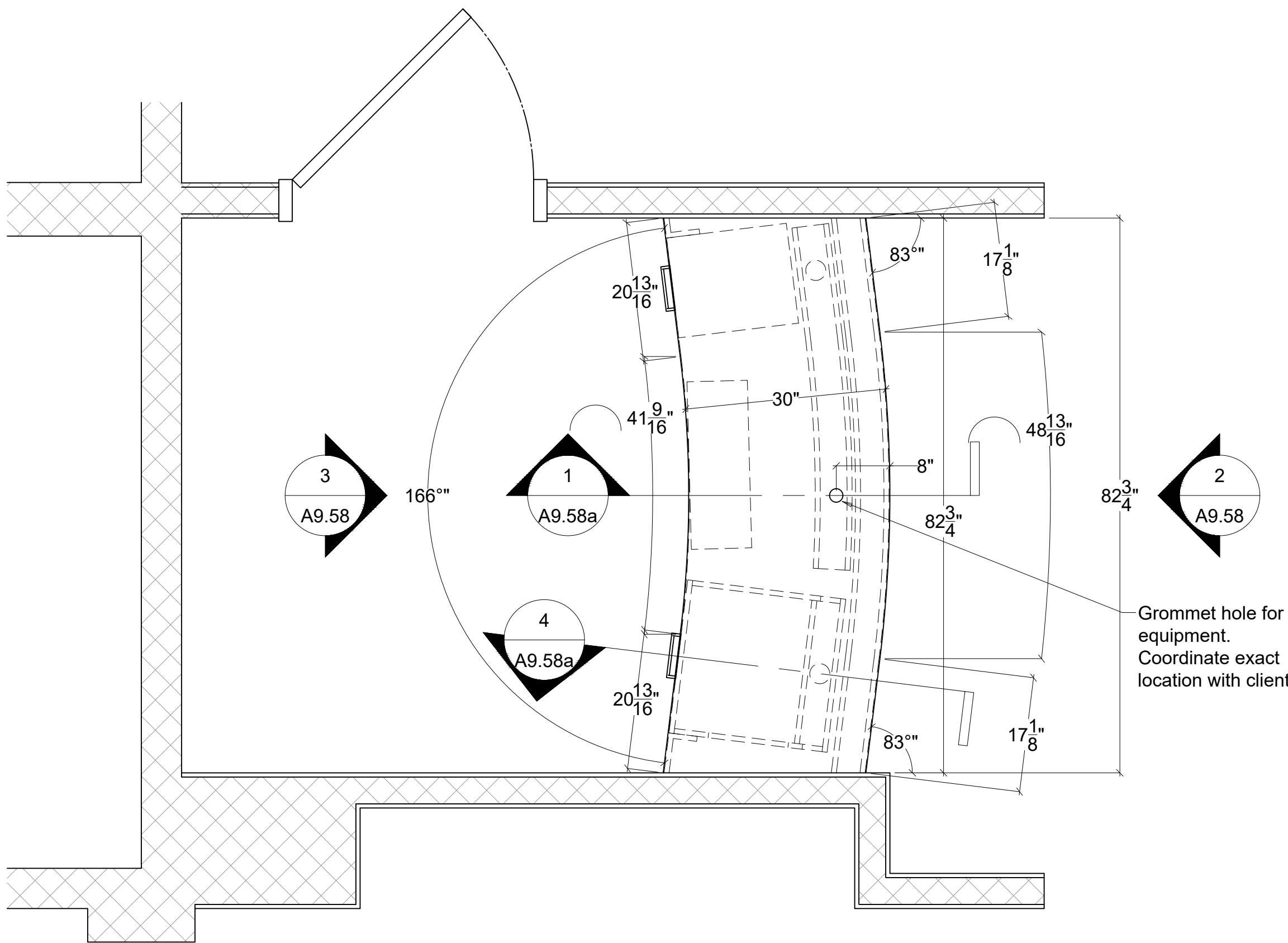




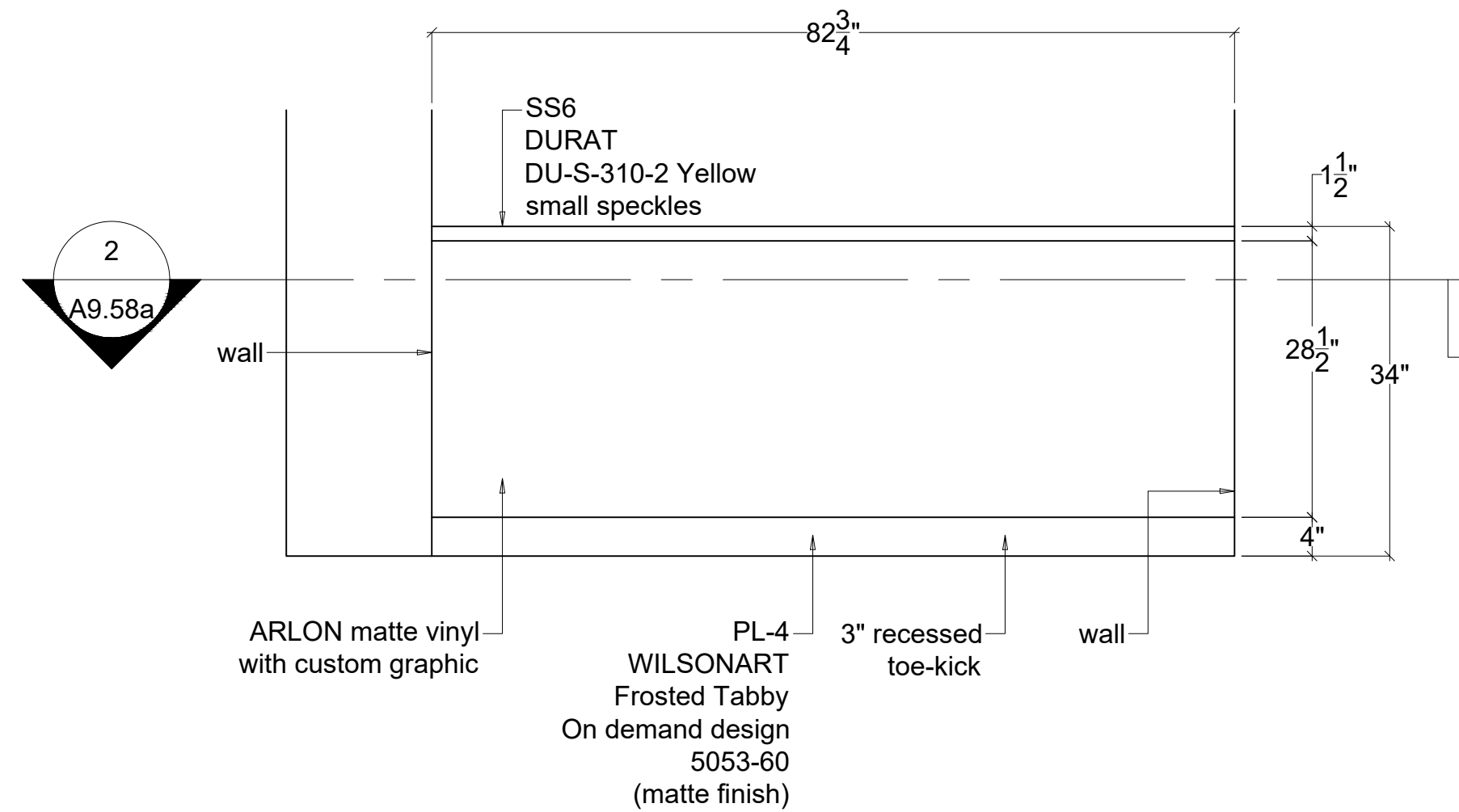
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CHECKED	Checker
DATE	07/28/2025

