

Administration Building Addition

Holy Cross Catholic Church

7000 Morning Star / The Colony, Texas 75056 / 972-625-5252

Date: 2-12-25
DESIGN DEVELOPMENT FINAL
Project Number: 2402

Jim Bransford
Architect

2201 Westbrook Ave.
Fort Worth, Texas 76111
(817) 421-0259

Multatech/Lochmueller Group

Civil Engineers
2821 West 7th Street, Suite 400
Fort Worth, Texas 76107
(817)877-5571

HnH

Structural Engineers
1151 W. Pioneer Parkway
Arlington, Texas 76013
(817) 277-6686

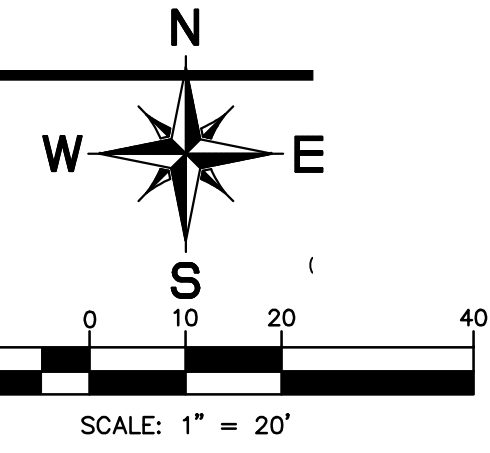
Wells Doak Engineers, Inc.

MEP Engineers
2800 S. Hulen, Suite 212
Fort Worth, Texas 76109
(817) 920-9545

Revisions:

Preliminary. Not for construction,
permitting or regulatory approval.

MATCH LINE SEE SHT. C-202

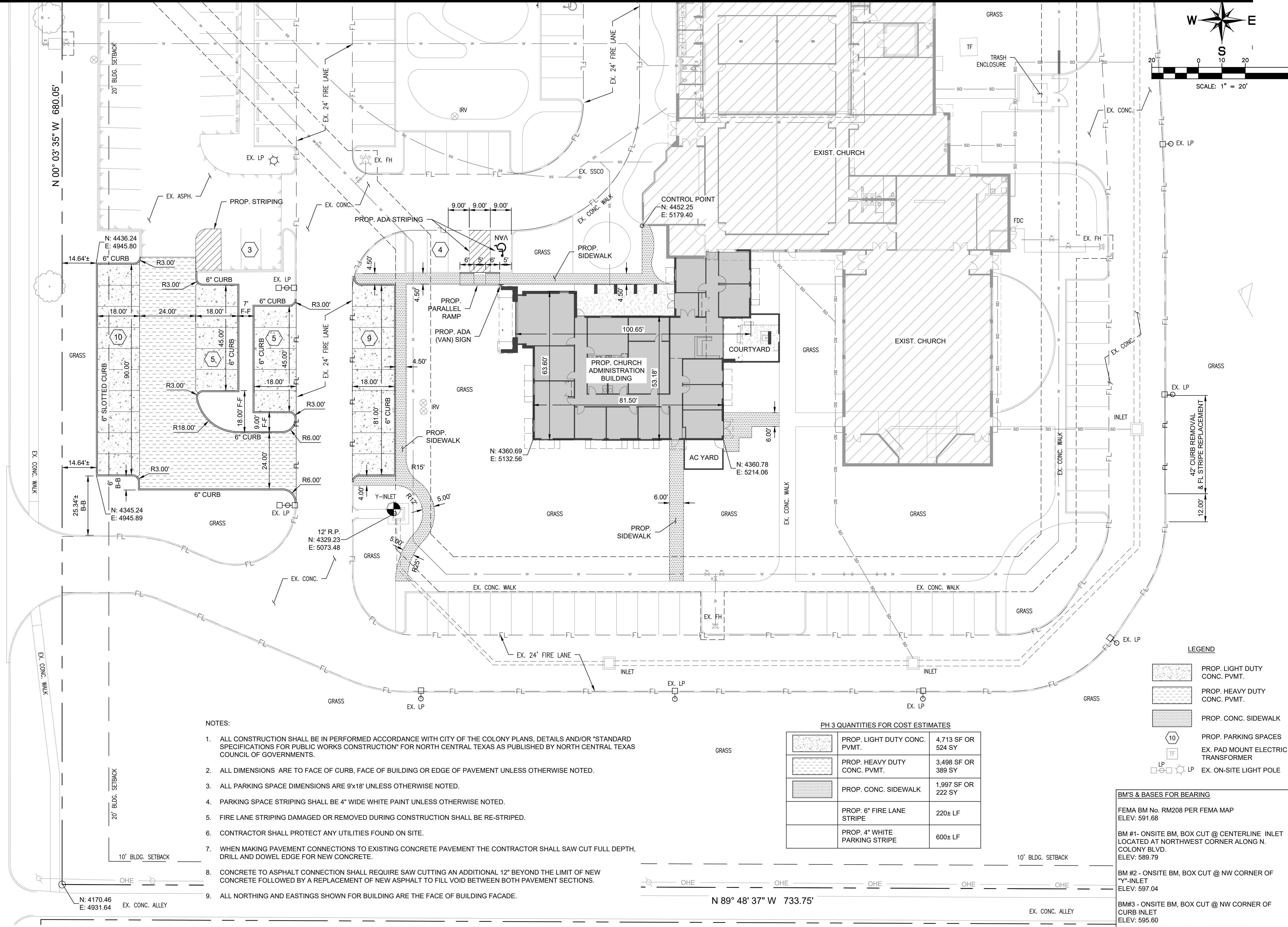


MULTATECH
ENGINEERING, INC.

Lochmueller
Group
Company

TRISTAN R. JONES, P.E.
2821 West 7th Street
Suite 400
Fort Worth, Texas 76107

MORNING STAR DRIVE
71' R.O.W.



- NOTES:**
1. ALL CONSTRUCTION SHALL BE IN PERFORMED ACCORDANCE WITH CITY OF THE COLONY PLANS, DETAILS AND/OR "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" FOR NORTH CENTRAL TEXAS AS PUBLISHED BY NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS.
 2. ALL DIMENSIONS ARE TO FACE OF CURB, FACE OF BUILDING OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
 3. ALL PARKING SPACE DIMENSIONS ARE 9x18' UNLESS OTHERWISE NOTED.
 4. PARKING SPACE STRIPING SHALL BE 4" WIDE WHITE PAINT UNLESS OTHERWISE NOTED.
 5. FIRE LANE STRIPING DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE RE-STRIPED.
 6. CONTRACTOR SHALL PROTECT ANY UTILITIES FOUND ON SITE.
 7. WHEN MAKING PAVEMENT CONNECTIONS TO EXISTING CONCRETE PAVEMENT THE CONTRACTOR SHALL SAW CUT FULL DEPTH, DRILL AND DOWEL EDGE FOR NEW CONCRETE.
 8. CONCRETE TO ASPHALT CONNECTION SHALL REQUIRE SAW CUTTING AN ADDITIONAL 12" BEYOND THE LIMIT OF NEW CONCRETE FOLLOWED BY A REPLACEMENT OF NEW ASPHALT TO FILL VOID BETWEEN BOTH PAVEMENT SECTIONS.
 9. ALL NORTHING AND EASTINGS SHOWN FOR BUILDING ARE THE FACE OF BUILDING FACADE.

PH 3 QUANTITIES FOR COST ESTIMATES

	PROP. LIGHT DUTY CONC. PVMT.	4,713 SF OR 524 SY
	PROP. HEAVY DUTY CONC. PVMT.	3,498 SF OR 389 SY
	PROP. CONC. SIDEWALK	1,997 SF OR 222 SY
	PROP. 6" FIRE LANE STRIPE	220± LF
	PROP. 4" WHITE PARKING STRIPE	600± LF

LEGEND

- PROP. LIGHT DUTY CONC. PVMT.
- PROP. HEAVY DUTY CONC. PVMT.
- PROP. CONC. SIDEWALK
- PROP. PARKING SPACES
- EX. PAD MOUNT ELECTRIC TRANSFORMER
- EX. ON-SITE LIGHT POLE

BM'S & BASES FOR BEARING

FEMA BM No. RM208 PER FEMA MAP
ELEV. 591.68

BM #1- ONSITE BM, BOX CUT @ CENTERLINE INLET
LOCATED AT NORTHWEST CORNER ALONG N.
COLONY BLVD.
ELEV. 589.79

BM #2 - ONSITE BM, BOX CUT @ NW CORNER OF
"Y"-INLET
ELEV. 597.04

BM#3 - ONSITE BM, BOX CUT @ NW CORNER OF
CURB INLET
ELEV. 595.60

HOLY CROSS CATHOLIC CHURCH
PHASE 3
LOT 1R, BLOCK A, HOLY CROSS CATHOLIC CHURCH
7000 MORNINGSTAR DRIVE
THE COLONY, TEXAS 75056
CITY PROJECT No. SP17-0016

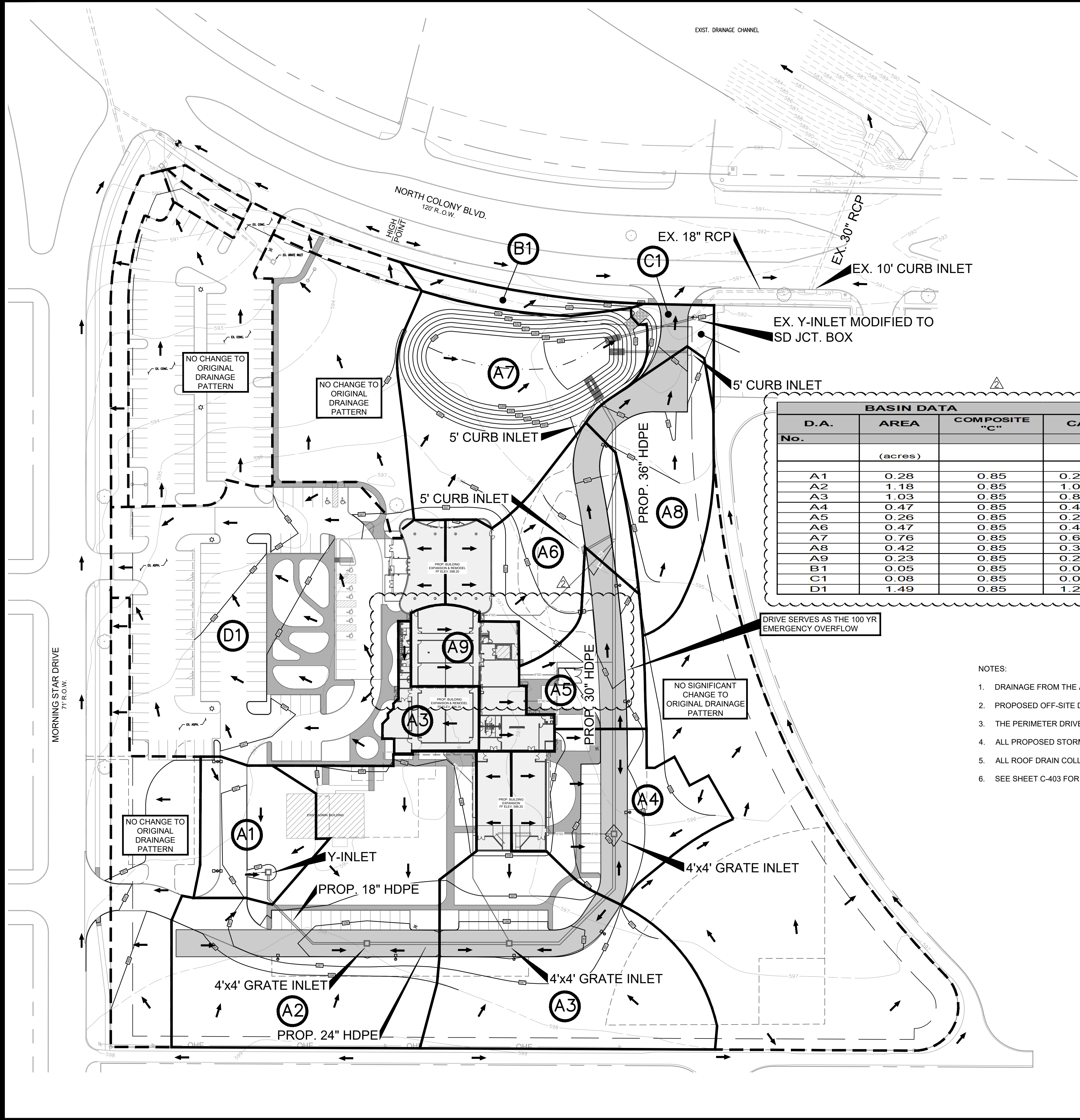
DIMENSIONAL PLAN SOUTH

MARK	DATE	DESCRIPTION

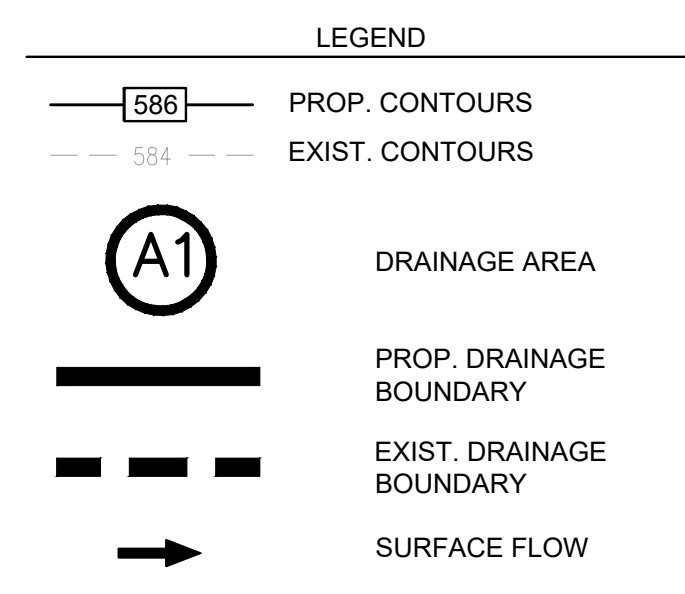
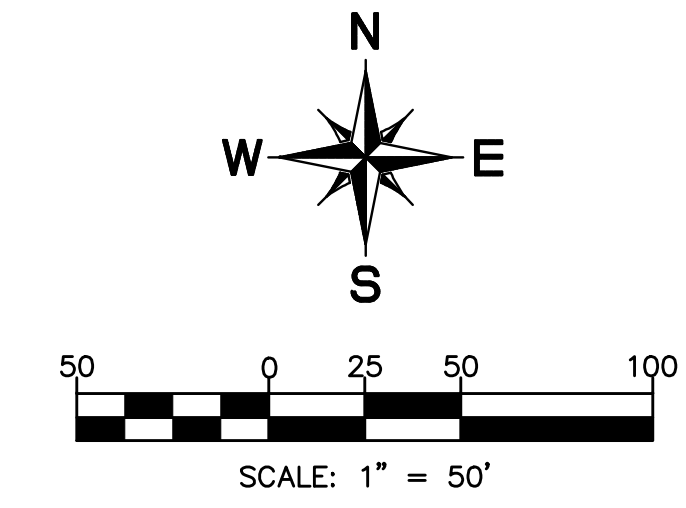
MLG PROJECT NO: 24043.00
DESIGNED BY: PJP
DRAWN BY: JDS
CHECKED BY: EAC
DATE: 02-12-25
CITY PROJECT NO:
SHEET TITLE
DIMENSIONAL PLAN SOUTH
SHEET NO:
C-201

K:\2024\24043.00_fort_worth_diocese_catholic_church_holy_cross_catholic_church_bronsford_architects\06_CAD\DWG\SHEETS\DIMENSIONAL PLAN.dwg, Feb 12, 2025 - 1:19pm User: jatory

K:\2017\17146.00_HolyCross_HolyCrossPH2_Brandford\06_CAD\CIVIL\SHEETS\DMAP.dwg Jan 21, 2025 - 1:04pm User: jatory



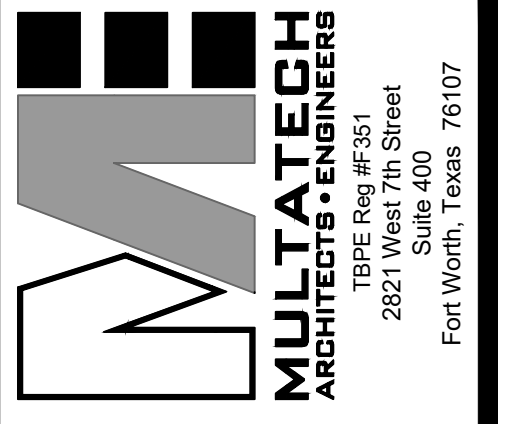
BM'S & BASES FOR BEARING
 FEMA BM No. RM208 PER FEMA MAP
 ELEV: 591.68
 TBM #1- ONSITE BM, CENTER LINE INLET LOCATED AT NORTHWEST CORNER ALONG N. COLONY BLVD. ELEV: 589.79
 TBM #2 - ON-SITE BM, X-CUT TOP NW CORNER OF Y-INLET LOCATED IN NE CORNER OF CHURCH PROPERTY SOUTH OF N. COLONY BLVD. ELEV: 592.17
 BEARINGS SHOWN ARE BASED ON THE FINAL PLAT OF NORTHPOINTE PHASE I RECORDED IN CABINET G, PAGE 317.



BASIN DATA				INLET & LATERAL DESIGN								
D.A. No.	AREA (acres)	COMPOSITE "C"	CA	Tc (min)	DESIGN INTENSITY				PROJECTED OUTFLOW			
				INLET	5	10	25	100	5	10	25	100
					I (in/hr)	I (in/hr)	I (in/hr)	design	Q (cfs)	Q (cfs)	Q (cfs)	Q100
A1	0.28	0.85	0.24	10.0	6.73	7.93	9.22	11.59	1.60	1.89	2.19	2.76
A2	1.18	0.85	1.01	10.0	6.73	7.93	9.22	11.59	6.78	7.98	9.28	11.66
A3	1.03	0.85	0.88	10.0	6.73	7.93	9.22	11.59	5.90	6.94	8.07	10.15
A4	0.47	0.85	0.40	10.0	6.73	7.93	9.22	11.59	2.70	3.18	3.69	4.64
A5	0.26	0.85	0.22	10.0	6.73	7.93	9.22	11.59	1.49	1.75	2.04	2.56
A6	0.47	0.85	0.40	10.0	6.73	7.93	9.22	11.59	2.69	3.17	3.68	4.63
A7	0.76	0.85	0.64	10.0	6.73	7.93	9.22	11.59	4.34	5.11	5.93	7.46
A8	0.42	0.85	0.36	10.0	6.73	7.93	9.22	11.59	2.40	2.83	3.29	4.13
A9	0.23	0.85	0.20	10.0	6.73	7.93	9.22	11.59	1.32	1.55	1.80	2.27
B1	0.05	0.85	0.04	10.0	6.73	7.93	9.22	11.59	0.27	0.32	0.37	0.46
C1	0.08	0.85	0.06	10.0	6.73	7.93	9.22	11.59	0.43	0.51	0.59	0.74
D1	1.49	0.85	1.26	10.0	6.73	7.93	9.22	11.59	8.50	10.01	11.63	14.63

- NOTES:**
- DRAINAGE FROM THE ABUTTING PROPERTIES WILL NOT BE IMPAIRED BY THE PROPOSED GRADING.
 - PROPOSED OFF-SITE DISCHARGE TO ADJACENT PROPERTIES IS EQUAL TO OR LESS THAN EXISTING DISCHARGES.
 - THE PERIMETER DRIVE SERVES AS THE 100 YEAR EMERGENCY OVERFLOW PATH.
 - ALL PROPOSED STORM DRAIN SHOWN IS CONSIDERED "PRIVATE".
 - ALL ROOF DRAIN COLLECTION PIPE SHALL BE DR14 WATER TIGHT JOINT PIPE.
 - SEE SHEET C-403 FOR STORMWATER HYDRAULIC CALCULATIONS.

FOR REFERENCE PURPOSES ONLY



RECORD DRAWING

These Record Drawings were prepared using information provided by others and represents the as constructed conditions to the extent that the documented changes were provided for recording. The ENGINEER assumes no liability for undocumented changes and certifies that the documented changes are accurately depicted on these drawings.

J. J. Jolley 8-29-19
 Date
 ENGINEER

HOLY CROSS CATHOLIC CHURCH
PHASE 2
 LOT 1R, BLOCK A, HOLY CROSS CATHOLIC CHURCH
 7000 MORNINGSTAR DRIVE
 THE COLONY, TEXAS 75066
 CITY PROJECT NO. SP17-0016

ON-SITE DRAINAGE AREA
MAP & CALCULATIONS

MARK	DATE	DESCRIPTION
△	01-21-19	REVISION #6 FRENCH DRAIN
△	12-03-18	REVISION #5 LIGHT POLES
△	11-01-18	REVISION #4
△	09-18-18	REV. #3 EMERG. SPILLWAY ROCK RIP-RAP
△	07-19-18	REVISION #2
△	05-25-18	OMIT LANDSCAPE WALL
△	05-18-18	ENGINEERING PACKAGE SUBMITTAL #3
△	04-06-18	ENGINEERING PACKAGE SUBMITTAL #2
△	10-10-17	ENGINEERING PACKAGE SUBMITTAL #1

MAE PROJECT NO: 17146.00
 DESIGNED BY: PJP
 DRAWN BY: JDS
 CHECKED BY: EAC
 DATE: 04-06-18
 CITY PROJECT NO: E17-0028

SHEET TITLE
 ON-SITE DRAINAGE AREA MAP & CALCULATIONS

SHEET NO:
C-303

Pond Report

6

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Friday, 11/3/2017

Pond No. 1 - Northeast Pond

Pond Data
Contours - User-defined contour areas. Conic method used for volume calculation. Beginning Elevation = 587.50 ft

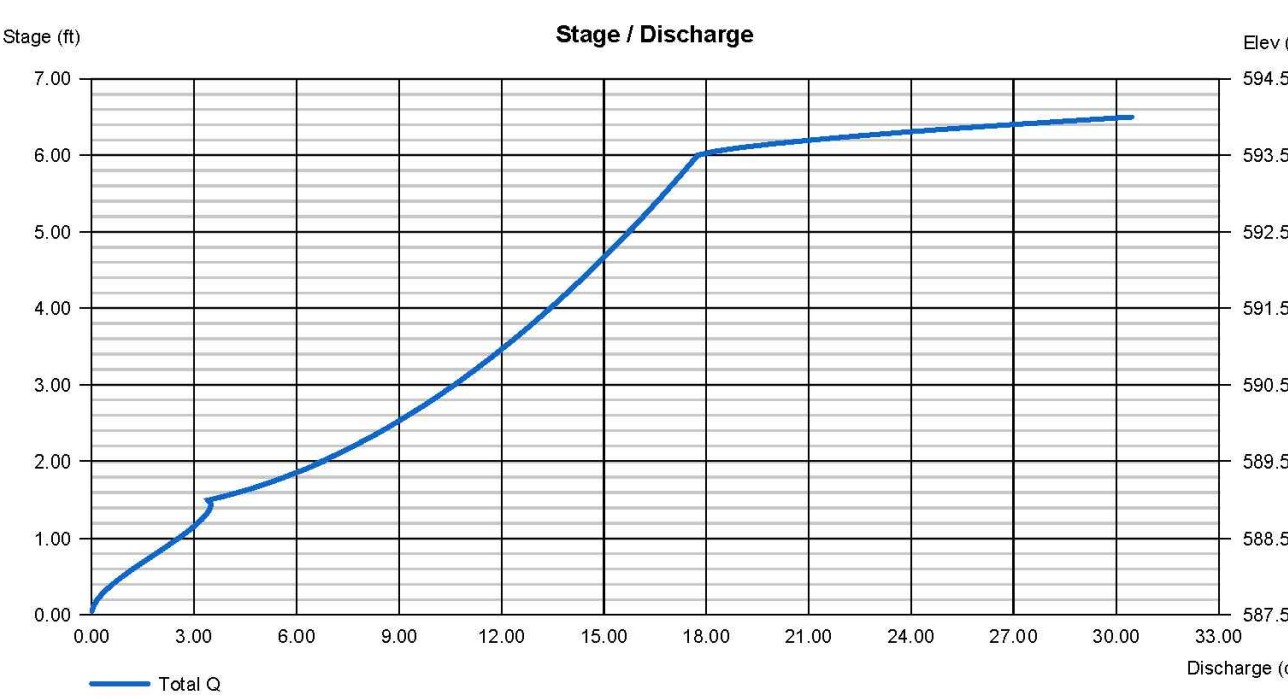
Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	587.50	125	0	0
0.50	588.00	1,753	391	391
1.00	588.50	3,273	1,237	1,628
1.50	589.00	4,859	2,550	4,577
2.00	589.50	6,507	4,707	9,284
2.50	590.00	10,673	5,128	14,410
3.00	590.50	11,565	5,507	19,967
3.50	591.00	12,454	6,003	25,970
4.00	591.50	13,395	6,460	32,430
4.50	592.00	14,332	6,930	39,360
5.00	592.50	15,321	7,411	46,771
5.50	593.00	16,303	7,904	54,675
6.00	593.50	17,348	8,411	63,086
6.50	594.00	18,382	8,930	72,016

Culvert / Orifice Structures

[A]	[B]	[C]	[Pr/Rsr]	[A]	[B]	[C]	[D]
Rise (in)	= 18.00	0.00	0.00	Crest Len (ft)	= 10.00	0.00	0.00
Span (in)	= 18.00	0.00	0.00	Crest El. (ft)	= 593.50	0.00	0.00
No. Barrels	= 1	0	0	Weir Coeff.	= 3.33	3.33	3.33
Invert El. (ft)	= 587.50	0.00	0.00	Weir Type	= Rect	—	—
Length (ft)	= 82.16	0.00	0.00	Multi-Stage	= No	No	No
Slope (%)	= 0.21	0.00	0.00	Exfil. (in/hr)	= 0.000	(by Contour)	
N-Value	= .013	.013	n/a	TW Elev. (ft)	= 0.00		
Orifice Coeff.	= 0.60	0.60	0.60				
Multi-Stage	= n/a	No	No				

Note: Culvert/Orifice outfalls are analyzed under inlet (c) and outlet (oc) control. Weir risers checked for orifice conditions (c) and submergence (s).



Hydrograph Report

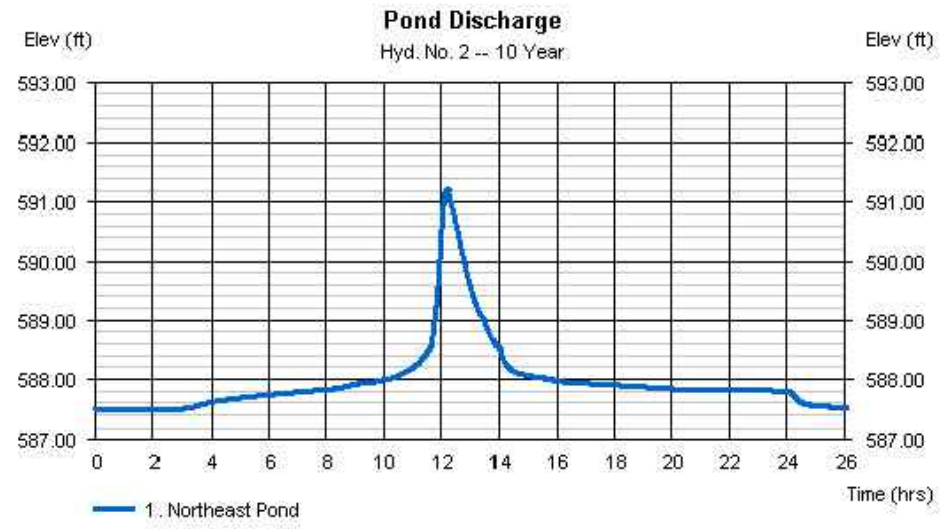
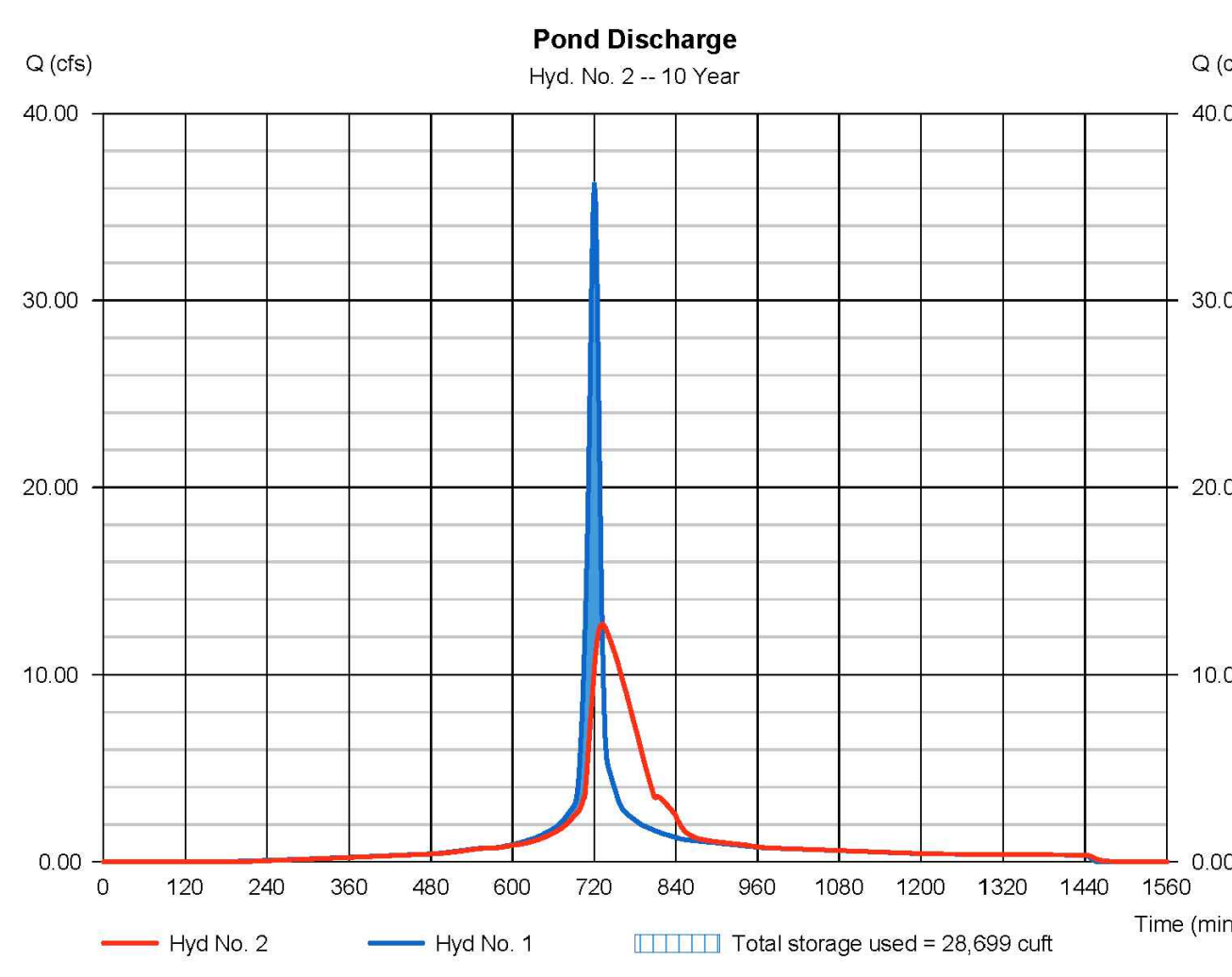
5

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Friday, 11/3/2017

Hyd. No. 2

Pond Discharge
Hydrograph type = Reservoir
Storm frequency = 10 yrs
Time interval = 2 min
Inflow hyd. No. = 1 - Holy Cross East DA 2-8
Reservoir name = Northeast Pond
Peak discharge = 12.67 cfs
Time to peak = 732 min
Hyd. volume = 100,592 cuft
Max. Elevation = 591.21 ft
Max. Storage = 28,699 cuft

Storage Indication method used.



Hydraflow Rainfall Report

10

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Friday, 11/3/2017

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	0.0000	0.0000	0.0000	-----
2	51.3930	9.0000	0.8411	-----
3	0.0000	0.0000	0.0000	-----
5	71.1540	12.0000	0.8142	-----
10	77.1030	12.0000	0.7995	-----
25	90.8220	13.0000	0.7938	-----
50	97.7210	13.0000	0.7826	-----
100	110.2020	14.0000	0.7798	-----

File name: Tarrant County ISWM 2014.IDF

Intensity = B / (Tc + D)^A

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5.58	4.32	3.55	3.03	2.65	2.38	2.13	1.95	1.79	1.66	1.55	1.46
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	7.08	5.74	4.86	4.23	3.76	3.39	3.10	2.85	2.65	2.47	2.32	2.19
10	8.00	6.51	5.53	4.83	4.30	3.88	3.55	3.27	3.04	2.84	2.67	2.52
25	9.17	7.55	6.48	5.67	5.07	4.60	4.21	3.89	3.62	3.39	3.19	3.02
50	10.18	8.40	7.20	6.33	5.67	5.15	4.72	4.37	4.07	3.82	3.60	3.40
100	11.09	9.24	7.98	7.05	6.33	5.76	5.30	4.91	4.58	4.30	4.06	3.84

Tc = time in minutes. Values may exceed 60.

rossPh2_Bransford05 ENGINEERING\CIVIL\CALCS\Hydrology\Hydrographs\Rainfall\Tarrant County from TXDot.ppt

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	0.00	3.95	0.00	5.50	6.47	7.55	8.61	9.58
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hydrograph Report

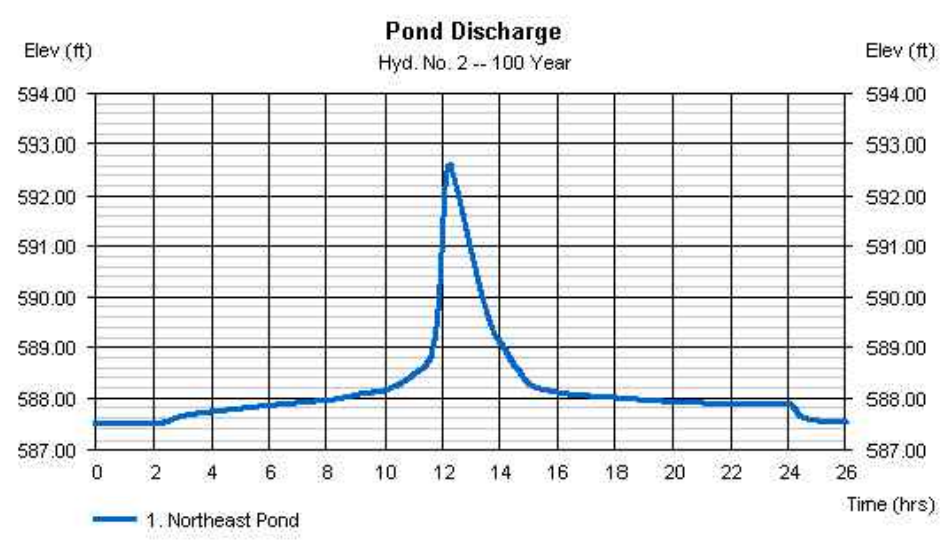
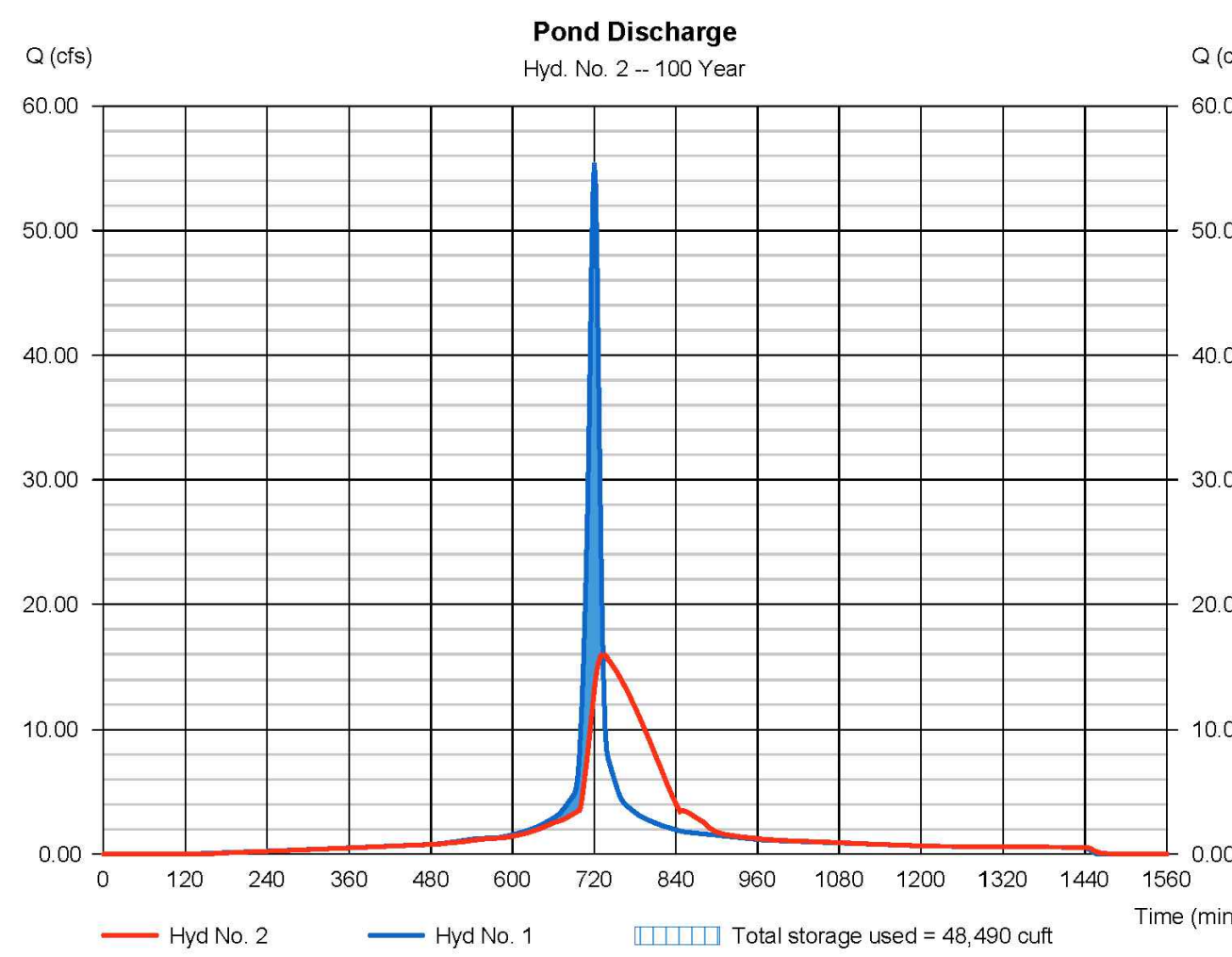
9

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Friday, 11/3/2017

Hyd. No. 2

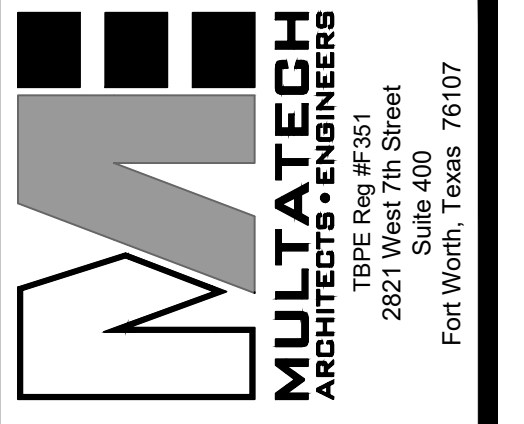
Pond Discharge
Hydrograph type = Reservoir
Storm frequency = 100 yrs
Time interval = 2 min
Inflow hyd. No. = 1 - Holy Cross East DA 2-8
Reservoir name = Northeast Pond
Peak discharge = 15.96 cfs
Time to peak = 732 min
Hyd. volume = 157,587 cuft
Max. Elevation = 592.62 ft
Max. Storage = 48,490 cuft

Storage Indication method used.



FOR REFERENCE PURPOSES ONLY

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	0.00	3.95	0.00	5.50	6.47	7.55	8.61	9.58
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



RECORD DRAWING
These Record Drawings were prepared using information provided by others and represents the as constructed conditions to the extent that the documented changes were provided for recording. The ENGINEER assumes no liability for undocumented changes and certifies that the documented changes are accurately depicted on these drawings.
J.P. Hollar 8-29-19
ENGINEER Date

HOLY CROSS CATHOLIC CHURCH
PHASE 2
LOT 1R, BLOCK A, HOLY CROSS CATHOLIC CHURCH
7000 MORNINGSTAR DRIVE
THE COLONY, TEXAS 75066
CITY PROJECT No. SP17-0016
POND CALCULATIONS

MARK	DATE	DESCRIPTION
△	01-21-19	REVISION #6 FRENCH DRAIN
△	12-03-18	REVISION #5 LIGHT POLES
△	11-01-18	REVISION #4
△	09-18-18	REV. #3 EMERG. SPILLWAY ROCK RIP-RAP
△	07-19-18	REVISION #2
△	05-25-18	OMIT LANDSCAPE WALL
△	05-18-18	ENGINEERING PACKAGE SUBMITTAL #3
△	04-06-18	ENGINEERING PACKAGE SUBMITTAL #2
△	10-10-17	ENGINEERING PACKAGE SUBMITTAL #1

MAE PROJECT NO: 17146.00
DESIGNED BY: PJP
DRAWN BY: JDS
CHECKED BY: EAC
DATE: 04-06-18
CITY PROJECT NO: E17-0028
SHEET TITLE
POND CALCULATIONS
SHEET NO:
C-304

K:\2017\17146.00_HolyCross_HolyCrossPH2_Bransford05_ENGINEERING\CIVIL\CALCS\SHEETS\Draw.dwg Jan 21, 2025 - 1:04pm User: jatory

K:\2024\24043.00 fort worth diocese catholic church_holy cross catholic church_bronford architects\06_CAD\CAD\SHEETS\UTILITY PLAN.dwg Feb 11, 2025 - 1:01pm User: jatorcy

LEGEND	
	EX. PAD MOUNT ELECTRIC TRANSFORMER
	EX. FIRE HYDRANT
	EX. WATER VALVE
	EX. IRRIGATION VALVE
	EX. WATER METER
	EX. SAN. SEWER MANHOLE
	EX. SAN. SEWER CLEANOUT
	EX. WATER LINE
	EX. SAN. SEWER LINE
	PROP. FIRE HYDRANT
	PROP. WATER VALVE
	PROP. SAN. SEWER CLEANOUT
	PROP. WATER LINE
	PROP. SAN. SEWER LINE
	PROP. STORM DRAIN
	PROP. GRATE INLET
	PROP. CURB INLET

- NOTES:
1. WATER LINE PIPE SHALL BE DR18 CLASS 150 PVC.
 2. SAN. SEWER PIPE SHALL BE SDR-35 PVC.
 3. ALL STORM DRAIN PIPES AND INLETS WITHIN THE PROPERTY ARE PRIVATE.
 4. ALL ROOF DRAIN COLLECTION PIPE SHALL BE DR14 WATER TIGHT JOINT PIPE.

PH 3 QUANTITIES STORM DRAIN ITEMS FOR COST ESTIMATES

SD QUANTITIES:	
6" SD (PVC)	25 LF
8" SD (PVC)	538 LF
10" SD (PVC)	30 LF
12" SD (PVC)	134 LF
GRATE INLET	5 EA
8" WTR. LOWERING	1 EA

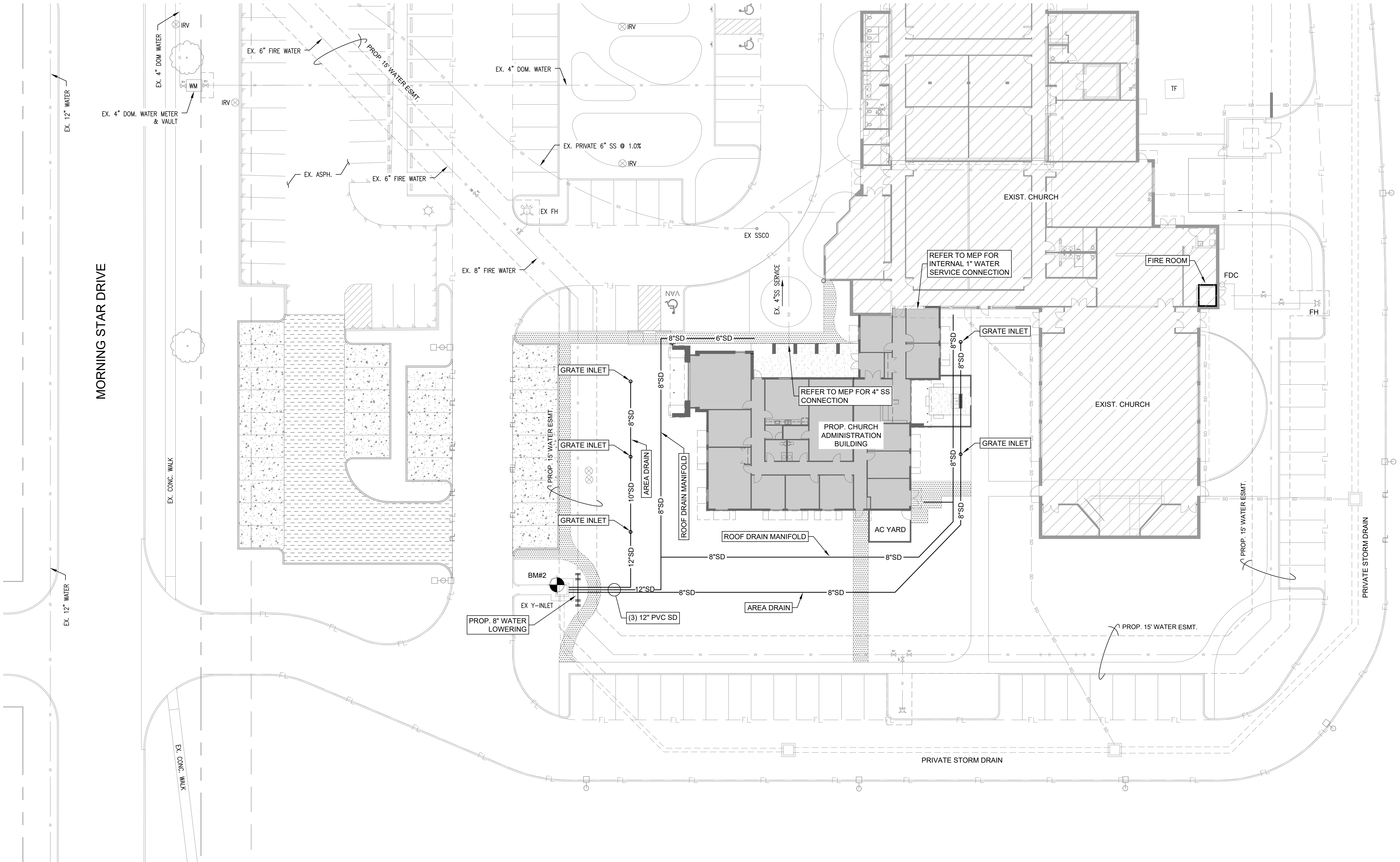
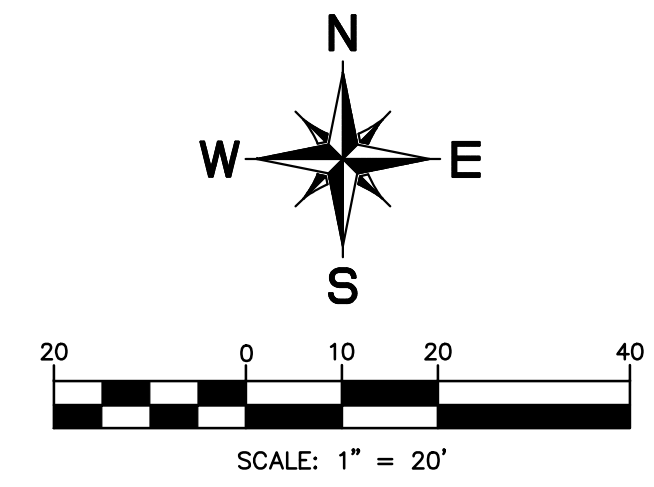
BM'S & BASES FOR BEARING

FEMA BM No. RM208 PER FEMA MAP
ELEV: 591.68

BM #1 - ONSITE BM, BOX CUT @ CENTERLINE INLET
LOCATED AT NORTHWEST CORNER ALONG N.
COLONY BLVD.
ELEV: 589.79

BM #2 - ONSITE BM, BOX CUT @ NW CORNER OF
"Y"-INLET
ELEV: 597.04

BM#3 - ONSITE BM, BOX CUT @ NW CORNER OF
CURB INLET
ELEV: 595.60



HOLY CROSS CATHOLIC CHURCH
PHASE 3
 LOT 1R, BLOCK A, HOLY CROSS CATHOLIC CHURCH
 7000 MORNINGSTAR DRIVE
 THE COLONY, TEXAS 75056
 CITY PROJECT No. SP17-0016

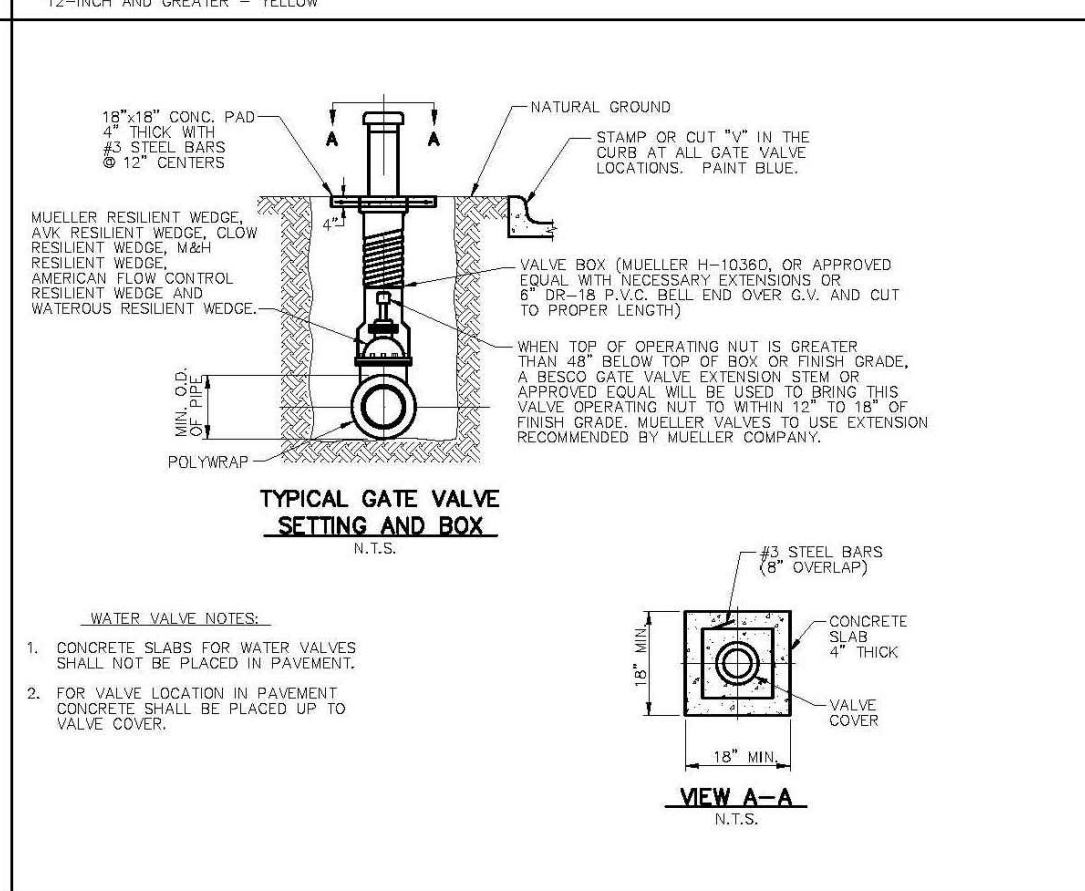
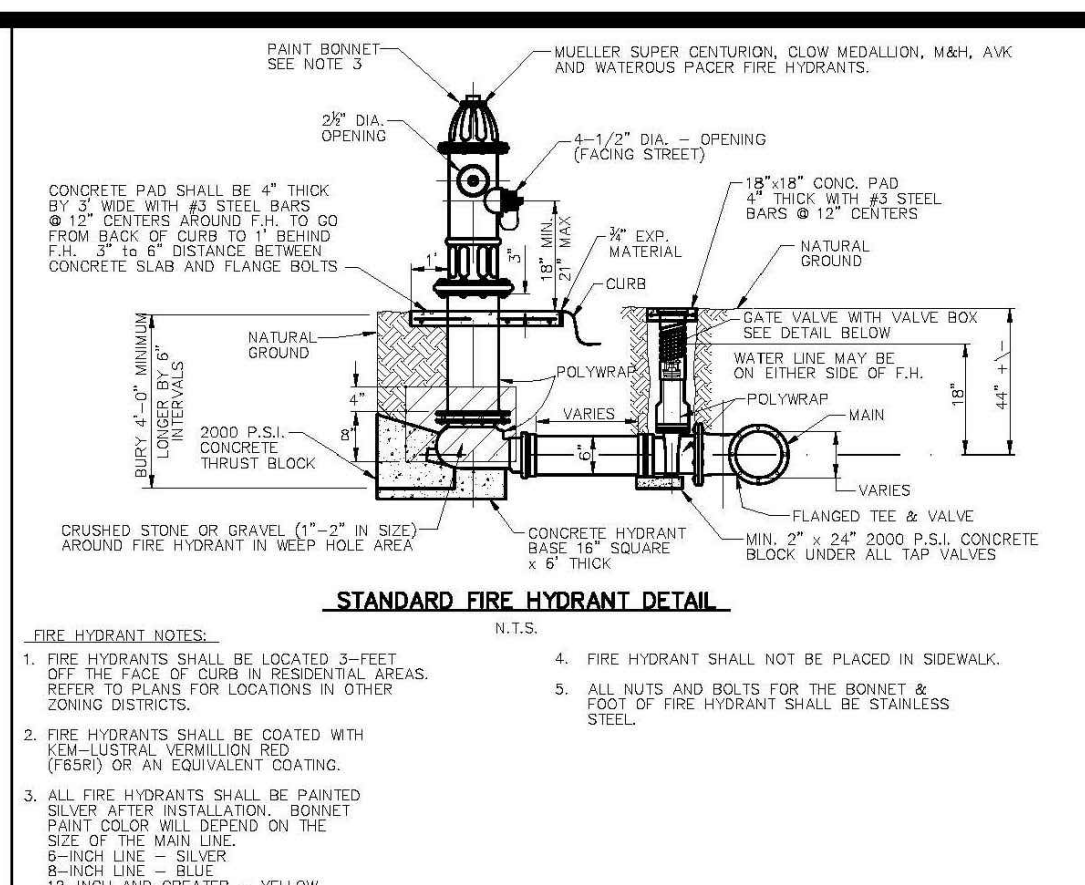
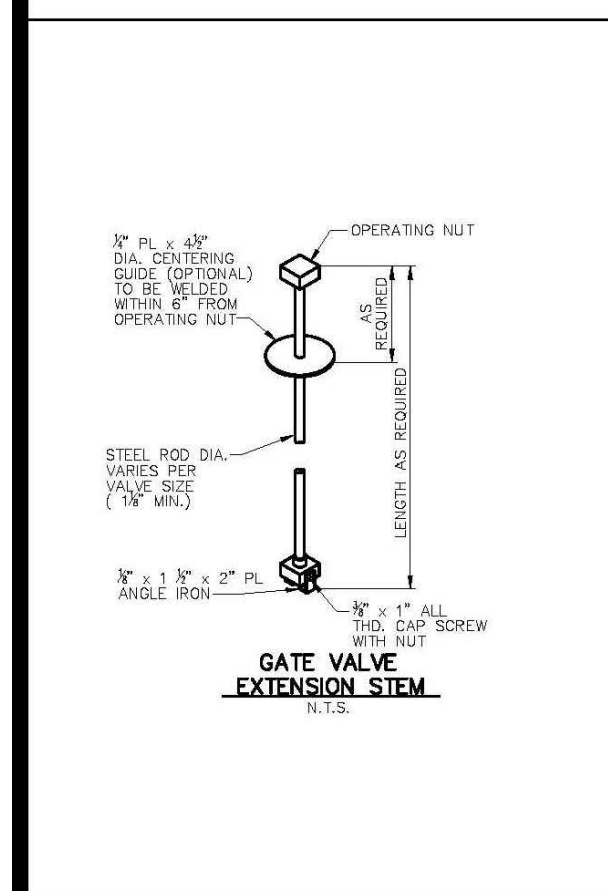
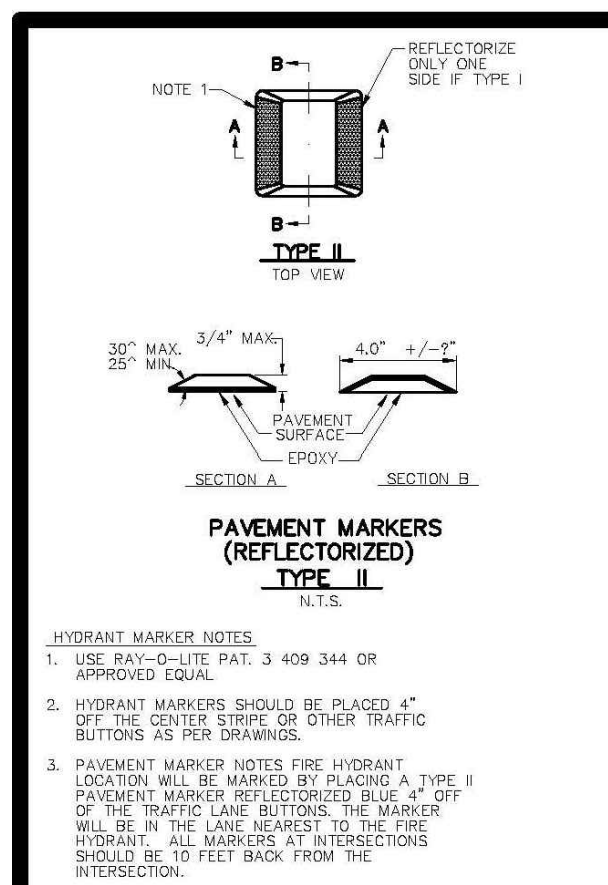
STORM DRAIN PLAN

MARK	DATE	DESCRIPTION

MLG PROJECT NO: 24043.00
 DESIGNED BY: PJP
 DRAWN BY: JDS
 CHECKED BY: EAC
 DATE: 02-12-25
 CITY PROJECT NO: SP17-0016

SHEET TITLE
STORM DRAIN PLAN

SHEET NO:
C-400



GENERAL NOTES:

GENERAL:

- All construction shall be in accordance with the standard specifications of the City of The Colony which has also adopted the Fourth Edition of the "Standard Specifications for Public Works Construction - North Central Texas" herein referred to as "COG Specifications". Copies may be obtained from the North Central Texas Council of Governments, 616 Six Flags Drive, Suite 200, Arlington, Texas 76010-3888. (817) 840-3300.
- Refer to COG division 500 specifications.

PIPE:

- Water mains up to 12-inch diameter shall be Polyvinyl Chloride PVC-C-900 or C-909 (Class 150), or DR14 (Class 200). Water mains greater than 12-inch diameter may be one of the following:
 - Reinforced Concrete Cylinder Pipe (RCCP) Class pressure class 150 or greater as specified by the Engineer. Refer to COG Item 501.4 specifications.
 - Steel pipe with minimum pressure class 85. PVC pipe shall not be used for mains greater than 24-inch diameter. Refer to COG Item 501.4 specifications.
- For pipe sizes 12-inches and smaller, the Embedment shall be as per the "Pipe Embedment Detail" on the Backfill / Embedment sheet.
- For pipe sizes larger than 12-inches, the Engineer shall specify the Embedment.
- Cover: The following minimum cover over the waterline is required:
 - 48-inches of cover over waterlines 12-inches in diameter or less.
 - 60-inches to 72-inches of cover over waterlines larger than 12-inches in diameter. Note: Water mains buried with over 72-inches of cover shall be approved by the City Engineer.
- Storage: PVC water pipe is allowed to be stored a maximum of six (6) months without cover. Thereafter all pipe should be covered or kept away from sunlight and to be protected from other elements.
- Installation: Refer to COG Item 508 specifications.
 - Blue PVC water pipe is acceptable for the installation.
 - All water mains, valves, fittings, etc. made with ductile iron or ferrous metal shall be wrapped with 80 mil. Polywrap.
- Bleeded ends of the pipe shall be removed when used in Mega Lug fittings. Caution: When PVC water pipe is installed in casing, slides must be used to prevent damage to the pipe and ball during installation. PVC pipe should not rest on the balls. Plastic spacers such as HACO or approved equal shall be used.

FITTINGS:

- The Contractor may use cast iron or ductile iron fittings, complete with Polywrap.
- All fittings shall be Mega Lug or equivalent unless specified otherwise.
- All fittings shall be bonded as per the details on the Concrete Blocking sheet.
- Refer to COG Item 501.2.4 specifications.

VALVES:

- Valves installed on waterlines 12-inch diameter or less shall be locking gate valves.
- Valves installed on waterlines larger than 12-inch diameter shall be butterfly valves. An offset stem shall be provided on the butterfly valve operation.
- All gate valves shall have non-rising stems and resilient seated wedges.
- All valves and the hydrant end, shall be 100 with the lot lines, where possible.
- All valve locations shall be marked with "V" stamped or cut on the curb and painted blue for water mains and silver for fire hydrants.
- Refer to the details on this sheet and COG Item 502.6 specifications.

TESTING:

The following tests shall be performed:

- Purging by using the "Purge-Pipe" method for all water lines greater than 200 feet in length, and less than 12-inch diameter, to enter and exit at approved strategic locations and as per COG Item 506.7.3.1 specifications, to include all equipment, material, and labor. All water lines larger than 12-inches shall be purged by the flushing method as per COG Item 506.7.3.2.
- Hydrostatic test as per COG Item 506.8 specifications and as approved by the City Engineer.
- Ductility tests as per COG Item 506.7.5 specifications and as approved by the City Engineer.
- One water sample per each street name (to greater than 1,000 feet), or as approved by the City Engineer.

BACKFILL AND COMPACTION REQUIREMENTS:

- All ditches shall be mechanically tamped with the coat incidental to this bid item. Backfill, other than base fill, may consist of on-site or off-site inorganic soils and shall be placed in lifts 6-inch - 8-inch in thickness and shall be compacted to 95% of the maximum dry density as defined by ASTM D-698 (Standard Proctor) procedure under wetting and propped pavement, and to 90 percent standard proctor procedure elsewhere. The moisture content of the fill at the time of compaction should be near optimum to four percentage points above the proctor optimum value. Density shall be taken every (1) lift at staggered one hundred (100) foot increments.

CONCRETE:

THIS CITY OF THE COLONY STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF THE COLONY.

WATER STANDARD DETAILS

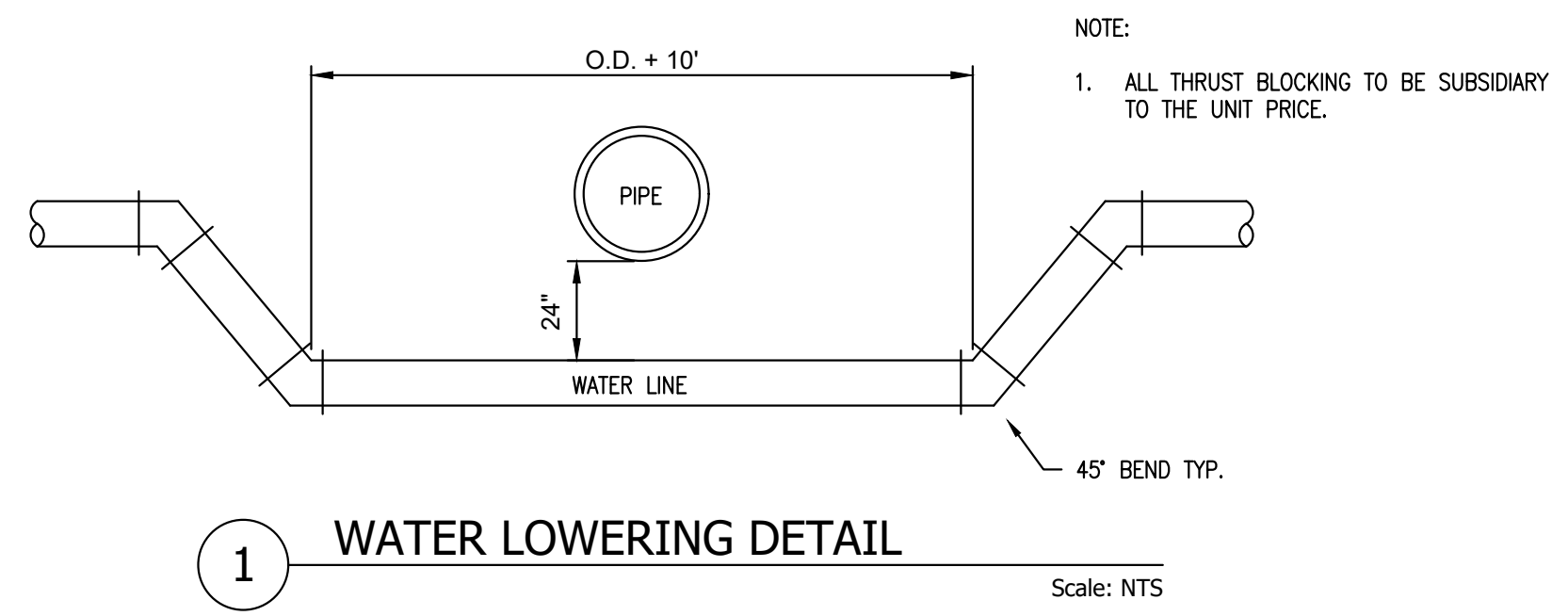
VALVE, HYDRANTS AND GENERAL NOTES

THE COLONY
City by Lake

THE CITY OF THE COLONY
TEXAS

ENGINEERING DEPARTMENT

DESIGN	DRAWN	CHECK	REV. DATE	SCALE	FILE	NO.
M.S.				N.T.S.	W-1	



1 WATER LOWERING DETAIL

Scale: N.T.S.

NOTE:

- ALL THRUST BLOCKING TO BE SUBSIDIARY TO THE UNIT PRICE.

WATER STANDARD DETAILS

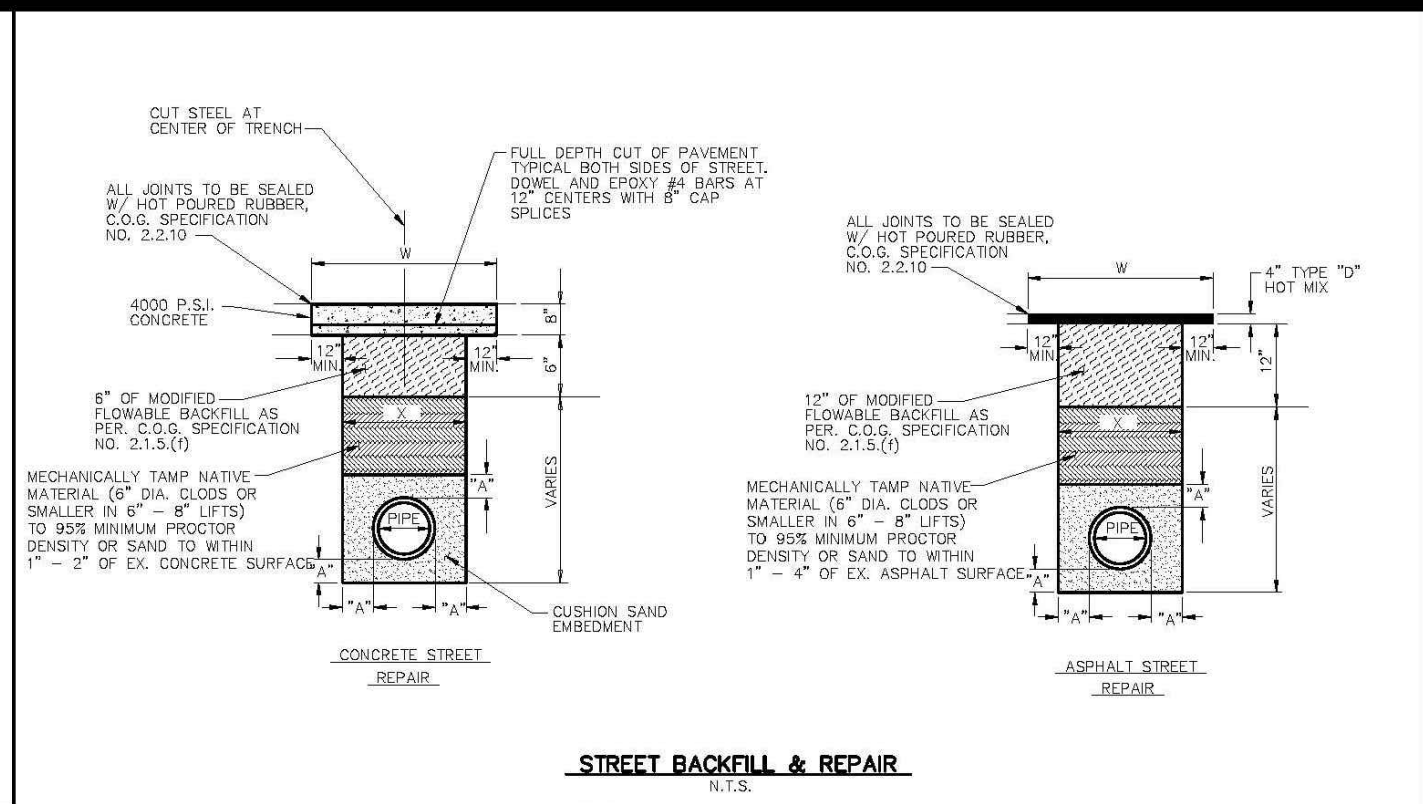
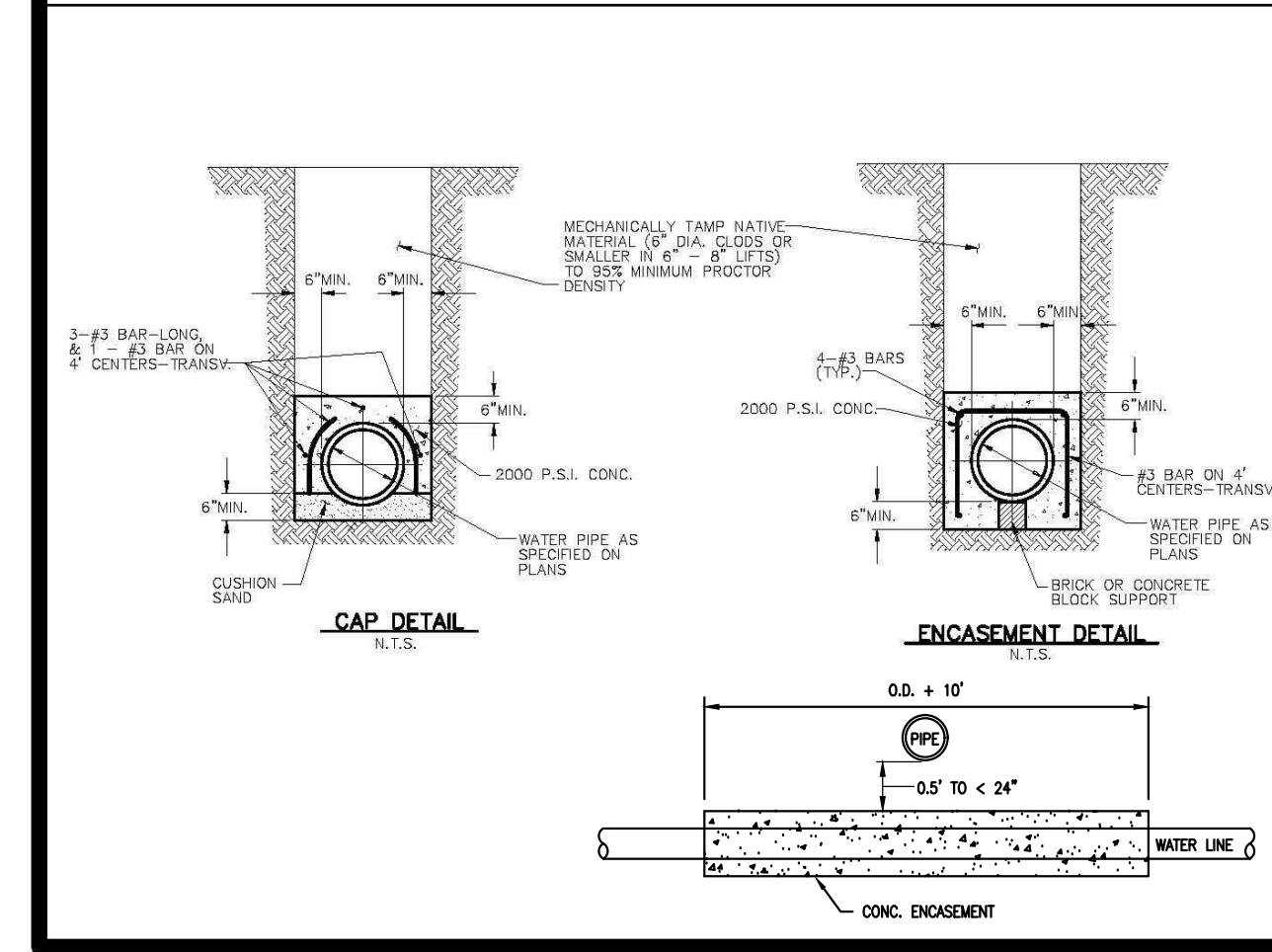
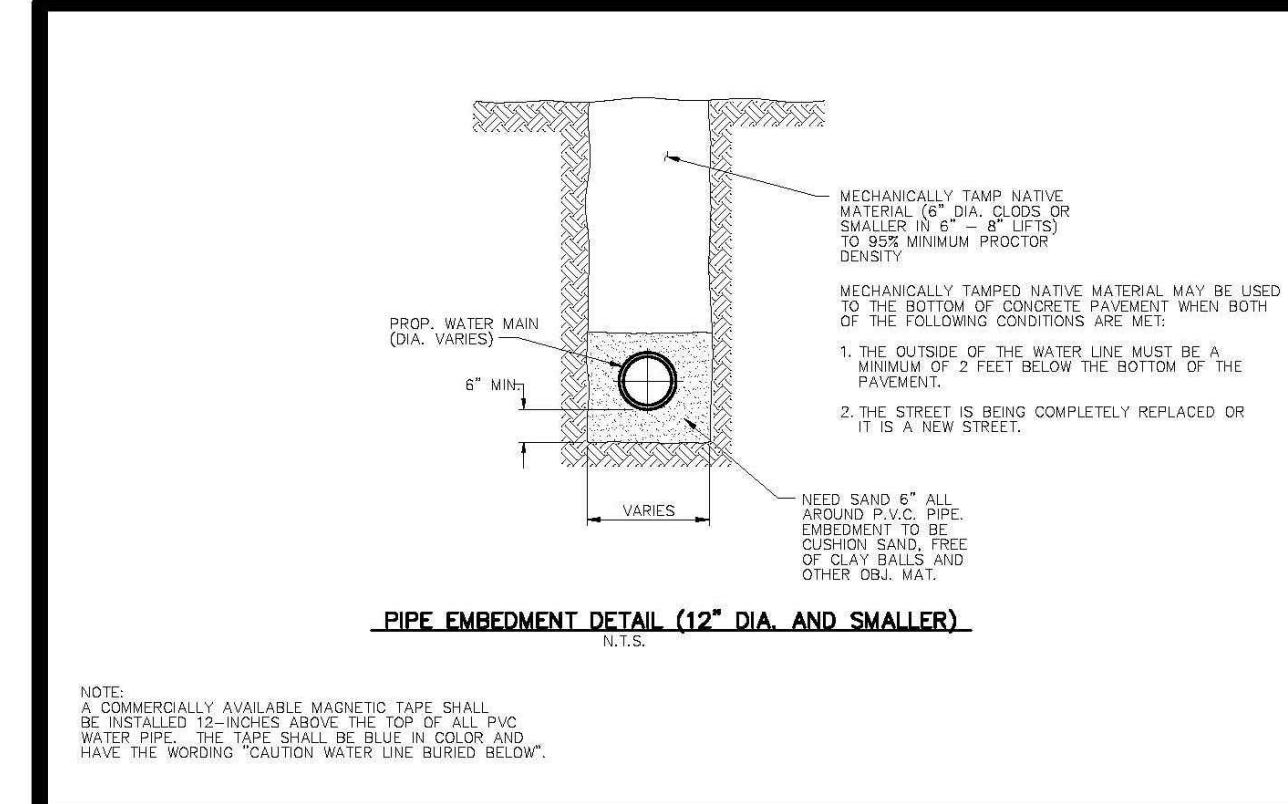
VALVE, HYDRANTS AND GENERAL NOTES

THE COLONY
City by Lake

THE CITY OF THE COLONY
TEXAS

ENGINEERING DEPARTMENT

DESIGN	DRAWN	CHECK	REV. DATE	SCALE	FILE	NO.
M.S.				N.T.S.	W-1	



STREET BACKFILL & REPAIR

NOTE:

- SAW CUT TO REPAIR ASPHALT OR CONCRETE PAVEMENT PRIOR TO OPENING THE DITCH IN ORDER TO ENSURE A NEAT STRAIGHT EDGE.

