



OWNER

ARCHITECTURAL

631 South Hull Street
Montgomery, Alabama 36104
Phone: (334) 834.9933

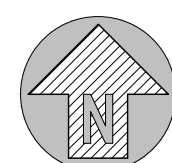
CIVIL

STRUCTURAL

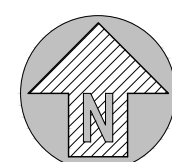
PLUMBING and MECHANICAL

ELECTRICAL

GRANT NO. LR-CE-PF-25-015



AREA MAP

VICINITY MAP
CITY OR COUNTY, STATE

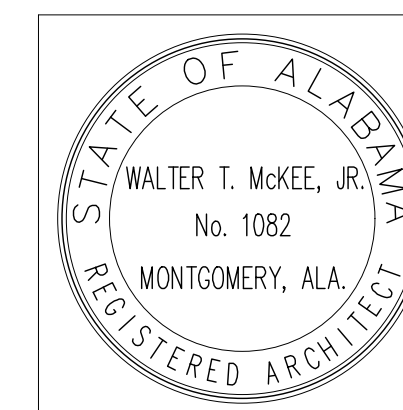
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A NEW COMMUNITY CENTER

AT
A NEW COMMUNITY CENTER
KNOX STREET PARK

for
THE CITY OF TROY

SHEET TITLE:



PROJ. MGR.: JWW
DRAWN: JL

DATE: 10-07-26

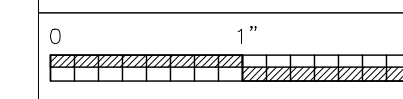
REVISIONS

REVISIONS	

JOB NO. MKA-24-261-00

SHEET NO.

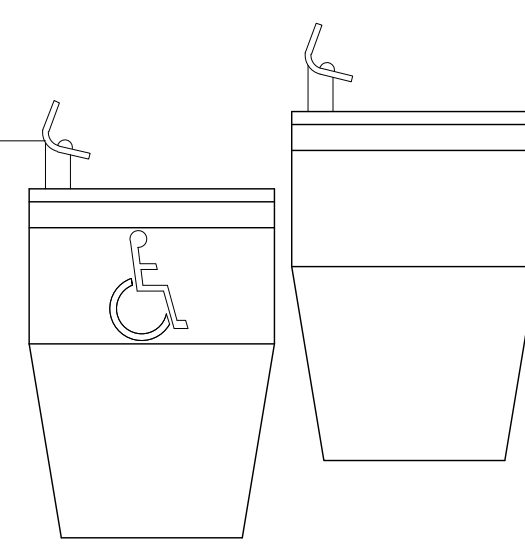
G1.0



CODE LEGEND	
SYMBOL	DESCRIPTION
	ONE HOUR FIRE RATED PARTITION UL# - 333 - SEE SECTION X1AX.X
	ONE HOUR FIRE RATED CEILING ASSEMBLY UL# - XXX - SEE SECTION X1AX.X
EXIT	PRIMARY BUILDING EXIT
TO 200'	TRAVEL DISTANCE TO THE NEAREST EXIT
♿	HANDICAP ACCESSIBLE
< FE >	FIRE EXTINGUISHER LOCATION (SEE DETAIL AX.X)
FSD	FIRE SEPARATION DISTANCE
EWB-35" EWP-120"	EXIT WIDTH REQUIRED EXIT WIDTH PROVIDED
(175 180)	ACTUAL OCCUPANT LOAD SERVED TOTAL EGRESS CAPACITY
20 MIN.	RATED DOOR ASSEMBLY

EXIT CALCULATIONS	
TOTAL BUILDING AREA	
OCCUPANCY TYPE - GROUP "A-3" ASSEMBLY	
BUILDING TYPE: V-B	
ALLOWABLE AREA FACTOR: 6,000 SQ FT (TABLE 506.2)	
ACTUAL SQ FT - 5,304 SQ FT	
ALLOWABLE HEIGHT (TABLE 504.3) ALLOWABLE # OF STORIES (TABLE 504.4)	
ALLOWABLE HEIGHT: 50 FT	
ALLOWABLE NO. OF STORIES: 1	
ACTUAL BUILDING HEIGHT: ± 18 FT	
ACTUAL NO. OF STORIES: 1	
OCCUPANT LOAD	
OCCUPANT LOAD TOTAL (1004 & TABLE 1004.5) =	
175 PERSONS	
EXIT REQUIREMENTS	
EXIT ACCESS (TABLE 1006.2.1 & TABLE 1006.3.3)	
NO. OF EXITS REQUIRED: 2	
NO. OF EXITS FURNISHED: 4	
MEANS OF EGRESS WIDTH (1005.3)	
35 REQUIRED - 120 PROVIDED	
MINIMUM CORRIDOR WIDTH (TABLE 1020.3) 44"	

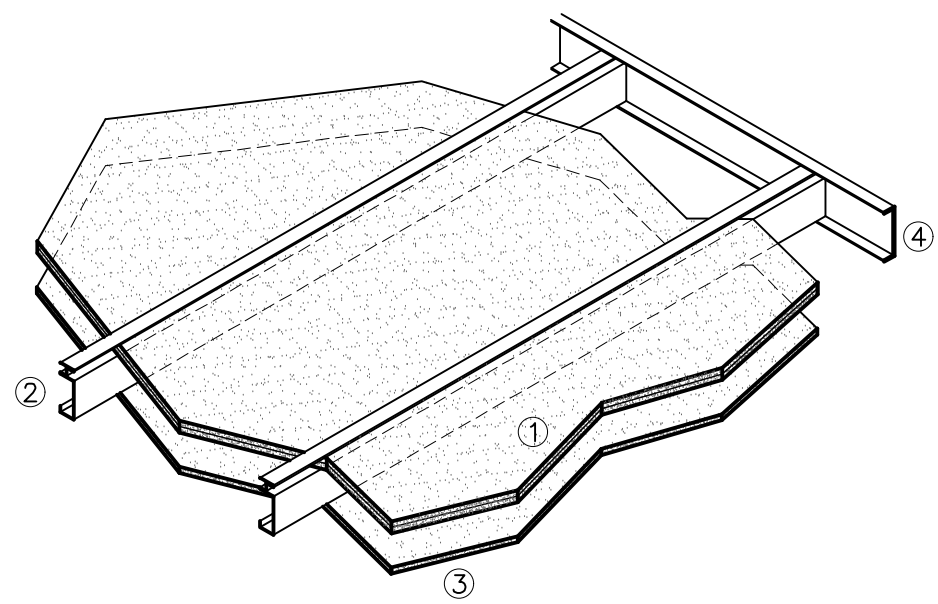
PLUMBING CALCULATIONS	
2021 INTERNATIONAL PLUMBING CODE REQUIREMENTS:	
OCCUPANT LOAD TOTAL = 175 PERSONS	
TOILETS (TABLE 2902.1)	
MEN'S (1 PER 125 OCC.) (88 OCC.): 1R	
WOMEN'S (1 PER 65 OCC.) (88 OCC.): 1R	
LAVATORIES (TABLE 2902.1)	
MEN'S (1 PER 200 OCC.) (88 OCC.): 2R	
WOMEN'S (1 PER 200 OCC.) (88 OCC.): 2R	
DRINKING FOUNTAINS (TABLE 2902.1)	
(1 PER 100 OCC.) (175 OCC.): 2R	
SERVICE SINK (TABLE 2902.1): 1R	
PLUMBING PROVIDED TOTAL	
TOILETS (TABLE 2902.1)	
MEN'S - 3 PROVIDED	
WOMEN'S - 3 PROVIDED	
LAVATORIES (TABLE 2902.1)	
MEN'S - 3 PROVIDED	
WOMEN'S - 3 PROVIDED	
DRINKING FOUNTAINS (TABLE 2902.1)	
2 PROVIDED	
SERVICE SINK (TABLE 2902.1):	
1 PROVIDED	

SEE NOTE	
NOTE: MOUNTING HEIGHT AT ACCESSIBLE FOUNTAIN - THE SPOUT OUTLET TO BE NO MORE THAN 36" ABOVE THE FLOOR.	

ELECTRIC WATER COOLER (EWC)
SCALE: 1 1/2" = 1'-0"

- UL Design No. U333 - 1 hour wall
Bearing Wall - 1 hour
- Wood Studs - Nominal 2 by 4 in. spaced 16 inches on center, effectively cross braced.
 - Gypsum Board - 5/8 inch thick, 4 ft wide, applied either vertically or horizontally, screw attached to studs and plates with 1-3/4 inch long Type W steel screws, spaced 12 inches on center.
 - Batts and Blankets (OPTIONAL) - Mineral wool insulation, partially or completely filling stud cavity.
 - Joints and nailheads - Wallboard joints covered with paper tape and joint compound. Screw heads covered with joint compound.

1-HOUR FIRE RATED PARTITION
PLAN DETAIL
SCALE: 1" = 1'-0"

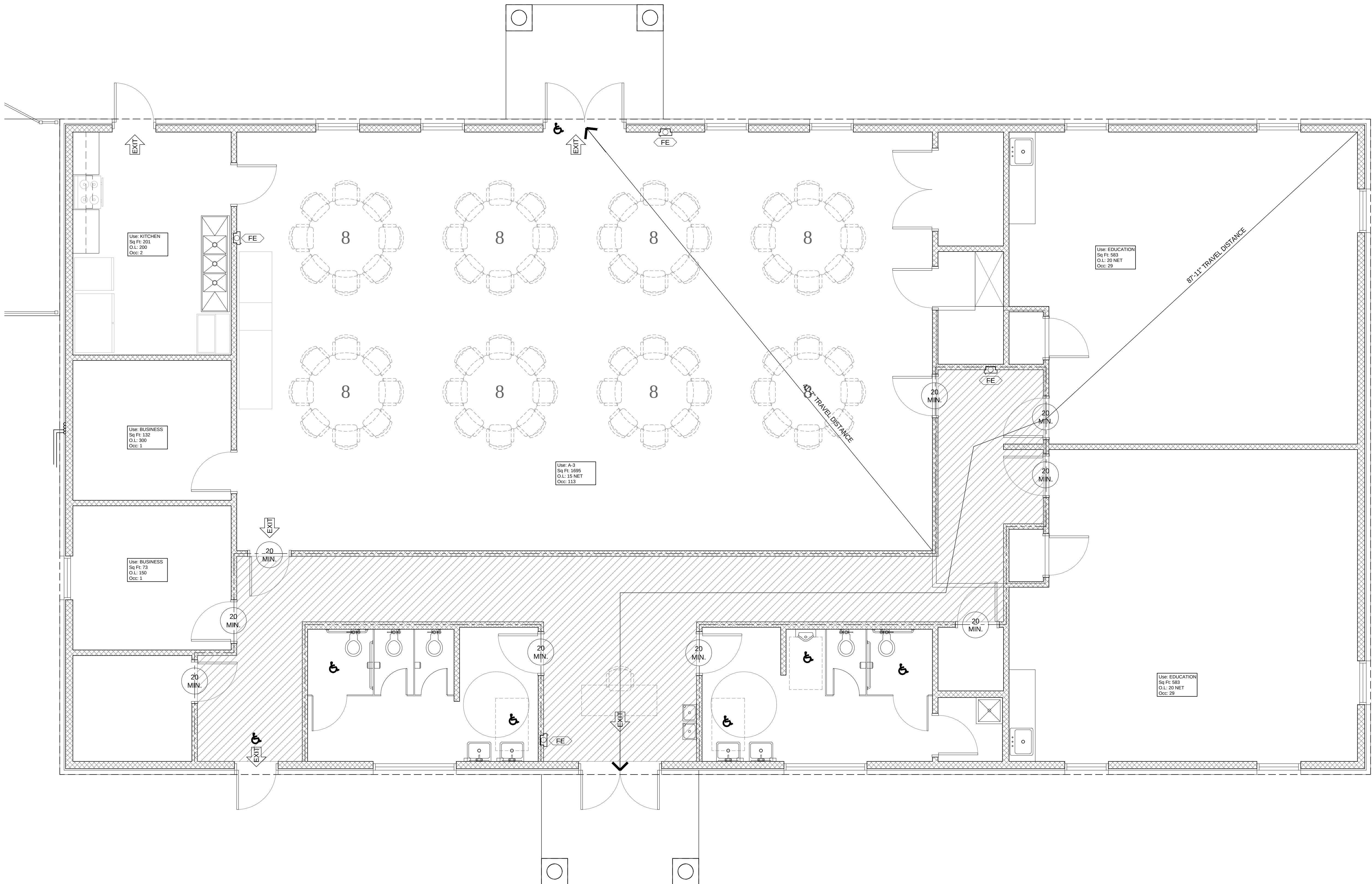


- 1" LINER PANELS OR 2-LAYERS 1/2" FIRECODE "C" WALLBOARD INSERTED IN C-H STUDS 24" O.C..
 - 600CH20 (6", 20 GA.) STUDS 24" O.C. (SEE LIMITING SPAN NOTE)
 - SINGLE-LAYER 5/8" FIRECODE "C" WALLBOARD SCREW-ATTACHED TO STUDS.
 - SET C-H STUDS IN 20 GA. RUNNERS ANCHORED TO WALL AT 24" O.C. MAX.
- LIMITING SPAN NOTE: INSTALL DOUBLE 6" E-STUDS FOR SPANS EXCEEDING 17'-5"

NOTE: ONE-HOUR FIRE-RATED
HORIZONTAL SHAFT WALL ASSEMBLY
EQUAL TO TEST NO. WHI-495PSH

REFERENCE: IBC 708.4, EXCEPTION 3 FOR
CORRIDORS.

ONE-HOUR FIRE RATED CEILING ASSEMBLY
ISOMETRIC DETAIL
SCALE: 3/4" = 1'-0"



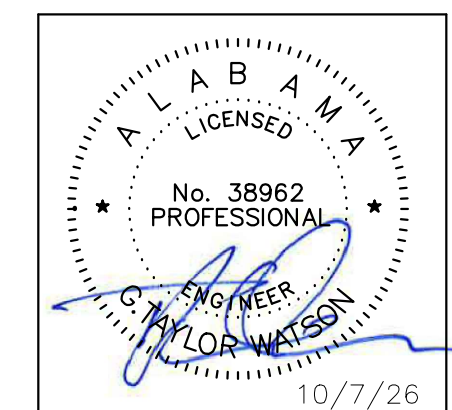
CODE PLAN
SCALE: 1/4" = 1'-0"



A NEW COMMUNITY CENTER
KNOX STREET PARK

THE CITY OF TROY

SHEET TITLE: DEMO, SITE & UTILITY PLAN



10/7/

PROJ. MGR.: GTW
DRAWN: JWC
DATE: 10/7/2026
REVISIONS

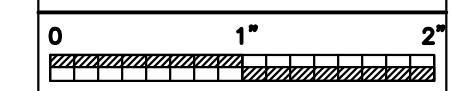
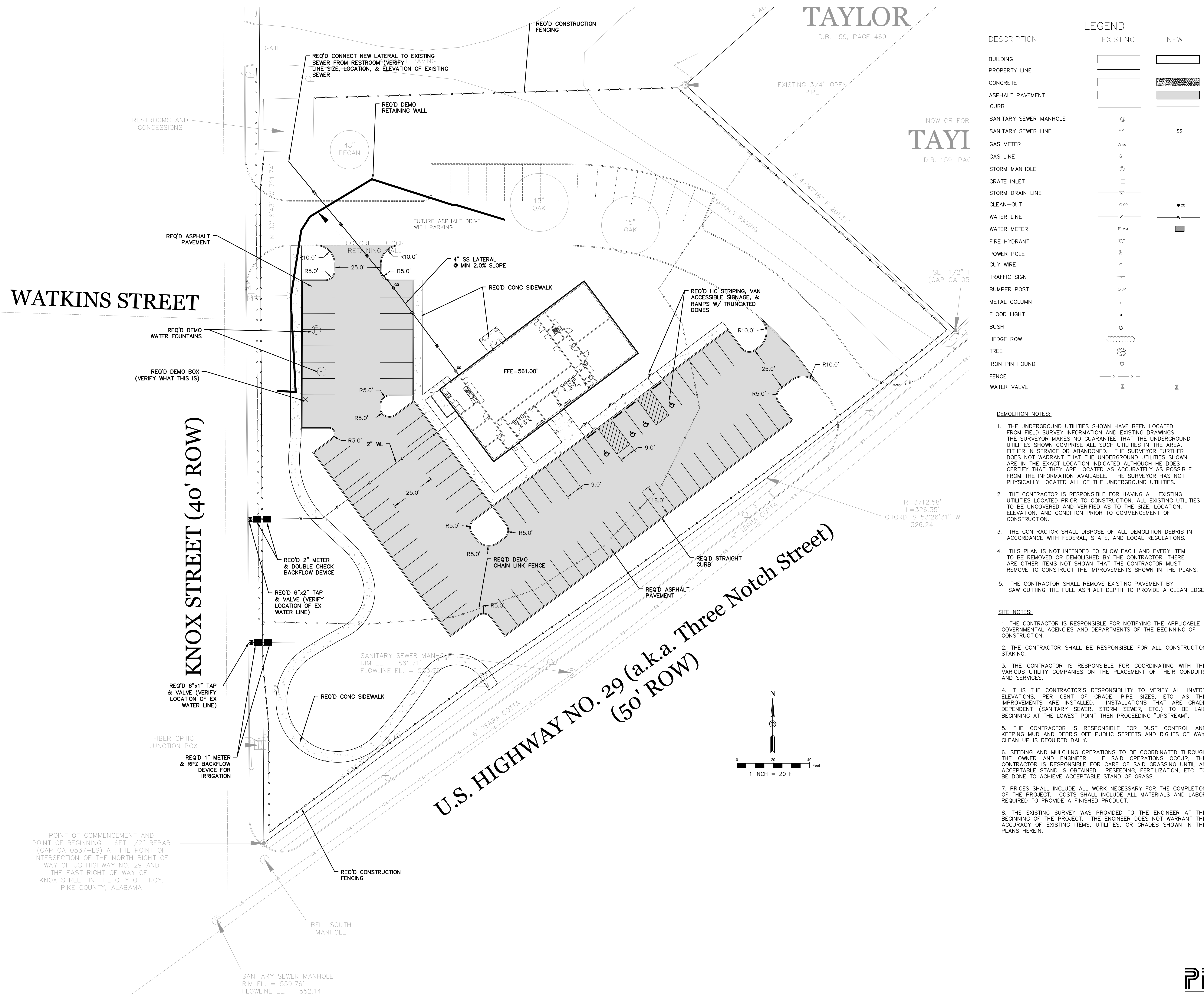
JOB NO. MKA-24-261-00

SHEET NO:
C-1



PROFESSIONAL ENGINEERING CONSULTANTS, LLC
822 South McDonough Street
Montgomery, Alabama 36104
Phone: (334) 282-7307

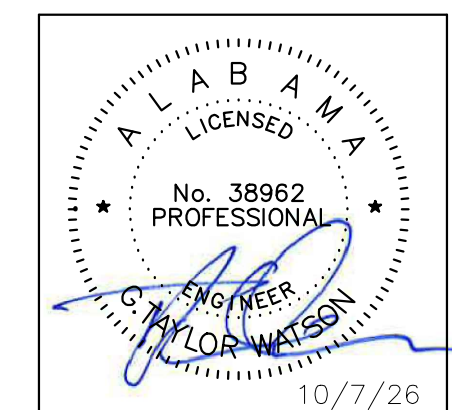
PEC JOB # 26-098





A NEW COMMUNITY CENTER
KNOX STREET PARK

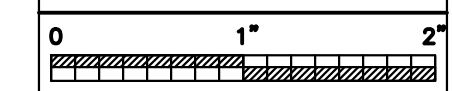
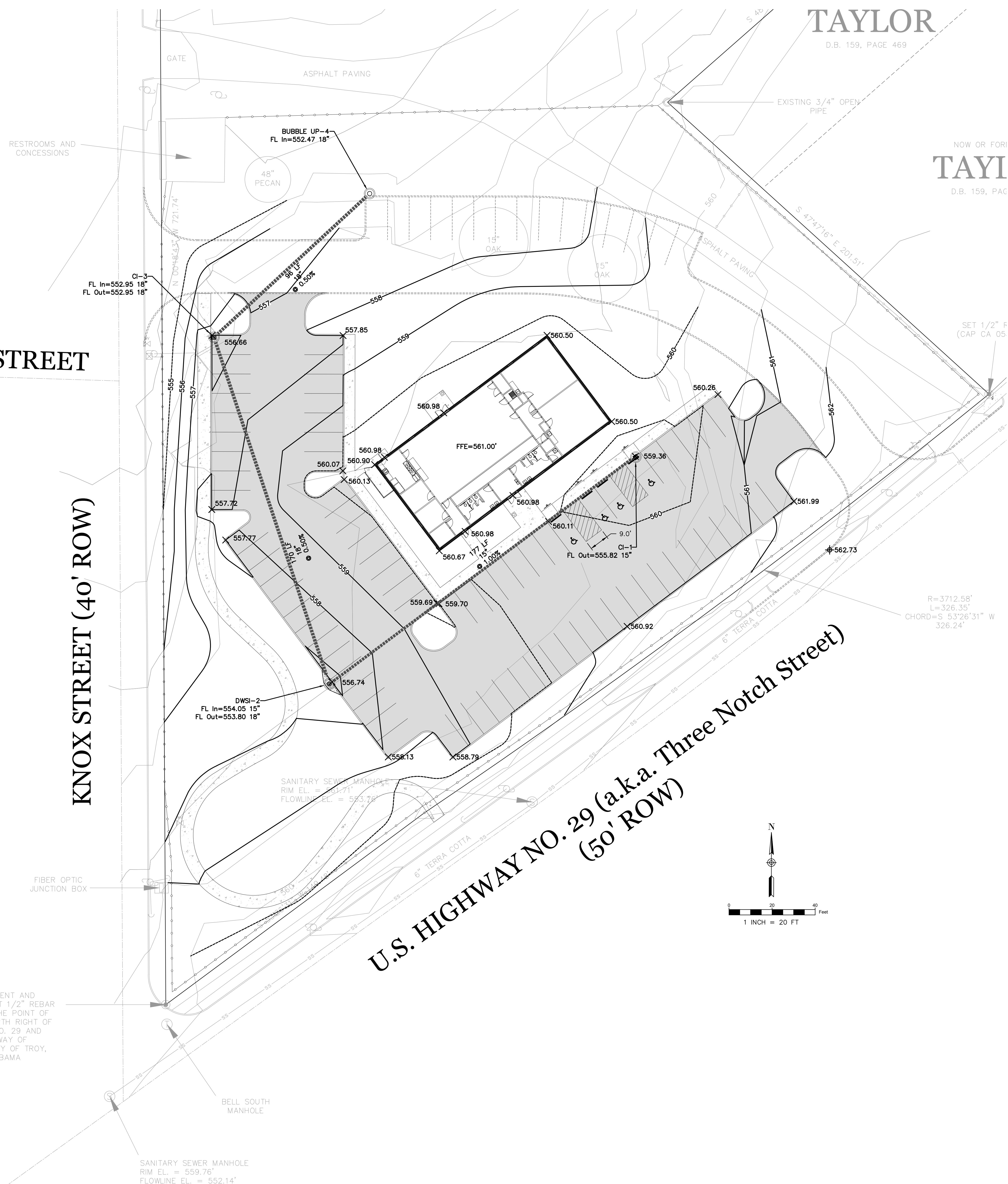
SHEET TITLE:
GRADING & STORMWATER
PLAN

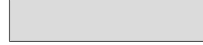
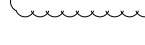


PROJ. MGR.: GTW
DRAWN: JWC
DATE: 10/7/2026
REVISIONS

JOB NO. MKA-24-261-00

SHEET NO:
C-2

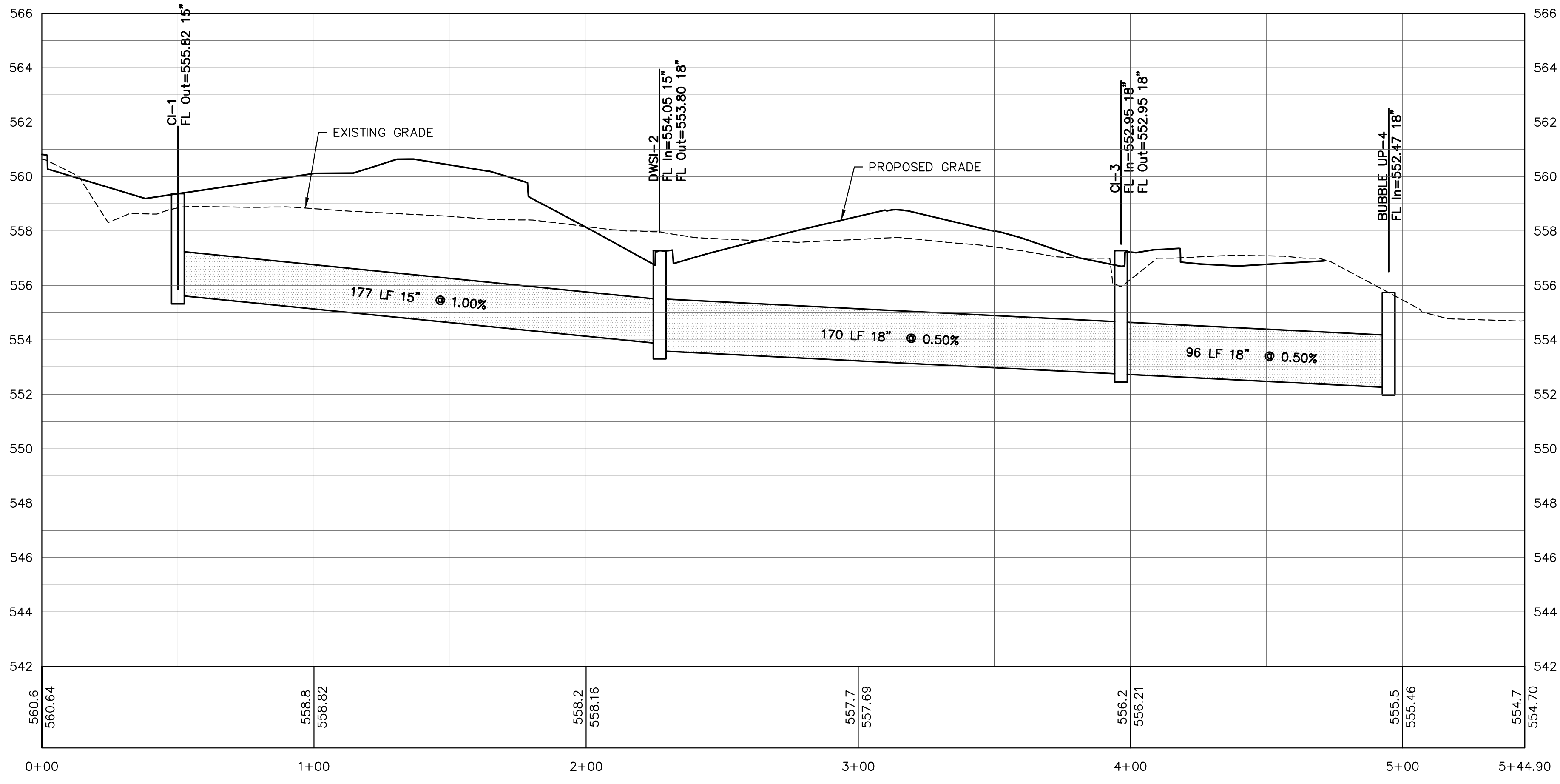


DESCRIPTION	EXISTING	NEW
BUILDING		
PROPERTY LINE	_____	_____
CONCRETE		
ASPHALT PAVEMENT		
CURB	_____	_____
SANITARY SEWER MANHOLE		
SANITARY SEWER LINE	_____SS_____	
GAS METER		
GAS LINE	_____G_____	
SINGLE/DOUBLE WING INLET		
COMBINATION INLET		
STORM DRAIN LINE	_____SD_____	
CLEAN-OUT		
WATER LINE	_____W_____	
WATER METER		
FIRE HYDRANT		
POWER POLE		
GUY WIRE		
TRAFFIC SIGN		
BUMPER POST		
METAL COLUMN	-	
FLOOD LIGHT		
BUSH		
HEDGE ROW		
TREE		
IRON PIN FOUND		
FENCE	— X — X — X —	
WATER VALVE		
MAJOR FINISHED CONTOUR	---570---	---570---
MINOR FINISHED CONTOUR	—569—	—569—
SPOT ELEVATION		X 569.0

NOTES:

1. THE EXISTING SURVEY WAS PROVIDED TO THE ENGINEER AT THE BEGINNING OF THE PROJECT. THE ENGINEER DOES NOT WARRANT THE ACCURACY OF EXISTING ITEMS, UTILITIES, OR GRADES SHOWN IN THE PLANS HEREIN.

SCALE
HOR: 1" = 30'
VERT: 1" = 3'



CI-1 TO BUBBLE UP-4

LEGEND		
DESCRIPTION	EXISTING	NEW
BUILDING		
PROPERTY LINE		
CONCRETE SIDEWALK		
ASPHALT PAVEMENT		
CURB & GUTTER		
SANITARY SEWER MANHOLE		
SANITARY SEWER LINE		
GAS METER		
GAS LINE		
STORM MANHOLE		
GRATE INLET		
STORM DRAIN LINE		
CLEAN-OUT		
WATER LINE		
WATER METER		
FIRE HYDRANT		
POWER POLE		
GUY WIRE		
TRAFFIC SIGN		
BUMPER POST		
METAL COLUMN		
FLOOD LIGHT		
BUSH		
HEDGE ROW		
TREE		
IRON PIN FOUND		
FENCE		
WATER VALVE		
MAJOR FINISHED CONTOUR		
MINOR FINISHED CONTOUR		
INLET PROTECTION		
WATTLE		
SILT FENCE		

EROSION/SEDIMENTATION CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION/SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH ADEM/EPA "BEST MANAGEMENT PRACTICES". MEASURES SHOWN ON THE PLANS SHOULD BE CONSIDERED MINIMUMS. MAINTENANCE OF SAID MEASURES TO CONTINUE UNTIL AN ACCEPTABLE STAND OF GRASS IS OBTAINED OR THE OWNER RELEASES THE CONTRACTOR OF SAID RESPONSIBILITY.
2. THE CONTRACTOR SHALL INSTALL SILT FENCES, CHECK DAMS, INLET SEDIMENT TRAPS, AND ANY OTHER MEANS NECESSARY TO PREVENT EROSION.
3. MAINTENANCE OF SAID STRUCTURES AND/OR MEASURES IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL EROSION CONTROL STRUCTURES/MEASURES TO BE INSPECTED IMMEDIATELY AFTER ALL RAINFALL EVENTS. CORRECTIVE ACTION, IF REQUIRED, MUST BE TAKEN IMMEDIATELY. CONTRACTOR'S RESPONSIBILITY OF MAINTENANCE ENDS WITH FINAL ACCEPTANCE OF PROJECT.
4. ALL STORM DRAIN INLETS SHALL HAVE SILT SAVER INLET PROTECTION ALONG WITH SILT FENCE INLET PROTECTION.
5. TEMPORARY SEEDING OF DISTURBED AREAS SHOULD BE IMPLEMENTED WHENEVER DISTURBED SOIL AREAS WILL NOT BE BROUGHT TO FINISH GRADE FOR A PERIOD OF 15 CALENDAR DAYS OR LONGER.

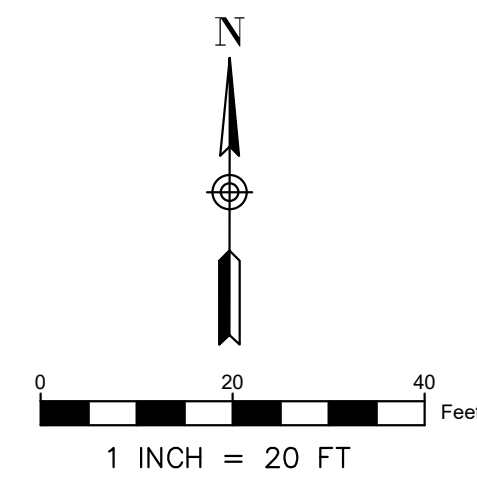
TAYLOR

D.B. 159, PAGE 469

NOW OR FOR
TAYLOR

D.B. 159, PAGE 469

R=3712.58'
L=326.35'
CHORD=S. 53°26'31" W
326.24'



U.S. HIGHWAY NO. 29 (a.k.a. Three Notch Street)
(50' ROW)

WATKINS STREET

KNOX STREET (40' ROW)

POINT OF COMMENCEMENT AND
POINT OF BEGINNING - SET 1/2" REBAR
(CAP CA 0537-LS) AT THE POINT OF
INTERSECTION OF THE NORTH RIGHT OF
WAY OF US HIGHWAY NO. 29 AND
THE EAST RIGHT OF WAY OF
KNOX STREET IN THE CITY OF TROY,
PIKE COUNTY, ALABAMA

SANITARY SEWER MANHOLE
RIM EL. = 559.76'
FLOWLINE EL. = 552.14'

BELL SOUTH
MANHOLE

DWSI-2

REQ'D SILT
SAVER W/
EROSION EEL

CI-3

BUBBLE UP-4

REQ'D SILT SAVER
& EROSION EELS

REQ'D SILT SAVER &
EROSION EEL

CI-1

FFE=561.00'

SET 1/2" F
(CAP CA 05)

EXISTING 3/4" OPEN
PIPE

ASPHALT PAVING

ASPHALT PAVING

GATE

RESTROOMS AND
CONCESSIONS

48" PECAN

15" OAK

15" OAK



NOTE: 4" W MARK (PAINT)

HANDICAP PARKING SIGN
NTS



GENERAL NOTES:

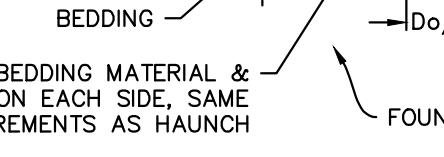
- GENERAL NOTES:**
1. THIS HEADWALL IS NOT DESIGNED TO OFFER ANY SUPPORT TO THE PIPE. THE FILL IS TO BE PLACED AND ALL SHORING REMOVED BEFORE THE SLOPE PAVING IS PLACED.
 2. CONCRETE PIPE SHALL BE BEVELED BY SAWING AFTER SLOPE PAVING HAS BEEN PLACED & SUFFICIENTLY CURED. SOME HAND FINISHING MAY BE NECESSARY.
 3. CONTRACTOR SHALL INSURE THROUGH MECHANICAL MEANS OR OTHER APPROVED DEVICES THAT CONNECTION BETWEEN BOVELED PIPE END AND CONCRETE WILL NOT BE DETACHED.
 4. ALL SLOPE PAVING SHALL CONFORM TO THE CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION.



1. EXPANSION JOINTS IN THE PAVEMENT SHALL BE A MAXIMUM WIDTH OF 30 FEET. CONTRACTION JOINTS SHALL BE EQUALLY SPACED BETWEEN EXPANSION JOINTS, MAX 10 FEET.
2. EXPANSION JOINTS IN THE SIDEWALK SHALL BE A MAXIMUM WIDTH OF 20 FEET. CONTRACTION JOINTS SHALL BE EQUALLY SPACED BETWEEN EXPANSION JOINTS, MAX 5 FEET.



- * 12" LIFTS FOR MECHANICAL COMPACTION OR TWO (2) EQUAL LIFTS FOR FLOODING METHOD.
- ** 24" LIFTS FOR MECHANICAL COMPACTION OR TWO (2) EQUAL LIFTS FOR FLOODING METHOD.



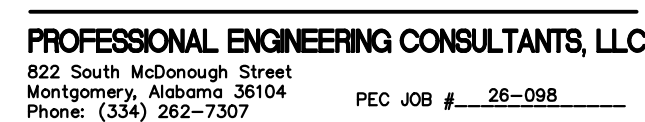
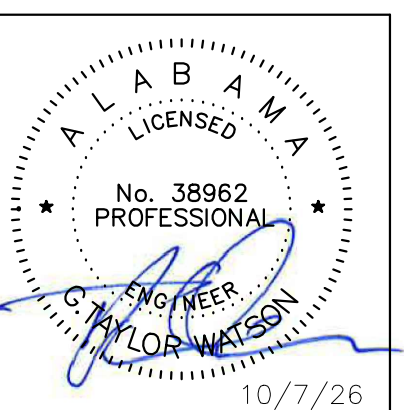
3. CLEARANCE BETWEEN PIPE & TRENCH WALL SHALL BE ADEQUATE TO ENABLE SPECIFIED COMPACTION BUT NOT MORE THAN D_o/6.
4. OVERFILL OR BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF ASHTO MATERIAL A-3, A2-4, A2-5 OR A4.
5. COMPACTION SHALL BE ACCORDING WITH TABLE NO. 1. PROCTOR STANDARD DENSITY SHALL BE USED FOR ALL MATERIALS T-99, T-130, T-150.
6. WHEN THE TRENCH WIDTH SPECIFIED MUST BE EXCEEDED, THE WINNER AND THE ENGINEER OF RECORD SHALL BE NOTIFIED.
7. THE TRENCH WIDTH SHALL BE WIDER THAN SHOWN IF REQUIRED FOR ADEQUATE SPACE TO ATTAIN THE SPECIFIED COMPACTION IN THE HAUNCH AND BEDDING ZONES.
8. EMBANKMENT LOADING SHALL BE USED WHEN TRENCH WALLS ARE EXPOSED TO EMBANKMENT. THE GEOTECHNICAL ANALYSIS MUST BE MADE AND THE SOIL IN THE TRENCH WALLS IS COMPACTED TO A HIGHER DENSITY THAN THE SOIL IN THE BEDDING ZONE.
9. REQUIRED BEDDING THICKNESS = THE THICKNESS OF THE BEDDING REQUIRED TO PLACEMENT OF THE PIPE.

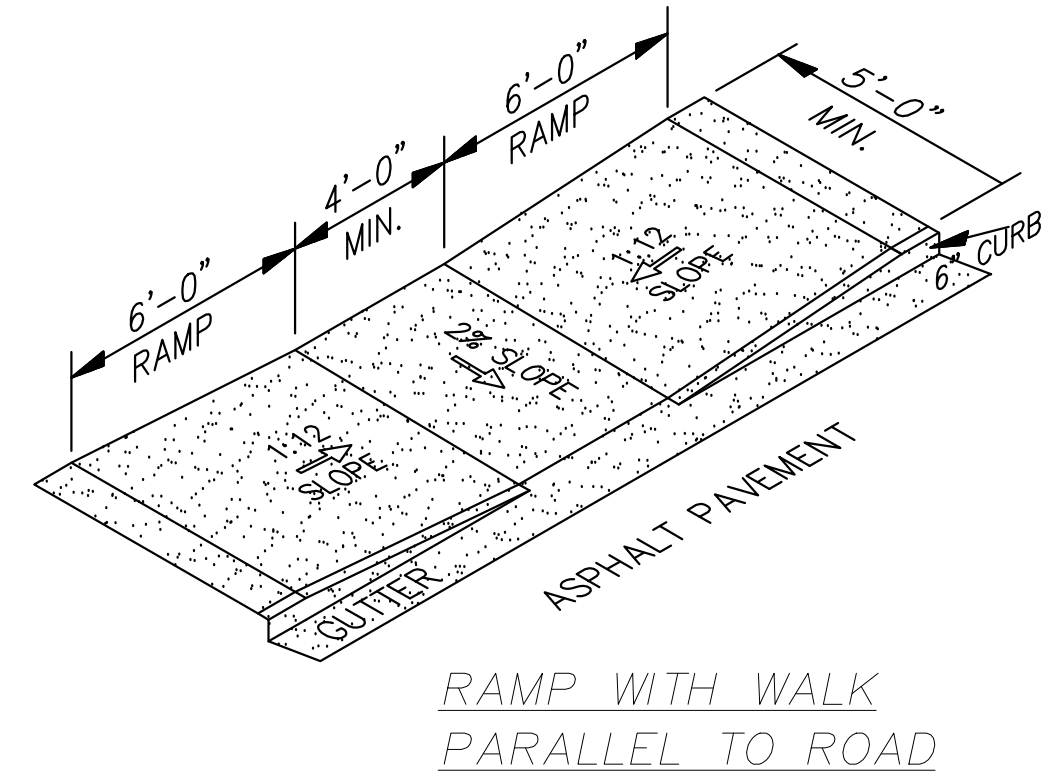
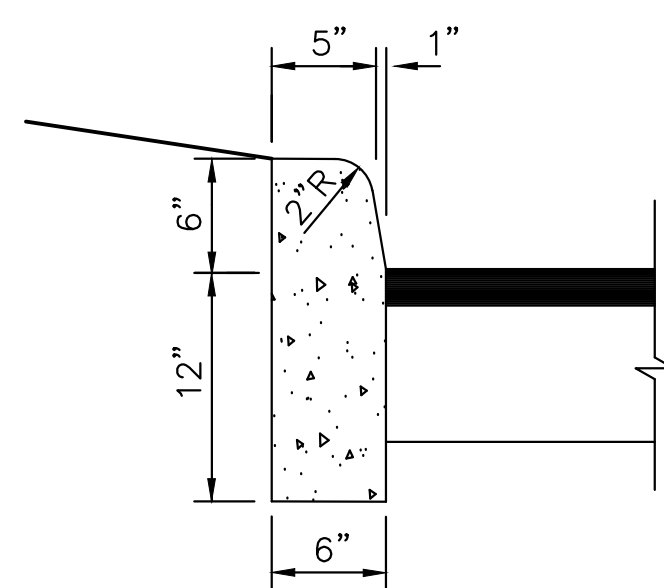
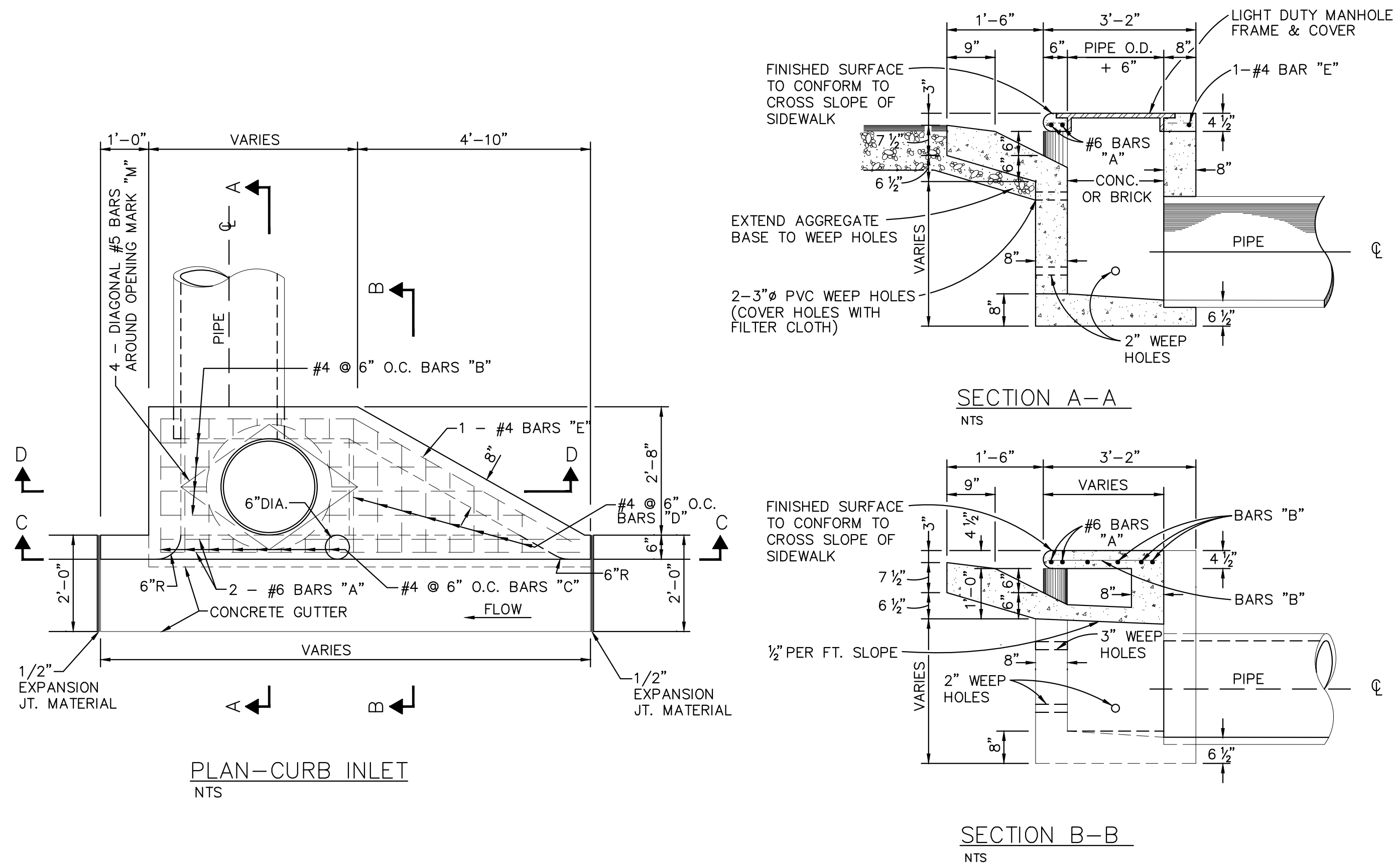
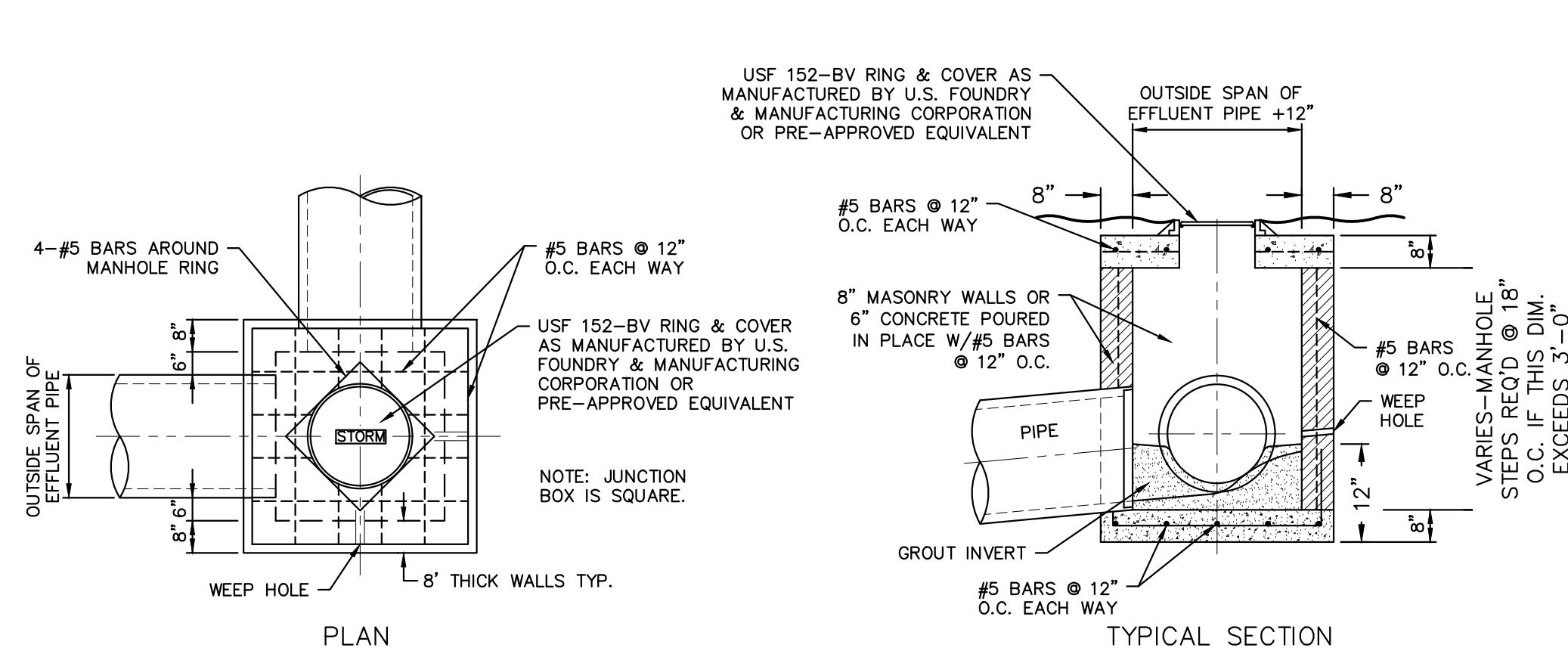
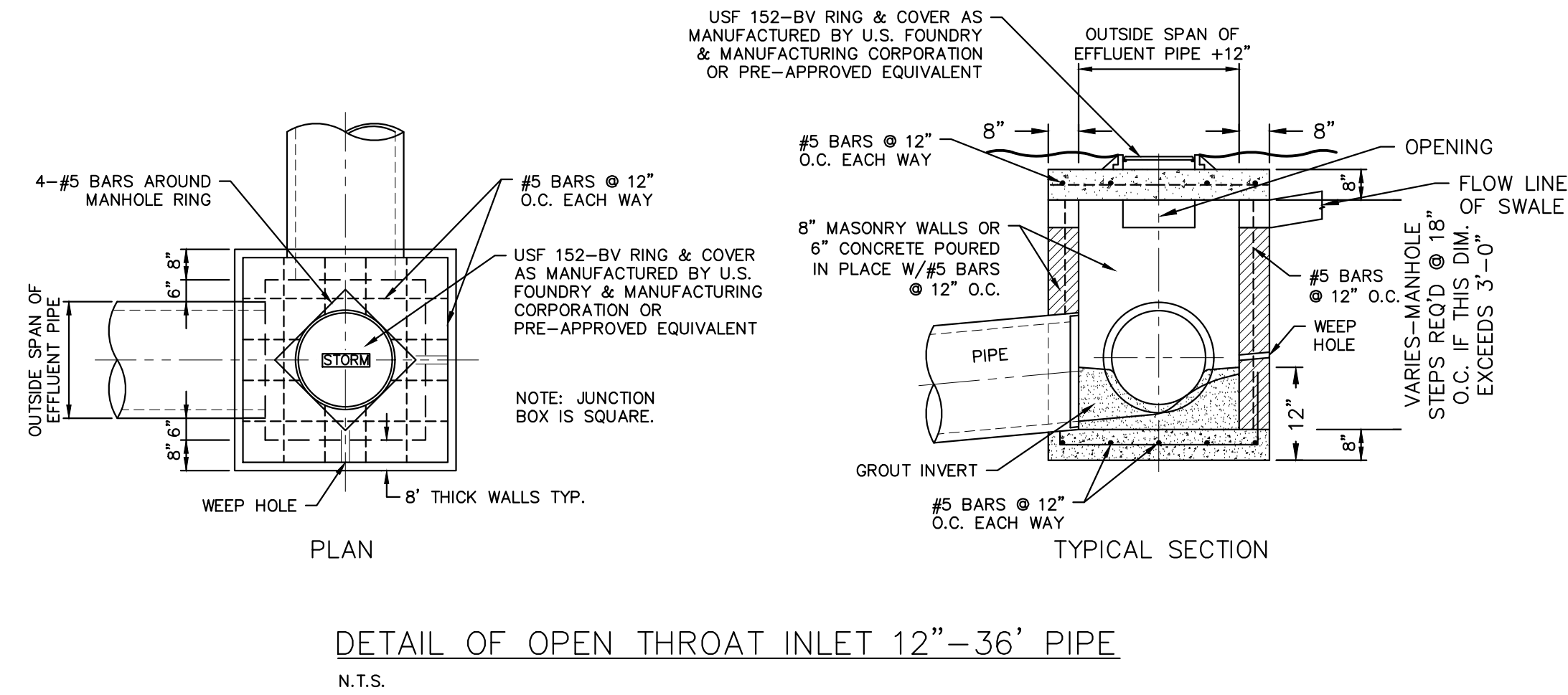
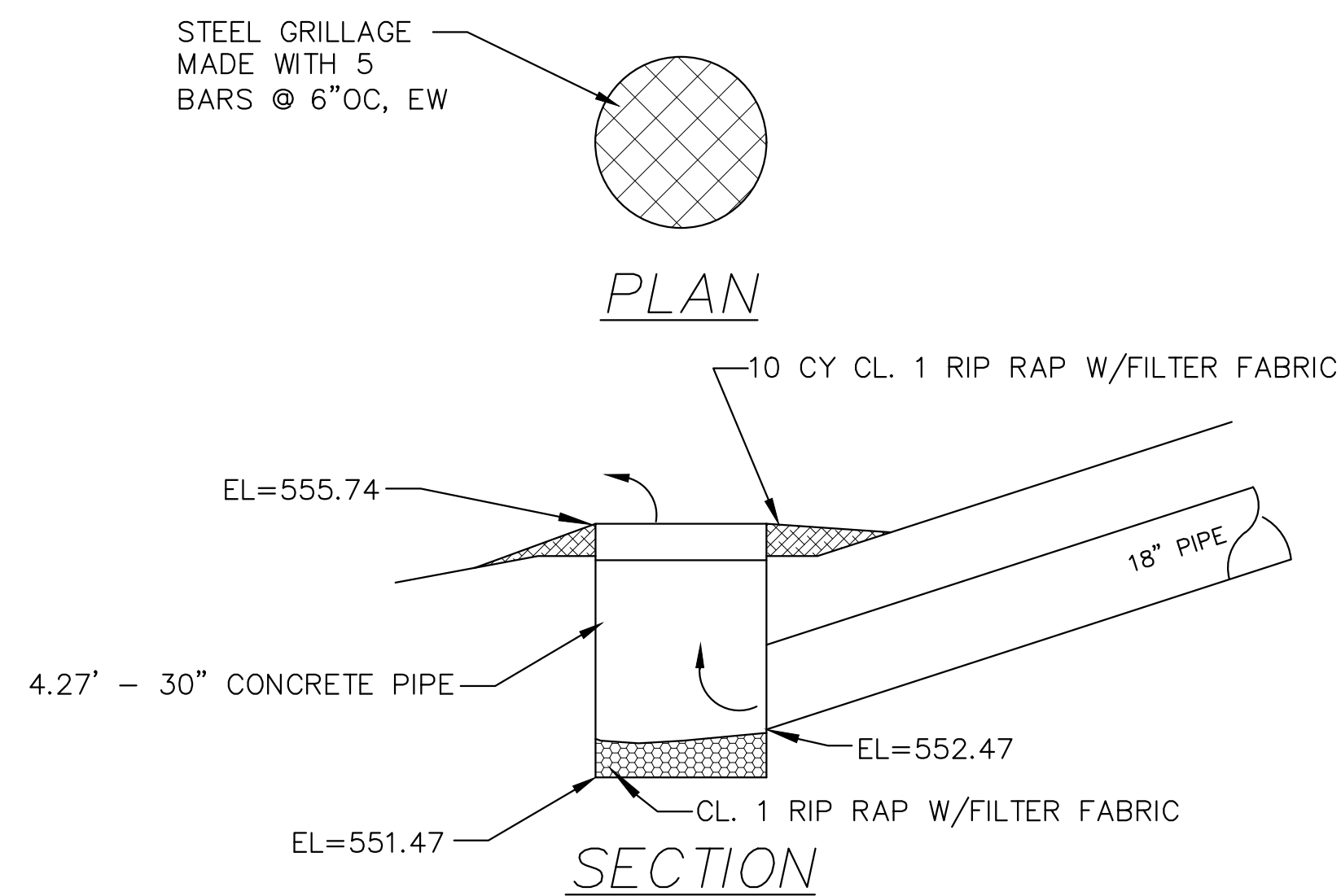
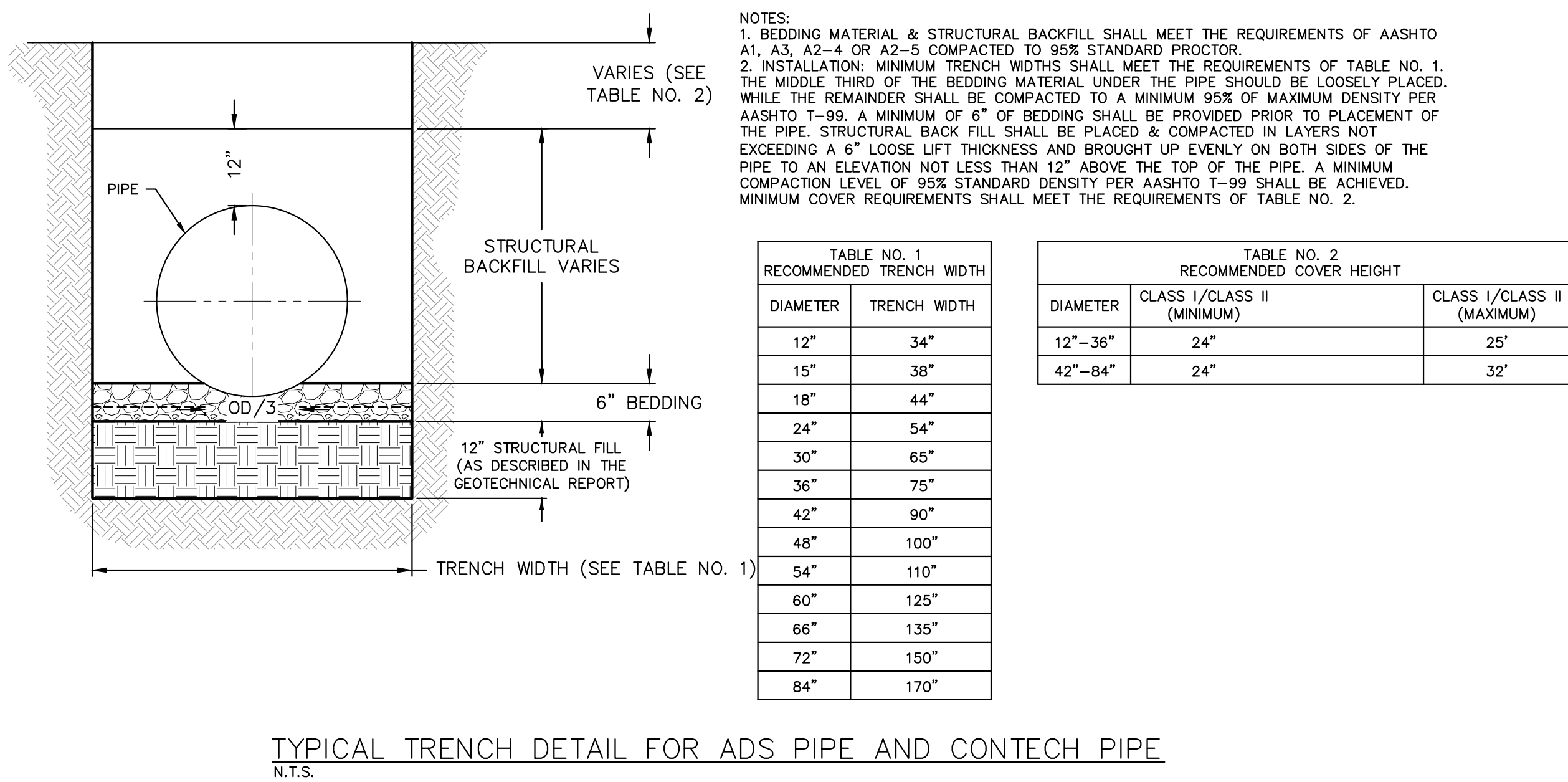
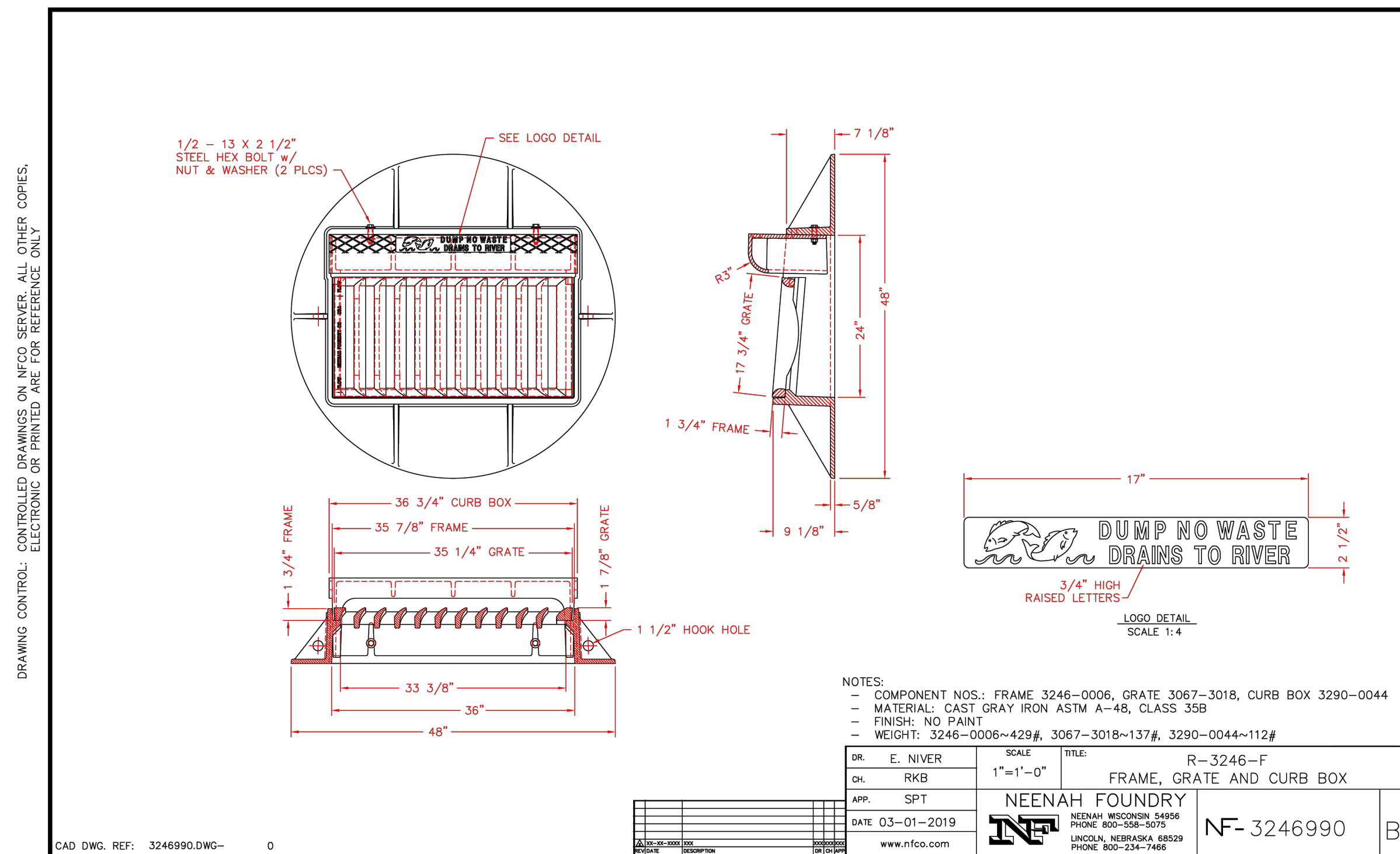


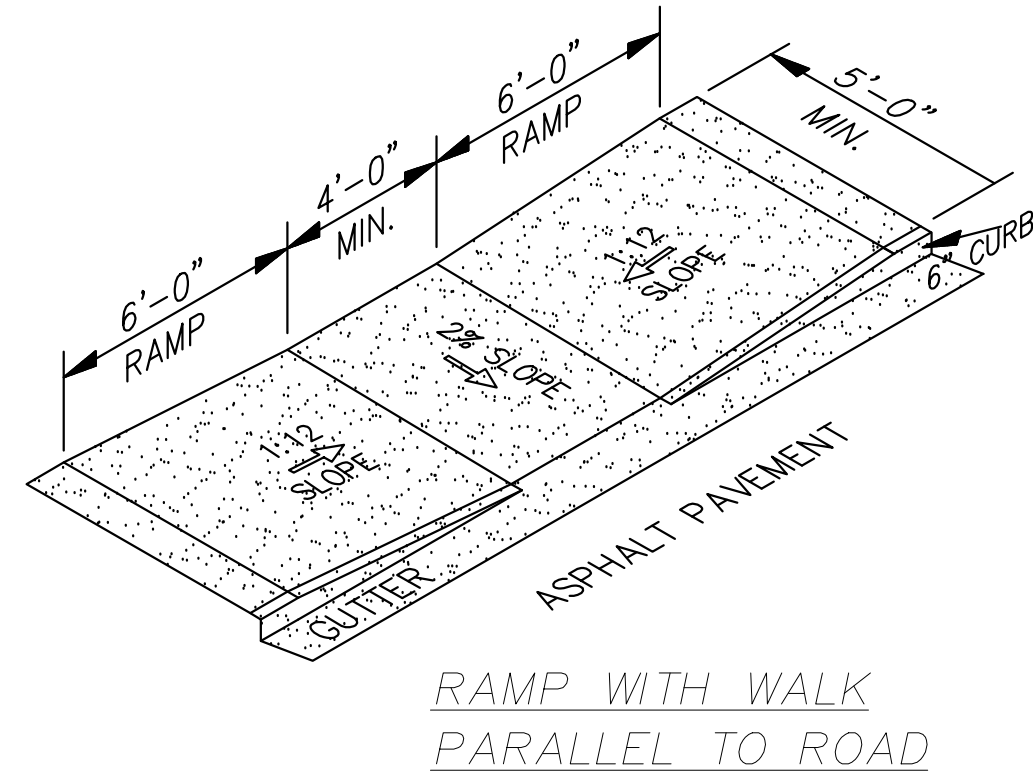
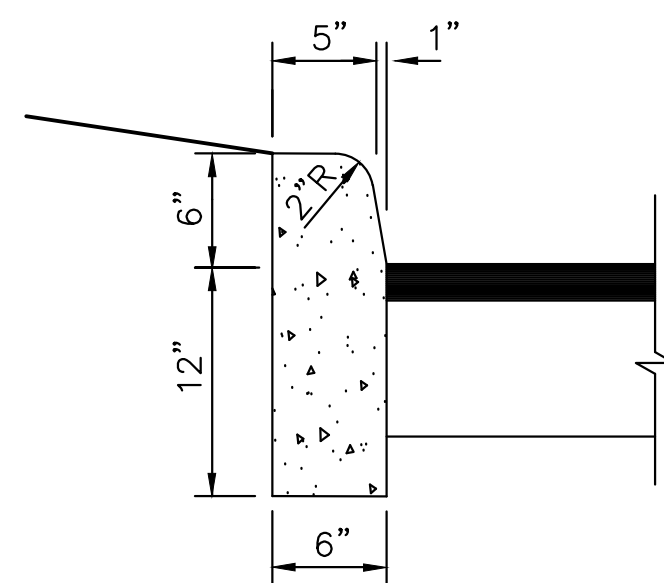
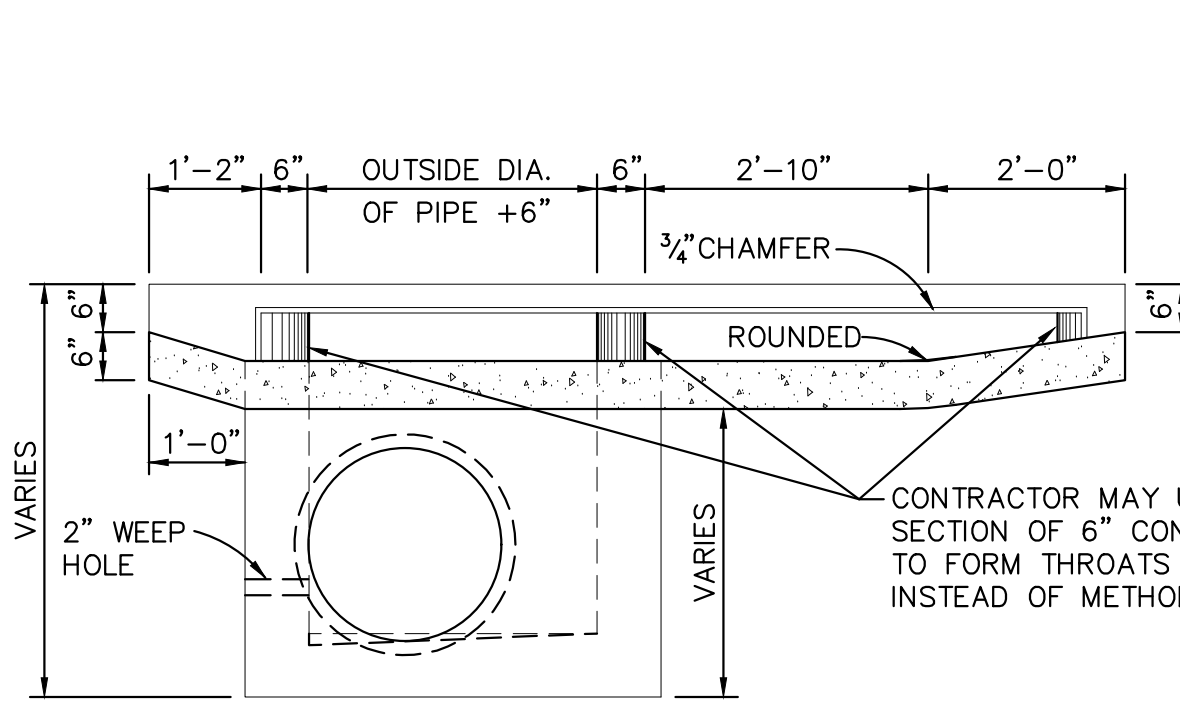
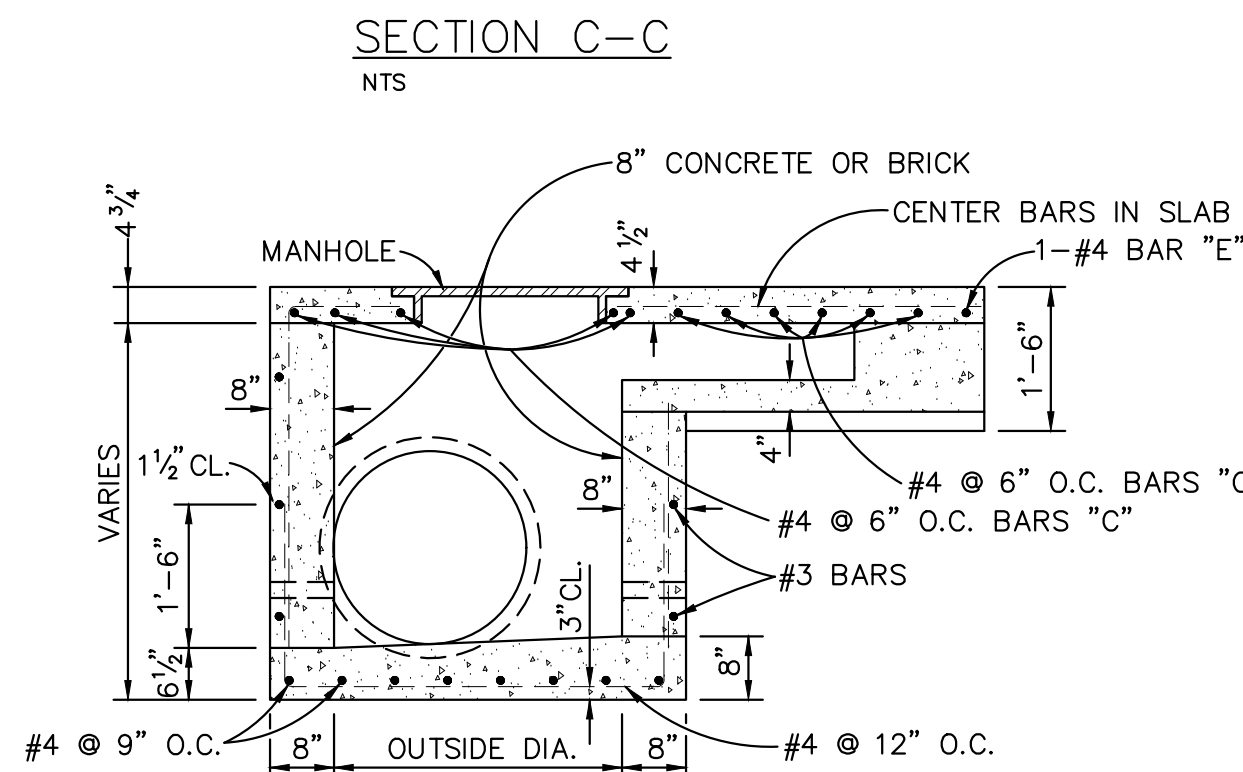
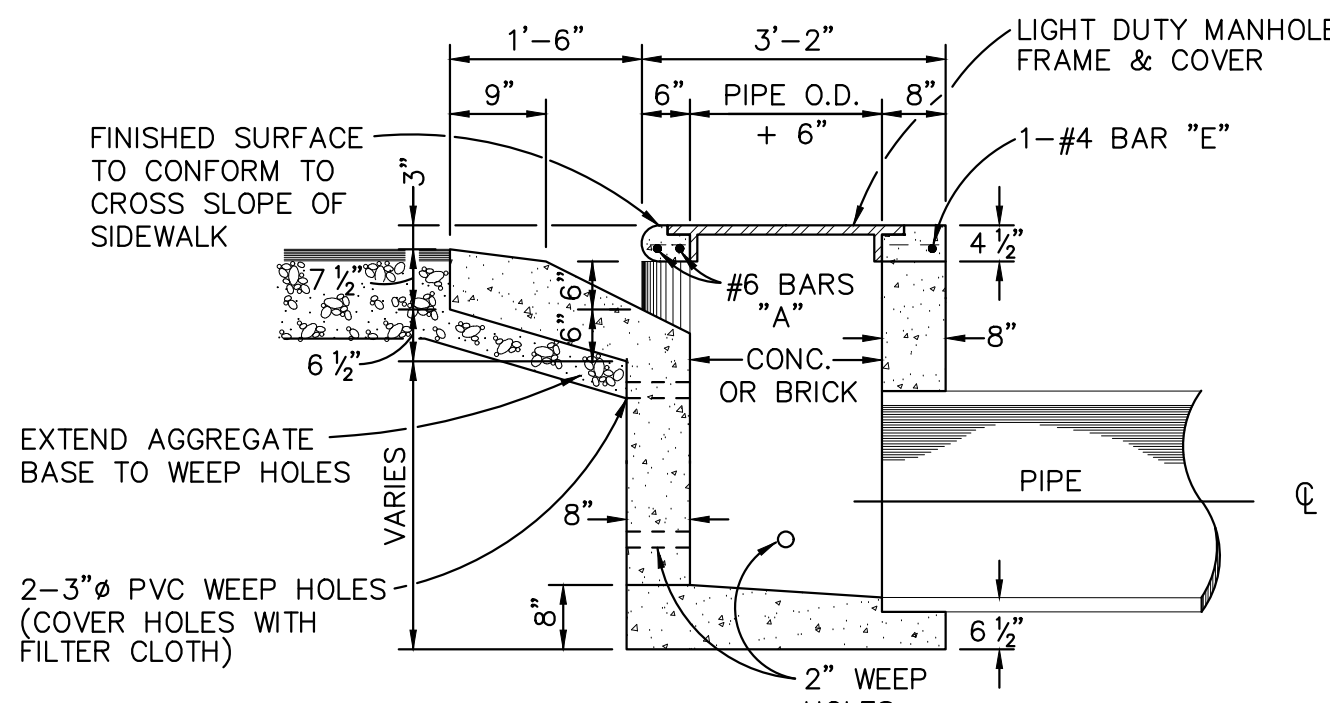
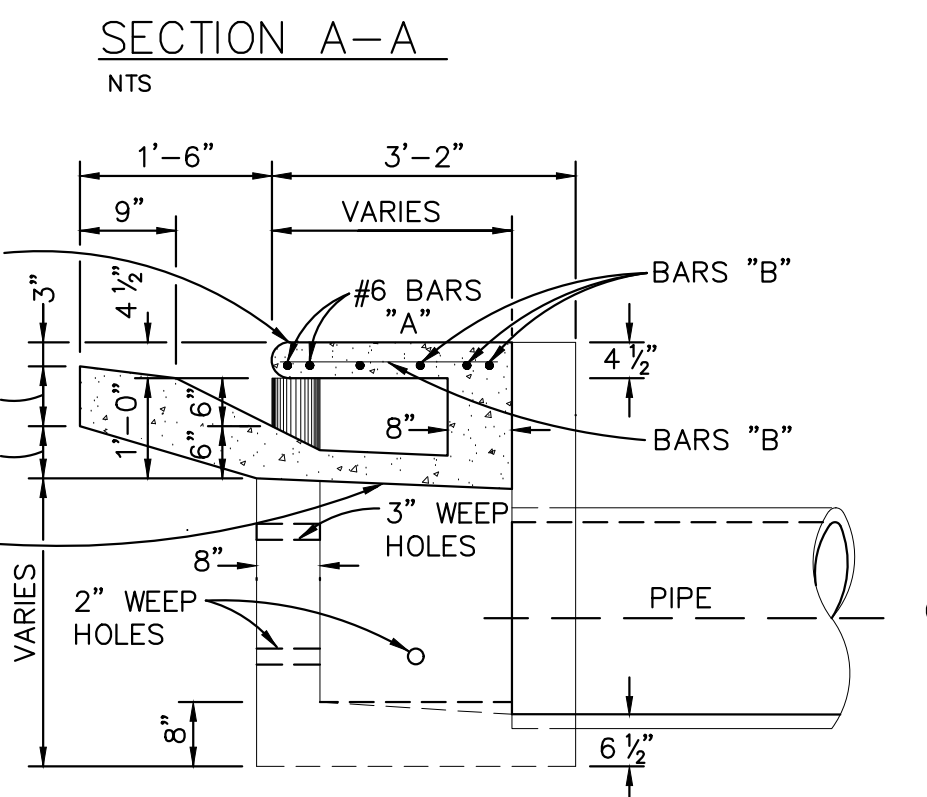
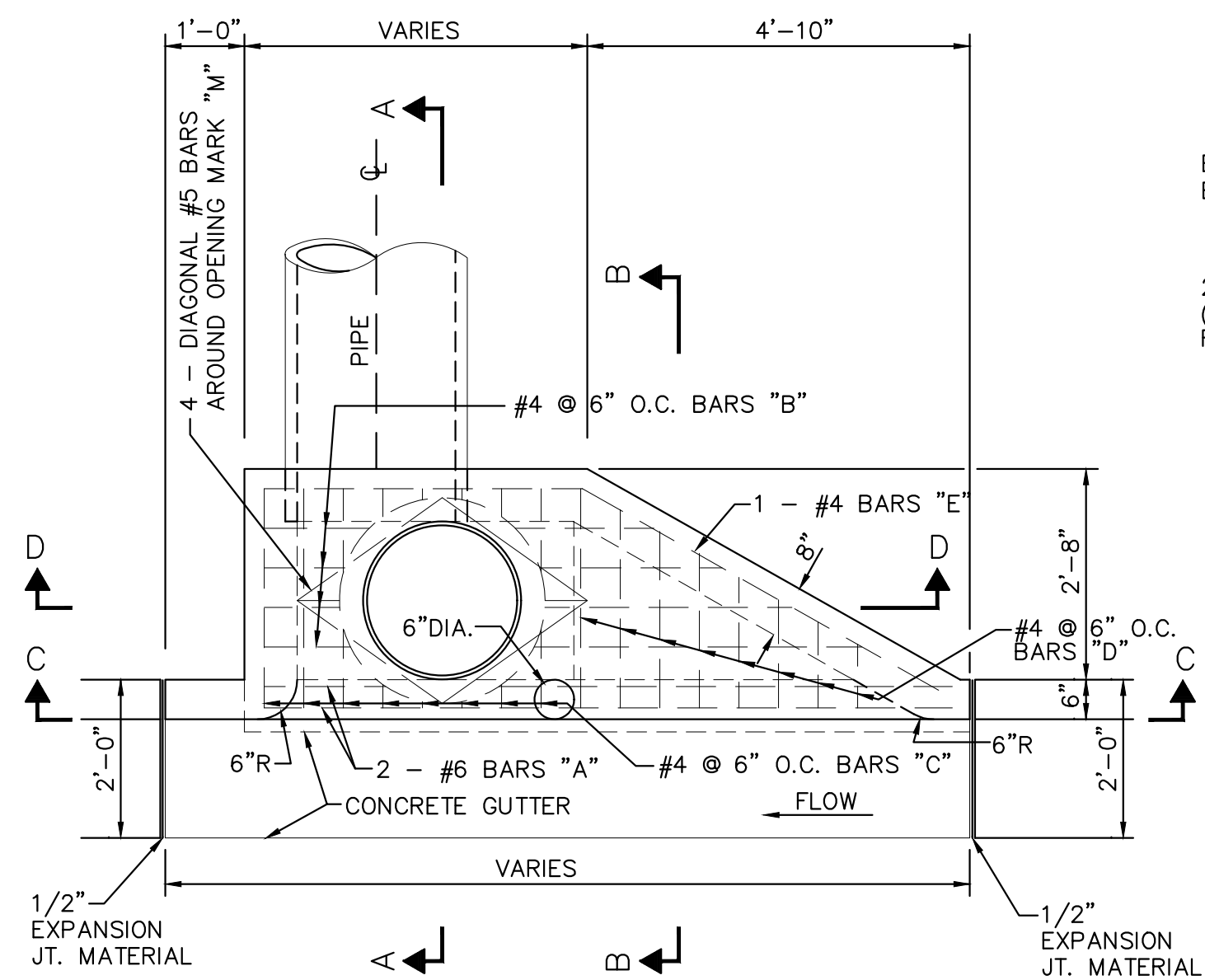
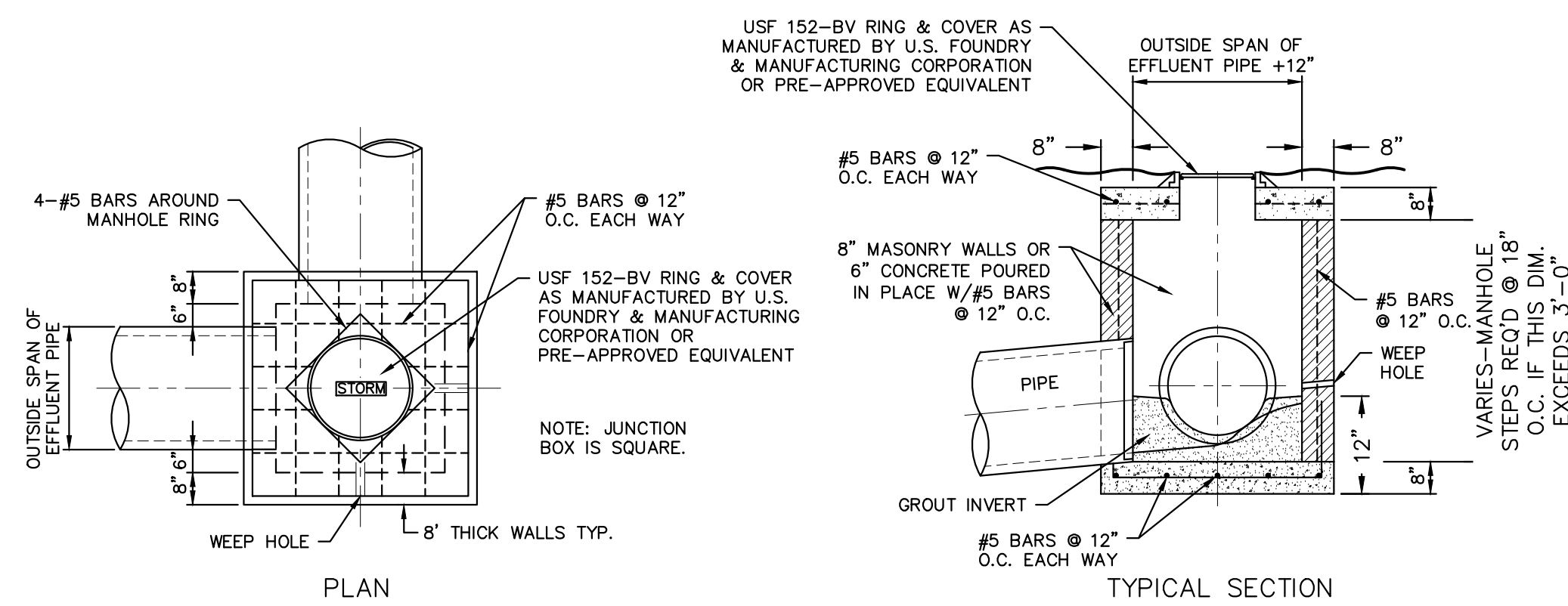
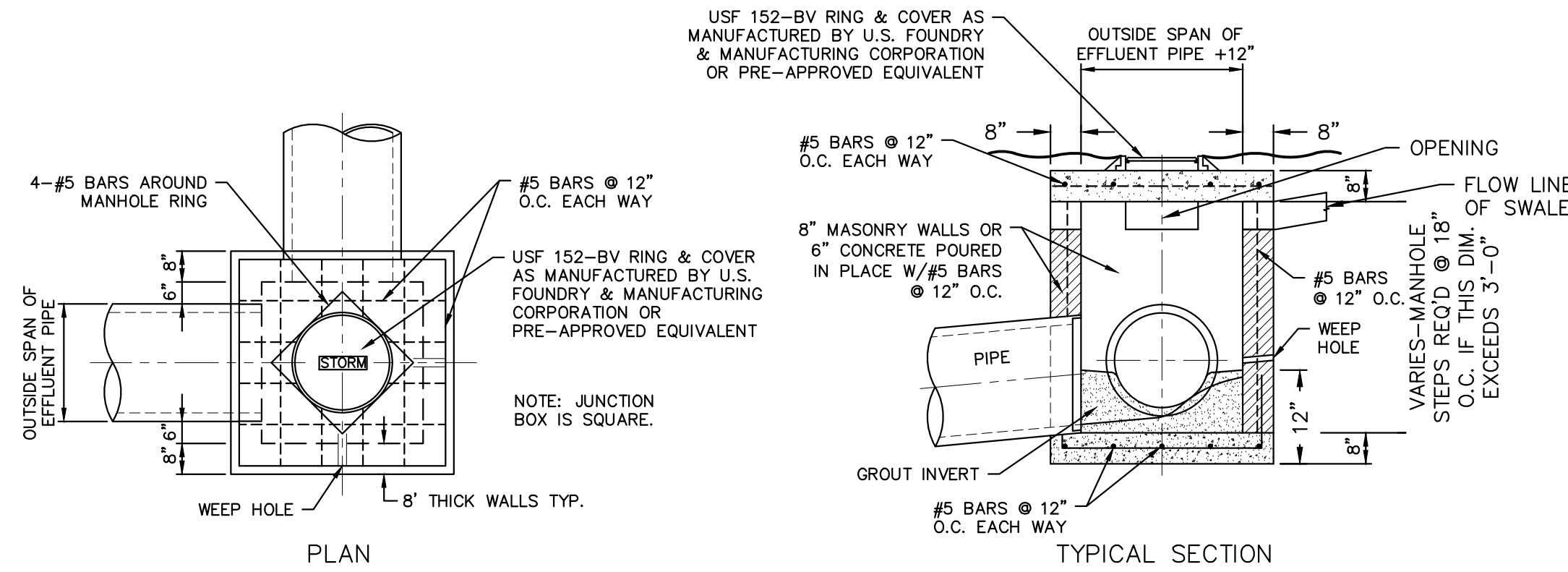
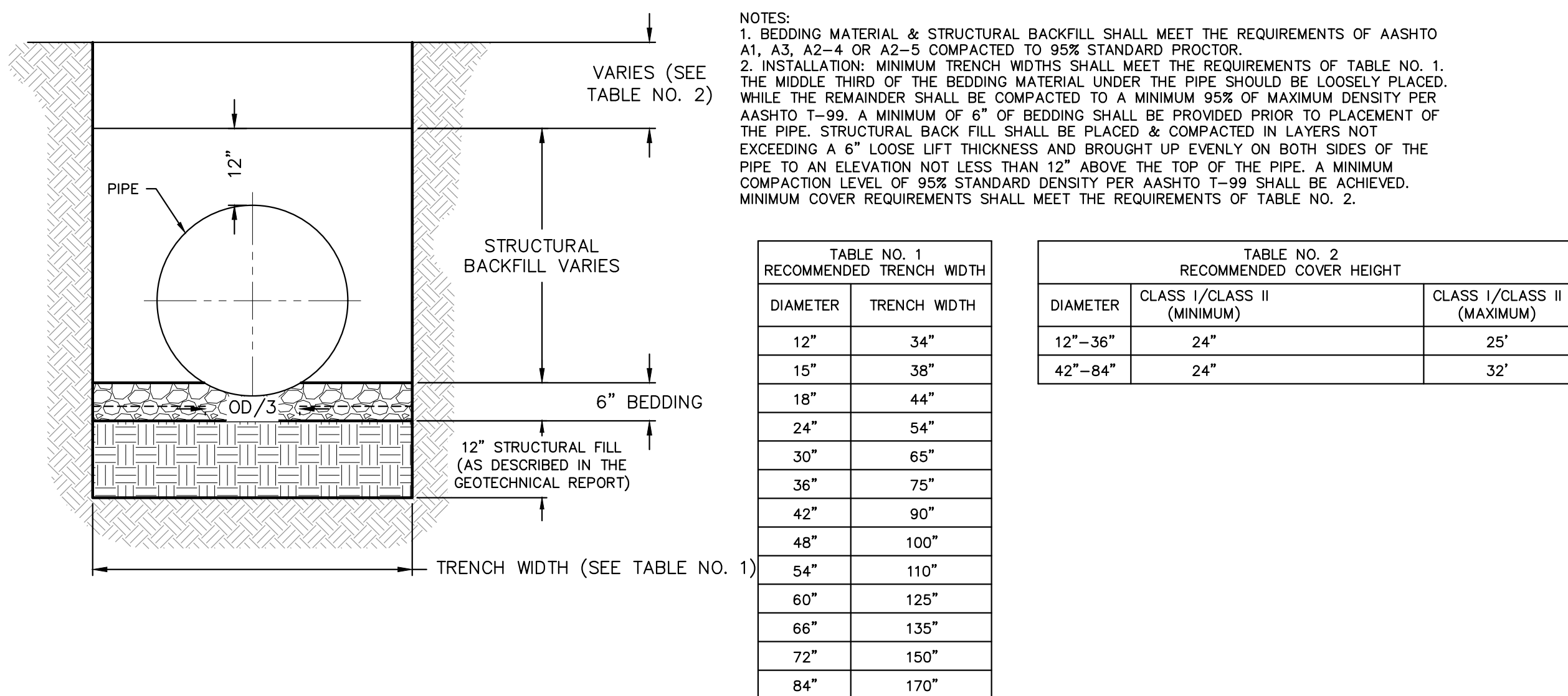
- ① 2.0" - ALDOT SECTION 424-A 342 BITUMINOUS WEARING SURFACE
- ② 1 - ALDOT SECTION 401-A BITUMINOUS PRIME COAT
- ③ 6.0" - ALDOT SECTION 825 CRUSHED AGGREGATE BASE (100% MODIFIED DENSITY)
- ④ 6" ALDOT SECTION 230 MODIFIED ROADBED (100% STANDARD DENSITY)



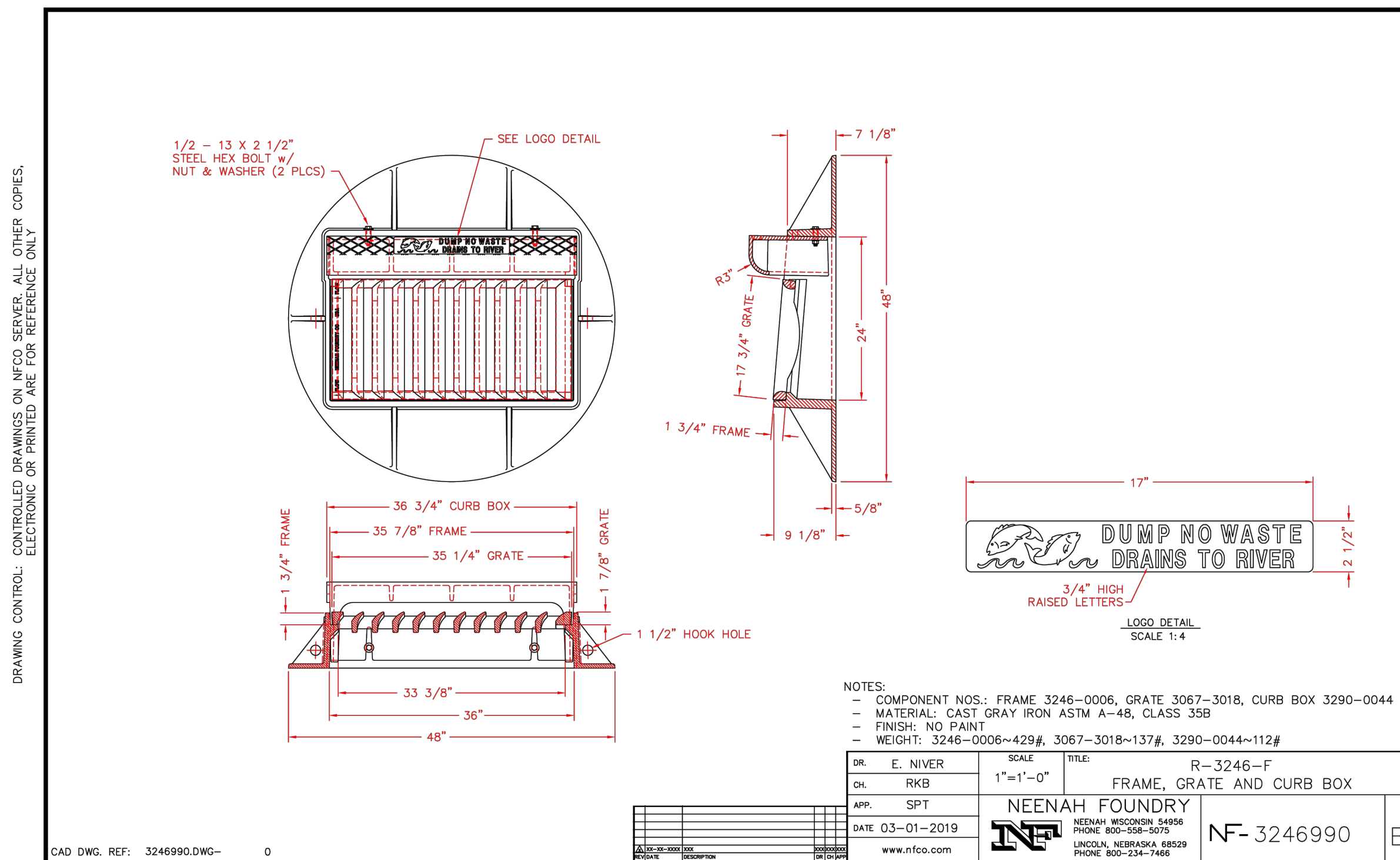
- ① 1.25" - ALDOT SECTION 424-A 340 BITUMINOUS WEARING SURFACE
- ② 1 - ALDOT SECTION 405 BITUMINOUS TACK COAT
- ③ 1.5" - ALDOT SECTION 424-B BITUMINOUS BINDER
- ④ ALDOT SECTION 401-A BITUMINOUS PRIME COAT
- ⑤ 8" ALDOT SECTION 821 GRANULAR SOIL BASE (95% MODIFIED DENSITY)
- ⑥ 6" ALDOT SECTION 230 MODIFIED ROADBED (100% STANDARD DENSITY)

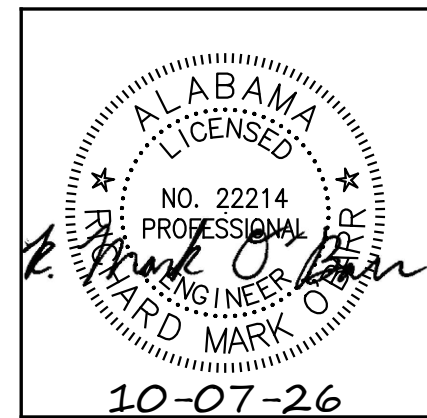






TYPICAL TRENCH DETAIL FOR ADS PIPE AND CONTECH PIPE
N.T.S.