CASEWORK -
LEVEL 2

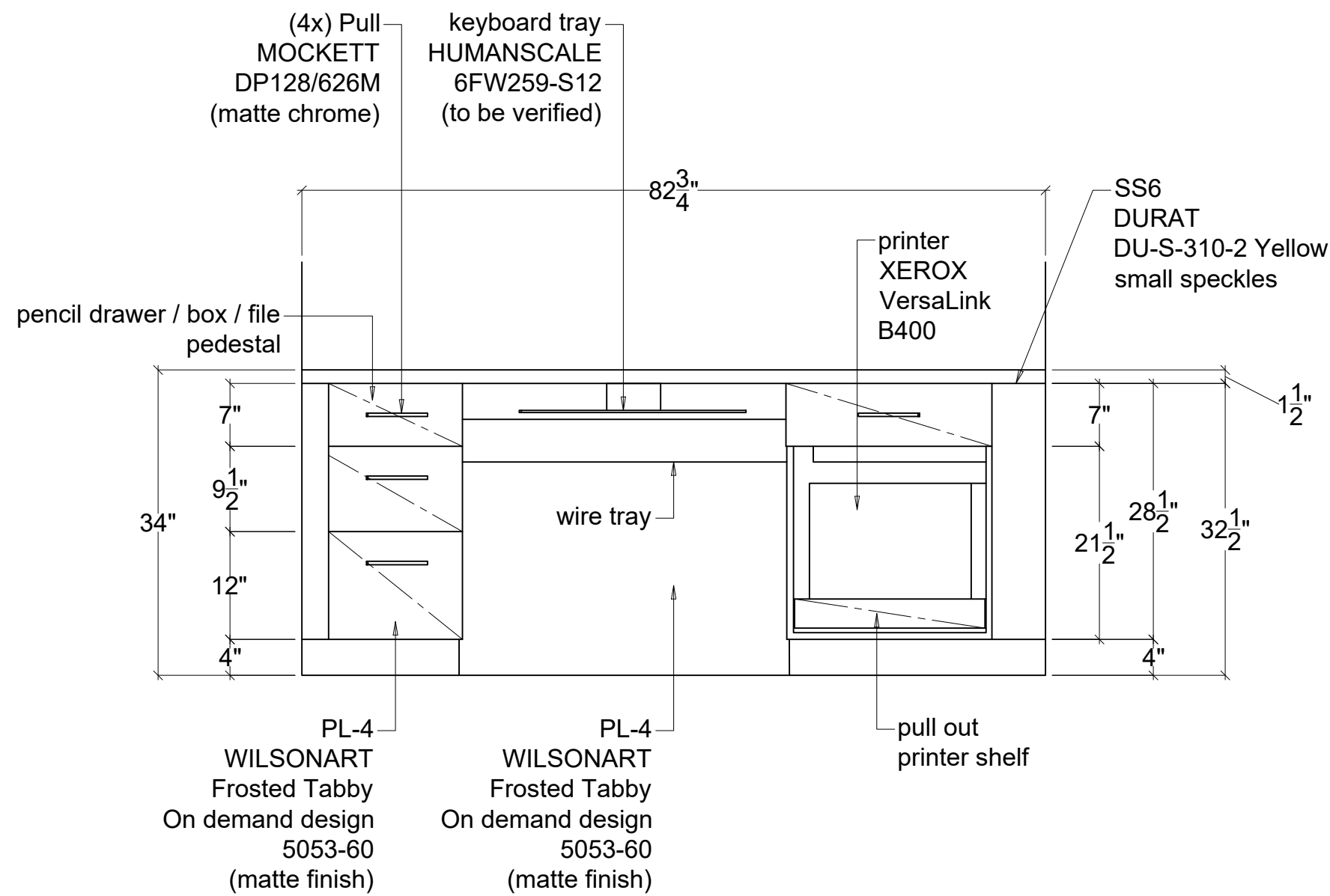
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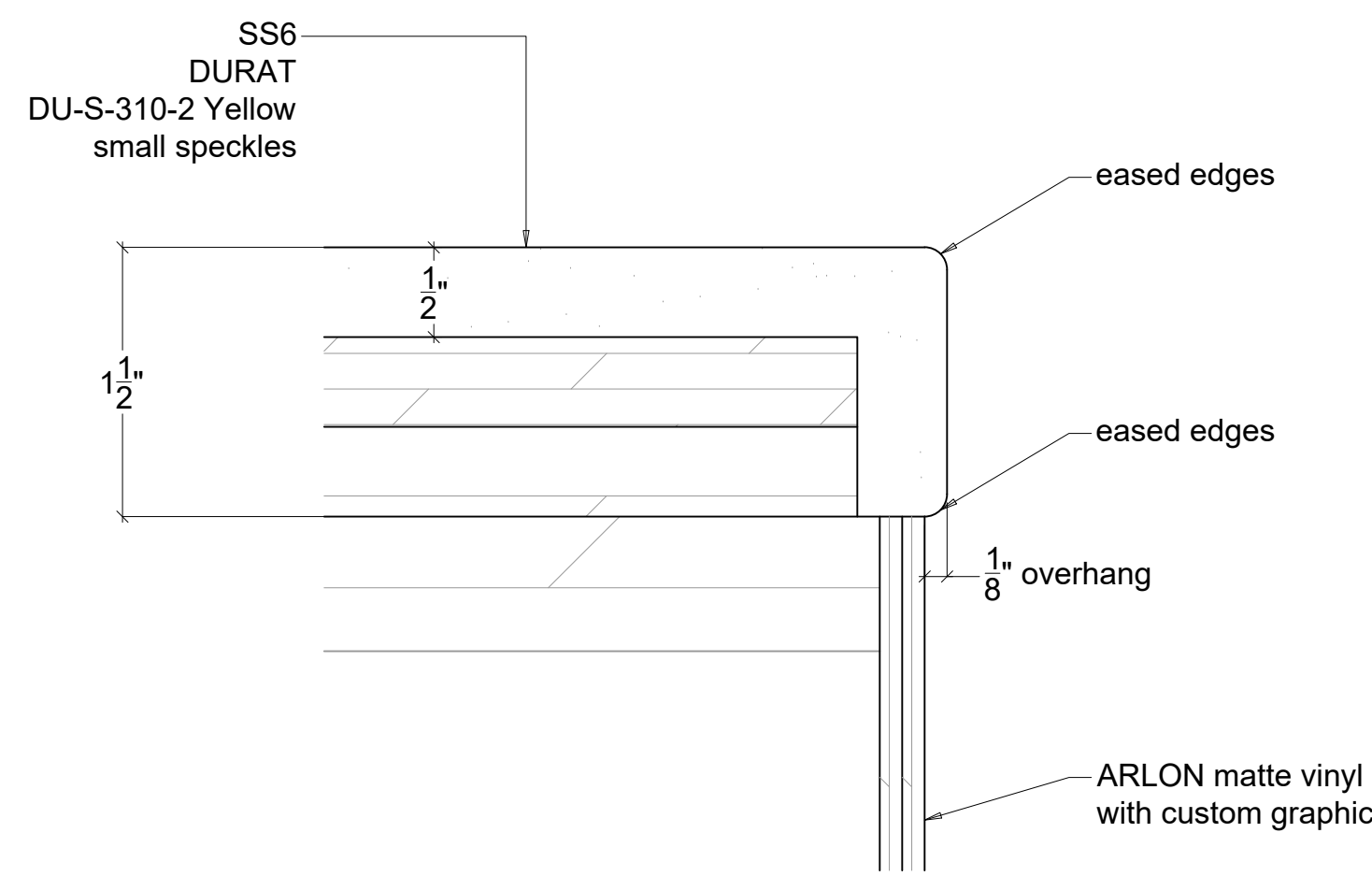
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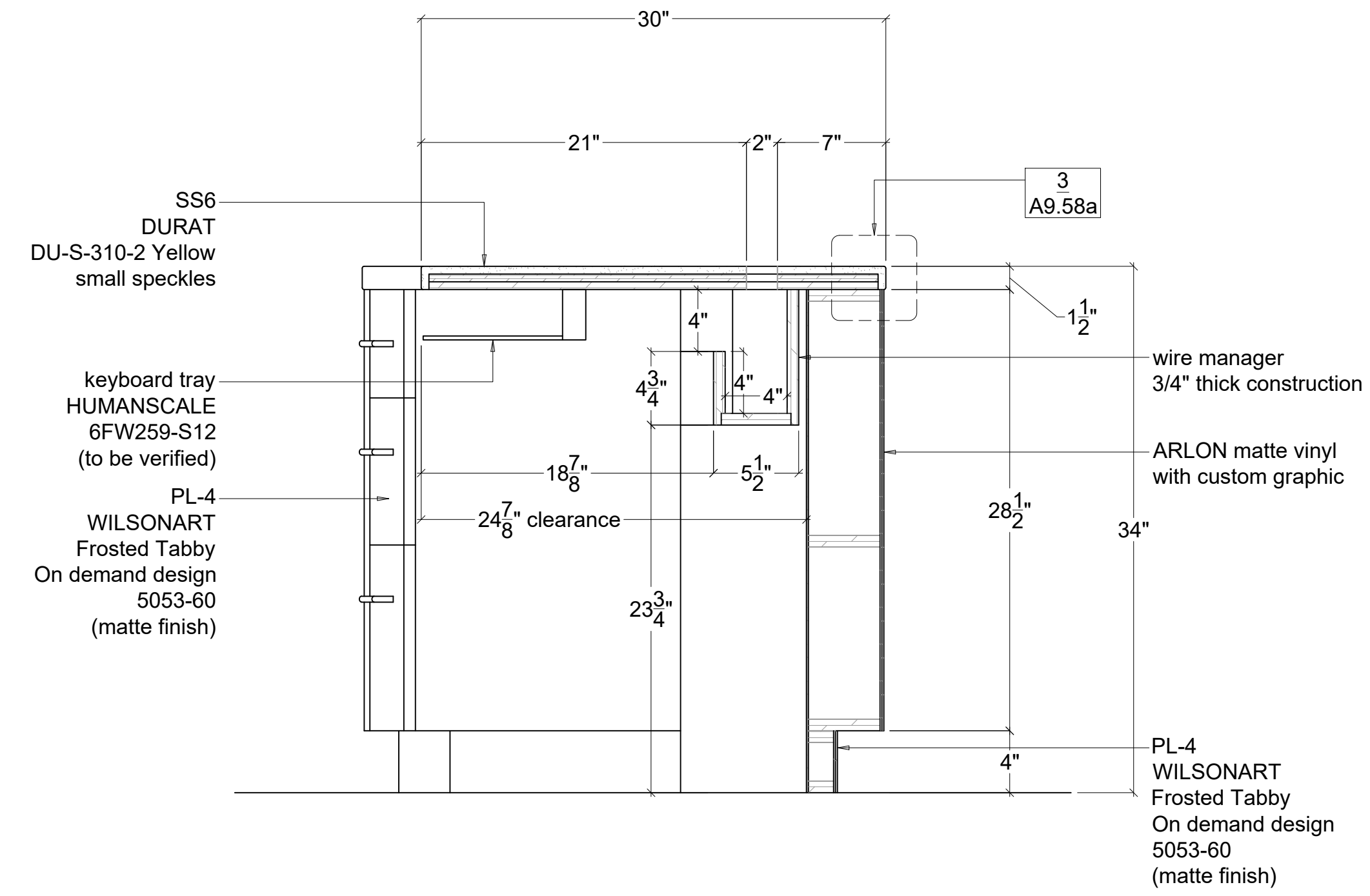
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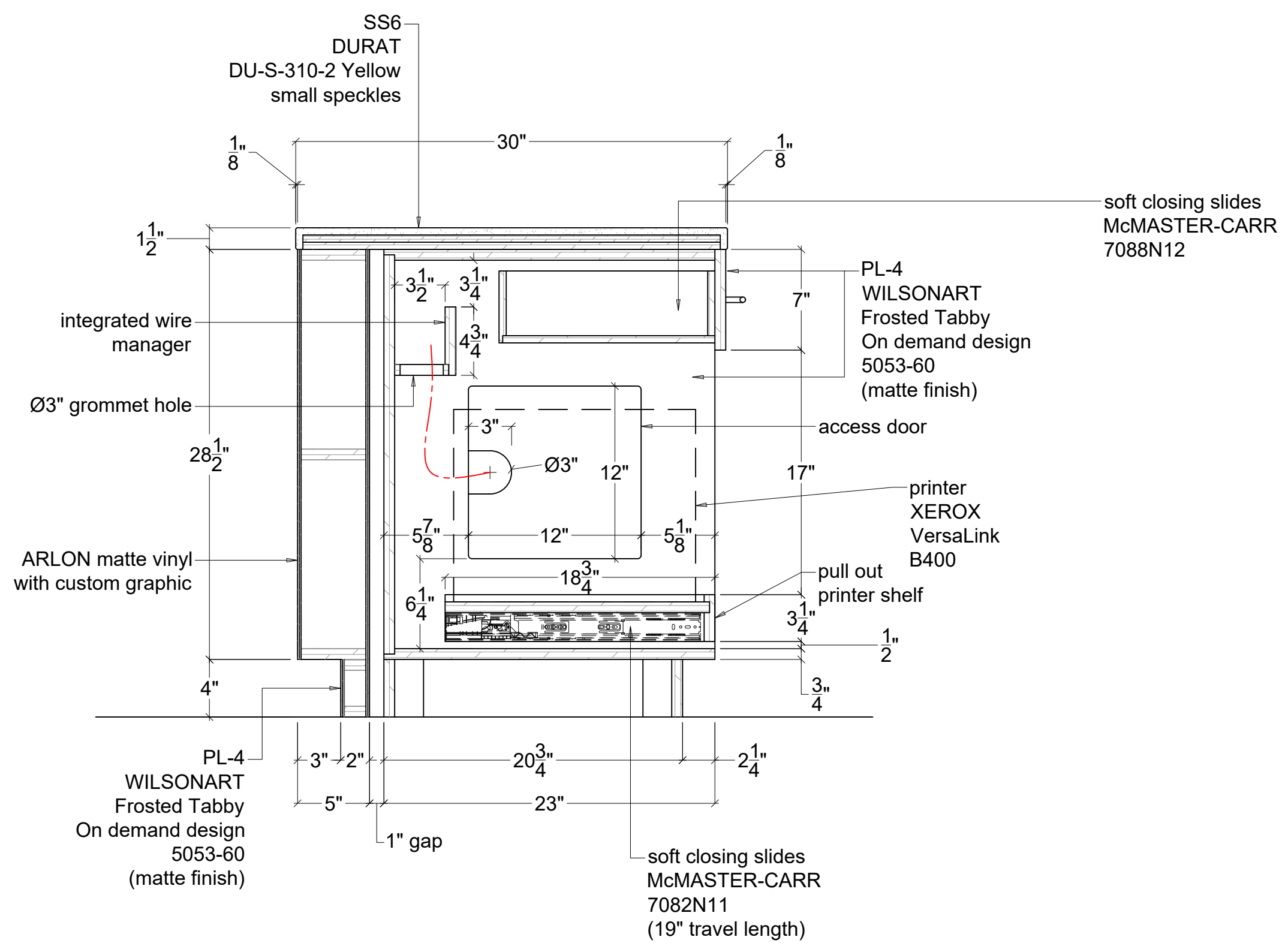
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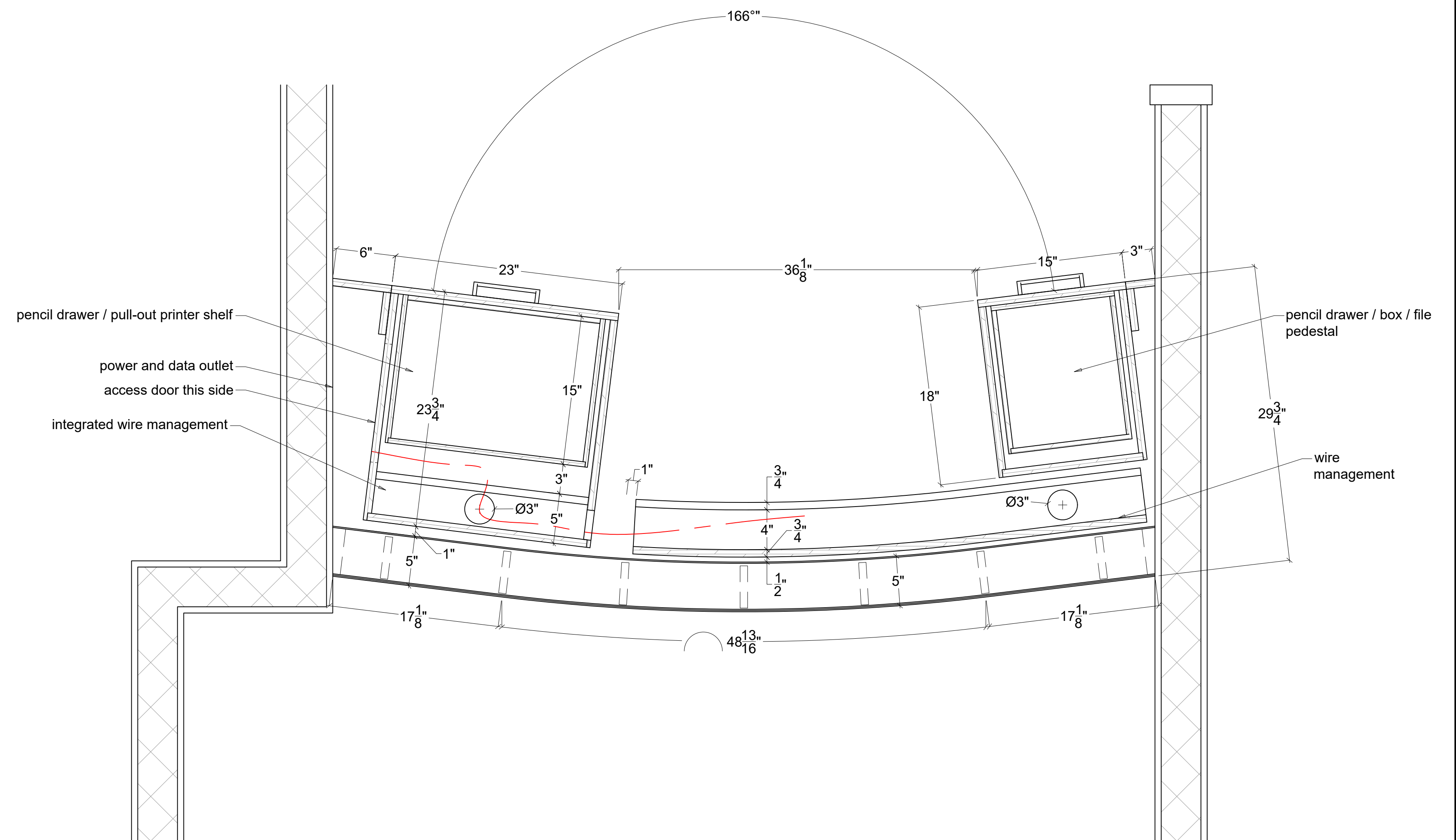