TABLE OF DIMENSIONS FOR WIDTH OF TRENCH AND PAVEMENT REPLACEMENT.

NORMAL SIZE OF PIPE (INCHES)	O.D. OF PIPE (INCHES)	MINIMUM TRENCH WALL CLEARANCE (INCHES)		WIDTH OF TRENCH (X) (INCHES)		WIDTH OF "FOOT" (Y) (INCHES)	
		MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
8	8.6	6	24	18	48	48	48
10	11.0	6	24	24	48	48	48
12	13.2	6	30	30	60	60	60
16+	VARIES	6	*	*	90	90	90

NOTE:

- REFER TO THE PLANS FOR SPECIFIED WIDTH OF REPLACEMENT.
- RECOMMENDED WIDTHS - VARIES BASED ON DEPTH, AND SOIL MATERIAL.

WATER STANDARD DETAILS

BACKFILL / EMBEDMENT

THE COLONY
City by Lake

THE CITY OF THE COLONY
TEXAS

ENGINEERING DEPARTMENT

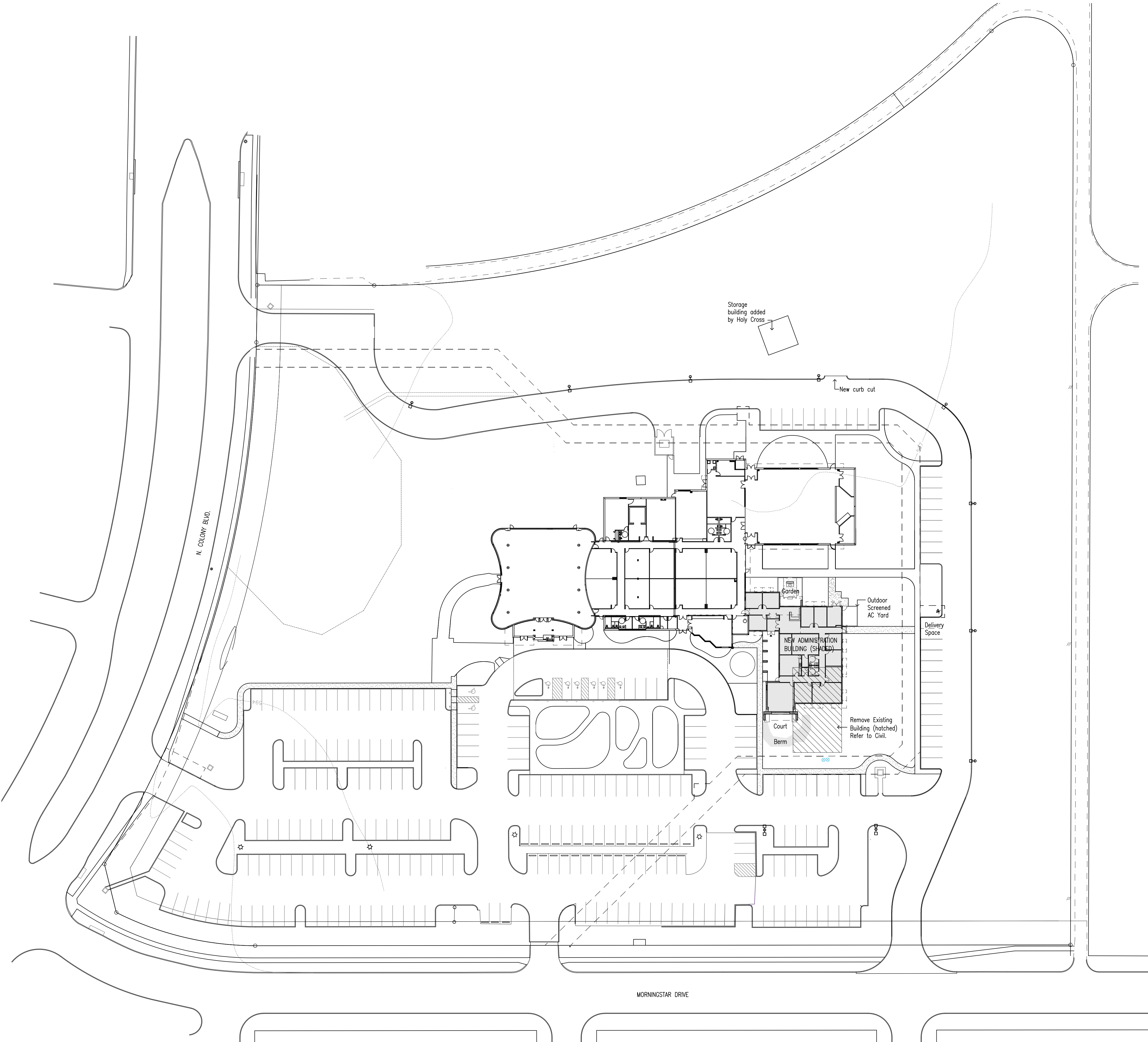
DESIGN	DRAWN	CHECK	REV. DATE	SCALE	FILE	NO.
M.S.				N.T.S.	W-2	

VERTICAL THRUST BLOCK NOTES:

- ALL CALCULATIONS ARE BASED ON INTERNAL PRESSURE OF 200 P.S.I. FOR 24\"/>
- VOLUMES OF VERTICAL BEND THRUST BLOCKS ARE NET VOLUMES OF CONCRETE TO BE FURNISHED, THE CORRESPONDING WEIGHT OF THE CONCRETE IS EQUAL TO OR GREATER THAN THE VERTICAL COMPONENT OF THRUST ON THE VERTICAL BEND.
- WALL THICKNESS (T) ASSUMED HERE FOR ESTIMATING PURPOSES ONLY.
- CONCRETE FOR BLOCKING SHALL BE 2000 P.S.I. CONCRETE.
- DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS WHERE AND AS DIRECTED BY THE ENGINEER. THE VOLUME OF CONCRETE BLOCKING SHALL NOT BE LESS THAN SHOWN HERE.

TABLE OF DIMENSIONS FOR WIDTH OF TRENCH AND PAVEMENT REPLACEMENT.

Δ	11.25"	22.50"	30"	45"	67.50"	90"	Δ
I.D. (IN.)	1.0	2.0	2.5	3.8	4.6	5.0	I.D.
THRUST VOL. (C.Y.)	0.5	1.0	1.3	2.0	2.3	2.5	THRUST VOL. (C.Y.)
THRUST TONS	2.0	4.0	5.2	8.0	9.2	10.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)	1.0	2.0	2.5	3.8	4.6	5.0	THRUST VOL. (C.Y.)
THRUST TONS	4.0	8.0	10.4	15.2	18.4	20.0	THRUST TONS
THRUST VOL. (C.Y.)</							



< N 1 SITE PLAN
 1"=40'-0" @ FULL SIZE
 0 10
 THIS SITE PLAN IS FOR ORIENTATION ONLY.
 REFER TO CIVIL DRAWINGS FOR SITE LAYOUT
 AND ALL DETAILS OF CONSTRUCTION.

New Administration Building
 HOLY CROSS CATHOLIC CHURCH

7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-5252

Engineer's Seal

Jim Bransford Architect

2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-0159

Architect's Seal

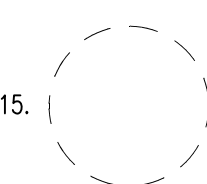
Project: 2402
 Date: 2-12-25
 FINAL DD

Revisions:

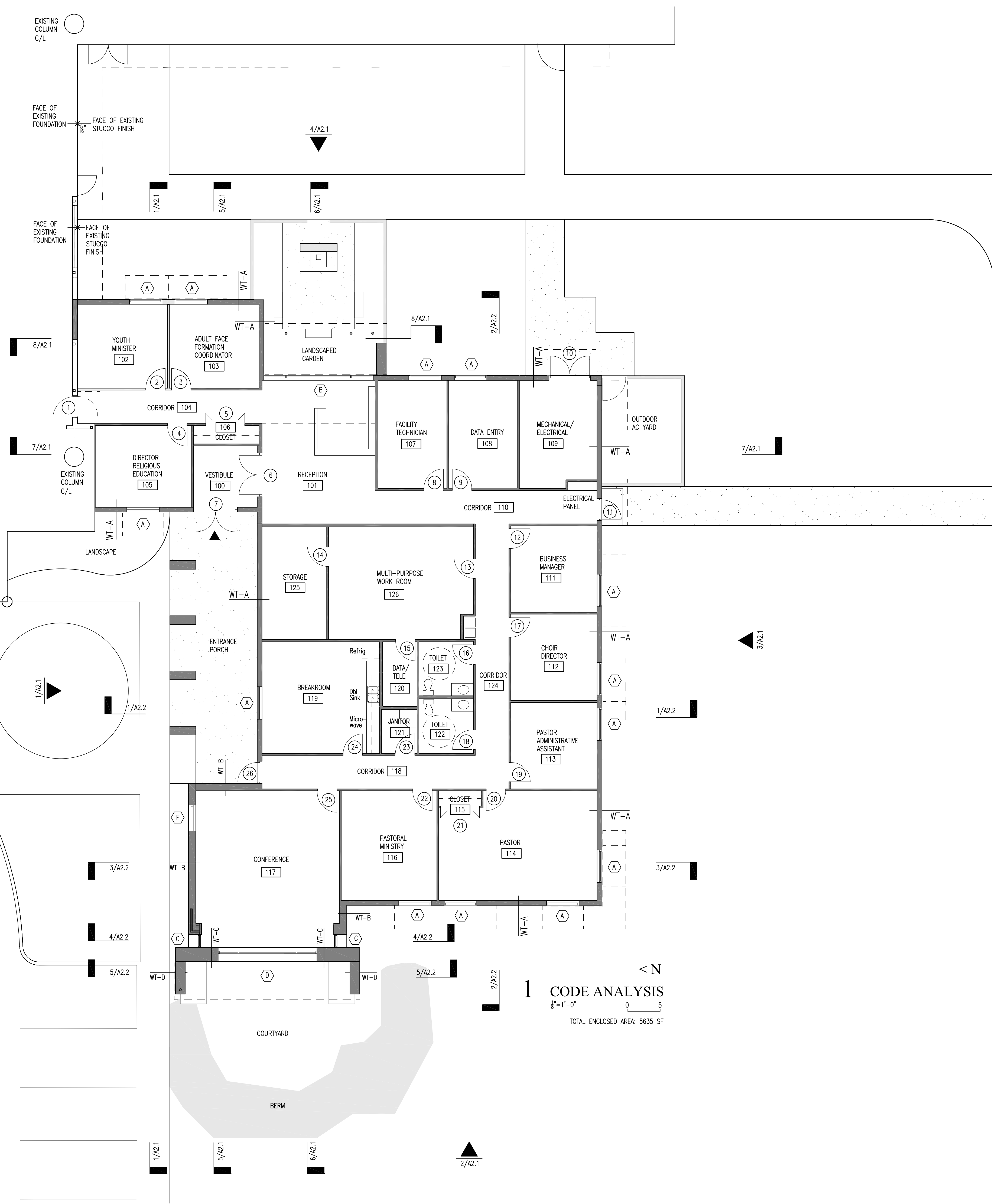
Design Development
 Not for construction, permitting or regulatory approval.

3 CODE ANALYSIS NOTES

1. PROJECT DESCRIPTION:
THE PRIMARY PURPOSE OF THE ADMINISTRATIVE BUILDING ADDITION TO HOLY CROSS CATHOLIC CHURCH IS THE PROVISION OF A PARISH GREETING CENTER, OFFICES FOR THE ADMINISTRATIVE STAFF, AND MULTI-PURPOSE PRODUCTION FACILITIES.

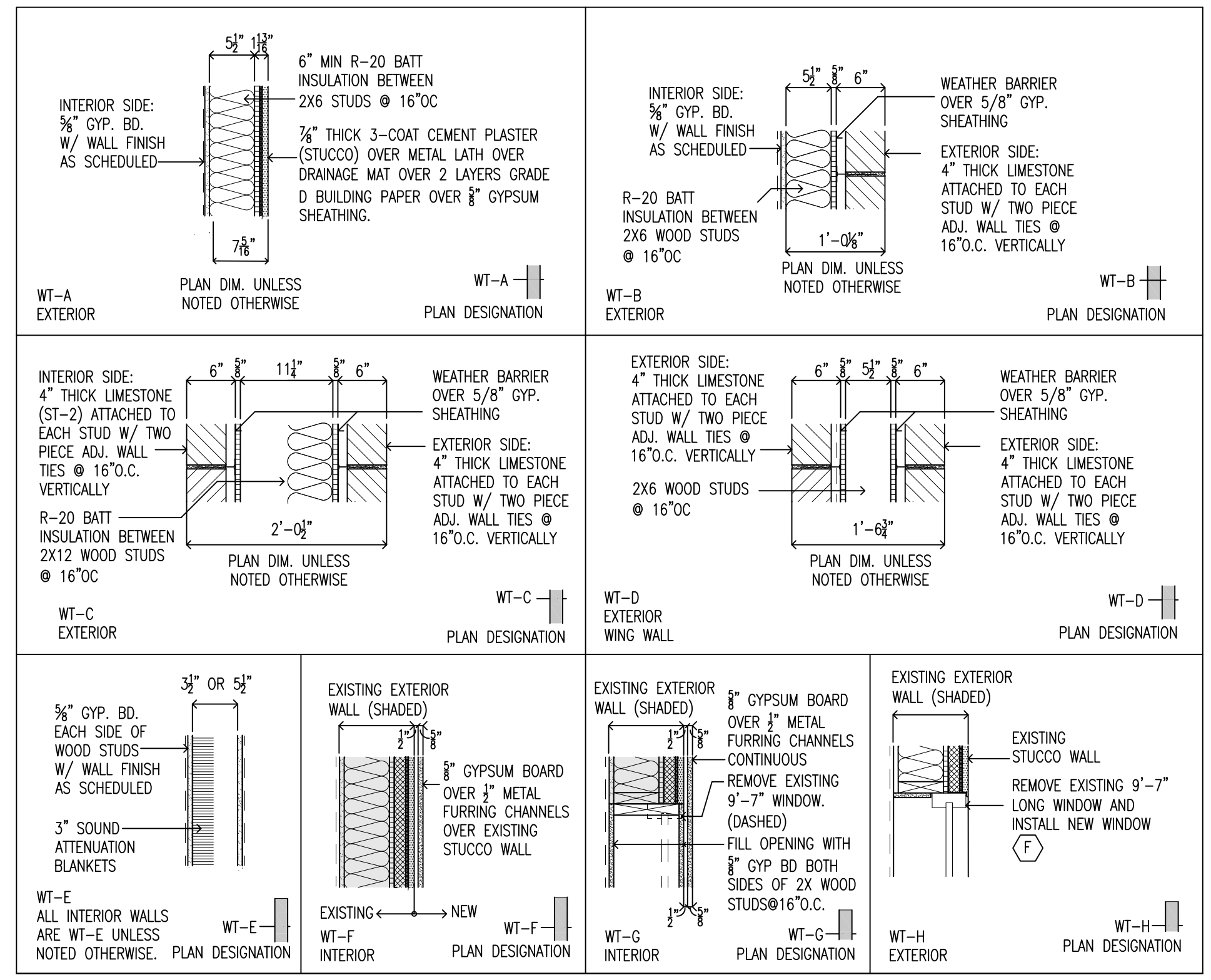
THE PROJECT INCLUDES A VISITOR RECEPTION AREA, 9 STAFF OFFICES, A PASTOR'S OFFICE, A STAFF BREAK ROOM, A CONFERENCE ROOM, A MULTIPURPOSE WORK ROOM, 2 NEW TOILETS AND SITE IMPROVEMENTS REQUIRED FOR FUNCTION AND AS DICTATED BY THE CITY OF THE COLONY CODES AND ORDINANCES.
2. PROJECT BUILDING AREA:
EXISTING BUILDING AREA_28,720sf
NEW ADMINISTRATION BUILDING ADDITION_5635sf
TOTAL PROJECT BUILDING AREA_34,355sf
BUILDING OCCUPANCY GROUP: A3_ACCESSORY TO PLACE OF RELIGIOUS WORSHIP
4. TOTAL ALLOWABLE AREA (2021 IBC TABLE 506.2) = XXXXsf
5. THE ENTIRE BUILDING WILL BE EQUIPPED WITH AN NFPA13 AUTOMATIC FIRE SPRINKLER SYSTEM AND AN EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM.
6. TOTAL ALLOWABLE HEIGHT (2021 IBC TABLE 504.3) = 75'
7. OVERALL BUILDING HEIGHT: 47'-6" TO TOP OF EXISTING BELL TOWER (EXCLUDING CROSS).
8. DETACHED BUILDINGS ON SITE SEPARATED FROM PROJECT >30'
EXISTING STORAGE BUILDING: 670sf_ SEPARATION 86'
9. PROPOSED CONSTRUCTION TYPE: VB
A. TABLE 601: FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS: 0 HOURS
B. TABLE 602: FIRE RESISTANCE RATING FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE:
FIRE SEPARATION DISTANCE < 30': 0 HOURS
B. EXISTING BUILDING CONSTRUCTION TYPE: 2B
10. THE ENTIRE BUILDING WILL BE EQUIPPED WITH AN NFPA13 FIRE SPRINKLER SYSTEM AND AN EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM.
11. MINIMUM CORRIDOR WIDTH REQUIRED (TABLE 1018.2 AND SECTION 303.1.4):
OCCUPANCY GROUP A3 AND ACCESSORY RELIGIOUS EDUCATION ROOMS WITH OCCUPANT LOADS OF LESS THAN 100 = 44". MINIMUM CORRIDOR WIDTH PROVIDED = 60"
12. EXIT ACCESS TRAVEL DISTANCE = XXX FROM THE MOST REMOTE POINT ON THE GROUND FLOOR TO AN EXIT. 250' IS ALLOWED IN A BUILDING WITH SPRINKLER SYSTEM. TABLE 1016.2.
13. THE DISTANCE BETWEEN EXIT X AND EXIT X IS THE FURTHEST COMMON PATH OF EGRESS TRAVEL. XXX/2=XXX. IN A BUILDING WITH SPRINKLER SYSTEM 75' IS ALLOWED. TABLE 1014.3.
14. SURFACE BURNING CHARACTERISTICS OF INTERIOR MATERIALS AND FINISHES:
THE CONTRACTOR WILL CONFIRM THAT ALL MATERIALS AND FINISHES USED ON THIS PROJECT WILL CONFORM TO THE REQUIREMENTS OF 2021 IBC TABLE XXX.X FOR SPRINKLERED BUILDINGS IN GROUP A.3 OCCUPANCIES AS FOLLOWS:
A. INTERIOR EXIT STAIRWAYS, INTERIOR EXIT RAMPS, AND EXIT PASSAGEWAYS: CLASS B
FLAME SPREAD INDEX 26-75; SMOKE-DEVELOPED INDEX 0-450
B. CORRIDORS AND ENCLOSURE FOR EXIT ACCESS STAIRWAYS, AND EXIT ACCESS RAMPS: CLASS C
FLAME SPREAD INDEX 76-200; SMOKE-DEVELOPED INDEX 0-450.
C. ROOMS AND ENCLOSED SPACES: CLASS C
FLAME SPREAD INDEX 76-200; SMOKE-DEVELOPED INDEX 0-450.
D. REFER TO TABLE 803.9 FOR NOTES AND EXCEPTIONS.
15.  INDICATES 5' HANDICAP TURNING RADIUS
16. FEC INDICATES CLASS A LIGHT HAZARD SEMI-RECESSED FIRE EXTINGUISHER CABINET LOCATED AT A MAXIMUM TRAVEL DISTANCE OF 75'.
FINAL LOCATION AND TYPE MUST BE APPROVED BY THE FIRE MARSHALL PRIOR TO INSTALLATION.

Design Development
Not for construction, permitting or regulatory approval.



1 CODE ANALYSIS
1/8" = 1'-0"
TOTAL ENCLOSED AREA: 5635 SF

2 WALL TYPE SCHEDULE



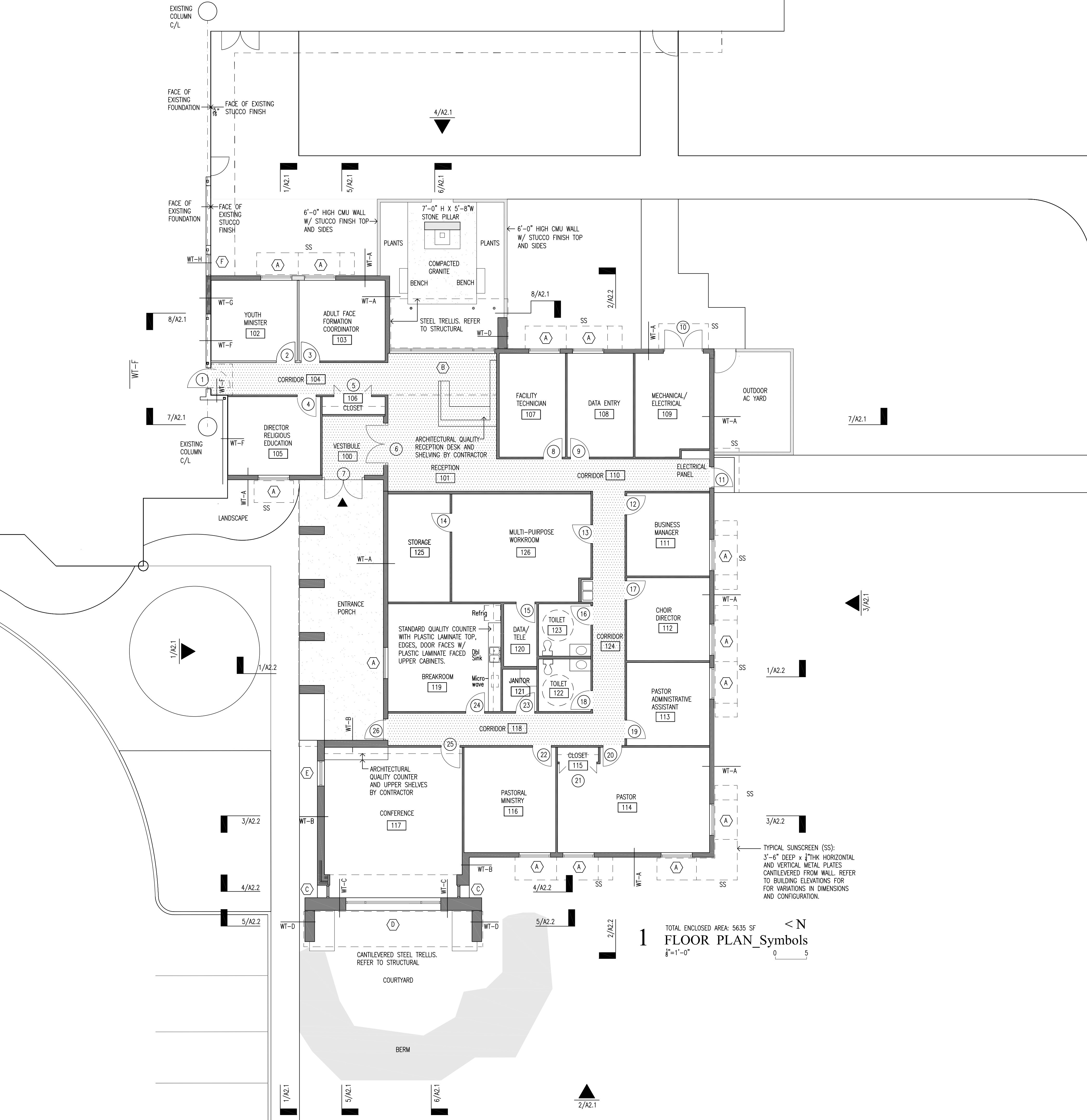
- WALL TYPE SCHEDULE NOTES:
 1. ALL INTERIOR WALLS ARE WT-E UNLESS NOTED OTHERWISE.
 2. DO NOT SCALE DETAILS.

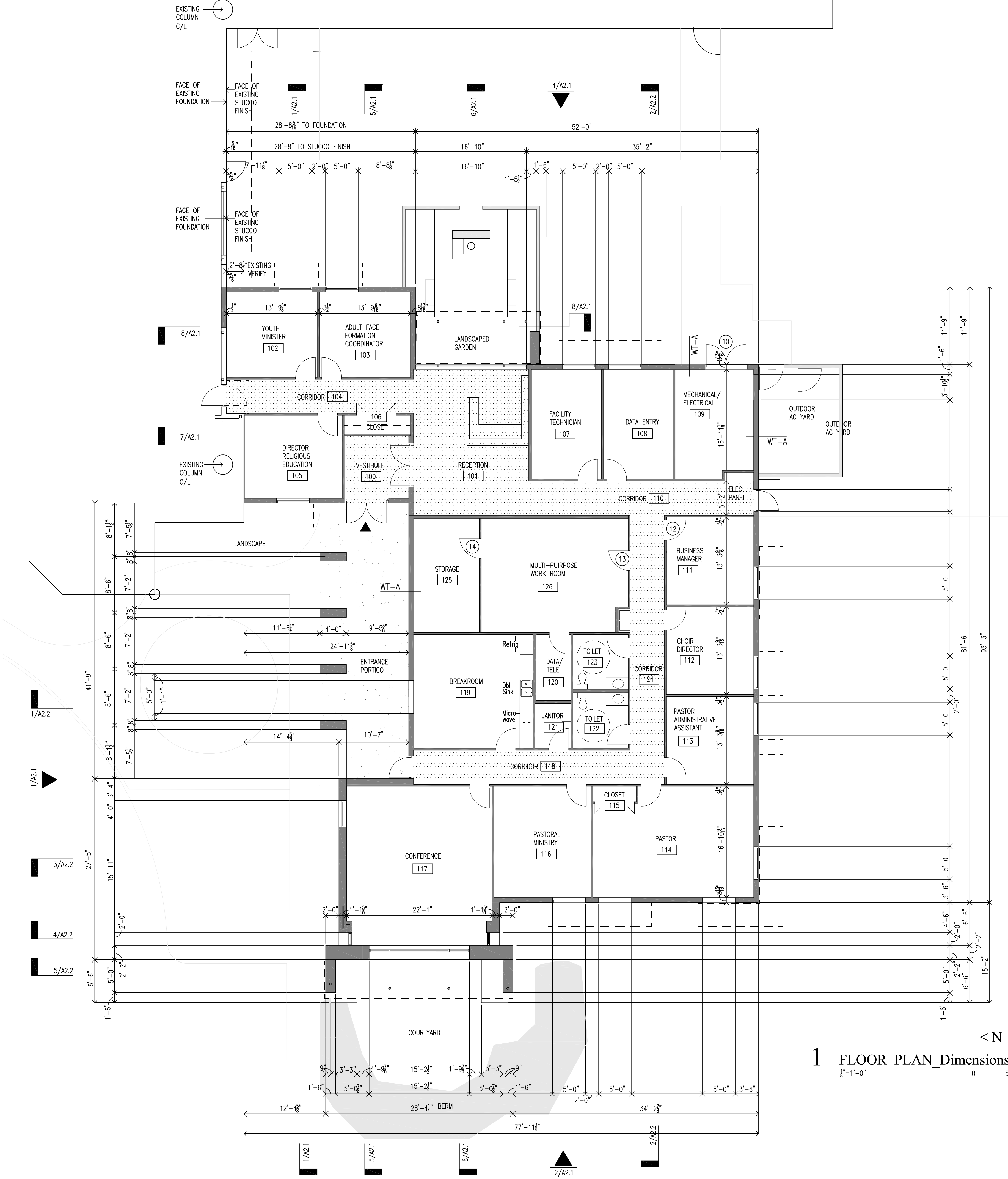
3 ROOM FINISH SCHEDULE (RFS)

ROOM NUMBER	ROOM TITLES	FLOOR	BASE	WALLS	CEILING	CEILING HEIGHT	FLOOR ELEVATION	RFS NOTES												
									1	2	3	4	5	6	7	8	9	10	11	12
100	VESTIBULE					FIN CONC EL XXX.XX' =100'-0"		NOTE 1												
101	RECEPTION					SLOPED	99'-11 1/2"	NOTE 1												
102	YOUTH MINISTER						VARIES	100'-0"												
103	ADULT FACE FORMATION OFFICE						9'-0"	NOTE 2												
104	CORRIDOR						9'-0"	NOTE 1												
105	DIRECTOR RELIGIOUS EDUCATION						9'-0"	NOTE 2												
106	CLOSET						9'-0"	NOTE 2												
107	FACILITY TECHNICIAN						9'-0"	NOTE 2												
108	DATA ENTRY						9'-0"	NOTE 2												
109	MECHANICAL/ELECTRICAL						11'-4"	NOTE 1												
110	CORRIDOR						9'-0"	NOTE 2												
111	BUSINESS MANAGER						9'-0"	NOTE 2												
112	CHOIR DIRECTOR						9'-0"	NOTE 2												
113	PASTOR ADMINISTRATIVE ASST						9'-0"	NOTE 2												
114	PASTOR						9'-0"	NOTE 2												
115	CLOSET						9'-0"	NOTE 2												
116	PASTORAL MINISTRY						9'-0"	NOTE 2												
117	CONFERENCE						VARIES	NOTE 2												
118	CORRIDOR						9'-0"	NOTE 1												
119	BREAKROOM						9'-0"	NOTE 2												
120	DATA/ TELEPHONE ROOM						9'-0"	NOTE 2												
121	JANITOR						9'-0"	NOTE 3												
122	TOILET						9'-0"	NOTE 3												
123	TOILET						9'-0"	NOTE 3												
124	CORRIDOR						9'-0"	NOTE 1												
125	STORAGE						9'-0"	NOTE 1												
126	MULTI-PURPOSE WORKROOM						9'-0"	NOTE 1												
127																				
128																				
129																				
130																				

- ROOM FINISH SCHEDULE (RFS) NOTES:
 1. RECESS CONCRETE SLAB 1" FOR SLATE WHERE SHOWN ON THE FLOOR PLANS.
 2. 2X4 TEGULAR ACOUSTICAL LAY-IN CEILING WILL HAVE CENTER GROOVE WITH 2X2 APPEARANCE.
 3. INSTALL CERAMIC WALL TILE OVER 1/2" CEMENT BOARD

DESIGN DEVELOPMENT
 Not for construction, permitting or regulatory approval.





1 FLOOR PLAN_Dimensions
 1/8"=1'-0" 0 5

2 DOOR SCHEDULE

DOOR NUMBER	TYPE	MATERIAL	FINISH	SIZE			FRAME			DETAILS			FIRE RATING (MIN)	HARDWARE SET	DOOR NOTES
				WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	FINISH	HEAD	JAMB	THRESHOLD			
1	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
2	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
3	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
4	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
5	D	WD	STN	6'-0"	7'-0"	1 1/2"	D	WD	STN				0		VIEW LITE
6	C	AL	KYN	PR 3'-0"	7'-0"	1 1/2"	C	AL	KYN				0		
7	C	AL	KYN	PR 3'-0"	7'-0"	1 1/2"	C	AL	KYN				0		SIDE-LIGHT/TRANSOM GLASS. RE:DDA/2.2
8	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
9	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
10	B	HM	P	PR 3'-0"	7'-0"	1 1/2"	B	HM	P				0		
11	B	HM	P	3'-0"	7'-0"	1 1/2"	B	HM	P				0		
12	C	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
13	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
14	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
15	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
16	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
17	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
18	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
19	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
20	A	WD	STN	3'-0"	7'-0"	1 1/2"	WD	STN					0		VIEW LITE
21	D	WD	STN	6'-0"	7'-0"	1 1/2"	D	WD	STN				0		VIEW LITE
22	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
23	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
24	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
25	A	WD	STN	3'-0"	7'-0"	1 1/2"	A	WD	STN				0		VIEW LITE
26	C	AL	KYN	PR 3'-0"	7'-0"	1 1/2"	C	AL	KYN				0		

DOOR SCHEDULE ABBREVIATIONS:
 AL = ALUMINUM
 KYN = KYNAR
 WD = WOOD
 STN = STAIN
 PR = PAIR
 CLAN = CLEAR ANODIZED

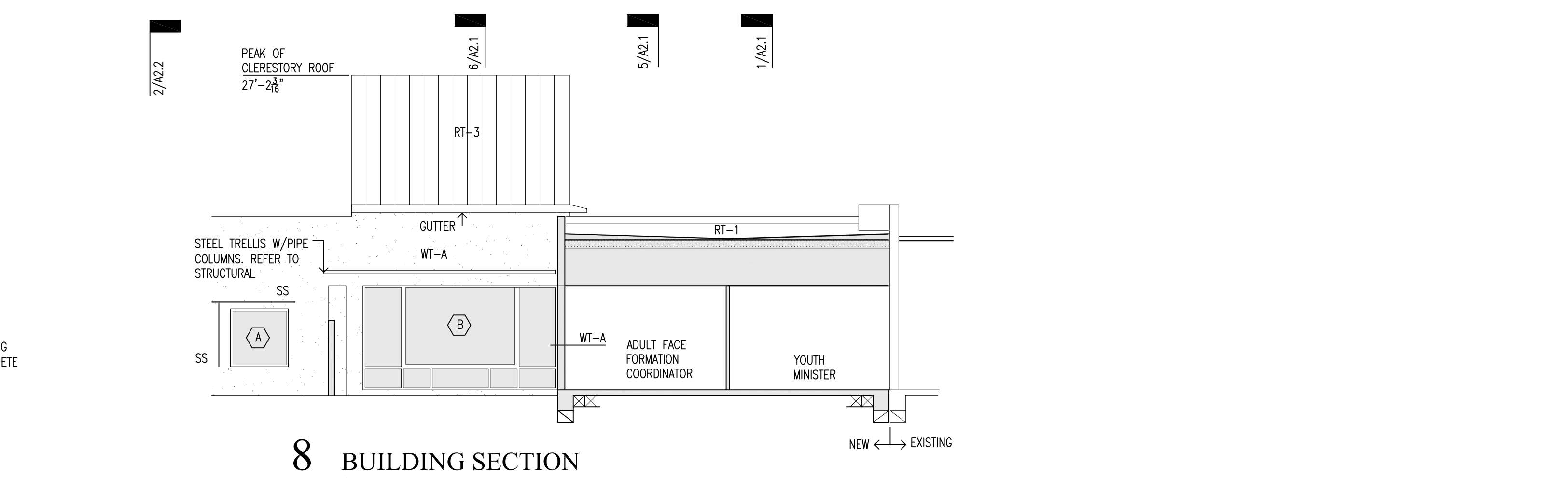
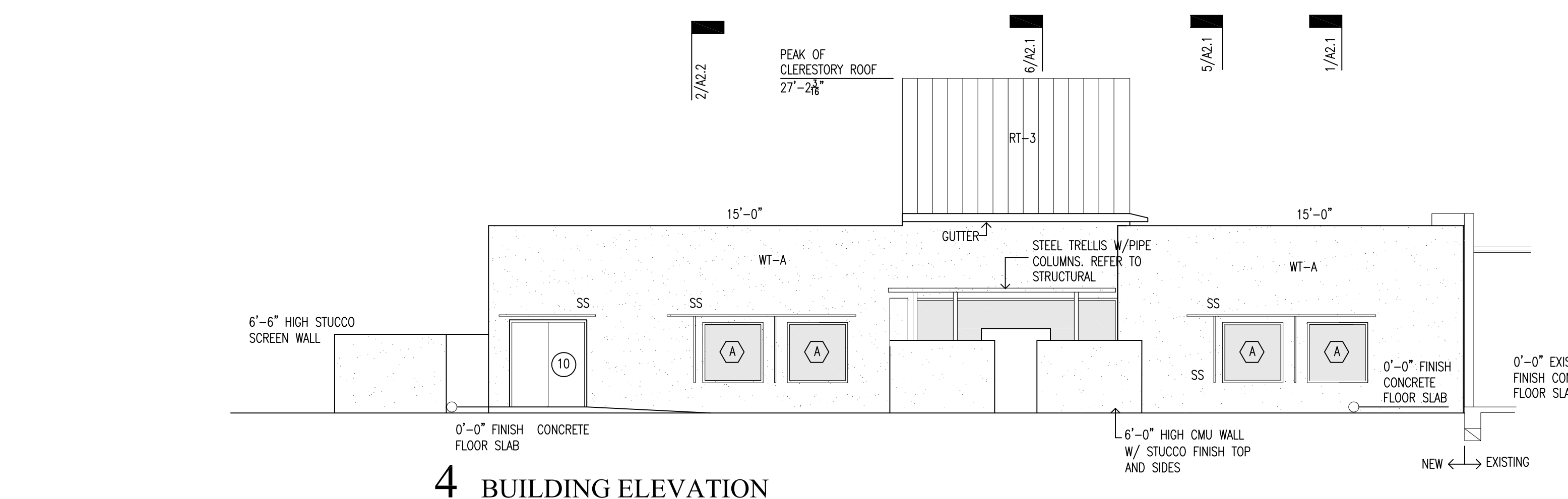
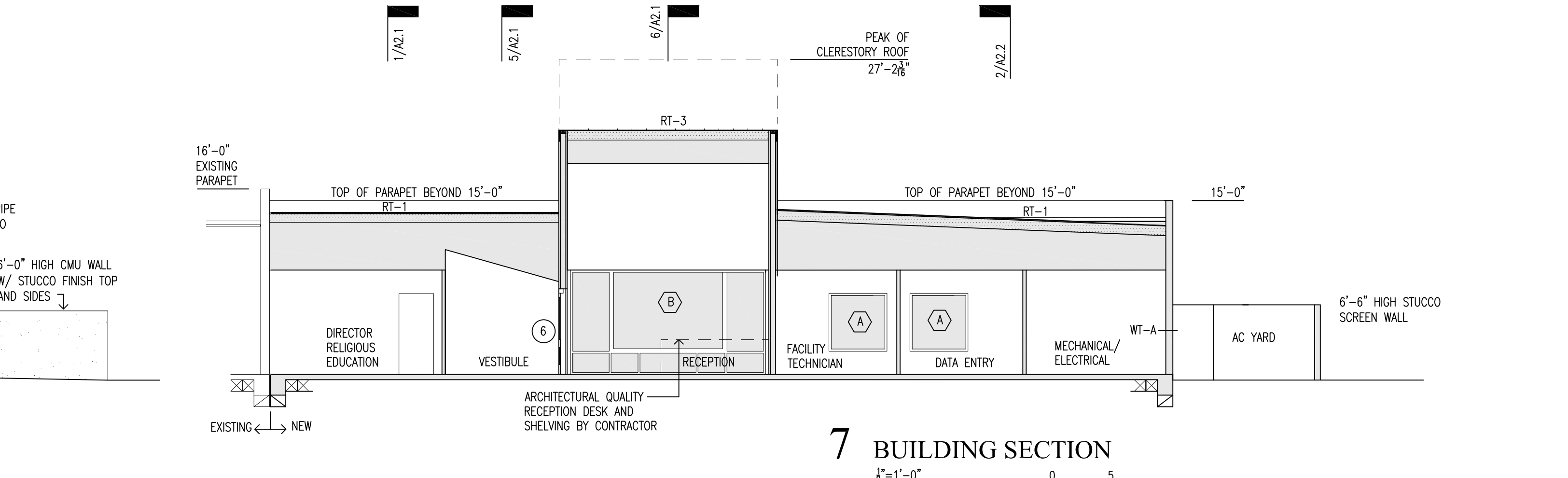
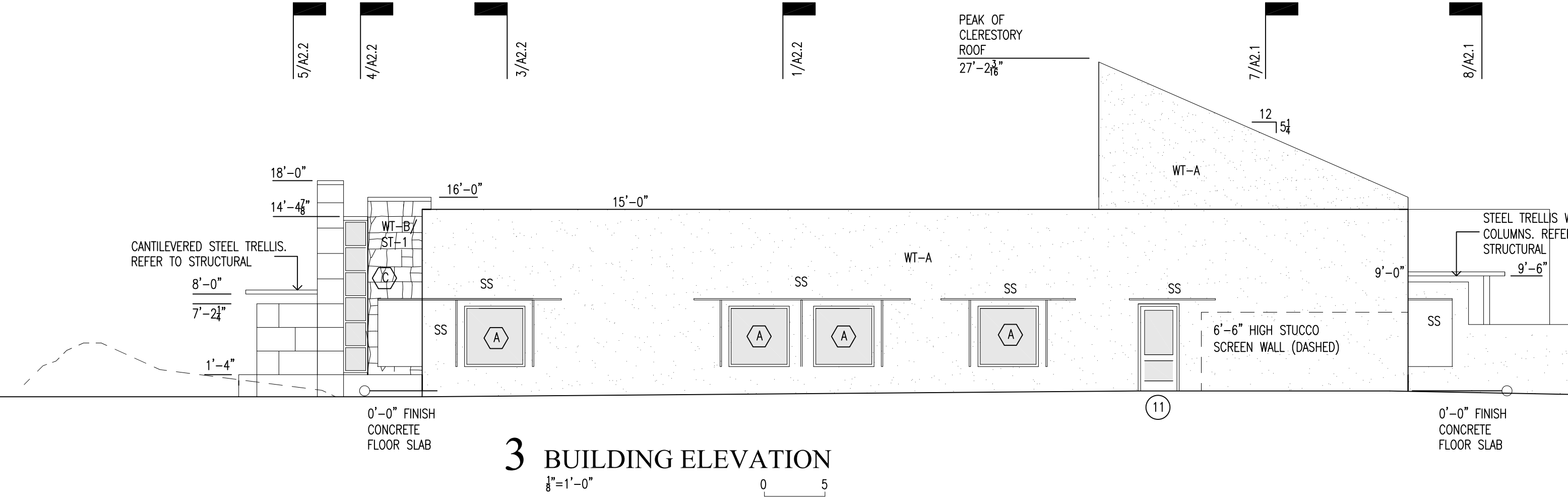
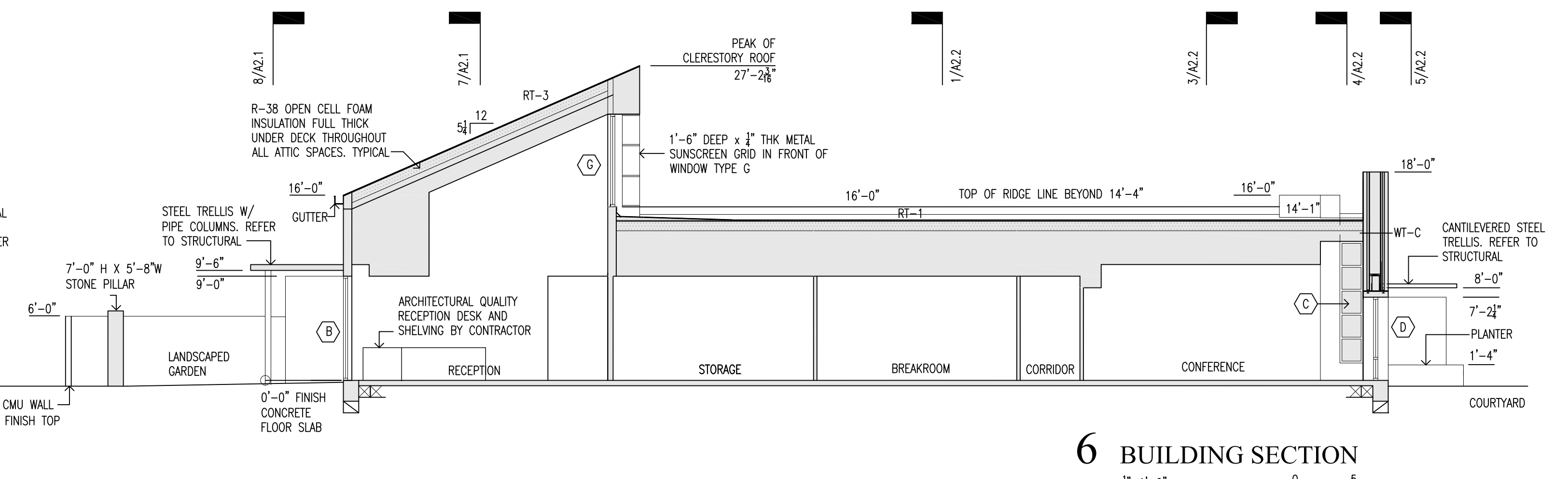
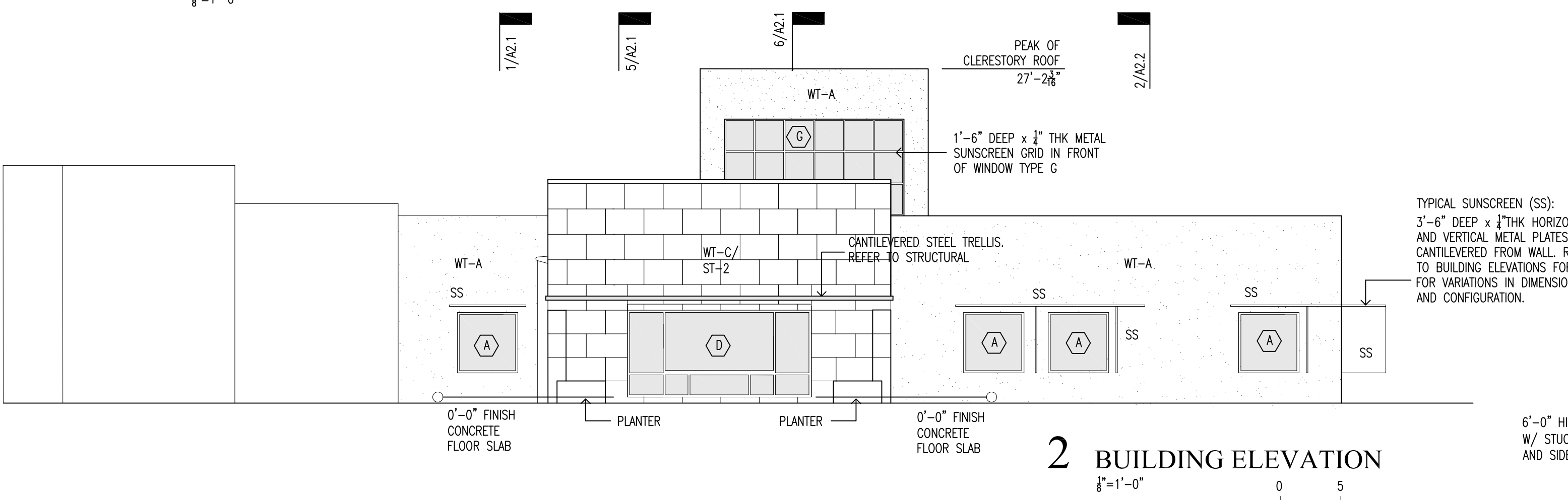
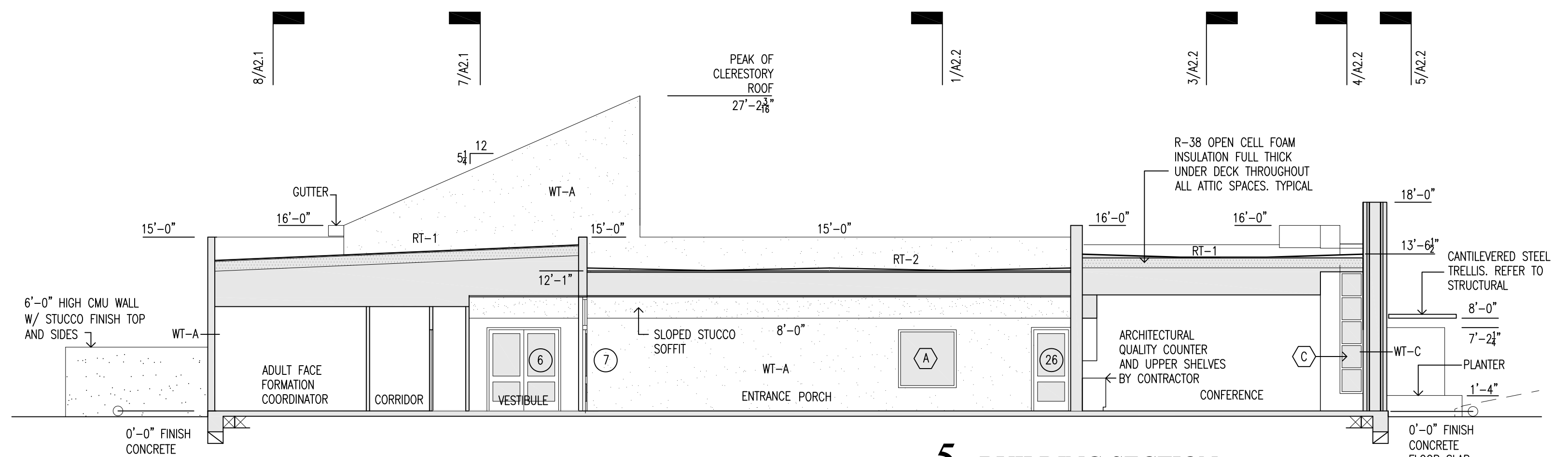
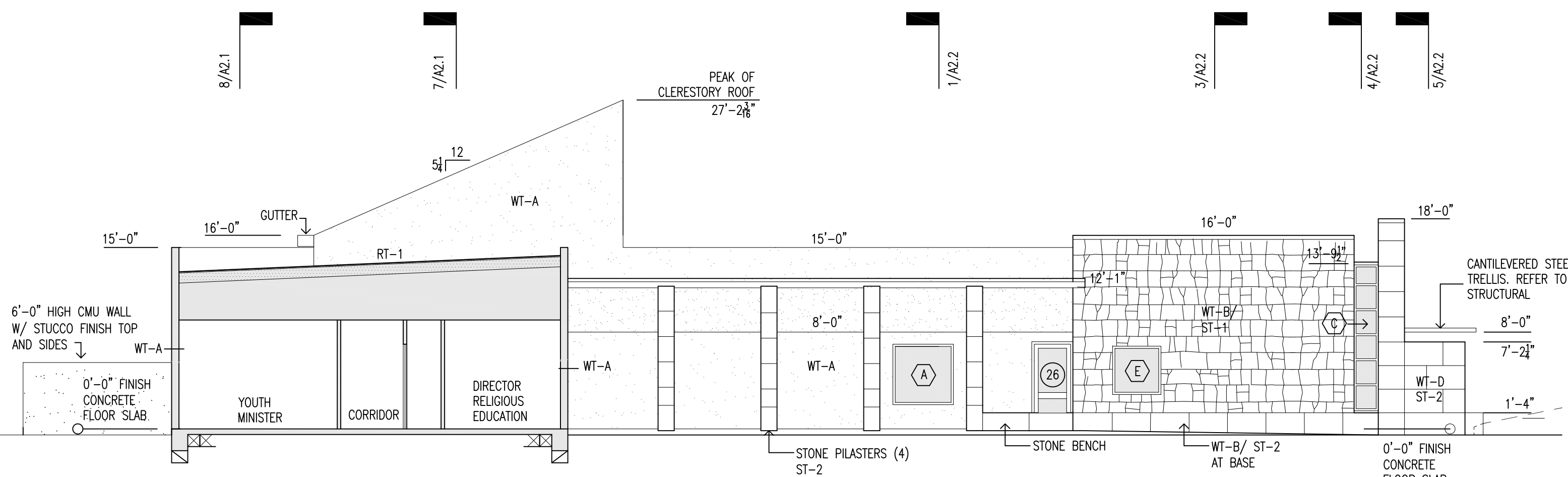
DOOR TYPES:
 A = SOLID CORE WOOD DOOR
 B = HOLLOW METAL DOOR
 C = ALUMINUM STOREFRONT DOOR
 D = WOOD BI-FOLD DOOR

SS = STAINLESS STEEL
 PF = PREFINISHED
 HM = HOLLOW METAL
 P = PAINT
 CTR HGT = COUNTER HEIGHT
 MFR = MANUFACTURER

3 WINDOW SCHEDULE

WINDOW TYPE	DESCRIPTION	HEAD HGT A.F.C.	SIZE
A	2'x4' ALUMINUM FRAME W/ KYNAR FINISH GLASS: 1" INSULATING CLEAR LOW-E	7'-2 1/2"	5'-0"H x 5'-0"W
B	2'x4' ALUMINUM FRAME W/ KYNAR FINISH GLASS: 1" INSULATING CLEAR LOW-E	9'-0"	9'-0"H x 16'-10"W
C	2'x4' ALUMINUM FRAME W/ KYNAR FINISH GLASS: 1" INSULATING CLEAR LOW-E	14'-1"	12'-7"H x 2'-0"W
D	2'x4' ALUMINUM FRAME W/ KYNAR FINISH GLASS: 1" INSULATING CLEAR LOW-E	7'-2 1/2"	7'-2 1/2"H x 15'-2 1/2"W
E	2'x4' ALUMINUM FRAME W/ KYNAR FINISH GLASS: 1" INSULATING CLEAR LOW-E	7'-2 1/2"	4'-0"H x 4'-0"W
F	REMOVE EXISTING WINDOW AND REPLACE WITH 2'x4' ALUMINUM FRAME W/ KYNAR FINISH GLASS: 1" INSULATING CLEAR LOW-E	7'-2 1/2"	4'-2 1/2"H x 3'-5 1/2"W
G	2'x4' ALUMINUM FRAME W/ KYNAR FINISH GLASS: 1" INSULATING CLEAR LOW-E	23'-0"	8'-0"H x 14'-10"W

WINDOW TYPE NOTES:
 1. (Symbol) INDICATES WINDOW TYPE.
 2. ALL EXTERIOR GLASS WILL BE CLEAR LOW E, NON-REFLECTIVE.
 3. DIMENSIONS OF OPENING ARE ROUGH OPENING (R.O.) FIELD VERIFY THE DIMENSIONS OF ALL WINDOW OPENINGS PRIOR TO FABRICATION.
 4. A.F.C. = ABOVE FINISH CONCRETE.
 5. PROVIDE TEMPERED SAFETY GLASS IN HARAZDOUS LOCATIONS AS REQUIRED BY APPLICABLE BUILDING CODES.
 6. U.N.O. = UNLESS NOTED OTHERWISE.



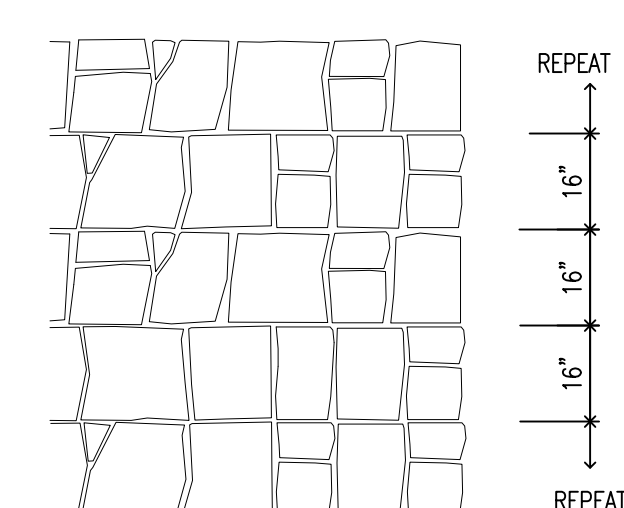
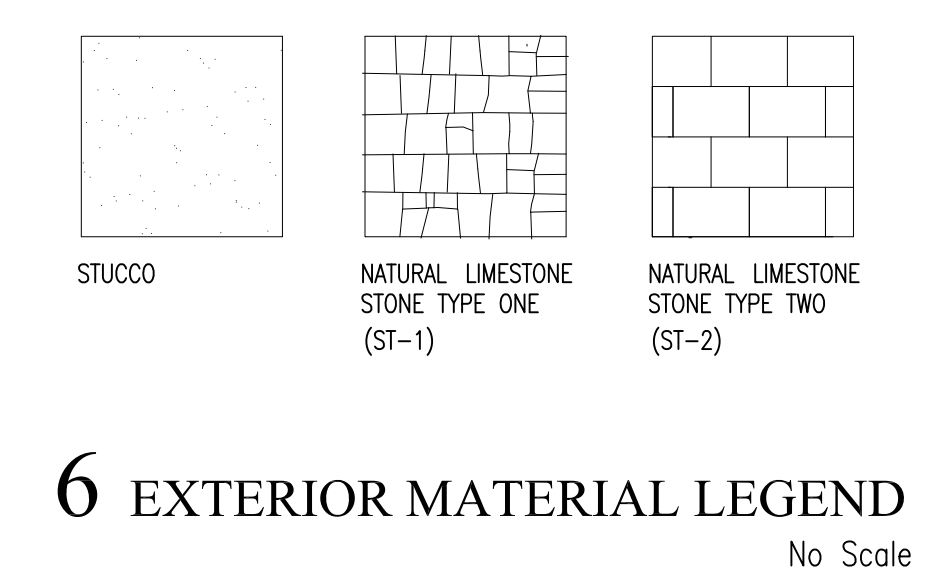
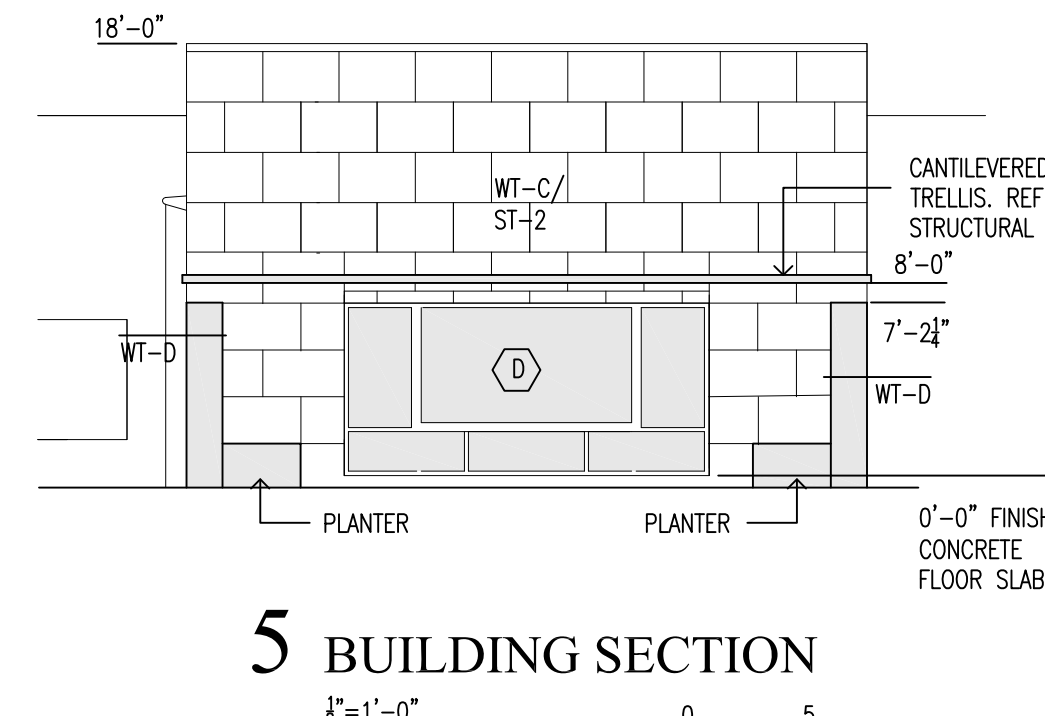
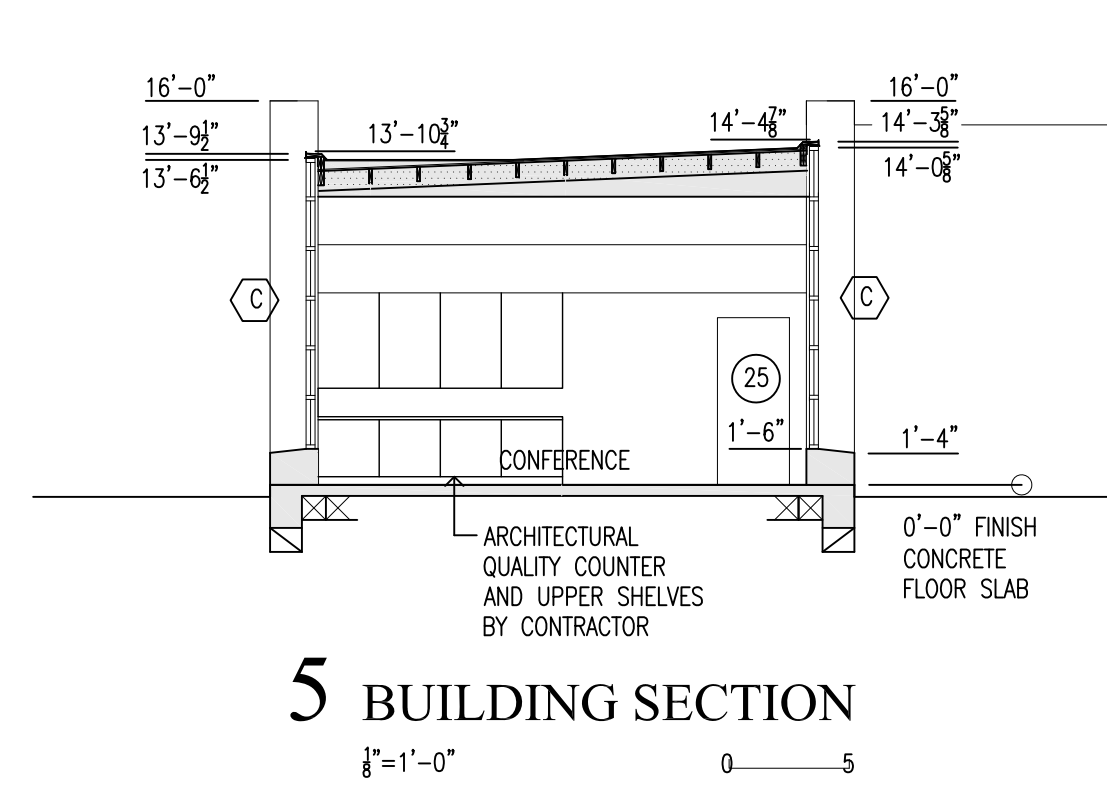
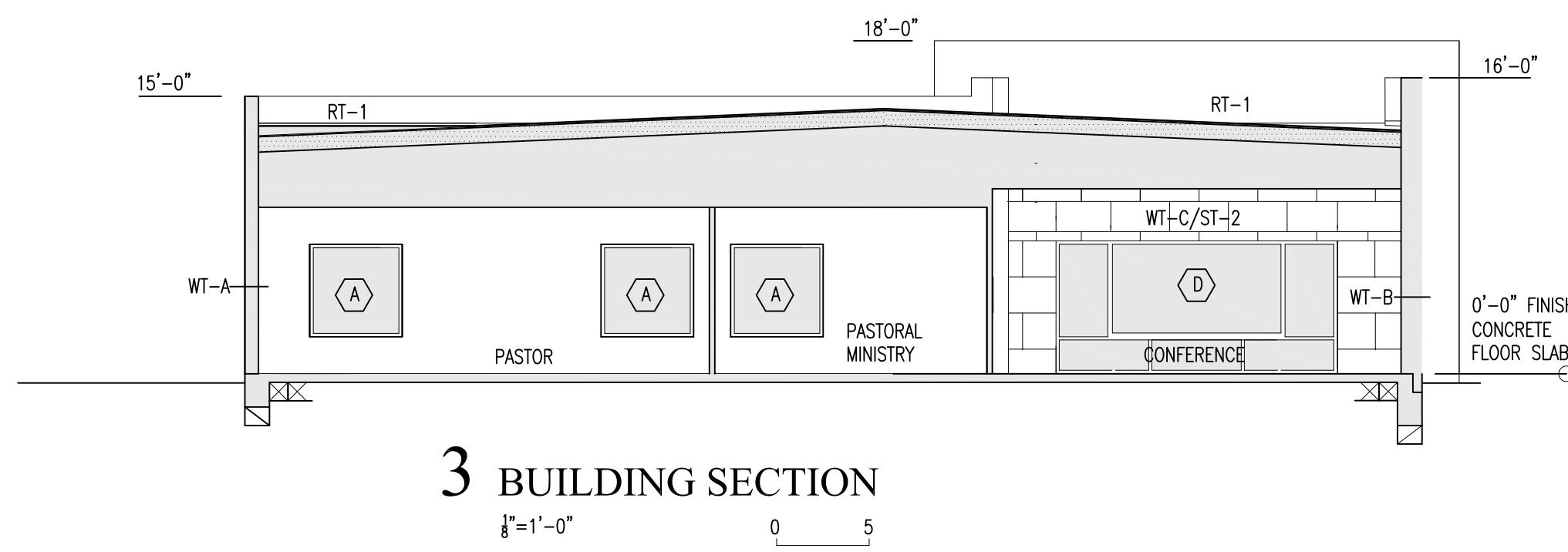
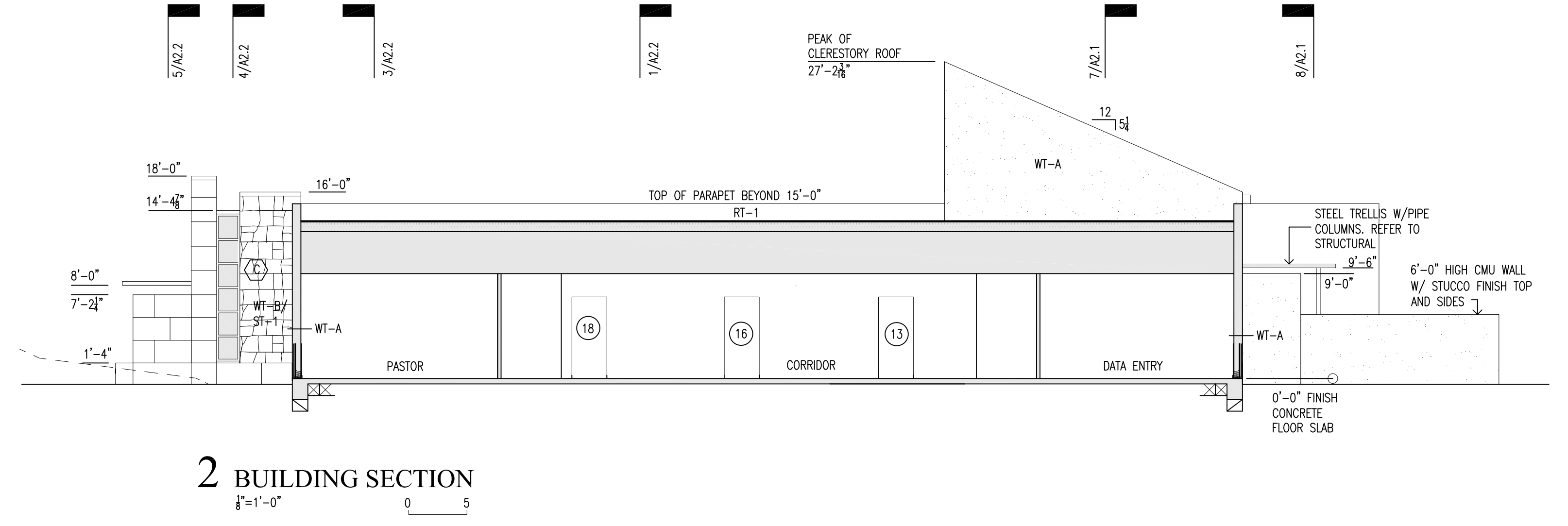
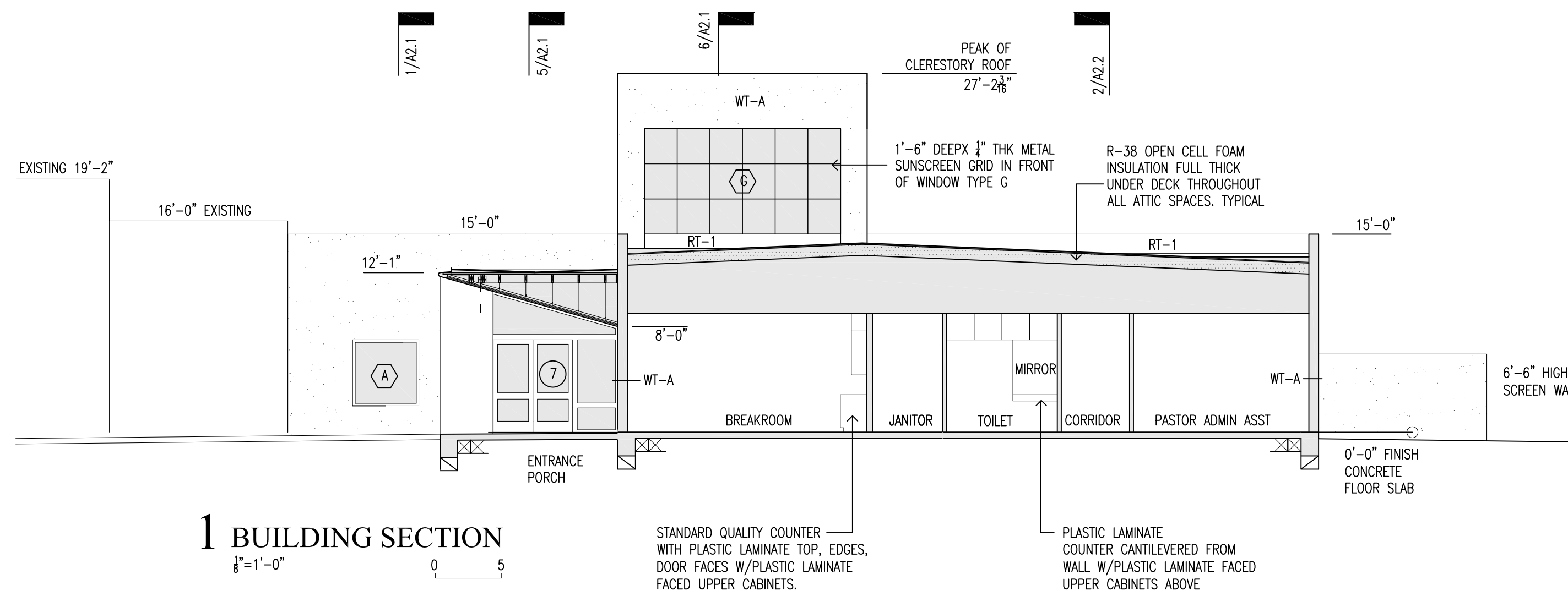
New Administration Building
 HOLY CROSS CATHOLIC CHURCH
 7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-5252

Jim Bransford Architect
 2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-0159

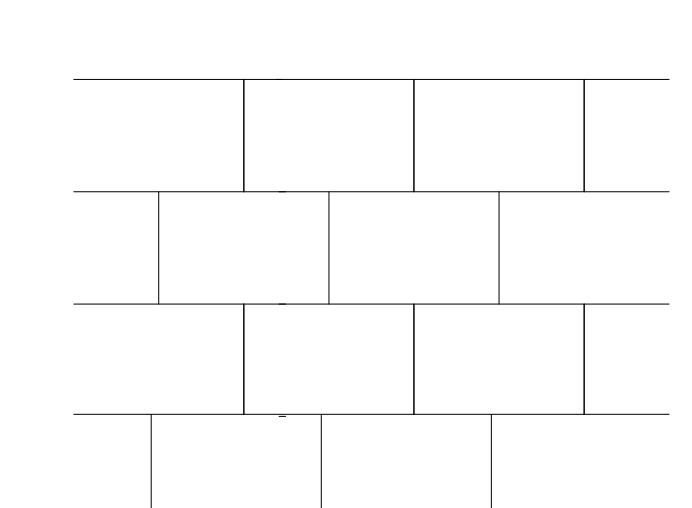
Project: 2402
 Date: 2-12-25
 Final DD

Revisions:

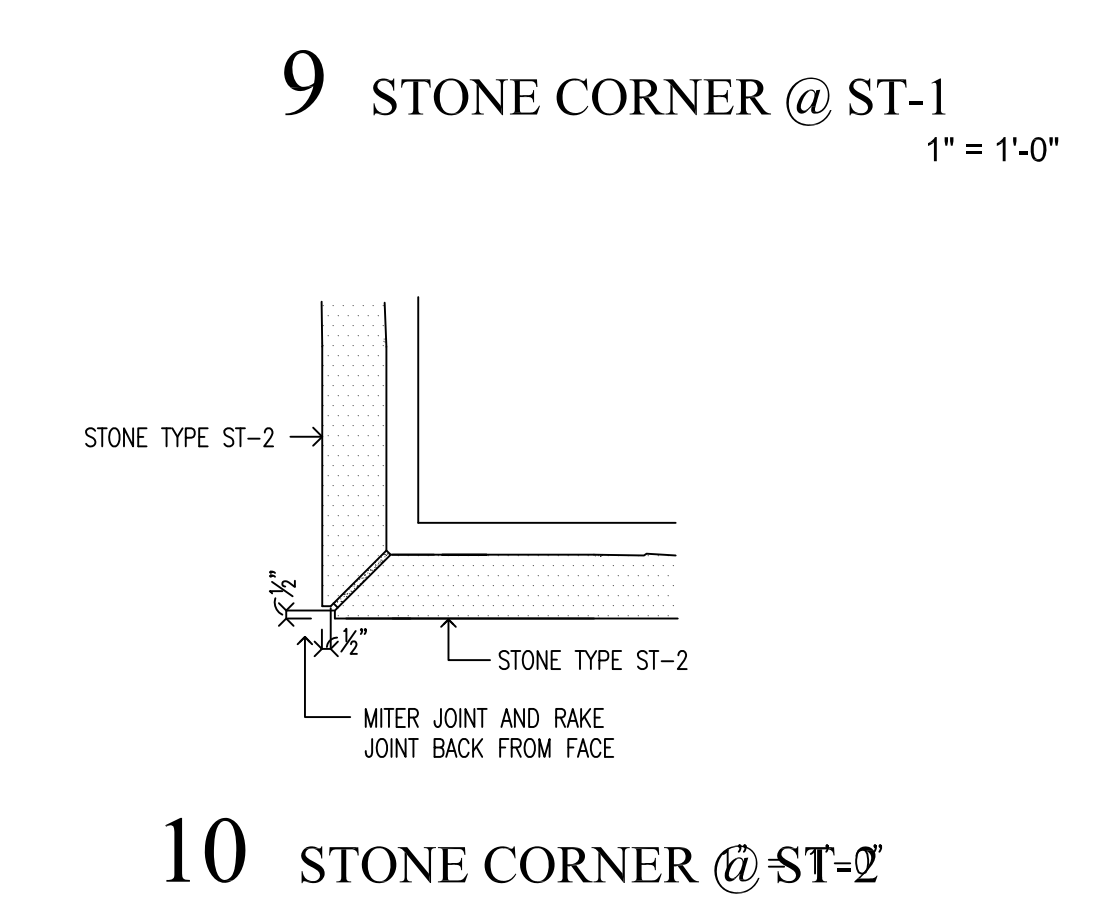
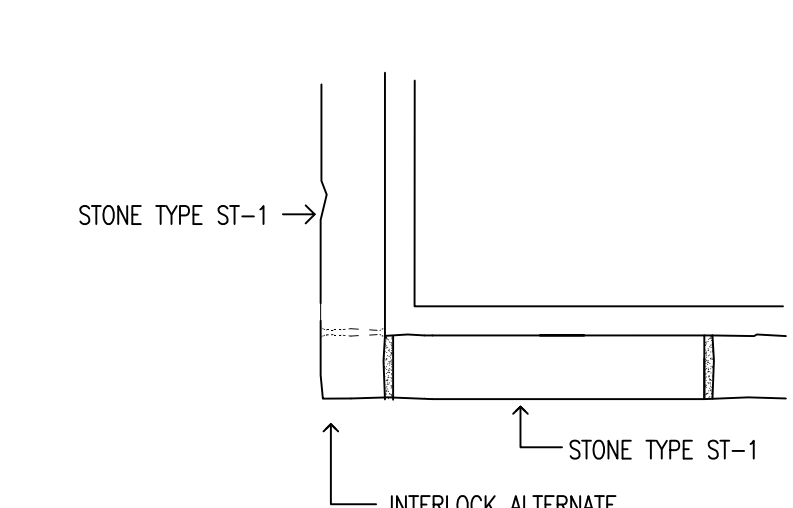
Design Development
 Not for construction, permitting or regulatory approval.