GENERAL NOTES

- FOUNDATION:
- THE BEARING STRATA OF ALL FOOTINGS AND GRADE BEAMS SHALL BE INSPECTED AND APPROVED BY THE SOILS TESTING LABORATORY PRIOR TO PLACING THE REINFORCING STEEL AND CONCRETE.
 - ALL FOOTINGS SHALL BEAR ON AN UNDISTURBED SOIL STRATA OR COMPACTED FILL CAPABLE OF SUSTAINING THE LOADS.
 - FOOTINGS WERE DESIGNED FOR AN ASSUMED ALLOWABLE SOIL BEARING OF P = 1500 PSF. ALLOWABLE SOIL PRESSURE SHALL BE VERIFIED BY TESTING AGENCY PRIOR TO FOOTINGS BEING POURED.
 - ELEVATIONS SHOWN ON PLAN ARE TOP OF FOOTINGS AND ARE MINIMUM DEPTH. DIFFERENT OR UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ARCHITECT AND/OR ENGINEER.
 - ALL FOOTING REINFORCEMENT SHALL BE HELD SECURELY FROM THE GROUND. CONCRETE BLOCK AND BROKEN TILE SHALL NOT BE USED. CONCRETE OR CLAY BRICK MAY BE USED.
 - DOWEL ALL FOOTINGS AND WALLS WHERE THEY ABUT WITH SAME STEEL AS VERTICAL.
 - PROVIDE PREFORMED EXPANSION JOINT WHERE SHOWN.
 - IN FOOTINGS PROVIDE CORNER BARS AT ALL EXTERIOR BUILDING CORNERS.
 - BACK FILL BOTH SIDES OF FOUNDATION WALLS AT SAME TIME TO PREVENT OVERTURNING.

- CONCRETE:
- ALL CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH AT 28 DAYS OF $F_c = 3000$ PSI AND A MAXIMUM WATER-CEMENT RATIO OF 0.53. ALL CONCRETE FOR EXTERIOR APPLICATIONS SHALL CONTAIN ENTRAINED AIR. SEE SPECS FOR ADDITIONAL INFORMATION.
 - REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
 - WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 OR ASTM A1064.
 - UNLESS NOTED OTHERWISE PROTECTIVE COVERING OF REINFORCEMENT SHALL BE AS FOLLOWS (SEE DETAILS): FOOTINGS AND GRADE BEAMS 3" CLEAR BOTTOM AND SIDES, 1 1/2" CLEAR TOP. CONCRETE SLABS 3/4" CLEAR. WALLS 1 1/2" CLEAR SIDES. BEAMS 1 1/2" CLEAR TO STIRRUPS. FORMED CONCRETE COLUMNS 1 1/2" CLEAR TO TIES.
 - LAP ALL CONCRETE WALL VERTICAL REINFORCING AND CONCRETE BEAM HORIZONTAL REINFORCING WITH CLASS A LAP SPLICES. LAP ALL OTHER CONTINUOUS BARS WITH CLASS A SPLICES UNLESS NOTED OTHERWISE.
 - PLACING PLANS AND DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST "A.C.I. DETAILING MANUAL".
 - STEEL FABRICATOR SHALL SUBMIT SHOP DRAWINGS FOR THE ARCHITECT AND/OR ENGINEER'S REVIEW.
 - DO NOT RUN CONDUITS, RACEWAYS, OR PIPES IN CONCRETE SLABS, BEAMS, OR COLUMNS WITHOUT SPECIFIC APPROVAL FROM BLACKBURN DANIELS O'BARR.

- STRUCTURAL STEEL:
- MISCELLANEOUS STEEL SHAPES SHALL CONFORM TO ASTM, A36, LATEST EDITION.

- WOOD FRAMING:
- ALL WOOD FRAMING MEMBERS SHALL BE STRESS RATED AND GRADE MARKED.
 - FRAMING MEMBERS INCLUDING STUDS SHALL BE NO. 2, KILN DRIED, SOUTHERN YELLOW PINE OR APPROVED EQUAL.
 - PROVIDE PREFABRICATED WOOD TRUSSES WHERE INDICATED ON PLAN.
 - ALL TRUSSES SHALL BE DESIGNED AND MANUFACTURED TO MEET THE FOLLOWING WORKING LOADS AND CODES.
MINIMUM LOADS:
ROOF LIVE LOAD 20 PSF
ROOF DEAD LOAD 15 PSF
CEILING LOAD 10 PSF
 - CONNECTORS SHALL MEET THE SPECIFICATIONS OF THE TRUSS PLATE INSTITUTE AND SHALL BE SANFORD, GANG-NAIL, TEMPLIN OR EQUAL.
 - MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS FOR EACH TYPE TRUSS. DESIGNS SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF ALABAMA. SIZES OF MEMBERS MAY BE CHANGED AS ALLOWED OR REQUIRED BY THE GRADE OF LUMBER USED EXCEPT THAT ALL TOP CHORDS AND BOTTOM CHORDS SHALL BE 2X6 MINIMUM.
 - PROVIDE CAMBER IN ALL TRUSSES.
 - PROVIDE VERTICAL WEB MEMBERS TO ACCOMMODATE TRUSS VERTICAL X-BRACING (SEE PLAN FOR LOCATIONS).
 - IN ADDITION TO THE "X" BRACING SHOWN ON THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL PROVIDE ALL BRACING REQUIRED BY THE TRUSS MANUFACTURER. THE DESIGN OF BRACING FOR INDIVIDUAL TRUSS MEMBERS INCLUDING CONTINUOUS BRACING SHALL BE THE RESPONSIBILITY OF THE TRUSS DESIGN ENGINEER AND HE SHALL SHOW THE SIZES OF THIS BRACING ON THE SHOP DRAWINGS INCLUDING ALL END ANCHORAGE DETAILS FOR CONTINUOUS BRACING.
 - AFTER ALL FRAMING HAS BEEN ERRECTED, THE CONTRACTOR SHALL PROVIDE THE ARCHITECT/ENGINEER A WRITTEN STATEMENT STATING HE HAS INSPECTED THE FRAMING AND THAT ALL BRACING SHOWN ON THE SHOP DRAWINGS HAS BEEN INSTALLED IN ACCORDANCE WITH THE SHOP DRAWINGS.
 - ANCHOR ALL TRUSSES, JOISTS, AND RAFTERS TO SUPPORTS WITH GALVANIZED FRAMING ANCHORS.
 - HURRICANE ANCHORS SHOWN ON DRAWINGS ARE MINIMUM REQUIRED. PROVIDE ADDITIONAL ANCHORS AND/OR DIFFERENT TYPES OF ANCHORS AS REQUIRED TO RESIST NET UPLIFT IN ACCORDANCE WITH TRUSS MANUFACTURER'S RECOMMENDATIONS. TRUSS MANUFACTURER SHALL INDICATE REQUIRED ANCHORAGE ON SHOP DRAWINGS.
 - ANCHOR ALL NAILS, ANCHOR BOLTS, AND OTHER STEEL ANCHORS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL. PROVIDE 15# FELT SEPARATOR (OR EQUIVALENT) AS REQUIRED BETWEEN ALL PRESSURE TREATED WOOD AND OTHER METAL FRAMING.
 - UNLESS NOTED OTHERWISE ATTACH PLYWOOD ROOF DECK WITH 10d NAILS @ 6" O.C. AT SUPPORTED EDGES AND @ 12" O.C. AT INTERMEDIATE SUPPORTS. ATTACH PLYWOOD WALL SHEATHING WITH 10d NAILS @ 6" O.C. AT PANEL EDGES AND @ 12" O.C. AT INTERMEDIATE SUPPORTS.

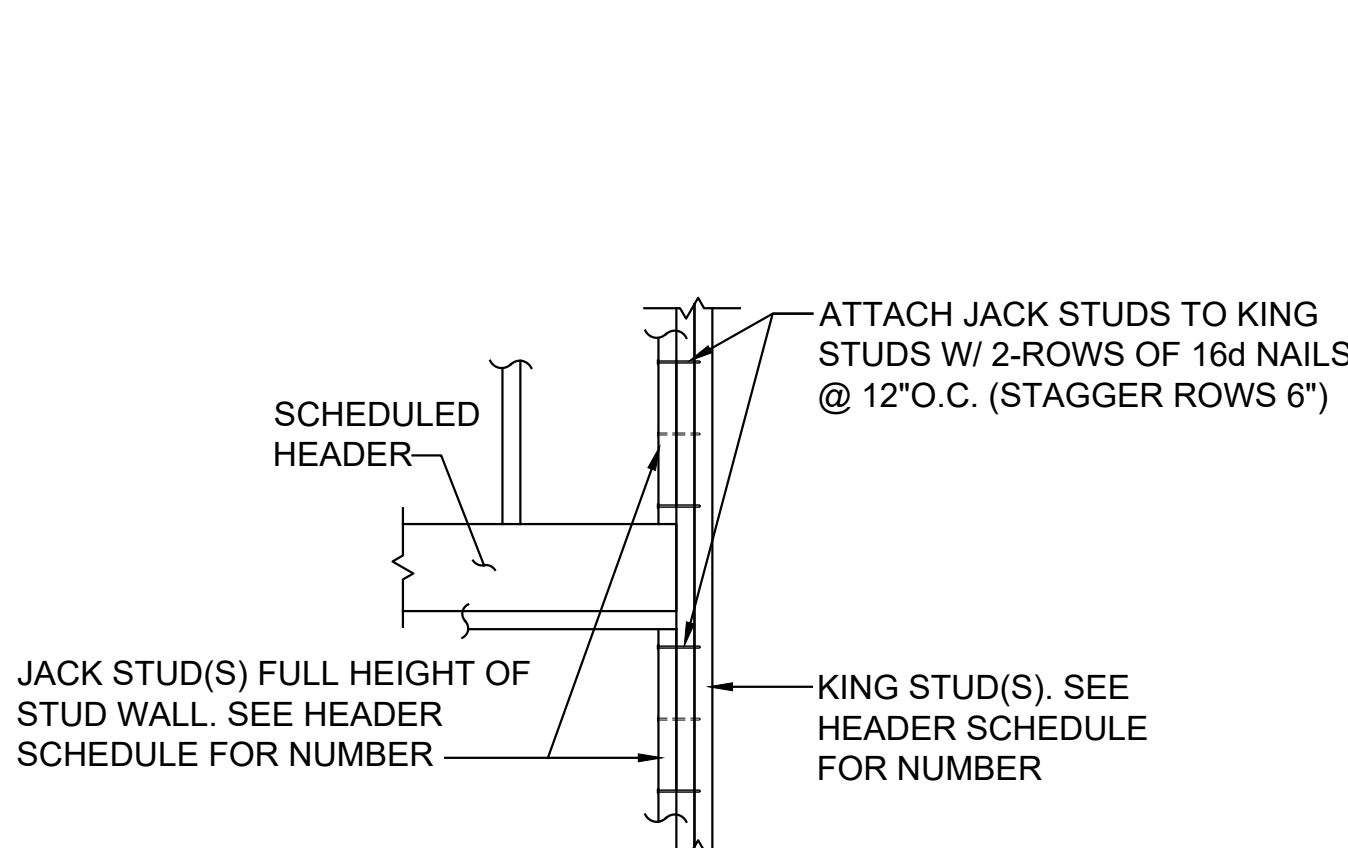
- CODES:
- ALL PARTS SHALL BE FURNISHED AND ERRECTED ACCORDING TO THE APPLICABLE CODES AND SPECIFICATIONS OF THE FOLLOWING:
- AMERICAN CONCRETE INSTITUTE (ACI)
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
NATIONAL LUMBER MANUFACTURERS ASSOCIATION (NLMA)
AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC)
INTERNATIONAL BUILDING CODE (IBC 2021) (ICC)

- DESIGN LIVE LOADS:
- ROOF 20 PSF
RISK CATEGORY (PER IBC 2021/ASCE 7-16) III
WIND INTERNATIONAL BUILDING CODE (PER ASCE 7-16)
ULTIMATE DESIGN WIND SPEED (V_{ult}) 125 MPH
NOMINAL DESIGN WIND SPEED (V_{ref}) 97 MPH
WIND EXPOSURE C
INTERNAL PRESSURE COEFFICIENTS +/-0.18
SEISMIC INTERNATIONAL BUILDING CODE (PER ASCE 7-16)
SEISMIC IMPORTANCE FACTOR 1.0
MAPPED SPECTRAL ACCELERATION (SHORT-TERM) $S_s = 0.102g$
MAPPED SPECTRAL ACCELERATION (1-SECOND) $S_1 = 0.067g$
SITE CLASS D
SHORT-PERIOD SPECTRAL RESPONSE ACCEL $S_{ds} = 0.108g$
1-SECOND SPECTRAL RESPONSE ACCEL $S_{d1} = 0.107g$
SEISMIC DESIGN CATEGORY B
SEISMIC FORCE-RESISTING SYSTEM PLYWOOD SHEAR WALLS
DESIGN BASE SHEAR (ULTIMATE) 5.0k
SEISMIC RESPONSE COEFFICIENT $C_d = 0.021$
RESPONSE MODIFICATION FACTOR $R = 6.5$
ANALYSIS PROCEDURE ASCE 7 (SECT 12.8)

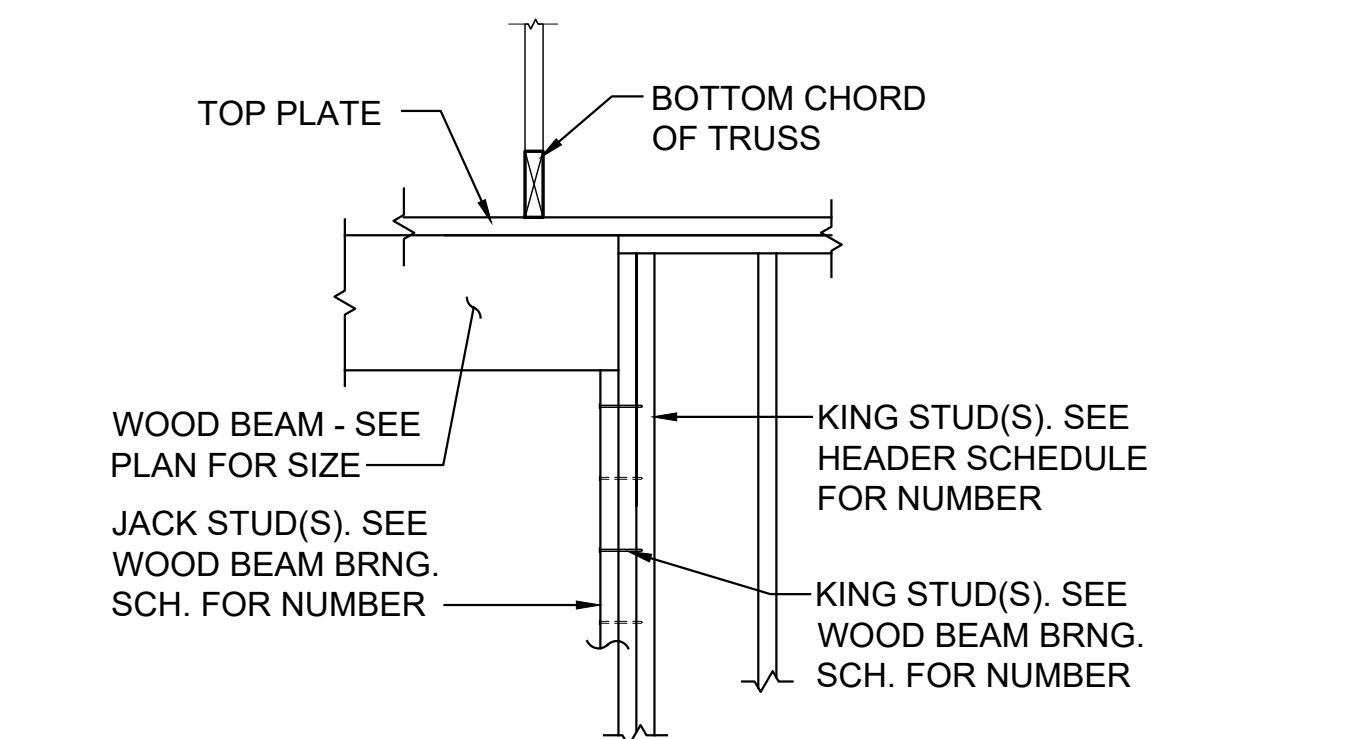
- SNOW INTERNATIONAL BUILDING CODE
GROUND SNOW LOAD $P_g = 5$ PSF
- COMPONENTS AND CLADDING ULTIMATE WIND PRESSURES:
NOTE: MULTIPLY ALL VALUES SHOWN BELOW BY 0.6 TO GET ALLOWABLE DESIGN PRESSURES.
SEE FIGURE 30.4-1 OF ASCE 7-16 FOR INDICATED ZONES.

- ROOF: TRIBUTARY AREA A = 10 SF
ZONE 1: -58.7 PSF/26.1 PSF
ZONE 2a: -82.3 PSF/26.1 PSF
ZONE 2: -76.5 PSF/26.1 PSF
ZONE 3: -82.3 PSF/26.1 PSF
ROOF: TRIBUTARY AREA A = 100 SF
ZONE 1: -35.0 PSF/14.2 PSF
ZONE 2a: -55.1 PSF/14.2 PSF
ZONE 2: -51.4 PSF/14.2 PSF
ZONE 3: -55.1 PSF/14.2 PSF
WALL: TRIBUTARY AREA A = 10 SF
ZONE 4: -37.8 PSF/35.0 PSF
ZONE 5: -45.8 PSF/35.0 PSF
WALL: TRIBUTARY AREA A = 50 SF
ZONE 4: -34.3 PSF/31.3 PSF
ZONE 5: -39.5 PSF/31.3 PSF
WALL: TRIBUTARY AREA A = 100 SF
ZONE 4: -32.7 PSF/29.8 PSF
ZONE 5: -36.3 PSF/29.8 PSF
CORNER ZONE = 5.0 FT

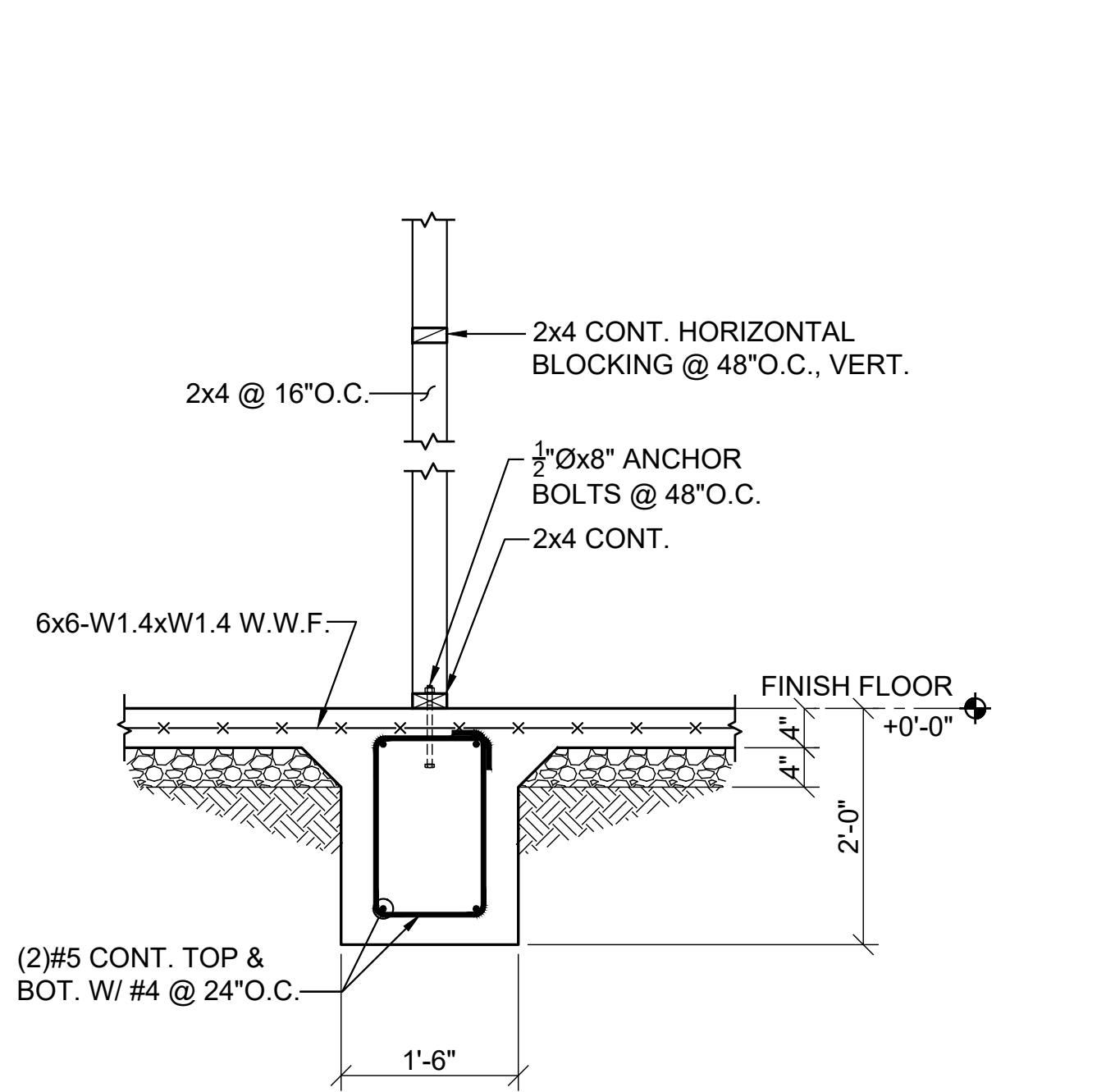
- SPECIAL INSPECTIONS:
- ALL SPECIAL INSPECTIONS REQUIRED BY CHAPTER 17 OF IBC SHALL BE PERFORMED BY A DESIGNATED TESTING AGENCY OR AGENCIES RESPONSIBLE FOR SPECIAL INSPECTIONS.



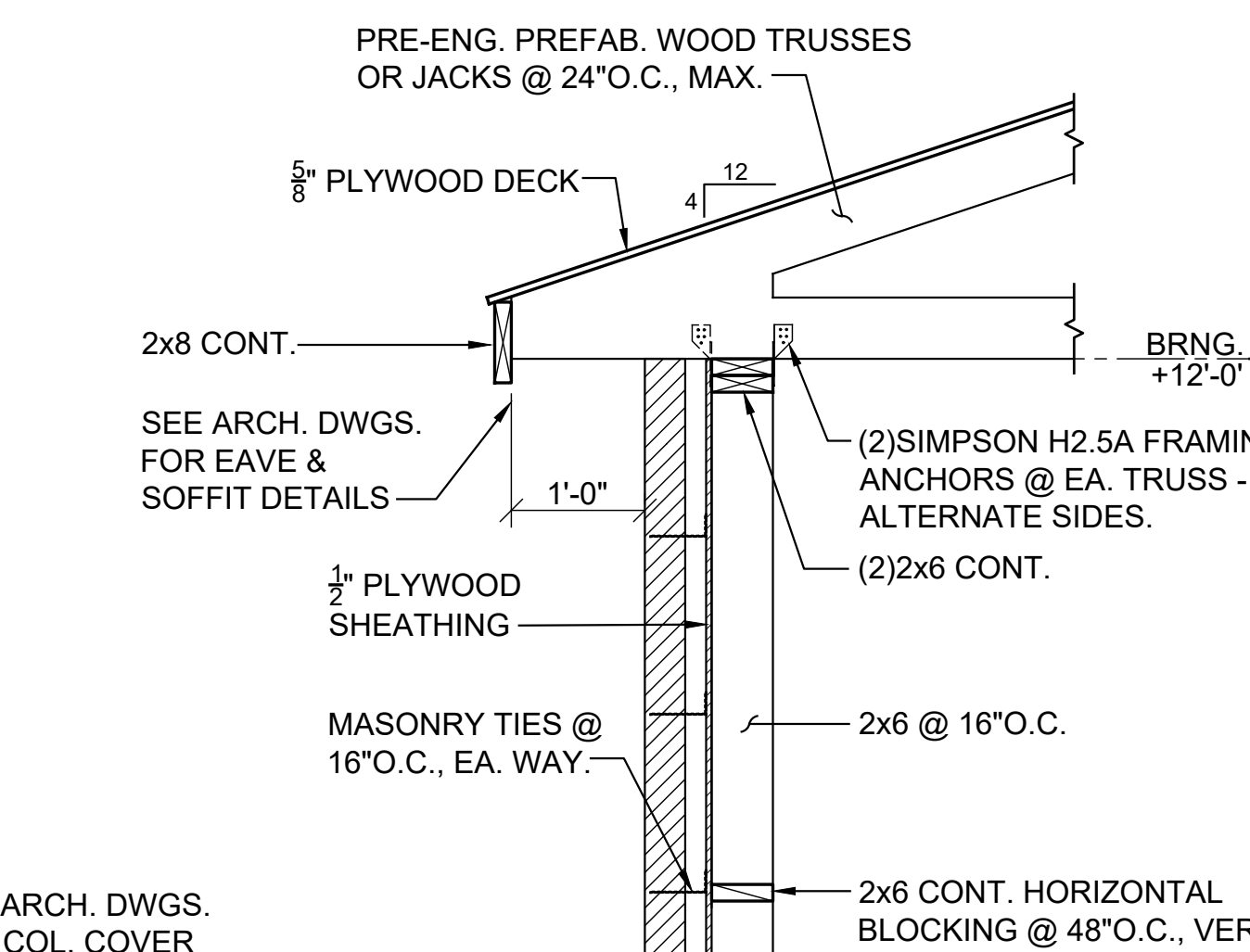
TYPICAL WOOD HEADER BEARING DETAIL



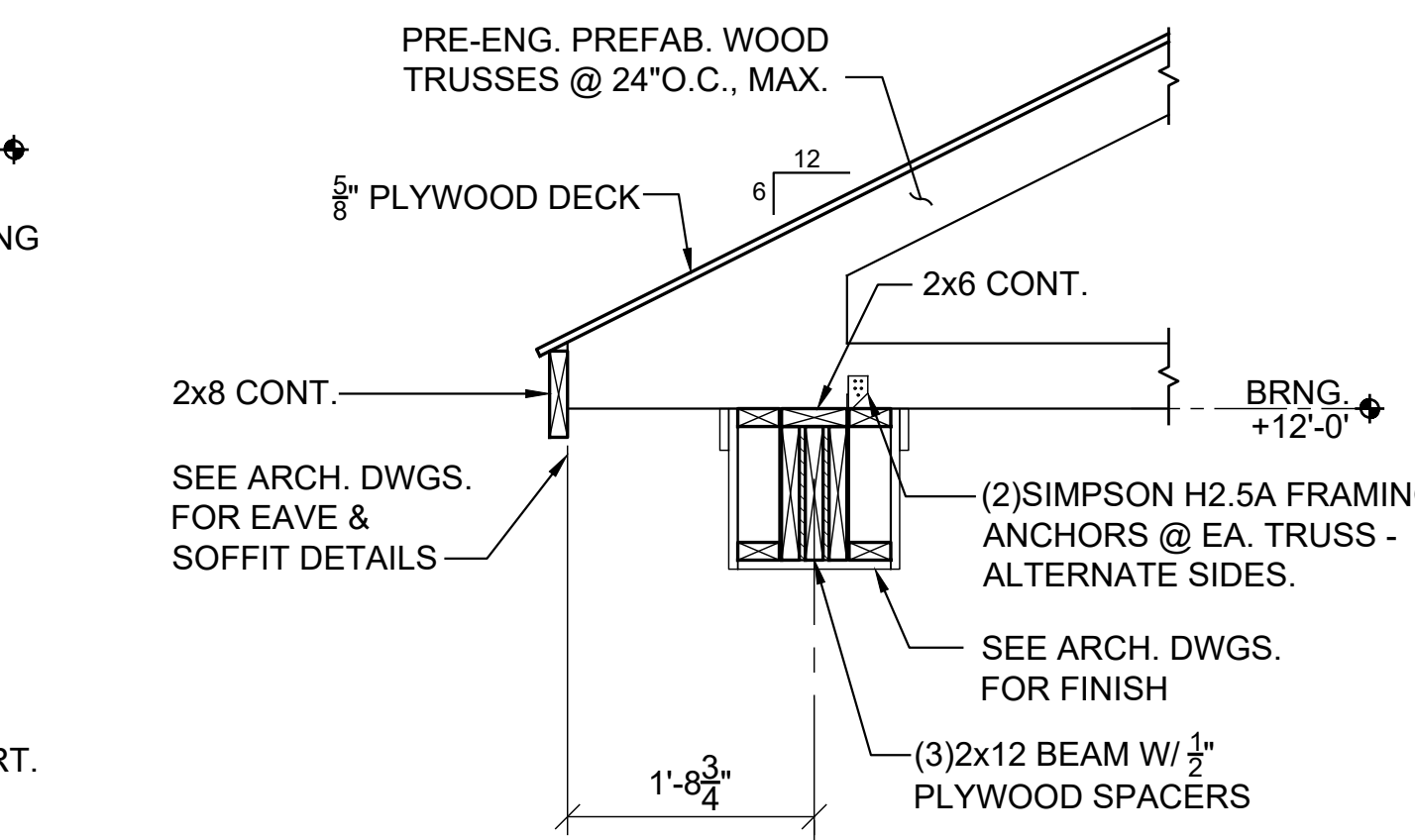
TYPICAL WOOD BEAM BEARING DETAIL



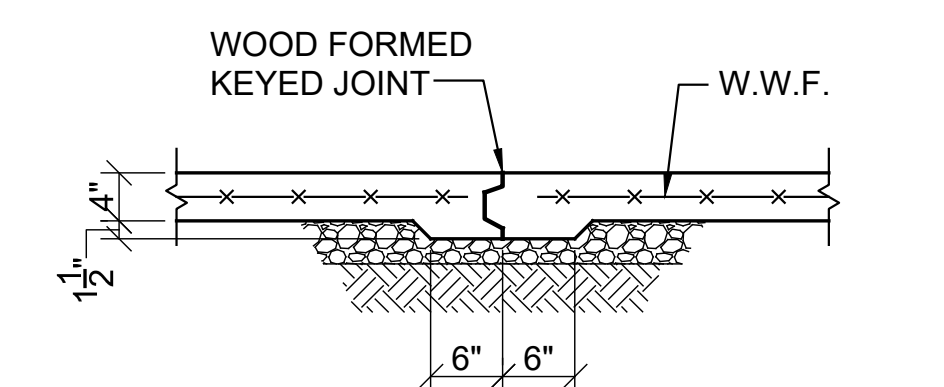
SECTION 2
3/4"=1'-0"



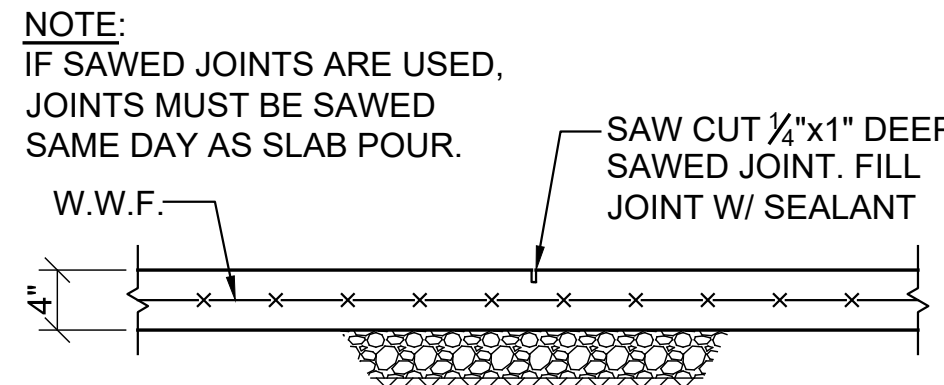
SECTION 4
3/4"=1'-0"



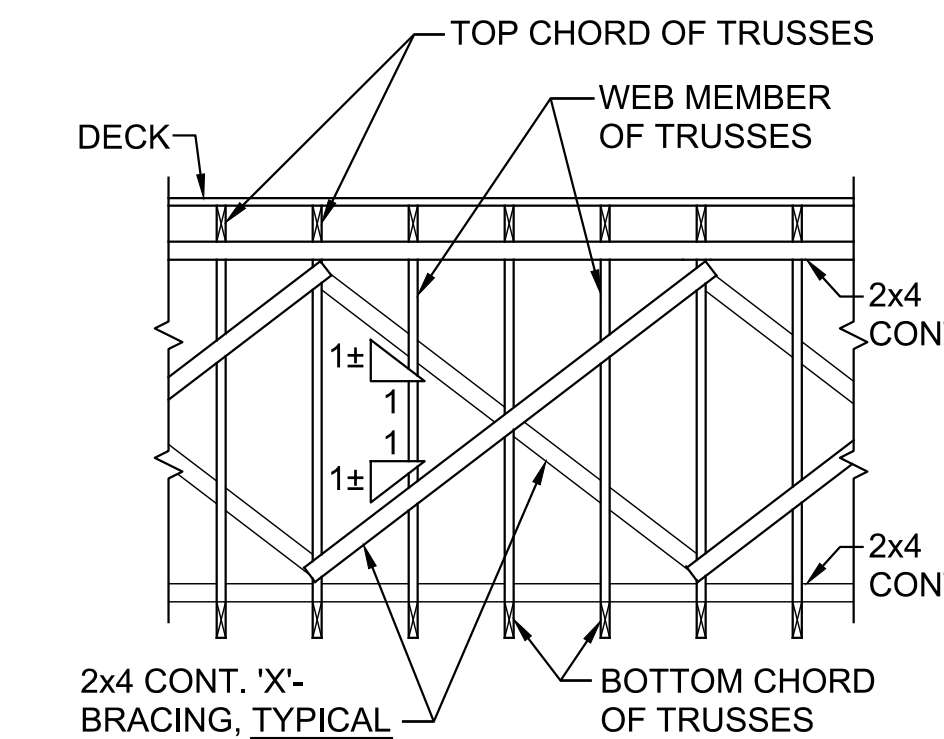
SECTION 5
3/4"=1'-0"



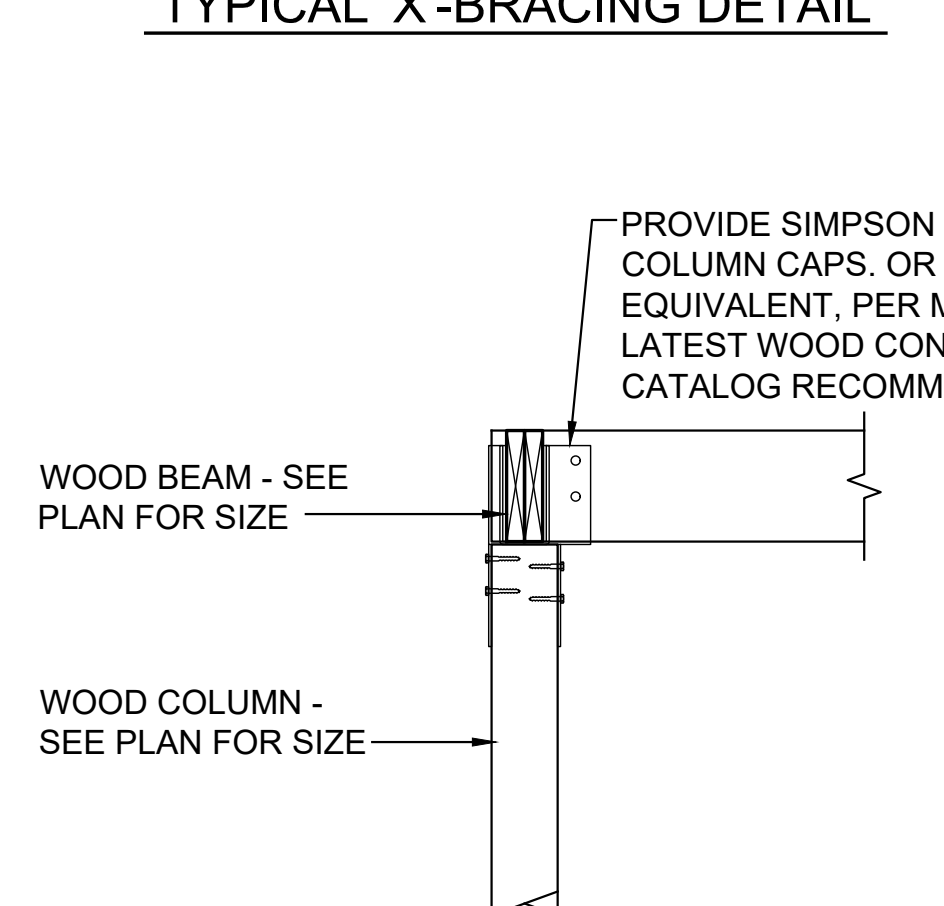
TYPICAL SLAB CONSTRUCTION
JOINT DETAIL-(C.J.)



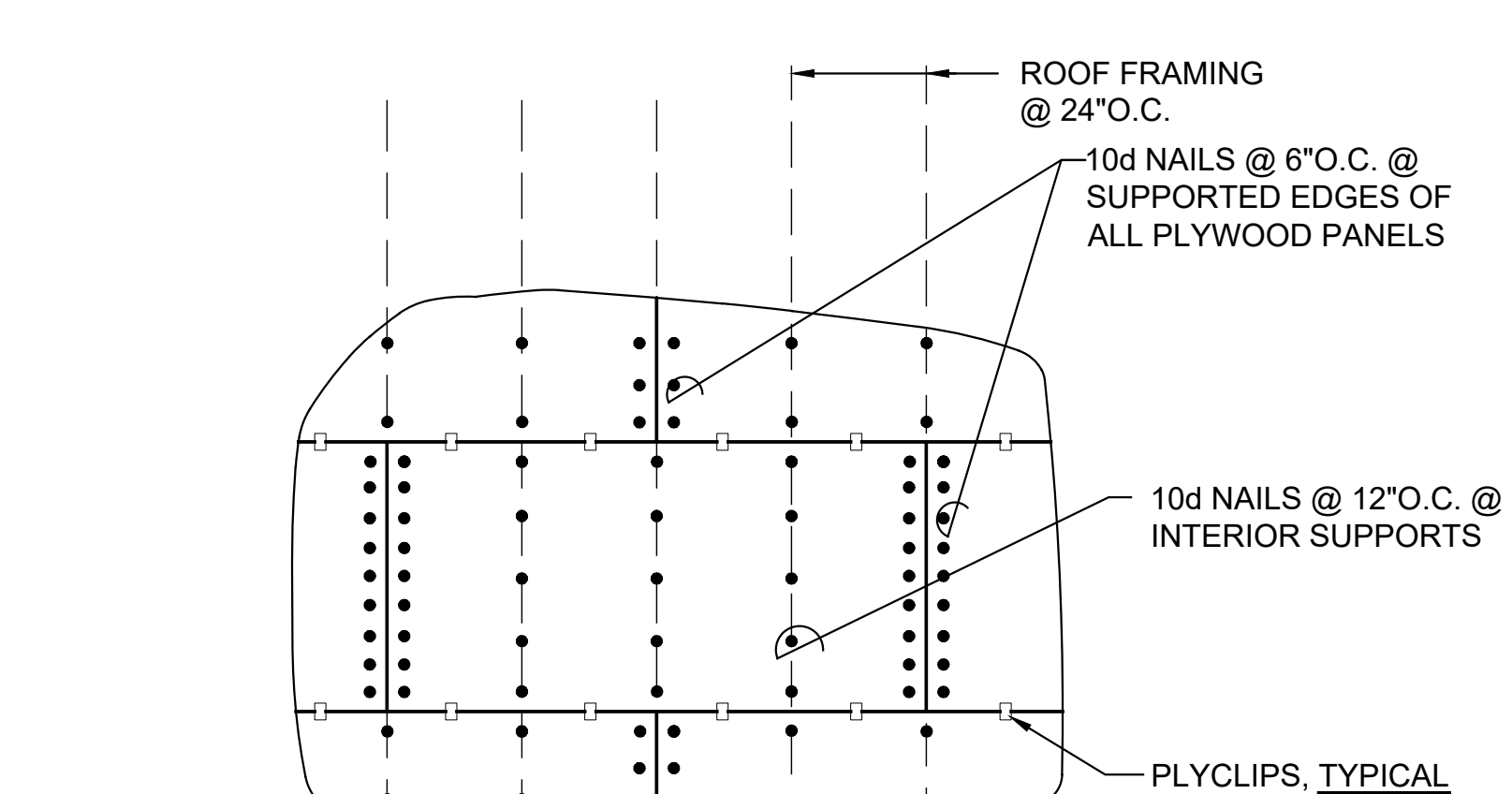
ALTERNATE SLAB CONSTRUCTION
JOINT DETAIL (SAWED JOINT)



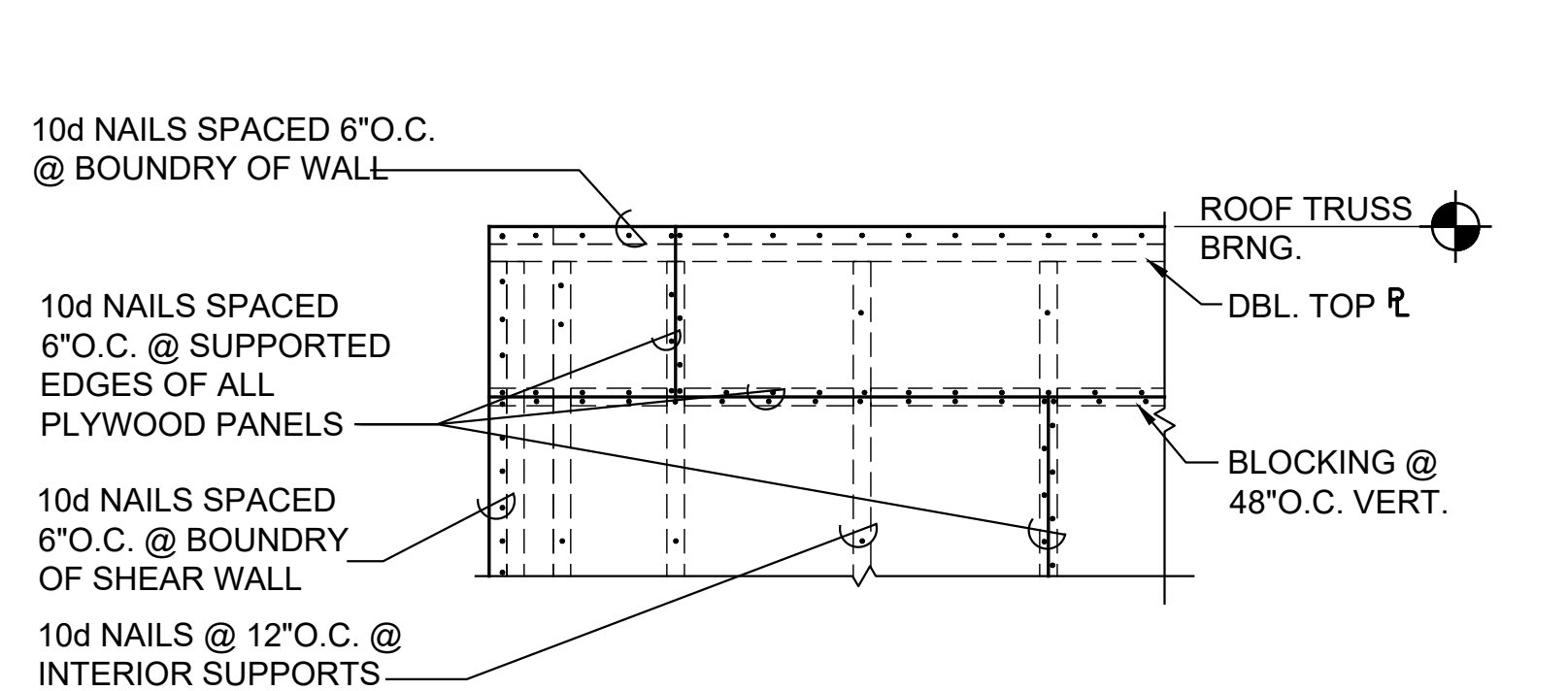
TYPICAL 'X'-BRACING DETAIL



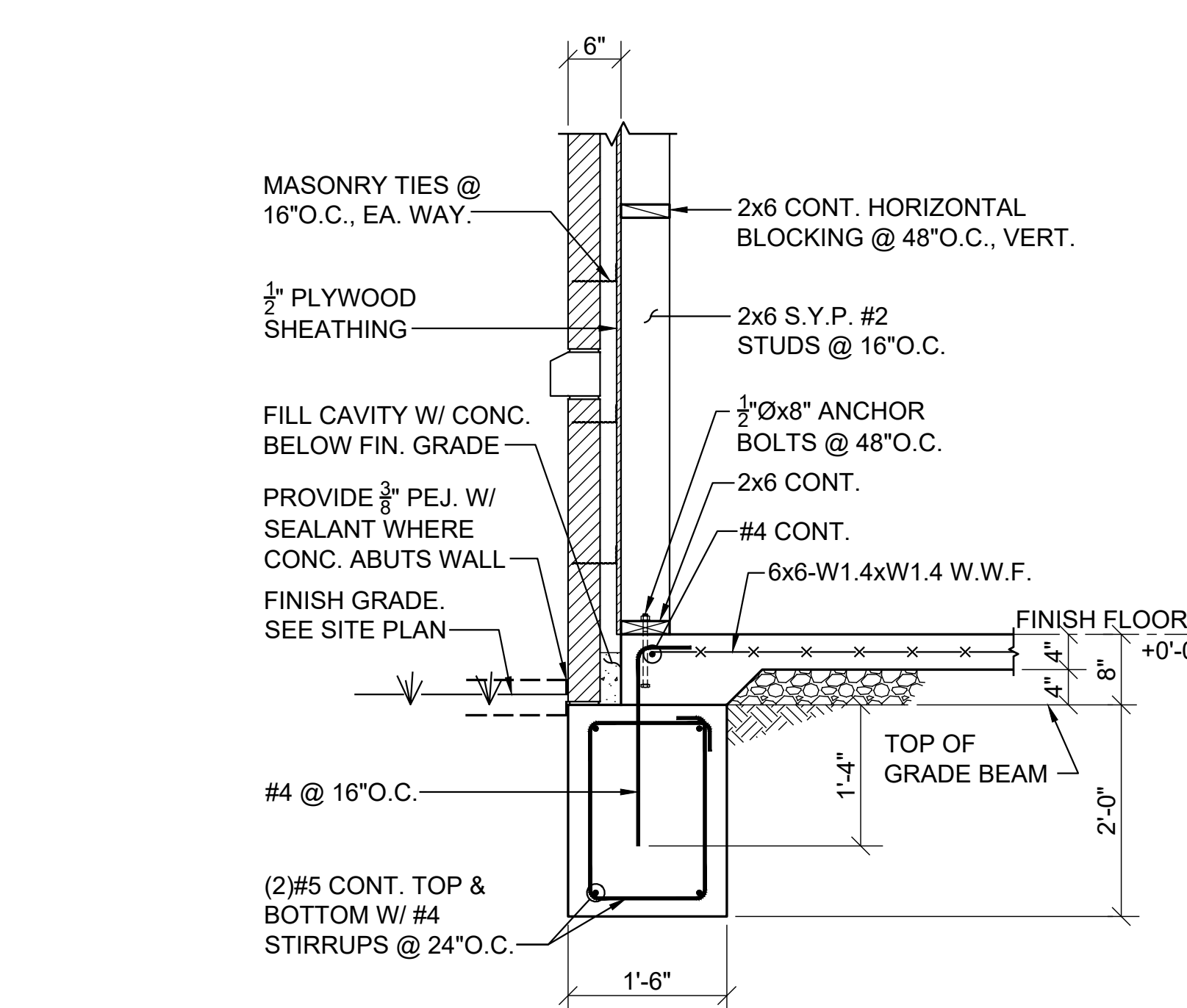
TYPICAL WOOD COLUMN-TO-WOOD
BEAM CONNECTION DETAILS



TYPICAL ROOF DECK ATTACHMENT DETAIL



TYPICAL WALL SHEATHING ATTACHMENT DETAIL



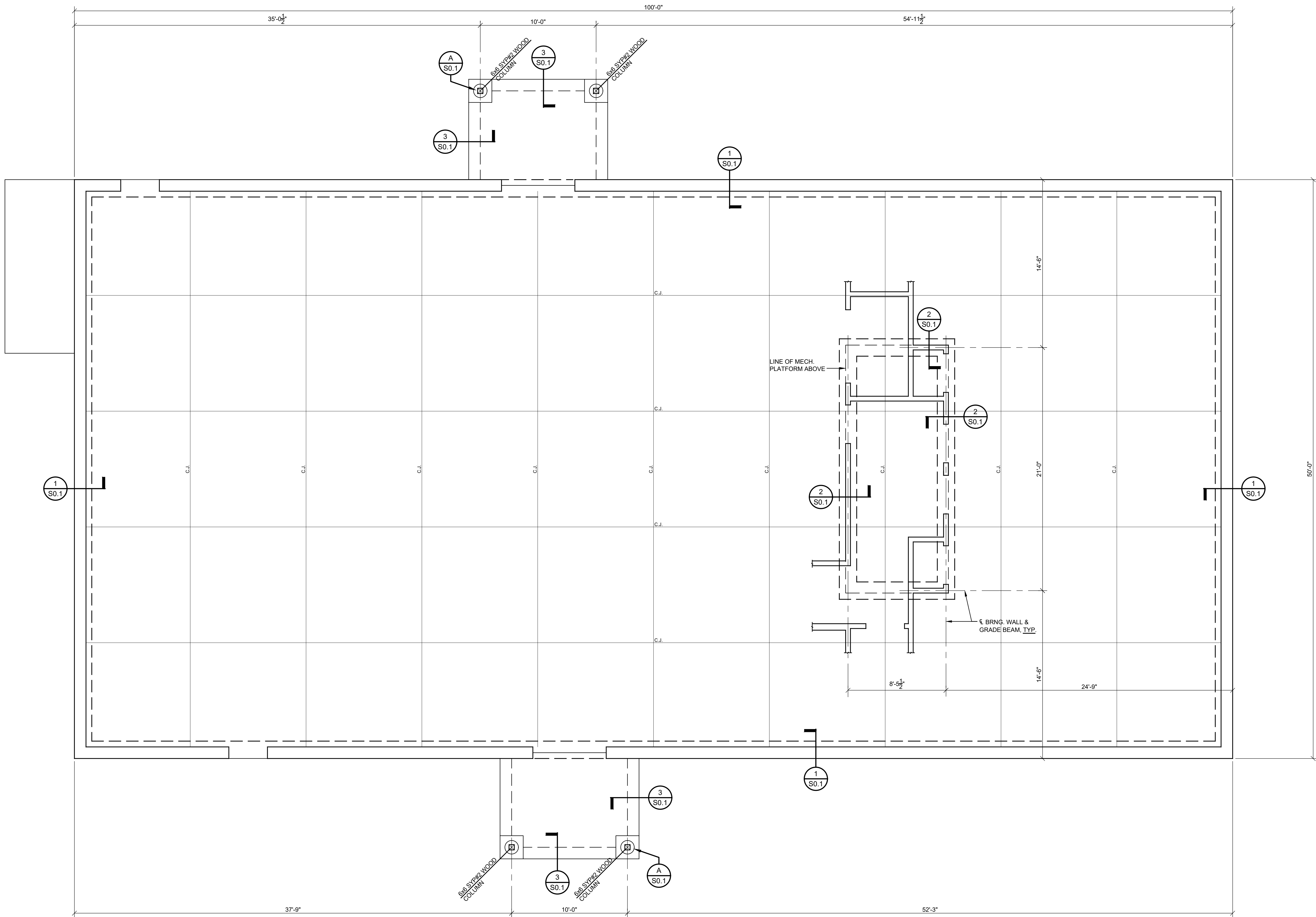
SECTION 1
3/4"=1'-0"

LINTEL SCHEDULE				
MARK OR LOCATION	MAX. SPAN	TYPE	SIZE	REMARKS
BRICK	3'-4"	STEEL ANGLE	4x4x1/2	BEAR 8" EA. END
BRICK	6'-4"	STEEL ANGLE	6x6x3/8	BEAR 8" EA. END, L.L.V.

WOOD HEADER SCHEDULE				
MARK OR LOCATION	MAX. ROUGH OPENING	HEADER SIZE	NO. OF JACK STUDS	NO. OF KING STUDS
2x6 WALL	3'-4"	(3)2x8 NO.2 SYP	(1)2x6	(2)2x6
2x6 WALL	6'-4"	(3)2x12 NO.2 SYP	(2)2x6	(3)2x6
2x4 WALL	3'-4"	(2)2x8 NO.2 SYP	(1)2x4	(1)2x4
2x4 WALL	6'-4"	(2)2x12 NO.2 SYP	(2)2x4	(2)2x4

WOOD BEAM BEARING SCHEDULE		
SIZE & TYPE	BUILT-UP WOOD COLUMN @ WALL	
	NO. OF JACK STUDS	NO. OF KING STUDS
(3)2x12 SYP NO.2	(2)2x6	(3)2x6

- NOTES:
- JACK AND KING STUDS SHALL BE SAME SIZE AS WALL TO BE BEARED UPON.
 - ALL 2X BEAMS SHALL BE NO.2 SOUTHERN YELLOW PINE.
 - ALL BEARING STUDS SHALL BE PLACED PERPENDICULAR TO THE SPAN OF THE BEAM BEING SUPPORTED.
 - SEE S0.1 FOR BEAM BEARING @ 6X6 COLUMNS.
 - PROVIDE SIMPSON MST18 OR HRS12 STRAP EA. SIDE OF BEAM (2-TOTAL) TO (2)JACK STUDS BELOW @ BEARING @ WALL, STAGGERED (ON SEPARATE STUDS).

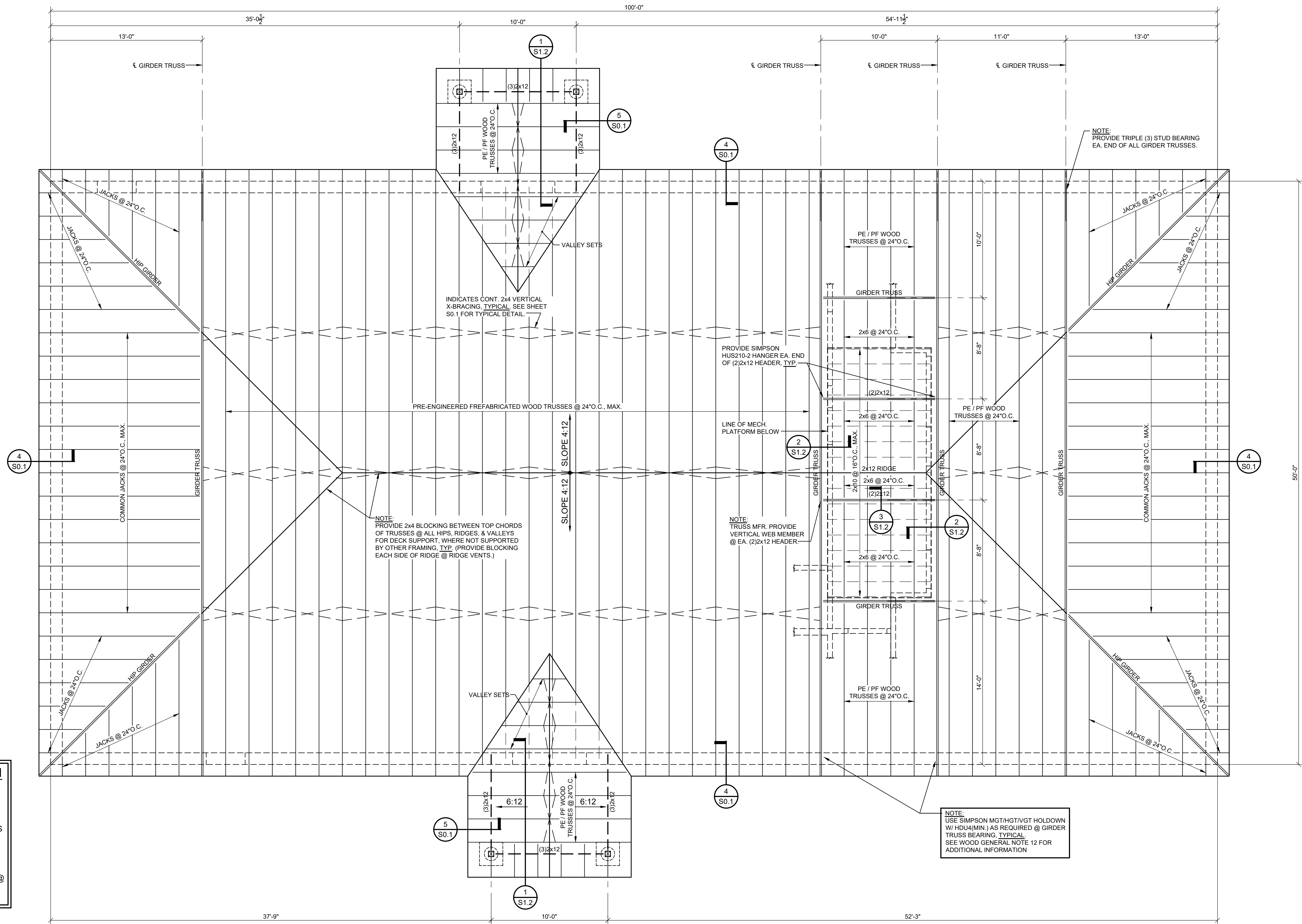


FLOOR CONSTRUCTION
4" THICK CONCRETE SLAB W/
6x6-W1.4xW1.4 W.W.F. OVER VAPOR
BARRIER OVER 4" POROUS FILL.
FINISH FLOOR EL.= +0'-0" (ASSUMED)

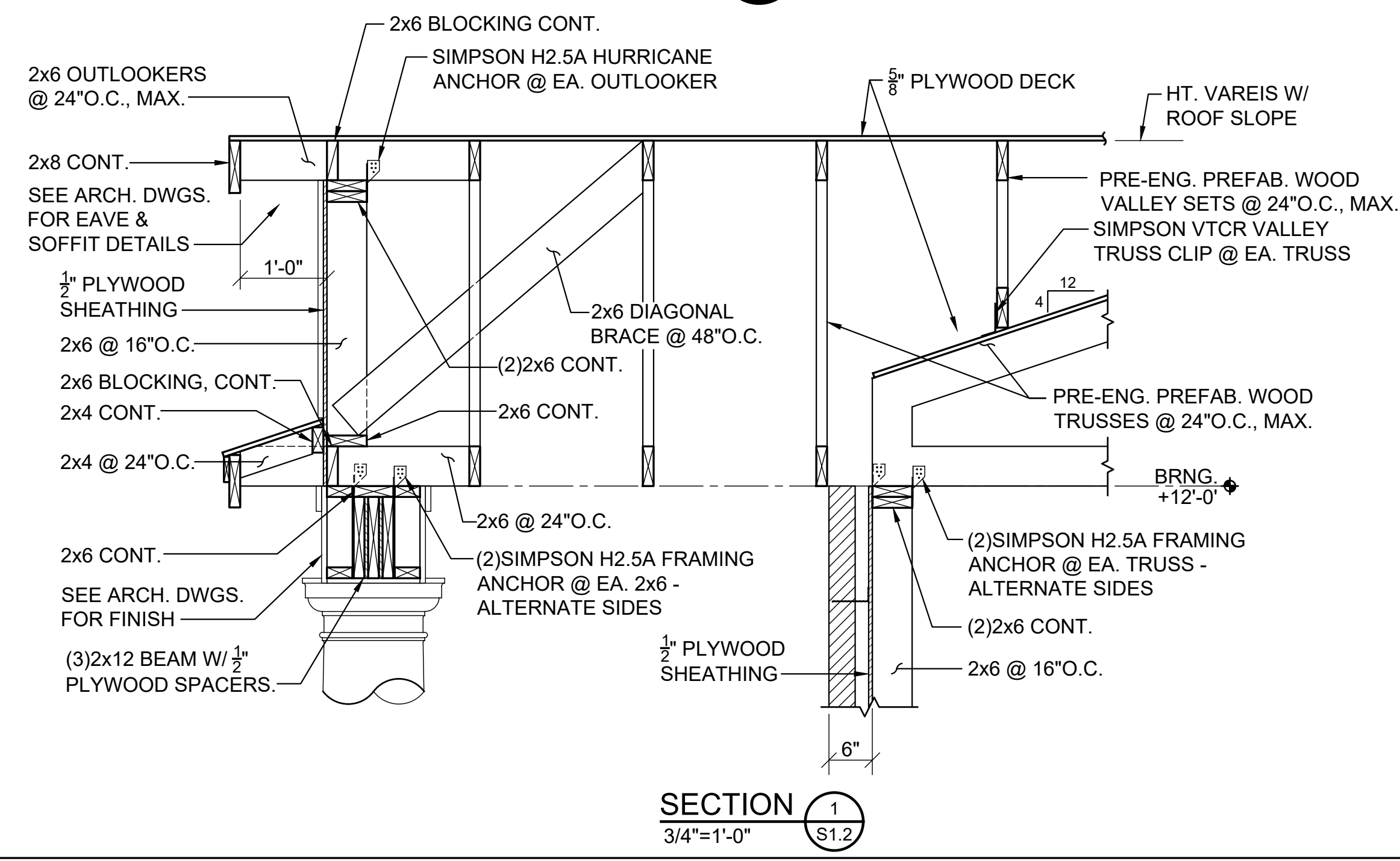
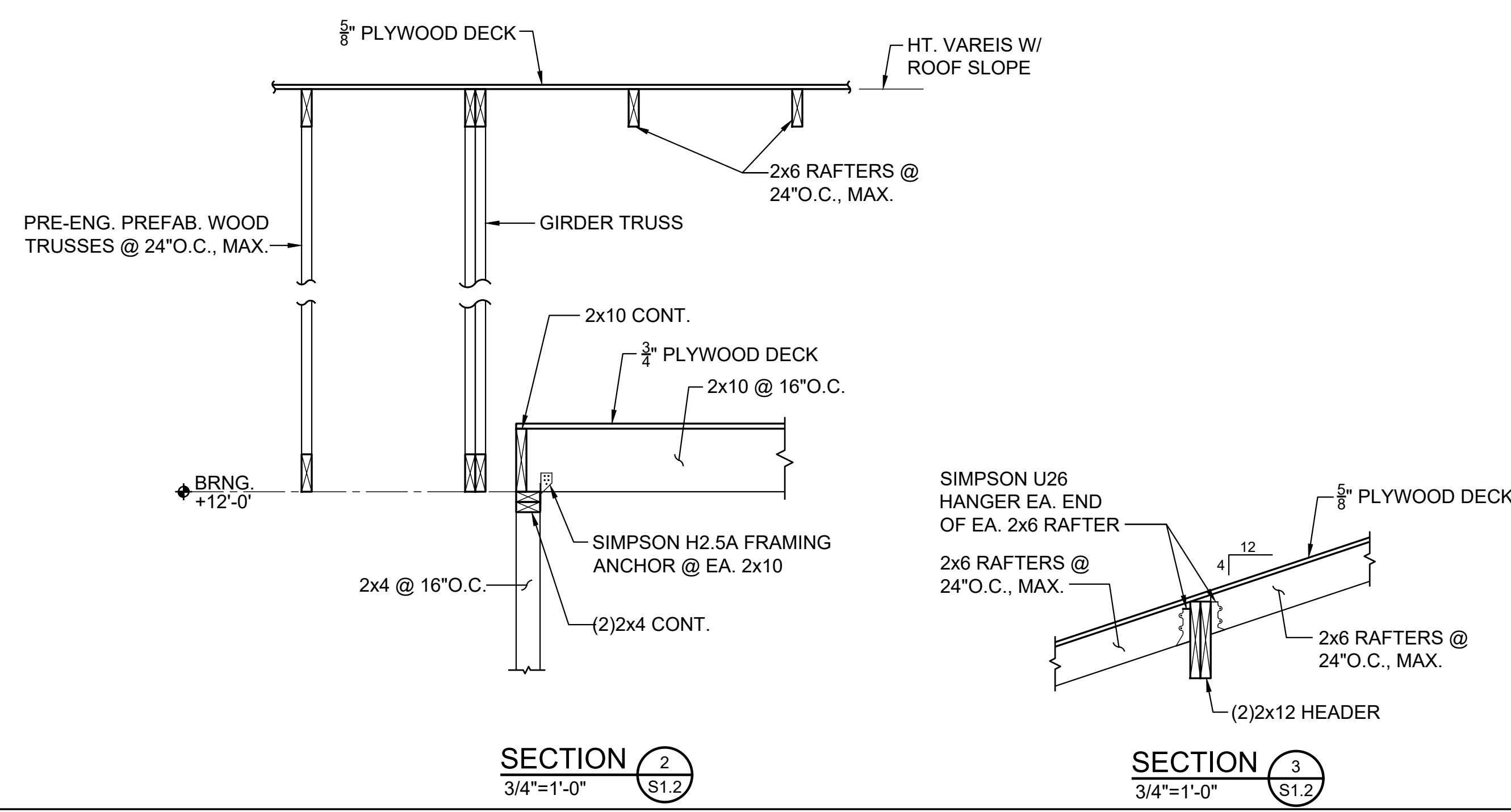


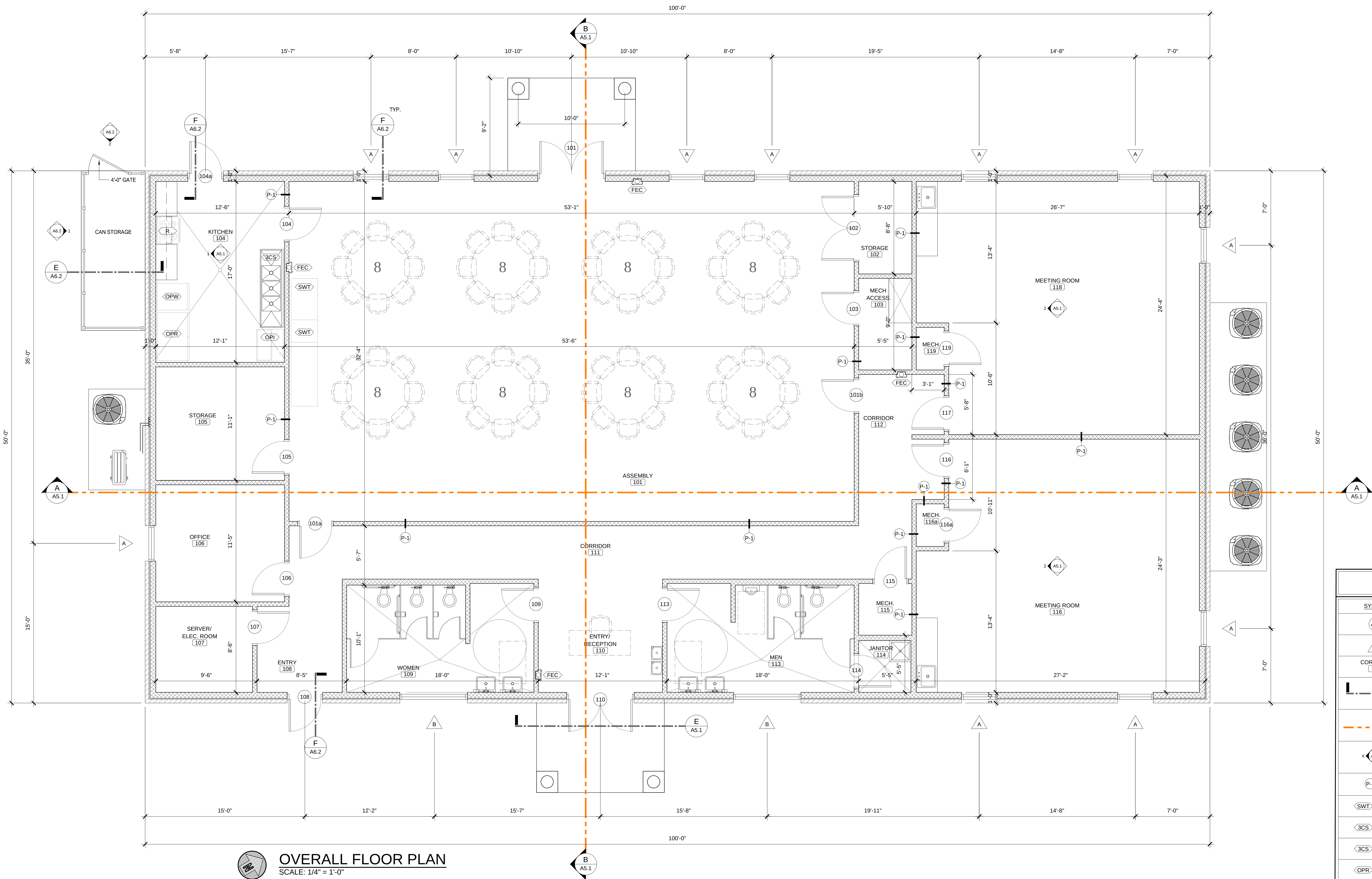
FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

ROOF CONSTRUCTION
5/8" THICK APA RATED PLYWOOD DECK, EXPOSURE 1, W/ PANEL IDENTIFICATION INDEX OF 40/20 OVER PRE-ENGINEERED PREFABRICATED WOOD TRUSSES & JACKS @ 24"O.C., MAXIMUM.
NOTE: PROVIDE PLYCLIPS @ MID SPAN BETWEEN TRUSSES & RAFTERS @ ALL JOINTS IN ADJACENT ROOF DECK SHEETS.

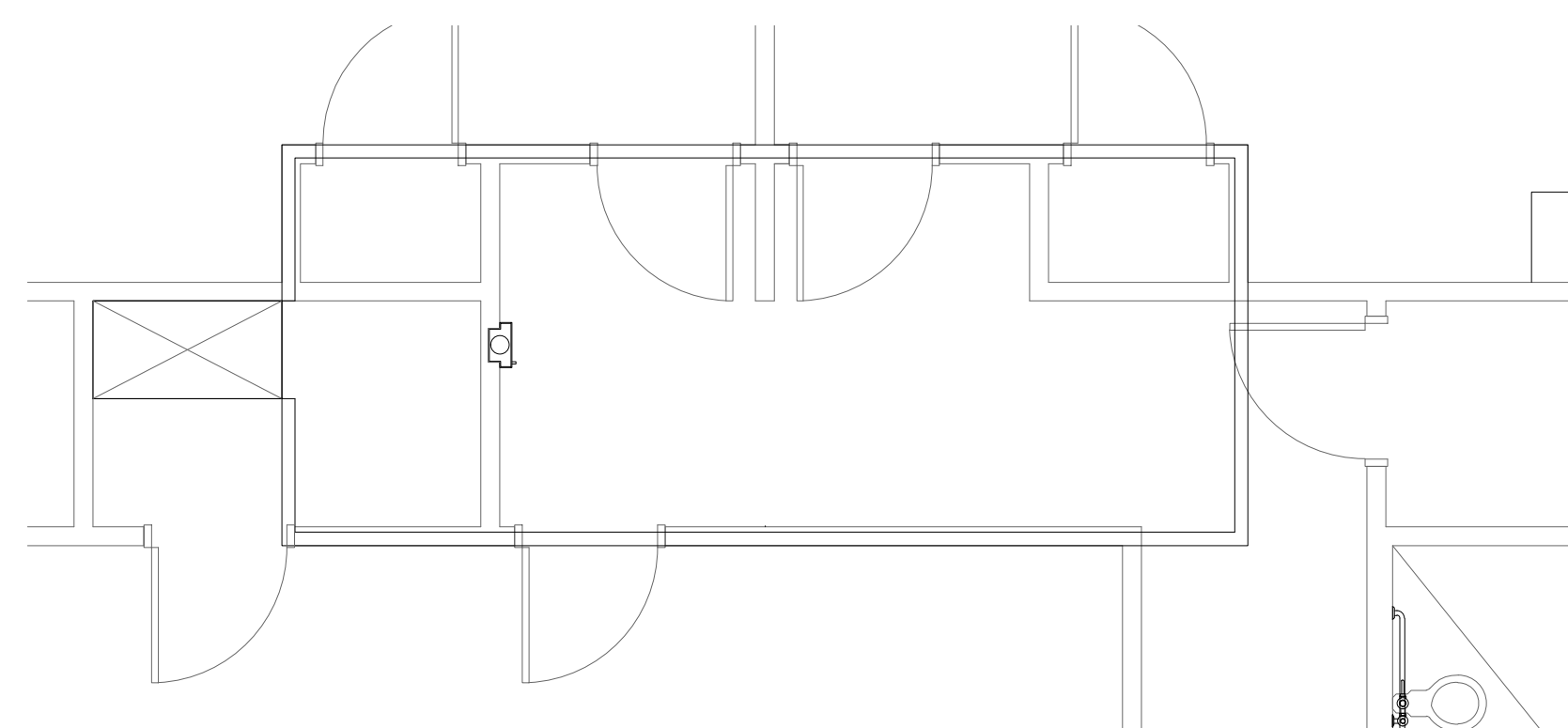


ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

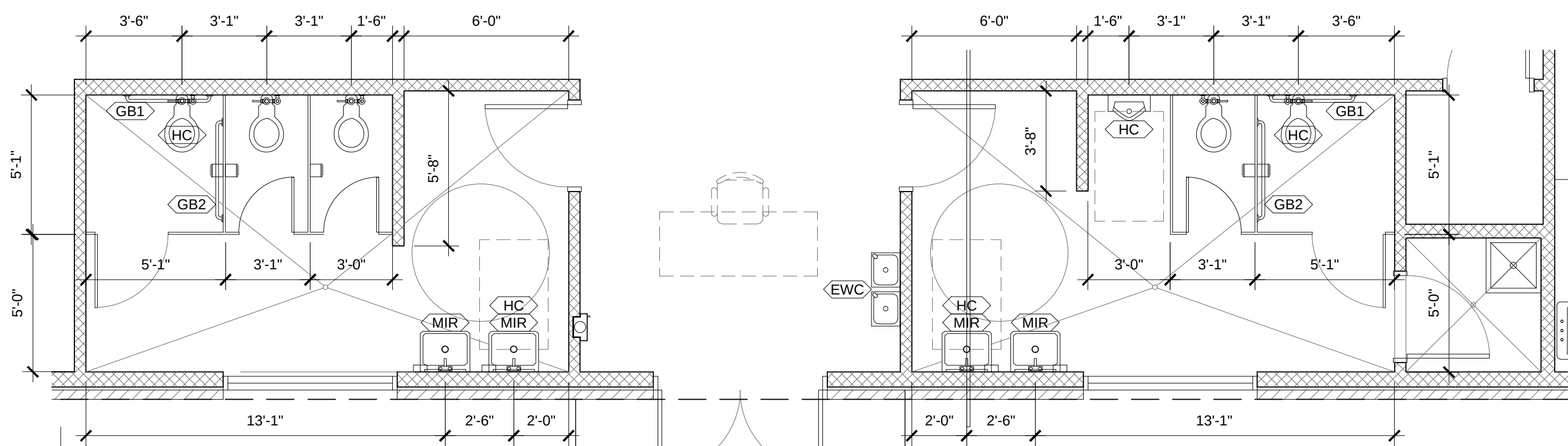




OVERALL FLOOR PLAN
SCALE: 1/4" = 1'-0"



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



ENLARGED TOILET PLAN
SCALE: 1/4" = 1'-0"

FLOOR PLAN LEGEND	
SYMBOL	DESCRIPTION
(A--)	SCHEDULED DOOR AND FRAME
(Δ)	SCHEDULED WINDOW UNIT
CORRIDOR	SCHEDULED ROOM NAME AND NUMBER
(AX.X)	SECTION / DETAIL SYMBOL
(AX.X)	BUILDING SECTION SYMBOL
(AX.X)	INTERIOR ELEVATION SYMBOL
(P-1)	WOOD STUDS W/ SOUND BATT INSULATION
(SWT)	EXISTING 30X60 STAINLESS STEEL WORK TABLES, OWNER FURNISHED AND INSTALLED.
(3CS)	EXISTING 88X26 STAINLESS STEEL THREE COMPARTMENT SINK OWNER FURNISHED AND CONTRACTOR INSTALLED.
(3CS)	EXISTING 88X26 STAINLESS STEEL THREE COMPARTMENT SINK OWNER FURNISHED AND CONTRACTOR INSTALLED.
(OPR)	OWNER PROVIDED REFRIGERATOR - CONTRACTOR INSTALLED
(OPW)	OWNER PROVIDED WARMER - CONTRACTOR INSTALLED
(OPI)	OWNER PROVIDED ICE MACHINE - CONTRACTOR INSTALLED
(R)	OWNER PROVIDED ICE MACHINE - CONTRACTOR INSTALLED
(FEC)	FIRE EXTINGUISHER CABINET

TOILET ACCESSORIES LEGEND	
KEYNOTE	DESCRIPTION
(GB1)	36" GRAB BAR MOUNTED WHERE CENTERLINE OF WALL MOUNT IS 6" OUT FROM CORNER OF WALL / TOILET PARTITION AND IS TO BE 33"-36" AFF (SEE SPECS)
(GB2)	42" GRAB BAR MOUNTED WHERE CENTERLINE OF WALL MOUNT IS 12" OUT FROM CORNER OF WALL / TOILET PARTITION AND IS TO BE 33"-36" AFF (SEE SPECS)
(MIR)	18" X 36" MIRROR WITH SHELF TO BE MOUNTED WITH THE BOTTOM EDGE 35" AFF AND THE TOP EDGE 71" AFF (SEE SPECS)
(HC)	HANDICAPPED ACCESSIBLE TOILET / URINAL TO BE MOUNTED 17" AFF
(EWC)	ELECTRIC WATER COOLER (SEE DETAIL G1.1)

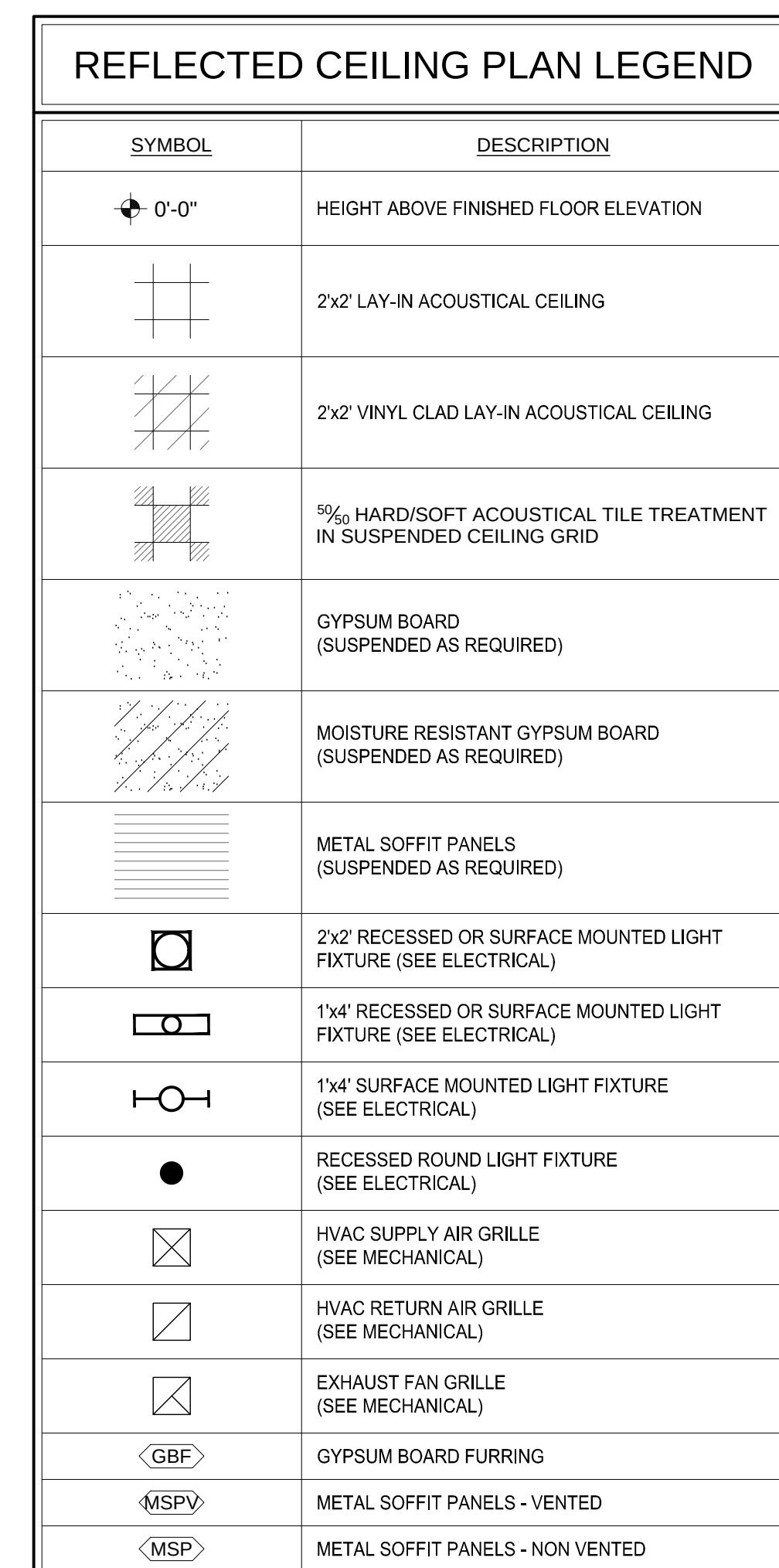
NOTE:
ALL PAPER AND SOAP DISPENSER PRODUCTS
WILL BE PROVIDED BY OWNER



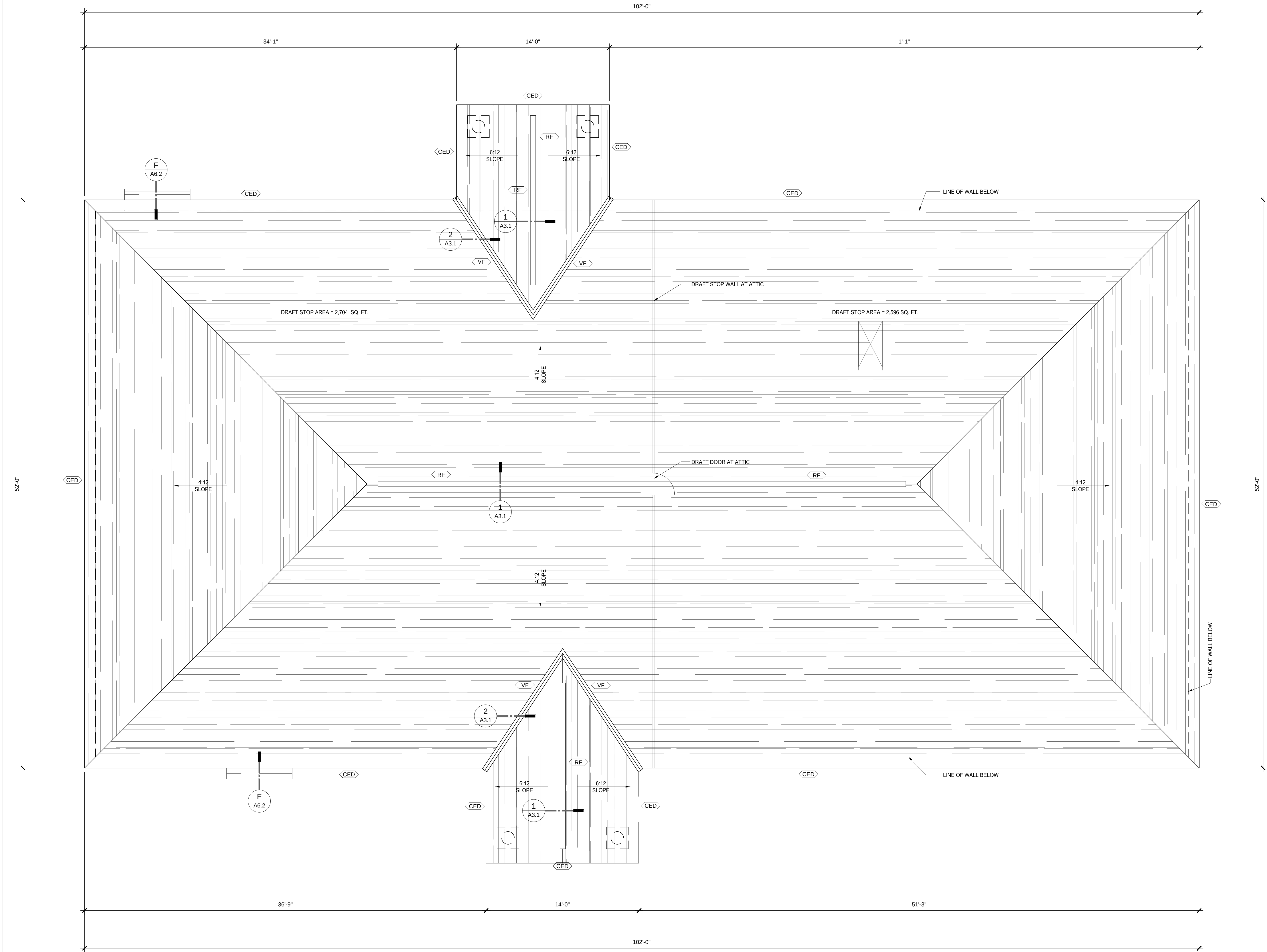
THE CITY OF TROY
306 E ACADEMY ST TROY MI 48061