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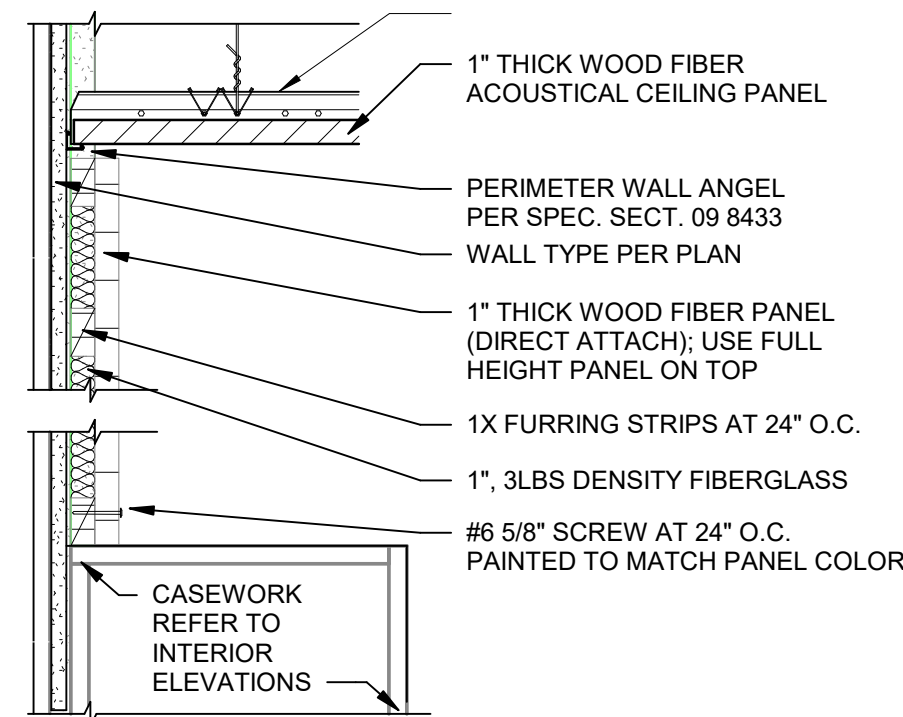
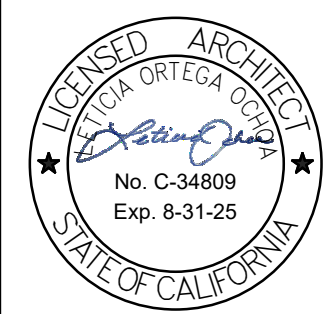
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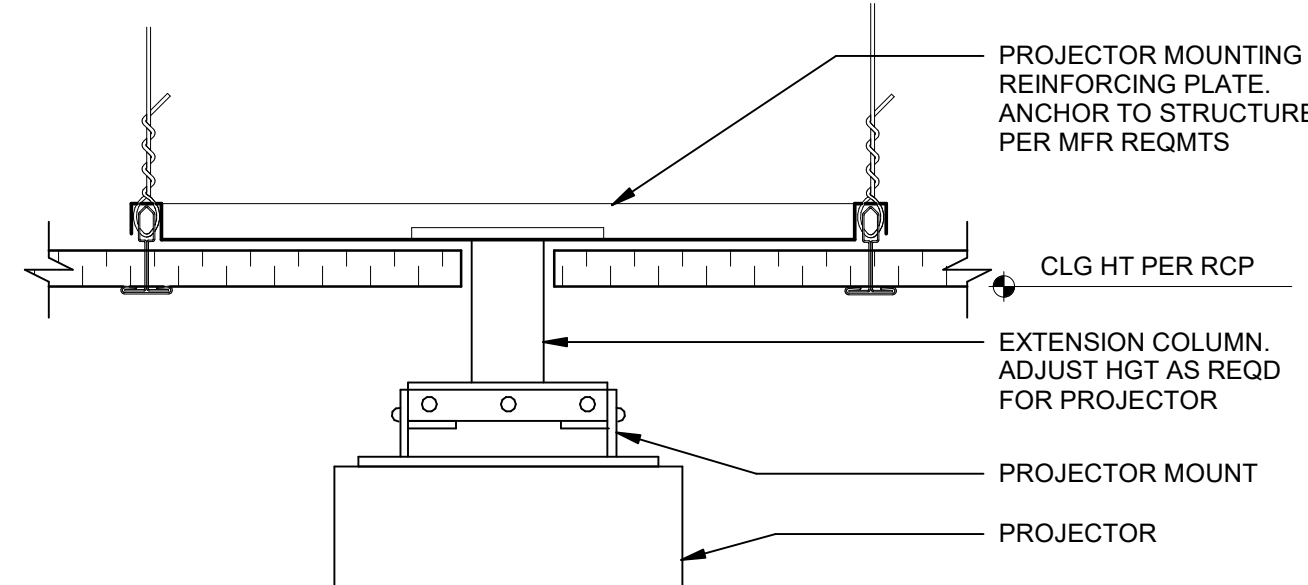
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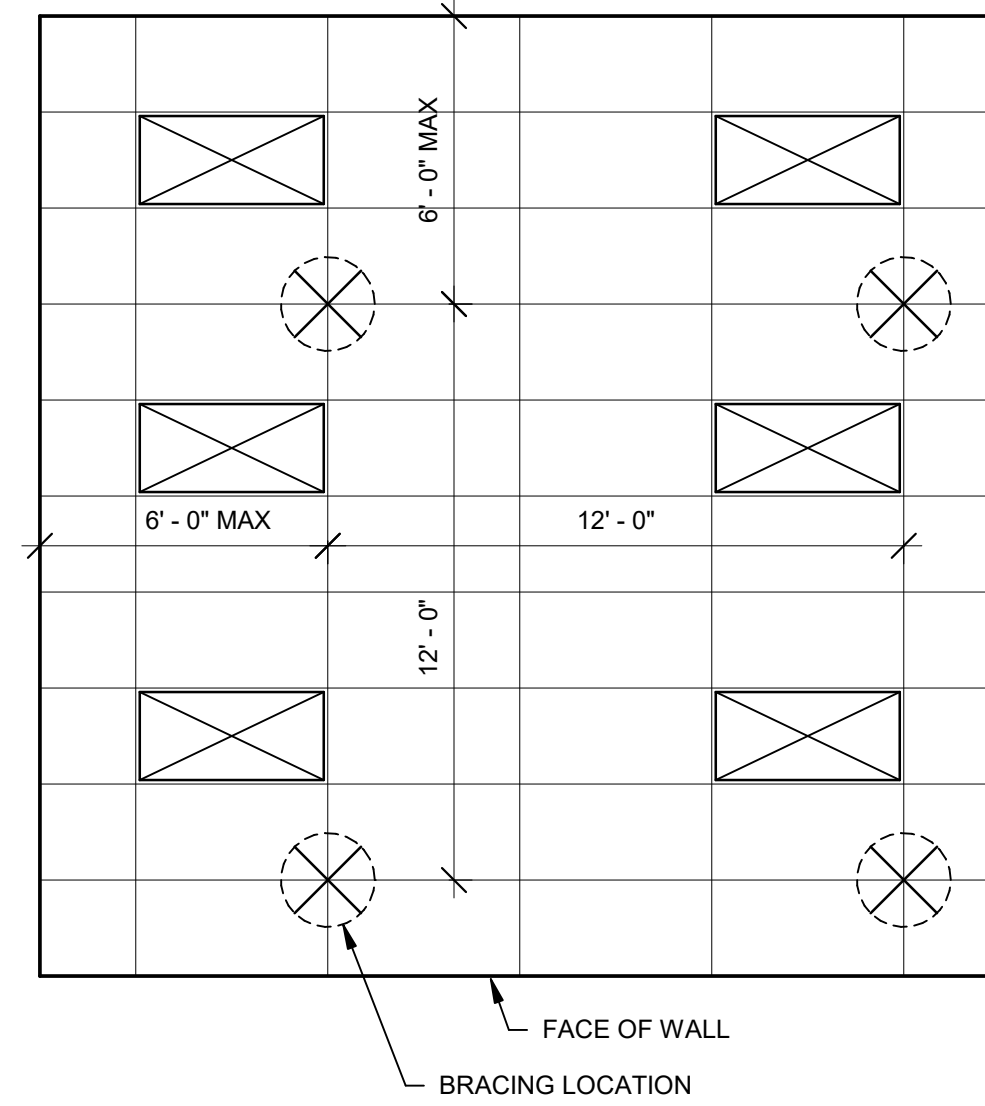
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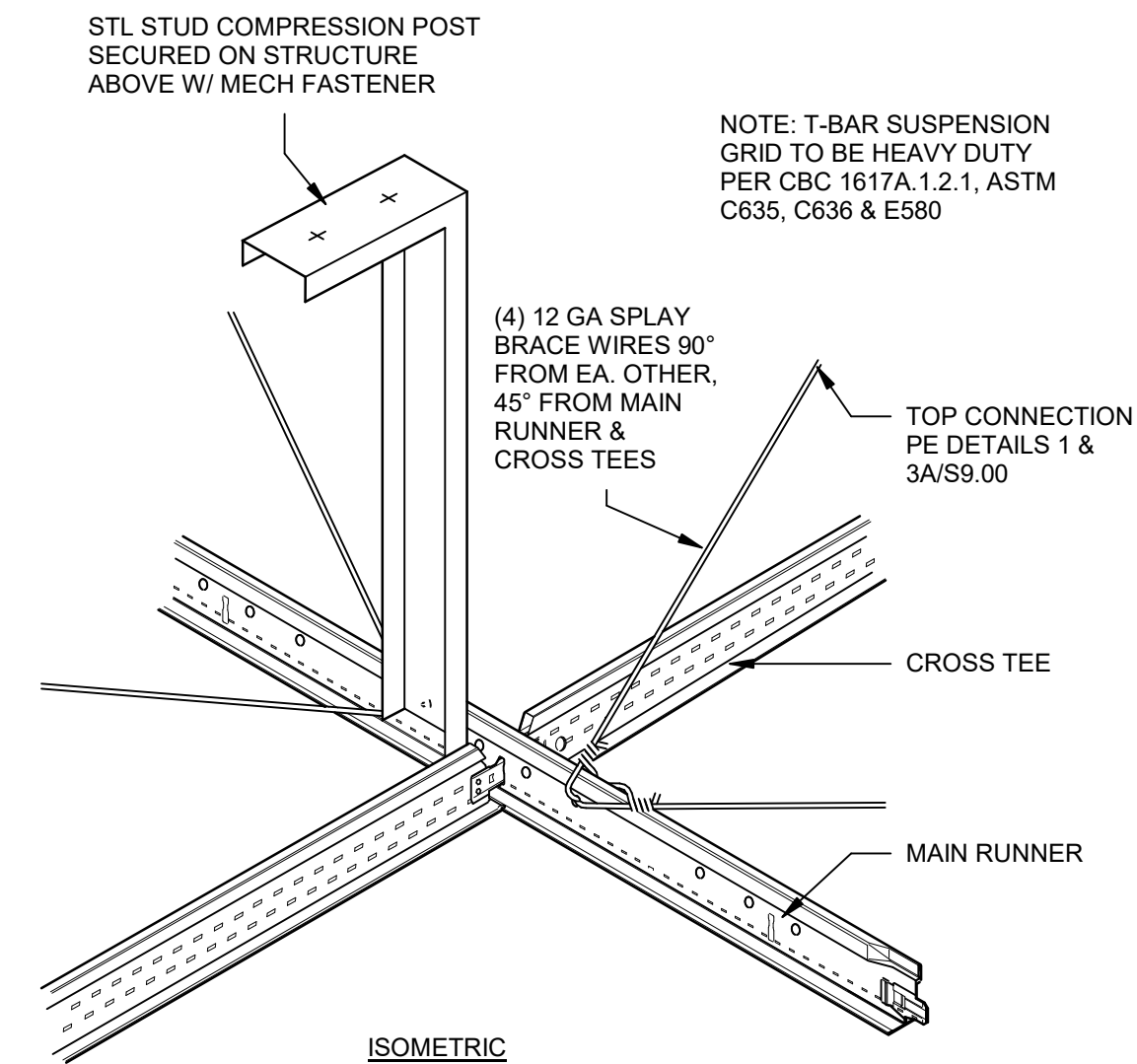
WD FIBER ACOUSTICAL CEILING TO WALL
Scale: 1 1/2" = 1'-0"