- 7**
- ST-1 NOTES:
- NATURAL ROUGH FACED LIMESTONE MIN 4" THICK W/ DIMENSIONS SHOWN.
 - PROVIDE CONTINUOUS HORIZONTAL JOINTS @ 16" O.C. VERTICALLY.
 - USE MOSTLY LARGE FLAT NATURAL LIMESTONE, 16" HIGH X VARIES. SMALLER IN-FILL STONE MAY BE USED. MAINTAIN 16" HIGH COARSE. JOINTS $\frac{3}{8}$ " TO $\frac{1}{2}$ ". SLUSH MORTAR JOINTS FLUSH WITH STONE FACE USING "GERMAN SMEAR" TECHNIQUE.
 - USE TYPE N MORTAR: 1 PART WHITE PORTLAND, 1 PART WHITE LIME, TO 6 PARTS TOPWAY SAND. KEEP MORTAR JOINTS WET WHILE CURING TO PREVENT CRACKS.
 - VISIT EXISTING BUILDING FOR AS-BUILT STONE TYPE 1.
 - PREPARE ON-SITE SAMPLE FOR ARCHITECT'S APPROVAL.
 - CONSULT ARCHITECT FOR LOCATION OF STONE EXPANSION JOINTS (S.E.J.)



- 8**
- ST-2 NOTES:
- LARGE RECTANGULAR SMOOTH-CUT 4" THICK LIMESTONE W/ DIMENSIONS SHOWN.
 - $\frac{3}{8}$ " MORTAR JOINTS W/ TYPE N MORTAR. REFER TO ITEM 3, STONE TYPE ONE FOR DESCRIPTION.
 - USE NON-CORROSIVE TWO-PIECE ADJUSTABLE WALL TIES.
 - VISIT EXISTING BUILDING FOR AS-BUILT STONE TYPE 2.
 - PREPARE ON-SITE SAMPLE FOR ARCHITECT'S APPROVAL.



Design Development
 Not for construction, permitting or regulatory approval.

****PRELIMINARY****
NOT FOR
CONSTRUCTION

Design Development Phase
 New Administration Building
HOLY CROSS CATHOLIC CHURCH
 7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-5252

Architect's Seal

Jim Bransford Architect
 2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-0159

Project: 2025.011

Date: 2/12/25

Revisions:

GENERAL NOTES

DESIGN CRITERIA:

DESIGN CODE:
 • The structural design is in accordance with the 2021 International Building Code.

DESIGN LIVE LOADS
 • Roof: 20 psf
 • Floor: 100 psf

DESIGN WIND LOAD
 • Building Risk Category II
 • Exposure Category C
 • Wind Speed (3 sec gust) 105 mph

GENERAL:

The structure has been designed to resist design loads only as a completed structure. Applications of construction loads to the partially completed structure shall be considered by the contractor and so included in the design of shoring, bracing, formwork, and any other supporting elements provided for construction of the structure. During erection and until all permanent connections are made, the contractor must provide temporary bracing to brace the structure in all directions.

The engineer shall not have control or charge of, and shall not be responsible for, construction means, methods techniques, sequences, or procedures for safety precautions and programs in connection with the work, for the acts or omission of the contractor, subcontractor, or any other persons performing any of the work, or for the failure of any of them to carry out the work in accordance with the contract documents.

The Contractor shall verify all existing conditions prior to the start of work. On-site survey is required to verify as-built dimensions, structural conditions, and dimensional requirements for supplied equipment prior to fabrication of any new elements. Notify Architect/Engineer of any potential conflicts arising from the as-built survey.

Where a section is cut on the drawings, it shall apply to all like or similar conditions (U.N.O).

See architectural drawings for the following:
 • Size & location of all doors and windows
 • Size & location of all roof openings
 • Floor and Roof finishes
 • Details of veneer attachment
 • Location & extent of insulation

See mechanical, plumbing, electrical and civil drawings for the following:
 • Pipe runs, sleeves, hangers, trenches, wall and floor openings, etc.
 • Electrical conduit runs, boxes, outlets in walls and floors
 • Concrete inserts for electrical, mechanical, or plumbing fixtures
 • Underground concrete ducts, trenches, pits, or manholes
 • Concrete and asphalt site paving.

Any inspections, special or otherwise, that are required by the building codes, local Building Departments, or these plans, shall be done by a qualified independent inspection company. Job site visits by the Engineer do not constitute, or substitute, inspections.

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.

The roof structure and its supporting elements have been designed with the assumption that sufficient drainage has been provided to prevent any ponding of water.

SHOP DRAWINGS:

All work is to be done using material from approved shop drawings. The contractor shall submit an electronic PDF copy for review by the Engineer of Record (EOR). Work may begin using materials from shop drawings marked "no exceptions taken" or "exceptions as noted" only.

The General Contractor shall pre-check all shop drawings before submission to the Engineer for review. All submittal materials must bear the Review Stamp of the General Contractor.

The General Contractor shall schedule submittals sufficiently in advance of the date required to allow reasonable time for delivery, processing and review by the Design Team. This shall include a minimum of ten (10) working days, excluding delivery time, for Engineer's processing and review of shop drawings. Include time for Contractor's resubmission and subsequent review if necessary.

The review of the shop drawings by the EOR is only for general compliance with the structural drawings and specifications. This review does not guarantee in any way that the shop drawings are correct or complete, nor does it infer that they supersede the structural drawings. Corrections or comments made (or not made) on the shop drawings during this review do not relieve the contractor from compliance with the requirements of the plans, general notes, or specifications. Approval of a specified item shall not include approval of an assembly of which the item is a component.

Signed and sealed calculations for a particular system submitted as part of a shop drawing are reviewed for load criteria and general conformance with the contract documents. Calculation review and comments do not infer a detailed check of the calculations, nor do they relieve the system engineer or the contractor of responsibility.

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 EOR.

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 and returned.

FOUNDATION NOTES:

Foundation Design basis: Geotechnical Report No. 398-24-25 prepared by CMJ Engineering, Inc. dated December 19, 2024.

DRILLED AND UNDERREAMED PIER FOUNDATIONS:

Allowable end bearing: 4,000 psf

Bearing Stratum: Hard light brown and/or gray shaly clay

Depth of Bearing Stratum: 18 feet below existing grade

Piers not specifically located on the plan shall be located on centerline of the column above. Where no column occurs, locate pier on centerline of wall or beam.

Elevation of top of pier is noted on drawings.

Reference plans and pier schedule for pier size, bell diameter, and reinforcing.

Provide dowels from piers into concrete above per the typical pier detail or sections.

The contractor shall verify depths of piers before pier steel is cut. Pier steel may be delivered to the jobsite in standard lengths and cut as required. Provide minimum 64 bar diameter laps in all vertical pier reinforcing.

All piers shall be inspected by a representative of a qualified geotechnical laboratory in order to ensure that the proper bearing material has been reached in accordance with the recommendations given in the geotechnical report.

Cast concrete for all drilled shafts within 8 hours of drilling completion.

Do not allow tops of piers to "mushroom". The top of pier shall be of the specified diameter.

CONCRETE:

Unless noted otherwise, all concrete shall be normal weight, with a maximum aggregate size of 1", a maximum slump of 5" (6" +/- 1" for piers), and the following 28 day compressive strength:

Drilled and Underreamed Shafts	3000 psi
Grade Beams	4000 psi
Pier Caps	4000 psi
Slabs on Void Cartons	4000 psi

Provide normal weight concrete with cured density of 145 ± 5 pcf, and aggregate conforming to ASTM C33, UNO.

All concrete work shall conform to the requirements of the latest edition of ACI 301 Specification for Structural Concrete and ACI 318 Building Code Requirements for Structural Concrete unless noted otherwise in the Contract Documents.

Concrete mix designs shall be prepared by a qualified testing agency or material supplier in accordance with ACI 318. Contractor to submit mix designs for each concrete strength and intended use for review by the Engineer prior to placement. All entrained admixture is not allowed for concrete to receive a steel trowel finish.

Unless indicated on drawings, concrete beam or wall sections are not designed for construction imposed lateral earth pressures. Provide temporary bracing as required to prevent damage from lateral pressures from earth fill operations or equipment surcharge loads.

Placement of sleeves or openings through beams is not permitted unless indicated on the structural drawings or approved in writing from the Architect

REINFORCING STEEL:

Reinforcing steel shall be new deformed billet steel conforming to ASTM A615, Grade 60.

Detailing of reinforcing steel and accessories shall conform to ACI 315.

Required minimum reinforcing cover:

Concrete cast against soil	3"
Grade Beams on void carton	1 1/2" top, 2" sides, 3" bottom
Drilled Shafts	3"
Slabs on void carton	3/4" top [not exposed to weather], 2" bottom

Lap all reinforcing bar splices 30 bar diameters or 2'-0" whichever is greater unless noted otherwise.

Reinforcing call-out legend: #4(2-0,2-0)@12

(2-0,2-0)	@12
Length of bar from bend to bend	Spacing of bars
or length of bar from bend to end	

Provide #4 (2-0,2-0) corner bars to match grade beam exterior reinforcing longitudinal bars.

Hook top and bottom beam reinforcing bars at discontinuous ends.

STRUCTURAL STEEL:

Materials:

Wide Flange Shapes	ASTM A992	Fy = 50 ksi
Other Rolled Shapes and Plates	ASTM A36	Fy = 36 ksi
Rectangular HSS Shapes	ASTM A500 Gr. C	Fy = 50 ksi
Structural Pipe	ASTM A53	Fy = 35 ksi
Structural Bolts	ASTM A325	Fy = 92 ksi
Anchor Rods	ASTM F1554 Gr. 36	Fy = 36 ksi
Headed Stud Anchors	ASTM 108	Fu = 85 ksi
Welding Electrodes	AWS D1.1	E70XX

Structural steel details and connections shall conform to the standards of the AISC.

Unless noted otherwise, all structural steel shall be shop primed in accordance with the "Steel Structures Painting Manual", Volumes 1 and 2, as published by the steel Structures Painting Council (SSPC).

Full and partial penetration welds performed in the field shall be ultrasonically tested.

All welding shall be performed by welders certified within the last 6 months.

WOOD FRAMING:

Exterior wall studs shall be 2x6 @ 16" o.c. (Reference Wood Material Schedule). Studs shall be doubled at all angles, corners, and openings.

Unless otherwise indicated, place a single plate at the bottom and a double plate at the top of all stud walls. Exterior sill plates shall be bolted to the foundation with 1/2" diameter A36 anchor bolts @ 48" o.c.

All framing members shall be visually graded structural lumber (Reference Wood Material Schedule). Provide bridging for all spans over 5'-0".

Unless otherwise indicated, headers over openings with spans less than 8'-0" shall be 3 - 2x12.

All exterior lumber, sill plates, and any lumber in contact with concrete or masonry shall be pressure treated.

All exterior exposed framing members shall be pressure treated, visually graded structural lumber (Reference Wood Material Schedule). Provide bridging for all spans over 5'-0".

Provide all blocking and fire stops required by the Building Official and/or Truss Manufacturer.

STRUCTURAL GLUE LAMINATED VENEER LUMBER (LVL):

Members shall be laminated in a press with all grain parallel with the length of the member. Adhesives shall be of the waterproof type conforming to the requirements of ASTM-2559.

Appearance shall be Framing Appearance Grade or better. Reference "Wood Material Schedule" for minimum required properties.

WOOD I-JOIST:

Prefabricated I-JOIST and their connectors shall be designed by a registered professional engineer in accordance with the latest edition of the National Forest Products Association - Design Specification for Wood Construction.

I-JOISTS shall be APA performance rated and be manufactured in conformance with PRI-400 Performance Standard for APA EWS I-JOISTS. All I-JOIST shall be 11 7/8" deep PRI-60 with EI=584x10 lb-in or greater.

PLYWOOD OR ORIENTED STRAND BOARD:

Roofs and wall sheathing shall be Plywood or Oriented Strand Board APA-RATED EXT1 sheathing installed in accordance with the latest APA recommendations for roof and wall construction. Provide nominal 3/4" thick roof deck and nominal 5/8" thick wall sheathing.

Long panel dimension for roof sheathing shall be placed perpendicular to supports and shall be continuous over two or more spans.

Provide a minimum 1/8" space between panels along all edges unless noted otherwise by panel manufacturer.

Unless indicated otherwise, nail sheathing w/ 8d common nails @ 6" o.c. along panel edges and @ 12" o.c. along intermediate framing members.

2x6 TONGUE & GROOVE ROOF DECKING:

Decking shall receive a factory applied clear penetrating sealer on all exposed surfaces designed for exterior use applications.

Fastening schedule: At each support, toenail deck through the tongue and face nail using 16d common nails.

PREFABRICATED WOOD TRUSSES:

Prefabricated wood trusses and their connectors shall be designed by a registered professional engineer in accordance with the latest edition of the National Forest Products Association - Design Specification for Wood Construction.

Truss members shall be designed, with a maximum allowable stress increase, for the following loads:

ROOF TRUSSES:	
Top Chord	DL = 15 psf; LL = 20 psf (reducible)
Bottom Chord	DL = 10 psf

The truss manufacturer shall submit the following certifications, sealed by the Engineer in responsible charge of the work:

Certification of the rated load capacity of the connectors used to secure the members by an independent testing agency.

Certification that the manufacturer is licensed to fabricate trusses utilizing the connector system proposed.

Certification that the trusses are designed to meet the load criteria requirements specified herein.

Fabrication and installation drawing shall be submitted to the Contractor for approval of size, shape, and layout, prior to fabrication of materials.

Bridging for trusses shall be provided as required for in-place loads as well as stability for safe erection. Bridging shall be designed in accordance with the National Forest Products Association - National Design Specification for Wood Construction.

It is the responsibility of the installer (builder, building contractor, licensed contractor, erector, or erection contractor) to safely install and brace metal connected wood trusses to protect life and property. All temporary bracing shall comply with the latest edition of Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses published by the Truss Plate Institute.

Truss manufacturer shall be responsible for calculating anchorage forces to resist code required uplift for roof trusses and shall recommend the appropriate hold down clip adequate for the required anchorage. Contractor shall install the recommended hold down clips with the required number of nails to fully develop the recommended clip.

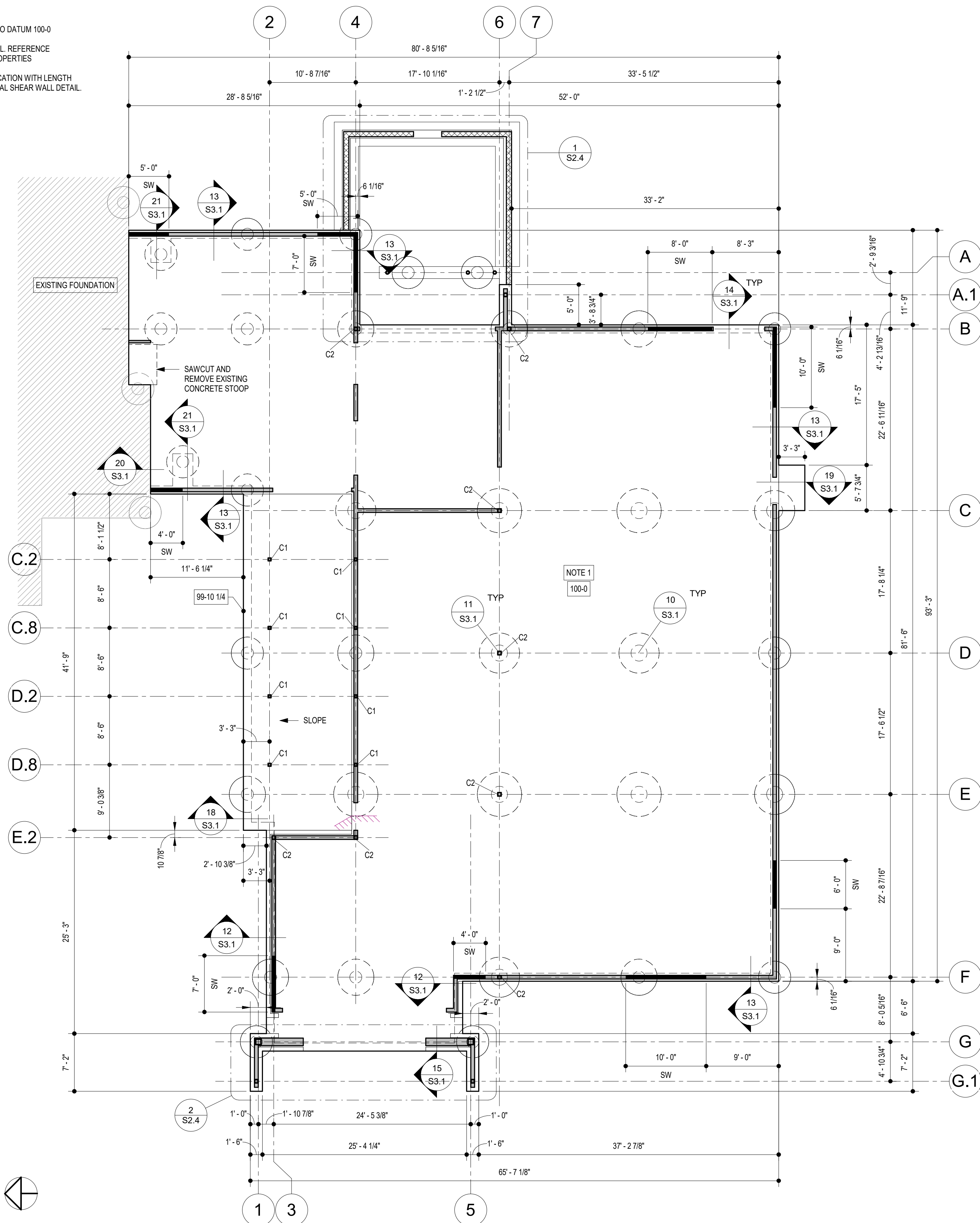
Prior to fabrication of wood trusses obtain all required mechanical opening requirements from the General Contractor and/or the Mechanical Contractor. Provide final trusses designed, detailed, and fabricated with the required mechanical openings.

FOUNDATION PLAN NOTES

- UNLESS NOTED OTHERWISE, CONCRETE SLAB SHALL BE 8" THICK, OVER MASONITE WORK SURFACE, OVER 12" DEEP VOID CARTONS. REFER TO 1/S2.2 & 2/S2.2 FOR REINFORCING.
- C.L. OF PIER IS ON C.L. OF GRADE BEAM (TYP U.N.O.)

LEGEND:

- 100-0 INDICATES FINISH FLOOR RELATIVE TO DATUM 100-0
- INDICATES LOAD BEARING STUD WALL. REFERENCE GENERAL NOTES FOR REQUIRED PROPERTIES
- INDICATES TYPICAL SHEAR WALL LOCATION WITH LENGTH OF WALL SHOWN. REFERENCE TYPICAL SHEAR WALL DETAIL.
- X-X
- SW



1 FOUNDATION REFERENCE PLAN
1/8" = 1'-0"



2 PIER PLAN
1/8" = 1'-0"

****PRELIMINARY****
NOT FOR
CONSTRUCTION

Design Development Phase
New Administration Building
HOLY CROSS CATHOLIC CHURCH
7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-5252

Architect's Seal

Jim Bransford Architect
2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-0159

Project: 2025.011
Date: 2/12/25
Revisions:

****PRELIMINARY****
NOT FOR CONSTRUCTION

Design Development Phase
 New Administration Building
HOLY CROSS CATHOLIC CHURCH
 7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-5252

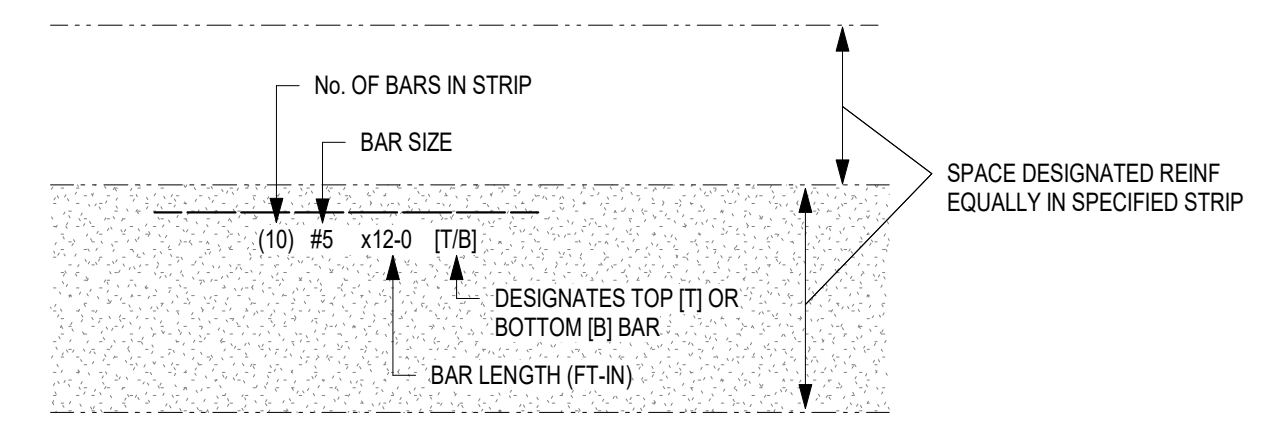
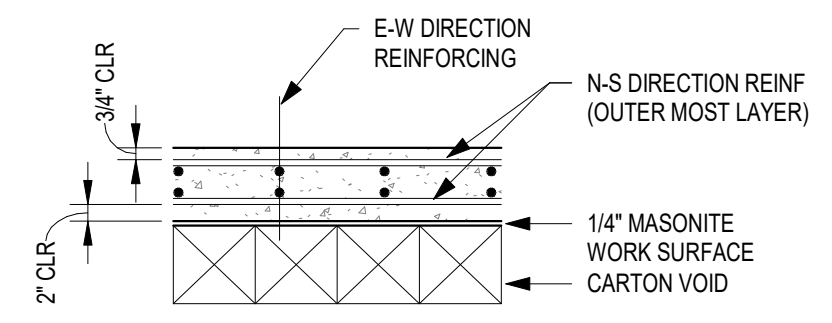
Architect's Seal

Jim Bransford Architect
 2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-0159

Project: 2025.011
 Date: 2/12/25
 Revisions:

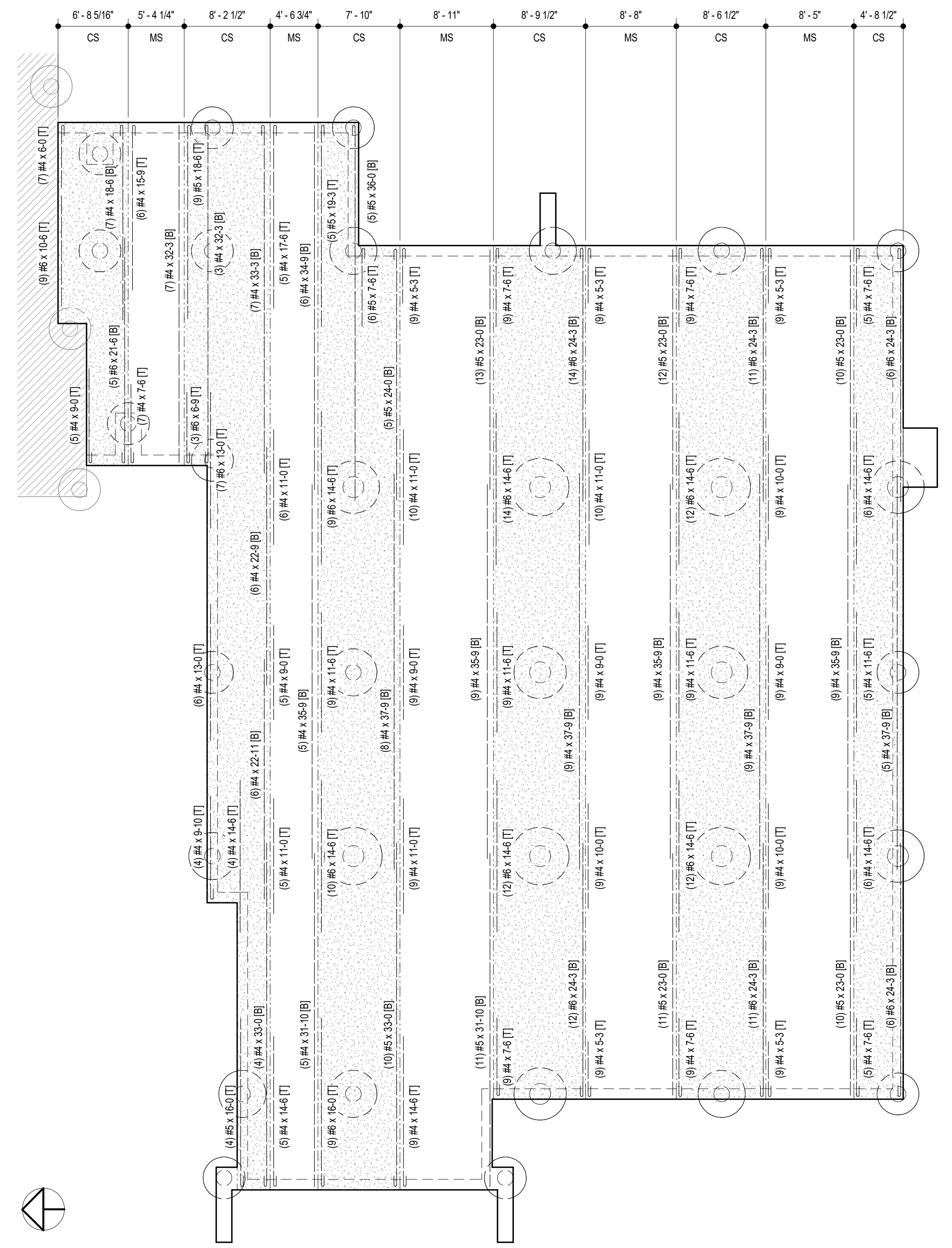
SLAB REINFORCING PLAN NOTES

- SLAB REINFORCING SHALL BE PLACED w/ THE N-S DIRECTION BARS AS THE OUTER MOST LAYER OF REINFORCING.
 - PLACE N-S DIRECTION BOTTOM BARS
 - PLACE E-W DIRECTION BOTTOM BARS
 - PLACE E-W DIRECTION TOP BARS
 - PLACE N-S DIRECTION TOP BARS

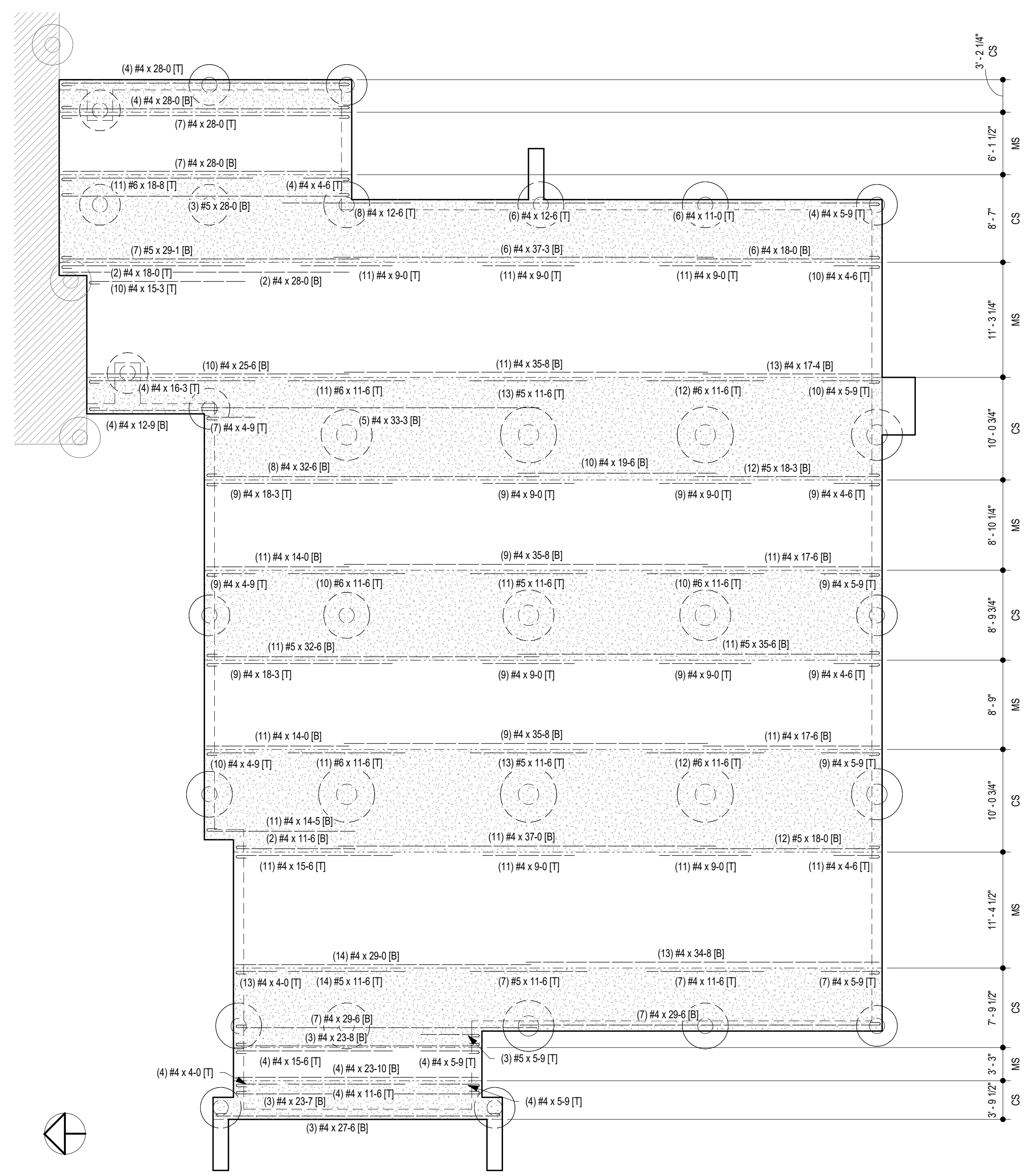


3 SLAB REINF LEGEND
 1" = 1'-0"

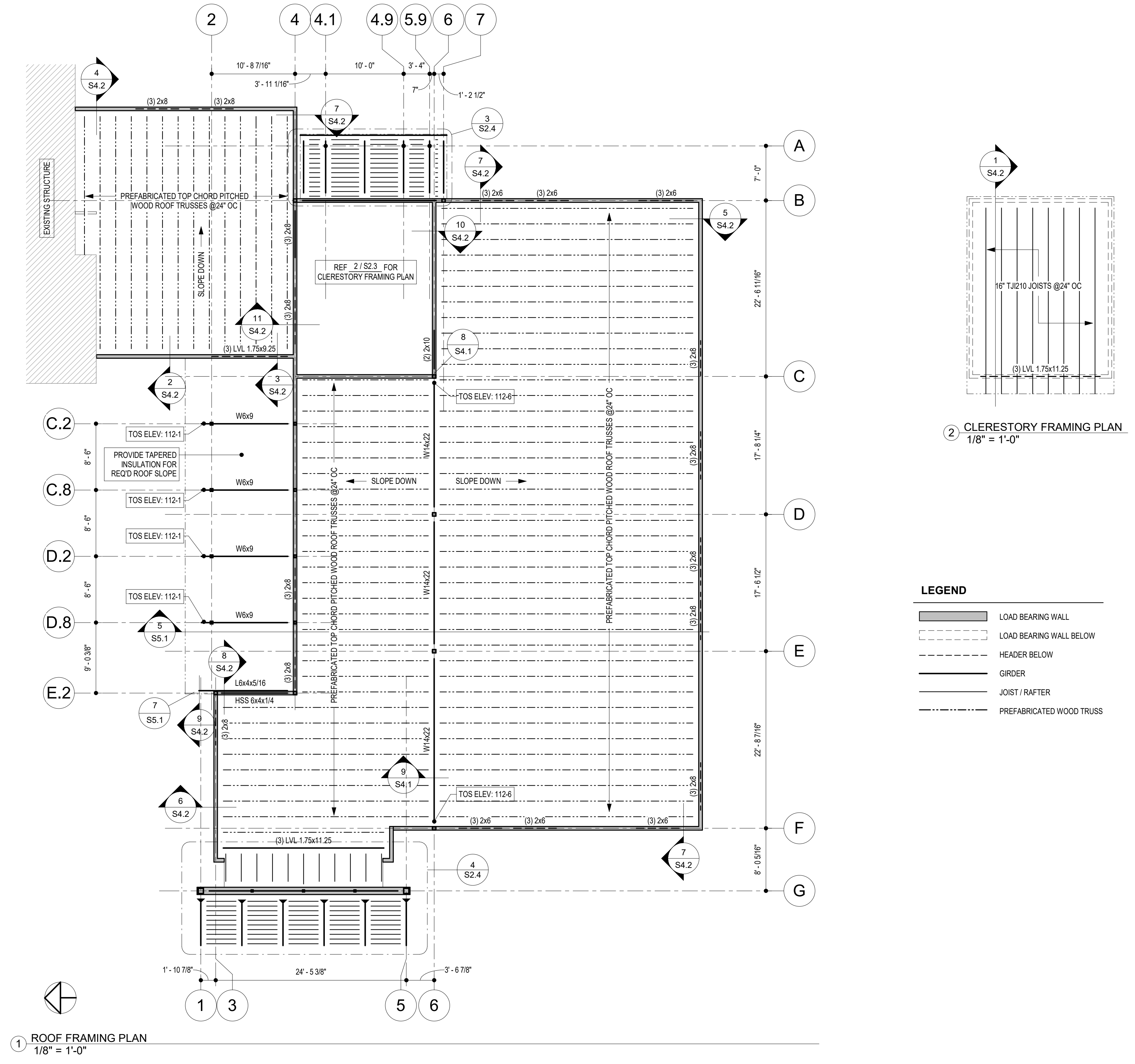
- REINFORCING SHOWN IS TO BE EQUALLY SPACED WITHIN THE SPECIFIED COLUMN AND MIDDLE STRIPS (CS & MS)
- CS TOP & BOT BARS SHALL HAVE A 180° STD HK @ THE ENDS (ROTATE BARS AS REQ'D FOR CLEARANCE)
- MS TOP BARS SHALL HAVE A 180° STD HK @ THE ENDS (ROTATE BARS AS REQ'D FOR CLEARANCE)



1 E-W SLAB REINFORCING
 1/8" = 1'-0"



2 N-S SLAB REINFORCING
 1/8" = 1'-0"



1 ROOF FRAMING PLAN
 1/8" = 1'-0"

2 CLERESTORY FRAMING PLAN
 1/8" = 1'-0"

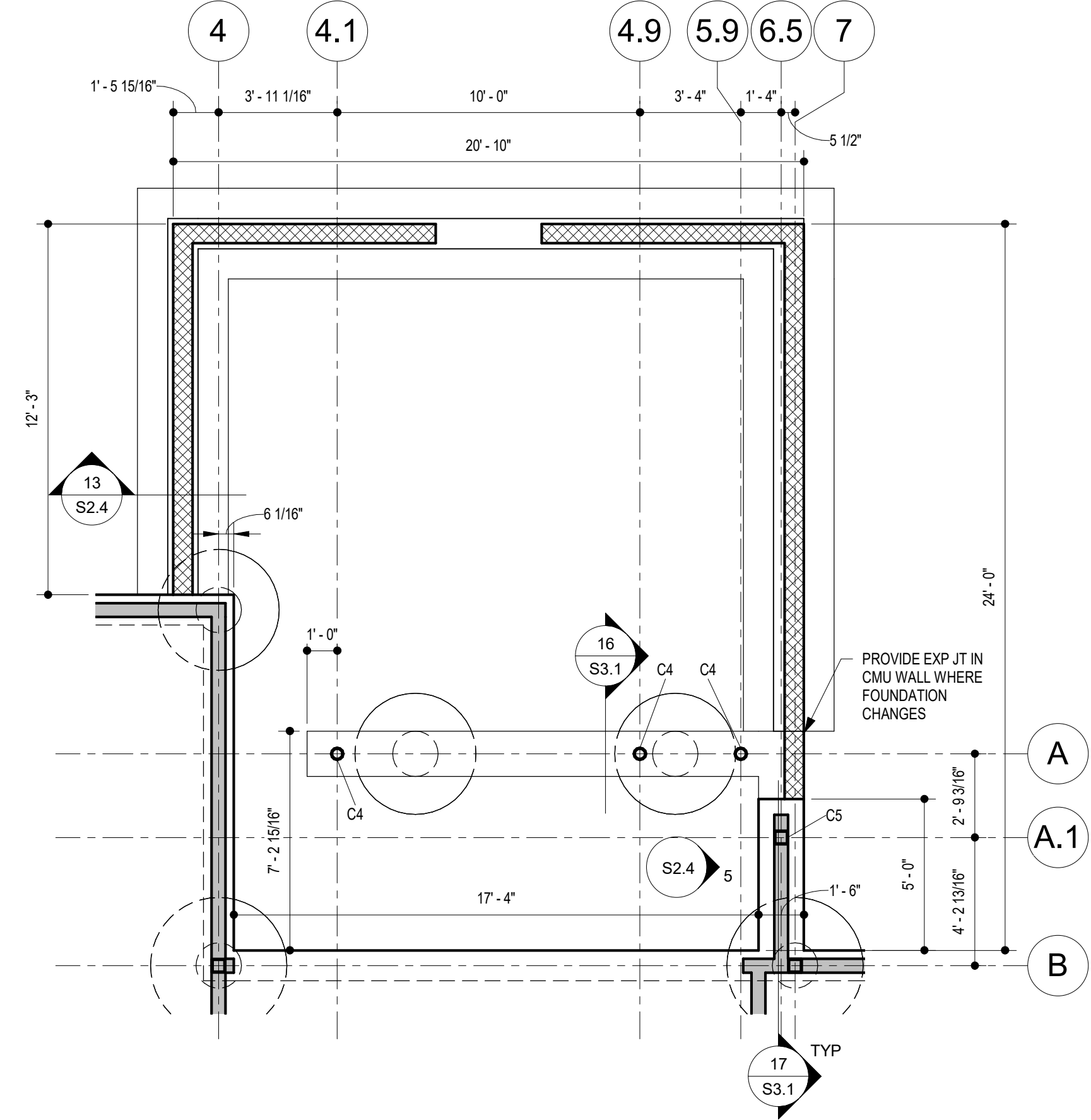
- LEGEND**
- LOAD BEARING WALL
 - LOAD BEARING WALL BELOW
 - HEADER BELOW
 - GIRDER
 - JOIST / RAFTER
 - PREFABRICATED WOOD TRUSS

****PRELIMINARY****
NOT FOR CONSTRUCTION

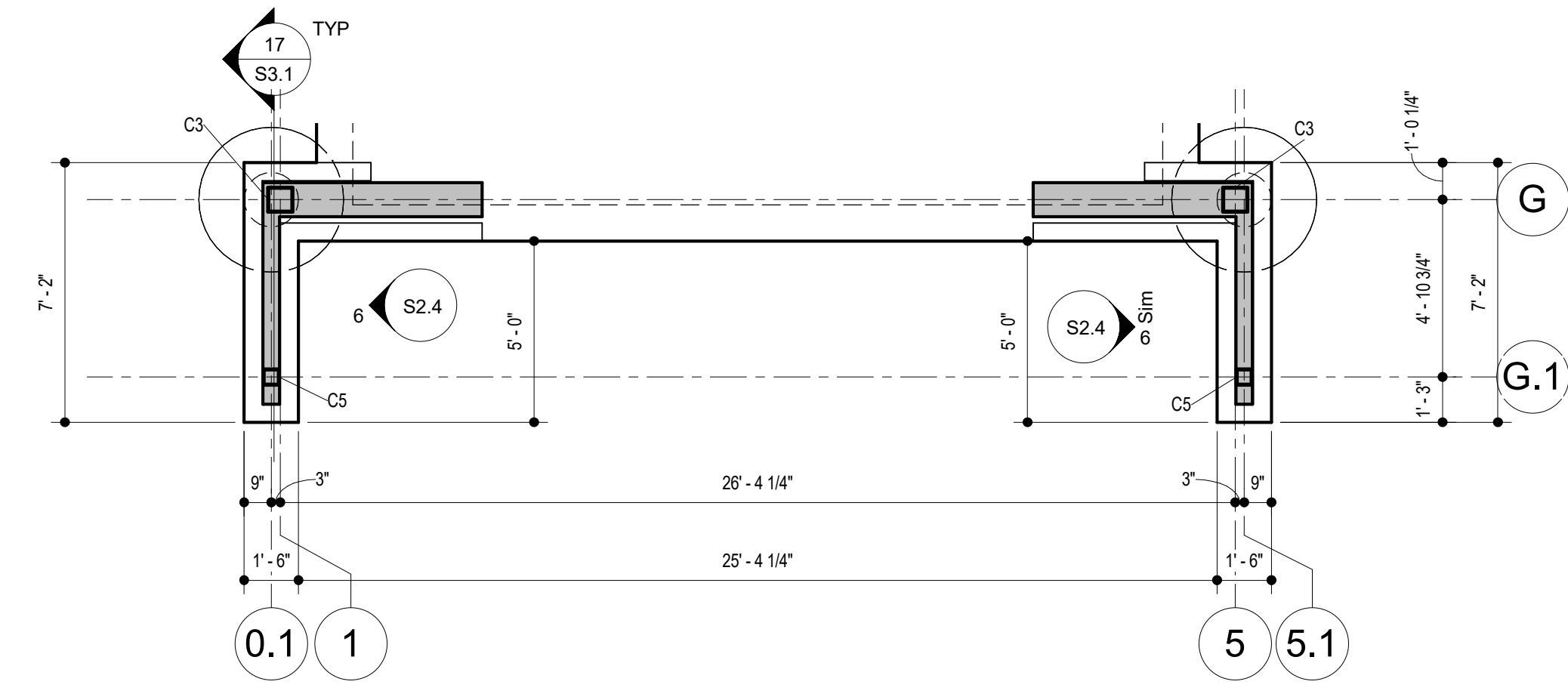
Design Development Phase
New Administration Building
HOLY CROSS CATHOLIC CHURCH
 7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-5252

Architect's Seal
Jim Bransford Architect
 2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-0159

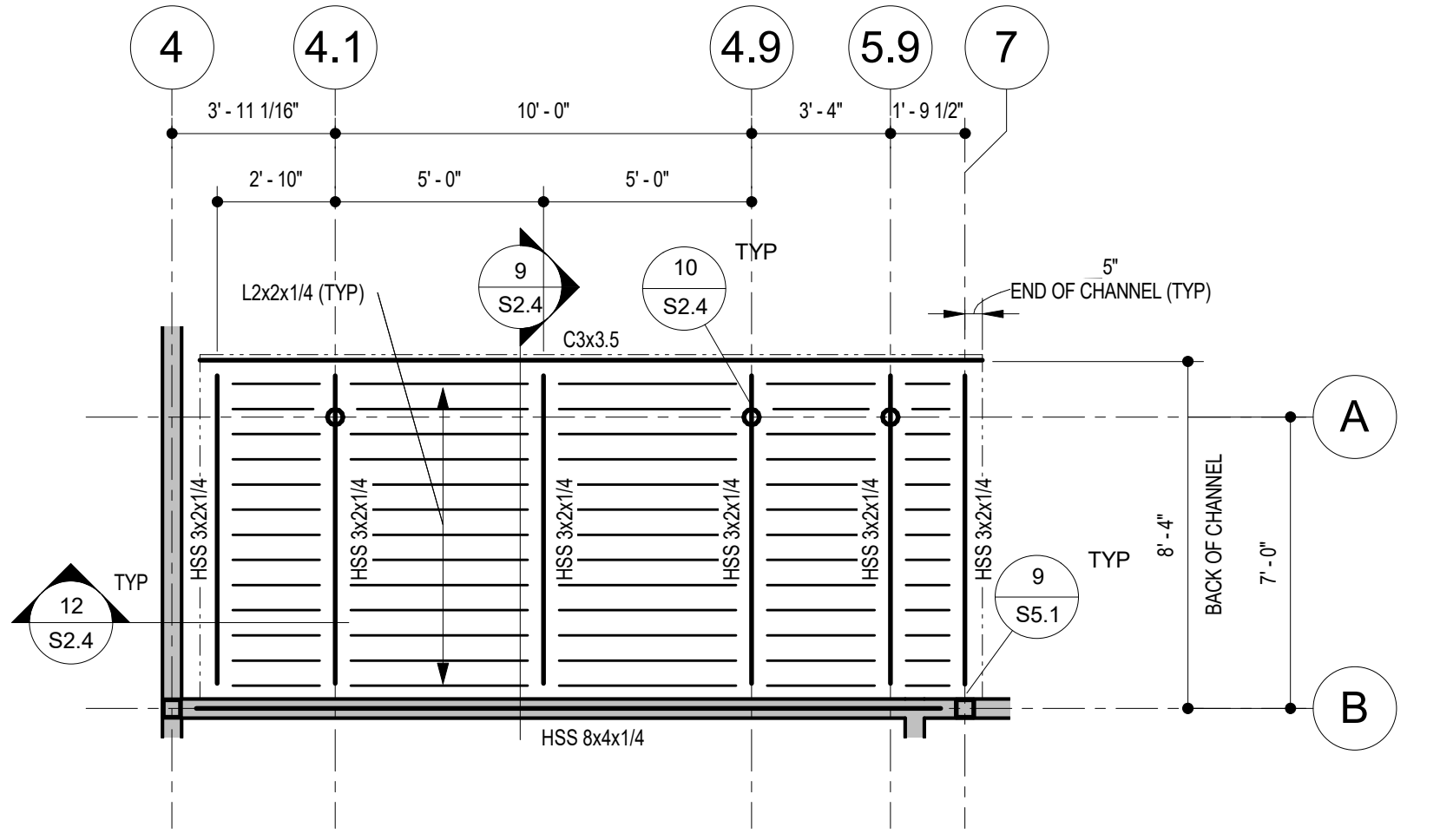
Project: 2025.011
 Date: 2/12/25
 Revisions:



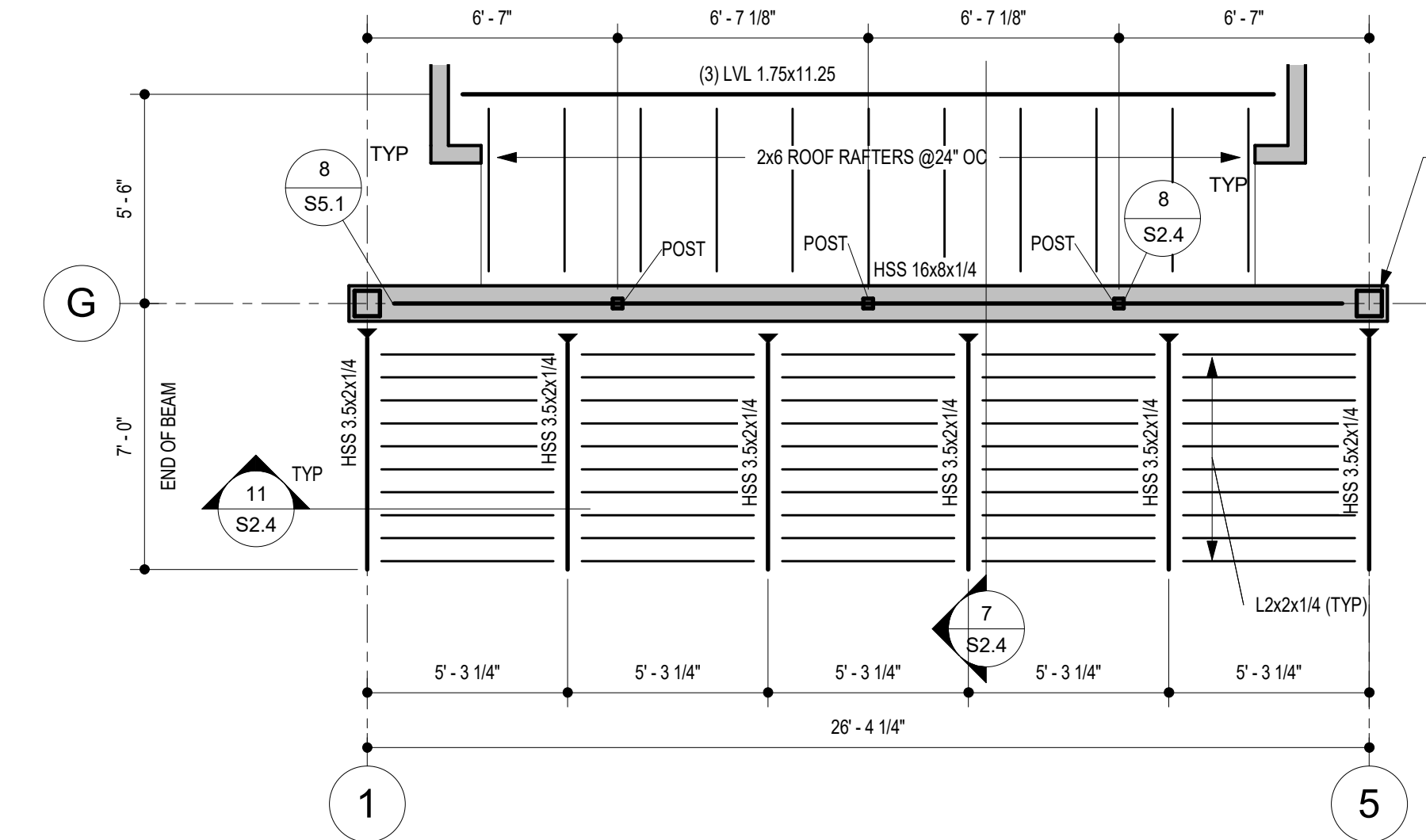
1 PARTIAL FOUNDATION PLAN
 1/4" = 1'-0"



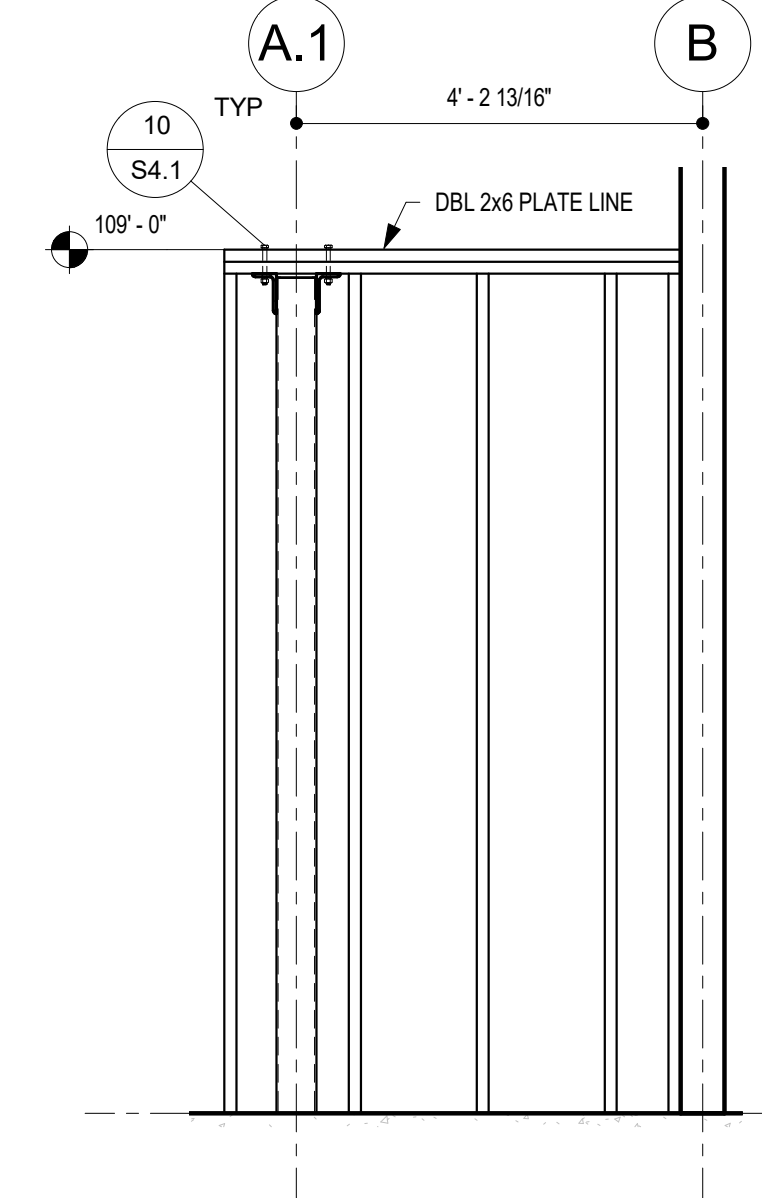
2 PARTIAL FOUNDATION PLAN
 1/4" = 1'-0"



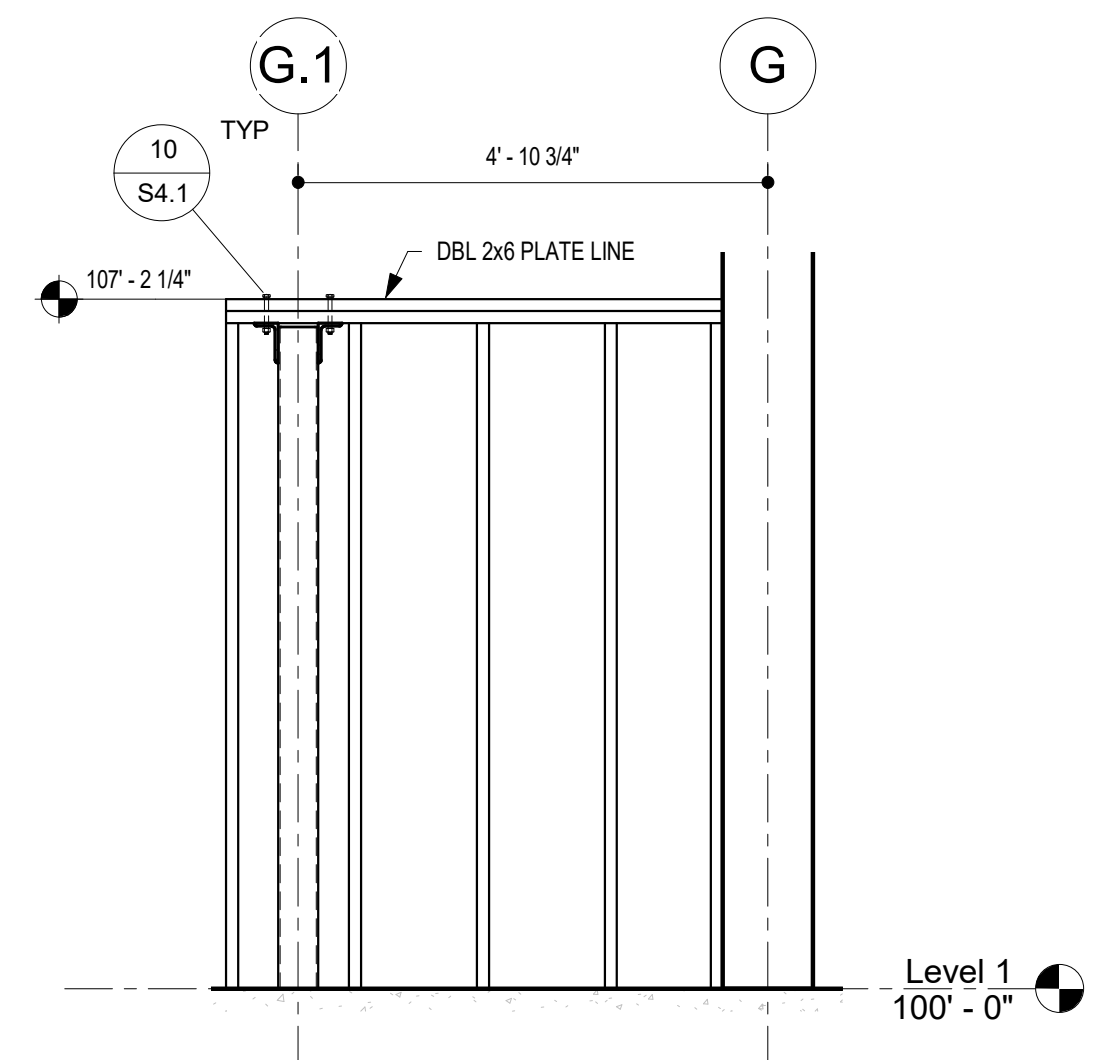
3 PARTIAL ROOF FRAMING PLAN
 1/4" = 1'-0"



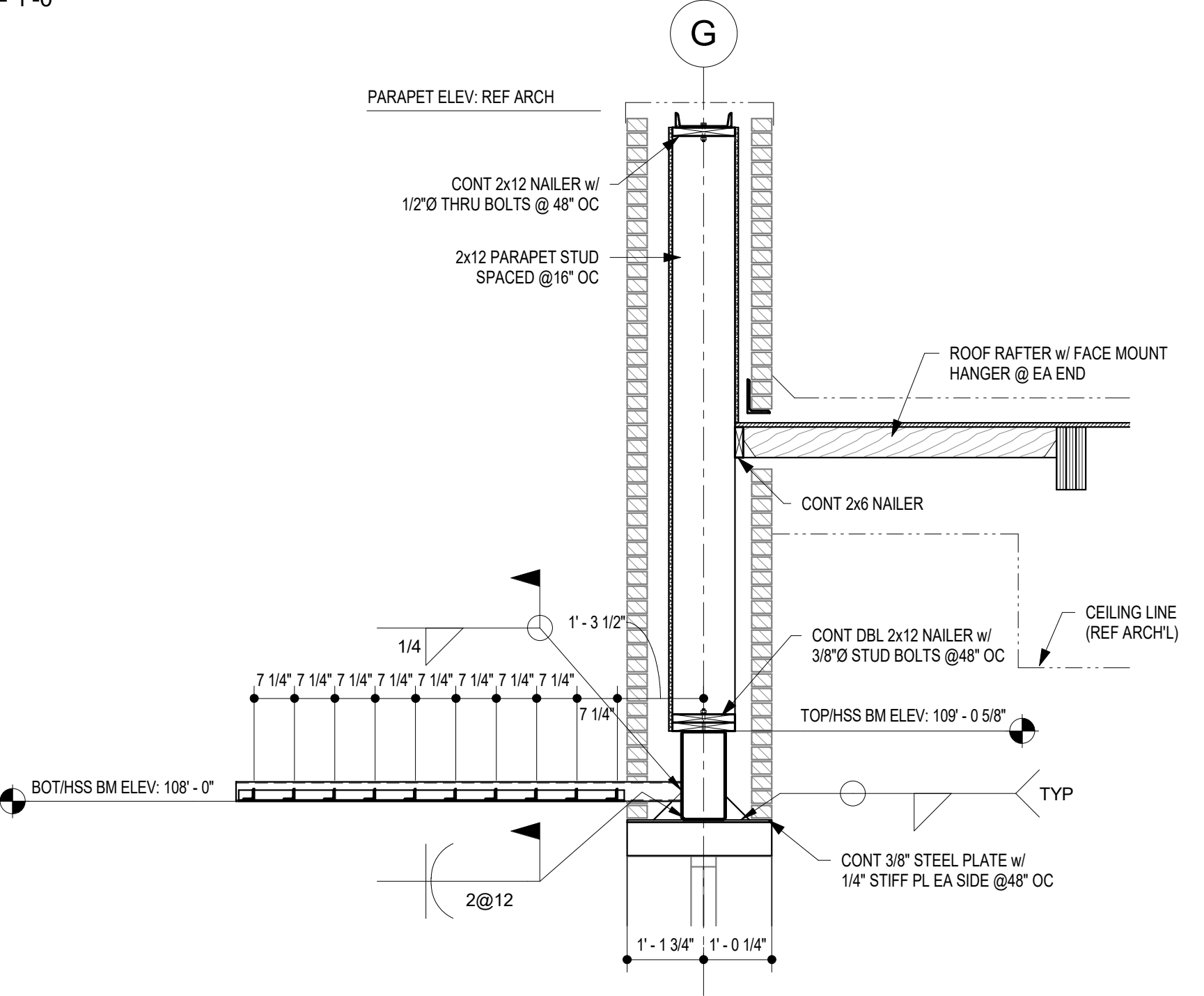
4 PARTIAL ROOF FRAMING PLAN
 1/4" = 1'-0"



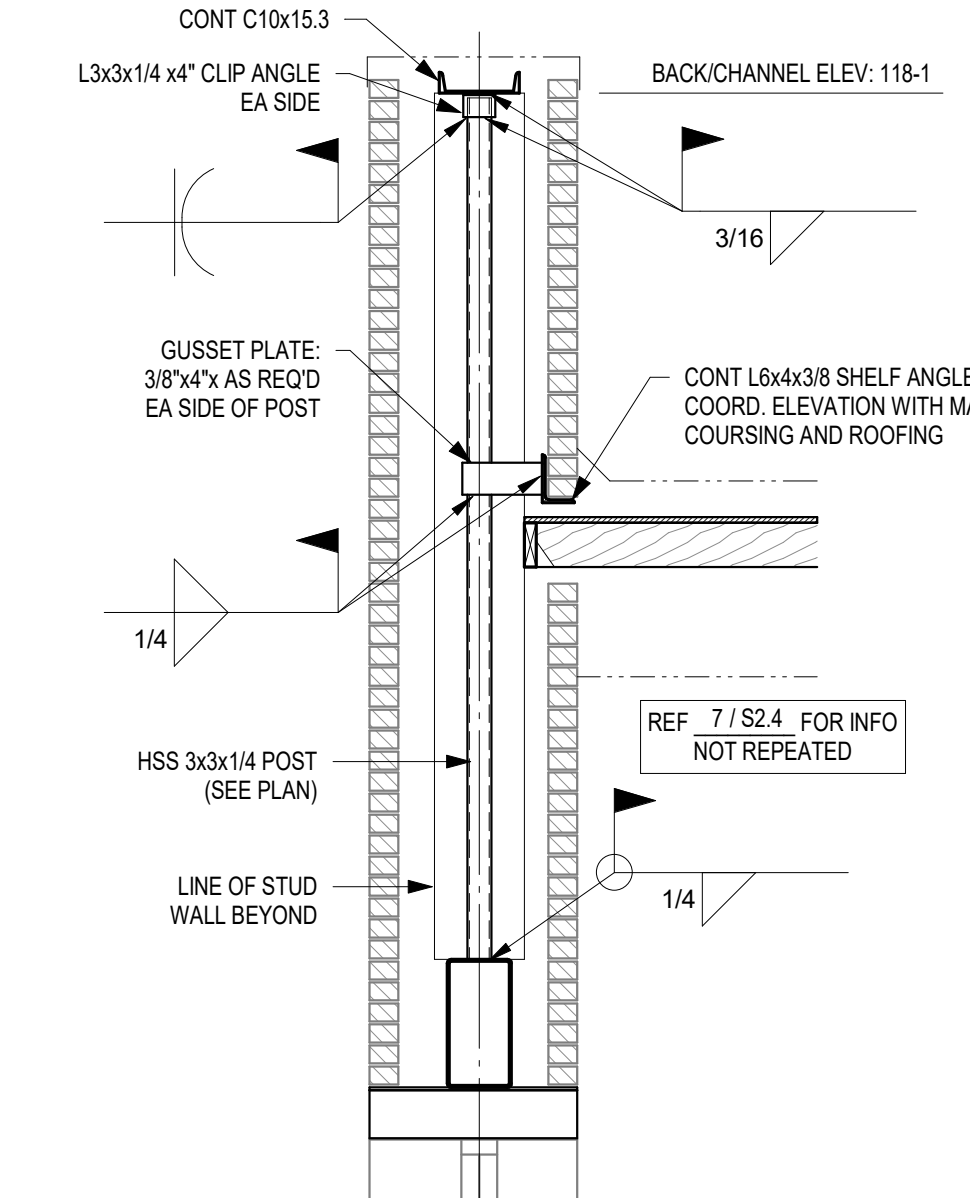
5 FRAMING ELEVATION
 1/2" = 1'-0"



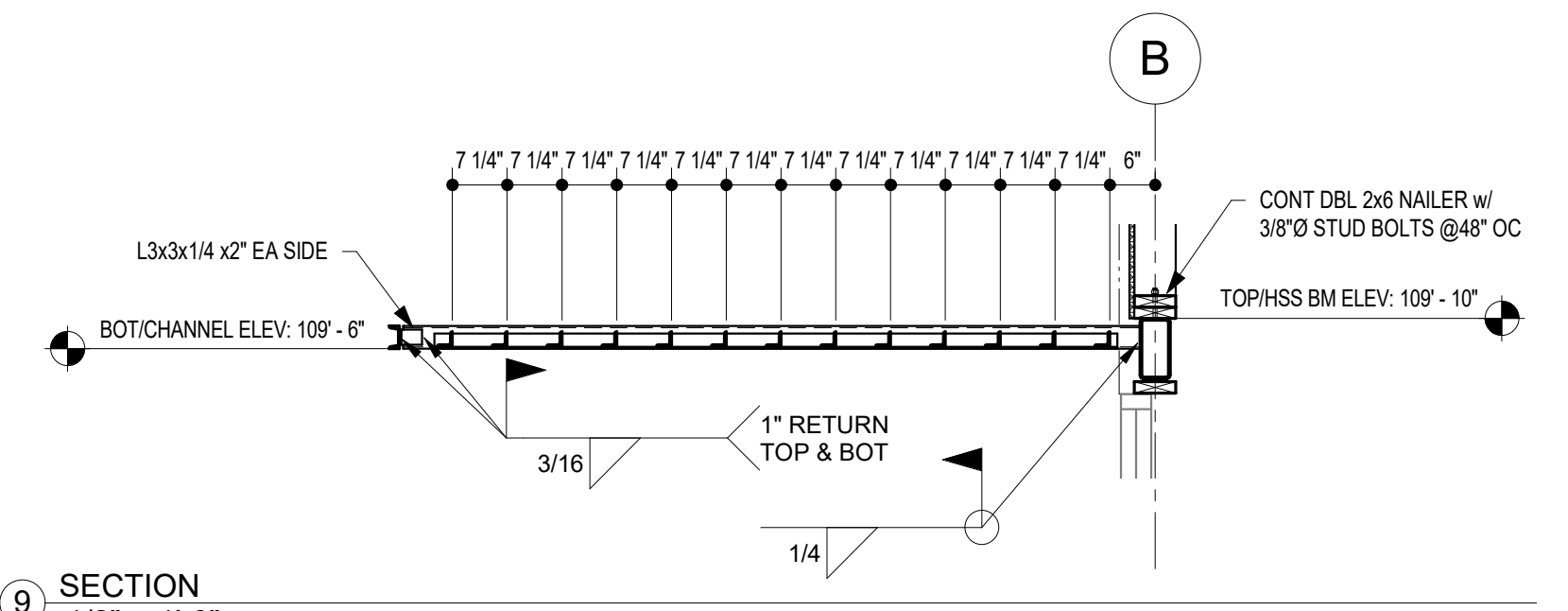
6 FRAMING ELEVATION
 1/2" = 1'-0"



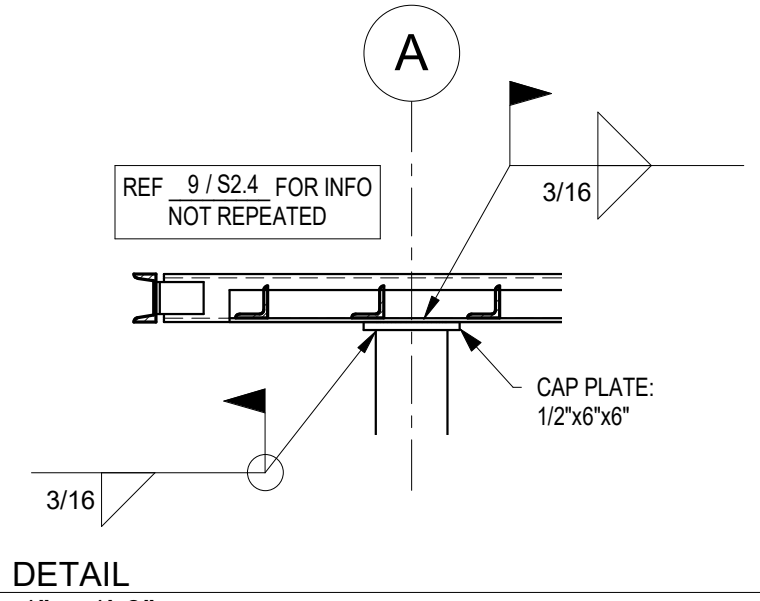
7 SECTION
 1/2" = 1'-0"



