIG

C4.01

WATER LINE & SANITARY SEWER LAYOUT





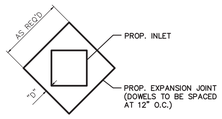
LEGEND:

——— ——— SAWED JOINT

EXPANSION JOINT

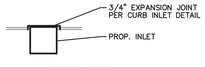
NOTES:

1. LOCATE EXPANSION JOINTS AS SHOWN. SAWED JOINTS SHALL BE SPACED EVENLY BETWEEN EXPANSION JOINTS AT 15' MAXIMUM SPACING.
2. ALL CURBS TO BE 6" UNLESS OTHERWISE NOTED.
3. LINE UP JOINTS IN SIDEWALK W/ JOINTS IN PARKING LOT.
4. INSTALL EXPANSION JOINTS IN ALL DRIVEWAYS AT ROW LINE.
5. SEE ARCHITECT'S PLANS FOR WHEELSTOP LOCATIONS AND SIDEWALK JOINTING.
6. CONTRACTOR TO DRILL 9" INTO EXISTING CONCRETE PAVEMENT AND EMBED 18" LONG #5 BAR (MATCHING EXISTING REBAR SPACING) AND EPOXY IN PLACE LEAVING 9" OF 18" LONG REBAR EXPOSED TO FACILITATE CONNECTION TO PROPOSED PAVEMENT.



D = 24" FOR MANHOLES & GRATE INLETS
D = 12" FOR AREA INLETS & AREA DRAINS

STORM SEWER INLET
W/ EXPANSION JOINT
N.T.S.



CURB INLET
W/ EXPANSION JOINT
N.T.S.

PROPOSED PAVEMENT AREA ON SITE		
* Sidewalk Pavement On Site	28,615.74	SF
* Parking Lot/Drive On Site	104,007.70	SF

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE-CALL SYSTEM
TEXAS LAW REQUIRES ONE WORKING DAY NOTICE
CALL BEFORE YOU DIG

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281

BRYAN W. REED
126433
LICENSED
PROFESSIONAL ENGINEER

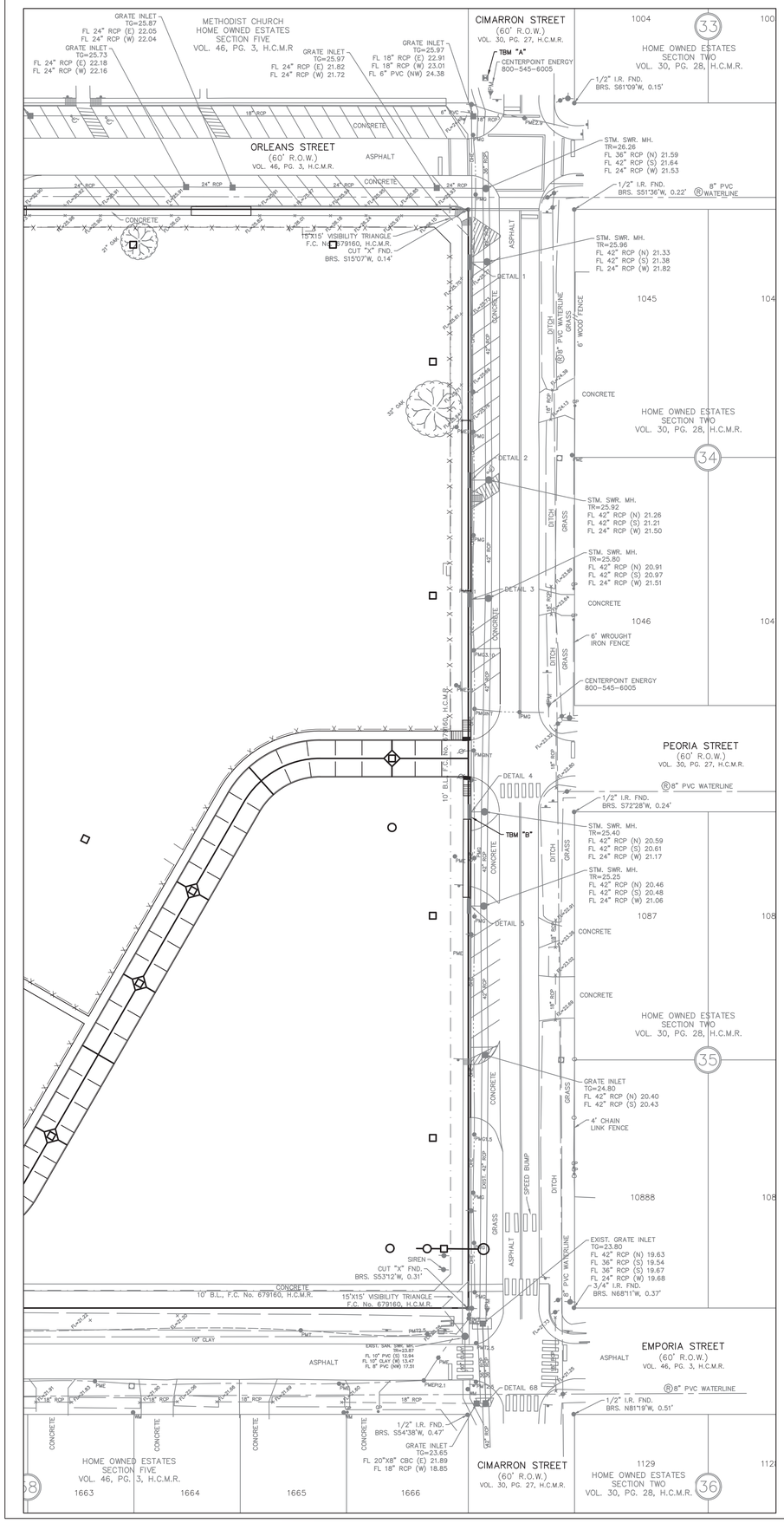
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C5.01

PAVEMENT JOINT LAYOUT
(SHEET 1 OF 2)





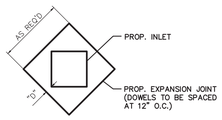
LEGEND:

SAWED JOINT

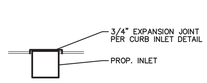
EXPANSION JOINT

NOTES:

1. LOCATE EXPANSION JOINTS AS SHOWN. SAWED JOINTS SHALL BE SPACED EVENLY BETWEEN EXPANSION JOINTS AT 15' MAXIMUM SPACING.
2. ALL CURBS TO BE 6" UNLESS OTHERWISE NOTED.
3. LINE UP JOINTS IN SIDEWALK W/ JOINTS IN PARKING LOT.
4. INSTALL EXPANSION JOINTS IN ALL DRIVEWAYS AT ROW LINE.
5. SEE ARCHITECT'S PLANS FOR WHEELSTOP LOCATIONS AND SIDEWALK JOINTING.
6. CONTRACTOR TO DRILL 9" INTO EXISTING CONCRETE PAVEMENT AND EMBED 18" LONG #5 BAR (MATCHING EXISTING REBAR SPACING) AND EPOXY IN PLACE LEAVING 9" OF 18" LONG REBAR EXPOSED TO FACILITATE CONNECTION TO PROPOSED PAVEMENT.



STORM SEWER INLET
W/ EXPANSION JOINT
N.T.S.



CURB INLET
W/ EXPANSION JOINT
N.T.S.

NOTES TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING ANY WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES (PRIVATE OR PUBLIC) IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONFLICT IS DISCOVERED, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

UTILITY ONE CALL

CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE-CALL SYSTEM
811 TEXAS 811 SAVES LIVES
CALL BEFORE YOU DIG

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

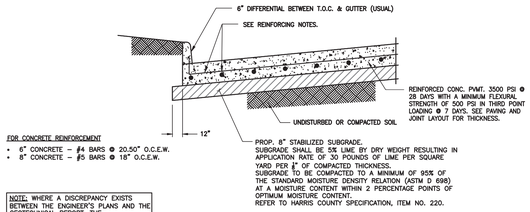
TALON ENGINEERING, LLC
F-24281
BRYAN W. REED
126433
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C5.02

PAVEMENT JOINT LAYOUT
(SHEET 2 OF 2)

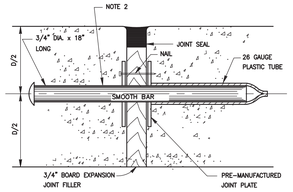


FOR CONCRETE REINFORCEMENT

- 6" CONCRETE – #4 BARS @ 20.50" O.C.E.W.
- 8" CONCRETE – #5 BARS @ 18" O.C.E.W.

NOTE: WHERE A DISCREPANCY EXISTS BETWEEN THE ENGINEER'S PLANS AND THE GEOTECHNICAL REPORT, THE GEOTECHNICAL REPORT SHALL GOVERN.

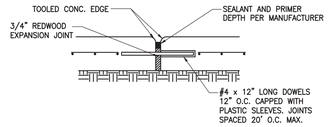
TYPICAL CONCRETE PAVEMENT
N.T.S.



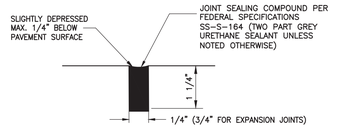
NOTES:

1. STEEL TO MEET ASTM STANDARD SPECIFICATIONS FOR CONCRETE REINFORCING BARS. UNITS TO BE SPACED ON 12" CENTERS
2. CENTER DOWEL HORIZONTALLY ON JOINT
3. CENTER DOWEL VERTICALLY IN CONCRETE BASE.

DOWEL TYPE EXPANSION JOINT
N.T.S.

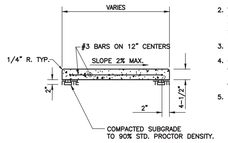


CONCRETE SIDEWALK EXPANSION JOINT
N.T.S.



JOINT SEAL
N.T.S.

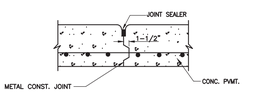
NOTE:
WHERE THE DEPTH DOES NOT PERMIT THE USE OF BACKER ROD, A BOND BREAKER (POLYETHYLENE STRIP) MUST BE USED TO PREVENT THREE-POINT BONDING



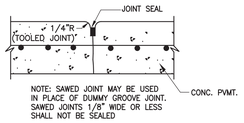
NOTES:

1. 1/2" FIBERBOARD EXPANSION MATERIAL REQUIRED WHERE SIDEWALK ABUTS BUILDING. 3/4" REDWOOD MATERIAL REQUIRED WHERE SIDEWALK ABUTS CURBS, DRIVEWAYS OR EXISTING SIDEWALKS.
2. WHERE NEW SIDEWALK IS PLACED AGAINST EXISTING SIDEWALK, SAWCUT EXISTING SIDEWALK TO AN EVEN STRAIGHT LINE PRIOR TO INSTALLATION OF THE NEW SIDEWALK AND INSTALL EXPANSION JOINT.
3. 1" MAX AGGREGATE.
4. CONTRACTOR SHALL INSTALL SIDEWALK EXPANSION JOINTS AT 20' MAX. INTERVALS AND CONSTRUCTION (SAWED JOINTS) ON 5' CENTERS FOR 5' WIDE SIDEWALKS AND 10' FOR ALL OTHER SIDEWALKS WIDER THAN 5'.
5. LINE UP JOINTS IN SIDEWALK W/ PAVING JOINTS.

TYPICAL CONCRETE SIDEWALK
N.T.S.

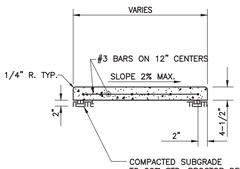


KEYED CONSTRUCTION JOINT WITH TIE BARS
N.T.S.



NOTE: SAWED JOINT MAY BE USED IN PLACE OF DUMMY GROOVE JOINT. SAWED JOINTS 1/8" WIDE OR LESS SHALL NOT BE SEALED

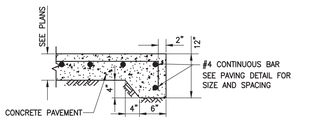
DUMMY GROOVE JOINT
N.T.S.



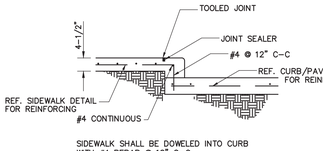
NOTES:

1. 1/2" FIBERBOARD EXPANSION MATERIAL REQUIRED WHERE SIDEWALK ABUTS BUILDING. 3/4" REDWOOD MATERIAL REQUIRED WHERE SIDEWALK ABUTS CURBS, DRIVEWAYS OR EXISTING SIDEWALKS.
2. WHERE NEW SIDEWALK IS PLACED AGAINST EXISTING SIDEWALK, SAWCUT EXISTING SIDEWALK TO AN EVEN STRAIGHT LINE PRIOR TO INSTALLATION OF THE NEW SIDEWALK AND INSTALL EXPANSION JOINT.
3. 1" MAX AGGREGATE.
4. CONTRACTOR SHALL INSTALL SIDEWALK EXPANSION JOINTS AT 20' MAX. INTERVALS AND CONSTRUCTION (SAWED JOINTS) ON 5' CENTERS FOR 5' WIDE SIDEWALKS AND 10' FOR ALL OTHER SIDEWALKS WIDER THAN 5'.
5. LINE UP JOINTS IN SIDEWALK W/ PAVING JOINTS.

TYPICAL CONCRETE SIDEWALK
N.T.S.

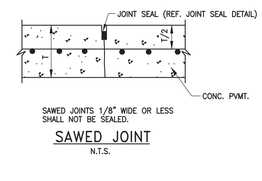


STANDARD CONCRETE PAVING HEADER
N.T.S.



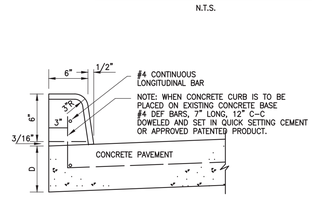
SIDEWALK SHALL BE DOWELED INTO CURB WITH #4 REBAR @ 12" C-C

SIDEWALK AT PAVEMENT
N.T.S.



SAWED JOINTS 1/8" WIDE OR LESS SHALL NOT BE SEALED.

SAWED JOINT
N.T.S.

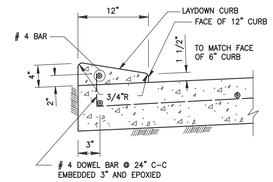


NOTE: WHEN CONCRETE CURB IS TO BE PLACED ON EXISTING CONCRETE BASE #4 DEF BARS, 7" LONG, 12" C-C DOWELED AND SET IN QUICK SETTING CEMENT OR APPROVED PATENTED PRODUCT.

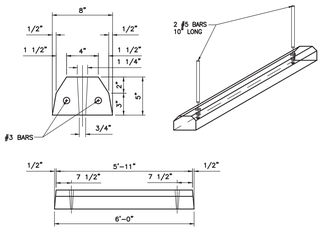
NOTES:

1. MORTAR FINISH NOT REQUIRED WHEN CURB IS POURED BY A MACHINE, BUT CURB SHALL HAVE THE SAME OUTSIDE DIMENSIONS.
2. PROP. VERTICAL JOINT IN CURB TO BE SEALED WITH VERTICAL SEALANT MATCHING COLOR OF JOINT SEALANT IN PAVEMENT.

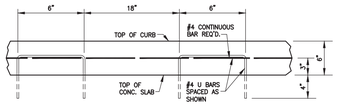
CONCRETE CURB
N.T.S.



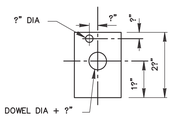
4-INCH x 12-INCH LAYDOWN CURB
N.T.S.



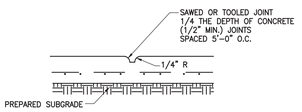
PRECAST CONCRETE WHEEL STOP
NTS



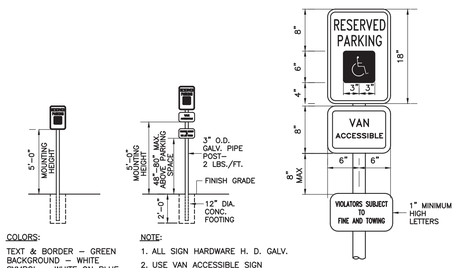
TYPICAL CONCRETE CURB REINFORCING
N.T.S.



DOWEL FITTING
N.T.S.



CONCRETE SIDEWALK CONTROL JOINT
N.T.S.

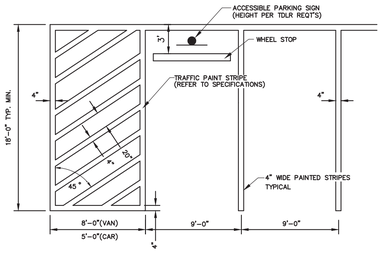


COLORS:
TEXT & BORDER – GREEN
BACKGROUND – WHITE
SYMBOL – WHITE ON BLUE BACKGROUND

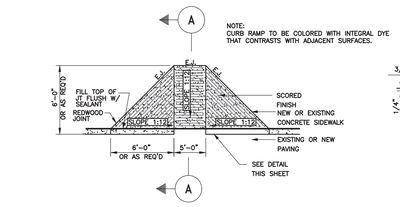
NOTE:

1. ALL SIGN HARDWARE H. D. GALV.
2. USE VAN ACCESSIBLE SIGN ON VAN ACCESSIBLE SPACES ONLY

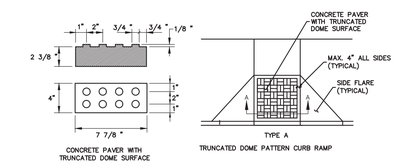
HANDICAPPED PARKING SIGN
N.T.S.



ACCESSIBLE PARKING LAYOUT
N.T.S.



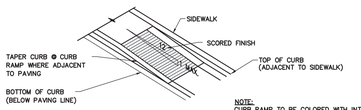
WHEEL CHAIR RAMP
NTS



CONCRETE PAVER WITH TRUNCATED DOME SURFACE

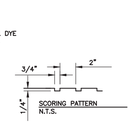
TRUNCATED DOME PATTERN CURB RAMP

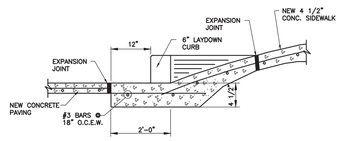
WHEEL CHAIR RAMP WITH TRUNCATED DOME PAVERS
NTS



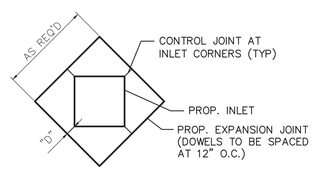
NOTE:
CURB RAMP TO BE COLORED WITH INTEGRAL DYE THAT CONTRASTS WITH ADJACENT SURFACES.

DIRECTIONAL CURB RAMP
N.T.S.



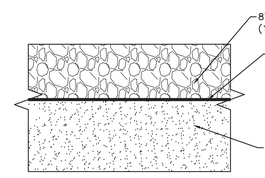


WHEEL CHAIR RAMP CROSS-SECTION "A-A"
N.T.S.



D = 24" FOR MANHOLES & GRATE INLETS
D = 12" FOR AREA INLETS & AREA DRAINS

EXPANSION JOINT AT GRATE INLET
N.T.S.



PROP. 6" STABILIZED SUBGRADE. SUBGRADE SHALL BE STABILIZED WITH LIME. LIME TO CONSIST OF 5 TO 7 PERCENT LIME BY DRY WEIGHT. SUBGRADE SOILS TO BE COMPACTED A MINIMUM OF 95% OF THE STANDARD MOISTURE DENSITY RELATION (ASTM D 698) AT A MOISTURE CONTENT FROM ABOUT OPTIMUM TO 4 PERCENTAGE POINTS GREATER THAN THE OPTIMUM MOISTURE CONTENT. ACTUAL LIME CONTENT SHALL BE DETERMINED IN FIELD PRIOR TO CONSTRUCTION. LIME PLACEMENT AND MIXING SHALL BE IN ACCORDANCE WITH TxDOT ITEM 260. SEE SOILS REPORT FOR DETAILS.

TEMPORARY CRUSHED GRAVEL ACCESS ROAD DETAIL
N.T.S.

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

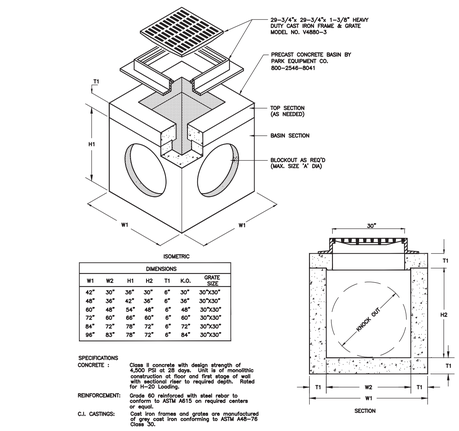
TALON ENGINEERING, LLC
F-24281
BRYAN W. REED
120033
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C7.01

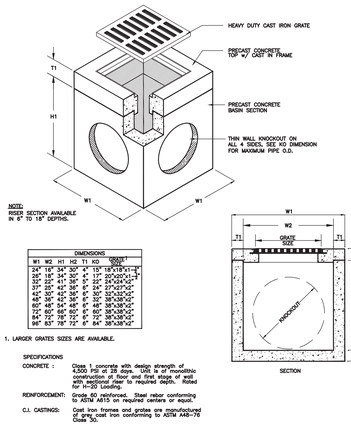
PAVING DETAILS



DIMENSIONS						
W1	W2	H1	H2	T1	K.O.	GRATE SIZE
42"	30"	36"	6"	6"	30"	30"X30"
48"	36"	42"	36"	6"	36"	30"X30"
60"	48"	54"	48"	6"	48"	30"X30"
72"	60"	66"	60"	6"	60"	30"X30"
84"	72"	78"	72"	6"	72"	30"X30"
96"	83"	78"	72"	6"	84"	30"X30"

SPECIFICATIONS
CONCRETE : Class II concrete with design strength of 4,000 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth. Rated for H-20 loading.
REINFORCEMENT: Grade 60 reinforced with steel rebar to conform to ASTM A615 on required centers or equal.
C.I. CASTINGS: Cast iron frames and grates are manufactured of grey cast iron conforming to ASTM A48-76 Class 30.

GRATE INLET IN PAVEMENT
N.T.S.

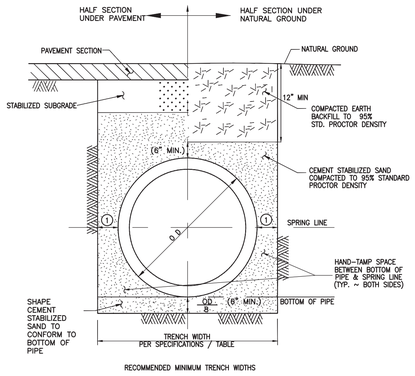


DIMENSIONS						
W1	W2	H1	H2	T1	KO	GRATE SIZE
24"	18"	24"	30"	4"	13"	18"X18"x1-1/4"
28"	18"	24"	30"	4"	17"	20"X20"x1-1/4"
28"	24"	24"	30"	4"	22"	24"X24"x1-1/4"
33"	30"	42"	36"	6"	24"	27"X27"x2"
42"	30"	42"	36"	6"	30"	30"X30"x2"
48"	36"	48"	36"	6"	36"	36"X36"x2"
60"	48"	54"	48"	6"	48"	48"X48"x2"
72"	60"	66"	60"	6"	60"	60"X60"x2"
84"	72"	78"	72"	6"	72"	72"X72"x2"
96"	83"	78"	72"	6"	84"	84"X84"x2"

1. LARGER GRATES SIZES ARE AVAILABLE.

SPECIFICATIONS
CONCRETE : Class 1 concrete with design strength of 4,000 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth. Rated for H-20 Loading.
REINFORCEMENT: Grade 60 reinforced. Steel rebar to conform to ASTM A615 on required centers or equal.
C.I. CASTINGS: Cast iron frames and grates are manufactured of grey cast iron conforming to ASTM A48-76 Class 30.

GRATE INLET IN GRASS/LANDSCAPED AREAS
N.T.S.

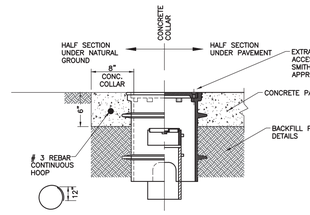


RECOMMENDED MINIMUM TRENCH WIDTHS

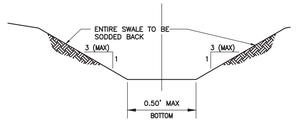
① 4" THRU 24" PIPE DIA.	= 12" MIN. WIDTH.
30" AND GREATER PIPE DIA.	= 18" MIN. WIDTH.

NOTES:
1. WHERE SOIL CONDITIONS REQUIRE, THE ENGINEER MAY ORDER USE OF GRANULAR MATERIAL IN LIEU OF CEMENT STABILIZED SAND BEDDING.
2. WHERE WET SAND IS ENCOUNTERED, REINFORCED CONCRETE PIPE SEWERS SHALL BE CONSTRUCTED USING APPROVED SPECIAL DESIGN AS SHOWN ON DRAWINGS.
3. MAX TRENCH WIDTH SHALL NOT BE GREATER THAN MIN. TRENCH WIDTH PLUS 24 INCHES, UNLESS OTHERWISE NOTED.
4. CEMENT-SAND BACKFILL SHALL CONSIST OF NOT LESS THAN 1.5 SACKS OF CEMENT PER TON OF SAND WITH SUFFICIENT WATER TO HYDRATE THE CEMENT. THE MATERIAL SHALL BE PLACED IN LIFTS 8 INCHES THICK MAXIMUM AND COMPACTED TO 95% MAXIMUM DENSITY AT OPTIMUM MOISTURE TO THE BOTTOM OF THE PAVEMENT SUBGRADE.
5. ALL BEDDING AND BACKFILL SHALL BE INCLUDED IN THE COST OF THE PIPE.

BEDDING FOR STORM SEWER
N.T.S.

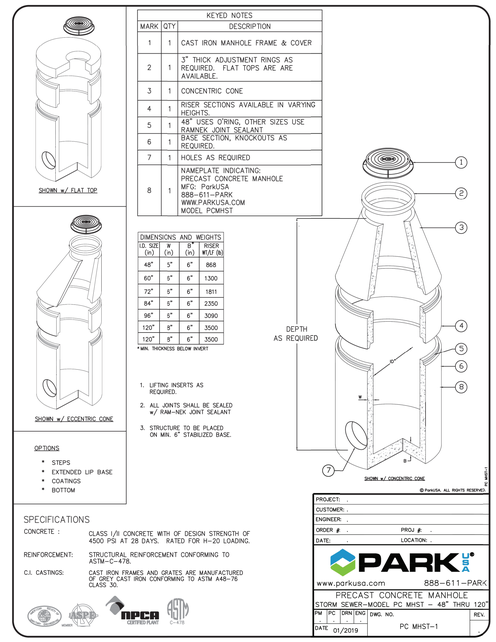


STORM SEWER CLEANOUT
N.T.S.



TYPICAL SWALE
N.T.S.

NOTES:
1. ALL SWALES SHOWN ON SITE SHALL NOT BE ENGINEER COMPACTED AFTER EXCAVATION & WILL BE SODDED BACK.



KEYED NOTES		
MARK	QTY	DESCRIPTION
1	1	CAST IRON MANHOLE FRAME & COVER
2	1	3" THICK ADJUSTMENT RINGS AS REQUIRED. FLAT TOPS ARE ARE AVAILABLE.
3	1	CONCENTRIC CONE
4	1	RISER SECTIONS AVAILABLE IN VARYING HEIGHTS.
5	1	48" USES O'RING, OTHER SIZES USE RAMNEK JOINT SEALANT
6	1	BASE SECTION, KNOCKOUTS AS REQUIRED.
7	1	HOLES AS REQUIRED
8	1	NAMEPLATE INDICATING: PRECAST CONCRETE MANHOLE MFG: ParkUSA 888-611-PARK WWW.PARKUSA.COM MODEL PCMHST

DIMENSIONS AND WEIGHTS			
I.D. SIZE (in)	W (in)	8" RISER (in)	RISER W.U.* (lb)
48"	5"	6"	868
60"	5"	6"	1300
72"	5"	6"	1811
84"	5"	6"	2350
96"	5"	6"	3090
120"	8"	6"	3500
120"	8"	6"	3500

* MIN. THICKNESS BELOW INVERT

1. LIFTING INSERTS AS REQUIRED.
2. ALL JOINTS SHALL BE SEALED w/ RAM-NEK JOINT SEALANT
3. STRUCTURE TO BE PLACED ON MIN. 6" STABILIZED BASE.

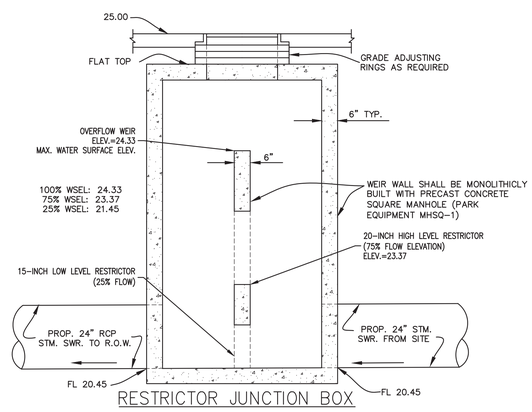
SPECIFICATIONS
CONCRETE : CLASS I/II CONCRETE WITH OF DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. RATED FOR H-20 LOADING.
REINFORCEMENT: STRUCTURAL REINFORCEMENT CONFORMING TO ASTM-C-478.
C.I. CASTINGS: CAST IRON FRAMES AND GRATES ARE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 30.

© ParkUSA. ALL RIGHTS RESERVED.

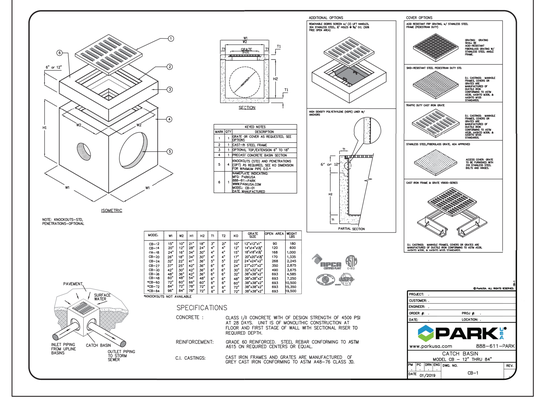
PROJECT:	
CUSTOMER:	
ENGINEER:	
ORDER #	PROJ #
DATE:	LOCATION:

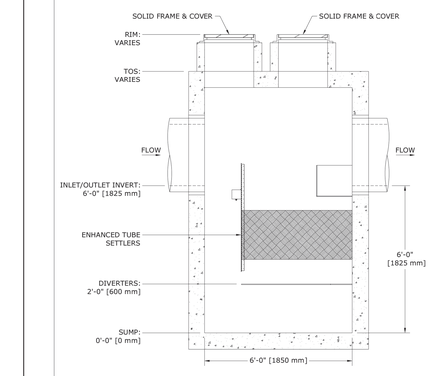
PARK USA
www.parkusa.com 888-611-PARK
PRECAST CONCRETE MANHOLE
STORM SEWER-MODEL PC MHST - 48" THRU 120"

PM	PC	DRN	ENG	DWG. NO.	REV.
				PC MHST-1	
DATE 01/2019					



RESTRICTOR JUNCTION BOX
N.T.S.



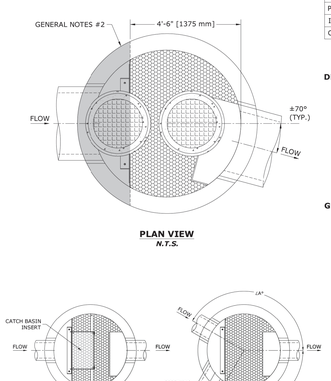


DOWNSPOUT DRAIN W/ OFFSET

STORMTRAP CONTACT INFORMATION
SUPPLIER: STORMTRAP
CONTACT: TYLER KEEGAN
CELL PHONE: 346-845-5901
SALES EMAIL: TKEEGAN@STORMTRAP.COM

SITE SPECIFIC DATA			
STRUCTURE ID			SSET-6
WATER QUALITY FLOW RATE (CFS)			NOTE 3
PEAK FLOW RATE (CFS)			-
SEDIMENT STORAGE CAPACITY (CF)			33.0
CATCH BASIN INLET REQUIRED			-
RIM ELEVATION			
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE	-	-	36" OR LESS
OUTLET PIPE	-	-	

ELEVATION VIEW
N.T.S.



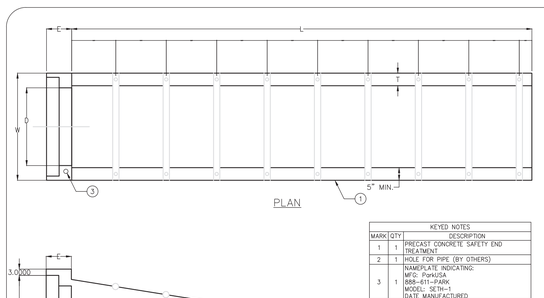
DESIGN NOTES:
1. DESIGN LOADING
   a. LOAD RATING: AASHTO HS-20
   b. ALLOWABLE COVER: 0.50' [152 mm] TO 5.00' [1524 mm]. CONTACT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
   c. WATER TABLE AT OR BELOW OUTLET PIPE INVERT ELEVATION.
   d. NO LATERAL SURCHARGE FROM ADJACENT STRUCTURES SUCH AS VEGETATION, BUILDINGS, WALLS, OR FOUNDATIONS.
2. ENGINEER OF RECORD TO CONFIRM THE DESIGN LOADINGS MEET PROJECT REQUIREMENTS. CONTACT STORMTRAP FOR ALTERNATIVE DESIGN LOAD OPTIONS.

GENERAL NOTES:
1. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS, WEIGHTS, AND ACCESSORIES, PLEASE CONTACT YOUR STORMTRAP REPRESENTATIVE.
2. CATCH BASIN, MULTI-PIPE, & HORSESHOE CONFIGURATIONS MAY BE AVAILABLE DEPENDING ON LOCAL REGULATIONS. ALL INLET PIPES MUST ENTER THE MANHOLE COMPLETELY FROM THE SHADED REGION.
3. MAXIMUM WATER QUALITY FLOW RATE:
   a. 3.17 CFS PER NJDEP CERTIFICATION (50%)
   b. 2.09 CFS PER OK-110 NJCAT VERIFICATION (80%)
4. STORMSETTLER DOES NOT REQUIRE A DROP BETWEEN THE INLET AND OUTLET PIPE INVERT ELEVATIONS. A DROP BETWEEN 0.00" AND 0.33" (0" AND 4") IS PREFERRED.
5. CONCRETE COMPONENTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C478.
6. CONTRACTOR TO INSTALL THE STRUCTURE IN ACCORDANCE WITH ASTM C1821.
7. CONTRACTOR TO PROVIDE ALL LABOR AND EQUIPMENT REQUIRED TO OFFLOAD AND INSTALL UNIT.
8. CONTRACTOR TO PROVIDE AND INSTALL ALL PIPES, FRAMES, COVERS, HATCHES, AND RISERS UNLESS SPECIFIED OTHERWISE.
9. CONTRACTOR TO ADD JOINT SEALANT (PROVIDED BY STORMTRAP) BETWEEN ALL STRUCTURE SECTIONS.

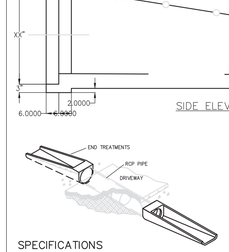
DRAWINGS ARE FOR REFERENCE ONLY AND SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.

StormSettler™ StormTrap®
PATENTS LISTED AT: (HTTP://STORMTRAP.COM/PATENT)
STORMSETTLER 6 STANDARD DETAIL
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4549
F:331-318-5347

DRAWN BY:	DATE:	SCALE:		
TJF	4/23/25	N.T.S.	V1	SHEET 1 OF 1

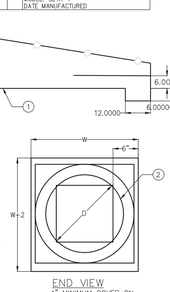


KEYED NOTES		
MARK	QTY	DESCRIPTION
1	1	PRECAST CONCRETE SAFETY END TREATMENT
2	1	HOLE FOR PIPE (BY OTHERS)
3	1	NAMEPLATE INDICATING: MFG: ParkUSA 888-611-PARK MODEL: SETH-1 DATE MANUFACTURED



SPECIFICATIONS
CONCRETE: Class I/II concrete with of design strength of 4500 PSI at 28 days. Unit is of monolithic construction including walls & floor.
REINFORCEMENT: Grade 60 reinforced. No. 4 steel rebar to conform to ASTM A615 on required centers or equal.

NOTES:
1. CLASS "C" CONCRETE
2. 12" ARE MADE WITH 12" KNOCK OUT FOR SMALLER PIPE IN 15" SET MOLD
3. 6" WALL IN 36" AS PER CHART
4. REINFORCEMENT:
   12"-24" #4 BARS @ 9" % GRADE 60
   24"-36" #4 BARS @ 6" % GRADE 60





NAME PLATE

MODEL	D	SLOPE	W	L	T	E	WEIGHT
SETH-12-3	12"	3:1	1'-10"	3'-3"	5"	12"	1,680
SETH-12-4	12"	4:1	1'-10"	4'-4"	5"	12"	2,040
SETH-12-6	12"	6:1	1'-10"	6'-0"	5"	12"	2,760
SETH-15-3	15"	3:1	2'-1¼"	4'-0"	5"	12"	1,680
SETH-15-4	15"	4:1	2'-1¼"	5'-4"	5"	12"	2,040
SETH-15-6	15"	6:1	2'-1¼"	8'-0"	5"	12"	2,760
SETH-18-3	18"	3:1	2'-5¼"	4'-9"	5"	12"	2,120
SETH-18-4	18"	4:1	2'-5¼"	6'-4"	5"	12"	2,600
SETH-18-6	18"	6:1	2'-5¼"	9'-6"	5"	12"	3,560
SETH-24-3	24"	3:1	2'-11½"	6'-3"	5"	12"	3,120
SETH-24-4	24"	4:1	2'-11½"	8'-4"	5"	12"	3,880
SETH-24-6	24"	6:1	2'-11½"	12'-6"	5"	12"	5,400
SETH-30-3	30"	3:1	3'-5¾"	7'-9"	5"	12"	4,280
SETH-30-4	30"	4:1	3'-5¾"	10'-4"	5"	12"	5,400
SETH-30-6	30"	6:1	3'-5¾"	15'-6"	5"	12"	7,600
SETH-36-3	36"	3:1	4'-3"	10'-0"	6"	12"	6,200
SETH-36-4	36"	4:1	4'-3"	12'-0"	6"	12"	9,040
SETH-36-6	36"	6:1	4'-3"	18'-3"	6"	12"	13,000

© ParkUSA. ALL RIGHTS RESERVED.

PARK USA
ANrthwet ipeCmpany

SAFETY END TREATMENT w/HARDWARE
MODEL SETH-1 - SIZES 12" THRU 36"

PM	PC	DRN	ENG	DWG. NO.	REV.
				SETH-1	A
DATE 2023					

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

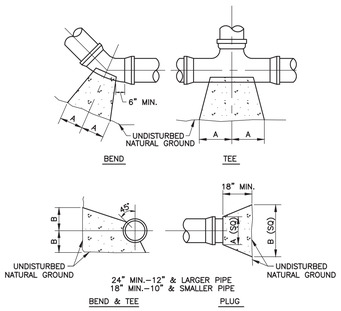
S. Chu Architects
Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281
BRIAN W. REED
124833
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO. 2502 (B101-101)	
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

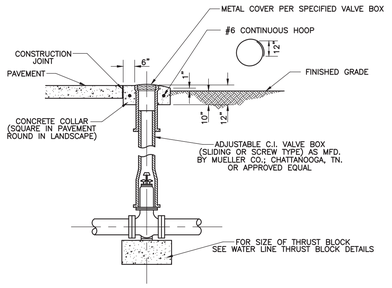
C7.02
STORM SEWER DETAILS



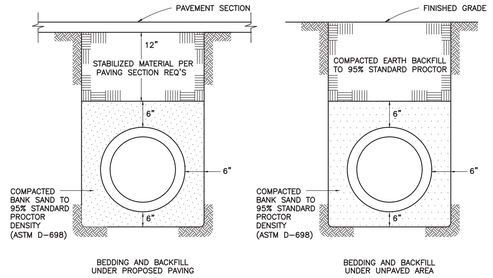
SIZE	90° BEND		45° BEND		22 1/2° BEND		TEES		PLUGS	
	A	B	A	B	A	B	A	B	A	B
2 1/2"	12"	7"	6"	7"	6"	6"	7"	8"	8"	14"
6"	16"	10"	9"	10"	6"	12"	10"	12"	10"	21"
8"	22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
10"	26"	17"	14"	17"	10"	13"	16"	20"	14"	36"
12"	29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
14"	35"	24"	19"	24"	12"	20"	22"	27"	18"	48"
16"	38"	27"	21"	27"	12"	24"	24"	30"	20"	54"

ALL CONCRETE SHALL BE MIN. 5SK, 3,000 P.S.I.

WATER LINE THRUST BLOCK
N.T.S.

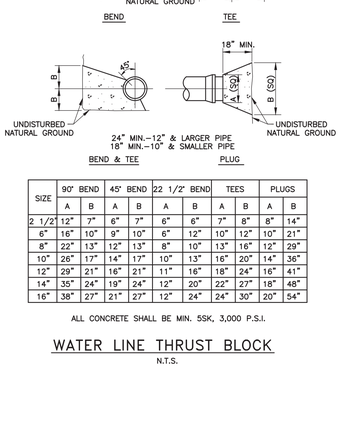


VALVE BOX
N.T.S.



WATER LINE TRENCH
N.T.S.

KEYED NOTES		
MARK	QTY	DESCRIPTION
1	1	PRECAST CONCRETE VAULT
2	1	3/4" SCH 80 PVC NIPPLE x 2 SHUT-OFFS ON WATER BACKFLOW PREVENTER
3	1	TEE
4	1	GALVANIZED ALL-THREAD RETAINER ROD (TYP.)
5	1	U.L. CHECK VALVE W/ BALL DRIP FIRE DEPARTMENT CONN.
6	1	ELBOW
7	1	ADJUSTABLE TYPE INDICATOR POST
8	1	ALUMINUM SKID-RESISTANT COVER w/ 24"x32" HINGED MANWAY (DDBPP-12 COVER IS GALV STEEL)
9	1	OS&Y GATE VALVE (TYP. 2)
10	1	FDC RISER
11	1	U.S.C. CERTIFIED U.L. BACKFLOW PREVENTER
12	1	POST INDICATOR VALVE
13	1	DUCTILE IRON STUB-OUT (TYPICAL)
14	1	HARD FLANGE (TYP.)
15	1	GALVANIZED ANGLE PIPE SUPPORT (TYP.)
16	1	12"x12" SUMP WITH CAST IRON GRATE. BOTTOM CAN BE KNOCKED OUT FOR ADDITIONAL DRAIN TO GRAVEL BED.
17	1	GRAVEL BED (FURNISHED BY OTHERS)
18	1	FDC RISER
19	1	FLG x PPT 90° ELL
20	1	UL/FM WATER CHECK VALVE
21	1	BALL DRIP
22	1	NAMEPLATE INDICATING: MFG: ParkUSA 888-811-PARK MODEL: DDBPPF-1 DATE MANUFACTURED



MODEL	SIZE	L1	W1	H1	ALUMINUM WEIGHT (ALSO SHOWN L BE)	WEIGHT
DDBPPF-3	3"	7'-10"	4'-4"	6'-0"	30"x48"	11,000
DDBPPF-4	4"	7'-10"	4'-4"	6'-0"	30"x48"	11,000
DDBPPF-6	6"	7'-10"	4'-4"	6'-0"	30"x48"	15,000
DDBPPF-8	8"	8'-8"	5'-0"	6'-0"	30"x48"	15,000
DDBPPF-10	10"	9'-0"	6'-0"	7'-0"	36"x60"	18,000
DDBPPF-12	12"	9'-0"	6'-0"	7'-0"	36"x60"	18,000

SPECIFICATIONS

CONCRETE: CLASS I/II CONCRETE WITH DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.

REINFORCEMENT: GRADE 60 REINFORCED. STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.

HATCHWAY: 1/4" ALUMINUM DIAMOND PLATE COVER WITH EXTRUDED ALUMINUM FRAME. HATCH TO BE FURNISHED WITH 316 STAINLESS STEEL SNAP LOCK & BRASS HINGES.

ENGINEERING DATA

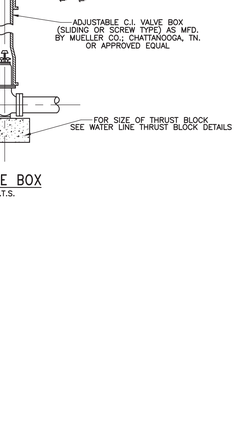
FIELD EXCAVATION AND PREPARATION SHALL BE COMPLETED PRIOR TO DELIVERY OF ASSEMBLY. USE DIMENSIONAL DATA AS SHOWN. PIPE, VALVES AND FITTINGS OF THE ASSEMBLY ARE APPROVED BY ONE OR MORE OF THE FOLLOWING ASSOCIATIONS:

© ParkUSA, ALL RIGHTS RESERVED.

PARK USA A Northwest Pipe Company

3" THRU 12" DOUBLE DETECTOR BACKFLOW PREVENTER ASSEMBLY W/ PIV & FDC

PM	PC	DRN	ENG	DWG. NO.	REV.
		CC		DDBPPF-1	A
DATE 03/2023					



MODEL	COMBO METER SIZE	DISC METER SIZE	SERIES	L1	W1	H1	WEIGHT LBS.
FMCCOH-04	4"	1"	2"	3"	11'-6"	6'-0"	4'-3"	14,500
FMCCOH-06	6"	1 1/2"	4"	3"	11'-6"	6'-0"	4'-3"	19,500
FMCCOH-08	8"	2"	4"	4"	13'-6"	6'-0"	4'-3"	20,000
FMCCOH-10	10"	2"	6"	16"	17'-0"	7'-0"	4'-6"	25,000

© ParkUSA, ALL RIGHTS RESERVED.

Specifications

CONCRETE: Class I/II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth.

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

ACCESS COVER: All steel fabrication shall be in accordance to AWA D1.1. Steel shall ASTM A36 carbon steel, and hot dipped galvanized after fabrication in accordance to ASTM A123. Standard cover is rated for 50 PSF.

Engineering Data

The meter assembly shall be factory assembled in vault & hydrostatically tested prior to delivery. Field excavation & preparation shall be complete prior to delivery. Pipe, valves and fittings of the assembly shall be approved by one or more of the following associations:

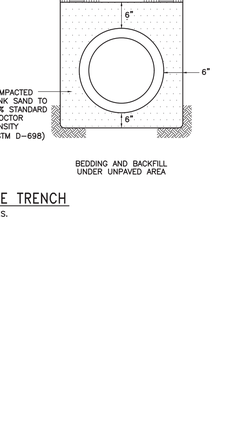
REV	DATE	BY	DESCRIPTION
A	-	-	-

PROJECT: -
CUSTOMER: -
ENGINEER: -
ORDER #: - PROJ #: -
DATE: - LOCATION: -

PARK USA A Northwest Pipe Company

FIRE/DOMESTIC COMBINATION METER ASSEMBLY MODEL FMCCOH – 4" THRU 10"

PM	PC	DRN	ENG	DWG. NO.	REV.
				FMCCOH-1	A
DATE 10/2023					



MODEL NO.	BFP SIZE	PAD DIMENSIONS PL	PW	PT	"PC" PIPE CENTERS
RPBP-2.5	2½"	100"	40"	6"	42"
RPBP-03	3"	100"	40"	6"	43"
RPBP-04	4"	100"	40"	6"	50⅝"
RPBP-06	6"	114"	50"	6"	60⅜"
RPBP-08	8"	114"	50"	6"	78⅝"
RPBP-10	10"	134"	52"	6"	85⅜"

NOTE: SIZE MAY VARY DEPENDING ON MODEL OF BACKFLOW PREVENTER

© ParkUSA, ALL RIGHTS RESERVED.

Specifications

GENERAL
The Model ERP aluminum enclosure is pre engineered to provide protection to backflow preventers, meters, pumps, and other devices installed above ground. These water conveying devices are subject to freezing and vandalism. The enclosure is designed to be installed over the equipment after installation. The enclosure is equipped with access doors to provide adequate access to the equipment.

CONSTRUCTION
The enclosure shall be manufactured from all new materials. The exterior shall be fabricated with 0.090 aluminum, continuously welded. The access door(s) shall be of like material and hinged with a continuous hinge. The door shall be equipped with a 3-point locking mechanism. The interior of the enclosure shall be structurally lined with high performance, non-wicking insulation.

HEATER
Interior heaters (if required) shall be thermostatically controlled and be mounted to the interior wall of the enclosure. A GFI receptacle shall be provided by others to provide power to the electric heater.

REV	DATE	BY	DESCRIPTION
A	-	-	-

PROJECT: -
CUSTOMER: -
ENGINEER: -
ORDER #: - PROJ #: -
DATE: - LOCATION: -

PARK USA A Northwest Pipe Company

REDUCED PRESSURE BACKFLOW PREVENTER MODEL SIZE 2.5" THRU 10"

PM	PC	DRN	ENG	DWG. NO.	REV.
				RPBP-1	A
DATE 01/2025					

MODEL NO.	BFP SIZE	INSIDE DIM. FL	IW	OUTSIDE DIM. OL	OW	DOOR SIZE DH	DW	PAD DIMENSIONS PL	PW	PT
RPBPNAE-03	3"	69"	33"	72"	36"	36"	70"	7'-10"	4'-4"	6"
RPBPNAE-04	4"	69"	33"	72"	36"	36"	70"	7'-10"	4'-4"	6"
RPBPNAE-06	6"	105"	45"	108"	48"	36"	70"	10'-0"	5'-0"	6"
RPBPNAE-08	8"	105"	45"	108"	48"	36"	70"	10'-0"	5'-0"	6"
RPBPNAE-10	10"	105"	45"	108"	48"	36"	70"	10'-0"	5'-0"	6"
RPBPNAE-12	12"	144"	40"	147"	43"	48"	70"	13'-0"	5'-0"	6"

NOTE: SIZE MAY VARY DEPENDING ON MODEL OF BACKFLOW PREVENTER

© ParkUSA, ALL RIGHTS RESERVED.

Specifications

GENERAL
The Model ERP aluminum enclosure is pre engineered to provide protection to backflow preventers, meters, pumps, and other devices installed above ground. These water conveying devices are subject to freezing and vandalism. The enclosure is designed to be installed over the equipment after installation. The enclosure is equipped with access doors to provide adequate access to the equipment.

CONSTRUCTION
The enclosure shall be manufactured from all new materials. The exterior shall be fabricated with 0.090 aluminum, continuously welded. The access door(s) shall be of like material and hinged with a continuous hinge. The door shall be equipped with a 3-point locking mechanism. The interior of the enclosure shall be structurally lined with high performance, non-wicking insulation.

HEATER
Interior heaters (if required) shall be thermostatically controlled and be mounted to the interior wall of the enclosure. A GFI receptacle shall be provided by others to provide power to the electric heater.

REV	DATE	BY	DESCRIPTION
A	-	-	-

PROJECT: -
CUSTOMER: -
ENGINEER: -
ORDER #: - PROJ #: -
DATE: - LOCATION: -

PARK USA A Northwest Pipe Company

WEATHERPROOF ENCLOSURE REDUCED PRESSURE BACKFLOW PREVENTER

PM	PC	DRN	ENG	DWG. NO.	REV.
				RPBPNAE-1	A
DATE 04/2023					

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

S. Chu Architects
Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281
BRIAN W. REED
120633
LICENSED PROFESSIONAL ENGINEER
10/24/2025

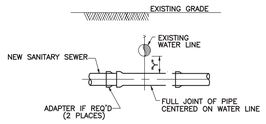
Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

PROJECT NO. 2502 (B101-101)	
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

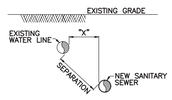
C7.03

WATER LINE DETAILS



INSTALLATION REQUIREMENTS
1. IF "X" IS GREATER THAN 6" AND "X" IS LESS THAN 2', USE MINIMUM 18 FT JOINT OF PRESSURE-RATED PIPE PER TABLE 02730-04.
2. IF "X" IS GREATER THAN 2' AND "X" IS LESS THAN 9', USE GRAVITY SEWER PIPE IN CEMENT-STABILIZED SAND EMBEDMENT.
3. IF "X" IS GREATER THAN 9', USE STANDARD EMBEDMENT AND NORMAL JOINT SPACING.

NEW SANITARY SEWER CROSSING EXISTING WATER LINE



INSTALLATION REQUIREMENTS
1. IF "X" IS LESS THAN 9' AND SEPARATION IS LESS THAN 9', USE PRESSURE-RATED PIPE MH TO MH. "X" MUST BE AT LEAST 4 FT.
2. IF "X" IS GREATER THAN OR EQUAL TO 4' AND SEPARATION IS 9' OR GREATER, USE STANDARD PIPE AND EMBEDMENT.

NEW SANITARY SEWER PARALLEL TO EXISTING WATER LINE

NOTES:

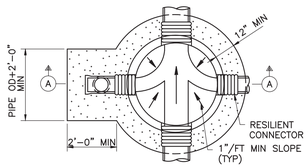
1. SANITARY SEWER MUST BE BELOW WATER LINE WHEREVER POSSIBLE. WHEN WATERLINE IS BELOW THE SANITARY SEWER PROVIDE MINIMUM 2 FT SEPARATION AND INSTALL PIPE SAME AS FOR SEWER BELOW WATER.
2. WHEN PRESSURE-RATED PIPE IS REQUIRED, PROVIDE PIPE WITH MINIMUM 150 psi PRESSURE RATING.
3. ADAPTERS MUST BE FACTORY MOLDED OR FABRICATED, WITH RING STIFFNESS AT LEAST EQUAL TO THE ADJOINING SANITARY SEWER PIPE, AND USING RESILIENT GASKET OR SEAL MATERIAL. FLEXIBLE RUBBER "BOOT" TYPE ADAPTERS WILL NOT BE ACCEPTED.
4. INSTALL FORCE MAINS SAME AS FOR GRAVITY SEWER, USING SPECIFIED PRESSURE PIPE.
5. "Y" MUST ALWAYS BE GREATER THAN OR EQUAL 6".
6. "X" MUST BE GREATER THAN OR EQUAL TO 4 FT.
7. ALTERNATIVES MAY BE SHOWN ON THE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS.
8. SEPARATION REQUIREMENTS SHOWN HERE DO NOT APPLY TO SERVICE CONNECTIONS – REFER TO PLUMBING CODE FOR APPLICABLE REQUIREMENTS.
9. CEMENT-STABILIZED SAND SHALL BE 1½ SACKS OF CEMENT PER CUBIC YARD OF SAND.

TABLE 02730-04
SEWER LINE CROSSING BELOW WATER LINE WITHIN 2 FT SEPARATION

GRAVITY SANITARY SEWER PIPE SIZE	PRESSURE-RATED PIPE SIZE & TYPE (NOTE 2)	ADAPTERS REQUIRED
6" TO 12" (ASTM D-3034)	SAME SIZE ASTM D-2241, SDR 26	ASTM D-3034 TO D-2665 (SEWER TO D.W.V.) ADAPTER COUPLING
15" (ASTM D-3034)	14" LINED DUCTILE IRON OR AWWA C-905, DR-25	NONE REQUIRED
18" AND 24"	SAME SIZE AWWA C-905, PRESSURE-RATED FRP, OR LINED DUCTILE IRON, MANHOLE TO MANHOLE	NONE REQUIRED
21" AND 27"	PRESSURE PIPE NOT AVAILABLE, SEE CASING ALTERNATIVE	NOT APPLICABLE
30" AND LARGER	SAME SIZE PRESSURE-RATED FRP OR LINED DUCTILE IRON, MANHOLE TO MANHOLE	NOT APPLICABLE
CASING ALTERNATIVE: ANY SIZE AND TYPE	INSTALL AS CASING PIPE MIN 18 FT JOINT OF PRESSURE PIPE AT LEAST 2 NOMINAL SIZES LARGER THAN SAN. SEWER CARRIER PIPE. GROUT ANNULAR SPACE WITH TUNNEL GROUT	NOT APPLICABLE

INSTALLATION OF SANITARY SEWER LINES CROSSING OR PARALLEL TO WATER LINES

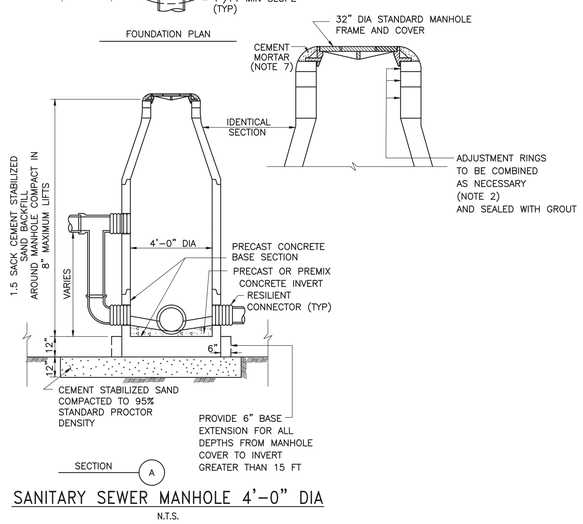
N.T.S.



FOUNDATION PLAN

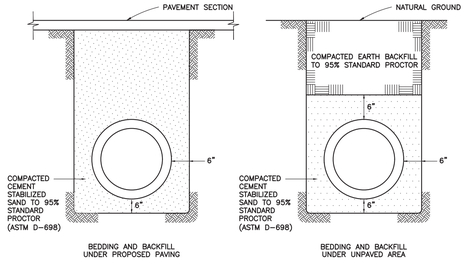
NOTES:

1. DEPTH OF MANHOLE DETERMINES SECTIONS REQUIRED.
2. PRECAST CONCRETE RINGS SHALL BE PROVIDED FOR A COMBINED ADJUSTMENT HEIGHT OF AT LEAST 12". THE TOTAL HEIGHT OF THE ADJUSTMENT RINGS SHALL NOT EXCEED 1'-6".
3. MANHOLE WALL THICKNESS FOR DEPTH EXCEEDING 12'-0" SHALL BE DETERMINED TO MEET LOADING CONDITIONS. MIN THICKNESS 5".
4. MANHOLE DROP AND INTERSECTING PIPES SHALL BE INSTALLED ONLY WHEN CALLED FOR ON DRAWINGS OR WHEN DIFFERENCE IN FLOW LINE ELEVATIONS OF MANHOLE EXCEEDS 24".
5. SEAT MANHOLE FRAME IN SEALANT.
6. ECCENTRIC PRECAST CONCRETE MANHOLE MAY BE USED.
7. OMIT CEMENT MORTAR WHEN MANHOLE IS LOCATED IN PAVED AREAS.
8. MIN REINFORCING IN THE PRECAST CONCRETE BASE SHALL BE # 5 @ 8" EW.
9. INTERIOR SURFACE OF MANHOLE SHALL BE SEALED WITH THANE COAT OR APPROVED EQUAL AS PER MANUFACTURERS SPECIFICATIONS.



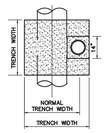
SANITARY SEWER MANHOLE 4'-0" DIA

N.T.S.



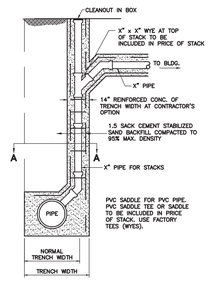
SANITARY SEWER TRENCH

N.T.S.



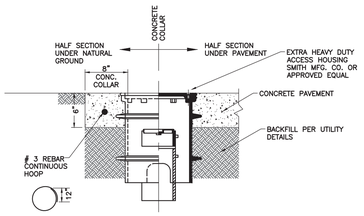
SECTION "A-A"

N.T.S.



SANITARY SEWER STACK FOR BUILDING CONNECTIONS

N.T.S.



SANITARY SEWER CLEANOUT

N.T.S.

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281

BRIAN W. REED
120423
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS

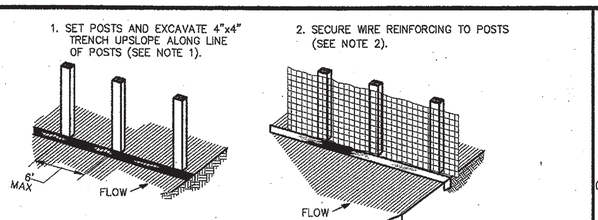
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C7.04

SANITARY SEWER DETAILS

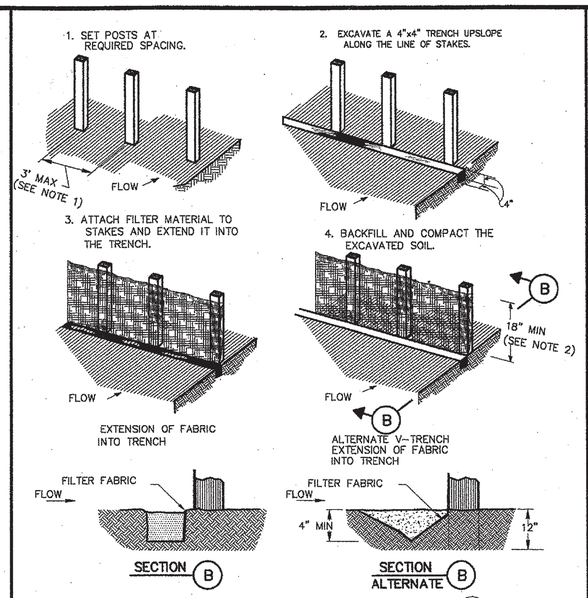


CONSTRUCTION NOTES:

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

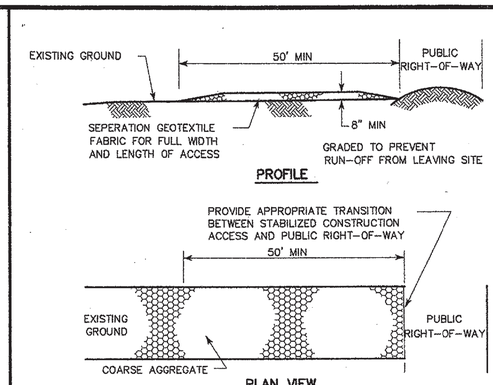


CONSTRUCTION NOTES:

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

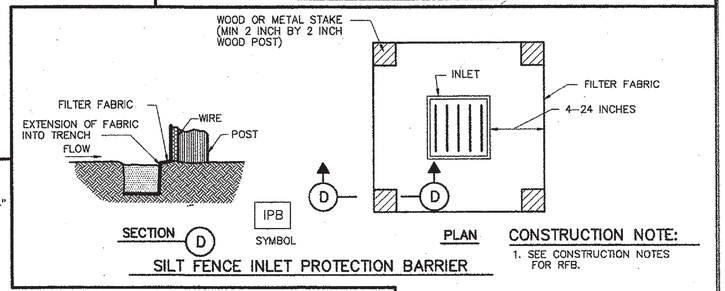


CONSTRUCTION NOTES:

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.

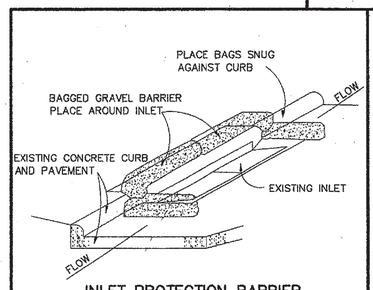
SC
SYMBOL

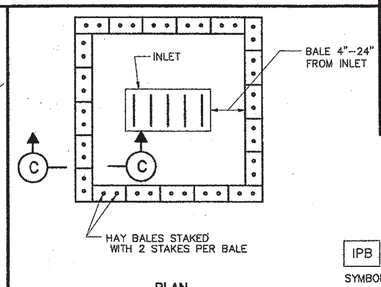
STABILIZED CONSTRUCTION ACCESS



CONSTRUCTION NOTE:

1. SEE CONSTRUCTION NOTES FOR RFB.

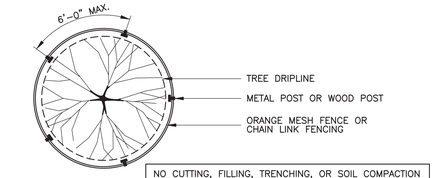




CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

STORM WATER POLLUTION PREVENTION PLAN DETAILS
(NOT TO SCALE)

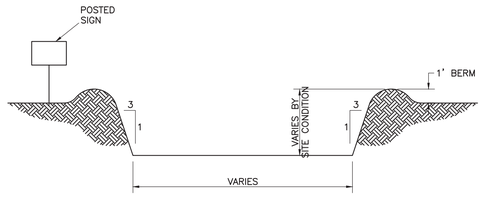
APPROVED	APPROVED
CITY ENGINEER	DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010	DWG NO: 01571-01



TREE PROTECTION DETAIL
N.T.S.

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETION AND SUBMISSION OF ALL APPLICABLE STATE AND FEDERAL FORMS REQUIRED FOR STORM WATER POLLUTION PREVENTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION, IMPLEMENTATION, MAINTENANCE, AND INSPECTION OF STORM WATER POLLUTION PREVENTION CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, EROSION AND SEDIMENT CONTROLS, STORM WATER MANAGEMENT PLANS, WASTE COLLECTION AND DISPOSAL, OFF-SITE VEHICLE TRACKING, AND OTHER PRACTICES.
2. CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL ADDITIONAL STORM WATER POLLUTION PREVENTION AND STORM WATER CONTROL MEASURES AND SUBMITTALS TO ALL GOVERNING AGENCIES INCLUDING THE EPA REQUIRED DURING CONSTRUCTION TO MEET THE GUIDELINES SET FORTH IN THE STORM WATER MANAGEMENT HANDBOOK FOR CONSTRUCTION ACTIVITIES PREPARED BY THE CITY OF HOUSTON, HARRIS COUNTY AND HARRIS COUNTY FLOOD CONTROL DISTRICT, LATEST EDITION.



SECTION A-A
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 NOWHERE ELSE.
3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASH OUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS AND EQUIPMENT.

CONCRETE TRUCK WASH OUT AREA

CTW
SYMBOL

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281
BRIAN W. REED
126433
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

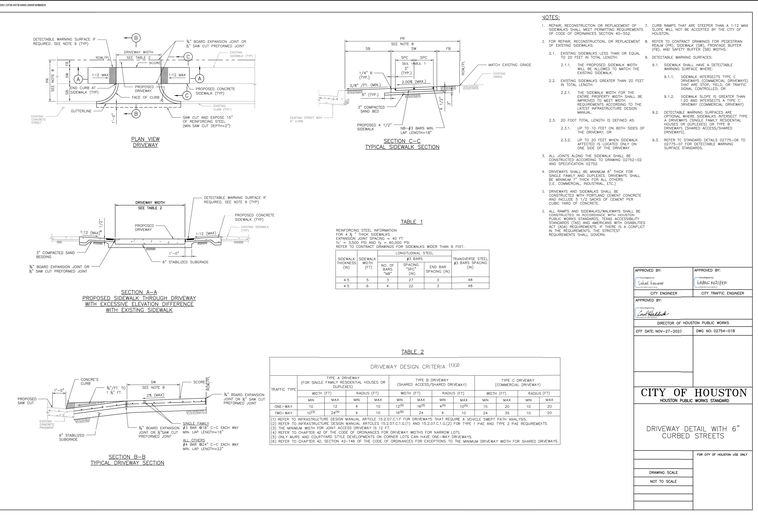
PROJECT NO.	2502 (B101-101)
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C7.05

STORM WATER POLLUTION PREVENTION DETAILS

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40B66D5



NOTES:

1. REPAIR, RECONSTRUCTION OR REPLACEMENT OF SIDEWALKS SHALL MEET PERMITTING REQUIREMENTS AS SET FORTH IN CHAPTER 42 OF THE CODE.
2. FOR REPAIR, RECONSTRUCTION, OR REPLACEMENT OF EXISTING SIDEWALKS:
   - 2.1. EXISTING SIDEWALKS LESS THAN OR EQUAL TO 20 FEET TOTAL LENGTH:
     - 2.1.1. THE PROPOSED SIDEWALK WIDTH WILL BE ALLOWED TO MATCH THE EXISTING SIDEWALK.
   - 2.2. EXISTING SIDEWALKS GREATER THAN 20 FEET IN LENGTH:
     - 2.2.1. THE SIDEWALK WIDTH FOR THE ENTIRE PROPERTY WIDTH SHALL BE IMPROVED TO MEET WIDTH REQUIREMENTS ACCORDING TO THE LATEST INFRASTRUCTURE DESIGN MANUAL.
   - 2.3. 20 FOOT TOTAL LENGTH IS DEFINED AS:
     - 2.3.1. UP TO 10 FEET ON BOTH SIDES OF THE DRIVEWAY.
     - 2.3.2. UP TO 20 FEET WHEN SIDEWALK AFFECTED IS LOCATED ONLY ON ONE SIDE OF THE DRIVEWAY.
3. ALL JOINTS ALONG THE SIDEWALK SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAIL 02760-02 AND SPECIFICATION 02753.
4. DRIVEWAYS SHALL BE MINIMUM 6" THICK FOR RESIDENTIAL AND 8" THICK FOR COMMERCIAL AND SHALL BE MINIMUM 4" THICK FOR ALL OTHERS (I.E. COMMERCIAL, INDUSTRIAL, ETC.)
5. DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE AND INCLUDE 5 1/2 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
6. ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
7. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.
8. REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.
9. DETECTABLE WARNING SURFACES:
   - 9.1. ALL RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE WIDTH:
     - 9.1.1. SIDEWALK INTERSECTS TYPE C (RESIDENTIAL DRIVEWAY), UNSIGNED MINOR APPROACH, OR UNSIGNED MINOR SIGNAL CONTROLLED; OR
     - 9.1.2. SIDEWALK SLOPE IS GREATER THAN 1:20 AND INTERSECTS A TYPE C (RESIDENTIAL DRIVEWAY).
   - 9.2. DETECTABLE WARNING SURFACES ARE OPTIONAL WHERE SIDEWALKS INTERSECT TYPE A OR TYPE B (COMMERCIAL DRIVEWAYS, HOUSES NOT SURVEYED) OR TYPE C (DRIVEWAY, COVERED ACCESS/SHARED DRIVEWAY).
   - 9.3. REFER TO STANDARD DETAILS 02775-06 TO 02775-09 FOR DETECTABLE WARNING SURFACE STANDARDS.

TABLE 1

REINFORCING STEEL INFORMATION FOR 4 & 5 THICK SIDEWALKS
(BASED ON ASSUMED VALUES OF f'c = 4,000 PSI AND fy = 60,000 PSI)
REFER TO CONTRACT DRAWINGS FOR SIDEWALKS WIDER THAN 6 FEET.

SIDEWALK THICKNESS (IN)	SIDEWALK WIDTH (FT)	#3 BARS: NO. OF "SHORT" BARS	#3 BARS: SPACING "SHORT" BARS (IN)	#3 BARS: NO. OF "LONG" BARS	#3 BARS: SPACING "LONG" BARS (IN)	TRANSVERSE STEEL #3 BARS SPACING (IN)
4.5	5	7	12	3	48	48
4.5	6	9	12	3	48	48

TABLE 2

DRIVEWAY DESIGN CRITERIA (1)(2)

TRAFFIC TYPE	TYPE A DRIVEWAY (FOR SINGLE FAMILY RESIDENTIAL HOUSES OF DUPLEXES)			TYPE B DRIVEWAY (SHARED ACCESS/SHARED DRIVEWAYS)			TYPE C DRIVEWAY (COMMERCIAL DRIVEWAYS)		
	WIDTH (7)		RADIUS (FT)	WIDTH (7)		RADIUS (FT)	WIDTH (FT)		RADIUS (FT)
	MIN	MAX	MAX	MIN	MAX	MAX	MIN	MAX	MAX
ONE-WAY	10	15	5	10	20 (8)	25 (8)	20	30	30
TWO-WAY	10 (3)	24 (4)	5	10	30 (8)	25	30	40	30

(1) REFER TO INFRASTRUCTURE DESIGN MANUAL ARTICLE 10.2.2.7.2.1.F FOR DRIVEWAYS THAT REQUIRE A VEHICLE SWEPT PATH ANALYSIS.
(2) REFER TO INFRASTRUCTURE DESIGN MANUAL ARTICLES 10.2.2.7.2.1.A.(1) AND 10.2.2.7.2.1.B.(2) FOR TYPE 1 PAE AND TYPE 2 PAE REQUIREMENTS.
(3) ONE-WAY DRIVEWAYS SHALL BE SIGNED AS SUCH.
(4) REFER TO CHAPTER 42 OF THE CODE OF ORDINANCES FOR DRIVEWAY WIDTHS FOR NARROW LOTS.
(5) ONLY WORK AND COURTYARD STYLE DEVELOPMENTS ON CORNER LOTS CAN HAVE ONE-WAY DRIVEWAYS.
(6) REFER TO CHAPTER 42, SECTION 42-156 OF THE CODE OF ORDINANCES FOR EXCEPTIONS TO THE MINIMUM DRIVEWAY WIDTH FOR SHARED DRIVEWAYS.

APPROVED BY:	APPROVED BY:
Sukul Kapoor	Lating Nguyen
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY:	
Carl Hubbuch	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02754-018

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

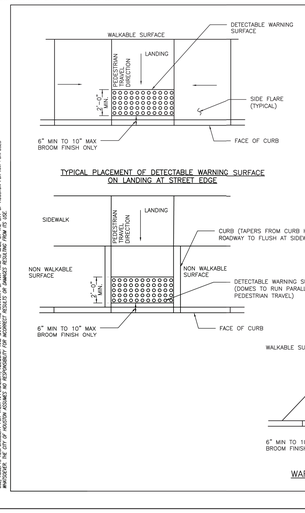
DRIVEWAY DETAIL WITH 6" CURBED STREETS

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NOT TO SCALE

DISCLAIMER:
IN NO WAY DOES STANDARD IS GIVEN BY THE STATE CHANGING PRACTICE ACT, THE USTDA REQUIREMENTS ON THIS STANDARD DO NOT EXEMPT YOU ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH YOUR WORK ZONE. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF WORKERS AND THE PUBLIC AT ALL TIMES AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO ACCOMPLISH THIS OBJECTIVE. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL TEMPORARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE LATEST EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) AND ANY APPLICABLE CITY OF HOUSTON REQUIREMENTS. THE CITY OF HOUSTON, BY APPROVING THIS STANDARD, ASSUMES NO RESPONSIBILITY FOR ANY LIABILITY ARISING FROM ITS USE.

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40B66D5



GENERAL NOTES FOR DETECTABLE WARNINGS:

1. DETECTABLE WARNING SURFACES MUST BE FULLY ADA COMPLIANT.
2. ALL NEW CURB RAMPS MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSISTS OF RAISED TRUNCATED DOMES. THE SURFACE MUST CONTRAST VISUALLY WITH ADJOINING SURFACE, INCLUDING SIDE FLARES. FURNISH DARK BROWN OR DARK RED DETECTABLE WARNING SURFACE ADJACENT TO UNCOLORED CONCRETE, UNLESS SPECIFIED ELSEWHERE IN THE PLANS.
3. DETECTABLE WARNING SURFACES MUST MAINTAIN A SLIP RESISTANCE WITH FA-VALUE OF EQUAL TO OR GREATER THAN 0.8.
4. DETECTABLE WARNING SURFACES MUST MAINTAIN A WATER ABSORPTION RATE OF LESS THAN 1%. DETECTABLE WARNING SURFACES SHALL NOT ALLOW WATER TO ACCUMULATE.
5. DETECTABLE WARNINGS INSTALLED INTO FRESH CONCRETE SHALL BE WITHOUT VOIDS AND UTILIZING AN ACCEPTABLE ANCHORING SYSTEM.
6. ALIGN TRUNCATED DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL WHEN ENTERING THE STREET.
7. DETECTABLE WARNING SURFACES SHALL BE A MINIMUM OF 24" IN DEPTH IN THE DIRECTION OF PEDESTRIAN TRAVEL, AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR LANDING WHERE THE PEDESTRIAN ACCESS ROUTE ENTERS THE STREET.
8. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6" MIN TO 10" MAX FROM THE DETECTABLE WARNING SURFACES MAY BE CURVED ALONG THE CORNER RADIUS.
9. ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
10. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

DETECTABLE WARNING CURB RAMP DETAILS
(SCALE: NOT TO SCALE)
APPROVED BY:

Sukul Kapoor	Carl Hubbuch
CITY ENGINEER	DIRECTOR OF HPW
Lating Nguyen	
CITY TRAFFIC ENGINEER	
EFF DATE: NOV-27-2023	DWG NO: 02775-06

DISCLAIMER:
IN NO WAY DOES STANDARD IS GIVEN BY THE STATE CHANGING PRACTICE ACT, THE USTDA REQUIREMENTS ON THIS STANDARD DO NOT EXEMPT YOU ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH YOUR WORK ZONE. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF WORKERS AND THE PUBLIC AT ALL TIMES AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO ACCOMPLISH THIS OBJECTIVE. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL TEMPORARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE LATEST EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) AND ANY APPLICABLE CITY OF HOUSTON REQUIREMENTS. THE CITY OF HOUSTON, BY APPROVING THIS STANDARD, ASSUMES NO RESPONSIBILITY FOR ANY LIABILITY ARISING FROM ITS USE.

DocuSign Envelope ID: 9B122261-CF05-457B-9A65-2650F40B66D5

NOTES:

1. ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
2. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.
3. THIS STANDARD DETAIL SHALL BE USED ONLY IF THE ROADWAY GEOMETRIC DOESN'T ALLOW STANDARD DETAILS 02775-02, 02775-03, AND 02775-09 TO BE USED.
4. THIS STANDARD DETAIL SHALL NOT BE USED IN LIEU OF STANDARD DETAILS 02775-02, 02775-03, AND 02775-09 UNLESS APPROVED BY THE CITY.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

COMMERCIAL & HIGH DENSITY CONDITIONS CURB RAMP DETAILS
(SCALE: NOT TO SCALE)
APPROVED BY:

Sukul Kapoor	Carl Hubbuch
CITY ENGINEER	DIRECTOR OF HPW
Lating Nguyen	
CITY TRAFFIC ENGINEER	
EFF DATE: NOV-27-2023	DWG NO: 02775-05

DISCLAIMER:
IN NO WAY DOES STANDARD IS GIVEN BY THE STATE CHANGING PRACTICE ACT, THE USTDA REQUIREMENTS ON THIS STANDARD DO NOT EXEMPT YOU ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH YOUR WORK ZONE. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF WORKERS AND THE PUBLIC AT ALL TIMES AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO ACCOMPLISH THIS OBJECTIVE. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL TEMPORARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE LATEST EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) AND ANY APPLICABLE CITY OF HOUSTON REQUIREMENTS. THE CITY OF HOUSTON, BY APPROVING THIS STANDARD, ASSUMES NO RESPONSIBILITY FOR ANY LIABILITY ARISING FROM ITS USE.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

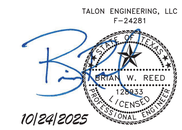
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281



10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	October 24, 2025
DRAWN	JDK
CHECKED	BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C7.06

CITY OF HOUSTON PAVEMENT DETAILS

StormTrap®

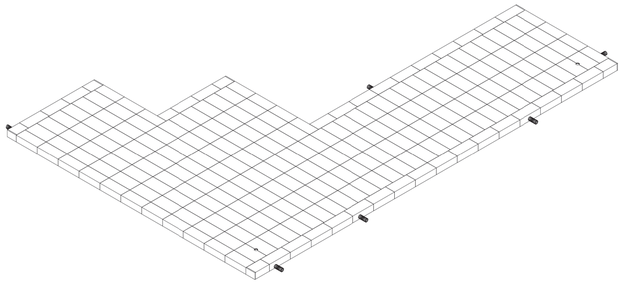
MODULAR CONCRETE
STORMWATER MANAGEMENT

THE STORMTRAP DRAWINGS SHALL NOT BE ALTERED OR MANIPULATED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF STORMTRAP. USE OF THESE DRAWINGS IS STRICTLY GRANTED TO YOU, OUR CLIENT, FOR THE SPECIFIED AND NAMED PROJECT ONLY. THESE DRAWINGS ARE FOR YOUR REFERENCE ONLY AND SHALL NOT BE USED FOR MANUFACTURING PURPOSES.

SHEET INDEX	
PAGE	DESCRIPTION
0.0	COVER SHEET
1.0	GENERAL NOTES
1.1	SINGLETRAP DESIGN CRITERIA
2.0	SINGLETRAP SYSTEM LAYOUT
3.0	SINGLETRAP INSTALLATION SPECIFICATION
3.1	SINGLETRAP INSTALLATION SPECIFICATION
4.0	SINGLETRAP BACKFILL SPECIFICATION
5.0	PIPE/ACCESS OPENING SPECIFICATION
6.0	SPLASH PAD & GEOWEB DETAILS
7.0	SINGLETRAP MODULE TYPES

STORMTRAP CONTACT INFORMATION

STORMTRAP SUPPLIER: STORMTRAP
CONTACT NAME: Tyler Keegan
CELL PHONE: (346) 845-5901
SALES EMAIL: tkeegan@stormtrap.com



Cimarron Elementary School
Houston , TX

StormTrap®
PATENTS LISTED AT: [HTTPS://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4548 / F:331-318-5347

ENGINEER INFORMATION:
Talon Engineering
16225 Park Ten Pl
Houston, TX
77084
832.287.9874

PROJECT INFORMATION:
Cimmarron Elementary
School
Houston, TX

CURRENT ISSUE DATE:
09/02/2025

ISSUED FOR:
PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
3	09/02/2025	PRELIMINARY	KS
2	08/29/2025	PRELIMINARY	KS
1	07/08/2025	PRELIMINARY	KS

SCALE:
NTS

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
0.0

GENERAL NOTES:

1. STRUCTURE PROXIMITY LOADING DISCLAIMER:

   STORMTRAP MODULES AND FOUNDATION ARE NOT DESIGNED TO ACCEPT ANY ADDITIONAL LOADING FROM ANY NEARBY STRUCTURES NEXT TO OR OVER THE TOP OF STORMTRAP. EXAMPLES OF NEARBY STRUCTURES MAY INCLUDE BUT ARE NOT LIMITED TO BUILDINGS, FOUNDATION ELEMENTS, RETAINING WALLS, LIGHT POLES, BOLLARDS, SIGNPOSTS, FENCES. ADDITIONALLY, STORMTRAP IS NOT RESPONSIBLE FOR INSTALLATION CONFLICTS ARISING FROM ANY OF THESE NEARBY STRUCTURES. IF ADDITIONAL LOADING CONSIDERATIONS ARE REQUIRED FOR STRUCTURAL DESIGN OF STORMTRAP, PLEASE CONTACT STORMTRAP IMMEDIATELY, FOR LIGHT POLES SHOWN OVER THE TOP OF THE SYSTEM, STORMTRAP WILL PROVIDE A 5'-0" LATERAL DISTANCE CAVITY AROUND THE LIGHT POLE TO ACCOMMODATE IT. THE EOR TO TAKE RESPONSIBILITY FOR ENSURING THE LIGHT POLE IS NOT INFLICTING ANY LOADING ON THE STORMTRAP MODULES AND FOUNDATION.

2. TREE LOADING DISCLAIMER:

   THE NUMBER OF TREES OR WEIGHT OF TOTAL PLANT MATERIAL PRESENT ON TOP OF A SINGLE STORMTRAP MODULE SHALL NOT EXCEED 16,000 LBS. THE REQUIREMENTS LISTED HERE APPLY AT BOTH THE TIME OF INSTALLATION AND FOR THE LIFE OF THE TREES AND PLANTS IN QUESTION. THE EOR AND LANDSCAPE ARCHITECT ARE RESPONSIBLE FOR ENSURING THAT TREE AND OTHER PLANT ROOTS DO NOT INTERFERE WITH OR COMPROMISE THE FUNCTIONAL AND STRUCTURAL INTEGRITY OF STORMTRAP'S UNDERGROUND MODULES. APPROPRIATE MEASURES SHOULD BE TAKEN TO PREVENT ROOT GROWTH INTO THE STORMTRAP SYSTEM FROM ADJACENT OR OVERHEAD TREES. FURTHERMORE, THE ROOTS OF THE TREES MUST BE CONTAINED TO PREVENT FUTURE DAMAGE TO THE STORMTRAP SYSTEM. STORMTRAP ACCEPTS NO LIABILITY FOR DAMAGES CAUSED BY TREES OR OTHER VEGETATION PLACED AROUND OR ON TOP OF THE SYSTEM.

3. PRE-TREATMENT/SEDIMENT/FILTER CHAMBER DISCLAIMER:

   FOR SYSTEMS CONTAINING PRE-TREATMENT, SEDIMENTATION AND/OR FILTER CHAMBERS; IF REQUIRED TO BE SEALED TO PREVENT SAND AND/OR PRE-TREATED WATER FROM MIGRATING INTO ADJOINING MODULES, IT IS THE SOLE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT THOSE MODULES ARE SEALED.

4. OUTLET CONTROL STRUCTURE DISCLAIMER (IF SHOWN ON THESE PLANS):

   IF A WATERTIGHT SOLUTION IS REQUIRED FOR AN OUTLET CONTROL STRUCTURE, ALL EXTERIOR COLD JOINTS, INCLUDING JOINT BETWEEN TOP AND BASE MODULES, BETWEEN TOP AND BASE OF ADJOINING SYMONS WALLS, AND JOINTS BETWEEN MODULE AND ADJACENT END PANELS WILL BE THE SOLE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO PROVIDE AND INSTALL THE WATERTIGHT APPLICATION PER THE EOR'S SPECIFICATION.

StormTrap®
PATENTS LISTED AT: [HTTPS://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4548 / F:331-318-5347

ENGINEER INFORMATION:
Talon Engineering
16225 Park Ten Pl
Houston, TX
77084
832.287.9874

PROJECT INFORMATION:
Cimmarron Elementary
School
Houston, TX

CURRENT ISSUE DATE:
09/02/2025

ISSUED FOR:
PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
3	09/02/2025	PRELIMINARY	KS
2	08/29/2025	PRELIMINARY	KS
1	07/08/2025	PRELIMINARY	KS

SCALE:
NTS

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:
1.0

STRUCTURAL DESIGN LOADING CRITERIA	
LIVE LOADING:	AASHTO HS-20 HIGHWAY LOADING
GROUND WATER TABLE:	BELOW INVERT OF SYSTEM
SOIL BEARING PRESSURE:	4000PSF
SOIL DENSITY:	120 PCF
EQUIVALENT UNSATURATED LATERAL ACTIVE EARTH PRESSURE:	35 PSF / FT.
EQUIVALENT SATURATED LATERAL ACTIVE EARTH PRESSURE:	80 PSF/FT. (IF WATER TABLE PRESENT)
APPLICABLE CODES:	ASTM C857 ACI-318
BACKFILL TYPE:	SEE SHEET 4.0 FOR BACKFILL OPTIONS

STORMTRAP SYSTEM INFORMATION	
UNIT HEADROOM:	3'-10" SINGLETRAP
TOTAL STORAGE PROV:	102,877.19 CUBIC FEET

SITE SPECIFIC DESIGN CRITERIA

1. STORMTRAP UNITS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/ OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
2. COVER RANGE: MIN. 0.67" MAX. 1.17' CONSULT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
3. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO STORMTRAP INSTALLATION.
4. FOR STRUCTURAL CALCULATIONS THE GROUND WATER TABLE IS ASSUMED TO BE BELOW INVERT OF SYSTEM IF WATER TABLE IS DIFFERENT THAN ASSUMED, CONTACT STORMTRAP.

StormTrap®
PATENTS LISTED AT: [HTTPS://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4548 / F:331-318-5347

ENGINEER INFORMATION:
Talon Engineering
16225 Park Ten Pl
Houston, TX
77084
832.287.9874

PROJECT INFORMATION:
Cimmarron Elementary
School
Houston, TX

CURRENT ISSUE DATE:
09/02/2025

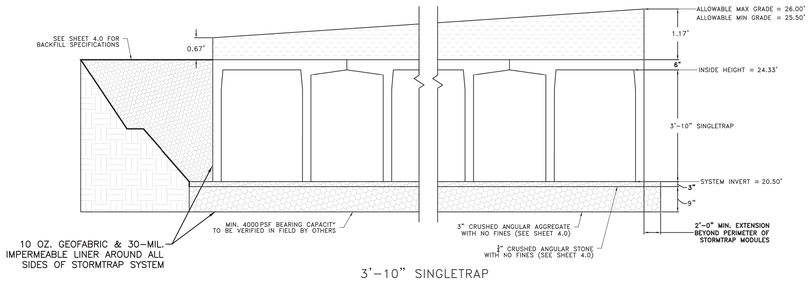
ISSUED FOR:
PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
3	09/02/2025	PRELIMINARY	KS
2	08/29/2025	PRELIMINARY	KS
1	07/08/2025	PRELIMINARY	KS

SCALE:
NTS

SHEET TITLE:
SINGLETRAP
DESIGN
CRITERIA

SHEET NUMBER:
1.1



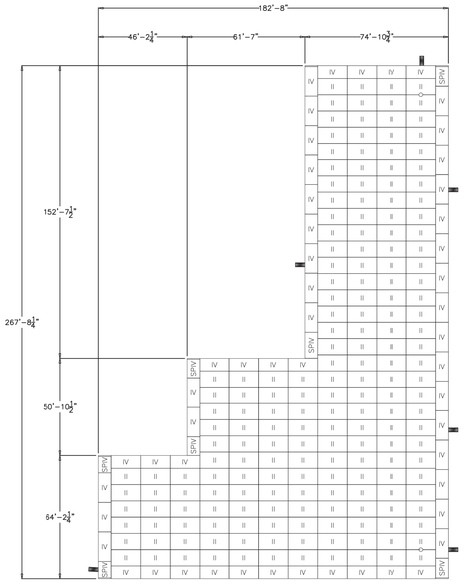
3'-10" SINGLETRAP

BILL OF MATERIALS

QTY.	UNIT TYPE	DESCRIPTION	WEIGHT
0	I	3'-10" SINGLETRAP	0
186	II	3'-10" SINGLETRAP	16483
0	III	3'-10" SINGLETRAP	0
52	IV	3'-10" SINGLETRAP	14785
0	VII	3'-10" SINGLETRAP	0
0	VII-1	3'-10" SINGLETRAP	0
0	VII-2	3'-10" SINGLETRAP	0
0	VII-3	3'-10" SINGLETRAP	0
0	VII-4	3'-10" SINGLETRAP	0
0	SPIII	3'-10" SINGLETRAP	VARIES
7	SPIV	3'-10" SINGLETRAP	VARIES
0	T2 PANEL	6" THICK PANEL	0
6	T4 PANEL	6" THICK PANEL	2152
0	T7 PANEL	6" THICK PANEL	0
45	JOINTWRAP	150' PER ROLL	
0	JOINTTAPE	14.5' PER ROLL	
		TOTAL PIECES = 245	
		TOTAL PANELS = 6	
		HEAVIEST PICK WEIGHT = 16,483	

DESIGN CRITERIA
ALLOWABLE MAX GRADE = 26.00'
ALLOWABLE MIN GRADE = 25.50'
INSIDE HEIGHT ELEVATION = 24.33'
SYSTEM INVERT = 20.50'

NOTES:
1. DIMENSIONING OF STORMTRAP SYSTEM SHOWN BELOW ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
2. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
3. SEE SHEET 3.0 FOR INSTALLATION SPECIFICATIONS.
4. SP – INDICATES A MODULE WITH MODIFICATIONS.
5. P – INDICATES A MODULE WITH A PANEL ATTACHMENT.
6. CONTRACTORS RESPONSIBILITY TO ENSURE CONSISTENCY/ACCURACY TO FINAL ENGINEER OF RECORD PLAN SET.
7. IN ORDER FOR STORMTRAP TO GENERATE APPROVAL DRAWINGS, CIVIL ENGINEERING DRAWINGS MUST BE PROVIDED TO STORMTRAP AND SHALL INCLUDE ALL PIPE SIZES, PIPE MATERIAL, PIPE INVERT ELEVATIONS, ACCESS OPENING SIZE AND SHAPE. IN ADDITION, FINAL GRADING PLANS SHALL ALSO INCLUDE MINIMUM AND MAXIMUM GRADES OVER THE TOP OF THE STORMTRAP SYSTEM.



StormTrap®
PATENTS LISTED AT: [HTTPS://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4548 / F:331-318-5347

ENGINEER INFORMATION:
Talon Engineering
16225 Park Ten Pl
Houston, TX
77084
832.287.9874

PROJECT INFORMATION:
Cimmarron Elementary
School
Houston, TX

CURRENT ISSUE DATE:
09/02/2025

ISSUED FOR:
PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
3	09/02/2025	PRELIMINARY	KS
2	08/29/2025	PRELIMINARY	KS
1	07/08/2025	PRELIMINARY	KS

SCALE:
NTS

SHEET TITLE:
SINGLETRAP
SYSTEM LAYOUT

SHEET NUMBER:
2.0

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281

BRENT W. REED
124133
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

C7.07

UNDERGROUND DETENTION DETAILS (SHEET 1 OF 3)

STORMTRAP INSTALLATION SPECIFICATION

1. STORMTRAP SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C891 (STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES). THE FOLLOWING ADDITIONS AND/OR EXCEPTIONS ARE PROVIDED FOR EMPHASIS. THE MENTION OF THESE ITEMS DOES NOT PRECLUDE THE INSTALLING CONTRACTOR FROM FOLLOWING ASTM C891 IN ITS ENTIRETY AND IMPLEMENTING ALL APPROPRIATE MEASURES. THE INSTALLING CONTRACTOR OWNS AND IS RESPONSIBLE FOR THE STORMTRAP SYSTEM UPON REMOVAL OF THE MODULES FROM THE DELIVERY TRUCK THROUGH "FINAL CONSTRUCTION". FINAL CONSTRUCTION IS ACHIEVED WHEN ALL MODULES ARE SET, FULLY BACKFILLED, AND WHEN FINAL FINISHED GRADES ARE REACHED. THE CONTRACTOR IS RESPONSIBLE FOR ANY COUNTERMEASURES NECESSARY TO RESIST UPLIFT/BUOYANCY BEFORE "FINAL CONSTRUCTION" IS ACHIEVED.

2. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT PROPER/ADEQUATE EQUIPMENT IS USED TO SET/INSTALL THE MODULES.

3. THE AGGREGATE FOUNDATION HAS BEEN DESIGNED BASED ON THE FOLLOWING ASSUMPTIONS. THESE ASSUMPTIONS WILL NEED TO BE VERIFIED BY A GEOTECHNICAL ENGINEER WHICH WILL NEED TO BE EMPLOYED BY THE OWNER.

   3.1. A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY OWNER, TO PROVIDE ASSISTANCE IN EVALUATING THE EXISTING SOIL CONDITIONS BELOW THE PROPOSED ENGINEERED STONE FOUNDATION. IF A STONE FOUNDATION DESIGN IS TO BE USED, THE BEARING PRESSURE OF THE SOILS BELOW THE STONE WILL NEED TO MEET OR EXCEED ALLOWABLE CAPACITY. IF THIS IS NOT POSSIBLE, THE STONE FOUNDATION MAY NOT BE AN OPTION FOR THIS LOCATION.

   3.2. A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY OWNER, TO EVALUATE A SOURCE OF STONE AGGREGATES THAT WILL BE PLACED ON PROPERLY COMPACTED SOILS (SEE SHEET 1.1 FOR SOIL BEARING CAPACITY REQUIREMENTS). THE AGGREGATE BASE COURSE FOR WHICH THE STORMTRAP SYSTEM WILL BEAR DIRECTLY ON SHALL CONSIST OF A 3" THICK BED OF ¾" DIAMETER ANGULAR STONE, WELL COMPACTED AND SEATED, WITH NO FINES, AND A 9" THICK BED OF 3" ANGULAR AGGREGATE (SEE SHEET 4.0 FOR FURTHER DESCRIPTION/EXPLANATION). PLEASE NOTE THAT THESE ARE ONLY MINIMUM RECOMMENDATIONS AND A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE USED TO DETERMINE THE EXACT REQUIREMENTS FOR THE LOCATIONS THAT THE STORMTRAP SYSTEM IS TO BE LOCATED.

   3.3. THE CONTRACTOR SHALL REMOVE ANY AND ALL EXPANDABLE OR COLLAPSIBLE SOILS AT THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER.

   3.4. THE AGGREGATE FOUNDATION SHALL BE INSTALLED SUCH THAT THE AGGREGATE EXTENDS A MINIMUM OF 2'-0" PAST THE OUTSIDE OF THE SYSTEM (SEE DETAIL 1).

   3.5. THE ¾" AGGREGATE SHALL BE COMPACTED USING A VIBRATING ROLLER WITH ITS' FULL DYNAMIC FORCE APPLIED TO ACHIEVE A FLAT SURFACE.

   3.6. DISK, DRY AND COMPACT THE TOP 8" OF THE SUBGRADE SOILS TO 95% OF THE STANDARD DRY DENSITY AND 110% OPTIMUM MOISTURE CONTENT.

   3.7. AGGREGATE SHALL BE GRADED WITHIN +/- ½" OF THE GRADE SHOWN ON THE PLANS.

   3.8. MINIMUM SOIL BEARING CAPACITY LISTED ON SHEET 1.1 SHALL BE VERIFIED IN FIELD BY OTHERS.

4. THE STORMTRAP MODULES SHALL BE PLACED SUCH THAT THE MAXIMUM SPACE BETWEEN ADJACENT MODULES DOES NOT EXCEED 3" (SEE DETAIL 2). IF THE SPACE EXCEEDS 3", THE MODULES SHALL BE RESET WITH APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION.

5. STORMTRAP MODULES ARE NOT WATERTIGHT.

6. ALL EXTERIOR ROOF AND EXTERIOR VERTICAL WALL JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH 8" WIDE PRE-FORMED, COLD-APPLIED, SELF-ADHERING ELASTOMERIC RESIN, BONDED TO A WOVEN , HIGHLY PUNCTURE RESISTANT POLYMER WRAP, CONFORMING TO ASTM C891 AND SHALL BE INTEGRATED WITH PRIMER SEALANT AS APPROVED BY STORMTRAP (SEE DETAILS 2, 3, & 4). THE JOINT WRAP DOES NOT PROVIDE A WATERTIGHT SEAL THE SOLE PURPOSE OF THE JOINT WRAP IS TO PROVIDE A SLIT AND SOIL TIGHT SYSTEM. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS:

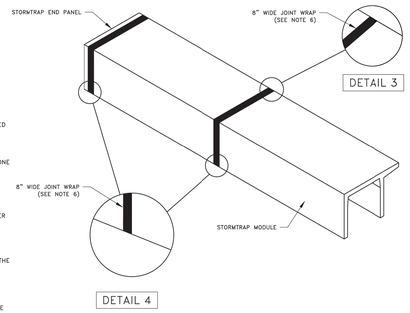
   6.1. USE A BRUSH OR WET CLOTH TO THOROUGHLY CLEAN THE OUTSIDE SURFACE AT THE POINT WHERE THE JOINT WRAP IS TO BE APPLIED.

   6.2. A RELEASE PAPER PROTECTS THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE, REMOVING THE RELEASE PAPER AS YOU GO. PRESS THE JOINT WRAP FIRMLY AGAINST THE STORMTRAP MODULE SURFACE WHEN APPLYING.

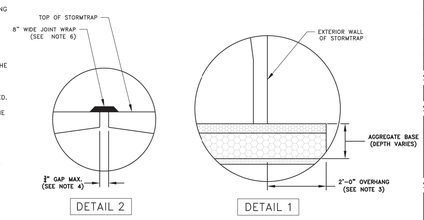
7. IF THE CONTRACTOR NEEDS TO CANCEL ANY SHIPMENTS, THEY MUST DO SO 48 HOURS PRIOR TO THEIR SCHEDULED ARRIVAL AT THE JOB SITE. IF CANCELED AFTER THAT TIME, PLEASE CONTACT THE PROJECT MANAGER.

8. IF THE STORMTRAP MODULE(S) IS DAMAGED IN ANY WAY PRIOR, DURING, OR AFTER INSTALL, STORMTRAP, MUST BE CONTACTED IMMEDIATELY TO ASSESS THE DAMAGE AND TO DETERMINE WHETHER OR NOT THE MODULE(S) WILL NEED TO BE REPLACED. IF ANY MODULE ARRIVES AT THE JOBSITE DAMAGED DO NOT UNLOAD IT; CONTACT STORMTRAP, IMMEDIATELY. ANY DAMAGE NOT REPORTED BEFORE THE TRUCK IS UNLOADED WILL BE THE CONTRACTOR'S RESPONSIBILITY.

9. STORMTRAP MODULES CANNOT BE ALTERED IN ANY WAY AFTER MANUFACTURING WITHOUT WRITTEN CONSENT FROM STORMTRAP.



DETAIL 4



DETAIL 2 DETAIL 1

StormTrap®
PATENTS LISTED AT: [HTTP://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4549 / F:331-318-5347

ENGINEER INFORMATION:
Talon Engineering
16225 Park Ten Pl
Houston, TX
77084
832.287.9874

PROJECT INFORMATION:
Cimmarron Elementary
School
Houston, TX

CURRENT ISSUE DATE:
09/02/2025

ISSUED FOR:
PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
⚠3	09/02/2025	PRELIMINARY	KS
2	08/29/2025	PRELIMINARY	KS
1	07/08/2025	PRELIMINARY	KS

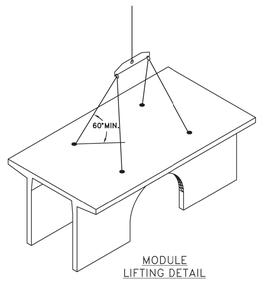
SCALE: NTS

SHEET TITLE: SINGLETRAP INSTALLATION SPECIFICATION

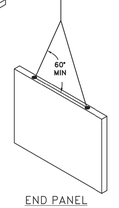
SHEET NUMBER: 3.0

STORMTRAP MODULE LIFTING SPECIFICATION

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL (4) CHAINS/CABLES ARE SECURED PROPERLY TO THE LIFTING ANCHORS AND IN EQUAL TENSION WHEN LIFTING THE STORMTRAP MODULE.
2. MINIMUM 7'-0" CHAIN/CABLE LENGTH TO BE USED TO LIFT STORMTRAP MODULES (SUPPLIED BY CONTRACTOR).
3. CONTRACTOR TO ENSURE MINIMUM LIFTING ANGLE IS 60° FROM TOP SURFACE OF STORMTRAP MODULE. SEE DETAIL.
4. IT IS UNDERSTOOD AND AGREED THAT AT ALL TIMES DURING WHICH HOISTING AND RIGGING EQUIPMENT IS BEING SUPPLIED TO THE PURCHASER, OPERATOR OF SUCH EQUIPMENT SHALL BE IN CHARGE OF HIS ENTIRE EQUIPMENT AND SHALL AT ALL TIMES BE THE JUDGE OF THE SAFETY AND PROPERTY OF ANY SUGGESTION TO HIM FROM THE SELLER, ITS AGENTS OR EMPLOYEES. PURCHASER AGREES TO SAVE, INDEMNIFY AND HOLD HARMLESS SELLER FROM ALL LOSS, CLAIMS, DEMANDS OR CAUSES OF ACTION, WHICH MAY ARISE FROM THE EXISTENCE OR OPERATION OF SAID EQUIPMENT.



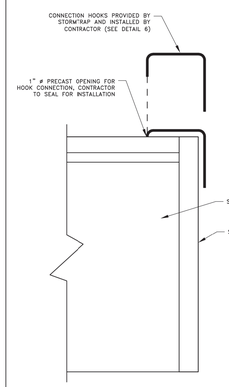
MODULE LIFTING DETAIL



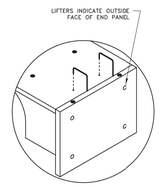
END PANEL LIFTING DETAIL

END PANEL ERECTION/INSTALLATION SPECIFICATION

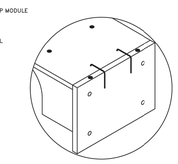
1. END PANELS WILL BE SUPPLIED TO CLOSE OFF OPEN ENDS OF ROWS.
2. PANELS SHALL BE INSTALLED IN A TILT UP FASHION DIRECTLY ADJACENT TO OPEN END OF MODULE (REFER TO SHEET 2.0 FOR END PANEL LOCATIONS). SIDE WITH LIFTERS INDICATES OUTSIDE FACE.
3. CONNECTION HOOKS WILL BE SUPPLIED WITH END PANELS TO SECURELY CONNECT PANEL TO ADJACENT STORMTRAP MODULE (SEE PANEL CONNECTION ELEVATION VIEW).
4. ONCE CONNECTION HOOK IS ATTACHED, LIFTING CLUTCHES MAY BE REMOVED.
5. JOINT WRAP SHALL BE PLACED AROUND PERIMETER JOINT PANEL (SEE SHEET 3.0).



PANEL CONNECTION ELEVATION VIEW



STEP 1


STEP 2 DETAIL 6

StormTrap®
PATENTS LISTED AT: [HTTP://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4549 / F:331-318-5347

ENGINEER INFORMATION:
Talon Engineering
16225 Park Ten Pl
Houston, TX
77084
832.287.9874

PROJECT INFORMATION:
Cimmarron Elementary
School
Houston, TX

CURRENT ISSUE DATE:
09/02/2025

ISSUED FOR:
PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
⚠3	09/02/2025	PRELIMINARY	KS
2	08/29/2025	PRELIMINARY	KS
1	07/08/2025	PRELIMINARY	KS

SCALE: NTS

SHEET TITLE: SINGLETRAP INSTALLATION SPECIFICATION

SHEET NUMBER: 3.1

ZONE CHART

ZONES	ZONE DESCRIPTIONS	REMARKS
ZONE 1A	FOUNDATION AGGREGATE	#5 (3") STONE ANGULAR AGGREGATE (SEE NOTE 4 FOR DESCRIPTION)
ZONE 1B	FOUNDATION AGGREGATE (INFILTRATION NOT ALLOWED)	3" RECYCLED CRUSHED CONCRETE (SEE NOTES 5 & 6 FOR DESCRIPTION)
	FOUNDATION AGGREGATE (INFILTRATION ALLOWED)	3" STONE AGGREGATE (SEE NOTE 5)
ZONE 2	BACKFILL	UNIFIED SOILS CLASSIFICATION (GW, GP, SW, SP) OR SEE BELOW FOR APPROVED BACKFILL OPTIONS
ZONE 3	FINAL COVER OVERTOP	MATERIALS NOT TO EXCEED 120 PCF

APPROVED ZONE 2 BACKFILL OPTIONS

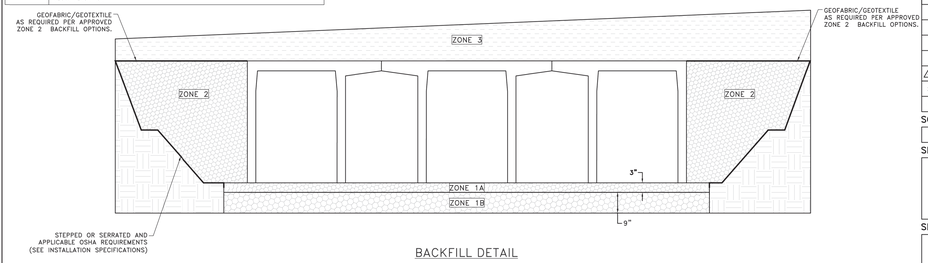
OPTION	REMARKS
¾" STONE AGGREGATE	THE STONE AGGREGATE SHALL CONSIST OF CLEAN AND FREE DRAINING ANGULAR MATERIAL. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH ON TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL (ASTM SIZE #57) AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
SAND	IMPORTED PURE SAND IS PERMITTED TO BE USED AS BACKFILL IF IT IS CLEAN AND FREE DRAINING. THE SAND USED FOR BACKFILLING SHALL HAVE LESS THAN 40% PASSING #40 SIEVE AND LESS THAN 5% PASSING #200 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE SAND BACKFILL.
CRUSHED CONCRETE AGGREGATE	CLEAN, FREE DRAINING CRUSHED CONCRETE AGGREGATE MATERIAL CAN BE USED AS BACKFILL FOR STORMTRAP'S MODULES; THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH ON TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL.
ROAD PACK	STONE AGGREGATE 100% PASSING THE 1-/2" SIEVE WITH LESS THAN 12% PASSING THE #200 SIEVE (ASTM SIZE #467). GEOFABRIC AS PER GEOTECHNICAL ENGINEER RECOMMENDATION.

FILL DEPTH	TRACK WIDTH	MAX VEHICLE WEIGHT (KIPS)	MAX GROUND PRESSURE
12"	12"	51.8	1690 psf
	18"	56.1	1219 psf
	24"	68.1	1111 psf
	30"	76.7	1000 psf
	36"	85.0	924 psf

NOTE:
TRACK LENGTH NOT TO EXCEED 15'-4".
ONLY TWO TRACKS PER VEHICLE.

STORMTRAP ZONE INSTALLATION SPECIFICATION/PROCEDURE

1. THE FILL PLACED AROUND THE STORMTRAP MODULES MUST BE DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL EITHER BE COMPACTED AND/OR VIBRATED TO ENSURE THAT BACKFILL AGGREGATE/STONE MATERIAL IS WELL SEATED AND PROPERLY INTER LOCKED. CARE SHALL BE TAKEN TO PREVENT ANY WEDGING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN THE AREA TO BE BACKFILLED MUST BE STEPPED OR SERRATED TO PREVENT WEDGING ACTION. CARE SHALL ALSO BE TAKEN AS NOT TO DISRUPT THE JOINT WRAP FROM THE JOINT DURING THE BACKFILL PROCESS. BACKFILL MUST BE FREE-DRAINING MATERIAL. SEE ZONE 2 BACKFILL CHART ON THIS PAGE FOR APPROVED BACKFILL OPTIONS. IF NATIVE EARTH IS SUSCEPTIBLE TO MIGRATION, CONFIRM WITH GEOTECHNICAL ENGINEER AND PROVIDE PROTECTION AS REQUIRED (PROVIDED BY OTHERS). ALL MODULES MUST BE SET AND ALL SIDES MUST BE FULLY BACKFILLED BEFORE TRAVEL OVERTOP THE SYSTEM IS PERMITTED. SEE NOTE 2 FOR EXCEPTIONS AND LIMITATIONS.
2. THE FILL PLACED OVERTOP THE SYSTEM SHALL BE PLACED IN MINIMUM 6" LIFTS. AT NO TIME SHALL MACHINERY OR VEHICLES GREATER THAN THE DESIGN LIVE LOAD LISTE) ON SHEET 1.1 TRAVEL OVERTOP THE SYSTEM. IF TRAVEL OVER THE SYSTEM OCCURS BEFORE THE MINIMUM DESIGN COVER IS ACHIEVED, IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/BURDEN OF THE OPERATING MACHINERY SO AS TO NOT EXCEED THE DESIGN CAPACITY OF THE SYSTEM. VEHICLES AND MACHINERY USED TO PLACE FILL MATERIAL ON TOP OF THE SYSTEM SHALL TRAVE, PARALLEL TO THE LONGITUDINAL AXIS OF THE STORMTRAP MODULES WHENEVER POSSIBLE.
3. THE VIBRATORY FUNCTION OF ANY ROLLER, COMPACTOR, VEHICLE, ETC. SHALL NOT BE USED OVERTOP THE SYSTEM WITHOUT PRIOR APPROVAL FROM STORMTRAP. IN SOME CASES, HAND COMPACTION MAY BE NECESSARY TO ENSURE THAT THE ALLOWABLE DESIGN LOADING IS NOT EXCEEDED.
4. FREE DRAINING ANGULAR AGGREGATE – 80% AGGREGATE RETAINED ON ¾" SIEVE MAJORITY OF AGGREGATE SIZE BETWEEN ¾" AND 1" ONLY 5% OF MATERIAL PASSING #8 SIEVE.
5. FREE DRAINING, NO FINES, 3" ANGULAR AGGREGATE – MAJORITY OF STONE SIZE IN BETWEEN 1½" AND 3" – VERY SIMILAR TO AASHTO (#1, #2, #3, & #24) STONE AGGREGATE GRADATION.
6. CRUSHED CONCRETE AGGREGATE IS KNOWN TO REACT WITH WATER AND CAN INCREASE THE PH VALUE OF THE GROUND WATER. PRIOR TO USING CRUSHED CONCRETE AGGREGATE IN ZONE 1B IT IS IMPERATIVE THAT THE USE OF SUCH MATERIAL SHALL BE VERIFIED BY THE EOR AND/OR THE PROJECT GEOTECHNICAL ENGINEER.



BACKFILL DETAIL

StormTrap®
PATENTS LISTED AT: [HTTP://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4549 / F:331-318-5347

ENGINEER INFORMATION:
Talon Engineering
16225 Park Ten Pl
Houston, TX
77084
832.287.9874

PROJECT INFORMATION:
Cimmarron Elementary
School
Houston, TX

CURRENT ISSUE DATE:
09/02/2025

ISSUED FOR:
PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
⚠3	09/02/2025	PRELIMINARY	KS
2	08/29/2025	PRELIMINARY	KS
1	07/08/2025	PRELIMINARY	KS

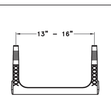
SCALE: NTS

SHEET TITLE: SINGLETRAP BACKFILL SPECIFICATION

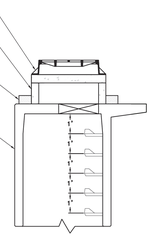
SHEET NUMBER: 4.0

ACCESS OPENING SPECIFICATION

1. A TYPICAL ACCESS OPENING FOR THE STORMTRAP SYSTEM ARE 2'-0" IN DIAMETER. ACCESS OPENINGS LARGER THAN 4'-0" IN DIAMETER NEED TO BE APPROVED BY STORMTRAP. ALL OPENINGS MUST RETAIN AT LEAST 2'-0" OF CLEARANCE FROM THE END OF THE STORMTRAP MODULE UNLESS NOTED OTHERWISE. ALL ACCESS OPENINGS TO BE LOCATED ON INSIDE LEG UNLESS OTHERWISE SPECIFIED. SEE SHEET 2.0 FOR SIZES AND LOCATIONS.
2. UNLESS OTHERWISE SPECIFIED, PLASTIC COATED STEPS ARE PROVIDED INSIDE ANY MODULE WHERE DEEMED NECESSARY. THE HIGHEST STEP IN THE MODULE IS TO BE PLACED A DISTANCE OF 1'-0" FROM THE INSIDE EDGE OF THE STORMTRAP MODULES. ALL ENSUING STEPS SHALL BE PLACED AT A DISTANCE BETWEEN 10" MIN AND 14" MAX BETWEEN THEM. STEPS MAY BE MOVED OR ALTERED TO AVOID OPENINGS OR OTHER IRREGULARITIES IN THE MODULE.
3. STORMTRAP LIFTING INSERTS MAY BE RELOCATED TO AVOID INTERFERENCE WITH ACCESS OPENINGS OR THE CENTER OF GRAVITY OF THE MODULE AS NEEDED.
4. STORMTRAP ACCESS OPENINGS MAY BE RELOCATED TO AVOID INTERFERENCE WITH INLET AND/OR OUTLET PIPE OPENINGS SO PLACEMENT OF STEPS IS ATTAINABLE.
5. ACCESS OPENINGS SHOULD BE LOCATED IN ORDER TO MEET THE APPROPRIATE MUNICIPAL REQUIREMENTS. STORMTRAP RECOMMENDS AT LEAST TWO ACCESS OPENINGS PER SYSTEM FOR ACCESS AND INSPECTION.
6. USE PRECAST ADJUSTING RINGS AS NEEDED TO MEET GRADE. STORMTRAP RECOMMENDS FOR COVER OVER 2' TO USE PRECAST BARREL OR CONE SECTIONS. (PROVIDED BY OTHERS)



MEETS:
OPSS 1351.08.02
RHG
ASTM C-478
ASTM D-4101
ASTM A-615
AASHTO M-199
STEP DETAIL



RISER/STAIR DETAIL

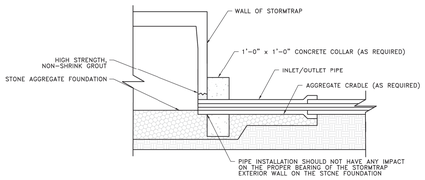
PIPE OPENING SPECIFICATION

1. MINIMUM EDGE DISTANCE FOR AN OPENING ON THE OUTSIDE WALL SHALL BE NO LESS THAN 1'-0".
2. CONNECTING PIPES MAY BE INSTALLED WITH A 1'-0" CONCRETE COLLAR AND AN AGGREGATE CRADLE (AS REQUIRED) FOR AT LEAST ONE PIPE LENGTH (SEE PIPE CONNECTION DETAIL). A STRUCTURAL GRADE CONCRETE OR HIGH STRENGTH, NON-SHRINK GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI MAY BE USED.
3. THE ANNULAR SPACE BETWEEN THE PIPE AND THE HOLE SHALL BE FILLED WITH HIGH STRENGTH NON-SHRINK GROUT.

PIPE INSTALLATION INSTRUCTIONS

1. CLEAN AND LIGHTLY LUBRICATE ALL OF THE PIPE TO BE INSERTED INTO STORMTRAP.
2. IF PIPE IS CUT, CARE SHOULD BE TAKEN TO ALLOW NO SHARP EDGES. BEVEL AND LUBRICATE LEAD END OF PIPE.
3. ALIGN CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

NOTE: ALL ANCILLARY PRODUCTS/SPECIFICATIONS RECOMMENDED AND SHOWN ON THIS SHEET INCLUDING BUT NOT LIMITED TO CONCRETE COLLARS, AGGREGATE CRADLES, GRADE RINGS, RISER SECTIONS, ETC., ARE RECOMMENDATIONS ONLY AND SUBJECT TO CHANGE PER THE INSTALLING CONTRACTOR AND/OR PER LOCAL MUNICIPAL CODE/REQUIREMENTS.



PIPE CONNECTION DETAIL WHEN PIPE INVERT IS AT INVERT OF STORMTRAP SYSTEM

StormTrap®
PATENTS LISTED AT: [HTTP://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4549 / F:331-318-5347

ENGINEER INFORMATION:
Talon Engineering
16225 Park Ten Pl
Houston, TX
77084
832.287.9874

PROJECT INFORMATION:
Cimmarron Elementary
School
Houston, TX

CURRENT ISSUE DATE:
09/02/2025

ISSUED FOR:
PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
⚠3	09/02/2025	PRELIMINARY	KS
2	08/29/2025	PRELIMINARY	KS
1	07/08/2025	PRELIMINARY	KS

SCALE: NTS

SHEET TITLE: PIPE / ACCESS OPENING SPECIFICATION

SHEET NUMBER: 5.0

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281
BRIAN W. REED
120433
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

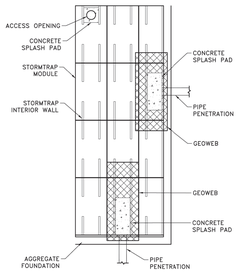
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

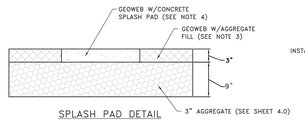
C7.08
UNDERGROUND DETENTION DETAILS (SHEET 2 OF 3)

GEOWEB AND SPLASH PAD INSTALLATION SPECIFICATION

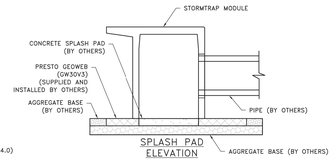
1. THE APPROVED GEOWEB SHALL BE PRESTO GEOWEB (GW30V3). THE GEOWEB NOMINAL DIMENSIONS SHALL BE 9-FT x 25-FT.
2. THE CONCRETE SPLASH PAD AND GEOWEB SHALL BE INSTALLED PRIOR TO INSTALLATION OF THE STORMTRAP MODULES.
3. THE GEOWEB INFILL MATERIAL SHALL BE #5 AGGREGATE.
4. THE CONCRETE SPLASH PAD SHALL BE INSTALLED WITHIN THE GEOWEB AND IS REQUIRED AT ALL PIPE ENTRY LOCATIONS.
5. THE GEOWEB EDGE SHALL BE INSTALLED 1-FT BEYOND THE OUTER PERIMETER OF THE STORMTRAP SYSTEM.
6. THE GEOWEB LONGITUDINAL DIMENSION (25-FT) SHALL BE INSTALLED PARALLEL TO THE STORMTRAP LEGS.
7. THE CONCRETE SPLASH PAD AND GEOWEB SHALL BE CENTERED AT THE PIPE PENETRATION.
8. REFER TO SPLASH PAD LAYOUT FOR CONCRETE SPLASH PAD DIMENSIONS.
9. IF ANY PRODUCT OTHER THAN PRESTO GEOWEB IS TO BE INSTALLED, THE PRODUCT MANUFACTURER IS REQUIRED TO SUBMIT A LETTER STATING THAT THE PRODUCT IS EQUAL OR BETTER THEN PRESTO GEOWEB, BOTH IN PERFORMANCE AND IN STRUCTURAL CAPACITY.
10. ALL GEOWEB AND SPLASH PADS TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
11. A CONCRETE SPLASH PAD IS REQUIRED AT ANY ACCESS OPENING THAT HAS AN OPEN GRATE FOR DRAINAGE. THE CONCRETE SPLASH PAD SHALL EXTEND BETWEEN THE UNIT LEG WALLS AND 3'-0" FROM THE CENTERLINE OF THE OPENING ON BOTH SIDES UNLESS SPECIFIED OTHERWISE ON THE SPLASH PAD LAYOUT. GEOWEB IS NOT REQUIRED UNDER ACCESS OPENINGS.

SPLASH PAD CONFIGURATION

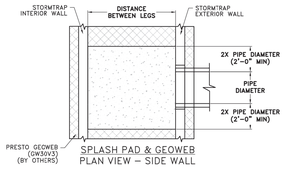




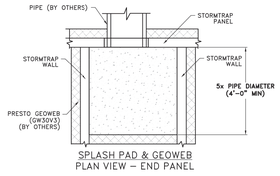
SPLASH PAD DETAIL



SPLASH PAD ELEVATION



SPLASH PAD & GEOWEB
PLAN VIEW – SIDE WALL



SPLASH PAD & GEOWEB
PLAN VIEW – END PANEL

StormTrap
PATENTS LISTED AT: [HTTPS://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4549 / F:331-318-5347

ENGINEER INFORMATION:
Talon Engineering
16225 Park Ten Pl
Houston, TX
77084
832.287.9874

PROJECT INFORMATION:
Cimmarron Elementary
School
Houston, TX

CURRENT ISSUE DATE:
09/02/2025

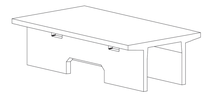
ISSUED FOR:
PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
3	09/02/2025	PRELIMINARY	KS
2	08/29/2025	PRELIMINARY	KS
1	07/08/2025	PRELIMINARY	KS

SCALE:
NTS

SHEET TITLE:
SPLASH PAD & GEOWEB DETAILS

SHEET NUMBER:
6.0



TYPE II



TYPE IV



TYPE IV
END PANEL

NOTES:
1. OPENING LOCATIONS AND SHAPES MAY VARY.
2. SP – INDICATES A MODULE WITH MODIFICATIONS.
3. P – INDICATES A MODULE WITH A PANEL ATTACHMENT.
4. POCKET WINDOW OPENINGS ARE OPTIONAL.

StormTrap
PATENTS LISTED AT: [HTTPS://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4549 / F:331-318-5347

ENGINEER INFORMATION:
Talon Engineering
16225 Park Ten Pl
Houston, TX
77084
832.287.9874

PROJECT INFORMATION:
Cimmarron Elementary
School
Houston, TX

CURRENT ISSUE DATE:
09/02/2025

ISSUED FOR:
PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
3	09/02/2025	PRELIMINARY	KS
2	08/29/2025	PRELIMINARY	KS
1	07/08/2025	PRELIMINARY	KS

SCALE:
NTS

SHEET TITLE:
SINGLETRAP MODULE TYPES

SHEET NUMBER:
7.0

CONSULTANTS
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

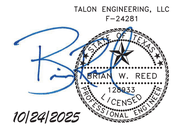
LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TALON ENGINEERING, LLC
F-24281



10/24/2025

PROJECT NO. 2502 (B101-101)
DATE October 24, 2025
DRAWN JDK
CHECKED BWR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	COH COMMENT 1
10/17/2025	COH COMMENT 2
10/24/2025	CSP

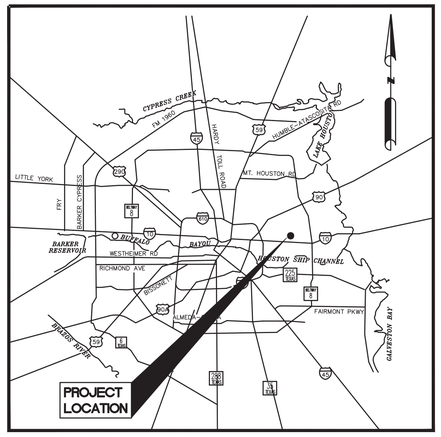
C7.09

UNDERGROUND DETENTION DETAILS (SHEET 3 OF 3)

GALENA PARK INDEPENDENT SCHOOL DISTRICT

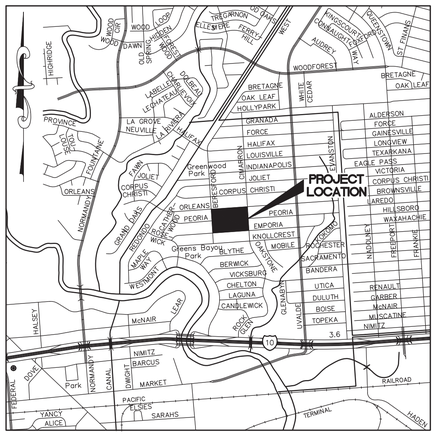
STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS
TO SERVE
CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015
OCTOBER 2025

CSP



LOCATION MAP
N.T.S.

VICINITY MAP



KEY MAP 497E
N.T.S.

CONTRACTOR SHALL NOTIFY THE CITY OF HOUSTON, HOUSTON PUBLIC WORKS, OFFICE OF THE CITY ENGINEER, 48 HOURS BEFORE STARTING WORK ON THIS PROJECT. TEL. NO. 832-394-9098.

ONE-CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG!!!
811 (WITHIN TEXAS)
1-800-344-8377 (OUTSIDE TEXAS)

THE PROPOSED DRIVEWAYS & SIDEWALKS ARE PART OF THE BCE PLANS & THE PROPOSED SIDEWALKS ARE BASED ON PLANNING DEPT. REQUIREMENTS
BCE PROJECT #: 25080064

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	TOPOGRAPHIC SURVEY SHEET 1
4	TOPOGRAPHIC SURVEY SHEET 2
5	OVERALL SITE LAYOUT
6	STORM SEWER CONNECTION
7	WATER LINE CONNECTION
8	SANITARY SEWER CONNECTION
9	STORM WATER POLLUTION PREVENTION PLAN
10	STORM SEWER DETAILS
11	SANITARY SEWER DETAILS
12	WATER LINE DETAILS SHEET 1
13	WATER LINE DETAILS SHEET 2
14	STORM WATER POLLUTION PREVENTION DETAILS

CENTERPOINT ENERGY

UTILITY COORDINATING COMMITTEE 1-800-545-6005 OR 811, UTILITY LINE LOCATING AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, PER STATE REQUIREMENT.

WHEN CENTERPOINT ENERGY GAS LINE MARKINGS ARE NOT VISIBLE, PLEASE CALL 713-207-LINE (5463) (7:00 A.M. - 4:30 P.M.) FOR THE STATUS OF LINE LOCATION REQUESTS, PRIOR TO EXCAVATION.

TO REPORT A DAMAGED GAS LINE OR FOR ANY OTHER EMERGENCY RELATED TO GAS LINES, PLEASE CALL CENTERPOINT ENERGY DISPATCH AT 713-659-3552 OR 713-207-4200.

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS
TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TX, 77094
(832) 287-9874

COH SWQ PERMIT #: 0000-0000
COH SWQ ILMS #: 25098127

STORM WATER INFORMATION FORM
2025-0762

COH OFFICE OF CITY ENGINEER
(OCE) PLANS: ILMS# 25086603

COH BUILDING CODE ENFORCEMENT
(BCE) PLANS: ILMS# 25080064

FEMA FLOOD INSURANCE RATE MAP
MAP# 48201C0715M
JANUARY 6, 2007
ZONE=ZONE "X" UNSHADED

COH WCR LETTER
ILMS #: 25052085
ACREAGE: 13.913 ACRES
NO. OF SERVICE UNITS: 13.86
DATE ISSUED: JUNE 10, 2025

THIS PROJECT CONTAINS WORK TO BE PERFORMED IN THE CITY OF HOUSTON RIGHT-OF-WAY AND PUBLIC EASEMENTS.

DRAWINGS MUST BE APPROVED TO OBTAIN PERMITS.

PERMITS MUST BE OBTAINED BY THE CONTRACTORS PRIOR TO BEGINNING CONSTRUCTION. INSPECTIONS ARE TO BE CALLED DURING CONSTRUCTION.

CONTACT REQUIRED SECTIONS BELOW AS INDICATED

PERMITS 1002 Washington Ave (2nd Floor)

☐	PAVING	832-394-9578 oce.stormpaving@houstontx.gov
☒	STORM	832-394-9578 oce.stormpaving@houstontx.gov
☐	ALLEY	832-394-9578 streetcutops@houstontx.gov
☐	STREET CUT/EXCAVATION	832-394-9578 streetcutops@houstontx.gov

PERMITS 1002 Washington Ave (3rd Floor)

☒	SANITARY	832-394-9578 wrtechs@houstontx.gov
☒	WATER	832-394-9578 wrtechs@houstontx.gov

UTILITY ONE CALL
CONTRACTOR TO CALL BEFORE DIGGING!!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

NO.	DATE	REVISION	APP.

TALON ENGINEERING, LLC
F-24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

SURVEYED BY: WEST BELT SURVEYING

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATER	STORM WATER QUALITY
WASTE WATER	FACILITIES
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE
TRAFFIC SIGNAL	
CITY ENGINEER DATE	DIRECTOR OF DATE HOUSTON PUBLIC WORKS

SHEET NO 1 OF 14 SHEETS

FOR CITY OF HOUSTON USE ONLY

(FOR REFERENCE ONLY)

CITY OF HOUSTON GENERAL NOTES – INSIDE CITY LIMITS

1. CONSTRUCT WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING IN ACCORDANCE WITH THE LATEST EDITION OF THE PUBLICATIONS STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING, AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING PUBLISHED BY HOUSTON PUBLIC WORKS.

2. THE GEOTECHNICAL INVESTIGATION FOR THIS PROJECT WAS CONDUCTED IN ACCORDANCE WITH CHAPTER 11 OF THE LATEST EDITION OF THE PUBLICATION INFRASTRUCTURE DESIGN MANUAL, PUBLISHED BY HOUSTON PUBLIC WORKS. SOILS REPORT WAS PREPARED BY [GEOTECHNICAL ENGINEERING FIRM] REPORT NO. [NO. OF REPORT], DATED [DATE OF REPORT].

3. 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. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 713-223-4567/811 OR 800-344-8377 AND LONE STAR NOTIFICATION CENTER AT 800-669-8344 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION. UTILITIES MARKED WITHIN THE PUBLIC RIGHT OF WAY OR IN EASEMENTS SHALL COMPLY WITH TAC TITLE 16, PART 1, CHAPTER 18, RULE §18.6 AND THE AMERICAN PUBLIC WORKS ADMINISTRATION (APWA) UNIFORM COLOR CODE.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES AND TRAFFIC CONTROL DEVICES. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE HOUSTON PUBLIC WORKS, STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAINAGE, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.

5. CONTRACTOR SHALL NOTIFY THE OFFICE OF THE CITY ENGINEER, HOUSTON PUBLIC WORKS @ 832-394-9098 OR VIA FAX AT 832-395-4424 FOR INSPECTION AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.

6. 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.

7. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.

8. CONTRACTOR SHALL COMPLY WITH LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.

9. CONTRACTOR SHALL MAINTAIN A SET OF REDLINE DRAWINGS AND RECORD AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINE MARKED UP DRAWINGS WILL BE SUBMITTED TO THE DESIGN CONSULTANT WHO WILL MAKE THE CHANGES ON THE ORIGINAL TRACINGS, LABEL EACH SHEET IN THE SET AS "RECORD DRAWINGS", AND RETURN IT TO THE OFFICE OF THE CITY ENGINEER.

STREET & BRIDGE CONSTRUCTION NOTES

1. SANITARY SEWER FILL AREAS ON PLANS SHALL BE FILLED IN LAYERS NOT EXCEEDING 8' IN DEPTH AND EACH COMPACTED TO NOT LESS THAN 95% STANDARD PROCTOR DENSITY PRIOR TO INSTALLATION OF WATER LINE AND FILL AREA SHALL BE SEEDED AND FERTILIZED WITHIN 10 WORKING DAYS.
2. UTILITY CONTRACTOR SHALL PROVIDE TEMPORARY SILT BARRIER FENCE ON ALL NON-CURBED INLETS WHICH WILL REMAIN IN PLACE AFTER UNDERGROUND CONTRACT IS COMPLETE.
3. CONTRACTOR SHALL PROVIDE SILT BARRIER FENCE ON ALL STAGE 1 CURB INLETS.
4. EXISTING PAVEMENTS, CURBS, DRIVEWAYS, AND SIDEWALKS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO CITY OF HOUSTON STANDARDS, WITH LATEST ADDENDA AND AMENDMENTS THERETO.
5. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY UPON COMPLETION OF JOB SHALL BE AS GOOD AS OR BETTER THAN PRIOR TO STARTING WORK.
6. EXPOSED 15' OF REINFORCING STEEL AT PROPOSED SAWED JOINT IF NO REINFORCING STEEL EXISTS, USE HORIZONTAL DOWELS. HORIZONTAL DOWELS SHALL BE #6 BARS 24' LONG 24' C-C DRILLED AND EMBEDDED 8' INTO THE CENTER OF THE EXISTING SLAB WITH 'PO ROC' OR EQUAL.
7. WHEELCHAIR RAMPS SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF HOUSTON STANDARDS AT ALL INTERSECTIONS WHERE SIDEWALKS EXIST AND THE EXISTING CURB OR SIDEWALK IS DAMAGED OR REMOVED DURING CONSTRUCTION.
8. PRIOR TO STREET CONSTRUCTION, THE CONTRACTOR SHALL CONTACT HOUSTON PUBLIC WORKS AT (PHONE) 832-394-9578 AND COMPLY WITH ALL REQUIREMENTS FOR THE ISSUANCE OF NECESSARY PERMITS/WORK ORDERS FOR STREET CONSTRUCTION.
9. DOUBLE REFLECTORIZED BLUE TRAFFIC MARKERS SHALL BE PLACED 6-INCHES OFFSET OF THE CENTERLINE OF ALL FIRE HYDRANT LOCATIONS BY THE PAVING CONTRACTOR. HYDRANTS LOCATED AT INTERSECTIONS SHALL HAVE A BUTTON PLACED ON EACH STREET.

TRAFFIC NOTES

Contractor or owner shall submit traffic control plans with the Mobility Permit application. The plans shall be drawn to scale and sealed by a licensed professional engineer in the state of Texas.

The general notes that shall be included on the traffic control plan can be found in Chapter 15 (15.12 Traffic Control Plan) of the City of Houston's (City) Infrastructure Design Manual (IDM). Below are several key notes from the IDM to be aware of:

1. The Contractor shall provide and install traffic control devices in conformance with Part VI of the Texas Manual on Uniform Traffic Control Devices (TMUTCD) latest edition with revisions during the entire construction period.
2. No work shall be performed in residential areas from 7:00PM to 7:00AM.
3. Contractor shall maintain approved number of lanes of traffic in each direction during construction working hours. Traffic Control plans shall include one-way and/or detour plans. Contractor shall maintain ADA compliant pedestrian access to bus stops and adequate bus access to the bus stop.
4. Contractor shall cover open pavement excavations for minor utility work with anchored steel plates during non-working hours, open lanes for normal traffic flow when feasible.
5. Contractor shall secure roadway/sidewalk/street/bicycle facility permits as described in City of Houston ordinance, Chapter 40 – Streets & sidewalks, section 40-361 from Houston Permitting Center (Mobility Permit Section at https://geohub.houstontx.gov) before implementing the traffic control plan. The application must be submitted at least ten business days prior to the implementation of the traffic control plan and/or beginning construction work. The Contractor shall provide traffic control plans, construction sequencing, and construction schedule with the application.
6. Contractor shall have approved traffic control plan and permit at the job site for inspection at all times
7. Access to driveways adjacent to the construction work zone shall be maintained at all times as much as possible. Additional cones and/or delineators may be required to delineate the driveway access route through the construction work zone. A minimum of one travel lane shall be maintained across the driveway, unless prior written approval is obtained from the City of Houston.
8. Additional off duty police officers/flaggers may be requested to direct traffic when lanes are blocked at the direction of the City even if they are not specifically identified on the project plans.

GRADING NOTES

1. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE STARTING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
2. BEFORE STARTING CONSTRUCTION, CONTRACTOR SHALL VERIFY BENCHMARK ELEVATION AND NOTIFY ENGINEER IF ANY DISCREPANCY AND/OR CONFLICT IS FOUND.
3. CONTRACTOR SHALL ENSURE THERE IS POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS AND NO PONDING IN PAVED AREAS, AND SHALL NOTIFY ENGINEER IF ANY GRADING DISCREPANCIES ARE FOUND IN THE EXISTING AND PROPOSED GRADES PRIOR TO PLACEMENT OF PAVEMENT OR UTILITIES.
4. CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, POWER POLES, GUY WIRES, AND TELEPHONE BOXES THAT ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION.
5. ALL EXISTING CONCRETE PAVING, SIDEWALK, AND CURB DEMOLITION SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR. DISPOSAL SHALL BE AT AN APPROVED OFF-SITE, LAWFUL LOCATION, UNLESS DIRECTED OTHERWISE BY THE OWNER.

SWPPP CONSTRUCTION NOTES

1 CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPP) PLANS TO KEEP SILT AND OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM.

2 DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATION 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 FORM THE EXCAVATED AREA.

4 CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT, ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.

5 CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.

- DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
- STRUCTURAL CONTROL MEASURES.
- LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

6 CONTRACTOR TO BE RESPONSIBLE TO MAINTAIN EXISTING DITCHES AND OR CULVERTS FOR UNOBSTRUCTED DRAINAGE AT ALL TIMES. WHERE SODDING IS DISTURBED BY EXCAVATION ON BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SEEDING OR SODDING. SLOPES 4:1 OR STEEPER SHALL BE REPLACED BY BLOCK SODDING.

WATER LINE CONSTRUCTION NOTES

1. WATER LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST CITY OF HOUSTON INFRASTRUCTURE DESIGN MANUAL, STANDARD SPECIFICATION, AND CONSTRUCTION DETAILS.
2. ALL 4" THROUGH 12" WATER LINE TO BE AWWA C-900 PVC DR-18 BLUE PRESSURE RATED WATER MAIN WITH 2" AND SMALLER WATER SERVICE LINE TO BE CONTINUOUS TYPE K COPPER TUBING PER COH STANDARD SPECIFICATION SECTION 02503. ALL 4" THRU 54" DI PIPE WATER LINES SHALL BE AWWA C151 WITH INSIDE LINING WITH AWWA C104 AND DOUBLE WRAPPED WITH 8-MIL POLYETHYLENE SHEETS.
3. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AS NECESSARY TO PREVENT PIPE MOVEMENT. USE RESTRAINED JOINTS WHERE PREVENTING MOVEMENT OF 16" OR GREATER PIPE IS NECESSARY DUE TO THRUST.
4. ALL WATER LINES UNDER PROPOSED OR FUTURE PAVING AND TO A POINT OF ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE ENCASED IN BANK SAND TO 12" OVER PIPE AND BACKFILLED WITH CEMENT STABILIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE.
5. ALL WATER LINE AND SEWER LINE CROSSINGS SHALL BE CONSTRUCTED PER CITY OF HOUSTON AND TCEQ REGULATIONS.
6. ALL WATER VALVES SHALL BE SUPPLIED AND INS TALLED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C-500 AND SHALL BE OF THE RESILIENT SEAT TYPE.
7. ALL WATER LINES TO BE DISINFECTED IN CONFORMANCE WITH AWWA C-651 AND THE TEXAS STATE DEPARTMENT OF HEALTH. AT LEAST ONE BACTERIOLOGICAL SAMPLE SHALL BE COLLECTED FOR EVERY 1,000 LINEAR FEET OF WATER LINE AND SHALL BE REPEATED IF CONTAMINATION PERSISTS.
8. ALL BELOW GRADE VALVES SHALL BE GASKETED, HUB-END GATE VALVES WITH A CAST IRON BOX, EXCEPT WHERE FLANGES ARE CALLED OUT ON THE PLANS.
9. 4" THRU 12" FIT TINGS SHALL BE CEMENT MORTAR LINED COMPACT DUCTILE IRON PRESSURE FITTINGS PER ANSI A21.53, OR PUSH ON FITTINGS PER ANSI A21.10 PRESSURE RATED AT 250 PSIG.
10. HYDROSTATIC TESTING: ALL WATER PIPE SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH THE LATEST CITY OF HOUSTON STANDARD CONSTRUCTION SPECIFICATIONS. TESTS ARE TO BE PERFORMED ON THE ENTIRE FOOTAGE OF WATER PIPE LINE INCLUDED IN THE PROJECT.
11. ALL WATER LINES TO HAVE 4' MINIMUM COVER TO FINISHED GRADE AND MINIMUM 12" CLEARANCE TO OTHER UTILITIES AT CROSSING UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINE INSTALLED OVER 8' DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS.
12. CONTRACTOR SHALL KEEP WATER PIPE CLEAN AND CAPPED (OR OTHERWISE EFFECTIVELY COVERED) OPEN PIPE ENDS TO EXCLUDE INSECTS, ANIMALS OR OTHER SOURCES OF CONTAMINATION FROM UNFINISHED PIPE LINES AT TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS.

SANITARY SEWER CONSTRUCTION NOTES

1. ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HOUSTON 'STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, STREET PAVING, AND TRAFFIC' AND ALL CURRENT AMENDMENTS THERETO AND BE SUBJECT TO A STANDARD EXFILTRATION TEST. TESTS ARE TO BE PERFORMED ON THE TOTAL FOOTAGE OF SEWER LINE INCLUDED IN THE PROJECT. REQUIREMENTS OF TEXAS ADMINISTRATIVE CODE, TITLE 30 CHAPTER 217, DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS' SHALL GOVERN WHERE CONFLICTS EXIST EXCEPT WHERE CITY REQUIREMENTS ARE MORE STRINGENT.
2. ALL MANHOLES ARE TO BE PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBERS 02082-01, 02082-02, 02082N-02, 02082-03, AND 02082N-03 UNLESS OTHERWISE NOTED. USE 2019 VERSION AS APPLICABLE.
3. SANITARY SEWER MANHOLES WILL HAVE BEDDING AND BACKFILL PER CITY OF HOUSTON STANDARD DETAILS DRAWING NO. 02317-08 UNLESS OTHERWISE NOTED.
4. THE SANITARY SEWER PVC PIPE SHALL BE ASTM D 3034 TYPE PSM SDR 26 GRAVITY SEWER PIPE, ASTM D2241 SDR 26 PRESSURE RATED SEWER PIPE OR AWWA C-900 DR-18 GREEN PVC PRESSURE RATED SEWER PIPE BASED ON CONSTRUCTION CONDITION REQUIREMENT AND CONFORMING TO ASTM D1784 AND CITY OF HOUSTON STANDARD SPECIFICATION SECTION 02506 POLYVINYL CHLORIDE PIPE.
5. WHEN SS PRESSURE RATED PVC PIPE IS USED ON WATERLINE (WL) CROSSING UNDER CONDITION 1 OF COH IDM TABLE 7.3, THE SAME TYPE OF D2241 SDR 26 PVC PIPE OR C-900 GREEN DR-18 PVC GREEN PRESSURED TO BE UTILIZING IN-BETWEEN TWO SS MH'S. OR TO UTILIZE A DI TRANSITION ADAPTER FOR THE CONNECTING OF ASTM D-3034 PVC GRAVITY PIPE TO DI-OD AWWA C-900 PVC PIPE CENTERED AT WL WHEN CONNECTING TWO DIFFERENT TYPES OF PVC PIPES FOR SEWER CONSTRUCTION.
6. AWWA C-900 DR-18 PVC PIPE USES EITHER AWWA C900 DR-18 PVC FITTINGS OR DIP FITTINGS.
7. ALL SANITARY SEWER LINES UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL HAVE BEDDING PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBERS 02317-01, 02317-02, OR 02317-03 AS APPLICABLE, WITH 1 ½ SACK CEMENT/CY STABILIZED SAND BACKFILL UP TO THE BOTTOM OF THE PAVEMENT SUBGRADE. 100 PSI PERFORMANCE RESULTS ARE STILL REQUIRED.
8. ALL SANITARY SEWERS CROSSING WATER LINES WITH A CLEARANCE BETWEEN 12 INCHES AND 9 FEET SHALL HAVE A MINIMUM OF ONE 18' JOINT OF 150 PSI DUCTILE IRON OR (GREEN) C900 PVC PIPE MEETING ASTM SPECIFICATION D2241 CENTERED ON WATER LINE. WHEN WATER LINE IS BELOW SANITARY SEWER, PROVIDE MINIMUM 2 FOOT SEPARATION.
9. CONTRACTOR SHALL PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 9' FEET BETWEEN WATER LINES AND SANITARY SEWER MANHOLES AND LINES.
10. 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 TO DRAIN AWAY FROM MANHOLE RIM.
11. IN WET STABLE TRENCH AREAS USE BEDDING PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBER 02317-02.
12. DEFLECTION TEST: DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID SEWER PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5% IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED AS PER 30 TAC 217.57 LATEST AMENDMENT AND WITHOUT MECHANICAL PULLING DEVICES. NO BALL-TYPE MANDREL IS ALLOWED.
13. INFILTRATION, EXFILTRATION OR LOW-PRESSURE AIR TEST: EITHER OF THE FOLLOWING TESTS SHALL BE PERFORMED AS PER TAC, TITLE 30 217.57 WITHIN THE SPECIFIED TOLERANCES ON ALL GRAVITY SEWERS.

A. INFILTRATION OR EXFILTRATION TEST: TOTAL LEAKAGE AS DETERMINED BY A HYDROSTATIC HEAD TEST SHALL NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO (2) FEET.

B. LOW-PRESSURE AIR TEST: PERFORM TEST ACCORDING TO UNI-B-6-90 OR OTHER APPROPRIATE PROCEDURES. FOR SECTIONS OF PIPE LESS THAN 36" (INCH) AVERAGE INSIDE DIAMETER, THE MINIMUM ALLOWABLE TIME FOR PRESSURE DROP FROM 3.5 P.S.I.G. TO 2.5 P.S.I.G. SHALL BE AS FOLLOWS:

6" 340 SECONDS OR 0.855(L) FOR TEST LENGTHS GREATER THAN 398'

8" 454 SECONDS OR 1.520(L) FOR TEST LENGTHS GREATER THAN 298'

10" 567 SECONDS OR 2.374(L) FOR TEST LENGTHS GREATER THAN 239'

12" 680 SECONDS OR 3.419(L) FOR TEST LENGTHS GREATER THAN 199'

15" 850 SECONDS OR 5.342(L) FOR TEST LENGTHS GREATER THAN 159'

18" 1020 SECONDS OR 7.693(L) FOR TEST LENGTHS GREATER THAN 133'

WHERE L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET.

14. 'SAN. S. E.' INDICATES 'SANITARY SEWER EASEMENT'
15. FOR SANITARY MANHOLE (MH) RIMS SET INSIDE OF OR ⊕ CURB & GUTTER PAVEMENT AND/OR BELOW T.C., MH RIMS WILL BE SET FLUSHED WITH AN ABUTTING PAVED SURFACE. THE (VALCUN, NEENAH OR EQUAL) HEAVY DUTY BOLTED SOLID MH COVER SHALL BE PROPERLY (AND SECURELY) ATTACHED AND SEALED TO ITS COMPATIBLE GASKETED FRAME BY USING BOTH A NEOPRENE GASKET AND (AT LEAST) 4 COUNTER-SUNK HEX-HEAD COARSE THREADED ½"-13 UNC STAINLESS STEEL BOLTS. THE HEAVY DUTY FRAME MH COVER SHALL BE SOLID (NO AIR HOLES). SAID FRAME SHALL BE BOTH EMBEDDED INTO THE MH'S TOP ALSO SECURELY ANCHORED TO THE UNDERLYING MH STRUCTURE WITH EITHER SECURELY ATTACHED EMBEDDED ANCHOR BOLTS OR THE CONCRETE MH'S EXPOSED REBARS WELDED TO THE FRAME OR OTHER EQUALLY SECURED METHODS TO PREVENT MH COVER/FRAME BLOW-OFFS/EJECTIONS.

PRIVATE UTILITY NOTES

AT&T TEXAS / SWBT FACILITIES

1. THE LOCATIONS OF AT&T TEXAS/SWBT 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 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 (TEXAS 811) 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/SWBT FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES. WHEN BORING, THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SWBT FACILITIES.
4. WHEN AT&T TEXAS/SWBT FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SWBT UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURIED CABLES OR OTHER CABLES IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER KEVIN RAY AT (713) 614-1983 OR EMAIL HIM AT KR7896@ATT.COM IF CABLE LOCATE REQUESTS ARE NOT COMPLETED FOR OUR AT&T TEXAS/SWBT FACILITIES.

CAUTION: UNDERGROUND GAS FACILITIES

THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

- WHEN CENTERPOINT ENERGY PIPELINE MARKINGS ARE NOT VISIBLE, CALL (713) 207-5463 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
- WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
- WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
- FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-2111 OR (713) 207-4200.

THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

WARNING: OVERHEAD ELECTRICAL FACILITIES

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:

- ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX(6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
- OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.

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) 207-6348 OR (713) 207-5769.

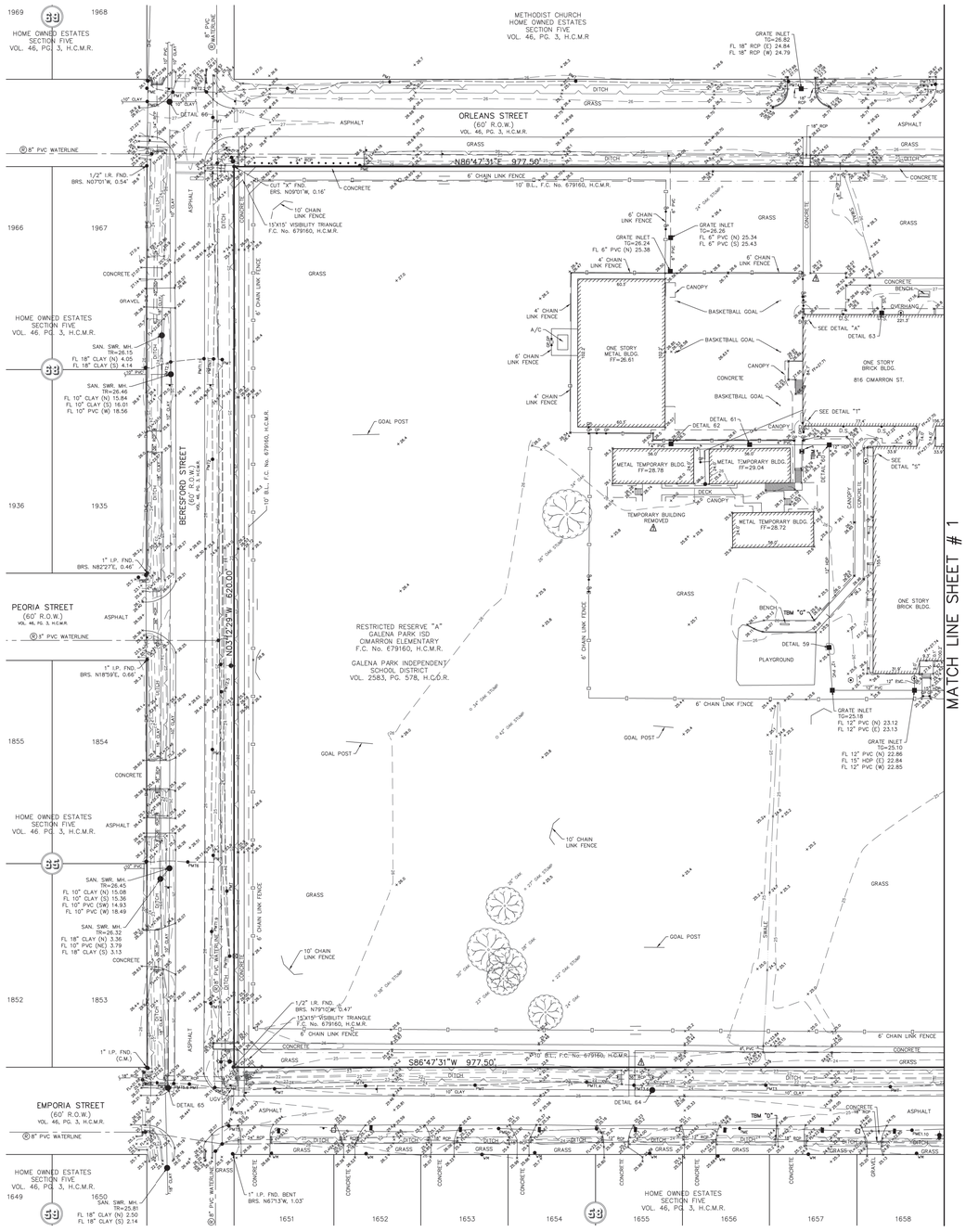
WARNING: UNDERGROUND ELECTRICAL UTILITIES

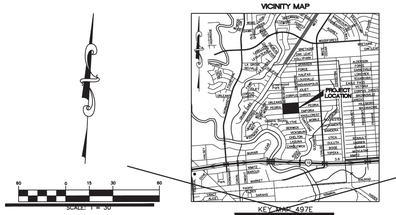
THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

- ALL INFORMATION CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTORS ARE RESPONSIBLE MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND PIPELINES, CONDUITS, AND STRUCTURES BY CONTACTING OWNERS OF UNDERGROUND UTILITIES OR BY EXCAVATING IN ADVANCE OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES WHEN AND WHERE THEY FALL IN THE PATH OF CONSTRUCTION.
- THE CONTRACTOR IS ALSO RESPONSIBLE FOR CONTACTING THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 AND TEXAS ONE CALL AT 1-800-245-4545, FORTY-EIGHT (48) HOURS PRIOR TO ANY CONSTRUCTION.
- THE LOCATION OF ANY CENTERPOINT ENERGY UTILITIES ARE SHOWN IN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. THEY AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
- ALL PROPOSED FACILITIES SHALL MAINTAIN 12" CLEAR FROM ALL EXISTING UTILITIES.

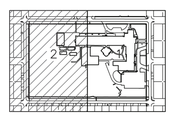
CITY OF HOUSTON STORM SEWER CONSTRUCTION NOTES

1. STORM SEWER SHALL BE REINFORCED CONCRETE PIPE (C-76, CLASS III), AND SHALL BE INSTALLED, BEDDED, AND BACK FILLED IN ACCORDANCE WITH THE CITY OF HOUSTON DRAWING NOS. 2317-02, 02317-3, 02317-05, 02317-06, AND 02317-07 (JULY 2019) AS APPLICABLE UNLESS OTHERWISW SHOWN ON THE DRAWINGS.
2. ALL STORM SEWER CONSTRUCTED IN SIDELOT EASMENT SHALL BE R.C.P (C-76, CLASSIII) AND SHALL BE EMBEDDED IN ACCORDANCE WITH THE CITY OF HOUSTON DRAWING NOS. 02317-02, 02317-03, 02317-05, 02317-06, AND 02317-07 AS APPLICABLE.
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. STABLIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH SHALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
4. ALL TRENCH BACKFILL SHALL BE IN 8' LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS IN EACH LIFT, AND MECHNICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMACTION TEST (ASTM D-698/AASHTO T99).
5. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINT CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
6. ALL STORM SEWER PIPES AND INLET LEADS SHALL BE 24" AND LARGER R.C.P. (C-76, CLASSIII).
7. ALL PRPOSED PIPE STUB-OUTS FROM MANHOLES AND INLET LEADS ARE TO BE PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
8. MINIMUM HORIZONTAL CLEARANCE BETWEEN ANY STORM PIPE AND BOX SHALL BE AT LEAST 48-INCHES FROM EXTERIOR OF THE STORM PIPE OR BOX TO THE EXTERIOR OF THE EXISTING OR PROPOSED PUBLIC OR PRIVATE UTILITY AND OTHER APPURTENANCES. MINIMUM VERTICAL CLEARANCE BETWEEN ANY STORM PIPE AND BOX SHALL BE AT LEAST 24-INCHES FROM EXTERIOR OF THE STORM PIPE OR BOX TO THE EXTERIOR OF THE EXISTING OR PROPOSED PUBLIC OR PRIVATE UTILITY AND OTHER APPURTENANCES.
9. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF SECTION 02086-ADJUSTING MANHOLES, INLETS, AND VALAVE BOXES TO GRADE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACK SLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF THIS WORK.
11. ALL DITCHES SHALL BE GRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.
12 ALL DRIVEWAYS WIL









UNDERGROUND SEWER DETAILS

DETAIL 59
GRATE INLET
TG=24.84
FL 12" HDP (N) 23.20
FL 12" PVC (S) 23.18

DETAIL 60
GRATE INLET
TG=26.74
FL 12" HDP (E) 23.65
FL 12" HDP (S) 23.64
FL 4" PVC (W) 25.33

DETAIL 61
GRATE INLET
TG=26.33
FL 4" PVC (E) 25.54
FL 4" PVC (W) 25.53

DETAIL 62
GRATE INLET
TG=26.09
FL 4" PVC (E) 25.52
FL 4" PVC (W) 25.40

DETAIL 63
GRATE INLET
TG=27.62
FL 4" STL (N) 26.17

DETAIL 64
SAN. SWR. MH.
TR=25.34
FL 10" CLAY (E) 14.81
FL 10" CLAY (W) 14.71

DETAIL 65
SAN. SWR. MH.
TR=25.92
FL 10" CLAY (N) 15.04
FL 10" CLAY (E) 15.07

DETAIL 66
SAN. SWR. MH.
TR=26.83
FL 10" CLAY (N) 15.94
FL 10" PVC (N) 20.98
FL 10" CLAY (E) 17.12
FL 10" CLAY (S) 15.92
FL 10" CLAY (W) 16.80

LEGEND

- "BS" INLET
- BENCHMARK
- BOLLARD
- CLEANOUT
- DOWN SPOUT
- ELECTRIC JUNCTION BOX
- FIRE HYDRANT
- FLAG POLE
- GAS METER
- GAS VALVE
- GATE POST
- GRATE TOP MANHOLE
- GREASE TRAP
- GUY WIRE
- INLET
- IRRIGATION CONTROL VALVE
- LIGHT STANDARD
- MAILBOX
- MANHOLE
- PAINT MARKER (ELECTRIC)
- PAINT MARKER (GAS)
- PAINT MARKER (TELEPHONE)
- PEDESTAL
- PIPELINE MARKER
- POWER POLE
- SAMPLE WELL
- SHRUB
- SIGN
- TRASH CAN
- WATER METER
- WATER VALVE
- WHEEL STOP

ABBREVIATIONS

B.L.–BUILDING LINE
C.L.F.–CHAIN LINK FENCE
CBC–CONCRETE BOX CULVERT
CMC–CREPE MYRTLE CLUSTER
FC–FILM CODE
FF–FINISH FLOOR
FL–FLOW LINE
FND.–FOUND
H.C.C.F.–HARRIS COUNTY CLERK'S FILE
H.C.D.R.–HARRIS COUNTY DEED RECORDS
H.C.M.R.–HARRIS COUNTY MAP RECORDS
HDP–HIGH DENSITY POLYETHYLENE PIPE
I.P.–IRON PIPE
I.R.–IRON ROD
MH–MANHOLE
OHE–OVERHEAD ELECTRIC
PG.–PAGE
PVC–POLYVINYL CHLORIDE PIPE
RCP–REINFORCED CONCRETE PIPE
R.O.W.–RIGHT-OF-WAY
SAN.–SANITARY
STL.–STEEL
STM.–STORM
SWR.–SEWER
TC–TOP OF CONCRETE
TG–TOP OF GRATE
TR–TOP OF RIM
UGV–UNDERGROUND VAULT
VOL.–VOLUME

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 0.99990025335.

3. ACCORDING TO F.I.R.M. MAP NO. 48201C0715M (COMMUNITY–PANEL NO. 480296 0715M), MAP REVISED DATE: JANUARY 6, 2017. 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. THE SUBJECT TRACT IS AFFECTED BY THE CITY OF HOUSTON ORDINANCE No. 85–1878, AMENDED BY ORDINANCE No. 1999–262.

6. UNDERGROUND UTILITY LOCATIONS PROVIDED BY LONESTAR LOCATING, LLC. PAINT MARKS WITH NUMERIC VALUES (N/FT/IN/T/FR (FFFT 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.–4 INDICATES AN UNDERGROUND SEWER LINE WITH UNKNOWN DIRECTION, SIZE OR LOCATION OR A POSSIBLE STUB–OUT.

8.Ⓔ INDICATES RECORD UTILITIES PLOTTED FROM MAPS PROVIDED BY CITY OF HOUSTON ONLINE GIMS SYSTEM.

REFERENCE BENCHMARK:

RM150020 – BRASS DISK STAMPED "P100 BM02" LOCATED ON CONCRETE WALL NEXT TO RAIL ON EAST SIDE OF BRIDGE AT NORMANDY STREET AND GREENS BAYOU, AT CENTER LINE OF STREAM IN KEY MAP 497E IN THE GREENS WATERSHED NEAR STREAM P100–00–00. ELEVATION = 27.50' (NAVD 1988, 2001 ADJ.)

TEMPORARY BENCHMARKS:

TBM "A" – BOX CUT ON CONCRETE HEADWALL LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF CIMARRON STREET AND ORLEANS STREET. ELEVATION = 25.51'

TBM "B" – BOX CUT ON "BS" INLET LOCATED ON THE WEST SIDE OF CIMARRON STREET AT IT'S INTERSECTION WITH PEORIA STREET. ELEVATION = 25.74'

TBM "C" – BOX CUT ON BACK OF CURB LOCATED AT THE MOST WESTERLY SOUTHWEST CORNER OF OF THE MOST SOUTHERLY PARKING LOT OF THE SCHOOL. ELEVATION = 25.67'

TBM "D" – BOX CUT ON THE WEST END OF AN 18" RCP CULVERT ,LOCATED ON THE SOUTH SIDE OF EMPORIA STREET AT THE DRIVEWAY FOR 13126 EMPORIA STREET. ELEVATION = 24.61'

TBM "E" – BOX CUT ON THE NORTH SIDE OF THE CONCRETE SIDEWALK LOCATED ±60' NORTHWEST OF THE MAIN CHILLER FOR THE SCHOOL. ELEVATION = 26.12'

TBM "G" – BOX CUT ON THE NORTH SIDE OF THE CONCRETE SIDEWALK LOCATED AT THE MOST WESTERLY PLAYGROUND ±50' SOUTH OF THE SOUTHEAST CORNER OF THE SOUTHEAST TEMPORARY BUILDING. ELEVATION = 26.06'

TBM "H" – BOX CUT ON THE EAST SIDE OF THE CONCRETE SIDEWALK ±8' EAST OF THE NORTHEAST CORNER OF THE NORTHEAST TEMPORARY BUILDING. ELEVATION = 26.77'

TBM "I" = BOX CUT ON CONCRETE HEADWALL LOCATED ON THE SOUTH SIDE OF ORLEANS STREET AT THE WEST SIDE OF THE MOST WESTERLY DRIVEWAY TO THE SCHOOL. ELEVATION = 25.31'

GALENA PARK INDEPENDENT SCHOOL DISTRICT

TOPOGRAPHIC SURVEY

CIMARRON ELEMENTARY SCHOOL OUT OF THE SAMUEL C. HIROMS SURVEY ABSTRACT NO. 33 CITY OF HOUSTON HARRIS COUNTY, TEXAS

WEST BELT SURVEYING, INC.
21000 PARK ROW PHONE: (281) 599-9200
KATY, TX. 77449 FAX: (281) 492-9500
CERTIFIED FIRM NO. 10073800

NO.	DATE	REVISIONS	BY
1	8/4/25	UPDATED TOPOGRAPHIC SURVEY	DB

DRAWN BY: MDL | CHECKED BY: KMH
SURVEY FIELD WORK | APPROVED BY: JDW
PROJECT NO. S425–0047C | DATE: OCTOBER 16, 2024

JOEL D. WALKER 5189 REGISTERED PROFESSIONAL LAND SURVEYOR

8/4/25
DATE
Joel D. Walker
JOEL D. WALKER, R.P.L.S.
TEXAS REGISTRATION NO. 5189

TO: GALENA PARK INDEPENDENT SCHOOL DISTRICT

THIS SURVEY SUBSTANTIALLY COMPLIES WITH THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS MANUAL OF PRACTICE REQUIREMENTS FOR A CATEGORY 6, CONDITION I SURVEY AND THE CURRENT MINIMUM REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYING ACT.

04 Aug 2025 10:44AM darrenb
G:\sdsk\proj\S425004?C\DWG\T080125.dwg

NO.	DATE	REVISION	APP.

CSP

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS

TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TEXAS 77094
PHONE: (832) 287-9874

NOTICE:

FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

Date

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T Texas/SWBT underground conduit facilities only. The AT&T electronic signature is valid for one year.

TALON ENGINEERING, LLC
F–24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS TO SERVE CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015

TOPOGRAPHIC SURVEY
SHEET 1 OF 2

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

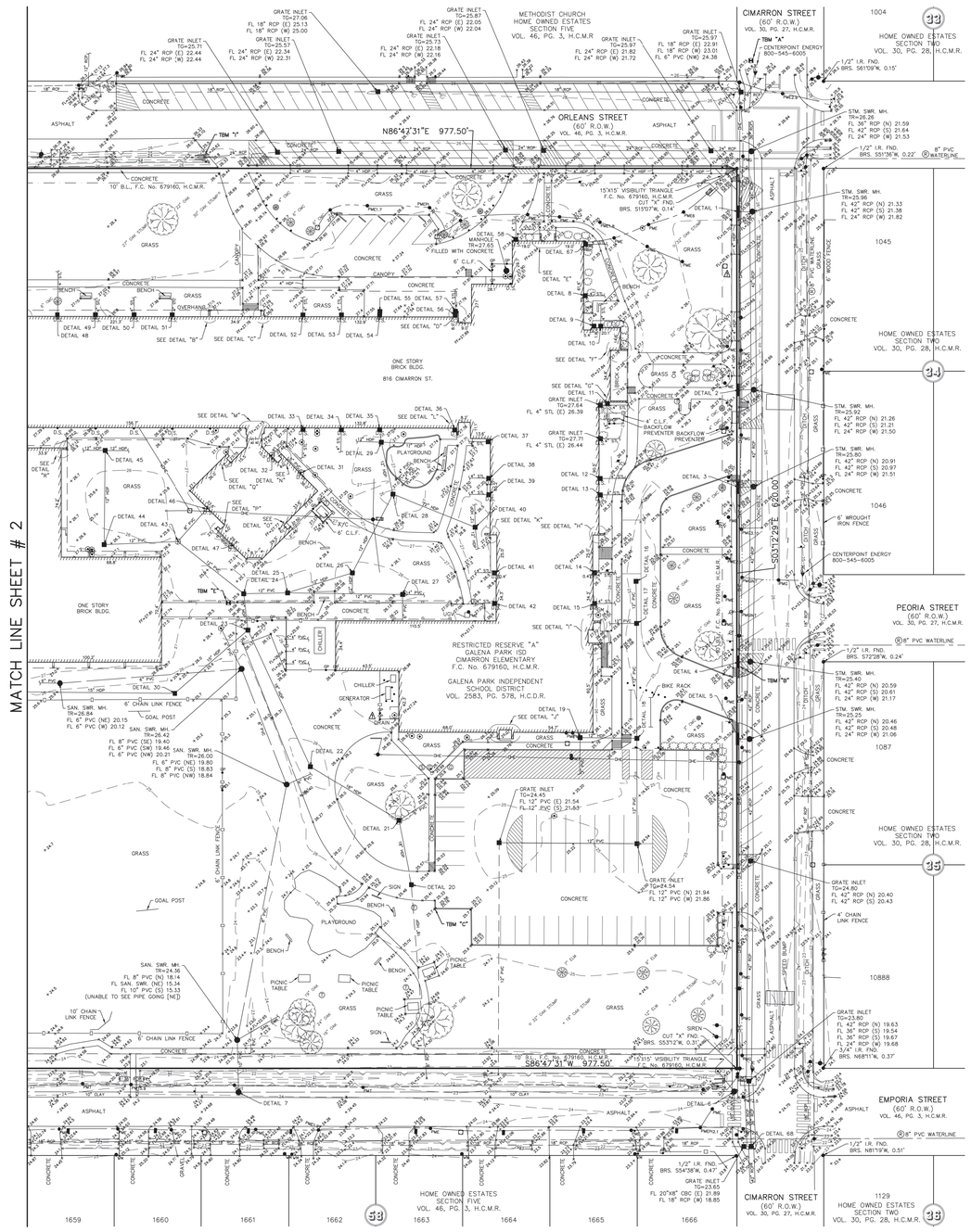
WATER	STORM WATER QUALITY
WASTE WATER	FACILITIES
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

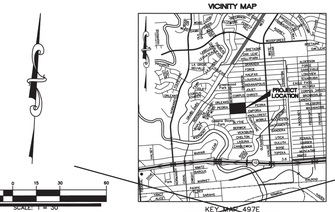
FILE NO.
HORIZ: N/A
VERT: N/A

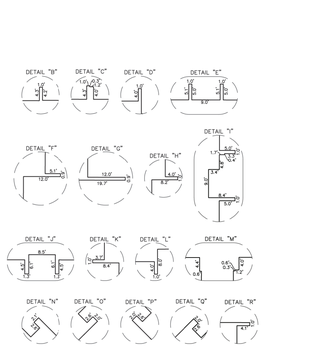
SHEET NO. 3 OF 14 DRAWING SCALE

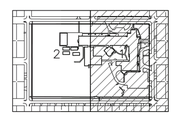
FOR CITY OF HOUSTON USE ONLY

(FOR REFERENCE ONLY)









UNDERGROUND SEWER DETAILS

DETAIL 1
"BB" INLET
TC=26.29
FL 24" RCP (E) 22.17

DETAIL 2
"BB" INLET
TC=26.19
FL 24" RCP (E) 21.77

DETAIL 3
"BB" INLET
TC=26.16
FL 24" RCP (E) 21.89

DETAIL 4
"BB" INLET
TC=25.66
FL 24" RCP (E) 21.58

DETAIL 5
"BB" INLET
TC=25.54
FL 24" RCP (E) 21.45

DETAIL 6
SAN. SWR. MH.
TR=23.87
FL 10" CLAY (S) 12.94
FL 10" CLAY (W) 13.47
FL 8" PVC (NW) 17.51

DETAIL 7
SAN. SWR. MH.
TR=24.02
FL 10" PVC (N) 14.77
FL 10" CLAY (E) 13.96
FL 10" CLAY (W) 13.87

DETAIL 8
GRATE INLET
TC=27.79
FL 4" STL (E) 26.56

DETAIL 9
GRATE INLET
TC=27.56
FILLED WITH DIRT

DETAIL 10
GRATE INLET
TC=27.73
FL 4" STL (N) 26.51

DETAIL 11
GRATE INLET
TC=27.50
FL 4" STL (E) 26.23

DETAIL 12
GRATE INLET
TC=27.77
FL 4" STL (E) 26.43

DETAIL 13
GRATE INLET
TC=27.73
FL 4" STL (E) 26.47

DETAIL 14
GRATE INLET
TC=27.10
FL 4" STL (E) 25.85

DETAIL 15
GRATE INLET
TC=27.13
FL 4" STL (E) 25.83

DETAIL 16
GRATE INLET
TC=24.36
FL 12" PVC (S) 22.51

DETAIL 17
GRATE INLET
TC=24.75
FL 12" PVC (N) 21.97
FL 12" PVC (S) 21.96
FL 12" PVC (W) 22.47

DETAIL 18
GRATE INLET
TC=25.12
FL 12" PVC (N) 21.86
FL 12" PVC (S) 21.81
FL 12" HDP (W) 22.25

DETAIL 19
GRATE INLET
TC=25.49
FL 8" PVC (N) 23.07
FL 12" HDP (E) 22.96
FL 3" PVC (S) 24.76

DETAIL 20
GRATE INLET
TC=25.18
FL 18" HDP (SE) 21.65
FL 18" HDP (NW) 22.18

DETAIL 21
GRATE INLET
TC=24.92
FL 6" PVC (NE) 22.14
FL 18" HDP (SE) 21.80
FL 18" HDP (NW) 22.00

DETAIL 22
GRATE INLET
TC=25.60
FL 18" HDP (SE) 22.25
FL 18" HDP (NW) 22.40

DETAIL 23
GRATE INLET
TC=24.74
FL 15" HDP (N) 22.15
FL 18" HDP (SE) 22.07
FL 15" HDP (SW) 22.16

DETAIL 24
GRATE INLET
TC=25.11
FL 12" PVC (E) 22.38
FL 15" HDP (S) 22.43
FL 12" PVC (NW) 22.54

DETAIL 25
GRATE INLET
TC=25.34
FL 12" HDP (NE) 22.36
FL 12" PVC (E) 22.36
FL 12" PVC (W) 22.35

DETAIL 26
GRATE INLET
TC=25.65
FL 12" HDP (NE) 22.57
FL 12" HDP (S) 22.58
FL 12" HDP (SW) 22.59

DETAIL 27
GRATE INLET
TC=25.61
FL 4" PVC (E) 23.11
FL 6" PVC (S) 23.37
FL 12" PVC (W) 23.19

DETAIL 28
GRATE INLET
TC=25.60
FL 12" HDP (SE) 23.52
FL 12" HDP (SW) 22.69
FL 12" HDP (NW) 23.45

DETAIL 29
GRATE INLET
TC=26.43
FL 4" PVC (N) 24.61
FL 12" HDP (E) 23.76
FL 12" HDP (SE) 23.59
FL 12" HDP (W) 23.77

DETAIL 30
GRATE INLET
TC=25.51
FL 15" HDP (NE) 22.78
FL 15" HDP (W) 22.74

DETAIL 31
GRATE TOP MH.
TC=27.50
FL 8" PVC (NW) 26.06

DETAIL 32
GRATE TOP MH.
TC=27.29
FL 8" PVC (NE) 25.20

DETAIL 33
GRATE INLET
TC=27.63
FL 4" STL (E) 26.32

DETAIL 34
GRATE INLET
TC=27.61
FL 4" STL (S) 26.54

DETAIL 35
GRATE INLET
TC=27.80
FL 4" STL (S) 26.47

DETAIL 36
GRATE INLET
TC=27.71
FILLED WITH DIRT

DETAIL 37
GRATE INLET
TC=27.57
FL 4" STL (W) 26.42

DETAIL 38
GRATE INLET
TC=27.61
FL 4" STL (W) 26.35

DETAIL 39
GRATE INLET
TC=27.66
FL 4" STL (W) 26.51

DETAIL 40
GRATE INLET
TC=26.35
FL 12" HDP (N) 23.82
FL 12" HDP (S) 23.58
FL 12" HDP (NW) 23.64

DETAIL 41
GRATE INLET
TC=27.15
FL 4" STL (W) 25.73

DETAIL 42
GRATE INLET
TC=27.07
FL 4" STL (W) 25.64

DETAIL 43
GRATE TOP MH
TC=25.21
FL 8" PVC (NE) 22.83
FL 12" PVC (SE) 22.81
FL 12" PVC (W) 22.86

DETAIL 44
GRATE INLET
TC=26.43
FL 12" HDP (N) 22.97
FL 12" PVC (E) 23.02

DETAIL 45
GRATE INLET
TC=26.52
FL 12" HDP (E) 23.44
FL 12" HDP (S) 23.31
FL 12" HDP (W) 23.49

DETAIL 46
GRATE TOP MH
TC=27.43
FL 8" PVC (SW) 24.60

DETAIL 47
GRATE TOP MH
TC=27.42
FL 8" PVC (NW) 24.49

DETAIL 48
GRATE INLET
TC=27.67
FL 8" PVC (SW) 24.60

DETAIL 49
GRATE TOP MH
TC=27.43
FL 8" PVC (NW) 24.49

DETAIL 50
GRATE INLET
TC=27.63
FL 4" STL (N) 26.32

DETAIL 51
GRATE INLET
TC=27.63
FL 4" STL (N) 26.27

DETAIL 52
GRATE INLET
TC=27.64
FL 4" STL (N) 26.47

DETAIL 53
GRATE INLET
TC=27.72
FL 4" STL (N) 26.60

DETAIL 54
GRATE INLET
TC=27.70
FL 4" STL (N) 26.37

DETAIL 55
GRATE INLET
TC=27.47
FL 4" STL (S) 26.57

DETAIL 56
GRATE INLET
TC=27.71
FL 4" STL (N) 26.47

DETAIL 57
GRATE INLET
TC=27.34
FL 4" STL (N) 25.97
FL 4" STL (S) 26.37

DETAIL 58
GRATE INLET
TC=27.85
FL 4" STL (S) 26.55

DETAIL 67
GRATE INLET
TC=27.67
FL 4" STL (E) 26.45

DETAIL 68
GRATE INLET
TC=23.80
FL 36" RCP (N) 19.15
FL 36" RCP (N) 19.15
FL 42" RCP (S) 18.90
FL 20"X8" CBC (W) 19.06

LEGEND

- "BB" INLET
- BENCHMARK
- BOLLARD
- CLEANOUT
- DOWN SPOUT
- ELECTRIC JUNCTION BOX
- FIRE HYDRANT
- FLAG POLE
- GAS METER
- GAS VALVE
- GATE POST
- GRATE TOP MANHOLE
- GREASE TRAP
- GUY WIRE
- INLET
- IRRIGATION CONTROL VALVE
- LIGHT STANDARD
- MAILBOX
- MANHOLE
- PAINT MARKER (ELECTRIC)
- PAINT MARKER (GAS)
- PAINT MARKER (TELEPHONE)
- PEDESTAL
- PIPELINE MARKER
- POWER POLE
- SAMPLE WELL
- SHRUB
- SIGN
- TRASH CAN
- WATER METER
- WATER VALVE
- WHEEL STOP

ABBREVIATIONS

B.L.–BUILDING LINE
C.L.F.–CHAIN LINK FENCE
CBC–CONCRETE BOX CULVERT
CMC–CREPE MYRTLE CLUSTER
FC–FILM CODE
FF–FINISH FLOOR
FL–FLOW LINE
FND.–FOUND
H.C.C.F.–HARRIS COUNTY CLERK'S FILE
H.C.D.R.–HARRIS COUNTY DEED RECORDS
H.C.M.R.–HARRIS COUNTY MAP RECORDS
HDP–HIGH DENSITY POLYETHYLENE PIPE
I.P.–IRON PIPE
I.R.–IRON ROD
MH–MANHOLE
OHE–OVERHEAD ELECTRIC
PG.–PAGE
PVC–POLYVINYL CHLORIDE PIPE
RCP–REINFORCED CONCRETE PIPE
R.O.W.–RIGHT-OF-WAY
SAN.–SANITARY
STL.–STEEL
STM.–STORM
SWR.–SEWER
TC–TOP OF CONCRETE
TG–TOP OF GRATE
TR–TOP OF RIM
UGV–UNDERGROUND VAULT
VOL.–VOLUME

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 0.99990025335.

3. ACCORDING TO F.I.R.M. MAP NO. 48201C0715M (COMMUNITY–PANEL NO. 480296071M), MAP REVISED DATE: JANUARY 6, 2017. 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. THE SUBJECT TRACT IS AFFECTED BY THE CITY OF HOUSTON ORDINANCE No. 85–1878, AMENDED BY ORDINANCE No. 1999–262.

6. UNDERGROUND UTILITY LOCATIONS PROVIDED BY LONESTAR LOCATING, LLC. PAINT MARKS WITH NUMERIC VALUES INDICATE'S COVER (FT 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 VOT LOCATABLE BY TRANSMISSION SIGNAL.

7.–9 INDICATES AN UNDERGROUND SEWER LINE WITH UNKNOWN DIRECTION, SIZE OR LOCATION OR A POSSIBLE STUB–OUT.

8.Ⓒ INDICATES RECORD UTILITIES PLOTTED FROM MAPS PROVIDED BY CITY OF HOUSTON ONLINE GIMS SYSTEM.

REFERENCE BENCHMARK:

RM150020 – BRASS DISK STAMPED "P100 BM02" LOCATED ON CONCRETE WALL NEXT TO RAIL ON EAST SIDE OF BRIDGE AT NORMANDY STREET AND GREENS BAYOU, AT CENTER LINE OF STREAM IN KEY MAP 497E IN THE GREENS WATERSHED NEAR STREAM MILE 100–00–00. ELEVATION = 27.50' (NAVD 1988, 2001 ADJ.)

TEMPORARY BENCHMARKS:

TBM "A" – BOX CUT ON CONCRETE HEADWALL LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF CIMARRON STREET AND ORLEANS STREET. ELEVATION = 25.51'

TBM "B" – BOX CUT ON "BB" INLET LOCATED ON THE WEST SIDE OF CIMARRON STREET AT IT'S INTERSECTION WITH PEORIA STREET. ELEVATION = 25.74'

TBM "C" – BOX CUT ON BACK OF CURB LOCATED AT THE MOST WESTERLY SOUTHWEST CORNER OF OF THE MOST SOUTHERLY PARKING LOT OF THE SCHOOL. ELEVATION = 25.67'

TBM "D" – BOX CUT ON THE WEST END OF AN 18" RCP CULVERT ,OCATED ON THE SOUTH SIDE OF EMPORIA STREET AT THE DRIVEWAY FOR 1312⅙ EMPORIA STREET. ELEVATION = 24.61'

TBM "E" – BOX CUT ON THE NORTH SIDE OF THE CONCRETE SIDEWALK LOCATED ±60' NORTHWEST OF THE MAIN CHILLER FOR THE SCHOOL. ELEVATION = 26.12'

TBM "G" – BOX CUT ON THE NORTH SIDE OF THE CONCRETE SIDEWALK LOCATED AT THE MOST WESTERLY PLAYGROUND ±50' SOUTH OF THE SOUTHEAST CORNER OF THE SOUTHEAST TEMPORARY BUILDING. ELEVATION = 26.06'

TBM "H" – BOX CUT ON THE EAST SIDE OF THE CONCRETE SIDEWALK ±8' EAST OF THE NORTHEAST CORNER OF THE NORTHEAST TEMPORARY BUILDING. ELEVATION = 26.77'

TBM "I" = BOX CUT ON CONCRETE HEADWALL LOCATED ON THE SOU'H SIDE OF ORLEANS STREET AT THE WEST SIDE OF THE MOST WESTERLY DRIVEWAY TO THE SCHOOL. ELEVATION = 25.31'

TO: GALENA PARK INDEPENDENT SCHOOL DISTRICT

THIS SURVEY SUBSTANTIALLY COMPLIES WITH THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS MANUAL OF PRACTICE REQUIREMENTS FOR A CATEGORY 6, CONDITION I SURVEY AND THE CURRENT MINIMUM REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYING ACT.

JOEL D. WALKER 5189 REGISTERED PROFESSIONAL LAND SURVEYOR

8/4/25
DATE

JOEL D. WALKER, R.P.L.S.
TEXAS REGISTRATION NO. 5189

NO.	DATE	REVISIONS	BY
1	8/4/25	UPDATED TOPOGRAPHIC SURVEY	DB

DRAWN BY: MDL | CHECKED BY: KMH
SCALE: 1"=30' | APPROVED BY: JDW
PROJECT NO. 5425–0047C | DATE: OCTOBER 16, 2024

04 Aug, 2025 10:44AM darrenb
G:\data\proj\5425\0047C\DWG\T080125.dwg

CSP

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS

TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TEXAS 77094
PHONE: (832) 287-9874

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

Date

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T Texas/SWBT underground conduit facilities only. The AT&T electronic signature is valid for one year.

TALON ENGINEERING, LLC
F–24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS TO SERVE CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015

TOPOGRAPHIC SURVEY SHEET 2 OF 2

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATER	STORM WATER QUALITY
WASTE WATER	FACILITIES
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

FILE NO.
HORIZ: N/A
VERT: N/A

SHEET NO. 4 OF 14 DRAWING SCALE
FOR CITY OF HOUSTON USE ONLY

GALENA PARK INDEPENDENT SCHOOL DISTRICT

TOPOGRAPHIC SURVEY

CIMARRON ELEMENTARY SCHOOL OUT OF THE SAMUEL C. HIROMS SURVEY ABSTRACT NO. 33 CITY OF HOUSTON HARRIS COUNTY, TEXAS

WEST BELT SURVEYING, INC.
11000 PARK ROW, KATY, TX. 77449 *PHONE: (281) 599–9296 FAX: (281) 492–0526*
CERTIFIED FIRM NO. 100738900

NO.	DATE	REVISIONS	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

NO.	DATE	REVISION	APP.

(FOR REFERENCE ONLY)

HOME OWNED ESTATES
SECTION FIVE
VOL. 46, PG. 3, H.C.M.R

ORLEANS STREET
(60' R.O.W.)
VOL. 46, PG. 3, H.C.M.R.

(60' R.O.W.)
VOL. 30, PG. 27, H.C.M.R.

BERESFORD STREET
(60' R.O.W.)
VOL. 46, PG. 3, H.C.M.R.

CIMARRON STREET
(60' R.O.W.)
VOL. 30, PG. 27, H.C.M.R.

N86°47'31"E 977.50'

N03°12'29"W 620.00'

PROP. WATER LINE
CONNECTION SEE
SHEET 7

PROPOSED BUILDING
FFE=28.50

REFERENCE BCE PROJECT # 25080064 FOR DETENTION, RESTRICTOR DESIGN, AND CALCULATIONS. OVERALL LAYOUT FOOTPRINT IS SHOWN HERE FOR REFERENCE ONLY.

PROP. SANITARY
SEWER CONNECTION
SEE SHEET 8

PROP. STORM
SEWER CONNECTION
SEE SHEET 6

TBM "A"
CENTERPOINT ENERGY
800-545-6005

TBM "B"

TBM "C"

TBM "D"

TBM "1"

HOME OWNED ESTATES
SECTION FIVE
VOL. 46, PG. 3, H.C.M.R

HOME OWNED ESTATES
SECTION FIVE
VOL. 46, PG. 3, H.C.M.R

10' B.L., F.C. No. 679160, H.C.M.R.

15'X15' VISIBILITY TRIANGLE
F.C. No. 679160, H.C.M.R.

1/2" I.R. FND.
BRS. N79°10'W, 0.47'
15'X15' VISIBILITY TRIANGLE
F.C. No. 679160, H.C.M.R.
6' CHAIN LINK FENCE

1" I.P. FND. BENT
BRS. N67°13'W, 1.03'

CUT "X" FND.
BRS. N09°01'W, 0.16'

CUT "X" FND.
BRS. S15°07'W, 0.14'

1/2" I.R. FND.
BRS. S89°23'E, 0.65'

SCALE: 1"= 40 0 20 40

CSP

NO.	DATE	REVISION	APP.

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS

TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TEXAS 77094
PHONE: (832) 287-9874

NOTICE:

FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

Date

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T Texas/SWBT underground conduit facilities only. The AT&T electronic signature is valid for one year.

TALON ENGINEERING, LLC
F-24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER

10/24/2025

STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS TO SERVE
CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015

OVERALL LAYOUT PLAN

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATER
WASTE WATER
STORM WATER
STORM WATER QUALITY
FACILITIES
TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

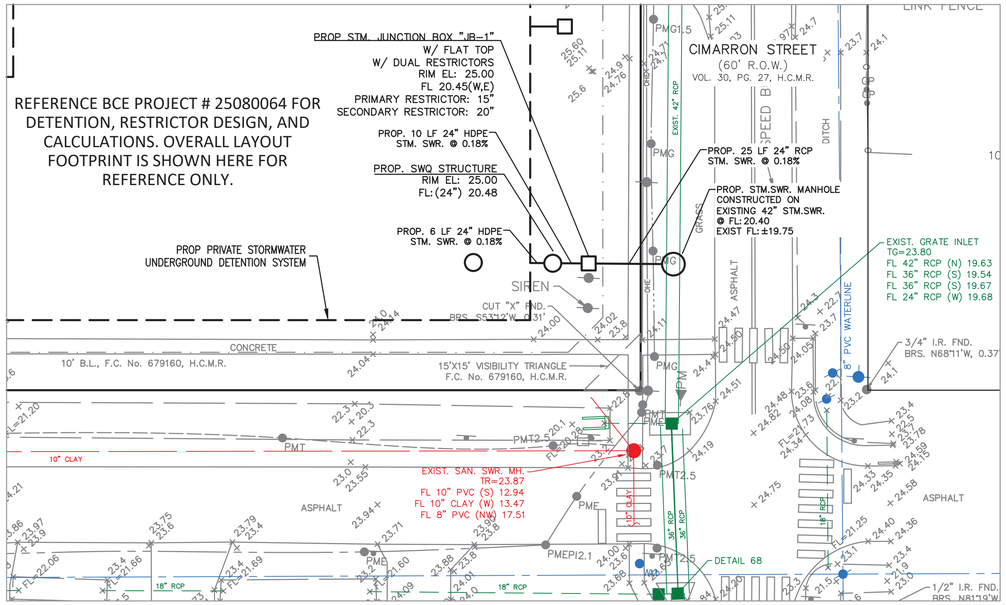
FILE NO.

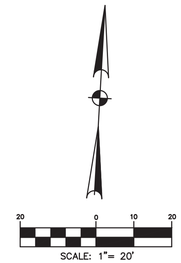
HORIZ: AS SHOWN
VERT: AS SHOWN

SHEET NO. 5 OF 14 DRAWING SCALE

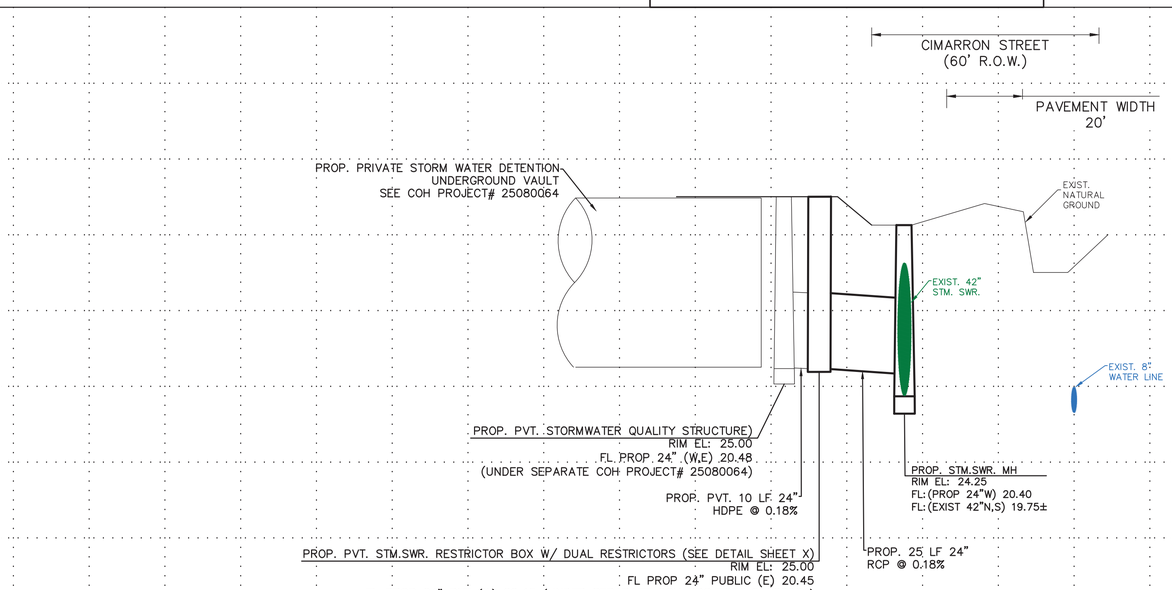
FOR CITY OF HOUSTON USE ONLY

(FOR REFERENCE ONLY)





STORM SEWER CONNECTION



(FOR REFERENCE ONLY)

UTILITY ONE CALL
CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS) DIAL 811
(OUTSIDE TEXAS) DIAL 1-800-344-8377

NO.	DATE	REVISION	APP.

CSP

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS

TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TEXAS 77094
PHONE: (832) 287-9874

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

Date

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T Texas/SWBT underground conduit facilities only. The AT&T electronic signature is valid for one year.

TALON ENGINEERING, LLC
F-24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS TO SERVE CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015

STORM SEWER CONNECTION

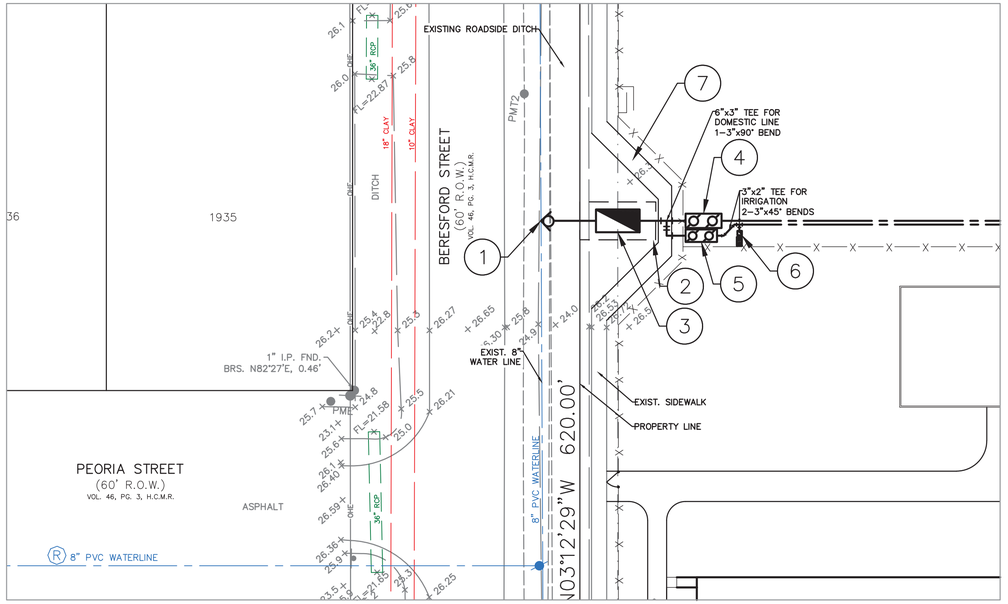
NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

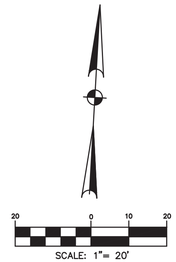
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATER	STORM WATER QUALITY
WASTE WATER	FACILITIES
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

FILE NO.
HORIZ: 1"=20'
VERT: 1"=2'

SHEET NO. 6 OF 14 DRAWING SCALE
FOR CITY OF HOUSTON USE ONLY





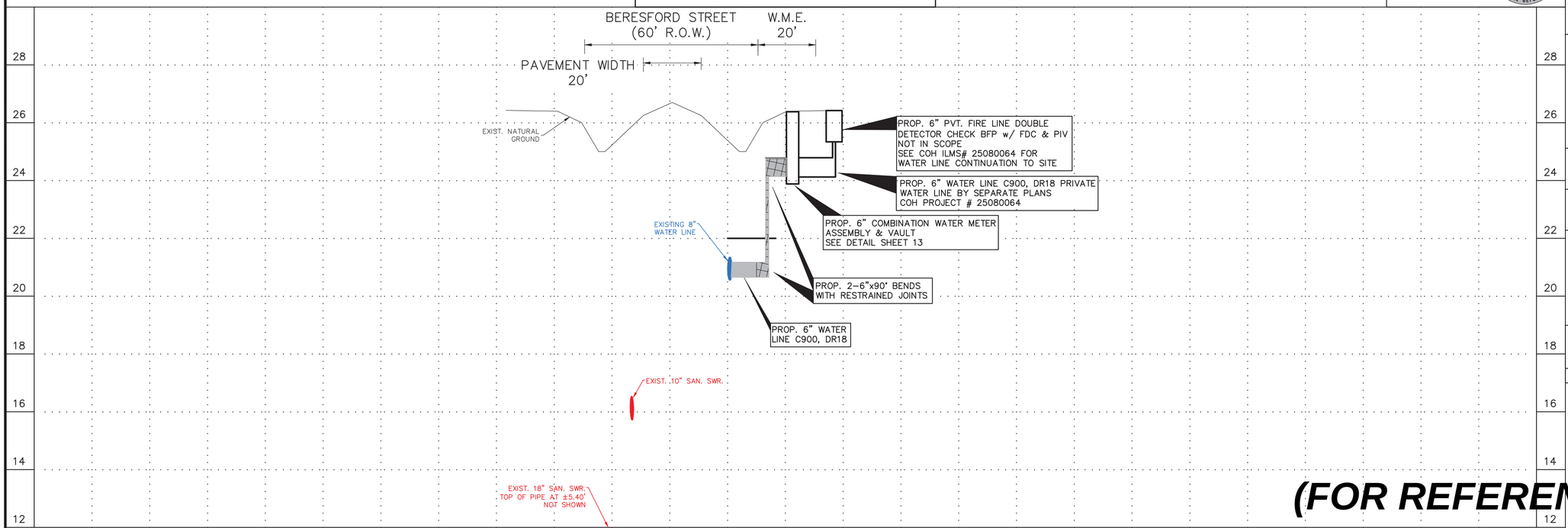
KEYED NOTES TO SHEET:

1. PROPOSED 8"x6" TS&V w/ BOX
2. PROPOSED 10'x20' WATER METER EASEMENT. RECORDED BY SEPARATE INSTRUMENT.
3. PROPOSED 6" COMBINATION FIRE & DOMESTIC WATER METER.
4. PROPOSED 6" FIRE LINE RPZ DOUBLE DETECTOR CHECK BACKFLOW PREVENTER WITH FDC & PIV.
5. PROPOSED 3" DOMESTIC RPZ BACKFLOW PREVENTER WITH ENCLOSURE.
6. PROPOSED 2" PRIVATE IRRIGATION METER. 2" RPZ BACKFLOW PREVENTER DOWNSTREAM OF METER FOR LANDSCAPE PURPOSES.
7. EXISTING SIDEWALK TO BE REMOVED & REROUTED TO FACILITATE NEW WATER METER & WATER METER EASEMENT.

TS&V NEEDS TO BE 5' MIN. FROM BELLS, FITTINGS, VALVES ETC. CONTRACTOR TO FIELD VERIFY TAPPING LOCATION PRIOR TO TAPPING OR METER INSTALLATION. IF ANY FITTINGS, VALVES, BELLS ETC. ARE FOUND WITHIN 5' OF TS&V CONTRACTOR TO CONTACT ENGINEER AND MAKE NECESSARY REVISIONS.

UTILITY ONE CALL
CONTRACTOR TO CALL BEFORE DIGGING!!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

WATER LINE CONNECTION



(FOR REFERENCE ONLY)

NO.	DATE	REVISION	APP.

CSP

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS

TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TEXAS 77094
PHONE: (832) 287-9874

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

Date

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T Texas/SWBT underground conduit facilities only. The AT&T electronic signature is valid for one year.

TALON ENGINEERING, LLC
F-24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS TO SERVE CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015

WATER LINE CONNECTION

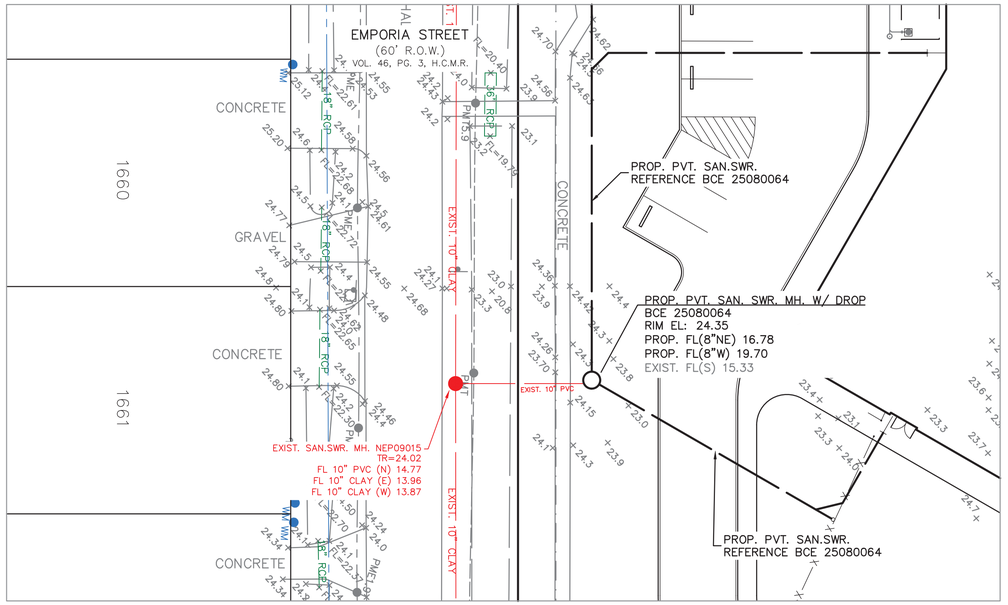
NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

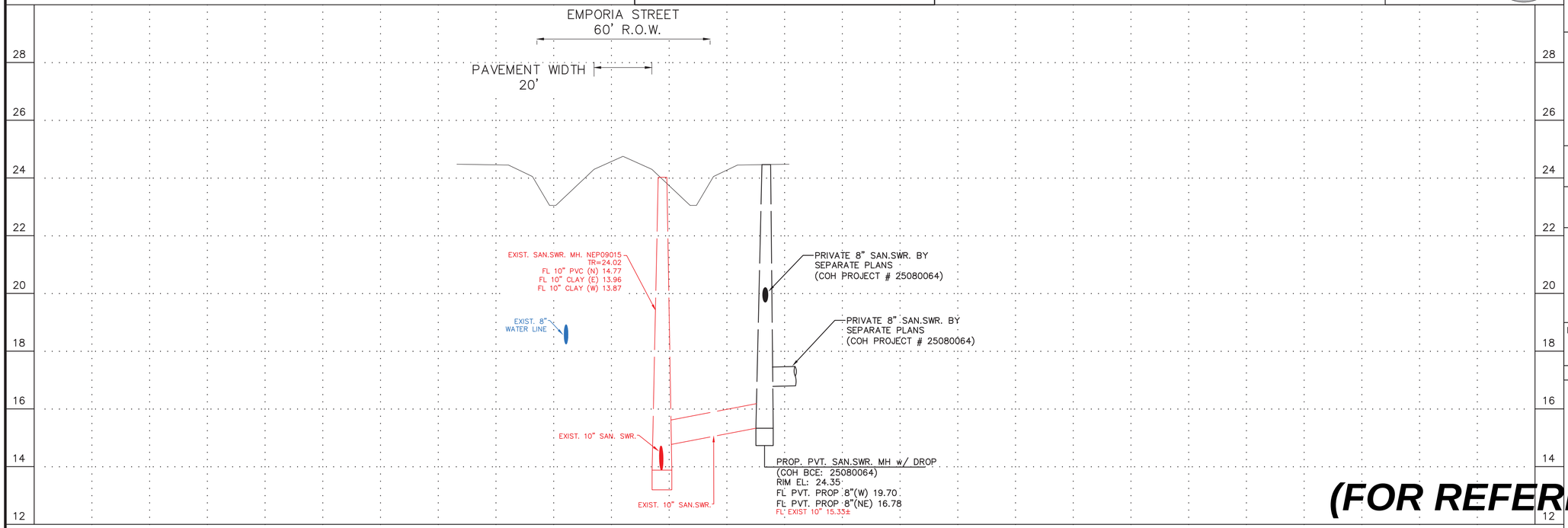
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATER	STORM WATER QUALITY
WASTE WATER	FACILITIES
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

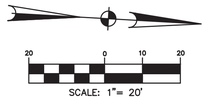
FILE NO.
HORIZ: 1"=20'
VERT: 1"=2'

SHEET NO. 7 OF 14 DRAWING SCALE
FOR CITY OF HOUSTON USE ONLY





(FOR REFERENCE ONLY)



CSP

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS

TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TEXAS 77094
PHONE: (832) 287-9874

NO.	DATE	REVISION	APP.

NOTICE:

FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

Date

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T Texas/SWBT underground conduit facilities only. The AT&T electronic signature is valid for one year.

TALON ENGINEERING, LLC
F-24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER

10/24/2025

UTILITY ONE CALL
CONTRACTOR TO CALL BEFORE DIGGING!!!
(WITHIN TEXAS)
DIAL 811
(OUTSIDE TEXAS)
DIAL 1-800-344-8377

TEXAS ONE CALL SYSTEM – TEXAS 811 – CALL BEFORE YOU DIG

STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS TO SERVE CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015

SANITARY SEWER CONNECTION

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATER	STORM WATER QUALITY
WASTE WATER	FACILITIES
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

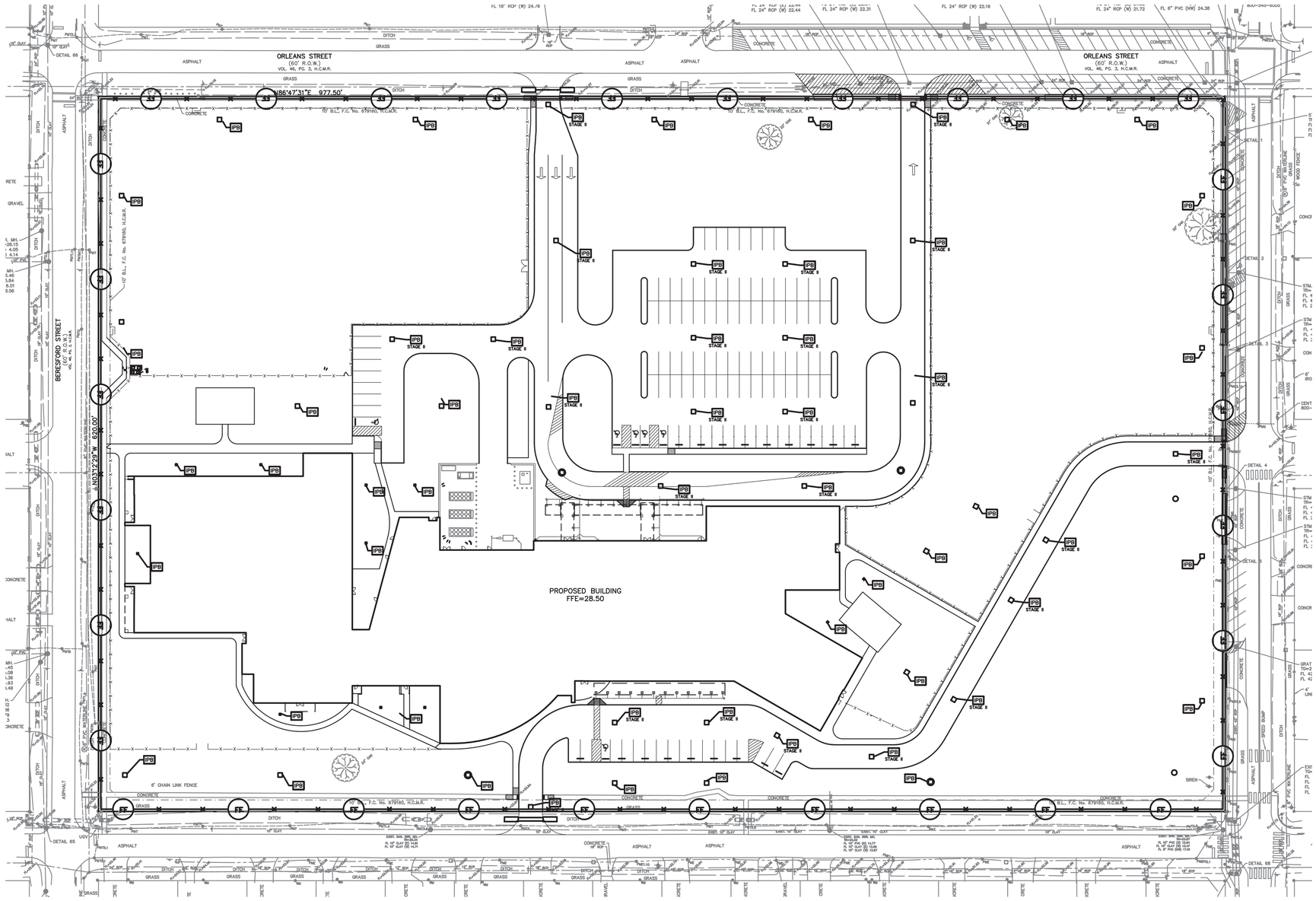
FILE NO.

HORIZ: 1"=20'

VERT: 1"=2'

SHEET NO. 8 OF 14 DRAWING SCALE

FOR CITY OF HOUSTON USE ONLY



SCALE: 1"= 50'

LEGEND:

- PROPOSED INLET
- FF — PROPOSED FILTER FABRIC FENCE (SILT FENCE)
- SBF — PROPOSED STRAW BALE FENCE
- SC — STABILIZED CONSTRUCTION ACCESS
- IPB — INLET PROTECTION BARRIER
- IPB STAGE II — INLET PROTECTION BARRIER (CURB INLET/INLET IN PAVEMENT)
- CONCRETE WASHOUT PIT

KEY NOTES:

1. CONTRACTOR TO COORDINATE FINAL PLACEMENT OF STABILIZED CONSTRUCTION ENTRANCE AND WASH OUT PIT WITH OWNER.

CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION, MAINTENANCE, MODIFICATION AND INSPECTION OF STORM WATER POLLUTION PREVENTION DEVICES AND STRUCTURES TO ENSURE NO SILT OR CONTAMINATED WATER LEAVES THE PROJECT SITE.

SWPPP CONSTRUCTION NOTES

1 CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPP) PLANS TO KEEP SILT AND OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM.

2 DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATION 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 FORM THE EXCAVATED AREA.

4 CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT, ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.

5 CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN(14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.

- DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
- STRUCTURAL CONTROL MEASURES.
- LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

6 CONTRACTOR TO BE RESPONSIBLE TO MAINTAIN EXISTING DITCHES AND OR CULVERTS FOR UNOBSTRUCTED DRAINAGE AT ALL TIMES. WHERE SODDING IS DISTURBED BY EXCAVATION ON BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SEEDING OR SODDING. SLOPES 4:1 OR STEEPER SHALL BE REPLACED BY BLOCK SODDING.

(FOR REFERENCE ONLY)

NO.	DATE	REVISION	APP.

CSP

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS

TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TEXAS 77094
PHONE: (832) 287-9874

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

Date

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T Texas/SWBT underground conduit facilities only. The AT&T electronic signature is valid for one year.

TALON ENGINEERING, LLC
F-24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS TO SERVE CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015

STORM WATER POLLUTION PREVENTION PLAN

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATER	STORM WATER QUALITY
WASTE WATER	FACILITIES
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

FILE NO.

HORIZ: AS SHOWN

VERT: AS SHOWN

SHEET NO. 9 OF 14 DRAWING SCALE

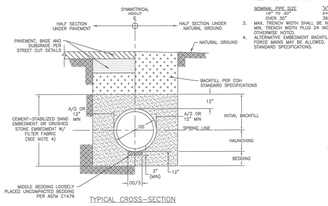
FOR CITY OF HOUSTON USE ONLY

02317-03

NOTES:
1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS PER COH STANDARD SPECIFICATIONS. USE PRECAST BOX FOR OTHER REQUIREMENTS IN OTHER CONDITIONS.
2. MIN. TRENCH WIDTH SHALL BE PIPE OD PLUS AN ALLOWANCE "A" FOR THE NOMINAL PIPE SIZE:

NOMINAL PIPE SIZE OUTSIDE DIA.	"A"
OVER 30"	36"

3. MAX. TRENCH WIDTH SHALL BE NOT GREATER THAN OUTSIDE PIPE DIAMETER PLUS 24 INCHES, UNLESS SPECIFICALLY NOTED.
4. ALTERNATIVE EMBEDMENT BACKFILL MATERIALS FOR FORCE MAINS MAY BE ALLOWED. SEE COH STANDARD SPECIFICATIONS.

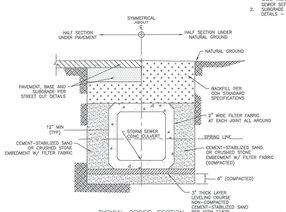


TYPICAL CROSS-SECTION

SANITARY OR STORM SEWER BEDDING AND BACKFILL FOR DRY STABLE TRENCH
NTS

02317-05

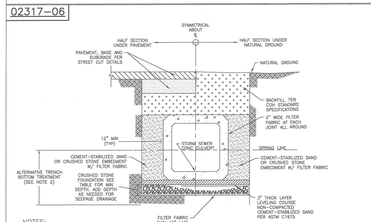
NOTES:
1. WHERE MULTIPLE BOX SEWER ARE USED IN THE SAME TRENCH, MIN. OUTSIDE TO OUTSIDE BOX SEWER SEPERATION SHALL BE 6".
2. CONCRETE IN SLAB TO REACH MIN COMPRESSIVE STRENGTH OF PAVEMENT FOR STREET CUT DETAILS - 02051.



TYPICAL CROSS-SECTION

PRECAST CONCRETE BOX STORM SEWER BEDDING AND BACKFILL FOR DRY STABLE TRENCH
NTS

02317-06



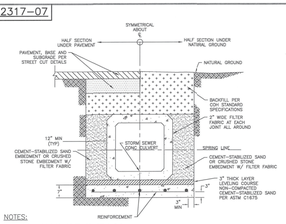
NOTES:
1. WHERE MULTIPLE BOX SEWER ARE USED IN THE SAME TRENCH, MIN. OUTSIDE TO OUTSIDE BOX SEWER SEPERATION SHALL BE 6".
2. ALTERNATIVE TRENCH BOTTOM TREATMENT MAY BE USED AS APPROVED BY THE CITY OF ENGINEERS AND AS PAID FOR IN THE PROPOSAL.

TABLE

CULVERT SIZE (FT)	FOUNDATION REPTH(INCHES)
3' X 3' TO 6' X 6'	12
7' X 3' AND LARGER	18

PRECAST CONCRETE BOX STORM SEWER BEDDING AND BACKFILL FOR WET STABLE TRENCH
NTS

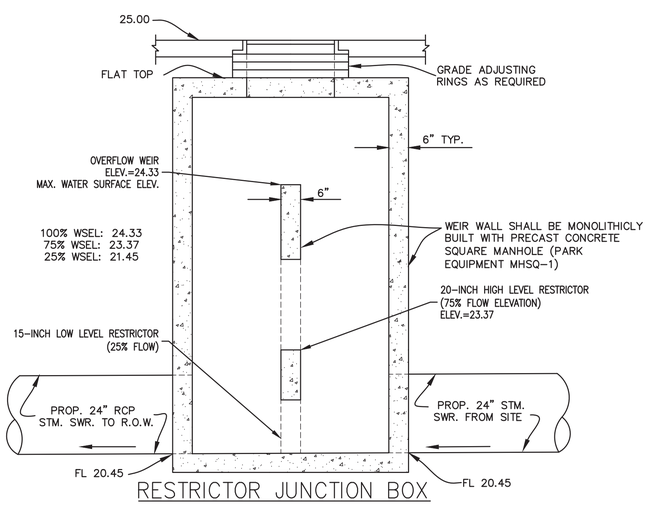
02317-07



NOTES:
1. WHERE MULTIPLE BOX SEWER ARE USED IN THE SAME TRENCH, MIN OUTSIDE TO OUTSIDE BOX SEWER SEPERATION SHALL BE 6".
2. BOX SEWER SHALL BE PLACED ON BEDDING TO BE PLACED IN DRY TRENCH ONLY.
3. CONCRETE IN SLAB TO REACH MIN COMPRESSIVE STRENGTH OF PAVEMENT AS BASED ON MAX DESIGN BEFORE PIPE IS LAID.
4. PRECAST SEAL SLAB MAYBE USED AS APPROVED BY CITY ENGINEER.

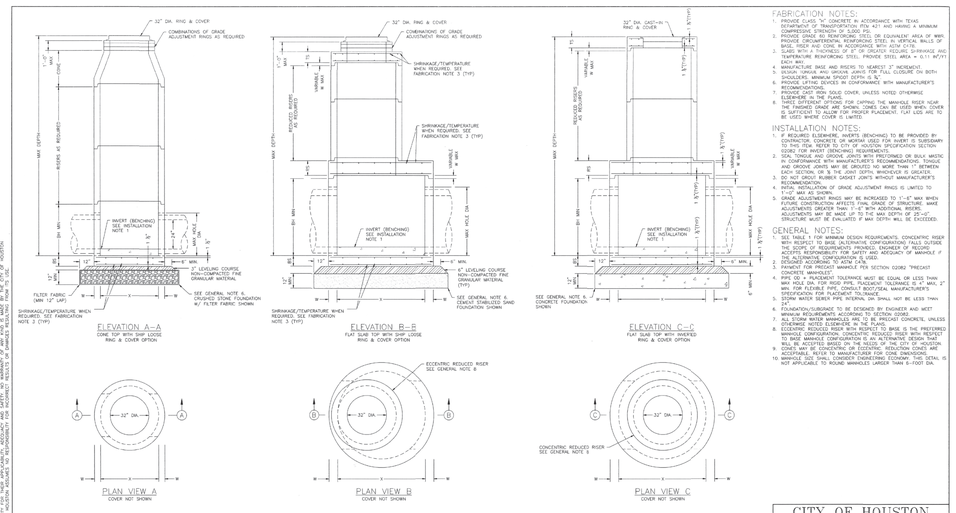
PRECAST CONCRETE BOX STORM SEWER BEDDING AND BACKFILL WITH SEAL SLAB
NTS

FIRM INFORMATION	ENGINEER'S SEAL
CITY OF HOUSTON HOUSTON PUBLIC WORKS	
STORM SEWER 02317-03 THROUGH 07	
APPROVED BY: CITY ENGINEER	APPROVED BY: DEPUTY DIRECTOR
APPROVED BY: DIRECTOR	
EFFECTIVE DATE: JUL-01-2019 FOR CITY OF HOUSTON USE ONLY	
SHEET NO.	



RESTRICTOR JUNCTION BOX

N.T.S.



FABRICATION NOTES:
1. PROVIDE CLASS "A" CONCRETE IN ACCORDANCE WITH TEXAS DEPARTMENT OF TRANSPORTATION ITEM 421 AND HAVING A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.
2. PROVIDE GRADE 60 REINFORCING STEEL OR EQUIVALENT AREA OF WWF, WHERE REQUIRED, IN ACCORDANCE WITH ASTM A615. ALL WALLS OF BASE, RISER AND CONE IN ACCORDANCE WITH ASTM C478.
3. SLABS WITH A THICKNESS OF 8" OR GREATER REQUIRE SHRINKAGE AND TEMPERATURE REINFORCING STEEL: PROVIDE STEEL AREA = 0.11 IN²/FT EACH WAY.
4. MANUFACTURE BASE AND RISERS TO NEAREST 3" INCREMENT.
5. DESIGN TONGUE AND GROOVE JOINTS FOR TRUE CLOSURE ON BOTH SHOULDERS. MINIMUM SPIGOT DEPTH IS ¾".
6. PROVIDE LIFTING DEVICES IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. PROVIDE CAST IRON SOLID COVER, UNLESS NOTED OTHERWISE ELSEWHERE IN THE PLANS.
8. THE THREE OPTIONS FOR CAPPING THE MANHOLE RISER NEAR THE FINISHED GRADE ARE SHOWN. CONES CAN BE USED WHEN COVER IS SUFFICIENT TO ALLOW FOR PROPER PLACEMENT. FLAT LIDS ARE TO BE USED WHERE COVER IS LIMITED.

INSTALLATION NOTES:
1. IF REQUIRED ELSEWHERE, INVERTS (BENCHING) TO BE PROVIDED BY CONTRACTOR. CONCRETE OR MORTAR USED FOR INVERT IS SUBSIDIARY TO ITEM 476.6002 "SET OF MANHOLE" SPECIFICATION SECTION 02315 FOR INVERT (BENCHING) REQUIREMENTS.
2. SEAL TONGUE AND GROOVE JOINTS WITH PREFORMED OR BULK MASTIC IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS. TONGUE AND GROOVE JOINTS MAY BE GROUTED NO MORE THAN 1" BETWEEN RISERS AND CONE. GROUT MAY BE USED ON INTERIOR SURFACE ONLY. DO NOT GROUT RUBBER GASKET JOINTS WITHOUT MANUFACTURER'S RECOMMENDATION.
3. PROPER PLACEMENT OF GRADE ADJUSTMENT RINGS IS LIMITED TO FLAT AND ALL SIDING.
4. GRADE ADJUSTMENT RINGS MAY BE INCREASED TO 1'-6" MAX WHEN FUTURE CONSTRUCTION AFFECTS FINAL GRADE OF STRUCTURE. MAKE ADJUSTMENTS GREATER THAN 1'-6" WITH ADDITIONAL RISERS.
5. STRUCTURE WALL MAY BE EXTENDED TO A MAX DEPTH OF 20'. STRUCTURE WALLS TO BE EVALUATED IF MAX DEPTH WILL BE EXCEEDED.

GENERAL NOTES:
1. SEE TABLE 1 FOR MINIMUM DESIGN REQUIREMENTS. CONCENTRIC RISER MAY BE USED IN LIEU OF ECCENTRIC REDUCED RISER AT THE OPTION THE SCOPE OF REQUIREMENTS PROVIDED. ENGINEER OF RECORD ACCEPTS RESPONSIBILITY FOR SAFETY AND ADEQUACY OF MANHOLE IF CONCENTRIC REDUCED RISER IS USED.
2. DESIGNED ACCORDING TO ASTM C-478.
3. PAYMENT FOR PRECAST MANHOLE PER SECTION 02082 "PRECAST CONCRETE MANHOLES"
4. PIPE OD + PLACEMENT TOLERANCE MUST BE EQUAL OR LESS THAN 'A'. 'A' = PIPE OD + 12" MIN. FOR RCP PIPE, CONSULT MANUFACTURER'S 'A' MIN. FOR FLEXIBLE PIPE, CONSULT BOOT/SEAL MANUFACTURER'S SPECIFICATION FOR PLACEMENT TOLERANCE.
5. STORM WATER SEWER PIPE INTERNAL DIA SHALL NOT BE LESS THAN 24".
6. FOUNDATION/SUBGRADE TO BE DESIGNED BY ENGINEER AND MEET MINIMUM REQUIREMENTS ACCORDING TO SECTION 02082.
7. ALL STORM WATER MANHOLES ARE TO BE PRECAST CONCRETE, UNLESS OTHERWISE NOTED ON THE PLANS.
8. ECCENTRIC REDUCED RISER WITH RESPECT TO BASE IS THE PREFERRED MANHOLE CONFIGURATION. CONCENTRIC REDUCED RISER WITH RESPECT TO BASE IS AN ALTERNATE CONFIGURATION. CONCENTRIC REDUCED RISER WILL BE ACCEPTED BASED ON THE NEEDS OF THE CITY OF HOUSTON.
9. CONES MAY BE CONCENTRIC OR ECCENTRIC REDUCTION CONES ARE SHOWN. CONES CAN BE USED WHEN COVER IS SUFFICIENT TO ALLOW FOR PROPER PLACEMENT.
10. MANHOLE SIZE SHALL CONSIDER ENGINEERING ECONOMY. THIS DETAIL IS NOT APPLICABLE TO ROUND MANHOLES LARGER THAN 6-FOOT DIA.

TABLE 1
PRECAST ROUND MANHOLE (PRM) MINIMUM REQUIREMENTS FOR 24 IN. TO 42 IN. INTERNAL DIA STORM SEWER PIPES

	SIZE	BASE SLAB THICKNESS	BASE UNIT OR RISER THICKNESS	REDUCED RISER THICKNESS	PROVIDING SLAB THICKNESS	TOP SLAB THICKNESS	MAX. DEPTH TO TOP OF TOP SLAB	MIN. HEIGHT	MAX HOLE DIA
	S	B1	R	D	X1	T1	MAX. DEPTH	BH MIN	MAX HOLE DIA
	FT	IN.	IN.	IN.	IN.	IN.	FT.	IN.	IN.
PRM	4	9	5	10	7	9	25	42	55
	5	9	6	48	9	9	25	42	42
	6	9	7	48/60*	12	9	25	42	55

(*) 60-IN REDUCED RISER IS TO BE USED WHEN DEEMED NECESSARY TO SATISFY WALL PENETRATION SPACING REQUIREMENTS.

CITY OF HOUSTON HOUSTON PUBLIC WORKS	
STORM SEWER TYPE 'C' PRECAST ROUND MANHOLE	
(NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: JUL-01-2021	DWG NO: 02082-12

DISCLAIMER:
THE CITY OF HOUSTON IS GOVERNED BY TEXAS SUNSHINE LAW. PURSUANT TO THE TEXAS GOVERNMENT CODE, ALL OF THE INFORMATION CONTAINED IN THIS PLAN SET IS SUBJECT TO PUBLIC DISCLOSURE. THE CITY OF HOUSTON MAKES NO REPRESENTATIONS AS TO THE ACCURACY OR COMPLETENESS OF ANY INFORMATION ON THIS PLAN SET AND SHALL HAVE NO RESPONSIBILITY OR LIABILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

			APP.
			REVISION
			DATE
			NO.

CSP

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS

TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TEXAS 77094
PHONE: (832) 287-9874

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

Date

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T Texas/SWBT underground conduit facilities only. The AT&T electronic signature is valid for one year.

TALON ENGINEERING, LLC
F-24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS TO SERVE CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015

STORM SEWER DETAILS

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

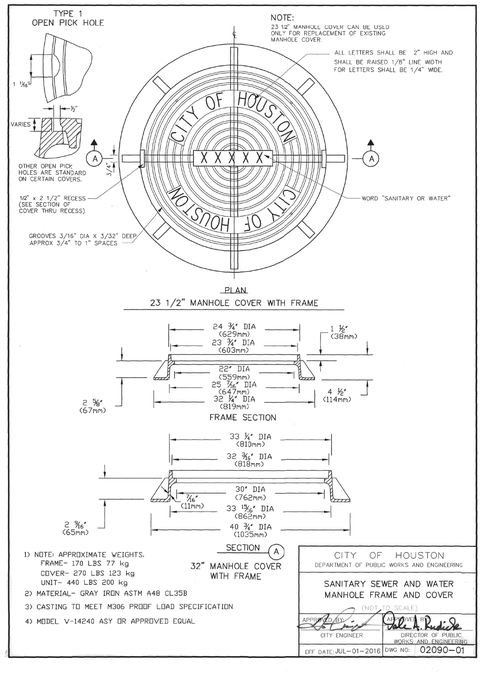
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

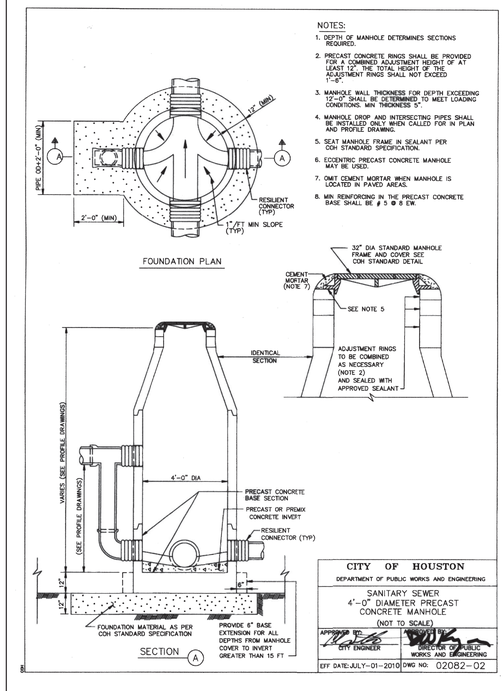
WATER	STORM WATER QUALITY
WASTE WATER	FACILITIES
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

FILE NO.
HORIZ: N/A
VERT: N/A

SHEET NO. 10 OF 14 DRAWING SCALE
FOR CITY OF HOUSTON USE ONLY

(FOR REFERENCE ONLY)





NO.	DATE	REVISION	APP.

CSP

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS

TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TEXAS 77094
PHONE: (832) 287-9874

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

Date

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T Texas/SWBT underground conduit facilities only. The AT&T electronic signature is valid for one year.

TALON ENGINEERING, LLC
F-24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS TO SERVE CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015

SANITARY SEWER DETAILS

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATER	STORM WATER QUALITY
WASTE WATER	FACILITIES
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

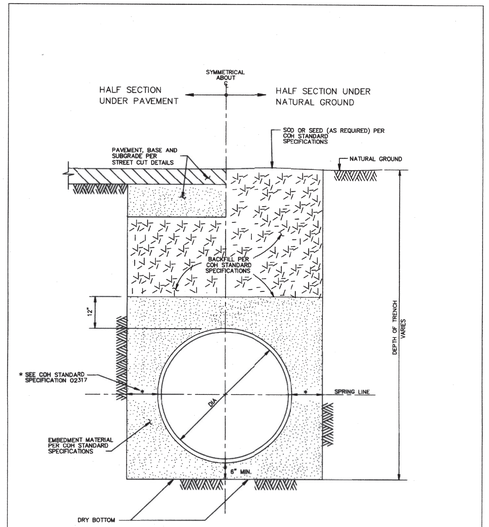
FILE NO.

HORIZ: N/A
VERT: N/A

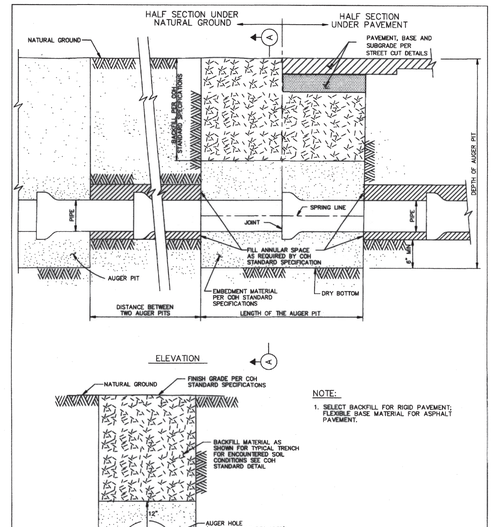
SHEET NO. 11 OF 14 DRAWING SCALE

FOR CITY OF HOUSTON USE ONLY

(FOR REFERENCE ONLY)



CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
WATER DISTRIBUTION MAIN BEDDING AND BACKFILL FOR OPEN CUT TRENCHES (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2010	DWG NO: 02317-04



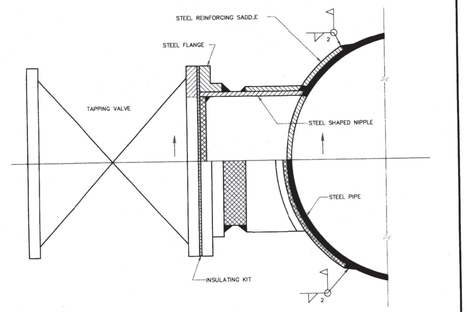
NOTE:

1. SELECT BACKFILL FOR RIGID PAVEMENT; FLEXIBLE BASE MATERIAL FOR ASPHALT PAVEMENT.

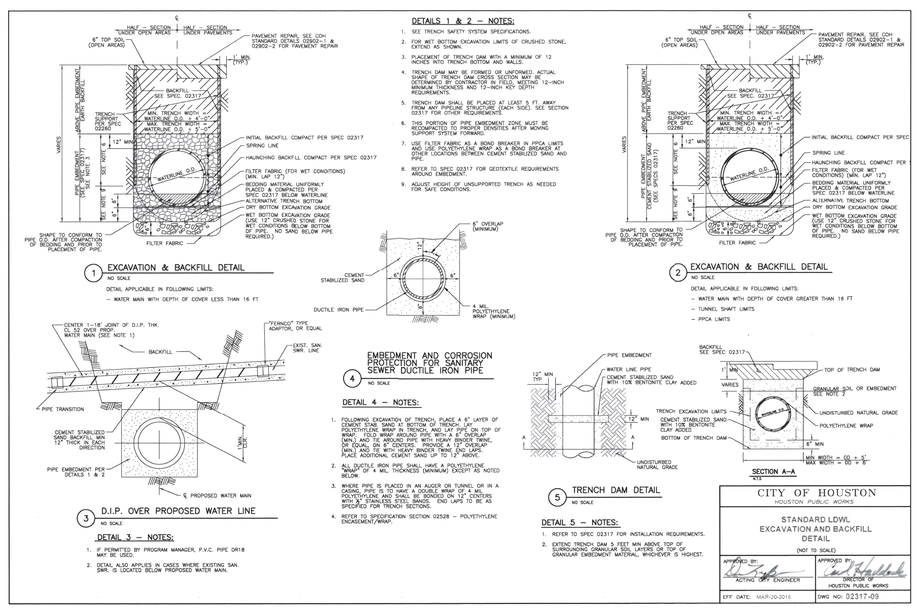
CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
BEDDING AND BACKFILL AUGER PIT AND AUGER HOLE (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2010	DWG NO: 02447-01

GENERAL NOTES:

1. PROVIDE STEEL TAPPING SLEEVE AS PER WATER MAIN SPECIFICATIONS.
2. WELDING SHALL BE AS NOTED IN WELD SYMBOLS.
3. INSULATING KIT IN ACCORDANCE WITH WATER MAIN SPECIFICATIONS.
4. REPAIR COATING AS PER WATER MAIN STANDARD SPECIFICATIONS.



CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
STANDARD TAP TO EXISTING STEEL MAIN (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010	DWG NO: 02512-04



1 EXCAVATION & BACKFILL DETAIL

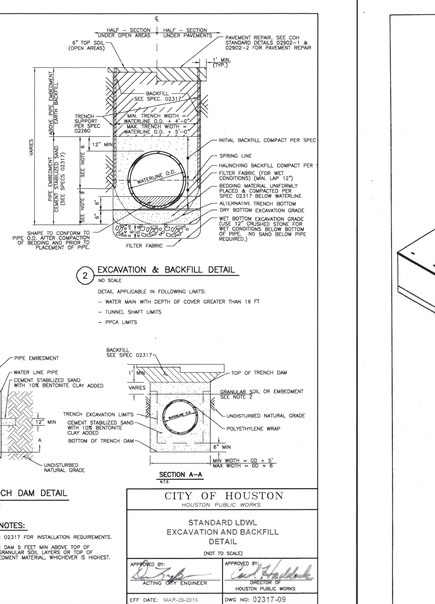
NO SCALE

DETAIL APPLICABLE IN FOLLOWING LIMITS:

- WATER MAIN WITH DEPTH OF COVER LESS THAN 16 FT

DETAILS 1 & 2 – NOTES:

1. SEE TRENCH SAFETY SYSTEM SPECIFICATIONS.
2. FOR WET BOTTOM EXCAVATION LIMITS OF CRUSHED STONE, EXTEND AS SHOWN.
3. PLACEMENT OF TRENCH DAM WITH A MINIMUM OF 12 INCHES INTO TRENCH BOTTOM AND WALLS.
4. TRENCH DAM MAY BE FORMED OR UNFORMED. ACTUAL LOCATION OF TRENCH DAM SHALL BE FIELD FITTED AS DETERMINED BY CONTRACTOR IN FIELD, MEETING 12-INCH MINIMUM THICKNESS AND 12-INCH KEY DEPTH REQUIREMENTS.
5. TRENCH DAM SHALL BE PLACED AT LEAST 5 FT. AWAY FROM ANY PIPELINE STRUCTURE (EACH SIDE). SEE SECTION 02317 FOR OTHER REQUIREMENTS.
6. THIS PORTION OF PIPE EMBEDMENT ZONE MUST BE RECOMPACTED TO PROPER DENSITIES AFTER MOVING SUPPORT SYSTEM FORWARD.
7. USE FILTER FABRIC AS A BOND BREAKER IN PPCA LIMITS AND USE POLYETHYLENE WRAP AS A BOND BREAKER AT OTHER LOCATIONS BETWEEN CEMENT STABILIZED SAND AND PIPE.
8. REFER TO SPEC 02317 FOR GEOTEXTILE REQUIREMENTS AROUND EMBEDMENT.
9. ADJUST HEIGHT OF UNSUPPORTED TRENCH AS NEEDED FOR SAFE CONDITIONS.



2 EXCAVATION & BACKFILL DETAIL

NO SCALE

DETAIL APPLICABLE IN FOLLOWING LIMITS:

- WATER MAIN WITH DEPTH OF COVER GREATER THAN 16 FT
- TUNNEL SHAFT LIMITS
- PPCA LIMITS

3 D.I.P. OVER PROPOSED WATER LINE

NO SCALE

DETAIL 3 – NOTES:

1. IF PERMITTED BY PROGRAM MANAGER, P.V.C. PIPE DR18 MAY BE USED.
2. DETAIL ALSO APPLIES IN CASES WHERE EXISTING SAN. SWR. IS LOCATED BELOW PROPOSED WATER MAIN.

4 EMBEDMENT AND CORROSION PROTECTION FOR SANITARY SEWER DUCTILE IRON PIPE

NO SCALE

DETAIL 4 – NOTES:

1. FOLLOWING EXCAVATION OF TRENCH, PLACE A 6" LAYER OF CEMENT STAB. SAND AT BOTTOM OF TRENCH. LAY POLYETHYLENE WRAP IN TRENCH, AND LAY PIPE ON TOP OF WRAP. FOLD WRAP AROUND PIPE WITH A 2' OVERLAP. SECURE WRAP WITH 2" WIDE PLASTIC TAPE AT 2' INTERVALS, OR EQUAL, ON 6" CENTERS. PROVIDE A 12" OVERLAP (MIN.) AND TIE WITH HEAVY BINDER TWINE (TWO LAPS). PLACE ADDITIONAL CEMENT SAND UP TO 12" ABOVE.
2. ALL DUCTILE IRON PIPE SHALL HAVE A POLYETHYLENE WRAP OF 4 MIL. THICKNESS (MINIMUM) EXCEPT AS NOTED BELOW.
3. WHERE PIPE IS PLACED IN AN AUGER OR TUNNEL OR IN A CASING, PIPE IS TO HAVE A DOUBLE WRAP OF 4 MIL. POLYETHYLENE AND BE SUPPORTED BY SPACERS WITH 3/4" STAINLESS STEEL BANDS. END LAPS TO BE AS SPECIFIED FOR TRENCH SECTIONS.
4. REFER TO SPECIFICATION SECTION 02528 – POLYETHYLENE ENCASEMENT/WRAP.

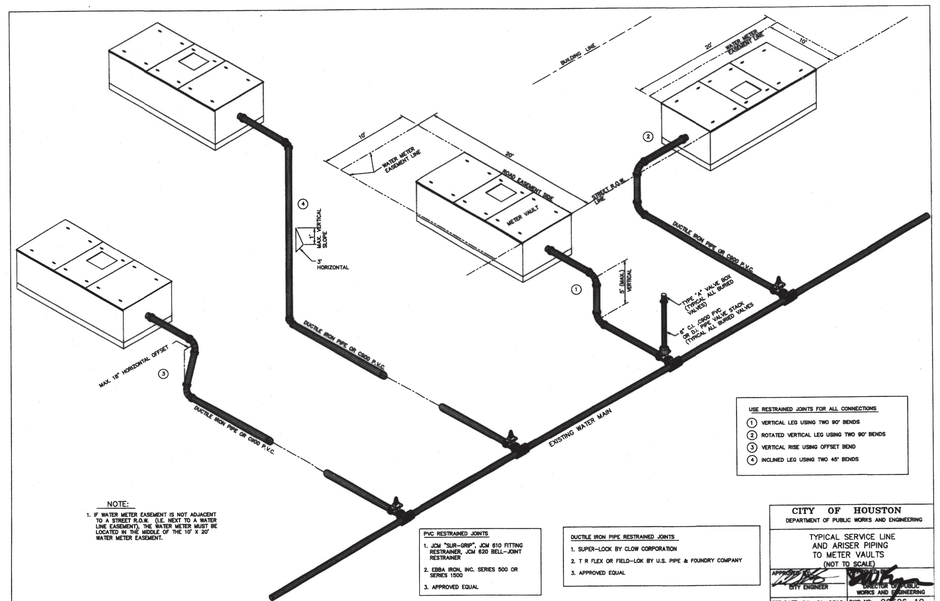
5 TRENCH DAM DETAIL

NO SCALE

DETAIL 5 – NOTES:

1. REFER TO SPEC 02317 FOR INSTALLATION REQUIREMENTS.
2. EXTEND TRENCH DAM 5 FEET MIN ABOVE TOP OF SURROUNDING GRANULAR SOIL LAYERS OR TOP OF GRANULAR EMBEDMENT MATERIAL, WHICHEVER IS HIGHEST.

CITY OF HOUSTON HOUSTON PUBLIC WORKS	
STANDARD LDWL EXCAVATION AND BACKFILL DETAIL (NOT TO SCALE)	
APPROVED BY: ACTING CITY ENGINEER	APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS
EFF. DATE: MAR-20-2015	DWG NO: 02317-09



USE RESTRAINED JOINTS FOR ALL CONNECTIONS

1. VERTICAL LEG USING TWO 90° BENDS
2. ROTATED VERTICAL LEG USING TWO 90° BENDS
3. VERTICAL RISE USING OFFSET BEND
4. INCLINED LEG USING TWO 45° BENDS

NOTE:

1. IF WATER METER EASEMENT IS NOT ADJACENT TO A STREET R.O.W. (I.E. NEXT TO A WATER LINE EASEMENT), THE WATER METER MUST BE LOCATED IN THE MIDDLE OF THE 10' X 20' WATER METER EASEMENT.

PVC RESTRAINED JOINTS

1. JCM "SUR-GRIP", JCM 610 FITTING RESTRAINER, JCM 620 BELL-JOINT RESTRAINER
2. EBBA IRON, INC. SERIES 500 OR SERIES 1500
3. APPROVED EQUAL

DUCTILE IRON PIPE RESTRAINED JOINTS

1. SUPER-LOCK BY CLOW CORPORATION
2. T R FLEX OR FIELD-LOK BY U.S. PIPE & FOUNDRY COMPANY
3. APPROVED EQUAL

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
TYPICAL SERVICE LINE AND ARISER PIPING TO METER VAULTS (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2010	DWG NO: 02526-10

(FOR REFERENCE ONLY)

NO.	DATE	REVISION	APP.

CSP

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS

TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TEXAS 77094
PHONE: (832) 287-9874

NOTICE:

FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

Date

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T Texas/SWBT underground conduit facilities only. The AT&T electronic signature is valid for one year.

TALON ENGINEERING, LLC
F-24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS TO SERVE CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015

WATER LINE DETAILS SHEET 1

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATER	STORM WATER QUALITY
WASTE WATER	FACILITIES
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

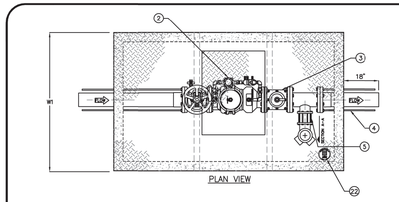
FILE NO.

HORIZ: N/A

VERT: N/A

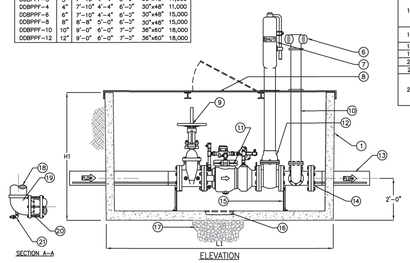
SHEET NO. 12 OF 14 DRAWING SCALE

FOR CITY OF HOUSTON USE ONLY



KEYED NOTES		
MARK	QTY	DESCRIPTION
1	1	PRECAST CONCRETE VAULT
2	1	1/4" DETECTOR METER w/ 2 SHUT-OFFS VALVES AND BACKFLOW PREVENTER
3	1	PIV
4	1	GALVANIZED ALL-THREAD RETAINER ROD (TYP)
5	1	U.L. CHECK VALVE W/ BALL DRIP
6	1	FIRE DEPARTMENT CONN.
7	1	ADJUSTABLE TYPE INDICATOR POST
8	1	ALUMINUM SKID-RESISTANT COVER w/ 24"x32" HINGED LUMINARY DDBPPF-12 COVER IS GALV STEEL)
9	1	OS&Y GATE VALVE (TYP 2)
10	1	PDC RISER
11	1	U.S.C. CERTIFIED U.L. BACKFLOW PREVENTER
12	1	POST INDICATOR VALVE
13	1	DUCTILE IRON STUB-OUT (TYPICAL)
14	1	HARD FLANGE (TYP)
15	1	GALVANIZED ANGLE PIPE SUPPORT (TYP)
16	1	12"x12" SUMP WITH CAST IRON GRATE THRU WALL BOTTOM CAN BE KNOCKED OUT TO ACCOMODATE DRAIN TO GRAVEL BED.
17	1	GRAVEL BED (FURNISHED BY OTHERS)
18	1	PDC RISER
19	1	FLG x FPT 90° ELL
20	1	UL/FM WAFER CHECK VALVE
21	1	BALL DRIP
22	1	NAMEPLATE INDICATING: MFG: PARKUSA 888-611-PARK MODEL: DDBPPF-1 DATE MANUFACTURED

MODEL	SIZE	L1	W1	H1	ALUMINUM HATCH/BOX	WEIGHT LBS.
DDBPPF-3	3"	7'-10"	4'-4"	6'-3"	30"x48"	11,000
DDBPPF-4	4"	7'-10"	4'-4"	6'-3"	30"x48"	11,000
DDBPPF-6	6"	7'-10"	4'-4"	6'-3"	30"x48"	15,000
DDBPPF-8	8"	8'-8"	5'-0"	6'-3"	30"x48"	15,000
DDBPPF-10	10"	8'-0"	6'-0"	7'-3"	36"x60"	18,000
DDBPPF-12	12"	9'-0"	6'-0"	7'-3"	36"x60"	18,000



SPECIFICATIONS

CONCRETE: CLASS I/II CONCRETE WITH DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.

REINFORCEMENT: GRADE 50 REINFORCED. STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.

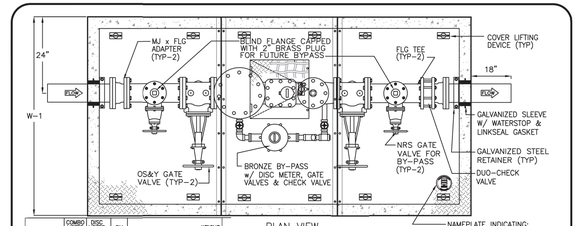
HATCHWAY: 1/4" ALUMINUM DIAMOND PLATE COVER WITH EXTRUDED ALUMINUM FRAME. HATCH TO BE FURNISHED WITH 316 STAINLESS STEEL SNAP LOCK & BRASS HINGES.

ENGINEERING DATA

FIELD EXCAVATION AND PREPARATION SHALL BE COMPLETED PRIOR TO DELIVERY OF ASSEMBLY. USE DIMENSIONAL DATA AS SHOWN. PIPE, VALVES AND FITTINGS OF THE ASSEMBLY ARE APPROVED BY ONE OR MORE OF THE FOLLOWING ASSOCIATIONS:

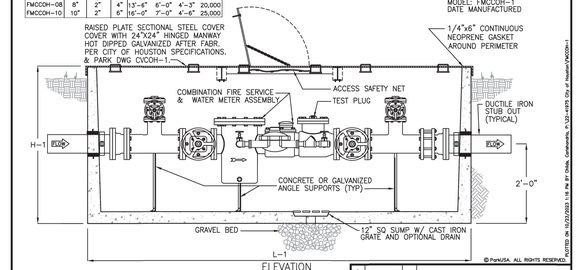
© ParkUSA. ALL RIGHTS RESERVED.