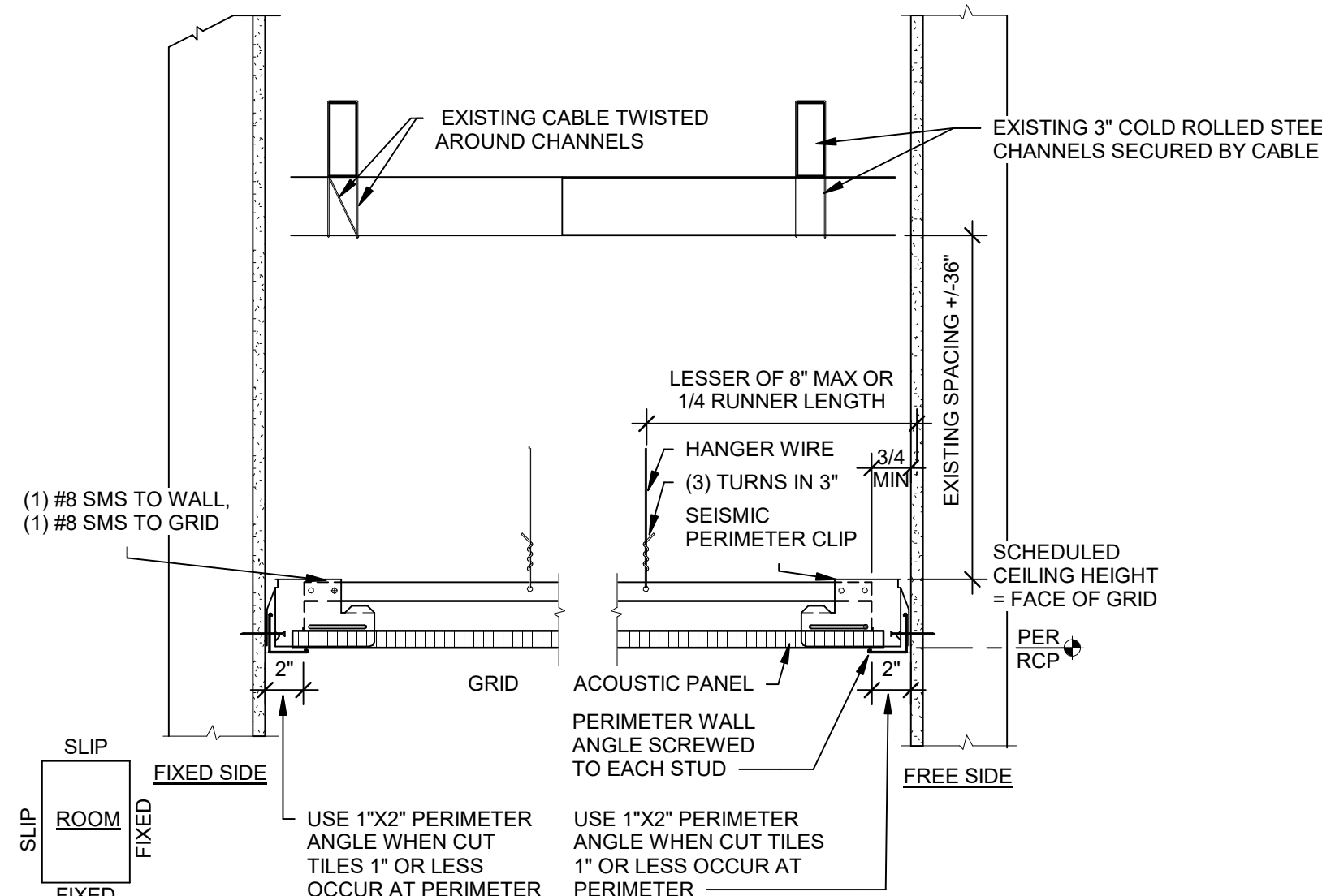
PROJECTOR MOUNT
Scale: 3" = 1'-0"