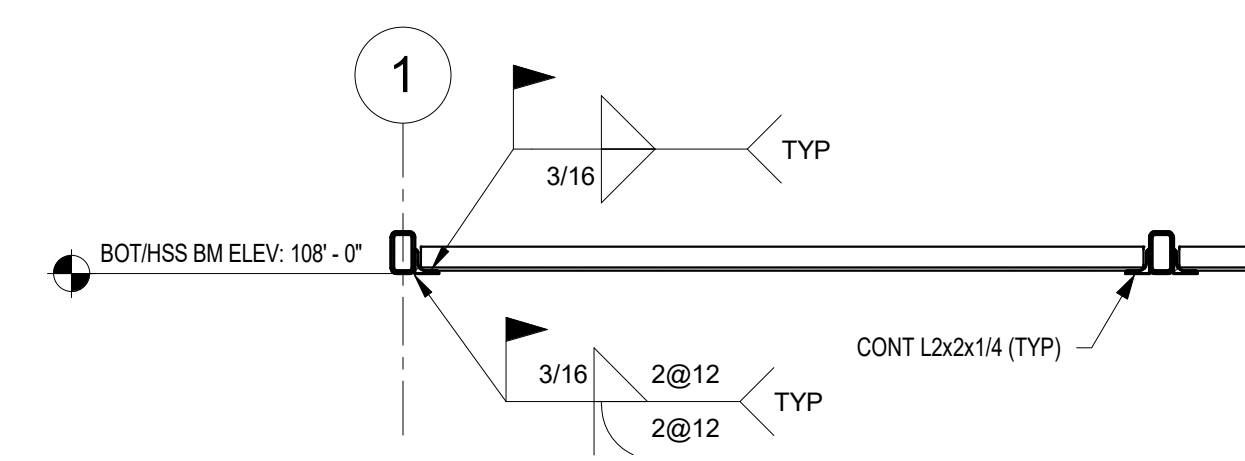
8 DETAIL
 1/2" = 1'-0"



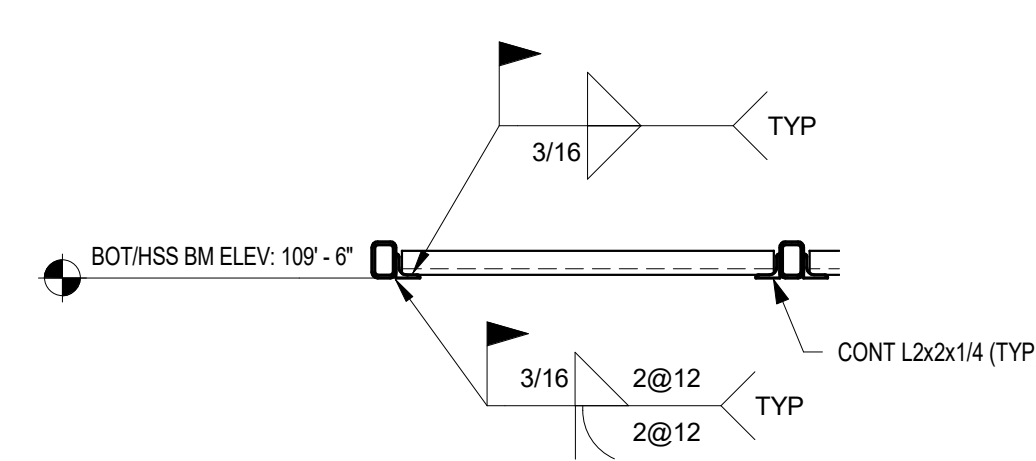
9 SECTION
 1/2" = 1'-0"



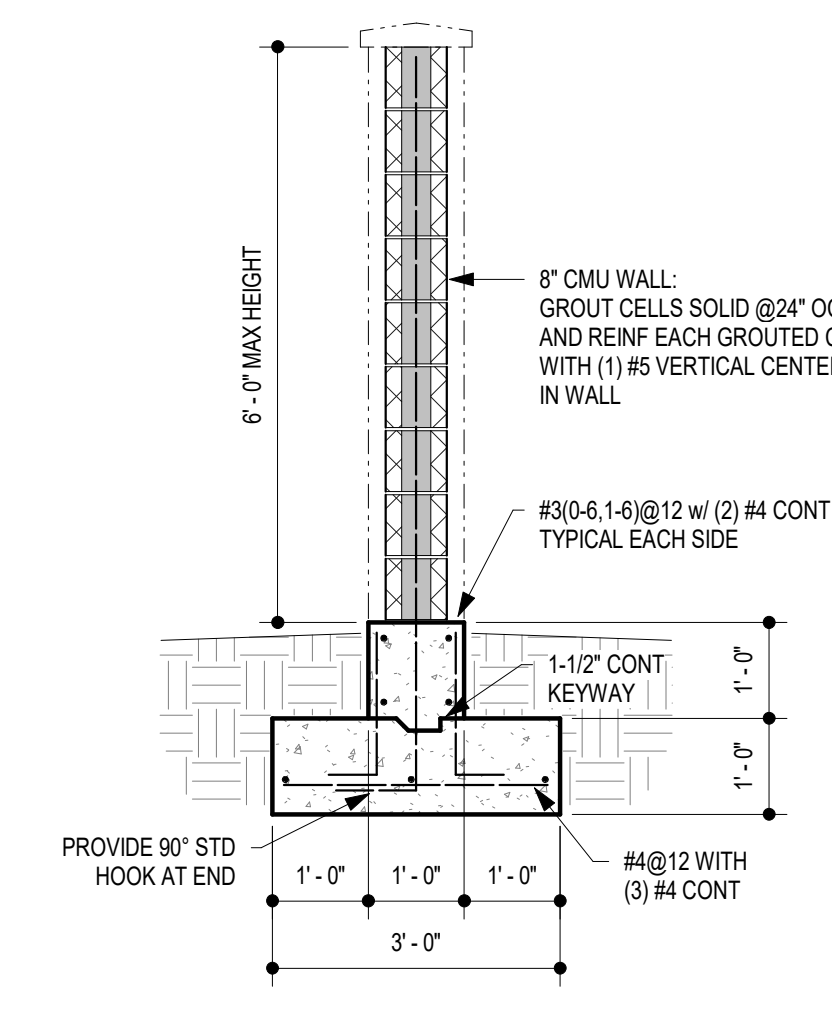
10 DETAIL
 1" = 1'-0"



11 TYP SECTION
 3/4" = 1'-0"



12 SECTION
 3/4" = 1'-0"



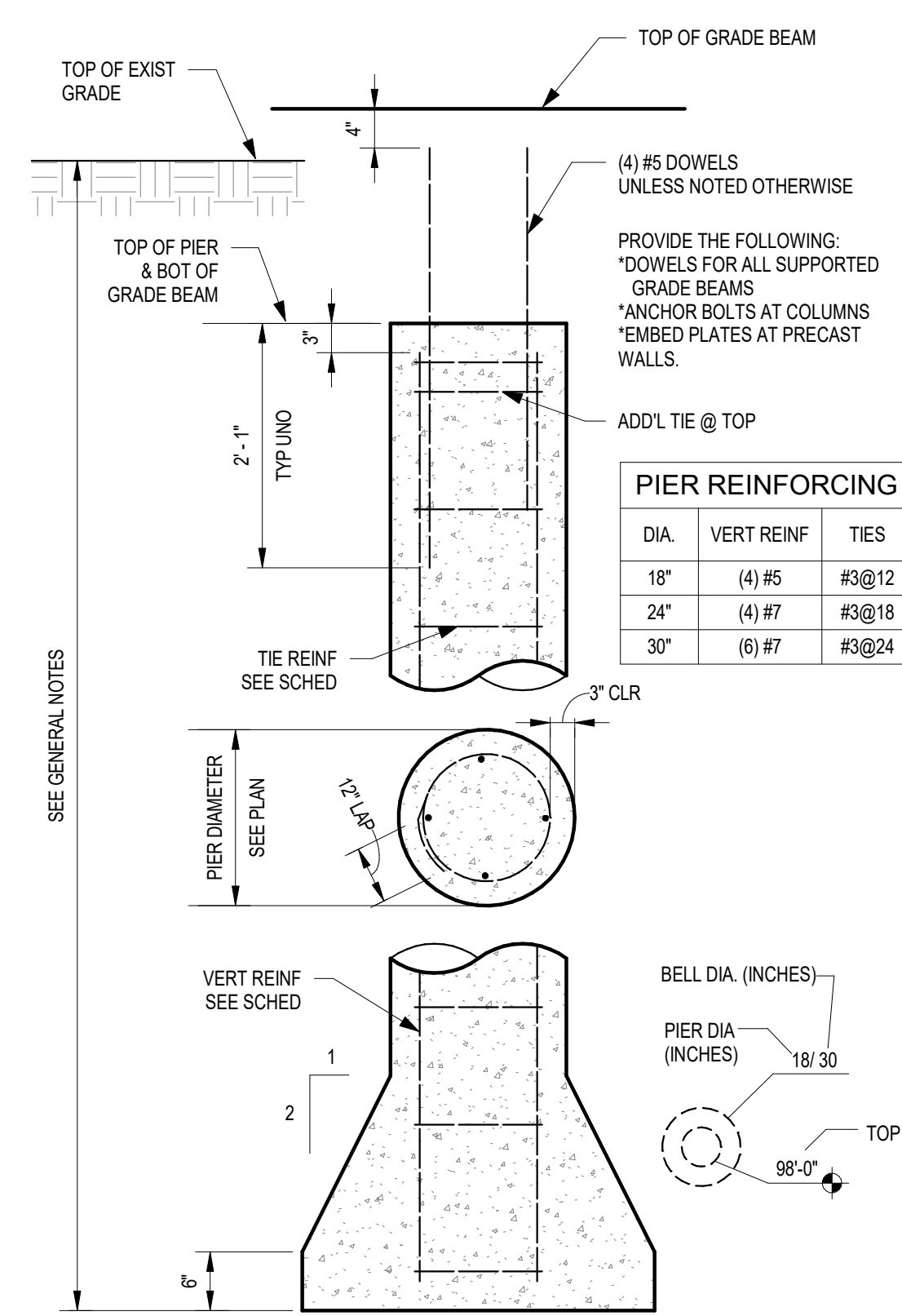
13 SCREEN WALL SECTION
 1/2" = 1'-0"

****PRELIMINARY****
NOT FOR CONSTRUCTION

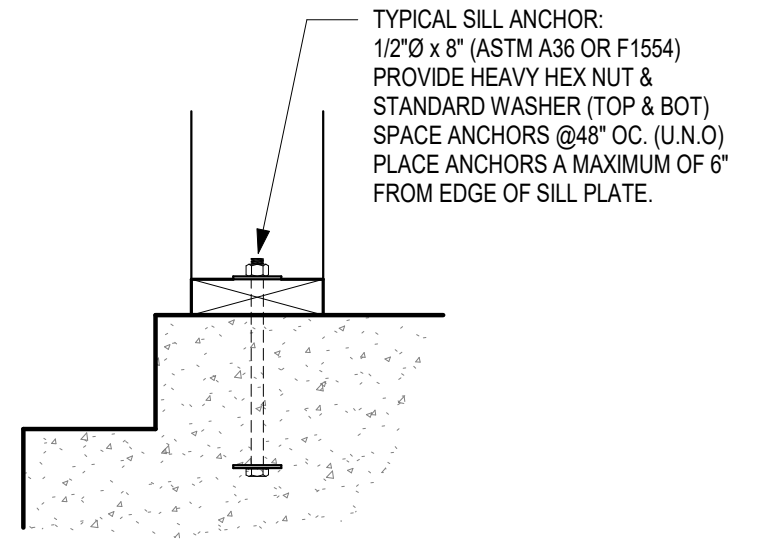
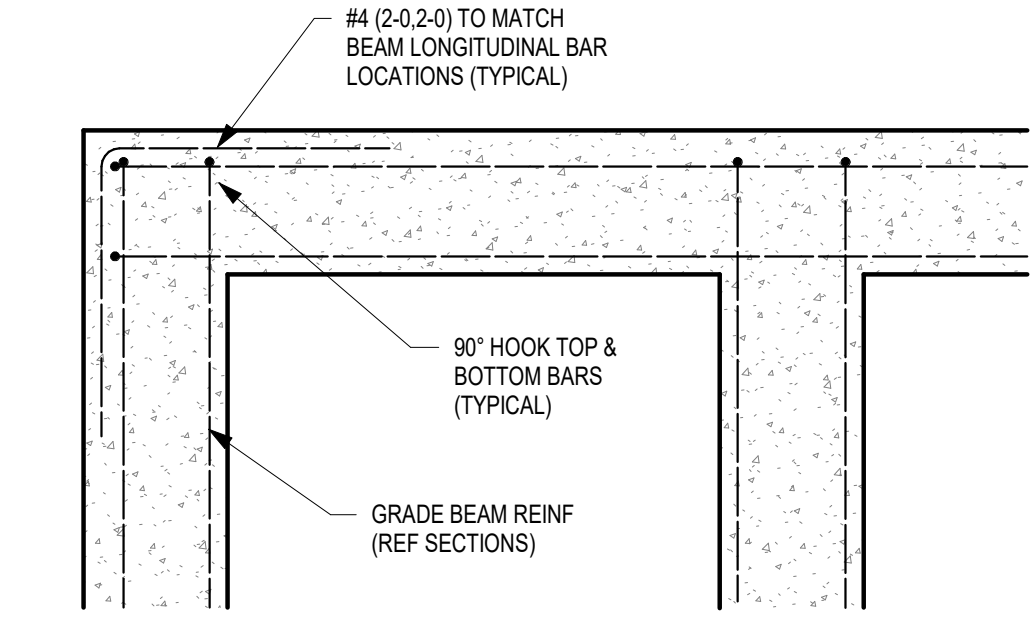
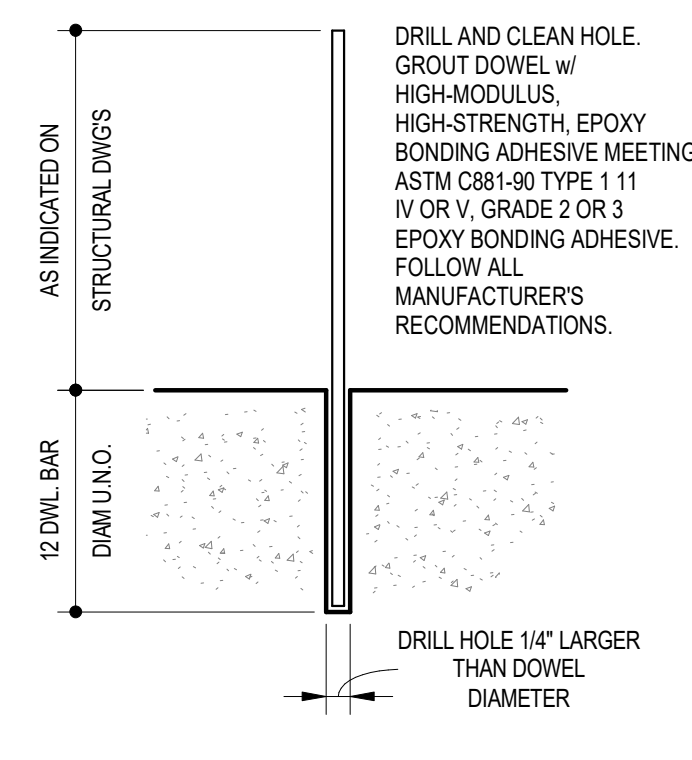
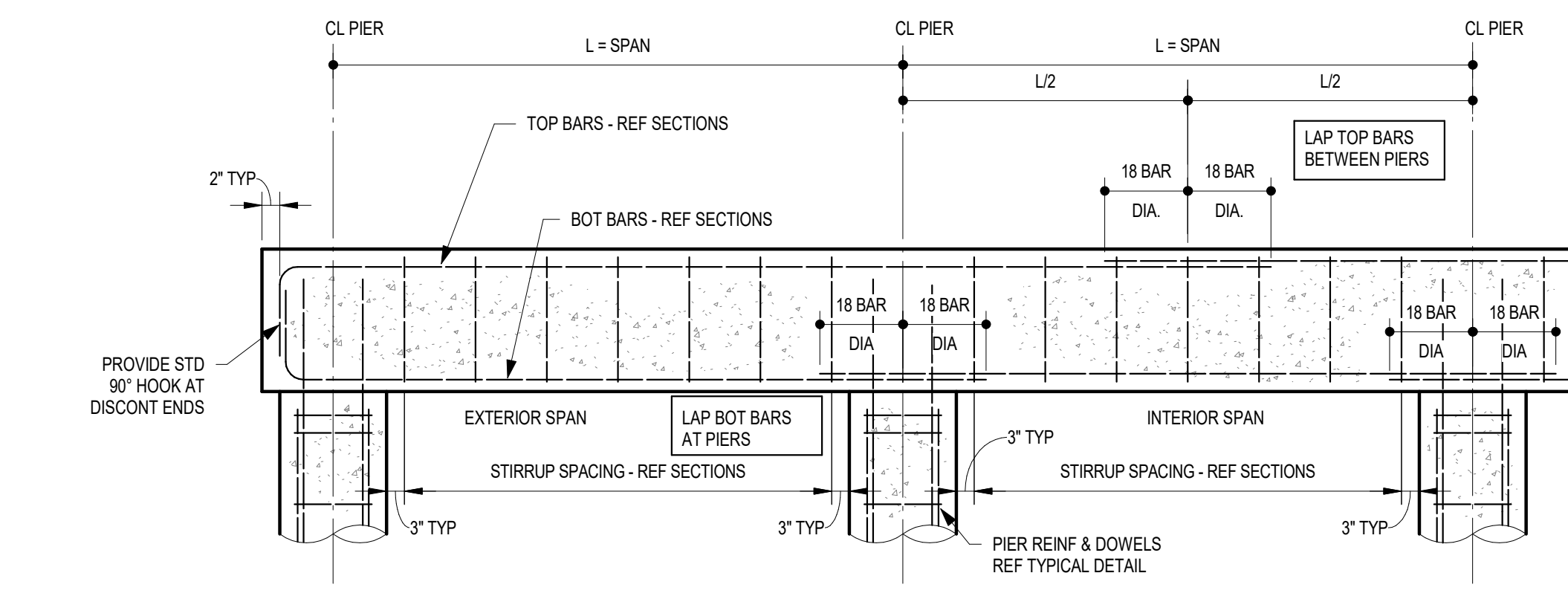
Design Development Phase
New Administration Building
HOLY CROSS CATHOLIC CHURCH
 7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-5252
 Architect's Seal

Jim Bransford Architect
 2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-0159

Project: 2025.011
 Date: 2/12/25
 Revisions:



PIER REINFORCING		
DIA.	VERT REINF	TIES
18"	(4) #5	#3@12
24"	(4) #7	#3@18
30"	(6) #7	#3@24



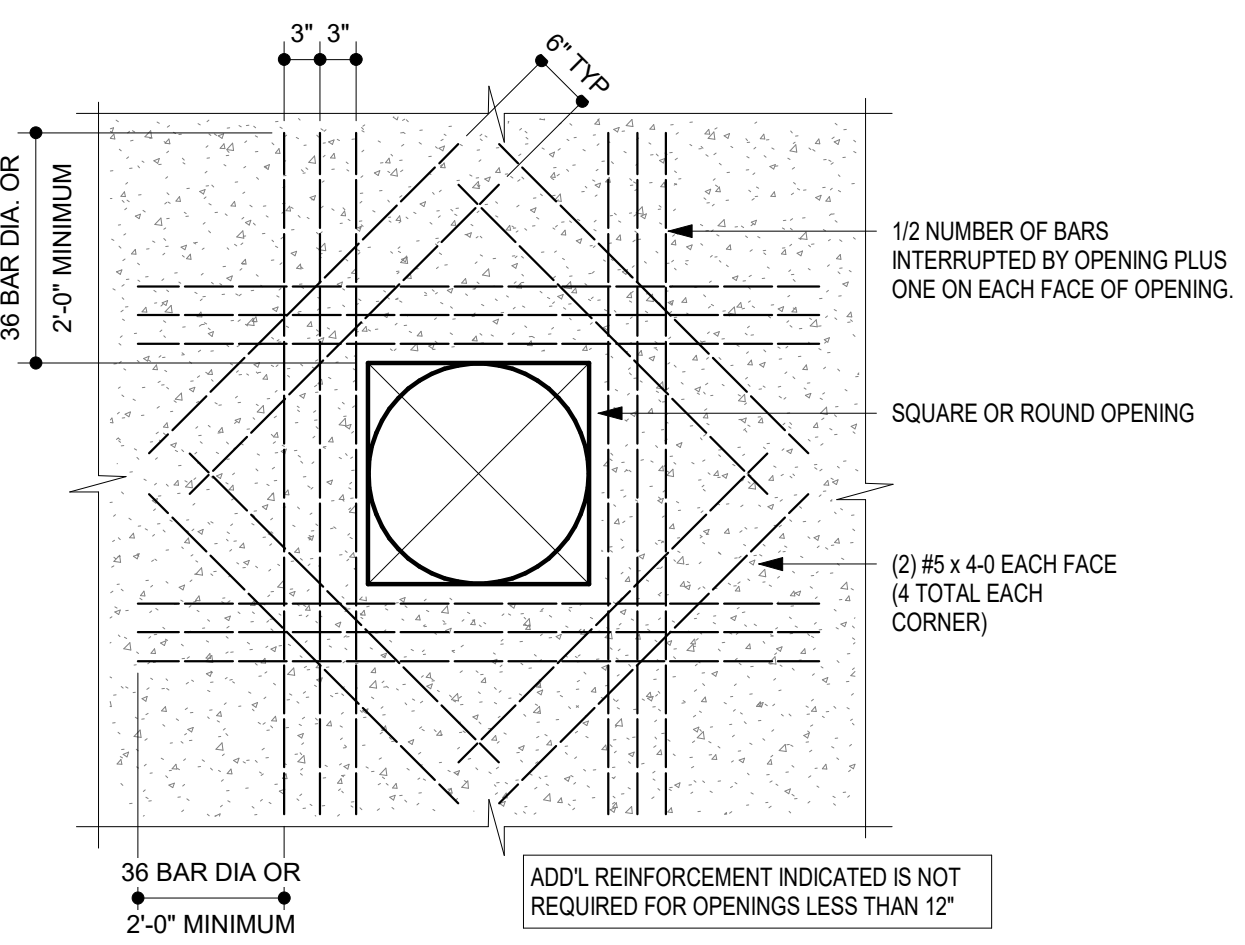
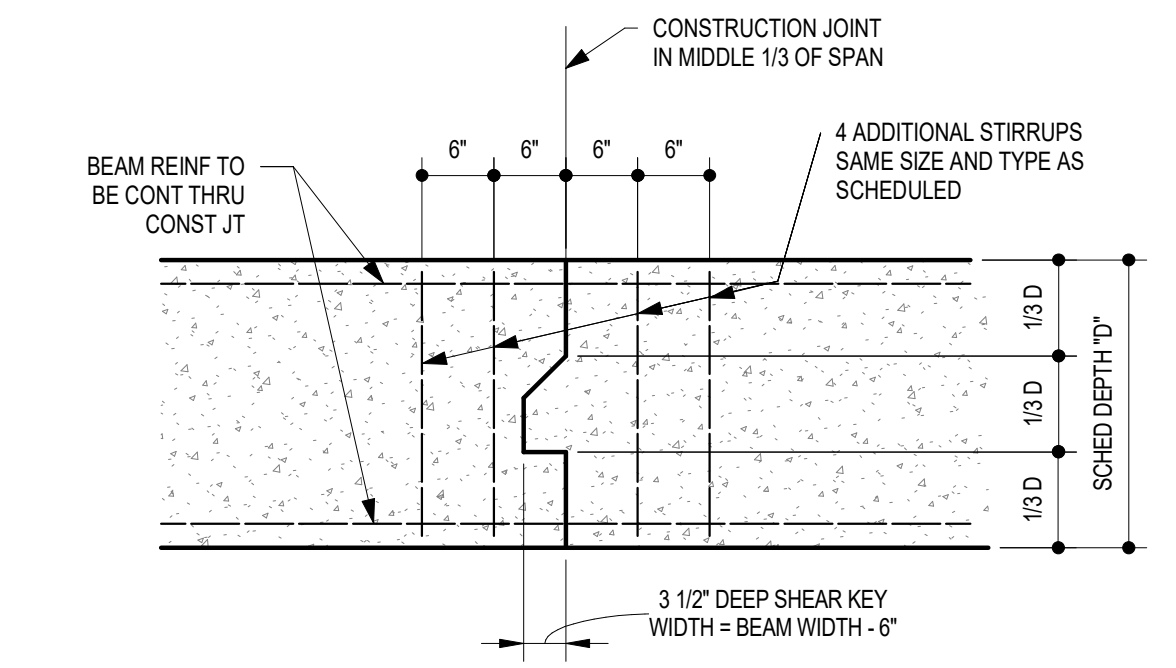
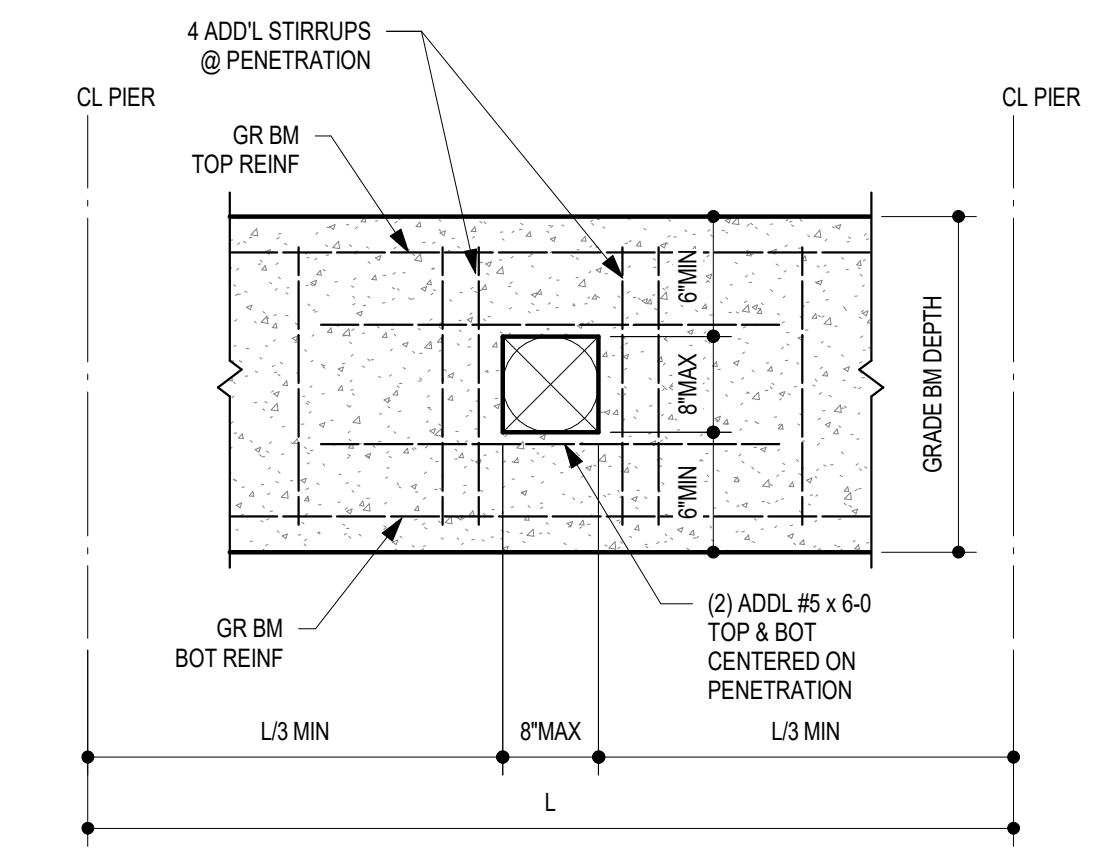
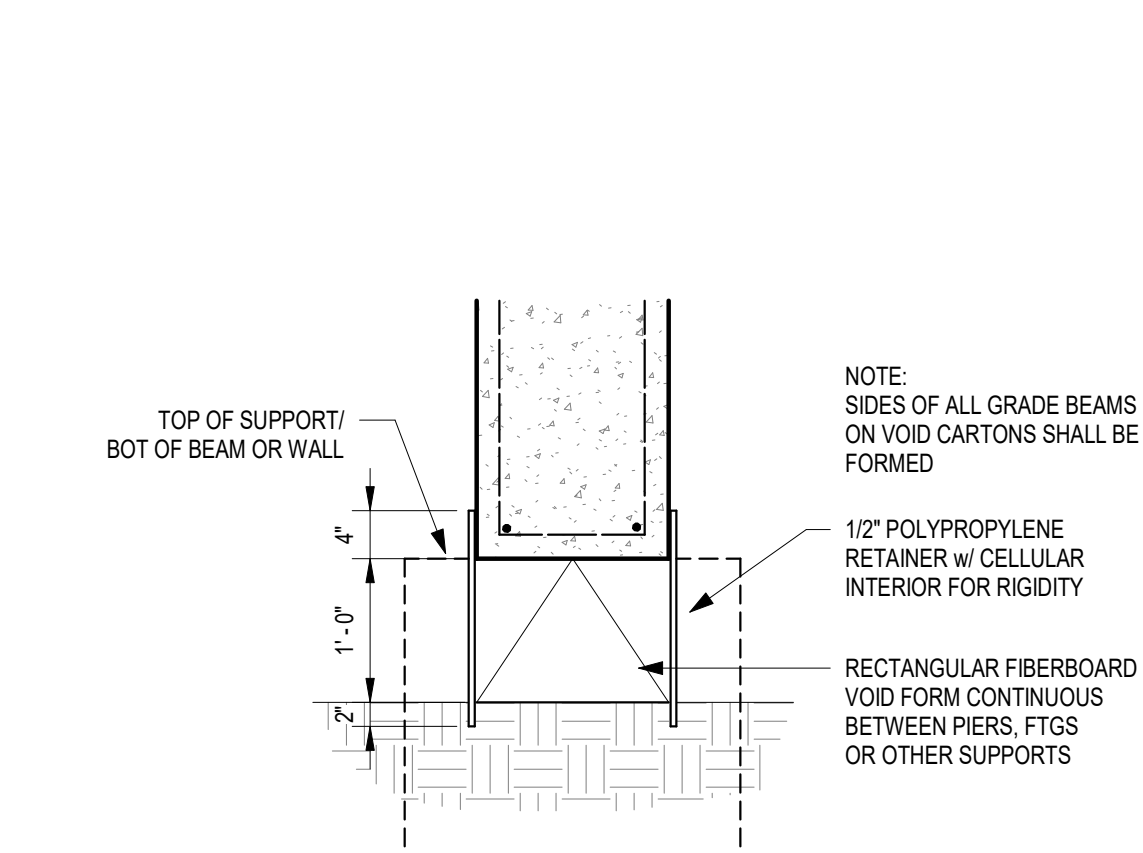
1 TYPICAL DRILLED PIER DETAIL NTS

2 TYPICAL GRADE BM REINF DETAIL NTS

3 TYPICAL EPOXY GROUT DETAIL NTS

4 TYP GRADE BEAM CORNER BAR DETAIL NTS

5 TYPICAL SILL ANCHOR DETAIL NTS

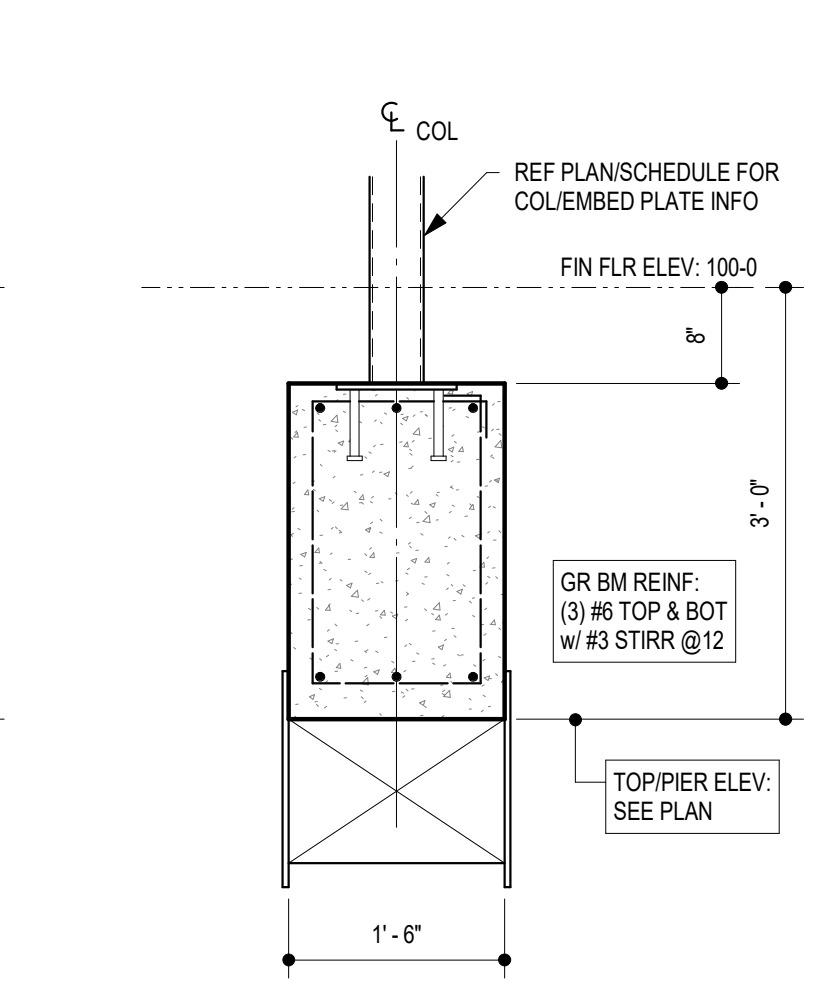
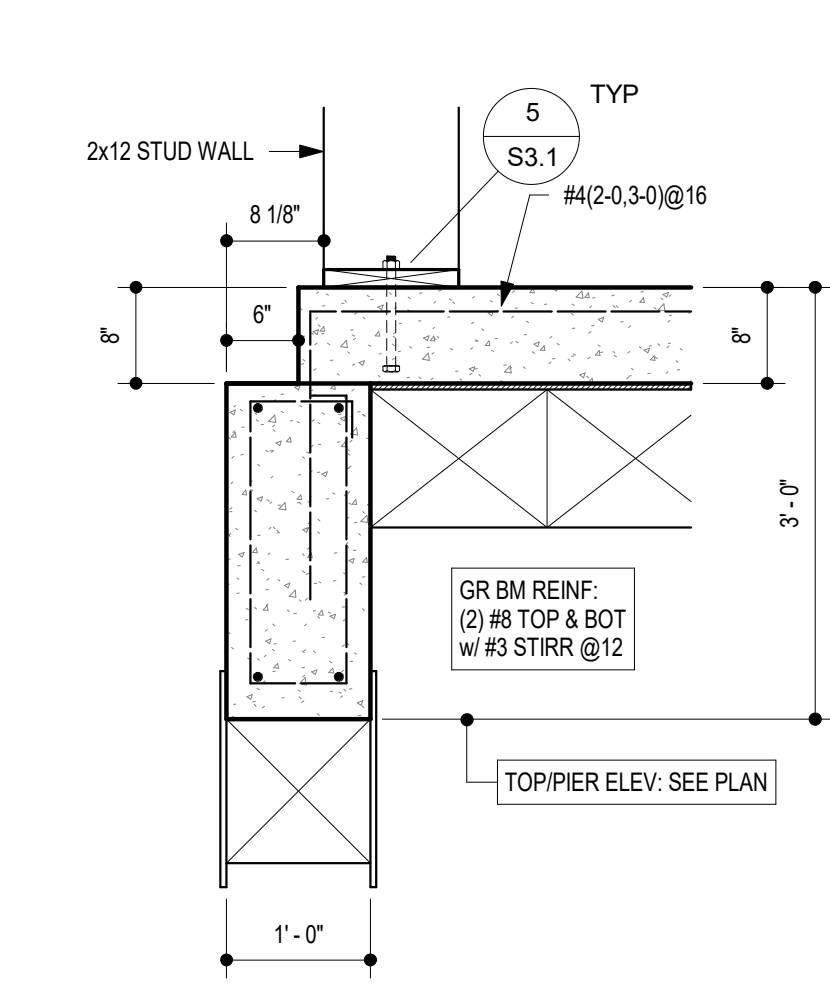
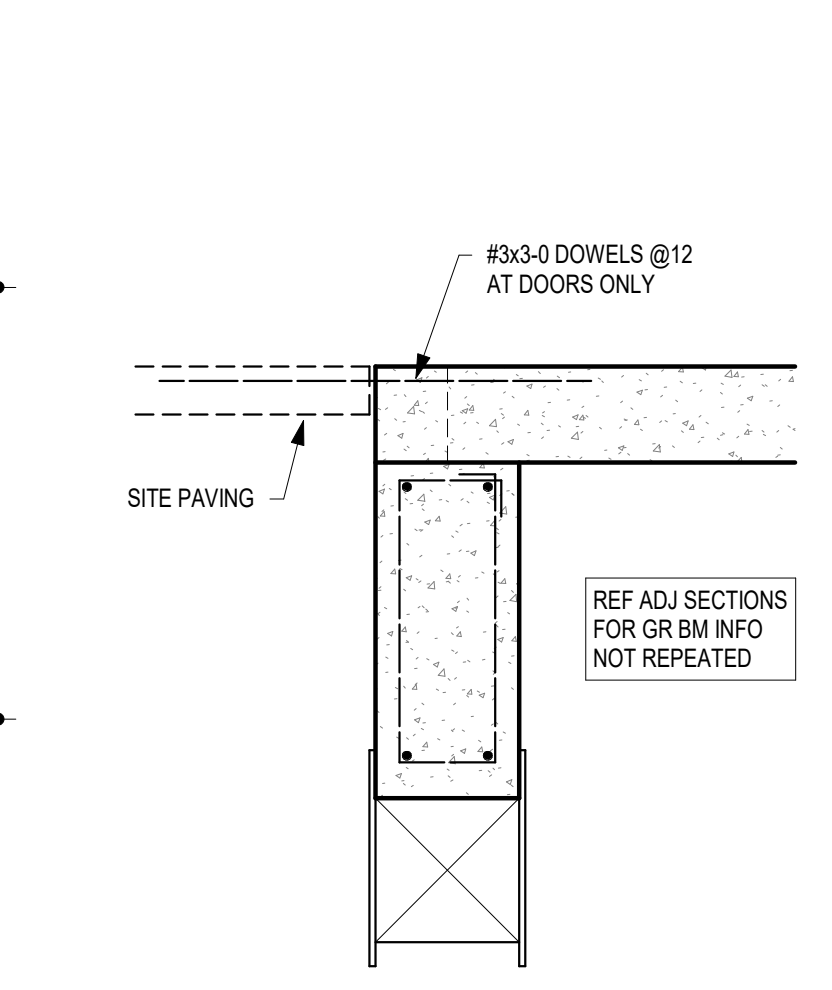
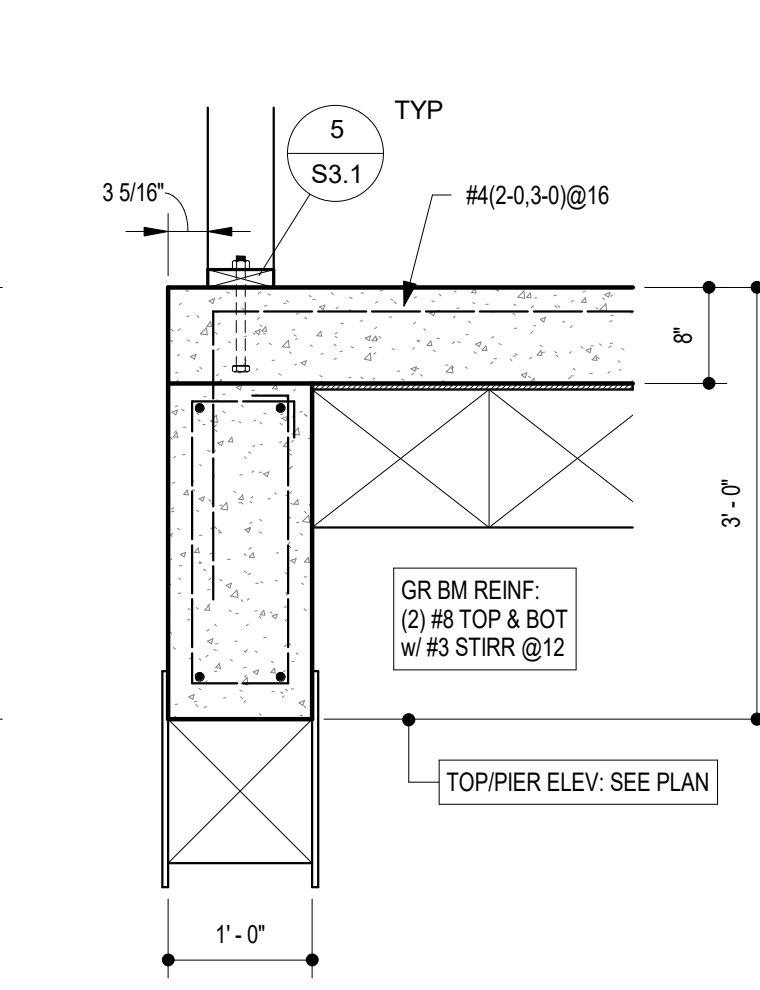
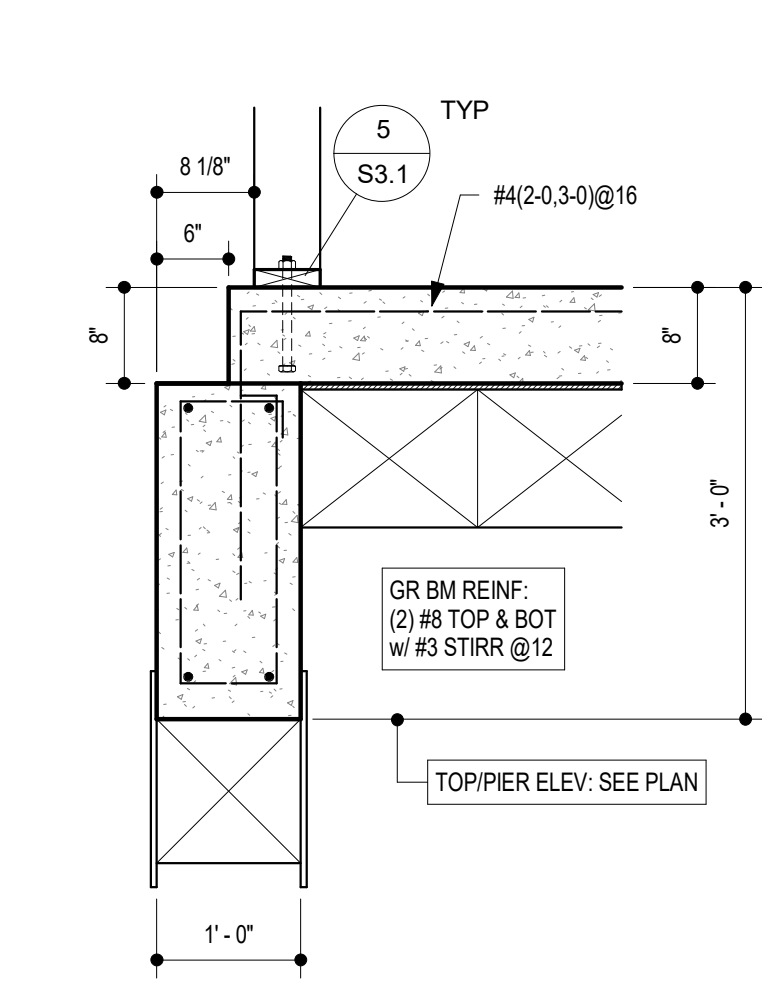
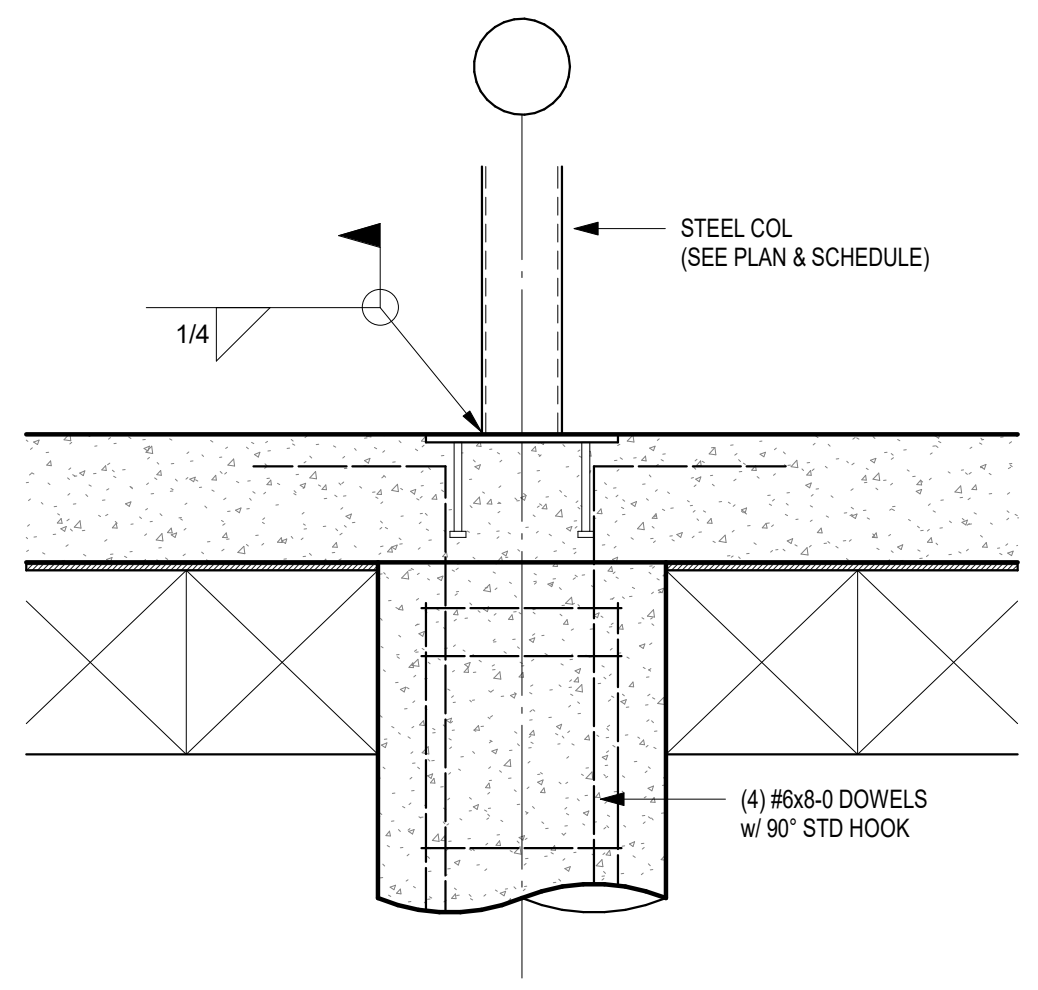
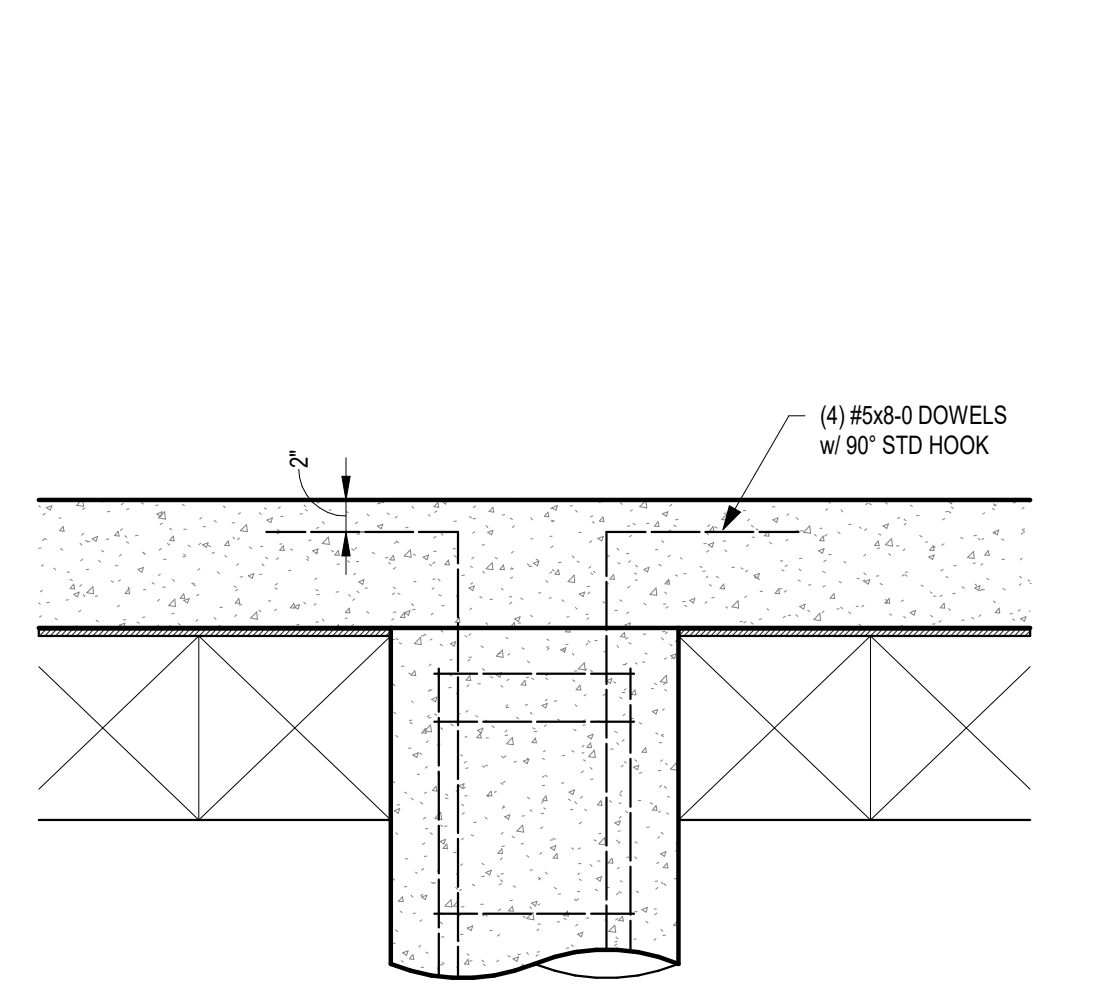


6 TYPICAL RECT VOID CARTON DETAIL NTS

7 TYPICAL GR BM PENETRATION DETAIL NTS

8 TYPICAL CONST JOINT IN BM DETAIL NTS

9 TYPICAL SLAB REINF @ OPENINGS NTS



10 DETAIL 1" = 1'-0"

11 DETAIL 1" = 1'-0"

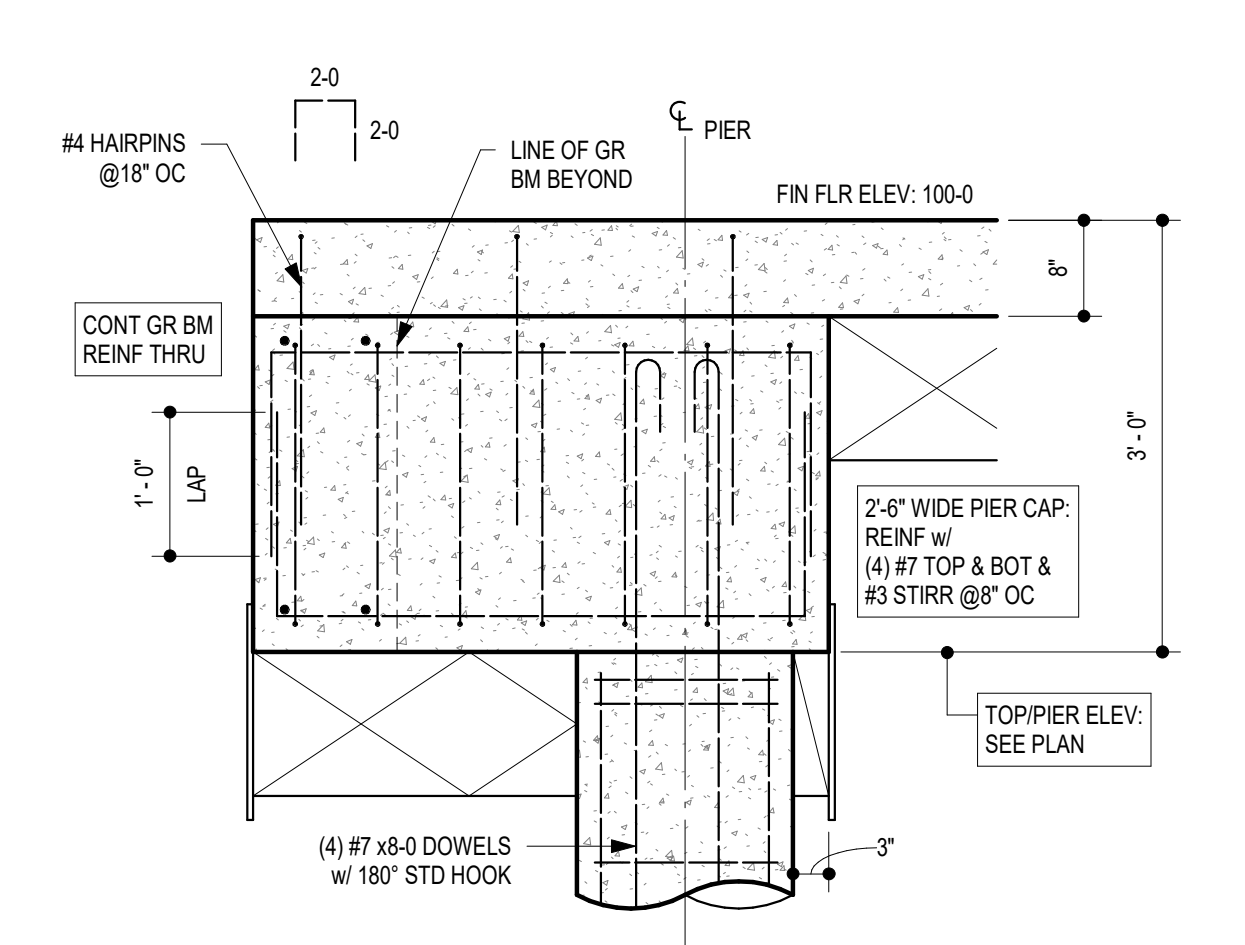
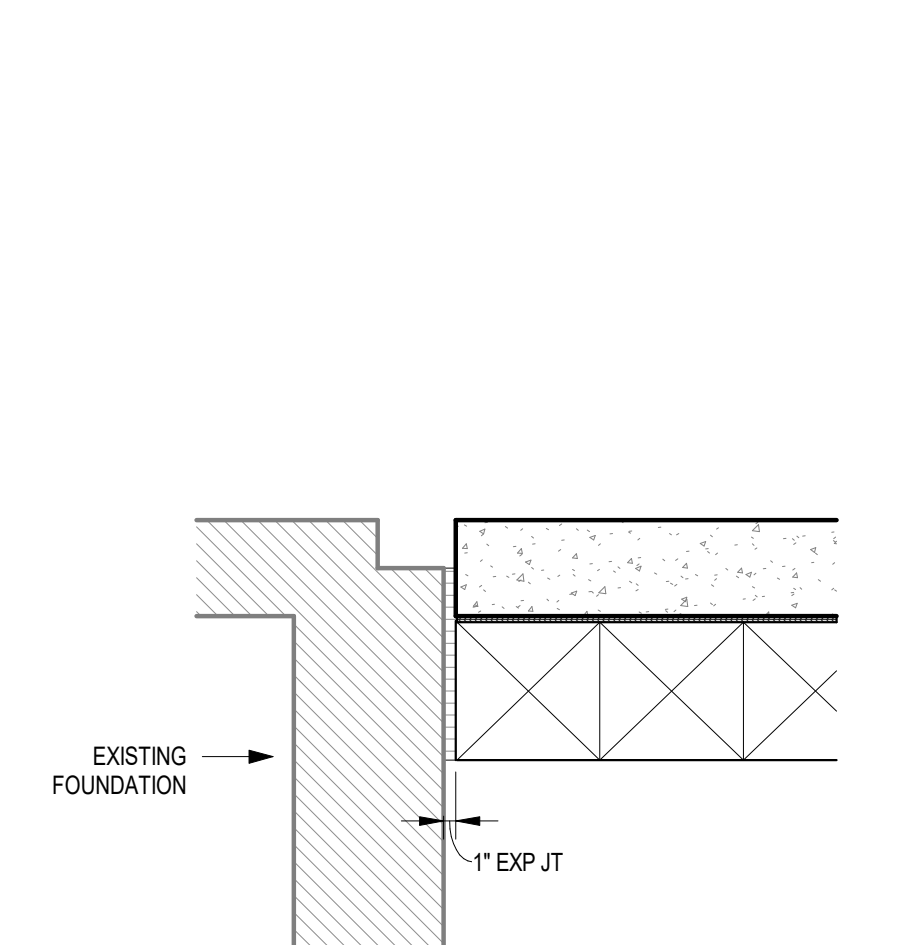
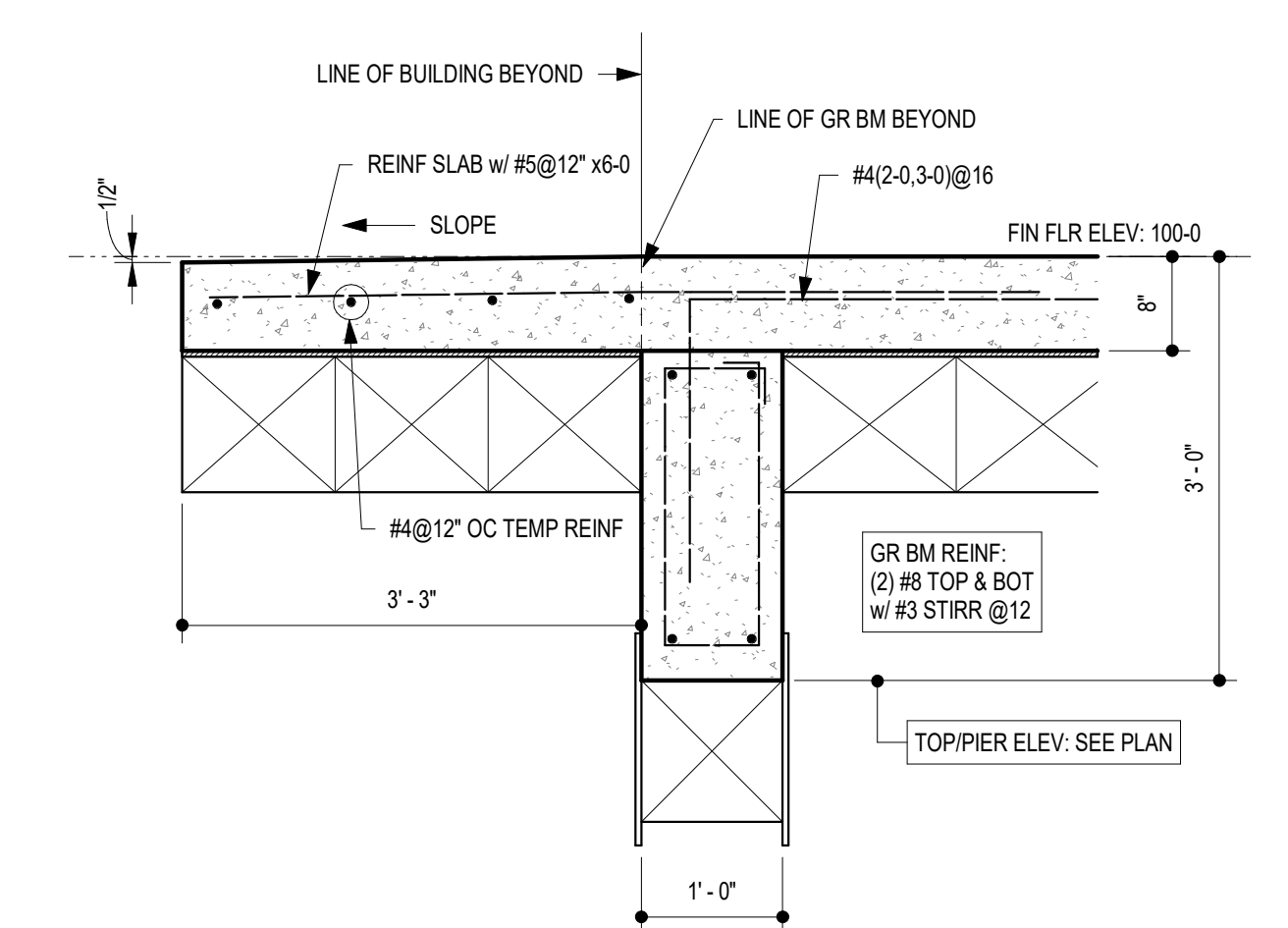
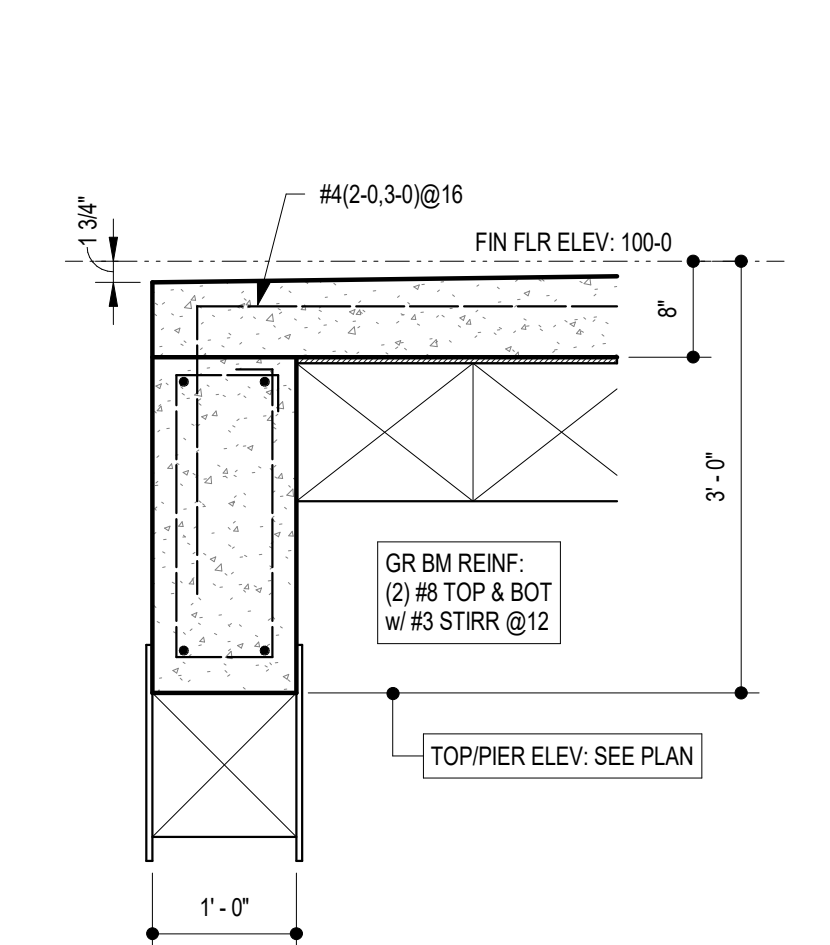
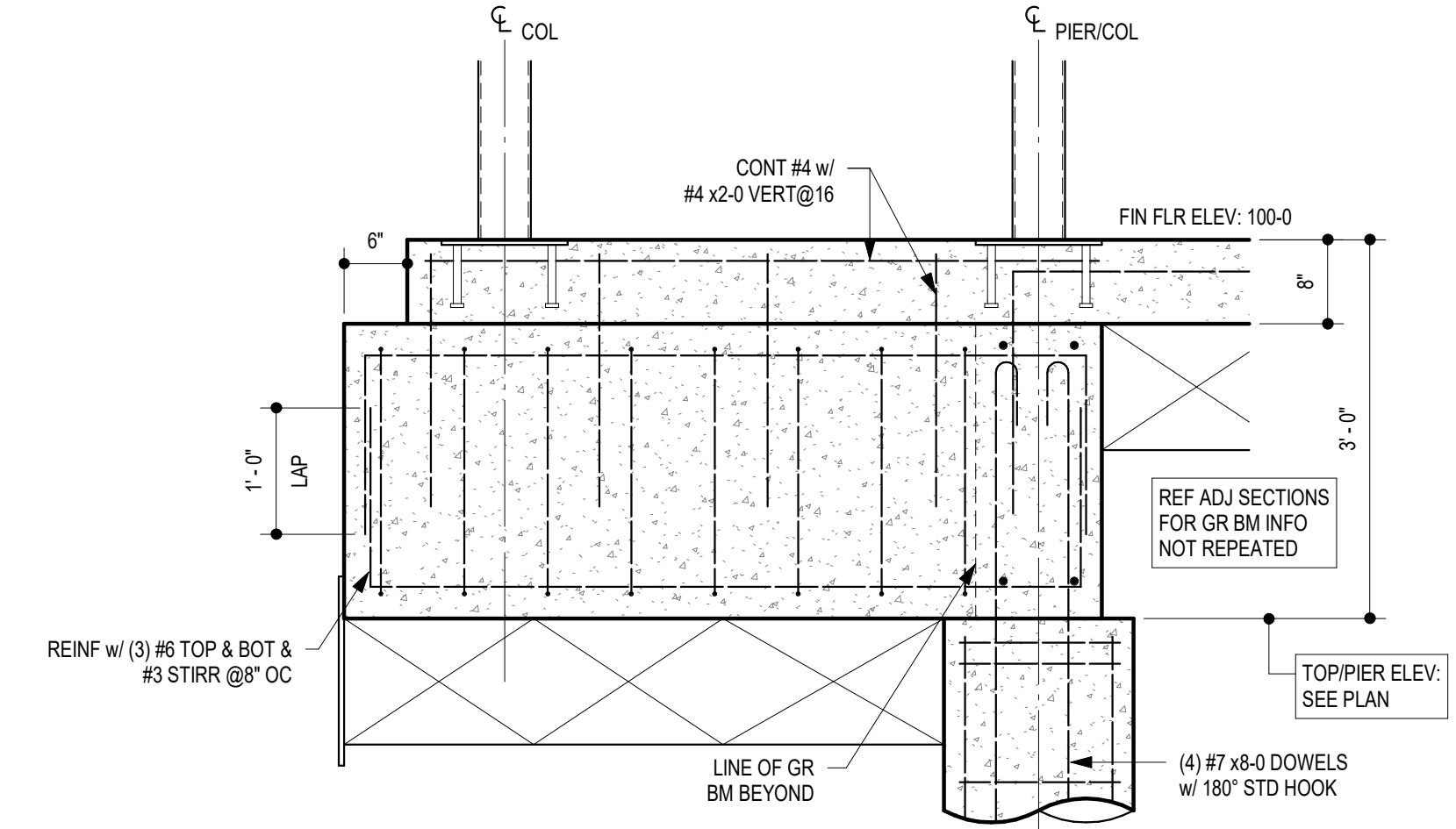
12 SECTION 3/4" = 1'-0"

13 SECTION 3/4" = 1'-0"

14 SECTION 3/4" = 1'-0"

15 SECTION 3/4" = 1'-0"

16 SECTION 3/4" = 1'-0"



17 SECTION NTS

18 SECTION 3/4" = 1'-0"

19 SECTION 3/4" = 1'-0"

20 SECTION 3/4" = 1'-0"

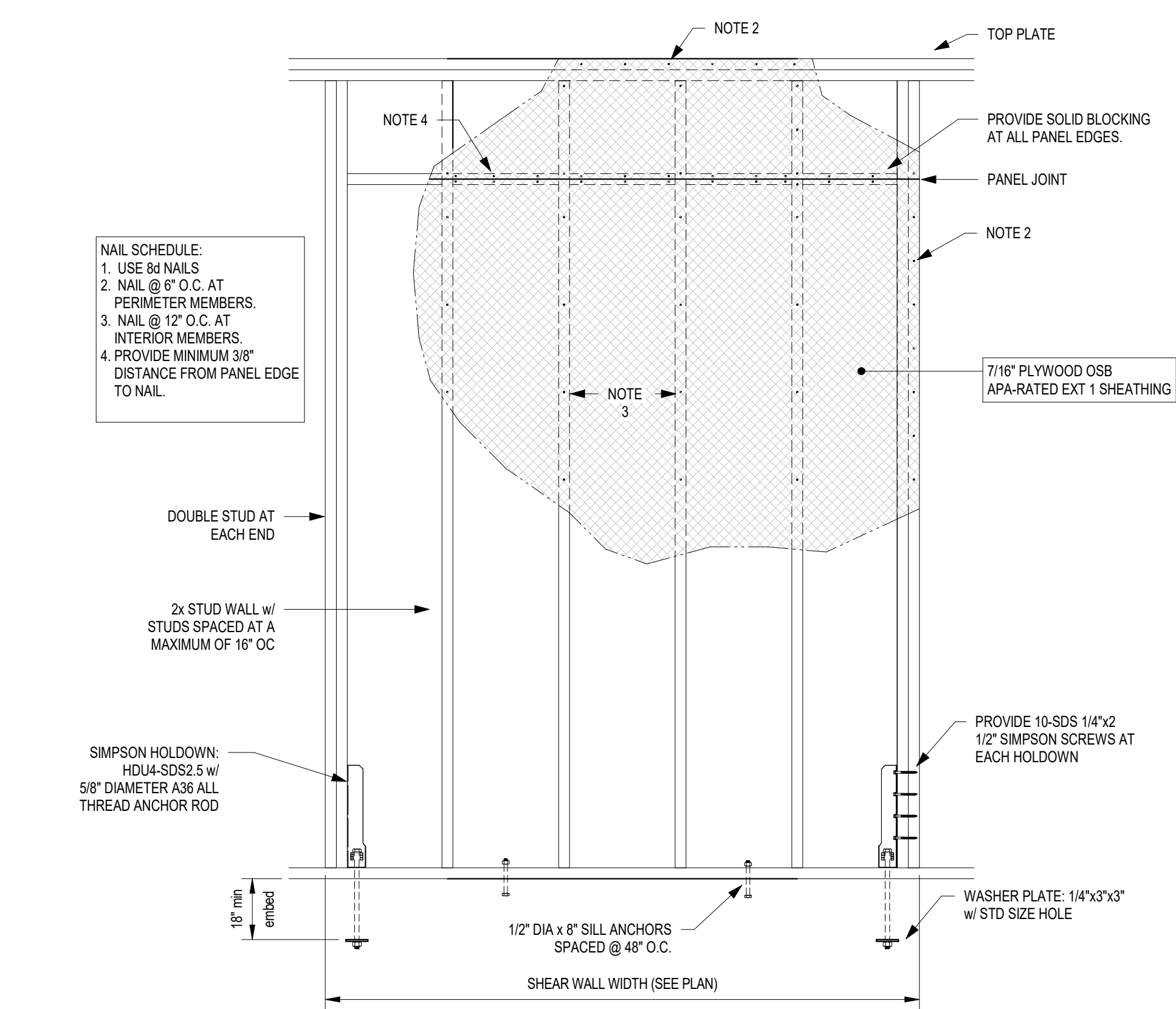
21 SECTION 3/4" = 1'-0"

****PRELIMINARY****
NOT FOR CONSTRUCTION

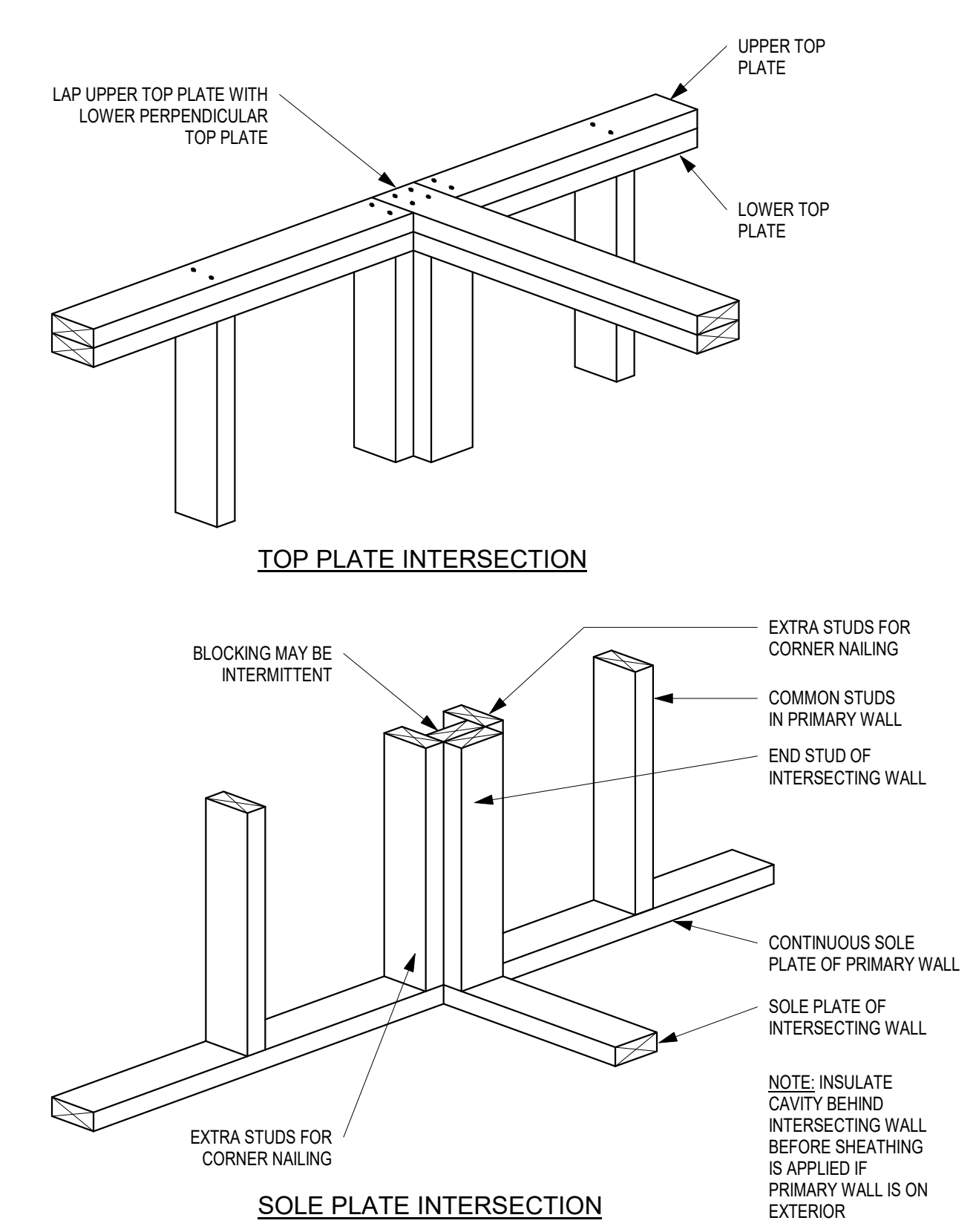
Design Development Phase
 New Administration Building
HOLY CROSS CATHOLIC CHURCH
 7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-5252

Architect's Seal
Jim Bransford Architect
 2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-0159

Project: 2025.011
 Date: 2/12/25
 Revisions:



1 TYPICAL SHEAR WALL DETAIL
 NTS



2 WALL FRAMING @ INTERSECTING PARTITIONS
 NTS

MINIMUM NAILING SCHEDULE			
CONNECTION	FASTENING	LOCATION	
TRUSS TO SILL OR GIRDER	(3) 0.131" x 3" NAILS	TOENAIL	
BRIDGING TO JOIST	(2) 0.131" x 3" NAILS	TOENAIL EA. END	
SOLE PLATE TO JOIST OR BLOCKING	0.131" x 2.5" @ 8" O.C.	TYPICAL FACE NAIL	
TOP PLATE TO STUD	(2) 0.162" x 3.5" NAILS (3) 0.131" x 3" NAILS	END NAIL	
STUD TO SOLE PLATE	(2) 0.162" x 3.5" NAILS (4) 0.131" x 3" NAILS	END NAIL TOENAIL	
DOUBLE STUDS FACE NAIL	2X4 2X6, 2X8	0.131" x 3" @ 8" O.C. 0.131" x 3" @ 8" O.C. TWO ROWS	FACE NAIL FACE NAIL
DOUBLE TOP PLATES	0.313" x 3" @ 12" O.C. 14-0.131" x 3" NAILS	FACE NAIL LAP SPLICE	
TOP PLATE AT INTERSECTIONS	(3) 0.131" x 3" NAILS	FACE NAIL	
CONTINUOUS HEADER, TWO PIECES	0.136" x 3.5" @ 16" O.C.	ALONG EACH EDGE	
CEILING JOISTS TO PLATE	(5) 0.131" x 3" NAILS	TOENAIL	
CONTINUOUS HEADER TO STUD	(4) 0.131" x 3" NAILS	TOENAIL	
CEILING JOISTS, LAPS OVER PARTITIONS	(4) 0.131" x 3" NAILS	FACE NAIL	
CEILING JOISTS, PARALLEL RAFTERS	(4) 0.131" x 3" NAILS	TOENAIL	
RAFTER OR TRUSS TO PLATE	(3) 0.313" x 3" NAILS	TOENAIL	
BUILD-UP CORNER STUDS	(3) 0.313" x 3" NAILS	@ 16" O.C.	
BUILD-UP WOOD COLUMNS	2X4 2X6, 2X8	0.313" x 3" @ 8" O.C. 0.131" x 3" @ 8" O.C. TWO ROWS	FACE NAIL FACE NAIL
BUILD-UP GIRDER	REFER TO THE TRUSS MANUFACTURER'S DESIGN REQUIREMENTS AS PER THE ENGINEERED DESIGN SHEETS		FACE NAIL
NAILING LEDGER FOR ROOF JACK TRUSSES OF 6'-0" OR LESS	(3) 0.313" x 3" @ 8" O.C.		FACE NAIL
NAILING AND BOLTING FOR TREATED PLATES (TP)	ALL FASTENERS, NAILS, BOLTS, ANCHORS IN CONTACT WITH TP SHALL BE HOT-DIPPED GALV. REFER TO PLANS FOR SIZE AND SPACING		

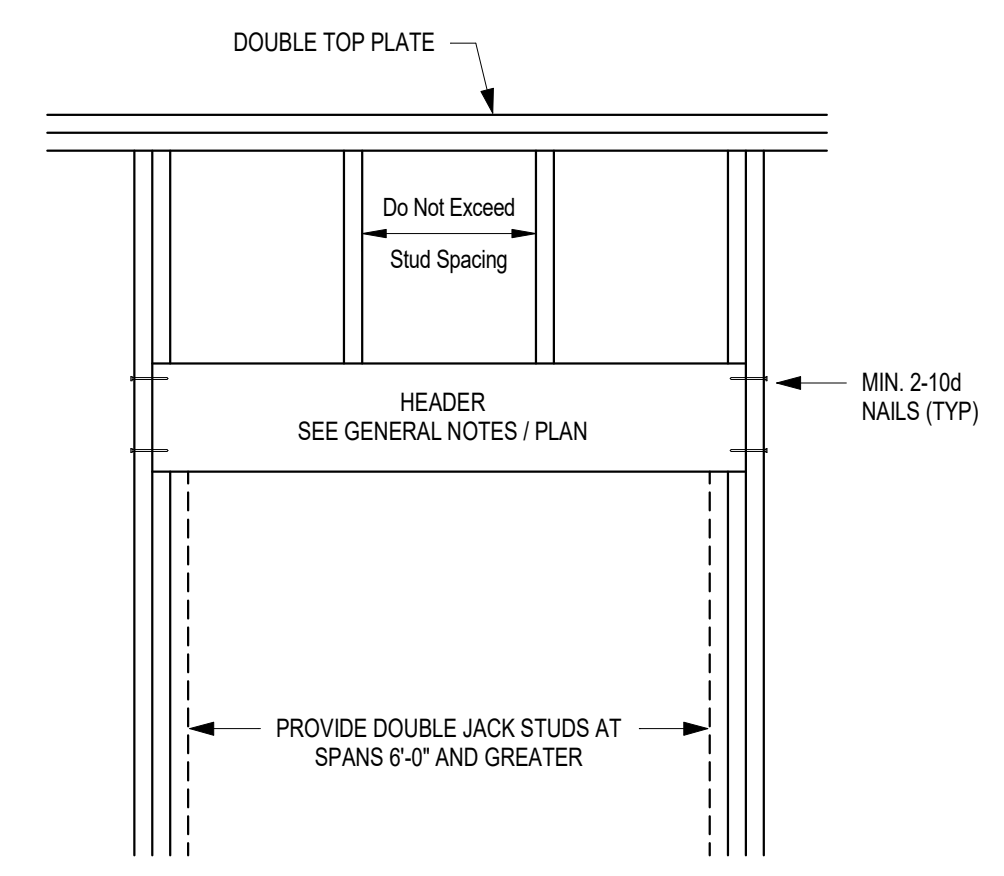
* SUPPLY RATED CLIPS OR STRAPS FOR UPLIFT FORCES OVER 200 LBS. AS NOTED BY THE ROOF TRUSS MANUFACTURER ON THE SUBMITTED DESIGN SHEETS.