3" THRU 12" DOUBLE DETECTOR BACKFLOW PREVENTER ASSEMBLY W/ PIV & FDC					
PM	PC	DRN	ENG	DWG. NO.	REV.
-	-	CC	-	DDBPPF-1	A
DATE 03/2023					



MODEL	COMBO METER SIZE	DISC METER SIZE	BY PASS	L1	W1	H1	WEIGHT LBS.
FMCCOH-04	4"	1"	2"	11'-6"	6'-0"	4'-3"	14,500
FMCCOH-06	6"	1 1/2"	4"	11'-6"	6'-0"	4'-3"	19,500
FMCCOH-08	8"	2"	4"	13'-6"	6'-0"	4'-3"	20,000
FMCCOH-10	10"	2"	6"	16'-0"	7'-0"	4'-6"	25,000

NAMEPLATE INDICATING: MFG: ParkUSA 888-611-PARK WWW.PARK-USA.COM MODEL: FMCCOH-1 DATE MANUFACTURED



© ParkUSA. ALL RIGHTS RESERVED.

Specifications

CONCRETE: Class I/II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth.

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

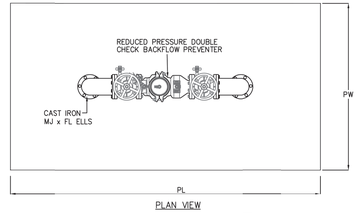
ACCESS COVER: All steel fabrication shall be in accordance to AWA D1.1. Steel shall ASTM A36 carbon steel, and hot dipped galvanized after fabrication in accordance to ASTM A123. Standard cover is rated for 50 PSF.

Engineering Data

The meter assembly shall be factory assembled in vault & hydrostatically tested prior to delivery. Field excavation & preparation shall be complete prior to delivery. Pipe, valves and fittings of the assembly shall be approved by one or more of the following associations:

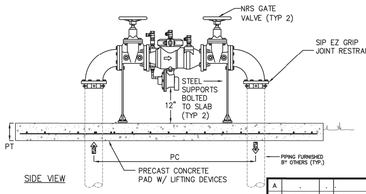
REV	DATE	BY	DESCRIPTION
A	.	.	.
PROJECT: .			
CUSTOMER: .			
ENGINEER: .			
ORDER #: .		PROJ #: .	
DATE: .		LOCATION: .	

FIRE/DOMESTIC COMBINATION METER ASSEMBLY MODEL FMCCOH – 4" THRU 10"					
PM	PC	DRN	ENG	DWG. NO.	REV.
-	-	-	-	FMCCOH-1	A
DATE 10/2023					



MODEL NO.	BFP SIZE	PAD DIMENSIONS PL	PW	PT	"PC" PIPE CENTERS
RPBP-2.5	2½"	100"	40"	6"	42"
RPBP-03	3"	100"	40"	6"	43"
RPBP-04	4"	100"	40"	6"	50⅜"
RPBP-06	6"	114"	50"	6"	60⅜"
RPBP-08	8"	114"	50"	6"	78⅜"
RPBP-10	10"	134"	52"	6"	85⅜"

NOTE: SIZE MAY VARY DEPENDING ON MODEL OF BACKFLOW PREVENTER



© ParkUSA. ALL RIGHTS RESERVED.

Specifications

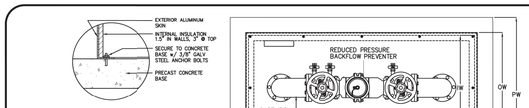
GENERAL
The Model ERP aluminum enclosure is pre engineered to provide protection to backflow preventers, meters, pumps, and other devices installed above ground. These water conveying devices are subject to freezing and vandalism. The enclosure is designed to be installed over the equipment after installation. The enclosure is equipped with access doors to provide adequate access to the equipment.

CONSTRUCTION
The enclosure shall be manufactured from all new materials. The exterior shall be fabricated with 0.090 aluminum, continuously welded. The access door(s) shall be of like material and hinged with a continuous hinge. The door shall be equipped with a 3-point locking mechanism. The interior of the enclosure shall be structurally lined with high performance, non-wicking insulation.

HEATER
Interior heaters (if required) shall be thermostatically controlled and be mounted to the interior wall of the enclosure. A GFI receptacle shall be provided by others to provide power to the electric heater.

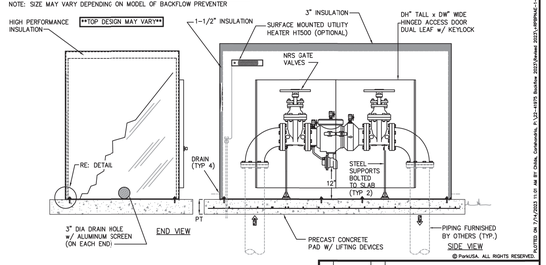
REV	DATE	BY	DESCRIPTION
A	.	.	.
PROJECT: .			
CUSTOMER: .			
ENGINEER: .			
ORDER #: .		PROJ #: .	
DATE: .		LOCATION: .	

REDUCED PRESSURE BACKFLOW PREVENTER MODEL SIZE 2.5" THRU 10"					
PM	PC	DRN	ENG	DWG. NO.	REV.
-	-	-	-	RPBP-1	A
DATE 01/2025					



MODEL NO.	BFP SIZE	INSIDE DIM IL	IW	OUTSIDE DIM OL	OW	DOOR SIZE DH	DW	PAD DIMENSIONS PL	PW	PT
RPBPNAE-03	3"	69"	33"	72"	36"	36"	70"	7'-10"	4'-4"	6"
RPBPNAE-04	4"	69"	33"	72"	36"	36"	70"	7'-10"	4'-4"	6"
RPBPNAE-06	6"	105"	45"	108"	48"	36"	70"	10'-0"	5'-0"	6"
RPBPNAE-08	8"	105"	45"	108"	48"	36"	70"	10'-0"	5'-0"	6"
RPBPNAE-10	10"	105"	45"	108"	48"	36"	70"	10'-0"	5'-0"	6"
RPBPNAE-12	12"	144"	40"	147"	43"	48"	70"	13'-0"	5'-0"	6"

NOTE: SIZE MAY VARY DEPENDING ON MODEL OF BACKFLOW PREVENTER



© ParkUSA. ALL RIGHTS RESERVED.

Specifications

GENERAL
The Model ERP aluminum enclosure is pre engineered to provide protection to backflow preventers, meters, pumps, and other devices installed above ground. These water conveying devices are subject to freezing and vandalism. The enclosure is designed to be installed over the equipment after installation. The enclosure is equipped with access doors to provide adequate access to the equipmen:.

CONSTRUCTION
The enclosure shall be manufactured from all new materials. The exterior shall be fabricated with 0.090 aluminum, continuously welded. The access door(s) shall be of like material and hinged with a continuous hinge. The door shall be equipped with a 3-point locking mechanism. The interior of the enclosure shall be structurally lined with high performance, non-wicking insulation.

HEATER
Interior heaters (if required) shall be thermostatically controlled and be mounted to the interior wall of the enclosure. A GFI receptacle shall be provided by others to provide power to the electric heater.

REV	DATE	BY	DESCRIPTION
A	.	.	.
PROJECT: .			
CUSTOMER: .			
ENGINEER: .			
ORDER #: .		PROJ #: .	
DATE: .		LOCATION: .	

WEATHERPROOF ENCLOSURE REDUCED PRESSURE BACKFLOW PREVENTER					
PM	PC	DRN	ENG	DWG. NO.	REV.
-	-	-	-	RPBPNAE-1	A
DATE 04/2023					

REVISION				APP.
NO.	DATE			

CSP

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS

TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TEXAS 77094
PHONE: (832) 287-9874

NOTICE:

FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

Date

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T Texas/SWBT underground conduit facilities only. The AT&T electronic signature is valid for one year.

TALON ENGINEERING, LLC
F-24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER

10/24/2025

STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS TO SERVE CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015

WATER LINE DETAILS SHEET 2

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATER	STORM WATER QUALITY
WASTE WATER	FACILITIES
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

FILE NO.

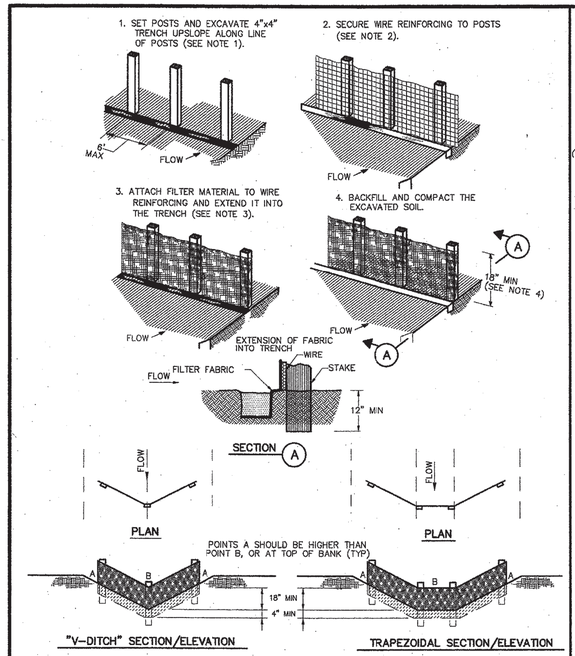
HORIZ: N/A

VERT: N/A

SHEET NO. 13 OF 14 DRAWING SCALE

FOR CITY OF HOUSTON USE ONLY

(FOR REFERENCE ONLY)

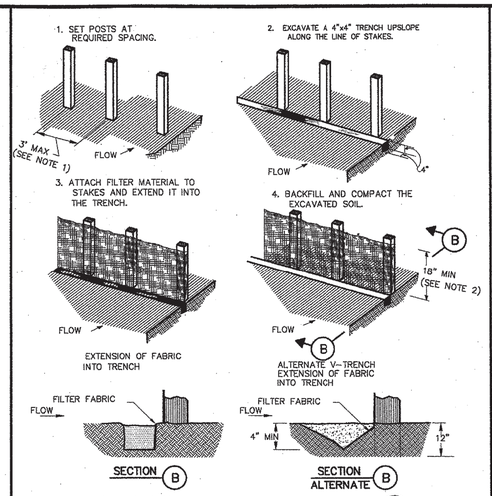


CONSTRUCTION NOTES:

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

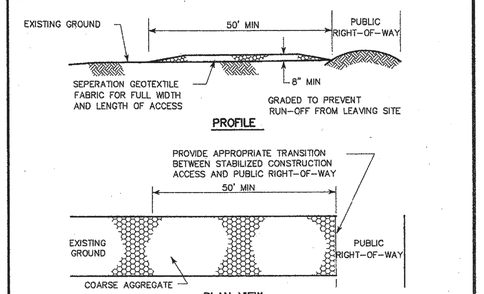


CONSTRUCTION NOTES:

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

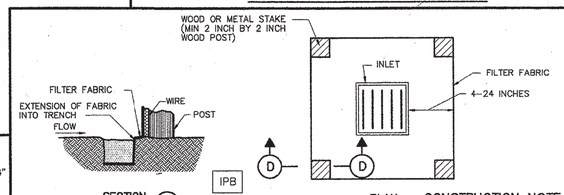


CONSTRUCTION NOTES:

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.

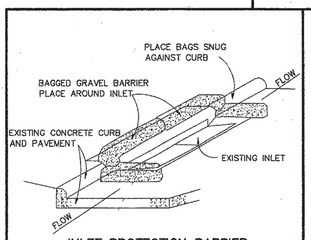
SC
SYMBOL

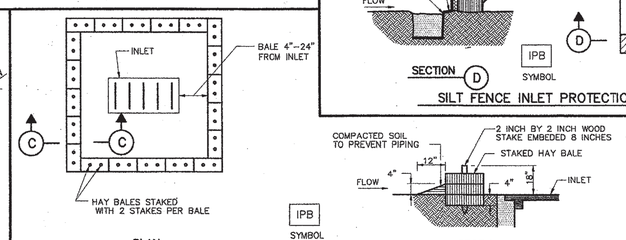
STABILIZED CONSTRUCTION ACCESS



CONSTRUCTION NOTE:

1. SEE CONSTRUCTION NOTES FOR RFB.





CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

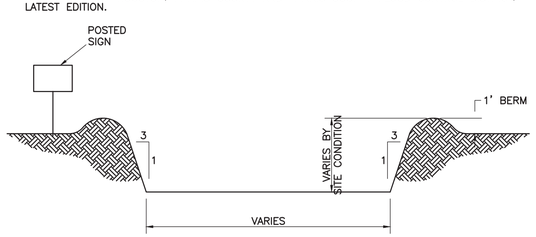
STORM WATER POLLUTION PREVENTION PLAN DETAILS
(NOT TO SCALE)

APPROVED — CITY ENGINEER
APPROVED — DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: JULY-01-2010
DWG NO: 01571-01

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETION AND SUBMISSION OF ALL APPLICABLE STATE AND FEDERAL FORMS REQUIRED FOR STORM WATER POLLUTION PREVENTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION, IMPLEMENTATION, MAINTENANCE, AND INSPECTION OF STORM WATER POLLUTION PREVENTION CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, EROSION AND SEDIMENT CONTROLS, STORM WATER MANAGEMENT PLANS, WASTE COLLECTION AND DISPOSAL, OFF-SITE VEHICLE TRACKING, AND OTHER PRACTICES.
2. CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL ADDITIONAL STORM WATER POLLUTION PREVENTION AND STORM WATER CONTROL MEASURES AND SUBMITTALS TO ALL GOVERNING AGENCIES INCLUDING THE EPA REQUIRED DURING CONSTRUCTION TO MEET THE GUIDELINES SET FORTH IN THE STORM WATER MANAGEMENT HANDBOOK FOR CONSTRUCTION ACTIVITIES PREPARED BY THE CITY OF HOUSTON, HARRIS COUNTY AND HARRIS COUNTY FLOOD CONTROL DISTRICT, LATEST EDITION.



SECTION A-A
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 NOWHERE ELSE.
3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASH OUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS AND EQUIPMENT.

CONCRETE TRUCK WASH OUT AREA

CTW
SYMBOL

(FOR REFERENCE ONLY)

NO.	DATE	REVISION	APP.

CSP

TALON ENGINEERING
CIVIL ENGINEERING & SPORTS DESIGN CONSULTANTS

TEXAS ENGINEERING FIRM F-24281
1118 WOLFS KNOLL
HOUSTON, TEXAS 77094
PHONE: (832) 287-9874

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

Date

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)

Signature valid for six months.

Date

Approved for AT&T Texas/SWBT underground conduit facilities only. The AT&T electronic signature is valid for one year.

TALON ENGINEERING, LLC
F-24281

STATE OF TEXAS
BRIAN W. REED
128933
LICENSED
PROFESSIONAL ENGINEER
10/24/2025

STORM SEWER, WATER LINE, & SANITARY SEWER CONNECTIONS TO SERVE CIMMARON ELEMENTARY SCHOOL REPLACEMENT
816 CIMARRON STREET
HOUSTON, TEXAS 77015

STORM WATER POLLUTION PREVENTION DETAILS

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATER	STORM WATER QUALITY
WASTE WATER	FACILITIES
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE

FILE NO.
HORIZ: N/A
VERT: N/A

SHEET NO. 14 OF 14 DRAWING SCALE

FOR CITY OF HOUSTON USE ONLY

TREE PROTECTION SPECIFICATIONS:

PART 1 - GENERAL

1.1 QUALITY ASSURANCE
- A. Experience: Contractor shall have successfully completed tree protection and trimming work similar to the Work of this Project. Contractor shall pay required fees for qualified Arborist with at least five (5) year experience with similar Work to oversee all operations.
- B. Maintenance Recommendations: A licensed Arborist shall provide maintenance recommendations for affected trees before, during, and after the construction of the Work.

1.2 PROJECT CONDITIONS
- A. Existing Utilities: Contractor shall be responsible for any damage to existing utilities and structures.

PART 2 - PRODUCTS

2.1 MATERIALS
- A. Temporary Fencing: Temporary fencing shall be orange, contractor grade, plastic, mesh fencing sized as per the Drawings.
- B. Metal Stakes: Metal stakes shall be metal 'T' bar stakes sized as per the Drawings.

PART 3 - EXECUTION

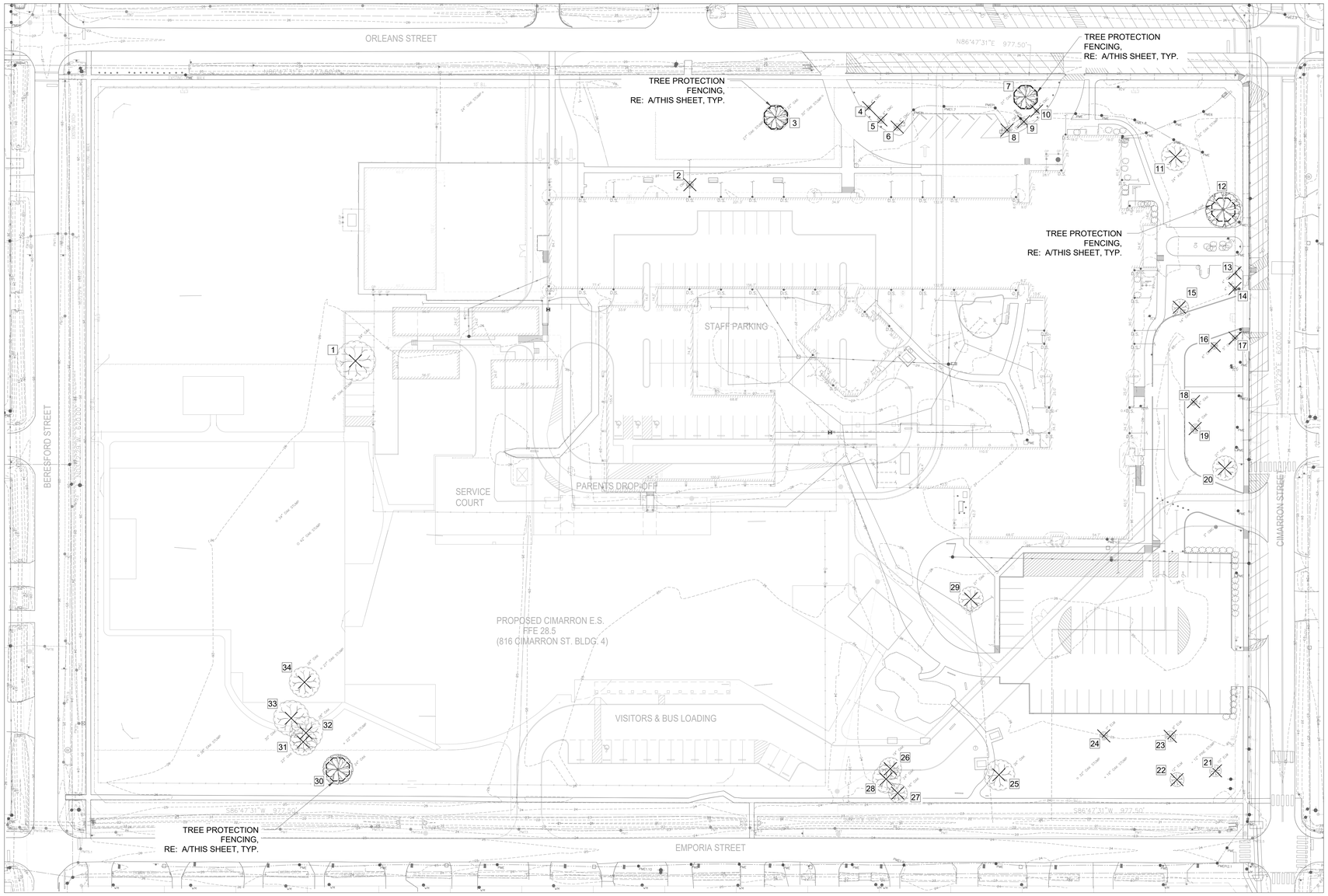
3.1 PROJECT CONDITIONS
- A. Tree protection areas shall be free of the following materials: construction operations, trash and debris, stock piling of excavated or other materials, vehicular parking or circulation, pedestrian traffic, and any disturbances from Contractor or other trades on the site during the course of the Work.

3.2 REGRADING
- A. Where possible, maintain existing grades within the tree protection areas

  Excavation: Where finish grade is indicated below existing grade around trees, slope grade away from trees as per Arborist recommendations, unless otherwise indicated.
  1. Carefully hand excavate areas within the drip line of existing trees and in tree protection areas to minimize damage to existing root systems.
  2. Keep exposed roots moist and protected until managed by new construction.
  3. Root Pruning: If required, cut only small roots that interfere with construction, do not cut main lateral roots, tap root, or remove more than one-third (1/3) of the existing root system per tree. Cut roots with sharp pruning instruments and do not break, tear, or chop root systems.
- B. Grade Elevating: Where new finish grade is indicated above existing grade, fill with topsoil. Place topsoil in a single non-compacted layer and hand grade to required finish elevations as per Arborist recommendations.

3.3 TREE PRUNING
- A. Tree Pruning: Prune trees to remain that are affected by temporary and permanent construction and to compensate for root loss caused by damaging or cutting root system as per Arborist recommendations.
- B. Cut branches with sharp pruning instruments; do not break, tear, or chop branches.

3.4 MAINTENANCE
- A. Temporary Fencing: Maintain and keep fencing taught during the course of the Work. Promptly repair or replace any damaged fencing.
- B. Immediately repair trees damaged by construction. Attend to declining trees and plant material to ensure their survivability. Treat damaged trunks, limbs, and roots as per Arborist recommendations.
- C. Owner's Representative and / or Landscape Architect reserve the right to designate any plant material that has been damaged or that is declining by the course of Work to be replaced by the Contractor at no additional cost to the Owner.
  1. Replacement material shall be of same size, species, and character as original material.
  2. Trees larger than six (6) inch caliper: Replacement material shall be six (6) inch caliper and have the same species and character as original material plus Contractor shall compensate the Owner appropriately.
- D. Upon Substantial Completion of all Work, remove all tree protection devices only with approval from Owner's Representative and / or Landscape Architect.



0 40 80 120

B TREE PROTECTION PLAN 1" = 40'-0"

EXISTING TREE LEGEND:

	Cal.	Tree Species	Status	Tree Credit	Mitigation Required
1	34"	Oak	Remove	0	No - outside right of way / building setback
2	6"	Crape Myrtle	Remove	0	No - on private property / species not protected
3	22"	Oak	Protect	4	
4	4"	Crape Myrtle		0	No - on private property / species not protected
5	6"	Crape Myrtle		0	No - on private property / species not protected
6	6"	Crape Myrtle		0	No - on private property / species not protected
7	21"	Oak	Protect	4	
8	5"	Crape Myrtle		0	No - on private property / species not protected
9	5"	Crape Myrtle		0	No - on private property / species not protected
10	4"	Crape Myrtle		0	No - on private property / species not protected
11	24"	Ash		0	No - on private property
12	32"	Oak	Protect	4	
13	4"	Crape Myrtle		0	No - species not protected
14	4"	Crape Myrtle		0	No - species not protected
15	14"	Oak		0	No - outside right of way / building setback
16	6"	Crape Myrtle		0	No - on private property / species not protected
17	5"	Crape Myrtle		0	No - species not protected
18	6"	Oak		0	No - outside right of way / building setback
19	8"	Oak		0	No - outside right of way / building setback
20	21"	Oak		0	No - outside right of way / building setback
21	10"	Elm		0	No - outside right of way / building setback
22	12"	Elm		0	No - outside right of way / building setback
23	9"	Elm		0	No - outside right of way / building setback
24	7"	Elm		0	No - outside right of way / building setback
25	26"	Oak		0	No - outside right of way / building setback
26	19"	Oak		0	No - outside right of way / building setback
27	16"	Oak		0	No - outside right of way / building setback
28	24"	Oak		0	No - outside right of way / building setback
29	21"	Oak		0	No - outside right of way / building setback
30	24"	Oak	Protect	4	
31	23"	Oak		0	No - outside right of way / building setback
32	28"	Oak		0	No - outside right of way / building setback
33	30"	Oak		0	No - outside right of way / building setback
34	26"	Oak		0	No - outside right of way / building setback
			Total Tree Credits =	16	0 = Mitigation Required

MITIGATION REQUIREMENTS:

A. Protected Tree Replacement Requirements as per SECT 33-122(c-1):
Replacement trees shall be planted anywhere on the building site or in the adjacent parkway area on the basis of one caliper inch of tree planted for one caliper in of tree removed.

1. Existing trees to be removed = 512"
2. Required mitigation = 0"
3. Required new trees = 110 street trees + 12 parking trees = 122 X 1.5" = 183"
4. Total required new inches = 0" + 183" (mitigation + required inches) = 183"
5. Total new inches provided = 106 trees X 2" = 212" (Refer to L1.2 Planting Plan)

Refer to L2.0, Planting Plan, for the Landscape Calculations / City of Houston Landscape Requirements. Refer to L2.0, Planting Plan, Native and Adapting Planting Schedule listing proposed tree sizes, quantities, total tree caliper inches provided.

TREE PROTECTION NOTES:

1. TREE PROTECTION FENCING SHALL BE INSTALLED BEFORE THE ONSET OF ANY SITE WORK.

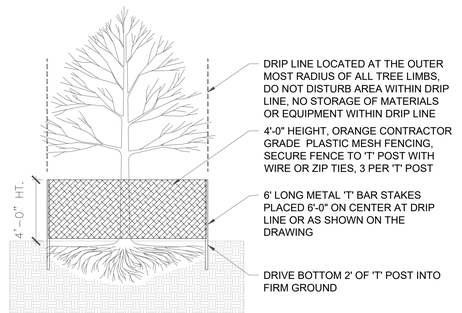
2. INSTALL AND MAINTAIN TREE PROTECTION FENCING AT THE DRIP LINE OF SPECIMEN TREES AS SHOWN ON THIS DRAWING.

3. WATER ALL SPECIMEN TREES PROTECTED BY FENCING THROUGHOUT THE COURSE OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SURVIVAL OF PROTECTED TREES.

4. DO NOT ALLOW THE FOLLOWING ACTIVITIES WITHIN TREE PROTECTION AREAS: CONSTRICTION OPERATIONS, LOCATION OF TRASH AND DEBRIS, STOCK PILES OF MATERIALS, VEHICULAR PARKING AND CIRCULATION, AND PEDESTRIAN TRAFFIC.

5. IF CONSTRUCTION IS TO OCCUR WITHIN ANY PROTECTED AREA, GREAT CARE SHALL BE TAKEN TO PROTECT EXISTING ROOTS TO MINIMIZE DAMAGE TO THE PROTECTED TREES. USE HAND TOOLS WHILE EXCAVATING AND PROTECT EXPOSED ROOTS WITH MULCH.

6. REMOVE ALL TREE PROTECTION DEVISES UPON COMPLETION OF PROJECT WITH APPROVAL FROM OWNER'S REPRESENTATIVE.



A TREE PROTECTION FENCING (SECTION) NTS

CONSULTANTS

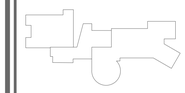
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
6051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734
832-621-6475 (p)



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

MAI BUI 21971 REGISTERED ARCHITECT STATE OF TEXAS

Mai Bui 10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

DATE	ISSUE
09/02/2025	COH PERMIT
10/24/2025	CPS

TREE PROTECTION PLAN

TP1.0

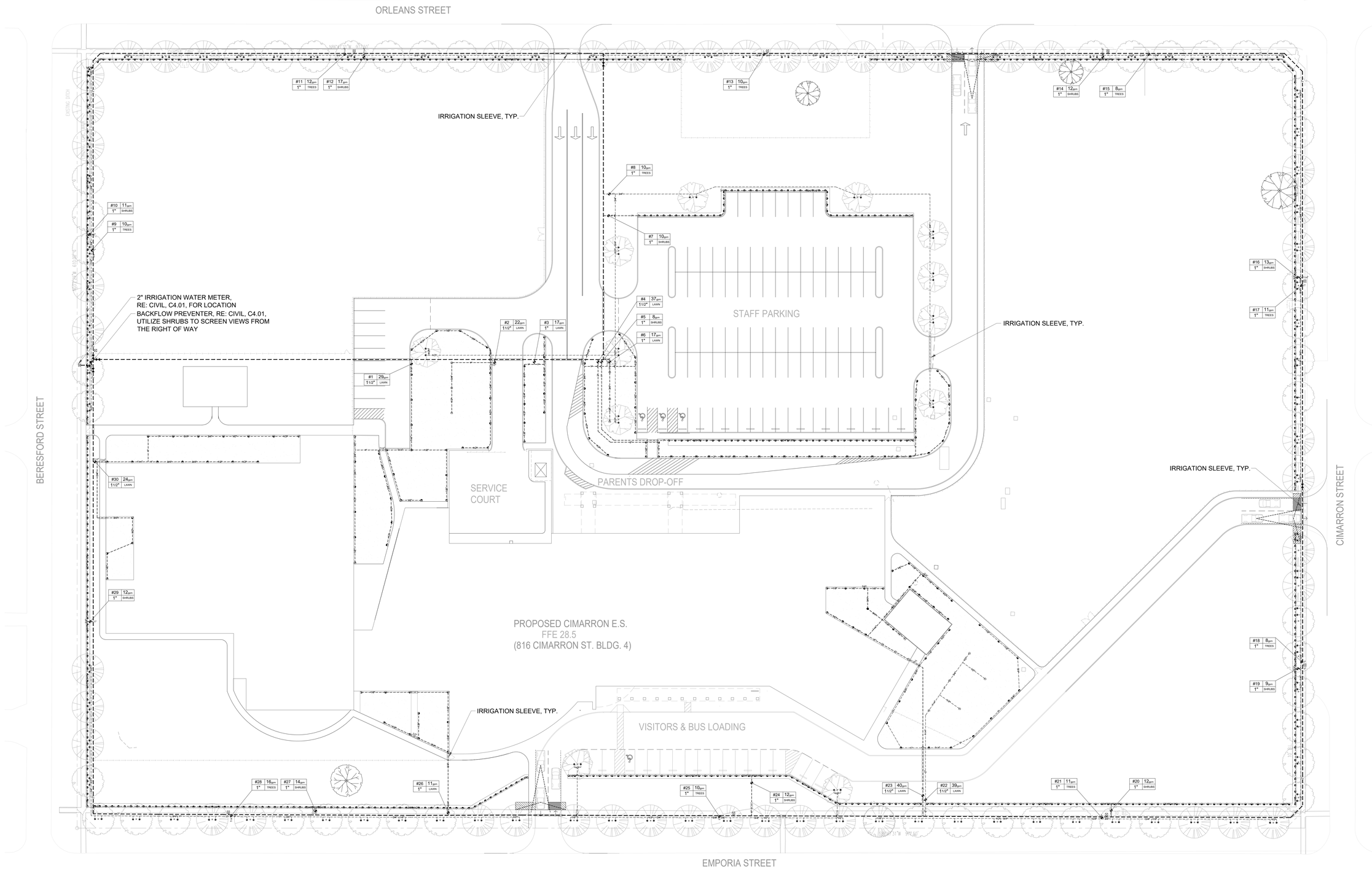
© 2025 VITRO DESIGN STUDIO LLC

IRRIGATION LEGEND:

SYM.	DESCRIPTION:
M	METER: 2" IRRIGATION METER. RE: CIVIL
	BACKFLOW PREVENTER. RE: CIVIL
C	CONTROLLER: RAINBIRD #ESP-LXME. RE: ELECTRICAL FOR CONNECTION. INSTALL WITH SURGE PROTECTOR ON INCOMING LINES AND ON FIELD LINES, INSTALL WITH 8' LONG COPPER GROUND ROD, LOCATION NOT SHOWN, COORDINATE LOCATION WITH OWNER'S REPRESENTATIVE
	RAIN SENSOR: RAINBIRD #WR2, NOT SHOWN ON THIS DRAWING, COORDINATE LOCATION WITH OWNER'S REP.
	QUICK COUPLER: RAINBIRD #33-DLRC
	GATE VALVE: RAINBIRD #200-PRV
	REMOTE CONTROL VALVE: RAINBIRD #PGA-PRS-D SERIES
#1 / 1 1/2"	#1: VALVE SEQUENCE 1 1/2": VALVE SIZE 00 gpm: GALLONS PER MINUTE (trees/shrubs): DESIGNATES LAWN AND/OR SHRUB VALVES COVERAGE

	SLEEVE: 6" DIA. SCH 40 PVC
	MAIN LINE: SCH 40 PVC, INSTALL AT 18" DEPTH
	LATERAL LINE, 1/2": CLASS 315 PVC, INSTALL AT 12" DEPTH
	LATERAL LINE, 3/4" AND LARGER: CLASS 200 PVC, INSTALL AT 12" DEPTH

#1800-PRS-5-QUARTER	#1800-PRS-15-QUARTER
#1800-PRS-5-HALF	#1800-PRS-15-HALF
	#1800-PRS-15-FULL
#1800-PRS-10-QUARTER	
#1800-PRS-10-HALF	#1804-SAM-R17-24-QUARTER
	#1804-SAM-R17-24-HALF
#1800-PRS-12-QUARTER	#1804-SAM-R17-24-FULL
#1800-PRS-12-HALF	
	#1402 BUBBLER ON #1804



A IRRIGATION PLAN 1" = 30'-0"

0 30 60 90 N

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
6051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734
832-621-6475 (p)

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

MARI B. VITRO 2197 REGISTERED LANDSCAPE ARCHITECT
Mari B. Vitro 10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

DATE	ISSUE
09/02/2025	COH PERMIT
10/24/2025	CPS

IRRIGATION PLAN

L1.0

© 2025 VITRO DESIGN STUDIO LLC

LANDSCAPE CALCULATIONS:

1. TREE AND SHRUB PLANTING REQUIREMENTS FOR THE CITY OF HOUSTON:

A. STREET TREES:
One street tree is required for every 30 linear feet of street frontage.

Street Name	Linear Feet	Requirement	Total Trees Required	- Equivalent Credits	Total Trees Planted
Beresford Street	620.0	/ 30	21	7	14
Orleans Street	977.5	/ 30	34	4	30
Cimarron Street	620.0	/ 30	21	2	19
Emporia Street	977.5	/ 30	34	3	31
		Totals =	110	16	94

B. PARKING LOT TREES:
One parking lot tree required for every 10 spaces.
50% of parking lot trees must be large trees. Each parking space must be within 120' of a tree.

No. Proposed Parking Spaces	Requirement	Total Trees Required	- Equivalent Credits	Large Trees	Small Trees	Total Trees Planted
120	/ 10	12	0	12	0	12
		Total =	0			

C. SHRUBS:
Ten shrubs are required for each street tree required.
75% of shrubs must be planted along parking lot perimeter to screen parking areas from adjacent streets.
Shrubs are required for new and/or expanded portions of parking lots.

Total Number of Street Trees	Requirement	Total Shrubs Required	Total Shrubs Planted	Total Planted at Perimeter	Percentage Required	Percentage Provided
110	X 10	1,100	1,101 ⚠1	941 ⚠1	75%	86%

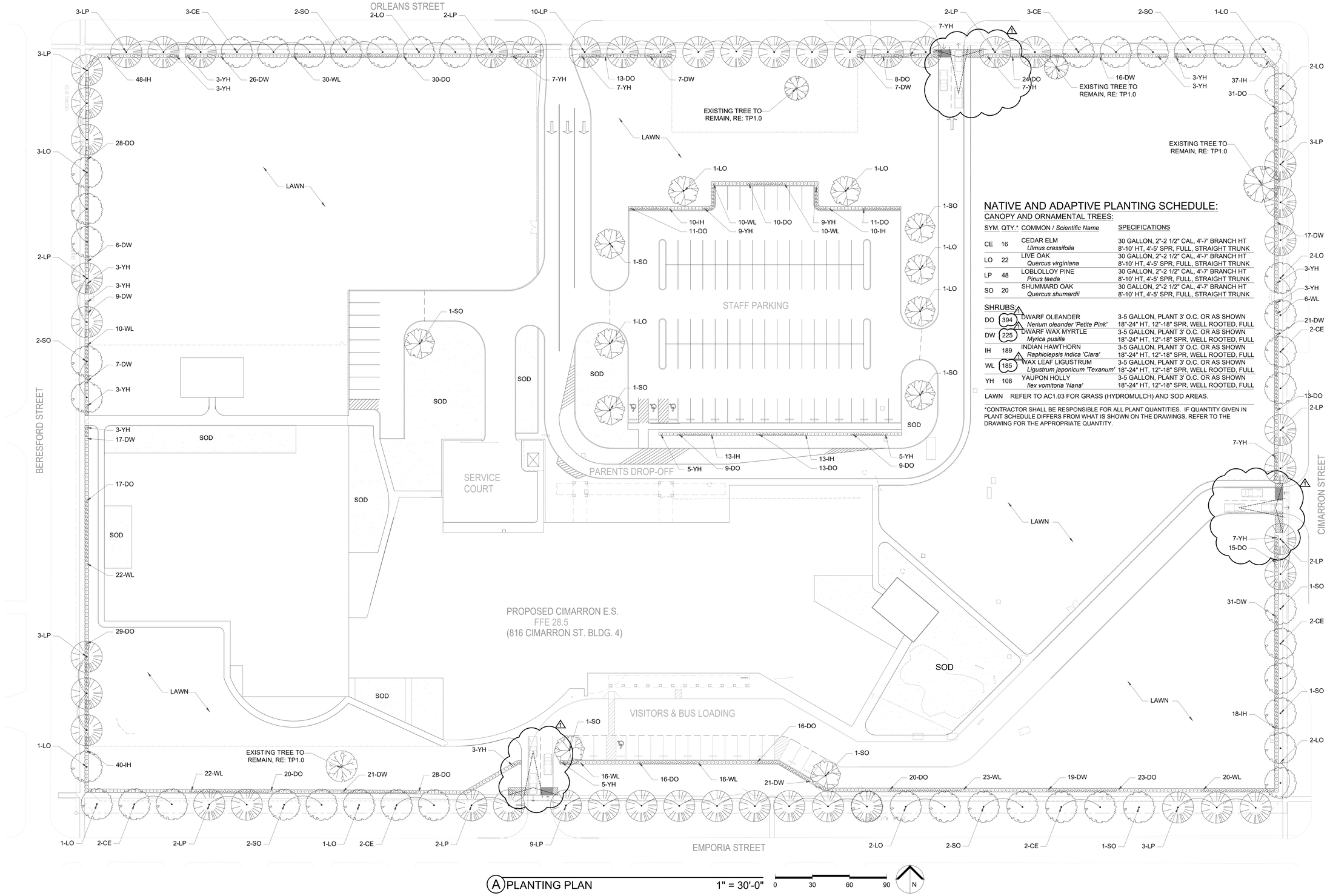
D. LANDSCAPE BUFFER:
A 6' high wood, concrete masonry opaque screening fence, or 15' wide evergreen planting strip is required along the total length of property line adjacent to existing single family residential or limit of expansions adjacent to existing single family residential.

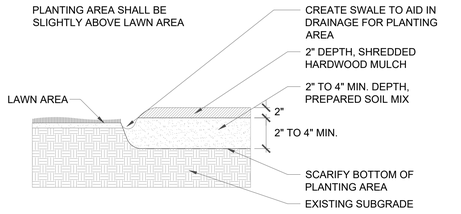
Adjacent Land Use	Buffer Required
All property lines are not adjacent to single family residential land use.	Not Required

2. TREE PROTECTION REQUIREMENTS:
Refer to TP1.1, Tree Protection Plan.

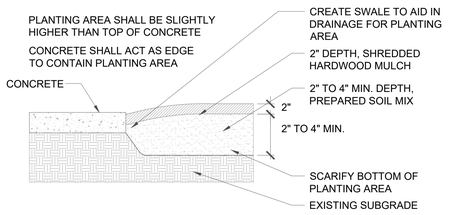
TREE PLANTING EQUIVALENCY CREDITS:

		STREET	PARKING
1.	Number of proposed trees exceeding 4" caliper. Each 4" tree is one credit.	0	0
2.	Depositing of monies with Parks and Recreation Department. $155.00 per tree.	0	0
	Amount to be deposited: Proposed credits x $155.00 = $ 000.00.		
	Proposed credits (#2) cannot exceed 30% of tree planting requirements above.		
	The combined credits under items #1 & #2 may be exceed 50% of the total tree planting requirements.		
3.	Preservation of on-site trees, per the following schedule in caliper:		
	minimum 4" to 6" 2 trees	0	0
	greater then 6" but less than 12" 3 trees	0	0
	12" and greater 4 trees	16	0
	Total number of tree credits for this option. 16 trees.		
4.	Credit for preserving existing right of way street trees.	0	0
5.	Proposed total number of tree credits.	16	0

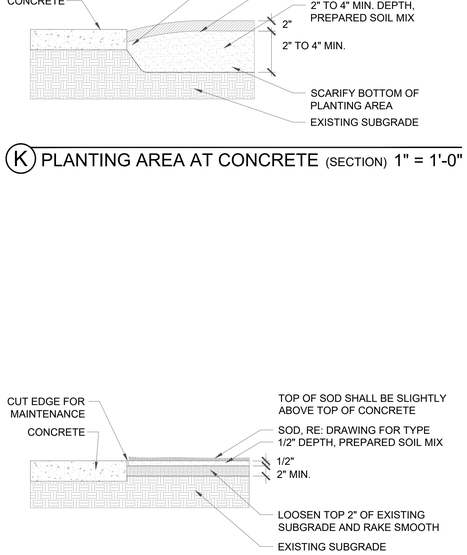

ORLEANS STREET
BERESFORD STREET
CIMARRON STREET
EMPORIA STREET
STAFF PARKING
PARENTS DROP-OFF
SERVICE COURT
VISITORS & BUS LOADING
PROPOSED CIMARRON E.S.
FFE 28.5
(816 CIMARRON ST. BLDG. 4)
EXISTING TREE TO REMAIN, RE: TP1.0
LAWN
SOD
3-LP 3-CE 2-SO 2-LO 2-LP 10-LP 7-YH 2-LP 3-CE 2-SO 1-LO
48-IH 3-YH 3-YH 26-DW 30-WL 30-DO 7-YH 13-DO 7-YH 7-DW 8-DO 7-DW 24-DO 7-YH 16-DW 3-YH 3-YH 37-IH 31-DO 2-LO
3-LO 28-DO 3-LP
6-DW 2-LP 3-YH 3-YH 9-DW 10-WL 2-SO 7-DW 3-YH 3-YH 17-DW 17-DO 22-WL 3-LP 29-DO 1-LO 40-IH
1-LO 10-IH 10-WL 10-DO 9-YH 11-DO 1-LO 11-DO 9-YH 10-WL 10-IH 1-SO 1-LO 1-SO 1-LO 1-SO 1-LO



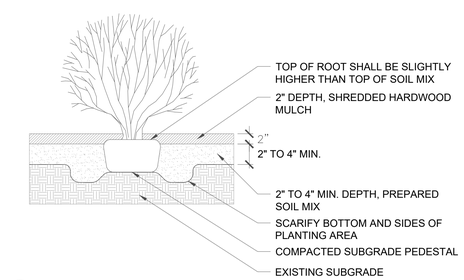
L CUT BED EDGE (SECTION) 1" = 1'-0"



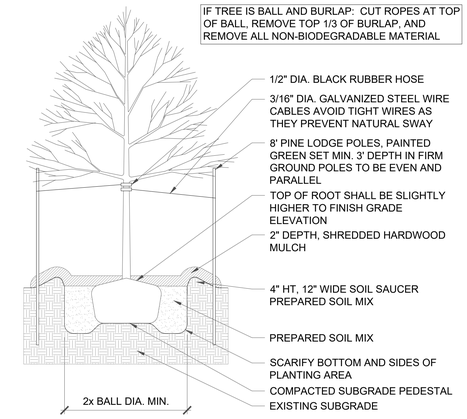
K PLANTING AREA AT CONCRETE (SECTION) 1" = 1'-0"



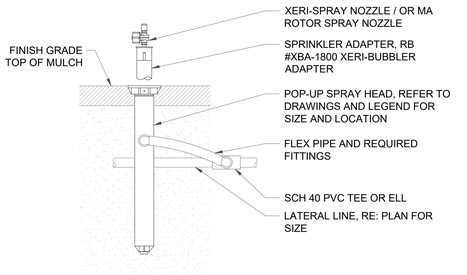
J SOD PLANTING (SECTION) 1" = 1'-0"



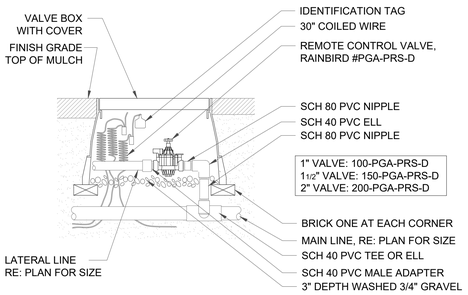
H SHRUB PLANTING (SECTION) 1" = 1'-0"



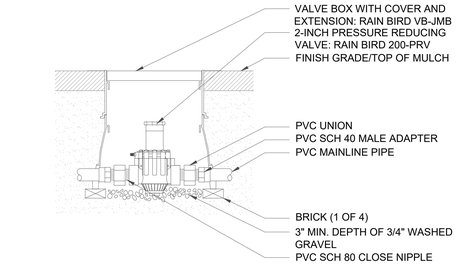
G TREE PLANTING (SECTION) 1" = 1'-0"



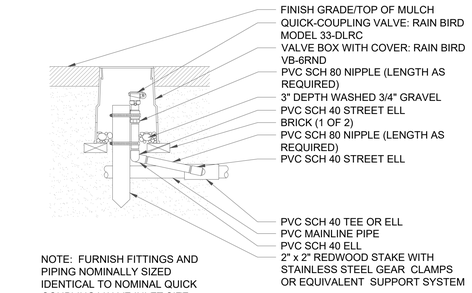
F POP-UP SPRAY HEAD: 1800 SERIES (SECTION) NTS



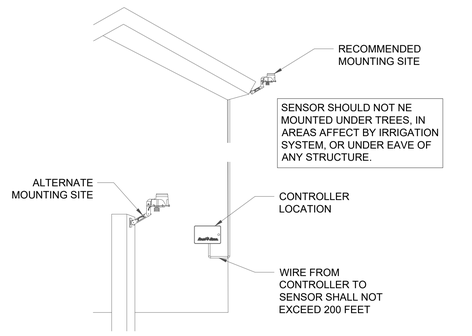
E REMOTE CONTROL VALVE (SECTION) NTS



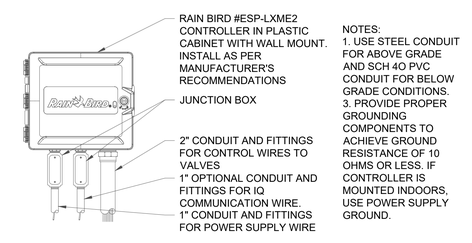
D GATE VALVE (SECTION) NTS



C QUICK COUPLER: 33-DLRC (SECTION) NTS



B SENSOR LOCATION (ELEVATION) NTS



A CONTROLLER: ESP-LXME (ELEVATION) NTS

GENERAL NOTES:

1. CONSTRUCTION SHALL COMPLY WITH APPLICABLE CODES AND ORDINANCES. OBTAIN REQUIRED PERMITS PRIOR TO INSTALLATION.

2. LOCATE ALL UTILITIES ON THE SITE PRIOR TO INSTALLATION. HAND TRENCH IN AREAS OF EXISTING UTILITIES. DAMAGE TO EXISTING OR NEW UTILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.

3. COORDINATE WORK WITH OTHERS ON THE SITE.

4. DURING INSTALLATION, CLEARLY MARK ALL EXPOSED EXCAVATIONS. COVER ALL TRENCHES WHEN CONTRACTOR IS NOT ON SITE. PROTECT WORK FROM DAMAGE AND THEFT. REPLACE DAMAGED OR STOLEN PARTS AND MATERIALS UNTIL THE OWNER'S REPRESENTATIVE ACCEPTS THE WORK IN WRITING.

IRRIGATION NOTES:

1. ANALYZE SITE FOR ITEMS THAT DIFFER FROM THE DRAWINGS. EXAMINE AREAS TO RECEIVE PLANT MATERIAL AND /OR IRRIGATION FOR CONDITIONS AFFECTING ITS INSTALLATION AND PERFORMANCE. ADJUST PLAN TO REFLECT ACTUAL SITE CONDITIONS. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE FOR INSTRUCTION, IF ACTUAL SITE CONDITIONS VARY GREATLY FROM THE DRAWINGS. IF NOTIFICATION IS NOT PERFORMED, CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.

2. THE IRRIGATION PLAN IS DIAGRAMMATICAL. LAYOUT OF THE MAIN AND LATERAL LINES SHALL BE ADJUSTED TO CONFORM TO ACTUAL SITE CONDITIONS. AVOID FUTURE LOCATIONS OF TREES WHEN INSTALLING MAIN AND LATERAL LINES.

3. COORDINATE CONTROLLER LOCATION WITH THE OWNER'S REPRESENTATIVE. INSTALL WIRING, ELECTRICAL CONNECTIONS AND CONDUIT AS REQUIRED FOR COMPLETE HOOK-UP AND OPERATION.

4. LOCATE ALL VALVES IN GROUPS AND IN LAWN AREAS, WHERE POSSIBLE.

5. TREES SHALL RECEIVE 4" POP-UP BUBBLER SPRAY HEADS. SHRUB AREAS SHALL RECEIVE12" POP-UP SPRAY HEADS.

6. SET ALL SPRAY HEADS PERPENDICULAR TO FINISH GRADE. LOCATE SPRAY HEADS 6" FROM BACK OF CURB, 4" OF EDGES OF WALKWAYS, AND 2" FROM OTHER STRUCTURES.

7. AFTER INSTALLATION TEST AND ADJUST ALL IRRIGATION COMPONENTS TO ENSURE THE SYSTEM IS PROVIDING 100% EVEN COVERAGE. ADJUST SPRAY HEADS TO MINIMIZE OVER SPRAY ONTO WALKWAYS AND ROADWAYS. ADJUST SPRAY HEADS FOR 100% EVEN COVERAGE.

8. AFTER INSTALLATION PROVIDE COMPLETED 'AS BUILT' DOCUMENTS AND OPERATIONS MANUALS FOR ALL COMPONENTS OF THE IRRIGATION SYSTEM TO THE OWNER'S REPRESENTATIVE.

PLANTING AND IRRIGATION SCHEDULING:

1. STAKE OUT TREE LOCATIONS AND LOCATE PLANTING BED CONFIGURATIONS FOR APPROVAL BY THE OWNER'S REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. ALL PLANTING AREAS SHALL HAVE A CLEAN, CUT BED EDGE.

2. LOCATE IRRIGATION COMPONENTS. USE CHALK OR COLORED FLAGS TO MARK LOCATIONS OF ALL IRRIGATION EQUIPMENT AND EXCAVATIONS SUCH AS VALVES, TRENCHES, ETC.

3. INSTALL LARGE AND SPECIMEN PLANT MATERIAL. ENSURE PLANTED MATERIAL IS WATERED AS NEEDED BEFORE THE IRRIGATION IS COMPLETELY INSTALLED AND WORKING CORRECTLY.

4. INSTALL IRRIGATION COMPONENTS SUCH AS THE BACK FLOW PREVENTER, MAIN LINES, VALVES, LATERAL LINES, POP-UP SPRAY HEADS, ETC.

5. BACKFILL ALL TRENCHES AND ROUGH GRADE. MARK EQUIPMENT AND LINE LOCATIONS TO AID IN PLANT INSTALLATION.

6. INSTALL REMAINING PLANT MATERIALS INCLUDING TREES AND SHRUBS.

7. FINISH GRADE.

8. ENSURE IRRIGATION SYSTEM IS WORKING CORRECTLY AND ALL AREAS ARE 100% EVENLY COVERED.

9. MULCH ALL PLANTING BEDS AND CREATE TREE SAUCERS AS REQUIRED.

PLANTING NOTES:

1. PROVIDE SAMPLES AND/OR PHOTOGRAPHS WITH A SCALE REFERENCE OF EACH PLANT SPECIES FOR APPROVAL BY THE OWNER'S REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT PRIOR TO DELIVERY TO THE SITE. ANY PLANT MATERIAL, AT ANY TIME THROUGHOUT CONSTRUCTION, MAY BE REJECTED. REJECTED MATERIAL SHALL BE ATTENDED TO OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

2. AREAS TO RECEIVE TREES SHALL BE GRADED TO FINISH GRADE. PLANTING AREAS SHALL BE FINE GRADED BEFORE THE INSTALLATION OF PREPARED SOIL MIX AND PLANT MATERIAL. ALL GRADED AREAS SHALL PROMOTE POSITIVE DRAINAGE.

3. TREES SHALL BE SPECIMEN QUALITY. SHRUBS SHALL BE FULL AND WELL ROOTED. EACH PLANT SPECIES SHALL BE MATCHING IN SIZE AND CHARACTER AND OBTAINED FROM THE SAME SOURCE. CALIPER OF MULTI-TRUNK TREES REFERS TO THE CALIPER OF MAJOR TRUNKS; SMALLER TRUNKS MUST BE AT LEAST 1/2 SIZE OF THE MAJOR TRUNKS.

4. MAINTAIN PLANT MATERIAL THROUGHOUT CONSTRUCTION. KEEP ALL PLANT MATERIAL WATERED AND PROTECTED FROM THE ELEMENTS. DECLINING MATERIAL SHALL BE ATTENDED TO OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

5. LAWN: REFER TO AC1.03 FOR GRASS (HYDROMULCH) AND SOD AREAS. LAWN AREAS SHALL RECEIVE RECEIVE BERMUDA GRASS HYDROMULCH UNLESS OTHERWISE NOTED AS SOD. TWO ROWS OF SOLID BERMUDA SOD SHALL BE INSTALLED AT BACK OF CURB, ALONG ALL PAVED AREAS, AND ALONG ALL PLANTING AREAS.

CONSULTANTS

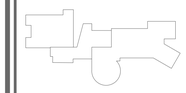
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
6051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734
832-621-6475 (p)



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355



Mai Chu 10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

DATE	ISSUE
09/02/2025	COH PERMIT
10/24/2025	CPS

LANDSCAPE NOTES AND DETAILS

L3.0

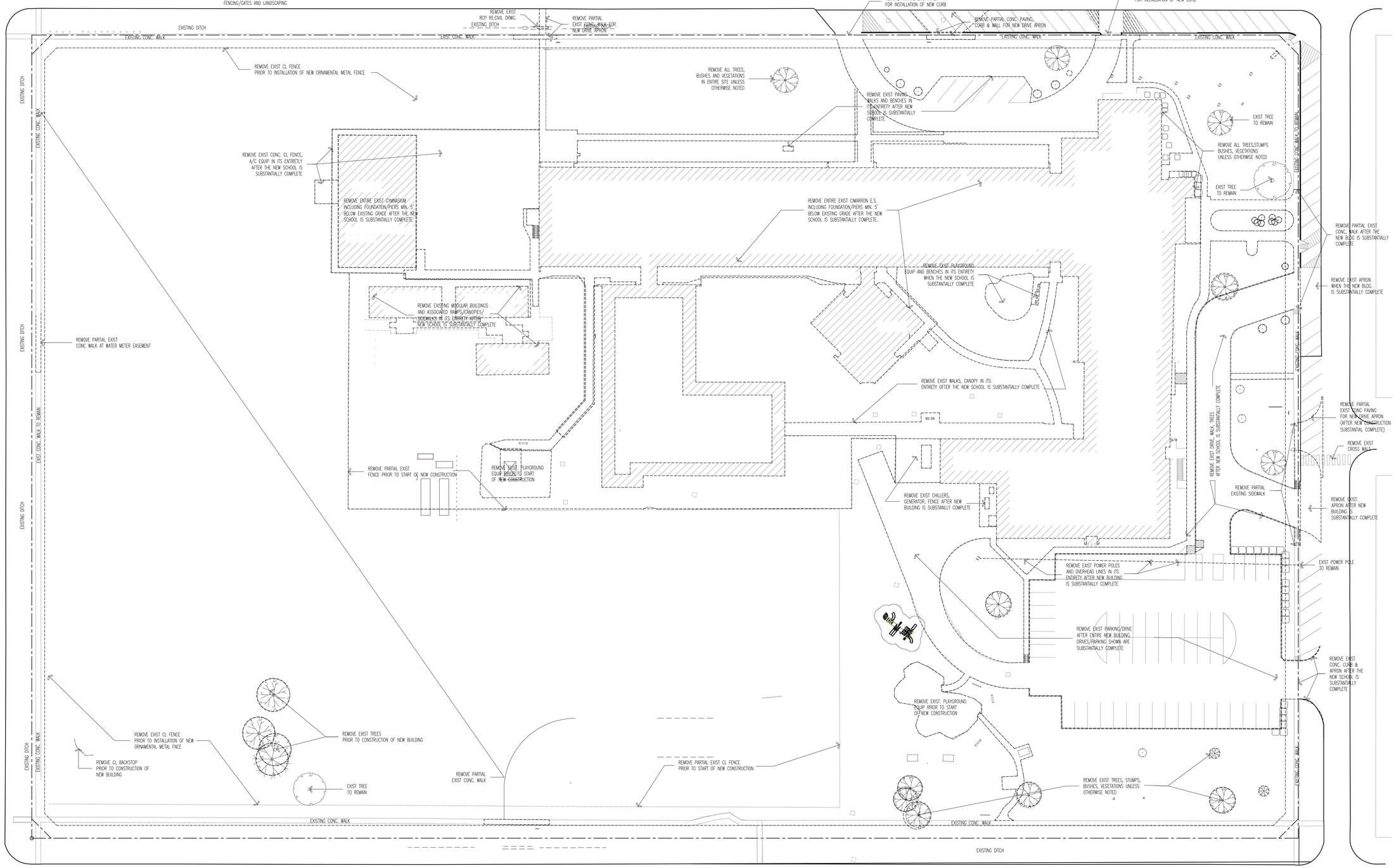
© 2025 VITRO DESIGN STUDIO LLC

SITE DEMOLITION GENERAL NOTES:

A. CONTRACTOR SHALL VERIFY ALL EXISTING SITE CONDITIONS & DIMENSIONS, SUBMIT DISCREPANCIES TO ARCHITECT PRIOR TO START OF WORK.
B. CONTRACTOR SHALL VERIFY SEQUENCE OF DEMOLITION WORK WITH ARCHITECT AND OWNER PRIOR TO START OF WORK.
C. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND MODIFYING EXISTING UTILITY LINES ABOVE AND BELOW GRADE DURING THE ENTIRE CONSTRUCTION PERIOD. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING ANY DAMAGE TO EXISTING UTILITIES IMMEDIATELY, TO ENSURE NO INTERRUPTION OF SERVICES TO EXISTING CAMPUS.
D. RE: CIVIL AND MEP DRAWINGS FOR ADDITIONAL DEMOLITION NOT SHOWN ON THIS SHEET.
E. SEPARATE SEWER DISCONNECTS AND BUILDING DEMOTION PERMITS SHALL BE OBTAINED PRIOR TO DEMOLITION OF BUILDINGS.

SEQUENCE OF WORK:

1. REMOVE EXISTING PLAYGROUND EQUIPMENT, PARTIAL EXISING TREES, PARTIAL EXISTING FENCE AND WALKS WHERE SHOWN OR REQUIRED FOR NEW CONSTRUCTION.
2. REMOVE PARTIAL EXISTING SEWER LINES AND REROUTE AS SHOWN ON CIVIL DRAWINGS
3. CONSTRUCT NEW BUILDING, PARTIAL DRIVE, PARKING AND SIDEWALK AS SHOWN.
4. THE EXISTING SCHOOL SHALL REMAIN IN OPERATION WHILE THE NEW BUILDING IS BEING CONSTRUCTED. MAINTAIN UTILITIES TO EXISTING SCHOOL WITHOUT INTERRUPTION.
5. WHEN THE NEW BUILDING IS SUBSTANTIALLY COMPLETE, OBTAIN TEMPORARY CERTIFICATE OF OCCUPANCY FROM COH.
6. EXISTING SCHOOL STAFF AND STUDENTS WILL MOVE IN THE NEW BUILDING.
7. REMOVE ASBESTOS FROM EXISTING BUILDING AND APPLY FOR DEMOLITION PERMIT.
8. DEMOLISH THE EXISTING SCHOOL AND ALL ITEMS ON SITE NOTED TO BE DEMOLISHED.
9. COMPLETE THE DRIVE, PARKING, SIDEWALKS, DETENTION, FENCING/GATES AND LANDSCAPING



EXISTIN DITCH | EXISTIN DITCH | EXISTIN DITCH | EXISTIN DITCH

NORTH

DEMOLITION SITE PLAN

SCALE: 1" = 30'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT 22900 DOROTHY S. CHU 2909 STATE OF TEXAS

10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

AC1.01

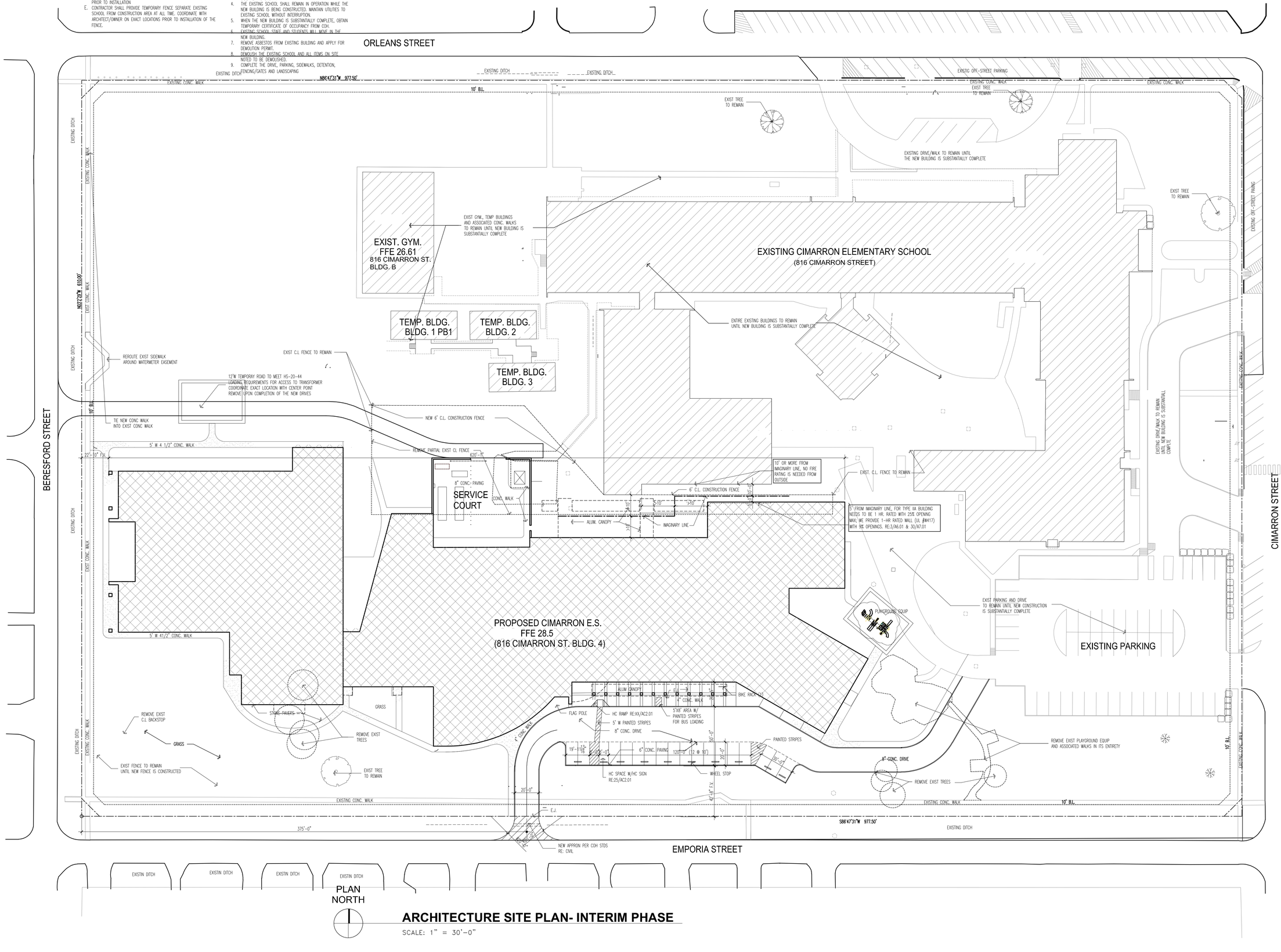
ARCHITECTURAL
SITE DEMOLITION PLAN

GENERAL NOTES:

A. ALL PAVING DIMENSIONS ARE FROM BACK OF CURB TO BACK OF CURB.
B. ALL UTILITIES SHALL REMAIN IN OPERATION DURING SCHOOL HOURS. COORDINATE WITH OWNER ON THE DELIVERY SCHEDULE DURING THE SCHOOL DAYS.
C. RE: CIVIL, LANDSCAPING AND MEP DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN THIS SHEET.
D. CONTRACTOR SHALL SUBMIT PAVING/WALK JOINT LAYOUT FOR APPROVAL PRIOR TO INSTALLATION.
E. CONTRACTOR SHALL PROVIDE TEMPORARY FENCE SEPARATE EXISTING SCHOOL FROM CONSTRUCTION AREA AT ALL TIME. COORDINATE WITH ARCHITECT/OWNER ON EXACT LOCATIONS PRIOR TO INSTALLATION OF THE FENCE.

SEQUENCE OF WORK:

1. REMOVE EXISTING PLAYGROUND EQUIPMENT, PARTIAL EXISING TREES, PARTIAL EXISTING FENCE AND WALKS WHERE SHOWN OR REQUIRED FOR NEW CONSTRUCTION.
2. REMOVE PARTIAL EXISTING SEWER LINES AND REROUTE AS SHOWN ON CIVIL DRAWINGS
3. CONSTRUCT NEW BUILDING, PARTIAL DRIVE, PARKING AND SIDEWALK AS SHOWN.
4. THE EXISTING SCHOOL SHALL REMAIN IN OPERATION WHILE THE NEW BUILDING IS BEING CONSTRUCTED. MAINTAIN UTILITIES TO EXISTING SCHOOL WITHOUT INTERRUPTION.
5. WHEN THE NEW BUILDING IS SUBSTANTIALLY COMPLETE, OBTAIN TEMPORARY CERTIFICATE OF OCCUPANCY FROM COH.
6. EXISTING SCHOOL STAFF AND STUDENTS WILL MOVE IN THE NEW BUILDING.
7. REMOVE ASBESTOS FROM EXISTING BUILDING AND APPLY FOR DEMOLITION PERMIT.
8. DEMOLISH THE EXISTING SCHOOL AND ALL ITEMS ON SITE NOTED TO BE DEMOLISHED.
9. COMPLETE THE DRIVE, PARKING, SIDEWALKS, DETENTION, FENCING/GATES AND LANDSCAPING



PLAN NORTH

ARCHITECTURE SITE PLAN- INTERIM PHASE

SCALE: 1" = 30'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT SUSAN CHU 24905 STATE OF TEXAS

10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

AC1.02

ARCHITECTURAL
SITE PLAN-INTERIM PHASE

GENERAL NOTES:

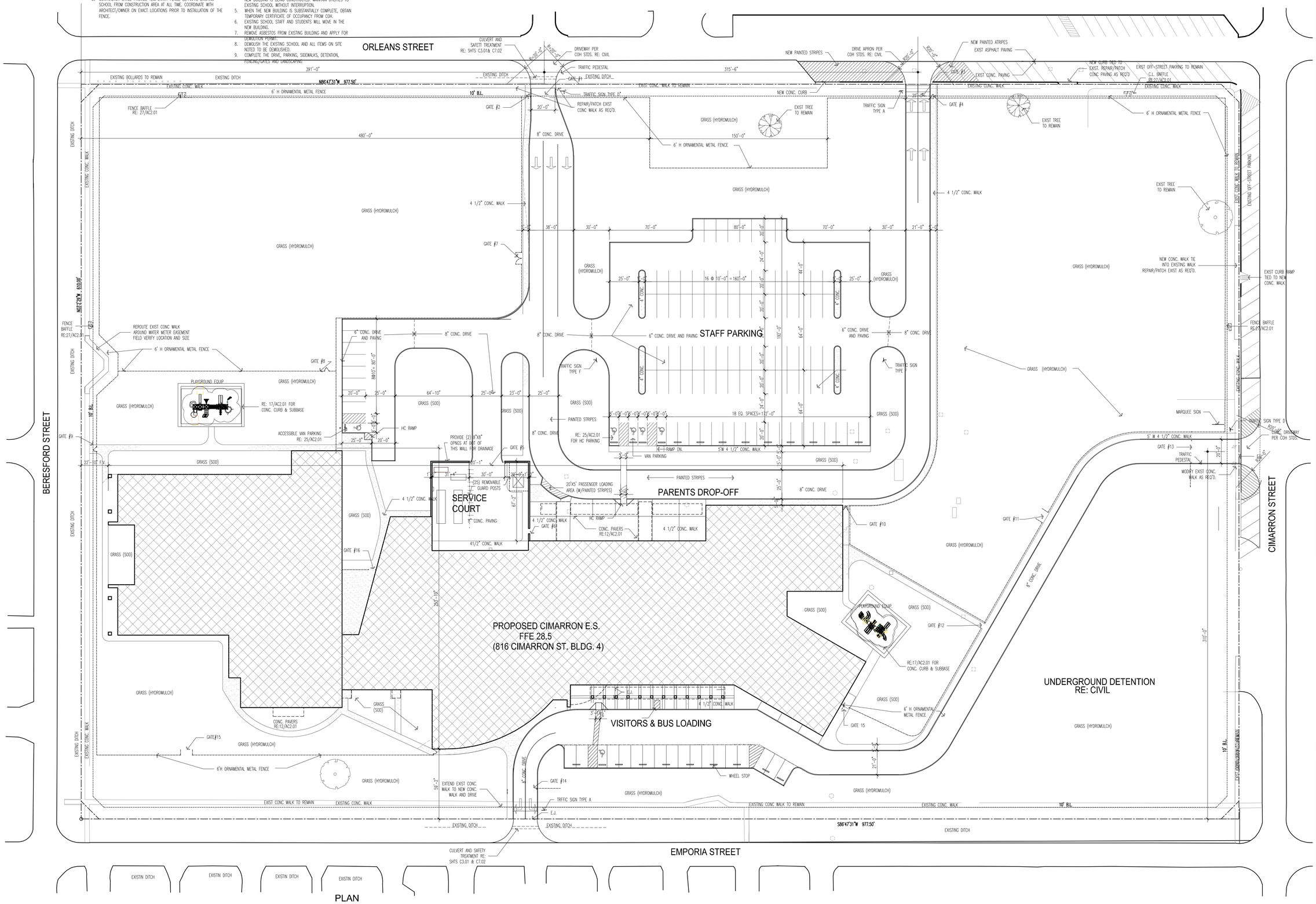
A. ALL PAVING DIMENSIONS ARE FROM BACK OF CURB TO BACK OF CURB.
B. ALL UTILITIES SHALL REMAIN IN OPERATION DURING SCHOOL HOURS. COORDINATE WITH OWNER ON THE DELIVERY SCHEDULE DURING THE SCHOOL DAYS.
C. RE: CIVIL, LANDSCAPING AND MEP DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN THIS SHEET.
D. CONTRACTOR SHALL SUBMIT PAVING/WALK JOINT LAYOUT FOR APPROVAL PRIOR TO INSTALLATION.
E. CONTRACTOR SHALL PROVIDE TEMPORARY FENCE SEPARATE EXISTING SCHOOL FROM CONSTRUCTION AREA AT ALL TIME. COORDINATE WITH ARCHITECT/OWNER ON EXACT LOCATIONS PRIOR TO INSTALLATION OF THE FENCE.

SEQUENCE OF WORK:

1. REMOVE EXISTING PLAYGROUND EQUIPMENT, PARTIAL EXISING TREES, PARTIAL EXISTING FENCE AND WALKS WHERE SHOWN OR REQUIRED FOR NEW CONSTRUCTION.
2. REMOVE PARTIAL EXISTING SEWER LINES AND REROUTE AS SHOWN ON CIVIL DRAWINGS
3. CONSTRUCT NEW BUILDING, PARTIAL DRIVE, PARKING AND SIDEWALK AS SHOWN.
4. THE EXISTING SCHOOL SHALL REMAIN IN OPERATION WHILE THE NEW BUILDING IS BEING CONSTRUCTED. MAINTAIN UTILITIES TO EXISTING SCHOOL WITHOUT INTERRUPTION.
5. WHEN THE NEW BUILDING IS SUBSTANTIALLY COMPLETE, OBTAIN TEMPORARY CERTIFICATE OF OCCUPANCY FROM COH.
6. EXISTING SCHOOL STAFF AND STUDENTS WILL MOVE IN THE NEW BUILDING.
7. REMOVE ASBESTOS FROM EXISTING BUILDING AND APPLY FOR DEMOLITION PERMIT.
8. DEMOLISH THE EXISTING SCHOOL AND ALL ITEMS ON SITE NOTED TO BE DEMOLISHED.
9. COMPLETE THE DRIVE, PARKING, SIDEWALKS, DETENTION, FENCING/GATES AND LANDSCAPING

PARKING ANALYSIS:

1. ENROLLMENT: 700
2. REQUIRED PARKING: 700 ÷ 59
3. PROVIDED: 121 (INCLUDING 6 ACCESSIBLE PARKING)



ARCHITECTURAL SITE PLAN

SCALE: 1" = 30'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

REGISTERED ARCHITECT STATE OF TEXAS
10/24/2025

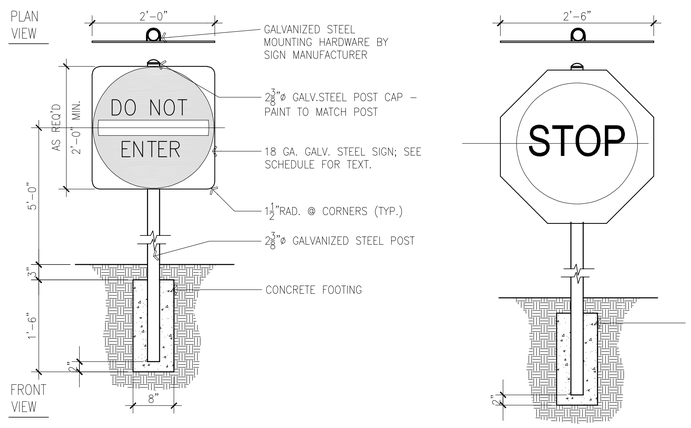
PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

AC1.03
ARCHITECTURAL SITE PLAN

INSTALL IN LOCATIONS AS DIRECTED

SIGN	TEXT	QUANTITY
TYPE "A"	DO NOT ENTER	3
TYPE "B"	STOP	1
TYPE "C"	NO RIGHT TURN	1
TYPE "D"	ONE WAY	3
TYPE "E"	RIGHT TURN ONLY	1
TYPE "F"	LEFT TURN ONLY	1



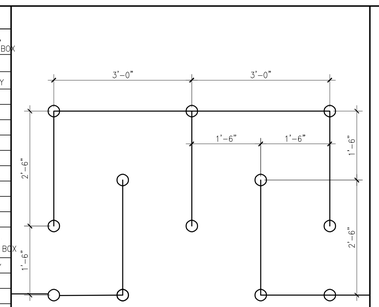
24 TRAFFIC SIGN

X–C10
1" = 1'-0"

GATE NO.	GATE MATERIAL	GATE SIZE/TYPE	REMARKS
#1	ORNAMETAL METAL	22'WX6'H SLIDING CANTILEVER	W/CARD ACCESS, AI PHONE, TRAFFIC PEDESTAL & KNOX BOX
#2	ORNAMENTAL METAL	4'WX6'H SWING GATE	W/PANIC DEVICE
#3	ORNAMENTAL METAL	22'WX6'H SLIDING CANTILEVER	ACCESS CONTROL–EXIT ONLY
#4	ORNAMENTAL METAL	4'WX6'H SWING GATE	W/PANIC DEVICE
#5	ORNAMENTAL METAL	30'WX6'H SLIDING GATE	MANUAL OPEATED
#6	ORNAMENTAL METAL	4'WX6'H SWING GATE	W/PANIC DEVICE
#7	ORNAMENTAL METAL	10'WX6'H PAIR SWING GATES	W/PAD LOCK
#8	ORNAMENTAL METAL	4'WX6'H SWING GATE	W/PAD LOCK
#9	ORNAMENTAL METAL	4'WX6'H SWING GATE	W/PANIC DEVICE
#10	ORNAMENTAL METAL	4'WX6'H SWING GATE	W/PANIC DEVICE
#11	ORNAMENTAL METAL	10'WX6'H PAIR SWING GATES	W/PAD LOCK
#12	ORNAMENTAL METAL	4'WX6'H SWING GATE	W/PAD LOCK
#13	ORNAMENTAL METAL	20'WX6'H SLIDING CANTILEVER	W/ACCESS CARD, AI PHONE, TRAFFIC PEDESTAL & KNOX BOX
#14	ORNAMENTAL METAL	20'WX6'H SLIDING CANTILEVER	ACCESS CONTROL EXIT ONLY
#15	ORNAMENTAL METAL	10'WX6'H SWING GATE	W/PAD LOCK
#16	ORNAMENTAL METAL	6'WX6'H PAIR SWING GATES	W/PANIC DEVICES

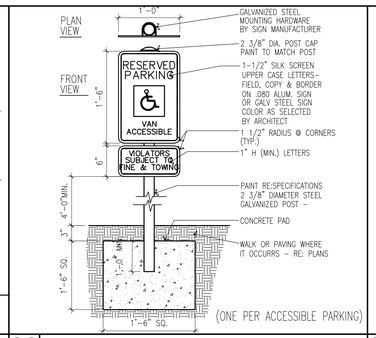
28 GATE SCHEDULE

X– Gate Schedule
1/4"=1'-0"



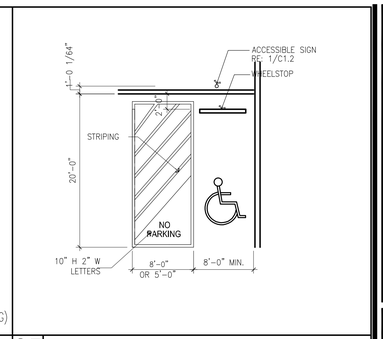
27 FENCE BAFFLE

X–C24
3/4" =1'-0"



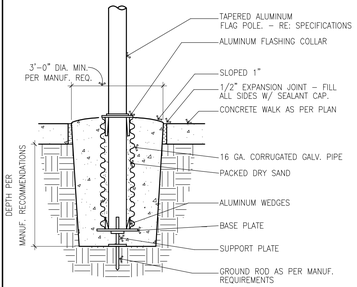
26 ACCESSIBLE PARKING SIGN

1"=1'-0"



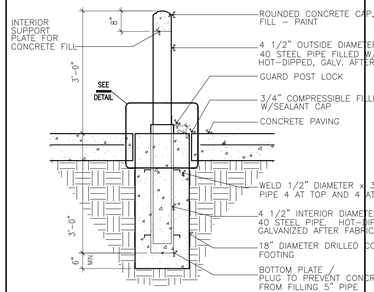
25 ACCESSIBLE PARKING

X–C06
1/8"=1'-0"



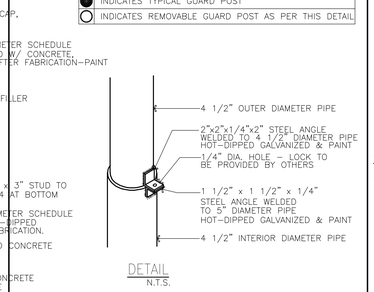
22 FLAG POLE BASE

X–C14
1" = 1'-0"

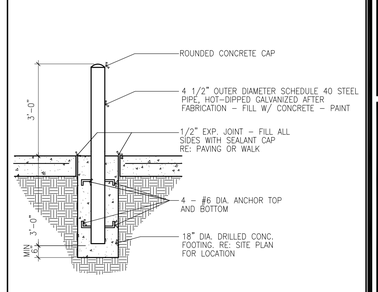


21 REMOVABLE GUARD POST

X–C15
1/2" = 1'-0"

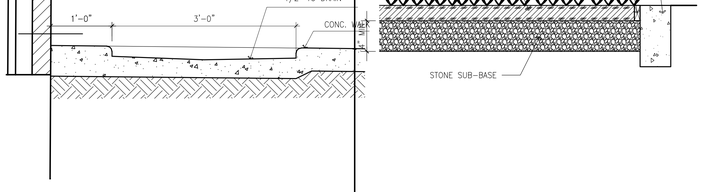


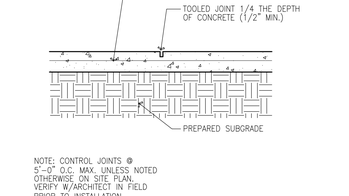
20



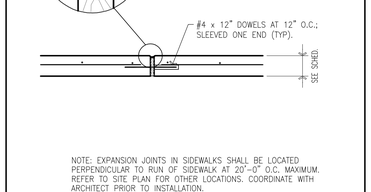
19 GUARD POST

X–C04
1/2" = 1'-0"

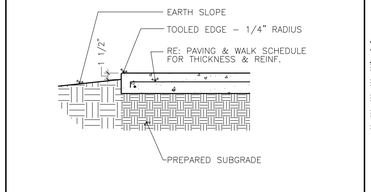


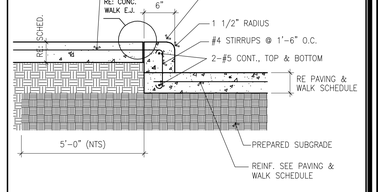


NOTE: CONTROL JOINTS @ 5'–0" O.C. MAX. UNLESS NOTED OTHERWISE ON SITE PLAN. VERIFY W/ARCHITECT IN FIELD PRIOR TO INSTALLATION



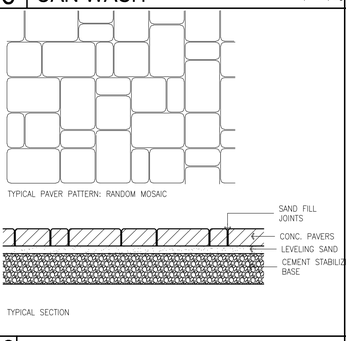
NOTE: EXPANSION JOINTS IN SIDEWALKS SHALL BE LOCATED PERPENDICULAR TO RUN OF SIDEWALK AT 20'–0" O.C. MAXIMUM. REFER TO SITE PLAN FOR OTHER LOCATIONS. COORDINATE WITH ARCHITECT PRIOR TO INSTALLATION.





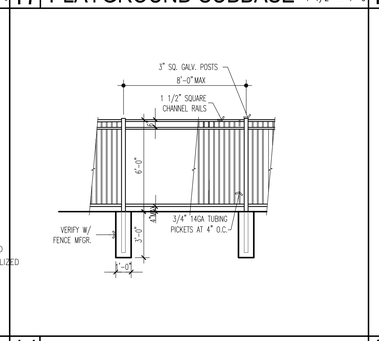
18 CAN WASH

X–C12Curb+walk
1" = 1'-0"



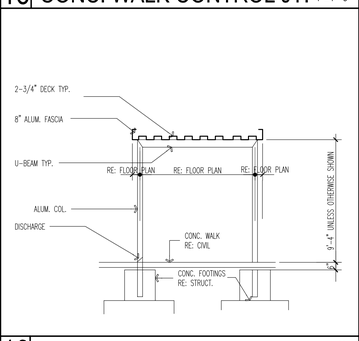
17 PLAYGROUND SUBBASE

1 1/2" = 1'-0"
X–C17



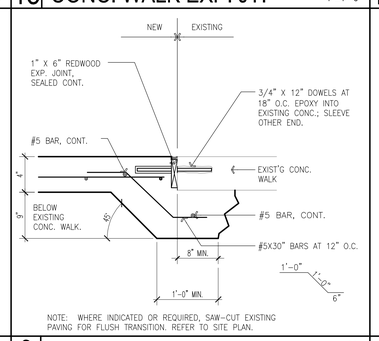
16 CONC. WALK CONTROL JT.

X–C02 JT
1"=1'-0"



15 CONC. WALK EXP. JT.

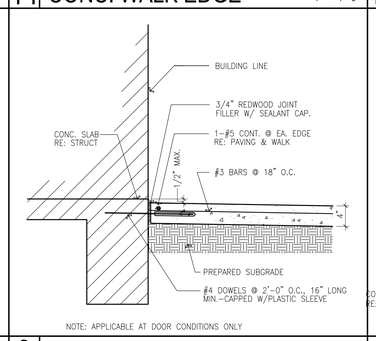
X–C02 JT
1"=1'-0"



NOTE: WHERE INDICATED OR REQUIRED, SAW–CUT EXISTING PAVING FOR FLUSH TRANSITION. REFER TO SITE PLAN.

14 CONC. WALK EDGE

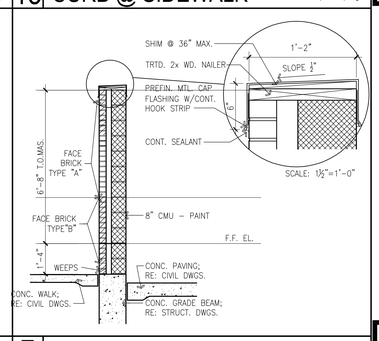
X–C18
1" = 1'-0"



NOTE: APPLICABLE AT DOOR CONDITIONS ONLY

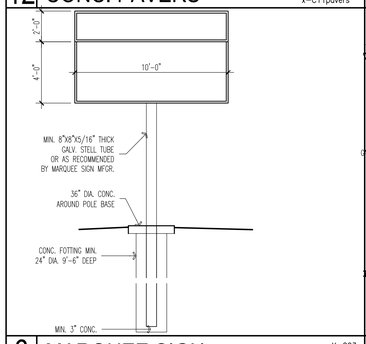
13 CURB @ SIDEWALK

X–C12Curb+walk
1" = 1'-0"



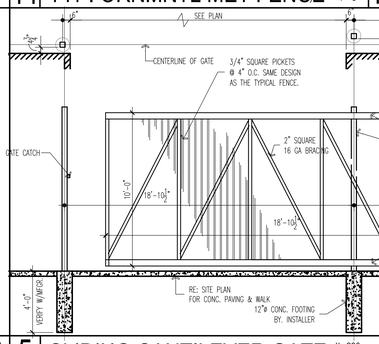
12 CONC. PAVERS

1 1/2" = 1'-0"
x–C11pavers



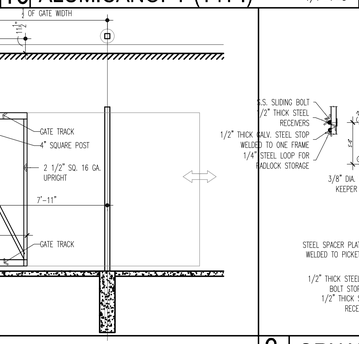
11 TYP. ORNMNTL MET FENCE

X–C13
1" = 1'-0"



10 ALUM.CANOPY (TYP.)

X–C21
1/4"=1'-0"

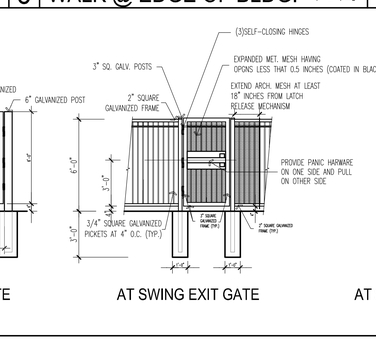


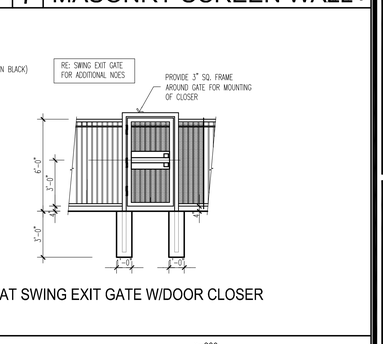
9 EXIST'G TO NEW CONC. WALK

X–C01
1/4"=1'-0"

8 WALK @ EDGE OF BLDG.

X–C03
1" = 1'-0"





6 MARQUEE SIGN

X–C23
1/4" = 1'-0"e

5 SLIDING CANTILEVER GATE

X–C20
1/4" = 1'-0"e

3 ORNAMENTAL METAL SWING GATES

X–C20
1/4" = 1'-0"e

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOODSERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT SUSAN CHU 23855 STATE OF TEXAS

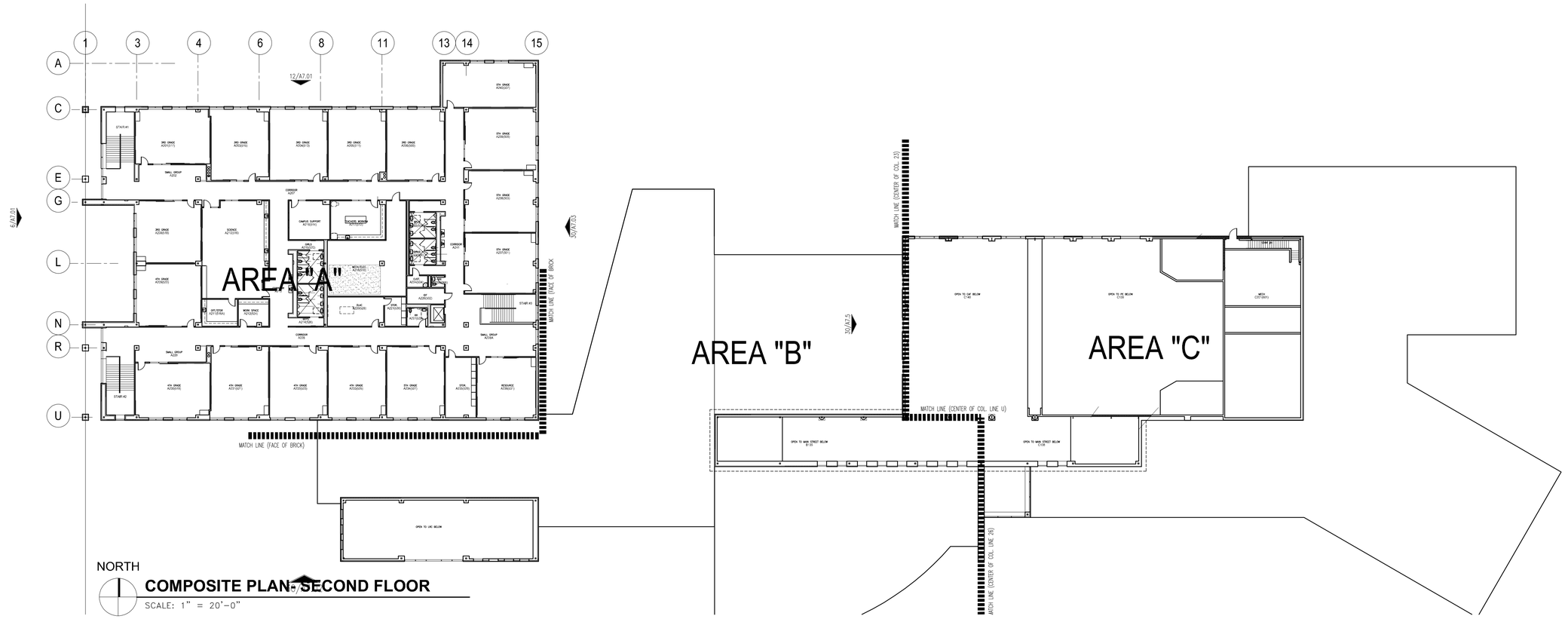
10/24/2025

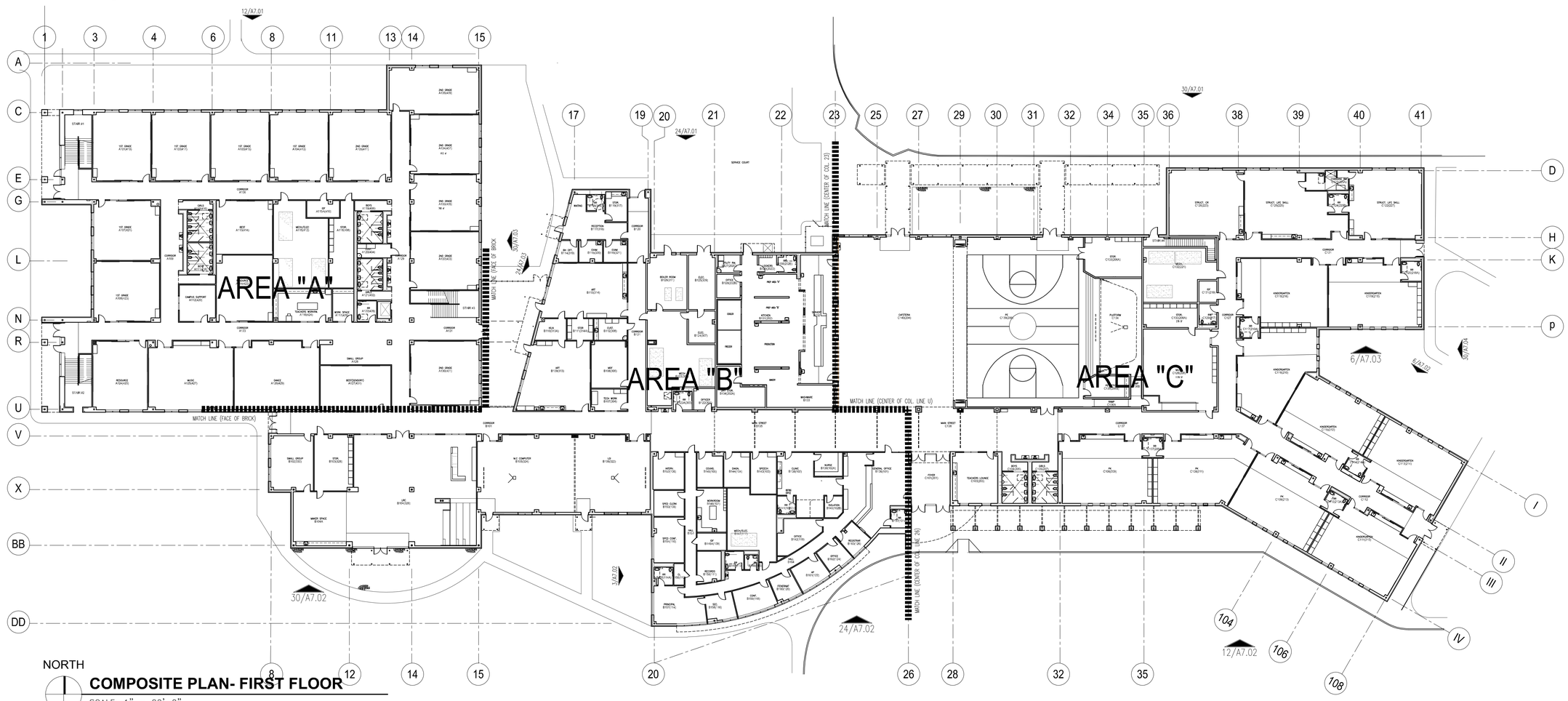
PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

AC2.01

SITE DETAILS





CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

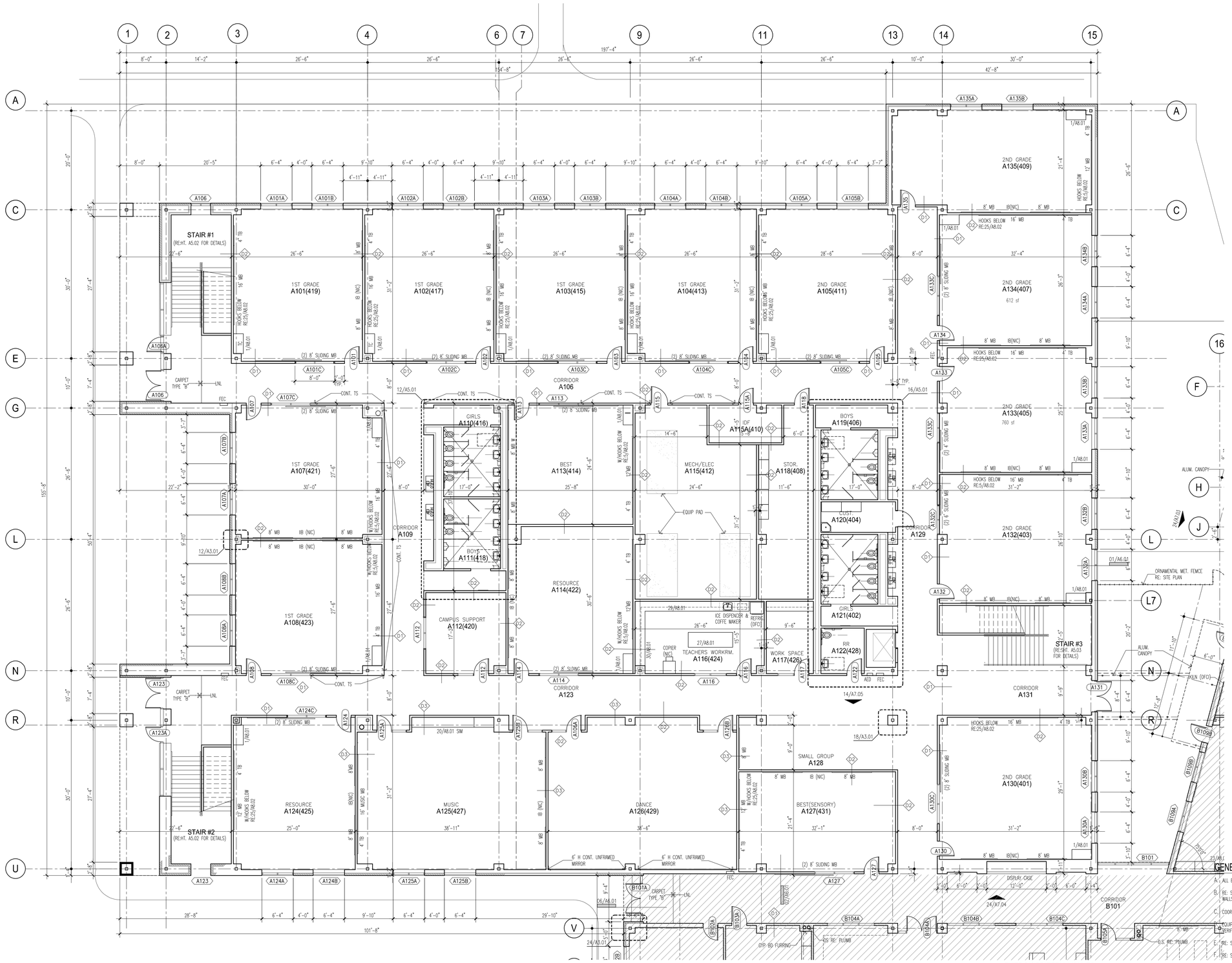
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	XXX
CHECKED	XXX

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A1.01

COMPOSITE FLOOR PLANS



NORTH

AREA "A" - FIRST FLOOR PLAN

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

ENERGY CRITERIA VALUES:

A. ROOF- CLASS "A" INSULATION ENTIRELY ABOVE DECK; 3-YEAR AGED SOLAR REFLECTANCE INDEX= 0.73; R=28; U=.035; BUDGET U-FACTOR=0.039.

B. METAL STUD WALL BACK-UP: R-19 CAVITY FILLED BATT INSULATION AND R=7.5 CONTINUOUS INSULATION.

C. CMU BACK UP WALLS: R-7.5 CONTINUOUS INSULATION

D. EXTERIOR GLAZING: U FACTOR= 0.29 OR BETTER; SHGC= 0.25 OR BETTER

E. VERTICAL FENESTRATION IS <= 30%

F. ALL AREAS OF AIR LEAKAGE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED.

GENERAL NOTES:

A. ALL EXTERIOR WALLS EXTEND TO BOTTOM OF ROOF DECK

B. RE: STRUCTURAL DRAWINGS FOR REINFORCING AND BRACING OF CMU WALLS

C. COORDINATE LOCATIONS OF DOWNSPOUTS W/ PLUMBING CONTRACTOR

D. EQUIPMENT PADS SHALL BE CONC. REINFORCED PER STRUCT. DRWGS. VERIFY LOCATIONS, SIZES & THICKNESS WITH MECH. CONTRACTOR

E. RE: SHEET A6.00 FOR PARTITION & ROOM SIGNAGE TYPES

F. RE: SHEET A1.00 FOR EXTERIOR ELEVATION KEYING

G. ALL CMU WALLS ARE 8" UNLESS OTHERWISE SHOWN. ALL INTERIOR PARTITIONS ARE TYPE "D2" UNLESS OTHERWISE SHOWN.

H. PROVIDE PAPER TOWEL DISPENSER AND SOAP DISPENSER @ EACH SINK AND LAVATORY SHOWN OR NOT.

J. RE: DOOR AND FRAME SCHEDULES FOR LOCATIONS OF WINDOW BLINDS.

K. VERIFY LOCATIONS OF ALL ACCESSORIES AND MISC. ITEMS WITH OWNER PRIOR TO INSTALLATIONS.

L. RE: 08/A6.10 FOR SLIDING MB DETAIL.

M. ALL EXPOSED COLUMNS AND BEAMS BELOW 20' AFF TO BE COATED WITH INTUMESCENT FIREPROOFING WHETHER NOTED OR NOT. ALL OTHER COLUMNS AND BEAMS CONCEALED WITHIN FURR-OUTS AND CEILINGS SHALL BE FIREPROOFED WITH CEMENTITIOUS-SPRAYED FIREPROOFING.

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT SHU PAO CHU 24606 STATE OF TEXAS

10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	
CHECKED	

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A2.01

FLOOR PLAN
AREA A
FIRST FLOOR



NORTH

AREA "A" - SECOND FLOOR PLAN

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

ENERGY CRITERIA VALUES:

A. ROOF- CLASS "A", INSULATION ENTIRELY ABOVE DECK; 3-YEAR AGED SOLAR REFLECTANCE INDEX= 0.73; R=28; U=.035; BUDGET U-FACTOR=0.039.

B. METAL STUD WALL BACK-UP: R-19 CAVITY FILLED BATT INSULATION AND R=7.5 CONTINUOUS INSULATION.

C. CMU BACK UP WALLS: R-7.5 CONTINUOUS INSULATION

D. EXTERIOR GLAZING: U FACTOR= 0.29 OR BETTER; SHGC= 0.25 OR BETTER

E. VERTICAL FENESTRATION IS <= 30%

F. ALL AREAS OF AIR LEAKAGE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED.

GENERAL NOTES:

A. ALL EXTERIOR WALLS EXTEND TO BOTTOM OF ROOF DECK

B. RE: STRUCTURAL DRAWINGS FOR REINFORCING AND BRACING OF CMU WALLS

C. COORDINATE LOCATIONS OF DOWNSPOUTS W/ PLUMBING CONTRACTOR

D. EQUIPMENT PADS SHALL BE CONC. REINFORCED PER STRUCT. DRWGS. VERIFY LOCATIONS, SIZES & THICKNESS WITH MECH. CONTRACTOR

E. RE: SHEET A6.00 FOR PARTITION & ROOM SIGNAGE TYPES

F. RE: SHEET A1.00 FOR EXTERIOR ELEVATION KEYING

G. ALL CMU WALLS ARE 8" UNLESS OTHERWISE SHOWN. ALL INTERIOR PARTITIONS ARE TYPE "D2" UNLESS OTHERWISE SHOWN.

H. PROVIDE PAPER TOWEL DISPENSER AND SOAP DISPENSER @ EACH SINK AND LAVATORY SHOWN OR NOT.

J. RE: DOOR AND FRAME SCHEDULES FOR LOCATIONS OF WINDOW BLINDS.

K. VERIFY LOCATIONS OF ALL ACCESSORIES AND MISC. ITEMS WITH OWNER PRIOR TO INSTALLATIONS.

L. RE: 08/A6.10 FOR SLIDING MB DETAIL.

M. ALL EXPOSED COLUMNS AND BEAMS BELOW 20' AFF TO BE COATED WITH INTUMESCENT FIREPROOFING WHETHER NOTED OR NOT. ALL OTHER COLUMNS AND BEAMS CONCEALED WITHIN FURR-OUTS AND CEILINGS SHALL BE FIREPROOFED WITH CEMENTITIOUS-SPRAYED FIREPROOFING.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT — STATE OF TEXAS — 22685

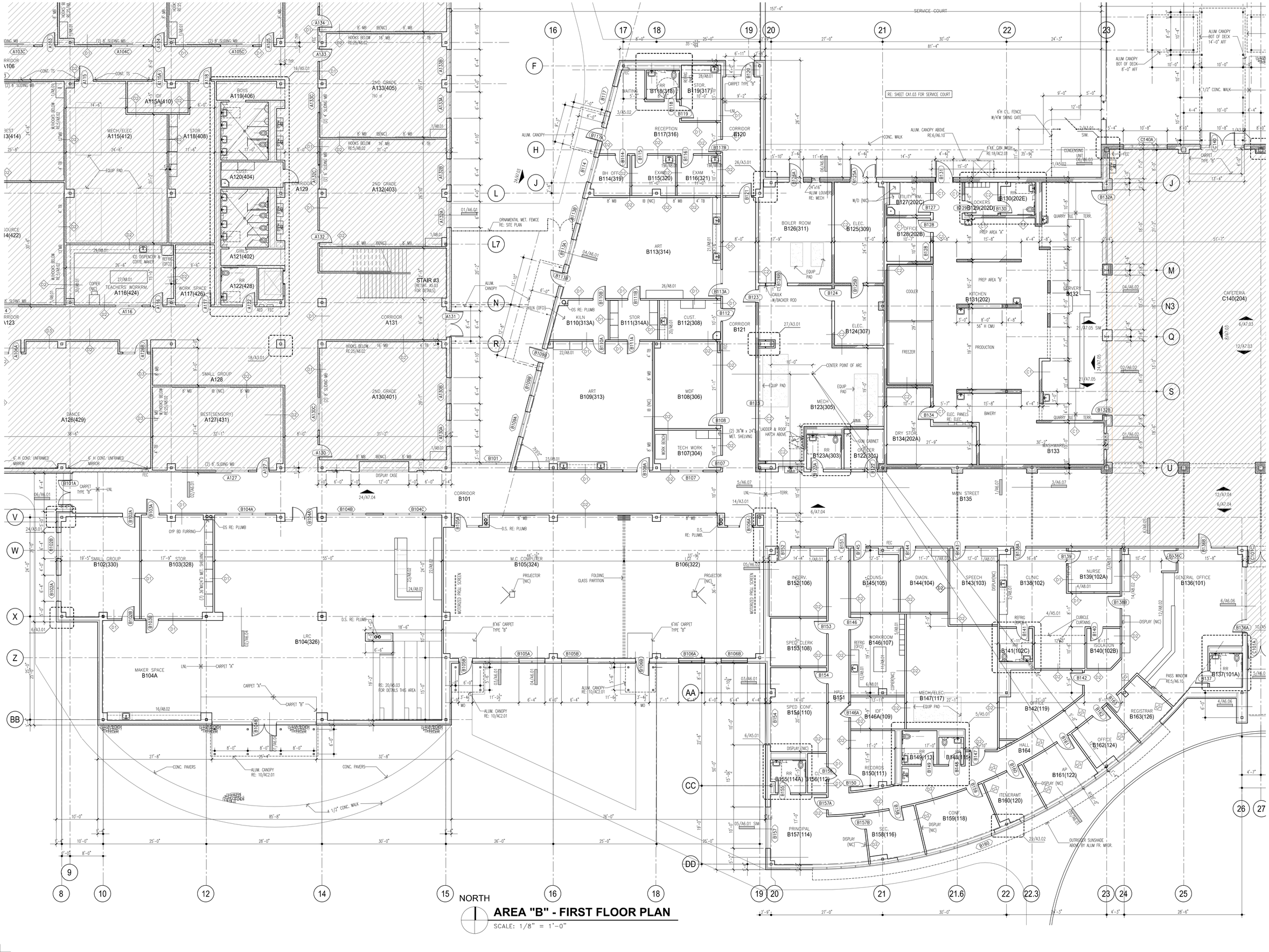
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A2.02

FLOOR PLAN
AREA A
SECOND FLOOR



AREA "B" - FIRST FLOOR PLAN

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

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT S. CHU 19845 STATE OF TEXAS

10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN MC
CHECKED MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A2.03

FLOOR PLAN
AREA B
FIRST FLOOR

AREA "C" - FIRST FLOOR PLAN

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

NORTH

ENERGY CRITERIA VALUES:

A. ROOF- CLASS "A" INSULATION ENTIRELY ABOVE DECK; 3-YEAR AGED SOLAR REFLECTANCE INDEX= 0.73; R=28; U=.035; BUDGET U-FACTOR=0.039.

B. METAL STUD WALL BACK-UP: R-19 CAVITY FILLED BATT INSULATION AND R=7.5 CONTINUOUS INSULATION.

C. CMU BACK UP WALLS: R-7.5 CONTINUOUS INSULATION

D. EXTERIOR GLAZING: U FACTOR= 0.29 OR BETTER; SHGC= 0.25 OR BETTER

E. VERTICAL FENESTRATION IS <= 30%

F. ALL AREAS OF AIR LEAKAGE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED.

GENERAL NOTES:

A. ALL EXTERIOR WALLS EXTEND TO BOTTOM OF ROOF DECK

B. SEE STRUCTURAL DRAWINGS FOR REINFORCING AND BRACING OF CMU WALLS

C. COORDINATE LOCATIONS OF DOWNSPOUTS W/ PLUMBING CONTRACTOR

D. EQUIPMENT PADS SHALL BE CONC. REINFORCED PER STRUCT. DRWGS. VERIFY LOCATIONS, SIZES & THICKNESS WITH MECH. CONTRACTOR

E. RE: SHEET A6.00 FOR PARTITION & ROOM SIGNAGE TYPES

F. RE: SHEET A1.00 FOR EXTERIOR ELEVATION KEYING

G. ALL CMU WALLS ARE 8" UNLESS OTHERWISE SHOWN. ALL INTERIOR PARTITIONS ARE TYPE "D2" UNLESS OTHERWISE SHOWN.

H. PROVIDE PAPER TOWEL DISPENSER AND SOAP DISPENSER @ EACH SINK AND LAVATORY SHOWN OR NOT.

J. RE: DOOR AND FRAME SCHEDULES FOR LOCATIONS OF WINDOW BLINDS.

K. VERIFY LOCATIONS OF ALL ACCESSORIES AND MISC. ITEMS WITH OWNER PRIOR TO INSTALLATIONS.

L. RE: 06/A6.10 FOR SLIDING MB DETAIL.

M. ALL EXPOSED COLUMNS AND BEAMS BELOW 20' AFF TO BE COATED WITH INTUMESCENT FIREPROOFING WHETHER NOTED OR NOT. ALL OTHER COLUMNS AND BEAMS CONCEALED WITHIN FURR-OUTS AND CEILINGS SHALL BE FIREPROOFED WITH CEMENTITIOUS-SPRAYED FIREPROOFING.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT — STATE OF TEXAS — 24600

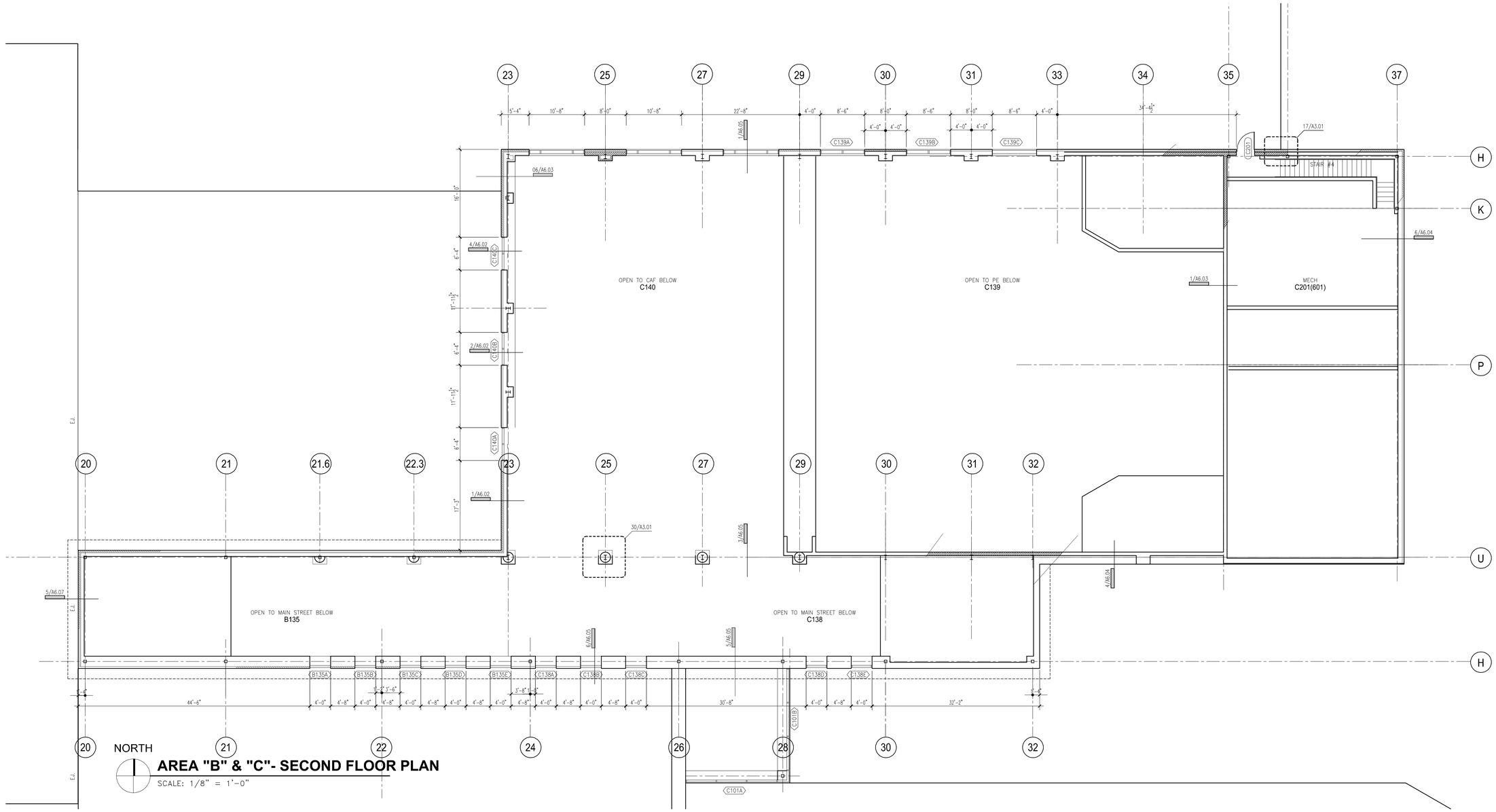
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

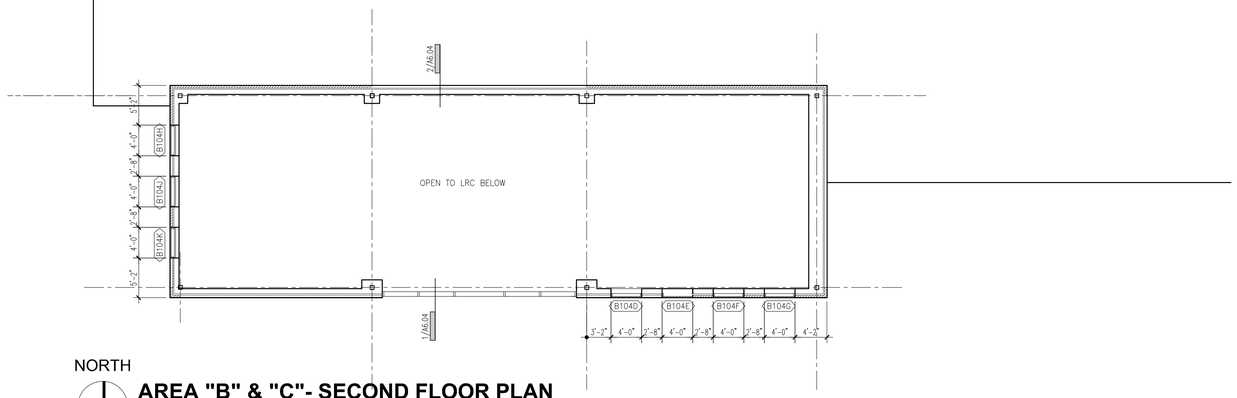
A2.04

FLOOR PLAN
AREA C
FIRST FLOOR



AREA "B" & "C"- SECOND FLOOR PLAN

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



AREA "B" & "C"- SECOND FLOOR PLAN

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

ENERGY CRITERIA VALUES:

A. ROOF- CLASS "A". INSULATION ENTIRELY ABOVE DECK; 3-YEAR AGED SOLAR REFLECTANCE INDEX= 0.73; R=28; U=.035; BUDGET U-FACTOR=0.039.

B. METAL STUD WALL BACK-UP: R-19 CAVITY FILLED BATT INSULATION AND R=7.5 CONTINUOUS INSULATION.

C. CMU BACK UP WALLS: R-7.5 CONTINUOUS INSULATION

D. EXTERIOR GLAZING: U FACTOR= 0.29 OR BETTER; SHGC= 0.25 OR BETTER

E. VERTICAL FENESTRATION IS <= 30%

F. ALL AREAS OF AIR LEAKAGE SHALL BE SEALED, CAULKED, CASKETED, OR WEATHER STRIPPED.

GENERAL NOTES:

A. ALL EXTERIOR WALLS EXTEND TO BOTTOM OF ROOF DECK

B. RE: STRUCTURAL DRAWINGS FOR REINFORCING AND BRACING OF CMU WALLS

C. COORDINATE LOCATIONS OF DOWNSPOUTS W/ PLUMBING CONTRACTOR

D. EQUIPMENT PADS SHALL BE CONC. REINFORCED PER STRUCT. DRWGS. VERIFY LOCATIONS, SIZES & THICKNESS WITH MECH. CONTRACTOR

E. RE: SHEET A6.00 FOR PARTITION & ROOM SIGNAGE TYPES

F. RE: SHEET A1.00 FOR EXTERIOR ELEVATION KEYING

G. ALL CMU WALLS ARE 8" UNLESS OTHERWISE SHOWN. ALL INTERIOR PARTITIONS ARE TYPE "D2" UNLESS OTHERWISE SHOWN.

H. PROVIDE PAPER TOWEL DISPENSER AND SOAP DISPENSER @ EACH SINK AND LAVATORY SHOWN OR NOT.

J. RE: DOOR AND FRAME SCHEDULES FOR LOCATIONS OF WINDOW BLINDS.

K. VERIFY LOCATIONS OF ALL ACCESSORIES AND MISC. ITEMS WITH OWNER PRIOR TO INSTALLATIONS.

L. RE: 08/A6.10 FOR SLIDING MB DETAIL.

M. ALL EXPOSED COLUMNS AND BEAMS BELOW 20' AFF TO BE COATED WITH INTUMESCENT FIREPROOFING WHETHER NOTED OR NOT. ALL OTHER COLUMNS AND BEAMS CONCEALED WITHIN FURR-OUTS AND CEILINGS SHALL BE FIREPROOFED WITH CEMENTITIOUS-SPRAYED FIREPROOFING.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

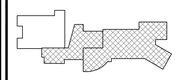
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

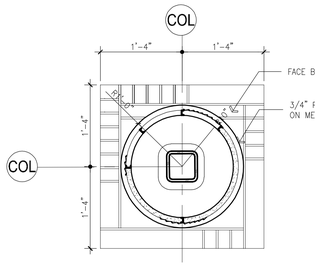
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

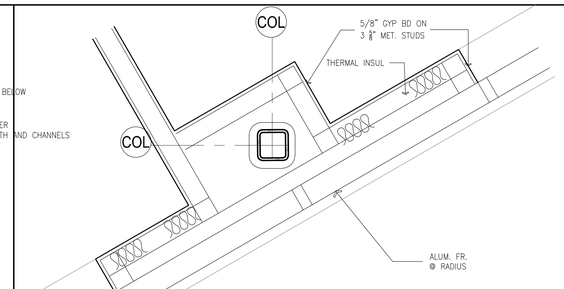
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	5 COH COMMENT 1
10/17/2025	6 COH COMMENT 2
10/24/2025	CSP

A2.05

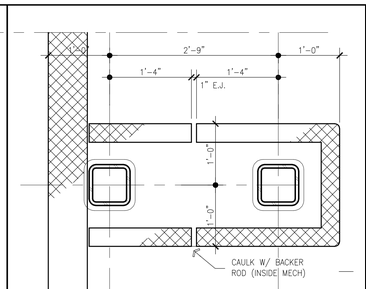
FLOOR PLAN
AREA B AND AREA C
SECOND FLOOR



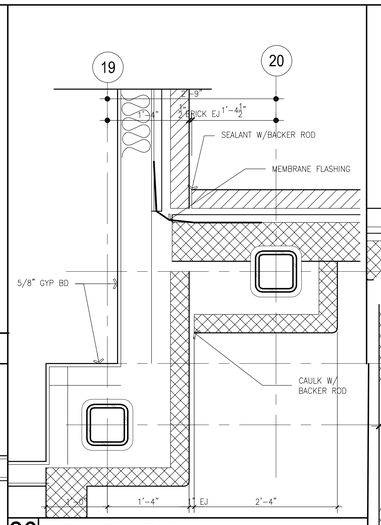
30 COLUMN PLAN 1" = 1'-0"



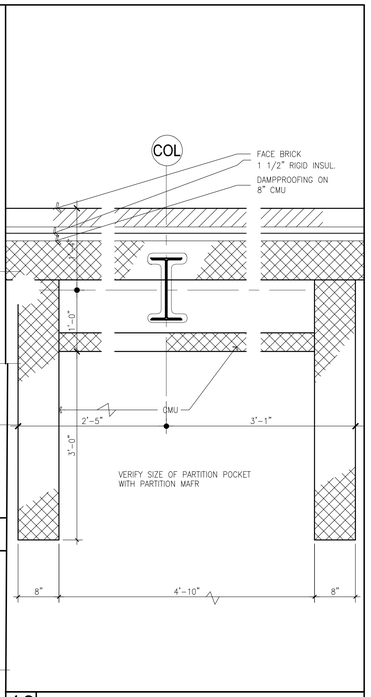
29 COLUMN PLAN 1" = 1'-0"



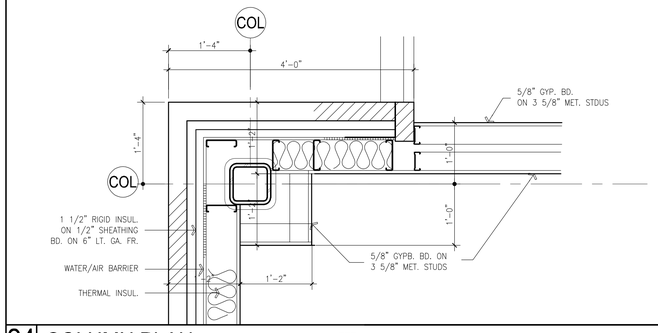
27 COLUMN PLAN 1" = 1'-0"



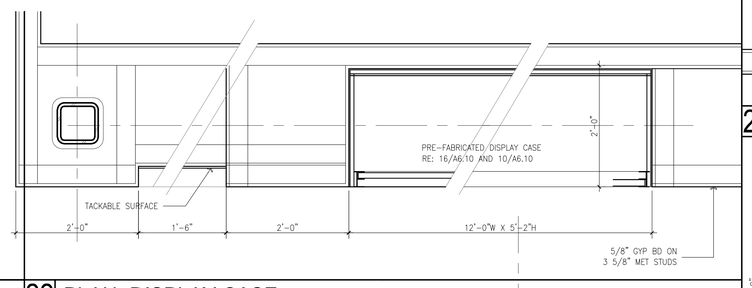
26 COLUMN PLAN 1" = 1'-0"



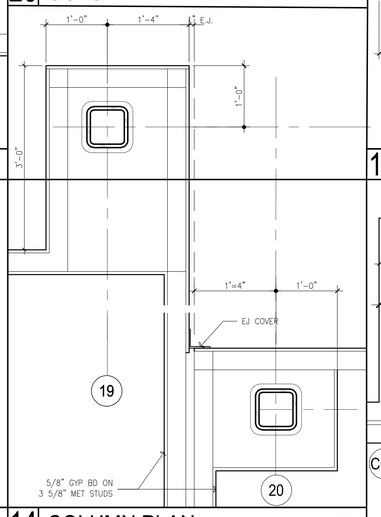
19 SECTION 1" = 1'-0"

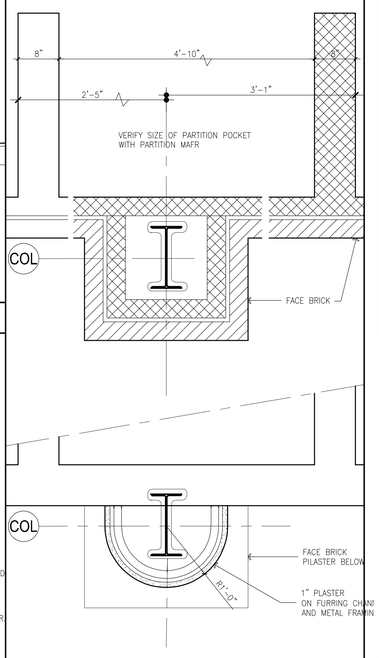


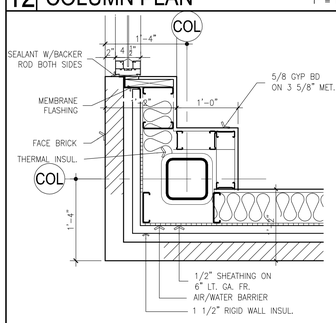
24 COLUMN PLAN 1" = 1'-0"



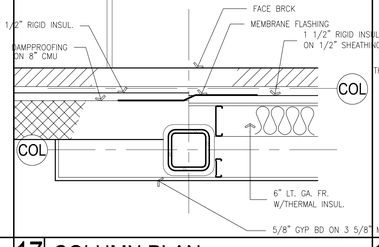
22 PLAN- DISPLAY CASE 1" = 1'-0"



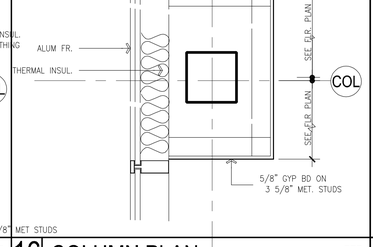




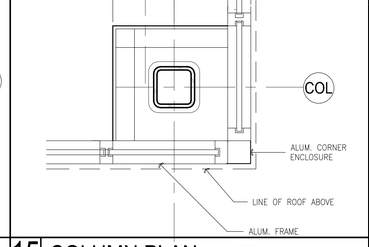
18 COLUMN PLAN 1" = 1'-0"



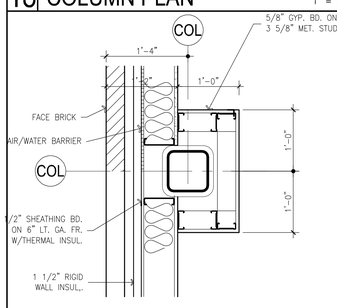
17 COLUMN PLAN 1" = 1'-0"



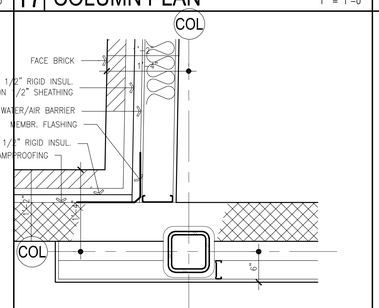
16 COLUMN PLAN 1" = 1'-0"



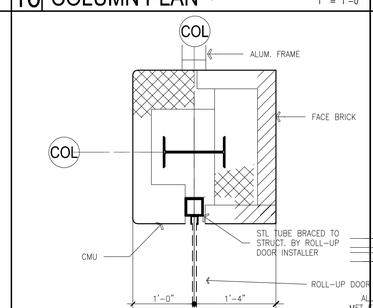
15 COLUMN PLAN 1" = 1'-0"



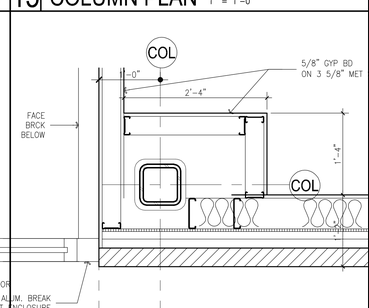
12 COLUMN PLAN 1" = 1'-0"



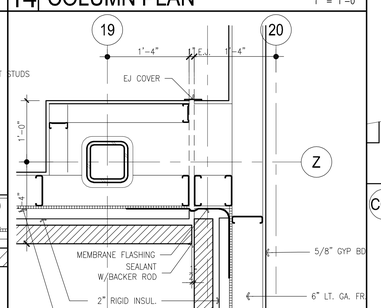
11 COLUMN PLAN 1" = 1'-0"



10 COLUMN PLAN 1" = 1'-0"



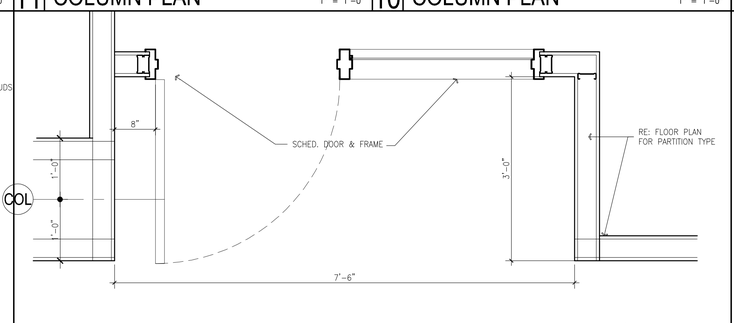
9 COLUMN PLAN 1" = 1'-0"



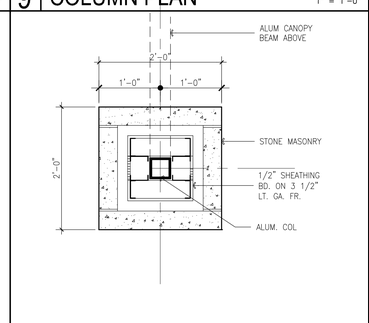
8 COLUMN PLAN 1" = 1'-0"

7 COLUMN PLAN 1" = 1'-0"

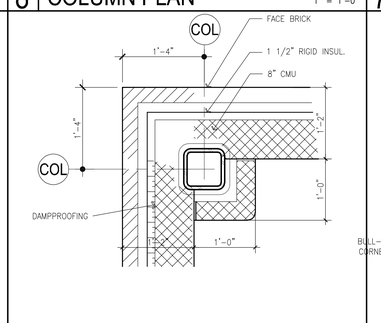
6 COLUMN PLAN 1" = 1'-0"



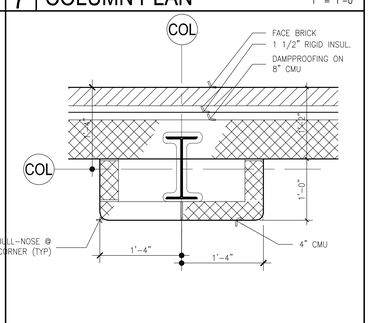
5 PLAN DETAIL-CL. RM. ENTRY 1'-0"



3 COLUMN PLAN 1" = 1'-0"



2 COLUMN PLAN 1" = 1'-0"



1 COLUMN PLAN 1" = 1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT SUSAN HOO CHU 19405 STATE OF TEXAS

10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	XXX
CHECKED	XXX

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A3.01

PLAN DETAILS

FINISH SCHEDULE - AREA "A" FIRST FLOOR & SECOND FLOOR

RM. NO.	ROOM NAME	FLOOR						BASE				WALL										CEILING					CEILING HEIGHT	REMARKS
		CARPET (CLASS 1)	LVT	CERAMIC TILE	RESINOUS FLOORING	TERRAZZO	SEALED CONCRETE	LINOLEUM FLOORING	4" RESILIENT BASE	CERAMIC TILE COVE	RESINOUS BASE	NONE	GYP. BD.-PAINT	C.M.U. - PAINTED	C.M.U. - EPOXY FINISH	CERAMIC WALL TILE	PORCELAIN WALL TILE	FACE BRICK	THIN BRICK	ACOUST. WALL PANELS (CLASS A)	ACOUST.BD.TYPE A (CLASS A)	ACOUST.BD.TYPE B (CLASS A)	PAINTED GYP BD	EXPOSED STRUCT.	SUSPEND ACOUS. CLOUDS(CLASS A)		
A101	1ST. GRADE		●					●	●				●									●					9'-4"	
A102	1ST. GRADE		●					●	●				●									●					9'-4"	
A103	1ST. GRADE		●					●	●				●									●					9'-4"	
A104	1ST. GRADE		●					●	●				●									●					9'-4"	
A105	1ST. GRADE		●					●	●				●									●					9'-4"	
A106	CORRIDOR	●						●				●	●				●					●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
A107	1ST. GRADE		●					●	●				●									●					9'-4"	
A108	1ST. GRADE		●					●	●				●									●					9'-4"	
A109	CORRIDOR							●				●	⊠				⊠					●					9'-4"	
A110	GIRLS				●			●			●					●	●					●					9'-4"	RE: SHT. A5.01 FOR DETAILS
A111	BOYS				●			●			●					●	●					●	●				9'-4"	RE: SHT. A5.01 FOR DETAILS
A112	CAMPUS SUPPORT	●						●	●				●									●					9'-4"	
A113	BEST		●					●	●				●									●					9'-4"	
A114	RESOURCE		●					●	●				●									●					9'-4"	
A115	MECH/ELEC					●						●	●												●		–	W/CONC. CURB
A115A	IDF		●						●				●									●					9'-4"	
A116	TEACHERS WORKRM		●						●				●									●					9'-4"	
A117	WORK SPACE	●							●				●									●					9'-4"	
A118	STOR		●						●				●									●					9'-4"	
A119	BOYS				●						●					●	●					●	●				9'-4"	RE: SHT. A5.01 FOR DETAILS
A120	CUST.		●						●				●									●					9'-4"	
A121	GIRLS				●						●					●	●					●	●				9'-4"	RE: SHT. A5.01 FOR DETAILS
A122	RR			●								●				●	●						●				9'-4"	
A123	CORRIDOR	●										●					●					●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
A124	RESOURCE		●						●				●									●					9'-4"	
A125	MUSIC		●						●				●									●					9'-4"	
A126	DANCE		●						●				●									●					9'-4"	
A127	BEST		●						●				●									●					9'-4"	
A128	SMALL GROUP							●					●				●					●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
A129	CORRIDOR							●					●				●					●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
A130	2ND GRADE		●						●				●									●					9'-4"	
A131	CORRIDOR	●											●				●					●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
A132	2ND GRADE		●						●				●									●					9'-4"	
A133	2ND GRADE		●						●				●									●					9'-4"	
A134	2ND GRADE		●						●				●									●					9'-4"	
A135	2ND GRADE		●						●				●									●					9'-4"	
A201	3RD GRADE		●						●				●									●					9'-4"	
A202	SMALL GROUP							●					●				●					●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
A203	3RD GRADE		●						●				●									●					9'-4"	
A204	3RD GRADE		●						●				●									●					9'-4"	
A205	3RD GRADE		●						●				●									●					9'-4"	
A206	3RD GRADE		●						●				●									●					9'-4"	
A207	CORRIDOR							●					●				●					●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
A208	3RD GRADE		●						●				●									●					9'-4"	
A209	4TH GRADE		●						●				●									●					9'-4"	
A210	SCIENCE		●						●				●									●					9'-4"	
A211	OFF/STOR		●						●				●									●					9'-4"	
A212	WORK SPACE	●							●				●									●					9'-4"	
A213	CORRIDOR							●					●				●					●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
A214	BOYS				●			●			●					●	●					●	●				9'-4"	RE: SHT. A5.01 FOR DETAILS
A215	GIRLS				●			●			●					●	●					●	●				9'-4"	RE: SHT. A5.01 FOR DETAILS
A216	CAMPUS SUPPORT	●							●				●									●					9'-4"	
A217	TEACHER' WORKRM.		●						●				●									●					9'-4"	
A218	MECH/ELEC						●						●												●			W/CONC. CURB
A219	(NOT USED)																											
A220	DLAC	●							●				●									●					9'-4"	
A221	STOR.		●						●				●									●					9'-4"	
A222	BOYS				●						●					●	●					●	●				9'-4"	RE: SHT. A5.01 FOR DETAILS
A223	GIRLS				●						●					●	●					●	●				9'-4"	RE: SHT. A5.01 FOR DETAILS
A224	CUST.		●						●				●									●					9'-4"	
A225	RR			●								●				●							●				9'-4"	
A226	IDF		●						●				●									●					9'-4"	
A227	RR			●								●				●							●				9'-4"	
A228	CORRIDOR							●				●	●				●					●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
A228A	SMALL GROUP							●				●	●				●					●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
A229	SMALL GROUP							●				●	●				●					●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
A230	4TH GRADE		●						●				●									●					9'-4"	
A231	4TH GRADE		●						●				●									●					9'-4"	
A232	4TH GRADE		●						●				●									●					9'-4"	
A233	4TH GRADE		●						●				●									●					9'-4"	
A234	5TH GRADE		●						●				●									●					9'-4"	
A235	STOR.		●						●				●									●					9'-4"	
A236	RESOURCE		●						●				●									●					9'-4"	
A237	5TH GRADE		●						●				●									●					9'-4"	
A238	5TH GRADE		●						●				●									●					9'-4"	
A239	5TH GRADE		●						●				●									●					9'-4"	
A240	5TH GRADE		●						●				●									●					9'-4"	
A241	CORRIDOR							●				●	●				●					●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
	STAIR #1																											RE: SHEET A5.02 FOR FINISHED AT STAIRS
	STAIR #2																											RE: SHEET A5.02 FOR FINISHED AT STAIRS
	STAIR #3																											RE: SHEET A5.02 FOR FINISHED AT STAIRS

● MATERIAL AND FINISH APPLY TO ALL SURFACES

⊠ MATERIAL FINISH APPLIED ON SURFACE BY QUADRANT SHADED QUADRANT ORIENTATION SAME AS FLOOR PLAN

FINISH SCHEDULE - AREA "B"

RM. NO.	ROOM NAME	FLOOR						BASE				WALL										CEILING					CEILING HEIGHT	REMARKS
		CARPET (CLASS I)	LVT	CERAMIC TILE	QUARRY TILE	TERRAZZO	SEALED CONCRETE	LINOLEUM FLOORING	4" RESILIENT BASE	CERAMIC TILE COVE	QUARRY TILE	NONE	QUARRY TILE:	GYP. BD.-PAINT	C.M.U. - PAINTED	C.M.U. - EPOXY FINISH	CERAMIC WALL TILE	PORCELAIN WALL TILE	FACE BRICK	THINK STONE MASONRY	ACOUST. WALL PANELS (CLASS A)	ACOUST.BD.TYPE A (CLASS A)	ACOUST.BD.TYPE B (CLASS A)	PAINTED GYP BD	EXPOSED STRUCT.			
B101	CORRIDOR							●				●		⊠				⊠				●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
B102	SMALL GROUP		●						●					●								●					9'-4"	
B103	STOR.		●						●					●								●					9'-4"	
B104	LRC	●							●					●								●						RE: RCP FOR CEILING HTS.
B104A	MAKER SPACE							●	●					●								●					16'-0"	
B105	MC COMPUTER	●												●								●						
B106	LGI	●							●					●								●					9'-4"	
B107	TECH WORK		●						●					●								●					9'-4"	
B108	MDF		●						●					●								●					9'-4"	
B109	ART		●						●					●								●					9'-4"	
B110	KILN						●		●					●								●					9'-4"	
B111	STOR.		●						●					●								●					9'-4"	
B112	CUST.		●						●					●								●					9'-4"	
B113	ART		●						●					●								●					9'-4"	
B114	OFFICE		●						●					●								●					9'-4"	
B115	EXAM		●						●					●								●					9'-4"	
B116	EXAM		●						●					●								●					9'-4"	
B117	RECEPTION		●						●					●								●					9'-4"	
B118	RR			●						●							●						●				9'-4"	
B119	STOR.		●						●					●								●					9'-4"	
B120	CORRIDOR							●				●		●				●				●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
B121	CORRIDOR					●						●		⊠	⊠			●				●					9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
B122	OFFICER		●						●					●								●					9'-4"	
B123A	RR			●						●							●						●				9'-4"	
B123	MECH						●		●					●											●			
B124	ELEC.						●		●					●											●			
B125	ELEC.						●		●					●											●			
B126	BOILER ROOM						●		●							●									●			
B127	UTILITY RM.		●						●					●								●					9'-4"	
B128	OFFICE		●						●					●								●					9'-4"	
B129	LOCKERS		●						●							●						●					9'-4"	
B130	RR			●						●							●						●				9'-4"	
B131	KITCHEN				●						●					●							●				9'-4"	
B132	SERVERY				●	●					●			⊠		⊠	⊠						●				9'-4"	
B133	WASHWARE				●						●					●							●				9'-4"	
B134	DRY STOR.				●						●			●									●				9'-4"	
B135	MAIN STREET					●								●				⊠	⊠	◪		●					20'-0"	
B136	GENERAL OFFICE	●							●					●								●					9'-4"	
B137	RR					●				●							●						●				9'-4"	
B138	CLINIC		●						●					●								●					9'-4"	
B139	NURSE		●						●					●								●					9'-4"	
B140	ISOLATION		●						●					●								●					9'-4"	
B141	RR																●										9'-4"	RESINOUS FLOOR AND BASE
B142	OFFICE	●							●					●								●					9'-4"	
B143	SPEECH	●							●					●								●					9'-4"	
B144	DIAG.	●							●					●								●					9'-4"	
B145	COUNS.	●							●					●								●					9'-4"	
B146	WORKROOM		●						●					●								●					9'-4"	
B147	MECH/ELEC.						●		●					●											●		9'-4"	W/CONC. BASE
B146A	IDF		●						●					●								●					9'-4"	
B148	RR			●						●							●						●				9'-4"	
B149	RR			●						●							●						●				9'-4"	
B150	RECORDS		●						●					●								●					9'-4"	
B151	HALL	●							●					●								●					9'-4"	
B152	INTERV.	●							●					●								●					9'-4"	
B153	SPED CLERK	●							●					●								●					9'-4"	
B154	SPED CONF.	●							●					●								●					9'-4"	
B155	RR					●				●							●						●				9'-4"	
B156	CLOSET	●							●					●								●					9'-4"	
B157	PRINCIPAL	●							●					●								●					9'-4"	
B158	SEC.	●							●					●								●					9'-4"	
B159	CONF.	●							●					●								●					9'-4"	
B160	ITENERANT	●							●					●								●					9'-4"	
B161	A.P.	●							●					●								●					9'-4"	
B162	OFFICE	●							●					●								●					9'-4"	
B163	REGISTRAR	●							●					●								●					9'-4"	
B164	HALL	●							●					●									●				9'-4"	

● MATERIAL AND FINISH APPLY TO ALL SURFACES

⊠ MATERIAL FINISH APPLIED ON SURFACE BY QUADRANT SHADED QUADRANT ORIENTATION SAME AS FLOOR PLAN

INTERIOR WALL AND CEILING FINISH CLASSIFICATIONS

INTERIOR EXIT STAIRS	CORRIDORS	ROOMS
B OR BETTER	C OR BETTER	C OR BETTER

INTERIOR FLOOR FINISH CLASSIFICATIONS

CLASS II OR BETTER

IN ROOM B133 WASHWARE AND ALL WALLS @ HAND LAVATORIES SHALL BE CMU, BLOCK FILLED AND SEALED TO SMOOTH, NON-ABSORBENT AND EPOXY PAINT IN LIGHT COLORS, 40% OR GREATER LRV.
SERVERY B132 NORTH AND SOUTH WALLS ARE CERAMIC WALL TILES.
B131 KITCHEN, B132 SERVERY, B133 WASHWARE AND B134 DRY STOR ARE SCHEDULED TO HAVE TYPE B CEILING WHICH IS EQUAL TO ARMSTRONG CLEANROOM VL

GENERAL NOTES:

A. SEE SHEET A3.03 FOR COLOR SCHEDULE

B. ALL CARPET IS TYPE "A" UNLESS OTHERWISE NOTED ON DRAWINGS

C. ALL TERRAZZO FLOOR IS COLOR TERR-1 UNLESS OTHERWISE NOTED ON DRAWINGS.

D. ALL LINOLEUM FLOORING IS COLOR LNL-1 UNLESS OTHER WISE NOTED ON DRAWINGS.

E. ALL CERAMIC FLOOR TILE ON FIRST FLOOR IS MUD SET; CERAMIC FLOOR TILE ON SECOND FLOOR IS THIN SET.

F. ALL PORCELAIN WALL TILE IN CORRIDORS SHALL BE IN COLOR/PATTERN SHOWN AT 24/A7.04

G. ALL PAINT IS COLOR P-1 UNLESS OTHERWISE NOTED.

H. PAINT ALL HMF/HMD IN SW7659 GRIS

CONSULTANTS

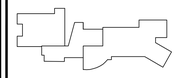
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A3.02

ROOM FINISH SCHEDULES

FINISH SCHEDULE - AREA "C"

RM. NO.	ROOM NAME	FLOOR: CARPET (CLASS I)	FLOOR: LVT	FLOOR: CERAMIC TILE	FLOOR: RESINOUS FLOORING (CLASS I)	FLOOR: TERRAZZO	FLOOR: SEALED CONCRETE	FLOOR: LINOLEUM FLOORING	BASE: 4" RESILIENT BASE	BASE: CERAMIC TILE COVE	BASE: RESINOUS BASE	BASE: NONE	WALL: GYP. BD.-PAINT	WALL: C.M.U. - PAINTED	WALL: C.M.U. - EPOXY FINISH	WALL: CERAMIC WALL TILE	WALL: PORCELAIN WALL TILE	WALL: FACE BRICK	WALL: THIN STONE	WALL: ACOUST. WALL PANELS	CEILING: ACOUST. BD. TYPE A (CLASS A)	CEILING: ACOUST. BD. TYPE B (CLASS A)	CEILING: PAINTED GYP BD	CEILING: EXPOSED STRUCT.	CEILING HEIGHT	REMARKS
																										● MATERIAL AND FINISH APPLY TO ALL SURFACES ⊗ MATERIAL FINISH APPLIED ON SURFACE BY QUADRANT SHADED QUADRANT ORIENTATION SAME AS FLOOR PLAN
C101	FOYER	●																			●					TYPE B CARPET
C102	(NOT USED)																									
C103	TEACHERS' LOUNGE		●						●				●								●				9'-4"	
C104	BOYS				●						●						●				●				9'-4"	
C105	GIRLS				●						●						●				●				9'-4"	
C106	PK	●	●						●				●								●				9'-4"	
C107	RR				●						●						●				●				9'-4"	
C108	PK	●	●						●				●								●				9'-4"	
C109	PK	●	●						●				●								●				9'-4"	
C110	RR				●						●						●				●				9'-4"	
C111	KINDERGARTEN	●	●						●				●								●				9'-4"	
C112	CORRIDOR					●							●					●			●				9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
C113	KINDERGARTEN	●	●						●				●								●				9'-4"	
C114	RR				●						●						●				●				9'-4"	
C115	KINDERGARTEN	●	●						●				●								●				9'-4"	
C116	KINDERGARTEN	●							●				●								●				9'-4"	
C117	RR				●						●						●				●				9'-4"	
C118	KINDERGARTEN	●	●						●				●								●				9'-4"	
C119	KINDERGARTEN	●	●						●				●								●				9'-4"	
C120	RR				●						●						●				●				9'-4"	
C121	CORRIDOR							●				●	●					●			●				9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
C122	STRUCT. LIFE SKILL		●						●				●								●				9'-4"	
C123	CHANGE RM.				●						●						●				●				9'-4"	CERAMIC TILE FLOOR AND WALL @ SHOWER
C124	RR				●						●						●				●				9'-4"	
C125	STRUCT. LIFE SKILL		●						●				●								●				9'-4"	
C126	STRUCT. CR		●						●				● ⊗	⊗							●				9'-4"	
C127	CORRIDOR					●							⊗ ●	⊗				●			●				9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
C128	MUSIC		●						●				●								●				9'-4"	
C129	RR			●							●						●					●			9'-4"	
C130	STOR.		●						●					●							●				9'-4"	
C131	IDF		●						●					●							●				9'-4"	
C132	MECH.						●		●					●										●		
C133	STOR.		●						●					●							●				9'-4"	
C134	PLATFORM		●						●					●										●		
C135	PE OFFICE		●						●					●							●				9'-4"	
C136A	RAMP		●						●					●							●				12'-0"	
C136B	RAMP		●						●					●							●				12'-0"	
C137	CORRIDOR					●							●					●							9'-4"	PORCELAIN WALL TILE TO 4'-4" AFF
C138	MAIN STREET							●					●						⊗	⊗ ●				●	20'-0"	
C139	PE								●					●	●				⊗	⊗				●		FLOORING- INDOOR RESIL ATHLETIC FLOORING
C140	CAFETERIA							●						●	●				⊗		●			●		
C201	MECH						●							●										●		

INTERIOR WALL AND CEILING FINISH CLASSIFICATIONS

INTERIOR EXIT STAIRS	CORRIDORS	ROOMS
B OR BETTER	C OR BETTER	C OR BETTER

INTERIOR FLOOR FINISH CLASSIFICATIONS

CLASS II OR BETTER

MATERIAL/COLOR SCHEDULE

SPECIFICATION #	COLOR LEGEND	MATERIAL	MANUFACTURER	COLOR #	COLOR	LOCATIONS
042000		FACE BRICK A	CLOUDS CERAMICS		DOVE GREY	
042000		FACE BRICK B	KANSAS BRICK & TILE		MID GREY	
042000		FACE BRICK C	KANSAS BRICK & TILE		CHARCOAL	
042000		STONE MASONRY	ARRISCRAFT		SMOOTH TAN	
042000		THIN STONE MASONRY	ARRISCRAFT		SMOOTH TAN	
082113	PL-1	PLAM DOOR	WILSONART	#7986-38	PASADENA OAK	
093100	PWT-1	PORCELAIN WALL TILE	CROSSVILLE "ARGENT 2.0)	#A1401	WINTER GARDEN	FIELD COLOR 12"X24"
093100		PORCELAIN BULL NOSE	CROSSVILLE "ARGENT 2.0)	#A1401	WINTER GARDEN	
093100	PWT-2	PORCELAIN WALL TILE	CROSSVILLE "TWIN PEAK"	#WOWLXAB 312A	ARGENT BLUE	3"X12"
093100	PWT-3	PORCELAIN WALL TILE	CROSSVILLE "TWIN PEAK"	#WOWTPABMED	ARGENT BLUE	3"X12"
093100	PWT-4	PORCELAIN WALL TILE	CROSSVILLE "ARGENT 2.5"	#A1409	LEMON DROP	6"X24"
093100	PWT-5	PORCELAIN WALL TILE	CROSSVILLE "ARGENT 2.0)		CONCRETE JUNGLE	6"X24"
093100	CWT-1	CERAMIC WALL TILE	DALTILE "COLORMATCH"	#CU63	MATTE PEARL WHITE	FIELD COLOR 12"X24"
093100	CWT-2	CERAMIC WALL TILE	DALTILE "COLORMATCH"	#CU97	MATTE DAISY	4"X12"
093100	CWT-3	CERAMIC WALL TILE	DALTILE "COLORMATCH"	#CU143	MATTE ATLANTIS	4"X12"
093100		CERAMIC FLOOR TILE	DALTILE "KEYSTONE MOSAIC"	#D201	URBAN PUTTY SPECKLE	
093100	GT-1	GLASS MOSAIC TILE	DALTILE COLOR WAVE	#CW14	TWILIGHT BLUE	1"X6"
093100	GT-2	GLASS MOSAIC TILE	DALTILE COLOR WAVE	#CW34	LEMON POPSICLE	1"X1"
					LIGHT GREY	
096603	TERR-1	TERRAZZO			CHARCOAL	
096603	TERR-2	TERRAZZO			YELLOW	
096603	TERR-3	TERRAZZO			BLUE	
096603	TERR-4	TERRAZZO				
093170		QUARRY TILE	DALTILE		ARID GREY	
093170		QUARRY TILE GROUT			CAMEL BUFF (EPOXY)	
095200		ACOUSTICAL WALL PANELS	GILFORD	758	DESERT SAND	
096500		RESILIENT BASE			BLACK	
096519		LVT	TARKETT	C113	MOONLIGHT	
096543	LNL-1	LINOLEUM	MARMOLEUM	3888	STONE	
096543	LNL-2	LINOLEUM	MARMOLEUM	2939	BLACK	
096543	LNL-3	LINOLEUM	MARMOLEUM	795	BUTTER	
096543	LNL-4	LINOLEUM	MARMOLEUM	3030	BLUE	
096800	TYPE A	CARPET	TANDUS CENTIVA SYLLUBUS II	16506	BLUE SPIRIT	
096800	TYPE B	CARPET	TANDUS CENTIVA ABRASIVE ACTION	19100	CHARCOAL	
099000	P-1	PAINT	SHERWIN WILLIAMS	SW7000	IBIS WHITE	
099000	P-2	PAINT	SHERWIN WILLIAMS	SW6804	DIGNITY BLUE	
099000	P-3	PAINT	SHERWIN WILLIAMS	SW9151	HDAPHNE	
099000	P-4	PAINT	SHERWIN WILLIAMS	SW6905	GOLDINCH	
099000	P-5	PAINT	SHERWIN WILLIAMS	SW9014	POLLEN POWDER	
099000	P-6	PAINT	SHERWIN WILLIAMS	SW7509	TIKI HUT	
099000	P-7	PAINT	SHERWIN WILLIAMS	SW7659	TORIS	
122113		TOILET PARTITIONS			BLACK	
122355	PL-2	PLAM CASEWORK	WILSON ART	4990-38	FLAX LINEN	
122355	PL-3	PLAM CASEWROK	WILSON ART	4745-60	MAROOCHY BRUSH	
122355	PL-4	PLAM CASEWORK	WILSON ART	D25-60	ATLANTIS	

GENERAL NOTES:

A. SEE SHEET A3.03 FOR COLOR SCHEDULE

B. ALL CARPET IS TYPE "A" UNLESS OTHERWISE NOTED ON DRAWINGS

C. ALL TERRAZZO FLOOR IS COLOR TERR-1 UNLESS OTHERWISE NOTED ON DRAWINGS.

D. ALL LINOLEUM FLOORING IS COLOR LNL-1 UNLESS OTHER WISE NOTED ON DRAWINGS.

E. ALL CERAMIC FLOOR TILE ON FIRST FLOOR IS MUD SET; CERAMIC FLOOR TILE ON SECOND FLOOR IS THIN SET.

F. ALL PORCELAIN WALL TILE IN CORRIDORS SHALL BE IN COLOR/PATTERN SHOWN AT 24/A7.04

G. ALL GYP BD IN CORRIDORS SHALL HAVE 4'-4" H PWT WHETHER THEY ARE SHOWN OR NOT.

H. ALL PAINT IS COLOR P-1 UNLESS OTHERWISE NOTED.

J. PAINT ALL HMF/HMD IN SW7659 GRIS

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

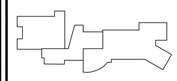
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT 23700 STATE OF TEXAS 2008

10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A3.03

ROOM FINISH SCHEDULES

DOOR SCHEDULE- AREA "A" FIRST FLOOR

MARK	DOOR SIZE W x H	DR ELEV	DR MATL	FRAME SIZE W x H	FR ELEV	FR MATL	DETAILS SILL	DETAILS JAMB	DETAILS HEAD	H.W.	FIRE RATING LABEL	REMARKS
A101	3'-0" X 7'-0"	D	PLAM	3'-3"X7'-1 1/2"	1	ALUM.	-	12/A6.10	12/A6.10	119		W/BLINDS
A102	3'-0" X 7'-0"	D	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	-	12/A6.10	12/A6.10	119		W/BLINDS
A103	3'-0" X 7'-0"	D	PLAM	3'-3"X7'-1 1/2"	1	ALUM.	-	12/A6.10	12/A6.10	119		W/BLINDS
A104	3'-0" X 7'-0"	D	LPLAM	3'-3"X7'-1 1/2"	1	ALUM.	-	12/A6.10	12/A6.10	119		W/BLINDS
A105	3'-0" X 7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM.	-	12/A6.10	12/A6.10	119		W/BLINDS
A106	(2) 3'-0"x7'-0"	A	ALUM	23'-11 1/2" X 23'-11 1/2"	P	ALUM.	10/A6.09	10/A6.09 SIM	6/A9.06	102	–	W/CARD ACCESS
106A	3'-0"x7'-0"	A	ALUM	23'-11 1/2" X 23'-11 1/2"	P	ALUM.	10/A6.09	10/A6.09SIM	16/A6.09	129.1	–	
A107	3'-0"x7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	119		W/BLINDS
A108	3'-0"x7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	119	–	W/BLINDS
A112	3'-0"x7'-0"	C	PLAM	6'-6""x7'-1 1/2"	2	ALUM.	12/A6.10	12/A6.10	12/A6.10	119		W/BLINDS
A113	3'-0"x7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS
A114	3'-0"x7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM.	–	12/A9.10	12/A9.10	119		W/BLINDS
A115	4'-–0" x 7'-0"	B	PLAM	4'-4" X 7'-2"	1	HM	–	24/A6.10	30/A6.10	132	–	
A115A	3'-0" x 7'-0"	B	PLAM	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	127		W/CARD ACCESS
A116	3'-0" x 7'-0"	C	PLAM	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS
A117	3'-0" x 7'-0"	C	PLAM	6'-6" x 7'-1 1/2"	2	ALUM.	12/A6.10	12/A6.10	12/A6.10	119	–	W/BLINDS
A118	3'-0" x 7'-0"	B	PLAM	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	120	–	
A120	4'-0" x 7'-0"	B	PLAM	4'-4" x 7'-2"	1	HM	–	24/A6.10	30/A6.10	112		
A122	3'-0"x7'-0"	b	PLAM	3'-3"x7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	121		
A123	(2) 3'-0"x7'-0"	A	ALUM	23'-11 1/2" x 23'11 1/2"	P	ALUM.	10/A6.09	10/A6.09SIM	16/A6.09	102		W/CARD ACCESS
A123A	3'-0"x7'-0"	A	ALUM	23'-11 1/2" x 23'11 1/2"	P	ALUM.	10/A6.09	10/A6.09SIM	16/A6.09	129.1		
A124	3'-0" x 7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	119		W/BLINDS
A125A	3'-0" x 7'-0"	D	PLAM	6'-6" x 7'-1 1/2"	2	ALUM.	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
A125B	3'-0" x 7'-0"	D	PLAM	6'-6" x 7/-1 1/2"	2	ALUM.	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
A126A	3'-0" x 7'-0"	D	PLAM	6'-6" x 7'-1 1/2"	2	ALUM.	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
A126B	3'-0" x 7'-0"	D	PLAM	6'-6" x 7'-1 1/2"	2	ALUM.	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
A127	3'-0"x7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	119		W/BLINDS
A130	3'-0"x7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM.		12/A9/10	12/A9.10	119		W/BLINDS
A131	(2)3'-0" X7'-0"	A	ALUM.	6'-6" X 9'-3 1/2"	M	ALUM.			24/A6.09	102		W/ACCESS CARD
A132	3'-0"x7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM.		12/A6/10	12/A6.10	119		W/BLINDS
A133	3'-0"x7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	119		W/BLINDS
A134	3'-0" x 7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	119	–	W/BLINDS
A135	3'-0" x 7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	119	–	W/BLINDS

DOOR SCHEDULE- AREA "A" SECOND FLOOR

MARK	DOOR SIZE W x H	DR ELEV	DR MATL	FRAME SIZE W x H	FR ELEV	FR MATL	DETAILS SILL	DETAILS JAMB	DETAILS HEAD	H.W.	FIRE RATING LABEL	REMARKS
A201	3'-0" x 7'-0"	D	ALUM	3'-3" x 7'-1 1/2"	1	ALUM.		12/a6.10	12/a6.10	119		W/BLINDS
A203	3'-0" x 7'-0"	D	PLAM	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119	–	W/BLINDS
A204	3'-0" x 7'-0"	D	PLAM	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119	–	W/BLINDS
A205	3'-0" x 7'-0"	D	PLAM	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119	–	W/BLINDS
A206	3'-0" x 7'-0"	D	PLAM	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119	–	W/BLINDS
A208	3'-0" x 7'-0"	D	PLAM	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119	–	W/BLINDS
A209	3'-0" x 7'-0"	D	PLAM	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119	–	W/BLINDS
A210A	3'-0" x 7'-0"	D	PLAM	6'-6" x 7'-1 1/2"	2	ALUM.	12/A6.10	12/A6.10	12/A6.10	134	–	W/BLINDS
A210B	3'-0" x 7'-0"	D	PLAM	6'-6" x 7'-1 1/2"	2	ALUM.	12/A6/10	12/A6.10	12/A6.10	134	–	W/BLINDS
A211	3'-0" x 7'-0"	D	PLAM	6'-6" x 7'-1 1/2"	2	ALUM.	12/A6.10	12/A6.10	12/A6.10	126	–	W/BLINDS
A212	3'-0x7'-0"	C	PLAM	6'-6" x 7'-1 1/2"	2	ALUM.	12/A6.10	12/A6.10	12/A6.10	119		W/BLINDS
A216	3'-0x7'-0"	C	PLAM	6'-6" x 7'-1 1/2"	2	ALUM.	12/A6.10	12/A6.10	12/A6.10	119	–	W/BLINDS
A217	3'-0x7'-0"	C	PLAM	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119	–	W/BLINDS
A218	4'-0" x 7'-0"	B	PLAM	4'-4" x 7'-2"	1	HM	–	24/A6.10	30/A6.10	108	–	
A219	NOT USED											
A220	3'-0x7'-0"	C	PLAM.	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119	–	W/BLINDS
A221	3'-0x7'-0"	B	PLAM.	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	128	–	W/CARD ACCESS
A224	3'-6"X7'-0"	B	PLAM	3'-10" X 7'-2"	1	HM	–	24/A6.10	30/A6.10	113		
A225	3'-0"X7'-0"	B	PLAM	3'-3" X 7'-2"	1	ALUM.	–	12/A6.10	12/A6.10	121		
A226	3'-0" x 7'-0"	B	PLAM	3'-3" x 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	127		W.CARD ACCESS
A227	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	121		
A230	3'-0" X 7'-0"	D	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS
A231	3'-0" X 7'-0"	D	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS
A232	3'-0" X 7'-0"	D	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS
A233	3'-0" X 7'-0"	D	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS
A234	3'-0" X 7'-0"	D	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS
A235	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	121		
A236	3'-0" X 7'-0"	D	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	–	12/A6.10	12.A6.10	119		W/BLINDS
A237	3'-0" X 7'-0"	D	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS
A238	3'-0" X 7'-0"	D	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS
A239	3'-0" X 7'-0"	D	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS
A240	3'-0" X 7'-0"	D	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS

DOOR SCHEDULE- AREA "B

		DR ELEV	DR MATL	FRAME SIZE W x H	FR ELEV	FR MATL	DETAILS SILL	DETAILS JAMB	DETAILS HEAD			
B101A	(2) 3"-0" X 7'-0"	A	ALUM.	9'-3 1/2" X 9'-3 1/2"	L	ALUM.	–	24/A3.01	16/A6.10SIM	102		W/CARD ACCESS
B102A	3'-0" x 7'-0"	B	PLAM	3'-3" x 7'- 1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		
B102B	3'-0" x 7'-0"	D	PLAM	3'-3" x'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	119		
B103A	3'-0" x 7'-0"	B	PLAM	3'-3" x'- 7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	120		
B103B	3'-0" x 7'-0"	B	PLAM	3'-3" x'-7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	120		
B104A	(2) 3'-0"x7'-0"	D	PLAM	6'-3" x 9'-4"	6	ALUM.	–	12/A6.10	12/A6.10	103	–	
B104B	(2) 3'-0" X 7'-0"	A	ALUM.	25"-3 1/2" X 15'-11 1/2"	B	ALUM.	–		27/A6.19	102	–	
B105A	3'-0" x 7'-0"	D	PLAM	6'-6" x 7'-1 1/2"	2	ALUM.	–	12/A6.10	12/A6.10	134	–	W/BLINDS
B105B	3'-0" X 7'-0"	A	ALUM.	3'-4" X 9'-3 3/4"	M	ALUM.	–			129		W/CARD ACCESS
B106A	3'-0" x 7'-0"	D	PLAM.	6'-6" x 7'-1 1/2"	2	ALUM.	–	12/A6.10	12/A6.10	134		W/BLINDS
B106B	3'-0" X 7'-0"	A	ALUM.	3'-4" X 9'-3 3/4"	M	ALUM.	–			129		W/CARD ACCESS
B107	3'-0" X 7'-0"	C	ALUM.	3'-3" x 7'-1 1/2"		ALUM.	–	12/A6.10	12/A6.10	119		
B108	3'-0" X 7'-0"	B	ALUM.	3'-3" x 7'-1 1/2"		ALUM.	–	12/A6.10	12/A6.10	127		W/CARD ACCESS
B109A	3'-0" X 7'-0"	D	ALUM.	6'-6" x 7'-1 1/2"	2	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS
B109B	3'-0" X 7'-0"	A	ALUM.	3'-4" X 9'-3 3/4"	M	ALUM.	–			129		W/CARD ACCESS
B110A	3'-0" X 7'-0"	B	PLAM	3'-3"X7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	117		
B110B	3'-0" X 7'-0"	B	PLAM	3'-3"X7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	117		
B111A	3'-0" X 7'-0"	B	PLAM	3'-3"X7'-1 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	118		
B111B	3'-0" X 7'-0"	B	PLAM	3'-3"X7'-1 1/2"	1	ALUM.	–	12/A6.10	AS/16.10	118		
B112	4'-0" X 7'-0"	B	PLAM	4'-4"X7'-2"	1	HM	–	24/A6.10	30/A6.10	112		
B113A	3'-0" X 7'-0"	D	PLAM	6'-6"X7'-1 1/2"	2	ALUM.	–	12/A6.10	12/A6.10	119		W/BLINDS
B113B	3'-0" X 7'-0"	A	ALUM.	3'-4" X 9'-3 1/2"		ALUM.	–	12/A6.10	12/A6.10	129		W/CARD ACCESS
B114	3'-0" X 7'-0"	C	PLAM	3'-3" X 7'-3 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	126		
B115	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-3 1/2"	1	ALUM.	–	12/A6.10	AS/16.10	124		
B116	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-3 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	124		
B117A	3'-0" X 7'-0"	A	ALUM	6'-5 1/2"X9'-3 1/2"	D	ALUM.	–			129		W/CARD ACCESS
B117B	3'-0" X 7'-0"	B	PLAM	3'-3"X7'-3 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	128		CARD ACCESS @ RECEPTION SIDE
B118	3'-0" X 7'-0"	B	PLAM	3'-3"X7'-3 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	109		
B119	3'-0" X 7'-0"	B	PLAM	3'-3"X7'-3 1/2"	1	ALUM.	–	12/A6.10	12/A6.10	120		

DOOR SCHEDULE- AREA "B"

MARK	DOOR SIZE W x H	DR ELEV	DR MATL	FRAME SIZE W x H	FR ELEV	FR MATL	DETAILS SILL	DETAILS JAMB	DETAILS HEAD	HW	FIRE RATING LABEEL	REMARKS
B120	3'-0" X7'-0"	A	ALUM.	6'-10 1/2" X 9'-3 1/2"	D	ALUM			16/A6.09	130		W/CARD ACCESS
B121	3'-0" 7'-0"	D	ALUM.	6'-6" X 9'-3 1/2"	6	ALUM		12/A6.10	12/A6.10	133		W/CARD ACCESS
B122	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-2"	2	ALUM		12/A6.10	12/A6.10	119		W/BLINDS
B123	4'-0" X 7'-0"	B	PLAM	4'-4" X 7'-2"	1	HM				112		
A123A	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	121		
B124	3'-0" X 7'-0"	B	PLAM	3'-4" X 7'-2"	1	HM		23/A6.10	29/A6.10	112		
B125A	(2)3'-0" X 7'-0"	B	HM	6'-4" X 7'-2"	1	HM		22/A6.10	28/A6.10	104		
B125B	3'-0" X 7'-0"	B	HM	3'-4" X 7'-2"	1	HM		23/A6.10	29/A6.10	112		
B126A	4'--0" X 7'-0"	B	HM	4'-4" X 7'-2"	1	HM		22/A6.10	28/A6.10	111		
B126B	3'-0" X 7'-0"	B	HM	3'-4" X 7'-2"	1	HM		23/A6.10	29/A6.10	112		
B127	3'-0" X 7'-0"	B	HM	3'-4" X 7'-2"	1	HM		23/A6.10	29/A6.10	113		
B128	3'-0" X 7'-0"	D	HM	3'-4" X 7'-2"	1	HM		23/A6.10	29/A6.10	110		W/BLINDS
B129	3'-0" X 7'-0"	B	PLAM	3'-4" X 7'-2"	1	HM		23/A6.10	29/A6.10	114		
B130	3'-0" X 7'-0"	B	PLAM	3'-4" X 7'-2"	1	HM		23/A6.10	29/A6.10	109		
B131	4'-0" X 7'-10	B	HM	4'4" X 8'-0"	1	HM				116		W/CARD ACCESS
B132A	3'-6" X 7'-0"	D	PLAM	18'-0" X 9'04"	H	ALUM				119		
B132B	3'-0" X 7'-0"	D	PLAM	18'-0" X 9'-4"	H	ALUM				119		
B134	3'-0" X 7'-0"	B	PLAM	3'-4" X 7'-2"	1	HM		23/A6.10	29/A6.10	113		
B136A	3'-0" X 7'-0"	D	PLAM	15'-10" X 9'-4"	K	ALUM				128		W/ACCESS CARD
B136B	3'-0" X 7'-0"	D	PLAM	9'-8" X 9'-4"	F	ALUM.				127		W/ACCESS CARD
B136C	3'-0" X 7'-0"	C	PLAM	3'-3"X7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	128		W/ACCESS CARD
B137	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	106		
B138A	3'-6" X 7'-0"	B	PLAM	3'-9" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	119		
B138B	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	119		
B139	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	125		
B140	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10123			
B141	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	109		
B142	3'-0" X 7'-0"	C	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	126		
B143	3'-0" X 7'-0"	D	PLAM	6'-6"" X 7'-1 1/2"	2	ALUM		12/A6.10	12/A6.10	119		W/BLINDS
B144	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM		12/A6.10	12/A6.10	119		W/BLINDS
B145	3'-0" X 7'-0"	D	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	119		
B146	3'-0" X 7'-0"	C	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	119		
B146A	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	127		W/ACCESS CARD
B147	4'-0" X 7'-0"	B	PLAM	4'-4" X 7'-2"	1	HM		24/A6.10	30/A6.10	135		
B148	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-"1 1/2	1	ALUM		12/A6.10	12/A6.10	109		
B149	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	109		
B150	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	128		W/ACCESS CARD
B151	3'-0" X 7'-0"	C	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	127		W/ACCESS CARD
B152	3'-0"X7'-0"	D	PLAM	6'-6" X7'-1 1/2"	2	ALUM				126		W/BLINDS
B153	3'-0" X 7'-0"	C	PLAM	3'-3" X 7'-"1 1/2	1	ALUM		12/A6.10	12/A6.10	126		W/BLINDS
B154	3'-0" X 7'-0"	C	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	110		
B155	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	109		
B156	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	120		
B157A	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	126		
B157B	3'-0"X7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	126		
B158	3'-0" X 7'-0"	C	PLAM	3'-3" X 7'-"1 1/2	1	ALUM		12/A6.10	12/A6.10	126		W/BLINDS
B159	3'-0" X 7'-0"	C	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	126		W/BLINDS
B160	3'-0" X 7'-0"	C	PLAM	3'-3" X 7'-1 1/2"	1	ALUM.		12/A6.10	12/A6.10	126		W/BLINDS
B161	3'-0" X 7'-0"	C	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	126		
B162	3'-0"X7'-0"	C	PLAM	3'-3" X 7'-1 1/2"	1	ALUM		12/A6.10	12/A6.10	126		W/BLINDS
B163	3'-0" X 7'-0"	C	PLAM	3'-3" X 7'-"1 1/2	1	ALUM		12/A6.10	12/A6.10	126		W.BLINDS

DOOR SCHEDULE- AREA "C"

		DR ELEV	DR MATL	FRAME SIZE W x H	FR ELEV	FR MATL	DETAILS SILL	DETAILS JAMB	DETAILS HEAD			
C101A	(2)3'-0" X 7'-0"	A	ALUM.	16'-11 1/2" X 9'-3 1/2"	J	ALUM	–			102		W/CARD ACCESS
C101B	(2)3'-0" X 7'-0"	A	ALUM.	16-11 1/2" X 9'-3 1/2"	J	ALUM	–			102.1		
C101C	(2)3'-0"X7'-0"	N	ALUM.	17'-0" X 12'-0"	N	ALUM.				102		
C101D	(2)3'-0" X 7'-0"	A	ALUM.	17'-0" X 12'-0"	N	ALUM				102.1		
C103	3'-0" X 7'-0"	B	PLAM	3'-3"x7'-1 1/2"	1	ALUM	–	12/A6.10	12/A6.10	119		
C106A	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C106B	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C107A	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM	–	12/A6.10	12/A6.10	117		
C107B	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM	–	12/A6.10	12/A6.10	117		
C108A	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C108B	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C109A	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C109B	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C110A	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM	–	12/A6.10	12/A6.10	117		
C110B	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM	–	12/A6.10	12/A6.10	117		
C111A	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C111B	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C112	(2)3'-0" X 7'-0"	A	ALUM.	7'-11 1/2" X 9'-3 1/2"	D	ALUM	–			102		W/CARD ACCESS
C113A	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134	–	W/BLINDS
C113B	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C114A	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM	–	12/A6.10	12/A6.10	117		
C114B	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM	–	12/A6.10	12/A6.10	117		
C115A	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C115B	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C116A	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C116B	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C117A	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM	–	12/AA6.10	12/A6.10	117		
C117B	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM	–	12/A6.10	12/A6.10	117		
C118A	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C118B	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C119A	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	2/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C119B	3'-0" X 7'-0"	D	PLAM	6'-6" X 7'-1 1/2"	2	ALUM	12/A6.10	12/A6.10	12/A6.10	134		W/BLINDS
C120	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-11 1/2"	1	ALUM	–	12/A6.10	12/A6.10	117		
C121	(2)3'-0" X 7'-0"	A	ALUM	7'-3 1/2" X 9'-3 1/2"		ALUM	–			102		W/CARD ACCESS
C122	3'-0" X 7'-0"	D	PLAM	3'-3"x7'-1 1/2"	1	ALUM	–	5/A9.03	5/A9.03	23		W/BLINDS
C123A	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM	–			109		
C123B	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM	–			109		
C124A	3'-0" X 7'-0"	B	PLAM	3'-3" X 7'-1 1/2"	1	ALUM	–			117

WINDOW SCHEDULE -AREA "A" FIRST FLOOR

MARK	FRAME SIZE W x H	WNDW ELEV	FR MAT'L	DETAILS SILL	DETAILS JAMB	DETAILS HEAD	REMARKS
A101A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01	24/A6.09	W/BLINDS
A101B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01	24/A6.09	W/BLINDS
A101C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A102A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01	24/A6.09	W/BLINDS
A102B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A102C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A103A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01	24/A6.09	W/BLINDS
A103B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01	24/A6.09	W/BLINDS
A103C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A104A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01	24/A6.09	W/BLINDS
A104B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3,01	24/A6.09	W/BLINDS
A104C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A105A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01	24/A6.09	W/BLINDS
A105B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01	24/A6.09	W/BLINDS
A105C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A106	3'-11 1/2" X 3'-11 1/2"	S	ALUM	2/A6.09	2/A6.09	2/A6.09	
A107A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A107B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A107C	8'-0" X 3'-10"	B	ALUM	12/A6.10	12/A6.10	12/A6.10	
A108A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A108B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A108C	8'-0" X 3'-10"	B	ALUM	12/A6.10	12/A6.10	12/A6.10	
A112	6'-0" X 3'-10"	4	ALUM	6/A9.02	6/A9.02	6/A9.02	W/BLINDS
A113	8'-0" X 3-10"	4	ALUM	6/A9.02	6/A9.02	6/A9.02	
A114	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A116	6'-6" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	W/BLINDS
A123	3'-11 1/2" X 3'-11 1/2"	S	2/A6.09	2/A6.09	2/A6.09		
A124A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A124B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A124C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A125A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A125B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A127	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A130A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A130B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A130C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A132A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A132B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A132C	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A133A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A133B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A133C	4'-0" X 3'-10"	3	ALUM	12/A6.10	12/A6.10	12/A6.10	
A134A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A134B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A134C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A135A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A135B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS

WINDOW SCHEDULE -AREA "A" SECOND FLOOR

MARK	FRAME SIZE W x H	WNDW ELEV	FR MAT'L	DETAILS SILL	DETAILS JAMB	DETAILS HEAD	REMARKS
A201A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A201B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A201C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A203A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A203B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A203C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A204A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A204B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A204C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A205A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A205B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A205C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A206A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A206B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A206C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A208A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A208B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A208C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A209A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A209B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A209C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A210	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A216	6'-6" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A217	6'-6" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A228A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A228B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A230A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A230B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A230C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A231A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A231B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A231C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A232A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A232B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A232C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A233A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A233B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A233C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A234A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A234B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A234C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A236A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A236B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A236C	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A237A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A237B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A237C	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A238A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A238B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A238C	4'-0" X 3'-10"	3	ALUM	12/A6.10	12/A6.10	12/A6.10	
A239A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A239B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A239C	8'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
A240A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS
A240B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	6/A3.01SIM	24/A6.09	W/BLINDS

WINDOW SCHEDULE -AREA "C" SECOND FLOOR

MARK	FRAME SIZE W x H	WNDW ELEV	FR MAT'L	DETAILS SILL	DETAILS JAMB	DETAILS HEAD	REMARKS
B101	14'-3 1/2" X 9'-3 1/2"	C	ALUM	18/A6.09	6/A3.01SIM	23/A6.09	
B102A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
B102B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
B104A	9'-8" X 9'-4"	5	ALUM		12/A6.10	12/A6.10	
B104B	9'-8" X 9'-4"	5	ALUM		12/A6.10	12/A6.10	
B104C	9'-8" X 9'-4"	5	ALUM		12/A6.10	12/A6.10	
B102D	3'-11 1/2" X 3'-11 1/2"	T	ALUM				
B102E	3'-11 1/2" X 3'-11 1/2"	T	ALUM				
B102F	3'-11 1/2" X 3'-11 1/2"	T	ALUM				
B102G	3'-11 1/2" X 3'-11 1/2"	T	ALUM				
B102H	3'-11 1/2" X 3'-11 1/2"	T	ALUM				
B102J	3'-11 1/2" X 3'-11 1/2"	T	ALUM				
B102K	3'-11 1/2" X 3'-11 1/2"	T	ALUM				
B105A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
B105B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
B106A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
B106B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
B107	6'-6" X 3/-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	W/BLINDS
B109A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
B109B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
B113A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
B113B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
B114	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
B117	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
B128	4'-0"X3'-10"	3	HM	23/A6.10SIM	23/A6.10	29/A6.10	W/BLINDS
B135A	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
B135B	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.08	8/A6.09SIM	24/A6.09	
B135C	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
B135D	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
B135E	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A.09SIM	24/A6.09	
B139	6'-6" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	W/BLINDS
B154	9'-11 1/2" X 5'-11 1/2"	E	ALUM	18/A6.09SIM	6/A3.01SIM	23/A6.09	W/BLINDS
B157	9'-11 1/2" X 5'-11 1/2"	E	ALUM	18/A6.09SIM	6/A3.01SIM	23/A6.09	W/BLINDS
B160	94'-3" X 5'-11 1/2"	G	ALUM	18/A6.09SIM	6/A3.01SIM	23/A6.09	W/BLINDS

WINDOW SCHEDULE -AREA "C"

MARK	FRAME SIZE W x H	WNDW ELEV	FR MAT'L	DETAILS SILL	DETAILS JAMB	DETAILS HEAD	REMARKS
C101A	20'-0" X 5'-6"	U	ALUM				
C101B	22'-0" X 5'-6"	V	ALUM				
C103A	3'-11 1/2" X 5'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C103B	3'-11 1/2" X 5'-11 1/2"	T	ALUM	8/A6.09	8/A7.09SIM	24/A6.09	W/BLINDS
C103C	6'-6" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	W/BLINDS
C106A	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
C106B	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C106C	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C106D	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C106E	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C106F	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C108A	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
C108B	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C108C	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C108D	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C108E	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C108F	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C109A	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
C109B	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C109C	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C109D	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C109E	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C109F	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C111A	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
C111B	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C111C	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C111D	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C111E	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C111F	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C113A	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
C113B	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C113C	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C113D	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09	24/A6.09	W/BLINDS
C113E	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C113F	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C115A	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
C115B	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C115C	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C115D	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C115E	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C115F	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.04	8/A6.09SIM	24/A6.09	W/BLINDS
C116	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
C116A	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/6.09	W/BLINDS
C116B	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C116C	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C118	4'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
C119	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
C119A	3'-3 1/2" X 3'-3 1/2"	T	ALUM.				W/BLINDS
C119B	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C119C	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C119D	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C119E	3'-3 1/2" X 3'-3 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	W/BLINDS
C122A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
C122B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
C122C	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
C122A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
C122B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS

WINDOW SCHEDULE -AREA "C" SECOND FLOOR

MARK	FRAME SIZE W x H	WNDW ELEV	FR MAT'L	DETAILS SILL	DETAILS JAMB	DETAILS HEAD	REMARKS
C125A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
C125B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
C125C	6'-0" X 3'-10"	4	ALUM	12/A6.10	12/A6.10	12/A6.10	
C126A	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
C126B	6'-3 1/2" X 5'-11 1/2"	A	ALUM	18/A6.09	18/A3.01SIM	24/A6.09	W/BLINDS
C135A	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
C135B	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
C135C	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
C135D	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
C135E	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
C138A	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
C138B	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
C138C	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
C138D	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
C138E	3'-11 1/2" X 3'-11 1/2"	T	ALUM	8/A6.09	8/A6.09SIM	24/A6.09	
C139A	8'-5 1/2" X 9'-3 1/2"	U	ALUM				
C139B	8'-5 1/2" X 9'-3 1/2"	U	ALUM				
C139C	8'-5 1/2" X 9'-3 1/2"	U	ALUM				
C140B	10'-7 1/2" X 23'-11 1/2"	R	ALUM				
C140C	10'-7 1/2" X 23'-11 1/2"	R	ALUM				

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

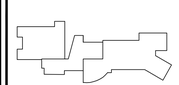
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A3.05

WINDOW SCHEDULES

Set #101
Doors: C139B

6.0	Hinge	FBB168 NRP 4SX45	26D	BES
1.0	Keyed Removeable Mullion	KR822	689	PRE
2.0	Exit Device	2108 CD D V4908	630	PRE
3.0	Rim Cylinder	12E 7 2 PATD	626	BES
2.0	Mortise Cylinder	1E 7 4 PATD	626	BES
2.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Gasketing	5100N Mullion		NGP
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP

Set #102
Doors: A106, A123, B101A, B104B, C101A, C101B, C112, C121, C139A, C140

2.0	Continuous Hinge	SL27 EPT	CL	SEL
2.0	Power Transfer	EPT-12C		PRE
1.0	Keyed Removeable Mullion	KR822	689	PRE
1.0	Exit Device	2103 C MLR WTS CA-03	626W	PRE
1.0	Exit Device	2102 C WTS	626W	PRE
1.0	Pull	1097 PHI	630	TRI
2.0	Rim Cylinder	12E 7 2 PATD	626	BES
2.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Threshold	8425 LAR	A	NGP
2.0	Sweep	200S LAR	A	NGP
1.0	Gasketing	BY ALUM DOOR/FRAME MANUFACTURER		
1.0	Gasketing	5100N Mullion		NGP
1.0	Drip Cap	16 4" ODW	A	NGP
1.0	Card Reader	BY SECURITY CONTRACTOR		
1.0	Power Supply	BY SECURITY CONTRACTOR		
2.0	Door Position Switch	BY SECURITY CONTRACTOR		
2.0	Wiring Harness	WH-12P		BES
2.0	Wiring Harness	WH-192P		BES
2.0	Wiring Harness	WH-6E		BES

NOTE: DOOR NORMALLY CLOSED AND LOCKED PRESENTING VALID CREDENTIAL RETRACKS LATCH AND ALLOWS FOR INGRESS. EMERGENCY KEY OVERRIDE. WTS SWITCH IN PUSHBAR TO SHUNT ALARM UPON EGRESS. FREE EGRESS AT ALL TIMES.

Set #103
Doors: B104A

6.0	Hinge	FBB168 NRP 4SX45	26D	BES
1.0	Keyed Removeable Mullion	KR822	689	PRE
2.0	Exit Device	2108 CD D V4908	630	PRE
3.0	Rim Cylinder	12E 7 2 PATD	626	BES
2.0	Mortise Cylinder	1E 7 4 PATD	626	BES
2.0	Door Closer	EHD90 16 AF90P	689	BES
2.0	Kick Plate	K0050 10" X 1" LDW CSK B4E	630	TRI
1.0	Gasketing	5100N Mullion		NGP
1.0	Gasketing	BY ALUM DOOR/FRAME MANUFACTURER		

Set #104
Doors: B125A

6.0	Hinge	FBB191 NRP 4SX45	32D	BES
1.0	Keyed Removeable Mullion	KR822	689	PRE
2.0	Exit Device	2103 CD CA-03	630	PRE
3.0	Rim Cylinder	12E 7 2 PATD	626	BES
2.0	Mortise Cylinder	1E 7 4 PATD	626	BES
2.0	Pull	1097 PHI	630	TRI
2.0	Door Closer	EHD90 16 SDS90	689	BES
2.0	Kick Plate	K0050 10" X 1" LDW CSK B4E	630	TRI
1.0	Threshold	8425 LAR	A	NGP
2.0	Sweep	200S LAR	A	NGP
1.0	Gasketing	700S Head & Jambs (2)	A	NGP
1.0	Gasketing	5100N Mullion		NGP
1.0	Drip Cap	16 4" ODW	A	NGP

Set #105
Doors: C133

6.0	Hinge	FBB168 NRP 5X45	26D	BES
1.0	Flush Bolt	3820x3810	626	TRI
1.0	Strike	3910	626	TRI
1.0	Cylindrical Lock	9K 3 7 D 14 C LM PATD	626	BES
2.0	Door Closer	EHD90 16 SDS90	689	BES
2.0	Kick Plate	K0050 10" X 1" LDW CSK B4E	630	TRI
1.0	Coordinator	3090 SERIES	626	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP

Set #106
Doors: B137

3.0	Hinge	FBB179 NRP 4SX45	26D	BES
1.0	Mortise Lock	45H 0 L 14 H VIBE	630	BES
1.0	Deadbolt	8T 3 S PATD 7	626	BES
1.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP

Set #107
Doors: C128A, C128B

3.0	Hinge	FBB168 NRP 4SX45	26D	BES
1.0	Exit Device	2108 CD D V4908	630	PRE
1.0	Rim Cylinder	12E 7 2 PATD	626	BES
1.0	Mortise Cylinder	1E 7 4 PATD	626	BES
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Dome Stop	1211	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP

Set #108
Doors: A218

3.0	Hinge	FBB168 NRP 5X45	26D	BES
1.0	Cylindrical Lock	9K 3 7 D 14 C LM PATD	626	BES
1.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP

Set #109
Doors: B130, B141, B148, B149, B118, B155, C123B, C123A, C120

3.0	Hinge	FBB179 NRP 45X45	26D	BES
1.0	Privacy Mortise Lock	45H 0 L 14 H VIBE	630	BES
1.0	Deadbolt	8T 3 S PATD 7	626	BES
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP
1.0	Dome Stop	1211	630	TRI

Set #110
Doors: B128, C135

3.0	Hinge	FBB179 NRP 45X45	26D	BES
1.0	Cylindrical Lock	9K 3 7 AB 14 C LM PATD	626	BES
1.0	Dome Stop	1211	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP

Set #111
Doors: B126A

3.0	Hinge	FBB191 NRP 4SX45	32D	BES
1.0	Cylindrical Lock	9K 3 7 D 14 C LM PATD	626	BES
1.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
2.0	Sweep	200S LAR	A	NGP
1.0	Gasketing	700S Head & Jambs (2)	A	NGP
1.0	Threshold	8425 LAR	A	NGP
1.0	Drip Cap	16 4" ODW	A	NGP

Set #112
Doors: A120, B112, B123, B124, B125B, B126B, C130, C132

3.0	Hinge	FBB179 NRP 45X45	26D	BES
1.0	Cylindrical Lock	9K 3 7 D 14 C PATD	626	BES
1.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP

NOTE: USE 5" x 4.5" HINGES AT 4' DOORS.

Set #113
Doors: A224, B127, B134

3.0	Hinge	FBB179 NRP 45X45	26D	BES
1.0	Cylindrical Lock	9K 3 7 D 14 C LM PATD	626	BES
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP
1.0	Dome Stop	1211	630	TRI

Set #114
Doors: C128C

3.0	Hinge	FBB179 NRP 45X45	26D	BES
1.0	Cylindrical Lock	9K 3 7 R 14 C LM PATD	626	BES
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP
1.0	Dome Stop	1211	630	TRI

Set #114.1
Doors: B129

3.0	Hinge	FBB179 45X45	26D	BES
1.0	Push Plate	1001-3	630	TRI
1.0	Pull Plate	1018-3B	630	TRI
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP
1.0	Dome Stop	1211	630	TRI

Set #115
Doors: C131

3.0	Hinge	FBB179 NRP 45X45	26D	BES
1.0	Power Transfer	EPT-12C		PRE
1.0	Electromechanical Cylindrical Lock	9KW 3 7 DEU 14 C LM RQE PATD	626	BES
1.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP
1.0	Wiring Harness	WH-6E		BES
1.0	Wiring Harness	WH-192P		BES
1.0	Wiring Harness	WH-12P		BES
1.0	Power Supply	BY SECURITY CONTRACTOR		
1.0	Door Position Switch	BY SECURITY CONTRACTOR		
1.0	Card Reader	BY SECURITY CONTRACTOR		

NOTE: DOOR NORMALLY CLOSED AND LOCKED PRESENTING VALID CREDENTIAL RELEASES LEVER AND ALLOWS FOR INGRESS. EMERGENCY KEY OVERRIDE. RQE SWITCH IN LEVERSET TO SHUNT ALARM UPON EGRESS. FREE EGRESS AT ALL TIMES.

Set #116
Doors: B131

3.0	Hinge	FBB191 NRP 5X45	32D	BES
1.0	Power Transfer	EPT-12C		PRE
1.0	Exit Device	2103 C MLR WTS CA-03	626W	PRE
1.0	Rim Cylinder	12E 7 2 PATD	626	BES
1.0	Pull	1097 PHI	630	TRI
1.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Threshold	8425 LAR	A	NGP
1.0	Drip Cap	16 4" ODW	A	NGP
1.0	Sweep	200S LAR	A	NGP
1.0	Gasketing	BY ALUM DOOR/FRAME MANUFACTURER		
1.0	Door Viewer	976U	626	TRI
1.0	Wiring Harness	WH-12P		BES
1.0	Wiring Harness	WH-192P		BES
1.0	Wiring Harness	WH-6E		BES
1.0	Power Supply	BY SECURITY CONTRACTOR		
1.0	Door Position Switch	BY SECURITY CONTRACTOR		
1.0	Card Reader	BY SECURITY CONTRACTOR		

NOTE: DOOR NORMALLY CLOSED AND LOCKED PRESENTING VALID CREDENTIAL RETRACKS LATCH AND ALLOWS FOR INGRESS. EMERGENCY KEY OVERRIDE. WTS SWITCH IN PUSHBAR TO SHUNT ALARM UPON EGRESS. FREE EGRESS AT ALL TIMES.

Set #117
Doors: C107A, C107B, C110A, C110B, C114A, C114B, C117A, C117B, C124B, C124A

3.0	Hinge	FBB179 NRP 45X45	26D	BES
1.0	Cylindrical Lock	9K 3 0 N 14 C LM	626	BES
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Dome Stop	1211	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP

Set #118
Doors: B111A, B111B

3.0	Hinge	FBB168 NRP 4SX45	26D	BES
1.0	Cylindrical Lock	9K 3 7 R 14 C LM PATD	626	BES
1.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP

Set #119
Doors: A101, A102, A103, A104, A105, A107, A108, A112, A113, A114, A116, A117, A124, A127, A130, A132, A133, A134, A135, A201, A203, A204, A205, A206, A208, A209, A210A, A210B, A212, A216, A217, A220, A230, A231, A232, A233, A234, A235, A236, A237, A238, A239, A240, B102A, B102B, B107, B109A, B113A, B122, B132A, B132B, B138A, B138B, B143, B144, B145, B146, C103, C122, C126A

3.0	Hinge	FBB168 NRP 4SX45	26D	BES
1.0	Cylindrical Lock	9K 3 7 R 14 C LM PATD	626	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP
1.0	Dome Stop	1211	630	TRI

Set #120
Doors: A118, B103A, B103B, B119, B156

3.0	Hinge	FBB179 NRP 4SX45	26D	BES
1.0	Cylindrical Lock	9K 3 7 D 14 C LM PATD	626	BES
1.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP

Set #121
Doors: A122, A225, A227, B123A, C129

3.0	Hinge	FBB179 NRP 45X45	26D	BES
1.0	Mortise Lock	45H 7 H 14 H VIBE	630	BES
1.0	Deadbolt	8T 3 S PATD 7	626	BES
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	BY ALUM DOOR/FRAME MANUFACTURER		
1.0	Dome Stop	1211	630	TRI

Set #122
Doors: B110A, B110B

3.0	Hinge	FBB179 45X45	26D	BES
1.0	Cylindrical Lock	9K 3 0 N 14 C	626	BES
1.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	BY ALUM DOOR/FRAME MANUFACTURER		

Set #123
Doors: B140, C126B

3.0	Hinge	FBB179 45X45	26D	BES
1.0	Cylindrical Lock	9K 3 0 N 14 C	626	BES
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	BY ALUM DOOR/FRAME MANUFACTURER		
1.0	Dome Stop	1211	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP

Set #126
Doors: A211, B114, B142, B152, B153, B157A, B157B, B158, B159, B160, B161, B162, B163

3.0	Hinge	FBB179 NRP 45X45	26D	BES
1.0	Cylindrical Lock	9K 3 7 AB 14 C LM PATD	626	BES
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP
1.0	Dome Stop	1211	630	TRI

Set #127
Doors: A115A, A226, B136B, B146A

3.0	Hinge	FBB179 NRP 45X45	26D	BES
1.0	Power Transfer	EPT-12C		PRE
1.0	Electromechanical Cylindrical Lock	9KW 3 7 DEU 14 C LM RQE PATD	626	BES
1.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP
1.0	Wiring Harness	WH-12P		BES
1.0	Wiring Harness	WH-192P		BES
1.0	Wiring Harness	WH-6E		BES
1.0	Card Reader	BY SECURITY CONTRACTOR		
1.0	Door Position Switch	BY SECURITY CONTRACTOR		
1.0	Power Supply	BY SECURITY CONTRACTOR		

NOTE: DOOR NORMALLY CLOSED AND LOCKED PRESENTING VALID CREDENTIAL RELEASES LEVER AND ALLOWS FOR INGRESS. EMERGENCY KEY OVERRIDE. RQE SWITCH IN PUSHBAR TO SHUNT ALARM UPON EGRESS. FREE EGRESS AT ALL TIMES.

Set #128
Doors: A221, B117B, B136A, 136C, B150, B108

3.0	Hinge	FBB179 NRP 45X45	26D	BES
1.0	Power Transfer	EPT-12C		PRE
1.0	Electromechanical Cylindrical Lock	9KW 3 7 DEU 14 C LM RQE PATD	626	BES
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	5050 Head & Jambs (2)	B	NGP
1.0	Dome Stop	1211	630	TRI
1.0	Wiring Harness	WH-6E		BES
1.0	Wiring Harness	WH-12P		BES
1.0	Wiring Harness	WH-192P		BES
1.0	Power Supply	BY SECURITY CONTRACTOR		
1.0	Door Position Switch	BY SECURITY CONTRACTOR		
1.0	Card Reader	BY SECURITY CONTRACTOR		

NOTE: DOOR NORMALLY CLOSED AND LOCKED PRESENTING VALID CREDENTIAL RELEASES LEVER AND ALLOWS FOR INGRESS. EMERGENCY KEY OVERRIDE. RQE SWITCH IN PUSHBAR TO SHUNT ALARM UPON EGRESS. FREE EGRESS AT ALL TIMES.

Set #129
Doors: A131, B105B, B106B, B109B, B113B, B117A, C201

1.0	Continuous Hinge	SL27 EPT	CL	SEL
1.0	Power Transfer	EPT-12C		PRE
1.0	Exit Device	2103 C MLR WTS CA-03	626W	PRE
1.0	Pull	1097 PHI	630	TRI
1.0	Rim Cylinder	12E 7 2 PATD	626	BES
1.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Sweep	200S LAR	A	NGP
1.0	Drip Cap	16 4" ODW	A	NGP
1.0	Threshold	8425 LAR	A	NGP
1.0	Gasketing	BY ALUM DOOR/FRAME MANUFACTURER		
1.0	Wiring Harness	WH-12P		BES
1.0	Wiring Harness	WH-6E		BES
1.0	Wiring Harness	WH-192P		BES
1.0	Card Reader	BY SECURITY CONTRACTOR		
1.0	Door Position Switch	BY SECURITY CONTRACTOR		
1.0	Power Supply	BY SECURITY CONTRACTOR		

NOTE: DOOR NORMALLY CLOSED AND LOCKED PRESENTING VALID CREDENTIAL RETRACKS LATCH AND ALLOWS FOR INGRESS. EMERGENCY KEY OVERRIDE. WTS SWITCH IN PUSHBAR TO SHUNT ALARM UPON EGRESS. FREE EGRESS AT ALL TIMES.

Set #130
Doors: B120

1.0	Continuous Hinge	SL27 EPT	CL	SEL
1.0	Power Transfer	EPT-12C		PRE
1.0	Exit Device	2103 C MLR WTS CA-03	626W	PRE
1.0	Pull	1097 PHI	630	TRI
1.0	Rim Cylinder	12E 7 2 PATD	626	BES
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Sweep	200S LAR	A	NGP
1.0	Drip Cap	16 4" ODW	A	NGP
1.0	Threshold	8425 LAR	A	NGP
1.0	Gasketing	BY ALUM DOOR/FRAME MANUFACTURER		
1.0	Dome Stop	1211	630	TRI
1.0	Wiring Harness	WH-12P		BES
1.0	Wiring Harness	WH-6E		BES
1.0	Wiring Harness	WH-192P		BES
1.0	Card Reader	BY SECURITY CONTRACTOR		
1.0	Door Position Switch	BY SECURITY CONTRACTOR		
1.0	Power Supply	BY SECURITY CONTRACTOR		

NOTE: DOOR NORMALLY CLOSED AND LOCKED PRESENTING VALID CREDENTIAL RETRACKS LATCH AND ALLOWS FOR INGRESS. EMERGENCY KEY OVERRIDE. WTS SWITCH IN PUSHBAR TO SHUNT ALARM UPON EGRESS. FREE EGRESS AT ALL TIMES.

Set #132
Doors: A115

3.0	Hinge	FBB168 NRP 45X45	26D	BES
1.0	Power Transfer	EPT-12C		PRE
1.0	Exit Device	2103 C MLR WTS CA-03	626W	PRE
1.0	Pull	1097 PHI	630	TRI
1.0	Rim Cylinder	12E 7 2 PATD	626	BES
1.0	Door Closer	EHD90 16 SDS90	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	BY ALUM DOOR/FRAME MANUFACTURER		
1.0	Wiring Harness	WH-12P		BES
1.0	Wiring Harness	WH-192P		BES
1.0	Wiring Harness	WH-6E		BES
1.0	Card Reader	BY SECURITY CONTRACTOR		
1.0	Door Position Switch	BY SECURITY CONTRACTOR		
1.0	Power Supply	BY SECURITY CONTRACTOR		

NOTE: DOOR NORMALLY CLOSED AND LOCKED PRESENTING VALID CREDENTIAL RETRACKS LATCH AND ALLOWS FOR INGRESS. EMERGENCY KEY OVERRIDE. WTS SWITCH IN PUSHBAR TO SHUNT ALARM UPON EGRESS. FREE EGRESS AT ALL TIMES.

Set #133
Doors: B121

1.0	Power Transfer	EPT-12C		PRE
1.0	Exit Device	2103 C MLR WTS CA-03	626W	PRE
1.0	Rim Cylinder	12E 7 2 PATD	626	BES
1.0	Pull	1097 PHI	630	TRI
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Gasketing	BY ALUM DOOR/FRAME MANUFACTURER		
1.0	Dome Stop	1211	630	TRI
1.0	Wiring Harness	WH-6E		BES
1.0	Wiring Harness	WH-12P		BES
1.0	Wiring Harness	WH-192P		BES
1.0	Card Reader	BY SECURITY CONTRACTOR		
1.0	Door Position Switch	BY SECURITY CONTRACTOR		
1.0	Power Supply	BY SECURITY CONTRACTOR		

NOTE: DOOR NORMALLY CLOSED AND LOCKED PRESENTING VALID CREDENTIAL RETRACKS LATCH AND ALLOWS FOR INGRESS. EMERGENCY KEY OVERRIDE. WTS SWITCH IN PUSHBAR TO SHUNT ALARM UPON EGRESS. FREE EGRESS AT ALL TIMES.

Set #134
Doors: A125A, A125B, A126A, A126B, B105A, B106A, C106A, C106B, C108A, C108B, C109A, C109B, C111A, C111B, C113A, C113B, C115A, C115B, C116A, C116B, C118A, C118B, C119A, C119B, C125A, C125B

3.0	Hinge	FBB168 NRP 45X45	26D	BES
1.0	Exit Device	2108 CD D V4908	630	PRE
1.0	Rim Cylinder	12E 7 2 PATD	626	BES
1.0	Mortise Cylinder	1E 7 4 PATD	626	BES
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Dome Stop	1211	630	TRI
1.0	Gasketing	BY ALUM DOOR/FRAME MANUFACTURER		

Set #135
Doors: B147

3.0	Hinge	FBB168 NRP 45X45	26D	BES
1.0	Exit Device	2103 CD D V4908	630	PRE
1.0	Rim Cylinder	12E 7 2 PATD	626	BES
1.0	Mortise Cylinder	1E 7 4 PATD	626	BES
1.0	Door Closer	EHD90 16 AF90P	689	BES
1.0	Kick Plate	K0050 10" X 2" LDW CSK B4E	630	TRI
1.0	Dome Stop	1211	630	TRI
1.0	Gasketing	BY ALUM DOOR/FRAME MANUFACTURER		

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

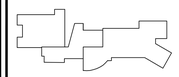
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

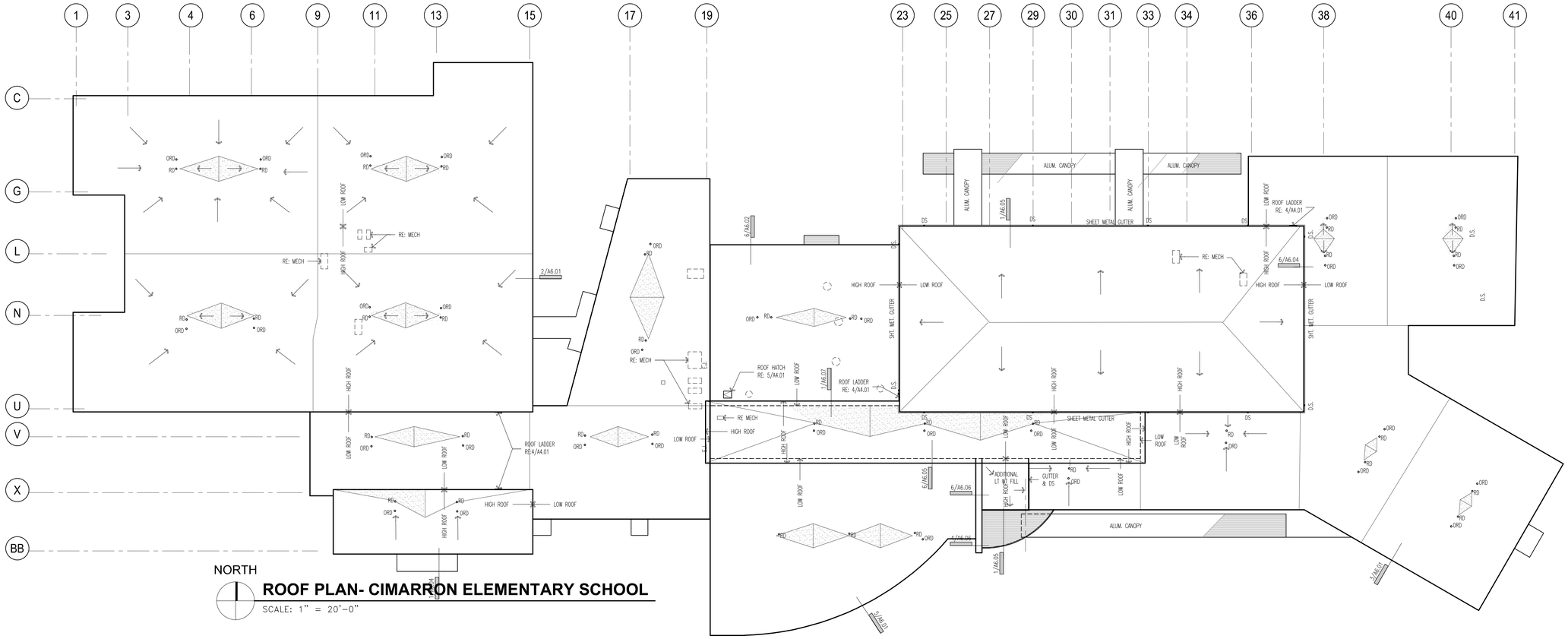
Houston, Texas
281-961-0355

PROJECT NO. 2502 (B101-101)
DATE Aug. 15, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT

A3.06

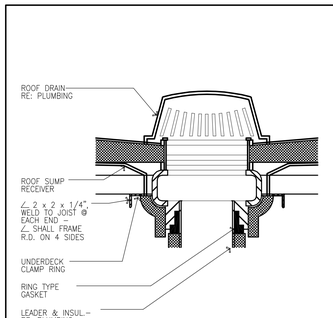
HARDWARE SCHEDULES



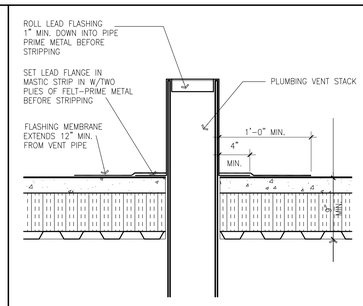
NORTH

ROOF PLAN- CIMARRON ELEMENTARY SCHOOL

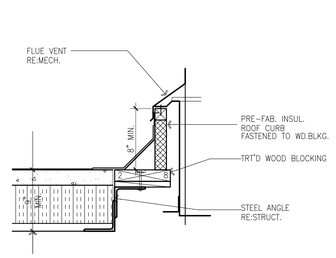
SCALE: 1" = 20'-0"



12 ROOF DRAIN X–Z01 Not to Scale



11 PLUMBING VENT STACK X–Z03 1–1/2"=1'–0"



10 FLUE VENT (& TYP. ROOF OPENINGS) X–Z9 1–1/2"=1'–0"

9

ENERGY CRITERIA VALUES:

A. ROOF– CLASS "A" INSULATION ENTIRELY ABOVE DECK; 3–YEAR ACED SOLAR REFLECTANCE INDEX= 0.73; R=28; U=.035; BUDGET U–FACTOR=0.039.

B. METAL STUD WALL BACK–UP: R–19 CAVITY FILLED BATT INSULATION AND R=7.5 CONTINUOUS INSULATION.

C. CMU BACK UP WALLS: R–7.5 CONTINUOUS INSULATION

D. EXTERIOR GLAZING: U FACTOR= 0.29 OR BETTER; SHGC= 0.25 OR BETTER

E. VERTICAL FENESTRATION IS <= 30%

F. ALL AREAS OF AIR LEAKAGE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED.

8

GENERAL NOTES:

A. ALL ROOFING SYSTEM SHALL BE MODIFIED BITUMEN "COOL" ROOF ON LT. WT. INSULATED CONCRETE DECK SYSTEM UNLESS OTHERWISE NOTED. R=28; SOLAR REFLECTANCE=0.73

B. INDICATEDS ADDITIONAL THICKNESS OF LT. WT. INSULATED CONCRETE DECK.

C. ⟶ INDICATES SLOPE DOWN

D. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT LOCATIONS OF R.D. AND O.R.D.

E. RE: MEP DRAWINGS FOR ADDITIONAL ROOF TOP ITEMS NOT SHOWN THIS SHEET.

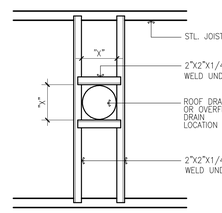
F. RE: WALL SECTION SHEETS FOR ADDITIONAL ROOF DETAILS.

G. PROVIDE SPLASH PAN AT EACH GUTTER. TERMINATE DS ELBOW APPROX 1" ABOVE THE BACK OF THE SPLASH PAN.

H. PROVIDE WALK PAD AT ROOF HATCH, ALL SIDES OF ROOF TOP EQUIPMENT, TOP AND BOTTOM OF ROOF LADDER, AT EACH SPLASH PAN.

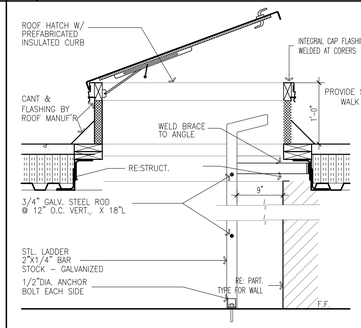
I. ALL WOOD AND PLYWOOD IN WALLS AND ROOF SHALL BE FIRE RETARDANT TREATED.

7

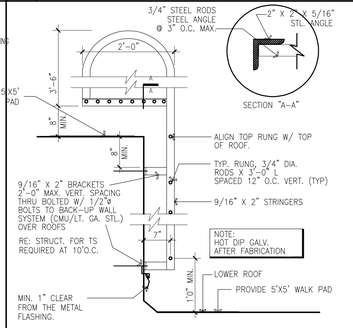


NOTE: INSTALL BRACING PRIOR TO INSTALLATION OF ROOF DRAINS AND OVERFLOW DRAINS. CONTRACTOR TO VERIFY DIMENSION "X" WITH PLUMBER
PROVIDE SIMILAR FRAME FOR ALL ROOF OPENINGS EXCEPT USING 3"X3"X¼" ANGLES UNLESS OTHERWISE SHOWN

6 ROOF DRAIN SUPPORT X–Z02 N.T.S.



5 ROOF HATCH X–Z04 1"=1'–0"



4 ROOF LADDER X–Z05 3/4"=1'–0"

3

2

1

CONSULTANTS

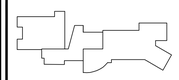
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



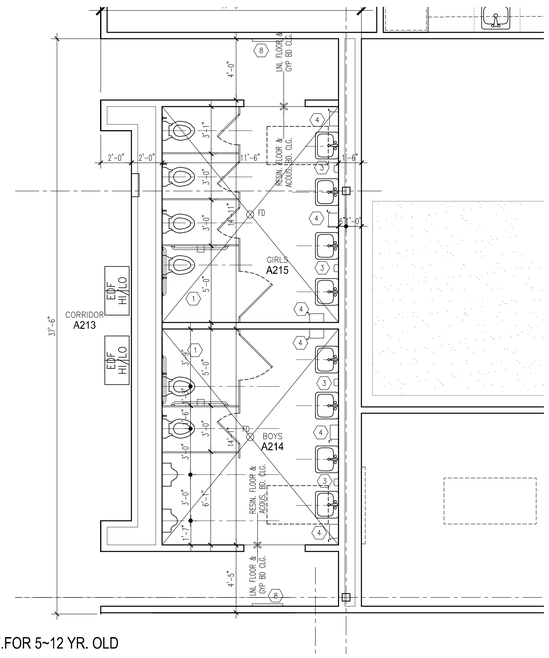
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	XXX
CHECKED	XXX

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A4.01

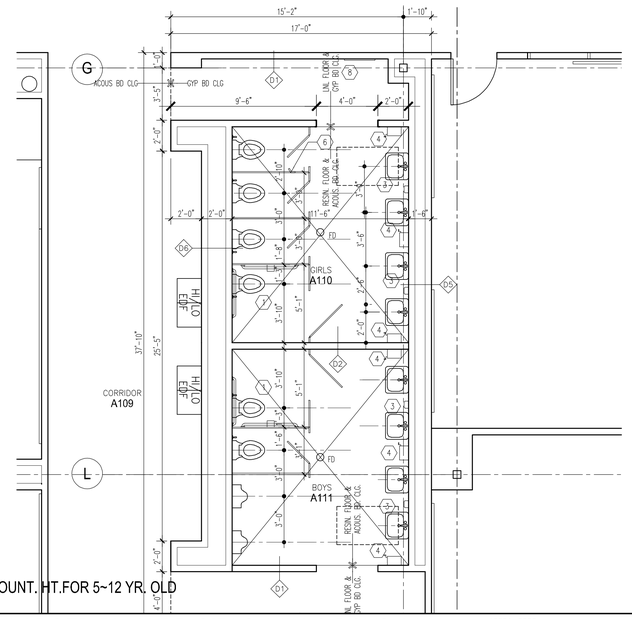
ROOF PLAN
AND ROOF DETAILS



MOUNT. HT.FOR 5~12 YR. OLD

24 ENLARGED PLAN-BOYS A214 & GIRLS A215

A0501-2502
1/4"=1'-0"

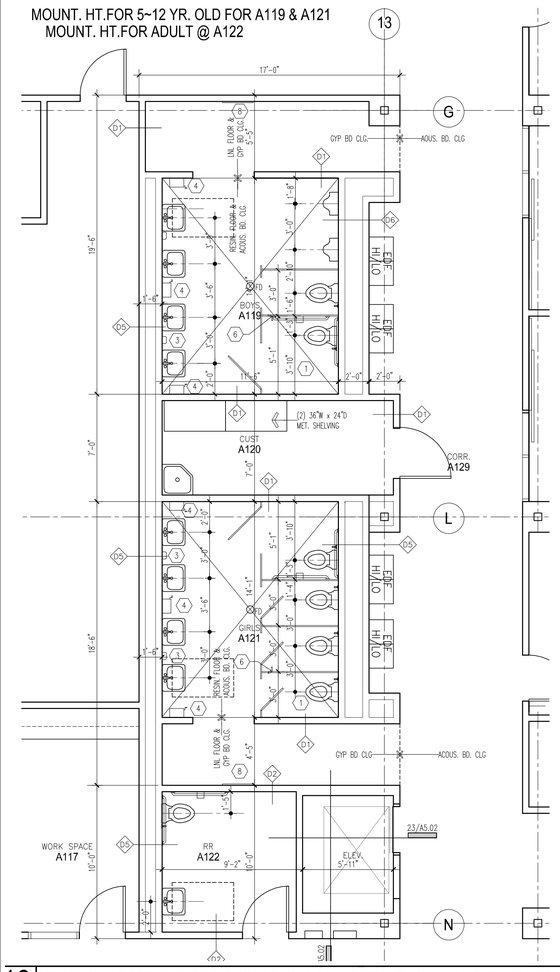


MOUNT. HT.FOR 5~12 YR. OLD

12 ENLARGED PLAN-RR GIRLS A110 & BOYS A111

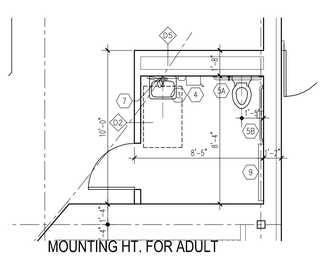
A0501-2502
1/4"=1'-0"

MOUNT. HT.FOR 5~12 YR. OLD FOR A119 & A121
MOUNT. HT.FOR ADULT @ A122



16 ENLARGED PLAN-BOYS A119, GIRLS A121, RR A122

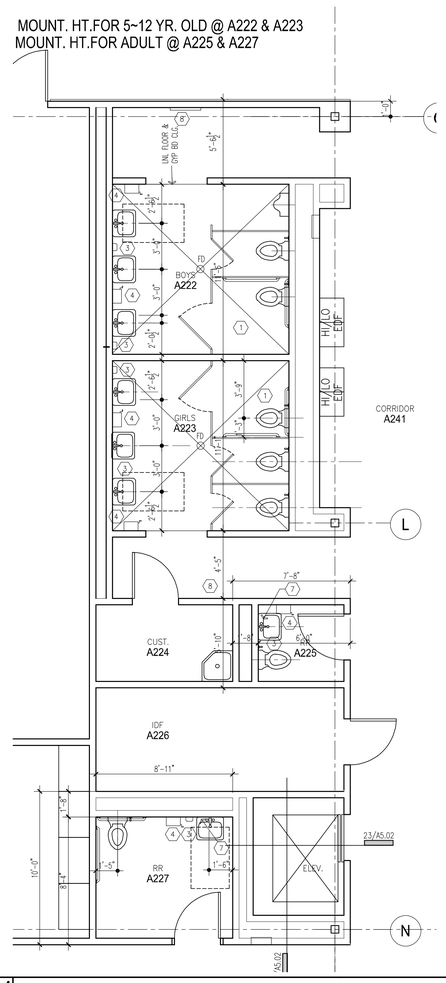
A0501-2502
1/4"=1'-0"



10 ENLARGED PLAN-RR B137

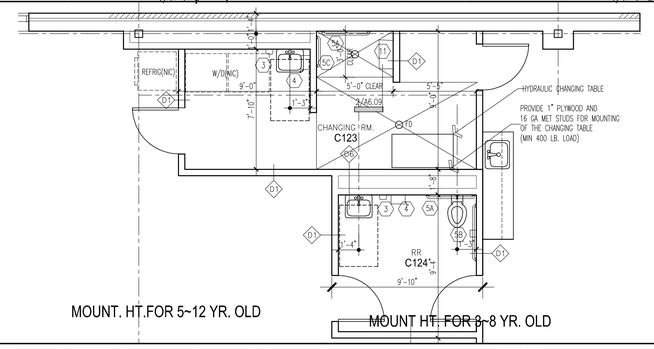
A0501-2502
1/4"=1'-0"

MOUNT. HT.FOR 5~12 YR. OLD @ A222 & A223
MOUNT. HT.FOR ADULT @ A225 & A227



14 ENLARGED-A222, A223, A225 & A227

A0501-2502
1/4"=1'-0"



MOUNT. HT.FOR 5~12 YR. OLD

MOUNT HT. FOR 8~8 YR. OLD

9 ENLARGED PLAN- C123 & C124

A0501-2502
1/4"=1'-0"

FIXTURE	STANDARD	ACCESSIBLE
DRINKING FOUNTAIN TO TOP OF OUTLET (SIDE APPROACH)	38"~43"	36" (KNEE SPACE 27" MIN)
WATER CLOSET CENTER LINE TO TOP OF SEAT GRAB BARS FLUSH CONTROLS PAPER DISPENSER HT.	18" 15"	16"~18" 17" TO 19" 33" TO 36" 48" MAX. 15" TO 48"
URINAL – RIM OF BASIN FLUSH CONTROLS	24"	17" MAX. 48"
LAVATORY AND SINKS RIM OR COUNTER SURFACE KNEE CLEARANCE TO FAUCET FROM FRONT EDGE	34"	34" MAX 27" MIN. 20" MAX
MIRROR – TO BOTTOM OF REFLECTIVE SURFACE		40" MAX
CONTROLS AND OPERATING MECHANISMS		15" TO 48"

25 MOUNTING HTS- ADULT

A0501-1610
1/4"=1'-0"

FIXTURE	STANDARD	ACCESSIBLE 3~4 YR.OLD (EC/PK)	ACCESSIBLE 5~12 YR. OLD (K&ELEMENTARY
DRINKING FOUNTAIN TO TOP OF OUTLET KNEE CLEARANCE SIDE APPROACH	36"~43" 27" MIN	24" MIN 30" MAX	24" MIN 30" MAX
WATER CLOSET CENTERLINE FROM WALL TO TOP OF SEAT GRAB BARS FLUSH CONTROLS	15" 15"	12" 12" 20"	15" 15" 25" 40" MAX
URINAL – RIM OF BASIN FLUSH CONTROLS	24"		14" 40"
LAVATORY AND SINKS RIM OR COUNTER SURFACE KNEE CLEARANCE TO FAUCET FROM FRONT EDGE	34"	30"	31" MAX 24" MIN 20" MAX
MIRROR – TO BOTTOM OF REFLECTIVE SURFACE TO TOP OF REFLECTIVE SURFACE			34" 74"
CONTROLS AND OPERATING MECHANISMS HIGHEST OPERABLE PART FRONTAL OR SIDE APPROACH			40" MAX

(H) INDICATES ACCESSIBLE UNIT

19 MOUNT. HTS.- PK & ES

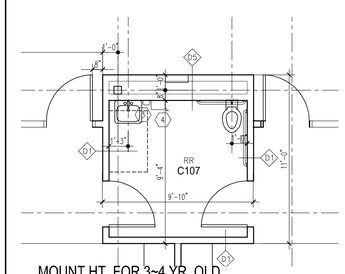
x-TLT-MountHt
1/4"=1'-0"

MARK	DESCRIPTION
1	ACCESSIBLE STALL RE: 13/A3.04
2	TOILET PAPER HOLDER(ONE PER W.C.) (OFCI)
3	SOAP DISPENSER (ONE PER LAV)
4	PAPER TOWEL DISPENSER (OFCI, LOCATIONS AS SHOWN)
5A	36" GRAB BAR
5B	42" GRAB BAR
5C	24" GRAB BAR
6	SOLID POLYMER TOILET PARTITIONS
7	FRAMED MIRROR – 24"X36"
8	FRAMED MIRROR – 24"X50"
9	CHANGING TABLE
10	SHOWER SEAT

NOTE
1. (H) INDICATES HANDICAP MOUNTING HEIGHT
2. PROVIDE ONE PAPER TOWEL DISPENSER AND ONE SOAP DISPENSER AT EACH SINK IN ENTIRE SCHOOL.
3. VERIFY LOCATION OF ACCESSORIES W/ OWNER PRIOR TO INSTALLATION

13 TOILET ACCESSORIES

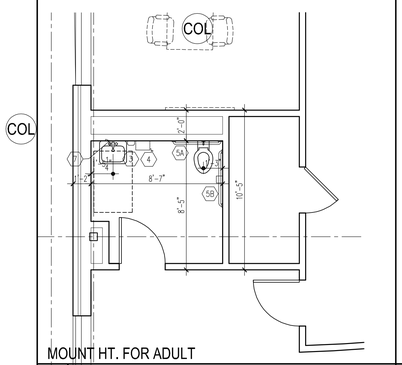
X-TLT-Accessories
1/4"=1'-0"



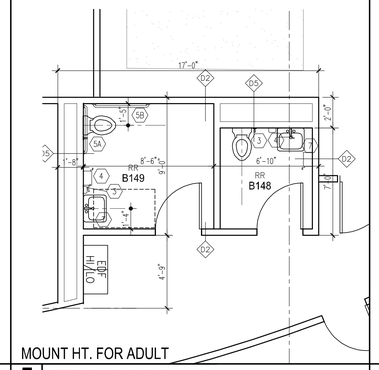
MOUNT HT. FOR 3~4 YR. OLD

7 TYPICAL RR FOR PK

A0501-2502
1/4"=1'-0"



MOUNT HT. FOR ADULT



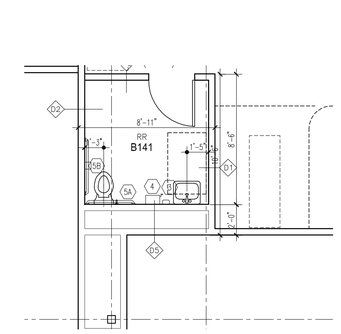
MOUNT HT. FOR ADULT

6 ENLARGED PLAN-RR B155

A0501-2003
1/4"=1'-0"

5 RR A148 & A149

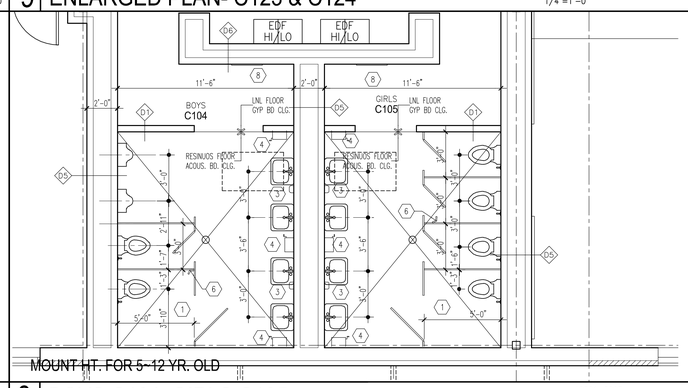
A0501-2003
1/4"=1'-0"



MOUNT HT. FOR 5-12 YR. OLD

4 ENLARGED PLAN-RR B141

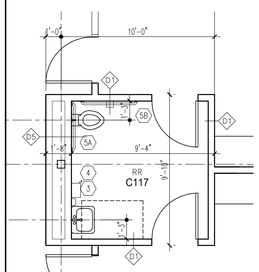
A0501-2003
1/4"=1'-0"



MOUNT HT. FOR 5~12 YR. OLD

3 BOYS C104; GIRLS C105

A0501-2003
1/4"=1'-0"



MOUNT HT. FOR 5~12 YR. OLD

RESTROOM WALL & FLOOR FINISHES:

1. ALL RESTROOMS SHALL HAVE EITHER RESINOUS OR CERAMIC TILE FLOOR WITH MIN 4" COVE BASE MEETING IBC SEC. 1210.
2. ALL RESTROOM WALLS SHALL BE CERAMIC TILE ON GLASS MAT GYP BD PANEL MEETING ASTMC1178 (PER IBC TABLE 2509)

1 TYPICAL RR FOR K

A0501-2502
1/4"=1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

REGISTERED ARCHITECT STEPHEN CHU 19865 STATE OF TEXAS

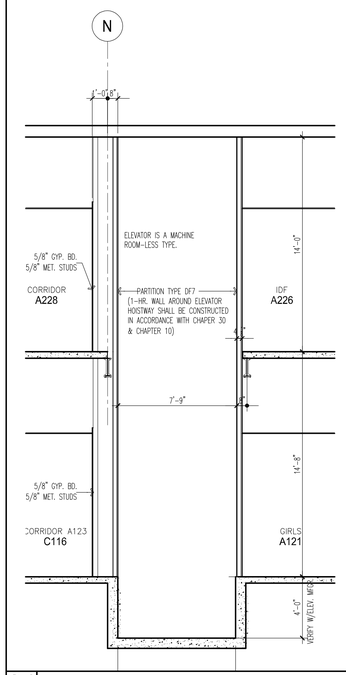
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	XXX
CHECKED	XXX

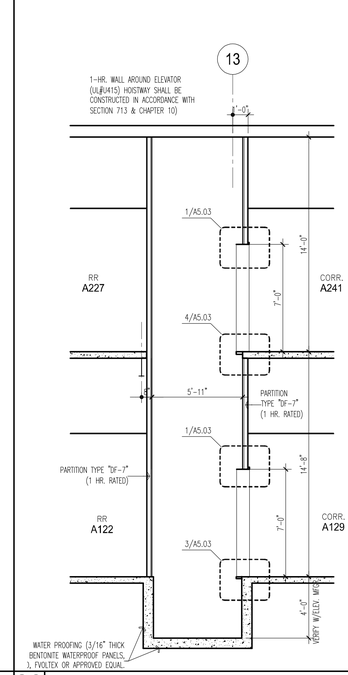
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A5.01

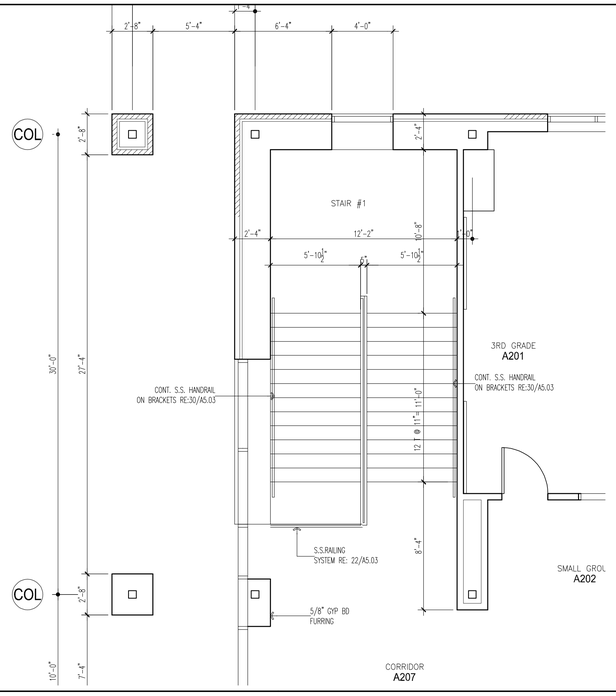
ENLARGED ELEVATOR & RESTROOM PLANS



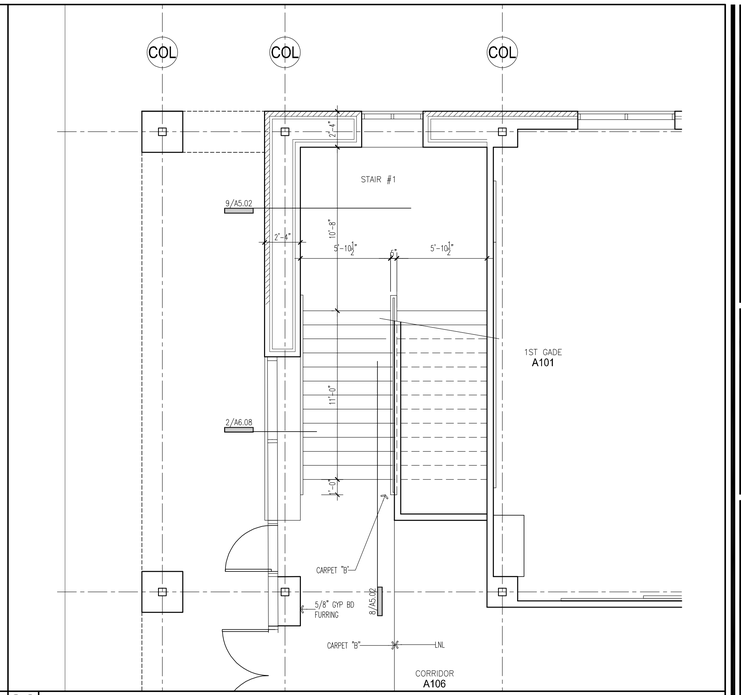
24 SECTION-ELEVATOR A0502 1/4" = 1'-0"



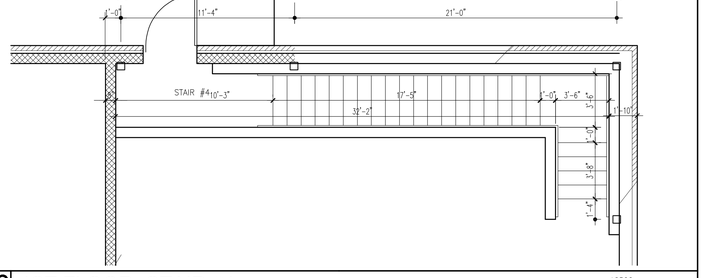
23 SECTION- ELEVATOR A0502 1/4" = 1'-0"



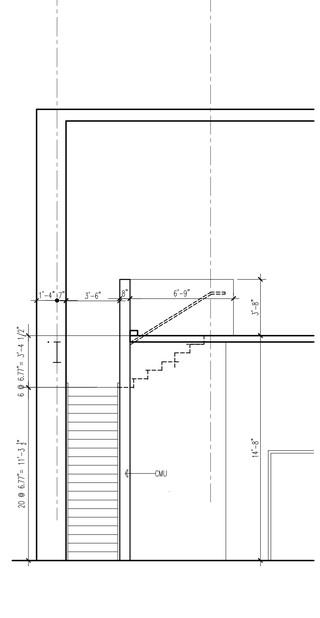
22 STAIR #1 - 2ND FLOOR PLAN (STAIR #2 SIM) A0502 1/4" = 1'-0"



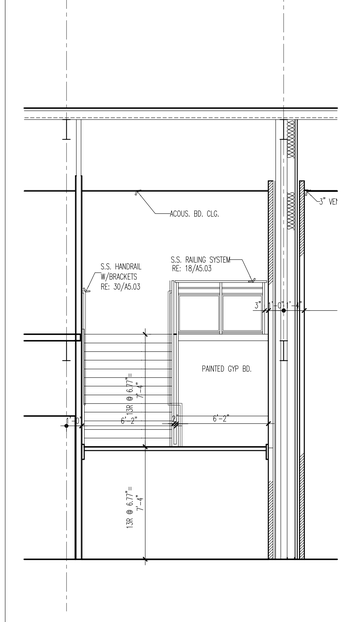
20 STAIR #1- - 1ST FLOOR PLAN (STAIR #2 SIM) A0502 1/4" = 1'-0"



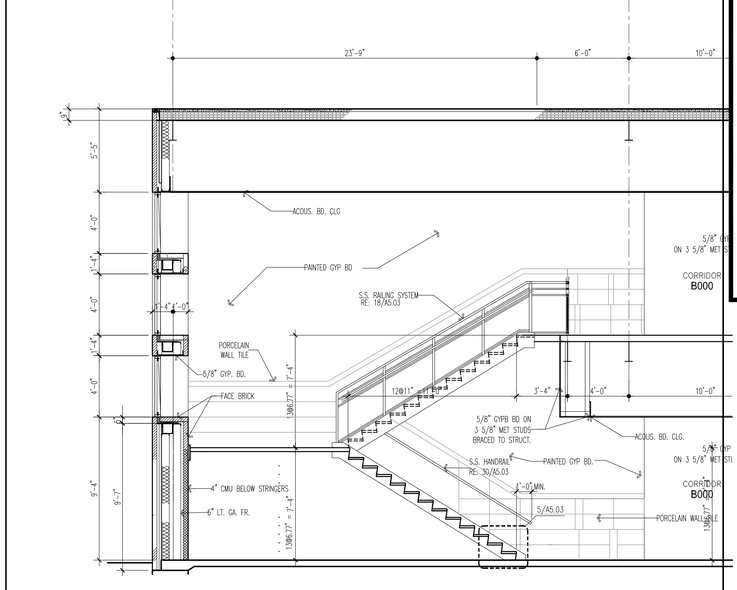
12 1ST FLOOR- STAIR #4 A0502 1/4" = 1'-0"



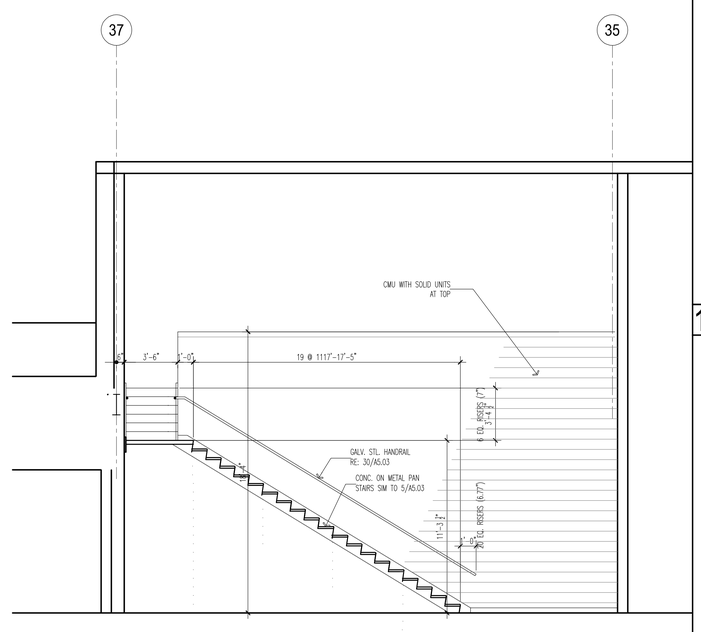
10 SECTION- STAIR #4 A0502 1/4" = 1'-0"



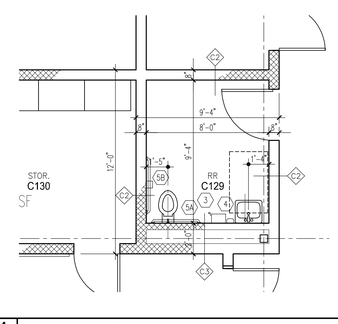
9 SECTION- STAIR #1 A0502 1/4" = 1'-0"



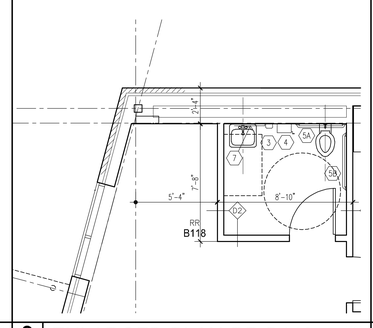
8 SECTION- STAIR #1 A0502 1/4" = 1'-0"



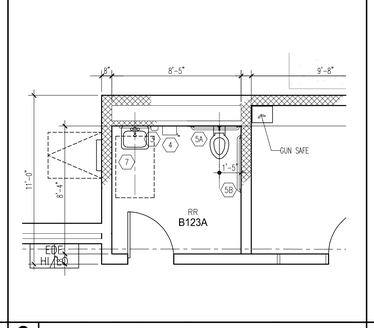
6 SECTION- STAIR #4 A0502 1/4" = 1'-0"



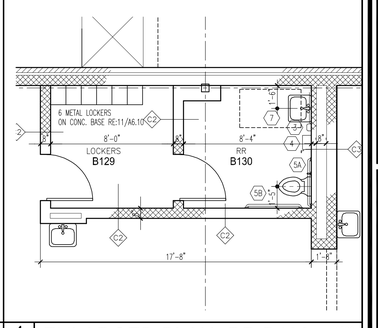
4 ENLARGED PLAN-RR C129 A0502 1/4" = 1'-0"



3 ENLARGED PLAN-RR B118 A0502 1/4" = 1'-0"



2 ENLARGED PLAN-RR B123A A0502 1/4" = 1'-0"



1 ENLARGED PLAN- RR B130 A0502 1/4" = 1'-0"

CONSULTANTS

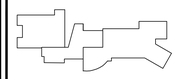
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8001 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

REGISTERED ARCHITECT STEVEN CHU 22888 STATE OF TEXAS

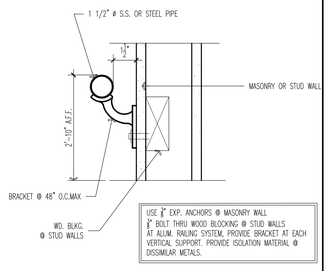
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN XXX
CHECKED XXX

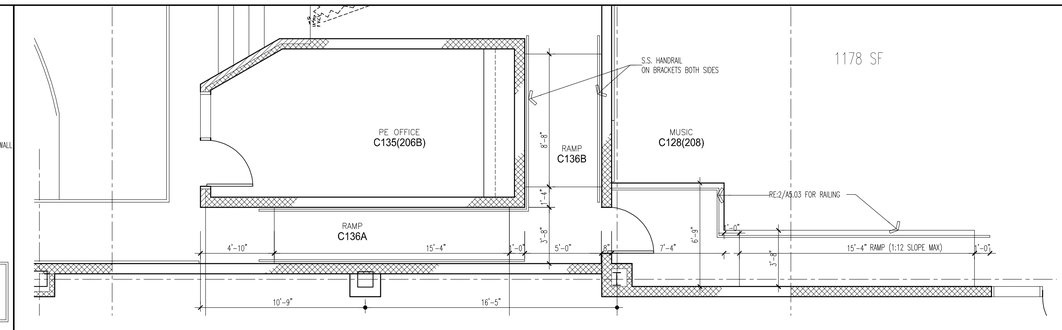
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A5.02

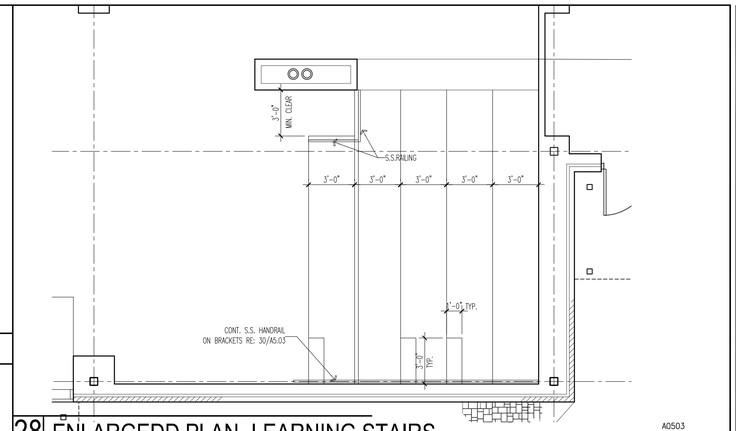
ENLARGED RESTROOMS
ELEVATORS
& STAIRS



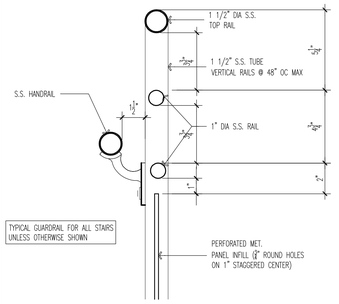
30 HANDRAIL DETAIL X-D07 3" = 1'-0"

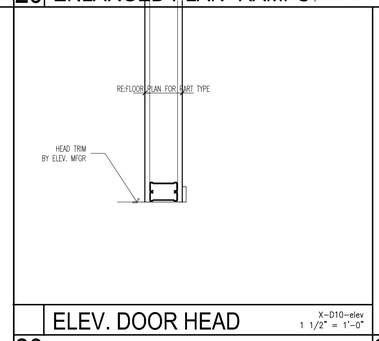


29 ENLARGED PLAN- RAMPS 1/4" = 1'-0" A0502

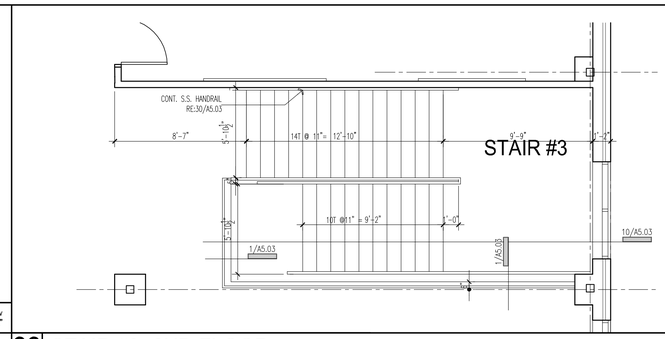


28 ENLARGEDD PLAN- LEARNING STAIRS A0503 1/4" = 1'-0"



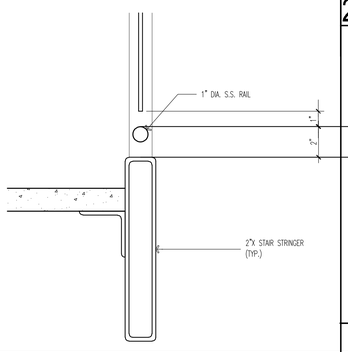


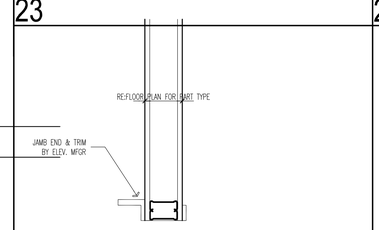
ELEV. DOOR HEAD X-D10-elev 1 1/2" = 1'-0"



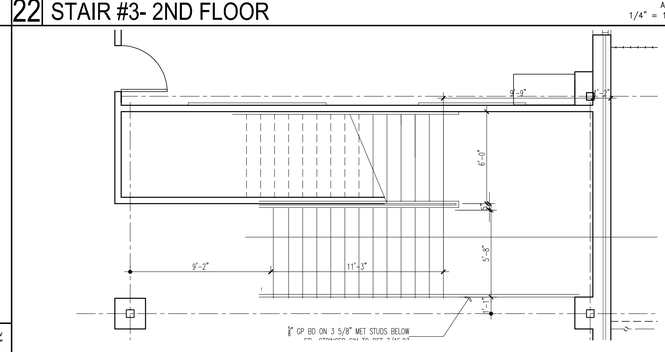
22 STAIR #3- 2ND FLOOR A0503 1/4" = 1'-0"

23





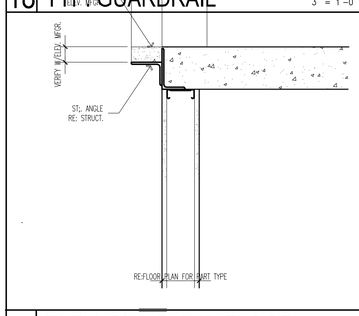
ELEV. DOOR JAMB X-D10-elev 1 1/2" = 1'-0"



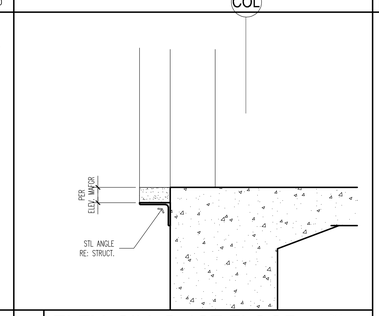
18 TYP GUARDRAIL X-D07 3" = 1'-0"

16 STAIR #3- 1ST FLOOR A0503 1/4" = 1'-0"

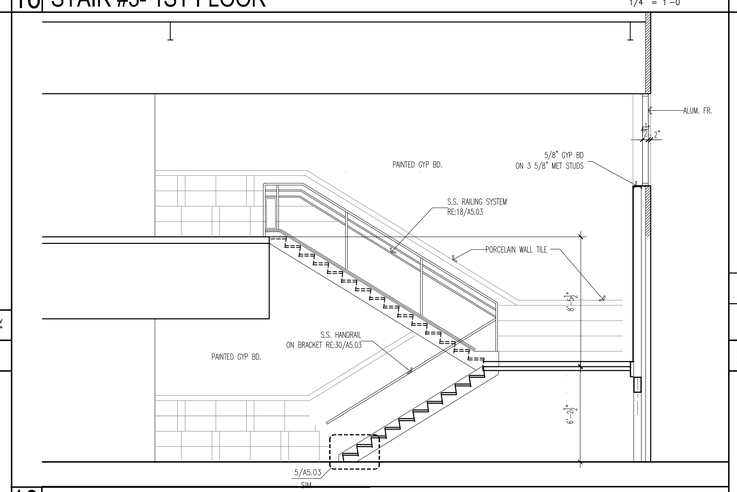
14 SECTION- LEARNING STAIRS A0503 1/4" = 1'-0"



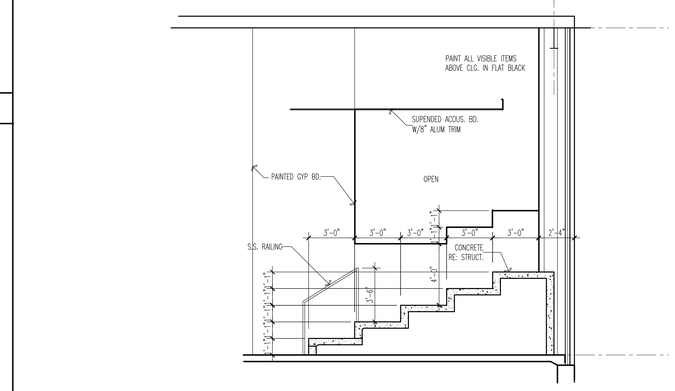
ELEV. SILL@ 2ND FLOOR X-D10-elev 1 1/2" = 1'-0"

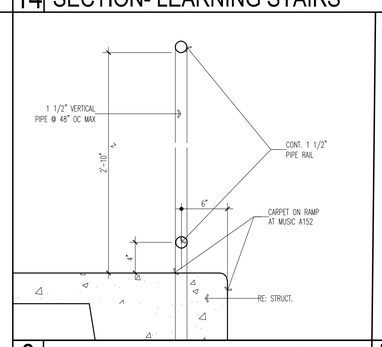


ELEV. SILL@ 1ST FLOOR X-D10-elev 1 1/2" = 1'-0"

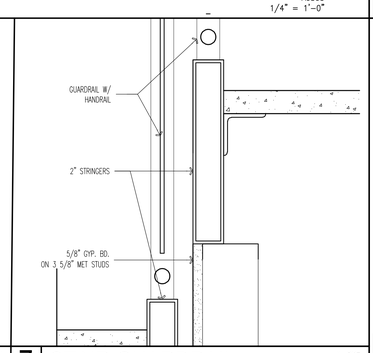


10 STAIR #3- SECTION A0503 1/4" = 1'-0"



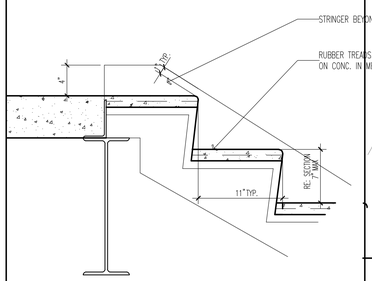


8 RAILING DETAIL X-D20 ramp handrail 1 1/2" = 1'-0"

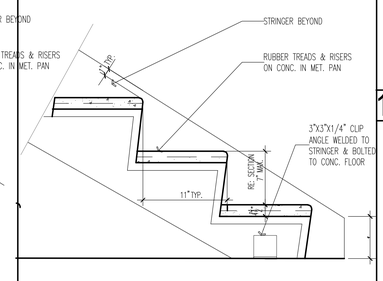


7 STAIR GUARDRAIL X-D07 3" = 1'-0"

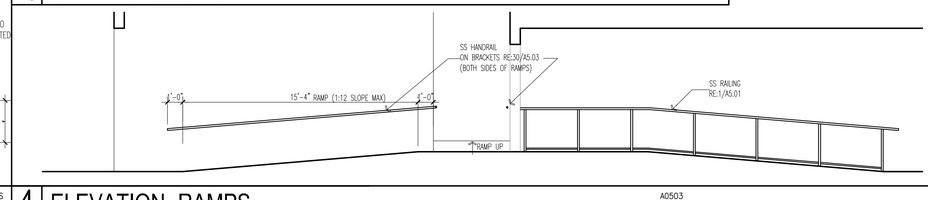
12



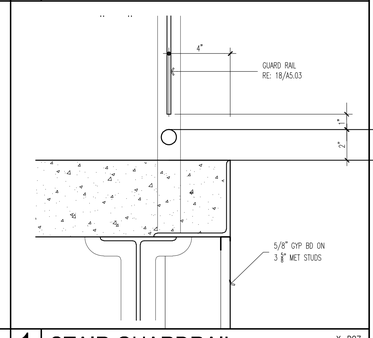
6 STAIR DETAIL X-D06-STAIRS 1 1/2" = 1'-0"



5 STAIR DETAIL X-D06-STAIRS 1 1/2" = 1'-0"



4 ELEVATION- RAMPS A0503 1/4" = 1'-0"



1 STAIR GUARDRAIL X-D07 3" = 1'-0"

CONSULTANTS

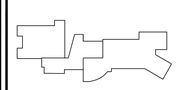
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

REGISTERED ARCHITECT STATE OF TEXAS 19400 SHU CHIH

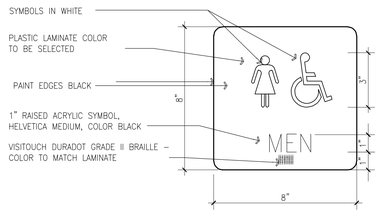
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN XXX
CHECKED XXX

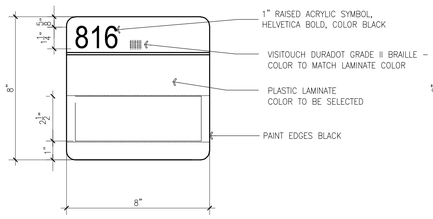
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A5.03

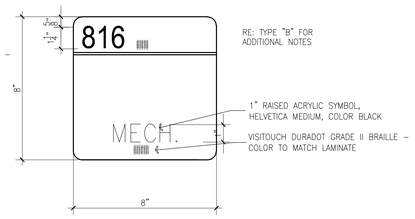
LEARNING STAIR RAMPS & DETAILS



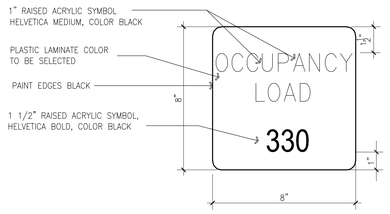
TYPE "A"



TYPE "B"



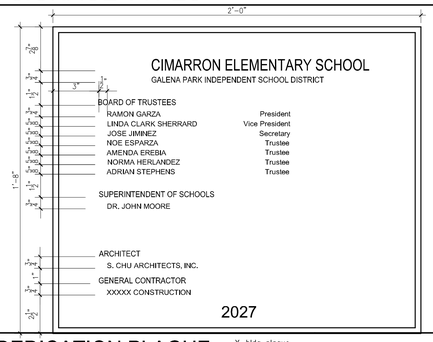
TYPE "C"



TYPE "C"(PROVIDE 6 THUS)

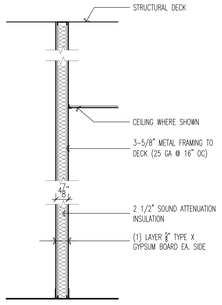
30 SIGNAGE TYPES

X-signage
Not to Scale

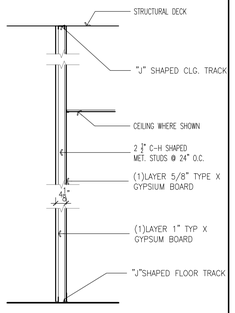


24 DEDICATION PLAQUE

X-bldg plaque
NO SCALE



18 PART. DF6 1 HR U465 1/2" = 1'-0"



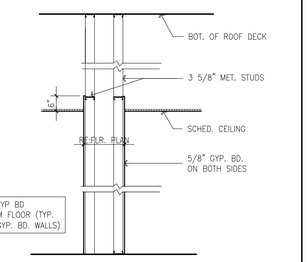
17 PART. DF7 1 HR U415 1/2" = 1'-0"

16

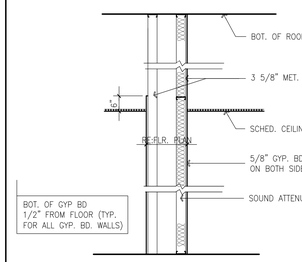
15

14

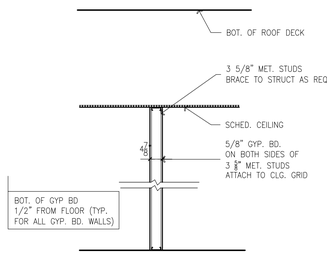
13



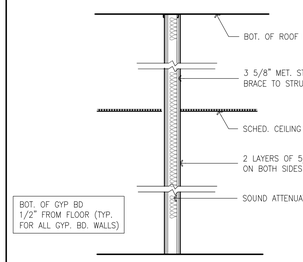
12 PARTITION TYPE D6 1/2" = 1'-0"



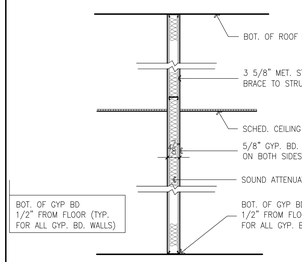
11 PARTITION TYPE D5 1/2" = 1'-0"



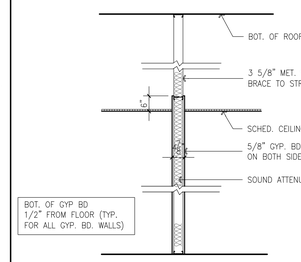
10 PARTITION TYPE D4 1/2" = 1'-0"



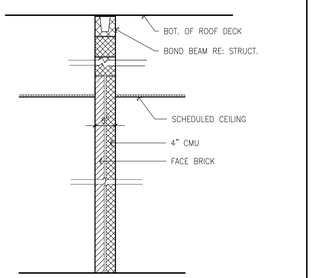
9 PARTITION TYPE D3 1/2" = 1'-0"



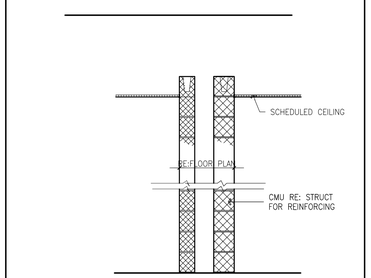
8 PARTITION TYPE D2 1/2" = 1'-0"



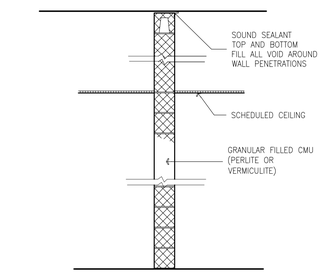
7 PARTITION TYPE D1 1/2" = 1'-0"



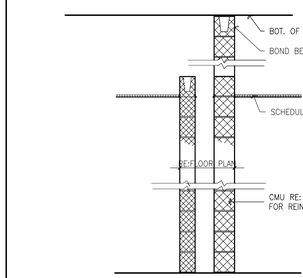
6 PARTITION TYPE C6 1/2" = 1'-0"



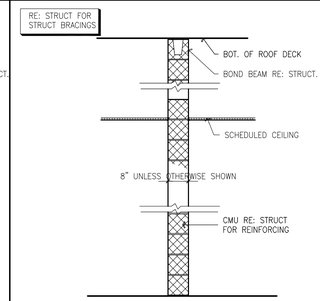
5 PARTITION TYPE C5 1/2" = 1'-0"



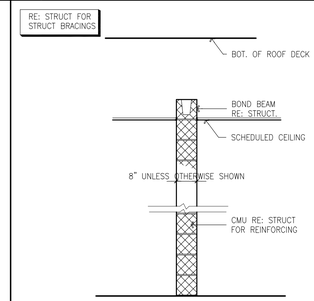
4 PARTITION TYPE C4 1/2" = 1'-0"



3 PARTITION TYPE C3 1/2" = 1'-0"



2 PARTITION TYPE C2 1/2" = 1'-0"



1 PARTITION TYPE C1 1/2" = 1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT STEPHEN HO CHU 8845 STATE OF TEXAS

10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A6.00

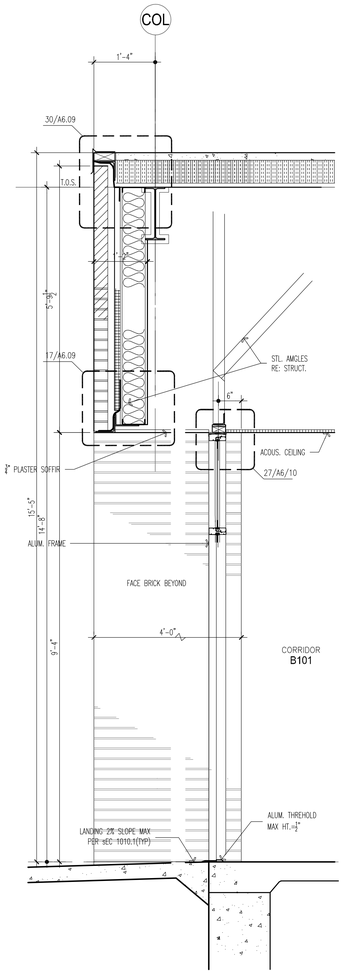
PARTITION TYPES & SIGNAGE TYPES

GENERAL NOTES:

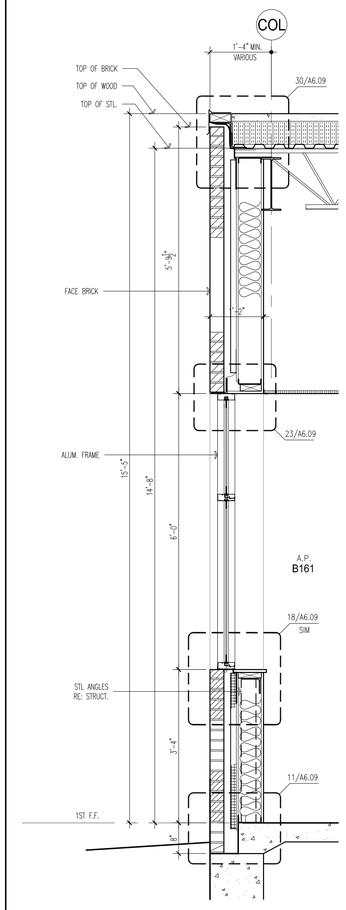
A. RE: STRUCTURAL DRAWINGS FOR REINFORCING AND BRACING OF CMU WALLS
B. ROOM FINISHES ARE NOT SHOWN. RE: ROOM FINISH SCHEDULE
C. RE: ELEVATIONS FOR BRICK TYPES
D. ALL WOOD BLOCKINGS AND PLYWOOD IN WALLS AND ROOF SHALL BE FIRE RETARDANT TREATED.