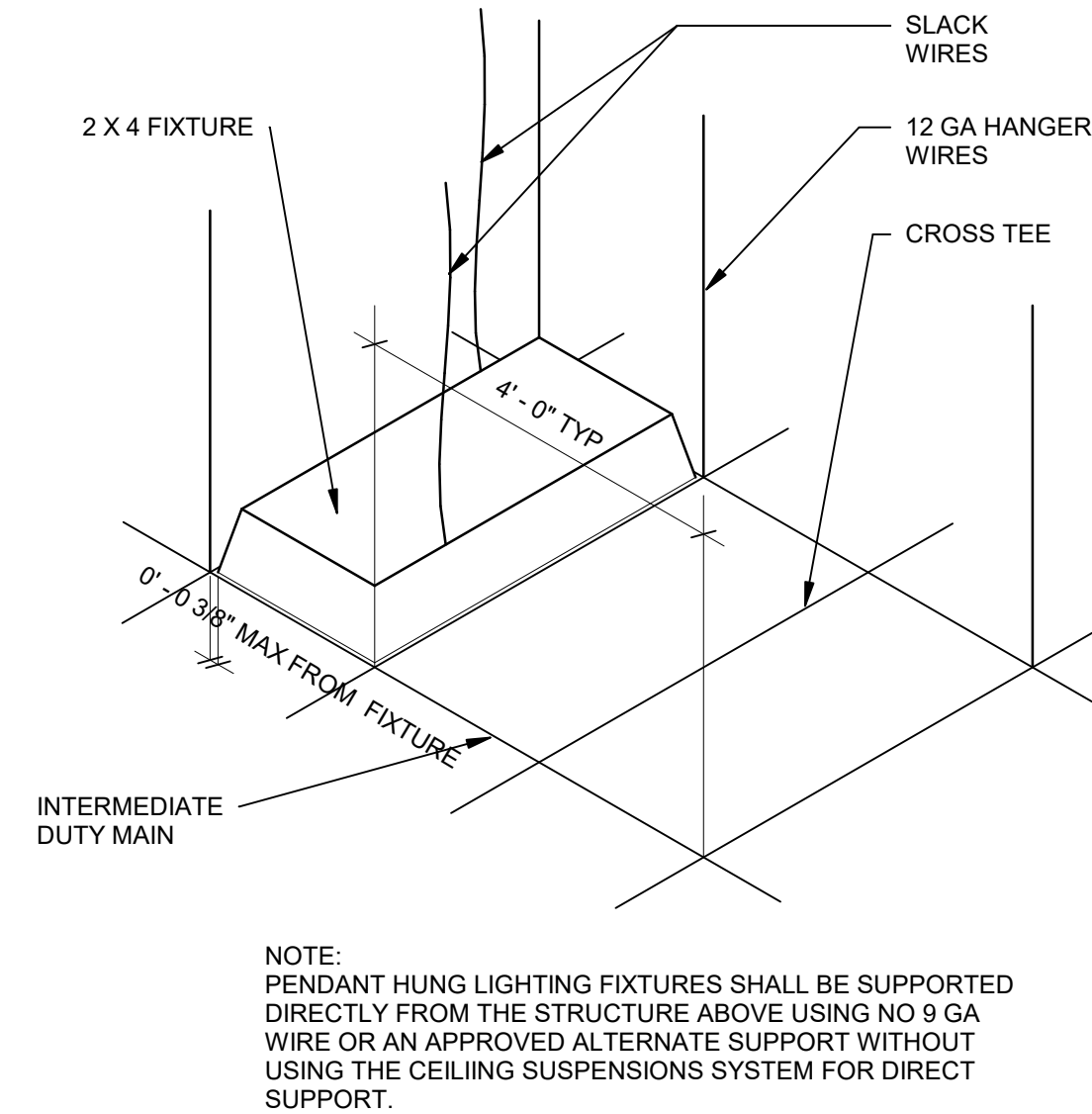
TYP CEILING BRACING GRID
Scale: 1/4" = 1'-0"