DATE: 10-07-26
REVISIONS

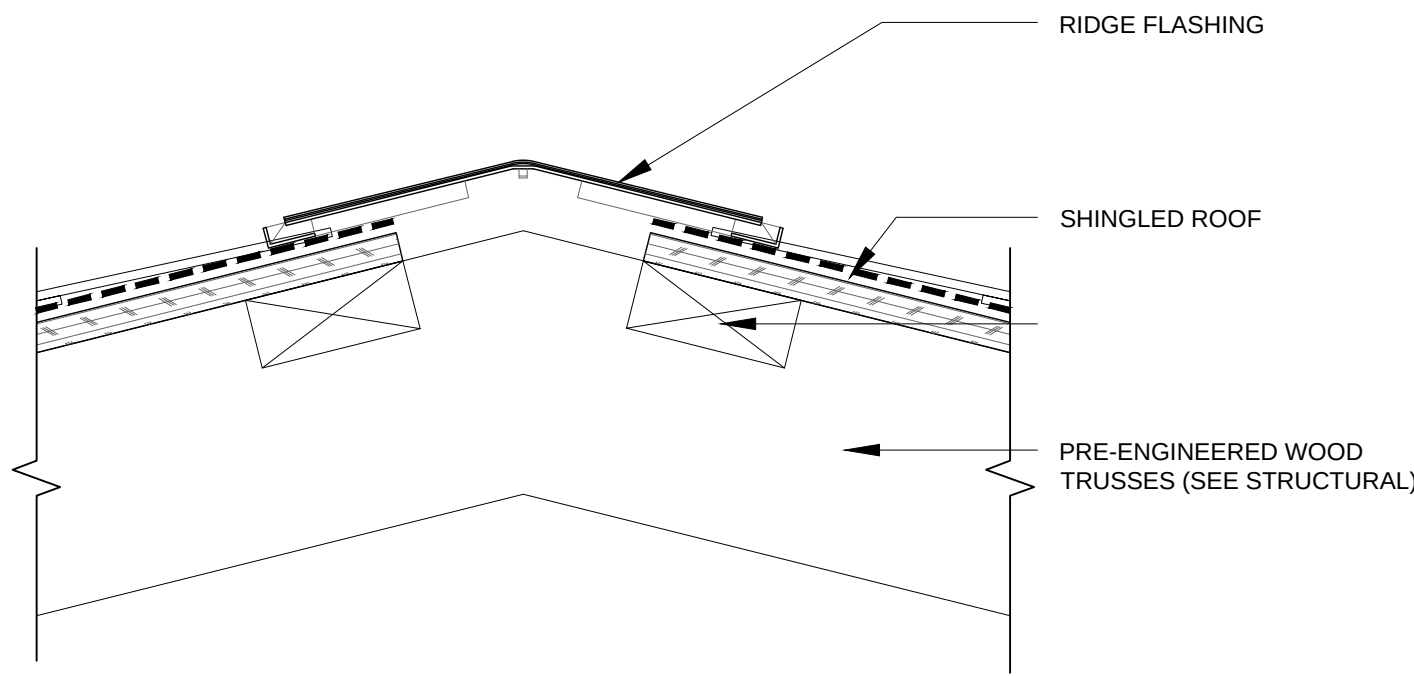
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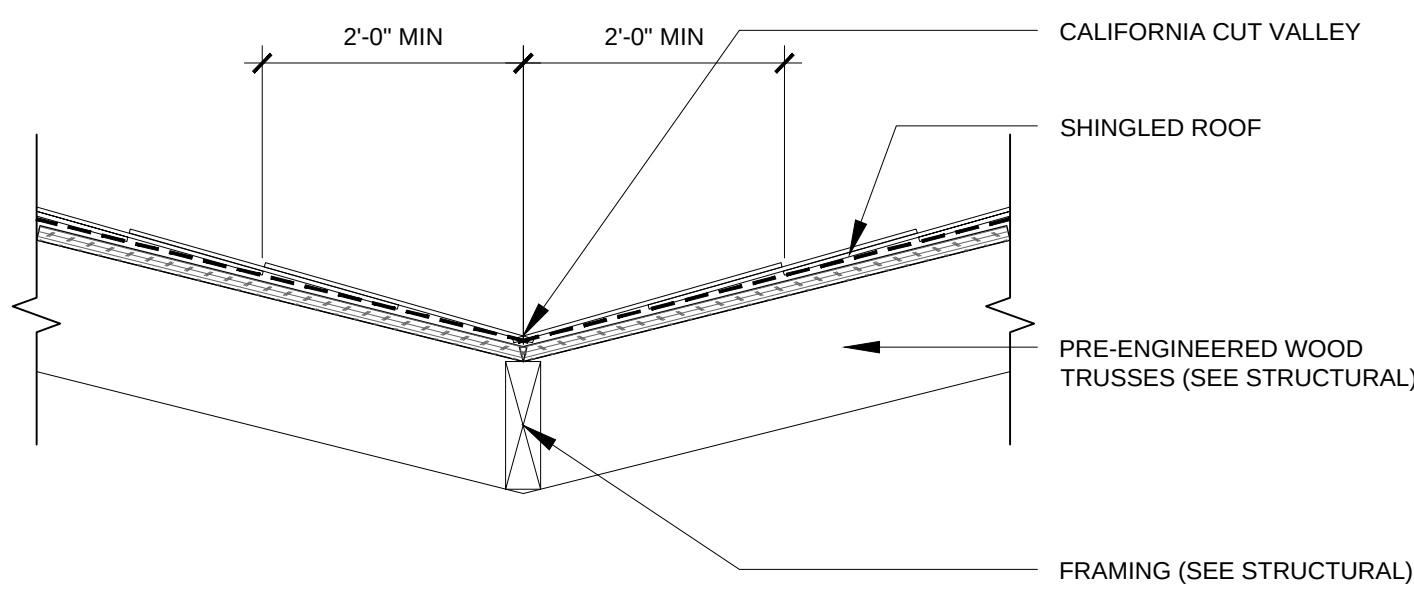
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- Monday, October 5, 2026 4:13:39 PM



ROOF PLAN LEGEND	
SYMBOL	DESCRIPTION
	SHINGLES
	DETAIL SYMBOL
	RIDGE VENT
	CONTINUOUS EDG DRIP - PREFINISHED METAL
	VALLEY FLASHING



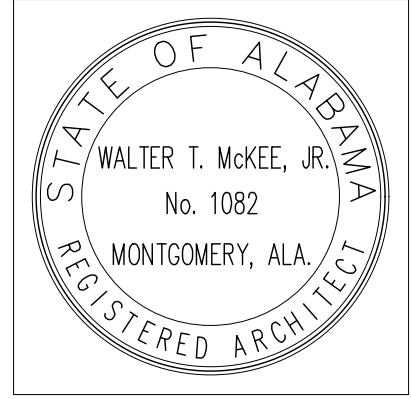
1 DETAIL
SCALE: 3"=1'-0"



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



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



PROJ. MGR.: JWW
DRAWN:
DATE: 10-07-26
REVISIONS

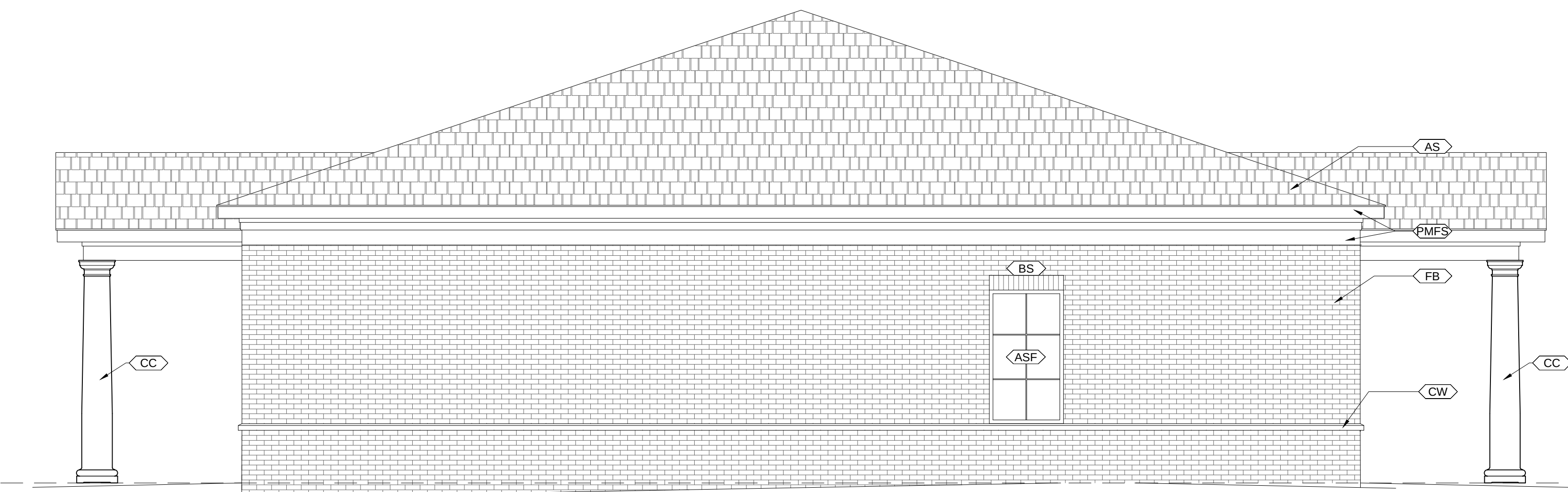
JOB NO: MKA-24-261-00
SHEET NO:
A3.1
0 1" 2"



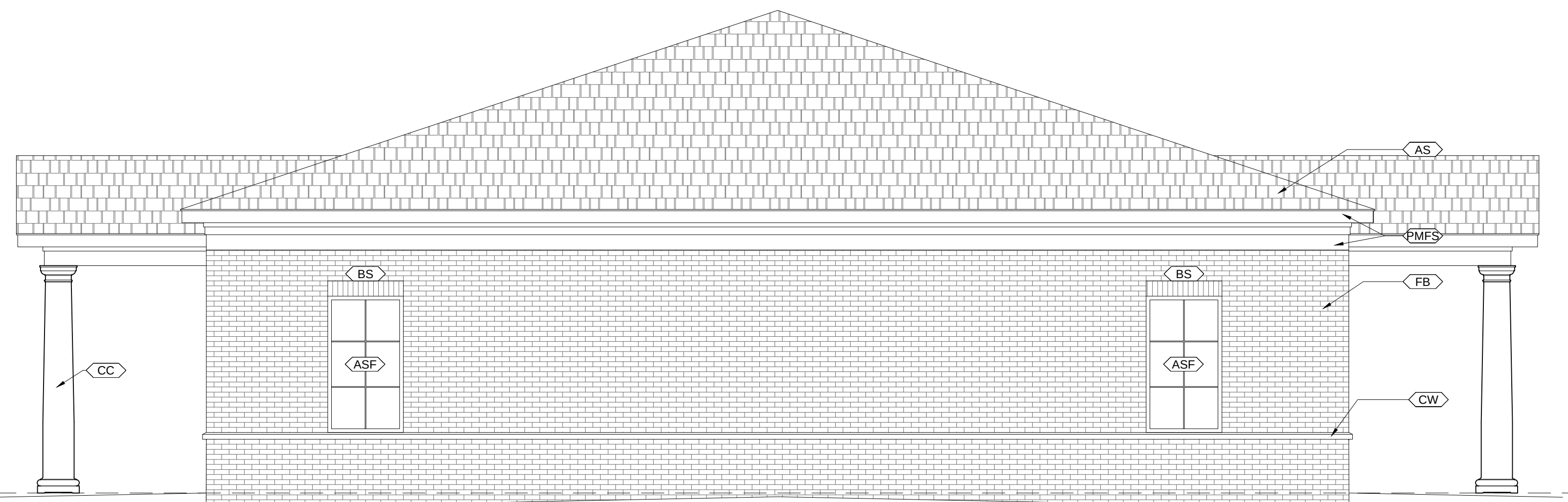
A NORTH ELEVATION
SCALE: 1/8" = 1'-0"



B SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

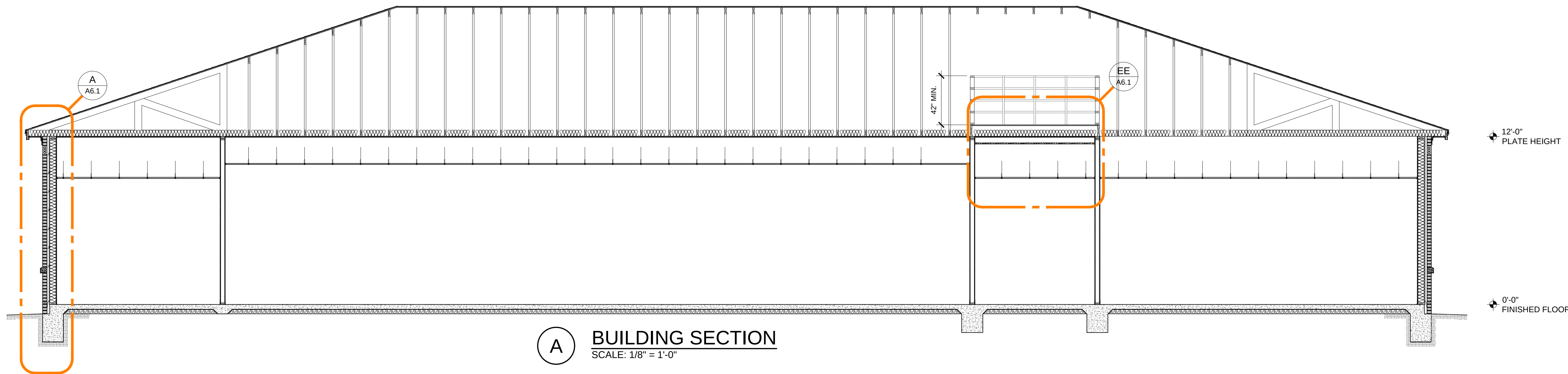
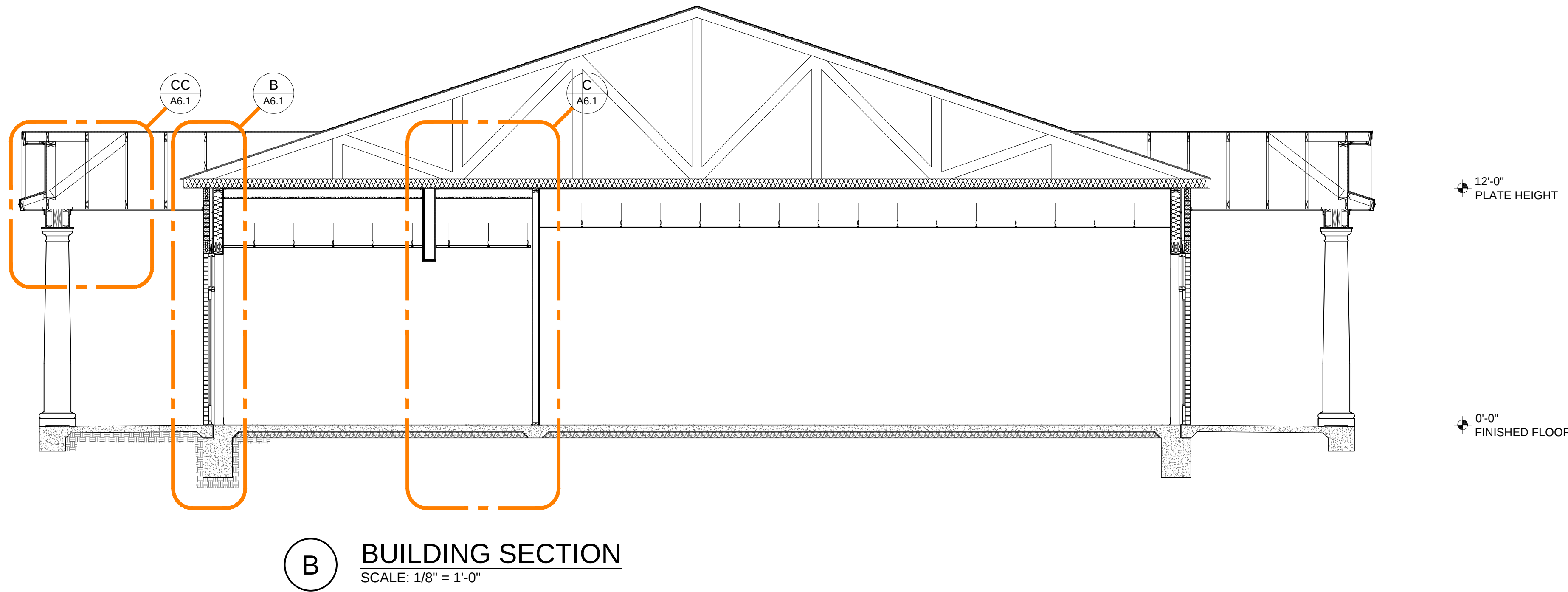
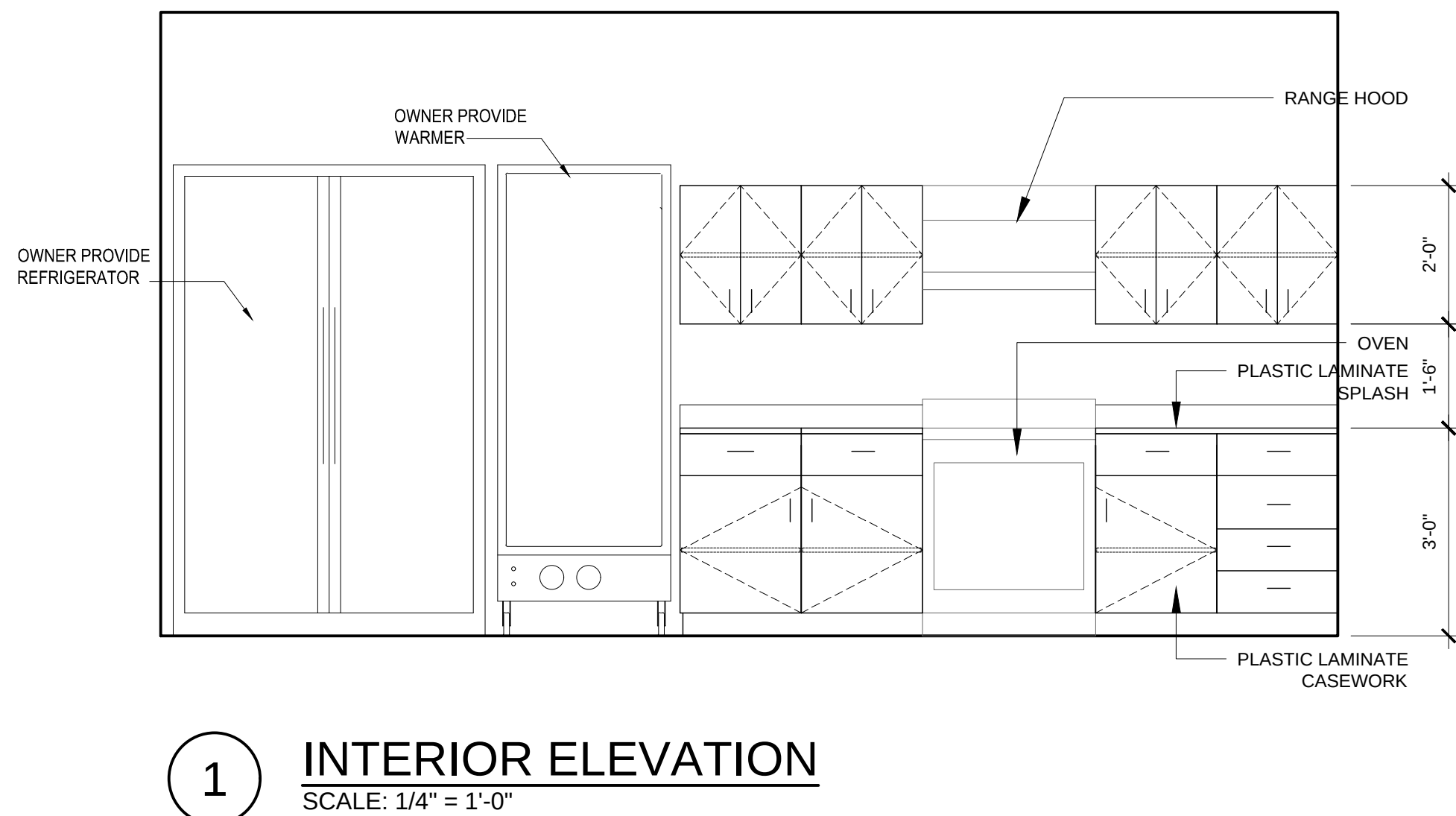
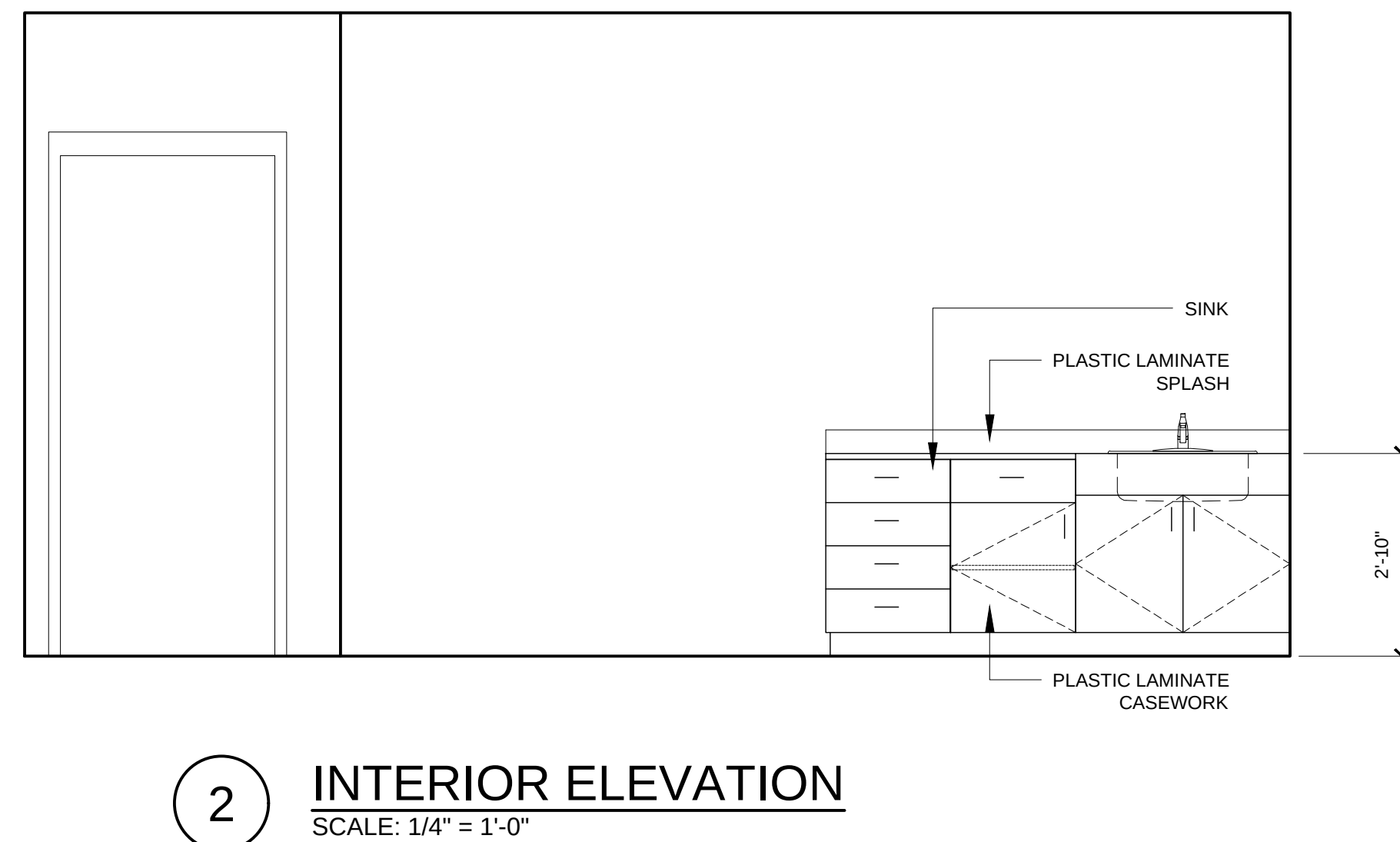


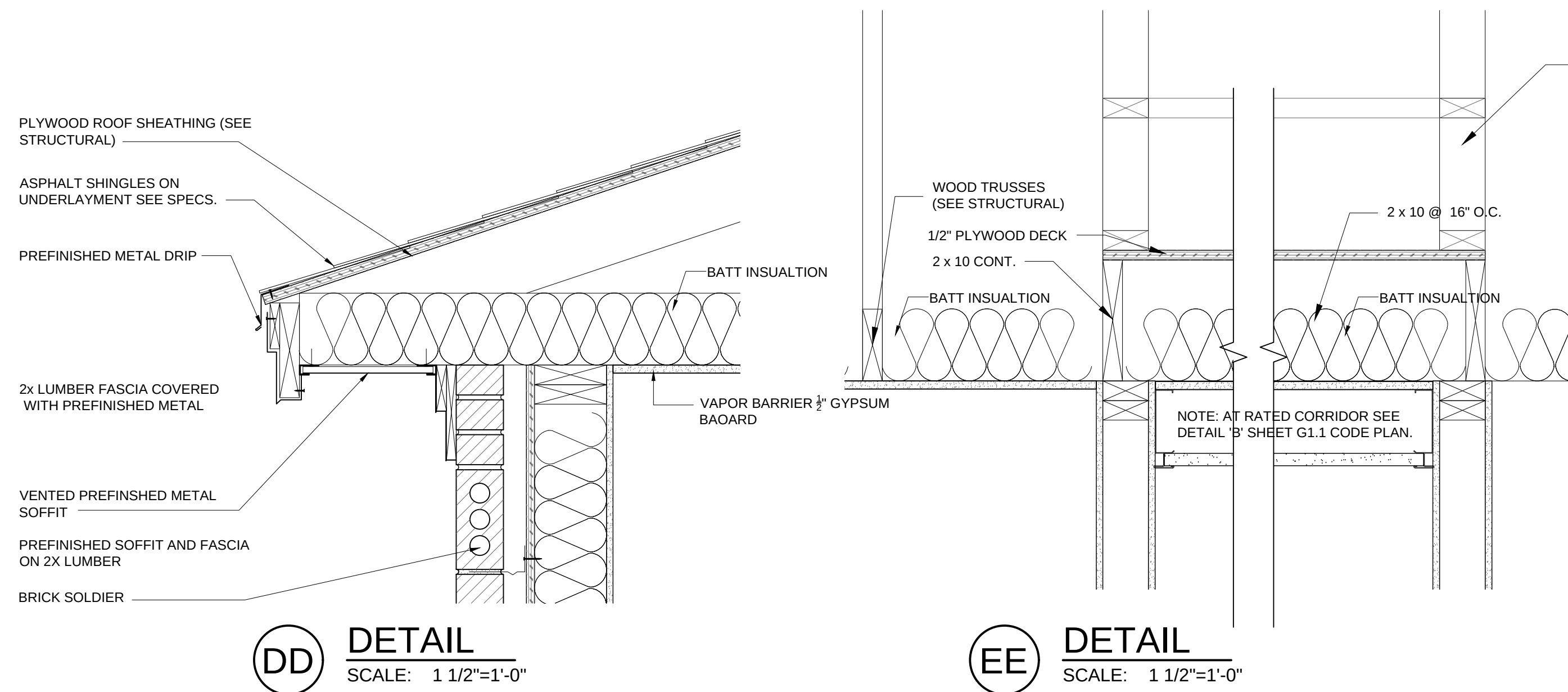
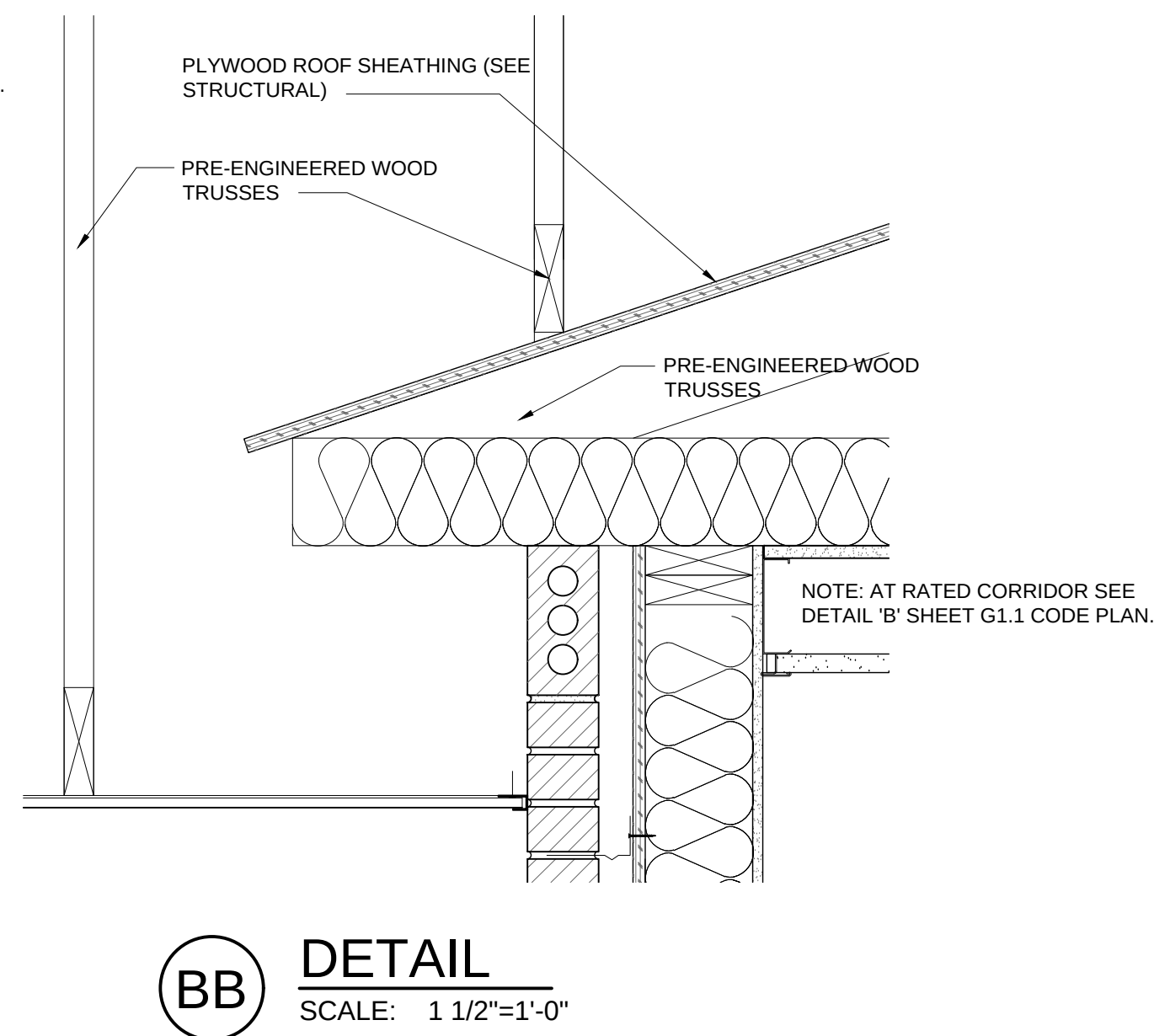
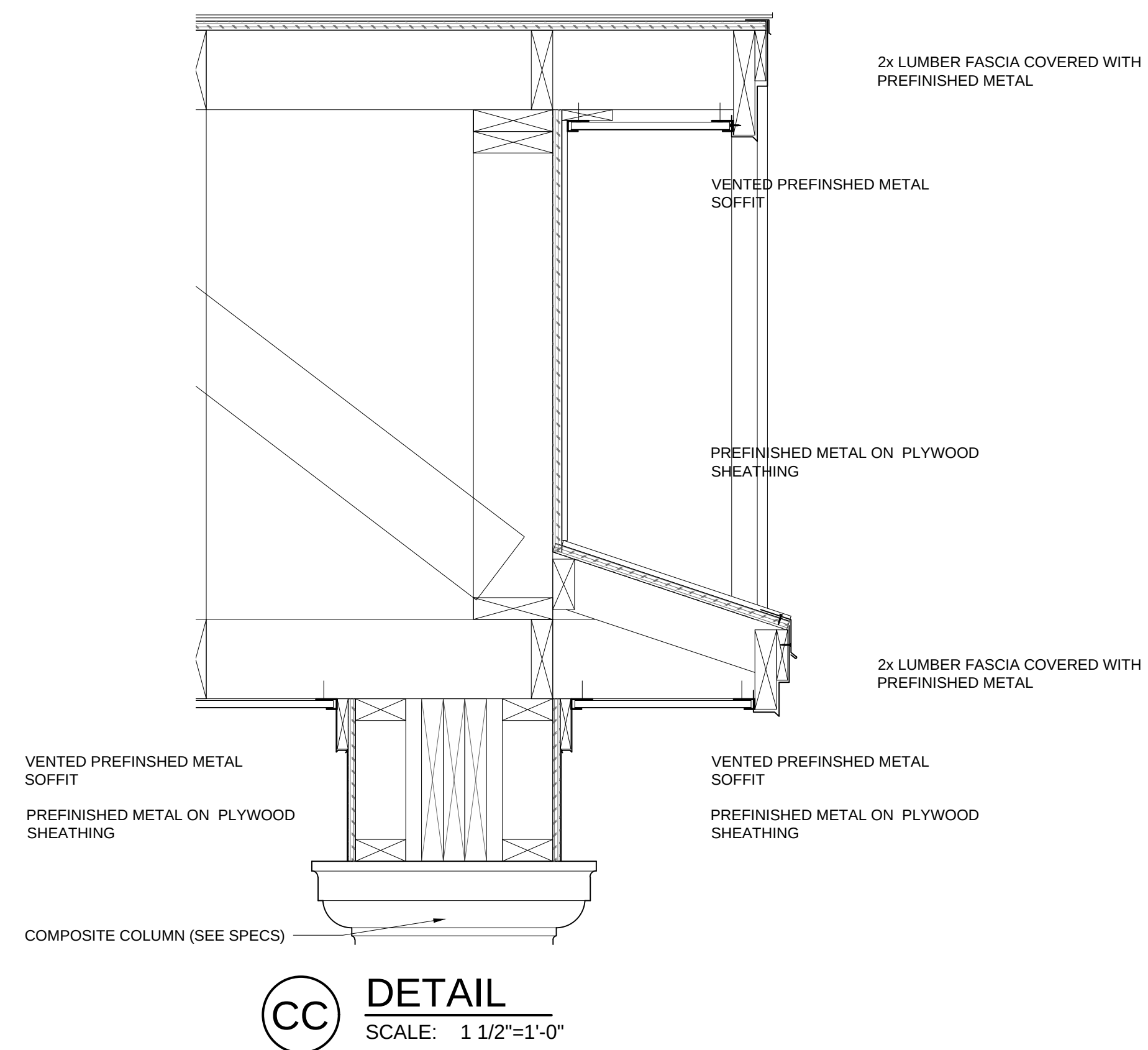
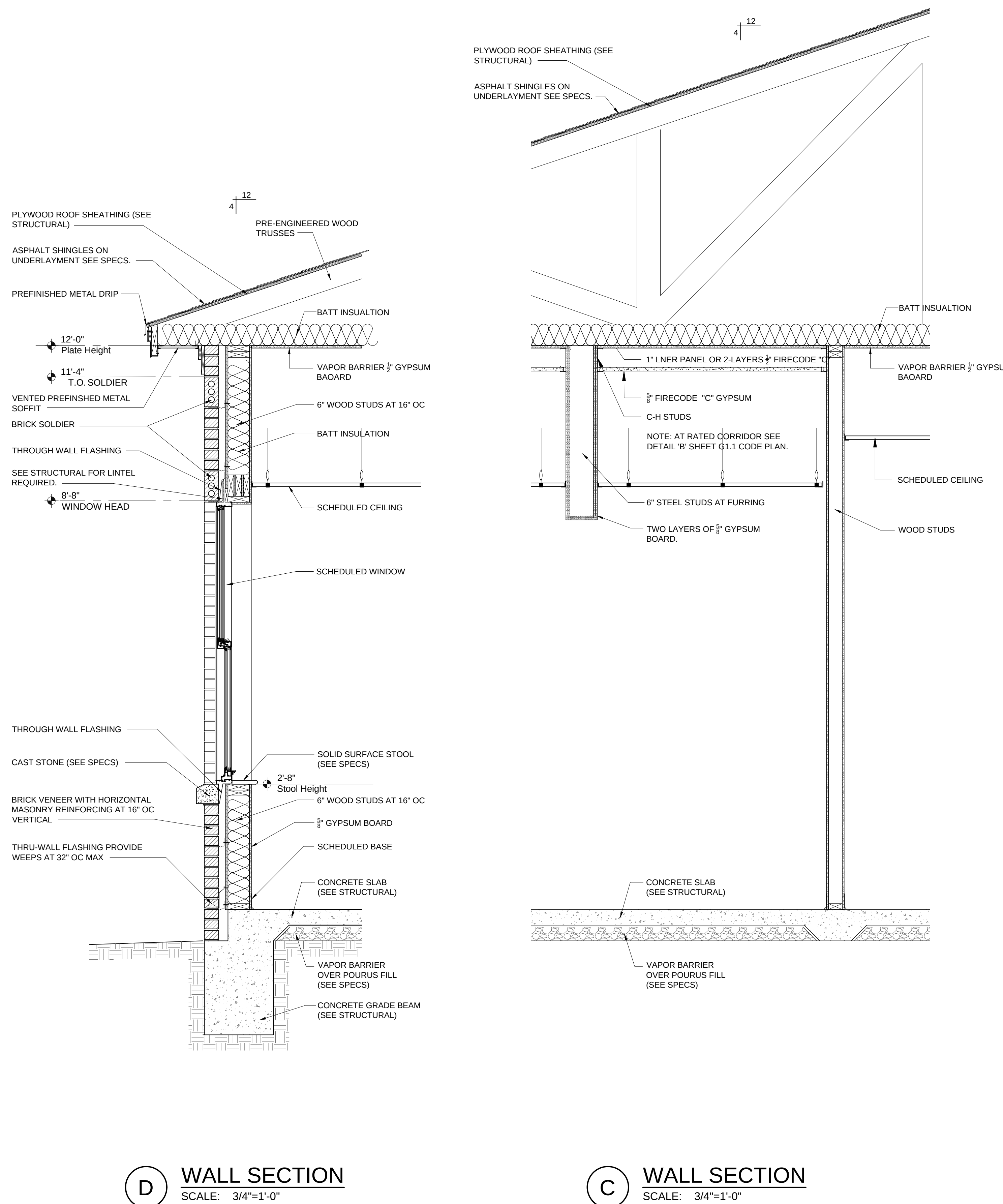
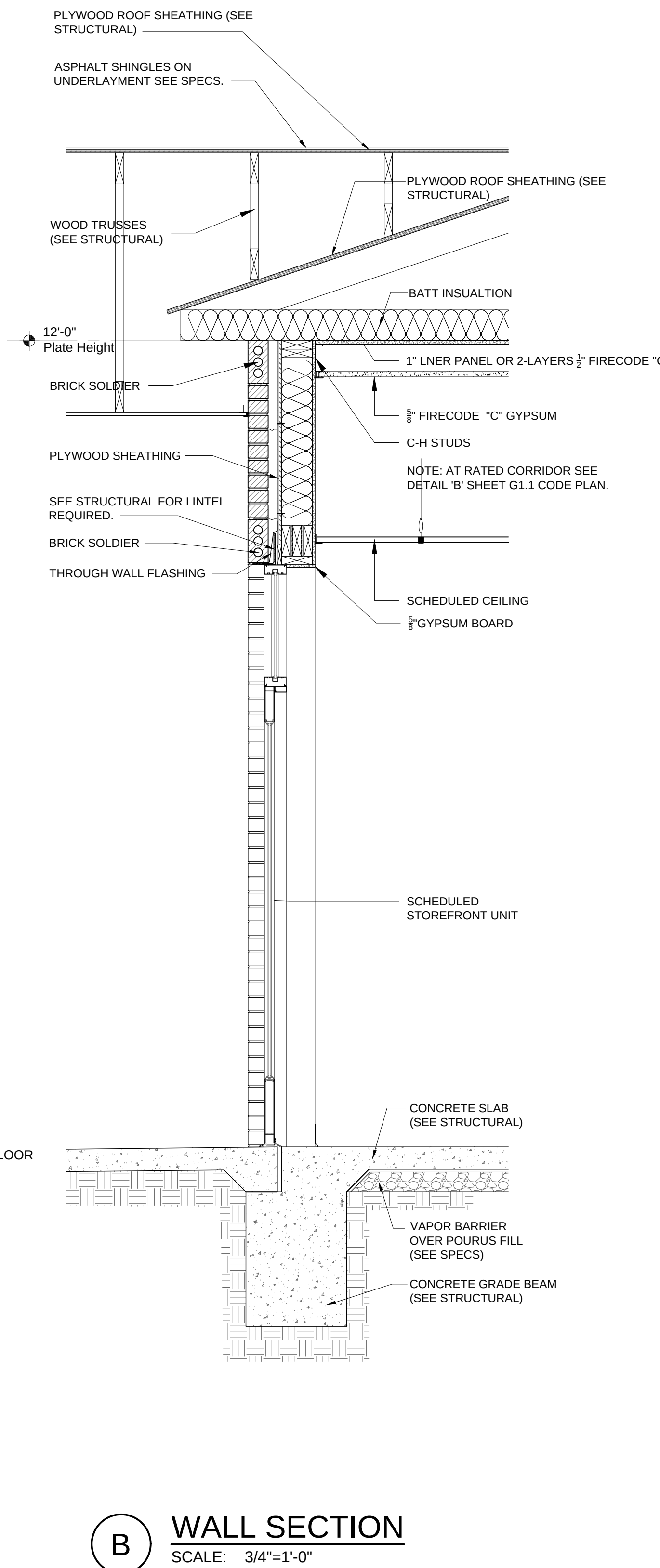
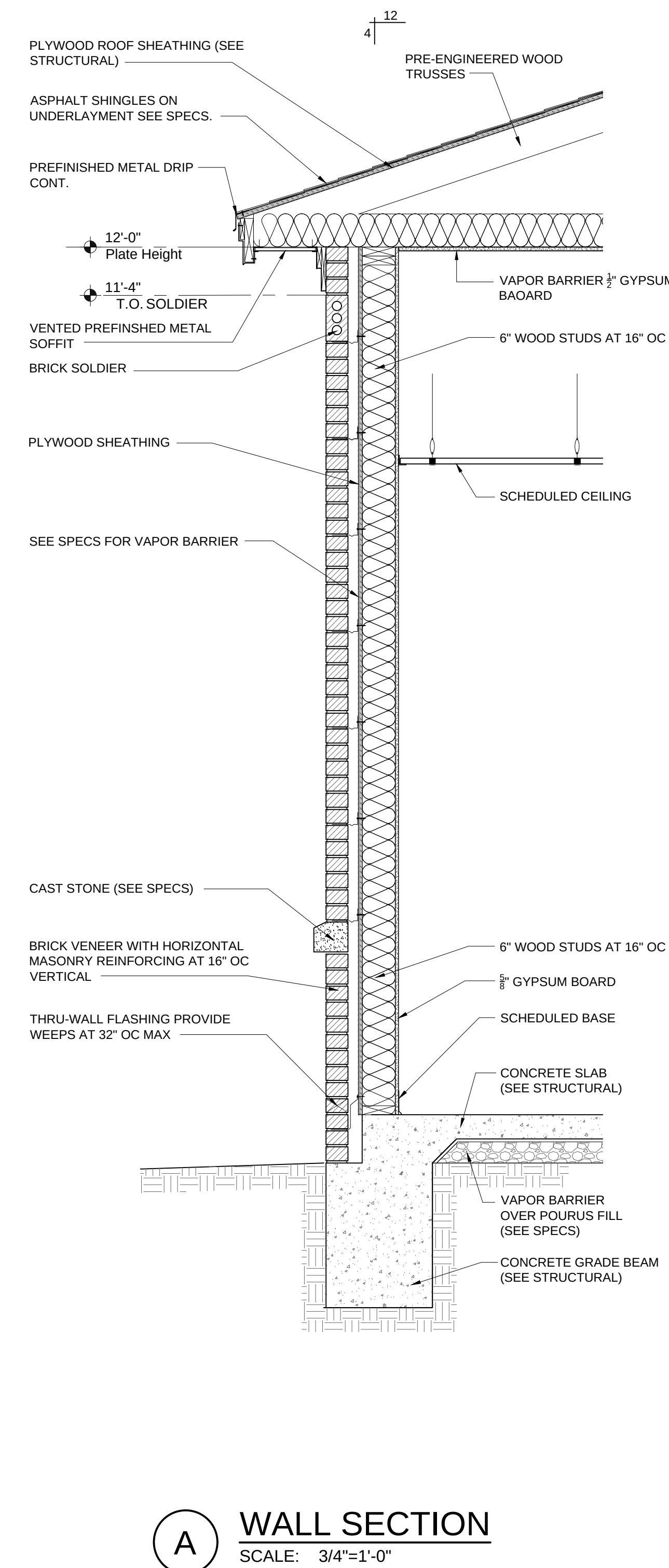
C EAST ELEVATION
SCALE: 1/8" = 1'-0"

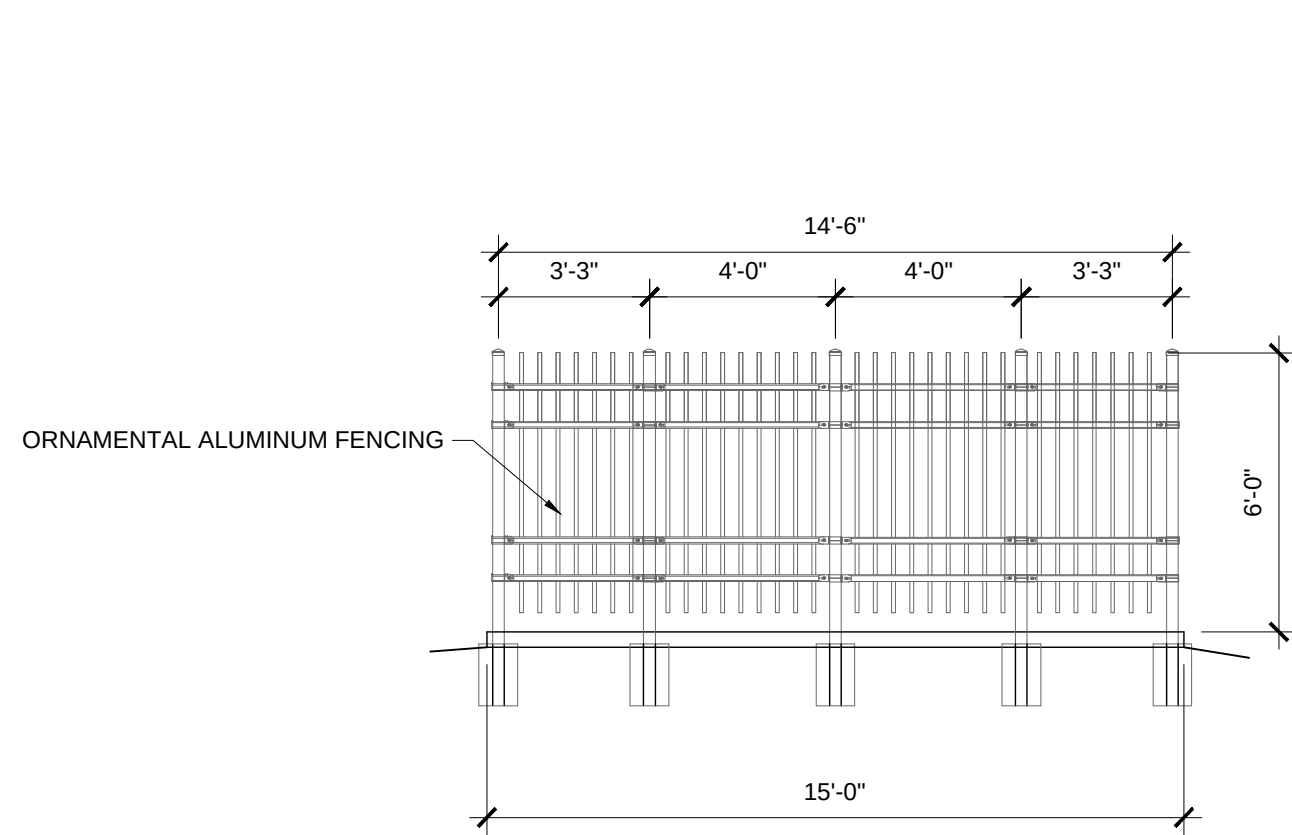


D WEST ELEVATION
SCALE: 1/8" = 1'-0"

EXTERIOR ELEVATION LEGEND	
SYMBOL	DESCRIPTION
	BUILDING SECTION SYMBOL
	SCHEDULED LOUVER TYPES
	BRICK SOLDIER
	FACE BRICK
	ASPHALT SHINGLES
	PREFINISHED METAL SOFFIT AND FASCIA
	CAST STONE WATERTABLE
	ALUMINUM STOREFRONT
	COMPOSITE COLUMN





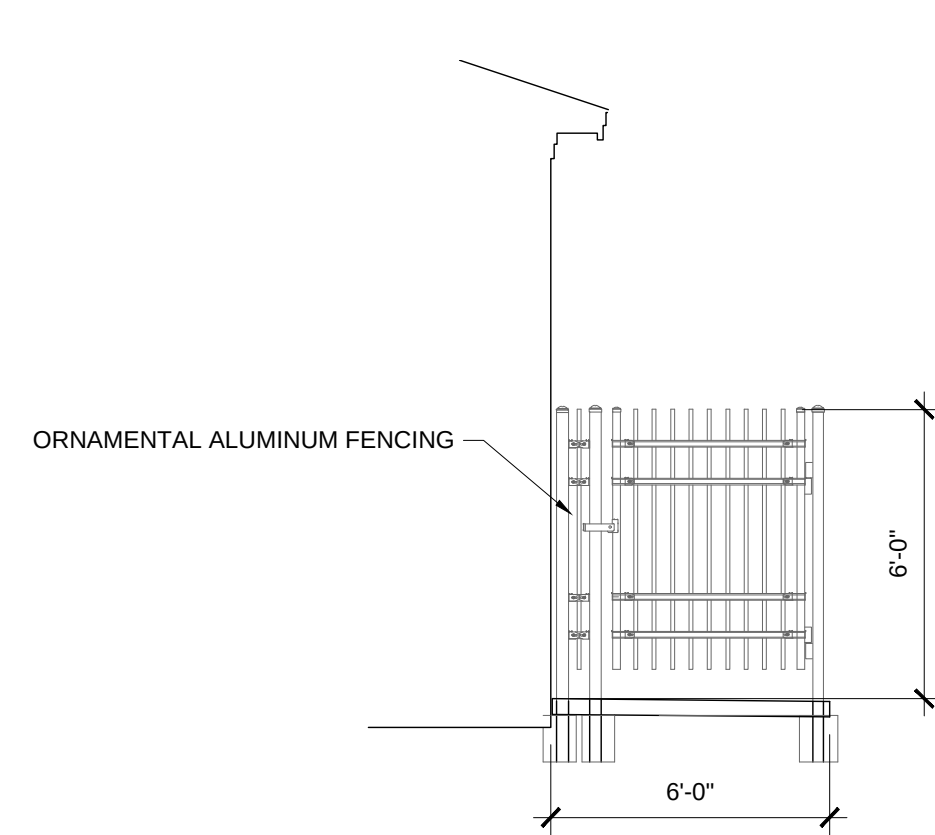


1 FENCE ELEVATION
SCALE: 1/4" = 1'-0"

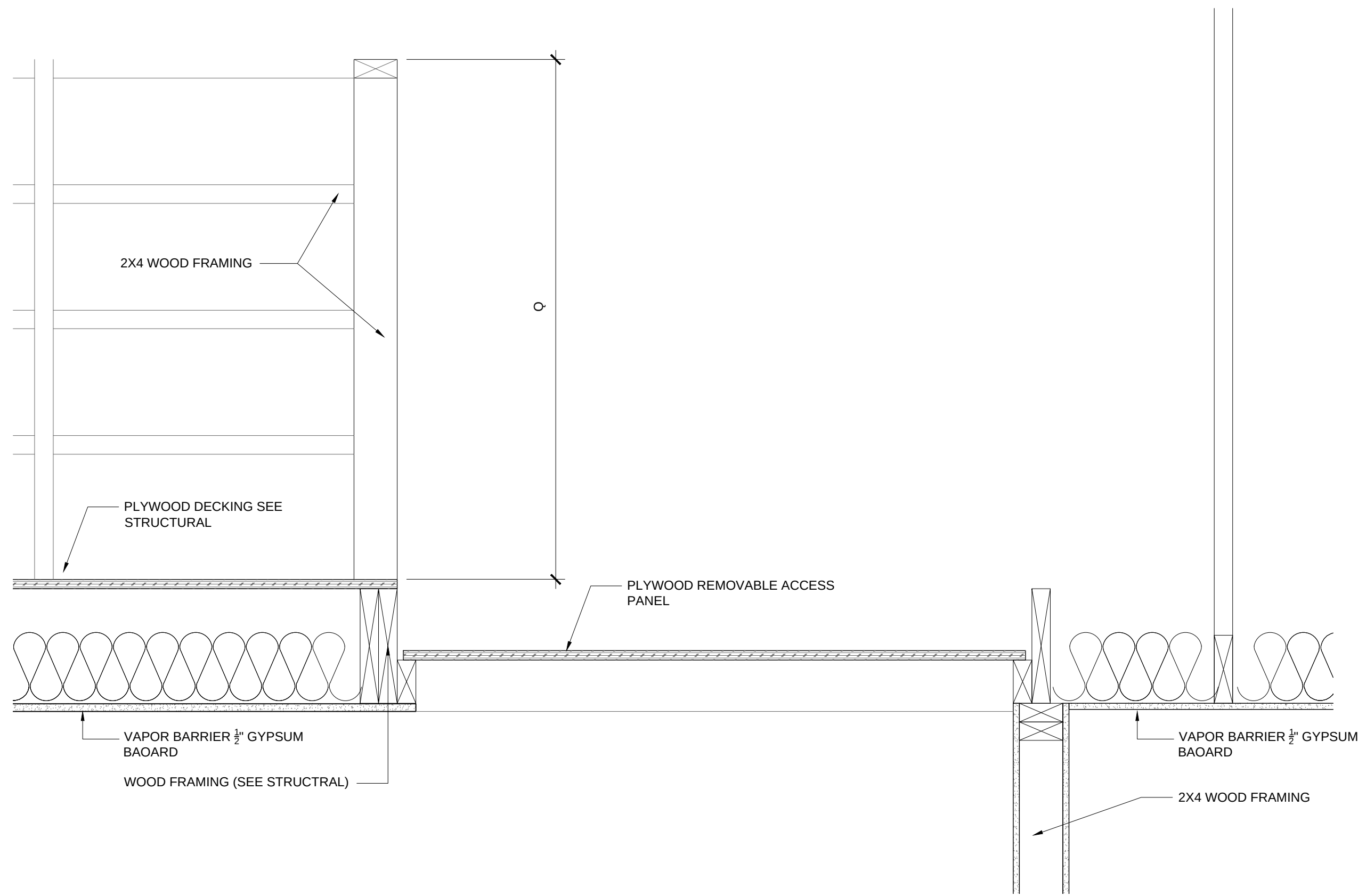


CAST STONE WATERTABLE

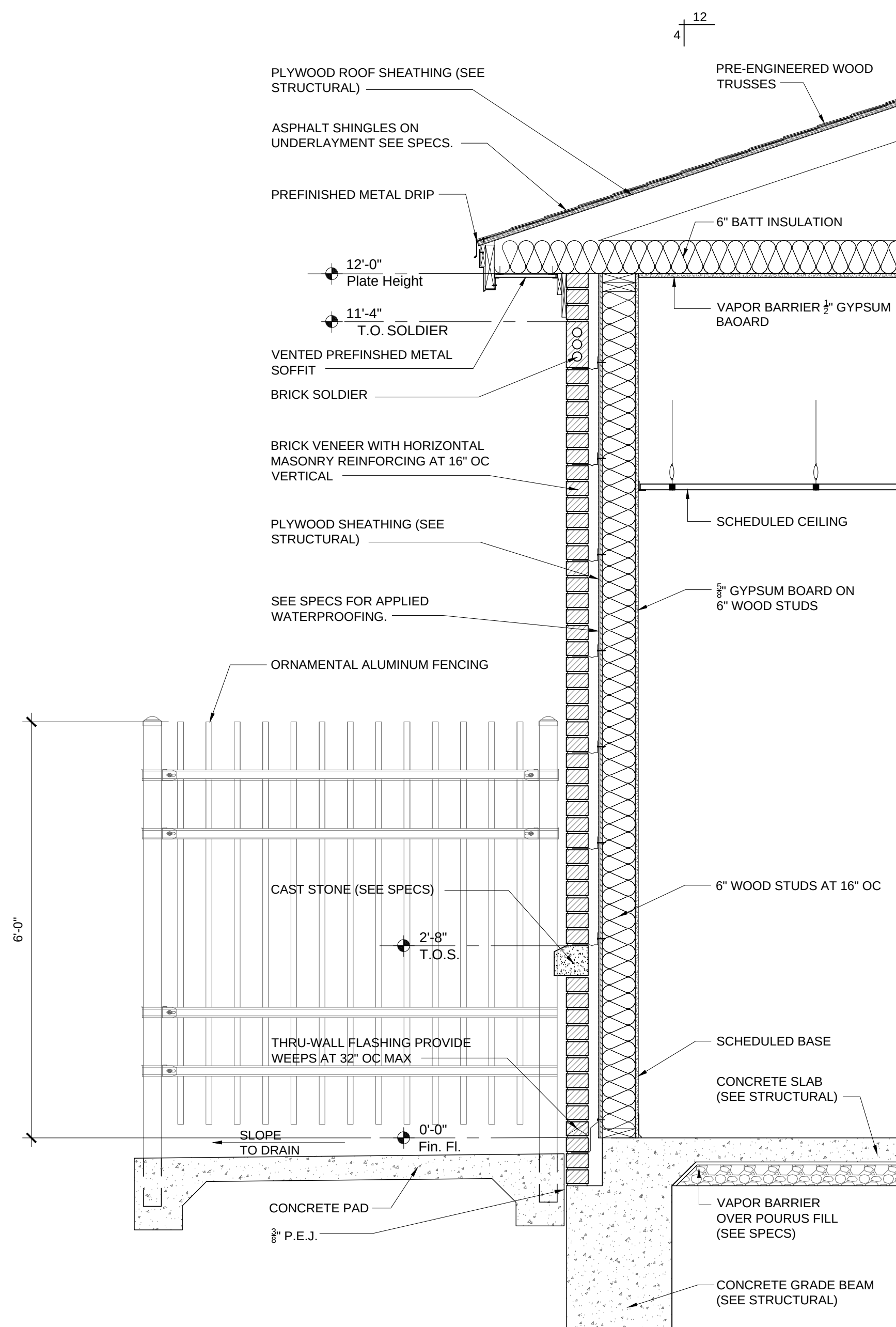
3 CAST STONE
SCALE: 1-1/2" = 1'-0"



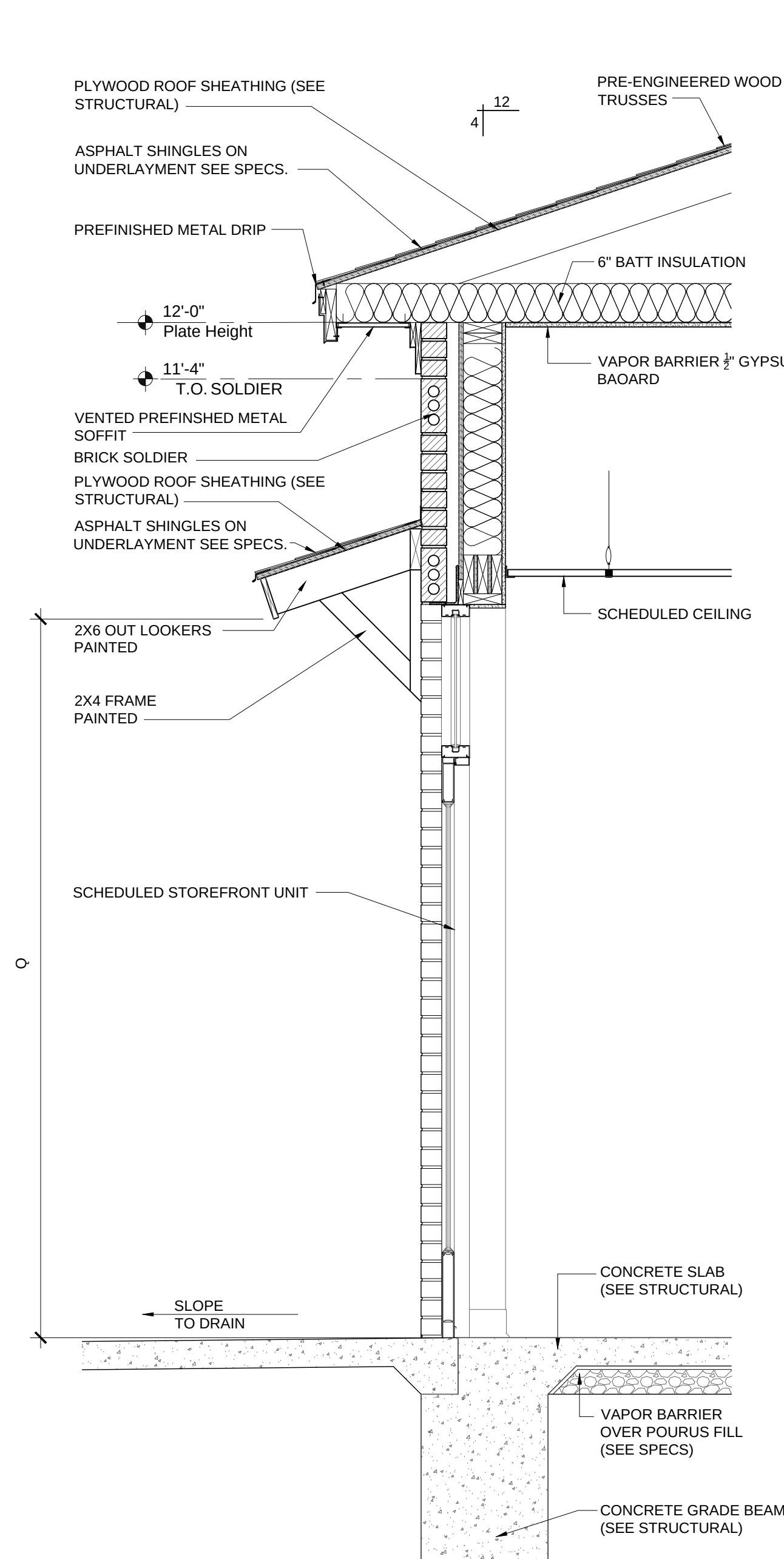
2 FENCE ELEVATION @ GATE
SCALE: 1/4" = 1'-0"



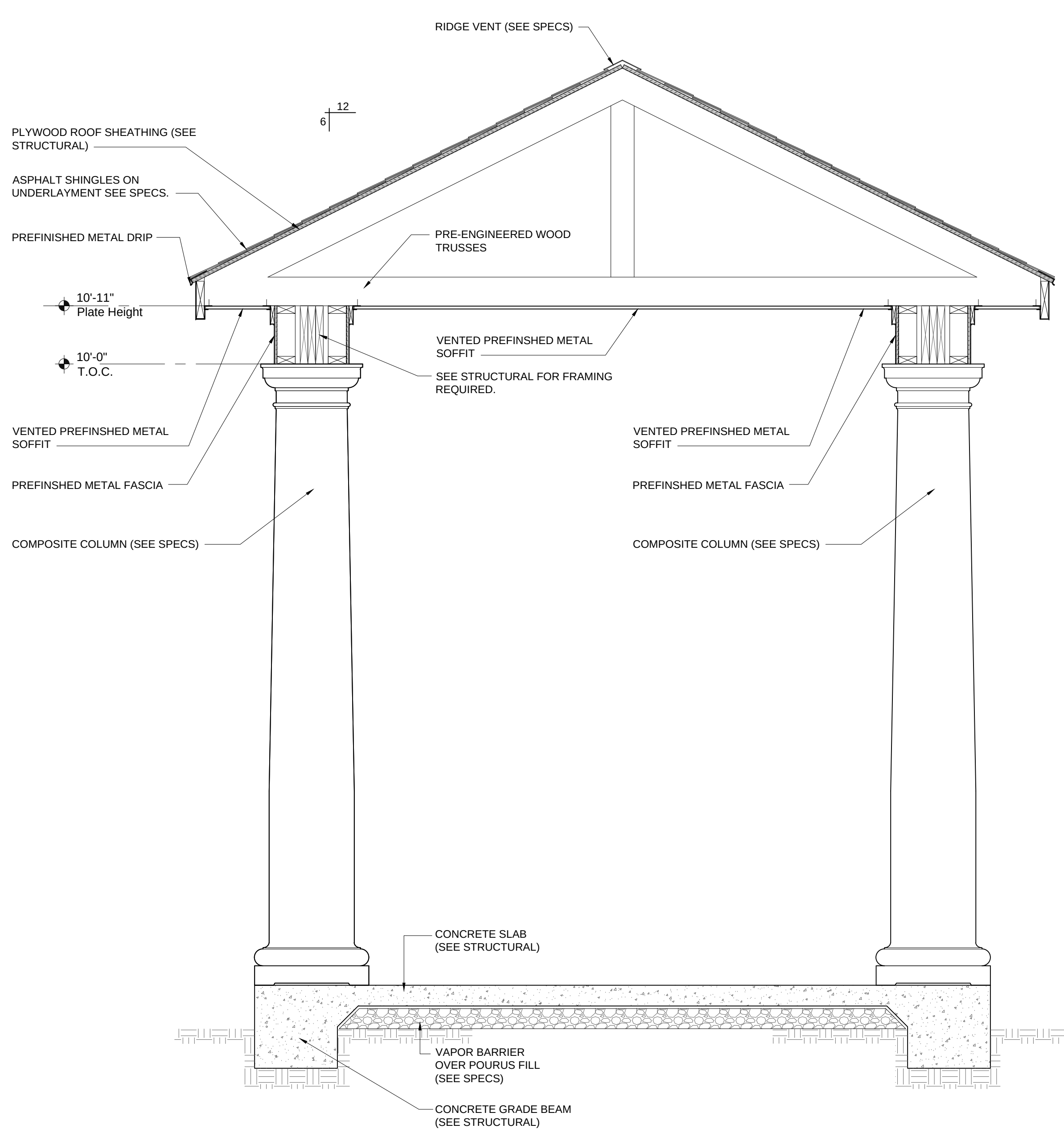
4 HVAC ATTIC ACCESS
SCALE: 1-1/2" = 1'-0"



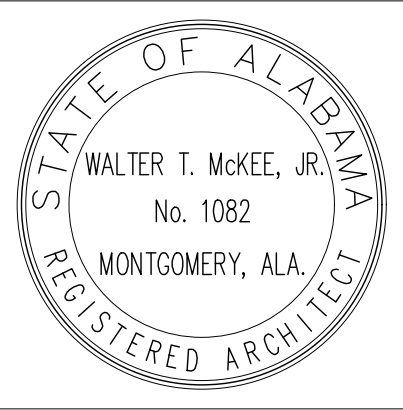
G WALL SECTION
SCALE: 3/4" = 1'-0"



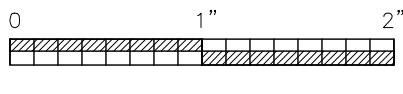
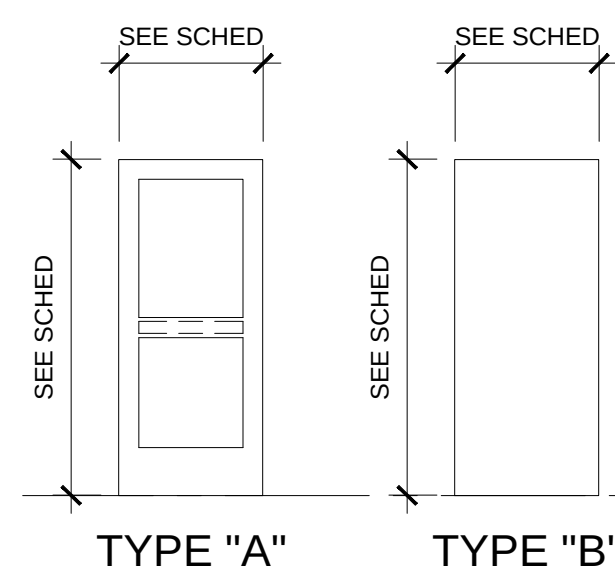
F WALL SECTION
SCALE: 3/4" = 1'-0"



E COVERED SECTION
SCALE: 1/8" = 1'-0"

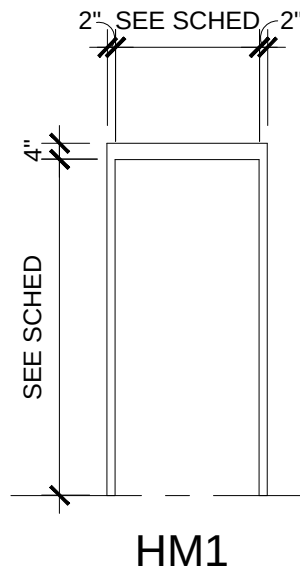


A8.1



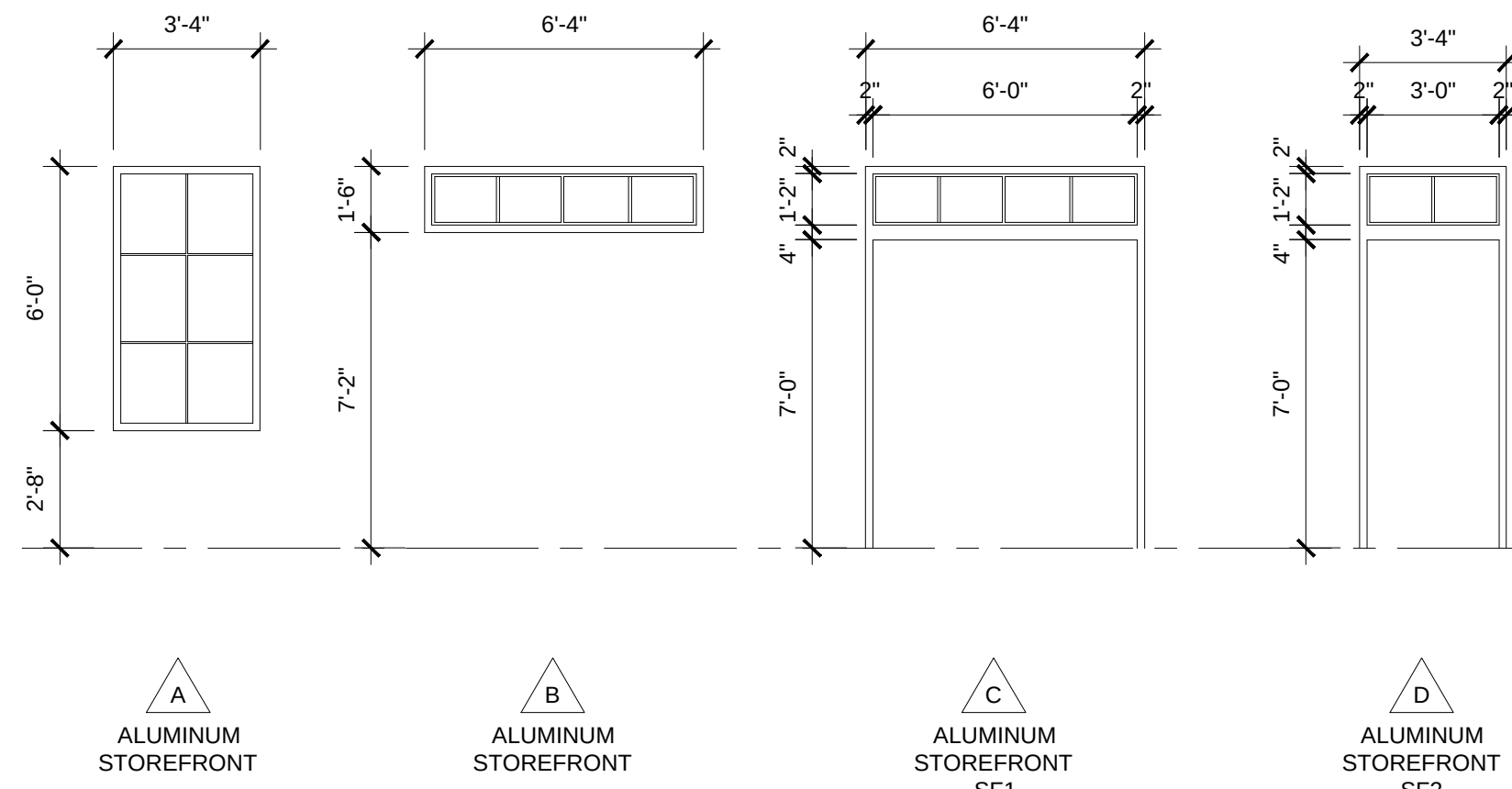
TYPICAL DOOR TYPES

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



TYPICAL FRAME TYPES

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



TYPICAL WINDOW & STOREFRONT TYPES

GLAZING SCHEDULE	
SYMBOL	DESCRIPTION
CA	CLEAR ANNEALED GLASS
CT	CLEAR TEMPERED
FG	FIRE-RATED GLASS
IG	INSULATING GLASS
TA	TINTED ANNEALED GLASS
TT	TINTED TEMPERED

CT
TT
IG
FG

INTERIOR
EXTERIOR

[illegible]

DOOR #	WIDTH	HEIGHT	THICKNESS	MATERIALS	DOOR TYPE	DOOR FINISH	FRAME TYPE	FRAME FINISH	LABEL	DETAILS		SIGNAGE	REMARKS
										HEAD	JAMB		
101	PAIR 3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	A	FACTORY	SF1	FACTORY	---	1/A&2	2/A&2	---	
101a	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	C	4/A&2	5/A&2	ASSEMBLY	20 MIN.
101b	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	C	4/A&2	5/A&2	ASSEMBLY	20 MIN.
102	PAIR 3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	---	4/A&2	5/A&2	STORAGE	---
103	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	---	4/A&2	5/A&2	---	
104	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	---	4/A&2	5/A&2	KITCHEN	---
104a	3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	A	PAINT	SF2	PAINT	---	4/A&2	5/A&2	---	
105	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	---	4/A&2	5/A&2	STORAGE	---
106	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	C	4/A&2	5/A&2	OFFICE	20 MIN.
107	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	C	4/A&2	5/A&2	---	20 MIN.
108	3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	A	FACTORY	SF2	FACTORY	---	1/A&2	2/A&2	---	
109	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	C	4/A&2	5/A&2	FEMALE	20 MIN.
110	PAIR 3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	A	FACTORY	SF1	FACTORY	---	1/A&2	2/A&2	---	
113	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	C	4/A&2	5/A&2	MALE	20 MIN.
114	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	---	4/A&2	5/A&2	---	
115	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	C	4/A&2	5/A&2	---	20 MIN.
116	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	C	4/A&2	5/A&2	MEETING ROOM #1	20 MIN.
116a	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	---	4/A&2	5/A&2	MECHANICAL	20 MIN.
117	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	---	4/A&2	5/A&2	---	
118	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	C	4/A&2	5/A&2	MEETING ROOM #2	---
119	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	B	FACTORY	HM1	STAIN	---	4/A&2	5/A&2	---	

**703.4.1 HEIGHT ABOVE FINISH FLOOR OF GROUND
TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES (1220 mm) MINIMUM
ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF
THE LOWEST TACTILE CHARACTER AND 60 INCHES (1525 mm) MAXIMUM ABOVE FINISH
FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST
TACTILE CHARACTER.**

**EXCEPTION: BRAILLE PROVIDED ON ELEVATOR CAR CONTROLS SHALL BE SEPARATED
¾ INCHES (4.8 mm) MINIMUM AND SHALL BE LOCATED EITHER DIRECTLY BELOW OR
ADJACENT TO THE CORRESPONDING RAISED CHARACTERS OR SYMBOLS.**