ENERGY CRITERIA VALUES:

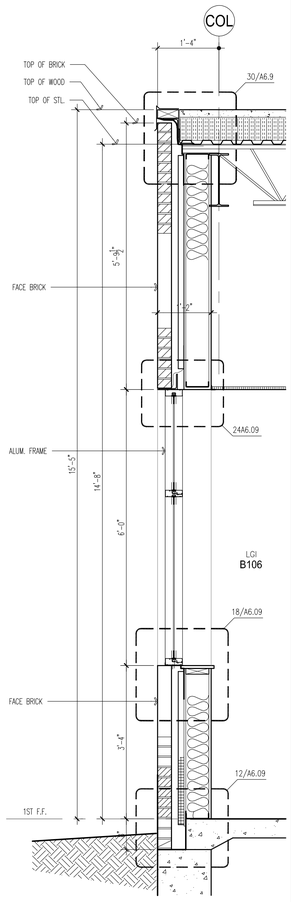
A. ROOF– CLASS "A", INSULATION ENTIRELY ABOVE DECK; 3-YEAR AGED SOLAR REFLECTANCE INDEX= 0.73; R=28; U=.035; BUDGET U-FACTOR=0.039.
B. METAL STUD WALL BACK-UP: R-19 CAVITY FILLED BATT INSULATION AND R=7.5 CONTINUOUS INSULATION.
C. CMU BACK UP WALLS: R-7.5 CONTINUOUS INSULATION
D. EXTERIOR GLAZING: U FACTOR= 0.29 OR BETTER; SHGC= 0.25 OR BETTER
E. VERTICAL FENESTRATION IS <= 30%
F. ALL AREAS OF AIR LEAKAGE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED.



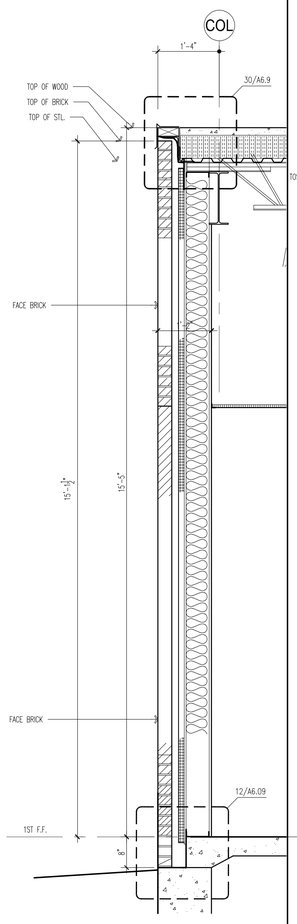
6 | @ OVERHANG X-V01 3/4"=1'-0"



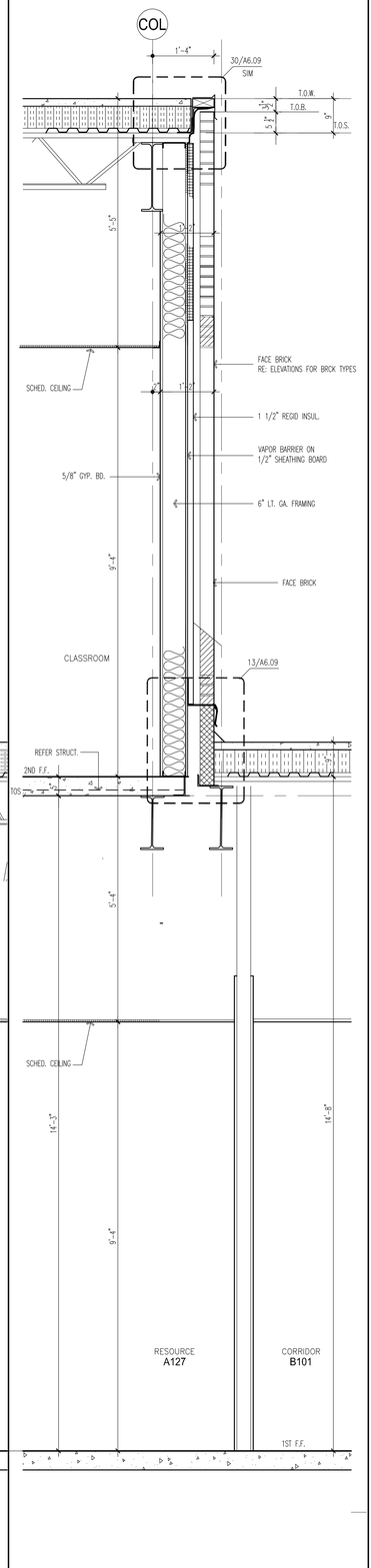
5 | WALL SECTION X-V01 3/4"=1'-0"



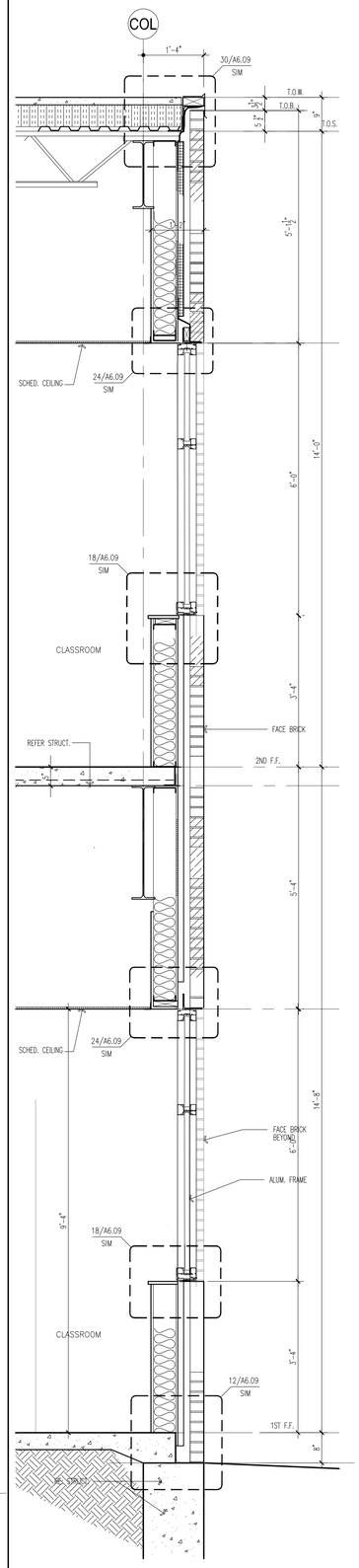
4 | WALL SECTION X-V01 3/4"=1'-0"



3 | WALL SECTION X-V01 3/4"=1'-0"



2 | WALL SECTION X-V01.dwg 3/4"=1'-0"



1 | @ CLASSROOM WINDOWS X-V01.dwg 3/4"=1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT STEPHEN CHU 25905 STATE OF TEXAS

10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN MC
CHECKED MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a COH COMMENT 1
10/17/2025	b COH COMMENT 2
10/24/2025	CSP

A6.01

WALL SECTIONS

GENERAL NOTES:

A. RE: STRUCTURAL DRAWINGS FOR REINFORCING AND BRACING OF CMU WALLS
B. ROOM FINISHES ARE NOT SHOWN. RE: ROOM FINISH SCHEDULE
C. RE: ELEVATIONS FOR BRICK TYPES
D. ALL WOOD BLOCKINGS AND PLYWOOD IN WALLS AND ROOF SHALL BE FIRE RETARDANT TREATED.

ENERGY CRITERIA VALUES:

A. ROOF- CLASS "A", INSULATION ENTIRELY ABOVE DECK; 3-YEAR AGED SOLAR REFLECTANCE INDEX= 0.72; R=26; U=.035; BUDGET U-FACTOR=0.039.

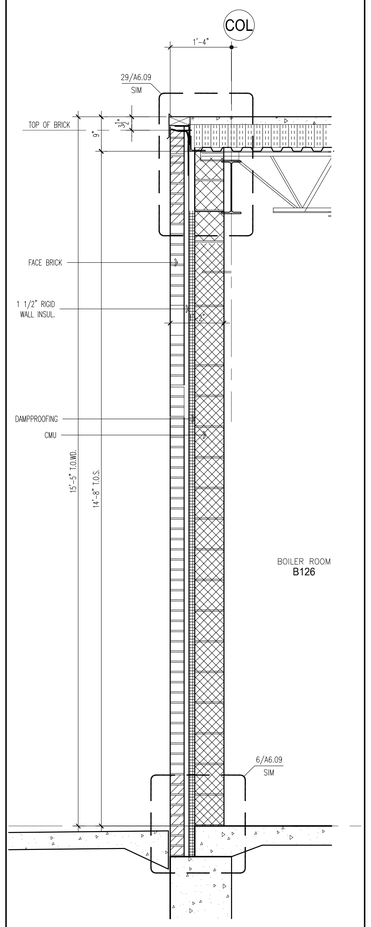
B. METAL STUD WALL BACK-UP: R-19 CAVITY FILLED BATT INSULATION AND R=7.5 CONTINUOUS INSULATION.

C. CMU BACK UP WALLS: R-7.5 CONTINUOUS INSULATION

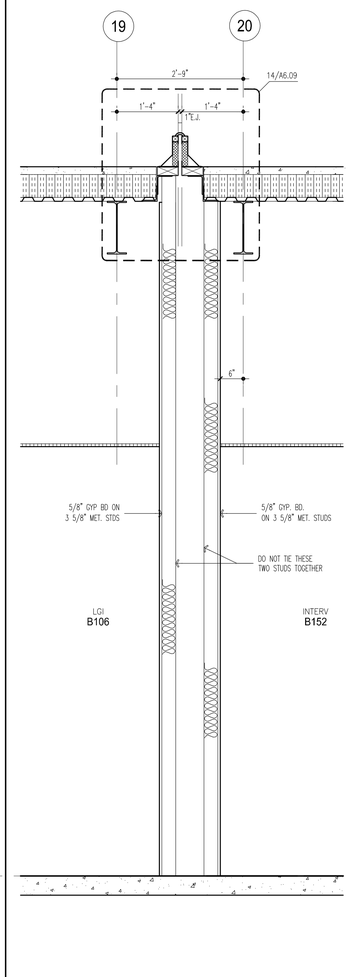
D. EXTERIOR GLAZING: U FACTOR= 0.29 OR BETTER; SHGC= 0.25 OR BETTER

E. VERTICAL FENESTRATION IS <= 30%

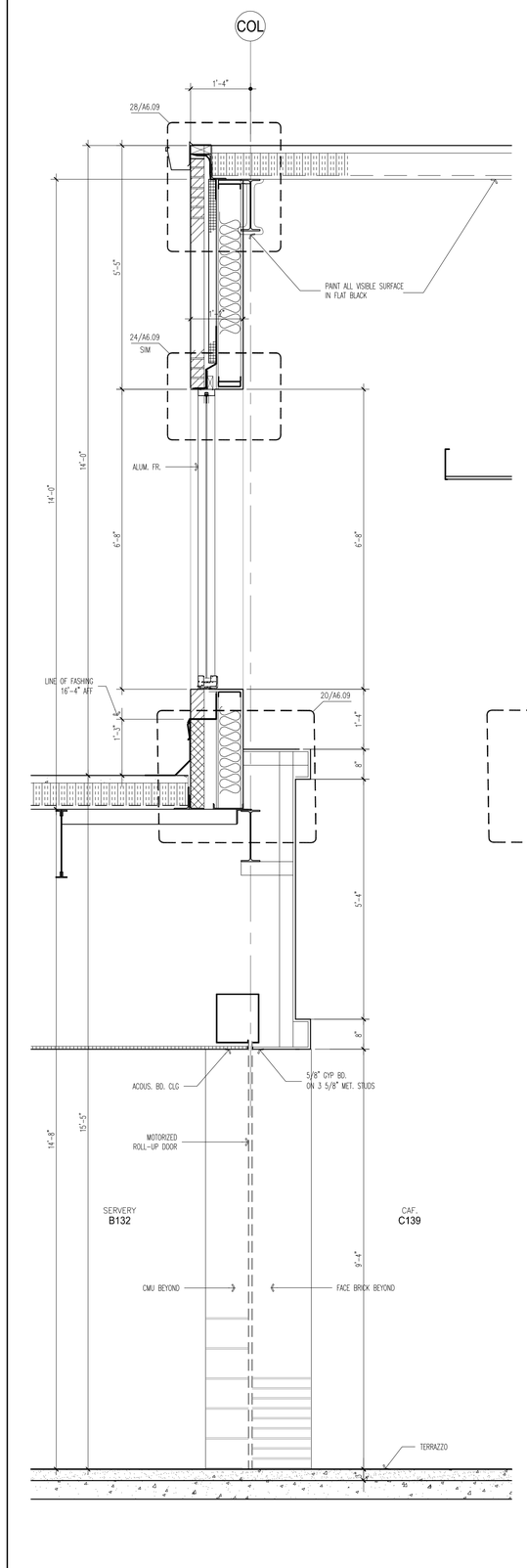
F. ALL AREAS OF AIR LEAKAGE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED.



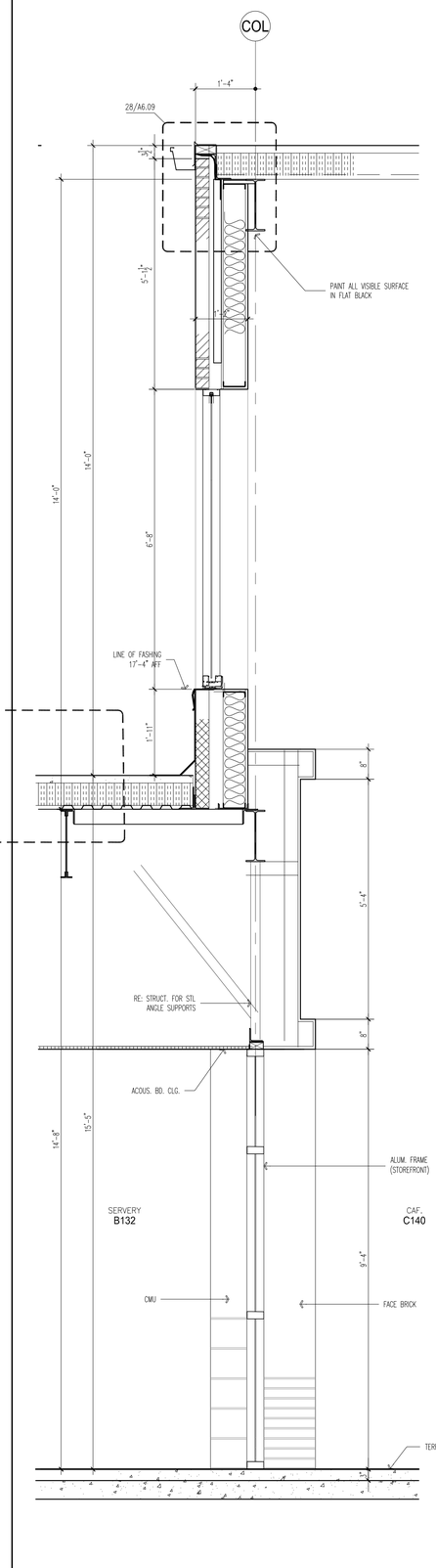
6 NORTH WALL-AREA "B" X-V01.dwg 3/4"=1'-0"



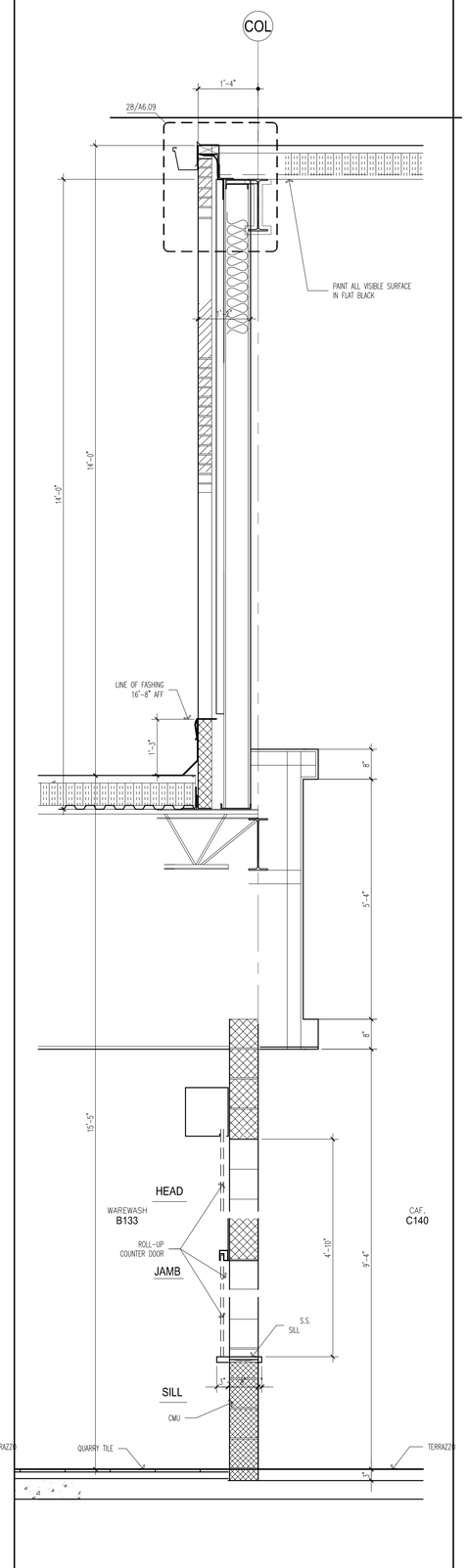
5 WALL SECTION @ E.J. X-V01.dwg 3/4"=1'-0"



4 WALL SECTION X-V01.dwg 3/4"=1'-0"



2 WALL SECTION X-V01.dwg 3/4"=1'-0"



1 WALL SECTION X-V01.dwg 3/4"=1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT 22100 2020 STATE OF TEXAS

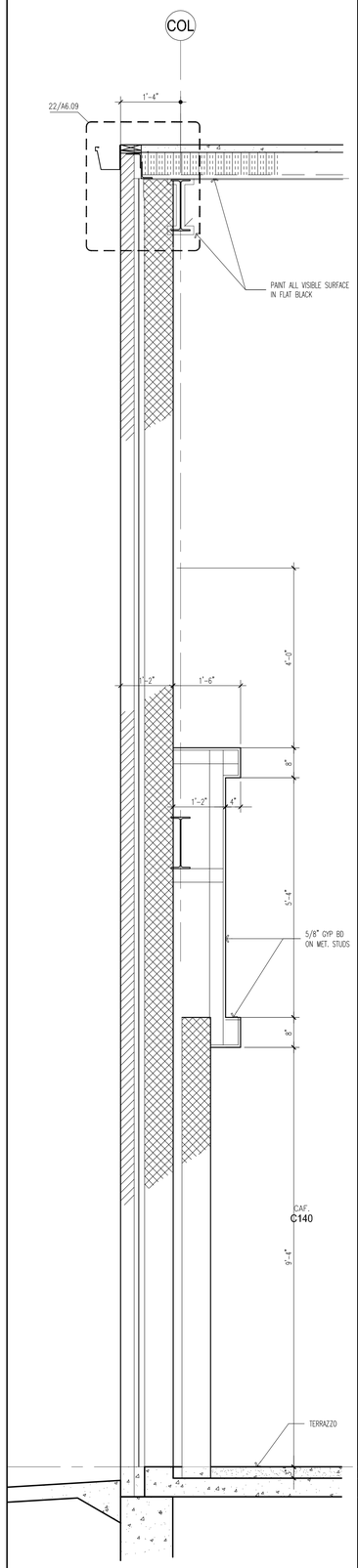
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN MC
CHECKED MC

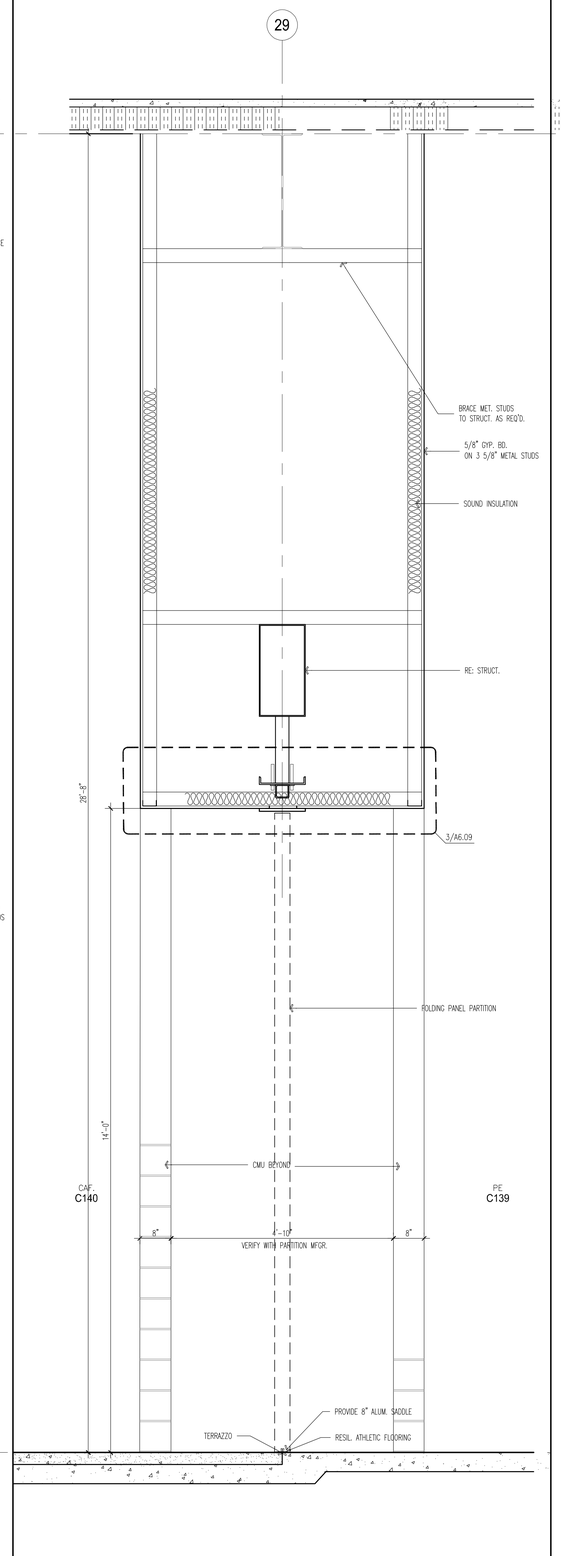
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A6.02

WALL SECTIONS

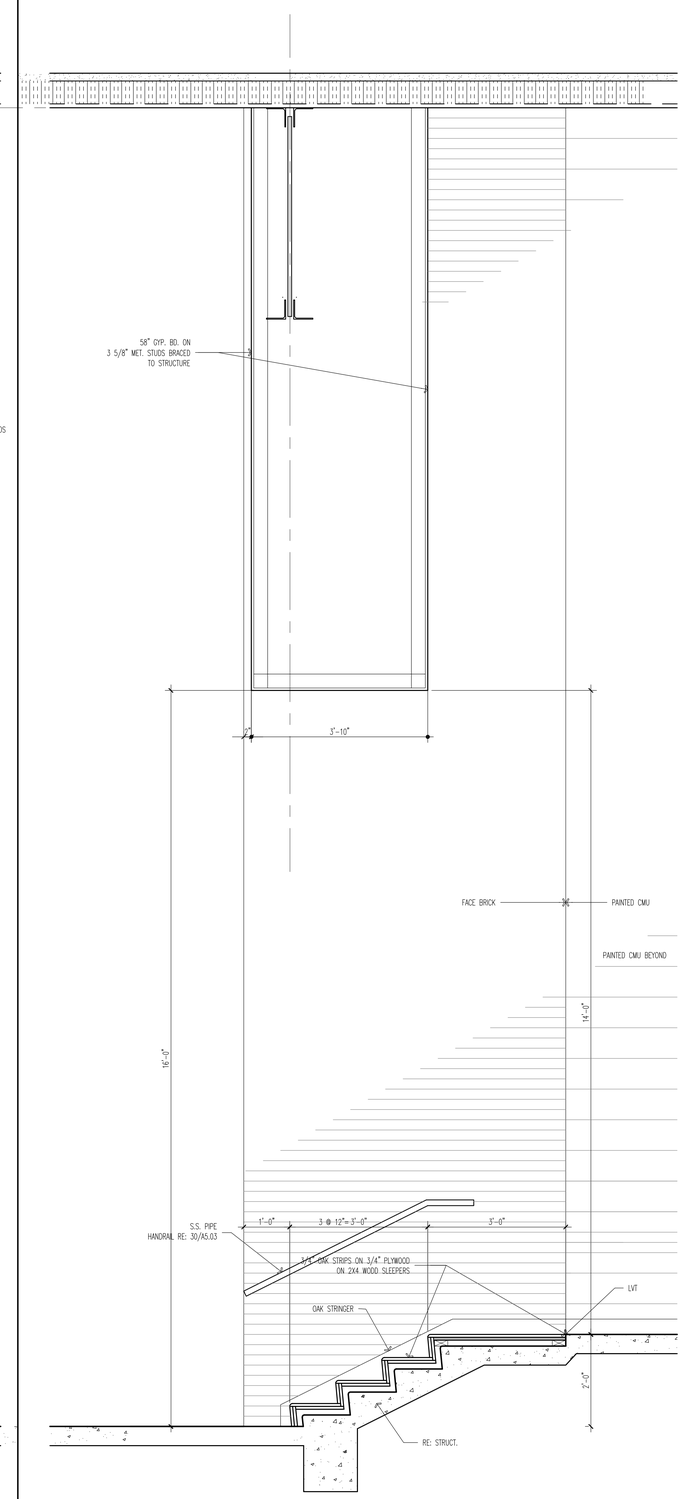


6 WALL SECTION X-VO1 3/4"=1'-0"

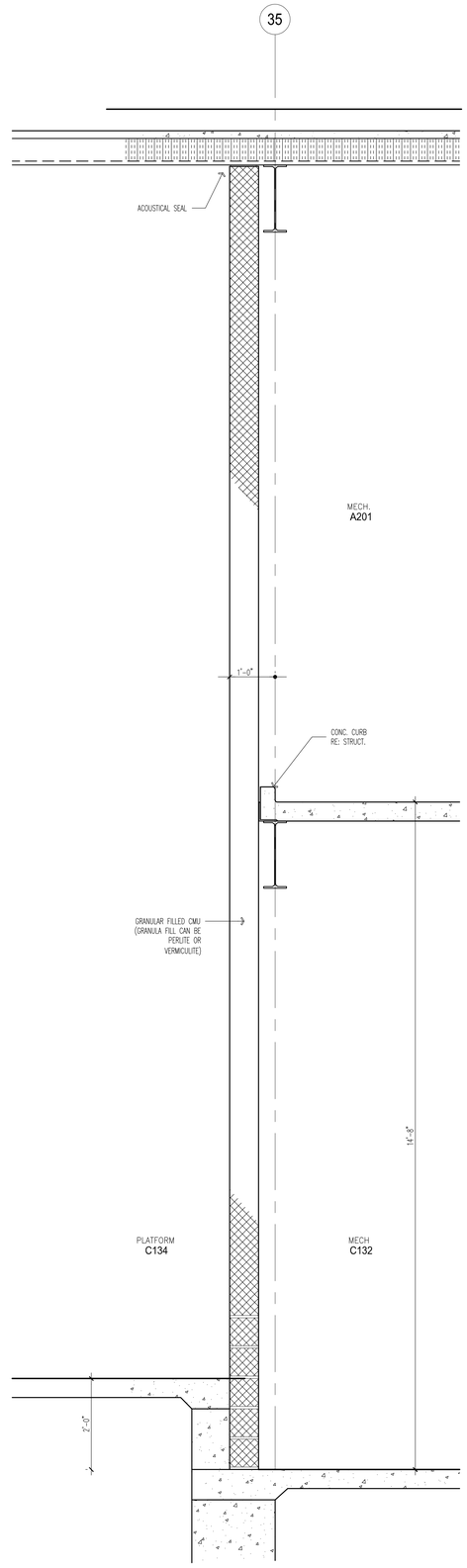


5 WALL SECTION X-VO1 3/4"=1'-0"

4



3 WALL SECTION X-VO1 3/4"=1'-0"



1 WALL SECTION X-VO1 3/4"=1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT STATE OF TEXAS 2502

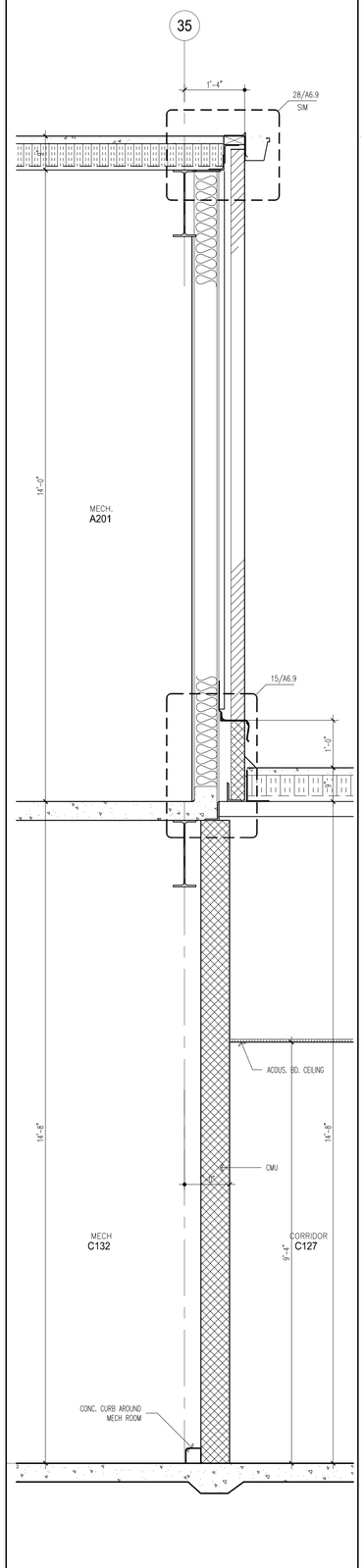
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

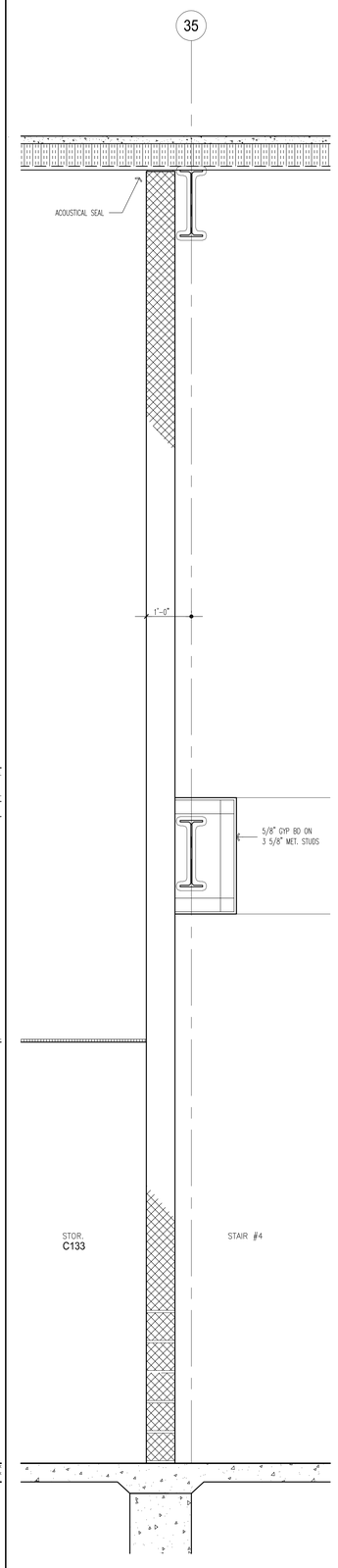
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A6.03

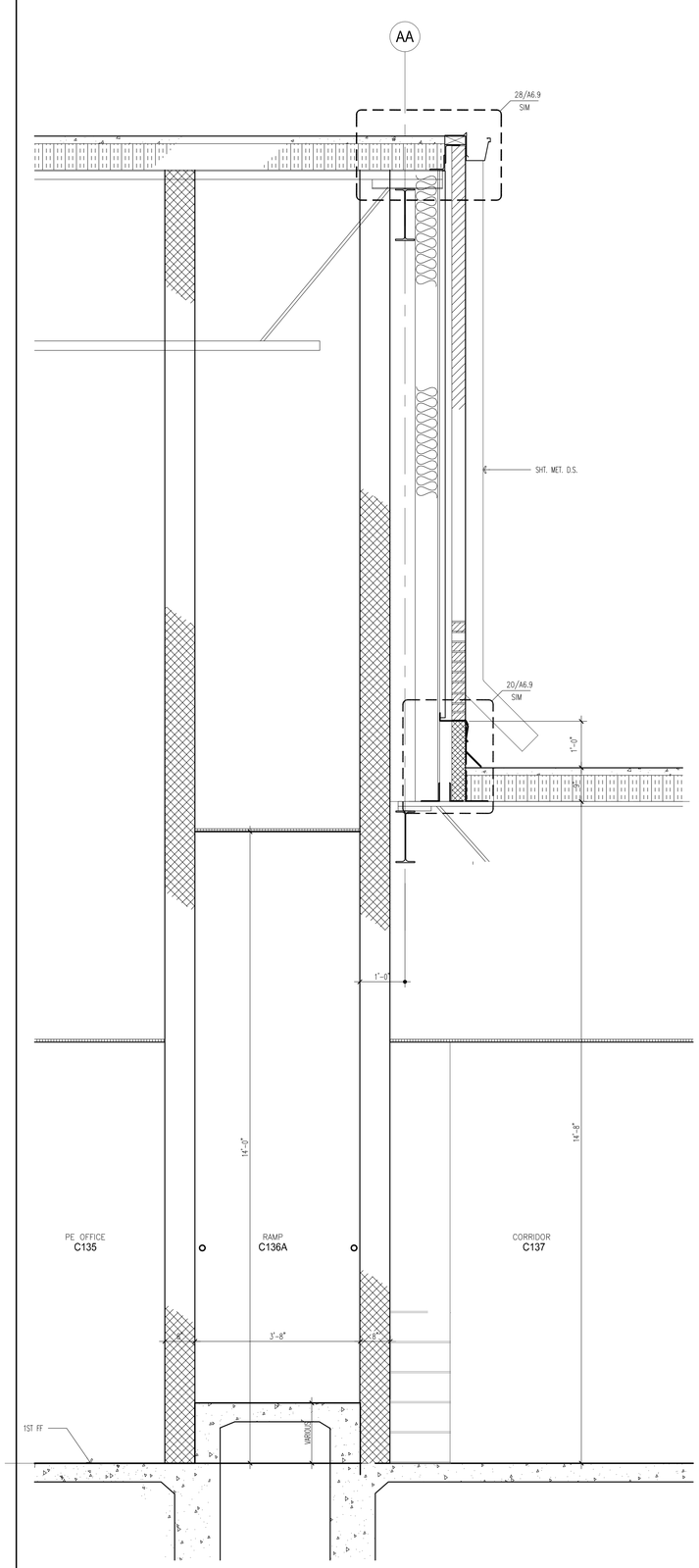
WALL SECTIONS



6 WALL SECTION X-V01 3/4"=1'-0"



5 WALL SECTION X-V01 3/4"=1'-0"



4 WALL SECTION X-V01 3/4"=1'-0"

ENERGY CRITERIA VALUES:

A. ROOF- CLASS "A". INSULATION ENTIRELY ABOVE DECK; 3-YEAR AGED SOLAR REFLECTANCE INDEX= 0.73; R=28; U=.035; BUDGET U-FACTOR=0.039.

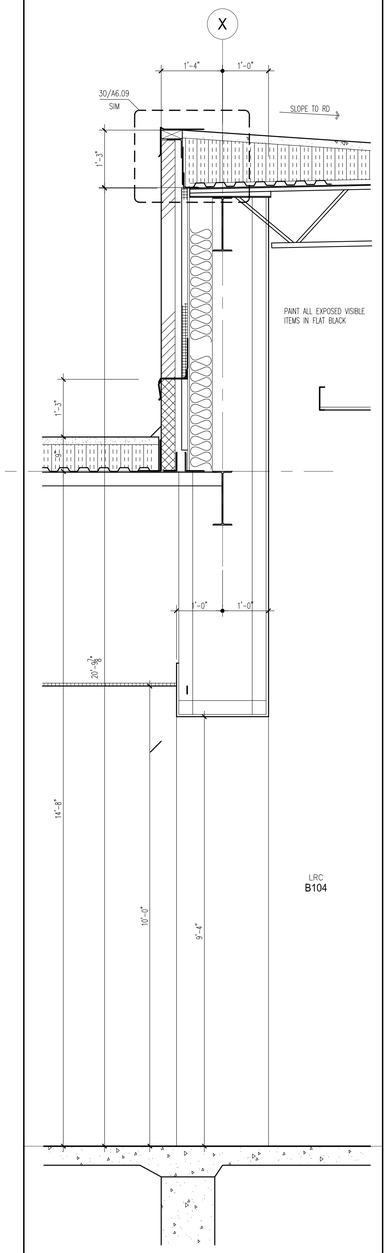
B. METAL STUD WALL BACK-UP: R-19 CAVITY FILLED BATT INSULATION AND R=7.5 CONTINUOUS INSULATION.

C. CMU BACK UP WALLS: R-7.5 CONTINUOUS INSULATION

D. EXTERIOR GLAZING: U FACTOR= 0.29 OR BETTER; SHGC= 0.25 OR BETTER

E. VERTICAL FENESTRATION IS <= 30%

F. ALL AREAS OF AIR LEAKAGE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED.



2 WALL SECTION X-V01 3/4"=1'-0"

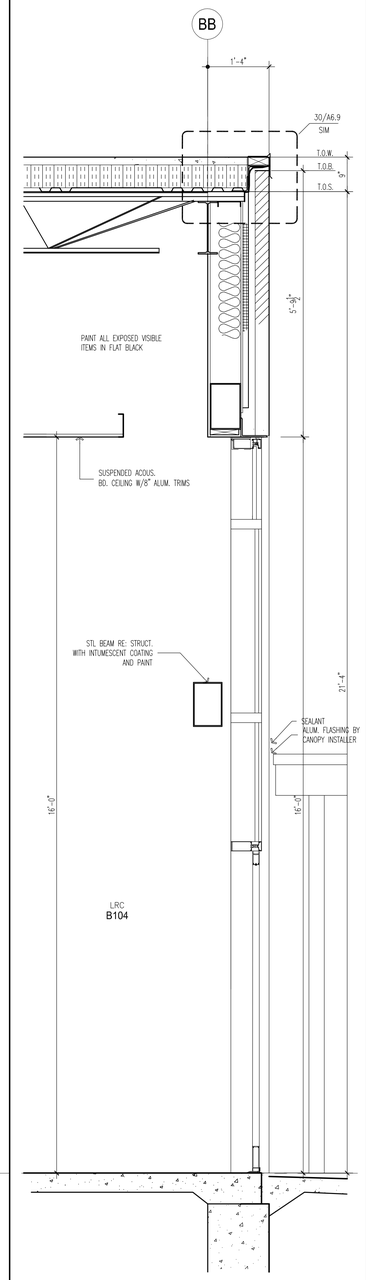
GENERAL NOTES:

A. RE: STRUCTURAL DRAWINGS FOR REINFORCING AND BRACING OF CMU WALLS

B. ROOM FINISHES ARE NOT SHOWN. RE: ROOM FINISH SCHEDULE

C. RE: ELEVATIONS FOR BRICK TYPES

D. ALL WOOD BLOCKINGS AND PLYWOOD IN WALLS AND ROOF SHALL BE FIRE RETARDANT TREATED.



1 WALL SECTION X-V01 3/4"=1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

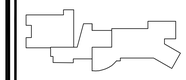
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

A6.04

WALL SECTIONS

GENERAL NOTES:

A. RE: STRUCTURAL DRAWINGS FOR REINFORCING AND BRACING OF CMU WALLS
B. ROOM FINISHES ARE NOT SHOWN. RE: ROOM FINISH SCHEDULE
C. RE: ELEVATIONS FOR BRICK TYPES
D. ALL WOOD BLOCKINGS AND PLYWOOD IN WALLS AND ROOF SHALL BE FIRE RETARDANT TREATED.

ENERGY CRITERIA VALUES:

A. ROOF- CLASS "A". INSULATION ENTIRELY ABOVE DECK; 3-YEAR AGED SOLAR REFLECTANCE INDEX= 0.73; R=28; U=.035; BUDGET U-FACTOR=0.039.

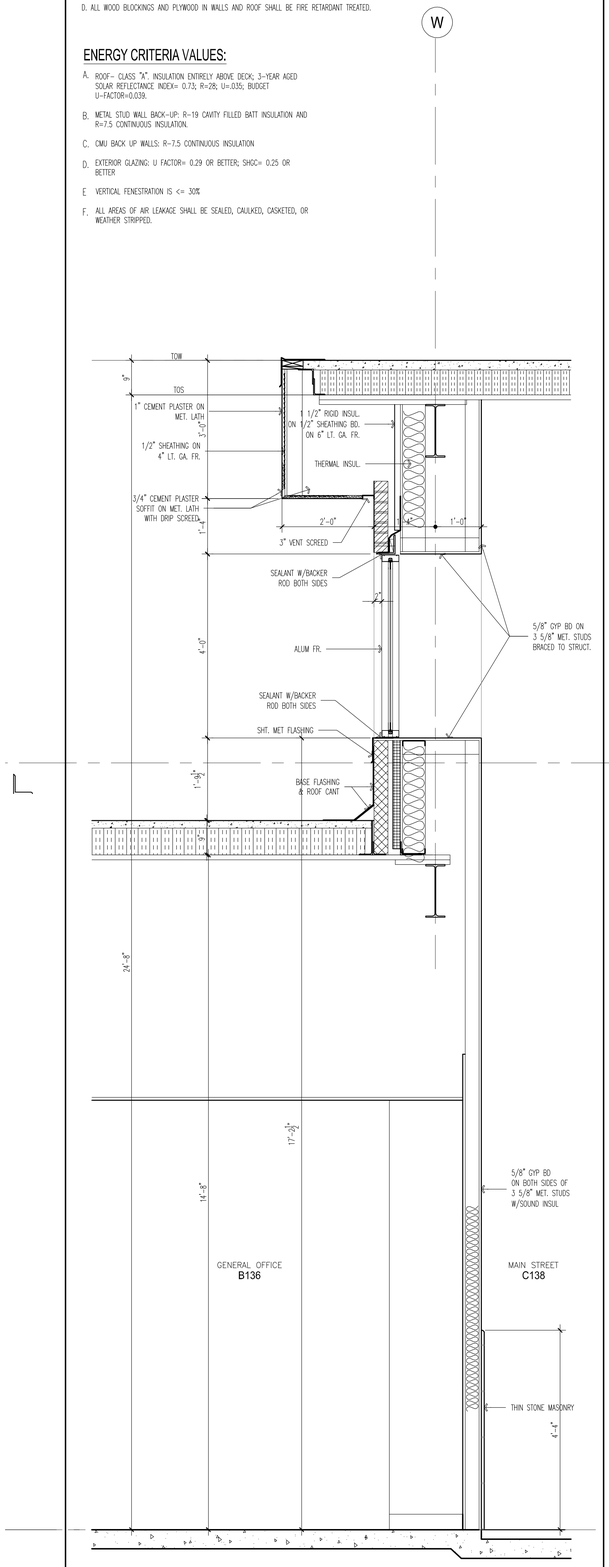
B. METAL STUD WALL BACK-UP: R-19 CAVITY FILLED BATT INSULATION AND R=7.5 CONTINUOUS INSULATION.

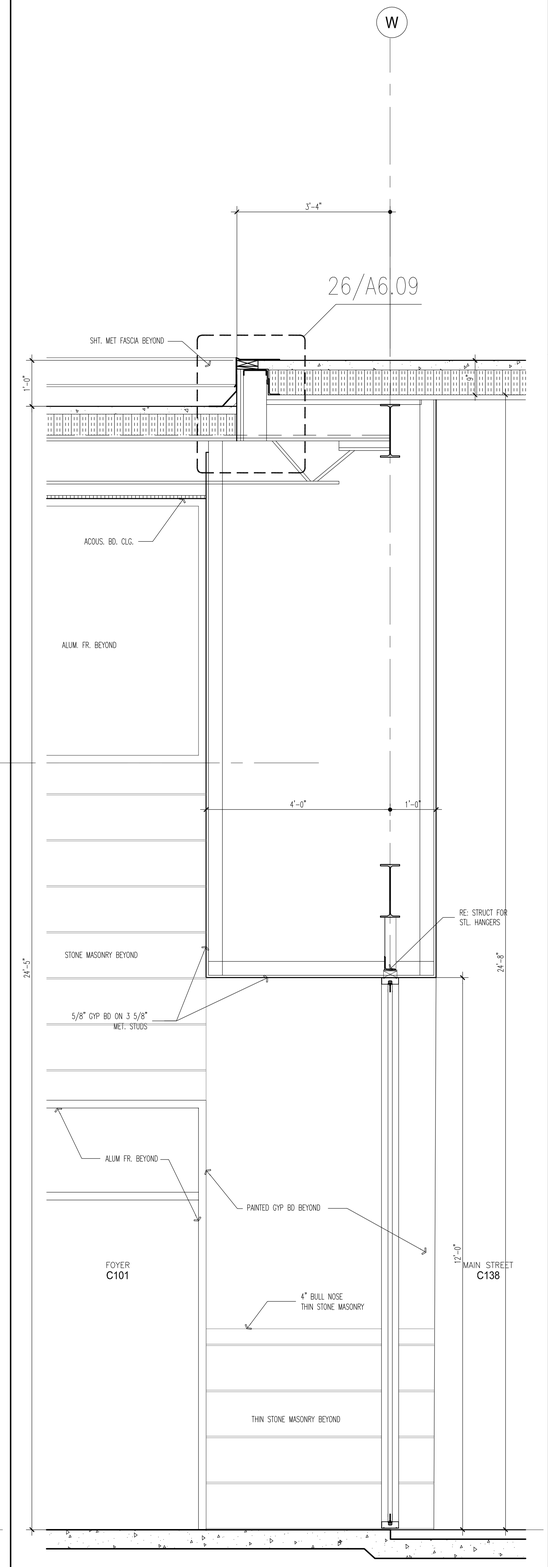
C. CMU BACK UP WALLS: R-7.5 CONTINUOUS INSULATION

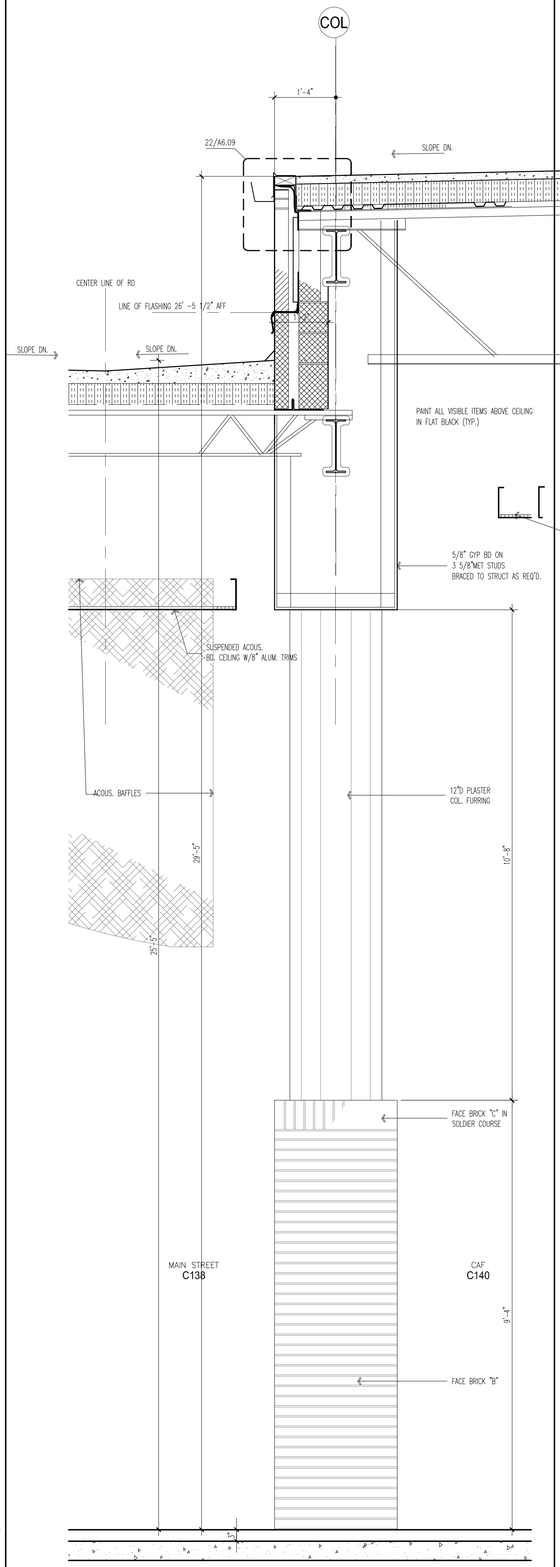
D. EXTERIOR GLAZING: U FACTOR= 0.29 OR BETTER; SHGC= 0.25 OR BETTER

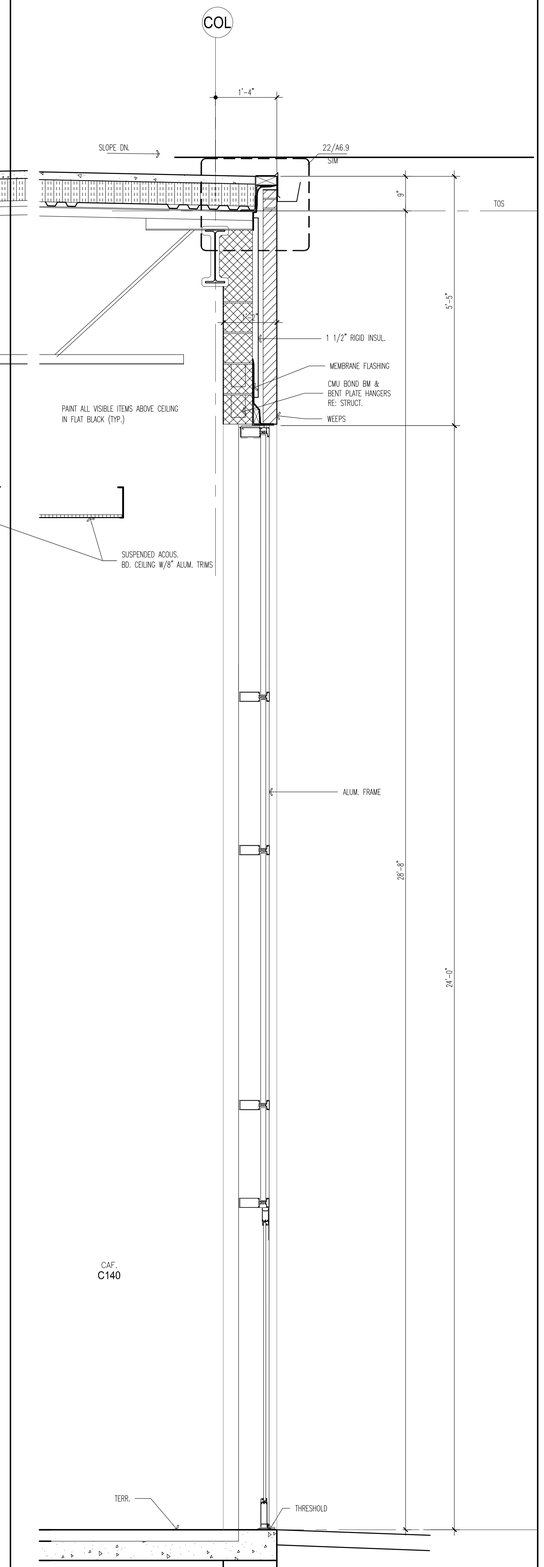
E. VERTICAL FENESTRATION IS <= 30%

F. ALL AREAS OF AIR LEAKAGE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED.









6 WALL SECTION X-V01.dwg 3/4"=1'-0"

5 WALL SECTION X-V01.dwg 3/4"=1'-0"

3 WALL SECTION X-V01.dwg 3/4"=1'-0"

1 N. WALL- CAF. X-V01.dwg 3/4"=1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT SUE FOO CHU #26001 STATE OF TEXAS

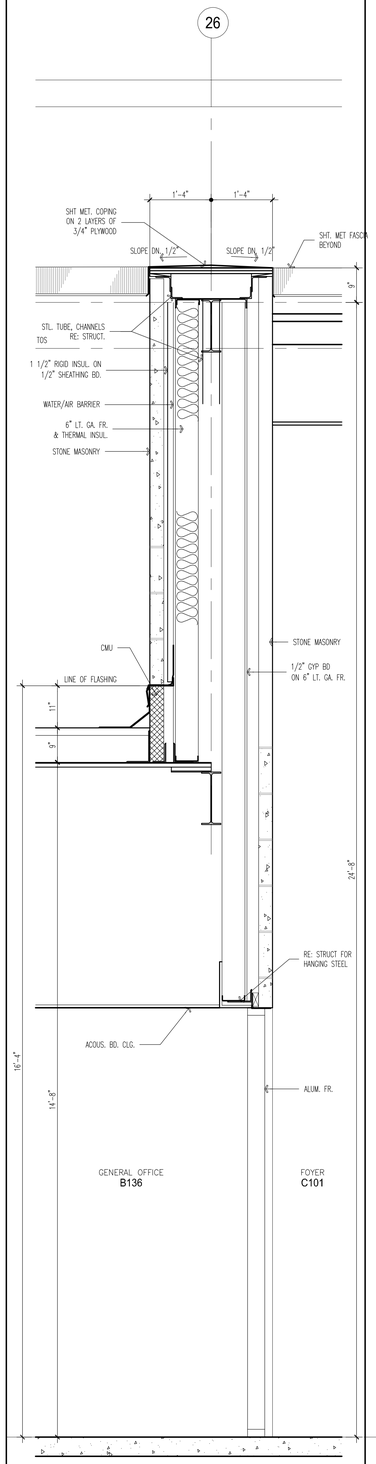
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

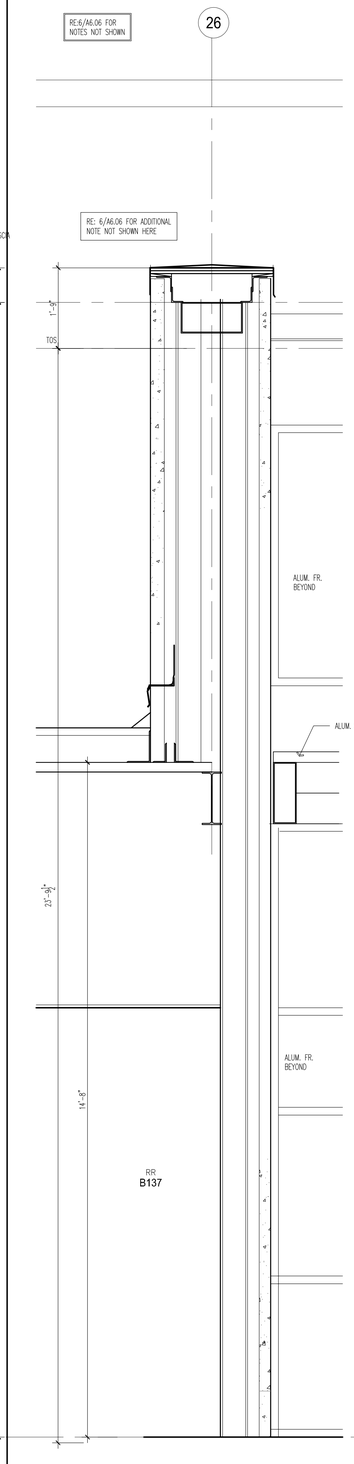
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
11/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A6.05

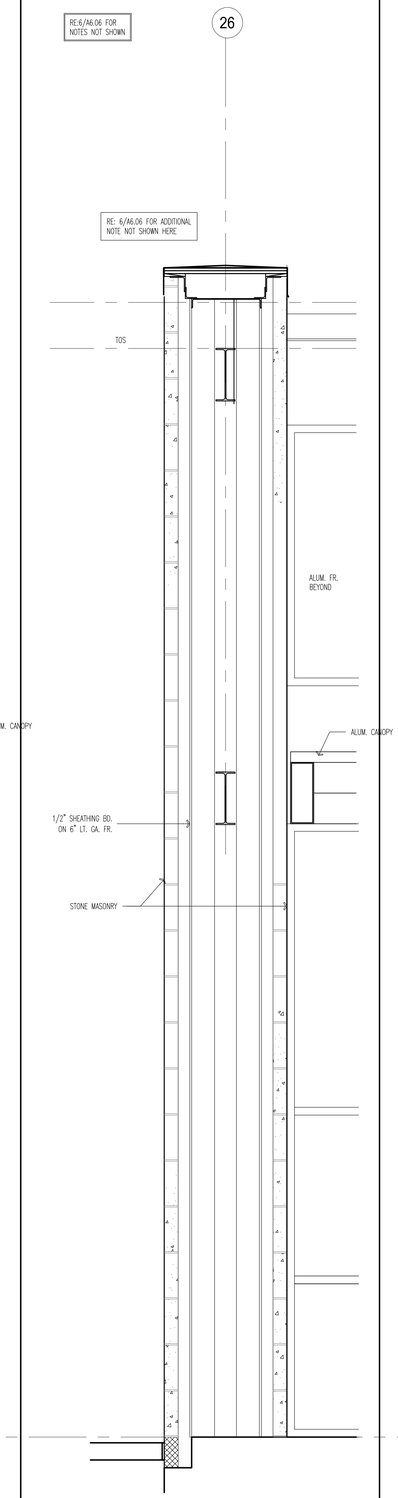
WALL SECTIONS



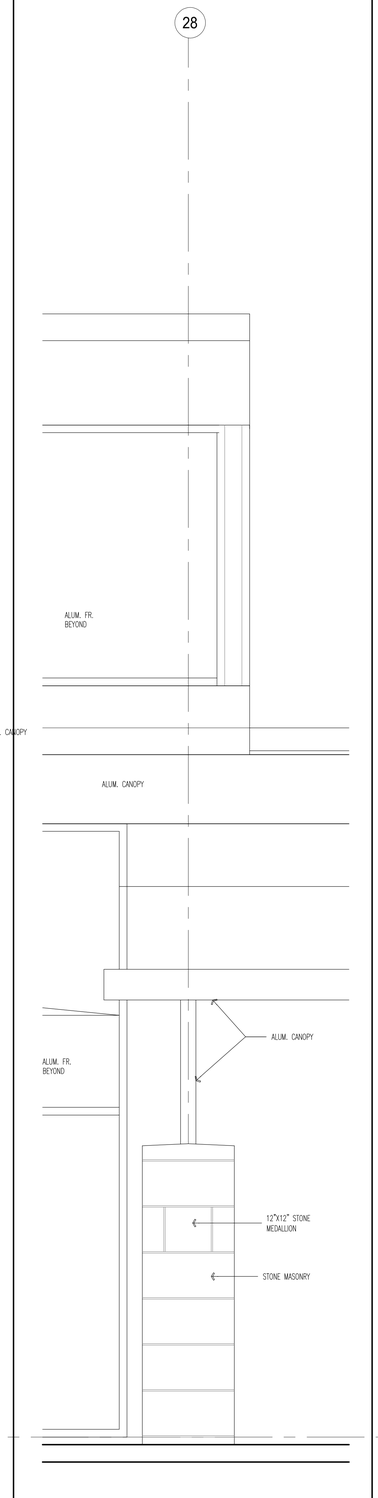
6 WALL SECTION X-V01.dwg 3/4"=1'-0"



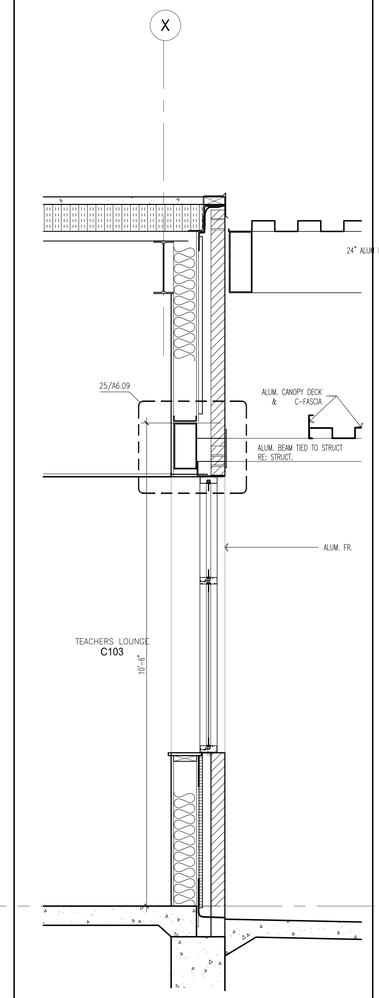
5 WALL SECTION X-V01.dwg 3/4"=1'-0"



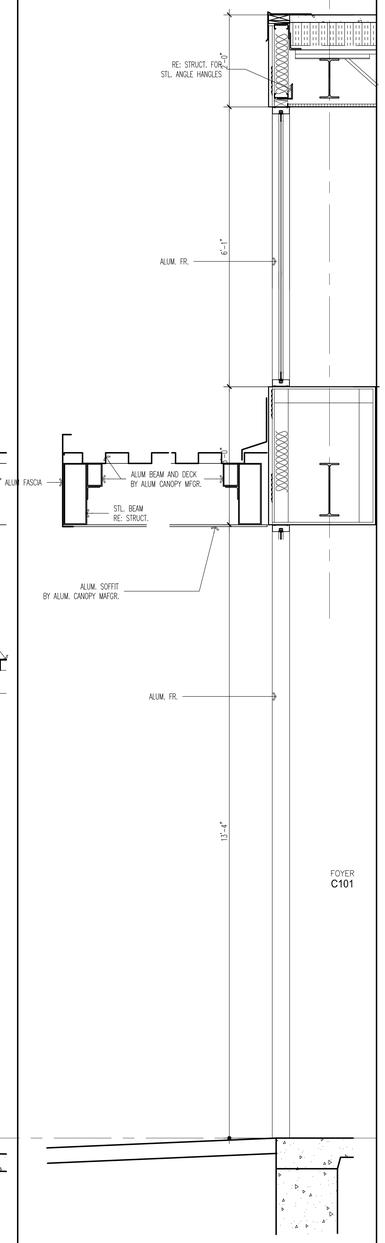
4 WALL SECTION X-V01.dwg 3/4"=1'-0"



3 WALL SECTION X-V01.dwg 3/4"=1'-0"



2 WALL SECTION X-V01.dwg 3/4"=1'-0"



1 WALL SECTION X-V01.dwg 3/4"=1'-0"

ENERGY CRITERIA VALUES:

A. ROOF- CLASS "A" INSULATION ENTIRELY ABOVE DECK; 3-YEAR AGED SOLAR REFLECTANCE INDEX= 0.73; R=28; U=.035; BUDGET U-FACTOR=0.039.

B. METAL STUD WALL BACK-UP: R-19 CAVITY FILLED BATT INSULATION AND R=7.5 CONTINUOUS INSULATION.

C. CMU BACK UP WALLS: R-7.5 CONTINUOUS INSULATION

D. EXTERIOR GLAZING: U FACTOR= 0.29 OR BETTER; SHGC= 0.25 OR BETTER

E. VERTICAL FENESTRATION IS <= 30%

F. ALL AREAS OF AIR LEAKAGE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED.

GENERAL NOTES:

A. RE: STRUCTURAL DRAWINGS FOR REINFORCING AND BRACING OF CMU WALLS

B. ROOM FINISHES ARE NOT SHOWN. RE: ROOM FINISH SCHEDULE

C. RE: ELEVATIONS FOR BRICK TYPES

D. ALL WOOD BLOCKINGS AND PLYWOOD IN WALLS AND ROOF SHALL BE FIRE RETARDANT TREATED.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT STEPHEN CHU 23909 STATE OF TEXAS

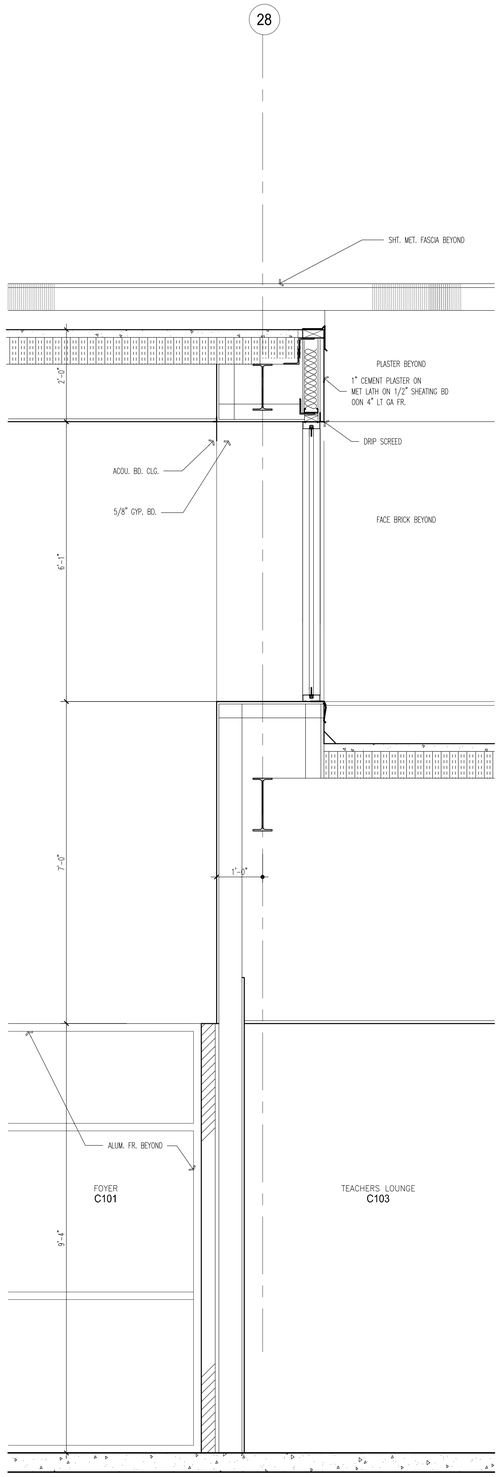
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN MC
CHECKED MC

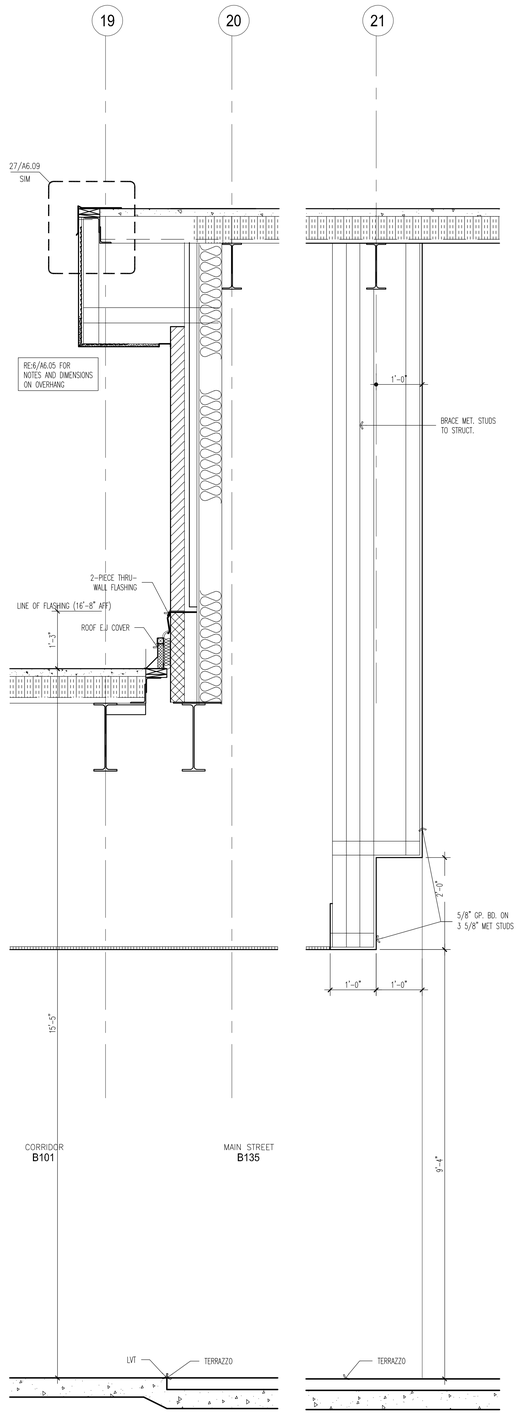
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A6.06

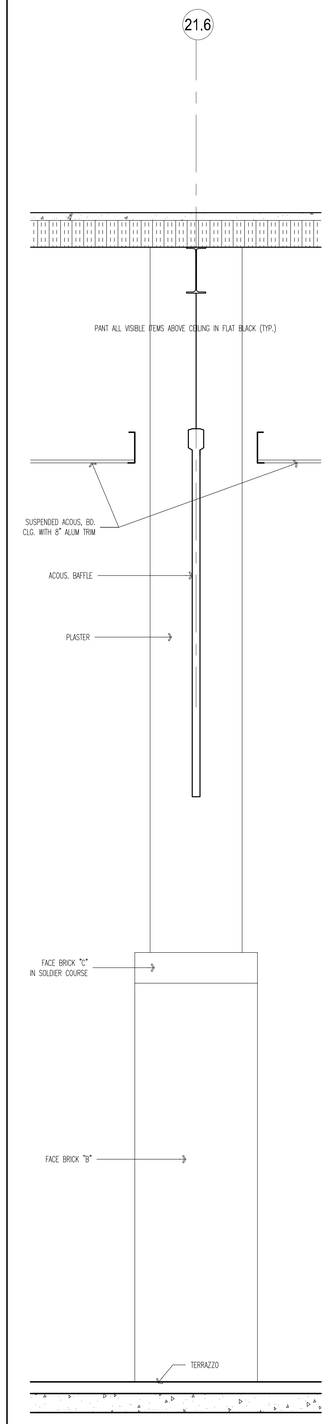
WALL SECTIONS



6 WALL SECTION X-V01.dwg 3/4"=1'-0"



5 WALL SECTION X-V01.dwg 3/4"=1'-0"



3 WALL SECTION X-V01.dwg 3/4"=1'-0"

ENERGY CRITERIA VALUES:

A. ROOF- CLASS "A". INSULATION ENTIRELY ABOVE DECK; 3-YEAR AGED SOLAR REFLECTANCE INDEX= 0.73; R=28; U=.035; BUDGET U-FACTOR=0.039.

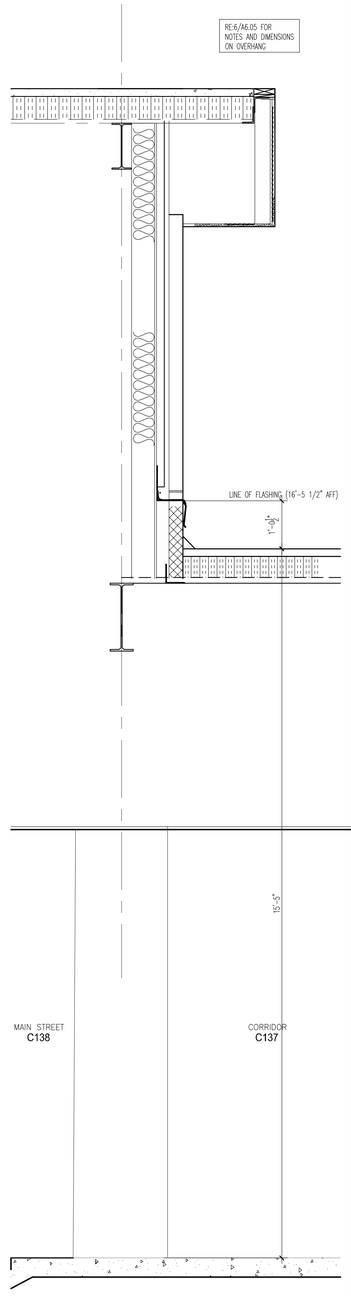
B. METAL STUD WALL BACK-UP: R-19 CAVITY FILLED BATT INSULATION AND R-7.5 CONTINUOUS INSULATION.

C. CMU BACK UP WALLS: R-7.5 CONTINUOUS INSULATION

D. EXTERIOR GLAZING: U FACTOR= 0.29 OR BETTER; SHGC= 0.25 OR BETTER

E. VERTICAL FENESTRATION IS <= 30%

F. ALL AREAS OF AIR LEAKAGE SHALL BE SEALED, CAULKED, CASKETED, OR WEATHER STRIPPED.



2 WALL SECTION X-V01.dwg 3/4"=1'-0"

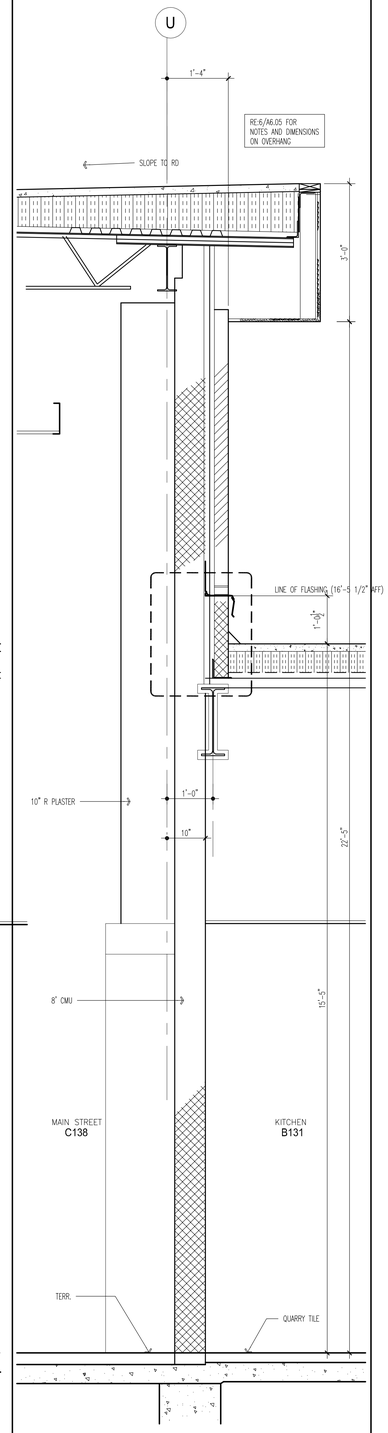
GENERAL NOTES:

A. RE: STRUCTURAL DRAWINGS FOR REINFORCING AND BRACING OF CMU WALLS

B. ROOM FINISHES ARE NOT SHOWN. RE: ROOM FINISH SCHEDULE

C. RE: ELEVATIONS FOR BRICK TYPES

D. ALL WOOD BLOCKINGS AND PLYWOOD IN WALLS AND ROOF SHALL BE FIRE RETARDANT TREATED.



1 WALL SECTION X-V01.dwg 3/4"=1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

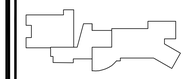
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN MC
CHECKED MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

A6.07

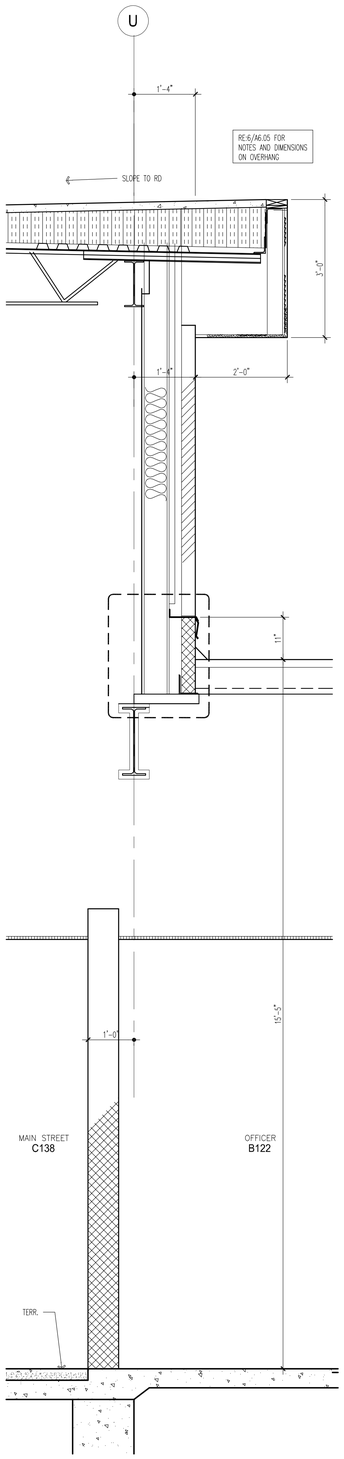
WALL SECTIONS

GENERAL NOTES:

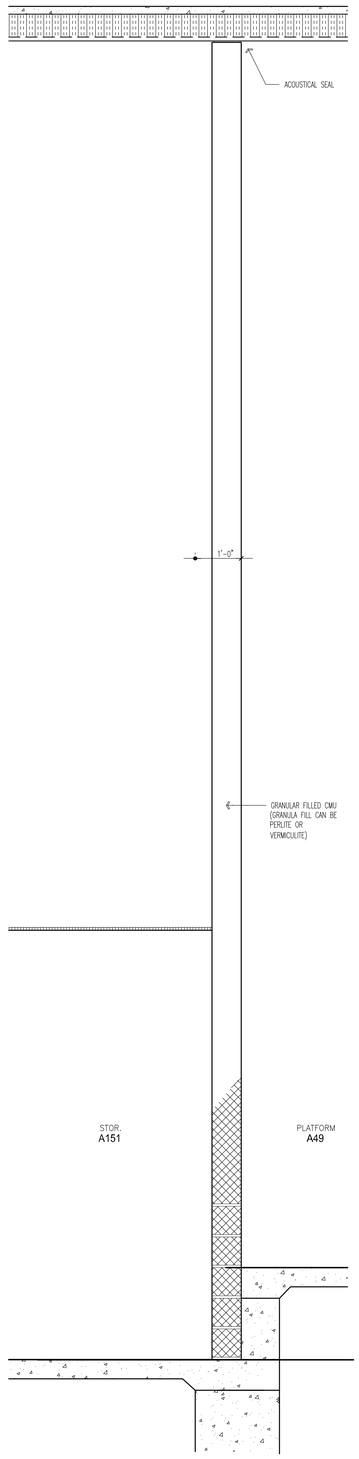
A. RE: STRUCTURAL DRAWINGS FOR REINFORCING AND BRACING OF CMU WALLS
B. ROOM FINISHES ARE NOT SHOWN. RE: ROOM FINISH SCHEDULE
C. RE: ELEVATIONS FOR BRICK TYPES
D. ALL WOOD BLOCKINGS AND PLYWOOD IN WALLS AND ROOF SHALL BE FIRE RETARDANT TREATED.

ENERGY CRITERIA VALUES:

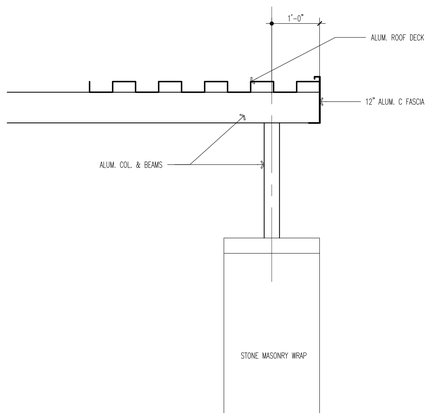
A. ROOF- CLASS "A" INSULATION ENTIRELY ABOVE DECK; 3-YEAR AGED SOLAR REFLECTANCE INDEX= 0.73; R=28; U=.035; BUDGET U-FACTOR=0.039.
B. METAL STUD WALL BACK-UP; R-19 CAVITY FILLED BATT INSULATION AND R=7.5 CONTINUOUS INSULATION.
C. CMU BACK UP WALLS: R-7.5 CONTINUOUS INSULATION
D. EXTERIOR GLAZING: U FACTOR= 0.29 OR BETTER; SHGC= 0.25 OR BETTER
E. VERTICAL FENESTRATION IS <= 30%
F. ALL AREAS OF AIR LEAKAGE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED.



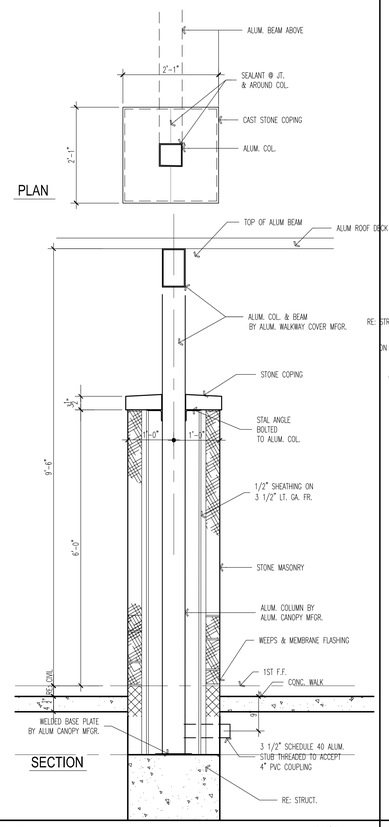
6 WALL SECTION X-V01.dwg 3/4"=1'-0"



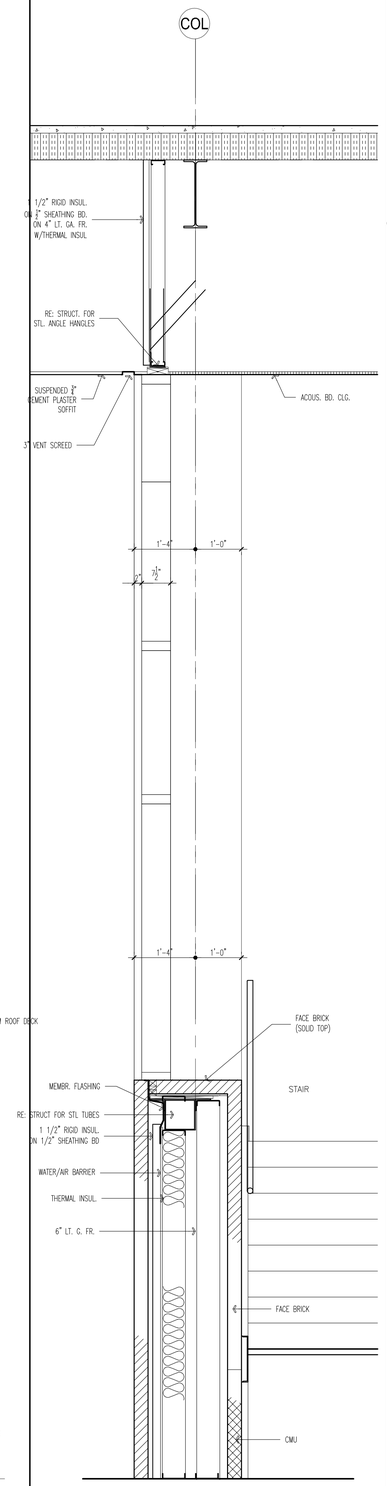
5 WALL SECTION X-V01.dwg 3/4"=1'-0"



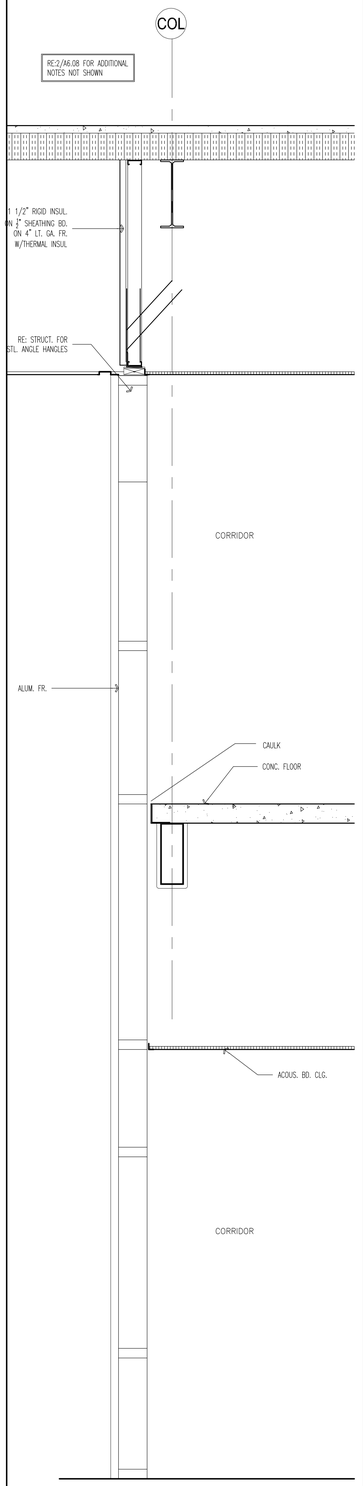
FASCIA



3 ALUM. CANOPY X-V01.dwg 3/4"=1'-0"



2 WALL SECTION-STAIR #1 X-V01.dwg 3/4"=1'-0"



1 WALL SECTION- STAIR #1 X-V01.dwg 3/4"=1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT SUSAN CHU 23008 STATE OF TEXAS

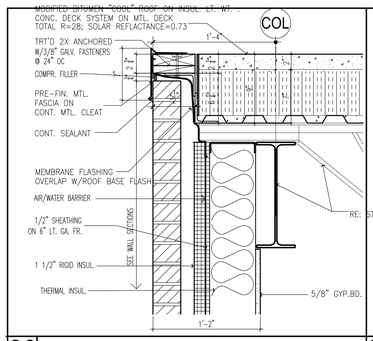
10/24/2025

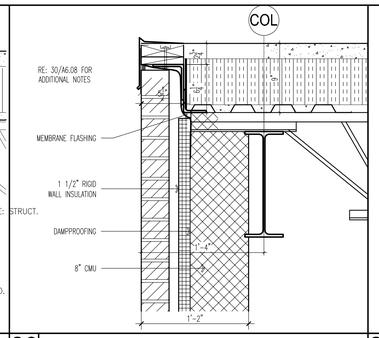
PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN MC
CHECKED MC

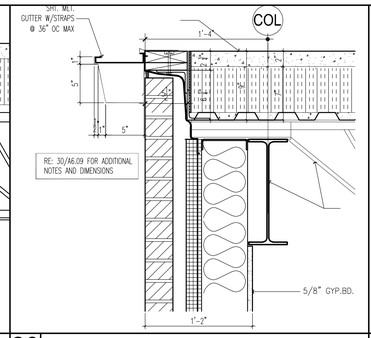
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

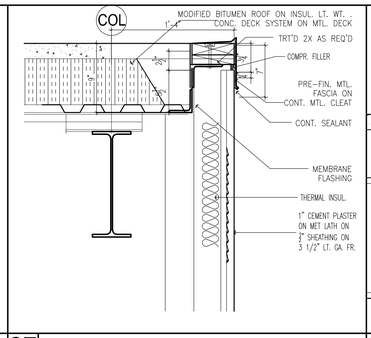
A6.08

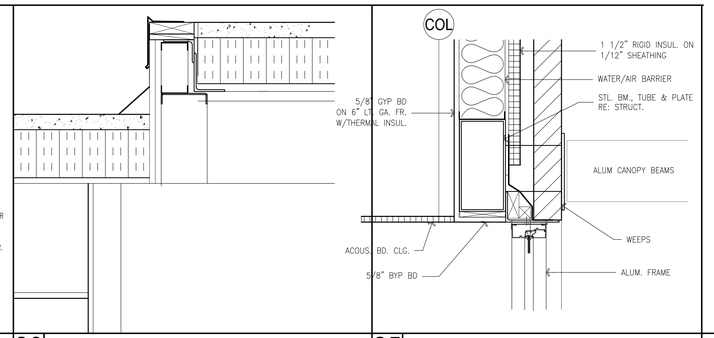
WALL SECTIONS



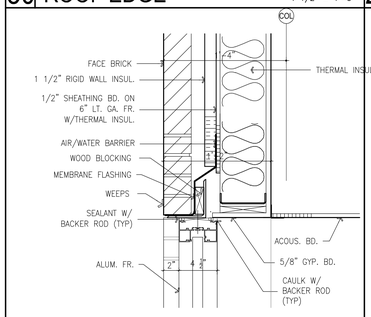




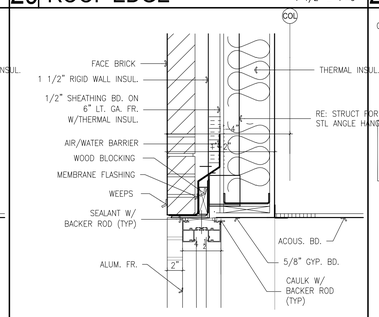




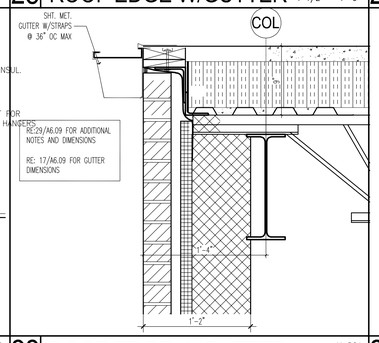
30 ROOF EDGE
X-D01 · 1 1/2" = 1'-0"



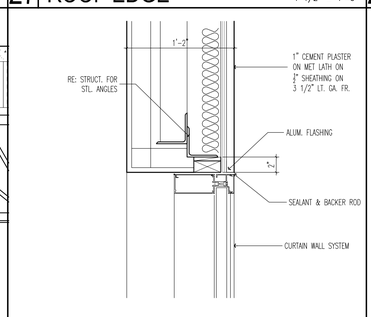
29 ROOF EDGE
X-D01 · 1 1/2" = 1'-0"



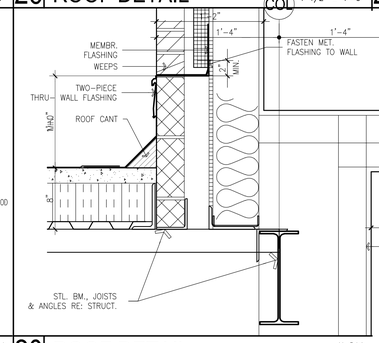
28 ROOF EDGE W/GUTTER
X-D01 · 1 1/2" = 1'-0"



27 ROOF EDGE
X-D01 · 1 1/2" = 1'-0"

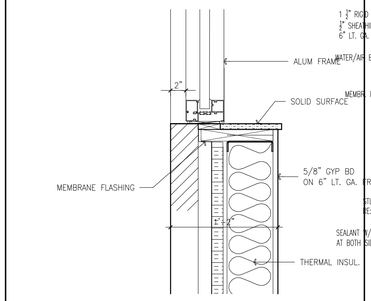


26 ROOF DETAIL
X-D14 · 1 1/2" = 1'-0"

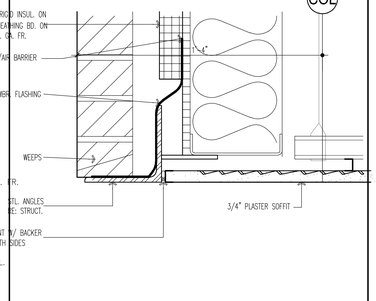


25 ROOF DETAIL
X-D14 · 1 1/2" = 1'-0"

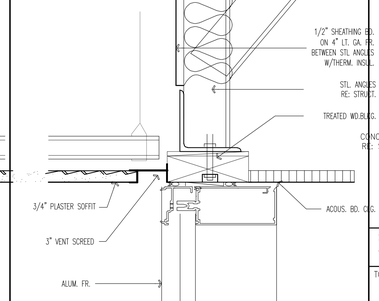
24 HEAD
X-D03 · 1 1/2" = 1'-0"



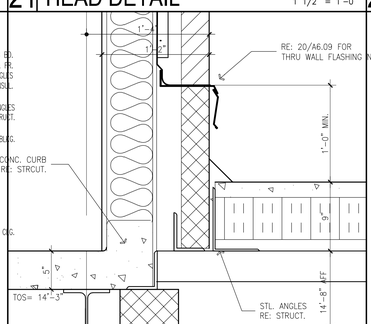
23 HEAD
X-D03 · 1 1/2" = 1'-0"



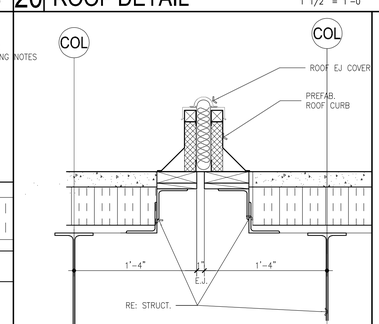
22 ROOF EDGE W/GUTTER
X-D01 · 1 1/2" = 1'-0"



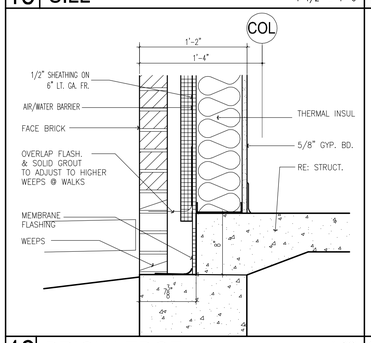
21 HEAD DETAIL
X-D01 · 1 1/2" = 1'-0"



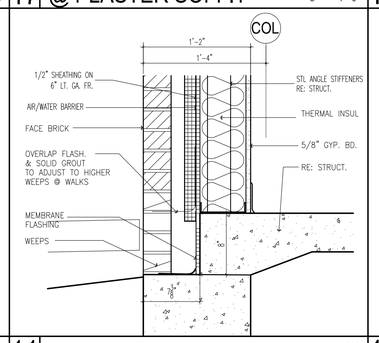
20 ROOF DETAIL
X-D14 · 1 1/2" = 1'-0"



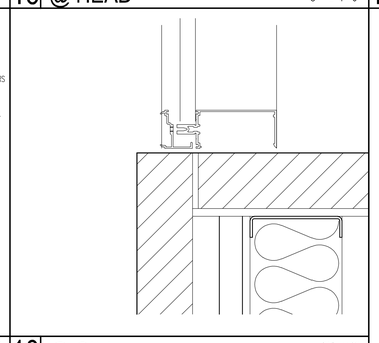
18 SILL
X-D03 · 1 1/2" = 1'-0"



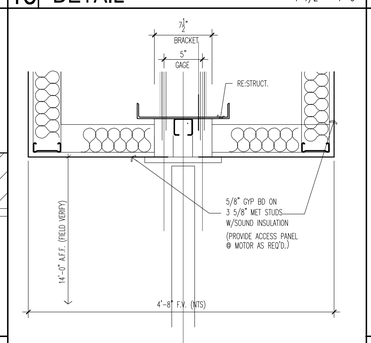
17 @ PLASTER SOFFIT
x-D13-soffit · 3" = 1'-0"



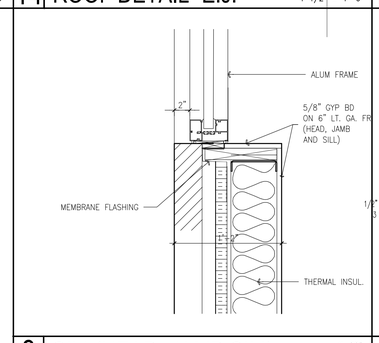
16 @ HEAD
x-D13-soffit · 3" = 1'-0"



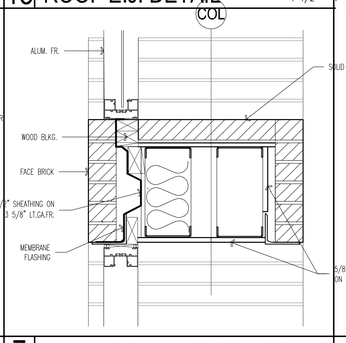
15 DETAIL
X-D14 · 1 1/2" = 1'-0"



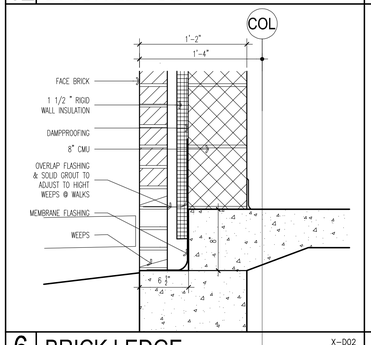
14 ROOF DETAIL- E.J.
X-D14 · 1 1/2" = 1'-0"



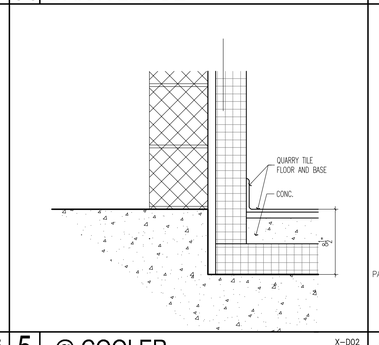
13 ROOF E.J. DETAIL
X-D14 · 1 1/2" = 1'-0"



12 BRICK LEDGE
X-D02 · 1 1/2" = 1'-0"



11 BRICK LEDGE
X-D02 · 1 1/2" = 1'-0"



10 @ SILL
x-D13-soffit · 3" = 1'-0"

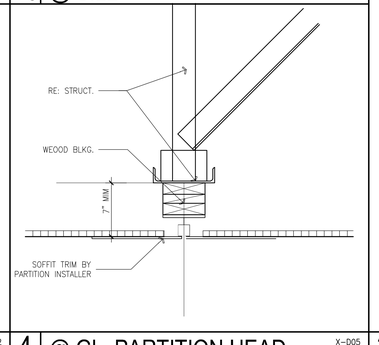
8 SILL(HEAD, JAMB SIM)
X-D03 · 1 1/2" = 1'-0"

7 ALUM. FRAME @ STAIRS
X-D19.dwg · 1 1/2"=1'-0"

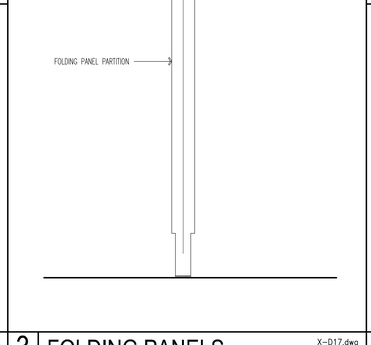
6 BRICK LEDGE
X-D02 · 1 1/2" = 1'-0"

5 @ COOLER
X-D02 · 1 1/2" = 1'-0"

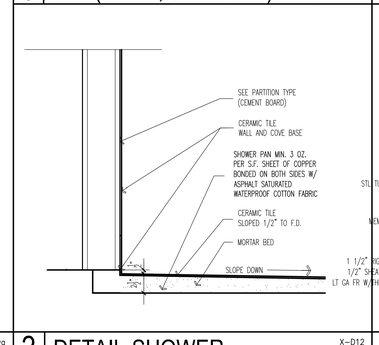
4 @ GL. PARTITION HEAD
X-D05 · 1 1/2" = 1'-0"



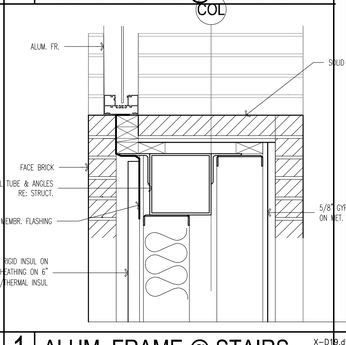
3 FOLDING PANELS
X-D17.dwg · 1 1/2"=1'-0"



2 DETAIL-SHOWER
X-D12 · 1 1/2" = 1'-0"



1 ALUM. FRAME @ STAIRS
X-D19.dwg · 1 1/2"=1'-0"



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

S. Chu Architects
Houston, Texas
281-961-0355

REGISTERED ARCHITECT S. CHU 19905 STATE OF TEXAS

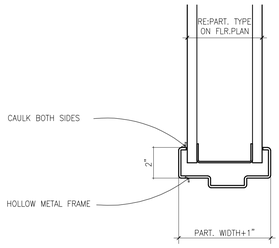
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

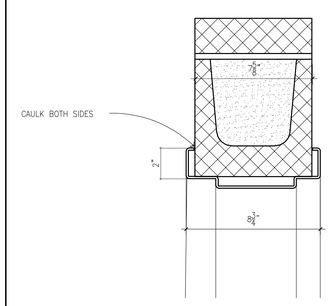
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

A6.09

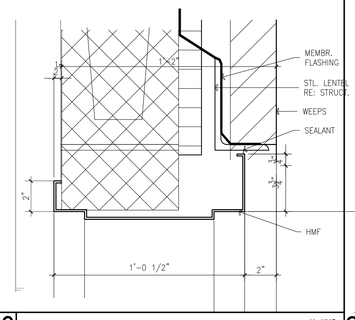
DETAILS



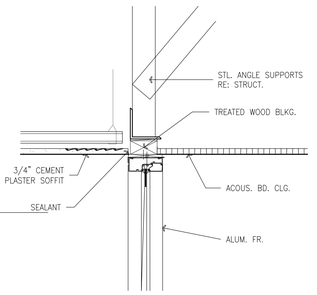
30 HEAD X-HM 3" = 1'-0"



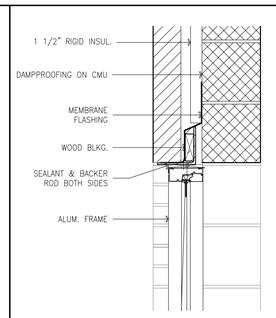
29 HEAD X-HM 3" = 1'-0"



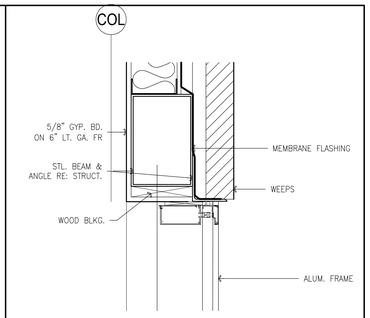
28 HEAD X-HM2 3" = 1'-0"



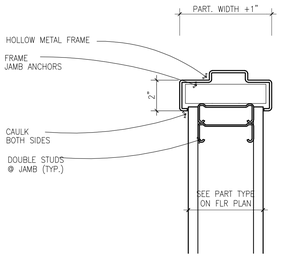
27 HEAD X-D04 1 1/2" = 1'-0"



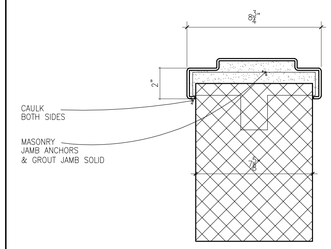
26 HEAD X-D04 1 1/2" = 1'-0"



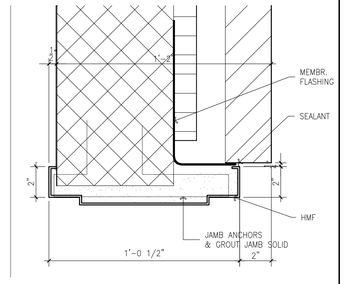
25 HEAD X-D04 1 1/2" = 1'-0"



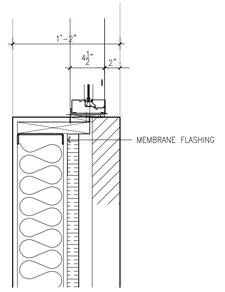
24 JAMB X-HM 3" = 1'-0"



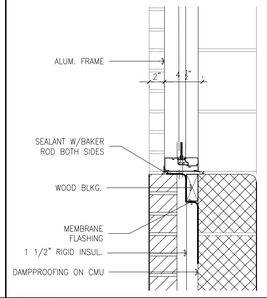
23 JAMB X-HM 3" = 1'-0"



22 JAMB X-HM 3" = 1'-0"

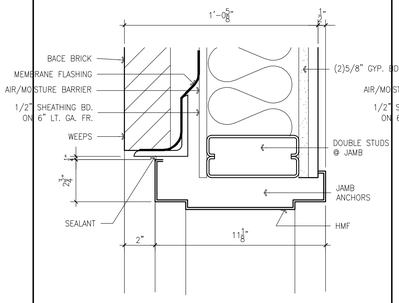


21 JAMB X-D04 1 1/2" = 1'-0"

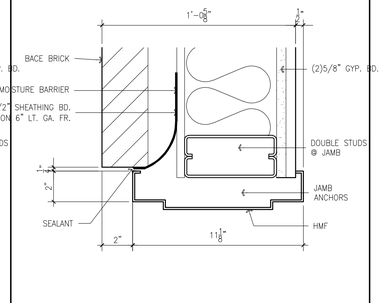


20 SILL (JAMB SIM) X-D04 1 1/2" = 1'-0"

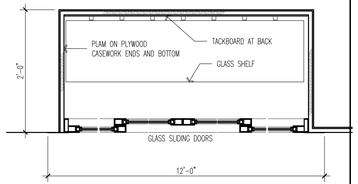
19



18 HEAD X-HM 3" = 1'-0"



17 JAMB X-HM 3" = 1'-0"

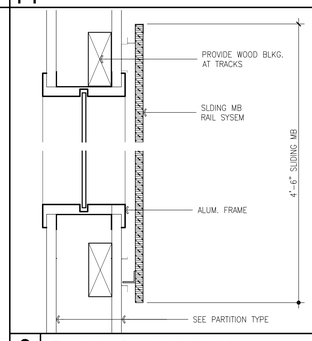


16 DISPLAY CASE-PLAN X-D26 1"=1'-0"

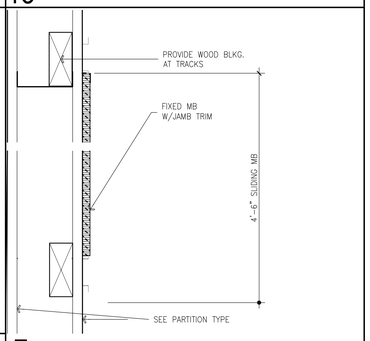
15

14

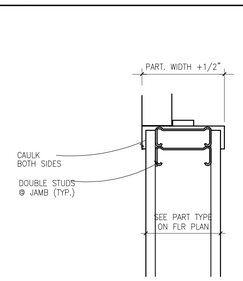
13



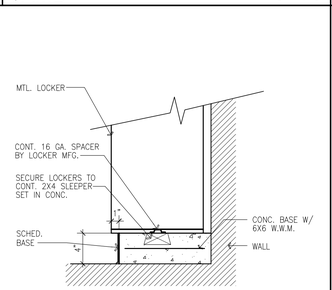
8 SLIDING MB DETAIL X-D16 3" = 1'-0"



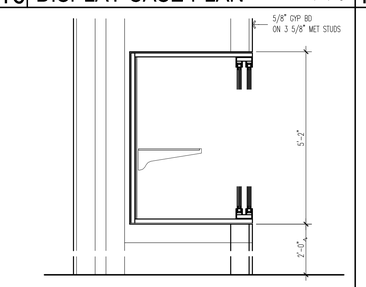
7



12 HEAD/JAMB DETAIL-INT. ALUM. X-HM 3" = 1'-0"

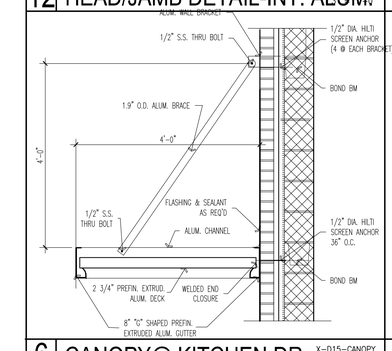


11 CONC. BASE @ LOCKERS X-D04 3" = 1'-0"

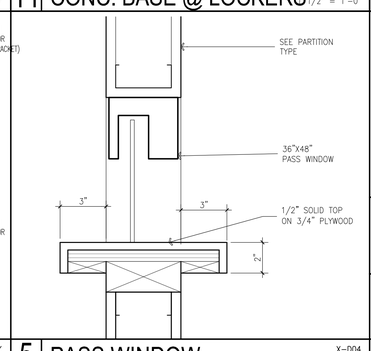


10 DISPLAY CASE-SECTION X-D26 1"=1'-0"

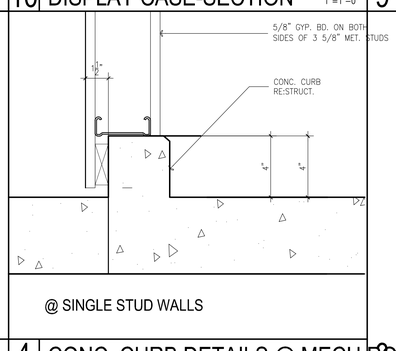
9



6 CANOPY@ KITCHEN DR. X-D15-CANOPY 3/4" =1'-0"



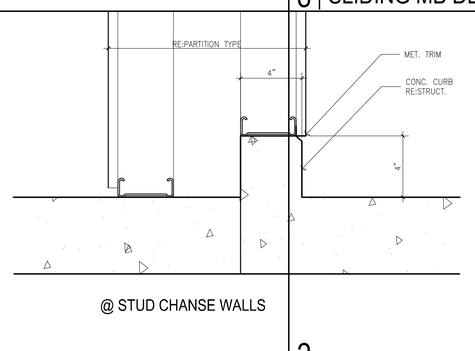
5 PASS WINDOW X-D04 3" = 1'-0"



@ SINGLE STUD WALLS

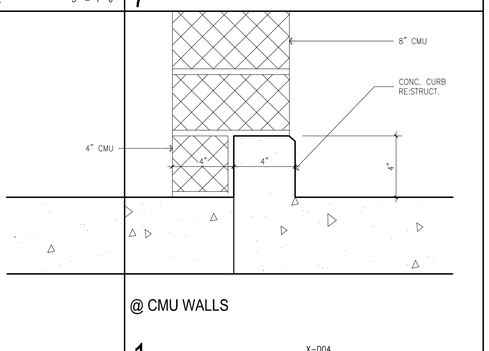
4 CONC. CURB DETAILS @ MECH ROOM

3



@ STUD CHANSE WALLS

2



@ CMU WALLS

1 X-D04 3" = 1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

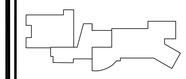
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



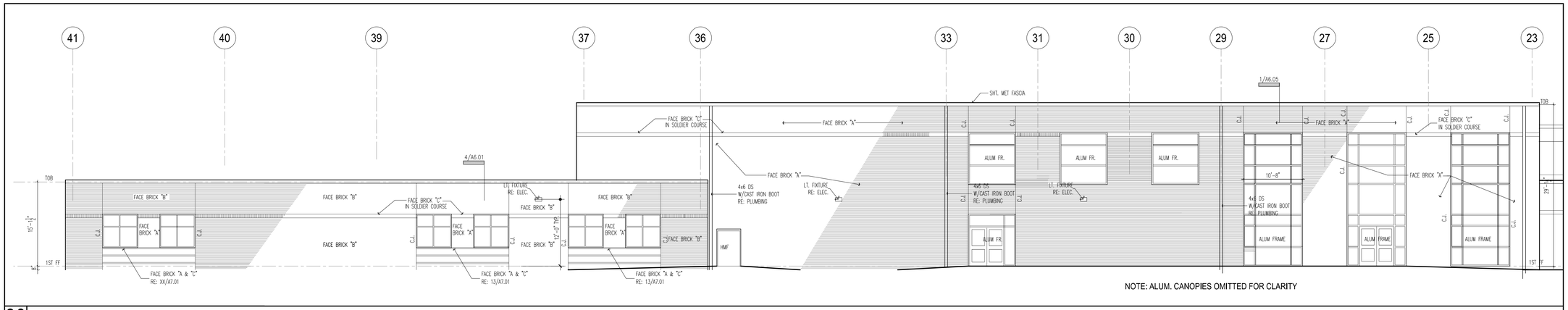
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

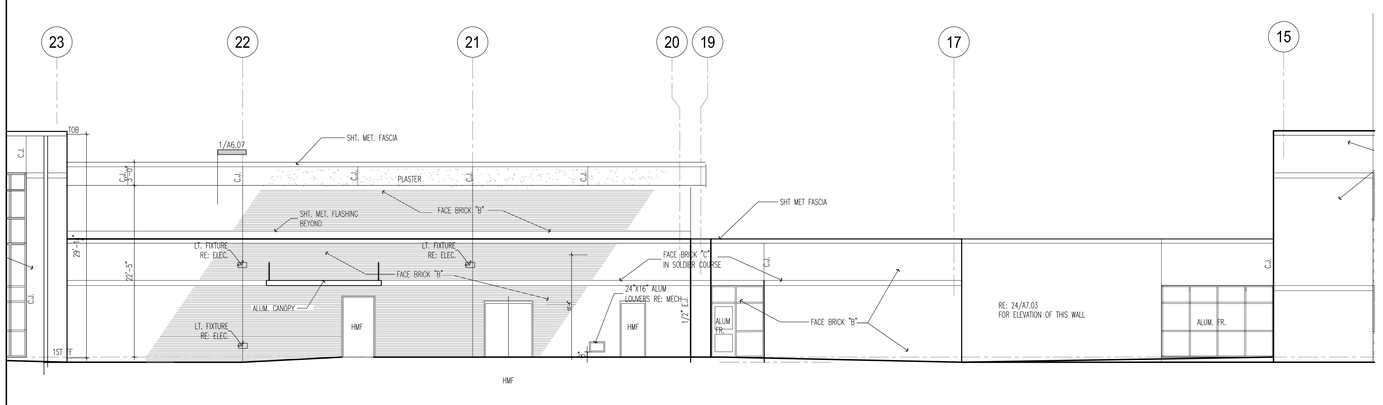
A6.10

DETAILS



30 NORTH WALL- AREA "C"

X-E01
1/8" = 1'-0"



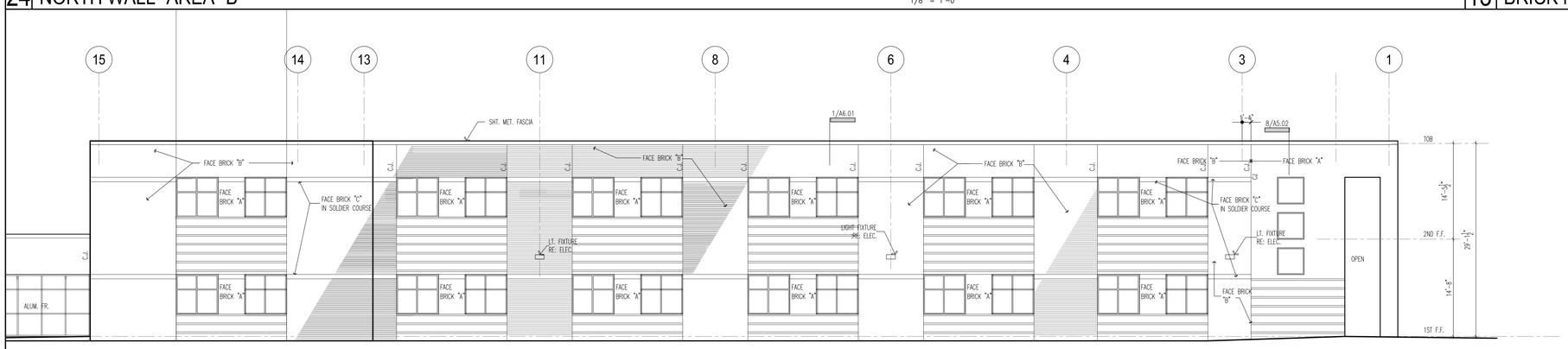
24 NORTH WALL- AREA "B"

X-E01
1/8" = 1'-0"



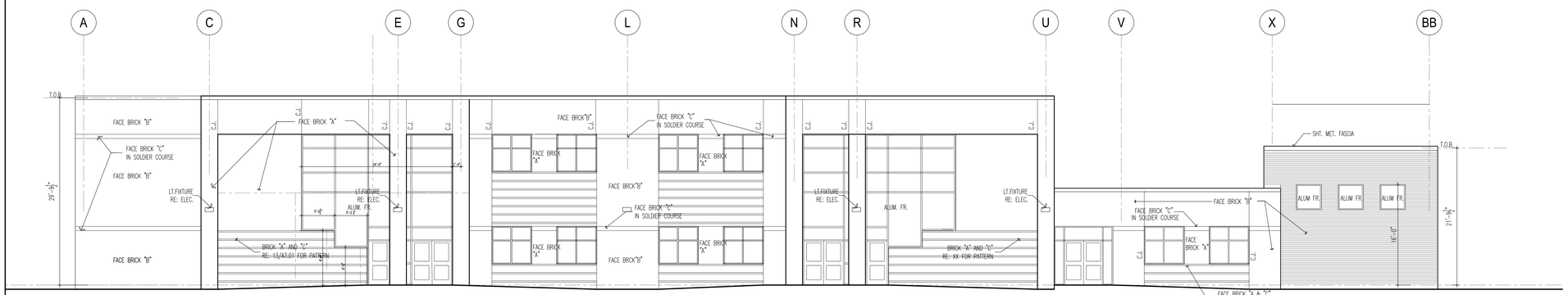
13 BRICK PATTERN

Not to Scale



12 NORTH WALL-PARTIAL AREA "A"

X-E01
1/8" = 1'-0"



6 WEST WALL- AREA "A"

X-E01
1/8" = 1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT SHAO CHU 22685 STATE OF TEXAS

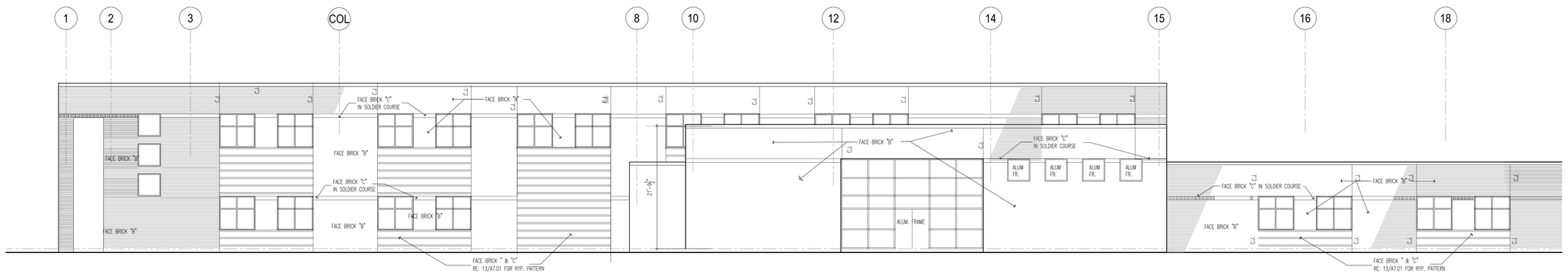
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN MC
CHECKED MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	2 COH COMMENT 1
10/17/2025	1 COH COMMENT 2
10/24/2025	CSP

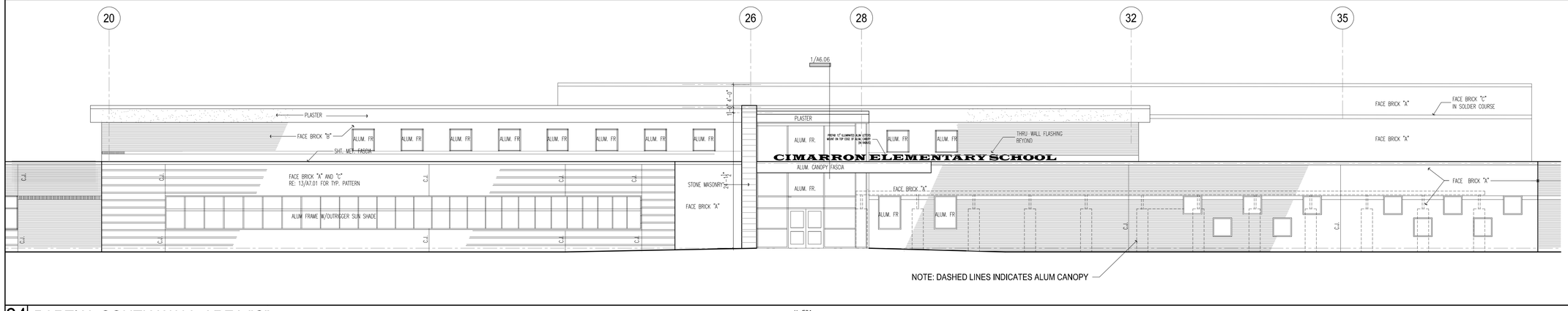
A7.01

EXTERIOR ELEVATIONS



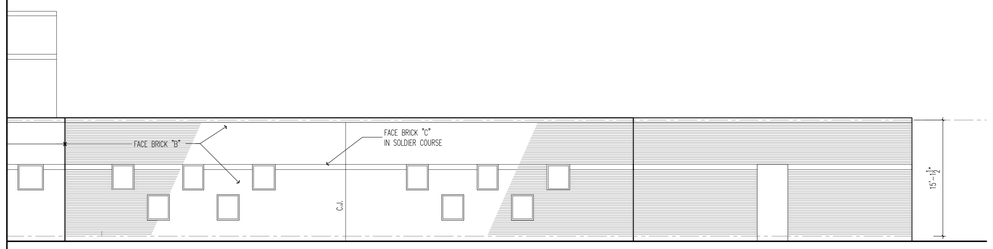
30 SOUTH WALL- AREA "A" & AREA "B"

X-E01
1/8" = 1'-0"



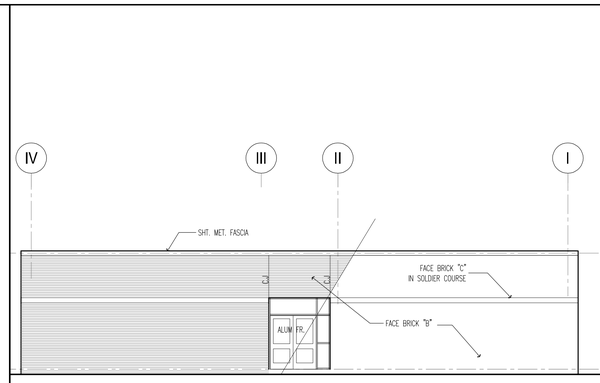
24 PARTIAL SOUTH WALL-AREA "C"

X-E01
1/8" = 1'-0"



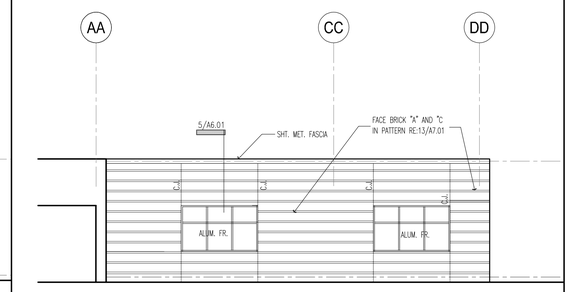
12 PARTIAL SOUTH WALL-AREA "C"

X-E01
1/8" = 1'-0"

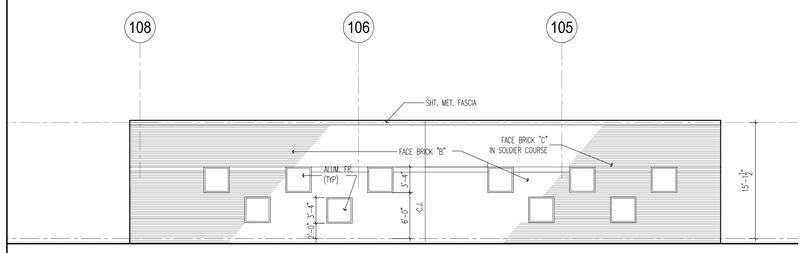


12 PARTIAL EAST WALL-AREA "C"

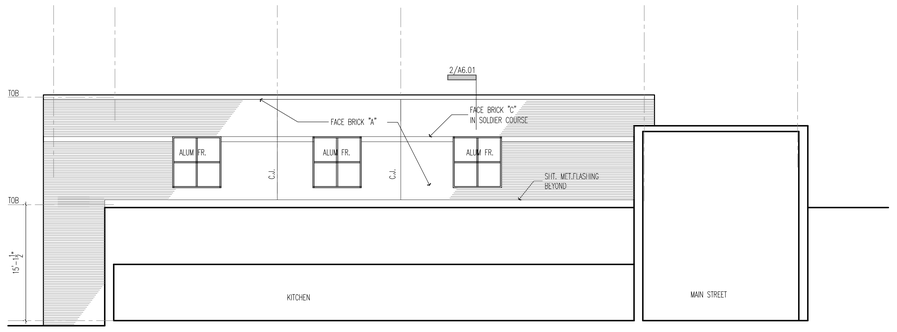
X-E01
1/8" = 1'-0"



10 AREA "B"



6 PARTIAL AREA "C"



3 CAF. C140- EXTERIOR WEST WALL

X-E01
1/8" = 1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT
SHIH-PEI CHU
STATE OF TEXAS

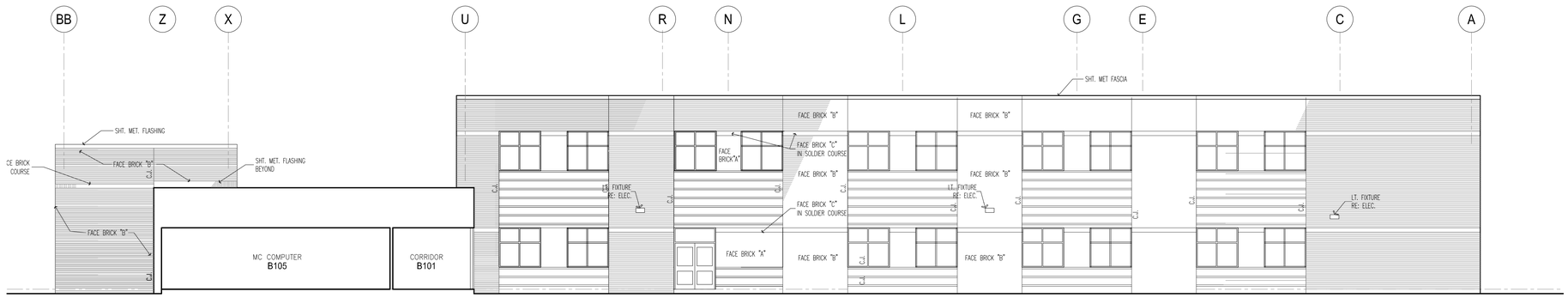
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN MC
CHECKED MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

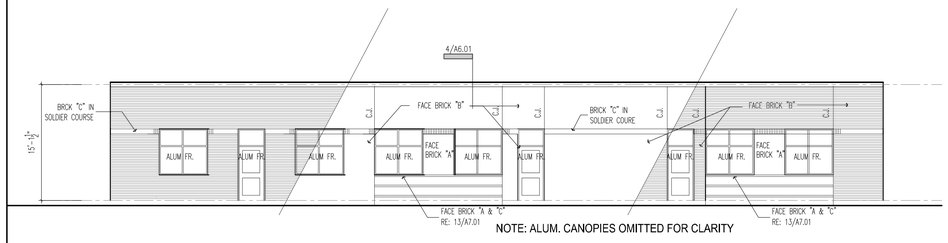
A7.02

EXTERIOR ELEVATIONS



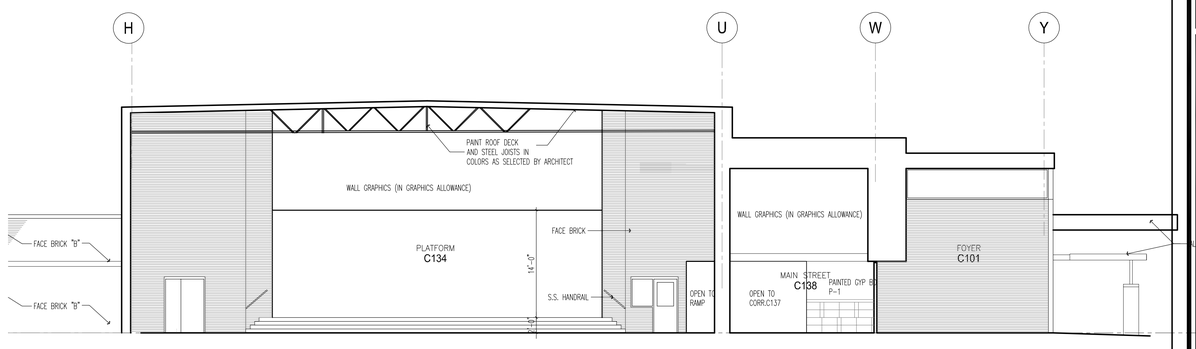
30 EAST WALL- AREA A

EAST WALL– AREA "A"
1/8" = 1'–0"



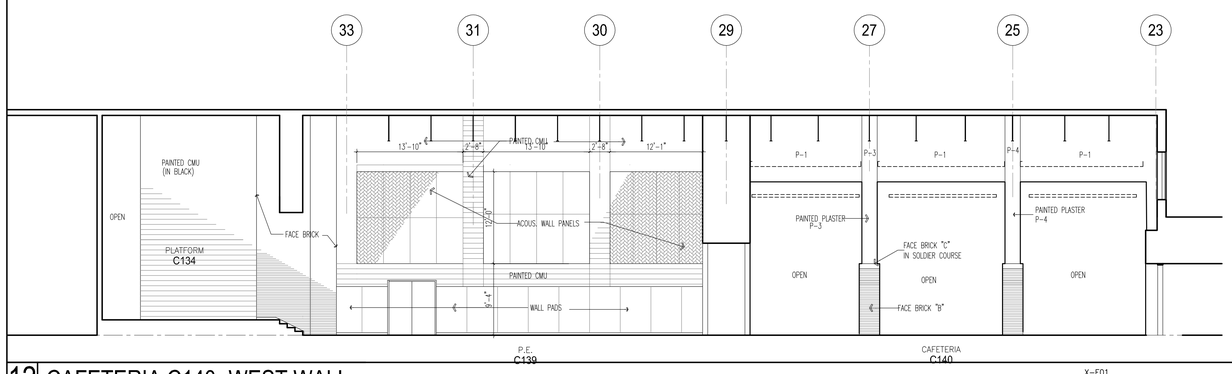
24 NORTHWEST WALL- AREA "B"

X–E01
1/8" = 1'–0"



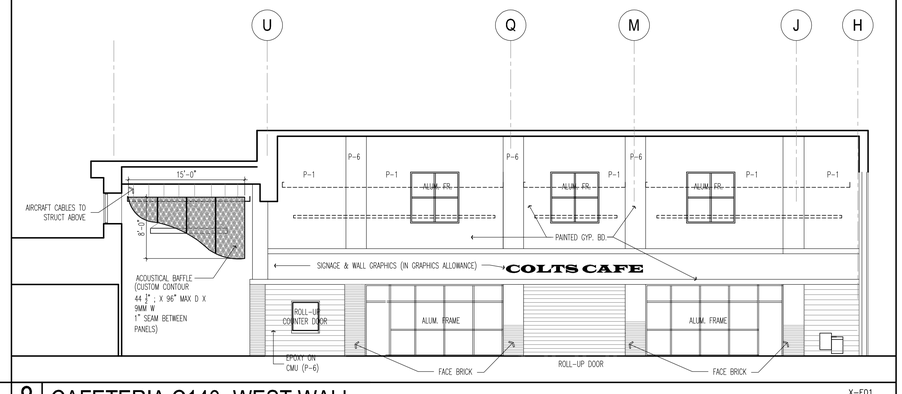
15 P.E. C 139- EAST WALL

X–E01
1/8" = 1'–0"



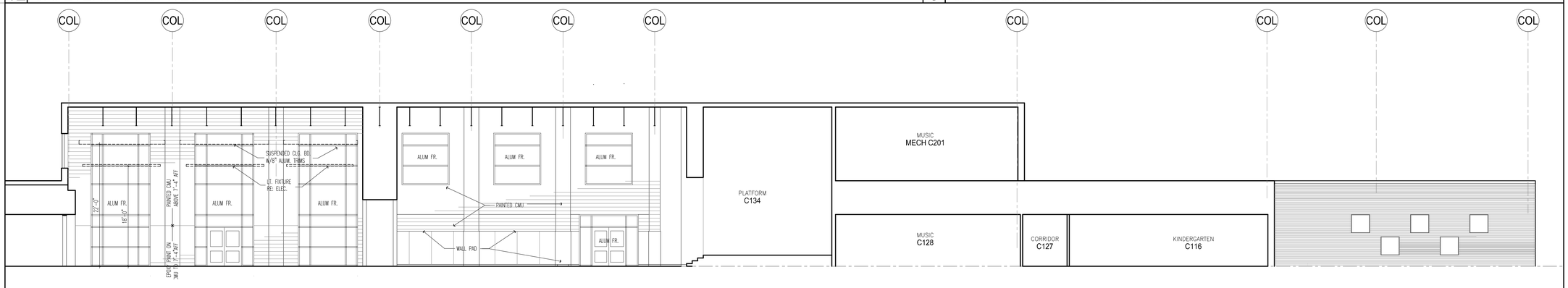
12 CAFETERIA C140- WEST WALL

X–E01
1/8" = 1'–0"



8 CAFETERIA C140- WEST WALL

X–E01
1/8" = 1'–0"



6 CAFETERIA C140 & PE C139- NORTH WALL

X–E01
1/8" = 1'–0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

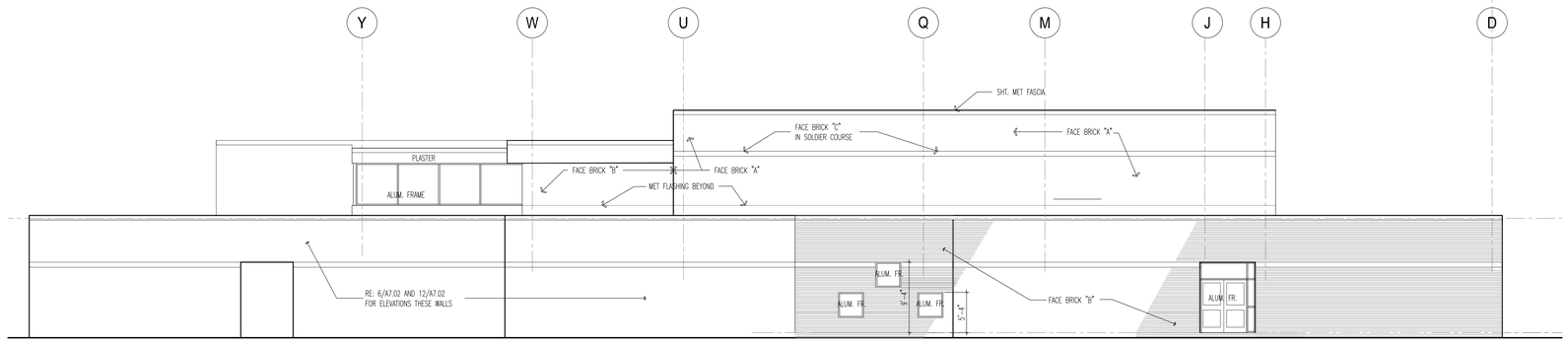
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN MC
CHECKED MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

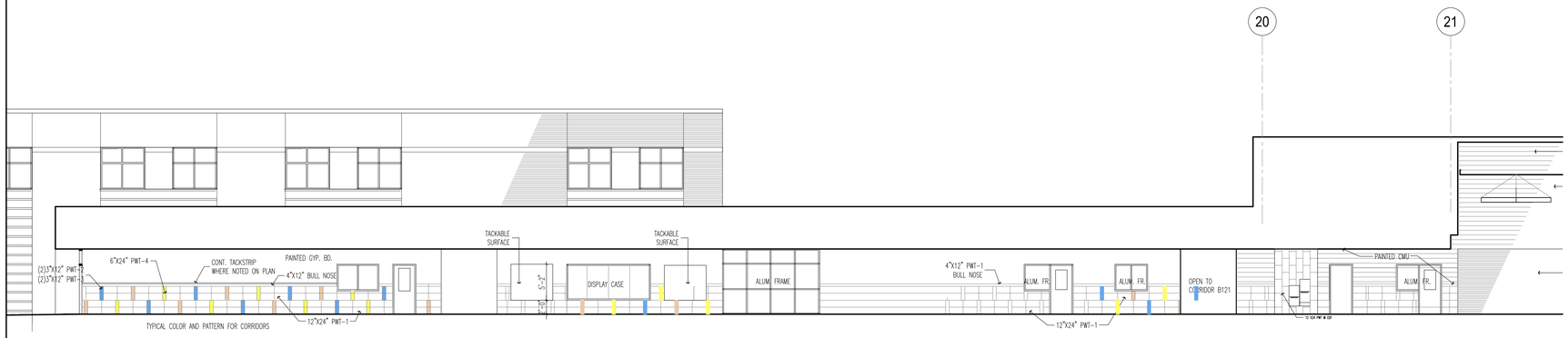
A7.03

EXTERIOR & INTERIOR ELEVATIONS



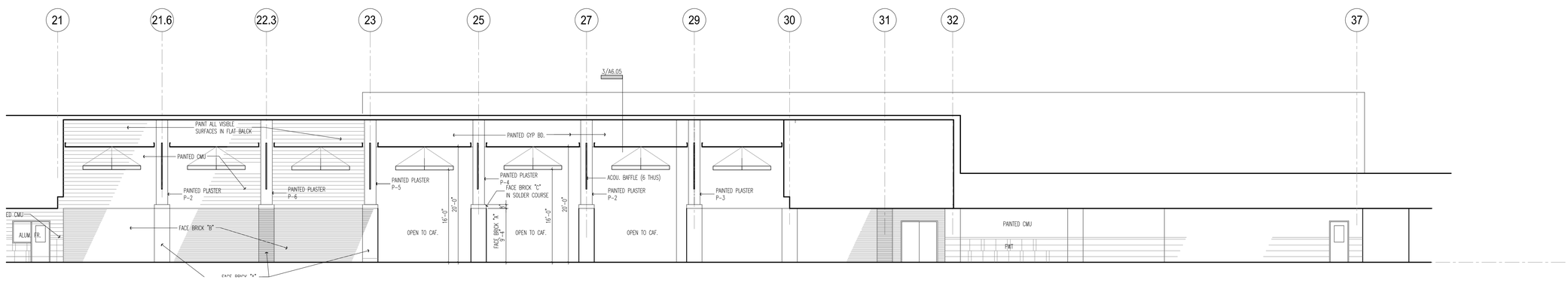
30 AREA "C" - EAST WALL

X-E01
1/8" = 1'-0"



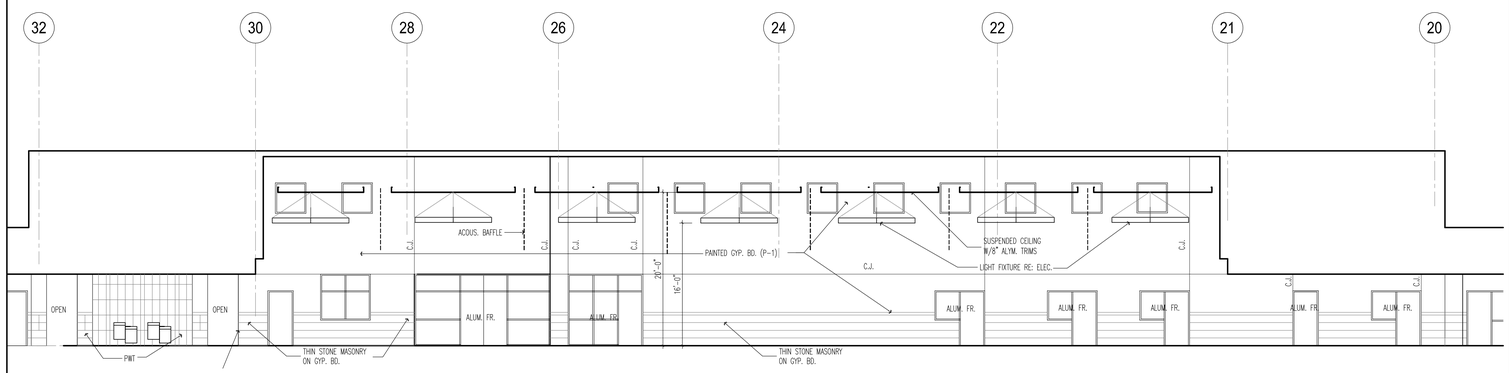
24 CORRIDOR B101- NORTH WALL

X-E01
1/8" = 1'-0"



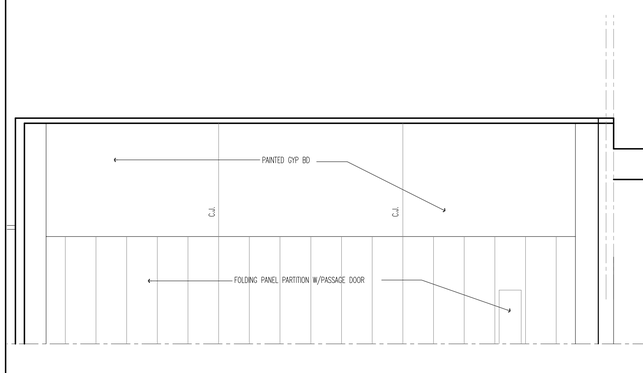
12 MAIN STREET C138- NORTH WALL

X-E01
1/8" = 1'-0"



6 MAIN STREET C138- NORTH WALL

X-E01
1/8" = 1'-0"



1 EAST WALL-CAFETERIA C140

1/8" =-1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

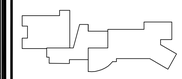
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln,
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



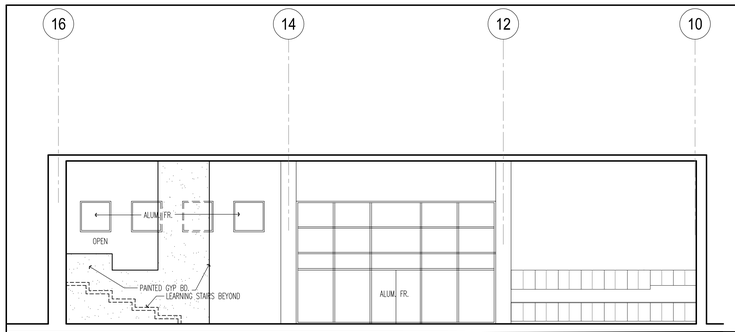
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

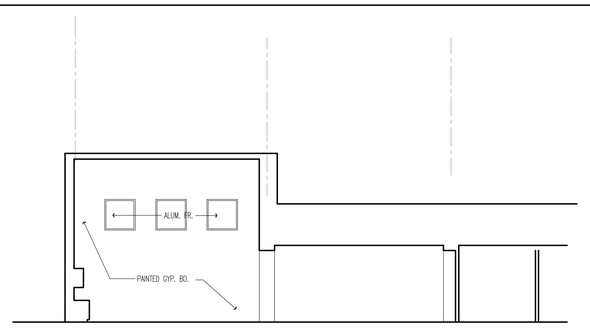
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

A7.04

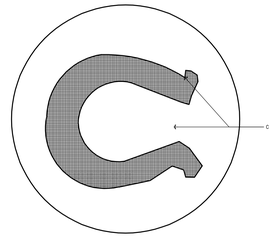
EXTERIOR & INTERIOR ELEVATIONS



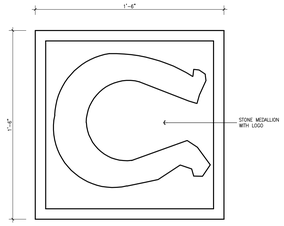
30 LRC B104- SOUTH WALL — X-E01 1/8" = 1'-0"



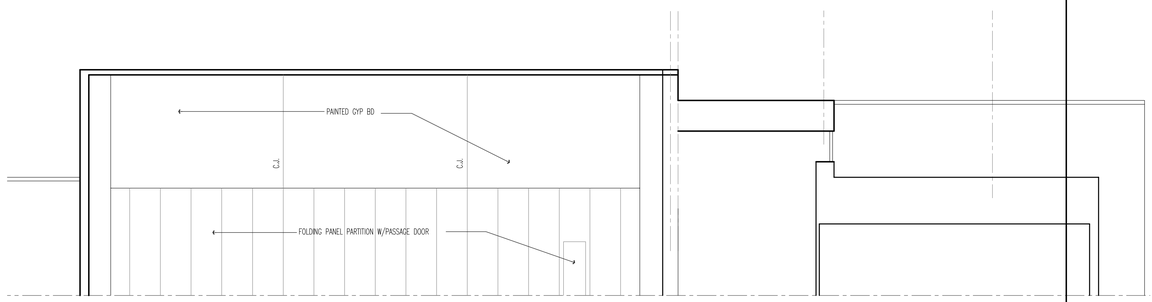
28 LRC B104- WEST WALL — X-E01 1/8" = 1'-0"



26 TERR. LOGO — x-medalion Not to Scale

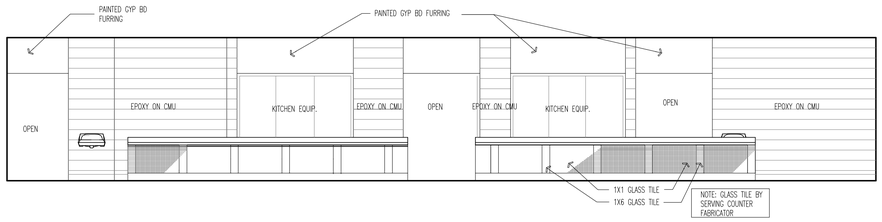


25 STONE MEDALIAN — x-medalion Not to Scale

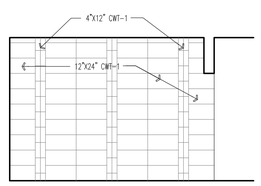


24 CAFETERIA C140- EAST WALL — X-E01 1/8" = 1'-0"

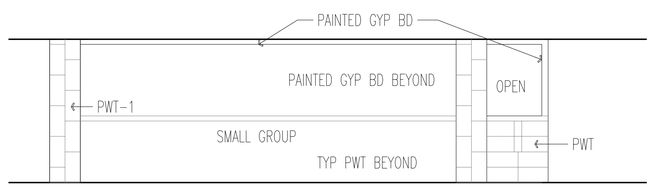
21



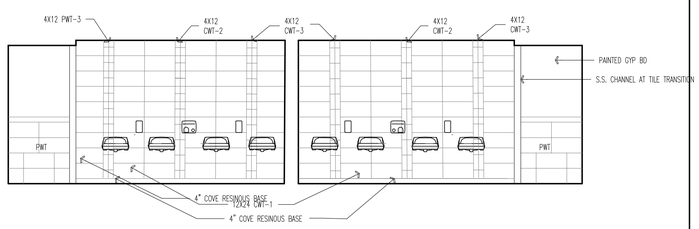
18 SERVERY B132- SERVING COUNTER — K05.dwg 1/4"=1'-0"



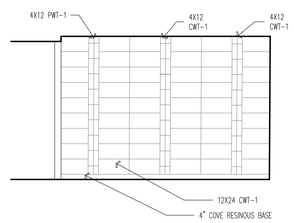
15 SERVERY B132- SOUTH WALL



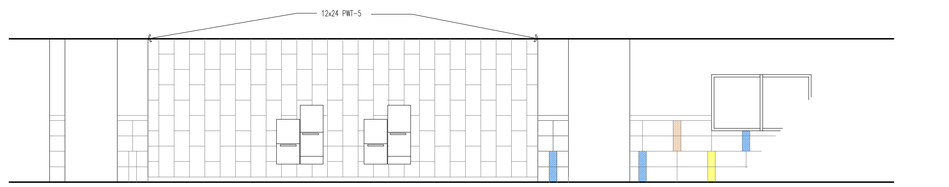
14 SMALL GROUP-TYP. — X-E01 1/4" = 1'-0"



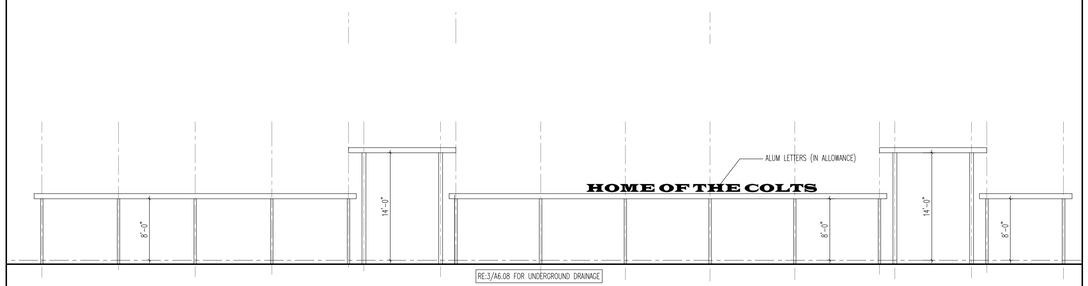
12 RESTROOMS-LAVATORY WALL — X-E01 1/4" = 1'-0"



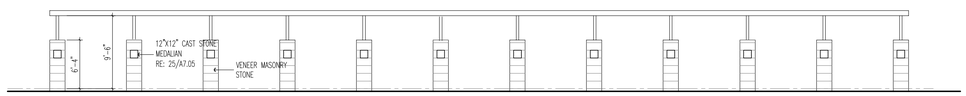
10 RESTROOMS-TYP. WALL — X-E01 1/4" = 1'-0"



9 E.D.F.-TYP. WALL — X-E01 1/4" = 1'-0"



6 ALUM. CANOPY-NORTH — X-E01 1/8"=1'-0"



3 ALUM. CANOPY-SOUTH — X-E01 1/8"=1'-0"



CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT SUSAN PHO CHU 24605 STATE OF TEXAS

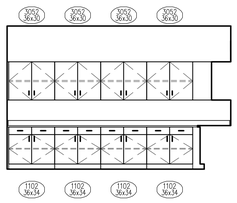
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN MC
CHECKED MC

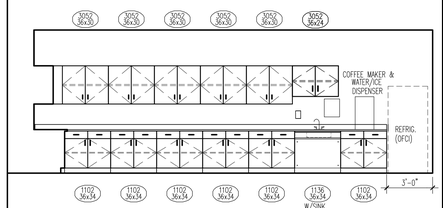
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

A7.05

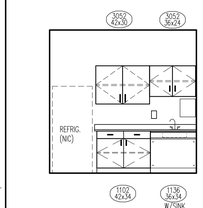
INTERIOR ELEVATIONS



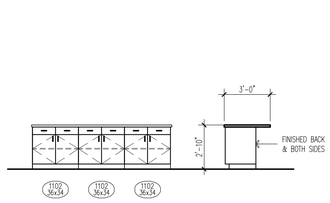
30 TEACHERS' WORK A116 A0801-2502.dwg 1/4"=1'-0"



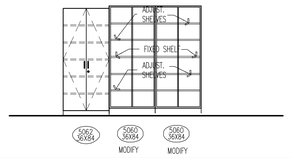
29 TEACHERS' WORK A116 A0801-2502.dwg 1/4"=1'-0"



28 STOR. B117 A0801-2502.dwg 1/4"=1'-0"



27 TEACHERS' WORK A116 A0801-2502.dwg 1/4"=1'-0"



26 ART B113 A0801-2502.dwg 1/4"=1'-0"

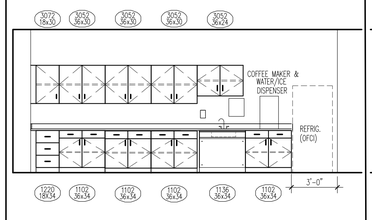
25 CASEWORK NOTES

1. ALL CASEWORK NUMBERS REFER TO THE CATALOG OF " LSI " CORPORATION OF AMERICA, INC. (STEVEN'S INDUSTRIES)
2. ALL CABINETS SHALL HAVE 4" RESILIENT BASE BY FLOORING CONTRACTOR.
3. ALL COUNTERTOPS ARE 1-1/4" THICK PLASTIC LAMINATE W/ 4" HIGH BACKSPLASH AND SPLASH RETURNS. UNLESS NOTED OTHERWISE.
4. ALL EXPOSED BACK AND ENDS SHALL BE FINISHED W/ LAMINATE.
5. PROVIDE FILLER AND CLOSER PANELS AS REQUIRED TO MATCH UNITS.

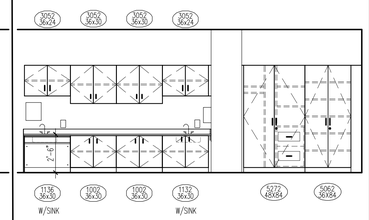
ALL SINKS & TRIMS SHALL BE SUPPLIED & INSTALLED BY PLUMBING CONTRACTOR.

ALL UPPER WALL CABINETS ARE 15" CLEAR BETWEEN DOOR AND BACK PANEL UNLESS NOTED OTHERWISE.

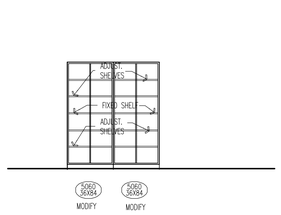
PROVIDE SOAP DISPENSER AND PAPER TOWEL DISPENSER @ EACH SINK.



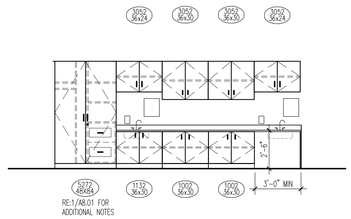
24 TEACHERS' LOUNGE A141 A0801-2003.dwg 1/4"=1'-0"



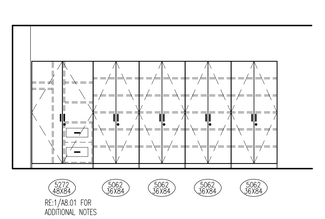
23 ART B109



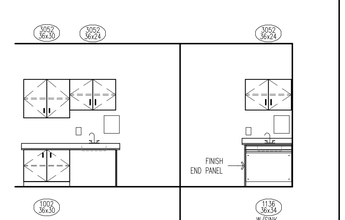
22 ART B109 A0801-2502.dwg 1/4"=1'-0"



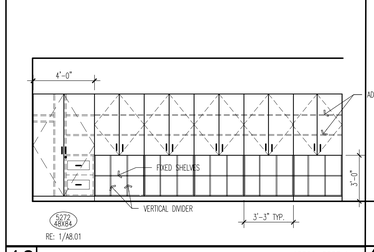
21 ART B113 A0801-2502.dwg 1/4"=1'-0"



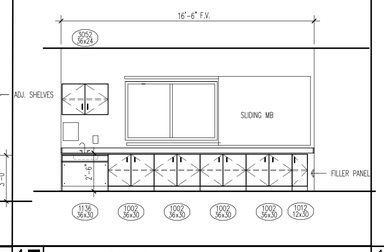
20 MUSIC C128 A0801-2502.dwg 1/4"=1'-0"



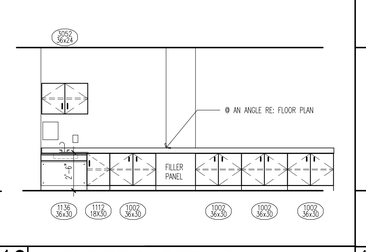
19 LIFE SKILL C122 19A EXAM B115



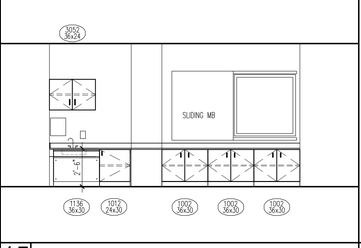
18 PK C106 A0801-2003.dwg 1/4"=1'-0"



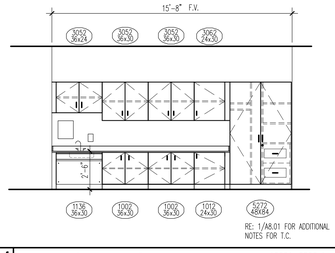
17 PK C109 A0801-2502.dwg 1/4"=1'-0"



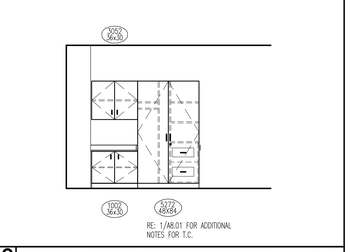
16 KINDERGARTEN C116



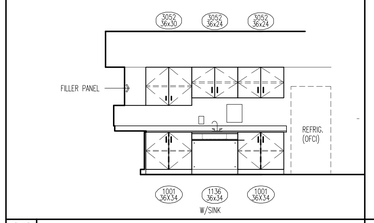
15 KINDERGARTEN C119 A0801-2502.dwg 1/4"=1'-0"



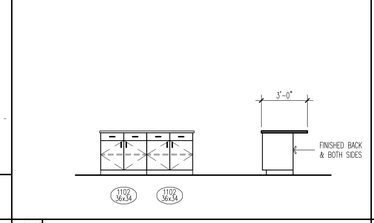
14 LIFE SKILL C125 A0801-2502.dwg 1/4"=1'-0"



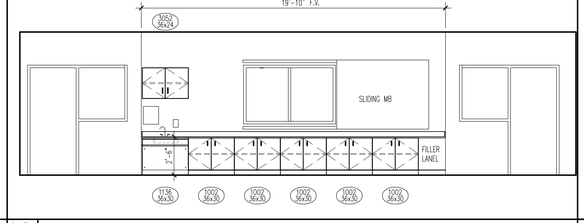
13 LIFE SKILL C122 A0801-2502.dwg 1/4"=1'-0"



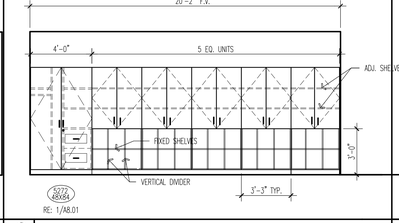
12 WORK RM B145 A0801-2502.dwg 1/4"=1'-0"



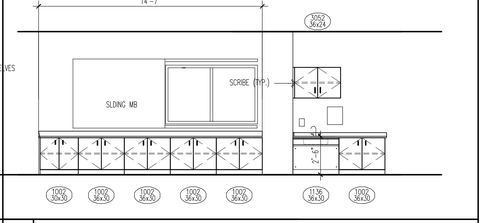
11 WORK RM B145 A0801-2502.dwg 1/4"=1'-0"



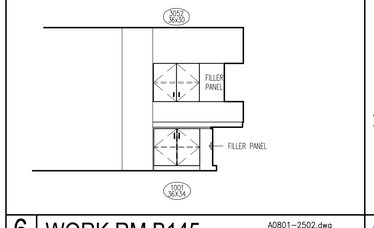
10 PK C106 A0801-2003.dwg 1/4"=1'-0"



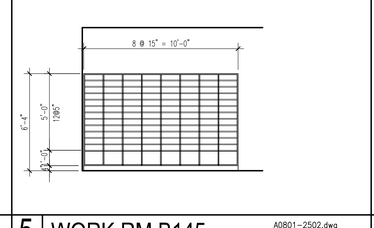
8 PK & K A0801-2003.dwg 1/4"=1'-0"



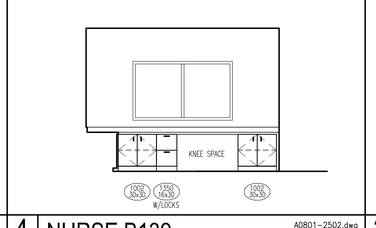
7 PK C108 A0801-2003.dwg 1/4"=1'-0"



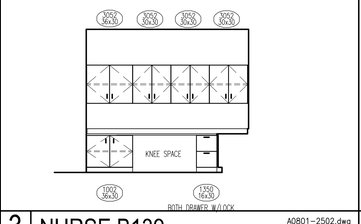
6 WORK RM B145 A0801-2502.dwg 1/4"=1'-0"



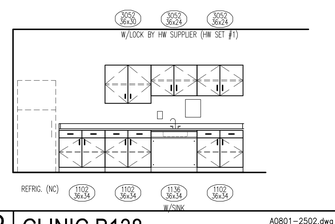
5 WORK RM B145 A0801-2502.dwg 1/4"=1'-0"



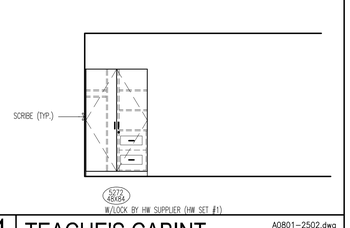
4 NURSE B139 A0801-2502.dwg 1/4"=1'-0"



3 NURSE B139 A0801-2502.dwg 1/4"=1'-0"



2 CLINIC B138 A0801-2502.dwg 1/4"=1'-0"



1 TEACHE'S CABINT A0801-2502.dwg 1/4"=1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FILE
SCALE

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT STEVEN CHU 23855 STATE OF TEXAS

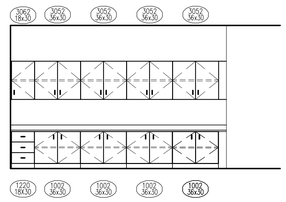
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

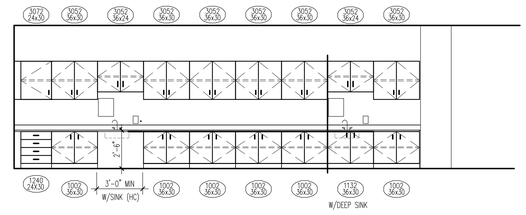
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A8.01

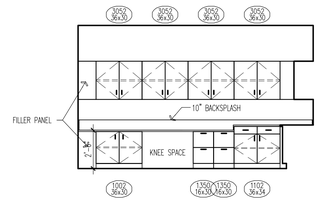
EDUCATIONAL CASEWORK



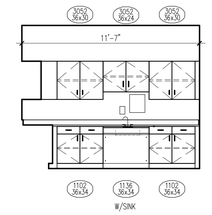
30 SCIENCE A210 A0801-2502.dwg 1/4"=1'-0"



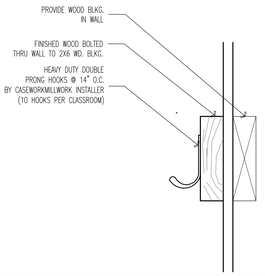
29 SCIENCE A210 A0801-2502.dwg 1/4"=1'-0"



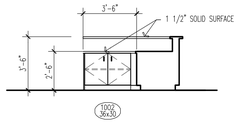
27 OFF./STOR. A211 A0901-2003.dwg 1/4"=1'-0"



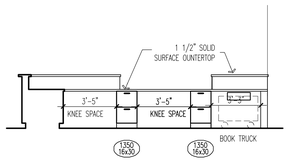
26 OFF./STOR. A211 A0901-2003.dwg 1/4"=1'-0"



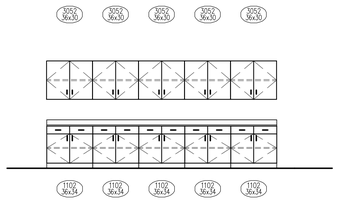
25 HOOKS X-D19 3" = 1'-0"



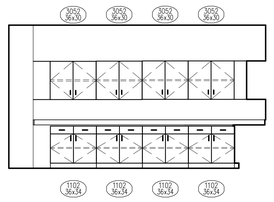
24 LRC B104 A0901-2003.dwg 1/4"=1'-0"



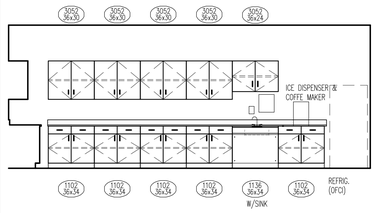
23 LRC B104 A0901-2003.dwg 1/4"=1'-0"



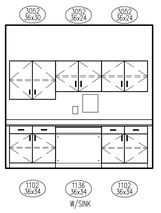
22 LRC B104 A0802-2502.dwg 1/4"=1'-0"



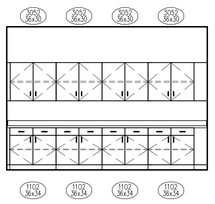
21 TEACHERS' WORK A217 A0801-2502.dwg 1/4"=1'-0"



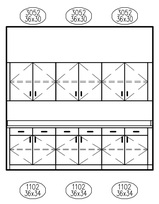
20 TEACHERS' WORK A217 A0901-2003.dwg 1/4"=1'-0"



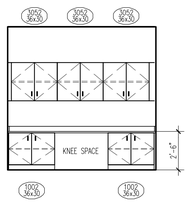
20 CUST. B112 A0901-2003.dwg 1/4"=1'-0"



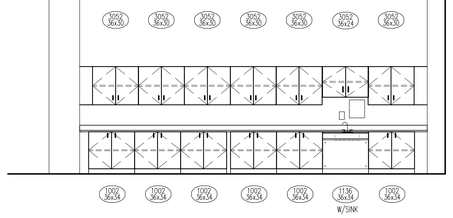
18 WORKSPACE A212 A0901-2003.dwg 1/4"=1'-0"



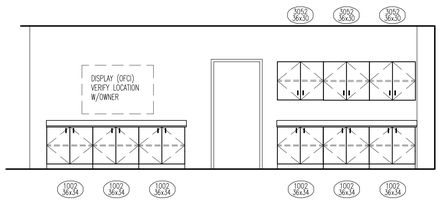
17 WORKSPACE A117 A0901-2003.dwg 1/4"=1'-0"



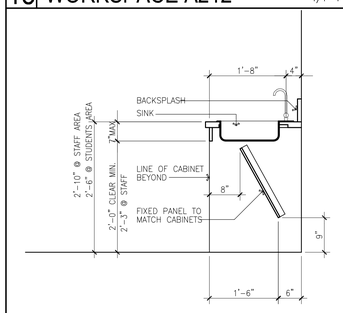
16 PE OFFICE C135 A0901-2003.dwg 1/4"=1'-0"



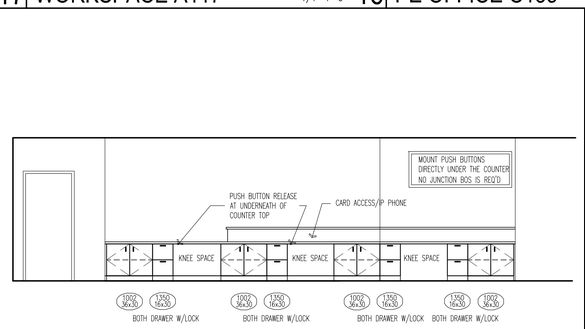
16 MAKERS SPACE B104A A0901-2003.dwg 1/4"=1'-0"



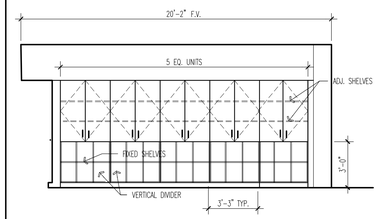
14 GENERAL OFFICE B136 A0901-2003.dwg 1/4"=1'-0"



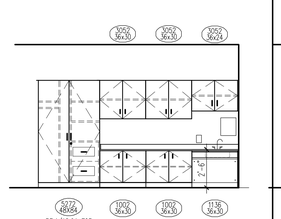
13 ACCESSIBLE SINK K-1 3/4"=1'-0"



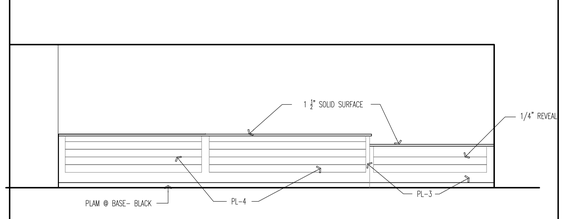
12 GENERAL OFFICE B136 A0901-2003.dwg 1/4"=1'-0"



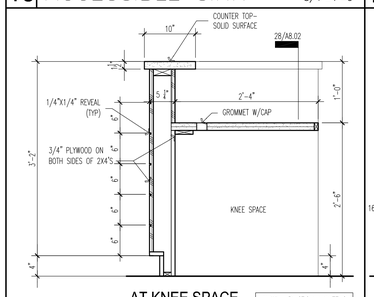
11 KINDERGARTEN C119 A0802-2003.dwg 1/4"=1'-0"



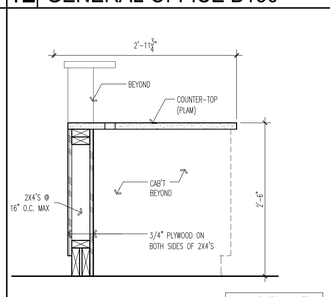
10 STRUCT. CR C126 A0802-2003.dwg 1/4"=1'-0"



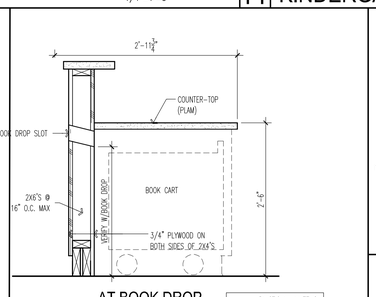
8 GENERAL OFFICE A0901-2003.dwg 1/4"=1'-0"



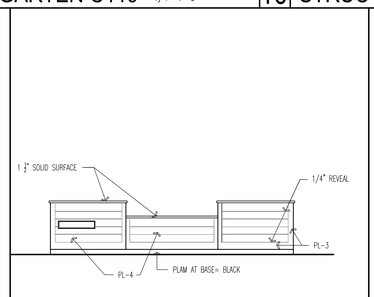
6 CIRCULATION DESK X-K04-LRC 1"=1'-0"



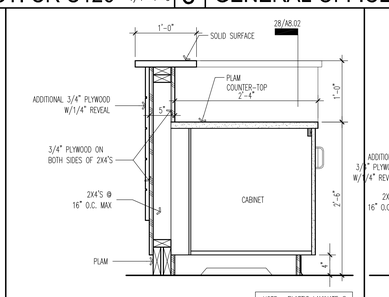
5 CIRCULATION DESK X-K04-LRC 1"=1'-0"



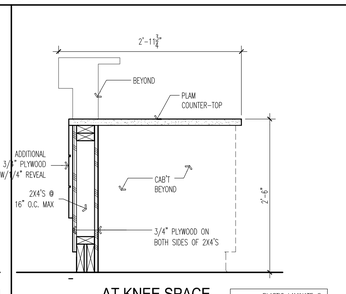
4 CIRCULATION DESK X-K04-LRC 1"=1'-0"



3 LRC A0901-0802-2502.dwg 1/4"=1'-0"



2 RECEPT. DESK X-K03 RECEPT 1"=1'-0"



1 RECEPT. DESK X-K03 RECEPT 1"=1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

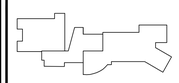
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT 24900 STATE OF TEXAS

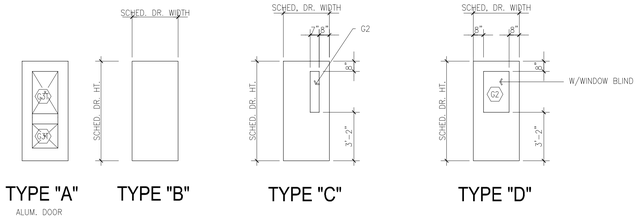
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN
CHECKED

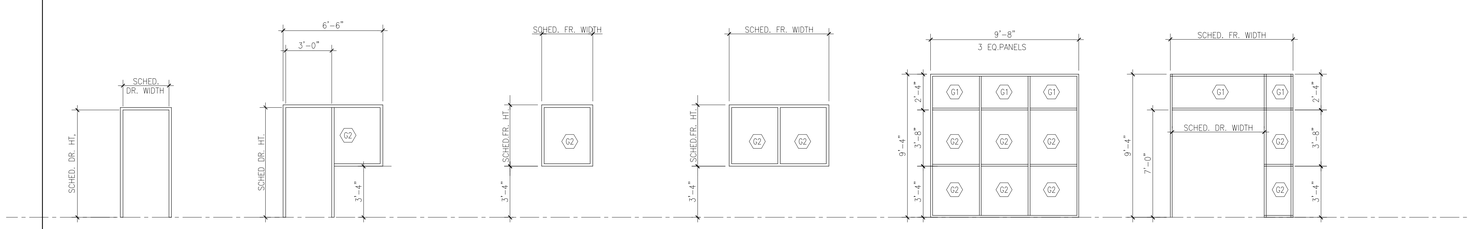
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A8.02

EDUCATIONAL CASEWORK



TYPE "A" ALUM. DOOR | TYPE "B" | TYPE "C" | TYPE "D"



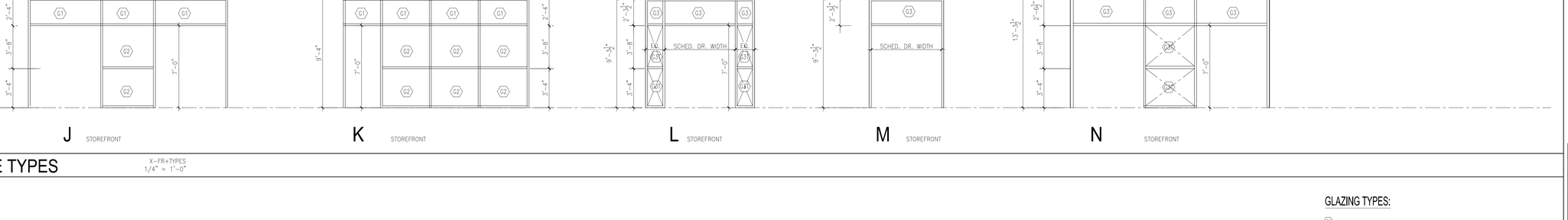
1 | 2 INTERIOR ALUM FRAME | 3 INTERIOR ALUM FRAME | 4 INTERIOR ALUM FRAME | 5 INTERIOR ALUM FRAME | 6 INTERIOR ALUM FRAME

30 DOOR TYPES

X--FR+TYPES
1/4" = 1'-0"

FRAME TYPES

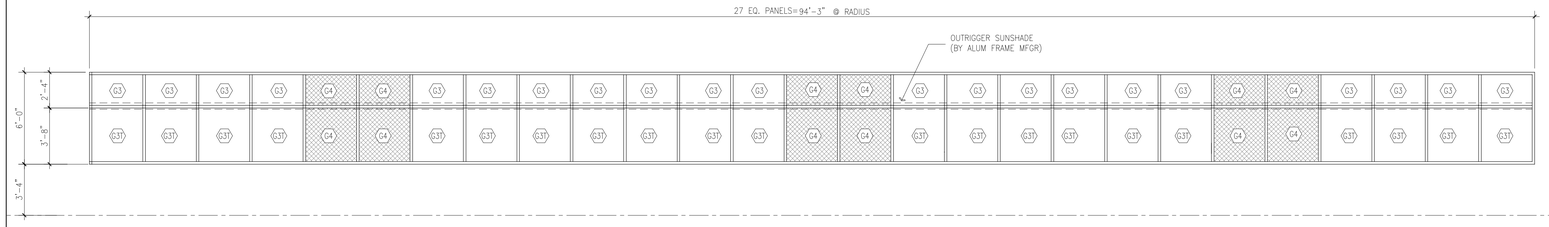
X-FR+TYPES
1/4" = 1'-0"



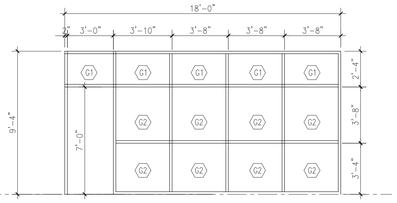
A STOREFRONT | B CURTAIN WALL | C STOREFRONT | D STOREFRONT | E STOREFRONT | F STOREFRONT

24 FRAME TYPES

X-FR+TYPES
1/4" = 1'-0"



G STOREFRONT



H STOREFRONT

FRAME TYPES

X-FR+TYPES
1/4" = 1'-0"

5 INTERIOR ALUM FRAME

J STOREFRONT | K STOREFRONT | L STOREFRONT | M STOREFRONT | N STOREFRONT

FRAME TYPES

X-FR+TYPES
1/4" = 1'-0"

GLAZING TYPES:

- G1 1/4" FLOAT GLASS
- G2 1/4" TEMPERED GLASS
- G3 1" INSULATED GLASS (LOW-E GLASS SHGC=0.25; U FACTOR=0.29)
- G37 1" INSULATED TEMPERED GLASS (LOW-E GLASS SHGC=0.25; U FACTOR=0.29)
- G4 1" INSULATED SPANDREL GLASS (LOW-E GLASS SHGC=0.25; U FACTOR=0.29)

NOTE: PROVIDE SAFETY GLAZING IN HAZARDOUS LOCATIONS PER IBC 2012 SECTION 2406.

SAFETY GLAZING SHALL BE TESTED IN ACCORDANCE WITH CPS 1 CFR PART 1201 AND SHALL COMPLY WITH CATEGORY II OF CPSC 16 CFR PART 1201 OR CLASS A OF ANSI Z97.1.

INDICATES PANES WITH SECURITY FILM

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

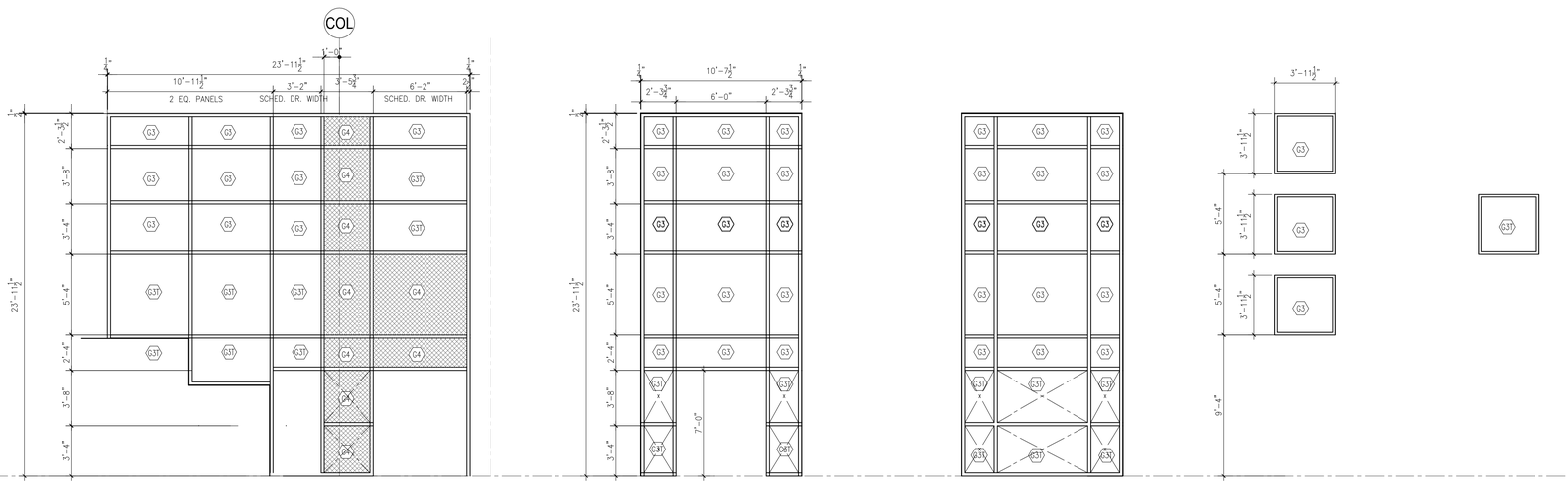


PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	XXX
CHECKED	XXX

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a. COH COMMENT 1
10/17/2025	b. COH COMMENT 2
10/24/2025	CSP

A9.01

DOOR TYPES
&
FRAME TYPES



P CURTAIN WALL

Q CURTAIN WALL

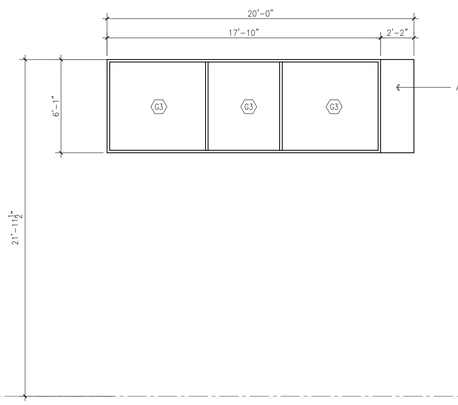
R CURTAIN WALL

S STOREFRONT

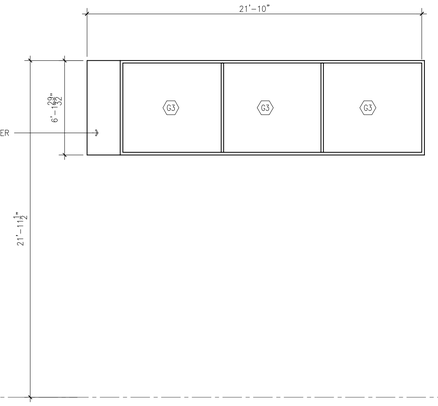
T STOREFRONT

FRAME TYPES

X-FR+TYPES
1/4" = 1'-0"



U



V

FRAME TYPES

X-FR+TYPES
1/4" = 1'-0"

GLAZING TYPES:

- (01) ¼" FLOAT GLASS
- (02) ¼" TEMPERED GLASS
- (G3) 1" INSULATED GLASS (LOW-E GLASS SHGC=0.25; U FACTOR=0.29)
- (G3T) 1" INSULATED TEMPERED GLASS (LOW-E GLASS SHGC=0.25; U FACTOR=0.29)
- (G4) 1" INSULATED SPANDREL GLASS (LOW-E GLASS SHGC=0.25; U FACTOR=0.29)

NOTE: PROVIDE SAFETY GLAZING IN HAZARDOUS LOCATIONS PER IBC 2012 SECTION 2406.

SAFETY GLAZING SHALL BE TESTED IN ACCORDANCE WITH CPS 1 CFR PART 1201 AND SHALL COMPLY WITH CATEGORY II OF CPSC 16 CFR PART 1201 OR CLASS A OF ANSI Z97.1.

INDICATES PANES WITH SECURITY FILM

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

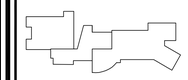
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	XXX
CHECKED	XXX

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

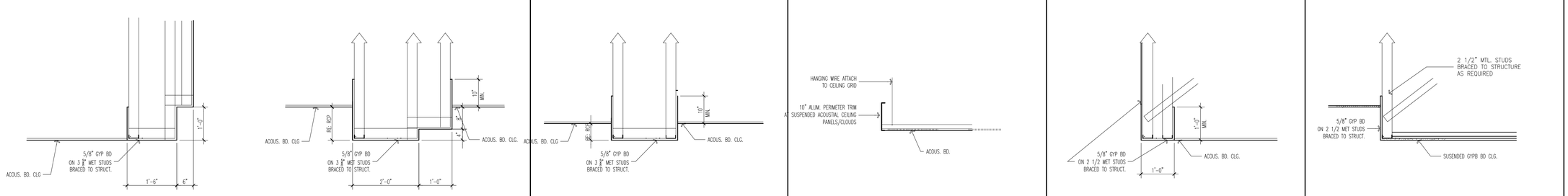
A9.02

FRAME TYPES



AREA "A" FIRST FLOOR - REFLECTED CEILING PLAN

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



FURRING DETAIL	X-RCP01 3/4"=1'-0"	5	FURRING DETAIL	X-RCP01 3/4"=1'-0"	4	FURRING DETAIL	X-RCP01 3/4"=1'-0"	3	ALUM TRIM DETAIL	X-RCP01 3/4"=1'-0"	2	FURRING DETAIL	X-RCP01 3/4"=1'-0"	1	CEILING DETAIL	X-RCP01 3/4"=1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT 23-100 JOAN CHU STATE OF TEXAS

10/24/2025

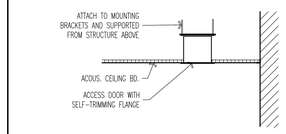
PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A10.01

REFLECTED CEILING PLAN
AREA A
FIRST FLOOR





6 @ MOTORIZED P.S. X-RCP02 3/4"=1'-0"

NORTH

AREA "A" SECOND FLOOR - REFLECTED CEILING PLAN

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

GENERAL NOTES:

A. ALL CEILING HEIGHTS ARE 9'-4" ABOVE THE FLOOR UNLESS OTHERWISE NOTED.

B. COORDINATE LOCATIONS OF CEILING DIFFUSERS WITH MECH. CONTRACTOR.

C. RE: MEP DRAWINGS FOR ADDITIONAL CEILING MOUNTED ITEMS NOT SHOWN THIS SHEET.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT SHU-FOO CHU 14445 STATE OF TEXAS

10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A10.02

REFLECTED CEILING PLAN
AREA A
SECOND FLOOR



NORTH

AREA "B" - REFLECTED CEILING PLAN

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

GENERAL NOTES:

A. ALL CEILING HEIGHTS ARE 9'-4" ABOVE THE FLOOR UNLESS OTHERWISE NOTED.

B. COORDINATE LOCATIONS OF CEILING DIFFUSERS WITH MECH. CONTRACTOR.

C. RE: MEP DRAWINGS FOR ADDITIONAL CEILING MOUNTED ITEMS NOT SHOWN THIS SHEET.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT SUSAN CHU 19605 STATE OF TEXAS

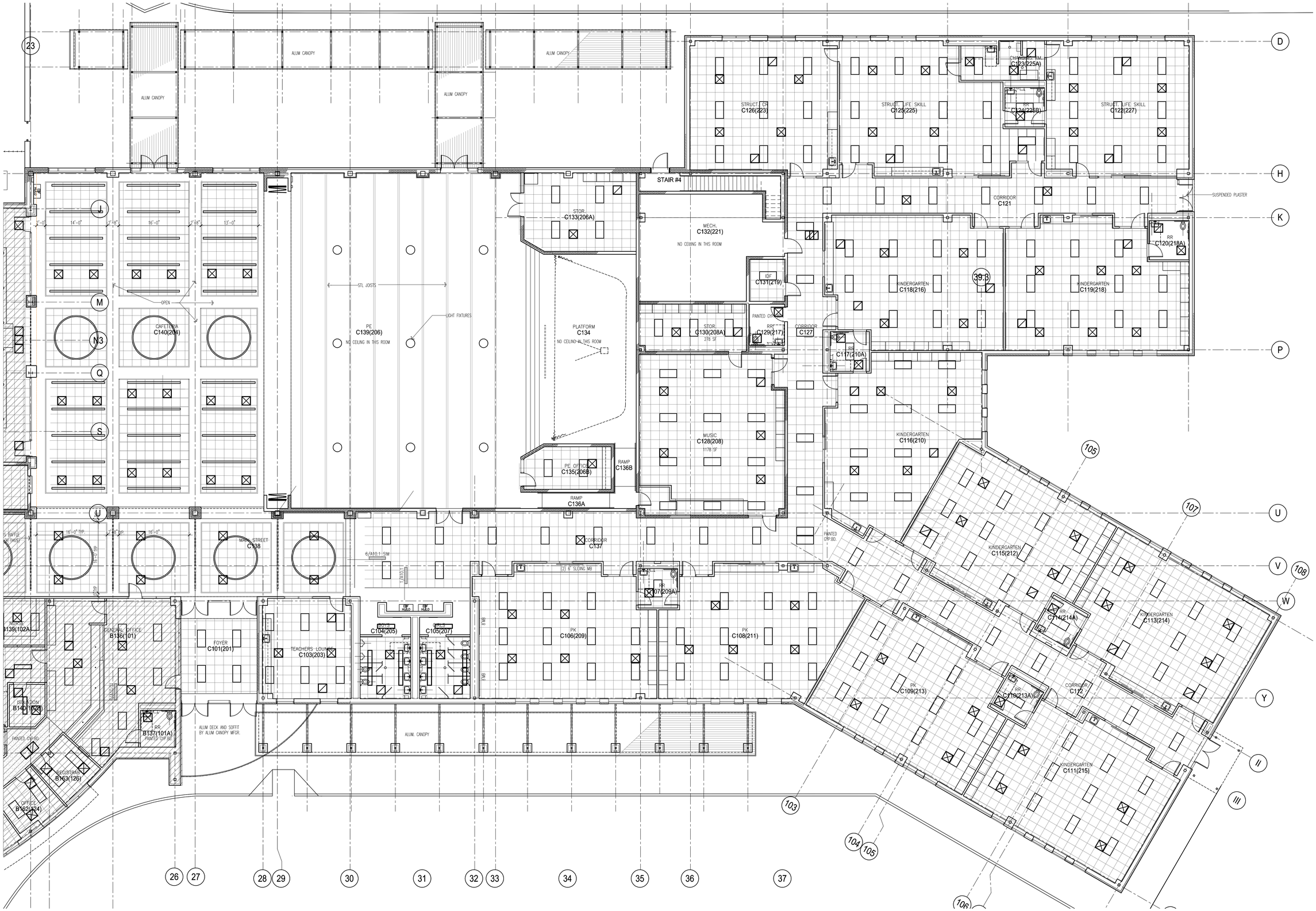
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	D COH COMMENT 2
10/24/2025	CSP

A10.03

REFLECTED CEILING PLAN
AREA B



NORTH

AREA "C" - REFLECTED CEILING PLAN

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

GENERAL NOTES:

A. ALL CEILING HEIGHTS ARE 9'-4" ABOVE THE FLOOR UNLESS OTHERWISE NOTED.

B. COORDINATE LOCATIONS OF CEILING DIFFUSERS WITH MECH. CONTRACTOR.

C. RE: MEP DRAWINGS FOR ADDITIONAL CEILING MOUNTED ITEMS NOT SHOWN THIS SHEET.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT STATE OF TEXAS

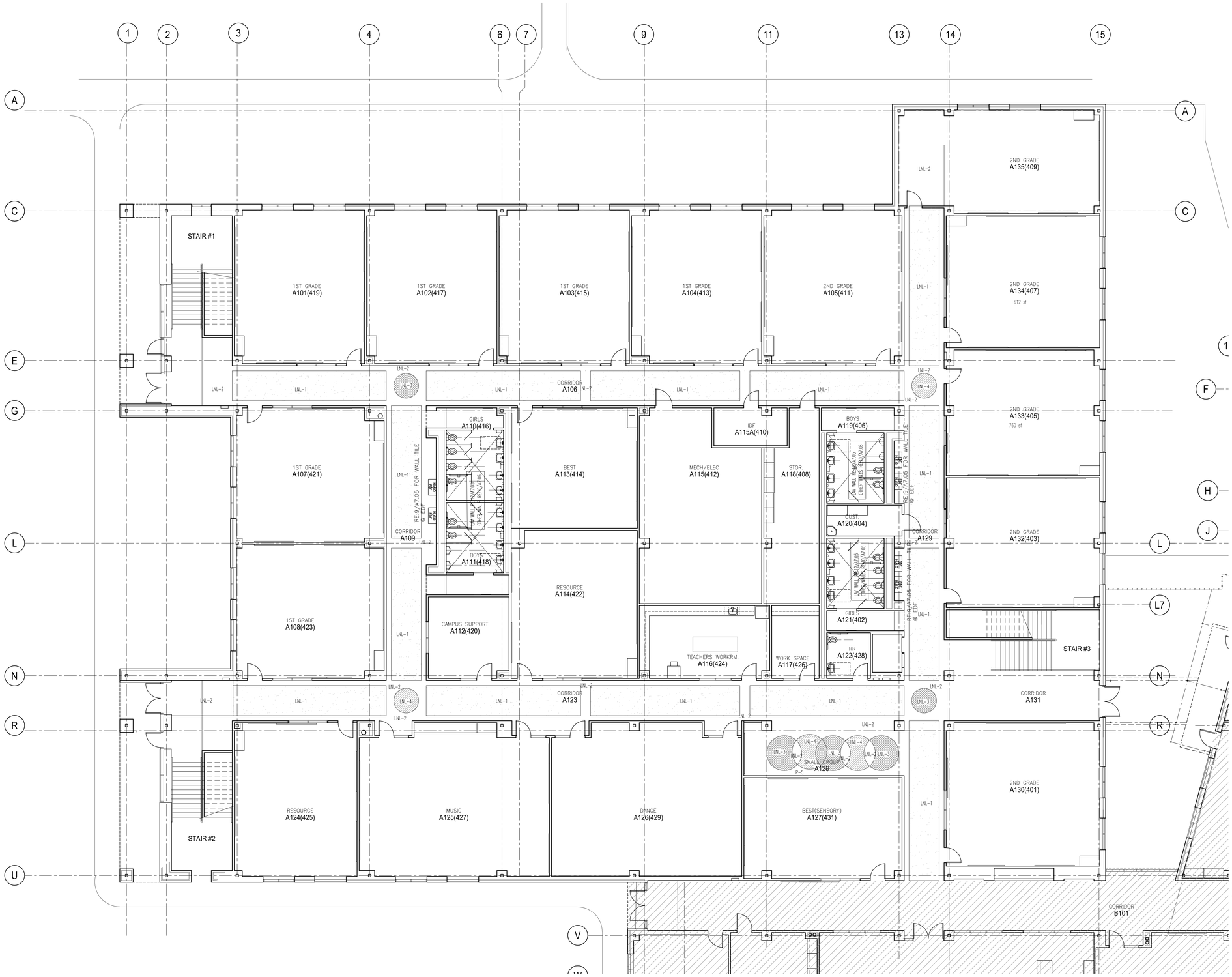
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	MC

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A10.04

REFLECTED CEILING PLAN
AREA C



NORTH

AREA "A"- FIRST FLOOR COLOR AND FLOOR PATTERNS

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

GENERAL NOTES:

A. SEE SHEET A3.03 FOR COLOR SCHEDULE

B. ALL CARPET IS TYPE "A" UNLESS OTHERWISE NOTED ON DRAWINGS

C. ALL TERRAZZO FLOOR IS COLOR TERR-1 UNLESS OTHERWISE NOTED ON DRAWINGS.

D. ALL LINOLEUM FLOORING IS COLOR LNL-1 UNLESS OTHER WISE NOTED ON DRAWINGS.

E. ALL CERAMIC FLOOR TILE ON FIRST FLOOR IS MUD SET; CERAMIC FLOOR TILE ON SECOND FLOOR IS THIN SET.

F. ALL PORCELAIN WALL TILE IN CORRIDORS SHALL BE IN COLOR/PATTERN SHOWN AT 24/A7.04

G. ALL GYP BD IN CORRIDORS SHALL HAVE 4'-4" H PWT WHETHER THEY ARE SHOWN OR NOT.

H. ALL PAINT IS COLOR P-1 UNLESS OTHERWISE NOTED.

J. PAINT ALL HMF/HMD IN SW7659 GRIS

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

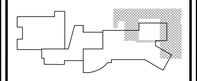
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT STATE OF TEXAS

10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN MC
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	2 COH COMMENT 1
10/17/2025	3 COH COMMENT 2
10/24/2025	CSP

A11.01

FLOOR COLOR/PATTERN AREA A FIRST FLOOR



NORTH

AREA "A"- SECOND FLOOR COLOR AND FLOOR PATTERNS

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

GENERAL NOTES:

A. SEE SHEET A3.03 FOR COLOR SCHEDULE

B. ALL CARPET IS TYPE "A" UNLESS OTHERWISE NOTED ON DRAWINGS

C. ALL TERRAZZO FLOOR IS COLOR TERR-1 UNLESS OTHERWISE NOTED ON DRAWINGS.

D. ALL LINOLEUM FLOORING IS COLOR LNL-1 UNLESS OTHER WISE NOTED ON DRAWINGS.

E. ALL CERAMIC FLOOR TILE ON FIRST FLOOR IS MUD SET; CERAMIC FLOOR TILE ON SECOND FLOOR IS THIN SET.

F. ALL PORCELAIN WALL TILE IN CORRIDORS SHALL BE IN COLOR/PATTERN SHOWN AT 24/A7.04

G. ALL GYP BD IN CORRIDORS SHALL HAVE 4'-4" H PWT WHETHER THEY ARE SHOWN OR NOT.

H. ALL PAINT IS COLOR P-1 UNLESS OTHERWISE NOTED.

J. PAINT ALL HMF/HMD IN SW7659 GRIS

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT STATE OF TEXAS

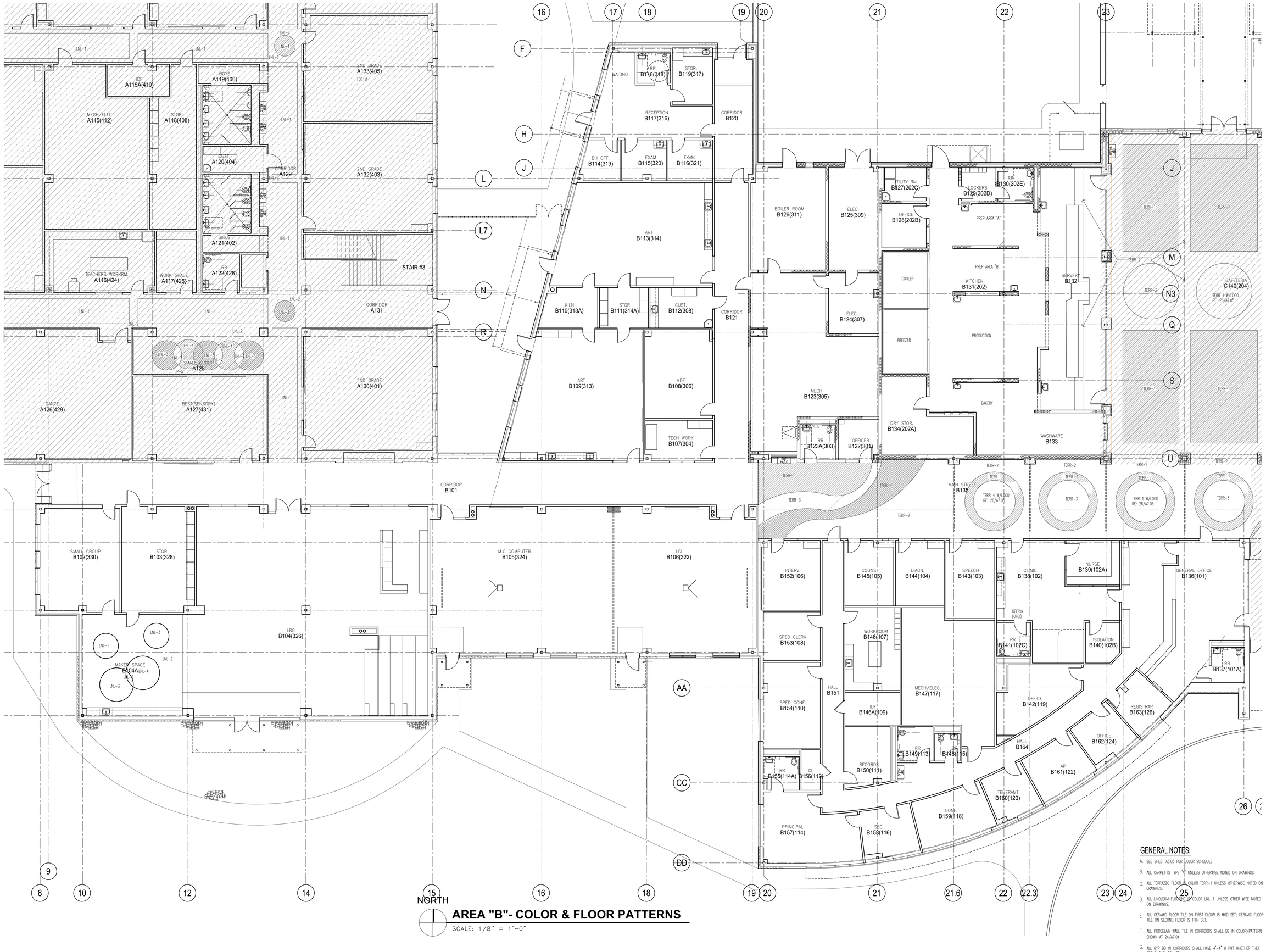
10/24/2025

PROJECT NO. 2502 (B101-101)
DATE Oct. 24, 2025
DRAWN MC
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A11.02

FLOOR COLOR/PATTERN AREA A SECOND FLOOR



AREA "B"- COLOR & FLOOR PATTERNS

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

GENERAL NOTES:

A. SEE SHEET A3.03 FOR COLOR SCHEDULE

B. ALL CARPET IS TYPE "A" UNLESS OTHERWISE NOTED ON DRAWINGS

C. ALL TERRAZZO FLOOR & COLOR TERR-1 UNLESS OTHERWISE NOTED ON DRAWINGS.

D. ALL LINOLEUM FLOORING IS COLOR LNL-1 UNLESS OTHER WISE NOTED ON DRAWINGS.

E. ALL CERAMIC FLOOR TILE ON FIRST FLOOR IS MUD SET; CERAMIC FLOOR TILE ON SECOND FLOOR IS THIN SET.

F. ALL PORCELAIN WALL TILE IN CORRIDORS SHALL BE IN COLOR/PATTERN SHOWN AT 24/A7.04

G. ALL CYP BD IN CORRIDORS SHALL HAVE 4'-4" H PWT WHETHER THEY ARE SHOWN OR NOT.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

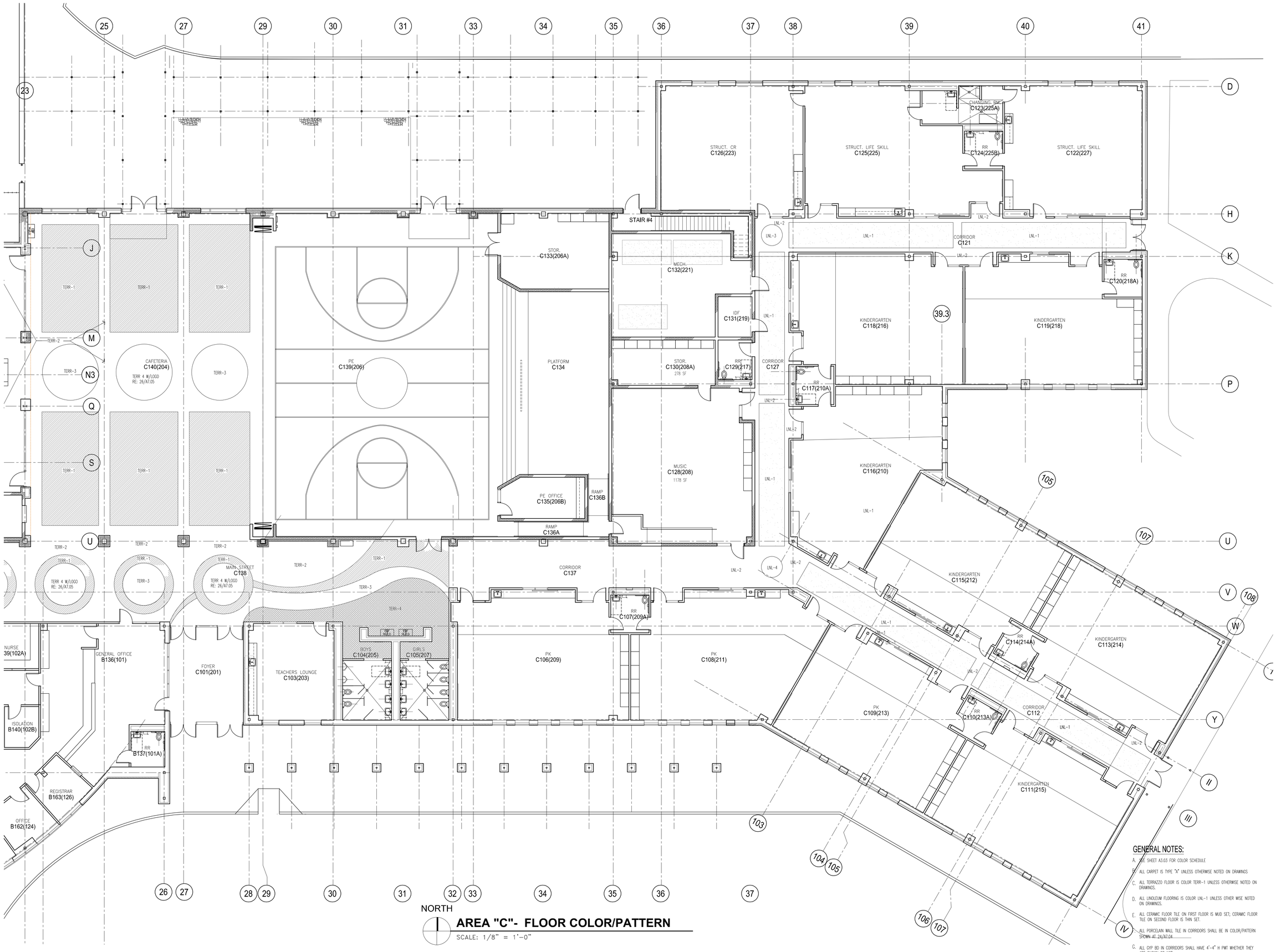
10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A11.03

FLOOR COLOR/PATTERN AREA B



NORTH

AREA "C"- FLOOR COLOR/PATTERN

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

GENERAL NOTES:

A. SEE SHEET A3.03 FOR COLOR SCHEDULE

B. ALL CARPET IS TYPE "A" UNLESS OTHERWISE NOTED ON DRAWINGS.

C. ALL TERRAZZO FLOOR IS COLOR TERR-1 UNLESS OTHERWISE NOTED ON DRAWINGS.

D. ALL LINOLEUM FLOORING IS COLOR LNL-1 UNLESS OTHER WISE NOTED ON DRAWINGS.

E. ALL CERAMIC FLOOR TILE ON FIRST FLOOR IS MUD SET; CERAMIC FLOOR TILE ON SECOND FLOOR IS THIN SET.

F. ALL PORCELAIN WALL TILE IN CORRIDORS SHALL BE IN COLOR/PATTERN SHOWN AT 24/A7.04

G. ALL GYP BD IN CORRIDORS SHALL HAVE 4'-4" H PWT WHETHER THEY ARE SHOWN OR NOT.

H. ALL PAINT IS COLOR P-1 UNLESS OTHERWISE NOTED.

J. PAINT ALL HMF/HMD IN SW7659 GRIS

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

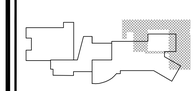
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

REGISTERED ARCHITECT STATE OF TEXAS

10/24/2025

PROJECT NO.	2502 (B101-101)
DATE	Oct. 24, 2025
DRAWN	MC
CHECKED	

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

A11.04

FLOOR COLOR/PATTERN
AREA C

EXISTING EQUIPMENT NOTES (IF EXISTING EQUIPMENT IS PROVIDED IN THIS PROJECT):

1. EXISTING EQUIPMENT NOT SCHEDULED FOR RE-USE TO BE RELOCATED BY THE K.E.C. COORDINATE WITH OWNER FOR NEW LOCATION.
2. ALL UTILITIES NOT SCHEDULED FOR RE-USE TO BE CAPPED & COVERED BY REQUIRED DISCIPLINE.
3. K.E.C. TO VERIFY ALL EXISTING UTILITY LOCATIONS & COORDINATE WITH ALL EQUIPMENT AS REQUIRED.

8 EXISTING EQUIPMENT NOTES
NOT TO SCALE

ARCHITECT TO VERIFY/COORDINATE THE AESTHETIC OPTIONS BELOW (FOOD SERVICE COLOR, MATERIAL, OR SIGNAGE SELECTIONS) IF THESE ITEMS ARE PROVIDED IN THIS PROJECT:

1. COUNTERTOPS: STONE (STAINLESS STEEL IS PROVIDED UNLESS OTHERWISE SPECIFIED).
2. TRAY SLIDES: CORIAN OR STONE (STAINLESS STEEL IS PROVIDED UNLESS OTHERWISE SPECIFIED).
3. COUNTER FRONTS: CERAMIC TILE, 3 FORM, OR PLASTIC LAMINATE.
4. SNEEZE GUARDS: STONE INSETS.
5. GENERAL COLOR, MATERIAL AND GRAPHIC SELECTIONS:
   - A. DISPLAY AIR SCREEN MERCHANDISERS - COLOR SELECTION: POWDER COAT OR PLASTIC LAMINATE (S/S IS PROVIDED UNLESS OTHERWISE SPECIFIED).
   - B. BAKERY DISPLAY CASES - COLOR SELECTION: POWDER COAT OR PLASTIC LAMINATE (S/S IS PROVIDED UNLESS OTHERWISE SPECIFIED).
   - C. PASS THRU OR REACH IN HOLDING CABINETS - COLOR SELECTION: POWDER COAT (MFG.: TRUE) OR PLASTIC LAMINATE (MFG.: TRAULSEN) (S/S IS PROVIDED UNLESS OTHERWISE SPECIFIED).
   - D. HANGING HEAT LAMPS - TRACK AND FIXTURE COLOR SELECTION.
   - E. HEATED MERCHANDISERS.
   - F. PORTABLE GUIDE RAILS - STANCHION AND BELT COLOR SELECTION.
   - G. POPCORN MACHINE - SIGNAGE SELECTION.
   - H. BOTTLE COOLER - SIGNAGE SELECTION.
   - I. GRAPHICS PACKAGE INFORMATION.
   - J. HOT FOOD WELL COVERS.
6. ARCHITECT TO VERIFY/COORDINATE THE FINISHES BELOW:
   - A. WALLS: CERAMIC TILE, FLAT FRP, OR MOLDED FRP (SMOOTH, IMPERVIOUS, AND EASILY CLEANABLE AS APPROVED BY LOCAL JURISDICTION).
   - B. CEILINGS: REMOVABLE VINYL FACE TILE (SMOOTH, IMPERVIOUS, AND EASILY CLEANABLE AS APPROVED BY LOCAL JURISDICTION).
   - C. FLOORS: TILE, EPOXY, OR RUBBERIZED FLOORING SYSTEM (SMOOTH, IMPERVIOUS, EASILY CLEANABLE AND SLIP RESISTANT AS APPROVED BY LOCAL JURISDICTION) (COORDINATE FLOOR TILE TRANSITION AT SERVING LINES).
   - D. FLOORS: WALK-IN ASSEMBLY - EXTEND KITCHEN FLOOR FLUSH INTO WALK-IN ASSEMBLY WITH COVED BASE.
   - E. FURR DOWNS ABOVE SERVING COUNTERS.

5 ARCHITECTURAL COORDINATION NOTES
NOT TO SCALE

REFER TO FOODSERVICE DESIGN PROFESSIONALS SPECIFICATIONS AND SUBSEQUENT SHEETS FOR ADDITIONAL COORDINATION INFORMATION

CRITICAL NOTES:

1. CONTRACTOR MUST COORDINATE AND VERIFY ALL DIMENSIONS WITH FOOD SERVICE EQUIPMENT SHOP DRAWINGS AND MANUFACTURER'S DATA. DIMENSIONS SHOWN ARE FOR DESIGN AND BIDDING PURPOSES ONLY.
2. WALK-IN ASSEMBLY DOORS MUST BE LEFT OPEN WHILE INTERIOR CONCRETE FLOOR CURES.
3. INSTALL PROTECTIVE COVER ON WALK-IN ASSEMBLY WALL PANELS BEFORE INSTALLING CONCRETE FLOORS AND CURBS.
4. REFER TO GENERAL SPECS - DIVISION 27 TO PROVIDE CONDUIT, DATA, AND INTERCONNECT THE PANIC ALARM INSIDE FREEZER TO THE BUILDING AUTOMATION SYSTEM FOR NOTIFICATION TO DISTRICT PERSONNEL IN THE EVENT OF STAFF ENTRAPMENT.
5. PIPING AND DRAINAGE SYSTEMS (SANITARY AND GREASE-LADEN). SYSTEMS MUST BE CLEANED AND FLUSHED BEFORE THE FINAL CONNECTION WITH FOOD SERVICE EQUIPMENT - CRITICAL (DIV. 22).

7 CRITICAL NOTES
NOT TO SCALE

DIVISION 26 (ELECTRICAL) IS RESPONSIBLE FOR BUT NOT LIMITED TO:

1. **DO NOT ROUGH IN FROM FDP DRAWINGS. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED SHOP DRAWINGS. DIMENSIONS INDICATED ARE TO BE VERIFIED BY KITCHEN EQUIPMENT CONTRACTOR AND ADJUSTED AS REQUIRED BY EQUIPMENT AND FIELD CONDITIONS.**
2. SECTION 11 40 00 TO VERIFY UTILITY REQUIREMENTS OF ANY EXISTING EQUIPMENT.
3. ALL CONNECTIONS SHALL BE MADE FOLLOWING LOCAL CODES AND NATIONAL STANDARDS, EXCEPT WHERE PLANS AND SPECIFICATIONS EXCEED THOSE CODES AND STANDARDS.
4. VERIFY ALL ELECTRICAL REQUIREMENTS WITH ENGINEERING DRAWINGS.
5. ROUGH-IN AND FINAL CONNECTION OF ELECTRICAL SYSTEMS TO FOOD SERVICE EQUIPMENT, WALK-IN ASSEMBLIES, AND BETWEEN COMPONENTS (INCLUDING MATERIALS AND LABOR). ACCESSORIES PROVIDED LOOSE WITH FOOD SERVICE EQUIPMENT BY SECTION 11 40 00 TO BE FIELD INSTALLED BY DIVISION 26.
6. EMPTY EMT CONDUIT WITH PULL-WIRE AND WIDE-SWEEP BENDS REFRIGERANT FOR PIPING TO REMOTE FOOD SERVICE EQUIPMENT REFRIGERATION SYSTEMS.
7. EMPTY EMT CONDUIT WITH PULL-WIRE AND WIDE-SWEEP BENDS FOR INTERCONNECT INTERCONNECT CABLES BETWEEN LAN AND POS TERMINALS, CHANGE-MAKERS, PRE-CHECK UNITS, PRINTERS, CPUS, ETC. DIVISION 26 TO VERIFY WHERE THE CONDUIT IS TO RUN FOR POS SYSTEM (I.E., MANAGER'S OFFICE OR IDF ROOM).
8. EMPTY EMT CONDUIT WITH PULL-WIRE AND WIDE-SWEEP BENDS FOR FIRE SUPPRESSION SYSTEMS. INTERCONNECT FIRE PROTECTION SYSTEM TO PANEL BOX SHUNT TRIPS AND BUILDING ALARM.
9. WALK-IN LIGHT FIXTURE INSTALLATION (PROVIDED LOOSE BY SECTION 11 40 00) (IF WALK-IN IS PROVIDED IN THIS PROJECT).
10. TABLE LIMIT SWITCH (PROVIDED LOOSE BY SECTION 11 40 00) (IF DISHMACHINE IS PROVIDED IN THIS PROJECT) - INSTALL AND INTERCONNECT TO DISHMACHINE .
11. ELECTRICAL MATERIALS AND DEVICES (SHUNT-TRIP BREAKERS, SURGE PROTECTORS, LIGHTING CONTROL DEVICES, CONDUIT, WIRE, ETC.).
12. SWITCHES AND STAINLESS STEEL DISCONNECTS AS REQUIRED (PROVIDE, LOCATE, AND INSTALL – TO BE IN AN ACCESSIBLE LOCATION).
13. CHARGING STATIONS FOR FORKLIFTS, PALLET STACKERS, AND PALLET JACKS (SIZE, PROVIDE, LOCATE, AND INSTALL) (IF EQUIPMENT IS PROVIDED IN THIS PROJECT).
14. INTERCONNECTION BETWEEN CONDENSATE FAN AND DISHMACHINE CONTROL PANEL (IF EQUIPMENT IS PROVIDED IN THIS PROJECT).
15. INTERCONNECTION BETWEEN EXHAUST HOOD FANS AND SWITCH (IF EQUIPMENT IS PROVIDED IN THIS PROJECT).
16. INTERCONNECTION BETWEEN EXHAUST HOOD LIGHTS AND SWITCH (IF EQUIPMENT IS PROVIDED IN THIS PROJECT).
17. DOOR HEATERS, LIGHTS, COILS, AND PRESSURE RELIEF PORTS PRE-WIRED TO JUNCTION BOX AT TOP OF WALK-IN ASSEMBLIES (IF EQUIPMENT IS PROVIDED IN THIS PROJECT) PROVIDED BY SECTION 11 40 00. FINAL CONNECTION BY DIV. 26.
18. IF ANY ELECTRICAL ACCESSORIES, FITTINGS, AND CORD/PLUGS ARE PROVIDED LOOSE WITH EQUIPMENT BY 11 40 00, DIV.26 IS TO ATTACH TO EQUIPMENT AND PROVIDE FINAL CONNECTION.
19. PROVIDE WATERPROOF RECEPTACLES IN WET AREAS.
20. ALL ELECTRICAL LIGHTING, POWER, AND DISTRIBUTION SYSTEMS.
21. ALL ELECTRICAL CONNECTIONS BENEATH EXHAUST HOODS (IF EQUIPMENT IS PROVIDED IN THIS PROJECT) TO EXTEND TO SHUNT TRIP BREAKERS WITH ELECTRICAL PANEL BOX FOR SHUTDOWN DURING FIRE MODE.
22. RECEPTACLES ARE TO BE PRE-WIRED TO THE JUNCTION BOX OR LOAD CENTER FOR FINAL CONNECTION BY DIVISION 26.
23. DO NOT INTERCONNECT MORE THAN THREE (3) CONVENIENCE OUTLETS ON ONE (1) BREAKER.
24. OTHER THAN CONVENIENCE OUTLETS, ALL ELECTRICAL CONNECTIONS SHOWN ON FOOD SERVICE PLANS ARE DEDICATED BREAKERS.
25. DOORBELL AT RECEIVING DOOR (PROVIDE AND INSTALL – TO BE AUDIBLE THROUGHOUT KITCHEN, OFFICE, AND DRY STORAGE ROOM).
26. ADEQUATE LIGHTING AT RECEIVING DOOR.
27. (IF WALK-IN IS PROVIDED IN THIS PROJECT) WALK-IN MANUFACTURER IS TO PROVIDE TWO (2) EDWARDS 860 SERIES (OR EQUAL) RED LENS, SURFACE-MOUNTED XENON EMERGENCY STROBE BEACONS. WALK-IN MANUFACTURER WILL INSTALL ONE(1) LOCATED IN THE KITCHEN ABOVE WALK-IN FREEZER DOOR (OR COOLER DOOR WHEN FREEZER IS WITHIN COOLER IN AN 'INLINE' ASSEMBLY), AND PROVIDE THE SECOND UNIT LOOSE FOR INSTALLATION BY DIVISION 26 LOCATED IN THE CAFETORIUM (DIVISION 26 TO COORDINATE LOCATION WITH OWNERS AND ARCHITECT). DIVISION 26 IS TO PROVIDE ALL CONDUIT AND WIRING REQUIRED AND INTERCONNECT THE ILLUMINATED PUSH BUTTON PANIC ALARM IN THE WALK-IN FREEZER TO BOTH STROBE BEACONS (CRITICAL). COORDINATE WITH DIVISION 27. REFER TO GENERAL SPECIFICATIONS FOR ADDITIONAL DETAILS.
28. DEDICATED CIRCUIT FOR HEATED DRAIN LINE CONNECTION IN WALK-IN FREEZER AT EACH COIL (IF WALK-IN IS PROVIDED IN THIS PROJECT).
29. GFCI BREAKER FOR ALL RECEPTACLES UNDER EXHAUST HOODS (IF HOODS ARE PROVIDED IN THE PROJECT), AND HOLDING CABINETS (IF HOLDING CABINETS ARE PROVIDED IN THIS PROJECT), TO BE LOCATED WITHIN KITCHEN'S ELECTRICAL BREAKER PANEL AND NOT AT THE RECEPTACLES.
30. REMOTE GFCI RESET SWITCHES TO BE ACCESSIBLE TO USER.
31. ALL ELECTRICAL BELOW EXHAUST HOOD (IF HOODS ARE PROVIDED IN THE PROJECT) ARE TO HAVE SHUNT TRIP BREAKERS.
32. INTERCONNECT TEMP SENSOR TO EXHAUST / SUPPLY FANS (IF HOODS ARE PROVIDED IN THE PROJECT).

NOTE: ELECTRICAL CONNECTIONS INDICATED ARE THOSE REQUIRED FOR THE FOOD SERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT FURNISHED BY DIVISION 26. FOR ADDITIONAL REQUIREMENTS, REFER TO THE ELECTRICAL ENGINEER'S DRAWINGS AND FOOD SERVICE GENERAL SPECS.

6 ELECTRICAL COORDINATION NOTES
NOT TO SCALE

DIVISION 22 (PLUMBING) RESPONSIBLE FOR BUT NOT LIMITED TO:

1. **DO NOT ROUGH-IN FROM FDP DRAWINGS. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED SHOP DRAWINGS. DIMENSIONS INDICATED ARE TO BE VERIFIED BY KITCHEN EQUIPMENT CONTRACTOR AND ADJUSTED AS REQUIRED BY EQUIPMENT AND/OR FIELD CONDITIONS.**
2. SECTION 11 40 00 TO VERIFY UTILITY REQUIREMENTS OF ANY EXISTING EQUIPMENT.
3. ALL CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH LOCAL CODES AND NATIONAL STANDARDS, EXCEPT WHERE PLANS AND SPECIFICATIONS EXCEED THOSE CODES AND STANDARDS.
4. VERIFY ALL PLUMBING REQUIREMENTS WITH ENGINEERING DRAWINGS.
5. EMPTY PVC CONDUIT WITH WIDE-SWEEP BENDS FOR REFRIGERANT PIPING TO BEVERAGE LINES, CO2 LINES, AND REMOTE FOOD SERVICE EQUIPMENT REFRIGERATION SYSTEMS.
6. ROUGH-IN AND FINAL PLUMBING CONNECTIONS TO FOOD SERVICE EQUIPMENT AND BETWEEN COMPONENTS (INCLUDING MATERIALS AND LABOR). ACCESSORIES PROVIDED LOOSE WITH FOOD SERVICE EQUIPMENT BY SECTION 11 40 00 TO BE FIELD INSTALLED BY DIVISION 22. THIS INCLUDES BUT IS NOT LIMITED TO INSTALLATION OF ALL FAUCETS (WATER FILL FAUCETS, PRE-RINSE FAUCETS, ETC.), HOSES, GAS DISCONNECTS, AND DRAINS FROM EQUIPMENT POINT OF CONNECTION TO BUILDING PLUMBING SYSTEMS. ALL DRAIN LINES ARE PROVIDED AND INSTALLED BY DIV. 22.
7. KITCHEN EQUIPMENT CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL FAUCETS (WATER FILL FAUCETS, PRE-RINSE FAUCETS, ETC.), DRAIN FITTINGS, MIXING VALVES, CONTROL VALVES, WATER PRESSURE REGULATORS, VACUUM BREAKERS, AND ALL ACCESSORIES FOR EQUIPMENT SPECIFIED UNDER 11 40 00. DIVISION 22 IS RESPONSIBLE FOR INSTALLATION.
8. INDIRECT DRAIN LINE RUNS FROM EQUIPMENT TO NEAREST DRAIN OR FLOOR SINK. LINES TO BE TYPE 'K' COPPER.
9. IF ANY PLUMBING ACCESSORIES OR FITTINGS ARE PROVIDED LOOSE WITH EQUIPMENT BY 11 40 00, DIV. 22 IS TO ATTACH TO EQUIPMENT AND PROVIDE FINAL CONNECTION.
10. GAS SUPPLY SYSTEMS WITH ALL COMPONENTS AND FITTINGS AS REQUIRED FOR A COMPLETE SYSTEM.
11. WATER SUPPLY SYSTEMS WITH ALL COMPONENTS AND FITTINGS AS REQUIRED FOR A COMPLETE SYSTEM.
12. COMPRESSED AIR SYSTEMS WITH ALL COMPONENTS AND FITTINGS AS REQUIRED FOR A COMPLETE SYSTEM (IF REQUIRED FOR THIS PROJECT).
13. PIPING AND DRAINAGE SYSTEMS (SANITARY AND GREASE-LADEN). SYSTEMS MUST BE CLEANED AND FLUSHED BEFORE THE FINAL CONNECTION WITH FOOD SERVICE EQUIPMENT - CRITICAL.
14. FLOOR SINKS (PROVIDE AND INSTALL). FLANGE AND GRATES TO BE FLUSH WITH FINISHED FLOOR.
15. FLOOR DRAINS (PROVIDE AND INSTALL). FLANGE AND GRATES TO BE FLUSH WITH FINISHED FLOOR.
16. TRENCH DRAINS (PROVIDE AND INSTALL). TRENCH LINERS PROVIDED BY 11 40 00. FLANGE AND LINERS TO BE FLUSH WITH FINISHED FLOOR.
17. GREASE TRAPS AS REQUIRED. VERIFY WITH LOCAL CODES TO BYPASS OR PIPE THRU GREASE TRAP AND/OR INTERCEPTOR.
18. P-TRAPS AS REQUIRED (INCLUDING ALL DISPOSERS).
19. INTERCONNECT WATER THRU WATER FILTER (FILTER PROVIDED BY 11 40 00 UNLESS OTHERWISE SPECIFIED) TO EQUIPMENT.
20. GAS QUICK DISCONNECT INSTALLATION (QUICK DISCONNECT PROVIDED BY 11 40 00).
21. SAFETY RESTRAINT CABLE INSTALLATION (SAFETY RESTRAINT CABLE PROVIDED BY 11 40 00).
22. SPECIFIED COUPLINGS AND PIPING TO ALL EQUIPMENT FURNISHED BY 11 40 00.
23. AIR COMPRESSORS (IF REQUIRED FOR THIS PROJECT) (SIZE, PROVIDE, AND INSTALL, UNLESS OTHERWISE SPECIFIED).
24. WATER SOFTENERS (IF REQUIRED FOR THIS PROJECT) (SIZE, PROVIDE, AND INSTALL, UNLESS OTHERWISE SPECIFIED).
25. PRESSURE BOILERS (IF REQUIRED FOR THIS PROJECT) (SIZE, PROVIDE, AND INSTALL, UNLESS OTHERWISE SPECIFIED).
26. HAND SINKS (PROVIDE (UNLESS OTHERWISE SPECIFIED) AND INSTALL). PROVIDE HOT WATER TEMPERING VALVE IF REQUIRED. WATER TEMPERATURE TO BE AT LEAST 100 DEGREES AND FLOW FOR AT LEAST 20 SECONDS.
27. ICE BIN DRAIN INSULATION (IF ICE MACHINE IS PROVIDED IN THIS PROJECT) (PROVIDE AND INSTALL).
28. UNIONS AT DISPOSER SOLENOID VALVES (IF DISPOSER IS PROVIDED IN THIS PROJECT) (PROVIDE AND INSTALL).
29. BACK FLOW PREVENTION AS REQUIRED (PROVIDE AND INSTALL - INCLUDING ALL DISPOSERS). BACK- SIPHONAGE SHALL BE INSTALLED AT ALL FIXTURES AND EQUIPMENT WHERE BACKFLOW AND/OR BACK-SIPHONAGE MAY OCCUR AND WHERE A MINIMUM AIR GAP CANNOT BE PROVIDED BETWEEN THE WATER TO THE FIXTURE OR EQUIPMENT AT ITS FLOOD/LEVEL RIM. VACUUM BREAKERS, WHEN FURNISHED WITH EQUIPMENT, SHALL OVERRIDE THE ABOVE, IF ACCEPTABLE WITH APPLICABLE CODES. DIVISION 22 RESPONSIBLE FOR VERIFYING REQUIREMENT WITH LOCAL CODES.
30. JANITOR SINK WITH FAUCET (PROVIDE AND INSTALL).
31. FREEZE PROOF HYDRANT AT EXTERIOR OF BUILDING BY RECEIVING DOOR (PROVIDE AND INSTALL).
32. REVERSE OSMOSIS SYSTEMS (SIZE, PROVIDE (UNLESS OTHERWISE SPECIFIED), LOCATE AND INSTALL).
33. ALL PIPING WITHIN COUNTER BODY OR UNDER FABRICATED COUNTERS TO BE RUN TO A CONNECTION POINT BELOW COUNTER BODY BY SECTION 11 40 00. FINAL CONNECTION BY DIVISION 22.
34. EXHAUST HOOD CONDENSATE DRAIN CONNECTIONS (IF EXHAUST HOOD IS PROVIDED IN THIS PROJECT) (PROVIDE AND INSTALL).
35. INTERCONNECTION OF 1/2" CW TO PRE-RINSE AND DISPOSERS CONE/BODY INLETS PIPED THROUGH SOLENOID AND VACUUM BREAKER (IF DISPOSER IS PROVIDED IN THIS PROJECT).
36. FIRE SYSTEM PIPING. EXPOSED PIPING TO BE CHROME PLATED.
37. PIPE 1/2" COLD WATER TO SWIRL INLETS AT DISPOSERS (IF DISPOSER IS PROVIDED IN THIS PROJECT).
38. WATER TREATMENT FOR ICE BUILDERS (NON-CHLORINATED WATER WITH A PH LEVEL OF 10 OR HIGHER) AND ANY DRAINS AND OVERFLOWS. PIPING FROM ICE BUILDERS TO TUMBLE CHILLERS BY DIV. 23 (IF ICE BUILDERS AND TUMBLE CHILLERS ARE PROVIDED IN THIS PROJECT).

NOTE: WATER AND DRAIN CONNECTIONS INDICATED ARE THOSE REQUIRED FOR THE FOOD SERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT FURNISHED BY DIVISION 22. FOR ADDITIONAL REQUIREMENTS, REFER TO THE PLUMBING ENGINEER'S DRAWINGS AND FOOD SERVICE GENERAL SPECS.

4 PLUMBING COORDINATION NOTES
NOT TO SCALE

DIVISION 23 (MECHANICAL) RESPONSIBLE FOR BUT NOT LIMITED TO:

1. **DO NOT ROUGH-IN FROM FDP DRAWINGS. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED SHOP DRAWINGS. DIMENSIONS INDICATED ARE TO BE VERIFIED BY KITCHEN EQUIPMENT CONTRACTOR AND ADJUSTED AS REQUIRED BY EQUIPMENT AND/OR FIELD CONDITIONS.**
2. SECTION 11 40 00 TO VERIFY UTILITY REQUIREMENTS OF ANY EXISTING EQUIPMENT.
3. ALL CONNECTIONS SHALL BE MADE FOLLOWING LOCAL CODES AND NATIONAL STANDARDS, EXCEPT WHERE PLANS AND SPECIFICATIONS EXCEED THOSE CODES AND STANDARDS.
4. VERIFY ALL MECHANICAL REQUIREMENTS WITH ENGINEERING DRAWINGS.
5. EMPTY EMT CONDUIT WITH PULL-WIRE AND WIDE-SWEEP BENDS FOR REFRIGERANT PIPING TO REMOTE FOOD SERVICE EQUIPMENT REFRIGERATION SYSTEMS.
6. ROUGH-IN AND FINAL CONNECTION OF MECHANICAL SYSTEMS TO FOOD SERVICE EQUIPMENT, WALK-IN ASSEMBLIES, AND BETWEEN COMPONENTS (INCLUDING MATERIALS AND LABOR).
7. TESTING AND BALANCING FOR ROOMS AND EXHAUST HOODS TO BE PERFORMED BY MECHANICAL CONTRACTOR. BALANCE REPORT FOR FOOD SERVICE EXHAUST HOODS TO BE PROVIDED TO FOODSERVICE DESIGN PROFESSIONALS (FDP) IMMEDIATELY UPON COMPLETION (SEND TO HOUSTON.SUBMITTAL@FDP.ORG FOR HOUSTON OFFICE AND DALLAS.SUBMITTAL@FDP.ORG FOR DALLAS OFFICE) AND MUST BE SUBMITTED WITH O&M MANUALS.
8. EXHAUST HOODS, CONDENSATE HOODS, FIRE SUPPRESSION SYSTEMS, CONNECTIONS AND CONTROLS (PROVIDE AND INSTALL – *UNLESS OTHERWISE SPECIFIED*). PROVIDE TEMPERED AIR AT ALL SUPPLY DUCTS.
   - A. IF EXHAUST/CONDENSATE HOODS AND FIRE SUPPRESSION SYSTEMS ARE SPECIFIED UNDER SECTION 11 40 00, DIVISION 23 IS RESPONSIBLE FOR ALL EXHAUST AND CONDENSATE HOOD CONNECTIONS (PROVIDE AND INSTALL).
9. VFD SYSTEM AND CONTROLLERS, WHEN REQUIRED BY CODE (PROVIDE AND INSTALL).
10. PROVIDE AND INSTALL ALL VENTILATION (DIRECT OR INDIRECT), AIR CONDITIONING AND HEATING SYSTEMS (UNLESS OTHERWISE SPECIFIED).
11. COORDINATE SUPPLY AND RETURN DUCTS ABOVE SERVING COUNTERS OR OPEN-AIR REFRIGERATED MERCHANDISERS. NO COLD AIR TO BLOW DIRECTLY ON HOT FOOD COUNTERS.
12. COORDINATE SUPPLY AND RETURN DUCTS AWAY FROM EQUIPMENT WITH TOP MOUNTED REFRIGERATION. NO COLD AIR TO BLOW DIRECTLY ON COMPRESSORS.
13. MECHANICAL CONTRACTOR TO LOCATE TEMPERATURE MONITORS WITHIN RETURN DUCTS.
14. CIRCULATING AIR ABOVE WALK-IN ASSEMBLIES (PROVIDE AND INSTALL).
15. CIRCULATING AIR ABOVE AND IN AIR GAPS AT WAREHOUSE COLD STORAGE ASSEMBLIES (PROVIDE AND INSTALL).
16. WATER CHILLERS AS REQUIRED (IF EQUIPMENT IS PROVIDED IN THIS PROJECT) (PROVIDE, SIZE AND LOCATE).
17. PIPING FROM ICE BUILDERS TO TUMBLE CHILLERS (IF EQUIPMENT IS PROVIDED IN THIS PROJECT) (PROVIDE, SIZE AND LOCATE).

NOTE: MECHANICAL CONNECTIONS INDICATED ARE THOSE REQUIRED FORTHE FOOD SERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT FURNISHED BY DIVISION 23. FOR ADDITIONAL REQUIREMENTS, REFER TO THE MECHANICAL ENGINEER'S DRAWINGS AND FOOD SERVICE GENERAL SPECS.