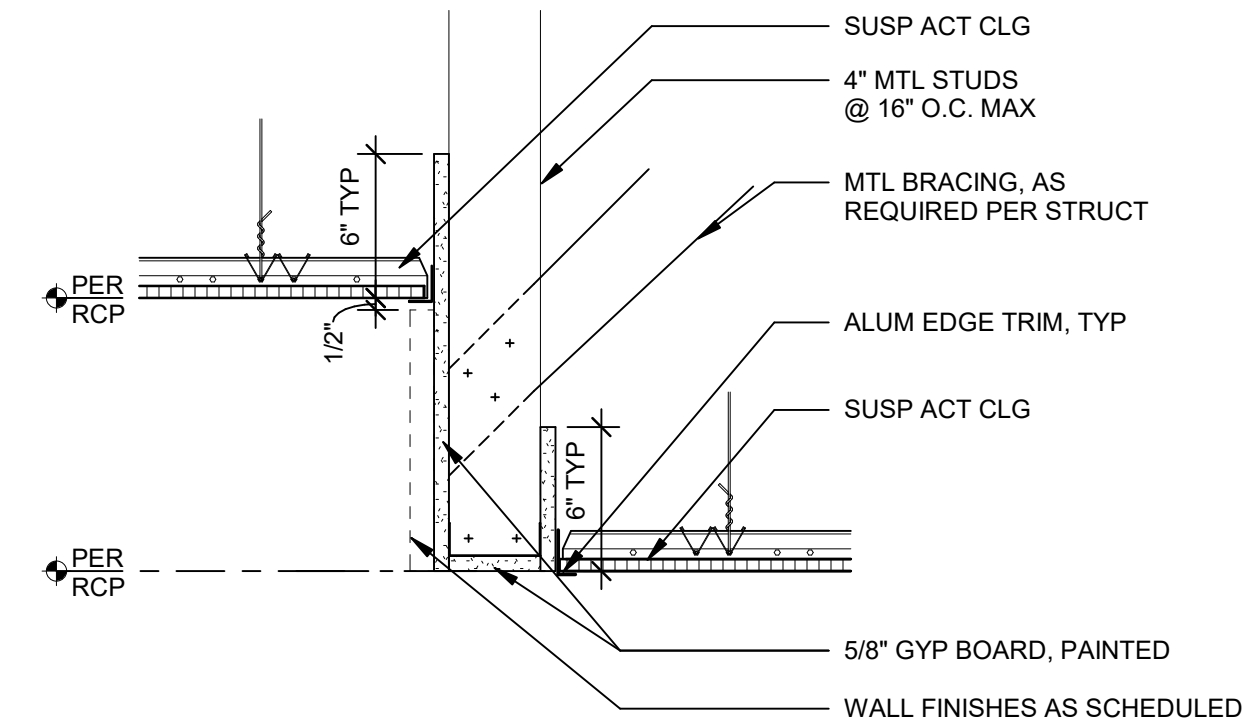
TYP SEISMIC CEILING SUPPORT
Scale: 3" = 1'-0"



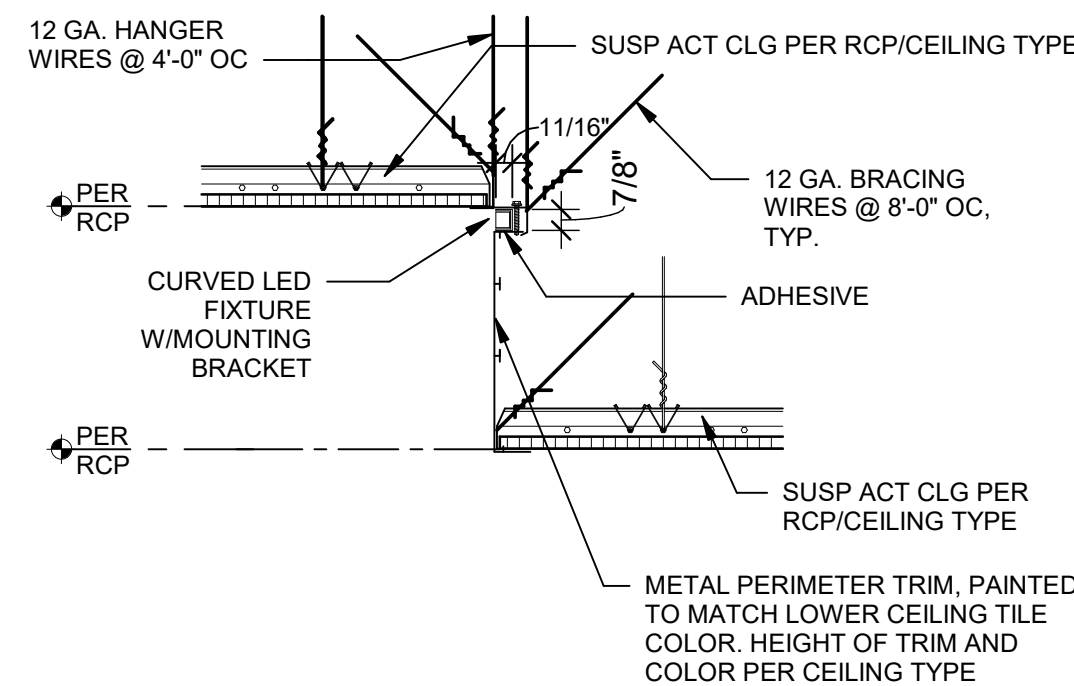
TYPICAL PERIMETER DETAIL - 2ND FLOOR
Scale: 1 1/2" = 1'-0"



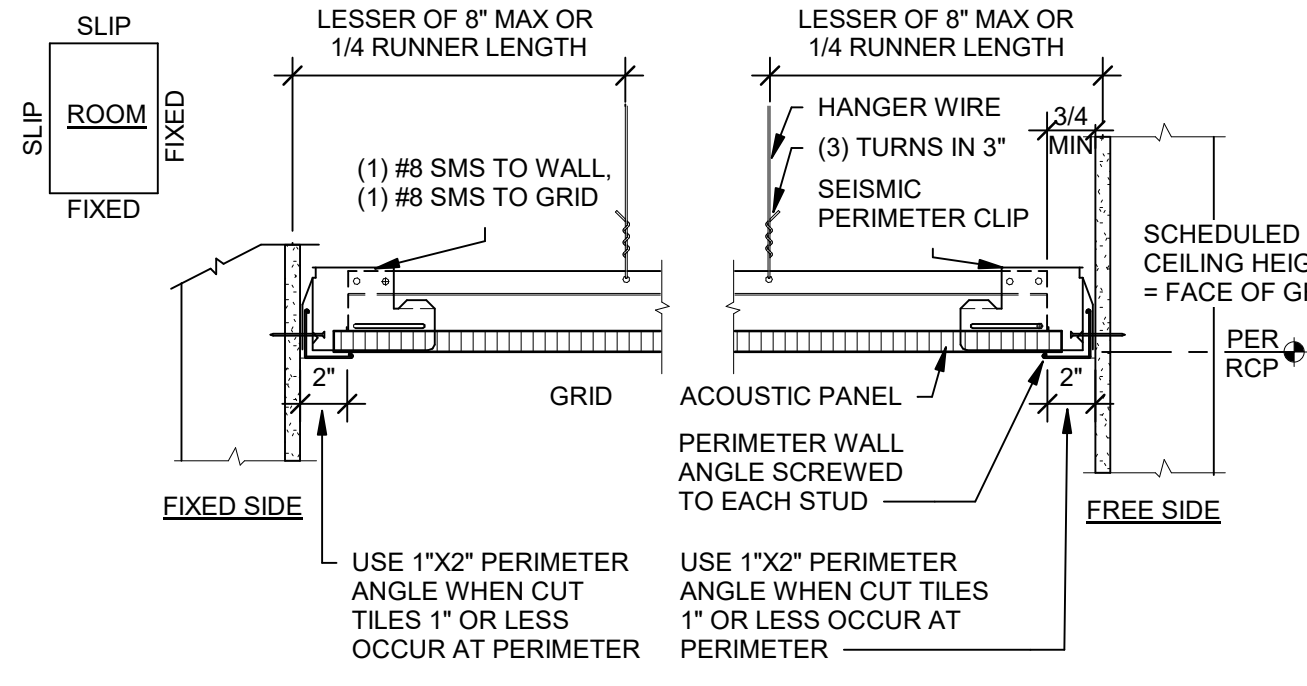
LIGHT FIXTURE SUPPORT-
Scale: 1/2" = 1'-0"



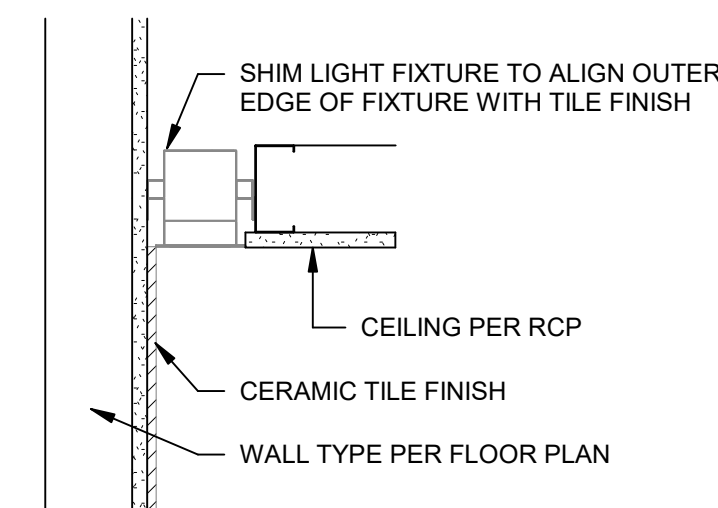
ACT TO GYP SOFFIT
Scale: 1 1/2" = 1'-0"