3 MINIMUM NAILING SCHEDULE
 NTS

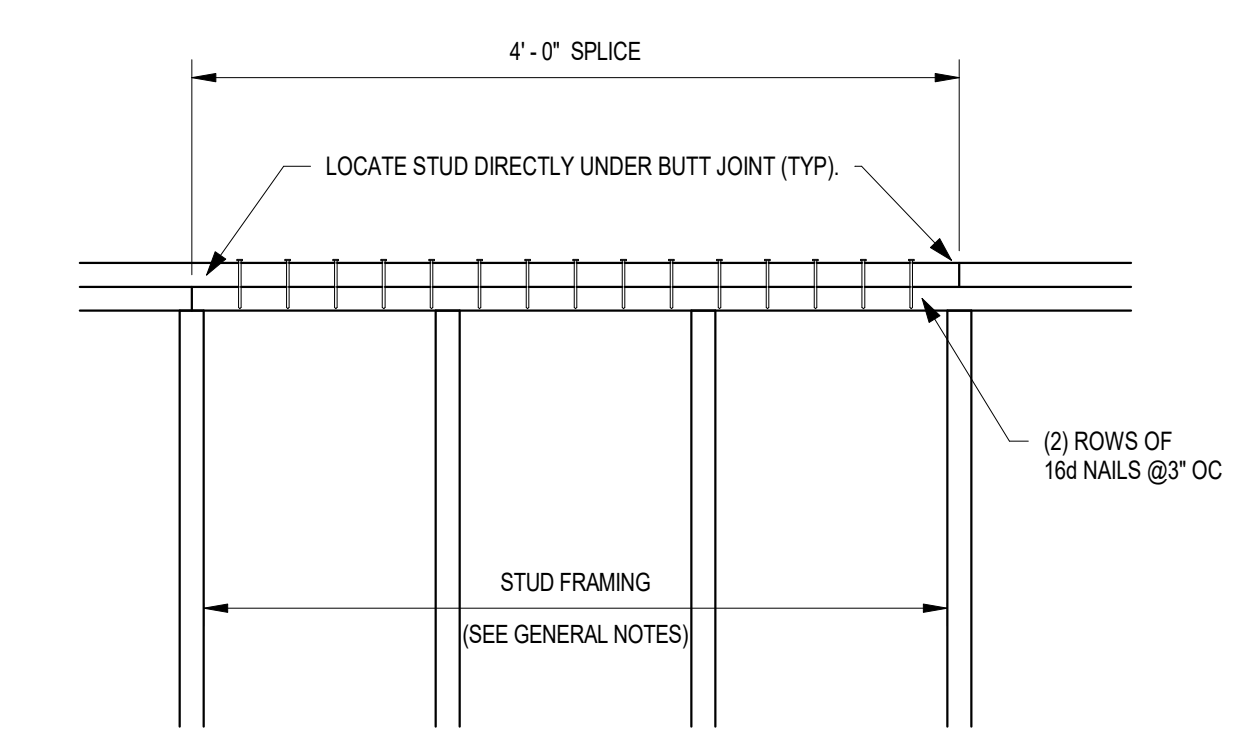
WOOD MATERIAL SCHEDULE								
TYPE	Designation	SIZE	Species/Grade	MINIMUM CAPACITY (psi)				
				Fb	Fv	E'	Fc // Fc PERP.	
SAWN LUMBER	STUDS**	2x4 2x6	Douglas Fir stud gr.	675	180	1.1	850	520
	STUDS**	2x6 2x12	So. Pine stud gr.	575 450	175 175	1.3 1.3	800 725	565 565
SAWN LUMBER	JOIST & BEAMS	2x6	So. Pine No. 2	1000	175	1.4	1400	565
		2x8	So. Pine No. 2	925			1350	
		2x10	So. Pine No. 2	800			1300	
LVL	BEAMS	2x12	So. Pine No. 2	750			1250	
				2900	285	2.0	2750	750

* MULTIPLY ALL "E" VALUES BY 1,000,000 TO OBTAIN UNITS OF PSI.
 ** STUDS MAY BE INDUSTRY APPROVED FINGER JOINTED MATERIAL.

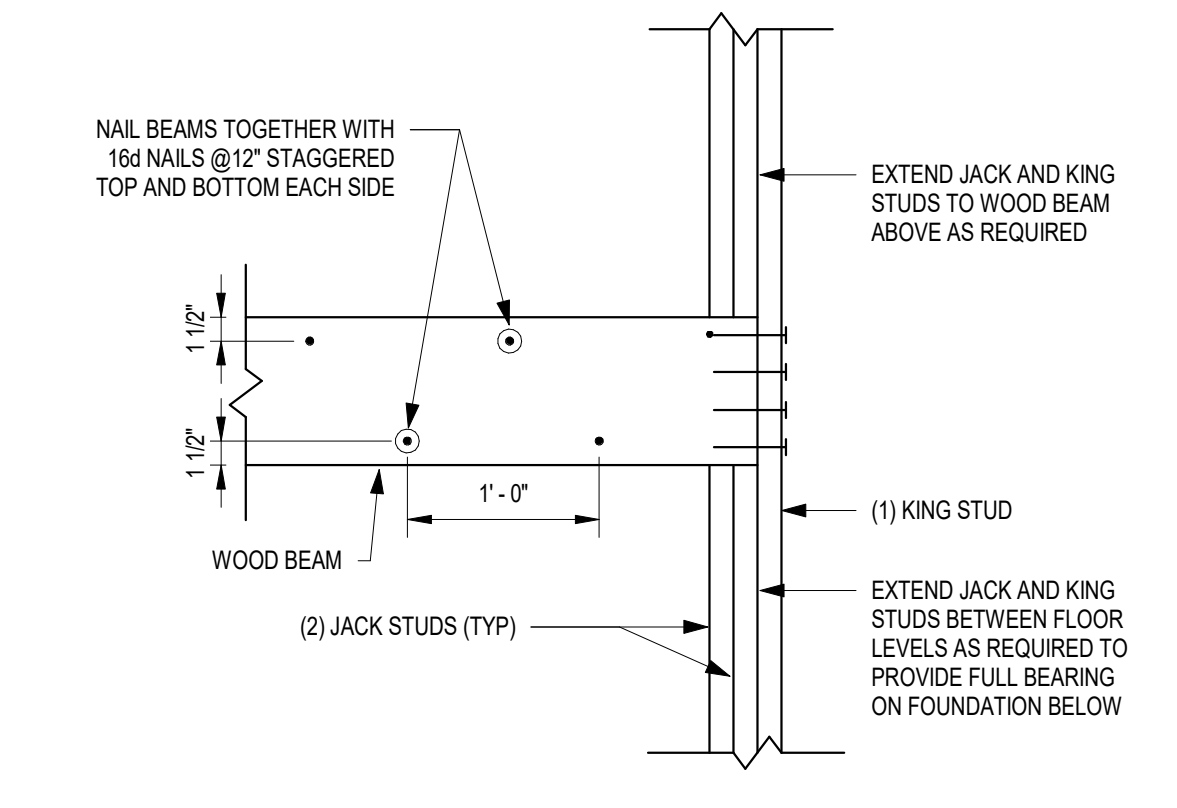
4 WOOD MATERIAL SCHEDULE
 NTS



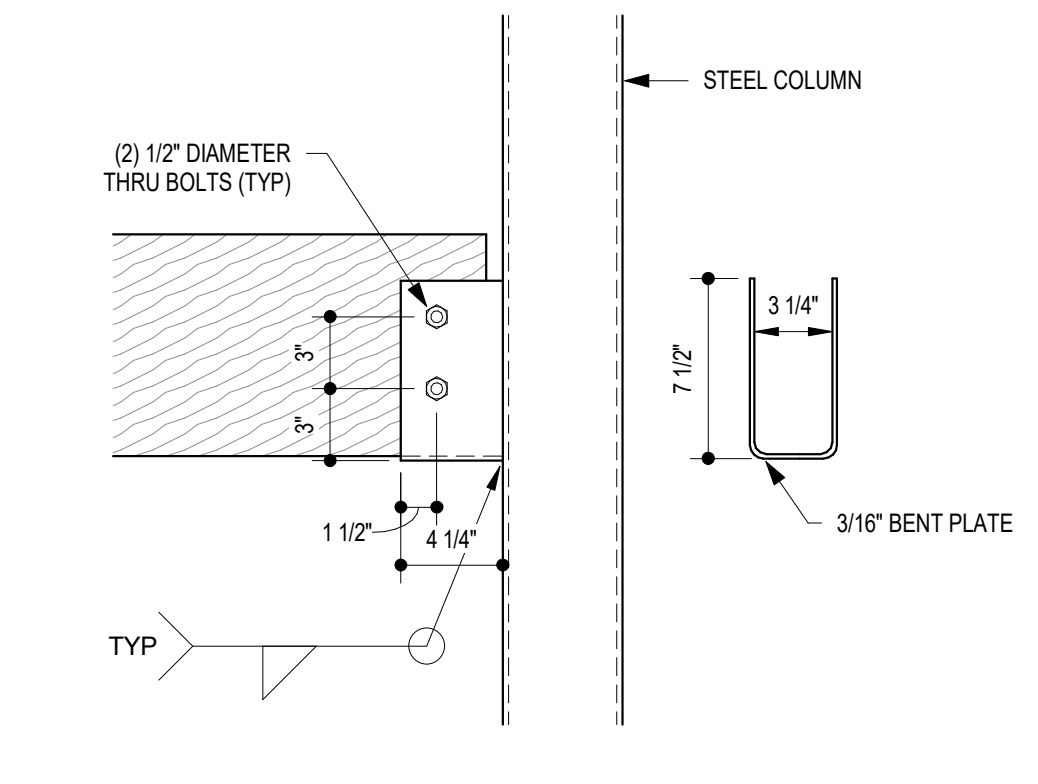
5 TYP EXT WALL FRAMING @ OPENINGS
 NTS



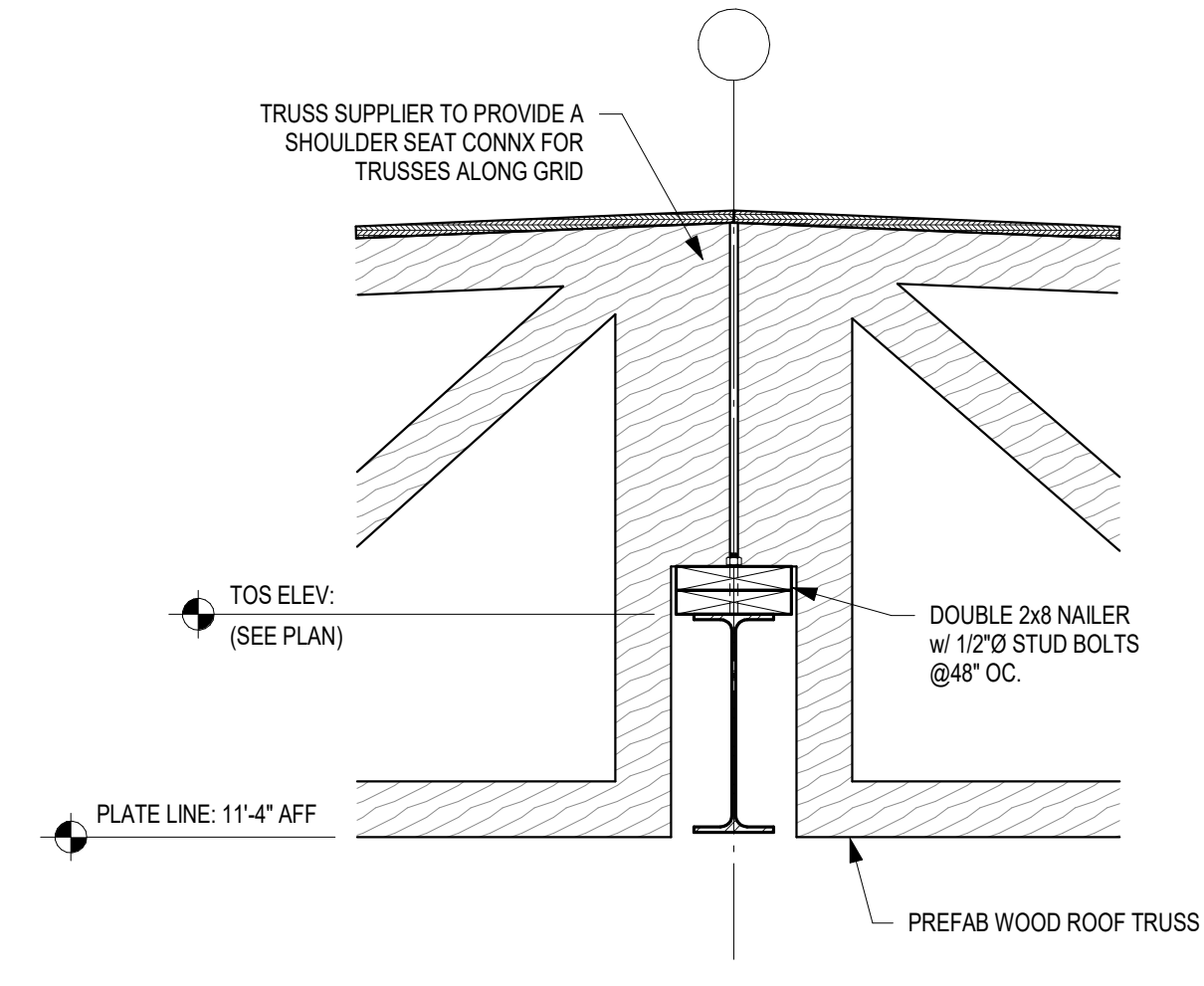
6 TYPICAL TOP PLATE SPLICE DETAIL
 NTS



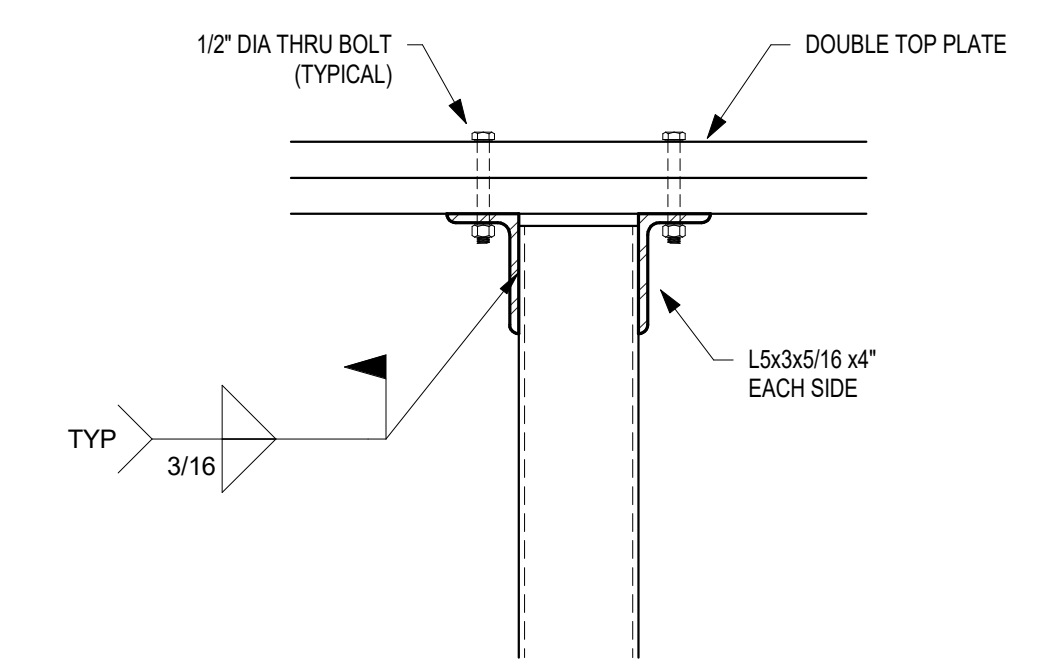
7 TYP. WOOD BEAM DETAIL
 NTS



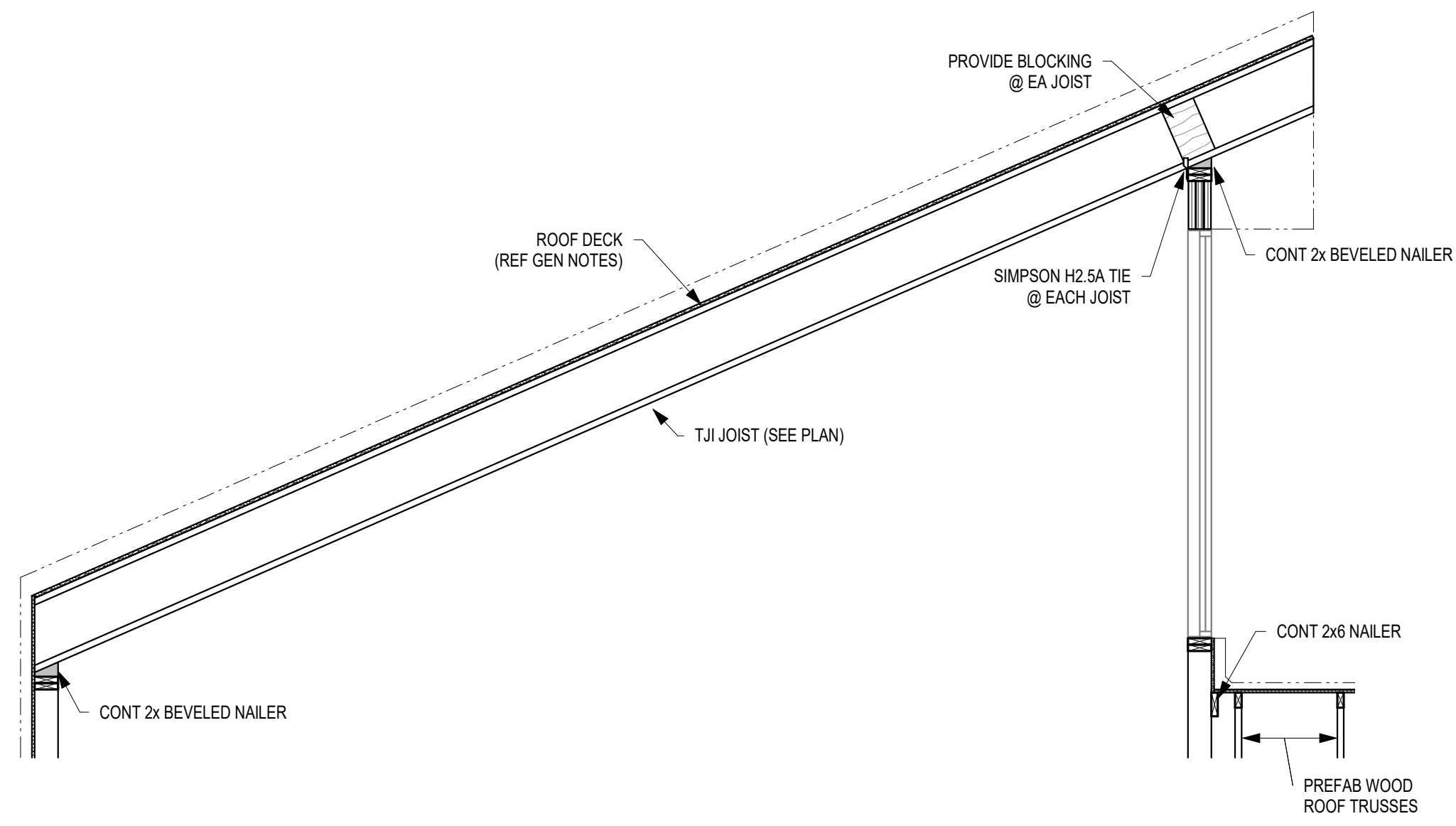
8 DETAIL
 NTS



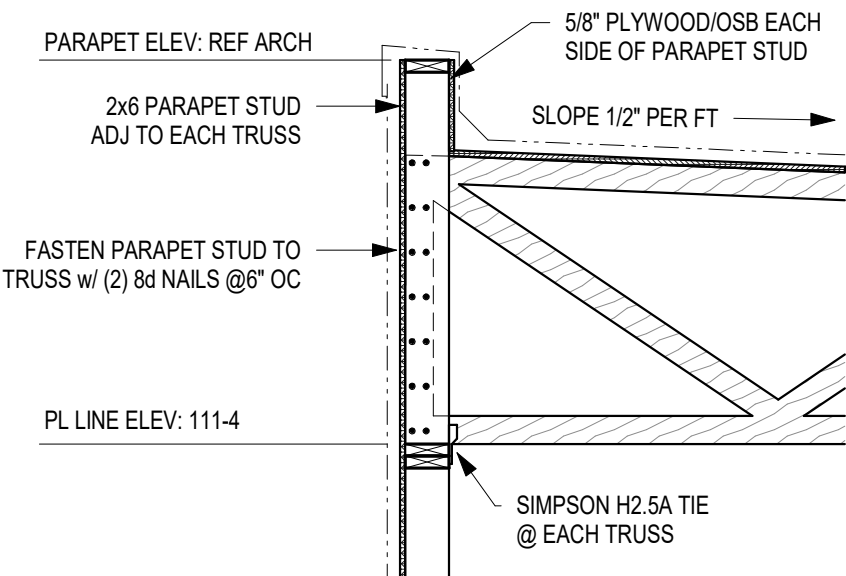
9 TYPICAL TRUSS TO WF BEAM CONNX
 NTS



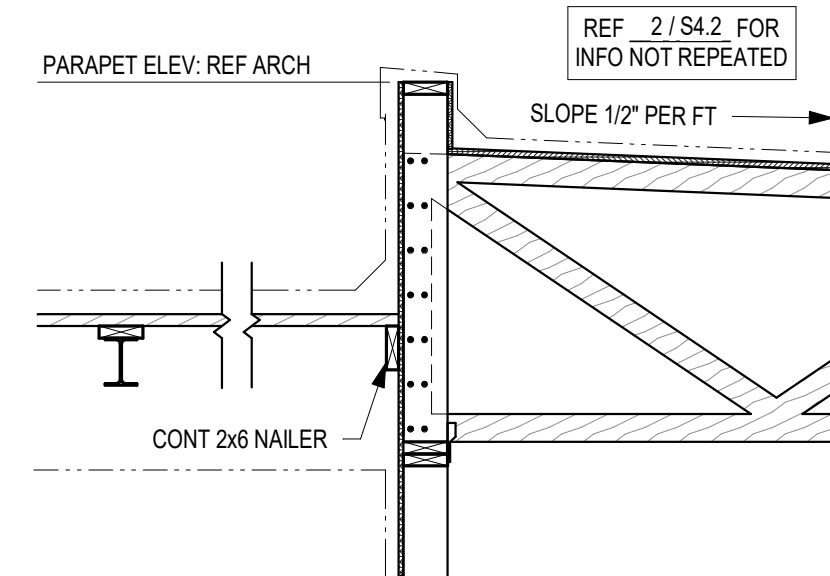
10 TYPICAL COL CONNX TO PLATE LINE
 NTS



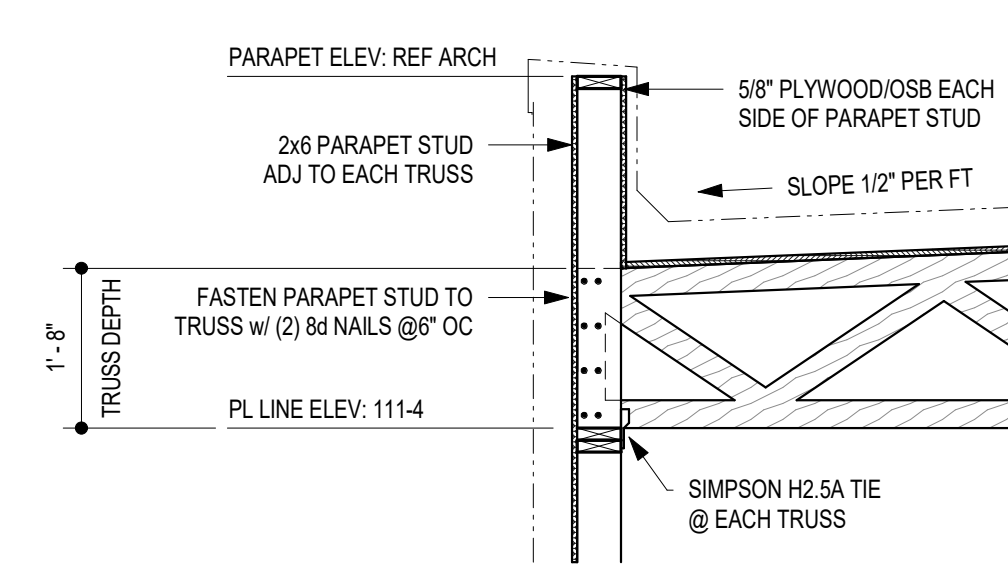
1 CLERESTORY SECTION
3/8" = 1'-0"



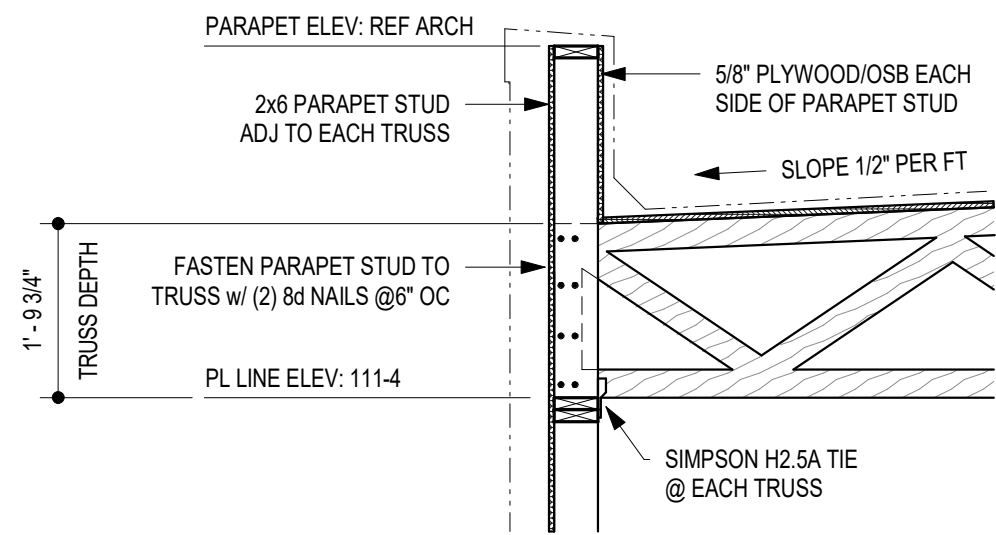
2 SECTION
1/2" = 1'-0"



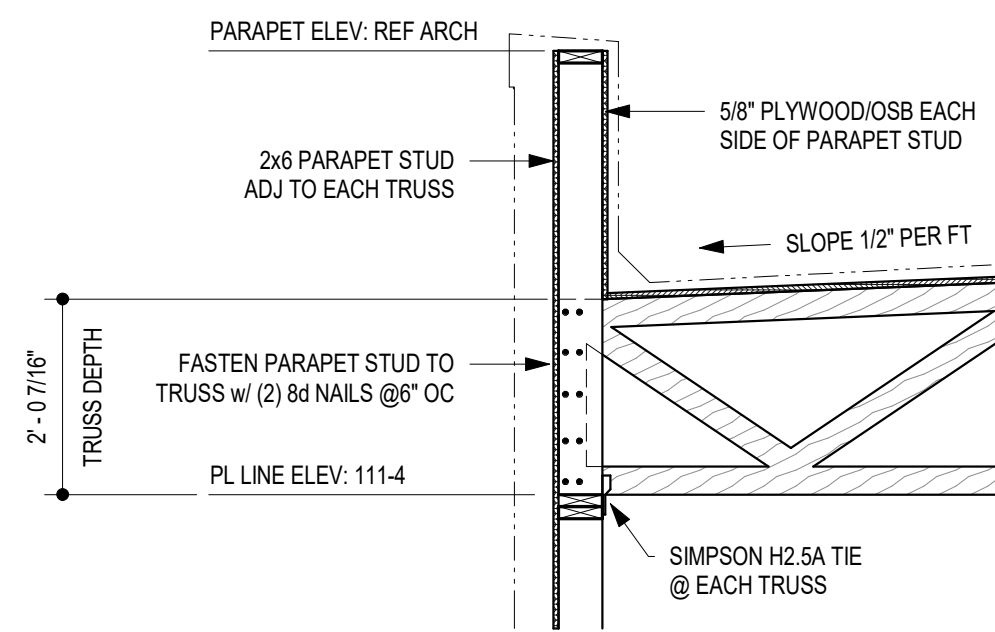
3 SECTION
1/2" = 1'-0"



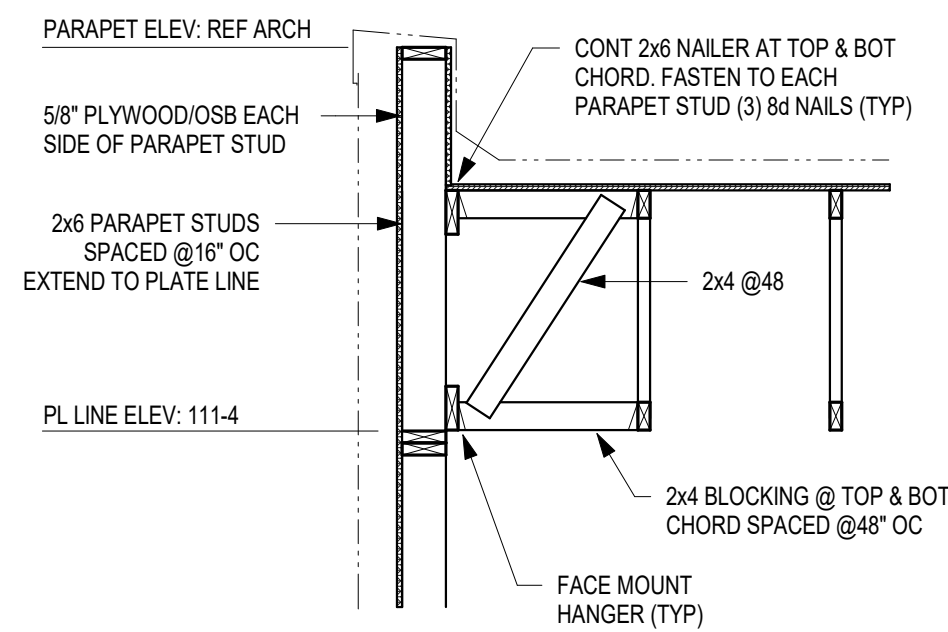
4 SECTION
1/2" = 1'-0"



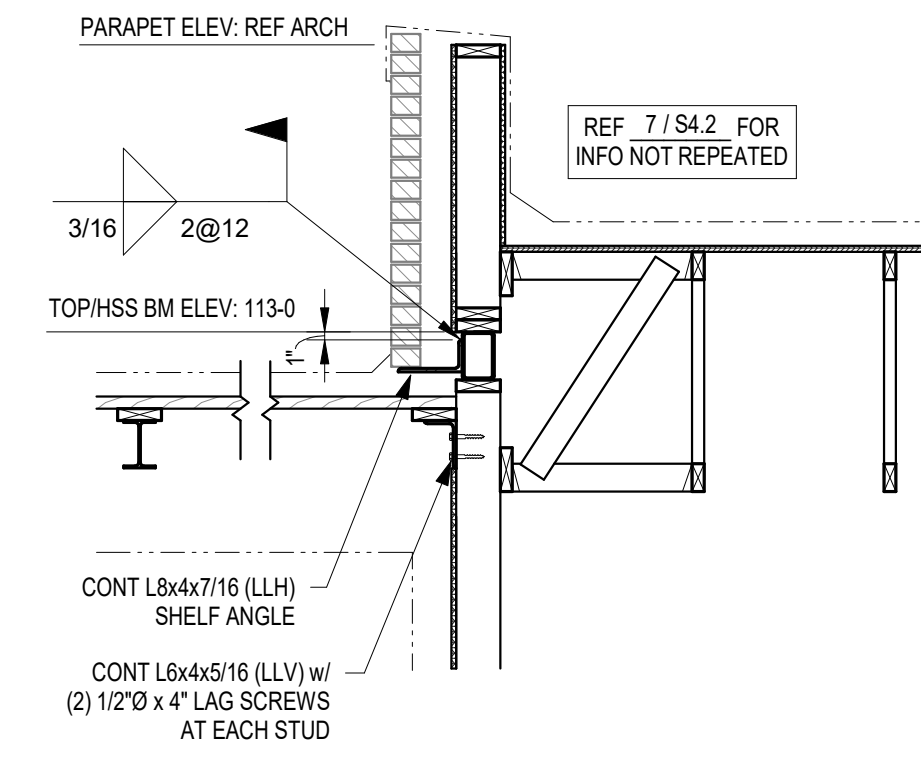
5 SECTION
1/2" = 1'-0"



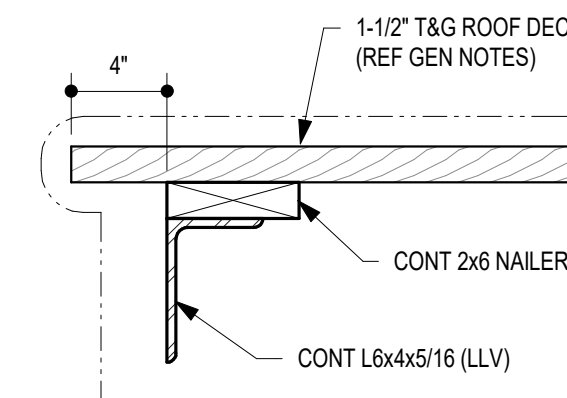
6 SECTION
1/2" = 1'-0"



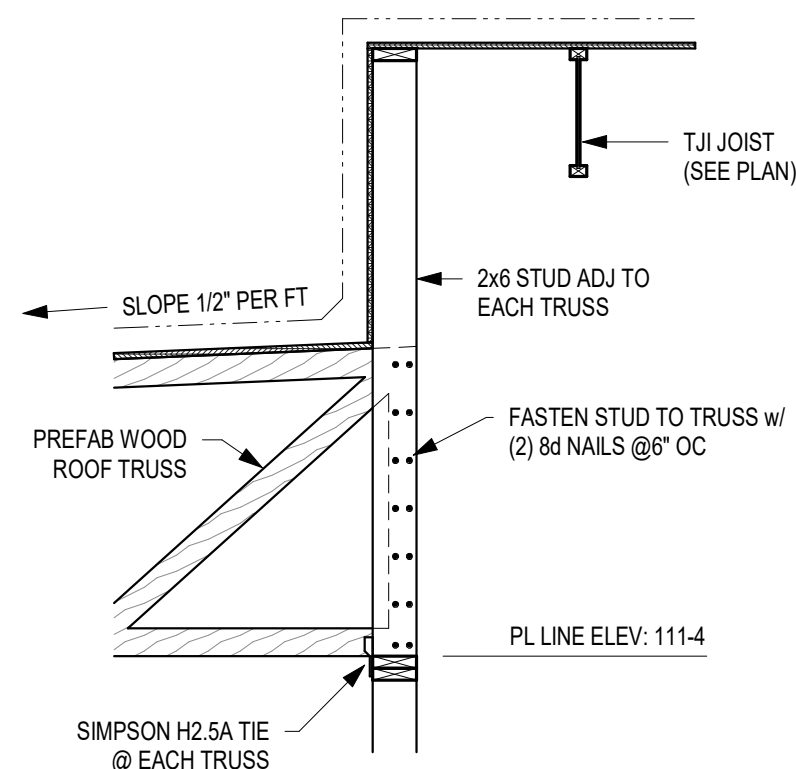
7 SECTION
1/2" = 1'-0"



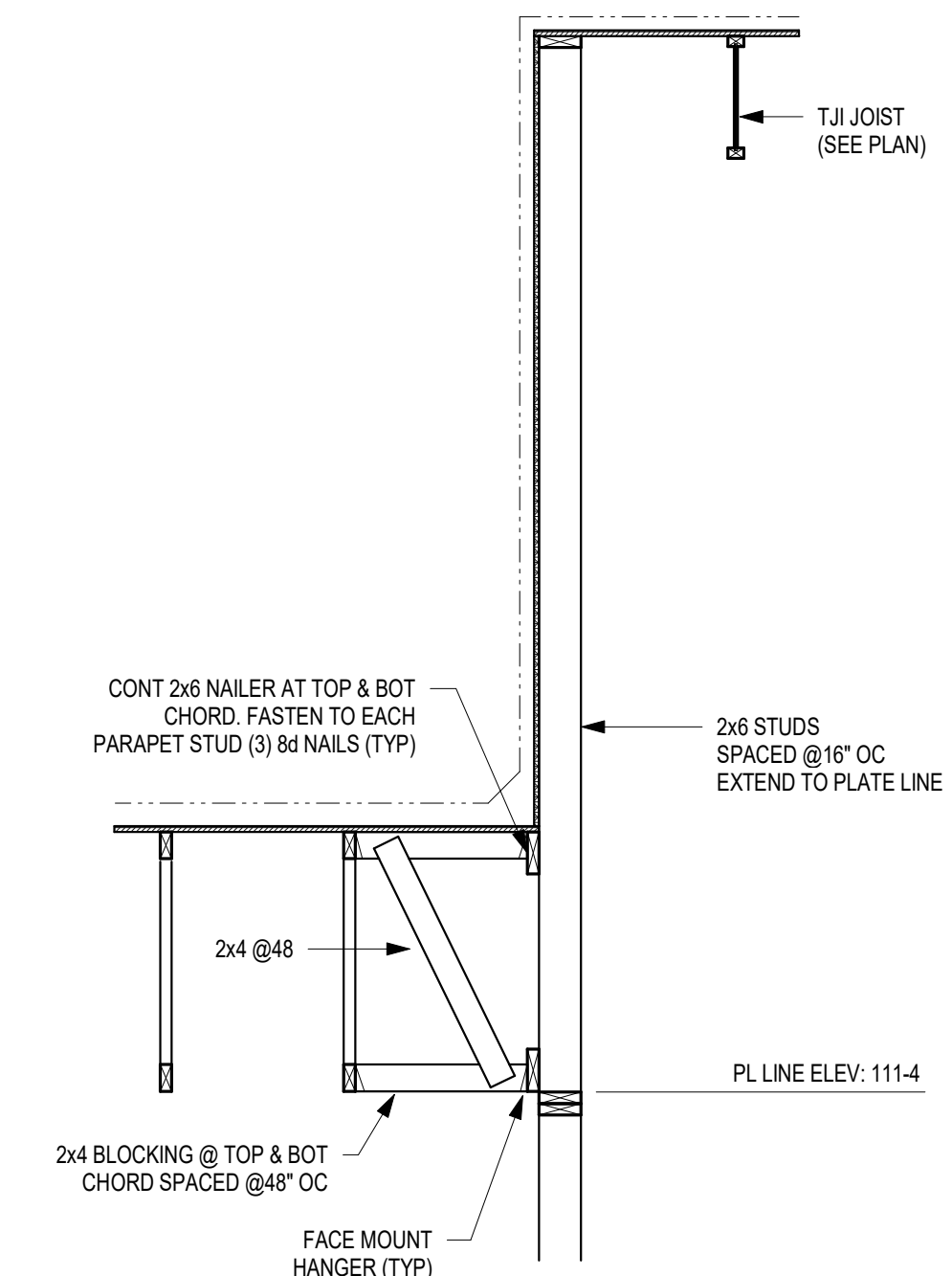
8 SECTION
1/2" = 1'-0"



9 SECTION
1 1/2" = 1'-0"



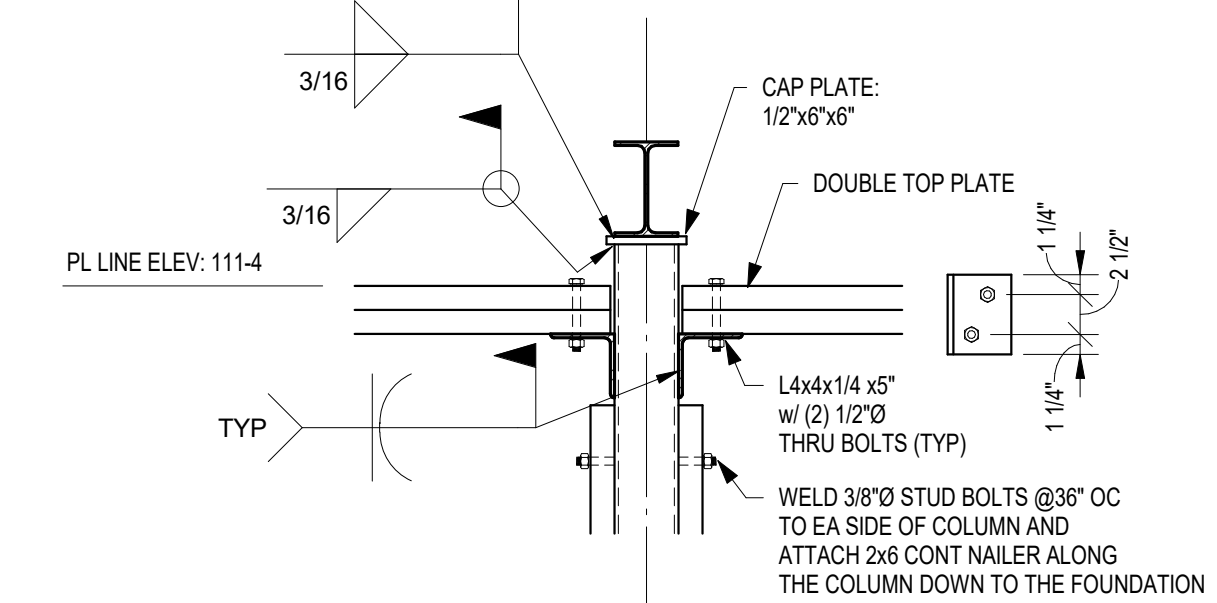
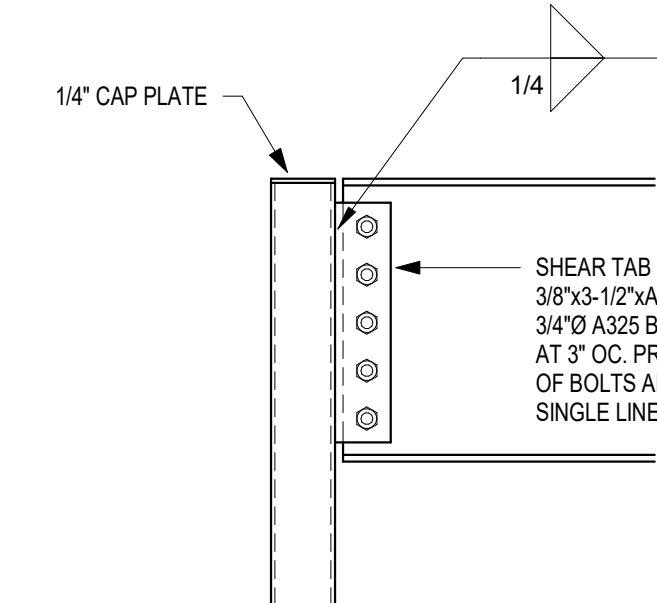
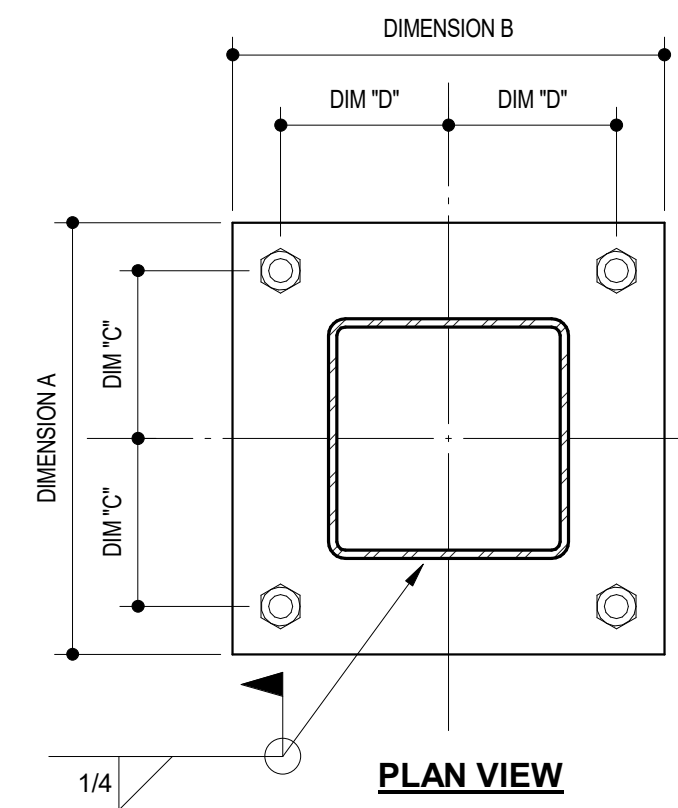
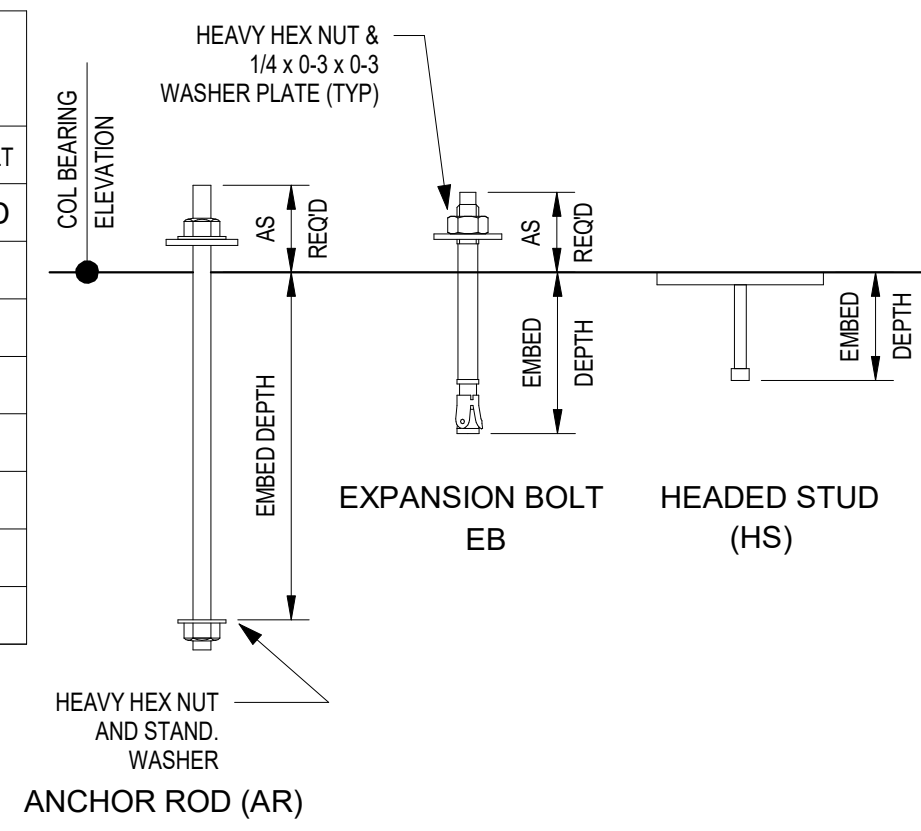
10 SECTION
NTS



11 SECTION
1/2" = 1'-0"

COLUMN, BASE PLATE, & ANCHOR BOLT SCHEDULE										
COL MARK	COLUMN SIZE	BASE PLATE DIMENSIONS (INCHES)					ANCHOR ROD/HEADED STUD/EXP BOLT			
		A	B	t	C	D	DETAIL	NO./TYPE	DIA	EMBED
C1	HSS4x4x1/4	10	10	3/4	3-1/2	3-1/2	2 / S5.1	4HS	3/4	0-6
C2	HSS5x5x1/4	10	10	3/4	3-1/2	3-1/2	2 / S5.1	4HS	3/4	0-6
C3	HSS8x8x1/4	12	12	3/4	4-1/2	4-1/2	2 / S5.1	4HS	3/4	0-6
C4	PIPE 4 STD	10	10	3/4	3-1/2	3-1/2	2 / S5.1	4HS	3/4	0-6
C5	HSS5x5x1/4	6	12	3/4	1-1/2	4-1/2	2 / S5.1	4HS	3/4	0-6

*REFERENCE GENERAL NOTES FOR ANCHOR MATERIAL

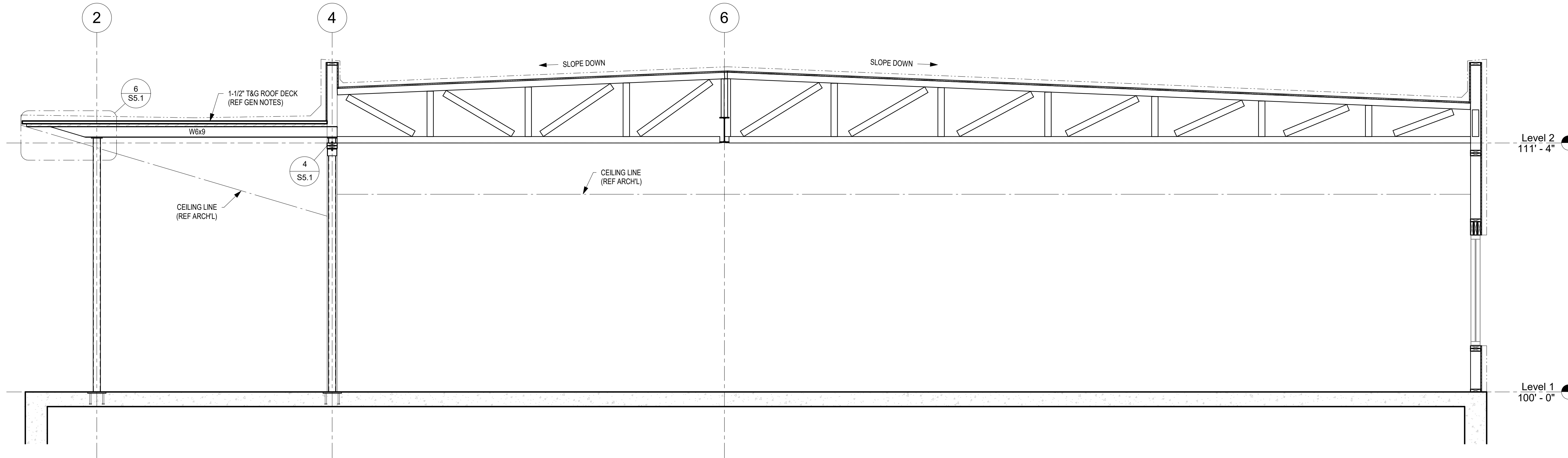


1 COLUMN/BASE PL SCHEDULE
NTS

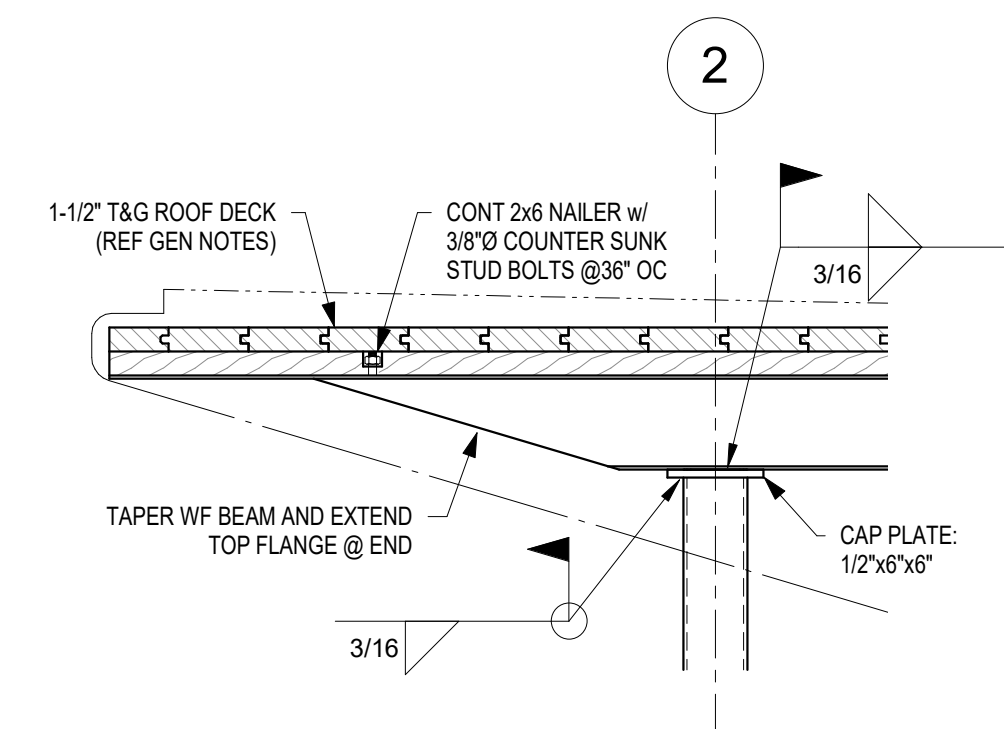
2 TYPICAL COL BASE PLATE DETAIL
NTS

3 TYP BEAM TO COL CONNX DETAIL
NTS

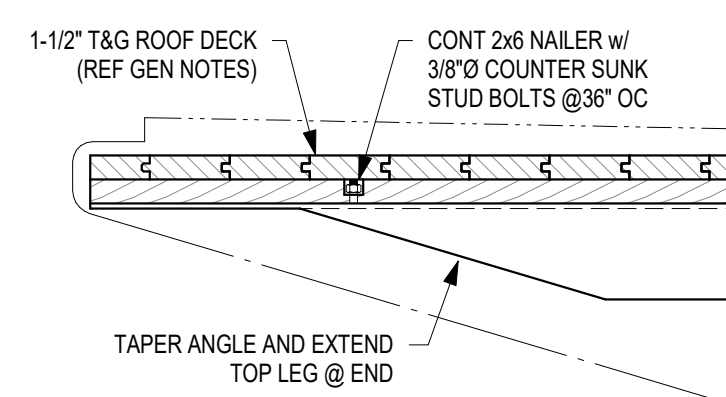
4 DETAIL
1\"/>



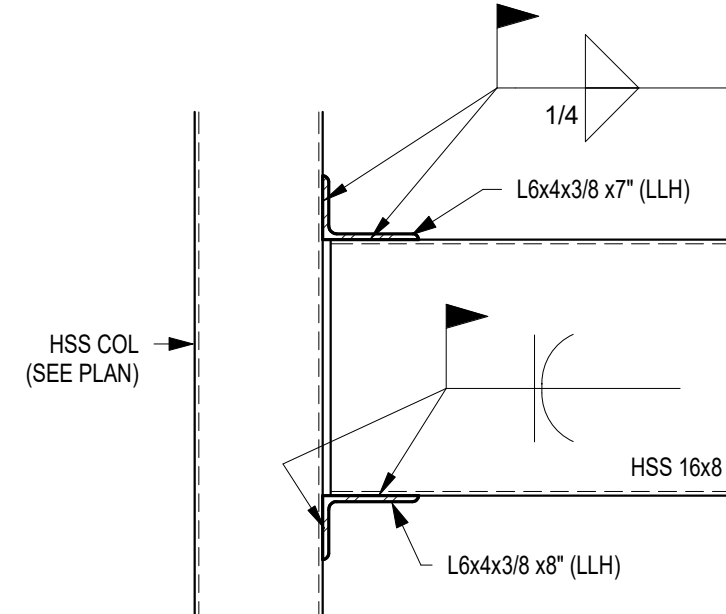
5 BUILDING SECTION
3/8\"/>



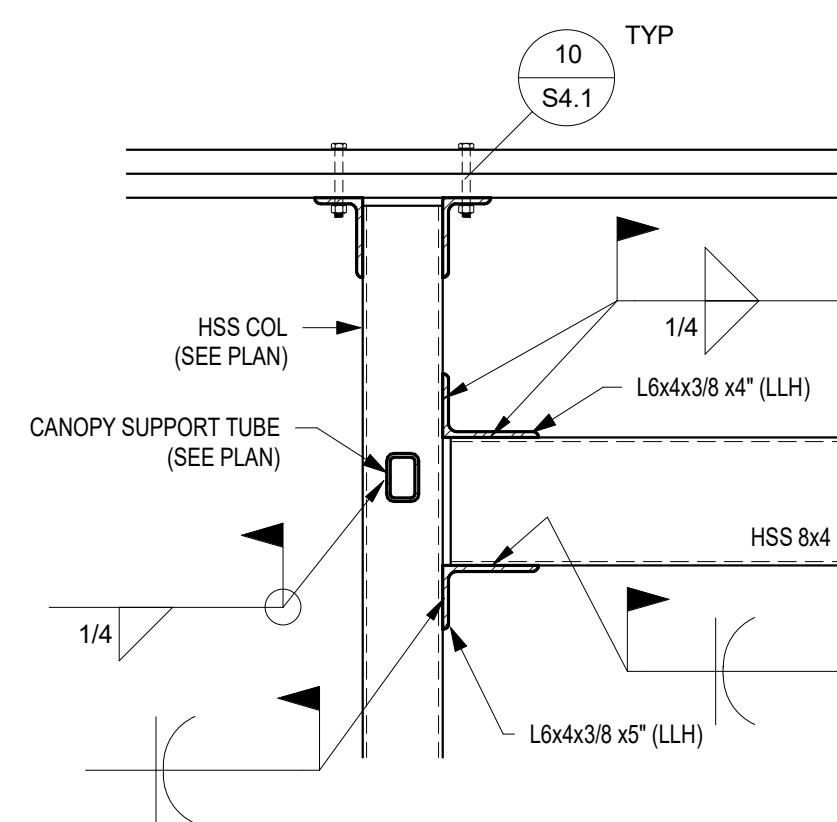
6 DETAIL
1\"/>



7 DETAIL
1\"/>



8 DETAIL
1\"/>



9 DETAIL
1\"/>

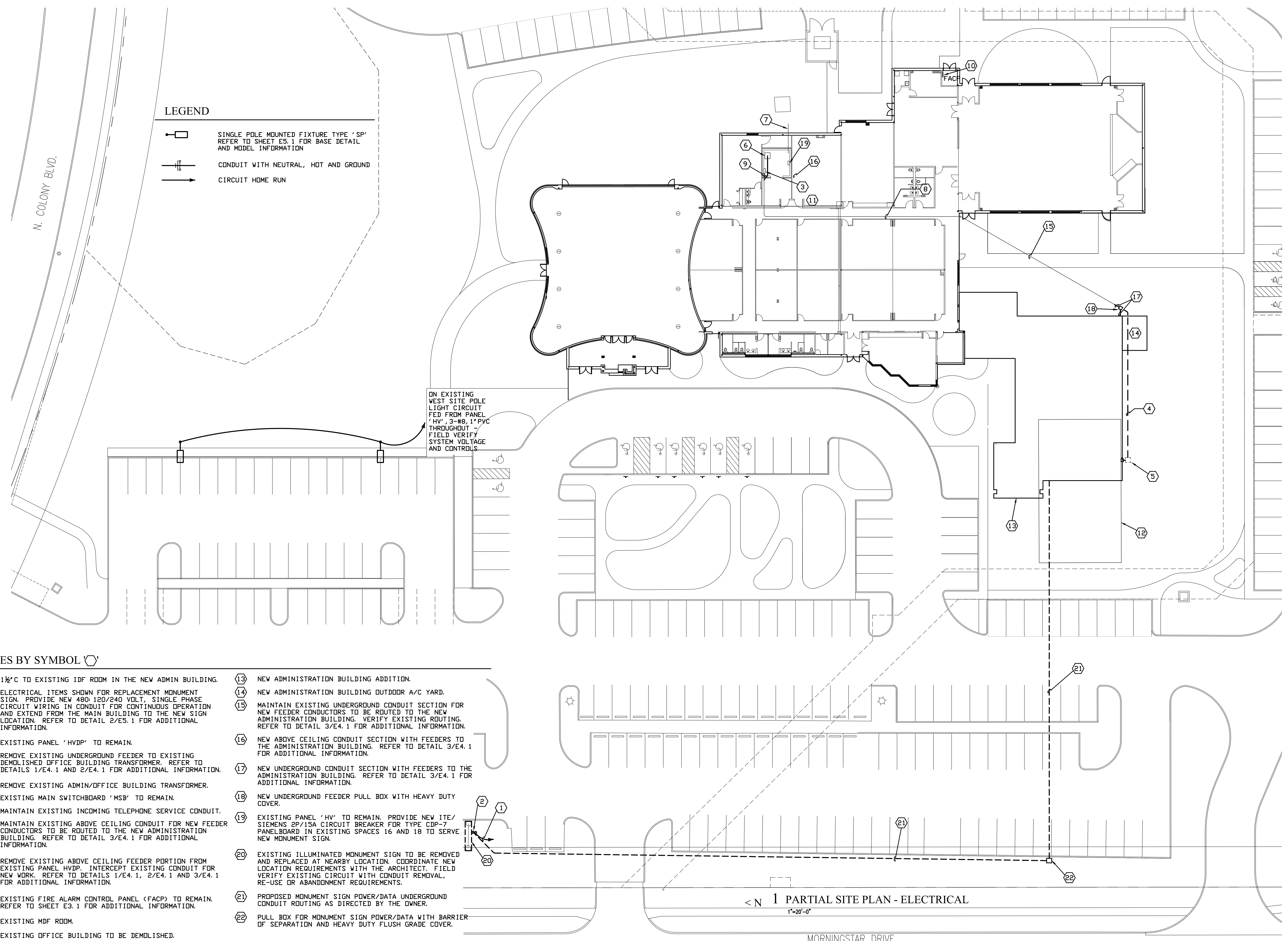
****PRELIMINARY****
NOT FOR CONSTRUCTION

Design Development Phase
New Administration Building
HOLY CROSS CATHOLIC CHURCH
7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-5252

Architect's Seal
Jim Bransford Architect
2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-0159

Project: 2025.011
Date: 2/12/25

Revisions:



LIGHTING PLAN NOTES

1. CONNECT EXIT LIGHTS AND NIGHT LIGHTS TO CIRCUIT HV-2.
2. CONNECT EXTERIOR FIXTURES TO CIRCUIT HV-11 THROUGH CONTACTOR 'CIA'. RUN A SEPARATE HOT CONDUCTOR TO FIXTURES WITH BATTERY BACK-UP.

LIGHTING PLAN LEGEND

- 2' X 4' LAY-IN LED FIXTURE TYPE 'A'
- 2' X 4' LAY-IN LED FIXTURE WITH BATTERY BACK-UP TYPE 'AE'
- WALL MOUNTED VANITY FIXTURE TYPE 'B'
- 4' STRIP LED TYPE 'C'
- 4' STRIP LED WITH BATTERY BACK-UP TYPE 'CE'
- RECESSED LED DOWNLIGHT TYPE 'D'
- RECESSED LED DOWNLIGHT WITH BATTERY BACK-UP TYPE 'DE'
- WALL MOUNTED EMERGENCY FIXTURE TYPE 'EM'
- 14' DIRECT/INDIRECT LED LINEAR SLOT FIXTURE TYPE 'G'

- DECORATIVE LED PENDANT TYPE 'P', REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHT
- SINGLE FACE EXIT LIGHT TYPE 'X1'
- WALL MOUNTED EXIT LIGHT TYPE 'X1'
- DOUBLE FACE EXIT LIGHT TYPE 'X2'
- WALL MOUNTED FIXTURE TYPE 'W'
- WALL MOUNTED EMERGENCY FIXTURE TYPE 'WE'
- WALL MOUNTED LINE VOLTAGE DIMMER VACANCY SENSOR SWITCH @48" AFF, SENSOR SWITCH #WSX PDT D SA
- WALL MOUNTED VACANCY SENSOR SWITCH @ 48", SENSOR SWITCH #WSX PDT SA WH
- WALL MOUNTED LINE VOLTAGE VACANCY/OCCUPANCY SENSOR DUAL SWITCH @48" AFF, SENSOR SWITCH #WSX PDT 2P
- CEILING MOUNTED DUAL TECHNOLOGY VACANCY SENSOR, SENSOR SWITCH #nCM PDT 10 RJB
- POWER PACK (RELAY) FOR CONNECTION TO LOW VOLTAGE CONTROL DEVICE, SENSOR SWITCH #nPP SA
- AUTOMATIC DIMMING PHOTOCELL, SENSOR SWITCH #nCM ADCX RJB
- SENSOR SWITCH #nPP16 SA D DIMMING RELAY
- WIDE VIEW WALL MOUNTED DUAL TECHNOLOGY VACANCY SENSOR, SENSOR SWITCH #nWV PDT 16 RJB
- HALLWAY (AISLE) OCCUPANCY SENSOR, SENSOR SWITCH #nHW 13
- WALL POD LOW VOLTAGE CONTROL @48" AFF WITH 1-ON/OFF SWITCH, SENSOR SWITCH #nPODMA
- WALL POD LOW VOLTAGE CONTROL @48" AFF WITH 1-ON/OFF AND RAISE LOWER SWITCH, SENSOR SWITCH #nPODMA DX
- WALL POD LOW VOLTAGE CONTROL @48" AFF WITH 2-ON/OFF SWITCHES, SENSOR SWITCH #nPODMA 2P
- WALL POD LOW VOLTAGE CONTROL @48" AFF WITH 2-ON/OFF AND RAISE LOWER SWITCHES, SENSOR SWITCH #nPODMA 2P DX
- WALL POD LOW VOLTAGE CONTROL @48" AFF WITH 4-ON/OFF SWITCHES, SENSOR SWITCH #nPODMA 4P
- WALL POD LOW VOLTAGE CONTROL @48" AFF WITH 4-ON/OFF AND RAISE LOWER SWITCHES, SENSOR SWITCH #nPODMA 4P DX
- CAT 6 WIRING BETWEEN LOW VOLTAGE CONTROL DEVICES (DAISY CHAIN)

LIGHTING PLAN NOTES BY SYMBOL 'X'

- FROM POWER PACK(S) FOR SPLIT DUPLEX RECEPTACLES WITH ONE OUTLET CONTROLLED BY VACANCY SENSOR AT EACH ROOM RECEPTACLE. REFER TO POWER PLAN ON SHEET E2.2 FOR CONTINUATION.
- DAYLIGHT ZONE LIMIT. FIXTURES WITHIN DAYLIGHT ZONE TO BE AUTOMATICALLY DIMMED WITH PHOTO SENSOR PER IECC 2021.
- DAYLIGHT ZONE LIMIT WITH FIXTURES IN AREA NOT EXCEEDING 150 WATTS. FIXTURES WITHIN DAYLIGHT ZONE ARE NOT REQUIRED TO BE AUTOMATICALLY DIMMED WITH PHOTO SENSOR PER IECC 2021.
- DAYLIGHT ZONE AT CLERESTORY AREA. FIXTURES WITHIN DAYLIGHT ZONE TO BE AUTOMATICALLY DIMMED WITH PHOTO SENSOR PER IECC 2021.