3 MECHANICAL COORDINATION NOTES
NOT TO SCALE

GENERAL CONTRACTOR RESPONSIBLE FOR BUT NOT LIMITED TO:

1. ANY WALL PENETRATION REQUIRED FOR FOOD SERVICE EQUIPMENT UTILITIES. ESCUTCHEON PLATES OR S/S SLEEVES TO BE PROVIDED AND INSTALLED AS NEEDED.
2. BULK FREEZER VENTILATION PIPE (IF BULK FREEZER IS PROVIDED IN THIS PROJECT) (PROVIDE AND INSTALL, UNLESS OTHERWISE SPECIFIED).
3. CORE DRILLING FOR GUIDE RAILS (IF GUIDE RAILS ARE PROVIDED IN THIS PROJECT).
4. REFRIGERATION ROOF CURBS / ROOF JACK (IF REFRIGERATION SYSTEM IS PROVIDED IN THIS PROJECT AND LOCATED ON ROOF).
5. INTERIOR BOLLARDS (IF REQUIRED FOR THIS PROJECT) – TO BE EPOXY PAINTED PER LOCAL CODES (PROVIDE AND INSTALL).
6. FURNISH AND INSTALL 3/4" PLYWOOD BLOCKING IN THE WALL FOR MOUNTING EQUIPMENT FURNISHED BY SECTION 11 40 00 AS REQUIRED.
7. WALK-IN DEPRESSIONS (TO BE DEAD LEVEL) AND SAND LEVELING BED (IF WALK-IN IS PROVIDED IN THIS PROJECT AND RECESS IS SHOWN).
8. STRUCTURAL BRACING FOR BULK WALK-IN CEILING PANELS IF REQUIRED.
9. MENU SYSTEM VIDEO MONITORS IN SERVERY (UNLESS OTHERWISE SPECIFIED).
10. STRUCTURAL BRACING FOR MENU SYSTEM VIDEO MONITORS IF REQUIRED.
11. INTERIOR/EXTERIOR REFRIGERATION PENETRATIONS AND SLEEVES AT BUILDING PENETRATIONS.
12. DOORSCOPE VIEWER (PEEPHOLE) WITH WIDE VIEWING ANGLE AT RECEIVING DOOR.
13. CANOPY AT RECEIVING DOOR. COORDINATE HEIGHT WITH THE HEIGHT OF RECEIVING DOOR (8') AND THE MOUNTING HEIGHT OF AIR SCREEN ABOVE THE DOOR.
14. SOAP AND TOWEL DISPENSER PROVIDED BY OWNER. G.C. RESPONSIBLE FOR INSTALLATION.
15. WASHER AND DRYER (PROVIDE AND INSTALL, UNLESS OTHERWISE SPECIFIED).
16. DWARF WALL AT EXPOSED FRONT/ENDS OF CAFETERIA SERVING COUNTERS WITH FINISH AS SELECTED BY ARCHITECT (IF REQUIRED IN THIS PROJECT).

2 GENERAL CONTRACTOR COORDINATION NOTES
NOT TO SCALE

HEALTH DEPARTMENT REQUIREMENTS (VERIFY WITH LOCAL JURISDICTIONS):

1. FLOORS: VERIFY WITH DIVISION 9. FLOORS TO BE SMOOTH, IMPERVIOUS, EASILY CLEANABLE AND SLIP RESISTANT.
2. WALLS: VERIFY WITH ARCHITECTURAL DOCUMENTS. WALLS TO BE SMOOTH, IMPERVIOUS, AND EASILY CLEANABLE.
3. CEILING: LAY-IN TILES. CEILING TILES TO BE SMOOTH, IMPERVIOUS, AND EASILY CLEANABLE.
4. EMPLOYEE TOILET: TO BE LOCATED OFF MAIN CORRIDOR AND ADJACENT TO MAIN KITCHEN. RESTROOM MUST HAVE A VESTIBULE AND NOT OPEN TO KITCHEN / PREP AREAS. TOILETS TO BE WELL VENTILATED.
5. LAVATORIES: WALL HUNG LAVATORIES LOCATED WITHIN ALL FUNCTIONAL WORKING AREAS.
6. UTENSIL CLEANING/SANITIZING: ACCOMPLISHED IN UTENSIL WASH AREA WITH (3) 2'-0" x 2'-2" x 15" MINIMUM DEEP SINKS AND WAREWASH MACHINE.
7. MECHANICAL CLEANING/SANITIZING OF TABLEWARE: ACCOMPLISHED BY WAREWASH MACHINE.
8. STOREROOMS: AMPLE DAILY STORAGE PROVIDED IN ENCLOSED STORE ROOMS. STORE ROOMS TO BE VENTILATED AND MAINTAIN PROPER TEMPERATURE.
9. WATER HEATER: LOCATED IN THE MECHANICAL ROOM ADJACENT TO KITCHEN. TO BE SIZED TO PROVIDE AMPLE WATER TO MAINTAIN PROPER WATER TEMPERATURE THROUGHOUT HOURS OF OPERATION.
10. GREASE TRAP: LOCATED AT EXTERIOR OF BUILDING. REFER TO ENGINEER'S DRAWINGS.
11. FOOD SERVICE EQUIPMENT: ALL FLOOR-MOUNTED EQUIPMENT IS TO BE SEALED TO THE FLOOR TO PROVIDE AN EASILY CLEANABLE SURFACE AND PREVENT SEEPAGE. EQUIPMENT NOT MOUNTED TO THE FLOOR IS TO BE WALL MOUNTED ON WALL CARRIERS, OR ELEVATED ON LEGS TO PROVIDE AT LEAST A SIX-INCH CLEARANCE BETWEEN FLOOR AND EQUIPMENT.
12. MOP SINK: LOCATED IN JANITOR CLOSET OFF MAIN KITCHEN CORRIDOR, AND LOCATED IN CLOSE PROXIMITY TO THE WAREWASH AREA.
13. EXHAUST HOODS: EXHAUST HOODS PROVIDED OVER COOKING EQUIPMENT WITH LIQUID CHEMICAL ANSUL FIRE EXTINGUISHING SYSTEM.
14. LIGHTING AND PROTECTIVE SHIELDING: RECESSED CEILING-MOUNTED FLUORESCENT LIGHT FIXTURES FITTED WITH CLEAR LEXAN DIFFUSERS.
15. GARBAGE AND REFUSE: CENTRAL TRASH COLLECTION PROVIDED FOR BUILDING LOCATED NEAR RECEIVING AREA ON SMOOTH CONCRETE SURFACE.
16. POISONOUS AND TOXIC MATERIAL STORAGE: LOCATED IN RESPECTIVE JANITOR CLOSETS WITH LOCKING HARDWARE.

1 HEALTH DEPARTMENT COORDINATION NOTES
NOT TO SCALE

FOODSERVICE DESIGN PROFESSIONALS

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

MELISSA MOORE
FCSI
48854119
SOCIETY INTERNATIONAL
PROFESSIONAL MEMBER
Melissa Moore
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO: 48854119 ON: 08/29/2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

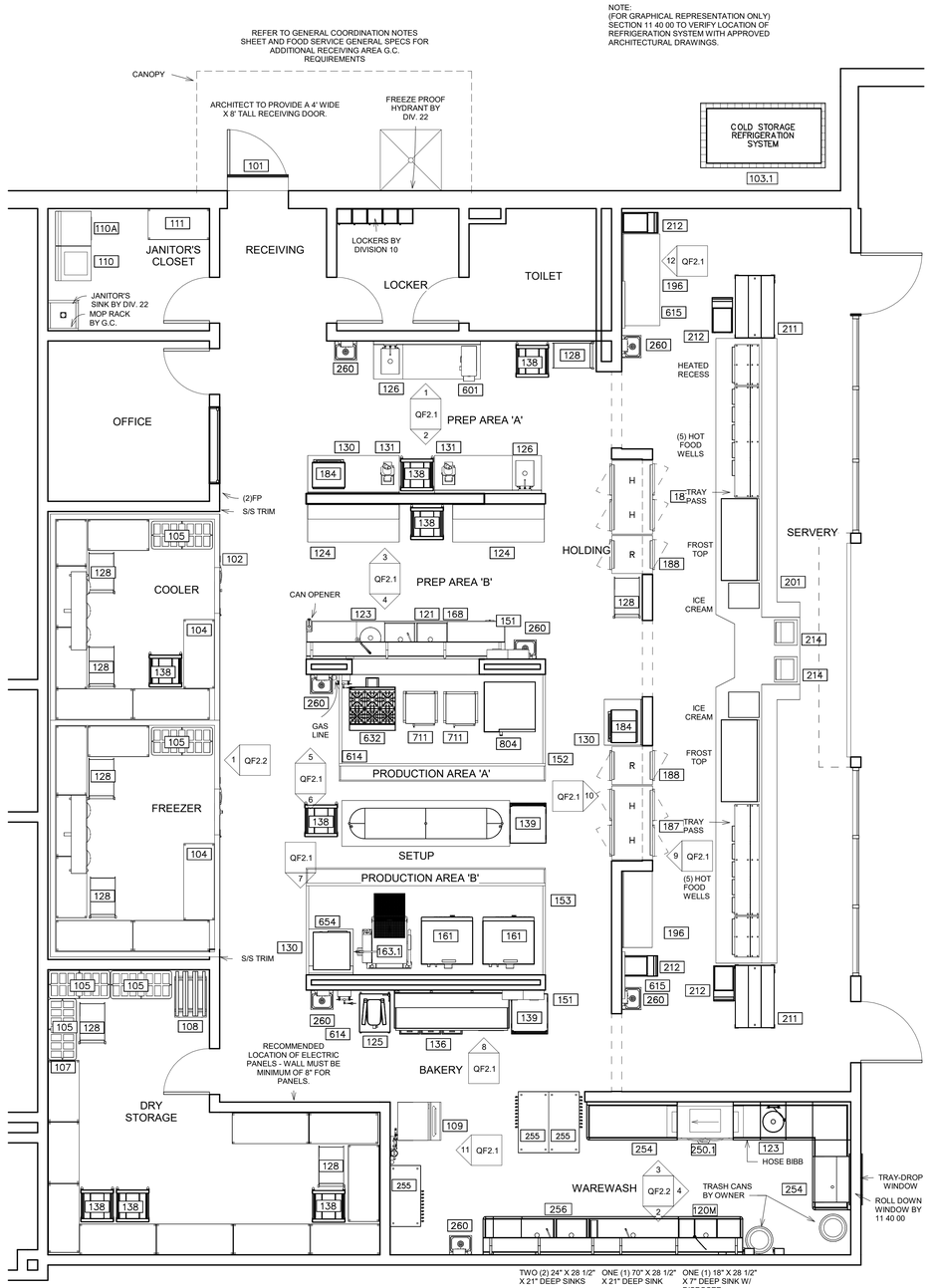
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a COH COMMENT 1
10/17/2025	b COH COMMENT 2
10/24/2025	CSP

FS GENERAL COORDINATION NOTES

QF1

FOOD SERVICE DRAWING INDEX	
FDP SHEET NUMBER	FDP SHEET NAME
QF1	FS GENERAL COORDINATION NOTES
QF1.0	FS EQUIPMENT PLAN
QF1.1	FS FACILITY MODEL
QF1.2	FS EQUIPMENT MODEL
QF1.3	FS SPECIAL CONDITIONS & MECHANICAL PLAN
QF1.4	FS PLUMBING PLAN
QF1.5	FS ELECTRICAL PLAN
QF1.6	FS EXHAUST HOODS
QF1.7	FS CONDENSING UNITS
QF1.8	FS WALK-INS
QF1.9	FS SERVING COUNTERS
QF1.9.1	FS SERVING COUNTERS
QF2.1	FS ELEVATIONS
QF2.2	FS ELEVATIONS
QF3.1	FS SECTIONS & DETAILS
QF3.2	FS DETAILS
QF3.3	FS DETAILS

FOOD SERVICE EQUIPMENT SCHEDULE					
REFER TO SHEET QF1 FOR GENERAL CONTRACTOR & HEALTH DEPARTMENT COORDINATION NOTES					
FDP ITEM	FDP QTY	FDP DESCRIPTION	FDP REMARKS	MANUFACTURER	MODEL
101	1	AIR SCREEN		MARS	STD248-1UA-OB
102	1	COLD STORAGE ASSEMBLY		AMERICAN PANEL	
103.1	1	COLD STORAGE REFRIGERATION SYSTEM		RDT	ZS1-02Z-CT3-EST
104	2	COLD STORAGE SHELVING		METRO	METROMAX Q
105	5	DUNNAGE RACK		METRO	BOWTIE
107	1	DRY STORAGE SHELVING		METRO	METROMAX Q
108	1	CAN RACK		NEW AGE	1250CK
109	1	ICE MAKER WITH BIN - 500 LB CAPACITY		MANITOWOC	IYT-0450A/D570
110	1	CLOTHES WASHER		CONTRACTOR FURNISHED	
110A	1	CLOTHES DRYER		CONTRACTOR FURNISHED	
111	1	CHEMICAL SHELF		METRO	METROMAX Q
120M	1	DISPOSER - 3HP		SALVAJOR	300-SA-6.5-ARRS-LS
121	1	TWO COMPARTMENT SINK W. DISPOSER		CUSTOM FABRICATED	
123	2	DISPOSER-CONE MOUNT		SALVAJOR	300-CA-18-ARRS-LS
124	2	WORKTABLE W. OVERSHELF		CUSTOM FABRICATED	
125	1	20 QT. MIXER W/STAND		HOBART	HL200
126	2	WORKTABLE W. SINK		CUSTOM FABRICATED	
128	8	UTILITY CART		LAKESIDE	522
130	3	WORKTABLE NO OVERSHELF		CUSTOM FABRICATED	
131	2	FOOD PROCESSOR		ROBO COUPE	CL 50 ULTRA
136	1	BAKER'S TABLE		CUSTOM FABRICATED	
138	8	PAN RACK		CRES COR	207-UA-13A
139	2	INSUL MOBILE PROOFER		ALTO SHAMM	1000-UP/P
151	2	FIRE PROTECTION SYSTEM		ANSUL	R102
152	1	EXHAUST HOOD		MOD-U-SERVE	W-CPB
153	1	EXHAUST HOOD		MOD-U-SERVE	W-CPB
161	2	CONVECTION OVEN		BLODGETT	DFG-200 DBL
163.1	1	30 GAL. TILT BRAISING PAN-GAS POWER TILT		CLEVELAND	SGL30T1
168	1	SS WALL CAP		CUSTOM FABRICATED	
184	2	MICROWAVE		PANASONIC	NE-3800
187	2	PASS-THRU HEATED CABINET-2DR		TRAULSEN	AHF-232WP HHS
188	2	PASS-THRU REFRIGERATOR-1DR		TRAULSEN	AHT-132WPUT HHS
196	2	BACK COUNTER		CUSTOM FABRICATED	
201	1	SERVING COUNTER		MOD-U-SERVE	CUSTOM
211	2	DROP FRONT MILK COOLER - 12 CASE		MOD-U-SERVE	MCT-DM2
212	4	MOBILE TRAY LOWERATOR		PIPER	ATCA-ST
214	2	CASH REGISTER	OWNER FURNISHED		
250.1	1	CONVEYOR DISHMACHINE W/BUILT-IN BOOSTER		CHAMPION	44 PRO
254	2	SOILED & CLEAN DISHTABLE		CUSTOM FABRICATED	
255	3	MOBILE UTENSIL SHELF		METRO	PR48VX3
256	1	POWERWASH SINK		POWERSOAK	PUS6
260	7	HAND SINK		BY DIV. 22	
601	1	HOT WATER DISPENSER		HATCO	AWD-12
614	2	FILL FAUCET		T&S	B-0610
615	2	MENU MONITOR	OWNER FURNISHED		
632	1	SIX BURNER RANGE		VULCAN	36C-6BN
654	1	TURBO CHEF		TURBO CHEF	TORNADO 2
711	2	CONVECTION STEAMER		ACCUTEMP	N61201E DBL
804	1	COMBI OVEN		HENNY PENNY	FPE621G2/FPE121G2



1 FOOD SERVICE EQUIPMENT PLAN
1/4" = 1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

MELISSA MOORE
FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
FCSI
48854119
PROFESSIONAL MEMBER
Melissa Moore
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO: 48854119 ON: 08/29/2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

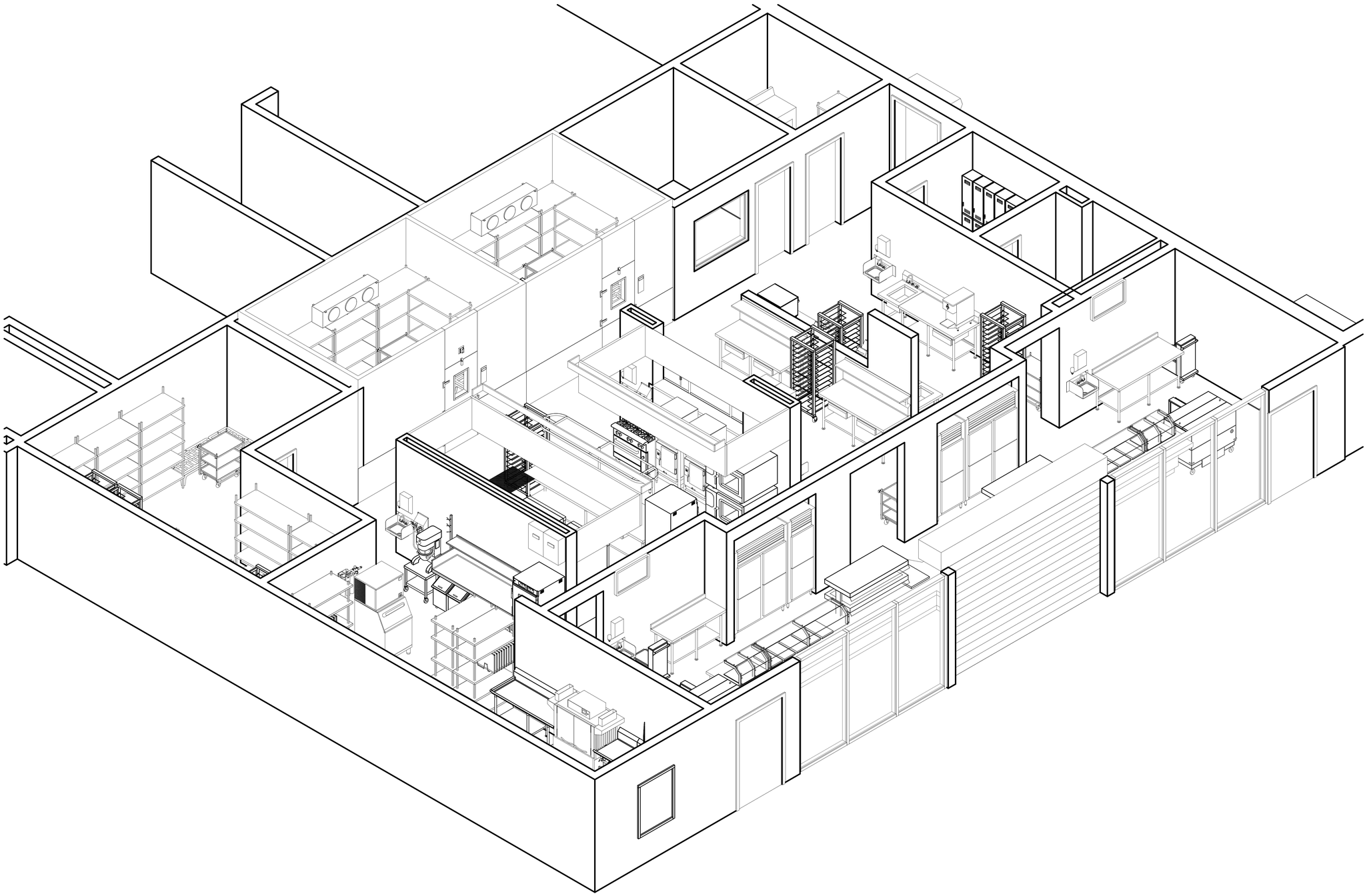
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a. COH COMMENT 1
10/17/2025	b. COH COMMENT 2
10/24/2025	CSP

FS EQUIPMENT PLAN

QF1.0

FDP FOODSERVICE DESIGN PROFESSIONALS

ISOMETRIC VIEWS WITHIN THIS DRAWING ARE NOT TO SCALE AND ARE PROVIDED FOR REFERENCE PURPOSES ONLY. ISOMETRIC VIEWS ARE NOT INTENDED FOR REGULATORY APPROVAL, PERMITTING, NOR CONSTRUCTION. REFER TO FLOOR PLANS AND DETAILS FOR SPECIFIC PROJECT INFORMATION.



1 FS FACILITY MODEL

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI
48854119
PROFESSIONAL MEMBER

Melissa Moore

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO: 48854119 ON: 08/29/2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

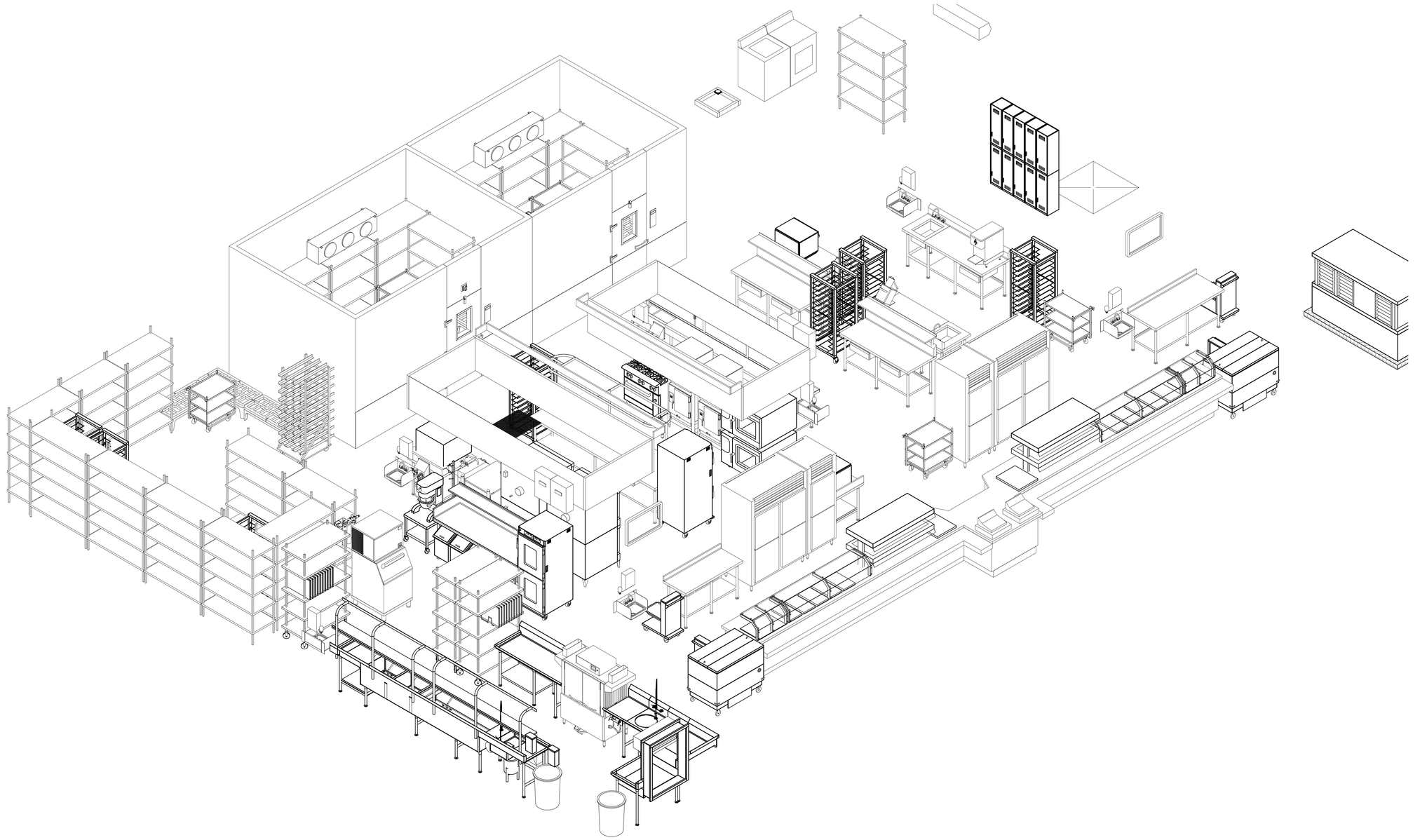
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a COH COMMENT 1
10/17/2025	b COH COMMENT 2
10/24/2025	CSP

FS FACILITY MODEL

QF1.1

FDP FOODSERVICE DESIGN PROFESSIONALS

ISOMETRIC VIEWS WITHIN THIS DRAWING ARE NOT TO SCALE AND ARE PROVIDED FOR REFERENCE PURPOSES ONLY. ISOMETRIC VIEWS ARE NOT INTENDED FOR REGULATORY APPROVAL, PERMITTING, NOR CONSTRUCTION. REFER TO FLOOR PLANS AND DETAILS FOR SPECIFIC PROJECT INFORMATION.



1 FS EQUIPMENT MODEL

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI
48854119
PROFESSIONAL MEMBER

Melissa Moore

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO. 48854119 ON: 08/29/2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

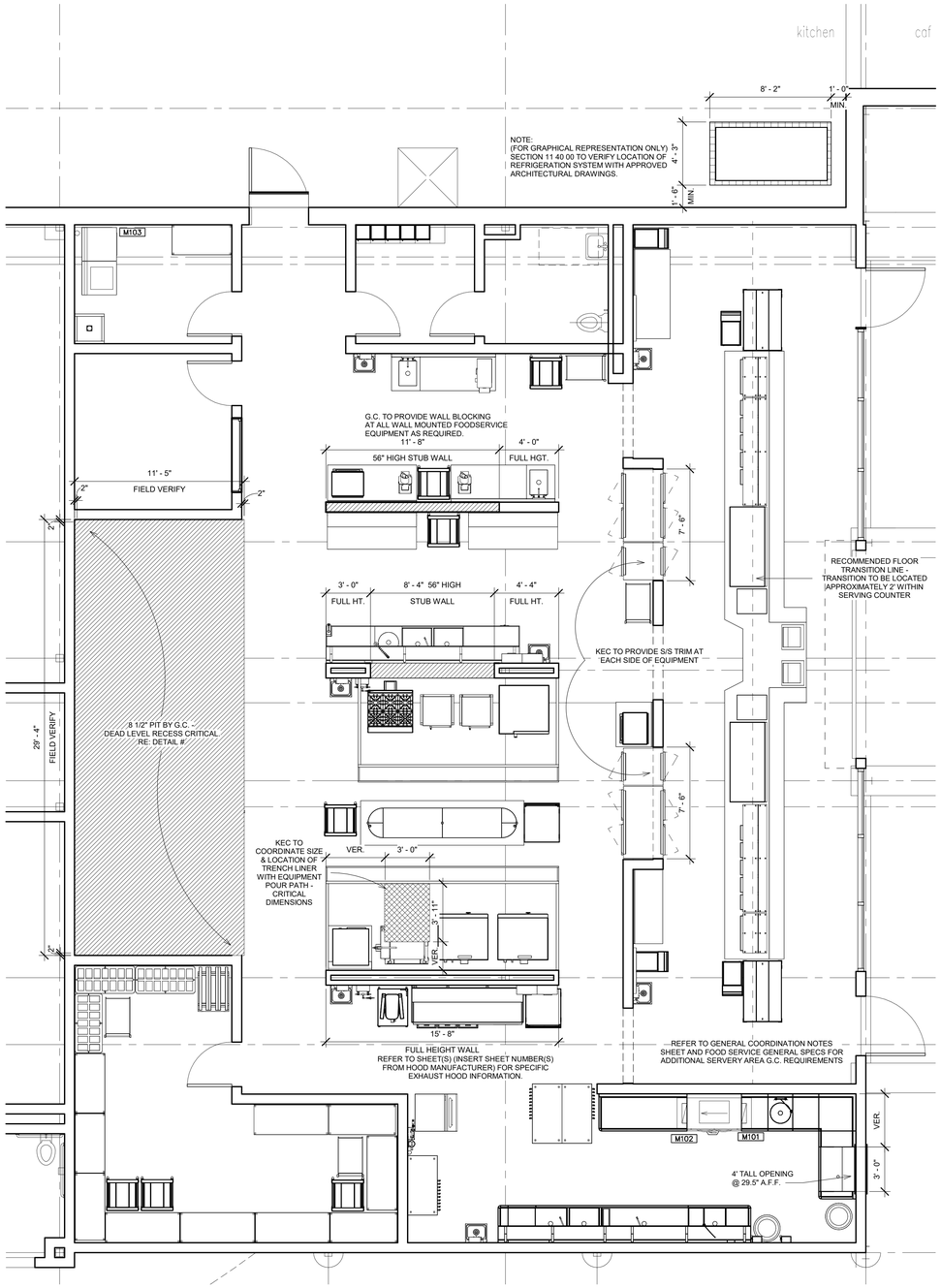
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a COH COMMENT 1
10/17/2025	b COH COMMENT 2
10/24/2025	CSP

FS EQUIPMENT MODEL

QF1.2

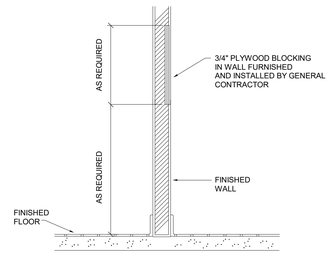
FDP FOODSERVICE DESIGN PROFESSIONALS

FOOD SERVICE MECHANICAL SCHEDULE						
REFER TO SHEET QF1 FOR MECHANICAL COORDINATION NOTES						
FDP NO.	FDP QTY	FDP TYPE	FDP SIZE	FDP LOC	FDP CFM	FDP S.P.
M101	1	EXHAUST	4" X 16"		300	0.35"
M102	1	EXHAUST	4" X 16"		600	0.35"
M103	1	EXHAUST	6" DIA.	VERIFY	---	---



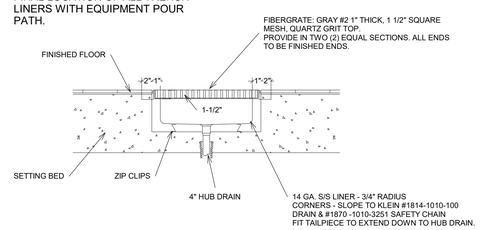
1 FOOD SERVICE SPECIAL CONDITIONS PLAN
1/4" = 1'-0"

NOTE:
SECTION 11 40 00 TO COORDINATE FINAL LOCATION AND SIZE OF WALL BLOCKING.

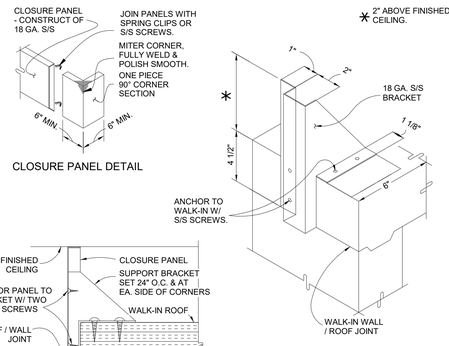


5 WALL BLOCKING DETAIL
NOT TO SCALE

NOTE:
SECTION 11 40 00 TO COORDINATE FINAL LOCATION OF ALL TRENCH LINERS WITH EQUIPMENT POUR PATH.

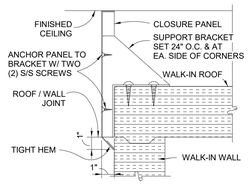


6 TRENCH LINER DETAIL
NOT TO SCALE



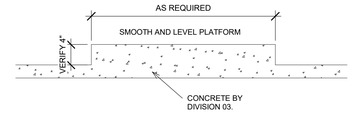
CLOSURE PANEL DETAIL

ISOMETRIC - SUPPORT BRACKET

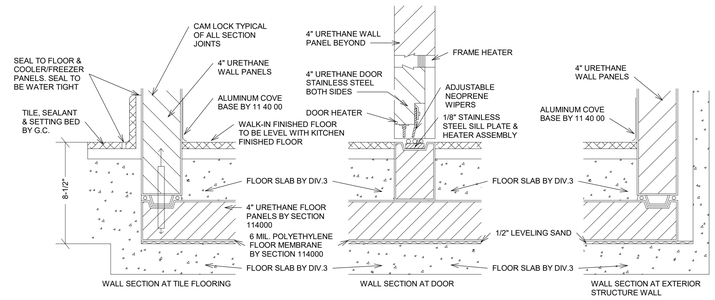


SECTION - CLOSURE PANEL

3 COLD STORAGE ASSEMBLY ENCLOSURE PANEL DETAIL
NOT TO SCALE



COLD STORAGE ASSEMBLY REFRIGERATION SYSTEM GROUND MOUNT 4" PLATFORM DETAIL
4 NOT TO SCALE



NOTE:
FLOOR SLAB COLD STORAGE ASSEMBLIES TO BE DEAD LEVEL
REFER TO SPECIFICATIONS FOR EXTERIOR/INTERIOR FINISH OF WALL PANELS.

2 COLD STORAGE ASSEMBLY 8 1/2" DEPRESSION DETAIL
NOT TO SCALE

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI 48854119
PROFESSIONAL MEMBER
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO: 48854119 ON: 08/29/2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a. COH COMMENT 1
10/17/2025	b. COH COMMENT 2
10/24/2025	CSP

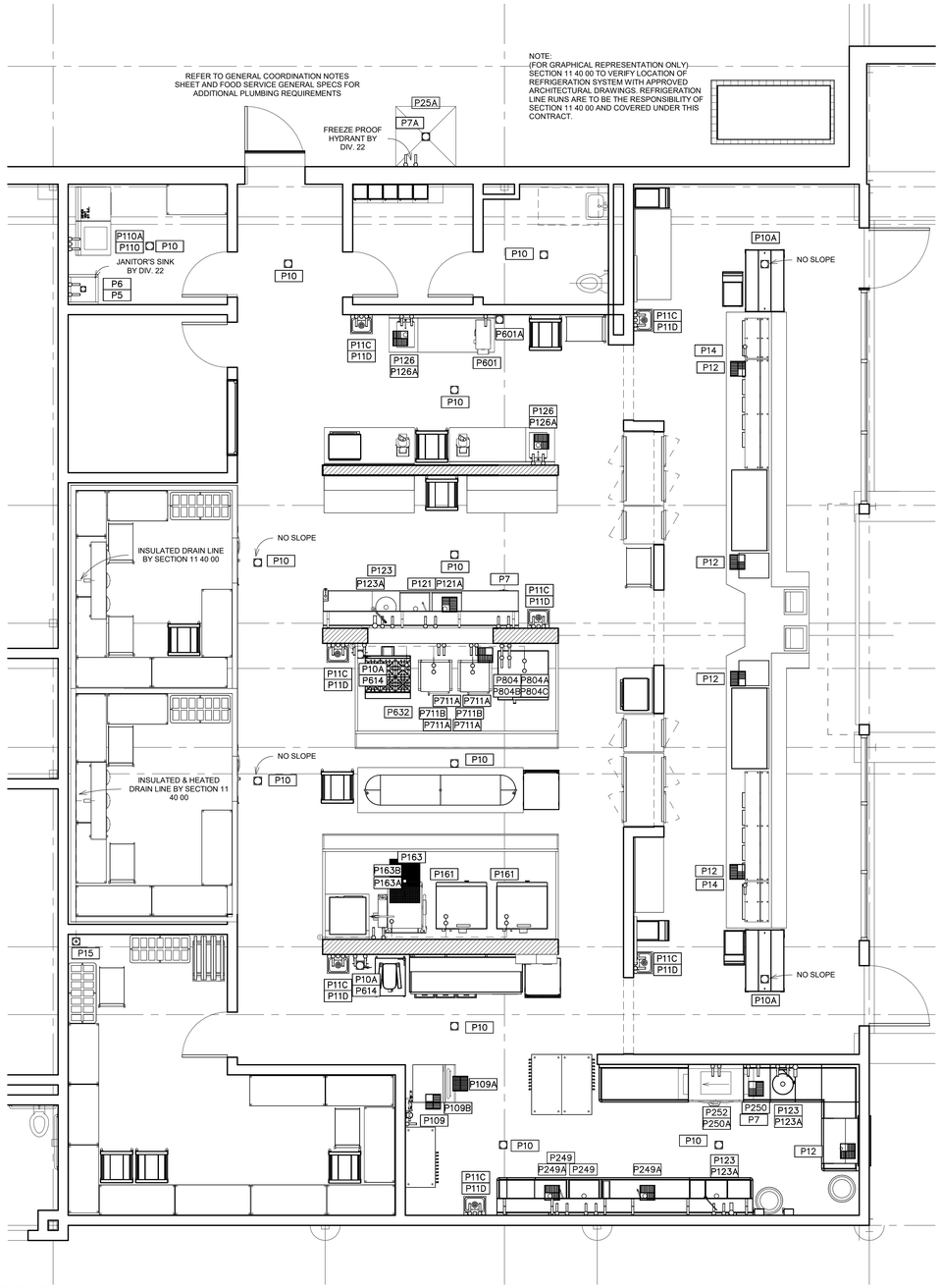
FS SPECIAL CONDITIONS & MECHANICAL PLAN

QF1.3

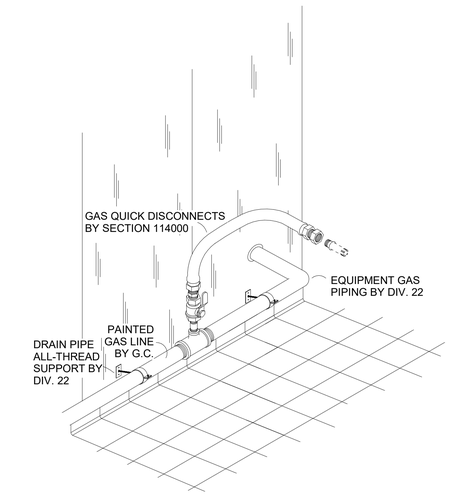
FDP FOODSERVICE DESIGN PROFESSIONALS

FOOD SERVICE PLUMBING SCHEDULE						
REFER TO SHEET QF1 FOR PLUMBING COORDINATION NOTES						
FDP PNO	FDP PSIZE	FDP PCONN	FDP PSERVICE TO	FDP PLOC	FDP PAFF	FDP PREMARKS
P5	3/4"	H & C WATER	JANITOR SINK	WALL	48"	BTC
P6	4"	FLOOR DRAIN	JANITOR SINK	FLOOR	VERIFY	BTC
P7	3/4"	H & C WATER	HOSE BIBB	WALL	18"	<varies>
P7A	3/4"	H & C WATER	FREEZE PROOF HOSE BIBB	WALL	48"	BTC; PROVIDED BY DIV. 22
P10	VERIFY	FLOOR DRAIN	GENERAL AREA DRAIN	FLOOR	VERIFY	---
P10A	4"	FLOOR DRAIN	EQUIPMENT DRAIN	FLOOR	O"	NO SLOPE
P11C	1/2"	H & C WATER	FAUCET	WALL	18"	FURNISHED & INSTALLED BY DIV. 22
P11D	1 1/2"	DIRECT DRAIN	HAND SINK	WALL	15"	FURNISHED & INSTALLED BY DIV. 22
P12	12"SQ.	FLOOR SINK	EQUIPMENT	FLOOR	0"	3/4 GRATE
P14	1/2"	COLD WATER	FILL FAUCET	FLOOR	6"	BTC; S/S FLEX HOSE TO FILL FAUCET
P15	4"	FLOOR DRAIN	FUNNEL FLOOR DRAIN	FLOOR	0"	---
P25A	3"	FLOOR DRAIN	CAN WASH	FLOOR	-1"	LOCATE PER ENGINEER'S DRAWING
P109	3/4"	COLD WATER	WATER/ ICE	WALL	60"	BTC
P109A	12" SQ.	FLOOR SINK	ICE MACHINE	FLOOR	0"	FULL GRATE
P109B	12" SQ.	FLOOR SINK	ICE MACHINE	FLOOR	0"	3/4 GRATE
P110	3/4"	H & C WATER	CLOTHES WASHER	WALL	48"	BTC; VALVE BOX
P110A	2"	INDIRECT DRAIN	CLOTHES WASHER	WALL	48"	VALVE BOX
P121	3/4"	H & C WATER	FAUCET	WALL	13"	BTC

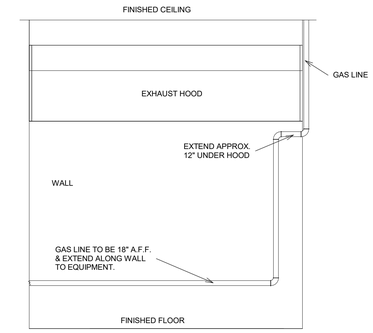
FOOD SERVICE PLUMBING SCHEDULE						
REFER TO SHEET QF1 FOR PLUMBING COORDINATION NOTES						
FDP PNO	FDP PSIZE	FDP PCONN	FDP PSERVICE TO	FDP PLOC	FDP PAFF	FDP PREMARKS
P121A	12" SQ.	FLOOR SINK	SINK	FLOOR	0"	3/4 GRATE
P123	3/4"	H & C WATER	FAUCET / DISPOSER	WALL	13"	BTC
P123A	2"	DIRECT DRAIN	DISPOSER	WALL	10"	BTC
P126	3/4"	H & C WATER	FAUCET	WALL	13"	BTC
P126A	12" SQ.	FLOOR SINK	SINK	FLOOR	0"	3/4 GRATE
P161	(2)3/4"	NATURAL GAS	CONVECTION OVEN	WALL	18"/36"	BTC; 60 MBTU/HR EACH
P163	4"	HUB DRAIN	TRENCH LINER	FLOOR	-9"	CRITICAL LOCATION
P163A	3/4"	NATURAL GAS	TILT BRAISING PAN	WALL	18"	BTC; 125 MBTU/HR
P163B	3/4"	H & C WATER	TILT BRAISING PAN	WALL	36"	BTC
P249	3/4"	H & C WATER	FAUCET	WALL	13"	BTC: RE: NOTE #3
P249A	12" SQ.	FLOOR SINK	SINK	FLOOR	0"	THREE QUARTER GRATE
P250	12" SQ.	FLOOR SINK	DISHMACHINE	FLOOR	0"	BTC
P250A	3/4"	COLD WATER	DRAIN TEMPERING	WALL	18"	BTC
P252	3/4"	HOT WATER	BOOSTER HEATER	WALL	18"	EXT. THRU W.FILTER TO BOOSTER HEATER - 140DEG.MIN.
P601	1/2"	HOT WATER	HOT WATER DISPENSER	WALL	18"	BTC; 100 DEGREE MAX.
P601A	VERIFY	FLOOR DRAIN	HOT WATER DISPENSER	FLOOR	VERIFY	LOCATE PER ENGINEER'S DRAWING
P614	1/2"	H & C WATER	FILL FAUCET	WALL	42"	BTC
P632	3/4"	NATURAL GAS	RANGE	WALL	18"	BTC: RE: NOTE #3 & #9 - 215 MBTU/HR
P711A	3/4"	COLD WATER	CONVECTION STEAMER	WALL	60"	BTC; INTERCONNECT THRU WATER FILTER
P711B	(2)3/4"	NATURAL GAS	CONVECTION STEAMER	WALL	18"/36"	BTC; 50 MBTU/HR EA.
P804	(2)3/4"	COLD WATER	COMBI OVEN	WALL	24"/48"	BTC: INTERCONNECT THRU FILTERS
P804A	(2)3/4"	COLD WATER	COMBI OVEN	WALL	24"/48"	BTC: INTERCONNECT THRU FILTERS
P804B	12"SQ.	FLOOR SINK	EQUIPMENT	FLOOR	0"	3/4 GRATE
P804C	(2)1/2"	NATURAL GAS	COMBI OVEN	WALL	18"/36"	BTC: 68.2 MBTU/HR EACH



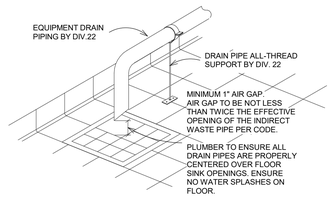
1 FOOD SERVICE PLUMBING PLAN
1/4" = 1'-0"



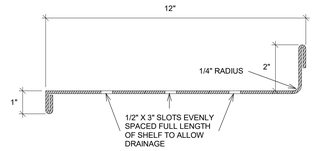
3 GAS DISCONNECT DETAIL
NOT TO SCALE



7 EXHAUST HOOD - GAS LINE ROUTING DETAIL
NOT TO SCALE



5 DRAIN PIPING FASTENER DETAIL
NOT TO SCALE



8 WAREWASH - PERFORATED OVER SHELF DETAIL
NOT TO SCALE

○	HW	HOT WATER	⊡	FFD	FUNNEL FLOOR DRAIN
○	CW	COLD WATER	◣	EVC	EXHAUST VENT CONNECTION
○	HTW	180 F HOT WATER	◢	SVC	SUPPLY VENT CONNECTION
⊕		CHILLED WATER	⊕	FR	DIRECT-CONNECTED FLUE RISER
●	W	DIRECT WASTE	⊕	PS	PIPE SLEEVE
○	IW	INDIRECT WASTE	⊙		COMPRESSED AIR
⊙		GAS SUPPLY	♦		CO2
◕		STEAM SUPPLY		AFF	ABOVE FINISHED FLOOR
⊗	CR	CONDENSATE RETURN		BTC	BRANCH TO CONN. ON EQUIP
●	DR	DRAIN		DFA	DROP FROM ABOVE
□	FD	FLOOR DRAIN		CLG	CEILING
▦	FST	FLOOR SINK 3/4 GRATE			
▯	FSH	FLOOR SINK 3/4 GRATE			

2 PLUMBING SYMBOLS
NOT TO SCALE

CONSULTANTS
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)
STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)
MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)
FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)
LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI 48854119
PROFESSIONAL MEMBER
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO: 48854119 ON: 08/29/2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

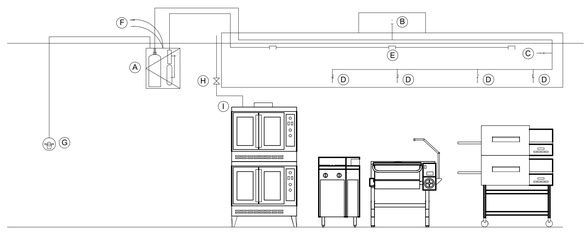
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a COH COMMENT 1
10/17/2025	b COH COMMENT 2
10/24/2025	CSP

FS PLUMBING PLAN

QF1.4

FDP FOODSERVICE DESIGN PROFESSIONALS

NOTE:
REFER TO FDP EQUIPMENT PLAN
FOR SPECIFIC COMPONENTS UNDER HOOD.
ALL EQUIPMENT SHOWN HERE FOR GRAPHICAL
REPRESENTATION ONLY.

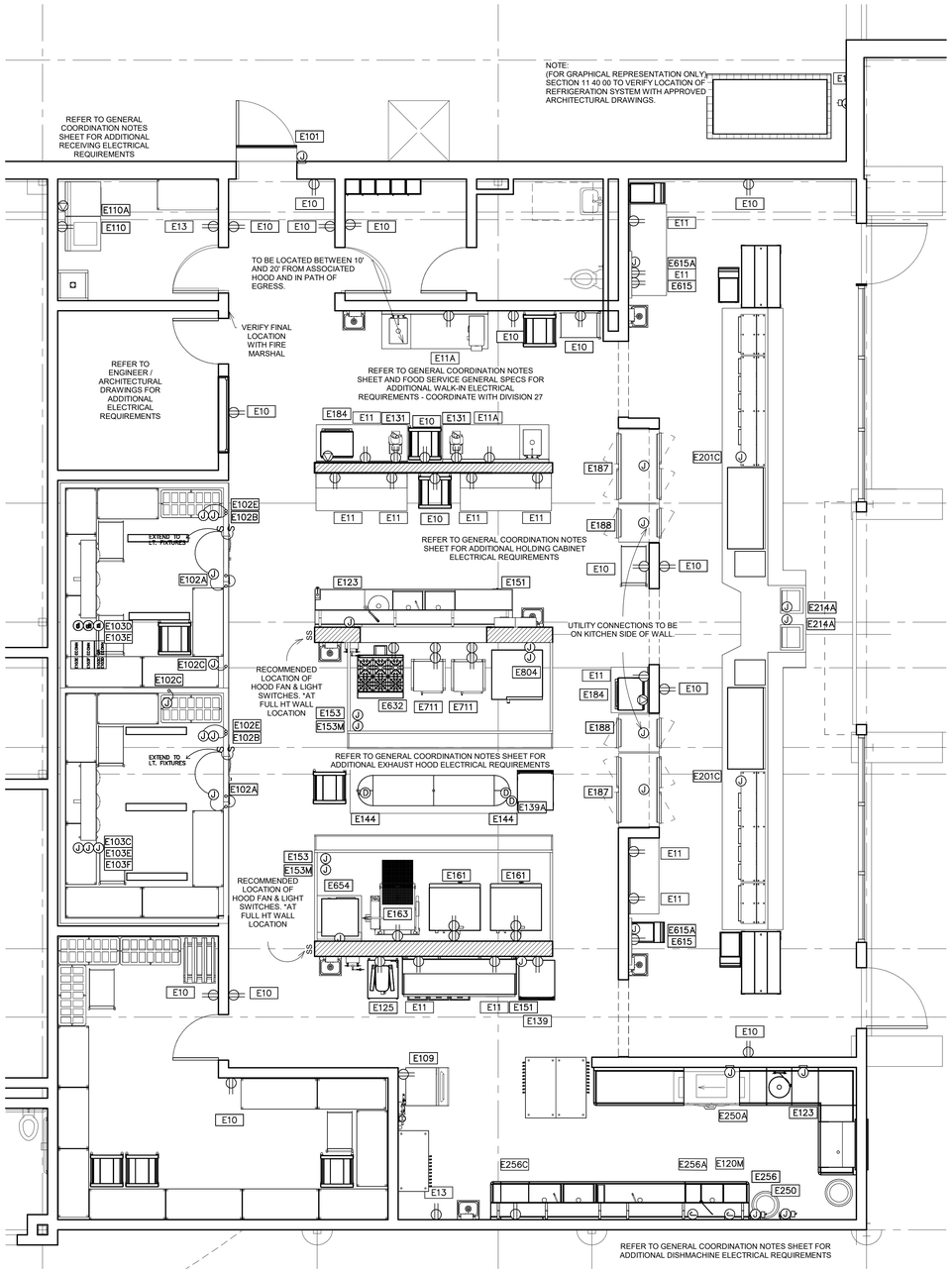


- (A) S/S ENCLOSURE W/AGENT TANK AND NITROGEN CARTRIDGE
- (B) DUCT NOZZLE(S)
- (C) PLENUM NOZZLE(S)
- (D) SURFACE PROTECTION NOZZLE(S)
- (E) FUSIBLE LINK(S)
- (F) (2) WIRES FROM FIRE SYSTEM TO SHUNT TRIP BREAKERS FOR SHUT DOWN OF ELECTRICAL CONNECTIONS LOCATED BENEATH EXHAUST HOOD DURING FIRE MODE
- (G) REMOTE FIRE PULL
- (H) GAS VALVE
- (I) GAS SUPPLY (AS REQUIRED)

REMOTE GFCI RESET SWITCHES TO BE ACCESSIBLE TO USER. REFER TO ELECTRICAL ENGINEERING DRAWINGS.

GFCI BREAKER FOR ALL RECEPTACLES UNDERNEATH EXHAUST HOODS (WHEN SHOWN), AND RECEPTACLES FOR HOLDING CABINETS (WHEN SHOWN) TO BE LOCATED WITHIN KITCHEN ELECTRICAL BREAKER PANEL AND NOT AT THE RECEPTACLES.

4 FIRE PROTECTION SYSTEM TYPICAL DETAIL
NOT TO SCALE

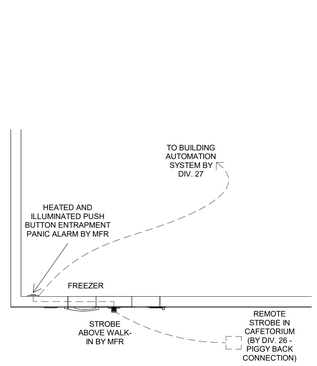


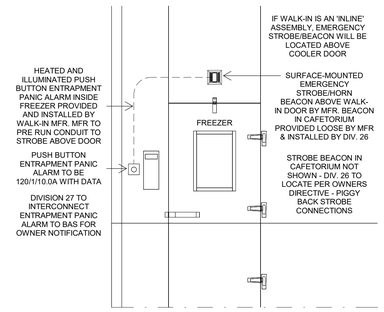
1 FOOD SERVICE ELECTRICAL PLAN
1/4" = 1'-0"

FOOD SERVICE ELECTRICAL SCHEDULE

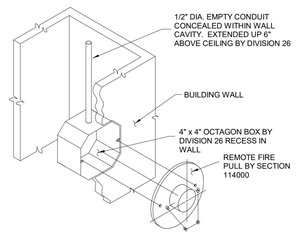
REFER TO SHEET QF1 FOR ELECTRICAL COORDINATION NOTES

FDP ENO	FDP ECONN	FDP ELOAD	FDP EVOLT	FDP EPH	FDP ESERVICE TO	FDP ELOC	FDP EAFF	FDP EREMARKS
E10	DR	16.0A	120	1	CONVENIENCE	WALL	24"	MOUNT HORIZONTAL
E11	DR	16.0A	120	1	CONVENIENCE	WALL	47"	MOUNT HORIZONTAL
E11A	WPR	16.0A	120	1	CONVENIENCE	WALL	47"	MOUNT HORIZONTAL
E13	WPR	16.0A	120	1	CONVENIENCE	WALL	24"	MOUNT HORIZONTAL
E101	JB	5.1A	120	1	AIR SCREEN	WALL	82"	BTC; MAGNETIC REED SWITCH ON DOOR JAMB & DOOR
E102A	JB	16.0A	120	1	DOOR HEATER/LIGHTS	CLG	DFA	BTC
E102B	JB	5.0A	120	1	TEMP. ALARM	CLG	DFA	BTC
E102C	JB	5.0A	120	1	PRESSURE RELIEF PORT	CLG	DFA	BTC
E102E	JB	10.0A	120	1	PANIC ALARM BUTTON	CLG	DFA	BTC; INTERCONNECT TO STROBE LIGHT/HORN ABOVE FREEZER DOOR AND IN CAFETORIUM
E103	JB/DS	33.3A	208	3	REFRIGERATION SYSTEM	VERIFY	VERIFY	BTC; WEATHERPROOF DISCONNECT SWITCH
E103C	JB	16.0A	208	1	FREEZER COIL	CLG	DFA	BTC
E103D	JB	10.0A	120	1	COOLER COIL	CLG	DFA	BTC
E103E	JB	---	---	---	DATA CONNECTION	CLG	DFA	BTC; RUN TO NEAREST IDF / MDF ROOM
E103F	JB	16.0A	120	1	drain line heater	CLG	DFA	BTC; DEDICATED CIRCUIT
E109	DR	11.9A	120	1	ICE MACHINE	WALL	60"	---
E110	DR	16.0A	120	1	CLOTHES WASHER	WALL	48"	---
E110A	SR	30.0A	208	1	CLOTHES DRYER	WALL	48"	VERIFY NEMA PLUG RECEPTACLE
E120M	JB	3.0HP	208	3	DISPOSER	WALL	24"	BTC; CONNECT THRU C.P. TO DISPOSER
E123	JB	3.0HP	208	3	DISPOSER	WALL	24"	BTC - CONNECT THRU C.P. TO DISPOSER
E125	DR	8.0A	120	1	20QT. MIXER	WALL	24"	---
E131	DR	12.0A	120	1	FOOD PROCESSOR	WALL	47"	MOUNT HORIZONTAL
E139	SR	16.0A	120	1	INSUL. MOBILE PROOFER	WALL	47"	REQUIRES 20 AMP BREAKER
E139A	DCR	16.0A	120	1	INSUL. MOBILE PROOFER	CLG	DFA	REQUIRES 20 AMP BREAKER
E144	DCR	16.0A	120	1	TABLE RECEPTACLE	CLG	84"	TWISTLOCK PLUG & RECEPTACLE
E151	JB	1.0A	120	1	FIRE PROT. SYSTEM	CLG	DFA	BTC
E153	JB	10.0A	120	1	HOOD LIGHTS	CLG	DFA	BTC
E153M	JB	10.0A	120	1	HEAT SENSOR	CLG	DFA	BTC
E161	(2)DR	6.0A EA.	120	1	CONVECTION OVEN	WALL	24"/48"	SHUNT TRIP BREAKER
E163	DR	16.0A	120	1	TILT BRAISING PAN	WALL	24"	SHUNT TRIP BREAKER
E184	SR	28.0A	208	1	MICROWAVE OVEN	WALL	47"	MOUNT HORIZONTAL
E187	JB	15.5A	120/208	1	HEATED CABINET	WALL	96"	BTC; MOUNT ON KITCHEN SIDE
E188	JB	7.2A	120	1	REFRIGERATOR	WALL	96"	BTC; MOUNT ON KITCHEN SIDE-OMIT PLUG, UNIT TO BE HARDWIRED
E201C	CS	36.8A	120/208	3	LOAD CENTER	FLOOR	6"	BTC
E214A	CS	---	---	---	POS	FLOOR	6"	BTC; CONDUIT W/DATA LINE TO RUN TO MANAGER'S OFFICE OR IDF ROOM-VERIFY
E250	JB/DS	47.0A	480	3	DISHMACHINE MOTORS & TANK HEAT	WALL	54"	BTC; INTERCONNECT TO E250A
E250A	JB	---	---	---	DISHMACHINE	WALL	68"	BTC; INTERCONNECT FROM E250
E256	JB/DS	26.7A	208	3	POWER SOAK SINK	WALL	54"	BTC; INTERCONNECT TO E256A
E256A	JB	---	---	--	POWER SOAK SINK	WALL	24"	BTC; CONNECT FROM E256THRU C.P. TO PUMP
E256C	WPR	5.0A	120	1	DETERGENT SYSTEM	WALL	24"	WATERPROOF RECEPTACLE
E615	DR	5.0A	120	1	VIDEO / DATA SYSTEM	CLG	VERIFY	PROVIDE DCO AT VIDEO LOCATION
E615A	JB	---	---	---	VIDEO / DATA SYSTEM	CLG	VERIFY	PROVIDE JB AT DATA LOCATION
E632	DR	4.0A	120	1	6 BURNER RANGE	WALL	24"	SHUNT TRIP BREAKER
E654	JB	7.4KW	208	1	TURBOCHEF	WALL	48"	BTC; SHUNT TRIP BREAKER BY DIV. 26
E711	(2)DR	1.0A EA.	120	1	CONVECTION STEAMER	WALL	24"/48"	SHUNT TRIP BREAKER
E804	(2)JB	7.5A	120	1	COMBI OVEN	WALL	24"/48"	BTC; SHUNT TRIP BREAKER





6 COLD STORAGE ASSEMBLY ENTRAPMENT PANIC ALARM DETAIL
NOT TO SCALE



5 FIRE PROTECTION SYSTEM RECESSED FIRE PULL DETAIL
NOT TO SCALE

	SCR	CONDUIT STUB BTC ON RECEPT FURNISH WITH EQUIPMENT		CC	CONDUIT FOR COMPUTER CABLES
•	CS	CONDUIT STUB UP/OUT FOR DIRECT CONNECTION		BTC	BRANCH TO CONNECTION ON EQUIPMENT
	DR	DUPLEX RECEPTACLE		WPR	WATERPROOF RECEPTACLE (SPRING COVER)
	SR	SINGLE PURPOSE RECEPTACLE-1PH	/	FPB	FIRE PROTECTION BUZZER
	SR	SINGLE PURPOSE RECPTACLE-3PH	⊗	BSC	BEVERAGE SYSTEM CONDUIT
	FR	FLUSH FLOOR RECEPTACLE		DFA	DROP FROM ABOVE
	PMR	PEDESTAL MOUNTED RECEPTACLE		AFF	ABOVE FINISH FLOOR
	DCR	DROP CORD RECEPTACLE		CS/JB	JUNCTION BOX ON PEDESTAL
	JB	JUNCTION BOX ON CEILING		SW	SWITCH
	JB	JUNCTION BOX IN WALL		D	DATA
	JB/DS	JUNCTION BOX WITH DISCONNECT BY DIV.26			

2 ELECTRICAL SYMBOLS
NOT TO SCALE

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

HOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI 48854119
PROFESSIONAL MEMBER
Melissa Moore
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO: 48854119 ON: 08/29/2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a COH COMMENT 1
10/17/2025	b COH COMMENT 2
10/24/2025	CSP

FS ELECTRICAL PLAN

QF1.5

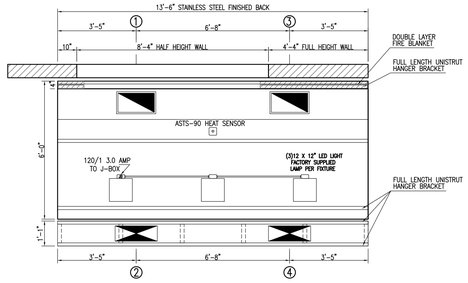
FDP FOODSERVICE DESIGN PROFESSIONALS

304 STAINLESS STEEL USED FOR HOOD CONSTRUCTION AND ALL EXPOSED AREAS

HOODS DESIGNED TO MEET TO THE 2015 IECC C403.2.8, 2018 IECC AND 2021 IECC C403.7.5 USING OPTION 1 PROVIDED BY THE CODES.

NOTE TO G.C. AND CEILING GRID INSTALLERS :

FASTENERS FOR CEILING GRID SURROUNDING KITCHEN HOOD MUST NOT PENETRATE HOOD CAPTURE AREA OR HOOD GREASE PLENUM. IMPROPER PENETRATIONS THROUGH HOOD IN THESE AREAS VIOLATE HOOD U.L. PROCEDURE AND LOCAL MECHANICAL CODE.

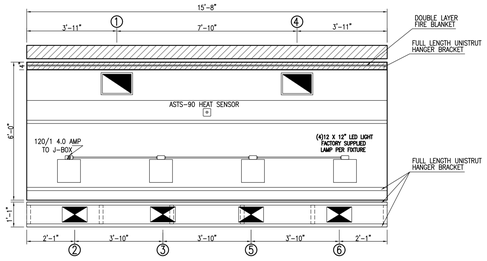


HOOD WGT. – 1418 LBS

Ⓐ PLAN – MODEL W-cpb ITEM 152
SCALE 3/8"=1'-0"

EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	10" X 19"	300	2025	1535	.65"
3	10" X 19"	300	2025	1535	.65"

SUPPLY COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
2	8" X 22"	144	972	795	.30"
4	8" X 22"	144	972	795	.30"

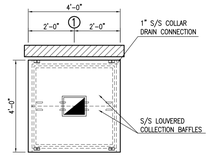


HOOD WGT. – 1644 LBS

Ⓐ PLAN – MODEL W-cpb ITEM 153
SCALE 3/8"=1'-0"

EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	10" X 15"	210	1645	1579	.50"
4	10" X 15"	210	1645	1579	.50"

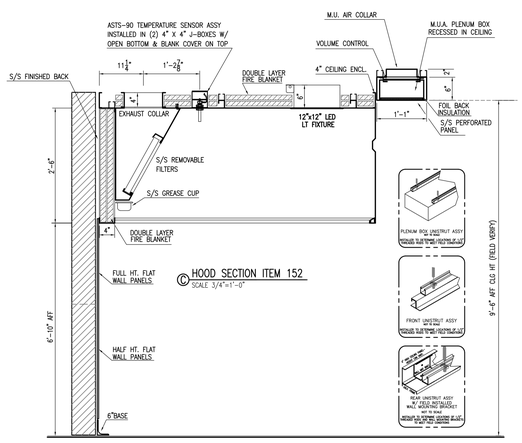
SUPPLY COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
2	8" X 13"	100	392	543	.30"
3	8" X 13"	100	392	543	.30"
5	8" X 13"	100	392	543	.30"
6	8" X 13"	100	392	543	.30"



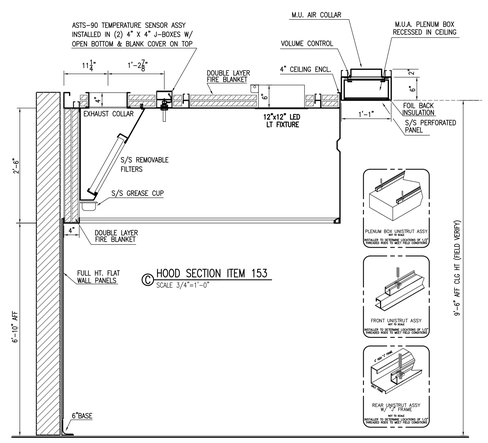
HOOD WGT. – 260 LBS

Ⓐ PLAN – MODEL CH – ITEM 159
SCALE 3/8"=1'-0"

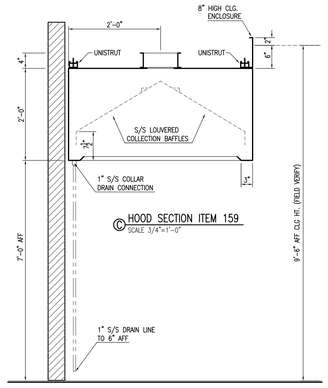
EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	9" X 11"	200	800	1164	.30"



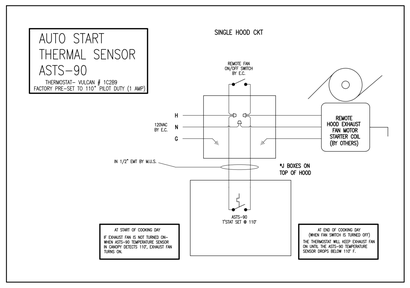
Ⓒ HOOD SECTION ITEM 152
SCALE 3/4"=1'-0"



Ⓒ HOOD SECTION ITEM 153
SCALE 3/4"=1'-0"



Ⓒ HOOD SECTION ITEM 159
SCALE 3/4"=1'-0"



CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



UL FILE # MH 30031

MOD-U-SERVE

NSF Air Systems

2320 PEYTON ROAD
HOUSTON, TEXAS 77032
281 442 8001

GALENA PARK ISD-CIMARRON ES

FDP

THIS DRAWING IS THE PROPERTY OF MOD-U-SERVE AND CAN BE REPRODUCED ONLY BY PERMISSSION, IN WHICH CASE, ALL DRAWINGS MUST BEAR THE NAME MOD-U-SERVE.

COMMERCIAL KITCHENS INC.

2320 PEYTON ROAD
HOUSTON, TEXAS 77032
281 442 8001

NO.	DATE	REVISION	BY

DRAWING # D25-2056-1.152
DRAWN BY: JO
CHECKED BY: ADC
DATE: June 4, 2025

SHEET 1 OF 1 SHEET

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI 48854119
PROFESSIONAL MEMBER

Melissa Moore

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO. 48854119 ON: 08/29/2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

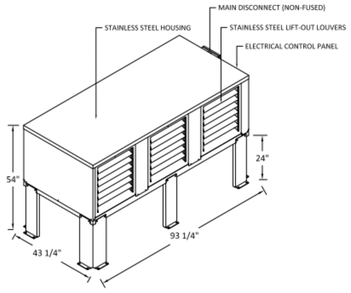
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a. COH COMMENT 1
10/17/2025	b. COH COMMENT 2
10/24/2025	CSP

FS EXHAUST HOODS

QF1.6

FDP FOODSERVICE DESIGN PROFESSIONALS

MODEL NO. ZS1-02Z-CT3-EST OUTDOOR AIR COOLED REFRIGERATION SYSTEM
ITEM NO. 103



NOTE:
- CRANKCASE HEATERS
- FAN CYCLING SWITCH
- COATED CONDENSERS & EVAPORATOR COILS
- (2) DOOR SENSORS (SHIPPED LOOSE)
- 24" LEGS W/ SKIRT (SHIPPED LOOSE)

RACK WEIGHT: 775 LBS.

ENGINEERING SUMMARY

POWER SUPPLY: 208-230/60/3
CONNECTED LOAD: 33.3 AMPS

MOPD: 55 AMP
MINIMUM CIRCUIT AMPACITY: 38.2

SYSTEM	FIXTURES ITEM #	FIXTURES DESCRIPTION	TEMP °F FIXT.	TEMP °F SUCT.	REQ'D FIXTURE BTU/H	REFRIG. R-	CONDENSING UNIT COMPRESSOR MODEL NO.	RATING @ 60 HZ RLA	V	PH	BTU CAP @ AMB °F 110	TYPE	REC. CAP. (lbs)	CONDENSER	EVAPORATOR COILS ITEM #	MODEL NO.	QTY	FAN MOTORS @ 60 HZ RLA	V	PH	HEATERS @ 60 HZ RLA	V	PH	DEFR. TYPE	DEFROST CONTROLLER TYPE	CONTROLLER QTY	ACCESSORIES TSTAT	SOL VALVE	EXP. VLV.	CHECK VLV.	SHUT-OFF VLV.	REFRIGERANT LINE SIZES (IN) SUCT.	SUCT. LINE RISER	LIQUID	LINE RUN (FT)	TYPE	TOTAL SYSTEM LOAD
A	102	W/I COOLER	35	25	13364	454A	YB14K5E	9.9	208	3	15700	Z	14.0	L1R	103	BEL0115	1	1.8	115	1				O.C.	ECOSMART	1	F	F	EF	L	L	7/8	7/8	3/8	100	M	9.9
B	102	W/I FREEZER	-10	-20	14357	454A	YF15K4E	23.4	208	3	16200	Z	44.0	L5R	103	BEL0155	1	1.5	208	1	13.7	208	1	ELEC	ECOSMART	1	F	F	EF	L	L	7/8	7/8	3/8	100	M	23.4

ALL EVAPORATOR COILS WILL REQUIRE A HOUSE POWER SUPPLY

c UL us LISTED

NOTE:
IT IS THE INSTALLING CONTRACTORS RESPONSIBILITY TO FOLLOW ALL APPLICABLE CODES AND CURRENT REFRIGERATION INDUSTRY STANDARDS AND PRACTICES WHEN DETERMINING LINE SIZES, AND INSTALLING AND STARTING UP RDT EQUIPMENT.

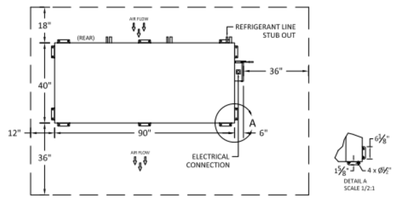
COMPRESSOR TYPE
Z SCROLL
H HERMETIC
S SEMI-HERMETIC
D DISCUS

DEFROST TYPE
O.C. OFF CYCLE
ELEC ELECTRIC

LINE TYPE
M MAIN - UP TO 100'
B BRANCH - UP TO 50'
T TRUNK - UP TO 200'

EVAPORATOR ACCESSORIES
EF EEV FACTORY EQUIPPED ON EVAP
TF TXV FACTORY EQUIPPED ON EVAP
F FACTORY EQUIPPED ON EVAP
O PROVIDED BY OTHERS
L LOOSE (FIELD INSTALLATION)

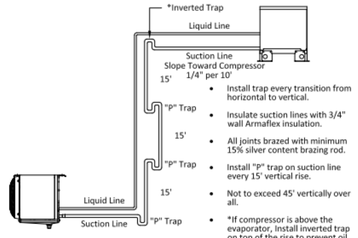
PLANVIEW/ CLEARANCE REQUIREMENTS



NOTE: MINIMUM CLEARANCE REQUIRED FOR PROPER OPERATION

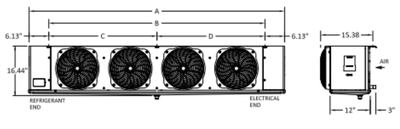
NOTE: ROOF CURB OR GROUND PAD CAN BE SAME SIZE AS OUTDOOR UNIT

SUCTION LINE VERTICAL RISE DETAIL



- Install trap every transition from horizontal to vertical.
- Insulate suction lines with 3/4" wall Armaflex insulation.
- All joints brazed with minimum 15% silver content brazing rod.
- Install "P" trap on suction line every 15' vertical rise.
- Not to exceed 45' vertically over all.
- *If compressor is above the evaporator, Install inverted trap on top of the rise to prevent oil from seeping down when fixture(s) is turned off.

EVAPORATOR DETAILS - MODEL BEL



AIR DEFROST Size	DIMENSIONS A	B	C	D	CONNECTIONS (Inches) Coil Inlet	Suction	Drain	Approx. Net Wt. Lbs.	ELECTRICAL DATA Qty. Motors	EC Motor Fan Amps 115V	208V
	Inches	Inches	Inches	Inches							
115	45-1/2	33-1/4	-	-	1/2 OD	7/8 OD	3/4 MPT	56	2	1.8	1.0

ELECTRIC DEFROST	DIMENSIONS A	B	C	D	CONNECTIONS (Inches) Coil Inlet	Suction	Drain	Approx. Net Wt. Lbs.	ELECTRICAL DATA Qty. Motors	EC Motor Fan Amps	Heater Amps as wired for 208-230/60/1	208-230/60/3	460/60/1
	Inches	Inches	Inches	Inches									
155	61-1/2	49-1/4	-		1/2 OD	1-1/8 OD	3/4 MPT	78	3	1.5	13.7	8.5	4.8

EACH EVAPORATOR COIL:
- EQUIPPED WITH TWO LEAK SENSORS, PRE-MOUNTED AND PRE-WIRED
- SUPPLIED WITH A LIQUID LINE SHUT-OFF VALVE AND SUCTION LINE CHECK VALVE, SHIPPED LOOSE FOR FIELD INSTALL OUTSIDE OF COMPARTMENTS AND NO MORE THAN 10' FROM EVAPORATOR COIL.

ZS SERIES ENGINEERING SPECIFICATIONS

Multi compressor, outdoor, air cooled. The refrigeration package shall be a pre-engineered and factory-assembled unit, trade name "ZS", as manufactured by Refrigeration Design Technologies, 1808 FM Road 66, P.O. Box 622, Waxahachie, Texas 75168. Phone: (972) 937-3215; Fax: (972) 937-0970.

1. Air-Cooled Refrigeration System
The RDT UL Listed "Air-Cooled" Refrigeration system shall be housed in a weather-protected compact powder coated steel frame. The entire housing shall be brushed stainless steel. The unit shall include an air-cooled aluminum fin copper tube condenser designed to operate at 15 degrees TD. The exterior housing shall feature stainless steel one piece louvers. Lifting points shall be integrated in the framing component. Condenser fan motors shall be mounted within the enclosure. The condenser intake surface shall be protected with stainless steel expanded metal guard to protect against vandalism and hail damage.

Each unit shall be equipped with a ball-bearing fan motor, suction filter, sight glass, liquid filter/drier, liquid line inlet and outlet valve, defrost cycle and high pressure super-hose connections. Each unit shall be equipped with fan cycling controls and/or head pressure regulator where required for low ambient conditions.

Condensing unit shall contain scroll, hermetic, semi-hermetic, and/or discus type compressor(s) assembled to operate with the refrigerant specified for both medium and low temperature applications.

2. Evaporator Coils
A. Evaporator coils shall be direct expansion type fabricated of copper tubes with aluminum fins.
B. All evaporator coils shall be provided with solenoid valve, thermostatic or electronic expansion valve and thermostat.

3. Pre-Piping
All refrigerant lines shall be extended to outside of the housing in a neat and orderly manner. All tubing shall be securely supported and anchored with non-corrosive coated clamps.

All joints must be brazed, not soldered.

All piping and controls shall be factory pressure-tested with dry nitrogen.

4. Control Panel
The package shall have a factory-mounted and pre-wired control panel, with main disconnect (non fused) where required, circuit breakers, contactors wired for single point power connection.

General Information
Contractors shall verify all dimensions onsite and coordinate with other trades.

General contractor shall prepare the platform, curbed openings and weatherproofing the unit after installation.

Refrigeration Contractor
All copper tubing to be refrigerant grade. A.C.R. or type "L".

Brazing should be used for all refrigerant piping. Silver solder or soft solder is not acceptable.

All piping to be pressure tested with nitrogen at 300 psi. After the condensing unit and coil have been connected the balance of the system shall be leak tested with the valves open at 200 psi.

The complete system shall be evacuated with a vacuum pump. Each unit should be charged tested and adjusted to assure operation.

Contractor should provide and install the drain-line heater in freezer. Heater shall be connected by electrical contractor. Seal all penetrations through the walk-in units with foam.

Electrical Contractor
Electrical contractor to provide power for refrigeration package and connect control and defrost system as called for in the wiring diagram.

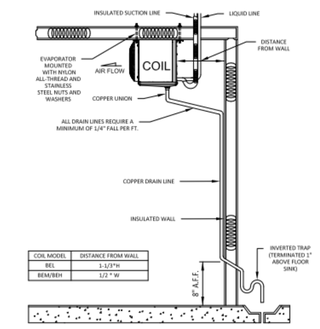
Electrical contractor to connect drain-line heater in the freezer.

All electrical wiring and installation shall be in accordance with the wiring diagram and local codes. Seal all penetrations through the walk-in units with foam.

Plumbing Contractor
Plumbing contractor to provide copper drain lines for walk-in refrigerator and freezer, pitched 1/4" per foot of run. Trap drain-line outside of refrigerated space to avoid entrance of warm, moist air.

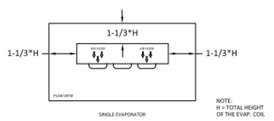
All plumbing installation shall be in accordance with local codes.

EVAPORATOR MOUNTING DETAIL (TYPICAL)



COIL MODEL	DISTANCE FROM WALL
BEL	1-1/3"H
BEM/BEH	1/2 * W

EVAPORATOR PLACEMENT & CLEARANCE REQUIREMENTS LOW PROFILE EVAPORATOR COILS (I.E. - BEL)



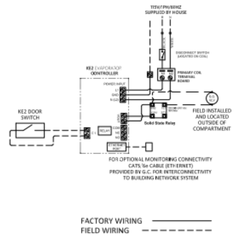
SINGLE EVAPORATOR

NOTE:
H = TOTAL HEIGHT OF THE EVAP. COIL

WIRING DIAGRAM - ECOSMART - AKEA1AE DEMAND DEFROST W/KE2 DOOR SWITCH FOR WALK-IN COOLER WITH ONE COIL 115/60/1

*REFERENCE ENGINEERING SUMMARY FOR COIL AMP DRAW

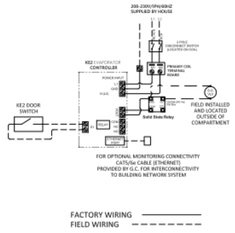
ITEM	DESCRIPTION	VOLTAGE
105	W/I COOLER	115/1



WIRING DIAGRAM - ECOSMART - AKEB1EE DEMAND DEFROST W/KE2 DOOR SWITCH FOR WALK-IN FREEZER WITH ONE COIL 208-230/60/1

*REFERENCE ENGINEERING SUMMARY FOR COIL AMP DRAW

ITEM	DESCRIPTION	VOLTAGE
103	W/I FREEZER	208/1



APPROVAL STATUS

THIS DRAWING REPRESENTS OUR UNDERSTANDING OF THE SPECIFICATIONS. PLEASE REVIEW IT CAREFULLY FOR ACCURACY. CLEARLY AND IN DETAIL NOTE CHANGES REQUIRED.

MARK APPROPRIATE BOX, SIGN, AND DATE BELOW.

- ☐ APPROVED FOR FABRICATION NO CHANGES
- ☐ APPROVED FOR FABRICATION WITH CHANGES NOTED
- ☐ REVISE AND RE-SUBMIT DRAWING

BY: _____ DATE: _____

NOTICE

THIS DRAWING BEING AN INSTRUMENT OF SERVICE IS AND WILL REMAIN PROPERTY OF REFRIGERATION DESIGN TECHNOLOGIES AND CANNOT BE USED WITHOUT WRITTEN AUTHORIZATION.

No.	Revision/Issue	Date
0	ORIGINAL ISSUE	06-09-25

REFRIGERATION DESIGN TECHNOLOGIES
1808 FM Road 66 / P.O. Box 622
Waxahachie, Texas
(800) 736-9518
www.rdtonline.com

Consultant:
Foodservice Design Professionals
The Woodlands, TX

Dealer
-
-

Cimarron Elementary School
Galena Park ISD
Houston, TX

Project No: 31976
Designed By: L. Aguirre
Drawn By: L. Aguirre

Sheet 1.1 of sheets

CONSULTANTS
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI 48854119
PROFESSIONAL MEMBER
Melissa Moore
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO: 48854119 ON: 08/29/2025

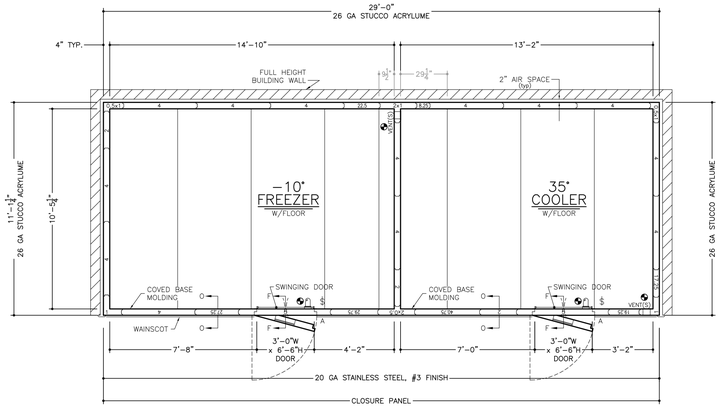
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

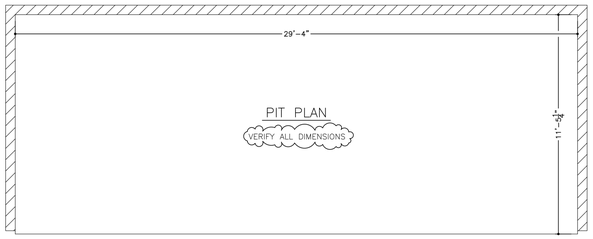
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a. COH COMMENT 1
10/17/2025	b. COH COMMENT 2
10/24/2025	CSP

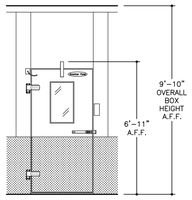
FS CONDENSING UNITS

QF1.7

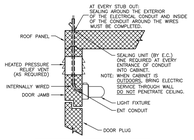
FDP FOODSERVICE DESIGN PROFESSIONALS



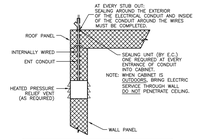




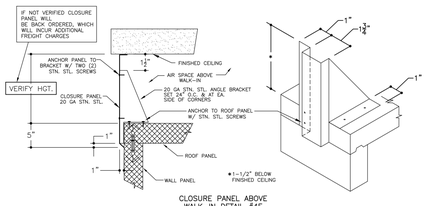
DOOR ELEVATION
TYP.



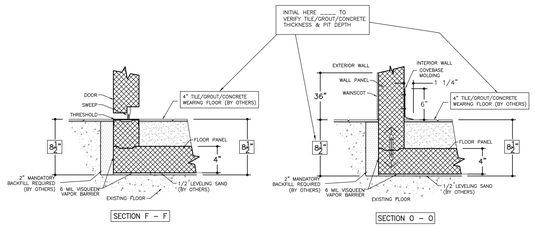
DOOR ELECTRICAL CONNECTION



PANEL MOUNTED ELECTRICAL CONNECTION



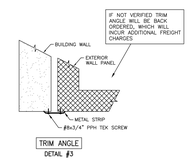
CLOSURE PANEL ABOVE WALK-IN DETAIL #4E



SECTION F – F

SECTION O – O

To prevent metal corrosion, doors must be kept open and air circulating during application and curing of all flooring materials including concrete, grout, epoxy, etc.



TRIM ANGLE
DETAIL #3

~SPECIFICATIONS~

BOX HEIGHT: FREEZER – 10'-6" OVERALL (9'-6" INTERIOR)
COOLER – 10'-6" OVERALL (9'-6" INTERIOR)

CONSTRUCTION: FOAMED IN PLACE
NSF LISTED, STANDARD NO. 7

INSULATION: 4" URETHANE, FINISHED PANEL
UL CLASSIFIED FLAME SPREAD 20
CORE SMOKE DEVELOPED 250

INSTALLATION: INDOOR

FLOOR: (SEE DETAILS) FREEZER – STANDARD
COOLER – STANDARD

DOOR HARDWARE & ACCESSORIES: (EACH DOOR)
SMOOTH POLISHED DOOR HARDWARE
POWER TO BE STUBBED OUT CEILING PANEL
DRY CONTACT LEADS TO BE STUBBED OUT CEILING PANEL IN A SEPARATE STUB OUT
DEADBOLT W/ INTERIOR THUMB TURN LOCK, PADLOCK
PROVISION & QUARTER TURN INSIDE RELEASE (EXTERIOR DOORS ONLY)
1/8" STAINLESS STEEL THRESHOLD COVER PLATE
14 GA STAINLESS STEEL SUB THRESHOLD
FRAME HEATER WIRE
HYDRAULIC DOOR CLOSER
IC+ WALK-IN DOOR CONTROLLER AND ALARM SYSTEM INCLUDING:
INTEGRATED LIGHT SWITCH WITH AUTOMATIC LIGHT OFF AND 3-WAY & 4-WAY CAPABILITY
TEMPERATURE MONITOR AND LOGGER WITH HIGH TEMP, AND LOW TEMP, VISUAL AND AUDIO ALARM
F OR C TEMPERATURE SELECTION
INTEGRATED DRY CONTACT FOR ALARM SIGNALING & POWER FAILURE (1A @ 24VAC, 1A @ 30VDC)
HACCP DATA LOGGING (ON MODELS WITH DISPLAY SO EQUIPPED)
HACCP PREVIEW VIA ONBOARD LCD SCREEN
HACCP DOWNLOAD VIA USB
WIFI CONNECTIVITY (INTERNET ENABLED WIFI NETWORK NEEDED)
BATTERY BACKUP
TEMPERATURE ALARM NOTIFICATION VIA EMAIL &/OR EMAIL TO SMS TEXT MESSAGES
POWER FAILURE NOTIFICATION VIA EMAIL &/OR EMAIL TO SMS TEXT MESSAGES
(FOR THIS FEATURE TO WORK THE LOCAL WIFI NETWORK MUST BE
POWER PROTECTED AND WORKING AT THE TIME OF POWER FAILURE EVENT)
AUTOMATIC AND ON DEMAND TRANSMISSION OF HACCP DATA VIA EMAIL
ADAPTIVE SETTINGS
DOOR OPEN/CLOSED-TO-BACK LIGHT SWITCH W/PILOT
35° AIR TEMPERATURE PROBE
APOHILL CLOUD CONNECTIVITY TO ENABLE REMOTE MONITORING
ON MOBILE DEVICES AND PUSH NOTIFICATIONS FOR ALARMS
(INTERNET ENABLED WIFI NETWORK NEEDED)
DOOR SWITCH TO ENABLE DOOR AJAR ALARM, DOOR AJAR NOTIFICATION VIA EMAIL &/OR
EMAIL TO SMS TEXT MESSAGES, AND AUTOMATIC LIGHTS ON WHEN DOOR OPENS
PANIC ALARM WITH ILLUMINATED PANIC BUTTON, ALARM BUZZER WITH LED,
& NOTIFICATION VIA EMAIL &/OR EMAIL TO SMS TEXT MESSAGES (1-COOLER, 2-FREEZER)
KASON 1/2" DIA. WITH VAPOR PROOF LIGHT FIXTURE
N PLS WATT SYLVANIA LED BULB & GLOBE
CCI CLEAR 1" DIA. PUSH BUTTON
2 – KASON #1346 ADJUSTABLE SPRING LOADED HINGES
HEATED VISION WINDOW (14" x 24")
1/8" DIAMOND ALUMINUM TREAD PLATE KICKPLATES @ 36" HIGH I/S & O/S DOOR & FRAME

PANEL MOUNTED ACCESSORIES:
4 – KASON #1832 PRESSURE RELIEF VENTS W/INDICATOR LIGHTS – FIELD INTERCONNECTION REQUIRED (TOMACO IN PANEL – PER PLAN) (2-COOLER, 2-FREEZER)

ACCESSORIES: (SHIPPED LOOSE)
2 – PCS. TRIM ANGLE – 18 GA STAINLESS STEEL, #3 FINISH
CLOSURE PANEL TO BE EXISTING CEILING (PER PLAN) **VERIFY LENGTH**
2 – PCS. TRIM ANGLE – 18 GA STAINLESS STEEL, #3 FINISH
6 – 48" (1810LC) LED LIGHT FIXTURE(S) @ 40W EACH
1/8" DIAMOND ALUMINUM TREAD PLATE WAINSCOT @ 36" HIGH (EXPOSED EXTERIOR ONLY)
ALUMINUM COVED BASE MOLDING (COMPLETE INTERIOR ONLY)
2 – BAKELITE LABEL(S) (BLACK) ("FREEZER", "COOLER")
6 MIL POLYETHYLENE VAPOR BARRIER
6 – BELL BOX(ES) & COVER PLATE(S)
2 – DOOR STOP(S)
2 – EDWARDS 860 SERIES STROBE BEACONS (1 – FREEZER & 1 – SHIPPED LOOSE)
1 – EMERGENCY PRESSURE RELEASE
1 – BAKELITE LABEL (YELLOW W/BLACK LETTERING) ("VACUUM PRESSURE RELIEF")

METAL FINISHES:
INTERIOR & EXTERIOR DOOR & FRAME – 18 GA STAINLESS STEEL, #3 FINISH
INTERIOR WALLS & CEILING – WHITE .040 STUCCO ALUMINUM
EXPOSED EXTERIOR – 20 GA STAINLESS STEEL, #3 FINISH
UNEXPOSED EXTERIOR – 26 GA STUCCO ACRYLUME
EXTERIOR FLOOR & CEILING – 26 GA STUCCO ACRYLUME
INTERIOR FLOOR – .100 SMOOTH ALUMINUM

REFRIGERATION: BY OTHERS

NOTE: THE LARGEST DOOR PANEL ON THIS JOB IS 57.5" x 118".
NOTE: THE LARGEST ROOF/FLOOR PANEL ON THIS JOB IS 46.5" x 133".
CUSTOMER IS TO VERIFY THAT THIS PANEL SIZE WILL NOT CONFLICT WITH ANY JOB SITE RESTRICTIONS.
NOTE: CUSTOMER IS TO VERIFY ALL DIMENSIONS.
NOTE: ALL WALK-IN DOORS SWING OUT.
NOTE: MAXIMUM LIGHT CIRCUIT LOAD IS 1200# 120VAC TUNGSTEN, 5A 120VAC ELECTRONIC BALLAST. FOR HIGHER LOADS ADDITIONAL LIGHT FIXTURES MUST BE CONTROLLED VIA RELAY (BY OTHERS).

ELECTRICAL DATA	
⏚ = POINT OF ELECTRICAL CONNECTIONS.	
WALK-IN DOORS: 115v/1ø – 350w*	
PANEL MOUNTED ACC: 115v/1ø – 27w (EACH VENT)	

*NOTE: ADD WATTAGE FOR EACH ADDITIONAL LIGHT FIXTURE IN ACCESSORIES.

FREEZER DOOR	
DOOR FRAME KWH/DAY	3.600
COOLER DOOR	
DOOR FRAME KWH/DAY	1.584

WALK-IN PANEL R-8967		
BUILDING UNITS	R-8967	3760
USA		
SURFACE BURNING CHARACTERISTICS		
MATERIAL DETAILS	"FLAME SPREAD"	"SMOKE DEVELOPED"
ALUMINUM PANELS, PAINTED OR UNPAINTED, 5" OR LESS	15	350
"GALVANIZED STEEL OR STAINLESS STEEL PANELS, PAINTED OR UNPAINTED,	10	400 TO 500
CORE MATERIAL, 6" THICK	20	250

THE WALK-IN MUST BE INSTALLED ON A PERFECTLY LEVEL AND FLAT SURFACE TO ENSURE PROPER ALIGNMENT AND SMOOTH DOOR OPERATION.

AMERICAN PANEL WALK-IN COOLERS AND FREEZERS COMPLY WITH THE 2024 INTERNATIONAL ENERGY CONSERVATION CODE (IECC), SECTION C403.11

THIS AMERICAN PANEL WALK-IN WILL BE MANUFACTURED TO UL & NSF REQUIREMENTS. AMERICAN PANEL ACCEPTS NO LIABILITY FOR LOCAL CODE REQUIREMENTS OF WHICH AMERICAN PANEL HAS NOT BEEN MADE AWARE OF IN WRITING PRIOR TO FABRICATION.

INSULATION R-VALUES		
PANEL TYPE	COOLER	FREEZER
4" WALLS, ROOFS	R-29	R-32
5" WALLS, ROOFS	R-36	R-40
FLOORS	R-25	R-28
DOORS	R-32	

1) Please verify that door swing and location are correct.

2) If this walk-in is to be installed in a depression, or quarry tile is to be applied to the interior, depression depths or tile thickness must be specified to insure proper door height.

3) All site preparation, floor or slab construction, plumbing, electrical connections (including control wiring) by others.

4) ⏚ Electrical: 115-60-1 required above latch side of each door, through ceiling, to operate frame heater and light.

5) Special note to General Contractor and his Sub Contractor for quarry tile or concrete wearing floors: the sheet metal panel facings may be susceptible to staining due to excessive moisture created by hydration of concrete type materials. Therefore, it is absolutely necessary that each room be properly ventilated. Also note that special precautions must be taken when using muriatic acid due to effects hydrochloric acid fumes have on aluminum and stainless steel.

6) This drawing and information contained herein are the exclusive property of American Panel Corporation. It shall be returned to American Panel Corporation upon demand and shall not be reproduced in whole or part, disclosed to anyone else, or used without the written consent of American Panel Corporation.

ITEM #102 WALK-IN COOLER/FREEZER

☐ APPROVED
☐ APPROVED AS NOTED
☐ REVISE & RESUBMIT
SIGNATURE _____
PRINT NAME _____
DATE _____

American Panel — AMERICAN PANEL CORPORATION
5800 S.E. 78th St. Ocala, Florida 34472
Ph. (352) 245-7055 Fax (352) 245-0726

CUSTOMER: FOODSERVICE DESIGN PROFESSIONALS
PROJECT: CIMARRON ES – GALENA PARK ISD – GALENA PARK, TX
DATE: 06/05/25 | DRAWN BY: GJ/TR | P.O.#:
SCALE: 5/16"=1'-0" | PROPOSAL#: PD215489 | JOB#: | SHEET: 1 of 1

ALL DIMENSIONS MUST BE FIELD VERIFIED PRIOR TO FABRICATION AND INSTALLATION

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI 48854119
PROFESSIONAL MEMBER
Melissa Moore
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO: 48854119 ON: 08/29/2025

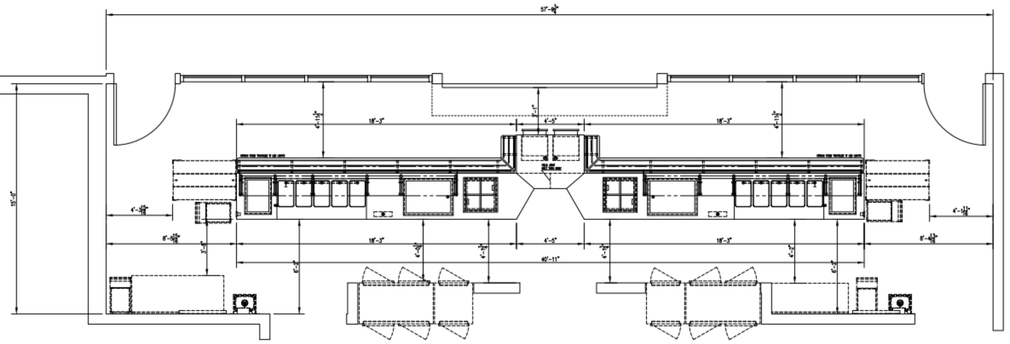
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	⚠ COH COMMENT 1
10/17/2025	⚠ COH COMMENT 2
10/24/2025	CSP

FS WALK-INS

QF1.8

FDP FOODSERVICE DESIGN PROFESSIONALS



Ⓐ PLAN – ROOM LAYOUT
SCALE 1/4"=1'-0" ONE (1) REQUIRED

MOD U SERVE
QUALITY YOU CAN COUNT ON

CIMARRON ELEMENTARY SCHOOL
GALENA PARK ISD

MOD-U-SERVE

COMMERCIAL KITCHENS INC.

2320 PEYTON ROAD
HOUSTON, TEXAS 77032
281 442 8001

NO.	DATE	REVISION	BY

DRAWING #	25-142-1.DWG
DRAWN BY	JMR
REFERENCE	21-100-1
DATE	06/05/2025

SHEET 1 OF 2 SHEETS

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI
48854119
PROFESSIONAL MEMBER
Melissa Moore
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO. 48854119 ON: 08/29/2025

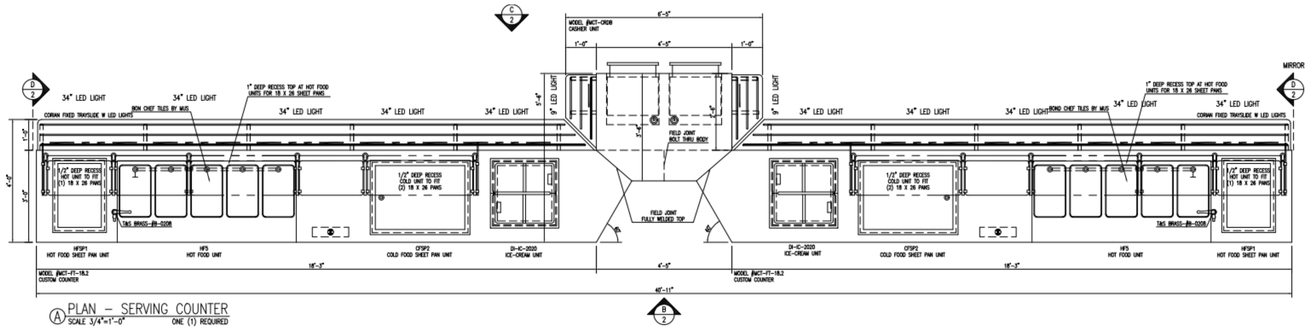
PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	
CHECKED	

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	ⓐ COH COMMENT 1
10/17/2025	ⓑ COH COMMENT 2
10/24/2025	CSP

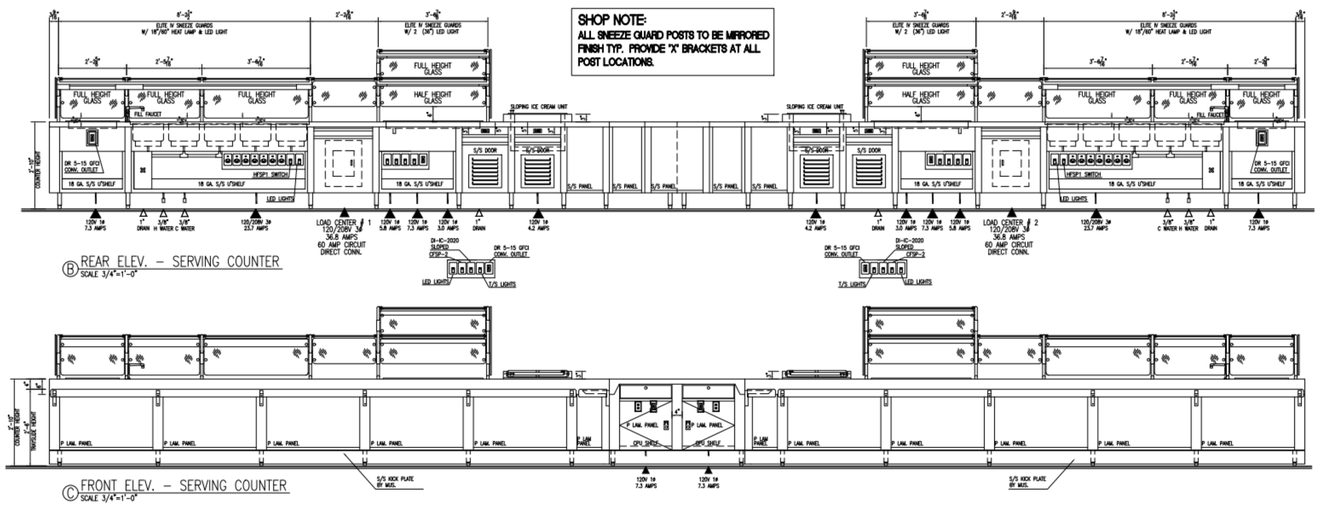
FS SERVING COUNTERS

QF1.9

FDP
FOODSERVICE DESIGN PROFESSIONALS

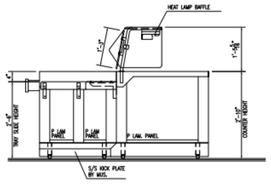


A PLAN – SERVING COUNTER
SCALE 3/4"=1'-0" ONE (1) REQUIRED



B REAR ELEV. – SERVING COUNTER
SCALE 3/4"=1'-0"

SHOP NOTE:
ALL SNEEZE GUARD POSTS TO BE MIRRORED FINISH TYP. PROVIDE "X" BRACKETS AT ALL POST LOCATIONS.



D END ELEVATION
SCALE 3/4"=1'-0"

C FRONT ELEV. – SERVING COUNTER
SCALE 3/4"=1'-0"

LOAD CENTER # 1
120/208V 3Ø
36.8 AMPS
60.0 AMP CIRCUIT

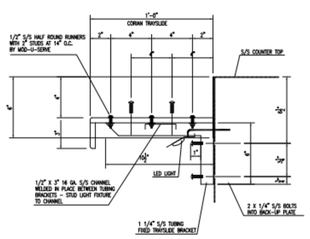
Service	L_1	L_2	L_3	Trip	No	36.8A 32.5A 33.2A	No	Trip	L_1	L_2	L_3	Service
HOT FOOD 5 UNIT/ HFSP1 120/208V 3Ø	23.7			3P	1		2	1P 15A	5.8			COLD FOOD UNIT 120V 1Ø
		21.0			3		4	1P 15A		7.3		CASHIER UNIT 120V 1Ø
			22.0	30A 3P	5		6	1P 15A			3.0	T/S LED LIGHTS 120V 1Ø
CONVENIENCE OUTLET 120V 1Ø	7.3			1P 15A	7		8					SPARE
ICE CREAM UNIT 120V 1Ø		4.2		1P 15A	9		10					SPARE
CONVENIENCE OUTLET 120V 1Ø			7.3	1P 15A	11		12					SPARE

A LOAD CENTER#1

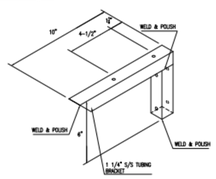
LOAD CENTER # 2
120/208V 3Ø
36.8 AMPS
60.0 AMP CIRCUIT

Service	L_1	L_2	L_3	Trip	No	36.8A 32.5A 33.2A	No	Trip	L_1	L_2	L_3	Service
HOT FOOD 5 UNIT/ HFSP1 120/208V 3Ø	23.7			3P	1		2	1P 15A	5.8			COLD FOOD UNIT 120V 1Ø
		21.0			3		4	1P 15A		7.3		CASHIER UNIT 120V 1Ø
			22.0	30A 3P	5		6	1P 15A			3.0	T/S LED LIGHTS 120V 1Ø
CONVENIENCE OUTLET 120V 1Ø	7.3			1P 15A	7		8					SPARE
ICE CREAM UNIT 120V 1Ø		4.2		1P 15A	9		10					SPARE
CONVENIENCE OUTLET 120V 1Ø			7.3	1P 15A	11		12					SPARE

B LOAD CENTER#2



D TYPICAL TRAYSLIDE DETAIL
SCALE 3"=1'-0"



E BRACKET DETAIL
SCALE 3"=1'-0"

34" A.F.F. TRAYSLIDE HEIGHT

K.E.C. NOTE - VERIFY FOLLOWING

CORIAN TRAYSLIDE:	
P.LAM. FRONT PANEL:	Verify plastic laminate selection to be used.
TRAY SIZE:	Verify tray size to be used.
TRAYSLIDE HEIGHT:	Verify trayslide height.

CONSULTANT/KEC APPROVAL STAMP & SIGNATURE

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

MOD-U-SERVE
QUALITY YOU CAN COUNT ON

CIMARRON ELEMENTARY SCHOOL
GALENA PARK ISD

MOD-U-SERVE

COMMERCIAL KITCHENS INC.
2320 PEYTON ROAD
HOUSTON, TEXAS 77032
281 442 8001

NO.	REVISION	BY	DATE

DRAWING # 25-142-2.DWG
DRAWN BY JMR
REFERENCE 21-100-2.dwg
DATE 06/05/2025

SHEET 2 OF 2 SHEETS

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI 48854119
PROFESSIONAL MEMBER
Melissa Moore
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO. 48854119 ON: 08/29/2025

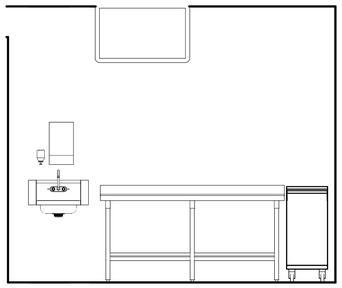
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a COH COMMENT 1
10/17/2025	b COH COMMENT 2
10/24/2025	CSP

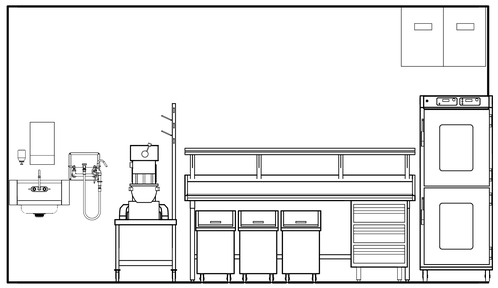
FS SERVING COUNTERS

QF1.9.1

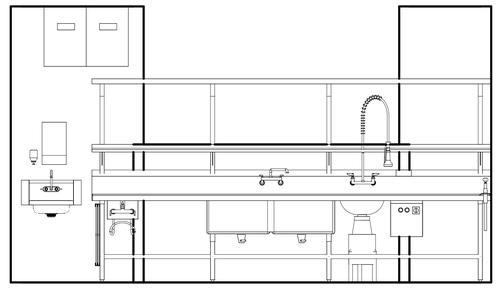
FDP FOODSERVICE DESIGN PROFESSIONALS



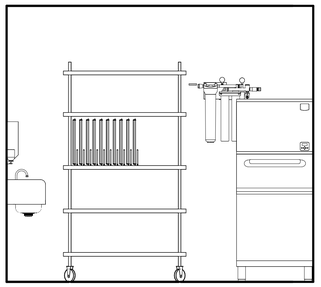
12 ELEVATION @ BACK COUNTER A
1/2" = 1'-0"



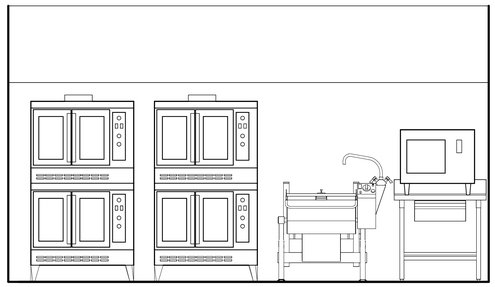
8 ELEVATION @ BAKERY PREP
1/2" = 1'-0"



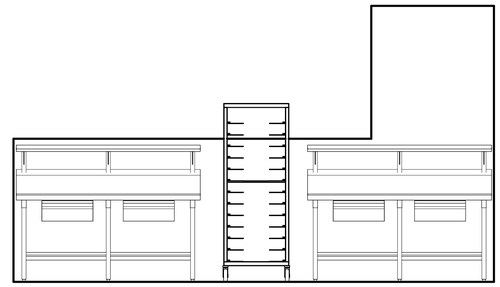
4 ELEVATION @ PREP SINK
1/2" = 1'-0"



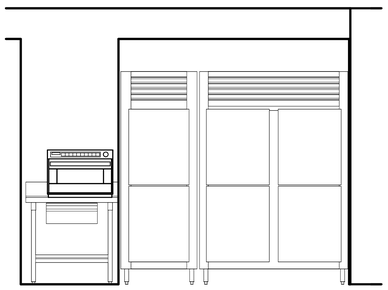
11 ELEVATION @ ICE MAKER
1/2" = 1'-0"



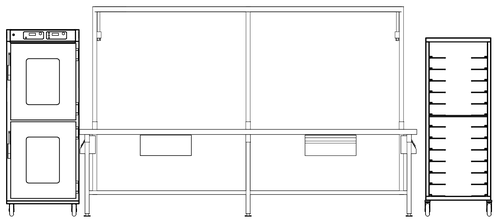
7 ELEVATION @ PRODUCTION LINE B
1/2" = 1'-0"



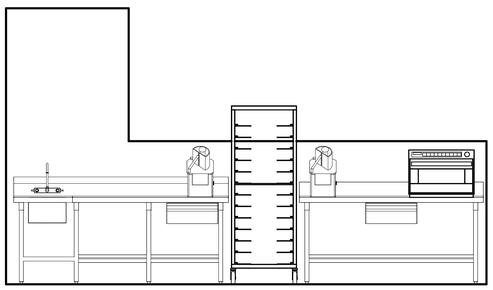
3 ELEVATION @ PREP AREA C
1/2" = 1'-0"



10 ELEVATION @ HOLDING B
1/2" = 1'-0"



6 ELEVATION @ SETUP AREA
1/2" = 1'-0"



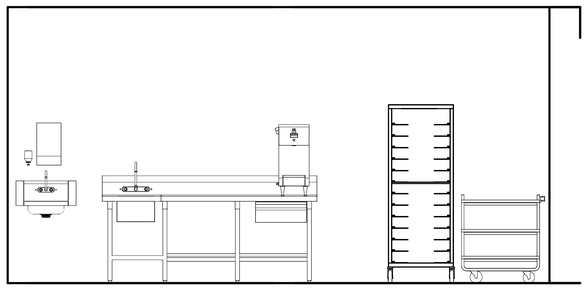
2 ELEVATION @ PREP AREA B
1/2" = 1'-0"



9 ELEVATION @ HOLDING A
1/2" = 1'-0"



5 ELEVATION @ PRODUCTION LINE A
1/2" = 1'-0"



1 ELEVATION @ PREP AREA A
1/2" = 1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI
48854119
PROFESSIONAL MEMBER

Melissa Moore

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO: 48854119 ON: 08/29/2025

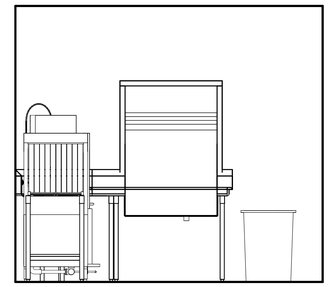
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a COH COMMENT 1
10/17/2025	b COH COMMENT 2
10/24/2025	CSP

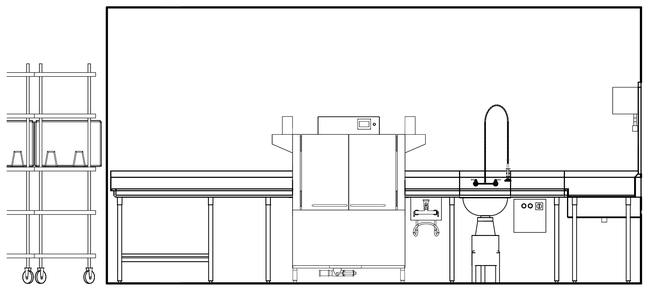
FS ELEVATIONS

QF2.1

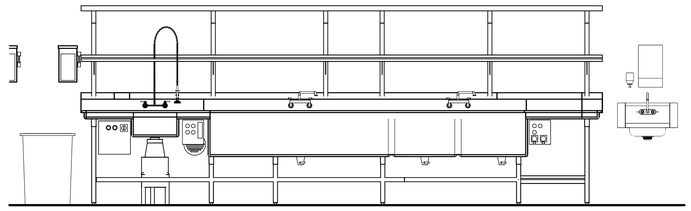
FDP
FOODSERVICE DESIGN PROFESSIONALS



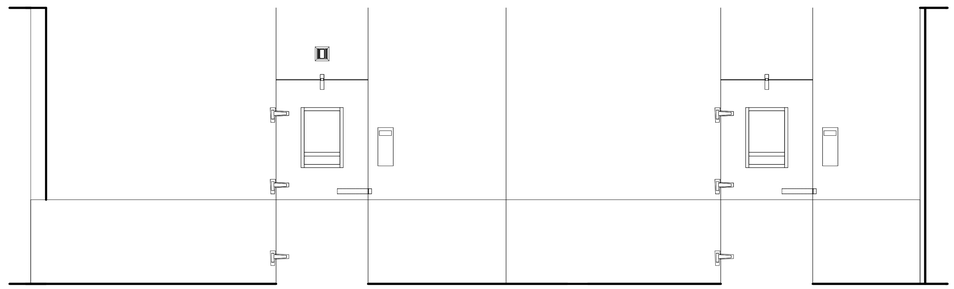
4 ELEVATION @ TRAY DROP
1/2" = 1'-0"



3 ELEVATION @ WAREWASH
1/2" = 1'-0"



2 ELEVATION @ POWER SOAK SINK
1/2" = 1'-0"



1 ELEVATION @ WALK-IN
1/2" = 1'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI
48854119
PROFESSIONAL MEMBER

Melissa Moore

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO. 48854119 ON: 08/29/2025

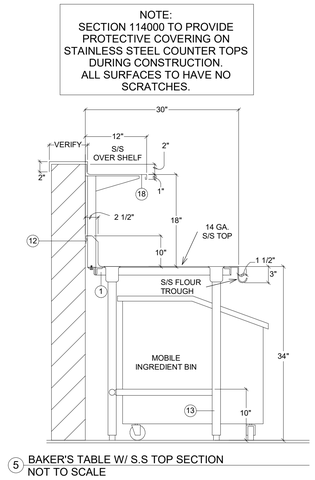
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a COH COMMENT 1
10/17/2025	b COH COMMENT 2
10/24/2025	CSP

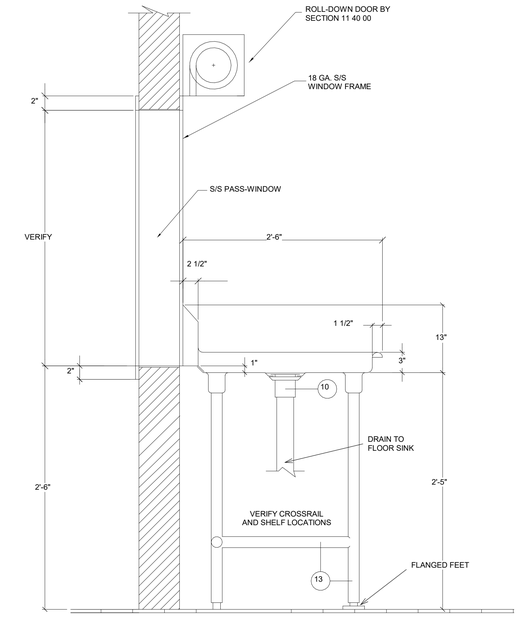
FS ELEVATIONS

QF2.2

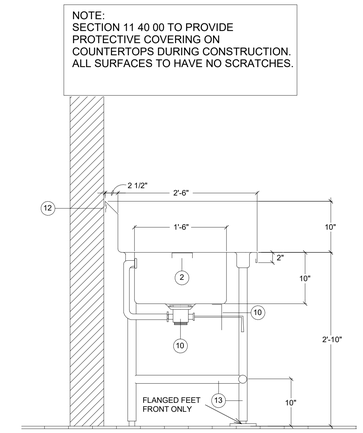
FDP
FOODSERVICE DESIGN PROFESSIONALS



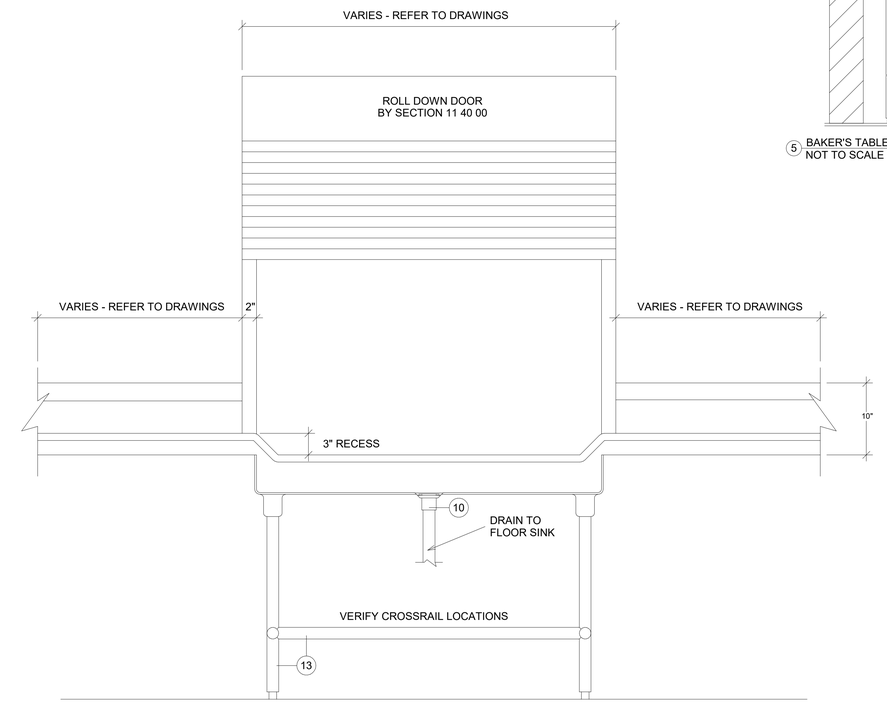
5 BAKER'S TABLE W/ S.S TOP SECTION
NOT TO SCALE



8 WAREWASH - COUNTER DOOR TRAY DROP SECTION
NOT TO SCALE

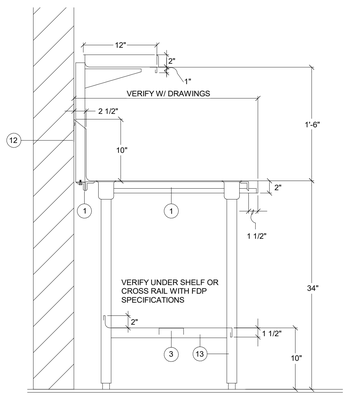


7 WORKTABLE W/ SINK SECTION
NOT TO SCALE

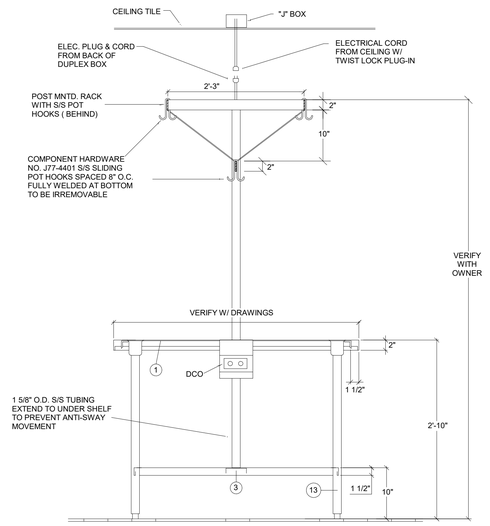


9 WAREWASH - TRAY DROP W/ LOWERED ROLLED RIM DETAIL
NOT TO SCALE

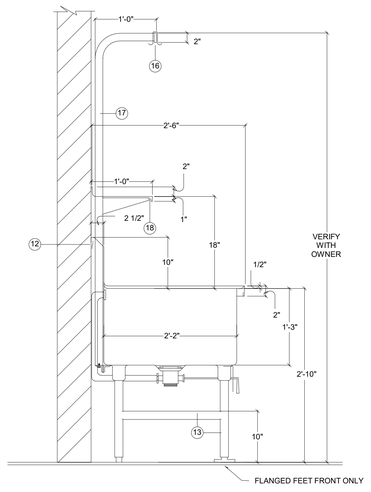
3 DRAINBOARD - PREP SINK SECTION
NOT TO SCALE



2 WORKTABLE W/ OVER SHELF SECTION
NOT TO SCALE



6 WORKTABLE W/ OVAL POT RACK SECTION
NOT TO SCALE



4 SINK - PREP TABLE SECTION
NOT TO SCALE

SECTION DETAIL NOTES:

1. 1 1/2" X 1 1/2" X 1/8" GALVANIZED ANGLE IRON.
2. 1" X 4" 14 GAUGE STAINLESS STEEL HAT CHANNEL.
3. 16 GAUGE STAINLESS STEEL C-CHANNEL.
4. 16 GAUGE STAINLESS STEEL UNDER SHELF, COVE UP REAR 2", TURN DOWN FRONT 1 1/2".
5. 1/2" CEMENT BACKERBOARD WITH TILE FRONT BY TRADE CONTRACTOR OR COUNTER MANUFACTURER. VERIFY FINISH WITH ARCHITECTURAL DRAWINGS.
6. COLD PAN - 2" RIGID INSULATION WITH 1" C.P. DRAIN - 16 GAUGE STAINLESS STEEL SECTION FALSE BOTTOM. PERFORATE FALSE BOTTOM WITH 1/4" DIA. HOLES AT 3" O.C.
7. 18 GAUGE STAINLESS STEEL INSULATED DOUBLE PAN DOOR WITH RECESSED PULL.
8. MANIFOLD DRAINS AT HOT FOOD UNITS WITH 1" TYPE 'K' COPPER AND EXTEND TO VALVE IN PLUMBING COMPARTMENT.
9. FINISHED TRUE AND LEVEL MASONRY BASE BY DIVISION 09. CLOSE COUNTER BODY AT BASE AND SEAL BY SECTION 11 40 00.
10. FISHER #22314 DRAIN WITH TAILPIECE AND OVERFLOW.
11. 14 GAUGE STAINLESS STEEL BRACKET WITH DRAIN HANDLE BUSHING.
12. 16 GAUGE STAINLESS STEEL 'Z' CLIP TO WALL AND SEAL.
13. 1 5/8" DIA. 16 GAUGE STAINLESS STEEL LEGS AND CROSS RAILS.
14. 1/2" S/S TUBING DRAIN LINE - STRAP TO SHELF AND WALL - EXTEND DOWN TO TOP OF SPLASH.
15. 1 5/8" DIA. 16 GAUGE STAINLESS STEEL TUBING - SUPPORT FRONT OF SHELF WITH 1/2" ALL-THREAD INSIDE TUBING EXTENDING TO STRUCTURE ABOVE.
16. 1/4" S/S BAR STOCK WELDED TO TOP OF EACH POST - POT HOOKS TO BE COMPONENT HARDWARE #J77-4401 SPACED 8" O.C.
17. 1 5/8" 16 GAUGE STAINLESS STEEL TUBING - BOLT TO ANGLE IRON AND EXTEND UP THRU SPLASH TO 7'-0" A.F.F.
18. OVER SHELF - 16 GAUGE STAINLESS STEEL, COVE UP REAR 2", TURN FRONT AND ENDS DOWN 1", ENDS TO BE CAPPED WITH EASED CORNERS WHERE ADJACENT TO WALL / FIXTURE.
19. 18 GAUGE STAINLESS STEEL LOUVERED PANEL.
20. 18 GAUGE STAINLESS STEEL LOUVERED DOUBLE PAN DOOR WITH RECESSED PULL.
21. NUMBER NOT USED.
22. 18 GAUGE STAINLESS STEEL INSULATED DOUBLE PAN SLIDING DOOR WITH COMPONENT HARDWARE COMPONENTS
    - A. #B57 - (VERIFY LENGTH) EXTRUDED ALUMINUM TRACK.
    - B. #B58-5511 & #B58-5521 FRONT & REAR DOOR SHEAVES.
    - C. #B62-1093 DOOR GUIDE.
    - D. #B60-1086 DOOR STOPS WHERE NEEDED.
    - E. #P62-1010 RECESS PULLS.

1 SECTION DETAIL NOTES
NOT TO SCALE

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI 48854119
PROFESSIONAL MEMBER
Melissa Moore
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO: 48854119 ON: 08/29/2025

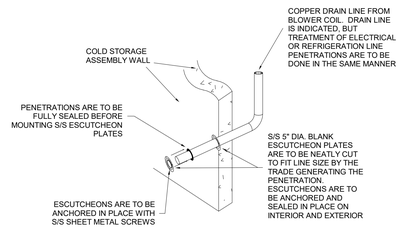
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a. COH COMMENT 1
10/17/2025	b. COH COMMENT 2
10/24/2025	CSP

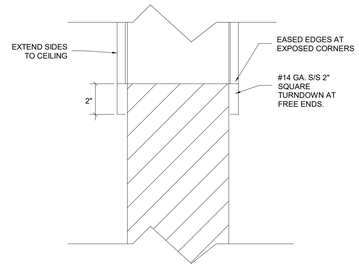
FS SECTIONS & DETAILS

QF3.1

FDP FOODSERVICE DESIGN PROFESSIONALS

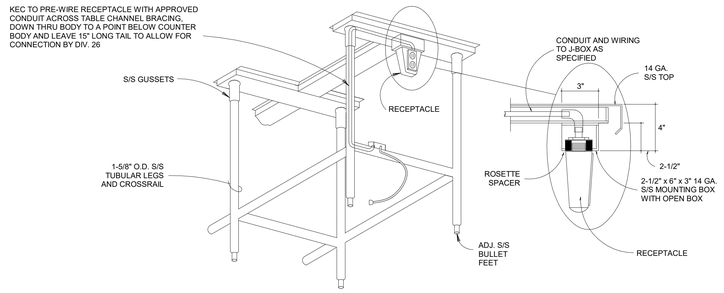


3 COLD STORAGE ASSEMBLY ESCUTCHEON & PENETRATION DETAIL
NOT TO SCALE



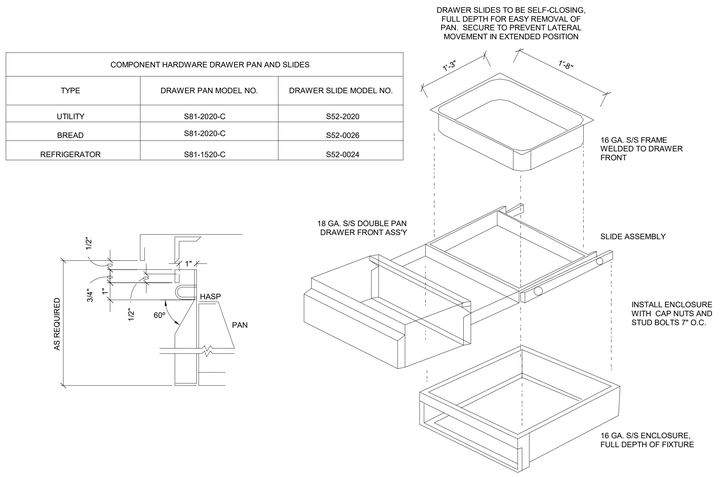
4 S/S WALL CAP DETAIL
NOT TO SCALE

NOTE:
COORDINATE ALL RECEPTACLES WITH ELECTRICAL CONTRACT DRAWING. REQUIREMENTS, REFER TO ELECTRICAL PLAN

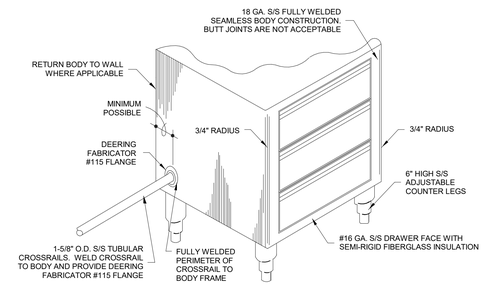


5 WORKTABLE - ELECTRICAL RECEPTACLE MOUNTED UNDER TOP DETAIL
NOT TO SCALE

COMPONENT HARDWARE DRAWER PAN AND SLIDES		
TYPE	DRAWER PAN MODEL NO.	DRAWER SLIDE MODEL NO.
UTILITY	S81-2020-C	S52-2020
BREAD	S81-2020-C	S52-0026
REFRIGERATOR	S81-1520-C	S52-0024

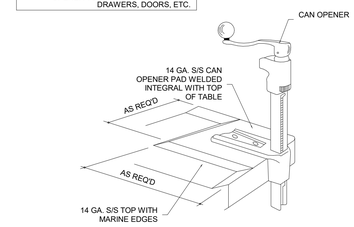


6 DRAWER ASSEMBLY DETAIL
NOT TO SCALE

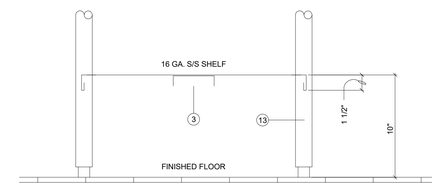


8 BAKER'S TABLE DRAWER BASE DETAIL
NOT TO SCALE

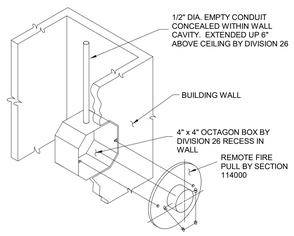
NOTE: DO NOT LOCATE CAN OPENER PAD IN A POSITION THAT WOULD ALLOW CAN OPENER TO OBSTRUCT OPENING OF DRAWERS, DOORS, ETC.



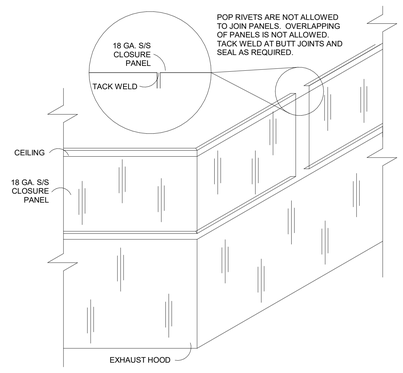
10 SINK - PREP MARINE EDGE CAN OPENER DETAIL
NOT TO SCALE



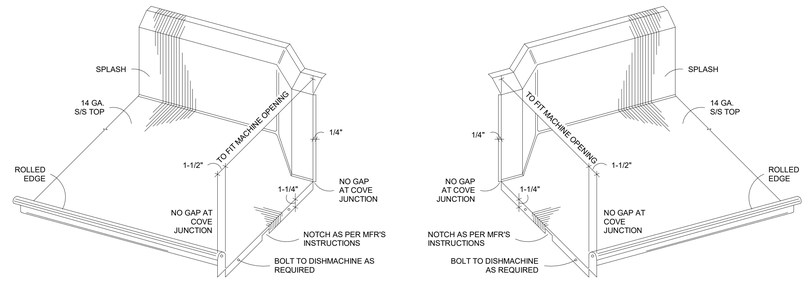
11 UNDER SHELF DETAIL
NOT TO SCALE



12 FIRE PROTECTION SYSTEM FIRE PULL DETAIL
NOT TO SCALE



13 EXHAUST HOOD CLOSURE PANEL DETAIL
NOT TO SCALE



14 DISHTABLE - SOILED & CLEAN CONNECTION DETAIL
NOT TO SCALE

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
MELISSA MOORE
FCSI
48854119
PROFESSIONAL MEMBER

Melissa Moore

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO. 48854119 ON: 08/29/2025

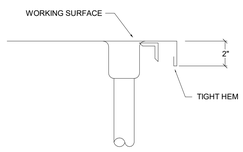
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a COH COMMENT 1
10/17/2025	b COH COMMENT 2
10/24/2025	CSP

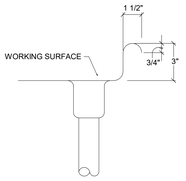
FS DETAILS

QF3.2

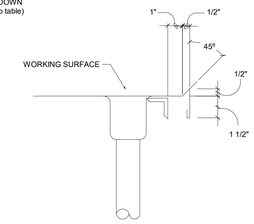
FDP FOODSERVICE DESIGN PROFESSIONALS



SQUARE TURNDOWN
(worktable, set-up table)

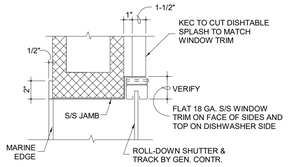


1 1/2" ROLLED RIM
(3 compartment sink)

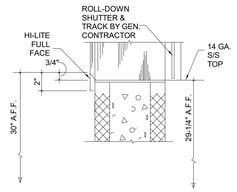


MARINE EDGE
(prep sink)

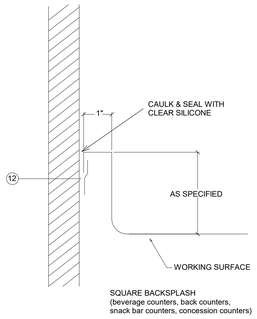
1 EDGE DETAILS
NOT TO SCALE



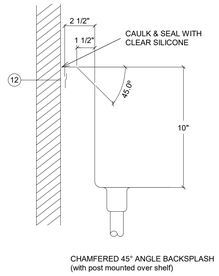
4 WAREWASH - TRAY DROP WINDOW SECTION
NOT TO SCALE



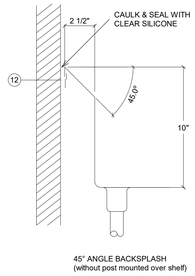
3 WAREWASH - TRAY DROP SECTION
NOT TO SCALE



SQUARE BACKSPLASH
(beverage counters, back counters,
snack bar counters, concession counters)

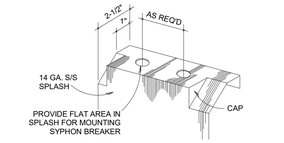


CHAMFERED 45° ANGLE BACKSPLASH
(with post mounted over shelf)

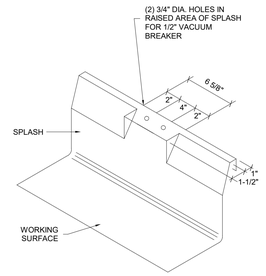


45° ANGLE BACKSPLASH
(without post mounted over shelf)

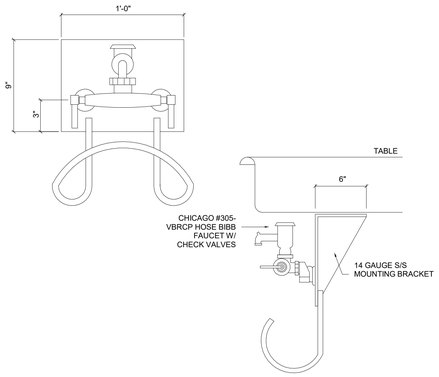
2 BACKSPLASH DETAILS
NOT TO SCALE



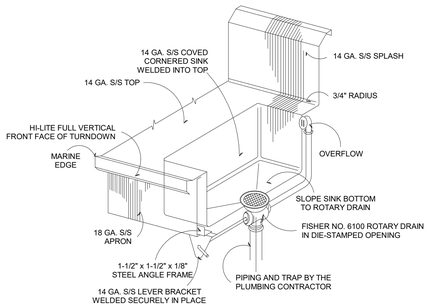
6 SPLASH @ SYPHON BREAKER
NOT TO SCALE



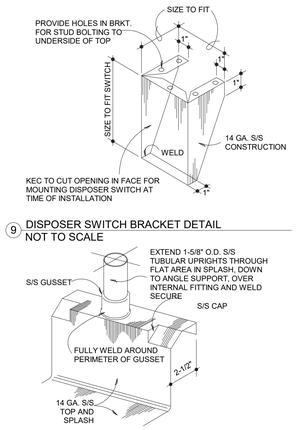
8 VACUUM BREAKER DETAIL
NOT TO SCALE



12 HOSE BIBB DETAIL
NOT TO SCALE

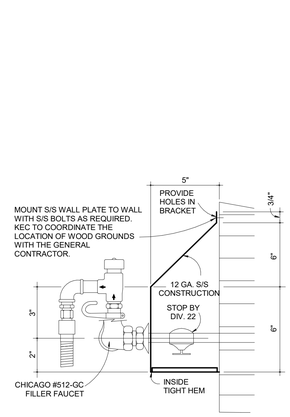


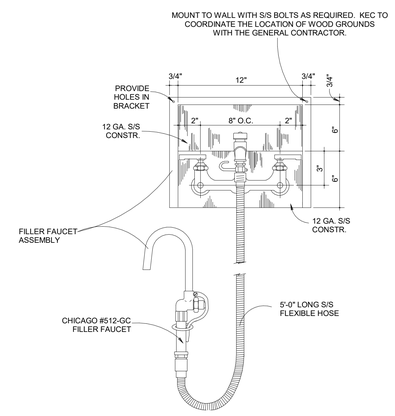
11 SINK ASSEMBLY DETAIL
NOT TO SCALE



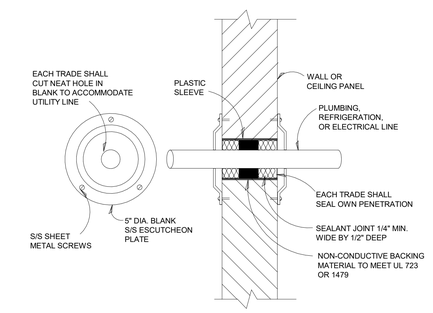
9 DISPOSER SWITCH BRACKET DETAIL
NOT TO SCALE

7 SPLASH @ UPRIGHT (DISH TABLE) DETAIL
NOT TO SCALE





14 FILL FAUCET DETAIL
NOT TO SCALE



15 COLD STORAGE ASSEMBLY WALL PENETRATION DETAIL
NOT TO SCALE

CUSTOM FABRICATION NOTES:

A. WORK SHALL BE DONE IN AN APPROVED WORKMANLIKE MANNER, TO COMPLETE SATISFACTION OF FOODSERVICE DESIGN PROFESSIONALS (FDP).

B. STAINLESS STEEL SHALL BE U.S. STANDARD GAUGES AS CALLED FOR. 18-8, TYPE 304, NOT OVER .012% MAXIMUM CARBON, NO. 4 FINISH.

C. GALVANIZED IRON SHALL BE ARMCO OR EQUAL. FRAMEWORK OF GALVANIZED IRON SHALL BE WELDED CONSTRUCTION, HAVING WELDS SMOOTH, AND WHERE GALVANIZING HAS BURNED OFF, TOUCHED UP WITH HIGH-GRADE ALUMINUM BRONZE.

D. LEGS AND CROSSRAIL SHALL BE CONTINUOUSLY WELDED, UNLESS OTHERWISE NOTED, AND GROUND SMOOTH.

E. BOTTOM OF LEGS AT FLOOR SHALL BE FITTED WITH SANITARY STAINLESS STEEL BULLET-TYPE FOOT, WITH NO LESS THAN 1/2" ADJUSTMENT.

F. LEGS SHALL BE FASTENED TO EQUIPMENT AS FOLLOWS:

01. TO SINKS BY MEANS OF CLOSED GUSSETS. GUSSETS SHALL BE S/S, REINFORCED WITH BUSHING, HAVING SET SCREWS FOR SECURING LEGS.

02. TO TABLES AND DRAINBOARDS WITH CLOSED GUSSETS WHICH SHALL BE WELDED TO GALVANIZED HAT SECTIONS OR CHANNELS, 14 GAUGE OR HEAVIER, EXPOSED HAT SECTIONS HAVING CLOSED ENDS. BRACING SHALL BE UNDERSIDE OF TOPS.

G. CLOSED GUSSETS SHALL BE 3" MINIMUM DIAMETER AT TOP, WELDED TO FRAME MEMBERS OR TO SINK BOTTOM.

H. ROLLS SHALL BE 1 1/2" DIAMETER, EXCEPT AS DETAILED TO THE CONTRARY, WITH CORNERS BULLNOSED, GROUND, AND POLISHED.

I. SEAMS AND JOINTS SHALL BE SHOP-WELDED WHERE POSSIBLE. WELDS TO BE GROUND AND POLISHED TO MATCH ORIGINAL FINISH. MATERIALS 18 GAUGE OR HEAVIER SHALL BE WELDED.

J. METAL TOPS SHALL BE ONE-PIECE WELDED CONSTRUCTION UNLESS SPECIFIED OTHERWISE, REINFORCED ON UNDERSIDE WITH GALVANIZED HAT SECTIONS OR CHANNELS WELDED IN PLACE. CROSSBRACE TO BE NOT MORE THAN 30" ON CENTERS.

K. HARDWARE SHALL BE SOLID MATERIALS AND EXCEPT WHERE EXPOSED OR SPECIFIED TO THE CONTRARY, OF CAST BRASS, CHROME-PLATED. IDENTIFY ALL HARDWARE WITH MANUFACTURER'S NAME AND NUMBER SO THAT BROKEN OR WORN PARTS MAY BE ORDERED AND REPLACED.

L. FABRICATE SINK COMPARTMENTS WITH 3/4" COVED VERTICAL AND HORIZONTAL CORNERS. MULTIPLE- COMPARTMENT PARTITIONS TO BE DOUBLE THICKNESS, CONTINUOUSLY WELDED WHERE SHEETS JOIN AT TOP. FRONT OF MULTIPLE-COMPARTMENT PARTITIONS TO BE CONTINUOUS ON EXTERIOR. BOTTOMS SHALL BE CREASED TO DRAIN.

M. ENDS OF FIXTURES, SPLASHBACKS, SHELVES, ETC., SHALL BE FINISHED FLUSH TO WALLS OR ADJOINING FIXTURES.

N. DISHTABLES, DRAINBOARDS, SPLASHBACKS, AND TURN-UP EDGES SHALL HAVE RADIUS BENDS IN ALL HORIZONTAL AND VERTICAL CORNERS, COVED AT INTERSECTIONS.

O. ROUNDED AND COVED CORNERS OR RADIUS BENDS SHALL BE 1/2" RADIUS OR LONGER.

P. UNDERSIDES OF TOPS TO BE COATED WITH HEAVY-BODIED RESINOUS MATERIAL COMPOUND FOR PERMANENT, NON-FLAKING ADHESION TO METAL, 1/8" THICK, APPLIED AFTER REINFORCING MEMBERS HAVE BEEN INSTALLED, DRYING WITHOUT DIRT-CATCHING CREVICES.

Q. SHELVES ARE TO BE TURNED UP 2" ON THE BACK EDGE. TURN OTHER EDGES DOWN 1 1/2" TO FORM OPEN CHANNELS. REINFORCE SHELF UNITS TO SUPPORT 40 LBS. PER SQUARE FOOT LOADING, PLUS 100% IMPACT LOADING.

R. TRIMWORK AND FRAMING AT MASONRY OPENINGS SHALL BE 18 GAUGE STAINLESS STEEL AND FORMED SO AS TO FIT SNUG TO WALLS AND ADJACENT SURFACES. FRAMING SHALL EXTEND A MINIMUM OF 2" ON EACH SURFACE. SEAL TRIMWORK TO WALLS. REFER TO DRAWINGS.

S. METAL COMPONENTS, UNLESS SPECIFIED OR NOTED OTHERWISE, TO BE THE FOLLOWING GAUGES:

TABLETOPS	14 GAUGE STAINLESS STEEL
WALL SHELVES	16 GAUGE STAINLESS STEEL
UNDER SHELVES	16 GAUGE STAINLESS STEEL
SINKS & DRAINBOARDS	14 GAUGE STAINLESS STEEL
EXHAUST DUCTS	18 GAUGE STAINLESS STEEL
LEGS - 1 5/8" DIA.	16 GAUGE STAINLESS STEEL

10 CUSTOM FAB NOTES
NOT TO SCALE

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 130
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

MELISSA MOORE
FCSI
48854119
FOODSERVICE CONSULTANTS SOCIETY INTERNATIONAL
PROFESSIONAL MEMBER
Melissa Moore
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MELISSA MOORE, FCSI NO. 48854119 ON: 08/29/2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	a COH COMMENT 1
10/17/2025	b COH COMMENT 2
10/24/2025	CSP

FS DETAILS

QF3.3

FDP
FOODSERVICE DESIGN PROFESSIONALS

Cimarron elementary School Replacement

GALENA PARK INDEPENDENT SCHOOL DISTRICT

ISSUE FOR CSP

BOARD OF TRUSTEES

Ramon Garza
President

Linda Clark Sherrard
Vice President

Jose Jimenez
Secretary

Noe Esparza
Member

Amenda Erebia
Member

Norma Hernandez
Member

Adrian Stephens
Member

ADMINISTRATION

Dr. John C. Moore
Superintendent of Schools

Dr. Wanna Giacona
Chief Administrative Officer

Ben Pape
Chief Financial Officer

Michael Mckay
Assistant Superintendent for Operations

Holli Malloy
Associate Superintendent for Academic Support

Dr. Mechelle Epps
Assistant Superintendent for School Support Services

Jerid Link
Assistant Superintendent for Human Resources

Dr. Kim Martin
Executive Director for Accountability and Academic Support

Amicha Williams
Executive Director for Business Support Services

Edgardo S. Martir
Director for Facility Planning & Construction

CONSULTANTS

Talon Engineers
Civil Consulting

CJG Engineers
Structural Engineers

Stanton Engineering Group, LLC
Mechanical & Electrical Engineers

Foodservice Design Professionals
Food Service Consultant

Vitro Design Studio LLC
Landscape Architect

ARCHITECT

S. Chu Architects, Inc.

PROGRAM MANAGER

Rice & Gardner Consultants, Inc.

REGISTERED ARCHITECT SHU-FOO CHU STATE OF TEXAS 7965

10/24/2025

INDEX OF DRAWINGS

VOL I

COVER SHEET

G1.00 PROJECT SUMMARY/DRAWING CONVENTIONS
G1.01 EGRESS PLANS

SITE/CIVIL

C0.01 GENERAL NOTES
C0.02 TOPOGRAPHIC SURVEY (REFERENCE ONLY)
C0.03 DEMOLITION PLAN-INTERIM PHASE
C0.04 DEMOLITION PLAN-FULL BUILDOUT
C0.05 UTILITY REROUTE & TEMP. ACCESS RD.- INTERIM PHASE

C1.00 OVERALL LAYOUT
C1.01 SITE LAYOUT
C1.02 SITE LAYOUT
C1.03 FIRE ACCESS LAYOUT
C2.01 GRADING LAYOUT
C2.02 GRADING LAYOUT

C3.01 STORM SEWER LAYOUT
C3.02 STORM SEWER LAYOUT
C3.03 STORM SEWER & DETENTION CALCULATION
C3.04 SWPPP
C3.05 DRAINAGE AREA MAP
C3.04 SWPPP

C4.01 WATER LINE & SANITARY SEWER LAYOUT
C5.01 PAVEMENT JOINT LAYOUT
C5.02 PAVEMENT JOINT LAYOUT
C7.01 PAVING DETAILS
C7.02 STORM SEWER DETAILS
C7.03 WATER LINE DETAILS
C7.04 SANITARY SEWER DETAILS
C7.05 SWPPP DETAILS
C7.06 CITY OF HOUSTON PAVEMENT DETAILS
C7.07 UNDERGROUND DETENTION DETAILS
C7.08 UNDERGROUND DETENTION DETAILS
C7.09 UNDERGROUND DETENTION DETAILS

PLAN & PROFILE DRAWINGS ARE INCLUDED AS REFERENCE

LANDSCAPING

TP1.0 TREE PROTECTION PLAN
L1.0 IRRIGATION PLAN
L 2.0 PLANTING PLAN
L 3.0 LANDSCAPING NOTES & DETAILS
L 3.0 LANDSCAPING SPECIFICATIONS

ARCHITECTURAL

CA1.01 ARCHITECTURAL DEMOLITION SITE PLAN
CA1.02 ARCHITECTURAL SITE PLAN- INTERIM PHASE
CA1.03 ARCHITECTURAL SITE PLAN- OVERALL
CA2.01 SITE DETAILS
A1.01 COMPOSITE FLOOR PLANS
A2.01 FLOOR PLAN- AREA "A" 1ST FLOOR
A2.02 FLOOR PLAN- AREA "A" 2ND FLOOR
A2.03 FLOOR PLAN- AREA "B"
A2.04 FLOOR PLAN- AREA "C"
A2.05 FLOOR PLAN- AREAS "B" & "C" 2ND FLOOR
A3.01 COLUMN PLANS
A3.02 ROOM FINISH SCHEDULES
A3.03 ROOM FINISH SCHEDULES
A3.04 DOOR SCHEDULES
A3.05 WINDOW SCHEDULES
A3.06 HARDWARE SCHEDULES
A4.01 ROOF PLAN & ROOF DETAILS
A5.01 ENLARGED RESTROOM PLANS
A5.02 ENLARGED RESTROOMS, ELEVATOR & STAIRS
A5.03 LEARNING STAIRS, RAMPS & DETAILS
A6.00 PARTITION TYPES
A6.01 WALL SECTIONS
A6.02 WALL SECTIONS
A6.03 WALL SECTIONS
A6.04 WALL SECTIONS
A6.05 WALL SECTIONS
A6.06 WALL SECTIONS
A6.07 WALL SECTIONS
A6.08 WALL SECTIONS
A6.08 DETAILS
A6.08 DETAILS
A7.01 EXTERIOR ELEVATIONS
A7.02 EXTERIOR ELEVATIONS
A7.03 EXTERIOR & INTERIOR ELEVATIONS
A7.04 INTERIOR ELEVATIONS
A7.05 INTERIOR ELEVATIONS
A8.01 EDUCATIONAL CASEWORK
A8.02 EDUCATIONAL CASEWORK
A9.01 DOOR & FRAME TYPES
A9.02 FRAME TYPES
A10.01 RCP-AREA "A" 1ST FLOOR
A10.02 RCP-AREA "A" 2ND FLOOR
A10.03 RCP-AREA "B"
A10.04 RCP-AREA "C"
A11.01 FLOOR PATTERNS-AREA "A" 1ST FLOOR
A11.02 FLOOR PATTERNS-AREA "A" 2ND FLOOR
A11.03 FLOOR PATTERNS-AREA "B"
A11.04 FLOOR PATTERNS-AREA "C"

FOOD SERVICE

QF.1 FS GENERAL COORDINATION NOTES
QF1.0 FS EQUIPMENT PLAN
QF1.1 FS FACILITY MODEL
QF1.2 FS EQUIPMENT MODEL
QF1.3 FS SPECIAL CONDITIONS & MECH. PLAN
QF1.4 FS PLUMBING PLAN
QF1.5 FS ELECTRICAL PLAN
QF1.6 FS EXHAUST HOODS
QF1.7 FS CONDENSING UNITS
QF1.8 FS WALK-INS
QF1.9 FS SERVING COUNTERS
QF1.9.1 FS SERVING COUNTERS
QF2.1 FS ELEVATIONS
QF2.2 FS ELEVATIONS
QF3.1 FS SECTIONS & DETAILS
QF3.2 FS DETAILS
QF3.3 FS DETAILS

VOL II

STRUCTURAL

S0.00 GENERAL NOTES
S0.01 GENERAL NOTES
S0.02 TESTING NOTES
S0.03 TYPICAL FOUNDATION DETAILS
S0.04 TYPICAL FRAMING DETAILS
S0.05 UPLIFT KEY PLAN

S1.00 COMPOSITE FOUNDATION PLAN
S1.01 AREA "A" FOUNDATION PLAN
S1.02 AREA "B" FOUNDATION PLAN
S1.03 AREA "C" FOUNDATION PLAN
S1.04 AREA "B" SERVICE YARD FOUNDATION PLAN
S1.01 AREA "A" FOUNDATION PLAN
S1.02 AREA "B" FOUNDATION PLAN
S1.03 AREA "C" FOUNDATION PLAN
S1.04 AREA "B" SERVICE YARD FOUNDATION PLAN
S2.00 COMPOSITE SECOND FLOOR & LOW ROOF FRAMING PLAN
S2.01 AREA "A" SECOND FLOOR & LOW ROOF FRAMING PLAN
S2.02 AREA "B" LOW ROOF FRAMING PLAN
S2.03 AREA "C" LOW ROOF FRAMING PLAN
S3.00 COMPOSITE ROOF FRAMING PLAN
S3.01 AREA "A" ROOF FRAMING PLAN
S3.02 AREA "B" ROOF FRAMING PLAN
S3.03 AREA "C" ROOF FRAMING PLAN
S4.01 FOUNDATION DETAILS
S4.02 FOUNDATION DETAILS
S4.03 FOUNDATION DETAILS
S5.01 FLOOR FRAMING DETAILS
S5.02 FLOOR FRAMING DETAILS
S6.01 ROOF FRAMING DETAILS
S6.02 ROOF FRAMING DETAILS
S6.03 ROOF FRAMING DETAILS

MECHANICAL

MEP1.00A MEP OVERALL SITE PLAN- PHASE I
MEP1.00B MEP OVERALL SITE PLAN- PHASE II
MEP1.00D MEP ENLARGED SITE PLAN
M1.01 MECHANICAL 1ST FLOOR PLAN AREA "A"
M1.02 MECHANICAL 2ND FLOOR PLAN AREA "A"
M1.03 MECHANICAL FLOOR PLAN AREA "B"
M1.04 MECHANICAL FLOOR PLAN AREA "C"
M2.00 ENLARGED MECHANICAL PLANS
M2.01 ENLARGED MECHANICAL PLANS
M2.02 CENTRAL PLANT
M3.00 MECHANICAL SYMBOLS, NOTES & SCHEDULES
M3.01 MECHANICAL SCHEDULES
M3.02 MECHANICAL DETAILS
M3.03 MECHANICAL DETAILS
M3.04 MECHANICAL DETAILS
M3.05 VENTILATION CALCULATIONS
M4.00 MECHANICAL SCHEMATICS
M4.01 MECHANICAL SCHEMATICS

ELECTRICAL

E1.01 LIGHTING 1ST FLOOR PLAN - AREA "A"
E1.02 LIGHTING 2ND FLOOR PLAN - AREA "A"
E1.03 LIGHTING FLOOR PLAN - AREA "B"
E1.04 LIGHTING 1ST FLOOR PLAN- AREA "C"
E1.04T THEATRICAL LIGHTING
E1.05 LIGHTING 2ND FLOOR PLAN - AREA "C"
E2.01 POWER & LOW VOLTAGE-1ST FLOOR AREA "A"
E2.02 POWER & LOW VOLTAGE- 2ND FLOOR AREA "A"
E2.02K ENLARGED KITCHEN FLOOR PLAN
E2.03 POWER & LOW VOLTAGE - AREA "B"
E2.04 POWER & LOW VOLTAGE- 1ST FLOOR AREA "C"
E2.05 POWER & LOW VOLTAGE- 2ND FLOOR AREA "C"

E3.11 LOCAL SOUND- FIRST FLOOR
E3.12 LOCAL SOUND- SECOND FLOOR
E3.21 PUBLIC ADDRESS- FIRST FLOOR
E3.22 PUBLIC ADDRESS- SECOND FLOOR
E3.31 FIRE ALARM FIRST FLOOR
E3.32 FIRE ALARM SECOND FLOOR
E3.41 SECURITY SYSTEM FIRST FLOOR
E3.42 SECURITY SYSTEM SECOND FLOOR

E4.00 ELECTRICAL RISERS AND SCHEDULES
E4.10 ELECTRICAL EQUIP AND PANEL SCHEDULES
E4.11 PANEL SCHEDULE 1ST FLOOR AREA A
E4.12 PANEL SCHEDULE AREA B
E4.13 PANEL SCHEDULE AREA B
E4.14 PANEL SCHEDULE AREA C
E4.21 PANEL SCHEDULE 2ND FLOOR AREA A
E5.00 SYMBOL, LEGEND & NOTES
E5.01 LOW VOLTAGE NOTES AND SCHEDULES
E5.10 ELECTRICAL DETAILS
E5.11 ELECTRICAL DETAILS
E5.12 ELECTRICAL DETAILS
E5.13 ELECTRICAL GROUNDING RISER
E5.14 ELECTRICAL DETAILS
E5.20 ELECTRICAL & VOLTAGE DEVICE DETAILS
E5.21 ELECTRICAL & LOW VOLTAGE DEVICE DETAILS
E5.22 ELECTRICAL & LOW VOLTAGE DEVICE DETAILS
E5.30 TELECOM GROUNDING RISER & DETAILS
E5.31 TELECOM BACKBONE & CONDUIT RISERS
E5.32 STRUCTURAL CABLING DETAILS
E5.33 STRUCTURAL CABLING DEVICE DETAILS
E5.40 SOUND SYSTEM RISER AND DETAILS
E5.41 SOUND SYSTEM RISER AND DETAILS
E5.42 SOUND SYSTEM RISER AND DETAILS
E5.50 SECURITY AND ACCESS CONTROL DETAILS
E5.51 SECURITY AND ACCESS CONTROL DETAILS

E6.00 LIGHT FIXTURE SCHEDULE
E6.01 LIGHT FIXTURE SCHEDULE & SEQUENCE OF OPERATIONS
E6.10 LIGHT DETAILS
E7.01 ELECTRICAL COORDINATION PLAN- 1ST FLOOR
E7.02 ELECTRICAL COORDINATION PLAN- 1ST FLOOR
E7.03 ELECTRICAL COORDINATION PLAN- 1ST FLOOR
E7.11 ENLARGED ELECTRICAL PLAN- 1ST FLOOR
E7.12 ENLARGED ELECTRICAL PLAN- 2ND FLOOR

PLUMBING

P1.01 PLUMBING 1ST FLOOR PLAN-AREA "A"
P1.02 PLUMBING 2ND FLOOR PLAN-AREA "A"
P1.03 PLUMBING FLOOR PLAN-AREA "B"
P1.03K ENLARGED KITCHEN PLAN
P1.04 PLUMBING 1ST FLOOR PLAN- AREA "C"
P1.05 PLUMBING 2ND FLOOR PLAN- AREA "C"
P3.00 PLUMBING SCHEDULES
P4.00 PLUMBING DETAILS & SCHEDULES
P4.01 PLUMBING DETAIL
P5.00 PLUMBING RISER DIAGRAMS AREA "A"
P5.01 PLUMBING RISER DIAGRAMS AREA "B"
P5.02 PLUMBING RISER DIAGRAMS AREA "C"
P6.00 PLUMBING STORM RISER DIAGRAMS

Cimarron E.S. Replacment

for

Galena Park Independent School District

816 Cimarron Street, Houston, Texas 77015

DOCUMENT REVIEW

PROJECT NO. 2502 (GPISD B101-101)
DATE 10/24/2025
ISSUE CSP

SET NUMBER

GENERAL NOTES

A. THE NOTES AND SPECIFICATIONS PROVIDED ON THE STRUCTURAL DRAWINGS ARE EXCERPTS FROM THE RELATIVE PROJECT SPECIFICATIONS. THEY ARE NEITHER COMPLETE NOR DO THEY REPLACE THE CONTRACT SPECIFICATIONS.

B. MEANS AND METHODS: THE STRUCTURAL DRAWINGS DEPICT THE STRUCTURE IN ITS FINAL CONSTRUCTED CONFIGURATION UNLESS SO STATED OR NOTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND PROVIDE ALL TEMPORARY SUPPORTS REQUIRED FOR THE EXECUTION OF THE CONTRACT INCLUDING BUT NOT LIMITED TO: GUYS, BRACES, SHORES, RE-SHORES, FALSEWORK, ANY TEMPORARY SUPPORTS OR TEMPORARY ANCHORS. NEITHER CONSTRUCTION MEANS AND METHODS NOR CONSTRUCTION SAFETY ARE PART OF THE STRUCTURAL ENGINEER'S EXPERTISE OR SCOPE OF WORK. THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS ARE FULLY RESPONSIBLE FOR THE MEANS AND METHODS USED TO CONSTRUCT THE STRUCTURE AND FOR FULL COMPLIANCE WITH ALL JOB SAFETY RELATED REGULATIONS AND CONDITIONS AT THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS RELATING TO THE SPECIFIC STRUCTURAL ERECTION ITEMS ADDRESSED IN THE LATEST OSHA REGULATIONS.

C. LIMITED SITE VISITS IF ANY BY THE STRUCTURAL ENGINEER OF RECORD (SER) ARE SOLELY TO OBSERVE COMPLETED PARTS OF THE STRUCTURE. THE STRUCTURAL ENGINEER OF RECORD (SER) IS NEITHER QUALIFIED TO OBSERVE NOR COMMENT ON CONSTRUCTION MEANS AND METHODS AND JOB SITE SAFETY.

D. PRINCIPAL OPENINGS ARE SHOWN ON THE DRAWINGS. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR OPENINGS, SLEEVES, CURBS, INSERTS, DEPRESSIONS, ETC., NOT SHOWN.

E. TYPICAL DETAILS: GENERAL DETAILS AND NOTES ON THESE SHEETS SHALL APPLY UNLESS SPECIFICALLY SHOWN OR NOTED OTHERWISE. CONSTRUCTION DETAILS NOT FULLY SHOWN OR NOTED SHALL BE SIMILAR TO DETAILS SHOWN FOR SIMILAR CONDITIONS. ALL WORK OR CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES, REGULATION AND SAFETY REQUIREMENTS. ALL DETAILS ARE TYPICAL UNLESS NOTED OTHERWISE. DETAILS SHALL APPLY TO ALL SIMILAR AND LIKE CONDITIONS.

F. DISCREPANCIES: THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS. UPON RECEIPT OF SUCH INFORMATION, THE ENGINEER WILL SEND WRITTEN INSTRUCTIONS TO ALL CONCERNED. ANY SUCH DISCREPANCY, OMISSION, OR VARIATION NOT REPORTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND WORK SHALL BE PERFORMED IN A MANNER AS DIRECTED BY THE ENGINEER AT NO COST TO THE PROJECT.

G. EXCAVATION: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH THE LOCAL BUILDING DEPARTMENT

H. COORDINATION AND OTHER TRADES: IT IS NOT THE INTENT THAT THE STRUCTURAL DRAWINGS BE VIEWED AS STAND ALONE DRAWINGS WITH RESPECT TO PROJECT DIMENSIONS OR ANY OTHER COMPONENT OF THE CONSTRUCTION THAT CAN AND MAY BE IDENTIFIED IN OTHER PARTS OF THE CONTRACT DOCUMENTS. IT REQUIRES THE ENTIRE SET OF CONTRACT DOCUMENTS TO PROPERLY CONSTRUCT THE STRUCTURE AS WELL AS OTHER COMPONENTS OF THE BUILDING. ANCHORS REQUIRED FOR ANCHORING MEP EQUIPMENT AND / OR PIPING ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL DETERMINE AND COORDINATE REQUIREMENTS FROM OTHER DISCIPLINES AND SHALL PROVIDE APPROPRIATE ALLOWANCES INTO THE BID. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSEMBLE AND COORDINATE THE REQUIREMENTS OF ALL COMPONENTS OF THE CONTRACT DOCUMENTS IN ORDER TO PROPERLY IMPLEMENT THE REQUIREMENTS OF THE CONTRACT. SEE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF PIPES, VENTS, CHASES, DUCTS AND OTHER OPENINGS AND DETAILS NOT SHOWN ON THESE STRUCTURAL DRAWINGS. ALL DIMENSIONS ARE TO BE CHECKED AND VERIFIED WITH THE ARCHITECTURAL DRAWINGS.

I. SEE ARCHITECTURAL DRAWINGS FOR ELEVATIONS NOT SHOWN. THE CONTRACTOR SHALL COMPARE THE STRUCTURAL SECTIONS WITH THE ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATING OR INSTALLING STRUCTURAL MEMBERS.

J. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE GRADES WITH THE CIVIL ENGINEER'S GRADING PLAN AND THE LANDSCAPE ARCHITECT'S PLAN.

K. THE DRAWINGS IN THE STRUCTURAL DOCUMENTS ARE NOT TO BE SCALED FOR ANY PURPOSE, INCLUDING THE DETERMINATION OF QUANTITIES AND THE FIT UP OF MATERIALS.

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

M. PRECONSTRUCTION MEETINGS: THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING PRECONSTRUCTION MEETINGS FOR THE FOUNDATION AND SUPERSTRUCTURE ELEMENTS OF THE PRIMARY FRAME WITH A MINIMUM OF TWO WEEKS OF NOTICE PRIOR TO START OF THE RELEVANT WORK. ATTENDEES SHALL INCLUDE THE CONTRACTORS, APPROPRIATE SUBCONTRACTORS, FABRICATORS, INSPECTORS, ARCHITECT/ENGINEERS. THE MEETING AGENDA SHALL INCLUDE THE FOLLOWING ITEMS: REVIEW OF WORK SCOPE, PROJECT SCHEDULE FOR THE ELEMENTS BEING DISCUSSED, CONTACT INFORMATION OF RESPONSIBLE PARTIES, INSPECTION POINTS FOR BOTH SER AND SPECIAL INSPECTOR, REVIEW OF MATERIALS AND ANY SPECIAL DESIGN ISSUES, CLARIFICATIONS, TESTING AND ACCEPTANCE, AND ANY OTHER TOPIC DEEMED APPROPRIATE BY THE CONTRACTOR, ARCHITECT OR STRUCTURAL ENGINEER.

N. COLD-FORMED WALL STUDS AND CONNECTIONS SHALL BE DESIGNED AND SEALED BY A LICENSED ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED. THE CALCULATIONS AND DETAILED DRAWINGS SHALL BE SUBMITTED FOR APPROVAL SHOWING ALL CALCULATIONS, INCLUDING DESIGN LOADS, MEMBER SIZES AND CONNECTIONS.

O. SHOP DRAWINGS SHALL BE NEW DRAWINGS PRODUCED BY THE CONTRACTOR. ILLEGIBLE REPRODUCTIONS OF THE DESIGN DRAWINGS WILL BE REJECTED. THE USE OF REPRODUCTIONS OR ELECTRONIC FILES OF THE STRUCTURAL DRAWINGS FOR THE PREPARATION OF SHOP DRAWINGS IS NOT ACCEPTABLE WITHOUT PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER OF RECORD. IF SUCH AUTHORIZATION IS OBTAINED, DO NOT SUBMIT SHOP DRAWINGS WITH THE CONTRACT DOCUMENT TITLE BLOCK AND/OR THE SEAL OF THE REGISTERED ENGINEER OF RECORD AFFIXED. ALTERATION OF A SEALED DOCUMENTS WITHOUT PROPER NOTIFICATION OF THE RESPONSIBLE ENGINEER IS AN OFFENSE OF THE ENGINEERING PRACTICE ACT. THE USE OF REPRODUCTIONS OR ELECTRONIC FILES OF THESE CONTRACT DRAWINGS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS OR OMISSIONS THAT MAY OCCUR HEREON. DRAWINGS REQUIRING A SPECIALTY STRUCTURAL ENGINEER (SSR) SHALL HAVE CALCULATIONS AND DRAWINGS SEALED BY A LICENSED ENGINEER IN THE STATE OF THE PROJECT.

P. SHOP DRAWINGS ARE AN AID FOR FIELD PLACEMENT, AND ARE SUPERSEDED BY THE STRUCTURAL DRAWINGS. IT IS NOT THE INTENT THAT THE STRUCTURAL DRAWINGS BE VIEWED AS DETAILED SHOP OR ERECTION DRAWINGS. VARIOUS DIMENSIONS REQUIRED FOR PROPER FIT-UP OF THE COMPONENTS OF THE STRUCTURE MUST BE DETERMINED FROM THE INFORMATION THAT IS PROVIDED ELSEWHERE IN THE CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S AND THEIR DETAILER'S OR SUBCONTRACTOR'S RESPONSIBILITY TO ESTABLISH AND TO CALCULATE AND VERIFY THESE DIMENSIONS AS REQUIRED TO ACHIEVE PROPER FIT-UP OF MATERIALS AND TO ACHIEVE COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE CERTAIN THAT ALL CONSTRUCTION IS IN FULL AGREEMENT WITH THE LATEST STRUCTURAL DRAWINGS.

Q. OMISSION FROM THE SHOP DRAWINGS OF ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF COMPLYING WITH THE OMITTED REQUIREMENTS, EVEN IF THE SHOP DRAWINGS HAVE BEEN REVIEWED, APPROVED AND RETURNED.

R. SHOP DRAWING REVIEW PROCESS – ALL SHOP DRAWINGS WILL BE REVIEWED AND RETURNED IN THE ORDER RECEIVED UNLESS OTHER SPECIFIC INSTRUCTIONS ARE RECEIVED. FOR PROJECTS WITH MULTIPLE WORK AREAS, THE SHOP DRAWINGS MUST BE DIVIDE INTO THE SAME OR SIMILAR AREAS WITH EACH AREA SUBMITTED INDIVIDUALLY UNDER A SEPARATE TRANSMITTAL. IF THE SHOP DRAWINGS ARE NOT DIVIDED INTO AREAS PER THE CONTRACT DOCUMENTS, THAT SUBMITTAL WILL BE REJECTED. EACH SUBMITTAL WILL BE REVIEWED INDIVIDUALLY AND REQUIRE AN INDIVIDUAL TIME FRAME OF TEN (10) WORKING DAYS PER SUBMITTAL. IF MULTIPLE SUBMITTALS ARE RECEIVED WITHIN THE REVIEW TIME FRAME OF A PRIOR SUBMITTAL, THEY WILL BE REVIEWED CONSECUTIVELY EACH WITH ITS OWN INDIVIDUAL REVIEW TIME FRAME THAT BEGINS ONCE THE PRIOR SUBMITTAL IS RETURNED. THIS GIVES EACH SUBMITTAL A TEN (10) WORKING DAY REVIEW WINDOW.

S. RETURNED SHOP DRAWINGS STAMPED "NOTE MARKINGS" OR "APPROVED AS NOTED" ARE ASSUMED TO BE APPROVED ONCE ALL THE COMMENTS HAVE BEEN INCORPORATED. THE SER WILL ONLY REVIEW SUBMITTALS ONE ADDITIONAL TIME AND ONLY IF THEY ARE MARKED "REVISE AND RESUBMIT" OR "REJECTED". ANY FURTHER REVIEWS OF THE SAME OR SIMILAR SUBMITTALS WILL BE AT THE GENERAL CONTRACTORS EXPENSE WITH PAYMENT FOR SERVICES RENDERED PRIOR TO THE RETURN OF THE APPROVAL DRAWINGS.

T. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DELAYS CAUSED BY REJECTION OF INADEQUATE, INCOMPLETE OR INCORRECT SHOP DRAWINGS.

U. SHOP DRAWINGS THAT ARE NOT SPECIFICALLY REQUIRED BY THE GENERAL NOTES OR SPECIFICATIONS WILL NOT BE REVIEWED OR RETURNED.

V. MINIMUM SHOP DRAWING SUBMITTAL REQUIREMENTS INCLUDE:

- CONCRETE MIX DESIGNS FOR EACH CLASS OF CONCRETE WITH TEST DATA
- CONCRETE ACCESSORIES (VAPOR RETARDER, REINFORCING SUPPORT CHAIRS, VOID FORMS, ETC.)
- CONCRETE REINFORCING SHOP DRAWINGS
- STRUCTURAL STEEL SHOP DRAWINGS
- STEEL STAIR, LADDER AND HANDRAIL SHOP DRAWINGS (SEALED BY A LICENSED ENGINEER)
- STEEL JOIST SHOP DRAWINGS
- STEEL DECK SHOP DRAWINGS
- CMU GROUT, CMU UNITS MORTAR AND ACCESSORIES SHOP DRAWINGS
- COLD-FORMED METAL STUDS AND CONNECTION SHOP DRAWINGS AND CALCULATIONS (SEALED BY LICENSED ENGINEER)
- GLAZED ALUMINUM FRAMING SYSTEMS SHOP DRAWINGS AND CALCULATIONS (SEALED BY LICENSED ENGINEER)
- PRE-FABRICATED CANOPY FRAMING SYSTEMS SHOP DRAWINGS AND CALCULATIONS (SEALED BY A LICENSED ENGINEER)

W. CRANES, CONCRETE TRUCKS AND ALL OTHER HEAVILY LOADED VEHICLES ARE NOT TO BE DRIVEN ACROSS GRADE BEAMS OR BUILDING SLABS.

X. ALL SHORING REQUIRED TO TEMPORARILY SUPPORT CONSTRUCTION LOADS DURING THE CONSTRUCTION OF THE PROJECT SHALL BE DESIGNED AND SEALED BY A LICENSED ENGINEER. ALL EXISTING STRUCTURES AND NEW STRUCTURES SUPPORTING SHORING LOADS SHALL ALSO BE ANALYZED TO DETERMINE IF THEY ARE CAPABLE OF SUPPORTING THE REQUIRED LOADS AND SHALL BE REVIEWED BY A LICENSED ENGINEER. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.

Y. ERECTION OF STRUCTURAL STEEL MAY NOT BEGIN UNTIL CONCRETE FOUNDATION HAS CURED FOR A MINIMUM OF THREE DAYS. STRUCTURAL STEEL OR OTHER HEAVY LOADS SHALL NOT BE STOCKPILED ON ANY SLAB UNTIL IT HAS CURED FOR A MINIMUM OF THREE DAYS.

Z. NON-CONFORMING WORK, REMEDIAL REPAIRS, AND FIELD MODIFICATIONS — ALL NON CONFORMING WORK AND ASSOCIATED REMEDIAL REPAIRS OR FIELD MODIFICATIONS, INCLUDING ENGINEERING, QUALITY REVIEW AND DRAFTING OF ANY NEW DETAILS OR DOCUMENT REVISIONS, SUBMITTED AS A REQUEST FOR INFORMATION (RFI) AND DEEMED TO REQUIRE ADDITIONAL ENGINEERING OR DRAFTING SERVICES MAY BE BILLED AS AN ADDITIONAL SERVICE AT THE CONTRACTORS EXPENSE AT THE SOLE DISCRETION OF THE SER. THE SER MAY WITHHOLD FUTURE SERVICES UNTIL PAYMENT IS RECEIVED.

AA. NOTE THAT THE GROUND FLOOR SLAB IS A GROUND SUPPORTED SLAB AT GRADE AS PER THE DESIGN RECOMMENDED IN THE GEOTECHNICAL REPORT. IT IS NOT A STRUCTURAL SLAB AND AS SUCH IT IS NOT DESIGNED FOR ANY EXTERNAL UPWARD OR DOWNWARD LOADS, IT IS INTENDED TO BE ENTIRELY SUPPORTED BY THE PREPARED GROUND UNDER THE SLAB. THE CONTRACTOR SHOULD NOTE THAT THE PERFORMANCE OF THE SLAB AS DESIGNED AND INTENDED BY THE GEOTECHNICAL ENGINEER IS HIGHLY DEPENDENT ON HOW WELL THE CONTRACTOR FOLLOWS THE SITE PREPARATION INSTRUCTIONS IN THE GEOTECHNICAL REPORT. THE ARCHITECT SHALL ADVISE THE OWNER THAT THE PERFORMANCE OF THE SLAB INVOLVES SOME RISK, AND THAT SLAB ON GRADE MAY EXPERIENCE VERTICAL MOVEMENTS OF +/-1/2 INCHES OR MORE DEPENDING ON CLIMATIC FACTORS AND DEPENDENT ON ENVIRONMENTAL CONDITIONS OVER WHICH THE OWNER HAS CONTROL OF AFTER OCCUPANCY OF THE BUILDING. FURTHERMORE, A SLAB ON GRADE CAN EXPERIENCE VERTICAL MOVEMENT BASED ON CHANGES IN THE MOISTURE CONTENT OF THE UNDERLYING SOILS AND THAT STRUCTURAL SLABS WOULD LIMIT THIS RISK AT A GREATER UP-FRONT COST TO THE PROJECT. THE ARCHITECT, CONTRACTOR AND THE OWNER SHOULD CONSULT WITH THE GEOTECHNICAL ENGINEER IF THERE ARE ANY QUESTIONS CONCERNING CONSTRUCTION, PERFORMANCE AND RISKS INVOLVED WITH GROUND SUPPORTED SLAB AT GRADE CONSTRUCTION.

DESIGN CRITERIA:

BUILDING CODE: INTERNATIONAL BUILDING CODE, 2021 EDITION, ASCE 7-22

LIVE LOAD:

ROOF:	20 PSF
FLOORS:	
CLASSROOMS	40 PSF + 15 PSF PARTITION
CORRIDORS	100 PSF (80 PSF ABOVE THE FIRST LEVEL)
STORAGE	125 PSF (LIGHT)
OFFICE	50 PSF + 15 PSF PARTITION
MECHANICAL	150 PSF
BALCONIES	100 PSF
STAIRS AND EXITS	100 PSF + 300 LBS. CONCENTRATED LOAD AT TREAD MIDSPAN ON 2"x2" AREA
HANDRAILS & GUARDRAILS	200 LBS. ANY DIRECTION OR 50 PLF
FIXED LADDERS	300 LBS. CONCENTRATED LOAD ON RUNG EVERY 10'-0" OC
ARCHITECTURAL BARRIER ACT	
GRAB BAR	250 LBS. ANY DIRECTION
TUB OR SHOWER SEAT	250 LBS. ANY DIRECTION
FASTENERS & MOUNTING DEVICES	250 LBS. ANY DIRECTION

WIND LOAD:

VELOCITY (BASIC)	141 MPH	THREE SECOND GUST (BASIC) ASCE 7-22
EXPOSURE	B	
RISK CATEGORY	III	
INTERNAL PRESSURE COEFFICIENT, G_{CPI}	+/- 0.18	

MAIN WIND FORCE RESISTING SYSTEM (MWFRS):	
MAXIMUM HORIZONTAL INTERIOR PRESSURE	25 PSF
MAXIMUM HORIZONTAL EXTERIOR PRESSURE	37 PSF
MAXIMUM GROSS UPLIFT INTERIOR ZONE	31 PSF
MAXIMUM GROSS UPLIFT EXTERIOR ZONE	44 PSF
CORNER ZONE WIDTH	24 '- 0" FROM EACH CORNER

COMPONENTS AND CLADDING — GROSS ROOF UPLIFT IN PSF		
ZONE	EFFECTIVE WIND AREA (SQUARE FEET)	
	20	100
ZONE 1'	32	32
ZONE 1	52	44
ZONE 2	69	58
ZONE 3	91	69
RELIABLE DEAD LOAD	5 PSF	
SEE FIGURE FOR ZONE LAYOUT		

COMPONENTS AND CLADDING — WALLS IN PSF		
ZONE	EFFECTIVE WIND AREA (SQUARE FEET)	
	50	200
INTERIOR ZONE/ZONE 4	32	29
EXTERIOR (CORNER) ZONE/ZONE 5	36	31
CORNER ZONE WIDTH	12 '- 0" FROM EACH CORNER	

ALLOWABLE SOIL BEARING CAPACITY:
(AT 3'—0" BELOW FINISHED GRADE)

TOTAL LOAD	3000 PSF
DEAD LOAD	2000 PSF

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

ASCE Hazards Report

Address: 816 Cimarron St Houston, Texas 77015

Standard: ASCE/SEI 7-22
Risk Category: III
Soil Class: Default

Latitude: 29.780653
Longitude: -95.1928
Elevation: 0 ft (NAVD 88)





Wind

Results:

Wind Speed	141 Vmph
10-year MRI	77 Vmph
25-year MRI	92 Vmph
50-year MRI	105 Vmph
100-year MRI	115 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	156 Vmph
100,000-year MRI	172 Vmph
1,000,000-year MRI	183 Vmph

Data Source: ASCE/SEI 7-22, Fig. 26.5-1C and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Mon Aug 18 2025

EARTHWORK

1. SITE PREPARATION FOR THE BUILDING PAD SHALL CONSIST OF THE REMOVAL OF EXISTING PAVEMENT, VEGETATION, ORGANIC MATTER AND ANY ADDITIONAL MATERIAL AS NECESSARY TO PROVIDE THE REQUIRED AMOUNT OF FILL UNDER THE BUILDING.
2. THE SUBGRADE SHALL BE PROOFROLLED WITH A HEAVY, RUBBER-TIRED VEHICLE (STATIC WEIGHT OF AT LEAST 20 TONS AND WITH TIRE PRESSURES OF AT LEAST 90 PSI). THE CONTRACTOR SHALL MAKE AT LEAST TWO COMPLETE PASSES OVER THE AREA WITH THE SECOND PASS PERPENDICULAR TO THE FIRST PASS. AREAS OF THE SUBGRADE THAT ARE OBSERVED TO BE SOFT OR WEAK SHALL BE OVEREXCAVATED AND REPLACED WITH PROPERLY COMPACTED SELECT FILL.
3. SUBGRADE SHALL THEN BE SCARIFIED AND MOISTURE CONDITIONED TO MATCH THE BUILDING PAD PERIMETER TO A SIX (6) INCH DEPTH AND THEN RECOMPACTED TO BETWEEN 95 AND 100 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR DENSITY TEST (ASTM D698). THE MOISTURE CONTENT SHALL BE BETWEEN -2 AND +2 PERCENT OF THE OPTIMUM MOISTURE CONTENT. PROVIDE A MINIMUM OF FOUR (4) FIELD DENSITY TESTS ON THE SUBGRADE OR ONE (1) FOR EVERY 2,500 SQUARE FEET WHICHEVER IS GREATER.
4. SELECT FILL MATERIAL FOR THE BUILDING PAD SHALL BE AN INORGANIC SANDY CLAY WITH A LIQUID LIMIT BETWEEN 26 AND 40 AND A PLASTICITY INDEX BETWEEN 12 AND 20. STRUCTURAL SELECT FILL PAD MATERIAL SHALL BE TESTED FOR ACCEPTABILITY AND A MOISTURE DENSITY CURVE SHALL BE ESTABLISHED.
5. SELECT FILL SHALL BE PLACED IN EIGHT INCH LOOSE LIFTS AND COMPACTED TO BETWEEN 95 AND 100 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR DENSITY TEST (ASTM D698). THE MOISTURE CONTENT SHALL BE BETWEEN OPTIMUM AND +3 PERCENT OF THE OPTIMUM MOISTURE CONTENT FOR SELECT FILL. SELECT FILL MATERIAL SHALL EXTEND TO 5'-0" BEYOND THE BUILDING PERIMETER. PROVIDE A MINIMUM OF FOUR (4) FIELD DENSITY TESTS ON EACH LIFT OF SELECT FILL OR ONE (1) FOR EVERY 2,500 SQUARE FEET WHICHEVER IS GREATER.
6. SELECT FILL MATERIAL SHALL BE TESTED DURING PLACEMENT OF EACH LIFT FOR THE ATTERBERG LIMITS IN ACCORDANCE WITH ASTM D4318-98 METHOD B "STANDARD TEST METHOD FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS" TO VERIFY THAT THE SELECT FILL MATERIAL IS IN ACCORDANCE WITH THE ORIGINALLY APPROVED SELECT FILL MATERIAL. PROVIDE A MINIMUM OF ONE (1) TEST PER LIFT OR ONE (1) FOR EVERY 2,500 SQUARE FEET WHICHEVER IS GREATER WITH A MAXIMUM OF TEN (10) PER LIFT.
7. CONTRACTOR SHALL MAINTAIN A CLEAN EXCAVATION THAT IS FREE OF WATER 100% OF THE TIME. CONTRACTOR SHALL PROVIDE PUMPS AS REQUIRED TO REMOVE ANY WATER AT ALL TIMES.
8. THE SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING PAD DURING BUILDING PAD INSTALLATION AND WHEN THE BUILDING PAD AND BUILDING ARE COMPLETED.
9. PLUMBING AND UTILITY TRENCHES WITHIN THE BUILDING PAD SHALL HAVE PIPING BEDDED ON 6" MINIMUM OF CEMENT STABILIZED SAND WITH 4" MINIMUM ALL AROUND. BACKFILL IN UTILITY TRENCHES SHALL CONSIST OF COMPACTED SELECT FILL. PROVIDE A 2'-0" WIDE BENTONITE CLAY PLUG OR FAT CLAY (PI>50) FOR THE FULL DEPTH AND WIDTH OF THE UTILITY TRENCH TO A MINIMUM OF 1'-0" ABOVE THE BOTTOM OF THE FOUNDATION AT THE EXTERIOR FACE OF BUILDING FOUNDATIONS WHERE UTILITY TRENCHES ENTER THE BUILDING.
10. PROVIDE A MINIMUM TWELVE (12) INCH FAT CLAY CAP (PI>50) FOR A MINIMUM OF 5'-0" AROUND THE PERIMETER OF THE BUILDING. THE CAP SHALL EXTEND AS REQUIRED TO COVER THE LIMITS OF THE BUILDING PAD EXCAVATION AND SELECT FILL BUILDING PAD MATERIALS.

SITE DRAINAGE

1. GRADE THE SITE TO PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AND SLABS. WATER SHALL NOT BE ALLOWED TO POND ADJACENT TO THE BUILDING FOUNDATIONS OR SLABS.
2. AS A MINIMUM REQUIREMENT, ALL DOWNSPOUTS FROM ROOF DRAINS AND GUTTERS SHALL BE COLLECTED AND PIPED AWAY FROM THE BUILDING. WHEN WATER IS NOT PIPED AWAY FROM THE BUILDING DOWNSPOUTS SHALL DUMP ONTO A CAST IN PLACE 4" THICK X 3'-0" WIDE CONCRETE SWALE REINFORCED WITH #4 AT 12" ON CENTER EACH WAY AND EXTENDING 10'-0" OUT FROM THE BUILDING. REFER TO ARCHITECTURAL AND CIVIL FOR PAVING AND DRAINAGE.
3. TREES AND VEGETATION SHALL NOT BE ALLOWED WITHIN A DISTANCE EQUAL TO THREE QUARTERS THEIR ULTIMATE HEIGHT AWAY FROM THE BUILDING.
4. IRRIGATE VEGETATION AND SOILS ADJACENT TO BUILDING (NO MORE THAN 15 MINUTES THREE TIMES A WEEK) ON AN AS NEEDED BASIS TO MAINTAIN UNIFORM SOIL MOISTURE CONDITIONS AROUND THE PERIMETER OF THE BUILDING FOLLOWING CONSTRUCTION.

FOUNDATIONS

1. PREPARED GRADE AREA UNDER ALL BUILDING SLABS AND GRADE BEAMS SHALL BE COVERED WITH A 15 MIL WATER VAPOR RETARDER MEETING THE REQUIREMENTS OF ASTM E 1745 (LATEST EDITION), CLASS A OR BETTER WITH MAXIMUM WATER PERMEANCE OF 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E 96. THE WATER VAPOR RETARDER SHALL BE INSTALLED, LAPPED AND TAPED WITH MANUFACTURER'S APPROVED PRODUCT IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM E 1643 (LATEST EDITION). PENETRATIONS SHALL SEALED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.
2. FOUNDATION DETAILING SHOWN ON THE DRAWINGS IS BASED ON A FOUNDATION DESIGN SPECIFIED IN THE SOIL REPORT BY GEOTECH ENGINEERING AND TESTING, INC., REPORT NO. 25-283E, DATED MAY 07, 2025. THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT SHALL NOT SUPERSEDE THE REQUIREMENTS SHOWN ON THE DESIGN DRAWINGS OR IN THE SPECIFICATIONS WHEN THE REQUIREMENTS SHOWN ON THE DRAWINGS ARE GREATER THAN THOSE SHOWN IN THE GEOTECHNICAL REPORT. THE CONTRACTOR IS REQUIRED TO SECURE A COPY OF THE GEOTECHNICAL REPORT FROM THE OWNER AND TO HAVE A COPY ON THE JOB SITE AT ALL TIMES FOR HIS USE AND REFERENCE.
3. FOUNDATION DETAILING SHOWN ON THE DRAWINGS IS BASED ON A MINIMUM OF FIVE (5) FEET (60 INCHES) OF SELECT FILL MATERIAL BENEATH THE FLOOR SLAB AND SHALL EXTEND TO 5'-0" BEYOND THE BUILDING PERIMETER.
4. ALL BACKFILL FOR BURIED PIPES AND CONDUIT WITHIN THE BUILDING PAD AND EXTENDING OUT MINIMUM 5'-0" BEYOND THE BUILDING SHALL BE BACKFILLED WITH SELECT FILL BACKFILL. DO NOT USE SAND BACKFILL. A 2'-0" WIDE BENTONITE PLUG SHALL BE PROVIDED IN ALL UTILITY TRENCHES AT THE FACE OF THE BUILDING FOUNDATION. SEE DETAIL 17/S0.02 FOR DETAIL AT PIPE BUILDING ENTRY.
5. CONDUITS SHALL NOT BE PLACED IN THE CONCRETE SLAB. CONDUITS SHALL BE PLACED IN THE SELECT FILL MATERIAL BENEATH THE VAPOR RETARDER. ALL PENETRATIONS OF THE VAPOR RETARDER SHALL BE SEALED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS. CONDUIT TRENCHES WITHIN THE BUILDING PAD SHALL BE LIMITED TO A MAXIMUM WIDTH OF TWO FEET AND BE SPACED NO CLOSER THAN FOUR FEET CENTER TO CENTER. CONDUITS STACKED WITHIN A SINGLE TRENCH SHALL BE SEPARATED VERTICALLY BY TWO TIMES THE DIAMETER OF THE LARGEST CONDUIT OR 12 INCHES MINIMUM. COMPACTED SELECT FILL OR OTHER APPROPRIATE COMPACTED FILL MATERIAL SHALL BE USED BETWEEN STACKED CONDUITS.
6. THE FLOOR SLAB SUBGRADE SHALL BE PROPERLY COMPACTED, PROOF ROLLED AND SHALL BE FREE OF STANDING WATER, MUD AND FROZEN SOILS.
7. SLABS ON GROUND SHALL HAVE CONSTRUCTION JOINTS OR CRACK CONTROL JOINTS (REFER TO TYPICAL DETAILS) AT EACH COLUMN LINE AND IN EACH DIRECTION. ADDITIONAL CRACK CONTROL JOINTS SHALL BE PROVIDED SUCH THAT NO AREA BOUNDED BY CONSTRUCTION AND/OR CRACK CONTROL JOINTS CONTAINS MORE THAN 250 SQUARE FEET AND THE RESULTING ASPECT RATIO OF LONG SIDE TO SHORT SIDE DIMENSIONS OF THE BOUNDED SLAB AREA DOES NOT EXCEED 1.5 TO 1. CRACK CONTROL JOINTS SHALL BE MADE USING A "SOFT-CUT" CONCRETE SAW AS SOON AS THE SLAB WILL SUPPORT THE WEIGHT OF THE SAW AND OPERATOR WITHOUT DISTURBING THE FINAL FINISH. THIS SHOULD BE WITHIN THE FIRST SIX HOURS AFTER PLACEMENT. THE CRACK CONTROL JOINTS SHALL BE CUT A MAXIMUM WIDTH OF 1/8 INCH AND A MINIMUM DEPTH OF 1/3 THE SLAB THICKNESS. REFER TO THE TYPICAL DETAILS AND DRAWINGS FOR INFORMATION ON CONTROL JOINTS, CONSTRUCTION JOINTS, REINFORCING DETAILS, JOINT SEALANT, AND TYPICAL JOINT LAYOUT.
8. WHERE SLABS ARE TO RECEIVE SENSITIVE ARCHITECTURAL FLOOR FINISHES, ALL JOINTS IN THE SLAB CONSTRUCTION SHALL BE PLACED TO ALIGN WITH JOINTS IN THE FLOOR FINISHES.
9. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SHORING OF WALLS WHICH ARE ULTIMATELY SUPPORTED TOP AND BOTTOM. SUCH SHORING SHALL NOT BE REMOVED UNTI

CONCRETE

1. *ALL CONCRETE REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, EXCEPT WHERE NOTED. NO. 10 THROUGH NO. 18 BARS SHALL CONFORM TO ASTM A615, GRADE 75. DEFORMED BAR ANCHORS SHALL CONFORM TO ASTM A496, GR 70. ALL BARS SHALL BE NEW OR RECYCLED DOMESTIC BILLET STEEL OF A DOMESTIC MANUFACTURER.*

2. *CONCRETE IN THE FOLLOWING AREAS SHALL HAVE SAND AND CRUSHED CARBONATE AGGREGATE CONFORMING TO ASTM C33, FOR NORMAL WEIGHT CONCRETE AND LIGHT WEIGHT AGGREGATES CONFORMING TO ASTM C330, TYPE I PORTLAND CEMENT CONFORMING TO ASTM C150, AND THE FOLLOWING DESIGNATED COMPRESSIVE STRENGTH (f'c) IN 28 DAYS:*

CONCRETE USE OR CLASS	MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c)	MAXIMUM WATER CEMENT RATIO	SLUMP (INCHES)
FOOTINGS	3000 PSI	0.50	5 TO 8
SLABS ON GROUND SEE NOTE 4	4000 PSI	0.45	4 TO 6
ALL OTHER CONCRETE	3000 PSI	0.50	4 TO 6
ELEVATED SLABS ON METAL DECK (3/4" MAX. AGGREGATE SIZE)	4000 PSI	0.45	3 TO 5
SLUMP SHALL BE MEASURED FROM SAMPLES TAKEN AT THE POINT OF DISCHARGE UNLESS AGREED TO IN WRITING PRIOR TO CONCRETE PLACEMENT			

NOTE: CONCRETE SUPPLIER SHALL BE AWARE OF CEMENTS THAT CAN CAUSE LATE ETTRINGITE FORMATION IN THE CEMENT PASTE AND BE PREPARED TO SHOW THAT THE CEMENTS USED WILL NOT CAUSE THIS PROBLEM.

3. *FLY ASH MAY BE USED AS A POZZOLAN TO REPLACE A PORTION OF THE PORTLAND CEMENT IN A CONCRETE MIXTURE, SUBJECT TO THE APPROVAL OF THE ARCHITECT AND SER. FLY ASH, WHEN USED, SHALL CONFORM TO ASTM C618 TYPE 'C'. CONCRETE MIXTURES CONTAINING FLY ASH SHALL BE PROPORTIONED TO ACCOUNT FOR THE PROPERTIES OF THE SPECIFIC FLY ASH AND TO ACCOUNT FOR THE SPECIFIC PROPERTIES OF THE FLY ASH CONCRETE THUS RESULTING, INCLUDING BUT NOT LIMITED TO WATER CEMENT RATION AND MINIMUM 28 DAY COMPRESSIVE STRENGTH. THE RATIO OF THE AMOUNT BY VOLUME OF FLY ASH TO THE TOTAL AMOUNT BY VOLUME OF CEMENTITIOUS MATERIAL (INCLUDING THE FLY ASH) SHALL NOT EXCEED 25 PERCENT.*

4. *FLY ASH IS NOT PERMITTED IN SLABS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND SER.*

5. *AIR ENTRAINMENT IS REQUIRED ONLY IN HARD ROCK CONCRETE PERMANENTLY EXPOSED TO WEATHER CONDITIONS. WHERE LIGHTWEIGHT CONCRETE IS SPECIFIED, AIR ENTRAINMENT IS REQUIRED FOR ALL EXPOSURE CONDITIONS. PERCENT AIR ENTRAINMENT LISTED IS PLUS/MINUS 1.5%. DO NOT AIR-ENTRAIN INTERIOR FLOOR SLABS THAT RECEIVE HARD TROWEL FINISH.*

6. *ALL WELDED WIRE FABRIC SHALL BE SMOOTH ROUND WIRE IN FLAT SHEETS AND SHALL CONFORM TO ASTM A185.*

7. *CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE AS FOLLOWS; SEE SEC. 7.7 ACI 318, LATEST EDITION FOR CONDITIONS NOT NOTED. PROVIDE CHAIR SUPPORTS (AZTEC CASTLE CHAIR, DOM CRADLE CHAIRS, WIC SERIES 'E' OR EQUAL) OF SUFFICIENT STRENGTH TO SUPPORT BARS FOR PROPER CLEARANCE AS RECOMMENDED BY THE AMERICAN CONCRETE INSTITUTE AND THE CONCRETE REINFORCING STEEL INSTITUTE. SLAB ON GRADE REINFORCEMENT SHALL BE SUPPORTED AT 48-INCH MAXIMUM INTERVALS OR EVERY THIRD BAR. UTILITY OR CONCRETE BRICKS ARE NOT ALLOWED AS REINFORCING SUPPORTS.*

MINIMUM CONCRETE COVER REQUIREMENTS	
LOCATION	MINIMUM COVER
FOOTINGS	3 INCHES
GRADE BEAMS	3 INCHES BOTTOM 2 INCHES SIDES — FORMED SURFACE 3 INCHES SIDES — EARTH FORMED I — 1/2 INCHES TOP
SLAB ON GROUND	1 INCH TOP

8. *NO HORIZONTAL JOINTS WILL BE PERMITTED IN CONCRETE EXCEPT WHERE THEY NORMALLY OCCUR OR WHERE NOTED. NO JOINTS BETWEEN PILASTERS OR GRADE BEAMS THAT ARE MEANT TO BE MONOLITHIC. VERTICAL JOINTS SHALL OCCUR AT CENTER SPANS OR AT LOCATIONS APPROVED BY THE STRUCTURAL ENGINEER.*

9. *CONSTRUCTION JOINTS BETWEEN PIERS AND PIER CAPS OR GRADE BEAMS, FOOTINGS AND WALLS OR COLUMNS, OR WALLS, COLUMNS, BEAMS AND THE FLOOR SYSTEM THEY SHALL SUPPORT SHALL BE PREPARED BY ROUGHENING THE CONTACT SURFACE TO A FULL AMPLITUDE ON I/4" LEAVING THE CONTACT SURFACE CLEAN AND FREE OF ALL LAITANCE.*

10. *DETAILING OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI PUBLICATION 315, LATEST EDITION "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" AND ACI SP -66 "DETAILING MANUAL." PLACING OF REINFORCING BARS SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315R "MANUAL OF ENGINEERING AND PLACING DRAWINGS FOR REINFORCED CONCRETE STRUCTURES" AND CRSI "MANUAL OF STANDARD PRACTICE". ALL HOOKED BARS SHOWN IN THE DETAILS SHALL HAVE STANDARD HOOKS UNLESS NOTED OTHERWISE.*

11. *REINFORCING BARS SHALL NOT BE WELDED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER. REINFORCING STEEL THAT REQUIRES WELDING SHALL CONFORM TO ASTM A706, WITH GRADES AS SHOWN ABOVE.*

12. *UNLESS BARS ARE SPECIFICALLY SHOWN IN THE BAR BENDING DIAGRAMS ON THE SCHEDULES, PROVIDE BARS AS FOLLOWS:*

    A) *PROVIDE STANDARD 90 DEGREE HOOK ON TOP BARS AT CANTILEVER ENDS.*

    B) *SPLICE BOTTOM BARS DIRECTLY OVER MEMBER SUPPORTS, UNLESS NOTED OTHERWISE.*

    C) *SPLICE TOP AND INTERMEDIATE BARS AT THE CENTER LINE BETWEEN MEMBER SUPPORTS, UNLESS NOTED OTHERWISE.*

    D) *SPLICE VERTICAL BARS IN WALLS ONLY AT FLOOR LINES, UNLESS NOTED OTHERWISE. HORIZONTAL BARS SHALL BE SPLICED AS SPECIFIED FOR TOP, BOTTOM, AND INTERMEDIATE BARS OF BEAMS.*

    E) *CENTER BARS NOTED AS "AT SUPT'S." OVER MEMBER SUPPORTS, AND CENTER BARS NOTES AS "BTWN. SUPT'S," BETWEEN SUPPORTS.*

    F) *PLACE BARS NOTED AS "2ND LAYER" BELOW THE PRIMARY TOP BARS (OR ABOVE THE PRIMARY BOTTOM BARS) AND PROVIDE #II SPACER BARS PLACED AT INTERVALS OF 4'-0" BETWEEN THE TWO LAYERS OF BARS.*

    G) *SPLICE VERTICAL BARS IN COLUMNS ONLY AT FLOOR LINES, UNLESS NOTED OTHERWISE. COLUMN BAR SPLICES SHALL BE AS SHOWN IN THE COLUMN SCHEDULE.*

    H) *PROVIDE CORNER BARS FOR EACH HORIZONTAL BAR AT THE INSIDE AND OUTSIDE FACES OF INTERSECTING BEAMS OR WALLS. REFER TO CORNER BAR DETAILS IN THE TYPICAL DETAILS.*

    I) *REFER TO THE COLUMN REINFORCING DIAGRAMS FOR ADDITIONAL TIES ABOVE AND BELOW THE FLOOR FRAMING MEMBERS.*

13. *BARS SHOWN IN THE SCHEDULE TO HOOK AT DISCONTINUOUS ENDS SHALL HAVE THE HOOK PLACED HORIZONTALLY AT EXTERIOR CORNERS.*

14. *PROVIDE NO. 3 DOWELS X 2'-0" AT I'-6" ON CENTER, WITH A 90 DEGREE HOOK AT ALL EDGES OF CONCRETE SLABS, UNLESS DETAILED OTHERWISE.*

15. *PROVIDE FOUNDATION DOWELS TO MATCH MASONRY WALL REINFORCEMENT. DOWELS SHALL EXTEND INTO THE CONCRETE AND CMU PER THE LAP SCHEDULES.*

16. *ALL CONTINUOUS REINFORCEMENT SHALL LAP 40 BAR DIAMETERS AT SPLICES. PROVIDE (1) NO. 6 x 6'-0" TOP AND BOTTOM (TWO 36" LEGS WITH 90 DEGREE BEND) AT EACH FACE OF GRADE BEAMS AT CORNERS AND INTERSECTIONS, AND AT 18" ON CENTER VERTICALLY AT WALLS.*

17. *PROVIDE (1) NO. 4 BAR x 4'-0" FOR ELEVATED SLABS AND (2) NO. 5 BARS x 4'-0" FOR SLAB ON GROUND AT ALL RE-ENTRANT CORNERS. PROVIDE (1) NO. 4 BAR x 4'-0" AROUND ALL RECTANGULAR OPENINGS OR COLUMN BLOCK OUTS UNLESS NOTED OTHERWISE. FOR ELEVATED SLABS, PLACE THE DIAGONAL BARS WITH 1 INCH OF CLEARANCE FROM TOP AND THE SIDES OF THE SLAB AT THE CORNERS. FOR SLAB ON GRADE, PLACE THE BARS AT MID DEPTH OR BELOW THE REINFORCING MAT AND 3 INCHES CLEAR FROM THE CORNER.*

18. *CONDUITS ARE NOT ALLOWED IN SLABS, BEAMS, WALLS OR COLUMNS. ALL CONDUITS SHALL BE SUSPENDED FROM OR ATTACHED TO THE CONCRETE STRUCTURE.*

19. *PROVIDE SLEEVES, MECHANICAL OPENINGS, CONDUITS, PIPES, RECESSES, DEPRESSIONS, CURBS AND ALL EMBEDDED ITEMS AS SHOWN ON THE ARCHITECTURAL AND MECHANICAL DRAWINGS OR AS REQUIRED BY EQUIPMENT MANUFACTURERS. CONCRETE BETWEEN SLEEVES SHALL BE 6". SHOP DRAWINGS SHALL CLEARLY INDICATE THE INSTALLATION OF THESE ITEMS. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED TO 3/4"x3/4" MINIMUM UNLESS NOTED OTHERWISE. DO NOT PROVIDE CHAMFERS AT INSIDE FACE OF OVERHEAD DOORS OR AT STOREFRONT OPENINGS.*

20. *BESIDES FOLLOWING ARTICLE 6.3 OF ACI 318 FOR EMBEDDED ITEMS FOLLOWING REQUIREMENTS SHALL BE MET:*

    A) *THE MINIMUM CLEAR DISTANCE BETWEEN CONDUITS AND PIPES SHALL BE 6".*

    B) *NONE PERMITTED IN COLUMNS WITHOUT PRIOR APPROVAL*

21. *ALL CONSTRUCTION JOINTS IN BEAMS AND WALLS SHALL BE PROVIDED WITH SHEAR KEYS AS SHOWN IN THE DETAILS.*

22. *SLEEVES PASSING HORIZONTALLY THROUGH GRADE BEAMS:*

    A) *LOCATE AT MIDDLE THIRD OF BEAM SPAN - MINIMUM 6" AWAY FROM AN INTERIOR MEMBER.*

    B) *LOCATE AT MIDDLE THIRD OF BEAM DEPTH.*

    C) *MAXIMUM DIAMETER OF SLEEVE TO BE ONE THIRD OF BEAM DEPTH OR 8" (WHICHEVER IS LESS).*

    D) *SPACING TO BE AT LEAST THREE SLEEVE DIAMETERS OR 6" (WHICHEVER IS GREATER).*

    E) *ADD ONE ADDITIONAL SCHEDULED STIRRUP ON EITHER SIDE OF THE SLEEVE. ADD (2) #5 x 5'-0" TOP AND BOTTOM CENTERED AT SLEEVE.*

    F) *NO SLEEVES LONGITUDINALLY IN BEAMS. PASS SLEEVES ONLY AT RIGHT ANGLES TO BEAMS.*

23. *ALL MIXING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE, ACI 301, LATEST EDITION.*

24. *ALL CONCRETE SHALL BE CONSOLIDATED WITH A CONCRETE VIBRATOR AS PER THE REQUIREMENTS OF ACI 318 AND ACI 308R, LATEST EDITION.*

25. *HOT WEATHER CONCRETING SHALL CONFORM TO ACI 305 AND COLD WEATHER CONCRETING SHALL CONFORM TO ACI 306.*

26. *ALL BASE PLATES AND ANCHOR RODS SHALL BE PROTECTED WITH 3" (MIN.) OF CONCRETE. ANCHOR RODS SHALL BE FABRICATED FROM FULL BODIED STEEL RODS CONFORMING TO ASTM F1554 GR 36, WASHERS CONFORMING TO ASTM F844 AND NUTS CONFORMING TO ASTM A194 OR A563 AND HAVING THE SAME DIAMETER AS THE BOLT DIAMETER. BOLTS SHALL BE SET USING RIGID TEMPLATES.*

27. *HIGH DENSITY STYROFOAM SHALL BE PANELIZED POLYSTYRENE RIGID FORM INSULATION WITH MINIMUM COMPRESSIVE STRENGTH OF 40 PSI (EPS19) PER ASTM D6817, THICKNESS SHALL BE AS INDICATED IN DETAILS AND DRAWINGS. AVAILABLE MANUFACTURERS INCLUDE: U.C. INDUSTRIES, INC, DOW CHEMICAL COMPANY, AND AMOCO PRODUCTS COMPANY.*

POST INSTALLED ANCHORS

ANCHOR MATERIALS

1. *MECHANICAL ANCHORS SHALL BE TESTED AND ASSESSED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ACI 355.2 QUALIFICATION OF POST-INSTALLED MECHANICAL ANCHORS IN CONCRETE AND COMMENTARY. ACCEPTABLE MECHANICAL ANCHORS ARE AS FOLLOWS:*

EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT TZ2

ANCHOR DIAMETER R	MINIMUM EMBEDMENT
1/2 INCH	3-1/4"
5/8 INCH	4"
3/4 INCH	4-3/4"

2. *ADHESIVE ANCHOR SYSTEMS SHALL BE TESTED AND ASSESSED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ACI 355.4 QUALIFICATION OF POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE (355.4) AND COMMENTARY. ACCEPTABLE ADHESIVE ANCHORS ARE AS FOLLOWS:*

CHEMICAL ADHESIVE ANCHORS FOR CONCRETE SHALL BE HILTI HIT-HY 100 SYSTEM

ANCHOR DIAMETER OR BAR SIZE	MINIMUM EMBEDMENT
NO. 3 BAR	4"
1/2 INCH OR NO. 4 BAR	4-1/2"
5/8 INCH OR NO. 5 BAR	6"
3/4 INCH OR NO. 6 BAR	7"
7/8 INCH OR NO. 7 BAR	8"

CHEMICAL ADHESIVE ANCHORS FOR MASONRY SHALL BE HILTI HIT-HY 100 SYSTEM

ANCHOR DIAMETER OR BAR SIZE	MINIMUM EMBEDMENT
NO. 3 BAR	4"
1/2 INCH OR NO. 4 BAR	4-1/2"
5/8 INCH OR NO. 5 BAR	5-3/4"
3/4 INCH OR NO. 6 BAR	6-3/4"

3. *AN APPROVED EQUAL TESTED AND ASSESSED IN ACCORDANCE WITH ACI 355.4 AND PROVIDING THE MINIMUM BOND STRESS VALUES BELOW MAY BE SPECIFIED CONDITIONS. BULK-MIXED (E.G., BUCKET-MIXED) ADHESIVES ARE NOT PERMITTED.*

4. *ADHESIVE ANCHORS SELECTED FROM PARAGRAPH ABOVE SHALL BE SUPPLIED AS AN ENTIRE SYSTEM. THE SYSTEM SHALL INCLUDE, BUT IS NOT LIMITED TO, MANUFACTURERS PRINTED INSTALLATION INSTRUCTIONS (MPII) AS SUPPLIED WITH THE ADHESIVE, ADHESIVE CARTRIDGE, MIXING NOZZLE, EXTENSION TUBE, DISPENSER, AND ALL REQUIRED EQUIPMENT FOR PROPERLY CLEANING THE DRILLED HOLE.*

5. *ANCHOR DESIGN SHALL BE IN ACCORDANCE WITH CHAPTER I7 OF ACI 318 MOST RECENT EDITION. FOR ADHESIVE ANCHORS, THE FOLLOWING MINIMUM DESIGN VALUES FOR BOND STRESS WERE ASSUMED FOR THE DESIGN USING THE ABOVE ADHESIVE ANCHOR ASSEMBLIES FOR IMPACT- OR ROCK-DRILLED HOLES:*

    A) *CRACKED CONCRETE BOND STRESS: CR = 2500 PSI*

    B) *UNCRACKED CONCRETE BOND STRESS: UNCR = 3000 PSI*

6. *ALL-THREADED ROD (EYEBOLTS, THREADED STUDS, INTERNAL THREADED PARTS) TO BE USED IN ADHESIVE ANCHOR ASSEMBLIES SHALL CONFORM TO ASTM A36, AI93 (GRADE B7), A307, B348 (BD), F1554 OR OTHER APPROVED ANCHOR ASSEMBLY TYPES. (STAINLESS STEEL ANCHOR RODS SHALL BE AISI TYPE 304 OR TYPE 316.) THREADS SHALL BE UNC COARSE THREADS, UNLESS NOTED OTHER-WISE.*

7. *COMPATIBLE NUTS AND WASHERS SHALL BE FURNISHED WITH THE ALL-THREAD ROD AND CONSIDERED PART OF THE ASSEMBLY. THE COST OF THE HARDWARE SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLED ADHESIVE ANCHOR ASSEMBLY.*

8. *NUTS, WASHERS, AND OTHER HARDWARE USED WITH AN ALL-THREADED BAR ADHESIVE ANCHOR SYSTEM OR WITH A MECHANICAL EXPANSION ANCHOR SHALL HAVE A MATERIAL OR AN ALLOY DESIGNATION THAT IS COMPATIBLE WITH THE ANCHOR ROD/ALLOY. GALVANIZED ASSEMBLIES SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. ELECTROPLATE GALVANIZING IS NOT ACCEPTABLE. DISSIMILAR METAL ASSEMBLIES SHALL BE SEPARATED BY NYLON, EPDM, OR OTHER APPROVED NON-METALLIC WASHERS.*

9. *REINFORCING BARS TO BE USED IN ADHESIVE ANCHOR ASSEMBLIES (E.G., AS ANCHOR REINFORCEMENT) OR AS POST-INSTALLED REINFORCING SHALL CONFORM TO ASTM A615, A706, A995, OR AI035.*

GENERAL INSTALLATION GUIDELINES

1. *CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 2,500 PSI AT THE TIME OF ADHESIVE ANCHOR INSTALLATION.*

2. *CONCRETE AT TIME OF ADHESIVE ANCHOR INSTALLATION SHALL HAVE A MINIMUM AGE OF 21 DAYS, FOR INSTALLATION OF ADHESIVE ANCHORS IN CONCRETE HAVING AN AGE LESS THAN 21 DAYS, TESTS SHALL BE CONDUCTED TO VERIFY THE PERFORMANCE OF THE PRODUCT IN ACCORDANCE WITH ACI 355.4.*

3. *THE CONCRETE TEMPERATURE AT THE TIME OF ADHESIVE ANCHOR INSTALLATION SHALL BE AT LEAST 50°F UNLESS TESTING HAS BEEN CONDUCTED IN ACCORDANCE WITH RECOGNIZED CRITERIA TO VERIFY PERFORMANCE IN CONCRETE AT LOWER TEMPERATURES.*

4. *EMBEDMENT DEPTH AND MINIMUM ANCHOR PROJECTION OF THE ANCHOR ELEMENT FROM THE CONCRETE SURFACE SHALL BE AS SHOWN ON THE DRAWING OR DETAIL FOR THE PARTICULAR ANCHOR OR GROUP OF ANCHORS BEING INSTALLED.*

5. *ADHESIVE CARTRIDGES SHALL BE STORED UNDER CONDITIONS IN COMPLIANCE WITH MANUFACTURER RECOMMENDATIONS REGARDING TEMPERATURE, EXPOSURE TO SUNLIGHT, ETC. AND EVIDENCE OF COMPLIANCE SHALL BE MADE AVAILABLE UPON REQUEST. THE USE OF EXPIRED ADHESIVE, AS INDICATED BY THE EXPIRATION DATE ON THE CARTRIDGE, IS PROHIBITED.*

INSTALLATION

1. *ADHESIVE ANCHORS SHALL BE INSTALLED BY QUALIFIED PERSONNEL TRAINED TO INSTALL ADHESIVE ANCHORS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. BOTH POST-INSTALLED EXPANSION AND ADHESIVE ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). ADHESIVE ANCHORS WITH DIAMETER GREATER THAN 3/8-INCH INSTALLED IN ORIENTATIONS FROM HORIZONTAL TO VERTICAL SHALL EMPLOY A PISTON PLUG FOR THE ADHESIVE INJECTION.*

2. *INSTALLATION OF ADHESIVE ANCHORS IN ORIENTATIONS FROM HORIZONTAL TO VERTICAL TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY THE ACI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR EQUIVALENT. THESE ANCHORS ARE DESIGNATED WITH A (CERT) AFTER THE ANCHOR CALLOUT. NOTE: SOME DOWN-HOLE INSTALLATIONS SHOWN ON DRAWINGS SUPPORT SUSTAINED TENSION LOADS AND ARE SO DESIGNATED WITH A (CERT) AFTER THE ANCHOR CALLOUT.*

3. *THE INSTALLER'S QUALIFICATIONS SHALL BE SUBMITTED AND APPROVED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.*

4. *THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT REQUIRED TO INSTALL THE EXPANSION AND/OR ADHESIVE ANCHOR INCLUDING, BUT NOT LIMITED TO, DRILLS, SETTING TOOLS, CLEAN OUT BRUSHES, BLOWOUT BULBS, OIL FREE COMPRESSED AIR, VACUUMS, WRENCHES, ETC.*

5. *UNLESS OTHERWISE SPECIFICIED, ANCHORS SHALL BE INSTALLED IN HOLES DRILLED WITH A ROTARY IMPACT HAMMER DRILL OR, WHERE NOT OTHERWISE PRESCRIBED, A ROCK DRILL. WHERE SPECIFIED AND WHERE PERMITTED BY THE MPII, HOLES MAY BE DRILLED WITH A DIAMOND CORE DRILL. IN ALL CASES, THE BIT DIAMETER SHALL BE IN ACCORDANCE WITH THE MPII.*

6. *ANCHOR HOLES SHALL BE THOROUGHLY CLEANED IN ACCORDANCE WITH THE PROCEDURES SPECIFIED IN THE MPII PRIOR TO ADHESIVE INJECTION.*

7. *DRILLED AND CLEANED ANCHOR HOLES SHALL BE PROTECTED FROM CONTAMINATION AND WATER (E.G. RAIN) UNTIL THE ADHESIVE IS INSTALLED.*

8. *A DRILLED ANCHOR HOLE SHALL BE RE-CLEANED JUST PRIOR TO ADHESIVE INJECTION IF, IN THE OPINION OF THE ENGINEER, INSPECTOR, OR ARCHITECT'S REPRESENTATIVE, THE HOLE HAS BECOME CONTAMINATED AFTER INITIAL CLEANING.*

9. *ADHESIVE SHALL BE INJECTED IN ACCORDANCE WITH THE MPII USING EQUIPMENT AND PROCEDURES AS SPECIFIED THEREIN FOR THE SPECIFIC CONDITIONS ASSOCIATED WITH THE INJECTION. THIS SHOULD BE CLEARLY SPECIFIED IN THE MPII, IF NOT, ANOTHER PRODUCT SHOULD BE SPECIFIED.*

10. *ANCHOR ELEMENTS TO BE INSTALLED IN THE ADHESIVE SHALL BE CLEAN, OIL FREE, AND FREE OF LOOSE RUST, PAINT, OR OTHER COATINGS. THREADS ON THE PROJECTING PORTION OF THE ANCHOR ELEMENT SHALL BE PROTECTED FROM ADHESIVE CONTAMINATION.*

11. *INSTALLED ADHESIVE ANCHORS SHALL BE SECURELY FIXED IN-PLACE TO PREVENT DISPLACEMENT WHILE THE ADHESIVE CURES. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, ANCHORS SHALL BE INSTALLED PERPENDICULAR TO THE CONCRETE SURFACE. ANCHORS DISPLACED BEFORE FULL ADHESIVE CURE SHALL BE CONSIDERED DAMAGED AND REPLACED AT THE CONTRACTOR'S EXPENSE.*

12. *POST-INSTALLED REINFORCING BARS OR ALL-THREADED BARS SHALL NOT BE BENT AFTER BEING INSTALLED UNLESS PERMITTED BY THE SER.*

STRUCTURAL STEEL

1. *ALL GROUT USED UNDER COLUMN BASE PLATES SHALL BE OF NON-SHRINKABLE TYPE CONFORMING TO ASTM C1090 AND THE CORPS OF ENGINEERS SPECIFICATION CRD-C-621 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 6000 PSI. IOO PERCENT OF VOID UNDER ALL BASE PLATES IS TO BE GROUTED. ALL BASE PLATES WITH A DIMENSION GREATER THAN 24" SHALL HAVE TWO I" DIAMETER GROUT HOLES. IF THE SPACE UNDER A COLUMN BASE PLATE IS LESS THAN 1/4", A PRESSURE INJECTION SYSTEM SHALL BE USED. PRE-GROUTING OF THE BASE PLATES IS NOT PERMITTED*

2. *ALL STRUCTURAL STEEL DESIGN, DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO LOAD AND RESISTANCE FACTOR DESIGN (LRFD) ACCORDING TO THE 2005 AISC SPECIFICATION.*

3. *ALL WELDING SHALL CONFORM TO THE STANDARDS OF THE THIRTEENTH EDITION OF THE MANUAL STEEL CONSTRUCTION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AND THE AMERICAN WELDING SOCIETY ANSI/AWS D1.I STRUCTURAL WELDING CODE-STEEL. WELDING OF REINFORCING BARS SHALL COMPLY TO THE AMERICAN WELDING SOCIETY AWS D1.4, SHORT CIRCUIT TRANSFER FOR THE GAS METAL ARC WELDING PROCESS IS NOT PERMITTED.*

4. *ELECTRODES FOR ALL FIELD AND SHOP WELDING SHALL BE CLASS E70XX LOW HYDROGEN. ELECTRODES FOR MOMENT CONNECTIONS SHALL BE CLASS E7018 WITH A CHARPY TOUGHNESS OF AT LEAST 20 FT-LBS AT —20 DEGREES FAHRENHEIT.*

5. *ALL STRUCTURAL STEEL ROLLED SHAPES SHALL CONFORM TO ASTM A992, AND ALL ANGLES, BARS, CHANNELS AND PLATES SHALL CONFORM TO ASTM A36. ALL SQUARE AND RECTANGULAR TUBES (Fy 50 KSI) SHALL CONFORM TO ASTM A500 GRADE C AND ROUND PIPES (Fy 50 KSI) SHALL CONFORM TO ASTM A500 GR C. ALL COLD-FORMED GIRTS AND PURLINS SHALL CONFORM TO ASTM A570M GR. 55.*

6. *ALL STRUCTURAL STEEL DETAILS AND CONNECTIONS SHALL CONFORM TO STANDARDS OF THE AISC. DOUBLE CONNECTIONS THROUGH COLUMN WEBS, BEAMS THAT FRAME OVER THE TOP OF COLUMNS, AND BEAM TO BEAM CONNECTIONS SHALL HAVE A CONTINUOUS SEAT OR A STAGGERED CONNECTION WITH AT LEAST ONE INSTALLED BOLT REMAINING IN PLACE TO SUPPORT THE FIRST BEAM WHILE THE SECOND BEAM IS BEING ERECTED.*

7. *CONNECTIONS NOT DETAILED ON THE DRAWINGS SHALL BE SELECTED FROM THE TABLES IN PART IO OF THE THIRTEENTH EDITION OF THE MANUAL OF STEEL CONSTRUCTION OF THE AISC. TABLE IO-1 SHALL BE USED FOR ALL SHEAR CONNECTIONS. TABLE IO-2 MAY BE USED FOR WELDED/BOLTED DOUBLE ANGLE CONNECTIONS. TABLE IO-3 MAY BE USED FOR ALL UNSTIFFENED SEAT ANGLE CONNECTIONS. BEAM FLANGE THICKNESS SHALL BE A MINIMUM OF 1.4x4x1/2", C7x9.8, OR HALF OF TOTAL ALLOWABLE UNIFORM LOAD GIVEN IN TABLE 3-6 THROUGH 3-9 IN PART 3 OF THE MANUAL OF STEEL CONSTRUCTION OF THE AISC. CONNECTIONS FOR COMPOSITE BEAMS SHALL HAVE THE STANDARD AISC CAPACITY INCREASED BY 35 PERCENT.*

8. *ALL MISCELLANEOUS WELDS (FIELD OR SHOP) SHALL BE MINIMUM SIZE FILLET ALL AROUND IN ACCORDANCE WITH AISC. IT IS ASSUMED TO BE THE PLATE THICKNESS OF THE THINNEST PIECE MINUS I/I6". WELDING OF CONTINUOUS MEMBERS SHALL BE A MINIMUM OF 2 INCHES OF 3/I6 INCH FILLET STITCH WELDS AT I2 INCHES O.C., STAGGERED EACH SIDE, UNLESS OTHERWISE NOTED. COLUMN BASE PLATES, CAP PLATES AND STIFFENER PLATES SHALL BE WELDED ALL AROUND.*

9. *PROVIDE COLUMN CAP PLATES AS FOLLOWS UNLESS NOTED OR DETAILED OTHERWISE:*

    A) *FOR DECK BEARING — I/4 INCH THICK FOR ALL HSS SECTIONS AND WIDE FLANGE SECTIONS WHERE BEAMS DO NOT FRAME INTO BOTH SIDES OF THE WEB*

    B) *FOR JOIST BEARING*
        1) K-SERIES JOISTS — I/2 INCH THICK
        2) LH AND DLH — 3/4 INCH THICK
        3) JOIST GIRDERS — I INCH THICK

    C) *FOR BEAM BEARING — SEE TYPICAL DETAILS OF 3/4 INCH MINIMUM UNLESS NOTED OTHERWISE*

    D) *FOR MOMENT CONNECTS — REFER TO TYPICAL MOMENT CONNECTION DETAILS*

    E) *ALWAYS PROVIDE CAP PLATES FOR SQUARE, RECTANGULAR, AND ROUND HSS COLUMNS*

10. *WEB STIFFENERS SHALL BE PROVIDED IN WIDE FLANGE SHAPES AS FOLLOWS:*

    A) *COLUMN WEBS AT FULLY DEVELOPED MOMENT CONNECTIONS — STIFFENERS SHALL BE COMPLETE PENETRATION GROOVE WELDED WITH SAME THICKNESS AND GRADE AS THE BEAM FLANGES. WHERE MOMENT CONNECTIONS OCCUR ON COLUMN FLANGES AND COLUMN WEBS, STIFFENER THICKNESS SHALL BE EQUAL THE VECTOR SUMMATION OF THE RESPECTIVE BEAM FLANGE THICKNESSES.*

    B) *BEAM WEBS WHERE BEAMS BEAR ON A COLUMN — SAME THICKNESS AND STRENGTH AS COLUMN FLANGES.*

    C) *BEAM WEBS WHERE COLUMN BEARS ON A BEAM (POST UP OR STUB COLUMN) — SAME THICKNESS AND STRENGTH AS COLUMN FLANGES.*

11. *PROVIDE ALL NECESSARY HOLES IN MISCELLANEOUS STRUCTURAL STEEL MEMBERS FOR ATTACHMENT OF NON-STRUCTURAL ITEMS (IE: HOLES FOR WINDOW HEAD ANCHORS), SEE ARCHITECTURAL DRAWINGS FOR REQUIREMENTS.*

12. *SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.*

13. *ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS): WHERE NOTED ON PLANS OR BY THE ARCHITECT SHALL CONFORM TO AISC 303 SECTION IO*

14. *ALL CONNECTION BOLTS FOR STRUCTURAL STEEL MEMBERS SHALL CONFORM TO ASTM A325 EXCEPT WHERE NOTED OTHERWISE. MINIMUM SIZE SHALL BE 3/4 INCH DIAMETER UNLESS NOTED OTHERWISE. BOLTS SHALL BE DIRECT TENSION INDICATING BOLTS CONFORMING TO ASTM F1852 WITH HARDENED WASHERS UNDER THE NUT AND SACRIFICIAL SPLINES. HEX NUTS SHALL CONFORM TO ASTM A563 AND WASHERS SHALL CONFORM TO ASTM F436.*

15. *SHOP BOLTED CONNECTIONS ARE PERMISSIBLE IF SUFFICIENT BOLT CLEARANCE IS AVAILABLE FOR TIGHTENING OF HIGH STRENGTH BOLTS. CLEARANCES SHALL BE IN ACCORDANCE WITH TABLE 7-I6 AND 7-I7 OF THE THIRTEENTH EDITION OF THE MANUAL OF STEEL CONSTRUCTION OF THE AISC. ALL STEEL MEMBERS AND ASSEMBLIES SHALL BE SHOP FABRICATED TO THE GREATEST EXTENT POSSIBLE. TRUSSES SHALL BE FULLY SHOP ASSEMBLED. FIELD SPLICES FOR SHIPPING SHALL ONLY BE AS APPROVED BY THE ENGINEER OF RECORD. THE STEEL FABRICATOR AND THE STEEL ERECTOR SHALL COORDINATE THE SHOP FABRICATION, SHIPPING AND ERECTION OF ALL STRUCTURAL MEMBERS AND ASSEMBLIES.*

16. *ALL OPEN-WEB STEEL JOISTS AND BRIDGING SHALL CONFORM TO THE STEEL JOIST INSTITUTE SPECIFICATIONS FOR THE JOIST TYPES INDICATED. JOISTS SHALL BE CAMBERED. AMOUNT OF CAMBER SHALL BE IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE SPECIFICATIONS. JOIST SUPPLIER SHALL ADJUST CAMBERS

STRUCTURAL TESTING AND INSPECTIONS

EARTHWORK TESTING

I. DURING EARTHWORK OPERATIONS KEEP A COMPETENT TRAINED TECHNICIAN ASSIGNED TO THE PROJECT. SERVICES PROVIDED SHALL INCLUDE:

A) OBSERVE STRIPPING OPERATIONS AND EVALUATE THE REQUIRED STRIPPING DEPTH DURING THESE OPERATIONS.

B) OBSERVE PROOFROLLING OPERATIONS AFTER SITE STRIPPING. DETERMINE IF ANY SOFT SPOTS NEED TO BE UNDERCUT TO FIRM SOILS, REPLACED WITH SELECT FILL AND RECOMPACTED.

C) VERIFY THAT THE SUBGRADE SHALL THEN BE SCARIFIED AND MOISTURE CONDITIONED TO A SIX (6) INCH DEPTH AND THEN RECOMPACTED TO BETWEEN 95 AND 100 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR DENSITY TEST (ASTM D698). THE MOISTURE CONTENT SHALL BE BETWEEN -2 AND +2 PERCENT OF THE OPTIMUM MOISTURE CONTENT. PROVIDE A MINIMUM OF FOUR (4) FIELD DENSITY TESTS ON THE SUBGRADE OR ONE (1) FOR EVERY 2,500 SQUARE FEET WHICHEVER IS GREATER.

D) STRUCTURAL SELECT FILL PAD MATERIAL SHALL BE TESTED FOR ACCEPTABILITY AND A MOISTURE DENSITY CURVE SHALL BE ESTABLISHED. SELECT FILL MATERIAL SHALL BE AN INORGANIC SANDY CLAY WITH LIQUID LIMIT BETWEEN 26 AND 35 AND PLASTICITY INDEX BETWEEN 10 AND 20.

E) SELECT FILL SHALL BE PLACED IN EIGHT INCH LOOSE LIFTS AND COMPACTED TO BETWEEN 95 AND 100 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR DENSITY TEST (ASTM D698). THE MOISTURE CONTENT SHALL BE BETWEEN OPTIMUM AND +3 PERCENT OF THE OPTIMUM MOISTURE CONTENT FOR SELECT FILL.

F) SELECT FILL MATERIAL SHALL BE TESTED DURING PLACEMENT OF EACH LIFT FOR THE ATTERBERG LIMITS IN ACCORDANCE WITH ASTM D4318-98 METHOD B "STANDARD TEST METHOD FOR LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS" TO VERIFY THAT THE SELECT FILL MATERIAL IS IN ACCORDANCE WITH THE ORIGINALLY APPROVED SELECT FILL MATERIAL. PROVIDE A MINIMUM OF ONE (1) TEST PER LIFT OR ONE (1) FOR EVERY 2,500 SQUARE FEET WHICHEVER IS GREATER WITH A MAXIMUM OF TEN (10) PER LIFT.

G) OBSERVE THE EXCAVATION DAILY AND ENSURE THAT THE CONTRACTOR MAINTAINS A CLEAN EXCAVATION THAT IS FREE OF WATER 100% OF THE TIME. CONTRACTOR SHALL PROVIDE PUMPS AS REQUIRED TO REMOVE ANY WATER AT ALL TIMES.

H) OBSERVE GRADING OPERATIONS TO ENSURE THAT PROPER DRAINAGE AWAY FROM THE BUILDING PAD IS PROVIDED.

SPREAD FOOTINGS TESTING

I. DURING SPREAD FOOTING OPERATIONS KEEP A COMPETENT TRAINED TECHNICIAN ASSIGNED TO THE PROJECT. SERVICES PROVIDED SHALL INCLUDE:

A) OBSERVING THE BOTTOM OF FOOTING FOR CLEANLINESS.

B) CHECKING FOOTING BOTTOM FOR PROPER BEARING MATERIAL.

C) NOTING DEPTH AND SIZE OF ALL FOOTINGS.

D) VERIFY QUANTITY, SIZE AND LOCATION OF REINFORCEMENT AND CLEAR COVER REQUIREMENTS.

E) CHECK FOR CAVING OF FOOTING WALLS.

F) CHECKING THAT THE PILASTER IS CONCENTRIC WITH THE FOOTING.

G) CHECKING THAT COLUMN OR GRADE BEAM DOWELS ARE LOCATED PROPERLY.

2. ENSURE THAT THE SPOILS FROM THE FOOTING EXCAVATIONS ARE REMOVED FROM THE BUILDING PAD.

CONCRETE TESTING

I. CONCRETE MIX DESIGNS SHALL BE SUBMITTED FOR REVIEW INDICATING CONFORMANCE WITH ACI 318, LATEST EDITION, CHAPTER 5, SECTION 5.3.

2. SLUMP TESTS, CONFORMING TO ASTM C143, SHALL BE TAKEN AT THE POINT OF DISCHARGE AT THE SAME RATE AS NOTED BELOW IN NOTE NUMBER 5.

3. AIR CONTENT TESTS CONFORMING TO ASTM C173, VOLUMETRIC METHOD FOR LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE; ASTM C231 PRESSURE METHOD FOR NORMAL WEIGHT CONCRETE; SHALL BE TAKEN FOR EACH DAY'S POUR OF EACH TYPE OF AIR-ENTRAINED CONCRETE.

4. CONCRETE TEMPERATURE SHALL BE TESTED HOURLY WHEN AIR TEMPERATURE IS 40 DEG F (4 DEG C) AND BELOW, WHEN 80 DEG F (27 DEG C) AND ABOVE, AND EACH TIME A SET OF COMPRESSION TEST SPECIMENS IS MADE.

5. ONE SET OF FOUR COMPRESSION TEST SPECIMENS CONFORMING TO ASTM C31 SHALL BE MOLDED AND STORED FOR LABORATORY-CURED SPECIMENS. COMPRESSIVE STRENGTH TESTS SHALL CONFORM TO ASTM C39 AND SHALL CONSIST OF ONE SET FOR EACH DAY'S POUR EXCEEDING 5 CU. YDS. PLUS ADDITIONAL SETS FOR EACH 50 CU. YDS. MORE THAN THE FIRST 25 CU. YDS OF EACH CONCRETE CLASS PLACED IN ANY ONE DAY. ONE SPECIMEN SHALL BE TESTED AT 7 DAYS, TWO SPECIMENS SHALL BE TESTED AT 28 DAYS, AND ONE SPECIMEN SHALL BE RETAINED FOR LATER TESTING AS REQUIRED.

6. VERIFY CONCRETE IS BEING CONSOLIDATED IN ACCORDANCE WITH THE RECOMMENDATIONS OF ACI 318 AND ACI 308R, LATEST EDITION.

7. VERIFY THAT POST INSTALLED ANCHORS ARE AS SPECIFIED AND THAT THE ANCHORS ARE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.

REINFORCING STEEL INSTALLATION

I. DURING CAST-IN-PLACE CONCRETE STRUCTURAL MEMBER REINFORCING PLACEMENT OPERATIONS KEEP A COMPETENT TRAINED TECHNICIAN ASSIGNED TO THE PROJECT. INSPECT REINFORCING UTILIZING ACI 311.4R "GUIDE FOR CONCRETE INSPECTION" AS A GUIDE. SERVICES PROVIDED SHALL INCLUDE:

A) VERIFY TYPE AND GRADE OF ALL REINFORCING STEEL.

B) VERIFY REBAR IS FREE OF OIL, DIRT, EXCESSIVE RUST AND FROM DAMAGE IN SHIPMENT TO SITE.

C) VERIFY REINFORCING IS ADEQUATELY TIED, CHAIRED AND SUPPORTED TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT.

D) VERIFY MINIMUM AND MAXIMUM CLEAR DISTANCES BETWEEN BARS AND MINIMUM STRUCTURAL DISTANCE TO OUTSIDE OF CONCRETE.

E) VERIFY QUANTITY, SIZE AND LOCATION OF REINFORCEMENT.

F) VERIFY MINIMUM CONCRETE COVER IS MAINTAINED BETWEEN REBAR AND SURFACE OF CONCRETE.

G) VERIFY SIZE AND PLACEMENT OF REBAR. VERIFY LAP LENGTHS, LOCATIONS AND STAGGERS AND VERIFY BENDS FOR MINIMUM DIAMETER, SLOPE AND LENGTH. VERIFY HOOKED BAR LENGTHS AND LOCATIONS.

POST INSTALLED ANCHORS — FIELD QUALITY CONTROL

I. THE INTERNATIONAL BUILDING CODE (IBC 2021) REQUIRES SPECIAL INSPECTION OF ALL POST-INSTALLED ANCHORS. ACI 318-19 SECTIONS 26.13.1.5 AND 26.13.1.6 REQUIRE THAT ALL INSPECTIONS OF MECHANICAL AND ADHESIVE ANCHORS, RESPECTIVELY, ARE PERFORMED BY A CERTIFIED FIELD INSPECTOR SPECIFICALLY APPROVED FOR THAT PURPOSE BY THE SER AND THE BUILDING OFFICIAL. CERTIFICATION IS ESTABLISHED THROUGH AN INDEPENDENT ASSESSMENT SUCH AS THE ACI POST-INSTALLED CONCRETE ANCHOR INSTALLATION INSPECTOR PROGRAM OR SIMILAR PROGRAM WITH EQUIVALENT REQUIREMENTS. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS SHALL BE CONTINUOUSLY INSPECTED DURING INSTALLATION BY A CERTIFIED INSPECTOR.

2. POST-INSTALLED EXPANSION AND ADHESIVE ANCHORS SHALL BE PROOF LOADED AS REQUIRED IN THE CONTRACT DOCUMENTS. A PERCENTAGE OF EACH TYPE AND SIZE OF EACH TYPE OF SIZE OF ANCHOR ASSEMBLY SHALL BE PROOF LOADED IN TENSION BY AN INDEPENDENT TESTING LABORATORY UNLESS OTHERWISE SHOWN ON THE CONTRACT DOCUMENTS.

A) PROOF LOADING SHALL BE CONDUCTED AS CONFINED TENSION TESTING FOR ADHESIVE ANCHORS USING A CENTER-HOLE CYLINDER.

B) THE INDEPENDENT TESTING LABORATORY SHALL SUBMIT AN ANCHORAGE TESTING PLAN TO THE SER TO ENSURE THE TESTING REQUIREMENTS ARE FULFILLED.

C) PROOF LOAD RANDOM SAMPLE RATES AS FOLLOWS:

TYPE OF ANCHOR	SAMPLE RATE (PERCENT)
REINFORCING FOR SLAB ON GROUND	5
REINFORCING — GRADE BEAMS	30
REINFORCING — CONCRETE BEAMS	50
REINFORCING — CONCRETE COLUMNS	50
ANCHOR BOLTS NEW OR REPLACEMENT — SHEAR ONLY	25
ANCHOR BOLTS NEW OR REPLACEMENT — MOMENT FRAMES	50
ANCHORS FOR SHEAR TABS/PLATES OR ANGLES	30
ANCHORS IN TENSION — STRUCTURAL MEMBERS	50
ANCHORS IN TENSION — NON-STRUCTURAL MEMBERS	25
ANCHORS SUPPORTING LIFE SAFETY DEVICES	100

3. POST-INSTALLED EXPANSION AND ADHESIVE ANCHORS SHALL BE PROOF LOADED TO LOAD LEVELS AS SHOWN ON THE CONTRACT DOCUMENTS, OR AS INDICATED ON THE STRUCTURAL DRAWINGS FOR THE SPECIFIC ANCHOR TYPES ABOVE. PROOF LOADING OF ADHESIVE ANCHORS SHALL BE PERFORMED AFTER A MINIMUM CURING PERIOD SPECIFIED BY THE MANUFACTURER.

4. ANCHORS SHALL HAVE NO VISIBLE INDICATIONS OF DISPLACEMENT OR DAMAGE DURING OR AFTER PROOF LOAD APPLICATION. CONCRETE CRACKING IN THE VICINITY OF THE ANCHOR AFTER LOADING SHALL BE CONSIDERED A FAILURE.

5. IF AN ANCHOR FAILS, MODIFY ALL INSTALLATIONS OF THE SAME TYPE AND RETEST UNTIL SATISFACTORY RESULTS ARE ACHIEVED

6. IF MORE THAN 5 PERCENT OF THE TESTED ANCHORS FAIL TO ACHIEVE THE SPECIFIED PROOF LOAD WITHIN THE LIMITS DEFINED ON THESE DRAWINGS, THEN 100 PERCENT OF THE ANCHORS OF THE SAME DIAMETER AND TYPE AS THE FAILED ANCHOR SHALL BE PROOF TESTED, UNLESS OTHERWISE DIRECTED BY THE SER.

7. PROVIDE WRITTEN FASTENER LOAD TEST REPORTS AND INTERMITTENT SPECIAL INSPECTION REPORTS OF POST INSTALLED FASTENERS AS THE WORK PROGRESSES.

STRUCTURAL STEEL TESTING

I. CERTIFY WELDERS FOR THE WELD TYPES IN THE PROJECT AND CONDUCT INSPECTIONS AND TESTS AS REQUIRED, AS A MINIMUM, WELDERS SHALL BE AISC CERTIFIED. RECORD TYPES AND LOCATIONS OF DEFECTS FOUND IN WORK. RECORD WORK REQUIRED AND PERFORMED TO CORRECT DEFICIENCIES.

2. VISUALLY INSPECT 100% OF ALL FILLET WELDS.

3. VISUALLY INSPECT 100% OF ALL FULL PENETRATION WELDS, TEST 20% OF ALL FULL PENETRATION WELDS BY ONE OF THE FOLLOWING METHODS: LIQUID PENETRANT INSPECTION (ASTM E165), MAGNETIC PARTICLE INSPECTION (ASTM E709; PERFORMED ON THE ROOT PASS AND ON THE FINISHED WELD). CRACKS AND ZONES OF INCOMPLETE FUSION OR PENETRATION IS NOT ACCEPTABLE), RADIOGRAPHIC INSPECTION (ASTM E94 AND ASTM E142; MINIMUM QUALITY LEVEL OF 2-2T), OR ULTRASONIC INSPECTION (ASTM E164). IF FAILURE RATE IS 20% OR GREATER, TEST 100% OF WELDS AT CONTRACTOR'S EXPENSE UNTIL FAILURE RATE FALLS BELOW 20%.

4. ALL WELDS THAT FAIL SHALL BE REWELDED AND RETESTED UNTIL THEY PASS THE TEST. TEST TWO ADDITIONAL WELDS AT THE CONTRACTOR'S EXPENSE FOR EVERY WELD FAILURE.

5. VISUALLY INSPECT WELDS ON 100% OF ALL STUDS AND TEST 10% BY THE METHOD DESCRIBED BELOW IN COMPLIANCE WITH AWS D1.1. HEADED STUD SHALL BE TESTED BY ALTERNATELY BENDING 30 DEG. IN OPPOSITE DIRECTIONS FROM ITS ORIGINAL AXIS BY STRIKING THE STUDS WITH A HAMMER ON THE UNWELDED END OR PLACING A PIPE OR OTHER SUITABLE HOLLOW DEVICE OVER THE STUD AND MANUALLY OR MECHANICALLY BENDING THE STUD. IF FAILURE RATE IS 10% OR GREATER, TEST 100% OF STUDS AT CONTRACTOR'S EXPENSE UNTIL FAILURE RATE FALLS BELOW 10%. IF A VISUAL INSPECTION REVEALS ANY STUD THAT DOES NOT SHOW A FULL 360 DEG. FLASH (AS DEFINED IN AWS D1.1) OR ANY STUD THAT HAS BEEN REPAIRED BY WELDING, SUCH STUD SHALL BE BENT TO AN ANGLE OF APPROXIMATELY 15 DEGREES FROM ITS ORIGINAL AXIS. THE DIRECTION OF BENDING FOR STUDS WITH LESS THAN 360 DEGREES FLASH SHALL BE OPPOSITE TO THE MISSING PORTION OF FLASH.

6. BOLTS SHALL BE VISUALLY INSPECTED WHEN TWIST-OFF SPLINES ARE USED, OTHERWISE BOLTS SHALL BE SNUG TIGHT.

7. ALL FULL PENETRATION WELDS AT MOMENT CONNECTIONS REQUIRING TESTING SHALL BE TESTED AND CERTIFIED BY AN INDEPENDENT TESTING LABORATORY USING NON-DESTRUCTIVE TESTING METHODS. FOR SHOP WELDS, CERTIFICATION SHALL BE SUBMITTED PRIOR TO SHIPPING TO THE JOB SITE. FOR FIELD WELDS, CERTIFICATION SHALL BE SUBMITTED PRIOR FLOOR DECK INSTALLATION AND CONCRETE PLACEMENT AND PRIOR TO COVERING CONNECTIONS WITH FIREPROOFING OR ARCHITECTURAL FINISHES.

MASONRY TESTING

I. MASONRY TESTING SHALL CONSIST OF A QUALIFIED TESTING LABORATORY PROVIDING THE FOLLOWING SERVICES:

A) VERIFY QUANTITY, SIZE AND SPACING OF REQUIRED REINFORCING SHOWN ON THE DRAWINGS.
B) OBSERVE THE INSTALLATION OF MASONRY UNITS.
C) INSPECTION OF GROUT SPACE, IMMEDIATELY PRIOR TO CLOSING OF CLEANOUTS AND PRIOR TO ALL GROUTING OPERATIONS. VERIFY THAT THE SPECIFIED CELLS HAVE BEEN FULLY GROUTED.
D) MONITOR THE PROPORTIONING, MIXING AND CONSISTENCY OF MORTAR AND GROUT. PROVIDE 28 DAY COMPRESSIVE STRENGTH TESTS ON EACH GROUT MIX IN ACCORDANCE WITH ASTM C1019. COMPRESSION TEST MASONRY PRISMS FOR EACH TYPE OF WALL CONSTRUCTION IN ACCORDANCE WITH ASTM C1314. CONTRACTOR SHALL PREPARE ONE SET OF PRISMS FOR TESTING AT 28 DAYS. TESTS ARE TO BE CONDUCTED FOR EACH 2000 SQUARE FEET OF WALL INSTALLED, BUT NOT LESS THAN TWO TESTS.

SPECIAL INSPECTIONS AND STRUCTURAL TESTING

SPECIAL INSPECTION WORK AND THE FINAL LETTER OF COMPLIANCE HAVE NOT BEEN INCLUDED IN THE STRUCTURAL ENGINEER OF RECORD'S SCOPE OF SERVICES. THE OWNER IS RESPONSIBLE FOR OBTAINING THE SERVICES OF THE SPECIAL INSPECTOR AND THE TESTING LABORATORY. SPECIAL INSPECTIONS CAN BE PROVIDED BY AN INDEPENDENT SPECIAL INSPECTOR APPROVED BY THE BUILDING AUTHORITY. THE SPECIAL INSPECTION WORK DOES NOT INCLUDE THE TESTING LABORATORY SERVICES AS CALLED FOR ON THE DRAWINGS. ARRANGEMENTS FOR SPECIAL INSPECTIONS SHOULD BE MADE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE TESTING LABORATORY AND SPECIAL INSPECTOR IN A TIMELY MANNER PRIOR TO PROCEEDING WITH CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK REQUIRING INSPECTIONS WITHOUT THE TESTING LABORATORY'S OR SPECIAL INSPECTOR'S PRESENCE.

STRUCTURAL STATEMENT OF SPECIAL INSPECTIONS

THE STRUCTURAL SPECIAL INSPECTOR SHALL KEEP RECORDS OF ALL STRUCTURAL INSPECTIONS AND SHALL FURNISH INSPECTION REPORTS TO THE OWNER AND THE STRUCTURAL REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (SRDP). DISCOVERED DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF SUCH DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND THE SRDP. THE SPECIAL INSPECTION PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES.

A FINAL REPORT OF SPECIAL INSPECTION DOCUMENTING COMPLETION OF ALL SPECIAL INSPECTIONS, TESTING AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED TO THE OWNER AND THE SRDP PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY AND USE.

STRUCTURAL SCHEDULE OF SPECIAL INSPECTIONS

QUALIFICATIONS OF INSPECTORS AND TESTING TECHNICIANS

THE QUALIFICATIONS OF ALL PERSONNEL PERFORMING SPECIAL INSPECTION AND TESTING ACTIVITIES ARE SUBJECT TO THE APPROVAL OF THE OWNER. THE CREDENTIALS OF ALL INSPECTORS AND TESTING TECHNICIANS SHALL BE PROVIDED TO THE SPECIAL INSPECTOR FOR THEIR RECORDS.

KEY FOR MINIMUM QUALIFICATION OF INSPECTION AGENTS

WHEN THE REGISTERED DESIGN PROFESSION IN RESPONSIBLE CHARGE OR SPECIAL INSPECTOR OF RECORD DEEMS APPROPRIATE THAT THE INDIVIDUAL PERFORMING THE STIPULATED TEST OR INSPECTION HAVE A SPECIFIC CERTIFICATION, LICENSE OR EXPERIENCE AS INDICATED BELOW. SUCH REQUIREMENT SHALL BE LISTED BELOW AND SHALL BE CLEARLY IDENTIFIED WITHIN THE SCHEDULE UNDER THE AGENT QUALIFICATION DESIGNATION.