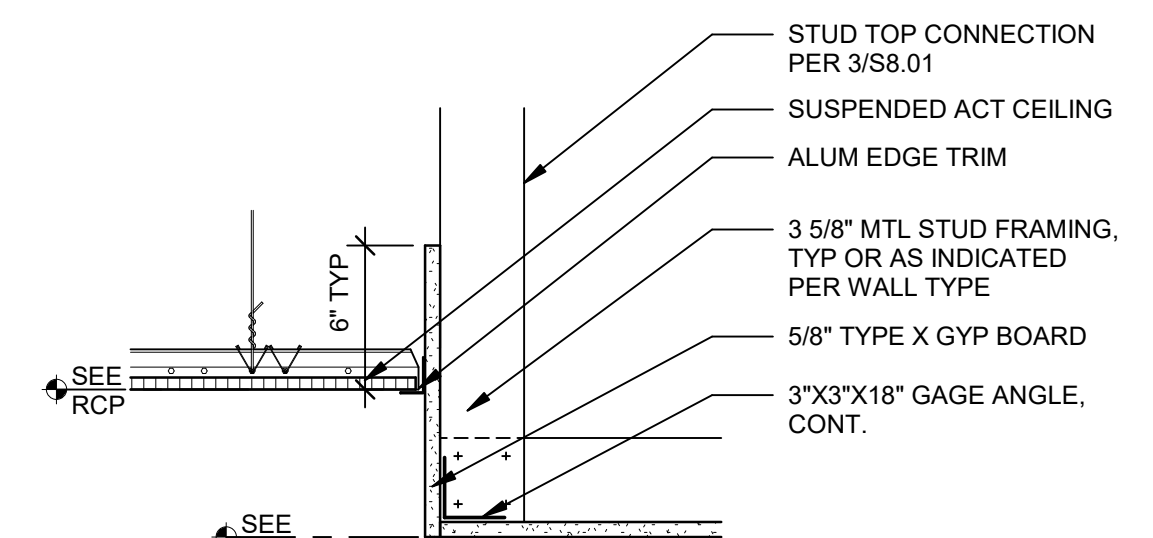
CL - ACT CLOUD EDGE 2ND LEVEL
Scale: 1 1/2" = 1'-0"



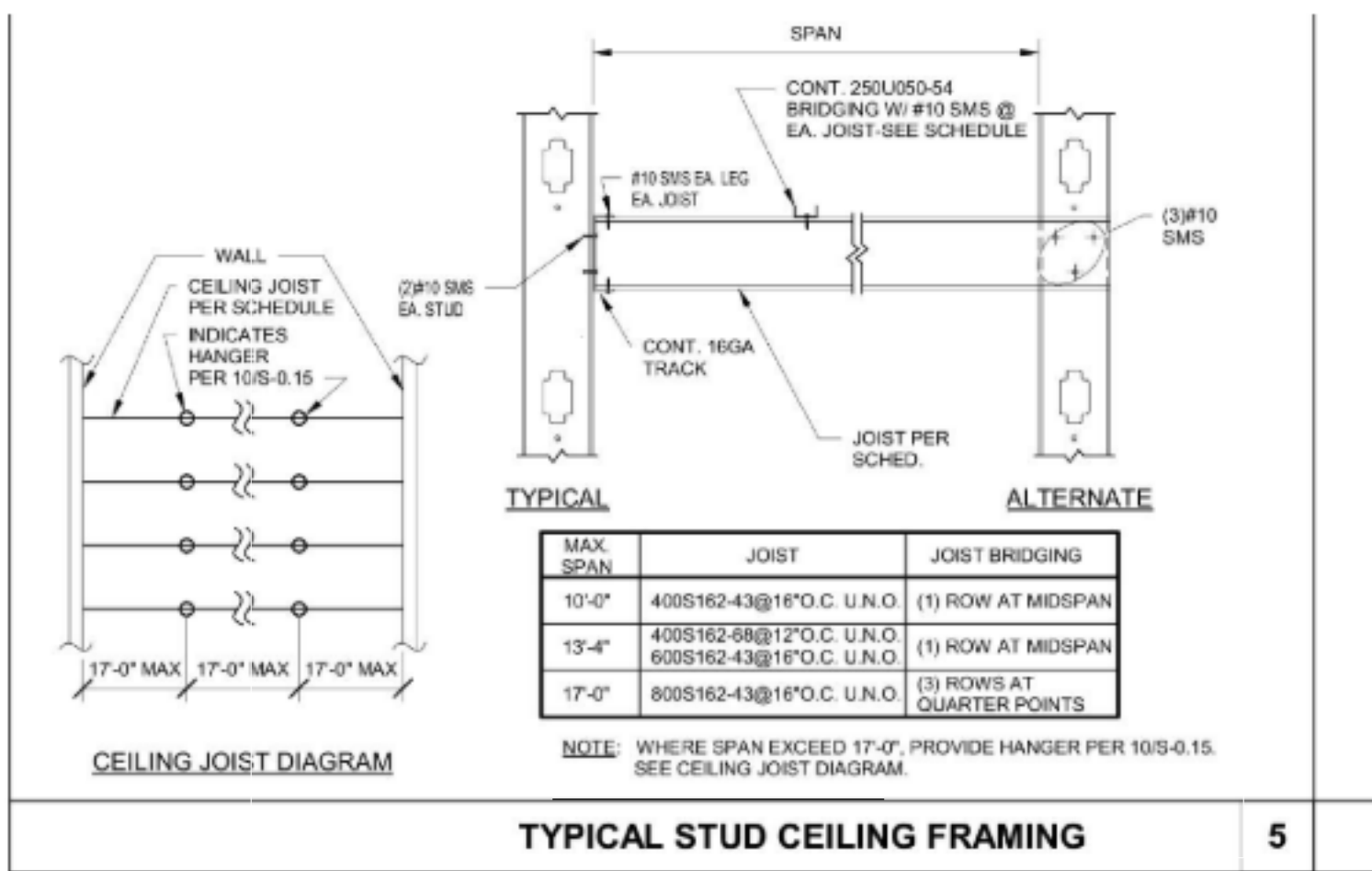
TYPICAL PERIMETER DETAIL
Scale: 1 1/2" = 1'-0"



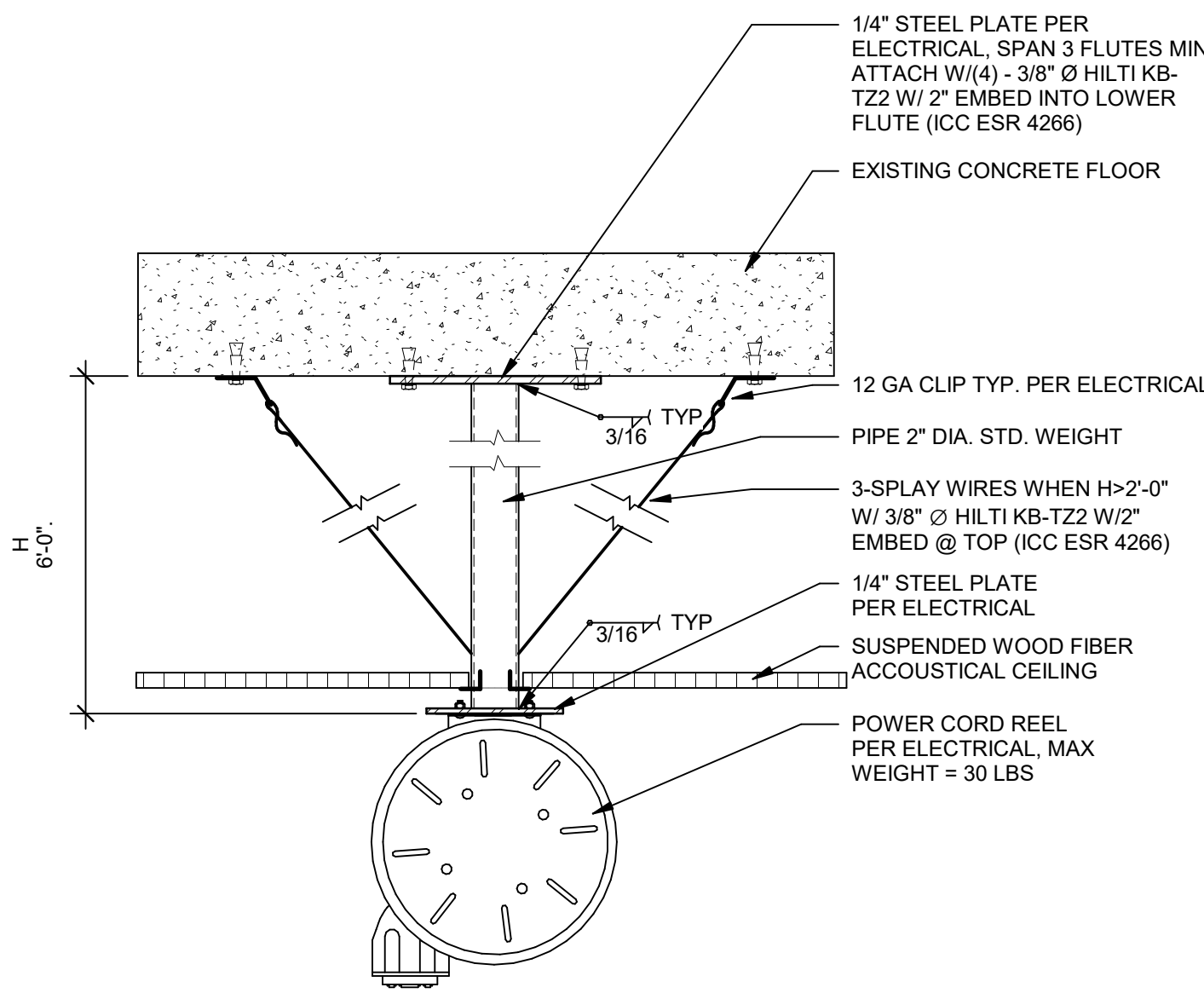
LIGHT COVE AT TOILET ROOM
Scale: 1 1/2" = 1'-0"