IECC 2021 INTERIOR LIGHTING CONTROLS

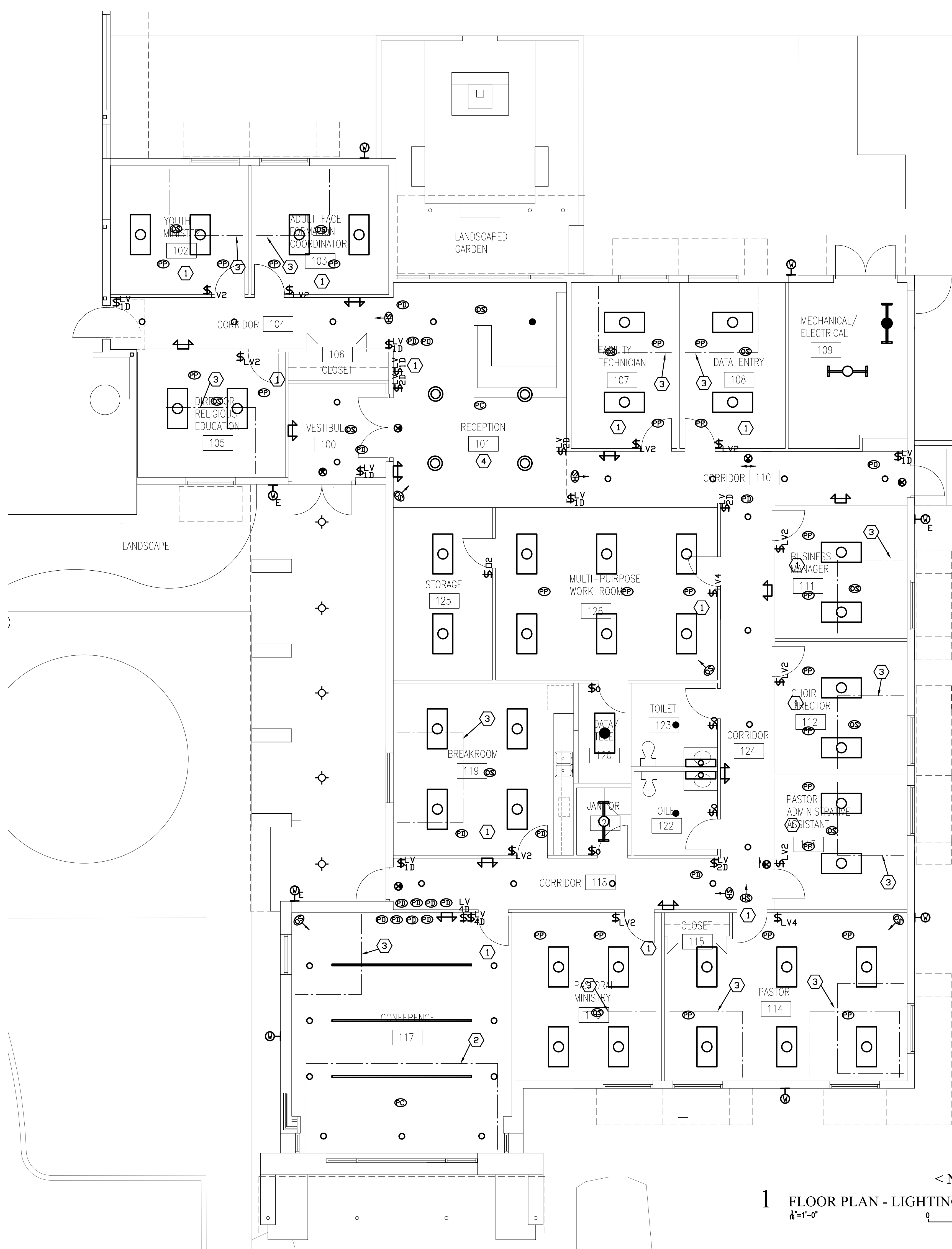
ALL LIGHTING CONTROLS SHALL BE INSTALLED AND OPERATE PER THE 2021 IECC. OCCUPANCY/VACANCY SENSORS SHALL FUNCTION PER IECC C405.2.1.1 WITH MANUAL ON AND TIME OFF WITHIN 20 MINUTES. FIXTURES TOTALING MORE THAN 150 WATTS WITHIN THE DAYLIGHT ZONES SHALL BE PROVIDED WITH CONTROLS TO FUNCTION PER IECC C405.2.3 WITH AUTOMATIC DAYLIGHT RESPONSIVE CONTROLS.

LIGHTING CONTROLS COMMISSIONING

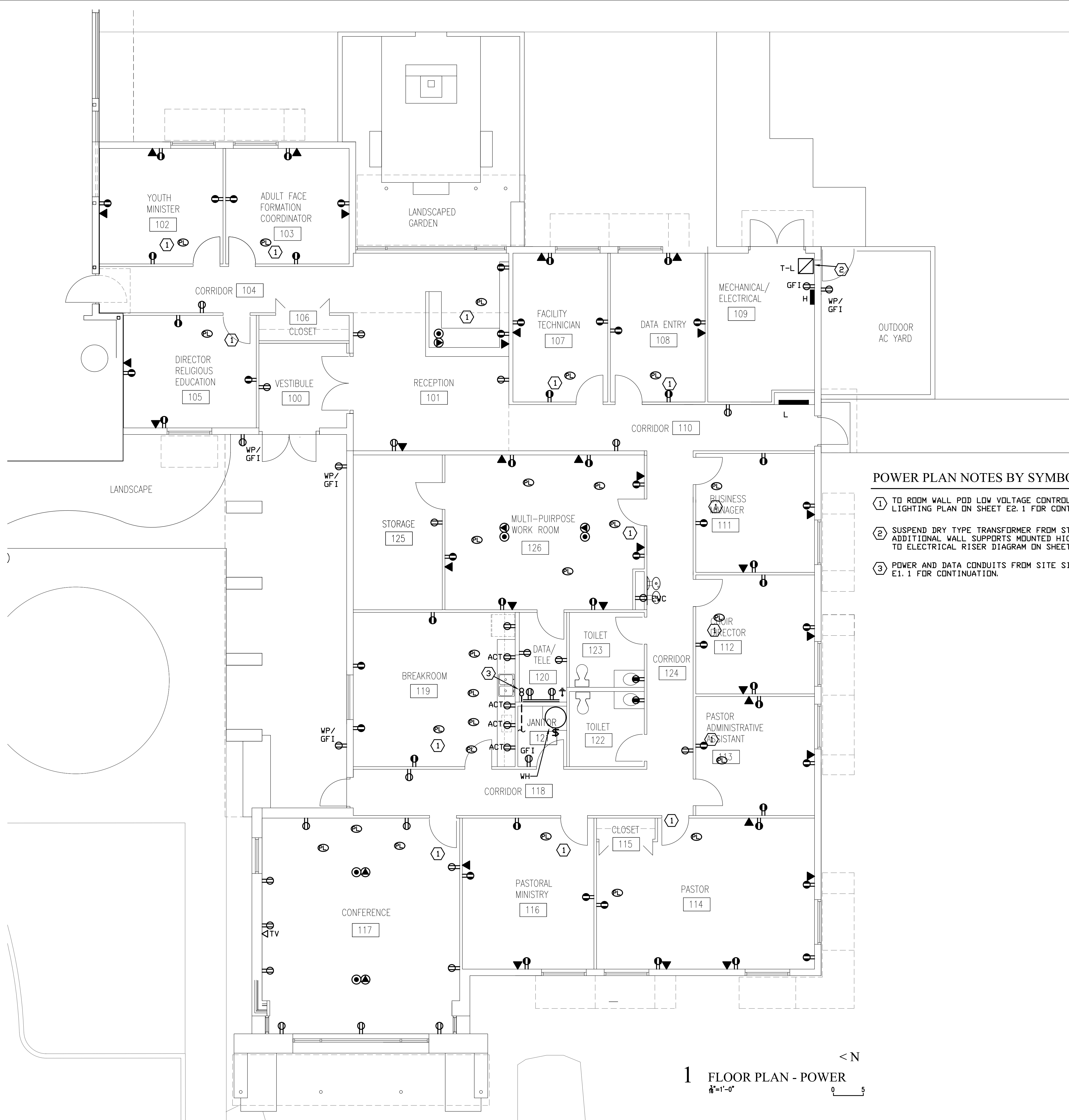
THE CONTRACTOR SHALL PROVIDE COMMISSIONING FOR THE LIGHTING CONTROLS SYSTEMS IN ACCORDANCE WITH THE REQUIREMENTS OF IECC C408.3. DOCUMENTS CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET THE DOCUMENTED PERFORMANCE CRITERIA OF SECTION C405 ARE TO BE PROVIDED TO THE OWNER WITHIN 90 DAYS OF THE RECEIPT OF THE CERTIFICATE OF OCCUPANCY.

IECC 2021 EXTERIOR LIGHTING CONTROLS

ALL EXTERIOR LIGHTING CONTROLS SHALL BE INSTALLED AND OPERATE PER THE 2021 IECC, SECTION C405.2.5. BUILDING FACADE AND LANDSCAPE LIGHTING SHALL BE CONTROLLED BY DAWN/DUSK AND TIME (OPENING/CLOSING) CONTROLS. SITE LIGHTING CONTROLS SHALL REDUCE THE LIGHTING BY NOT LESS THAN 30% WITH TIME OR ACTIVITY PER IECC C405.2.5, PARAGRAPH 3.



1 FLOOR PLAN - LIGHTING
1/8"=1'-0"



POWER PLAN LEGEND

- ⦿ DUPLEX RECEPTACLE AT 16' AFF UNLESS INDICATED OTHERWISE
- ⦿ GFI DUPLEX RECEPTACLE MOUNTED AT 42' AFF UNLESS NOTED OTHERWISE
- ⦿ SPLIT DUPLEX RECEPTACLE WITH ONE OUTLET CONTROLLED BY POWER PACK ABOVE LEVITON #5362-1PW, 120 VOLT, 20 AMP, INDUSTRIAL GRADE, AT 16' AFF UNLESS INDICATED OTHERWISE
- ⦿ JUNCTION BOX MOUNTED ABOVE THE CEILING
- ▼ DATA/TELEPHONE OUTLET AT 16' AFF UNLESS INDICATED OTHERWISE WITH 3/4" C TO ABOVE THE CEILING
- ⦿ FLUSH FLOOR DUPLEX RECEPTACLE - STEEL CITY #601 BOX WITH SPLIT DUPLEX RECEPTACLE, LEVITON #5362-1PW AND BRASS FLIP LID - PROVIDE CARPET FLANGE IF REQUIRED
- ⦿ FLUSH FLOOR DATA OUTLET - STEEL CITY #601 BOX WITH BRASS COVER AN 1" CENTER PLUG - PROVIDE 1" C TO ABOVE THE CEILING - PROVIDE CARPET FLANGE IF REQUIRED
- ⦿ TV DUPLEX RECEPTACLE AND J-BOX WITH 1 1/4" CONDUIT TO ABOVE THE CEILING FOR TV - VERIFY ELEVATION WITH THE TENANT
- \$ SINGLE POLE SINGLE THROW SWITCH WITH DUST COVER, 120/277 VOLT, 20 AMP UNLESS OTHERWISE NOTED
- CONDUIT WITH NEUTRAL, HOT AND GROUND CONDUCTORS
- CIRCUIT HOME RUN
- GFI GROUND FAULT INTERRUPTING
- ACT ABOVE COUNTERTOP - COORDINATE MOUNTING WITH ARCHITECT
- WP WEATHERPROOF
- EWC ELECTRIC WATER COOLER - CONCEAL OUTLET
- ⦿ 3/4" X 4' X 8' PLYWOOD TERMINAL BOARD (TTB) WITH #6 GROUND
- PANELBOARD
- ⦿ POWER PACK (RELAY) FOR CONNECTION TO LOW VOLTAGE CONTROL DEVICE, SENSOR SWITCH #nPP20 PL
- ⦿ PLENUM RATED CAT 6 WIRING BETWEEN LOW VOLTAGE CONTROL DEVICES (DAISY CHAIN)

POWER PLAN NOTES BY SYMBOL 'X'

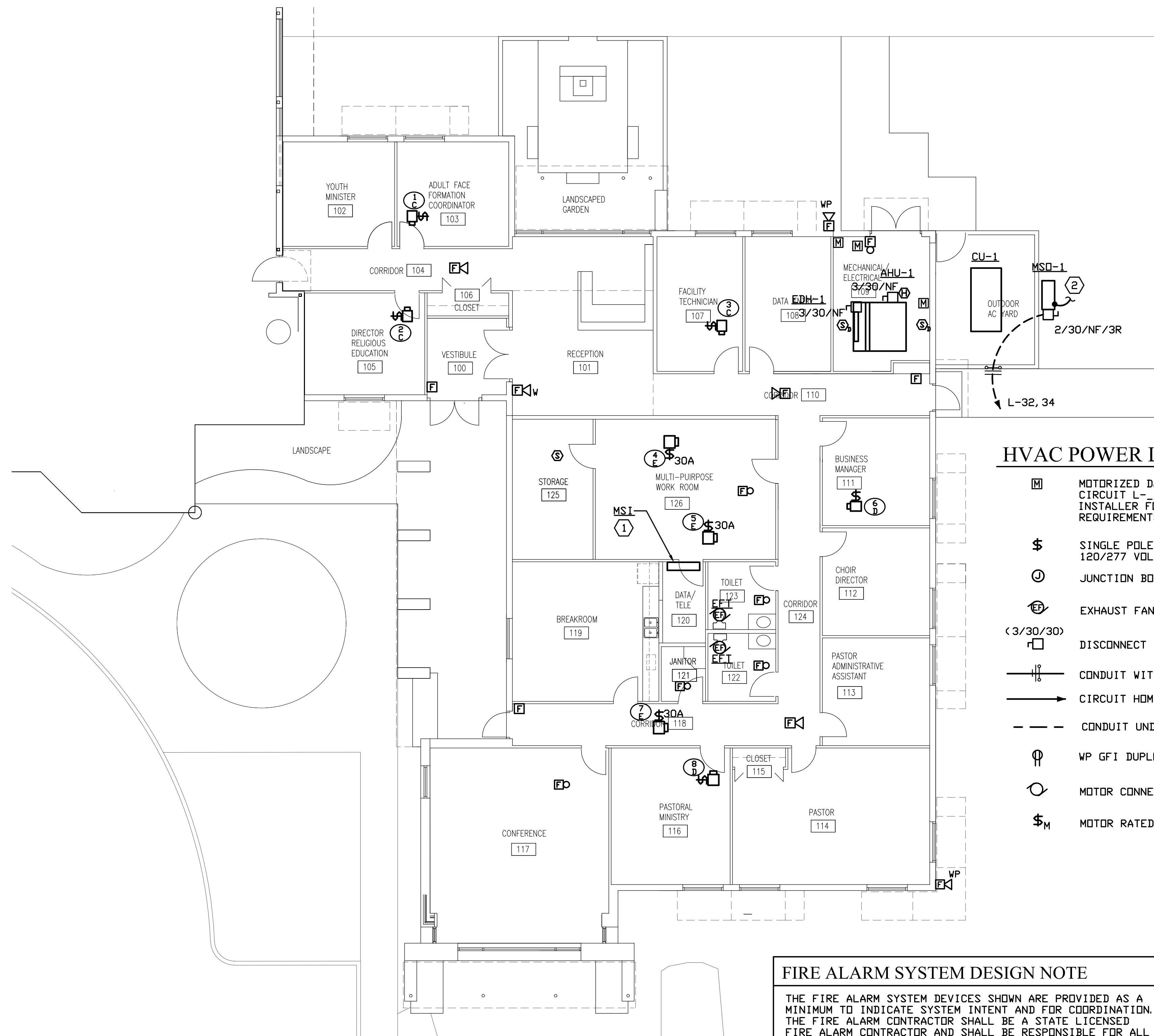
- ① TO ROOM WALL POD LOW VOLTAGE CONTROL SWITCH. REFER TO LIGHTING PLAN ON SHEET E2.1 FOR CONTINUATION.
- ② SUSPEND DRY TYPE TRANSFORMER FROM STRUCTURE WITH ADDITIONAL WALL SUPPORTS MOUNTED HIGH AS POSSIBLE. REFER TO ELECTRICAL RISER DIAGRAM ON SHEET E4.1
- ③ POWER AND DATA CONDUITS FROM SITE SIGN. REFER TO SHEET E1.1 FOR CONTINUATION.

1 FLOOR PLAN - POWER
 1/8" = 1'-0" 0 5

Project: 2402

Date: 02/12/2025

Revisions:

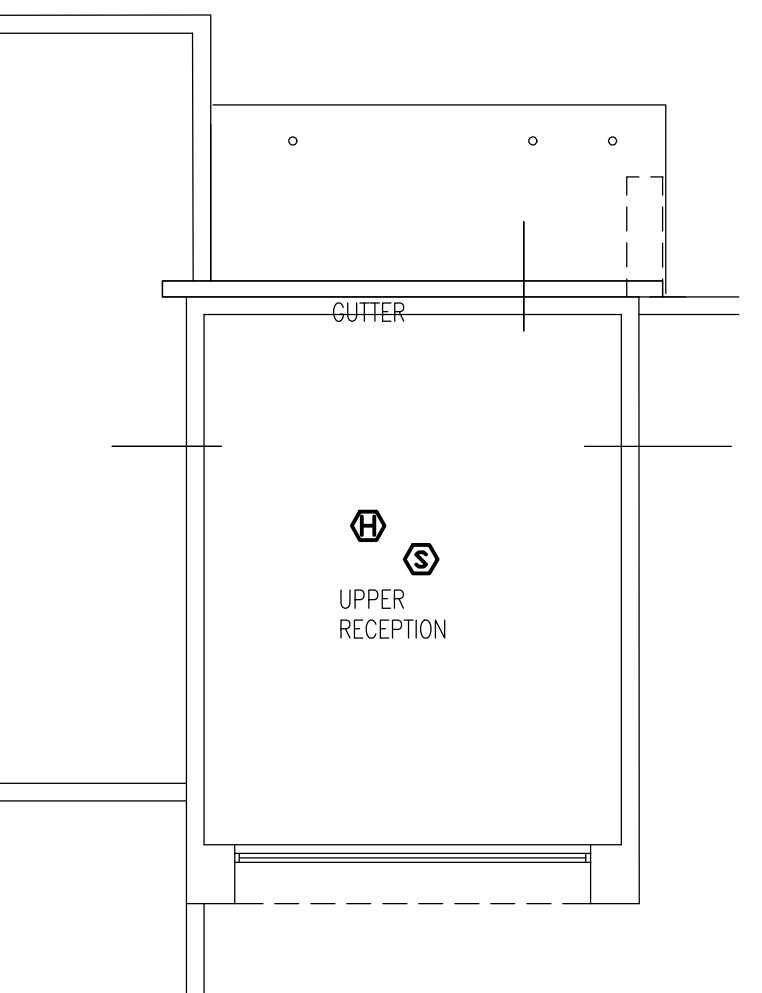


1 FLOOR PLAN - ELECTRICAL
 1/8"=1'-0" 0 5' < N

HVAC POWER LEGEND

- MOTORIZED DAMPER WITH DISCONNECTING MEANS ON CIRCUIT L-34, COORDINATE WITH MECHANICAL INSTALLER FOR PLACEMENT AND FINAL CONNECTION REQUIREMENTS
- SINGLE POLE SINGLE THROW SWITCH WITH DUST COVER, 120/277 VOLT, 20 AMP UNLESS OTHERWISE NOTED
- JUNCTION BOX
- EXHAUST FAN CONNECTION - SWITCH WITH ROOM LIGHT(S)
- DISCONNECT SWITCH (POLES/AMPS/FUSES)
- CONDUIT WITH NEUTRAL, HOT AND GROUND
- CIRCUIT HOME RUN
- CONDUIT UNDER FLOOR OR GRADE
- WP GF1 DUPLEX RECEPTACLE AT A/C UNIT
- MOTOR CONNECTION
- MOTOR RATED SWITCH WITH DUST COVER

2 CLERESTORY PLAN - ELECTRICAL
 1/8"=1'-0" 0 5' < N



FIRE ALARM SYSTEM DESIGN NOTE

THE FIRE ALARM SYSTEM DEVICES SHOWN ARE PROVIDED AS A MINIMUM TO INDICATE SYSTEM INTENT AND FOR COORDINATION. THE FIRE ALARM CONTRACTOR SHALL BE A STATE LICENSED FIRE ALARM CONTRACTOR AND SHALL BE RESPONSIBLE FOR ALL REQUIRED SYSTEM DESIGN. THE FIRE ALARM SYSTEM CONTRACTOR IS TO ENSURE THAT THE SYSTEM MEETS ALL APPLICABLE CODES AND ORDINANCES. ANY DEVICE OR SYSTEM APPURTENANCES REQUIRED TO MEET APPLICABLE CODES AND ORDINANCES, AND NOT SHOWN ON THE DRAWINGS, SHALL BE DEEMED IMPLICITLY REQUIRED OF THE CONTRACTOR TO PROVIDE. CONTRACT REQUIRED SUBMITTALS SHALL ONLY BE SUBMITTED FOR ENGINEERING REVIEW AFTER THE CONTRACTOR HAS RECEIVED WRITTEN APPROVAL OF THE LOCAL AUTHORITY HAVING JURISDICTION. THE SYSTEM SHALL COMPLY WITH THE 2021 IFC, SECTION 907.2.3 FOR GROUP 'E' OCCUPANCY.

THE FIRE ALARM SYSTEM MODIFICATIONS FOR THE ENTIRE FACILITY SHALL BE COMPATIBLE WITH THE EXISTING SILENT KNIGHT MODEL WITH VOICE EVACUATION REQUIREMENTS PER THE 2021 IFC AND THE CITY OF THE COLONY REQUIREMENTS. PROVIDE MODIFICATIONS FOR A COMPLETE ADDRESSABLE FIRE ALARM SYSTEM WITH VOICE EVACUATION AND CLASS 'A' WIRING FOR THE EXISTING SCHOOL RENOVATIONS. THE EXISTING SYSTEM SHALL REMAIN FUNCTIONAL THROUGHOUT THE REMOVAL OF THE EXISTING DEVICES AND INSTALLATION OF THE NEW DEVICES. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO BIDDING FOR REQUIREMENTS ASSOCIATED WITH THE ADDITION OF VOICE EVACUATION SPEAKERS TO THE EXISTING FACILITY.

FIRE ALARM LEGEND

- FIRE ALARM MANUAL PULL STATION @ 48" AFF
- FIRE ALARM CEILING MOUNTED COMBINATION VOICE EVACUATION SPEAKER AND STROBE (W=WALL MOUNTED UNIT)
- FIRE ALARM CEILING MOUNTED STROBE UNLESS INDICATED OR REQUIRED TO BE WALL MOUNTED AT @ 80" AFF
- DUCT DETECTOR
- CEILING MOUNTED SMOKE DETECTOR
- EXISTING FIRE ALARM SYSTEM CONTROL PANEL - SEE SHEET E1.1 FOR LOCATION
- CEILING MOUNTED HEAT DETECTOR
- FIRE ALARM WALL MOUNTED MOUNTED COMBINATION VOICE EVACUATION SPEAKER AND STROBE, WEATHER PROOF
- FLOW AND TAMPER SWITCHES

POWER PLAN NOTES BY SYMBOL 'x'

- CONNECT TO CIRCUIT AT MSQ CONDENSING UNIT AT OUTDOOR A/C YARD.
- CONNECTION FROM CIRCUIT AT TELEPHONE DATA ROOM WALL MOUNTED MSI EVAPORATOR UNIT AS COORDINATED WITH THE HVAC INSTALLER.

PANEL L

PANEL L		LOCATION	MECH/ELEC RM	DMOUNT	FLUSH
MAIN LUGS ONLY		LOCATION	TOP BUS	150A	VOLTS
MIN. CIR. BRK. I. C.		10,000	AMP RMS SYS	CONDUIT	1 1/2"
TOTAL CONNECTED KVA			TOTAL CONNECTED AMPS		
ESTIMATED DEMAND KVA			ESTIMATED DEMAND AMPS		
SPARE CAPACITY KVA			SPARE CAPACITY AMPS		
CALCUL. DESIGN KVA		54.0	CALCUL. DESIGN AMPS		150.0

POLE NO.	CIRC. BRKR.	AMP	OUTLET		REMARKS	PHASE LOAD VA		
			LTS	REC		A	B	C
1	1	20			RECEPTACLES			
2	1	20			RECEPTACLES			
3	1	20			RECEPTACLES			
4	1	20			RECEPTACLES			
5	1	20			RECEPTACLES			
6	1	20			RECEPTACLES			
7	1	20			RECEPTACLES			
8	1	20			RECEPTACLES			
9	1	20			RECEPTACLES			
10	1	20			RECEPTACLES			
11	1	20			RECEPTACLES			
12	1	20			RECEPTACLES			
13	1	20			RECEPTACLES			
14	1	20			RECEPTACLES			
15	1	20			RECEPTACLES			
16	1	20			RECEPTACLES			
17	1	20			RECEPTACLES			
18	1	20			RECEPTACLES			
19	1	20			RECEPTACLES			
20	1	20			RECEPTACLES			
21	1	20			RECEPTACLES			
22	1	20			RECEPTACLES			
23	1	20			RECEPTACLES			
24	1	20			RECEPTACLES			
25	1	20			COUNTER RECEPTACLE	1000		
26	1	20			COPIER	1000		
27	1	20			MICROWAVE		1100	
28	1	20			COUNTER RECEPTACLE		1000	
29	1	20			REFRIGERATOR			800
30	1	20			COUNTER RECEPTACLE			1000
31	1	20			MOTORIZED DAMPERS	100		
32	2	15			MSI & MSD	1000		
33	1	20			LIGHTING CONTROLS		100	
34	-	-					1000	
35	1	20			EWC			600
36								
37	1	20			SPARE			
38	1	20			SPARE			
39	1	20			SPARE			
40	1	20			SPARE			
41	1	20			SPARE			
42	1	20			SPARE			
43					SPACE ONLY			
44					SPACE ONLY			
45					SPACE ONLY			
46					SPACE ONLY			
47					SPACE ONLY			
48					SPACE ONLY			
49					SPACE ONLY			
50					SPACE ONLY			
51					SPACE ONLY			
52					SPACE ONLY			
53					SPACE ONLY			
54					SPACE ONLY			
55					SPACE ONLY			
56					SPACE ONLY			
57					SPACE ONLY			
58					SPACE ONLY			
59					SPACE ONLY			
60					SPACE ONLY			
TOTAL VA								

PANEL H

PANEL H		LOCATION	MECH/ELECT RM	DMOUNT	SURFACE
MAIN LUGS ONLY		LOCATION	TOP BUS	200A	VOLTS
MIN. CIR. BRK. I. C.		14,000	AMP RMS SYS	CONDUIT	2"
TOTAL CONNECTED KVA			TOTAL CONNECTED AMPS		
ESTIMATED DEMAND KVA			ESTIMATED DEMAND AMPS		
SPARE CAPACITY KVA			SPARE CAPACITY AMPS		
CALCUL. DESIGN KVA		166.3	CALCUL. DESIGN AMPS		200.0

POLE NO.	CIRC. BRKR.	AMP	OUTLET		REMARKS	PHASE LOAD VA		
			LTS	REC		A	B	C
1	1	20			EXIT LIGHTS			
2	1	20			SPARE			
3	1	20			LIGHTS			
4	1	20			SPARE			
5	1	20			LIGHTS			
6	1	20			SPARE			
7					SPACE ONLY			
8	1	20			WH-1	2500		
9	2	15			SITE SIGN XFMR		2500	
10	1	20			VAV-1C		2500	
11								2500
12	1	20			VAV-2C			2500
13	1	20			VAV-3C	2500		
14	1	30			VAV-4E	6000		
15	1	30			VAV-5E		6000	
16	1	20			VAV-6D		4000	
17	1	20			VAV-7E			6000
18	1	20			VAV-8D			4000
19	3	15			AHU-1	2100		
20	3	40			CU-1			
21							2100	
22								
23								2100
24								6700
25	3	40			EDH-1	6700		
26	3	70			TRANSFORMER T-L			
27							6700	
28								
29								6700
30								
31					SPACE ONLY			
32					SPACE ONLY			
33					SPACE ONLY			
34					SPACE ONLY			
35					SPACE ONLY			
36					SPACE ONLY			
37					SPACE ONLY			
38					SPACE ONLY			
39					SPACE ONLY			
40					SPACE ONLY			
41					SPACE ONLY			
42					SPACE ONLY			
TOTAL VA								

PANEL SCHEDULE NOTES

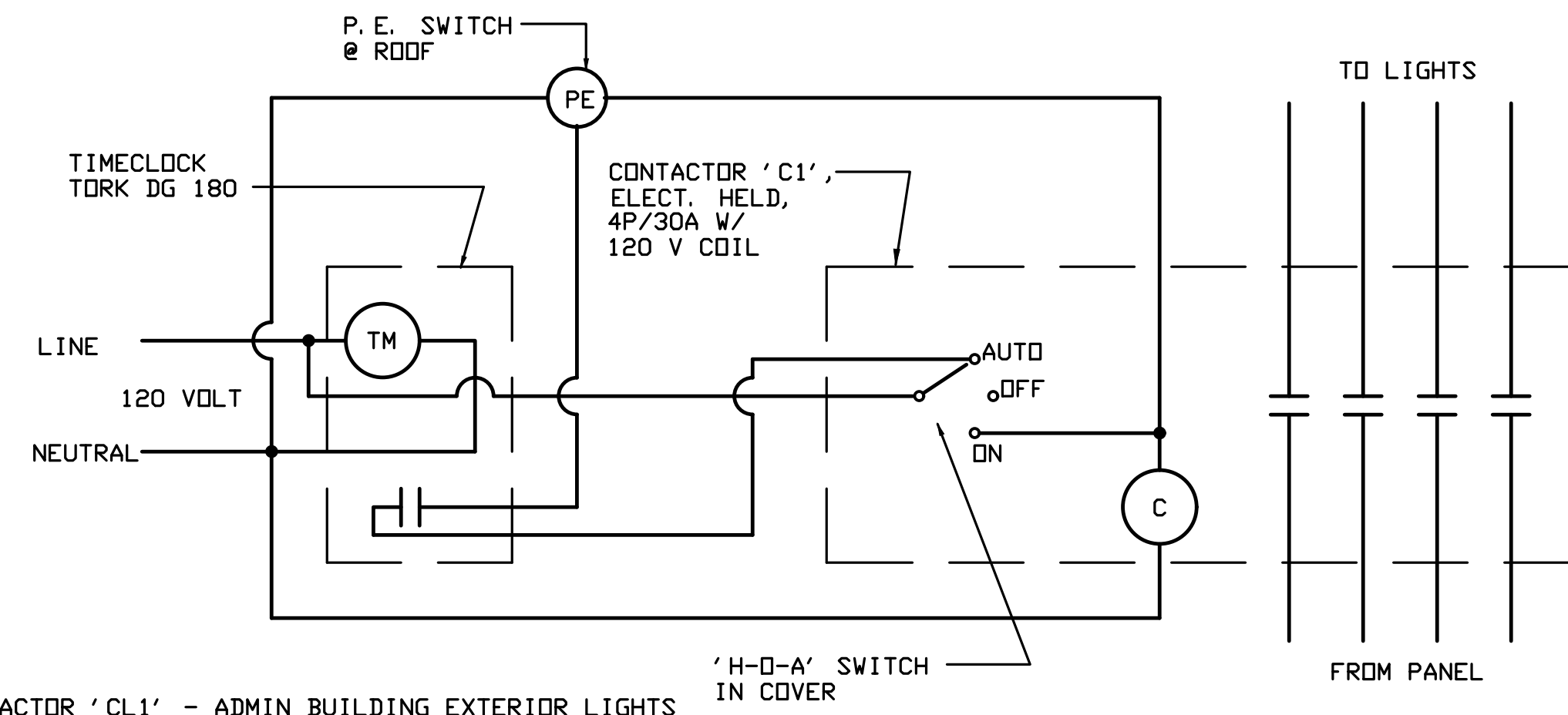
- ^ = HANDLE LOCK-ON DEVICE.
- * = CLASS A GROUND FAULT CIRCUIT INTERRUPTING (GFI) BREAKER FOR PERSONNEL PROTECTION.
- [= THRU CONTACTOR 'CL#' INDICATED, REFER TO DETAIL 1/E-5.1.
-) = VERIFY ELECTRICAL REQUIREMENTS WITH THE OWNER.

LIGHTING FIXTURE SCHEDULE

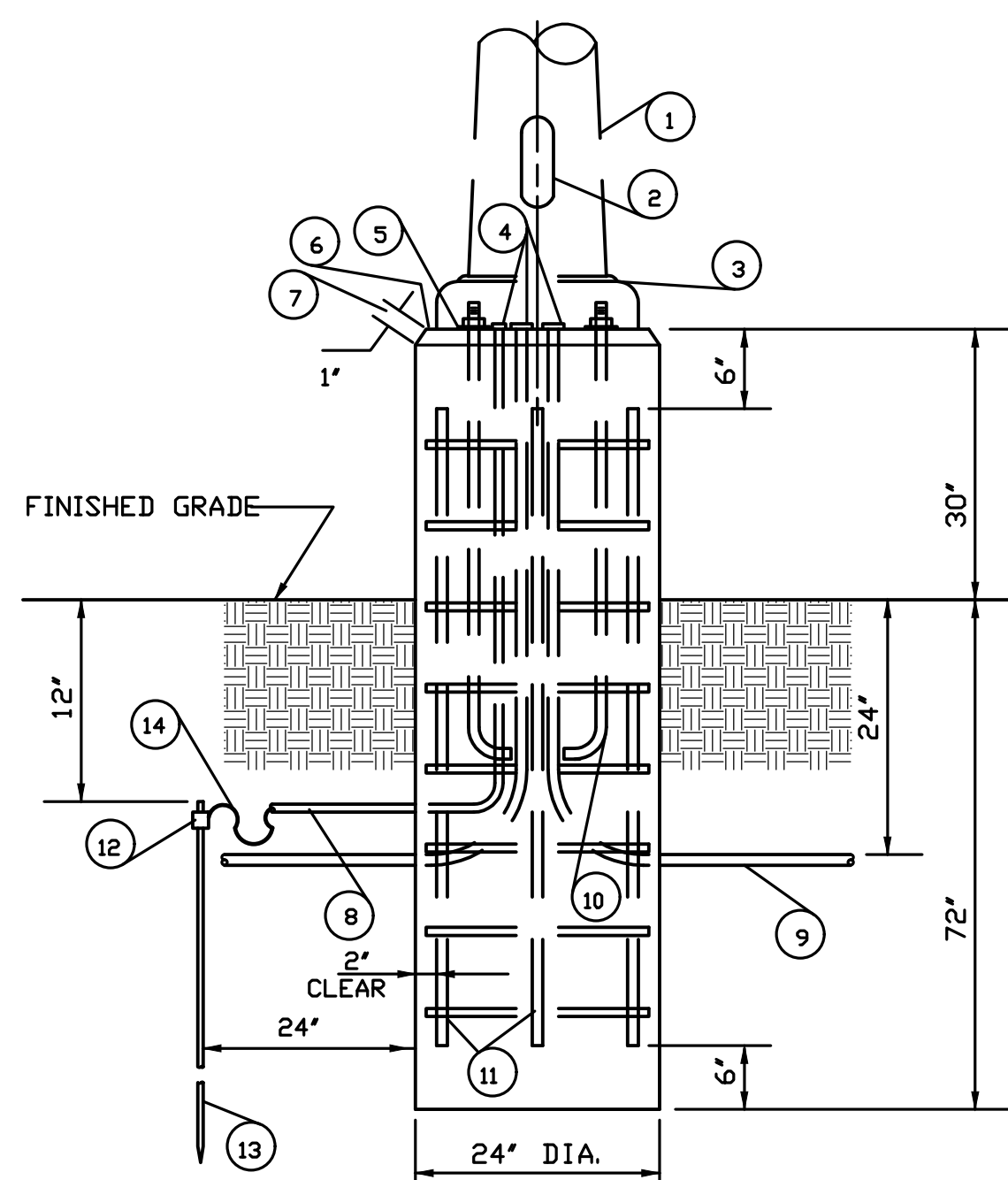
TYPE	VOLTS	DESCRIPTION	DMOUNT	LAMPS	REMARKS
A	277	2' X 4' BASKET LAY-IN - LITHONIA #2VTL4 60L ADP E21 LP835	LAY-IN	47.7W LED INCLUDED	○
AE	277	2' X 4' BASKET EMERGENCY - LITHONIA #2VTL4 60L ADP E21 LP835 EL14L	LAY-IN	47.7W LED INCLUDED	○
B	277	3' VANITY FIXTURE-LITHONIA#FMVCL3 36IN MVDLT 30K35K40K 90CRI BN	WALL	27W LED INCLUDED	①
C	277	4' STRIP-LITHONIA #CLX L48 3000LM SEF RDL MVOLT 35K 80CRI WH HC36M12	SUSPEND	21W LED INCLUDED	○
CE	277	4' STRIP W/EMERG-LITHONIA#CLX L48 3000LM SEF RDL MVOLT 35K 80CRI WH HC36M12 E10W	SUSPEND	21W LED INCLUDED	○
D	277	RECESSED DOWNLIGHT - GOTHAM #EVD6 35/20 AR LSS MD MVOLT E21	RECESS	19.7W LED INCLUDED	○
DE	277	DOWNLIGHT W/EMERG-GOTHAM #EVD6 35/20 AR LSS MD MVOLT E21 EL	RECESS	19.7W LED INCLUDED	○
EM	277	WALL MTD. LED EMERGENCY FIXTURE LITHONIA# ELM2	WALL	INCLUDED	○
G	277	14' LINEAR 2' SLOT LED - ALCON #12100-22-P-L-CR14-WH-H-AC5-R	SUSPEND	140W LED INCLUDED	①②③
H	277	LED PENDANT 16' DOME LIGHT - ALCON #15240-38L-AC8-35K-MWH	PENDANT	48W LED INCLUDED	③
P	120	PENDANT FIXTURE SELECTED BY ARCHITECT	SUSPEND	75W MAXIMUM	③④⑤
SP	277 VERIFY	SINGLE POLE MTD FIXTURE - LSI #SLM LED 30L SIL 3 + DIM 40 70CRI IMSBT2L PC1208-277+ BRZ	POLE	213W LED INCLUDED SINGLE FIXTURE	⑥⑦
W	277	LED WALL PACK-LITHONIA #WST LED P2 30K VM MVOLT DDBXD	WALL	25W LED INCLUDED	○
WE	277	EMERGENCY WALL PACK LITHONIA #WST LED P2 30K VM MVOLT DDBXD E7WC	WALL	25W LED INCLUDED	○
X1	277	SINGLE FACE EXIT LIGHT LITHONIA #EDG 1 G EL	SHOWN	INCLUDED	○
X2	277	DOUBLE FACE EXIT LIGHT LITHONIA #EDG 2 GMR EL	SHOWN	INCLUDED	○

REMARKS:

- SET SELECTABLE WHITE COLOR TEMPERATURE TO 3500°K OR AS DIRECTED BY THE ARCHITECT.
- SET SELECTABLE DIRECT AND INDIRECT LED LIGHTING LEVELS AS COORDINATED WITH THE ARCHITECT.
- BOTTOM OF FIXTURE SHALL BE AT ELEVATION AS COORDINATED WITH THE ARCHITECT
- PROVIDE FACTORY LABEL MODIFICATION TO LAMP SOCKET FOR MAXIMUM WATTAGE RATING OF LAMP INDICATED WITH THE MANUFACTURER.
- FINAL SELECTION OF FIXTURE BY ARCHITECT.
- ON 25' HIGH 5" SSS POLE PAINTED TO MATCH THE FIXTURE.
- SYMBOL (<+>) INDICATES TO VERIFY EXISTING WEST SIDE SITE LIGHTING CIRCUIT VOLTAGE.



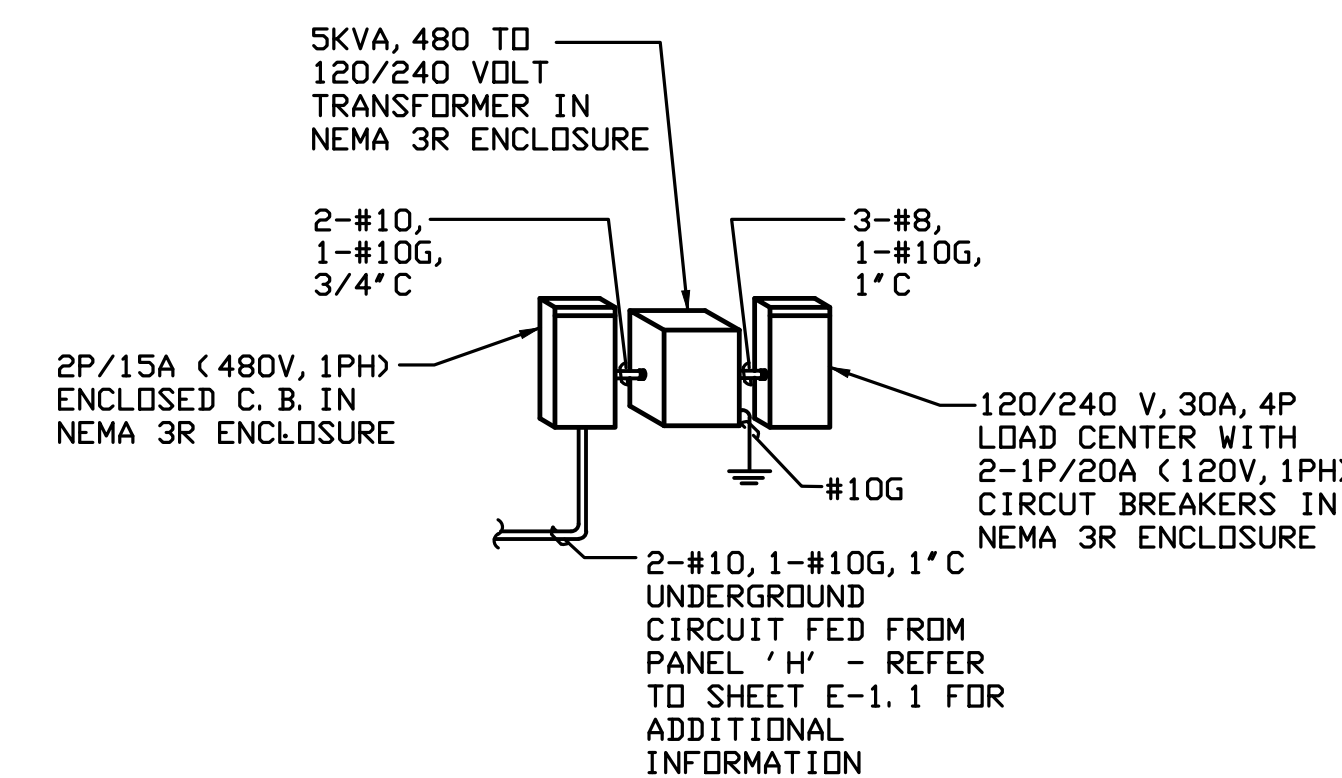
1 EXTERIOR LIGHTING CONTROL SCHEMATIC
NO SCALE



3 POLE BASE DETAIL
NO SCALE

LIGHTING BASE NOTES:

- LIGHTING STANDARD.
- WIRING ACCESS - PROVIDE INTERIOR GROUNDING LUG ACCESSIBLE FROM OPENING.
- PROVIDE ANCHOR BOLT COVER TO MATCH MATERIAL OF POLE.
- CONNECT CONDUITS TO GROUNDING LUG & GROUNDING CONDUCTOR TO GROUND ROD.
- PROVIDE STANDARD SHIMS UNDER ANCHOR BOLT LUGS FOR LEVELING AS REQUIRED.
- FILL ALL GAPS BETWEEN METAL BASE AND CONCRETE BASE WITH CEMENT GROUT.
- CHAMFER EDGES ON BASE.
- 1/2" RIGID CONDUIT.
- RIGID GALVANIZED STEEL CONDUITS TO EDGE OF CONCRETE BASE.
- GALVANIZED STEEL ANCHOR BOLTS AS REQUIRED BY MANUFACTURER FURNISHING POLE.
- EIGHT (8) NO. 4 STEEL VERTICAL REINFORCING RODS. INTERCONNECT WITH HORIZONTAL NO. 4 STEEL REINFORCING HOOP RODS AT 12" D.C.
- CONNECTOR.
- 3/4" X 8'-0" COPPER CLAD GROUND ROD.
- NO. 8 BARE STRANDED COPPER GROUND WIRE - CONNECT TO GROUND ROD, CONDUITS & GROUNDING LUG.



NOTES:

- COORDINATE MOUNTING OF ELECTRICAL EQUIPMENT AND FINAL ELECTRICAL CONNECTIONS AT THE SITE MONUMENT SIGN WITH THE EQUIPMENT INSTALLER.
- AT CONTRACTOR'S OPTION, UTILIZE SQUARE D MINI POWER ZONE MODEL #MPZB540F IN LIEU OF ELECTRICAL EQUIPMENT INDICATED.

2 ELECTRICAL RISER DIAGRAM - SITE MONUMENT SIGN
NO SCALE

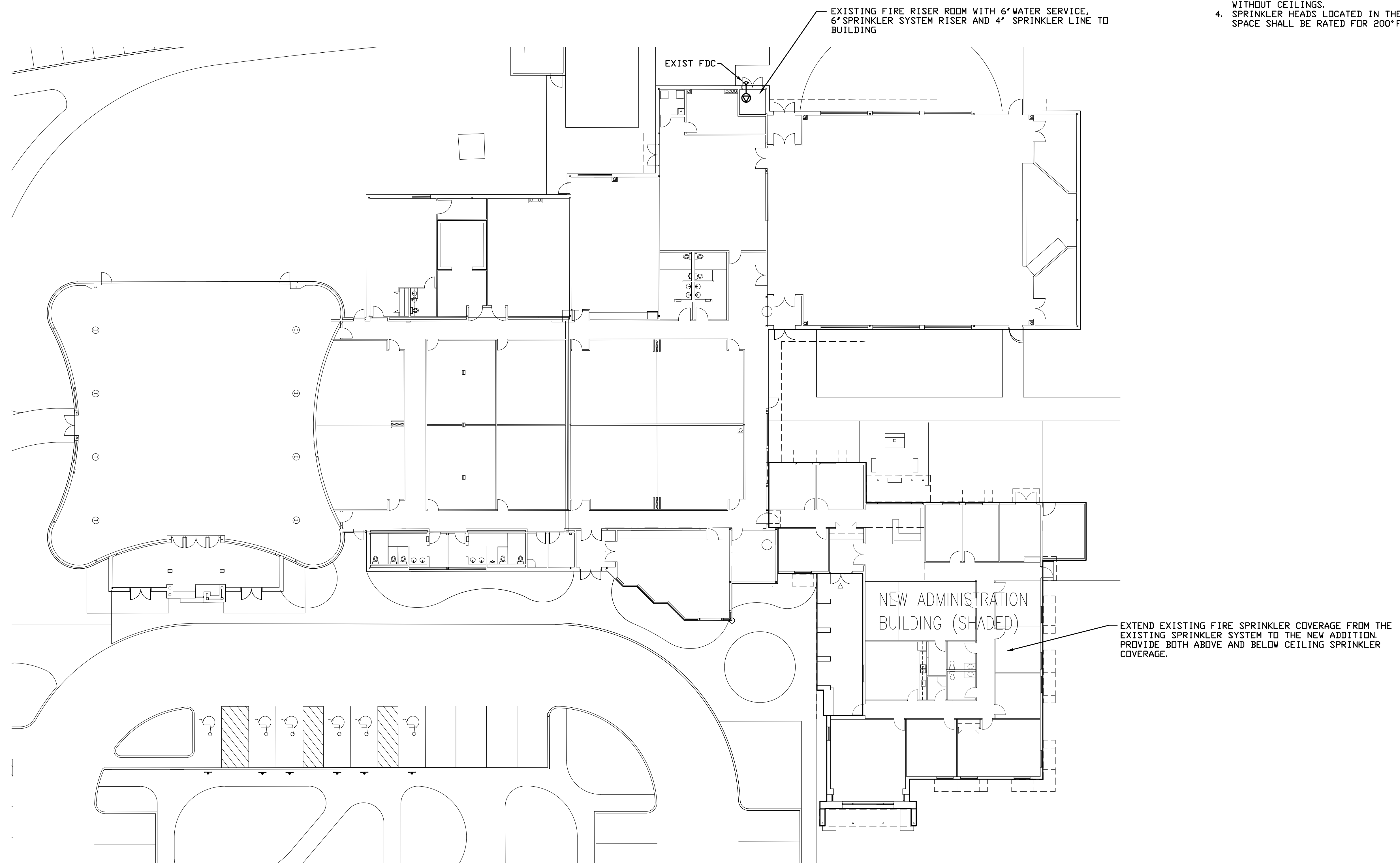
Wells Doak
 Engineers, Inc.
 Texas Registration F-10743
 4800 S. HULLEN
 SUITE 508
 FORT WORTH, TEXAS 76109
 VDE #250070
 Engineer's Seal

Design Development Phase
 New Administration Building
HOLY CROSS CATHOLIC CHURCH
 7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-9262
 Architect's Seal

Jim Bransford Architect
 2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-0159

Project: 2402
 Date: 02/12/2025
 Revisions:

DD_E5.1
 6 of 6E Sheets



FIRE PROTECTION NOTES

1. PROVIDE FIRE PROTECTION SPRINKLERS IN THE NEW ADDITION. CONNECT TO THE EXISTING FIRE PROTECTION SPRINKLER SYSTEM FOR SERVICE.
2. PROVIDE ABOVE AND BELOW CEILING SPRINKLER COVERAGE.
3. PROVIDE FULL RECESSED PENDANT TYPE SPRINKLER HEADS IN ROOMS WITH FINISHED CEILINGS. PROVIDE EXPOSED PENDANT TYPE SPRINKLER HEADS IN ROOMS WITHOUT CEILINGS.
4. SPRINKLER HEADS LOCATED IN THE ABOVE CEILING SPACE SHALL BE RATED FOR 200°F SERVICE.

< N
1 FIRE PROTECTION PLAN
 1/8" = 1'-0" 0 5

Wells Doak
 Engineers, Inc.
 Texas Registration F-10743 800-8645
 4200 S. HULLEN FORT WORTH, TEXAS 76109
 SUITE 508 VDE #250070

Engineer's Seal

Design Development Phase
 New Administration Building
HOLY CROSS CATHOLIC CHURCH
 7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-5252

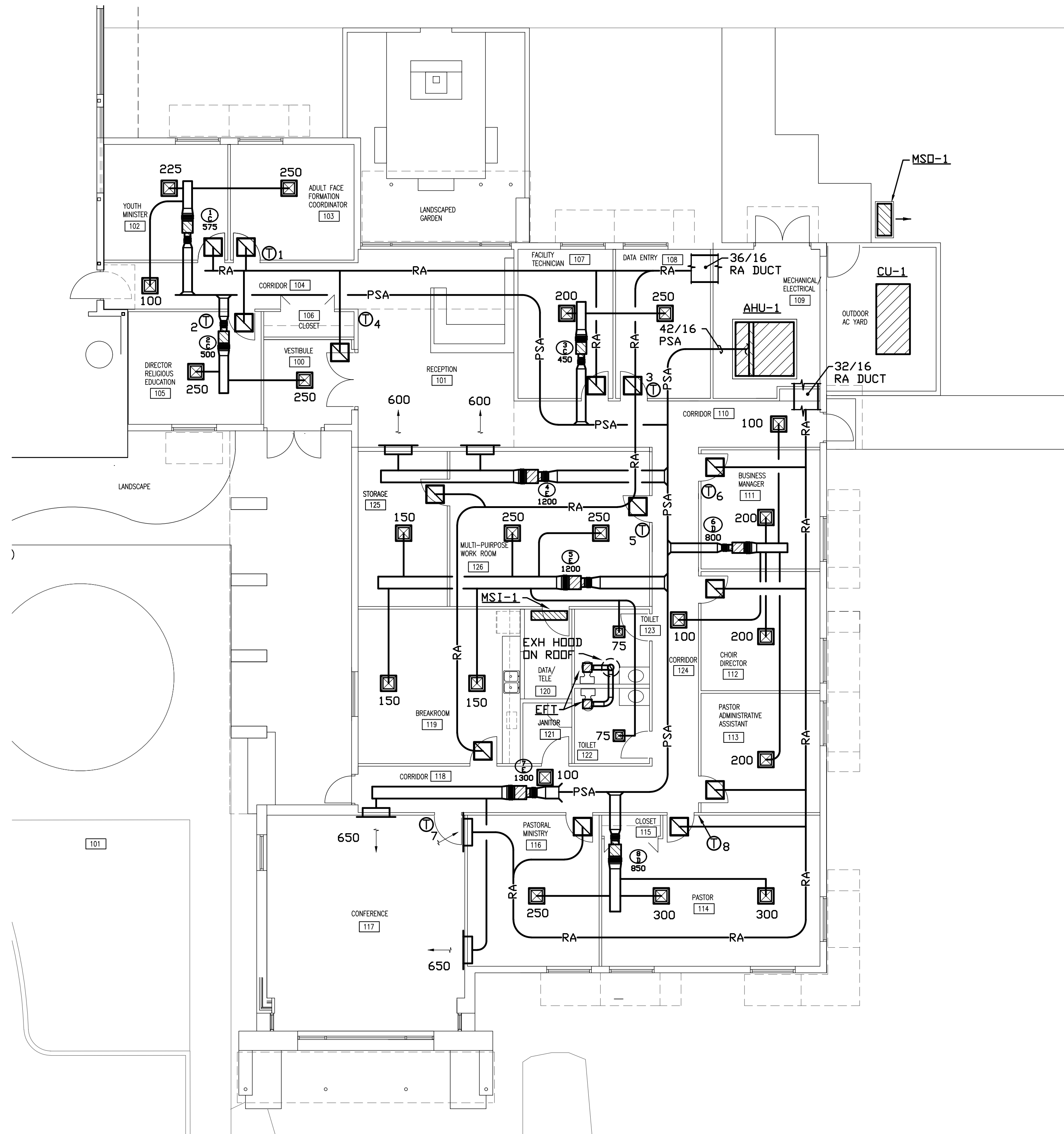
Architect's Seal

Jim Bransford Architect
 2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-0159

Project: 2402

Date: 02/12/2025

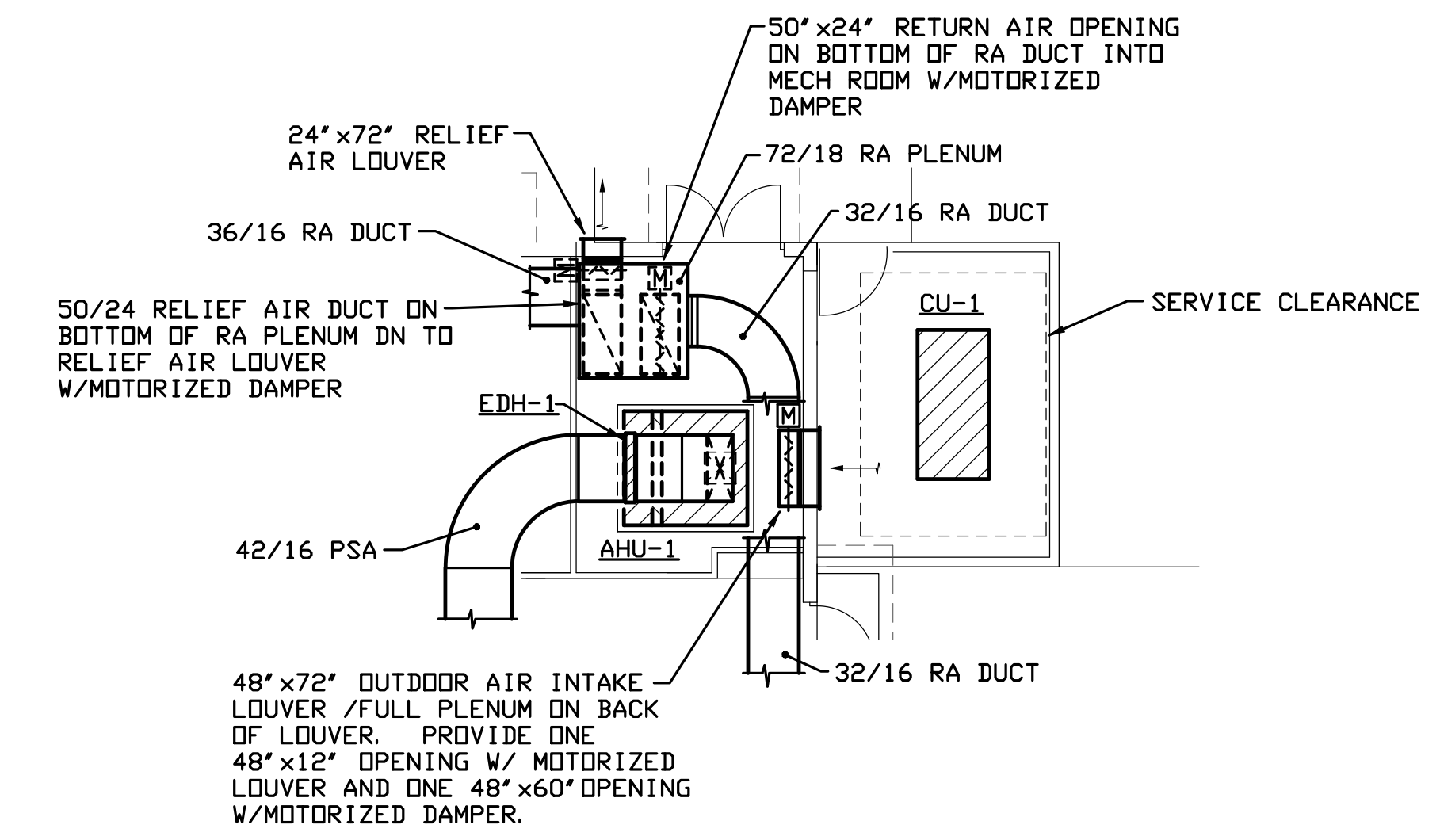
Revisions:



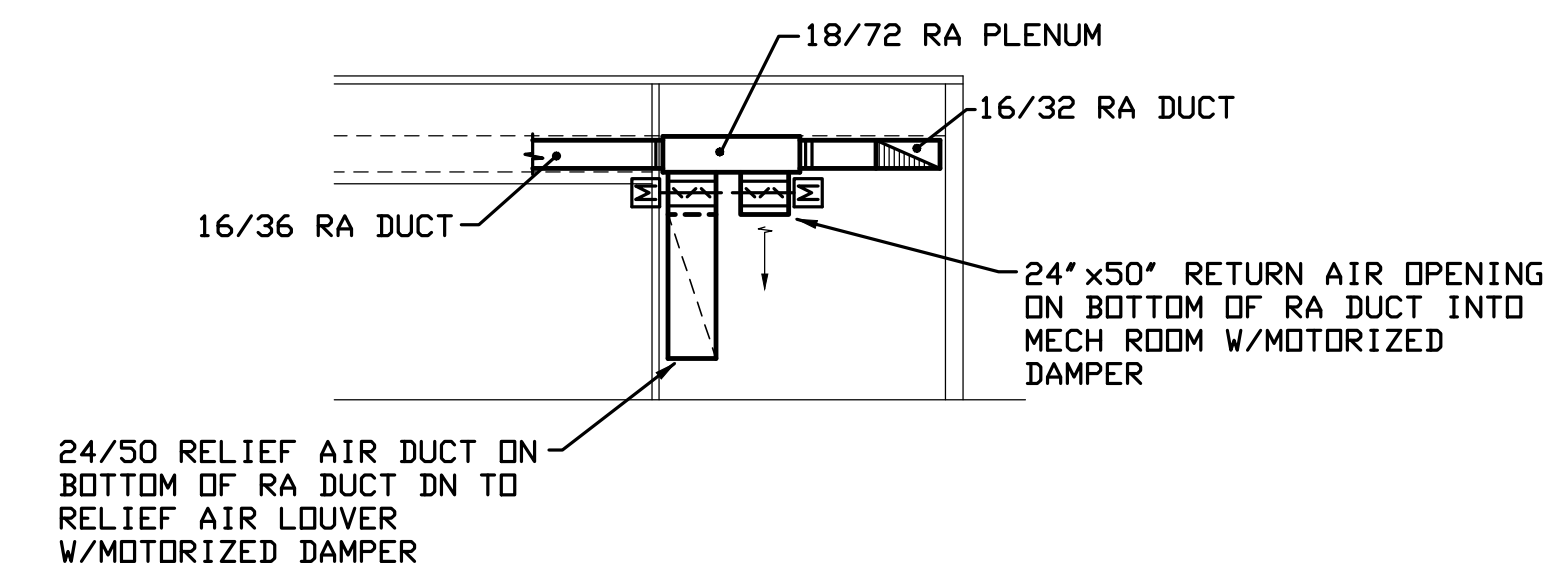
1 FLOOR PLAN - HVAC
1/8"=1'-0"

HVAC LEGEND

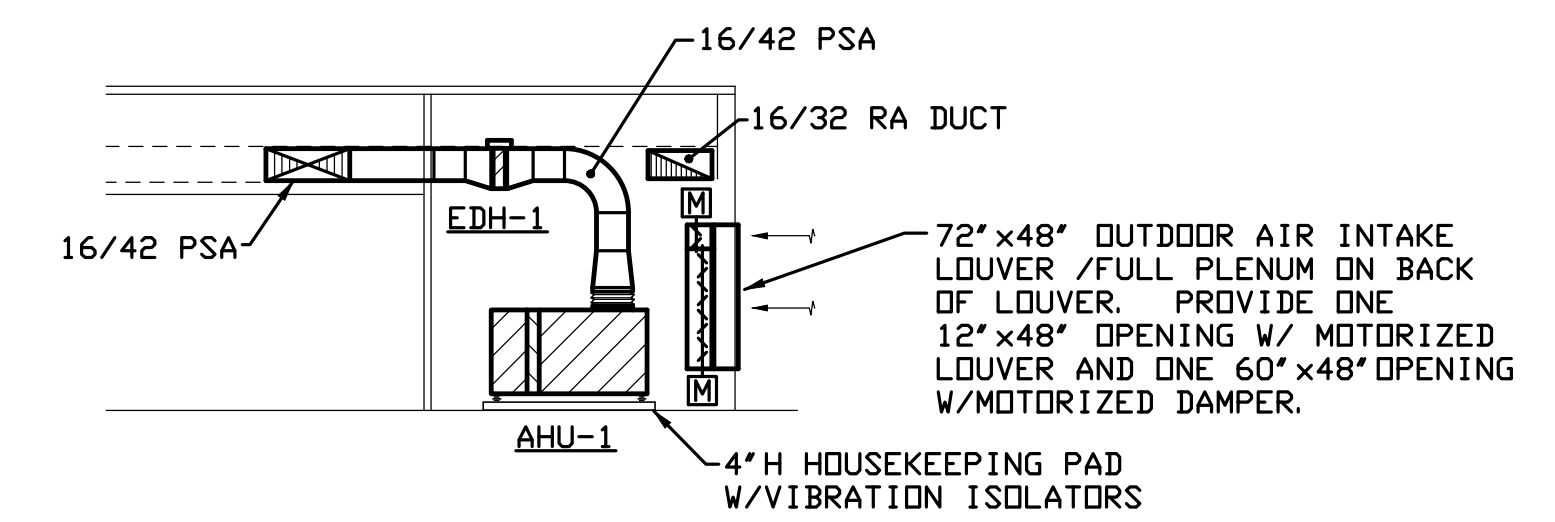
- PSA PRIMARY SUPPLY AIR
- RA RETURN AIR
- 200 AIR DIFFUSER AND AIR FLOW
- RETURN AIR GRILLE
- VARIABLE AIR VOLUMN BOX
- VAV BOX NUMBER, SIZE DESIGNATION AND AIR FLOW
- SPACE THERMOSTAT & VAV BOX CONTROLLED



2 MECHANICAL ROOM PLAN
1/8"=1'-0"



3 SECTION AT RETURN/RELIEF DUCT
1/8"=1'-0"



4 SECTION AT AHU-1
1/8"=1'-0"

- NOTE:
- THE FOLLOWING VAV BOX SIZES AND DUCT SIZES ARE TO BE USED UNLESS NOTED OTHERWISE ON THE PLANS.
 - SECONDARY DUCT SIZE CAN BE AIR DEVICE NECK SIZE WHERE BOX SERVES ONLY ONE AIR DEVICE.

VAV BOX SIZE SCHEDULE W/ ELECTRIC HEAT

VAV BOX DESIGNATION	AIR FLOW RANGE - CFM	INLET SIZE	PRIMARY DUCT	SECONDARY DUCT
A	0 - 250	6" Ø	8" Ø	10/10
B	255 - 400	8" Ø	10" Ø	10/10
C	405 - 650	8" Ø	12" Ø DR	12/12
D	655 - 1000	10" Ø	14" Ø DR	14/14 DR
E	1005 - 1400	12" Ø	16" Ø DR	16/14 DR
F	1405 - 1600	14" Ø	18" Ø DR	18/12 DR
			20/12	22/12

AIR HANDLING UNIT SCHEDULE		AHU-1
DESCRIPTION		
FAN	TOTAL AIR FLOW - CFM	6000
	OUTSIDE AIR FLOW - CFM	600
	EXTERNAL S. P. - INCHES WATER	1.50
COOLING	ENTERING AIR D. B. F*	73.0
	ENTERING AIR W. B. F*	65.0
	TOTAL SENSIBLE LOAD - BTUH	137,000
	TOTAL LATENT LOAD - BTUH	30,000
	GRAND TOTAL LOAD - BTUH	167,000
HEATING	SEE ELECTRIC DUCT HEATER SCHEDULE	
ECONOMIZER YES		
DEMAND CONTROL VENTILATION YES		
FILTERS 2" TA		
FAN H. P. 5		
VOLTAGE / PHASE 480/3		
UNIT TYPE: DX COOLING/ ELEC HEATING		
TRANE MODEL NO. UCCA12		
REMARKS: 1. EXTERNAL STATIC PRESSURE CONSISTS OF DUCTWORK, AIR DEVICES, VAV BOXES AND FILTERS. 2. UNITS AND ASSOCIATED CONDENSING UNITS MUST MEET OR EXCEED THE LATEST IECC EER/SEER EFFICIENCY RATING REQUIREMENTS. 3. REFER TO THE CONDENSING UNIT SCHEDULE. 4. REFRIGERANT LINE SIZES ARE TO BE SELECTED BY THE EQUIPMENT SUPPLIER.		

AIR COOLED CONDENSING UNIT SCHEDULE						
NO.	NET REFRIG. EFFICT. BTUH	AMBIENT TEMP. FØ	VOLTAGE/ PHASE	UNIT		REMARKS
				MCA	MDCP	
CU-1	167,000	105*	480/3	33	40	TTA180

- REMARKS: 1. PROVIDE METAL HAIL GUARDS/SCREENS ON CONDENSING UNITS.
2. INSTALL CONDENSING UNITS ON HOUSEKEEPING PADS.
3. CONDENSING UNITS AND ASSOCIATED AIR HANDLING UNITS SHALL MEET THE LATEST IECC ENERGY EFFICIENCY REQUIREMENTS.

GRAVITY HOOD SCHEDULE							
NUMBER	SERVICE	MAX. AIR FLOW CFM	THROAT AREA SQ. FT.	THROAT VELOCITY FPM	MAX. TOTAL PRESS. DRDP IN. W. G.	COOK MODEL NO.	NOTES
EAH	TOILET EXHAUST AIR	205	0.41	505	0.05	8 PR	1, 2
RAH	RELIEF AIR	5,400	3.5	1,542	0.1	12x42 GR	1, 2
NOTES: 1. PROVIDE INSULATED ROOF CURB AND ALUMINUM BIRD SCREEN. ROOF CURB SHALL BE PITCHED TO MATCH ROOF SLOPE. 2. DUCTED APPLICATION. PROVIDE THROAT SIZED DUCT RISER UNLESS NOTED OTHERWISE.							

MINI-SPLIT SCHEDULE		MSI-1 & MSD-1
DESCRIPTION		
TOTAL AIR FLOW - CFM		380
TOTAL COOLING - BTUH		8,360
HEATING @ 17°F - BTUH		9,830
VOLTAGE / PHASE		13,080
OUTDOOR UNIT MCA		208/230V/1Ø
OUTDOOR UNIT RECOMMENDED BREAKER		9.0 A
SEER		15.0 A
HSPF		22.5
		12.0
UNIT TYPE: HEAT PUMP		
CARRIER MODEL NO.		
INDOOR UNIT MSI		40MAQB12B-3
OUTDOOR UNIT MSD		38MAQB12R-3

- NOTES:
1. PROVIDE A WALL MOUNTED THERMOSTAT HARD-WIRED TO THE UNIT.
2. THE ELECTRIC POWER FOR THE INDOOR AIR HANDLING UNIT IS SUPPLIED FROM THE CONDENSING UNIT.
3. THE OUTDOOR CONDENSING UNIT IS TO BE FURNISHED WITH A METAL HAIL GUARD ON THE COIL.
4. PROVIDE CONDENSATE PUMP EQUAL TO LITTLE GIANT VCMA-15 SERIES. PUMP SHALL BE RATED FOR (115-240V/1Ø) AND 2 GPM AT 10 FEET OF HEAD.

AIR DISTRIBUTION DEVICE SCHEDULE					
DESIGNATION	TYPE	NECK SIZE	FACE SIZE	METALATRE MODEL NO.	NOTES
CDA	CEIL DIFFUSER	AS NOTED	24"x 24"	5800	4 CONE
CDB	CEIL DIFFUSER	AS NOTED	12"x 12"	5800	4 CONE
CDC	CEIL DIFFUSER	AS NOTED	24"x 24"	5000	W/ FACE PANEL, SQ-RD TRANS
CDD	CEIL DIFFUSER	AS NOTED	NECK + 6"	5000	W/ SQ-RD TRANS
RGA	RETURN GRILLE	22"x 22"	24"x 24"	7500R	LAY-IN CEILING
RGB	RETURN GRILLE	10"x 10"	12"x 12"	7500R	
RGC	RETURN GRILLE	10"x 22"	12"x 24"	7500R	
RGA	RETURN GRILLE	22"x 22"	24"x 24"	7500R	GYP BD CEILING
SWS	SIDEWALL	AS SHOWN	NECK + 2"	2015	W/ PLENUM & DBD
ER	EXH. REG.	AS NOTED	NECK + 2"	RHD	W/ DBD

1. CEILING MOUNTED AIR DEVICES ARE TO BE FURNISHED WITH THERMAL BLANKETS.

FAN SCHEDULE									
NUMBER	C. F. M.	E. S. P. IN. W. G.	TYPE	H. P.	VOLTAGE/ PHASE	DRIVE	COOK MODEL NO.	SERVICE	NOTES
EFT	75	0.40	CEIL	70w	120	DIRECT	GN-140	TOILET	1 A

1. FURNISH WITH BACKDRAFT DAMPER, DISCONNECT, SPEED CONTROLLER, INTEGRAL GRILLE

A. SWITCH WITH LIGHTS

VAV BOX W/ ELECTRIC HEAT										
DESIG	VAV BOX C.F.M. @ 0.1" INLET	VAV BOX MAX. NC @ 0.35 SP	VAV BOX INLET	MINIMUM COOLING CFM	EAT °F/ LAT °F	MIN. HTG CFM	HEATER			METALATRE TL-500 MODEL NO.
							MIN. BTUH	MAX. KW	VOLTAGE/ PHASE	
A	0- 250	35	6" Ø	50	55/95	75	3,240	1	277/1	UNIT SIZE 6
B	255- 400	35	8" Ø	80	55/95	120	5,185	1.5	277/1	UNIT SIZE 8
C	405- 650	35	8" Ø	130	55/95	200	8,640	2.5	277/1	UNIT SIZE 8
D	655-1000	35	10" Ø	200	55/95	300	13,000	4.0	277/1	UNIT SIZE 10
E	1005-1400	35	12" Ø	280	55/95	420	18,000	6.0	277/1	UNIT SIZE 12
F	1405-1600	35	14" Ø	320	55/95	480	21,000	6.0	277/1	UNIT SIZE 14

1. BOXES SHALL HAVE A MAXIMUM NC RATING OF 35 AT 0.50" INLET STATIC PRESSURE.
2. PROVIDE BOX WITH FACTORY INTERNAL INSULATION, 2LB DENSITY, FOIL FACED AND SEALED FROM THE AIRSTREAM.
3. ELECTRIC COILS SHALL BE CONTAINED WITHIN THE BOX. PROVIDE SCR CONTROLLER FOR MODULATING HEAT. HEATING SIZE IS BASED ON A 40°F DELTA ON 30% OF MAXIMUM COOLING CFM.
4. UPON A DECREASING COOLING DEMAND, THE VAV INLET DAMPER SHALL MODULATE CLOSED TO MINIMUM COOLING CFM SCHEDULED. ON AN INCREASE IN COOLING DEMAND, THE VAV INLET DAMPER SHALL MODULATE OPEN.
- WHEN THE INLET DAMPER HAS CLOSED TO MINIMUM COOLING AIR FLOW AND THERE IS STILL A HEATING DEMAND, THE ELECTRIC HEATER SHALL BE ENERGIZED AND THE INLET DAMPER OPEN TO PROVIDE THE HEATING CFM.
- ON A DEMAND FOR COOLING, THE REVERSE SEQUENCE OF OPERATION SHALL OCCUR.
5. PROVIDE UNIT MOUNTED/WIRED FACTORY POWER & CONTROL PANEL WITH DISCONNECT SWITCH - 277V/1PH POWER TO HEATER. 120V POWER TO CONTROLS TRANSFORMER (IF NEEDED).
6. VAV DAMPER CFM DELIVERY SHALL BE ACCURATE WITHIN 5% FROM 100% TO 25% FLOW RATE. CONTROLS SHALL BE FURNISHED AND SHIPPED TO BOX FACTORY BY TEMPERATURE CONTROLS CONTRACTOR. CONTROLS SHALL BE INSTALLED BY BOX MANUFACTURER. PROVIDE ALL AND ANY NECESSARY ITEMS TO INTERFACE WITH THE EXISTING PNEUMATIC CONTROL SYSTEM.