PE/SE STRUCTURAL ENGINEER
A LICENSED SE OR PE SPECIALIZING IN THE DESIGN OF BUILDING STRUCTURES

PE/GE GEOTECHNCIAL ENGINEER
A LICENSED PE SPECIALIZING IN SOIL MECHANICS AND FOUNDATIONS

EIT OR ENGINEER IN TRAINING
A GRADUATE ENGINEER WHO HAS PASSED THE FUNDAMENTALS OF ENGINEERING EXAM

EXPERIENCED TESTING TECHNICIAN

ETT OR EXPERIENCED TESTING TECHNICIAN
AN EXPERIENCED TESTING TECHNICIAN WITH A MINIMUM OF 5 YEARS EXPERIENCE WITH THE STIPULATED TEST OR INSPECTION

AMERICAN CONCRETE INSTITUTE (ACI) CERTIFICATION

ACI-CFTT	CONCRETE FIELD-TESTING TECHNICIAN - GRADE I
ACI-CCI	CONCRETE CONSTRUCTION INSPECTOR
ACI-LTT	LABORATORY TESTING TECHNICIAN - GRADE II&2
ACI-STT	STRENGTH TESTING TECHNICIAN

AMERICAN WELDING SOCIETY (AWS) CERTIFICATION

AWS-CWI	CERTIFIED WELDING INSPECTOR
AWS/AISC-SSI	CERTIFIED STRUCTURAL STEEL INSPECTOR

CHAPTER 17 OF THE 2021 INTERNATIONAL BUILDING CODE IS INTERPRETED TO REQUIRE SPECIAL INSPECTION FOR THE FOLLOWING ITEMS IN THE FOLLOWING TABLES:

SCHEDULE OF SPECIAL INSPECTIONS

VERIFICATION/INSPECTION	SOIL/FOUNDATION INSPECTION		
IBC SECTION 1705.6, TABLE 1705.6	EXTENT CONTINUOUS, PERIODIC	COMMENTS	AGENT PE/GE, EIT OR ETT
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	PERIODIC		ETT
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	PERIODIC		ETT
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	PERIODIC		ETT
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	CONTINUOUS		ETT
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	PERIODIC		ETT

SCHEDULE OF SPECIAL INSPECTIONS

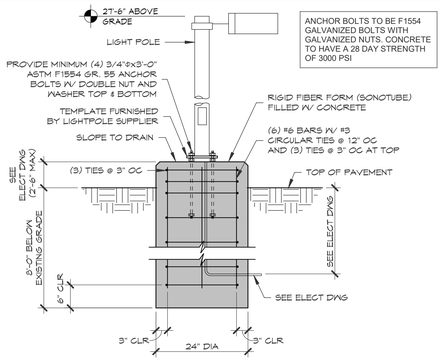
VERIFICATION/INSPECTION	CONCRETE INSPECTION		
IBC SECTION 1705.3, TABLE 1705.3	EXTENT CONTINUOUS, PERIODIC	COMMENTS	AGENT PE/GE, EIT OR ETT
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	PERIODIC	ACI 318: Ch. 20, 25.2, 25.3, 26.6.1-26.6.3 IBC 1908.4	ETT
2. REINFORCING BAR WELDING:			
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	PERIODIC	AWS D1.4 ACI 318: 26.6.4	AWS-CWI
B. INSPECT SINGLE-PASS FILLET WELDS, MAX.5/16"	PERIODIC		
C. INSPECT ALL OTHER WELDS	CONTINUOUS		
3. INSPECT ANCHORS CAST IN CONCRETE	PERIODIC	ACI 318: 17.8.2	ETT
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS			
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	CONTINUOUS	ACI 318: 17.8.2.4	ETT
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A	PERIODIC	ACI 318: 17.8.2	
5. VERIFY USE OF REQUIRED MIX DESIGN	PERIODIC	ACI 318: Ch. 19, 26.4.3, 26.4.4 IBC 1904.1, 1904.2, 1908.2, 1908.3	ETT
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	CONTINUOUS	ASTM C 172 ASTM C 31 ACI 318: 26.4, 26.12 IBC 1908.8	ACI-CFTT OR ACI-STT
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	CONTINUOUS	ACI 318: 26.5 IBC 1908.6, 1908.7, 1908.8	ETT
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	PERIODIC	ACI 318: 26.5.3-26.5.5 IBC 1908.9	ETT
9. INSPECT PRESTRESSED CONCRETE FOR:			
A. APPLICATION OF PRESTRESSING FORCES	CONTINUOUS	ACI 318: 26.10	ETT
B. GROUTING OF BONDED PRESTRESSING TENDONS	CONTINUOUS		
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	PERIODIC	ACI 318: Ch. 26.8	ETT
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	PERIODIC	ACI 318: 26.11.2	ETT
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	PERIODIC	ACI 318: 26.11.1.2(b)	ETT

SCHEDULE OF SPECIAL INSPECTIONS

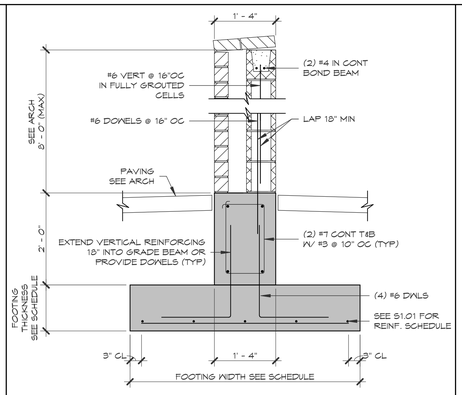
VERIFICATION/INSPECTION	MASONRY LEVEL 1 INSPECTION				
IBC SECTION 1705.4 TMS 402/ACI 530/ASCE 5 TMS 602/ACI 530/ASCE 6	EXTENT CONTINUOUS, PERIODIC	COMMENTS IBC SECTION	TMS 402 ACI 530 ASCE 5	TMS 602 ACI 530.1 ASCE 6	AGENT PE/GE, EIT OR ETT
1. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED	PERIODIC			ART. 1.5	ETT
2. VERIFICATION OF f'm AND f'cm PRIOR TO CONSTRUCTION EXCEPT WHERE SPECIFICALLY EXEMPTED BY THIS CODE	PERIODIC			ART. 1.4B	ETT
3. VERIFICATION OF SLUMP FLOW AND VSI AS DELIVERED TO THE SITE FOR SELF-CONSOLIDATING GROUT	CONTINUOUS			ART. 1.5B.1.b.3	ETT
4. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
A. PROPORTIONS OF SITE-PREPARED MORTAR	PERIODIC			ART. 2.6A	ETT
B. CONSTRUCTION OF MORTAR JOINTS	PERIODIC			ART. 3.3B	ETT
C. LOCATION OF REINFORCEMENT, CONNECTORS, PRESTRESSING TENDONS AND ANCHORAGES	PERIODIC			ART. 2.4, 3.6A	ETT
D. PRESTRESSING TECHNIQUE	PERIODIC			ART. 3.6B	
E. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	PERIODIC			ART. 2.4B 2.4H	
5. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS	PERIODIC			ART. 3.3F	ETT
B. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION	PERIODIC		SEC. 1.2.2(e) 1.16.1		ETT
C. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT, ANCHOR BOLTS, PRESTRESSING TENDONS AND ANCHORAGES	PERIODIC		SEC. 1.16	ART. 2.4, 3.4	ETT
D. WELDING OF REINFORCING BARS	CONTINUOUS		SEC. 2.1.2.7.2 3.3.3.2(b)		AWS-CWI
E. PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40F) OR HOT WEATHER (TEMPERATURE ABOVE 90F).	PERIODIC	SEC. 2104.3 2104.4		ART. 1.8C 1.8D	ETT
F. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	CONTINUOUS			ART. 3.6B	
6. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
A. GROUT SPACE IS CLEAN	PERIODIC			ART. 3.2D	ETT
B. PLACEMENT OF REINFORCEMENT AND CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES	PERIODIC		SEC 1.13	ART. 3.4	
C. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	PERIODIC			ART. 2.6B	
D. CONSTRUCTION OF MORTAR JOINTS	PERIODIC			ART. 3.3B	ETT
7. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE:	CONTINUOUS			ART. 3.5	ETT
A. GROUTING OF PRESTRESSING BONDED TENDONS	CONTINUOUS			ART. 3.6C	
8. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED	PERIODIC		SEC 2105.2.2 2105.3	ART. 1.4	ETT

SCHEDULE OF SPECIAL INSPECTIONS

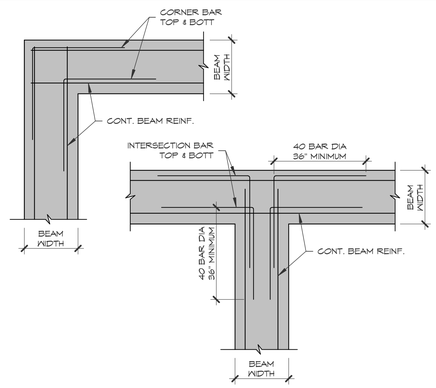
VERIFICATION/INSPECTION	STRUCTURAL STEEL INSPECTION			
IBC SECTION 1705.2, AISC 360-10	EXTENT CONTINUOUS, PERIODIC	COMMENTS		AGENT PE/GE, EIT OR ETT
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:				
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	PERIODIC	AISC 360 SECTION A3.3 AND ALL APPLICABLE ASTM MATERIAL STANDARDS		ETT
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED	PERIODIC			ETT
2. INSPECTION OF HIGH-STRENGTH BOLTING:				
A. SNUG-TIGHT JOINTS	PERIODIC	AISC 360 SECTION M2.5 IBC 1704.3.3		AWB/AISC-SSI
B. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION	PERIODIC			
C. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	CONTINUOUS			
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD- FORMED STEEL DECK				
A. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360	PERIODIC	AISC 360 SECTION M5.5		ETT
B. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	PERIODIC	ALL APPLICABLE ASTM MATERIAL STANDARDS		ETT
C. MANUFACTURER'S CERTIFIED TEST REPORTS	PERIODIC			ETT
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:				
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	PERIODIC	AISC 360, SECTION A3.5 AND APPLICABLE AWS A5 DOCUMENTS		ETT
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED	PERIODIC			ETT
5. INSPECTION OF WELDING:				
A. STRUCTURAL STEEL AND COLD-FORMED STEEL DECK				
1) COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS	CONTINUOUS	AWS D1.1 IBC 1704.3.1		AWS-CWI
2) MULTI-PASS FILLET WELDS	CONTINUOUS			
3) SINGLE-PASS FILLED WELDS ≤ 5/16"	CONTINUOUS			
4) PLUG AND SLOT WELDS	CONTINUOUS			
5) SINGLE-PASS FILLET WELDS ≤ 5/16"	PERIODIC			
6) FLOOR AND ROOF DECK WELDS	PERIODIC	AWS D1.3		AWS-CWI
B. REINFORCING STEEL				
1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706	PERIODIC	AWS D1.4 ACI 318: SECTION 3.5.2		AWS-CWI
2) REINFORCING STEEL RESISTING FLEX



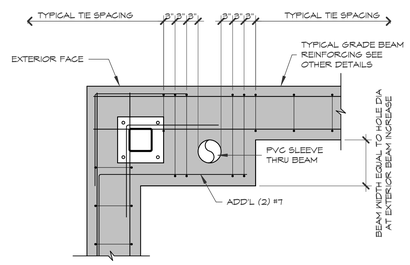
20 LIGHTPOLE FOUNDATION DETAIL
SCALE: 3/4" = 1'-0"



16 SCREEN WALL DETAIL
SCALE: 3/4" = 1'-0"

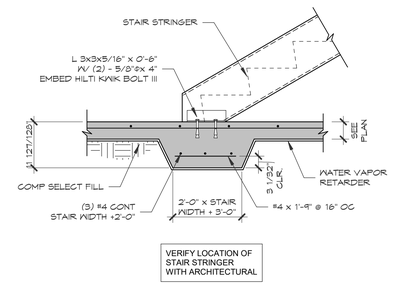


12 TYPICAL CORNER BAR DETAIL
SCALE: 3/4" = 1'-0"



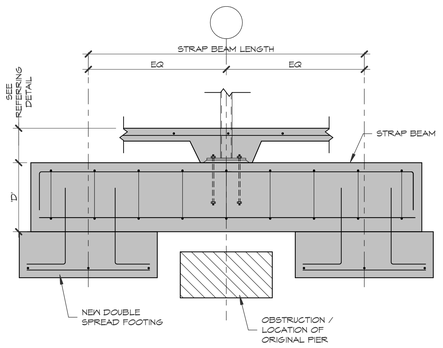
PLAN VIEW
TYPICAL VERTICAL HOLE THROUGH GRADE BEAM LARGER THAN 4" DIA.

8 GRADE BEAM PENETRATION DETAIL
SCALE: 3/4" = 1'-0"



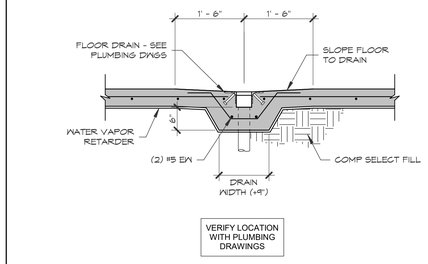
VERIFY LOCATION OF STAIR STRINGER WITH ARCHITECTURAL

4 SHOVEL BEAM AT STAIR STRINGER DETAIL
SCALE: 3/4" = 1'-0"



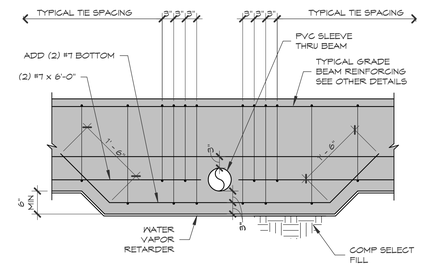
STRAP BEAM SCHEDULE					
ORIG SINGLE BELL DIAM	DBL PIER BELL SIZE	DBL PIER SHAFT SIZE	STRAP BEAM LENGTH (ℓ)	STRAP BEAM (WxD)	STRAP BEAM REINFORCING
24", 36"	30"	12"	5'-0"	30"x24"	(5) #7 T&B #4 @ 9" OC
42", 48"	36"	12"	6'-0"	30"x24"	(5) #7 T&B #4 @ 9" OC
54", 60"	48"	18"	8'-0"	30"x24"	(6) #7 T&B #4 @ 9" OC
66', 72"	54"	18"	9'-0"	30"x24"	(6) #7 T&B #4 @ 9" OC
72", 80"	60"	24"	10'-0"	30"x24"	(6) #7 T&B #4 @ 9" OC

18 OBSTRUCTION DETAIL
SCALE: 3/4" = 1'-0"



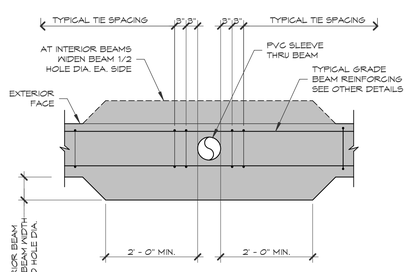
VERIFY LOCATION WITH PLUMBING DRAWINGS

15 FLOOR DRAIN DETAIL
SCALE: 3/4" = 1'-0"



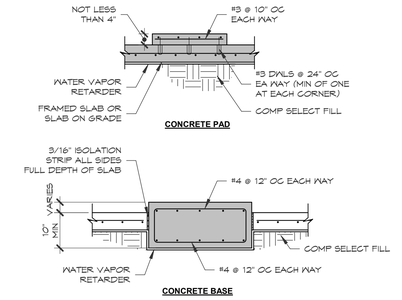
ELEVATION VIEW
TYPICAL HORIZONTAL HOLE THROUGH GRADE BEAM LARGER THAN 4" DIA.

11 GRADE BEAM PENETRATION (MAIN REINF INTERRUPTED)
SCALE: 3/4" = 1'-0"



PLAN VIEW
TYPICAL VERTICAL HOLE THROUGH GRADE BEAM LARGER THAN 4" DIA.

7 GRADE BEAM PENETRATION DETAIL
SCALE: 3/4" = 1'-0"

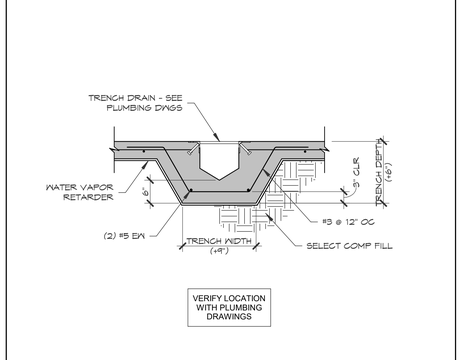


NOTES:

VERIFY ALL PAD AND BASE LOCATIONS, DIMENSIONS, AND ADEQUACY WITH THE MECHANICAL ENGINEER AND THE INDIVIDUAL EQUIPMENT REQUIREMENTS.

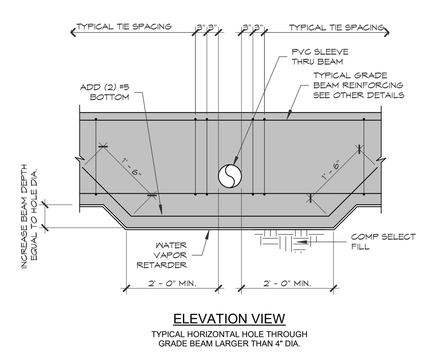
MECHANICAL ENGINEER TO SPECIFY ISOLATION DATA.

3 PAD AND BASE DETAIL
SCALE: 3/4" = 1'-0"



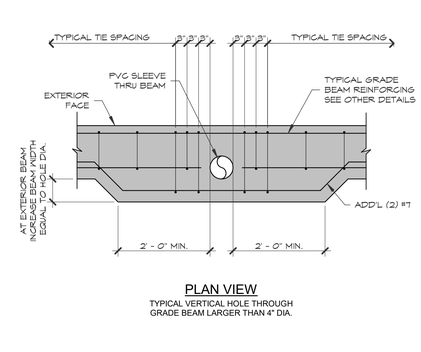
VERIFY LOCATION WITH PLUMBING DRAWINGS

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



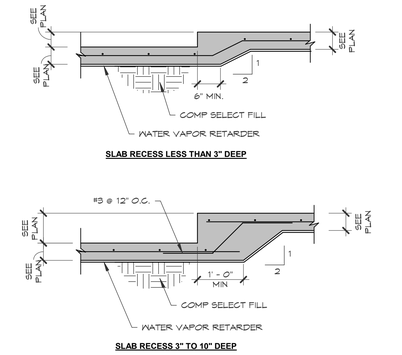
ELEVATION VIEW
TYPICAL HORIZONTAL HOLE THROUGH GRADE BEAM LARGER THAN 4" DIA.

10 GRADE BEAM PENETRATION DETAIL
SCALE: 3/4" = 1'-0"

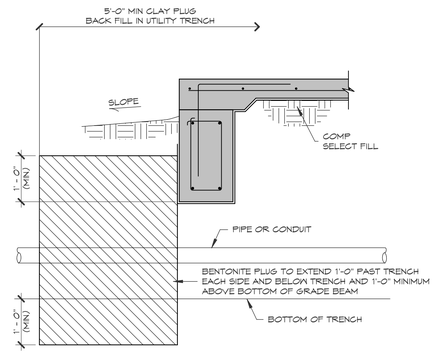


PLAN VIEW
TYPICAL VERTICAL HOLE THROUGH GRADE BEAM LARGER THAN 4" DIA.

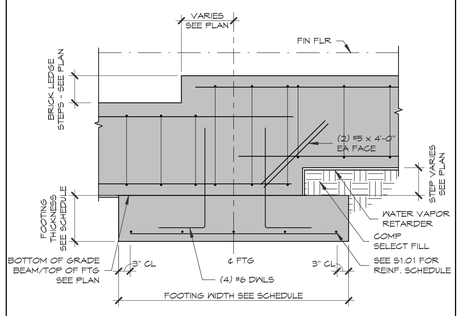
6 GRADE BEAM PENETRATION DETAIL
SCALE: 3/4" = 1'-0"



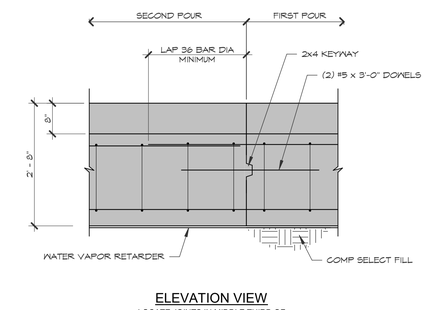
2 SLAB RECESS
SCALE: 3/4" = 1'-0"



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

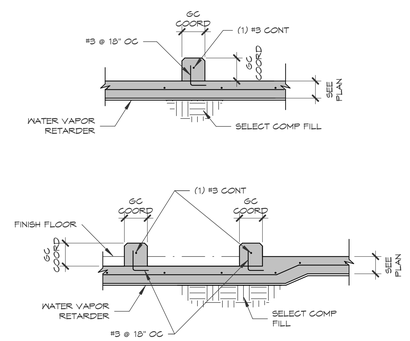


13 TYPICAL STEP IN GRADE BEAM
SCALE: 3/4" = 1'-0"



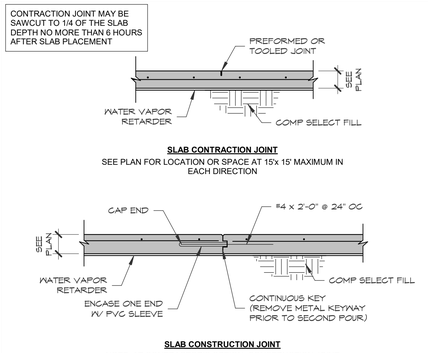
ELEVATION VIEW
LOCATE JOINTS IN MIDDLE THIRD OF BEAM SPAN BETWEEN SUPPORTS

9 GRADE BEAM CONSTRUCTION JOINT
SCALE: 3/4" = 1'-0"



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

CONTRACTION JOINT MAY BE SAWCUT TO 1/4 OF THE SLAB DEPTH NO MORE THAN 6 HOURS AFTER SLAB PLACEMENT



1 SLAB JOINT DETAIL
SCALE: 3/4" = 1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

BRITT GARDNER — STATE OF TEXAS — LICENSED — 90958 — PROFESSIONAL ENGINEER
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	Δ COH COMMENT 1
10/24/2025	CSP

S0.03

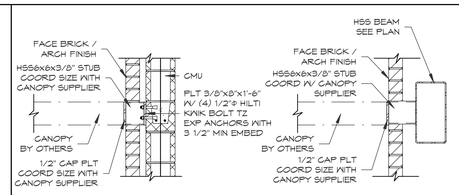
TYPICAL FOUNDATION DETAILS

CMU WALL SCHEDULE		
DESCRIPTION	WALL HEIGHT	VERTICAL REINFORCEMENT
INTERIOR WALLS	H ≤ 25'-0"	#4 @ 48" O.C.
	25'-0" < H ≤ 35'-0"	#5 @ 48" O.C.
EXTERIOR OR PERIMETER WALLS	H ≤ 20'-0"	#6 @ 24" O.C.
	20'-0" < H ≤ 30'-0"	#7 @ 16" O.C.

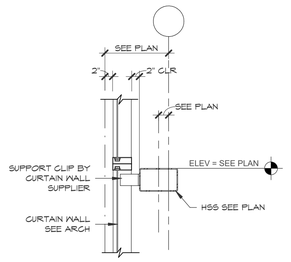
NOTES:

1. WALL HEIGHT, H, SHALL BE CONSIDERED AS THE DISTANCE BETWEEN LATERAL SUPPORTS
2. ALL DOWELS TO FLOOR SLAB SHALL MATCH SIZE & SPACING OF VERTICAL REINFORCEMENT
3. PROVIDE (2) #4 CONT. IN FULLY GROUTED BOND BEAM SPACED @ 8'-0" O.C. VERTICALLY (MAX) ((2) #5 IN 12" CMU WALLS)
4. ALL CELLS WITH REINFORCING SHALL BE FULLY GROUTED
5. f'm = 2500 PSI

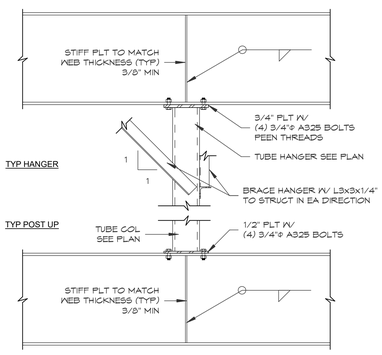
20 CMU WALL SCHEDULE
SCALE: 3/4" = 1'-0"



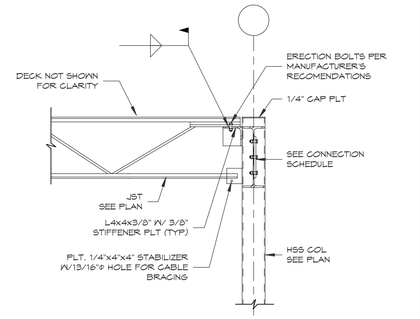
16 CANOPY CONNECTION DETAIL
SCALE: 3/4" = 1'-0"



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



8 TYPICAL HANGER AND POST UP DETAIL
SCALE: 3/4" = 1'-0"



4 TYPICAL JOIST TO COLUMN CONNECTION DETAIL
SCALE: 3/4" = 1'-0"

BRACE FRAMING (3 5/8" STUDS)				
STUD TYPE	STUD PROPERTIES	SPACING	MAX LENGTH	MISCELLANEOUS
SJ 20 (40 KSI)	Ix = 0.541 IN^4	4'-0" OC	14'-0"	BRACE @ MID-PT FOR LENGTHS OVER 14'-0"
	rx = 1.429 IN			
	A = 0.2136 IN^2			
	Sx = 0.273 IN^3			

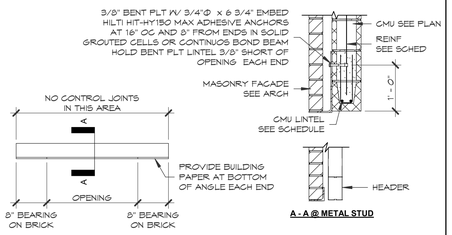
VERTICAL FRAMING (3 5/8" STUDS)				
STUD TYPE	STUD PROPERTIES	SPACING	MAX LENGTH	MISCELLANEOUS
ST 25 (33 KSI)	Ix = 0.239 IN^4	1'-4" OC	16'-9"	ONE LAYER* SHEATHING (MIN)
	rx = 1.415 IN			
	A = 0.123 IN^2			
	Sx = 0.113 IN^3			
ST 20 (33 KSI)	Ix = 0.414 IN^4	1'-4" OC	22'-6"	ONE LAYER* SHEATHING (MIN)
	rx = 1.407 IN			
	A = 0.210 IN^2			
	Sx = 0.213 IN^3			

* ALTERNATIVELY, PROVIDE 1 1/2x1 1/2x16 GA HORIZONTAL CHANNEL FASTENED TO STUDS WITH 1 1/2x1 1/2x14 GA CLIP AT 4'-0" OC VERTICALLY

BRACE FRAMING (6" STUDS)				
STUD TYPE	STUD PROPERTIES	SPACING	MAX LENGTH	MISCELLANEOUS
SJ 20 (40 KSI)	Ix = 1.787 IN^4	4'-0" OC	20'-0"	BRACE @ MID-PT FOR LENGTHS OVER 20'-0"
	rx = 2.253 IN			
	A = 0.2148 IN^2			
	Sx = 0.539 IN^3			

VERTICAL FRAMING (6" STUDS)				
STUD TYPE	STUD PROPERTIES	SPACING	MAX LENGTH	MISCELLANEOUS
ST 25 (33 KSI)	Ix = 0.773 IN^4	1'-4" OC	20'-0"	ONE LAYER* SHEATHING (MIN)
	rx = 2.209 IN			
	A = 0.167 IN^2			
	Sx = 0.184 IN^3			
ST 20 (33 KSI)	Ix = 1.385 IN^4	1'-4" OC	32'-9"	ONE LAYER* SHEATHING (MIN)
	rx = 2.199 IN			
	A = 0.288 IN^2			
	Sx = 0.437 IN^3			

* ALTERNATIVELY PROVIDE 1 1/2x1 1/2x16 GA HORIZONTALCHANNEL FASTENED TO STUDS WITH 1 1/2x1 1/2x14 GA CLIP AT 4'-0" OC VERTICALLY

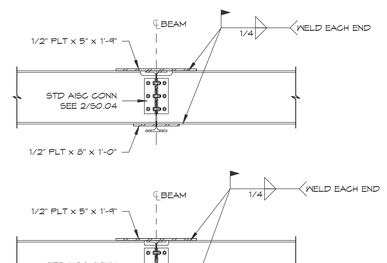


A - A @ METAL STUD

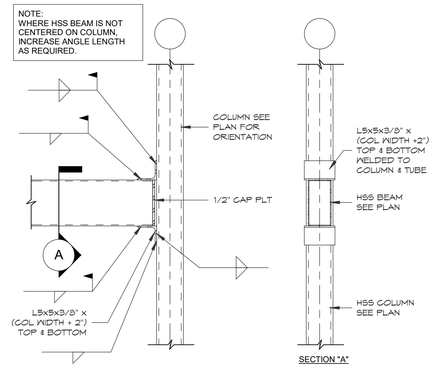
BRICK LOOSE LINTEL SCHEDULE	
OPENING	ANGLE SIZE
LESS THAN 5'-0"	L 3 1/2 x 3 1/2 x 5/16
5'-0" TO LESS THAN 6'-0"	L 5 x 3 1/2 x 5/16 (LLV)
6'-0" TO LESS THAN 8'-0"	L 6 x 3 1/2 x 5/16 (LLV)
8'-0" TO LESS THAN 9'-0"	L 7 x 4 x 3/8 (LLV)

LLV = LONG LEG VERTICAL
GALVANIZE ALL LINTEL ANGLES.
ANGLE SIZES ARE MIN. - SEE ARCHITECTURAL DRAWINGS.

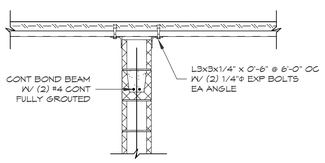
11 BRICK LOOSE LINTEL SCHEDULE
SCALE: 3/4" = 1'-0"



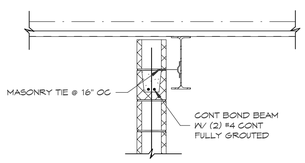
7 BEAM TO BEAM MOMENT CONNECTION DETAIL
SCALE: 3/4" = 1'-0"



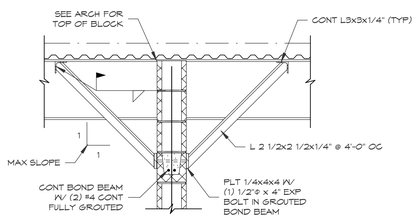
3 TYPICAL TUBE TO TUBE COLUMN CONNECTION DETAIL
SCALE: 3/4" = 1'-0"



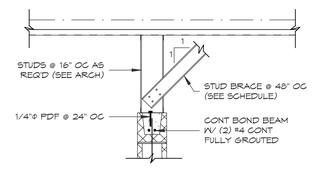
TYPE A (FLOOR)



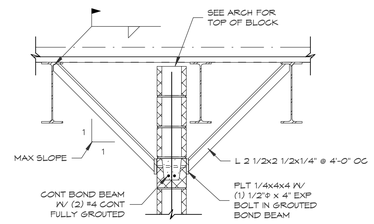
TYPE D (FLOOR/ROOF)



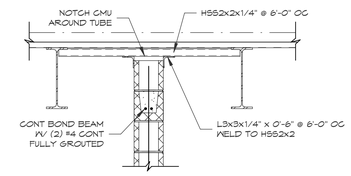
TYPE B (FLOOR / ROOF)



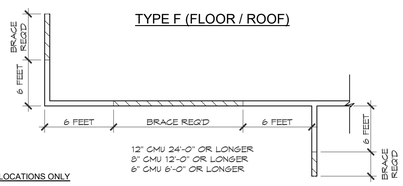
TYPE E (FLOOR / ROOF)



TYPE C (FLOOR / ROOF)



TYPE F (FLOOR / ROOF)



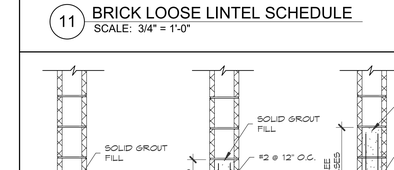
INTERIOR LOCATIONS ONLY

NON-LOAD BEARING MASONRY WALL BRACES. BRACING AT THE TOP OF MASONRY WALLS IS REQUIRED ON STRAIGHT RUNS OF WALL MORE THAN SIX FEET FROM A CORNER, INTERSECTING WALL, OR AS NOTED ABOVE.

WHEN THE MASONRY WALL TERMINATES AT THE BOTTOM OF THE DECK, A TYPE 'A' ATTACHMENT AT THE FLOOR DECK OR A TYPE 'B', 'C', 'D' OR 'F' ATTACHMENT AT EITHER THE FLOOR OR ROOF MAY BE USED. WHEN WALLS TERMINATE ABOVE THE CEILING A TYPE 'B', 'C' OR 'E' ATTACHMENT SHOULD BE USED.

TYPICAL CMU WALL BRACING LOCATION PLAN

17 TYPICAL CMU WALL BRACE CONNECTION DETAILS
SCALE: NTS

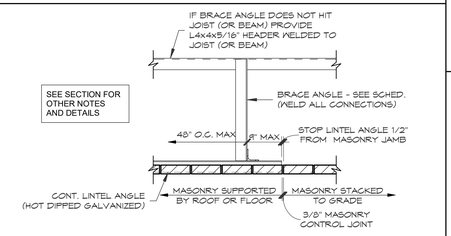


OPENINGS LESS THAN 5'-0" | OPENINGS LESS THAN 10'-0" | OPENINGS LESS THAN 15'-0"

NOTES:

1. PROVIDE BLOCK LINTELS FOR ALL OPENINGS IN INTERIOR & EXTERIOR BLOCK WALLS FOR WHICH STEEL LINTELS ARE NOT SCHEDULED. SEE ARCHITECTURAL DRAWINGS FOR SIZE & LOCATION OF OPENINGS.
2. PROVIDE 8" MIN BEARING EACH END OF LINTEL
3. PROVIDE (2) #5 VERTICALS IN FULLY GROUTED CELLS AT EACH JAMB.

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

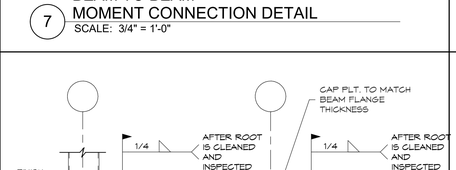


NOTE:
WHERE MASONRY IS SUPPORTED BY STEEL TUBES WITHOUT HANGERS AND BRACES, THE NOTES PERTAINING
TO LINTEL ANGLES SHALL STILL APPLY

BRACE ANGLE SCHEDULE		
BRACE ANGLE SIZE	HEADER ANGLE SIZE	MAX LENGTH
L3x3x1/4"	L4x4x5/16"	9'-6"
L4x4x1/4"	L5x5x5/16"	13'-3"
L5x5x5/16"	L6x6x3/8"	16'-6"
L6x6x5/16"	L6x6x3/8"	20'-0"
CONSULT ENGINEER	CONSULT ENGINEER	OVER 20'-0"

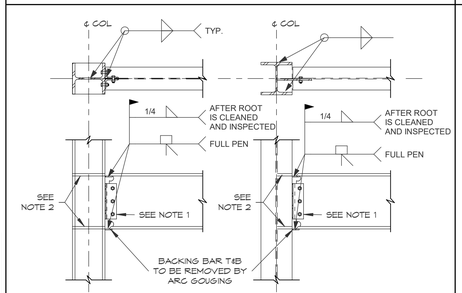
SIZE OF ALL BRACE ANGLES IN COMPRESSION SHALL BE DETERMINED BY STEEL FABRICATOR BASED ON UNBRACED LENGTHS AS SCHEDULED

9 HANGER BRACE ANGLE SCHEDULE
SCALE: 3/4" = 1'-0"



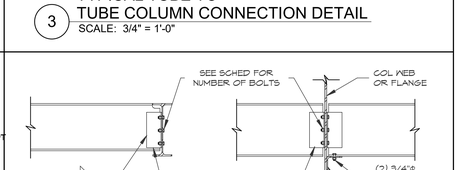
NOTES:
1.) SEE CONNECTION SCHEDULE
2.) SEE PLANS FOR LOCATIONS AND BEAM COLUMN SIZES.
3.) PROVIDE COMPLETE PENETRATION GROOVE WELDS UNLESS OTHERWISE SHOWN.
4.) AT TOP LEVELS PROVIDE COLUMN CAP PLATE.

6 MOMENT CONNECTION DETAIL AT TUBE COLUMN
SCALE: 3/4" = 1'-0"



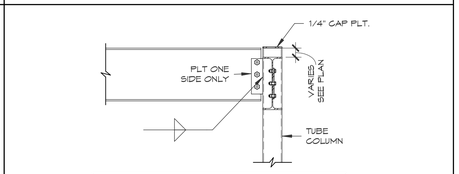
NOTES:
1. SEE CONNECTION SCHEDULE
2. STIFFENER PLATES TO MATCH BEAM FLANGE THICKNESS +1/2" TOP & BOTTOM CENTER ON BEAM FLANGE.
3. SEE PLANS FOR LOCATIONS, BEAM AND COLUMN SIZES.
4. PROVIDE COMPLETE PENETRATION GROOVE WELDS UNLESS OTHERWISE SHOWN.
5. AT TOP LEVELS PROVIDE COLUMN CAP PLATE IN LIEU OF TOP STIFFENER.

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



BEAM DEPTH	PLATE THICKNESS	NO. 3/4"ø A325 BOLTS
8"	1/4"	2
10"	5/16"	2
12"	5/16"	3
14"	5/16"	3
16"	5/16"	4
18"	5/16"	5
21"	5/16"	6
24"	3/8"	6
27"	3/8"	7
30"	3/8"	8

2 BEAM TO BEAM/ COLUMN CONNECTION TABLE
SCALE: 3/4" = 1'-0"



BEAM DEPTH	PLATE THICKNESS	NO. 3/4"ø A325 BOLTS
8"	1/4"	2
10"	5/16"	2
12"	5/16"	3
14"	5/16"	3
16"	5/16"	4
18"	5/16"	5
21"	5/16"	6
24"	3/8"	6
27"	3/8"	7
30"	3/8"	8

1 BEAM TO COLUMN SIMPLE SHEAR CONNECTION TABLE
SCALE: 3/4" = 1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



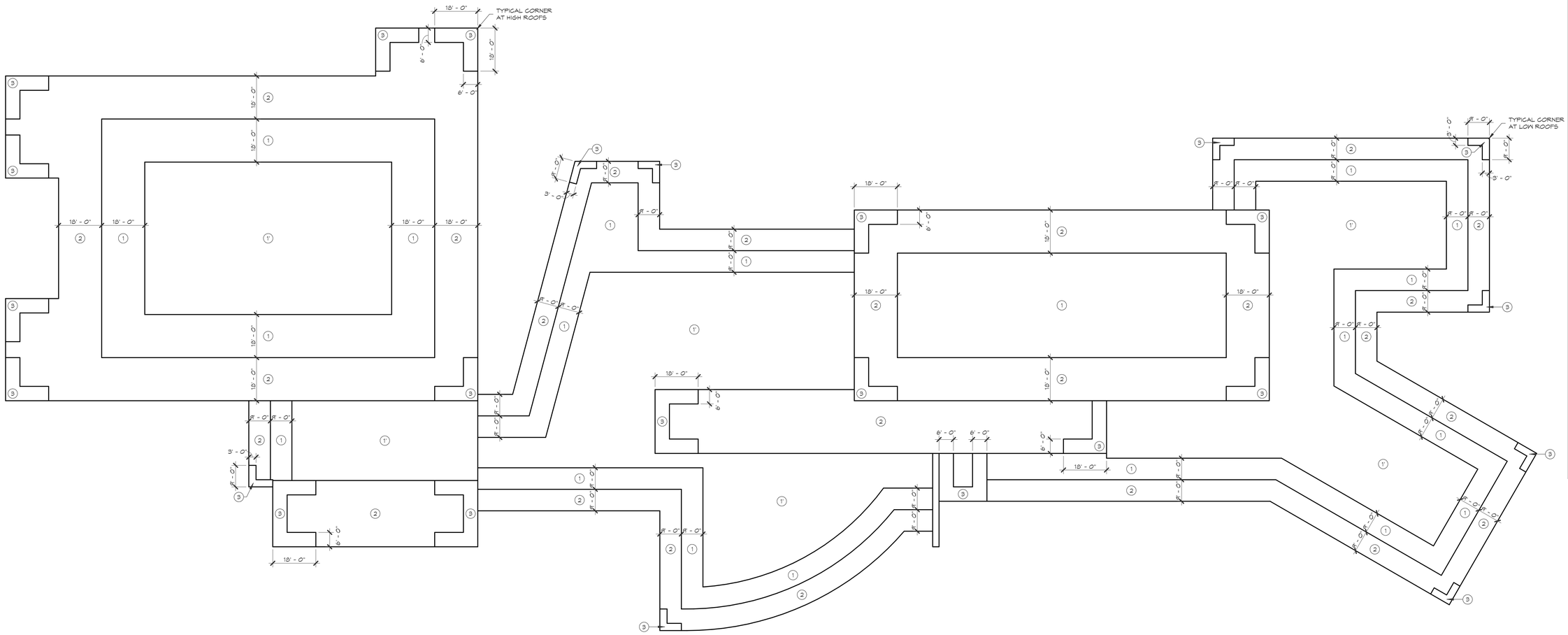
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	a COH COMMENT 1
10/24/2025	CSP

S0.04

TYPICAL FRAMING DETAILS



NORTH

UPLIFT KEY PLAN
SCALE: NTS

C&C ROOF UPLIFT ZONES
IBC 2021, ASCE 7-22

COMPONENTS AND CLADDING GROSS ROOF UPLIFT IN PSF		
ZONE	EFFECTIVE WIDE AREA (SQUARE FEET)	
	20	100
INTERIOR ZONE/ZONE 1'	32	32
INTERIOR ZONE/ZONE 1	52	44
INTERIOR ZONE/ZONE 2	69	58
CORNERS AND OVERHANGS/ZONE 3	91	69
RELIABLE DEAD LOAD	5 PSF	
CORNER ZONE WIDTH	a = 18'-0" & b = 6'-0" (HIGH ROOF) a = 9'-0" & b = 3'-0" (LOW ROOF)	

CONSULTANTS

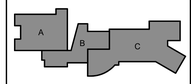
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

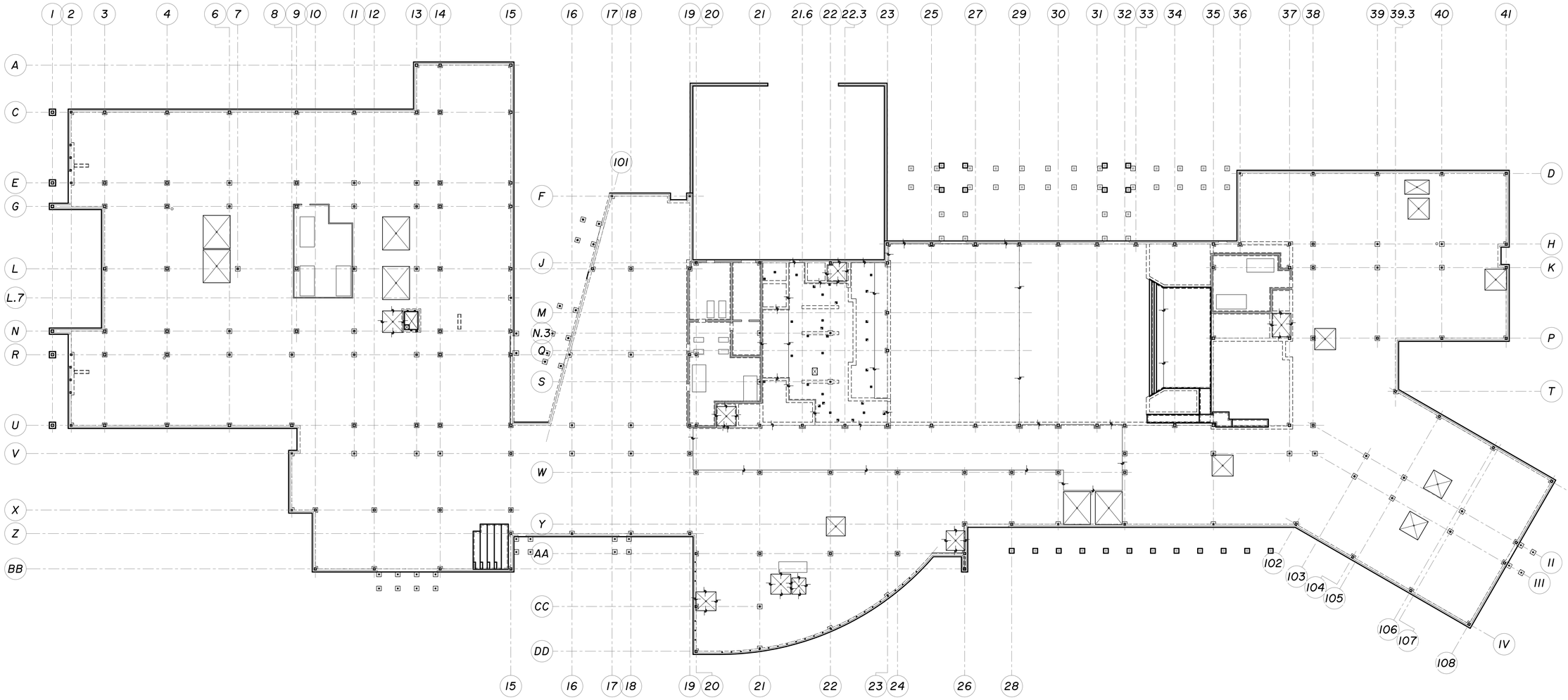


24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	Δ COH COMMENT 1
10/24/2025	CSP

S0.05
UPLIFT KEY PLAN



NORTH

COMPOSITE FOUNDATION PLAN

SCALE: NTS

CONSULTANTS

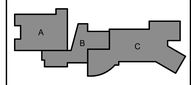
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	1 COH COMMENT 1
10/24/2025	CSP

S1.00

COMPOSITE FOUNDATION PLAN

5" THICK CONCRETE SLAB ON GRADE W/ #3 @ 14" OC EA WAY ON 3" HIGH CHAIRS @ 42" OC EA WAY. PLACE SLAB ON 15 MIL WATER VAPOR RETARDER OVER COMPACTED SELECT FILL SEE SOIL REPORT.

HOUSEKEEPING PAS AS REQUIRED SEE 3/S0.03 (TYP)

INDICATES CURB SEE 5/S0.03 (TYP)

(3) HSS6x4x3/8" RAIL BRACE AS REQUIRED SEE 13/S4.02

SUMP PIT SEE 5/S4.02

CANOPY COL BY OTHERS (TYP)

SPREAD FOOTING SCHEDULE

MARK	LENGTH	WIDTH	THICKNESS	REINFORCING
A	3' - 0"	3' - 0"	1' - 0"	(4) #5 EW
B	4' - 0"	4' - 0"	1' - 0"	(5) #6 EW
C	5' - 0"	5' - 0"	1' - 2"	(7) #6 EW
D	6' - 0"	6' - 0"	1' - 6"	(8) #7 EW
E	7' - 0"	7' - 0"	1' - 8"	(8) #8 EW

FD INDICATES FLOOR DRAIN SEE 15/S0.03

INDICATES THICKENEND SLAB SEE 8/S4.02

INDICATES INTERIOR GRADE BEAM SEE 15 & 15/S4.01

INDICATES COLUMN SIZE SEE 17/S4.02 FOR BASE PLATES & ANCHOR BOLT

HSS6x6x1/4

A INDICATES FOOTING SIZE SEE SCHEDULE FOR REINF.

LEGEND

NORTH

AREA "A" FOUNDATION PLAN

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

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

BRITT GARDNER — STATE OF TEXAS — 90958 — LICENSED PROFESSIONAL ENGINEER

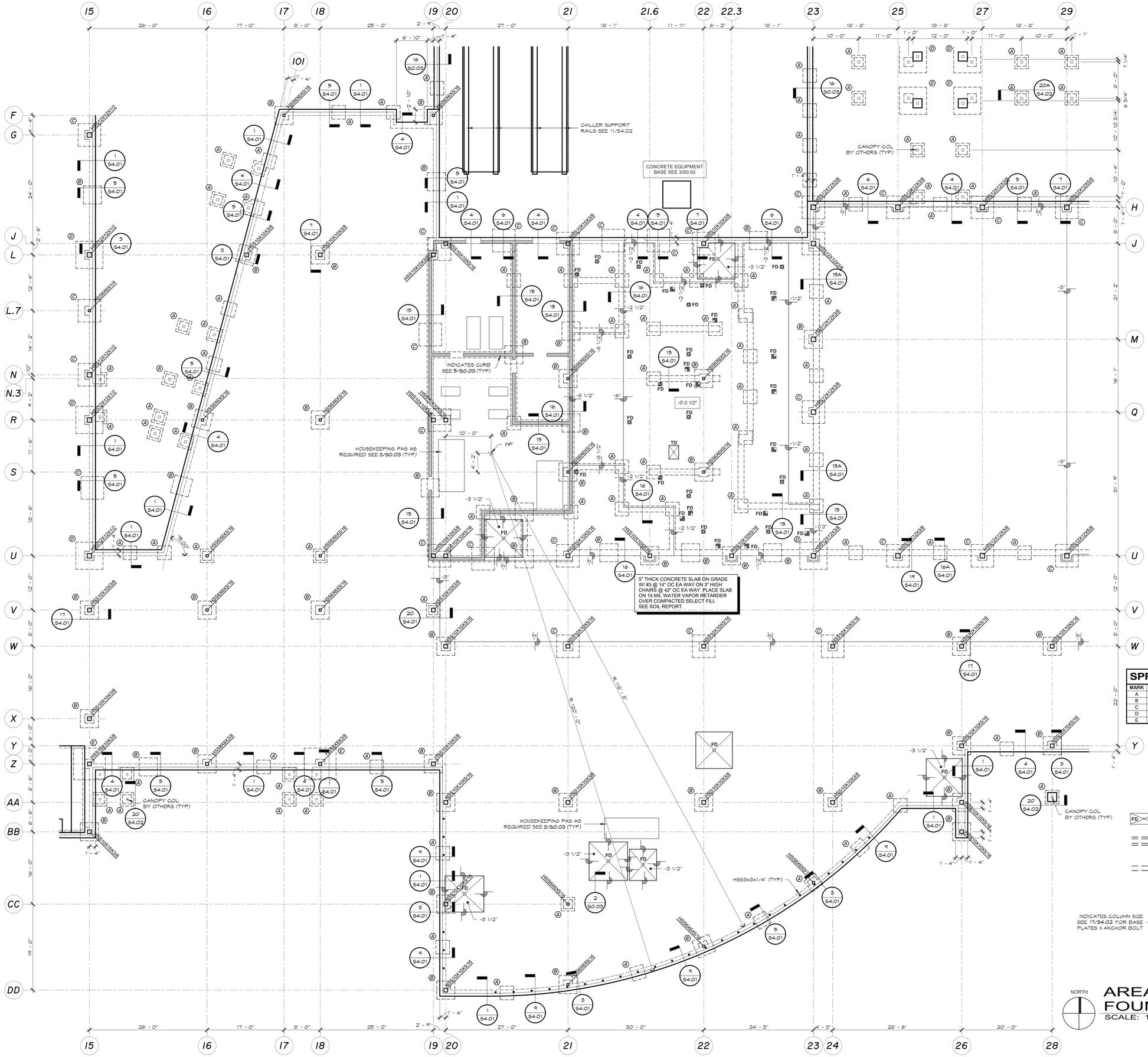
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	A COH COMMENT 1
10/24/2025	CSP

S1.01

AREA "A" FOUNDATION PLAN



SPREAD FOOTING SCHEDULE

MARK	LENGTH	WIDTH	THICKNESS	REINFORCING
A	3' - 0"	3' - 0"	1' - 0"	(4) #5 EW
B	4' - 0"	4' - 0"	1' - 0"	(5) #6 EW
C	5' - 0"	5' - 0"	1' - 2"	(7) #6 EW
D	6' - 0"	6' - 0"	1' - 6"	(8) #7 EW
E	7' - 0"	7' - 0"	1' - 8"	(8) #8 EW

FD INDICATES FLOOR DRAIN SEE 15/S0.03

INDICATES THICKENED SLAB SEE 8/S4.02

INDICATES INTERIOR GRADE BEAM SEE 15 & 15/S4.01

INDICATES COLUMN SIZE SEE 17/S4.02 FOR BASE PLATES & ANCHOR BOLT

HSS6x6x1/4

INDICATES FOOTING SIZE SEE SCHEDULE FOR REINF.

LEGEND

NORTH

AREA "B" FOUNDATION PLAN

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

CONSULTANTS

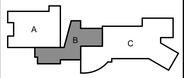
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



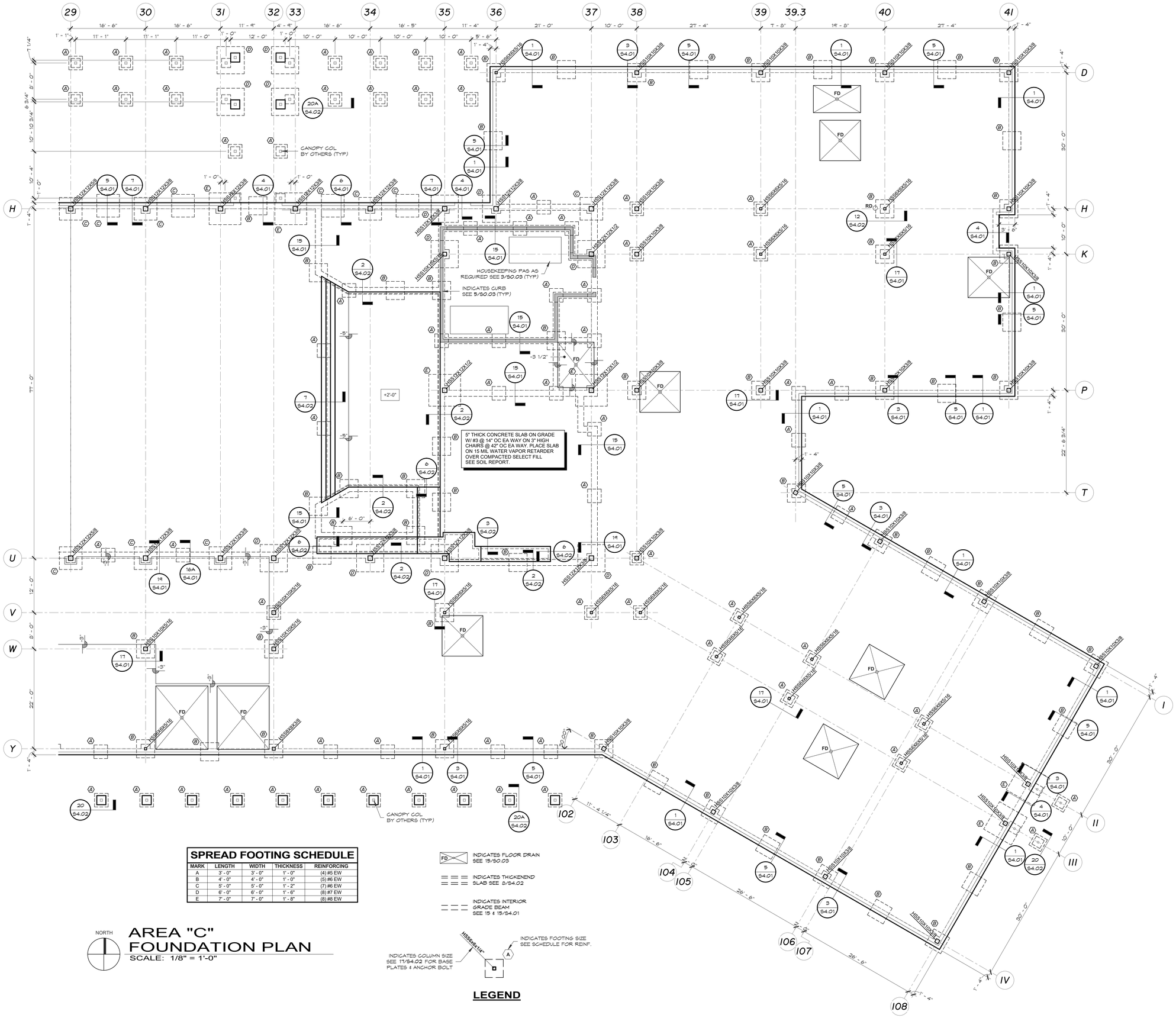
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	1 COH COMMENT 1
10/24/2025	CSP

S1.02

AREA "B" FOUNDATION PLAN



SPREAD FOOTING SCHEDULE				
MARK	LENGTH	WIDTH	THICKNESS	REINFORCING
A	3' - 0"	3' - 0"	1' - 0"	(4) #5 EW
B	4' - 0"	4' - 0"	1' - 0"	(5) #6 EW
C	5' - 0"	5' - 0"	1' - 2"	(7) #6 EW
D	6' - 0"	6' - 0"	1' - 6"	(8) #7 EW
E	7' - 0"	7' - 0"	1' - 8"	(8) #8 EW

FD INDICATES FLOOR DRAIN SEE 15/S0.03

INDICATES THICKENEND SLAB SEE 8/S4.02

INDICATES INTERIOR GRADE BEAM SEE 15 & 19/S4.01

INDICATES COLUMN SIZE SEE 17/S4.02 FOR BASE PLATES & ANCHOR BOLT

INDICATES FOOTING SIZE SEE SCHEDULE FOR REINF.

LEGEND

NORTH

AREA "C" FOUNDATION PLAN

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

CONSULTANTS

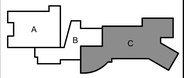
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



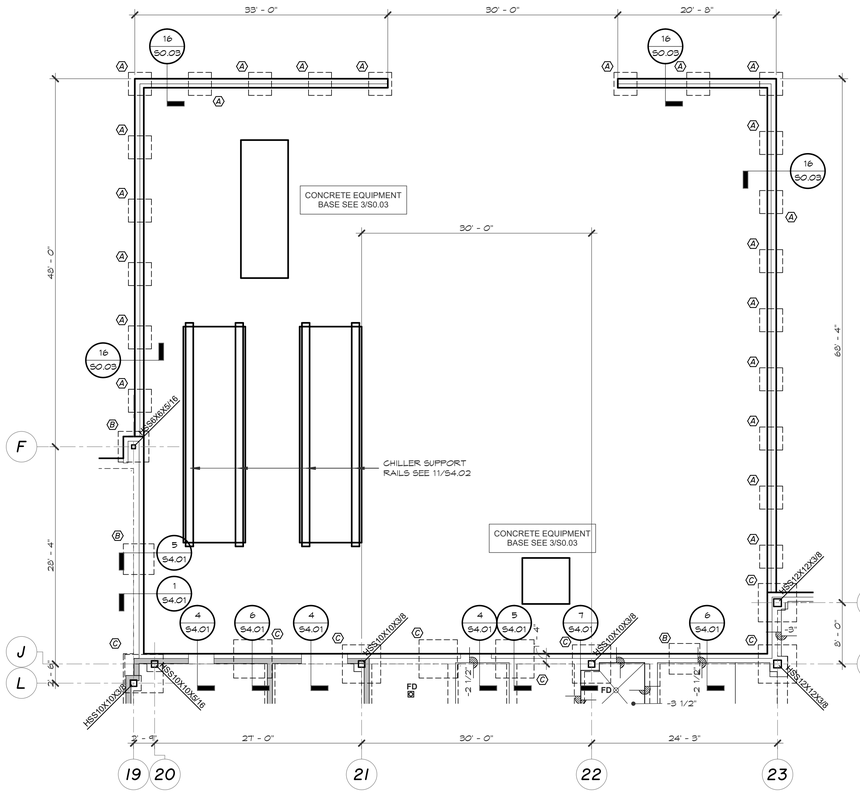
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE	
08/29/2025	COH Permit	
09/26/2025	COH COMMENT 1	A
10/24/2025	CSP	

S1.03

AREA "C" FOUNDATION PLAN



AREA "B"
SERVICE YARD
FOUNDATION PLAN

NORTH

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

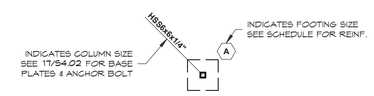
SPREAD FOOTING SCHEDULE

MARK	LENGTH	WIDTH	THICKNESS	REINFORCING
A	3' - 0"	3' - 0"	1' - 0"	(4) #5 EW
B	4' - 0"	4' - 0"	1' - 0"	(5) #6 EW
C	5' - 0"	5' - 0"	1' - 2"	(7) #6 EW
D	6' - 0"	6' - 0"	1' - 6"	(8) #7 EW
E	7' - 0"	7' - 0"	1' - 8"	(8) #8 EW

FD INDICATES FLOOR DRAIN SEE 15/S0.03

INDICATES THICKENED SLAB SEE 5/S4.02

INDICATES INTERIOR GRADE BEAM SEE 15 & 15/S4.01



LEGEND

CONSULTANTS

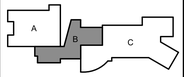
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



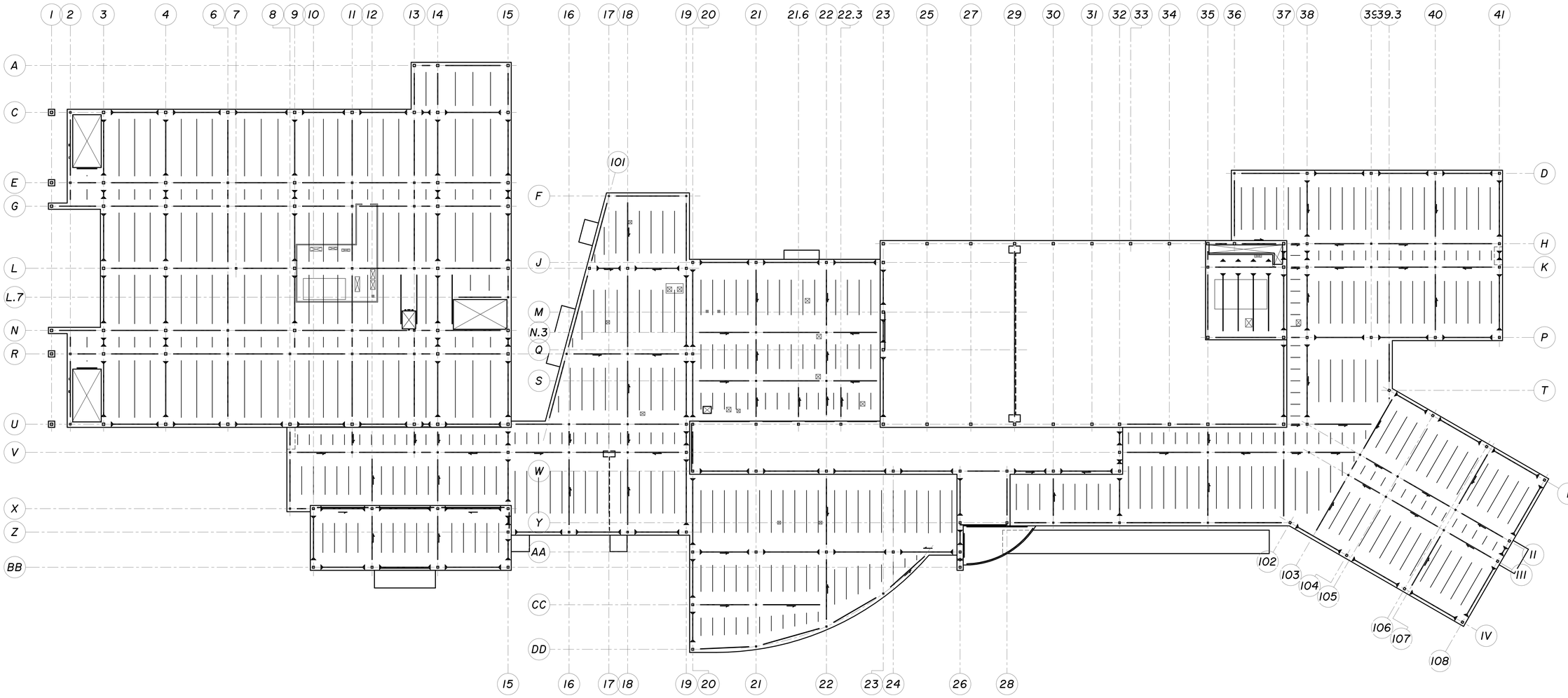
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	A COH COMMENT 1
10/24/2025	CSP

S1.04

AREA "B" SERVICE YARD FOUNDATION PLAN



NORTH

COMPOSITE SECOND & LOW ROOF FRAMING PLAN

SCALE: NTS

CONSULTANTS

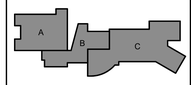
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



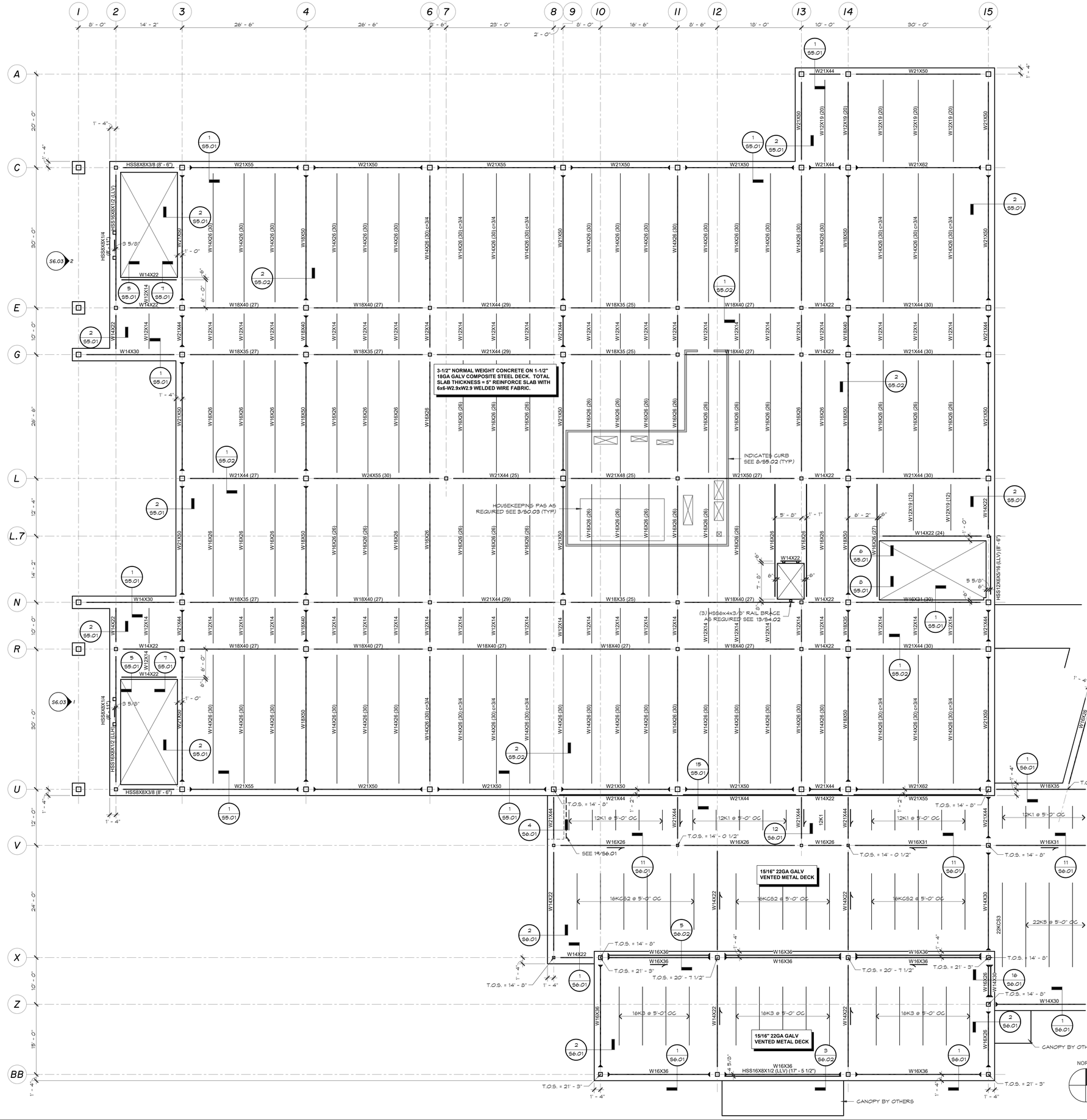
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

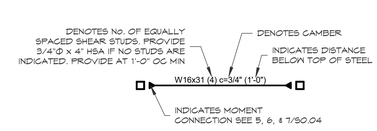
DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	1 COH COMMENT 1
10/24/2025	CSP

S2.00

COMPOSITE SECOND & LOW ROOF FRAMING PLAN



NOTE:
TOP OF STEEL ELEVATION (BOTTOM OF DECK) = AS NOTED ABOVE FINISH FLOOR ELEVATION = 14'-3", UNLESS NOTED OTHERWISE THUS (+/-). DETAILER TO COORDINATE STEEL JOIST SEAT DEPTH REQUIREMENTS WITH JOIST SUPPLIER. ALL ROOF SLOPES INDICATED THUS (⟋⟍) TO BE UNIFORM BETWEEN HIGH / LOW ELEVATIONS GIVEN IN PLAN.



BEAM LEGEND

AREA "A" SECOND FLOOR & LOW ROOF FRAMING PLAN

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

CONSULTANTS

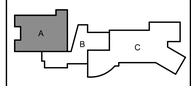
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



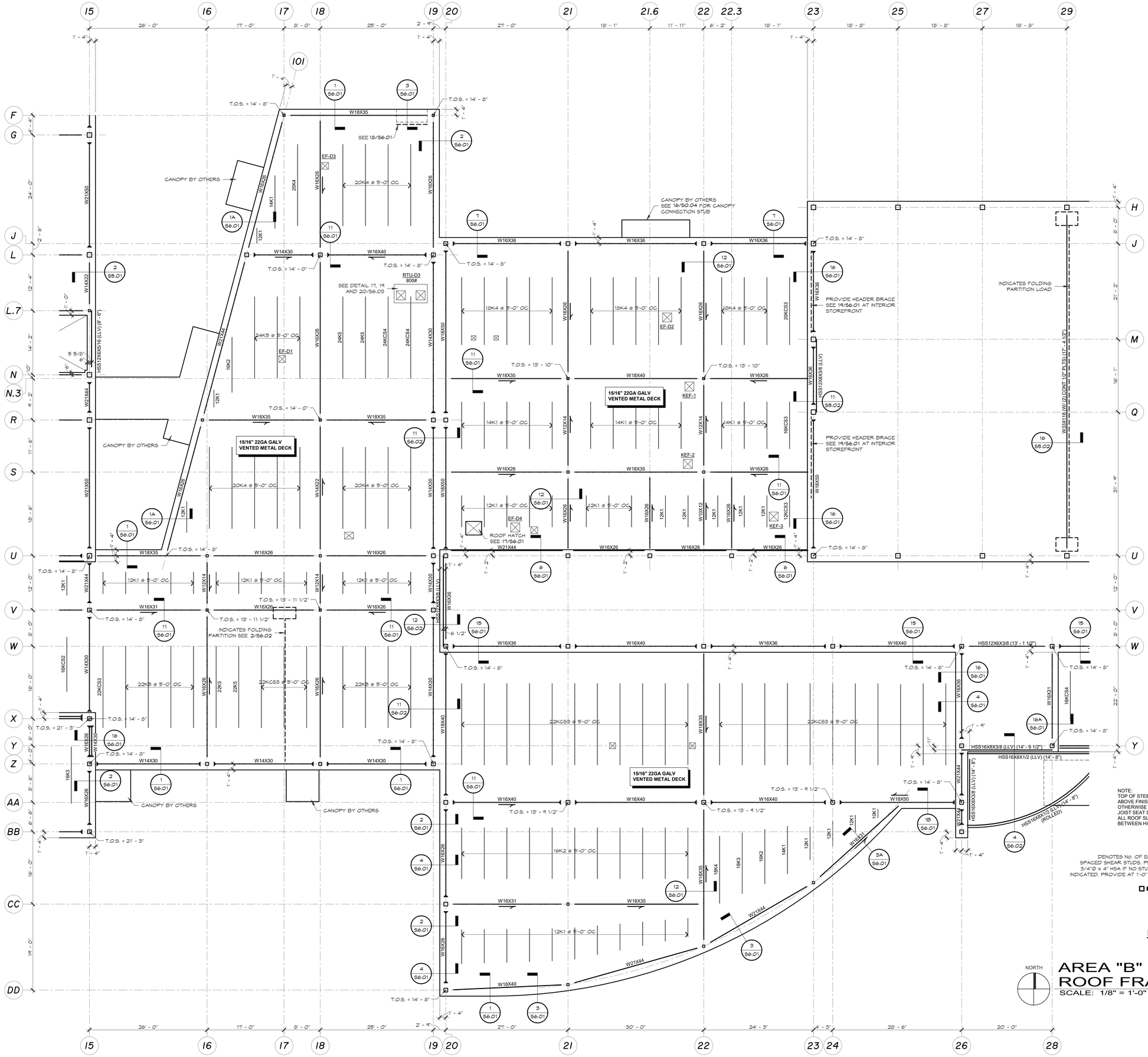
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

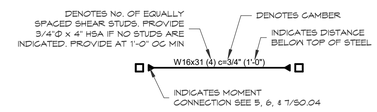
DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	1 COH COMMENT 1
10/24/2025	CSP

S2.01

AREA "A" SECOND FLOOR & LOW ROOF FRAMING PLAN



NOTE:
TOP OF STEEL ELEVATION (BOTTOM OF DECK) = AS NOTED ABOVE FINISH FLOOR ELEVATION = 14'-3", UNLESS NOTED OTHERWISE THUS (+/-). DETAILER TO COORDINATE STEEL JOIST SEAT DEPTH REQUIREMENTS WITH JOIST SUPPLIER. ALL ROOF SLOPES INDICATED THUS (↙—↘) TO BE UNIFORM BETWEEN HIGH / LOW ELEVATIONS GIVEN IN PLAN.



BEAM LEGEND

NORTH

AREA "B" LOW ROOF FRAMING PLAN

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

CONSULTANTS

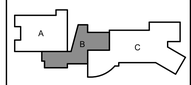
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



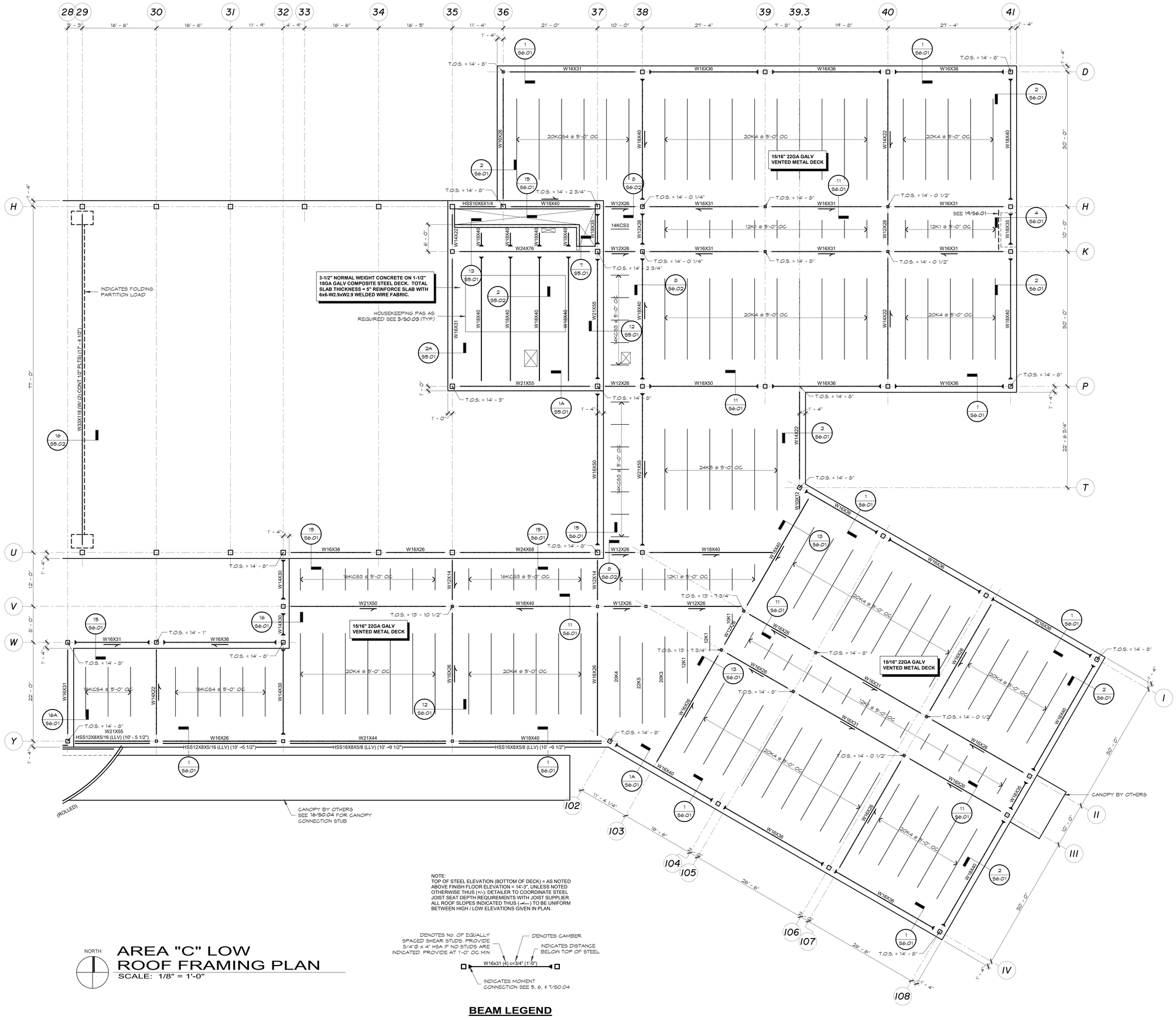
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	Δ COH COMMENT 1
10/24/2025	CSP

S2.02

AREA "B" LOW ROOF FRAMING PLAN



NORTH

AREA "C" LOW ROOF FRAMING PLAN

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

NOTE:
TOP OF STEEL ELEVATION (BOTTOM OF DECK) = AS NOTED ABOVE FINISH FLOOR ELEVATION = 14'-3", UNLESS NOTED OTHERWISE THUS (+/-). DETAILER TO COORDINATE STEEL JOIST SEAT DEPTH REQUIREMENTS WITH JOIST SUPPLIER. ALL ROOF SLOPES INDICATED THUS (◿) TO BE UNIFORM BETWEEN HIGH / LOW ELEVATIONS GIVEN IN PLAN.

BEAM LEGEND

CONSULTANTS

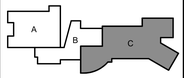
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



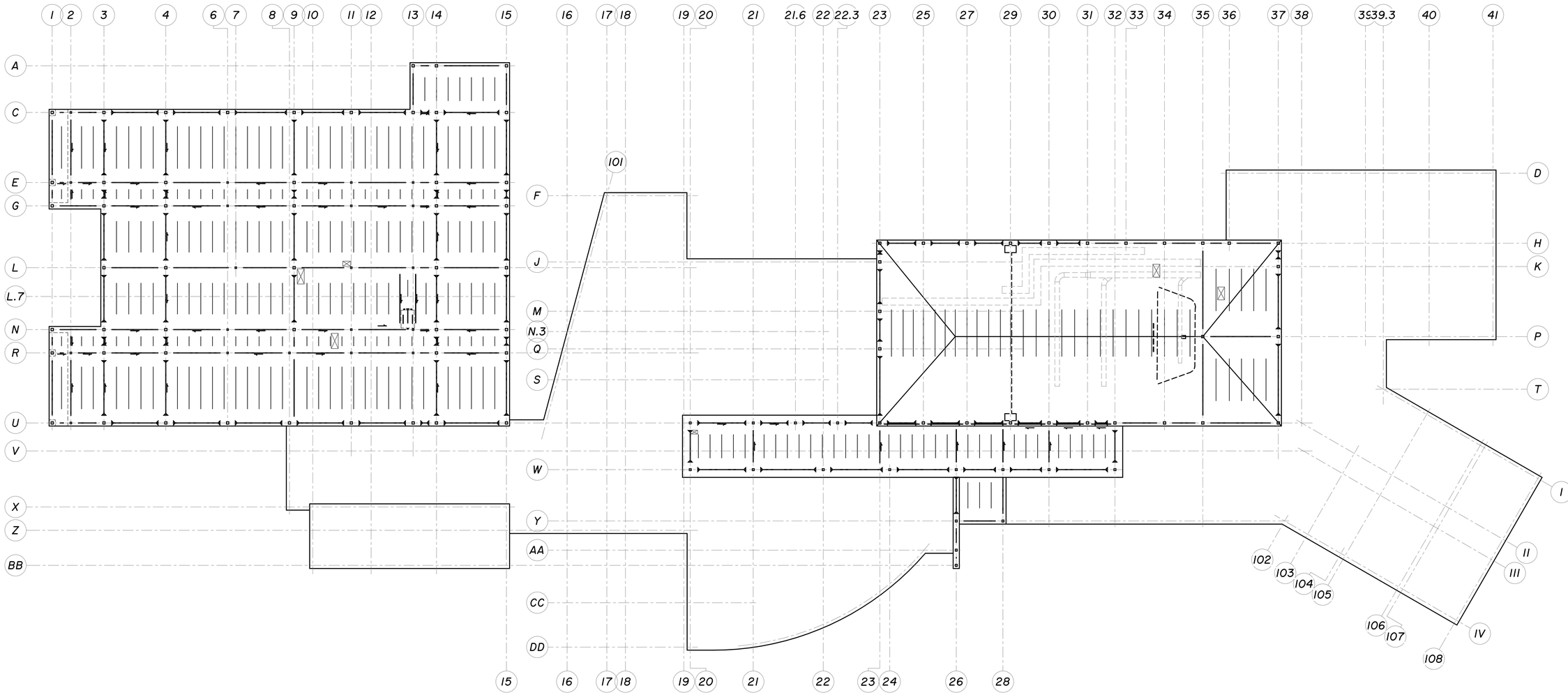
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	Δ COH COMMENT 1
10/24/2025	CSP

S2.03

AREA "C" LOW ROOF FRAMING PLAN



NORTH

COMPOSITE ROOF FRAMING PLAN

SCALE: NTS

CONSULTANTS

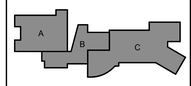
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



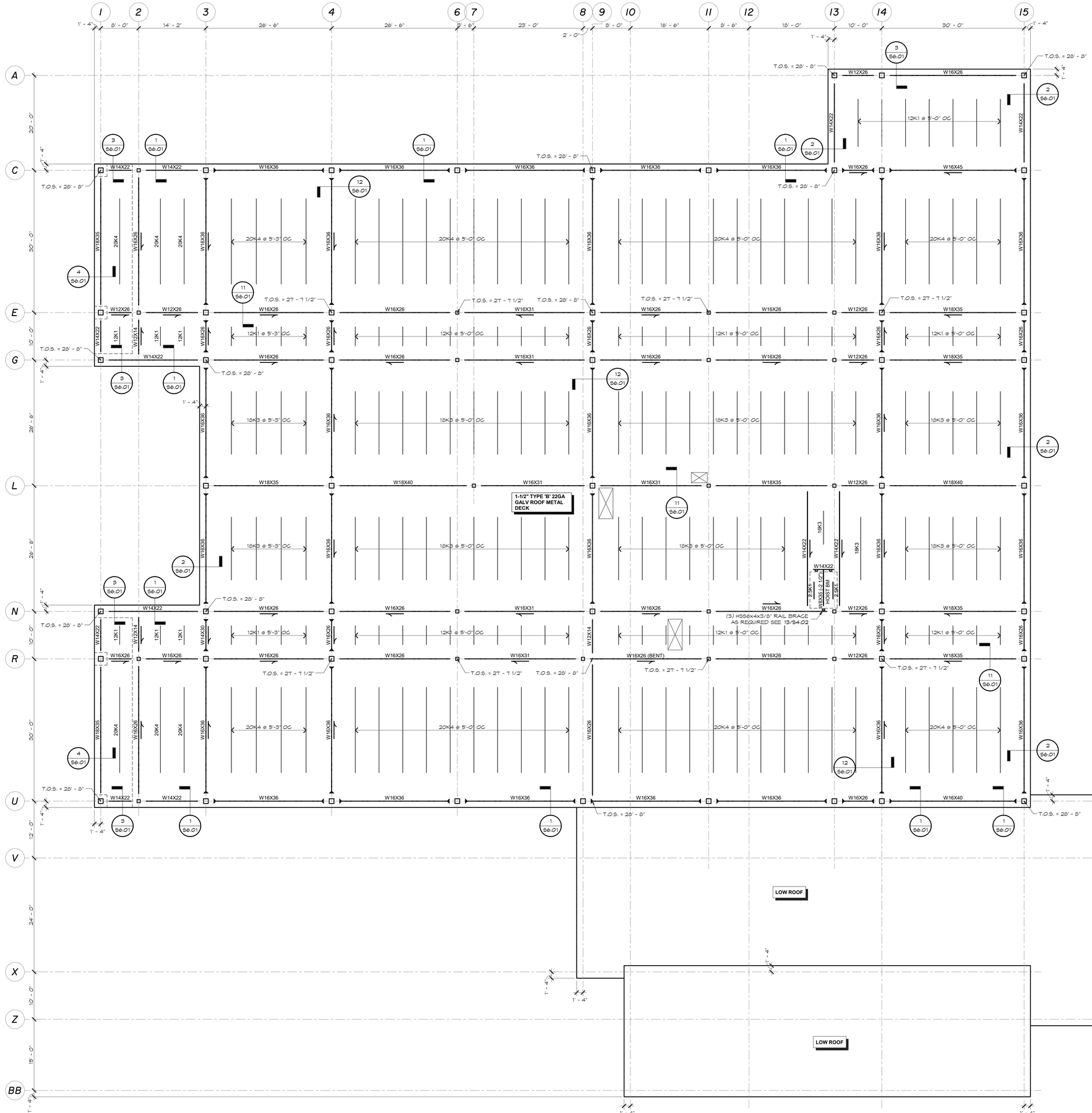
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

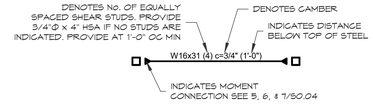
DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	⚠1 COH COMMENT 1
10/24/2025	CSP

S3.00

COMPOSITE ROOF FRAMING PLAN



NOTE:
TOP OF STEEL ELEVATION (BOTTOM OF DECK) = AS NOTED ABOVE FINISH FLOOR ELEVATION = 0'-0", UNLESS NOTED OTHERWISE THUS (+/-). DETAILER TO COORDINATE STEEL JOIST SEAT DEPTH REQUIREMENTS WITH JOIST SUPPLIER. ALL ROOF SLOPES INDICATED THUS (⌐‾‾) TO BE UNIFORM BETWEEN HIGH / LOW ELEVATIONS GIVEN IN PLAN.



BEAM LEGEND

NORTH

AREA "A" ROOF FRAMING PLAN

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

CONSULTANTS

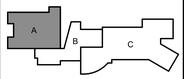
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



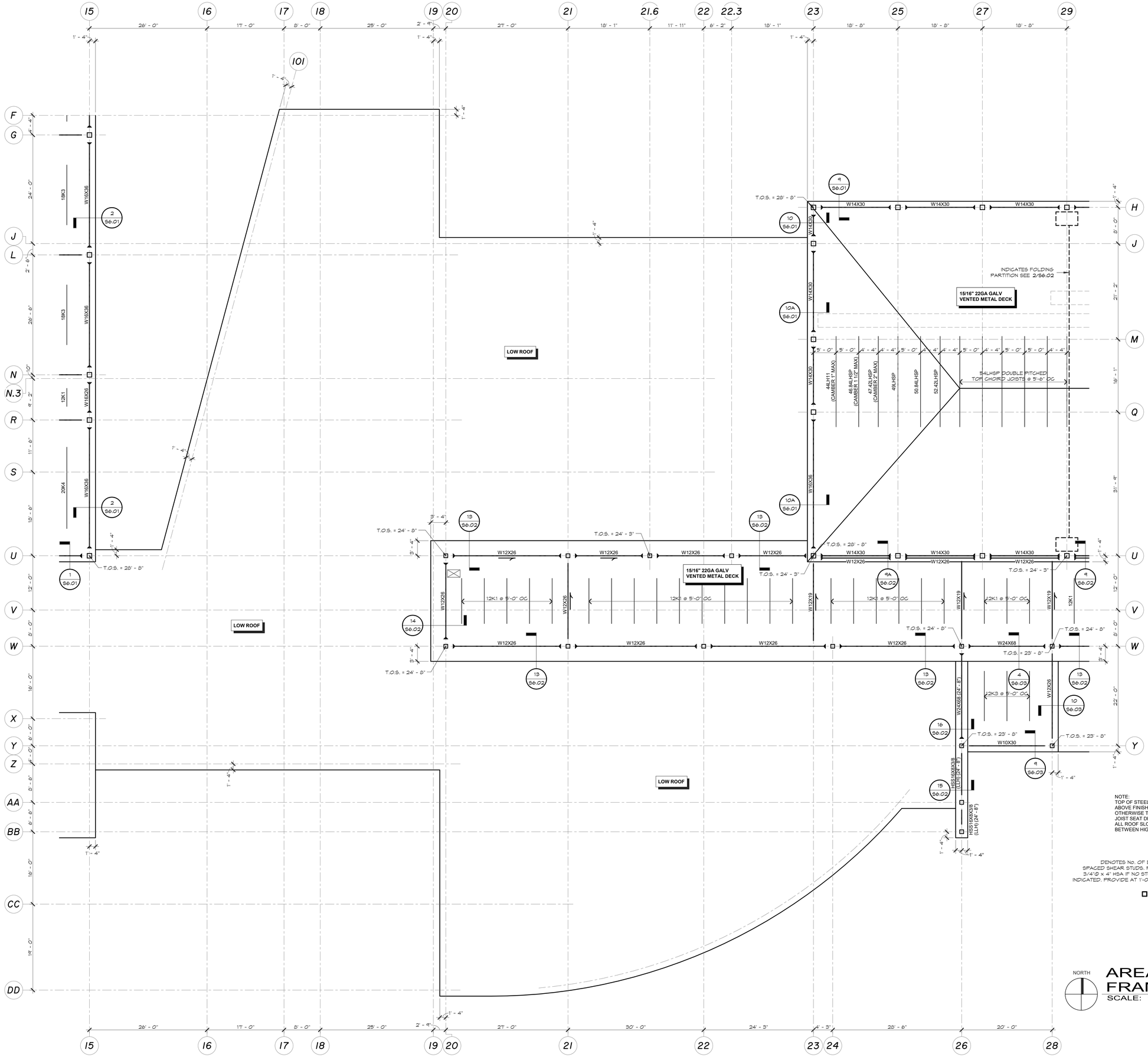
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

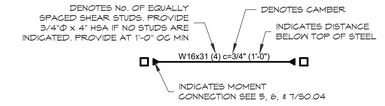
DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	Δ1 COH COMMENT 1
10/24/2025	CSP

S3.01

AREA "A" ROOF FRAMING PLAN



NOTE:
TOP OF STEEL ELEVATION (BOTTOM OF DECK) = AS NOTED ABOVE FINISH FLOOR ELEVATION = 0'-0", UNLESS NOTED OTHERWISE THUS (+/-). DETAILER TO COORDINATE STEEL JOIST SEAT DEPTH REQUIREMENTS WITH JOIST SUPPLIER. ALL ROOF SLOPES INDICATED THUS (⌐¬) TO BE UNIFORM BETWEEN HIGH / LOW ELEVATIONS GIVEN IN PLAN.



BEAM LEGEND

NORTH

AREA "B" ROOF FRAMING PLAN

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

CONSULTANTS

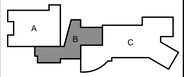
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

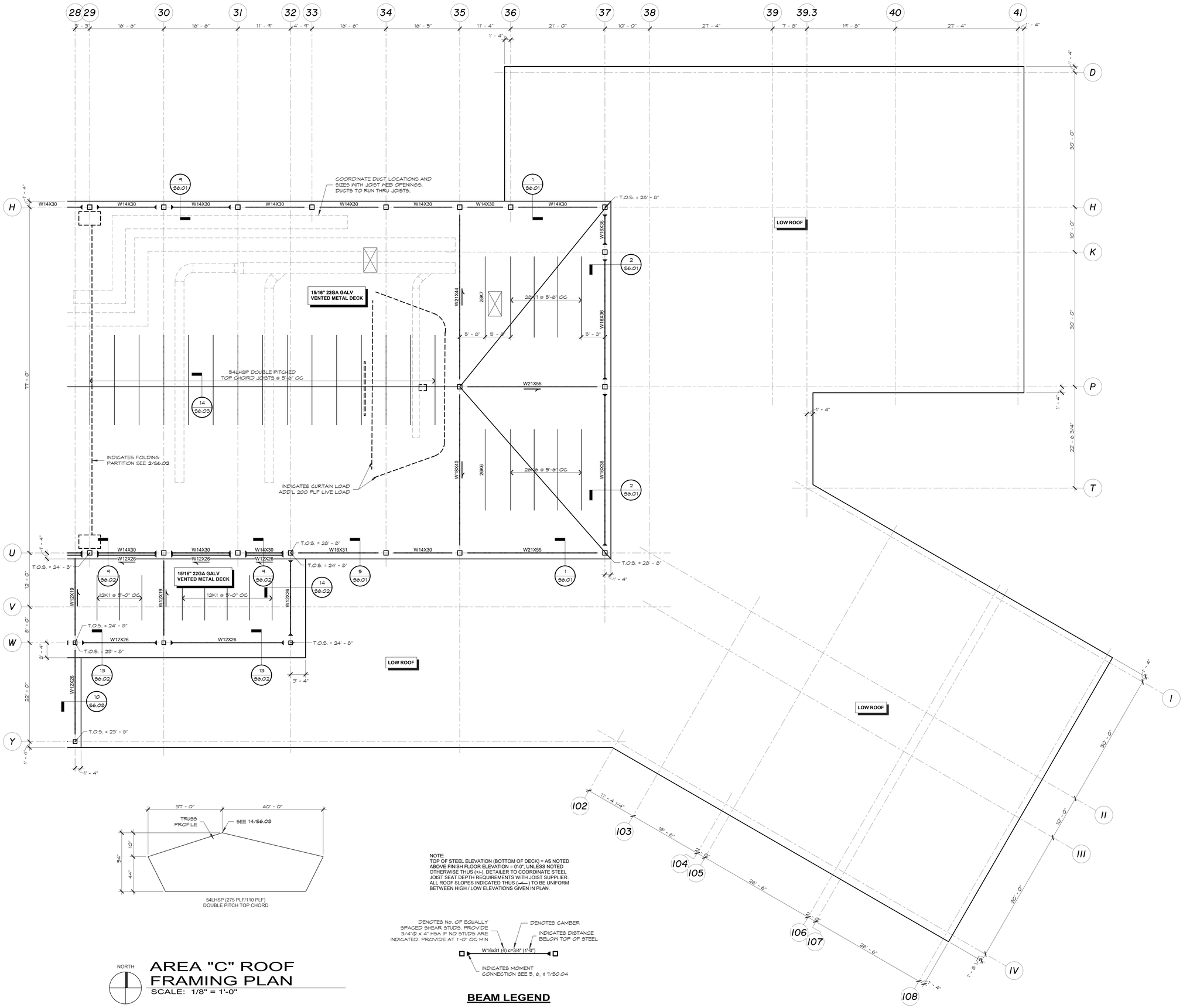
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	Δ COH COMMENT 1
10/24/2025	CSP

S3.02

AREA "B" ROOF FRAMING PLAN



NOTE:
TOP OF STEEL ELEVATION (BOTTOM OF DECK) = AS NOTED ABOVE FINISH FLOOR ELEVATION = 0'-0", UNLESS NOTED OTHERWISE THUS (+/-). DETAILER TO COORDINATE STEEL JOIST SEAT DEPTH REQUIREMENTS WITH JOIST SUPPLIER. ALL ROOF SLOPES INDICATED THUS (⟋⟍) TO BE UNIFORM BETWEEN HIGH / LOW ELEVATIONS GIVEN IN PLAN.

BEAM LEGEND

NORTH

AREA "C" ROOF FRAMING PLAN

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

CONSULTANTS

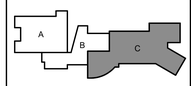
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



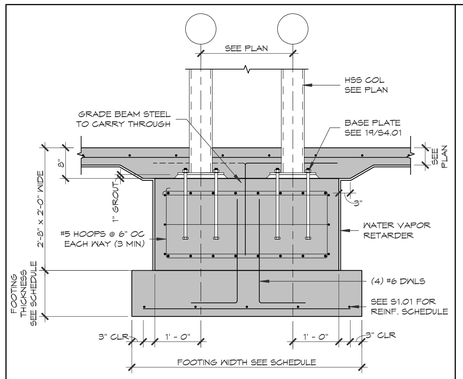
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

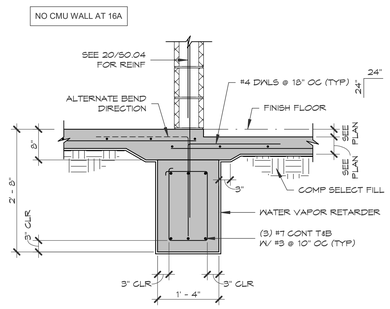
DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	1 COH COMMENT 1
10/24/2025	CSP

S3.03

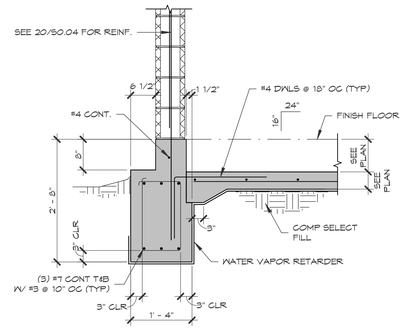
AREA "C" ROOF FRAMING PLAN



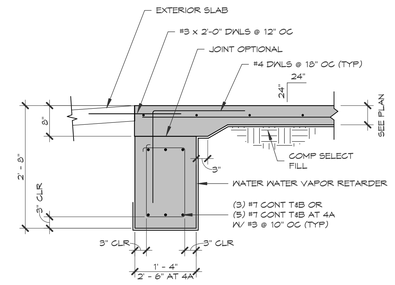
20 DOUBLE COLUMN CAP DETAIL
SCALE: 3/4" = 1'-0"



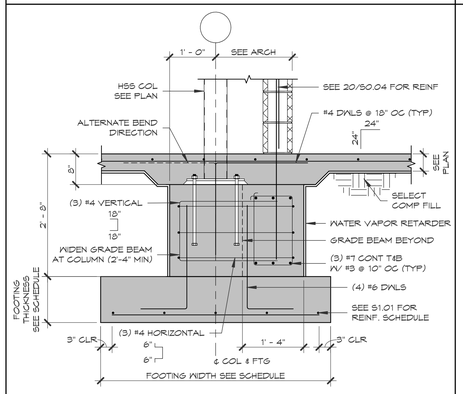
16 INTERIOR GRADE BEAM AT CMU WALL RECESS
SCALE: 3/4" = 1'-0"



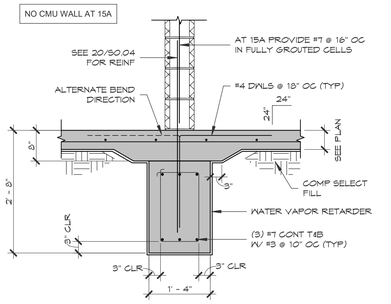
8 SLAB RECESS AT EXTERIOR GRADE BEAM
SCALE: 3/4" = 1'-0"



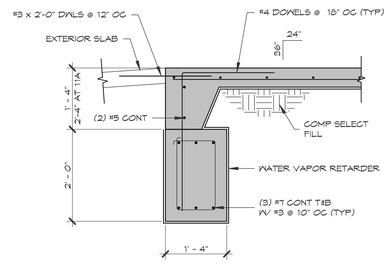
4 GRADE BEAM AT EXTERIOR SLAB
SCALE: 3/4" = 1'-0"



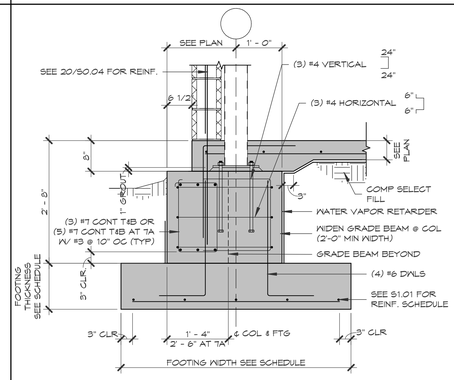
19 DETAIL
SCALE: 3/4" = 1'-0"



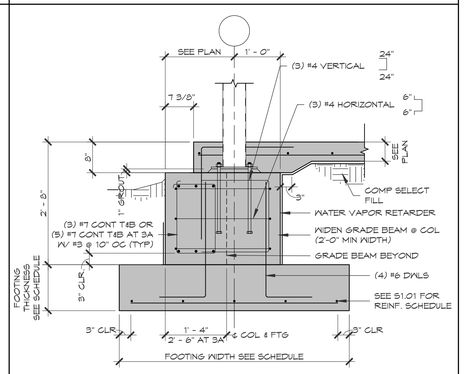
15 INTERIOR GRADE BEAM AT CMU WALL
SCALE: 3/4" = 1'-0"



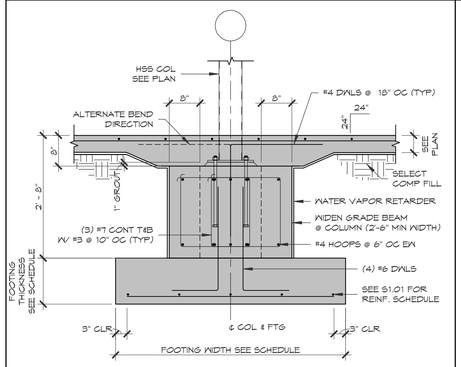
11 STEP DOWN GRADE BEAM DETAIL
SCALE: 3/4" = 1'-0"



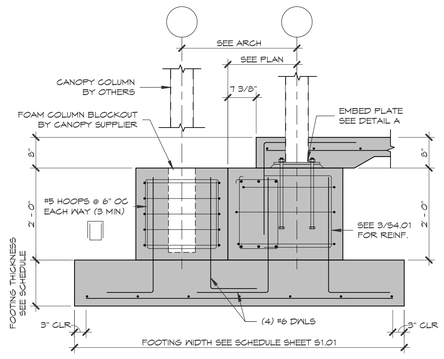
7 EXTERIOR GRADE BEAM AT COLUMN W/ BRICK LEDGE
SCALE: 3/4" = 1'-0"



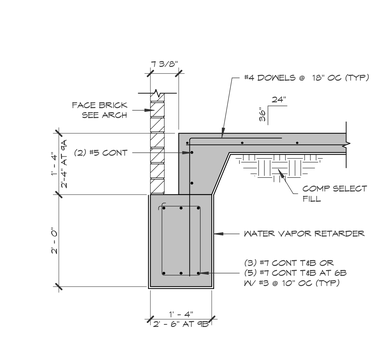
3 EXTERIOR GRADE BEAM AT COLUMN W/ BRICK LEDGE
SCALE: 3/4" = 1'-0"



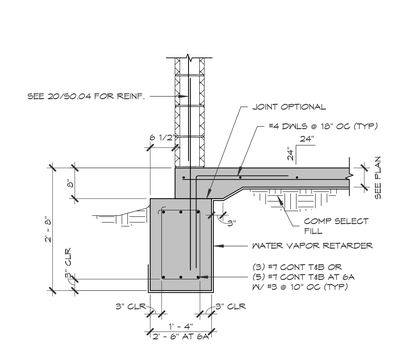
18 INTERIOR GRADE BEAM AT COLUMN
SCALE: 3/4" = 1'-0"



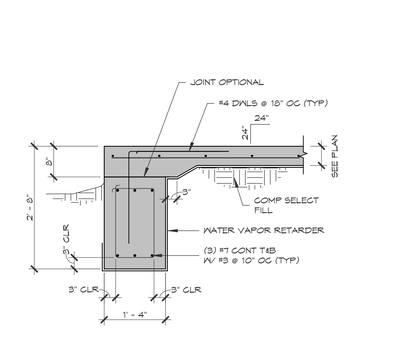
14 DETAIL
SCALE: 3/4" = 1'-0"



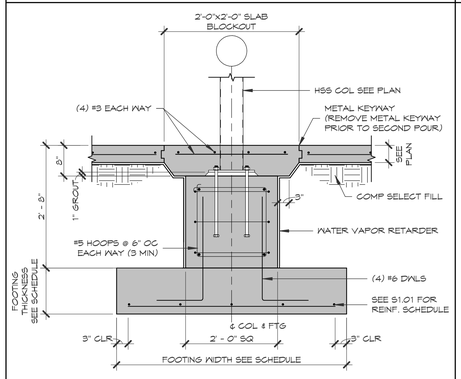
10 STEP DOWN GRADE BEAM DETAIL
SCALE: 3/4" = 1'-0"



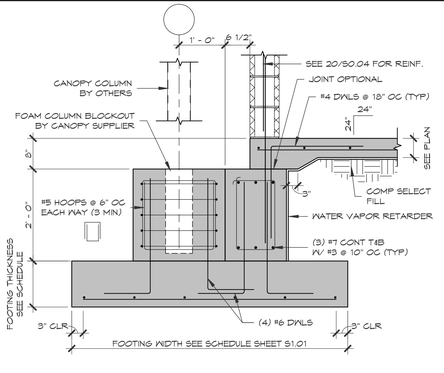
6 EXTERIOR GRADE BEAM AT BRICK LEDGE
SCALE: 3/4" = 1'-0"



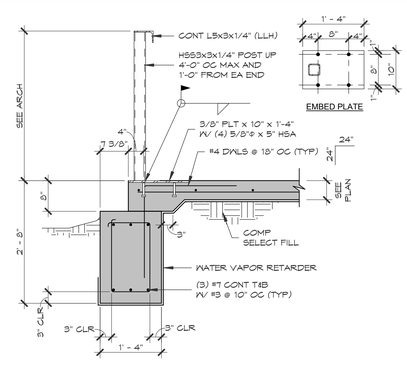
2 EXTERIOR GRADE BEAM
SCALE: 3/4" = 1'-0"



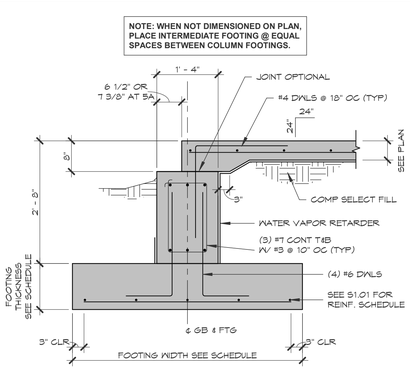
17 COLUMN CAP DETAIL
SCALE: 3/4" = 1'-0"



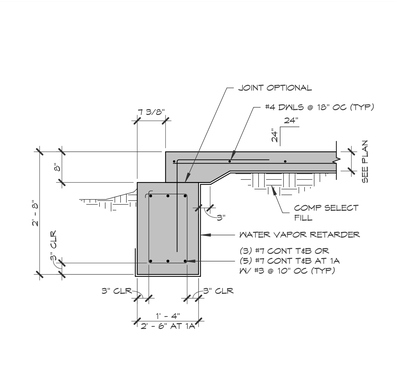
13 DETAIL
SCALE: 3/4" = 1'-0"



9 EXTERIOR GRADE BEAM AT BRICK LEDGE AT POST UP
SCALE: 3/4" = 1'-0"



5 EXTERIOR GRADE BEAM AT BRICK LEDGE
SCALE: 3/4" = 1'-0"



1 EXTERIOR GRADE BEAM AT BRICK LEDGE
SCALE: 3/4" = 1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

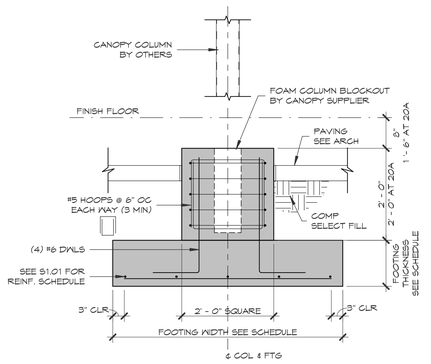
STATE OF TEXAS
BRITT GARDNER
LICENSED
90958
PROFESSIONAL ENGINEER
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

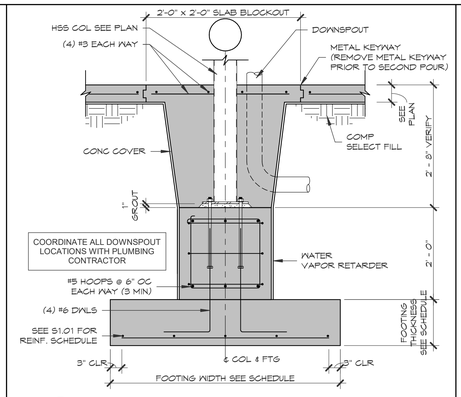
DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	A COH COMMENT 1
10/24/2025	CSP

S4.01

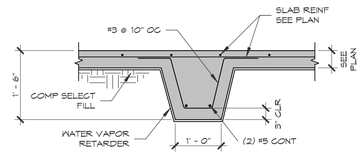
FOUNDATION DETAILS



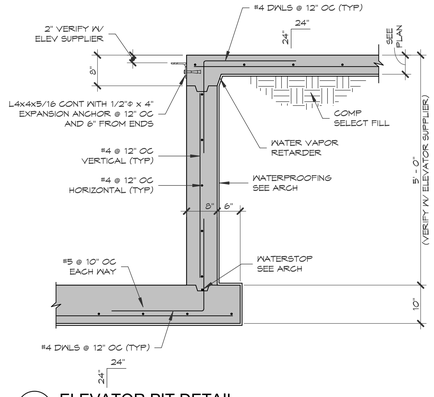
20 ISOLATED PIER CAP DETAIL AT CANOPY COLUMN
SCALE: 3/4" = 1'-0"



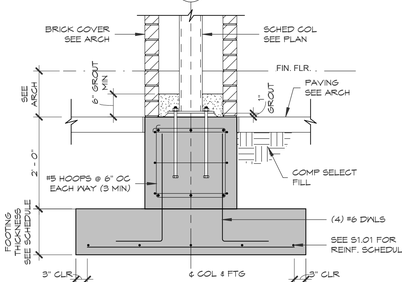
12 DOWN SPOUT AT INTERIOR COLUMN
SCALE: 3/4" = 1'-0"



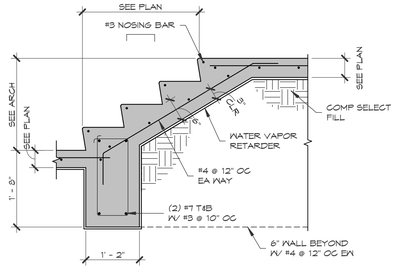
8 SLAB STIFFENER RIB DETAIL
SCALE: 3/4" = 1'-0"



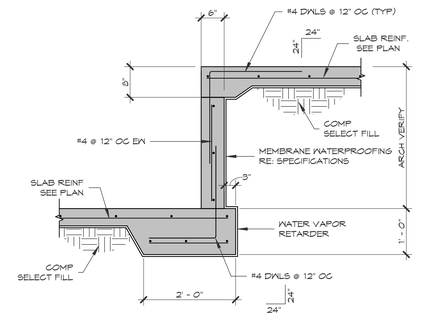
4 ELEVATOR PIT DETAIL
SCALE: 3/4" = 1'-0"



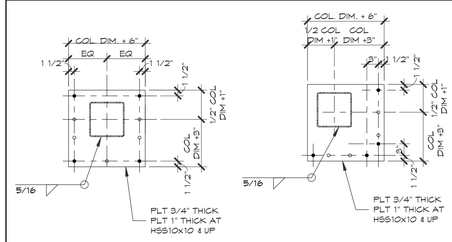
11 CHILLER RAILS
SCALE: 3/4" = 1'-0"



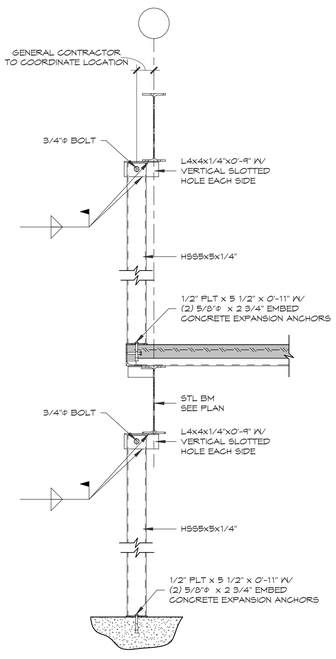
7 TYPICAL MONOLITHIC STAIR DETAIL
SCALE: 3/4" = 1'-0"



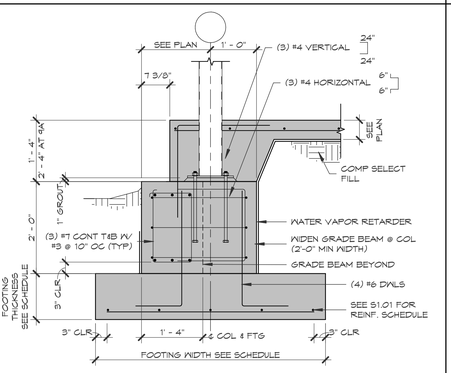
3 RAMP EDGE DETAIL
SCALE: 3/4" = 1'-0"



17 COLUMN BASE PLATE DETAIL
SCALE: 3/4" = 1'-0"

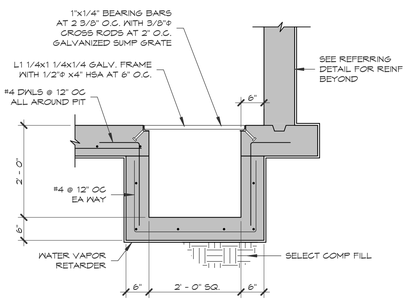


13 ELEVATOR RAIL BRACE DETAIL
SCALE: 3/4" = 1'-0"

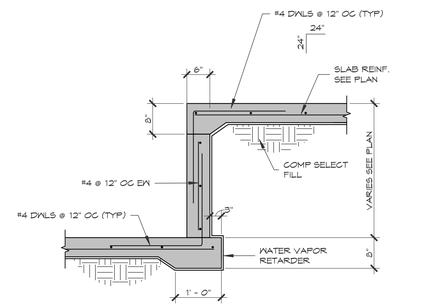


10 EXTERIOR GRADE BEAM AT COLUMN W/ BRICK LEDGE
SCALE: 3/4" = 1'-0"

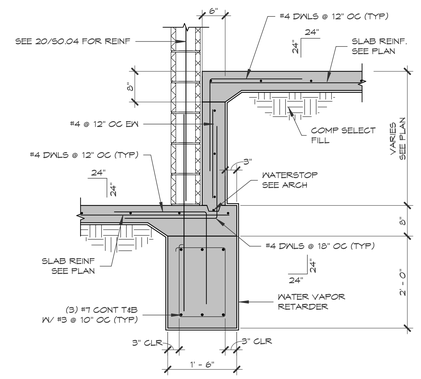
9 ISOLATED EXTERIOR COLUMN DETAIL
SCALE: 3/4" = 1'-0"



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



1 STEP DOWN SLAB DETAIL
SCALE: 3/4" = 1'-0"



2 STEP DOWN SLAB DETAIL
SCALE: 3/4" = 1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

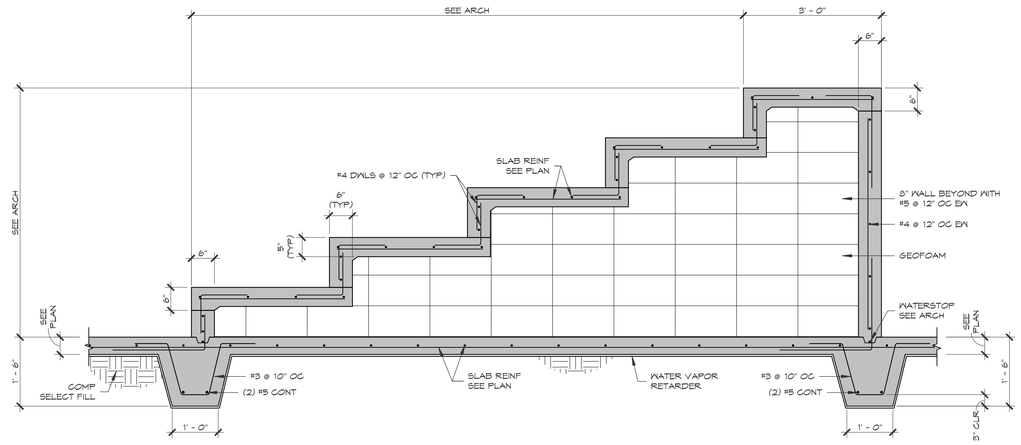
STATE OF TEXAS
BRITT GARDNER
LICENSED
90958
PROFESSIONAL ENGINEER
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	1 COH COMMENT 1
10/24/2025	CSP

S4.02

FOUNDATION DETAILS



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

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
BRITT GARDNER
90958
LICENSED
PROFESSIONAL ENGINEER

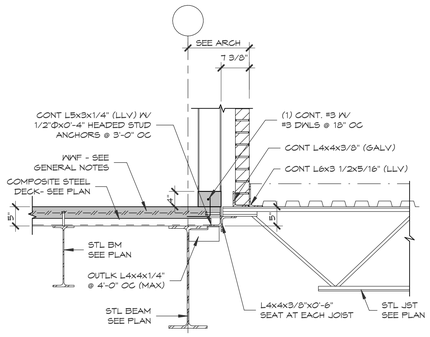
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

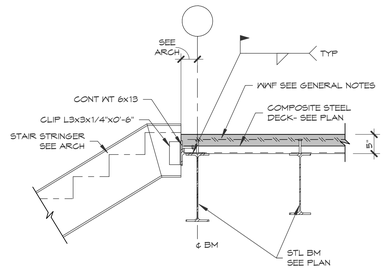
DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	1 COH COMMENT 1
10/24/2025	CSP

S4.03

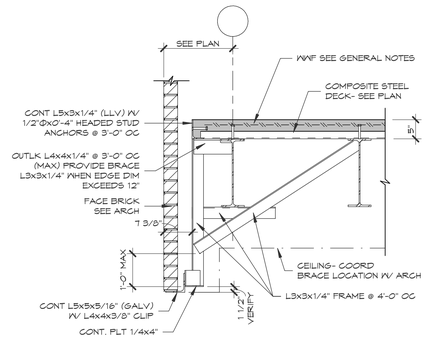
FOUNDATION DETAILS



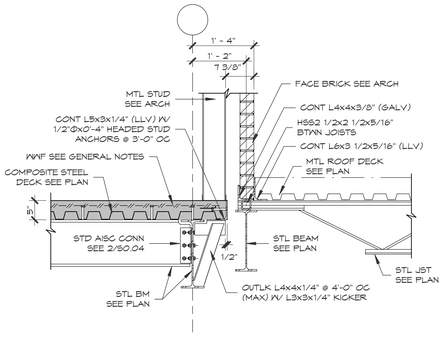
12 DETAIL
SCALE: 3/4" = 1'-0"



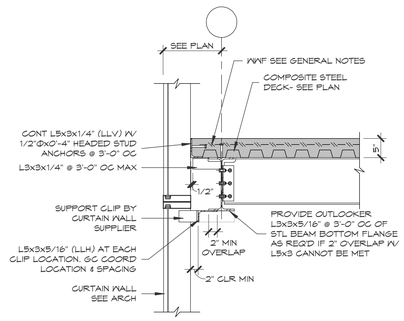
8 TYPICAL DETAIL AT STAIR
SCALE: 3/4" = 1'-0"



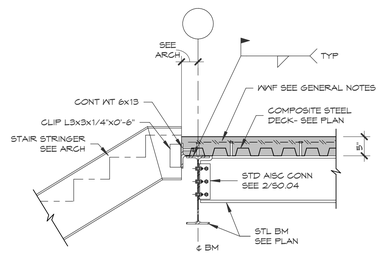
4 TYPICAL HANGING BRICK DETAIL
SCALE: 3/4" = 1'-0"



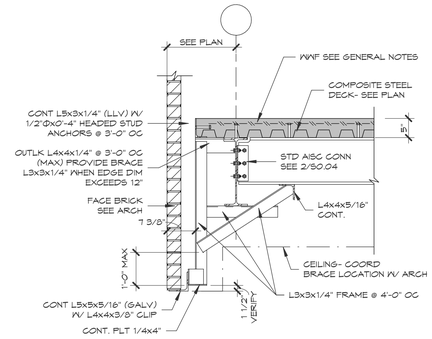
15 DETAIL
SCALE: 3/4" = 1'-0"



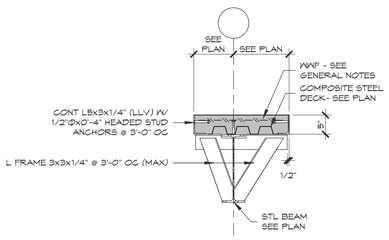
11 DETAIL
SCALE: 3/4" = 1'-0"



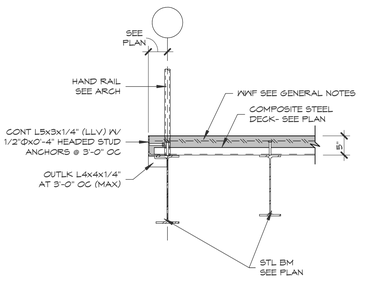
7 TYPICAL DETAIL AT STAIR
SCALE: 3/4" = 1'-0"



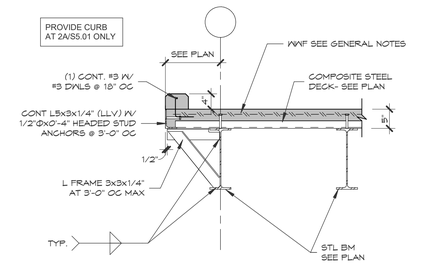
3 TYPICAL HANGING BRICK DETAIL
SCALE: 3/4" = 1'-0"



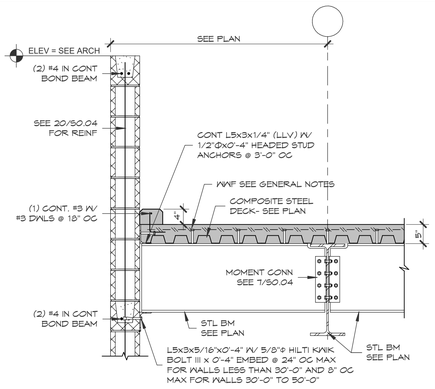
10 DETAIL
SCALE: 3/4" = 1'-0"



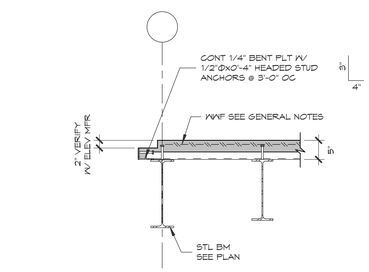
6 TYPICAL FLOOR EDGE DETAIL
SCALE: 3/4" = 1'-0"



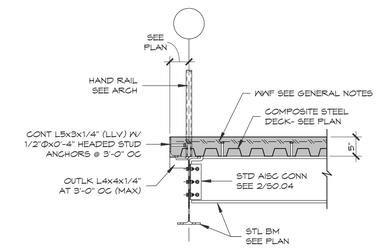
2 TYPICAL FLOOR EDGE DETAIL
SCALE: 3/4" = 1'-0"



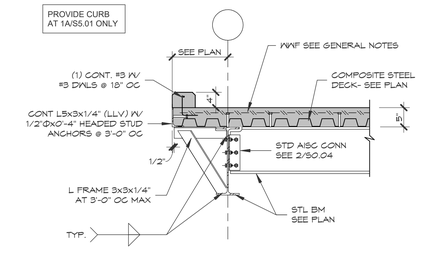
13 FLOOR EDGE DETAIL
SCALE: 3/4" = 1'-0"



9 SLAB EDGE DETAIL AT ELEVATOR
SCALE: 3/4" = 1'-0"



5 TYPICAL FLOOR EDGE DETAIL
SCALE: 3/4" = 1'-0"



1 TYPICAL FLOOR EDGE DETAIL
SCALE: 3/4" = 1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
BRITT GARDNER
90958
LICENSED
PROFESSIONAL ENGINEER

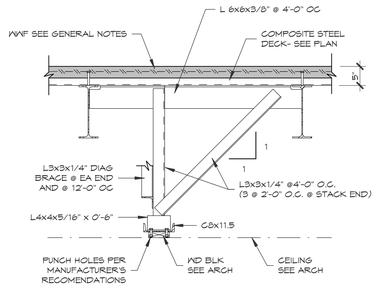
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

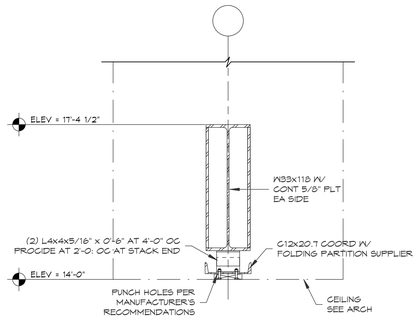
DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	Δ COH COMMENT 1
10/24/2025	CSP

S5.01

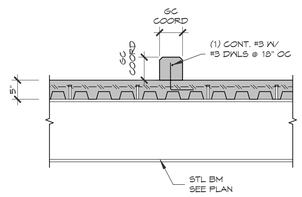
FLOOR FRAMING DETAILS



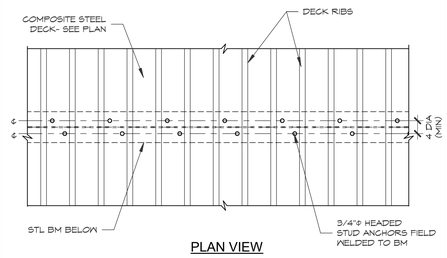
20 TYPICAL FOLDING PARTITION DETAIL
SCALE: 3/4" = 1'-0"



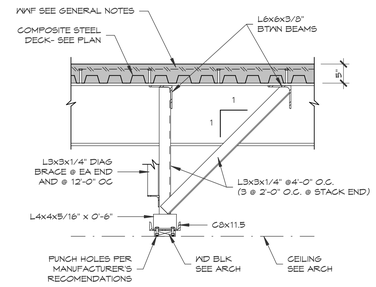
16 FOLDING PARTITION SUPPORT DETAIL
SCALE: 3/4" = 1'-0"



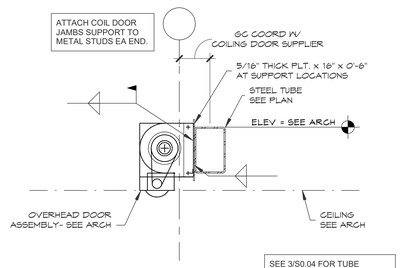
8 TYPICAL FLOOR CURB
SCALE: 3/4" = 1'-0"



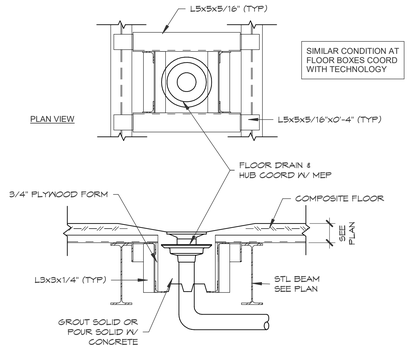
4 TYPICAL STUD PLACEMENT PLAN
SCALE: 3/4" = 1'-0"



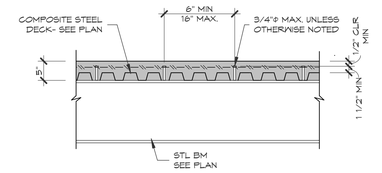
19 TYPICAL FOLDING PARTITION DETAIL
SCALE: 3/4" = 1'-0"



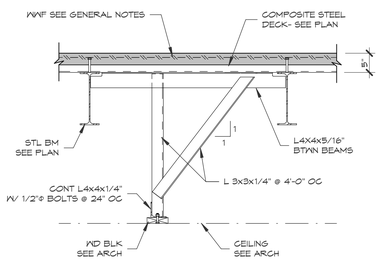
11 COILING DOOR SUPPORT DETAIL
SCALE: 3/4" = 1'-0"



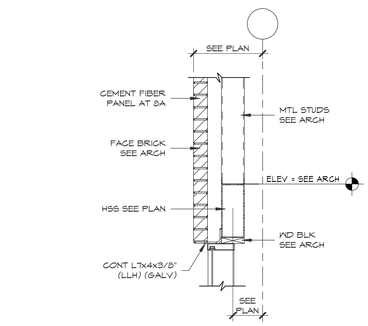
7 TYPICAL SECOND FLOOR DRAIN DETAIL
SCALE: 3/4" = 1'-0"



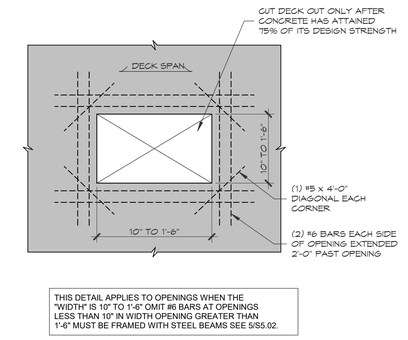
3 TYPICAL STUD PLACEMENT DETAIL
SCALE: 3/4" = 1'-0"



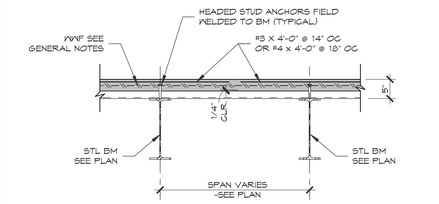
18 TYPICAL INTERIOR HEAD BRACE DETAIL
SCALE: 3/4" = 1'-0"



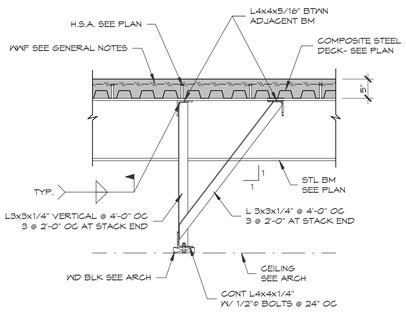
10 DETAIL
SCALE: 3/4" = 1'-0"



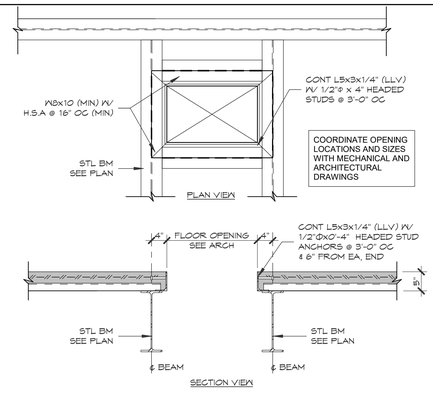
6 TYPICAL OPENING IN COMPOSITE SLAB
SCALE: 3/4" = 1'-0"



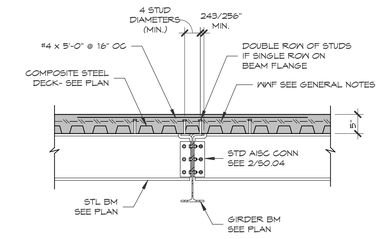
2 TYPICAL REINFORCING AT COMPOSITE FLOOR BEAMS
SCALE: 3/4" = 1'-0"



17 TYPICAL INTERIOR HEAD BRACE DETAIL
SCALE: 3/4" = 1'-0"



5 TYPICAL FLOOR OPENING DETAIL
SCALE: 3/4" = 1'-0"



1 TYPICAL INTERIOR GIRDER BEAM DETAIL
SCALE: 3/4" = 1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
BRITT GARDNER
LICENSED
90958
PROFESSIONAL ENGINEER

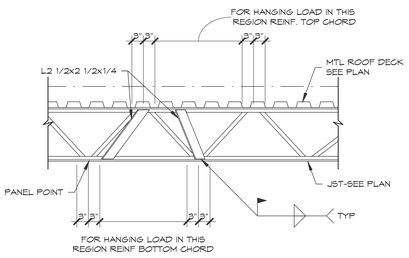
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

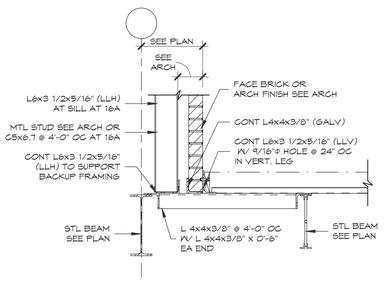
DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	Δ COH COMMENT 1
10/24/2025	CSP

S5.02

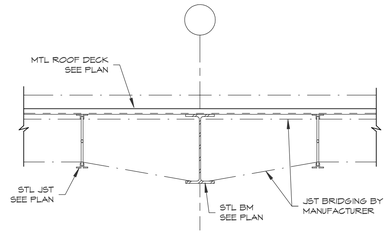
FLOOR FRAMING DETAILS



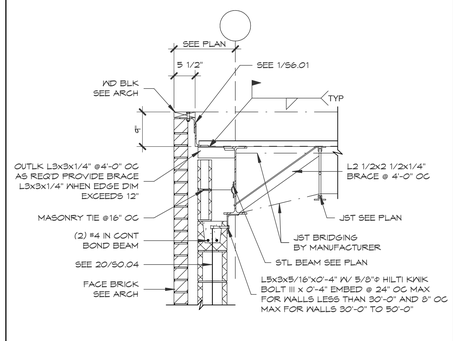
20 TYPICAL HANGING LOADS DETAIL
SCALE: 3/4" = 1'-0"



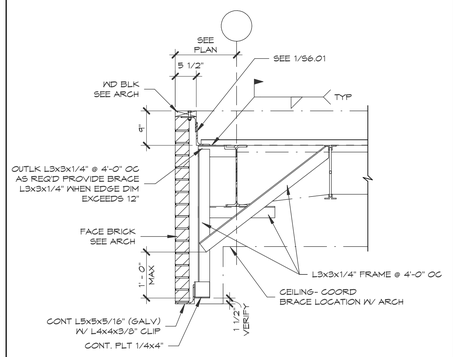
16 TYPICAL CONDITION AT LOW ROOF
SCALE: 3/4" = 1'-0"



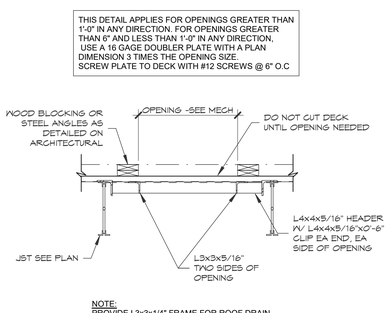
12 TYPICAL INTERIOR DETAIL
SCALE: 3/4" = 1'-0"



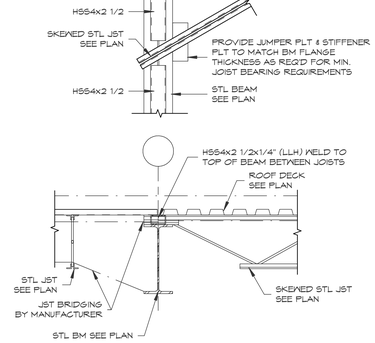
8 TYPICAL EXTERIOR DETAIL WITH CMU
SCALE: 3/4" = 1'-0"



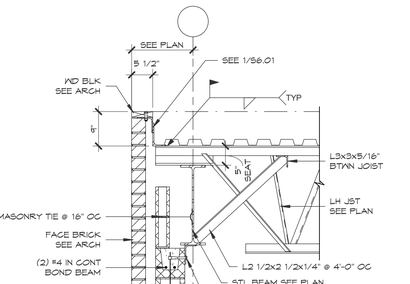
4 TYPICAL HANGING BRICK DETAIL
SCALE: 3/4" = 1'-0"



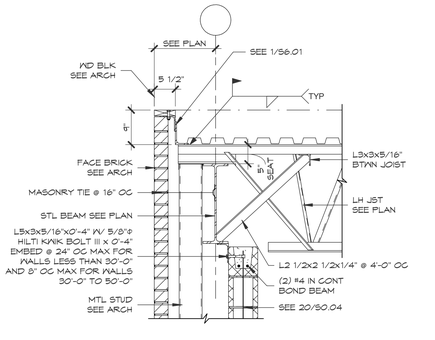
19 TYPICAL HEADER BRACE DETAIL
SCALE: 3/4" = 1'-0"



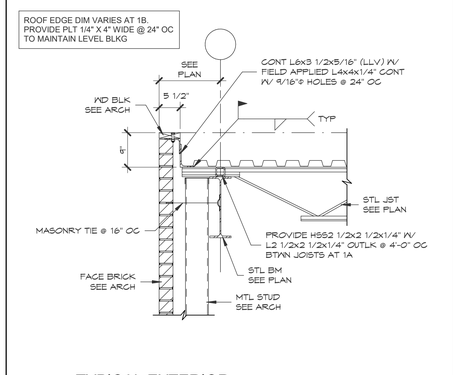
15 TYPICAL CONDITION AT LOW ROOF
SCALE: 3/4" = 1'-0"



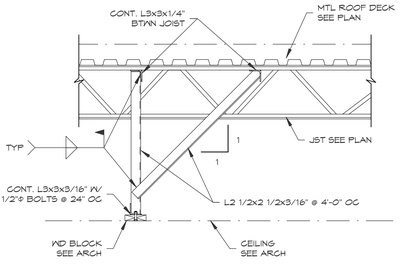
11 TYPICAL INTERIOR DETAIL AT K JOIST BEARING
SCALE: 3/4" = 1'-0"



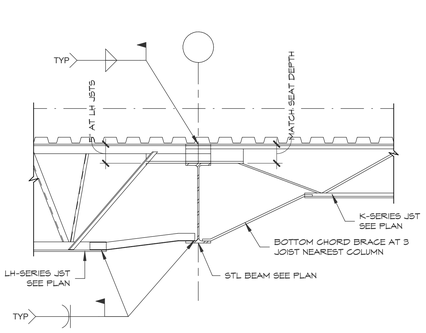
7 TYPICAL EXTERIOR DETAIL WITH CMU
SCALE: 3/4" = 1'-0"



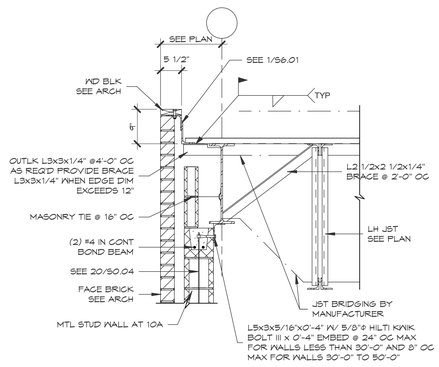
3 TYPICAL HANGING BRICK DETAIL
SCALE: 3/4" = 1'-0"



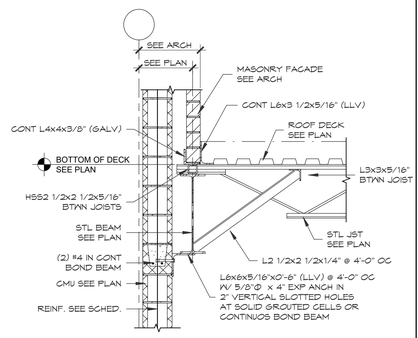
18 TYPICAL HEADER BRACE DETAIL
SCALE: 3/4" = 1'-0"



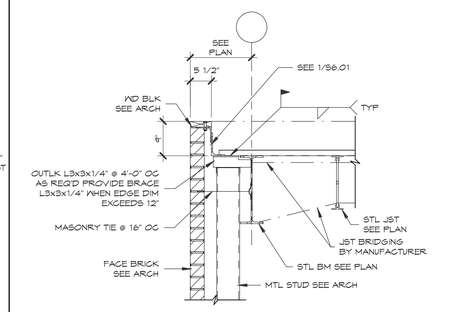
14 DETAIL
SCALE: 3/4" = 1'-0"



10 TYPICAL EXTERIOR DETAIL WITH CMU
SCALE: 3/4" = 1'-0"



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



2 TYPICAL EXTERIOR DETAIL WITH METAL STUD
SCALE: 3/4" = 1'-0"

THIS DETAIL APPLIES FOR OPENINGS GREATER THAN 1'-0" IN ANY DIRECTION. FOR OPENINGS GREATER THAN 6" AND LESS THAN 1'-0" IN ANY DIRECTION, USE A 16 GAGE DOUBLER PLATE WITH A PLAN DIMENSION 3 TIMES THE OPENING SIZE. SCREW PLATE TO DECK WITH #12 SCREWS @ 6" O.C

NOTE:
PROVIDE L3x3x1/4" FRAME FOR ROOF DRAIN SUPPORT (MIN) UNLESS NOTED OTHERWISE IN ARCHITECTURAL DRAWINGS

17 TYPICAL ROOF OPENING DETAIL
SCALE: 3/4" = 1'-0"

13 CHANGE IN DECK DIRECTION AT SKEWED JOIST
SCALE: 3/4" = 1'-0"

9 TYPICAL EXTERIOR DETAIL WITH CMU
SCALE: 3/4" = 1'-0"

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

1 TYPICAL EXTERIOR DETAIL WITH METAL STUD
SCALE: 3/4" = 1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
BRITT GARDNER
90958
LICENSED PROFESSIONAL ENGINEER

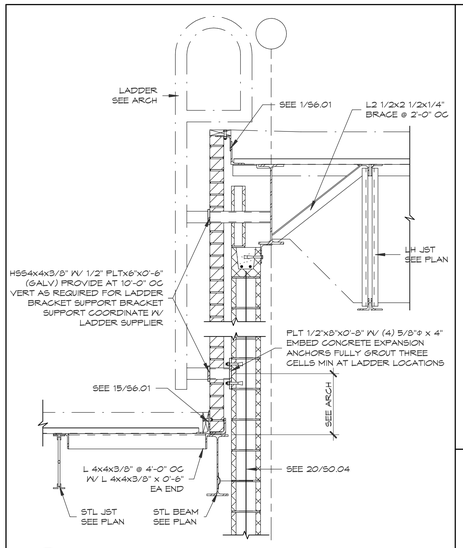
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

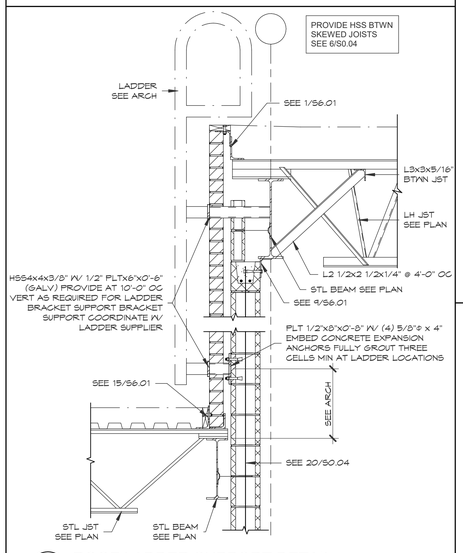
DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	A COH COMMENT 1
10/24/2025	CSP

S6.01

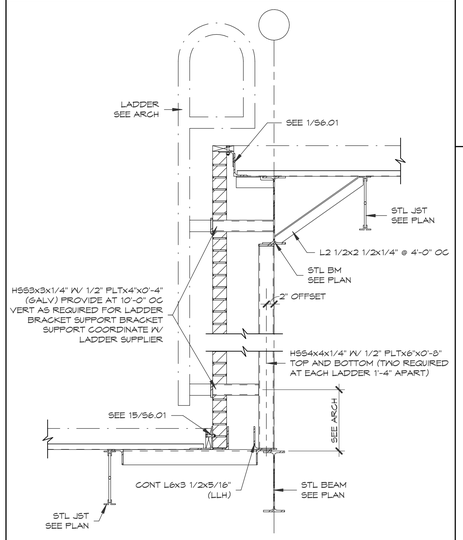
ROOF FRAMING DETAILS



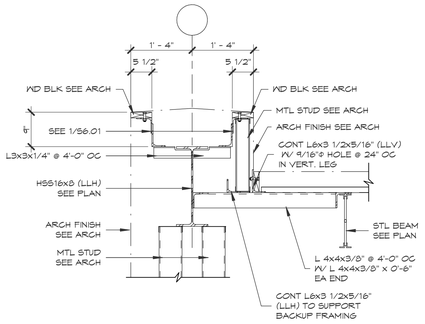
19 ROOF LADDER SUPPORT DETAIL
SCALE: 3/4" = 1'-0"



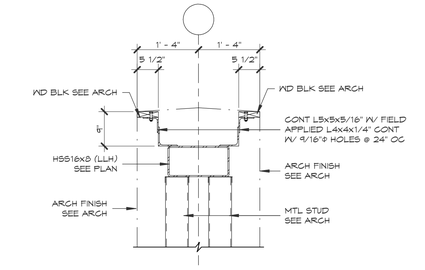
18 ROOF LADDER SUPPORT DETAIL
SCALE: 3/4" = 1'-0"



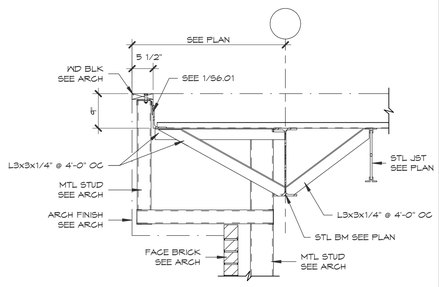
17 ROOF LADDER SUPPORT DETAIL
SCALE: 3/4" = 1'-0"



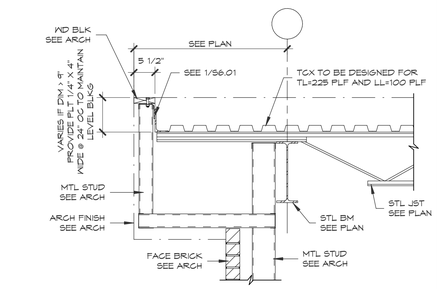
16 DETAIL
SCALE: 3/4" = 1'-0"



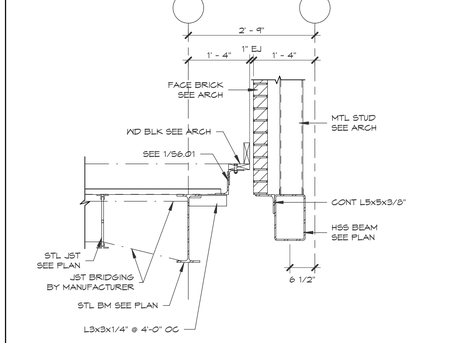
15 DETAIL
SCALE: 3/4" = 1'-0"



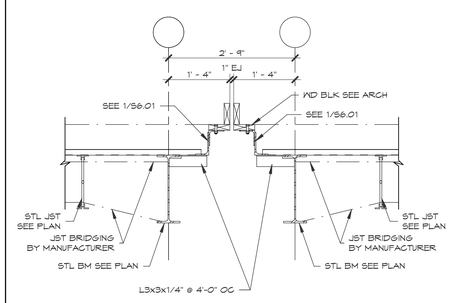
14 DETAIL
SCALE: 3/4" = 1'-0"



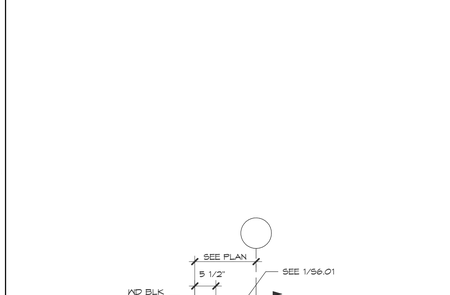
13 DETAIL
SCALE: 3/4" = 1'-0"



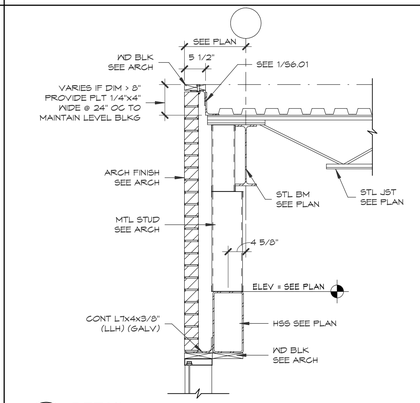
12 EXPANSION JOINT DETAIL
SCALE: 3/4" = 1'-0"



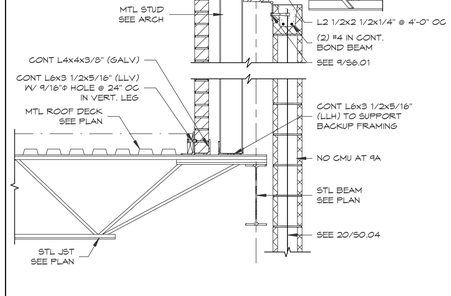
11 EXPANSION JOINT DETAIL
SCALE: 3/4" = 1'-0"



7 TYPICAL HANGING BRICK DETAIL
SCALE: 3/4" = 1'-0"

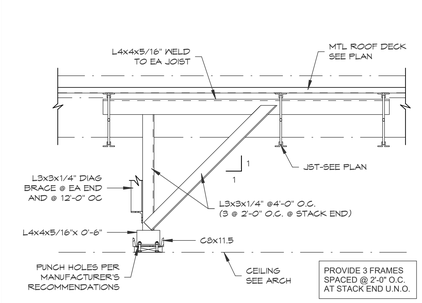


3 DETAIL
SCALE: 3/4" = 1'-0"



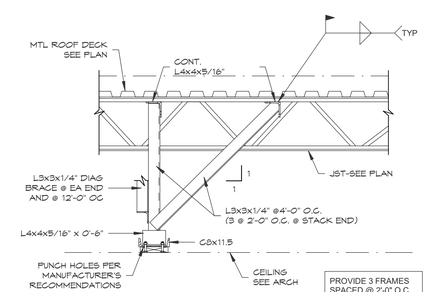
9 DETAIL
SCALE: 3/4" = 1'-0"

6 TYPICAL HANGING BRICK DETAIL
SCALE: 3/4" = 1'-0"



2 TYPICAL HANGING PARTITION BRACE DETAIL
SCALE: 3/4" = 1'-0"

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



1 TYPICAL HANGING PARTITION BRACE DETAIL
SCALE: 3/4" = 1'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

BRITT GARDNER 90059 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS

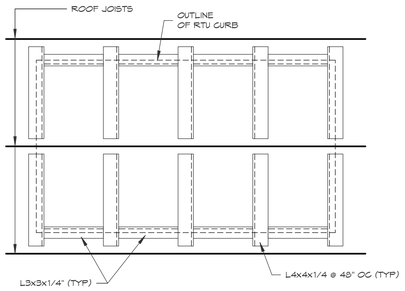
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

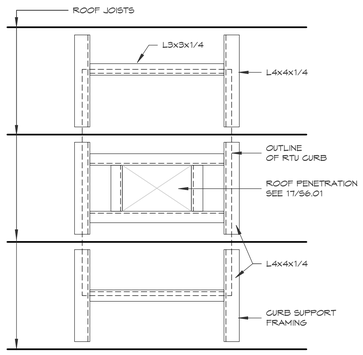
DATE	ISSUE
08/29/2025	COH Permit
09/26/2025	② COH COMMENT 1
10/24/2025	CSP

S6.02

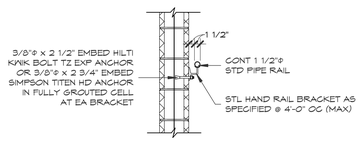
ROOF FRAMING DETAILS



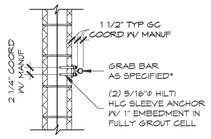
20 ROOF TOP UNIT SUPPORT FRAMING PLAN
SCALE: 3/4" = 1'-0"



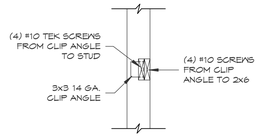
19 ROOF TOP UNIT SUPPORT FRAMING PLAN
SCALE: 3/4" = 1'-0"



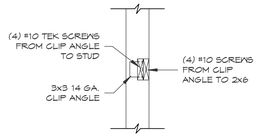
AT CMU/CLAY TILE



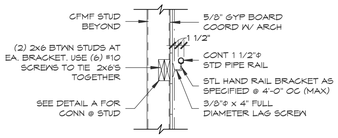
AT CMU



DETAIL A



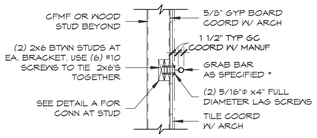
DETAIL A



AT CFMF OR WOOD STUD FRAMING

* FASTENING BASED ON A STEEL 2 3/4"ø STEEL BRACKET. CONTACT EOR IF BRACKET USED IS DIFFERENT.

TYPICAL HAND RAIL DETAIL
N.T.S.



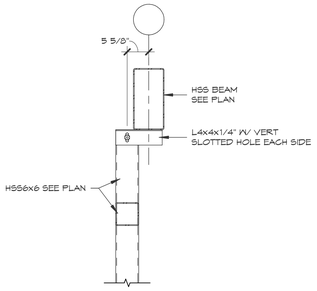
AT CFMF OR WOOD STUD FRAMING

* FASTENING BASED ON BOBRICK GRAB BAR. GC CONTACT EOR IF ANOTHER MANUF IS USED.

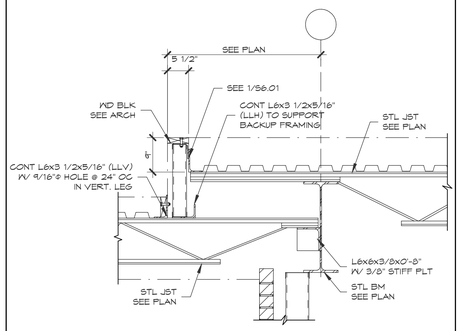
TYPICAL GRAB BAR DETAIL
N.T.S.

ARCHITECTURAL BARRIER ACT	
GRAB BAR	250 LBS. ANY DIRECTION
TUB OR SHOWER SEAT	250 LBS. ANY DIRECTION
FASTENERS & MOUNTING DEVICES	250 LBS. ANY DIRECTION

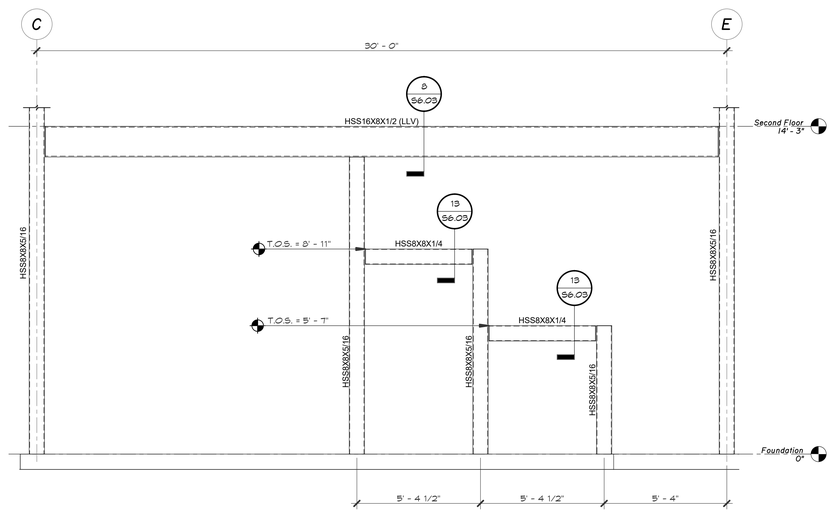
15 HANDRAIL & GRAB BAR DETAIL
SCALE: 3/4" = 1'-0"



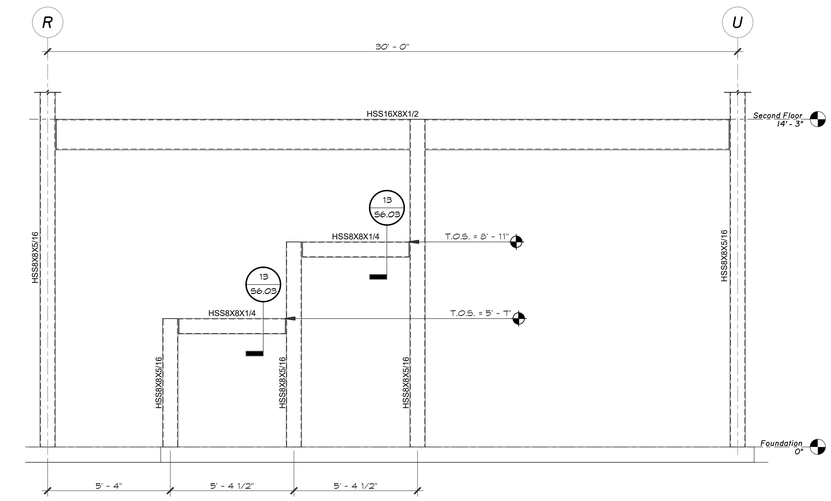
8 DETAIL
SCALE: 3/4" = 1'-0"



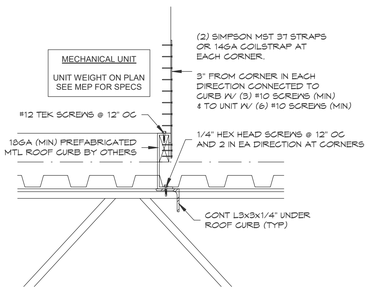
4 DETAIL
SCALE: 3/4" = 1'-0"



2 FRAMING ELEVATION
SCALE: 3/8" = 1'-0"



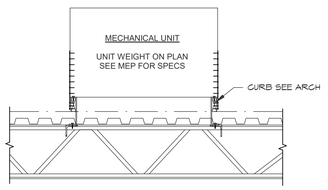
1 FRAMING ELEVATION
SCALE: 3/8" = 1'-0"



BLOW UP DETAIL (NTS)

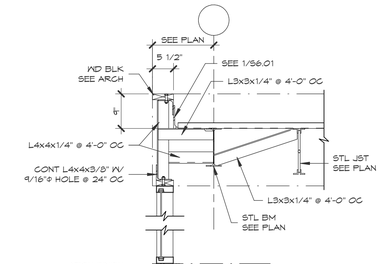
DESIGN CRITERIA

INTERNATIONAL BUILDING CODE 2021 ASCE 7-22
WIND VELOCITY = 141 MPH (3-SEC) (BASIC)
EXPOSURE = B
RISK CATEGORY III

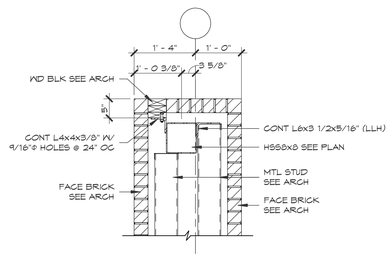


PROVIDE L3x3x1/4" UNDER MECH UNIT CURB IN EACH DIRECTION WHERE CURB RUNS PARALLEL TO JOIST PROVIDE L4x4x1/4" @ 48" OC BETWEEN JOIST WITH L3x3x1/4" BETWEEN L4x4 UNDER CURB

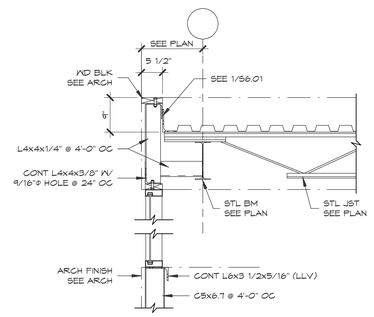
17 TYPICAL SUPPORT AT MECHANICAL UNIT DETAIL
SCALE: 3/4" = 1'-0"



14 TYPICAL DECK SUPPORT AT RIDGE DETAIL
SCALE: 3/4" = 1'-0"



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



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

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

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURAL
CJG Engineers
Texas Engineering Firm
Reg. No. F-170
6051 North Course Drive, Suite 375
Houston, TX 77072
713.780.3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St. Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

BRITT GARDNER — STATE OF TEXAS — LICENSED PROFESSIONAL ENGINEER — 90958

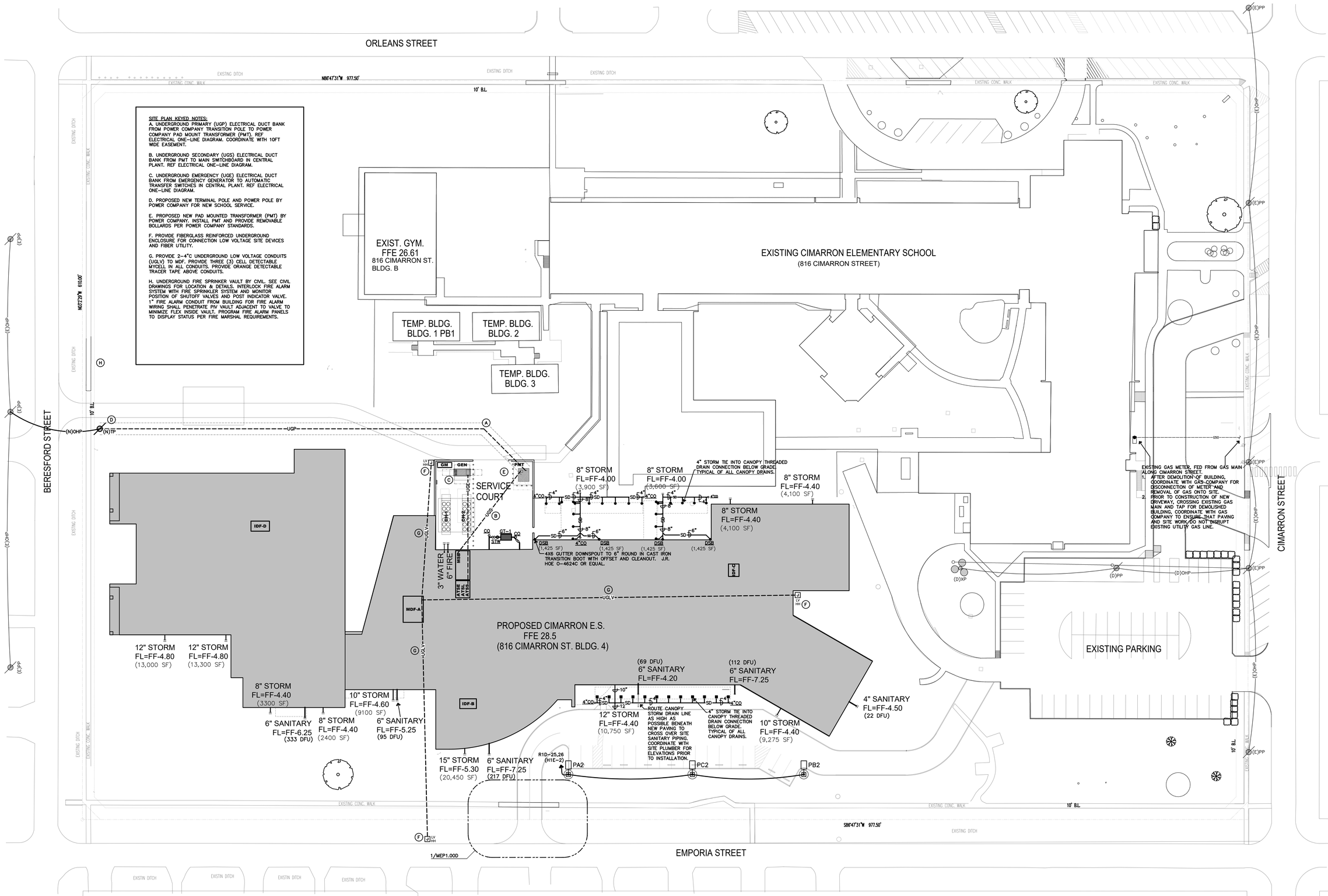
24 October 2025

PROJECT NO.	2502 (B101-101)
DATE:	August 29, 2025
DRAWN	JG
CHECKED	BG

DATE	ISSUE	Δ
08/29/2025	COH Permit	
09/29/2025	COH COMMENT 1	A
10/24/2025	CSP	

S6.03

ROOF FRAMING DETAILS



1 MEP SITE PLAN - PHASE 1

SCALE: 1" = 30'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

MEP1.00A

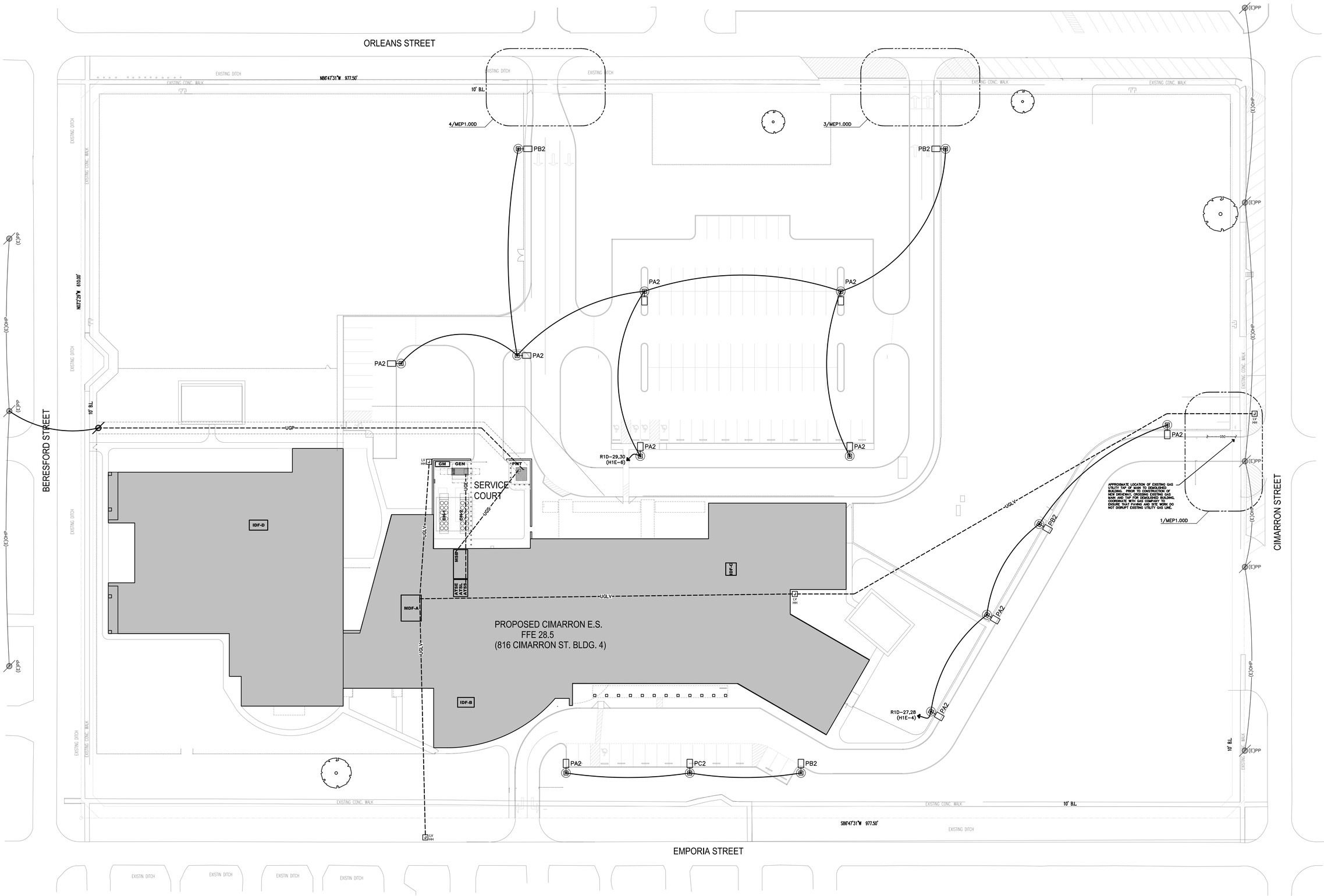
MEP OVERALL SITE PLAN PHASE 1

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP

TBPE/TBPLS FIRM REG NO F-013332 | © 2025 ALL RIGHTS RESERVED

(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



1 MEP SITE PLAN - PHASE 2

SCALE: 1" = 30'-0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

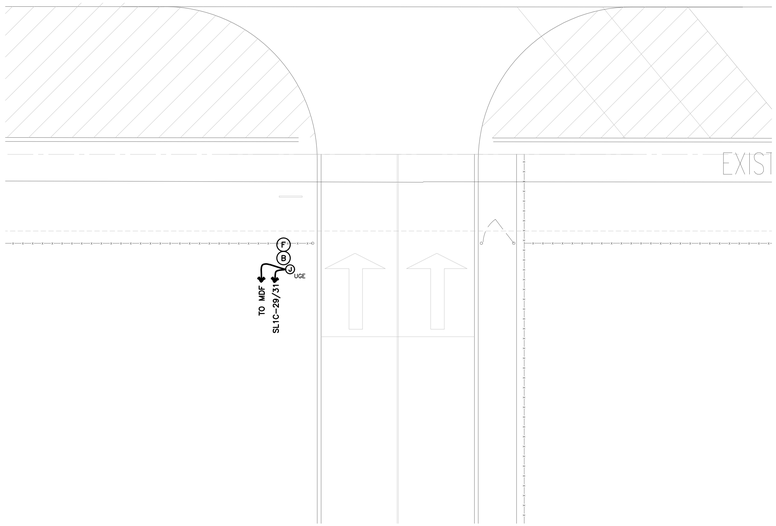
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

MEP1.00B

MEP OVERALL SITE PLAN PHASE 2

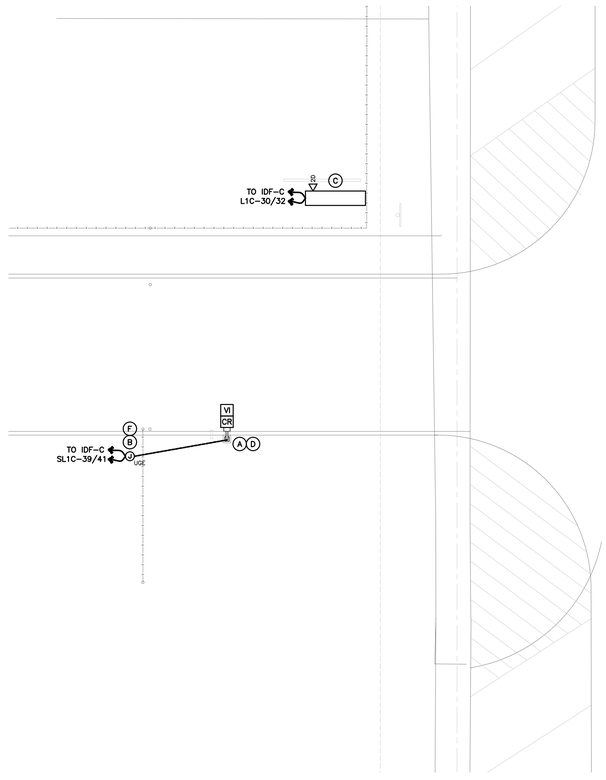
TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPGER1 #FIRM 19420 | TBPELS FIRM REG. NO. F-11533 | © 2025 ALL RIGHTS RESERVED
T 713.300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



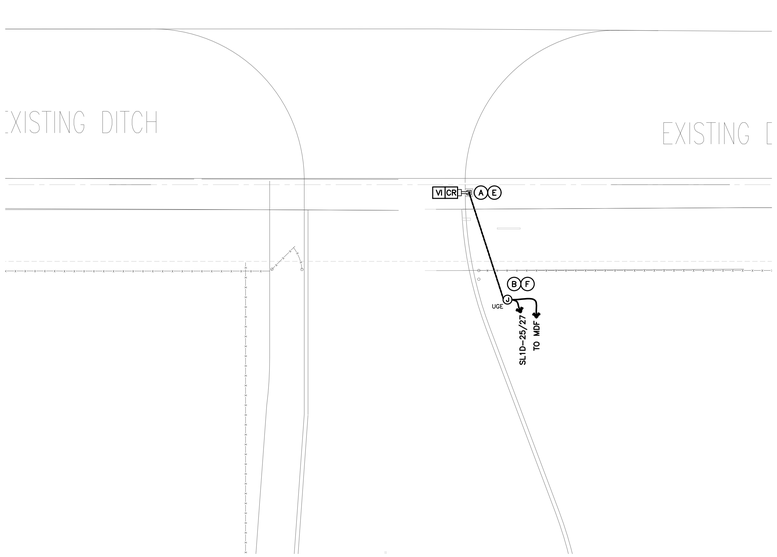
3 ENLARGED SITE PLAN - NORTH DRIVEWAY EXIT

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



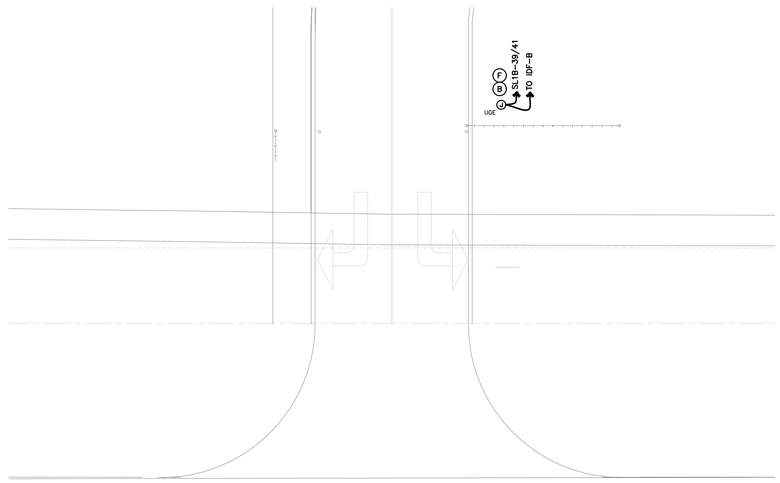
1 ENLARGED SITE PLAN - EAST DRIVEWAY ENTRANCE

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



4 ENLARGED SITE PLAN - NORTH DRIVEWAY ENTRANCE

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



2 ENLARGED SITE PLAN - SOUTH DRIVEWAY EXIT

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

ENLARGED SITE PLAN KEYED NOTES:

A REMOTE CARD ACCESS/VIDEO INTERCOM ON PEDESTAL FOR CONTROL OF LOCAL MOTORIZED GATE, REQUIRES ONE (1) DATA DROP. PROVIDE 3/4"C FROM PEDESTAL TO UNDERGROUND ENCLOSURE FOR LOW VOLTAGE CABLING.

B. PROVIDE TWO (2) SECTION FIBERGLASS REINFORCED UNDERGROUND ENCLOSURE MOUNTED FLUSH WITH GRADE FOR CONNECTION TO GATE POWER, CONTROLS, AND ACCESS CONTROL HARDWARE. LOCATE INSIDE SITE FENCING. ROUTE 3/4" FOR POWER AND 3/4" FOR LOW VOLTAGE CABLING FROM IN-GROUND BOX TO GATE OPERATOR(S) AND 3/4"C TO PEDESTAL FOR LV. ROUTE 1" TO BUILDING FOR POWER. ROUTE 2" W/ 3-CELL DETECTABLE MAXCELL TO BUILDING FOR LOW VOLTAGE CABLING. PROVIDE UNDERGROUND ENCLOSURE EVERY 1200FT OR AT EACH 90 DEGREES OF TURN IN LOW VOLTAGE CONDUIT. COORDINATE STUB UP LOCATION AND CONNECTION WITH OTHER TRADES. ROUTE FROM LAST IN-GROUND BOX DIRECTLY TO THE DESIGNATED DATA CLOSET AND STUB UP WITHIN ROOM.

C. MARQUEE SIGN. PROVIDE ENCLOSURE AT MARQUEE COLUMN WITH MOTOR RATED SWITCH, GFI RECEPTACLE AND SURGE PROTECTOR. PROVIDE 1"C FOR POWER AND 1.5"C FOR LOW VOLTAGE CABLING. REFERENCE MARQUEE SIGN ELECTRICAL WIRING DETAIL AND STRUCTURED CABLING RISER.

D. CONNECT CALL BUTTON FOR VIDEO INTERCOM TO MASTER STATION AT BUILDING RECEPTION AREA.

E. CONNECT ONE CALL BUTTON FOR VIDEO INTERCOM TO MASTER STATION AT BUILDING RECEPTION AREA. CONNECT SECOND CALL BUTTON TO VIDEO INTERCOM TO MASTER STATION AT RECEPTION B117.

F. GATE CONTROLLED AND SCHEDULED BY SECURITY SYSTEM. REFERENCE TWO SECTION UNDERGROUND PULL BOX DETAIL.

CONSULTANTS

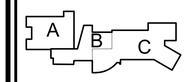
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

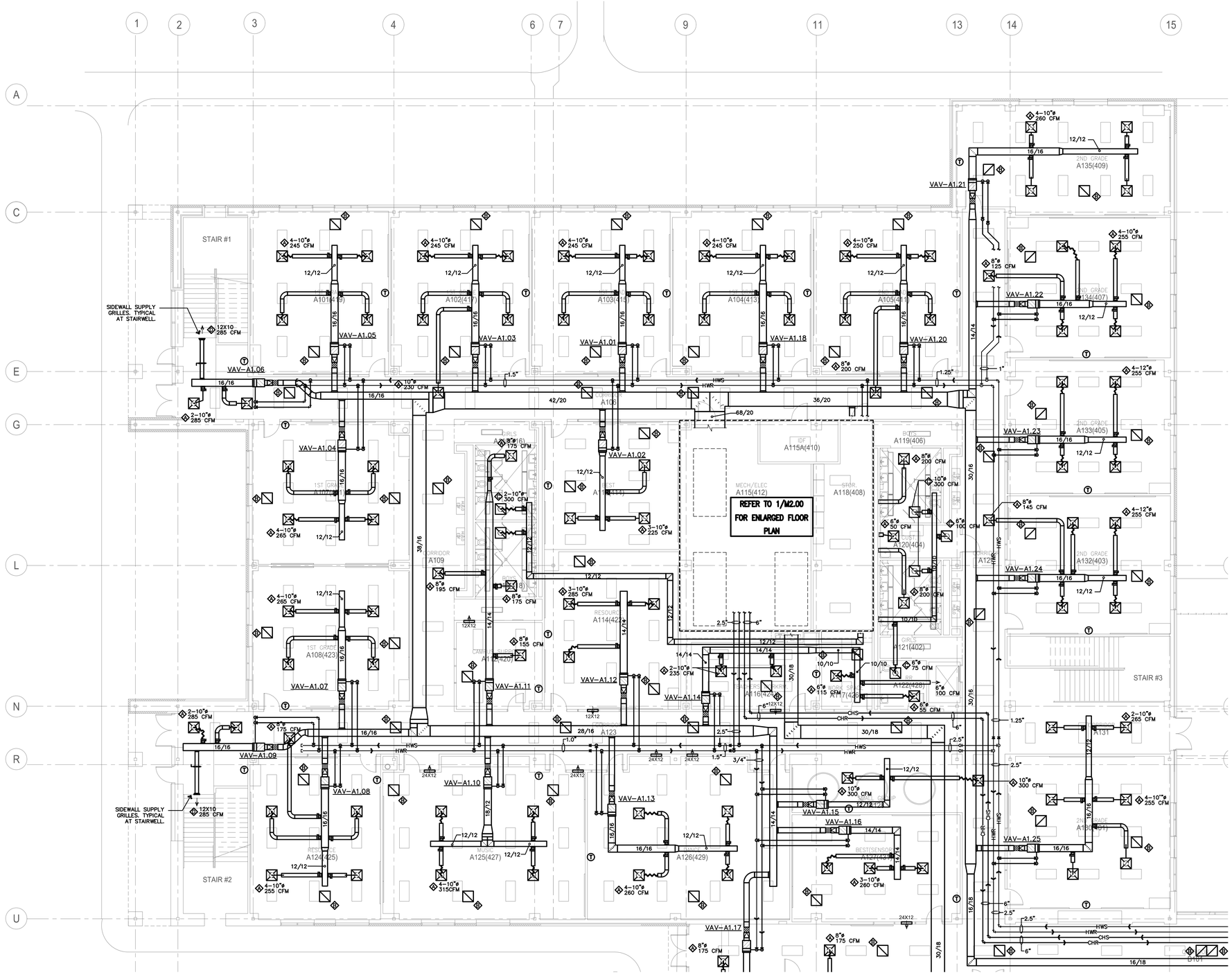
MEP1.00D

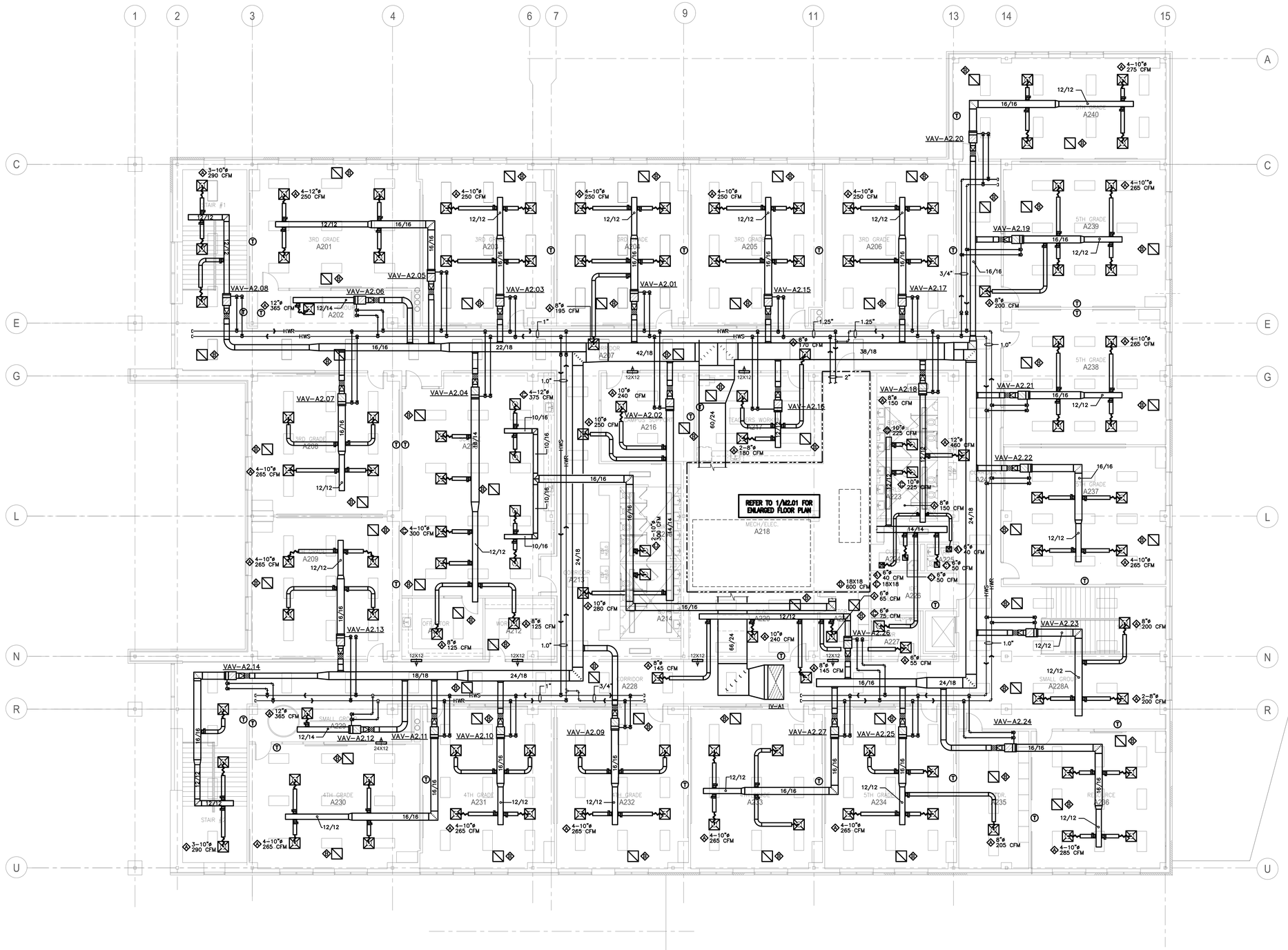
MEP ENLARGED SITE PLANS

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/TBPLS FIRM REG. NO. F-01733 | TBPLS FIRM REG. NO. 10193900
713-300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

LICENSED ENGINEERING FIRM | © 2025 ALL RIGHTS RESERVED


REFER TO 1/M2.00 FOR ENLARGED FLOOR PLAN
SIDEWALL SUPPLY GRILLES. TYPICAL AT STAIRWELL.
STAIR #1
STAIR #2
STAIR #3
VAV-A1.01
VAV-A1.02
VAV-A1.03
VAV-A1.04
VAV-A1.05
VAV-A1.06
VAV-A1.07
VAV-A1.08
VAV-A1.09
VAV-A1.10
VAV-A1.11
VAV-A1.12
VAV-A1.13
VAV-A1.14
VAV-A1.15
VAV-A1.16
VAV-A1.17
VAV-A1.18
VAV-A1.20
VAV-A1.21
VAV-A1.22
VAV-A1.23
VAV-A1.24
VAV-A1.25
A101(419)
A102(418)
A103(417)
A104(413)
A105(410)
A106
A107(414)
A108(423)
A109
A110(420)
A111(421)
A112(422)
A113(424)
A114(427)
A115(412)
A115A(410)
A116(426)
A117(425)
A118(408)
A119(406)
A120(404)
A121(402)
A122(428)
A123
A124(425)
A125(427)
A126(429)
A127(430)
A130(401)
A131
A132(403)
A133(405)
A134(407)
A135(409)
A136
A137(411)
A138(416)
A139(415)
A140(418)
A141(419)
A142(422)
A143(423)
A144(424)
A145(425)
A146(426)
A147(427)
A148(428)
A149(429)
A150(430)
A151(431)
A152(432)
A153(433)
A154(434)
A155(435)
A156(436)
A157(437)
A158(438)
A159(439)
A160(440)
A161(441)
A162(442)
A163(443)
A164(444)
A165(445)
A166(446)
A167(447)
A168(448)
A169(449)
A170(450)
A171(451)
A172(452)
A173(453)
A174(454)
A175(455)
A176(456)
A177(457)
A178(458)
A179(459)
A180(460)
A181(461)



1 **LEVEL 2 MECHANICAL FLOOR PLAN - AREA A**
SCALE: 1/8" = 1'-0"

NORTH

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN CAR
CHECKED CAR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

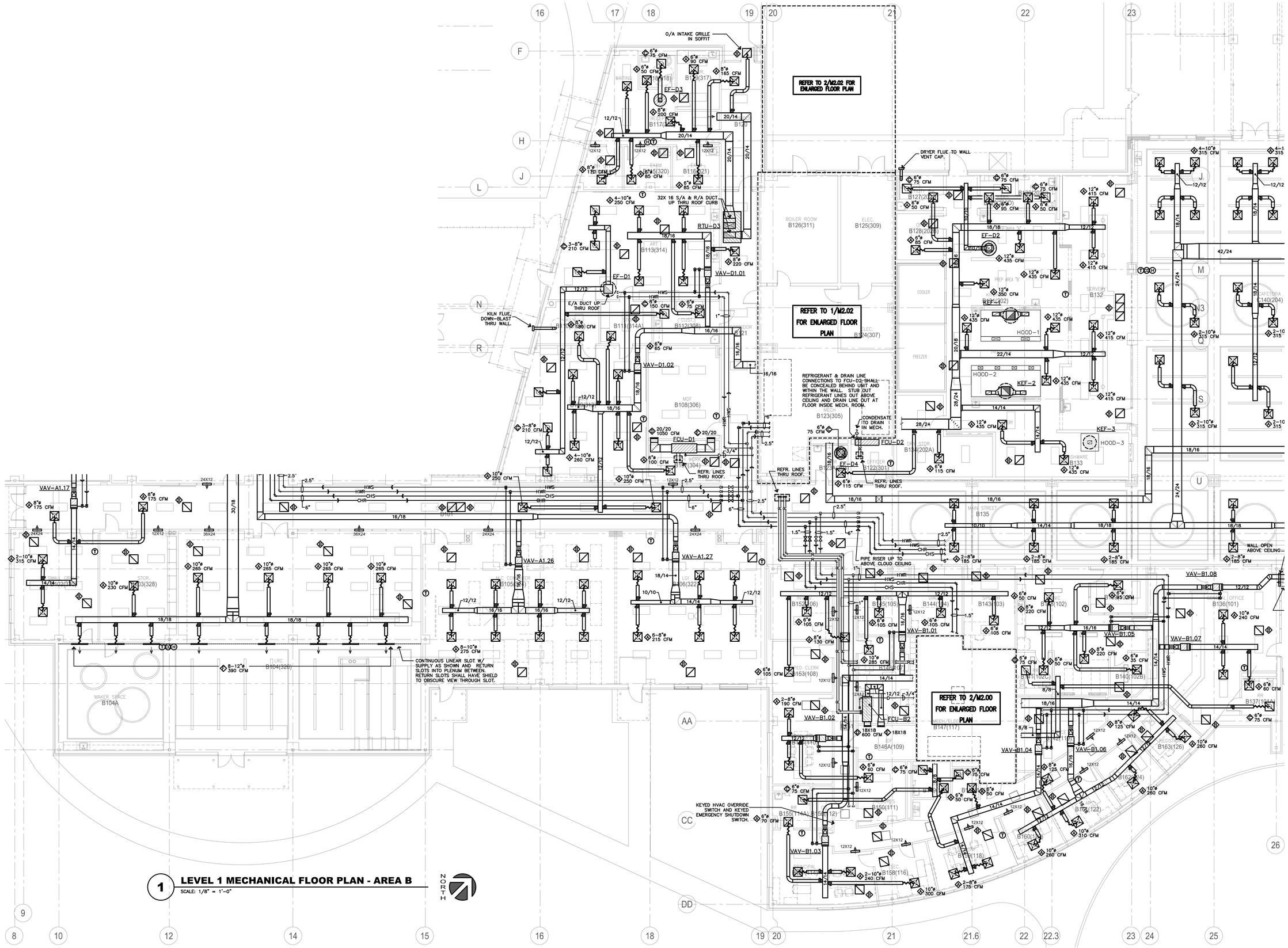
M1.02

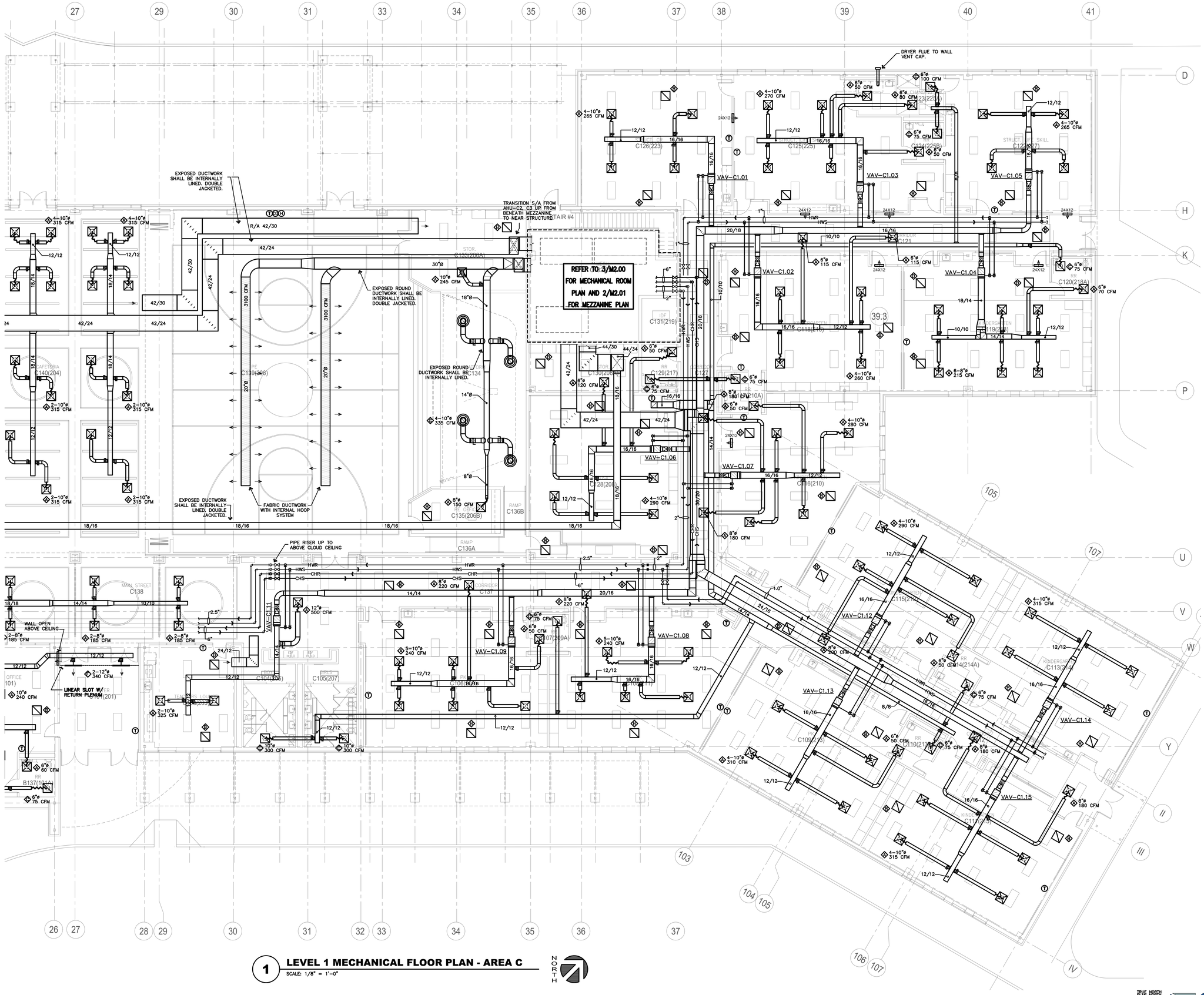
MECHANICAL
SECOND FLOOR PLAN
AREA A

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE#21443 • TBAE#14423-00
(713) 300-9292

TEXAS ENG. FIRM REG. NO. F-010332 | © 2025, ALL RIGHTS RESERVED
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042


O/A INTAKE GRILLE IN SOFFIT
REFER TO 2/M2.02 FOR ENLARGED FLOOR PLAN
REFER TO 1/M2.02 FOR ENLARGED FLOOR PLAN
REFER TO 2/M2.00 FOR ENLARGED FLOOR PLAN
DRYER FLUE TO WALL VENT CAP.
KILN FLUE, DOWN-BLAST THRU WALL.
E/A DUCT UP THRU ROOF
32X 16 S/A & R/A DUCT UP THRU ROOF CURB
RTU-D3
EF-D1
EF-D2
EF-D3
EF-D4
KEF-1
KEF-2
KEF-3
FCU-D1
FCU-D2
VAV-D1.01
VAV-D1.02
VAV-A1.17
VAV-A1.26
VAV-A1.27
VAV-B1.01
VAV-B1.02
VAV-B1.03
VAV-B1.04
VAV-B1.05
VAV-B1.06
VAV-B1.07
VAV-B1.08
REFRIGERANT & DRAIN LINE CONNECTIONS TO FCU-D2 SHALL BE CONCEALED BEHIND UNIT AND WITHIN THE WALL. STUB OUT REFRIGERANT LINES OUT ABOVE CEILING AND DRAIN LINE OUT AT FLOOR INSIDE MECH. ROOM.
CONDENSATE TO DRAIN IN MECH.
REFR. LINES THRU ROOF.
PIPE RISER UP TO ABOVE CLOUD CEILING
CONTINUOUS LINEAR SLOT W/ SUPPLY AS SHOWN AND RETURN SLOTS INTO PLENUM BETWEEN. RETURN SLOTS SHALL HAVE SHIELD TO OBSCURE VIEW THROUGH SLOT.
KEYED HVAC OVERRIDE SWITCH AND KEYED EMERGENCY SHUTDOWN SWITCH.
WALL OPEN ABOVE CEILING
BOILER ROOM B126(311)
ELEC. B125(309)
ART B113(314)
MDF B108(306)
KILN ROOM B111(314A)
KILN B112(308)
ELEC. B124(307)
MECH. B123(305)
OFFICER B122(301)
MAKER SPACE B104A
LRC B104(326)
COOLER
FREEZER
SERVERY B132
MAIN STREET B135
SAFETY/RIA C140(204)
REGISTRAR B163(126)
B150(111)
B158(116)
B160(118)
B161(122)
B147(117)
B146A(109)
B153(108)
B155(111A)
B156(112)
B152(106)
B115(105)
B144(104)
B143(103)
B142(102)
B141(102C)
B140(102B)
B136(101)
B137(101A)
B128(203)
B127(201)
B133
B134(202A)
B129(304)
B130(322)
B106(322)
B105(329)
B103(328)
B104(326)
B117(318)
B118(321)
B119(317)
B120(316)
B121(315)
B114(320)
B116(319)
B111(314A)
B112(308)
B107(307)
B108(306)
B109(305)
B110(303)
B101(302)
B102(301)
B103(328)
B104(326)
B105(329)
B106(322)
B129(304)
B130(322)
B151
B154(107)
B157(117)
B159(118)
B162(124)
B163(126)
B164(122)
B165(121)
B166(120)
B167(119)
B168(116)
B169(111)
B170(112)
B171(111A)
B172(106)
B173(105)
B174(104)
B175(103)
B176(102)
B177(102C)
B178(102B)
B179(101)
B180(101A)
B181(203)
B182(201)
B183(202A)
B184(204)
B185(205)
B186(206)
B187(207)
B188(208)
B189(209)
B190(210)
B191(211)
B192(212)
B193(213)
B194(214)
B195(215)
B196(216)
B197(217)
B198(218)
B199(219)
B200(220)
B201(221)
B202(222)
B203(223)
B204(224)
B205(225)
B206(226)
B207(227)
B208(228)
B209(229)
B210(230)
B211(231)
B212(232)
B213(233)
B214(234)
B215(235)
B216(236)
B217(237)
B218(238)
B219(239)
B220(240)
B221(241)
B222(242)
B223(243)



CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN CAR
CHECKED CAR

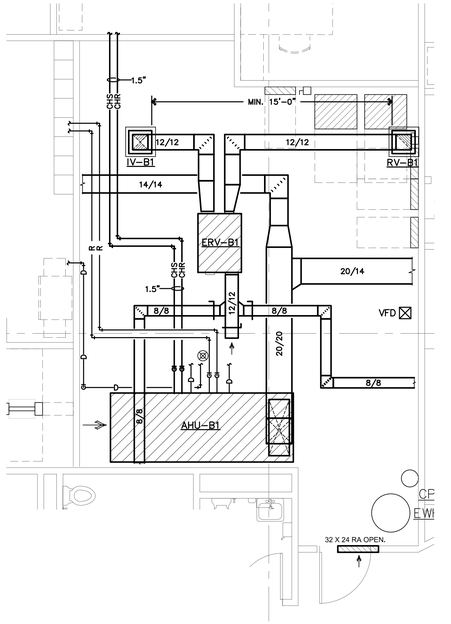
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

M1.04

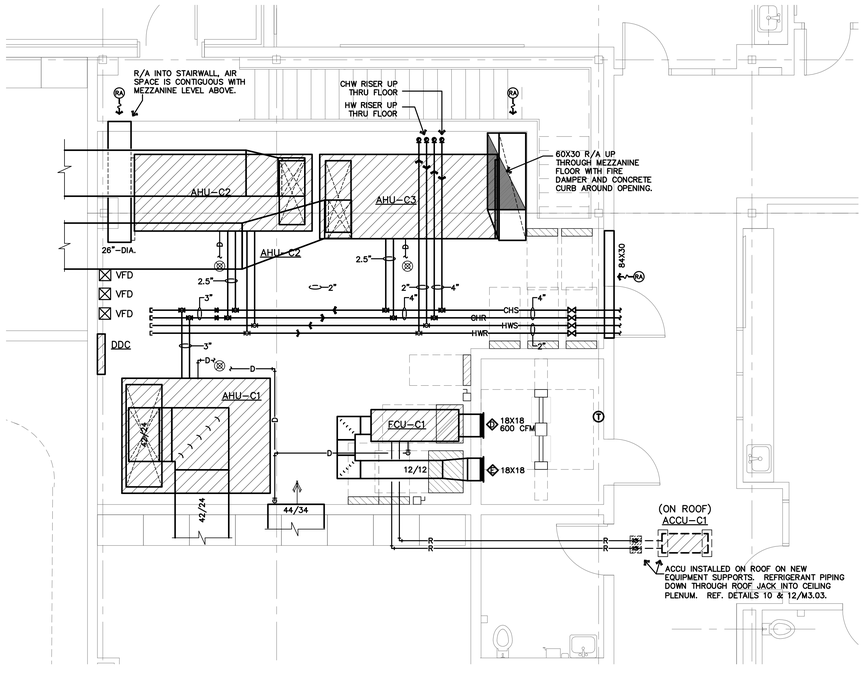
MECHANICAL
FIRST FLOOR PLAN
AREA B

TRUE NORTH
PLAN NORTH

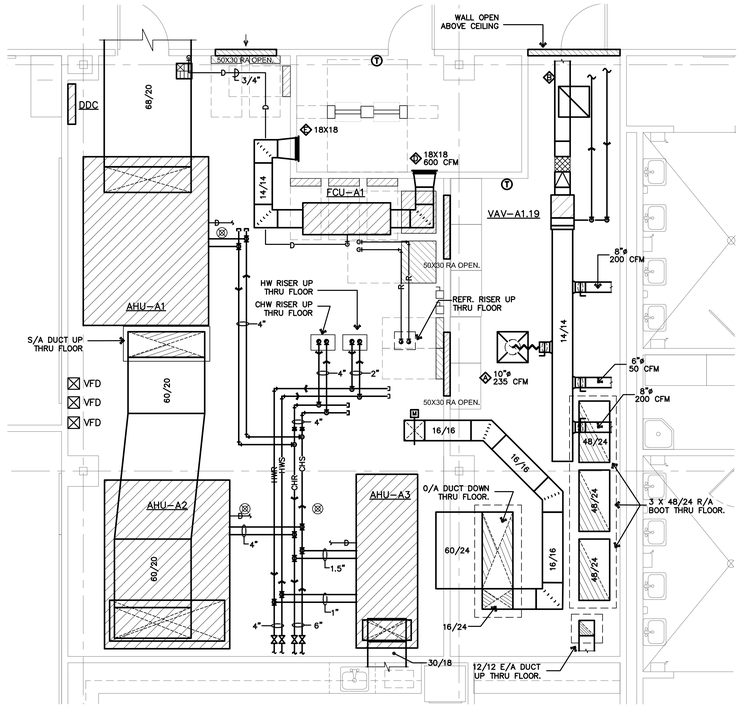
STANTON ENGINEERING GROUP
TBPE/BSE FIRM REG. NO. F-013332 | TBPLS FIRM REG. NO. F-013332 | © 2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



2 **MECHANICAL ROOM PLAN - B147**
SCALE: 1/4" = 1'-0"



3 **MECHANICAL ROOM PLAN - C132**
SCALE: 1/4" = 1'-0"



1 **MECHANICAL ROOM PLAN - A115**
SCALE: 1/4" = 1'-0"

CONSULTANTS

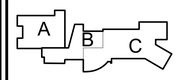
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	CAR
CHECKED	CAR

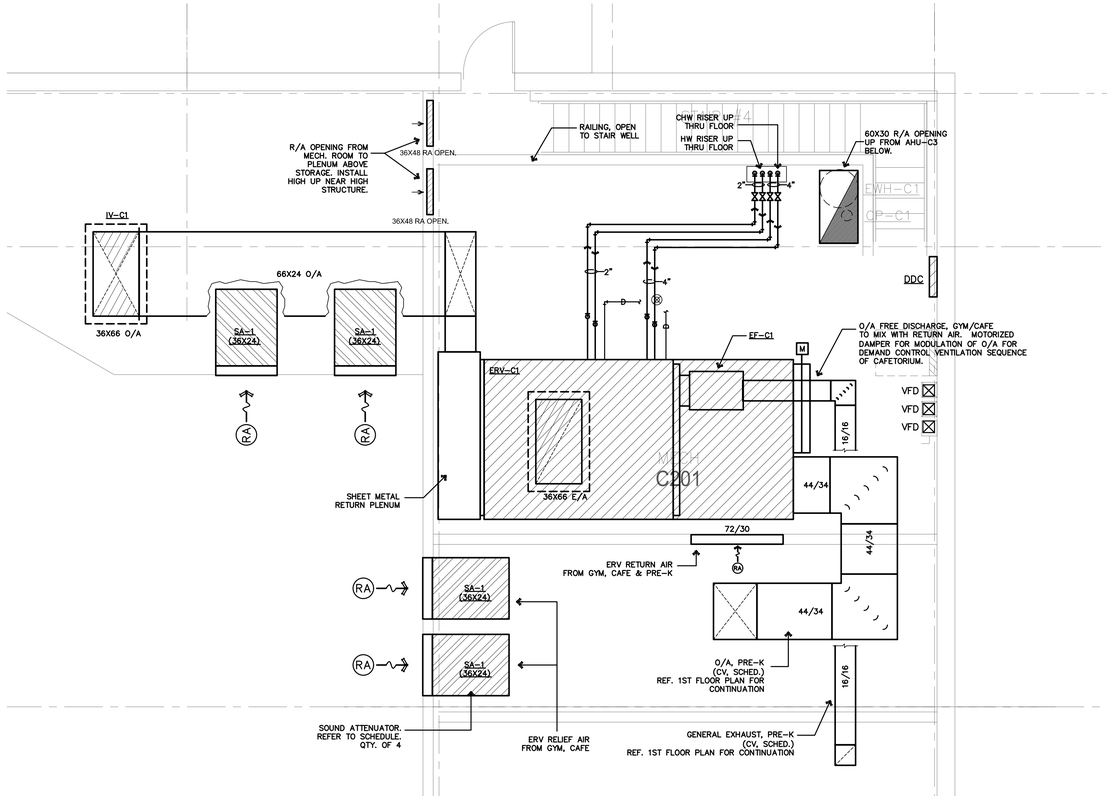
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

M2.00

ENLARGED MECHANICAL PLANS

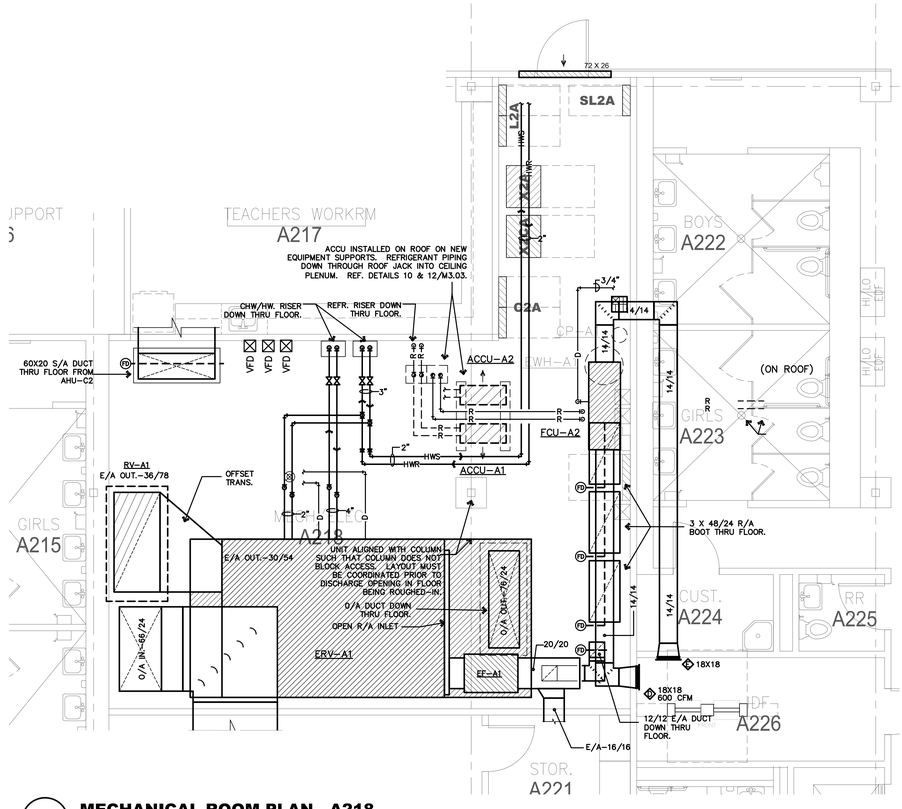
TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/ENGINEERING FIRM REG. NO. F-11533 | TBPLS/SURVEYING FIRM REG. NO. 10194402
(713) 300-9292 | © 2025 ALL RIGHTS RESERVED
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



2 MECHANICAL ROOM PLAN - C201

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



1 MECHANICAL ROOM PLAN - A218

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

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN CAR
CHECKED CAR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

M2.01

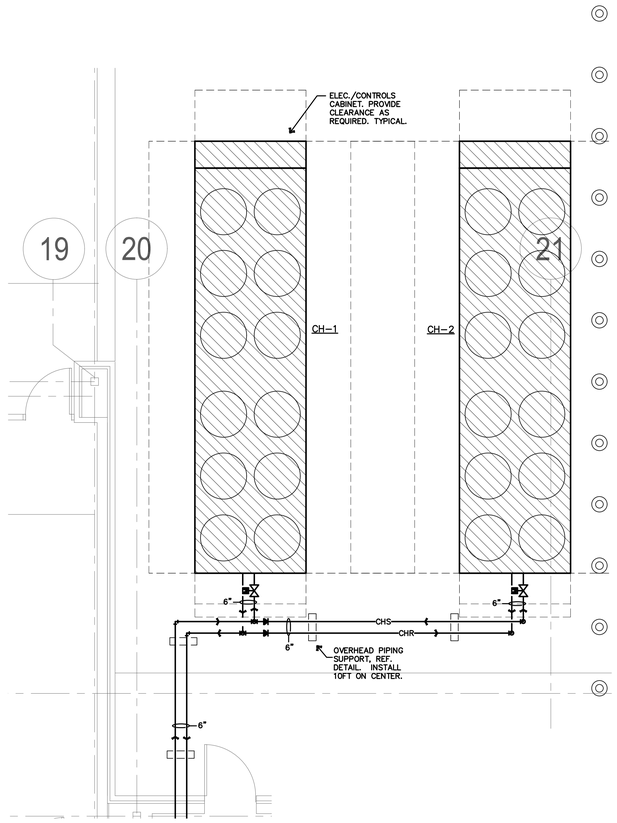
ENLARGED MECHANICAL PLANS

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP

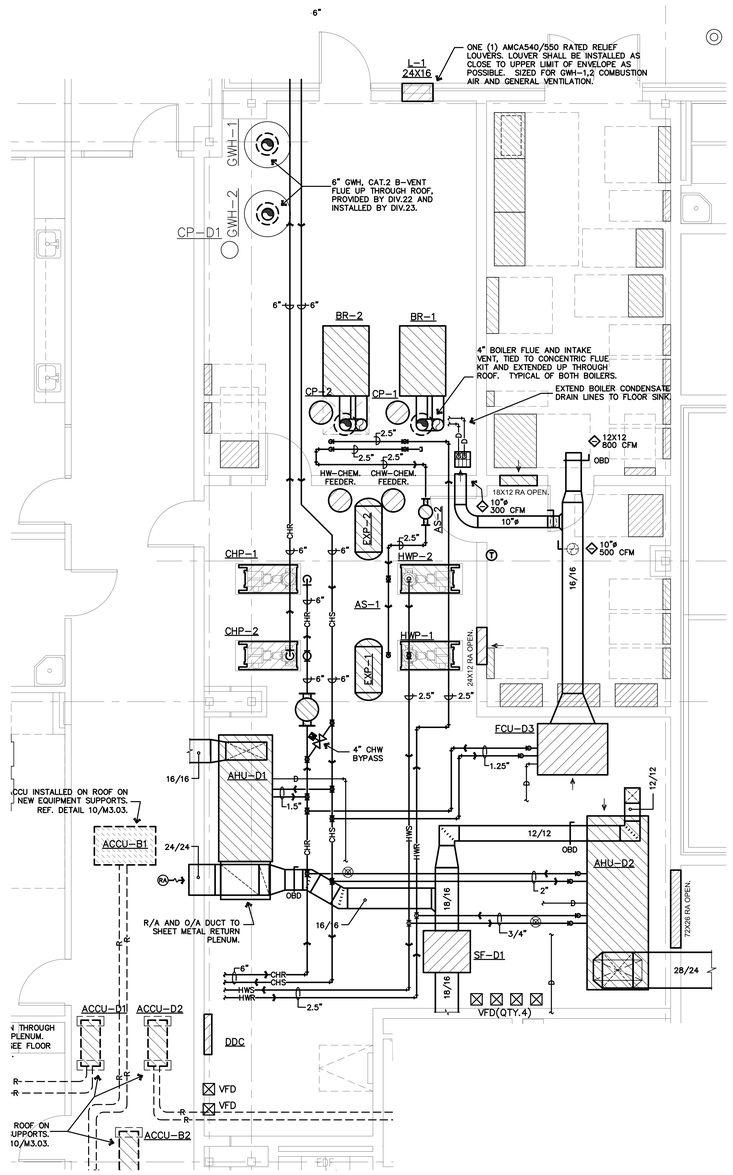
TBPE/TBPLS FIRM REG. NO. F-013332 | © 2025 ALL RIGHTS RESERVED

(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



2 CENTRAL PLANT MECHANICAL PLAN (NORTH)

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



1 CENTRAL PLANT MECHANICAL PLAN (SOUTH)

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

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN CAR
CHECKED CAR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

M2.02

CENTRAL PLANT MECHANICAL PLANS

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP

TBPE/BPELS FIRM REG. NO. F-21153-01 | © 2025 ALL RIGHTS RESERVED

(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

MECHANICAL SYMBOL SCHEDULE

CWS	CONDENSER WATER SUPPLY	A.P.	ACCESS PANEL
CWR	CONDENSER WATER RETURN	AHU	AIR HANDLING UNIT
CHS	CHILLED WATER SUPPLY	B	BOILER
CHR	CHILLED WATER RETURN	CH	CHILLER
HWS	HEATING WATER SUPPLY	CHP	CHILLED WATER PUMP
HWR	HEATING WATER RETURN	CVT	CONSTANT VOLUME TERMINAL
RS	REFRIGERANT SUPPLY	DH	DEHUMIDIFIER
RR	REFRIGERANT RETURN	E/A	EXHAUST AIR
D	CONDENSATE LINE	EF	EXHAUST FAN
P	PETE'S PLUG	F&B	FACE & BYPASS
	ISOLATION VALVE	FF	FLY FAN
	ELECTRONIC CONTROL VALVE	HDT	HORIZONTAL DRAW THROUGH
	BUTTERFLY VALVE	HWP	HOT WATER PUMP
	BALL VALVE	KEF	KITCHEN EXHAUST FAN
	UNION OR FLANGE	KSF	KITCHEN SUPPLY FAN
	STRAINER	O/A	OUTSIDE AIR
	AUTOMATIC AIR VENT	OBD	OPPOSED-BLADES DAMPER
	LOCAL CONTROL THERMOSTAT	PT	PRE-TREAT
T	TEMPERATURE SENSOR	R/A	RETURN AIR
H	HUMIDITY SENSOR	RAHU	ROOF-MOUNTED AIR HANDLING UNIT
FD	FIRE DAMPER	S/A	SUPPLY AIR
SD	SMOKE DAMPER	SA	SOUND ATTENUATOR
FSD	FIRE/SMOKE COMBINATION DAMPER	SF	SUPPLY FAN
MD	MOTORIZED DAMPER	SPD	SPILTER DAMPER
C	CARBON MONOXIDE SENSOR	SZ	SINGLE ZONE
C	CARBON DIOXIDE SENSOR	VAV	VARIABLE AIR VOLUME
	SUPPLY AIR DIFFUSER	VB	VAV BOX
	RETURN AIR GRILLE	VD	VOLUME DAMPER
	EXHAUST GRILLE	VDT	VERTICAL DRAW THROUGH
RA	RETURN AIR OPENING IN WALL	VFD	VARIABLE FREQUENCY DRIVE
	VOLUME DAMPERS	WH	WATER HEATER
VD		ø	DESIGNATION FOR "ROUND"
	DUCT ELEVATION CHANGE	◇	DESIGNATION FOR "OVAL"
	90° DUCT ELBOW WITH TURNING VANES		
	FLEXIBLE DUCT		

M	DAMPER MOTOR
T	TEMPERATURE TRANSMITTER
FS	FLOW SWITCH
DP	DIFFERENTIAL PRESSURE SENSOR
SD	DUCT SMOKE DETECTOR
SP	STATIC PRESSURE SENSOR
SPH	STATIC PRESSURE SENSOR HI-LIMIT
	ACCESS PANEL

GENERAL MECHANICAL NOTES

1. CODE COMPLIANCE:
   1.1. 2021 IBC (WITH HOUSTON AMENDMENTS),
   1.2. 2021 UMC (WITH HOUSTON AMENDMENTS),
   1.3. 2021 IECC (WITH COH AMENDMENTS)
   1.4. ASHRAE 90.1–2019 (WITH COH AMENDMENTS).
2. REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. COORDINATE INSTALLATION OF EQUIPMENT AND PIPING WITH THE ELECTRICAL CONTRACTOR TO INSURE NEC CLEARANCE (42 INCHES) IN FRONT OF ALL ELECTRICAL PANELS. DO NOT INSTALL DUCTWORK OR WATER PIPING OVER THE TOP OF ELECTRICAL PANELS SEE DETAIL 1/M3.02.
4. DUCT SIZES SHOWN ARE NET FREE AIR PASSAGE DIMENSIONS, DUCTS ARE NOT LINED, BUT ARE EXTERNALLY INSULATED. RUNOUTS TO CEILING OUTLETS SHALL BE EXTERNALLY INSULATED GALVANIZED SHEET METAL WITH SPIN–IN V.D. AT TRUNK TAPS, SEE DETAIL 1 & 2/M3.02.
5. PROVIDE CONDENSATE DRAIN TRAP FOR EACH AHU AND FCU, SEE DETAIL 3/M3.03.
6. REFER TO ARCHITECTURAL REFLECTED CEILING DRAWINGS FOR EXACT LOCATIONS OF CEILING OUTLETS IN RELATION TO OTHER CEILING ENTITIES. OUTLETS MUST BE COMPATIBLE WITH THE CEILING TYPES FOR THE VARIOUS AREAS.
7. IN AREAS WHERE SUPPLY AIR ENTERS CEILING CAVITY THRU RETURN AIR GRILLES AND FREE RETURNS TO AHU'S VIA CEILING CAVITY, PROVIDE RETURN AIR OPENING IN WALL–TO–DECK ABOVE CEILING THAT BLOCK PATH, REFER TO ARCHITECTURAL DRAWINGS. RETURN AIR ELBOWS SHALL BE SIZED AT 1 SQ. FT PER 400 CFM SUPPLY AIR.
8. ARRANGE PIPING CONNECTIONS TO ALL EQUIPMENT TO ALLOW EASY REMOVAL OF EQUIPMENT, SUB–ASSEMBLIES, COILS, FANS, MOTORS, FILTERS, ACCESS PANELS, ETC... PROVIDE UNIONS, FLANGES AND VALVES AT CONNECTIONS. PROVIDE AND INSTALL VICTAULIC JOINTS AT COILS, REF. SPECIFICATIONS. PLACE STOP VALVES ON SYSTEM SIDE OF REMOVABLE PIPE SECTIONS.
9. CONTRACTOR SHALL FIELD MEASURE STRUCTURAL ELEMENTS AND COORDINATE EQUIPMENT, PIPING AND DUCT ROUTING TO FIT EXISTING CONSTRUCTION. PROVIDE OFFSETS, BOOTS FOR ENVELOP OBSTRUCTIONS THAT CANNOT BE AVOIDED. CONSTRUCTION SHALL BE PER SMACNA FIGURE 2–10.
10. AT EACH LOCATION WHERE DUCTS CROSS FIRE WALLS OR PENETRATE FLOOR ASSEMBLIES, PROVIDE FIRE DAMPERS PER DETAIL 8/M3.02.

ENERGY CODE COMPLIANCE NOTES

IECC SECTION	NOTES
C403.1.1	HVAC SYSTEMS AND EQUIPMENT DESIGN LOADS WERE CALCULATED IN ACCORDANCE WITH ANSI/ASHRAE/ACCA STANDARD 183 USING AN APPROVED EQUIVALENT COMPUTATIONAL PROCEDURE.
C403.3.1	HVAC SYSTEMS WERE SELECTED SUCH THAT CAPACITIES DO NOT EXCEED CALCULATED LOADS.
C403.2.2	NATURAL OR MECHANICAL VENTILATION IS PROVIDED IN ACCORDANCE WITH INTERNATIONAL MECHANICAL CODE CHAPTER 4. MECHANICAL VENTILATION HAS CAPABILITY TO REDUCE OUTDOOR AIR SUPPLY TO MINIMUM PER IMC CHAPTER 4. REFERENCE O/A CALCULATION CHART IN THIS DRAWING SET. ALL CALCULATIONS WERE MADE IN ACCORDANCE WITH THE ASHRAE 62.1 STANDARDS AND VERIFIED WITH CERTIFIED LOAD SOFTWARE.
C403.7.1	ALL AHU ARE PROVIDED WITH OUTDOOR AIR FROM AN ERV, AND THUS ARE NOT REQUIRED TO HAVE DEMAND CONTROL VENTILATION.
C403.7.3	THE WRITTEN CONTROL SEQUENCE SPECIFICATIONS PROVIDE COMPLIANCE WITH THE FOLLOWING: UNITS THAT PROVIDE VENTILATION AIR TO MULTIPLE ZONES AND OPERATE IN COMBINATION WITH ZONE HEATING AND COOLING SYSTEMS DO NOT USE HEATING OR HEAT RECOVERY TO WARM SUPPLY AIR TO A TEMPERATURE GREATER THAN 60°F WHEN REPRESENTATIVE BUILDING LOADS OR OUTDOOR AIR TEMPERATURES INDICATE THAT THE MAJORITY OF ZONES REQUIRE COOLING.
C403.7.5	KITCHEN EXHAUST SYSTEMS COMPLY WITH REPLACEMENT AIR AND CONDITIONED SUPPLY AIR LIMITATIONS, AND SATISFY HOOD RATING REQUIREMENTS AND MAXIMUM EXHAUST RATE CRITERIA. ALL KITCHEN EXHAUST AIR IS TRANSFER AIR FROM ADJACENT SPACES. THERE IS NO DIRECT MAKEUP AIR AT THE KITCHEN HOODS.
C403.12.1–2	PER THE PROJECT WRITTEN SPECIFICATIONS, HVAC DUCTS AND PLENUMS INSULATED IN ACCORDANCE WITH C403.11.1 AND CONSTRUCTED IN ACCORDANCE WITH C403.11.2
C403.6.1	ALL AHU FANS AND HYDRONIC PUMPS ARE SCHEDULED WITH VFDS.
C403.6.9	AS NOTED IN THE WRITTEN SPECIFICATION, VAV FANS HAVE STATIC PRESSURE SENSORS LOCATED SO CONTROLLER SETPOINT <=1.2 W.C.,
C403.4.1.3	AS NOTED IN THE WRITTEN SPECIFICATION, RESET STATIC PRESSURE SETPOINT FOR DDC CONTROLLED VAV BOXES REPORTING TO CENTRAL CONTROLLER BASED ON THE ZONES REQUIRING THE MOST PRESSURE.
C403.4.1	AS NOTED ON THE FLOOR PLANS, HEATING AND COOLING TO EACH ZONE IS CONTROLLED BY A THERMOSTAT CONTROL. MINIMUM ONE HUMIDITY CONTROL DEVICE PER INSTALLED HUMIDIFICATION/DEHUMIDIFICATION SYSTEM.
C403.4.1.2	AS NOTED IN THE WRITTEN CONTROLS SEQUENCES, THERMOSTATIC CONTROLS HAVE A 5 °F DEADBAND.
C403.4.1.3	AS NOTED IN THE WRITTEN CONTROLS SEQUENCES, TEMPERATURE CONTROLS HAVE SETPOINT OVERLAP RESTRICTIONS.
C403.4.2	AS NOTED IN THE WRITTEN CONTROLS SEQUENCES, EACH ZONE EQUIPPED WITH SETBACK CONTROLS USING AUTOMATIC TIME CLOCK OR PROGRAMMABLE CONTROL SYSTEM. AUTOMATIC CONTROLS: SETBACK TO 55°F (HEAT) AND 85°F (COOL); 7–DAY CLOCK, 2–HOUR OCCUPANT OVERRIDE, 10–HOUR BACKUP. AND, SYSTEMS INCLUDE OPTIMUM START CONTROLS.
C403.4.3	IN ACCORDANCE WITH THE CONTROL SEQUENCES IN THE WRITTEN SPECIFICATION, THE HEATING OF FLUIDS IN HYDRONIC SYSTEMS THAT HAVE BEEN PREVIOUSLY MECHANICALLY COOLED, AND THE COOLING OF FLUIDS THAT HAVE BEEN PREVIOUSLY MECHANICALLY HEATED ARE LIMITED IN ACCORDANCE WITH SECTIONS C403.4.3.1–C403.4.3.3. SINGLE BOILER SYSTEMS >500,000 BTU/H HAVE MULTISTAGED OR MODULATING BURNER. REFERENCE BOILER SCHEDULE.
C403.4.3.1	THREE–PIPE HYDRONIC SYSTEMS USING A COMMON RETURN FOR HOT AND CHILLED WATER ARE NOT USED.
C403.12.3	AS NOTED IN THE WRITTEN SPECIFICATIONS, HVAC PIPING INSULATION INSULATED IN ACCORDANCE WITH TABLE C403.11.3. INSULATION EXPOSED TO WEATHER IS PROTECTED FROM DAMAGE AND IS PROVIDED WITH SHIELDING FROM SOLAR RADIATION.
C403.4.5	AS NOTED IN THE WRITTEN CONTROLS SEQUENCES, CHILLED WATER PLANTS WITH MULTIPLE CHILLERS HAVE CAPABILITY TO REDUCE FLOW AUTOMATICALLY THROUGH THE CHILLER PLANT WHEN A CHILLER IS SHUT DOWN. BOILER PLANTS WITH MULTIPLE BOILERS HAVE THE CAPABILITY TO REDUCE FLOW AUTOMATICALLY THROUGH THE BOILER PLANT WHEN A BOILER IS SHUT DOWN.
C403.6.1	AS NOTED IN THE WRITTEN CONTROLS SEQUENCES SUPPLY AIR SYSTEMS SERVING MULTIPLE ZONES HAVE VAV SYSTEMS WITH CONTROLS CONIGURED TO REDUCE THE VOLUME OF AIR THAT IS REHEATED, RECOOLED OR MIXED IN EACH ZONE. SEE SECTION FOR DETAILS.
C403.6.2	AS NOTED IN THE WRITTEN CONTROLS SEQUENCES SINGLE–DUCT VAV SYSTEMS USE TERMINAL DEVICES CONFIGURED TO REDUCE THE SUPPLY OF PRIMARY SUPPLY AIR BEFORE REHEATING OR RECOOLING TAKES PLACE.
C403.6.8	AS NOTED IN THE WRITTEN CONTROLS SEQUENCES SYSTEMS WITH DDC OF INDIVIDUAL ZONES REPORTING TO THE CENTRAL CONTROL PANEL CONFIGURED TO RESET THE STATIC PRESSURE SETPOINT BASED ON ZONE REQUIRING THE MOST PRESSURE. THE DDC IS CAPABLE OF MONITORING ZONE DAMPER POSITIONS.
C403.6.9	AS NOTED IN THE WRITTEN CONTROLS SEQUENCES STATIC PRESSURE SENSORS USED TO CONTROL VAV FANS LOCATED SUCH THAT THE CONTROLLER SETPOINT IS <= 1.2 INCHES W.C., WHERE THIS RESULTS IN ONE OR MORE SENSORS BEING LOCATED DOWNSTREAM OF MAJOR DUCT SPLITS, NOT LESS THAN ONE SENSOR LOCATED ON EACH MAJOR BRANCH.
C405.8	AS NOTED IN THE WRITTEN SPECIFICATIONS, ELECTRIC MOTORS MEET THE MINIMUM EFCIENCY REQUIREMENTS OF TABLES C405.7(1) THROUGH C405.7(4).
C408	COMMISSIONING WILL BE COMPLETED IN ACCORDANCE WITH ALL THE REQUIREMENTS OF THE IECC–2021 AND ASSOCIATED AHJ. A THRID PARTY COMMISSIONING AGENT WILL BE HIRED BY THE OWNER, AND THE MECHANICAL CONTRACTOR WILL COMPLY WITH REQUESTS FROM THE COMMISSIONING AGENT FOR COMPLETION OF ALL NECESSARY TESTING AND REPORTING.
C408.2.5.1	THIRD PARTY TEST & BALANCE OF THE AIR AND HYDRONIC SYSTEMS WILL BE PROVIDED BY THE OWNER, AND THE MECHANICAL CONTRACTOR WILL COMPLY WITH REQUESTS FROM THE COMMISSIONING AGENT FOR COMPLETION OF ALL NECESSARY TESTING AND REPORTING.

CHILLER SCHEDULE

MARK	CH–1,2
NOMINAL CAPACITY (TONS)	200
ACTUAL CAPACITY (TONS)	192.8
CHILLER TYPE	AIR COOLED
COMPRESSOR TYPE	SCREW
COMPRESSOR SPEED CONTROL	VSD
FULL LOAD EFFICIENCY (EER)	10.8
IPLV EFFICIENCY (EER)	19.29
NO. OF PASSES (EVAPORATOR)	TWO–PASS
REFRIGERANT TYPE	R513A
DESIGN GPM	288
MINIMUM GPM	230
EWT/LWT (°F)	60/44°F (DELTA T=16)
MAX. PRESSURE DROP (FT. HD.)	15FT.
FOULING FACTOR	0.0001
AMBIENT TEMPERATURE (°F)	95°F
COMPRESSOR QUANTITY	2
COMPRESSOR #1 RLA	–
COMPRESSOR #2 RLA	–
CONDENSER FAN QUANTITY	–
CNDSR. FAN RLA (EACH)	–
VOLTS/PHASE/HERTZ	460V/3–PHASE
MCA	374.4 A
MOCP	500 A
MANUFACTURER	TRANE
MODEL NUMBER	ACR–200
NOTES	1 THRU 9

NOTES:
1. CHILLERS SHALL HAVE ONE (1) POINT POWER CONNECTION.
2. PROVIDE HIGH EFFICIENCY/PERFORMANCE & LOW/HIGH AMBIENT OPTIONS.
3. PROVIDE HEAD PRESSURE CONTROLS FOR OPERATION DOWN TO 20°F AMBIENT AND 5 YEARS COMPRESSOR WARRANTY. UNDER 5 YEAR WARRANTY, REPLACE FAILED COMPRESSORS WITH NEW.
4. PROVIDE LOUVERED COIL GUARDS AND COMPRESSOR ACCESS WIRE GUARDS.
5. 65 KVA SCCR PROTECTION.
6. E–COATED CONDENSER COILS.
7. VARIABLE SPEED CONDENSER FANS.
8. BACNET INTERFACE CARD.
9. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

BOILER SCHEDULE

MARK	BR–1,2
TYPE	CONDENSING–FIRE TUBE
BTUH INPUT (MBH)	1500
BTUH OUTPUT (MBH)	1450
MIN. EFFICIENCY	96%
TURNDOWN RATIO	10:1
OPERATING PRESSURE	125 PSI
GAS PRESSURE	2" TO 14" PSI
GPM	71.4
EWT/°F/ LWT °F	140/180
MAX PD, FT. WATER	5FT.
FLUE VENT SIZE (DIA.)	4"
VOLTAGE	208V/3–PHASE
FLA (AMPS)	13.0 A
MANUFACTURER	RBI
MODEL	FLEXCORE 1500
NOTES	1 THRU 10

NOTES
1. PRIMARY CIRCULATION PUMP– CIRCULATION PUMP SHALL BE SIZED AND PROVIDED BY THE BOILER REP. TO MATCH THE BOILER FLOW REQUIREMENTS FOR THE PRIMARY LOOP. THE CIRCULATION PUMP SHALL BE 208V/1PH, POWERED BY A SEPARATE CIRCUIT AND START/STOP CONTROLLED BY THE BOILER.
2. INTAKE & EXHAUST FLUE– STAINLESS STEEL, CATEGTORY IV FLUE VENT MATERIAL, INCLUDING ALL ELBOWS, TEES, DRAIN LEGS, VENT CAPS AND FLASHING SHALL BE PROVIDED WITH THE BOILER. SIMILARLY, GALVANIZED INTAKE VENTING SHALL BE PROVIDED. INCLUDE A CONCENTRIC VENTING KIT FOR A SINGLE ROOF PENETRATION.
3. INSTALL PER MANUFACTURERS SPECIFICATIONS.
4. PROVIDE WITH INTEGRAL DISCONNECT.
5. PROVIDE FACTORY INSTALLED FLOW SWITCH.
6. FACTORY MOUNTED BACNET INTERFACE CONTROLLER.
7. TEMPERATURE SENSOR WELL.
8. SOLENOID SAFETY VALVE.
9. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

INDOOR AHU SCHEDULE

MARK	AHU–A1	AHU–A2	AHU–A3	AHU–B1	AHU–C1	AHU–C2	AHU–C3	AHU–D1	AHU–D2
UNIT CONFIGURATION	HORIZ. DRAW THRU	HORIZ. DRAW THRU	HORIZ. DRAW THRU	HORIZ. DRAW THRU	HORIZ. DRAW THRU	HORIZ. DRAW THRU	HORIZ. DRAW THRU	HORIZ. DRAW THRU	HORIZ. DRAW THRU
UNIT TYPE	MZ VAV	MZ VAV	SZ VAV	MZ VAV (CHW & DX)	MZ VAV	SZ VAV	SZ VAV	MZ VAV	SZ VAV
SERVES	CLASSROOMS 1ST FLOOR AREA 'A'	CLASSROOMS 2ND FLOOR AREA 'A'	LEARNING RESOURCE CENTER	ADMINISTRATION	CLASSROOMS AREA 'C'	PE & STAGE	CAFE & MAIN STREET	ART CLASSROOMS	KITCHEN
DESIGN SUPPLY AIR (CFM)	28,000	24,500	4,450	5,500	18,250	8,100	10,000	3,200	5,600
OUTISDE AIR (CFM)	9,600	8,400	1,100	800	6,300	3,700	4,750	1,450	475
EXT. S.P. (IN W.G.)	2.5	2.5	1.0	1.0	1.50	1.00	1.3	1.0	.85
FAN TYPE	PLENUM	PLENUM	PLENUM	PLENUM	PLENUM	PLENUM	PLENUM	PLENUM	PLENUM
DRIVE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
SPEED CONTROL	VFD	VFD	VFD	VFD	VFD	VFD	VFD	VFD	VFD
FAN QUANTITY	1	1	1	1	1	1	1	1	1
FAN HORSEPOWER	6 X 4.5 HP / 27 HP TOT.	6 X 4 HP / 24 HP TOT.	2.5 HP	5 HP	2 X 8 HP / 16 HP TOT.	7.5 HP	10.0 HP	2.0 HP	5 HP
VOLTAGE	460V–3PH	460V–3PH	460V–3PH	460V–3PH	460V–3PH	460V–3PH	460V–3PH	460V–3PH	460V–3PH
TOTAL FLA	35.4 A	30.0 A	3.5 A	6.4 A	20.2 A	9.8 A	13.0 A	3.0 A	6.4 A
HEATING COIL POSITION	–	–	REHEAT	–	–	REHEAT	REHEAT	–	REHEAT
HEAT COIL CFM	–	–	3,000	–	–	8,100	10,000	–	5,600
EAT (°F)	–	–	56.1	–	–	50.5	49.2	–	66.1
LAT (°F)	–	–	85	–	–	75.5	76.4	–	85
HEATING CAPACITY (MBH)	–	–	95	–	–	219.1	293.7	–	23.6
EWT/LWT (°F)	–	–	180/140	–	–	180/140	180/140	–	180/140
COIL WATER FLOW (GPM)	–	–	5	–	–	11.0	14.7	–	6
COIL CONNECTION SIZE (IN.)	–	–	–	–	–	–	–	–	–
MAX. WATER P.D. (FT. HD.)	–	–	10	–	–	10	10	–	10
COOLING COIL CFM	28,000	24,500	4,450	5,500 (CHW & DX)	18,250	8,100	10,000	3,200	5,600
EAT DB/WB (°F)	82.6/69.3	83.2/69.3	78.8/66.3	78.8/65.0	83.8/69.3	82.6/71.2	83.1/70.6	87.7/71.2	76.0/63.7
LAT DB/WB (°F)	55/54	55/54	55/54	55/54	55/54	55/54	55/54	55/54	55/54
TOTAL COOLING CAPACITY (MBH)	1250	1138	158	175	807	439	491	165	158.3
SENSIBLE COOLING CAPACITY (MBH)	834	762	116	143	561	250	308	111	126.1
EWT/LWT (°F)	44/60	44/60	44/60	44/60	44/60	44/60	44/60	44/60	44/60
COIL WATER FLOW (GPM)	156	142	22	20	101	55	62	21	21
MAX. WATER P.D. (FT. HD.)	10	10	10	10	10	10	10	10	10
CONDENSATE LINE SIZE	1.25"	1.25"	1.25"	1.25"	1.25"	1.25"	1.25"	1.25"	1.25"
MANUFACTURER	TEMTROL	TEMTROL	TEMTROL	TEMTROL	TEMTROL	TEMTROL	TEMTROL	TEMTROL	TEMTROL
MODEL	LC	LC	LC	LC	LC	LC	LC	LC	LC
NOTES	1 THRU 12	1 THRU 12	1 THRU 12	1 THRU 12 & 13	1 THRU 12	1 THRU 12	1 THRU 12	1 THRU 12	1 THRU 12

NOTES
1. EXTERNAL STATIC PRESSURE DOES NOT INCLUDE MERV 13 FILTERS, COILS CASING CONVERSION.
2. DESIGN FAN HP IS MOTOR SIZE WIRED BY ELECTRICAL. MANUFACTURERS REQUIRING LARGER MOTORS MUST PAY FOR INCREASED CIRCUIT AND BREAKER COSTS. SMALLER MOTORS MAY BE PROVIDED IF BHP IS LESS THAN MOTOR DESIGN HP AND A 1/4"WG INCREASED PRESSURE DROP DOES NOT OVERLOAD MOTOR.
3. PROVIDE ACCESS SECTIONS WITH MINIMUM 18" WIDE, DOUBLE–WALL DOORS DOWNSTREAM OF EACH COIL FOR CLEANING AND INSPECTIONS.
4. ALL UNITS SHALL HAVE 12" MINIMUM EXTENDED STAINLESS, SLOPED DRAIN PANS.
5. CONDENSATE DRAIN LINE FOR EACH HYDRONIC COIL SECTION.
7. ANGLE FILTER SECTION FOR MERV 13 FILTER. MAX. FILTER VELOCITY OF 500 FPM.
8. MANUFACTURERS NOT SCHEDULED SHALL VERIFY SPACE CONSTRAINTS PRIOR TO BIDDING AND SUBMITTING OF UNITS.
9. REMOTE MOUNTED VFD. REFER TO MECHANICAL PLANS FOR LOCATION.
10. PROVIDE 2–WAY AND 3–WAY VALVE COIL ARRANGEMENT PER CONTROL VALVE SCHEDULE.
11. ALL UNITS SHALL HAVE UV–LIGHTS INSTALLED WITHIN UNIT. PROVIDE SEPARATE 120V POWER. MAS. BAS SHALL BE CAPABLE OF MONITORING UV LIGHT STATUS.
12. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

AHU–B1 (ADMIN. UNIT)
13. PROVIDE DX COOLING COIL WITH CAPACITY MATCHING CHILLED WATER COOLING COIL. DX COIL CHALL BE INSTALLED DOWN STREAM OF CHW COOLING COIL. DX COIL SHALL BE PAIRED WITH VRF CONDESING UNIT ACCU–B1 AND COIL CONTROL KIT WITH DDC INTERFACE.

DEDICATED OAHU W/ ENERGY RECOVERY SCHEDULE

				ERV–A1	ERV–C1
			SERVES	AHU–A1, A2, A3	AHU–C1, C2, C3
			RECOVERY MEDIUM	ENERGY RECOVERY WHEEL	ENERGY RECOVERY WHEEL
FAN			FAN TYPE (DRIVE)	PLENUM (DIRECT)	PLENUM (DIRECT)
			FAN QUANTITY	2 – 1 SUPPLY / 1 EXHAUST	2 – 1 SUPPLY / 1 EXHAUST
			FAN SPEED CONTROL	VFD	VFD
			SUPPLY CFM	19,000	16,700
			EXT. S.P. (IN. W.G.)	0.75	1.25
			FAN(S) HORSEPOWER	3 x 7.5 HP / 22.5 TOTAL	3 x 7.5 HP / 22.5 TOTAL
			EXHAUST CFM	18,500	16,200
			E.S.P. (IN. W.G.)	0.75	0.75
			FAN(E) HORSEPOWER	2 x 7.5 HP / 15 HP TOTAL	2 x 7.5 HP / 15 HP TOTAL
ENERGY RECOVERY	WHEEL INFO		WHEEL DIAMETER	96"	96"
			MOTOR HP	1.5 HP	1.5 HP
			FLA	2.1 A	2.1 A
				WINTER / SUMMER	WINTER / SUMMER
	RETURN AIR		DRY BULB (°F)	69.5 / 74.6	69.5 / 74.6
			RELATIVE HUMIDITY (%)	10% / 52%	10% / 52%
			WET BULB (°F)	46.4 / 63.0	46.4 / 63.0
	OUTSIDE AIR		DRY BULB (°F)	27 / 96	27 / 96
			RELATIVE HUMIDITY (%)	78 / 42.%	78 / 42.%
			WET BULB (°F)	25 / 77	25 / 77
			TOTAL EXCHANGER EFFECTIVENESS (%)	68.5% / 64.3%	
COOLING			COOLING COIL CFM	19,000	16,200
			EAT DB/WB (°F)	96/77	96/77
			LAT DB/WB (°F)	55/54	55/54
			TOTAL COOLING CAPACITY (MBH)	1488	1274
			SENS. COOLING CAPACITY (MBH)	872	754
			EWT/LWT (°F)	44/60	44/60
			FLOW RATE (GPM)	185.4	159
			COIL PRESSURE DROP (FT.HD.)	10.0	10.0
HEATING			HEATING COIL CFM	19,000	16,200
			EAT (°F)	27	27
			LAT (°F)	55	55
			TOTAL HEATING CAPACITY (MBH)	606	530
			EWT/LWT (°F)	180/140	180/140
			FLOW RATE (GPM)	31	27
			COIL PRESSURE DROP (FT.HD.)	10.0	10.0
ELEC.			SUPPLY POWER REQUIRMENTS		
			VOLTAGE	480V/3–PHASE	480V/3–PHASE
			ASSEMBLY MCA	26 A	26 A
			ASSEMBLY MOCP	28 A	28 A
			EXHAUST POWER REQUIRMENTS		
			VOLTAGE	480V/3–PHASE	480V/3–PHASE
			ASSEMBLY MCA	20 A	20 A
			ASSEMBLY MOCP	23 A	23 A
			HEAT WALL POWER REQUIRMENTS		
			VOLTAGE	480V/3–PHASE	480V/3–PHASE
			ASSEMBLY MCA	3 A	3 A
			ASSEMBLY MOCP	3 A	3 A
			MANUFACTURER	TEMTROL	TEMTROL
			MODEL	ITF	ITF
			NOTES	ALL	ALL

NOTES
1. EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO COIL(S), FILTERS, HOUSING, NOR ACCESSORIES.
2. PROVIDE WITH MERV 13 FILTERS
3. PROVIDE WALL MOUNT VFD'S FOR BOTH FANS AND ENERGY WHEEL. REFER TO FLOOR PLANS FOR LOCATION.
4. PROVIDE FACTORY MOUNTED FILTER ALARMS. ALARMS SHALL BE MONITORED BY THE BAS.
5. PROVIDE MOTORIZED ISOLATION DAMPERS FOR BOTH O/A AND E/A AIRSTREAMS.
6. UNIT SHALL HAVE DOUBLE WALL CONSTRUCTION.
7. UNIT SHALL BE PROVIDED WITH UV–C COIL. PROVIDE 120V POWER. UV–COIL OPERATION SHALL BE MONITORED BY BAS AND CAPABLE OF SCHEDULING FOR OCCUPIED AND UNOCCUPIED MODES.
8. PLENUM FANS SHALL BE EQUIPPED WITH AIRFLOW MEASUREMENT POINTS FOR USE WITH DP SENSOR TO CALCULATE AIRFLOW OF FAN.
9. PLENUM FANS SHALL BE EQUIPPED WITH BACKDRAFT DAMPERS TO ALLOW FOR CONTINUED USE OF THE FAN SECTION IF ONE OF THE FAN MOTORS WERE TO FAIL.

DX RTU SCHEDULE

MARK	RTU–D3
UNIT TYPE	SZ VAV
NOMINAL TONNAGE	3–TON
REFRIGERANT	R–454B
UNIT CONFIGURATION	BOTTOM INLET/OUTLET
EFFICIENCY (SEER/SEER2)	19.6/18.8
SERVES	PRIV. CLINIC
DESIGN SUPPLY AIR (CFM)	1,050
OUTSIDE AIR (CFM)	125
EXT. S.P. (IN.W.G.)	1.00
FAN TYPE	PLENUM
DRIVE	DIRECT
FAN SPEED CONTROL	VARIABLE
FAN QUANTITY	1
FAN HORSEPOWER	1.5 HP
COMPRESSOR TYPE	SCROLL
NO. OF COMPRESSORS	1
CMPRSR. SPEED CONTROL/# OF STAGES	VARIABLE, 36% MIN.
COMPRESSOR RLA	5.1 A
COOLING COIL CFM	1,050
EAT DB/WB (°F)	78.5/64.9
LAT DB/WB (°F)	51.86/51.83
TOTAL COOLING CAPACITY (MBH)	33.6
SENSIBLE COOLING CAPACITY (MBH)	24.14
HTG. CAPACITY STAGE #1 (MBH IN/OUT)	80/56
HTG. CAPACITY STAGE #2 (MBH IN/OUT)	64.8/45.3
CONDENSATE LINE SIZE	1.25"
VOLTAGE	208V/3PH
UNIT FLA	–
UNIT MCA	23 A
UNIT MOCP	30 A
MANUFACTURER	TRANE
MODEL NO.	PRECEDENT
NOTES	1 THRU 7

NOTES
1. EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO COIL(S), FILTERS, HOUSING, NOR ACCESSORIES.
2. MERV 13 FILTERS.
3. UNIT SHALL HAVE DOUBLE WALL CONSTRUCTION.
4. UNIT SHALL BE PROVIDED WITH UV–C COIL. 120V POWER. COIL SHALL BE POWERED FROM MAIN UNIT. UV–COIL OPERATION SHALL BE MONITORED BY BAS.
5. ENTHALPY ECONOMIZER W/ BAROMETRIC RELIEF.
6. HOT GAS REHEAT OPTION.
7. UNIT SHALL MEET WND LOAD REQUIREMENTS, REF. CURB INSTALLATION DETAILS.