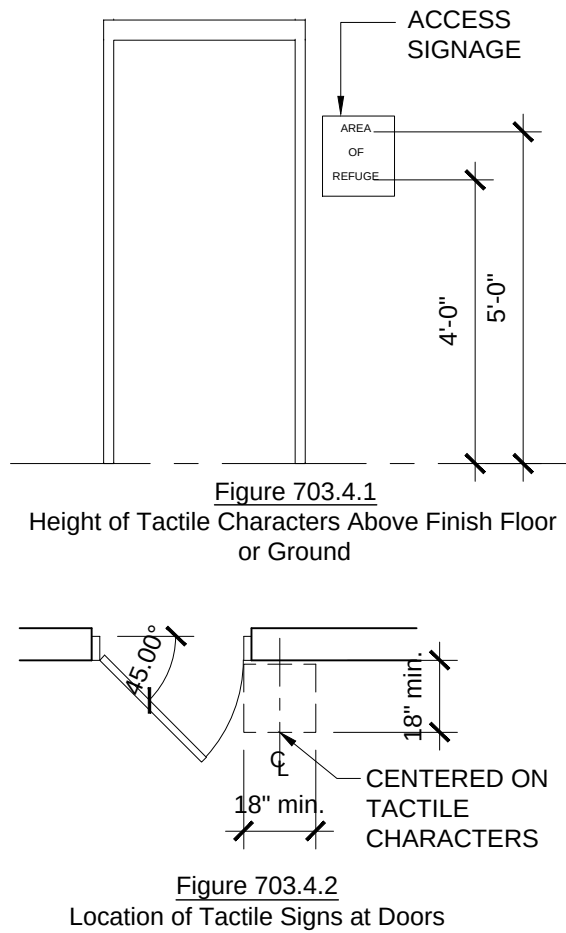
703.2.2 LOCATION

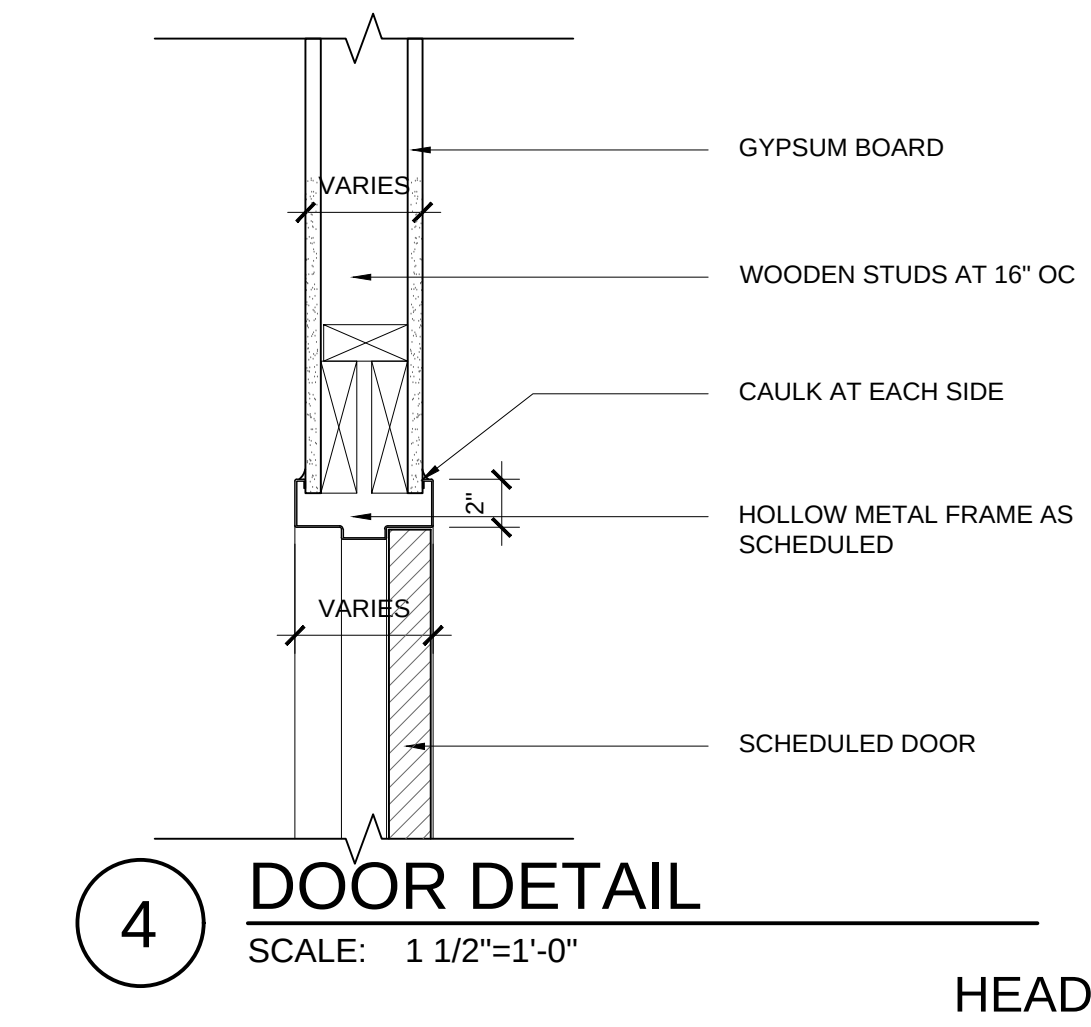
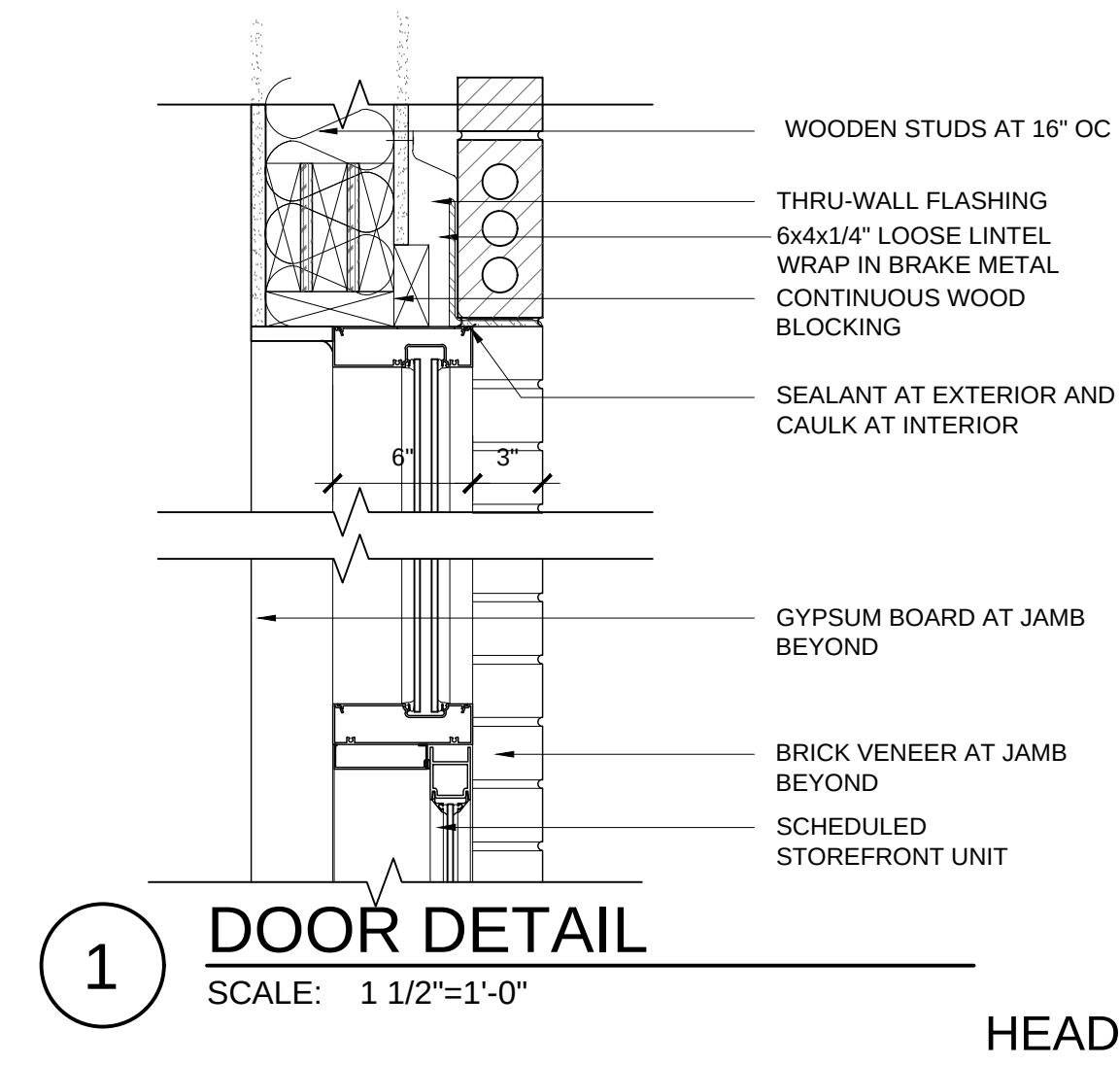
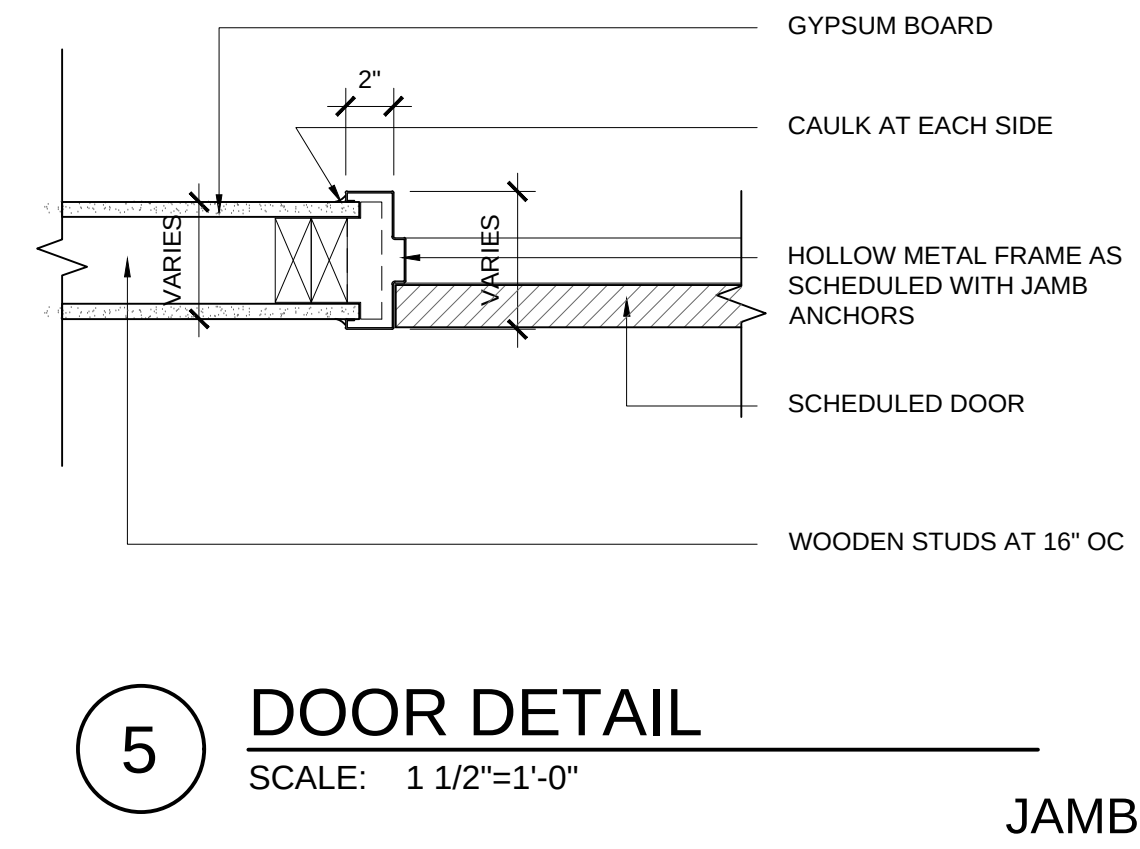
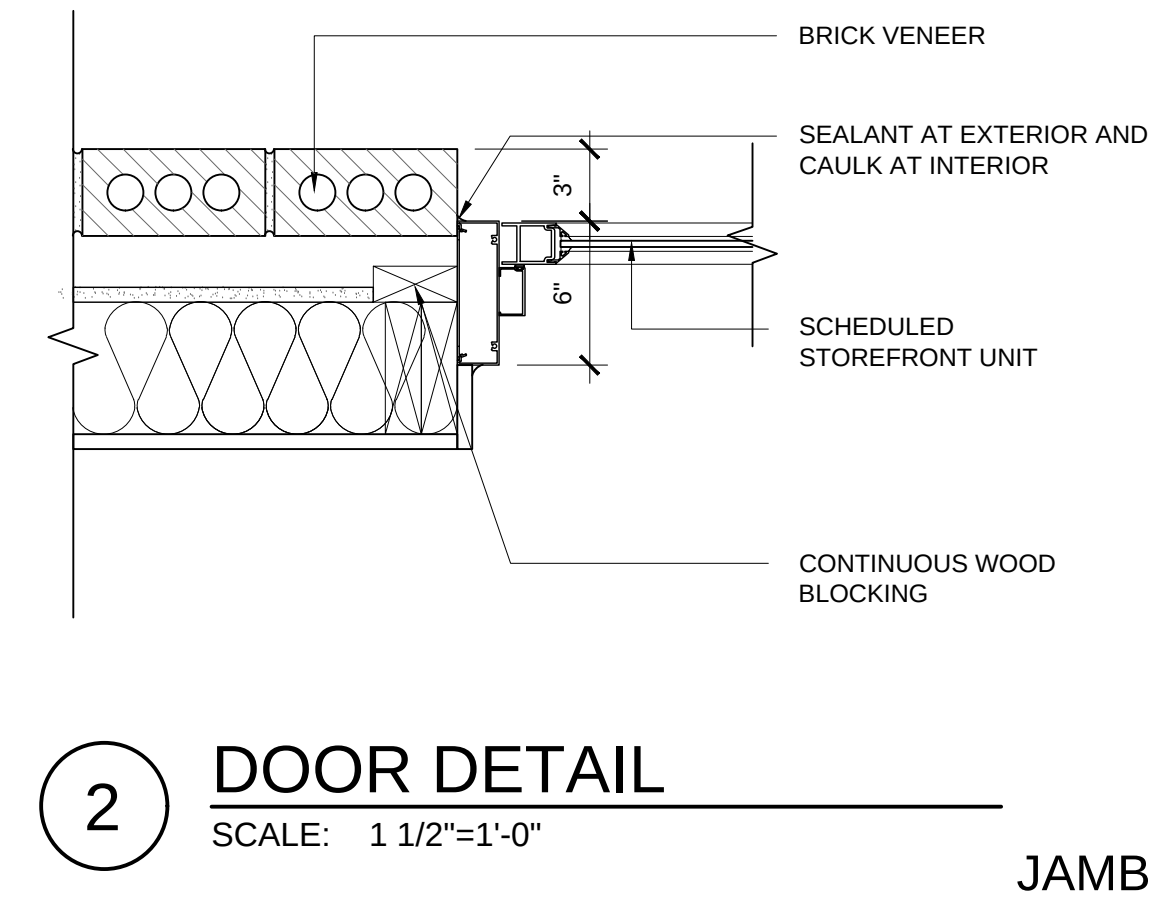
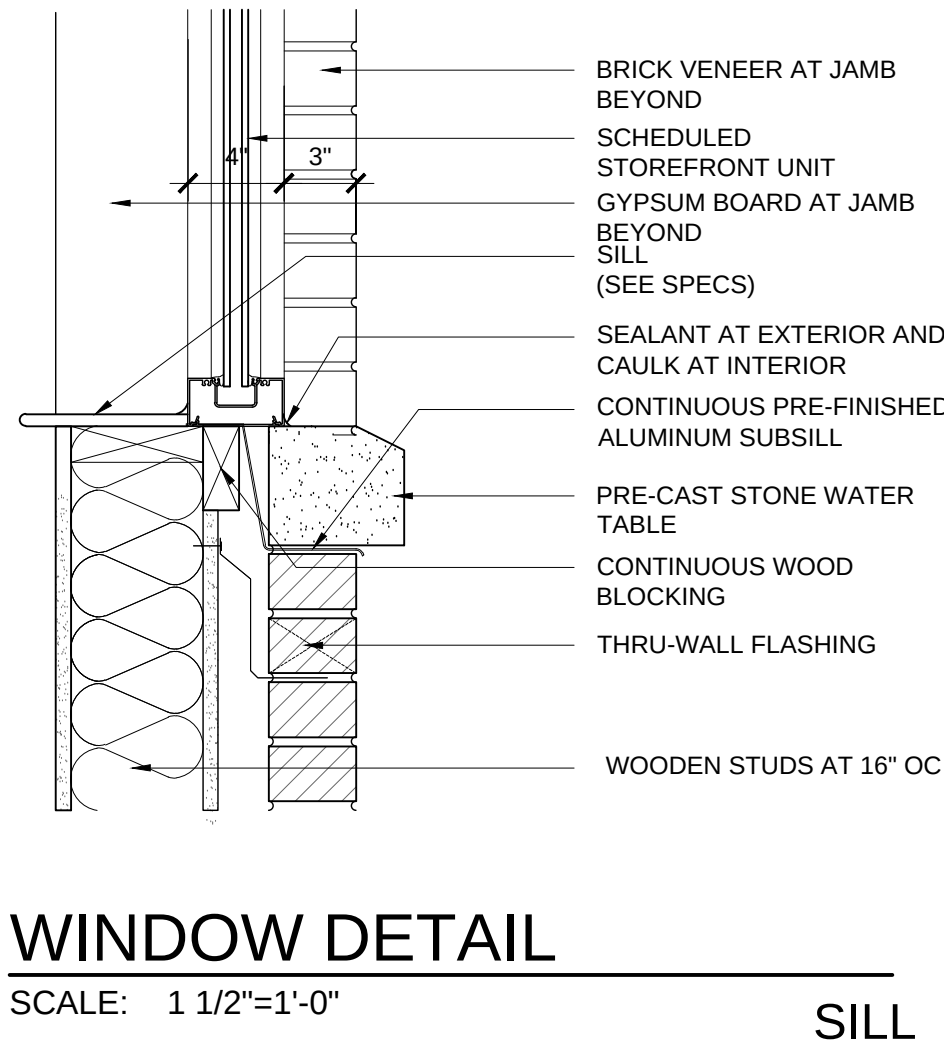
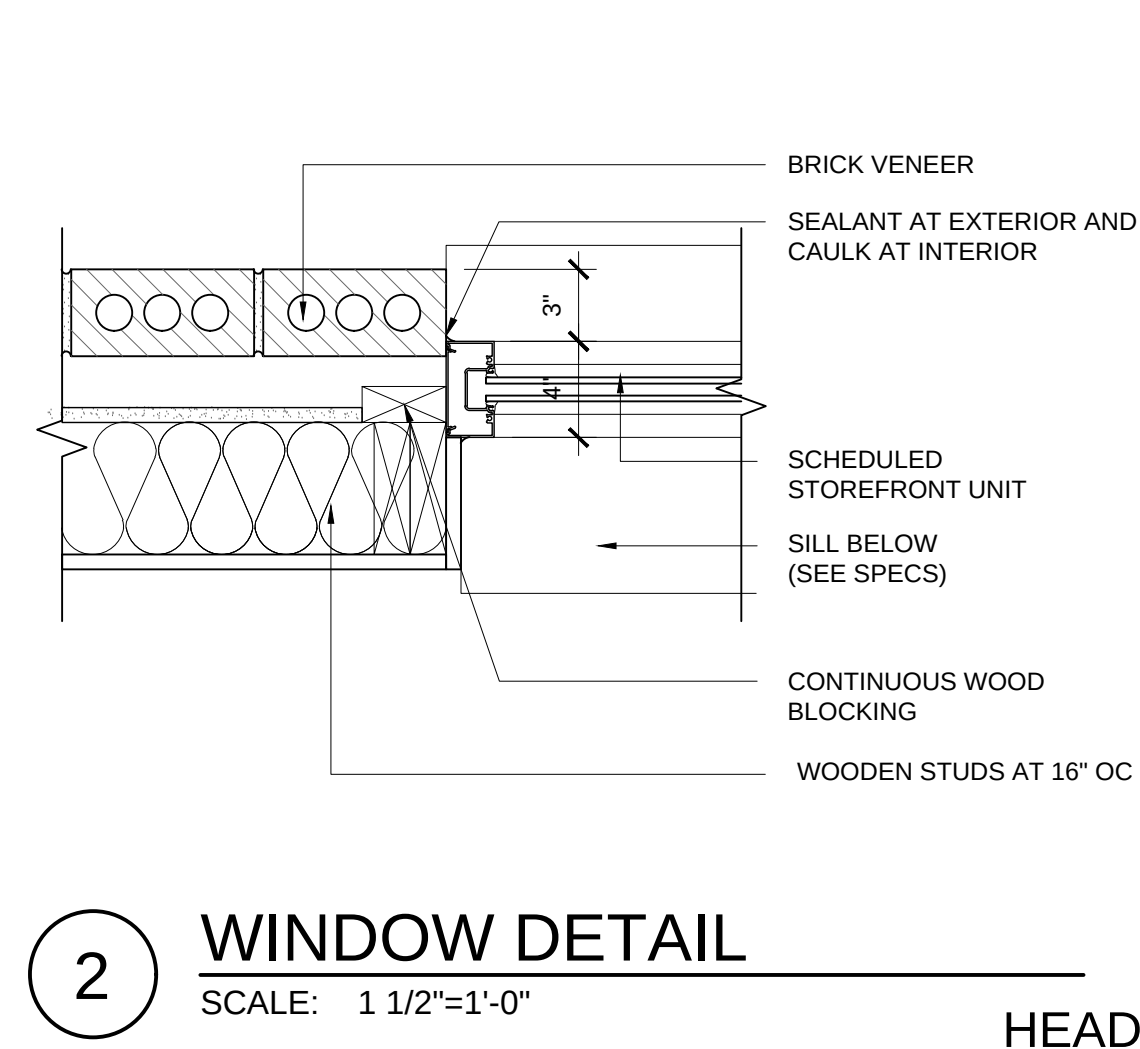
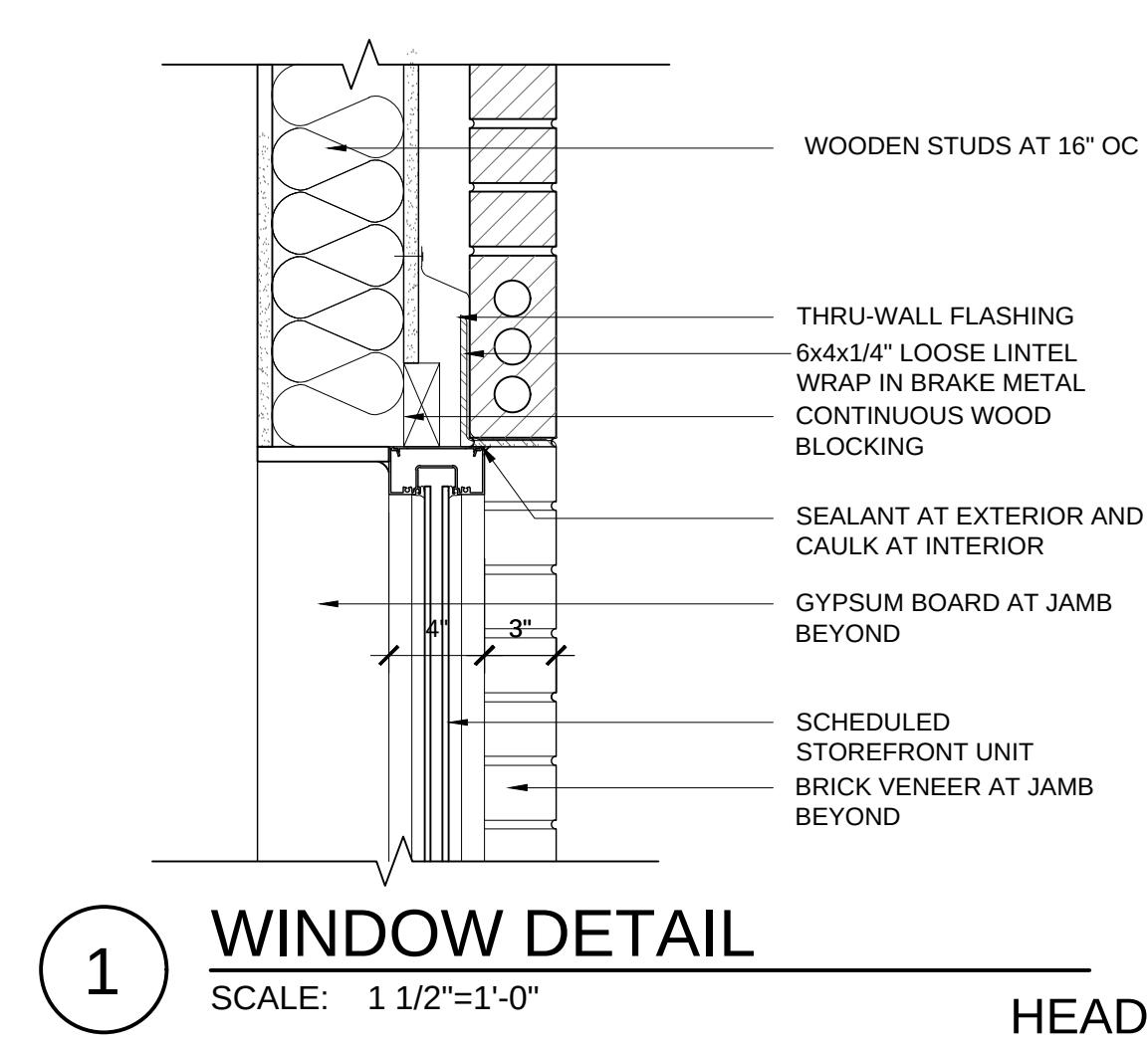
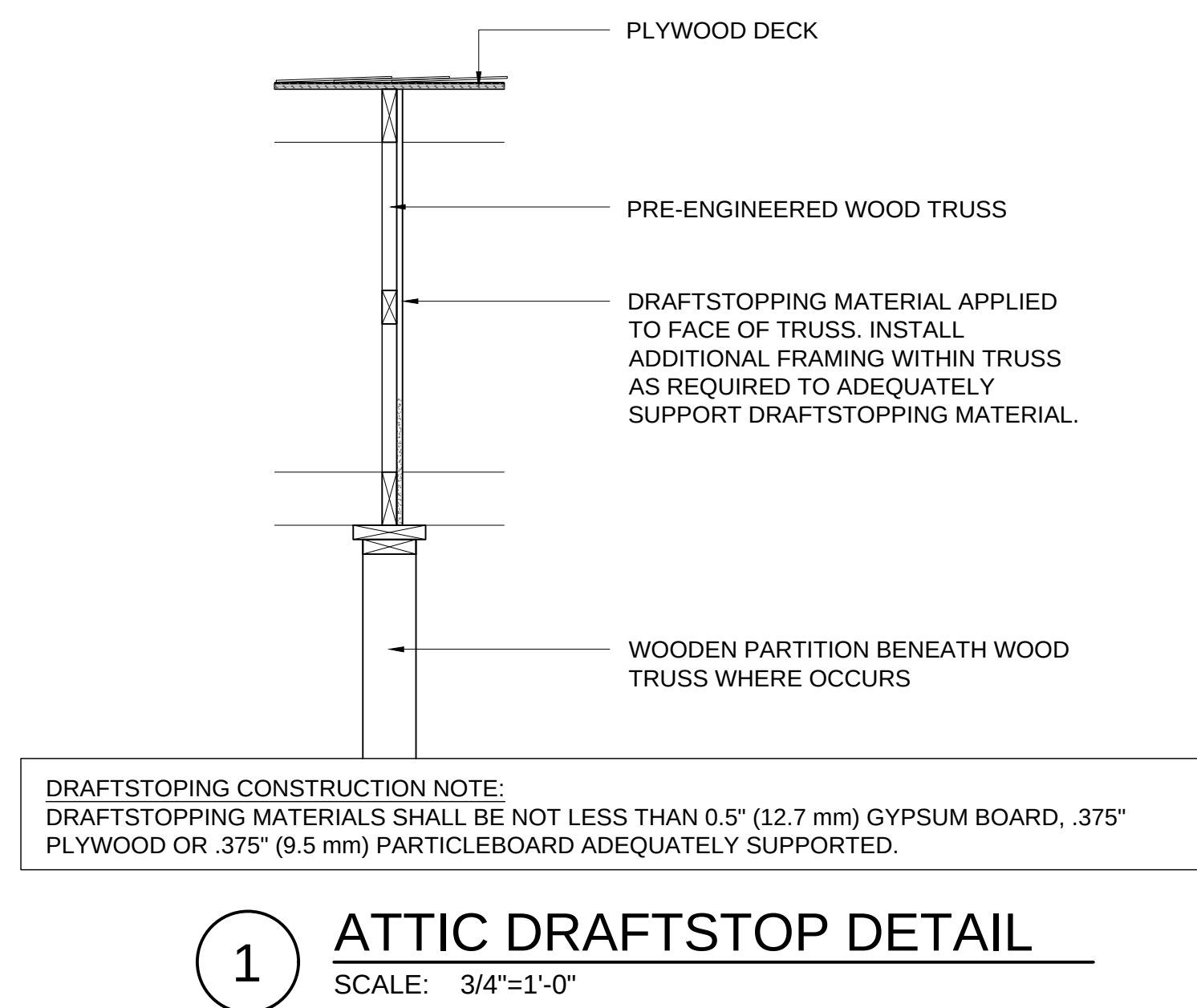
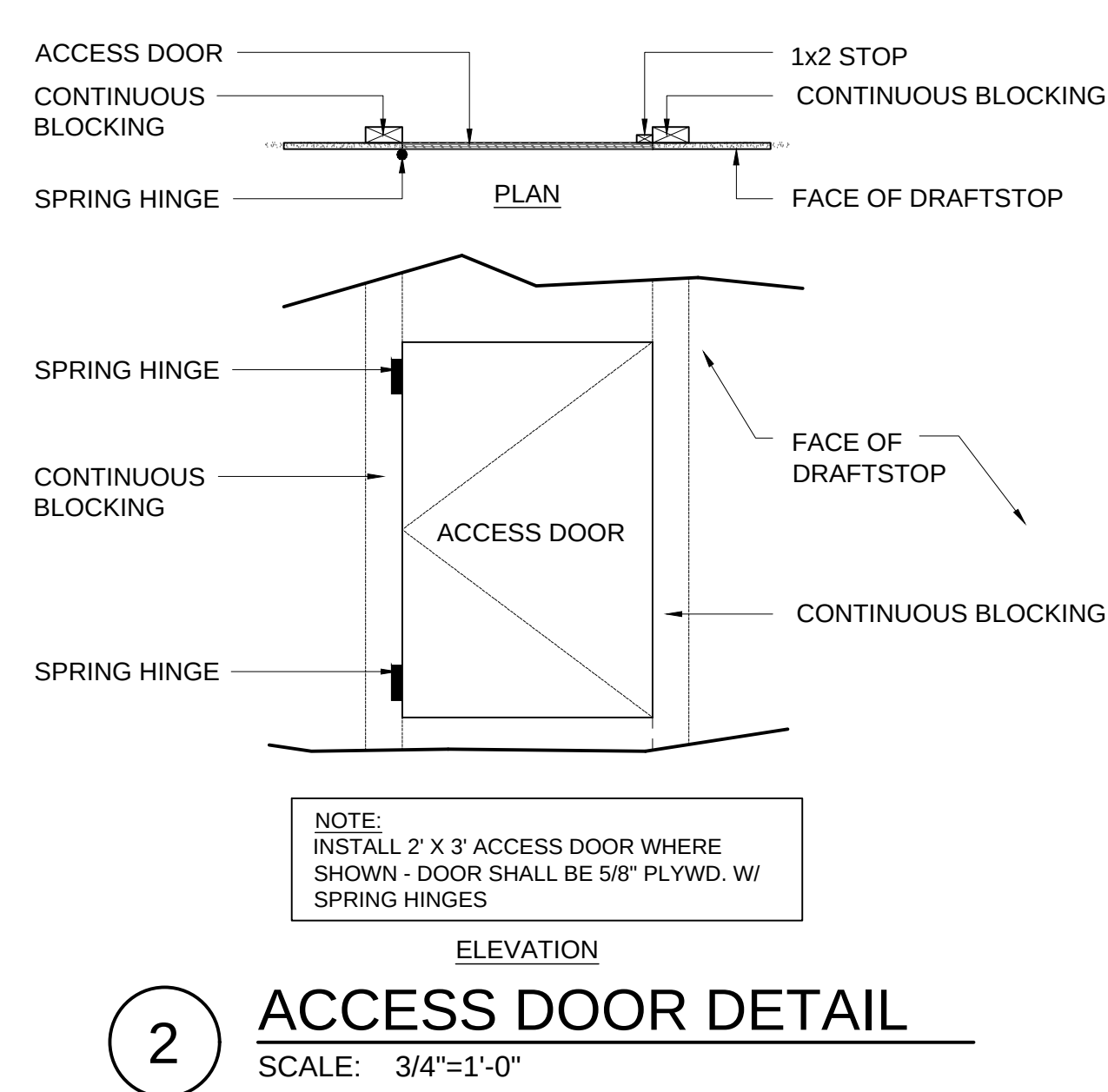
WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE, WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR, WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF THE DOORS, THE SIGN SHALL BE LOCATED ON THE DOUBLE DOOR. THE SIGN SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT THE CLEAR FLOOR SPACE OF 18 INCHES (455 mm) MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEHIND THE ARC OF ANY DOOR SWING BETWEEN THE SIGN AND THE DOOR.

EXCEPTION: SIGNS WITH TACTILE CHARACTER SHALL BE PERMITTED ON THE PUSH SIDE OF DOORS WITH CLOSERS AND WITHOUT HOLD-OPEN DEVICES.

FURNISH INDIVIDUAL PLASTIC LAMINATE SIGNAGE SYSTEM WITH ROOM OR OCCUPANT'S NAME AND ROOM NUMBER. FINAL WORDING TO BE FURNISHED WHEN SHOP DRAWINGS FOR SIGNAGE SYSTEM ARE SUBMITTED. FURNISH INDIVIDUAL PLASTIC LAMINATE RESTROOM SIGNS FOR DOOR(S) AND HANDICAPPED ACCESS SIGN TO BE PLACED ON WALL BESIDE RESTROOM DOOR(S) - SEE DIAGRAM.

HOURLY RATING DESIGNATIONS AND / OR ALPHABETICAL LETTER DESIGNATIONS ARE GIVEN WHERE PROTECTED OPENINGS ARE REQUIRED IN RATED PARTITIONS. THESE OPENING PROTECTIVE ASSEMBLIES SHALL INCLUDE THE FRAME, DOOR, HARDWARE, CLOSING DEVICE, SILL AND ANCHORAGE. CONTRACTOR SHALL SEE THAT NO COMPONENT IS OMITTED OR SUBSTANDARD QUALITY USED SUCH THAT THE ENTIRE RATING OF THE PARTITION OR ASSEMBLY BE JEOPARDIZED. DOORS AND FRAMES SHALL BE FURNISHED WITH UNDERWRITER'S LABORATORIES OR WARNOCKHERSEY LABELS WITH APPROPRIATE FIRE RESISTANCE RATINGS FOR THE CLASS OF OPENING SCHEDULED. SUBJECT TO DOOR MANUFACTURER'S PROCEDURAL LIMITATIONS, LABELS SHOULD BEAR THE FOLLOWING NOTATION: "FIRE DOOR, TO BE EQUIPPED WITH FIRE EXIST HARDWARE"





VENTS THROUGH ROOF MUST BE LOCATED MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKE. COORDINATE WITH MECHANICAL CONTRACTOR AND WITH ROOFING CONTRACTOR. 3'-0" MINIMUM CAST IRON. PROVIDE SUPPORT AT ELBOW BELOW V.T.R.

PLUMBER SHALL COORDINATE WITH GENERAL CONTRACTOR ALL OPENINGS REQUIRED FOR PLUMBING SYSTEMS TO EXTEND FLOOR TO ROOF.

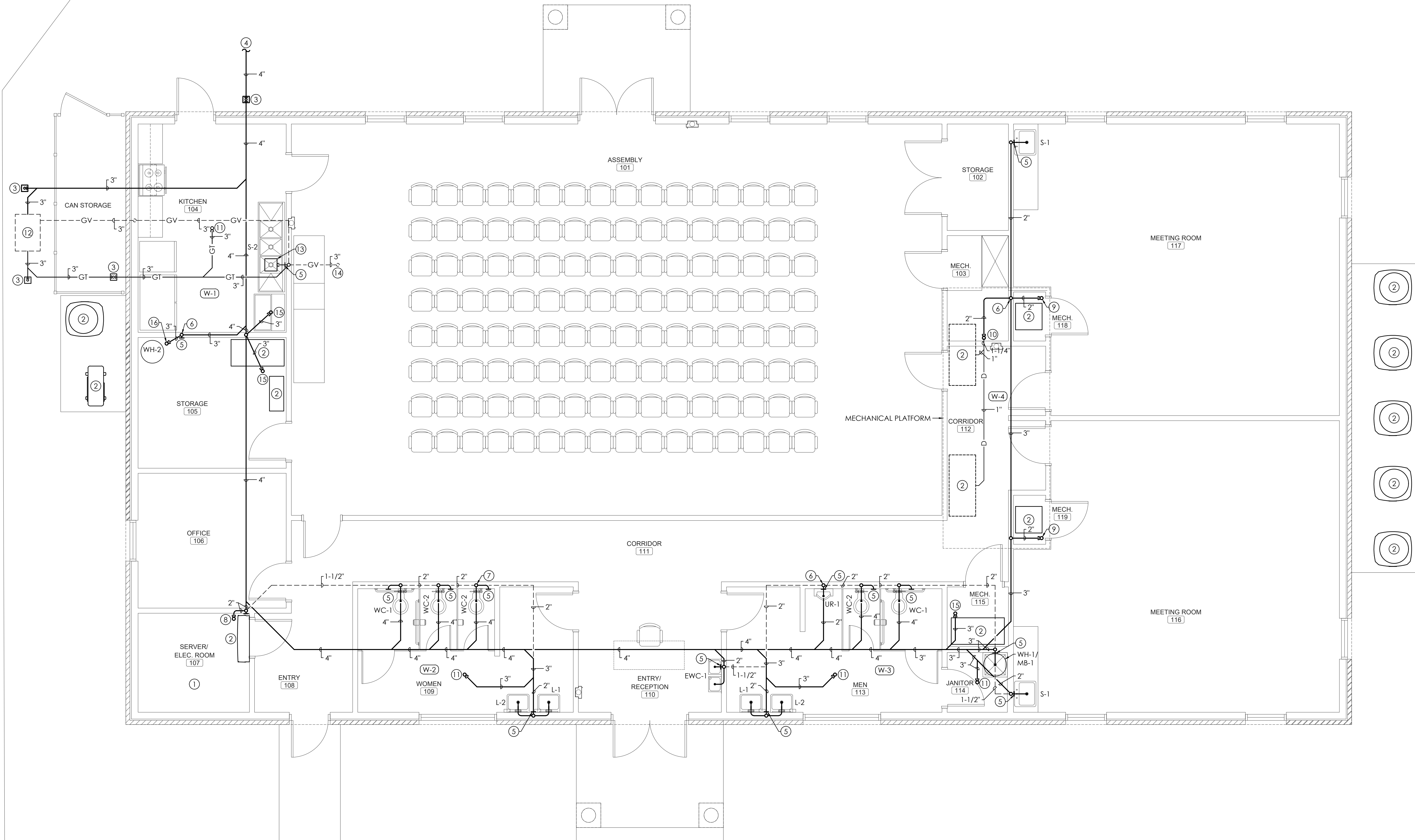
SLEEVE ALL PENETRATIONS OF STRUCTURE BELOW GRADE. PROVIDE CLEARANCE AROUND PIPES FOR BUILDING EXPANSION AND CONTRACTION. COORDINATE WITH STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR.

CONDENSATE PIPING TO BE TYPE "L" HARD COPPER PIPE WITH 1" THICK FIBERGLASS INSULATION. LABEL ALL CONDENSATE PIPING.

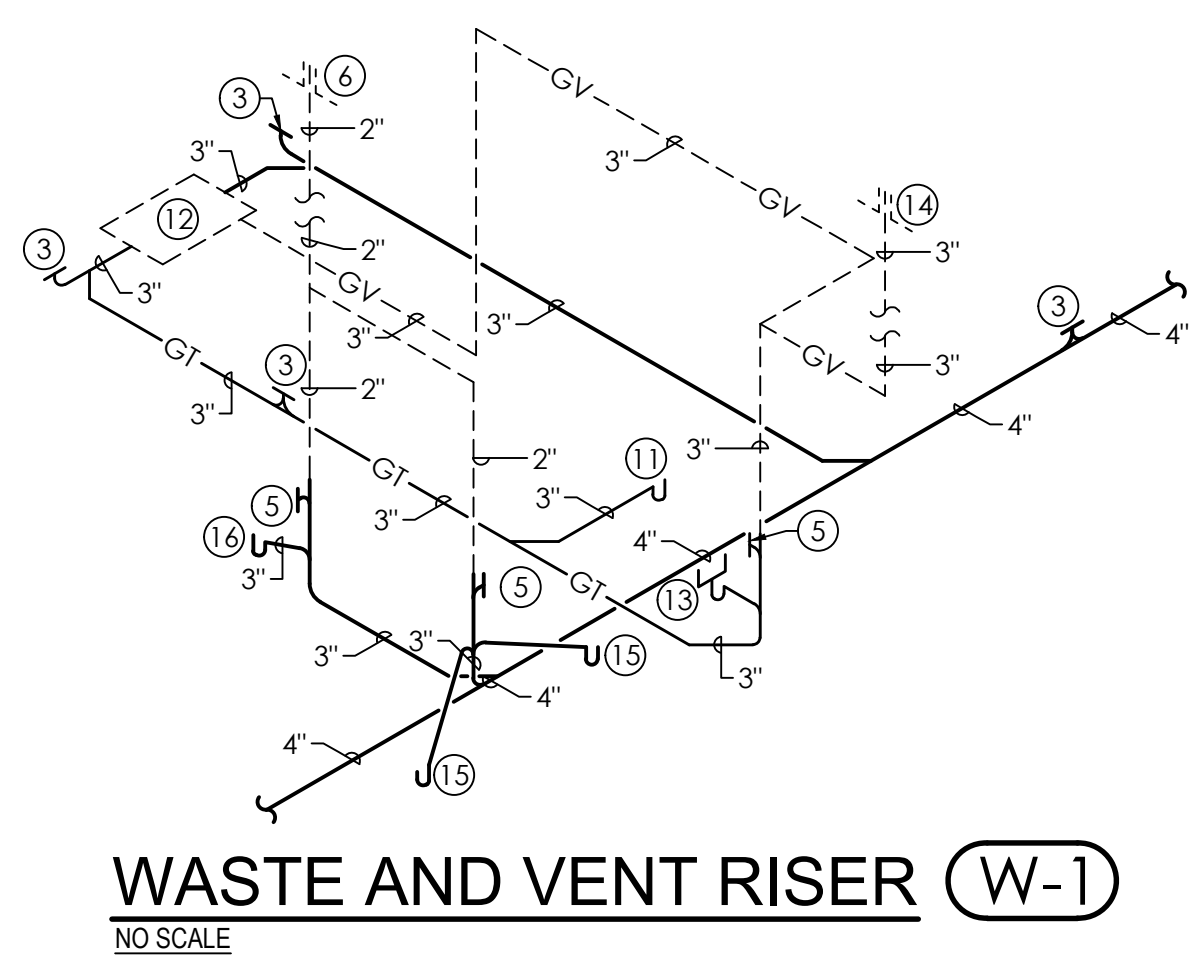
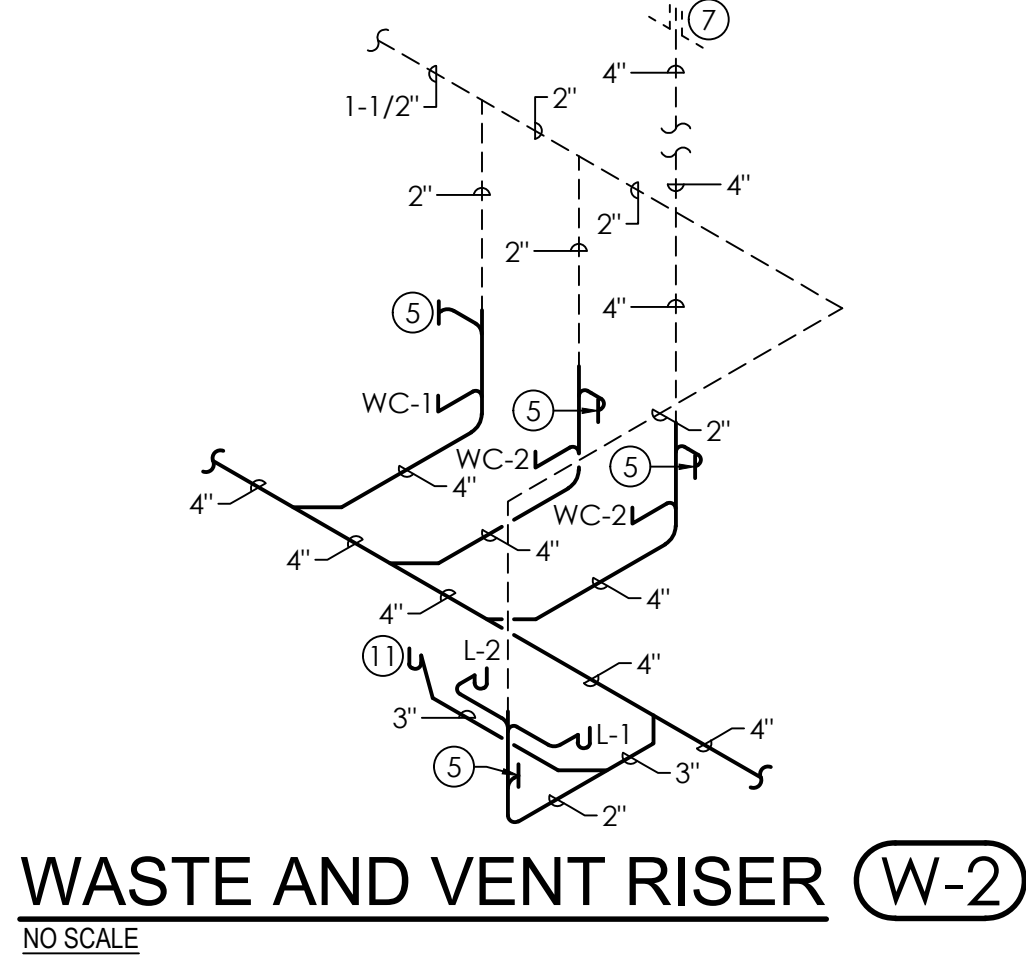
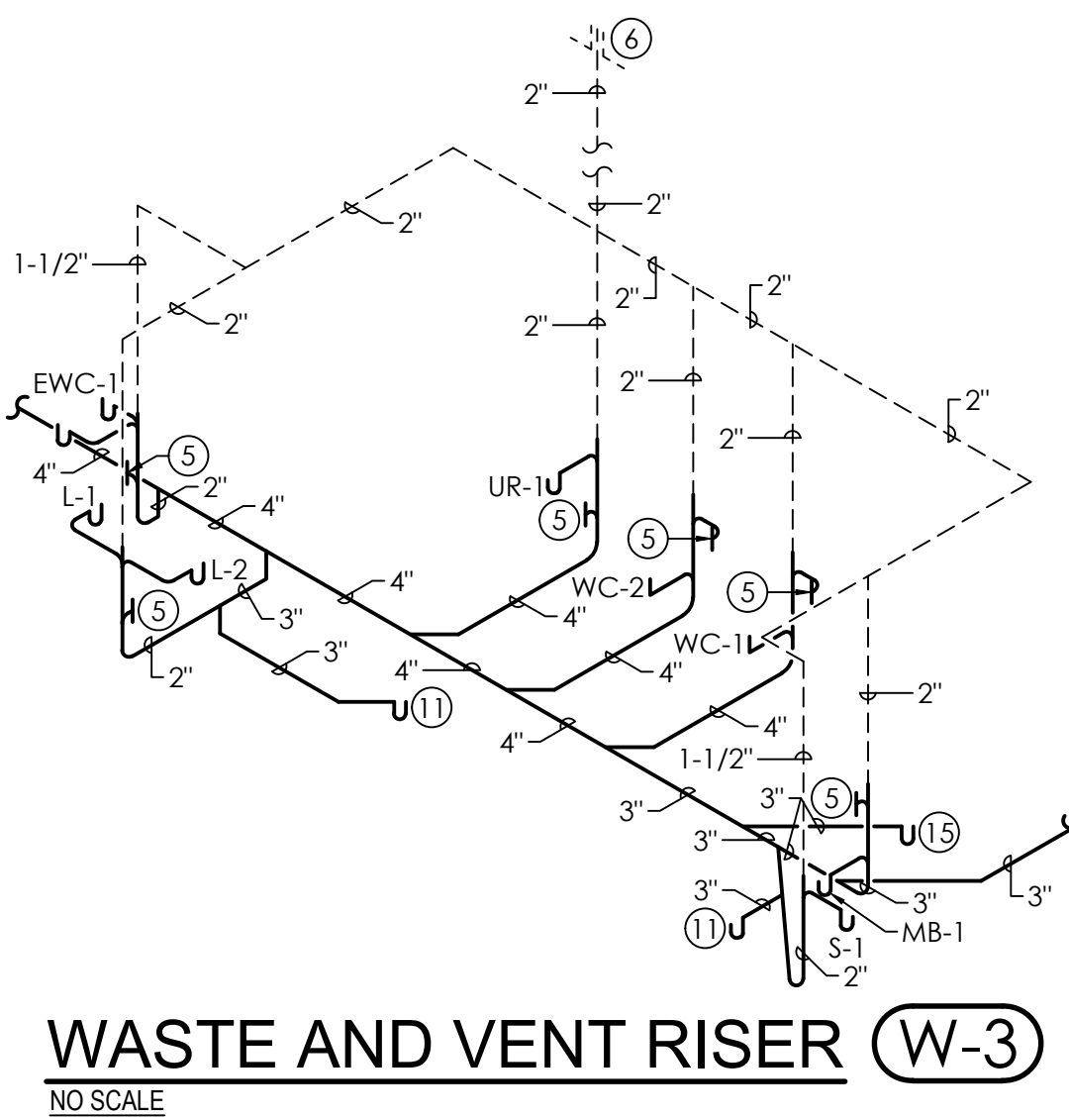
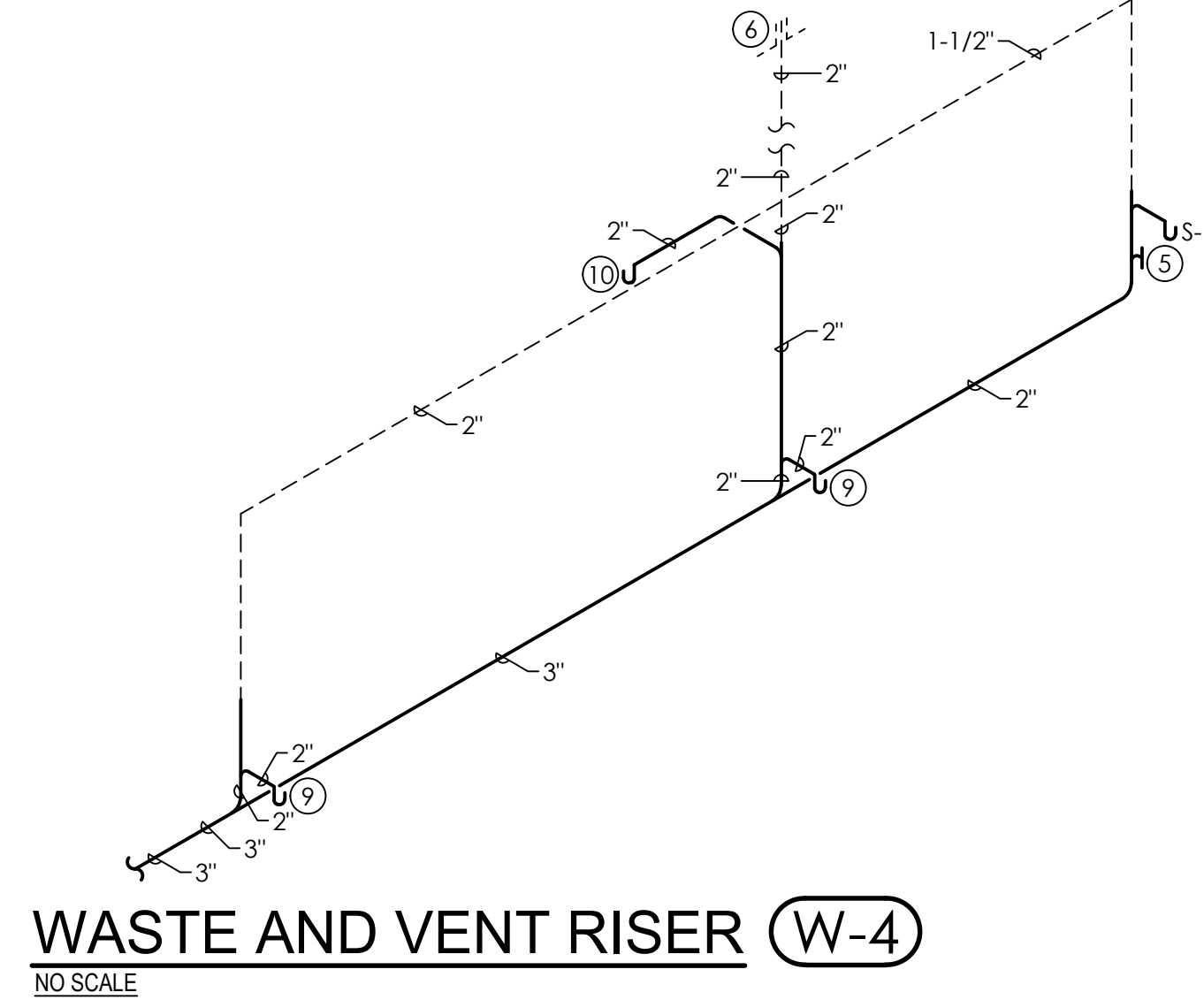
ALL PIPING FROM KITCHEN EQUIPMENT, FLOOR SINK AND FLOOR DRAIN CONNECTIONS TO GREASE TRAP SHALL BE COATED CAST IRON (CHARLOTTE EDGE HP OR EQUAL. GREASE VENT SHALL BE SCH. 40 SOLID WALL PVC.

NOTE LEGEND: (THIS SHEET ONLY)

- ELECTRICAL PANEL. MAINTAIN MINIMUM 42" CLEARANCE IN FRONT OF PANELS. PIPING SHALL NOT RUN ABOVE PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
- MECHANICAL UNIT. (SEE MECHANICAL DRAWINGS) COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
- C.O.T.G. (SET IN 18"x18"x6" CONCRETE PAD WITH TOOLED EDGES. PROVIDE BRASS PLUG.) PROVIDE COVER AND FRAME.
- SEE SITE UTILITY PLAN FOR CONTINUATION.
- W.C.O.
- 2" V.T.R. (3'-0" MIN. CAST IRON) PROVIDE SUPPORT AT ELBOW BELOW V.T.R.
- 4" V.T.R. (3'-0" MIN. CAST IRON) PROVIDE SUPPORT AT ELBOW BELOW V.T.R.
- 2" INDIRECT DRAIN WITH INSULATED DEEP SEAL P-TRAP. (1" THICK FIBERGLASS INSULATION.) PROVIDE TRAP PRIMER. LOCATED EXPOSED HIGH ON WALL. COORDINATE HEIGHT WITH MECHANICAL UNIT.
- 2"x3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP. (1" THICK FIBERGLASS INSULATION.) PROVIDE TRAP PRIMER. CAST IRON PIPE IN RETURN AIR PLENUM.
- 2"x3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP. (1" THICK FIBERGLASS INSULATION.) PROVIDE TRAP PRIMER. LOCATED AT MECHANICAL PLATFORM.
- 3" FLOOR DRAIN. (PROVIDE TRAP GUARD.)
- INLINE GREASE INTERCEPTOR BURIED OUTSIDE WITH ACCESS LID. TURN MODEL Z1160-800-50GPM -3". UNIT IS EXISTING TO BE RELOCATED FROM ANOTHER SITE.
- 3" FLOOR SINK. (PROVIDE TRAP GUARD.) 3/4" GRATE.
- 3" GREASE V.T.R. PROVIDE SUPPORT AT ELBOW BELOW V.T.R.
- 3" FLOOR DRAIN. (PROVIDE TRAP PRIMER.)
- 3" FLOOR DRAIN. 6'-0" MIN. OF CAST IRON PIPE. PROVIDE FOR WATER HEATER RELIEF AND DRAIN LINES. (PROVIDE TRAP GUARD.)



PLUMBING WASTE AND VENT PIPING FLOOR PLAN
SCALE: 1/4\"=1'-0"



SCALE: 1/4\"=1'-0"
0 2 4 8'

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www.jmorriseng.com PROJECT NO: 26-122

FIRE STOP ALL PENETRATIONS OF FIRE RATED WALLS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED WALLS AND FLOORS.

ANY EXPOSED (AREAS WITHOUT CEILINGS) WATER PIPING TO BE INSULATED AND LABELED PER SPECIFICATION. PROVIDE ALUMINUM JACKET AND LABELS ON ALL EXPOSED LINES.

VALVES LOCATED ABOVE CEILING SHALL BE MADE EASILY ACCESSIBLE. LOCATE 24" MAX ABOVE CEILING. PLUMBER SHALL PROVIDE ACCESS PANELS IN GYP. BOARD CEILINGS MARK LOCATION OF VALVES ABOVE LAY-IN CEILINGS USING PLASTIC ENGRAVED LABEL WITH ADHESIVE BACKING LOCATED ON THE CEILING GRID. COORDINATE WITH GENERAL CONTRACTOR.

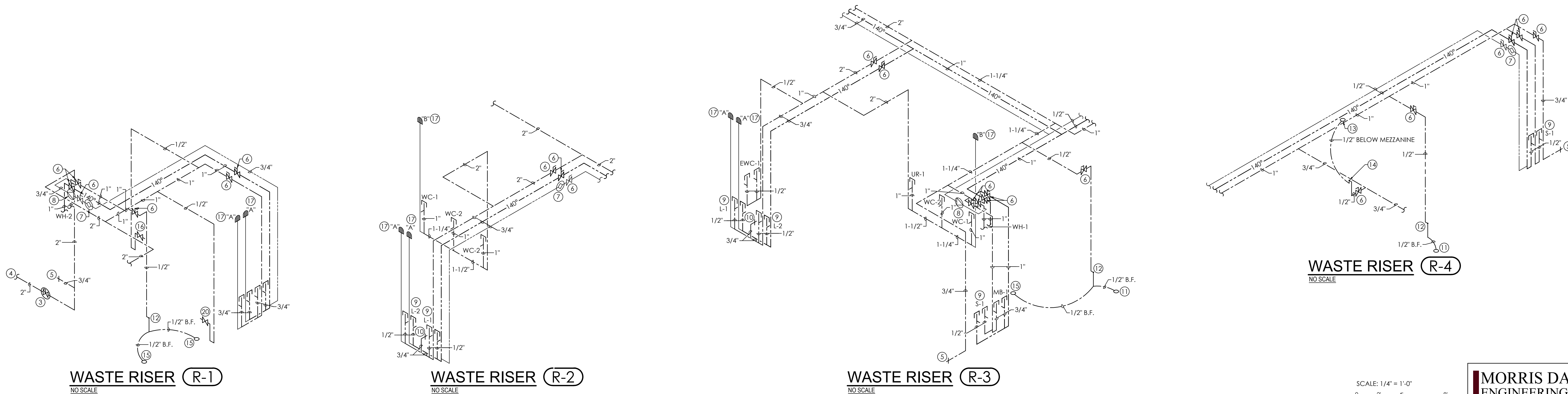
SLEEVE ALL PENETRATIONS OF STRUCTURE BELOW GRADE. PROVIDE CLEARANCE AROUND PIPES FOR BUILDING EXPANSION AND CONTRACTION. COORDINATE WITH STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR.

ALL WATER PIPING SHALL BE INSTALLED WITH 1" THICK FIBERGLASS INSULATION. LABEL ALL LINES AT EACH CHANGE OF DIRECTION. TAG ALL VALVES AND PROVIDE VALVE TAG CHART.

(#) NOTE LEGEND: (THIS SHEET ONLY)

- ELECTRICAL PANEL MAINTAIN MINIMUM 42" CLEARANCE IN FRONT OF PANELS. PIPING SHALL NOT RUN ABOVE PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
- MECHANICAL UNIT. (SEE MECHANICAL DRAWINGS) COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
- BALL VALVE IN 24"x24"x6" CONCRETE VALVE BOX AND PRV. (PRV SET AT 60 PSI MAX. PRV SHALL BE WATTS SERIES 2300 OR APPROVED EQUAL.)
- SEE SITE UTILITY PLAN FOR CONTINUATION.
- WALL HYDRANT (FREEZE PROOF) IN BOX WITH LOOSE TEE KEY.
- BALL VALVE. LOCATE 24" MAX ABOVE CEILING. PROVIDE 12"x12" ACCESS PANEL TO MATCH CEILING IF LOCATED IN NON-TILE CEILING AREA. (TYPICAL)
- BALANCING VALVE. LOCATE 24" MAX ABOVE CEILING. PROVIDE 12"x12" ACCESS PANEL TO MATCH CEILING IF LOCATED IN NON-TILE CEILING AREA. (TYPICAL)
- CIRCULATING PUMP.
- PROVIDE TEMPERATURE LIMITING VALVE BELOW FIXTURE. PROVIDE SECURED IN RECESSED ACCESS BOX WITH FINISHED FRAME. (SEE DETAIL) VALVE SHALL BE EQUAL TO ZURN ZW3870X1. LEONARD 170D-LP-BKT OR SIOUX CHIEF MODEL 696 UNDER SINK. (SHALL COMPLY WITH A.S.S.E. 1070) (PROVIDE ACCESS PANEL)
- H.B. (HOSE BIBB) IN BOX WITH LOOSE TEE KEY.
- 2X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP. (1" THICK FIBERGLASS INSULATION.) PROVIDE TRAP PRIMER. CAST IRON PIPE IN RETURN AIR PLENUM.
- TRAP PRIMER. WITH 12"x12" STAINLESS STEEL ACCESS PANEL. COORDINATE HEIGHT WITH HUB DRAIN.
- 2X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP. (1" THICK FIBERGLASS INSULATION.) PROVIDE TRAP PRIMER. LOCATED AT MECHANICAL PLATFORM.
- TRAP PRIMER. EXPOSED AT MECHANICAL PLATFORM.
- 3" FLOOR DRAIN. (PROVIDE TRAP PRIMER.)
- 1/2" COLD WATER TO ICE MAKER IN REFRIGERATOR. PROVIDE WALL BOX. PROVIDE WATER HAMMER ARRESTOR.
- MOUNT ABOVE CEILING OR PROVIDE ACCESS PANEL.
- 2" INDIRECT DRAIN WITH INSULATED DEEP SEAL P-TRAP. (1" THICK FIBERGLASS INSULATION.) PROVIDE TRAP PRIMER. LOCATED EXPOSED HIGH ON WALL. COORDINATE HEIGHT WITH MECHANICAL UNIT.
- TRAP PRIMER. EXPOSED HIGH ON WALL. COORDINATE HEIGHT WITH INDIRECT DRAIN.
- 1/2" COLD WATER TO ICE MACHINE. PROVIDE WALL BOX. PROVIDE WATER HAMMER ARRESTOR.

PLUMBING WATER PIPING FLOOR PLAN
SCALE: 1/4"=1'-0"

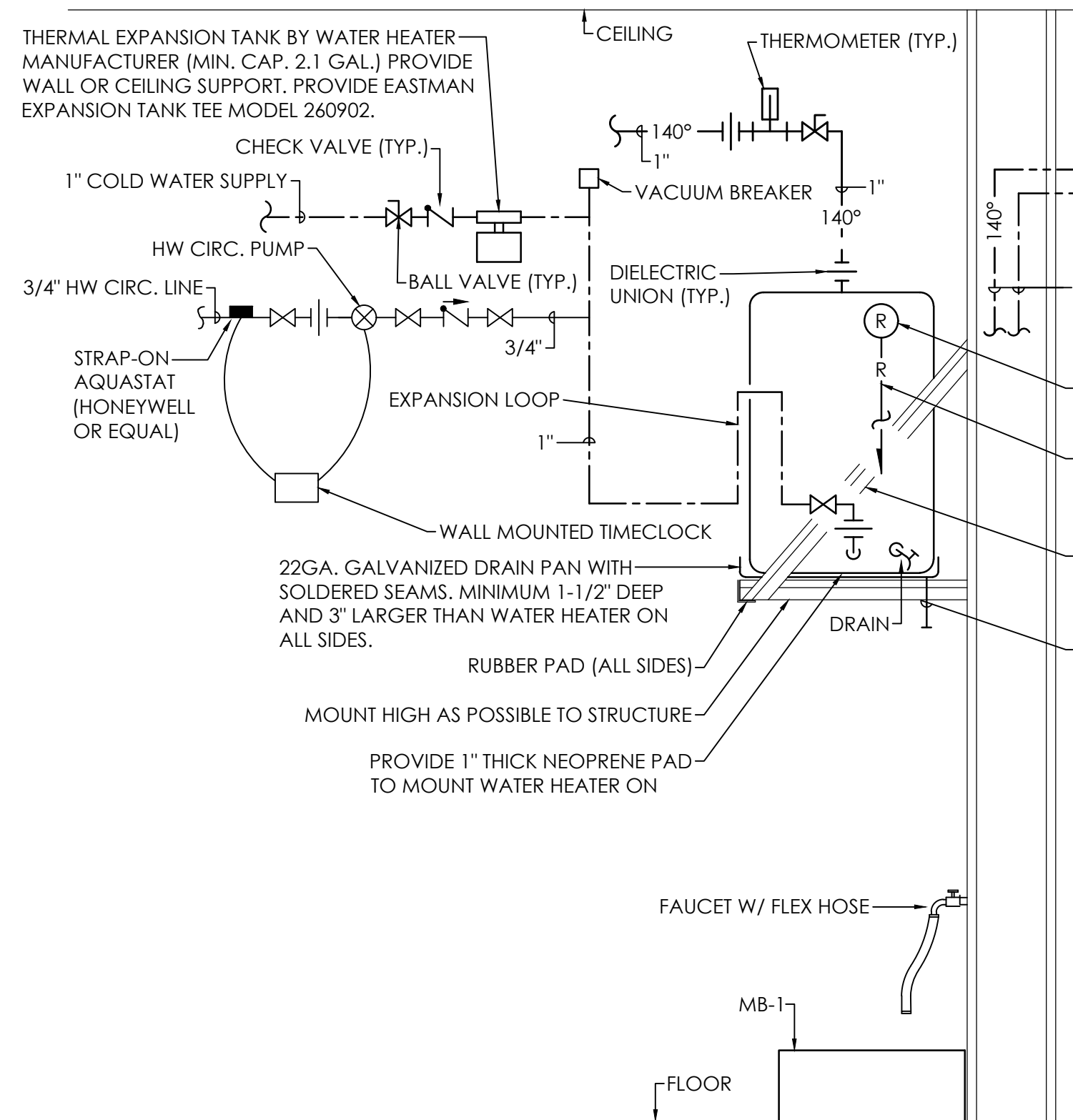


SCALE: 1/4" = 1'-0"
0 2 4 8'

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PLUMBING GENERAL NOTES

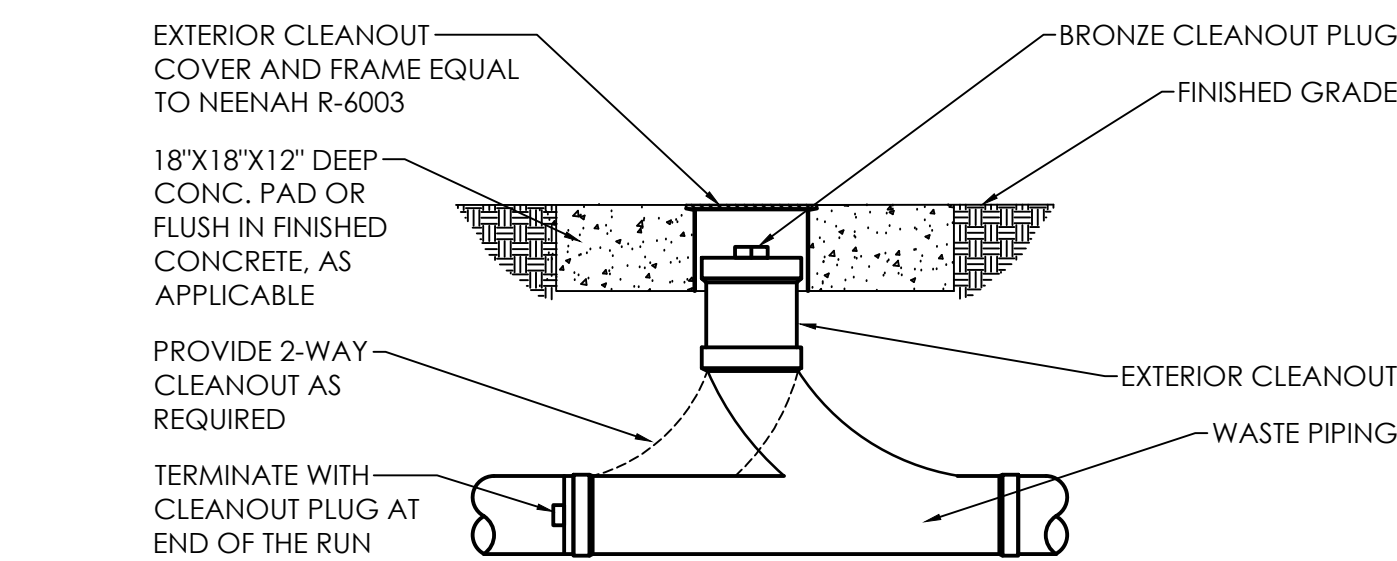
1. PROVIDE DISINFECTION OF WATER PIPING SYSTEM WITH CHLORINE SOLUTION AS PER CODE.
2. ALL OVERHEAD WATER PIPING TO BE RUN BELOW INSULATION AT BOTTOM OF TRUSSES FOR FREEZE PROTECTION.
3. INSTALLATION OF BACKFLOW PREVENTER SHALL COMPLY WITH THE 2021 INTERNATIONAL PLUMBING CODE.
4. ALL INDIRECT DRAINS TO HAVE INSULATED DEEP SEAL P-TRAPS.
5. ALL WALL HYDRANTS TO BE FREEZE PROOF AND TO HAVE VACUUM BREAKERS.
6. INSULATION ON ALL PIPING SHALL MEET SMOKE/ FLAME RATING OF 25 & 50.
7. ALL FLOOR DRAINS TO HAVE DEEP SEAL P-TRAPS.
8. INSTALL WATER HAMMER ARRESTORS AS FOLLOWS:
A. LAY IN CEILING: MOUNT WATER HAMMER ARRESTOR ABOVE CEILING FOR ACCESS.
B. SHEETROCK CEILING: MOUNT WATER HAMMER ARRESTOR IN CHASE WALL, PROVIDE 12" X 12" STAINLESS STEEL ACCESS PANEL IN WALL.
9. THESE DRAWINGS NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE PLUMBING SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, APPURTENANCES AND CONTROLS, COMPLETELY COORDINATED WITH ALL DISCIPLINES. ALL PARAMETERS GIVEN IN THESE DOCUMENTS SHALL BE STRICTLY CONFORMED WITH ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE PLUMBING SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE PROJECT. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.
10. COORDINATE PLUMBING PIPING WITH STRUCTURAL, PLUMBING, HVAC AND ELECTRICAL. MAKE OFFSETS AND TRANSITIONS TO COORDINATE WITH OTHER TRADES WITHOUT ANY ADDITIONAL COST TO THE PROJECT.
11. NO PIPING TO BE RUN ABOVE ELECTRICAL PANELS.
12. MAINTAIN A MAXIMUM OF 55 PSIG WATER PRESSURE AT PLUMBING FIXTURES, CONSISTENT WITH ADEQUATE FLOW RATES.
13. ALL WASTE AND VENT IN CORRIDOR WALLS, RATED WALLS OR RETURN AIR PLENUMS TO BE CAST IRON PIPE.
14. ALL VTR'S TO BE CAST IRON (3'-0" MIN. LENGTH) AT ROOF PENETRATION.
15. SUPPORT PIPE AS REQUIRED BY THE 2021 INTERNATIONAL PLUMBING CODE.
16. FIRESTOP ALL RATED WALLS AND FLOOR PENETRATIONS. SEE ARCHITECTURAL DRAWINGS FOR RATED WALL AND FLOOR LOCATIONS.
17. COORDINATE ALL PLUMBING IN SLAB WITH BUILDING FOOTINGS.
18. OFFSET ALL VTR'S TO BACKSIDE OF ROOF RIDGE OR ON FLAT ROOF (AS SHOWN).
19. ALL CEILING ACCESS PANELS SHALL BE PAINTED TO MATCH CEILING.
20. PROVIDE FIRESTOPPING ASSEMBLIES AT ANY AND ALL FIRE-RATED PENETRATIONS. EQUAL TO ROXTEC.
21. DO NOT BEGIN WORK UNTIL ELEVATION OF FINAL CONNECTION POINT IS VERIFIED AND GRADING OF ENTIRE SYSTEM CAN BE DETERMINED (EVEN IF FINAL CONNECTION IS SPECIFIED UNDER ANOTHER SECTION).
22. PROVIDE 12"X12" CEILING ACCESS PANEL (MI FAB OR EQUAL) TO MATCH CEILING FOR ALL VALVES IF LOCATED IN TILE CEILING AREA. (TYPICAL)
23. ALL PLUMBING PRODUCTS THAT COME INTO CONTACT WITH POTABLE (DRINKABLE) WATER SHALL COMPLY WITH SAFE DRINKING WATER ACT (SDWA) AND THE REDUCTION OF LEAD IN DRINKING WATER. REDUCTION OF LEAD IN DRINKING WATER ACT WENT INTO EFFECT ON JANUARY 4, 2014
24. THE CONTRACTOR SHALL EXECUTE ALL WORK SO THAT IT PROCEEDS WITH A MINIMUM OF INTERFERENCE WITH OTHER TRADES AND NORMAL FUNCTIONING OF EXISTING FACILITIES AND SERVICES.
25. VERIFY EXACT ROUGH-IN AND FINAL EQUIPMENT REQUIREMENTS IN FIELD.
26. THE CONTRACTOR SHALL VERIFY THAT ALL PIPING, AS SHOWN ON THESE DRAWINGS, WILL NOT CONFLICT WITH ANY DRAINS, SCUTTLES, JOINTS, VENTS, EQUIPMENT, ETC.
27. COORDINATE ROUTING AND LOCATIONS OF WASTE AND VENT PIPING WITH ALL OTHER TRADES.
28. THE PLUMBING CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES, ALL REQUIRED OPENINGS AND EXCAVATIONS. ALL REQUIRED OPENINGS IN FOUNDATIONS, FLOORS, WALLS AND ROOFS SHALL BE DESIGNED INTO THE STRUCTURE INITIALLY BY THE USE OF SLEEVES, CURBS, ETC. CUTTING AND PATCHING SHALL BE HELD TO A MINIMUM.
29. ALL ITEMS PROJECTING THROUGH THE ROOF SHALL BE FLASHED A MINIMUM OF 12" ABOVE THE ROOF. ALL VENTS SHALL BE A MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKE DEVICE.
30. PROVIDE STOPS AND SHOCK ABSORBERS AT EACH FIXTURE OR GROUP OF FIXTURES.
31. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL CONNECTIONS TO GAS FIRED EQUIPMENT AND SPECIFIED FIXTURES. ALL GAS FIRED EQUIPMENT AND FIXTURES SHALL BE OPERABLE.
32. PROVIDE VACUUM BREAKERS AT FIXTURES WITH HOSE THREAD CONNECTIONS AND APPLIANCES WITH DIRECT CONNECTIONS TO DOMESTIC WATER.
33. WHERE DISSIMILAR PIPING MATERIALS (STEEL AND COPPER) ARE CONNECTED, INSTALL A THREADED BRASS NIPPLE FOR PIPE SIZES 2" AND LESS, FOR PIPE SIZES 2-1/2" AND ABOVE, INSTALL ISOLATING FLANGES. DIELECTRIC UNIONS ARE NOT TO BE USED EXCEPT AT THE WATER HEATERS.



WATER HEATER CONNECTION AND MOUNTING DETAIL

NO SCALE

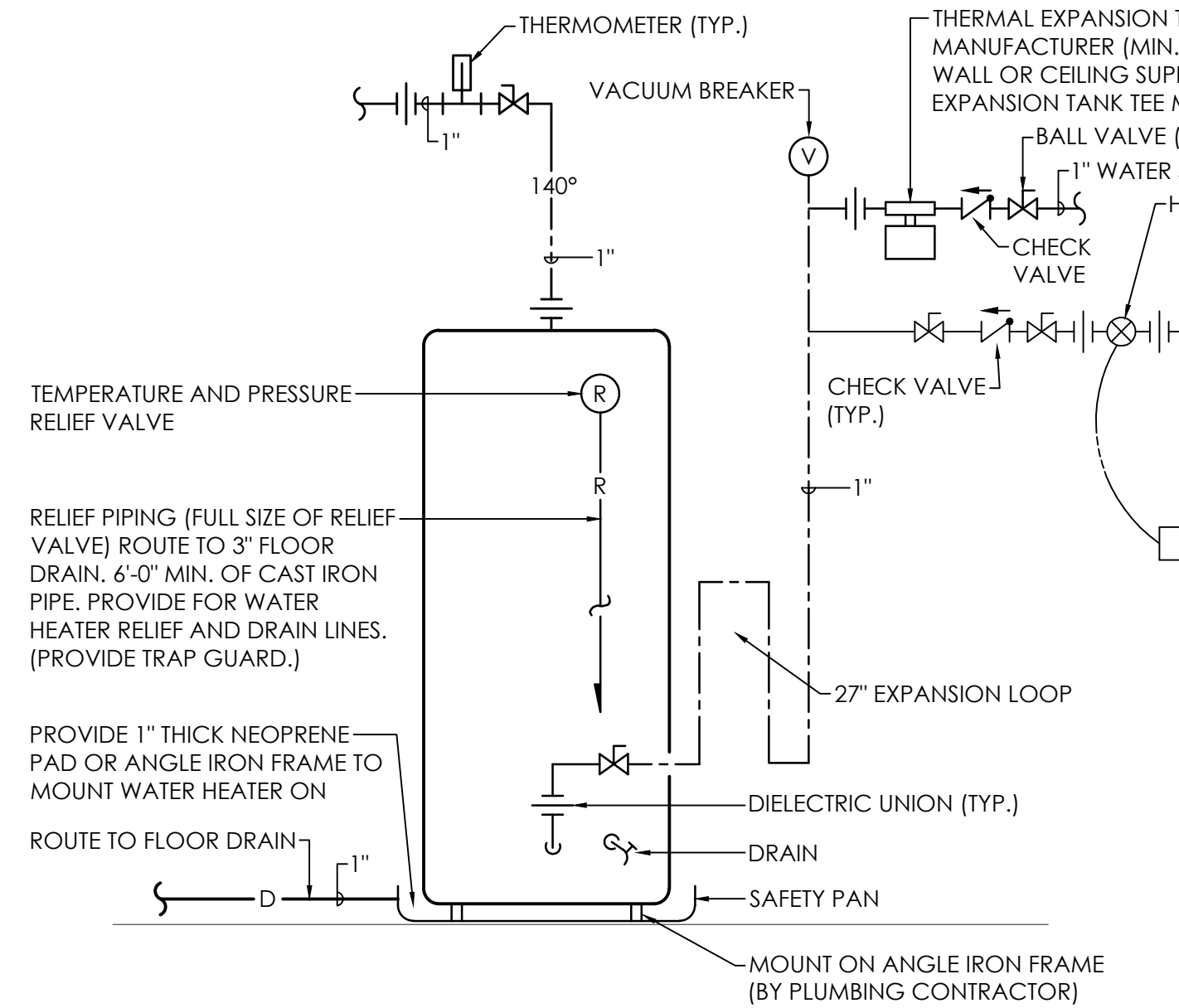
(WH-1)



TYPICAL EXTERIOR CLEANOUT DETAIL (C.O.T.G.)

NO SCALE

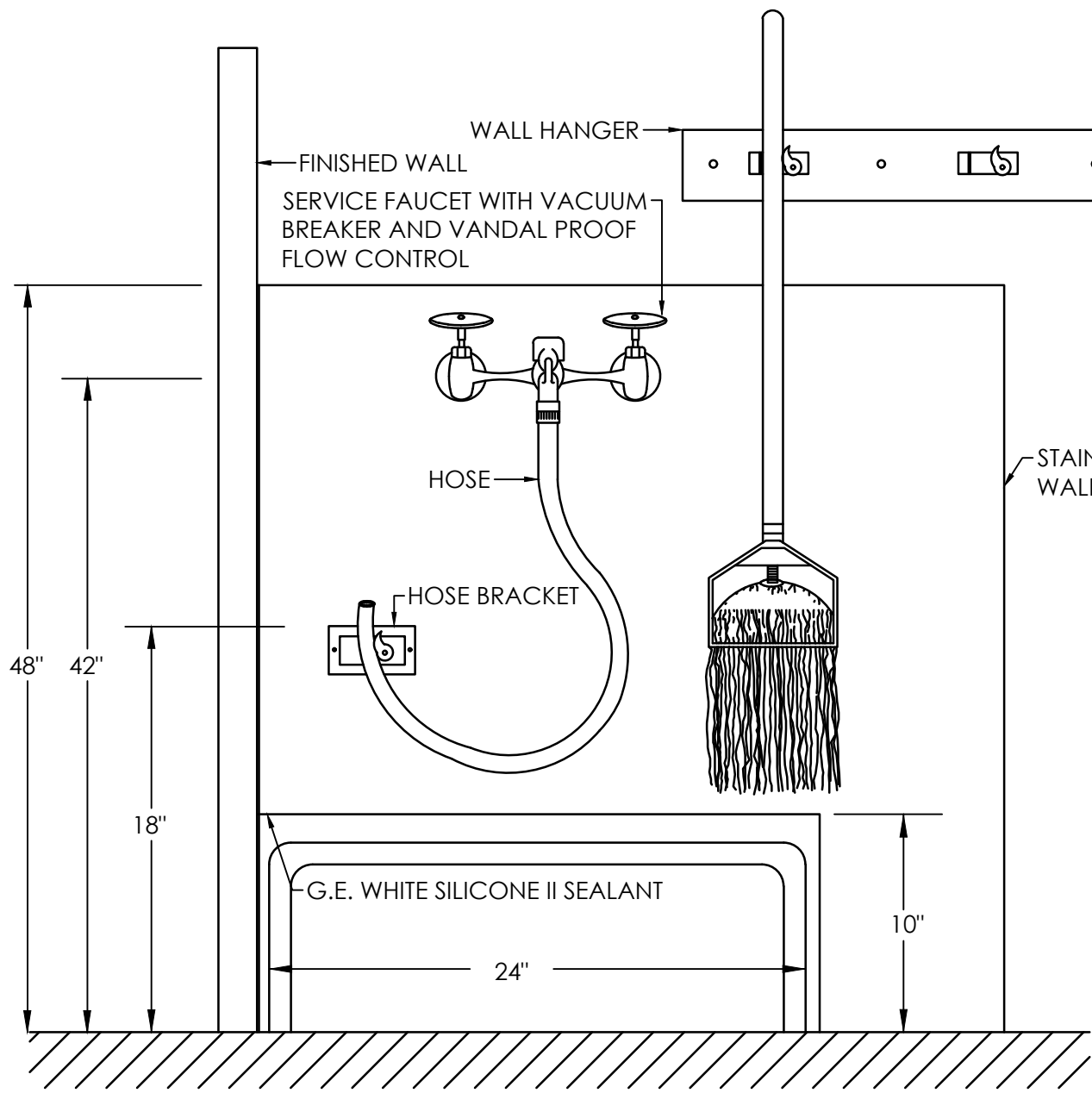
34. ALL WATER LINES INSTALLED IN EXTERIOR WALLS SHALL BE INSTALLED INSIDE OF WALL INSULATION AND INSULATED INDIVIDUALLY TO PROTECT FROM FREEZING PIPING AND FITTINGS.
35. ALL PLUMBING FIXTURES SHALL BE WHITE, (UNLESS STATED OTHERWISE)
36. INSTALL "TRAPGUARD" FOR FLOOR DRAINS IN BATHROOMS, RESTROOMS, JANITOR, MECHANICAL ROOMS AND PARTY ROOM FLOOR DRAINS. ALL FLOOR DRAINS ARE TO HAVE 4" DEEP SEAL TRAPS AND "TRAPGUARD". (NO EXCEPTIONS).
37. PROVIDE APPROVED BACKFLOW PREVENTION AT ALL EQUIPMENT DIRECTLY CONNECTED TO WATER SYSTEM.
38. PROVIDE CLEANOUTS EVERY 75'-0" OR AT EACH CHANGE IN DIRECTION MORE THAN 45° AS REQUIRED BY CODE. COORDINATE LOCATIONS WITH ARCHITECT.
39. PROVIDE PRESSURE REDUCING VALVE IF THE INCOMING PRESSURE EXCEEDS 80 PSI. IF A PRV IS UTILIZED THEN IT SHALL BE SET TO 60 PSI. PROVIDE PRV AT EVERY BUILDING SUPPLY.
40. THESE PLANS (ALL PLUMBING SHEETS) ARE SCHEMATIC IN NATURE AND ARE INTENDED TO ESTABLISH SIZE, GENERAL ROUTING, LOCATION, PERFORMANCE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. ALL WORK SHALL BE FULLY COORDINATED WITH OTHER TRADES TO INSURE THE INSTALLATION OF A COMPLETE OPERABLE SYSTEM THAT FITS IN THE SPACE ALLOTTED. PROVIDE ALL LABOR, EQUIPMENT, APPURTENANCES AND MATERIALS NECESSARY, AND PERFORM ALL OPERATIONS REQUIRED FOR THE INSTALLATION OF COMPLETE, FUNCTIONAL PLUMBING SYSTEMS AS OUTLINED ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.
41. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES. (2021 IRC, 2021 IPC, 2018 IECC, & 2021 IFGC)
42. VERIFY ALL POINTS OF CONNECTION WITH OTHER DISCIPLINES (LOCATION AND INVERT) PRIOR TO INSTALLATION. THIS SHALL INCLUDE EXISTING SITE UTILITIES AS WELL AS NEW SITE UTILITIES INSTALLED UNDER THE SCOPE OF WORK FOR THIS PROJECT.
43. COORDINATE WITH OTHER TRADES TO PREVENT INTERFERENCE WITH HVAC DUCTS, ELECTRICAL LIGHTING AND STRUCTURE IN THE CEILING PLENUMS.
44. WHEN / IF A CONFLICT EXISTS BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE HIGHER STANDARD / DIRECTION SHALL APPLY. THE FINAL DECISION SHALL BE MADE BY THE ARCHITECT AND / OR ENGINEER. THE HIGHER PRICE SHALL BE INCLUDED IN THE BID PRICE.
45. COORDINATE ALL DWV PIPING WITH THE JOIST LAYOUT BELOW. COORDINATE THROUGH THE ARCHITECT, GENERAL CONTRACTOR, THIS SET OF CONSTRUCTION EVENTS (STRUCTURAL / ARCHITECTURAL) ETC., THERE WILL NOT BE ANY CHANGE ORDERS ISSUED OR PAID FOR GENERAL / REQUIRED OFFSETS DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH THE STRUCTURE PRIOR TO BID. THE SUBMITTED BID PRICE SHALL HAVE A ALLOWANCE FOR ALL REQUIRED OFFSETS, ETC.
46. COORDINATE MIN. SLOPE FOR SANITARY SEWER WITH TIE IN ELEVATIONS. PROVIDE 1/8" PER FOOT MIN. SLOPE IF ELEVATION WILL ALLOW.
47. EXACT LOCATIONS AND MOUNTING HEIGHTS OF PLUMBING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL PLANS.
48. ALL VENT PIPING SHALL BE ATTACHED TO WALL NO FURTHER THAN 3'-0" AWAY.
49. ELECTRICAL OUTLETS SHALL BE INSTALLED BEHIND ELECTRIC WATER COOLERS (NOT EXPOSED)
50. ROUGH IN WATER CLOSET AND URINAL FLUSH VALVE SO THAT THE FLUSH TUBE IS VERTICALLY STRAIGHT.
51. ADA FIXTURES AND INSTALLATION SHALL COMPLY WITH CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.
52. PROVIDE A READILY ACCESSIBLE CLEANOUT AT OR NEAR THE BASE OF EACH WASTE AND VENT STACK PER INTERNATIONAL PLUMBING CODE AND THE SPECIFICATIONS. CLEANOUTS SHALL BE HIGH ENOUGH TO CLEAR THE TILE BASE WITHOUT CUTTING OF THE BASE AND SHALL BE LOCATED WITHIN THE SPECIFIED PIPING ENCLOSURE FOR ALL WALL MOUNTED LAVATORIES AND WALL MOUNTED HAND SINKS WHEN POSSIBLE.
53. LOCATE CLEANOUTS TO THE SIDE OF THE WATER CLOSETS WITH A MINIMUM CLEARANCE OF 6" FROM THE ROUGH-IN OF THE WATER CLOSETS. PREFERRED LOCATION IS IN ADA STALL TO ALLOW FOR ADDITIONAL ACCESS SPACE.
54. EXTREME CARE SHALL BE TAKEN WHEN ROUGHING IN CLEANOUTS AT EACH WALL MOUNTED LAVATORY AND HAND SINK. CLEANOUTS SHALL BE LOCATED WITHIN THE SPECIFIED LAV. SHIELD PIPING COVER WHENEVER POSSIBLE.
55. ALL CLEANOUTS SHALL BE ROUGHED IN HIGH ENOUGH TO CLEAR THE ARCHITECTURAL BASE MOLDING WITHOUT CUTTING THE BASE MOLDING.
56. PROVIDE A BALL VALVE ON ONE SIDE OF EVERY DIELECTRIC UNION AS REQUIRED TO FACILITATE ITS REMOVAL.
57. WATER HAMMER ARRESTORS SHALL BE INSTALLED AT ALL SOLENOID, REMOTE OPERATED OR QUICK CLOSING VALVES AND AT EACH PLUMBING FIXTURE OR BATTERY OF PLUMBING FIXTURES. SEE SPECS FOR ADDITIONAL REQUIREMENTS.



WATER HEATER CONNECTION DETAIL

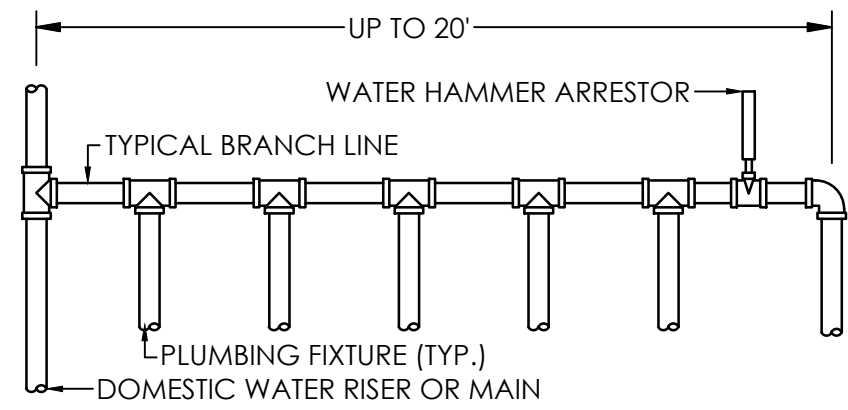
NO SCALE

(WH-2)



MOP SINK AND ACCESSORIES DETAIL

NO SCALE



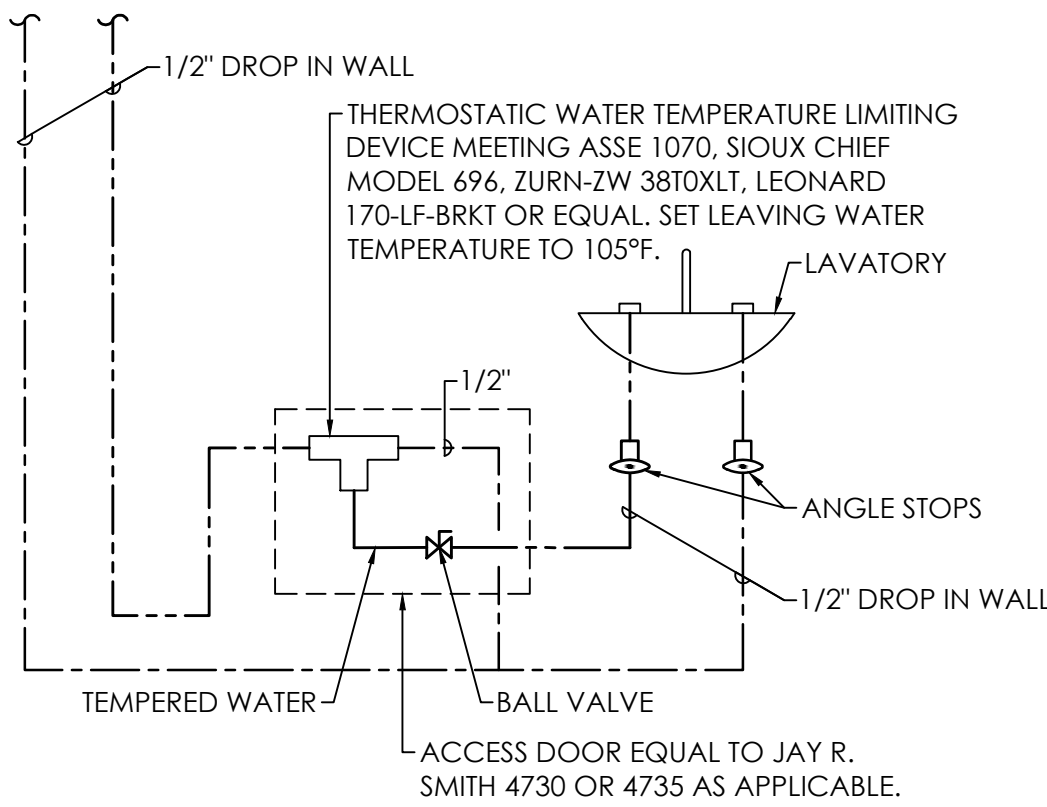
WATER HAMMER ARRESTOR SCHEDULE

P.D.I. UNITS	A	B	C	D	E	F
FIXTURE UNITS	1-11	12-32	33-60	61-113	114-154	155-330

PROVIDE ACCESS FOR SERVICE.

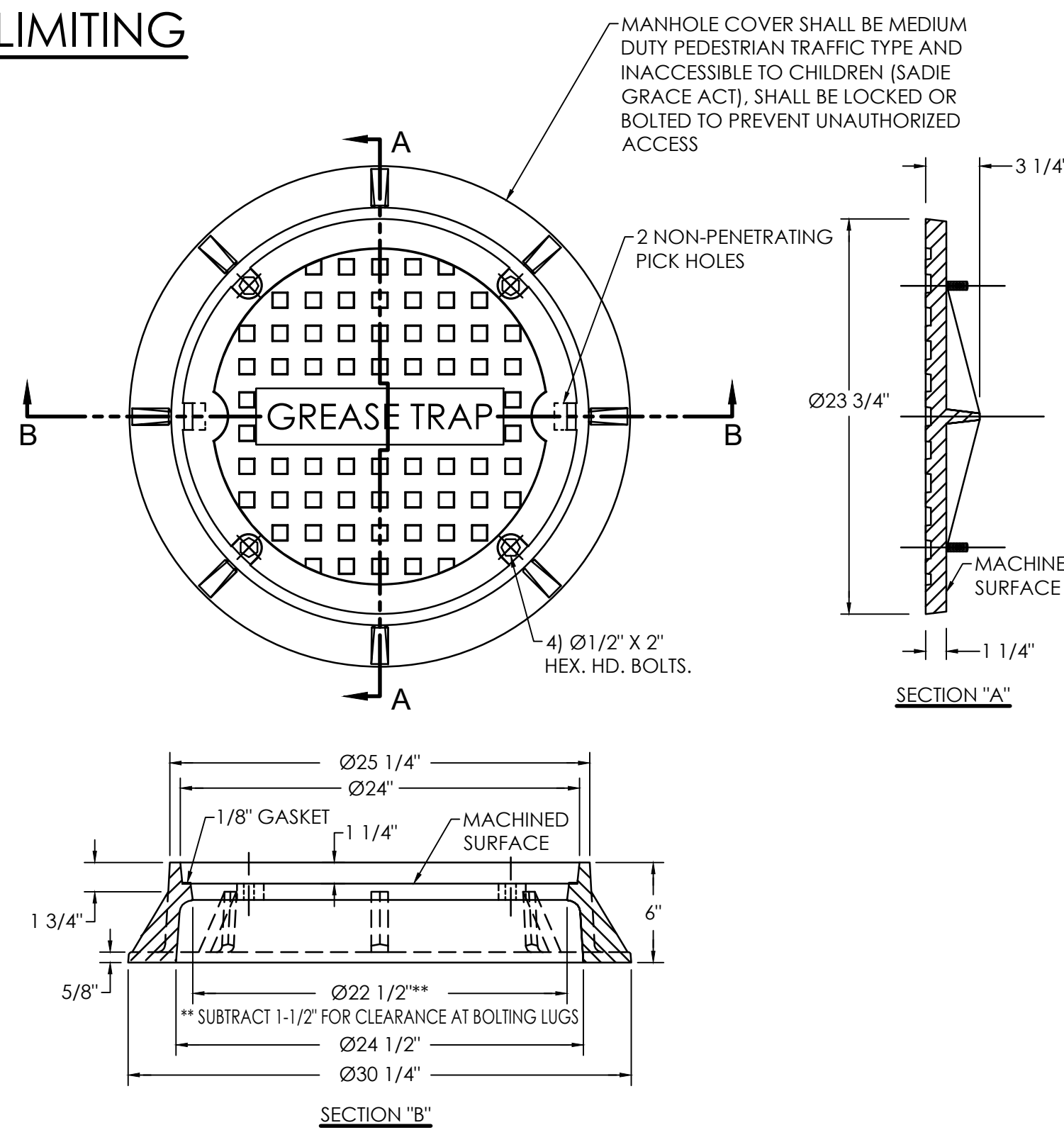
WATER HAMMER ARRESTOR INSTALLATION DETAIL

NO SCALE



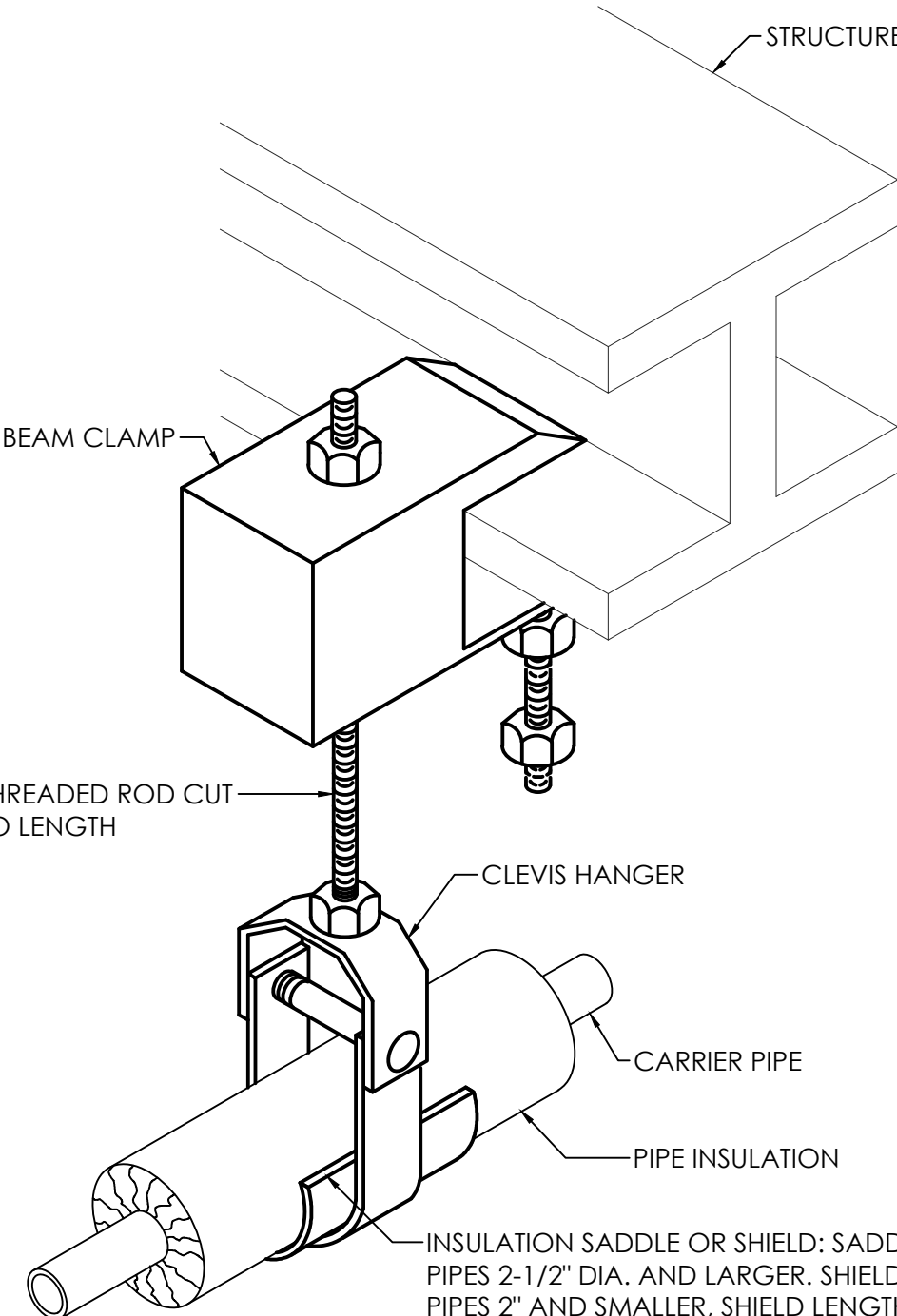
WATER TEMPERATURE LIMITING DEVICE DETAIL

NO SCALE



GREASE TRAP RING AND COVER DETAIL

NO SCALE



PIPE HANGER DETAIL

NO SCALE

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	COLD	HOT	WASTE	REMARKS
WC-1	WATER CLOSET (H/C) *	1"	---	4"	FLOOR MOUNTED, FLUSH VALVE (H/C)
WC-2	WATER CLOSET	1"	---	4"	FLOOR MOUNTED, FLUSH VALVE
UR-1	URINAL	1"	---	2"	WALL MOUNTED, FLUSH VALVE (H/C) HANG 17" UP TO FINISHED FLOOR
L-1	LAVATORY (H/C) * * *	1/2"	1/2"	1-1/4"	WALL HUNG, HANG 34" RIM TO FINISHED FLOOR
L-2	LAVATORY * * *	1/2"	1/2"	1-1/4"	WALL HUNG
S-1	SINK * * *	1/2"	1/2"	1-1/2"	STAINLESS STEEL SINGLE COMPARTMENT, 4-1/2" DEEP, BAR SINK
S-2	3-COMPARTMENT SINK	3/4"	3/4"	4" F.S.	EXISTING RELOCATED 3-COMPARTMENT POT SINK
MB-1	MOP BASIN	3/4"	3/4"	3"	24"X24" FIBERGLASS
EW-1	ELECTRIC WATER COOLER (H/C) (B-I-LEVEL) * * (1)	1/2"	---	1-1/2"	WALL HUNG, B-I-LEVEL WITH BOTTLE FILLER, HANG 36" SPOUT TO FINISHED FLOOR H/C SIDE.