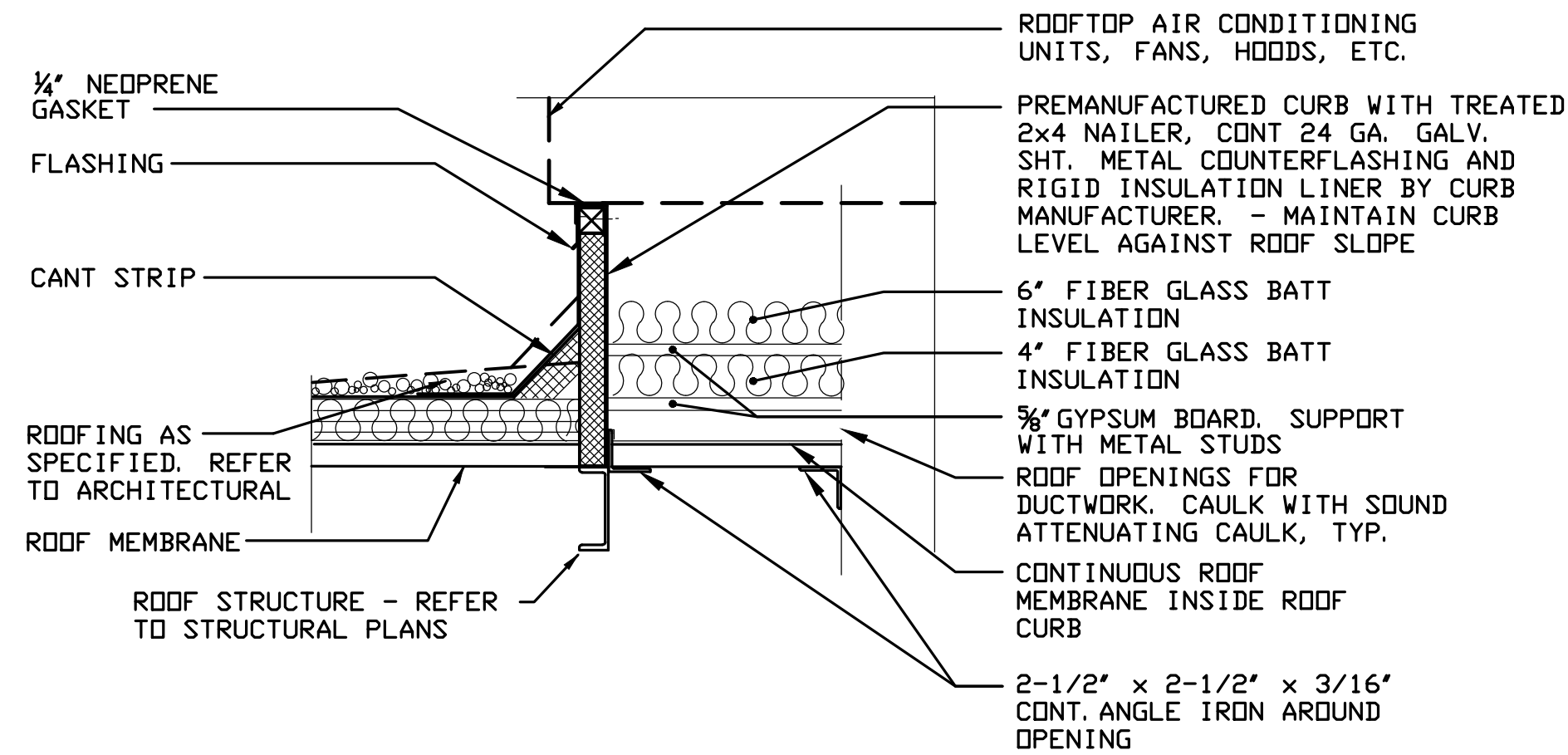
DUCT HEATER SCHEDULE - ELECTRIC													
NUMBER	DUCT			MIN. HEATING CAP. - BTUH	MAX. KW INPUT	VOLT/ PHASE	MIN. STAGES	P. D. IN. W. G.	ENT. AIR DEG. F	MIN. TEMP RISE DEG. F	TUTCO SERIES	SERVICE	NOTES
	CFM	W-IN.	H-IN.										
EDH-1	6,000	42	20	65,000	20.0	480/3	SCR	0.20	62.0	10.0	DHD	AHU-1	1, 2, 3, 4, 5
NOTES: 1. UNITS SHALL BE DUCT INSERTION TYPE. PROVIDE FLANGED UNITS WHERE DUCT WIDTH EXCEEDS 55". VERIFY CONTROL BOX ORIENTATION PRIOR TO ORDERING. CONTROL BOXES MUST BE REMOTE MOUNTED. PROVIDE NEMA 12 CABINET WHERE INSTALLED ACCESSIBLE ABOVE CEILING. 2. PROVIDE HEATER RATED FOR CAPACITY AT SCHEDULED VOLTAGE. 3. INTERLOCK HEATER WITH ASSOCIATED UNIT SUPPLY FAN PER MANUFACTURER INSTRUCTIONS. 4. PROVIDE MANUFACTURER SCR CONTROL OPTION FOR INFINITE MODULATION OF HEATER OUTPUT. 5. MAXIMUM AIR VELOCITY = 1000 FPM.													

HVAC LEGEND

	EXISTING EQUIPMENT, DUCTWORK, ETC. TO REMAIN OR BE ABANDONED AS NOTED
	EXISTING EQUIPMENT, DUCTWORK, ETC. TO BE REMOVED
	NEW EQUIPMENT, DUCTWORK, ETC.
	CEILING SUPPLY DIFFUSERS
	CEILING RETURN/EXHAUST GRILLE
	THERMOSTAT
	REMOTE TEMPERATURE SENSOR
	DUCT SMOKE DETECTOR
	CO2 SENSOR (CARBON DIOXIDE - PEOPLE)
	ROUND DUCT UP
	ROUND DUCT DOWN
	RECTANGULAR SUPPLY DUCT UP
	RECTANGULAR RETURN DUCT UP
	RECTANGULAR SUPPLY DUCT DOWN
	RECTANGULAR RETURN DUCT DOWN
	FLEXIBLE DUCT
	MANUAL BALANCING DAMPER (MBD)
	FIRE DAMPER
	FIRE/SMOKE DAMPER

ABBREVIATIONS

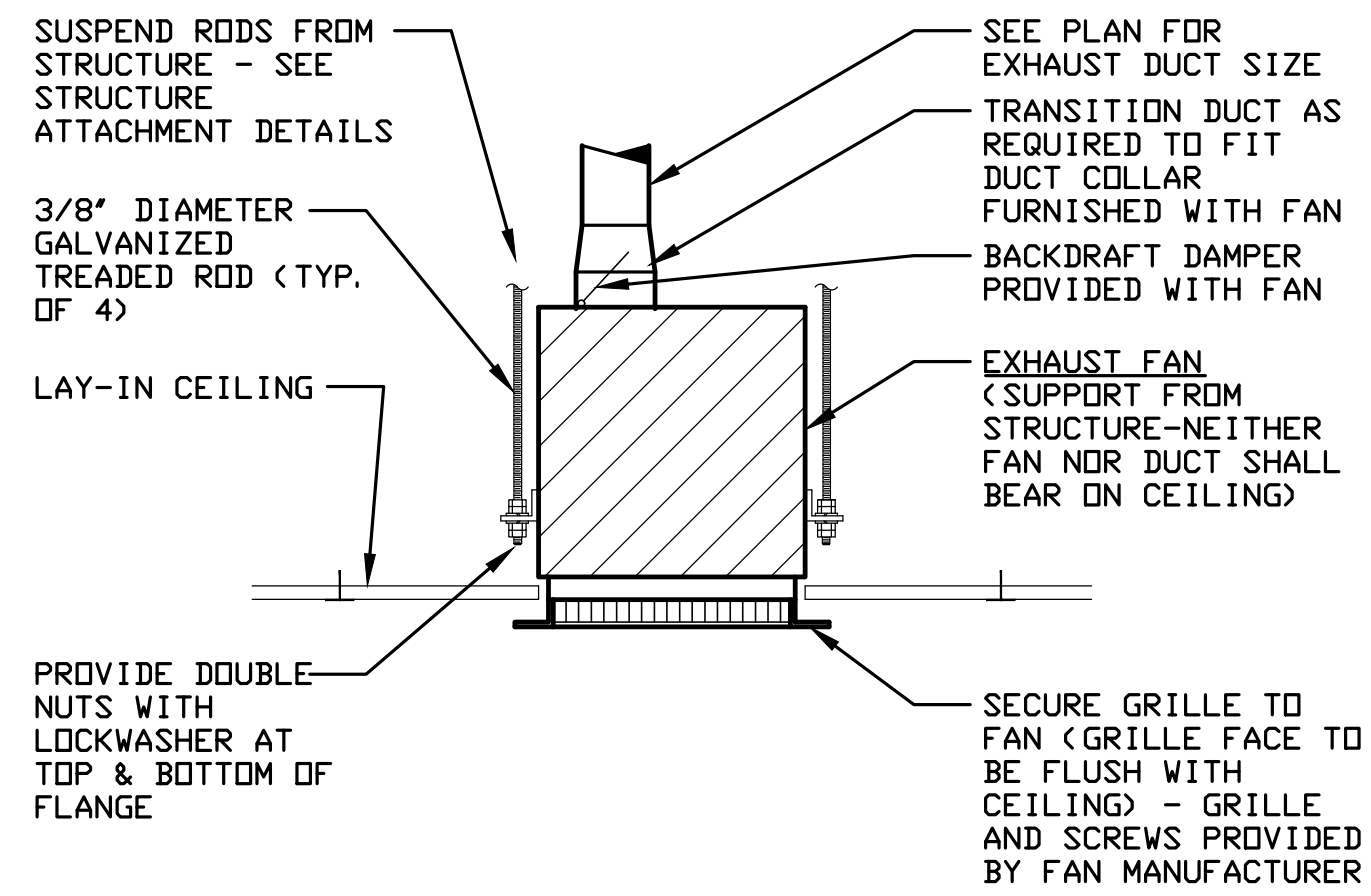
2POS	TWO POSITION
ABV	ABOVE
AFV	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFR	ABOVE FINISHED ROOF
BDP	BOTTOM OF DUCTWORK (SHEETMETAL)
BYF	BYPASS
CA	COMBUSTION AIR
CLG	CEILING
CO	CARBON MONOXIDE (FUEL PRESENCE)
CO2	CARBON DIOXIDE (PEOPLE PRESENCE)
CONN.	CONNECT, CONNECTION
DMPR	DAMPER
DN	DOWN
DX	DIRECT EXPANSION (REFRIGERANT)
e	PREFIX "e" DENOTES EXISTING EQUIPMENT, DUCTWORK, AIR DEVICES, ETC.
ELEC	ELECTRIC, ELECTRICAL
ELF	EQUIVALENT LINEAR FEET OF DUCTWORK
EMS	ENERGY MANAGEMENT SYSTEM
EQ	EQUAL
EX, EXIST	EXISTING
EXH	EXHAUST AIR
FA	FROM ABOVE
FB	FROM BELOW
FD	FIRE DAMPER
FLR	FLOOR
FSD	FIRE SMOKE DAMPER
HD	HUB DRAIN
KEC	KITCHEN EQUIPMENT CONTRACTOR
KES	KITCHEN EQUIPMENT SUPPLIER
LF	LINEAR FEET
MA	MIXED AIR
MBD	MANUAL BALANCE DAMPER
MOD	MODULATING
MTR	MOTOR, MOTORIZED
MUA	MAKE-UP AIR
MZ	MULTIZONE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
OA	OUTSIDE AIR
DBD	OPPOSED BLADE DAMPER
OC	ON CENTERS
OCEW	ON CENTERS EACH WAY
PBD	PARALLEL BLADE DAMPER
RA	RETURN AIR
RATB	RETURN AIR TRANSFER BOOT, SEE DETAIL
RLF	RELIEF AIR
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SM	SHEETMETAL
SS	STAINLESS STEEL
SZ	SINGLE ZONE
TA	TRANSFER AIR
TAB	TEST-ADJUST-BALANCE
TABD	TEST-ADJUST-BALANCE CONTRACTOR
TBD	TOP OF DUCTWORK (SHEETMETAL)
TRANS	TRANSITION
TSTAT	THERMOSTAT OR TEMPERATURE SENSOR
UNO	UNLESS NOTED OTHERWISE
VFD	VARIABLE FREQUENCY DRIVE
XFER	TRANSFER



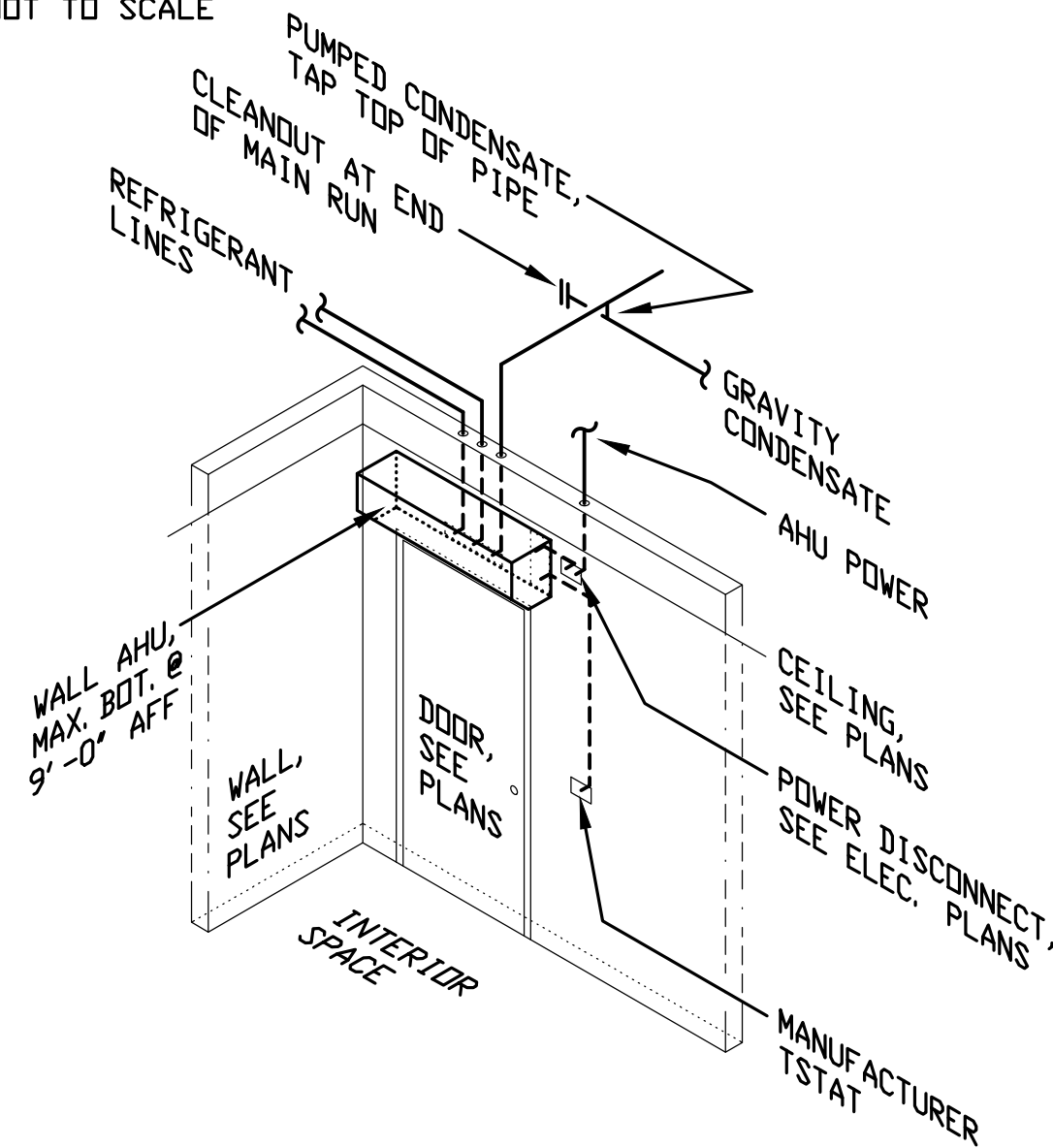
ROOF CURB NOTES

- COORDINATE ROOFING, WATER PROOFING, FLASHING/COUNTER FLASHING, AND SUPPORT DETAILS WITH ARCHITECTURAL DRAWINGS, STRUCTURAL DRAWINGS AND OR OWNER/LANDLORD'S ROOFING WARRANTY.
- INSULATION INSIDE ROOF CURB SHALL MATCH ROOF INSULATION SPECIFIED BY ARCHITECT OR SHALL BE 4" BATT ON 2" RIGID IF NOT SPECIFIED. ALL DUCTWORK PENETRATING THE ROOF SHALL BE WITHIN THE CONFINES OF THE ROOF CURB.
- REFER TO ARCHITECTURAL DETAILS FOR CONDUIT AND PIPING ROOF PENETRATION DETAILS.
- EQUIPMENT CURB SHALL BE PRE-MANUFACTURED AND ALL-WELDED. KNOCK-DOWN CURBS NOT ALLOWED.

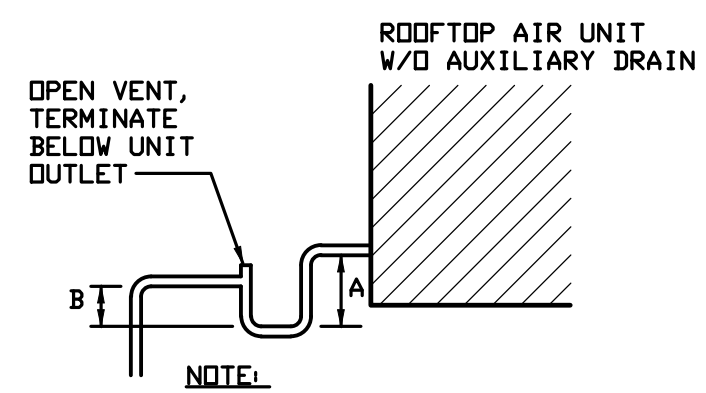
01 EQUIPMENT CURB DETAIL
NOT TO SCALE



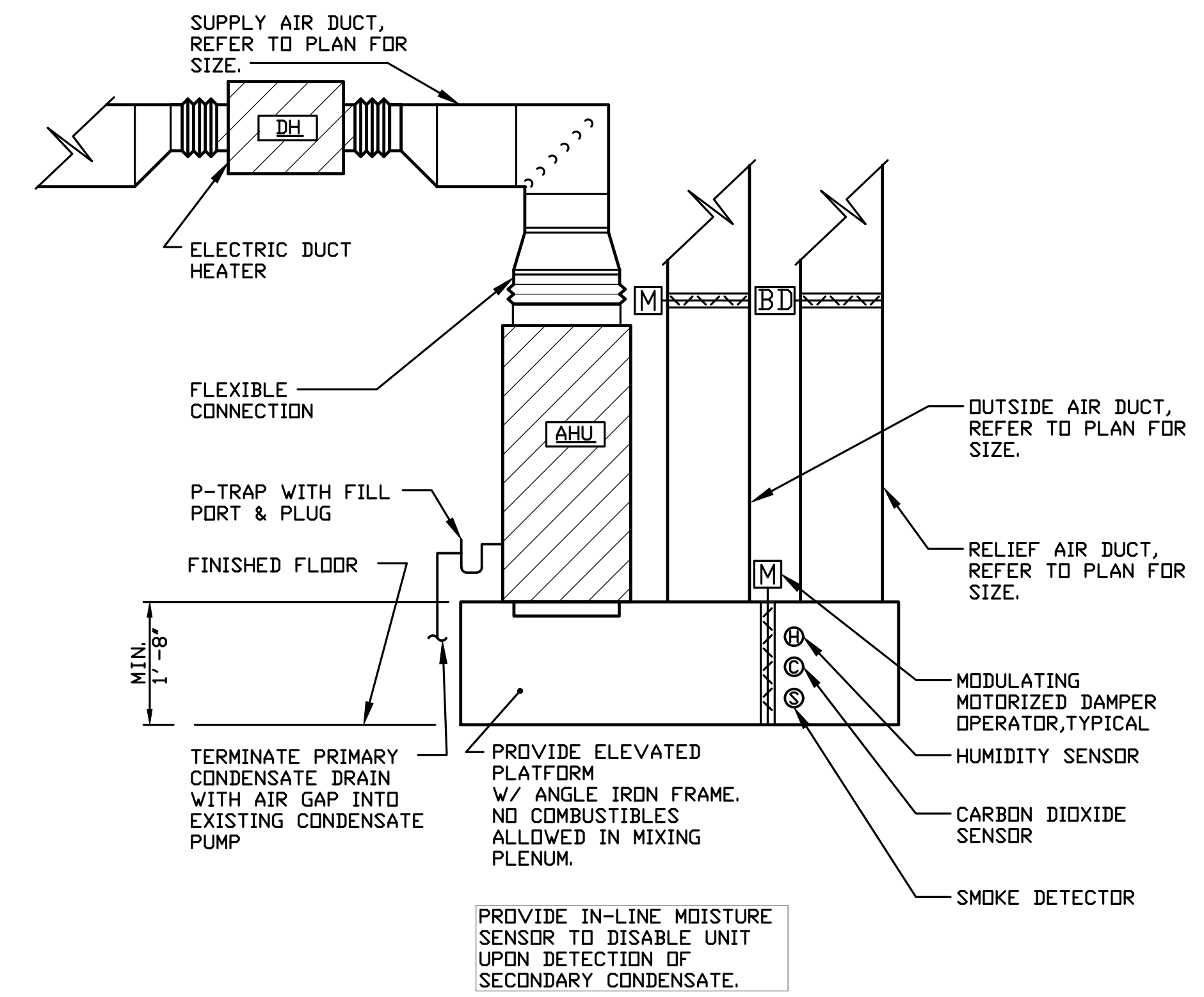
02 CEILING EXHAUST FAN DETAIL
NOT TO SCALE



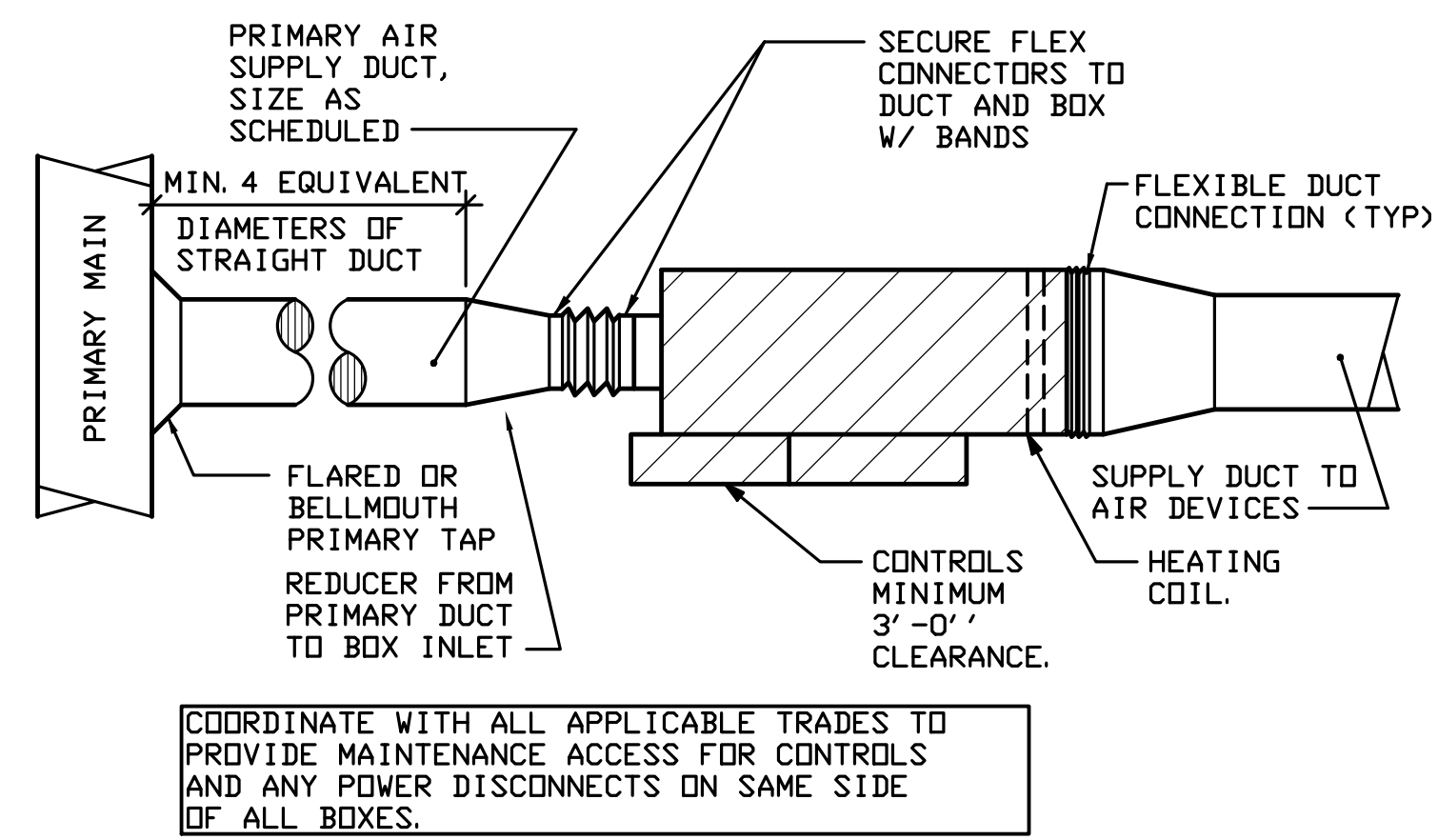
05 TYPICAL WALL MOUNTED MINI-SPLIT DETAIL
NOT TO SCALE



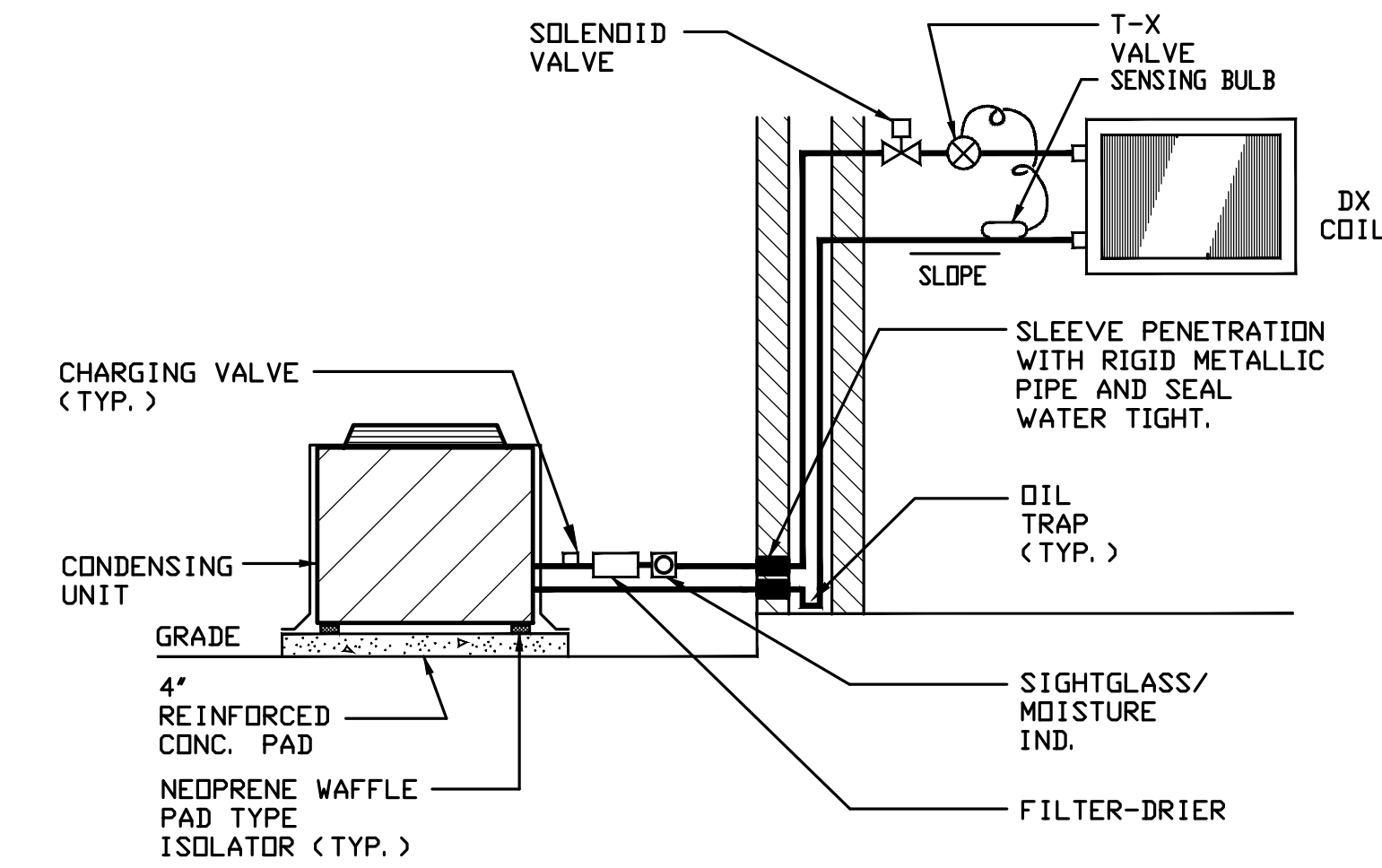
07 CONDENSATE DRAIN DETAIL
NOT TO SCALE



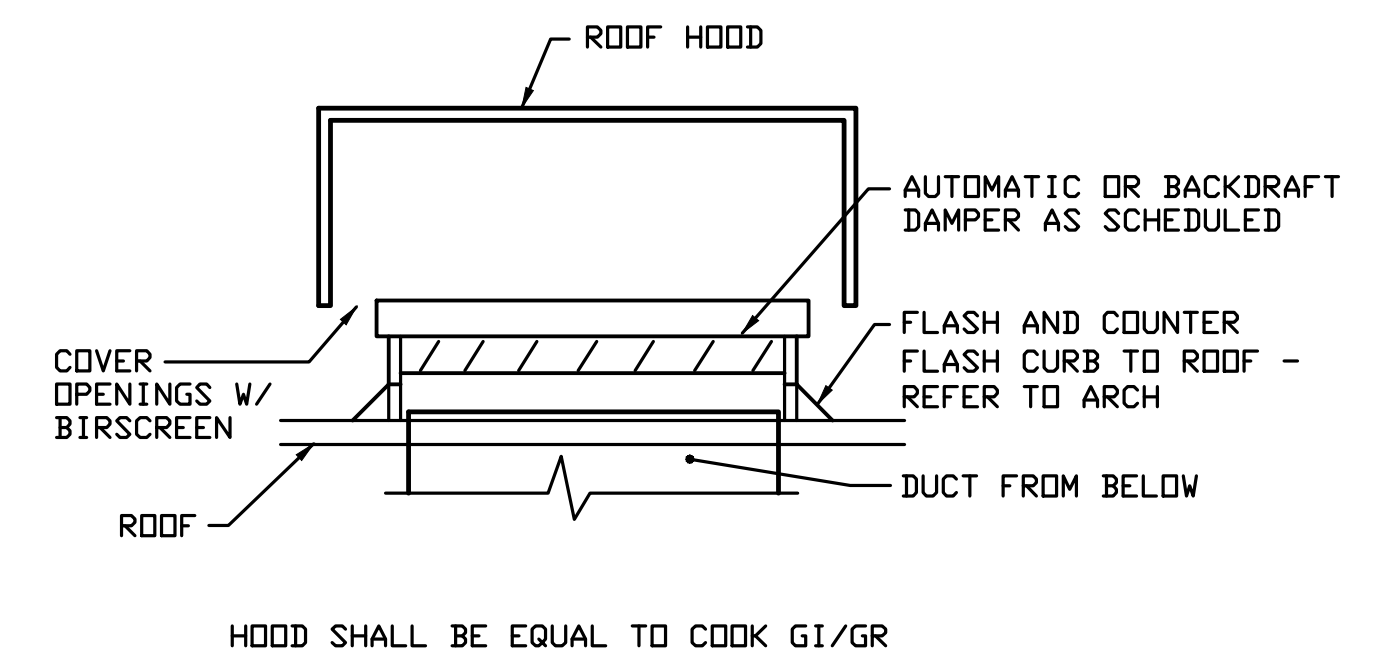
03 VERTICAL AHU W/ ECONOMIZER DETAIL
NOT TO SCALE



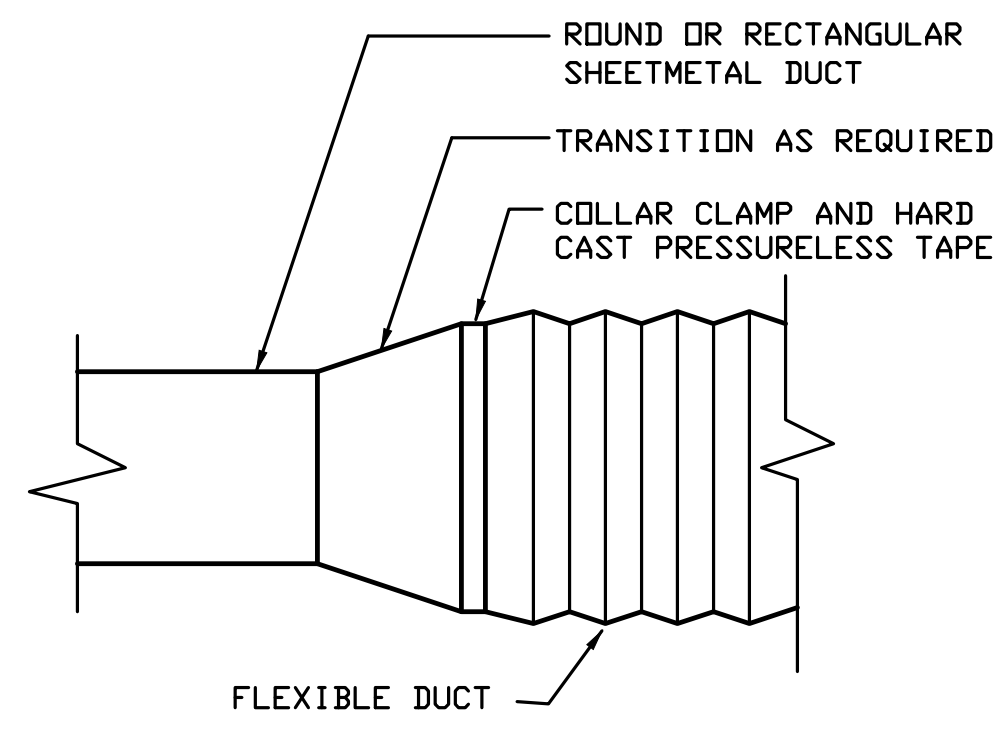
04 VARIABLE AIR VOLUME BOX W/ RE HEAT DETAIL
NOT TO SCALE



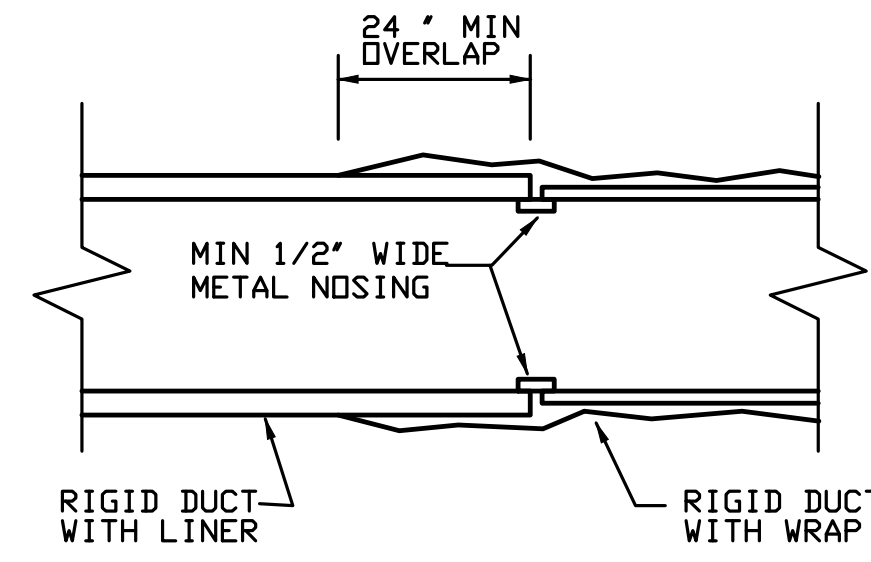
06 CONDENSING UNIT DETAIL
NOT TO SCALE



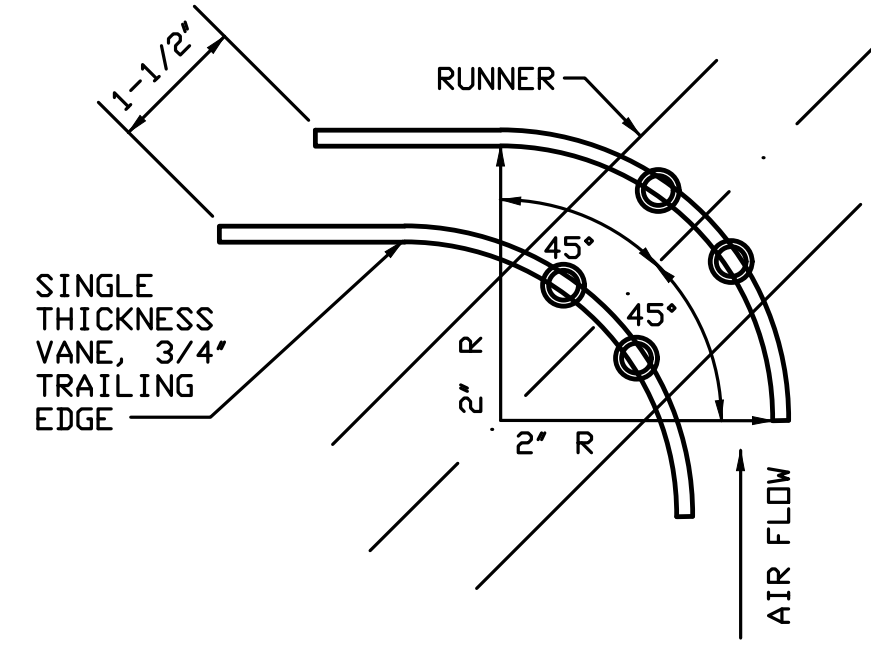
08 ROOF HOOD DETAIL
NOT TO SCALE



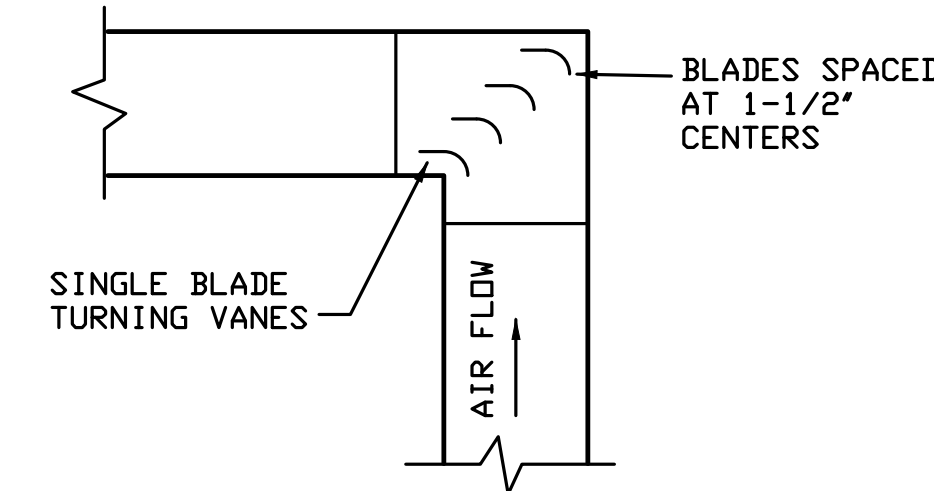
01 SHEETMETAL TO FLEXIBLE DUCT TRANSITION
NOT TO SCALE



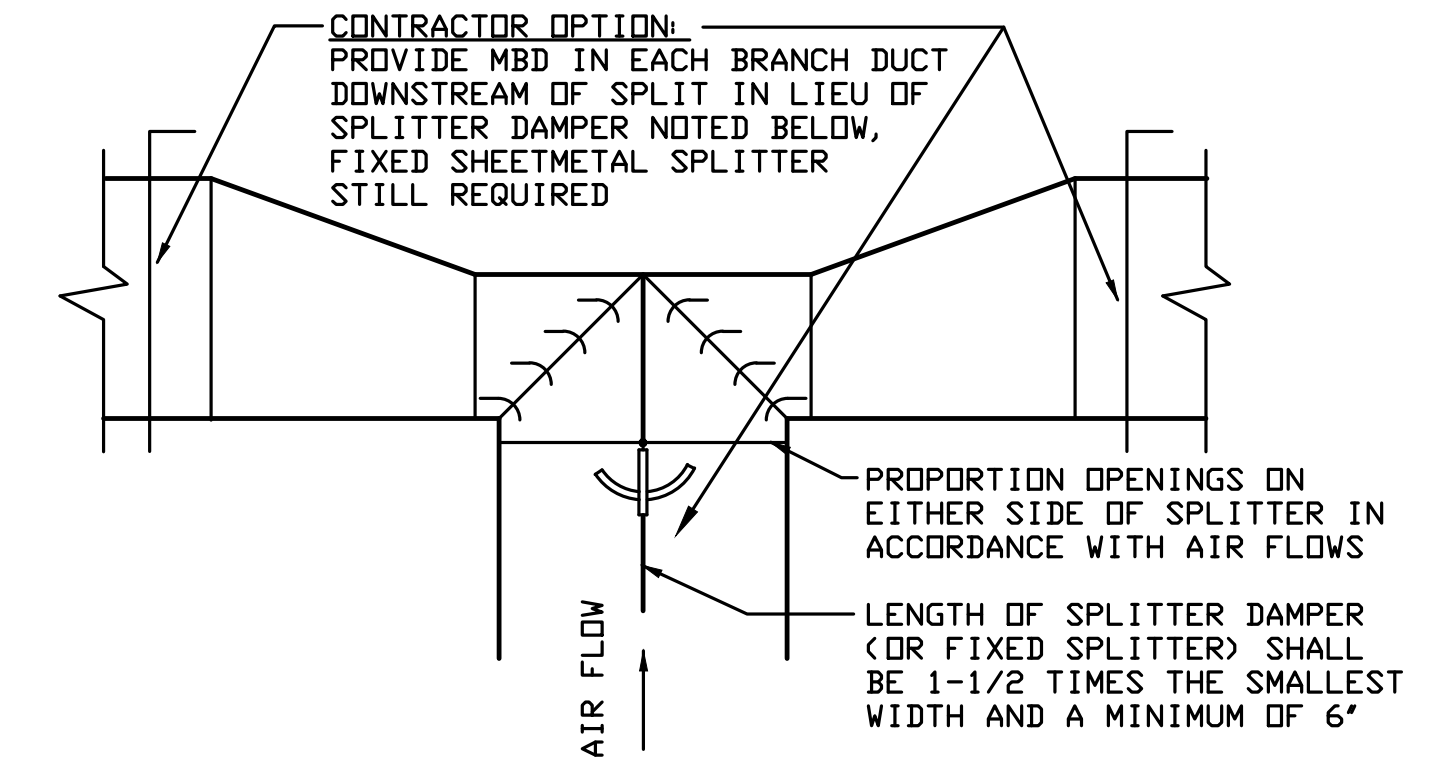
02 DUCT WRAP TO LINER TRANSITION
NOT TO SCALE



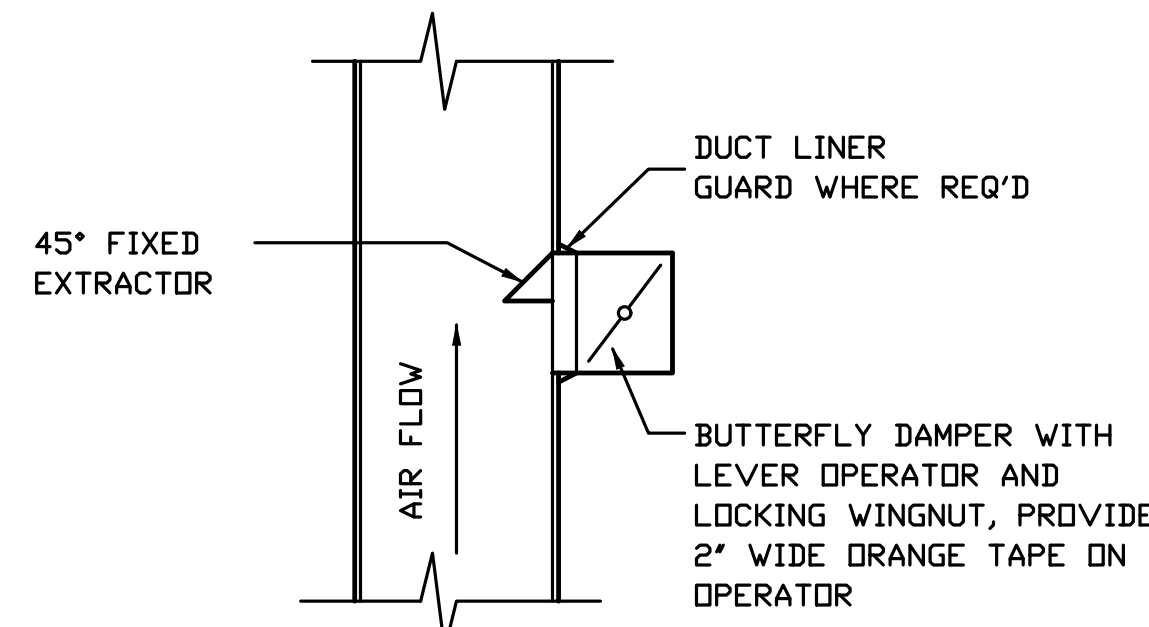
03 TYPICAL TURNING VANE
NOT TO SCALE



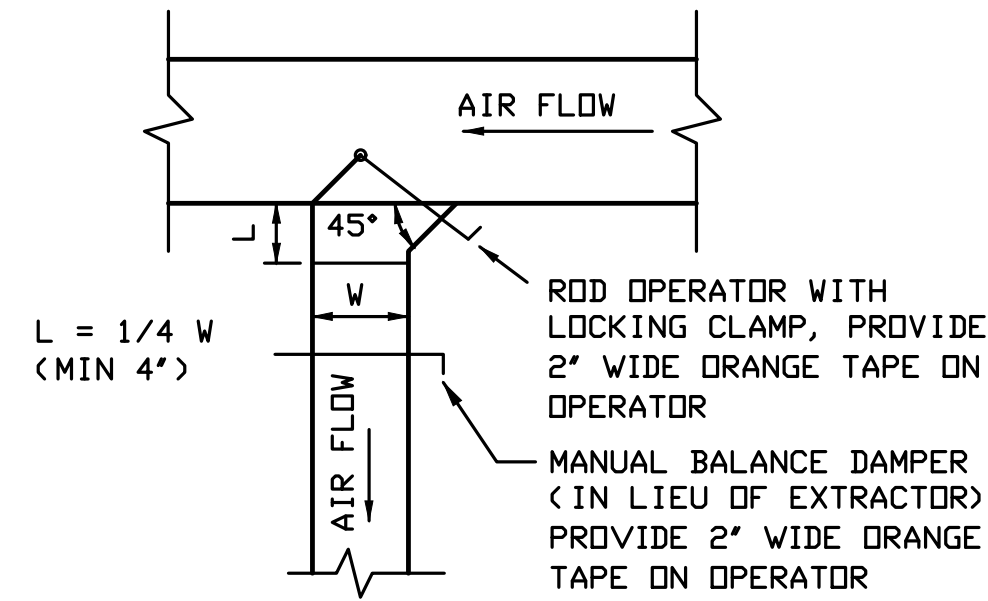
04 TYPICAL SQUARE ELBOW
NOT TO SCALE



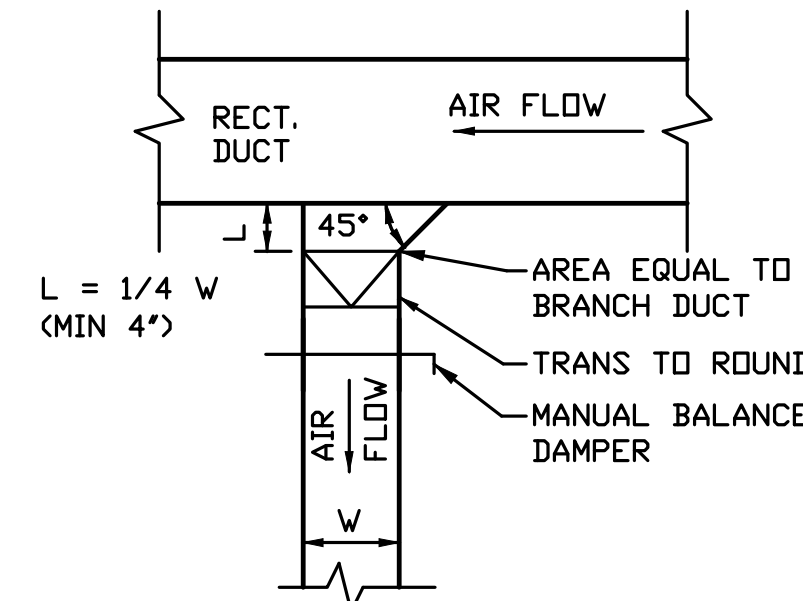
05 TYPICAL SPLITTER DAMPER DETAIL
NOT TO SCALE



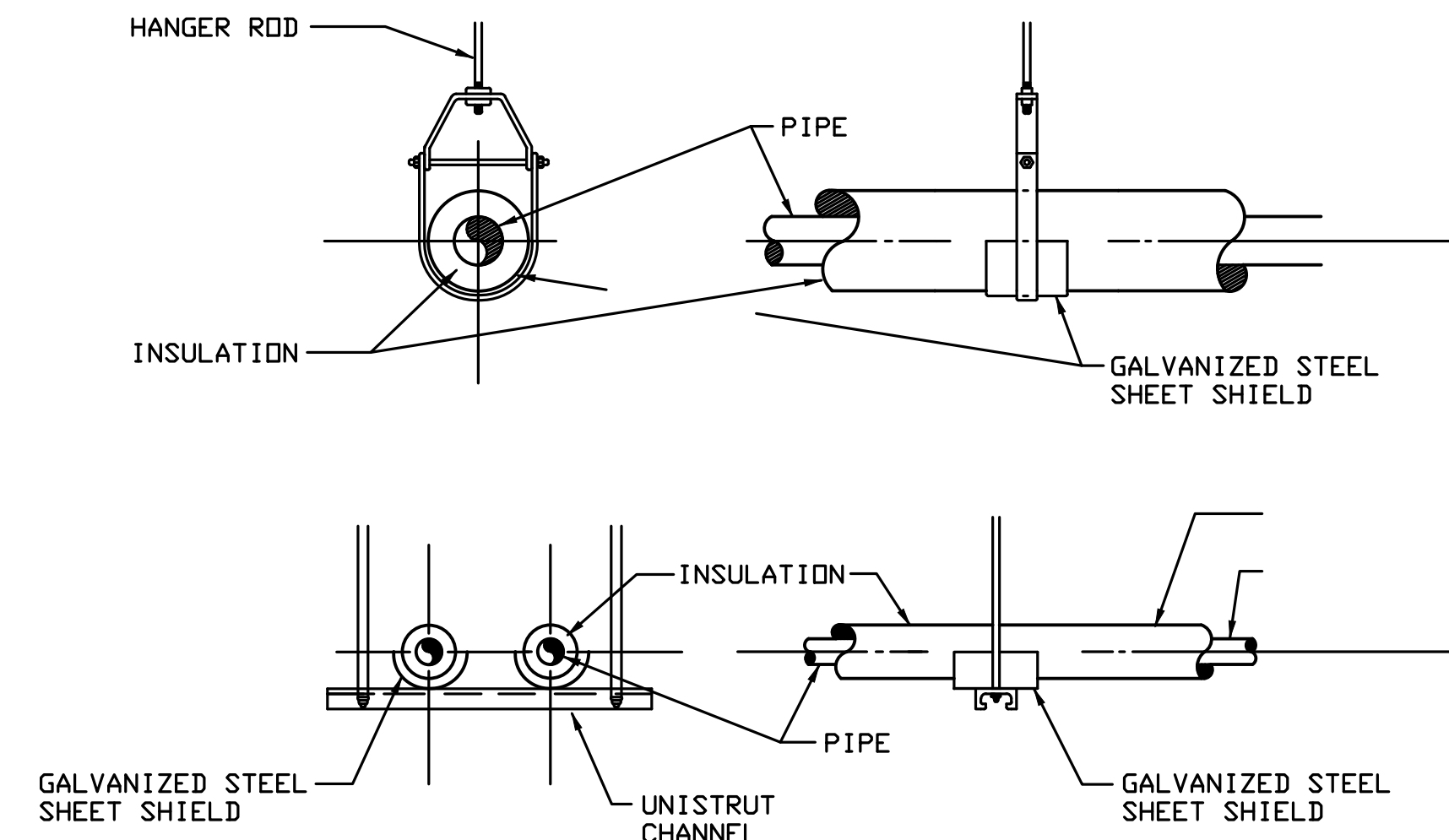
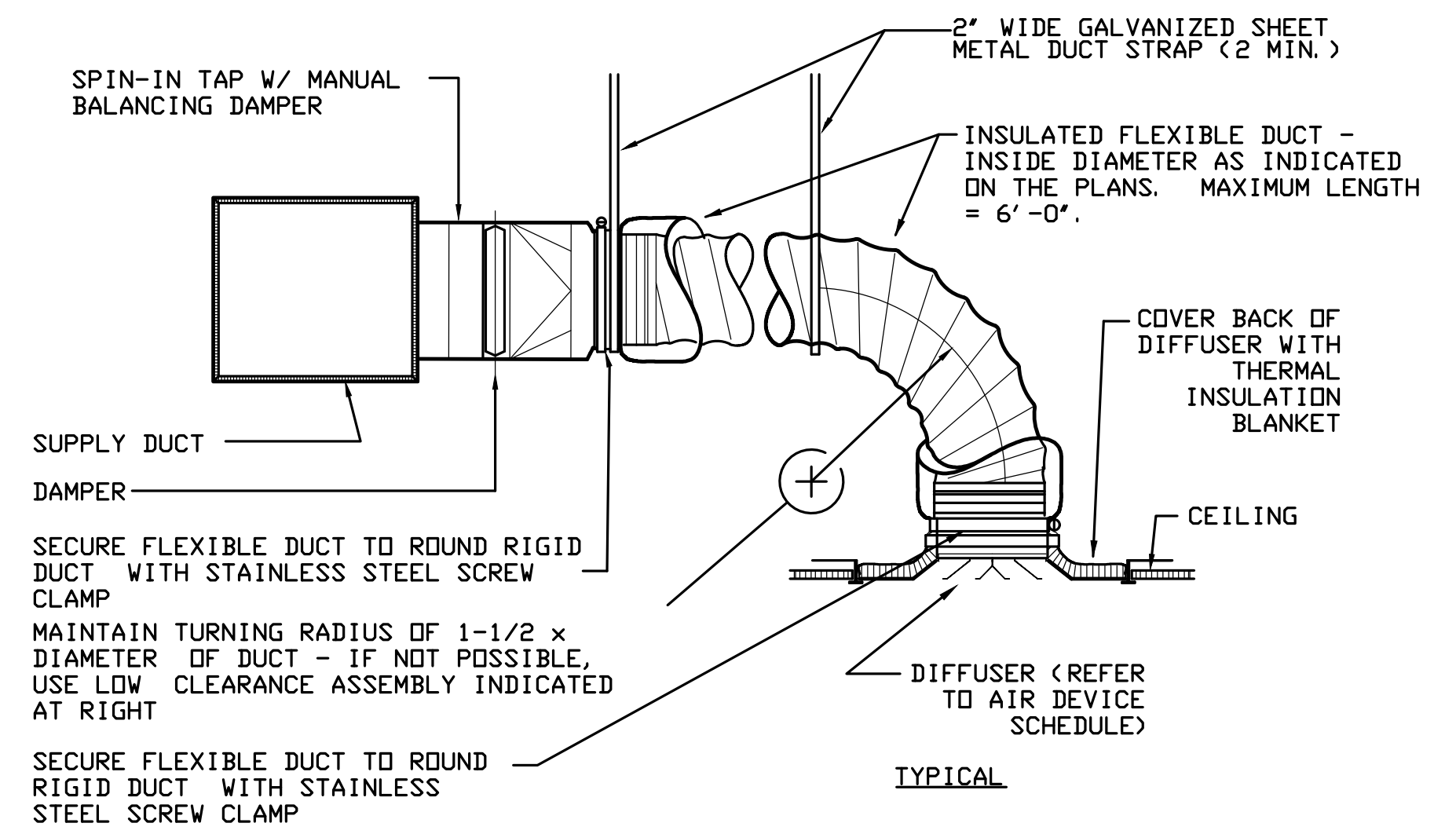
06 TYPICAL ROUND DUCT TAKEOFF
NOT TO SCALE



07 TYPICAL RECTANGULAR DUCT TAKEOFF
NOT TO SCALE



08 ALTERNATE BRANCH TAKE-OFF DETAIL
NOT TO SCALE



09 PIPE SUPPORT DETAIL
NOT TO SCALE

10 FLEXIBLE DUCT TO DIFFUSER DETAIL
NOT TO SCALE

FOR DUCT LENGTHS GREATER THAN 6'-0", USE EXTERNALLY INSULATED RIGID ROUND DUCT FOR THE ADDITIONAL LENGTH. RIGID ROUND DUCT SHALL BE THE SAME SIZE AS FLEXIBLE DUCT.

HVAC NOTES AND SPECIFICATIONS

GENERAL

- 1. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES.
2. THE CONTRACTOR IS TO COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND THE WORK OF OTHER TRADES.
3. PROVIDE TEST-ADJUST-BALANCE (TAB) SERVICES PERFORMED BY AN INDEPENDENT AIR BALANCE AGENCY CERTIFIED BY THE NEBB.
...
7. UNLESS OTHERWISE NOTED, PROVIDE MINIMUM 10'-0" CLEAR BETWEEN ALL FAN, ROOFTOP UNIT AND CONDENSING UNIT LOCATIONS AND EDGE OF ROOF WHERE PARAPET IS LESS THAN 3'-6" TALL.

EQUIPMENT

- 1. COORDINATE LOCATION OF HVAC EQUIPMENT WITH BUILDING STRUCTURE. PROVIDE FRAMING TO PROPERLY SUPPORT EQUIPMENT FURNISHED FOR THIS PROJECT.
2. SECURE ALL ROOFTOP HOODS TO ROOF CURBS AS RECOMMENDED BY MANUFACTURER.
3. PROVIDE CONDENSER COIL HAIL GUARDS ON ALL CONDENSING UNITS.
...
13. LABEL ALL REMOTE INSTALLED SPEED CONTROLLERS WITH FAN NUMBER SERVED. COORDINATE WITH ELECTRICAL CONTRACTOR.

AIR HANDLING UNITS

- 1. UNITS SHALL BE A UL LISTED, SPLIT DX SYSTEM WITH VARIABLE SPEED MOTOR FOR BALANCING PURPOSES, AUXILIARY DRAIN PAN & SINGLE POINT ELECTRICAL CONNECTION. FURNISH WITH DEMAND CONTROL VENTILATION AND A MANUFACTURED DIFFERENTIAL ENTHALPY ECONOMIZER KIT WITH DAMPER(S), MODULATING MOTORIZED ACTUATOR(S), MIXING BOX, SENSORS AND CONTROLLER EQUAL TO RUSKIN RSI 01-424-01D.
...
UNITS SHALL BE CARRIER, TRANE OR LENNOX.

VARIABLE AIR VOLUME BOX

- 1. TERMINAL CASING: FURNISH AND INSTALL SINGLE DUCT TERMINALS OF THE SIZES AND CAPACITIES (CFM) INDICATED ON THE DRAWINGS. TERMINALS SHALL BE CONSTRUCTED OF NOT LESS THAN 24-GAUGE ZINC-COATED STEEL, MECHANICALLY ASSEMBLED AND SEALED TO FORM AN AIR-TIGHT CASING; MAXIMUM AIR LEAKAGE OF 2 PERCENT AT THREE INCHES (3") W.G. SPOT WELDED CASINGS ARE NOT ACCEPTABLE.
...
VAVS WITH ELECTRIC RE-HEAT SHALL HAVE SCR CONTROLS FOR MODULATING RE-HEAT CAPABILITY.

DX CONDENSING UNIT

- 1. WHERE APPROVED BY THE MANUFACTURER, REFRIGERANT LINE SET PIPING SHALL BE SEAMLESS ACR SOFT-DRAWN COPPER TUBING. WHERE ALLOWED BY THE LOCAL JURISDICTION AND MANUFACTURER, TYPES K, L AND M SEAMLESS SOFT-DRAWN COPPER TUBING MAY BE USED. PROVIDE WITH 1" THICK ARMAFLEX INSULATION AND SEAL WITH UV BARRIER PAINT. JOINTS SHALL BE WROUGHT COPPER BRAZED JOINTS.
...
THE UNIT SHALL BE A UL LISTED, FACTORY PACKAGED UNIT WITH 2-STAGE COOLING, LOW-AMBIENT CONTROL, FACTORY LOUVERED HAIL GUARDS, HARD START KIT AND FILTER DRIER.

- THE COMPRESSOR SHALL HAVE A FIVE-YEAR WARRANTY. UNITS SHALL BE SUITABLE FOR OPERATION DOWN TO 20 DEGREES F.

MINI-SPLIT DUCTLESS UNITS

- 1. THE DUCTLESS MINI-SPLIT FAN-COIL SHALL BE A WALL HUNG TYPE WITH VARIABLE SPEED FAN CONTROL. THE CONDENSING UNIT SHALL HAVE INVERTER TECHNOLOGY TO MODULATE COOLING CAPACITY AND PROVIDE PASSIVE HUMIDITY CONTROL. PROVIDE ALL ACCESSORY EQUIPMENT AND DEVICES TO OBTAIN A MATCHED SYSTEM SEER RATING AS INDICATED.
2. WHERE APPROVED BY THE MANUFACTURER, REFRIGERANT LINE SET PIPING SHALL BE SEAMLESS ACR SOFT-DRAWN COPPER TUBING. WHERE ALLOWED BY THE LOCAL JURISDICTION AND MANUFACTURER, TYPES K, L AND M SEAMLESS SOFT-DRAWN COPPER TUBING MAY BE USED. PROVIDE WITH 1" THICK ARMAFLEX INSULATION AND SEAL WITH UV BARRIER PAINT. JOINTS SHALL BE WROUGHT COPPER BRAZED JOINTS.
3. UNITS SHALL BE CARRIER, TRANE OR LENNOX.

ELECTRIC DUCT HEATERS

- 1. HEATING COIL ELEMENTS SHALL BE UL LISTED, OPEN-COIL FLANGED TYPE WITH HEAVY-DUTY, NICKEL-CHROMIUM ALLOY HEATING ELEMENTS. COIL FACE AREA SHALL BE SIZED FOR MAXIMUM 1,000 FPM FACE VELOCITY OR AS RECOMMENDED BY MANUFACTURER WHICHEVER IS LESS.
2. FURNISH DUCT HEATERS WITH SCR CONTROL, AIR FLOW SWITCH, DISCONNECT, HIGH-TEMPERATURE SAFETY SWITCH.
3. DUCT HEATERS SHALL BE CONFIGURED FOR FLANGED INSTALLATION.

CONTROLS

- 1. CONTROLLER SHALL HAVE 10 HR. BATTERY BACK-UP, BE 7 DAY PROGRAMMABLE WITH 4 DAILY SETTINGS, WITH AUTO-CHANGE-OVER, NIGHT SET BACK, OPTIMUM START CAPABILITY AND AN ECONDMIZER FAULT DETECTION AND DIAGNOSTICS (FDD) UTILITY. UNIT CONTROLLER SHALL INDICATE STATUS OF:
a. FREE COOLING
b. ECONDMIZER ENABLED
c. COMPRESSOR ENABLED
d. MIXED AIR LOW LIMIT CYCLE ACTIVE
e. CURRENT VALUE OF OUTSIDE AIR, SUPPLY AIR, AND RETURN AIR SENSORS
3. REMOTE TEMPERATURE SENSORS SHALL BE DIGITAL WITH LCD INTERFACE AND ALLOW A TEMPORARY 3 HOUR OVERRIDE OF COOLING AND HEATING DESIGN SET-POINTS.
4. CONTROLLER/THERMOSTAT INTERFACE SHALL BE MOUNTED AT 48" AFF UNLESS NOTED OTHERWISE.
5. PROVIDE INSULATED SUB-BASES WHERE CONTROLLER/THERMOSTATS ARE INSTALLED ON EXTERIOR WALLS.
6. PROVIDE ALL LOW VOLTAGE CONTROL WIRING, EQUIPMENT, DEVICES, SENSORS, INTERLOCKS, CONTACTORS, RELAYS, ETC. AS NECESSARY TO MEET ALL EQUIPMENT CONTROLS REQUIREMENTS FOR NORMAL OPERATION AND LIFE SAFETY MODE(S) OF OPERATION. ALL CONTROLS WIRING, RACEWAYS, ETC. SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL AMENDMENTS.
• ALL WIRING SHALL BE PLENUM RATED.
• ALL EXPOSED WIRING SHALL BE RUN IN CONDUIT.
• THE CONTRACTOR IS RESPONSIBLE FOR ALL ELECTRICAL WIRING NEEDED FOR INTERFACING AND OR THE OPERATION OF THE HVAC SYSTEM.
• FURNISH AND INSTALL ALL LOW VOLTAGE ELECTRICAL WIRING.
• COORDINATE REQUIREMENTS FOR 120V WIRING AND GREATER WITH ELECTRICAL CONTRACTOR.

DUCTWORK

- 1. DUCTWORK SHALL BE GALVANIZED SHEETMETAL AND CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITIONS OF LOCAL BUILDING CODES AND SMACNA.
2. PRIMARY AIR DUCT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA WITH A PRESSURE CLASSIFICATION WHICH IS A MINIMUM 0.15 INCH WATER COLUMN LARGER THAN SCHEDULED VALUES.
3. UNLESS NOTED OTHERWISE, ALL DUCTS WHICH PENETRATE A FIRE/RATED SMOKE ASSEMBLY SHALL BE MINIMUM 28 GAUGE GALVANIZED SHEET STEEL OR MINIMUM 26 GAUGE ALUMINUM.
4. RECTANGULAR DUCTWORK BENDS SHALL BE MITERED ELBOWS WITH TURNING VANES, OR LONG SWEEP BENDS (WITHOUT VANES) WITH CENTERLINE RADIUS OF R=1.5W OR R=1.5H.
5. SEAL ALL DUCTWORK JOINTS AND SEAMS WITH APPROVED MASTICS OR TAPES LISTED AND LABELED IN ACCORDANCE WITH UL 181A:
• 'A-P' FOR PRESSURE-SENSITIVE TAPE,
• 'A-M' FOR MASTIC,
• 'A-H' FOR HEAT-SENSITIVE TAPE.
CLOSURES, TAPES AND MASTICS USED FOR FLEXIBLE DUCTS AND FLEXIBLE AIR CONNECTIONS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181B:
• 'B-FX' FOR PRESSURE SENSITIVE TAPE,
• 'B-M' FOR MASTIC,
• 'B-C' FOR MECHANICAL FASTENERS.
6. FLEXIBLE DUCTWORK SHALL HAVE A MINIMUM 'R' VALUE OF 6.0. FLEXIBLE DUCTWORK SHALL BE CLASS 1 AIR DUCT PER UL 181 AS REQUIRED BY NFPA 90 A, A MINIMUM OF ONE-INCH (1") FIBERGLASS INSULATION AND A REINFORCED VAPOR BARRIER JACKET, AND SPIRAL METAL REINFORCING IN THE OUTER JACKET. MAXIMUM LENGTH SHALL BE 6'-0". FLEXIBLE DUCTWORK SHALL BE SUPPORTED BY BANDS A MINIMUM OF ONE INCH WIDE ON 6'-0" CENTERS. SAGGING SHALL BE LIMITED TO ONE-HALF INCH (1/2") PER SIX-FOOT (6') SECTION. LIMIT ELBOWS OR TURNS TO ONE TURN PER SIX-FOOT (6') SECTION.
7. PROVIDE FLEXIBLE DUCT CONNECTIONS AT THE INLET AND OUTLET DUCT CONNECTIONS OF ALL AIR MOVING EQUIPMENT.
8. ALL SUPPLY AIR, RETURN AIR AND OUTDOOR AIR DUCTWORK SHALL BE INSULATED.
• PROVIDE ACoustICAL LINER IN RETURN AIR DUCTWORK.
• ALL CONCEALED SUPPLY AIR AND MAKE-UP AIR DUCTS SHALL HAVE 2" FIBERGLASS DUCT WRAP WITH A MINIMUM INSTALLED 'R' VALUE OF 6.
• ALL EXPOSED SUPPLY AIR AND MAKE-UP AIR DUCTS SHALL HAVE 1.0" THERMAL LINER WITH A MINIMUM INSTALLED 'R' VALUE OF 4.
• PROVIDE 1.5LB/CF DENSITY OF ACoustICAL LINER FOR ALL RIGID SUPPLY AIR SECONDARY DUCT DOWNSTREAM OF VAV TERMINAL BOXES.
• DUCT SIZES ARE AIR STREAM DIMENSIONS AND DO NOT INCLUDE ALLOWANCES FOR LINER.
9. ROUND EXPOSED AIR DUCT SHALL BE SINGLE-WALL, SPIRAL TYPE EQUAL TO L & L FABRICATION. PROVIDE WITH PAINT GRIP FINISH & COORDINATE DUCT COLOR WITH ARCHITECT & OWNER.
10. ALL ROUND CONCEALED SUPPLY AIR DUCTS SHALL BE SINGLE-WALL TYPE EQUAL TO L & L FABRICATION.
11. PROVIDE SPIN-IN TAPS WITH BUTTERFLY DAMPERS FOR EACH AIR DEVICE UNLESS OTHERWISE NOTED.

CONDENSATE

- 1. CONDENSATE DRAIN PIPING SHALL BE TYPE L COPPER WITH 1" FIBERGLASS INSULATION.
2. MINIMUM PIPE SIZE SHALL BE 3/4".
3. PROVIDE UL LISTED APPROVED COMPOUND FOR PENETRATIONS OF RATED FIRE/SMOKE ASSEMBLES.

AIR CONDITIONING SYSTEMS SEQUENCE OF OPERATION

- 1. GENERAL
• INTERFACE AHU TO A DEDICATED DDC CONTROLLER AND ASSOCIATED ZONE VAV TERMINAL BOXES. COORDINATE LOCATION OF CONTROLLER(S) WITH OWNER.
• INTERLOCK AHU WITH A DUCT MOUNTED RETURN AIR HUMIDITY SENSOR AND CARBON-DIOXIDE SENSOR.
• INTERLOCK AHU TO A RETURN AIR DUCT SMOKE DETECTOR. IF ACTIVATED, THE SYSTEM SHALL BE DISABLED AND AN ALARM SIGNAL SHALL BE SENT TO THE FIRE ALARM CONTROL PANEL (FACP).
2. UNOCCUPIED MODE
• OUTDOOR AIR DAMPERS SHALL MODULATE TO THE CLOSED POSITION.
• RETURN AIR DAMPERS SHALL MODULATE TO THE OPEN POSITION.
• AHU SUPPLY FAN SHALL OPERATE IN AUTO MODE AND CYCLE AS NEEDED TO MAINTAIN NIGHT SET-BACK DESIGN TEMPERATURES OF 80°F (SUMMER) AND 60°F (WINTER) ADJUSTABLE.
• COORDINATE NIGHT SET-BACK TEMPERATURES AND OPTIMUM START REQUIREMENTS WITH CRFV.
3. OCCUPIED MODE
• SUPPLY FAN SHALL OPERATE CONTINUOUSLY.
• BAROMETRIC RELIEF AIR DAMPER AT GRAVITY VENTILATOR(S) SHALL MAINTAIN A MAXIMUM 0.1" W.C. POSITIVE BUILDING PRESSURE DIFFERENTIAL.
• RETURN AND OUTSIDE AIR DAMPERS SHALL MODULATE TO MINIMUM OPEN DAMPER POSITIONS BASED ON SCHEDULED AIRFLOW QUANTITIES.
• DEMAND CONTROL VENTILATION SHALL MODULATE OUTDOOR AIR AND RETURN AIR DAMPER POSITIONS BASED ON MAXIMUM 800 PPM CO2 CONCENTRATION LEVELS OR AS RECOMMENDED BY MANUFACTURER.
4. HEATING MODE
• ECONDMIZER MODE SHALL BE DISABLED.
• AHU
• WHEN OUTSIDE AIR TEMPERATURE FALLS BELOW 50°F (ADJUSTABLE), THE ELECTRIC DUCT FURNACE SHALL ENERGIZE AND MODULATE ELECTRIC HEAT TO MAINTAIN A LEAVING AIR TEMPERATURE OF 55°F (ADJUSTABLE).
• THE RELIEF AIR BY-PASS DUCT SHALL MODULATE DAMPER POSITION TO MAINTAIN SYSTEM DUCT PRESSURE.
• ON A FALL IN ZONE TEMPERATURE, THE ZONE TERMINAL UNIT SHALL MODULATE THE DAMPER POSITION BETWEEN MINIMUM SET-STOP AND HEATING FLOW AND MODULATE HEATING CAPACITY TO MAINTAIN THE ZONE DESIGN SET POINT OF 70°F (ADJUSTABLE).
• MSI
•

- ON A FALL IN SPACE TEMPERATURE BELOW SETPOINT, THE REFRIGERANT CIRCUIT SHALL ENERGIZE AND STAGE CAPACITY TO MAINTAIN A ROOM DESIGN SET POINT OF 70°F (ADJUSTABLE) IN HEAT PUMP MODE.
5. COOLING MODE
• AHU
• WHEN OUTSIDE AIR TEMPERATURE RISES ABOVE 55°F (ADJUSTABLE), THE REFRIGERANT CIRCUIT SHALL ENERGIZE AND STAGE CAPACITY AS NEEDED TO MAINTAIN A DISCHARGE LEAVING AIR TEMPERATURE OF 55°F (ADJUSTABLE).
• THE BY-PASS DUCT SHALL MODULATE DAMPER POSITION TO MAINTAIN THE INDICATED SYSTEM DUCT PRESSURE.
• ON A RISE IN ZONE TEMPERATURE, THE TERMINAL UNIT DAMPER POSITION SHALL MODULATE BETWEEN MINIMUM SET-STOP AND COOLING FLOW AS SCHEDULED TO MAINTAIN A ZONE DESIGN SET POINT OF 75°F (ADJUSTABLE).
• ON A RISE IN SPACE HUMIDITY ABOVE 60%RH (ADJUSTABLE), THE VAV SHALL ENERGIZE THE RE-HEAT COIL AND MODULATE CAPACITY TO MAINTAIN THE ZONE COOLING DESIGN SET-POINT.
• MSI
• ON A RISE IN SPACE TEMPERATURE ABOVE SETPOINT, THE REFRIGERANT CIRCUIT SHALL ENERGIZE AND STAGE CAPACITY TO MAINTAIN A ROOM DESIGN SET POINT OF 72°F (ADJUSTABLE).
6. ECONDMIZER MODE < DIFFERENTIAL ENTHALPY >
• AHU
• WHEN OUTDOOR AIR ENTHALPY IS BELOW THE RETURN AIR ENTHALPY, ECONDMIZER MODE SHALL BE ENABLED.
• ECONDMIZING MODE SHALL OVER-RIDE DEMAND CONTROL VENTILATION.
• THE OUTDOOR AIR DAMPER SHALL MODULATE TO THE FULL OPEN AND THE RETURN AIR DAMPER SHALL MODULATE TO THE FULL CLOSED POSITION.
• MECHANICAL COOLING SHALL ENERGIZE AS NEEDED TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT.
• WHEN OUTDOOR AIR IS LESS THAN 55°F (ADJUSTABLE), THE REFRIGERANT CIRCUIT SHALL BE DISABLED AND DAMPERS SHALL MODULATE POSITIONS TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT.