PUMP SCHEDULE

MARK	CHP–1,2	HWP–1,2
SERVICE	BUILDING CHW LOOP	BUILDING HW LOOP
TYPE	END SUCTION	END SUCTION
GPM	288	75
HEAD (FT. H2O)	90	90
MIN. EFF. %	74%	59%
MAX RPM	1800	3600
MOTOR HP	15 HP	5 HP
MOTOR SPEED CONTROL	VFD	VFD
VOLTAGE	460V/3–PHASE	460V/3–PHASE
PUMP FLANGE SIZE (S/D)	4" X 3"	2" X 1–1/4"
MANUFACTURER	TACO	TACO
MODEL	FI 3011D	FI 1206D
NOTES	1 THRU 4	1 THRU 4

NOTES
1. INSTALL PER MANUFACTURERS SPECIFICATIONS.
2. PROVIDE DISCONNECT.
3. BACNET INTERFACE W/ SPEED CONTROLLER.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

AIR SEPARATOR SCHEDULE

| MAR

AIR TERMINAL (VAV) SCHEDULE

MARK	TOTAL CFM	MIN. PRIMARY CFM	AIR-MAX P.D. (IN.W.G.)	MIN. HEATING CAPACITY, MBH	GPM	COIL SIZE	WATER-MAX P.D. (FT.W.G.)	MANUFACTURER	MODEL	UNIT SIZE
VAV-A1.01	980	375	0.44	23.3	1.2	3/4"	0.41	PRICE	SDV	10
VAV-A1.02	675	300	0.44	17.6	0.9	3/4"	0.19	PRICE	SDV	8
VAV-A1.03	1210	400	0.38	27.2	1.4	3/4"	0.66	PRICE	SDV	12
VAV-A1.04	1060	350	0.5	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A1.05	980	250	0.44	17.6	0.9	3/4"	0.24	PRICE	SDV	10
VAV-A1.06	855	350	0.36	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A1.07	1060	350	0.5	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A1.08	1195	375	0.37	26.1	1.35	3/4"	0.61	PRICE	SDV	12
VAV-A1.09	855	350	0.36	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A1.10	1260	400	0.41	27.2	1.4	3/4"	0.66	PRICE	SDV	12
VAV-A1.11	700	225	0.26	16.4	0.85	3/4"	0.22	PRICE	SDV	10
VAV-A1.12	855	350	0.36	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A1.13	1040	450	0.49	26.3	1.35	3/4"	0.5	PRICE	SDV	10
VAV-A1.14	740	250	0.28	17.6	0.9	3/4"	0.24	PRICE	SDV	10
VAV-A1.15	600	225	0.36	14.6	0.75	3/4"	0.14	PRICE	SDV	8
VAV-A1.16	780	325	0.31	21.2	1.09	3/4"	0.34	PRICE	SDV	10
VAV-A1.17	980	300	0.44	20.1	1.03	3/4"	0.31	PRICE	SDV	10
VAV-A1.18	980	350	0.44	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A1.19	685	225	0.25	16.4	0.85	3/4"	0.22	PRICE	SDV	10
VAV-A1.20	1200	400	0.38	27.2	1.4	3/4"	0.66	PRICE	SDV	12
VAV-A1.21	1040	375	0.49	23.3	1.2	3/4"	0.41	PRICE	SDV	10
VAV-A1.22	1145	375	0.35	26.1	1.35	3/4"	0.61	PRICE	SDV	12
VAV-A1.23	1020	375	0.47	23.3	1.2	3/4"	0.41	PRICE	SDV	10
VAV-A1.24	1165	275	0.36	20.8	1.07	3/4"	0.41	PRICE	SDV	12
VAV-A1.25	1550	475	0.32	35.1	1.8	3/4"	0.46	PRICE	SDV	14
VAV-A1.26	2200	660	0.4	47.2	2.43	3/4"	0.84	PRICE	SDV	16
VAV-A1.27	1290	400	0.42	27.2	1.4	3/4"	0.66	PRICE	SDV	12
VAV-A2.01	1195	375	0.37	26.1	1.35	3/4"	0.61	PRICE	SDV	12
VAV-A2.02	800	250	0.32	17.6	0.9	3/4"	0.24	PRICE	SDV	10
VAV-A2.03	1000	350	0.46	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A2.04	1450	500	0.51	31.6	1.62	3/4"	0.86	PRICE	SDV	12
VAV-A2.05	1000	350	0.46	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A2.06	365	200	0.329	12.1	0.62	3/4"	0.08	PRICE	SDV	6
VAV-A2.07	1060	350	0.5	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A2.08	870	400	0.37	24.4	1.25	3/4"	0.44	PRICE	SDV	10
VAV-A2.09	1060	350	0.5	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A2.10	1060	350	0.5	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A2.11	1060	350	0.5	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A2.12	365	175	0.329	11	0.57	3/4"	0.07	PRICE	SDV	6
VAV-A2.13	1060	350	0.5	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A2.14	870	400	0.37	24.4	1.25	3/4"	0.44	PRICE	SDV	10
VAV-A2.15	1000	350	0.46	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A2.16	530	200	0.3	13.4	0.7	3/4"	0.12	PRICE	SDV	8
VAV-A2.17	1000	350	0.46	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A2.18	540	175	0.31	12.2	0.62	3/4"	0.1	PRICE	SDV	8
VAV-A2.19	1060	350	0.5	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A2.20	1100	450	0.33	29.5	1.51	3/4"	0.76	PRICE	SDV	12
VAV-A2.21	1060	350	0.5	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A2.22	1060	350	0.5	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-A2.23	600	250	0.36	15.6	0.81	3/4"	0.16	PRICE	SDV	8
VAV-A2.24	1140	425	0.35	28.4	1.46	3/4"	0.71	PRICE	SDV	12
VAV-A2.25	1265	400	0.41	27.2	1.4	3/4"	0.66	PRICE	SDV	12
VAV-A2.26	645	200	0.41	13.4	0.7	3/4"	0.12	PRICE	SDV	8
VAV-A2.27	1060	350	0.5	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-B1.01	940	300	0.41	20.1	1.03	3/4"	0.31	PRICE	SDV	10
VAV-B1.02	440	150	0.22	10.9	0.57	3/4"	0.08	PRICE	SDV	8
VAV-B1.03	850	350	0.35	22.3	1.14	3/4"	0.37	PRICE	SDV	10
VAV-B1.04	450	150	0.23	10.9	0.57	3/4"	0.08	PRICE	SDV	8
VAV-B1.05	620	200	0.38	13.4	0.7	3/4"	0.12	PRICE	SDV	8
VAV-B1.06	1340	450	0.45	29.5	1.51	3/4"	0.76	PRICE	SDV	12
VAV-B1.07	540	175	0.31	12.2	0.62	3/4"	0.1	PRICE	SDV	8
VAV-B1.08	680	400	0.45	21.1	1.09	3/4"	0.27	PRICE	SDV	8
VAV-C1.01	1060	375	0.5	23.3	1.2	3/4"	0.41	PRICE	SDV	10
VAV-C1.02	1270	425	0.41	28.4	1.46	3/4"	0.71	PRICE	SDV	12
VAV-C1.03	1260	400	0.41	27.2	1.4	3/4"	0.66	PRICE	SDV	12
VAV-C1.04	1360	425	0.46	28.4	1.46	3/4"	0.71	PRICE	SDV	12
VAV-C1.05	1060	375	0.5	23.3	1.2	3/4"	0.41	PRICE	SDV	10
VAV-C1.06	1330	425	0.44	28.4	1.46	3/4"	0.71	PRICE	SDV	12
VAV-C1.07	1530	475	0.56	30.6	1.57	3/4"	0.81	PRICE	SDV	12
VAV-C1.08	1420	500	0.49	31.6	1.62	3/4"	0.86	PRICE	SDV	12
VAV-C1.09	1470	525	0.52	32.7	1.68	3/4"	0.91	PRICE	SDV	12
VAV-C1.10 (NOT USED)										
VAV-C1.11	1150	425	0.35	28.4	1.46	3/4"	0.71	PRICE	SDV	12
VAV-C1.12	1410	425	0.49	28.4	1.46	3/4"	0.71	PRICE	SDV	12
VAV-C1.13	1290	475	0.42	30.6	1.57	3/4"	0.81	PRICE	SDV	12
VAV-C1.14	1260	400	0.41	27.2	1.4	3/4"	0.66	PRICE	SDV	12
VAV-C1.15	1620	500	0.34	36.4	1.87	3/4"	0.5	PRICE	SDV	14
VAV-D1.01	1295	475	0.43	30.6	1.57	3/4"	0.81	PRICE	SDV	12
VAV-D1.02	1880	500	0.43	36.4	1.87	3/4"	0.5	PRICE	SDV	14

NOTES
1. STATIC PRESSURE SHOWN IS EXTERNAL TO THE UNIT.
2. 2-ROW HEATING COIL MINIMUM. HEATING CAPACITY IS BASED ON 180°F EWT AND 140°F LWT.
3. VAV HEATING CAPACITY IS BASED ON MINIMUM OUTDOOR AIR CFM, 55°F EAT AND 95°F LAT. LAT SHALL BE LIMITED TO 85°F DURING OCCUPIED HOURS.
4. FACTORY MOUNTED CONTROLLER.
5. CONTROL PANEL SHALL HAND POSITON SHALL MATCH THOSE SHOWN ON DRAWING. HAND POSITON FOR HW COIL CONNECTION AND CONTROL PANEL SHALL MATCH.
6. TERMINAL BOX SHALL BE PROVIDED WITH ACCESS SECTION TO ALLOW FOR CLEANING OF HW COIL.

CONTROL VALVE SCHEDULE

EQUIPMENT SERVED	SYSTEM	VALVE TYPE	FLOW RATE	NOTES
AHU-A1	CHW	2-WAY	156	MODULATING WITH FEEDBACK
AHU-A2	CHW	2-WAY	142	MODULATING WITH FEEDBACK
AHU-A3	CHW	3-WAY	20	MODULATING WITH FEEDBACK
AHU-B1	CHW	2-WAY	22	MODULATING WITH FEEDBACK
AHU-C1	CHW	2-WAY	101	MODULATING WITH FEEDBACK
AHU-C2	CHW	3-WAY	55	MODULATING WITH FEEDBACK
AHU-C3	CHW	2-WAY	62	MODULATING WITH FEEDBACK
AHU-D1	CHW	2-WAY	21	MODULATING WITH FEEDBACK
AHU-D2	CHW	2-WAY	21	MODULATING WITH FEEDBACK
AHU-A3	HW	3-WAY	5	MODULATING WITH FEEDBACK
AHU-C2	HW	3-WAY	11	MODULATING WITH FEEDBACK
AHU-C3	HW	2-WAY	15	MODULATING WITH FEEDBACK
AHU-D2	HW	2-WAY	6	MODULATING WITH FEEDBACK
ERV-A1	CHW	2-WAY	185	MODULATING WITH FEEDBACK
ERV-C1	CHW	2-WAY	159	MODULATING WITH FEEDBACK
ERV-A1	HW	2-WAY	31	MODULATING WITH FEEDBACK
ERV-C1	HW	2-WAY	27	MODULATING WITH FEEDBACK
CH-1	CHW	2-WAY	288	MODULATING WITH FEEDBACK
CH-2	CHW	2-WAY	288	MODULATING WITH FEEDBACK
CHW BYPASS	CHW	2-WAY	230	MODULATING WITH FEEDBACK
VAV-B1.03, B1.04	HW	3-WAY	REF. SCHED	MODULATING, N.C.
VAV-A1.06, A1.09	HW	3-WAY	REF. SCHED	MODULATING, N.C.
VAV-C1.05, C1.14	HW	3-WAY	REF. SCHED	MODULATING, N.C.
VAV- (ALL REMAINING)	HW	2-WAY	REF. SCHED	MODULATING, N.C.

DX MINI-SPLIT SCHEDULE

		ACCU-A1	ACCU-A2	ACCU-B2	ACCU-C1	ACCU-D1	ACCU-D2
CONDENSING UNIT	OUTDOOR UNIT,MARK						
	TYPE	COOLING ONLY	COOLING ONLY	COOLING ONLY	COOLING ONLY	COOLING ONLY	HEAT PUMP
	NOMINAL TONNAGE	1.5-TON	1.5-TON	1.5-TON	1.5-TON	3-TON	3/4-TON
	RATED COOLING CAPACITY (MBH)	33.2	33.2	33.2	33.2	33.2	33.2
	SENS. COOLING CAPACITY (MBH)	–	–	–	–	–	–
	RATED HEATING CAPACITY (MBH)	–	–	–	–	–	–
	EER/SEER	13.5/17.5	13.5/17.5	13.5/17.5	13.5/17.5	9.1/15.9	9.1/15.9
	HEATING COP/HSPF	–	–	–	–	–	–
	REFRIGERANT TYPE	R-32	R-32	R-32	R-32	R-32	R-32
	NO. OF COMPRESSORS	1	1	1	1	1	1
	NO. OF STAGES	SINGLE	SINGLE	SINGLE	SINGLE	SINGLE	SINGLE
	AMBIENT AIR, °F	95	95	95	95	95	95
	VOLTAGE	208V/1-PHASE	208V/1-PHASE	208V/1-PHASE	208V/1-PHASE	208V/1-PHASE	208V/1-PHASE
	RATED LOAD AMPS	–	–	–	–	–	–
	MCA/MOCP	19.1 A/30 A	19.1 A/30 A	19.1 A/30 A	19.1 A/30 A	32 A/35 A	12.0 A/15 A
	MANUFACTURER	LG	LG	LG	LG	LG	LG
	OUTDOOR UNIT MODEL NO.	KUSXA181A	KUSXA181A	KUSXA181A	KUSXA181A	KUSXA361A	KUS180B91A
EVAP. UNIT	INDOOR UNIT, MARK	FCU-A1	FCU-A2	FCU-A2	FCU-C1	CU-D1	FCU-D2
	SERVES SPACES	IDF A115A	IDF A226	IDF B146A	IDF C131	MDF B108	OFFICER B122
	SUPPLY AIR CFM (HI – MED – LO)	600-510-440	600-510-440	600-510-440	600-510-440	1,050-980-900	388-318-194
	NO. OF FAN SPEEDS	3	3	3	3	3	3
	VOLTAGE	FED FROM OUTDOOR	FED FROM OUTDOOR	FED FROM OUTDOOR	FED FROM OUTDOOR	FED FROM OUTDOOR	FED FROM OUTDOOR
	MCA/MOCP	FED FROM OUTDOOR	FED FROM OUTDOOR	FED FROM OUTDOOR	FED FROM OUTDOOR	FED FROM OUTDOOR	FED FROM OUTDOOR
	UNIT TYPE	MULTI-POSITION	MULTI-POSITION	MULTI-POSITION	MULTI-POSITION	MULTI-POSITION	HIGH WALL
	MANUFACTURER	LG	LG	LG	LG	LG	LG
	INDOOR UNIT MODEL NO.	KNSLA181A	KNSLA181A	KNSLA181A	KNSLA181A	KNSLA361A	KNUAB091A
	NOTES	1 THRU 10	1 THRU 10	1 THRU 10	1 THRU 10	1 THRU 10	1 THRU 10

NOTES
1. INDOOR AND OUTDOOR UNIT SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.
2. REFRIGERANT AND DRAIN LINES TO BE SIZED BY MANUFACTURER.
3. SYSTEM SHALL BE SINGLE POINT CONNECTION. OUTDOOR UNIT SHALL POWER INDOOR UNIT.
4. DRAIN LINES SHALL BE GRAVITY DRIVEN. NO CONDENSATE PUMPS PERMITTED.
5. PROVIDE INDOOR UNIT WITH WIRED WALL MOUNTED CONTROLLER.
6. CONTRACTOR SHALL PROVIDE ALL CLEARANCES AROUND UNIT AS REQUIRED BY MANUFACTURER.
7. PROVIDE LOW AMBIENT COIL KIT AND COIL GUARDS FOR OUTDOOR UNIT.
8. CONDENSATE DRAIN LINE FOR EACH HYDRONIC COIL SECTION.
9. WIND BAFFLE ACCESSORY, WALL BRACKET.
10. ROOF MOUNTED EQUIPMENT SHALL BE RATED TO WITHSTAND WIND LOADS OF 140 MPH.
11. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

FAN SCHEDULE

MARK	SF-D1	EF-A1	EF-C1	EF-D1	EF-D2	EF-D3	EF-D4
SERVES	AHU-D1, D2	A1-EXH. SPACES	C1-EXH. SPACES	ART CLASSROOMS	UTILITY & LOCKERS	RR B118	RR B123A
TYPE	INLINE	INLINE	INLINE	ROOF CENT.	ROOF CENT.	ROOF CENT.	ROOF CENT.
DRIVE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
SPEED CONTROL	CONSTANT	CONSTANT	CONSTANT	CONSTANT	CONSTANT	CONSTANT	CONSTANT
CFM	1,925	3,900	1225	2175	400	100	100
EXT. S.P. (IN. W.G.)	0.75	0.75	0.75	0.75	0.50	0.5	0.5
IMP. SIZE (IN.)	13.5	18.0	12.0	16.5	10.0	15.0	15.0
HORSEPOWER (WATTS)	3/4 HP	2 HP	1/2 HP	3/4 HP	(144 W)	(60 W)	(60 W)
VOLTAGE	277V/1-PHASE	460V/3-PHASE	277V/1-PHASE	277V/1-PHASE	120V/1-PHASE	120V/1-PHASE	120V/1-PHASE
MANUFACTURER	COOK	COOK	COOK	COOK	COOK	COOK	COOK
MODEL	1355SQN17D	1805QNH17D	120SQN17D	SQ	SQ	SQ	SQ
SONES (MAX.)	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOTES	1,2,3,7	1,2,3,7	1,2,3,7	1 THRU 7	1 THRU 7	1 THRU 7	1 THRU 7

NOTES
1. STATIC PRESSURE SHOWN IS EXTERNAL TO THE UNIT.
2. MANUFACTURER SHALL ADD DAMPER AND ACCESSORY LOSSES TO THIS VALUE BEFORE SELECTING FAN.
3. FANS SHALL BE CAPABLE OF 120% OF THE SCHEDULED CFM CAPACITY..
4. INSULATED ROOF CURB, BACKDRAFT DAMPER, AND BIRDSCREEN.
5. INTEGRAL DISCONNECT SWITCH.
6. FAN SHALL SHALL BE ABLE TO WITHSTAND WIND LOADS OF 140 MPH.
7. REFER TO WRITTEN SPECS FOR ADDITIONAL REQUIREMENTS.

KITCHEN EXHAUST FAN SCHEDULE

MARK	KEF-1	KEF-2	KEF-3
SERVES	HOOD 1	HOOD 2	DISHWASH HOOD
TYPE	ROOF CENT.	ROOF CENT.	ROOF CENT.
DRIVE	DIRECT	DIRECT	DIRECT
SPEED CONTROL	VFD	VFD	FAN SPEED CONTROLLER
CFM	4050	3290	800
EXT. S.P. (IN. W.G.)	1.50	1.50	0.75
ROOF OPENING (IN.-L X W)	25.5 x 25.5	25.5 x 25.5	19.5 X 19.5
IMP. SIZE (IN.)	18.0	19.5	10.0
HORSEPOWER (WATTS)	3.0 HP	1.5 HP	1/3 HP
VOLTAGE	460V/3-PHASE	460V/3-PHASE	120V/1-PHASE
MANUFACTURER	COOK	COOK	COOK
MODEL	180V17D	195V11D	150RH15D
SONES (MAX.)	15.0	15.0	15.0
NOTES	1 THRU 6	1 THRU 6	1 THRU 6

NOTES
1. PROVIDE FAN WITH PRE-FABRICATED ROOF CURB ADAPTER, VENTED CURB EXTENSION, HINGING KIT, HEAT BAFFLE, DRAIN CONNECTION, GREASE TRAP, DISCONNECT SWITCH, AND FAN MOUNTED VARI-GREEN SPEED CONTROLLER.
2. FAN SHALL BE UL LISTED FOR SMOKE CONTROL.
3. INTERLOCK FAN WITH ASSOCIATED AIR HANDLING UNIT.
4. INTERLOCK FAN WITH SWITCH ON KITCHEN HOOD.
5. FAN SHALL BE ABLE TO WITHSTAND WIND LOADS OF 140 MPH
6. REFER TO WRITTEN SPECS FOR ADDITIONAL REQUIREMENTS.

AIR DEVICE SCHEDULE

MARK	DESCRIPTION
A	CEILING DIFFUSER – 24" X 24" FACE, PATTERN TYPE, STEEL CONSTRUCTION, WHITE FINISH, NECK SIZE SHOWN ON DRAWING TITUS TMS A1-12" X 12"
B	CEILING RETURN GRILLE – 24" X 24" PERFORATED FACE, STEEL CONSTRUCTION, WHITE FINISH TITUS PAR B1-12" X 12"
C	CEILING EXHAUST GRILLE – 24" X 24" PERFORATED FACE, STEEL CONSTRUCTION, WHITE FINISH, NECK SIZE SHOWN ON DRAWING TITUS PAR C1-12" X 12"
D	SIDEWALL SUPPLY REGISTER – ADJUSTABLE DOUBLE DEFLECTION, 0.75" SPACING, AIRFOIL FRONT BLADES PARALLEL TO SHORT DIMENSION, ALUMINUM CONSTRUCTION, WHITE FINISH TITUS 300FS
E	SIDEWALL RETURN REGISTER – FIXED 35° DEFLECTION, 0.75" SPACING, AIRFOIL BLADES PARALLEL TO SHORT DIMENSION, ALUMINUM CONSTRUCTION, WHITE FINISH TITUS 350FS
F	CONTINUOUS 1.5" SINGLE WIDTH SLOT WITH 2' LENGTH PLENUM, INTEGRAL PATTERN CONTROLLER, STEEL CONSTRUCTION WITH FRAME TO MATCH CEILING TYPE. REFER TO ARCHITECTURAL PLANS FOR CEILING TYPE TITUS FL-15-JET THROW (SLOT), PORTIONS OF SLOT NOT USED FOR SUPPLY SHALL REMAIN OPEN FOR RETURN. PROVIDE BORDER AND FRAME TYPE FOR VERTICAL WALL INSTALLATION.
G	ROUND ADJUSTABLE CEILING DIFFUSER – STEEL CONSTRUCTION, OPPOSED BLADE DAMPER WITH EQUALIZING GRID, 3 FIXED ADJUSTMENT POSITIONS, WHITE FINISH TITUS TMRA

LOUVER SCHEDULE

MARK	QUANTITY	SERVES	TYPE	CFM	PRESSURE DROP (IN.WG.)	WIDTH (IN.)	HEIGHT (IN.)	FREE AREA (SQ.FT.)	MANUFACTURER	TYPE	MODEL
L-1	1	BOILER ROOM	RELIEF	–	0.10	38	24	MIN. 2.78	RUSKIN	HURRICANE	HZ700MD

NOTES
1. LOUVERS ASSIGNED TO "BOILER ROOM" MUST MEET MINIMUM FREE AREA AT PRESSURE DROP AND AIR FLOW SPECIFIED. LOUVERS SHALL BE INSTALLED IN ACCORDANCE WITH 2015 IFGC SECTION 304.
2. LOUVERS SHALL MEET AMCA 540/550 STANDARD WITHOUT REQUIRING ADDITIONAL ACCESSORIES.

FCU SCHEDULE

CABINET	MARK	FCU-D3
	SERVES	ELEC & BOILER ROOM
	TYPE	HDT
	TOTAL CFM	1600 CFM
	MAKEUP AIR	–
	EXT. STATIC WG	1.0"
	DESIGN HP	1 HP
	VOLTAGE	480V/3 PH
CHILLED WTR	COIL CFM	1600 CFM
	MIN. ROWS	4
	MAX. FINS/INCH	12
	MAX. FACE VELOCITY	500 FPM
	EAT db/wb, °F	78.5°F / 66.5°F
	LAT db/wb, °F	53F / 52°F
	GSH, MBH	140 MBH
	GTH, MBH	95 MBH
	GPM/SIZE	12 GPM / 1.25"
	EWT/LWT, °F	44°F / 56°F
	MAX. P.D., FT	12 FT
	COND. DRAIN SIZE, IN.	3/4"
	IEC MODEL	HDY16

NOTES:
1. MANUFACTURERS NOT SCHEDULED SHALL VERIFY SPACE CONSTRAINTS PRIOR TO BIDDING AND SUBMITTING OF UNITS.
2. EXT. SP DOES NOT INCLUDE FILTERS, COILS, CASING, CONVERSION OR MIXING DAMPER LOSSES
3. FAN AND MOTOR SHALL BE DIRECT DRIVE WITH INTEGRATED SPEED CONTROL. TAB CONTRACTOR SHALL SET SPEED AS REQUIRED TO MATCH SCHEDULED CFM.
4. ALL AIR HANDLING UNITS SHALL BE INTERNALLY ISOLATED.
5. UNITS SHALL BE SELECTED TO DELIVER TOTAL CFM. COIL CAPACITY BASED ON COIL CFM SCHEDULED.
6. MAXIMMUM FILTER VELOCITY 500 FT/MIN. PROVIDE UNIT WITH 2" MERV8 FILTERS IN SIDE & BOTTOM ACCESSIBLE FILTER RACK.
7. DISCONNECT SHALL BE PROVIDED BY DIVISION 26.
8. UNIT SHALL BE DOUBLE WALL WITH FULLY ENCAPSULATED 1" FOAM INJECTED INSULATION.

SOUND ATTENUATOR SCH.

MARK	SA-1
QUANTITY	4
SIZE	36W X 24H
LENGTH	5 FT.
CFM	4,500
EXT. S.P. (IN. W.G.)	0.03
MANUFACTURER	PRICE
MODEL	RM60/WB

MOTOR STARTER SCHEDULE

EQUIPMENT	STARTER TYPE	PROVIDED UNDER	NOTES
ALL AHUs	VFD	DIVISION 23	1,2
ALL ERVs	VFD	DIVISION 23	1,2,3
CHP-1,2	VFD	DIVISION 23	1,2
HWP-1,2	VFD	DIVISION 23	1,2
ALL OTHER MOTORS	STANDARD	DIVISION 23	–

NOTES
1. REMOTE MOUNTED VFD. REFER TO MECH. PLANS FOR LOCATION.
2. REFER TO SPECIFICATION SECTION 23 29 00 LOW VOLTAGE CONTROLLERS FOR ADDITIONAL REQUIREMENTS,
3. VFD SHALL BE PROVIDED FOR FAN MOTORS AND RECOVERY WHEEL MOTOR.

VENT SCHEDULE

MARK	IV-A1	RV-A1	IV-B1	RV-B1	IV-C1	RV-C1
SERVES	ERV-A1	ERV-A1	ERV-B1	ERV-B1	ERV-C1	ERV-C1
TYPE	INTAKE	RELIEF	INTAKE	RELIEF	INTAKE	RELIEF
CFM	19,000	19,000	800	750	16,700	16,700
EXT. S.P. (IN. W.G.)	0.20	0.20	0.01	0.1	0.20	0.20
ROOF OPENING	36 X 78	36 X 78	12 X 12	36 X 66	36 X 66	36 X 66
MANUFACTURER	COOK	COOK	COOK	COOK	COOK	COOK
MODEL	36X78GR	36X78GR	36X66GR	36X66GR	36X66GR	36X66GR
NOTES	1 THRU 3	1 THRU 3	1 THRU 3	1 THRU 3	1 THRU 3	1 THRU 3

CONSULTANTS

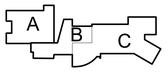
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN CAR
CHECKED CAR

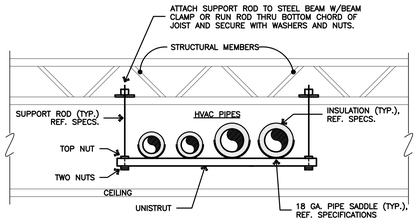
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	2 COH COMMENT 1
10/17/2025	76 COH COMMENT 2
10/24/2025	CSP

M3.01
MECHANICAL SCHEDULES

TRUE NORTH
PLAN NORTH

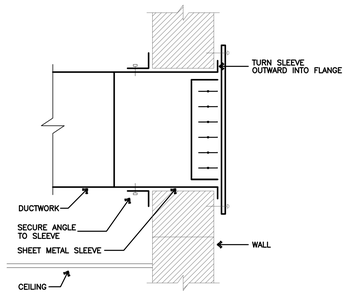
STANTON ENGINEERING GROUP
TBPE/TBPLS FIRM REG. NO. F-13743 | TBAE FIRM REG. NO. BR-13743
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

DUPLICATION FOR REUSE NOT PERMITTED © 2025 ALL RIGHTS RESERVED



10 MULTIPLE PIPE HANGER DETAIL

NO SCALE

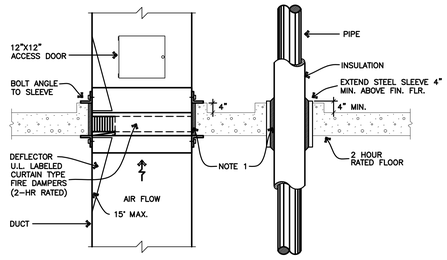


9 SIDEWALL GRILLE DETAIL

NO SCALE

NOTES:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

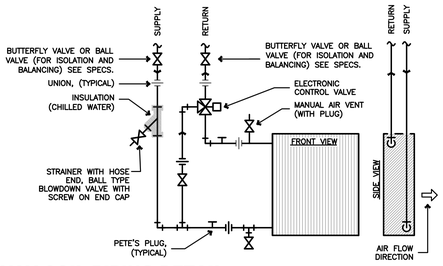


8 FLOOR PENETRATION FIRE BARRIER DETAIL

NO SCALE

NOTES:

1. FIRE SAFING INSULATION AND SEALANT, REFER TO SPECS.
2. INSTALL FIRE DAMPERS IN ACCORDANCE WITH NFPA SMACNA FIRE DAMPER GUIDE.

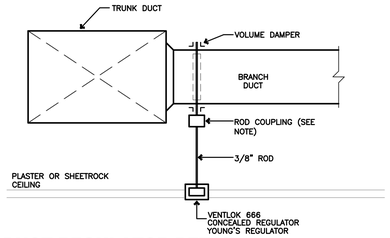


7 VAV COIL PIPING DETAIL

NO SCALE

NOTES:

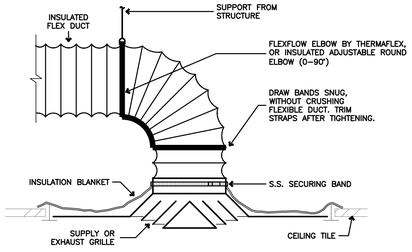
1. THIS DETAIL APPLIES TO ALL CVT & VAV HOT WATER COILS.
2. PROVIDE 3-WAY OR STRAIGHT THRU CONTROL VALVES PER SCHEDULE.
3. P&T PORTS, BLOWDOWN VALVE, ETC. SHALL EXTEND THRU INSULATION.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
5. PROVIDE VICTAULIC JOINTS PER SPECIFICATIONS.
6. REFER TO CONTROL VALVE SCHEDULE FOR TWO-WAY AND THREE-WAY VALVE LOCATIONS.



6 DUCT REGULATOR DETAIL

NO SCALE

REGULATOR SHALL BE USED IN ALL AREAS WHERE DAMPER IS LOCATED ABOVE HARD CEILING.
NOTE: PROVIDE VENTLOK 680, 2 PIECE GEAR DRIVE ELBOW WHEN DAMPER ROD IS MOUNTED HORIZONTAL.

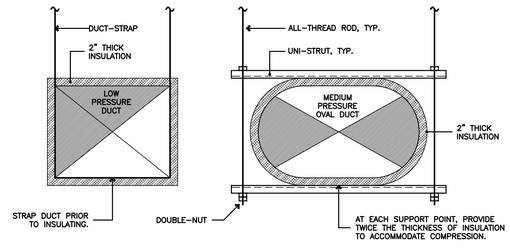


5 AIR DEVICE DETAIL

NO SCALE

NOTES:

1. REFER TO SPECIFICATIONS OF FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

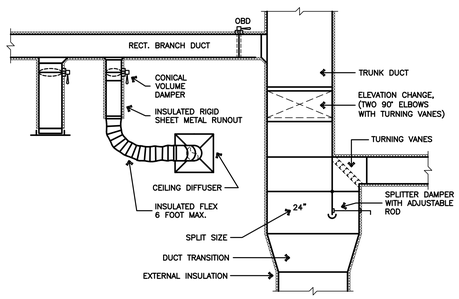


4 EXTERNALLY INSULATED DUCT SUPPORT DETAIL

NO SCALE

NOTES:

1. ROUND MEDIUM PRESSURE DUCT MAY BE SUPPORTED WITH DUCT STRAPS.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

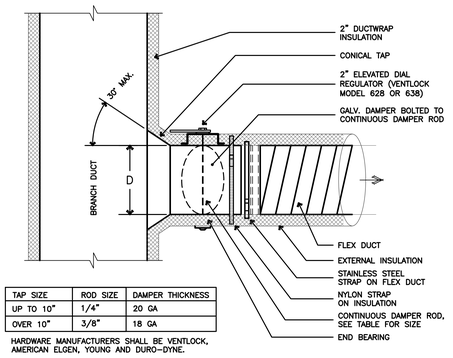


3 DUCTWORK DETAIL

NO SCALE

NOTES:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.



TAP SIZE	ROD SIZE	DAMPER THICKNESS
UP TO 10"	1/4"	20 GA
OVER 10"	3/8"	18 GA

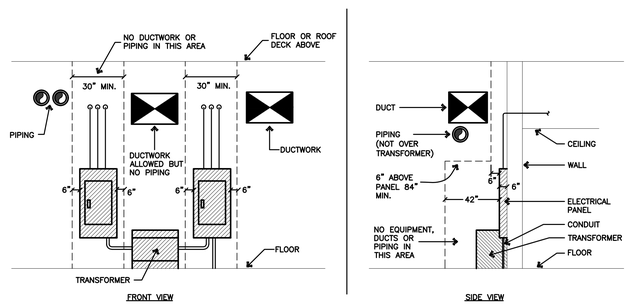
HARDWARE MANUFACTURERS SHALL BE VENTLOCK, AMERICAN ELGEN, YOUNG AND DURO-DYNE.

2 DUCT TAP CONNECTION DETAIL

NO SCALE

NOTES:

1. DELETE CONICAL SECTION IF TOO LARGE FOR THE DUCT.
2. REFER TO SPECIFICATIONS OF FOR ADDITIONAL INFORMATION AND REQUIREMENTS.



1 MECHANICAL - ELECTRICAL COORDINATION DETAIL

NO SCALE

NOTES:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN CAR
CHECKED CAR

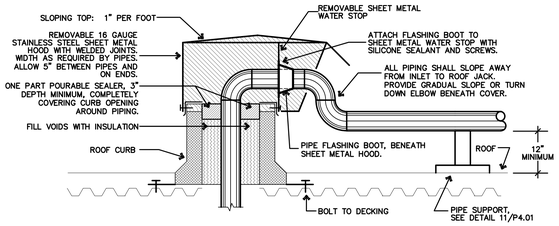
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

M3.02

MECHANICAL DETAILS

TRUE NORTH
PLAN NORTH

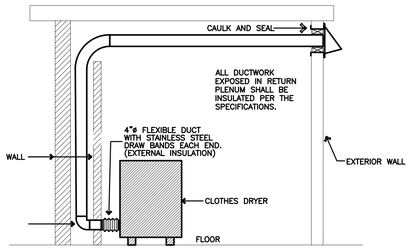
STANTON ENGINEERING GROUP
TBPE/BEC FIRM REG. NO. F-11633 | TX-DCE ENG. FIRM REG. NO. F-11633 | © 2025, ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



12 ROOF PIPE JACK DETAIL

NO SCALE

NOTE: COORDINATE WITH ARCHITECTURAL DRAWINGS, DETAILS AND SPECIFICATIONS.

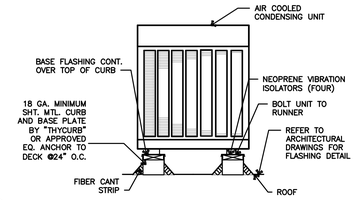


11 RESIDENTIAL CLOTHES DRYER VENT

NO SCALE

NOTES:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

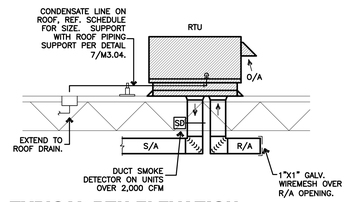


10 CONDENSING UNIT ROOF MOUNTED

NO SCALE

NOTES:

1. PROVIDE CLEARANCE AROUND UNIT FOR AIRFLOW AND SERVICE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. EQUIPMENT CURB AND EQUIPMENT ANCHORING BRACKETS SHALL BE DESIGNED TO WITHSTAND AN ASCE 7-22 WIND HAZARD RATING OF 147 MPH, FOR A CATEGORY III BUILDING AT THE PROJECT ADDRESS. THE CURB PROVIDER SHALL INCLUDE STAMPED DRAWINGS OF THE CURB AND ANCHORING DEMONSTRATING COMPLIANCE.



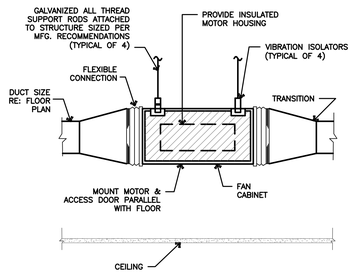
9 TYPICAL RTU ELEVATION

NO SCALE

SEE FLOOR PLAN FOR DUCT SIZE.

8 KITCHEN ROOF FAN DETAIL

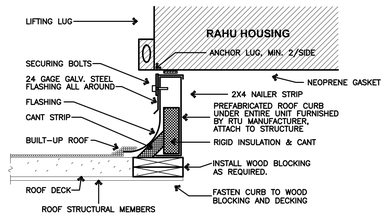
NO SCALE



7 INLINE EXHAUST FAN DETAIL

NO SCALE

NOTES:

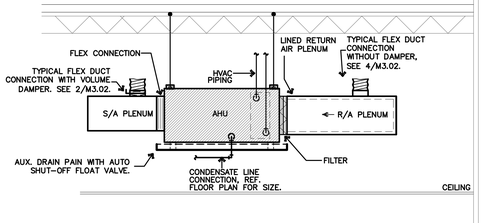


6 ROOF CURB DETAIL

NO SCALE

NOTES:

1. REFER TO 9/M3.04 ERV SOUND CURB INSULATION REQUIREMENTS.
2. EQUIPMENT CURB AND EQUIPMENT ANCHORING BRACKETS SHALL BE DESIGNED TO WITHSTAND AN ASCE 7-22 WIND HAZARD RATING OF 147 MPH, FOR A CATEGORY III BUILDING AT THE PROJECT ADDRESS. THE CURB PROVIDER SHALL INCLUDE STAMPED DRAWINGS OF THE CURB AND ANCHORING DEMONSTRATING COMPLIANCE. REFERENCE DETAIL 8/M3.04.

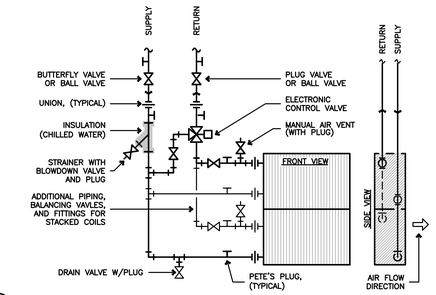


5 FAN COIL UNIT/WALL INTAKE DETAIL

NO SCALE

NOTES:

1. FOR UNITS WITH AUX. DRAIN PAN, PROVIDE WATER SENSING SWITCH IN DRAIN PAN INTERLOCKED WITH UNIT TO SHUT UNIT OFF WHEN ACTIVATED.

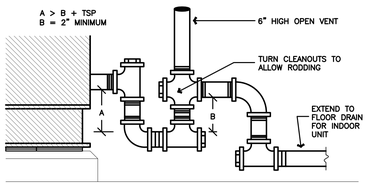


4 AHU/ERV COIL PIPING DETAIL

NO SCALE

NOTES:

1. THIS DETAIL APPLIES TO ALL CHILLED & HOT WATER COILS FOR AHU'S ONLY.
2. PROVIDE 3-WAY OR STRAIGHT THRU CONTROL VALVES PER SCHEDULE.
3. P&T PORTS, BLOWDOWN VALVE, ETC. SHALL EXTEND THRU INSULATION.
4. PROVIDE VICTAULIC JOINTS PER SPECIFICATIONS.
5. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

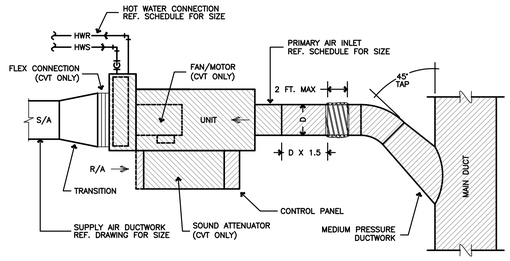


3 CONDENSATE DRAIN DETAIL

NO SCALE

NOTES:

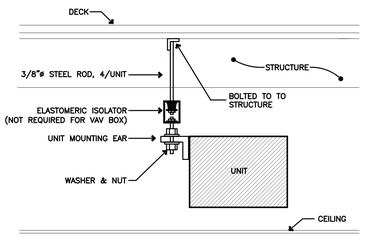
1. REFER TO AHU SCHEDULE FOR CONDENSATE PIPE SIZES.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.



2 AIR TERMINAL UNIT DETAIL-HW REHEAT

NO SCALE

SEE WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.



1 CVT/VAV HANGER DETAIL

NO SCALE

NOTES:

1. PROVIDE SELF LOCKING NUT FOR ALL HANGER RODS.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	CAR
CHECKED	CAR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	2 COH COMMENT 1
10/17/2025	3 COH COMMENT 2
10/24/2025	CSP

M3.03

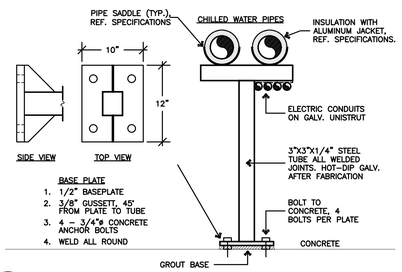
MECHANICAL DETAILS

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP

TBPE/BPAE FIRM REG. NO. F-2015332 © 2025 ALL RIGHTS RESERVED

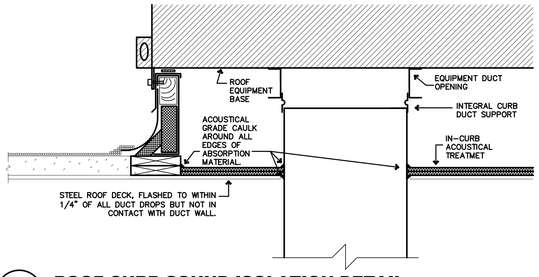
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



10 OUTDOOR PIPING SUPPORT DETAIL

NO SCALE

NOTE: SEE FLOOR PLANS AND ELEVATIONS FOR HEIGHT REQUIREMENTS.



9 ROOF CURB SOUND ISOLATION DETAIL

NO SCALE

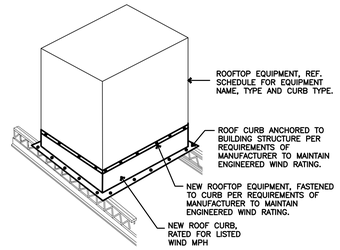
NOTES:

1. THIS DETAIL APPLIES TO ALL ROOF MOUNTED AIR HANDLING UNITS AND ERV'S.
2. THE DECK IN-CURB ACOUSTICAL SYSTEM SHALL MEET CLASS "A" SPREAD AND SMOKE DEVELOP AS PER ASTME-84. THE MULTI-LAYER COMPOSITE SYSTEM, MODEL BUB-755 SHALL REDUCE RADIATED NOISE INSIDE THE CURB.
3. HUSH SEALANT MODEL HSAC-100 ACOUSTICAL GRADE CAULK, OR EQUAL, SHALL BE USED AROUND ALL CURB PERIMETER EDGES AND AROUND ALL CURB OPENINGS AS DETAILED ABOVE AFTER CONTRACTOR SUPPLIED DECKING IS FLASHED TO WITHIN 1" WITHOUT CONTACTING THE DUCT WALL.
4. THE IN-CURB ACOUSTICAL DECK SYSTEM SHALL MEET STC-52 IN ACCORDANCE WITH TEST PROCEDURE ASTM-E90-10. BASIS OF DESIGN SYSTEM SHALL BE BY BRD NOISE & VIBRATION CONTROL, INC. (610) 863-6300. EQUAL BY OTHERS MAY BE SUBMITTED.

BASELINE PERFORMANCE DATA (STC-52, IN ACCORDANCE WITH ASTM-E90-10)

Freq. (Hz)	80	100	125	160	200	250	315	400	500	630	800	1000
TL (dB)	26	27	33	32	35	42	45	45	50	59	59	60

Freq. (Hz)	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	STC
TL (dB)	62	63	64	65	67	71	74	78	80	80	52

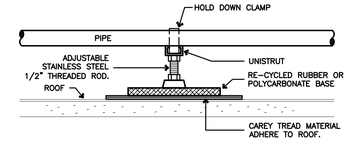


8 CURB MOUNTED EQUIPMENT ANCHORING

NO SCALE

NOTES:

1. EQUIPMENT CURB AND EQUIPMENT ANCHORING BRACKETS SHALL BE DESIGNED TO WITHSTAND AN ASCE 7-22 WIND HAZARD RATING OF 147 MPH, FOR A CATEGORY III BUILDING AT THE PROJECT ADDRESS. THE CURB PROVIDER SHALL INCLUDE STAMPED DRAWINGS OF THE CURB AND ANCHORING DEMONSTRATING COMPLIANCE.

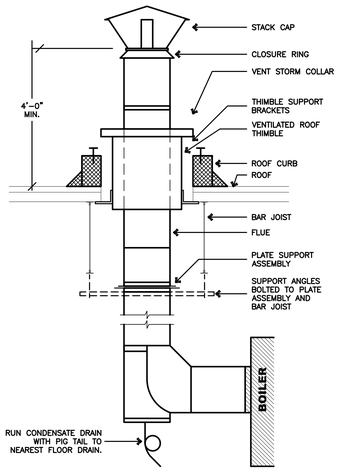


7 ROOF PIPING SUPPORT DETAIL

NO SCALE

NOTES:

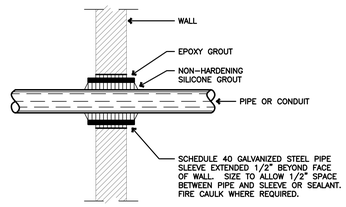
1. PIPING SUPPORT SHALL BE MIRO MODEL NO. 2.5 CONDUIT SUPPORT AH OR EQUAL BY PORTABLE PIPE HANGERS, INC. PROVIDE 18" X 18" CAREY TREAD TYPE MATERIAL BENEATH EACH PIPE SUPPORT.
2. INSTALL SIX (6) FOOT ON CENTERS.
3. PIPE SUPPORT MANUFACTURER'S REPRESENTATIVE SHALL PERSONALLY INSPECT INSTALLATIONS OF PIPE SUPPORTS AND MAKE CORRECTIONS AND HEIGHT ADJUSTMENTS TO INSTALLATIONS, AS REQUIRED, DURING INSPECTION.



10 FLUE VENT INSTALLATION DETAIL

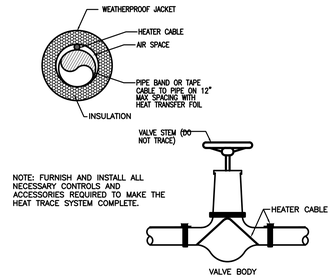
NO SCALE

NOTE: PROVIDE OFFSETS AS REQUIRED. VENT SHALL BE PROVIDED BY BOILER SUPPLIER.



6 FLOOR & WALL PENETRATION DETAIL

NO SCALE

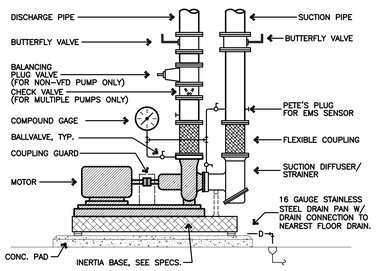


5 HEAT TRACE DETAIL

NO SCALE

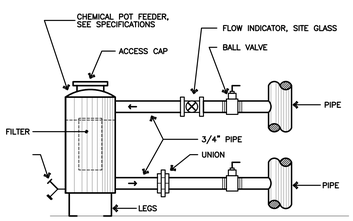
NOTES:

1. REFER TO SPECIFICATION SECTION 23 05 00 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.



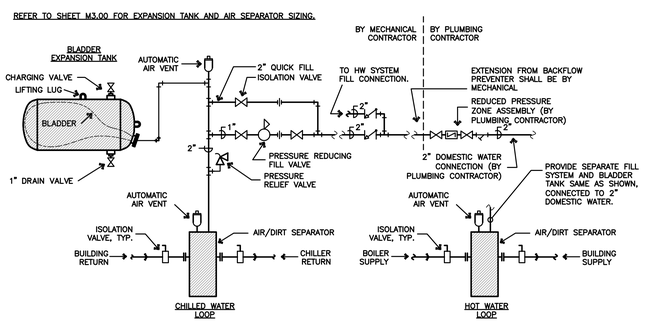
3 END SUCTION PUMP DETAIL

NO SCALE



2 CHEMICAL POT FEEDER/FILTER

NO SCALE



1 EXPANSION TANK DETAIL WITH AIR SEPARATOR

NO SCALE

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN CAR
CHECKED CAR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

M3.04

MECHANICAL DETAILS

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/BPR FIRM REG. NO. F-01933 | TBPLS REG. NO. 10193933
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

SEALED ENG. FIRM REG. NO. F-01933 | © 2025 ALL RIGHTS RESERVED

OUTSIDE AIR CALCULATIONS

OUTSIDE AIR REQUIREMENTS ARE BASED UPON THE REQUIREMENTS OF 2021 UNIFORM MECHANICAL CODE WITH COH AMENDMENTS, SECTIONS 403 & 404.

FOR ALL SYSTEMS, CALCULATIONS USE THE FOLLOWING EQUATIONS (2021 UMC):

403.2.3 $V_{ot} = V_{ou}/E_v$

403.5.1 $V_{ou} = D\sum_{all\ zones}(R_p \cdot P_z) + \sum_{all\ zones}(R_a \cdot A_z)$

404.1 $E_v = minimum(E_{vz})$

404.2 $X_s = V_{ou}/V_{ps}$

404.3.1 $E_{vz} = 1 + X_s - Z_{ps}$

CALCULATION RESULTS ARE TABULATED BELOW:

AHU-A1

ROOM TYPE	(Az) ZONE AREA (SQ.FT.)	(Pz) ZONE OCCUPANCY	(Ra) REQUIRED CFM/SQ.FT.	(Rp) REQUIRED CFM/PERSON	(Vou) UNCORRECTED OUTDOOR AIR
CORRIDOR	6070	40.5	0.06	0	364
OFFICE	1535	34.3	0.06	5	264
CLASSROOM	13775	427	0.12	10	5923
COMP LAB	1500	32	0.12	10	500
MUSIC/DANCE	2230	55	0.06	10	684
				TOTAL	7735
				VENTILATION EFFICIENCY (Ev)	0.822
				REQUIRED VENTILATION CFM	9409
				DESIGN VENTILATION CFM	9600

AHU-A2

ROOM TYPE	(Az) ZONE AREA (SQ.FT.)	(Pz) ZONE OCCUPANCY	(Ra) REQUIRED CFM/SQ.FT.	(Rp) REQUIRED CFM/PERSON	(Vou) UNCORRECTED OUTDOOR AIR
CORRIDOR	3575	23.8	0.06	0	215
OFFICE	930	11	0.06	5	111
BREAK ROOM	400	6	0.12	5	78
CLASSROOM	14800	461	0.12	10	6386
SCIENCE LAB	1165	25	0.18	10	460
				TOTAL	7249
				VENTILATION EFFICIENCY (Ev)	0.868
				REQUIRED VENTILATION CFM	8351
				DESIGN VENTILATION CFM	8400

AHU-A3

ROOM TYPE	(Az) ZONE AREA (SQ.FT.)	(Pz) ZONE OCCUPANCY	(Ra) REQUIRED CFM/SQ.FT.	(Rp) REQUIRED CFM/PERSON	(Vou) UNCORRECTED OUTDOOR AIR
LIBRARY	3395	100	0.12	5	907
				TOTAL	907
				VENTILATION EFFICIENCY (Ev)	0.868
				REQUIRED VENTILATION CFM	1045
				DESIGN VENTILATION CFM	1100

AHU-B1

ROOM TYPE	(Az) ZONE AREA (SQ.FT.)	(Pz) ZONE OCCUPANCY	(Ra) REQUIRED CFM/SQ.FT.	(Rp) REQUIRED CFM/PERSON	(Vou) UNCORRECTED OUTDOOR AIR
CORRIDOR	1400	8.9	0.06	0	84
OFFICE	3925	26	0.06	5	366
CONFERENCE	485	14	0.06	5	99
				TOTAL	549
				VENTILATION EFFICIENCY (Ev)	0.767
				REQUIRED VENTILATION CFM	715
				DESIGN VENTILATION CFM	800

AHU-C1

ROOM TYPE	(Az) ZONE AREA (SQ.FT.)	(Pz) ZONE OCCUPANCY	(Ra) REQUIRED CFM/SQ.FT.	(Rp) REQUIRED CFM/PERSON	(Vou) UNCORRECTED OUTDOOR AIR
CORRIDOR	3815	25.3	0.06	0	229
BREAK ROOM	480	8	0.06	5	69
CLASSROOM	10145	225	0.12	10	3467
PRE-K	3525	75	0.18	10	1385
MUSIC/DANCE	1200	25	0.06	10	322
				TOTAL	5472
				VENTILATION EFFICIENCY (Ev)	0.876
				REQUIRED VENTILATION CFM	6246
				DESIGN VENTILATION CFM	6300

AHU-C2

ROOM TYPE	(Az) ZONE AREA (SQ.FT.)	(Pz) ZONE OCCUPANCY	(Ra) REQUIRED CFM/SQ.FT.	(Rp) REQUIRED CFM/PERSON	(Vou) UNCORRECTED OUTDOOR AIR
OFFICE	190	2	0.06	5	21
GYM ARENA	4135	100	0.18	20	2744
MUSIC/DANCE	1350	15	0.06	10	231
				TOTAL	2997
				VENTILATION EFFICIENCY (Ev)	0.826
				REQUIRED VENTILATION CFM	3628
				DESIGN VENTILATION CFM	3700

AHU-C3

ROOM TYPE	(Az) ZONE AREA (SQ.FT.)	(Pz) ZONE OCCUPANCY	(Ra) REQUIRED CFM/SQ.FT.	(Rp) REQUIRED CFM/PERSON	(Vou) UNCORRECTED OUTDOOR AIR
CORRIDOR	2400	24.1	0.06	0	144
CAFÉ	4300	375	0.18	7.5	3587
				TOTAL	3731
				VENTILATION EFFICIENCY (Ev)	0.789
				REQUIRED VENTILATION CFM	4728
				DESIGN VENTILATION CFM	4750

AHU-D1

ROOM TYPE	(Az) ZONE AREA (SQ.FT.)	(Pz) ZONE OCCUPANCY	(Ra) REQUIRED CFM/SQ.FT.	(Rp) REQUIRED CFM/PERSON	(Vou) UNCORRECTED OUTDOOR AIR
CORRIDOR	1390	9.3	0.06	0	83
OFFICE	155	1	0.06	5	14
ART	1790	50	0.18	10	822
				TOTAL	920
				VENTILATION EFFICIENCY (Ev)	0.788
				REQUIRED VENTILATION CFM	1167
				DESIGN VENTILATION CFM	1450

AHU-D2

ROOM TYPE	(Az) ZONE AREA (SQ.FT.)	(Pz) ZONE OCCUPANCY	(Ra) REQUIRED CFM/SQ.FT.	(Rp) REQUIRED CFM/PERSON	(Vou) UNCORRECTED OUTDOOR AIR
OFFICE	125	1	0.06	5	13
KITCHEN	2525	14	0.12	7.5	408
				TOTAL	421
				VENTILATION EFFICIENCY (Ev)	0.896
				REQUIRED VENTILATION CFM	469
				DESIGN VENTILATION CFM	475

RTU-D3

ROOM TYPE	(Az) ZONE AREA (SQ.FT.)	(Pz) ZONE OCCUPANCY	(Ra) REQUIRED CFM/SQ.FT.	(Rp) REQUIRED CFM/PERSON	(Vou) UNCORRECTED OUTDOOR AIR
CORRIDOR	275	1.8	0.06	0	17
OFFICE	620	7	0.06	5	72

CONSULTANTS

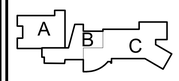
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN CAR
CHECKED CAR

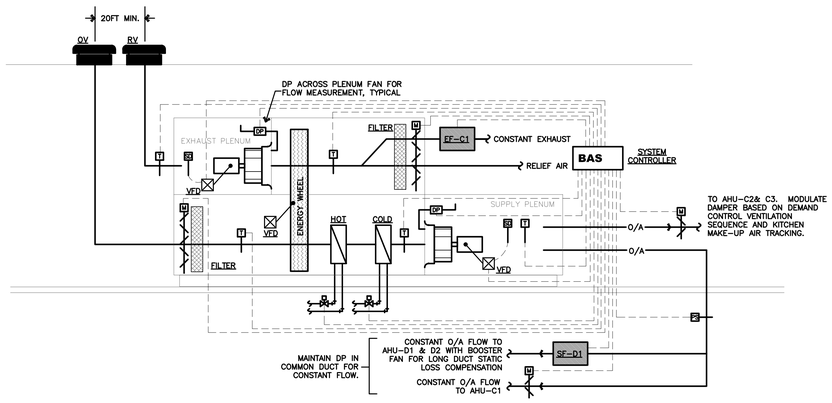
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

M3.05

VENTILATION CALCULATIONS

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/SBEN REGISTRATION #16222300 | TX-DCAS ENG. FIRM REG. NO. P-27615-01 | © 2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



4 INDOOR ERV CONTROL SCHEMATIC - ERV-C1

NO SCALE

NOTES:

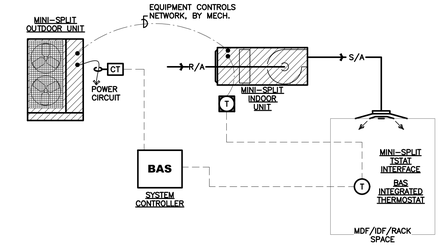
1. SEE WRITTEN SPECIFICATIONS FOR SEQUENCE OF OPERATION.
2. ERV SHALL MAINTAIN THE SCHEUDLED OUTDOOR AIR VOLUME. EXHAUST AND SUPPLY VFD SHALL RAMP UP AND DOWN PROPORTIONALLY AS REQUIRED TO SUPPLY THE SCHEDULED OUTDOOR AIR FLOW.

3 INDOOR ERV CONTROL SCHEMATIC - ERV-A1

NO SCALE

NOTES:

1. SEE WRITTEN SPECIFICATIONS FOR SEQUENCE OF OPERATION.
2. ERV SHALL MAINTAIN THE SCHEUDLED OUTDOOR AIR VOLUME. EXHAUST AND SUPPLY VFD SHALL RAMP UP AND DOWN PROPORTIONALLY AS REQUIRED TO SUPPLY THE SCHEDULED OUTDOOR AIR FLOW.

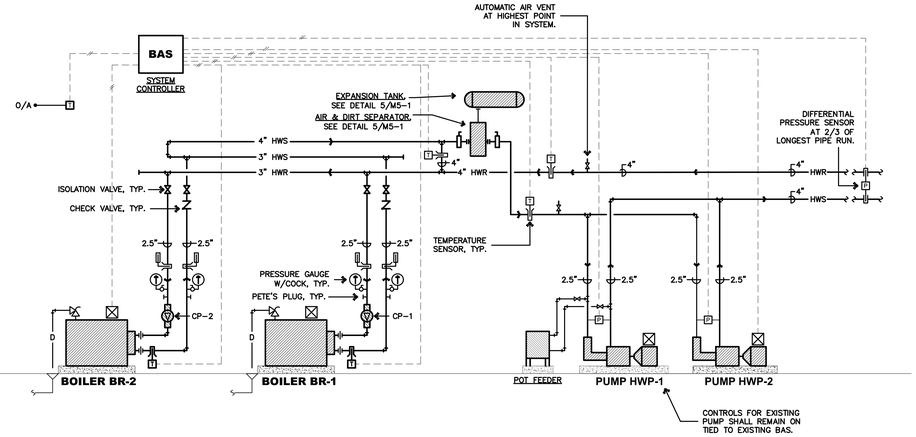


5 DX SPLIT CONTROLS (MDF/IDF ROOM)

NO SCALE

NOTES:

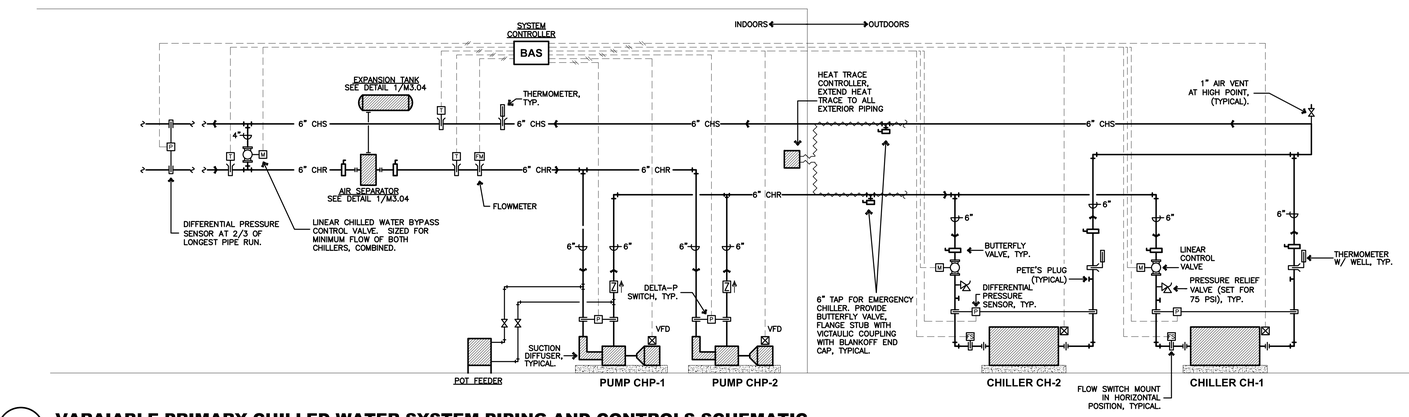
1. CONTROL OF MINI-SPLIT SHALL BE BY THE FACTORY PROVIDED MINI-SPLIT THERMOSTAT INTERFACE. IN LIEU OF A WIRED CONTROLLER WITH INTEGRAL THERMOSTAT. THE INTERFACE SHALL TAKE COMMANDS OVER HARD-WIRED POINTS FROM THE BAS FOR START/STOP, COOLING STAGE 1/2 AND HEATING STAGE 1/2.
2. A LOCAL THERMOSTAT SHALL BE PROVIDED BY THE BAS AND SHALL HAVE A DIGITAL READ OUT AND LOCAL SETPOINT CONTROL. THE THERMOSTAT SHALL BE SETUP NATIVELY WITH A LOCAL LOCKOUT FOR REMOTE CONTROL OF START/STOP AND SETPOINT THROUGH THE BAS GUI ONLY.
3. REFERENCE SPECIFICATIONS FOR MORE INFORMATION.



2 HOT WATER SYSTEM PIPING AND CONTROLS SCHEMATIC

NO SCALE

1. PIPE ALL DRAIN AND RELIEF VALVES, AND FLUE VENT DRAINS TO NEAREST FLOOR DRAIN.
2. SEE SPECIFICATIONS FOR SEQUENCE OF OPERATION.



1 VARAIABLE PRIMARY CHILLED WATER SYSTEM PIPING AND CONTROLS SCHEMATIC

NO SCALE

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
TYLER W. HERRING
106052
LICENSED PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	CAR
CHECKED	CAR

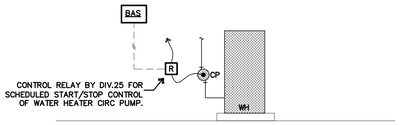
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

M4.00

MECHANICAL SCHEMATICS

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE#F-19121 | TBPLS#10194270 | © 2025 STEG, ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

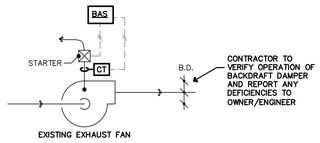


7 WATER HEATER CIRC PUMP CONTROL

NO SCALE

NOTES:

1. CONTROL RELAY PROVIDED BY DIV.25 AND INSTALLED BY DIV.26 IN LINE VOLTAGE PUMP SUPPLY. ALL LOW VOLTAGE WIRING SHALL BE BY DIV.25.

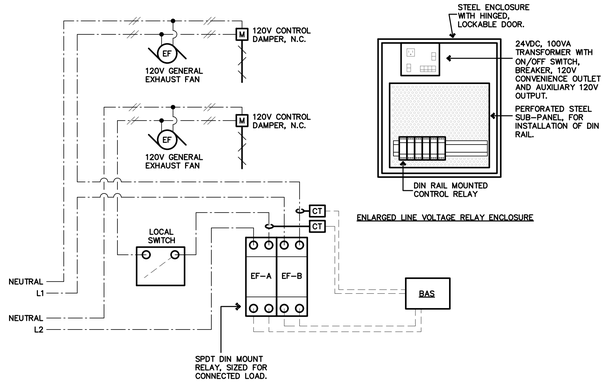


6 THREE PHASE FAN CONTROL SCHEMATIC

NO SCALE

NOTES:

1. ALL 3 PHASE FANS SHALL BE CONTROLLED BY THE BAS THROUGH AN INTERLOCK WITH THE MOTOR STARTER PERMISSIVE DRY CONTACT.

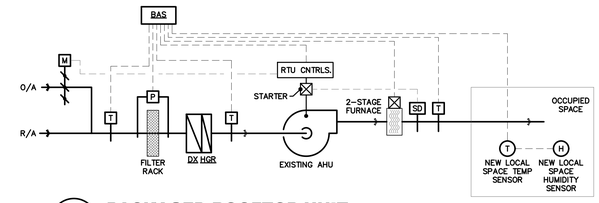


5 SINGLE PHASE FAN CONTROL RELAY SCHEMATIC

NO SCALE

NOTES:

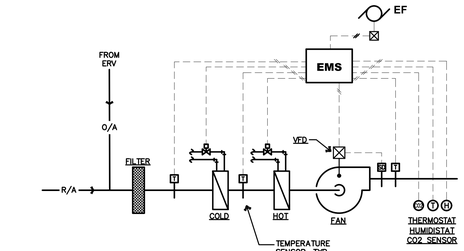
1. ALL SINGLE PHASE FANS SHALL BE CONTROLLED BY THE BAS USING A CONTROL RELAY, UNLESS NOTED OTHERWISE. ALL CONTROL RELAYS SHALL BE LOCATED WITHIN A MECHANICAL ROOM, IN AN ACCESSIBLE LOCATION OR NEAR THE ELECTRICAL PANEL FROM WHICH THEY ARE FED.
2. DIN RAIL MOUNTED RELAYS, IN AN ENCLOSURE, ARE THE BASIS OF DESIGN. WHERE SPACE IS LIMITED, JBOX MOUTNED RIB RELAYS MAY BE USED AT THE DISCRETION OF THE A/E TEAM. PRIOR AUTHORIZATION SHALL BE MADE BEFORE INSTALLATION.



4 PACKAGED ROOFTOP UNIT

NO SCALE

1. THIS DETAIL APPLIES TO SINGLE ZONE RTU LISTED BELOW:
   1.A. RTU-D3
2. CONTROLLED SPACE SHALL HAVE OCCUPANCY SCHEDULE WITH BOTH OCCUPIED AND UNOCCUPIED TEMPERATURE SETPOINTS.
3. OUTSIDE AIR DAMPER SHALL BE CLOSED WHEN IN UNOCCUPIED MODE.
4. COOLING: BAS STAGE CONDENSING UNIT TO MAINTAIN SPACE TEMPERATURE.
5. HEATING: BAS SHALL MAINTAIN FAN A FULL SPEED AND MODULATE THE GAS HEAT TO MAINTAIN SPACE TEMPERATURE.
6. HUMIDITY: BAS SHALL CYCLE THE RTU DEHUMIDIFICATION CYCLE AS REQUIRED TO MAINTAIN SETPOINT.

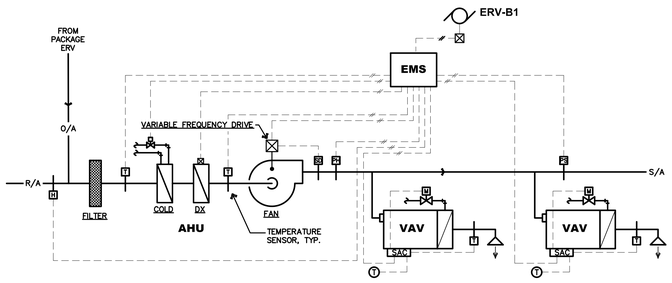


3 SINGLE ZONE VAV AHU CONTROL SCHEMATIC

NO SCALE

NOTES:

1. AHU-A3, C2, C3.
2. SEE WRITTEN SPECIFICATIONS FOR SEQUENCE OF OPERATION.

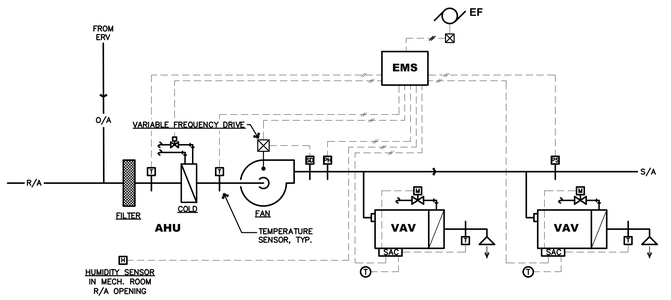


2 VAV CHW/DX AHU WITH TERMINAL BOX SYSTEM CONTROLS SCHEMATIC

NO SCALE

NOTES

1. AHU-B1 ONLY.
2. FOR VAV UNIT, SET INITIAL MAXIMUM AND MINIMUM PRIMARY AIR CFM PER SCHEDULE.
3. REFERENCE SPECIFICATIONS FOR CONTROL SEQUENCE.



1 VAV AHU WITH TERMINAL BOX SYSTEM CONTROLS SCHEMATIC

NO SCALE

NOTES

1. AHU-A1, A2, C1.
2. FOR VAV UNIT, SET INITIAL MAXIMUM AND MINIMUM PRIMARY AIR CFM PER SCHEDULE.
3. REFERENCE SPECIFICATIONS FOR CONTROL SEQUENCE.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

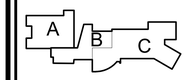
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	CAR
CHECKED	CAR

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

M4.01

MECHANICAL SCHEMATICS

TRUE NORTH
PLAN NORTH

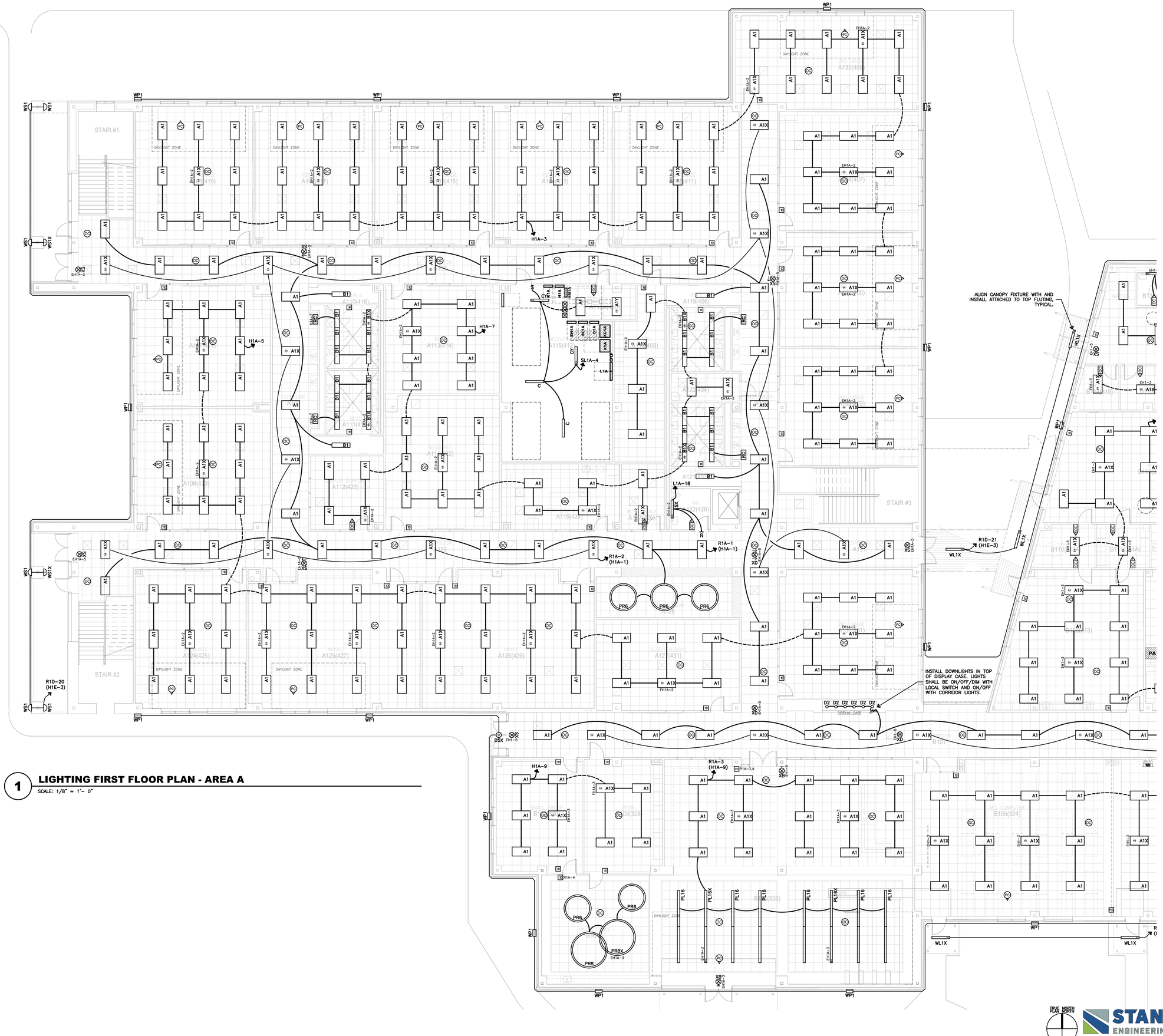
STANTON ENGINEERING GROUP

TBPE/ETP FIRM REG. NO. F-013332 | TBPLS FIRM REG. NO. 10194394

(713) 300-9292

© 2025 ALL RIGHTS RESERVED

1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



1 LIGHTING FIRST FLOOR PLAN - AREA A

SCALE: 1/8" = 1'– 0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

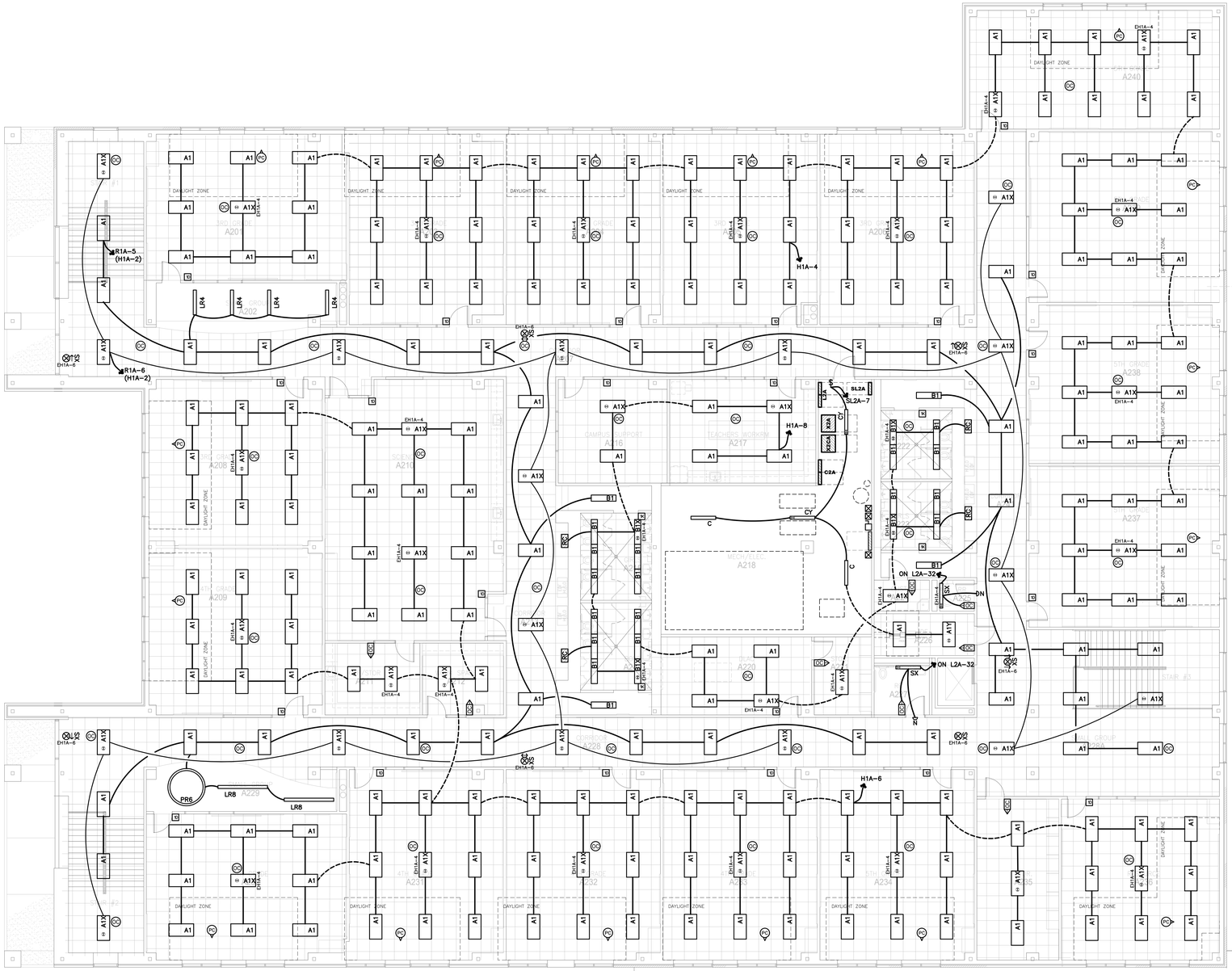
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E1.01

LIGHTING
FIRST FLOOR PLAN
AREA A

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/TBPELS FIRM REG. NO. F-019332 | SCALE ENG. FIRM REG. NO. F-019332 | © 2025 ALL RIGHTS RESERVED
(713) 300–9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



1 **LIGHTING SECOND FLOOR PLAN - AREA A**

SCALE: 1/8" = 1'– 0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

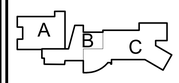
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

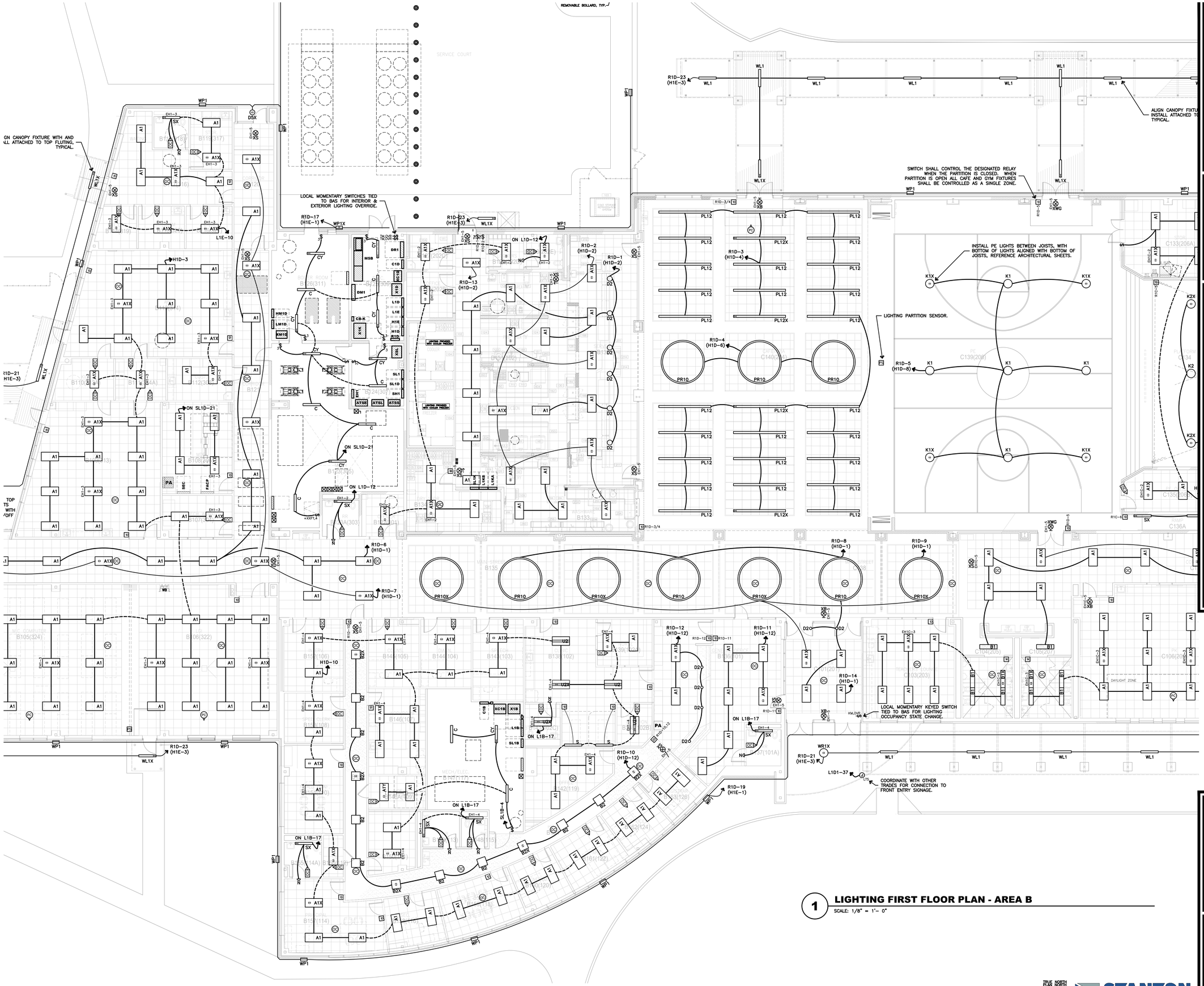
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

E1.02

LIGHTING
SECOND FLOOR PLAN
AREA A

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/BEP: FIRM #14514 | LIC.#2196
TEXAS ENG. FIRM REG. NO. F-019332 | © 2025 ALL RIGHTS RESERVED
(713) 300–9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121 • HOUSTON, TX 77042



1 LIGHTING FIRST FLOOR PLAN - AREA B

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

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

S. Chu Architects
Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

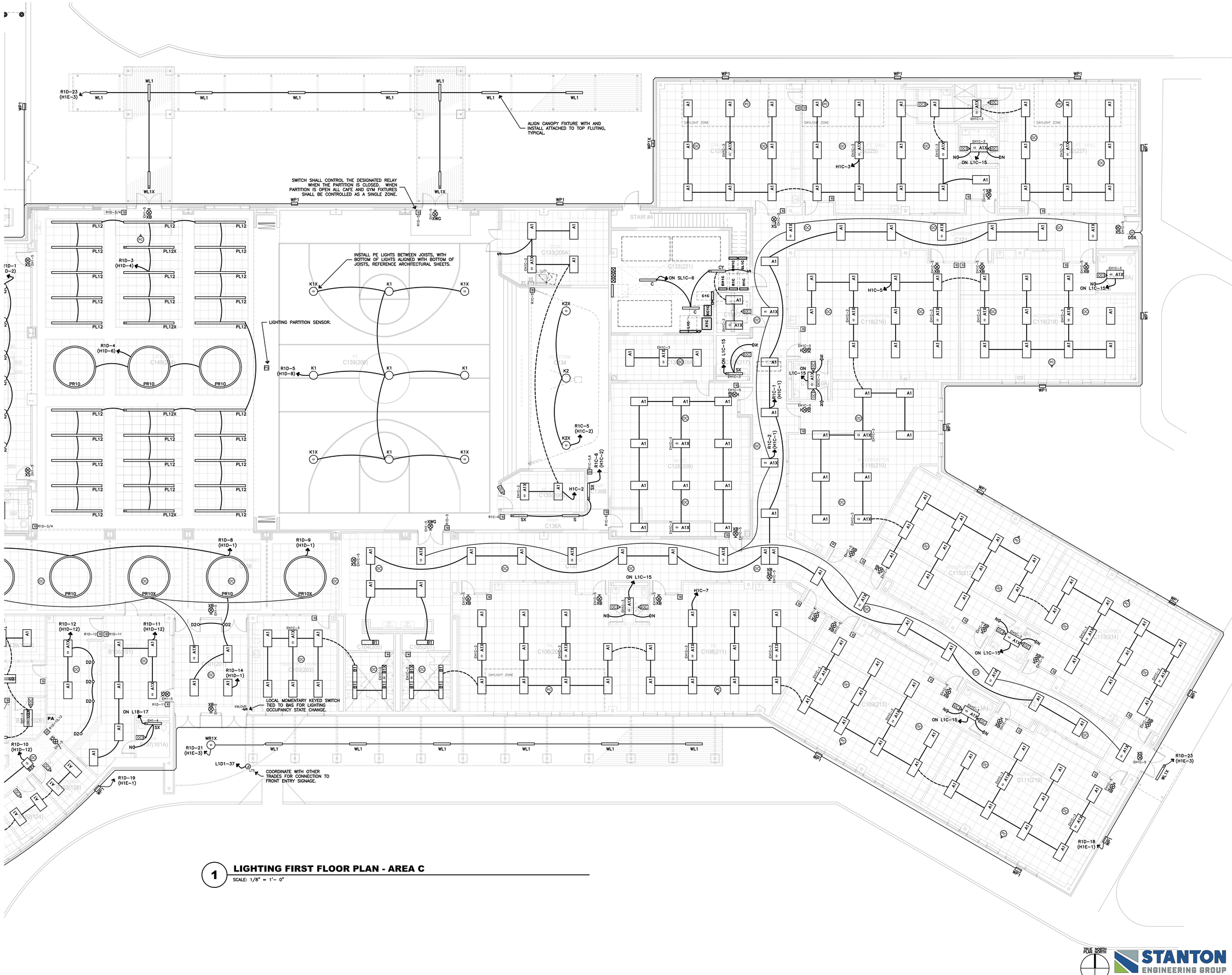
PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E1.03

LIGHTING
FIRST FLOOR PLAN
AREA B

TBPGES-FIRM-ON-ENGCOM (713) 300-9292 | TEXAS ENG. FIRM REG. NO. F-018332 | ©2025 ALL RIGHTS RESERVED. | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



1 LIGHTING FIRST FLOOR PLAN - AREA C

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

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

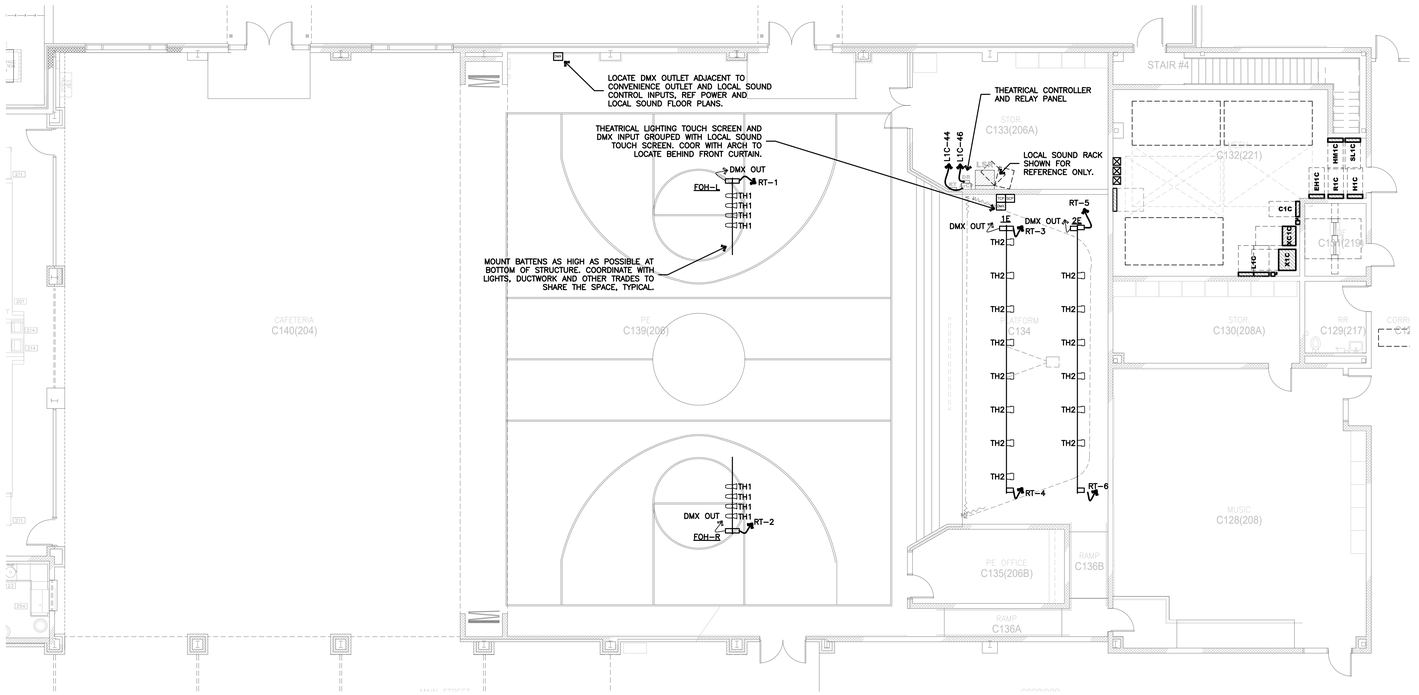
E1.04

LIGHTING
FIRST FLOOR PLAN
AREA C

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE REGISTRATION # F-7615 | TBAE REGISTRATION # 13337
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF STANTON ENGINEERING GROUP AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF STANTON ENGINEERING GROUP. © 2025 ALL RIGHTS RESERVED

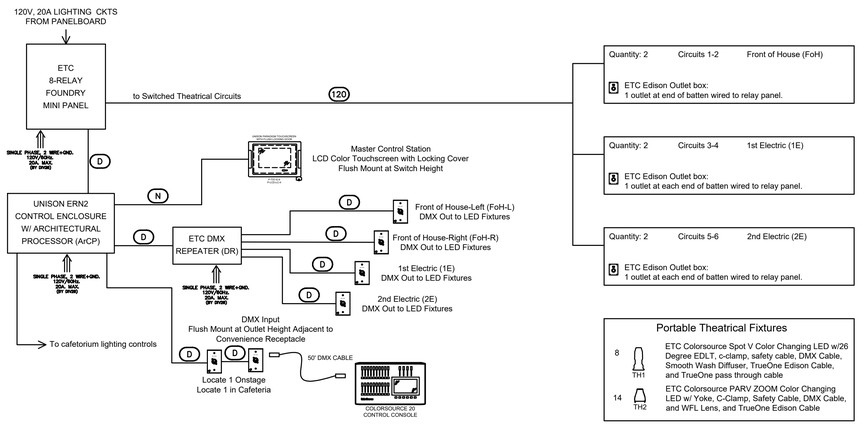


1 AREA B - CAFETORIUM THEATRICAL LIGHTING PLAN

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

RELAY PANEL RT		EACH RELAY RATED 20A, 120 VOLTS 120V CONTROLS POWER (CKT L1C-46)	MOUNTING: SURFACE
RELAY	CB	SERVES	LOAD (W)
RT-1	L1C-48	FOH-L THEATER LTS ALL LAMPS PER FIXTURE	788
RT-2	L1C-50	FOH-R THEATER LTS ALL LAMPS PER FIXTURE	788
RT-3	L1C-52	1E THEATER LTS ALL LAMPS PER FIXTURE	360
RT-4	L1C-54	1E THEATER LTS ALL LAMPS PER FIXTURE	360
RT-5	L1C-56	2E THEATER LTS ALL LAMPS PER FIXTURE	270
RT-6	L1C-58	2E THEATER LTS ALL LAMPS PER FIXTURE	270
RT-7		SPARE	
RT-8		SPARE	

1. PROVIDE LABELING SLEEVE FOR EACH WIRE CONTAINING THE FOLLOWING INFORMATION: DEVICE TYPE, BUILDING ROOM NUMBER AND CONSTRUCTION DOCUMENT ROOM NUMBER.
2. ALL THEATRICAL LIGHTING POWER SHALL BE CONNECTED WITH 3-12, 3/4"C. DO NOT COMBINE NEUTRALS OR GROUND WIRES.
3. PROVIDE INTERFACE TO ALLOW THEATRICAL DIMMING SYSTEM TO CONTROL CAFETERIA AND PLATFORM WORK LIGHTS THROUGH THE BUILDING LIGHTING SYSTEM. COORDINATE WITH BUILDING LIGHTING SYSTEM CONTRACTOR. PRESET SCENES SHALL INCLUDE DIMMING HOUSE LIGHTING. COOR WITH OWNER FOR DESIRED SCENES AND PRESETS.



2 THEATRICAL LIGHTING RISER

NO SCALE

Quantity: 2 Circuits 1-2 Front of House (FoH)

ETC Edison Outlet box:
1 outlet at end of batten wired to relay panel.

Quantity: 2 Circuits 3-4 1st Electric (1E)

ETC Edison Outlet box:
1 outlet at each end of batten wired to relay panel.

Quantity: 2 Circuits 5-6 2nd Electric (2E)

ETC Edison Outlet box:
1 outlet at each end of batten wired to relay panel.

Portable Theatrical Fixtures

8 TH1 — ETC Colorsource Spot V Color Changing LED w/26 Degree EDLT, c-clamp, safety cable, DMX Cable, Smooth Wash Diffuser, TrueQne Edison Cable, and TrueOne pass through cable

14 TH2 — ETC Colorsource PARV ZOOM Color Changing LED w/ Yoke, C-Clamp, Safety Cable, DMX Cable, and WFL Lens, and TrueOne Edison Cable

NOTES

1. DO NOT Substitute Low Voltage Wire Types without prior approval from Factory.
2. All Low Voltage Wiring to be installed in EMT Conduit.
3. All Control Wiring must be as shown on riser, complete unspliced home runs. Wiring may share conduit with same wire type.
4. 1.5" I.D. Schedule 40 Black Pipe for hanging positions provided and installed by ETCP Certified Theatrical Contractor as part of EC contract. Coordinate Final Location and length of pipe positions and Control Locations with Stage Layout, Owner's Rep, and Stage Curtains Locations PRIOR to installation.
5. All portable fixtures to be unboxed, hung, and focused into stage wash by Theatrical Contractor as part of EC Scope.
6. For illustrative purposes only NOT TO SCALE
7. Low Voltage Terminations and System Energization and Training by ETC Factory Service Technician. Submit Request for Technician 21 days in advance
8. Contact Lynn Zukley @ CW Lighting with Questions: 713-690-8320

CONTROL & WIRING LEGEND

SYMBOL	WIRE TYPE(S)	SIGNAL
D	(1) BELDEN #1583A	DMX
UV	(1) BELDEN #8471 (1) #14 THHN (GROUND) (2) #16 THHN	UNISON LINK AUX POWER
N	(1) BELDEN #1583A	ETC NET3
120	3-12, 3/4"C	POWER

NOTES:

1.) ALL CONTROL WIRING IS PROVIDED BY OTHERS UNLESS NOTED OTHERWISE.
2.) TOTAL COMBINED LENGTH OF UNISON WIRING RUNS CANNOT EXCEED 1640 FEET (500 METERS).
3.) ALL ETCNet RUNS SHALL BE CONTINUOUS, UNSPLICED RUNS LESS THAN 300 FEET (90 METERS).
ALL NETWORK CONNECTIONS TO BE ESS TOKEN.
4.) ** = CIRCUIT NUMBERING MUST BE PROVIDED PRIOR TO MANUFACTURING.
5.) UNISON WIRING IS TOPOLOGY FREE. WIRE CAN BE PULLED IN A STAR, "T" OR DAISY CHAIN.

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL
ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

E1.04T

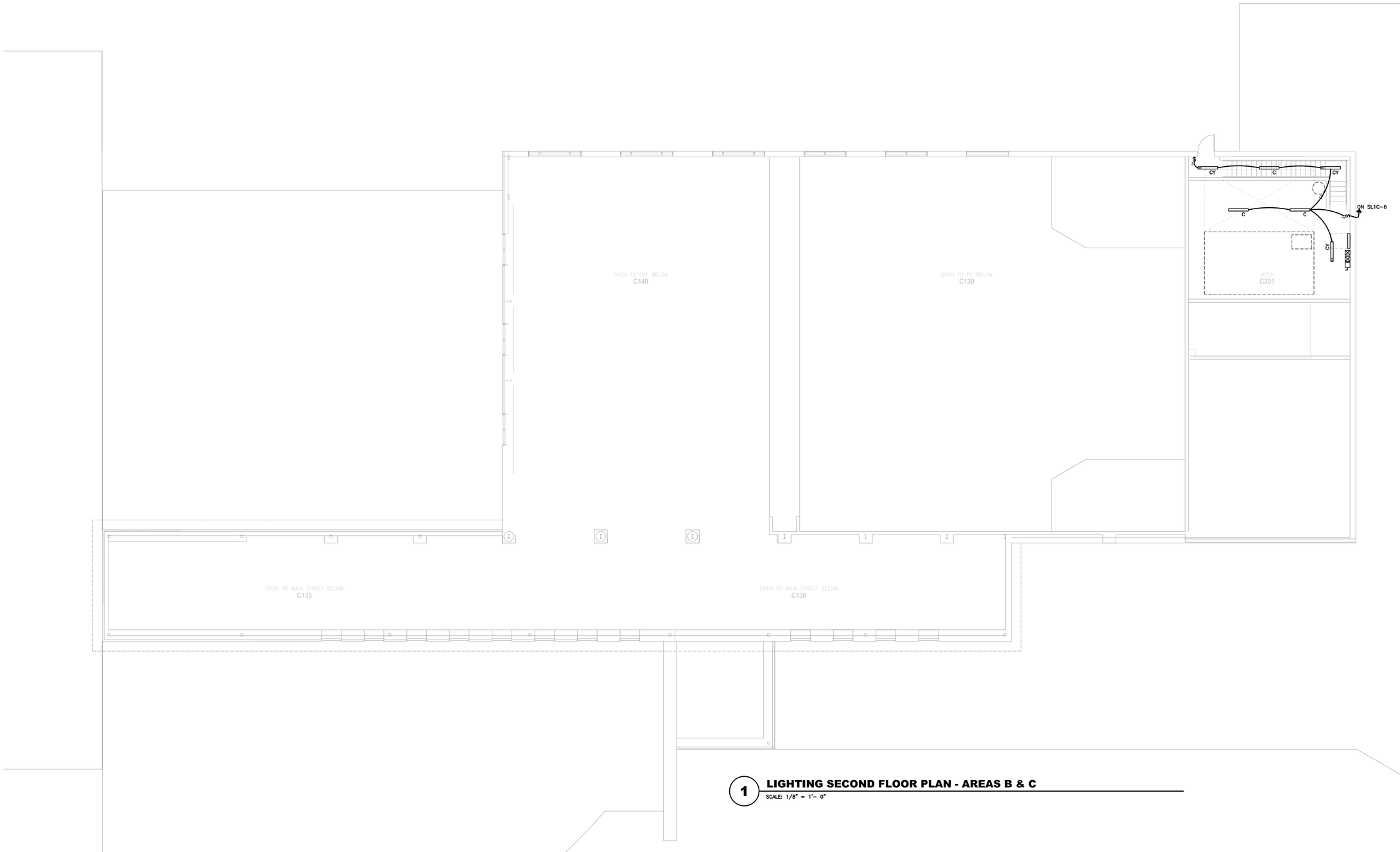
THEATRICAL LIGHTING FIRST FLOOR PLAN

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE FIRM REG. NO. F-13332
(713) 300-9292

©2025 ALL RIGHTS RESERVED

1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



1 **LIGHTING SECOND FLOOR PLAN - AREAS B & C**

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

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

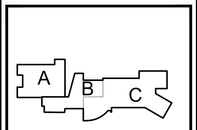
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E1.05

LIGHTING
SECOND FLOOR PLAN
AREAS B & C

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/TBPELS FIRM REG NO F-13753 | TBPELS FIRM REG NO F-10153 | © 2025 ALL RIGHTS RESERVED
713-300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

COORDINATE WITH DIVISION 27 LOCAL SOUND CONTRACTOR TO PROVIDE 120V CONNECTION FOR LOCAL SOUND SPEAKER TO TEACHER CIRCUIT, TYPICAL.

REFERENCE ENLARGED PLAN 1/E7.11

REFERENCE COORDINATION PLAN 1/E7.01

ROUTE CONDUIT BELOW GRADE TO ISLAND CASEWORK. INSTALL RECEPTACLE IN CASEWORK, 6" BELOW THE COUNTER TOP, TYPICAL.

TEACHER STATION ROUGH-IN, REFERENCE DETAIL XX/XX. COORDINATE CALL BUTTON AND WALL MOUNTED PHONE ROUGH-IN WITH MARKERBOARD, TYPICAL.

SEQUENCED RECEPTACLE AND LV J-BOX FOR LOCAL SOUND SYSTEM POWERED SPEAKERS LOCATED BY LOCAL SOUND CONTRACTOR. EXTEND LV CONDUIT TO CEILING CAVITY.

PROVIDE 120V POWER TO ELECTRIFIED DOOR HARDWARE FROM THE INDICATED CIRCUIT, TYPICAL.

INSTALL OUTLETS HORIZONTALLY IN LEARNING STAIR FACE, TYPICAL.

LOCAL A/V CABINET.

POWER/DATA AND A/V CONNECTIONS IN CEILING ENCLOSURE FOR OFOI PROJECTOR, TYPICAL OF TWO (2).

LOCATE MOTORIZED PROJECTION SCREEN CONTROL SWITCH ADJACENT TO LIGHT SWITCH.

PARTITION SENSOR FOR LOCAL A/V SYSTEM.

1 POWER & LOW VOLTAGE FIRST FLOOR PLAN - AREA A

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

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

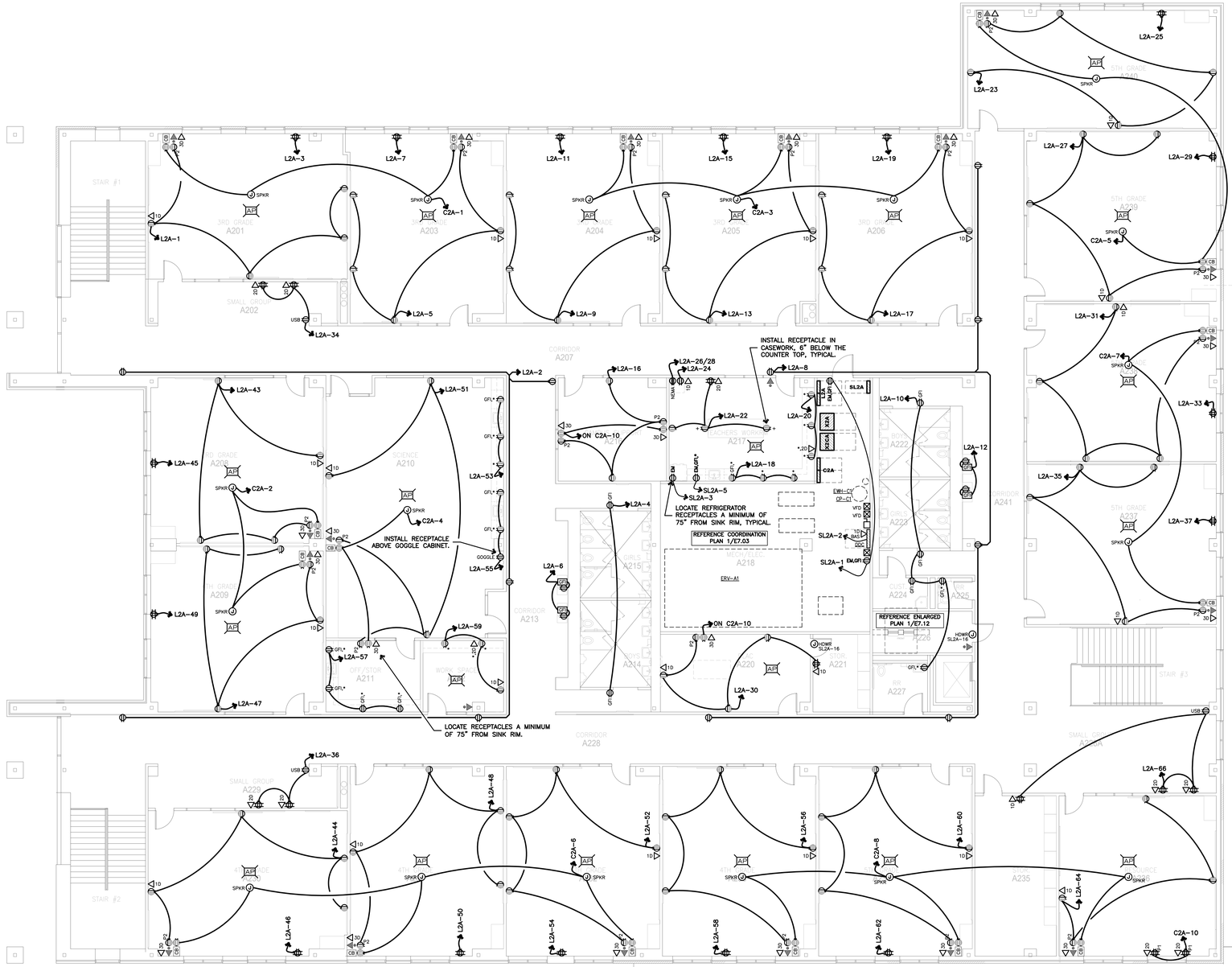
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	D COH COMMENT 2
10/24/2025	CSP

E2.01

POWER & LOW VOLTAGE FIRST FLOOR PLAN AREA A

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/REGISTRATION NUMBER F-11533 | TEXAS ENGINEERING PRACTICE ACT 1100.251 | © 2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



1 POWER & LOW VOLTAGE SECOND FLOOR PLAN - AREA A

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

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER

10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E2.02

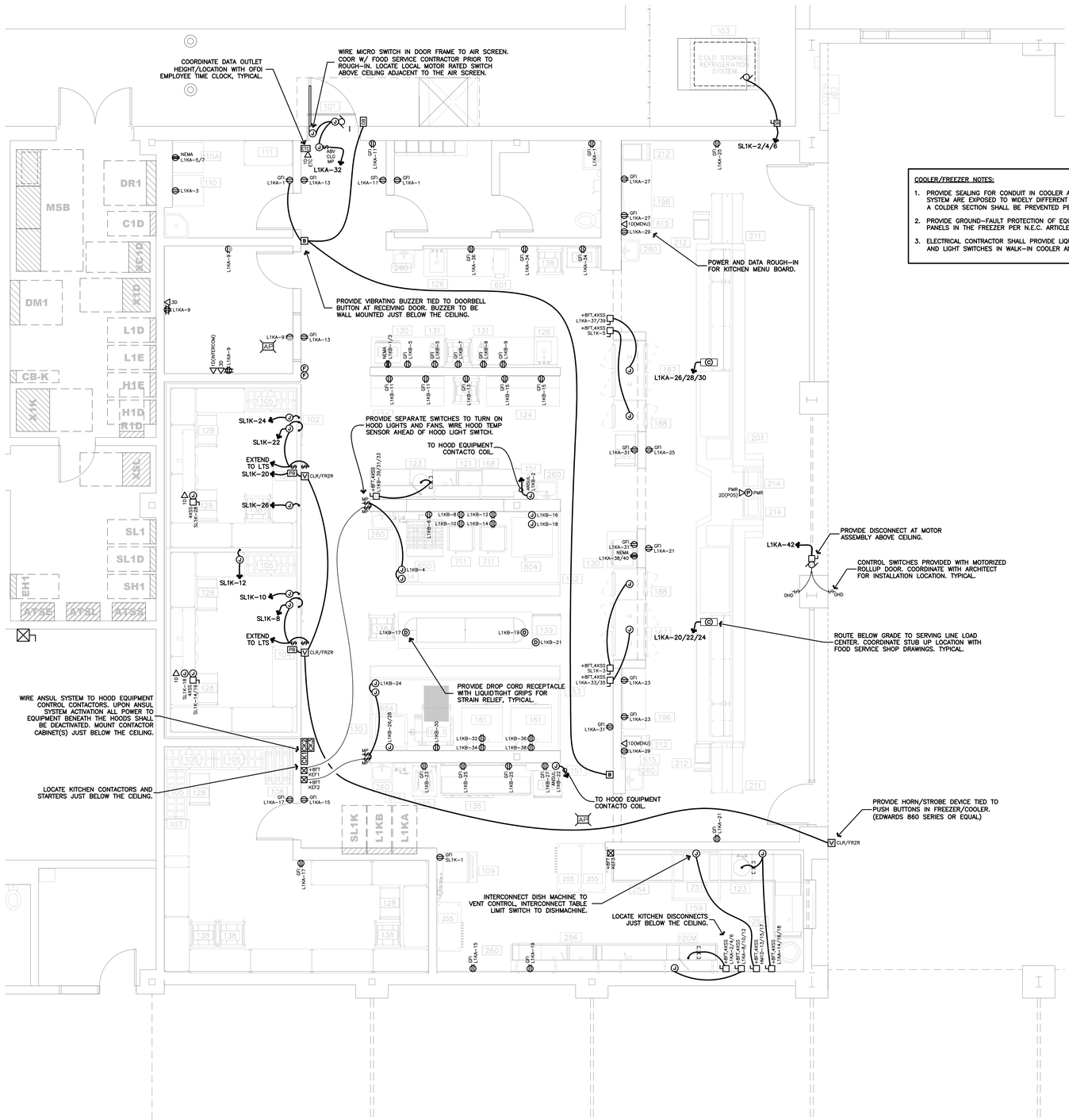
POWER & LOW VOLTAGE SECOND FLOOR PLAN AREA A

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP

TBPE/BPELS FIRM REG. NO. F-13332 | TBAE/ENG FIRM REG. NO. F-10932 | TBAE/LSAG FIRM REG. NO. F-10932
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

© 2025 ALL RIGHTS RESERVED



COOLER/FREEZER NOTES:

1. PROVIDE SEALING FOR CONDUIT IN COOLER AND FREEZER. WHERE PORTIONS OF INTERIOR RACEWAY SYSTEM ARE EXPOSED TO WIDELY DIFFERENT TEMPERATURES, CIRCULATION OF AIR FROM WARMER TO A COLDER SECTION SHALL BE PREVENTED PER N.E.C. ARTICLE 300.7 (A).
2. PROVIDE GROUND-FAULT PROTECTION OF EQUIPMENT FOR ELECTRIC HEAT TRACING AND HEATING PANELS IN THE FREEZER PER N.E.C. ARTICLE 427.22.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE LIQUID TIGHT CONDUIT AND WIRING FOR LIGHT FIXTURES AND LIGHT SWITCHES IN WALK-IN COOLER AND FREEZER, SEE FOODSERVICE CONSULTANT'S DRAWINGS.

1 ENLARGED ELECTRICAL PLAN - AREA B - KITCHEN

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

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E2.02K

ENLARGED KITCHEN FLOOR PLAN

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE REGISTRATION NO. F-13747 | (713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

DRAWING FILE NO. P-0175.01 © 2025 ALL RIGHTS RESERVED

ROUTE CONDUIT BELOW GRADE TO ISLAND CASEWORK. INSTALL RECEPTACLE IN CASEWORK, 6" BELOW THE COUNTER TOP, TYPICAL.

REFERENCE ENLARGED PLAN 1/E7.11

REFERENCE COORDINATION PLAN 1/E7.01

REFERENCE COORDINATION PLAN 1/E7.02

REFERENCE ENLARGED PLAN 1/E2.02K

REFERENCE ENLARGED PLAN 4/E7.11

REFERENCE ENLARGED PLAN 2/E7.11

REFERENCE COORDINATION PLAN 2/E7.01

GENERATOR REMOTE E-STOP BUTTON. CONFIRM LOCATION WITH OWNER.

REMOVABLE BOLLARD, TYP.

POWER AND PULL BOX (MIN 12x12x8) FOR LOCA... SYSTEM ANTENNA CABLING, COMBINERS, AND POWER IN... LOCATE PULL BOX ABOVE CAFETERIA CEILIN... COORDINATE WITH DIVISION 27 LOCAL SOUND CO...

COORDINATE WITH O... INSTALLATION. PROVIDE ROUGH... STATIONS AT OPPOSITE E... COORDINATE WITH ARC...

WALL MOUNTED DISPLAY SHOWN FOR BIDDING PURPOSES ONLY. CONFIRM EXACT LOCATION AND HEIGHT WITH OWNER/ARCH PRIOR TO ROUGH-IN.

LOCATE ADJACENT TO FIRE ALARM ANNUNCIATOR PANEL.

LOCAL A/V CABINET.

POWER/DATA AND A/V CONNECTIONS IN CEILING ENCLOSURE FOR OFOI PROJECTOR, TYPICAL OF TWO (2).

LOCATE MOTORIZED PROJECTION SCREEN CONTROL SWITCH ADJACENT TO LIGHT SWITCH.

PARTITION SENSOR FOR LOCAL A/V SYSTEM.

INSTALL OUTLETS HORIZONTALLY IN LEARNING STAIR FACE, TYPICAL.

ROUTE POWER AND LOW VOLTAGE CONDUIT BELOW GRADE TO FLOOR BOX. FLOOR BOX LOCATION TO BE DIMENSIONED BY ARCHITECT. TYPICAL.

LOCATE RECEPTACLES A MINIMUM OF 75 FROM SINK RIM.

1 POWER & LOW VOLTAGE FIRST FLOOR PLAN - AREA B

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

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

GEORGE L. STANTON 38582 REGISTERED PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

E2.03

POWER & LOW VOLTAGE FIRST FLOOR PLAN AREA B

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/TBPLS FIRM REG. NO. F-11933Z | ©2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

POWER AND PULL BOX (MIN 12x12x8) FOR LOCAL SOUND SYSTEM ANTENNA CABLING, COMBINERS, AND POWER INJECTORS. LOCATE PULL BOX ABOVE CAFETERIA CEILING HEIGHT. COORDINATE WITH DIVISION 27 LOCAL SOUND CONTRACTOR.

PROVIDE PROTECTIVE GUARDS FOR WALL MOUNTED WIRELESS ACCESS POINT WHERE INDICATED, TYPICAL.

PROVIDE 120V POWER TO ELECTRIFIED DOOR HARDWARE FROM THE INDICATED CIRCUIT, TYPICAL.

COORDINATE RECEPTACLE LOCATION WITH ICE MACHINE AND PLUMBING UTILITIES.

COORDINATE WITH DIVISION 27 LOCAL SOUND CONTRACTOR TO PROVIDE 120V CONNECTION FOR LOCAL SOUND SPEAKER TO TEACHER CIRCUIT, TYPICAL.

COORDINATE RECEPTACLE LOCATIONS WITH CHANGING TABLE INSTALLATION REQUIREMENTS. LOCATE REMOTE GFCI DEVICE AT AN ACCESSIBLE LOCATION.

COORDINATE WITH OTHER TRADES PARTITION INSTALLATION. PROVIDE ROUGH-IN FOR TWO CONTROL STATIONS AT OPPOSITE ENDS OF THE PARTITION. COORDINATE WITH ARCHITECT FOR LOCATIONS.

COORDINATE DATA OUTLET HEIGHT/LOCATION WITH OFOI EMPLOYEE TIME CLOCK, TYPICAL.

WALL MOUNTED DISPLAY SHOWN FOR BIDDING PURPOSES ONLY. CONFIRM EXACT LOCATION AND HEIGHT WITH OWNER/ARCH PRIOR TO ROUGH-IN.

STAGE SECONDARY PRESENTER STATION

STAGE PRIMARY PRESENTER STATION

PARTITION SENSOR FOR STAGE SOUND SYSTEM.

SEQUENCED RECEPTACLE AND LV J-BOX FOR LOCAL SOUND SYSTEM POWERED SPEAKERS LOCATED BY LOCAL SOUND CONTRACTOR. EXTEND LV CONDUIT TO CEILING CAVITY.

MOUNT JUST BELOW CANOPY.

REFERENCE COORDINATION PLAN 3/E7.01

REFERENCE ENLARGED PLAN 3/E7.11

1 **POWER & LOW VOLTAGE FIRST FLOOR PLAN - AREA C**

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

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO. 2502 (B101-101)	
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

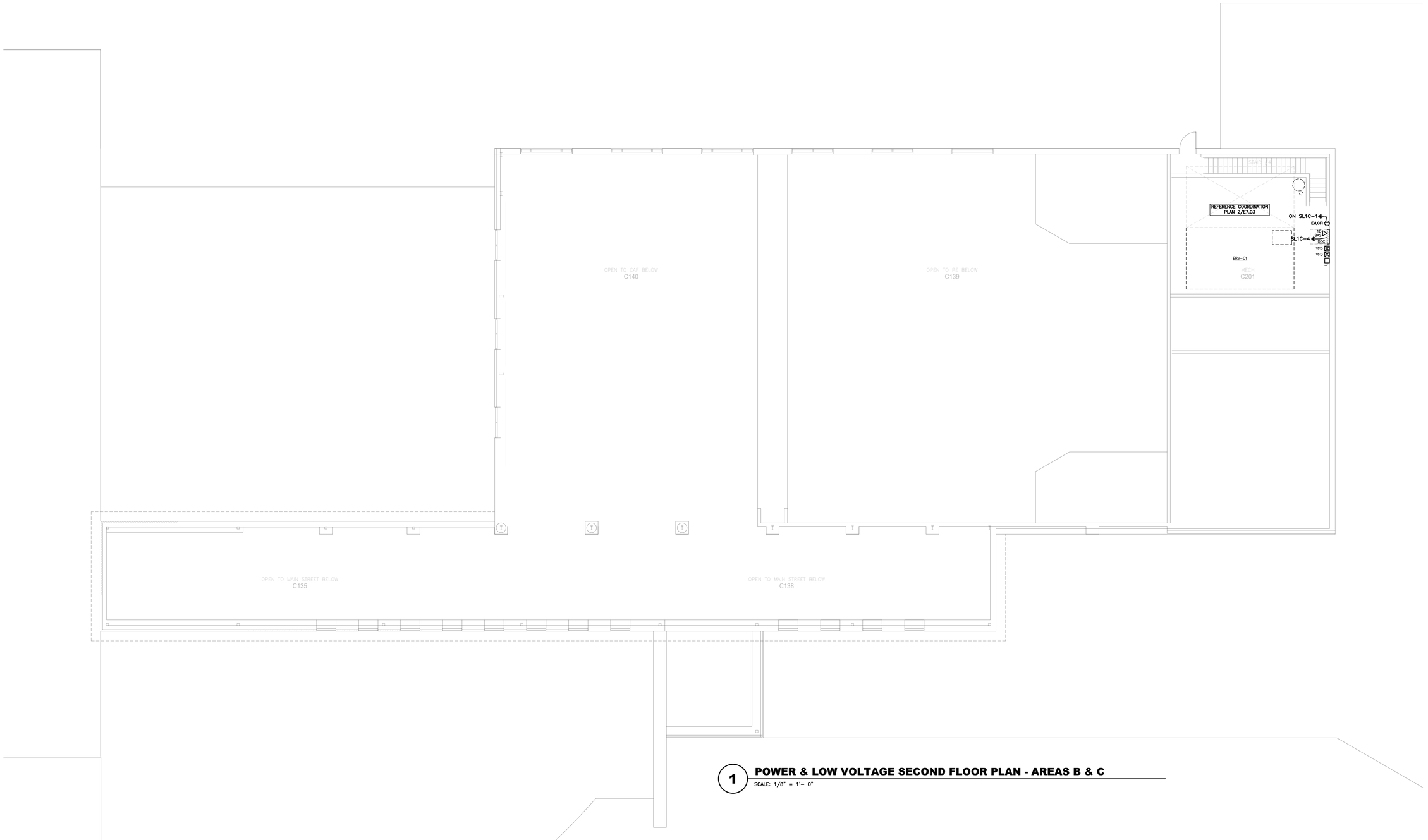
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

E2.04

POWER & LOW VOLTAGE FIRST FLOOR PLAN AREA C

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/ENGINEERING FIRM REG. NO. F-11933 | TBPLS/SURVEYING FIRM REG. NO. F-10183 | ©2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



1 **POWER & LOW VOLTAGE SECOND FLOOR PLAN - AREAS B & C**
SCALE: 1/8" = 1'- 0"

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E2.05

POWER & LOW VOLTAGE SECOND FLOOR PLAN AREA C

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/TBPELS FIRM REG NO F-13152 | SCHOOLENG FIRM REG NO F-13152 | © 2025 ALL RIGHTS RESERVED
713) 300–9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

LOCAL SOUND KEY NOTES:

A. COORDINATE WITH DIVISION 26 TO PROVIDE 120V CONNECTION FOR LOCAL SOUND SYSTEM SPEAKER TO TEACHER CIRCUIT. TYPICAL

B. PROVIDE PORTABLE SPEAKER SYSTEM, ONE PER SMALL GROUP AREA AS SHOWN.

C. MUSIC ROOM MOBILE SOUND CONTROL CART AND SPEAKERS. WALL MOUNT LOCAL SOUND SYSTEM SPEAKERS ABOVE MARKERBOARDS.

D. LGI/COMPUTER LAB LOCAL SOUND SYSTEM IN WALL MOUNTED TILT/OUT RACK.

E. PARTITION SENSOR. LGI/COMPUTER CLASSROOM SOUND SYSTEM SHALL AUTODETECT PARTITION POSITION.

F. LOCAL SOUND RACK FOR GYM/CAFETERIA SOUND SYSTEM.

G. COORDINATE SOUND SYSTEM CONTROL PANEL (CP) LOCATION WITH THEATRICAL CONTROL. MOUNT ADJACENT TO EACH OTHER.

H. CHOIR MICROPHONES SHOWN FOR BIDDING PURPOSES ONLY. EXACT MOUNTING LOCATION AND HEIGHT BY INSTALLING CONTRACTOR. COORDINATE LOCATION WITH OTHER TRADES AND STAGE PROJECTOR/SCREEN.

I. WALL MOUNTED LOCAL SOUND SPEAKER AT PROSCENIUM EDGE, FIELD LOCATED AND AIMED BY LOCAL SOUND CONTRACTOR, TYPICAL.

J. WIRELESS MICROPHONE (WM) AND HEARING ASSIST (HA) ANTENNAS.

K. CAFETERIA LOCAL SOUND SPEAKERS MOUNTED IN HIGH CEILING, TYP.

L. PARTITION SENSOR FOR LIGHTING CONTROLS AND SOUND SYSTEM IN CAFE/PE SPACE. CAFE/PE SOUND SYSTEM SHALL AUTODETECT PARTITION POSITION. CAFE SPEAKER ZONE SHALL BE OFF BY DEFAULT WHEN PARTITION IS CLOSED BUT MAY BE OVERRIDEN VIA SOUND SYSTEM CONTROLS.

M. FIELD LOCATE WIRELESS MICROPHONE ANTENNAS TO PROVIDE COVERAGE OF CAFETERIA AND EXTERIOR STUDENT PICKUP SPACE. PROVIDE PROTECTIVE COVER.

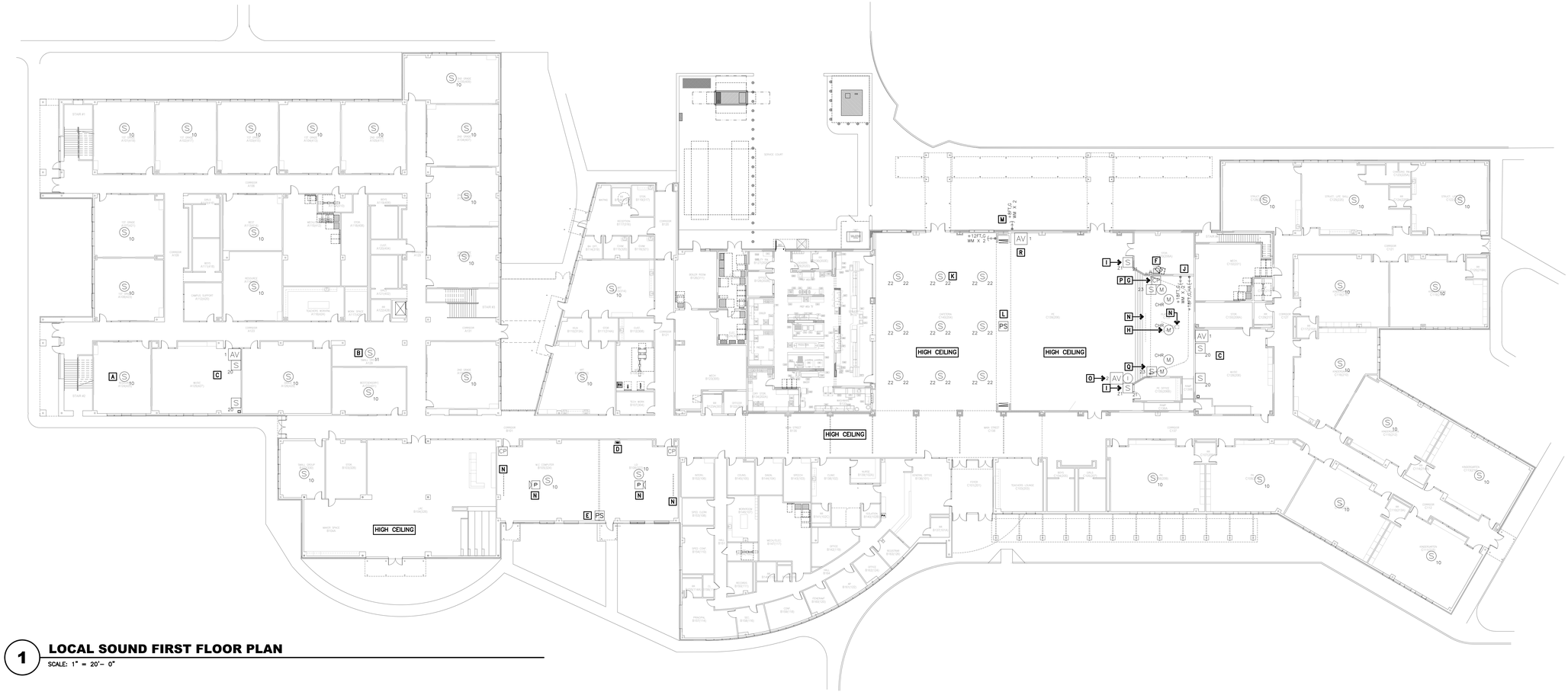
N. TIE MOTORIZED SCREEN AND PROJECTOR CONTROLS INTO SOUND SYSTEM. PROJECTOR ON/OFF, PROJECTOR SOURCE, AND SCREEN RAISE/LOWER SHALL BE CONTROLLABLE FROM THE SOUND SYSTEM CONTROL PANELS.
- -TURNING ON THE PROJECTOR SHALL AUTOMATICALLY LOWER THE PROJECTION SCREEN.
- -TURNING OFF THE PROJECTOR SHALL AUTOMATICALLY RAISE THE PROJECTION SCREEN.

O. PRIMARY PRESENTATION STATION, REFERENCE DEVICE DETAILS.

P. SECONDARY PRESENTATION STATION, REFERENCE DEVICE DETAILS.

Q. STAGE SPEAKER AND MICROPHONE STATION, REFERENCE DEVICE DETAILS.

R. BACK OF HOUSE CONTROL STATION, REFERENCE DEVICE DETAILS.



1 LOCAL SOUND FIRST FLOOR PLAN

SCALE: 1" = 20'-0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

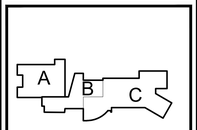
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER

10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E3.11

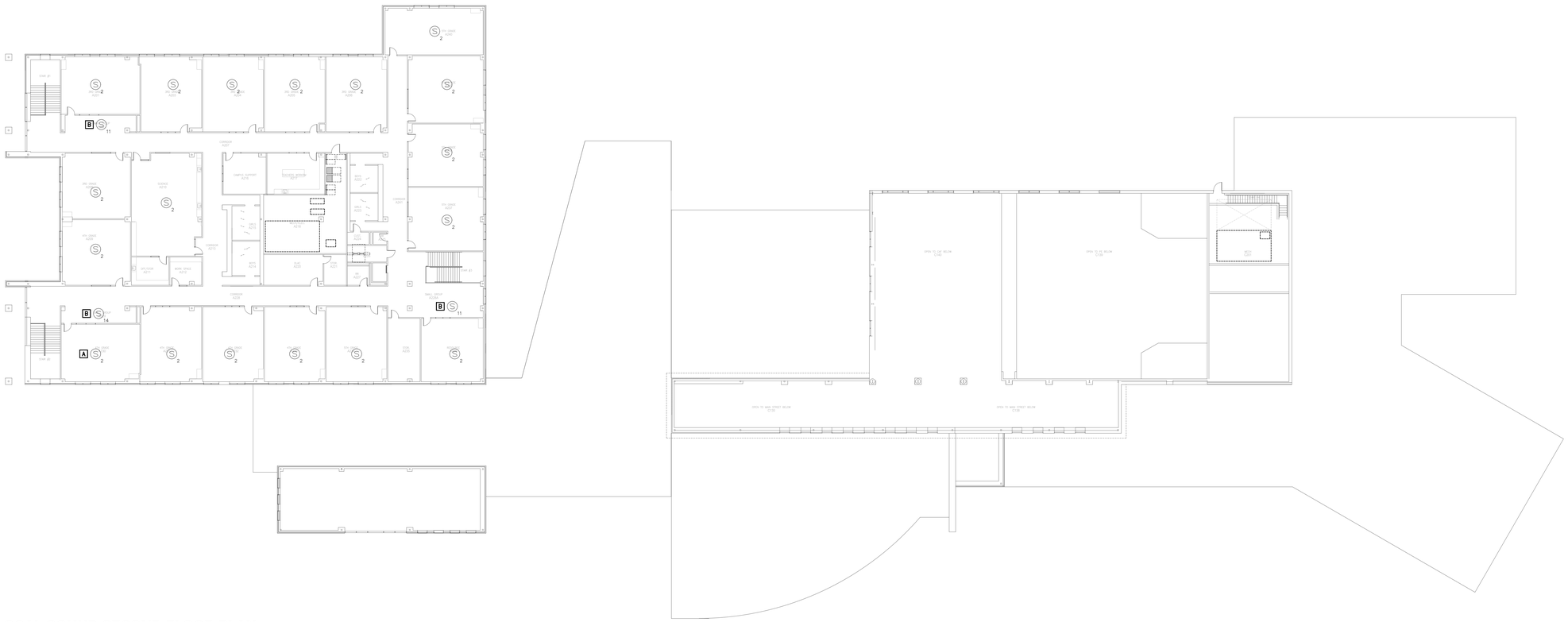
LOCAL SOUND
FIRST FLOOR PLAN

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/REGISTRATION: F-007632 | SOUND ENG. FIRM REG. NO.T-F-013532 | ©2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

LOCAL SOUND KEY NOTES:
A. COORDINATE WITH DIVISION 26 TO PROVIDE 120V CONNECTION FOR LOCAL SOUND SYSTEM SPEAKER TO TEACHER CIRCUIT. TYPICAL

B. PROVIDE PORTABLE SPEAKER SYSTEM, ONE PER SMALL GROUP AREA AS SHOWN.



1 LOCAL SOUND SECOND FLOOR PLAN
SCALE: 1" = 20'– 0"

CONSULTANTS

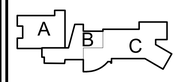
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E3.12

LOCAL SOUND
SECOND FLOOR PLAN

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/TBPLS FIRM REG. NO. F-017632
(713) 300–9292

© 2025 ALL RIGHTS RESERVED

1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

PUBLIC ADDRESS SYSTEM KEY NOTES:

A. PA SYSTEM HEAD END IN MAIN DATA CLOSET (MDF).

B. REMOTE PA CONSOLE IN CASEWORK. ROUTE CONDUIT IN CASEWORK TO SOUND CONSOLE. COOR W/ CASEWORK CONTRACTOR TO PROVIDE GROMMETED OPENING FOR PA MICROPHONE CABLING.



1 PUBLIC ADDRESS FIRST FLOOR PLAN

SCALE: 1" = 20'– 0"

NOTES:

1. REFERENCE ELECTRICAL FLOOR PLANS FOR ADDITIONAL PUBLIC ADDRESS RELATED WORK.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

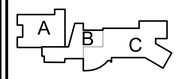
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER

10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E3.21

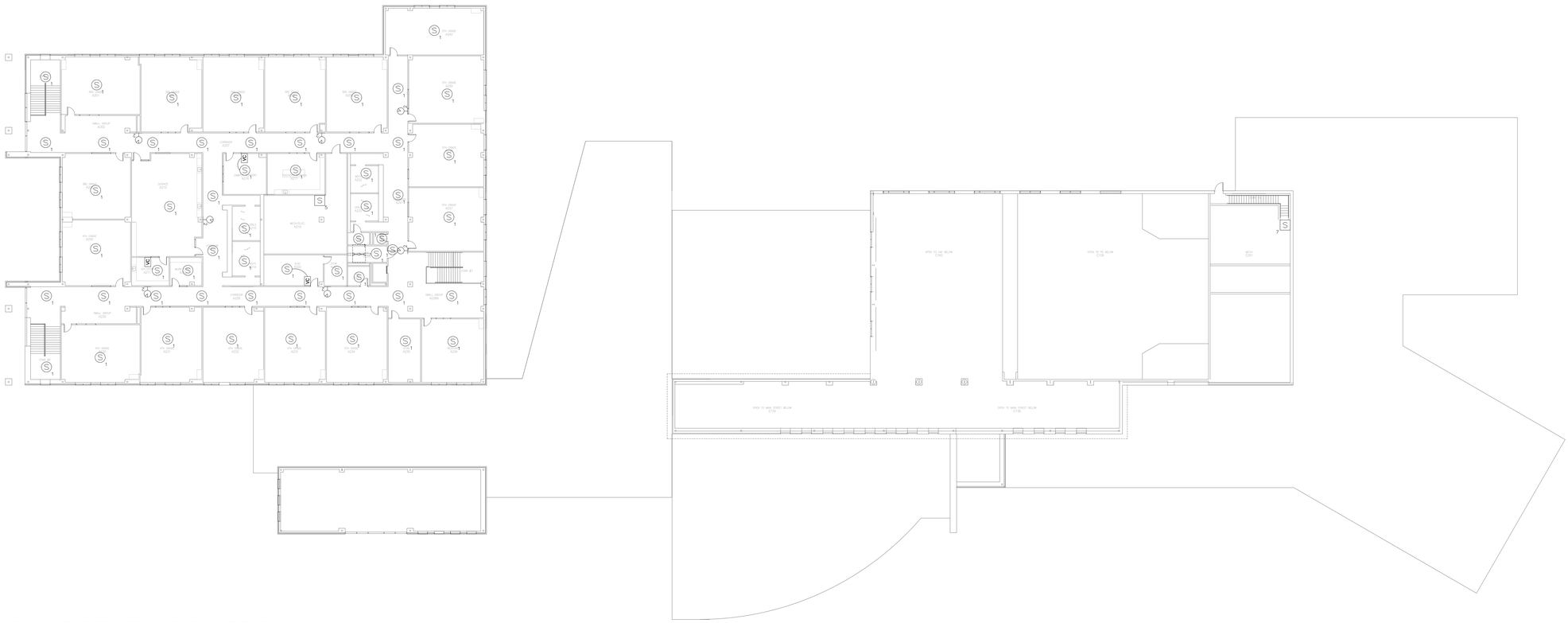
PUBLIC ADDRESS
FIRST FLOOR PLAN

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP

TBPE/TBPLS FIRM REG. NO. F-13932 | ©2025 ALL RIGHTS RESERVED
(713) 300–9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

PUBLIC ADDRESS SYSTEM KEY NOTES:



1 PUBLIC ADDRESS SECOND FLOOR PLAN

SCALE: 1" = 20'– 0"

NOTES:

1. REFERENCE ELECTRICAL FLOOR PLANS FOR ADDITIONAL PUBLIC ADDRESS RELATED WORK.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

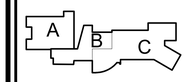
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER

10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E3.22

PUBLIC ADDRESS
SECOND FLOOR PLAN

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP

TBPE/TBPLS FIRM REG NO F-013332 | ©2025 ALL RIGHTS RESERVED

(713) 300–9292 | TEXAS ENG. FIRM REG NO F-013332 | ©2025 ALL RIGHTS RESERVED | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

FIRE ALARM KEY NOTES:

A. FIRE ALARM CONTROL PANEL LOCATED IN BUILDING MAIN DATA CLOSET (MDF).

B. INTERLOCK ELEVATOR RECALL SYSTEM WITH THE FIRE ALARM SYSTEM.

C. FIRE ALARM REMOTE ANNUNCIATOR AND MICROPHONE LOCATED IN MAIN RECEPTION AREA.

D. MONITOR THE FIRE SPRINKLER RISER. REFERENCE MEP SITE PLAN FOR LOCATION OF SPRINKLER VAULT.

E. TIE KITCHEN ANSUL SYSTEMS INTO THE FIRE ALARM SYSTEM.

F. FIRE ALARM OVERRIDE RELAY FOR MUSIC ROOM SOUND SYSTEM.

G. FIRE ALARM OVERRIDE RELAY FOR BUILDING PUBLIC ADDRESS (PA) SYSTEM.

H. FIRE ALARM OVERRIDE RELAY FOR LGI/COMPUTER ROOM SOUND SYSTEM.

I. FIRE ALARM OVERRIDE RELAY FOR STAGE SOUND SYSTEM.

J. FIRE ALARM OVERRIDE RELAY FOR BUILDING LIGHTING RELAY PANELS.

K. FIRE SPRINKLER ALARM BELL, REFERENCE SPECIFICATIONS.

L. MONITOR EMERGENCY RESPONDER RADIO ANNTENNA (ERRA) SYSTEM, REFERENCE SPECIFICATIONS.



1 FIRE ALARM FIRST FLOOR PLAN

SCALE: 1" = 20'– 0"

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

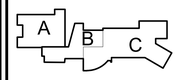
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E3.31

FIRE ALARM
FIRST FLOOR PLAN

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP

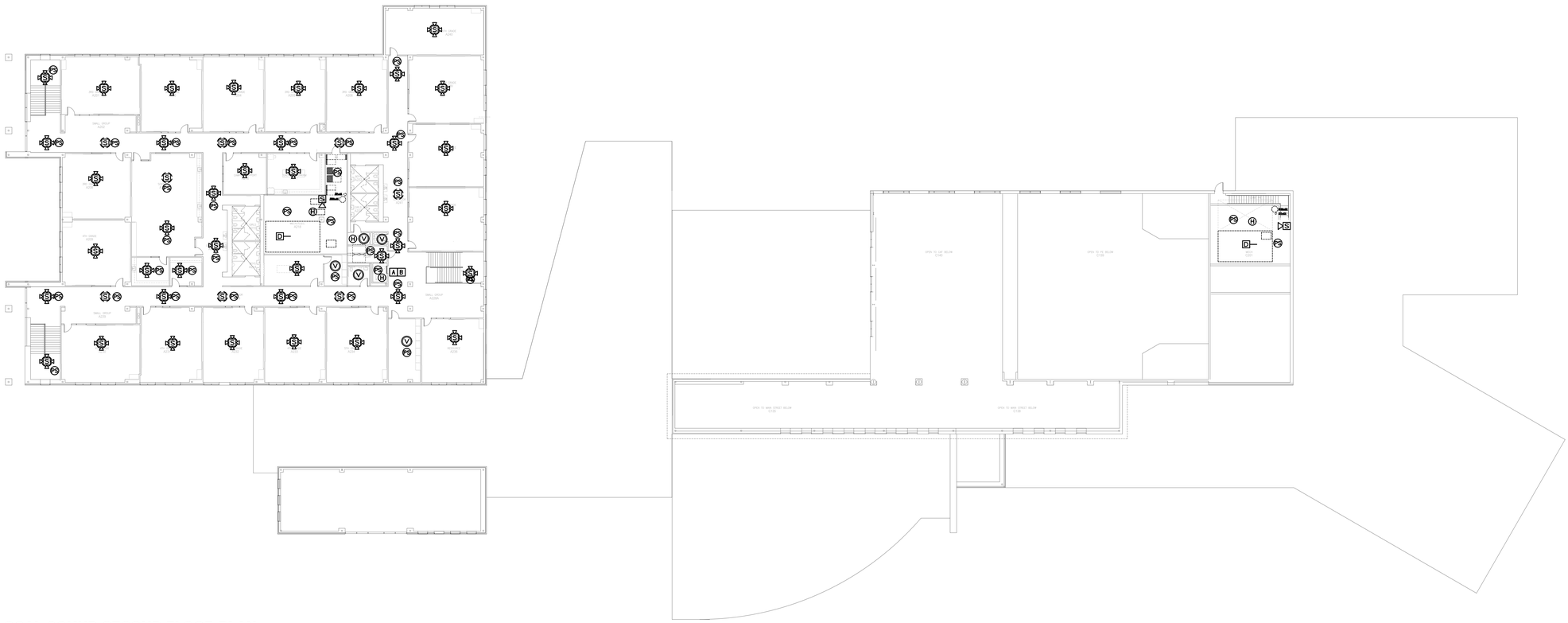
TBPE/REGISTRATION #F-21010 | (713) 300–9292

CONSULTING FIRM REG NO T-FOR1632 | © 2025 ALL RIGHTS RESERVED

1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

FIRE ALARM KEY NOTES:
A. PROVIDE HEAT AND SMOKE DETECTOR AT TOP OF SHAFT, SMOKE DETECTOR AT ELEVATOR CONTROL PANEL, AND ADDITIONAL HEAT DETECTORS WITHIN 2FT OF EACH SPRINKLER HEAD.

B. INTERLOCK ELEVATOR RECALL SYSTEM WITH THE FIRE ALARM SYSTEM.



1 **LOCAL SOUND SECOND FLOOR PLAN**
SCALE: 1" = 20'-0"

CONSULTANTS

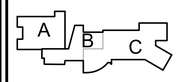
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E3.32

FIRE ALARM
SECOND FLOOR PLAN

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE FIRM # F-10932 | TBELS FIRM REG NO F-10932 | TEXAS ENGINEERING FIRM REG NO F-10932 | (713) 300-9292
©2025 ALL RIGHTS RESERVED
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

SECURITY, ACCESS CONTROL, AND VIDEO SURVEILLANCE GENERAL NOTES:
1. REFERENCE MEP SITE PLANS FOR ADDITIONAL SCOPE OF WORK NOT SHOWN ON THE BUILDING PLANS.
2. COORDINATE WITH OTHER TRADES FOR RACEWAY AND DATA REQUIREMENTS.

SECURITY, ACCESS CONTROL, AND VIDEO SURVEILLANCE SYSTEM KEY NOTES:
A. SECURITY/ACCESS CONTROL HEAD END IN BUILDING MDF.

B. TIE AUTOMATIC TRANSFER SWITCHES TO BUILDING SECURITY SYSTEM. SECURITY SYSTEM TO MONITOR ATS/GENERATOR STATE. REFERENCE SPECIFICATIONS.

C. PROVIDE DOOR CONTACT TO MONITOR ROOF HATCH.

D. SECURITY WIRELESS DEVICE CONTROLLER, REMOTE EQUIPMENT CABINET AND POWER SUPPLY IN ADMIN IDF-B..

E. VIDEO INTERCOM MASTER STATION AT RECEPTION DESK TIED TO FRONT ENTRY AND SITE ENTRANCE VIDEO INTERCOM STATIONS.

F. CARD ACCESS/VIDEO INTERCOM SYSTEM FOR KITCHEN ENTRANCE TIED TO MASTER STATION IN THE KITCHEN OFFICE INDEPENDENT FROM FRONT ENTRY SYSTEM.

G. COORDINATE CAMERA MOUNTING HEIGHT/LOCATION WITH CANOPIES TO ENSURE CLEAR SIGHT LINES, TYP.

H. PROVIDE LOCKDOWN BUTTON, PUSH BUTTONS FOR DOOR RELEASES, AND MASTER INTERCOM STATION WITHIN RECEPTION KNEE SPACE.

I. PROVIDE A SECOND SET OF PUSH BUTTON RELEASES WITHIN SECOND RECEPTION KNEE SPACE. COORDINATE WITH OWNER FOR FINAL LOCATION.

J. CARD ACCESS/VIDEO INTERCOM SYSTEM FOR FRONT ENTRANCE TIED TO MASTER STATION IN RECEPTION AREA INDEPENDENT FROM KITCHEN SYSTEM.

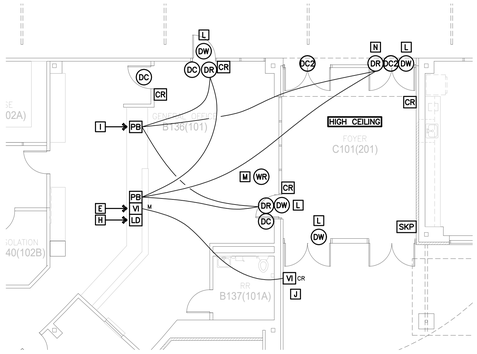
L. INDICATES DOOR PAIRED WITH A PENDANT BUTTON FOR WIRELESS DOOR RELEASE.

M. WIRELESS RECEIVER SHOWN FOR REFERENCE ONLY. INSTALLING CONTRACTOR TO PROVIDE QUANTITY, TYPE, AND LOCATE AS REQUIRED FOR THE DESIRED OPERATION.

N. INTERIOR VESTIBULE DOOR SHALL BE FAIL-SAFE. ALL OTHER DOORS SHALL BE FAIL-SECURE.

O. VIDEO INTERCOM MASTER STATION IN THE CLINIC TIED TO THE CALL STATION AT THE NORTH ENTRY, REFERENCE 1/MEP1.00B AND 4/MEP1.00D.

P. PROVIDE CONTROL SIGNALS TO BUILDING LIGHTING RELAY PANELS, REFERENCE SPECIFICATIONS.

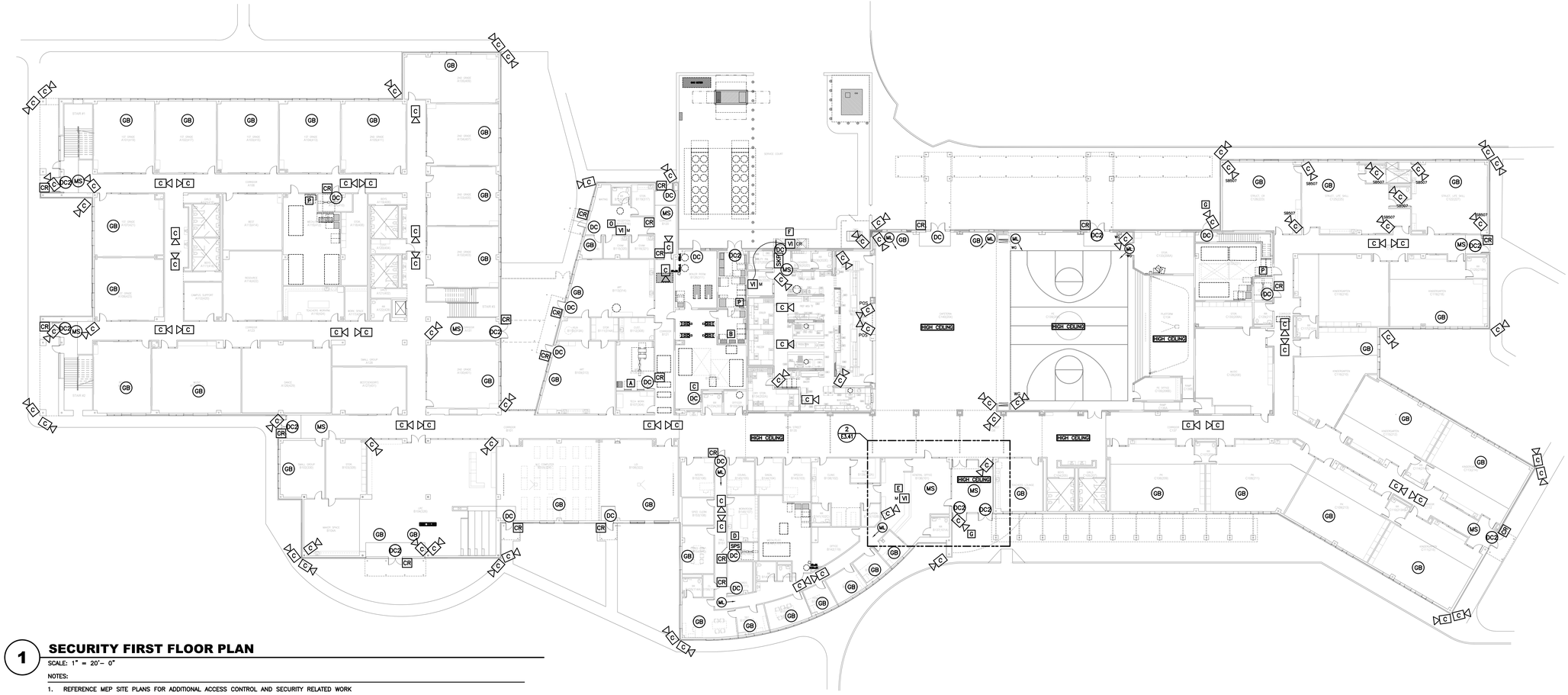


2 SECURITY ENLARGED FLOOR PLAN - FRONT ENTRY

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

NOTES:

1. REFERENCE MEP SITE PLANS FOR ADDITIONAL ACCESS CONTROL AND SECURITY RELATED WORK



1 SECURITY FIRST FLOOR PLAN

SCALE: 1" = 20'- 0"

NOTES:

1. REFERENCE MEP SITE PLANS FOR ADDITIONAL ACCESS CONTROL AND SECURITY RELATED WORK

CAMERA LOCATIONS ARE APPROXIMATE FOR BIDDING PURPOSES AND MAY BE RELOCATED UP TO 10 FEET BY THE OWNER DURING CONSTRUCTION. THE INSTALLING CONTRACTOR SHALL SET UP COORDINATION SITE VISITS WITH THE OWNER'S SECURITY DEPARTMENT TO FINALIZE LOCATIONS AND APPROVE VIEW PRIOR TO ROUGH-IN. IN PARTICULAR WALL MOUNTED CAMERAS WILL REQUIRE FIELD LOCATION WITH OWNER AND A/E. LOCATIONS AND VIEWS SHALL REQUIRE SIGN-OFF PRIOR TO FINAL INSTALLATION.

SECURITY SYSTEM DATA REQUIREMENTS

DATA CABLING TO SECURITY DEVICES SHALL BE BY THE DIVISION 27 STRUCTURED CABLING CONTRACTOR. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION. IN ADDITION TO THE DATA DROPS SHOWN ON THE E2.XX SHEETS, EACH CAMERA, VIDEO INTERCOM DEVICE AND SB507 MICROPHONE SHALL REQUIRE A DEDICATED DATA DROP.

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/TBPELS FIRM REG NO F-13163Z | TBPELS FIRM REG NO F-13163Z © 2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

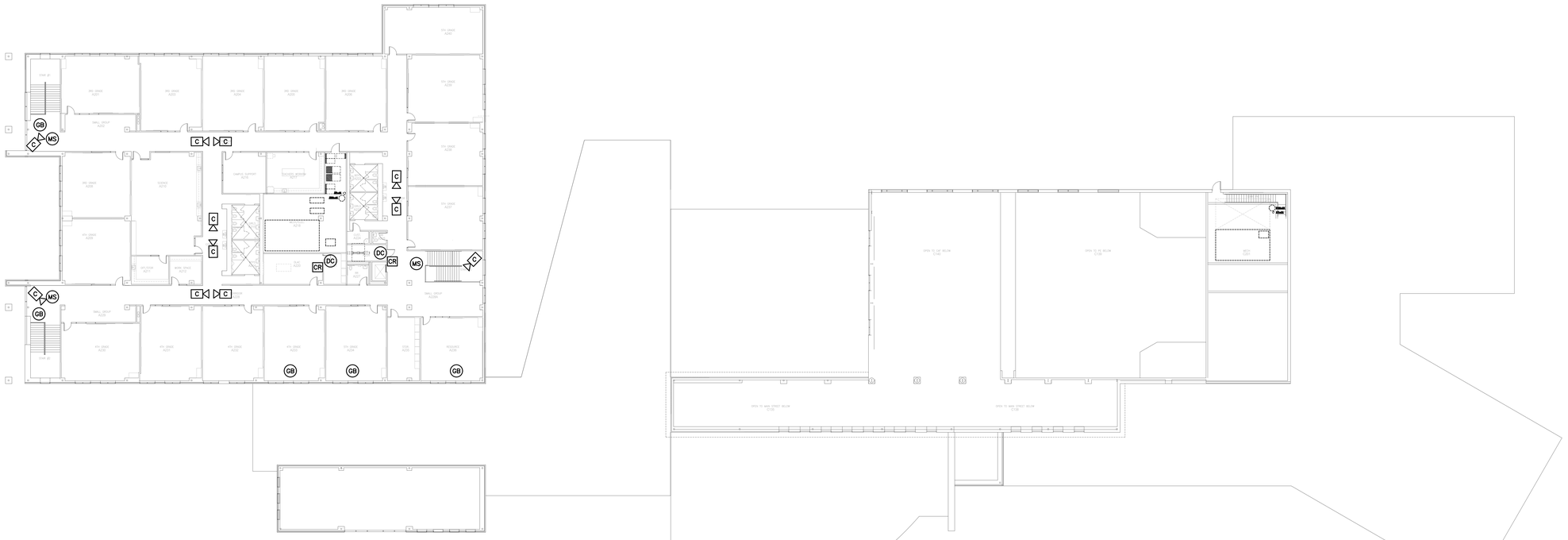
STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E3.41

SECURITY
FIRST FLOOR PLAN



1 SECURITY SECOND FLOOR PLAN

SCALE: 1" = 20'- 0"

NOTES:

1. REFERENCE MEP SITE PLANS FOR ADDITIONAL ACCESS CONTROL AND SECURITY RELATED WORK

CAMERA LOCATIONS ARE APPROXIMATE FOR BIDDING PURPOSES AND MAY BE RELOCATED UP TO 10 FEET BY THE OWNER DURING CONSTRUCTION. THE INSTALLING CONTRACTOR SHALL SET UP COORDINATION SITE VISITS WITH THE OWNER'S SECURITY DEPARTMENT TO FINALIZE LOCATIONS AND APPROVE VIEW PRIOR TO ROUGH-IN. IN PARTICULAR WALL MOUNTED CAMERAS WILL REQUIRE FIELD LOCATION WITH OWNER AND A/E. LOCATIONS AND VIEWS SHALL REQUIRE SIGN-OFF PRIOR TO FINAL INSTALLATION.

SECURITY SYSTEM DATA REQUIREMENTS

DATA CABLING TO SECURITY DEVICES SHALL BE BY THE DIVISION 27 STRUCTURED CABLING CONTRACTOR. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION. IN ADDITION TO THE DATA DROPS SHOWN ON THE E2.XX SHEETS, EACH CAMERA, VIDEO INTERCOM DEVICE AND SB507 MICROPHONE SHALL REQUIRE A DEDICATED DATA DROP.

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/TBPLS FIRM REG NO F-439332 | TBAE/LSAE FIRM REG NO F-21633 | ©2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

CONSULTANTS

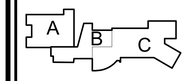
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

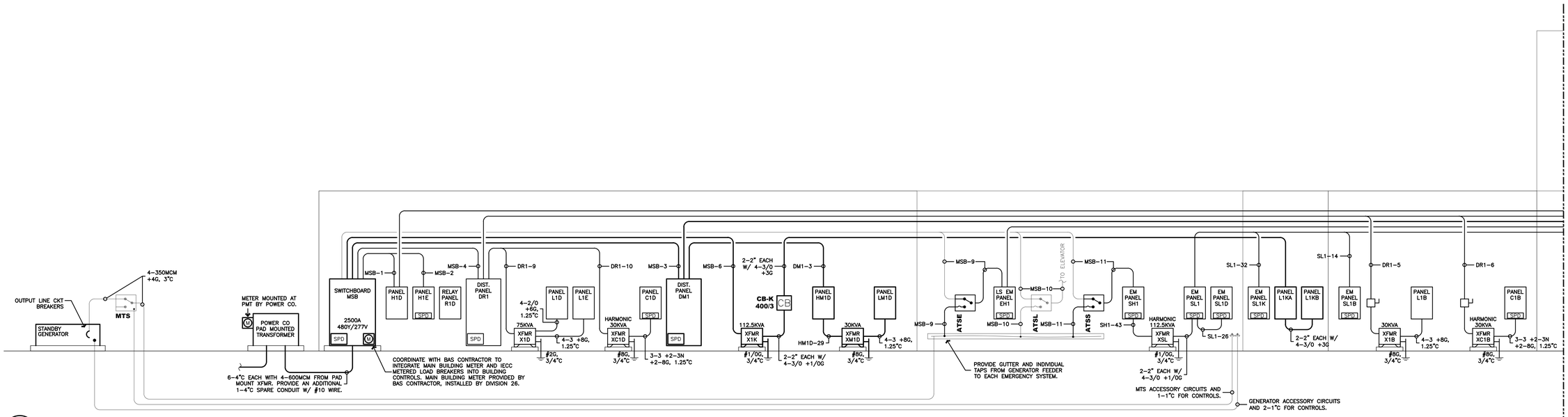
STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E3.42

SECURITY
SECOND FLOOR PLAN

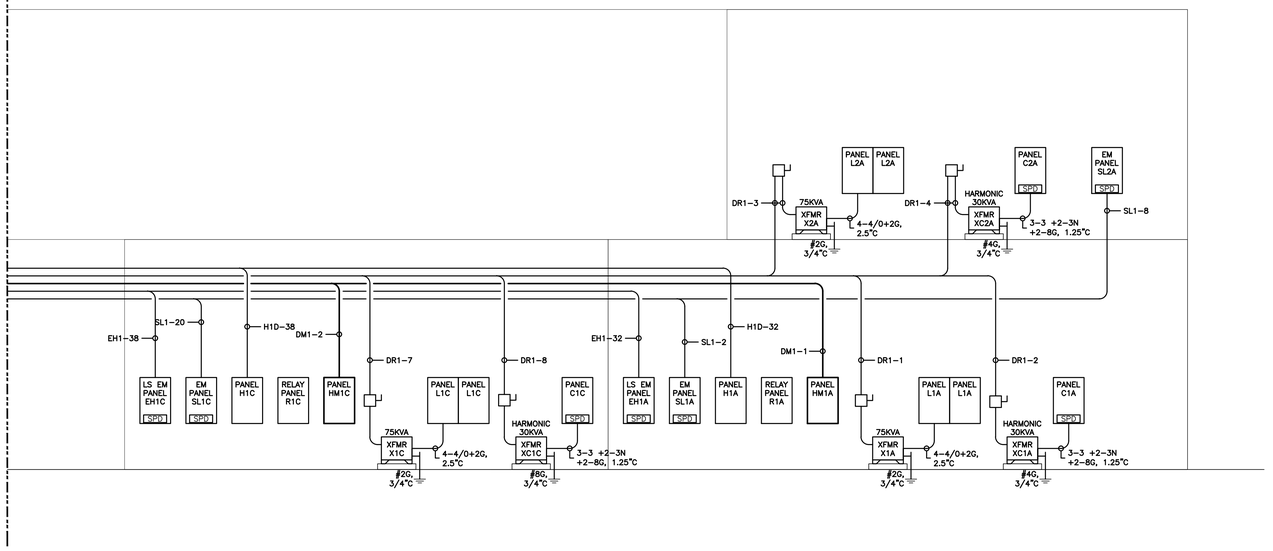


1 CIMARRON ELEMENTARY SCHOOL ELECTRICAL SCHEMATIC

NO SCALE

NOTES:

1. ELECTRICAL SERVICE ENTRANCE SHALL BE CONSTRUCTED TO THE REQUIREMENTS OF THE POWER COMPANY.
   1.A. PRIMARY SERVICE CONDUITS SHALL BE POWER COMPANY REQUIREMENTS.
   1.B. SECONDARY SERVICE CONDUITS SHALL BE RED CONCRETE ENCASED FROM THE PAD MOUNT TRANSFORMER TO THE MAIN SWITCHBOARD.
2. REFERENCE SPECIFICATIONS FOR CONDUIT DEPTH, CONCRETE ENCASEMENT, AND TRACER TAPE REQUIREMENTS.
3. REFERENCE ELECTRICAL FLOOR PLANS FOR PANEL LOCATIONS.
4. ALL OUTAGES SHALL BE SCHEDULED WITH THE OWNER.
5. AT THE END OF THE PROJECT PROVIDE TYPEWRITTEN PANEL SCHEDULE USING BUILDING ROOM NUMBERS FOR ALL PANELS WITH CIRCUITS ADDED, REMOVED, OR MODIFIED AS PART OF THE PROJECT.
6. REFERENCE SHORT CIRCUIT ANALYSIS FOR AIC AND SCCR VALUES.



CIMARRON ES - STANDBY POWER

ELECTRICAL LOAD ANALYSIS

SEG PROJ 2511

LOAD DESCRIPTION — SERVICE VOLTAGE IS 480Y/277 VOLTS, 3 PHASE, 4 WIRE	VA	AMPS
LIGHTS	15420	19
PUMPS	31578	38
HVAC EQUIPMENT	21630	26
ELEVATOR	24099	29
KITCHEN EQUIPMENT ❶ 100%	24122	29
RECEPTACLE LOAD		
PER NEC 220.44, FIRST 10KVA OF RECEPTACLE LOAD ❶ 100%	10000	12
PER NEC 220.44, ADDITIONAL RECEPTACLE LOAD ❷ 50%	15680	19
MISCELLANEOUS ELECTRICAL	17450	21
SUBTOTAL	159979	193
25% X LIGHTS	3855	5
25% X LARGEST MOTOR	6025	7
TOTAL DIVERSIFIED LOAD	169859	204
SERVICE CAPACITY	188000	226
SPARE CAPACITY	18141	22

THE SERVICE IS ADEQUATE FOR THE DESIGN LOADS.

NATURAL GAS STANDBY GENERATOR

480Y/277V, 3 PHASE, 4 WIRE
BASIS OF DESIGN: CUMMINS C150 N6
LEVEL 2 SOUND ENCLOSURE
SEE SPECIFICATIONS FOR OTHER LISTED MANUFACTURERS.

150 KW / 187.5 KVA CAPABLE OF 100% FULL OUTPUT AT SINGLE PHASE.
POWER FACTOR = 1.0 AT 1ϕ / 0.8 AT 3ϕ
MAX DELIVERED FAULT CURRENT (300% RATED CURRENT) = 678.7A

(1) 300A CB OUTPUT – BUILDING STANDBY POWER SYSTEMS

ALL CIRCUIT BREAKERS SHALL BE ELECTRONIC TRIP TYPE, 80% RATED AND COORDINATED WITH DOWNSTREAM PANELS AND CIRCUIT BREAKERS.

ACCESSORIES:
2400W, 208V/1PH BLOCK HEATER
100W, 120V ALTERNATOR HEATER
10A, 12/24V BATTERY CHARGER
INTERNAL WORK LIGHTS
INTERNAL GFCI CONVENIENCE OUTLET
REMOTE E-STOP
REMOTE ANNUNCIATOR
RODENT GUARD

REFERENCE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

NATURAL GAS CONSUMPTION AT FULL CAPACITY: 1915 CFH
MINIMUM GAS PRESSURE: 6" H20
MAXIMUM GAS PRESSURE: 13" H20
SEE PLUMBING DRAWINGS FOR CONNECTIONS

PROVIDE PERMANENT SIGN ON GENERATOR READING: "STANDBY GENERATOR"
LOAD GENERATOR AFTER INSTALLATION AT FULL CAPACITY AND PARTIAL CAPACITY WITH LOAD BANK, PER NFPA 110 REQUIREMENTS.

SHORT CIRCUIT ANALYSIS

SEG PROJECT: 2511

LOCATION	SHORT CIRCUIT AVAILABLE	EQUIPMENT AIC FULLY RATING
SWBD MSB	48,250A	65,000A
CHILLER CH-1	30,500A	35,000A
CHILLER CH-2	27,000A	35,000A
MANUAL TRANSFER SWITCH MTSE	<14,000A	14,000A
MANUAL TRANSFER SWITCH MTSS	<14,000A	14,000A
LS EM TRANSFER SWITCH ATSE	25,000A	35,000A
LS EM PANEL EH1	25,000A	35,000A
STANDBY TRANSFER SWITCH ATSS	25,000A	35,000A
STANDBY PANEL SH1	25,000A	35,000A
DISTRIBUTION PANEL DM1	45,000A	50,000A
PANEL HM1A	18,000A	24,000A
PANEL HM1C	15,000A	24,000A
PANEL HM1D	30,000A	35,000A
DISTRIBUTION PANEL DR1	45,000A	50,000A
PANEL H1D	35,000A	42,000A
PANEL H1E	28,000A	35,000A
480/277V PANELS NOT SHOWN	<14,000A	14,000A
240/208/120V PANELS NOT SHOWN	<10,000A	10,000A
SPD	SPD SHALL HAVE SAME AIC RATING AS SWITCHGEAR TO BE PROTECTED.	

WHERE CIRCUIT BREAKERS ARE APPLIED IN COMPLIANCE WITH THE SERIES COMBINATION RATINGS MARKED ON THE EQUIPMENT BY THE MANUFACTURER, THE ENCLOSURE(S) SHALL BE PERMANENTLY AND LEGIBLY MARKED IN THE FIELD TO INDICATE THE EQUIPMENT HAS BEEN APPLIED USING A SERIES COMBINATION RATING.
ELECTRICAL EQUIPMENT SUPPLIER SHALL PROVIDE A READILY VISIBLE, ENGRAVED NAMEPLATE TO BE PERMANENTLY AFFIXED TO THE EQUIPMENT STATING THE FOLLOWING:
CAUTION ____ SERIES COMBINATION SYSTEM RATED ____ AMPERES.
IDENTIFIED REPLACEMENT COMPONENTS REQUIRED.

A PERMANENTLY AFFIXED LABEL SHALL BE ATTACHED TO ALL NEW ELECTRICAL EQUIPMENT 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.

* MAIN CB FOR LOW VOLTAGE PANELS SHALL HAVE MINIMUM 22,000A SHORT CIRCUIT RATING.

CIMARRON ES - UTILITY POWER

ELECTRICAL LOAD ANALYSIS

SEG PROJ 2511

LOAD DESCRIPTION — SERVICE VOLTAGE IS 480Y/277 VOLTS, 3 PHASE, 4 WIRE	VA	AMPS
LIGHTS — 116636 SQ FT X 1.5 WATTS / SQ FT	174954	211
CHILLERS	583180	702
PUMPS	77757	94
AIR HANDLING UNITS	262431	316
KITCHEN EQUIPMENT ❶ 100%	204113	246
RECEPTACLE LOAD		
PER NEC 220.44, FIRST 10KVA OF RECEPTACLE LOAD ❶ 100%	10000	12
PER NEC 220.44, ADDITIONAL RECEPTACLE LOAD ❷ 50%	140795	169
MISCELLANEOUS ELECTRICAL	145795	175
SUBTOTAL	1599025	1924
25% X LIGHTS (NEC TABLE 220.42(A) VALUES USED)	0	0
25% X LARGEST MOTOR	145795	175
TOTAL DIVERSIFIED LOAD	1744820	2100
SERVICE CAPACITY	2077500	2500
SPARE CAPACITY	332680	400

THE SERVICE IS ADEQUATE FOR THE DESIGN LOADS.

CONSULTANTS

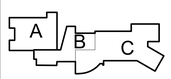
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355



10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E4.00

ELECTRICAL RISER AND SCHEDULES

STANTON ENGINEERING GROUP
TBPE FIRM REG NO F-01633 | ©2025 ALL RIGHTS RESERVED
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042
(713) 300-9292

ELECTRICAL EQUIPMENT SCHEDULE

NOTES	NAME	DESCRIPTION	BASIS OF DESIGN	RATING	SERVES	NORMAL SOURCE CB	EM SOURCE CB	LOAD OUTPUT CB
	GEN	NATURAL GAS STANDBY GENERATOR	CUMMINS	150KW, 480Y/277V	BUILDING STANDBY POWER SYSTEMS	N/A	N/A	(1) 300A
	ATSE	AUTOMATIC TRANSFER SWITCH	EATON ATV	225A, 480Y/277V, 3-POLE XFER	LIFE SAFETY POWER SYSTEMS	–	225A	–
	ATSL	AUTOMATIC TRANSFER SWITCH	EATON ATV	125A, 480Y/277V, 3-POLE XFER	LEGALLY REQUIRED POWER SYSTEMS	–	125A	–
	ATSS	AUTOMATIC TRANSFER SWITCH	EATON ATV	225A, 480Y/277V, 3-POLE XFER	OPTIONAL STANDBY POWER SYSTEMS	–	225A	–
	MTS	MANUAL TRANSFER SWTCH	TRYSTAR TMTS-1	400A, 480Y/277V, 3-POLE XFER	STANDBY POWER SYSTEMS	–	–	–

1. REFERENCE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. REFERENCE GENERATOR SCHEDULE FOR ADDITIONAL INFORMATION.

MAIN ELEC ROOM

SWITCHBOARD MSB

2500A MCB, 480Y/277V, 3Ø, 4 WIRE — AVAILABLE FAULT: 35,000A, SCCR & AIC: 65,000A — FREE STANDING

NOTES	CIRCUIT	DESCRIPTION	CB	FEEDER SIZE	AMPS
1,2	1	PANEL H1D	225/3	4-4/0 +4G, 2.5"C	50A
1,2	2	PANEL H1E	100/3	4-3 +8G, 1.25"C	6A
1,2	3	DISTRIBUTION PANEL DM1	800/3	2-4"C EACH W/ 4-600MCM +1/0G	464A
1,2	4	DISTRIBUTION PANEL DR1	600/3	2-2.5"C EACH W/ 4-350MCM +1G	267A
3	5	EXTERNAL BUILDING METER	15/3	4-12 +12G, 3/4"C	1A
1,2	6	XFMR X1K (KITCHEN)	175/3	3-2/0 +6G, 1.25"C	126A
1,2	7	CHILLER CH-1	500/3	2-2.5"C EACH W/ 3-250MCM +2G	374A
1,2	8	CHILLER CH-2	500/3	2-2.5"C EACH W/ 3-250MCM +2G	374A
	9	LS EM TRANSFER SWITCH ATSE	225/3	4-4/0 +4G, 2.5"C	17A
1,2	10	LR EM TRANSFER SWITCH ATSL	125/3	4-1 +6G, 1.25"C	29A
	11	OS EM TRANSFER SWITCH ATSS	225/3	4-4/0 +4G, 2.5"C	169A
	12	PREPARED SPACE	400/3		0A
	13	PREPARED SPACE	400/3		0A
	14	PREPARED SPACE	225/3		0A
	15	PREPARED SPACE	225/3		0A
				TOTAL LOAD @ 100% =	1878A
				NEC DIVERSIFIED LOAD =	2100A

1. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 240 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
2. PREPARED SPACES SHOWN ARE MINIMUM AMOUNT TO BE PROVIDED WITH NEW DISTRIBUTION PANEL. PROVIDE NAMEPLATE FOR ALL SPACES LISTING MAXIMUM BREAKER SIZE READING FOR EXAMPLE "400/3 SPACE".
3. MAIN CIRCUIT BREAKER SHALL BE 100% RATED WITH LONG, SHORT AND GROUND FAULT TRIP AND SHALL INCLUDE AN REDUCED ENERGY LET THROUGH (RELT) DEVICE WITH LOCAL STATUS BAR PER NEC.

SWITCHBOARD BREAKER NOTES:
1. ELECTRONIC, ADJUSTABLE, LSI BREAKER WITH INTEGRAL METER.
2. PROVIDE MODBUS TCP INTERFACE FOR MONITORING BY BUILDING AUTOMATION SYSTEM (BAS). COORDINATE WITH BAS CONTRACTOR FOR CONNECTION AND PROGRAMMING.
3. EXTERNAL BUILDING METER PROVIDED BY BAS CONTRACTOR, INSTALLED BY DIVISION 26.

MAIN ELEC ROOM

DISTRIBUTION PANEL DM1

800A MLO, 480Y/277V, 3Ø, 4 WIRE — AVAILABLE FAULT: 35,000A, SCCR & AIC: 50,000A — FREE STANDING

NOTES	CIRCUIT	DESCRIPTION	CB	FEEDER SIZE	AMPS
	1	PANEL HM1A	400/3	2-2"C EACH W/ 4-3/0 +3G	148A
	2	PANEL HM1C	225/3	4-4/0 +4G, 2.5"C	123A
	3	PANEL HM1D	400/3	2-2"C EACH W/ 4-3/0 +3G	192A
	4	SPARE	225/3		0A
	5	INTEGRAL SPD	60/3	4-6 +10G	0A
	6	PREPARED SPACE	225/3		0A
	7	PREPARED SPACE	100/3		0A
	8	PREPARED SPACE	100/3		0A
				TOTAL LOAD @ 100% =	464A
				TOTAL LOAD @ 125% =	579A

1. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 150 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
2. PREPARED SPACES SHOWN ARE MINIMUM AMOUNT TO BE PROVIDED WITH NEW DISTRIBUTION PANEL. PROVIDE NAMEPLATE FOR ALL SPACES LISTING MAXIMUM BREAKER SIZE READING FOR EXAMPLE "400/3 SPACE".

MAIN ELEC ROOM

DISTRIBUTION PANEL DR1

600A MLO, 480Y/277V, 3Ø, 4 WIRE — AVAILABLE FAULT: 35,000A, SCCR & AIC: 50,000A — FREE STANDING

NOTES	CIRCUIT	DESCRIPTION	CB	FEEDER SIZE	AMPS
	1	XFMR X1A (PANEL L1A)	125/3	3-1 +6G, 1.25"C	44A
	2	XFMR XC1A (PANEL C1A)	50/3	3-6 +8G, 1"C	23A
	3	XFMR X2A (PANEL L2A)	125/3	3-1 +6G, 1.25"C	47A
	4	XFMR XC2A (PANEL C2A)	50/3	3-6 +8G, 1"C	6A
	5	XFMR X1B (PANEL L1B)	50/3	3-6 +8G, 1"C	22A
	6	XFMR XC1B (PANEL C1B)	50/3	3-6 +8G, 1"C	8A
	7	XFMR X1C (PANEL L1C)	125/3	3-1 +6G, 1.25"C	44A
	8	XFMR XC1C (PANEL C1C)	50/3	3-6 +8G, 1"C	18A
	9	XFMR X1D (PANELS L1D & L1E)	125/3	3-1 +6G, 1.25"C	47A
	10	XFMR XC1D (PANEL C1D)	50/3	3-6 +8G, 1"C	8A
	11	INTEGRAL SPD	60/3	4-6 +10G	0A
	12	PREPARED SPACE	225/3		0A
	13	PREPARED SPACE	225/3		0A
	14	PREPARED SPACE	100/3		0A
				TOTAL LOAD @ 100% =	267A
				TOTAL LOAD @ 125% =	334A

1. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 150 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
2. PREPARED SPACES SHOWN ARE MINIMUM AMOUNT TO BE PROVIDED WITH NEW DISTRIBUTION PANEL. PROVIDE NAMEPLATE FOR ALL SPACES LISTING MAXIMUM BREAKER SIZE READING FOR EXAMPLE "400/3 SPACE".

CONSULTANTS

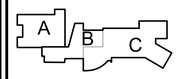
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E4.10

ELECTRICAL EQUIPMENT AND PANEL SCHEDULES

STANTON ENGINEERING GROUP
TBPE/TBAE/TBPLS FIRM REG NO F-10783/22 | ©2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

PANEL L1A (SEC 1)

225A MCB | 208Y/120V, 3ø, 4 WIRE | AVAILABLE FAULT: <10,000A | SCCR & AIC: 22,000A | MOUNTING: SURFACE | DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	900	5 REC	3–12	20/1	1	■			2	20/1	3–12	6 REC – CORRIDOR, EXTERIOR	1080	
	900	5 REC	3–12	20/1	3		■		4	20/1	3–12	2 REC	360	
	900	5 REC	3–12	20/1	5			■	6	20/1	3–12	2 EDF	1000	
	900	5 REC	3–12	20/1	7	■			8	20/1	3–12	7 REC – CORRIDOR, EXTERIOR	1260	
	900	5 REC	3–12	20/1	9		■		10	20/1	3–12	4 REC	720	
		SPARE		20/1	11			■	12	20/1	3–12	2 EDF	1000	
	900	5 REC	3–12	20/1	13	■			14	20/1	3–12	2 EDF	1000	
	360	2 REC	3–12	20/1	15		■		16	20/1	3–12	6 REC – CORRIDOR, EXTERIOR	1080	
	900	5 REC	3–12	20/1	17			■	18	20/1	3–12	SINGLE USER RR LTS	38	
	360	2 REC	3–12	20/1	19	■			20	20/1	3–12	4 REC	720	
	900	5 REC	3–12	20/1	21		■		22	20/1	3–12	3 REC	540	
	360	2 REC	3–12	20/1	23			■	24	20/1	3–12	3 REC	540	
	900	5 REC	3–12	20/1	25	■			26	20/1	3–12	4 REC	720	
	360	2 REC	3–12	20/1	27		■		28	20/1	3–12	1 REC	180	
		SPARE		20/1	29			■	30	30/2	2–10	COPY MACHINE	2000	
	900	5 REC	3–12	20/1	31	■			32	–	+10N+10G	(120/208V, 1ϕ)	–	
	900	5 REC	3–12	20/1	33		■		34	20/1	3–12	5 REC	900	
	900	5 REC	3–12	20/1	35			■	36	20/1	3–12	AHU–A1,A2,A3 UV LIGHTS	750	
	900	5 REC	3–12	20/1	37	■			38	20/1		SPARE		
		SPARE		20/1	39		■		40	20/1		SPARE		
		SPARE		20/1	41			■	42	20/1		SPARE		

TOTAL LOAD ❶ 100% = 36748VA | TOTAL LOAD ❷ 100% = 102A | TOTAL LOAD ❷ 125% = 128A

PANEL L1A (SEC 2)

225A MLO | 208Y/120V, 3ø, 4 WIRE | AVAILABLE FAULT: <10,000A | SCCR & AIC: 22,000A | MOUNTING: SURFACE | DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	900	5 REC	3–12	20/1	43	■			44	20/1	3–10	6 REC	1080	
	1260	7 REC	3–12	20/1	45		■		46	20/1	3–10	4 REC	720	
	1080	6 REC	3–12	20/1	47			■	48	20/1	3–10	5 REC	900	
	1260	7 REC	3–12	20/1	49	■			50	20/1	3–10	5 REC	900	
	900	5 REC	3–12	20/1	51		■		52	20/1	3–10	4 REC	360	
	360	2 REC	3–12	20/1	53			■	54	20/1		SPARE		
		SPARE		20/1	55	■			56	20/1		SPARE		
		SPARE		20/1	57		■		58	20/1		SPARE		
		SPARE		20/1	59			■	60	20/1		SPARE		
		SPARE		20/1	61	■			62	20/1		SPARE		
		SPARE		20/1	63		■		64	20/1		SPARE		
		SPARE		20/1	65			■	66	20/1		SPARE		
		SPACE			67	■			68			SPACE		
		SPACE			69		■		70			SPACE		
		SPACE			71			■	72			SPACE		
		SPACE			73	■			74			SPACE		
		SPACE			75		■		76			SPACE		
		SPACE			77			■	78			SPACE		
		SPACE			79	■			80			SPACE		
		SPACE			81		■		82			SPACE		
		SPACE			83			■	84			SPACE		

TOTAL LOAD ❶ 100% = 36748VA | TOTAL LOAD ❷ 100% = 102A | TOTAL LOAD ❷ 125% = 128A

IG PANEL

PANEL C1A

100A MCB | 208Y/120V, 3ø, 4 WIRE | AVAILABLE FAULT: <10,000A | SCCR & AIC: 10,000A | MOUNTING: SURFACE | DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	800	4 IG REC	3–12	20/1	1	■			2	20/1	3–10	4 IG REC	800	
	800	4 IG REC	3–12	20/1	3		■		4	20/1	3–10	4 IG REC & 3 SPEAKERS	1000	
	500	2 IG REC & 2 SPEAKERS	3–12	20/1	5			■	6	20/1	3–10	MUSIC ROOM SPEAKERS	500	
	800	4 IG REC	3–12	20/1	7	■			8	20/1	3–10	2 IG REC	400	
	800	4 IG REC	3–12	20/1	9		■		10	20/1	3–10	4 IG REC	800	
	750	3 IG REC & 3 SPEAKERS	3–12	20/1	11			■	12	20/1	3–10	4 IG REC	800	
	800	4 IG REC	3–12	20/1	13	■			14	20/1	3–10	4 IG REC	800	
		SPARE		20/1	15		■		16	20/1	3–10	2 IG REC	400	
	500	2 IG REC & 2 SPEAKERS	3–12	20/1	17			■	18	20/1	3–10	4 IG REC	800	
	500	2 IG REC & 2 SPEAKERS	3–12	20/1	19	■			20	20/1	3–10	4 IG REC	800	
		SPARE		20/1	21		■		22	20/1	3–10	2 IG REC	400	
	800	4 IG REC	3–12	20/1	23			■	24	20/1	3–10	4 IG REC	800	
	800	4 IG REC	3–12	20/1	25	■			26	20/1	3–10	1 IG REC & 1 SPEAKER	250	
	500	2 IG REC & 2 SPEAKERS	3–12	20/1	27		■		28	20/1		SPARE		
	800	4 IG REC	3–12	20/1	29			■	30	20/1		SPARE		
	800	4 IG REC	3–12	20/1	31	■			32	20/1		SPARE		
	500	2 IG REC & 2 SPEAKERS	3–12	20/1	33		■		34	20/1		SPARE		
	400	2 IG REC	3–12	20/1	35			■	36	20/1		SPARE		
		SPARE		20/1	37	■			38	20/1		SPARE		
		SPARE		20/1	39		■		40	20/1		SPARE		
		SPARE		20/1	41			■	42	20/1		SPARE		

TOTAL LOAD ❶ 100% = 19400VA | TOTAL LOAD ❷ 100% = 54A | TOTAL LOAD ❷ 125% = 67A

1. PROVIDE ISOLATED GROUND BUSS, EGC BUSS & 200% NEUTRAL.
2. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
3. FOR ALL ISOLATED GROUND (IG) AND COMPUTER (CP) CIRCUITS PROVIDE A GREEN GROUNDING WIRE BONDED TO EACH END OF THE CONDUIT IN ADDITION TO THE ISOLATED GROUND WIRE.

EM LIFE SAFETY PANEL

PANEL EH1A

100A MLO | 480Y/277V, 3ø, 4 WIRE | AVAILABLE FAULT: <14,000A | SCCR & AIC: 14,000A | MOUNTING: SURFACE | DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	1500	1ST FLR CORRIDOR EM LTS	3–12	20/1	1	■			2	20/1	3–12	2ND FLR CORRIDOR EM LTS	1500	
	1500	1ST FLR ROOM EM LTS	3–12	20/1	3		■		4	20/1	3–12	2ND FLR ROOM EM LTS	3000	
	250	1ST FLR EXIT SIGNS	3–12	20/1	5			■	6	20/1	3–12	2ND FLR EXIT SIGNS	250	
		SPARE		20/1	7	■			8	20/1		SPARE		
		SPARE		20/1	9		■		10	20/1		SPARE		
		SPARE		20/1	11			■	12	20/1		SPARE		
		SPARE		20/1	13	■			14	20/1		SPARE		
		SPARE		20/1	15		■		16	20/1		SPARE		
		SPARE		20/1	17			■	18	20/1		SPARE		
		SPACE			19	■			20			SPACE		
		SPACE			21		■		22			SPACE		
		SPACE			23			■	24			SPACE		
		SPACE			25	■			26			SPACE		
		SPACE			27		■		28			SPACE		
		SPACE			29			■	30			SPACE		
		SPACE			31	■			32			SPACE		
		SPACE			33		■		34			SPACE		
		SPACE			35			■	36			SPACE		
		SPACE			37	■			38			SPACE		
		SPACE			39		■		40			SPACE		
		SPACE			41			■	42			SPACE		

TOTAL LOAD ❶ 100% = 8000VA | TOTAL LOAD ❷ 100% = 10A | TOTAL LOAD ❷ 125% = 12A

1. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.

EM STANDBY IG PANEL

PANEL SL1A

100A MLO | 208Y/120V, 3ø, 4 WIRE | AVAILABLE FAULT: <10,000A | SCCR & AIC: 10,000A | MOUNTING: SURFACE | DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	360	2 REC MECH/ELEC A115	3–12	20/1	1	■			2	20/1	3–12	BAS PANEL	250	
	900	REFRIGERATOR – WORKROOM	3–12	20/1	3		■		4	20/1	3–12	MECH/ELEC & IDF LIGHTS	250	
	900	ICE MACHINE – WORKROOM	3–12	20/1	5			■	6	20/1	3–12	DOOR HARDWARE	150	
		SPARE		20/1	7	■			8			SPACE		
		SPARE		20/1	9		■		10			SPACE		
		SPARE		20/1	11			■	12			SPACE		
		SPARE		20/1	13	■			14			SPACE		
		SPARE		20/1	15		■		16			SPACE		
		SPARE		20/1	17			■	18	20/1	3–12	IDF 1 REC	180	
		SPARE		20/1	19	■			20	20/1	3–12	IDF 2 IG REC	360	
		SPACE			21		■		22	20/1	3–12	IDF IG QUAD	360	
		SPACE			23			■	24	30/2	2–10	IDF IG NEMA REC	1500	
		SPACE			25	■			26	–	+10G	–	–	
		SPACE			27		■		28	20/1	3–12	IDF IG QUAD–RACK MOUNT	360	
		SPACE			29			■	30	20/2	2–12	IDF IG NEMA REC–RACK MOUNT	1000	
		SPACE			31	■			32	–	+12G	–	–	
		SPACE			33		■		34	20/1	3–12	IDF IG QUAD–RACK MOUNT	360	
		SPACE			35			■	36	20/2	2–12	IDF IG NEMA REC–RACK MOUNT	1000	
		SPACE			37	■			38	–	+12G	–	–	
		SPACE			39		■		40	30/2	2–10	ACCU–A1 / FCU–A1	3973	
		SPACE			41			■	42	–	+10G	–	–	

TOTAL LOAD ❶ 100% = 11903VA | TOTAL LOAD ❷ 100% = 33A | TOTAL LOAD ❷ 125% = 41A

1. PROVIDE ISOLATED GROUND BUSS, EGC BUSS & 200% NEUTRAL.
2. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
3. FOR ALL ISOLATED GROUND (IG) AND COMPUTER (CP) CIRCUITS PROVIDE A GREEN GROUNDING WIRE BONDED TO EACH END OF THE CONDUIT IN ADDITION TO THE ISOLATED GROUND WIRE.

LIGHTING PANEL

PANEL H1A

100A MLO | 480Y/277V, 3ø, 4 WIRE | AVAILABLE FAULT: <14,000A | SCCR & AIC: 14,000A | MOUNTING: SURFACE | DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	2352	CORRIDOR LIGHTS–1ST FLOOR	3–12	20/1	1	■			2	20/1	3–12	CORRIDOR LIGHTS–2ND FLOOR	1973	
	3018	CLASSROOM LIGHTS–1ST FLOOR	3–12	20/1	3		■		4	20/1	3–12	CLASSROOM LIGHTS–2ND FLOOR	2686	
	2429	CLASSROOM LIGHTS–1ST FLOOR	3–12	20/1	5			■	6	20/1	3–12	CLASSROOM LIGHTS–2ND FLOOR	3202	
	1609	ROOM LIGHTS–1ST FLOOR	3–12	20/1	7	■			8	20/1	3–12	ROOM LIGHTS–2ND FLOOR	997	
	3108	LIBRARY LIGHTS	3–12	20/1	9		■		10	20/1		SPARE		
		SPARE		20/1	11			■	12	20/1		SPARE		
		SPARE		20/1	13	■			14	20/1		SPARE		
		SPARE		20/1	15		■		16	20/1		SPARE		
		SPARE		20/1	17			■	18	20/1		SPARE		
		SPACE			19	■			20			SPACE		
		SPACE			21		■		22			SPACE		
		SPACE			23			■	24			SPACE		
		SPACE			25	■			26			SPACE		
		SPACE			27		■		28			SPACE		
		SPACE			29			■	30			SPACE		
		SPACE			31	■			32			SPACE		
		SPACE			33		■		34			SPACE		
		SPACE			35			■	36			SPACE		
		SPACE			37	■			38			SPACE		
		SPACE			39		■		40			SPACE		
		SPACE			41			■	42			SPACE		

TOTAL LOAD ❶ 100% = 21374VA | TOTAL LOAD ❷ 100% = 26A | TOTAL LOAD ❷ 125% = 32A

1. PROVIDE EXTERNAL SPD WITH MINIMUM RATING OF 100KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
2. COORDINATE WITH OTHER TRADES FOR CONNECTION REQUIREMENTS.

BUILDING EQUIPMENT PANEL

PANEL HM1A

400A MLO | 480Y/277V, 3ø, 4 WIRE | AVAILABLE FAULT: <14,000A | SCCR & AIC: 14,000A | MOUNTING: SURFACE | DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	29417	AHU–A1	3–8	50/3	1	■			2	45/3	3–8	ERV–A1 SUPPLY FAN	27423	
	–	(6 x 4.5 HP)	+10G	–	3		■		4	–	+10G	(3 x 7.5 HP)	–	
	–	–	3/4"C	–	5			■	6	–	3/4"C	–	–	
	24930	AHU–A2	3–8	50/3	7	■			8	35/3	3–8	ERV–A1 EXHAUST FAN	18282	
	–	(6 x 4 HP)	+10G	–	9		■		10	–	+10G	(2 x 7.5 HP)	–	
	–	–	3/4"C	–	11			■	12	–	3/4"C	–	–	
	2909	AHU–A3	3–12	15/3	13	■			14	15/3	3–12	ERV–A1 WHEEL	2493	
	–	(2.5 HP)	+12G	–	15		■		16	–	+12G	(1.5 HP)	–	
	–	–	3/4"C	–	17			■	18	–	3/4"C	–	–	
		SPACE			19	■			20	15/3	3–12	EF–A1	2825	
		SPACE			21		■		22	–	+12G	(2 HP)	–	
		SPACE			23			■	24	–	3/4"C	–	–	
		SPACE			25	■			26	25/3	3–10	WATER HEATER EWH–A1	15000	
		SPACE			27		■		28	–	+10G	–	–	
		SPACE			29			■	30	–	3/4"C	–	–	
		SPACE			31	■			32			SPACE		
		SPACE			33		■		34			SPACE		
		SPACE			35			■	36			SPACE		
		SPACE			37	■			38			SPACE		
		SPACE			39		■		40			SPACE		
		SPACE			41			■	42			SPACE		

TOTAL LOAD ❶ 100% = 123279VA | TOTAL LOAD ❷ 100% = 148A | TOTAL LOAD ❷ 125% = 185A

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

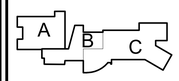
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E4.11

PANEL SCHEDULES
FIRST FLOOR - AREA A

STANTON ENGINEERING GROUP
MEP/FP/TECHNOLOGY/TELECOM | TBPE/ENG FIRM REG. NO. F-12763/ET | © 2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

PANEL L1B

MECH/ELEC B147

100A MCB, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A — SCCR & AIC: 10,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	1620	9 REC	3–12	20/1	1	■			2	20/1	3–12	4 REC – CORRIDOR	720	
	1080	6 REC	3–12	20/1	3		■		4	20/1	3–12	1 EDF	500	
	1260	5 REC & FLOOR BOX	3–12	20/1	5			■	6	20/1	3–12	3 REC	540	
	1440	6 REC & FLOOR BOX	3–12	20/1	7	■			8	20/1	3–12	CIRC PUMP CP–B1	250	
	1440	6 REC & FLOOR BOX	3–12	20/1	9		■		10	20/1	3–12	5 REC	900	
	1080	6 REC	3–12	20/1	11			■	12	20/1	3–12	2 REC	360	
	1080	6 REC	3–12	20/1	13	■			14	20/1	3–12	1 REC	180	
	720	4 REC	3–12	20/1	15		■		16	30/2	2–10	COPY MACHINE	2000	
	329	SINGLE USER RR LTS	3–12	20/1	17			■	18	–	+10N+10G	(120/208V, 1ϕ)	–	
	540	3 REC	3–12	20/1	19	■			20	20/1	3–12	AHU–B1 UV LIGHTS	250	
	360	2 REC	3–12	20/1	21		■		22	20/1		SPARE		
	540	3 REC	3–12	20/1	23			■	24	20/1		SPARE		
		SPARE		20/1	25	■			26	20/1		SPARE		
	720	4 REC	3–12	20/1	27		■		28			SPACE		
		SPARE		20/1	29			■	30			SPACE		
		SPARE		20/1	31	■			32			SPACE		
		SPARE		20/1	33		■		34			SPACE		
		SPARE		20/1	35			■	36			SPACE		
		SPARE		20/1	37	■			38			SPACE		
		SPARE		20/1	39		■		40			SPACE		
		SPARE		20/1	41			■	42			SPACE		

TOTAL LOAD ❶ 100% = 17909VA — TOTAL LOAD ❷ 100% = 50A — TOTAL LOAD ❸ 125% = 62A

IG PANEL

PANEL C1B

MECH/ELEC B147

100A MCB, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A — SCCR & AIC: 10,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	1450	6 IG REC & DISPLAY	3–12	20/1	1	■			2			SPACE		
	800	4 IG REC	3–12	20/1	3		■		4			SPACE		
	750	3 DISPLAYS	3–12	20/1	5			■	6			SPACE		
	400	2 IG REC	3–12	20/1	7	■			8			SPACE		
	1050	4 IG REC & DISPLAY	3–12	20/1	9		■		10			SPACE		
	800	4 IG REC	3–12	20/1	11			■	12			SPACE		
	400	2 IG REC	3–12	20/1	13	■			14			SPACE		
	600	3 IG REC	3–12	20/1	15		■		16			SPACE		
	250	1 DISPLAY – RECEPTION	3–12	20/1	17			■	18			SPACE		
		SPARE		20/1	19	■			20			SPACE		
		SPARE		20/1	21		■		22			SPACE		
		SPARE		20/1	23			■	24			SPACE		
		SPARE		20/1	25	■			26			SPACE		
		SPARE		20/1	27		■		28			SPACE		
		SPARE		20/1	29			■	30			SPACE		
		SPARE		20/1	31	■			32			SPACE		
		SPARE		20/1	33		■		34			SPACE		
		SPARE		20/1	35			■	36			SPACE		
		SPARE		20/1	37	■			38			SPACE		
		SPARE		20/1	39		■		40			SPACE		
		SPARE		20/1	41			■	42			SPACE	0	

TOTAL LOAD ❶ 100% = 6500VA — TOTAL LOAD ❷ 100% = 18A — TOTAL LOAD ❸ 125% = 23A

1. PROVIDE ISOLATED GROUND BUSS, EGC BUSS & 200% NEUTRAL.
2. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
3. FOR ALL ISOLATED GROUND (IG) AND COMPUTER (CP) CIRCUITS PROVIDE A GREEN GROUNDING WIRE BONDED TO EACH END OF THE CONDUIT IN ADDITION TO THE ISOLATED GROUND WIRE.

EM STANDBY IG PANEL

PANEL SL1B

MECH/ELEC B147

100A MLO, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A — SCCR & AIC: 10,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	360	2 REC MECH/ELEC A115	3–12	20/1	1	■			2	20/1	3–12	BAS PANEL	250	
	900	REFRIGERATOR – WORKROOM	3–12	20/1	3		■		4	20/1	3–12	MECH/ELEC & IDF LIGHTS	180	
	900	ICE MACHINE – WORKROOM	3–12	20/1	5			■	6	20/1	3–12	ADMIN DOOR HARDWARE	200	
		SPARE		20/1	7	■			8			SPACE		
	900	REFRIGERATOR – CLINIC	3–12	20/1	9		■		10			SPACE		
	540	3 REC – CLINIC	3–12	20/1	11			■	12			SPACE		
	900	5 REC – CLINIC	3–12	20/1	13	■			14			SPACE		
	800	4 IG REC – CLINIC OFFICE	3–12	20/1	15		■		16			SPACE		
		SPARE		20/1	17			■	18			SPACE		
		SPARE		20/1	19	■			20	20/1	3–12	RECEPTION PA CABINET	250	
		SPARE		20/1	21		■		22	20/1	3–12	IDF 1 REC	180	
		SPARE		20/1	23			■	24	20/1	3–12	IDF 2 IG REC	360	
		SPARE		20/1	25	■			26	20/1	3–12	IDF IG QUAD	360	
		SPARE		20/1	27		■		28	30/2	2–10	IDF IG NEMA REC	1500	
		SPARE		20/1	29			■	30	–	+10G	–	–	
		SPACE			31	■			32	20/1	3–12	IDF IG QUAD–RACK MOUNT	360	
		SPACE			33		■		34	20/2	2–12	IDF IG NEMA REC–RACK MOUNT	1000	
		SPACE			35			■	36	–	+12G	–	–	
		SPACE			37	■			38	20/1	3–12	IDF IG QUAD–RACK MOUNT	360	
	600	MOTORIZED GATE	2–8	15/2	39		■		40	20/2	2–12	IDF IG NEMA REC–RACK MOUNT	1000	
	–	–	+8N+8G	1"C	41			■	42	–	+12G	–	–	

TOTAL LOAD ❶ 100% = 11900VA — TOTAL LOAD ❷ 100% = 33A — TOTAL LOAD ❸ 125% = 41A

1. PROVIDE ISOLATED GROUND BUSS, EGC BUSS & 200% NEUTRAL.
2. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
3. FOR ALL ISOLATED GROUND (IG) AND COMPUTER (CP) CIRCUITS PROVIDE A GREEN GROUNDING WIRE BONDED TO EACH END OF THE CONDUIT IN ADDITION TO THE ISOLATED GROUND WIRE.

KITCHEN PANEL

PANEL L1KA

KITCHEN B131

400A MLO, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A — SCCR & AIC: 10,000A — MOUNTING: RECESSED — STAINLESS STEEL

NOTES	EQUIP. NO.	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	EQUIP. NO.	NOTES
	E10/E13	640	3 REC –RR/LOCKER/CUST & BELL	3–12	20/1	1	■			2	20/3	3–12	DISPOSER	3980	E120M	
	E110	1920	WASHING MACHINE	3–12	20/1GFI	3		■		4	–	+12G	(3 HP)	–		
	E110A	5000	DRYER	2–10	30/2GFI	5			■	6	–	3/4"C	–	–		
		–	–	+10N+10G	3/4"C	7	■			8	35/3	3–8	POWER SOAK SINK	9612	E256	
		1080	6 REC – OFFICE	3–12	20/1	9		■		10	–	+10G	–	–		
	E10	360	2 REC – KITCHEN	3–12	20/1	11			■	12	–	3/4"C	–	–		
	E10	360	2 REC – KITCHEN	3–12	20/1	13	■			14	20/3	3–12	DISPOSER	3960	E123	
	E10/E13	360	2 REC – KITCHEN	3–12	20/1	15		■		16	–	+12G	(3 HP)	–		
	E10	360	2 REC – DRY STORAGE	3–12	20/1	17			■	18	–	3/4"C	–	–		
	E256C	600	1 REC – WAREWASH	3–12	20/1	19	■			20	60/3	4–6	LOAD CENTER–SERVING LINE	13248	E201C	
	E10	360	2 REC – SERVING LINE	3–12	20/1	21		■		22	–	+10G	–	–		
	E11	360	2 REC – SERVING LINE	3–12	20/1	23			■	24	–	1"C	–	–		
	E10	360	2 REC – SERVING LINE	3–12	20/1	25	■			26	60/3	4–6	LOAD CENTER–SERVING LINE	13248	E201C	
	E11	360	2 REC – SERVING LINE	3–12	20/1	27		■		28	–	+10G	–	–		
	E615	500	MENU BOARDS	3–12	20/1GFI	29			■	30	–	1"C	–	–		
	E10/E11	540	3 REC – KITCHEN	3–12	20/1	31	■			32	20/1	3–12	AIR SCREEN	612	E101	
	E187	3224	HEATED CABINET	2–10	20/2	33		■		34	20/1	3–12	2 REC – KITCHEN	360	E10	
		–	(120/208V, 1ϕ)	+10N+10G	3/4"C	35			■	36	20/1	3–12	1 REC – KITCHEN	180	E11A	
	E187	3224	HEATED CABINET	2–10	20/2	37	■			38	35/2	2–8	MICROWAVE OVEN	5824	E184	
		–	(120/208V, 1ϕ)	+10N+10G	3/4"C	39		■		40	3/4"C	+10G	–	–		
			SPARE		20/1	41			■	42	20/1	3–12	ROLLUP GRILLE	1200		
			SPARE		20/1	43	■			44			SPACE			
			SPARE		20/1	45		■		46			SPACE			
			SPARE		20/1	47			■	48			SPACE			
			SPARE		20/1	49	■			50			SPACE			
			SPARE		20/1	51		■		52			SPACE			
			SPARE		20/1	53			■	54			SPACE			

TOTAL LOAD ❶ 100% = 104856VA — TOTAL LOAD ❷ 100% = 291A — TOTAL LOAD ❸ 65% = 189A

1. REF. KITCHEN CONSULTANT'S "FS" DRAWINGS FOR KITCHEN EQUIPMENT NUMBERS.
2. PROVIDE MATCHING BACKBOX AND COVER SIZES FOR ALL KITCHEN PANELS.
3. A DEMAND FACTOR PERCENT OF 65% HAS BEEN APPLIED TO THE KITCHEN EQUIPMENT LOAD PURSUANT TO NEC 220–20 AND NEC TABLE 220–20.

KITCHEN PANEL

PANEL L1KB

KITCHEN B131

400A MLO, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A — SCCR & AIC: 10,000A — MOUNTING: RECESSED — STAINLESS STEEL

NOTES	EQUIP. NO.	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	EQUIP. NO.	NOTES
	E184	5824	MICROWAVE OVEN	2–8	35/2	1	■			2	20/1	3–12	HOOD ANSUL SYSTEMS	240	E151	A
		–	–	+10G	3/4"C	3		■		4	20/1	3–12	HOOD LTS & SENSOR	250	E153/E153M	
	E11/E131	360	2 REC – KITCHEN	3–12	20/1	5			■	6	20/1	3–12	6 BURNER RANGE	480	E632	A
	E10	180	1 REC – KITCHEN	3–12	20/1	7	■			8	20/1	3–12	STEAMER	120	E711	A
	E11A/E131	360	2 REC – KITCHEN	3–12	20/1	9		■		10	20/1	3–12	STEAMER	120	E711	A
	E11	360	2 REC – KITCHEN	3–12	20/1	11			■	12	20/1	3–12	STEAMER	120	E711	A
	E10	180	1 REC – KITCHEN	3–12	20/1	13	■			14	20/1	3–12	STEAMER	120	E711	A
	E11	360	2 REC – KITCHEN	3–12	20/1	15		■		16	20/1	3–12	COMBI OVEN	900	E804	A
	E144	180	TABLE RECEPTACLE	3–12	20/1	17			■	18	20/1	3–12	COMBI OVEN	900	E804	A
	E144	180	TABLE RECEPTACLE	3–12	20/1	19	■			20	20/1		SPARE			
	E139A	1920	INSULATED MOBILE PROOFER	3–12	20/1	21		■		22	20/1	3–12	HOOD ANSUL SYSTEMS	240	E151	A
	E125	960	MOBILE PROOFER	3–12	20/1	23			■	24	20/1	3–12	HOOD LTS & SENSOR	250	E153/E153M	
	E11	360	2 REC – KITCHEN	3–12	20/1	25	■			26	45/2	2–8	TURBOCHEF	7400	E654	A
	E139	1920	INSULATED MOBILE PROOFER	3–12	20/1	27		■		28	–	+10G	–	–		A
	E123	3960	DISPOSER	3–12	20/3	29			■	30	20/1	3–12	TILT BRAISING PAN	1920	E163	A
		–	(3 HP)	+12G	–	31	■			32	20/1	3–12	CONVECTION OVEN	720	E161	A
		–	–	3/4"C	–	33		■		34	20/1	3–12	CONVECTION OVEN	720	E161	A
			SPARE		20/1	35			■	36	20/1	3–12	CONVECTION OVEN	720	E161	A
			SPARE		20/1	37	■			38	20/1	3–12	CONVECTION OVEN	720	E161	A
			SPARE		20/1	39		■		40			SPACE			
			SPARE		20/1	41			■	42			SPACE			
			SPARE		20/1	43	■			44			SPACE			
			SPARE		20/1	45		■		46			SPACE			
			SPARE		20/1	47			■	48			SPACE			
			SPARE		20/1	49	■			50			SPACE			
			SPARE		20/1	51		■		52			SPACE			
			SPARE		20/1	53			■	54			SPACE			

TOTAL LOAD ❶ 100% = 33044VA — TOTAL LOAD ❷ 100% = 92A — TOTAL LOAD ❸ 65% = 60A

1. REF. KITCHEN CONSULTANT'S "FS" DRAWINGS FOR KITCHEN EQUIPMENT NUMBERS.
2. PROVIDE MATCHING BACKBOX AND COVER SIZES FOR ALL KITCHEN PANELS.
3. A DEMAND FACTOR PERCENT OF 65% HAS BEEN APPLIED TO THE KITCHEN EQUIPMENT LOAD PURSUANT TO NEC 220–20 AND NEC TABLE 220–20.

PANEL NOTES:
A. WIRE KITCHEN EQUIPMENT BENEATH HOODS THROUGH KITCHEN HOOD CONTACTORS. INTERLOCK CONTACTORS WITH KITCHEN FIRE SUPPRESSION SYSTEM.

EM STANDBY KITCHEN PANEL

PANEL SL1K

KITCHEN B131

100A MLO, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A — SCCR & AIC: 10,000A — MOUNTING: RECESSED — STAINLESS STEEL

NOTES	EQUIP. NO.	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	EQUIP. NO.	NOTES
	E109	1428	ICE MACHINE	3–12	20/1	1	■			2	55/3	3–6	REFRIGERATION SYSTEM	11988	E103	
	E188	864	REFRIGERATOR	3–12	20/1	3		■		4	–	+10G	–	–		
	E188	864	REFRIGERATOR	3–12	20/1	5			■	6	–	3/4"C	–	–		
			SPARE		20/1	7	■			8	20/1EGF	3–12	FREEZER DOOR HEATER/LTS	600	E102A	
			SPARE		20/1	9		■		10	20/1	3–12	FREEZER TEMP. ALARM	600	E102B	
			SPARE		20/1	11			■	12	20/1	3–12	FREEZER PRESSURE PORT	600	E102C	
			SPARE		20/1	13	■			14	20/2	2–10	FREEZER COIL	3328	E103C	
			SPARE		20/1	15		■		16	–	+10G	–	–		
			SPARE		20/1	17			■	18	20/1EGF	3–12	FREEZER DRAIN LINE HEATER	600	E103F	
			SPARE		20/1	19	■			20	20/1	3–12	PANIC ALARM BUTTONS	250	E102E	
			SPARE		20/1	21		■		22	20/1EGF	3–12	COOLER DOOR HEATER/LTS	600	E102A	
			SPACE			23			■	24	20/1	3–12	COOLER TEMP. ALARM	600	E102B	
			SPACE			25	■			26	20/1	3–12	COOLER PRESSURE PORT	600	E102C	
			SPACE			27		■		28	20/1	3–12	COOLER COIL	1200	E103D	
			SPACE			29			■	30	20/1		SPARE			

TOTAL LOAD ❶ 100% = 24122VA — TOTAL LOAD ❷ 100% = 67A — TOTAL LOAD ❸ 125% = 84A

1. REF. KITCHEN CONSULTANT'S "FS" DRAWINGS FOR KITCHEN EQUIPMENT NUMBERS.
2. PROVIDE MATCHING BACKBOX AND COVER SIZES FOR ALL KITCHEN PANELS.
3. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.

KITCHEN HOOD CONTACTOR SCHEDULE

HOOD 1 - PRODUCTION AREA 'A'

POLE	DESCRIPTION	NORMAL CKT	EM CKT	CONTROL ZONE	EQUIPMENT LOCATION	CONTACTOR TYPE
CK1–1	6 BURNER RANGE	L1KB–6	–	HOOD 1	KITCHEN	ELECTRICALLY HELD – NO
CK1–2	STEAMER	L1KB–8	–	HOOD 1	KITCHEN	ELECTRICALLY HELD – NO
CK1–3	STEAMER	L1KB–10	–	HOOD 1	KITCHEN	ELECTRICALLY HELD – NO
CK1–4	STEAMER	L1KB–12	–	HOOD 1	KITCHEN	ELECTRICALLY HELD – NO
CK1–5	STEAMER	L1KB–14	–	HOOD 1	KITCHEN	ELECTRICALLY HELD – NO
CK1–6	COMBI OVEN	L1KB–16	–	HOOD 1	KITCHEN	ELECTRICALLY HELD – NO
CK1–7	COMBI OVEN	L1KB–18	–	HOOD 1	KITCHEN	ELECTRICALLY HELD – NO
CK1–8	SPARE					ELECTRICALLY HELD – NO

HOOD 2 - PRODUCTION AREA 'B'

POLE	DESCRIPTION	NORMAL CKT	EM CKT	CONTROL ZONE	EQUIPMENT LOCATION	CONTACTOR TYPE
CK2–1	TURBOCHEF	L1KB–26/28	–	HOOD 2	KITCHEN	ELECTRICALLY HELD – NO
CK2–2	(2–POLE)	–	–	–	–	ELECTRICALLY HELD – NO
CK3–1	TILT BRAISING PAN	L1KB–30	–	HOOD 2	KITCHEN	ELECTRICALLY HELD – NO
CK3–2	CONVECTION OVEN	L1KB–32	–	HOOD 2	KITCHEN	ELECTRICALLY HELD – NO
CK3–3	CONVECTION OVEN	L1KB–34	–	HOOD 2	KITCHEN	ELECTRICALLY HELD – NO
CK3–4	CONVECTION OVEN	L1KB–36	–	HOOD 2	KITCHEN	ELECTRICALLY HELD – NO
CK3–5	CONVECTION OVEN	L1KB–38	–	HOOD 2	KITCHEN	ELECTRICALLY HELD – NO
CK3–6	SPARE					ELECTRICALLY HELD – NO

1. REFERENCE FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION.
2. EACH KITCHEN HOOD CONTACTOR HALL BE CONTROLLED ON/OFF BY THE APPROPRIATE HOOD ANSUL SYSTEM. WHEN ACTIVATED ALL POWER WITHIN THE COOKING HOOD SHALL BE DE–ENERGIZED.

CONSULTANTS

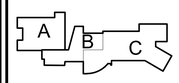
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	2 COH COMMENT 1
10/17/2025	7 COH COMMENT 2
10/24/2025	CSP

E4.12

PANEL SCHEDULES
FIRST FLOOR - AREA B

STANTON ENGINEERING GROUP
REGISTRATION NUMBER F-17433 | 713.300.9292
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND IS THE PROPERTY OF THE ARCHITECT AND MAY NOT BE USED OR REPRODUCED WITHOUT THE ARCHITECT'S WRITTEN PERMISSION. © 2025 ALL RIGHTS RESERVED

ELEC B125

PANEL L1D

150A MCB, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A — SCCR & AIC: 10,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	1260	7 REC	3–12	20/1	1				2	20/1	3–12	4 REC – CORRIDOR, EXTERIOR	720	
	360	2 REC	3–12	20/1	3				4	20/1	3–12	5 REC – CORRIDOR, RR	900	
	360	2 REC	3–12	20/1	5				6	20/1	3–12	6 REC – CAFE, EXTERIOR	1080	
	11000	KILN	3–8	40/3	7				8	20/1	3–12	1 EDF – CAFE	500	
	–	–	+10G	–	9				10	20/1	3–12	1 EDF – MAIN CORRIDOR	500	
	–	–	3/4"C	–	11				12	20/1	3–12	SINGLE USER RR LTS	77	
	900	5 REC	3–12	20/1	13				14	20/1		SPARE		
	360	2 REC	3–12	20/1	15				16	20/1		SPARE		
	360	2 REC	3–12	20/1	17				18	20/1		SPARE		
	720	4 REC	3–12	20/1	19				20	20/1		SPARE		
	540	3 REC	3–12	20/1	21				22	20/1		SPARE		
	720	4 REC	3–12	20/1	23				24	20/1		SPARE		
	720	4 REC	3–10	20/1	25				26	20/1		SPARE		
	720	4 REC	3–10	20/1	27				28	20/1		SPARE		
	720	4 REC	3–10	20/1	29				30	20/1		SPARE		
	360	2 REC	3–10	20/1	31				32	20/1		SPARE		
	720	4 REC	3–10	20/1	33				34	20/1		SPARE		
	500	2 PROJECTION SCREENS	3–10	20/1	35				36	20/1		SPARE		
	500	FRONT ENTRY SIGNAGE	3–10	20/1	37				38	20/3	3–10	CAFETERIA PARTITION	2808	
		SPARE		20/1	39				40	–	+10G	–	–	
		SPARE		20/1	41				42	–	3/4"C	–	–	

TOTAL LOAD ❶ 100% = 27405VA — TOTAL LOAD ❷ 100% = 76A — TOTAL LOAD ❷ 125% = 95A

ELEC B125

PANEL L1E

100A MCB, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A — SCCR & AIC: 10,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	540	3 RECEPTACLES	3–12	20/1	1				2	30/3	3–10	RTU–D3	8280	
	720	4 RECEPTACLES	3–12	20/1	3				4	–	+10G	–	–	
	720	4 RECEPTACLES	3–12	20/1	5				6	–	3/4"C	–	–	
	540	3 RECEPTACLES	3–12	20/1	7				8	15/1	3–12	EF–D3	60	
		SPARE		20/1	9				10	20/1	3–12	CLINIC LIGHTS	500	
		SPARE		20/1	11				12	20/1	3–12	RTU–D3 UV LIGHTS	250	
		SPARE		20/1	13				14			SPACE		
		SPARE		20/1	15				16			SPACE		
		SPARE		20/1	17				18			SPACE		
		SPARE		20/1	19				20			SPACE		
		SPARE		20/1	21				22			SPACE		
		SPARE		20/1	23				24			SPACE		
		SPARE		20/1	25				26			SPACE		
		SPARE		20/1	27				28			SPACE		
		SPARE		20/1	29				30			SPACE		

TOTAL LOAD ❶ 100% = 11610VA — TOTAL LOAD ❷ 100% = 32A — TOTAL LOAD ❷ 125% = 40A

EM LIFE SAFETY PANEL

EM ELEC B124

PANEL EH1

225A MLO, 480Y/277V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <14,000A — SCCR & AIC: 14,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	1000	CORRIDOR EM LIGHTS	3–12	20/1	1				2	20/1	3–12	KITCHEN/CAFE/GYM EM LIGHTS	500	
	1000	ROOM EM LIGHTS	3–12	20/1	3				4	20/1	3–12	ADMIN EM LIGHTS	500	
	250	EXIT SIGNS	3–12	20/1	5				6	20/1	3–10	EXTERIOR EM LIGHTS	500	
		SPARE		20/1	7				8	20/1		SPARE		
		SPARE		20/1	9				10	20/1		SPARE		
		SPARE		20/1	11				12	20/1		SPARE		
		SPARE		20/1	13				14	20/1		SPARE		
		SPARE		20/1	15				16	20/1		SPARE		
		SPARE		20/1	17				18	20/1		SPARE		
		SPACE			19				20			SPACE		
		SPACE			21				22			SPACE		
		SPACE			23				24			SPACE		
		SPACE			25				26			SPACE		
		SPACE			27				28			SPACE		
		SPACE			29				30			SPACE		
		SPACE			31				32	100/3	4–2	PANEL EH1A	8000	
		SPACE			33				34	–	+6G	–	–	
		SPACE			35				36	–	1.25"C	–	–	
		SPACE			37				38	100/3	4–2	PANEL EH1C	2250	
		SPACE			39				40	–	+6G	–	–	
		SPACE			41				42	–	1.25"C	–	–	

TOTAL LOAD ❶ 100% = 14000VA — TOTAL LOAD ❷ 100% = 17A — TOTAL LOAD ❷ 125% = 21A

1. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 150KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.

EM STANDBY PANEL

EM ELEC B124

PANEL SH1

225A MLO, 480Y/277V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <14,000A — SCCR & AIC: 14,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
		SPARE		20/1	1				2	45/3	3–8	PUMP CHP–1	17451	
		SPARE		20/1	3				4	–	+10G	(15 HP)	–	
		SPARE		20/1	5				6	–	3/4"C	–	–	
		SPARE		20/1	7				8	20/3	3–12	PUMP HWP–1	6316	
		SPARE		20/1	9				10	–	+12G	(5 HP)	–	
		SPARE		20/1	11				12	–	3/4"C	–	–	
		SPARE		20/1	13				14			SPACE		
		SPARE		20/1	15				16			SPACE		
		SPARE		20/1	17				18			SPACE		
		SPACE			19				20			SPACE		
		SPACE			21				22			SPACE		
		SPACE			23				24			SPACE		
		SPACE			25				26			SPACE		
		SPACE			27				28			SPACE		
		SPACE			29				30			SPACE		
		SPACE			31				32			SPACE		
		SPACE			33				34			SPACE		
		SPACE			35				36			SPACE		
		SPACE			37				38			SPACE		
		SPACE			39				40			SPACE		
		SPACE			41				42			SPACE		
	117034	XFMR XSL	3–2/0	175/3SF	43				–	–	–	–	–	–
	–	(112.5KVA, 480–208Y/120V)	+6G	–	45				–	–	–	–	–	–
	–	(SUBFEED BREAKER)	2"C	–	47				–	–	–	–	–	–

TOTAL LOAD ❶ 100% = 140800VA — TOTAL LOAD ❷ 100% = 169A — TOTAL LOAD ❷ 125% = 212A

1. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 150KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.

LIGHTING PANEL

ELEC B125

PANEL H1D

225A MLO, 480Y/277V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <14,000A — SCCR & AIC: 14,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	2723	CORRIDOR LIGHTS	3–12	20/1	1				2	20/1	3–12	KITCHEN LIGHTS	1182	
	1720	CLASSROOM LIGHTS	3–12	20/1	3				4	20/1	3–12	CAFETERIA LINEAR LIGHTS	3348	
		SPARE		20/1	5				6	20/1	3–12	CAFETERIA RING LIGHTS	855	
		SPARE		20/1	7				8	20/1	3–12	GYM LIGHTS	1350	
		SPARE		20/1	9				10	20/1	3–12	ADMIN ROOM LIGHTS	2040	
		SPARE		20/1	11				12	20/1	3–12	ADMIN CORR/RECEPTION LTS	802	
		SPARE		20/1	13				14	20/1		SPARE		
		SPARE		20/1	15				16	20/1		SPARE		
		SPARE		20/1	17				18	20/1		SPARE		
		SPACE			19				20			SPACE		
		SPACE			21				22			SPACE		
		SPACE			23				24			SPACE		
		SPACE			25				26			SPACE		
		SPACE			27				28			SPACE		
		SPACE			29				30			SPACE		
		SPACE			31				32	100/3	4–2	PANEL H1A	21374	
		SPACE			33				34	–	+6G	–	–	
		SPACE			35				36	–	1.25"C	–	–	
		SPACE			37				38	100/3	4–2	PANEL H1C	6507	
		SPACE			39				40	–	+6G	–	–	
		SPACE			41				42	–	1.25"C	–	–	

TOTAL LOAD ❶ 100% = 41901VA — TOTAL LOAD ❷ 100% = 50A — TOTAL LOAD ❷ 125% = 63A

EXTERIOR LIGHTING PANEL

ELEC B125

PANEL H1E

100A MLO, 480Y/277V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <14,000A — SCCR & AIC: 14,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	1500	EXTERIOR LIGHTS	3–10	20/1	1				2	20/1	3–8	PARKING LIGHTS–SOUTH	441	
	1000	CANOPY LIGHTS	3–10	20/1	3				4	20/1	3–8	DRIVEWAY LIGHTS–EAST	588	
		SPARE		20/1	5				6	20/1	3–8	PARKING LIGHTS–NORTH	1176	
		SPARE		20/1	7				8			SPACE		
		SPARE		20/1	9				10			SPACE		
		SPARE		20/1	11				12			SPACE		
		SPARE		20/1	13				14			SPACE		
		SPARE		20/1	15				16			SPACE		
		SPARE		20/1	17				18			SPACE		
		SPACE			19				20			SPACE		
		SPACE			21				22			SPACE		
		SPACE			23				24			SPACE		
		SPACE			25				26			SPACE		
		SPACE			27				28			SPACE		
		SPACE			29				30			SPACE		
		SPACE			31				32			SPACE		
		SPACE			33				34			SPACE		
		SPACE			35				36			SPACE		
		SPACE			37				38			SPACE		
		SPACE			39				40			SPACE		
		SPACE			41				42			SPACE		

TOTAL LOAD ❶ 100% = 4705VA — TOTAL LOAD ❷ 100% = 6A — TOTAL LOAD ❷ 125% = 7A

IG PANEL

ELEC B125

PANEL C1D

100A MCB, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A — SCCR & AIC: 10,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	500	2 IG REC & 2 SPEAKERS	3–12	20/1	1				2	20/1	3–12	1 DISPLAY – CAFE	250	
		SPARE		20/1	3				4	20/1		SPARE		
		SPARE		20/1	5				6	20/1		SPARE		
	500	1 IG REC, PROJ & SPEAKER	3–10	20/1	7				8	20/1		SPARE		
	500	1 IG REC, PROJ & SPEAKER	3–10	20/1	9				10	20/1		SPARE		
	800	4 IG REC	3–10	20/1	11				12	20/1		SPARE		
	800	4 IG REC	3–10	20/1	13				14	20/1		SPARE		
	800	4 IG REC	3–10	20/1	15				16	20/1		SPARE		
	800	4 IG REC	3–10	20/1	17				18	20/1		SPARE		
	800	4 IG REC	3–10	20/1	19				20			SPACE		
	800	4 IG REC	3–10	20/1	21				22			SPACE		
	500	A/V WALL CABINET	3–10	20/1	23				24			SPACE		
		SPARE		20/1	25				26			SPACE		
		SPARE		20/1	27				28			SPACE		
		SPARE		20/1	29				30			SPACE		
		SPARE		20/1	31				32			SPACE		
		SPARE		20/1	33				34			SPACE		
		SPARE		20/1	35				36			SPACE		
		SPARE		20/1	37				38			SPACE		
		SPARE		20/1	39				40			SPACE		
		SPARE		20/1	41				42			SPACE		

TOTAL LOAD ❶ 100% = 7050VA — TOTAL LOAD ❷ 100% = 20A — TOTAL LOAD ❷ 125% = 24A

1. PROVIDE ISOLATED GROUND BUSS, EGC BUSS & 200% NEUTRAL.
2. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
3. FOR ALL ISOLATED GROUND (IG) AND COMPUTER (CP) CIRCUITS PROVIDE A GREEN GROUNDING WIRE BONDED TO EACH END OF THE CONDUIT IN ADDITION TO THE ISOLATED GROUND WIRE.

EM STANDBY IG PANEL

EM ELEC B124

PANEL SL1

400A MCB, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A — SCCR & AIC: 10,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	360	MDF IG QUAD	3–12	20/1	1				2	100/3	4–2	PANEL SL1A	11903	
	1500	MDF IG NEMA REC	2–10	30/2	3				4	–	+6G	–	–	
	–	–	+10G	–	5				6	–	1.25"C	–	–	
	360	MDF IG QUAD	3–12	20/1	7				8	100/3	4–2	PANEL SL2A	15005	
	1500	MDF IG NEMA REC	2–10	30/2	9				10	–	+6G	–	–	
	–	–	+10G	–	11				12	–	1.25"C	–	–	
	360	MDF IG QUAD	3–12	20/1	13				14	100/3	4–2	PANEL SL1B	11900	
	1500	MDF IG NEMA REC	2–10	30/2	15				16	–	+6G	–	–	
	–	–	+10G	–	17				18	–	1.25"C	–	–	
	360	MDF IG QUAD–RACK MOUNT	3–12	20/1	19				20	100/3	4–2	PANEL SL1C	17145	
	1000	MDF IG NEMA REC–RACK MOUNT	2–12	20/2	21				22	–	+6G	–	–	
	–	–	+12G	–	23				24	–	1.25"C	–	–	
	360	MDF IG QUAD–RACK MOUNT	3–12	20/1	25				26	100/3	4–3	PANEL SL1D	25939	
	1000	MDF IG NEMA REC–RACK MOUNT	2–12	20/2	27				28	–	+8G	–	–	
	–	–	+12G	–	29				30	–	1.25"C	–	–	
	360	MDF IG QUAD–RACK MOUNT	3–12	20/1	31				32	100/3	4–2	PANEL SL1K	24122	
	1000	MDF IG NEMA REC–RACK MOUNT	2–12	20/2	33				34	–	+6G	–	–	
	–	–	+12G	–	35				36	–	1.25"C	–	–	
	360	MDF IG QUAD–RACK MOUNT	3–12	20/1	37				38			SPACE		
	1000	MDF IG NEMA REC–RACK MOUNT	2–12	20/2	39				40			SPACE		
	–	–	+12G	–	41				42			SPACE		

TOTAL LOAD ❶ 100% = 117034VA — TOTAL LOAD ❷ 100% = 325A — TOTAL LOAD ❷ 125% = 406A

1. PROVIDE ISOLATED GROUND BUSS, EGC BUSS & 200% NEUTRAL.
2. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 150 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
3. FOR ALL ISOLATED GROUND (IG) AND COMPUTER (CP) CIRCUITS PROVIDE A GREEN GROUNDING WIRE BONDED TO EACH END OF THE CONDUIT IN ADDITION TO THE ISOLATED GROUND WIRE.

BUILDING EQUIPMENT PANEL

ELEC B125

PANEL HM1D

400A MLO, 480Y/277V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <14,000A — SCCR & AIC: 14,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	6316	AHU–B1	3–10	20/3	1				2	15/3	3–12	AHU–D1	2825	
	–	(5 HP)	+10G	–	3				4	–	+12G	(2 HP)	–	
	–	–	3/4"C	–	5				6	–	3/4"C	–	–	
	37811	ACCU–B1	3–8	50/3	7				8	20/3	3–12	AHU–D2	6316	
	–	–	+10G	–	9				10	–	+12G	(5 HP)	–	
	–	–	3/4"C	–	11				12	–	3/4"C	–	–	
	39057	DISHMACHINE	3–6	60/3	13				14	45/3	3–8	PUMP CHP–2	17451	
	–	–	+10G	–	15				16	–	+10G	(15 HP)	–	
	–	–	3/4"C	–	17				18	–	3/4"C	–	–	
	1656	SF–D1 (3/4 HP)	3–12	15/1	19				20	20/3	3–12	PUMP HWP–2	6316	
	1656	EF–D1 (3/4 HP)	3–12	15/1	21				22	–	+12G	(5 HP)	–	
	15000	WATER HEATER EWH–B1	3–10	25/3	23				24	–	3/4"C	–	–	
	–	–	+10G	–	25				26	15/3	3–12	KEF–1	3989	
	–	–	3/4"C	–	27				28	–	+12G	(3 HP)	–	
	17286	XFMR XM1D	3–8	50/3	29				30	–	3/4"C	–	–	
	–	–	+10G	–	31				32	15/3	3–12	KEF–2	2493	
	–	–	3/4"C	–	33				34	–	+12G	(1.5 HP)	–	
	1745	FCU–D3	3–12	15/3	35				36	–	3/4"C	–	–	
	–	(1 HP)	+12G	–	37				38			SPACE		
	–	–	3/4"C	–	39				40			SPACE		
		SPACE			41				42			SPACE		
		SPACE			43				44			SPACE		
		SPACE			45				46			SPACE		
		SPACE			47				48			SPACE		
		SPACE			49				50			SPACE		
		SPACE			51				52			SPACE		
		SPACE			53				54			SPACE		

TOTAL LOAD ❶ 100% = 159916VA — TOTAL LOAD ❷ 100% = 192A — TOTAL LOAD ❷ 125% = 241A

BOILER RM B126

PANEL LM1D

100A MCB, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A — SCCR & AIC: 10,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	144	EF–D2	3–12	15/1	1				2	15/3	3–12	BOILER BR–2	2990	
	60	EF–D4	3–12	15/1	3				4	–	+12G	–	–	
	2352	ERV–B1	3–8	25/1	5				6	–	3/4"C	–	–	
	750	WATER HEATERS GWH–1,2	3–12	20/1	7				8	20/2	2–12	BOILER BR–2 CIRC PUMP	1840	
	250	IRRIGATION CONTROLLER	3–12	20/1	9				10	–	+102G	–	–	
	500	AHU–D1,D2 UV LIGHTS	3–12	20/1	11				12	15/2	2–12	ACCU–D2 / FCU–D2	2496	
	864	KEF–3 (1/3 HP)	3–12	15/1	13				14	–	+12G	–	–	
		SPARE		20/1	15				16			SPACE		
		SPARE		20/1	17				18			SPACE		
		SPARE		20/1	19				20			SPACE		
		SPARE		20/1	21				22			SPACE		
		SPARE		20/1	23				24			SPACE		
		SPARE		20/1	25				26			SPACE		
		SPARE		20/1	27				28			SPACE		
		SPARE		20/1	29				30	20/1	3–12	MTS HEATER & REC	300	
		SPACE			31				32	30/1	3–10	MTS BLOCK HEATER REC	1500	
		SPACE			33				34	20/1	3–12	GENERATOR LTS & REC	440	
		SPACE			35				36	20/1	3–12	GENERATOR ALTERNATOR HTR	300	
		SPACE			37				38	20/1	3–12	GENERATOR BATTERY CHRGR	100	
		SPACE			39				40	20/2	2–12	GENERATOR BLOCK HEATER	2400	
		SPACE			41				42	–	+12G	–	–	

TOTAL LOAD ❶ 100% = 17286VA — TOTAL LOAD ❷ 100% = 48A — TOTAL LOAD ❷ 125% = 60A

EM STANDBY IG PANEL

MECH/ELEC A115

PANEL SL1D

100A MLO, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A — SCCR & AIC: 10,000A — MOUNTING: SURFACE — DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	900	5 REC	3–12	20/1	1				2	20/3	3–12	BOILER BR–1	4680	
	720	4 REC	3–12	20/1	3				4	–	+12G	–	–	
	250	BAS PANEL	3–12	20/1	5				6	–	3/4"C	–	–	
	250	BAS PANEL	3–12	20/1	7				8	20/2	2–12	BOILER BR–1 CIRC PUMP	1840	
	720	4 REC	3–12	20/1	9				10	–	+12G	–	–	
	900	REFRIGERATOR	3–12	20/1	11				12	20/2	2–10	ACCU–B2 / FCU–B2	3390	
	1000	HEAT TRACE	2–10	20/2EGF	13				14	–	+10G	–	–	
	–	–	+10N+10G	–	15				16	20/1	3–12	MDF 1 REC	180	
	360	2 REC ROOF	3–12	20/1	17				18	20/1	3–12	MDF 2 IG REC	360	
	50	CARBON MONOXIDE DETECTOR	3–12	20/1	19				20	20/1	3–12	MDF 2 IG REC	360	
	598	MECH/ELEC & MDF LIGHTS	3–12	20/1	21				22	20/1	3–12	FIRE ALARM CONTROL PANEL	250	
	275	DOOR HARDWARE	3–12	20/1	23				24	20/1	3–12	SECURITY PANEL	250	
	600	MOTORIZED GATE	2–8	15/2	25				26	20/1	3–12	PA SYSTEM	500	
	–	–	+8N+8G	1"C	27				28	20/1	3–12	EMERGENCY RESPONDER ANTENNA	250	
	600	MOTORIZED GATE	2–8	15/2	29				30	35/2	2–8	ACCU–D1 / FCU–D1	6656	
	–	–	+8N+8G	1"C	31				32	–	+10G	–	–	
		SPARE		20/1	33				34	20/1		SPARE		
		SPARE		20/1	35				36	20/1		SPARE		
		SPARE		20/1	37				38	20/1		SPARE		
		SPARE		20/1	39				40	20/1		SPARE		
		SPARE		20/1	41				42	20/1		SPARE		

TOTAL LOAD ❶ 100% = 25939VA — TOTAL LOAD ❷ 100% = 72A — TOTAL LOAD ❷ 125% = 90A

1. PROVIDE ISOLATED GROUND BUSS, EGC BUSS & 200% NEUTRAL.
2. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
3. FOR ALL ISOLATED GROUND (IG) AND COMPUTER (CP) CIRCUITS PROVIDE A GREEN GROUNDING WIRE BONDED TO EACH END OF THE CONDUIT IN ADDITION TO THE ISOLATED GROUND WIRE.

CONSULTANTS

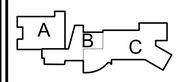
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E4.13

PANEL SCHEDULES
FIRST FLOOR - AREA B

STANTON ENGINEERING GROUP
TBPE REGISTRATION # 21621500 | TBPLS ENGINEERING FIRM REGISTRY # F-13743 | © 2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., S

ELEC XXX

PANEL L1C (SEC 1)

225A MCB, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A, SCCR & AIC: 22,000A, MOUNTING: SURFACE, DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	720	4 REC	3–12	20/1	1	■			2	20/1	3–12	6 REC	1080	
	900	5 REC	3–12	20/1	3		■		4	20/1	3–12	6 REC	1080	
	1000	WASHER	3–12	20/1GFI	5			■	6	20/1	3–10	4 REC	720	
	3000	DRYER	2–10	30/2GFI	7	■			8	20/1	3–10	2 EDF	1000	
	–	(120/208V, 1ϕ)	+10N+10G	–	9		■		10	20/1	3–12	CIRC PUMP CP–C1	250	
	900	5 REC	3–10	20/1	11			■	12	20/1	3–10	5 REC	900	
	360	2 REC	3–10	20/1	13	■			14	20/1	3–10	1 REC	180	
	289	SINGLE USER RR LTS	3–12	20/1	15		■		16	20/1	3–10	1 REC	180	
	900	5 REC	3–12	20/1	17			■	18	20/1	3–10	1 REC	180	
	900	5 REC	3–12	20/1	19	■			20	20/1	3–10	VENDING MACHINE	900	
	900	5 REC	3–12	20/1	21		■		22	20/1	3–10	VENDING MACHINE	900	
	1080	6 REC	3–12	20/1	23			■	24	20/1	3–10	VENDING MACHINE	900	
	1080	6 REC	3–10	20/1	25	■			26	20/1	3–12	AHU–C1,C2,C3 UV LIGHTS	750	
		SPARE		20/1	27		■		28	20/1	3–12	ERV–C1 UV LIGHTS	500	
	1080	6 REC	3–10	20/1	29			■	30	20/2	2–8	MARQUEE SIGN	2000	
	1080	6 REC	3–10	20/1	31	■			32	–	+8N+8G	–		
	900	5 REC	3–10	20/1	33		■		34	20/1	3–10	BOOK VENDING MACHINE	500	
	900	5 REC	3–10	20/1	35			■	36	20/1		SPARE		
		SPARE		20/1	37	■			38	20/1		SPARE		
		SPARE		20/1	39		■		40	20/1		SPARE		
		SPARE		20/1	41			■	42	20/1		SPARE		

TOTAL LOAD ❶ 100% = 36345VA — TOTAL LOAD ❶ 100% = 101A — TOTAL LOAD ❶ 125% = 126A

PANEL L1C (SEC 2)

225A MLO, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A, SCCR & AIC: 22,000A, MOUNTING: SURFACE, DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	1440	8 REC	3–12	20/1	43	■			44	20/1	3–12	THEATRICAL CONTROLS/RELAY PNL	500	
	720	4 REC	3–12	20/1	45		■		46	20/1	3–12	DMX SPLITTER	250	
	1080	6 REC – GYM	3–10	20/1	47			■	48	20/1	3–12	FOH–L STAGE LIGHTS	788	
	540	3 REC – GYM	3–10	20/1	49	■			50	20/1	3–12	FOH–R STAGE LIGHTS	788	
	720	4 REC – STAGE	3–12	20/1	51		■		52	20/1	3–12	1E STAGE LIGHTS – CIRCUIT 1	360	
	250	STAGE PROJECTION SCREEN	3–12	20/1	53			■	54	20/1	3–12	1E STAGE LIGHTS – CIRCUIT 2	360	
		SPARE		20/1	55	■			56	20/1	3–12	2E STAGE LIGHTS – CIRCUIT 1	270	
		SPARE		20/1	57		■		58	20/1	3–12	2E STAGE LIGHTS – CIRCUIT 2	270	
		SPARE		20/1	59			■	60	20/1		SPARE		
		SPARE		20/1	61	■			62	20/1		SPARE		
		SPARE		20/1	63		■		64	20/1		SPARE		
		SPARE		20/1	65			■	66	20/1		SPARE		
		SPACE			67	■			68			SPACE		
		SPACE			69		■		70			SPACE		
		SPACE			71			■	72			SPACE		
		SPACE			73	■			74			SPACE		
		SPACE			75		■		76			SPACE		
		SPACE			77			■	78			SPACE		
		SPACE			79	■			80			SPACE		
		SPACE			81		■		82			SPACE		
		SPACE			83			■	84			SPACE		

TOTAL LOAD ❶ 100% = 36345VA — TOTAL LOAD ❶ 100% = 101A — TOTAL LOAD ❶ 125% = 126A

IG PANEL — MECH/ELEC A115

PANEL C1C

100A MCB, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A, SCCR & AIC: 10,000A, MOUNTING: SURFACE, DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	750	3 IG REC & 3 SPEAKERS	3–12	20/1	1	■			2	20/1	3–12	2 IG REC – MUSIC RM	450	
	800	4 IG REC	3–12	20/1	3		■		4	20/1	3–12	MUSIC RM SPEAKERS	500	
	800	4 IG REC	3–12	20/1	5			■	6	20/1	3–12	3 IG REC	400	
		SPARE		20/1	7	■			8	20/1		SPARE		
	500	2 IG REC & 2 SPEAKERS	3–12	20/1	9		■		10	20/1	3–12	STAGE PROJECTOR	500	
	800	4 IG REC	3–12	20/1	11			■	12	20/1	3–12	STAGE SOUND SYSTEM	500	
	800	4 IG REC	3–12	20/1	13	■			14	20/1	3–12	STAGE SOUND SYSTEM	500	
	750	3 IG REC & 3 SPEAKERS	3–12	20/1	15		■		16	20/1	3–12	SOUND SYSTEM ACCESSORIES	250	
	800	4 IG REC	3–12	20/1	17			■	18	20/1		SPARE		
	800	4 IG REC	3–12	20/1	19	■			20	20/1		SPARE		
	800	4 IG REC	3–12	20/1	21		■		22	20/1		SPARE		
		SPARE		20/1	23			■	24	20/1		SPARE		
	500	2 IG REC & 2 SPEAKERS	3–10	20/1	25	■			26	20/1		SPARE		
	800	4 IG REC	3–10	20/1	27		■		28	20/1		SPARE		
	800	4 IG REC	3–10	20/1	29			■	30	20/1		SPARE		
	500	2 IG REC & 2 SPEAKERS	3–10	20/1	31	■			32	20/1		SPARE		
	800	4 IG REC	3–10	20/1	33		■		34	20/1		SPARE		
	800	4 IG REC	3–10	20/1	35			■	36	20/1		SPARE		
		SPARE		20/1	37	■			38	20/1		SPARE		
		SPARE		20/1	39		■		40	20/1		SPARE		
		SPARE		20/1	41			■	42	20/1		SPARE		

TOTAL LOAD ❶ 100% = 14900VA — TOTAL LOAD ❶ 100% = 41A — TOTAL LOAD ❶ 125% = 52A

1. PROVIDE ISOLATED GROUND BUSS, EGC BUSS & 200% NEUTRAL.
2. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
3. FOR ALL ISOLATED GROUND (IG) AND COMPUTER (CP) CIRCUITS PROVIDE A GREEN GROUNDING WIRE BONDED TO EACH END OF THE CONDUIT IN ADDITION TO THE ISOLATED GROUND WIRE.

EM LIFE SAFETY PANEL — EM ELEC B124

PANEL EH1C

100A MLO, 480Y/277V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <14,000A, SCCR & AIC: 14,000A, MOUNTING: SURFACE, DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	500	CORRIDOR EM LIGHTS	3–12	20/1	1	■			2	20/1	3–12	GYM/STAGE EM LIGHTS	500	
	1000	ROOM EM LIGHTS	3–12	20/1	3		■		4	20/1		SPARE		
	250	EXIT SIGNS	3–12	20/1	5			■	6	20/1		SPARE		
		SPARE		20/1	7	■			8	20/1		SPARE		
		SPARE		20/1	9		■		10	20/1		SPARE		
		SPARE		20/1	11			■	12	20/1		SPARE		
		SPARE		20/1	13	■			14	20/1		SPARE		
		SPARE		20/1	15		■		16	20/1		SPARE		
		SPARE		20/1	17			■	18	20/1		SPARE		
		SPACE			19	■			20			SPACE		
		SPACE			21		■		22			SPACE		
		SPACE			23			■	24			SPACE		
		SPACE			25	■			26			SPACE		
		SPACE			27		■		28			SPACE		
		SPACE			29			■	30			SPACE		
		SPACE			31	■			32			SPACE		
		SPACE			33		■		34			SPACE		
		SPACE			35			■	36			SPACE		
		SPACE			37	■			38			SPACE		
		SPACE			39		■		40			SPACE		
		SPACE			41			■	42			SPACE		

TOTAL LOAD ❶ 100% = 2250VA — TOTAL LOAD ❶ 100% = 3A — TOTAL LOAD ❶ 125% = 3A

1. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.

EM STANDBY IG PANEL — MECH/ELEC A115

PANEL SL1C

100A MLO, 208Y/120V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <10,000A, SCCR & AIC: 10,000A, MOUNTING: SURFACE, DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	720	4 REC – C132,C201,ROOF	3–12	20/1	1	■			2	20/1	3–12	BAS PANEL	250	
		SPARE		20/1	3		■		4	20/1	3–12	BAS PANEL	250	
	360	2 REC	3–12	20/1	5			■	6	20/1	3–12	MECH/ELEC & IDF LIGHTS	392	
	360	2 REC	3–12	20/1	7	■			8	20/1	3–12	DOOR HARDWARE	100	
	900	REFRIGERATOR	3–12	20/1	9		■		10	20/1		SPARE		
	860	2 REC & LIFT	3–12	20/1	11			■	12	20/1		SPARE		
	360	2 REC	3–12	20/1	13	■			14	20/1		SPARE		
		SPARE		20/1	15		■		16	20/1		SPARE		
	900	REFRIGERATOR	3–12	20/1	17			■	18	20/1	3–12	IDF 1 REC	180	
	1000	ICE MACHINE	3–12	20/1	19	■			20	20/1	3–12	IDF 2 IG REC	360	
		SPARE		20/1	21		■		22	20/1	3–12	IDF IG QUAD	360	
	1000	ICE MACHINE	3–12	20/1	23			■	24	30/2	2–10	IDF IG NEMA REC	1500	
		SPARE		20/1	25	■			26	–	+10G	–	–	
		SPARE		20/1	27		■		28	20/1	3–12	IDF IG QUAD–RACK MOUNT	360	
		SPARE		20/1	29			■	30	20/2	2–12	IDF IG NEMA REC–RACK MOUNT	1000	
		SPARE		20/1	31	■			32	–	+12G	–	–	
		SPARE		20/1	33		■		34	20/1	3–12	IDF IG QUAD–RACK MOUNT	360	
		SPARE		20/1	35			■	36	20/2	2–12	IDF IG NEMA REC–RACK MOUNT	1000	
	600	MOTORIZED GATE	2–8	15/2	39	■			40	30/2	2–10	ACCU–C1 / FCU–C1	3973	
	–	–	+8N+8G	1"C	41		■		42	–	+10G	–	–	

TOTAL LOAD ❶ 100% = 17145VA — TOTAL LOAD ❶ 100% = 48A — TOTAL LOAD ❶ 125% = 60A

1. PROVIDE ISOLATED GROUND BUSS, EGC BUSS & 200% NEUTRAL.
2. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
3. FOR ALL ISOLATED GROUND (IG) AND COMPUTER (CP) CIRCUITS PROVIDE A GREEN GROUNDING WIRE BONDED TO EACH END OF THE CONDUIT IN ADDITION TO THE ISOLATED GROUND WIRE.

LIGHTING PANEL — ELEC B125

PANEL H1C

100A MLO, 480Y/277V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <14,000A, SCCR & AIC: 14,000A, MOUNTING: SURFACE, DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	1196	CORRIDOR LIGHTS	3–12	20/1	1	■			2	20/1	3–12	STAGE LIGHTS	444	
	1101	CLASSROOM LIGHTS	3–12	20/1	3		■		4	20/1		SPARE		
	1823	CLASSROOM LIGHTS	3–12	20/1	5			■	6	20/1		SPARE		
	1944	CLASSROOM LIGHTS	3–12	20/1	7	■			8	20/1		SPARE		
		SPARE		20/1	9		■		10	20/1		SPARE		
		SPARE		20/1	11			■	12	20/1		SPARE		
		SPARE		20/1	13	■			14	20/1		SPARE		
		SPARE		20/1	15		■		16	20/1		SPARE		
		SPARE		20/1	17			■	18	20/1		SPARE		
		SPACE			19	■			20			SPACE		
		SPACE			21		■		22			SPACE		
		SPACE			23			■	24			SPACE		
		SPACE			25	■			26			SPACE		
		SPACE			27		■		28			SPACE		
		SPACE			29			■	30			SPACE		
		SPACE			31	■			32			SPACE		
		SPACE			33		■		34			SPACE		
		SPACE			35			■	36			SPACE		
		SPACE			37	■			38			SPACE		
		SPACE			39		■		40			SPACE		
		SPACE			41			■	42			SPACE		

TOTAL LOAD ❶ 100% = 6507VA — TOTAL LOAD ❶ 100% = 8A — TOTAL LOAD ❶ 125% = 10A

BUILDING EQUIPMENT PANEL — ELEC B125

PANEL HM1C

225A MLO, 480Y/277V, 3ϕ, 4 WIRE — AVAILABLE FAULT: <14,000A, SCCR & AIC: 14,000A, MOUNTING: SURFACE, DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	16786	AHU–C1	3–8	45/3	1	■			2	45/3	3–8	ERV–C1 SUPPLY FAN	27423	
	–	(2 x 8 HP)	+10G	–	3		■		4	–	+10G	(3 x 7.5 HP)	–	
	–	–	3/4"C	–	5			■	6	–	3/4"C	–	–	
	9141	AHU–C2	2–1/0	25/3		■			8	35/3	3–8	ERV–C1 EXHAUST FAN	18282	
	–	(7.5 HP)	+10G	–	9		■		10	–	+10G	(2 x 7.5 HP)	–	
	–	–	3/4"C	–	11			■	12	–	3/4"C	–	–	
	11634	AHU–C3	3–10	30/3	13	■			14	15/3	3–12	ERV–C1 WHEEL	2493	
	–	(10 HP)	+10G	–	15		■		16	–	+12G	(1.5 HP)	–	
	–	–	3/4"C	–	17			■	18	–	3/4"C	–	–	
		SPACE			19	■			20	15/3	3–12	EF–C1 (1/2 HP)	1176	
		SPACE			21		■		22	25/3	3–10	WATER HEATER EWH–C1	15000	
		SPACE			23			■	24	–	+10G	–	–	
		SPACE			25	■			26	–	3/4"C	–	–	
		SPACE			27		■		28			SPACE		
		SPACE			29			■	30			SPACE		
		SPACE			31	■			32			SPACE		
		SPACE			33		■		34			SPACE		
		SPACE			35			■	36			SPACE		
		SPACE			37	■			38			SPACE		
		SPACE			39		■		40			SPACE		
		SPACE			41			■	42			SPACE		

TOTAL LOAD ❶ 100% = 101935VA — TOTAL LOAD ❶ 100% = 123A — TOTAL LOAD ❶ 125% = 153A

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

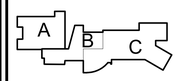
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E4.14

PANEL SCHEDULES
FIRST FLOOR - AREA C

STANTON ENGINEERING GROUP
MEP/FP/HVAC/PLUMBING ENGINEERING | TEXAS ENG. FIRM REG. NO. F-12763/ST | © 2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

MECH/ELEC A218

PANEL L2A (SEC 1)

225A MCB
208Y/120V, 3ϕ, 4 WIRE

AVAILABLE FAULT: <10,000A
SCCR & AIC: 22,000A

MOUNTING: SURFACE
DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	900	5 REC	3–12	20/1	1	■			2	20/1	3–12	5 REC	900	
	360	2 REC	3–12	20/1	3		■		4	20/1	3–12	2 REC	360	
	900	5 REC	3–12	20/1	5			■	6	20/1	3–12	2 EDF	1000	
	360	2 REC	3–12	20/1	7	■			8	20/1	3–12	6 REC	1080	
	900	5 REC	3–12	20/1	9		■		10	20/1	3–12	5 REC	900	
	360	2 REC	3–12	20/1	11			■	12	20/1	3–12	2 EDF	1000	
	900	5 REC	3–12	20/1	13	■			14	20/1	3–12	CIRC PUMP CP–A1	250	
	360	2 REC	3–12	20/1	15		■		16	20/1	3–12	4 REC	720	
	900	5 REC	3–12	20/1	17			■	18	20/1	3–12	3 REC	540	
	360	2 REC	3–12	20/1	19	■			20	20/1	3–12	3 REC	540	
		SPARE		20/1	21		■		22	20/1	3–12	5 REC	900	
	900	5 REC	3–12	20/1	23			■	24	20/1	3–12	1 REC	180	
	360	2 REC	3–12	20/1	25	■			26	30/2	2–10	COPY MACHINE	2000	
	900	5 REC	3–12	20/1	27		■		28	–	+10N+10G	(120/208V, 1ϕ)	–	
	360	2 REC	3–12	20/1	29			■	30	20/1	3–12	6 REC	1080	
	900	5 REC	3–12	20/1	31	■			32	20/1	3–12	SINGLE USER RR LTS	78	
	360	2 REC	3–12	20/1	33		■		34	20/1	3–12	5 REC	900	
	900	5 REC	3–12	20/1	35			■	36	20/1	3–12	5 REC	900	
	360	2 REC	3–12	20/1	37	■			38	20/1	3–12	ERV–A1 UV LIGHTS	500	
		SPARE		20/1	39		■		40	20/1		SPARE		
		SPARE		20/1	41			■	42	20/1		SPARE		

PANEL L2A (SEC 2)

225A MLO
208Y/120V, 3ϕ, 4 WIRE

AVAILABLE FAULT: <10,000A
SCCR & AIC: 22,000A

MOUNTING: SURFACE
DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	900	5 REC	3–12	20/1	43	■			44	20/1	3–12	5 REC	900	
	360	2 REC	3–12	20/1	45		■		46	20/1	3–12	2 REC	360	
	900	5 REC	3–12	20/1	47			■	48	20/1	3–12	5 REC	900	
	360	2 REC	3–12	20/1	49	■			50	20/1	3–12	2 REC	360	
	900	5 REC	3–12	20/1	51		■		52	20/1	3–12	5 REC	900	
	540	3 REC	3–12	20/1	53			■	54	20/1	3–12	2 REC	360	
	540	3 REC	3–12	20/1	55	■			56	20/1	3–12	5 REC	900	
	720	4 REC	3–12	20/1	57		■		58	20/1	3–12	2 REC	360	
	540	3 REC	3–12	20/1	59			■	60	20/1	3–12	5 REC	900	
		SPARE		20/1	61	■			62	20/1	3–12	2 REC	360	
		SPARE		20/1	63		■		64	20/1	3–12	4 REC	720	
		SPARE		20/1	65			■	66	20/1	3–12	6 REC	1080	
		SPARE		20/1	67	■			68	20/1		SPARE		
		SPARE		20/1	69		■		70	20/1		SPARE		
		SPARE		20/1	71			■	72	20/1		SPARE		
		SPARE		20/1	73	■			74	20/1		SPARE		
		SPACE			75		■		76			SPACE		
		SPACE			77			■	78			SPACE		
		SPACE			79	■			80			SPACE		
		SPACE			81		■		82			SPACE		
		SPACE			83			■	84			SPACE		
	TOTAL LOAD @ 100% =	39028VA			TOTAL LOAD @ 100% =		108A					TOTAL LOAD @ 125% =	136A	

1. PROVIDE EXTERNAL SPD WITH MINIMUM RATING OF 100KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
2. COORDINATE WITH OTHER TRADES FOR CONNECTION REQUIREMENTS.