FIXTURE SCHEDULE NOTES:

- * HANDLE TO WIDE SIDE OF STALL.
- ** PROVIDE WITH STAINLESS STEEL FINISH AND SAFETY BUBBLER. (LEAD FREE)
- * * * INSULATE P-TRAP, DRAIN AND SUPPLIES WITH HAND LAY GUARD INSULATION KIT #102W OR EQUAL BY TRAP WRAP AND MCGUIRE PRO WRAP.
- (1) PROVIDE WATER HAMMER ARRESTOR.

ELECTRIC WATER HEATER SCHEDULE

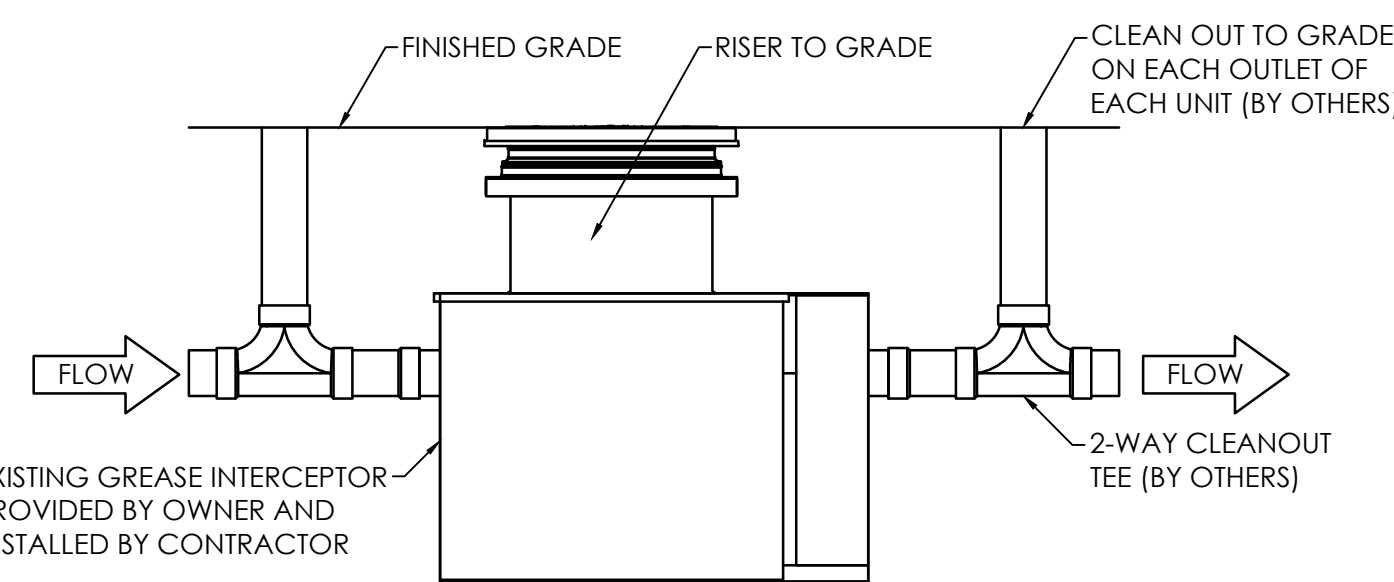
MARK	STORAGE CAPACITY	RECOVERY @ 100°F ΔT	KW	VOLT	PH	CY	REMARKS
WH-1	30	24	6	208	1	60	1,2,3,4,5
WH-2	50	24	6	208	1	60	2,3,4,5,6

ELECTRIC WATER HEATER SCHEDULE NOTES:

- 1. PROVIDE THREE YEAR WARRANTY.
- 2. PROVIDE EXPANSION TANK (SEE SPEC.)
- 3. BASED ON RHEEM EGSP-30 OR EQUAL.
- 4. PROVIDE CIRC. PUMP 1/20 HP. 120/1/60. (SEE SPECS)
- 5. PROVIDE TIME CLOCK 120/1/60 (SEE SPECS)
- 6. EXISTING RELOCATED WATER HEATER.

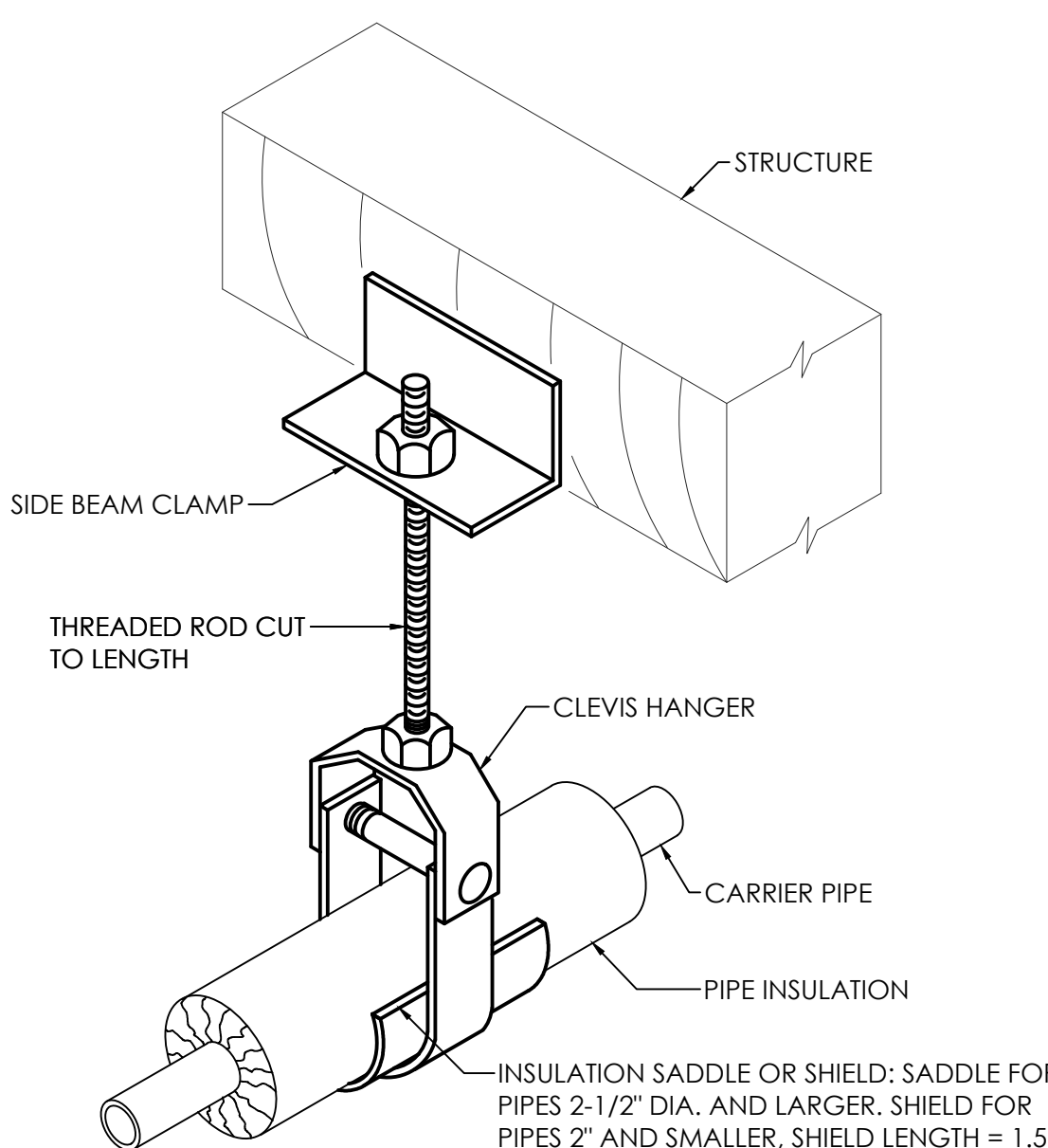
PLUMBING LEGEND

---	WASTE PIPING
----	VENT PIPING
-----D-----	DRAIN PIPING
-----140°-----	COLD WATER PIPING
-----140°-----	HOT WATER PIPING (140°)
-----140°-----	HOT WATER RETURN PIPING
-----140°-----	BALANCING VALVE
-----140°-----	CIRCULATING PUMP
-----140°-----	BALL VALVE
-----140°-----	BALL VALVE IN 24"X24"X6" CONC. VALVE BOX
-----140°-----	C.O.T.G.
-----140°-----	C.O.T.G. (SET IN 18"X18"X6" CONCRETE PAD WITH TOOLED EDGES. PROVIDE BRASS PLUG.) (PROVIDE FRAME AND COVER)
-----140°-----	F.D.
-----140°-----	FLOOR DRAIN
-----140°-----	WASTE RISER
-----140°-----	WATER RISER
-----140°-----	WALL HYDRANT (FREEZE PROOF) (IN BOX WITH LOOSE TEE KEY)
-----140°-----	B.F.
-----140°-----	BELOW FLOOR
-----140°-----	V.T.R.
-----140°-----	VENT THRU ROOF (3'-0" SECTION PROVIDE SUPPORT AT ELBOW BELOW V.T.R.)
-----140°-----	W.C.O.
-----140°-----	WALL CLEANOUT
-----140°-----	F.C.O.
-----140°-----	FLOOR CLEANOUT. PROVIDE FRAME AND COVER.
-----140°-----	WHA
-----140°-----	WATER HAMMER ARRESTOR (LOCATE ABOVE CEILING, OR PROVIDE ACCESS)
-----140°-----	H.B.
-----140°-----	HOSE BIBB (WITH WHEEL HANDLE)



GREASE INTERCEPTOR INSTALLATION AND CONNECTION DETAIL

NO SCALE



PIPE HANGER DETAIL

NO SCALE

LATHAN
McKEE
ARCHITECTS

A NEW COMMUNITY CENTER

KNOX STREET PARK

THE CITY OF TROY

308 E ACADEMY ST., TROY, AL 36081

PLUMBING GENERAL NOTES,
DETAILS, AND SCHEDULES

SHEET TITLE:

PROJ. MGR.: RLB
DRAWN: BMP

DATE: 10/07/2026

REVISIONS

JOB NO. MKA-24-261-00

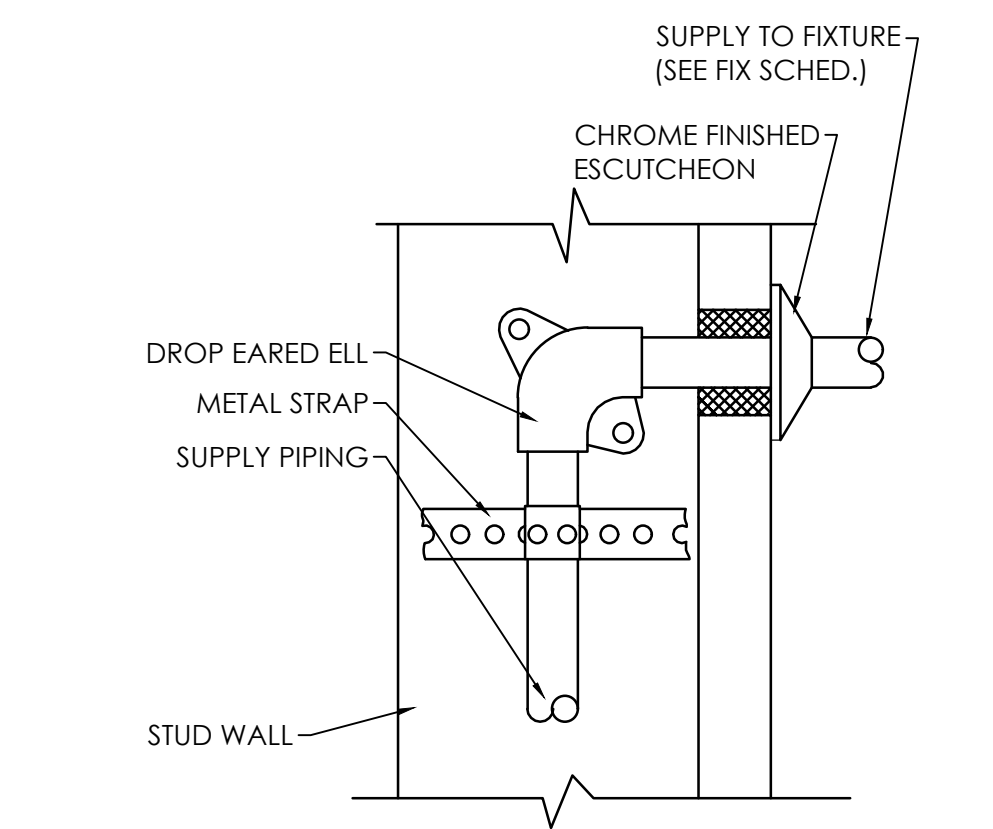
SHEET NO:

P3.1

01"2"

MORRIS DAVIS
ENGINEERING LLC

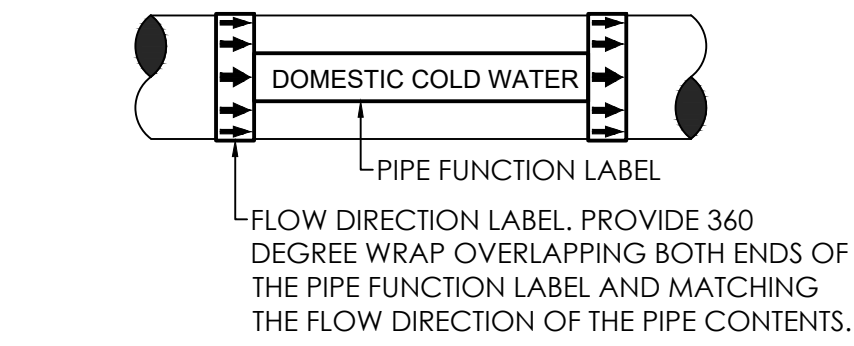
903 SOUTH PERRY STREET
MONTGOMERY, AL 36104
T. (334) 269-0529
www.jmorriseng.com PROJECT NO: 26-122



NOTE: ANCHOR AND SECURE SUPPLY PIPING TO STUD WALL AS SHOWN OR BLOCKING BETWEEN STUDS.

ANCHORING FOR WATER SUPPLY DETAIL

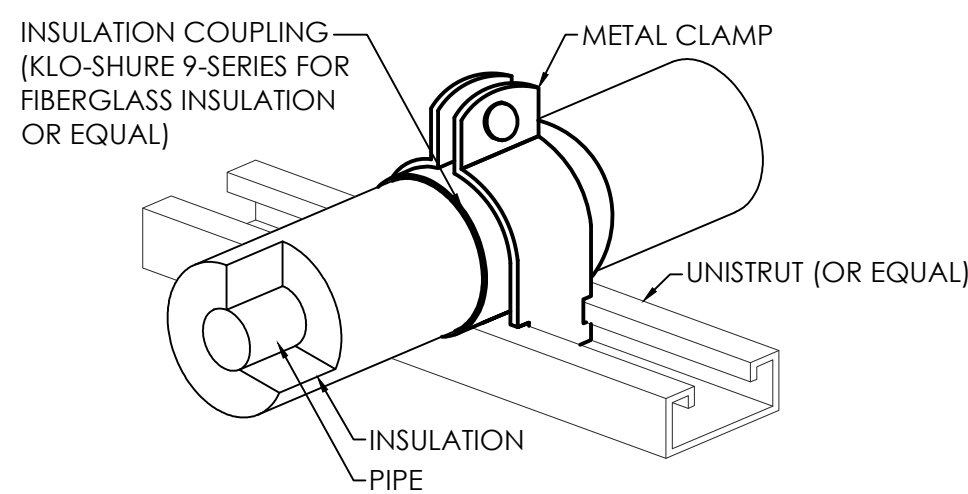
NO SCALE



- NOTES:
- PROVIDE A PIPE LABEL FOR EACH PIPE FUNCTION.
 - PROVIDE AT LEAST ONE LABEL ON EACH PIPE AT EACH CHANGE OF DIRECTION.
 - PROVIDE LABELS ON MAXIMUM CENTERS FOR EVERY PIPE AS NOTED IN THE SPECIFICATIONS.
 - LABELS TO BE LOCATED IN AN EASILY VISIBLE LOCATION AS THEY WOULD NORMALLY BE SEEN (E.G. ON THE BOTTOM OF THE PIPES IN THE AIR AND ON THE TOP OR SIDES OF PIPES MOUNTED LOW).
 - LABELS SHALL BE COLOR CODED, PRE-PRINTED, WRAP AROUND TYPE - NO SELF-ADHESIVE VINYL.
 - SEE SPECIFICATIONS FOR OTHER REQUIREMENTS AND LIST OF PIPE FUNCTIONS.

PIPING IDENTIFICATION DETAIL

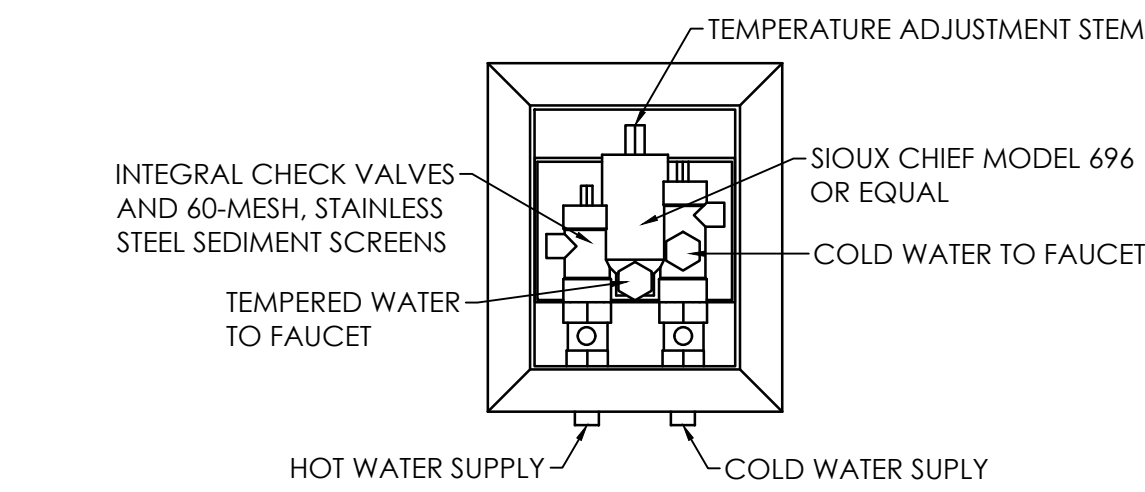
NO SCALE



- NOTES:
- APPLICATION: FOR STRUT-MOUNTED, 4-INCH AND SMALLER, COPPER PIPE WITH 1" THICK FIBERGLASS INSULATION.
 - ALLOWED FOR HORIZONTAL OR VERTICAL INSTALLATION.

STRUT-MOUNTED PIPING SUPPORT INSULATION COUPLING DETAIL

NO SCALE

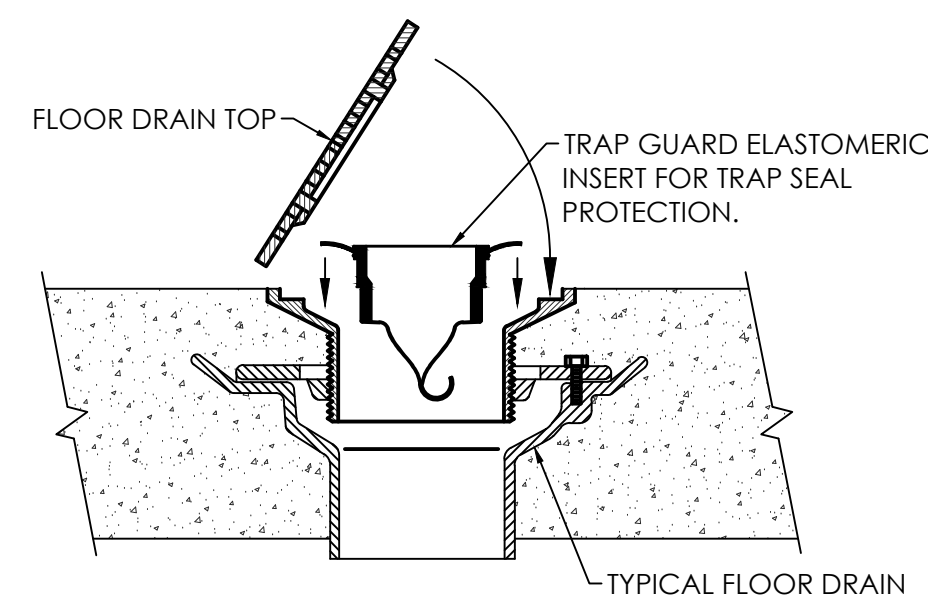


HOT INLET TEMPERATURE: 140°F
COLD INLET TEMPERATURE: 39°F - 80°F
TEMPERATURE OUT: 110°F

NOTE: MOUNT UNDER LAVATORY OR SINK. PROVIDE SUPPORT BRACKET. MOUNT IN WALL. PROVIDE SECURE IN RECESSED ACCESS BOX WITH FINISHED FRAME (NO EXCEPTIONS) PROVIDE ACCESS PANEL.

TEMPERATURE LIMITING VALVE IN WALL BOX DETAIL

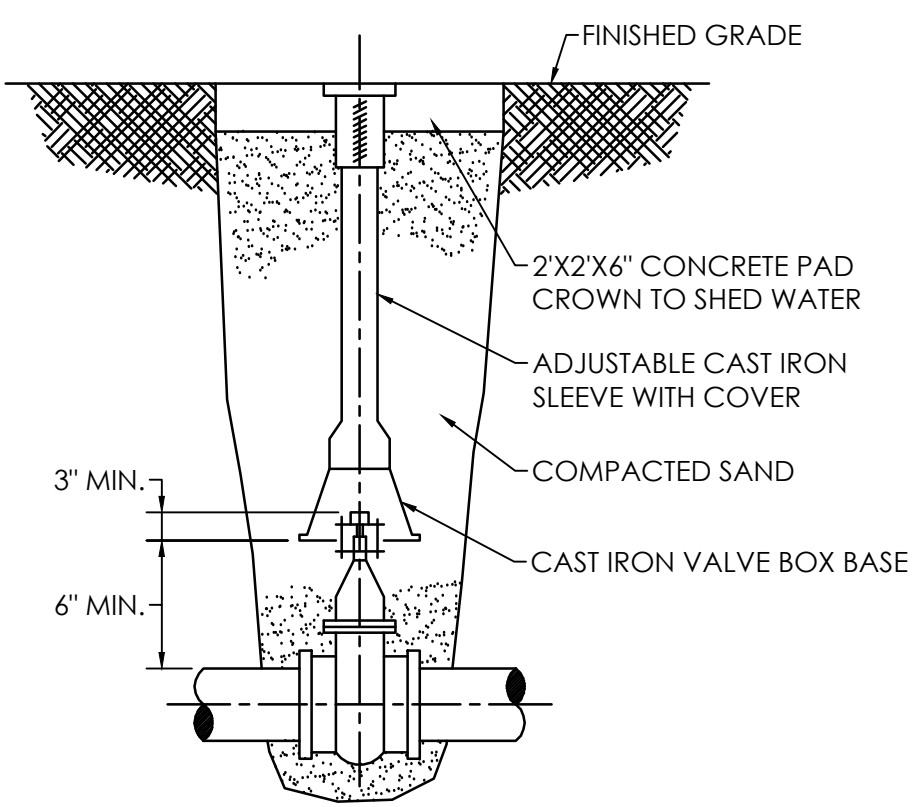
NO SCALE



NOTE: PROVIDE TRAP SEAL PROTECTION FOR ALL FLOOR DRAINS, HUB DRAINS, FLOOR SINKS AND INDIRECT DRAINS. INSTALL AND SEAL TRAP GUARD ACCORDING TO MANUFACTURERS RECOMMENDATIONS.

TRAP GUARD DETAIL - FLOOR DRAIN

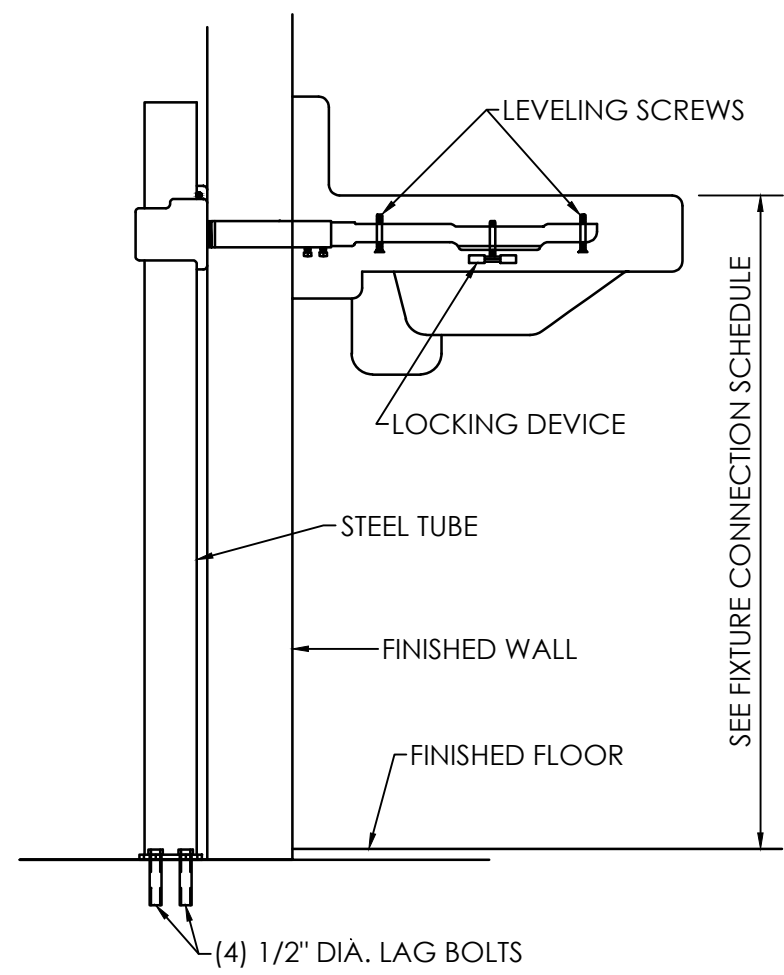
NO SCALE



- NOTE:
- VALVE BOX SHALL NOT REST ON VALVE OR MAIN LINE PIPE.
 - A VALVE STEM EXTENSION WITH CENTERING RING IS REQUIRED FOR VALVES BURIED DEEPER THAN 6".

BALL VALVE AND BOX DETAIL

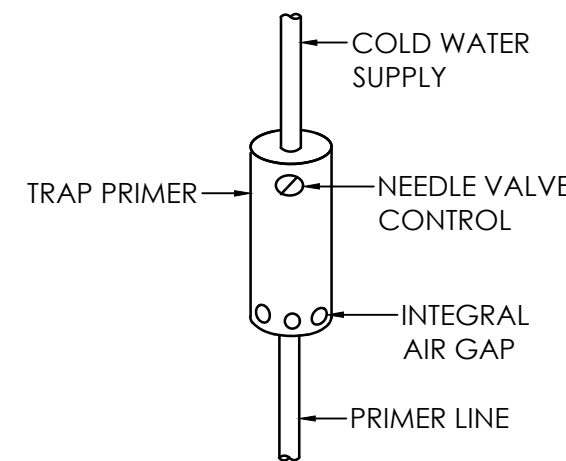
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LAVATORY CARRIER DETAIL

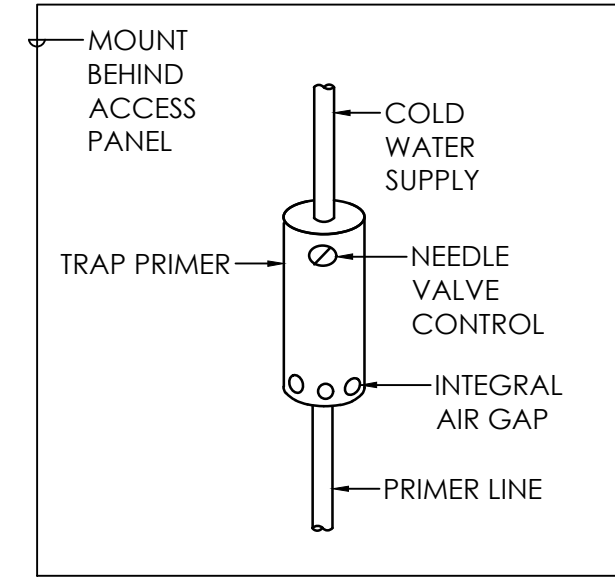
NO SCALE

BASED ON ZURN Z-1231-SL



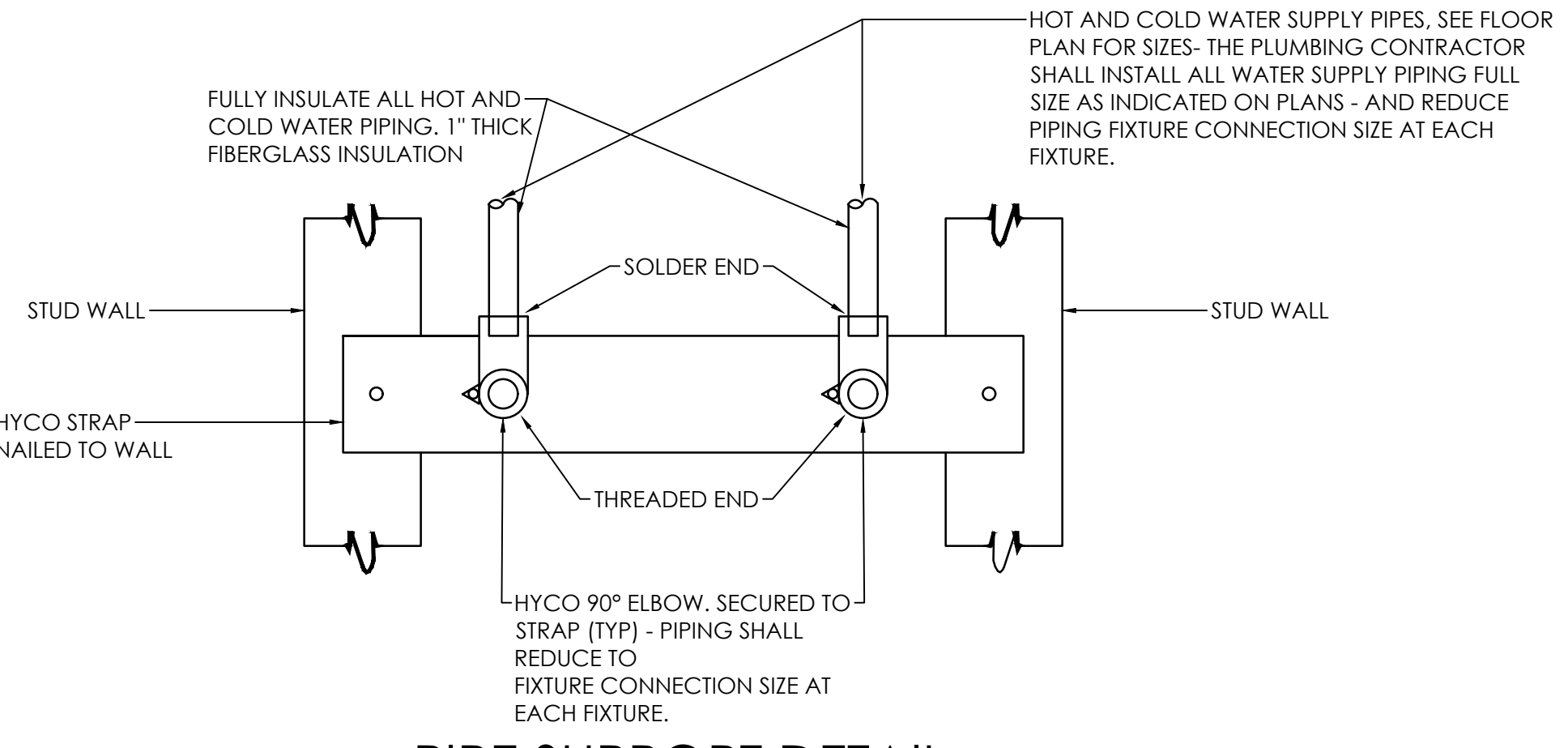
TRAP PRIMER DETAIL

NO SCALE



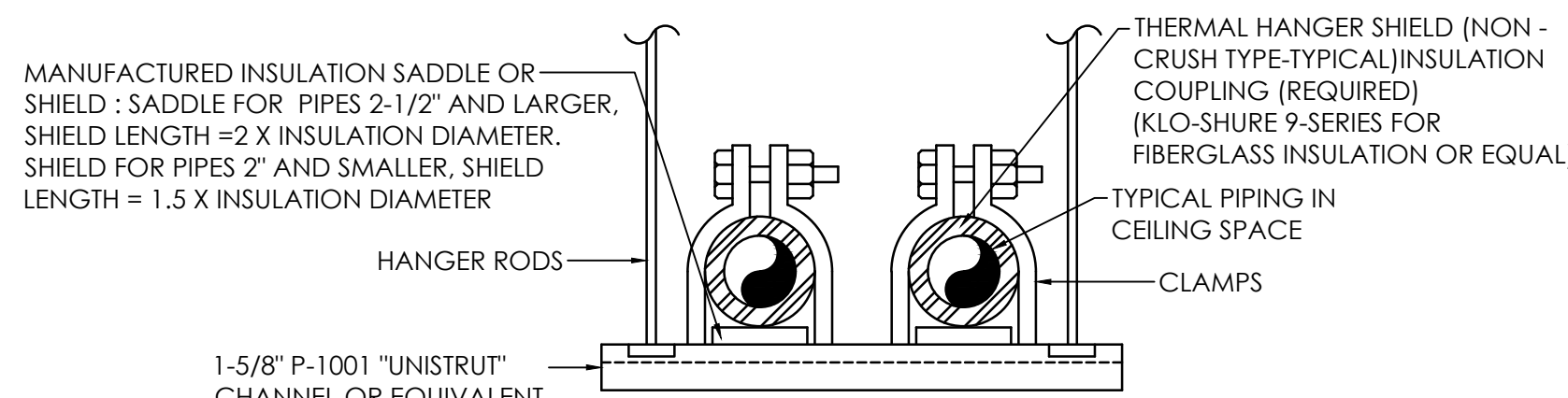
TRAP PRIMER DETAIL

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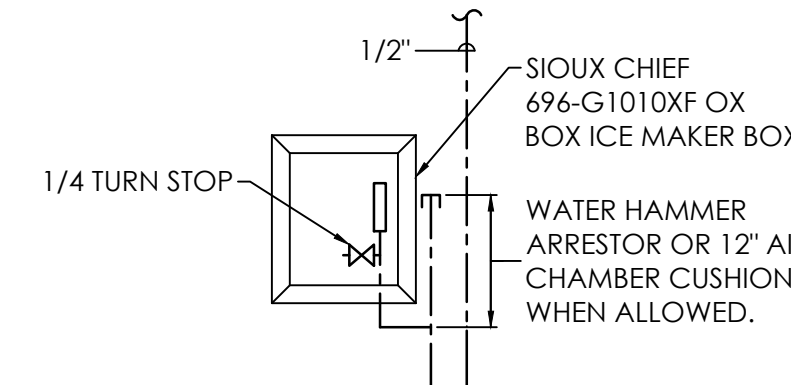
PIPE SUPPORT DETAIL

NO SCALE



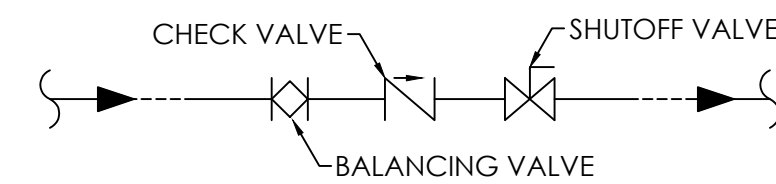
SUSPENDED PIPING SUPPORT AT CEILING DETAIL

NO SCALE



ICE MAKER WALL BOX DETAIL

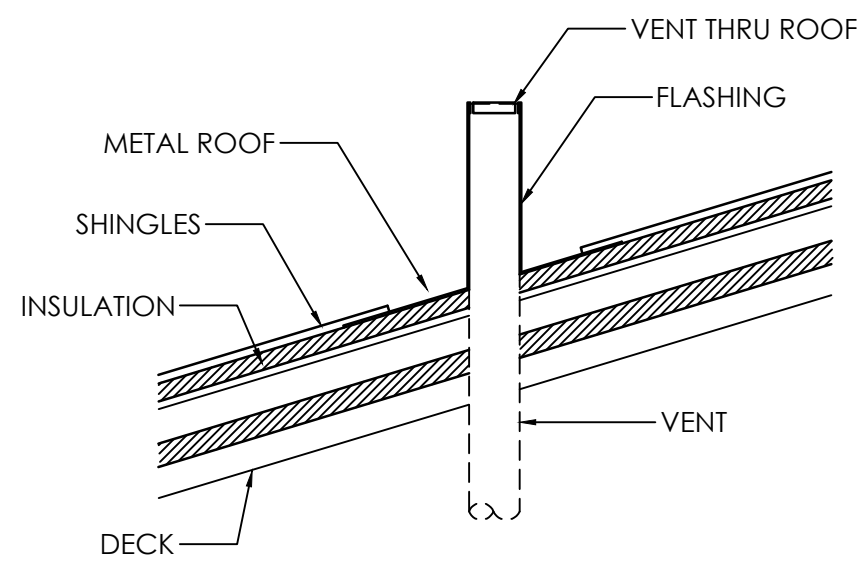
NO SCALE



NOTE: THIS REQUIRED VALVE TRAIN IS REPRESENTED GRAPHICALLY AS JUST A BALANCING VALVE ON THE PLAN.

HOT WATER RETURN ASSEMBLY DETAIL

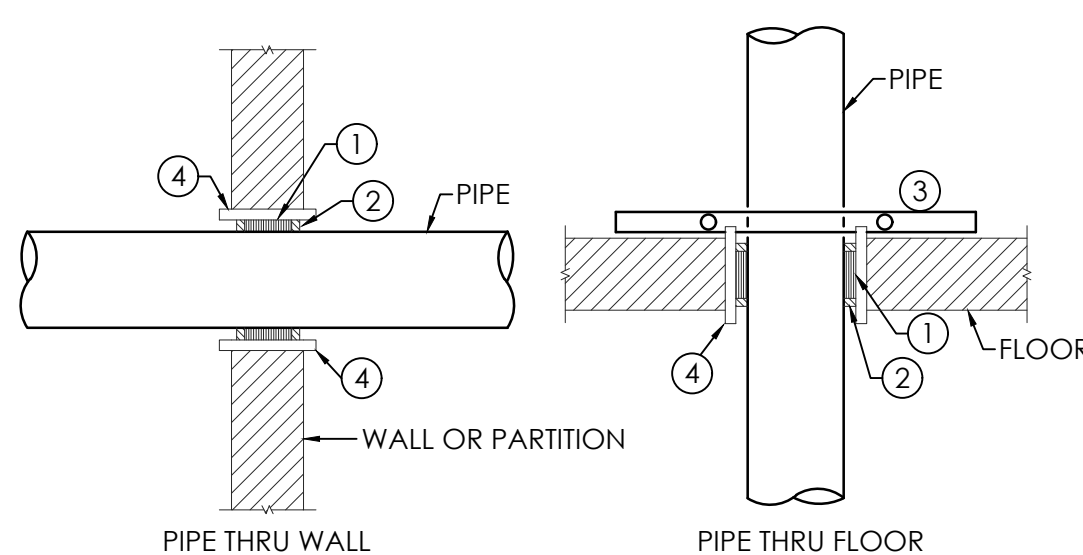
NO SCALE



NOTE: ALL VENTS THRU ROOF (VTR) SHALL BE INSTALLED SO THAT THE TOP 3' 0" MINIMUM IS CAST IRON AT ROOF PENETRATION. * PAINT VTR TO MATCH ROOF. PROVIDE SUPPORT AT ELBOW BELOW V.T.R.

VENT THRU ROOF DETAIL

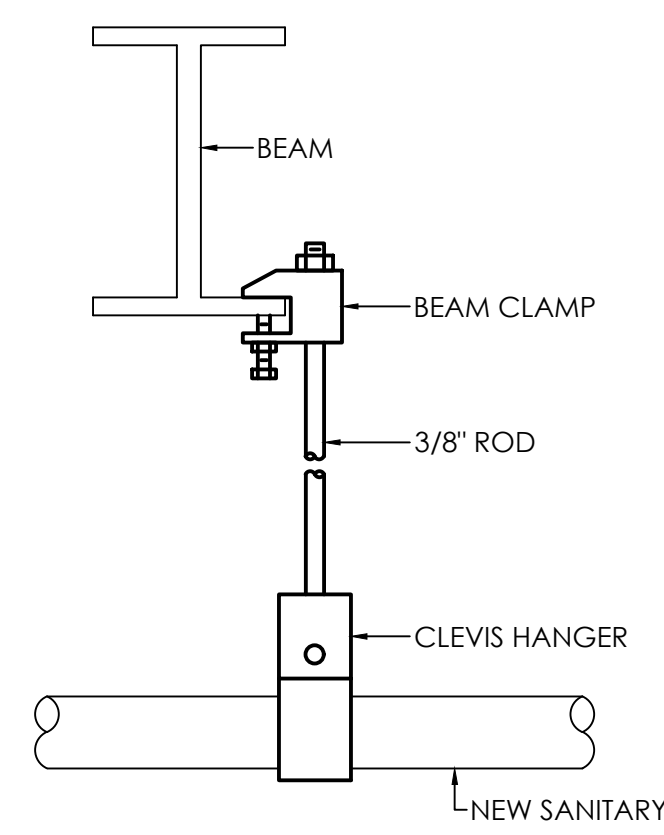
NO SCALE



- PIPE THRU STRUCTURE LEGEND:
- FIRE STOP FOAM
 - FIRE STOP SEALANT
 - RISER CLAMP
 - SLEEVE

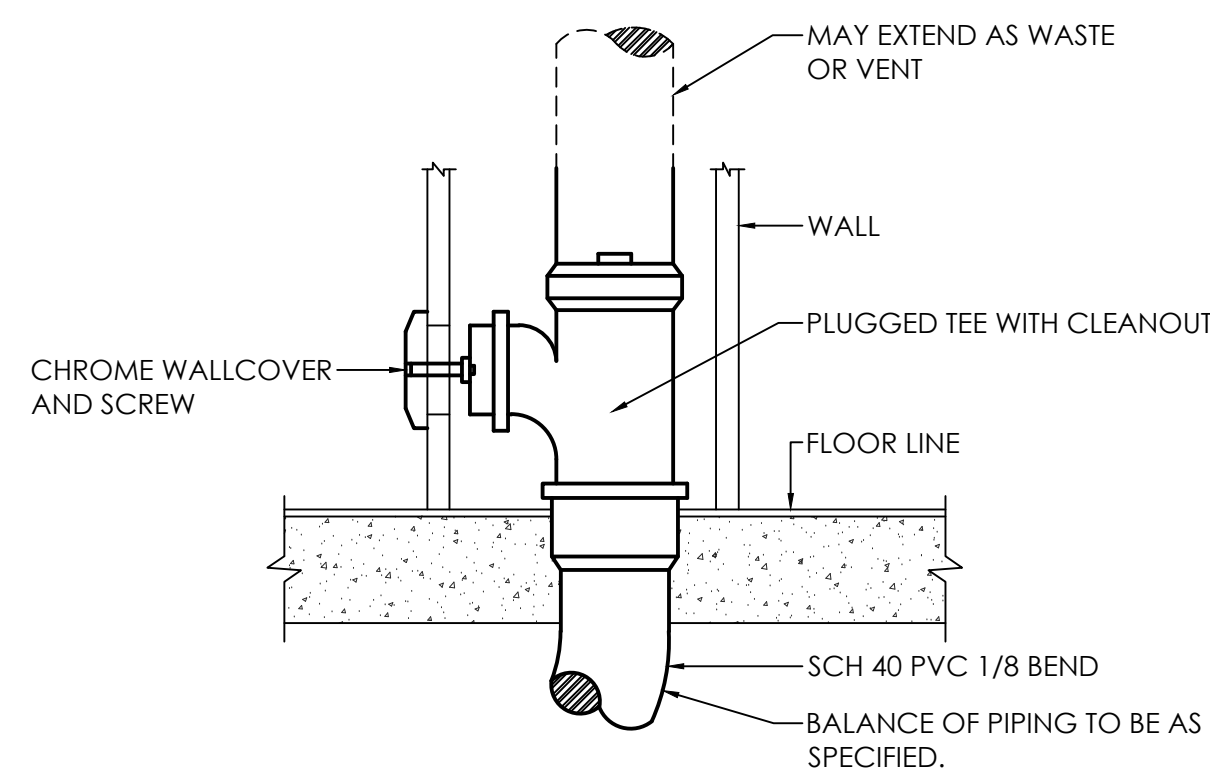
PIPE THRU STRUCTURE DETAIL

NO SCALE



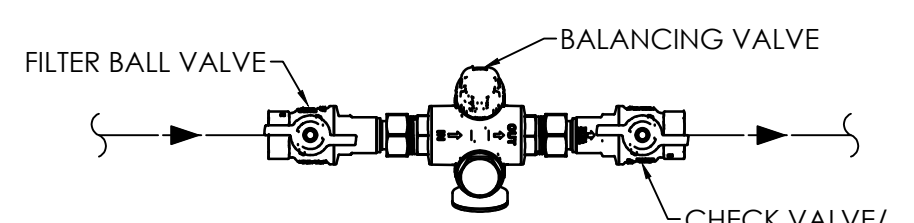
PIPE HANGER DETAIL

NO SCALE



WALL CLEANOUT DETAIL

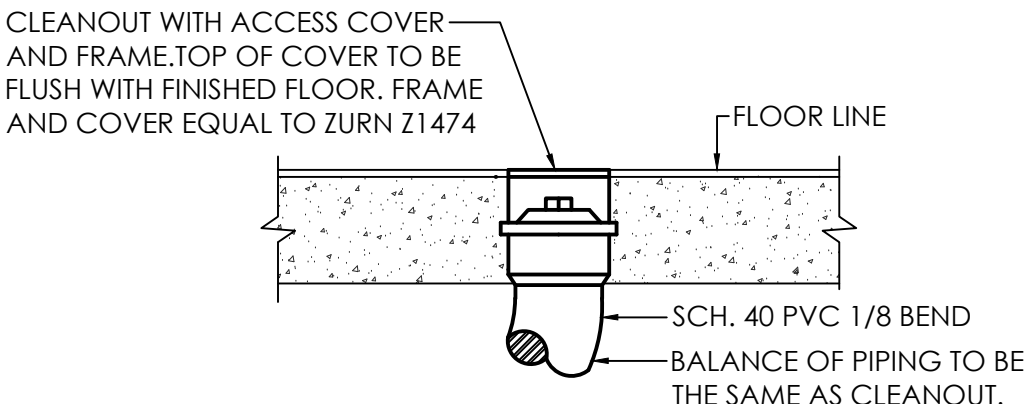
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NOTE: THIS REQUIRED VALVE TRAIN IS REPRESENTED GRAPHICALLY AS JUST A BALANCING VALVE ON THE PLAN.

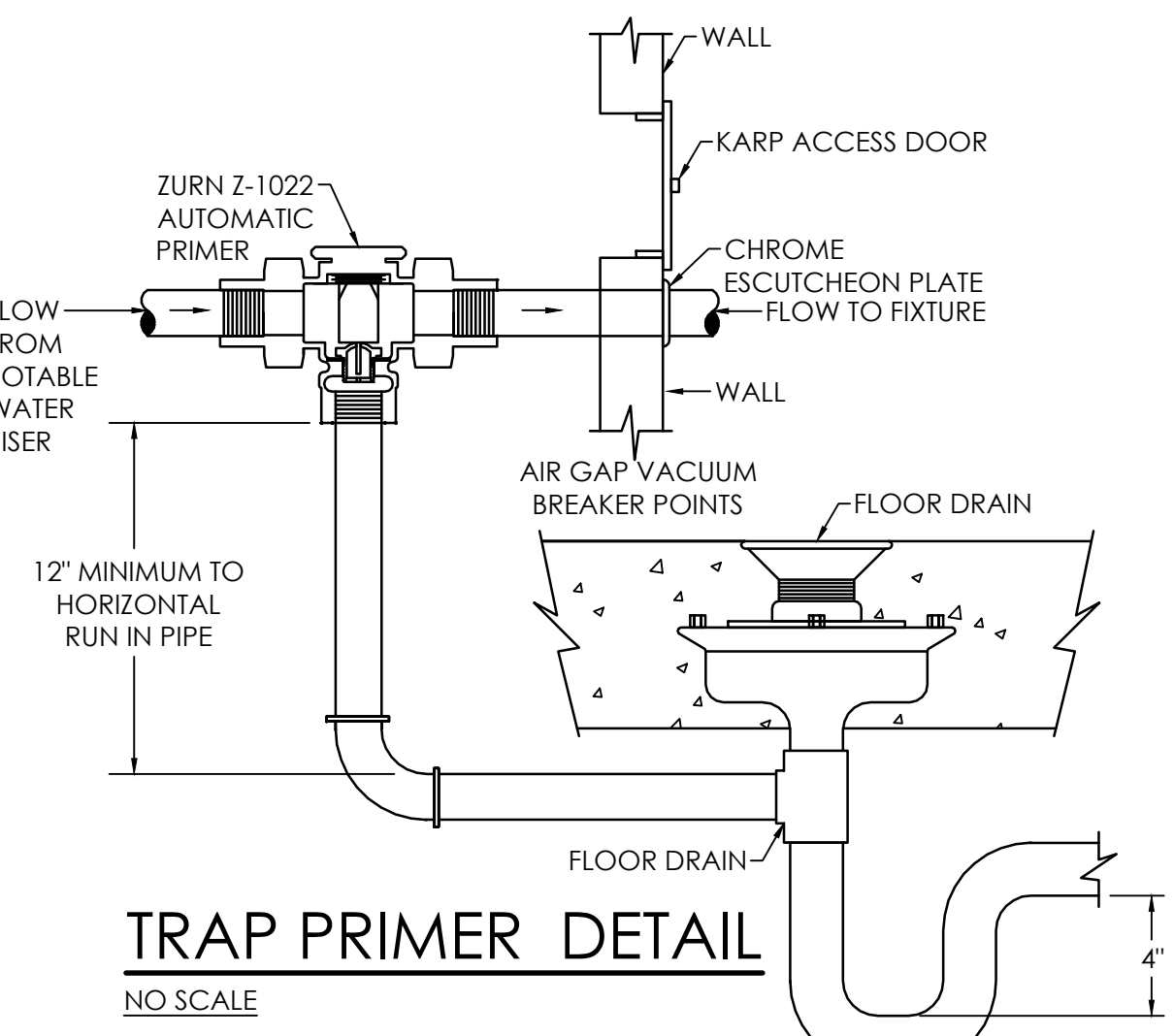
TERMOSTATIC BALANCING VALVE ASSEMBLY DETAIL

NO SCALE



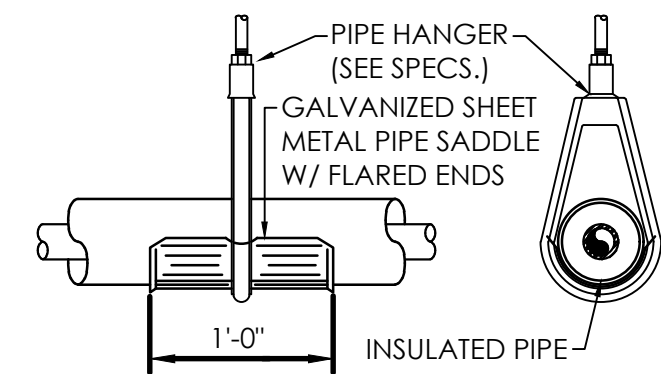
FLOOR CLEANOUT DETAIL (F.C.O.)

NO SCALE



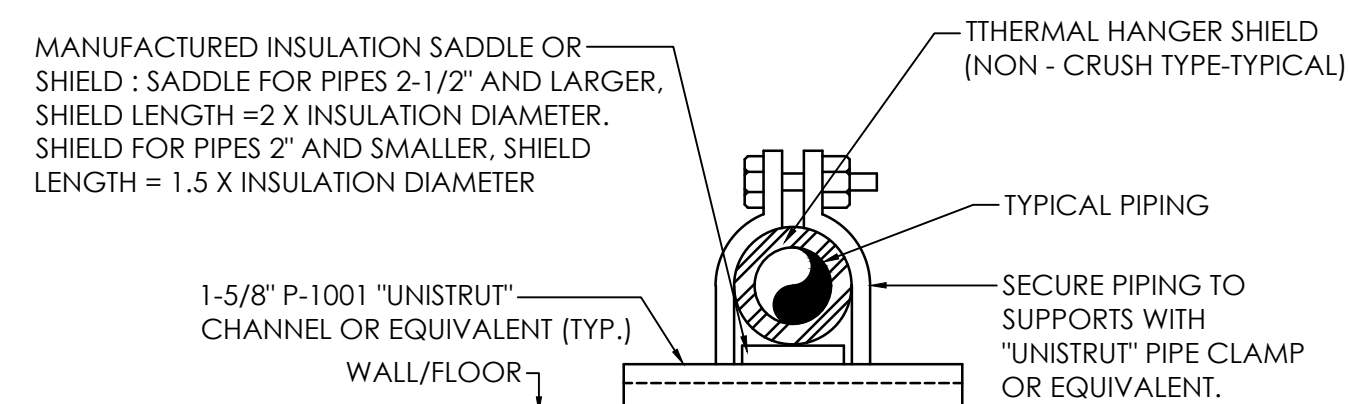
TRAP PRIMER DETAIL

NO SCALE



INSULATED PIPE HANGER

NO SCALE



PIPING SUPPORT AT WALL/FLOOR DETAIL

NO SCALE

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THE CITY OF TROY
306 E ACADEMY ST., TROY, AL 36081

PLUMBING DETAILS

SHEET TITLE:



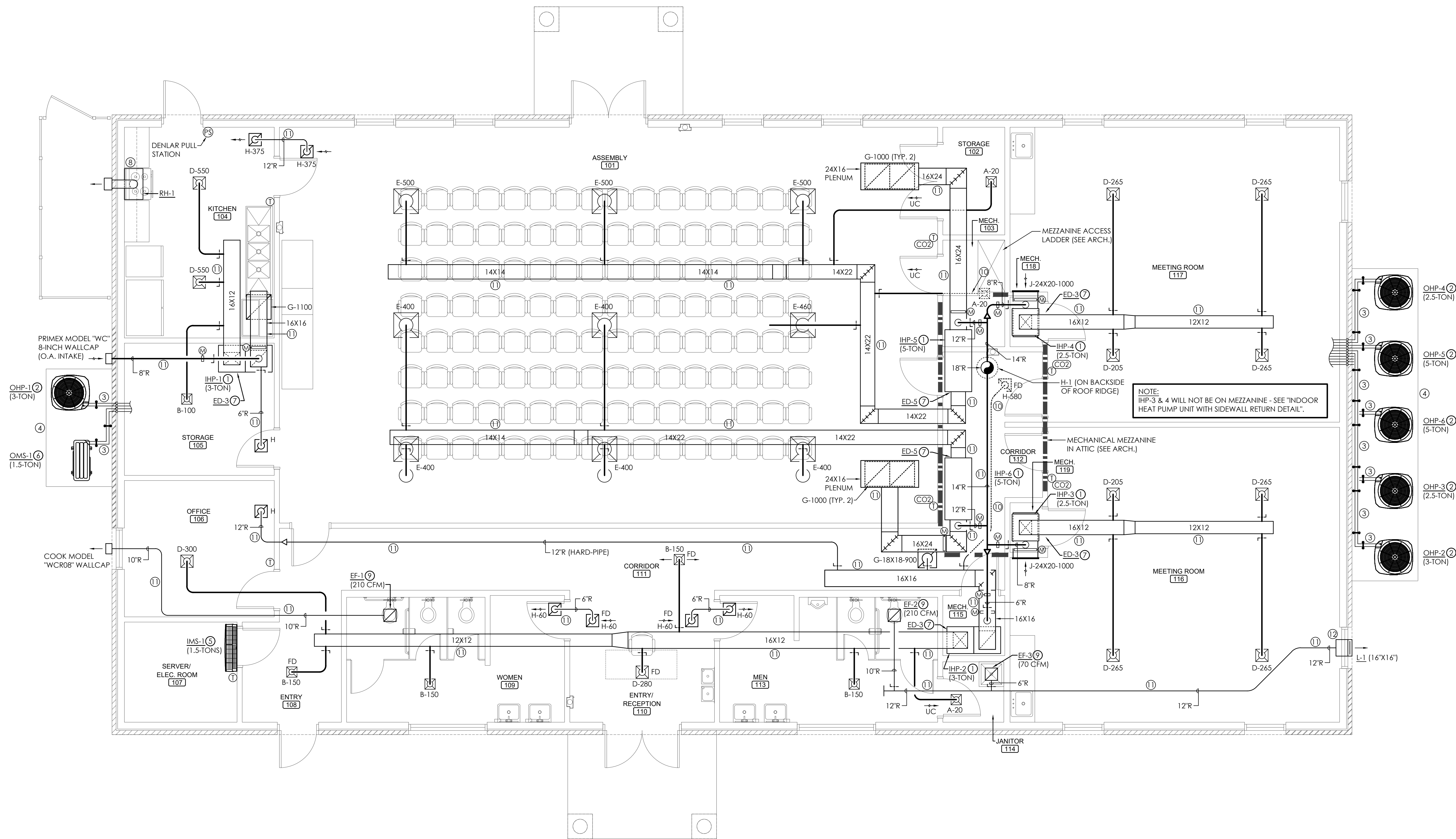
PROJ. MGR.: RLB
DRAWN: BMP
DATE: 10/07/2026
REVISIONS

JOB NO. MKA-24-261-00

SHEET NO:

P3.2

0 1" 2"



MECHANICAL FLOOR PLAN
SCALE: 1/4"=1'-0"

MECHANICAL NOTE LEGEND

1. PROVIDE AND INSTALL A COMPLETE OPERATIONAL SPLIT SYSTEM INDOOR AIR HANDLING UNIT WITH ALL RELATED CONTROLS, WIRING, ACCESSORIES, ETC. PROVIDE PROPER REQUIRED SERVICE CLEARANCE FOR MAINTENANCE. RUN CONDENSATE TO NEAREST DRAIN - SEE PLUMBING PLANS - SIZE CONDENSATE DRAIN LINES PER MANUFACTURER'S RECOMMENDATIONS PER SIZE OF UNIT.
2. PROVIDE AND INSTALL A COMPLETE OPERATIONAL SPLIT SYSTEM CONDENSING UNIT/HEAT PUMP WITH ALL RELATED CONTROLS, WIRING, ACCESSORIES, ETC. PROVIDE NEOPRENE VIBRATION ISOLATION PADS. PROVIDE PROPER REQUIRED SERVICE CLEARANCE FOR MAINTENANCE. COORDINATE EXACT LOCATION OF PAD AND UNIT WITH ARCHITECT/OWNER PRIOR TO INSTALLATION.
3. REFRIGERANT PIPING AND CONTROL WIRING FROM OUTDOOR UNIT TO RELATED INDOOR UNIT. COVER EXTERIOR PIPING WITH ALUMINUM JACKET. INSTALL CONTROL WIRING IN EXTERIOR TYPE CONDUIT. MAXIMUM LENGTH OF FLEXIBLE CONDUIT SHALL BE 3'-0". STRAP CONDUIT AND REFRIGERANT PIPING TO ANCHORED UNISTRUT EVERY 3'-0" MAX.
4. PROVIDE AND INSTALL A 4" THICK LEVEL CONCRETE PAD - PAD BY G.C. COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER PRIOR TO INSTALLATION.
5. PROVIDE AND INSTALL A COMPLETE OPERATIONAL MINI-SPLIT INDOOR AIR HANDLING UNIT WITH ALL RELATED CONTROLS, WIRING, ACCESSORIES, ETC. PROVIDE PROPER REQUIRED SERVICE CLEARANCE FOR MAINTENANCE. RUN CONDENSATE TO NEAREST DRAIN - SEE PLUMBING PLANS - SIZE CONDENSATE DRAIN LINES PER MANUFACTURER'S RECOMMENDATIONS PER SIZE OF UNIT.
6. PROVIDE AND INSTALL A COMPLETE OPERATIONAL MINI-SPLIT HEAT PUMP/CONDENSING UNIT WITH ALL RELATED CONTROLS, WIRING, ACCESSORIES, ETC. PROVIDE NEOPRENE VIBRATION ISOLATION PADS. PROVIDE PROPER REQUIRED SERVICE CLEARANCE FOR MAINTENANCE.
7. PROVIDE AND INSTALL A COMPLETE OPERATIONAL HOT-LIQUID RE-HEAT DEHUMIDIFICATION SYSTEM (EASY-DRY) WITH ALL RELATED CONTROLS, WIRING, ACCESSORIES, ETC. PROVIDE PROPER REQUIRED SERVICE CLEARANCE FOR MAINTENANCE. RUN CONDENSATE TO NEAREST DRAIN - SEE PLUMBING PLANS - SIZE CONDENSATE DRAIN LINES PER MANUFACTURER'S RECOMMENDATIONS PER SIZE OF UNIT.
8. PROVIDE AND INSTALL A COMPLETE OPERATIONAL RANGE HOOD WITH FIRE SUPPRESSION - DENLAR MODEL D1036-R-NP-A-E (80 LBS.) WITH RELATED INTERNAL REAR DISCHARGING EXHAUST FAN, MANUAL PULL STATION AND CLOCK-BOX. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE WALL CAP ON EXTERIOR WALL - CONSULT MANUF. FOR EXACT WALL CAP REQUIRED. SEE DETAIL - "DENLAR MODEL D1036-R-NP-A-E RANGE HOOD WITH FIRE SUPPRESSION DETAIL". SEE "RANGE HOOD SCHEDULE".
9. PROVIDE AND INSTALL A COMPLETE OPERATIONAL CEILING MOUNTED EXHAUST FAN WITH ALL RELATED CONTROLS, WIRING, ACCESSORIES, ETC. PROVIDE FACTORY SPEED CONTROLLER ON FAN.
10. DUCTWORK SHALL RUN ABOVE CEILING AND BELOW MEZZANINE. RE-ROUTE, RE-SHAPE AND RE-SIZE DUCTWORK AS REQUIRED TO FIT ABOVE CEILING, BELOW MEZZANINE AND BETWEEN LIGHTS. COORDINATE DUCTWORK WITH ALL TRADES TO AVOID CONFLICT.
11. DUCTWORK SHALL RUN IN ATTIC. RE-ROUTE, RE-SHAPE AND RE-SIZE DUCTWORK AS REQUIRED TO FIT IN ATTIC, THRU AND BETWEEN STRUCTURE. COORDINATE DUCTWORK WITH ALL TRADES TO AVOID CONFLICT.
12. MECHANICAL CONTRACTOR SHALL PROVIDE A 12" DEEP SHEET METAL PLENUM BEHIND ALL LOUVERS FULL SIZE OF LOUVERS. PLENUM SHALL BE INTERNALLY LINED FOR OUTSIDE AIR INTAKE - NO LINER REQUIRED FOR EXHAUST RELIEF.

SPECIAL NOTE TO CONTRACTORS:

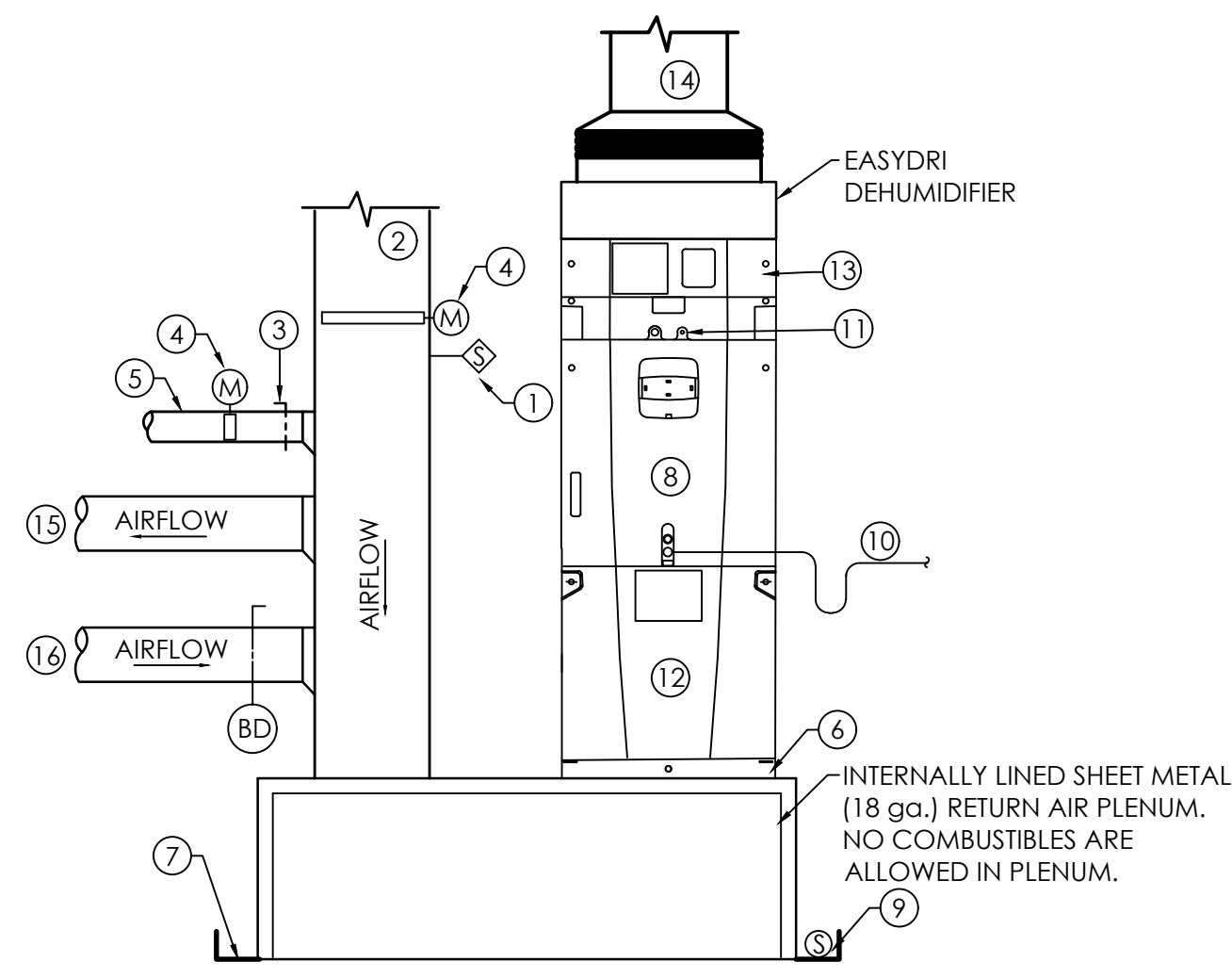
PER THE MECHANICAL SPECIFICATIONS, THE PLUMBING/MECHANICAL/ELECTRICAL CONTRACTORS ARE REQUIRED TO COORDINATE THE POWER REQUIREMENTS FOR EACH PIECE OF EQUIPMENT REQUIRING POWER PRIOR TO ORDERING AND INSTALLATION OF EQUIPMENT. PROOF OF THIS COORDINATION IS REQUIRED IN LETTER FORMAT (SEE EXAMPLE OF LETTER IN MECHANICAL SPECIFICATION SECTION 15050 GENERAL HVAC REQUIREMENTS) AND SHALL BE SENT TO THE PROJECT ENGINEERS/DESIGNERS PRIOR TO SUBMITTAL PHASE - NO EXCEPTIONS! IT IS THE SOLE RESPONSIBILITY OF THE PLUMBING/MECHANICAL/ELECTRICAL CONTRACTORS TO COORDINATE AND MAKE ANY CHANGES NECESSARY AT NO EXTRA COST TO THE OWNER OR ANYONE ELSE - NO EXCEPTIONS!

GENERAL NEW WORK NOTES:

1. VERIFY LOCATION OF ALL THERMOSTATS AND WALL CONTROLS WITH ARCHITECT BEFORE INSTALLATION.
2. COORDINATE DUCTWORK WITH ALL TRADES TO AVOID CONFLICT. ANY COST OF RE-SIZING OR RE-ROUTING DUCTWORK TO COORDINATE WITH STRUCTURAL AND ALL OTHER TRADES SHALL BE AT THE MECHANICAL CONTRACTOR'S EXPENSE.
3. ALL OUTSIDE AIR INTAKES SHALL BE MOUNTED AT LEAST 10'-0" AWAY FROM ALL EXHAUST RELIEFS AND PLUMBING VENTS.
4. CONTRACTOR SHALL VISIT THE SITE AND NOTIFY THE ENGINEER AND ARCHITECT IN WRITING OF ANY PROBLEMS OR DISCREPANCIES IN THE DRAWINGS BEFORE SUBMITTING A BID. ORDERING EQUIPMENT OR INSTALLATION OF EQUIPMENT AND ACCESSORIES.
5. MECHANICAL CONTRACTOR SHALL PROVIDE PROPER SERVICE CLEARANCE FOR EACH PIECE OF MECHANICAL EQUIPMENT REQUIRING SERVICE.
6. SEE LIFE SAFETY PLANS FOR ALL RATED WALLS, CEILINGS, ETC. PROVIDE FIRE DAMPERS AT ALL RATED WALLS AND CEILINGS.
7. MECHANICAL CONTRACTOR SHALL PROVIDE WIND RESTRAINTS ON EACH PIECE OF GRADE MOUNTED MECHANICAL EQUIPMENT - SEE "OUTDOOR HEAT PUMP/CONDENSING UNIT DETAIL" FOR GRADE MOUNTED NOTES.

SCALE: 1/4" = 1'-0"
0 2' 4' 8'

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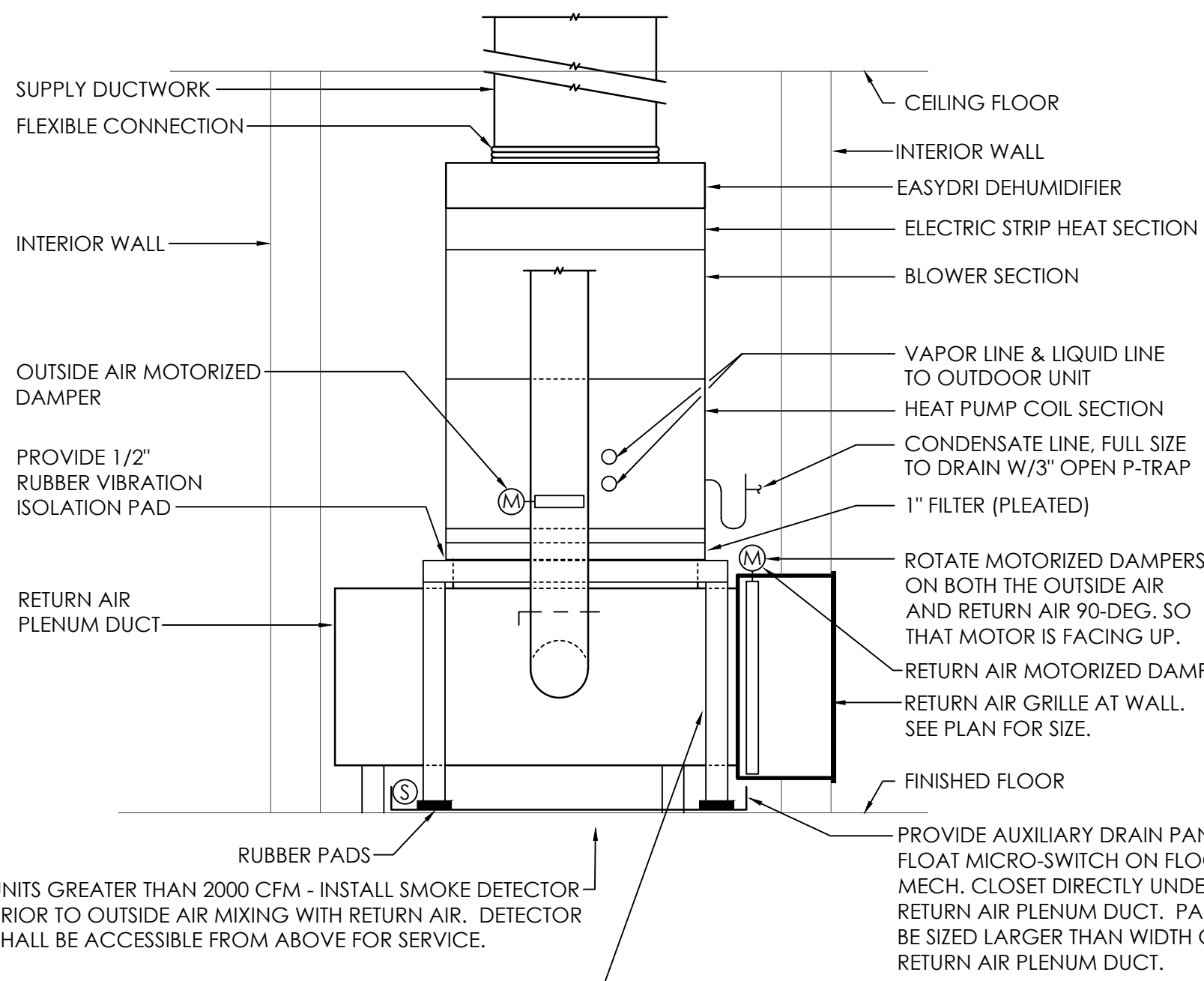


INDOOR HEAT PUMP UNIT DETAIL

NO SCALE TYP. IHP-1 AND IHP-2

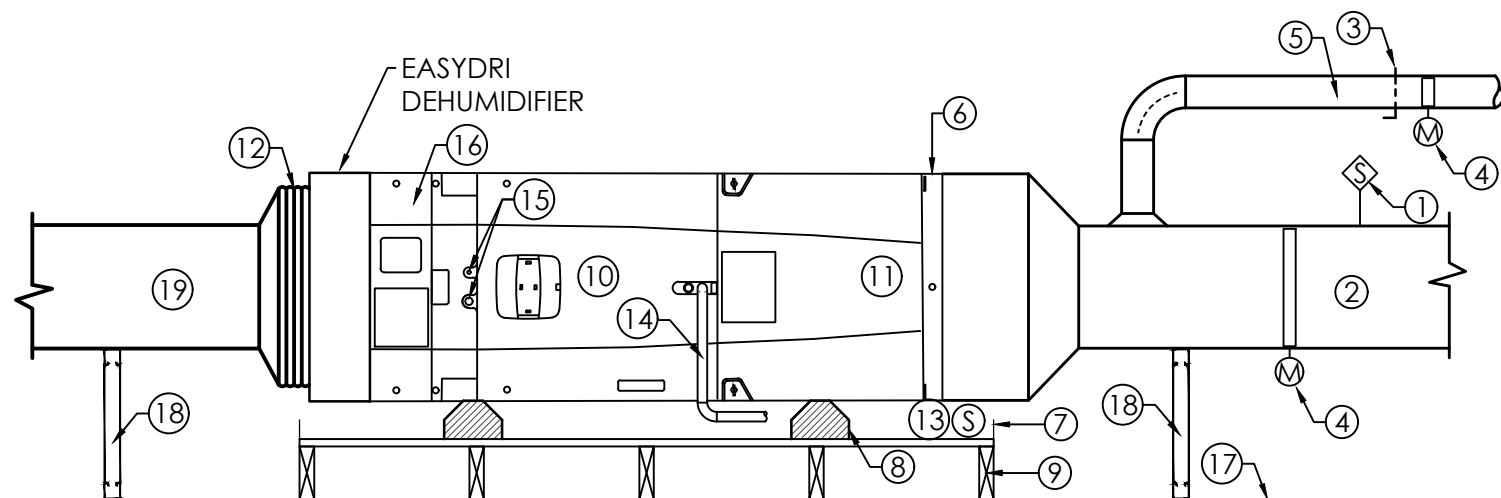
SPLIT SYSTEM HEAT PUMP WITH DEHUMIDIFIER UNIT DETAIL KEYED NOTES

1. SMOKE DETECTOR (FOR UNITS GREATER THAN 2000 CFM)
2. RETURN AIR DUCTWORK
3. MANUAL VOLUME DAMPER
4. MOTORIZED DAMPER
5. OUTDOOR AIR DUCTWORK
6. 1" PLEATED FILTER SECTION E-Z FILTER WITH MERV 8 FILTER
7. 20 GA. AUXILIARY SHEET METAL DRAIN PAN WITH SOLDERED CORNERS. PAN SHALL EXTEND UNDER ALL COMPONENTS SUBJECT TO LEAKING WATER
8. HEAT PUMP COIL SECTION
9. FLOAT MICROSWITCH. SWITCH SHALL BE INTERLOCKED TO SHUT DOWN UNIT UPON WATER DETECTION.
10. INSULATED CONDENSATE DRAIN PIPING WITH P-TRAP. DO NOT BLOCK SERVICE ACCESS WITH DRAIN PIPING. ROUTE TO NEAREST FLOOR OR HUB DRAIN. SEE PLUMBING DRAWINGS.
11. VAPOR AND LIQUID LINES TO OUTDOOR UNIT
12. BLOWER SECTION
13. ELECTRIC HEATER
14. SUPPLY AIR DUCTWORK
15. TO SIDESTREAM DEHUMIDIFIER
16. FROM SIDESTREAM DEHUMIDIFIER



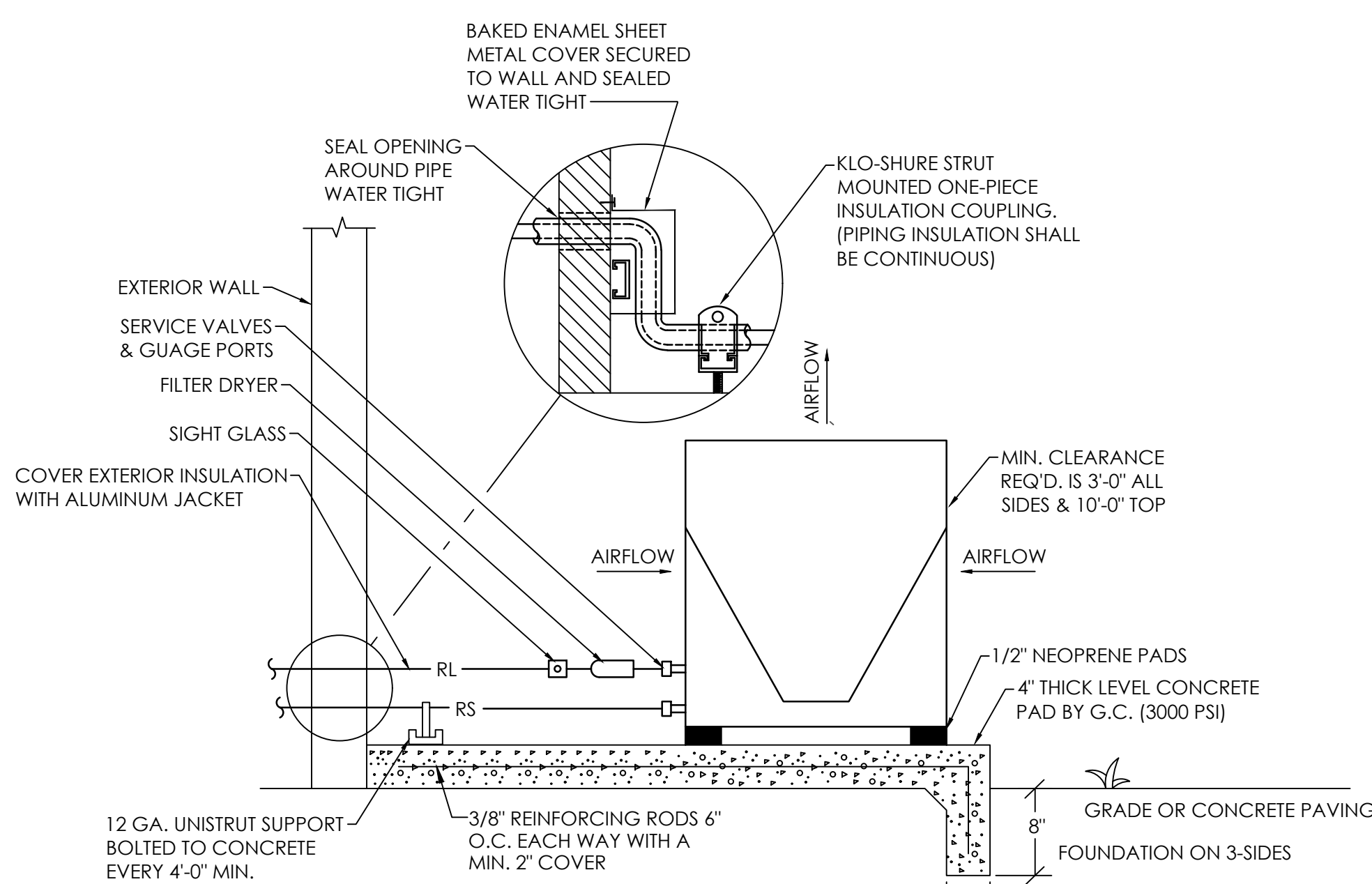
INDOOR HEAT PUMP UNIT WITH SIDEWALL RETURN DETAIL

NO SCALE TYP. IHP-3 AND IHP-4



HORIZONTAL HEAT PUMP UNIT DETAIL

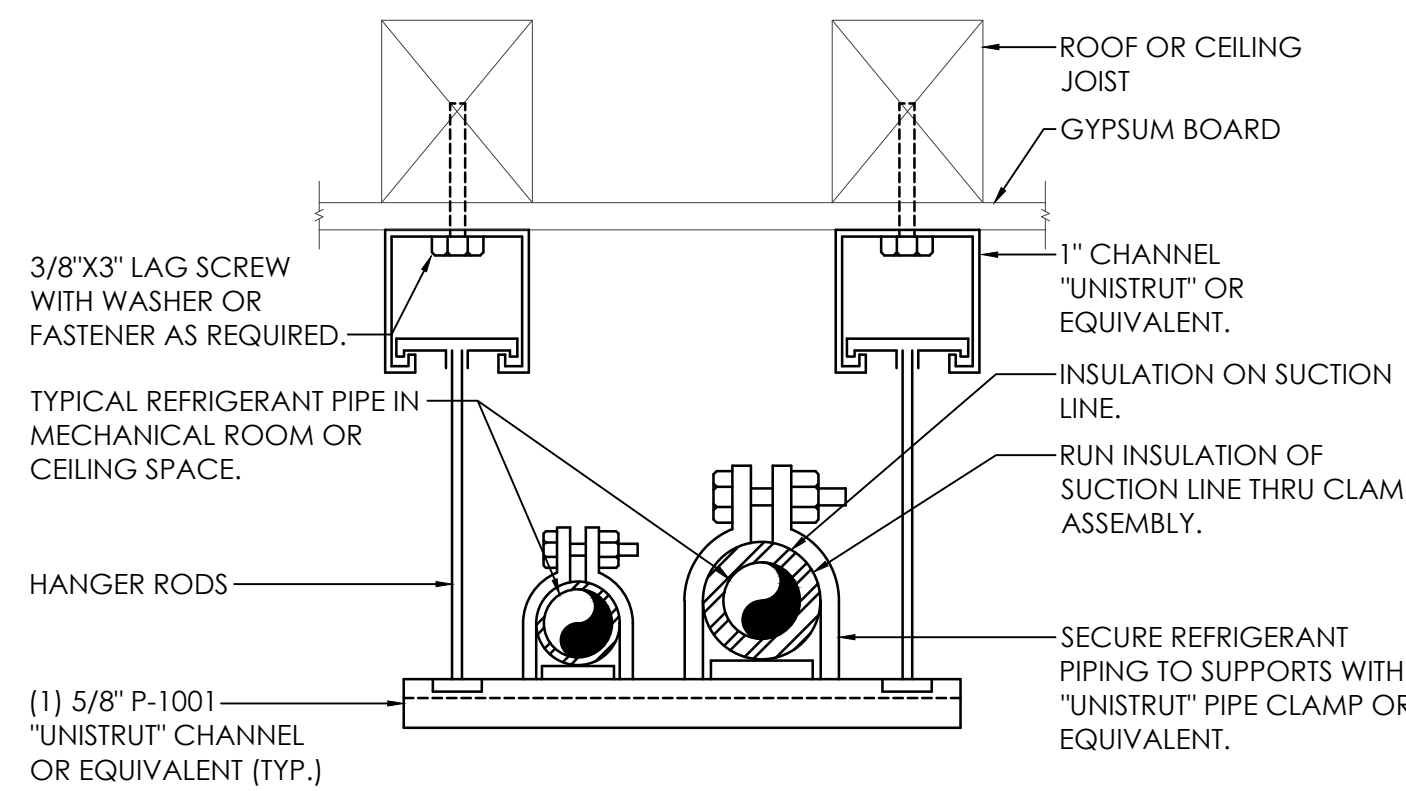
NO SCALE TYP. IHP-5 AND IHP-6



NOTE:
1. VERTICAL REFRIGERANT PIPING SHALL BE CONCEALED IN WALL CAVITY. PIPING EXPOSED OR COVERED ON THE EXTERIOR WALL **WILL NOT** BE ACCEPTED.