Wells Doak Engineers, Inc. Texas Registration F-10743 4800 S. HULLEN FORT WORTH, TEXAS 76109 SUITE 506 VDE #250070

Engineer's Seal

Design Development Phase New Administration Building HOLY CROSS CATHOLIC CHURCH 7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-9322

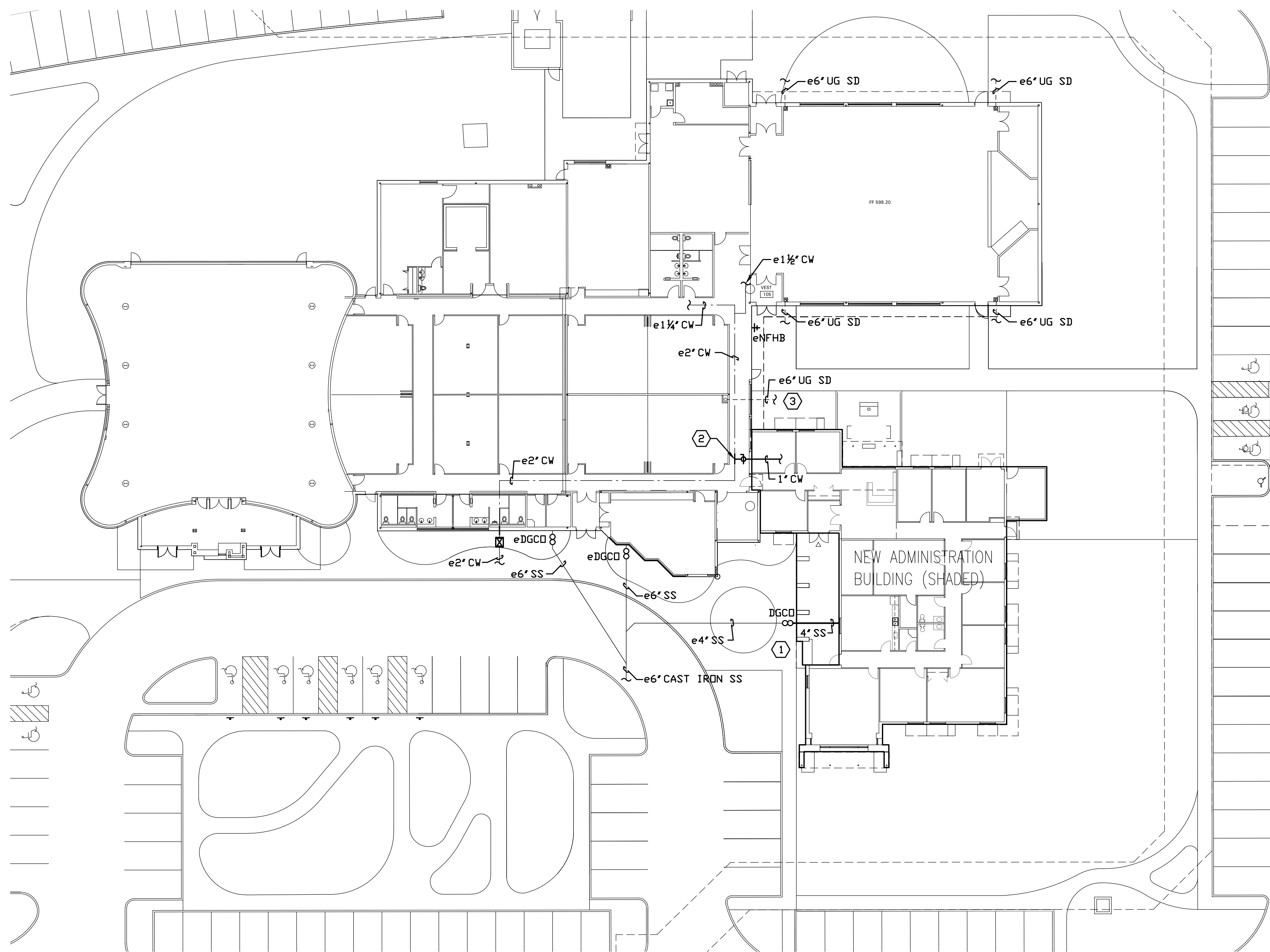
Architect's Seal

Jim Bransford Architect 2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-9159

Project: 2402

Date: 02/12/2025

Revisions:



< N

1 PARTIAL SITE PLAN - PLUMBING

1"=20'-0"

PLUMBING LEGEND

EXISTING PIPING	
—eSS—	EXISTING SANITARY SEWER
—eCW—	EXISTING DOMESTIC COLD WATER
---eUG SD---	EXISTING UNDERGROUND STORM DRAIN
NEW PIPING	
—SS—	DOMESTIC COLD WATER
—SS—	SANITARY SEWER
---UG SD---	UNDERGROUND STORM DRAIN
○ DGCD	DOUBLE GRADE CLEANOUT
○ GCD	GRADE CLEANOUT

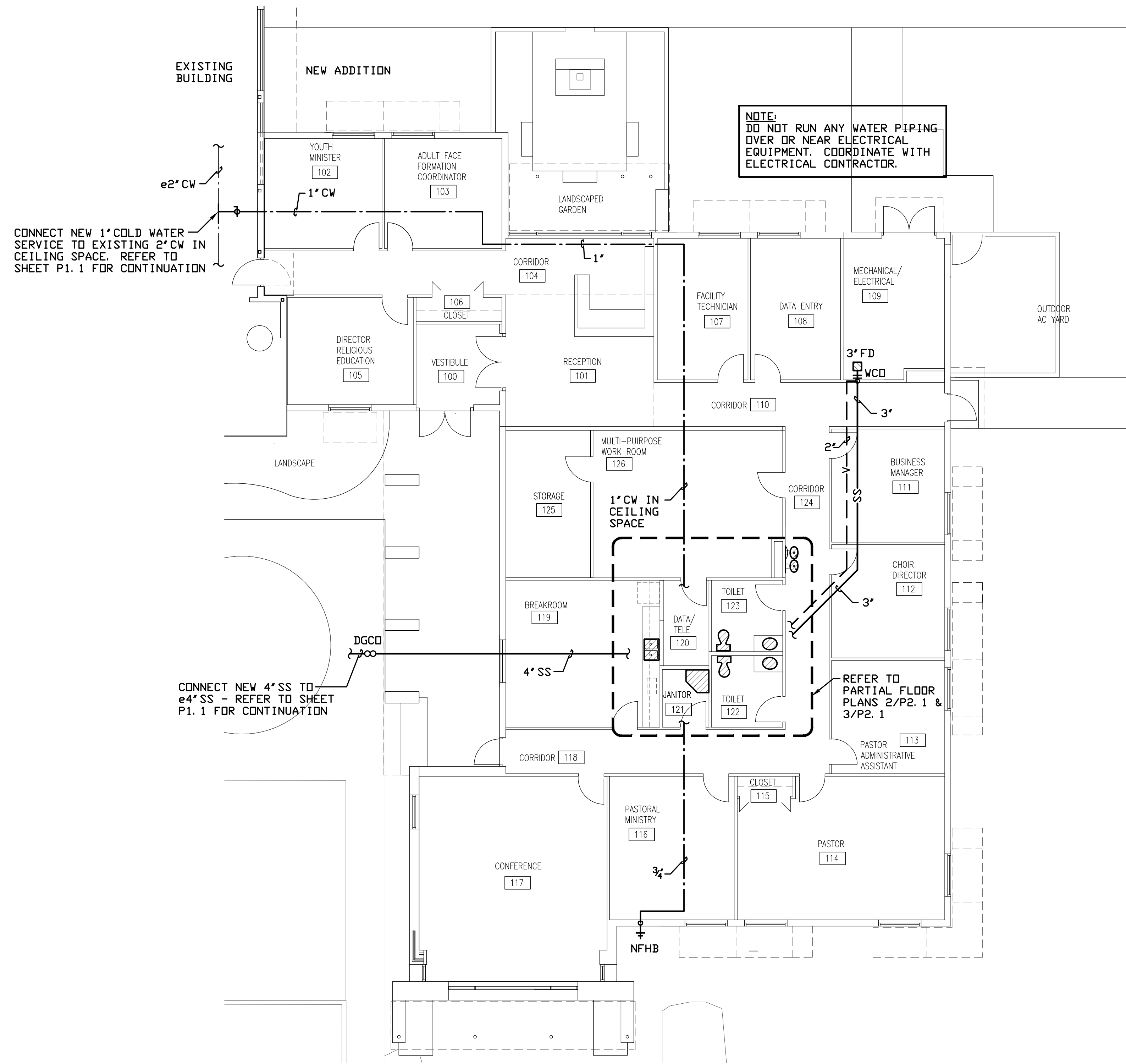
PLUMBING NOTES

- LOCATIONS AND ELEVATIONS OF UTILITIES HAVE BEEN OBTAINED FROM UTILITY MAPS AND/OR OTHER SOURCES AND ARE OFFERED AS A GENERAL GUIDE ONLY, WITHOUT GUARANTEE AS TO ACCURACY. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATIONS OF UTILITIES AND THEIR RELATION TO THE WORK BEFORE ENTERING INTO A CONTRACT.
- THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE INSTALLING ANY NEW SERVICES. PIPING INSTALLED BEFORE SUCH VERIFICATION THAT HAS TO BE RELOCATED DUE TO INTERFERENCES SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL VERIFY THE FOLLOWING WITH THE AUTHORITY HAVING JURISDICTION & UTILITY COMPANY:
 - SITE UTILITY TAP REQUIREMENTS
 - SITE METER SIZE, STYLE & VAULT REQUIREMENTS
 - SITE BACKFLOW ASSEMBLY TYPE & VAULT VAULT REQUIREMENTS.
- IN THE EVENT CONFLICTS OCCUR BETWEEN PROPOSED AND EXISTING UTILITIES, CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE TO COORDINATE ADJUSTMENT OF PROPOSED UTILITY. PROPOSED UTILITY LINES MAY BE ADJUSTED HORIZONTALLY OR VERTICALLY TO AVOID CONFLICTS. NO EXTRA COST SHALL BE ALLOWED FOR ADJUSTMENT OF PROPOSED LINES AROUND EXISTING UTILITIES.

NOTES BY 'X' SYMBOL

- ① CONNECT NEW CAST IRON 4" SS TO e4" SS. FIELD VERIFY LOCATION AND DIRECTION OF FLOW AND DEPTH. COORDINATE WITH SITE UTILITY CONTRACTOR.
- ② CONNECT AND EXTEND NEW DOMESTIC 1" COLD WATER PIPING FROM EXISTING MAIN BUILDING 2" DOMESTIC COLD WATER IN CEILING SPACE AND PROVIDE SHUTOFF VALVE FOR MAIN WATER SUPPLY TO NEW ADDITION. FIELD VERIFY SIZE AND LOCATION.
- ③ EXISTING STORM DRAIN PIPING - FIELD VERIFY EXISTING CONDITIONS AND ADJUST PIPE ROUTING AS NEEDED.

REFER TO CIVIL FOR CONTINUATION OF UNDERGROUND STORM DRAIN PIPING.



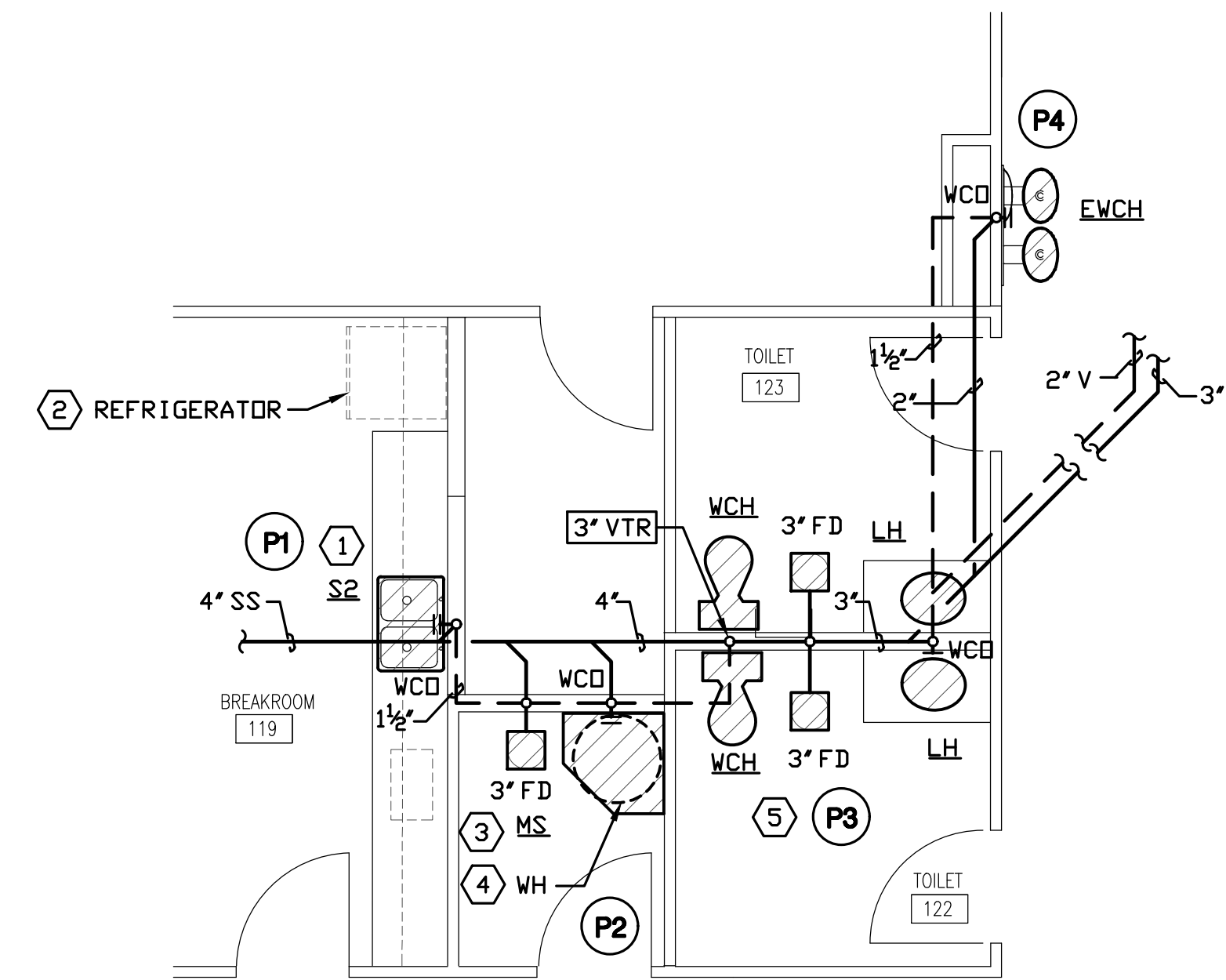
1 FLOOR PLAN - PLUMBING
 1/8"=1'-0"

PLUMBING NOTES BY 'X' SYMBOL

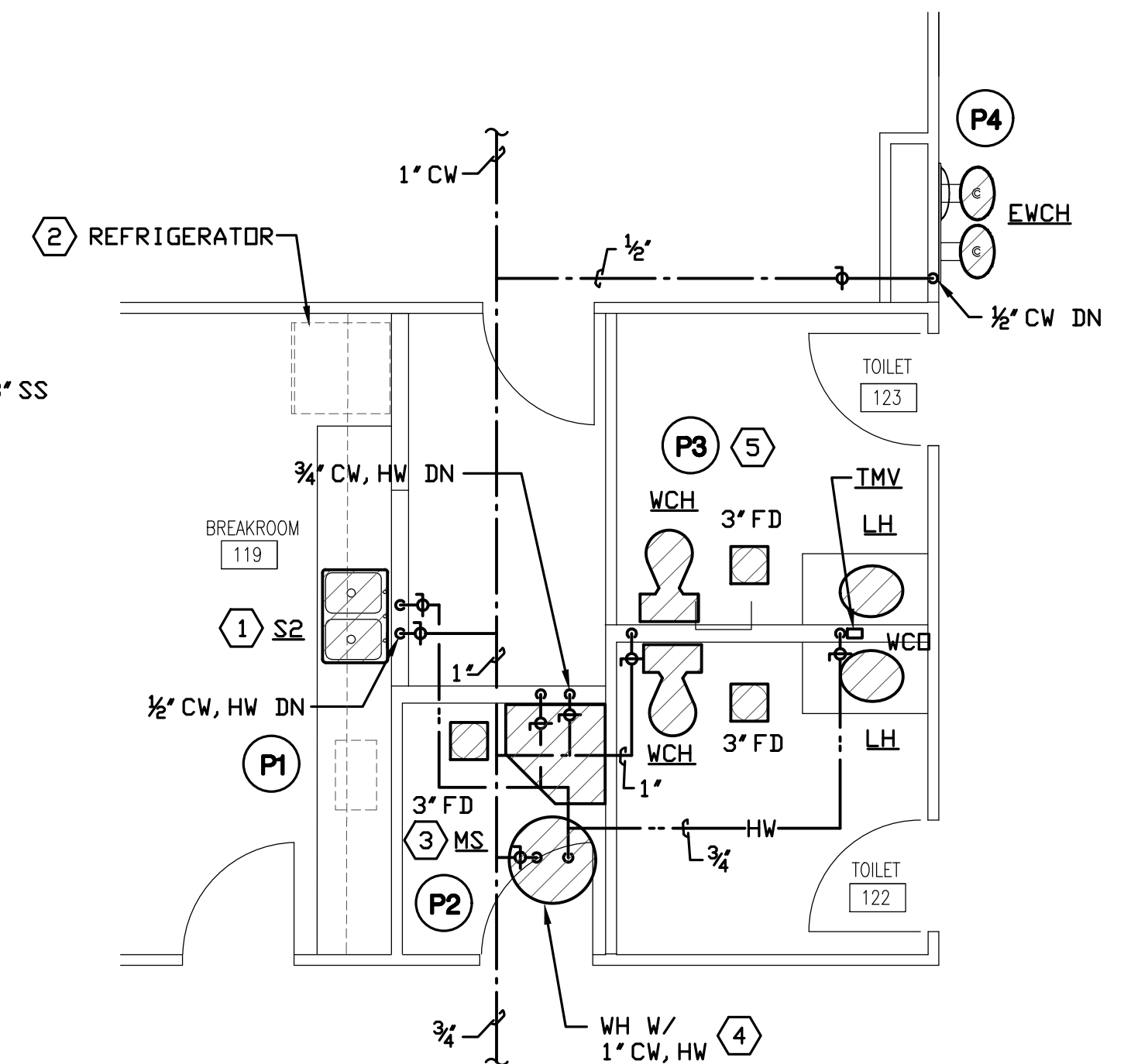
- ① BREAKROOM SINK - PROVIDE 1/2" CW, HW, 2" SS AND 1 1/2" V.
- ② REFRIGERATOR ICE MAKER - PROVIDE RECESSED WALL SUPPLY BOX WITH INTEGRAL WATER HAMMER ARRESTOR AND SHUTOFF VALVE WITH METAL LEVER HANDLE, SIOUX CHIEF 'DX BOX' OR APPROVED EQUAL. PROVIDE IN-LINE, LINE-SIZED DUAL CHECK BACKFLOW PREVENTER AND FILTER. PROVIDE FITTINGS AS REQUIRED FOR APPLIANCE, 3/8" CW TO CONNECTION.
- ③ MDP SINK - PROVIDE NEW 3/4" CW, HW, 3" SS AND 2" V.
- ④ WATER HEATER ON WALL ABOVE MDP SINK (SHOWN OFFSET FOR CLARITY) W/ 1" CW, HW. PROVIDE 6" DEEP GALVANIZED AUXILIARY DRAIN PAN. RUN RUN T&P RELIEF & PAN DRAIN TO 3" FD. MAINTAIN SERVICE CLEARANCES
- ⑤ RESTROOMS - 1" CW, 3/4" HW, 4" WASTE & 2" VENT W/ 1/2" CW, 4" SS, 2" V TO EACH WATER CLOSET, 3" SS, 2" V TO EACH FLOOR DRAIN, 1/2" CW, 2" SS, 1 1/2" V TO EACH LAVATORY, 3/4" CW, HW TO THE THERMOSTATIC MIXING VALVE (TMV) W/ 1/2" TW FROM THE THERMOSTATIC MIXING VALVE TO EACH LAVATORY.

PLUMBING LEGEND

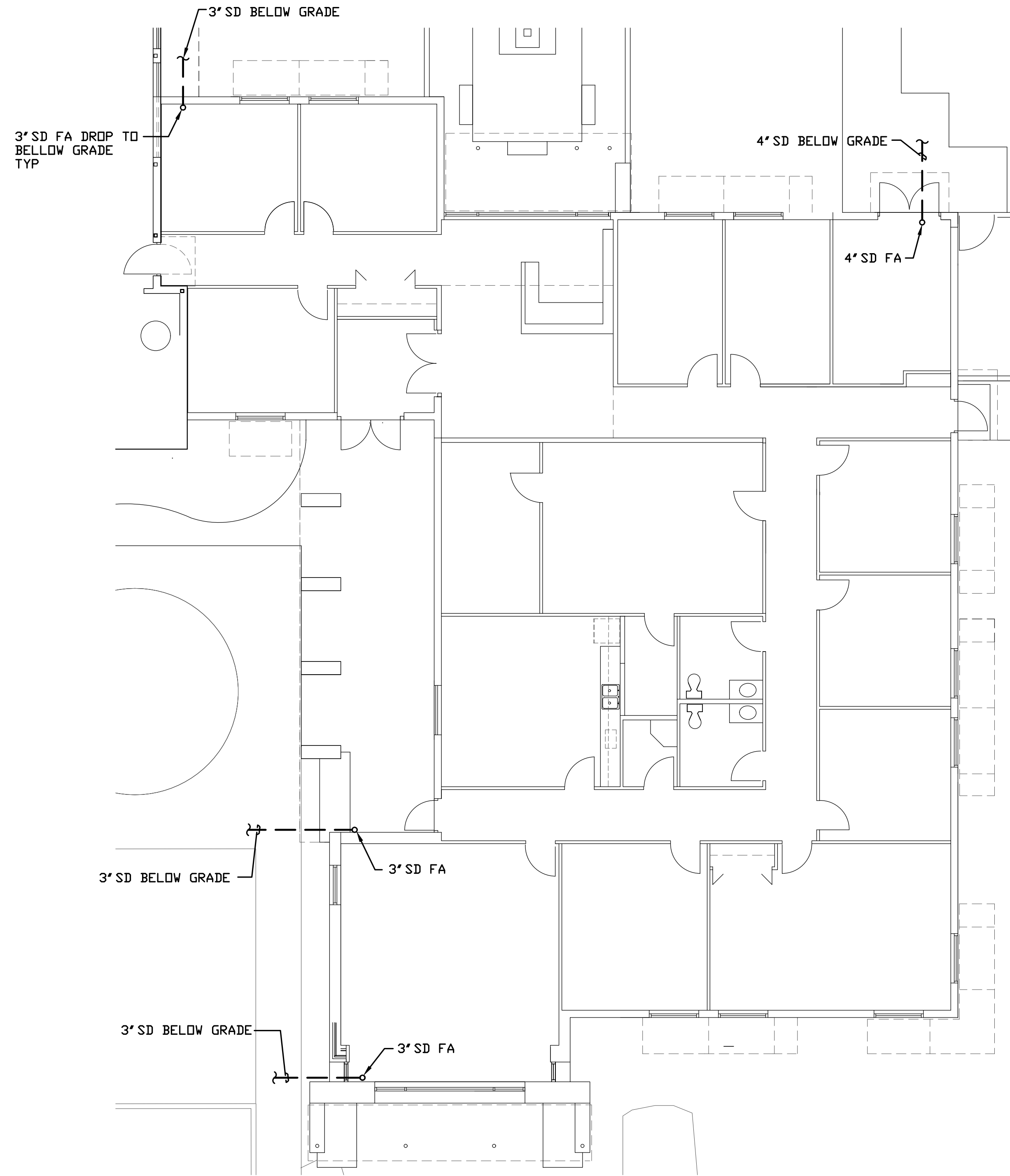
---	DOMESTIC COLD WATER
---SS---	SANITARY SEWER
---V---	VENT (V)
---HW---	HOT WATER
---TW---	TEMPERED WATER
---RD---	ROOF DRAIN PIPING
---SD---	STORM DRAIN PIPING
---BFF---	BELLOWS FINISHED FLOOR
---HB (NFHB)---	HOSE BIBB (NFHB - NON-FREEZE)
---DGCD---	DOUBLE GRADE CLEANOUT
---GCD---	GRADE CLEANOUT
---WCD---	WALL CLEANOUT
○	ELBOW UP
○	ELBOW DOWN
□	FLOOR DRAIN
□	FLOOR SINK
⊕	BALL VALVE
⊕	SHUTOFF VALVE
SA	SHOCK ABSORBER WATER HAMMER ARRESTOR
⊙	ROOF DRAIN
TMV	THERMOSTATIC MIXING VALVE
VTR	VENT-THROUGH-ROOF
DN	DOWN
FA	FROM ABOVE
FB	FROM BELOW
UG	UNDERGROUND
⊙ Px	PLUMBING RISER



2 PARTIAL FLOOR PLAN - WASTE & VENT PIPING
 1/8"=1'-0"



3 PARTIAL FLOOR PLAN - WATER PIPING
 1/8"=1'-0"



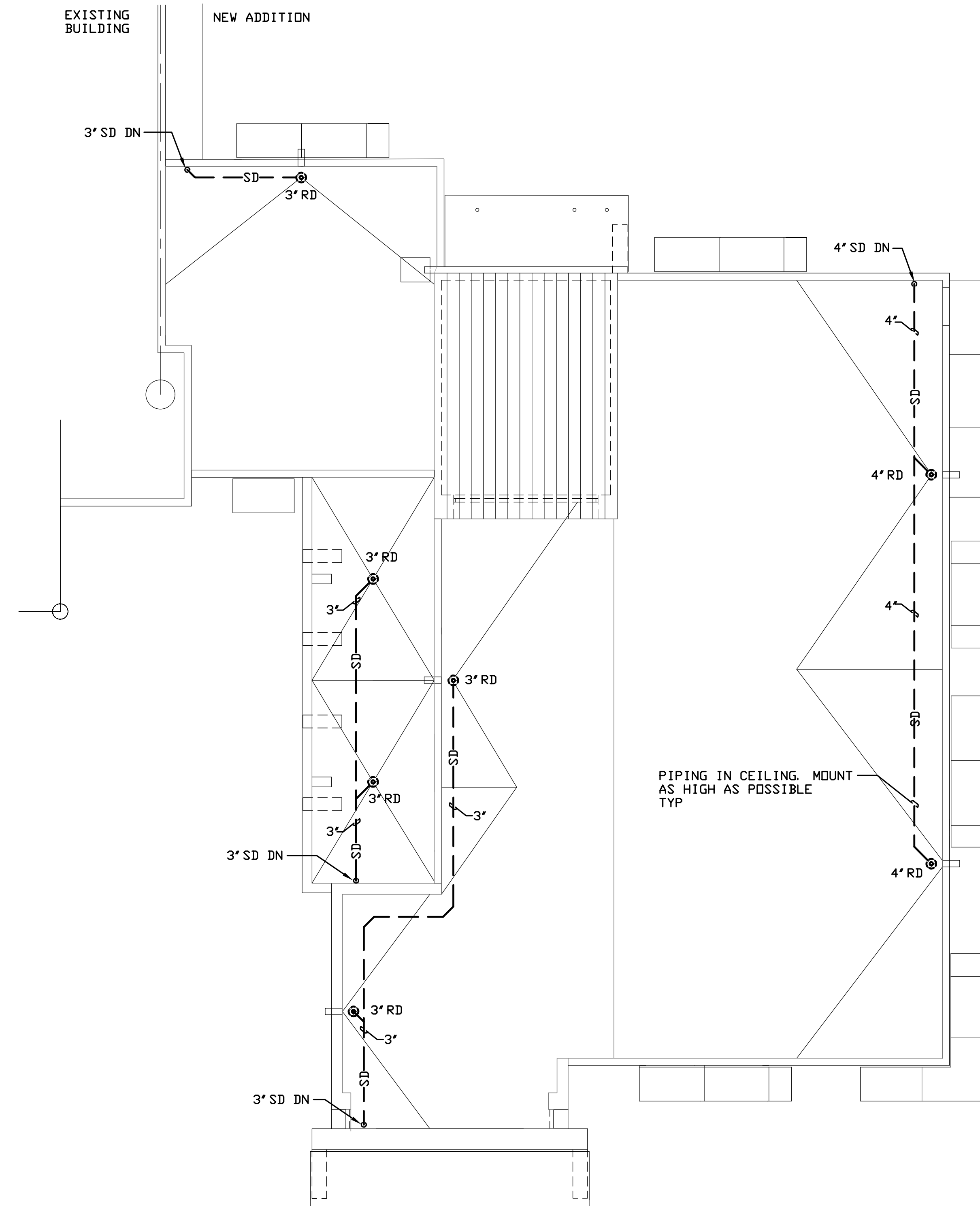
1 FLOOR PLAN - STORM DRAIN PIPING
 1/8"=1'-0" 0 5

LEGEND

— RD —	ROOF DRAIN PIPING
- - - SD - - -	STORM DRAIN PIPING
⊙	ROOF DRAIN

STORM PIPING NOTES

REFER TO SHEET P3.1



2 ROOF PLAN - STORM DRAIN PIPING
 1/8"=1'-0" 0 5

GENERAL PLUMBING NOTES

1. THE CONTRACTOR IS TO COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND THE WORK OF OTHER TRADES.
2. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE SIZES AND LOCATIONS OF EXISTING WATER, VENT, SEWER PIPING BEFORE BEGINNING ANY WORK AND ADJUST THE LOCATIONS OF CONNECTIONS OF THE NEW PIPING TO THE EXISTING.
3. THE CONTRACTOR SHALL EXTEND THE NEW PIPING BRANCH LINES SERVING FIXTURE GROUP TO THE NEAREST EXISTING PIPING MAIN LINES OF ADEQUATE SIZE.
4. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES.
5. INSTALL ALL FIXTURES AT HEIGHTS DETAILED ON ARCHITECTURAL PLANS AND AS REQUIRED BY ADA, TAS AND ANSI 117.1. FLUSH VALVES SHALL BE INSTALLED ON ACCESS SIDE OF FIXTURES. PROVIDE INSULATION COVERS ON ALL EXPOSED PIPING BELOW HANDICAP FIXTURES.
6. PROVIDE 18" LONG RED RIBBONS ON THE HANDLES OF ALL VALVES ABOVE THE CEILING.
7. WATER SHUTOFF HANDLES SHALL BE EASILY ACCESSIBLE AND SHALL NOT BE PLACED WHERE THEY ARE BLOCKED OR INACCESSIBLE BY OTHER PLUMBING PIPING, HVAC DUCTWORK, LIGHTING, ELECTRICAL CONDUIT, STRUCTURE, ETC.
8. ALL NEW DOMESTIC WATER PIPING SHALL BE PRESSURE TESTED WITH AIR OR NITROGEN TO 100 PSI FOR ONE HOUR. NOTIFY MANAGEMENT & OWNER PRIOR TO TEST TO ALLOW FOR FIELD OBSERVATION. FURNISH ALL NECESSARY TAPS, SHUT-OFFS, ETC. REQUIRED FOR TEST.
9. PROVIDE WATER HAMMER ARRESTORS AT THE END OF EACH WATER SUPPLY AT EACH FIXTURE GROUPING.
10. COORDINATE PLUMBING VENTS-THRU-ROOF LOCATIONS WITH AIR INTAKES TO PROVIDE MINIMUM 10'-0" CLEAR BETWEEN AIR INTAKES AND PLUMBING VENTS.
11. ALL MATERIALS IN RETURN AIR PLENUMS MUST COMPLY WITH ASTM E-84 MAXIMUM FLAME SPREAD & SMOKE DEVELOPED INDICES OF 25/50. ANY MATERIAL NOT IN COMPLIANCE MUST BE WRAPPED WITH A HIGH TEMPERATURE INSULATION WRAP EQUAL TO FIRE-WRAP INSULATION. COORDINATE WITH GENERAL CONTRACTOR AND OTHER TRADES.

FIXTURES & EQUIPMENT

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT FIXTURE LOCATIONS AND MOUNTING HEIGHTS.
2. ALL FIXTURES MUST MEET THE REQUIREMENTS OF TEXAS WATER CONSERVATION ACT, SB-587.
3. ALL FIXTURES PROVIDED FOR HANDICAPPED USE MUST MEET THE REQUIREMENTS OF ADA & TAS.
4. PROVIDE SHUTOFF VALVE PRIOR TO FINAL CONNECTION TO EACH FIXTURE, APPLIANCE OR PIECE OF EQUIPMENT.
5. PROVIDE WATER HAMMER ARRESTORS AT EACH FIXTURE OR FIXTURE BANK.
6. FLOOR DRAINS ARE TO HAVE SQUARE BRONZE NICKEL STRAINERS TO MATCH FLOOR TILE CONFIGURATION.
7. PROVIDE THERMAL WRAP INSULATION ON ALL EXPOSED PIPING UNDER ADA ACCESSIBLE SINKS AND LAVATORIES.
8. REFER TO THE PLUMBING FIXTURE SCHEDULE AND EQUIPMENT SCHEDULES FOR DESCRIPTIONS AND REQUIREMENTS.
9. ALL FLOOR DRAINS ARE TO HAVE A TRAP SEAL PRIMER - JOSAM 88250.
10. FLOOR DRAIN - JOSAM SERIES 30000-S WITH SQUARE SATIN BRONZE STRAINER, CAST IRON BODY AND TRAP SEAL CONNECTION.
11. TRAP SEAL PRIMER - JOSAM 88250, CONNECT TO COLD WATER INLET FROM THE NEAREST LAVATORY OR SINK.
12. WALL CLEANOUTS - JOSAM 58790 WITH STAINLESS STEEL ROUND FLAT COVER.
13. GRADE CLEANOUT - JOSAM 58680 WITH HEAVY DUTY SCORRIATED COVER LABELED 'CO'.
14. WALL MOUNTED NON-FREEZE HOSE BIBB - WOODFORD MODEL B65 WITH LOCKING COVER, OR APPROVED EQUAL.
15. ROOF DRAIN - CAST IRON, BOTTOM OUTLET, HIGH BRONZE DOME, VANDAL-PROOF SCREWS, WITH UNDER DECK CLAMP, JOSAM 21500-23-1-30, OR APPROVED EQUAL.

PIPING

1. DOMESTIC WATER PIPING SHALL BE TYPE L COPPER WITH SOLDER FITTINGS.
2. DOMESTIC WASTE AND VENT PIPING SHALL BE SERVICE WEIGHT CAST IRON WITH NO-HUB FITTINGS.
3. STORM DRAIN PIPING SHALL BE SERVICE WEIGHT CAST IRON WITH NO-HUB FITTINGS.
4. WATER HEATER RELIEF PIPING SHALL BE TYPE L COPPER WITH SOLDER FITTINGS.
5. PIPING ABOVE THE CEILING SHALL BE SUSPENDED USING PIPE HANGERS. INSULATED PIPING SHALL HAVE SADDLES BETWEEN THE INSULATION AND THE HANGER. PERFORATED STRAPS ARE NOT ACCEPTABLE.

PIPE INSULATION

1. DOMESTIC WATER PIPING SHALL HAVE 1" FIBERGLASS INSULATION WITH VAPOR SEAL.
2. PROVIDE SHEETMETAL SADDLES AT HANGERS TO PROTECT THE INSULATION.
3. HORIZONTAL STORM DRAIN PIPING SHALL HAVE 1" FIBERGLASS INSULATION.
4. PROVIDE INSULATION COVERS ON ALL EXPOSED PIPING BELOW HANDICAP FIXTURES.
5. WHERE PVC OR OTHER NON-PLENUM RATED PIPING IS INSTALLED IN A RETURN AIR PLENUM, PROVIDE A FIRE RESISTANT WRAP PROVIDING A NON-COMBUSTIBLE ENCLOSURE AS TESTED TO UL 910 WHEN INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. INSULATION ON ALL NON METALLIC PIPING IN RETURN PLENUMS SHALL BE ONE-HALF INCH (1/2") THICK OR AS REQUIRED BY THE WRAP MANUFACTURER TO MEET THE REQUIRED FIRE RATING IN ADDITION TO ANY OTHER INSULATION REQUIRED BY THESE SPECIFICATIONS. FIRE BARRIER PLENUM INSULATION SHALL BE 3M FIRE BARRIER PLENUM WRAP 5A OR APPROVED EQUAL.

PLUMBING FIXTURE SCHEDULE

DESIGNATION	ROUGH-IN SIZES				
	CW	HW	W	V	
WCH FLUSH TANK	1/2"	-	4"	2"	ACCESSIBLE FLOOR MOUNT, FLUSH TANK, WHITE VITREOUS CHINA, 16 1/2" HIGH, SIPHON JET, AMERICAN STANDARD TOILET MODEL CADET 2467.100, PRESSURE ASSISTED, HIGH EFFICIENCY, 1.1 GPF, W/ BOLT CAPS, W/ CHURCH 295CT WHITE OPEN-FRONT SEAT LESS COVER. TRIP HANDLE MUST MEET ADA AND BE MOUNTED ON ACCESSIBLE SIDE OF TANK.
LH (CW, TW)	1/2"	1/2"	2"	1 1/2"	ACCESSIBLE COUNTERTOP LAVATORY, WHITE VITREOUS CHINA, AMERICAN STANDARD 0476.028, THREE HOLE FAUCET DRILL (4" CENTERS), 20 3/8" x 17 3/8", WITH MOEN COMMERCIAL TWO HANDLE FAUCET MODEL 8215, W/ WRISTBLADE HANDLES, AERATOR 0.5 GPM, SOLID GRID STRAINER, SUPPLIES, STOPS, P-TRAP. PROVIDE THERMAL INSULATION PER TAS, TRUEBRD MODEL 102. REFER TO ARCHITECT FOR EXACT MOUNTING HEIGHT.
S2 (ADA) 5 1/2" DEEP TOP MOUNT	1/2"	1/2"	2"	1 1/2"	DOUBLE COMPARTMENT KITCHEN SINK, UNDERMOUNT, STAINLESS STEEL, 30 3/4" x 18 1/2" x 5 3/8" dp., 3 FAUCET HOLES, MODEL ELKAY LUSTERTONE ELUHAD311855 W/ MOEN COMMERCIAL GOOSENECK KITCHEN TYPE FAUCET MODEL #8225, W/ TWO WRISTBLADE HANDLES ON 8" CENTERS, REMOVABLE BASKET STRAINER, SUPPLIES, STOPS, P-TRAP. REFER TO ARCH. FOR EXACT MOUNTING HEIGHT. PROVIDE THERMAL WRAP INSULATION PER TAS/ADA ON ALL EXPOSED PIPING UNDER SINK. IF NEEDED PROVIDE GARBAGE DISPOSER: BADGER-1 OR APPROVED EQUAL.
MS (CW, HW) CORNER	3/4"	3/4"	3"	2"	MOP SINK - CORNER, FLOOR MOUNT, FIAT MODEL TSB-C-6010, 24x24x12" DEEP, PRECAST TERRAZZO, COLOR CHOICE BY OWNER, W/ 830-AA HEAVY DUTY SERVICE FAUCET WITH INTEGRAL VACUUM BREAKER, THREAD SPOUT WITH PAIL HOOK, PROVIDE 832-AA HOSE AND HOSE BRACKET, 889-C MOP HANGER AND E-77-AA VINYL BUMPER GUARD. MOUNT FAUCET AT 36" A.F.F. PROVIDE HOT WATER.
EWCH W/ BOTTLE FILLER ADA	1/2"	-	2"	2"	ELECTRIC WATER COOLER W/ BOTTLE FILLING STATION, ADA WALL MOUNTED MODEL HALSEY TAYLOR HTHB-DVLSER-1, BI-LEVEL, FILTERED, REFRIGERATED, CHILLING CAPACITY OF 8 GPH OF 50°F DRINKING WATER, W/ SUPPLY, STOP, P-TRAP AND FILTER. REFER TO ARCHITECTURAL FOR EXACT LOCATION AND MOUNTING HEIGHT.

- NOTES:**
1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS & FIXTURE/EQUIPMENT MOUNTING HEIGHTS.
 2. ALL FIXTURES PROVIDED FOR HANDICAPPED USE MUST MEET THE REQUIREMENTS OF ADA.
 3. PROVIDE INSULATION ON ALL EXPOSED PIPING UNDER LAVATORY AND SINKS PER ADA & TAS.

WATER HEATERS SCHEDULE

DESIGNATION	LOCATION	TYPE	STORAGE CAPACITY	QUANTITY	RECOVERY @ 100°F RISE	ELECTRICAL DATA	MFG. & MODEL	NOTES
WH-1	ABOVE MOP SINK	COMMERCIAL ELECTRIC	20 GALLON	2	10 GPH	2.5 KW 277V/1Ø	A. D. SMITH COMMERCIAL DEL-20	1, 2

- NOTES:**
1. WATER HEATER TO HAVE FULL SIZE T&P VALVE AND RELIEF LINE PIPED TO FLOOR DRAIN.
 2. PROVIDE 2.1 GALLON CAPACITY EXPANSION TANK.

THERMOSTATIC MIXING VALVE SCHEDULE

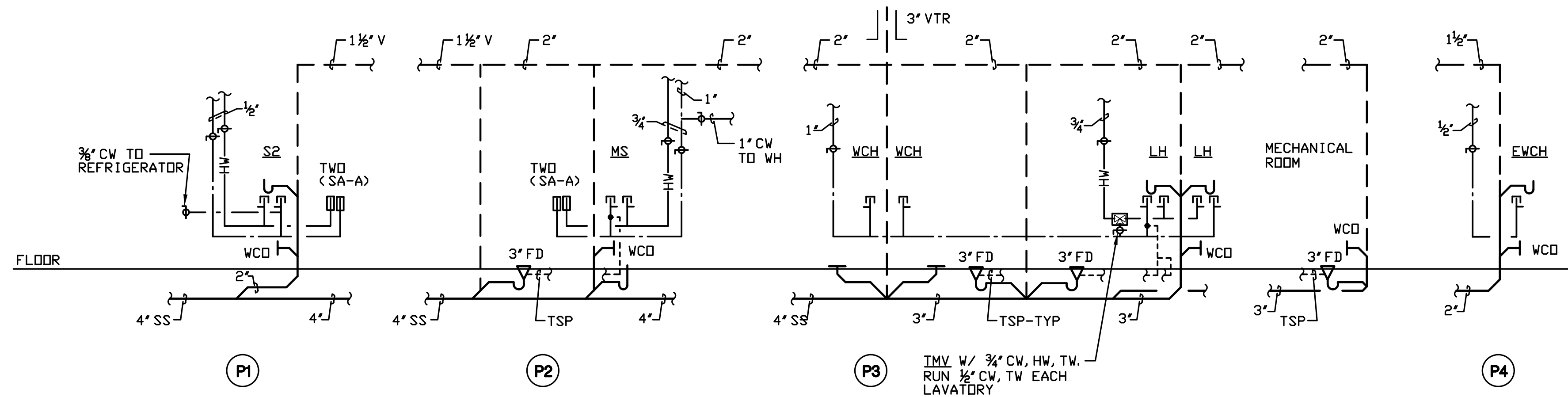
DESIGNATION	MANUFACTURER	MODEL NUMBER	MIN FLOW	INLET SIZE	OUTLET SIZE	MAX FLOW @ 5 PSI	OUTLET TEMP	NOTES
TMV	WATTS	LFMMV-M1	0.5	3/4"	3/4"	8 GPM	110° F.	1, 2, 3

- NOTES:**
1. THERMOSTATIC MIXING VALVES INSTALLED ON DOMESTIC COLD AND HOT WATER SUPPLY PIPING SHALL BE LEAD-FREE AND BE ASSE 1017, 1070 CERTIFIED.
 2. THERMOSTATIC MIXING VALVE SHALL BE INSTALLED RECESSED IN WALL BEHIND A STAINLESS STEEL ACCESS PANEL WITH A HINGED VANDAL-PROOF LOCKING COVER.
 3. PROVIDE SHUTOFF VALVES UPSTREAM AND DOWNSTREAM OF THERMOSTATIC MIXING VALVE FOR EASE OF INSPECTION, MAINTENANCE, REMOVAL AND REPLACEMENT.

WATER HAMMER ARRESTOR (SA-X)

SIZE	FIXTURE UNITS SERVED	AIR PRELOAD PSI	CROSS REFERENCE PDI STANDARD
1/2"	1-11	60	'A'
3/4"	12-32	60	'B'
1"	33-60	60	'C'
1 1/4"	61-113	60	'D'
1 1/2"	114-154	60	'E'
2"	155-330	60	'F'

** REFER TO MANUFACTURER FOR EXACT SIZE AND INSTALLATION RECOMMENDATIONS.



1 PLUMBING RISER DIAGRAM
NO SCALE

Wells Doak
 Engineers, Inc.
 Texas Registration F-10743
 4300 S. HULLEN
 SUITE 508
 FORT WORTH, TEXAS 76109
 VDE #250070

Engineer's Seal

Design Development Phase
 New Administration Building
HOLY CROSS CATHOLIC CHURCH
 7000 Morning Star Drive / The Colony, Texas 75056 / 817-625-5352

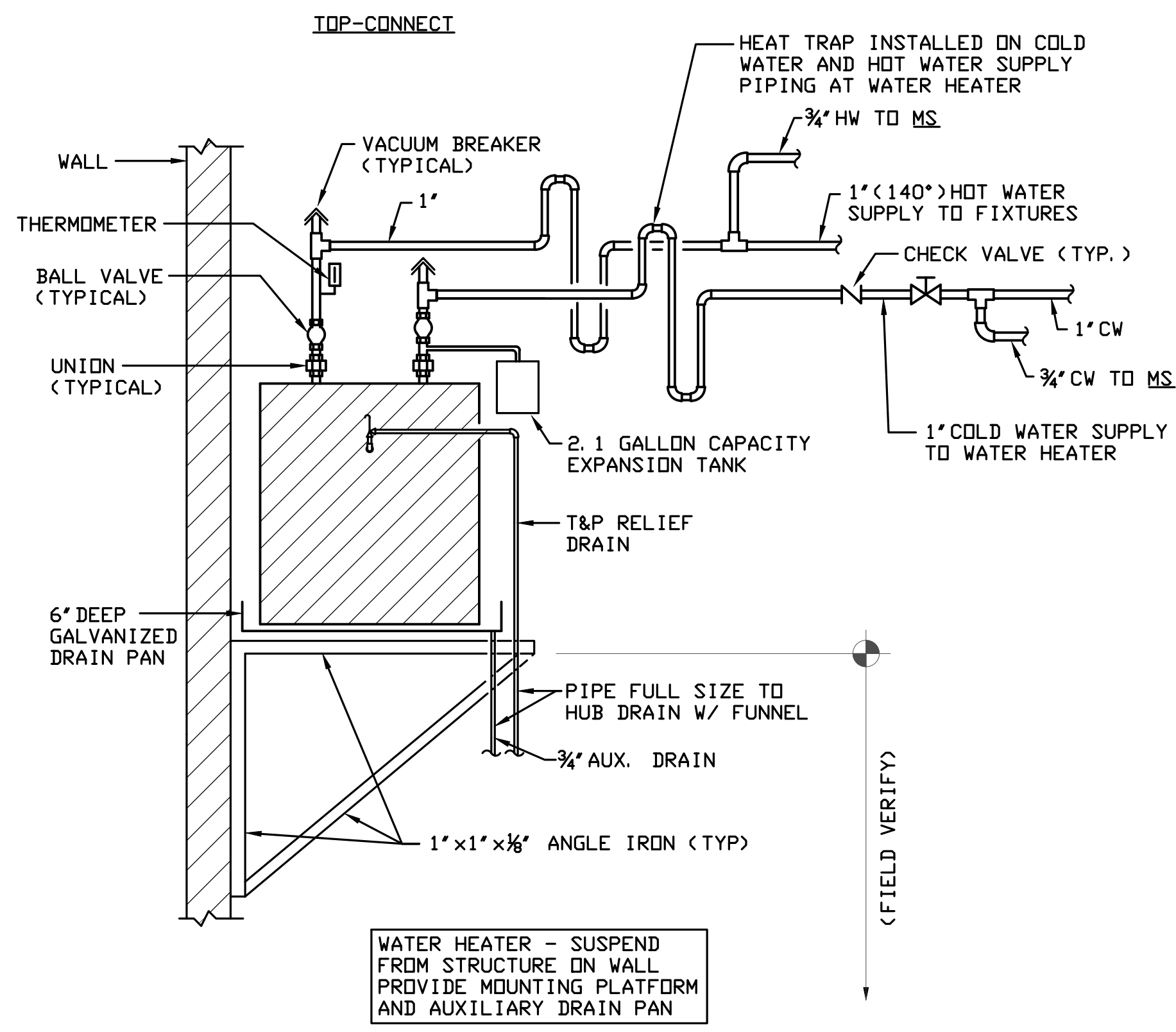
Architect's Seal

Jim Bransford Architect
 2201 Westbrook Ave. / Fort Worth, Texas 76111 / 817-412-0159

Project: 2402

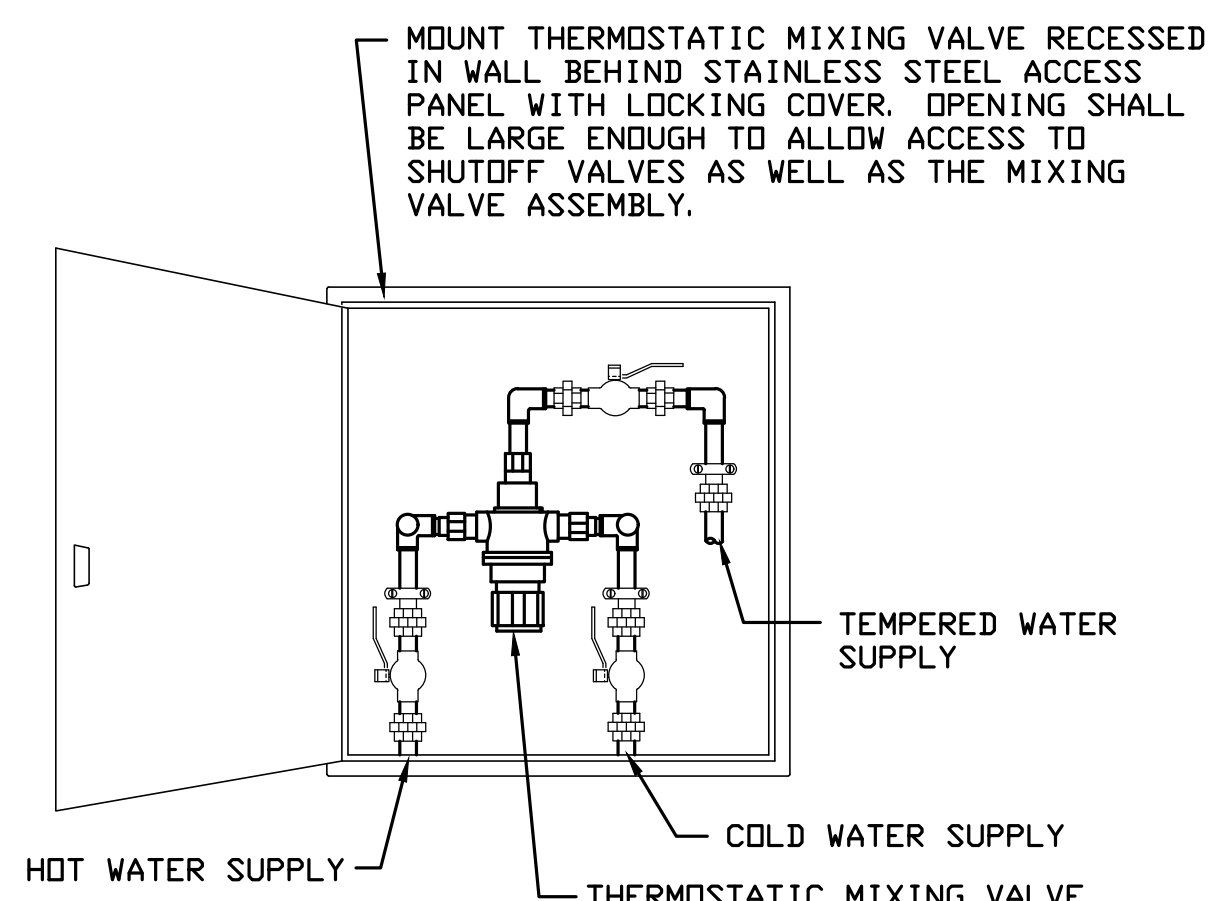
Date: 02/12/2025

Revisions:



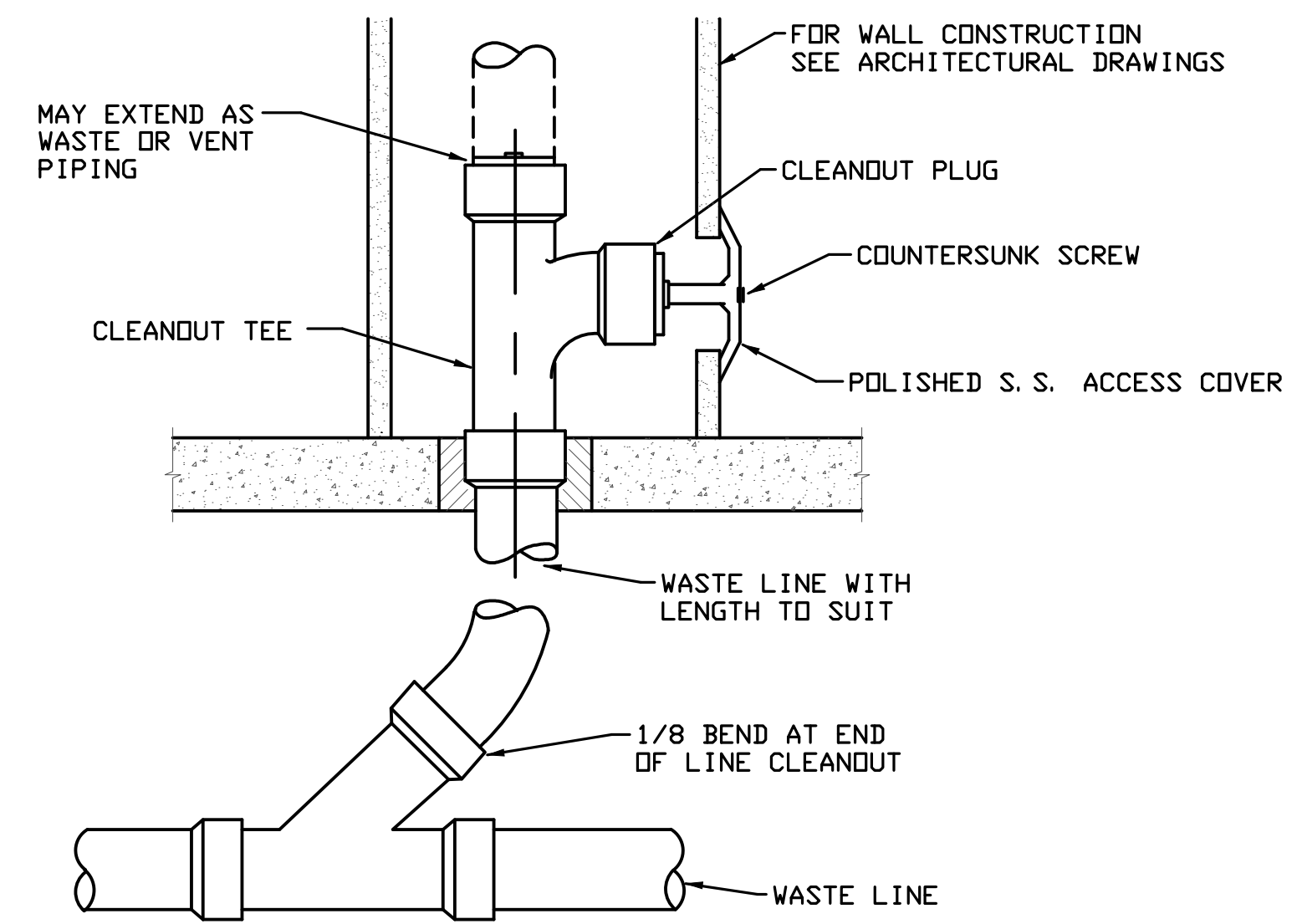
REFER TO THE MANUFACTURER'S RECOMMENDATIONS AND COMMERCIAL INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING ANY NEW WORK. ALL WORK MUST MEET OR EXCEED THE CODE REQUIREMENTS GOVERNED BY THE LOCAL CODE AUTHORITY HAVING JURISDICTION OVER PLUMBING CODES.

ELECTRIC WATER HEATER MOUNTED ON WALL RACK ABOVE MOP SINK
NO SCALE

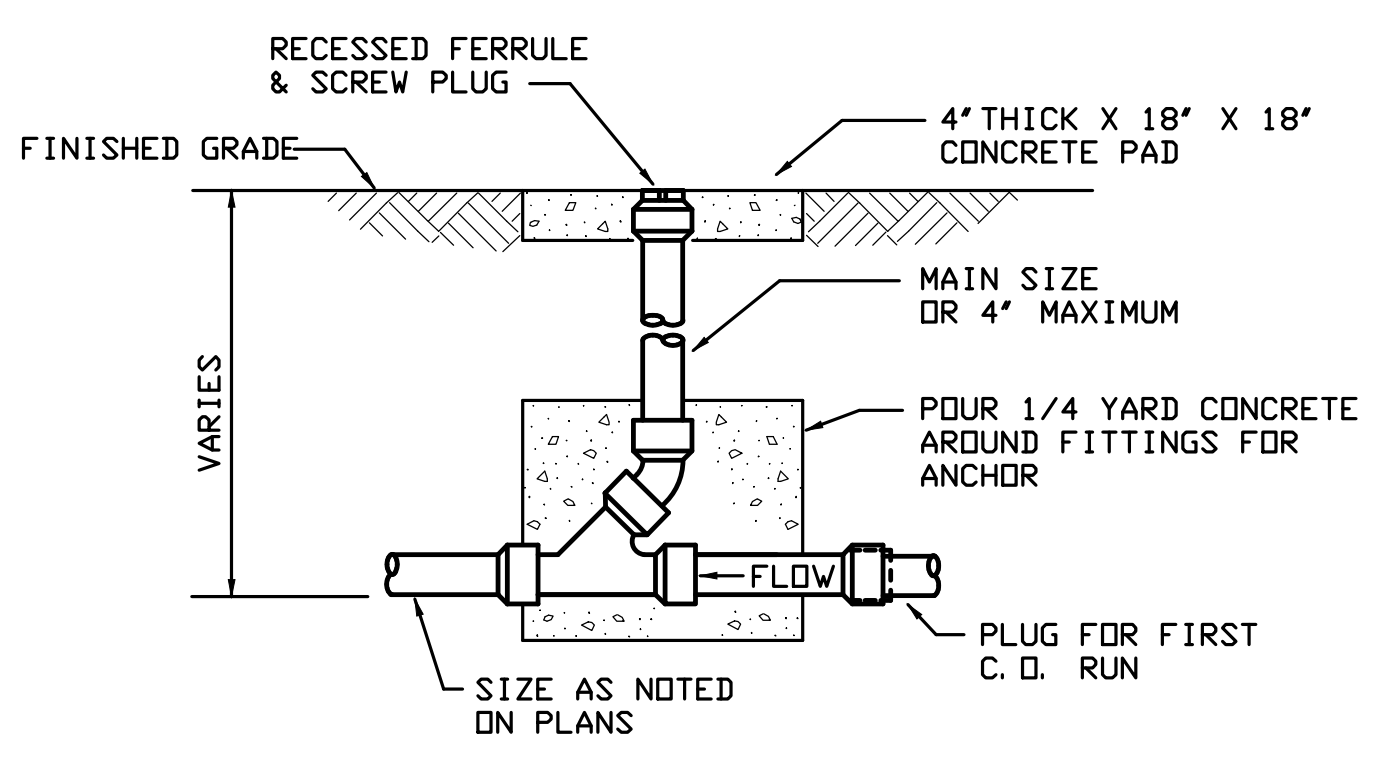


NOTE: PROVIDE UNIONS AND SHUTOFF VALVES UPSTREAM AND DOWNSTREAM OF EQUIPMENT TO ALLOW FOR EASE OF MAINTENANCE, REMOVAL OR REPLACEMENT.

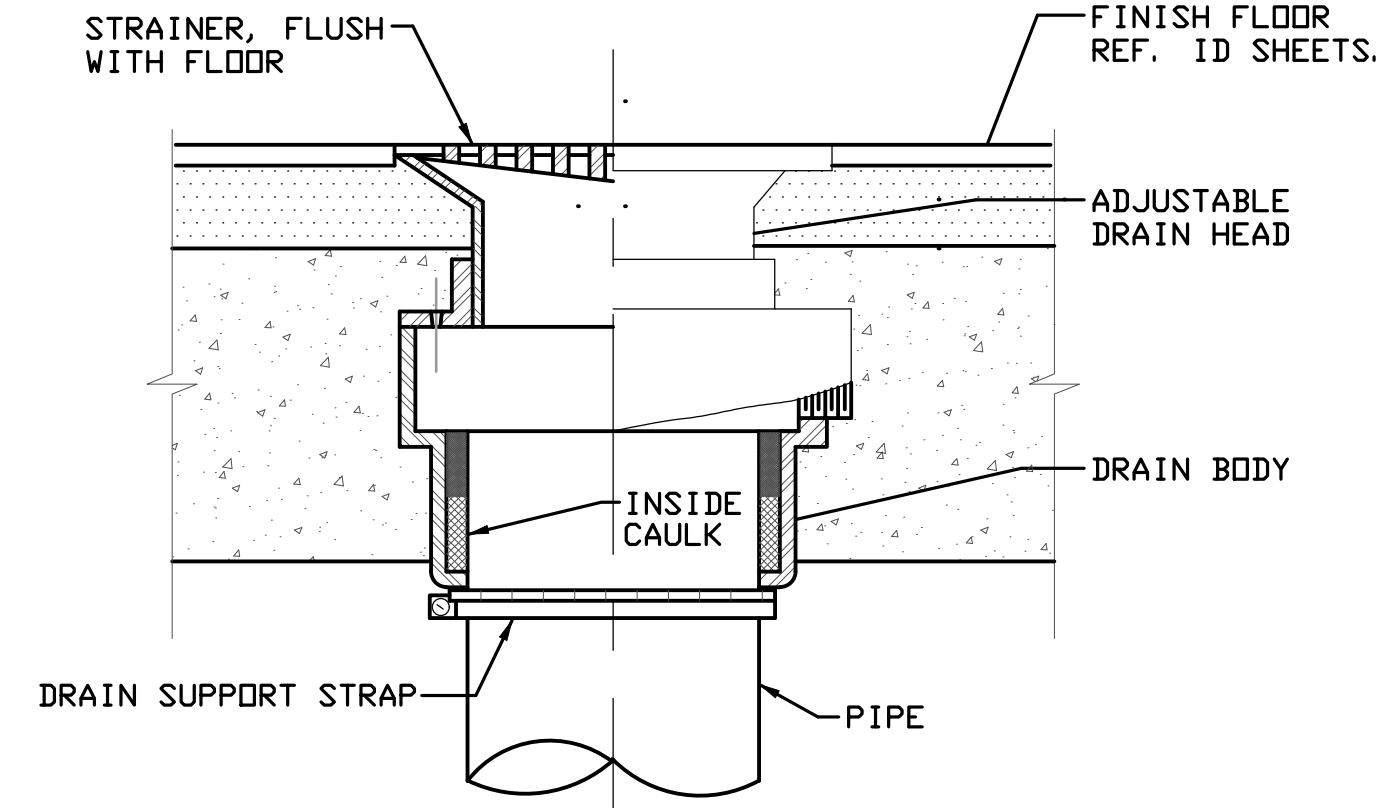
THERMOSTATIC MIXING VALVE RECESSED IN WALL BEHIND STAINLESS STEEL PANEL W/ LOCKING COVER
NO SCALE



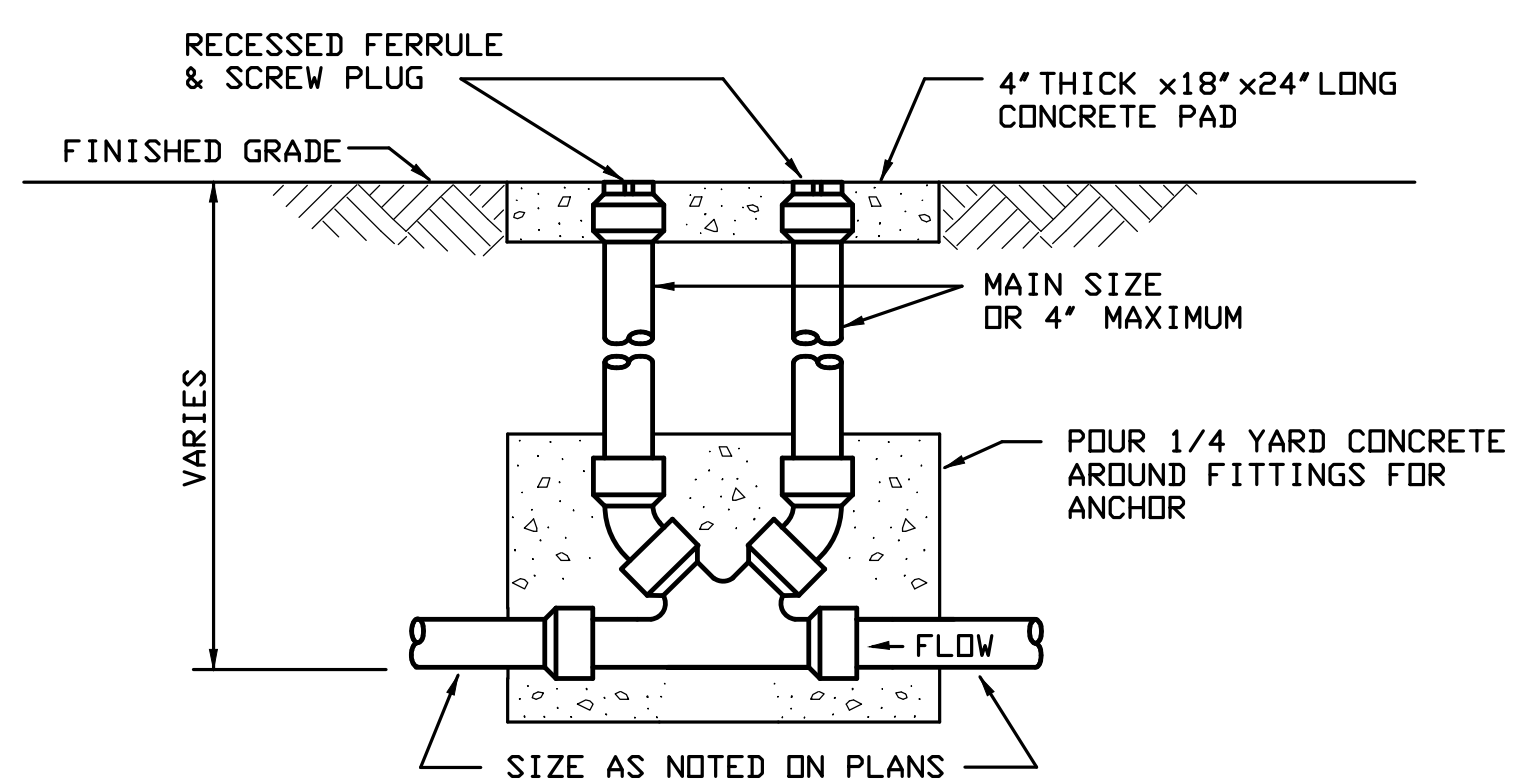
WALL CLEANOUT DETAIL
NO SCALE



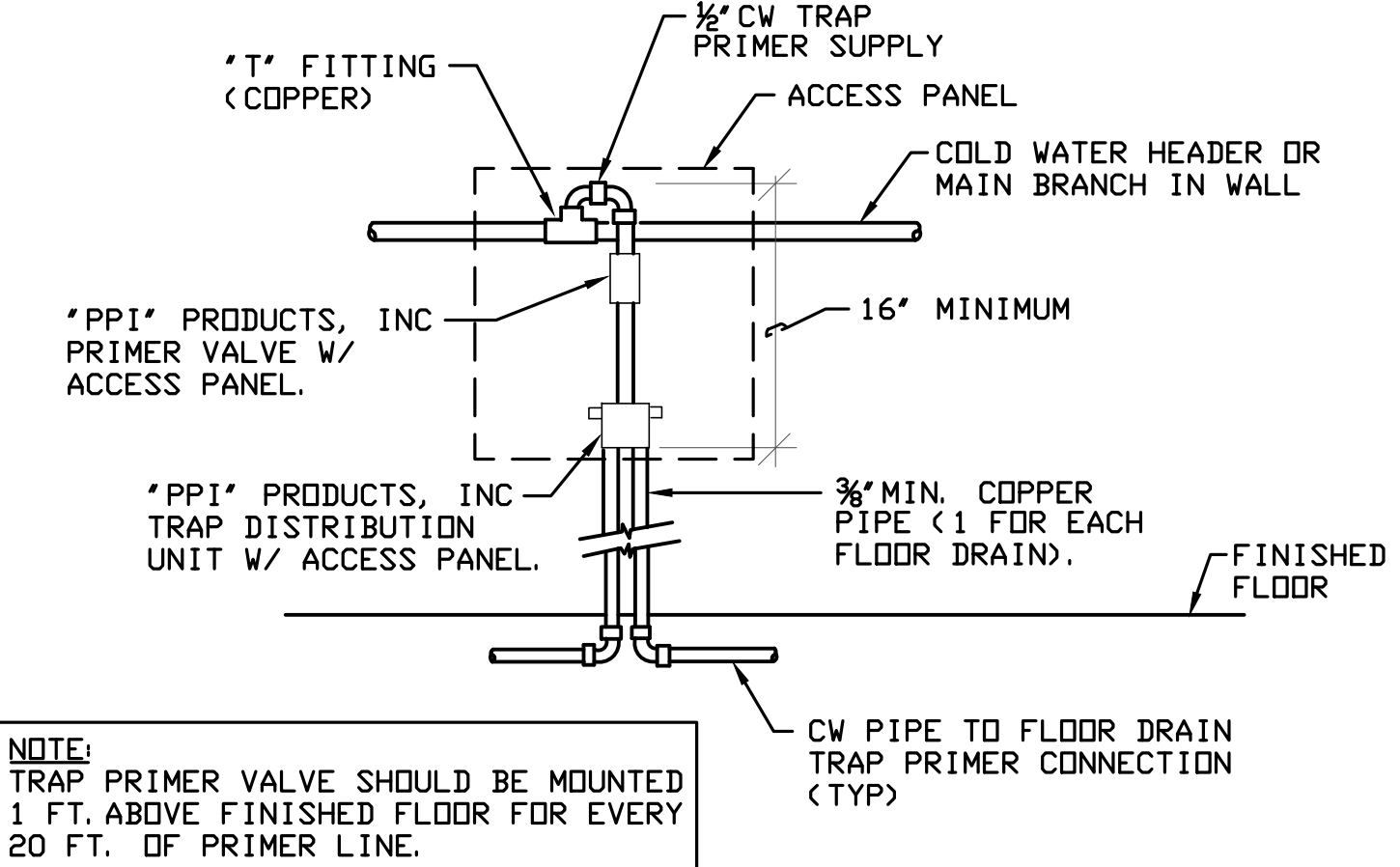
GRADE CLEANOUT DETAIL
NO SCALE



FLOOR DRAIN DETAIL
NO SCALE



DOUBLE GRADE CLEANOUT DETAIL
NO SCALE



NOTE: TRAP PRIMER VALVE SHOULD BE MOUNTED 1 FT. ABOVE FINISHED FLOOR FOR EVERY 20 FT. OF PRIMER LINE.

TRAP SEAL PRIMER DETAIL
NO SCALE