IG PANEL

MECH/ELEC A218

PANEL C2A

100A MCB
208Y/120V, 3ϕ, 4 WIRE

AVAILABLE FAULT: <10,000A
SCCR & AIC: 10,000A

MOUNTING: SURFACE
DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	500	2 IG REC & 2 SPEAKERS	3–12	20/1	1	■			2	20/1	3–12	2 IG REC & 2 SPEAKERS	500	
	750	3 IG REC & 3 SPEAKERS	3–12	20/1	3		■		4	20/1	3–12	2 IG REC & 1 SPEAKERS	450	
	500	2 IG REC & 2 SPEAKERS	3–12	20/1	5			■	6	20/1	3–12	3 IG REC & 3 SPEAKERS	750	
	500	2 IG REC & 2 SPEAKERS	3–12	20/1	7	■			8	20/1	3–12	2 IG REC & 2 SPEAKERS	500	
		SPARE		20/1	9		■		10	20/1	3–12	4 IG REC	800	
		SPARE		20/1	11			■	12	20/1		SPARE		
		SPARE		20/1	13	■			14	20/1		SPARE		
		SPARE		20/1	15		■		16	20/1		SPARE		
		SPARE		20/1	17			■	18	20/1		SPARE		
		SPARE		20/1	19	■			20	20/1		SPARE		
		SPARE		20/1	21		■		22	20/1		SPARE		
		SPARE		20/1	23			■	24	20/1		SPARE		
		SPARE		20/1	25	■			26	20/1		SPARE		
		SPARE		20/1	27		■		28	20/1		SPARE		
		SPARE		20/1	29			■	30	20/1		SPARE		
		SPARE		20/1	31	■			32	20/1		SPARE		
		SPARE		20/1	33		■		34	20/1		SPARE		
		SPARE		20/1	35			■	36	20/1		SPARE		
		SPARE		20/1	37	■			38	20/1		SPARE		
		SPARE		20/1	39		■		40	20/1		SPARE		
		SPARE		20/1	41			■	42	20/1		SPARE		
	TOTAL LOAD @ 100% =	5250VA			TOTAL LOAD @ 100% =		15A					TOTAL LOAD @ 125% =	18A	

1. PROVIDE ISOLATED GROUND BUSS, EGC BUSS & 200% NEUTRAL.
2. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
3. FOR ALL ISOLATED GROUND (IG) AND COMPUTER (CP) CIRCUITS PROVIDE A GREEN GROUNDING WIRE BONDED TO EACH END OF THE CONDUIT IN ADDITION TO THE ISOLATED GROUND WIRE.

EM STANDBY IG PANEL

MECH/ELEC A218

PANEL SL2A

100A MLO
208Y/120V, 3ϕ, 4 WIRE

AVAILABLE FAULT: <10,000A
SCCR & AIC: 10,000A

MOUNTING: SURFACE
DOOR-IN-DOOR HINGE TO BOX

NOTES	LOAD	DESCRIPTION	WIRE	CB	CKT	A	B	C	CKT	CB	WIRE	DESCRIPTION	LOAD	NOTES
	540	2 REC MECH/ELEC A115	3–12	20/1	1	■			2	20/1	3–12	DDC PANEL	250	
	900	REFRIGERATOR – WORKROOM	3–12	20/1	3		■		4	20/1	3–12	ELEVATOR CONTROLS	1000	
	900	ICE MACHINE – WORKROOM	3–12	20/1	5			■	6	20/1	3–12	HIGH WATER PANEL	250	
	218	MECH/ELEC & IDF LIGHTS	3–12	20/1	7	■			8	20/1	3–12	SUMP PUMP	1200	
		SPARE		20/1	9		■		10	20/1	3–12	LIGHTS – ELEVATOR SHAFT	64	
		SPARE		20/1	11			■	12	20/1	3–12	2 REC – ELEVATOR SHAFT	360	
		SPARE		20/1	13	■			14	20/1	3–12	ELEVATOR CELLULAR DIALER	180	
		SPARE		20/1	15		■		16	20/1	3–12	DOOR HARDWARE	50	
		SPARE		20/1	17			■	18	20/1	3–12	IDF 1 REC	180	
		SPARE		20/1	19	■			20	20/1	3–12	IDF 2 IG REC	360	
		SPARE		20/1	21		■		22	20/1	3–12	IDF IG QUAD	360	
		SPARE		20/1	23			■	24	30/2	2–10	IDF IG NEMA REC	1500	
		SPACE			25	■			26	–	+10G	–	–	
		SPACE			27		■		28	20/1	3–12	IDF IG QUAD–RACK MOUNT	360	
		SPACE			29			■	30	20/2	2–12	IDF IG NEMA REC–RACK MOUNT	1000	
		SPACE			31	■			32	–	+12G	–	–	
		SPACE			33		■		34	20/1	3–12	IDF IG QUAD–RACK MOUNT	360	
		SPACE			35			■	36	20/2	2–12	IDF IG NEMA REC–RACK MOUNT	1000	
		SPACE			37	■			38	–	+12G	–	–	
		SPACE			39		■		40	30/2	2–10	ACCU–A2 / FCU–A2	3973	
		SPACE			41			■	42	–	+10G	–	–	
	TOTAL LOAD @ 100% =	15005VA			TOTAL LOAD @ 100% =		42A					TOTAL LOAD @ 125% =	52A	

1. PROVIDE ISOLATED GROUND BUSS, EGC BUSS & 200% NEUTRAL.
2. PROVIDE INTEGRAL SPD WITH MINIMUM RATING OF 100 KAMPS PER PHASE WITH SURGE COUNTER AND ALARM.
3. FOR ALL ISOLATED GROUND (IG) AND COMPUTER (CP) CIRCUITS PROVIDE A GREEN GROUNDING WIRE BONDED TO EACH END OF THE CONDUIT IN ADDITION TO THE ISOLATED GROUND WIRE.

CONSULTANTS

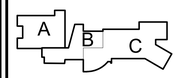
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E4.21

PANEL SCHEDULES
SECOND FLOOR - AREA A

STANTON ENGINEERING GROUP
TBPE/REGISTRATION NUMBER F-11633 | TEXAS ENGINEERING PRACTICE ACT
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121 | HOUSTON, TX 77042

© 2025 ALL RIGHTS RESERVED

CITY OF HOUSTON CODE REQUIREMENTS

ADOPTED CODES:
1. INSTALL SYSTEMS IN ACCORDANCE WITH THE 2023 NATIONAL ELECTRIC CODE AS ADOPTED BY THE CITY OF HOUSTON INCLUDING ALL AMENDMENTS.
2. INSTALL SYSTEMS IN ACCORDANCE WITH THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE AS ADOPTED BY THE CITY OF HOUSTON INCLUDING ALL AMENDMENTS.

PLUG LOAD CONTROL:
1. CLASSROOM, CONFERENCE ROOM, COPY ROOM, BREAK ROOM, WORKSTATION, AND OFFICE RECEPTACLES SHALL BE PLUG LOAD CONTROLLED PER IECC 2021 REQUIREMENTS.
2. ELECTRICAL OUTLETS FOR TEACHER STATION, DISPLAYS, AND PROJECTORS REQUIRE CONTINUOUS OPERATION AND ARE NOT REQUIRED TO BE PLUG LOAD CONTROLLED PER IECC 2021 C405.11.1 EXCEPTION #1.

TAMPER RESISTANT RECEPTACLES:
1. ALL NON-LOCKING 125V AND 250V, 15A AND 20A RECEPTACLES IN EDUCATION SPACES SHALL BE TAMPER RESISTANT TYPE PER NEC 406.12.

VOLTAGE DROP:
1. THE TOTAL VOLTAGE DROP ACROSS THE COMBINATION OF FEEDERS AND BRANCH CIRCUITS SHALL BE LESS THAN OR EQUAL TO 5% PER IECC 2021 C405.10.

TRANSFORMER EFFICIENCY:
1. LOW-VOLTAGE DRY-TYPE DISTRIBUTION ELECTRIC TRANSFORMERS MEET THE MINIMUM EFFICIENCY REQUIREMENTS OF TABLE C405.6 PER IECC 2021 C405.7.

MOTOR EFFICIENCY:
1. ELECTRIC MOTORS SHALL MEET THE MINIMUM EFFICIENCY REQUIREMENTS OF TABLES C405.7(1) THROUGH C405.7(4).

ENERGY MONITORING SYSTEM:
1. THE PROJECT INCLUDES A BUILDING WITH GROSS CONDITIONED FLOOR AREA > 25,000 FT2 AND WILL BE EQUIPPED WITH AN ENERGY MONITORING SYSTEM IN COMPLIANCE WITH C405.12.1 THROUGH C405.12.5.

GENERAL ELECTRICAL NOTES

1. REFER TO THE WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. INSTALL SYSTEMS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
3. PROVIDE LIGHT FIXTURE FIRE PROTECTION AND CONDUIT FIRE SEALING TO MAINTAIN FIRE RATING OF WALLS AND CEILINGS PER ARCHITECT'S SCHEDULE. REF. SPECIFICATIONS AND ARCH. DRAWINGS FOR ADDITIONAL INFORMATION.
4. ELECTRICAL RECEPTACLES, TELEPHONES, ETC... ARE SHOWN FOR GENERAL LOCATION. HEIGHTS ARE NOTED SO THE ESTIMATOR WILL KNOW WHETHER THEY ARE ABOVE OR BELOW COUNTERS. PRIOR TO INSTALLATION, REVIEW THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. IN THE EVENT OF CONFLICT, THE ARCHITECT'S LOCATION WILL GENERALLY PREVAIL BUT SHOULD BE CLARIFIED BY RFI. PROVIDE DEVICES SHOWN ON THE ELECTRICAL DRAWING EVEN IF NOT SHOWN ON ARCHITECTURAL DRAWINGS.
5. COORDINATE POWER AND DATA WITH THE FURNITURE SUPPLIER PRIOR TO ROUGH-IN. AT CASEWORK WITH KNEE SPACE, MOUNT RECEPTACLES AND DATA OUTLETS IN KNEE SPACE. COORDINATE WITH ARCHITECT AND FURNITURE SUPPLIER TO ENSURE THAT PROTECTIVE GROMMETS ARE PROVIDED IN THE COUNTER.
6. DO NOT INSTALL ELECTRICAL PANELS AND TRANSFORMERS UNTIL 1/4" SCALE DRAWINGS SHOWING LOCATION OF THIS EQUIPMENT RELATIVE TO MECHANICAL/PLUMBING EQUIPMENT, DUCTWORK AND PIPING IS SUBMITTED AND APPROVED. NEC CODE CLEARANCE MUST BE MAINTAINED.
7. ELECTRICAL EQUIPMENT HAS BEEN COORDINATED WITH PIPING AND DUCTWORK. DO NOT RELOCATE PANELS WITHOUT PRIOR APPROVAL.
8. ELECTRICAL DEVICES IN FIRE RATED WALLS SHALL BE A MINIMUM OF 24" AWAY FROM DEVICES ON THE OPPOSITE SIDE OF THE WALL TO MAINTAIN FIRE RATING.
9. MINIMUM SIZE CONDUIT FOR POWER SHALL BE 3/4", MIN. SIZE FLEX CONDUIT MAY BE 1/2". MINIMUM SIZE CONDUIT FOR DATA SHALL BE 1"C. DO NOT COMBINE CONDUIT FOR DATA.
10. MAX. LENGTH FOR FLEX CONDUIT SHALL BE 6 FT. ALL FLEX CONDUIT SHALL BE LISTED FOR GROUNDING.
11. LIGHT FIXTURE WHIPS MAY BE MIN. 1/2" FLEX CONDUIT WITH MIN. #12 WIRE. LIGHT FIXTURE WHIPS SHALL BE NO MORE THAN 6 FT LONG.
12. PROVIDE GREEN GROUND WIRE WITH ALL CIRCUITS SIZED PER NEC. BOND GREEN GROUND WIRE TO EACH END OF CONDUIT.
13. GROUND TRANSFORMER SECONDARIES TO BUILDING STEEL AND GROUND ROD. PROVIDE CONDUIT TO PROTECT GROUNDING CONDUCTOR AND BOND EACH END OF CONDUIT TO GROUNDING SYSTEM. MIN. SIZE OF CONDUIT FOR GROUND WIRE SHALL BE 3/4"C.
14. PROVIDE J-BOXES, CONDUIT AND SLEEVES THRU ALL FIRE WALLS FOR DATA, TELEPHONE, SECURITY, FIRE ALARM AND SOUND SYSTEMS WIRINGS, ETC. SEE SPECIFICATIONS.
15. PROVIDE PULL BOXES, JUNCTION BOXES, WIRING TROUGHS AND CABINETS WHEREVER REQUIRED FOR PROPER INSTALLATION OF VARIOUS ELECTRICAL SYSTEMS.
16. WHERE PORTIONS OF INTERIOR RACEWAY SYSTEM ARE EXPOSED TO WIDELY DIFFERENT TEMPERATURES, PROVIDE AIR SEALING PER NEC TO PREVENT CIRCULATION OF AIR FROM WARMER TO A COOLER SECTION.
17. ALL WIRING SHALL BE 600 VOLT, SOFT DRAWN ANNEALED COPPER, 98% CONDUCTIVITY, CONTINUOUS FROM OUTLET TO OUTLET. MINIMUM WIRE SIZE #12. ALL WIRE SHALL BE STRANDED TYPE THHN OR THWN-2 (WET RATED FOR 90° C). ALL WIRES SHALL BE COLOR CODED WITH SAME COLOR CONNECTED TO SAME UNGROUNDED PHASE THROUGHOUT THE INSTALLATION.
18. ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT. NO SURFACE MOUNTED WIREMOLD SHALL BE ALLOWED IN FINISHED SPACES. MC CABLE SHALL BE ALLOWED INSIDE EXIST STUD WALLS OR CHASE WALLS.
19. ALL MATERIAL MUST BE NEW AND OF GOOD QUALITY AND SHALL BEAR THE STAMP OF APPROVAL OF THE UNDERWRITERS' LABORATORIES, INC. (U.L.).

KITCHEN AREA ELECTRICAL NOTES

1. REFER TO KITCHEN CONSULTANTS "FS" DRAWINGS FOR ADDITIONAL REQUIREMENTS PARTICULARLY NOTING MOUNTING HEIGHTS OF EQUIPMENT OUTLETS AND JUNCTION BOXES, AND WHETHER SERVICE IS FROM WALL, FLOOR OR OVERHEAD.
2. SOME RECEPTACLES SHALL BE MOUNTED HORIZONTALLY, REFER TO KITCHEN CONSULTANTS "FS" DRAWINGS.
3. FOR DEVICES WITH SERVICE FROM FLOOR, RUN UNDERGROUND CONDUIT FROM DEVICES TO NEAREST COLUMN OR WALL THEN TURN CONDUIT UP AND RUN CONDUIT IN CEILING CAVITY.
4. LIGHT SWITCHES AND RECEPTACLES NOT SERVING A SPECIFIC PIECE OF EQUIPMENT SHALL BE MOUNTED AT ADA HEIGHTS.
5. CONNECTION TYPE SHOWN ON KITCHEN ELECTRICAL FLOOR PLAN IS FOR BIDDING PURPOSES, COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER FOR FINAL CONNECTIONS.
   5.A. OBTAIN WIRING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT FROM EQUIPMENT SUPPLIER PRIOR TO ORDERING WIRING DEVICES AND ROUGH-IN.
   5.B. IF EQUIPMENT REQUIRES CORD AND PLUG CONNECTION, CONTRACTOR SHALL PROVIDE NEMA POWER CORD, PLUG AND RECEPTACLES PER MANUFACTURER'S INSTRUCTION.
   5.C. IF EQUIPMENT REQUIRES JUNCTION BOX AND/OR DISCONNECT SWITCH, CONTRACTOR SHALL PROVIDE JUNCTION BOX AND DISCONNECT SWITCH AND CONNECT EQUIPMENT WITH SEALTITE FLEXIBLE CONDUIT.
6. ALL DISCONNECT SWITCHES IN THE KITCHEN AREA SHALL BE NEMA 4XSS STAINLESS STEEL.
7. WHERE PORTIONS OF INTERIOR RACEWAY SYSTEM ARE EXPOSED TO WIDELY DIFFERENT TEMPERATURES, PROVIDE AIR SEALING PER NEC TO PREVENT CIRCULATION OF AIR FROM WARMER TO A COOLER SECTION.
8. FLEXIBLE CONDUIT IN KITCHEN AREA SHALL BE LIQUID TIGHT CONSTRUCTION WITH APPROVED FITTING FOR WET LOCATION.
9. INTERLOCK KITCHEN EXHAUST HOOD FIRE SYSTEM WITH FIRE ALARM SYSTEM.
10. PROVIDE RELAYS AND INTERLOCK KITCHEN HOOD FANS WITH FIRE ALARM SYSTEM. ACTUATION OF ANY ALARM INITIATING DEVICE SHALL DE-ENERGIZE KITCHEN HOOD FANS.
11. ALL GFI RECEPTACLES IN KITCHEN SHALL BE PASS & SEYMOUR MODEL 2095 TO EXCEED UL943 VOLTAGE SURGE REQUIREMENTS.

PROVIDE CONDUIT & SLEEVES THRU FIRE WALLS, WALLS AND FLOORS FOR LOW VOLTAGE CABLING WIRING, ETC.

ALL CONDUIT & J-BOXES FOR LOW VOLTAGE CABLING SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL LOW VOLTAGE CABLING IN WALLS, EXPOSED AREAS AND ABOVE INACCESSIBLE CEILINGS SHALL REQUIRE CONDUIT AND J-BOXES. REFERENCE SPECIFICATIONS AND TECHNOLOGY DOCUMENTS FOR ADDITIONAL INFORMATION/REQUIREMENTS.

PULL BOXES AND BELOW GRADE CONDUIT FOR LOW VOLTAGE CABLING, WIRING, ETC. BY ELEC CONTRACTOR.

GAS WATER HEATER (GWH) NOTES:
1. PROVIDE CONTACTOR TIED TO BAS TO TURN OFF CIRCULATION PUMPS AT NIGHT.
2. WIRE AQUA STAT FOR CIRCULATION PUMP.
3. ALL FLEX CONNECTIONS SHALL HAVE LIQUID TIGHT CONSTRUCTION AND BE MAXIMUM 6FT LONG.
4. ELECTRICIAN SHALL CONNECT CO MONITOR PROVIDED WITH GWH TO THE GWH 120V CONTROL CIRCUIT PER MANUFACTURER'S RECOMMENDATIONS.

ELECTRICAL AND LOW VOLTAGE LEGEND AND SYMBOLS

- A — TYPE 'A' LIGHT FIXTURE
- LIGHT FIXTURE WITH EMERGENCY BACKUP
- EXIT SIGN/EXIT SIGN WITH DIRECTIONAL ARROW
- EMERGENCY EGRESS LIGHT FIXTURE
- WALL MOUNTED FIXTURE OR SCONCE
- CEILING DOWNLIGHT OR CYLINDER
- WALL PACK FIXTURE
- $/^{3}/$^{4} — 20A, 277V TOGGLE/3-WAY/4-WAY SWITCH
- #$ — 20A, 277V MOMENTARY 3-POSITION TOGGLE SWITCH
- #$ — 20A, 277V, MOMENTARY 3-POSITION KEY SWITCH
- $/^{3}/^{4}^{MK} — 20A, 277V MAINTAINED 2-POSITION/3-WAY/4-WAY KEY SWITCH
- $^{LT} — 20A, 277V TOGGLE SWITCH W/ INTEGRAL NIGHT LIGHT
- $/$^{MP} — MOTOR RATED ON/OFF SWITCH, MP W/ PILOT LIGHT (SWITCH RATING SHALL BE ≥ UPSTREAM OCPD & VOLTAGE)
- DPST $ — DOUBLE POLE SINGLE THROW (DPST) SWITCH WITH RED PILOT LIGHT.
- TSW — TIMER SWITCH
- EPS — EMERGENCY POWER OFF (EPO) SWITCH HEAVY DUTY RED EMERGENCY STOP PUSH BUTTON W/ 2.25" MUSHROOM HEAD, ENGRAVED NAMEPLATE, AND LIFT COVER. STI SS2021PO-EN OR EQUAL.
- PB — PUSH BUTTON
- TC — TIME CLOCK
- 20A, 125V SIMPLEX/DUPLEX/QUAD RECEPTACLE
- GFI — 20A, 125V DUPLEX RECEPTACLE WITH GFCI PROTECTION
- GFI WP — 20A, 125V DUPLEX RECEPTACLE WITH GFCI PROTECTION AND WEATHERPROOF COVER.
- USB GFI — REMOTE GFCI DEVICE, REF SPECS AND EDF GFI DETAIL.
- 20A, 125V DUPLEX/QUAD RECEPTACLE W/ INTEGRAL USB CHARGING PORTS
- 20A, 125V SIMPLEX/DUPLEX/QUAD IG/COMPUTER RECEPTACLE
- GFI — 20A, 125V, IG/COMPUTER DUPLEX RECEPTACLE WITH GFCI
- NEMA LOCKING TYPE — NEMA/IEC/CS NUMBERED POWER OUTLET MATCH PROVIDED EQUIPMENT CONNECTION OR CIRCUIT.
- TV IM — 20A, 125V IG DUPLEX RECEPTACLE AT PROJECTOR, TV, OR INTERACTIVE MEDIA LOCATION.
- PLUG LOAD CONTROLLED DUPLEX
- CEILING MOUNTED RECEPTACLE
- CEILING MOUNTED LOW VOLTAGE OUTLET
- DROP CORD
- SINGLE SERVICE FLOOR BOX WITH DUPLEX/QUAD REC
- SINGLE SERVICE FLOOR BOX WITH PLUG LOAD CONTROLS
- SINGLE SERVICE LOW VOLTAGE FLOOR BOXES
- MULTI SERVICE FLOOR BOX WITH QUAD/QUAD IG REC
- RECESSED MULTI-SERVICE FLOOR BOX BY DIVISION 26 PROVIDE CONTROLLED RECEPTACLES RECEPTACLES.
- J — J-BOX
- CEILING MOUNTED J-BOX
- HD J — JUNCTION BOX AND FINAL CONNECTION TO HAND DRYER BY DIVISION 26.
- HDWR J — JUNCTION BOX AND FINAL CONNECTION TO ELECTRIFIED DOOR HARDWARE BY DIVISION 26.
- HEAT J — JUNCTION BOX AND FINAL CONNECTION TO HEAT TRACE EQUIPMENT BY DIVISION 26.
- SPKR J — JUNCTION BOX AND FINAL CONNECTION TO LOCAL SOUND SPEAKER BY DIVISION 26.
- WC J — JUNCTION BOX AND FINAL CONNECTION TO POWERED PLUMBING EQUIPMENT BY DIVISION 26.
- SF J — JUNCTION BOX AND FINAL CONNECTION TO SYSTEM FURNITURE BY DIVISION 26.
- IRR J — JUNCTION BOX FOR CONNECTION TO IRRIGATION SYSTEM

NETWORK LIGHTING CONTROLS

- MULTIBUTTON LOW VOLTAGE LIGHTING SWITCH PROVIDE NUMBER OF BUTTONS INDICATED IN SINGLE PLATE.
- MULTIPLE DIMMER SWITCHES PROVIDE NUMBER OF SWITCHES INDICATED IN SINGLE PLATE.
- MULTIPLE KEY TYPE SWITCHES PROVIDE NUMBER OF SWITCHES INDICATED IN SINGLE PLATE.
- WALL SENSOR SWITCH
- $p — 20A, 277V, STANDALONE DIMMER SWITCH (DISPLAY CABINET)
- OC — 360° CEILING SENSOR
- OC — 180° CEILING SENSOR
- OP — CEILING SENSOR
- OC — WALL MOUNT SENSOR
- PC — DAYLIGHT PHOTOSENSOR
- IR — IR PARTITION SENSOR

KITCHEN SYMBOL LEGEND

- LOAD CENTER, BY FOOD SERVICE PROVIDE UNDERGROUND CONDUIT STUBBED UP AT LOAD CENTER LOCATION PER SUBMITTAL SHOP DRAWINGS.
- P — POINT OF SALE EQUIPMENT, BY FOOD SERVICE. PROVIDE UNDERGROUND CONDUIT STUBBED UP POS LOCATION PER SUBMITTAL SHOP DRAWINGS.
- F — REMOTE FIRE PULL, REFERENCE INSTALLATION DETAIL
- B — BELL/BUZZER WITH 120V TO LOW VOLTAGE TRANSFORMER
- D — DROP CORD
- DB — DOORBELL BUTTON
- 1D (POS) — 1 DATA DROP AT POINT OF SALE LOCATION
- 1D (MENU) — 1 DATA DROP AT KITCHEN MENU LOCATION
- C — CONTACTOR
- R — RELAY
- NON-FUSED DISCONNECT SWITCH
- NON-FUSED DOUBLE THROW DISCONNECT
- FUSED DISCONNECT SWITCH
- DISCONNECT/CB WITH SHUNT TRIP
- CB — ENCLOSED CIRCUIT BREAKER
- MOTOR STARTER 'VFD' INDICATES VARIABLE FREQUENCY DRIVE MOTOR STARTER
- MOTOR STARTER WITH INTEGRAL DISCONNECT
- MOTOR
- ELECTRICAL PANELBOARD
- ELECTRICAL METER
- SPD — TVSS OR SPD
- ETC — EMPLOYEE TIME CLOCK
- WB — RECESSED IN-WALL BOX, REFERENCE DETAILS
- GENERATOR REMOTE ANNUNCIATOR
- DDC — HVAC CONTROL PANEL, REQUIRES POWER AND DATA CONNECTIONS WITHIN CABINET COOR EXACT LOCATION AND REQUIREMENTS WITH CONTROLS CONTRACTOR PRIOR TO ROUGH-IN.
- LOW VOLTAGE CABLING PATHWAY, REF. SPECIFICATIONS
- GROUND BAR

DIVISION 27 LEGENDS

COMMUNICATIONS

- DATA (PHONE) OUTLET, #D (#T) DENOTES NUMBER OF DATA (PHONE) DROPS.
- SINGLE SERVICE LOW VOLTAGE FLOOR BOXES
- DATA (PHONE) CEILING OUTLET, #D (#T) DENOTES NUMBER OF DATA (PHONE) DROPS.
- AP / WP — WIRELESS ACCESS POINT, REQUIRES ONE (1) DATA DROP WHERE SHOWN WITH "WM" INDICATES WALL MOUNTED.
- WALL MOUNTED VOIP TELEPHONE, REQUIRES ONE (1) DATA DROP
- LOW VOLTAGE CABLING PATHWAY, REF. SPECIFICATIONS
- WB — RECESSED IN-WALL BOX, REFERENCE DETAILS.
- 2-POST DATA RACK
- WALL MOUNTED DATA CABINET

1D,2D,3D... 1, 2, 3, ETC. DATA DROPS IN A SINGLE OUTLET
1T,2T,3T... 1, 2, 3, ETC. PHONE DROPS IN A SINGLE OUTLET
1V,2V,3V... 1, 2, 3, ETC. VOICE DROPS IN A SINGLE OUTLET
1W,2W,3W... 1, 2, 3, ETC. DATA DROPS TO A WIRELESS ACCESS POINT
1C,2C,3C... 1, 2, 3, ETC. DATA DROPS TO A CAMERA
EMS, BAS — LV CONNECTION FOR BUILDING CONTROLS, COOR WITH MECH
FA — LV CONNECTION FOR FIRE ALARM, COOR WITH DIV28
SEC — LV CONNECTION FOR SECURITY, COOR WITH DIV28
TV — INDICATES DEVICES AT TELEVISION/DISPLAY LOCATION
IM — INDICATES DEVICES AT INTERACTIVE MEDIA LOCATION
PROJ — INDICATES DEVICES AT PROJECTOR LOCATION

AUDIO & VIDEO LEGEND

- TEACHER'S WORK STATION TWS, REF. WORK STATION DETAILS.
- PS — PRESENTATION STATION
- D# — DISPLAY LOCATION, D# DENOTES DISPLAY TYPE PER DISPLAY SCHEDULE.
- AV# — A/V CONNECTION PLATE, REFERENCE DETAILS FOR CONNECTION TYPE/#
- TV — TELEVISION CONNECTION PLATE, REFERENCE DETAILS FOR CONNECTION TYPE/#
- P — WALL/CEILING MOUNTED PROJECTOR.
- CP — TOUCHSCREEN CONTROL PANEL
- AV 1 — A/V PLATE, REFERENCE MUSIC WORK STATION DETAIL
- AV 2 — A/V PLATE, REFERENCE MUSIC WORK STATION DETAIL
- ADP — PA COMMUNICATIONS ADMIN DESK PHONE, REQUIRES DATA TO PA SOUND RACKS.
- PA — PA COMMUNICATIONS REMOTE OUTLET PLATE (REF FLOOR PLANS AND DETAILS)
- CB — 1-GANG, DUAL, PUSH-TO-CALL BUTTON FOR 2-WAY PA COMMUNICATIONS
- S / $v — VOLUME CONTROL SWITCH
- S# S# — SOUND SPEAKER, # DENOTES SPEAKER TYPE, REFERENCE SPEAKER SCHEDULE.
- WALL MOUNTED CLOCK, REF SPECIFICATIONS # DENOTES ONE OR TWO-SIDED
- COMBINATION CALL BUTTON SPEAKER UNIT
- HA ANTENNA, HA = HEARING ASSIST, WM = WIRELESS MICROPHONE
- LOCAL SOUND INPUT
- SPEAKER OUTPUT
- SINGLE/DUAL MICROPHONE INPUT
- CHIR — CHOIR MICROPHONE
- PS — IR PARTITION SENSOR
- AH / WG / WP — ADMINISTRATIVE HANDSET/DESK PHONE WIREGUARD WEATHERPROOF
- +XXFT — MOUNTED XXFT AFF/AG
- 21,22,23... — SPEAKER ZONES 1, 2, 3, ETC.
- LSR — LOCAL SOUND RACK CABINET

DIVISION 28 LEGENDS

FIRE ALARM

- F — FIRE ALARM PULL STATION
- WALL FIRE ALARM AUDIO/VISUAL DEVICE
- WP S — OUTDOOR WEATHERPROOF FIRE AUDIO/VISUAL DEVICE
- H — WALL FIRE ALARM AUDIO DEVICE
- V — WALL FIRE ALARM VISUAL DEVICE
- H V — CEILING FIRE ALARM AUDIO/VISUAL DEVICE
- S — CEILING FIRE ALARM AUDIO DEVICE
- V — CEILING FIRE ALARM VISUAL DEVICE
- DUCT SMOKE DETECTOR
- CEILING SMOKE DETECTOR
- H — CEILING HEAT DETECTOR
- CO — CEILING CARBON MONOXIDE DETECTOR
- CO/S — CEILING COMBINATION SMOKE/CARBON MONOXIDE DETECTOR
- FR — FIRE ALARM RELAY
- B — SPRINKLER NOTIFICATION BELL
- FANN — FIRE ALARM REMOTE ANNUNCIATOR OR LOCAL OPERATOR'S CONSOLE
- FACP — FIRE ALARM CONTROL PANEL
- FAPS — FIRE ALARM POWER SUPPLY/AMPLIFIER
- G — INDICATES DEVICE WITH PROTECTIVE GUARD
- WG — INDICATES DEVICE WITH WIRE GUARD
- HC — INDICATES DEVICE RATED FOR HAZARDOUS CONDITIONS
- SD — SMOKE DAMPER
- FD — FIRE/SMOKE COMBINATION DAMPER

SECURITY AND ACCESS CONTROL

- SCP — SECURITY CONTROL PANEL WITH KEYPAD
- SKP — SECURITY KEYPAD @ +52" AFF, 16" OFF DOOR FRAMES
- SPS — SECURITY EQUIPMENT CABINET AND POWER SUPPLY
- MS — CEILING MOUNTED MOTION DETECTOR
- ML — WALL MOUNTED MOTION DETECTOR
- DC — SECURITY DOOR CONTACT
- DC2 — SECURITY DOUBLE DOOR CONTACT(S)
- GB — GLASS BREAK SENSOR
- DR — SECURITY DOOR RELEASE
- DR — SECURITY DOOR PUSH BUTTON RELEASE(S), ONE PER DOOR COOR LOCATION IN KNEE SPACE W/ OWNER & ARCH.
- DW — WIRELESS DOOR RELEASE
- VI — VIDEO INTERCOM STATION REQUIRES ONE (1) DATA DROP.
- VI M — VIDEO INTERCOM MASTER STATION, REQUIRES ONE (1) DATA DROP.
- VI CR — VIDEO INTERCOM STATION WITH INTEGRAL CARD READER REQUIRES ONE (1) DATA DROP.
- CR — CARD READER
- KP — NUMERICAL ACCESS KEYPAD
- LD — LOCKDOWN CONTROL/BUTTON, COOR LOCATION IN KNEE SPACE W/ OWNER & ARCH.
- SR — SECURITY ALARM SIREN
- C — SECURITY CAMERA, REQUIRES ONE (1) DATA DROP
- SECURITY CAMERA WITH # OF LENSES AS SHOWN, REQUIRES ONE (1) DATA DROP
- QUAD LENS SECURITY CAMERA W/ 5TH PTZ LENS WHEN NOTED, REQUIRES ONE (1) DATA DROP
- M SEC — SECURITY MICROPHONE W/ NETWORK I/O MODULE, REQUIRES ONE (1) DATA DROP.
- C SB507 — SECURITY CAMERA W/ BUILT IN MICROPHONE, REQUIRES ONE (1) DATA DROP. INSTALLATION PER TEXAS STATE BILL 507 REQUIREMENTS.
- M SB507 — SECURITY MICROPHONE W/ NETWORK I/O MODULE, REQUIRES ONE (1) DATA DROP. INSTALLATION PER TEXAS STATE BILL 507 REQUIREMENTS.
- CARD READER PEDESTAL
- EXT PTZ — INDICATES EXTERIOR RATED DEVICE INDICATES CAMERA WITH PTZ CAPABILITIES

MULTI-SERVICE FLOOR BOX NOTES

FLOOR POWER AND LOW VOLTAGE
PROVIDE HEAVY-DUTY MULTI-GANG FLUSH IN GRADE OR FIRE RATED POKE-THRU OUTLET WITH HEAVY DUTY METAL HINGED COVER WITH CABLE EXIT SLOT.
FLOOR BOX MUST BE RATED FOR INSTALLATION IN GRADE.

FOR EACH FLOOR BOX PROVIDE:
1. PROVIDE:
   1.A. TWO DUPLEX RECEPTACLES
   1.B. PROVIDE ONE FULL CONTROLLED AND ONE UNCONTROLLED RECEPTACLE WHERE SHOWN.
   1.C. POWER CONNECTION TO TABLE (WHERE SHOWN)
2. BLANK STAINLESS STEEL COVER FOR UN-USED GANGS.
3. PROVIDE ONE 3/4"C UNDERGROUND CONDUIT FOR POWER.
4. PROVIDE ONE 1"C UNDERGROUND CONDUIT WITH WATERPROOF INNER DUCT FOR DATA.
5. PROVIDE ONE 1.25"C UNDERGROUND CONDUIT WITH WATERPROOF INNER DUCT FOR LOW VOLTAGE CABLING
6. PROVIDE DIVIDERS TO MAINTAIN SEPARATION BETWEEN SERVICES.

UNDERGROUND CONDUITS MUST BE WATER TIGHT TO PREVENT MOISTURE ENTERING CONDUITS.
DO NOT COMBINE CONDUIT FOR POWER & LOW VOLTAGE.

REFERENCE FLOOR PLANS AND SPECIFICATIONS FOR QUANTITY OF DATA DROPS AND ADDITIONAL INFORMATION.

COORDINATE WITH ARCHITECT TO PROVIDE COVER/RING TO MATCH FLOOR MATERIAL AND SUBMIT COVER FINISH FOR ARCHITECT TO SELECT PRIOR TO ORDERING.

GENERAL NOTES / TAGS

- +18" — INDICATES DEVICES AT +18" AFF
- +42" — INDICATES DEVICES AT +42" AFF
- +96" — INDICATES DEVICES AT +96" AFF
- +12 FT — INDICATES DEVICES AT +12 FT AFF, ETC.
- + — INDICATES DEVICES ABOVE COUNTER, REF ARCH
- CLG — INDICATES DEVICES AT CEILING
- PMR — INDICATES PEDESTAL MOUNTED DEVICE, REF PMR DETAIL
- TV — INDICATES DEVICES AT TELEVISION/DISPLAY LOCATION
- IM — INDICATES DEVICES AT INTERACTIVE MEDIA LOCATION
- PROJ — INDICATES DEVICES AT PROJECTOR LOCATION
- S — INDICATES SURFACE MOUNTED DEVICE
- IEC — INDICATES IEC POWER OUTLET
- NEMA — INDICATES NEMA NUMBERED POWER OUTLET
- GFI — INDICATES GROUND FAULT INTERRUPT (GFI) PROTECTION
- WP — INDICATES WEATHERPROOF DEVICES
- WP GFI — INDICATES GFI PROTECTED WEATHERPROOF DEVICE
- G — INDICATES DEVICE WITH PROTECTIVE GUARD
- WG — INDICATES DEVICE WITH WIRE GUARD
- WP — INDICATES DEVICE WITH WEATHERPROOF
- 3R — INDICATES NEMA 3R RATED DEVICE
- 4XSS — INDICATES NEMA 4XSS RATED DEVICE
- EM — INDICATES DEVICE ON EM/STANDBY POWER
- VFD — INDICATES VARIABLE FREQUENCY DRIVE (VFD)
- E — EXISTING DEVICES TO REMAIN
- D — EXISTING DEVICES TO BE DEMO/REMOVED
- R — EXISTING DEVICES TO BE RELOCATED
- REP — EXISTING DEVICES TO BE REPLACED
  (X) = (E) FOR EXISTING
  (X) = (D) FOR DEMO
  (X) = (R) FOR RELOCATION
  (X) = (N) FOR NEW
- HOMERUN TO CIRCUIT NOTED

SITE PLAN

- UTILITY POLE
- POLE MOUNTED TRANSFORMER BANK
- SITE POLE LIGHT
- UGE J — FLUSH IN GRADE ELECTRICAL PULL BOX
- LV (IN) J — FLUSH IN GRADE, LOW VOLTAGE HAND HOLE
- CONCRETE BOLLARD
- (X)PP — POWER POLE
- (X)SP — SERVICE POLE OR RACK
- (X)XP — XFMR POLE
- (X)LVP — LOW VOLTAGE POLE
- (X)TP — TRANSITION POLE
- OHP — OVERHEAD POWER WIRING
- 480V — 480V OVERHEAD POWER WIRING
- UGP — UNDERGROUND PRIMARY ELECTRICAL
- UGS — UNDERGROUND SECONDARY ELECTRICAL
- UGE — UNDERGROUND EMERGENCY ELECTRICAL

1. RECEPTACLES AND DATA OUTLETS SHALL BE MOUNTED AT +18" AFF UNLESS NOTED ON THE DRAWINGS.
2. REF. SPECIFICATIONS FOR MOUNTING HEIGHT OF OTHER DEVICES.
3. ELECTRICAL RECEPTACLES, TELEPHONES, ETC... ARE SHOWN FOR GENERAL LOCATION. HEIGHTS ARE NOTED SO THE ESTIMATOR WILL KNOW WHETHER THEY ARE ABOVE OR BELOW COUNTERS. PRIOR TO INSTALLATION, REVIEW THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. IN THE EVENT OF CONFLICT, THE ARCHITECT'S LOCATION WILL GENERALLY PREVAIL BUT SHOULD BE CLARIFIED BY RFI. PROVIDE DEVICES SHOWN ON THE ELECTRICAL DRAWING EVEN IF NOT SHOWN ON ARCHITECTURAL DRAWINGS.
4. COORDINATE POWER AND DATA WITH THE FURNITURE SUPPLIER PRIOR TO ROUGH-IN. AT CASEWORK WITH KNEE SPACE, MOUNT RECEPTACLES AND DATA OUTLETS IN KNEE SPACE. COORDINATE WITH ARCHITECT AND FURNITURE SUPPLIER TO ENSURE THAT PROTECTIVE GROMMETS ARE PROVIDED IN THE COUNTER.
4. ALL DEVICES SHOWN AT THE SAME LOCATION AND ELEVATION SHALL BE GROUPED TOGETHER AND SPACED 2 INCHES BETWEEN BOXES.
5. PROVIDE SS COVER PLATE FOR ALL EMPTY JBOX.
6. ALL NON-LOCKING 125V AND 250V, 15A AND 20A RECEPTACLES SHALL BE TAMPER RESISTANT TYPE.

PRELIMINARY
NOT FOR CONSTRUCTION OR BIDDING PURPOSES

STANTON ENGINEERING GROUP
TBPE REGISTRATION F-2612 (713) 300-9092

ENGINEERING FIRM REGISTRATION © 2025 ALL RIGHTS RESERVED

1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

CONSULTANTS
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)
STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)
MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)
FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)
LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E5.00
SYMBOL LEGEND AND NOTES

FIRE ALARM SCOPE OF WORK

1. PROVIDE WIRING AND DEVICES AS INDICATED TO PROVIDE COMPLETE AUDIBLE, INTELLIGIBLE AND VISUAL ALARM COVERAGE OF NEW AREAS.
   1.A. PROVIDE SMOKE DETECTOR COVERAGE OF ALL CORRIDORS, STORAGE ROOMS, MECHANICAL ROOMS, ELEVATOR AND ADDITIONALLY AS SHOWN ON THE DRAWINGS.
   1.B. PROVIDE HEAT DETECTOR COVERAGE OF THE KITCHEN, CUSTODIAL ROOMS, MECHANICAL ROOMS, ELEVATOR, AND ADDITIONALLY AS SHOWN ON THE DRAWINGS.
   1.C. PROVIDE STI PROTECTIVE COVERS ON ALL FIRE ALARM DEVICES LOCATED IN THE GYM, COMMUNAL RESTROOMS, AND ADDITIONALLY AS SHOWN ON THE DRAWINGS.
   1.D. PROVIDE DUCT MOUNTED DETECTORS AT EACH NEW AIR HANDLING UNIT SUPPLY AND RETURN CONNECTION EXCEEDING 2000 CFM. IF FREE AIR RETURN, PROVIDE FREE AIR DETECTOR COVERAGE OF THE RETURN AIR OPENINGS TO THE MECHANICAL ROOM. ENSURE AIR FLOW CANNOT PREVENT OPERATION OF THE DETECTORS AND PROVIDE ADEQUATE CLEARANCE PER NFPA 72.
   1.E. PROVIDE MONITORING OF FIRE SPRINKLER RISERS, VAULT AND POST INDICATOR VALVES.
   1.F. PROVIDE INTERLOCKING WITH KITCHEN FIRE SUPPRESSION SYSTEM AND KITCHEN FANS.
   1.G. POWER AND INTERLOCK MAGNETIC HOLD OPENS WHERE INDICATED ON THE PLANS.
   1.H. INTERLOCK SECURITY ROLLUP GRILLES TO FAIL SAFE OPEN.
   1.I. INTERLOCK SECURITY VESTIBULE INTERIOR DOOR TO FAIL SAFE OPEN.
   1.J. INTERLOCK ELEVATOR RECALL SYSTEM.
   1.K. CONTROL RELAYS SHALL BE LOCATED WITHIN 3 FT OF THE CONTROLLED CIRCUIT OR APPLIANCE.
2. PROVIDE SMOKE DETECTORS AT EACH NEW FIRE ALARM PANEL, REMOTE TRANSPONDER PANEL, BOOSTER PANEL AND REMOTE ANNUNCIATOR PER NFPA 72.
3. PROVIDE LED REMOTE ALARM WITH ENGRAVED STAINLESS STEEL PLATE WHERE DUCT DETECTORS ARE NOT LOCATED IN MECHANICAL ROOM, LOCATED ABOVE CEILINGS OR WHERE MOUNTED TOO HIGH OR VIEW IS BLOCKED BY DUCTWORK IN MECHANICAL ROOM. 3.A. REMOTE LED LIGHT INDICATOR FOR DUCT SMOKE DETECTORS SHALL BE MOUNTED FLUSH IN CEILING OR MOUNTED IN WALL AT +7FT. 3.B. STAINLESS STEEL PLATE SHALL BE ENGRAVED WITH THE DUCT SMOKE DETECTOR AS-BUILT IDENTIFICATION NUMBER.
4. MAIN COMMUNICATIONS AND LOCAL SOUND REINFORCEMENT SYSTEMS IN THE GYMNASIUMS, CAFETERIA, AND CLASSROOM PROJECTOR/AUDIO VIDEO SPEAKERS SHALL BE AUTOMATICALLY MUTED DURING THE FIRE ALARM SYSTEM ACTIVATION (NFPA LIFE SAFETY CODE 101, 7-6.3.10 AND NATIONAL FIRE ALARM CODE 72, 3-8.13.5). HOWEVER, THE SCHOOL COMMUNICATION SYSTEM SHALL REMAIN CAPABLE OF MANUAL OVERRIDE SO THAT THE SCHOOL STAFF CAN DELIVER VOICE INSTRUCTIONS OVER THE SCHOOL COMMUNICATIONS SYSTEM, SUCH AS DIRECTING STUDENTS TO RETURN AFTER A FIRE DRILL. THE GENERAL CONTRACTOR SHALL COORDINATE WITH ALL RELEVANT CONTRACTORS (FIRE ALARM, COMMUNICATIONS SYSTEM, AUDIO VIDEO, ETC.) FOR THIS REQUIREMENT DURING THE BIDDING PERIOD. INCLUDE THE COST FOR ALL CABLING, RELAYS, MODULES, ETC. AS REQUIRED TO MEET THESE REQUIREMENTS.
5. REFER TO THE WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SPARES

1. THE FIRE ALARM CONTRACTOR SHALL INCLUDE IN HIS BID THE COST TO PROVIDE AND INSTALL THE ADDITIONAL SPARE PARTS AND ASSOCIATED CABLING PER THE SPECIFICATIONS. SPARES SHALL BE INSTALLED AS INSTRUCTED BY THE OWNER. UNINSTALLED DEVICES SHALL BE DELIVERED TO THE OWNER AS ATTIC STOCK.

FIRE ALARM SYSTEM DESCRIPTION AND SEQUENCE OF OPERATION

1. FIRE ALARM SYSTEM SHALL BE DESIGNED TO MEET NFPA REQUIREMENTS AS WELL AS CITY AND NATIONAL BUILDING CODES. PROVIDE COMPLETE FIRE ALARM SYSTEM, DEVICES AND WIRING.
2. INSTALL FIRE ALARM CONTROL PANEL IN RECEPTION AREA. INSTALL REMOTE POWER SUPPLY PANELS IN MECHANICAL/ELECTRICAL ROOMS.
   2.A. PROVIDE INTEGRAL TEST SWITCH/KEYPAD WITH FIRE ALARM PANEL CAPABLE OF ACTIVATING SYSTEM WITHOUT NOTIFYING THE MONITORING SERVICE FOR FIRE ALARM DRILLS.
   2.B. FIRE ALARM PANEL SHALL DIAL OUT USING THE SECURITY SYSTEM CERTIFIED DIALER WHICH SHALL AUTOMATICALLY CALL TWO DIFFERENT DESIGNATED NUMBERS IN THE EVENT OF A FIRE OR SYSTEM TROUBLE. COORDINATE WITH THE SECURITY SYSTEM CONTRACTOR.
3. FIRE ALARM PANEL, POWER SUPPLIES, DEVICES, ETC. SHALL BE MANUFACTURED BY THE SAME MANUFACTURER AS THE FIRE ALARM CONTROL PANEL.
4. FIRE ALARM REMOTE POWER SUPPLIES AND PANELS SHALL BE LOCATED IN MECHANICAL OR ELECTRICAL ROOMS ONLY. DO NOT LOCATE IN STORAGE ROOMS, DATA CLOSETS OR FINISHED SPACES.
5. PROVIDE AUDIBLE, INTELLIGIBLE AND VISUAL ALARM COVERAGE OF THE ENTIRE BUILDING.
6. PROVIDE SMOKE DETECTORS AT EACH FIRE ALARM PANEL, REMOTE TRANSPONDER PANEL, BOOSTER PANEL AND REMOTE ANNUNCIATOR PER NFPA 72.
7. PROVIDE FIRE PULL STATION WITHOUT STOPPER II COVER AT REMOTE ANNUNCIATOR LOCATION AND ADDITIONAL LOCATIONS REQUIRED BY CODE.
8. IN ADDITION TO THE SPECIFIED FIRE ALARM EQUIPMENT, THE FIRE ALARM CONTRACTOR SHALL PROVIDE:
   7.A. SURGE PROTECTORS FOR TWO PHONE LINES
   7.B. SURGE PROTECTORS FOR ALL 120V AC POWER
   7.C. SURGE PROTECTORS FOR ALL SIGNALING LINE CIRCUITS (SLC), NOTIFICATION CIRCUITS AND INITIATING CIRCUITS CONNECTED TO THE FIRE ALARM CONTROL PANEL WHICH LEAVE THE BUILDING.
8. SHOULD ANY DETECTOR, MONITOR OR PULL STATION ACTIVATE, ALL SPEAKERS SHALL SOUND AND STROBES FLASH. AIR HANDLING EQUIPMENT SHALL BE DEACTIVATED. AN ALARM SIGNAL SHALL BE SENT TO A REMOTE LOCATION VIA AUTOMATIC DIALER. ALSO, DE-ENERGIZE SUPPLY FANS, EXHAUST FANS AND OTHER AIR CIRCULATING DEVICES IF 2000 CFM OR OVER, SERVING THE AREA IN ALARM.
9. ALL LOW VOLTAGE WIRING SHALL BE FPLP RATED WIRE, WITH MINIMUM WIRE SIZE PER SPECIFICATIONS.
   9.A. PLENUM RATED CABLE ABOVE ACCESSIBLE CEILING SHALL BE SUPPORTED BY J-HOOKS, SPACED AT FOUR (4) FEET ON CENTER.
   9.B. INSTALL FIRE ALARM CABLES IN CONDUIT FOR AREAS WITHOUT CEILING OR ABOVE INACCESSIBLE CEILINGS.
   9.C. EXPOSED CONDUIT IN FINISHED SPACES SHALL BE ALLOWED WHERE NO OTHER OPTION EXISTS AND ONLY WITH PRIOR WRITTEN APPROVAL BY THE OWNER. ALL EXPOSED CONDUIT SHALL BE PAINTED TO MATCH.
   9.D. ALL CABLING THROUGH WALLS, FIRE WALLS AND FLOORS SHALL BE INSTALLED IN SLEEVES WITH PROTECTIVE BUSHINGS ON BOTH ENDS.
10. FIRE ALARM SYSTEM SHALL BE MONITORED BY A UL LISTED CENTRAL RECEIVING STATION.
11. INTERLOCK LIGHTING CONTROL PANELS WITH FIRE ALARM SYSTEM TO ENABLE ALL LIGHTING UPON ACTIVATION.
12. REFER TO THE WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

FIRE ALARM SYSTEM NOTES

1. GENERAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL AND FIRE ALARM SUBCONTRACTORS FOR POWER SUPPLIES. FIRE ALARM POWER SUPPLIES ARE NOT SHOWN ON THIS DRAWING AND SHALL BE LOCATED BY FIRE ALARM SUBCONTRACTOR IN ORDER TO ACCOMMODATE HIS FIRE ALARM SYSTEM BATTERY AND VOLTAGE DROP CALCULATIONS PER MANUFACTURER'S RECOMMENDATION & NFPA REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL INCLUDE ADDITIONAL DEDICATED 120V CIRCUITS IN BASE BID TO SERVE FIRE ALARM POWER SUPPLIES IN DIFFERENT AREAS. PROVIDE 2-12 +12G, 3/4"C AND SPARE 20A/1P CB(S) IN LOCAL LIFE SAFETY EMERGENCY 120V PANELS TO SERVE FIRE ALARM REMOTE POWER SUPPLIES.
2. FIRE ALARM CONTRACTOR IS RESPONSIBLE FOR DESIGN AND FOR FINAL CORRECT LOCATION OF DEVICES TO RELIEVE NUISANCE ALARMS, SUCH AS INSTALLING A HEAT DETECTOR IN FRONT OF AN OVEN WHICH WILL RELEASE STEAM, THUS POTENTIALLY SETTING OFF THE ALARM. ALSO, THE CONTRACTOR IS RESPONSIBLE FOR DETECTORS REQUIRED BY CODE EVEN IF NOT SHOWN ON DRAWING, LIKE A CLOSET. IF THERE IS UNCERTAINTY, BRING UP DURING THE BID PROCESS AND THEY WILL BE ADDRESSED DURING THE BIDDING PROCESS.
3. FIELD VERIFY ENVIRONMENTAL ISSUES THAT CAN ADVERSELY AFFECT OPERATION OF SMOKE DETECTORS. DO NOT LOCATE NEAR AIR FLOW DEVICES LEADING TO PREMATURE BUILD UP OF DUST CAUSING NUISANCE TROUBLE SIGNALS. DEVICE RELOCATION OR TYPE CHANGE WILL BE COVERED UNDER WARRANTY.

INTERCOM SOUND SYSTEM NOTES:

GENERAL INTERCOM SOUND SYSTEM NOTES

PROVIDE A COMPLETE COMMUNICATIONS SYSTEM, INDEPENDENT OF ANY TELEPHONE SYSTEMS, CAPABLE OF PROVIDING TWO-WAY SPEECH COMMUNICATION BETWEEN SELECTED SPEAKER STATIONS, INTERCOM HANDSETS OR CALL BUTTON LOCATIONS AND THE MAIN CONSOLE. SYSTEM SHALL ALSO BE CAPABLE OF DISTRIBUTING SOUND AND VOICE SIGNALS TO ALL SYSTEM SPEAKERS SIMULTANEOUSLY OR IN USER PROGRAMMED GROUPS OF SPEAKER STATIONS. SEE PLANS FOR LAYOUT OF INDOOR/OUTDOOR SPEAKERS, CALL BUTTON/PHONE AND VOLUME CONTROLS.

LOCAL SOUND REINFORCEMENT SPEAKERS AND CLASSROOM INSTRUCTIONAL SPEAKERS SHALL BE MUTED DURING PA ANNOUNCEMENTS. COORDINATE WITH OWNER FOR DESIRED OVERRIDE ANNOUNCEMENT SETTINGS DURING COMMUNICATIONS SYSTEM PROGRAMMING.

SPEAKER ZONE NOTES

1. OUTDOOR SPEAKERS SHALL BE CONNECTED TO DEDICATED OUTDOOR SPEAKER ZONES AND AMPLIFIERS SEPARATED FROM INDOOR SPEAKERS.
2. CAFETERIA, GYM AND STAGE PA SPEAKERS SHALL BE ON A DEDICATED AMPLIFIER SEPARATED FROM OTHER INDOOR SPEAKERS.
3. PROVIDE SEPARATE ZONES FOR EACH AREA, EXAMPLES OF SPEAKER ZONES ARE:
   A. CLASSROOMS,
   B. OFFICES,
   C. GYM,
   D. GYM/CAFETERIA LOCAL SOUND OVERRIDE,
   E. CAFETERIA,
   F. KITCHEN,
   G. CORRIDORS
   H. EXTERIOR SPEAKERS NORTH,
   I. EXTERIOR SPEAKERS SOUTH,
   J. EXTERIOR SPEAKERS EAST,
   K. EXTERIOR SPEAKER WEST,
   L. PORTABLE BUILDINGS (SPARE FOR FUTURE),

MASTER TIME SYSTEM NOTES

PROVIDE MASTER TIME SYSTEM AS PART OF THE COMMUNICATIONS SYSTEM AS REQUIRED TO FACILITATE THE GENERATION OF AUDIBLE SIGNALS THROUGH THE COMMUNICATIONS SYSTEM SPEAKERS (E.G. CLASS CHANGE TONES). BASED ON MOTOROLA MASTER TIME SYSTEM. PROVIDE MEANS OF MUTING LOCAL PROGRAM MATERIAL OF ALL PUBLIC ADDRESS SYSTEMS BY SCHEDULED COMMUNICATIONS SYSTEM EVENTS.

MASTER TIME SYSTEM SHALL BE INTEGRATED WITH DISTRIBUTED BUILDING CLOCK SYSTEMS.

FIRE ALARM INTERCONNECTION:

MAIN COMMUNICATIONS AND LOCAL SOUND REINFORCEMENT SYSTEMS IN THE GYMNASIUMS, CAFETERIA, AND CLASSROOM SPEAKERS SHALL BE AUTOMATICALLY MUTED DURING FIRE ALARM SYSTEM ACTIVATION (NFPA LIFE SAFETY CODE 101, 7-6.3.10 AND NATIONAL FIRE ALARM CODE 72, 3-8.13.5). HOWEVER, SCHOOL COMMUNICATION SYSTEM SHALL REMAIN CAPABLE OF MANUAL OVERRIDE SO THAT SCHOOL STAFF CAN DELIVER VOICE INSTRUCTIONS OVER THE SCHOOL COMMUNICATIONS SYSTEM, SUCH AS DIRECTING STUDENTS TO RETURN AFTER A FIRE DRILL. GENERAL CONTRACTOR SHALL COORDINATE WITH FIRE ALARM, AUDIO/VIDEO AND CAMPUS COMMUNICATION SUBCONTRACTORS FOR THIS REQUIREMENT DURING BIDDING PERIOD.

GENERAL ELECTRICAL NOTES

1. REFER TO THE WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. INSTALL SYSTEMS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
3. PROVIDE LIGHT FIXTURE FIRE PROTECTION AND CONDUIT FIRE SEALING TO MAINTAIN FIRE RATING OF WALLS AND CEILINGS PER ARCHITECT'S SCHEDULE. REF. SPECIFICATIONS AND ARCH. DRAWINGS FOR ADDITIONAL INFORMATION.
4. ELECTRICAL RECEPTACLES, TELEPHONES, ETC... ARE SHOWN FOR GENERAL LOCATION. HEIGHTS ARE NOTED SO THE ESTIMATOR WILL KNOW WHETHER THEY ARE ABOVE OR BELOW COUNTERS. PRIOR TO INSTALLATION, REVIEW THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. IN THE EVENT OF CONFLICT, THE ARCHITECT'S LOCATION WILL GENERALLY PREVAIL BUT SHOULD BE CLARIFIED BY RFI. PROVIDE DEVICES SHOWN ON THE ELECTRICAL DRAWING EVEN IF NOT SHOWN ON ARCHITECTURAL DRAWINGS.
5. COORDINATE POWER AND DATA WITH THE FURNITURE SUPPLIER PRIOR TO ROUGH-IN. AT CASEWORK WITH KNEE SPACE, MOUNT RECEPTACLES AND DATA OUTLETS IN KNEE SPACE. COORDINATE WITH ARCHITECT AND FURNITURE SUPPLIER TO ENSURE THAT PROTECTIVE GROMMETS ARE PROVIDED IN THE COUNTER.
6. DO NOT INSTALL ELECTRICAL PANELS AND TRANSFORMERS UNTIL 1/4" SCALE DRAWINGS SHOWING LOCATION OF THIS EQUIPMENT RELATIVE TO MECHANICAL/PLUMBING EQUIPMENT, DUCTWORK AND PIPING IS SUBMITTED AND APPROVED. NEC CODE CLEARANCE MUST BE MAINTAINED.
7. ELECTRICAL EQUIPMENT HAS BEEN COORDINATED WITH PIPING AND DUCTWORK. DO NOT RELOCATE PANELS WITHOUT PRIOR APPROVAL.
8. ELECTRICAL DEVICES IN FIRE RATED WALLS SHALL BE A MINIMUM OF 24" AWAY FROM DEVICES ON THE OPPOSITE SIDE OF THE WALL TO MAINTAIN FIRE RATING.
9. MINIMUM SIZE CONDUIT FOR POWER SHALL BE 3/4", MIN. SIZE FLEX CONDUIT MAY BE 1/2". MINIMUM SIZE CONDUIT FOR DATA SHALL BE 1"C. DO NOT COMBINE CONDUIT FOR DATA.
10. MAX. LENGTH FOR FLEX CONDUIT SHALL BE 6 FT. ALL FLEX CONDUIT SHALL BE LISTED FOR GROUNDING.
11. LIGHT FIXTURE WHIPS MAY BE MIN. 1/2" FLEX CONDUIT WITH MIN. #12 WIRE. LIGHT FIXTURE WHIPS SHALL NOT BE MORE THAN 6 FT LONG.
12. PROVIDE GREEN GROUND WIRE WITH ALL CIRCUITS SIZED PER NEC. BOND GREEN GROUND WIRE TO EACH END OF CONDUIT.
13. GROUND TRANSFORMER SECONDARY TO BUILDING STEEL AND GROUND ROD. PROVIDE CONDUIT TO PROTECT GROUNDING CONDUCTOR AND BOND EACH END OF CONDUIT TO GROUNDING SYSTEM. MIN. SIZE OF CONDUIT FOR GROUND WIRE SHALL BE 3/4"C.
14. PROVIDE J-BOXES, CONDUIT AND SLEEVES THRU ALL FIRE WALLS FOR DATA, TELEPHONE, SECURITY, FIRE ALARM AND SOUND SYSTEMS WIRINGS, ETC. SEE SPECIFICATIONS.
15. PROVIDE PULL BOXES, JUNCTION BOXES, WIRING TROUGHS AND CABINETS WHEREVER REQUIRED FOR PROPER INSTALLATION OF VARIOUS ELECTRICAL SYSTEMS.
16. WHERE PORTIONS OF INTERIOR RACEWAY SYSTEM ARE EXPOSED TO WIDELY DIFFERENT TEMPERATURES, PROVIDE AIR SEALING PER NEC TO PREVENT CIRCULATION OF AIR FROM WARMER TO A COOLER SECTION.
17. ALL WIRING SHALL BE 600 VOLT, SOFT DRAWN ANNEALED COPPER, 98% CONDUCTIVITY, CONTINUOUS FROM OUTLET TO OUTLET. MINIMUM WIRE SIZE #12. ALL WIRE SHALL BE STRANDED TYPE THHN OR THWN-2 (WET RATED FOR 90° C). ALL WIRES SHALL BE COLOR CODED WITH SAME COLOR CONNECTED TO SAME UNGROUNDED PHASE THROUGHOUT THE INSTALLATION.
18. ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT. NO SURFACE MOUNTED WIREMOLD SHALL BE ALLOWED IN FINISHED SPACES. MC CABLE SHALL BE ALLOWED INSIDE EXIST STUD WALLS OR CHASE WALLS.
19. ALL MATERIAL MUST BE NEW AND OF GOOD QUALITY AND SHALL BEAR THE STAMP OF APPROVAL OF THE UNDERWRITERS' LABORATORIES, INC. (U.L.).

GENERAL EQUIPMENT ELECTRICAL NOTE

THE ELECTRICAL DESIGN HAS BEEN COORDINATED FOR SPACE, INSTALLATION AND ELECTRICAL REQUIREMENTS WITH EQUIPMENT DETAILED OR SCHEDULED BY OTHER DIVISIONS. THE REQUIREMENTS FOR OTHER EQUIPMENT AND MODELS FROM ACCEPTABLE MANUFACTURERS HAVE NOT BEEN VERIFIED OR COORDINATED. THE GENERAL CONTRACTOR SHALL VERIFY THESE REQUIREMENTS PRIOR TO USING OTHER EQUIPMENT IN HIS BID AND INCLUDE ANY ADDITIONAL COSTS FOR INSTALLATION OF THE EQUIPMENT. THIS INCLUDES GENERAL CONSTRUCTION AND MEP COSTS.

ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OWNER/OTHER TRADES FOR EXACT ELECTRICAL REQUIREMENTS OF EQUIPMENT PRIOR TO ORDERING CB(S). FIELD VERIFY EQUIPMENT NAMEPLATE RATINGS AND EQUIPMENT CONNECTION LOCATIONS WITH OTHER TRADES PRIOR TO ROUGH-IN.

TYPICAL OF HVAC EQUIPMENT, SHOP EQUIPMENT, KITCHEN EQUIPMENT, ELECTRIC ROLLUP DOORS, ETC.

PROVIDE CONDUIT & SLEEVES THRU FIRE WALLS, WALLS AND FLOORS FOR LOW VOLTAGE CABLING WIRING, ETC.

PULL BOXES AND BELOW GRADE CONDUIT FOR LOW VOLTAGE CABLING, WIRING, ETC. BY ELEC CONTRACTOR.

ALL CONDUIT & J-BOXES FOR LOW VOLTAGE CABLING SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL LOW VOLTAGE CABLING IN WALLS, EXPOSED AREAS AND ABOVE INACCESSIBLE CEILINGS SHALL REQUIRE CONDUIT AND J-BOXES. REFERENCE SPECIFICATIONS AND TECHNOLOGY DOCUMENTS FOR ADDITIONAL INFORMATION/REQUIREMENTS.

RESPONSIBILITY MATRIX

SCOPE ITEM	RESPONSIBILITY			COMMENTS
COMMUNICATIONS DIVISION 27	**OFOI**	**CFCI**	**OFCI**	
STRUCTURED DATA CABLING SYSTEM		X		SEE NOTE 7.
TELECOM ROOM (TR) BUILDOUT				
– NETWORK RACKS AND ASSOCIATED COMPONENTS.		X		SEE NOTE 7.
– CABLE TRAY WITHIN TR		X		SEE NOTE 7.
– LADDER TRAY WITHIN TR		X		SEE NOTE 7.
– TR GROUND BAR		X		SEE NOTE 8.
– TELECOM CLOSET/EQUIPMENT BONDING		X		SEE NOTE 7.
– NETWORK HARDWARE	X			
– WIRELESS ACCESS POINTS	X			
– IP PHONE SYSTEM	X			
– IP PHONE SYSTEM HANDSETS	X			CISCO CP-7800-WMK MOUNTING PLATE
– IP PHONE SYSTEM HANDSET WALL MOUNTING PLATE		X		CISCO CP-7800-WMK MOUNTING PLATE
AUDIO/VIDEO DISTRIBUTION SYSTEMS		X		SEE NOTE 7.
CLASSROOM PROJECTORS & MOUNTS	X			
CLASSROOM DISPLAYS & MOUNTS	X			
STAGE PROJECTOR & MOUNT		X		SEE NOTE 7.
PROJECTION SCREENS		X		SEE NOTE 7.
FLAT PANEL DISPLAYS & MOUNTS	X	X		SEE NOTE 7.
DIGITAL SIGNAGE		X		SEE NOTE 7.
BUILDING INTERCOM/PA SYSTEM		X		SEE NOTE 7.
TELECOM BONDING BACKBONE		X		SEE NOTE 4.
RACEWAY: CONDUIT, BACK BOXES, SLEEVES, ETC.		X		SEE NOTE 4.
PATHWAYS: CABLE TRAY, EZ-PATH DEVICES, ETC.		X		SEE NOTE 4.
ELECTRICAL POWER		X		SEE NOTE 4.
LIFE SAFETY AND SECURITY - DIVISION 28				
EMERGENCY RESPONDER RADIO ANDTENNA (ERRA) SYSTEM		X		SEE NOTE 9.
ELECTRONIC ACCESS CONTROL SYSTEM (EACS)		X		SEE NOTE 9.
INTRUSION DETECTION SYSTEM		X		SEE NOTE 9.
DOOR ACCESS VIDEO INTERCOM SYSTEM		X		SEE NOTE 9.
VIDEO SURVEILLANCE SYSTEM (VSS)		X		SEE NOTE 9.
FIRE ALARM SYSTEM		X		SEE NOTE 10.
RACEWAY: CONDUIT, BACK BOXES, SLEEVES, ETC.		X		SEE NOTE 4.
ELECTRICAL POWER		X		SEE NOTE 4.

OFOI – OWNER FURNISHED AND OWNER INSTALLED
CFCI – CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED
OFCI – OWNER FURNISHED AND CONTRACTOR INSTALLED

RESPONSIBILITY MATRIX NOTES:
1. NONE IN PROJECT.
2. NOT USED.
3. NOT USED..
4. BY DIVISION 26.
5. REFERENCE DIVISION 8 FOR DOOR HARDWARE.
6. BY DIVISION 11.
7. PROVIDED BY DIVISION 27, REFERENCE TECHNOLOGY DRAWINGS.
8. PROVIDED BY DIVISION 27 IT CONTRACTOR, INSTALLED BY DIVISION 26.
9. BY DIVISION 28 SECURITY CONTRACTOR, REFERENCE TECHNOLOGY DRAWINGS.
10. BY DIVISION 28 FIRE ALARM CONTRACTOR, REFERENCE 3-E3.1X SHEETS.

DISPLAY SCHEDULE

TAG	DESCRIPTION	SOURCE: PROGRAM /REMOTE	SOURCE: LOCAL	DIVISION: PROVIDED BY	BASIS OF DESIGN
D0	PROVISIONS FOR FUTURE WALL MOUNTED DISPLAY		X	DIV26	PROVIDE 2-GANG DEEP A/V J-BOX WITH SINGLE GANG MUD RING AND 1.25"C TO CEILING CAVITY. COORDINATE LOCATION WITH POWER OUTLET.
D1	CLASSROOM INTERACTIVE FLAT PANEL DISPLAY		X	OFOI	OWNER FURNISHED DISPLAY ON MOBILE STAND.
D2	CLASSROOM CEILING MOUNTED PROJECTOR		X	OFCI	OWNER FURNISHED PROJECTOR AND CEILING MOUNT, COORDINATE WITH OWNER.
D3	OVERSTAGE PROJECTOR		X	274150	CFCI, EPSON PRO EB-PU1006W WITH ELPLU04/ELPLU02 LENS.
D4	CONFERENCE ROOM INTERACTIVE FLAT PANEL DISPLAY		X	OFCI	OWNER FURNISHED DISPLAY AND WALL MOUNT, COORDINATE WITH OWNER.
D5	OFFICE INTERACTIVE FLAT PANEL DISPLAY		X	OFCI	OWNER FURNISHED DISPLAY AND WALL MOUNT, COORDINATE WITH OWNER.
D6	TELEVISION FOR DIGITAL DISPLAY		X	OFCI	OWNER FURNISHED DISPLAY AND WALL MOUNT, COORDINATE WITH OWNER.
D7	KITCHEN MENU BOARD		X	DIV8	REFERENCE FOOD SERVICE / KITCHEN SPECIFICATIONS

AUDIO/VIDEO SPEAKER SCHEDULE

TAG	DESCRIPTION	BASIS OF DESIGN	SOURCE: PAGING	SOURCE: PROGRAM /LOCAL	DIVISION: PROVIDED BY	COMMENTS
S10	1X2 LAY-IN TILE SPEAKER	LIGHTSPEED TOPCAT		X	274100	PROVIDE LIGHTSPEED TOPCAT ACCESS SPEAKER, MICROPHONES, AND ACTIVATE SYSTEM W/ FLEX PODS, REF SPECIFICATIONS. TOPCAT ACCESS SPEAKER TO BE HARDWIRED TO LOCAL 120V TEACHER CIRCUIT BY DIVISION 26.
S11	PORTABLE INSTRUCTION SPEAKER SYSTEM	TOPCAT REDCAT		X	274100	PROVIDE LIGHTSPEED TOPCAT REDCAT ACCESS SYSTEM, MICROPHONES, AND FLEX PODS, REF SPECIFICATIONS.
S20	POWERED 10" WALL MOUNTED SPEAKER	QSC K10.2		X	274150	COLOR SELECTION BY ARCHITECT, LOCATION AND MOUNTING HEIGHT BY A/V CONTRACTOR.
S21	COLUMN LINE ARRAY	JBL CBT 70J-1		X	274150	COLOR SELECTION BY ARCHITECT, LOCATION AND MOUNTING HEIGHT BY A/V CONTRACTOR.
S22	8" CEILING A/V SPEAKER	JBL 328CT		X	274150	COLOR SELECTION BY ARCHITECT, LOCATION BY A/V CONTRACTOR.
S23	STAGE MONITOR OUTLETS	PROCO WPE135 SPEAKER OUTLET		X	274150	CO-LOCATE WITH POWER AND STAGE INPUT DEVICES.

CAMPUS COMMUNICATIONS DEVICE & SPEAKER SCHEDULE

TAG	DESCRIPTION	BASIS OF DESIGN	SOURCE: PAGING	SOURCE: PROGRAM /LOCAL	DIVISION: PROVIDED BY	COMMENTS
VC	WALL MOUNTED VOLUME CONTROL	QUAM QC10	X		275100	
S1	2X2 LAY-IN CEILING SPEAKER 1X2 LAY-IN TILE, OR 8" ROUND CUT-IN SPEAKER	QUAM SYSTEM 12 (LAY-IN) IN TYPICAL SPACES QUAM SYSTEM 5 (LAY-IN) IN ROOMS <100 SQFT QUAM SYSTEM 21 WITH BACKBOX (HARD CEILING)	X		275100	INTEGRAL VOLUME CONTROL KNOB
S2	2X2 LAY-IN CEILING SPEAKER W/ VOLUME CONTROL	QUAM SYSTEM 12VC	X		275100	INTEGRAL VOLUME CONTROL KNOB
S3	RECESSED IN-WALL EXTERIOR HORN	QUAM H16/SVP SPEAKER W/ QUAM ES8 BACKBOX & BS8W BAFFLE	X		275100	CONFIRM WALL CAVITY SPACE PRIOR TO ROUGH-IN. PROVIDE BEAD OF CLEAR CAULKING ON TOP AND SIDES BEHIND GRILLE FOR EXTERIOR LOCATIONS.
S4	SURFACE MOUNTED HORN	QUAM SYSTEM 3	X		275100	
S5	SURFACE MOUNTED VANDAL RESISTANT	QUAM SYSTEM 2VP	X		275100	
S6	SURFACE MOUNTED EXTERIOR HORN	QUAM QH 16T	X		275100	CONFIRM WALL CAVITY SPACE PRIOR TO ROUGH-IN.
S7	SURFACE MOUNTED WIDE ANGLE HORN	ATLAS SOUND APC-30T	X		275100	

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

PRELIMINARY
NOT FOR CONSTRUCTION OR BIDDING PURPOSES

STANTON ENGINEERING GROUP
TBPE REGISTRATION NO. F-20
(713) 300-9292

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND IS PROTECTED BY COPYRIGHT LAWS. ©2025 ALL RIGHTS RESERVED.

1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

E5.01

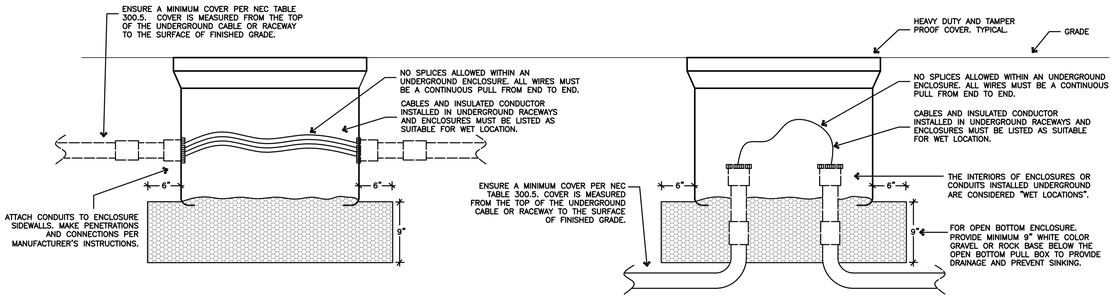
LOW VOLTAGE
NOTES AND SCHEDULES

UG PULL BOX SPECIFICATIONS

UNDERGROUND ENCLOSURE SHALL BE HUBBELL QUAZITE SERIES UNDERGROUND ENCLOSURE, UL LISTED AND MANUFACTURED BY LENOIR CITY, INC.

EQUAL UNDERGROUND ENCLOSURE MANUFACTURED BY OLD CASTLE OR CDR WITH UL OR ETL VERIFICATION SHALL BE ALSO ACCEPTABLE.

ENCLOSURES, BOXES AND COVERS ARE REQUIRED TO CONFORM TO ALL TEST PROVISIONS OF THE MOST CURRENT ANSI/SCTE 77 - SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY - FOR ANSI TIER 15 APPLICATIONS FOR BOTH COVERS AND BOXES. ALL COVERS ARE REQUIRED TO HAVE THE TIER LEVEL RATING EMBOSSED ON THE SURFACE WITH 2 BOLTS. IN NO ASSEMBLY CAN THE COVER DESIGN LOAD EXCEED THE DESIGN LOAD OF THE BOX. ALL COMPONENTS IN AN ASSEMBLY (BOX & COVER) ARE MANUFACTURED USING MATCHED SURFACE TOOLING. INDEPENDENT THIRD PARTY VERIFICATION OR TEST REPORTS STAMPED BY A REGISTERED PROFESSIONAL ENGINEER CERTIFYING THAT ALL TEST PROVISIONS OF THIS SPECIFICATION HAVE BEEN MET ARE REQUIRED WITH EACH SUBMITTAL. ELECTRICAL CONTRACTOR SHALL PROVIDE PROPER SIZE OF UNDERGROUND ENCLOSURE TO COORDINATE WITH THE CONDUITS AND FEEDERS PER NATIONAL ELECTRICAL CODE.

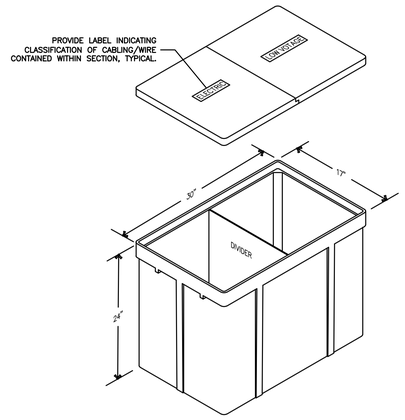


6 UNDERGROUND PULL BOX DETAILS

NO SCALE

NOTES:

1. SEE NATIONAL ELECTRICAL CODE FOR ADDITIONAL REQUIREMENTS.
2. COORDINATE PULL BOX LOCATION WITH OWNER AND OTHER TRADES PRIOR TO INSTALLATION.
3. PROVIDE SEPARATE PULL BOXES FOR LINE VOLTAGE AND LOW VOLTAGE WIRING.

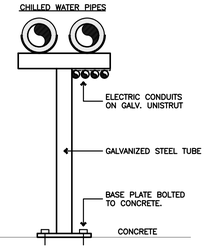


9 TWO SECTION UNDERGROUND PULL BOX DETAIL

NO SCALE

NOTES:

1. AS SHOWN BASIS OF DESIGN: QUAZITE ESR 120365
2. ELECTRICIAN TO CONFIRM SIZING IS SUFFICIENT FOR CONDUIT/CONDUCTORS TO BE ROUTED THROUGH EACH SECTION PRIOR TO ORDERING.

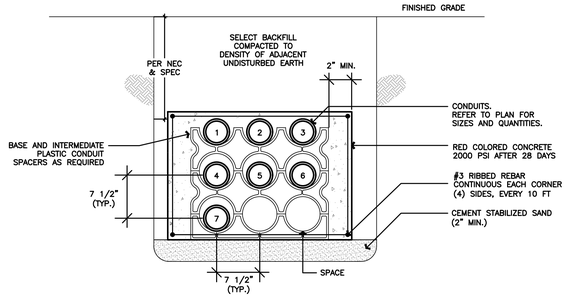


10 CHILLER YARD CONDUIT SUPPORT DETAIL

NO SCALE

NOTES:

1. ELECTRICAL CONTRACTOR SHALL ROUTE CHILLER CONDUIT ON PIPING SUPPORTS. PIPING SUPPORTS PROVIDED BY MECHANICAL CONTRACTOR. REF MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
2. CONDUIT SHALL BE ROUTED TO MAINTAIN ACCESS AND NOT INTERFERE WITH MECHANICAL EQUIPMENT, PIPING, DEVICES, ETC. COORDINATE WITH OTHER TRADES PRIOR TO ROUGH-IN.

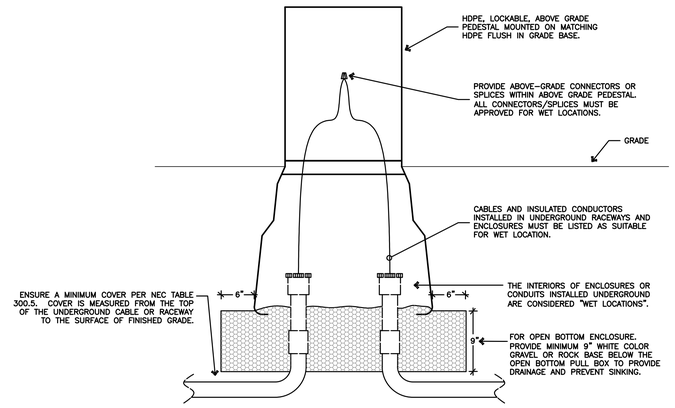


11 DUCT BANK DETAIL - SECTION

NO SCALE

NOTES:

1. REF. TO DRAWINGS FOR EXACT QUANTITY OF CONDUIT. PROVIDE ADDITIONAL ROWS AS REQUIRED.
2. INSTALL PVC COATED, RIGID GALVANIZED STEEL, LONG RADIUS ELBOWS & CONDUIT WHERE CONDUIT TURNS UP TO GRADE AND EXTEND TO FINAL EQUIPMENT.
3. ENCASE UNDERGROUND DUCT BANKS IN 3" RED CONCRETE ENVELOPE.
   - 3.1. THE BOTTOM OF THE TRENCH SHALL BE FILLED WITH CEMENT STABILIZED SAND AND CAREFULLY RAMMED UNTIL SOLID SO THAT UNDUE STRESS WILL NOT BE PLACED ON THE CONDUITS.
   - 3.2. THE CONDUIT IS PLACED OVER THE COMPACTED STABILIZED SAND USING SPACERS TO MAINTAIN THE CORRECT SEPARATION BETWEEN CONDUITS.
   - 3.3. THE 3 INCH BED OF CONCRETE IS THEN LAID OVER THE CONDUIT.
4. REFER TO POWER COMPANY REQUIREMENTS FOR CONDUIT ENTRY TO POWER COMPANY EQUIPMENT.



7 ABOVE GRADE PEDESTAL DETAIL

NO SCALE

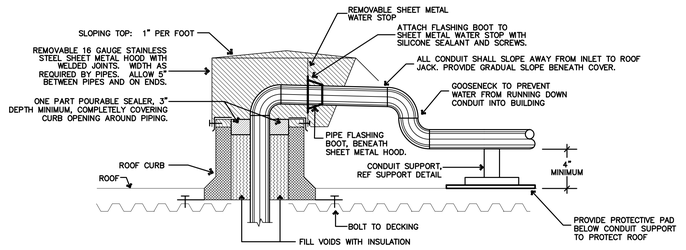
NOTES:

1. SEE NATIONAL ELECTRICAL CODE FOR ADDITIONAL REQUIREMENTS.
2. COORDINATE ENCLOSURE LOCATION WITH OWNER AND OTHER TRADES PRIOR TO INSTALLATION.
3. PROVIDE SEPARATE ENCLOSURES FOR LINE VOLTAGE AND LOW VOLTAGE WIRING.

ABOVE GRADE PEDESTAL SPECIFICATION

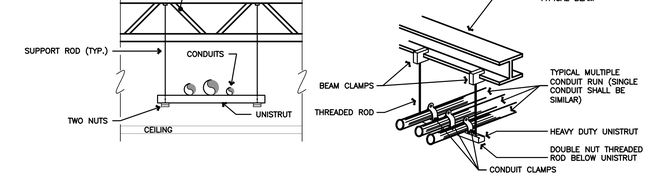
BASIS OF DESIGN SHALL BE HUBBELL POWER SYSTEMS, UL LISTED AND MANUFACTURED BY LENOIR CITY, INC.

EQUAL ABOVE GRADE ENCLOSURE SYSTEM MANUFACTURED BY OLD CASTLE OR CDL WITH UL OR ETL LISTING SHALL ALSO BE ACCEPTABLE.



8 CONDUIT ROOF PENETRATION DETAIL

NO SCALE

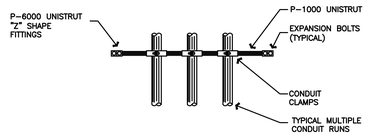


1 TRAPEZE MOUNTED CONDUIT DETAIL

NO SCALE

NOTES:

1. ALL SUPPORT DEVICES SHALL BE UL LISTED AND NEC APPROVED.
2. REFER TO NEC FOR CONDUIT SUPPORT SPACING.

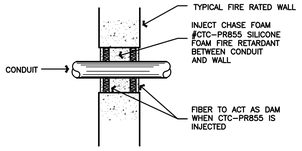


2 WALL MOUNTED CONDUITS

NO SCALE

NOTES:

1. ALL SUPPORT DEVICES SHALL BE UL LISTED AND NEC APPROVED.
2. REFER TO NEC FOR CONDUIT SUPPORT SPACING.

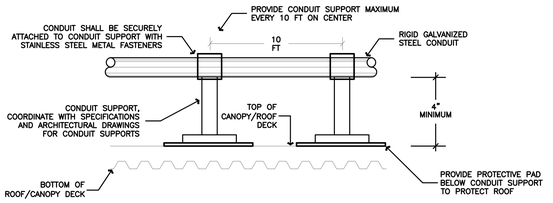


3 FIREWALL PENETRATION DETAIL

NO SCALE

NOTES:

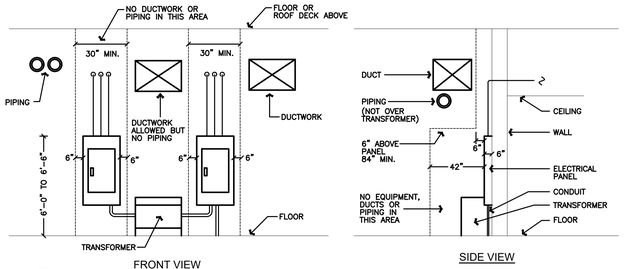
1. FIRE RATING OF COMPLETED FIREPROOFED ASSEMBLY SHALL BE EQUAL OR EXCEED RATING OF WALL.



4 ROOF AND CANOPY CONDUIT SUPPORT DETAIL

NO SCALE

1. COORDINATE WITH ARCHITECTURAL DRAWINGS, DETAILS, SPECIFICATIONS AND OTHER TRADES.



5 MECHANICAL - ELECTRICAL COORDINATION DETAIL

NO SCALE

COORDINATE WITH OTHER TRADES TO ENSURE NO PIPING AND DUCTWORK ABOVE ELECTRICAL EQUIPMENT AS SHOWN. PROVIDE WORKING CLEARANCE IN FRONT OF STARTERS, DISCONNECTS, PANELS, XFMRS AND ADDITIONALLY PER CODE.

PRELIMINARY
NOT FOR CONSTRUCTION OR BIDDING PURPOSES

STANTON ENGINEERING GROUP
TBPE/BEI FIRM REG. NO. F-01333 | TBAE ENG. FIRM REG. NO. F-13333 | TBPLS FIRM REG. NO. 10194382
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

© 2025 ALL RIGHTS RESERVED

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

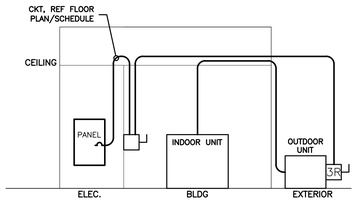
Houston, Texas
281-961-0355

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

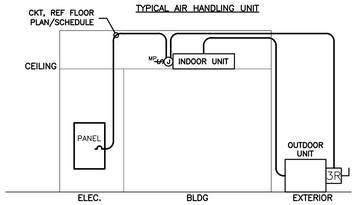
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E5.10

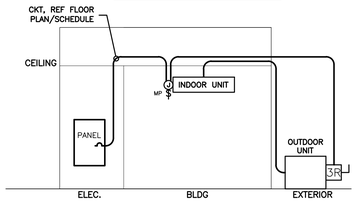
ELECTRICAL DETAILS



TYPICAL AIR HANDLING UNIT



TYPICAL CASSETTE OR FAN COIL UNIT



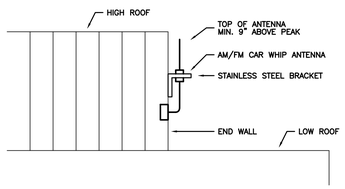
TYPICAL HIGH WALL UNIT

7 TYPICAL MINI SPLIT HVAC WIRING DETAIL

NO SCALE

NOTES:

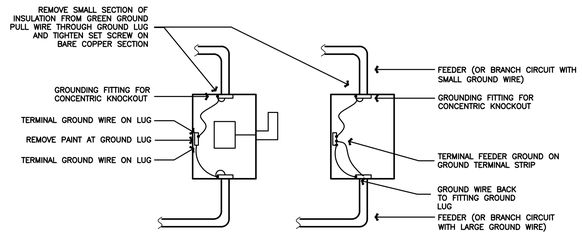
1. REFERENCE PANEL SCHEDULE FOR CB AND WIRE SIZE.
2. MOTOR RATED PILOT SWITCH OR DISCONNECT AT INDOOR UNIT SHALL BE UPSTREAM OF DISCONNECT SWITCH AT EXTERIOR UNIT.
   - 2.A. MOUNT MOTOR RATED PILOT SWITCHES ADJACENT TO THE INDOOR UNIT THEY SERVE, DO NOT BLOCK ACCESS PANELS.
   - 2.B. DISCONNECTS SHALL BE MOUNTED ADJACENT TO OR WITHIN LINE OF SIGHT OF THE EQUIPMENT THEY SERVE.
3. PROVIDE LABELS ON MOTOR RATED PILOT SWITCHES & DISCONNECT SWITCHES IDENTIFYING THE ELECTRICAL CIRCUIT AND EQUIPMENT THEY SERVE.
   - 3.A. LABELS ON DISCONNECTS SHALL BE LAMACOID TYPE MECHANICALLY FASTENED TO THE EQUIPMENT.
   - 3.B. REFERENCE LABELING DETAILS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



10 OUTDOOR ANTENNA DETAIL

NO SCALE

THIS DETAIL IS FOR EACH ANTENNA SERVING EACH AM/FM TUNER IN RECEPTION, DINING COMMONS AND GYM.

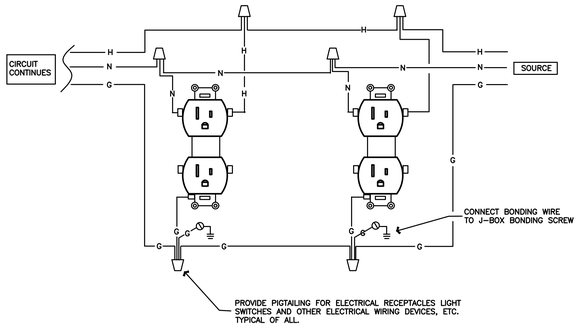


4 GROUNDING BUSHING WIRING DETAIL

NO SCALE

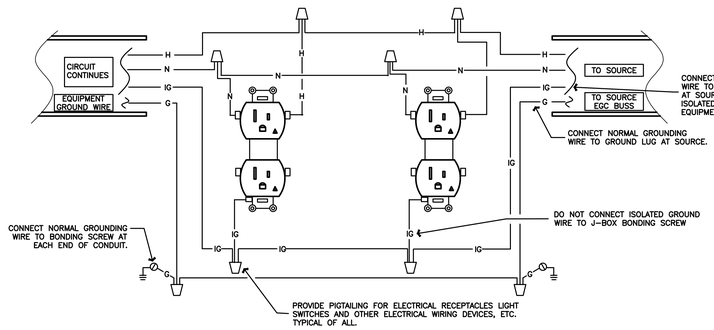
NOTE:

1. PROVIDE AND INSTALL GROUNDING BUSHINGS FOR DISCONNECT SWITCHES, PANELS AND TRANSFORMERS.



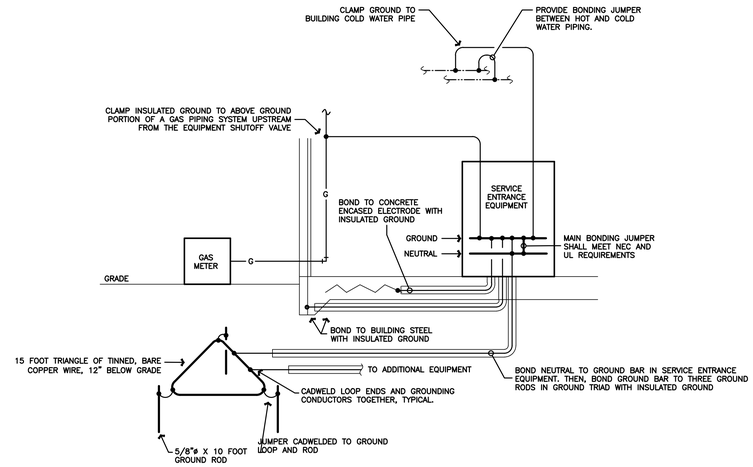
5 PIGTAIL WIRING DETAIL FOR ELECTRICAL DEVICE

NO SCALE



6 PIGTAIL WIRING DETAIL FOR ISOLATED GROUND DEVICE

NO SCALE



1 SERVICE ENTRANCE EQUIPMENT GROUNDING DETAIL

NO SCALE

NOTES:

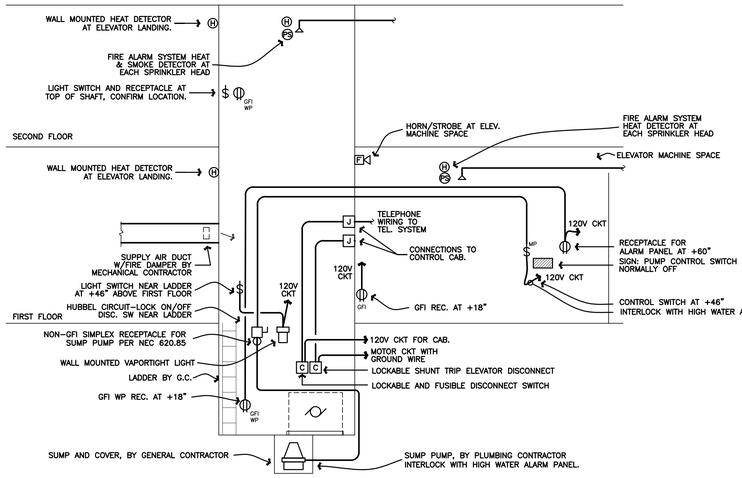
1. INSTALL BONDING AND GROUNDING SYSTEMS PER NATIONAL ELECTRICAL CODE.
2. NOT ALL SYSTEMS SHOWN MAY BE PRESENT, COORDINATE WITH OTHER TRADES.

2 TRANSFORMER CONNECTION AND GROUNDING DETAIL

NO SCALE

NOTES:

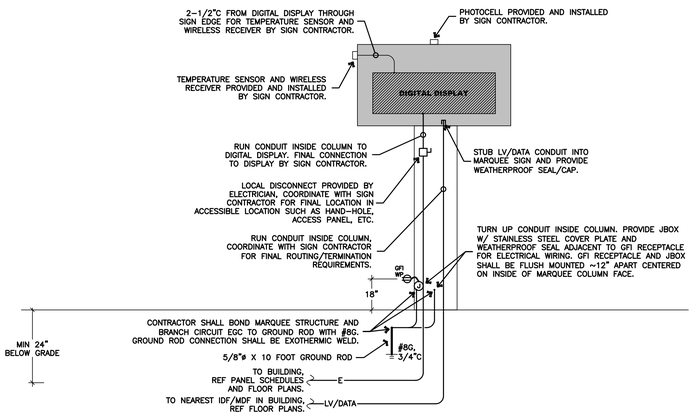
1. INSTALL GROUND ROD ADJACENT TO TRANSFORMER AND SEAL PENETRATION AROUND GROUND ROD.
2. WHERE AN ISOLATED GROUND IS PROVIDED MAKE THE CONNECTION AT THE TRANSFORMER AND RUN DIRECTLY TO THE ISOLATED GROUND BAR IN THE PANELBOARD. DO NOT DEFINE THE ISOLATED GROUND AT THE PANELBOARD.
3. FINAL CONNECTIONS TO TRANSFORMERS SHALL BE MADE IN FLEXIBLE CONDUIT. PROVIDE LIQUID TIGHT CONSTRUCTION AND FITTINGS IN WET, DAMP OR OUTSIDE AREAS EXCEPT WHERE LOCATED IN AIR HANDLING ROOMS. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.



3 MEP SYSTEMS FOR ELEVATOR

NO SCALE

1. SYSTEM SHALL BE INSTALLED PER ELEVATOR CODE REQUIREMENTS.
2. ALL CONDUIT PENETRATIONS OF ELEVATOR SHAFT SHALL BE FIRE SEALED.
3. FIRE ALARM SYSTEM SHALL RECALL ELEVATORS THEN SHUNT TRIP CIRCUIT BREAKERS.
4. HEAT DETECTORS SHALL ALARM AT TEMPERATURE LOWER THAN SPRINKLER HEAD TRIP TEMPERATURE.
5. FOR TRACTION TYPE ELEVATORS, THE ELEVATOR MACHINE ROOM IS LOCATED IN THE BASE OF THE SHAFT AND NOT A SEPARATE ROOM SPACE.

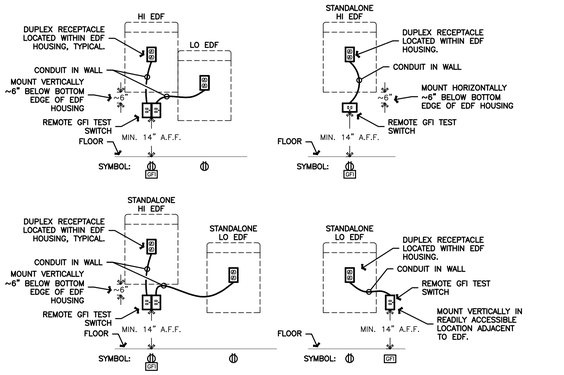


9 MARQUEE SIGN ELECTRICAL WIRING DETAIL

NO SCALE

NOTES:

1. REFER TO DRAWINGS FOR ADDITIONAL REQUIREMENTS.
2. PROVIDE PULL STRING IN ALL SPARE CONDUITS.
3. COORDINATE WITH SIGN CONTRACTOR/MANUFACTURER FOR EQUIPMENT & CONNECTION REQUIREMENTS.



8 EDF GFI PROTECTION DETAIL

NO SCALE

NOTES:

1. WIRE EDF RECEPTACLE DOWNSTREAM OF REMOTE GFI TEST SWITCH.
2. REMOTE GFI TEST SWITCH SHALL BE A DEAD FRONT GFI DEVICE INSTALLED FLUSH MOUNTED IN WALL WITH EDF AND PROVIDE GFI PROTECTION FOR THE RECEPTACLE LOCATED WITHIN THE EDF HOUSING.
3. GFI TEST SWITCH SHALL BE READILY ACCESSIBLE PER NEC 210.8.
4. COORDINATE RECEPTACLE LOCATION(S) WITHIN EDF HOUSINGS WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

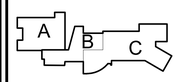
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

PROJECT NO. 2502 (B101-101)	
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E5.11

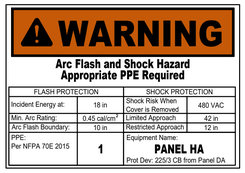
ELECTRICAL DETAILS

PRELIMINARY
NOT FOR CONSTRUCTION OR BIDDING PURPOSES

STANTON ENGINEERING GROUP

TBPE/BPELS FIRM NO: F-13433 | TEXAS ENG. FIRM REG. NO. F-13433
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

© 2025 ALL RIGHTS RESERVED

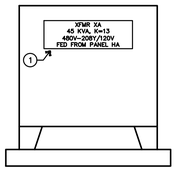


4 TYPICAL ARC FLASH LABEL DETAIL

NO SCALE

NOTES:

1. VALUES AND NAMES SHOWN HERE ARE FOR REFERENCE ONLY, MODIFY TO REFLECT PROJECT'S ARC FLASH STUDY VALUES AND EQUIPMENT NAMES.
2. IF MIN. ARC RATING IS OVER 40CAL/CM² MODIFY "WARNING" TEXT TO READ "DANGER" AND PROVIDE RED SHADING IN LIEU OF ORANGE SHOWN.



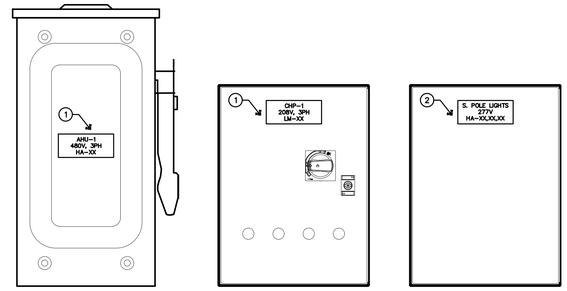
5 TYPICAL TRANSFORMER LABELING DETAIL

NO SCALE

NOTES:

1. LOCATIONS OF NAMEPLATES SHOWN FOR REFERENCE ONLY, FIELD LOCATE AS NEEDED BASED ON TRUE EQUIPMENT LAYOUT AND DIMENSIONS.

(1) PROVIDE AN ENGRAVED NAMEPLATE SHOWING EQUIPMENT NAME, RATING, VOLTAGE, AND SOURCE.



1 TYPICAL DISCONNECT, STARTER, & CONTACTOR LABELING DETAIL

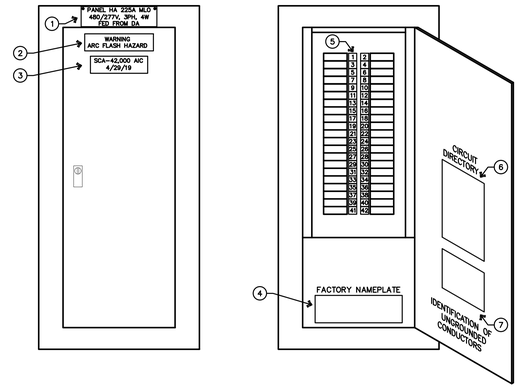
NO SCALE

NOTES:

1. LOCATIONS OF NAMEPLATES SHOWN FOR REFERENCE ONLY, FIELD LOCATE AS NEEDED BASED ON TRUE EQUIPMENT LAYOUT AND DIMENSIONS.

(1) PROVIDE AN ENGRAVED NAMEPLATE SHOWING LOAD SERVED, EQUIPMENT VOLTAGE, AND CIRCUIT NUMBER MATCHING AS-BUILT CONDITIONS.

(2) PROVIDE AN ENGRAVED NAMEPLATE SHOWNG LOADS SERVED, VOLTAGES, AND CIRCUIT NUMBERS MATCHING AS-BUILT CONDITIONS FOR ALL CONTACTOR CIRCUITS. LOADS SERVED SHALL BE "LIGHTING", "FAN", "RECEPTACLES", "PUMP", "WATER HEATER", OR SIMILAR DESCRIPTIVE NOTE.



2 TYPICAL BRANCH CIRCUIT PANEL LABELING DETAIL

NO SCALE

NOTES:

1. LAYOUT OF PANELBOARD, INCLUDING LOCATIONS OF NAMEPLATES, CIRCUIT DIRECTORY, AND OTHER LABELING IS SHOWN FOR REFERENCE ONLY, FIELD LOCATE AS NEEDED BASED ON TRUE EQUIPMENT LAYOUT AND DIMENSIONS.

(1) PROVIDE 2.25" X 4" LAMACOID MASTER NAMEPLATE ON FRONT FACE OF THE PANEL WITH 1/2" HIGH ENGRAVED LETTERS FOR EQUIPMENT NAME AND 1/4" HIGH LETTERS FOR AMPERAGE RATING, VOLTAGE AND UPSTREAM SOURCE INFORMATION. LABEL SHALL INCLUDE MOUNTING HOLES. ATTACH WITH MASTIC AND TWO SCREWS. COORDINATE TO GIVE SAME NAME AS SHOWN ON PANELBOARD SCHEDULE. IF USED AS MAIN SERVICE PANEL PROVIDE SHORT CIRCUIT AVAILABLE AND RATING INFORMATION.

(2) PROVIDE PERMANENT ARC FAULT LABEL DISPLAYING RESULTS OF ARC FAULT STUDY USING INITIAL/CURRENT POWER COMPANY SERVICE VALUES.

(3) FOR ALL NEW ELECTRICAL EQUIPMENT, PROVIDE PERMANENTLY AFFIXED LABEL STATING FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE MINIMUM 2" X 3" IN SIZE, AND INCLUDE THE DATE OF THE CALCULATION. REFERENCE ELECTRICAL DRAWINGS AND EQUIPMENT SHORT CIRCUIT ANALYSIS TABLE.

(4) PROVIDE INFORMATION PER INDUSTRY STANDARDS, BUT SHALL INCLUDE VOLTAGE, PHASE, BUS AMPERAGE, AND SHORT CIRCUIT RATING

(5) FOR EACH CIRCUIT PROVIDE PERMANENT LABEL INDICATING CIRCUIT BREAKER NUMBER, NUMBER SHALL MATCH CIRCUIT DIRECTORY.

(6) CIRCUIT DIRECTORY TO BE COMPLETED AT END OF JOB, TYPEWRITTEN, STATING EQUIPMENT OR ROOMS SERVED BY CIRCUIT. EVEN CIRCUIT ON RIGHT SIDE OF CARD, ODD ON LEFT. PROVIDE LAMINATED DIRECTORY FOR EXTERIOR OR WET LOCATIONS.

(7) PROVIDE PERMANENT LABEL INDICATING COLOR CODING OF PHASE CONDUCTORS BASED ON VOLTAGE, REFERENCE SPECIFICATIONS.

PANEL HA
225A/3P

3 CIRCUIT BREAKER LAMACOID LABELING

NO SCALE

NOTES:

1. PROVIDE LAMACOID LABEL FOR ALL SWITCHBOARD BREAKERS, DISTRIBUTION PANEL BREAKERS, AND BRANCH CIRCUIT PANELBOARD SUBFEED BREAKERS.
2. REPLACE "PANEL HA" WITH THE FIELD VERIFIED NAME OF THE EQUIPMENT BEING SERVED.
3. REPLACE BREAKER SIZE AND NUMBER OF POLES TO MATCH THE EQUIPMENT BEING LABELED.
4. PROVIDE LABEL FOR IDENTIFYING SPARES BREAKERS.
5. PROVIDE LABEL FOR SPACES NOTING THE NUMBER OF POLES AND MAXIMUM SIZE CB THAT CAN BE INSTALLED.
6. LABELING SHALL BE MECHANICALLY FASTENED TO THE EQUIPMENT DEADFRONT.

PRELIMINARY
NOT FOR CONSTRUCTION OR BIDDING PURPOSES

STANTON ENGINEERING GROUP
TBPE/TBPLS FIRM REG. NO. F-01933 | TBAE/BSD REG. NO. F-01933
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

© 2025 STANTON ENGINEERING | ALL RIGHTS RESERVED

CONSULTANTS

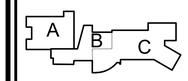
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

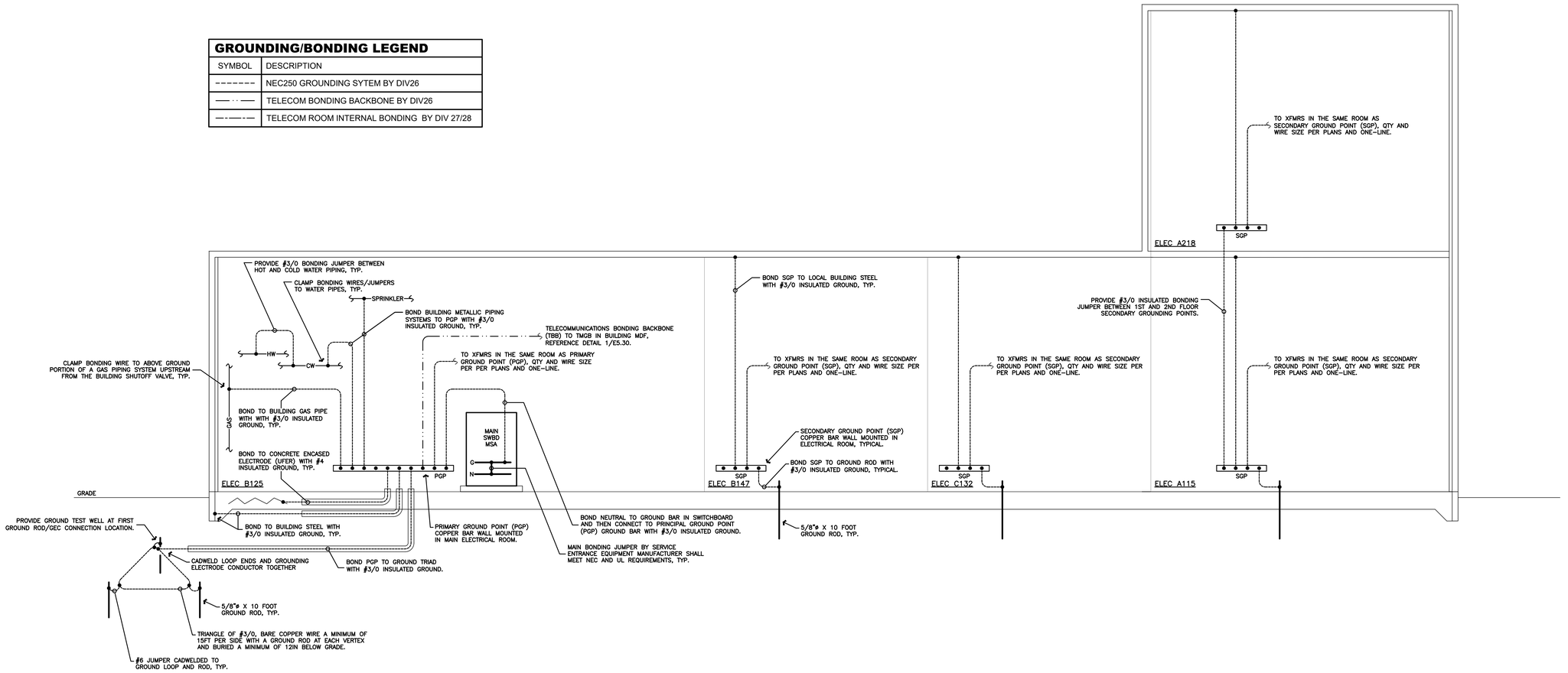
PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

E5.12

ELECTRICAL DETAILS

GROUNDING/BONDING LEGEND	
SYMBOL	DESCRIPTION
--------	NEC250 GROUNDING SYTEM BY DIV26
—— · ——	TELECOM BONDING BACKBONE BY DIV26
—— · ——	TELECOM ROOM INTERNAL BONDING BY DIV 27/28



1 BUILDING GROUNDING RISER AND DETAIL

NO SCALE

NOTES:

1. REFERENCE ELECTRICAL RISER AND FLOOR PLANS FOR ADDITIONAL INFORMATION.
2. ALL EXPOSED GROUND WIRES SHALL BE INSTALLED IN CONDUIT.
3. INSULATED GROUND WIRES ROUTED THROUGH PLENUM SPACES SHALL BE INSTALLED IN CONDUIT.
4. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

CONSULTANTS

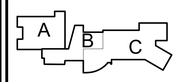
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

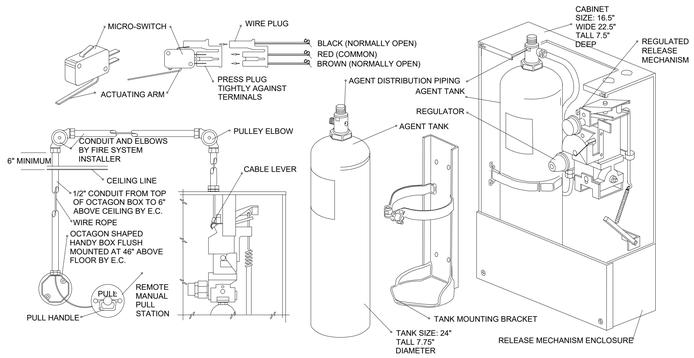
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

E5.13

ELECTRICAL
GROUNDING RISER

STANTON ENGINEERING GROUP
TBPE FIRM REG. NO. F-11933 | TBPLS FIRM REG. NO. F-10332 | ©2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

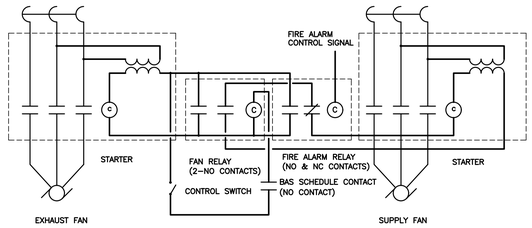


4 FIRE PROTECTION SYSTEM DETAIL

NO SCALE

NOTES:

1. ANSUL MODEL R-120 FIRE PROTECTION SYSTEM AND TANK(S)
2. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL POWER DISCONNECT DEVICES FOR ALL EQUIPMENT BELOW THE HOOD, SHUTTING OFF ALL SERVICE, INCLUDING CONTROL VOLTAGE, UPON ACTIVATION OF THE FIRE PROTECTION SYSTEM.
3. MICRO-SWITCH FURNISHED WITH SYSTEM TO BE INTERWIRED TO THE SHUT-OFF DEVICES FOR THE COOKING EQUIPMENT BY THE ELECTRICAL CONTRACTOR.
4. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL AN OCTAGON SHAPED HANDY BOX FOR THE PULL STATION AT 54" ABOVE THE FLOOR WITH 1/2" CONDUIT FROM THE TOP OF THE BOX TO 6" ABOVE THE CEILING.
5. GAS SHUT-OFF VALVE FURNISHED WITH THE SYSTEM (IF REQUIRED) TO BE INSTALLED IN THE GAS LINE SERVING THE COOKING EQUIPMENT BY THE PLUMBING CONTRACTOR. VERIFY SIZE OF GAS LINE.
6. ALL EXPOSED PIPEWORK TO BE STAINLESS STEEL OR CHROME WHERE EXPOSED.
7. VERIFY LOCATION OF REMOTE MANUAL PULL STATION.
8. UNIT MUST BE PLACED WITHIN EASY ACCESS OF EXIT DOOR.

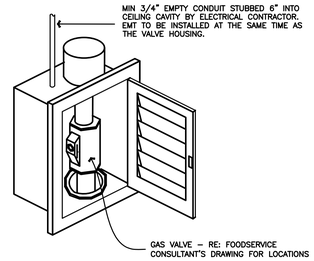


5 KITCHEN HOOD FAN CONTROL SCHEMATIC

NO SCALE

NOTES:

1. THE FANS SHALL BE WIRED SO THAT ONE LOCAL SWITCH TURNS ON ASSOCIATED SUPPLY AND EXHAUST FANS.
2. IF THE FIRE ALARM IS IN ALARM, A FIRE ALARM CONTROL CONTACT SHALL CAUSE THE SUPPLY FAN TO STOP AND THE EXHAUST FAN TO START, EVEN IF THE CONTROL SWITCH IS "OFF".
3. SCHEMATIC IS DIAGRAMMATIC. PROVIDE INTERLOCK WIRING BASED ON EQUIPMENT PROVIDED AND FAN VOLTAGE TO IMPLEMENT THE SEQUENCE SPECIFIED.
4. COORDINATE BETWEEN FIRE ALARM CONTRACTOR, CONTROLS CONTRACTOR AND ELECTRICAL CONTRACTOR TO PROVIDE A COMPLETE INSTALLATION.
5. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

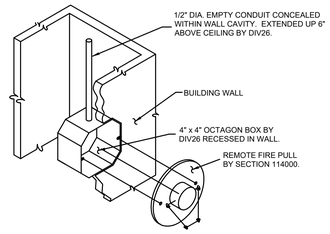


1 GAS VALVE DETAIL

NO SCALE

NOTES:

1. GAS VALVE HOUSINGS ARE NOT SHOWN ON THE ELECTRICAL DRAWING. GC AND ELECTRICAL CONTRACTOR SHALL COORDINATE SIZE AND LOCATION OF GAS VALVE HOUSINGS.
2. SEE FOOD SERVICE CONSULTANT'S DRAWINGS ADDITIONAL INFORMATION AND REQUIREMENTS.
3. PROVIDE MINIMUM 3/4"C AS SHOWN ON THIS DETAIL.

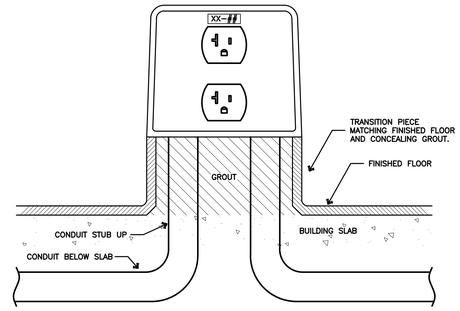


2 RECESSED FIRE PULL DETAILS

NO SCALE

NOTES:

1. VERIFY LOCATION OF REMOTE MANUAL PULL STATION.
   1.A. MANUAL PULL STATION MUST BE PLACED WITHIN EASY ACCESS OF EXIT DOOR.
   1.B. MANUAL PULL STATION MUST BE PLACED NO LESS THAN 4 FEET AWAY FROM KITCHEN HOOD BUT WITHIN A MAXIMUM OF 20 FEET FROM THE KITCHEN HOOD.



3 TYPICAL PEDESTAL MOUNTED DEVICE

NO SCALE

NOTES:

1. ALL FACEPLATES SHALL BE STAINLESS STEEL.
2. PEDESTAL BOX PROVIDED BY DIVISION 26.
   2.A. A STANDARD DUPLEX INSTALLATION IS SHOWN FOR REFERENCE, PROVIDE SIMILAR INSTALLATION FOR GFI RECEPTACLES, DATA OUTLETS, NEMA POWER OUTLETS, ETC.
   2.B. ALL PEDESTAL BOXES TO BE DOUBLE FACED WITH ONE BLANK FACE FOR FUTURE GROWTH.
   2.C. PEDESTAL BOXES TO BE SIZED BY DIVISION 26 TO PROVIDE SCHEDULED DEVICES ON A SINGLE FACE AND SUFFICIENT DEPTH FOR BACK TO BACK DEVICES ON DOUBLE FACED PEDESTALS.
   2.D. BASIS OF DESIGN:
      2.D.A. 1-GANG ELECTRICAL DEVICES: LEGRAND LBP2 OR WATER SAVER E400SA-WS
      2.D.B. 1-GANG LOW VOLTAGE DEVICES: LEGRAND LBP2 OR WATER SAVER E400SA-WS
      2.D.C. 2-GANG ELECTRICAL DEVICES: WATER SAVER E600SA-WS
      2.D.D. 2-GANG LOW VOLTAGE DEVICES: WATER SAVER E600SA-WS
3. INSTALLATION REQUIREMENTS:
   3.A. STUB UP CONDUIT ABOVE FLOOR TO PEDESTAL BOX CONNECTION LOCATION.
   3.B. GROUT GAP BETWEEN FINISHED FLOOR AND BOTTOM OF PEDESTAL BOX.
   3.C. PROVIDE TRANSITION PIECE TO CONTINUE FINISHED FLOOR TO BOTTOM EDGE OF SERVICE FITTING AND CONCEAL GROUT. TRANSITION PIECE TO MATCH ARCHITECT'S FINISH SCHEDULE.
   3.D. PEDESTAL BOX TO BE INSTALLED SQUARE TO THE FINISHED FLOOR.
4. PROVIDE TYPEWRITTEN OR PREMADE CIRCUIT LABELS ON INSTALLED WIRING AT EACH DEVICE AND SPLICE POINT.
5. PROVIDE TYPEWRITTEN LABEL AFFIXED TO THE FRONT OF EACH DEVICE FACEPLATE INDICATING ELECTRICAL CIRCUIT.

XX-## CIRCUIT LABEL
   A. XX = PANEL DESIGNATION
   B. ## = AS-BUILT CIRCUIT DESIGNATION

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

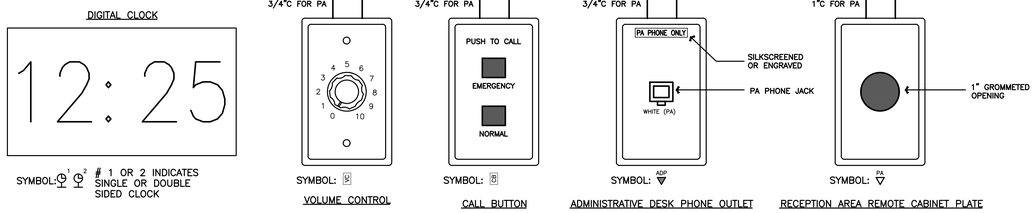
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E5.14

ELECTRICAL DETAILS

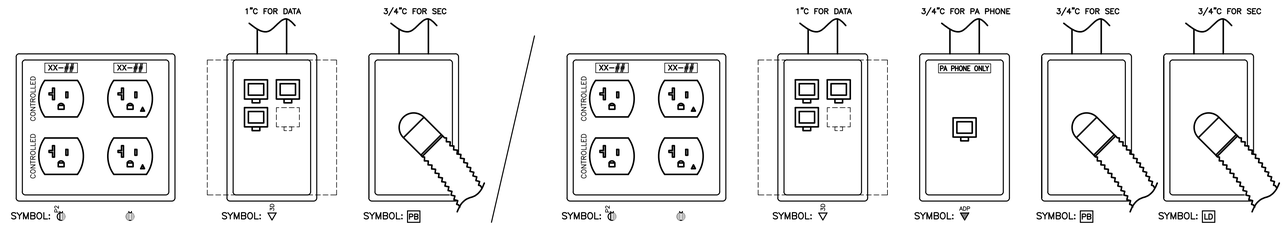
STANTON ENGINEERING GROUP
TBPE REGISTRATION # F-007632
(713) 300-9292
SOLE ENG FIRM RESPONSIBLE FOR ALL DISCIPLINES | © 2025 ALL RIGHTS RESERVED
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



5 CAMPUS COMMUNICATIONS DETAILS

NO SCALE

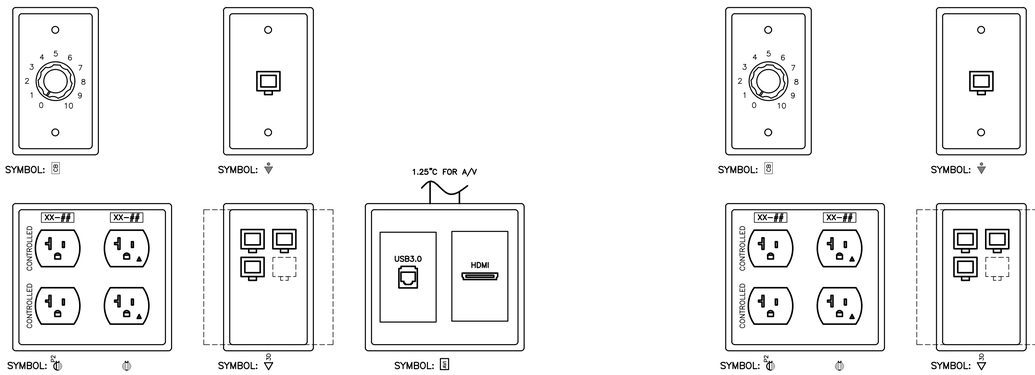
NOTES:
1. PROVIDE 1-GANG BACK BOX AND STAINLESS STEEL WALL PLATES FOR CALL BUTTON AND VOLUME CONTROLS.



6 RECEPTION AREA WORK STATION DEVICE LAYOUT

NO SCALE

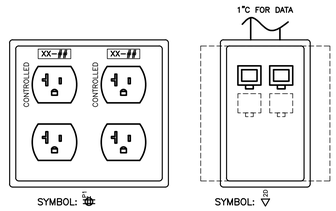
NOTES:
1. LOCATE DEVICES GROUPED TOGETHER AS CLOSELY TOGETHER AS POSSIBLE.
2. COORDINATE WITH DIVISION 28 SECURITY CONTRACTOR FOR CONNECTION TO PUSH BUTTON DEVICES IN RECEPTION KNEE SPACES.



8 COMPUTER LAB AND LGI TEACHER STATION DEVICE LAYOUT

NO SCALE

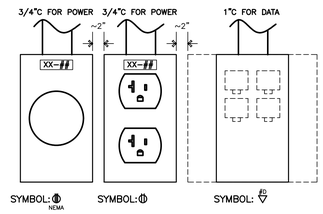
NOTES:
1. LOCATE DEVICES GROUPED TOGETHER AS CLOSELY TOGETHER AS POSSIBLE.
2. FOR THE TEACHER WORK STATIONS, INSTALL POWER AND LOW VOLTAGE DEVICES ON OPPOSITE SIDES OF A SINGLE STUD.
3. CONFIRM WALL MOUNTED PHONE DIMENSIONS WITH OWNER PRIOR TO ROUGH-IN. ENSURE PHONE DOES NOT COVER THE CALL BUTTON.



10 TYPICAL COMPUTER STATION OUTLET DETAIL

NO SCALE

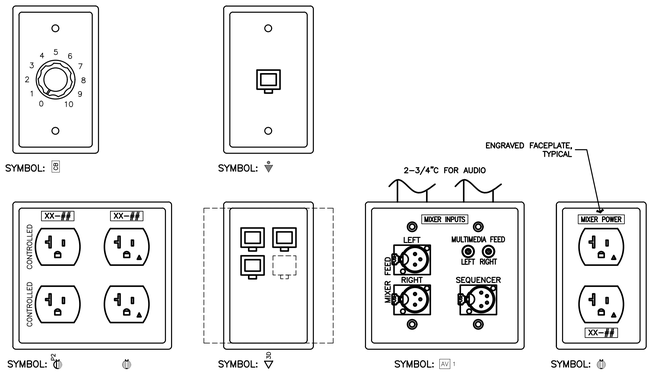
NOTES:
1. LOCATE DEVICES GROUPED TOGETHER AS CLOSELY TOGETHER AS POSSIBLE.



11 TYPICAL COPY MACHINE OUTLET DETAIL

NO SCALE

NOTES:
1. LOCATE DEVICES GROUPED TOGETHER AS CLOSELY TOGETHER AS POSSIBLE.
2. CONFIRM NEMA TYPE WITH OWNER PRIOR TO ROUGH-IN. CAP NEUTRAL IN OUTLET BOX IF NOT NEEDED.



9 MUSIC ROOM TEACHER STATION DETAIL

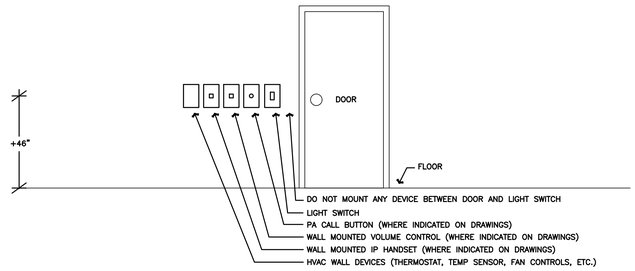
NO SCALE

NOTES:
1. LOCATE DEVICES GROUPED TOGETHER AS CLOSELY TOGETHER AS POSSIBLE.
2. CONFIRM WALL MOUNTED PHONE DIMENSIONS WITH OWNER PRIOR TO ROUGH-IN. ENSURE PHONE DOES NOT COVER THE CALL BUTTON.

7 TYPICAL TEACHER STATION DEVICE LAYOUT

NO SCALE

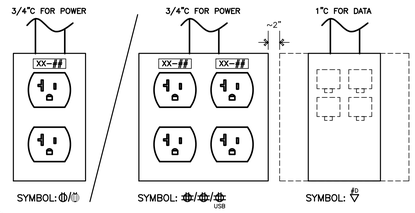
NOTES:
1. LOCATE DEVICES GROUPED TOGETHER AS CLOSELY TOGETHER AS POSSIBLE.
2. FOR THE TEACHER WORK STATIONS, INSTALL POWER AND LOW VOLTAGE DEVICES ON OPPOSITE SIDES OF A SINGLE STUD.
3. CONFIRM WALL MOUNTED PHONE DIMENSIONS WITH OWNER PRIOR TO ROUGH-IN. ENSURE PHONE DOES NOT COVER THE CALL BUTTON.



1 MOUNTING ORDER/SEQUENCE AND DETAIL

NO SCALE

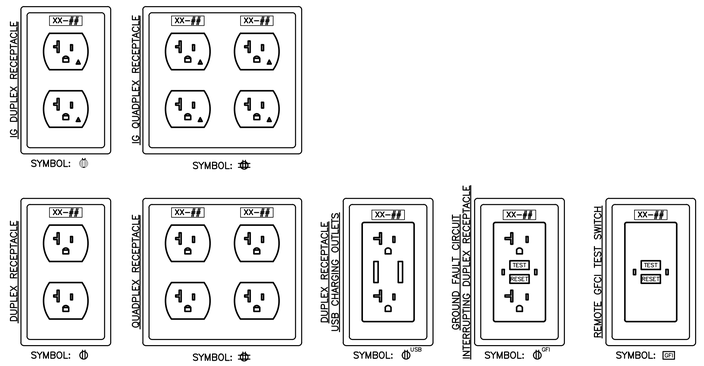
NOTES:
1. WHERE ONE DEVICE IS NOT REQUIRED IN A GIVEN SPACE GROUP REMAINING DEVICES TOGETHER, DO NOT LEAVE A GAP.
2. COORDINATE SPACING BETWEEN J-BOXES WITH DEVICES TO BE INSTALLED.



2 TYPICAL POWER & DATA OUTLET DETAIL

NO SCALE

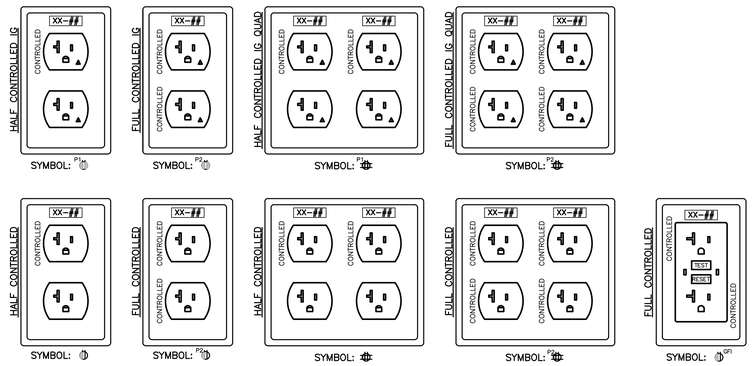
NOTES:
1. LOCATE DEVICES GROUPED TOGETHER AS CLOSELY TOGETHER AS POSSIBLE.
   1.A. USE CADDY TSGB16, RBS16 OR SIMILAR MOUNTING BAR IN SHEETROCK WALLS.



3 TYPICAL ELECTRICAL DEVICES

NO SCALE

NOTES:
1. REFER TO SPECIFICATIONS FOR DEVICE AND FACEPLATE REQUIREMENTS. ALL DEVICE PLATES SHALL BE STANDARD SIZE ONLY, NO JUMBO FACEPLATES SHALL BE ALLOWED.
2. ONLY SELECT RECEPTACLES ARE SHOWN HERE. PROVIDE SIMILAR LABELS ON ALL SWITCHES, NEMA POWER OUTLETS, ETC.
3. PROVIDE LABEL WITH RED TEXT FOR DEVICES ON GENERATOR FED CIRCUITS.
4. PROVIDE TYPEWRITTEN OR PREMADE CIRCUIT LABELS INDICATING THE ELECTRICAL CIRCUIT ON:
   4.A. INSTALLED WIRING AT EACH SPLICE POINT
   4.B. EACH J-BOX ABOVE CEILING WITH WIRING INSTALLED OR MODIFIED AS PART OF THIS PROJECT.
   4.C. AFFIXED TO THE FRONT OF EACH NEW AND EXISTING DEVICE FACEPLATE IN THE AREA OF RENOVATION.
   CIRCUIT LABEL
   A. XX = PANEL DESIGNATION
   B. ## = AS-BUILT CIRCUIT DESIGNATION



4 TYPICAL PLUG LOAD CONTROLLED RECEPTACLES

NO SCALE

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL
ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

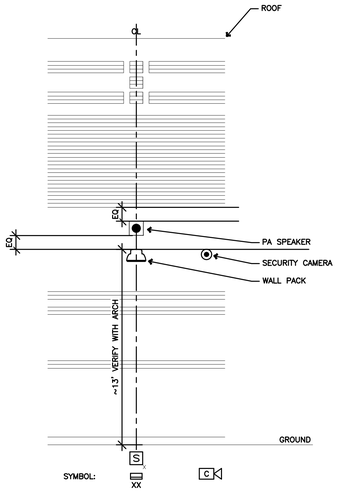
E5.20

ELECTRICAL AND LOW VOLTAGE DEVICE DETAILS

STANTON ENGINEERING GROUP
TBPE REGISTRATION #F-004299 | (713) 300-9292

TEXAS FIRM REG. NO. F-004299 | ©2025 ALL RIGHTS RESERVED

1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

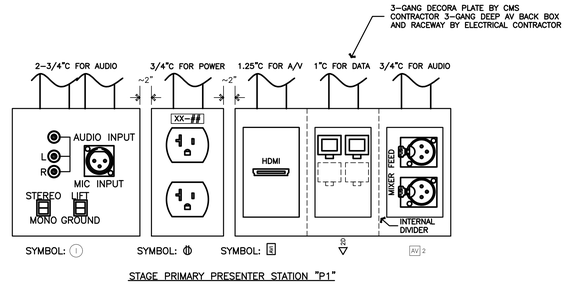


6 EXTERIOR DEVICE MOUNTING DETAIL

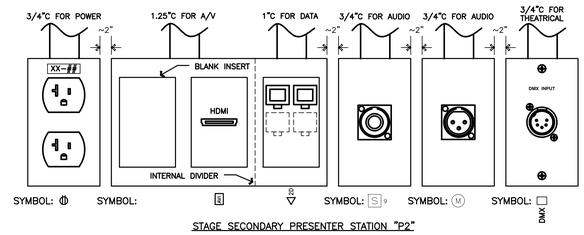
NO SCALE

NOTES:

1. COORDINATE WITH ARCHITECT FOR FINAL MOUNTING HEIGHTS PRIOR TO ROUGH-IN.
2. REFERENCE DRAWINGS AND SCHEDULES FOR LOCATIONS & DEVICE TYPES.



STAGE PRIMARY PRESENTER STATION "P1"



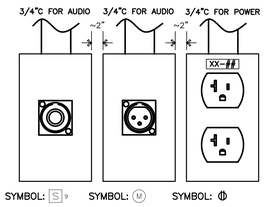
STAGE SECONDARY PRESENTER STATION "P2"

1 STAGE PRESENTATION STATION DETAILS

NO SCALE

NOTES:

1. LOCATE DEVICES GROUPED TOGETHER AS CLOSELY TOGETHER AS POSSIBLE.

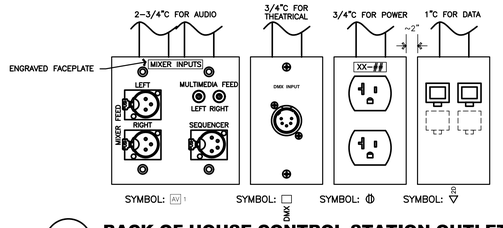


3 STAGE SPEAKER & MICROPHONE STATION

NO SCALE

NOTES:

1. LOCATE DEVICES GROUPED TOGETHER AS CLOSELY TOGETHER AS POSSIBLE.

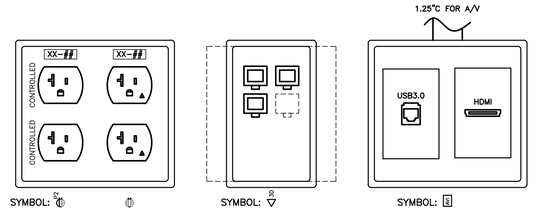


2 BACK OF HOUSE CONTROL STATION OUTLET DETAIL

NO SCALE

NOTES:

1. LOCATE DEVICES GROUPED TOGETHER AS CLOSELY TOGETHER AS POSSIBLE.

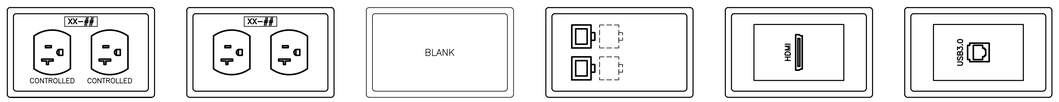


4 OFFICE WITH DISPLAY WORKSTATION DEVICE LAYOUT

NO SCALE

NOTES:

1. LOCATE DEVICES GROUPED TOGETHER AS CLOSELY TOGETHER AS POSSIBLE.
2. FOR THE TEACHER WORK STATIONS, INSTALL POWER AND LOW VOLTAGE DEVICES ON OPPOSITE SIDES OF A SINGLE STUD.
3. CONFIRM WALL MOUNTED PHONE DIMENSIONS WITH OWNER PRIOR TO ROUGH-IN. ENSURE PHONE DOES NOT COVER THE CALL BUTTON.



5 CONFERENCE ROOM & OFFICE FLOOR BOX DEVICE LAYOUT

NO SCALE

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER

10.24.2025

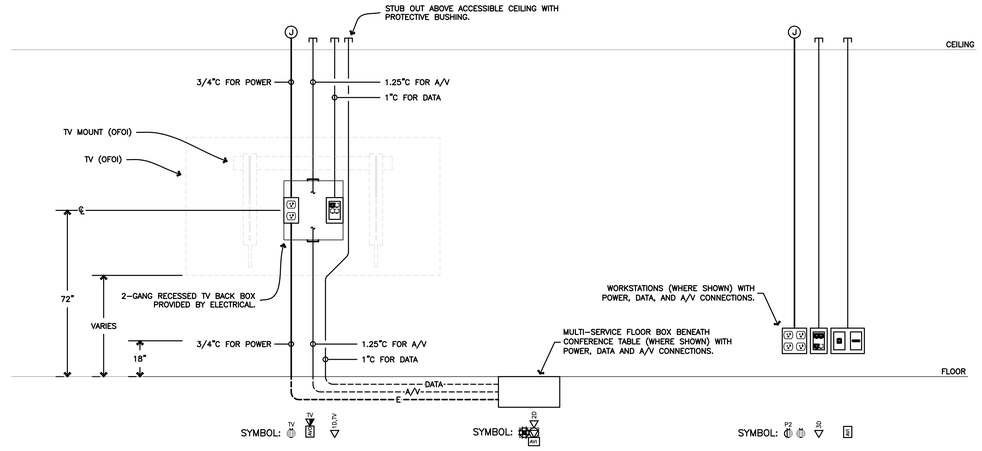
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E5.21

ELECTRICAL AND LOW VOLTAGE DEVICE DETAILS

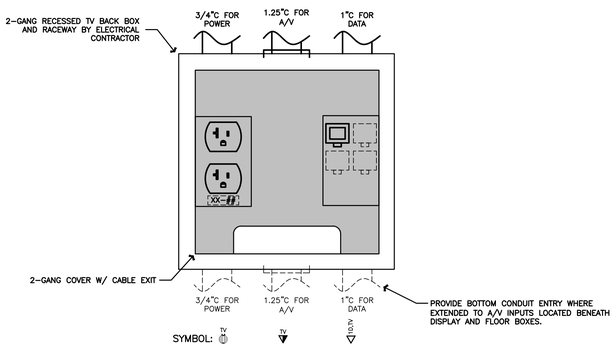
STANTON ENGINEERING GROUP
TBPE/TBAE/TBPLS FIRM REG. NO. F-01765 | © 2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



1 A/V ROUGH IN DETAIL - CONFERENCE ROOM AND OFFICE DISPLAYS

NO SCALE

NOTES:
1. BLOCKING BETWEEN STUDS FOR DISPLAY MOUNT BY GENERAL CONTRACTOR
2. COORDINATE FINAL DISPLAY LOCATIONS AND HEIGHTS WITH ARCHITECT AND OWNER.
3. DEVICE LAYOUT SHOWN FOR REFERENCE ONLY.
4. ALL CONDUITS FOR INCOMING POWER AND LOW VOLTAGE SHALL ENTER FROM THE TOP OF THE RECESSED TV BACK BOX. DEVICES MAY BE MOUNTED ON THE SIDES/BOTTOM AS REQUIRED.
5. TECHNOLOGY CONDUITS RADIUS SWEEP TO ACCESSIBLE CEILING IN DIRECTION OF CABLE PATH. NO CONDUIT SHALL HAVE MORE THAN TWO 90° SWEEPS.
6. BACK BOXES, FLOOR BOXES, CONDUIT, AND ROUGH-IN FOR LOW VOLTAGE DEVICES BY ELECTRICIAN.
   - 6.A. MULTI SERVICE FLOOR BOXES
     - 6.A.1. FLOOR RECEPTACLES, DATA, A/V OR TELEPHONE OUTLETS SERVED THROUGH U. L. FIRE RATED FLOOR STRUCTURES SHALL USE HUBBELL SYSTEMONE RECESSED 8 INCH POKE-THRU ASSEMBLY WITH COVER.
     - 6.A.2. FLOOR RECEPTACLES, DATA, A/V OR TELEPHONE OUTLETS AT GRADE LEVEL SHALL BE INSTALLED IN HUBBELL SYSTEMONE CFB6G30RCR OR CFB6G30CR 6-GANG ADJUSTABLE BOX WITH COVER. SQUARE OR ROUND TO BE SELECTED BY ARCHITECT.
     - 6.A.3. PROVIDE MATCHING DEVICE PLATE FOR POWER RECEPTACLES AND LOW VOLTAGE DEVICES.
     - 6.A.4. PROVIDE BLANK INSERTS FOR UNUSED SPACES.
     - 6.A.5. PROVIDE DIVIDERS TO MAINTAIN SEPARATION BETWEEN DIFFERENT SERVICES.
     - 6.A.6. PROVIDE MATCHING HEAVY DUTY HINGED METAL FLOOR COVER AND RING TO MATCH FLOOR MATERIAL LISTED ON ARCHITECTURAL FLOOR FINISH SCHEDULE. COLOR AND COVER SHAPE SHALL BE SELECTED BY ARCHITECT.
     - 6.A.7. EQUAL BY HUBBELL, LEGRAND, OR FSR SHALL BE ACCEPTABLE.



2 2-GANG TV & CONFERENCE DISPLAY RECESSED BACK BOX DETAIL

NO SCALE

NOTES:
1. 2-GANG RECESSED TV BACK BOX SHALL BE A HUBBELL NSAB62M W/ NSAV6C WHITE COVER PLATE WITH CABLE EXIT.
2. ROUTE A/V CABLING FROM LOCAL INPUT PLATE DIRECTLY TO WALL MOUNTED DISPLAY.
   - 2.A. COIL SERVICE LOOP IN CEILING ABOVE.

CONSULTANTS

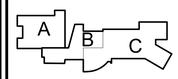
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E5.22

ELECTRICAL AND LOW VOLTAGE DEVICE DETAILS

STANTON ENGINEERING GROUP
TBPE FIRM REG. NO. F-13332 | TBPLS FIRM REG. NO. F-10193332
(713) 300-9292 | TEXAS ENGINEERING FIRM REG. NO. F-13332
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

© 2025 ALL RIGHTS RESERVED

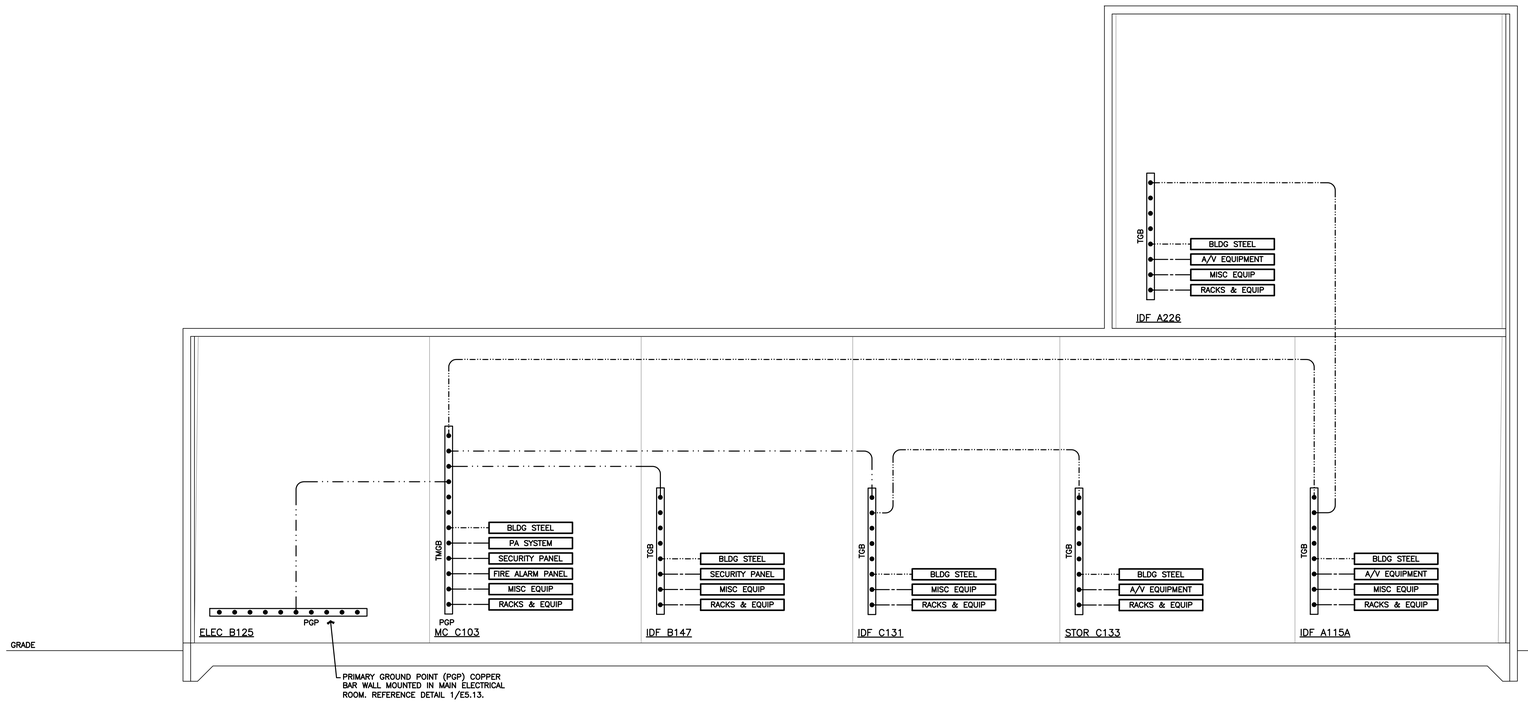


Table 1 –TBB conductor size vs length

TBB/GE linear length m (ft)	TBB/GE size (AWG)
less than 4 (13)	6
4 – 6 (14 – 20)	4
6 – 8 (21 – 26)	3
8 – 10 (27 – 33)	2
10 – 13 (34 – 41)	1
13 – 16 (42 – 52)	1/0
16 – 20 (53 – 66)	2/0
20 – 26 (67 – 84)	3/0
26 – 32 (85 – 105)	4/0
32 – 38 (106 – 125)	250 kcmil
38 – 46 (126 – 150)	300 kcmil
46 – 53 (151 – 175)	350 kcmil
53 – 76 (176 – 250)	500 kcmil
76 – 91 (251 – 300)	600 kcmil
Greater than 91 (301)	750 kcmil

GROUNDING/BONDING LEGEND

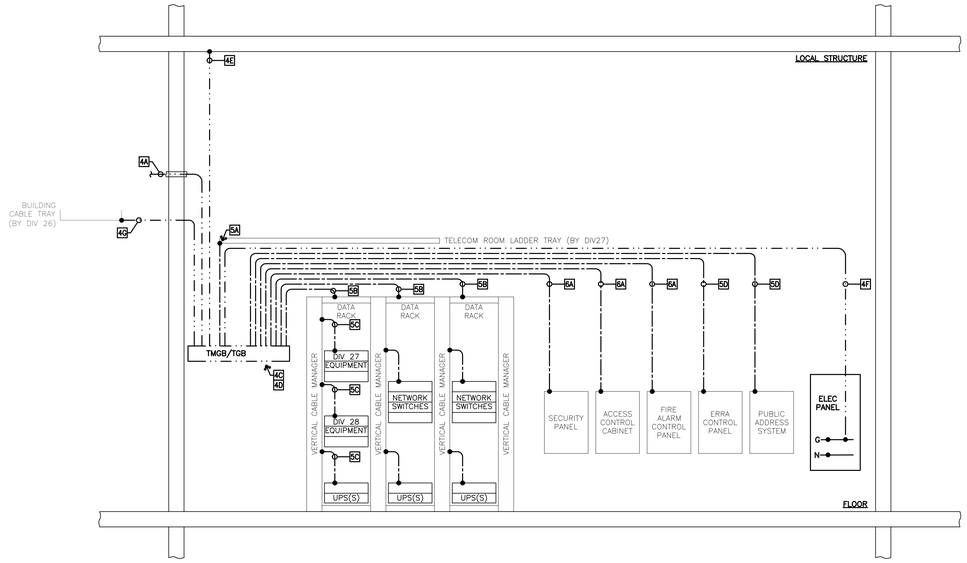
SYMBOL	DESCRIPTION
-------	NEC250 GROUNDING SYTEM BY DIV26
—··—	TELECOM BONDING BACKBONE BY DIV26
—·—·—	TELECOM ROOM INTERNAL BONDING BY DIV 27/28

1 TELECOM GROUNDING RISER AND DETAIL

NO SCALE

NOTES:

1. REFERENCE ELECTRICAL RISER AND FLOOR PLANS FOR ADDITIONAL INFORMATION.
2. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

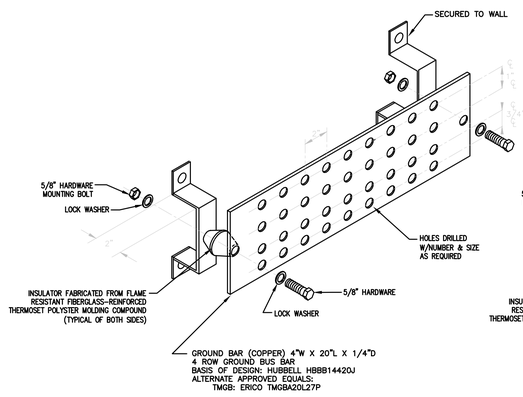


2 TYPICAL TELECOM ROOM GROUNDING/BONDING DETAIL

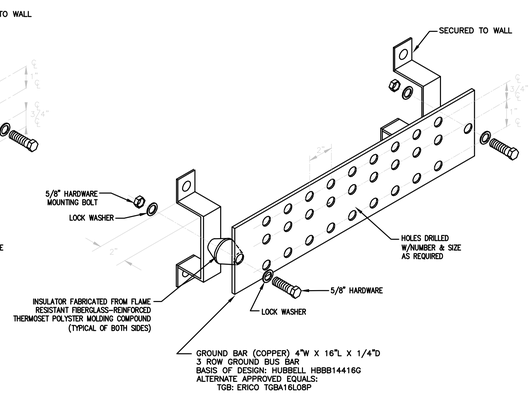
SCALE: NO SCALE

NOTES:

1. QUANTITIES OF RACKS, CABLE TRAY, EQUIPMENT, ETC. SHOWN FOR SCHEMATIC PURPOSES ONLY. REFERENCE FLOOR PLANS AND SPECIFICATIONS FOR TELECOM ROOM REQUIREMENTS.
2. DIVISION 27 STRUCTURED CABLING CONTRACTOR SHALL COORDINATE WITH DIVISION 26 FOR LOCATION OF TMGB/TGB IN EACH TELECOM ROOM.
3. DIVISION 27/28 BONDING CONDUCTORS WITHIN TELECOM ROOMS MAY BE INSTALLED WITHOUT CONDUIT AND SHALL BE SIZED PER ANSI/TIA-607-B, MINIMUM SIZE #6 AWG. REFERENCE TABLE 1 INCLUDED ON THIS SHEET.
4. DIVISION 26 RESPONSIBILITIES
   - 4.A. PROVIDE TELECOMMUNICATIONS BONDING BACKBONE (TBB) BETWEEN TELECOM ROOMS.
   - 4.B. NOT USED.
   - 4.C. TELECOMMUNICATIONS MAIN GROUND BAR (TMGB) IN THE MDF/MAIN TELECOM ROOM.
   - 4.D. TELECOMMUNICATIONS GROUND BAR (TG) IN THE 2ND FLOOR IDF.
   - 4.E. BONDING CONNECTION TO LOCAL STEEL STRUCTURE FROM TMGB/TGB IN EACH TELECOM ROOM.
   - 4.F. WHERE ELECTRICAL PANELS ARE LOCATED WITHIN TELECOM ROOMS BOND PANEL GROUND BAR TO TMGB/TGB.
   - 4.G. BONDING CABLE TRAY OUTSIDE THE TELECOM ROOMS INCLUDING JUMPERS BETWEEN CABLE TRAY SEGMENTS.
   - 4.H. ALL BONDING CONDUCTORS INSTALLED BY DIVISION 26 SHALL BE IN CONDUIT AND BONDED AT BOTH ENDS.
   - 4.I. REFERENCE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. DIVISION 27 RESPONSIBILITIES:
   - 5.A. BONDING CONNECTION TO LADDER TRAY INCLUDING JUMPERS BETWEEN TRAY SEGMENTS.
   - 5.B. BONDING CONNECTION TO EACH RACK, CABINET, VOLTAGE/SURGE PROTECTOR, EMR SHIELDING FLOORING/PAINT (WHERE PRESENT), AND OTHER DIVISION 27 LOW VOLTAGE SYSTEM METAL ENCLOSURES/FRAME.
   - 5.C. BONDING RACK MOUNTED EQUIPMENT TO RACK GROUND LUG/BAR.
   - 5.D. BONDING ALL OTHER DIV27 EQUIPMENT ENTERING OR RESIDING IN THE TELECOM ROOMS.
6. DIVISION 28 RESPONSIBILITIES:
   - 6.A. BONDING ALL DIV28 EQUIPMENT ENTERING OR RESIDING IN THE TELECOM ROOMS.



TELECOMMUNICATIONS MAIN GROUND BAR (TMGB)



TELECOMMUNICATIONS GROUND BAR (TGB)

3 TELECOM GROUND BAR DETAILS

NO SCALE

NOTES:

1. GROUND BARS PROVIDED AND INSTALLED BY DIVISION 26.
   - 1.A. DIVISION 27 TELECOM CONTRACTOR TO COORDINATE WITH DIVISION 26 TO MOUNT GROUND BARS ON WALL AT 8FT AFF ADJACENT TO LADDER TRAY FROM TELECOM RACKS.
2. ALL CONNECTIONS TO GROUND BARS SHALL BE MADE WITH DOUBLE LUG, IRREVERSIBLE COMPRESSION CONNECTORS.

CONSULTANTS

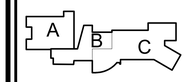
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

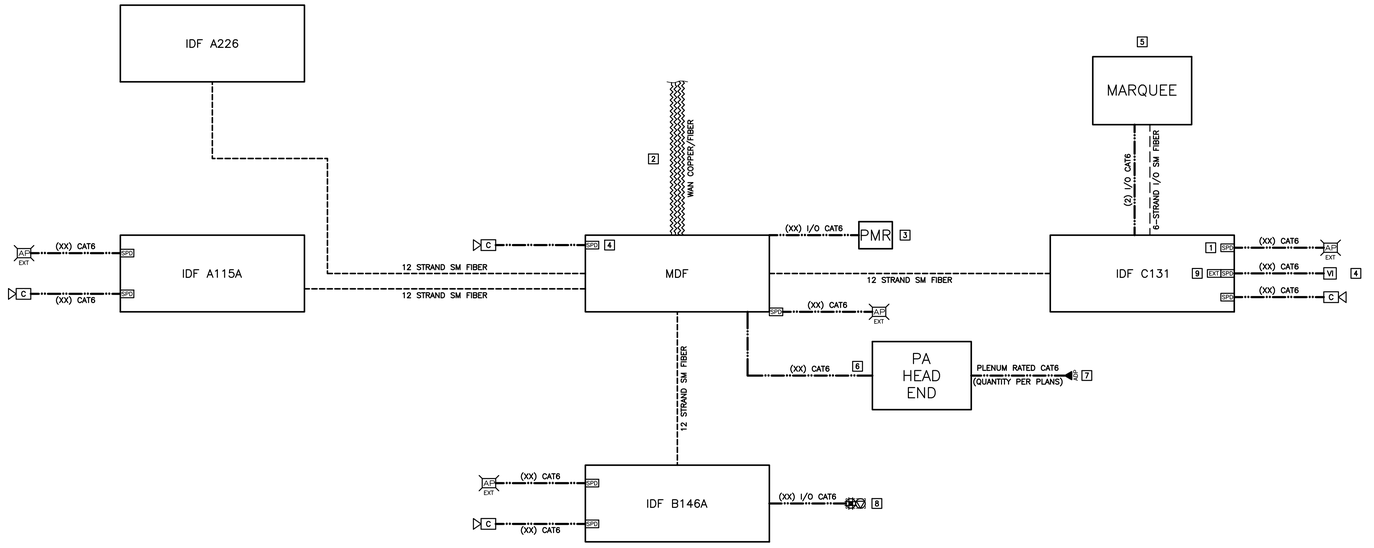
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E5.30

TELECOM GROUNDING RISER AND DETAILS

STANTON ENGINEERING GROUP
TELECOMMUNICATIONS | LIGHTING | FIRE ALARM | SECURITY
(713) 300-9292 | TEXAS ENGINEERING FIRM REG. NO. F-12783 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

SOFTWARE PRODUCED BY STANTON ENGINEERING GROUP | ©2025 ALL RIGHTS RESERVED



1 PARTIAL CIMARRON ES STRUCTURED CABLING BACKBONE RISER

NO SCALE

NOTES:

1. ALL STRUCTURED CABLING RUNS SHALL BE PROVIDED AND INSTALLED BY THE DIVISION 27 STRUCTURED CABLING CONTRACTOR.
   1.A. REFERENCE DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. COORDINATE WITH OTHER TRADES FOR CONNECTIONS TO THEIR ASSOCIATED EQUIPMENT/DEVICES.

CABLE LEGEND

SYMBOL	DESCRIPTION
— — —	2 STRAND SM FIBER
— — — —	6 STRAND SM FIBER
- - - - - - -	12 STRAND SM FIBER
~~	WAN COPPER/FIBER
——•—•——	CAT6 COPPER CABLING
——•••—••——	CAT6A COPPER CABLING
————	RG6 COPPER CABLING
————	XX PAIR COPPER

KEYED NOTES

SYMBOL	DESCRIPTION
1	SPD DENOTES SURGE PROTECTOR WHERE CABLES EXIT THE BUILDING, TYPICAL.
2	REF DRAWINGS FOR WAN UTILITY ROUTING
3	PMR DENOTES PEDESTAL MOUNTED DATA OUTLET LOCATION WITH BELOW GRADE CABLING.
4	VIDEO INTERCOM AT EXTERIOR LOCATIONS, COORDINATE WITH OTHER TRADES.
5	COOR. WITH OTHER TRADES FOR MARQUEE SIGN INSTALLATION AND ASSOCIATED REQUIREMENTS.
6	COOR. WITH OTHER TRADES FOR PA STRUCTURED CABLING INSTALLATION AND ASSOCIATED REQUIREMENTS.
7	PA ADMINISTRATIVE PHONES BY PA CONTRACTOR. CABLING BY STRUCTURED CABLING CONTRACTOR.
8	IN GRADE MULTI-SERVICE / SINGLE SERVICE FLOOR BOXES WITH DATA OUTLETS, QUANTITY PER PLANS.
9	PROVIDE POE EXTENDERS FOR OUT OF DISTANCE DEVICES, TYPICAL.

CONSULTANTS

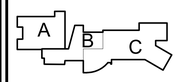
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

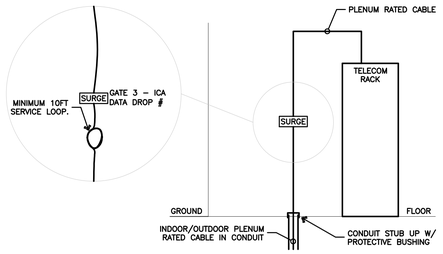
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E5.31

TELECOM BACKBONE AND CONDUIT RISERS

STANTON ENGINEERING GROUP
TBPE/TBPELS FIRM REG. NO. F-01756 | TBPELS FIRM REG. NO. 10194382
(713) 300-9292
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

SCHEDULING FIRM REQUIRED | ©2025 ALL RIGHTS RESERVED

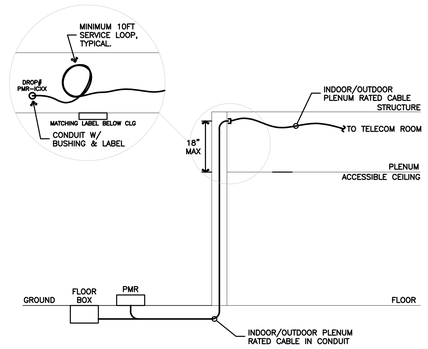


5 TYPICAL TELECOM ROOM SURGE CABLING DETAIL

NO SCALE

NOTES:

1. PROVIDE MINIMUM 10FT SERVICE LOOP, STORE IN EXTENDED LOOP OR FIGURE EIGHT CONFIGURATION.
2. PROVIDE INLINE SURGE PROTECTOR FOR NETWORK CABLING ADJACENT TO CONDUIT ENTRY INTO THE BUILDING.
   - 2.A. 110 PUNCH DOWN TERMINATIONS, SCREW DOWN COVER, GROUND WIRE, TIA/EIA CAT5E/CAT6/CAT6A COMPLIANT.
   - 2.B. SINGLE SURGE PROTECTORS MAY BE MOUNTED TO THE PLYWOOD WALL COVER ABOVE CONDUIT ENTRY. WHERE MULTIPLE SURGE PROTECTORS ARE INSTALLED IN A SINGLE TELECOM ROOM PROVIDE A WALL MOUNTED, LOCKING ENCLOSURE WITH DIN RAIL MOUNTED SURGE DEVICES.
   - 2.C. BOND SURGE SUPPRESSOR GROUND CONNECTION TO TELECOM ROOM GROUND BAR PER MANUFACTURER'S REQUIREMENTS.
   - 2.D. DITEK DTK-110C6APOE OR EQUAL.
3. WHERE CONDUIT STUB UP IS LOCATED REMOTE FROM A TELECOM ROOM REFER TO TYPICAL SURGE PROTECTION AT REMOTE CABLING ENTRY DETAIL.
4. LABEL SURGE PROTECTOR, ALL LABELS SHALL BE PERMANENT AND MACHINE GENERATED CONSISTING OF BLACK TEXT ON A WHITE BACKGROUND.
   - 4.A. LABELS SHALL CLEARLY INDICATE THE TERMINATION POINTS OF THE CABLE, EXAMPLE "GATE3–ICA" WHICH INDICATES TERMINATION POINTS AT GATE3 LOCATION AND WITHIN THE TELECOM ROOM DENOTED AS ICA USING AS–BUILT ROOM NAMES.
   - 4.B. LABELS SHALL INCLUDE AS–BUILT DATA DROP NUMBER USING BUILDING/PROJECT SPECIFIC NAMING STANDARDS/CONVENTIONS.

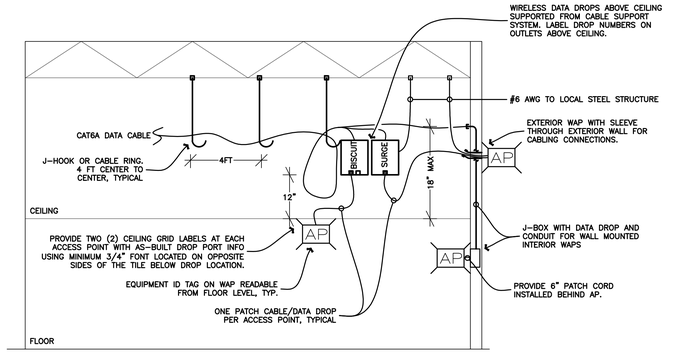


4 TYPICAL PMR / FLOOR BOX CABLING DETAIL

NO SCALE

NOTES:

1. PROVIDE MINIMUM 10FT SERVICE LOOP AT CONDUIT STUB OUT FOR TRANSITION TO BELOW GRADE, STORE IN EXTENDED LOOP OR FIGURE EIGHT CONFIGURATION.
2. PROVIDE END TO END INDOOR/OUTDOOR, PLENUM RATED CATEGORY CABLING FROM END DEVICE TO TELECOM ROOM.
   - 2.A. PEDESTAL MOUNTED RECEPTACLE AND FLOOR BOX SHOWN FOR REFERENCE, PROVIDE MATCHING INSTALLATION FOR SIMILAR DEVICES LOCATED WITHIN THE BUILDING.
   - 2.B. EXTERIOR DEVICES REMOTE FROM THE BUILDING SHALL BE PROVIDED WITH INLINE SURGE PROTECTION AND CABLE ENTRY POINT. TYPICAL OF SECURITY CAMERAS, VIDEO INTERCOMS, AND SIMILAR DEVICES.
3. LABEL END OF CONDUIT STUB OUT, ALL LABELS SHALL BE PERMANENT AND MACHINE GENERATED CONSISTING OF BLACK TEXT ON A WHITE BACKGROUND.
   - 3.A. LABELS SHALL CLEARLY INDICATE THE TERMINATION POINTS OF THE CABLE, EXAMPLE "PMR–ICA" WHICH INDICATES TERMINATION POINTS AT A PMR LOCATION AND WITHIN THE TELECOM ROOM DENOTED AS IC–A USING AS–BUILT ROOM NAMES.
   - 3.B. LABELS SHALL INCLUDE AS–BUILT DATA DROP NUMBER USING BUILDING/PROJECT SPECIFIC NAMING STANDARDS/CONVENTIONS.
   - 3.C. WHERE CONDUIT STUB OUT IS ABOVE CEILING PROVIDE MATCHING LABELING PERMANENTLY AFFIXED TO ACCESSIBLE CEILING IN ADDITION TO LABEL ON CONDUIT STUB OUT. LABEL SHALL BE CLEARLY VISIBLE WHEN LOOKED AT FROM A STANDING POSITION AT THE FLOOR.

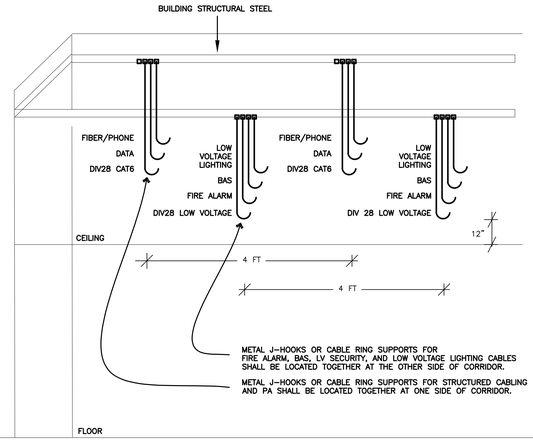


1 WIRELESS DATA CABLE WIRING DETAIL

NO SCALE

NOTES:

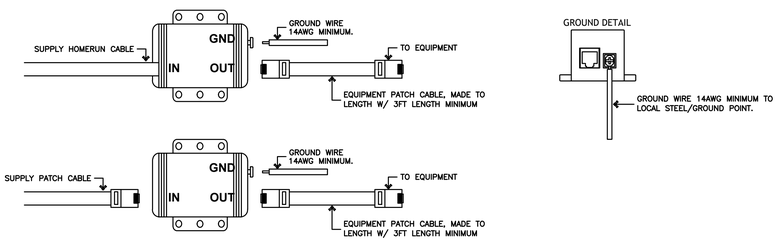
1. PROVIDE ENCLOSURE ABOVE CEILING FOR CONNECTION OF PATCH CORDS AND HOME RUN CABLING FOR CEILING MOUNTED AND EXTERIOR WIRELESS ACCESS POINTS (APs).
   - 1.A. PROVIDE 2–PORT BISCUIT JACK FOR INTERIOR CEILING MOUNTED APs.
   - 1.B. PROVIDE 110–RJ45 SURGE PROTECTOR FOR EXTERIOR MOUNTED APs.
   - 1.C. CONNECT AP TO ENCLOSURE WITH PATCH CORD.
   - 1.D. SUPPORT ENCLOSURE FROM CABLE SUPPORT SYSTEM ~12" ABOVE CEILING WITH PORT LABELS FACING DOWNWARD.
2. PROVIDE FLUSH MOUNTED DATA DROP IN WALL AT INTERIOR WALL MOUNTED APs.
   - 2.A. ROUTE DATA DROP IN CONDUIT INSIDE WALL.
   - 2.B. MOUNT AP OVER DATA DROP AND CONNECT WITH 6" PATCH CORD.
3. PROVIDE PROTECTIVE BUSHING ON END OF CONDUITS AND SLEEVES.
   - 3.A. ANGLE EXTERIOR AP SLEEVE UPWARD AND SEAL SLEEVES THROUGH EXTERIOR WALL TO MAINTAIN BUILDING ENVELOPE AND PREVENT WATER INGRESS.
4. CABLING:
   - 4.A. ALL APs SHALL HAVE INDIVIDUAL UNSPLICED HOME RUN DATA CABLE FROM BISCUIT JACK OR SURGE SUPPRESSOR TO NEAREST TELECOM DATA PATCH PANEL. PROVIDE 20 FOOT SERVICE LOOP FOR ALL WIRELESS DATA DROPS, TYPICAL.
   - 4.B. CONNECT ALL APs USING PATCH CORDS OF VARIOUS LENGTHS USING PREFABRICATED CABLES OF STANDARD LENGTHS. PATCH CORD LENGTH TO BE SIZED BY DIVISION 27 CONTRACTOR TO MATCH INSTALLATION CONDITIONS.
   - 4.C. PROVIDE SHIELDED PATCH CORDS FOR ALL EXTERIOR APs.
   - 4.D. GROUNDING WIRE FOR EXTERIOR APs CONNECTED TO LOCAL STEEL STRUCTURE BY DIVISION 27.
5. LABELING:
   - 5.A. PROVIDE PORT LABELS ON CEILING GRID BELOW ALL ABOVE CEILING DROPS.
   - 5.B. PROVIDE EQUIPMENT ID TAGS ON APs. ID TAG FORMAT TO BE PROVIDED BY OWNER.
6. INTERIOR CEILING MOUNTED APs IN LAY–IN CEILINGS SHALL BE RELOCATED AS DIRECTED BY THE OWNER/ENGINEER BASED ON AS–BUILT WIRELESS HEAT MAP.



2 LOW VOLTAGE AND STRUCTURED CABLE SUPPORTING DETAIL

NO SCALE

GC, ELECTRICAL CONTRACTOR, AND LOW VOLTAGE CONTRACTORS SHALL COORDINATE TO PROVIDE SUPPORTS FOR LOW VOLTAGE CABLES SEPARATED BY FUNCTION PER THIS DETAIL. SUBMIT SUPPORT LAYOUT DRAWINGS FOR APPROVAL DURING CONSTRUCTION PHASE AND COORDINATE WITH HVAC DUCT WORK AND PIPING AND PLUMBING PIPING.

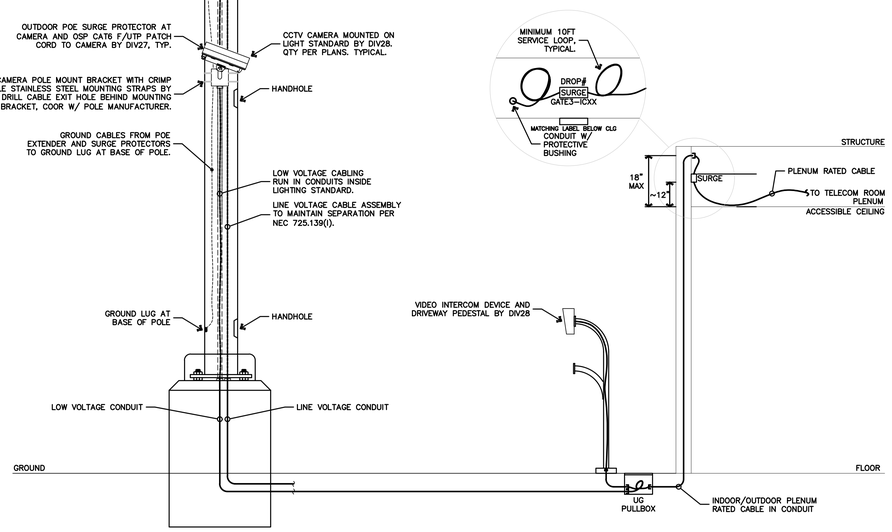


3 TYPICAL INLINE SURGE PROTECTION DETAIL

NO SCALE

NOTES:

1. PROVIDE MINIMUM 10FT SERVICE LOOP ON HOMERUN CABLE SIDE, STORE IN EXTENDED LOOP OR FIGURE EIGHT CONFIGURATION.
2. PROVIDE INLINE SURGE PROTECTOR FOR NETWORK CABLING ADJACENT TO CONDUIT ENTRY INTO THE BUILDING.
   - 2.A. 110 PUNCH DOWN TERMINATIONS, SCREW DOWN COVER, GROUND WIRE, TIA/EIA CAT5E/CAT6/CAT6A COMPLIANT.
   - 2.B. SINGLE SURGE PROTECTORS MAY BE MOUNTED TO THE PLYWOOD WALL COVER ABOVE CONDUIT ENTRY. WHERE MULTIPLE SURGE PROTECTORS ARE INSTALLED IN A SINGLE TELECOM ROOM PROVIDE A WALL MOUNTED, LOCKING ENCLOSURE WITH DIN RAIL MOUNTED SURGE DEVICES.
   - 2.C. BOND SURGE SUPPRESSOR GROUND CONNECTION TO TELECOM ROOM GROUND BAR PER MANUFACTURER'S REQUIREMENTS.
   - 2.D. DITEK DTK–110C6APOE OR EQUAL.
3. PROVIDE INLINE SURGE PROTECTOR FOR NETWORK CABLING AT POLE MOUNTED WIRELESS ACCESS POINTS AND CCTV CAMERAS.
   - 3.A. NEMA4X CONSTRUCTION WITH WATERPROOF COMPRESSION GLANDS.
   - 3.B. DITEK DTK–MRJPOEX.
4. LABEL SPLICE POINT, ALL LABELS SHALL BE PERMANENT AND MACHINE GENERATED CONSISTING OF BLACK TEXT ON A WHITE BACKGROUND.
   - 4.A. LABELS SHALL CLEARLY INDICATE THE TERMINATION POINTS OF THE CABLE, EXAMPLE "GATE3–ICA" WHICH INDICATES TERMINATION POINTS AT A GATE LOCATION AND WITHIN THE TELECOM ROOM DENOTED AS ICA USING AS–BUILT ROOM NAMES.
   - 4.B. LABELS SHALL INCLUDE AS–BUILT DATA DROP NUMBER USING BUILDING/PROJECT SPECIFIC NAMING STANDARDS/CONVENTIONS.
   - 4.C. FOR SPLICE POINTS ABOVE CEILING, PROVIDE THE ABOVE LABELING PERMANENTLY AFFIXED TO ACCESSIBLE CEILING IN ADDITION TO LABEL ON SPLICE POINT. LABEL SHALL BE CLEARLY VISIBLE WHEN LOOKED AT FROM A STANDING POSITION AT THE FLOOR.



6 TYPICAL EXTERIOR DEVICE AND REMOTE CABLING ENTRY DETAIL

NO SCALE

NOTES:

1. PROVIDE MINIMUM 10FT SERVICE LOOP, STORE IN EXTENDED LOOP OR FIGURE EIGHT CONFIGURATION.
2. WHERE CONDUIT ENTRY INTO THE BUILDING IS NOT WITHIN A TELECOM ROOM PROVIDE INLINE SURGE PROTECTOR FOR NETWORK CABLING ADJACENT TO CONDUIT STUB OUT WITHIN AN ACCESSIBLE CEILING.
   - 2.A. 110 PUNCH DOWN TERMINATIONS, SCREW DOWN COVER, GROUND WIRE, TIA/EIA CAT5E/CAT6/CAT6A COMPLIANT.
   - 2.B. SUPPORT SURGE PROTECTOR FROM CABLE SUPPORT SYSTEM ~12" ABOVE CEILING WITH PORT LABELS FACING DOWNWARD.
   - 2.C. BOND SURGE SUPPRESSOR GROUND CONNECTION TO LOCAL BUILDING STEEL PER MANUFACTURERS REQUIREMENTS.
   - 2.D. DITEK DTK–110C6APOE OR EQUAL.
3. WHERE CONDUIT STUB UP IS LOCATED IN A TELECOM ROOM REFER TO TYPICAL TELECOM ROOM SURGE CABLING DETAIL.
4. PROVIDE SURGE PROTECTION AND GROUND CONNECTION AT POLE. PROVIDE GROUND WIRE TO GROUND LUG AT LIGHT POLE BASE. RESISTANCE TO GROUND SHALL BE MAXIMUM 5 OHMS.
   - 4.A. GROUND HYBRID FIBER POE EXTENDER TO GROUND LUG AT LIGHT POLE BASE.
   - 4.B. PROVIDE DITEK DTK–MRJPOEX NEMA4X POE SURGE PROTECTOR OR EQUAL FOR END DEVICES CONNECTED USING CAT6 OR CAT6A CABLE. MOUNT SURGE PROTECTOR TO POLE AT END DEVICE AND CONNECT PER MANUFACTURER'S REQUIREMENTS.
5. LABEL SPLICE POINT, ALL LABELS SHALL BE PERMANENT AND MACHINE GENERATED CONSISTING OF BLACK TEXT ON A WHITE BACKGROUND.
   - 5.A. LABELS SHALL CLEARLY INDICATE THE TERMINATION POINTS OF THE CABLE, EXAMPLE "GATE3–ICA" WHICH INDICATES TERMINATION POINTS AT A GATE LOCATION AND WITHIN THE TELECOM ROOM DENOTED AS ICA USING AS–BUILT ROOM NAMES.
   - 5.B. LABELS SHALL INCLUDE AS–BUILT DATA DROP NUMBER USING BUILDING/PROJECT SPECIFIC NAMING STANDARDS/CONVENTIONS.
   - 5.C. FOR SPLICE POINTS ABOVE CEILING, PROVIDE THE ABOVE LABELING PERMANENTLY AFFIXED TO ACCESSIBLE CEILING IN ADDITION TO LABEL ON SPLICE POINT. LABEL SHALL BE CLEARLY VISIBLE WHEN LOOKED AT FROM A STANDING POSITION AT THE FLOOR.

CONSULTANTS

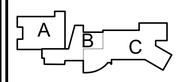
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355



10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

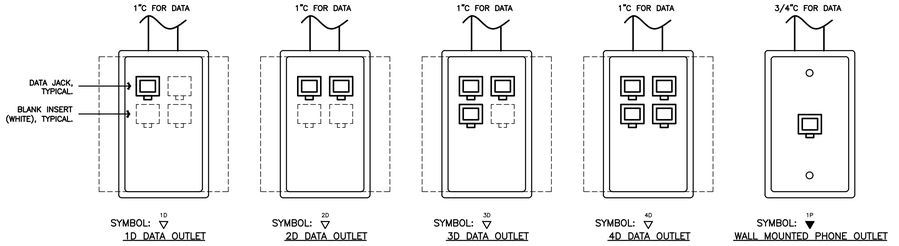
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E5.32

STRUCTURED CABLING DETAILS

STANTON ENGINEERING GROUP
TBPE/TBPELS FIRM REG NO F-13163 | TBELS FIRM REG NO F-10183
(713) 300–9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

SOLE ENG. FIRM REG NO F-13163 | ©2025 ALL RIGHTS RESERVED

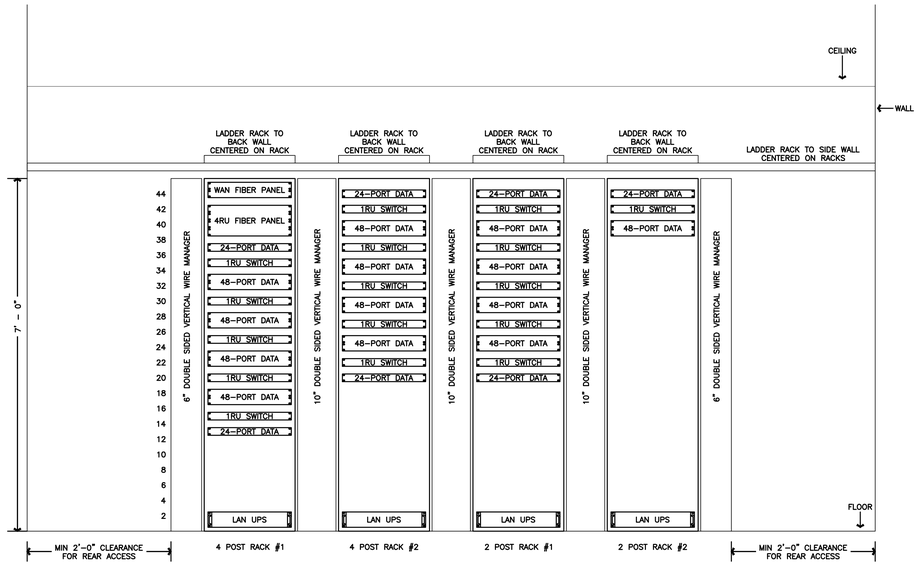


NOTES:
1. PROVIDE NYLON BUSHING ON ENDS OF LOW VOLTAGE CONDUIT.
2. PROVIDE RADIUS SWEEP ABOVE CEILING IN DIRECTION OF CABLE PATH.
3. NO CONDUIT SHALL HAVE MORE THAN TWO (2) 90° SWEEPS.
4. WHERE LOW VOLTAGE DEVICES AND POWER OUTLETS ARE SHOWN AT THE SAME LOCATION IN THE PLANS INSTALL THE DEVICES GROUPED AND SPACED APPROXIMATELY 2" BETWEEN DEVICES. UTILIZE CADDY BAR SUPPORTS OR SIMILAR TO MAINTAIN SPACINGS.

1 TYPICAL DATA OUTLETS

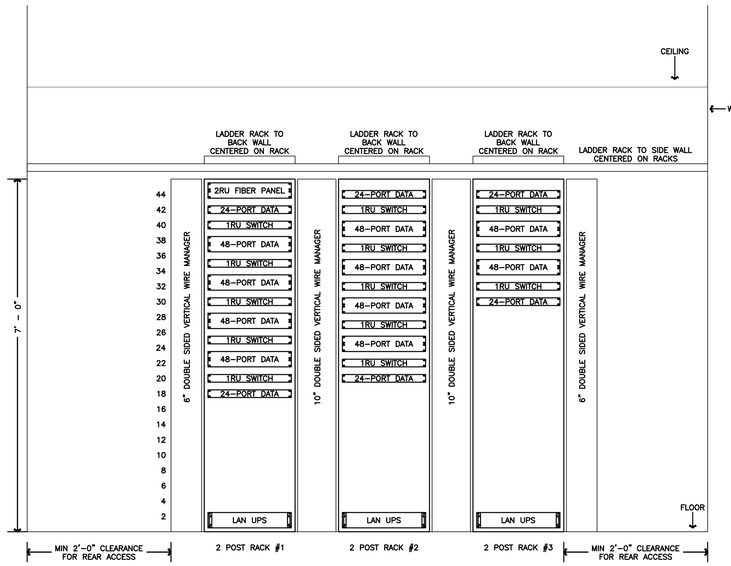
NO SCALE

NOTES:
1. SHEETROCK WALLS:
   1.A. PROVIDE DEEP 2-GANG BACK BOX WITH A SINGLE GANG MUDRING FOR ALL DATA OUTLETS.
   1.B. PROVIDE DEEP 1-GANG BACK BOX FOR WALL MOUNTED PHONE OUTLET.
2. CMU WALLS:
   2.A. PROVIDE DEEP 1-GANG MASONRY BOX FOR ALL DATA OUTLETS.
   2.B. PROVIDE DEEP 1-GANG MASONRY BOX FOR WALL MOUNTED PHONE OUTLET.
3. SUBMIT FACEPLATE AND INSERT COLOR SELECTIONS FOR CONFIRMATION WITH SUBMITTAL PACKAGE.
4. REFER TO SPECIFICATIONS FOR LABELING SCHEME.



2 TYPICAL MDF RACK ELEVATION

NO SCALE



RACK ELEVATION GENERAL NOTES:
1. GENERAL CONTRACTOR SHALL COORDINATE WITH ALL LOW VOLTAGE SUBS FOR RACK MOUNTED EQUIPMENT SPACE REQUIREMENTS PRIOR TO ROUGH-IN.
2. RACKS SHALL BE LOCATED WITH MINIMUM CLEARANCES OF 42" FROM THE BACK WALL AND 36" FROM THE FRONT WALL TO PROVIDE ACCESS. IF THERE IS INSUFFICIENT SPACE TO MAINTAIN THE REQUESTED CLEARANCES THE STRUCTURED CABLING CONTRACTOR SHALL REQUEST CLARIFICATION BY RFI PRIOR TO BOLTING THE RACKS IN PLACE.
3. EXTEND LADDER RACK TO THE WALL ON BOTH SIDES OF THE DATA RACKS IF WITHIN 4FT.
4. FILL RACKS AS FOLLOWS:
   4.A. (1ST RACK ONLY) START RACK WITH FIBER PATCH PANELS.
   4.B. PROVIDE 1U SPACE.
   4.C. START DATA PATCH PANELS IN EACH RACK WITH DATA CABLING WITH A 24 PORT PATCH PANEL.
      4.C.1. ALTERNATE 3RU SPACE FOR OWNER'S NETWORK SWITCHES AND 48 PORT PATCH PANELS UNTIL THE RACK IS FULL.
      4.C.2. FULL RACKS SHALL END WITH A 24 PORT PATCH PANEL.
      4.C.2. PARTIALLY FULL RACKS SHALL END ON A PARTIALLY FULL 24- OR 48-PORT PATCH PANEL, WITH MINIMUM TWELVE EMPTY PORTS FOR FUTURE EXPANSION.
      4.C.3. A MAXIMUM OF FIVE (5) SWITCHES AND TWO HUNDRED FORTY (240) DATA DROPS MAY BE INSTALLED IN A TYPICAL RACK.
      4.C.4. COMPLETELY FILL EACH RACK BEFORE MOVING TO THE NEXT RACK.
   4.D. INSTALL NETWORK UPS AT THE BOTTOM OF THE RACKS.
5. RACK ELEVATIONS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO PROVIDE QUANTITIES OF RACKS, PATCH PANELS, AND/OR DATA DROPS TO BE INSTALLED IN THE PROJECT. REFERENCE DRAWINGS FOR TELECOM ROOM LAYOUTS, DATA DROP TYPES, AND QUANTITIES.

CABLE/PORT GROUPING
1. CAMERAS AND ACCESS POINTS SHOULD BE GROUPED TOGETHER, POPULATING THE LAST 12 PORTS OF THE PATCH PANELS.
2. EXAMPLE #1: 12 DATA & 12 AP/CAMERAS IN A RACK
   2.A. PORTS 1 - 12 WILL BE ASSIGNED DATA
   2.B. PORTS 13-24 WILL BE THE AP & CAMERAS
3. EXAMPLE #2: 27 DATA & 6 AP/CAMERAS IN A RACK
   3.A. 24-PORT PANEL #1: PORTS 1-24 WILL BE DATA
   3.B. 24-PORT PANEL #2: PORTS 1 - 3 WILL BE DATA & PORTS 19-24 WILL BE AP/CAMERAS.
3. EXAMPLE #3: 50 DATA & 6 WIRELESS ACCESS POINTS/CAMERAS
   3.A. 24-PORT PANEL #1: PORTS 1-24 WILL BE DATA
   3.B. 48-PORT PANEL #1: PORTS 1 - 26 WILL BE DATA & PORTS 43-48 WILL BE AP/CAMERAS.

3 TYPICAL IDF RACK ELEVATION

NO SCALE

CONSULTANTS
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)
STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)
MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)
FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)
LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
LICENSED
PROFESSIONAL ENGINEER
10.24.2025

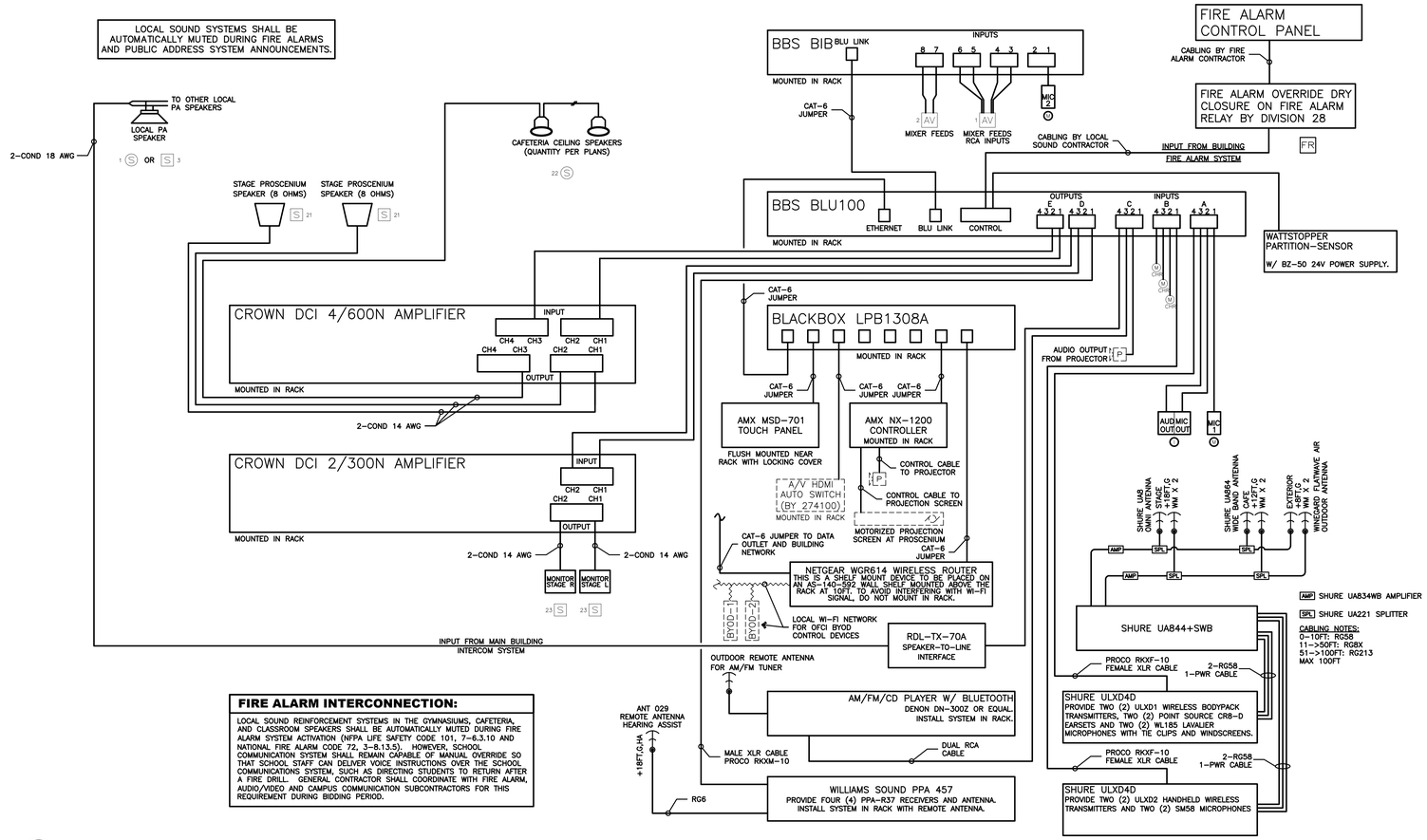
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E5.33

STRUCTURED CABLING DEVICE DETAILS

STANTON ENGINEERING GROUP
TBPE/TBPELS FIRM REG. NO. F-017632 | SEALING FIRM REG. NO. T-017632 | ©2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



FIRE ALARM INTERCONNECTION:

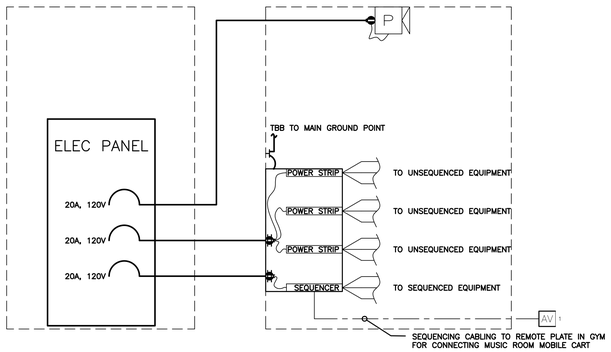
LOCAL SOUND REINFORCEMENT SYSTEMS IN THE GYMNASIUMS, CAFETERIA, AND CLASSROOM SPEAKERS SHALL BE AUTOMATICALLY MUTED DURING FIRE ALARM SYSTEM ACTIVATION (NFPA LIFE SAFETY CODE 101, 7-6.3.10 AND NATIONAL FIRE ALARM CODE 72, 3-8.13.5). HOWEVER, SCHOOL COMMUNICATION SYSTEM SHALL REMAIN CAPABLE OF MANUAL OVERRIDE SO THAT SCHOOL STAFF CAN DELIVER VOICE INSTRUCTIONS OVER THE SCHOOL COMMUNICATIONS SYSTEM, SUCH AS DIRECTING STUDENTS TO RETURN AFTER A FIRE DRILL. GENERAL CONTRACTOR SHALL COORDINATE WITH FIRE ALARM, AUDIO/VIDEO AND CAMPUS COMMUNICATION SUBCONTRACTORS FOR THIS REQUIREMENT DURING BIDDING PERIOD.

3 CAFETERIA & GYM LOCAL SOUND ONE-LINE DIAGRAM

SCALE: NO SCALE

NOTES:

1. COORDINATE WITH ARCHITECT FOR PLACEMENT OF HEARING ASSISTANCE NOTIFICATION SIGNS.
2. COORDINATE WITH OTHER TRADES TO CONNECT THE LOCAL SOUND SYSTEM TO THE PA AND FIRE ALARM SYSTEMS.
   - 2.A. THE LOCAL SOUND SYSTEM SHALL BE AUTOMATICALLY MUTED DURING FIRE ALARM ACTIVATION PER NFPA. COORDINATE WITH THE FIRE ALARM CONTRACTOR FOR A RELAY OUTPUT FROM THE FIRE ALARM SYSTEM SO THAT THE LOCAL SOUND SYSTEM WILL AUTO MUTE DURING AN EVENT.
   - 2.B. COORDINATE WITH CAMPUS COMMUNICATIONS CONTRACTOR TO PROVIDE A DEDICATED CIRCUIT TO THE CAMPUS COMMUNICATION SYSTEM SO THAT THE LOCAL SOUND SYSTEM OVERRIDE MAY BE BYPASSED AS DIRECTED BY THE OWNER.
3. MISCELLANEOUS COMPONENTS:
   - 3.A. THREE (3) SHURE MX202B/C HANGING CHOIR MICROPHONES, CABLING AND ALL ASSOCIATED EQUIPMENT. EXACT LOCATION AND ELEVATION TO BE DETERMINED BY INSTALLING CONTRACTOR. COORDINATE WITH OTHER TRADES AND BUILDING CONDITIONS PRIOR TO ROUGH-IN.
   - 3.B. TWO (2) SHURE SM87A HANDHELD CONDENSER MICROPHONES
   - 3.C. TWO (2) ATLAS MS-20E FLOOR MICROPHONE STANDS AND TWO (2) ATLAS BE-E MICROPHONE BOOMS.
   - 3.D. TWO (2) ATLAS DS-14 DESK STANDS.
   - 3.E. TWO (2) 3' RCA PATCH CABLES, TWO (2) 10' RCA PATCH CABLES
   - 3.F. TWO (2) 25' C25J MICROPHONE CABLES, TWO (2) 50' C50J MICROPHONE CABLES.
   - 3.G. TWO (2) 25' SPEAKON-SPEAKON SPEAKER CABLES FOR STAGE MONITORS.
   - 3.H. ONE (1) 10' SEQUENCING PATCH CABLE
   - 3.I. PROTECTIVE GUARDS ON ALL WIRELESS ANTENNAS.
4. PROVIDE GUI INTERFACE FOR SYSTEM CONTROL.
   - 4.A. PROVIDE SPLIT CONTROL PAGES FOR EACH FUNCTION. THE BELOW ARE SOME EXAMPLES FOR CLARITY. SUBMIT CONTROL PAGE MOCKUPS WITH SUBMITTAL PACKAGE.
     - 4.A.1. WIRED MICROPHONE PORTS AND WIRELESS MICROPHONE INPUTS
     - 4.A.2. PROGRAM SOURCES
     - 4.A.3. SPEAKER OUTPUT
     - 4.A.4. PROJECTOR ON/OFF AND PROJECTION SCREEN CONTROLS
     - 4.A.5. LOCAL COMPUTER
     - 4.A.6. PROGRAM SOURCES
     - 4.A.7. HDMI AUTO SWITCHER
     - 4.A.8. GYM AND CAFE ZONES ON/OFF AND ROUTING.
   - 4.B. FOR EACH INPUT/OUTPUT USED PROVIDE VOLUME CONTROL AND MUTE BUTTONS.
     - 4.B.1. MUTE BUTTON TO CHANGE COLOR WHEN PRESSED; RED FOR MUTE, GREEN FOR ACTIVE.
     - 4.B.2. PROVIDE ON/OFF CONTROLS FOR EACH SPEAKER ZONE INDEPENDENT OF OTHER ZONES.
   - 4.C. PROVIDE MOCKUP OF GUI FOR OWNER/ENGINEER REVIEW. REVISE/REPROGRAM GUI AS DIRECTED UNTIL APPROVED.
     - 4.C.1. APPROVAL IN WRITING SHALL BE REQUIRED PRIOR TO ACCEPTANCE OF THE SYSTEM.
   - 4.D. THE GUI SHALL BE SAVED IN X-PAGE OR SIMILAR FORMAT TO ALLOW REMOTE INTERFACING WITH AND CONTROL BY STANDARD BYOD DEVICES AND OPERATING SYSTEMS.
   - 4.E. PROVIDE SYSTEM SOURCE CODE AND ANY PASSWORDS TO OWNER AS PART OF THE CLOSEOUT DOCUMENTS.
5. PROVIDE INSTALLATION OF GUI ON UP TO TWO (2) MOBILE DEVICES FOR CONTROL OF THE SOUND SYSTEM OVER THE LOCAL WI-FI NETWORK USING BYOD EQUIPMENT.
   - 5.A. PROVIDE ALL LICENSES AS REQUIRED. LICENSES SHALL BE ALLOW FOR BYOD DEVICES TO BE ADDED/DELETED BY THE OWNER AS THEY ARE UPGRADED, LOST, ETC.
   - 5.B. MOBILE DEVICE INTERFACE SHALL REPRODUCE MAIN CONTROL SYSTEM TOUCHSCREEN AND HAVE FULL FUNCTIONALITY VIA THE LOCAL WI-FI NETWORK.
   - 5.C. BYOD EQUIPMENT PROVIDED BY OWNER.
   - 5.D. CONTRACTOR TO INCLUDE DOWNLOADING AND INSTALLING MOBILE CONTROL SOFTWARE ONTO OWNER PROVIDE BYOD EQUIPMENT.
6. COORDINATE WITH ELECTRICAL CONTRACTOR FOR LOCATION AND ROUTING OF THE TELECOMMUNICATIONS BONDING BACKBONE EQUIPMENT AND CONNECTIONS. SOUND SYSTEM CONTRACTOR TO BE RESPONSIBLE FOR PROPERLY BONDING EQUIPMENT RACK AND EQUIPMENT TO THE TGB/TBB.

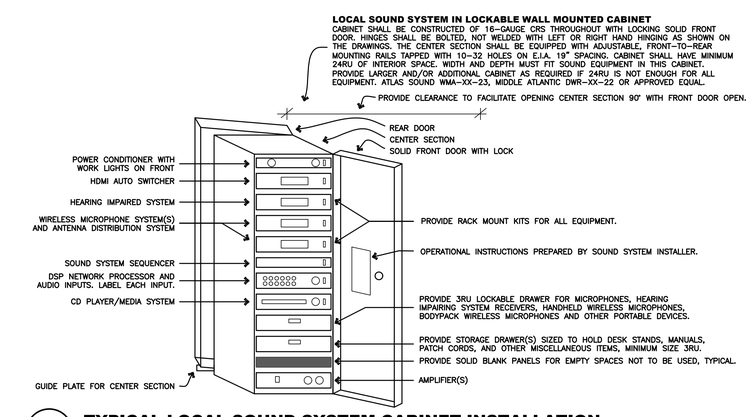


4 STAGE SOUND/AV SYSTEM POWER ONE-LINE DIAGRAM

SCALE: NO SCALE

NOTES:

1. COORDINATE MOUNTING HEIGHT AND LOCATION OF CFCI REAR PROJECTION SYSTEM BUILDING CONDITIONS AND SCREEN LOCATION.
2. PROVIDE BOTH SEQUENCED AND UNSEQUENCED POWER FOR SOUND SYSTEM RACK.
   - 2.A. THE CONTRACTOR IS RESPONSIBLE FOR PARTITIONING THE EQUIPMENT BETWEEN SEQUENCED AND UNSEQUENCED AS WELL AS PERFORMING INITIAL SEQUENCING SETTINGS.
   - 2.B. PROVIDE QUANTITY OF POWER CONDITIONERS AS REQUIRED TO CONNECT ALL UNSEQUENCED EQUIPMENT IN RACK.
3. LOCAL SOUND SYSTEM (LSS) CONTRACTOR TO BOND EQUIPMENT RACK AND EQUIPMENT TO TGB BY ELECTRICIAN. COORDINATE WITH ELECTRICIAN FOR LOCATION AND TGB SIZE. TGB MAY BE LOCATED WITHIN THE SOUND RACK ENCLOSURE AS DIRECTED BY THE LSS CONTRACTOR.

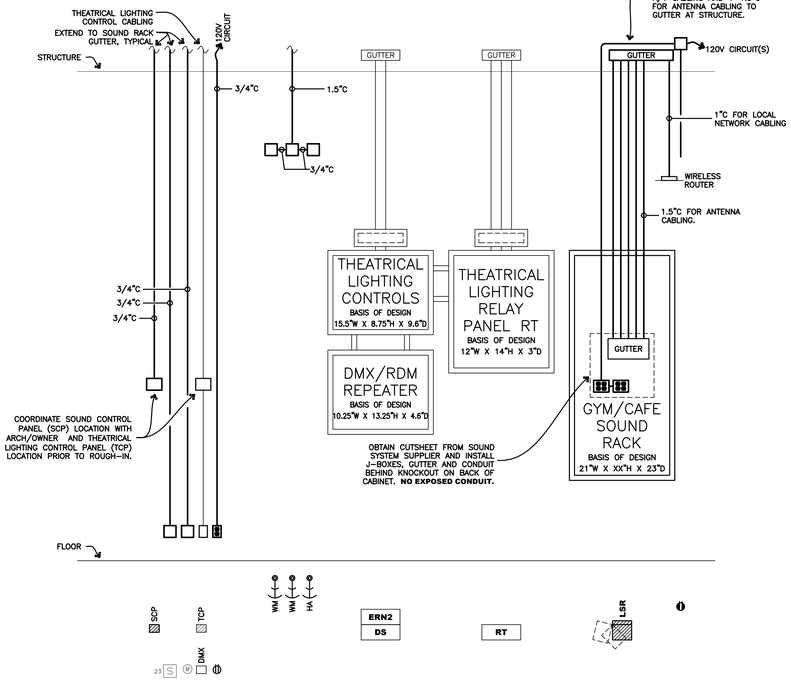


1 TYPICAL LOCAL SOUND SYSTEM CABINET INSTALLATION

SCALE: NO SCALE

NOTES:

1. ONLY MAJOR COMPONENTS ARE SHOWN. SOUND SYSTEM CONTRACTOR SHALL BE RESPONSIBLE FOR GENERATING RACK ELEVATION SHOP DRAWINGS TO BE SUBMITTED FOR OWNER/ENGINEER REVIEW. REF. SPECIFICATIONS FOR SOUND SYSTEM EQUIPMENT AND ADDITIONAL INFORMATION.
2. PROVIDE TWO (2) QUADPLEX OUTLETS AND LOW VOLTAGE CONDUIT TO 4X4X8 GUTTER IN WALL CENTERED BEHIND OPENING IN BACK OF CABINET. PROVIDE ADDITIONAL 1"C AS REQUIRED TO MAINTAIN 1"C SPARE FOR FUTURE. PROVIDE PULL STRING IN ALL CONDUITS.
3. PROVIDE OUTDOOR REMOTE ANTENNA FOR AM/FM TUNER.
4. PROVIDE INDOOR REMOTE ANTENNAS FOR HEARING IMPAIRED SYSTEM AND WIRELESS MICROPHONE SYSTEMS. ANTENNAS SHALL BE LOCATED BY THE SOUND SYSTEM INSTALLER TO PROVIDE COVERAGE OF THE SPACE AND COORDINATE WITH THE ARCHITECTURAL LAYOUT AND BUILDING FEATURES. CONFIRM MOUNTING HEIGHT AND LOCATION WITH ARCHITECT/ENGINEER PRIOR TO ROUGH-IN.
5. ALL EXPOSED ANTENNA AND EQUIPMENT IN GYMNASIUMS SHALL HAVE PROTECTIVE WIRE GUARDS OR CLEAR POLYCARBONATE COVES.
6. INTERLOCK LOCAL SOUND REINFORCEMENT SYSTEM WITH FIRE ALARM TO BE AUTOMATICALLY MUTED DURING THE FIRE ALARM SYSTEM ACTIVATION PER NFPA AND NATIONAL FIRE ALARM CODE.
7. INTERLOCK LOCAL SOUND REINFORCEMENT SYSTEMS WITH SCHOOL PUBLIC ADDRESS SYSTEM TO BE AUTOMATICALLY MUTED DURING PUBLIC ANNOUNCEMENTS AS DIRECTED BY THE OWNER.
8. PROVIDE ONE (1) 20A RACK MOUNTED POWER SEQUENCER WITH MINIMUM ONE UNSEQUENCED AND SIX SEQUENCED NEMA 5-20R OUTLETS ON PANEL REAR. SEQUENCED OUTLETS SHALL BE GROUPED IN THREE SEPARATE GROUPS WITH ADJUSTABLE DELAYS. FURMAN CN-2400S OR EQUAL.
   - 8.A. PROVIDE AND INSTALL SEQUENCING CONTROLLERS, MODULES, CABLING AND ALL NECESSARY COMPONENTS TO PROPERLY SEQUENCE RACK AND FIELD INSTALLED SOUND EQUIPMENT. AUDIO DSP SHALL REMAIN ON 24X7 AND ALL OTHER SOUND EQUIPMENT WILL POWER UP AND POWER DOWN AS SEQUENCED. SEQUENCER SHALL OCCUPY ONE DEDICATED CIRCUIT.
9. PROVIDE MINIMUM ONE (1) ADDITIONAL RACK MOUNTED POWER CONDITIONER WITH RETRACTABLE FRONT LIGHTS, QUANTITY AS REQUIRED, TO POWER ALL REMAINING EQUIPMENT. FURMAN M-8LX, JUICE GOOSE JGBLED, ATLAS SOUND AP-515LA OR EQUAL.
   - 9.A. UNSEQUENCED GEAR SHALL INCLUDE THE BLACKBOX LPB1308A, NETGEAR WIRELESS ROUTER AND ADDITIONAL MISCELLANEOUS EQUIPMENT AS DETERMINED BY THE CONTRACTOR. UNSEQUENCED RACK MOUNTED POWER STRIPS SHALL OCCUPY THE SECOND DEDICATED CIRCUIT. LOCATE FIRST POWER STRIP AT THE TOP OF THE RACK.
10. PROVIDE FIVE (5) SETS OF DOOR AND DRAWER KEYS.
11. COORDINATE WITH ELECTRICAL CONTRACTOR TO PROVIDE A COMPLETE GROUNDING SYSTEM FOR THE LOCAL SOUND RACK.
    - 11.A. DIVISION 26 ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL LOCAL GROUND BUS BAR AT SOUND RACK ENCLOSURE, BONDING BACKBONE TO LOCAL STRUCTURE, AND ADDITIONAL AS INDICATED BY THE DRAWINGS AND SPECIFICATIONS.
    - 11.B. DIVISION 27 LOCAL SOUND CONTRACTOR SHALL CONNECT ALL RACKS, CABINETS, AND EQUIPMENT WITHIN LOCAL SOUND RACK.



2 LOCAL SOUND SYSTEM DEVICE, CONDUIT AND COOORDINATION DETAIL

SCALE: NO SCALE

NOTES:

1. REFERENCE FLOOR PLANS FOR LOCATIONS AND QUANTITIES OF LOCAL SOUND SYSTEMS, CONTROLLERS, MICROPHONES, INPUTS, ETC.
2. PROVIDE ONE (2) QUADRUPLEX OUTLET AND MINIMUM 4-1"C CONDUIT TO 4X4X8 GUTTER IN WALL CENTERED BEHIND OPENING IN BACK OF CABINET. PROVIDE ADDITIONAL 1"C AS REQUIRED TO MAINTAIN 1"C SPARE FOR FUTURE. PROVIDE PULL STRING IN ALL CONDUITS. INSTALL ALL CONDUITS IN WALL. AND DEVICES/CONTROLLERS FLUSH.
3. COORDINATE EQUIPMENT LOCATIONS WITH THEATRICAL LIGHTING CONTRACTOR MINIMIZE THE USE OF WALL SPACE.
4. LOCATE THEATRICAL AND SOUND CONTROL TOUCHSCREENS AND INPUT STATIONS (MICROPHONE, DMX, ETC.) AT THE SAME LOCATION. GROUP INPUTS AND CONVENIENCE RECEPTACLE TOGETHER.

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

STATE OF TEXAS · GEORGE L. STANTON · 38582 · REGISTERED · PROFESSIONAL ENGINEER

10.24.2025

PROJECT NO. 2502 (B101-101)

DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

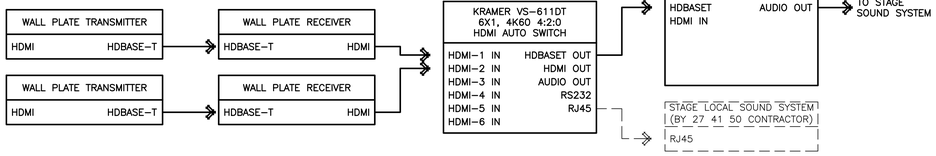
E5.40

SOUND SYSTEM RISER AND DETAILS

STANTON ENGINEERING GROUP
TBPE REGISTRATION # 24622109 | TBAE ENG. FIRM REG. NO. F-21763-00

(C) 2025 ALL RIGHTS RESERVED

(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

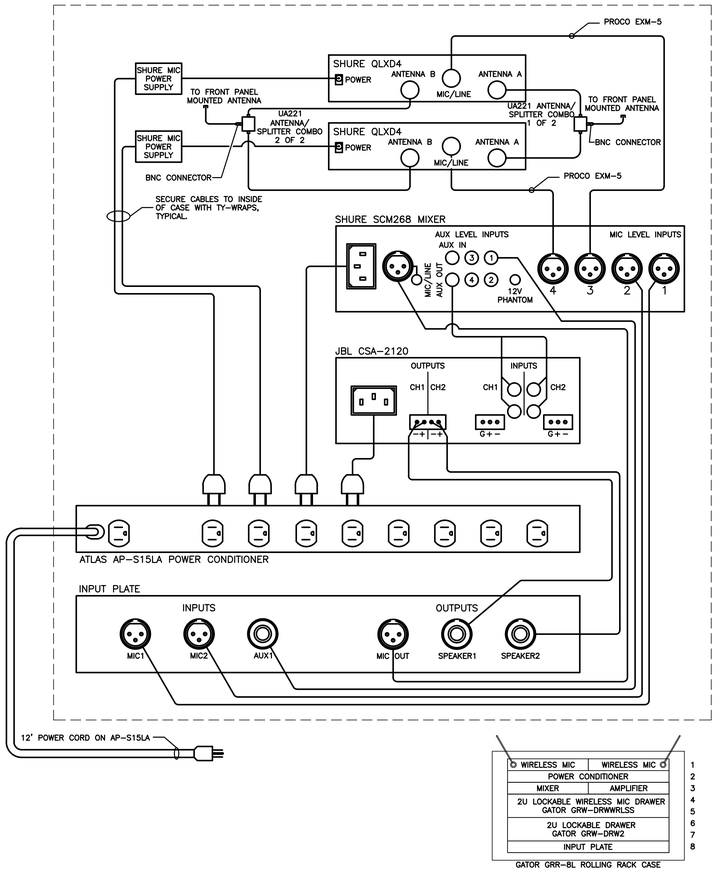


5 STAGE AV SYSTEM SCHEMATIC

SCALE: NO SCALE

NOTES:

1. STAGE PROJECTOR TO BE MOUNTED FROM STRUCTURE ABOVE. MOUNT PROJECTOR AS HIGH AS POSSIBLE WHILE MAINTAINING A CLEAR VIEW OF THE PROJECTION SCREEN AND BETWEEN 12FT AND 15FT FROM THE PROJECTION SCREEN.
   - 1.A. FIELD COORDINATE EXACT LOCATION WITH OWNER, STAGE ELEMENTS, THEATRICAL LIGHTS, CURTAINS, AND SCREEN FOR FINAL LOCATION AND HEIGHT OF PROJECTOR.
   - 1.B. COORDINATE WITH DIVISION 26 FOR POWER, DATA, AND AV ROUGH-IN LOCATIONS FOR DEVICES AT THE PROJECTOR. OUTLET BOXES SHALL NOT BE VISIBLE BY THE AUDIENCE.
2. PROVIDE COMPLETE CEILING MOUNTING EQUIPMENT FOR THE PROJECTOR AND ALL MISCELLANEOUS COMPONENTS, PATCH CORDS, ETC. NECESSARY FOR A COMPLETE INSTALLATION.
   - 2.A. CHIEF CMA 110 PROJECTOR CEILING MOUNT PLATE
   - 2.B. CHIEF CMA-345 STRUCTURAL CEILING ADAPTER WITH DECOUPLER
   - 2.C. CUSTOM LENGTH NPT THREADED, POWDERCOATED BLACK, FIXED EXTENSION COLUMN. FIELD MEASURE LENGTH TO ALIGN WITH PROJECTION SCREEN AND AVOID CONFLICT WITH OTHER BUILDING ELEMENTS PRIOR TO ORDERING.
   - 2.D. CHIEF RPAO-G, RPA SERIES UNIVERSAL CEILING PROJECTOR MOUNT
3. INSTALL HDMI AUTO SWITCHER IN STAGE SOUND RACK.
   - 3.A. STAGE PRESENTATION STATION HDMI INPUTS SHALL BE ROUTED TO THE HDMI AUTO SWITCHER.
   - 3.B. HDMI AUTO SWITCHER OUTPUT SHALL BE ROUTED TO STAGE PROJECTOR.
   - 3.C. AUDIO OUT FROM THE PROJECTOR SHALL BE ROUTED TO AND BE THE AUDIO SOURCE FOR THE LOCAL SOUND SYSTEM.
4. AUTO SWITCHER PROGRAMMING:
   - 4.A. "AVI" INPUT OUTSIDE PROSCENIUM SHALL BE PRIMARY/PRIORITY INPUT.
   - 4.B. "AVI" INPUT ON STAGE SHALL BE SECONDARY INPUT.
   - 4.C. CONNECT TO LOCAL SOUND SYSTEM FOR CONTROL VIA LOCAL TOUCHSCREEN.

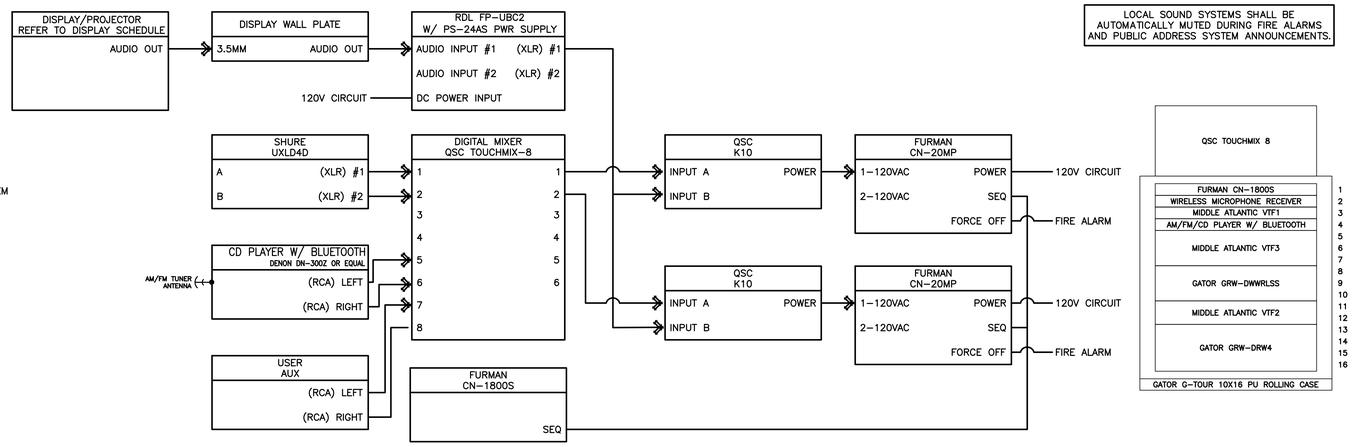


6 PORTABLE WIRELESS MICROPHONE SYSTEM RACK LAYOUT AND LINE DIAGRAM

SCALE: NO SCALE

NOTES:

1. SET SCM268 MIXER OUTPUT TO MICROPHONE LEVEL
2. RACK REQUIRES 120VAC POWER FROM LOCAL ELECTRICAL OUTLET.
3. PLUG MICROPHONE OUTPUT CABLE INTO ANY MICROPHONE OUTLET ON ANY LOCAL SOUND SYSTEM TO USE WIRELESS MICROPHONES IN PORTABLE RACK.
4. POWER AND AUDIO INTERFACE CABLES TO BE ROLLED UP AND STORED INSIDE PORTABLE RACK CASE WHEN NOT IN USE.
5. PROVIDE COMPLETE WIRELESS QLXD4 SYSTEMS WITH DUAL QLXD124/85 HANDHELD WIRELESS MICROPHONE SYSTEMS RACK MOUNTED IN ROLLING RACK CASE.
   - 5.A. EACH WIRELESS MICROPHONE SYSTEM TO BE PROVIDED WITH WL185 LAVALIER MICROPHONE, SM58 HANDHELD WIRELESS MICROPHONE TRANSMITTER, POWER SUPPLY, ANTENNAS, AND RACKMOUNT KIT.
6. PROVIDE THE FOLLOWING LOOSE COMPONENTS:
   - 6.A. ONE (1) SHURE SM87A HANDHELD CONDENSER MICROPHONE W/ ONE (1) ATLAS MS-20E FLOOR MICROPHONE STAND
   - 6.B. THREE (3) PRO CO EXM-15 MICROPHONE CABLES
   - 6.C. TWO (2) 25' SPEAKON-SPEAKON SPEAKER CABLES FOR STAGE MONITOR SPEAKERS
   - 6.D. TWO (2) JBL JRX212 STAGE MONITOR SPEAKERS
   - 6.E. TWO (2) HEAVY DUTY TRIPOD SPEAKER STANDS W/ CARRY CASE. CLUTCH CL-STPACK OR EQUAL.

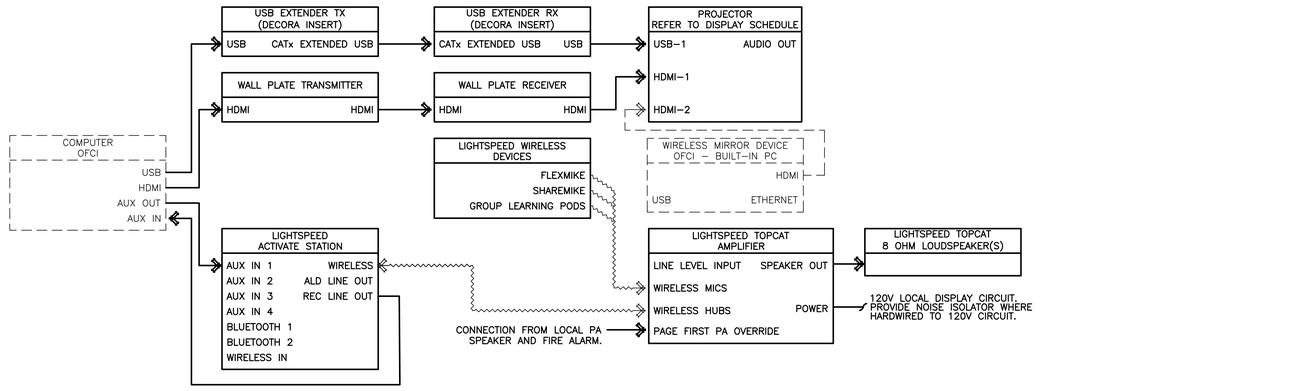


1 MUSIC ROOM A125 AND C128 AUDIO LINE DIAGRAM

SCALE: NO SCALE

NOTES:

1. MUSIC ROOM A/V INSTALLATION TO MATCH TYPICAL INSTRUCTIONAL SPACE INSTALLATION.
2. SETUP AND DELIVER MUSIC ROOM SOUND CONSOLE AND POWERED SPEAKERS DURING THE SUMMER FOLLOWING PHASE 1 CONSTRUCTION.
   - 2.A. SETUP CONSOLE AND MOUNT POWERED SPEAKERS ON TRIPODS IN TEMPORARY MUSIC CLASSROOM.
   - 2.B. PROVIDE TRAINING SESSION TO ON-SITE STAFF PRIOR TO SCHOOL YEAR.
   - 2.C. BUILD PHASE 2 MUSIC ROOM INFRASTRUCTURE AND COORDINATE WITH OWNER TO RELOCATE CONSOLE AND PERMANENTLY INSTALL POWERED SPEAKERS AS PART OF PHASE 2 COMPLETION.
   - 2.D. PROVIDE A SECOND TRAINING SESSION TO ON-SITE STAFF ON PERMANENT INSTALLATION.
3. PROVIDE THE FOLLOWING LOOSE COMPONENTS:
   - 3.A. TWO (2) SHURE ULXD1 TRANSMITTERS, TWO (2) POINT SOURCE CRB-D EARSETS, AND TWO (2) SHURE ULXD2/58 TRANSMITTERS.
   - 3.B. TWO (2) 3' RCA PATCH CABLES AND TWO (2) 10' RCA PATCH CABLES.
   - 3.C. TWO (2) 10' MIXER FEED PATCH CABLES AND TWO (2) 25' MIXER FEED PATCH CABLES.
   - 3.D. ONE (1) 10' SEQUENCING PATCH CABLE AND ONE (1) 25' SEQUENCING PATCH CABLE.
   - 3.E. TWO (2) HEAVY DUTY TRIPOD SPEAKER STANDS W/ CARRY CASE. CLUTCH CL-STPACK OR EQUAL.

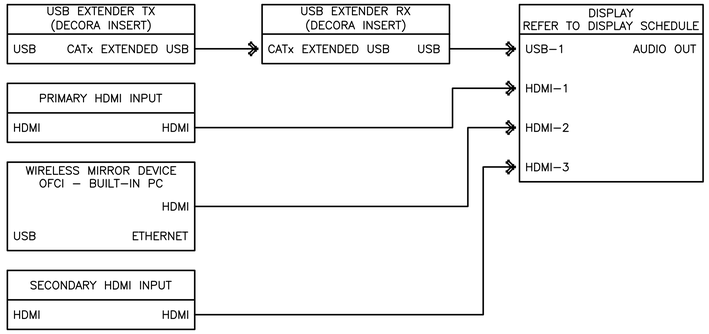


2 TYPICAL INSTRUCTIONAL SPACE WITH PROJECTOR AND SOUND REINFORCEMENT SYSTEM SCHEMATIC

SCALE: NO SCALE

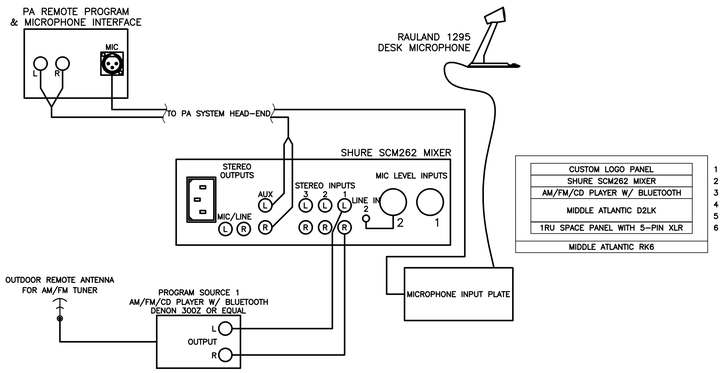
NOTES:

1. THE SPEAKER AND AMPLIFIER REQUIREMENTS WILL VARY DEPENDING ON THE INSTRUCTIONAL SPACE REQUIREMENTS. REFERENCE SPEAKER SCHEDULE AND SPECIFICATIONS FOR TOPCAT SYSTEM REQUIREMENTS FOR EACH INSTRUCTIONAL SPACE.
   - 1.A. LIGHTSPEED ACCESS WIRELESS MICROPHONE SYSTEM WITH WIRELESS MICROPHONES, ACTIVATE STATION, AND FLEXCAT PODS TO BE PROVIDED AND INSTALLED IN ALL CLASSROOM SPACES.
   - 1.B. LIGHTSPEED ACCESS MEDIA CONTROL SYSTEM WITH WIRELESS MICROPHONES FOR EACH LEARNING STAIR SPACE. PROVIDE IN WALL STORAGE BOX FOR LOOSE MICROPHONES TO BE INSTALLED IN THE SIDE OF THE LEARNING STAIRS, LOCATION TO BE DESIGNATED BY ARCHITECT.
2. COORDINATE WITH OTHER TRADES FOR CAMPUS COMMUNICATIONS AND FIRE ALARM OVERRIDES.
   - 2.A. SOUND REINFORCEMENT SYSTEM AMPLIFIER WILL DUCK MULTIMEDIA SIGNALS SO THAT BELLS, PAGING, INTERCOM, AND FIRE ALARM SYSTEM CAN BE HEARD DURING AN EVENT.



3 TYPICAL CONFERENCE ROOM AV SYSTEM SCHEMATIC

SCALE: NO SCALE



4 ADMIN PA CABINET LINE DIAGRAM

SCALE: NO SCALE

NOTES:

1. PA CABINET INSTALLED AT RECEPTION AREA.
   - 1.A. PHASE 1 - LOCATE IN TEMPORARY RECEPTION AREA.
   - 1.B. PHASE 2 - RELOCATE TO RECEPTION AREA CASEWORK AND RECONNECT TO PA SYSTEM.
2. COORDINATE WITH DIVISION 26 FOR RACEWAY FOR SOUND SYSTEM CABLING.

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron Blvd.
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
STATE OF TEXAS
10.24.2025

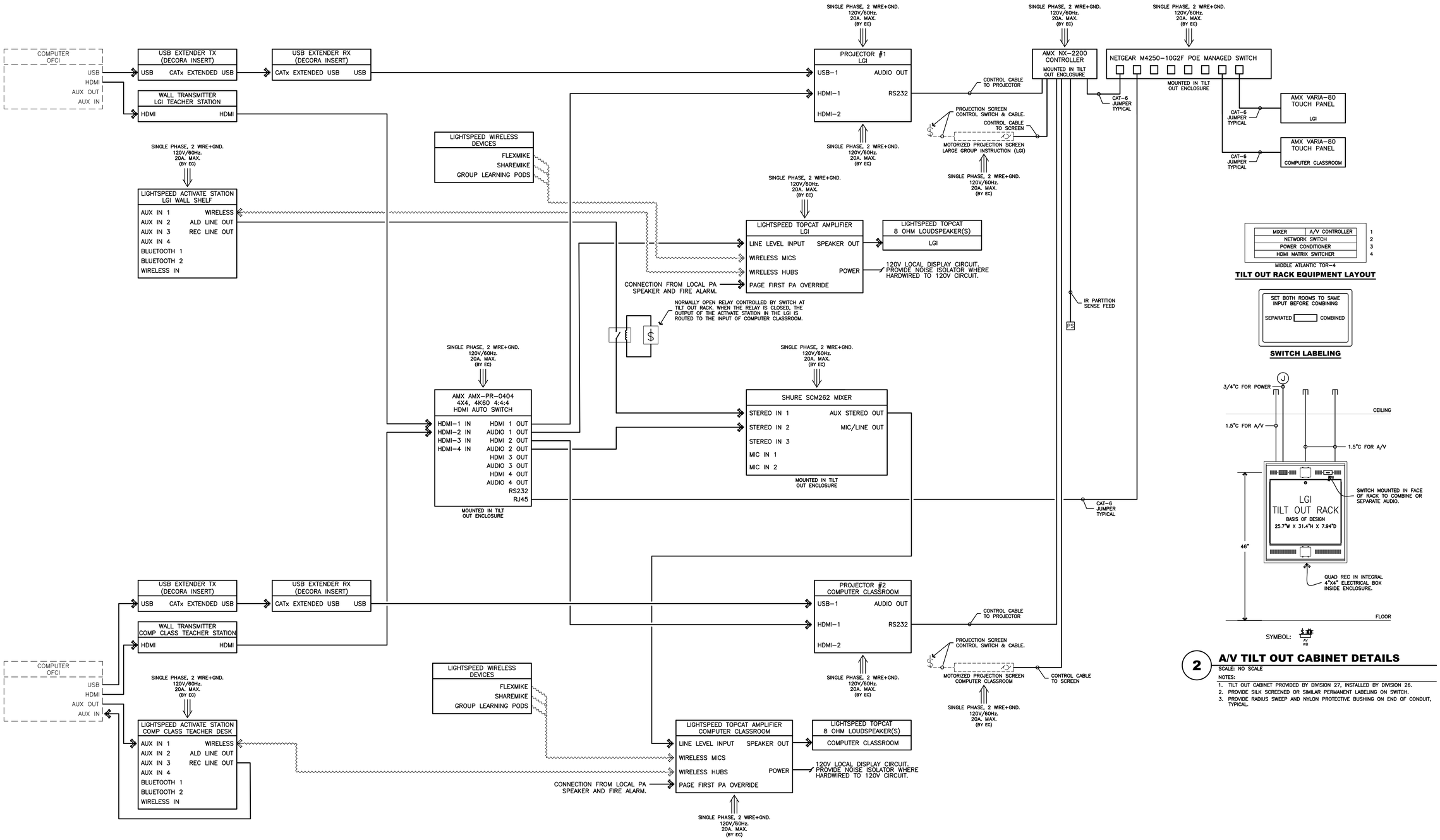
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E5.41

SOUND SYSTEM
RISER AND DETAILS

STANTON ENGINEERING GROUP
INFORMATION@SEGTEXAS.COM (713) 300-9292
TEXAS ENGINEERING FIRM REGISTRY # F-019332 © 2025 ALL RIGHTS RESERVED
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

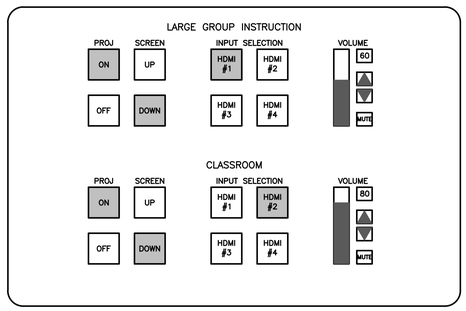


1 COMPUTER CLASSROOM AND LGI AV AND SOUND REINFORCEMENT SYSTEM SCHEMATIC

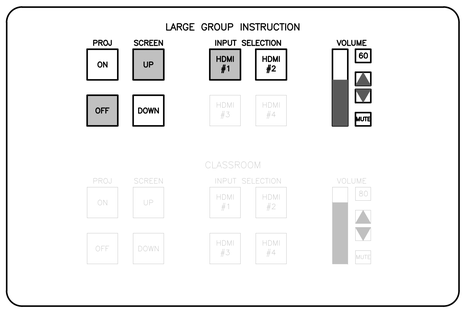
SCALE: NO SCALE

NOTES:

1. OPERATIONAL REQUIREMENTS:
   - 1.A. LIGHTSPEED ACCESS WIRELESS MICROPHONE SYSTEM WITH WIRELESS MICROPHONES, ACTIVATE STATION, AND FLEXCAT PODS TO BE PROVIDED AND INSTALLED IN EACH INSTRUCTIONAL SPACE.
   - 1.B. EACH INSTRUCTIONAL SPACE SHALL OPERATE INDEPENDENTLY WHEN THE PARTITION IS CLOSED.
   - 1.C. WHEN THE PARTITION IS OPEN THE TWO SPACES SHALL FUNCTION AS ONE COMBINED SPACE. WHEN THE PARTITION IS INITIALLY OPENED BOTH PROJECTORS SHALL BE COMBINED ON A SINGLE PRIMARY (DEFAULT) HDMI INPUT. CONFIRM WHICH HDMI INPUT SHALL BE THE DEFAULT WITH OWNER.
   - 1.D. THE TOUCH SCREEN CONTROLLERS IN EACH SPACE SHALL BE CAPABLE OF SENDING THE A/V SIGNAL FROM ANY INPUT TO BOTH PROJECTORS EACH PROJECTOR SEPARATELY ALLOWING FOR BREAKOUT GROUPS, ONE PER PROJECTOR.
   - 1.E. THE TOUCH SCREEN SHALL BE ABLE TO TURN ON EACH PROJECTOR WHILE SIMULTANEOUSLY CAUSING THE CORRESPONDING SCREEN TO LOWER TO THE DOWN POSITION. TURNING OFF THE PROJECTOR FROM THE TOUCH SCREEN SHALL ALSO RETURN THE CORRESPONDING PROJECTION SCREEN TO THE RAISED (CONCEALED) POSITION.
   - 1.F. THE PROJECTORS (SCREENS) SHALL BE ABLE TO BE TURNED ON/OFF (RAISED/LOWERED) BY THEIR INDIVIDUAL REMOTES (SWITCHES) INDEPENDENTLY FROM THE A/V CONTROL SYSTEM.
   - 1.G. THE A/V VOLUME SHALL BE CONTROLLABLE FROM THE A/V TOUCHSCREEN. MICROPHONE VOLUME SHALL BE CONTROLLED BY THE LIGHTSPEED SYSTEMS IN EACH SPACE.
   - 1.H. TOUCHSCREEN SOFT BUTTONS SHALL INDICATE PROJECTOR STATUS, SCREEN STATUS, SELECTED INPUT FOR EACH DISPLAY, AND CURRENT VOLUME LEVELS IN EACH ROOM W/ MUTE FUNCTION. REFER TO MOCKUP OF TOUCHSCREEN IN LGI ON THIS SHEET, COMPUTER CLASSROOM TO BE SIMILAR.
   - 1.I. PROVIDE ATLAS AP–S15A 15A POWER CONDITIONER (OR APPROVED EQUAL) RACK MOUNTED IN TILT OUT RACK.
     - 1.I.1. A/V CONTROL UNIT SHALL BE POWERED FROM THE UNSWITCHED OUTLET.
     - 1.I.2. CONNECT REMAINING RACK MOUNTED EQUIPMENT TO SWITCHED OUTLETS.
   - 1.J. PROVIDE ALL LINE LEVEL EXTENDERS, PATCH CORDS, PROGRAMMING, MISCELLANEOUS COMPONENTS, ETC. AS REQUIRED FOR A COMPLETE AND FUNCTIONING SYSTEM.
   - 1.K. PROVIDE AN ADDITIONAL 15FT HDMI CORD FOR THE HDMI INPUTS AT THE TEACHING WALL BEYOND THE STANDARD CLASSROOM CORD REQUIREMENTS.
2. COORDINATE WITH DIVISION 26 TO PROVIDE POWER FOR EACH COMPONENT.
   - 2.A. PROVIDE A 120V QUAD OUTLET WITHIN THE TILT OUT CABINET COMPONENTS.
   - 2.B. PROVIDE 120V POWER TO EACH MOTORIZED PROJECTION SCREEN.
   - 2.C. PROVIDE 120V RECEPTACLES IN EACH CLASSROOM FOR THE LIGHTSPEED ACTIVATE STATION.
   - 2.D. PROVIDE 120V POWER TO EACH LIGHTSPEED TOPCAT CEILING SPEAKER.
   - 2.E. PROVIDE 120V POWER WHERE REQUIRED FOR A/V COMPONENTS SUCH AS THE IR PARTITION SENSOR, RELAY CONTROL POWER, ETC.
   - 2.F. PROVIDE CONDUIT FOR ALL LOW VOLTAGE CABLING IN WALLS, MINIMUM 1"C UNLESS SPECIFIED OTHERWISE.
3. COORDINATE WITH OTHER TRADES FOR CAMPUS COMMUNICATIONS AND FIRE ALARM OVERRIDES.
   - 3.A. SOUND REINFORCEMENT SYSTEM AMPLIFIER WILL DUCK MULTIMEDIA SIGNALS SO THAT BELLS, PAGING, INTERCOM, AND FIRE ALARM SYSTEM CAN BE HEARD DURING AN EVENT.



LGI TOUCHSCREEN - ROOMS COMBINED W/ SEPARATE INPUTS DISPLAYED



LGI TOUCHSCREEN - ROOMS SEPARATED DISPLAY OFF

TILT OUT RACK EQUIPMENT LAYOUT

SWITCH LABELING

2 A/V TILT OUT CABINET DETAILS

SCALE: NO SCALE

NOTES:

1. TILT OUT CABINET PROVIDED BY DIVISION 27, INSTALLED BY DIVISION 26.
2. PROVIDE SILK SCREENED OR SIMILAR PERMANENT LABELING ON SWITCH.
3. PROVIDE RADIUS SWEEP AND NYLON PROTECTIVE BUSHING ON END OF CONDUIT, TYPICAL.

CONSULTANTS

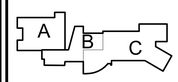
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

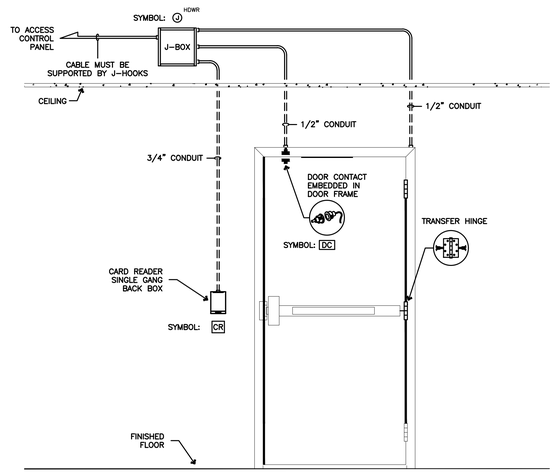
E5.42

SOUND SYSTEM RISER AND DETAILS

STANTON ENGINEERING GROUP
REGISTERED ENGINEERING FIRM F-13163
(713) 300–9292

ALL DRAWINGS & WORK PRODUCTS © 2025 ALL RIGHTS RESERVED

1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

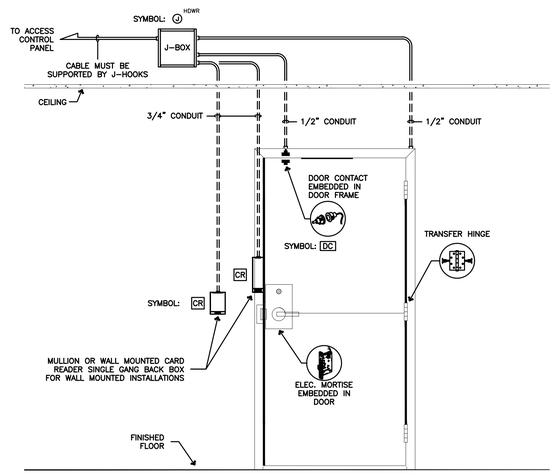


4 SINGLE DOOR CA & DC ROUGH-IN DETAIL

NO SCALE

NOTES:

1. REFERENCE ARCHITECTURAL DOOR HARDWARE SCHEDULE FOR MORE INFORMATION.



5 SINGLE DOOR W/ ELEC. MORTISE CA & DC ROUGH-IN DETAIL

NO SCALE

NOTES:

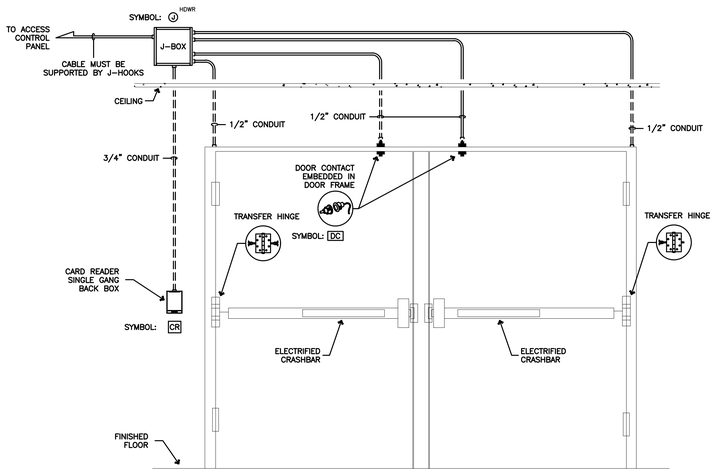
1. REFERENCE ARCHITECTURAL DOOR HARDWARE SCHEDULE FOR MORE INFORMATION.

1 DOUBLE DOOR W/ ELEC. MORTISE CA & DC ROUGH-IN DETAIL

NO SCALE

NOTES:

1. REFERENCE ARCHITECTURAL DOOR HARDWARE SCHEDULE FOR MORE INFORMATION.

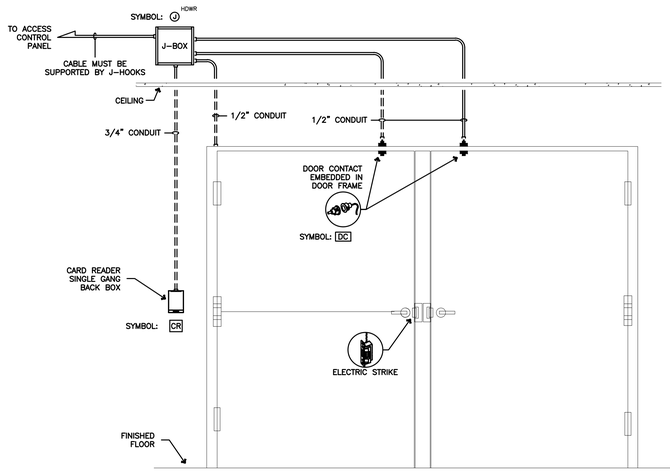


2 DOUBLE DOOR CA & DC ROUGH-IN DETAIL

NO SCALE

NOTES:

1. REFERENCE ARCHITECTURAL DOOR HARDWARE SCHEDULE FOR MORE INFORMATION.



3 DOUBLE DOOR W/ ELEC. STRIKE CA & DC ROUGH-IN DETAIL

NO SCALE

NOTES:

1. REFERENCE ARCHITECTURAL DOOR HARDWARE SCHEDULE FOR MORE INFORMATION.

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER

10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

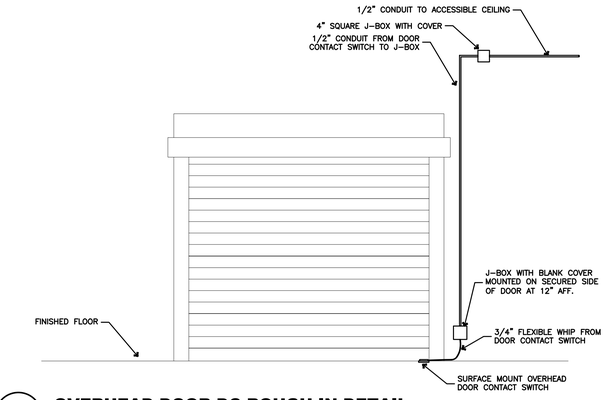
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

E5.50

SECURITY AND ACCESS CONTROL DETAILS

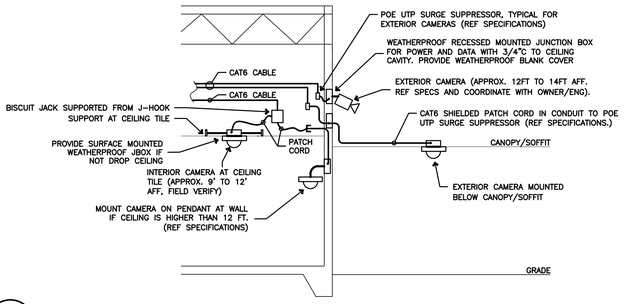
STANTON ENGINEERING GROUP
TBPE/GBPR FIRM NO. F-14332 | TBPLS FIRM NO. F-10332 | © 2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121 | HOUSTON, TX 77042

REFER TO TYPICAL EXTERIOR DEVICE AND REMOTE CABLING ENTRY DETAIL FOR ADDITIONAL REQUIREMENTS FOR REMOTE SECURITY, ACCESS CONTROL, AND CCTV DEVICES.