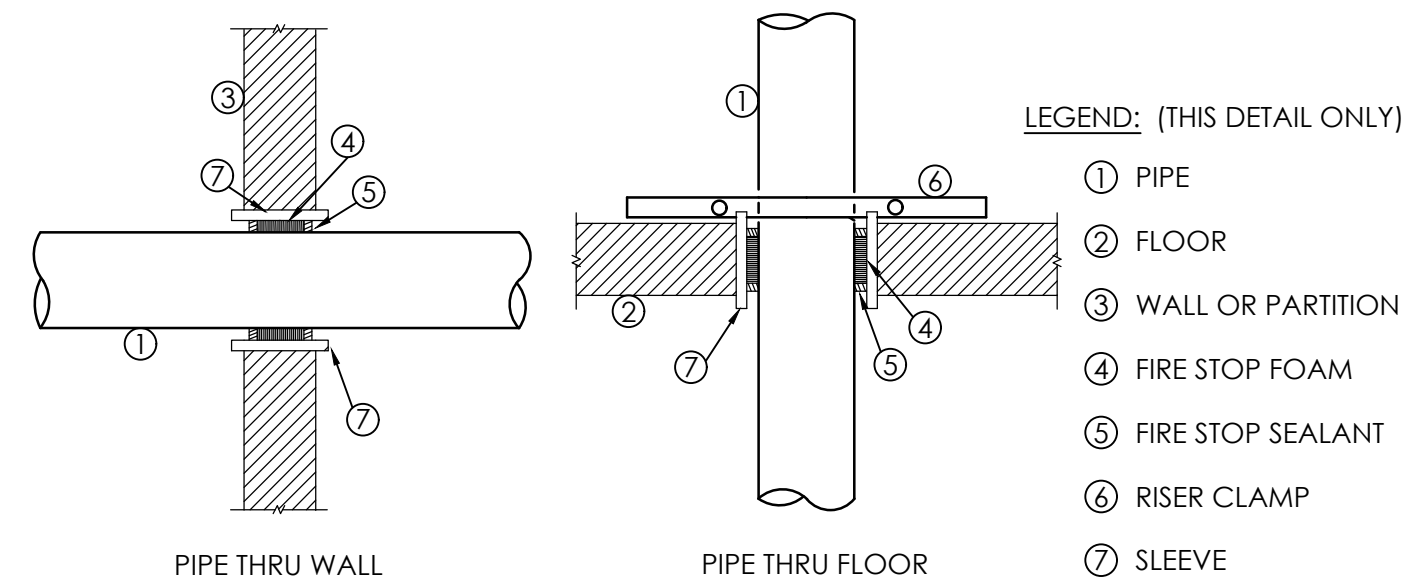
GRADE MOUNTED CONDENSING UNIT DETAIL

NO SCALE TYP. IHP-1 AND IHP-2



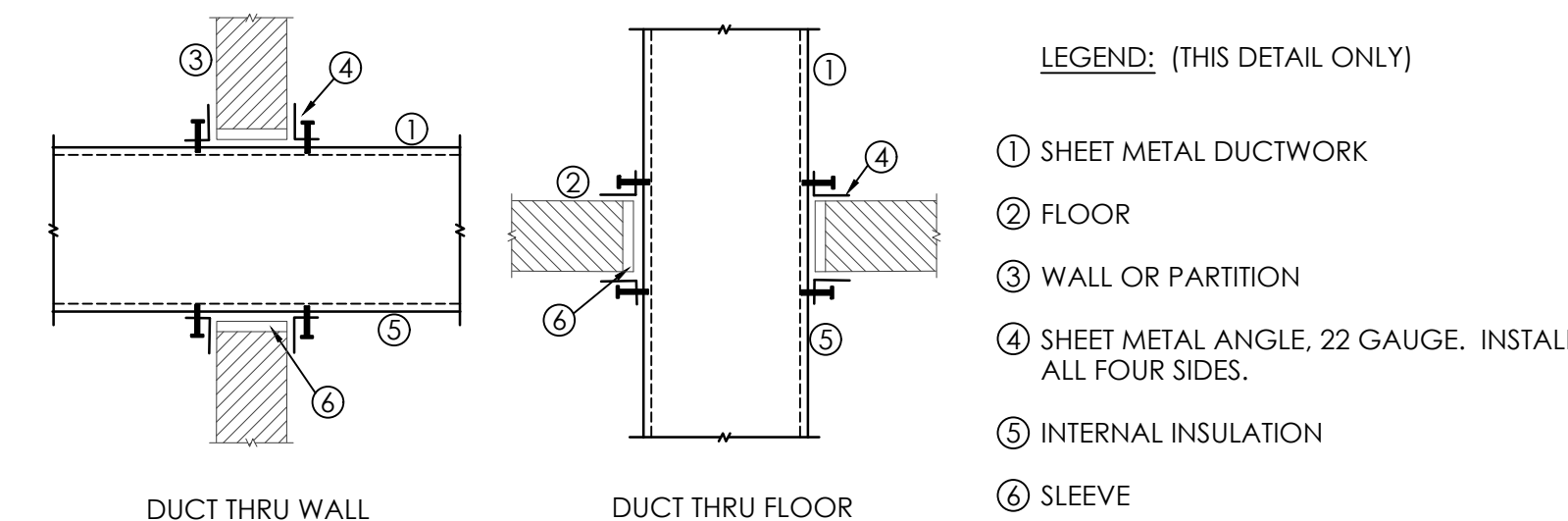
SUSPENDED REFRIGERANT PIPE SUPPORT AT CEILING DETAIL

NO SCALE



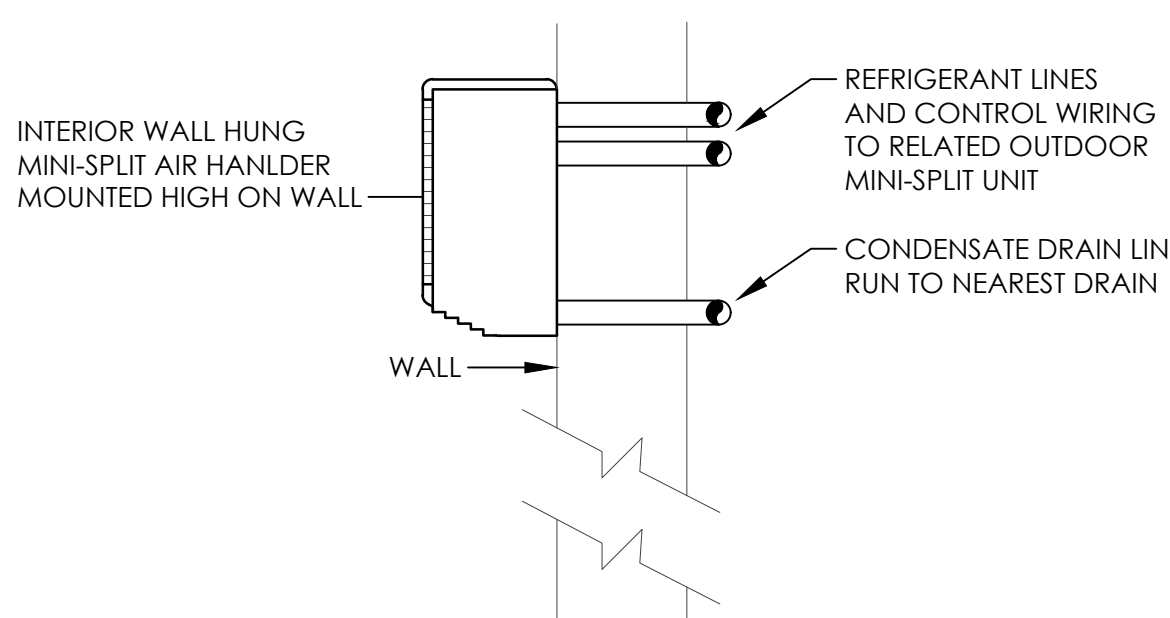
PIPE THRU STRUCTURE DETAIL

NO SCALE



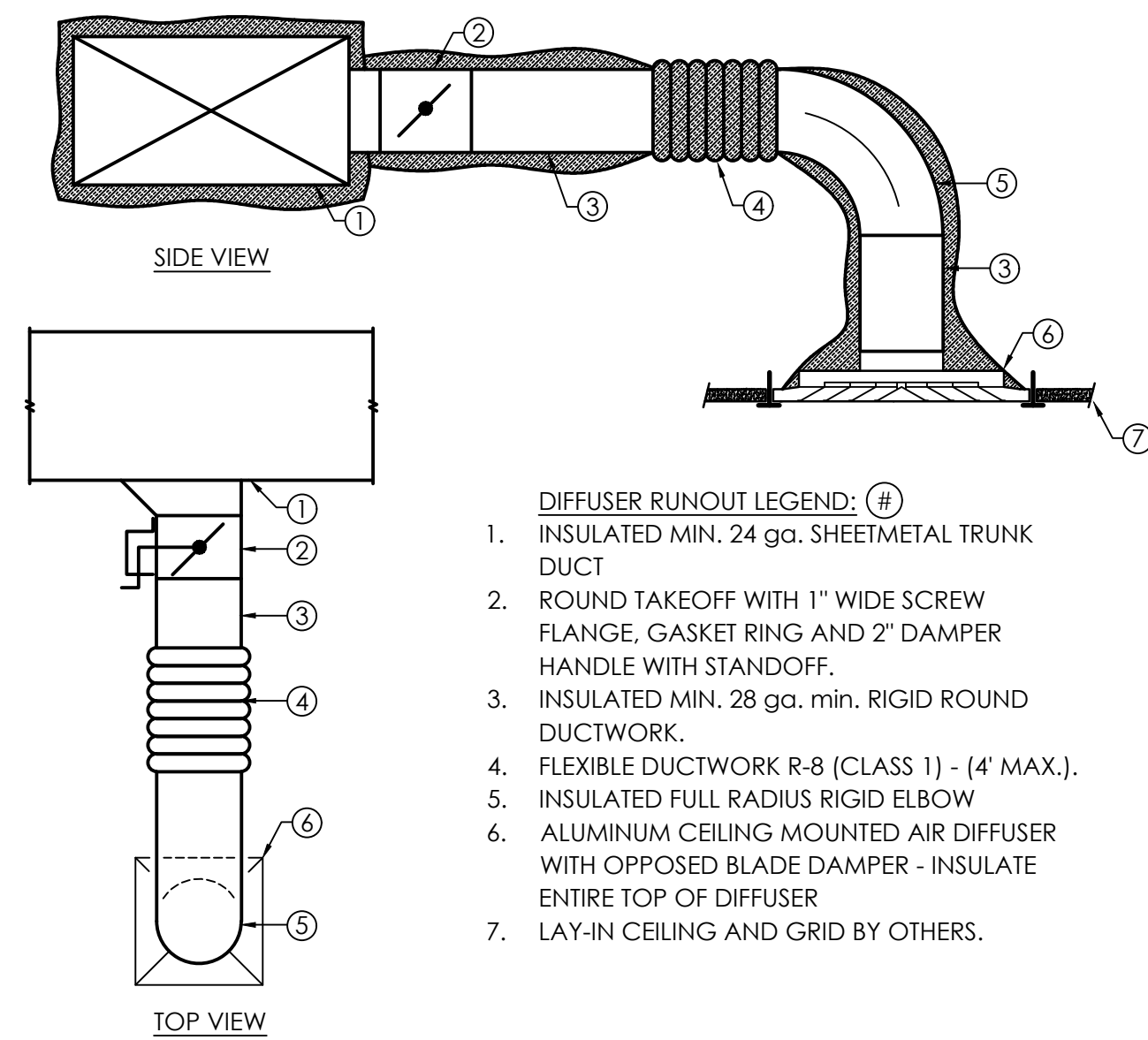
DUCT THRU NON-RATED STRUCTURE DETAIL

NO SCALE



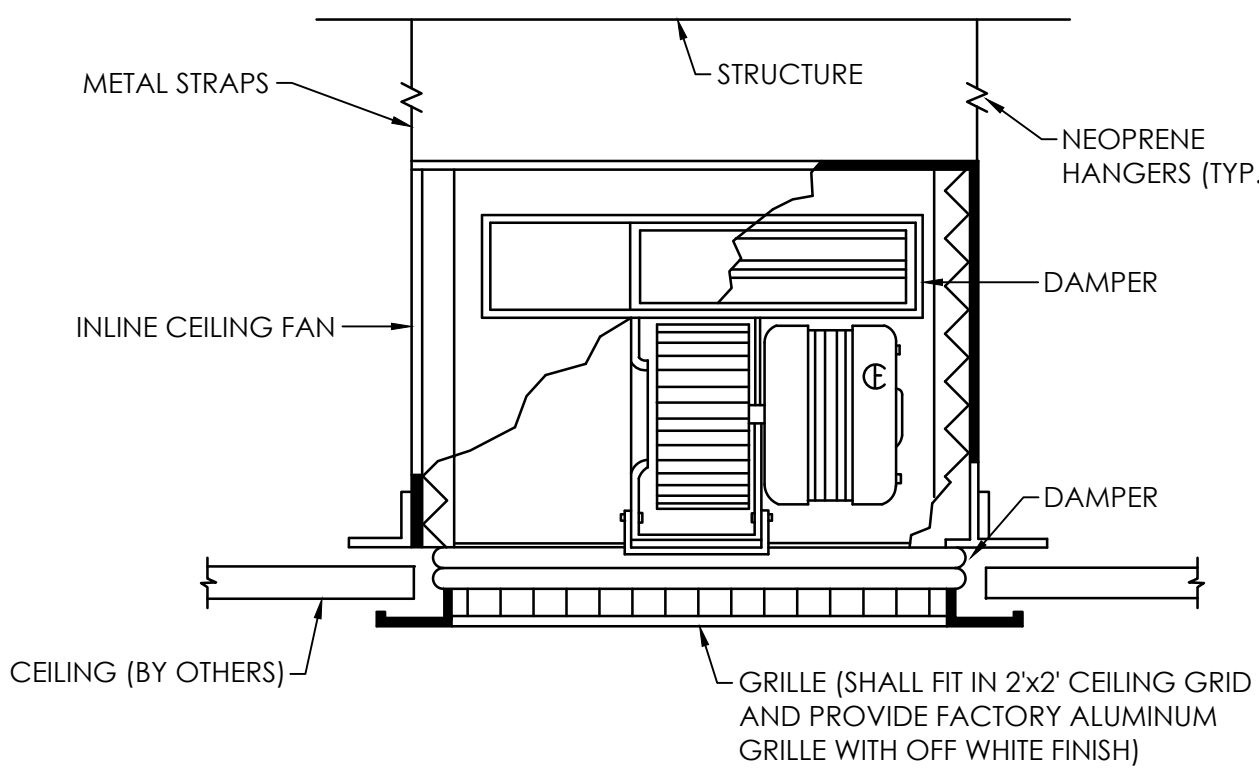
WALL MOUNTED MINI-SPLIT AHU DETAIL

NO SCALE TYP. IMS-1



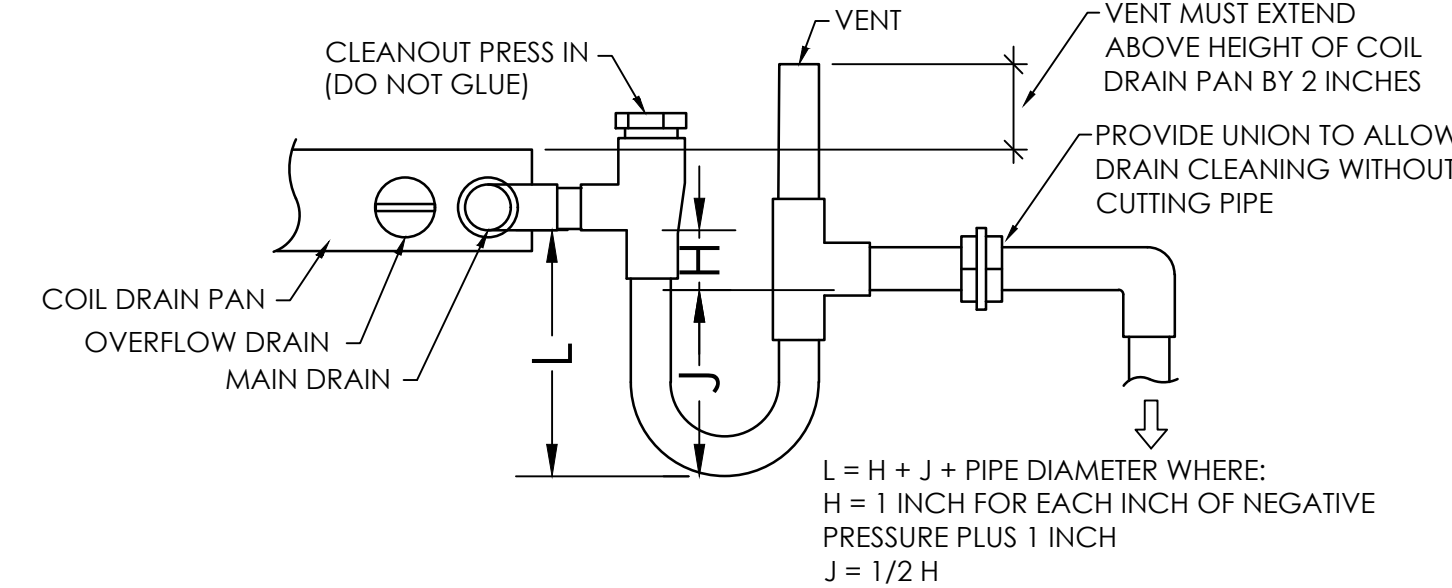
DIFFUSER RUNOUT DETAIL

NO SCALE



CEILING EXHAUST FAN DETAIL

NO SCALE TYP. ALL CEILING MOUNTED EXHAUST FANS.



CONDENSATE DRAIN DETAIL

NO SCALE

EASY DRI DEHUMIDIFICATION

PURPOSE
Humidity reduction reheat system for new or existing residential, commercial, or industrial HVAC systems

ADVANTAGE
VERSATILE: Universal mounting on most manufactures of air handlers in the tonnage range
SETUP: Brand independent with no additional hot gas line installation required.
UNIQUE: Achieves reheat with single three-way diverting valve, can be used on heat pump, gas heat, or cooling only systems.
FLEXIBLE: Wide range of thermostatic and humidity controls to control operation.
IAQ: Reheat mode provides additional and improved outside air management (up to 40% OA).

DATA

- Compact self-contained
- Double-wall, foam injected, painted cabinet
- Simple connection in-line adds system reheat loop
- R454b Refrigerant
- 95-110 ° F Saturated Condenser Temp
- Factory Corrosion Coating on heat exchanger
- Head Pressure Control Kit included

PERFORMANCE TABLE

ED-1	ED-2	ED-3	ED-4	ED-5
15	2	3	4	5
530-675	680-810	1,020-1,380	1,340-1,650	1,620-2,000
3-2"	3-2"	3-2"	3-2"	3-2"
6,850 - 7,200	8,800 - 9,350	14,500 - 15,000	17,300 - 17,800	20,900 - 21,600
10-12°F	10-12°F	10-12°F	10-12°F	10-12°F
21"W x 15.5" x 7.7"H	21"W x 15.5" x 7.7"H	23.5"W x 21" x 7.7"H	23.5"W x 21" x 7.7"H	23.5"W x 21" x 7.7"H

SEQUENCE OF OPERATION
When temperature and humidity are above setpoint, reheat is off and system is in normal cooling operation. When temperature is satisfied and humidity is above setpoint, then compressor is on and reheat is on (over cool up to 2 degrees). When temperature and humidity are satisfied then compressor and reheat are off.

WARRANTY
1-year parts; commissioning available upon request.

EasyDri | North Port, Florida | Mike@EasyDriLLC.com

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LATHAN McKEE ARCHITECTS

A NEW COMMUNITY CENTER

KNOX STREET PARK

THE CITY OF TROY
308 E ACADEMY ST., TROY, AL 36081

MECHANICAL DETAILS

SHEET TITLE:

PROJ. MGR.: JBB/JHM
DRAWN: JBB
DATE: 10/07/2026
REVISIONS

JOB NO. MKA-24-261-00
SHEET NO:
M2.1

0 1" 2"

1. **THESE DRAWINGS ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE AND OPERATIONAL HVAC SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, ACCESS PANELS FOR SERVICE, APPURTENANCES, AND CONTROLS, COMPLETELY COORDINATED WITH ALL DISCIPLINES.** IF ANY DISCREPANCIES ARE FOUND IN THESE DOCUMENTS, SHALL BE STRICTLY CONFORMED WITH, **ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE AND OPERATIONAL HVAC SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE OWNER. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF THE OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.**
2. **COORDINATE DUCT WORK WITH STRUCTURAL & PLUMBING CONTRACTORS. MAKE SURE THERE ARE NO OTHER TRADES TO AVOID CONFLICT. MAKE OFFSETS AND TRANSITIONS TO COORDINATE WITH OTHER TRADES WITHOUT ANY ADDITIONAL COST TO THE OWNER. ANY COST OF RE-SIZING OR RE-ROUTING DUCTWORK TO COORDINATE WITH STRUCTURAL AND ALL OTHER TRADES SHALL BE AT THE MECHANICAL CONTRACTORS EXPENSE.**
3. **ALL DUCT TRANSITIONS FROM SQUARE TO ROUND SHALL BE SMOOTH SQUARE TO ROUND TRANSITIONS, SPIN-IN FITTINGS AT THE END OF CAPPED DUCTS ARE NOT ACCEPTABLE.**
4. **PORTIONS OF DUCTWORK W/VIEW THROUGH GRILLES, REGISTERS, AND DIFFUSERS IN FINISHED AREAS SHALL BE PAINTED TO MATCH SURROUNDING AREA.**
5. **ALL FAN MOTORS 1/8 HP AND ABOVE SHALL HAVE A DISCONNECT SWITCH MOUNTED AT THE FAN.**
6. **ALL OPEN ENDED DUCTS SHALL BE REINFORCED WITH 1-1/2" X 1-1/2" X 1/8" GALVANIZED STEEL ANGLES BOLTED OR RIVETED 6" ON THE CENTER (MAX.) ALL AROUND THE EXTERIOR PERIMETER OF THE DUCT.**
7. **MOUNT THERMOSTATS, HUMIDITY SENSORS, CO2 SENSORS AND OTHER CONTROLLERS 48" A.F.F. UNLESS OTHERWISE SHOWN AND NOTED ON DRAWINGS. IF THERE IS A CONFLICT OF LOCATIONS BETWEEN THE DRAWINGS, NOTIFY THE ARCHITECT IMMEDIATELY. VERIFY EXACT LOCATION BEFORE INSTALLATION.**
8. **PROVIDE INSULATION (1" THICK CLOSED CELL) FOR SUPPLY, RETURN, AND OUTDOOR AIR DUCTS WITHIN 20' HANDLING UNIT UNLESS NOTED OTHERWISE. IF NOT NOTED, ALL OTHER DUCTWORK SHALL BE INSULATED WITH 2" THICK, FOIL BACKED 34 LB. DENSITY BLANKET INSULATION UNLESS NOTED OTHERWISE.**
9. **CONDENSATE DRAIN LINES RUNNING HORIZONTALLY SHALL BE SLOPED 1/4" PER FOOT DOWN IN THE DIRECTION OF FLOW AS INDICATED. ALL CONDENSATE LINES SHALL BE INSULATED.**
10. **DUCT DIMENSIONS SHOWN ARE INSIDE CLEARANCE OF DUCTWORK OR LINER.**
11. **IN ADDITION TO OFFSETS IN DUCTWORK SHOWING, PROVIDE OFFSETS REQUIRED TO MAINTAIN TOP OF DUCTWORK AND PIPING FIT TO STRUCTURE.**
12. **DUCTS AND EQUIPMENT WITH STANDING BRACES SHALL BE ARRANGED SO THAT THE BRACES WILL NOT BE OVER LIGHTS OR UNDER BEAMS IN AREAS WHERE THE CLEARANCE BETWEEN LIGHTS AND BEAMS IS LIMITED.**
13. **DUCTWORK SHALL BE IN ACCORDANCE WITH THE LATEST SMACNA STANDARD. SEAL ALL JOINTS WITH HARD-CAST SHALL BE INSULATING.**
14. **VERIFY LOCATION OF CONTROLS AND THERMOSTATS WITH ARCHITECT/OWNER PRIOR TO WIRING AND INSTALLATION.**
15. **THE MECHANICAL CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ALL WALL, FLOOR, AND ROOF OPENINGS (DIMENSIONS AND LOCATIONS). THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OPENINGS IN THE STRUCTURE. COORDINATE THE LOCATION OF FLOOR DRAINS WITH MECHANICAL EQUIPMENT PRIOR TO POURING OF CONCRETE IN PLACE OF MECHANICAL EQUIPMENT.**
16. **ALL DUCTWORK SHALL BE CONNECTED TO AIR HANDLING UNITS WITH FLEXIBLE SLEEVES. EACH SLEEVE SHALL HAVE AT LEAST 7" SLACK ACROSS A CLEAR METAL TO-METAL GAP OF AT LEAST 4".**
17. **MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE ARCHITECTURAL LIFE SAFETY ENGINEER REGARDING THE LOCATION OF FIRE EQUIPMENT MATERIALS AND TO SUBMIT ANY WORK ON SITE AND SHALL PROVIDE A U.S. LISTED DYNAMIC FIRE DAMPER ASSEMBLY AND ACCESS PANEL AT ALL OUTDOOR PENETRATIONS OF FIRE RATED WALLS, CEILINGS, LAYERS, ETC. REGARDLESS IF SHOWN ON MECHANICAL PLANS OR NOT.**
18. **PROVIDE ONE-LINE LENGTH OF ALL HVAC SYSTEMS REQUIRING LINE-SETS THAT EXTEND BEYOND THE MANUFACTURER'S RECOMMENDED LINE-SET LENGTH. COORDINATE LINE SIZE AND LENGTH WITH HVAC SYSTEMS MANUFACTURER PRIOR TO ORDERING AND INSTALLATION.**
19. **MECHANICAL CONTRACTOR SHALL REVIEW MECHANICAL PLANS/NOTES/SPECS/ETC. PRIOR TO BIDDING AND SHALL BE RESPONSIBLE FOR PROVIDING ACHIEVING THE INTENT OF THE MECHANICAL PLANS/NOTES/REQUIREING SERVICED MOTORIZED DAMPERS, FIRE DAMPERS IF REQUIRED, ETC.**
20. **IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO REVIEW AND COORDINATE THE MECHANICAL DESIGNS/PLANS/NOTES/SPECS/ETC. WITH ALL OTHER DISCIPLINES PLANS AND DESIGNS PRIOR TO SUBMITTING A BID - GENERAL CONTRACTOR SHALL NOTIFY THE ENGINEER AND ARCHITECT IN WRITING OF ANY PROBLEMS OR DISCREPANCIES IN THE MECHANICAL DESIGNS/PLANS AND ALL OTHER DISCIPLINES PLANS AND DESIGNS PRIOR TO SUBMITTING A BID. IT IS ALSO THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE THE PROBLEMS AND DISCREPANCIES WITH THE GENERAL CONTRACTOR'S SUB-CONTRACTOR'S PRIOR TO STARTING CONSTRUCTION, ORDERING EQUIPMENT, OR CONSTRUCTION OF ANY PART OF THE PROJECT AND TO RESOLVE THE PROBLEMS. THE CONTRACTOR NOT COORDINATING THESE PROBLEMS AND DISCREPANCIES WITH THE ENGINEER, ARCHITECT AND SUB-CONTRACTORS SHALL BE AT THE GENERAL CONTRACTOR'S EXPENSE AND SHALL BE AT NO EXPENSE TO THE OWNER OR ANYONE ELSE - NO EXCEPTIONS!**
21. **COORDINATE UNDERDOOR OF DOORS WITH GENERAL CONTRACTOR**
22. **HVAC CONTROLS SHALL BE INSTALLED BY HVAC CONTROLS CONTRACTOR WITH MINIMUM 5-YEARS OF EXPERIENCE.**
23. **REFER TO ARCHITECTURAL CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES PRIOR TO LOCATING AND INSTALLATION OF ALL AIR DISTRIBUTION DEVICES. COORDINATE ALL GRILLES, REGISTERS, AND DIFFUSERS WITH ARCHITECTURAL CEILING AND INTERIOR REFLECTED CEILING PLANS AND LIGHT FIXTURES. IF A PARTICULAR ITEM IS NOT SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLAN, PREPARE A DRAWING AND PRESENT IT TO THE ARCHITECT FOR THEIR REVIEW AND/OR APPROVAL.**
24. **MECHANICAL CONTRACTOR SHALL PROVIDE WIND RESTRAINTS ON EACH PIECE OF GRADE MOUNTED MECHANICAL EQUIPMENT.**
25. **MECHANICAL CONTRACTOR SHALL PROVIDE A SHEET METAL PLENUM BEHIND ALL LOUVERS FULL SIZE OF LOUVERS. PLENUM SHALL BE INTERNALLY LINED FOR OUTSIDE AIR INTAKE - NO LINER REQUIRED FOR EXHAUST RELIEF.**
26. **MAKE SURE THAT ALL ITEMS REQUIRING SERVICE (IE: FILTERS, MOTORIZED DAMPERS, SMOKE DETECTORS, ETC.) IN MECHANICAL ROOMS ARE EASILY ACCESSIBLE.**
27. **CONTRACTOR SHALL VISIT THE SITE AND NOTIFY THE ENGINEER AND ARCHITECT IN WRITING OF ANY PROBLEMS OR DISCREPANCIES IN THE DRAWINGS PRIOR TO SUBMITTING A BID, ORDERING EQUIPMENT OR INSTALLATION.**
28. **MECHANICAL CONTRACTOR SHALL PROVIDE PROPER SERVICE CLEARANCE FOR EACH PIECE OF MECHANICAL EQUIPMENT REQUIRING SERVICE.**
29. **MOTORIZED DAMPERS SHALL OCCUR AT ALL MAIN RETURN AIR TRUNK DUCTS AT EACH UNIT, MAIN OUTSIDE AIR DUCTS, AND RELIEF AIR DUCTS. ALL MAIN RETURN AIR TRUNK DUCTS SHALL BE AT LEAST 18" CLEARANCE FROM ALL OTHERS.**
30. **MANUAL VOLUME DAMPERS SHALL OCCUR AT EACH RUN-OUT TO AIR DISTRIBUTION DEVICES, ALL MAIN RETURN AIR TRUNK DUCTS AT EACH UNIT, MAIN OUTSIDE AIR DUCTS AT EACH UNIT.**

1. THE LEAK DETECTION SYSTEM SHALL CONSIST OF ONE OR MORE REFRIGERANT LEAK DETECTION SENSORS INSTALLED IN THE HVAC EQUIPMENT MANUFACTURER.
2. WHEN THE SYSTEM DETECTS A LEAK, THE FOLLOWING MITIGATION ACTIONS WILL BE INITIATED UNTIL REFRIGERANT HAS BEEN DETECTED FOR 5 MINUTES.
 - A. SUPPLY FANS SHALL BE ENERGIZED TO RUN AT 100% FAN SPEED
 - B. COMPRESSOR OPERATION SHALL BE DISABLED
 - C. ALL ZONING DAMPERS SUCH AS VAV TERMINAL UNITS SHALL BE OPENED 100%
 - D. ALL ELECTRICAL HEAT OR GAS HEAT SHALL BE DISABLED.
3. THE BUILDING FIRE AND SMOKE SYSTEMS SHALL OVERRIDE THIS FUNCTION.
4. IF THE REFRIGERANT SENSOR HAS A FAULT, IS AT THE END OF ITS USEFUL LIFE, OR IS DISCONNECTED, THE AC UNIT WILL INITIATE THE ABOVE MITIGATION ACTIONS SHALL BE VERIFIED BY DISCONNECTING SENSOR.
5. THE REFRIGERANT SENSORS DO NOT NEED ROUTINE MAINTENANCE. USE ONLY MANUFACTURER APPROVED SENSORS WHEN REPLACEMENT IS REQUIRED.

SYMBOL	DESCRIPTION
	DUCTWORK, DOUBLE LINE AND SINGLE LINE. DIMENSIONS ARE NET FREE AREA.
	SUPPLY DUCTWORK. DIMENSIONS ARE NET FREE AREA
	RETURN OR EXHAUST DUCTWORK. DIMENSIONS ARE NET FREE AREA
	TRANSITION, 4:1 RATIO FOR LOW PRESSURE, 7:1 RATIO FOR HIGH PRESSURE.
	ELBOW TURNED UP WITH TURNING VANES
	ELBOW TURNED DOWN WITH TURNING VANES
	ROUND DUCT TURNED DOWN
	ROUND DUCT TURNED UP
	RADIUS TYPE ELBOW WITH TURNING VANES. INSIDE RADIUS = WIDTH.
	SQUARE TYPE ELBOW WITH DOUBLE THICKNESS VANES. VANES REQUIRED IN ALL DUCTWORK ELBOWS UNLESS NOTED OTHERWISE.
	RECTANGULAR TO ROUND OR TAKEOFF AND DAMPER W/STANDOFF BRACKET
	MANUAL VOLUME DAMPER (MVD)
	MOTOR OPERATED DAMPER (MOD) ALL MOD'S SHALL HAVE 12X12 AP UNLESS NOTED OTHERWISE. MOD'S TO OCCUR AT ALL MAIN RETURN AIR TRUNK DUCTS AT EACH UNIT, MAIN OUTSIDE AIR DUCTS AT EACH UNIT AND RELIEF DUCTS RELIEVING INTO VENTILATED ATTIC.
	FIRE DAMPER (FD) OR SMOKE DAMPER (SD) ALL FD OR SD SHALL HAVE A 12X12 AP UNLESS NOTED OTHERWISE
	DIFFUSER WITH HARD SUPPLY DUCTWORK AND FLEXIBLE DUCTWORK TO DIFFUSER
	RETURN OR EXHAUST REGISTER OR GRILLE
	WALL RETURN REGISTER
	PIPE TURNED DOWN
	PIPE TURNED UP
	STAND-ALONE TOUCH-SCREEN 7-DAY PROGRAMMABLE THERMOSTAT WITH VENTED METAL LOCK-BOX
	CARBON DIOXIDE DETECTOR WITH VENTED METAL LOCK-BOX
	DENLAR PULL STATION
	CONDENSATE DRAIN

A. REFRIGERANT RELEASE MITIGATION CONTROLS: UNIT SHALL BE FURNISHED WITH A REFRIGERANT RELEASE MITIGATION CONTROL SYSTEM THAT IS LISTED PER UL 603352-2 FROM THE FACTORY WHEN A CIRCUIT REFRIGERANT CHARGE DETECTION SYSTEM IS USED. THE REFRIGERANT RELEASE MITIGATION SYSTEM SHALL CONSIST OF ONE OR MORE REFRIGERANT DETECTION SENSORS. WHEN THE SYSTEM DETECTS A LEAK, THE UNIT CONTROLLER SHALL INITIATE REFRIGERANT MITIGATION ACTIONS AND ISOLATE ALL POSSIBLE PATHS OF REFRIGERANT THAT CAN LEAK INTO THE SPACE(S). REFRIGERANT RELEASE MITIGATION CONTROLS SHALL BE TESTED IN ACCORDANCE WITH ASHRAE 15-2022/2.13.

B. REFRIGERANT MITIGATION ACTION REQUIREMENTS: THE FOLLOWING MITIGATION ACTIONS SHALL BE INITIATED IMMEDIATELY UPON RECEIVING THE REFRIGERANT RELEASE INITIATION OF LEAK DETECTION SENSOR AND SHALL BE MAINTAINED FOR AT LEAST 5 MINUTES AFTER THE OUTPUT SIGNAL IS RESET.

- a. DE-ENERGIZE POTENTIAL IGNITION SOURCES, INCLUDING OPEN FLAMES AND UNCLASSIFIED ELECTRICAL SOURCES OF IGNITION WITH APPARENTLY POWER RATING GREATER THAN 100 WATT. THE IGNITION POWER IS THE PRODUCT OF THE CIRCUIT VOLTAGE AND CURRENT RATING.

SYMBOL	CFM	EXT. S.P. INCHES H ₂ O	MAX. RPM	SONES	POWER	ELECTRICAL	REMARKS	CONTROL/ INTERLOCK
EF-1,2	210	.5	1375	2.0	97.0 W	120/1/60	1,2	LT. SW./ OC. SENS.
EF-3	70	.5	1075	2.0	35.5 W	120/1/60	1,2	LT. SW./ OC. SENS.

- SCHEDULE NOTES:**
1. COOK MODEL GC CEILING MOUNTED EXHAUST FAN OR APPROVED EQUAL.
 2. PROVIDE BACK-DRAFT DAMPER, SPEED CONTROLLER, FACTORY MOUNTED VOLTAGE TRANSFORMER AND FACTORY DISCONNECT SWITCH.

SYMBOL	TONNAGE	CFM	A.P.D.	CAPACITY BTUH	RE-HEAT
ED-1	1.5	530 - 675	1' - 2'	6,850 - 7,200	10 - 12°F
ED-2	2	680 - 810	1' - 2'	8,800 - 9,350	10 - 12°F
ED-3	3	1120 - 1390	1' - 2'	14,500 - 15,000	10 - 12°F
ED-4	4	1340 - 1650	1' - 2'	17,300 - 17,800	10 - 12°F
ED-5	5	1620 - 2000	1' - 2'	20,900 - 21,600	10 - 12°F

- NOTE:**
MECHANICAL CONTRACTOR SHALL COORDINATE WITH MANUFACTURER TO PROVIDE ALL REQUIRED CONTROLS, MATERIALS, PIPING (R454B REFRIGERANT), ACCESSORIES, ETC. TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
SEQUENCE OF OPERATION:
WHEN TEMPERATURE AND HUMIDITY ARE ABOVE SET-POINT, RE-HEAT IS ON AND SYSTEM IS IN NORMAL COOLING OPERATION. WHEN TEMPERATURE SATISFIED AND HUMIDITY IS ABOVE SETPOINT, THEN COMPRESSOR IS ON AND RE-HEAT IS ON (OVER COOL UP TO 2°F). WHEN TEMPERATURE AND HUMIDITY ARE SATISFIED, THEN COMPRESSOR AND RE-HEAT ARE OFF.

SYMBOL	MAX. N.C. SONES	MAX. VEL. FFM	MODEL	DESCRIPTION	REMARKS
A	25	500	TITUS TDC-A-AA	6"X6" LOUVERED FACE DIFFUSER	1,2,3,4,5,6
B	25	500	TITUS TDC-A-AA	8"X8" LOUVERED FACE DIFFUSER	1,2,3,4,5,7
C	25	500	TITUS TDC-A-AA	10"X10" LOUVERED FACE DIFFUSER	1,2,3,4,5,8
D	25	500	TITUS TDC-A-AA	12"X12" LOUVERED FACE DIFFUSER	1,2,3,4,5,9
E	25	500	TITUS TDC-A-AA	24"X24" LOUVERED FACE DIFFUSER	1,2,3,4,5,9
G	25	500	TITUS 50F	1/2" X 1/2" X 1/2" EGGRATE GRILLE (24"X24" UNLESS NOTED OTHERWISE)	1,2,3,5
H	25	500	TITUS 50F	1/2" X 1/2" X 1/2" EGGRATE GRILLE (12"X12" UNLESS NOTED OTHERWISE)	1,2,3,5

- SCHEDULE NOTES:**
1. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION.
 2. PROVIDE OFF-WHITE FINISH. VERIFY WITH ARCHITECT/OWNER PRIOR TO ORDERING.
 3. EXTEND 24" OF PANEL IN LAY-IN CEILING TO MATCH IN GYP. BOARD CEILING.
 4. PROVIDE OPPOSED BLADE DAMPER WITH EXTERNAL ADJUSTMENT.
 5. PROVIDE TRANSITION ADAPTER AS REQUIRED. ROUND TO REC. OR REC. TO REC. OR ROUND TO ROUND.
 6. PROVIDE 6" ROUND RUNOUT UNLESS OTHERWISE NOTED.
 7. PROVIDE 8" ROUND RUNOUT UNLESS OTHERWISE NOTED.
 8. PROVIDE 10" ROUND RUNOUT UNLESS OTHERWISE NOTED.
 9. PROVIDE 12" ROUND RUNOUT UNLESS OTHERWISE NOTED.

SYMBOL	TYPE	SIZE	CFM	MIN. SQ. FEET FREE AREA	FREE AREA %	FREE AREA VEL. fpm	PRESS. DROP [W.G.]	RUSKIN MODEL	REMARKS
L-1	R	16"x16"	280	.73	41	384	.02	ELF6375DX	I

- SCHEDULE NOTES:**
I = INTAKE, R = RELIEF
1. PROVIDE SCREEN WITH 5/8" MESH OPENING AND BAKED ENAMEL FINISH TO MATCH BUILDING. ARCHITECT/OWNER TO SELECT COLOR.

MODEL	CFM	VOLT/PH/HZ	CKT. BRKR AMPS	OPERATING CURRENT AMPS	FAN OPERATING CURRENT AMPS	OUTPUT OPERATING CURRENT AMPS	FAN TYPE	MOPC AMPS	INPUT WIRING	OUTPUT WIRING	DENLAR MODEL
RH-1	174 - 519	120/1/60	15-20	3.7	3.1	.025 - 0.5	REAR DISCH. INTERNAL FAN	15.0	POWER CORD	14/2 MC WIRE	D1036-R-NPPA-E

NOTE: MODEL **D1036-R-NFPA-E** INCLUDES REAR DISCHARGING EXHAUST FAN, MANUAL PULL STATION AND CLOCK BOX.



SYMBOL	DESCRIPTION/ TONNAGE	SUPPLY AIR CFM	EXT. S.P. INCHES H ₂ O	COOLING			HEATING	INDOOR ELEC.	OUTDOOR ELEC.	BASED ON MITSUBISHI MODEL (OR APPROVED EQUAL)	REMARKS
				TOTAL MBH	SEN MBH	EEER/SEER	TOTAL MBH				
I/MS/OMS-1	WALL MOUNTED (1.5 TON) (12" x 18")	215-375	.15	18.0	12.6	11.0/19.5	---	208/1160	208/1160	INDR - PKA-AL18NL	1.2,3,4,5,6,7,8

- SCHEDULE NOTES:**
- 1. COOLING: CAPACITY BASED ON EDB 80° F., EVB 67° F. AND AMBIENT 95° F.
 - 2. HEATING: CAPACITY BASED ON EWB 70° F., AMBIENT DB 47° F., AMBIENT RH 70%.
RATED IN ACCORDANCE WITH AHRI STANDARD 210-40.
 - 3. PROVIDE R-454B REFRIGERANT, FACTORY FILTERS AND DISCONNECT SWITCH.
 - 4. PROVIDE WIRED WALL MOUNTED CONTROLLER, LOCATED AS SHOWN ON DRAWINGS.
 - 5. RATED IN ACCORDANCE WITH AHRI STANDARD 210-40. CAPACITY FORMERS, ETC. SHALL BE FACTORY INSTALLED.
 - 6. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE CONDENSATE PUMP OUTLET TO ASPEN PERFORMER FOR CONDENSATE DRAINAGE.
 - 7. MAINTAIN SERVICE ACCESS TO PUMP. EXPOSED PIPING OR PUMPS WILL NOT BE ACCEPTED UNLESS NOTED OTHERWISE.
 - 8. PROVIDE 12-1/2" MINI-SPLIT WIRE/CABLE FROM OUTDOOR UNIT TO INDOOR UNIT.

SYMBOL	EVAP. FAN			HP	COOLING MIN. (1)			HEATING MIN.				OUTDOOR ELEC.	MAX. AHRI SOUND RATING	BASIS OF DESIGN (TRANE OR APPROVED EQUAL)	REMARKS		
	TOTAL CFM	O.A. CFM MIN.	O.A. CFM MAX.		EXT. SP. T ₂ 10	TOTAL MBH	SEN MBH	EEER/SEER	TOTAL MBH	COP (2)	ELEC. KW					ELEC.	HSPF
IHP/CHP-1	1200	145	145	.75	1/2	34.4	25.7	12.0/15.2	21.3	4.2	10.8	208/3160	8.1	208/3160	86.0 db	STEM6D05A/V41/STWA	1.2,3,4,5,6,7,8,9,10,11,12
IHP/CHP-2	1200	70	70	1.0	1/2	34.4	25.7	12.0/15.2	21.3	4.2	10.8	208/3160	8.1	208/3160	86.0 db	STEM6D05A/V41/STWA	1.2,3,4,5,6,7,8,9,10,11,12
IHP/CHP-3	1000	40	190	.75	1/2	26.5	19.4	12.0/14.3	17.4	4.0	7.2	208/1160	8.0	208/1160	84.0 db	STEM6D04AA/V31/STWR	1.2,3,4,5,6,7,8,9,10,11,12
IHP/CHP-4	1000	40	190	.75	1/2	26.5	19.4	12.0/14.3	17.4	4.0	7.2	208/1160	8.0	208/1160	84.0 db	STEM6D04AA/V31/STWR	1.2,3,4,5,6,7,8,9,10,11,12
IHP/CHP-5	2000	65	435	1.0	4/5	56.3	43.0	12.0/14.3	36.7	4.1	10.8	208/3160	8.0	208/3160	86.0 db	STEM6D07AVS1/STWR	1.2,3,4,5,6,7,8,9,10,11,12
IHP/CHP-6	2000	50	420	1.0	4/5	56.3	43.0	12.0/14.3	36.7	4.1	10.8	208/3160	8.0	208/3160	86.0 db	STEM6D07AVS1/STWR	1.2,3,4,5,6,7,8,9,10,11,12

- SCHEDULE NOTES:**
1. CAPACITY BASED ON EDB 80 DEGREES F, EWB 67 DEGREES F AND AMBIENT 95 DEGREES F.
 2. CAPACITY BASED ON EDB 70 DEGREES F, AMBIENT DB 47 DEGREES F AND AMBIENT RH 70%.
 3. RATED IN ACCORDANCE WITH AHR STANDARD 210-81.
 4. FILTER SECTION W/2 PLATED FILTER, E-Z FILTER BASE MFG. INC. MODEL E-Z OR EQUIVALENT.
 5. PROVIDE SINGLE STAGE COOLING AND TWO STAGE HEATING.
 6. PROVIDE REFRIGERANT LINES AND COIL CONNECTION FOR INDOOR UNIT. ALL WORKING TRANSFORMERS, ECT. SHALL BE FACTORY INSTALLED. PROVIDE DISCONNECTS FOR INDOOR AND OUTDOOR UNITS
 7. PROVIDE LONG LINE KITS FOR ALL REFRIGERANT LINE SETS THAT EXTEND BEYOND 80'-0".
 8. CONSTANT VOLUME HEAT PUMP OPERATION.
 9. PROVIDE R-454B REFRIGERANT.
 10. **PROVIDE "EASYSOFT" DEHUMIDIFICATION - (SEE SCHEDULE AND PIPING SPECIFICATION).**
 11. **UNIT REQUIREMENTS FOR MONITORING:**
 12. PROVIDE VARIABLE SPEED ECM MOTOR.

SYMBOL	MAX. N.C. SONES	MAX. VEL. FFM	MODEL	DESCRIPTION	REMARKS
A	25	500	TITUS TDC4-AA	6"X6" LOUVERED FACE DIFFUSER	1,2,3,4,5,6
B	25	500	TITUS TDC4-AA	8"X8" LOUVERED FACE DIFFUSER	1,2,3,4,5,7
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D	25	500	TITUS TDC4-AA	12"X12" LOUVERED FACE DIFFUSER	1,2,3,4,5,9
E	25	500	TITUS TDC4-AA	24"X24" LOUVERED FACE DIFFUSER	1,2,3,4,5,9
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 2. PROVIDE OFF-WHITE FINISH. VERIFY WITH ARCHITECT/OWNER PRIOR TO ORDERING.
 3. EXTEND 24" OF PANEL IN LAY-IN CEILING TO MATCH IN GYP. BOARD CEILING.
 4. PROVIDE OPPOSED BLADE DAMPER WITH EXTERNAL ADJUSTMENT.
 5. PROVIDE TRANSITION ADAPTER AS REQUIRED. ROUND TO REC. OR REC. TO REC. OR ROUND TO ROUND.
 6. PROVIDE 6" ROUND RUNOUT UNLESS OTHERWISE NOTED.
 7. PROVIDE 8" ROUND RUNOUT UNLESS OTHERWISE NOTED.
 8. PROVIDE 10" ROUND RUNOUT UNLESS OTHERWISE NOTED.
 9. PROVIDE 12" ROUND RUNOUT UNLESS OTHERWISE NOTED.

SYMBOL	TYPE	SIZE	CFM	MIN. SQ. FEET FREE AREA	FREE AREA %	FREE AREA VEL. fpm	PRESS. DROP [W.G.]	RUSKIN MODEL	REMARKS
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- SCHEDULE NOTES:**
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MODEL	CFM	VOLT/PH/HZ	CKT. BRKR AMPS	OPERATING CURRENT AMPS	FAN OPERATING CURRENT AMPS	OUTPUT OPERATING CURRENT AMPS	FAN TYPE	MOP AMPS	INPUT WIRING	OUTPUT WIRING	DENLAR MODEL
RH-1	174 - 519	120/1/60	15-20	3.7	3.1	.025 - 0.5	REAR DISCH. INTERNAL FAN	15.0	POWER CORD	14/2 MC WIRE	D1036-R-NPPA-E

NOTE: MODEL **D1036-R-NFPA-E** INCLUDES REAR DISCHARGING EXHAUST FAN, MANUAL PULL STATION AND CLOCK BOX.

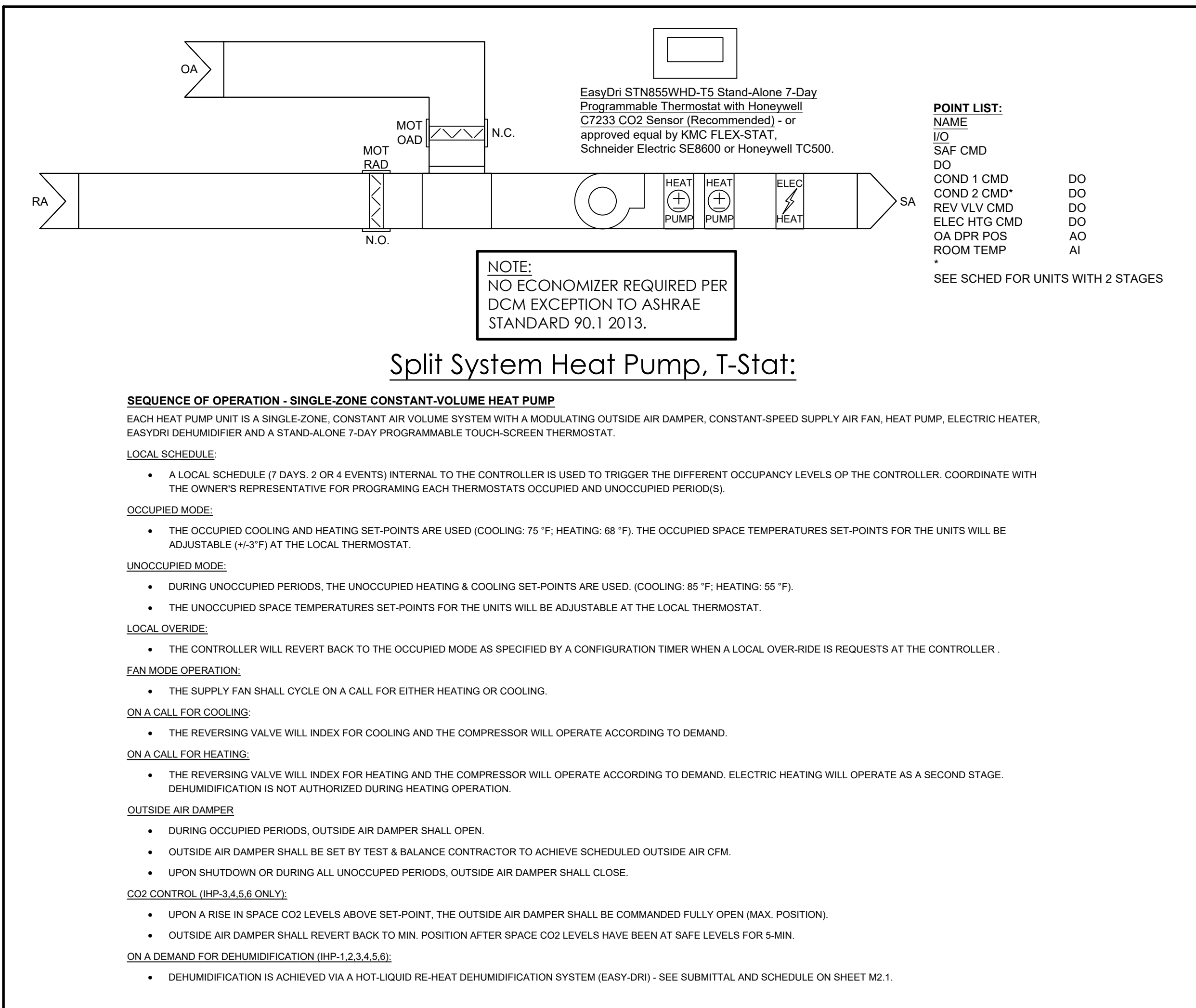


FIRE DAMPER DETAIL

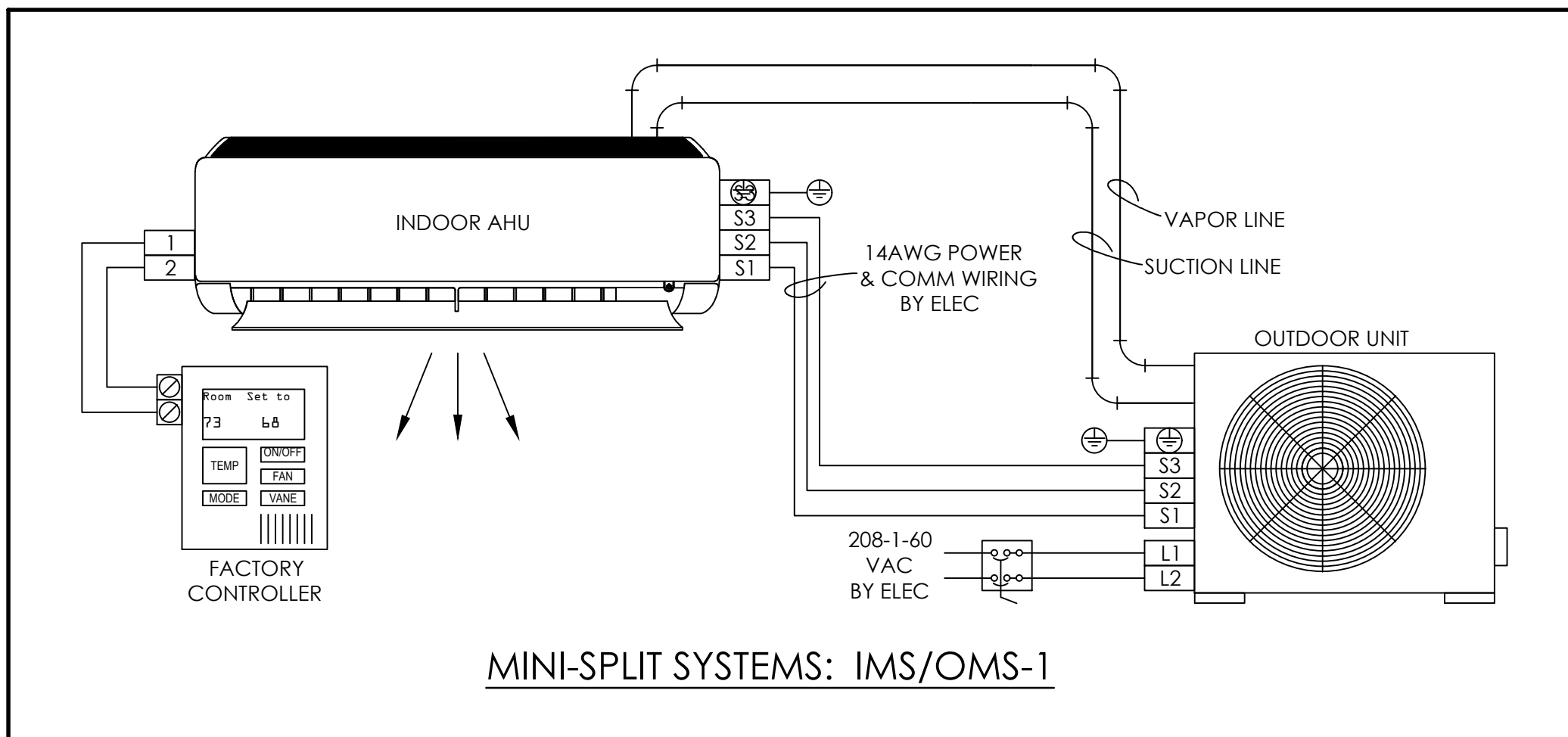
NO SCALE

2021 IMC VENTILATION CALCULATIONS	
EQUATION 4-1	$Vbz = RpPz + RaAz$
TABLE 403.3.1.2	$Ez = 1$
EQUATION 4-2	$Voz = \frac{Vbz}{Ez}$
EQUATION 4-4	$Vot = \sum \text{all zones } Voz$
EQUATION 4-5	$Zp = Voz/Vpz$
EQUATION 4-6	$Vou = 10 \times \sum \text{all zones } (RpPz) + \sum \text{all zones } (RaAz)$
EQUATION 4-7	$D = \frac{Zp}{\sum Zp}$
EQUATION 4-8	$Vot = \frac{Vou}{\sum D}$

2021 INTERNATIONAL MECHANICAL CODE REQUIRED OUTDOOR VENTILATION AIR TABLE 403.3													
UNIT TAG	ROOM	ROOM CLASSIFICATION PER TABLE 403.3	AREA FT² (Az)	EST. OCC. LOAD (Pz)	OCC. O.A RATE PER PERSON (Rp)	AREA O.A. RATE PER FT² (Ra)	TOTAL OCC. O.A. RATE (CFM) (RpPz)	TOTAL AREA O.A. RATE (CFM) (RaAz)	TOTAL O.A. (CFM) (RpPz)+(RaAz)= (Vbz)	ZONE O.A. (CFM) (Voz)	O.A. INTAKE FLOW (CFM) (Vot)	ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez)	EXHAUST RATE S.F.
IHP-1	KITCHEN 104	Kitchens (cooking)	205	0	0	0	0	0	0	0	0	0.8	0.7 (145 CFM)
	STORAGE 105	Storage Rooms	133	0	0	0.12	0	15.96	15.96	19.95	19.95	0.8	
								15.96			19.95		
IHP-2	ENTRY 108	Corridors	65	0	0	0.06	0	3.9	3.9	4.875	4.875	0.8	
	ENTRY/RECEPTION 110	Reception Areas	124	4	5	0.06	20	7.44	27.44	34.3	34.3	0.8	
		CORRIDOR 111	Corridors	306	0	0	0.06	0	18.36	18.36	22.95	22.95	
	CORRIDOR 112	Corridors	107	0	0	0.06	0	6.42	6.42	8.025	8.025	0.8	
								36.12			70.15		
IHP-3	MEETING ROOM 116	Conference/Meeting	600	30	5	0.06	150	36	186	186	186	1	
	MEETING ROOM 117	Conference/Meeting	600	30	5	0.06	150	36	186	186	186	1	
IHP-5	ASSEMBLY 101	Conference/Meeting	848	57	5	0.06	285	50.88	335.88	419.85	419.85	0.8	
	STORAGE 102	Storage Rooms	43	0	0	0.12	0	5.16	5.16	6.45	6.45	0.8	
	MECHANICAL 103	Storage Rooms	43	0	0	0.12	0	5.16	5.16	6.45	6.45	0.8	
								61.2			432.75		
IHP-6	ASSEMBLY 101	Conference/Meeting	848	57	5	0.06	285	50.88	335.88	419.85	419.85	0.8	



NOTE:
MECHANICAL CONTRACTOR IS RESPONSIBLE FOR CONTROL WIRING - ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR CONDUIT ROUGH-IN ON CONTROLS.



CEILING OUTLETS

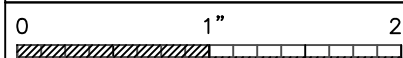
WALL OUTLETS

-  WALL MOUNTED COMBO EXIT LIGHT/EMERGENCY
 WALL MOUNTED LIGHTING FIXTURE
 WALL MOUNTED LIGHTING FIXTURE "EMERGENCY POWER"
 BATTERY OPERATED EMERGENCY WALL PACK
 DUPLX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
 DUPLX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
 DUPLX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE; PROVIDE WEATHERPROOF BOX FOR RECEPTACLE; OUTLET BOX HOODS SHALL BE IDENTIFIED AS "EXTRA-DUTY"
 DUPLX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER
 DUPLX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER
 DUPLX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 26" AFF TO C/L FOR DRINKING FOUNTAIN
 SINGLE RECEPTACLE - 30 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA L6-30R. MOUNT AS DIRECTED FOR RACK UPS SYSTEM
 SINGLE RECEPTACLE - 30 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA L6-30R. MOUNT AS DIRECTED FOR RACK UPS SYSTEM
 JUNCTION BOX SIZE NOTED OR REQUIRED, WITH BLANK SCREW COVER AND FLEXIBLE CONDUIT CONNECTION
 PHOTOCELL; TORK MODEL 5231 (120V), TWIST RECEPTACLE: TORK 2421.
 250V RECEPTACLE; 4 WIRE; MT 14" AFF TO C/L; NEMA 10-50R; HUBBELL SERIES 7962

RUN CONCEALED UNDER FLOOR OR IN GRADE
 RUN CONCEALED IN CEILING OR WALLS
 HOMERUN TO PANEL. ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES
 2 #12, 1 #12 GROUND - 3/4" C. - ~~10~~ 3 #12, 1 #12 GROUND - 3/4" C.
 1 4 #12, 1 #12 GROUND - 3/4" C. ETC. AS PER NEC. LETTERS AND
 NUMERALS INDICATE PANEL AND CIRCUIT NUMBER.
 HOMERUN TO PANEL. ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES
 2 #10, 1 #10 GROUND - 3/4" C. - ~~10~~ 3 #10, 1 #10 GROUND - 3/4" C.
 10 ~~10~~ 4 #10, 1 #10 GROUND - 1" C. ETC. AS PER NEC. LETTERS AND
 NUMERALS INDICATE PANEL AND CIRCUIT NUMBER.
 HOMERUN TO PANEL. ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES
 2 #8, 1 #10 GROUND - 1" C. - ~~8~~ 3 #8, 1 #10 GROUND - 3/4" C.
 8 4 #8, 1 #10 GROUND - 1" C. ETC. AS PER NEC. LETTERS AND
 NUMERALS INDICATE PANEL AND CIRCUIT NUMBER.
 WHERE A NUMBER IS SHOWN NEXT TO OR ON THE CIRCUIT OR HOMERUN, THE NUMBER
 INDICATES CONDUCTOR SIZE OTHER THAN #12 - NUMBER #6 CONDUCTORS INDICATED
 PROVIDE GROUND SIZED PER NEC TABLE 250-95 FOR MAX AMPACITY OF CONDUCTOR
 SIZE AS SHOWN. SIZE CONDUIT PER NEC ANNEX C.
 LIQUID-TIGHT FLEXIBLE CONDUIT CONNECTION
 SURFACE MOUNTED CONDUIT; RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES

*COORDINATE WITH LIGHTING CONTROL DETAILS FOR MORE REQUIREMENTS

3. THE SERVICE VOLTAGE TO THE FACILITY SHALL BE 208/120V, 3PH, 4-WIRE.
2. INSTALLATION SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, STATE AND LOCAL CODES, AND MANUFACTURER'S RECOMMENDATIONS.
3. MAINTAIN ALL CLEARANCES FOR ELECTRICAL EQUIPMENT PER THE NEC.
4. COORDINATE ROUGH-IN OF ALL ELECTRICAL DEVICES WITH ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND MILLWORK SHOP DRAWINGS PRIOR TO ROUGH-IN. AVOID ALL BACKSPASHES AT COUNTERS.
5. ALL DIMENSIONS INDICATED IN THESE DOCUMENTS ARE FOR REFERENCE AND COORDINATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD, AND COORDINATING WORK WITH OTHER TRADES TO AVOID CONFLICTS.
6. VERIFY ALL DOOR SWINGS WITH ARCHITECTURAL BEFORE ROUGH-IN OF LIGHT SWITCHES TO ENSURE PROPER SWITCH LOCATION.
7. THE LOCATION OF OUTLETS, FIXTURES, AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE, OFFSET AS NEEDED OR AS REQUESTED BY THE OWNER. THE OWNER SHALL HAVE THE RIGHT TO RELOCATE ANY OUTLETS OR FIXTURES BEFORE THEY ARE INSTALLED WITHOUT ANY ADDITIONAL COST.
8. COORDINATE EXACT LOCATION OF ALL ELECTRICAL FLOOR DEVICES WITH ARCHITECT PRIOR TO INSTALLATION.
9. ALL CONDUIT SIZE SHALL BE A MINIMUM 3/4" UNLESS NOTED OTHERWISE IN THE DRAWINGS OR SPECIFICATIONS.
10. ALL ELECTRICAL RACEWAYS AND CABLEING SHALL BE INSTALLED CONCEALED WITHIN THE CONFINES OF THE BUILDING FOUNDATIONS EXCEPT THOSE SPECIFICALLY SERVING LOADS OR EQUIPMENT EXTERIOR OF THE BUILDING. ALL SUCH RACEWAYS SHALL BE A MINIMUM 18" INSIDE FOUNDATIONS AND POWER AND COMMUNICATIONS RACEWAYS SHALL BE SEPARATED BY A MINIMUM 18".
11. ALL CONDUITS INSTALLED UNDERFLOOR SHALL BE ROUTED UNDER STRUCTURAL CONCRETE FLOOR SLABS. CONTRACTOR SHALL NOT INSTALL CONDUITS IN CONCRETE FLOORING WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER. CONDUITS PENETRATING THRU CONCRETE FLOORS SHALL ADHERE TO THE ELECTRICAL SPECIFICATIONS AND RECOMMENDATIONS OF THE STRUCTURAL ENGINEER.
12. ALL RACEWAYS INSTALLED ON EXTERIOR OF THE BUILDING, INCLUDING CONDUIT UNDER CANOPIES, SHALL BE GRC. EMT WILL NOT BE ACCEPTED.
13. ALL RACEWAYS SHALL BE SUPPORTED PER NEC AND AT LEAST EVERY 10' AND WITHIN 3' OF EVERY JUNCTION BOX. RACEWAYS SUPPORTED ON BOTTOM OF SECONDARY CEILING SHALL BE SUPPORTED FROM THE STRUCTURE NOT FROM THE GYPBOARD CEILING.
14. ALL EMPTY WALL MOUNTED JUNCTION BOXES SHALL BE PROVIDED WITH A WALL BLANK AND ALL EMPTY RACEWAYS SHALL BE PROVIDED WITH A PULL WIRES.
15. PROVIDE ALL CONDUIT STUBS WITH A PROTECTIVE COLLAR.
16. INSURE THAT ALL PENETRATIONS OF FIRE WALLS AND DECKS ARE PROPERLY SEALED PER INTERNATIONAL BUILDING CODE 712 AND WITH AN UL APPROVED DEVICE OR FIRE CAULK. REFER TO ARCHITECTURAL PLANS FOR THE LOCATIONS OF RATED FIRE WALLS AND UL ASSEMBLY LOCATIONS AND TYPES AND BID ACCORDINGLY.
17. PROVIDE A CONDUIT EXPANSION JOINTS WITH BONDING JUMPER IN ALL CONDUITS CROSSING AN EXPANSION JOINT. REFER TO ARCHITECTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS.
18. ALL UNDERGROUND CONDUITS RUNS ENTERING THE BUILDING SHALL BE SEALED TO PREVENT THE ENTRANCE OF MOISTURE.
19. ALL FLEXIBLE CONDUITS ON THE EXTERIOR, IN WET LOCATIONS OR ANY MECHANICAL ROOM SHALL BE LIQUID TIGHT WITH SUITABLE FITTINGS.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING AROUND DEVICES, PENETRATIONS, OUTLETS, AND CONDUITS THAT PENETRATE THE WALLS ABOVE THE CEILING TO MAINTAIN SOUNDPROOFING. CONTRACTOR SHALL VERIFY THAT THE OPENINGS SIZES ARE LESS THAN 1/2" ON ALL SIDES OF THE PENETRATIONS. ALL OPENINGS IN EXCESS OF 1/2" SHALL BE CAULKED/SEALED WITH SHEET ROCK MUD. THE DRYWALL CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING PENETRATIONS IN PLACE WHEN THE SHEETROCK ARE INSTALLED. PENETRATIONS MADE AFTER THE DRYWALL CONTRACTOR HAS FINISHED IN AN AREA SHALL BE SEALED BY THE CONTRACTOR MAKING THE PENETRATION.
21. PLANNED INTERRUPTIONS OF UTILITY SERVICE TO ANY EXISTING FACILITY OR AREAS WITHIN ANY FACILITY AFFECTED BY THIS CONTRACT, SHALL BE CAREFULLY PLANNED AND COORDINATED IN ADVANCE OF THE REQUESTED INTERRUPTION. THE CONTRACTOR SHALL NOT INTERRUPT SERVICES UNTIL SPECIFIED APPROVAL HAS BEEN GRANTED. THE REQUEST SHALL INDICATE SERVICES AND AREAS TO BE AFFECTED, DATE AND TIME OF INTERRUPTION AND DURATION OF OUTAGE. REQUEST FOR INTERRUPTION OF SERVICE WILL NOT BE APPROVED UNTIL ALL EQUIPMENT AND MATERIAL REQUIRED FOR THE COMPLETION OF THAT PARTICULAR PHASE OF WORK ARE ON THE JOB SITE. CONTRACTOR IS RESPONSIBLE FOR ALL OVERTIME, HOLIDAY, AND WEEKEND PAY TO THEIR EMPLOYEES TO DO THIS WORK DURING SCHEDULED NON-NORMAL WORK HOURS.
22. BUILDING OWNER MUST RECEIVE RECORD DRAWINGS AND MANUALS THAT PROVIDE INSTRUCTIONS ABOUT THE OPERATION AND MAINTENANCE OF THE BUILDING'S ELECTRICAL DISTRIBUTION SYSTEM.
23. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS FOR OCCUPANCY SENSORS. PROVIDE PROPER NUMBER OF POWER PACKS AND LOCATE POWER PACKS AND OCCUPANCY SENSORS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
24. ALL JUNCTION BOX COVERS ABOVE THE CEILING SHALL BE CLEARLY MARKED WITH WHICH CIRCUITS OR ELECTRICAL SYSTEM THEY CONTAIN.
25. HVAC EQUIPMENT POWER WIRING SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. CONTROL EQUIPMENT AND CONTROL WIRING SHALL BE FURNISHED UNDER DIVISION 15 UNLESS OTHERWISE NOTED. PROVIDE 3/4" CONDUITS WITH PULL WIRE BETWEEN INSIDE AND OUTSIDE UNITS, THERMOSTAT OUTLETS AND UNITS AND/OR MECHANICAL CONTROL PANEL AS APPLICABLE. THERMOSTAT OUTLETS SHALL BE 4" SQUARE OUTLETS, FLUSH MOUNTED WITH SINGLE GANG OR DOUBLE GANG PLASTER RINGS AS DIRECTED BY THE HVAC CONTRACTOR. COORDINATE EXACT LOCATION OF ALL EQUIPMENT, DEVICES, OUTLETS, ETC, WITH THE MECHANICAL DRAWINGS AND DIVISION 15 SPECIFICATIONS. COORDINATE WITH THE HVAC CONTRACTOR FOR EXACT LOCATIONS OF ALL EQUIPMENT.
26. ELECTRICAL DRAWINGS SHALL BE CAREFULLY COORDINATED WITH FOOD SERVICE DRAWINGS. REFER TO FOOD SERVICE DRAWINGS FOR EQUIPMENT LEGENDS, ROUGH-IN DIMENSIONS, AND OTHER SPECIFIC EQUIPMENT REQUIREMENTS.
27. ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT LOCATION, POWER REQUIREMENTS, AND TYPE AND LOCATION OF ALL POWER AND CONTROL TERMINATIONS FOR ALL FOOD SERVICE EQUIPMENT PRIOR TO ROUGH-IN.
28. ALL FIELD POWER AND CONTROL WIRING REQUIRED FOR FOOD SERVICE EQUIPMENT SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE INDICATED. PROVIDE ALL MATERIAL AND LABOR AS REQUIRED FOR COMPLETE INSTALLATION OF FOOD SERVICE EQUIPMENT. INCLUDING RECEPTABLES, MATCHING PLUGS, MATCHING CORD CONNECTORS, CORD SETS, DISCONNECT SWITCHES, SWITCHING CIRCUITS, CONTROL CIRCUITING, AND THE INSTALLATION OF ANY POWER OR CONTROL COMPONENTS SHIPPED LOOSE.
29. PROVIDE AND INSTALL ALL CIRCUITING AND AUXILIARY EQUIPMENT NECESSARY TO INTERLOCK THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM WITH SUPPLY AND EXHAUST FAN STARTERS, SHUNT TRIP CIRCUIT BREAKERS, NATURAL GAS CUTOFF SOLENOID VALVES, AND THE FIRE ALARM SYSTEM. THE EXHAUST FAN SHALL REMAIN ON WHEN THE FIRE SUPPRESSION SYSTEM IS ACTIVATED. IF THE EXHAUST FAN IS NOT ON WHEN THE SUPPRESSION SYSTEM IS ACTIVATED IT SHALL BE STARTED. THE SUPPLY FAN, HOOD LIGHTS, AND ALL APPLIANCES AND OUTLETS UNDER THE HOOD SHALL BE DEENERGIZED WHEN THE SUPPRESSION SYSTEM IS ACTIVATED.



UNDERGROUND UTILITY NOTES:

- THE UNDERGROUND UTILITY PORTION OF THIS PROJECT CONSISTS OF BUT IS NOT LIMITED TO:
 - TRENCHING/BACKFILLING FOR DUCT LINES AND CONDUIT SYSTEMS
 - DUCTBANK INSTALLATIONS
 - LOW VOLTAGE CONDUCTOR INSTALLATION
 - PATCH/REPAIR ALL DAMAGED SURFACES AS A RESULT OF DUCTLINE INSTALLATIONS
- INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL SAFETY CODE (NESC) AND THE NATIONAL ELECTRICAL CODE (NEC).
- ALL CONDUCTIVE PARTS OF EQUIPMENT, ENCLOSURES, SUPPORTS, FRAMES, CASES, CONDUIT SYSTEMS AND SURGE ARRESTORS, CABLE SHEATHS, CABLE SHIELDS, COMMON NEUTRALS, ETC., SHALL BE GROUNDED. UNLESS NOTED OTHERWISE CONNECTIONS BELOW GRADE SHALL BE FUSION-WELDED AND ABOVE GRADE FUSION-WELDED OR BOLTED SOLDERLESS. ALL GROUND CONDUCTORS SHALL BE COPPER.
- ALL CLEARANCES SHALL BE MAINTAINED PER NESC AND NEC. ALL PARTS, DEVICES, EQUIPMENT, ETC. WHICH REQUIRE MAINTENANCE, ADJUSTMENT, OPERATION OR EXAMINATION DURING NORMAL NETWORK OPERATION SHALL BE ARRANGED SO AS TO BE ACCESSIBLE BY THE PROVISION OF ADEQUATE WORKING SPACES, WORKING FACILITIES AND CLEARANCES. UNLESS NOTED OTHERWISE ALL CLEARANCES ARE MEASURED FROM SURFACE TO SURFACE.
- ALL DIMENSIONS INDICATED IN THESE DOCUMENTS ARE FOR REFERENCE AND COORDINATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD.
- UNLESS OTHERWISE SHOWN OR DIRECTED DUCT LINES SHALL NOT BE LOCATED DIRECTLY UNDER STRUCTURES AND NOT DIRECTLY UNDER OR OVER OTHER SUBSURFACE STRUCTURES. WHERE DUCT LINES ARE REQUIRED TO CROSS OTHER UTILITIES SUCH AS SEWERS, WATER LINES, OTHER POWER LINES, COMMUNICATION LINES, ETC., ADEQUATE SUPPORT SHALL BE PROVIDED ON EACH SIDE OF THE CROSSING TO PREVENT TRANSFERRING ANY DIRECT LOAD ONTO THE OTHER LINE. DUCT LINES SHALL BE SO INSTALLED AS TO PREVENT HEAT TRANSFER BETWEEN ANY HEAT PRODUCING LINES AND/OR EQUIPMENT TO DUCT LINES.
 - ROUTING SHOWN ON DRAWINGS IS TYPICAL AND THE CONTRACTOR SHALL PROPOSE FINAL ROUTING BASED UPON ACTUAL FIELD DIMENSIONS, CONDITIONS AND EXISTING UNDERGROUND UTILITIES AND STRUCTURES.
 - PRIOR TO TRENCHING, THE CONTRACTOR SHALL STAKE OUT THE ENTIRE NETWORK ARRANGEMENT. ONE GRADE A WOODEN STAKE WITH RED FLAG SHALL BE DRIVEN EVERY 50'-0" AND AT EACH CHANGE OF DIRECTION. FOUR STAKES SHALL BE DRIVEN TO OUTLINE EQUIPMENT AND/OR MANHOLE LOCATIONS. ON PAVEMENTS RED PAINT SHALL BE USED TO OUTLINE THE AREAS TO BE CUT. SECURE EXISTING UNDERGROUND UTILITY INFORMATION FROM THE CONTRACTING OFFICER PRIOR TO PERFORMING ANY TRENCHING.
 - DEPTHS INDICATED FOR INSTALLATION ARE MINIMUM. ACTUAL DEPTHS MAY VARY DUE TO TERMINATIONS, COMPENSATIONS FOR RADIUS OF VERTICAL TRANSITIONS, EXISTING UTILITY CROSSINGS, ETC. APPROVAL SHALL BE OBTAINED FOR ANY DEPTH LESS THAN INDICATED. TRENCHES SHALL BE OVER-EXCAVATED AS NECESSARY TO ALLOW FOR PROPER TRENCH PREPARATION, DUCT BANK CONSTRUCTION, FORMING AND/OR BACKFILLING REQUIREMENTS.
 - ALL TRENCHING AND BACKFILL COMPACTION SHALL COMPLY WITH GEOTECHNICAL REPORT AND DIVISION 200.
 - CALL 811 TO LOCATE UTILITIES BEFORE YOU DIG. COORDINATE WITH OWNER FOR THEIR KNOWLEDGE OF THE SITE ALSO.

GENERAL NOTES:

- LOCATIONS OF RISER POLES, AND TRANSFORMERS SHALL BE COORDINATED PRIOR TO BIDS. ADJUST FEEDER AND CONDUIT LENGTHS ACCORDINGLY. PAY ALL UTILITY COMPANY FEES. BID ACCORDINGLY.
- COORDINATE WITH POWER RISER DIAGRAMS FOR FEEDER AND CONDUIT SIZES AND ALL OTHER ADDITIONAL REQUIREMENTS NOT SHOWN ON SITE PLAN.
- ALL UNDERGROUND CONDUITS SHALL BE 36" MINIMUM BELOW GRADE. PRIMARY CONDUIT SHALL BE MINIMUM 48" BELOW GRADE.
- ALL ROUTING IS SHOWN DIAGRAMMATIC. VERIFY ACTUAL ROUTING AND FIELD CONDITIONS PRIOR TO BIDS.
- CONTRACTOR SHALL LABEL ALL CONDUITS ENTERING AND EXITING COMMUNICATIONS HAND HOLES AND BACKBOARDS.
- SEE TYPICAL TRENCH/DUCT DETAILS FOR ALL SURFACES. WORK SHALL COMPLY WITH DETAILS.
- SEE SHEET COMMUNICATIONS RISER DIAGRAMS ON SHEET E6.2 FOR ADDITIONAL REQUIREMENTS.

SITE LEGEND

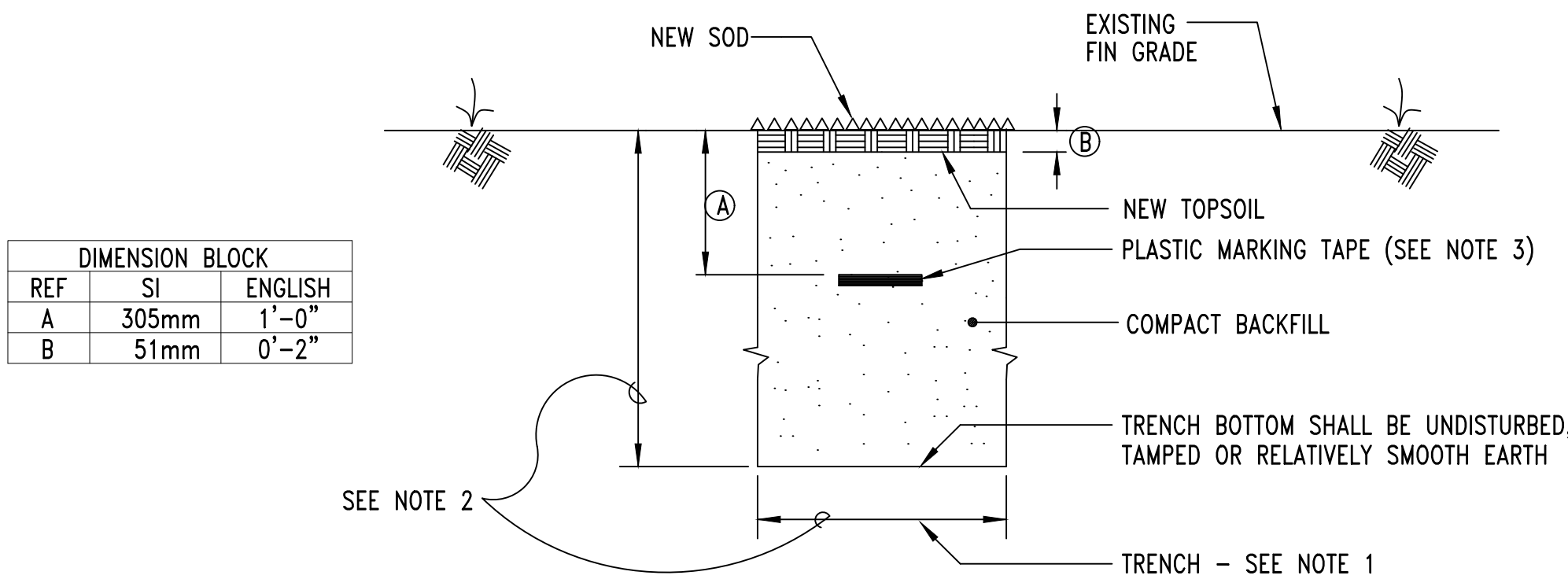
- UP --- UNDERGROUND PRIMARY
- US --- UNDERGROUND SECONDARY
- UC --- UNDERGROUND COMMUNICATIONS
- TM PAD MOUNTED TRANSFORMER
- JB NEW IN GRADE PULLBOX. PROVIDE 30"x48"x30"D IN-GRADE JUNCTION BOX FOR COMMUNICATIONS SYSTEM. BOX SHALL BE COMPOSITE MATERIAL OF HIGH STRENGTH WITH COVER AND STAINLESS STEEL INSERTS. COVER SHALL HAVE LOGO INDICATING CONTENTS WITHIN COMMUNICATIONS BOX SHALL BE DESIGNED FOR TIER 15 RATING. MOUNT COVER FLUSH WITH GRADE. MOUNT ON A 12 INCH GRAVEL BED WITH 9 INCHES OF CONCRETE AROUND PERIMETER AND A 3 INCH SOIL TOP. SUBMIT BOX AND COVERS FOR APPROVAL. APPROVED MANUFACTURERS: CDR SYSTEMS CORP., HUBBELL, OLD CASTLE, HIGHLINE, QUATZITE.
- W JB 8"x8"x4" WEATHERPROOF JUNCTION BOX. INSTALL TOP OF BOX FLUSH WITH GRADE.

SHEET NOTES:

- CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY FOR EXACT STUB OUT FOR PRIMARY CONDUITS AND EXACT LOCATION OF NEW PAD-MOUNTED TRANSFORMER AND ADJUST SECONDARY AND PRIMARY LENGTHS ACCORDINGLY. PROVIDE CONCRETE PAD AND METERING PER THEIR REQUIREMENTS FOR THE TRANSFORMER.
- CONTRACTOR SHALL PROVIDE TWO (2) 2" CONDUIT FROM NEW PULLBOX TO NEW MDF. PROVIDE ADDITIONAL 1500LB MULE TAPE IN CONDUIT AFTER PULLING FIBER.
- CONTRACTOR SHALL PROVIDE TWO (2) 2" CONDUIT FROM NEW MDF TO COMMUNICATION DEMARK PEDESTAL.
- PROVIDE TWO 1 1/4" UNDERGROUND CONDUITS STUBBED FROM ELECTRICAL ROOM TO OUTSIDE THE BUILDING. DO NOT STUB UP INTO ANY PANEL. STUB UP NEAR PANEL.

NOTES:

- TRENCH/CUT EXISTING SURFACES. BACKFILL/PATCH/REPAIR AND INSTALL NEW SOD.
- TRENCH DEPTH AND WIDTH SHALL BE AS REQUIRED FOR THE INSTALLATION OF THE RACEWAY LINE SPECIFIED. SEE APPLICABLE RACEWAY LINE SECTION.
- PLASTIC MARKER TAPE SHALL BE RED AND CONTAIN FOIL BACKING OR EQUIVALENT TO ENABLE DETECTION BY A METAL DETECTOR. SEE SPECIFICATIONS.

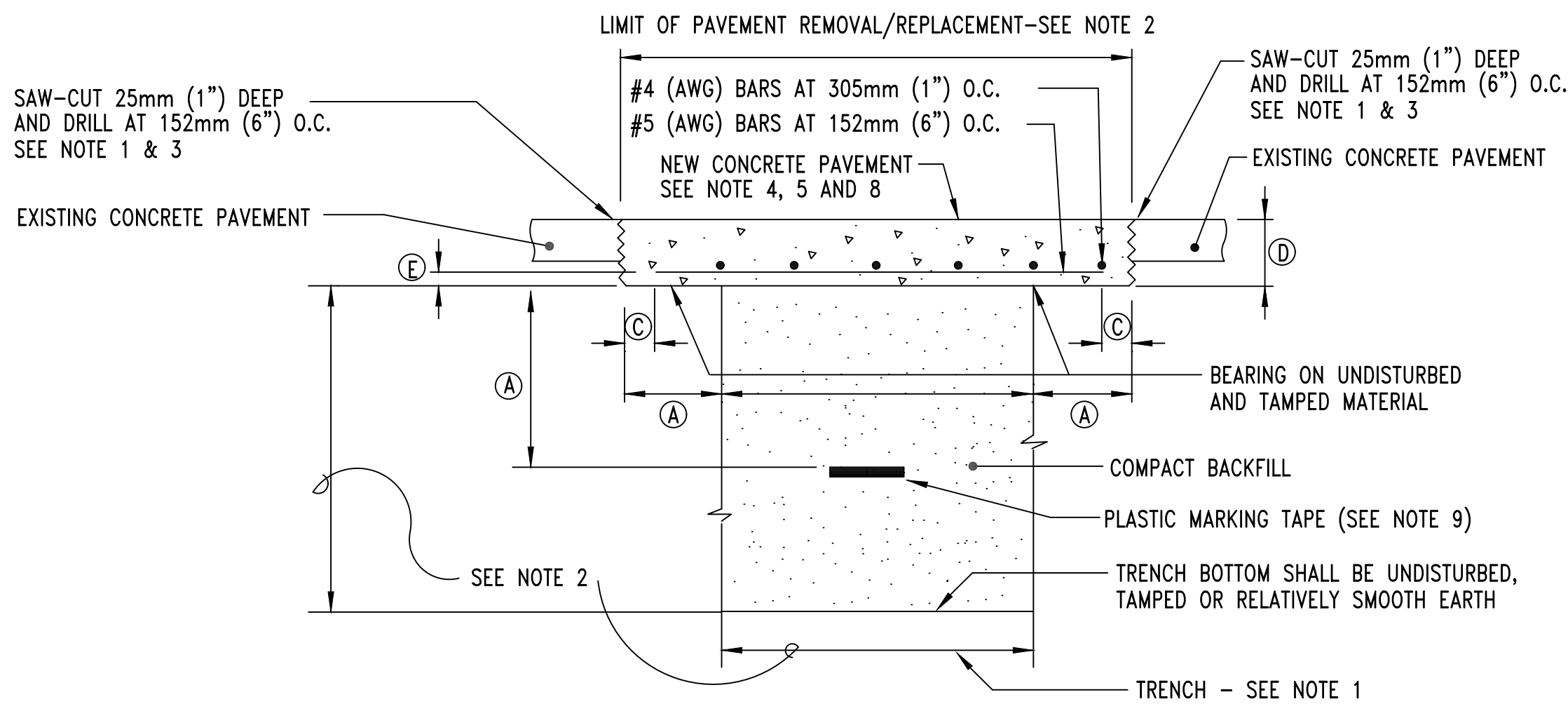


4 SECTION - TYPICAL TRENCH/BACKFILL/REPAIR SODDED AREAS
E1.1 NO SCALE

NOTES:

- TRENCH/CUT EXISTING SURFACES. BACKFILL/PATCH/REPAIR ALL SURFACES AS SHOWN.
- TRENCH DEPTH AND WIDTH SHALL BE AS REQUIRED FOR THE INSTALLATION OF THE RACEWAY LINE SPECIFIED. SEE APPLICABLE RACEWAY LINE SECTION.
- PAVEMENT REMOVAL SHALL BE COMPLETE FROM THE SITE AND EXTEND BEYOND THE TRENCH WIDTH AS INDICATED.
- CONCRETE SHALL BE CLASS A.
- MATCH THICKNESS OF EXISTING CONCRETE PAVEMENT 8" (20.32cm) MIN.
- LEAVE DRILLED FACE OF EXISTING PAVEMENT IRREGULAR TO INSURE KEY TO NEW CONCRETE PAVEMENT.
- ALL EXISTING JOINTS TO BE RE-ESTABLISHED.
- REINFORCING BARS SHALL MEET ASTM A615, A616 OR A617, GRADE 40.
- REINFORCING BARS SHALL BE INSTALLED THE CONTINUOUS LENGTH OF CONCRETE PAVEMENT.
- PLASTIC MARKER TAPE SHALL BE RED AND CONTAIN FOIL BACKING OR EQUIVALENT TO ENABLE DETECTION BY A METAL DETECTOR. SEE SPECIFICATIONS.