4 OVERHEAD DOOR DC ROUGH-IN DETAIL

NO SCALE

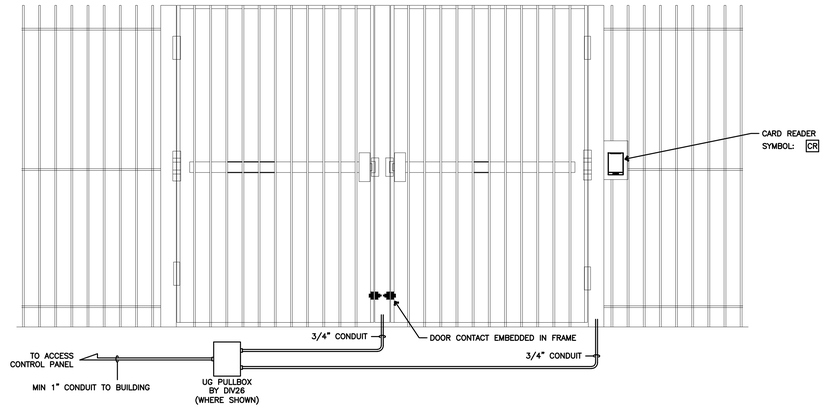


5 CCTV CAMERA MOUNTING DETAIL

NO SCALE

NOTES:

1. ALL IP CAMERAS SHALL BE PoE (POWER OVER ETHERNET) TYPE.
2. DIVISION 27 TO PROVIDE ENCLOSURE ABOVE CEILING FOR CONNECTION OF PATCH CORDS AND HOME RUN CABLING FOR ALL CCTV CAMERAS.
   - 2.A. PROVIDE 2-PORT BISCUIT JACK FOR INTERIOR WALL AND CEILING CAMERAS.
   - 2.B. PROVIDE 110-RJ45 SURGE PROTECTOR FOR EXTERIOR MOUNTED CAMERAS.
   - 2.C. CONNECT CAMERA TO ENCLOSURE WITH PATCH CORD.
   - 2.D. SUPPORT ENCLOSURE FROM CABLE SUPPORT SYSTEM ~12" ABOVE CEILING WITH PORT LABELS FACING DOWNWARD.
3. PROVIDE PROTECTIVE BUSHING ON END OF CONDUITS AND SLEEVES.
   - 3.A. ANGLE EXTERIOR CAMERA SLEEVE UPWARD AND SEAL SLEEVES THROUGH EXTERIOR WALL TO MAINTAIN BUILDING ENVELOPE AND PREVENT WATER INGRESS.
4. CABLING:
   - 4.A. ALL CAMERAS SHALL HAVE INDIVIDUAL UNSPLICED HOME RUN CAT6 DATA CABLE FROM BISCUIT JACK OR SURGE SUPPRESSOR TO NEAREST TELECOM DATA PATCH PANEL. PROVIDE 20 FOOT SERVICE LOOP FOR SECURITY CAMERA CABLES, TYPICAL.
   - 4.B. DIVISION 27 TO PROVIDE CAT6 PATCH CORDS AT IP CAMERAS AND TELECOM ROOMS.
   - 4.C. CONNECT ALL CAMERAS TO ABOVE CEILING ENCLOSURE WITH PATCH CORDS OF VARIOUS LENGTHS USING PREFABRICATED CABLES OF STANDARD LENGTHS. PATCH CORD LENGTH TO BE SIZED BY DIVISION 27 CONTRACTOR TO MATCH INSTALLATION CONDITIONS.
   - 4.D. PROVIDE SHIELDED PATCH CORDS FOR ALL EXTERIOR CAMERAS.
   - 4.E. GROUNDING WIRE FOR EXTERIOR CAMERAS CONNECTED TO LOCAL STEEL STRUCTURE BY DIVISION 27.
5. LABELING:
   - 5.A. PROVIDE PORT LABELS ON CEILING GRID BELOW ALL ABOVE CEILING DROPS.
6. FOR POLE MOUNTED CAMERAS REFERENCE DETAIL 6/E5.32 TYPICAL EXTERIOR DEVICE AND REMOTE CABLING ENTRY DETAIL.
7. ALL CAMERAS SHALL REQUIRE FIELD LOCATION AND SIGN-OFF BY OWNER AND ENGINEER PRIOR TO ROUGH-IN.

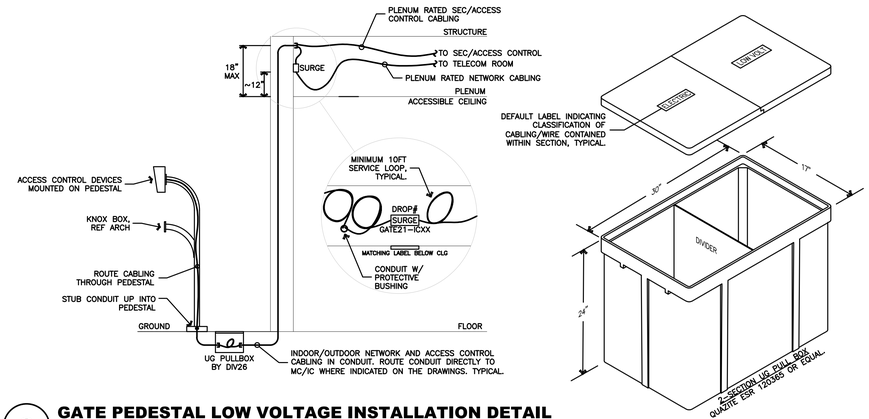


1 EXTERIOR GATE ROUGH-IN DETAIL

NO SCALE

NOTES:

1. PROVIDE DOOR CONTACTS TO MONITOR ALL GATES AT EACH LOCATION.
   - 1.1. WHERE PROVIDED DOOR HARDWARE WITH AN INTEGRAL DOOR POSITION SENSOR MAY BE USED IN LIEU OF SEPARATE DOOR CONTACTS.
2. REFERENCE ARCHITECTURAL DOOR HARDWARE SCHEDULE FOR MORE INFORMATION.

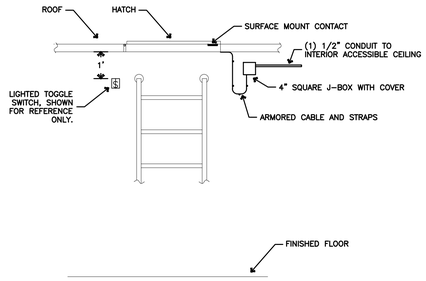


2 GATE PEDESTAL LOW VOLTAGE INSTALLATION DETAIL

NO SCALE

NOTES:

1. PROVIDE MINIMUM 10FT SERVICE LOOP FOR NETWORK AND SECURITY CABLING, STORE IN EXTENDED LOOP OR FIGURE EIGHT CONFIGURATION.
2. PROVIDE INLINE SURGE PROTECTOR FOR NETWORK CABLING ADJACENT TO CONDUIT ENTRY INTO THE BUILDING.
   - 2.A. 110 PUNCH DOWN TERMINATIONS, SCREW DOWN COVER, GROUND WIRE, TIA/EIA CAT5E/CAT6/CAT6A COMPLIANT.
   - 2.B. DITEK DTK-110C6APOE OR EQUAL.
3. LABEL SURGE PROTECTOR, ALL LABELS SHALL BE PERMANENT AND MACHINE GENERATED CONSISTING OF BLACK TEXT ON A WHITE BACKGROUND.
   - 3.A. LABELS SHALL CLEARLY INDICATE THE TERMINATION POINTS OF THE CABLE, EXAMPLE "GATE-ICA" WHICH INDICATES TERMINATION POINTS AT A GATE LOCATION AND WITHIN THE IIC DENOTED AS IC-A USING AS-BUILT ROOM NAMES.
   - 3.B. LABELS SHALL INCLUDE AS-BUILT DATA DROP NUMBER USING BUILDING/PROJECT SPECIFIC NAMING STANDARDS/CONVENTIONS.
   - 3.C. FOR SURGE PROTECTORS INSTALLED ABOVE CEILING, PROVIDE THE ABOVE LABELING PERMANENTLY AFFIXED TO ACCESSIBLE CEILING IN ADDITION TO LABEL ON SURGE PROTECTOR. LABEL SHALL BE CLEARLY VISIBLE WHEN LOOKED AT FROM A STANDING POSITION AT THE FLOOR.
4. PEDESTAL SHALL BE BE CONSTRUCTED OF CONTINUOUS TUBE STOCK WITH FILLET WELDS. DEVICES SHALL BE MOUNTED 42"-48" HIGH WITH 12" STANDARD REACH. PEDESTAL SHALL BE BOLTED TO A POURED CONCRETE FORM PER THE MANUFACTURERS REQUIREMENTS.
   - 4.A. PROVIDE SINGLE ARM WHERE ONLY ONE DEVICE IS REQUIRED.
   - 4.B. PROVIDE SIDE BY SIDE DUAL MOUNT WHERE MULTIPLE DEVICES ARE AT THE SAME LOCATION.
   - 4.C. PROVIDE CONCRETE BOLLARDS TO PROTECT THE BOLLARDS FROM DAMAGE.



3 ROOF HATCH DC ROUGH-IN DETAIL

NO SCALE

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS · GEORGE L. STANTON · 38582 · REGISTERED · PROFESSIONAL ENGINEER

10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E5.51

SECURITY AND ACCESS CONTROL DETAILS

STANTON ENGINEERING GROUP

TBPE/BEP FIRM REG. NO. F-11633 | TX ARCHITECTURAL FIRM REG. NO. BR 21633

TBPE/BEP FIRM REG. NO. F-11633 | TX ARCHITECTURAL FIRM REG. NO. F-11633 | © 2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121 | HOUSTON, TX 77042

UV CLEANING FIXTURE SCHEDULE

CEILING MOUNTED FIXTURES

APPLICATION	TYPE	DESCRIPTION	WATTS
BROAD SPECTRUM UV DIRECT DISENFECTION	U1	UV DISINFECTION LUMINAIRE WITH PULSED XENON LAMP, HIGH INTENSITY BROAD SPECTRUM UV-C/UV-B/UV-A, 30 MINUTE CLEAN CYCLE, INTEGRAL REDUNDANT PROTECTION FEATURES INCLUDING MOTION SENSOR AND LED INDICATORS, 120V HEALTHCARE LIGHTING HXMS-2X2-G-UVX-120	60W
CEILING MOUNTED AIR STERILIZATION FIXTURE INTEGRAL LED LIGHTING	U2 U2X	1X4 RECESSED LED WITH UV-C AIR TREATMENT SYSTEM, UV BALLAST, STEEL HOUSING W/ ANTIMICROBIAL POWDER COAT FINISH, 50CFM, MERV6 FILTER, POLYCARBONATE LENS, >80CRI, 7200 LUMENS, 0-10V DIMMING DRIVER FOR LED LIGHTING, SEPARATE BALLAST FOR UV LAMP, DUAL CIRCUIT, 120/277 VOLTS. VIDASHIELD VS02-D-UNV-PC-L	LED: 60W UV: 115W

1. PROVIDE SPARE FILTERS AND LAMPS PER SPECIFICATIONS. SPARE PARTS TO BE TURNED OVER AT THE END OF THE PROJECT.
2. PROPOSED ALTERNATE FIXTURES MUST BE SUBMITTED BEFORE BID FOR PRIOR APPROVAL. REFER TO SPECIFICATIONS FOR PRIOR APPROVAL REQUIREMENTS.

LIGHTING SUBMITTAL NOTES:

ELECTRICAL CONTRACTOR SHALL SUBMIT A COMPLETE BILL OF MATERIALS INDICATING NUMBER AND TYPE OF ALL FIXTURES TO BE PROVIDED. THE SUBMITTAL SHALL ALSO INCLUDE THE BALLAST/ DRIVER, EMERGENCY BATTERY AND ANY LAMPS TO BE PROVIDED. INCOMPLETE SUBMITTALS WITHOUT ALL OF THE REQUESTED MATERIAL SHALL BE REJECTED, NO EXCEPTIONS.

LIGHT FIXTURE SCHEDULE

EXTERIOR FIXTURES

APPLICATION	TYPE	DESCRIPTION	WATTS
RECESSED DOWNLIGHT	D5 D5X	6" DIAMETER RECESSED LED DOWNLIGHT, WHITE TRIM/REFLECTOR, SELECTABLE LUMEN OUTPUT SET TO LOW (2000 LUMENS), SELECTABLE COLOR TEMPERATURE SET TO 4000K, 120/277 VOLTS, 1% 0-10V DIMMING DRIVER. LITHONIA LDN6-4L03-SWW1-L06-WR-TRW-WD-MVOLT-UGZ-90CRI GREEN CREATIVE NYX-NC-6-RD-M-9-CCT5S-DUALDIM	25W
LINEAR CANOPY LIGHT WET LOCATION	WL1 WL1X	6"X4FT SURFACE MOUNTED LED, DIE CAST ALUMINUM HOUSING, VANDAL RESISTANT, END FEED, OPAL POLYCARBONATE LENS, COLD WEATHER DRIVER, WET LOCATION, 2720 LUMENS, 3500K 120-277 MULTIVOLT INPUT, 0-10V DIMMING DRIVER. FINISH TO BE SELECTED BY ARCHITECT FROM ALL AVAILABLE FINISHES. SELUX L125-1C25-935-DNB-F-04-XX FINISH-UNV-DIM-TR-EFX END FEED STARTEK HYDROD-4-750-SD-35K-80-XX FINISH-SM(E)-U-1C	27W
EXTERIOR WALL PACK	WP1 WP1X	12" WIDE WALL MOUNTED LED, VISUAL COMFORT OPTIC, 3500K COLOR TEMPERATURE, 4412 LUMENS, 120-277 MULTIVOLT INPUT, WET LOCATION. REFER TO ARCH FOR MOUNTING HEIGHT. FINISH TO BE SELECTED BY ARCHITECT FROM ALL AVAILABLE FINISHES. LITHONIA WDGE2 LED-P4-35K-80CRI-VW-MVOLT-SRM-XX FINISH MCGRAW EDISON GKO-PB1E-735-U-T3-XX FINISH	35W
EXTERIOR WALL PACK	WP2 WP2X	18" WIDE WALL MOUNTED LED, 3500K COLOR TEMPERATURE, 10,221 LUMENS, 120-277 MULTIVOLT INPUT, WET LOCATION. FINISH TO BE SELECTED BY ARCHITECT FROM ALL AVAILABLE FINISHES. LITHONIA WDGE3 LED-P3-35K-80CRI-R2-MVOLT-SRM-XX FINISH MCGRAW EDISON GKO-PB2D-735-U-T2R-XX FINISH	71W
ROUND CANOPY LIGHT WET LOCATION	WR1 WR1X	SURFACE MOUNTED LED, ROUND SHAPE, WHITE POLYCARBONATE LENS, DAMP LOCATION, 9,000 LUMENS, 3500K COLOR TEMPERATURE, 120/277 VOLT DUAL INPUT, SINGLE BALLAST. PENDANT MOUNTED, CONFIRM HEIGHT WITH ARCHITECT. FINISH TO BE SELECTED BY ARCHITECT FROM ALL AVAILABLE FINISHES. LITHONIA VCPG LED-V4-P5-3500K-70CRI-T5W-MVOLT-PM-XX FINISH MCGRAW EDISON TT-D5-735-U-WQ-XX FINISH-DPM XX	74.7W
SURFACE MOUNTED WALL SCONCE DIRECT/INDIRECT	WS1 WS1X	6"X6"X16" SURFACE MOUNTED SQUARE LED CYLINDER, DIRECT/INDIRECT, FULLY AIMABLE OPTICS, CAST ALUMINUM HOUSING, TEMPERED GLASS LENS, COLD WEATHER DRIVER, 7630 LUMENS, 3500K COLOR TEMPERATURE, WET LOCATION, 0-10V DIMMING, 120/277 VOLTS. FINISH TO BE SELECTED BY ARCHITECT FROM ALL AVAILABLE OPTIONS. LUMINIS SYRIOS SQUARE SQ602-L2L40-NRU-VWDD-35K-MVOLT-LSLU-LSLD-AR180D-XX FINISH LIGMAN UJE-30401-2X35-N-VW-W35-XX FINISH-120-277-F-HGT 16"	86W

SITE LIGHTING FIXTURES

APPLICATION	TYPE	DESCRIPTION	WATTS
LED POLE LIGHT TYPE 5 DISTRIBUTION	PA	AREA LIGHT, SQUARE ALUMINUM HOUSING, FINISH BY ARCH, 20,000 LUMENS, TYPE 5 DISTRIBUTION, 3500K COLOR TEMPERATURE, 120-277 MULTIVOLT INPUT, DUAL SWITCHING. MOUNT ON MATCHING 25 FOOT ROUND, TAPERED, ALUMINUM POLE WITH 120 MPH WIND LOADING FOR THE SELECTED LIGHT FIXTURES PER POLE. PROVIDE FINISH MATCHING POLE FIXTURE. FINISH TO BE SELECTED BY ARCHITECT FROM ALL AVAILABLE FINISHES. GARDCO ECF-S-48L-1.2A-NW-G2-AR-5-UNV-XX FINISH LITHONIA RSX2 LED-P3-35K-R5-MVOLT-RPA-XX FINISH MCGRAW EDISON GALN-SA4B-735-U-5WQ-XX FINISH	147W
LED POLE LIGHT TYPE 5 DISTRIBUTION DUAL CIRCUIT	PA2	SAME AS TYPE PA EXCEPT DUAL CIRCUIT WITH DUAL LEVEL 50%/50% LUMEN CONTROL. GARDCO ECF-S-48L-1.2A-NW-G2-AR-5-UNV-XX FINISH-DCC LITHONIA RSX2 LED-P3-35K-R5-MVOLT-RPA-DS-XX FINISH MCGRAW EDISON GALN-SA4B-735-U-5WQ-XX FINISH-2L	147W
LED POLE LIGHT TYPE 2 DISTRIBUTION	PB	AREA LIGHT, SQUARE ALUMINUM HOUSING, FINISH BY ARCH, 20,000 LUMENS, TYPE 2 DISTRIBUTION, 3500K COLOR TEMPERATURE, 120-277 MULTIVOLT INPUT, DUAL SWITCHING. MOUNT ON MATCHING 25 FOOT ROUND, TAPERED, ALUMINUM POLE WITH 120 MPH WIND LOADING FOR THE SELECTED LIGHT FIXTURES PER POLE. PROVIDE FINISH MATCHING POLE FIXTURE. FINISH TO BE SELECTED BY ARCHITECT FROM ALL AVAILABLE FINISHES. GARDCO ECF-S-48L-1.2A-NW-G2-AR-3-UNV-XX FINISH LITHONIA RSX2 LED-P3-35K-R2-MVOLT-RPA-XX FINISH MCGRAW EDISON GALN-SA4B-735-U-T2-XX FINISH	147W
LED POLE LIGHT TYPE 2 DISTRIBUTION DUAL CIRCUIT	PB2	SAME AS TYPE PB EXCEPT DUAL CIRCUIT WITH DUAL LEVEL 50%/50% LUMEN CONTROL. GARDCO ECF-S-48L-1.2A-NW-G2-AR-3-UNV-XX FINISH-DCC LITHONIA RSX2 LED-P3-35K-R2-MVOLT-RPA-DS-XX FINISH MCGRAW EDISON GALN-SA4B-735-U-5WQ-XX FINISH-2L	147W
LED POLE LIGHT TYPE 3 DISTRIBUTION	PC	AREA LIGHT, SQUARE ALUMINUM HOUSING, FINISH BY ARCH, 20,000 LUMENS, TYPE 3 WIDE DISTRIBUTION, 3500K COLOR TEMPERATURE, 120-277 MULTIVOLT INPUT, DUAL SWITCHING. MOUNT ON MATCHING 25 FOOT ROUND, TAPERED, ALUMINUM POLE WITH 120 MPH WIND LOADING FOR THE SELECTED LIGHT FIXTURES PER POLE. PROVIDE FINISH MATCHING POLE FIXTURE. FINISH TO BE SELECTED BY ARCHITECT FROM ALL AVAILABLE FINISHES. GARDCO ECF-S-48L-1.2A-NW-G2-AR-3-UNV-XX FINISH LITHONIA RSX2 LED-P3-35K-R3-MVOLT-RPA-XX FINISH MCGRAW EDISON GALN-SA4B-735-U-T3-XX FINISH	147W
LED POLE LIGHT TYPE 4 DISTRIBUTION DUAL CIRCUIT	PC2	SAME AS TYPE PC EXCEPT DUAL CIRCUIT WITH DUAL LEVEL 50%/50% LUMEN CONTROL. GARDCO ECF-S-48L-1.2A-NW-G2-AR- -UNV-XX FINISH-DCC LITHONIA RSX2 LED-P2-35K-R3-MVOLT-RPA-DS-XX FINISH MCGRAW EDISON GALN-SA4B-735-U-T3-XX FINISH-2L	147W
LED POLE LIGHT TYPE 4 FORWARD THROW DISTRIBUTION	PD	AREA LIGHT, SQUARE ALUMINUM HOUSING, FINISH BY ARCH, 20,000 LUMENS, TYPE 4 FORWARD THROW DISTRIBUTION, 3500K COLOR TEMPERATURE, 120-277 MULTIVOLT INPUT, DUAL SWITCHING. MOUNT ON MATCHING 25 FOOT ROUND, TAPERED, ALUMINUM POLE WITH 120 MPH WIND LOADING FOR THE SELECTED LIGHT FIXTURES PER POLE. PROVIDE FINISH MATCHING POLE FIXTURE. FINISH TO BE SELECTED BY ARCHITECT FROM ALL AVAILABLE FINISHES. GARDCO ECF-S-48L-1.2A-NW-G2-AR-4-UNV-XX FINISH LITHONIA RSX2 LED-P3-35K-R4-MVOLT-RPA-DS-XX FINISH MCGRAW EDISON GALN-SA4B-735-U-T4-XX FINISH	147W
LED POLE LIGHT TYPE 4 FORWARD THROW DISTRIBUTION DUAL CIRCUIT	PD2	SAME AS TYPE PD EXCEPT DUAL CIRCUIT WITH DUAL LEVEL 50%/50% LUMEN CONTROL. GARDCO ECF-S-48L-1.2A-NW-G2-AR-4-UNV-XX FINISH-DCC LITHONIA RSX2 LED-P3-35K-R4-MVOLT-RPA-DS-XX FINISH MCGRAW EDISON GALN-SA4B-735-U-T4-XX FINISH-2L	147W

1. LIGHT FIXTURE CATALOG NUMBERS AND DESCRIPTIONS ARE SCHEDULED FOR ESTABLISHING QUALITY, APPEARANCE AND PERFORMANCE OF THE FIXTURES. EXACT CATALOG NUMBERS DESCRIBING MOUNTING CONDITIONS AND REQUIREMENT RELATED TO TRIM FOR ALL FIXTURES SHALL BE CONFIRMED (BY THE ELECTRICAL CONTRACTOR) WITH THE ROOM FINISH SCHEDULE AND REFLECTED CEILING PLANS ON THE ARCHITECTURAL PLANS PRIOR TO BIDDING AND SUBMITTING LIGHT FIXTURES. PROVIDE DRY WALL KIT AS REQUIRED.
2. ALL 'X', 'Y', AND 'Z' TYPE FIXTURES SHALL HAVE EMERGENCY POWER BACKUP. EMERGENCY POWER SOURCES SHALL MONITOR POWER UPSTREAM OF THE LIGHTING CONTROLS TO SEE IF POWER IS LOST. BATTERY PACKS AND INVERTERS SHALL BE CAPABLE OF POWERING THE DESIGNATED FIXTURE(S) WITH AN OUTPUT OF 1400 LUMENS FOR A MINIMUM OF 90-MINUTES, PROVIDE REMOTE BATTERY PACKS OR INVERTERS AS NECESSARY. EMERGENCY LIGHTS SHALL OPERATE ONLY UPON LOSS OF POWER. ALSO, PROVIDE AND WIRE TEST SWITCH AND LED INDICATOR LIGHT FOR EMERGENCY BATTERY. SEE WIRING INSTRUCTION SUPPLIED BY EMERGENCY BATTERY MANUFACTURER.
   - 2.A. 'X' TYPE FIXTURES (AX, ETC.) HAVE EMERGENCY GENERATOR POWER LIGHTING TRANSFER DEVICES.
   - 2.B. 'Y' TYPE FIXTURES (MY, ETC.) HAVE INDIVIDUAL 90-MINUTE EMERGENCY BATTERY POWER.
   - 2.C. 'Z' TYPE FIXTURES (QTZ, ETC.) HAVE EMERGENCY POWER THROUGH EM RELAY AND 90 MINUTE REMOTE EMERGENCY INVERTER.
3. PROVIDE BASE COVER FOR ALL LIGHT POLES.
4. ALL EXTERIOR FIXTURES SHALL BE WET RATED WITH COLD WEATHER BALLASTS AND BATTERY PACKS.
5. PROVIDE SPARE FIXTURES AND EMERGENCY DEVICES PER SPECIFICATIONS.
6. EQUAL BY PHILIPS (CW LIGHTING), COOPER (PUTTERMAN SCHARCK), LITHONIA (LESCO), HUBBELL, AND H.E. WILLIAMS SHALL BE ACCEPTABLE.

INTERIOR FIXTURES

APPLICATION	TYPE	DESCRIPTION	WATTS
2X4 RECESSED LAY-IN OR HARD CEILING	A1 A1X	2X4 FLAT PANEL LED, SATIN WHITE LENS, SWITCHABLE LUMENS AND COLOR TEMPERATURE, LAY-IN CEILING, SELECTABLE LUMEN OUTPUT SET TO MEDIUM OUTPUT (4982 LUMENS), SELECTABLE COLOR TEMPERATURE SET TO 4000K, 120/277 VOLTS, 0-10V DIMMING DRIVER. DAYBRITE 2SBP-3050L-8CS-4-UNV-DIM LITHONIA CPX-2X4-ALO8-80CRI-SWW7-SWL-MVOLT (DGA24 HARD CEILINGS) METALUX 24GTS-L3C3 (DF-24W-U HARD CEILING)	34.4W
2X4 RECESSED LAY-IN OR HARD CEILING	A2 A2X	2X4 FLAT PANEL LED, SATIN WHITE LENS, SWITCHABLE LUMENS AND COLOR TEMPERATURE, LAY-IN CEILING, SELECTABLE LUMEN OUTPUT SET TO HIGH (6383 LUMENS), SELECTABLE COLOR TEMPERATURE SET TO 4000K, 120/277 VOLTS, 0-10V DIMMING DRIVER. DAYBRITE 2SBP-3050L-8CS-4-UNV-DIM LITHONIA CPX-2X4-ALO8-80CRI-SWW7-SWL-MVOLT (DGA24 HARD CEILING) METALUX 24GTS-L3C3 (DF-24W-U HARD CEILING)	45.25W
1X4 RECESSED LAY-IN CEILING OR HARD CEILINGS	B1 B1X	1X4 FLAT PANEL LED, SMOOTH FROSTED ACRYLIC LENS, WHITE FINISH, LAY-IN CEILING, SELECTABLE LUMEN OUTPUT SET TO HIGH (4265 LUMENS), SELECTABLE COLOR TEMPERATURE SET TO 4000K, 120/277 VOLTS, 0-10V DIMMING DRIVER. DAYBRITE 1SBP-2035L-8DS-4-UNV-DIM LITHONIA CPX-1X4-ALO7-80CRI-SWW7-SWL-MVOLT (DGA14 HARD CEILING) METALUX 14GTS-L3C3 (DF-14W-U HARD CEILING)	30.2W
2X2 RECESSED LAY-IN CEILING OR HARD CEILINGS	B2 B2X	2X2 FLAT PANEL LED, SMOOTH FROSTED ACRYLIC LENS, WHITE FINISH, LAY-IN CEILING, SELECTABLE LUMEN OUTPUT SET TO HIGH (4557 LUMENS), SELECTABLE COLOR TEMPERATURE SET TO 4000K, 120/277 VOLTS, 0-10V DIMMING DRIVER. DAYBRITE 2SBP-2035L-8CS-2-UNV-DIM LITHONIA CPX-2X2-ALO7-80CRI-SWW7-SWL-MVOLT (DGA22 HARD CEILING) METALUX 22GTS-L3C3 (DF-22W-U HARD CEILING)	32.8W
4FT STRIP LED MECHANICAL & STORAGE ROOMS	C CX CY	4 FOOT STRIP LED, STEEL HOUSING, FROSTED ACRYLIC LENS, 5000 LUMENS, 4000K COLOR TEMPERATURE, CHAIN HANGING SET, WIRE GUARD, 120-277 VOLT INPUT, 0-10V DIMMING DRIVER. PROVIDE CHAIN HANGING SET AND WIREGUARD IN MECHANICAL ROOMS AND AREAS WITHOUT CEILINGS. DAYBRITE FSS-4-55L-840-UNV-DIM (FSSWG4 / CHAIN) LITHONIA CLX-L48-5000LM-SEF-RDL-WD-MVOLT-GZ10-40K-80CRI-WH (HC36 M12 / WGCLX48WH) METALUX 4SNLED-LD5-505L-LW-UNV-L840-CD1-U (AYC-CHAIN-SET / WG-SNX-SN-4FT)	31.8W
RECESSED DOWNLIGHT	D1 D1X	6" DIAMETER RECESSED LED DOWNLIGHT, WHITE TRIM/REFLECTOR, SELECTABLE LUMEN OUTPUT SET TO MEDIUM (1500 LUMENS), SELECTABLE COLOR TEMPERATURE SET TO 4000K, 120/277 VOLTS, 1% 0-10V DIMMING DRIVER. LITHONIA LDN6-AL02-SWW1-L06-WR-TRW-WD-MVOLT-UGZ-90CRI GREEN CREATIVE NYX-NC-6-RD-S-9-CCT5S-DUALDIM	19W
RECESSED DOWNLIGHT	D2 D2X	6" DIAMETER RECESSED LED DOWNLIGHT, WHITE TRIM/REFLECTOR, SELECTABLE LUMEN OUTPUT SET TO LOW (2000 LUMENS), SELECTABLE COLOR TEMPERATURE SET TO 4000K, 120/277 VOLTS, 1% 0-10V DIMMING DRIVER. LITHONIA LDN6-AL03-SWW1-L06-WR-TRW-WD-MVOLT-UGZ-90CRI GREEN CREATIVE NYX-NC-6-RD-M-9-CCT5S-DUALDIM	25W
SUSPENDED MIDBAY BAY LED	K1 K1X	SUSPENDED MIDBAY LED, METAL HOUSING, SELECTABLE LUMEN OUTPUT SET TO HIGH (23,000 LUMENS), SELECTABLE COLOR TEMPERATURE SET TO 4000K, 120/277 VOLTS, 0-10V DIMMING. DAY-BRITE HCY-0823L-8CST-UN3-DIM-XX FINISH LITHONIA REBL-AL016-WD-VOLTAGE-SWW3-80CRI-XX FINISH METALUX UHB-2436-MV-L84050-UHB-CLR14	150W
SUSPENDED MIDBAY BAY LED	K2 K2X	SUSPENDED MIDBAY LED, METAL HOUSING, SELECTABLE LUMEN OUTPUT SET TO MEDIUM (14,000 LUMENS), SELECTABLE COLOR TEMPERATURE SET TO 4000K, 120/277 VOLTS, 0-10V DIMMING. DAY-BRITE HCY-0823L-8CST-UN3-DIM-XX FINISH LITHONIA REBL-AL013-WD-VOLTAGE-SWW3-80CRI-XX FINISH METALUX UHB-1218-MV-L84050-UHB-CLR13	90W
4FT RECESSED LINEAR	LR4 LR4X	4FT LINEAR RECESSED, LOW GLOSS WHITE, 479LM/FT - 1916 LUMENS, 4000K COLOR TEMPERATURE, 277 VOLTS, 0-10V 10% MIN DIMMING DRIVER. PINNACLE EV4D-A-840HO-04-G1-U-FSD-1-W FINELITE HP-4-R-D-4-B-840-F-96LG-277-SC-FC10-FE-SW NEORAY S1240R-S5750840-XX CEILING-4FO-1-U-DD-FW	18.4W
8FT RECESSED LINEAR	LR8 LR8X	8FT LINEAR RECESSED, LOW GLOSS WHITE, 479LM/FT - 3832 LUMENS, 4000K COLOR TEMPERATURE, 277 VOLTS, 0-10V 10% MIN DIMMING DRIVER. PINNACLE EV4D-A-840HO-08-G1-U-FSD-1-W FINELITE HP-4-R-D-8-B-840-F-96LG-277-SC-FC10-FE-SW NEORAY S1240R-S5750840-XX CEILING-8FO-1-U-DD-FW	36.8W
INDICATOR LED	N	3.5" ROUND FLUSH MOUNTED LED, RED LIGHT COLOR, DIE CAST ALUMINUM CONSTRUCTION, 115 LUMENS, 120V. WAC LIGHTING WL LED310-RD-BN	4W
SUSPENDED LINEAR	PL* PL*X	10FT LINEAR RECESSED, LOW GLOSS WHITE, 927LM/FT, 4000K COLOR TEMPERATURE, 277 VOLTS, 0-10V 10% MIN DIMMING DRIVER, T-BAR, FLAT ENDCAP. PINNACLE EX4D-N-840HO-XX FEET-10AC48G-U-FSD-1-W FINELITE HP-4-P-D-XX FEET-V-840-F-96LG-277-SC-FC 1%-FA100-FE-SW NEORAY S1240P-S5750840-XX CEILING-XX LENGTH-1-U-DD-FW	9.3W PER FT
SUSPENDED PENDANT LED	PR6 PR6X	6FT DIAMETER SUSPENDED PENDANT LIGHT, POWDER COATED FINISH, LOW LUMEN OUTPUT, 9,207 LUMENS, VERTICAL REMOTE CANOPY, WHITE FIXTURE CORD, 0-10V 1% MIN DIMMING, 120-277 VOLT INPUT. FINISH TO BE SELECTED BY ARCHITECT FROM ALL AVAILABLE FINISHES. G LIGHTING ORBIS II GL-2727-K-XX FINISH-1-A CAMMAN P2435-72-40K-CLV-MV-WM-XX FINISH-ACC-MOD 98W-9200 LUMENS	98W
SUSPENDED PENDANT LED	PR8 PR8X	8FT DIAMETER SUSPENDED PENDANT LIGHT, POWDER COATED FINISH, LOW LUMEN OUTPUT, 12,956 LUMENS, VERTICAL REMOTE CANOPY, WHITE FIXTURE CORD, 0-10V 1% MIN DIMMING, 120-277 VOLT INPUT. FINISH TO BE SELECTED BY ARCHITECT FROM ALL AVAILABLE FINISHES. G LIGHTING ORBIS II GL-2728-O-XX FINISH-1-A CAMMAN P2435-96-40K-CLV-MV-WM-XX FINISH-ACC-MOD-139W-13000 LUMENS	139W
SUSPENDED PENDANT LED	PR10 PR10X	10FT DIAMETER SUSPENDED PENDANT LIGHT, POWDER COATED FINISH, HIGH LUMEN OUTPUT, 35,000 LUMENS, VERTICAL REMOTE CANOPY, WHITE FIXTURE CORD, 0-10V 1% MIN DIMMING, 120-277 VOLT INPUT. FINISH TO BE SELECTED BY ARCHITECT FROM ALL AVAILABLE FINISHES. G LIGHTING ORBIS II GL-2729-S-XX FINISH-1-A CAMMAN P2435-120-40K-CLV-MV-WM-XX FINISH-ACC-MOD-285W-13000 LUMENS	285W
4FT WALL MOUNTED FIXTURE	S SX	4FT SURFACE VOLUMETRIC LED, STEEL HOUSING, RIBBED IMPACT RESISTANT ACRYLIC LENS, METAL ENDCAPS, 114 LM/WATT, 4000 LUMENS, 4000K LED, 120/277 VOLTS. LITHONIA STL4-40L-EZ1-LP840 METALUX 4WSNLED-LD4-40SL-F-UNV-L840-CD1-U	34.9W
BROAD SPECTRUM UV DIRECT DISENFECTION	U1	FIXTURE TYPE U1 TO BE PROVIDED AS PART OF THE UV CLEANING FIXTURE PACKAGE AND MAY BE PROVIDED AS A SEPARATE PACKAGE OR COMBINED WITH THE LIGHTING FIXTURES. REFERENCE UV CLEANING FIXTURE SCHEDULE.	–
UV AIR CLEANING INTEGRAL LED GENERAL LIGHTING	U2	FIXTURE TYPE U2 TO BE PROVIDED AS PART OF THE UV CLEANING FIXTURE PACKAGE AND MAY BE PROVIDED AS A SEPARATE PACKAGE OR COMBINED WITH THE LIGHTING FIXTURES. REFERENCE UV CLEANING FIXTURE SCHEDULE.	–
EXIT SIGN	XB XS XSS XD XDS	DIE CAST ALUMINUM LED EXIT LIGHT, RED LETTERS, BLACK HOUSING, BRUSHED ALUMINUM FACE, UNIVERSAL ARROWS, 90 MIN. BATTERY, 120/277 VOLT DUAL INPUT. VERIFY LETTER AND FACE COLOR WITH OWNER/ARCHITECT PRIOR TO ORDERING. XB=BACK MOUNTED, XS=SINGLE FACE, XSS=SINGLE FACE END MOUNTED XD=DOUBLE FACE, XDS=DOUBLE FACE END MOUNTED EMERGI-LITE BA-P-1/2-R BARRON 400U-LB-BL-G2 SURE-LITES CX7-1/2	5W
EXIT SIGN	XWG	SAME AS TYPE XB EXCEPT WITH WALL MOUNTED WIRE GUARD. EMERGI-LITE BA-P-1/2-R / VR1 BARRON 400U-LB-BL-G2 / WG-S SURE-LITES CX7-1 / WG10	5W

CONSULTANTS

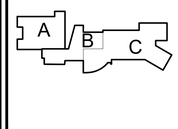
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

E6.00

LIGHTING FIXTURE SCHEDULES

STANTON ENGINEERING GROUP
TBPE/TBPLS FIRM REG. NO. F-11932 | TBAE/BSE FIRM REG. NO. F-10932
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

© 2025 STANTON ENGINEERING GROUP | ALL RIGHTS RESERVED

LIGHTING CONTROL NOTES:

1. CONTROL OF INTERIOR AND EXTERIOR LIGHTING SHALL BE BY BUILDING AUTOMATION SYSTEM (BAS) UTILIZING A COMBINATION OF CONTACTORS AND LOCAL LVLCS ROOM CONTROLLER RELAY BOXES.
2. EXTERIOR LIGHTING SHALL BE CONTROLLED BY THE BAS AND PHOTO CELL.
3. INTERIOR LIGHTING IN DAYLIGHT ZONES SHALL BE AUTOMATICALLY DIMMED BY PHOTO CELL.
4. CONTROL OF THE LVLCS RELAY BOXES SHALL BE INTEGRATED INTO THE BUILDING AUTOMATION SYSTEM (BAS) "HEAD END" TO BE ACCESSED, MONITORED AND PROGRAMMED THROUGH THE EXISTING DISTRICT ENERGY MANAGEMENT SYSTEM.
5. THE BAS CONTRACTOR SHALL PROVIDE LIGHTING OVERRIDE SWITCHES THAT SHALL BE CAPABLE OF OVERRIDING THE BUILDING LIGHTING SCHEDULES. ALL OVERRIDE SWITCHES SHALL HAVE ENGRAVED WALL PLATES. CONFIRM LOCATIONS WITH OWNER PRIOR TO ROUGH-IN.
   5.A. REFERENCE LIGHTING CONTROL OVERRIDE SWITCH DETAIL ON SHEET E6.01.
   5.B. MASTER OVERRIDES SHALL BE ADJUSTABLE IN TIMER DURATION THROUGH THE BAS AND LVLCS.
6. LOCAL LVLCS LIGHT SWITCHES SHALL LOCALLY OVERRIDE THE LIGHTING SCHEDULE FOR A MAXIMUM OF 2 HOURS AND ONLY FOR THOSE LIGHTS TIED TO THAT SWITCH.
7. PROVIDE THE FOLLOWING INTERLOCKS BETWEEN THE LIGHTING CONTROLS AND OTHER BUILDING SYSTEMS.
   7.A. INTERLOCK WITH FIRE ALARM SYSTEM TO ENABLE ALL LIGHTING UPON ACTIVATION. LIGHTING SHALL REVERT TO BUILDING SCHEDULE AFTER EVENT.
   7.B. PROVIDE INTERFACE TO ALLOW THEATRICAL DIMMING SYSTEM TO CONTROL GYM, CAFETORIUM, STAGE AND STAGE RAMP LIGHTS THROUGH THE BUILDING LIGHTING SYSTEM. COORDINATE WITH THEATRICAL LIGHTING SYSTEM CONTRACTOR. PRESET SCENES SHALL INCLUDE DIMMING HOUSE, STAGE AND RAMP LIGHTING. COOR WITH OWNER FOR DESIRED SCENES AND PRESETS.
8. COORDINATE WITH OWNER FOR LIGHTING SCHEDULE AND HOURS OF OPERATION.
   8.A. BUILDING OPENED
   8.B. BUSINESS HOURS
   8.C. BUILDING CLOSED
   8.D. COORDINATE WITH OWNER FOR ADDITIONAL SCHEDULING

LIGHTING SYSTEM FUNCTIONAL TESTING AND DOCUMENTATION NOTES:

1. PRIOR TO PASSING FINAL INSPECTION, THE CONTRACTOR SHALL PERFORM FUNCTIONAL TESTING IN THE PRESENCE OF THE REGISTERED DESIGN PROFESSIONAL. THE OWNER AND/OR THEIR AGENT. THE FUNCTIONAL TESTING SHALL BE AS REQUIRED BY SECTION C408.3.1 OF THE 2021 IECC.
   1.A. THE FUNCTIONAL TESTING SHALL PROVIDE EVIDENCE THAT THE LIGHTING CONTROL SYSTEMS, INCLUDING BOTH HARDWARE AND SOFTWARE, ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURER'S INSTRUCTIONS.
   1.B. THE FUNCTIONAL TESTING SHALL BE IN ACCORDANCE WITH SECTIONS C408.3.1.1 AND C408.3.1.2 OF THE 2021 IECC FOR THE APPLICABLE CONTROL TYPE.
   1.C. A WRITTEN REPORT SHALL BE GENERATED DOCUMENTING THE FUNCTIONAL TESTING RESULTS IN ACCORDANCE WITH THE 2021 IECC REQUIREMENTS.
2. ALL LIGHTING CONTROLS O&M MANUALS, AS-BUILTS, TESTING REPORTS AND DOCUMENTATION RELATED TO THE LIGHTING CONTROL SYSTEM SHALL BE PROVIDED IN THEIR FINAL AND APPROVED FORM WITHIN 60 DAYS OF THE CERTIFICATE OF OCCUPANCY. ALL DOCUMENTS CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET DOCUMENTED PERFORMANCE CRITERIA OF SECTION C405 OF THE 2021 IECC SHALL BE INCLUDED IN THE O&M MANUALS.
3. ALL DOCUMENTS FROM ITEMS #1 AND #2 ABOVE SHALL BE COMBINED AND PROVIDED TO THE OWNER WITHIN 90 DAYS FROM THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY.

LIGHTING CONTROL SEQUENCE OF OPERATIONS

• = DESIGNATION FOR CODE COMPLIANT DEFAULT CONTROL DESIGN WITHOUT DAYLIGHTING CONTROL.
D = WHERE DAYLIGHTING CONTROL IS REQUIRED, "D" DESIGNATION INDICATED CONTROLS REQUIRED IN THE SPACE FOR CODE COMPLIANT DESIGN.
CK = CAPTIVE KEY SWITCH SYSTEM FOR USE IN HOTEL/MOTEL AND GUEST SUITES.

ROOM TYPE	OCCUPANCY SENSOR: AUTO ON	OCCUPANCY SENSOR: MANUAL ON (VACANCY)	OCCUPANCY SENSOR: AUTO OFF (20 MIN MAX)	OCCUPANCY SENSOR: PARTIAL OFF AT NORMAL HOURS	OCCUPANCY SENSOR: AUTO OFF AFTER HOURS (20 MIN MAX)	TIME SWITCH: TIME ON	TIME SWITCH: TIME OFF	TIME SWITCH: ASTRONOMIC OR PHOTOCELL ON/OFF	DAYLIGHT CONTROL: AUTO STEP CONTROL WITH OFF	DAYLIGHT CONTROL: AUTO CONTINUOUS DIM WITH OFF	LIGHT REDUCTION: MANUAL BI-LEVEL REDUCTION CONTROL	LIGHT REDUCTION: MANUAL CONTINUOUS DIM CONTROL	MANUAL CONTROL: MANUAL ON/OFF SWITCH	MANUAL CONTROL: MANUAL DIMMER SWITCH	MANUAL CONTROL: DISPLAY, ACCENT, TASK CONTROL	SEQUENCE OF OPERATION
Spaces (≤300 sq. ft.)	50%		20 MIN							D		D	•	D		AUTO ON TO 50%; OCCUPANCY SENSOR AUTO OFF; LOCAL ON/OFF & DIMMING CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL. LOCAL CONTROLS ONLY.
Private Offices	50%		20 MIN							D		D	•	D		AUTO ON TO 50%; OCCUPANCY SENSOR AUTO OFF; LOCAL ON/OFF & DIMMING CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL. LOCAL CONTROLS ONLY.
Class/Lecture/Training rooms	50%		20 MIN							D		D	•	D	•	AUTO ON TO 50%; OCCUPANCY SENSOR AUTO OFF; LOCAL ON/OFF & DIMMING CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL. LOCAL CONTROLS ONLY.
Conference/Meeting Room		•	20 MIN							D		D	•	D	•	MANUAL ON TO 100%; OCCUPANCY SENSOR AUTO OFF; LOCAL ON/OFF & DIMMING CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL. LOCAL CONTROLS ONLY.
Copy/Print Room	50%		20 MIN							D		D	•	D		AUTO ON TO 50%; OCCUPANCY SENSOR AUTO OFF; LOCAL ON/OFF & DIMMING CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL. LOCAL CONTROLS ONLY.
Electrical/Mech/Equip Rooms													•			MANUAL ON/OFF, LOCAL CONTROLS ONLY.
Custodial Closet		•	20 MIN										•			AUTO ON TO 50%; OCCUPANCY SENSOR AUTO OFF; LOCAL ON/OFF & DIMMING CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL. LOCAL CONTROLS ONLY.
Multi-User Restroom	100%		20 MIN										•			AUTO ON 100%; OCCUPANCY SENSOR AUTO OFF; LOCAL ON/OFF CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL. LOCAL CONTROLS ONLY.
Single User Restroom	100%		5 MIN										•			AUTO ON 100%; OCCUPANCY SENSOR AUTO OFF; LOCAL ON/OFF CONTROLS; IN USE INDICATOR SHALL BE ILLUMINATED WHILE RESTROOM LIGHTS ARE ON. LOCAL CONTROLS ONLY.
Lunch/Break Rooms/Lounges	50%		20 MIN							D		D	•	D		AUTO ON TO 50%; OCCUPANCY SENSOR AUTO OFF; LOCAL ON/OFF & DIMMING CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL. LOCAL CONTROLS ONLY.
Security Keypad Fixtures						•	•									ALWAYS ON, SECURITY LIGHTING ABOVE INTRUSION KEYPAD.
Public Lobbies						PER OWNER'S BLDG SCHEDULE	PER OWNER'S BLDG SCHEDULE			D			•			LOCAL ON/OFF CONTROLS, LOCAL CONTROLS MAY OVERRIDE BUILDING SCHEDULE AND TURN ALL LIGHTS ON FOR MAXIMUM 2HRS. NETWORK LIGHTING CONTROLS ROOM CONTROLLER CONNECTED TO BUILDING CONTROLS; ON/OFF BASED ON BUILDING SCHEDULE, COORDINATE SCHEDULING WITH OWNER. WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL.
Corridor						PER OWNER'S BLDG SCHEDULE	PER OWNER'S BLDG SCHEDULE			D			•			LOCAL ON/OFF CONTROLS, LOCAL CONTROLS MAY OVERRIDE BUILDING SCHEDULE AND TURN ALL LIGHTS ON FOR MAXIMUM 2HRS. NETWORK LIGHTING CONTROLS ROOM CONTROLLER CONNECTED TO BUILDING CONTROLS; ON/OFF BASED ON BUILDING SCHEDULE, COORDINATE SCHEDULING WITH OWNER. WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL.
Stairwell						PER OWNER'S BLDG SCHEDULE	PER OWNER'S BLDG SCHEDULE			D			•			LOCAL ON/OFF CONTROLS, LOCAL CONTROLS MAY OVERRIDE BUILDING SCHEDULE AND TURN ALL LIGHTS ON FOR MAXIMUM 2HRS. NETWORK LIGHTING CONTROLS ROOM CONTROLLER CONNECTED TO BUILDING CONTROLS; ON/OFF BASED ON BUILDING SCHEDULE, COORDINATE SCHEDULING WITH OWNER. WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL.
Storage Room		•	20 MIN							D		D	•	D		AUTO ON TO 50%; OCCUPANCY SENSOR AUTO OFF; LOCAL ON/OFF & DIMMING CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL. LOCAL CONTROLS ONLY.
Library Stacks						PER OWNER'S BLDG SCHEDULE	PER OWNER'S BLDG SCHEDULE			D		D	•	D		MANUAL ON; TIME OFF WITH CLOSING HOURS. AFTER HOURS 2 HOURS OVERRIDE FROM LOCAL CONTROL DEVICE; NETWORK LIGHTING CONTROLS ROOM CONTROLLER CONNECTED TO BUILDING CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, CONTINUOUS DIMMING DAYLIGHTING CONTROL WITH DIMMER SWITCH.
Library Open/Reading Area						PER OWNER'S BLDG SCHEDULE	PER OWNER'S BLDG SCHEDULE			D		D	•	D		MANUAL ON; TIME OFF WITH CLOSING HOURS. AFTER HOURS 2 HOURS OVERRIDE FROM LOCAL CONTROL DEVICE; NETWORK LIGHTING CONTROLS ROOM CONTROLLER CONNECTED TO BUILDING CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, CONTINUOUS DIMMING DAYLIGHTING CONTROL WITH DIMMER SWITCH.
Cafeteria/Gym Multipurpose (>1000 sq. ft.)						PER OWNER'S BLDG SCHEDULE	PER OWNER'S BLDG SCHEDULE			D		D	•	D		MANUAL ON; TIME OFF WITH CLOSING HOURS. AFTER HOURS 2 HOURS OVERRIDE FROM LOCAL CONTROL DEVICE; NETWORK LIGHTING CONTROLS ROOM CONTROLLER CONNECTED TO BUILDING CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, CONTINUOUS DIMMING DAYLIGHTING CONTROL WITH DIMMER SWITCH.
Lab	50%		30 MIN							D		D	•	D		AUTO ON TO 50%; OCCUPANCY SENSOR AUTO OFF; LOCAL ON/OFF & DIMMING CONTROLS; WHERE ≥150W IN DAYLIGHT AREA, USE CONTINUOUS DIMMING DAYLIGHTING CONTROL. LOCAL CONTROLS ONLY.
Building Facade/Landscape						PER OWNER'S BLDG SCHEDULE	PER OWNER'S BLDG SCHEDULE	•								DUSK AUTO ON WITH ASTRONOMICAL TIME SWITCH OR PHOTOCELL; EVENING TIME AUTO OFF AS A FUNCTION OF CLOSE TIME. MORNING TIME ON AS A FUNCTION OF OPEN TIME; DAWN AUTO OFF.
Exterior/Parking Lots/ Site Lighting						PER OWNER'S BLDG SCHEDULE	PER OWNER'S BLDG SCHEDULE	•			•					DUSK AUTO ON WITH ASTRONOMICAL TIME SWITCH OR PHOTOCELL; REDUCE AT LEAST 30% FROM MIDNIGHT OR UP TO ONE HOUR AFTER BUSINESS CLOSE. AUTO ON TO FULL AT 6:00AM OR UP TO ONE HOUR BEFORE BUSINESS OPEN. DAWN AUTO OFF

RELAY PANEL R1D

EACH RELAY RATED 20A, 277 VOLTS
120V CONTROLS POWER (CKT H1D-1)
MOUNTING: SURFACE

RELAY	NORMAL CIRCUIT	EM CIRCUIT	SERVES	LOAD	CONTROL ZONE
R1D-1	H1D-2	–	KITCHEN LIGHTS		A
R1D-2	H1D-2	EH1-2	KITCHEN EM LIGHTS		B
R1D-3	H1D-4	EH1-2	CAFETERIA LINEAR LIGHTS		B
R1D-4	H1D-6	–	CAFETERIA RING LIGHT		A
R1D-5	H1D-8	EH1-2	GYM LIGHTS		B
R1D-6	H1D-1	–	CORRIDOR LIGHTS		A
R1D-7	H1D-1	EH1-1	CORRIDOR EM LIGHTS		B
R1D-8	H1D-1	–	MAIN CORRIDOR & ENTRY LIGHTS		A
R1D-9	H1D-1	EH1-1	MAIN CORRIDOR & ENTRY EM LIGHTS		B
R1D-10	H1D-12	EH1-4	ADMIN CORRIDOR LIGHTS		B
R1D-11	H1D-12	EH1-4	RECEPTION FOYER LIGHTS		B
R1D-12	H1D-12	EH1-4	RECEPTION DESK LIGHTS		B
R1D-13	H1D-2	EH1-2	KITCHEN ENTRY SECURITY LIGHT		K
R1D-14	H1D-1	–	FRONT ENTRY SECURITY LIGHT		K
R1D-15			SPARE		
R1D-16			SPARE		
R1D-17	H1E-1	EH1-6	NORTH WALL PACKS		
R1D-18	H1E-1	EH1-6	EAST WALL PACKS		
R1D-19	H1E-1	EH1-6	SOUTH WALL PACKS		
R1D-20	H1E-1	EH1-6	WEST WALL PACKS AND SCONCES		
R1D-21	H1E-3	EH1-6	MAIN ENTRY CANOPY LIGHTS		
R1D-22	H1E-3	EH1-6	CANOPY LIGHTS		
R1D-23			SPARE		
R1D-24			SPARE		
R1D-25	H1E-2	–	PARKING LIGHTS SOUTH – 50%		
R1D-26	H1E-2	–	PARKING LIGHTS SOUTH – 50%		
R1D-27	H1E-4	–	DRIVEWAY LIGHTS EAST – 50%		
R1D-28	H1E-4	–	DRIVEWAY LIGHTS EAST – 50%		
R1D-29	H1E-6	–	DRIVEWAY/PARKING LIGHTS NORTH – 50%		
R1D-30	H1E-6	–	DRIVEWAY/PARKING LIGHTS NORTH – 50%		
R1D-31			SPARE		
R1D-32			SPARE		

1. BACNET MSTP NATIVE RELAY PANELS PROVIDED, INSTALLED, AND PROGRAMMED BY DIVISION 26.
2. RELAY PANELS INTEGRATED INTO BAS AND SCHEDULED BY DIVISION 25 BAS CONTRACTOR.
3. PROVIDE LABELING SLEEVE FOR EACH WIRE CONTAINING THE FOLLOWING INFORMATION: RELAY NUMBER, ELECTRICAL CIRCUIT NUMBER, BUILDING ROOM NUMBER AND CONSTRUCTION DOCUMENT ROOM NUMBER.
4. PROVIDE DIMMING WIRING FOR ALL FIXTURES IN THE DAYLIGHT ZONES. FIXTURES SHALL AUTO DIM BASED ON PHOTOCELL RESPONSE. SET INITIAL FC TARGET LEVELS TO 45 FOOT CANDLES.

RELAY PANEL R1A

EACH RELAY RATED 20A, 277 VOLTS
120V CONTROLS POWER (CKT H1A-1)
MOUNTING: SURFACE

RELAY	NORMAL CIRCUIT	EM CIRCUIT	SERVES	LOAD	CONTROL ZONE
R1A-1	H1A-1	–	1ST FLOOR CORRIDOR LTS		A
R1A-2	H1A-1	EH1A-1	1ST FLOOR CORRIDOR EM LTS		B
R1A-3	H1A-9	EH1A-3	LIBRARY LIGHTS		A
R1A-4	H1A-9	EH1A-3	LIBRARY MAKER SPACE LIGHTS		A
R1A-5	H1A-2	–	2ND FLOOR CORRIDOR LTS		A
R1A-6	H1A-2	EH1A-4	2ND FLOOR CORRIDOR EM LTS		B
R1A-7			SPARE		
R1A-8			SPARE		

1. BACNET MSTP NATIVE RELAY PANELS PROVIDED, INSTALLED, AND PROGRAMMED BY DIVISION 26.
2. RELAY PANELS INTEGRATED INTO BAS AND SCHEDULED BY DIVISION 25 BAS CONTRACTOR.
3. PROVIDE LABELING SLEEVE FOR EACH WIRE CONTAINING THE FOLLOWING INFORMATION: RELAY NUMBER, ELECTRICAL CIRCUIT NUMBER, BUILDING ROOM NUMBER AND CONSTRUCTION DOCUMENT ROOM NUMBER.
4. PROVIDE DIMMING WIRING FOR ALL FIXTURES IN THE DAYLIGHT ZONES. FIXTURES SHALL AUTO DIM BASED ON PHOTOCELL RESPONSE. SET INITIAL FC TARGET LEVELS TO 45 FOOT CANDLES.

RELAY PANEL R1C

EACH RELAY RATED 20A, 277 VOLTS
120V CONTROLS POWER (CKT H1C-1)
MOUNTING: SURFACE

RELAY	NORMAL CIRCUIT	EM CIRCUIT	SERVES	LOAD	CONTROL ZONE
R1C-1	H1C-1	–	CORRIDOR LTS		A
R1C-2	H1C-1	EH1C-1	CORRIDOR EM LTS		B
R1C-3			SPARE		
R1C-4			SPARE		
R1C-5	H1C-2	EH1C-2	STAGE WORK LIGHTS		
R1C-6	H1C-2	EH1C-2	STAGE RAMP LIGHTS		
R1C-7			SPARE		
R1C-8			SPARE		

1. BACNET MSTP NATIVE RELAY PANELS PROVIDED, INSTALLED, AND PROGRAMMED BY DIVISION 26.
2. RELAY PANELS INTEGRATED INTO BAS AND SCHEDULED BY DIVISION 25 BAS CONTRACTOR.
3. PROVIDE LABELING SLEEVE FOR EACH WIRE CONTAINING THE FOLLOWING INFORMATION: RELAY NUMBER, ELECTRICAL CIRCUIT NUMBER, BUILDING ROOM NUMBER AND CONSTRUCTION DOCUMENT ROOM NUMBER.
4. PROVIDE DIMMING WIRING FOR ALL FIXTURES IN THE DAYLIGHT ZONES. FIXTURES SHALL AUTO DIM BASED ON PHOTOCELL RESPONSE. SET INITIAL FC TARGET LEVELS TO 45 FOOT CANDLES.

LIGHTING CONTROL ZONE SCHEDULE

ZONE	DESCRIPTION
A	NORMAL POWER LIGHTING IN COMMON AREA/AREAS OCCUPIED AFTER NORMAL SCHOOL HOURS
B	REMAINING FIXTURES (NORMAL & EMERGENCY) IN COMMON AREAS, CORRIDORS, ETC.
C	NORTH SECURITY LIGHTING
D	SOUTH SECURITY LIGHTING
E	EAST SECURITY LIGHTING
F	WEST SECURITY LIGHTING
G	PARKING LOT
G2	PARKING LOT – DUAL CIRCUIT FOR 50% DIMMING
H	DRIVEWAY LIGHTING
H2	DRIVEWAY LIGHTING – DUAL CIRCUIT FOR 50% DIMMING
H3	DRIVEWAY ENTRANCE LIGHTING
H4	DRIVEWAY ENTRANCE LIGHTING – DUAL CIRCUIT FOR 50% DIMMING
I	MARQUEE SIGN
J	CANOPY FIXTURES
K	SECURITY KEYPAD FIXTURES
L	CLINIC UV DISINFECTION LIGHTS

1. COORDINATE WITH OWNER FOR INITIAL BUSINESS HOURS AND BUILDING SCHEDULES.
   1.A. ALL ZONES SHALL BE SCHEDULED THROUGH THE BAS WITH INTERLOCK TO VARIOUS BUILDING SYSTEMS AS IDENTIFIED BELOW.
   1.B. TYPE G, G2, H, H2, H3, H4 EXTERIOR DUAL CIRCUITED ZONES SHALL BE INDIVIDUALLY CONTROLLABLE ALLOWING THE OWNER TO SCHEDULE EACH ZONE SEPARATELY.
   1.C. TYPE K ZONES SHALL BE MAINTAINED ON.
   1.D. ZONE L WATER HEATERS AND PUMPS SHALL TURN OFF WITH BUILDING OCCUPANCY AND TURN ON 30 MINUTES PRIOR TO BUILDING OCCUPANCY.
   1.E. ZONE M UV LIGHTS IN CLINIC SHALL BE SCHEDULED OFF DURING BUSINESS HOURS AND SHALL BE ON AFTER HOURS TO RUN A UV STERILIZATION CLEANING CYCLE.
      1.E.A. INITIAL SCHEDULE SHALL START CYCLE AT MIDNIGHT EACH NIGHT. CONFIRM SCHEDULE WITH OWNER DURING CONSTRUCTION.
      1.E.B. WHEN ZONE M IS SCHEDULED ON THE TYPE XUV WARNING SIGN SHALL BE ILLUMINATED.
2. SECURITY SYSTEM INTERLOCKS
   2.A. WHEN SECURITY SYSTEM IS ARMED INTERIOR ZONES A & B SHALL BLINK AND THEN ZONE A SHALL TURN OFF. FIVE MINUTES AFTER ARMING ZONE B SHALL THEN TURN OFF.
   2.C. WHEN SECURITY SYSTEM IS IN AN ALARMED STATE ALL LIGHTING ZONES SHALL TURN ON.
   2.C. WHEN SECURITY SYSTEM IS DISARMED AND THE TIME IS DURING NORMAL BUSINESS HOURS, ZONES A & B SHALL TURN ON.
   2.C. WHEN SECURITY SYSTEM IS DISARMED AND THE TIME IS NOT DURING NORMAL BUSINESS HOURS, ZONE A SHALL REMAIN OFF AND ZONE B SHALL TURN ON.
   2.D. WHEN SECURITY SYSTEM IS DISARMED OR ARMED, ALL EXTERIOR LIGHTS WILL OPERATE ACCORDING TO BUILDING SCHEDULE.
3. FIRE ALARM INTERLOCKS
   3.A. WHEN FIRE ALARM IS IN AN ALARMED STATE, ALL LIGHTING GROUPS SHALL TURN ON.

CONSULTANTS

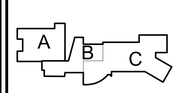
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN MAS
CHECKED GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

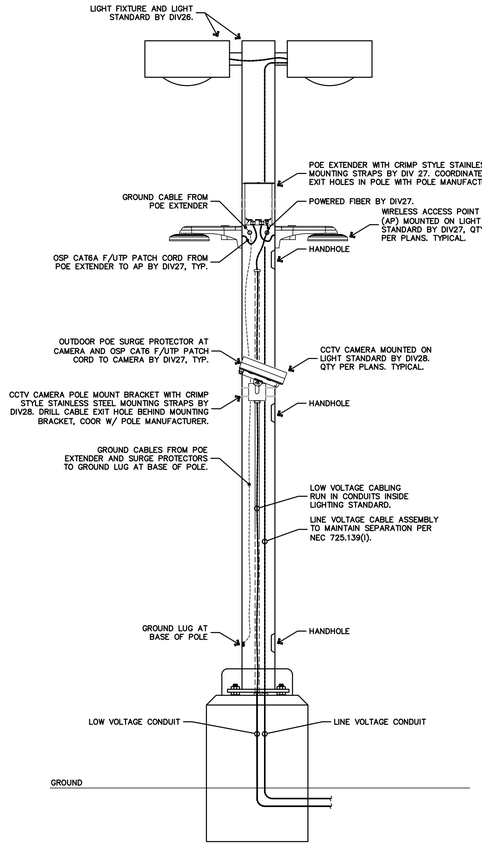
E6.01

LIGHTING SCHEDULES AND SEQUENCE OF OPERATIONS

STANTON ENGINEERING GROUP
TBPE/TBAE#F-2962/M
(713) 300-9292

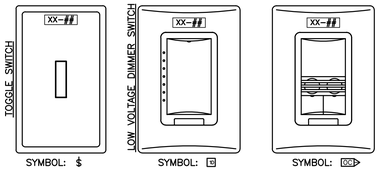
SEALING FIRM REG NO F-013332 | ©2025 ALL RIGHTS RESERVED

1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



5 LIGHT POLE COORDINATION DETAIL

NO SCALE



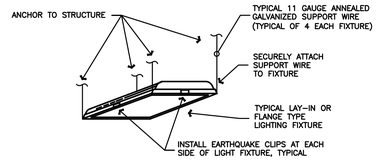
6 TYPICAL LIGHTING CONTROL DEVICES

NO SCALE

NOTES:

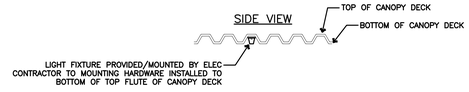
1. REFER TO SPECIFICATIONS FOR DEVICE AND FACEPLATE REQUIREMENTS. ALL DEVICE PLATES SHALL BE STANDARD SIZE ONLY, NO JUMBO FACEPLATES SHALL BE ALLOWED.
2. ONLY SELECT DEVICES ARE SHOWN HERE. PROVIDE SIMILAR LABELS ON ALL SWITCHES, NEMA POWER OUTLETS, ETC.
3. PROVIDE LABEL WITH RED TEXT FOR DEVICES ON GENERATOR FED CIRCUITS.
4. PROVIDE TYPEWRITTEN OR PREMADE CIRCUIT LABELS INDICATING THE ELECTRICAL CIRCUIT ON:
   - 4.A. INSTALLED WIRING AT EACH SPLICE POINT
   - 4.B. EACH J-BOX ABOVE CEILING WITH WIRING INSTALLED OR MODIFIED AS PART OF THIS PROJECT.
   - 4.C. AFFIXED TO THE FRONT OF EACH NEW AND EXISTING DEVICE FACEPLATE IN THE AREA OF RENOVATION.

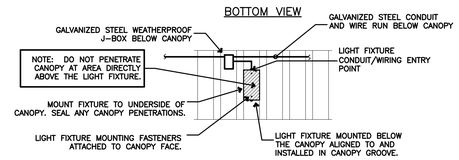
XX-## CIRCUIT LABEL.
- A. XX = PANEL DESIGNATION
- B. ## = AS-BUILT CIRCUIT DESIGNATION



1 FIXTURE SUPPORT DETAIL

NO SCALE



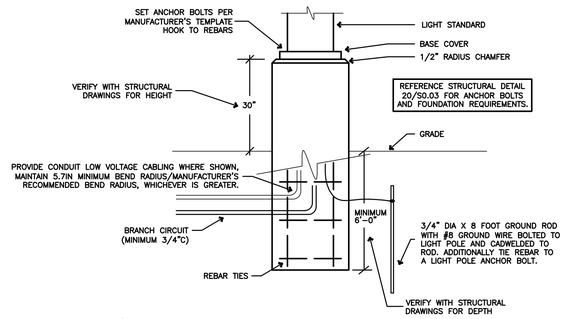


2 INSET CANOPY LIGHT MOUNTING DETAIL

NO SCALE

NOTES:

1. FIXTURES SHALL BE MOUNTED WITHIN THE CANOPY GROOVE AND ATTACHED TO THE TOP FLUTE TO PREVENT WATER FROM POOLING ABOVE THE FIXTURE.
2. MOUNTING CLIPS/HARDWARE SHALL BE ATTACHED TO THE CANOPY TO MOUNT LIGHT FIXTURES.
3. CANOPY PENETRATIONS ABOVE FIXTURES SHALL BE SEALED TO PREVENT WATER LEAKAGE.

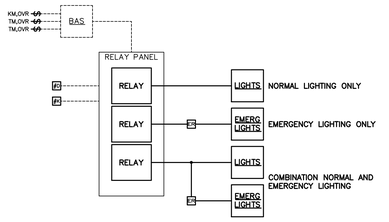


3 AREA LIGHT POLE BASE DETAIL

NO SCALE

NOTES:

1. ANCHOR BOLTS SHALL NOT BE EXPOSED. PROVIDE BASE COVERS ON ALL LIGHT POLES AND ADD GROUT AS REQUIRED.
2. PROVIDE LOW VOLTAGE CONDUIT(S) FOR LIGHTING CONTROLS, SECURITY, CCTV, ETC. WHERE INDICATED. REFERENCE PLANS AND DRAWINGS FOR ADDITIONAL INFORMATION.
3. MINIMUM POLE BASE REQUIREMENTS:
   - 3.A. POLE ≤ 25FT: BASE = 24"ø X 6FT BELOW GRADE.
   - 3.B. 25FT < POLE ≤ 35FT: BASE = 24"ø X 8FT BELOW GRADE.
   - 3.C. 35FT < POLE ≤ 45FT: BASE = 30"ø X 10FT BELOW GRADE.
   - 3.D. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION. IN THE EVENT OF A CONFLICT, STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE.



TYPICAL WIRING DIAGRAM

4 TYPICAL RELAY PANEL WIRING

NO SCALE

NOTES:

1. LOCATE EMERGENCY LIGHTING RELAYS ADJACENT TO RELAY PANELS.
2. MOMENTARY, KEYED LIGHTING OVERRIDE SWITCH SHALL BE PROVIDED AND INSTALLED BY DIVISION 26, PROGRAMMED BY BAS CONTRACTOR.

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

GEORGE L. STANTON 38582 REGISTERED PROFESSIONAL ENGINEER
STATE OF TEXAS
10.24.2025

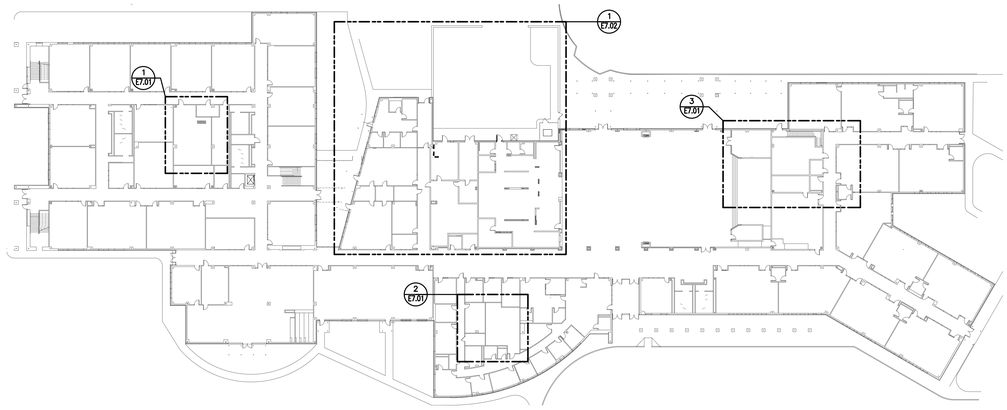
PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E6.10

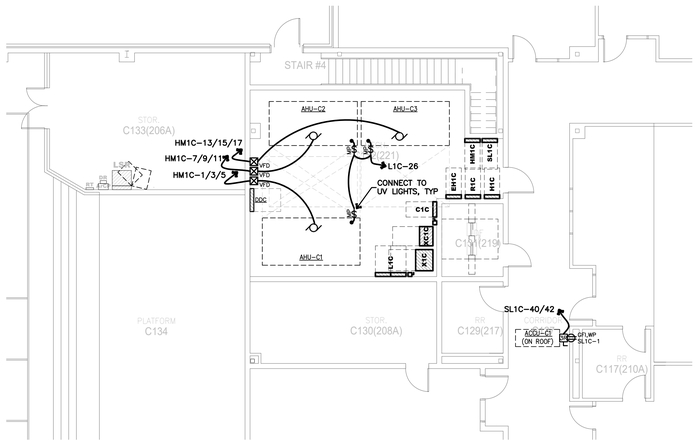
LIGHTING DETAILS

STANTON ENGINEERING GROUP
TBPE/TBAE#F-21612 | (713) 300-9292
STANTON ENGINEERING GROUP | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



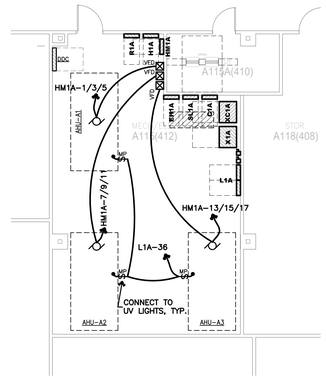
0 OVERALL ELECTRICAL COORDINATION PLAN - FIRST FLOOR

SCALE: 1" = 40'- 0"



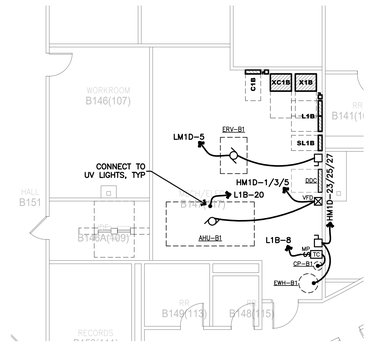
3 ELECTRICAL COORDINATION PLAN - MECH/ELEC C132

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



1 ELECTRICAL COORDINATION PLAN - MECH/ELEC A115

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



2 ELECTRICAL COORDINATION PLAN - MECH/ELEC B147

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

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER

10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

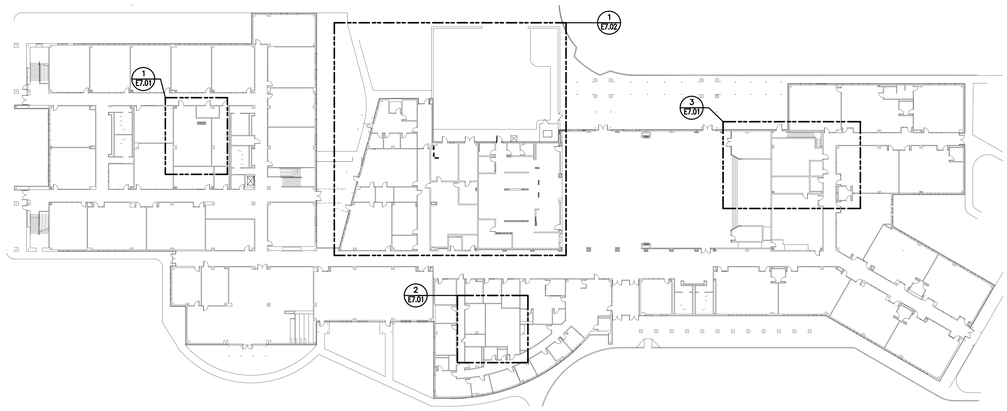
E7.01

ELECTRICAL
COORDINATION PLANS
- FIRST FLOOR

TRUE NORTH
PLAN NORTH

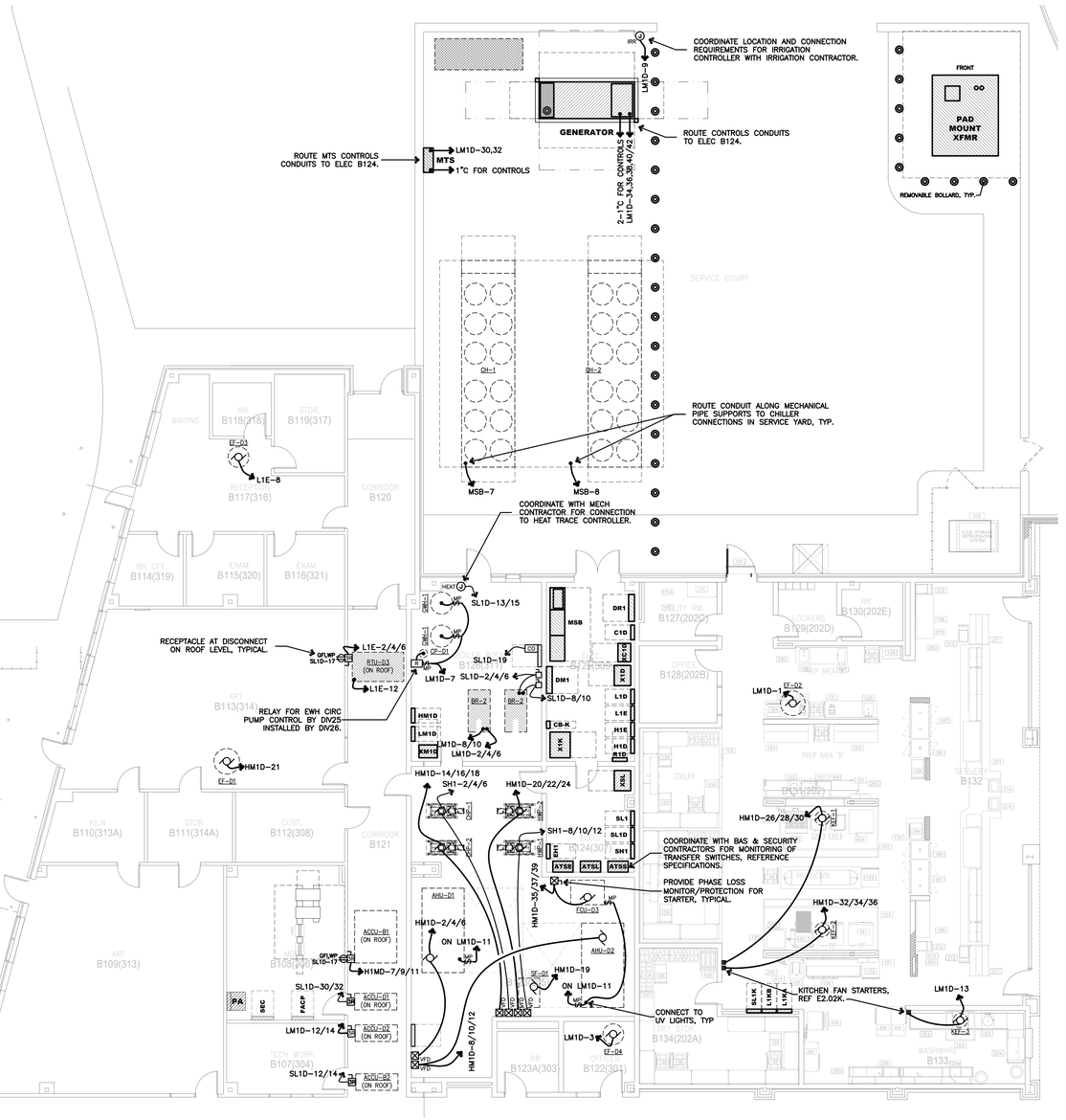
STANTON ENGINEERING GROUP

TBPE/ENGINEERING FIRM REG. NO. F-010332 | ©2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



0 OVERALL ELECTRICAL COORDINATION PLAN - FIRST FLOOR

SCALE: 1" = 40'- 0"



1 ELECTRICAL COORDINATION PLAN - CENTRAL PLANT

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

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

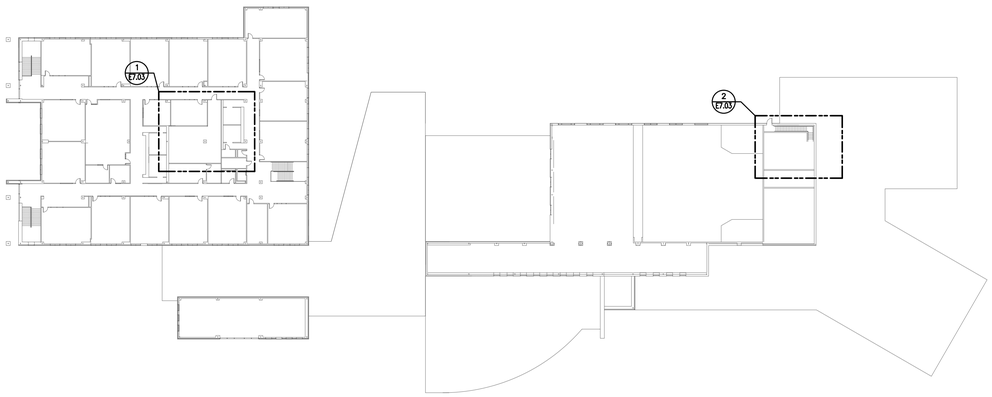
E7.02

ELECTRICAL COORDINATION PLANS - FIRST FLOOR

TRUE NORTH
PLAN NORTH

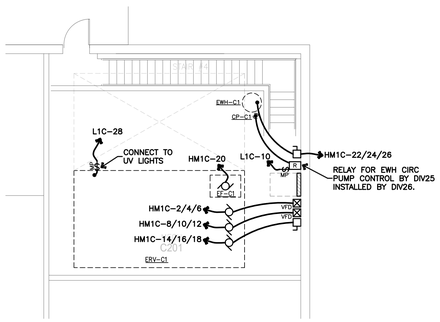
STANTON ENGINEERING GROUP

TBPE REGISTRATION NUMBER F-21153 | TBPLS ENG. FIRM REG. NO. F-21153-01 | © 2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



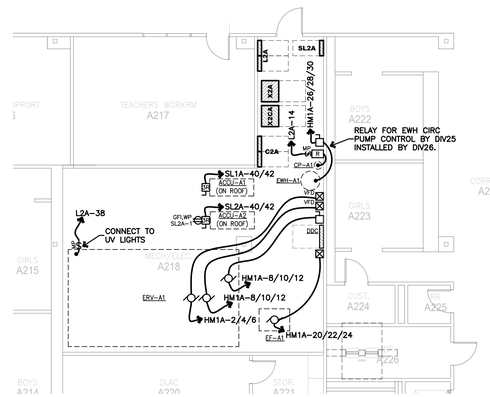
0 OVERALL ELECTRICAL COORDINATION PLAN - SECOND FLOOR

SCALE: 1" = 40'- 0"



2 ELECTRICAL COORDINATION PLAN - MECH C201

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



1 ELECTRICAL COORDINATION PLAN - MECH/ELEC A218

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

CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER

10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

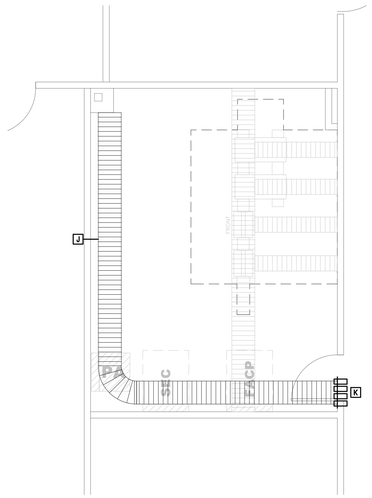
E7.03

ELECTRICAL COORDINATION PLANS - SECOND FLOOR

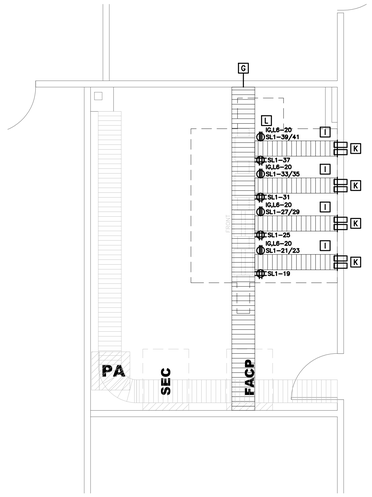
TRUE NORTH PLAN NORTH

STANTON ENGINEERING GROUP

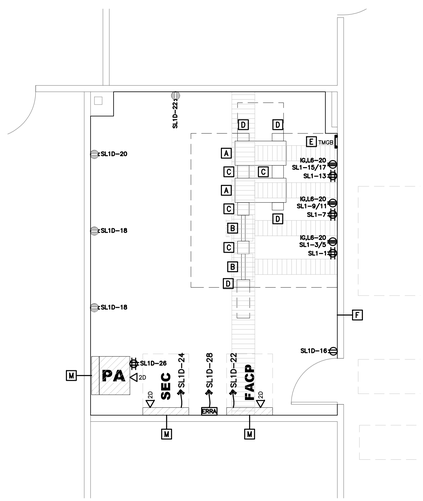
TBPE/TBPLS FIRM REG. NO. F-11932 | ©2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



ROOM CABLE TRAY LAYOUT



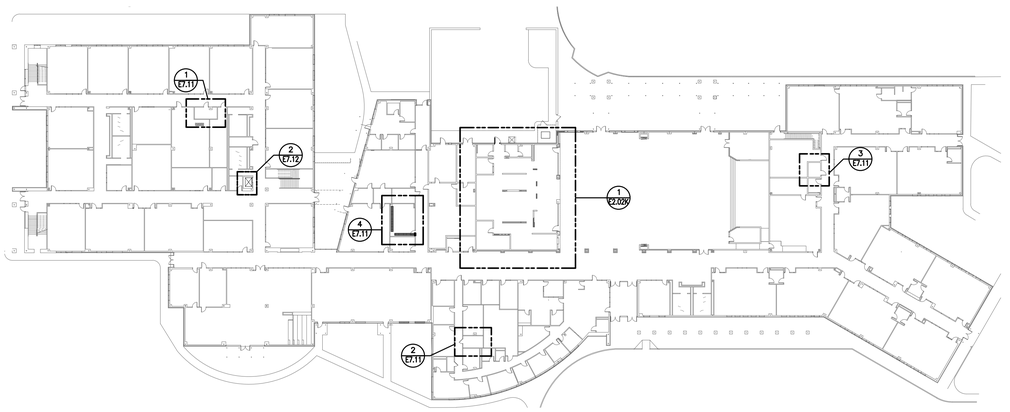
RACK MOUNTED CABLE TRAY LAYOUT



EQUIPMENT LAYOUT

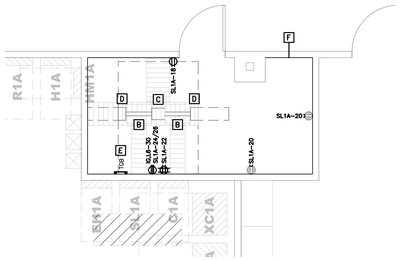
4 ENLARGED ELECTRICAL PLANS - IDF A115A

SCALE: 1/4" = 1'– 0"

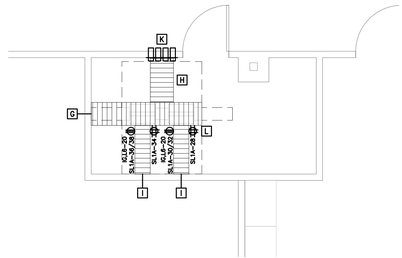


0 OVERALL PLAN - FIRST FLOOR

SCALE: 1" = 40'– 0"



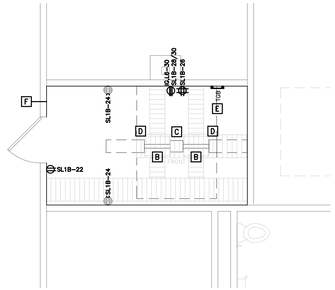
EQUIPMENT LAYOUT



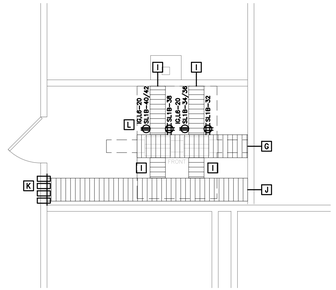
RACK MOUNTED CABLE TRAY LAYOUT

1 ENLARGED ELECTRICAL PLANS - IDF A115A

SCALE: 1/4" = 1'– 0"



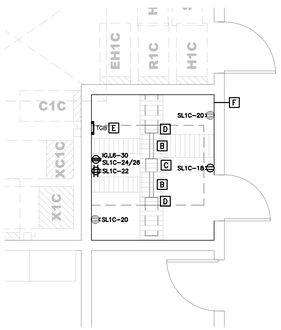
EQUIPMENT LAYOUT



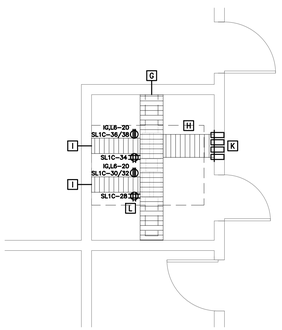
RACK MOUNTED CABLE TRAY LAYOUT

2 ENLARGED ELECTRICAL PLANS - IDF B146

SCALE: 1/4" = 1'– 0"



EQUIPMENT LAYOUT



RACK MOUNTED CABLE TRAY LAYOUT

3 ENLARGED ELECTRICAL PLANS - IDF C131

SCALE: 1/4" = 1'– 0"

TELECOM ROOM PLAN KEY NOTES:

A. 4–POST RACK, RACK SHALL BE BOLTED TO THE FLOOR UTILIZING A NEOPRENE INSULATED FLOOR PAD WITH NYLON SHIELDS AROUND FLOOR BOLTS AND NYLON WASHERS FOR CONNECTING NUTS.

B. 2–POST RACK, RACK SHALL BE BOLTED TO THE FLOOR UTILIZING A NEOPRENE INSULATED FLOOR PAD WITH NYLON SHIELDS AROUND FLOOR BOLTS AND NYLON WASHERS FOR CONNECTING NUTS.

C. 10" VERTICAL WIRE MANAGER SECURED TO THE SIDE OF THE RACK.

D. 6" VERTICAL WIRE MANAGER SECURED TO THE SIDE OF THE RACK.

E. GROUND BUS BAR, ELECTRO PLATED AND PREDRILLED TO ACCEPT STANDARD TWO–HOLE LUGS BY DIVISION 26. TELECOMMUNICATIONS GROUNDING BACKBONE BY DIVISION 26. CONNECTIONS TO TELECOM ROOM EQUIPMENT BY DIVISION 27 AND 28. INSTALL 12" BELOW LADDER TRAY.

F. 3/4" FIRE RATED PLYWOOD, ACX OR EQUAL, SECURED TO WALL AT 24" AFF ALONG FULL PERIMETER OF THE TELECOM ROOM. IF THE PLYWOOD IS PAINTED, THE PAINT SHALL BE FIRE RETARDANT PAINT ON BOTH SIDES AND THE RATING STAMP ON THE PLYWOOD SHALL BE EXPOSED.

G. 18" WIDE LADDER RACK SECURED TO TOP OF DATA RACK WITH LADDER RACK MOUNTING PLATE AND BOLTED TO WALL, WITH WATERFALLS INTO VERTICAL WIRE MANAGERS, TYPICAL.

H. 18" WIDE LADDER RACK RUNOUT FROM DATA RACKS.

I. 12" WIDE LADDER RACK RUNOUT FROM DATA RACK.

J. 18" WIDE LADDER RACK ROUTED AROUND TELECOM ROOM PERIMETER AND SECURED TO WALL. COORDINATE MOUNTING HEIGHT WITH THRU WALL SLEEVES. PROVIDE WATERFALLS FOR CABLE TRANSITION TO LOWER CABLE TRAY. TYPICAL.

K. PREMANUFACTURED 4"X4" CABLE PATHWAYS IN MULTIGANG CONFIGURATION THROUGH WALL. REFERENCE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

L. RECEPTACLES MOUNTED ON LADDER RACK, TYPICAL. DIVISION 26 TO COORDINATE WITH DIVISION 27 STRUCTURED CABLING CONTRACTOR FOR LOCATION AND MOUNTING. RACK MOUNTED POWER STRIP BY DIVISION 27, REF SPECS.

M. COORDINATE WITH INSTALLING CONTRACTOR FOR POWER AND DATA CONNECTIONS.

CONSULTANTS

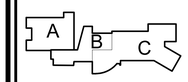
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
GEORGE L. STANTON
38582
REGISTERED
PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

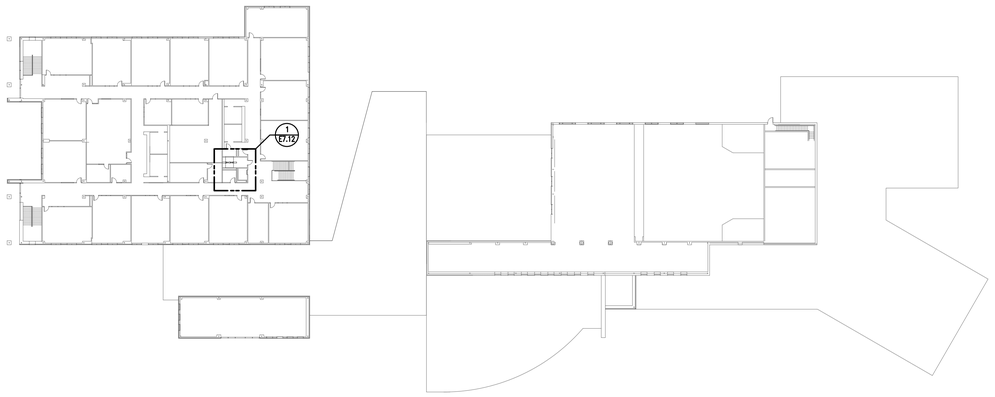
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

E7.11

ENLARGED ELECTRICAL PLANS - FIRST FLOOR

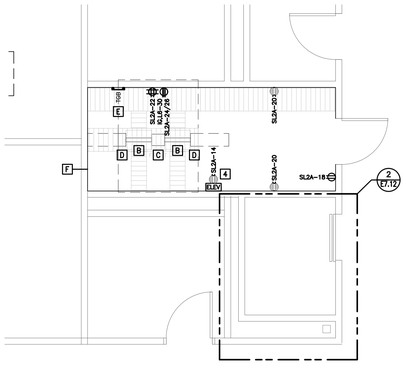
TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/ENGINEERING FIRM REG. NO. F-12933 | TBPLS/SURVEYING FIRM REG. NO. 10194382
(713) 300–9292 | TEXAS ENGINEERING FIRM REG. NO. F-12933 | © 2025 ALL RIGHTS RESERVED
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

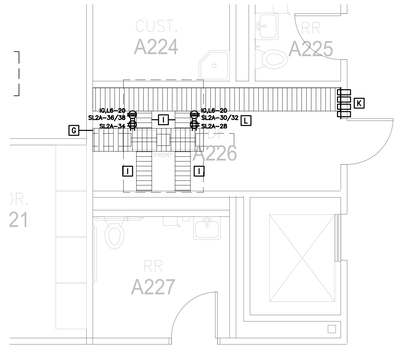


0 OVERALL PLAN - SECOND FLOOR

SCALE: 1" = 40'- 0"



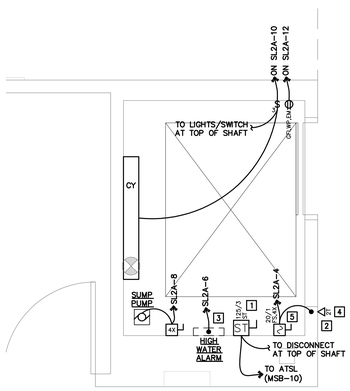
EQUIPMENT LAYOUT



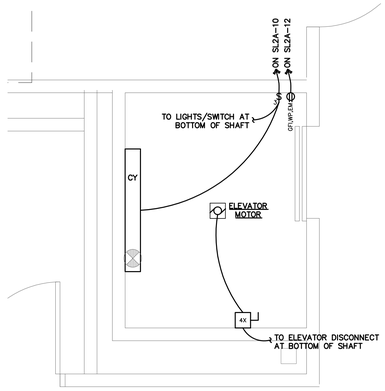
CABLE TRAY LAYOUT

1 ENLARGED ELECTRICAL PLANS - IDF A226

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



ELEVATOR SHAFT - BOTTOM



ELEVATOR SHAFT - TOP

2 ENLARGED ELECTRICAL PLANS - ELEVATOR

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

TELECOM ROOM PLAN KEY NOTES:

A. 4-POST RACK, RACK SHALL BE BOLTED TO THE FLOOR UTILIZING A NEOPRENE INSULATED FLOOR PAD WITH NYLON SHIELDS AROUND FLOOR BOLTS AND NYLON WASHERS FOR CONNECTING NUTS.

B. 2-POST RACK, RACK SHALL BE BOLTED TO THE FLOOR UTILIZING A NEOPRENE INSULATED FLOOR PAD WITH NYLON SHIELDS AROUND FLOOR BOLTS AND NYLON WASHERS FOR CONNECTING NUTS.

C. 10" VERTICAL WIRE MANAGER SECURED TO THE SIDE OF THE RACK.

D. 6" VERTICAL WIRE MANAGER SECURED TO THE SIDE OF THE RACK.

E. GROUND BUS BAR, ELECTRO PLATED AND PREDRILLED TO ACCEPT STANDARD TWO-HOLE LUGS BY DIVISION 26. TELECOMMUNICATIONS GROUNDING BACKBONE BY DIVISION 26. CONNECTIONS TO TELECOM ROOM EQUIPMENT BY DIVISION 27 AND 28. INSTALL 12" BELOW LADDER TRAY.

F. 3/4" FIRE RATED PLYWOOD, ACX OR EQUAL, SECURED TO WALL AT 24" AFF ALONG FULL PERIMETER OF THE TELECOM ROOM. IF THE PLYWOOD IS PAINTED, THE PAINT SHALL BE FIRE RETARDANT PAINT ON BOTH SIDES AND THE RATING STAMP ON THE PLYWOOD SHALL BE EXPOSED.

G. 18" WIDE LADDER RACK SECURED TO TOP OF DATA RACK WITH LADDER RACK MOUNTING PLATE AND BOLTED TO WALL, WITH WATERFALLS INTO VERTICAL WIRE MANAGERS, TYPICAL.

H. 18" WIDE LADDER RACK RUNOUT FROM DATA RACKS.

I. 12" WIDE LADDER RACK RUNOUT FROM DATA RACK.

J. 18" WIDE LADDER RACK ROUTED AROUND TELECOM ROOM PERIMETER AND SECURED TO WALL. COORDINATE MOUNTING HEIGHT WITH THRU WALL SLEEVES. PROVIDE WATERFALLS FOR CABLE TRANSITION TO LOWER CABLE TRAY. TYPICAL.

K. PREMANUFACTURED 4"X4" CABLE PATHWAYS IN MULTIGANG CONFIGURATION THROUGH WALL. REFERENCE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

L. RECEPTACLES MOUNTED ON LADDER RACK, TYPICAL. DIVISION 26 TO COORDINATE WITH DIVISION 27 STRUCTURED CABLING CONTRACTOR FOR LOCATION AND MOUNTING. RACK MOUNTED POWER STRIP BY DIVISION 27, REF SPECS.

M. COORDINATE WITH INSTALLING CONTRACTOR FOR POWER AND DATA CONNECTIONS.

ELEVATOR GENERAL NOTES:

- ELECTRICAL DEVICES AND WIRING IN ELEVATOR SHAFT/MACHINE ROOMS ARE SHOWN SCHEMATICALLY FOR BIDDING PURPOSES.
- COORDINATE WITH PLUMBING DRAWINGS FOR HIGH WATER ALARM AND SUMP PUMP LOCATIONS.
- COORDINATE WITH ELEVATOR SUPPLIER FOR ELEVATOR EQUIPMENT LOCATION PRIOR TO ROUGH-IN.
- SEE MEP ELEVATOR DETAIL ON THE ELECTRICAL DETAIL SHEETS FOR ADDITIONAL INFORMATION.

ELEVATOR KEY NOTES:

1. ELEVATOR DISCONNECTING MEANS WITH INTEGRAL OVERCURRENT PROTECTION AND SHUNT TRIP, INTERCONNECT WITH FIRE ALARM, FIRE PROTECTION, AND ELEVATOR SYSTEMS. PROVIDE CLASS RK1 FUSES FOR SERVICE TO ELEVATOR EQUIPMENT PER MANUFACTURER'S SPECIFICATIONS. COORDINATE WITH OTHER TRADES FOR EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS.

2. COORDINATE WITH ELEVATOR INSTALLER FOR POWER AND TELECOM CONNECTIONS. ROUTE ELEVATOR PHONE LINES TO CELLULAR DIALER IN 2ND FLOOR IDF.

3. INTERLOCK SUMP PUMP W/ HIGH WATER ALARM PANEL. COORDINATE WITH PLUMBING CONTRACTOR FOR REQUIREMENTS.

4. PROVIDE DEDICATED 120V/20A CIRCUIT AND RECEPTACLE FOR SERVICE TO ELEVATOR PHONE CELLULAR DIALER PER MANUFACTURER'S SPECIFICATIONS. MAKE PROVISIONS FOR TWO (2) DEDICATED ANALOG TELEPHONE LINE CONNECTIONS FROM CELLULAR DIALER TO ELEVATOR CAR, TERMINATED AT THE CONTROLLER. COORDINATE WITH ELEVATOR EQUIPMENT INSTALLER FOR EXACT LOCATIONS AND REQUIREMENTS. ELEVATOR PHONE CELLULAR DIALER PROVIDED BY DIVISION 27 STRUCTURED CABLING CONTRACTOR.

5. PROVIDE DEDICATED CIRCUIT AND FUSED DISCONNECT SWITCH CAPABLE OF BEING LOCKED IN THE OPEN POSITION FOR SERVICE TO CAR LIGHTS, CAR TOP RECEPTACLE, AUXILIARY LIGHTING POWER SOURCE AND VENTILATION IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE [NEC620-53]. COORDINATE WITH ELEVATOR EQUIPMENT INSTALLER AND ARCHITECT FOR EXACT LOCATION AND REQUIREMENTS.

CONSULTANTS

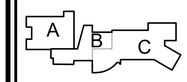
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734



Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355



10.24.2025

PROJECT NO.	2502 (B101-101)
DATE	Oct.24, 2025
DRAWN	MAS
CHECKED	GLS

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

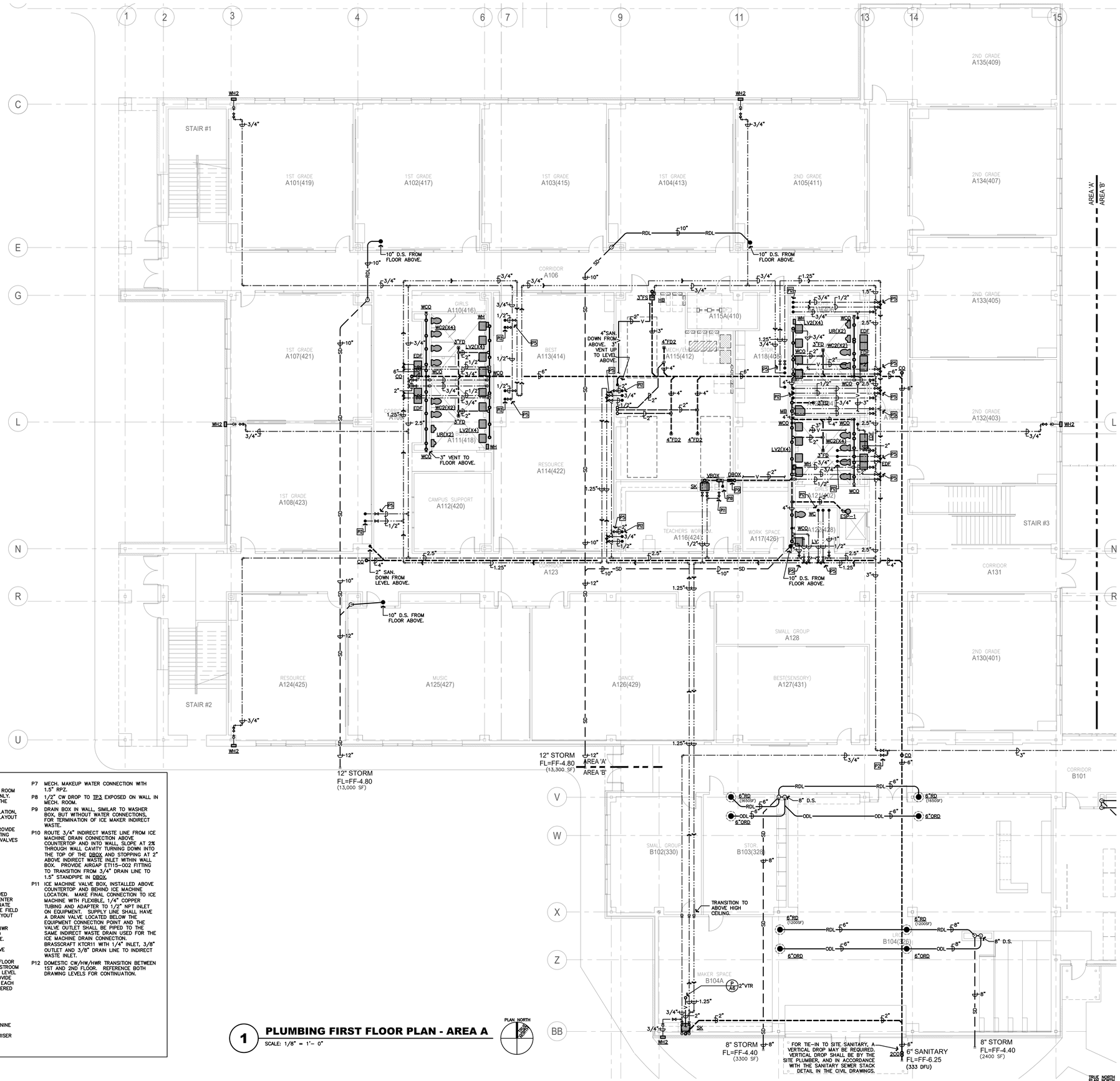
E7.12

ENLARGED ELECTRICAL PLANS - SECOND FLOOR

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/TBPLS FIRM REG. NO. F-11332 | TBAE/ENG FIRM REG. NO. F-14781
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

© 2025 STANTON ENGINEERING GROUP | ALL RIGHTS RESERVED



PLUMBING KEYED NOTES:

P1 PIPING ROUTED THROUGH ELECTRICAL ROOM SHALL BE CONFINED TO THIS AREA ONLY. DO NOT CROSS INTO REMAINDER OF THE ROOM. DO NOT CROSS OVER ANY ELECTRICAL GEAR. PRIOR TO INSTALLATION, COORDINATE ELECTRICAL EQUIPMENT LAYOUT WITH DIV.26.

P2 BUILDING AREA ISOLATION VALVES, PROVIDE LOCAL PIPING LABEL CLEARLY INDICATING BUILDING AREA CONTROLLED BY THE VALVES WITH DESCRIPTIVE TITLE.
- ADMINISTRATION
- ELEMENTARY WING
- EC/PK WING
- KITCHEN
- LRC
- PUBLIC CLINIC

P3 ELECTRICAL AND TECHNOLOGY RESERVED AREA. NO PLUMBING PIPING SHALL ENTER OR CROSS INTO THIS AREA. COORDINATE WITH DIVISIONS 26, 27 AND 28 IN THE FIELD FOR FINAL EQUIPMENT AND PIPING LAYOUT IN AND AROUND THIS AREA.

P4 EWH ABOVE ON MEZZANINE. CW/HW/HWR INTO STAIRWELL FROM LOW ROOF AND TURNED UP TO HIGH ROOF STRUCTURE. EXTEND INTO MECHANICAL MEZZANINE PROVIDING MAXIMUM CLEARANCE ABOVE STAIRWELL.

P5 FOR ALL 2ND FLOOR VALVES IN 1ST FLOOR CEILING PLENUM, ALONG WITH ALL RESTROOM ISOLATION VALVES FOR 1ST AND 2ND LEVEL RESTROOMS IN CLOSE PROXIMITY, PROVIDE LEVEL TAGS INDICATING WHICH LEVEL EACH VALVE SERVES, IN ADDITION TO NUMBERED VALVE TAGS REQUIRED BY THE SPECIFICATIONS,
- LVL-1
- LVL-2

P6 STORM PIPING FROM LEVEL 1 CEILING PLENUM INTO SPACE BENEATH MEZZANINE STAIRCASE. TURN RDL & ODL DOWN, JOINING TOGETHER IN THE VERTICAL RISER AND EXENDING TO BELOW GRADE.

P7 MECH. MAKEUP WATER CONNECTION WITH 1.5" RPZ.

P8 1/2" CW DROP TO TP3 EXPOSED ON WALL IN MECH. ROOM.

P9 DRAIN BOX IN WALL, SIMILAR TO WASHER BOX, BUT WITHOUT WATER CONNECTIONS, FOR TERMINATION OF ICE MAKER INDIRECT WASTE.

P10 ROUTE 3/4" INDIRECT WASTE LINE FROM ICE MACHINE DRAIN CONNECTION ABOVE COUNTERTOP AND INTO WALL, SLOPE AT 2% THROUGH WALL CAVITY TURNING DOWN INTO THE TOP OF THE DBOX AND STOPPING AT 2" ABOVE INDIRECT WASTE INLET WITHIN WALL BOX. PROVIDE AIRGAP ET115-002 FITTING TO TRANSITION FROM 3/4" DRAIN LINE TO 1.5" STANDPIPE IN DBOX.

P11 ICE MACHINE VALVE BOX, INSTALLED ABOVE COUNTERTOP AND BEHIND ICE MACHINE LOCATION. MAKE FINAL CONNECTION TO ICE MACHINE WITH FLEXIBLE, 1/4" COPPER TUBING AND ADAPTER TO 1/2" NPT INLET ON EQUIPMENT. SUPPLY LINE SHALL HAVE A DRAIN VALVE LOCATED BELOW THE EQUIPMENT CONNECTION POINT AND THE VALVE OUTLET SHALL BE PIPED TO THE SAME INDIRECT WASTE DRAIN USED FOR THE ICE MACHINE DRAIN CONNECTION. BRASSCRAFT KTOR11 WITH 1/4" INLET, 3/8" OUTLET AND 3/8" DRAIN LINE TO INDIRECT WASTE INLET.

P12 DOMESTIC CW/HW/HWR TRANSITION BETWEEN 1ST AND 2ND FLOOR. REFERENCE BOTH DRAWING LEVELS FOR CONTINUATION.

1 PLUMBING FIRST FLOOR PLAN - AREA A

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

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS — TYLER W. HERRING — 106052 — REGISTERED PROFESSIONAL ENGINEER — 10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

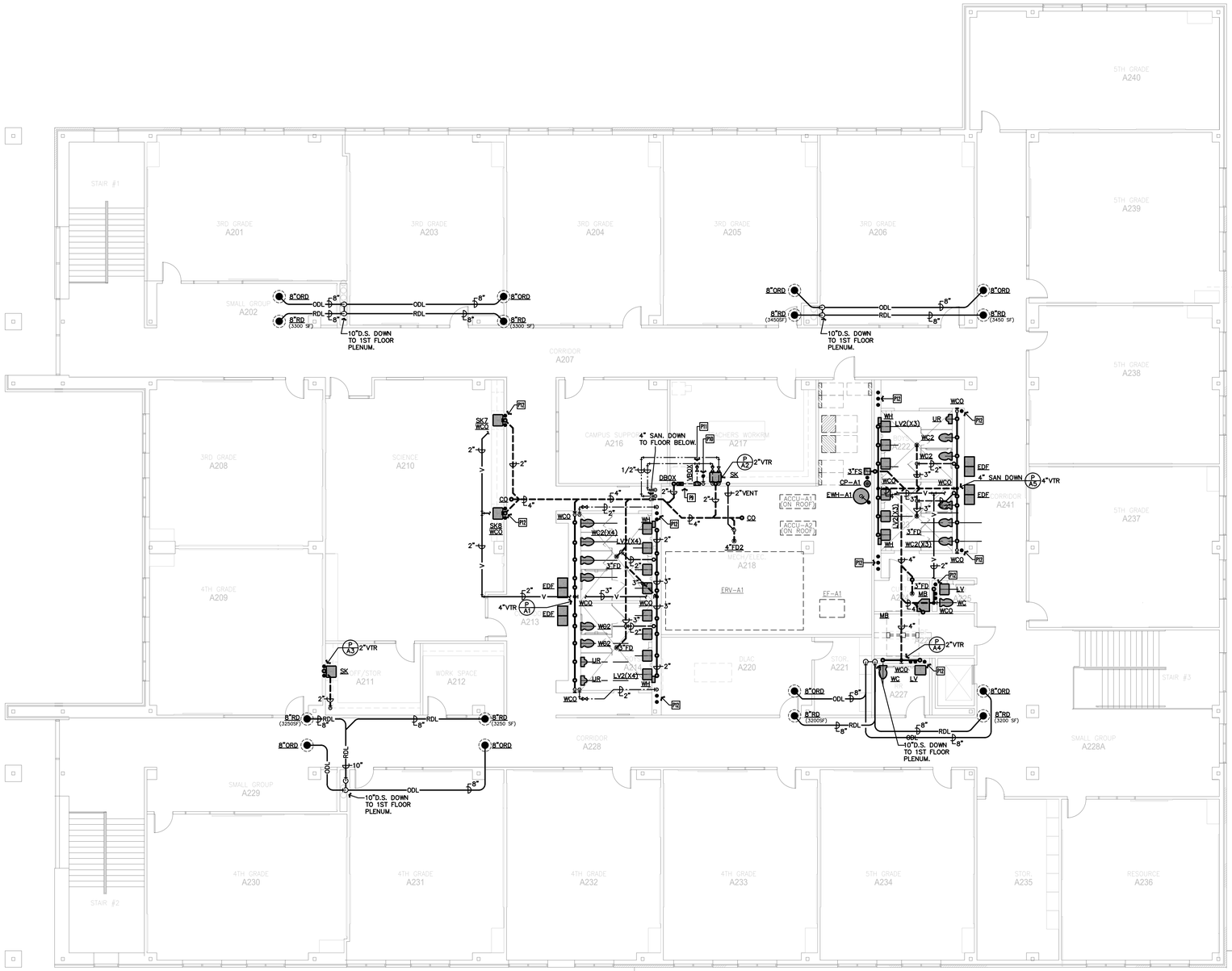
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

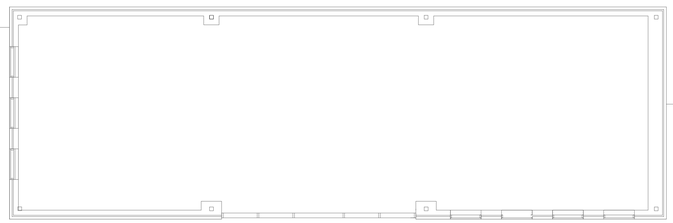
P1.01

PLUMBING
FIRST FLOOR PLAN
AREA A

STANTON ENGINEERING GROUP
TBPE REGISTRATION # 21472200 | TBPELS LICENSING FIRM # 10011500 | (713) 300-9292
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

© 2025 ALL RIGHTS RESERVED





1 PLUMBING SECOND FLOOR PLAN - AREA A

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

PLAN NORTH

PLUMBING KEYED NOTES:

P1 PIPING ROUTED THROUGH ELECTRICAL ROOM SHALL BE CONFINED TO THIS AREA ONLY. DO NOT CROSS INTO REMAINDER OF THE ROOM. DO NOT CROSS OVER ANY ELECTRICAL GEAR. PRIOR TO INSTALLATION, COORDINATE ELECTRICAL EQUIPMENT LAYOUT WITH DIV.26.

P2 BUILDING AREA ISOLATION VALVES, PROVIDE LOCAL PIPING LABEL CLEARLY INDICATING BUILDING AREA CONTROLLED BY THE VALVES WITH DESCRIPTIVE TITLE.
- ADMINISTRATION
- ELEMENTARY WING
- EC/PK WING
- KITCHEN
- LRC
- PUBLIC CLINIC

P3 ELECTRICAL AND TECHNOLOGY RESERVED AREA. NO PLUMBING PIPING SHALL ENTER OR CROSS INTO THIS AREA. COORDINATE WITH DIVISIONS 26, 27 AND 28 IN THE FIELD FOR FINAL EQUIPMENT AND PIPING LAYOUT IN AND AROUND THIS AREA.

P4 EWH ABOVE ON MEZZAINE. CW/HW/HWR INTO STAIRWELL FROM LOW ROOF AND TURNED UP TO HIGH ROOF STRUCTURE. EXTEND INTO MECHANICAL MEZZANINE PROVIDING MAXIMUM CLEARANCE ABOVE STAIRWELL.

P5 FOR ALL 2ND FLOOR VALVES IN 1ST FLOOR CEILING PLENUM, ALONG WITH ALL RESTROOM ISOLATION VALVES FOR 1ST AND 2ND LEVEL RESTROOMS IN CLOSE PROXIMITY, PROVIDE LEVEL TAGS INDICATING WHICH LEVEL EACH VALVE SERVES, IN ADDITION TO NUMBERED VALVE TAGS REQUIRED BY THE SPECIFICATIONS,
- LVL-1
- LVL-2

P6 STORM PIPING FROM LEVEL 1 CEILING PLENUM INTO SPACE BENEATH MEZZANINE STAIRCASE. TURN RDL & ODL DOWN, JOINING TOGETHER IN THE VERTICAL RISER AND EXENDING TO BELOW GRADE.

P7 MECH. MAKEUP WATER CONNECTION WITH 1.5" RPZ.

P8 1/2" CW DROP TO TP3 EXPOSED ON WALL IN MECH. ROOM.

P9 DRAIN BOX IN WALL, SIMILAR TO WASHER BOX, BUT WITHOUT WATER CONNECTIONS, FOR TERMINATION OF ICE MAKER INDIRECT WASTE.

P10 ROUTE 3/4" INDIRECT WASTE LINE FROM ICE MACHINE DRAIN CONNECTION ABOVE COUNTERTOP AND INTO WALL. SLOPE AT 2% THROUGH WALL CAVITY TURNING DOWN INTO THE TOP OF THE DBOX AND STOPPING AT 2" ABOVE INDIRECT WASTE INLET WITHIN WALL BOX. PROVIDE AIRGAP ET115-002 FITTING TO TRANSITION FROM 3/4" DRAIN LINE TO 1.5" STANDPIPE IN DBOX.

P11 ICE MACHINE VALVE BOX, INSTALLED ABOVE COUNTERTOP AND BEHIND ICE MACHINE LOCATION. MAKE FINAL CONNECTION TO ICE MACHINE WITH FLEXIBLE, 1/4" COPPER TUBING AND ADAPTER TO 1/2" NPT INLET ON EQUIPMENT. SUPPLY LINE SHALL HAVE A DRAIN VALVE LOCATED BELOW THE EQUIPMENT CONNECTION POINT AND THE VALVE OUTLET SHALL BE PIPED TO THE SAME INDIRECT WASTE DRAIN USED FOR THE ICE MACHINE DRAIN CONNECTION. BRASSCRAFT KTCR11 WITH 1/4" INLET, 3/8" OUTLET AND 3/8" DRAIN LINE TO INDIRECT WASTE INLET.

P12 DOMESTIC CW/HW/HWR TRANSITION BETWEEN 1ST AND 2ND FLOOR. REFERENCE BOTH DRAWING LEVELS FOR CONTINUATION.

TRUE NORTH
PLAN NORTH

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
TYLER W. HERRING
106052
REGISTERED ARCHITECT
10.24.2025

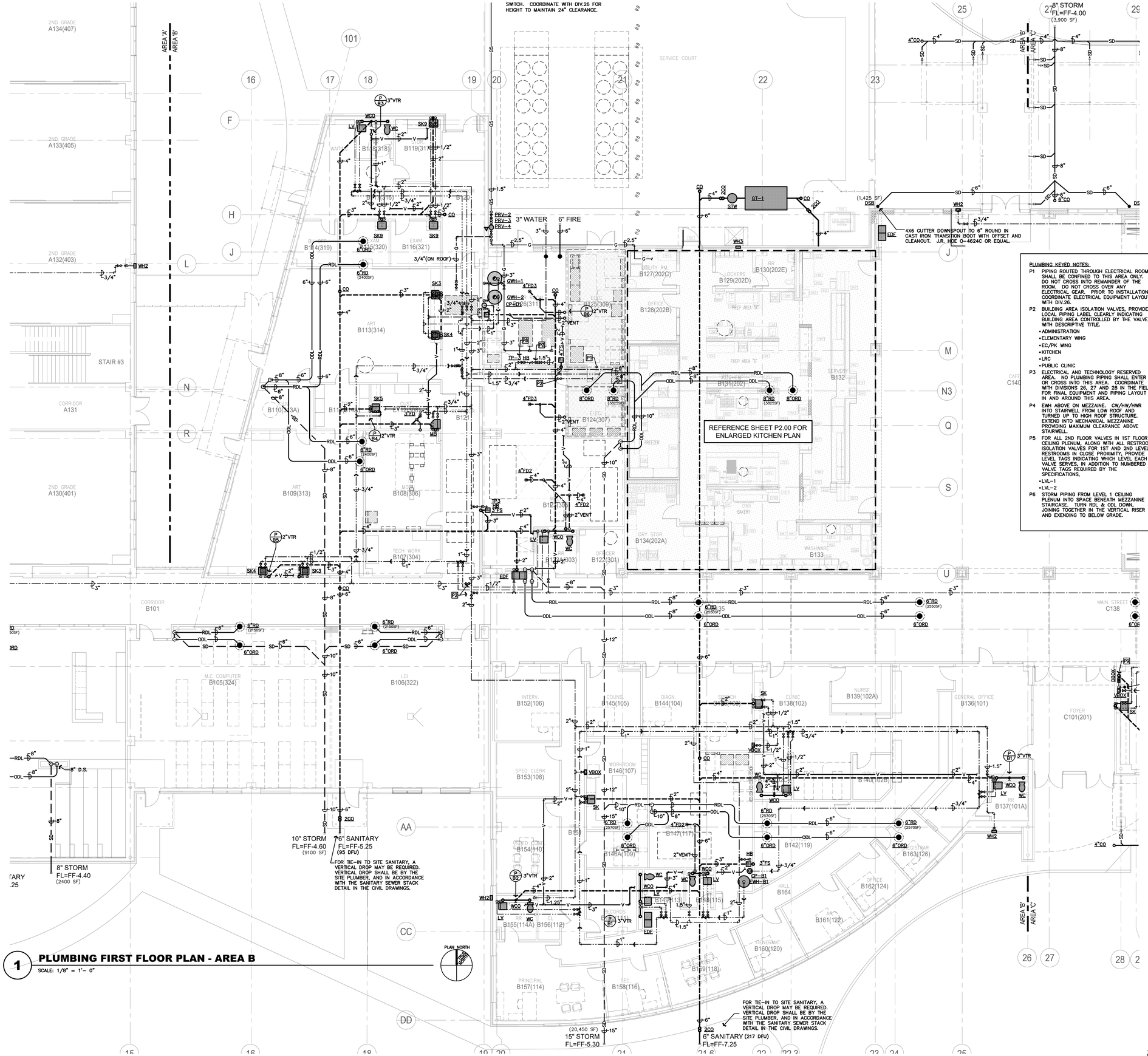
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

P1.02

PLUMBING
SECOND FLOOR PLAN
AREA A

TBPE/TBPLS FIRM REG. NO. F-013332 | ©2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



1 PLUMBING FIRST FLOOR PLAN - AREA B

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

PLAN NORTH

PLUMBING KEYED NOTES:

P1 PIPING ROUTED THROUGH ELECTRICAL ROOM SHALL BE CONFINED TO THIS AREA ONLY. DO NOT CROSS INTO REMAINDER OF THE ROOM. DO NOT CROSS OVER ANY ELECTRICAL GEAR. PRIOR TO INSTALLATION, COORDINATE ELECTRICAL EQUIPMENT LAYOUT WITH DIV.26.

P2 BUILDING AREA ISOLATION VALVES, PROVIDE LOCAL PIPING LABEL CLEARLY INDICATING BUILDING AREA CONTROLLED BY THE VALVES WITH DESCRIPTIVE TITLE.
- ADMINISTRATION
- ELEMENTARY WING
- EC/PK WING
- KITCHEN
- LRC
- PUBLIC CLINIC

P3 ELECTRICAL AND TECHNOLOGY RESERVED AREA. NO PLUMBING PIPING SHALL ENTER OR CROSS INTO THIS AREA. COORDINATE WITH DIVISIONS 26, 27 AND 28 IN THE FIELD FOR FINAL EQUIPMENT AND PIPING LAYOUT IN AND AROUND THIS AREA.

P4 EWH ABOVE ON MEZZAINE. CW/HW/HWR INTO STAIRWELL FROM LOW ROOF AND TURNED UP TO HIGH ROOF STRUCTURE. EXTEND INTO MECHANICAL MEZZANINE PROVIDING MAXIMUM CLEARANCE ABOVE STAIRWELL.

P5 FOR ALL 2ND FLOOR VALVES IN 1ST FLOOR CEILING PLENUM, ALONG WITH ALL RESTROOM ISOLATION VALVES FOR 1ST AND 2ND LEVEL RESTROOMS IN CLOSE PROXIMITY, PROVIDE LEVEL TAGS INDICATING WHICH LEVEL EACH VALVE SERVES, IN ADDITION TO NUMBERED VALVE TAGS REQUIRED BY THE SPECIFICATIONS,
- LVL-1
- LVL-2

P6 STORM PIPING FROM LEVEL 1 CEILING PLENUM INTO SPACE BENEATH MEZZANINE STAIRCASE. TURN RDL & ODL DOWN, JOINING TOGETHER IN THE VERTICAL RISER AND EXENDING TO BELOW GRADE.

P7 MECH. MAKEUP WATER CONNECTION WITH 1.5" RP2.

P8 1/2" CW DROP TO TP3 EXPOSED ON WALL IN MECH. ROOM.

P9 DRAIN BOX IN WALL; SIMILAR TO WASHER BOX, BUT WITHOUT WATER CONNECTIONS, FOR TERMINATION OF ICE MAKER INDIRECT WASTE.

P10 ROUTE 3/4" INDIRECT WASTE LINE FROM ICE MACHINE DRAIN CONNECTION ABOVE COUNTERTOP AND INTO WALL, SLOPE AT 2% THROUGH WALL CAVITY TURNING DOWN INTO THE TOP OF THE DBOX AND STOPPING AT 2" ABOVE INDIRECT WASTE INLET WITHIN WALL BOX. PROVIDE AIRGAP ET115-002 FITTING TO TRANSITION FROM 3/4" DRAIN LINE TO 1.5" STANDPIPE IN DBOX.

P11 ICE MACHINE VALVE BOX, INSTALLED ABOVE COUNTERTOP AND BEHIND ICE MACHINE LOCATION. MAKE FINAL CONNECTION TO ICE MACHINE WITH FLEXIBLE, 1/4" COPPER TUBING AND ADAPTER TO 1/2" NPT INLET ON EQUIPMENT. SUPPLY LINE SHALL HAVE A DRAIN VALVE LOCATED BELOW THE EQUIPMENT CONNECTION POINT AND THE VALVE OUTLET SHALL BE PIPED TO THE SAME INDIRECT WASTE DRAIN USED FOR THE ICE MACHINE DRAIN CONNECTION. BRASSCRAFT KTCR11 WITH 1/4" INLET, 3/8" OUTLET AND 3/8" DRAIN LINE TO INDIRECT WASTE INLET.

P12 DOMESTIC CW/HW/HWR TRANSITION BETWEEN 1ST AND 2ND FLOOR. REFERENCE BOTH DRAWING LEVELS FOR CONTINUATION.

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
TYLER W. HERRING
106052
LICENSED PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

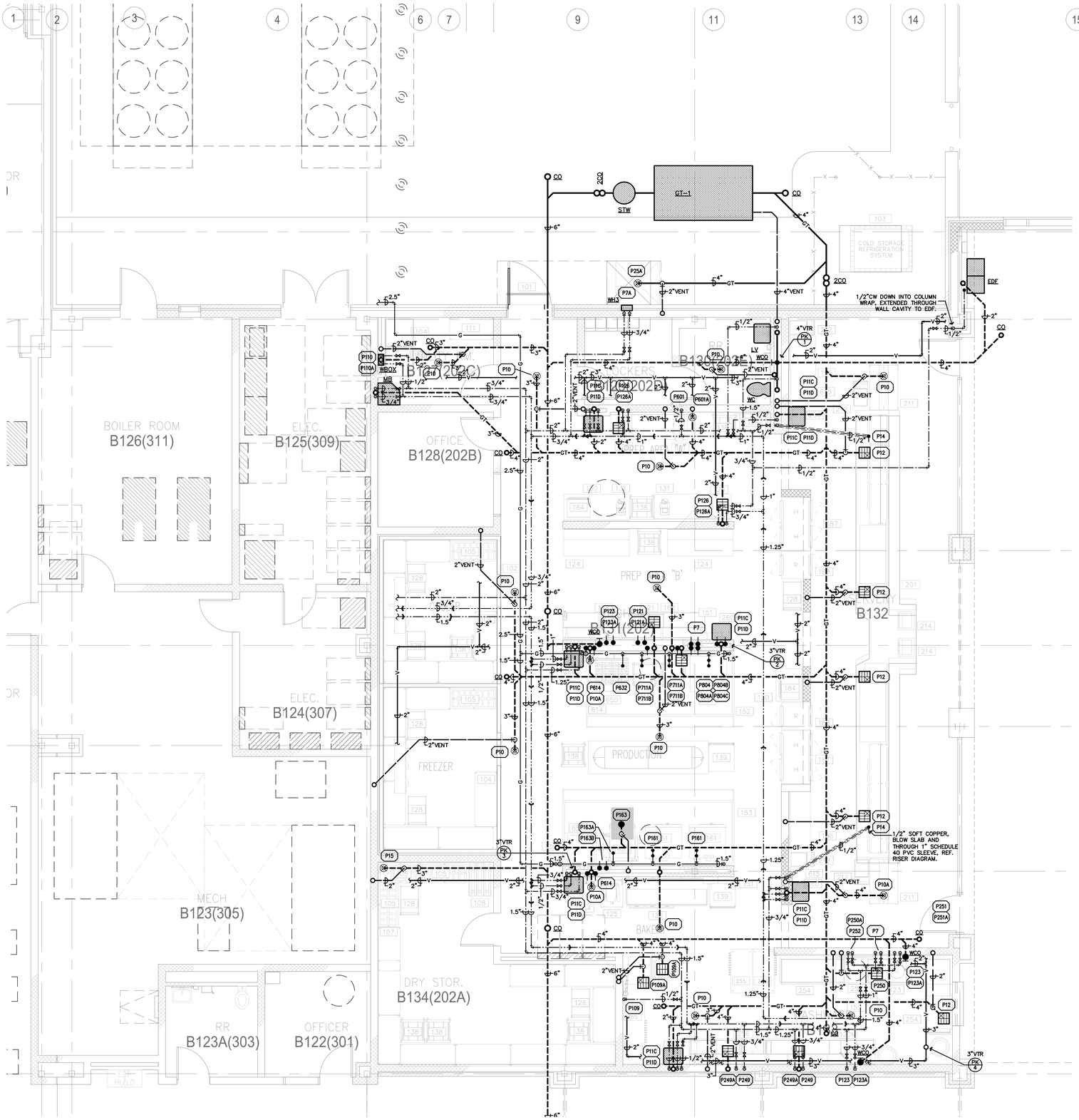
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

P1.03

PLUMBING
FIRST FLOOR PLAN
AREA B

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE CERTIFICATION #18420
(713) 300-9292
TEXAS ENGINEERING FIRM REG. NO. F-018332 | ©2025 ALL RIGHTS RESERVED
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



1 ENLARGED PLUMBING PLAN - KITCHEN
SCALE: 1/4" = 1'- 0"

PLAN NORTH

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
TYLER W. HERRING
106052
LICENSED PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

P1.03K

PLUMBING
FIRST FLOOR PLAN
AREA A

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP

THIS DRAWING AND DESIGN (713) 300-9292 TEXAS ENGINEERING FIRM REG. NO. F-11533 | ©2025 ALL RIGHTS RESERVED 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

PLUMBING KEYED NOTES:

P1 PIPING ROUTED THROUGH ELECTRICAL ROOM SHALL BE CONFINED TO THIS AREA ONLY. DO NOT CROSS INTO REMAINDER OF THE ROOM. DO NOT CROSS OVER ANY ELECTRICAL GEAR. PRIOR TO INSTALLATION, COORDINATE ELECTRICAL EQUIPMENT LAYOUT WITH DIV.26.

P2 BUILDING AREA ISOLATION VALVES. PROVIDE LOCAL PIPING LABEL CLEARLY INDICATING BUILDING AREA CONTROLLED BY THE VALVES WITH DESCRIPTIVE TITLE.
- ADMINISTRATION
- ELEMENTARY WING
- EC/PK WING
- KITCHEN
- LRC
- PUBLIC CLINIC

P3 ELECTRICAL AND TECHNOLOGY RESERVED AREA. NO PLUMBING PIPING SHALL ENTER OR CROSS INTO THIS AREA. COORDINATE WITH DIVISIONS 26, 27 AND 28 IN THE FIELD FOR FINAL EQUIPMENT AND PIPING LAYOUT IN AND AROUND THIS AREA.

P4 EWH ABOVE ON MEZZAINE. CW/HW/HWR INTO STAIRWELL FROM LOW ROOF AND TURNED UP TO HIGH ROOF STRUCTURE. EXTEND INTO MECHANICAL MEZZANINE PROVIDING MAXIMUM CLEARANCE ABOVE STAIRWELL.

P5 FOR ALL 2ND FLOOR VALVES IN 1ST FLOOR CEILING PLENUM, ALONG WITH ALL RESTROOM ISOLATION VALVES FOR 1ST AND 2ND LEVEL RESTROOMS IN CLOSE PROXIMITY, PROVIDE LEVEL TAGS INDICATING WHICH LEVEL EACH VALVE SERVES, IN ADDITION TO NUMBERED VALVE TAGS REQUIRED BY THE SPECIFICATIONS,
- LVL-1
- LVL-2

P6 STORM PIPING FROM LEVEL 1 CEILING PLENUM INTO SPACE BENEATH MEZZANINE STAIRCASE. TURN RDL & ODL DOWN, JOINING TOGETHER IN THE VERTICAL RISER AND EXENDING TO BELOW GRADE.

P7 MECH. MAKEUP WATER CONNECTION WITH 1.5" RPZ.

P8 1/2" CW DROP TO TP3 EXPOSED ON WALL IN MECH. ROOM.

P9 DRAIN BOX IN WALL, SIMILAR TO WASHER BOX, BUT WITHOUT WATER CONNECTIONS, FOR TERMINATION OF ICE MAKER INDIRECT WASTE.

P10 ROUTE 3/4" INDIRECT WASTE LINE FROM ICE MACHINE DRAIN CONNECTION ABOVE COUNTERTOP AND INTO WALL. SLOPE AT 2% THROUGH WALL CAVITY TURNING DOWN INTO THE TOP OF THE DBOX AND STOPPING AT 2" ABOVE INDIRECT WASTE INLET WITHIN WALL BOX. PROVIDE AIRGAP ET115-002 FITTING TO TRANSITION FROM 3/4" DRAIN LINE TO 1.5" STANDPIPE IN DBOX.

P11 ICE MACHINE VALVE BOX, INSTALLED ABOVE COUNTERTOP AND BEHIND ICE MACHINE LOCATION. MAKE FINAL CONNECTION TO ICE MACHINE WITH FLEXIBLE, 1/4" COPPER TUBING AND ADAPTER TO 1/2" NPT INLET ON EQUIPMENT. SUPPLY LINE SHALL HAVE A DRAIN VALVE LOCATED BELOW THE EQUIPMENT CONNECTION POINT AND THE VALVE OUTLET SHALL BE PIPED TO THE SAME INDIRECT WASTE DRAIN USED FOR THE ICE MACHINE DRAIN CONNECTION. BRASSCRAFT KTCR11 WITH 1/4" INLET, 3/8" OUTLET AND 3/8" DRAIN LINE TO INDIRECT WASTE INLET.

P12 DOMESTIC CW/HW/HWR TRANSITION BETWEEN 1ST AND 2ND FLOOR. REFERENCE BOTH DRAWING LEVELS FOR CONTINUATION.

1 **PLUMBING FIRST FLOOR PLAN - AREA C**
SCALE: 1/8" = 1'- 0"

PLAN NORTH

TRUE NORTH
PLAN NORTH

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

S. Chu Architects

Houston, Texas
281-961-0355

TYLER W. HERRING 106052 LICENSED PROFESSIONAL ENGINEER
10.24.2025

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

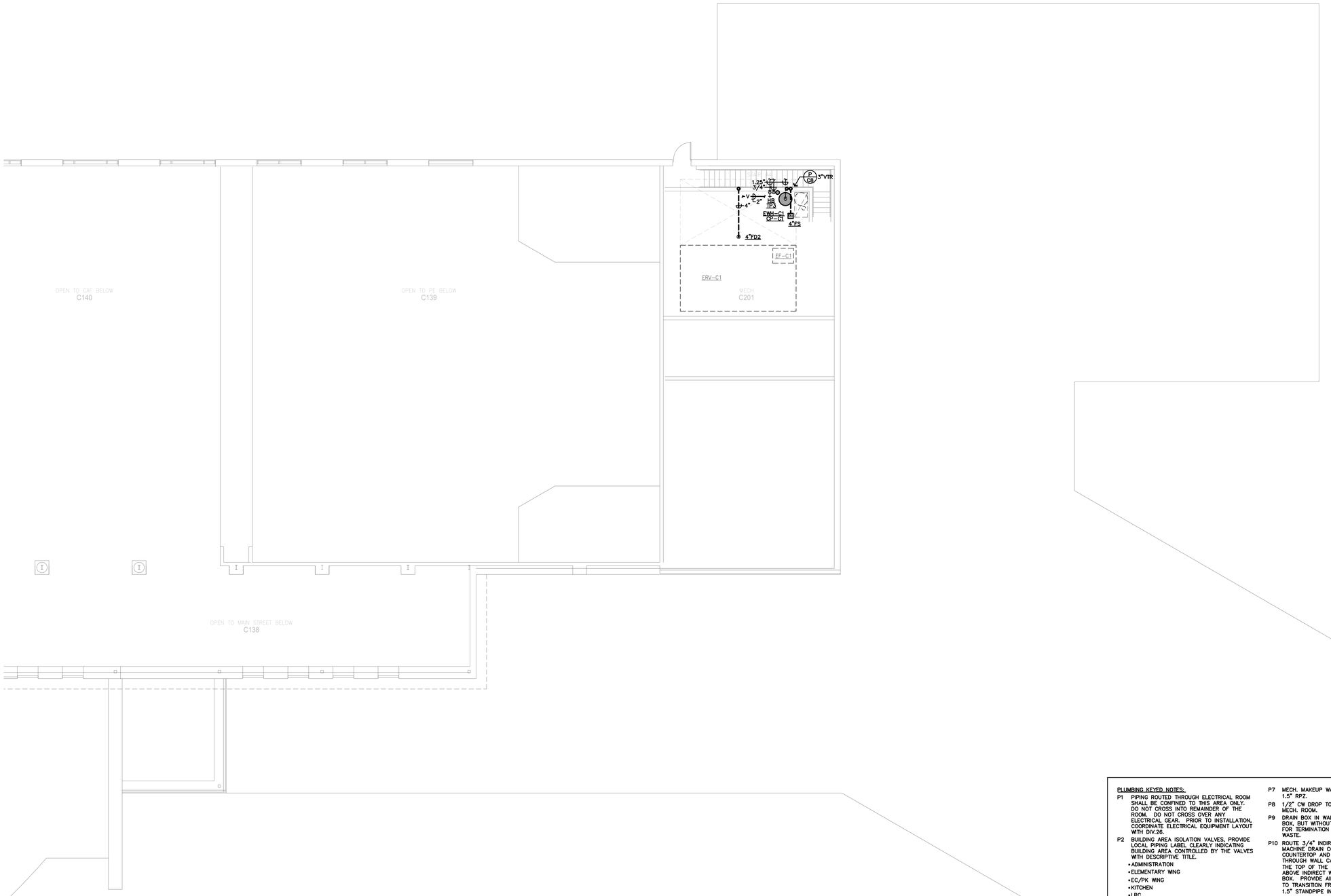
PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

P1.04

PLUMBING
FIRST FLOOR PLAN
AREA C

STANTON ENGINEERING GROUP
TBPE/REGISTRATION NUMBER: F-4715 | TBPLS/REGISTRATION NUMBER: 10194382
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042
© 2025 ALL RIGHTS RESERVED



1 PLUMBING SECOND FLOOR PLAN - AREA B & C

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

PLAN NORTH

PLUMBING KEYED NOTES:

P1 PIPING ROUTED THROUGH ELECTRICAL ROOM SHALL BE CONFINED TO THIS AREA ONLY. DO NOT CROSS INTO REMAINDER OF THE ROOM. DO NOT CROSS OVER ANY ELECTRICAL GEAR. PRIOR TO INSTALLATION, COORDINATE ELECTRICAL EQUIPMENT LAYOUT WITH DIV.26.

P2 BUILDING AREA ISOLATION VALVES, PROVIDE LOCAL PIPING LABEL CLEARLY INDICATING BUILDING AREA CONTROLLED BY THE VALVES WITH DESCRIPTIVE TITLE.
- ADMINISTRATION
- ELEMENTARY WING
- EC/PK WING
- KITCHEN
- LRC
- PUBLIC CLINIC

P3 ELECTRICAL AND TECHNOLOGY RESERVED AREA. NO PLUMBING PIPING SHALL ENTER OR CROSS INTO THIS AREA. COORDINATE WITH DIVISIONS 26, 27 AND 28 IN THE FIELD FOR FINAL EQUIPMENT AND PIPING LAYOUT IN AND AROUND THIS AREA.

P4 EWH ABOVE ON MEZZAINE. CW/HW/HWR INTO STAIRWELL FROM LOW ROOF AND TURNED UP TO HIGH ROOF STRUCTURE. EXTEND INTO MECHANICAL MEZZANINE PROVIDING MAXIMUM CLEARANCE ABOVE STAIRWELL.

P5 FOR ALL 2ND FLOOR VALVES IN 1ST FLOOR CEILING PLENUM, ALONG WITH ALL RESTROOM ISOLATION VALVES FOR 1ST AND 2ND LEVEL RESTROOMS IN CLOSE PROXIMITY, PROVIDE LEVEL TAGS INDICATING WHICH LEVEL EACH VALVE SERVES, IN ADDITION TO NUMBERED VALVE TAGS REQUIRED BY THE SPECIFICATIONS,
- LVL-1
- LVL-2

P6 STORM PIPING FROM LEVEL 1 CEILING PLENUM INTO SPACE BENEATH MEZZANINE STAIRCASE. TURN RDL & ODL DOWN, JOINING TOGETHER IN THE VERTICAL RISER AND EXENDING TO BELOW GRADE.

P7 MECH. MAKEUP WATER CONNECTION WITH 1.5" RPZ.

P8 1/2" CW DROP TO TP3 EXPOSED ON WALL IN MECH. ROOM.

P9 DRAIN BOX IN WALL, SIMILAR TO WASHER BOX, BUT WITHOUT WATER CONNECTIONS, FOR TERMINATION OF ICE MAKER INDIRECT WASTE.

P10 ROUTE 3/4" INDIRECT WASTE LINE FROM ICE MACHINE DRAIN CONNECTION ABOVE COUNTERTOP AND INTO WALL, SLOPE AT 2% THROUGH WALL CAVITY TURNING DOWN INTO THE TOP OF THE DBOX AND STOPPING AT 2" ABOVE INDIRECT WASTE INLET WITHIN WALL BOX. PROVIDE AIRGAP ET115-002 FITTING TO TRANSITION FROM 3/4" DRAIN LINE TO 1.5" STANDPIPE IN DBOX.

P11 ICE MACHINE VALVE BOX, INSTALLED ABOVE COUNTERTOP AND BEHIND ICE MACHINE LOCATION. MAKE FINAL CONNECTION TO ICE MACHINE WITH FLEXIBLE, 1/4" COPPER TUBING AND ADAPTER TO 1/2" NPT INLET ON EQUIPMENT. SUPPLY LINE SHALL HAVE A DRAIN VALVE LOCATED BELOW THE EQUIPMENT CONNECTION POINT AND THE VALVE OUTLET SHALL BE PIPED TO THE SAME INDIRECT WASTE DRAIN USED FOR THE ICE MACHINE DRAIN CONNECTION. BRASSCRAFT KTCR11 WITH 1/4" INLET, 3/8" OUTLET AND 3/8" DRAIN LINE TO INDIRECT WASTE INLET.

P12 DOMESTIC CW/HW/HWR TRANSITION BETWEEN 1ST AND 2ND FLOOR. REFERENCE BOTH DRAWING LEVELS FOR CONTINUATION.

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE FIRM REGISTRATION #16210 | TBAE ENGINEERING FIRM REG. NO. F-21753 | © 2025 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

STATE OF TEXAS
TYLER W. HERRING
106052
LICENSED PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

P1.05

PLUMBING
SECOND FLOOR PLAN
AREA C

GENERAL PLUMBING NOTES

1. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL WORK DESCRIPTION. SEE THIS SHEET (P4.00) FOR PLUMBING SYMBOLS LEGEND.
2. COORDINATE PLUMBING SYSTEMS INSTALLATION WITH ARCHITECTURAL, STRUCTURAL, HVAC SYSTEMS, ELECTRICAL SYSTEMS, CONDUITS, ETC., OFFSET PIPING AS REQUIRED TO PROVIDE A FUNCTIONING SYSTEM WITH ADEQUATE SPACE FOR SERVICING AND REPAIRS.
3. MAKE CONNECTIONS OF NEW PIPE SYSTEMS IN TO EXISTING PIPE SYSTEMS WITH THREADED OR SWEAT JOINTS. PROVIDE ELECTROLYSIS ISOLATING UNIONS AT CONNECTION OF DISSIMILAR MATERIALS. REFERENCE THE SPECIFICATIONS.
4. SITE SERVICES ARE SHOWN FOR REFERENCE ONLY. PLUMBING CONTRACTOR SHALL REFERENCE CIVIL DRAWINGS, INCLUDING LOCATIONS OF SERVICES, SIZES OF PIPES, FLOWLINE ELEVATIONS, ETC..
5. DO NOT INSTALL PLUMBING PIPING OVER ANY ELECTRICAL EQUIPMENT. REFERENCE ELECTRICAL DRAWINGS FOR LOCATIONS OF ELECTRICAL EQUIPMENT AND COORDINATE WITH ELECTRICAL SUBCONTRACTORS ACCORDINGLY. SEE DETAIL 1/MEP1D. THIS INCLUDES FIRE SPRINKLER PIPING.
6. ALL PIPES THROUGH WALLS OR FLOORS SHALL BE SLEEVED AND SEALED PER DETAIL 5/P4.01. FIRE CAULK WHERE REQUIRED. THIS INCLUDES ALL WALLS, INTERIOR AND EXTERIOR. THIS INCLUDES FIRE SPRINKLER PIPING.
7. ALL CLEANOUTS SHALL BE CONNECTED TO SANITARY LINES USING WYES AND/OR LONG RADIUS ELLS. SANITARY TEES ARE NOT ACCEPTABLE. 2" MINIMUM SIZE.
8. ALL WASTE AND VENT PIPING BELOW SLAB SHALL BE 2" MINIMUM.
9. LOCATE PLUMBING VENTS THROUGH ROOF NOT NEARER THAN SIX (6) FEET AWAY FROM EDGE OF BUILDING AND TEN (10) FEET AWAY FROM ANY FRESH AIR INTAKES. OFFSET VENT PIPING, AS REQUIRED, IN CEILING SPACE BETWEEN CEILING AND ROOF TO MEET THESE REQUIREMENTS. SEE DETAIL 3/P4.01.
10. ALL DOMESTIC WATER PIPING (CW, HW AND HWR) SHALL BE INSULATED PER THE WRITTEN SPECIFICATIONS.
11. TOP OF FLOOR DRAINS IN MECHANICAL, AHU AND BOILER ROOMS SHALL BE SET 1-1/2" BELOW FINISHED FLOOR SURFACE. CONCRETE FLOOR SHALL BE SLOPED TO DRAIN, REFERENCE ARCHITECTURAL DRAWINGS.
12. PROVIDE AN ISOLATING VALVE AT EACH WATER TAP OFF HOT AND COLD WATER MAINS TO ALLOW FOR SERVICING. VALVE SHALL BE BALL VALVE IF PIPE SIZE IS 2" OR LESS AND GATE VALVE OR BUTTERFLY VALVE IF LARGER THAN 2". SEE WRITTEN SPECIFICATIONS. VALVES SHALL BE EASILY ACCESSIBLE. PROVIDE 18" X 18", FIRE-RATED, STAINLESS STEEL ACCESS PANELS WITH HINGED, CYLINDER LOCK DOORS WHERE VALVES ARE INSTALLED ABOVE INACCESSIBLE CEILINGS OR IN WALL CHASES (MIFAB MODEL MPFR-SS-C). BALL VALVES AND BUTTERFLY VALVES INSTALLED ABOVE CEILINGS SHALL BE INSTALLED SUCH THAT HANDLE IS ON BOTTOM OF PIPE. ISOLATING WATER VALVES ABOVE CEILINGS SHALL BE INSTALLED NO MORE THAN 24" ABOVE CEILING. VALVES ABOVE INACCESSIBLE CEILINGS SHALL BE INSTALLED WITHIN REASONABLE REACH OF CEILING MOUNTED ACCESS PANEL.
13. WATER HAMMER ARRESTERS SHALL BE INSTALLED IN ADDITION TO AIR CHAMBERS PER THE RISER DIAGRAMS. SEE SPECIFICATIONS.
14. MECHANICALLY CLEAN ALL WASTE LINES WITH ROTARY MACHINE TO PROVE FREE FLOWING, SEE SPECIFICATIONS.
15. PROVIDE VENTED SLEEVE (2 PIPE SIZES LARGER THAN GAS PIPE UNLESS NOTED OTHERWISE) FOR ALL GAS PIPING IN GROUND BELOW PAVING OR SIDEWALKS AND INSIDE BUILDING IN WALLS AND IN UNVENTILATED CEILING SPACES, SEE SPECIFICATIONS.
16. GAS PIPING SHALL BE 1/2" MINIMUM. TAP GAS PIPING ON TOP OR SIDES ONLY. DO NOT INSTALL VALVES IN CEILING PLENUM OR IN ANY INACCESSIBLE LOCATION. ALL GAS VALVES SHALL BE EASILY ACCESSIBLE. REFER TO DETAIL 3/P4.00 FOR TYPICAL GAS CONNECTION INSTALLATION. REFER TO DETAIL 4/P4.00 FOR TYPICAL PRV INSTALLATION.
17. CENTER WALL HYDRANTS IN BRICK PATTERN OF EXTERIOR WALLS, REFERENCE THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
18. ALL REFRIGERATORS WITH ICE MAKERS, COMMERCIAL TYPE COFFEE MAKERS, ICE MAKERS, COFFEE VENDING MACHINES AND OTHER ITEMS PROVIDED BY OTHERS THAT REQUIRE A WATER CONNECTION SHALL HAVE A CW VALVE BOX, "VBOX", INSTALLED TO ALLOW EASY ACCESS AND REMOVAL OF MACHINE. ALSO, INSTALL IN-LINE FILTER IN WATER CONNECTION.
19. REFER TO CIVIL DRAWINGS FOR SITE SANITARY, SITE STORM SEWER, FIRE SERVICE AND DOMESTIC WATER SERVICE. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PIPING INSIDE BUILDING TO OUTSIDE LOCATIONS SHOWN ON PLUMBING DRAWINGS. PLUMBING CONTRACTOR SHALL INCLUDE COST OF FINAL TIE-INS TO SITE SERVICES.
20. PER THE DRAWINGS, ALL DRAINS (FLOOR DRAINS, FLOOR SINKS, HUB DRAINS, KITCHEN DRAINS, SHOWER DRAINS, ETC.) SHALL BE VENTED AND TRAP PRIMED – NO EXCEPTIONS. TRAP PRIMING SHALL BE ACCOMPLISHED USING WATER CLOSET FLUSH VALVE TRAP PRIMING DEVICES OR PROSET SYSTEMS TRAP GUARD SEWER GAS EMISSION PROTECTION, AS SHOWN ON DRAWINGS. REFERENCE PLUMBING FLOOR PLANS AND RISER DIAGRAMS.
21. ALL PIPING LOCATED ON ROOF (GAS PIPING) SHALL BE INSTALLED ON ROOF PIPE SUPPORTS PER DETAIL 9/P4.01, 6-FOOT ON CENTER. INSTALL ROOF PIPE JACK PER DETAIL 8/P4.01 FOR ALL PIPING THROUGH ROOF.
22. COORDINATE LOCATIONS OF ALL ROOF DRAINS AND OVERFLOW ROOF DRAINS WITH ARCHITECTURAL DRAWINGS.
23. FOR COMBINATION WASTE AND VENT SYSTEMS (LOCATED IN CENTRAL PLANT AREA), DRAIN P-TRAPS SHALL BE SIZE OF PIPE SHOWN ON DRAWINGS (I.E. TWO PIPE SIZES LARGER THAN DRAIN SIZE). FOR EXAMPLE, A 4" FLOOR DRAIN SHALL HAVE A 6" P-TRAP.
24. FOR ALL PLUMBING FIXTURES, IF COPPER PIPING IS STUBBED THROUGH WALL FOR DRAIN CONNECTION, INSTALL MARVEL FITTING AT DRAIN CONNECTION FOR EASE OF SERVICING AND REPAIRS. COPPER DRAIN PIPING WILL ONLY BE ALLOWED FOR DIRECT/STRAIGHT STUB-OUT OF FIXTURE DRAIN PIPING THROUGH WALL.
25. DO NOT INSTALL ANY PIPING BENEATH CVT OR VAV BOXES. THIS INCLUDES FIRE SPRINKLER PIPING.
26. WHERE UNDERGROUND VENT PIPE SIZE IS NOT NOTATED, VENT SHALL BE 2" DIAMETER.
27. WHERE UNDERGROUND SANITARY PIPE SIZE IS NOT NOTATED, REFER TO THE RISER DIAGRAMS FOR SIZE. NOT BELOW GRADE SANITARY PIPE SHALL BE SMALLER THAN 2". NO SANITARY LINE OR P-TRAP FOR A DRAIN/FIXTURE SHALL BE SMALLER THAN THE FIXTURE CONNECTION SIZE SHOWN ON THE DRAIN/FIXTURE SCHEDULE.
28. WHERE ABOVE GROUND VENT PIPE SIZE IS NOT NOTATED, REFER TO THE RISER DIAGRAMS FOR VENT SIZE.
29. WHERE CW/HW PIPING SIZE TO THE FIXTURE IS NOT SHOWN ON THE FLOOR PLAN, REFER TO THE RISER DIAGRAMS FOR CW/HW PIPE SIZE. NO PIPING TO FIXTURE SHALL BE SMALLER THAN THE FIXTURE CONNECTION SIZE SHOWN ON THE FIXTURE SCHEDULE.
30. ALL SANITARY PIPING SHALL BE INSTALLED WITH CONTINUOUS DOWNWARD SLOPE. SLOPE SHALL BE CONSTANT AND VERIFIED ALONG THE ENTIRE LENGTH OF THE PIPING WITH A LASER LEVEL. NO SECTION OF PIPING WITH A FLAT OR NEGATIVE SLOPE IS ALLOWED. PIPING SHALL BE INSTALLED WITH THE FOLLOWING SLOPES:
    - 30.A. 4" AND SMALLER: 1/4" DOWNWARD SLOPE PER LINEAR FOOT OF PIPING.
    - 30.B. 6" AND LARGER: 1/4" DOWNWARD SLOPE PER LINEAR FOOT OF PIPING.
    - 30.C. THE UNIFORM PLUMBING CODE ALLOWS FOR 1/8" SLOPE FOR 4" AND 6" PIPING WHEN APPROVED BY THE AJH AND WHERE 1/4" PER FOOT IS IMPRACTICAL DUE TO THE DEPTH OF THE STREET SEWER. IN ORDER TO COORDINATE WITH THE EXISTING STREET SEWER ELEVATION, ALL 6" PIPING MUST BE INSTALLED AT 1/8" PER FOOT. NO 4" PIPING SHALL BE INSTALLED WITH A SLOPE MORE SHALLOW THAN 1/4" PER FOOT. ANY 4" PIPING INSTALLED AT 1/8" SLOPE WILL BE NOT BE ALLOWED AND MUST BE REPLACED AND TRENCHES RE-SLOPED WITH NO EXCEPTION.

PLUMBING SYMBOLS LEGEND

SANITARY WASTE BELOW SLAB		FD	FLOOR DRAIN
SANITARY WASTE ABOVE SLAB		FSINK	FLOOR SINK
GT	SANITARY WASTE TO GREASE TRAP	2CO	DOUBLE SAN. CLEANOUT
V	VENT PIPING ABOVE SLAB	CO	SANITARY SEWER CLEANOUT
	VENT PIPING	WCO	WALL CLEANOUT
	DOMESTIC COLD WATER PIPING	EXIST.	EXISTING
	DOMESTIC HOT WATER PIPING	SAN.	SANITARY
	DOMESTIC HOT WATER RETURN PIPING	CW	DOMESTIC COLD WATER
TW	TEMPERED WATER PIPING	HW	DOMESTIC HOT WATER
G25	GAS SERVICE (BY LOCAL GAS CO.)	HWR	DOMESTIC HOT WATER RETURN
G5	INTERMEDIATE PRESSURE GAS PIPING (5 PSIG)	V	VENT PIPING
G	LOW PRESSURE GAS PIPING (4-8 OZ.)	WC	WATER CLOSET
D	DRAIN/RELIEF VENT PIPING	LAV	LAVATORY
A	COMPRESSED AIR PIPING	UR	URINAL
	STOP VALVE	SK	SINK
	WATTS 909 RPZ BACKFLOW PREVENTER	MB	MOP BASIN
	HOT WATER DIVERTING STATION	EDF	ELECTRIC DRINKING FOUNTAIN
		WH	WALL HYDRANT
P 2" VTR	RISER P-1, 2" VENT THROUGH ROOF	HB	HOSEBIBB
		WBOX	CLOTHES WASHER DRAIN/VALVE BOX
	GAS PRESSURE REDUCING/REGULATING VALVE	VBOX	REFRIGERATOR WATER VALVE BOX
A	COMPRESSED AIR OUTLET	VB	VACUUM BREAKER
C	LABORATORY GAS COCK	WF	WASHFOUNTAIN
AS	WATER HAMMER ARRESTER (SIOUX CHIEF SIZE)	EW	EMERGENCY EYE/FACE WASH
GT	GREASE TRAP	SHW	SHOWER
STW	SAMPLING TEST WELL	SS	SCULLERY/PAINT SINK
MH	SANITARY MANHOLE	EWH	ELECTRIC WATER HEATER
GM	GAS METER	GWH	GAS WATER HEATER
WM	WATER METER	CP	HOT WATER CIRCULATOR PUMP
ANT	ACID NEUTRALIZATION TANK	SFAN	SUPPLY FAN
ACO	ACID WASTE CLEANOUT	OV	FRESH AIR VENT
AWCO	ACID WASTE WALL CLEANOUT	AHU	AIR HANDLING UNIT
2ACO	DOUBLE ACID WASTE CLEANOUT	KSFAN	KITCHEN SUPPLY FAN
TYP.	TYPICAL	KEF	KITCHEN EXHAUST FAN
		SP	SUMP PUMP
		TMV	THERMOSTATIC MIXING VALVE

PLUMBING FIXTURE NOTES

1. ALL FIXTURES SHALL MEET WATER CONSERVATION PERFORMANCE STANDARDS MANDATED BY SENATE BILL 587. ALL FIXTURES SHALL HAVE FLOW RESTRICTION DEVICES (DRINKING FOUNTAINS SHALL BE SELF-CLOSING) TO COMPLY WITH THESE REQUIREMENTS.
2. ALL FIXTURES SHALL HAVE CONTROLS REQUIRING OPERATING FORCE NO GREATER THAN FIVE (5) POUNDS.
3. FOR LAVATORIES AND SINKS, ALL FAUCETS SHALL BE NO-LEAD SOLID BRASS, MEETING ALL REQUIREMENTS OF ANSI/NSF 61, SECTION 9 AND CERTIFIED AS SUCH. ALSO, INSTALL SYMMONS 7-210 MIXING VALVE ON HOT WATER SUPPLY SIDE OF ALL FAUCETS UNLESS HIGH TEMPERATURE LIMIT IS PROVIDED WITH FAUCET. MAXIMUM WATER TEMPERATURE FOR ALL FAUCETS THAT DELIVER HOT OR TEPID WATER SHALL BE 110°F. ALL METERING FAUCETS SHALL HAVE A MINIMUM TEN (10) SECONDS TIMED FLOW, INSTALL ELKAY EZH2O LAV-GUARD VANDAL-PROOF INSULATION KITS OVER P-TRAP, SUPPLIES, STOPS AND ALL SHARP EDGES FOR ALL SINKS AND LAVATORIES (TRAP WRAP FROM BROCAR OR PROWRAP FROM McGUIRE SHALL BE ACCEPTABLE).
4. ALL PLUMBING FIXTURES REFERENCED AS "ADA", "TAS" OR "HANDICAP COMPLIANT" SHALL MEET ALL REQUIREMENTS OF THE ADA AND THE TEXAS ACCESSIBILITY STANDARDS. IT SHALL BE THE PLUMBING CONTRACTORS RESPONSIBILITY TO MEET THESE REQUIREMENTS.
5. IN MANY CASES, FIXTURES WITH THE SAME PLUMBING DESIGNATION HAVE DIFFERENT INSTALLATION HEIGHTS – REFERENCE ARCHITECTURAL DRAWINGS FOR ALL INSTALLATION HEIGHTS AND HANDICAP FIXTURE DESIGNATIONS. FIXTURES DESIGNATED AS ADULT HANDICAP SHALL MEET ALL REQUIREMENTS OF THE ADA. FIXTURES DESIGNATED AS CHILD HANDICAP SHALL MEET ALL REQUIREMENTS OF THE TEXAS ACCESSIBILITY STANDARDS FOR THE APPROPRIATE CHILDREN'S AGE GROUP (REF. ARCH. DWGS. AND SPECIFICATIONS).

PLUMBING MATERIALS

SANITARY WASTE AND VENT

BELOW SLAB/GRADE: SCHEDULE 40, DWV PVC

ABOVE SLAB: STANDARD WEIGHT, CAST IRON, NO-HUB PIPING.

STORM DRAIN PIPING

BELOW SLAB/GRADE: SCHEDULE 40, DWV PVC

ABOVE SLAB, 8" AND UNDER: STANDARD WEIGHT, CAST IRON, NO-HUB PIPING.

ABOVE SLAB, 10" AND ABOVE: SERVICE WEIGHT, CAST IRON, BELL & SPIGOT.

NATURAL GAS

BELOW GRADE (OUTSIDE): YELLOW POLYETHYLENE PIPE WITH COATED STEEL RISER AND TRACER WIRE.

ABOVE SLAB: SCHEDULE 40 BLACK STEEL. PIPING 2.5" AND LARGER SHALL BE WELDED. PIPING 2" AND SMALLER SHALL HAVE SCREWED FITTINGS.

DOMESTIC WATER

INTERIOR, INSIDE MECHANICAL ROOMS: TYPE L COPPER WITH SOLDER TYPE WROUGHT COPPER FITTINGS, MADE UP WITH LEAD-FREE SOLDER OR PRESS-TYPE JOINTS.

INTERIOR, ABOVE CEILING: TYPE L COPPER WITH SOLDER TYPE WROUGHT COPPER FITTINGS, MADE UP WITH LEAD-FREE SOLDER OR PRESS-TYPE JOINTS.

EXTERIOR: TYPE K COPPER WITH SWEAT FITTINGS AND LEAD-FREE SOLDER. BEYOND 5 FEET FROM BUILDING, SCHEDULE 40 PVC.

ENERGY CODE COMPLIANCE NOTES

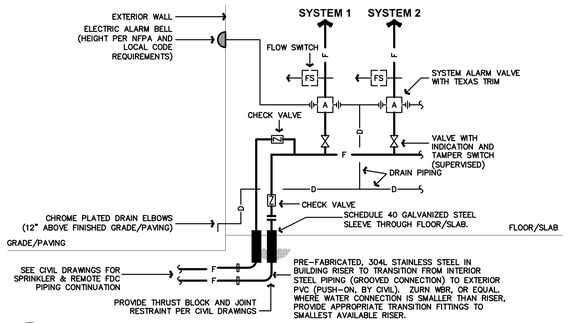
1. ALL HEATED WATER SUPPLY PIPING CONFORMS TO THE PIPE LENGTH AND VOLUME REQUIREMENTS AS ESTABLISHED BY THE IECC-2021. REFERENCE FLOOR PLANS AND RISER DIAGRAMS FOR GRAPHICAL REPRESENTATION OF THE HOT WATER PIPING ARRANGEMENT.
2. ALL PIPING SHALL BE INSULATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE IECC-2021, SECTION 403 AND TABLE C403.12.3. THE DIVISION 22 SPECIFICATIONS GIVE SPECIFIC INSULATION REQUIREMENTS THAT ARE IN CONFORMANCE WITH THIS REQUIREMENT.

PLUMBING DRAINS, CLEANOUTS AND HYDRANTS

MARK	MIN. CONNECTION SIZES (IN.) SAN	VENT	CW	HW	DESCRIPTION/SPECIFICATION FOR FIXTURE OR EQUIPMENT
FD	4	2	1/2	–	TOILET FLOOR DRAIN – TWO-PIECE CAST IRON WITH SEEPAGE FLANGE, REVERSIBLE CLAMPING COLLAR, 6" SQUARE, NICKEL BRONZE STRAINER AND SECURITY SCREWS – JR SMITH MODEL 2005-03-W06NB-U. PROVIDE JRSMITH 2692 QUAD CLOSE TRAP SEAL IN LIEU OF TRAP PRIMER TAP.
FD2	4	2	–	–	EQUIPMENT FLOOR DRAIN – CAST IRON, MEDIUM DEPTH DRAIN WITH FLANGE, CLAMPING DEVICE, SEEPAGE OPENINGS, DUCTILE IRON TRUE-FIT SEDIMENT BUCKET WITH 12" STAINLESS STEEL RIM LESS GRATE AND WADE TRAP SEAL DEVICE IN LIEU OF TRAP PRIMER TAP WADE MODEL 1210-TD-304-TSD. DRAIN SHALL BE DESIGNED SUCH THAT GRATE CANNOT BE INSTALLED WITHOUT SEDIMENT BUCKET.
FD3	4	2	–	–	GRATED MECHANICAL ROOM FLOOR DRAIN – CAST IRON WITH FLANGE, SEEPAGE OPENINGS, 9" HEAVY-DUTY DUCTILE IRON GRATE WITH STAINLESS STEEL VENEER, CLAMPING DEVICE AND WADE TRAP SEAL DEVICE IN LIEU OF TRAP PRIMER TAP WADE MODEL 1310-304-TSD.
FD4	4	2	–	–	GENERAL PURPOSE DRAIN – TWO-PIECE CAST IRON WITH SEEPAGE FLANGE, REVERSIBLE CLAMPING COLLAR, 6" SQUARE, 1/2" TRAP PRIMER TAP, NICKEL BRONZE STRAINER AND SECURITY SCREWS – JR SMITH MODEL 2005-03-C06NB-P050-U.
FD5	4	2	–	–	CANWASH FLOOR DRAIN SHALL BE SIMILAR TO FD2 EXCEPT ALL GALVANIZED, INCLUDING TRACTOR GRATE AND SEDIMENT BUCKET WADE MODEL 1210-27-39. SEE SHEET P3.00.
FD6	4	2	–	–	KITCHEN FLOOR DRAINS SHALL BE SIMILAR TO FD EXCEPT WITH 6" SQUARE, BRONZE GRATE JR SMITH MODEL 2005-03-K06PB-P050-U. PROVIDE 4" DIAMETER STAINLESS STEEL FUNNEL WHERE SHOWN ON DRAWINGS. REFERENCE KITCHEN CONNECTION SCHEDULE ON PLUMBING RENOVATION FLOOR PLAN SHEET.
HD	3	2	–	–	ADJUSTABLE HUB TYPE FLOOR DRAIN – TWO-PIECE CAST IRON WITH SEEPAGE FLANGE, REVERSIBLE CLAMPING COLLAR, 4" DIAMETER CAST IRON HUB TOP WADE 1000-HD
FS KITCHEN FS	VARIES	2	–	–	FLOOR SINK – CAST IRON, 8" DEEP SUMP, A.R.E. INTERIOR, INTEGRAL FLANGE FOR SUPPORT, CLAMPING DEVICE WHERE VAPOR BARRIER IS INSTALLED BETWEEN SLAB AND CONCRETE BEDDING FOR FLOOR, ALUMINUM SECONDARY DOME STRAINER AND 12" SQUARE HEAVY-DUTY STAINLESS STEEL TRACTOR DUTY FRAME WITH 3/4-TRACTOR GRATE AND 12" SQUARE HEAVY-DUTY TRACTOR TRAP PRIMER TAP JR SMITH MODEL 3150Y-04-C-13
FS2	6	2	–	–	LARGE FLOOR SINK – CAST IRON, 12" DEEP SUMP, A.R.C. INTERIOR, INTEGRAL FLANGE FOR SUPPORT, CLAMPING DEVICE WHERE VAPOR BARRIER IS INSTALLED BETWEEN SLAB AND CONCRETE BEDDING FOR FLOOR, ALUMINUM SECONDARY DOME STRAINER AND 16" SQUARE HEAVY DUTY CAST IRON TRACTOR DUTY FRAME WITH 3/4-TRACTOR GRATE AND WADE TRAP SEAL DEVICE IN LIEU OF TRAP PRIMER TAP WADE MODEL 9170-64-6NH-TSD-VP-16-26
CO	VARIES	–	–	–	FLOOR CLEANOUT – ADJUSTABLE EXTENSION HOUSING, CAST IRON FERRULE WITH FULL-LINE-SIZE BRASS PLUG (UP TO 4"), 5" DIAMETER STAINLESS STEEL ACCESS COVER WITH VANDAL-PROOF SECURITY SCREWS, ROUND FRAME AND TOP STYLE COMPATIBLE WITH FLOOR TYPE (REFERENCE ARCHITECTURAL DRAWINGS FOR FLOOR TYPES) WADE 6000-85-118-VP. PROVIDE CARPET FLANGE/FRAME MATERIALS (CARPET MARKER SHALL NOT BE ACCEPTABLE) AND TERRAZZO RECESS FOR TERRAZZO FLOORS. CLEANOUTS WITH GASKETED COVER IN LIEU OF INTERNAL PLUG ARE NOT ACCEPTABLE. CLEANOUT – SAME AS TYPE "CO" EXCEPT WITH HEAVY-DUTY NICKEL BRONZE TOP WADE MODEL 6000-12-VP. INSTALL 18" X 18" X 6" THICK CONCRETE PAD AROUND EACH OUTDOOR CLEANOUT.
WCO	VARIES	–	–	–	WALL CLEANOUT – CAST IRON FERRULE WITH COUNTERSUNK HEAD (FULL-LINE-SIZE PVC PLUG UP TO 4") ZURN MODEL Z-1440. ACCESS COVER SHALL BE 8" SQUARE, SURFACE MOUNT, FLUSH INSTALLATION, NICKEL BRONZE WITH POLISHED FINISH AND RECESSED DOOR WITH BEVELED EDGE AND VANDAL-PROOF SCREWS WADE 8303-85-VP. WALL CLEANOUT ACCESS SHALL BE INSTALLED CENTERED ON AND WITHIN 2" OF ACCESS PANEL. INSIDE CABINETWORK WHERE CLEANOUT IS NOT VISIBLE, ACCESS PANEL MAY BE ROUND STAINLESS STEEL WITH VANDAL-PROOF CENTER SCREW WADE 8304-6-85-VP. WALL CLEANOUTS SERVING RESTROOM FIXTURES SHALL BE SET ABOVE THE FLOOD RIM OF THE HIGHEST UPSTREAM FIXTURE.
2CO	4	–	–	–	DOUBLE CLEANOUTS – SAME AS OUTDOOR CLEANOUTS. INSTALLED FOR TWO-WAY RODDING. SINGLE CLEANOUT WITH 2-WAY FITTING IS NOT ACCEPTABLE, PROVIDE TWO SEPARATE CLEANOUTS. INSTALL 18" X 18" X 6" THICK CONCRETE PAD AROUND EACH OUTDOOR CLEANOUT.
HB	–	–	3/4	–	HOSEBIBB – 3/4" HOSE THREAD, INTEGRAL VACUUM BREAKER SPOUT, ROUGH CHROME FINISH WITH REMOVABLE KEYED HANDLE, WALL FLANGE CHICAGO MODEL 952.
WH	–	–	3/4	–	RESTROOM WALL HYDRANT – NARROW WALL, WARM CLIMATE TYPE HOSE BOX, QUARTER-TURN WHEEL HANDLE, ASSE APPROVED ANTI-SIPHON INTEGRAL VACUUM BREAKER AND DUAL CHECK VALVE, 3/4" STRAIGHT INLET HOSE CONNECTION, CAST STAINLESS STEEL HYDRANT BOX, FLUSH MOUNTED 16-GAUGE STAINLESS STEEL FRAME AND 180° DROP DOWN DOOR WITH KEY LOCK AND WALL CLAMP JR SMITH MODEL 5516
WH2	–	–	3/4	–	EXTERIOR WALL HYDRANT – NON-FREEZE HOSE BOX, QUARTER-TURN WHEEL HANDLE, ASSE APPROVED ANTI-SIPHON INTEGRAL VACUUM BREAKER AND DUAL CHECK VALVE, 3/4" STRAIGHT INLET HOSE CONNECTION, CAST STAINLESS STEEL HYDRANT BOX, FLUSH MOUNTED 16-GAUGE STAINLESS STEEL FRAME AND 180° DROP DOWN DOOR WITH KEY LOCK AND WALL CLAMP JR SMITH MODEL 5519
WH3	–	–	3/4	3/4	CANWASH WALL HYDRANT – NON-FREEZE HOSE BOX WITH STRAIGHT INLET CONNECTION, HOT AND COLD WATER SWEAT INLET CONNECTIONS, INTEGRAL REMOVABLE KEYED HANDLE, ASSE APPROVED ANTI-SIPHON INTEGRAL VACUUM BREAKER AND DUAL CHECK BACKFLOW PREVENTER WITH 3/4" HOSE CONNECTION, HEAVY DUTY BRASS CASING, POLISHED BRONZE HYDRANT BOX WITH HINGED COVER, "WATER" CAST ON COVER, DRIP LIP AND WALL CLAMP J.R. SMITH MODEL 5560-QT-WC-H-T-PB.
VBOX	–	–	1/2	–	CW VALVE BOX – 7" X 7" STAINLESS STEEL RECESSED BOX WITH ANGLE VALVE AND WATER HAMMER ARRESTER FOR CONNECTION TO APPLIANCE GUY GRAY MODEL SSMIB6AB.
WBOX	2	2	3/4	3/4	CLOTHES WASHER DRAIN/VALVE BOX – HEAVY-GAUGE GALVANIZED STEEL CONSTRUCTION, RECESSED IN WALL, VALVE AND DRAIN CONNECTIONS, WATTS DUO-CLOZ VALVE WITH SHOCK ARRESTERS. GUY GRAY MODEL WB-200HA.
DBOX	2	2	3/4	3/4	IN-WALL DRAIN BOX – HEAVY-GAUGE GALVANIZED STEEL CONSTRUCTION, RECESSED IN WALL, DRAIN CONNECTIONS GUY GRAY MODEL WB-200, WITHOUT WATER VALVES.
TP1	–	–	1/2	–	FLUSH VALVE TRAP PRIMER – VACUUM BREAKER TUBE FOR FLUSH VALVE WITH TRAP PRIMING CONNECTION; USE IN LIEU OF FLUSH TUBE PROVIDED WITH VALVE. SLOAN VBF-72-A1 TRAP PRIMER SHALL CERTIFIED TO ASSE 1044.
TP2	–	–	1/2	–	LAVATORY TAIL PIECE TRAP PRIMER – 1.5" P-TRAP AND TAIL PIECE WITH TRAP PRIMING TAP, FLEXIBLE TRAP PRIMER TUBE, 1/2" TUBING ADAPTER AND CHROME PLATED WALL ESCUTCHEON; ASSE 1044 LISTED FOR USE AS A TRAP SEAL PRIMING DEVICE. PPP MODEL LTP-1500.
TP3	–	–	1/2	–	TRAP PRIMER VALVE – MI-FAB M-500 SERIES WITH 3PSI ACTIVATION PRESSURE, REMOVABLE FILTER SCREEN AND BUILT-IN AIR GAP. IN ADDITION, PROVIDE MIFAB M-DU DISTRIBUTION UNIT WHERE NOTED ON RISER DIAGRAMS. TRAP PRIMER SHALL CERTIFIED TO ASSE 1018.

PLUMBING FIXTURES

MARK	MIN. CONNECTION SIZES (IN.) SAN	VENT	CW	HW	DESCRIPTION/SPECIFICATION
WC	4	2	1	–	WATER CLOSET – WALL MOUNTED, WHITE VITREOUS CHINA, SIPHON JET ACTION, 1.28 GPF, ELONGATED BOWL, TOP SPUD, ADA/TAS COMPLIANT, ANTIMICROBIAL GLAZE SLOAN MODEL ST-2459-STG; SLOAN ROYAL 111-1.28 FLUSH VALVE WITH VANDAL-PROOF FREE-SPINNING TOP CAP, 1.28 GPF, VANDAL-PROOF STOP AND ADA/TAS COMPLIANT LEVER ACTUATOR WITH LEVER INSTALLED ON LEFT SIDE (FOR FIXTURES DESIGNATED AS "HANDICAP", INSTALL LEVER ON "WIDE-SIDE" OF TOILET STALL); BEMIS 1655-SSTL EXTRA HEAVY-DUTY, WHITE, OPEN FRONT SEAT LESS COVER WITH SELF-SUSTAINING, STAINLESS STEEL CHECK HINGE; AND, FLOOR MOUNTED CARRIER.
WC2	4	2	1	–	WATER CLOSET, YOUTH HEIGHT – SAME AS TYPE "WC" EXCEPT INSTALLED AT THE TAS/ADA ACCEPTED HEIGHT FOR THE APPROPRIATE AGE GROUP. REFERENCE THE ARCHITECTURAL ELEVATIONS FOR APPROVED INSTALLED HEIGHT. PROVIDE OFFSET FLUSH TUBE FOR ALL ADA STALLS SO THAT FLUSH VALVE DOES NOT INTERFERE WITH GRAB BAR.
WC3	4	2	1	–	BABY BOWL WATER CLOSET – FLOOR MOUNTED, WHITE VITREOUS CHINA, SIPHON JET ACTION, 1.28 GPF, ELONGATED BOWL, TOP SPUD, ADA/TAS COMPLIANT, SLOAN ST-2309-STG; SLOAN ROYAL 115-1.28 FLUSH VALVE WITH VANDAL-PROOF FREE-SPINNING TOP CAP, 1.28 GPF, VANDAL-PROOF STOP AND ADA/TAS COMPLIANT LEVER INSTALLED ON LEFT SIDE (FOR FIXTURES DESIGNATED AS "HANDICAP", INSTALL LEVER ON "WIDE-SIDE" OF TOILET STALL); BEMIS BB995CT TODDLER SEAT, WHITE, OPEN FRONT SEAT LESS COVER, STAINLESS STEEL HINGE. PROVIDE OFFSET FLUSH TUBE FOR ALL INSTALLATIONS WHERE FLUSH VALVE INTERFERES WITH HANDICAP GRAB BAR.
UR	2	2	3/4	–	URINAL – WALL MOUNTED, WHITE VITREOUS CHINA, WASHOUT ACTION, 0.5 GPF, MINIMUM 14" ELONGATED RIM, EXTENDED PRIVACY SHIELDS, 3/4" TOP SPUD, ADA/TAS COMPLIANT, ANTIMICROBIAL GLAZE, VANDAL RESISTANT STRAINER SLOAN SU-1009-STG; SLOAN ROYAL 186-0.5 FLUSH VALVE WITH VANDAL-PROOF TOP CAP, VANDAL-PROOF STOP AND ADA/TAS COMPLIANT LEVER ACTUATOR, WITH LEVER INSTALLED ON LEFT SIDE; AND, FLOOR MOUNTED CHAIR CARRIER.
LV	1-1/2	1-1/2	1/2	1/2	LAVATORY – WALL HUNG, WHITE VITREOUS CHINA, FRONT OVERFLOW, SELF-DRAINING DECK AREA, 4" CENTERSET, 20" X 18", ADA/TAS COMPLIANT SLOAN SS-3003-4; CHROME PLATED, ALL CAST BRASS CONSTRUCTION, ADA/TAS COMPLIANT, VANDAL-PROOF, METERING/TEMPERATURE SELECTION FAUCET WITH INTEGRAL ADJUSTABLE STOPS AND 12" GOOSENECK SPOUT, ADJUSTABLE PEDAL-PROOF 0.5 GPM AERATOR AND CERTIFIED FOR MEETING ALL REQUIREMENTS OF NSF 61 SECTION 9 SYMMONS SCOT MODEL S-60-H-VP; CHROME PLATED, 17-GAUGE CAST BRASS GRID DRAIN WITH WHEELCHAIR OFFSET FITTING, CHROME PLATED, 17-GAUGE CAST BRASS P-TRAP WITH CLEANOUT PLUG; CHROME PLATED, CAST BRASS, LOOSE KEY ANGLE STOP WITH CHROME PLATED COPPER RISER; TRUEBRO HANDI LAV-GUARD VANDAL-PROOF, WHITE INSULATION KITS; AND, FLOOR MOUNTED, CONCEALED ARMS CARRIER. PROVIDE ASSE 1070 LISTED MIXING VALVE, REF. DETAIL 2/P4.01.
LV2	1-1/4	1-1/4	1/2	1/2	STUDENT LAVATORY – SIMILAR TO LV, BUT INSTALLED AT TAS/ADA RECOMMENDED HEIGHT FOR THE APPROPRIATE AGE GROUP. REFERENCE THE ARCHITECTURAL ELEVATIONS FOR CORRECT HEIGHT.
LV3	1-1/4	1-1/4	1/2	1/2	FOOD SERVICE LAVATORY – WALL HUNG, STAINLESS STEEL, 4" CENTERSET WALL MOUNT DRILLING, 14"W X 10" BOWL, 5" DEEP, 7.25" HIGH SIDE SPLASHES, WALL BRACKET ACCESSORY ADVANCE TABCO 7-PS-66-NF; CHROME PLATED, ALL CAST BRASS CONSTRUCTION, ADA/TAS COMPLIANT, MANUAL LEVER FAUCET WALL MOUNT WITH 4" CENTERS HOT/COLD WATER INDEXES, 3.5" GOO

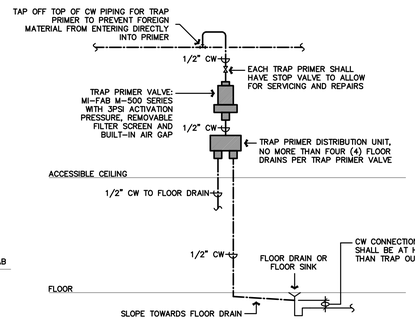


10 FIRE SPRINKLER SYSTEM RISER SCHEMATIC (FSR)

NO SCALE

NOTES

1. NUMBER OF FIRE SPRINKLER ZONES/SYSTEMS, PIPING SIZES AND ALL OTHER CRITERIA SHALL BE GOVERNED BY THE NFPA AND ALL OTHER LOCAL CODES AND REQUIREMENTS.
2. ENTIRE BUILDING SHALL BE FIRE SPRINKLERED.
3. SEE WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. TEST VALVES SHALL NOT BE LOCATED EXPOSED IN FINISHED ROOMS. IF TEST VALVE IS REQUIRED IN FINISHED ROOM, PIPING AND VALVE SHALL BE INSTALLED IN WALL WITH 12-GAUGE STAINLESS STEEL ACCESS PANEL WITH CYLINDER LOCK TO ACCESS TEST VALVE. TEST VALVES SHALL NOT BE LOCATED (UNDER ANY CIRCUMSTANCES) IN GIRLS/WOMENS RESTROOM OR LOCKER AREAS.
5. IN AREAS WITH CEILINGS, ALL SPRINKLER HEADS SHALL BE CONCEALED TYPE AND CENTERED IN CEILING TILE. FOR EACH SPRINKLER HEAD, TAP TOP OF FIRE SPRINKLER MAIN/BRANCH AND INSTALL SWING JOINT.
6. DOUBLE CHECK ASSEMBLY AND PIV ARE LOCATED OUTSIDE OF THE BUILDING. REFERENCE CIVIL ENGINEERS DRAWINGS FOR LOCATION.
7. SLEEVE AND SEAL ALL PIPING THROUGH WALLS PER DETAIL 5/P4.01.
8. PROVIDE PRE-FABRICATED, 304L STAINLESS STEEL IN BUILDING RISER TO TRANSITION FROM INTERIOR COPPER PIPING (GROOVED CONNECTION) TO EXTERIOR PVC (PUSH-ON, BY CIVIL). ZURN WBR, OR EQUAL. WHERE WATER CONNECTION IS SMALLER THAN RISER, PROVIDE APPROPRIATE TRANSITION FITTINGS TO SMALLEST AVAILABLE RISER.



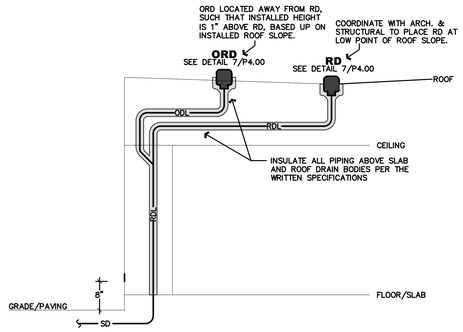
(MECHANICAL - TP)

9 TRAP PRIMING MANIFOLD DETAIL

NO SCALE

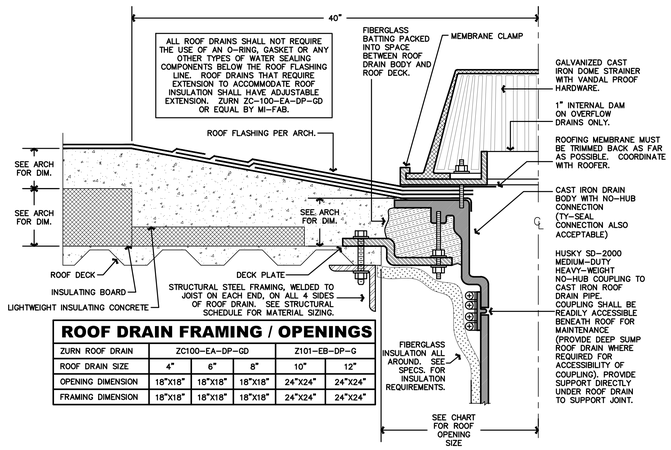
NOTES:

1. IF TRAP PRIMER VALVE AND DISTRIBUTION UNIT ARE INSTALLED ABOVE AN INACCESSIBLE CEILING OR INSIDE A PLUMBING CHASE, INSTALL ACCESS PANEL IN CEILING/WALL TO ALLOW FOR SERVICING AND REPAIRS. ACCESS PANELS SHALL HAVE SAME FIRE-RATING AS CEILINGS/WALLS THAT THEY ARE INSTALLED IN, IF REQUIRED. ACCESS PANELS SHALL HAVE HINGED AND LOCKABLE (KEYED CYLINDER LOCKS ALL KEYED ALIKE) DOORS, MINIMUM 12-GAUGE STAINLESS STEEL CONSTRUCTION.
2. FOR ELECTRONIC TRAP PRIMERS, REFERENCE SCHEDULE ON SHEET P3.00.
3. FOR MECHANICAL TRAP PRIMERS, REFERENCE MARK TP ON PLUMBING DRAINS, HYDRANTS SCHEDULE.



8 ROOF DRAIN PIPING DETAIL

NO SCALE



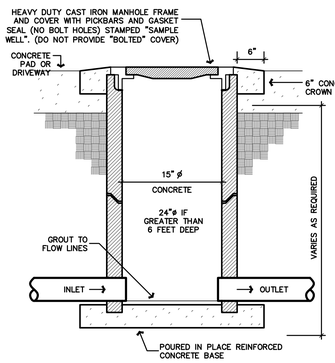
ROOF DRAIN FRAMING / OPENINGS					
ZURN ROOF DRAIN	ZC100-EA-DP-GD			Z101-EB-DP-G	
ROOF DRAIN SIZE	4"	6"	8"	10"	12"
OPENING DIMENSION	18"X18"	18"X18"	18"X18"	24"X24"	24"X24"
FRAMING DIMENSION	18"X18"	18"X18"	18"X18"	24"X24"	24"X24"

7 ROOF DRAIN DETAIL

NO SCALE

NOTES:

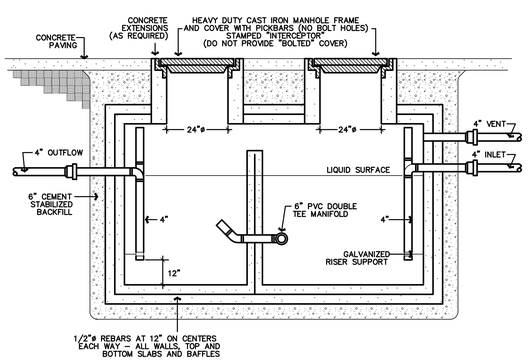
1. PLUMBING CONTRACTOR SHALL CUT THE OPENINGS FOR THE ROOF DRAINS IN THE ROOF DECK BEFORE THE INSULATION BOARD AND TOP LAYER OF LIGHTWEIGHT CONCRETE ARE INSTALLED.
2. STRUCTURAL SHALL PROVIDE FRAMING FOR ROOF DRAIN OPENING. PLUMBING CONTRACTOR SHALL COORDINATE WITH STRUCTURAL FOR SIZE AND LOCATION OF FRAMING.
3. OVERFLOW ROOF DRAINS SHALL BE PROVIDED WITH A 1" INTERNAL OVERFLOW COLLAR. DRAINS SHALL BE LOCATED SUCH THAT THE TOP OF COLLAR IS 2" TO 2.5" ABOVE THE INLET ELEVATION OF THE ADJACENT ROOF DRAIN. ELEVATION DIFFERENCE MUST BE FROM ROOF SLOPE & OVERFLOW COLLAR. A 2" COLLAR ONLY IS NOT ACCEPTABLE. LOCATE OVERFLOW DRAIN AWAY FROM ROOF DRAIN, 1" UP THE SLOPE OF ROOF, AS INDICATED ON THE FLOOR PLANS. COORDINATE EXACT LOCATION AND SLOPES WITH ROOFER PRIOR TO ROUGH-IN.



6 SAMPLE TEST WELL DETAIL (STW)

NO SCALE

NOTES:



5 GREASE TRAP DETAIL (GT)

NO SCALE

NOTES: IF GREASE TRAP IS SET IN UNPAVED AREA, MANHOLE COVERS SHALL BE INSTALLED IN 6" THICK CONCRETE PADS (MINIMUM 6" LARGER DIAMETER THAN MANHOLE COVER) CROWNED TO SHED WATER. ALSO, DOUBLE CLEANOUTS SHALL BE INSTALLED IN 6" THICK CONCRETE PADS PER THE WRITTEN SPECIFICATIONS.

PLUMBING CONTRACTOR SHALL CLEAN AND PUMP OUT ALL SAND AND DEBRIS INSIDE GREASE TRAP AT SUBSTANTIAL COMPLETION OF PROJECT.

GREASE TRAP CALCULATIONS			
FIXTURE	QUANTITY	DFU(EA)	TOTAL DFU
FLOOR DRAIN/SINK WITH 3" TRAP	12	6	72
INDIRECT WASTE LINE - 2" ARM	2	4	8
INDIRECT WASTE LINE - 1.5" ARM	8	3	24
DISHWASHER	1	4	4
HAND SINK WITH 1.25" TRAP	7	2	14
TOTAL DFU			126 DFU

NOTES:

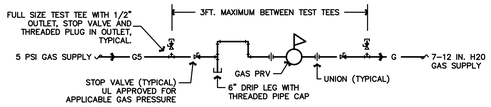
1. CALCULATIONS ARE IN ACCORDANCE WITH CHAPTER 1014.3.6 & TABLE 702.1 OF THE 2021 UPC W/CITY OF HOUSTON AMENDMENTS FOR THE SIZING REQUIREMENTS.

GREASE TRAP SCHEDULE (GT)	
LOCATION	CENTRAL PLANT
ACTUAL FIXTURE DFU	126 DFU
MAXIMUM ALLOWED DFU	172 DFU
CAPACITY (GAL)	1,500 GAL
GREASE CAPACITY (LBS)	3,500 LBS
SIZE (L X W X H)	9'-2" X 5'-8" X 7'-0"
PARK EQUIPMENT MODEL	GT-1500

NOTES:

1. GREASE TRAP SHALL BE CONSTRUCTED OF 4000 PSI REINFORCED CONCRETE AND DESIGNED FOR H-20 TRUCK LOADING.
2. GREASE TRAP SIZING IS BASED UPON TOTAL DRAINAGE FIXTURE UNITS OF ALL KITCHEN FIXTURES AND A 30 MINUTE RETENTION TIME, SIZING METHOD COMPLIES WITH REQUIREMENTS OF THE 2021 UPC AND 2021 IPC.

GAS PRV SCHEDULE				
MARK	PRV-1	PRV-2	PRV-3	PRV-4
LOCATION	MECH. YARD	ROOF	MECH. YARD	MECH. YARD
SERVES	BOILERS/GWH	KITCHEN	EM. GENERATOR	RTU-D3
GAS LOAD	3399 CFH	918 CFH	2115 CFH	80 CFH
DISTANCE FROM METER	75 FT	75 FT	25 FT	75 FT
DISTANCE TO LAST OUTLET	75 FT	175 FT	5 FT	80 FT
INLET (SIZE/PRESSURE)	1.5" / 5PSI	1" / 5PSI	1.5" / 5PSI	3/4" / 5PSI
OUTLET (SIZE/PRESSURE)	2.5" / 7-11"WC	1.5" / 7-11"WC	3" / 7-11"WC	3/4" / 7-11"WC

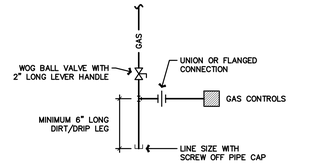


4 GAS PRESSURE REGULATOR DETAIL (PRV)

NO SCALE

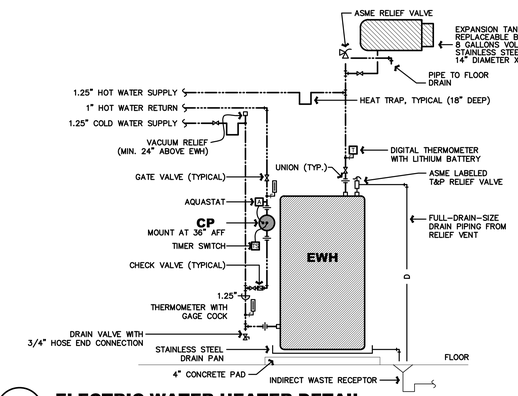
NOTES:

1. GAS REGULATOR SHALL BE ANSI Z21.80 CERTIFIED FOR LINE PRESSURE REGULATION BETWEEN THE SERVICE REGULATOR AND CONNECTED EQUIPMENT.
2. ALL GAS REGULATORS WITH INLET PRESSURE ABOVE 2 PSI SHALL BE EQUIPPED WITH A FACTORY INSTALLED OVERPRESSURE PROTECTION DEVICE, AS PART OF THE ANSI Z21.80 CERTIFICATION.
3. GAS REGULATOR SHALL BE EQUIPPED WITH A VENT LIMITING DEVICE, SIZED IN ACCORDANCE WITH THE REGULATOR OUTLET PRESSURE.
4. ALL REGULATORS INSTALLED OUTDOORS SHALL BE RATED FOR OUTDOOR INSTALLATION.
5. BASIS OF DESIGN IN THE MAXITROL 325-L SERIES OF REGULATORS



3 TYPICAL GAS CONNECTION

NO SCALE



ELECTRIC WATER HEATER			
MARK	EWH-A1	EWH-C1	EWH-B1
SERVES	CLASSROOMS	AUTO SHOP	AUTO SHOP
TYPE	ELECTRIC	ELECTRIC	ELECTRIC
HEATER KW	15 KW	15 KW	4.5 KW
MINIMUM THERMAL EFFICIENCY	93%	93%	93%
GAL. RECOVERY (100°F RISE)	37 GPH	24.6 GPH	24.6 GPH
STORAGE CAPACITY	80 GALLONS	80 GALLONS	40 GALLONS
VOLTAGE/PHASE	480V / 3 PHASE	480V / 3 PHASE	480V / 3 PHASE
A.O. SMITH MODEL	DRE-80-15KW-480	DRE-80-15KW-480	DEN-40-4.5KW-480

CIRCULATOR PUMP SCHEDULE			
MARK	CP-A1	CP-C1	CP-B1
SERVES	EWH	EWH	EWH
CAPACITY	5 GPM @ 26 FT. HEAD	5 GPM @ 26 FT. HEAD	5 GPM @ 10 FT. HEAD
VOLTAGE	115V	115V	115V
GRUNDFOS MODEL	UPS26-99SFC	UPS26-99SFC	UPS15-55SFC

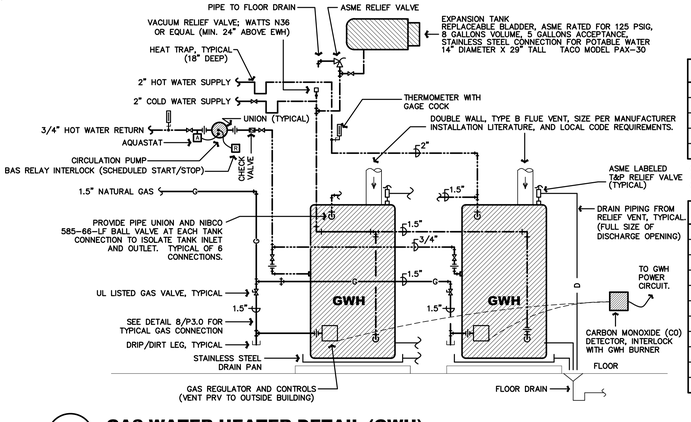
ALL BRONZE, LEAD-FREE CONSTRUCTION, 1" FLANGED CONNECTIONS, AQUASTAT. TACO CARTRIDGE PUMP AND B&G PL-B SERIES ALL BRONZE CIRCULATOR PUMP ALSO ACCEPTABLE. PROVIDE TACO MODEL 565-3 7 DAY TIMER.

2 ELECTRIC WATER HEATER DETAIL

NO SCALE

NOTES:

1. ALL WATER HEATERS SHALL HAVE THREE (3) YEAR COMMERCIAL WARRANTY ON TANK AND ALL PARTS. ANY ITEMS NOT COVERED BY WATER HEATER MANUFACTURER'S WARRANTY SHALL BE COVERED BY THE PLUMBING CONTRACTOR. SUBMITTAL SHALL INCLUDE WRITTEN DOCUMENTATION STATING THAT TANK AND PARTS OF ALL WATER HEATERS SHALL BE COVERED FOR THREE (3) FULL YEARS FROM DATE OF OWNER ACCEPTANCE OF BUILDING. WARRANTY DOCUMENTATION SHALL ALSO LIST WHO IS PROVIDING THE WARRANTY COVERAGE.
2. ALL WATER HEATERS SHALL BE INSTALLED ON 4" HIGH CONCRETE PADS WITH CHAMFERS.
3. ALL HW SYSTEMS SHALL STORE AND SUPPLY 140°F WATER.
4. ALL CIRCULATOR PUMPS ALSO CONTROLLED BY TIMER SWITCH PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.
5. ALL WATER PIPING (CW, HW & HWR) INSULATED WITH 1" THICK FIBERGLASS MEETING ALL REQUIREMENTS OF THE INTERNATIONAL ENERGY CODE. SEE WRITTEN SPECIFICATIONS.
6. WATER HEATER THERMAL EFFICIENCY SHALL MEET OR EXCEED THE REQUIREMENTS OF THE IECC-2021, TABLE C404.2, FOR ELECTRIC STORAGE WATER HEATERS.



CIRCULATOR PUMP SCHEDULE		
MARK	CP-D1	
SERVES	EWH	
CAPACITY	5 GPM @ 26 FT. HEAD	
VOLTAGE	115V	
GRUNDFOS MODEL	UPS26-99SFC	

ALL BRONZE, LEAD-FREE CONSTRUCTION, 1" FLANGED CONNECTIONS, AQUASTAT. TACO CARTRIDGE PUMP AND B&G PL-B SERIES ALL BRONZE CIRCULATOR PUMP ALSO ACCEPTABLE. PROVIDE TACO MODEL 565-3 7 DAY TIMER.

GWH SCHEDULE		
MARK	GWH-1	GWH-2
SERVES	ENTIRE BUILDING	ENTIRE BUILDING
FUEL TYPE	NATURAL GAS	NATURAL GAS
NATURAL GAS INPUT	199,000 BTUH	199,000 BTUH
EFFICIENCY (Et)	80%	80%
RECOVERY	191 GPH @ 100°F RISE	191 GPH @ 100°F RISE
TANK STORAGE	100 GALLONS	100 GALLONS
FLUE VENT SIZE	6"ø	6"ø
INTAKE VENT SIZE	–	–
CONTROLS VOLTAGE	115 VOLTS	115 VOLTS
AO SMITH MODEL	BTL-100-199	BTL-100-199

PROVIDE PRESSURE GAUGE, LOW WATER CUT OFF (PROBE TYPE), SPARK IGNITION, FLUE VENT, THREE (3) YEAR WARRANTY ON ENTIRE HEATER. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

1 GAS WATER HEATER DETAIL (GWH)

NO SCALE

NOTES:

1. GAS WATER HEATER SHALL HAVE THREE (3) YEAR COMMERCIAL WARRANTY ON ENTIRE HEATER. ANY ITEMS NOT COVERED BY WATER HEATER MANUFACTURER'S WARRANTY SHALL BE COVERED BY THE PLUMBING CONTRACTOR. SUBMITTAL SHALL INCLUDE WRITTEN DOCUMENTATION STATING THAT TANK AND PARTS OF ALL WATER HEATERS SHALL BE COVERED FOR FULL WARRANTY TERM, AS LISTED ABOVE, FROM DATE OF OWNER ACCEPTANCE OF BUILDING. WARRANTY DOCUMENTATION SHALL ALSO LIST WHO IS PROVIDING THE WARRANTY COVERAGE.
2. ALL WATER HEATERS SHALL BE INSTALLED ON 4" HIGH CONCRETE PADS WITH CHAMFERS.
3. ALL HW SYSTEMS SHALL STORE AND SUPPLY 140°F WATER.
4. ALL CIRCULATOR PUMPS HAVE BUILT IN CONTROL TO MODULATE FLOW BASED ON TEMPERATURE SET-POINT.
5. ALL HW AND HWR PIPING INSULATED WITH 1" THICK FIBERGLASS MEETING ALL REQUIREMENTS OF THE INTERNATIONAL ENERGY CODE.
6. CARBON MONOXIDE DETECTOR SHALL BE US DRAFT CO CGM-505, OR EQUAL. DETECTOR SHALL HAVE NEMA 1 ENCLOSURE, AUDIBLE AND VISUAL ALARMS, 0-10VDC CONTROL OUT SIGNAL, 120VAC INPUT VOLTAGE (PROVIDE TRANSFORMER AS REQUIRED), AND 2 DRY CONTACTS.
   - 6.a. ALL CONTACT CLOSURES SHALL BE INTERLOCKED WITH GWH TO DE-ENERGIZE BURNERS WHEN CLOSED.
   - 6.b. RELAY #1 SHALL CLOSE IF CARBON MONOXIDE LEVEL REACHES 50PPM FOR 5 MIN. VISUAL AND AUDIBLE ALARM SHALL BE ACTIVATED.
   - 6.c. RELAY #2 SHALL CLOSE IMMEDIATELY IF CARBON MONOXIDE LEVEL REACHES 100PPM. VISUAL AND AUDIBLE ALARM SHALL BE ACTIVATED.
7. WATER HEATER THERMAL EFFICIENCY SHALL MEET OR EXCEED THE REQUIREMENTS OF THE IECC-2021, TABLE C404.2, FOR GAS STORAGE WATER HEATERS

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/ENGINEERING FIRM REG. NO. F-11533 | TBPLS REG. NO. F-10193944 | ©2020 ALL RIGHTS RESERVED
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

CONSULTANTS
CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)
STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)
MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)
FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)
LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

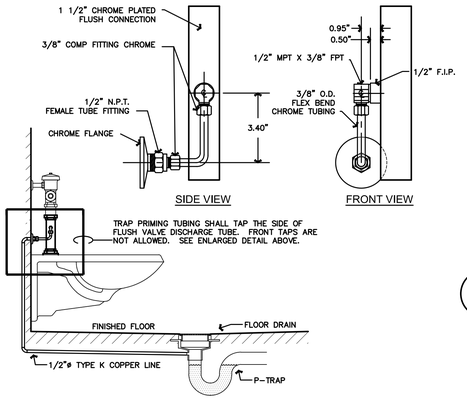
STATE OF TEXAS
TYLER W. HERRING
106052
LICENSED PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct 24, 2025
DRAWN TWH
CHECKED TWH

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

P4.00

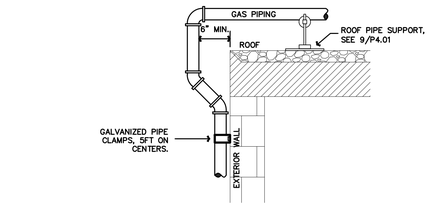
PLUMBING DETAILS & SCHEDULES



12 FLUSH VALVE TRAP PRIMING TUBE DETAIL

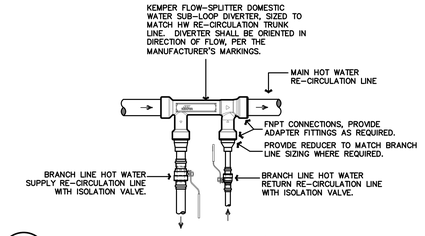
NO SCALE

MI-FAB MODEL MI-702-MOD FLUSH VALVE TRAP PRIMER, OR EQUAL



15 GAS PIPING WALL-TO-ROOF TRANSITION DETAIL

NO SCALE

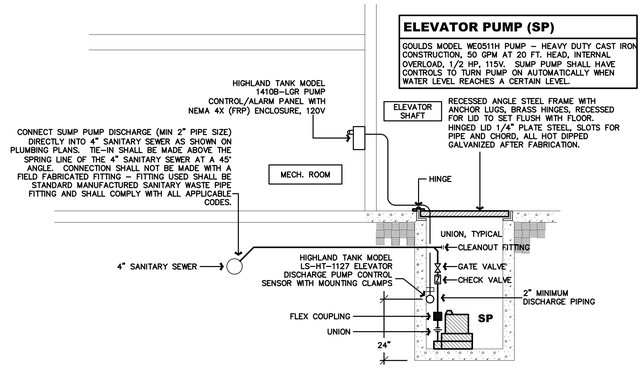


14 HOT WATER DIVERTING STATION

NO SCALE

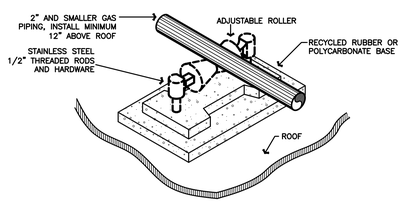
NOTES:

1. KEMPER KHS FLOW-SPLITTER IS THE BASIS OF DESIGN. SIMILAR DOMESTIC WATER FLOW DIVERTER ASSEMBLIES FROM ALTERNATE MANUFACTURERS ARE ALSO ACCEPTABLE.
2. PROVIDE FOR EACH HOT WATER SUB-LOOP TO WITHIN 12" OF HW STOPS AT ALL HAND WASHING LAVATORIES.



13 ELEVATOR SUMP PUMP DETAIL (SP)

NO SCALE

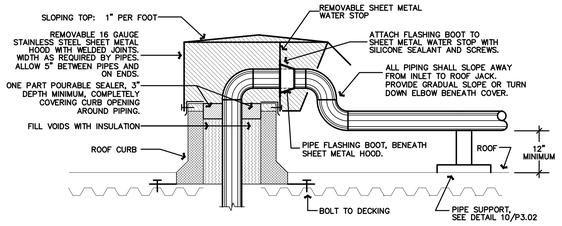


11 GAS PIPING ROOF SUPPORT DETAIL

NO SCALE

NOTES:

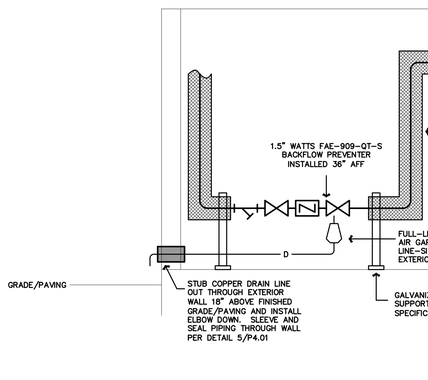
1. GAS PIPING SUPPORT SHALL BE PORTABLE PIPE HANGERS, INC. MODEL PP10-R. PIPING SHALL BE INSTALLED 12" ABOVE FINISHED ROOF. PROVIDE 18" X 18" CAREY TREAD-TYPE MATERIAL BENEATH EACH PIPE SUPPORT.
2. FIELD LOCATE ROOF STRUCTURAL SUPPORTS AND PLACE BASE OF PIPE SUPPORT OVER ROOF SUPPORTS ONLY. PROVIDE BASE OF ADEQUATE LENGTH TO SPAN ROOF JOIST TO PREVENT SUPPORTS SETTING ON ROOF DECK ONLY.
3. INSTALL SIX (6) FOOT-ON-CENTERS.
4. PIPE SUPPORT MANUFACTURER'S REPRESENTATIVE SHALL PERSONALLY INSPECT INSTALLATIONS OF PIPE SUPPORTS AND MAKE CORRECTIONS AND HEIGHT ADJUSTMENTS TO INSTALLATIONS, AS REQUIRED, DURING INSPECTION.



10 ROOF PIPE JACK DETAIL

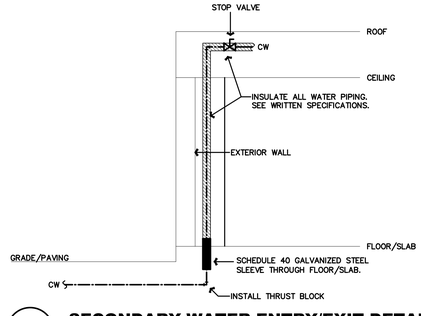
NO SCALE

NOTE: COORDINATE WITH ARCHITECTURAL DRAWINGS, DETAILS AND SPECIFICATIONS.



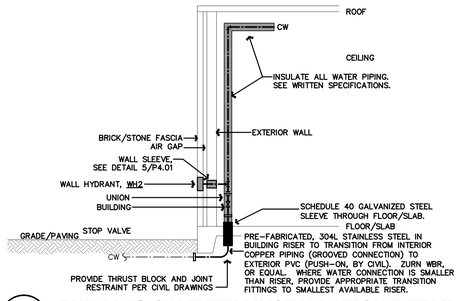
9 BACKFLOW PREVENTER INSTALLATION DETAIL

NO SCALE



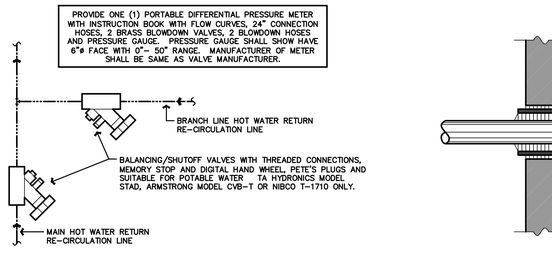
8 SECONDARY WATER ENTRY/EXIT DETAIL

NO SCALE



7 BUILDING CW ENTRY INSTALLATION DETAIL

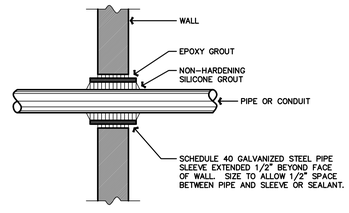
NO SCALE



6 HOT WATER BALANCING STATION

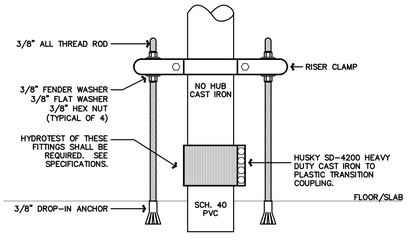
NO SCALE

PROVIDE AT EACH JUNCTION OF BRANCH HOT WATER RETURN LOOPS TO MAIN CIRCULATING HOT WATER LINE, SEE PLUMBING PLANS.



5 WALL PENETRATION DETAIL

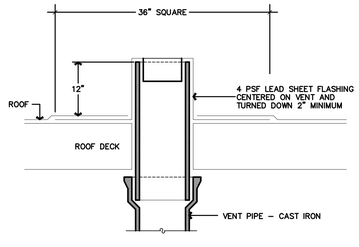
NO SCALE



4 PVC-TO-CAST IRON INSTALLATION DETAIL

NO SCALE

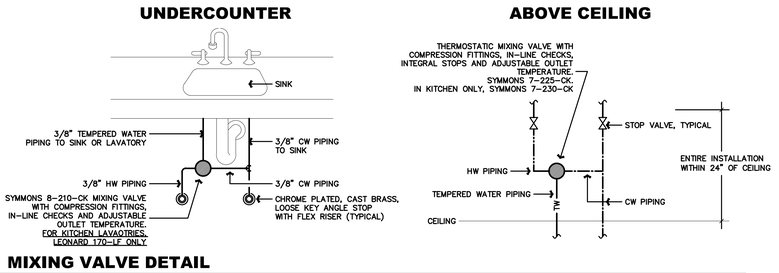
MISSION TRANSITION COUPLING DESIGNED AND CERTIFIED FOR THIS SPECIFIC APPLICATION SHALL BE ACCEPTABLE IN LIEU OF HUSKY COUPLING IN THIS DETAIL.



3 ROOF VENT DETAIL

NO SCALE

COORDINATE WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

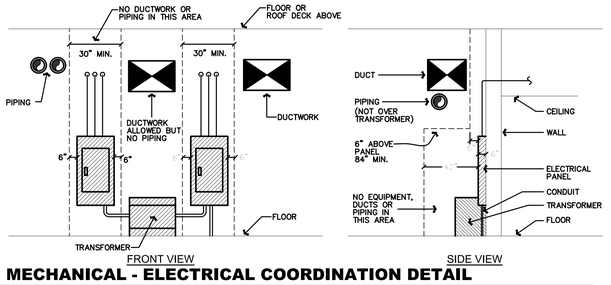


2 MIXING VALVE DETAIL

NO SCALE

NOTES

1. UNDERCOUNTER MIXING VALVE SHALL BE MOUNTED ON WALL IN FIXTURE KNEE-SPACE. LOCATION OF VALVE AND PIPING SHALL NOT INTERFERE WITH ANY ADA/HANDICAP KNEE-SPACE CLEARANCE REQUIREMENTS.
2. ALL PIPING SHALL BE CHROME PLATED CAST BRASS AND SHALL BE INSULATED BY TRUEBRO HANDI LAV-GUARD INSULATION KITS. INSULATION KITS SHALL COVER P-TRAP, MIXING VALVE, WATER STOPS, PIPING AND ALL SHARP EDGES (ONLY WHERE CABINETWORK KNEESPACE SCREEN NOT PROVIDED).
3. ALL CW AND HW CONNECTIONS SHALL HAVE COMPRESSION TYPE FITTINGS.
4. FOR ABOVE CEILING INSTALLATION, VALVE SHALL BE INSTALLED IN AN EASILY/READILY ACCESSIBLE LOCATION. SEE KITCHEN PLUMBING CONNECTION SCHEDULE FOR REQUIRED KITCHEN LOCATIONS.
5. MIXING VALVES SHALL BE AS SCHEDULED, OR EQUAL BY SYMMONS, LEONARD, WATTS OR POWERS. ALL MIXING VALVE SHALL BEAR THE ASSE LISTING FOR THE INSTALLED APPLICATION.
6. FOR LAVATORIES IN COMMERCIAL FOOD SERVICE APPLICATIONS, ONLY THE LEONARD 170-LF MIXING VALVE IS ALLOWED FOR HAND LAVATORIES, DUE TO ADJUSTABLE OUTLET TEMPERATURE RANGE >120°F.



1 MECHANICAL - ELECTRICAL COORDINATION DETAIL

NO SCALE

DO NOT INSTALL ANY PIPING BENEATH CVT BOXES. DO NOT INSTALL ANY PIPING (EXCEPT FIRE SPRINKLER PIPING AND OTHER PIPES SHOWN SPECIFICALLY ON THE PLUMBING FLOOR PLANS) OVER COMPUTER CLASSROOMS, BOOKROOMS, IDF/MDF/SERVER ROOMS OR OTHER ROOMS NOTED ON THE PLUMBING FLOOR PLANS.

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects
Houston, Texas
281-961-0355

STATE OF TEXAS — TYLER W. HERRING — 106052 — LICENSED PROFESSIONAL ENGINEER — 10.24.2025

PROJECT NO. 2502 (B101-101)	
DATE	Oct 24, 2025
DRAWN	TWH
CHECKED	TWH

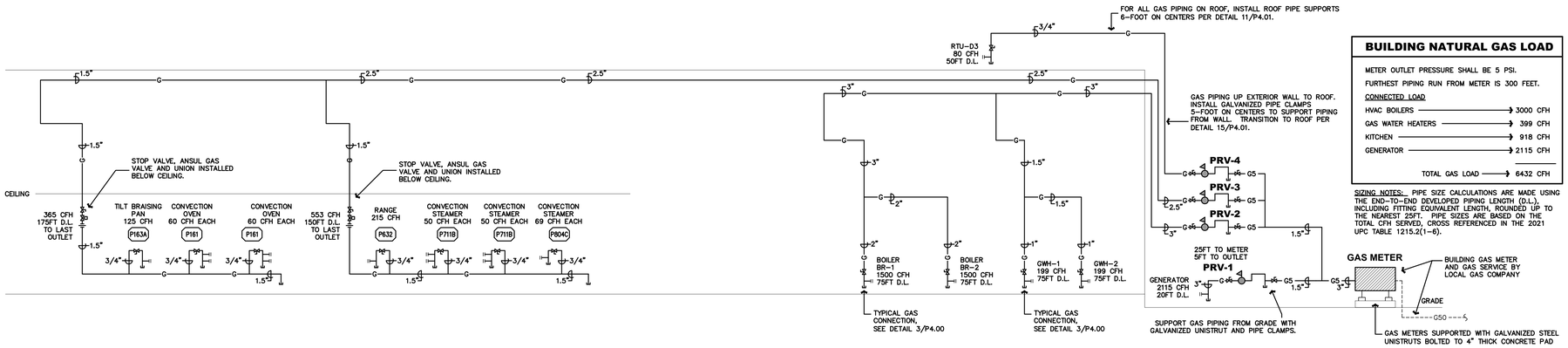
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

P4.01

PLUMBING DETAILS

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE FIRM REGISTRATION #14310500 | (713) 300-9292
TBPE FIRM REG. NO. F-13332 | © 2025 ALL RIGHTS RESERVED
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



BUILDING NATURAL GAS LOAD

METER OUTLET PRESSURE SHALL BE 5 PSI.

FURTHEST PIPING RUN FROM METER IS 300 FEET.

CONNECTED LOAD

HVAC BOILERS	3000 CFH
GAS WATER HEATERS	399 CFH
KITCHEN	918 CFH
GENERATOR	2115 CFH
TOTAL GAS LOAD	6432 CFH

SIZING NOTES: PIPE SIZE CALCULATIONS ARE MADE USING THE END-TO-END DEVELOPED PIPING LENGTH (D.L.), INCLUDING FITTING EQUIVALENT LENGTH, ROUNDED UP TO THE NEAREST 25FT. PIPE SIZES ARE BASED ON THE TOTAL CFH SERVED, CROSS REFERENCED IN THE 2021 UPC TABLE 1215.2(1-6).

PLUMBING KEYED NOTES:

P1 TRAP PRIMING DISTRIBUTION UNIT IN WALL CAVITY FOR CONNECTION TO UP TO FOUR FLOOR DRAINS; MIFAB MI-DU OR EQUAL. EXTEND 1/2" SOFT COPPER DRAIN LINES BELOW SLAB TO FLOOR DRAIN TAIL PIECE TRAP PRIMING CONNECTIONS, AS NOTED ON RISER DIAGRAM. ALL PIPING WITHIN OR THROUGH CONCRETE SHALL BE IN PLASTIC SLEEVING.

P2 1/2" TRAP PRIMER DRAIN LINE, CONNECTED TO DRAIN UPSTEAM OF P-TRAP FROM NEAREST TRAP PRIMING DISTRIBUTION UNIT. SMITH FIGURE 276 OR EQUAL.

P3 PROSET DRAIN SEAL INSERT, TYPICAL. PROVIDED FOR ALL KITCHEN DRAINS, ALONG WITH TRAP PRIMERS.

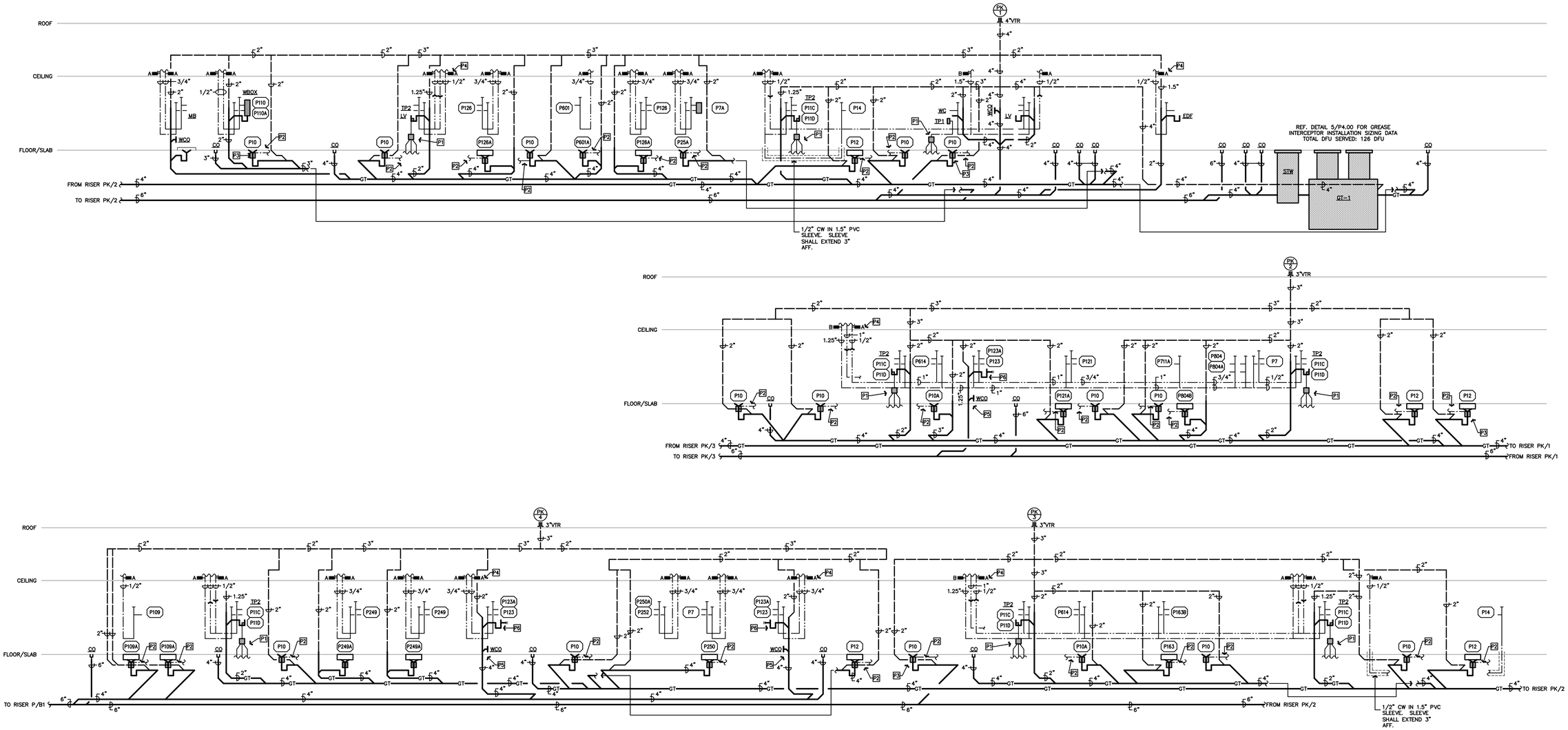
P4 WATER HAMMER ARRESTER, TAGGED WITH SIZE, TYPICAL. INSTALL EXPOSED AND ACCESSIBLE ABOVE CEILING AND AS CLOSE TO PIPING RISER AS POSSIBLE.

P5 4" GT WASTE UP FROM BELOW GRADE, EXPOSED BENEATH COUNTERTOP WITH WALL CLEANOUT. OFFSET VENT LINE INTO WALL.

P6 2" P-TRAP WITH CLEANOUT, EXTENDED TO CONNECTION AT FOOD GRINDER.

1 BUILDING NATURAL GAS RISER DIAGRAMS

NO SCALE



CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

TYLER W. HERRING 106052 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS
10.24.2025

PROJECT NO. 2502 (B101-101)	
DATE	Oct.24, 2025
DRAWN	
CHECKED	

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

P5.00

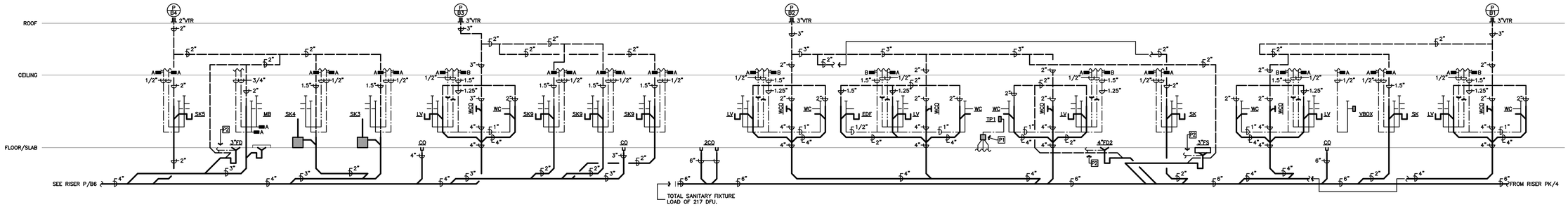
GAS RISER DIAGRAM AND PLUMBING RISER DIAGRAM - AREA A

TRUE NORTH PLAN NORTH

STANTON ENGINEERING GROUP

TBPE/BPELS FIRM REG. NO. F-11532 | ©2025 ALL RIGHTS RESERVED

(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



PLUMBING KEYED NOTES:

P1 TRAP PRIMING DISTRIBUTION UNIT IN WALL CAVITY FOR CONNECTION TO UP TO FOUR FLOOR DRAINS; MIFAB MI-DU OR EQUAL. EXTEND 1/2" SOFT COPPER DRAIN LINES BELOW SLAB TO FLOOR DRAIN TAIL PIECE TRAP PRIMING CONNECTIONS, AS NOTED ON RISER DIAGRAM. ALL PIPING WITHIN OR THROUGH CONCRETE SHALL BE IN PLASTIC SLEEVING.

P2 1/2" TRAP PRIMER DRAIN LINE, CONNECTED TO DRAIN UPSTEAM OF P-TRAP FROM NEAREST TRAP PRIMING DISTRIBUTION UNIT. SMITH FIGURE 276 OR EQUAL.

P3 NOT USED

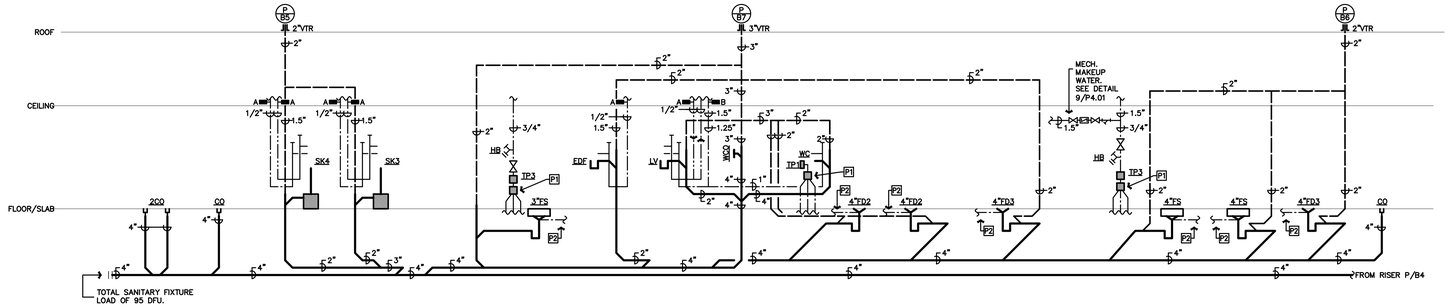
P4 WATER HAMMER ARRESTER, TAGGED WITH SIZE, TYPICAL. INSTALL EXPOSED AND ACCESSIBLE ABOVE CEILING AND AS CLOSE TO PIPING RISER AS POSSIBLE.

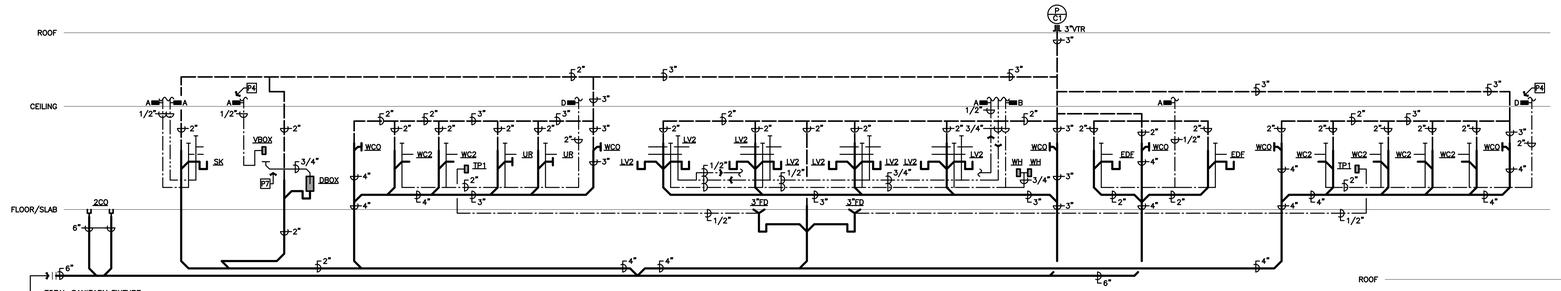
P5 NOT USED

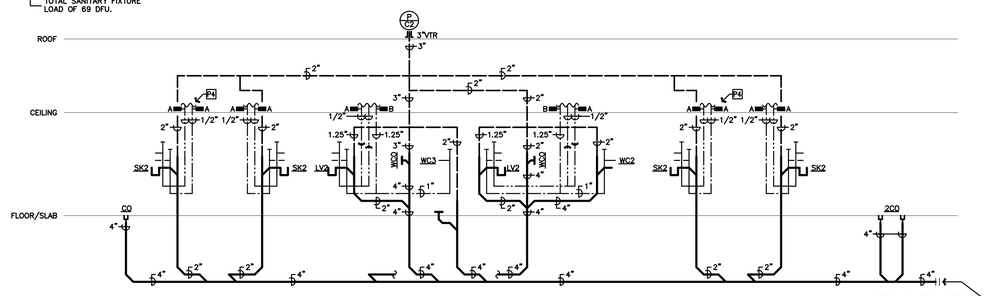
P6 NOT USED

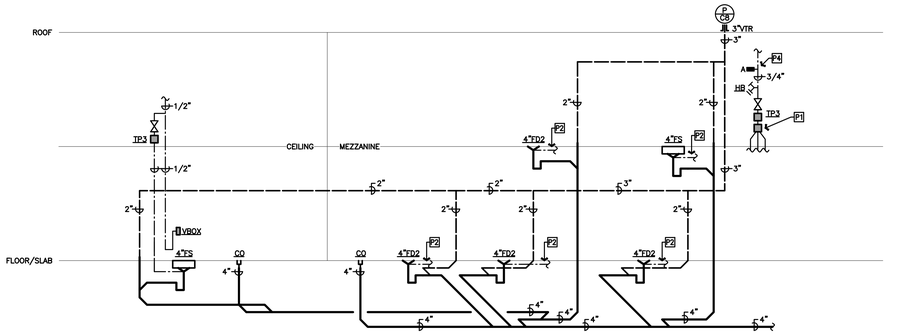
P7 NOT USED

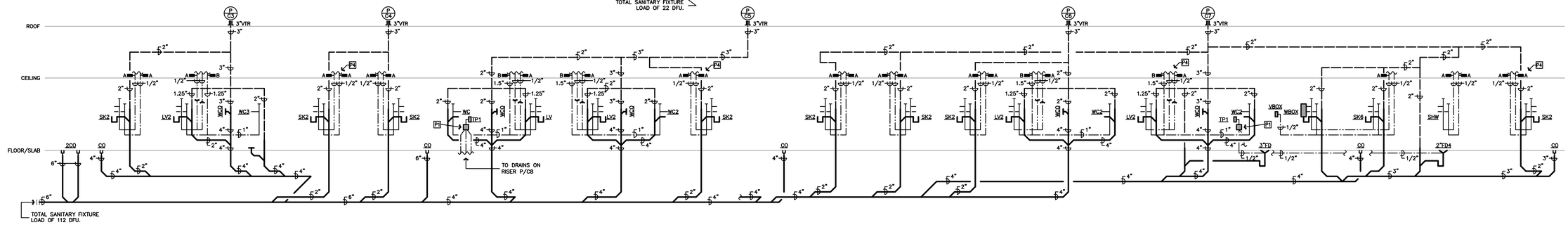
P8 WATER HAMMER ARRESTER, TAGGED WITH SIZE. INSTALL IN CHASE WALL WITH ACCESS PANEL FOR VISUAL INSPECTION AND MAINTENANCE. PANEL SHALL BE SIMILAR TO THAT SCHEDULED FOR WCO.











CONSULTANTS

CIVIL

Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE

CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP

Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE

Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING

Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
TYLER W. HERRING
106052
LICENSED PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

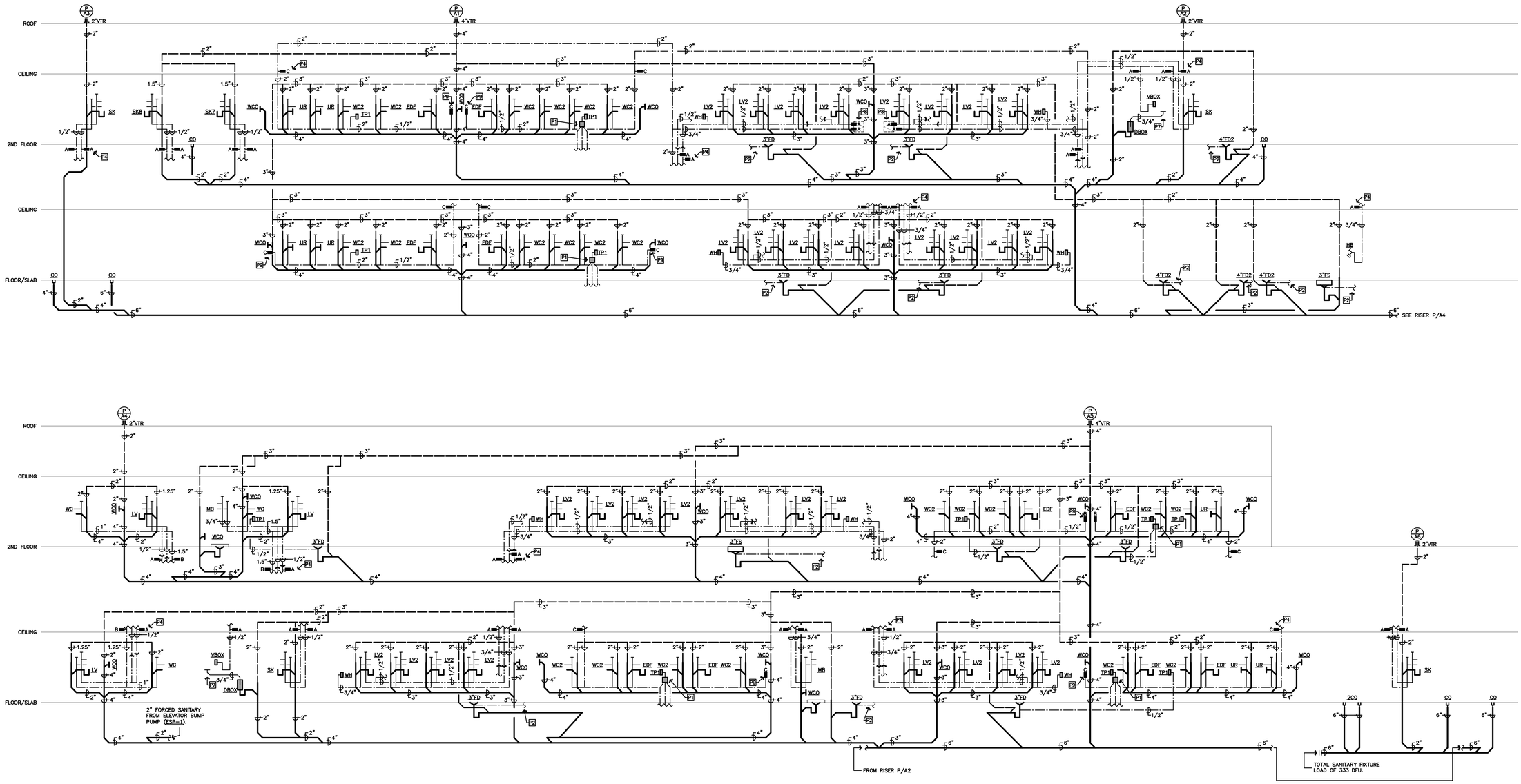
DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	A COH COMMENT 1
10/17/2025	B COH COMMENT 2
10/24/2025	CSP

P5.01

PLUMBING
RISER DIAGRAMS
AREA B

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE FIRM REG. NO. F-11532 | TBAE FIRM REG. NO. F-15332 | (713) 300-9292
©2025 ALL RIGHTS RESERVED
1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042



PLUMBING KEYED NOTES:

P1 TRAP PRIMING DISTRIBUTION UNIT IN WALL CAVITY FOR CONNECTION TO UP TO FOUR FLOOR DRAINS; MIFAB MI-DU OR EQUAL. EXTEND 1/2" SOFT COPPER DRAIN LINES BELOW SLAB TO FLOOR DRAIN TAIL PIECE TRAP PRIMING CONNECTIONS, AS NOTED ON RISER DIAGRAM. ALL PIPING WITHIN OR THROUGH CONCRETE SHALL BE IN PLASTIC SLEEVING.

P2 1/2" TRAP PRIMER DRAIN LINE, CONNECTED TO DRAIN UPSTEAM OF P-TRAP FROM NEAREST TRAP PRIMING DISTRIBUTION UNIT. SMITH FIGURE 276 OR EQUAL.

P3 NOT USED

P4 WATER HAMMER ARRESTER, TAGGED WITH SIZE, TYPICAL. INSTALL EXPOSED AND ACCESSIBLE ABOVE CEILING AND AS CLOSE TO PIPING RISER AS POSSIBLE.

P5 NOT USED

P6 NOT USED

P7 NOT USED

P8 WATER HAMMER ARRESTER, TAGGED WITH SIZE. INSTALL IN CHASE WALL WITH ACCESS PANEL FOR VISUAL INSPECTION AND MAINTENANCE. PANEL SHALL BE SIMILAR TO THAT SCHEDULED FOR WCO.

P9 WATER HAMMER ARRESTER, TAGGED WITH SIZE. INSTALL IN CHASE WALL ABOVE WALL CLEANOUT. ARRANGE ARRESTER AND CLEANOUT ACCESS PANEL SUCH THAT BOTH THE ARRESTER AND CLEANOUT ARE ACCESSIBLE BEHIND THE SAME ACCESS PANEL.

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
TYLER W. HERRING
106052
LICENSED PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

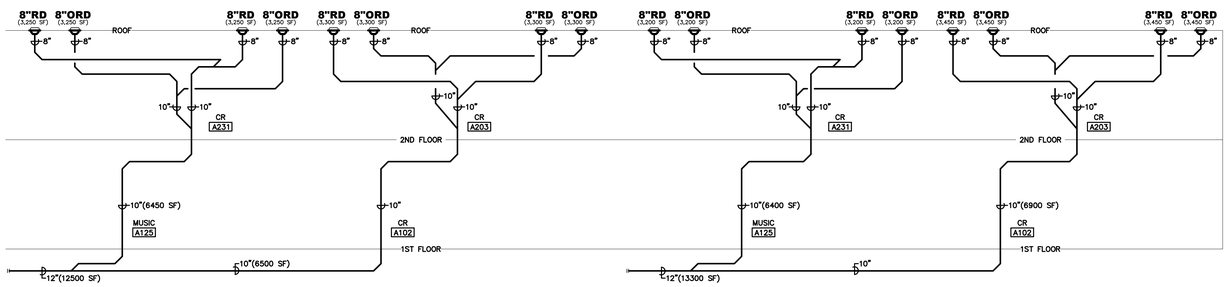
P5.02

PLUMBING
RISER DIAGRAMS
AREA C

TRUE NORTH
PLAN NORTH

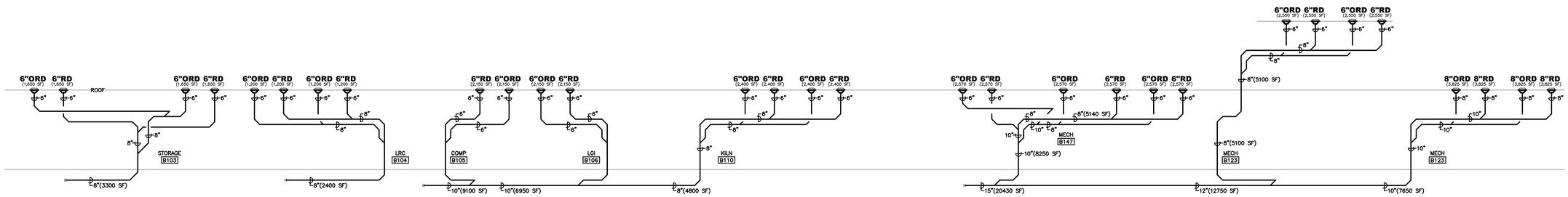
STANTON ENGINEERING GROUP
TBPE REGISTRATION NUMBER F-17153 | TBPLS REGISTRATION NUMBER F-10153702
(713) 300-9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042

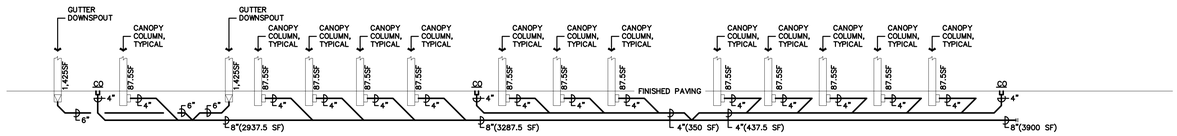
© 2025 ALL RIGHTS RESERVED



1 STORM DRAIN RISERS - AREA A

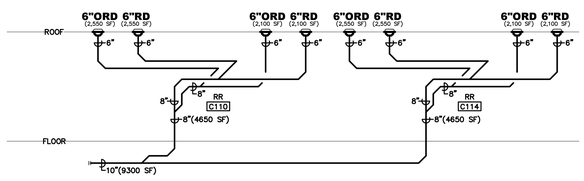
NO SCALE

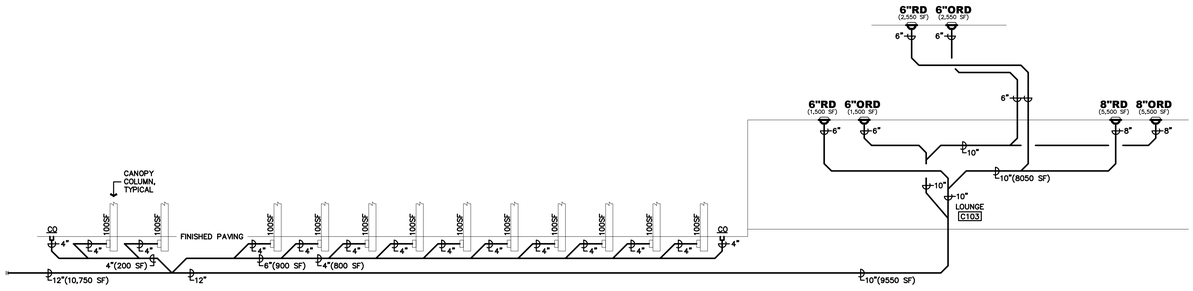


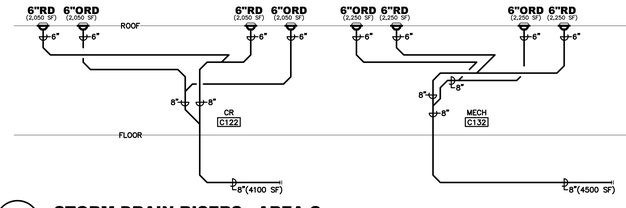


2 STORM DRAIN RISERS - AREA B

NO SCALE







3 STORM DRAIN RISERS - AREA C

NO SCALE

CONSULTANTS

CIVIL
Talon Engineering, LLC
1118 Wolfs Knoll
Houston, Texas 77094
832-287-7874 (p)

STRUCTURE
CJG Engineers
8051 North Course Drive, Suite 375
Houston, Texas 77072
713-780-3345 (p)

MEP
Stanton Engineering Group, LLC
1300 W. Sam Houston Parkway S., Suite 121
Houston, Texas 77042
713-300-9292 (p)

FOOD SERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
The Woodlands, Texas 77380
281-350-2323 (p)

LANDSCAPING
Vitro Design Studio LLC
223 Labrador Ln.
Townsend, DE 19734

A B C

Cimarron Elementary School Replacement
816 Cimarron St., Houston, Tx. 77015
Galena Park Independent School District

S. Chu Architects

Houston, Texas
281-961-0355

STATE OF TEXAS
TYLER W. HERRING
106052
LICENSED PROFESSIONAL ENGINEER
10.24.2025

PROJECT NO. 2502 (B101-101)
DATE Oct.24, 2025
DRAWN
CHECKED

DATE	ISSUE
06/15/2025	DD
08/15/2025	REVIEW
09/02/2025	COH PERMIT
09/26/2025	1 COH COMMENT 1
10/17/2025	2 COH COMMENT 2
10/24/2025	CSP

P6.00

PLUMBING
STORM RISER
DIAGRAMS

TRUE NORTH
PLAN NORTH

STANTON ENGINEERING GROUP
TBPE/TBPLS FIRM REG. NO. F-13332 | SURVEYING FIRM REG. NO. F-10132 | ©2025 ALL RIGHTS RESERVED
INFORMATION—ENCOM (713) 300—9292 | 1300 W. SAM HOUSTON PARKWAY S., SUITE 121, HOUSTON, TX 77042