DIMENSION BLOCK		
REF	SI	ENGLISH
A	305mm	1'-0"
B	152mm	0'-6"
C	51mm	0'-2"
D	203mm	0'-8"
E	76mm	0'-3"

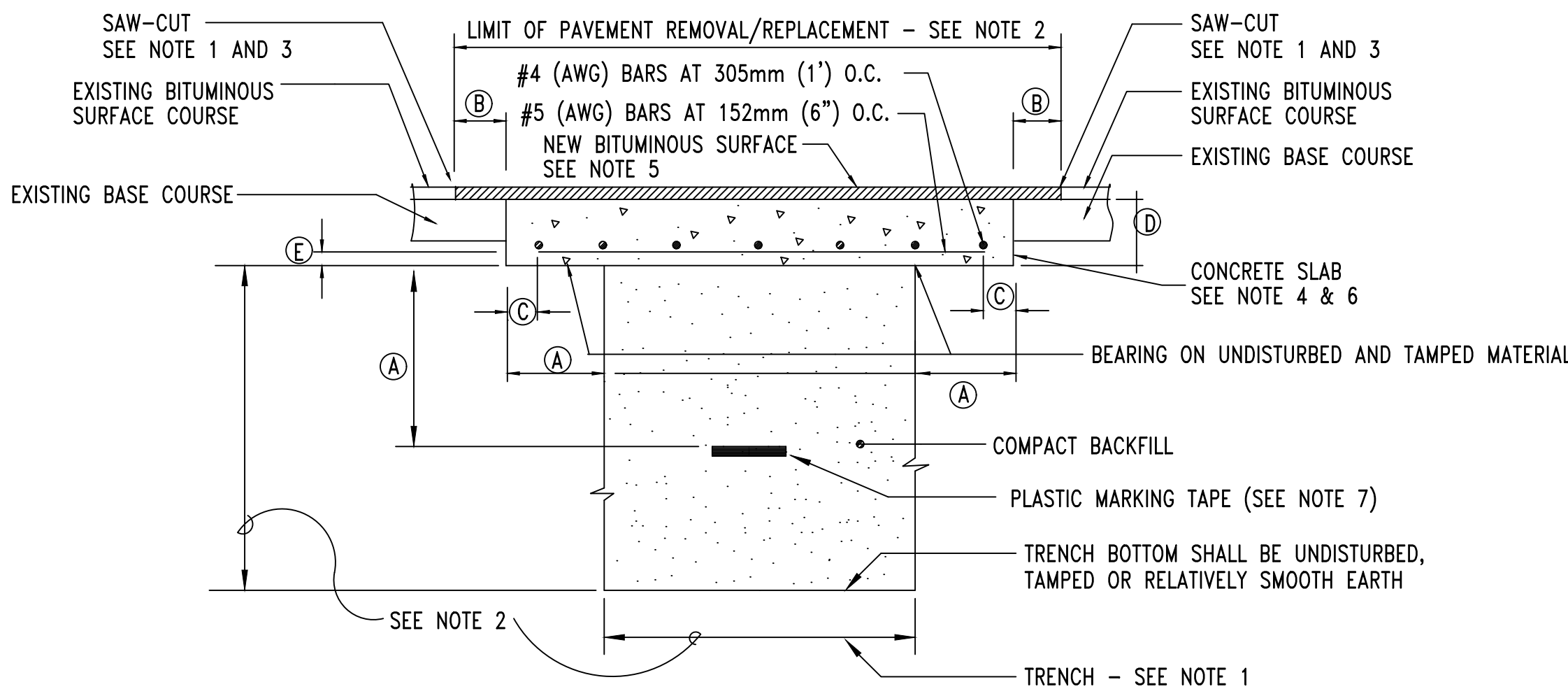


3 SECTION - TYPICAL TRENCH/BACKFILL/REPAIR RIGID PAVEMENT
E1.1 NO SCALE

NOTES:

- TRENCH/CUT EXISTING SURFACES. BACKFILL/PATCH/REPAIR ALL SURFACES AS SHOWN.
- TRENCH DEPTH AND WIDTH SHALL BE AS REQUIRED FOR THE INSTALLATION OF THE RACEWAY LINE SPECIFIED. SEE APPLICABLE RACEWAY LINE SECTION.
- PAVEMENT REMOVAL SHALL BE COMPLETE FROM THE SITE AND EXTEND BEYOND THE TRENCH WIDTH AS INDICATED.
- CONCRETE SHALL BE CLASS A.
- MATCH THICKNESS OF EXISTING BITUMINOUS SURFACE, OR 38mm (1.5") MINIMUM, WHICHEVER IS GREATER.
- REINFORCING BARS SHALL MEET ASTM A615, A616 OR A617, GRADE 40.
- REINFORCING BARS SHALL BE INSTALLED THE CONTINUOUS LENGTH OF CONCRETE SLAB.
- PLASTIC MARKER TAPE SHALL BE RED AND CONTAIN FOIL BACKING OR EQUIVALENT TO ENABLE DETECTION BY A METAL DETECTOR. SEE SPECIFICATIONS.

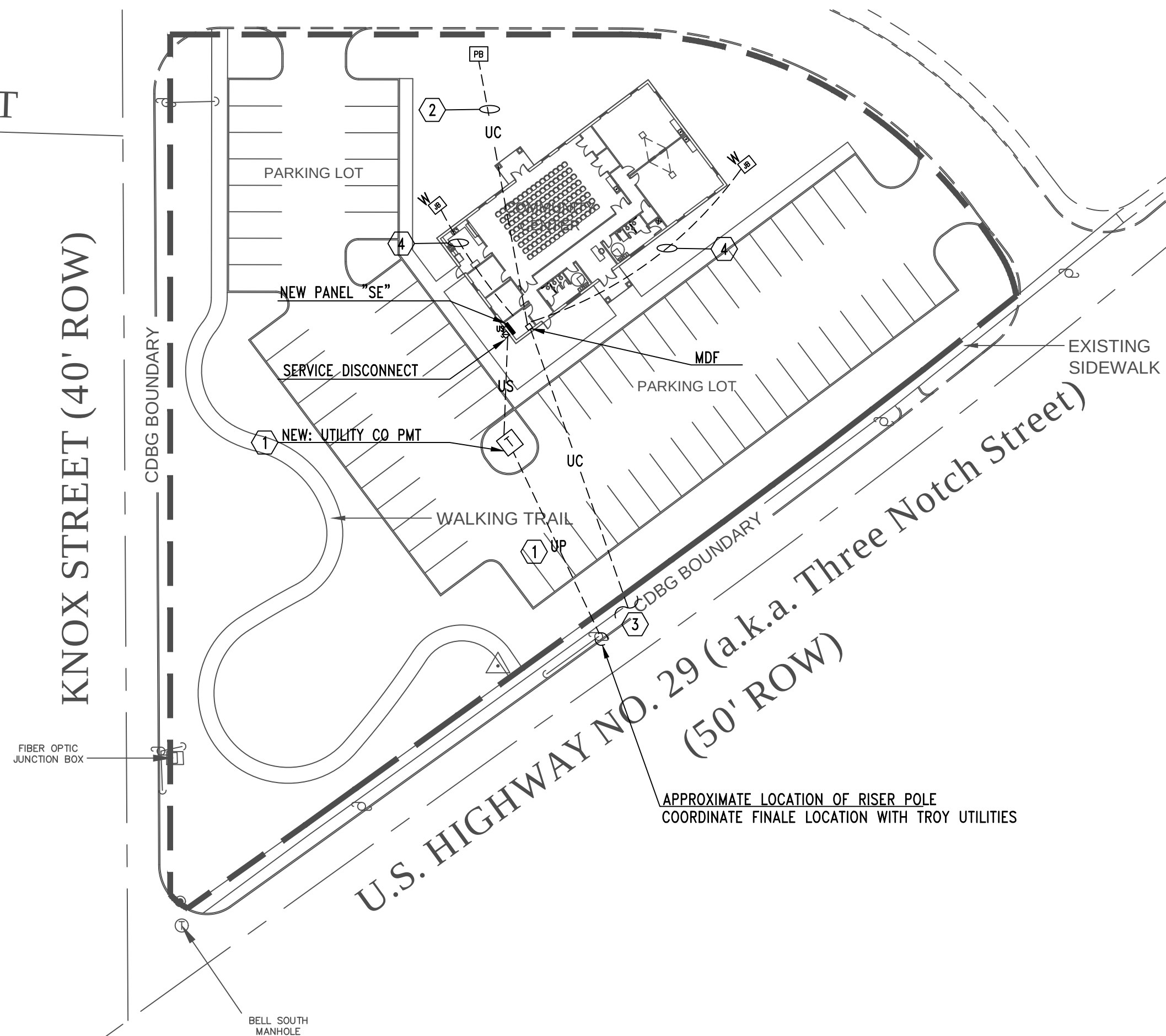
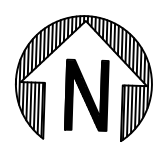
DIMENSION BLOCK		
REF	SI	ENGLISH
A	305mm	1'-0"
B	152mm	0'-6"
C	51mm	0'-2"
D	203mm	0'-8"
E	76mm	0'-3"



2 SECTION - TYPICAL TRENCH/BACKFILL/REPAIR FLEXIBLE PAVEMENT
E1.1 NO SCALE

WATKINS STREET

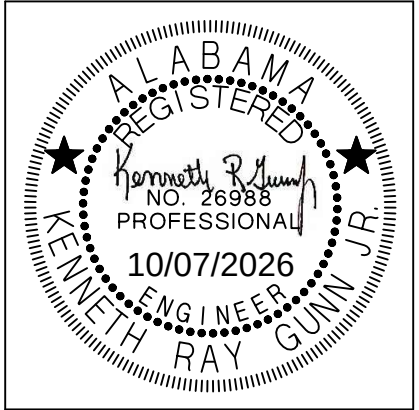
KNOX STREET (40' ROW)



1 SITE PLAN - ELECTRICAL
E1.1 SCALE: 1" = 40'-0"

SCALE: 1" = 40'-0"
40' 20' 0' 40' 80FT
GRAPHIC SCALE

Gunn & Associates, P.C.
Consulting Engineers
3102 Highway 14
Millbrook, AL 36054
Tel: 334.285.1273
1200 Providence Park, Suite 200
Birmingham, AL 35242
GA#26-153

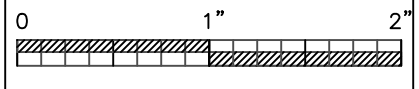


PROJ. MGR.:	J. TILLERY
DRAWN:	J. TILLERY
DATE:	10-07-2026
REVISIONS	

JOB NO. MKA-24-261-00

SHEET NO:

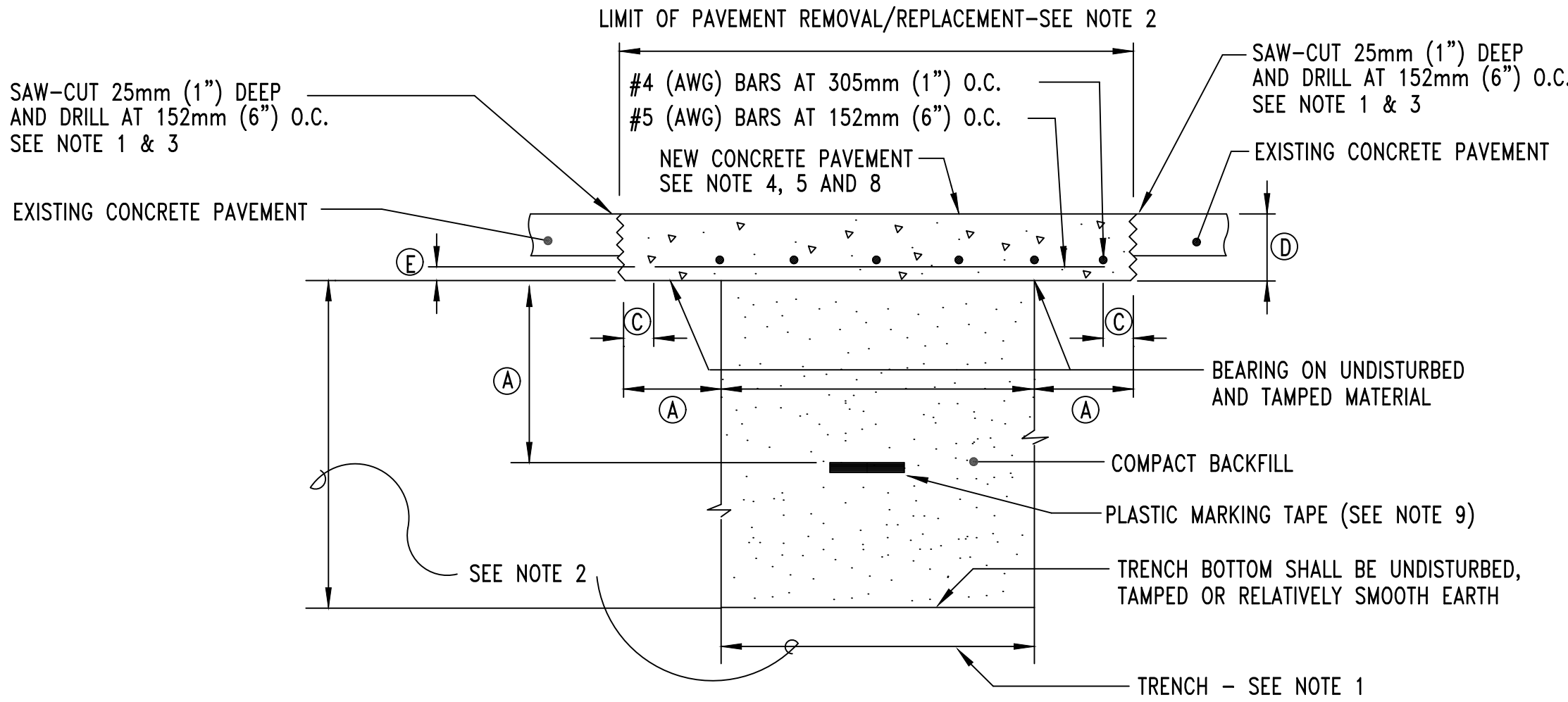
E1.2



DIMENSION BLOCK		
REF	SI	ENGLISH
A	305mm	1'-0"
B	152mm	0'-6"
C	51mm	0'-2"
D	203mm	0'-8"
E	76mm	0'-3"

NOTES:

1. TRENCH/CUT EXISTING SURFACES. BACKFILL/PATCH/REPAIR ALL SURFACES AS SHOWN.
2. TRENCH DEPTH AND WIDTH SHALL BE AS REQUIRED FOR THE INSTALLATION OF THE RACEWAY LINE SPECIFIED. SEE APPLICABLE RACEWAY LINE SECTION.
3. PAVEMENT REMOVAL SHALL BE COMPLETE FROM THE SITE AND EXTEND BEYOND THE TRENCH WIDTH AS INDICATED.
4. CONCRETE SHALL BE CLASS A.
5. MATCH THICKNESS OF EXISTING CONCRETE PAVEMENT 8" (20.32cm) MIN.
6. LEAVE DRILLED FACE OF EXISTING PAVEMENT IRREGULAR TO INSURE KEY TO NEW CONCRETE PAVEMENT.
7. ALL EXISTING JOINTS TO BE RE-ESTABLISHED.
8. REINFORCING BARS SHALL MEET ASTM A615, A616 OR A617, GRADE 40.
9. REINFORCING BARS SHALL BE INSTALLED THE CONTINUOUS LENGTH OF CONCRETE PAVEMENT.
9. PLASTIC MARKER TAPE SHALL BE RED AND CONTAIN FOIL BACKING OR EQUIVALENT TO ENABLE DETECTION BY A METAL DETECTOR. SEE SPECIFICATIONS.

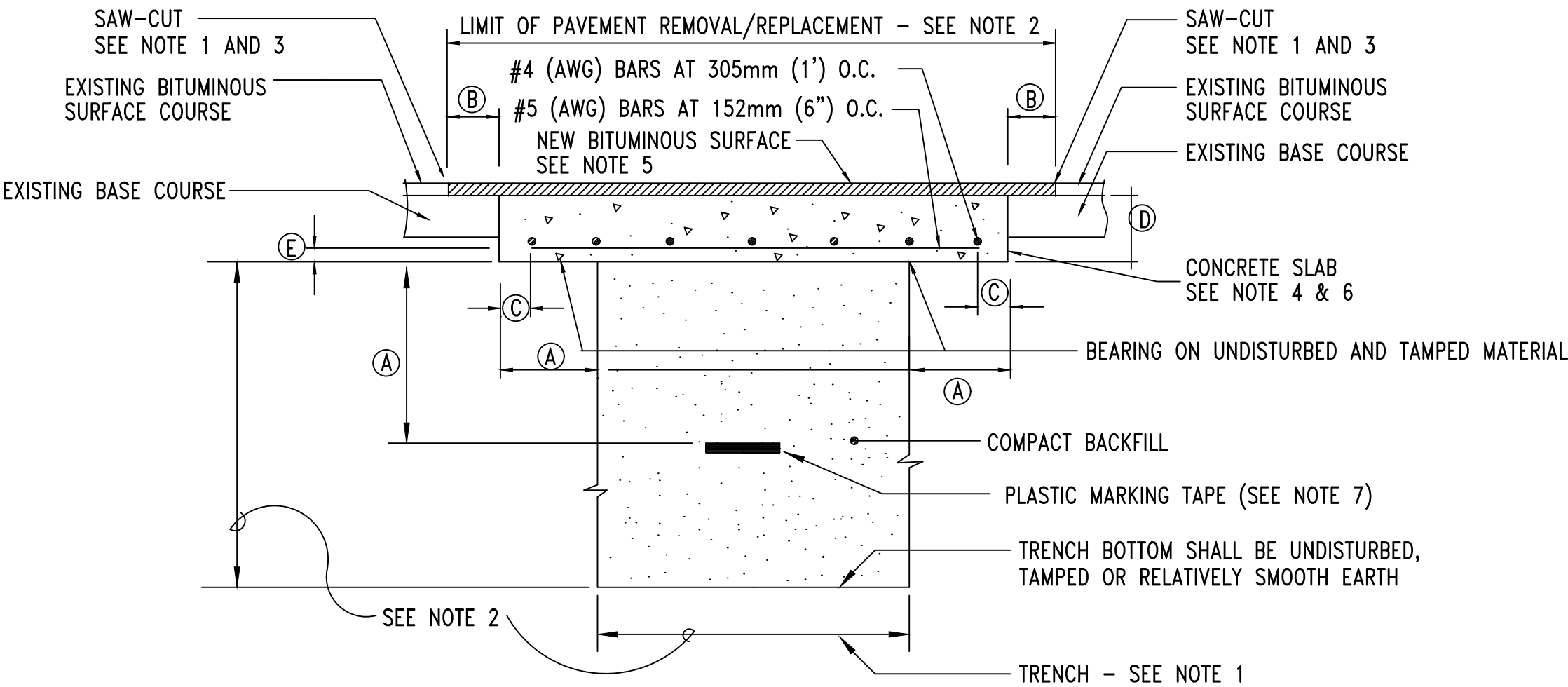


2 SECTION - TYPICAL TRENCH/BACKFILL/REPAIR RIGID PAVEMENT
E1.2 NO SCALE

DIMENSION BLOCK		
REF	SI	ENGLISH
A	305mm	1'-0"
B	152mm	0'-6"
C	51mm	0'-2"
D	203mm	0'-8"
E	76mm	0'-3"

NOTES:

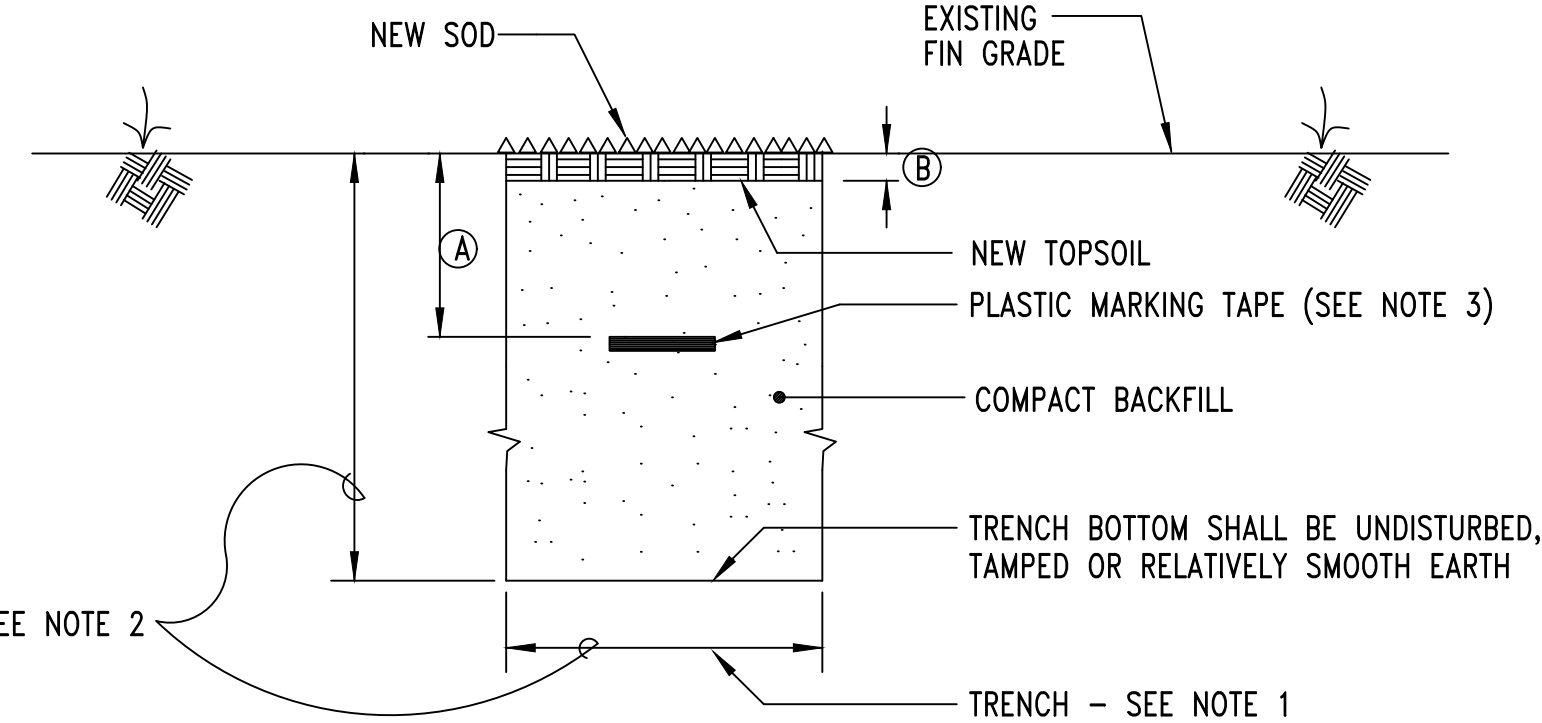
1. TRENCH/CUT EXISTING SURFACES. BACKFILL/PATCH/REPAIR ALL SURFACES AS SHOWN.
2. TRENCH DEPTH AND WIDTH SHALL BE AS REQUIRED FOR THE INSTALLATION OF THE RACEWAY LINE SPECIFIED. SEE APPLICABLE RACEWAY LINE SECTION.
3. PAVEMENT REMOVAL SHALL BE COMPLETE FROM THE SITE AND EXTEND BEYOND THE TRENCH WIDTH AS INDICATED.
4. CONCRETE SHALL BE CLASS A.
5. MATCH THICKNESS OF EXISTING BITUMINOUS SURFACE, OR 38mm (1.5") MINIMUM, WHICHEVER IS GREATER.
6. REINFORCING BARS SHALL MEET ASTM A615, A616 OR A617, GRADE 40.
7. REINFORCING BARS SHALL BE INSTALLED THE CONTINUOUS LENGTH OF CONCRETE SLAB.
7. PLASTIC MARKER TAPE SHALL BE RED AND CONTAIN FOIL BACKING OR EQUIVALENT TO ENABLE DETECTION BY A METAL DETECTOR. SEE SPECIFICATIONS.



1 SECTION - TYPICAL TRENCH/BACKFILL/REPAIR FLEXIBLE PAVEMENT
E1.2 NO SCALE

NOTES:

1. TRENCH/CUT EXISTING SURFACES. BACKFILL/PATCH/REPAIR AND INSTALL NEW SOD.
2. TRENCH DEPTH AND WIDTH SHALL BE AS REQUIRED FOR THE INSTALLATION OF THE RACEWAY LINE SPECIFIED. SEE APPLICABLE RACEWAY LINE SECTION.
3. PLASTIC MARKER TAPE SHALL BE RED AND CONTAIN FOIL BACKING OR EQUIVALENT TO ENABLE DETECTION BY A METAL DETECTOR. SEE SPECIFICATIONS.



3 SECTION - TYPICAL TRENCH/BACKFILL/REPAIR SODDED AREAS
E1.2 NO SCALE

ROOM CONTROLLER NOTES:

1. CONTRACTOR SHALL LOCATE ALL ROOM CONTROLLERS ABOVE DOORS IN EACH ROOM 6" ABOVE CEILING GRID. PROVIDE ACCESS PANELS WHERE LOCATED ABOVE HARD CEILINGS OR MOUNT IN UTILITY TYPE ROOMS WHENEVER POSSIBLE. ROOM CONTROLLERS SHOWN ON THIS PLAN IS DIAGRAMMATIC FOR CIRCUITRY. DO NOT USE THESE FOR ACTUAL LOCATIONS. PROVIDE A WHITE PHENOLIC LABEL WITH 1" BLACK TEXT THAT READS "RC" GLUED ON CEILING GRID UNDER POWER PACK FOR EACH LOCATION FOR FUTURE MAINTENANCE.

PHOTOCONTROL OF LIGHTING:

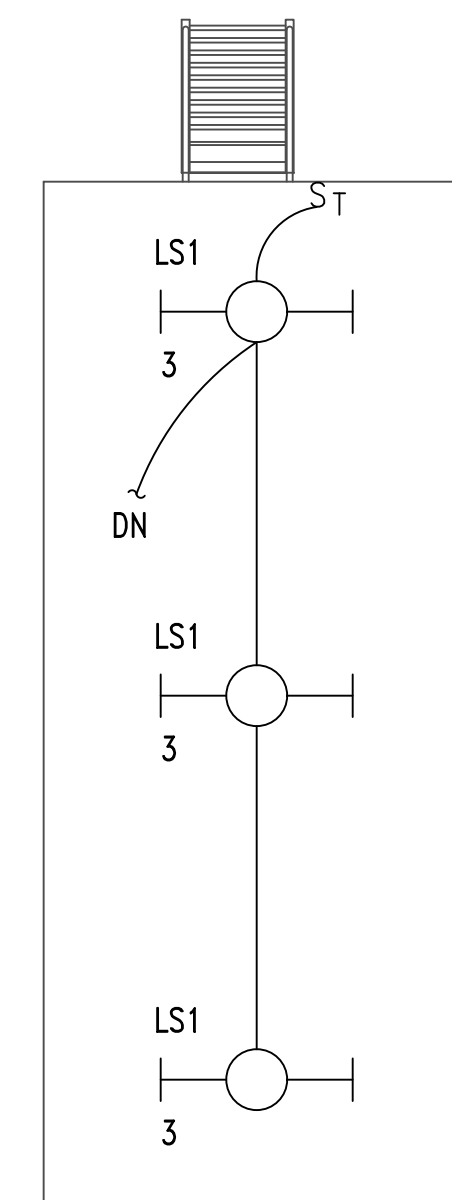
1. PHOTOCONTROL OF LIGHT FIXTURES WILL NOT BE REQUIRED FOR THE AREAS ON THIS PAGE. THE PRIMARY SIDELIGHTED AREA WILL NOT HAVE WATTAGES EXCEEDING 150W.

GENERAL NOTES:

1. PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRE HOMERUN PER NEC.
2. COORDINATE WITH LIGHTING CONTROL DETAILS FOR ADDITIONAL REQUIREMENTS.
3. SEE LIGHTING CONTROL DETAILS ON SHEET E2.2 FOR ADDITIONAL REQUIREMENTS.

SHEET NOTES:

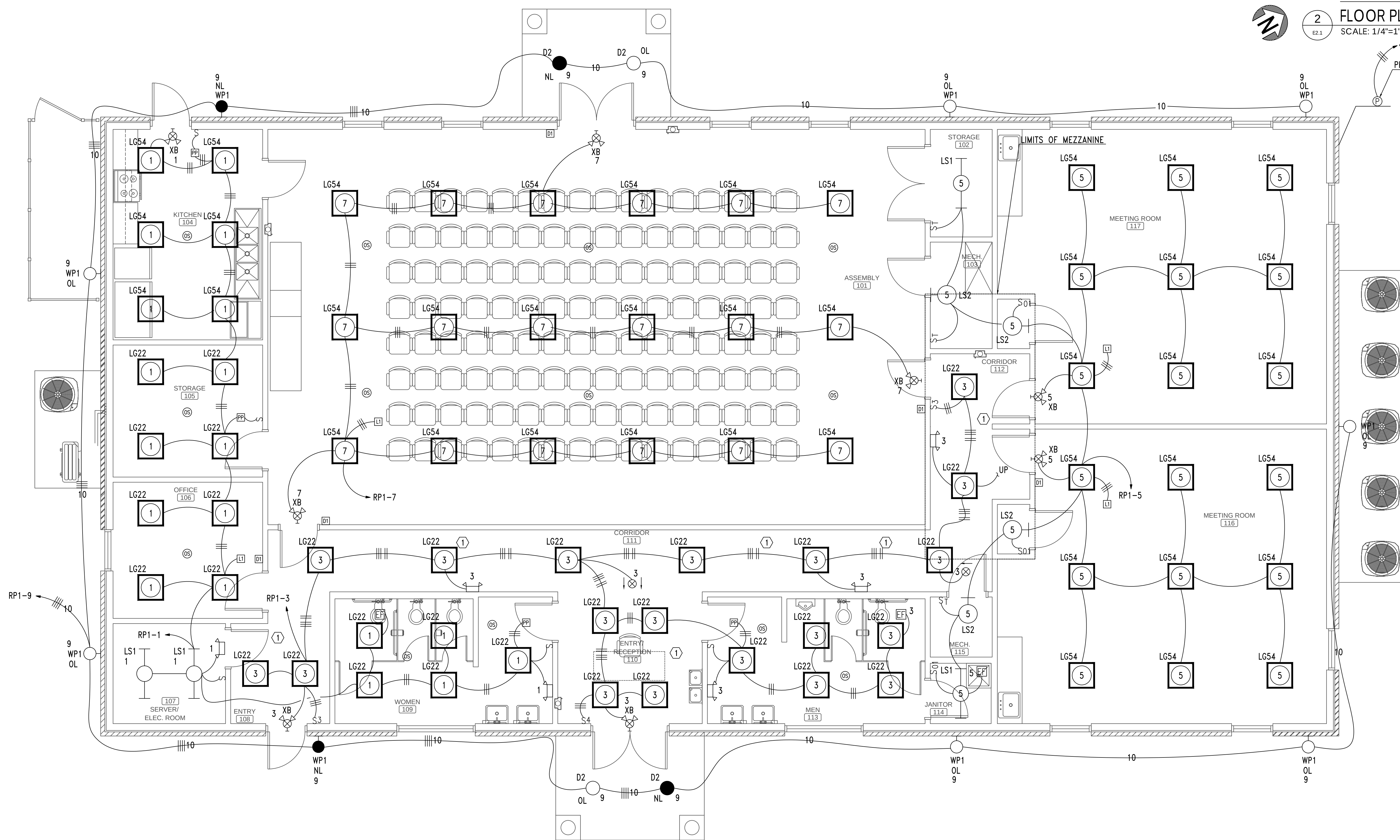
- ① DUE TO SECURITY CONCERNS THE OWNER DOES NOT WANT CORRIDOR & ASSEMBLY LIGHTS TO TURN OFF DURING CLASS BY OCCUPANCY SENSORS.



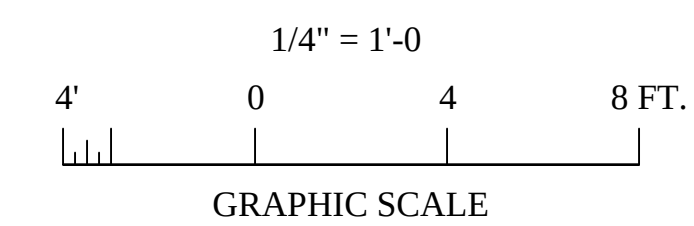
MEZZANINE



2 FLOOR PLAN - LIGHTING
SCALE: 1/4"=1'-0"

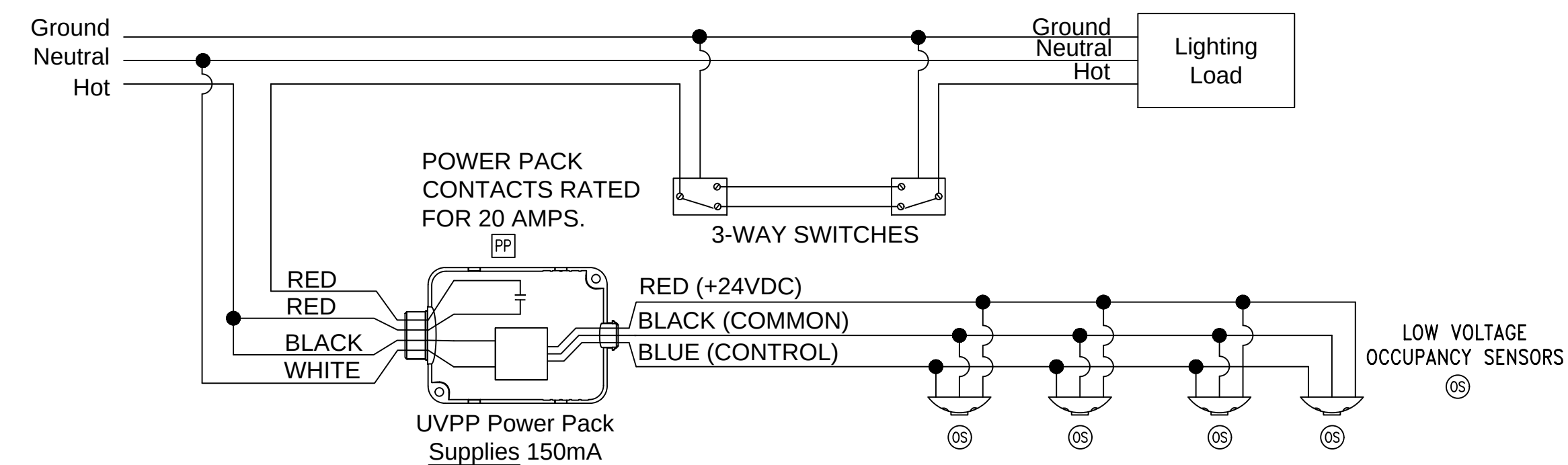


1 FLOOR PLAN - LIGHTING
SCALE: 1/4"=1'-0"

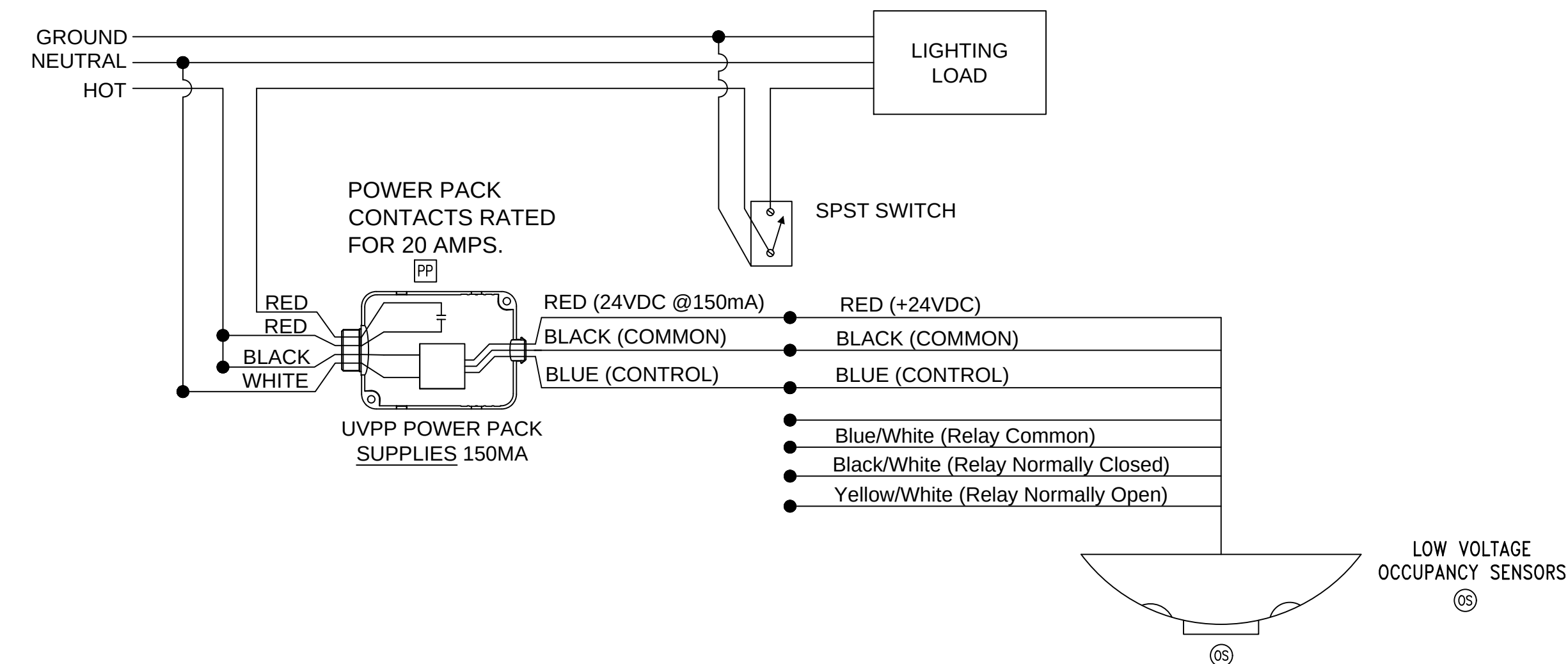


OCCUPANCY SENSOR AND CONTROL NOTES:

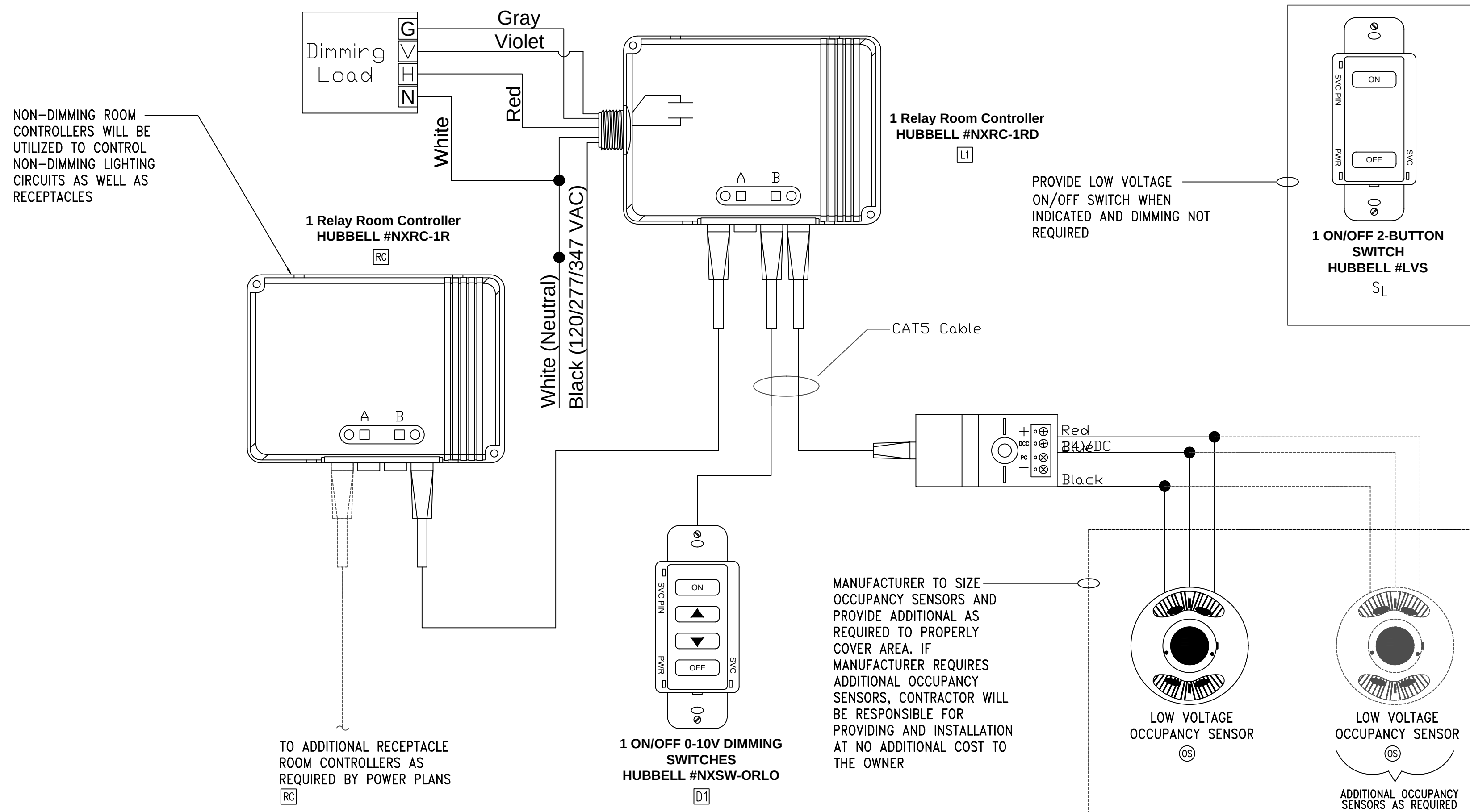
- OCCUPANCY SENSORS SHALL BE VACANCY TYPE WITH DUAL TECHNOLOGY DETECTION AND 20-MINUTE CUTOFF TIME.
- OCCUPANCY SENSOR MANUFACTURER PROVIDER WILL BE RESPONSIBLE FOR SIZING THE OCCUPANCY SENSORS IN EACH SPACE. PROVIDE THIS SIZING TO THE ENGINEER DURING SUBMITTAL PHASE FOR APPROVAL. PROVIDE ADDITIONAL OCCUPANCY SENSORS AS REQUIRED TO FULLY COVER ALL SPACES. IF ADDITIONAL OCCUPANCY SENSORS OR ANY OTHER EQUIPMENT IS REQUIRED IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND INSTALL. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THIS WITH LIGHTING MANUFACTURER PRIOR TO BIDS AND COVER THE COST OF ALL MATERIAL AND LABOR FOR ANY ADDITIONAL OCCUPANCY SENSORS.
- ALL OCCUPANCY SENSORS LOCATIONS ARE APPROXIMATE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EXACT MOUNTING AND SPACING REQUIREMENTS PRIOR TO INSTALLATION.
- ULTRASONIC CEILING MOUNTED OCCUPANCY SENSORS SHALL BE LOCATED A MINIMUM OF SIX (6) FEET FROM HVAC SUPPLY/RETURN VENTS.
- CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS FOR OCCUPANCY SENSORS, FOLLOWING THE MANUFACTURER'S RECOMMENDED PLACEMENT, AND FIELD VERIFICATION OF CIRCUITS WITH RESPECT TO POWER PACK PLACEMENT.
- OCCUPANCY SENSORS MOUNTED OVER DOORWAYS SHALL BE PLACED ONE (1) FOOT INSIDE THRESHOLD.
- LIGHTING CONTROL SYSTEM IS SPECIFIED AROUND THE HUBBELL AUTOMATION SYSTEM. CONTRACTOR SHALL PROVIDE ALL MATERIALS, DEVICES, WIRING, CONNECTIONS, AND PROGRAMMING NEEDED IF ANY OTHER LIGHTING CONTROL SYSTEM SUBMITS FOR APPROVAL AND IS PROVIDED.
- HUBBELL, COOPER, AND ILC ARE APPROVED EQUALS.
- CONTRACTOR SHALL GROUND ALL JUNCTION BOXES CONTAINING LOW VOLTAGE SWITCHES OR ANY OTHER TYPE LIGHTING CONTROL DEVICE WITH #12 GRD.



3 TYPICAL 3-WAY SWITCHING OCCUPANCY SENSOR WIRING DIAGRAM
E2.2 NO SCALE



2 TYPICAL SINGLE SWITCH OCCUPANCY SENSOR WIRING DIAGRAM
E2.2 NO SCALE



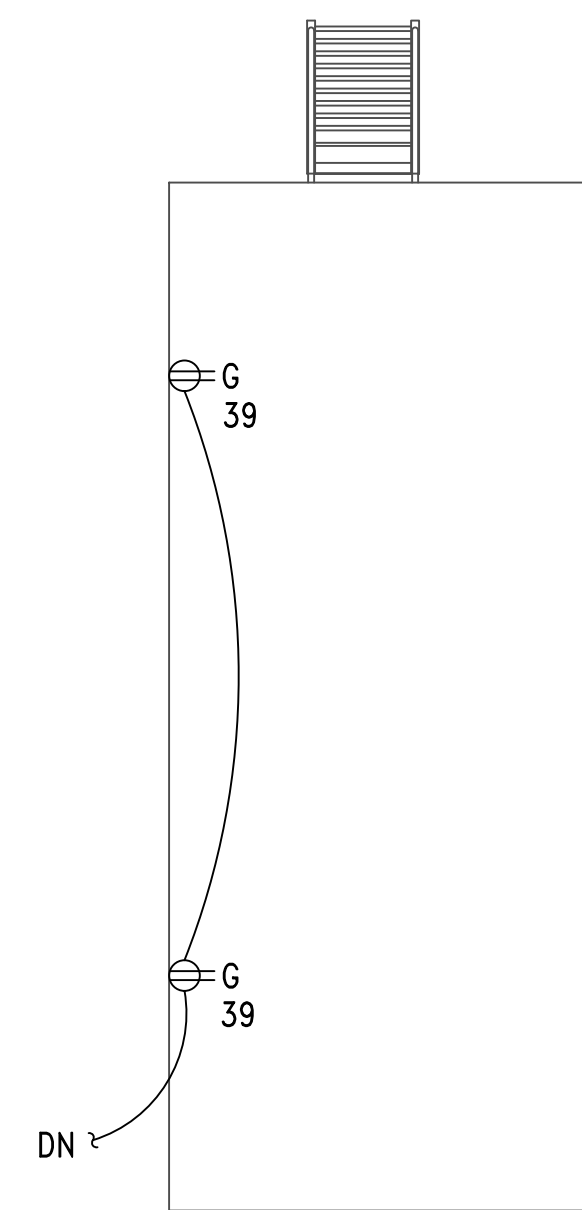
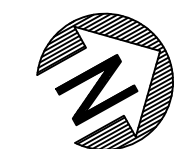
1 TYPICAL MULTIPLE OCCUPANCY SENSOR, SINGLE 0-10V DIMMING SYSTEM, AND MULTIPLE ROOM RECEPTACLE CONTROLLER DETAIL
E2.2 NO SCALE

GENERAL NOTES:

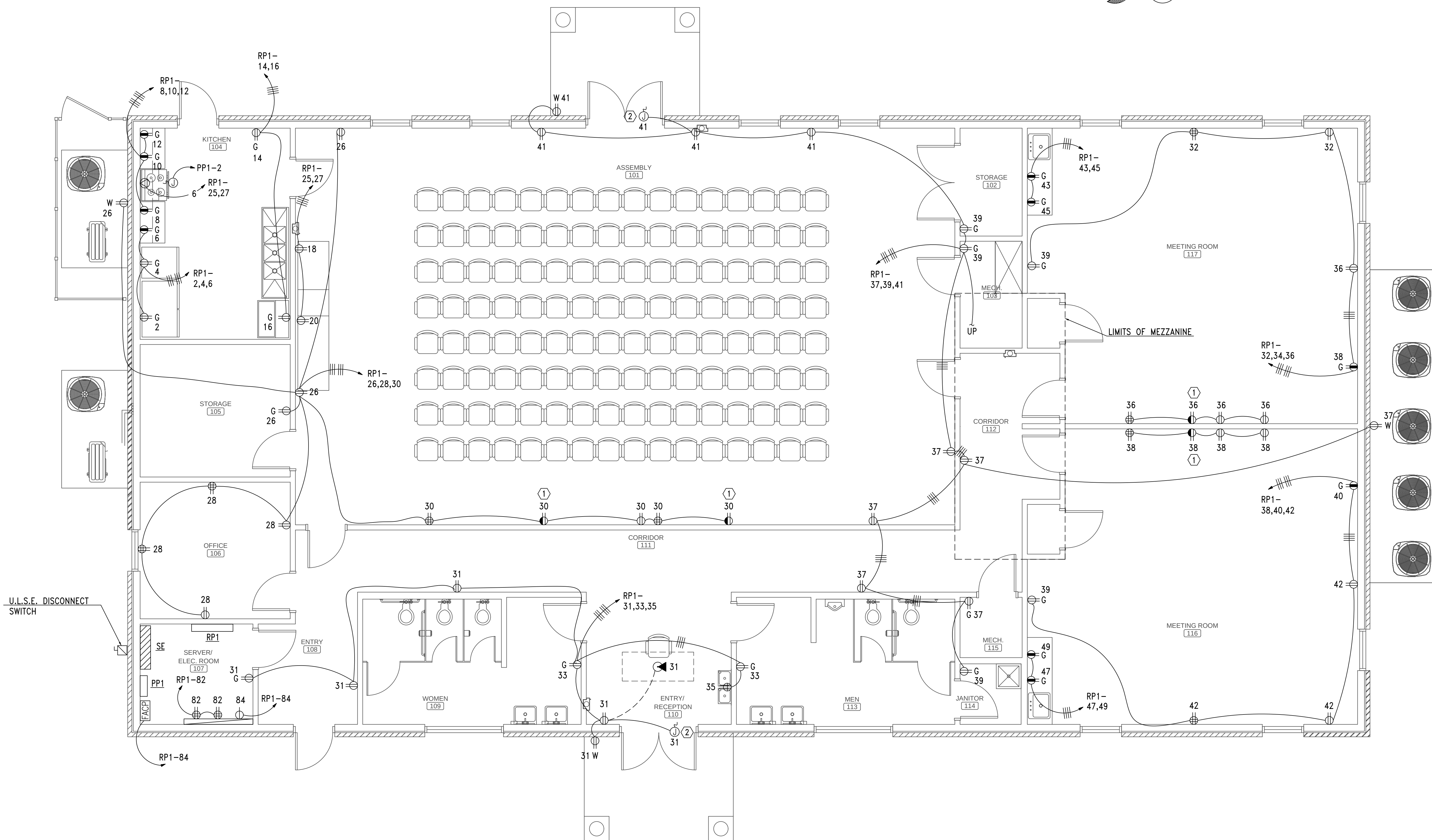
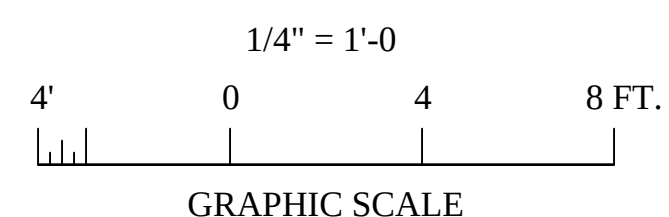
1. PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRE HOMERUN PER NEC.
2. COORDINATE EXACT LOCATION OF ALL ELECTRICAL AND COMMUNICATIONS DEVICES WITH MILLWORK PROVIDERS PRIOR TO ROUGH-IN.
3. ALL DISCONNECTS TO HAVE NAMEPLATE AS SHOWN IN DETAIL, NO EXCEPTIONS.
4. ALL RECEPTACLE CIRCUITS THAT ARE ROUTED UNDERGROUND SHALL BE STUBBED UP ABOVE CEILING IN AN ACCESSIBLE LOCATION FOR FUTURE USE.
5. THE OWNER TAKES EXCEPTION TO THE FOLLOWING SECTIONS OF 2013 ASHRAE 90, SECTION 8.4.2 AUTOMATIC RECEPTACLE CONTROLS AND SECTION 8.4.3 ELECTRICAL ENERGY MONITORING. THESE REQUIREMENTS WILL NOT BE PROVIDED IN THIS PROJECT.

SHEET NOTES:

- ① COORDINATE EXACT MOUNTING HEIGHT FOR TV WITH OWNER PRIOR TO ROUGH-IN.
- ② PROVIDE POWER FOR DOOR ELECTRIC STRIKE.



MEZZANINE
FLOOR PLAN - LIGHTING
SCALE: 1/4"=1'-0"



1
E3.1
FLOOR PLAN - LIGHTING
SCALE: 1/4"=1'-0"



PROJ. MGR.:	J. TILLERY
DRAWN:	J. TILLERY
DATE:	10-07-2026
REVISIONS	

JOB NO. MKA-24-261-00

SHEET NO:

E3.2

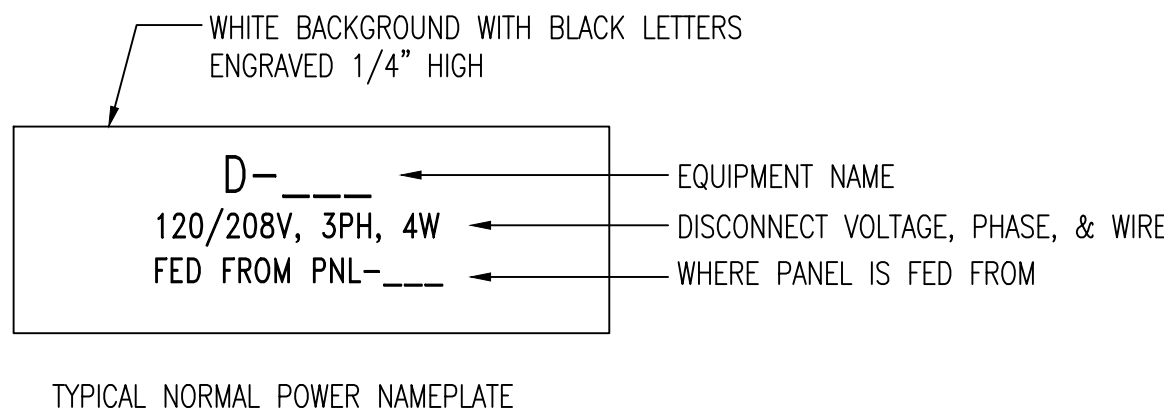


GENERAL MECHANICAL POWER NOTES:

- COORDINATE WITH MECHANICAL/PLUMBING DRAWINGS FOR EXACT LOCATIONS OF EQUIPMENT.
- MOUNT EXTERIOR DISCONNECTS ON EXTERIOR WALLS AT LEAST 18" FROM WINDOWS. LOCATIONS OF DISCONNECTS AND EQUIPMENT ARE SHOWN FOR DRAWING CLARITY PURPOSES ONLY.
- COORDINATE WITH MECHANICAL/PLUMBING CONTRACTORS TO INSURE OVERCURRENT PROTECTION DEVICES FOR THEIR EQUIPMENT IS SIZED PER MANUFACTURER'S RECOMMENDATIONS. ENGINEER SIZED OVERCURRENT PROTECTION ACCORDING TO MECHANICAL/PLUMBING DRAWINGS AND SPECIFICATIONS. ACTUAL EQUIPMENT SUPPLIED MAY DIFFER. ELECTRICAL CONTRACTOR SHALL WORK WITH OTHER TRADE DISCIPLINES TO INSURE ANY CHANGES WILL BE INSTALLED CORRECTLY AT THE COST OF THE PERSON MAKING THE CHANGES.
- ALL FLEXIBLE CONNECT TO HVAC UNITS SHALL BE RUN PARALLEL TO HARD SURFACE AND STRAPPED AT LEAST EVERY 2'.
- CONTRACTOR SHALL PROVIDE CONDUIT FOR MECHANICAL CONTROLS. COORDINATE EXACT LOCATIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
- ALL DISCONNECTS TO HAVE NAMEPLATE AS SHOWN IN DETAIL (2) THIS SHEET, NO EXCEPTIONS.
- PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRED HOMERUN PER NEC.
- COORDINATE WITH GENERAL EQUIPMENT SCHEDULES ON SHEET E5.2 FOR CIRCUITRY OF ALL EQUIPMENT TAGGED ON THIS SHEET.
- SEE DETAIL (3) THIS SHEET FOR MECHANICAL UNIT CONNECTION DETAIL.

SHEET NOTES:

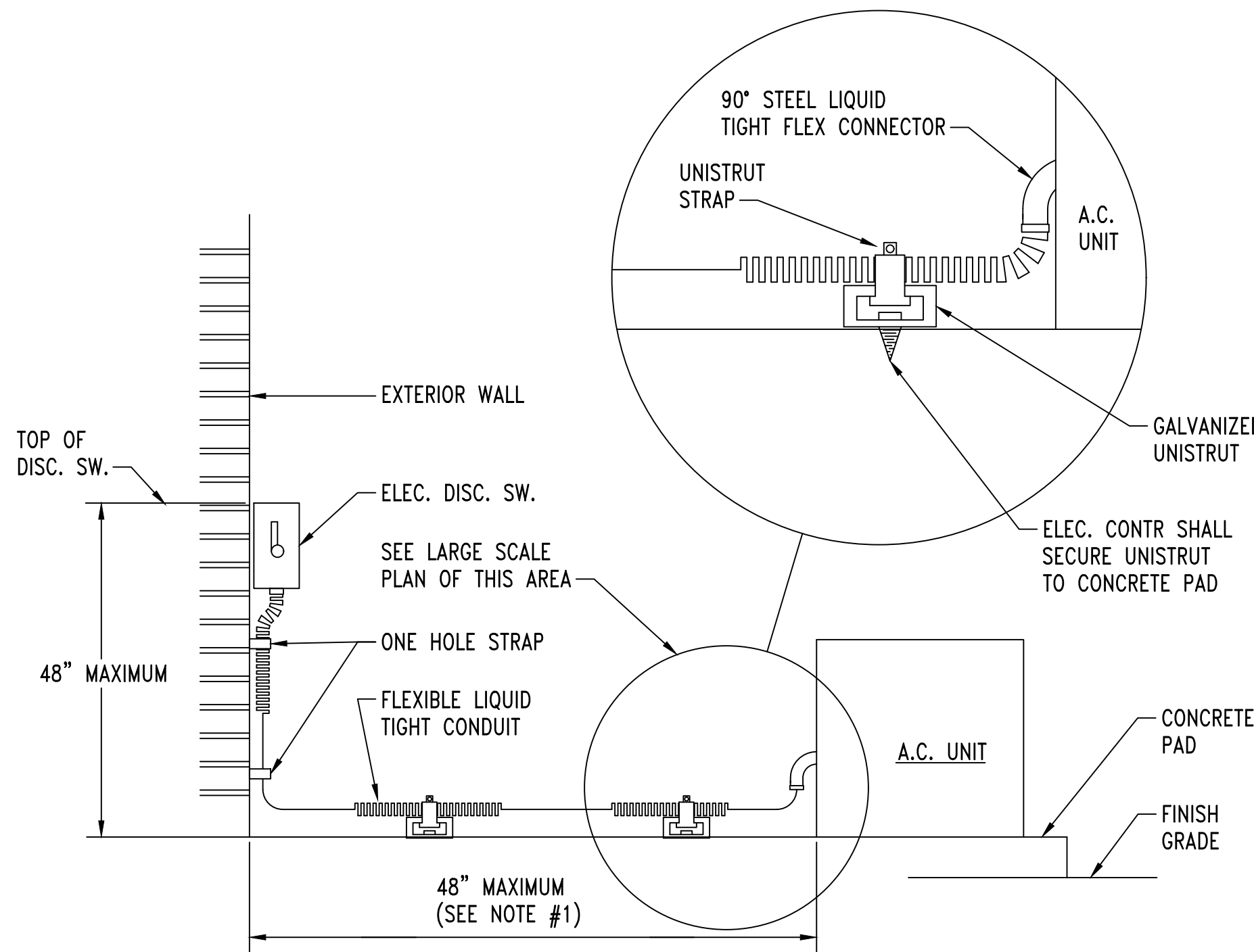
- ① INTERIOR UNIT RECEIVES POWER FROM THE EXTERIOR UNIT. PROVIDE INTERCONNECTING CIRCUITRY AS NEEDED IN CONDUIT TO CONNECT THE INTERIOR UNIT.



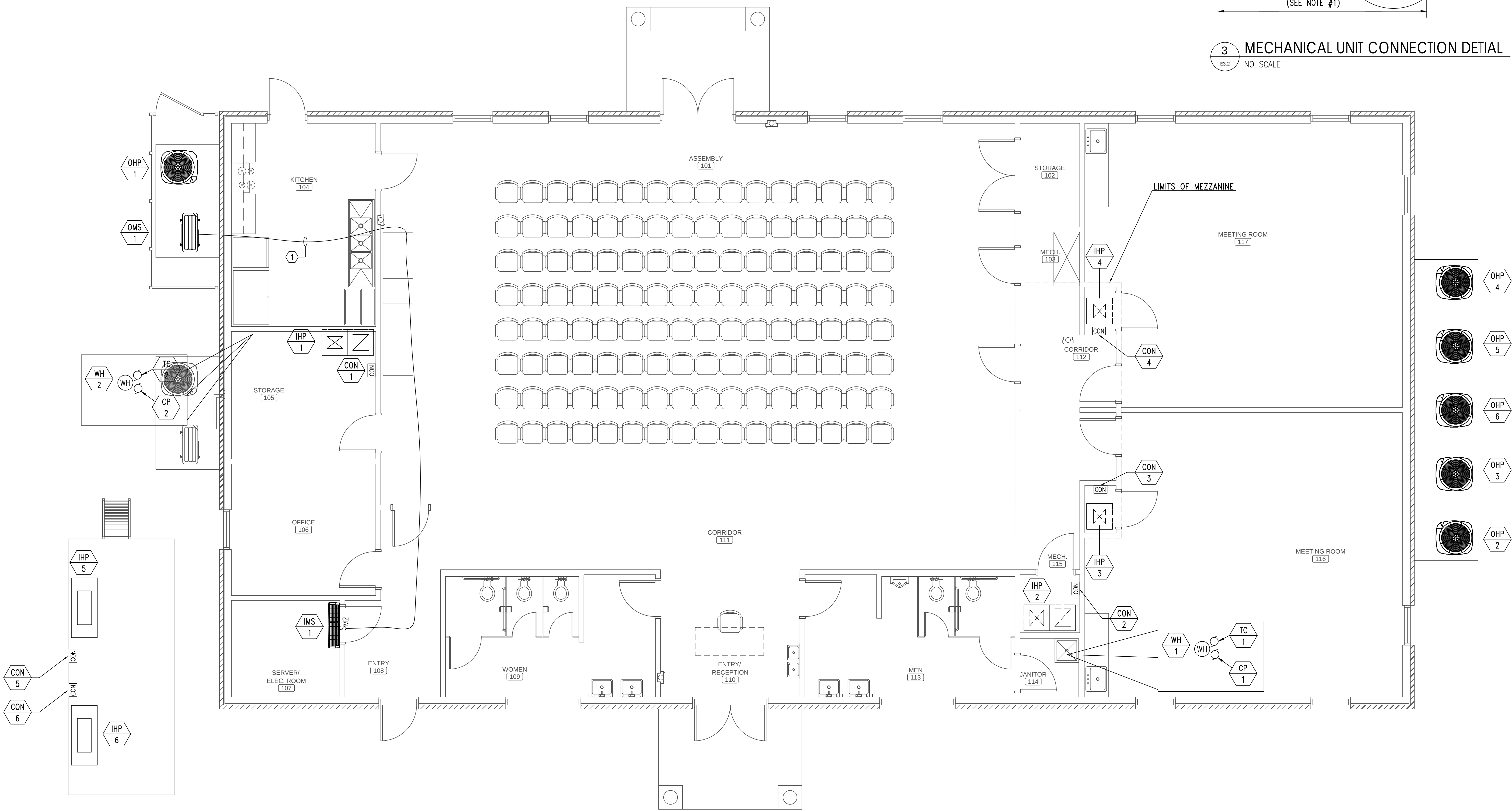
2
E3.2
DETAIL - TYPICAL DISCONNECT NAMEPLATE
NO SCALE

NOTE:

1. FOR DISTANCE GREATER THAN 48" CONDUIT TO BE ROUTED BELOW GRADE WITH 6" OF MECH. UNIT, STUB-UP W/ RIGID ELBOW THRU CONCRETE PAD. PROVIDE FLEXIBLE CONNECTION FROM ELBOW TO MECH. UNIT, W/ CONNECTION MADE AT UNIT AS SHOWN ABOVE.



3
E3.2
MECHANICAL UNIT CONNECTION DETAIL
NO SCALE



MEZZANINE

FLOOR PLAN - AUXILIARY

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



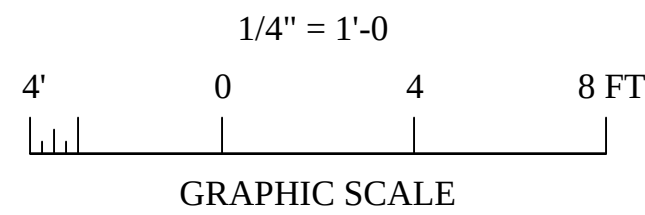
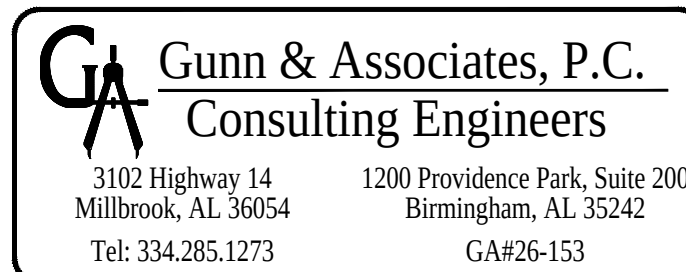
4
E3.2



1
E3.2

FLOOR PLAN - LIGHTING

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

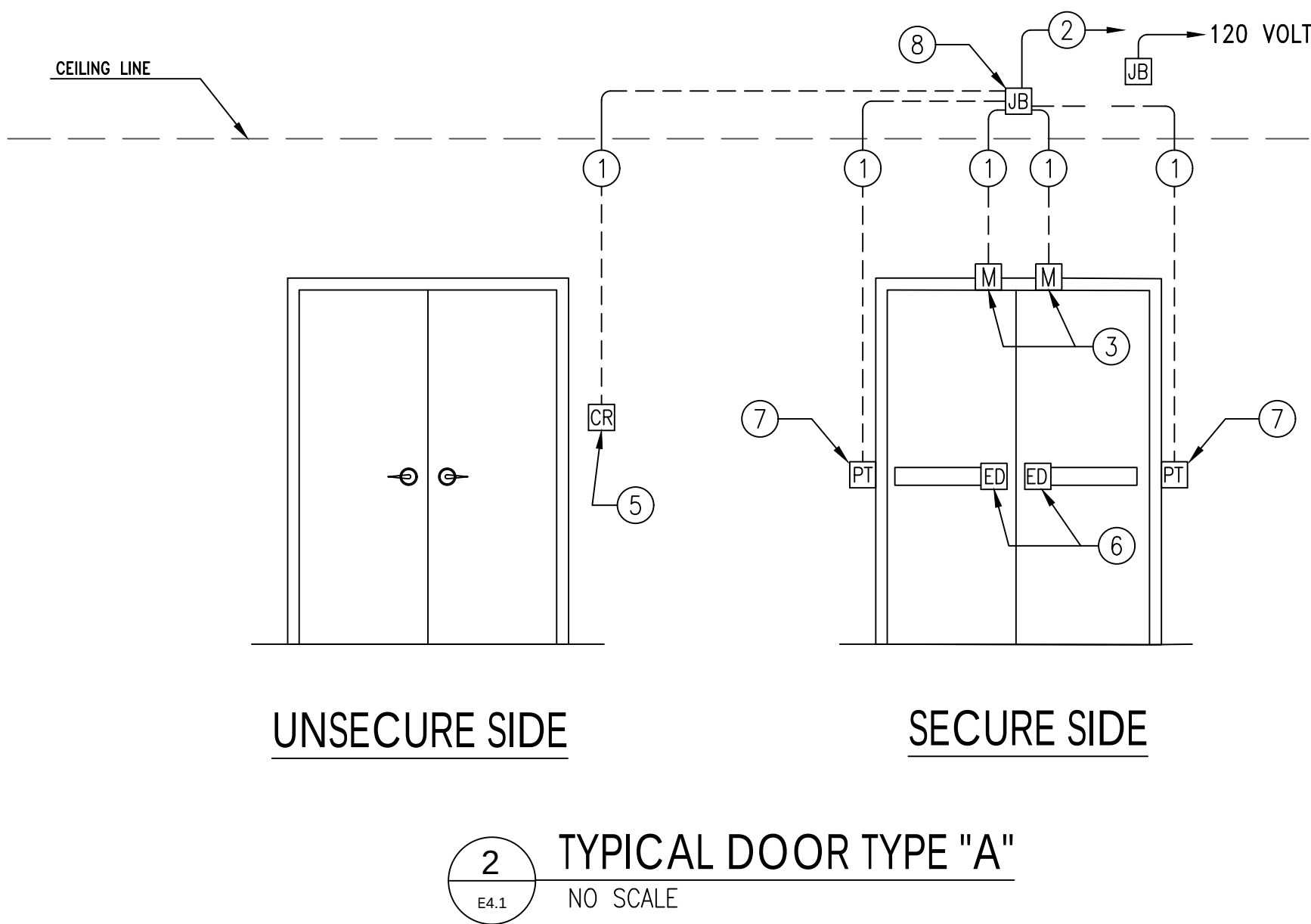


SHEET NOTES:

- ① PROVIDE FLUSH MOUNTING FOR ANNUNCIATOR.
- ② SEE DOOR DETAIL (2) THIS SHEET FOR DOOR ROUGH IN REQUIREMENTS.

GENERAL NOTES:

1. ALL CONDUIT SHALL STUB ABOVE ACCESSIBLE CEILING. PROVIDE PROTECTIVE PLASTIC COLLAR AT STUB AND PULLSTRING.
2. COORDINATE AND MOUNT COMMUNICATIONS OUTLETS WITHIN 6" OF CORRESPONDING POWER RECEPTACLE.
3. COORDINATE ALL MOUNTING HEIGHTS WITH MILLWORK SHOP DRAWINGS TO INSURE CORRECT MOUNTING HEIGHT AND LOCATION PRIOR TO ROUGH-IN.
4. COORDINATE WITH AUXILIARY DETAILS AND RISER DIAGRAMS FOR ADDITIONAL REQUIREMENTS.



2 TYPICAL DOOR TYPE "A"
E4.1 NO SCALE

DETAIL NOTE:

ACTUAL ELECTRIFIED DOOR HARDWARE AND DOOR CONFIGURATION MAY VARY FROM DIAGRAM SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ACTUAL ELECTRIFIED DOOR HARDWARE AND DOOR CONFIGURATION.

DOOR/SECURITY/ACCESS HARDWARE KEY:

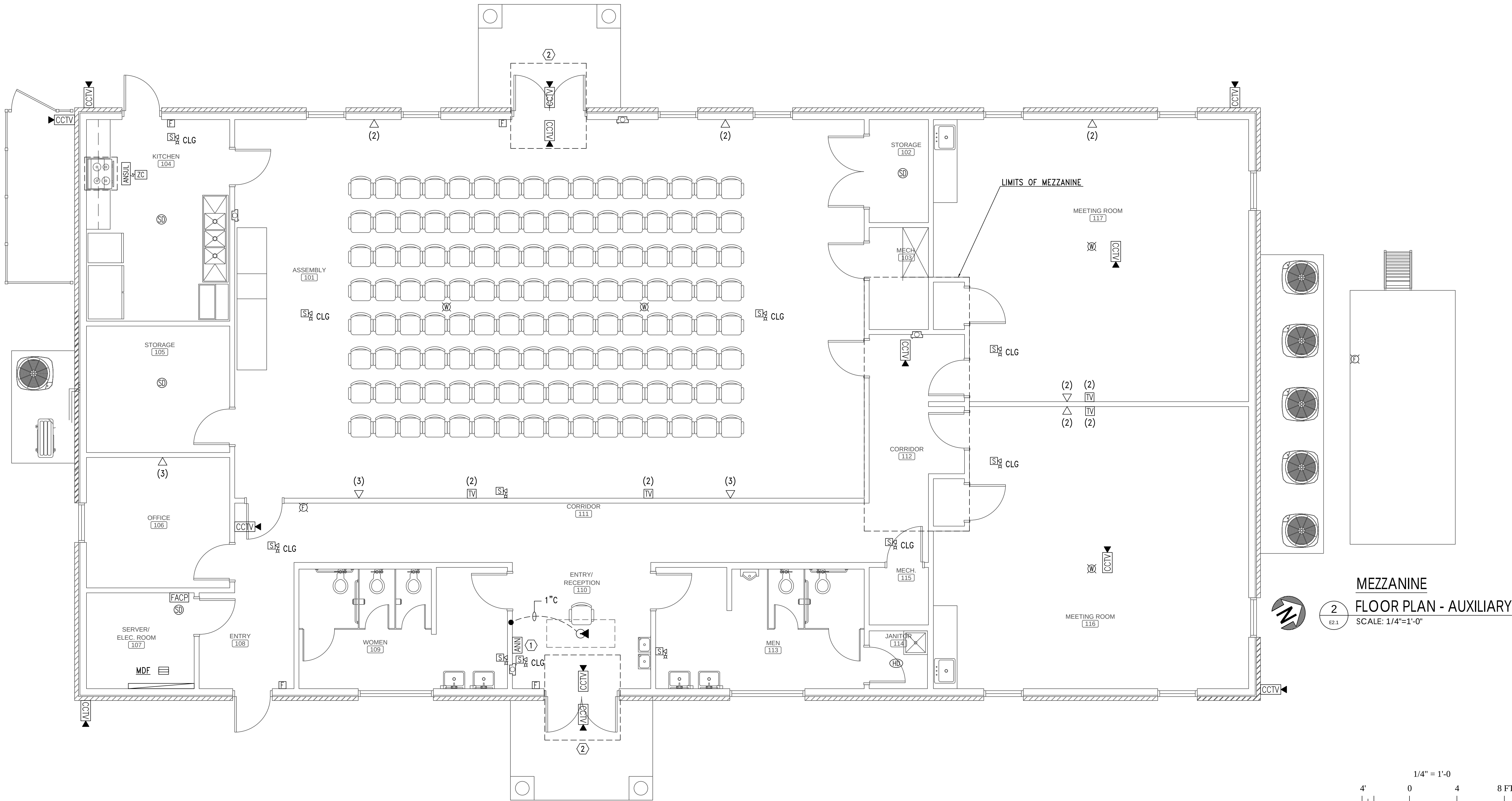
- ① 3/4" CONDUIT TO JUNCTION BOX.
- ② 3/4" CONDUIT STUBBED TO ABOVE NEAREST ACCESSIBLE CEILING.
- ③ RECESSED DOOR POSITION SWITCH. GE SECURITY MODEL 1078CT. FRAME TO BE PREPPED BY DOOR SUPPLIER.
- ④ ELECTRIC MORTISE LOCKSET WITH INTEGRAL REQUEST - TO - EXIT SWITCH.
- ⑤ CARD READER. SEE SPECIFICATIONS FOR MODEL NUMBER. MOUNTED 48" A.F.F. ON SINGLE GANG BOX.
- ⑥ EXIT DEVICE WITH LATCH RETRACTION AND INTEGRAL REQUEST - TO - EXIT SWITCH.
- ⑦ POWER TRANSFER HINGE. (BY OTHERS)
- ⑧ 4 SQUARE JUNCTION BOX MOUNTED ABOVE NEAREST ACCESSIBLE CEILING.
- ⑨ INTERCOM DOOR BELL/SPEAKER. VALCOM # VIP-172L-VRSS.
- ⑩ OVERHEAD DOOR POSITION SWITCH. GE SECURITY 2200 SERIES OVERHEAD DOOR POSITION SWITCH.

- NOTE:
1. THE DOOR DETAILS SHOWN ON THIS SHEET REPRESENTS ALL DOOR TYPES FOR ALL FOUR VOLUMES IN ONE SET OF DETAILS. ALL DOOR DETAILS MAY OR MAYNOT BE USED IN THIS VOLUME.
2. SEE SHEET E8.4 FOR SECURITY RISER DIAGRAMS.

DOOR HARDWARE NOTES:

1. RACEWAYS, BACK BOXES AND JUNCTION BOXES SHALL BE CONCEALED IN WALLS OR CEILING.
2. ELECTRIC LOCKING HARDWARE, MAGNETIC LOCKS, AND POWER TRANSFER HINGE PROVIDED UNDER DIVISION 8 SPECIFICATIONS. PROVIDE CABLING AND CONNECT TO ACCESS CONTROL SYSTEM.
3. COORDINATE EXACT HARDWARE REQUIREMENTS WITH THE DIVISION 8 HARDWARE SCHEDULE.
4. DOOR DETAILS ARE DIAGRAMMATIC AND SHALL NOT BE USED TO DETERMINE EQUIPMENT LOCATIONS. FLOOR PLANS INDICATE LOCATIONS OF EQUIPMENT AND COMPONENTS. COORDINATION WITH THE WORK OF OTHER TRADES SHALL BE MADE PRIOR TO INITIAL INSTALLATION.
5. PROVIDE PULL STRING IN EMPTY RACEWAY.
6. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONDUITS, JUNCTION BOXES, PULL WIRES, ETC. ALL DEVICES AND HARDWARE ARE FURNISHED BY CONTRACTORS OTHER THAT ELECTRICAL.
7. ALL ELECTRONIC AND SECURITY DEVICES ARE TO BE PROVIDED AND INSTALLED BY THE DOOR HARDWARE CONTRACTOR AND THE SECURITY CONTRACTOR. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONDUITS AND JUNCTION BOXES REQUIRED TO FACILITATE THE INSTALLATION OF THE SECURITY AND ALARM PACKAGE. THE ELECTRICAL CONTRACTOR IS TO COORDINATE WITH THESE CONTRACTORS TO INSURE THAT ALL SECURITY DEVICES ARE LOCATED AND CORRECTLY PRIOR TO INSTALLATION OF RACEWAYS, JUNCTION BOXES AND POWER.

* CENTRAL SECURITY SYSTEM LOCK & UNLOCKS



MEZZANINE
FLOOR PLAN - AUXILIARY
SCALE: 1/4"=1'-0"

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

1 FLOOR PLAN - LIGHTING
E4.1 SCALE: 1/4"=1'-0"

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3102 Highway 14
Millbrook, AL 36054
Tel: 334.285.1273
1200 Providence Park, Suite 200
Birmingham, AL 35242
GA#26-153

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- Monday, October 5, 2026 2:05:27 PM

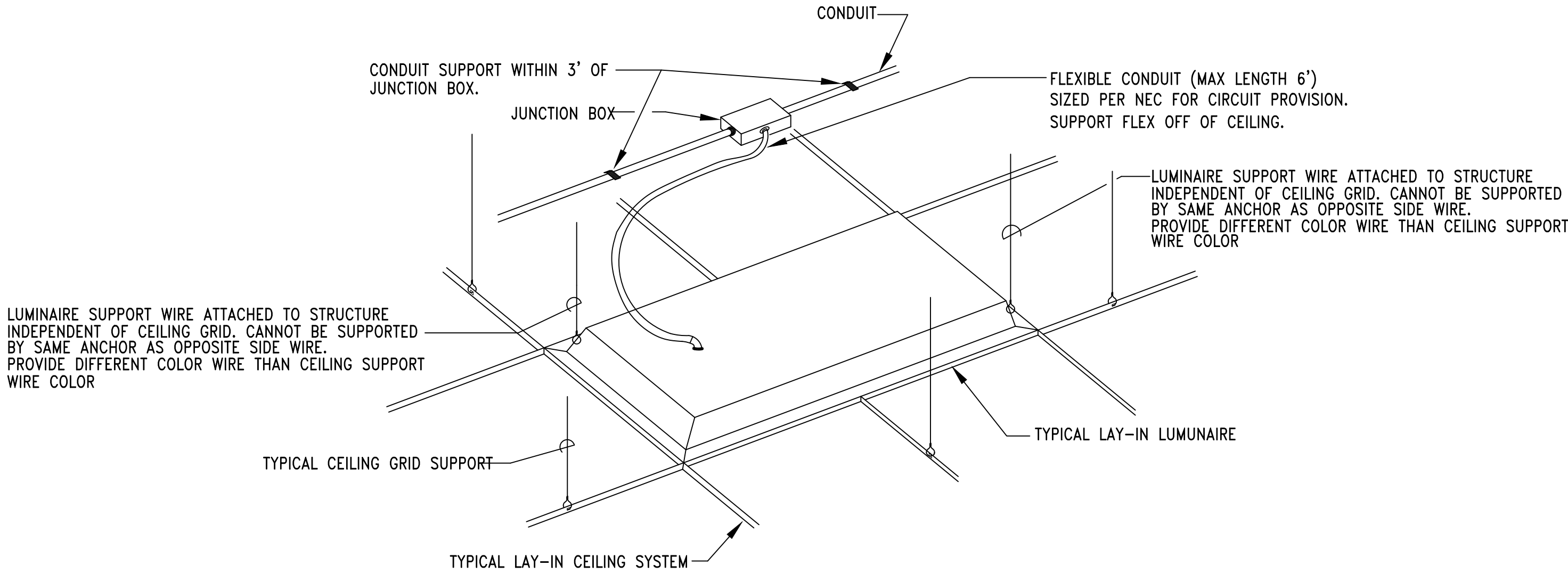
LIGHTING FIXTURE SCHEDULE						
TYPE:	MANUFACTURER NUMBER AND EQUALS:	VOLTAGE:	MOUNTING:	LAMP TYPE:	LAMP QUANTITY:	DESCRIPTION:
D2	PRESCOLITE NO. LTR-6RD-H-ML-30L-DW1-LTR-6RD-T-ML-40KIMDSWT OR EQUALS BY WILLIAMS OR COOPER	MVOLT	RECESSED	LED	3000 LUMEN	6 INCH 3000 LUMEN LED DOWNLIGHT 4000K TEMPERATURE LAMPS AND FEATURE REMOTE PHOSPHOR TECHNOLOGY ENABLING A HIGH SYSTEM EFFICACY AND MINIMUM 80 CRI WET LOCATION
LG22	HUBBELL NO. NB722-40-G-40-L04-SF-EDUJ OR EQUALS BY WILLIAMS OR COOPER	MVOLT	RECESSED	LED	4400 LUMEN	2'X2' 4000-LUMEN FLAT PANEL FIXTURE. 0-10V DIMMING CAPABLE.
LG54	HUBBELL NO. NB722-40-G-84L054-SF-EDUJ OR EQUALS BY WILLIAMS OR COOPER	MVOLT	RECESSED	LED	5400 LUMEN	2'X2' 4000-LUMEN FLAT PANEL FIXTURE. 0-10V DIMMING CAPABLE.
LS1	HUBBELL NO. LCL-4-4000K-ML-E-U OR EQUALS BY WILLIAMS OR COOPER	MVOLT	SURFACE OR CHAIN HUNG	LED	5300 LUMEN	SURFACE MOUNTED 4'-0" LED STRIP. CHAIN HANG WHEN SURFACE MOUNT IS NOT POSSIBLE.
LS2	HUBBELL NO. LCL-3-40K-ML-S-MVOLT-CSHC OR PRIOR APPROVED EQUALS BY LITHONIA, LS1, OR COOPER	MVOLT	SURFACE OR CHAIN HUNG	LED	2895 LUMEN	SURFACE MOUNTED 2'-0" LED STRIP. CHAIN HANG WHEN SURFACE MOUNT IS NOT POSSIBLE.
WP1	HUBBELL NO. VPM2-2-40-L45-4000K-80CRI-TYPE 3 UNV-COLOR BY ARCH OR PRIOR APPROVED EQUALS BY WILLIAMS OR COOPER	MVOLT	WALL	LED	6000 LUMEN	DARK BRONZE EXTERIOR LED LIGHT. UL LISTED FOR WET LOCATIONS.
EM WALL PACK	COMPASS NO. CU2H40SD-- WIREGUARDS IN SHOP AREAS OR PRIOR APPROVED EQUAL BY EMERGO-LITE, MCPHILBEN, OR PRESCOLITE	MVOLT	WALL	LED	1000 LUMEN	1000 LUMEN LED EMERGENCY WALL PACK
EXIT SIGN COMBO "30"	DUAL-LITE NO. EVCHLPW12-0BL OR PRIOR APPROVED EQUAL BY EMERGO-LITE, MCPHILBEN, OR PRESCOLITE	MVOLT	UNIVERSAL	LED	1000 LUMEN	THERMOPLASTIC 1000 LUMEN COMBO LED EXIT SIGN EGRESS LIGHT. PROVIDE WITH NUMBER OF FACES AND DIRECTIONAL ARROWS AS SHOWN ON DRAWINGS. COORDINATE COLOR OF SIGNAGE WITH LOCAL REQUIREMENTS. PROVIDE WITH EMERGENCY BATTERY. PROVIDE WIREGUARDS IN GYM.
NOTES: 1. ARCHITECT RESERVES THE RIGHT TO SELECT ALL COLORS OR MAKE CUSTOM COLOR DURING SHOP DRAWING REVIEW. BID ACCORDINGLY. 2. COORDINATE MOUNTING OF ALL LUMINAIRES WITH ARCHITECTURAL ELEVATIONS PRIOR TO INSTALLATION 3. PROVIDE EMERGENCY BATTERY BALLAST FOR ALL EMERGENCY TYPE FIXTURES CAPABLE OF 90 MINUTES. ALL EMERGENCY LIGHTS IN SAFE AREA SHALL BE CONNECTED TO THE BATTERY INVERTER FOR 180 MINUTES OF RUN TIME. 4. FOR WARRANTY AND LONG TERM SUPPORT FOR OWNER, ALL LIGHTING FIXTURES SHALL BE PURCHASED THROUGH MANUFACTURER REPRESENTATIVES. LOCATED IN THE STATE OF ALABAMA. SUBMITTALS RECEIVED THAT DO NOT COMPLY WITH THIS REQUIREMENT WILL BE REJECTED WITHOUT REVIEW. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DELAYS CAUSED BY NON COMPLIANCE WITH THIS REQUIREMENT. 5. ALL INTERIOR LIGHTS SHALL HAVE 4000K TEMPERATURE LAMPS, UNLESS NOTED OTHERWISE. 6. ALL EXTERIOR LIGHTS SHALL HAVE 4000K TEMPERATURE LAMPS.						

LUMINAIRE NOTES:

1. ALL LUMINAIRES AND INSTALLATION SHALL BE IN ACCORDANCE WITH NEC, NFPA AND LOCAL CODES. ALL LUMINAIRES SHALL BE UL LISTED AND INSTALLED IN ACCORDANCE WITH THE UL LISTING.
2. LUMINAIRES SHALL BE FURNISHED COMPLETE WITH THE PROPER LAMP BASE OR PIN RECEPTORS, WIRING COMPONENTS, LAMPS, SUPPORTING FRAMES AND DEVICES, ETC., FOR A COMPLETE INSTALLATION.
3. ALL LUMINAIRE DEVICES, COMPONENTS, FITTINGS, SUPPORTS, ETC., SHALL BE COORDINATED TO PROVIDE A COMPLETE UL LISTED INSTALLATION
4. ALL LUMINAIRES BALLAST, DRIVERS, LAMPS, ETC SHALL BE COMPATIBLE WITH THE LIGHTING CONTROL SYSTEM OR DIMMING CONTROL SYSTEM PROVIDED.
5. SECURE EACH LAY-IN LUMINAIRE AT TWO LOCATIONS TO THE CEILING GRID. PROVIDE BOLTS, SCREWS, RIVETS OR APPROVED CLIPS FOR USE WITH THE TYPE CEILING AND LUMINAIRE INSTALLED.
6. ALL LUMINAIRES IN MECHANICAL AND ELECTRICAL ROOMS SHALL BE INSTALLED TO CLEAR ELECTRICAL EQUIPMENT, DUCT, PIPING, ETC., SUSPEND BELOW OBSTRUCTION WHEN CONFLICTS OCCUR.
7. ALL LED LUMINARIES SHALL BE PROVIDED WITH 4000K COLOR TEMPERATURE LAMPS, UNLESS NOTED OTHERWISE.
8. ARCHITECT RESERVES THE RIGHT TO SELECT ALL COLORS FOR LUMINAIRES, POLES, MOUNTING ACCESSORIES, ETC. DURING SHOP DRAWING REVIEW.
9. COORDINATE LUMINAIRE MOUNTING WITH ARCHITECTURAL ELEVATIONS PRIOR TO INSTALLATION.
10. ALL EXIT SIGNS AND LUMINAIRES DESIGNATED AS EMERGENCY SHALL BE PROVIDED WITH A MINIMUM 1100 LUMEN EMERGENCY BATTERY BALLAST CAPABLE OF 90 MINUTES OF ILLUMINATION. X DESIGNATION MEANS DIFFERENT TYPE BATTERY SEE SCHEDULE.
11. CONTRACTOR SHALL PROVIDE ALL SLOPE ADAPTERS, FLANGE KITS, TRIMS, AND ALL OTHER MOUNTING ACCESSORIES AS NEEDED TO MOUNT EACH LUMINAIRE IN CEILINGS AS SHOWN. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLANS.
12. PROVIDE ALL EXIT SIGNS WITH DIRECTIONAL ARROWS AS SHOWN ON DRAWINGS.

NOTES:

1. ALL RECESSED LUMINAIRES SHALL BE WIRED FROM A JUNCTION BOX AS SHOWN, INCLUDING LUMINAIRES IN A CONTINUOUS ROW. NO WIRING THRU FIXTURES. NO MORE THAN TWO LUMINAIRES SHALL BE CIRCUITED TO ONE JUNCTION BOX.
2. LUMINAIRE SUPPORT WIRES TO BE A MINUMUM OF #14 GAGE PRE-STRAINED GALVINIZED WIRE ATTACHED AT OPPOSITE CORNERS. LUMINAIRE SHALL BE SUPPORTED TO THE STRUCTURE INDEPENDENT OF THE CEILING GRID.
3. CONDUCTORS IN FLEXIBLE CONDUIT FROM JUNCTION BOX TO LUMINAIRE SHALL CONTAIN AN INSULATED GREEN GROUND WIRE, WITH NEUTRAL AND PHASE CONDUCTORS REQUIRED FOR THE CIRCUITING AND SWITCHING REQUIREMENTS INDICATED.
4. JUNCTION BOXES SHALL BE ACCESSIBLE AND LOCATED WITHIN 1'-6" ABOVE LAY-IN CEILING INSTALLATION. PROVIDE PENDANT ALL-THREAD RODS AND/OR STRUT ASSEMBLIES TO MEET THIS REQUIREMENT WHERE DROP CEILING IS MORE THAN 1'-6" FROM STRUCTURE.
5. CONTRACTOR SHALL INSTALL ALL T-BAR SAFETY CLIPS TO GRID. IF FIXTURE DOES NOT COME WITH GRID SAFETY CLIPS, THEN THE CONTRACTOR SHALL PROVIDE SUPPORT WIRES ON ALL FOUR SIDES.



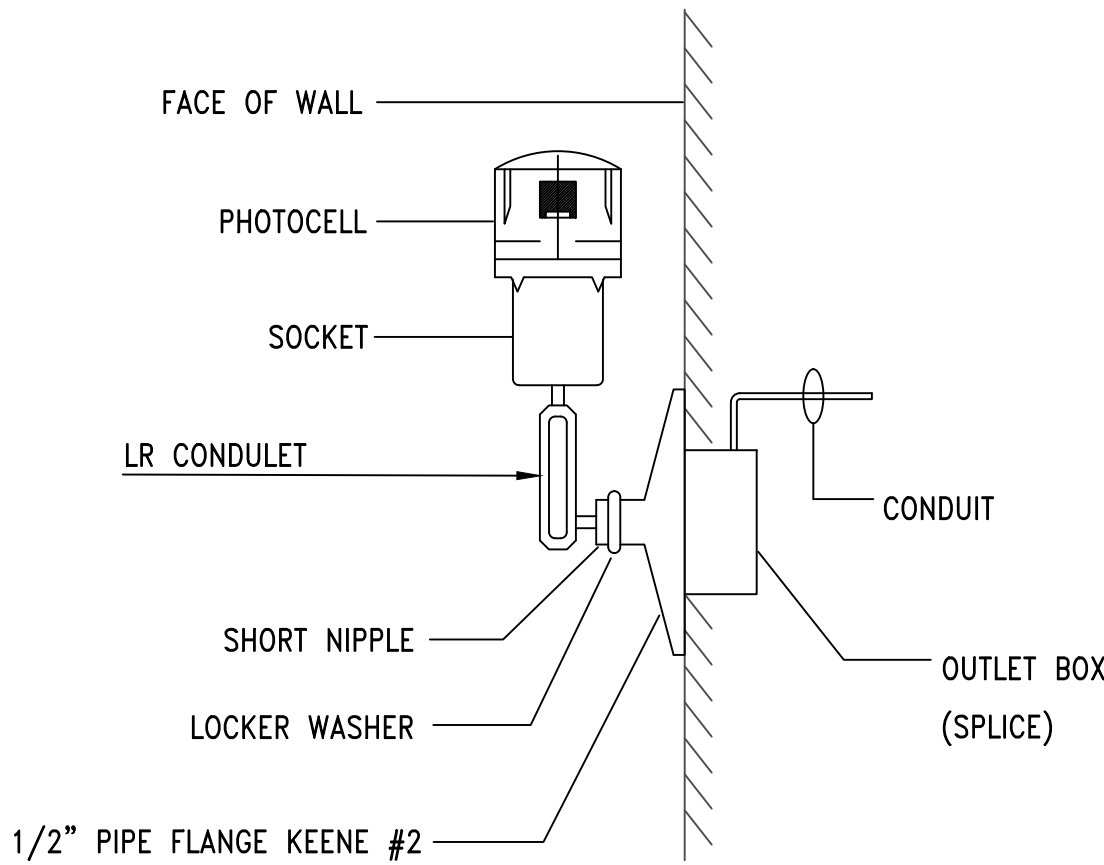
1
ES.1

DETAIL - TYPICAL LAY-IN LUMINAIRE INSTALLATION

NO SCALE

NOTES

1. PAINT CONDUIT NIPPLE, SOCKET AND PIPE FLANGE WITH TWO COATS OF ENAMEL.
2. COMPLETE ASSEMBLY TO BE UL LISTED FOR WET LOCATIONS.
3. PHOTOCELL TO BE MOUNTED FACING NORTH FREE FROM ALL SHADOWS WHICH MIGHT CAUSE PHOTOCELL TO TURN LIGHTS ON EARLY. CONTRACTOR SHALL COORDINATE PROPER MOUNTING LOCATION PRIOR TO INSTALLATION.



2
ES.1

DETAIL - INSTALLATION OF PHOTO-CELL

NO SCALE

GA

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LATHAN
McKEE
ARCHITECTS

A NEW COMMUNITY CENTER
at
KNOX STREET PARK
for
THE CITY OF TROY
306 E ACADEMY ST., TROY, AL 36081

SHEET TITLE:
LIGHTING SCHEDULE,
DETAILS & NOTES

PROJ. MGR.:	J. TILLERY
DRAWN:	J. TILLERY
DATE:	10-07-2026
REVISIONS	

JOB NO. MKA-24-261-00

SHEET NO:

E5.1

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POWER EQUIPMENT MANUFACTURES BIDDING THIS PROJECT SHALL INCLUDE IN THEIR BASE BID PRICE AN AND ALL EXPEDITED CHARGES AS REQUIRED TO SHIP SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, AND DISCONNECTS TO THE JOB SITE S REQUIRED TO MEET PROJECT SCHEDULE. CONTRACTOR AND SUPPLIER SHALL SET THIS TIME PRIOR TO BID ACCORDING PUBLISHED SCHEDULE IN BID DOCUMENTS.

PANEL - SE												
TYPE: 600 AMP MAIN LUG			AIC: 65,000 AMPERES			MOUNTED: SURFACE			VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE			
CIRCUIT DIRECTORY	(VA) PER PHASE			AMP	POLE	CIRCUIT NUMBER	AMP	POLE	(VA) PER PHASE			CIRCUIT DIRECTORY
	PHASE A	PHASE B	PHASE C						PHASE A	PHASE B	PHASE C	
IHP-1	4,032			50		1 2 30			1,594			OHP-1
	4,032					3 4 5 6			1,594	1,594		
		4,032			3	7 8 30			1,594		1,594	
IHP-2	4,032			50		9 10				1,594		OHP-2
		4,032			3	11 12 30					1,594	
IHP-3	4,704			50		13 14 30			1,536			OHP-3
	4,704					15 16 30				1,536		
		4,704			3	17 18 30					1,536	
IHP-4	4,704			50		19 20 30			1,536			OHP-4
	4,704					21 22 30				1,536		
		4,704				23 24 30		3			1,536	
PANEL PP1	21,357			225		25 26 225			22,577			PANEL RP1
		21,357				27 28 30				18,390		
			15,226		3	29 30 30		3			0	
SPARE				100		31 32 30						BUSSED SPACE
						33 34 30						BUSSED SPACE
					3	35 36 30						BUSSED SPACE
SPARE				60		37 38 30						BUSSED SPACE
						39 40 30						BUSSED SPACE
						41 42 30						BUSSED SPACE
SUB TOTAL (VA)	39,429	38,829	32,698		3	41 42			28,837	24,650	6,280	SUB TOTAL (VA)
TOTAL LOAD PHASE A: 68,266 (VA)				NOTES:								
TOTAL LOAD PHASE B: 63,479 (VA)				1. PANELBOARD TO BE BOLT-ON TYPE.								
TOTAL LOAD PHASE C: 38,958 (VA)				2. PROVIDE WITH INTEGRAL TVSS WITH 120,000 AMPS PER NODE PROTECTION.								
TOTAL LOAD: 170,703 (VA) = 474 AMPS												

PANEL - PP1															
TYPE: 225 AMP MAIN LUG				AIC: 65,000 AMPERES				MOUNTED: SURFACE				VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE			
CIRCUIT DIRECTORY	(VA) PER PHASE			AMP	POLE	CIRCUIT NUMBER	AMP	POLE	(VA) PER PHASE			CIRCUIT DIRECTORY			
	PHASE A	PHASE B	PHASE C						PHASE A	PHASE B	PHASE C				
WH-1	3,000			40		1 2 3 4	20	1	600			RANGE HOOD			
		3,000				5 6 7 8	20	1				SHUNT TRIP			
CP-1 & TC-1			600	20	2	9 10	6	20	1			SPARE			
WH-2	3,000			40		7 8 30			1,331			OMS-1			
		3,000				9 10	2		1,331						
CP-2 & TC-2			600	20	1	11 12	20	1				SPARE			
IHP-5	4,224			50		13 14	40		2,189			OHP-5			
		4,224				15 16				2,189					
	4,224		4,224		3	17 18		3			2,189				
IHP-6	4,224			50		19 20	40		2,189			OHP-6			
		4,224				21 22			2,189						
			4,224		3	23 24		3			2,189				
CON-1	600			20	1	25 26	20	1				SPARE			
CON-2		600		20	1	27 28	20	1				SPARE			
CON-3			600	20	1	29 30	20	1				SPARE			
CON-4	600			20	1	31 32	20	1				SPARE			
CON-5		600		20	1	33 34	20	1				SPARE			
CON-6			600	20	1	35 36	20	1				SPARE			
BUSSED SPACE						37 38						BUSSED SPACE			
BUSSED SPACE						39 40						BUSSED SPACE			
BUSSED SPACE						41 42						BUSSED SPACE			
SUB TOTAL (VA)	15,648	15,648	10,848						6,309	5,709	4,378	SUB TOTAL (VA)			
TOTAL LOAD PHASE A	21,957 (VA)			NOTES:											
TOTAL LOAD PHASE B	21,357 (VA)			1. PANELBOARD TO BE BOLT-ON TYPE WITH DOOR-IN-DOOR CONSTRUCTION.											
TOTAL LOAD PHASE C	15,226 (VA)			2. PROVIDE ARC FAULT LABEL PER DETAIL.											
TOTAL LOAD:	58,540 (VA) =			163 AMPS											

PANEL - RP1													
TYPE: 225 AMP MAIN LUG			AIC: 65,000 AMPERES			MOUNTED: SURFACE				VOLTAGE: 120/208 VOLTS, 3 PHASE, 4 WIRE			
CIRCUIT DIRECTORY	(VA) PER PHASE			AMP	POLE	CIRCUIT NUMBER	AMP	POLE	(VA) PER PHASE			CIRCUIT DIRECTORY	
	PHASE A	PHASE B	PHASE C						PHASE A	PHASE B	PHASE C		
LIGHTS	1,265			20	1	1	2	20	1	1,200			RECEPTALCE
LIGHTS		1,430		20	1	3	4	20	1		1,200		RECEPTALCE
LIGHTS			1,365	20	1	5	6	20	1			1,200	RECEPTALCE
LIGHTS	1,072			20	1	7	8	20	1	1,200			RECEPTALCE
EXTERIOR LIGHTS		800		20	1	9	10	20	1		1,200		RECEPTALCE
SPARE				20	1	11	12	20	1			1,200	RECEPTALCE
SPARE				20	1	13	14	20	1	1,200			RECEPTALCE
SPARE				20	1	15	16	20	1		1,200		RECEPTALCE
SPARE				20	1	17	18	20	1			1,200	RECEPTALCE
SPARE				20	1	19	20	20	1	1,200			RECEPTALCE
SPARE				20	1	21	22	20	1				SPARE
SPARE				20	1	23	24	20	1				SPARE
RANGE	4,160			50		25	26	20	1	1,200			RECEPTALCE
		4,160			2	27	28	20	1		1,200		RECEPTALCE
SPARE				20	1	29	30	20	1			1,200	RECEPTALCE
RECEPTALCE	1,200			20	1	31	32	20	1	1,200			RECEPTALCE
RECEPTALCE		1,200		20	1	33	34	20	1		1,200		RECEPTALCE
EWG			900	20	1	35	36	20	1			1,200	RECEPTALCE
RECEPTALCE	1,200			20	1	37	38	20	1	1,200			RECEPTALCE
RECEPTALCE		1,200		20	1	39	40	20	1		1,200		RECEPTALCE
RECEPTALCE			1,200	43	1	41	42	20	1			1,200	RECEPTALCE
RECEPTALCE	1,200			20	1	43	44	20	1				SPARE
RECEPTALCE		1,200		20	1	45	46	20	1				SPARE
RECEPTALCE			1,200	20	1	47	48	20	1				SPARE
RECEPTALCE	1,200			20	1	49	50	20	1				SPARE
BUSSED SPACE						51	52	20	1				SPARE
BUSSED SPACE						53	54	20	1				SPARE
BUSSED SPACE						55	56	20	1				SPARE
BUSSED SPACE						57	58	20	1				SPARE
BUSSED SPACE						59	60	20	1				SPARE
BUSSED SPACE						61	62	20	1				SPARE
BUSSED SPACE						63	64	20	1				SPARE
BUSSED SPACE						65	66	20	1				SPARE
BUSSED SPACE						67	68	20	1				SPARE
BUSSED SPACE						69	70	20	1				SPARE
BUSSED SPACE						71	72	20	1				SPARE
BUSSED SPACE						73	74	20	1				SPARE
BUSSED SPACE						75	76	20	1				SPARE
BUSSED SPACE						77	78	20	1				SPARE
BUSSED SPACE						79	80	30	1	2,880			TBB UPS
BUSSED SPACE						81	82	20	1		1,200		TBB
BUSSED SPACE						83	84	20	1			600	FACP
SUB TOTAL (VA)	11,297	9,990	4,665							11,280	8,400	7,800	SUB TOTAL (VA)
TOTAL LOAD PHASE A:				22,577 (VA)			NOTES:						
TOTAL LOAD PHASE B:				18,390 (VA)			1. PANELBOARD TO BE BOLT-ON TYPE WITH DOOR-IN-DOOR CONSTRUCTION.						
TOTAL LOAD PHASE C:				12,465 (VA)			2. PROVIDE ARC FAULT LABEL PER DETAIL.						
TOTAL LOAD:				53,432 (VA) =			148 AMPS						
							3. PROVIDE LOCK HANDLE CIRCUIT BREAKER						

GENERAL EQUIPMENT SCHEDULE									
EQUIPMENT MARK	EQUIPMENT DESCRIPTION	VOLTAGE/PHASE	ELECTRICAL CHARACTERISTICS			DISCONNECT	FUSE:	HOMERUN:	FEEDER:
			HP	KW	AMPS				
CON-1	MECHANICAL CONTROL	120V/1PH	----	0.6	----	TS	----	PP1 - 25	2#12 & 1#12GRD - 3/4"
CON-2	MECHANICAL CONTROL	120V/1PH	----	0.6	----	TS	----	PP1 - 27	2#12 & 1#12GRD - 3/4"
CON-3	MECHANICAL CONTROL	120V/1PH	----	0.6	----	TS	----	PP1 - 29	2#12 & 1#12GRD - 3/4"
CON-4	MECHANICAL CONTROL	120V/1PH	----	0.6	----	TS	----	PP1 - 31	2#12 & 1#12GRD - 3/4"
CON-5	MECHANICAL CONTROL	120V/1PH	----	0.6	----	TS	----	PP1 - 33	2#12 & 1#12GRD - 3/4"
CON-6	MECHANICAL CONTROL	120V/1PH	----	0.6	----	TS	----	PP1 - 35	2#12 & 1#12GRD - 3/4"
CP-1	CIRCULATION PUMP	120V/1PH	----	0.6	----	TS	----	PP1 - 5	2#12 & 1#12GRD - 3/4"
CP-1	CIRCULATION PUMP	120V/1PH	----	0.6	----	TS	----	PP1 - 11	2#12 & 1#12GRD - 3/4"
IHP-1	INDOOR HEAT PUMP	208/3PH	----	----	42	60/93	----	SE - 1.3.5	3#6 & 1#10GRD - 1 1/4"
IHP-2	INDOOR HEAT PUMP	208/3PH	----	----	42	60/93	----	SE - 7.9.11	3#6 & 1#10GRD - 1 1/4"
IHP-3	INDOOR HEAT PUMP	208/3PH	----	----	42	60/93	----	SE - 13.15.17	3#6 & 1#10GRD - 1 1/4"
IHP-4	INDOOR HEAT PUMP	208/3PH	----	----	42	60/93	----	SE - 19.21.23	3#6 & 1#10GRD - 1 1/4"
IHP-5	INDOOR HEAT PUMP	208/3PH	----	----	42	60/93	----	PP1 - 13.15.17	3#6 & 1#10GRD - 1 1/4"
IHP-6	INDOOR HEAT PUMP	208/3PH	----	----	42	60/93	----	PP1 - 19.21.23	3#6 & 1#10GRD - 1 1/4"
IMS-1	INDOOR DUCTLESS UNIT	----	----	----	----	TS2	----	POWERED FROM OUTDOOR	----
OMS-1	DUCTLESS UNIT	208V/3PH	----	----	11	30/23R	----	PP1 - 8.10	2#10 & 1#10GRD - 3/4"
OHP-1	OUTDOOR HEAT PUMP	208V/3PH	----	----	17	30/33R	----	SE - 2.4.6	3#10 & 1#10GRD - 3/4"
OHP-2	OUTDOOR HEAT PUMP	208V/3PH	----	----	17	30/33R	----	SE - 8.10.12	3#10 & 1#10GRD - 3/4"
OHP-3	OUTDOOR HEAT PUMP	208V/3PH	----	----	17	30/33R	----	SE - 14.16.18	3#10 & 1#10GRD - 3/4"
OHP-4	OUTDOOR HEAT PUMP	208V/3PH	----	----	17	30/33R	----	SE - 20.22.24	3#10 & 1#10GRD - 3/4"
OHP-5	OUTDOOR HEAT PUMP	208V/3PH	----	----	44	60/33R	----	PP1 - 14.16.18	3#8 & 1#10GRD - 1"
OHP-6	OUTDOOR HEAT PUMP	208V/3PH	----	----	44	60/33R	----	PP1 - 20.22.24	3#8 & 1#10GRD - 1"
TC-1	TIME CLOCK	120V/1PH	----	0.6	----	TS	----	PP1 - 5	2#12 & 1#12GRD - 3/4"
TC-2	TIME CLOCK	120V/1PH	----	0.6	----	TS	----	PP1 - 11	2#12 & 1#12GRD - 3/4"
WH-1	WATER HEATER	208V/3PH	----	6	----	60/21	F	PP1 - 1.3	2#8 & 1#10GRD - 1"
WH-2	WATER HEATER	208V/3PH	----	6	----	60/21	F	PP1 - 7.9	2#8 & 1#10GRD - 1"
NOTES:									
1. COORDINATE WITH MANUFACTURER'S OUTSHEETS OR NAMEPLATE DATA AND ADJUST OVERCURRENT PROTECTION AS NEEDED TO PROTECT EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND TO COMPLY WITH NEC AND ALL LOCAL CODES. COORDINATION SHALL BE DONE PRIOR TO BIDS AND ACCOUNTED FOR IN THE CONTRACTOR'S BID PRICE.									
2. ALL DISCONNECTS SHALL BE HEAVY DUTY TYPE.									
3. ALL FUSES SHALL BE SIZED PER NAMEPLATE DATA.									
4. "NF" - NON-FUSED									
5. "F" - FUSED									
6. "TS" MANUAL MOTOR STARTER WITH THERMAL OVERLOAD ("V" - WEATHERPROOF) (30-AMP" - 30-AMP RATED)									
7. PROVIDE INTERCONNECTING RELAY SUCH THAT FAN IS CONTROLLED BY LIGHTING.									
8. "WP" - WEATHERPROOF ENCLOSURE									
9. CONTRACTOR SHALL COORDINATE EXACT REQUIREMENTS AND LOCATIONS FOR ALL CIRCULATING PUMPS AND TIME CLOCKS WITH MECHANICAL CONTRACTOR PRIOR TO RUSH-IN.									
10. CONTRACTOR SHALL PROVIDE (1) ONE NEW 30-AMP (85K AIC) CIRCUIT BREAKER IN EXISTING PANEL PP1.									
11. CONTRACTOR SHALL PROVIDE (1) ONE NEW 40-AMP (85K AIC) CIRCUIT BREAKER IN EXISTING PANEL PP1.									
12. "TS" MANUAL MOTOR STARTER WITH THERMAL OVERLOAD ("V" - WEATHERPROOF) (30-AMP" - 30-AMP RATED 2-POLE)									

FIRE ALARM SYSTEM NOTES:

1. THE FIRE ALARM SYSTEM SHALL BE A COMPLETE SUPERVISED DETECTION AND ALARM SYSTEM. PROVIDE PRIMARY POWER CIRCUITS AND ALARM NOTIFICATION AND INITIATING CIRCUITS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.

2. INSTALLATION SHALL COMPLY WITH THE ADA, NEC, NFPA, AND UL.

3. ALL SYSTEM COMPONENTS, ENCLOSURES, FRAMES, SURGE ARRESTORS, ETC., SHALL BE GROUNDED.

4. THE FIRE ALARM WIRING SYSTEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS FOR CLASS "B" SYSTEM AND AS FOLLOWS:
PRIMARY POWER – 120V AC
NOTIFICATION APPLIANCE CIRCUITS (NAC) – 24V DC
SIGNALING LINE CIRCUIT (SLC) – 24V DC

5. ALL EQUIPMENT AND DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, APPLICABLE STANDARDS AND ACCESSIBLE FOR VISUAL INSPECTION AND MAINTENANCE. WIRING DIAGRAMS SHALL BE SECURED FROM THE SYSTEM MANUFACTURER AND INSTALLED ACCORDINGLY TO MEET THE SPECIFIED TYPES.

6. A "CERTIFICATE OF COMPLETION" IN ACCORDANCE WITH NFPA 72 SHALL BE FURNISHED PRIOR TO FINAL ACCEPTANCE.

7. CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND PROVIDING ALL FIRE ALARM DEVICE QUANTITIES FROM AUXILIARY DRAWINGS. DO NOT USE THIS RISER FOR DEVICE COUNTS.

8. THE CONTRACTOR OR THEIR FIRE ALARM SYSTEM VENDOR SHALL PROVIDE AUDIBILITY CALCULATIONS INDICATING COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE IBC. THE CONTRACT DRAWINGS INDICATE A MINIMUM DESIGN REQUIRED TO COMPLY WITH APPLICABLE CODES. HOWEVER, SINCE DEVICES VARY FROM MANUFACTURER TO MANUFACTURER THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ANY/ALL ADDITIONAL DEVICES AS REQUIRED TO PROVIDE AUDIBILITY AND VISIBILITY LEVELS THAT COMPLY WITH APPLICABLE SECTIONS OF NFPA 72 AND IBC.

9. PROVIDE ADDITIONAL 100% SPARE CAPACITY IN FIRE ALARM CONTROL PANEL FOR FUTURE USE.
10. PROVIDE EMERGENCY BATTERIES CAPABLE OF RUNNING THE COMPLETE FIRE ALARM SYSTEM IN ALARM MODE, PER NFPA GUIDELINES AT A MINIMUM. BATTERIES SHALL BE SIZED TO HANDLE THE FUTURE CAPACITY.

11. THE FIRE ALARM SYSTEM SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. PROVIDE IP DIALER FOR MONITORING OF THE FIRE ALARM SYSTEM.

12. ALL WIRING TO BE IN CONDUIT SIZED IN ACCORDANCE WITH NEC WITH A MINIMUM SIZE OF 3/4". PROVIDE ALL FIRE ALARM CONDUIT WITH 3" WIDE RED STRIPE EVERY 10' FOR LENGTH OF RUN.

13. PROVIDE ALL FIRE ALARM JUNCTION BOXES WITH RED COVER, STENCIL THE LETTERS "FA" IN 2" HIGH LETTERS ON EACH BOX COVER.

14. FIRE ALARM SYSTEM PROVIDER IS RESPONSIBLE FOR PROVIDING SIGNAL LINE BOOSTERS AS REQUIRED FOR SYSTEM TO FUNCTION PROPERLY.

15. IN ADDITION TO THE DEVICES INDICATED ON THE PLANS THE CONTRACTOR SHALL PROVIDE A SMOKE DETECTOR LOCATED WITHIN 5 FEET OF EACH FIRE ALARM NOTIFICATION APPLIANCE PANEL.

16. CONTRACTOR SHALL PROVIDE ALL ADDITIONAL 120 VOLT CIRCUITS NEEDED TO MAKE THE FIRE ALARM SYSTEM A COMPLETE FUNCTIONAL SYSTEM.

17. PROVIDE VOICE EVACUATION PER IBC SECTION 907 AND ALL SECTIONS OF THE INTERNATIONAL FIRE CODE.

18. "CLG" DENOTES A CEILING MOUNTED DEVICE AND "WP" DENOTES WEATHERPROOF DEVICE..

19. SEE STANDARD MOUNTING HEIGHT INSTRUCTIONS ON DETAILS (2) THIS SHEET.

20. CONTRACTOR OR THEIR FIRE ALARM SYSTEM VENDOR SHALL PROVIDE SMOKE DETECTOR REPORTS AT THE FINAL TESTING OF THE FIRE ALARM SYSTEM TO SHOW THAT ALL SMOKE DETECTORS ARE LESS THAN 10% DIRTY. ANY SMOKE DETECTOR GREATER THAN 10% DIRTY SHALL BE CLEANED OR REPLACED UNTIL VALUE IS LESS THAN 10%.

21. CONTRACTOR SHALL COORDINATE WITH FIRE PROTECTION DRAWINGS AND PROVIDE MONITORING FOR ALL TAMPER, FLOW, AND SUPERVISORY SWITCHES AS REQUIRED PER NFPA. ALSO, COORDINATE AND PROVIDE HEAT DETECTORS WITHIN 1' OF EVERY SPRINKLER HEAD IN THE ELEVATOR SHAFT.

FIRE ALARM MOUNTING HEIGHTS/INSTRUCTIONS NOTES:

- 1 MOUNT FIRE ALARM ENCLOSURE WITH THE TOP OF THE CABINET 72" ABOVE THE FINISHED FLOOR OR CENTER THE CABINET AT 63", WHICHEVER IS LOWER.

2 MOUNT ANNUNCIATOR WITH THE TOP OF THE PANEL 72" ABOVE THE FINISHED FLOOR OR CENTER OF THE PANEL AT 63", WHICHEVER IS LOWER. FLUSH MOUNT ANNUNCIATOR UNLESS OTHERWISE NOTED.

3 REMOTE POWER SUPPLIES AND AUXILIARY FIRE ALARM PANELS. LOCATE THE PANEL OR CABINET WITH THE TOP OF THE PANEL 72" ABOVE THE FINISHED FLOOR OR CENTER THE PANEL AT 63", WHICHEVER IS LOWER. DO NOT LOCATE THESE PANELS ABOVE CEILINGS OR WHERE INACCESSIBLE BY A PERSON STANDING ON THE FINISHED FLOOR OF THE SPACE.

4 MOUNT STATIONS SO THAT THEIR OPERATING HANDLES ARE BETWEEN 42" AND 48" ABOVE THE FINISHED FLOOR. DO NOT USE BRICK OR BLOCK COURSES AS YOUR ONLY GUIDE. CUT BRICK OR BLOCK TO ACHIEVE PROPER HANDLE HEIGHT.

5 ALL WALL MOUNTED AUDIO/VISUAL DEVICES SHALL BE MOUNTED SO THE ENTIRE LENS IS BETWEEN 80" AND 96" ABOVE THE FINISHED FLOOR. WHERE LOW CEILING HEIGHTS DO NOT PERMIT MOUNTING AT A MINIMUM OF 80" AFF, VISIBLE APPLIANCES SHALL BE MOUNTED WITHIN 6" OF THE CEILING. DO NOT USE BRICK OR BLOCK COURSES AS YOUR ONLY GUIDE. CUT BRICK OR BLOCK TO ACHIEVE PROPER LENS HEIGHT.

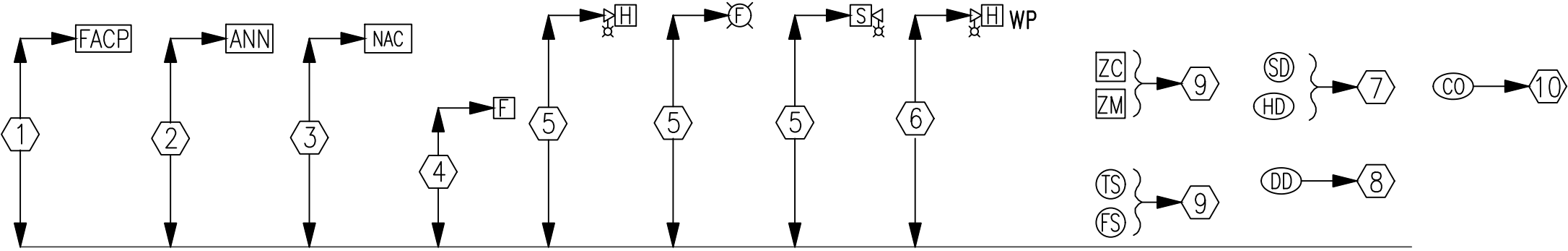
6 WEATHER PROOF APPLIANCES INSTALLED OUTDOORS SHALL BE UL LISTED FOR OUTDOOR USE. MOUNT SO THE ENTIRE LENS IS BETWEEN 80" AND 96" ABOVE FINISHED FLOOR. FOR WEATHERPROOF APPLIANCES MOUNTED AT FIRE DEPARTMENT CONNECTION (FDC), COORDINATE WITH LOCAL AUTHORITY HAVING JURISDICTION PRIOR TO ROUGH-IN FOR MOUNTING HEIGHT.

7 SMOKE AND HEAT DETECTOR HEADS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED. IF DETECTOR HEADS ARE INSTALLED PRIOR TO CONSTRUCTION CLEAN-UP, PROTECTIVE COVERS MUST BE IN PLACE TO PROTECT DETECTOR HEADS FROM PARTICULATE DAMAGE. DETECTORS LOCATED ON THE WALL SHALL HAVE THE TOP OF THE DETECTOR AT LEAST 4" AND NOT MORE THAN 12" BELOW THE CEILING. INSTALL SMOKE DETECTORS NO CLOSER THAN 3 FEET FROM AIR HANDLING SUPPLY AIR DIFFUSERS OR RETURN AIR OPENINGS. LOCATE DETECTORS NO CLOSER THAN 12" FROM ANY PART OF A LIGHTING FIXTURE.

8 DUCT SMOKE DETECTOR HEADS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED. DETECTOR HEADS INSTALLED PRIOR TO CONSTRUCTION CLEAN-UP SHALL BE REPLACED. DUCT DETECTORS ARE TO BE PROVIDED BY THE FIRE ALARM CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR.

9 ADDRESSABLE MODULES SHALL BE INSTALLED LESS THAN 3- FEET FROM THE DEVICE BEING CONTROLLED OR MONITORED. ORIENT THE DEVICE MOUNTING FOR BEST MAINTENANCE ACCESS. LABEL ALL ADDRESSABLE MODULES AS TO THEIR FUNCTION.

10 MOUNT WITHIN 5'-0" OF FURNACE DISCHARGE REGISTER.

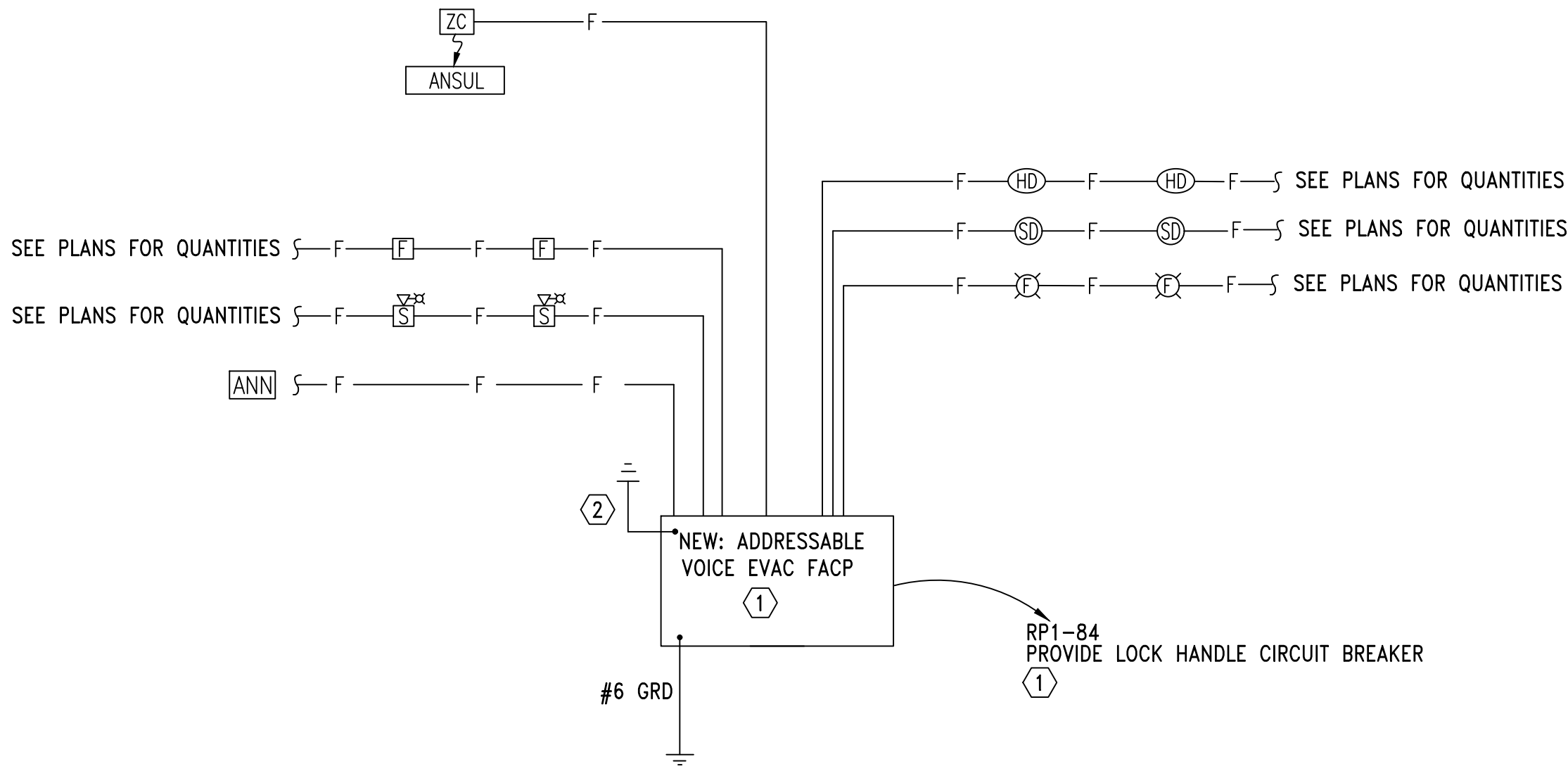


2 STANDARD MOUNTING HEIGHTS/INSTRUCTIONS
E6.1 NO SCALE

SHEET NOTES:

- 1 PROVIDE SURGE SUPPRESSION ON ON ALL INCOMING AND OUTGOING CABLES WHERE THEY ENTER OR EXIT THE FACILITY. SURGE SUPPRESSION WILL BE REQUIRED FOR EACH CABLE.

2 PROVIDE A UL LISTED CELLULAR COMMUNICATOR IN THE NEW FIRE ALARM PANEL. MUST BE COMPATIBLE WITH THE CURRENT COUNTY WIDE EST MONITORING SYSTEM.



1 FIRE ALARM RISER DIAGRAM
E6.1 NO SCALE

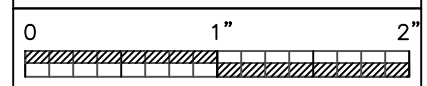
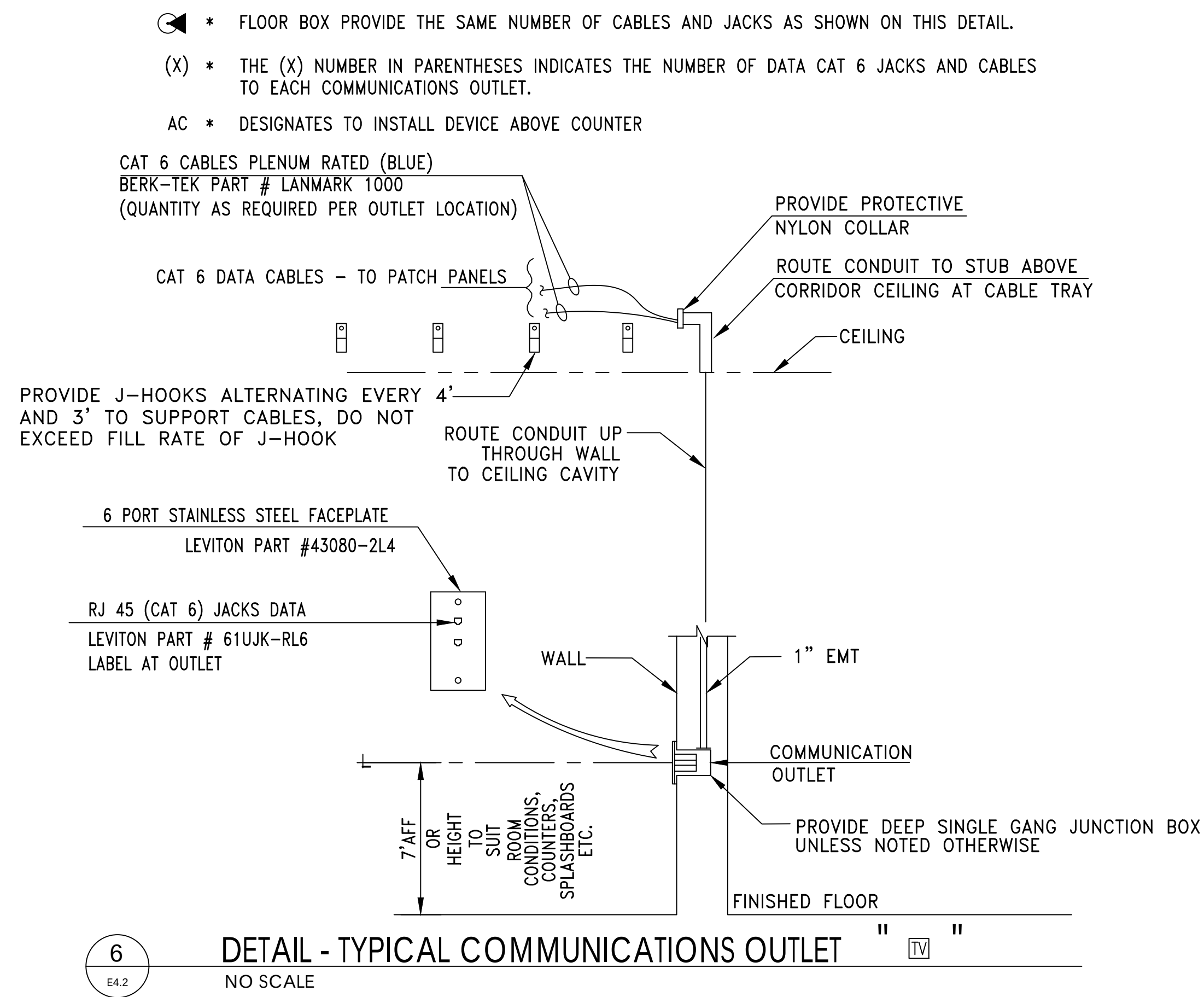
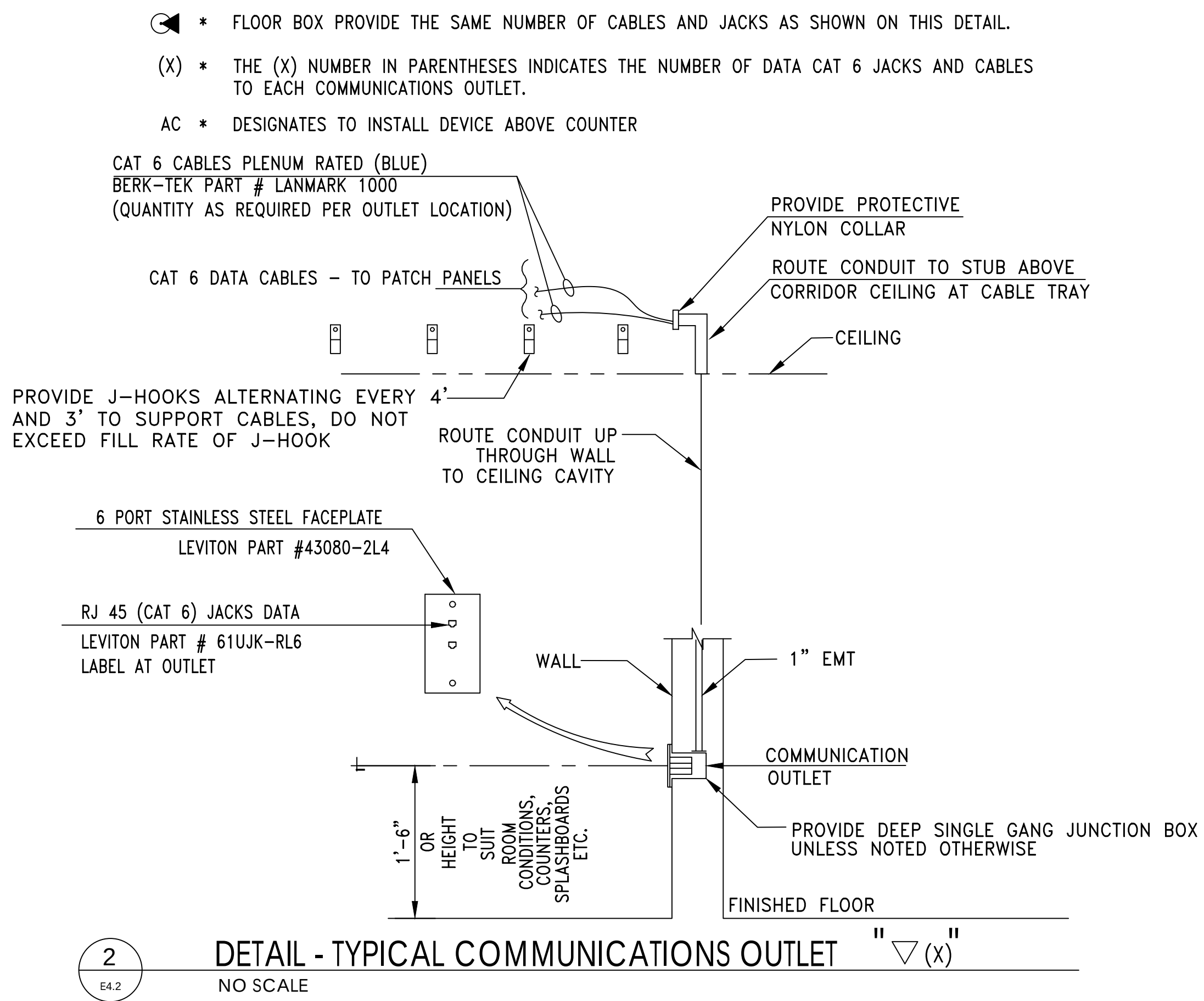


PROJ. MGR.:	J. TILLEY
DRAWN:	J. TILLEY
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JOB NO. MKA-24-261-00

SHEET NO:

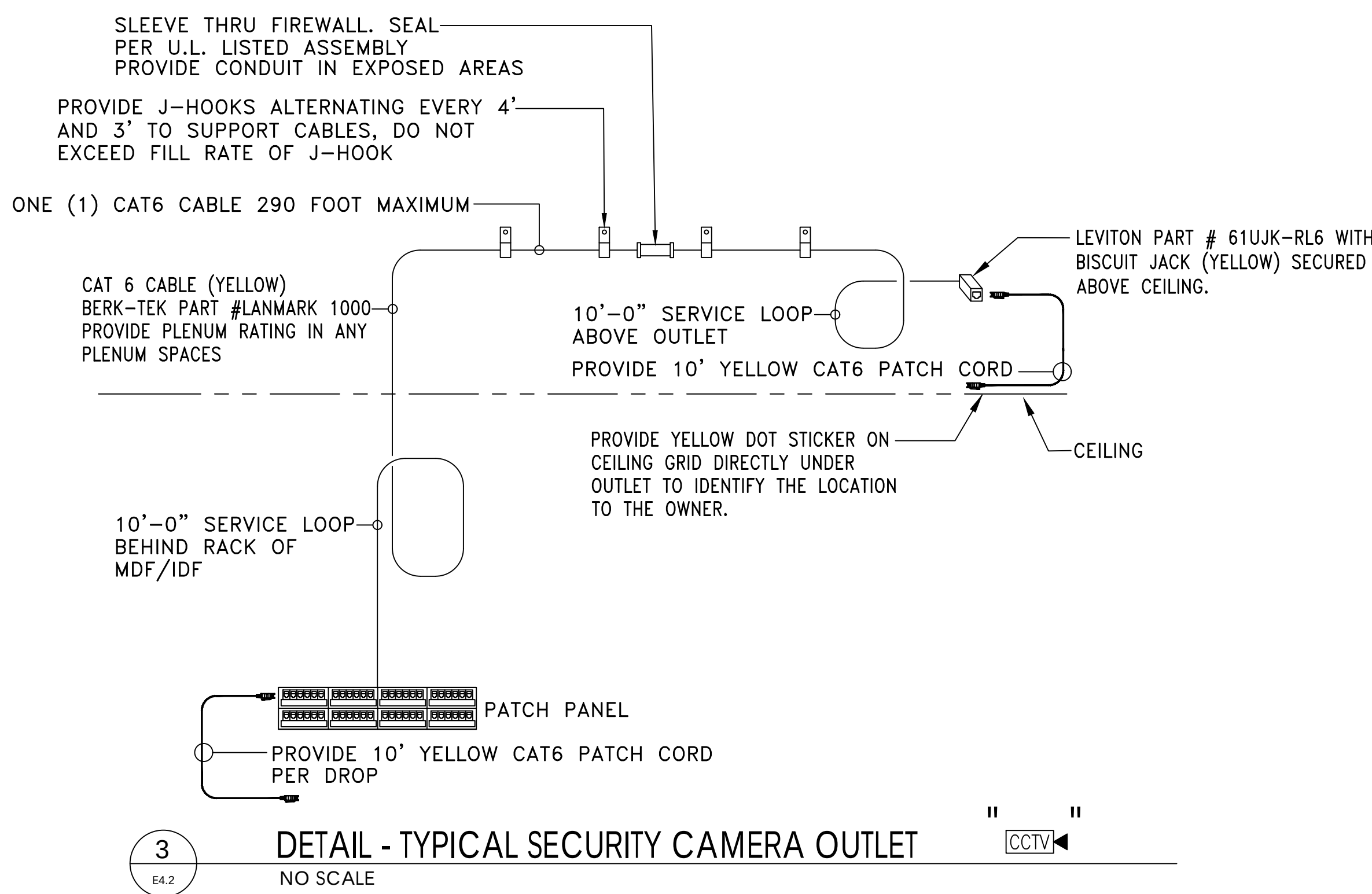
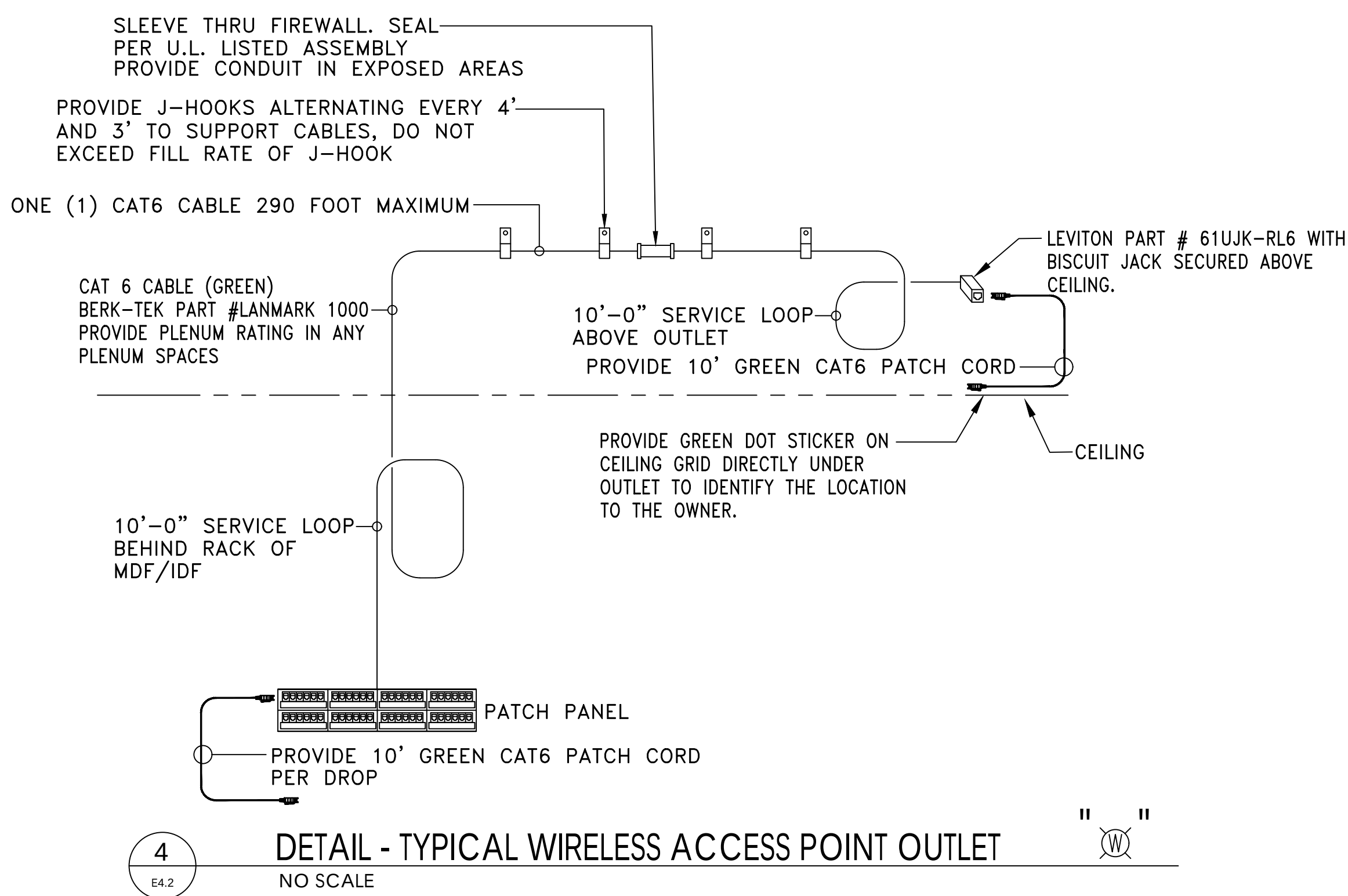
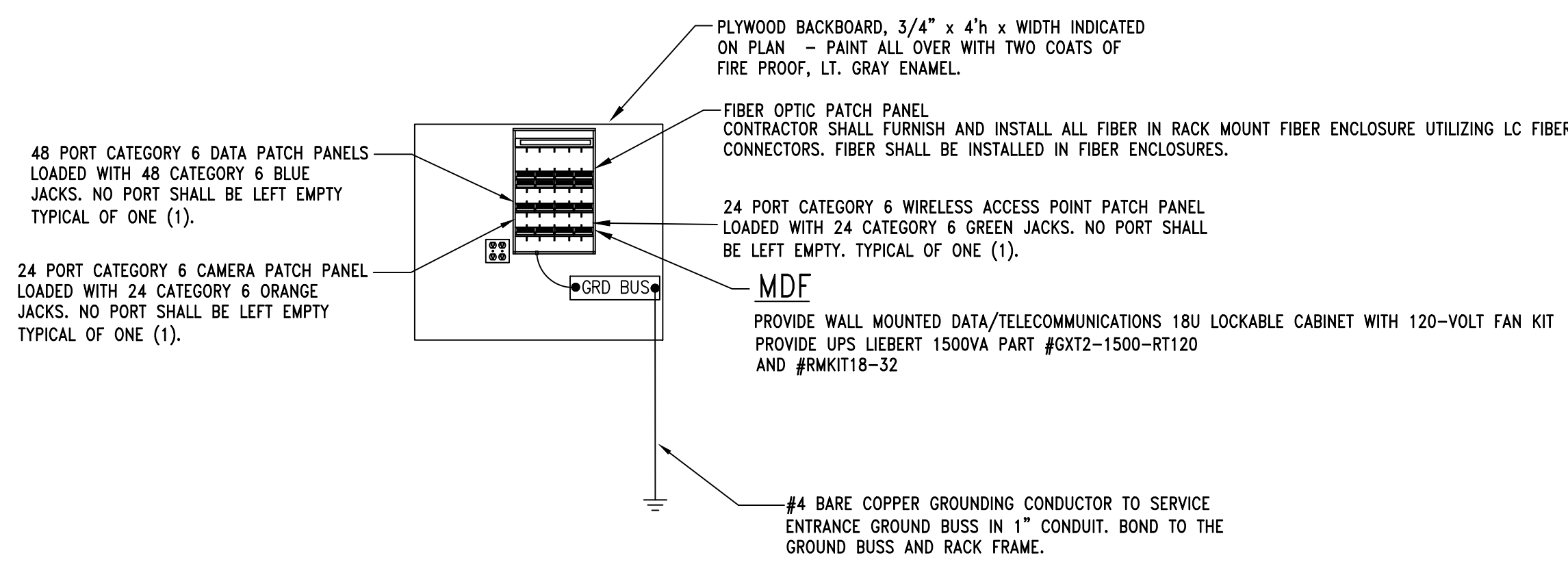
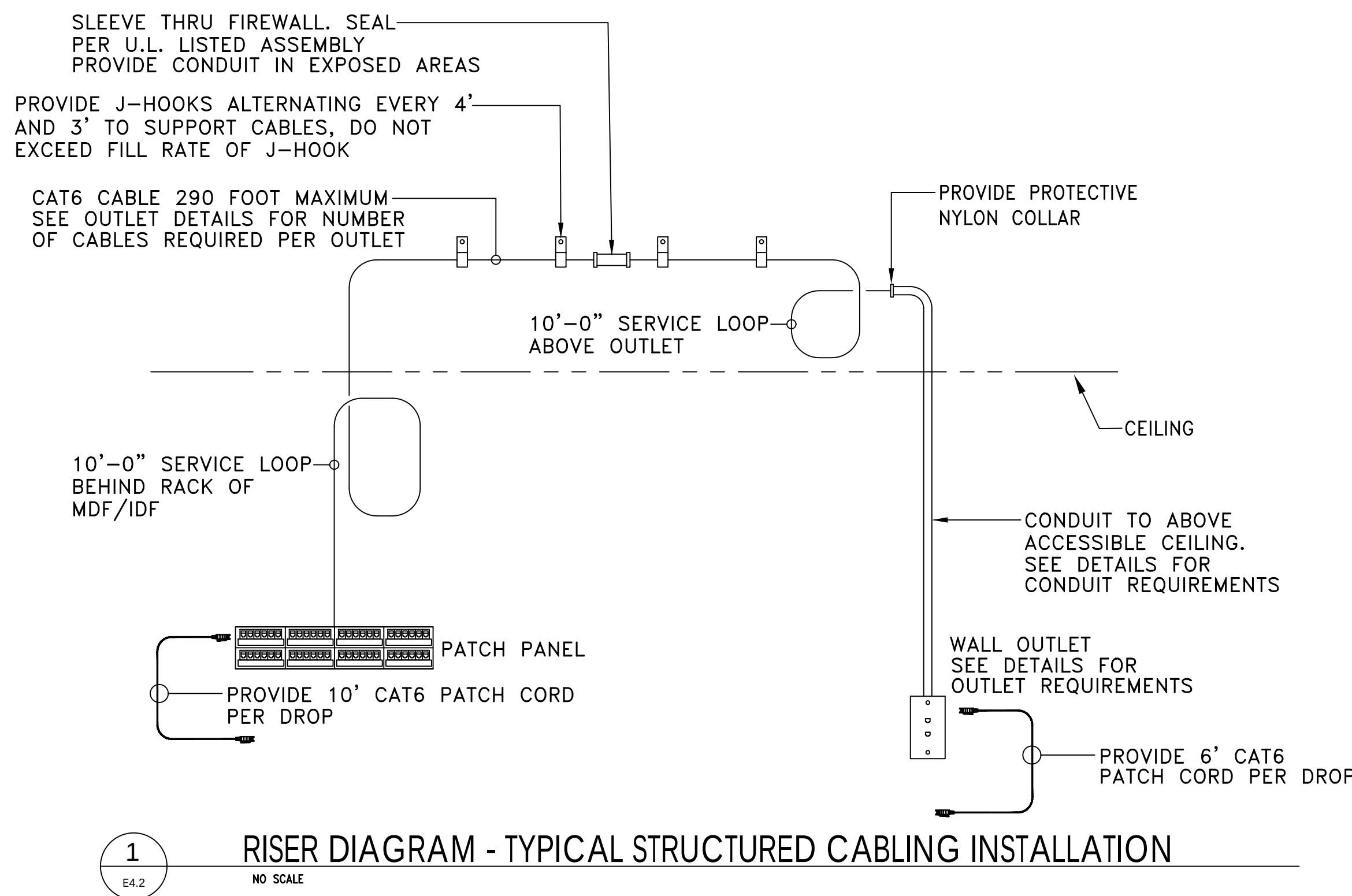
E6.2

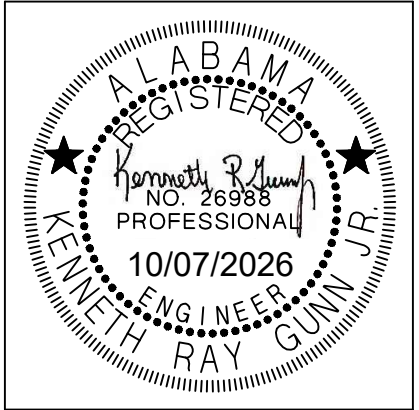


COMMUNICATION NOTES:

1. PROVIDE 5/8" STRUT ASSEMBLY AT TOP AND BOTTOM OF TBB TO SUPPORT ALL CONDUITS TERMINATING AT BACKBOARD.
2. TBB SHALL BE 3/4" PLYWOOD EXTERIOR RATED AND CUT TO COVER ALL WALLS OR AS INDICATED. PAINT WITH TWO COATS OF FIRE RETARDANT PAINT. MOUNT 2' AFF.
3. PROVIDE A PLASTIC BUSHING OR PROTECTIVE COLLAR AT EACH CONDUIT TERMINATION, INCLUDING TERMINATIONS ABOVE THE CEILING, AT CABLE TRAY, OR AT TBB.
4. ALL CONDUIT TERMINATIONS SHOULD BE DONE EVENLY AT THE TOP AND BOTTOM OF TBB. TERMINATIONS SHALL BE MADE WITHIN THE FIRST FEW INCHES OF THE TBB.
5. SEAL ALL CONDUITS FROM THE EXTERIOR WITH A SEALING COMPOUND, ONCE ALL CABLING HAS BEEN INSTALLED.
6. PROVIDE GROUND BUS FOR EACH TBB. SEE GROUND BUS INSTALLATION DETAIL.
7. PROVIDE ALL CONDUITS WITH MINIMUM #800 MULE TAPE (PULL TAPE).
8. STENCIL ALL JUNCTION BOX COVERS ABOVE THE CEILING WITH 2" LETTERS THAT READ "COMM".
9. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR ALL RACEWAYS, CABLE TRAY, CABLING, PATCH PANELS, TERMINATIONS, BACKBOARDS, ETC. SEE RISER DIAGRAM, DETAILS, AND SPECIFICATIONS FOR FURTHER EQUIPMENT REQUIREMENTS.
10. BOND RACK FRAMES, STRUT, CONDUITS, AND LADDER RACK TO THE GROUND BUS WITH MINIMUM SIZE WIRE OF #1/0.

* NOTE: EXTERIOR CAMERAS PROVIDE SINGLE GANG JUNCTION BOX WITH 3/4" CONDUIT STUBBED TO ABOVE INTERIOR CEILING. COORDINATE EXTERIOR CAMERA KEYSTONE LOCATION WITH OWNER PRIOR TO INSTALLATION



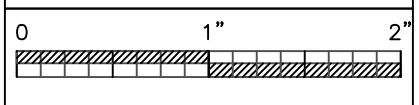


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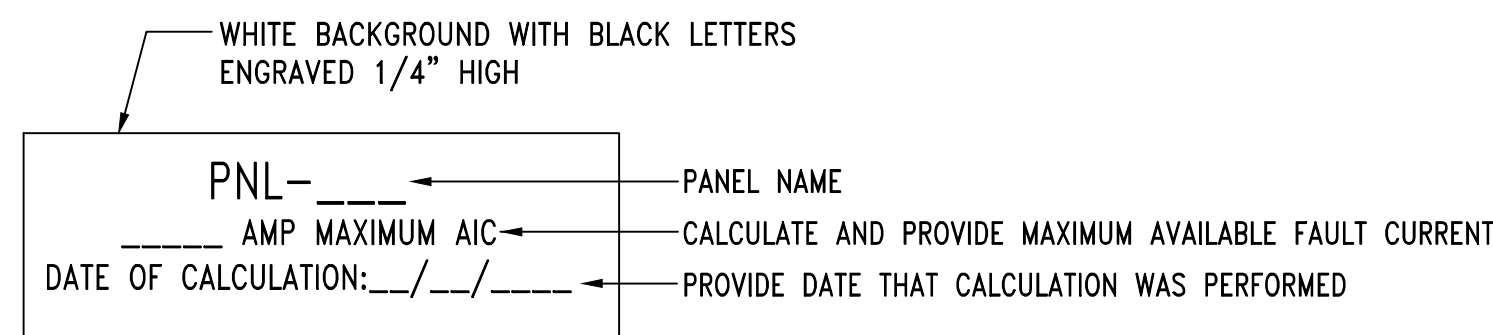
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E7.1



NOTES:

- CONTRACTOR SHALL CALCULATE AND PROVIDE NAMEPLATE ON THE SERVICE ENTRANCE EQUIPMENT THAT INDICATES THE MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE THE CALCUALTION WAS PERFORMED. SEE NAMEPLATE REQUIREMENTS BELOW.



TYPICAL SERVICE ENTRANCE FAULT CURRENT NAMEPLATE

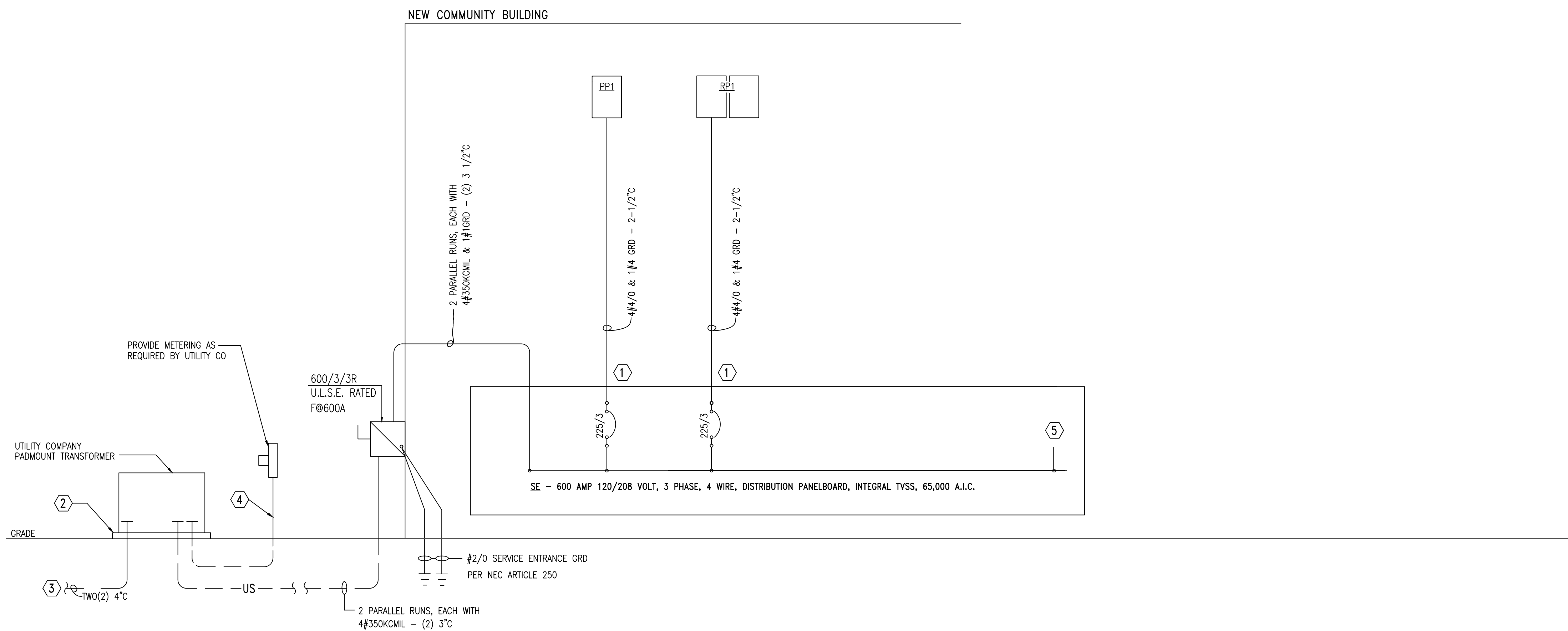
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E7.1
DETAIL - SERVICE ENTRANCE FAULT CURRENT NAMEPLATE
NO SCALE

POWER RISER DIAGRAM NOTES:

- INSTALLATION AND CONNECTION OF ALL DEVICES SHALL BE IN ACCORDANCE WITH NEC, MANUFACTURER'S RECOMMENDATIONS, AND STATE AND LOCAL CODES.
- CONTRACTOR IS RESPONSIBLE FOR THE CONNECTING, INSTALLATION, AND MARKING OF ALL POWER FEEDER CONDUCTORS FOR THE PROPER PHASE SEQUENCE AND LOADING. CONTRACTOR SHALL TEST EACH FEEDER AND EQUIPMENT FEEDERS WITH A PHASE METER PRIOR TO CONNECTING LOADS.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND VERIFYING WITH ALL DIVISIONS THE ACTUAL NAMEPLATE DATA OF ALL EQUIPMENT AND DEVICES SUPPLIED ON THIS PROJECT PRIOR TO BID. CONTRACTOR SHALL THEN PROVIDE THE PROPERLY SIZED OVERCURRENT DEVICES (CIRCUIT BREAKERS, CONDUCTORS, DISCONNECTS, FUSES, ETC.) TO PROPERLY PROTECT THE EQUIPMENT PER THE NEC. ENGINEER'S DESIGN BASED ON DATA GIVEN TO HIM BY DESIGNERS OF OTHER DIVISIONS. ACTUAL NAMEPLATE DATA COULD DIFFER.
- SEAL ALL CONDUITS FROM THE EXTERIOR WITH A SEALING COMPOUND, ONCE ALL CABLING HAS BEEN INSTALLED.
- PROVIDE 4" CONCRETE HOUSEKEEPING PAD WITH 1" CHAMFER FOR ALL FLOOR MOUNTED TRANSFORMERS AND SWITCHBOARDS.
- COORDINATE WITH GROUNDING DETAILS ON SHEET E7.2 FOR ALL THE DIFFERENT TYPE GROUNDING REQUIREMENTS.
- ALL UNDERGROUND SECONDARY FEEDERS SHALL BE A MINIMUM OF 36" BELOW GRADE TO THE TOP OF THE DUCT BANK.
- ALL UNDERGROUND PRIMARY FEEDERS SHALL BE A MINIMUM OF 48" BELOW GRADE TO THE TOP OF THE CONDUIT.
- CONTRACTOR SHALL PROVIDE A FULL SIZE COPY OF THE AS-BUILT POWER RISER DIAGRAM FRAMED BEHIND PLEXIGLASS SCREWED TO THE WALL NEAR MAIN SERVICE PANEL.

SHEET NOTES:

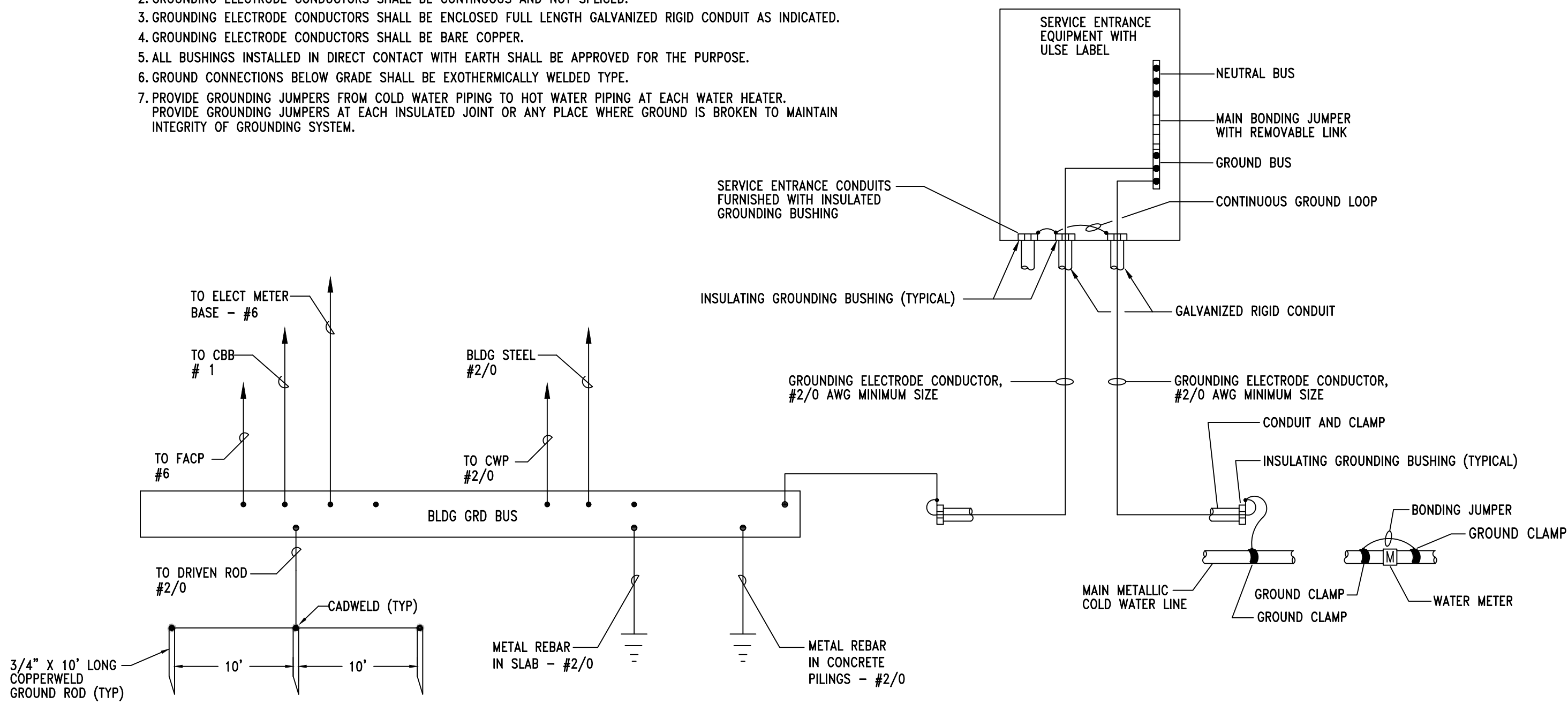
- FEEDER CIRCUIT SHALL BE INSTALLED UNDERGROUND BELOW SLAB.
- INSTALL CONCRETE PAD FOR PADMOUNT TRANSFORMER AS DIRECTED BY UTILITY COMPANY.
- INSTALL UNDERGROUND PRIMARY CONDUITS AS DIRECTED BY TROY UTILITES.
- INSTALL A MINIMUM 1-1/4" CONDUIT FROM THE SECONDARY CONNECTION COMPARTMENT OF THE PADMOUNT TRANSFORMER TO THE METER BASE. VERIFY THE EXACT CONDUIT SIZE, TERMINATION POINTS, AND ROUTING WITH TROY UTILITIES PRIOR TO ROUGH-IN. MOUNT METER BESIDE TRANSFORMER. PROVIDE UNISTRUT SET IN CONCRETE FOR MOUNTING OF METER. COORDINATE & PROVIDE FEED THRU METER IF REQUIRED BY TROY UTILITY.
- SEE PANELBOARD SCHEDULE FOR CIRCUIT BREAKER PROVISIONS.



1
E7.1
POWER RISER DIAGRAM
NO SCALE

NOTES

1. GROUNDING ELECTRODE SYSTEM SHALL BE IN ACCORDANCE WITH NEC ARTICLE 250
2. GROUNDING ELECTRODE CONDUCTORS SHALL BE CONTINUOUS AND NOT SPLICED.
3. GROUNDING ELECTRODE CONDUCTORS SHALL BE ENCLOSED FULL LENGTH GALVANIZED RIGID CONDUIT AS INDICATED.
4. GROUNDING ELECTRODE CONDUCTORS SHALL BE BARE COPPER.
5. ALL BUSHINGS INSTALLED IN DIRECT CONTACT WITH EARTH SHALL BE APPROVED FOR THE PURPOSE.
6. GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMICALLY WELDED TYPE.
7. PROVIDE GROUNDING JUMPERS FROM COLD WATER PIPING TO HOT WATER PIPING AT EACH WATER HEATER. PROVIDE GROUNDING JUMPERS AT EACH INSULATED JOINT OR ANY PLACE WHERE GROUND IS BROKEN TO MAINTAIN INTEGRITY OF GROUNDING SYSTEM.



2 DETAIL - SERVICE ENTRANCE GROUNDING INSTALLATION
E7.2 NO SCALE

GROUNDING AND BONDING INSTALLATION NOTES

1. ALL GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH THE NEC, NESC, IEEE, ANSI AND UL STANDARDS.
2. ALL DIMENSIONING INDICATED IN THESE DOCUMENTS ARE FOR REFERENCE AND COORDINATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD.
3. THE PURPOSE OF THE GROUNDING AND BONDING SYSTEM IS TO ESTABLISH ALL EQUIPMENT ENCLOSURES, NON-CURRENT CARRYING METALLIC PORTIONS OF THE ELECTRICAL DISTRIBUTION SYSTEM, METAL PIPING, METAL PIPING FRAME, ETC., AT A ZERO POTENTIAL RELATIVE TO THE EARTH GROUND AND PROVIDE FOR A SAFE, LOW IMPEDANCE RETURN PATH FOR GROUND-FAULT CURRENT. THIS SHALL BE ACCOMPLISHED IN THE FOLLOWING MANNER:
 - a. PROVIDE A SOLIDLY GROUNDED SECONDARY SYSTEM.
 - b. INTER-CONNECT ALL GROUND BUSES AND POINTS IN THE SYSTEM WITH A COPPER GRD CONDUCTOR (BUS) SYSTEM.
 - c. ALL METALLIC RACEWAYS SHALL BE UL APPROVED AND MADE-UP TIGHT AT ALL COUPLINGS AND TERMINATIONS.
 - d. ALL GROUND CONDUCTORS IN CIRCUITS SHALL BE CONTAINED WITHIN THE SAME RACEWAY AS CURRENT CARRYING CONDUCTORS.
 - e. ALL SPLICES AND TERMINATIONS SHALL BE MADE TIGHT AND AS SUCH TO PROVIDE LOW IMPEDANCE AND SHALL HAVE THE SAME SHORT-TIME CURRENT-CARRYING CAPABILITY AS THE CONDUCTOR IT IS CONNECTED TO.
 - f. ALL GRD ELECTRODES OR BONDING CONDUCTORS INSTALLED ALONE WITHIN A RACEWAY SHALL UTILIZE GRC WITH GROUNDING BUSHINGS AT EACH END. THIS GROUND CONDUCTOR SHALL LOOP THROUGH THE BUSHING LUG PRIOR TO TERMINATION.

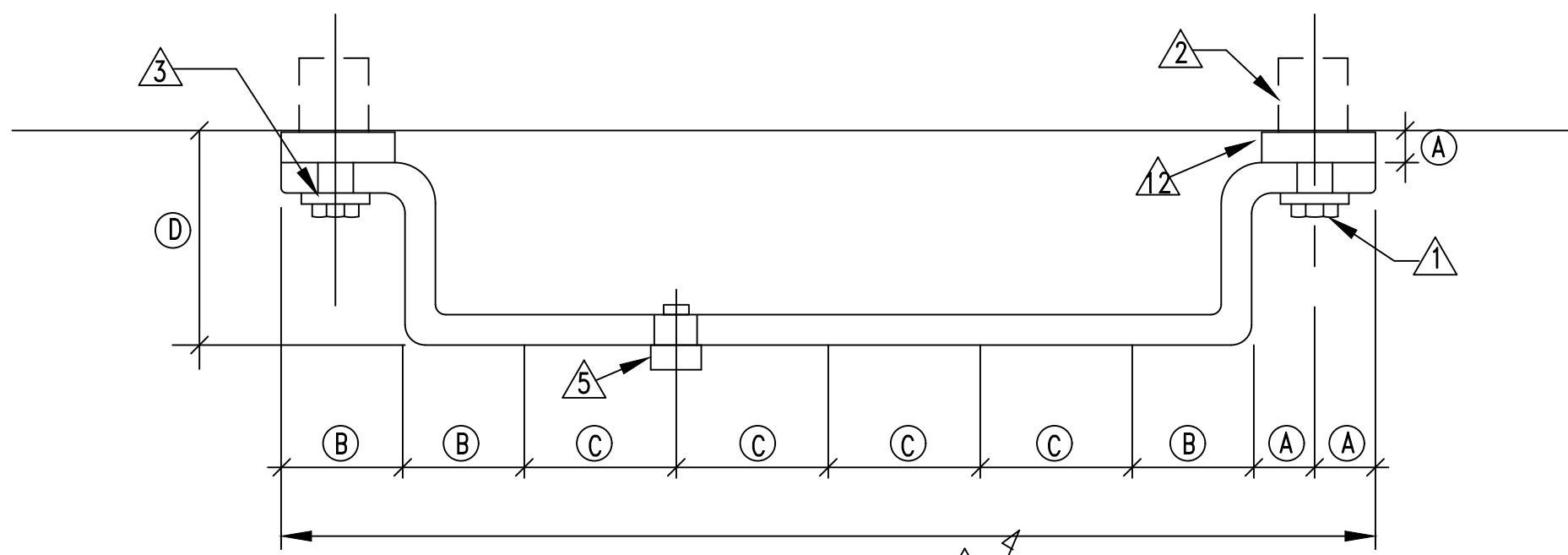
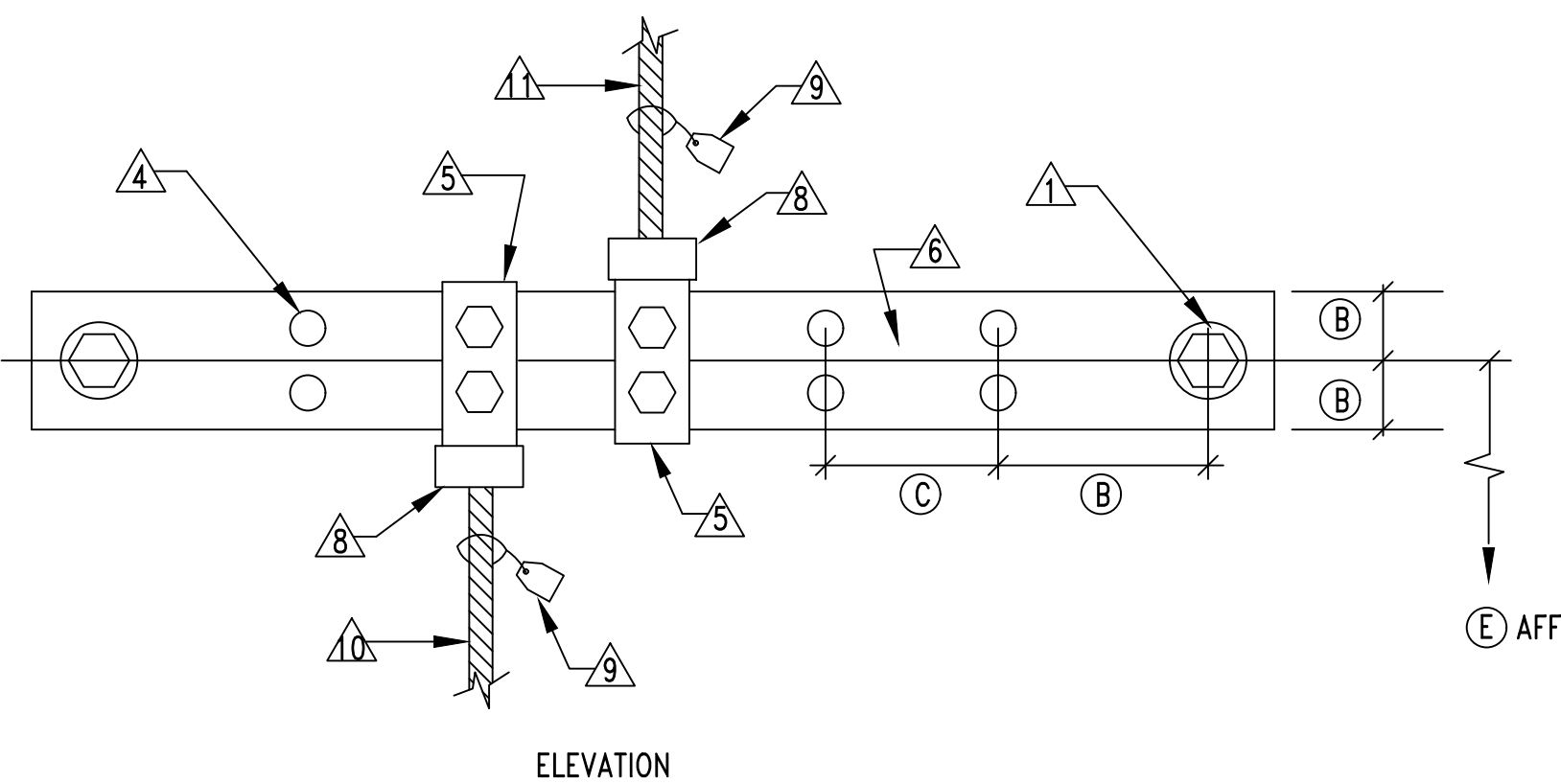
DIMENSION BLOCK		
REF	ENGLISH	SI
A	1"	25.4mm
B	2"	50.8mm
C	2 1/2"	63.5mm
D	3"	76.2mm
E	1'-6"	4572m

GROUND BUS NOTES

1. GROUND BUS INSTALLATION SHALL BE IN ACCORDANCE WITH THIS DETAIL AND AS INDICATED ON THE DRAWINGS.

KEYED NOTES

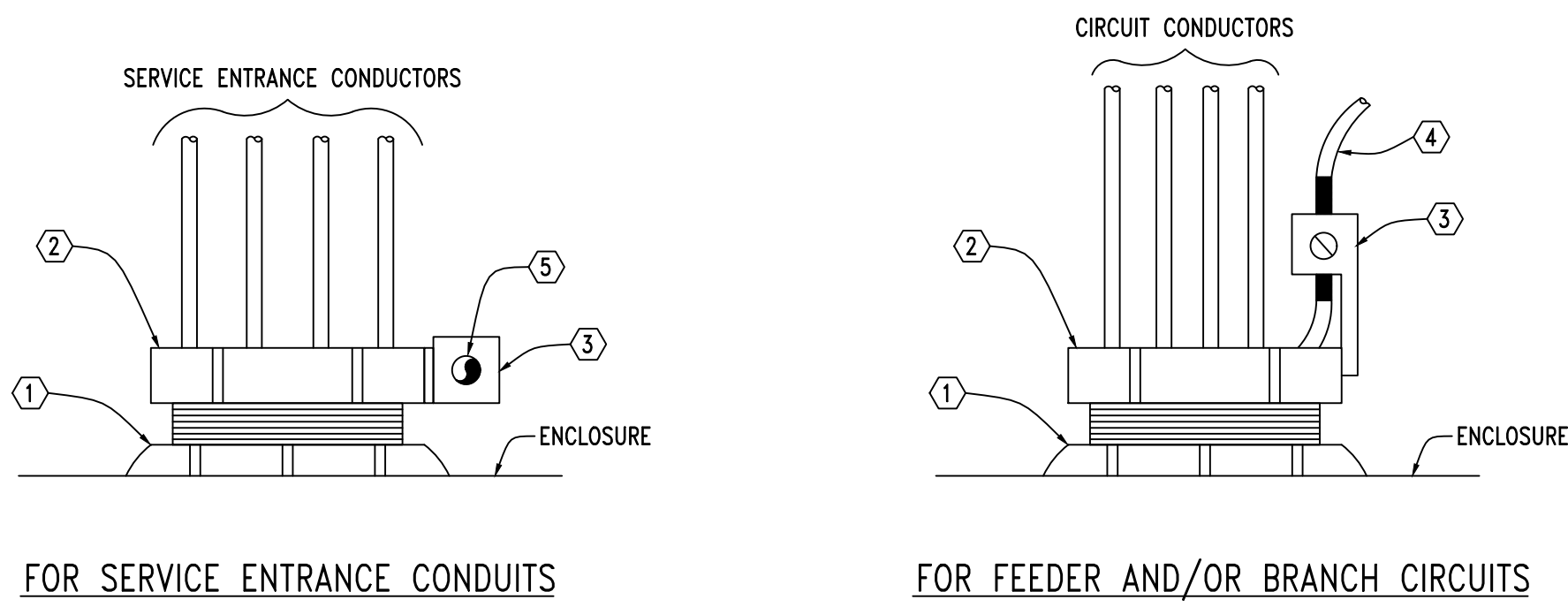
- 1/2" (12.7mm) X 1 1/2" (38.1mm) SILICON-BRONZE MACHINE BOLT & SILICON-BRONZE WASHER
- 1/2" (12.7mm) EXPANSION ANCHOR
- 9/16"Ø (14.2875mm) HOLE IN BAR
- DRILLED DOUBLE CONNECTOR HOLES
- FLAT, TWO-HOLE CU CABLE CONNECTOR #6 TO #2 (DOUBLE LUGS) #1 TO #4/0 (SINGLE LUGS ONLY)
- 4" (101.6mm) WIDE, 1/4" (6.35mm) DEEP COPPER BUS BAR.
- LENGTH AS REQUIRED BY NUMBER OF CONDUCTOR CONNECTIONS OR AS SPECIFICALLY INDICATED. PROVIDE INTERMEDIATE WALL SUPPORTS AS REQUIRED.
- TYP CU GRD CONDUCTOR CONNECTION
- DESCRIPTION TAG. STATE SIZE OF CONDUCTOR AND TO WHAT IT IS CONNECTED TO.
- TYP GRD CONNECTION FROM BELOW. SEE APPLICABLE DETAILS FOR SLAB PENETRATIONS.
- TYP GRD CONNECTION FROM ABOVE. SEE APPLICABLE DETAILS FOR GRC INSTALLATIONS.
- INSULATED NON-CONDUCTIVE SPACER



1 DETAIL - TYPICAL GROUND BUS INSTALLATION
E7.2 NO SCALE

DETAIL NOTES

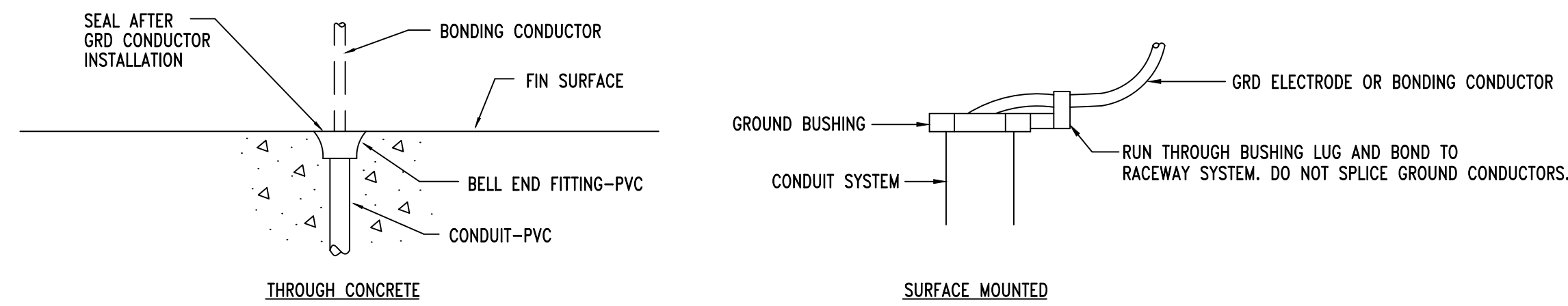
- 1 LOCK-NUT ASSEMBLIES
- 2 METAL GROUNDING BUSHING
- 3 COPPER GROUND LUG
- 4 COPPER GROUND CONDUCTOR. REMOVE INSULATION AT BUSHING. RUN THROUGH BUSHING LUG AND BOND TO RACEWAY SYSTEM. DO NOT SPLICE OR TAP.
- 5 CONTINUOUS COPPER GROUND CONDUCTOR FROM GROUND BUS THROUGH EACH BUSHING. DO NOT SPLICE OR TAP.



3 DETAIL - TYPICAL GROUND BUSHING INSTALLATION
E7.1 NO SCALE

NOTES

1. ALL GROUND ELECTRODE CONDUCTORS, SYSTEM BONDING CONDUCTORS, ETC., RUN SEPARATELY SHALL BE PROTECTED BY A CONDUIT SYSTEM.
2. ALL SYSTEM GROUNDING OR BONDING CONDUCTORS SHALL GENERALLY BE ENCLOSED BY A GRC CONDUIT. PROVIDE GROUND BUSHINGS ON EACH END AND BOND CONDUCTORS TO RACEWAY SYSTEM.
3. SYSTEM BONDING CONDUCTORS THAT PENETRATE CONCRETE SLABS SHALL BE ENCLOSED BY A PVC CONDUIT. PROVIDE BELL END FITTING ON EACH END AND SEAL THOSE TERMINATING AT A STUB-UP SHALL BE FLUSH WITH FLOOR.



3 DETAIL - TYPICAL GROUND CONDUCTOR IN CONDUIT SYSTEM
E7.2 NO SCALE



PROJ. MGR.:	J. TILLERY
DRAWN:	J. TILLERY
DATE:	10-07-2026
REVISIONS	

JOB NO. MKA-24-261-00

SHEET NO:

E7.2