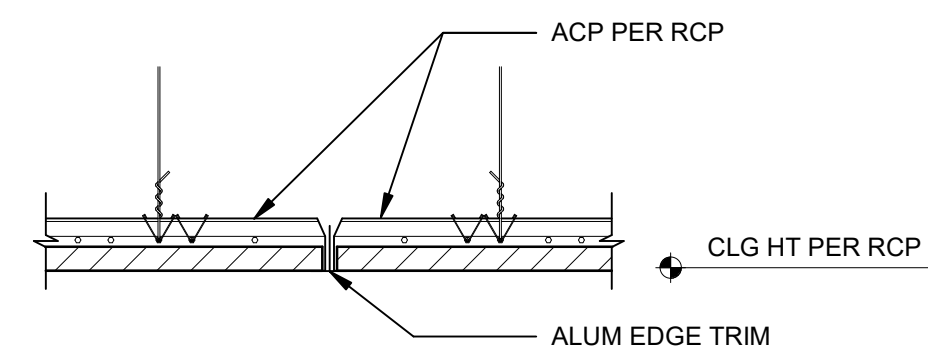
ACT TO GYP CEILING SOFFIT
Scale: 1 1/2" = 1'-0"



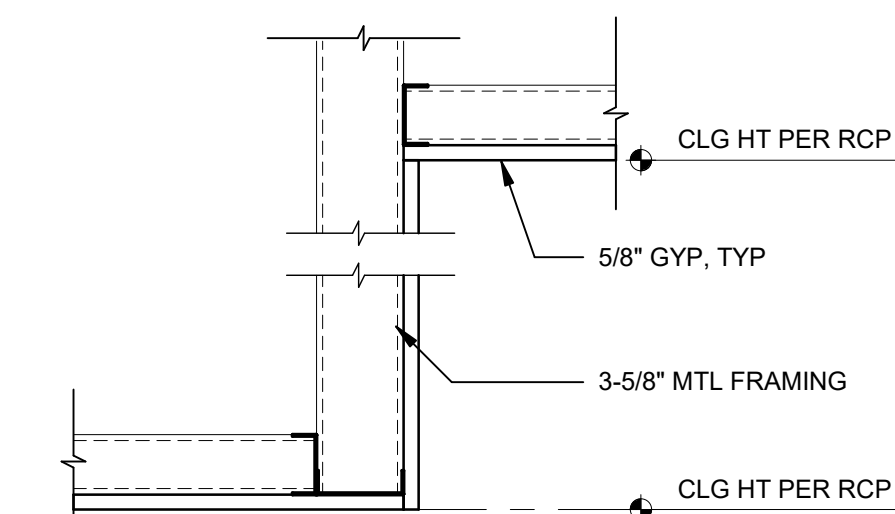
GYP. CEILING JOIST DETAIL
Scale: 1 1/2" = 1'-0"



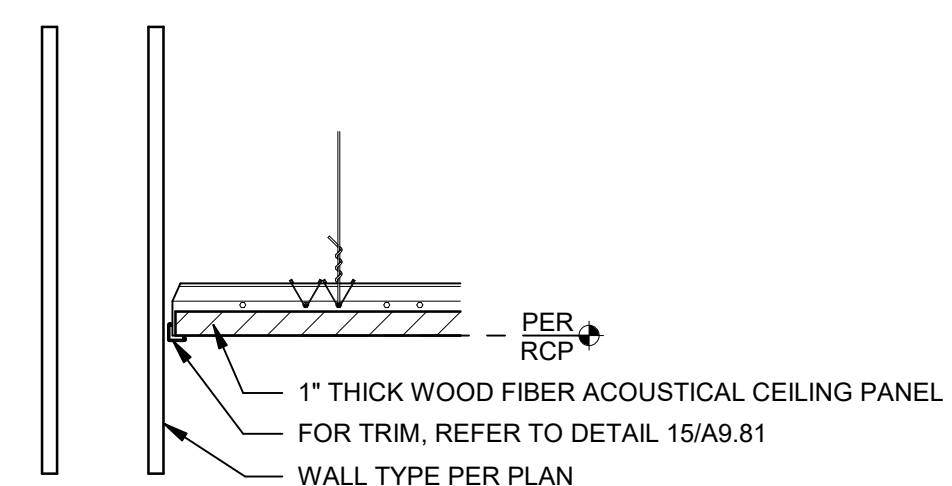
MAKER SPACE POWER CORD ATTACHMENT DETAIL
Scale: 1 1/2" = 1'-0"



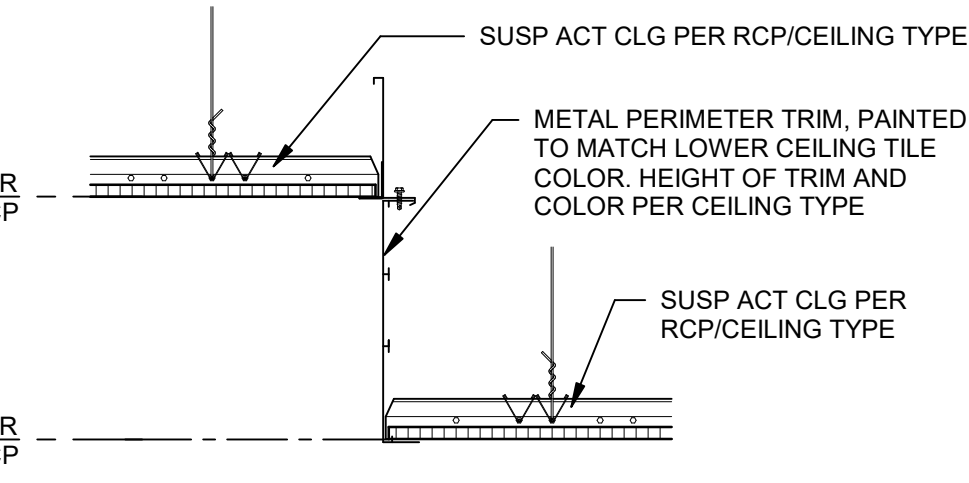
ACP TO ACP SAME HEIGHT (C-7)
Scale: 1 1/2" = 1'-0"



GYP CLG TO GYP SOFFIT
Scale: 1 1/2" = 1'-0"



WOOD FIBER ACOUSTICAL CEILING TO WALL (C-7)
Scale: 1 1/2" = 1'-0"



CL - ACT CLOUD EDGE CL-5
Scale: 1 1/2" = 1'-0"

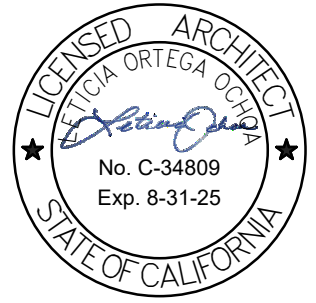
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REVISIONS

SYMBOLS

	SECTION REFERENCE BUBBLE
	DETAIL REFERENCE BUBBLE WITH ARROW
	DETAIL REFERENCE BUBBLE
	FULL HEIGHT SECTION INDICATOR
	BUILDING SECTION INDICATOR
	ELEVATION OF WALL OR FRAME
	NORTH ARROW
	SLOPE
	EARTH LAYER
	STEPPED SURFACE; FLOOR DEPRESSION
	SLOPED SURFACE
	INDICATES SAND OR GROUT
	INDICATES GRAVEL
	WELDED WIRE FABRIC (WWF LAYER)
	STEEL TUBE COLUMN
	STEEL PIPE COLUMN
	WIDE FLANGE STEEL COLUMN
	MEMBER SPLICE
	STEEL IN CROSS SECTION
	DIRECTION OF SPAN

ABBREVIATIONS

LAB	LABORATORY	AB	ANCHOR BOLT
LB(S) OR #	POUND(S)	ACI	AMERICAN CONCRETE INSTITUTE
LF	LINEAL FOOT	ADDL	ADDITIONAL
LIN	LINEAL, LINEAR	ADJ	ADJACENT
LLBB	LONG LESS BACK-TO-BACK	LESS	ARCHITECTURAL EXPOSED STRUCTURAL STEEL
LLH	LONG LEG HORIZONTAL	AGGR	AGGREGATE
LLV	LONG LEG VERTICAL	AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
LP	LOW POINT	ALT	ALTERNATE
LSL	LONG SLOTTED HOLES	ALUM	ALUMINUM
LT WT	LIGHTWEIGHT	ANCH	ANCHOR
LVL	LEVEL	ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
MAS	MASONRY	APA	AMERICAN PLYWOOD ASSOCIATION
MATL	MATERIAL	APPROV	APPROVED
MAX	MAXIMUM	APPROX	APPROXIMATE
MB	MACHINE BOLT	ARCH	ARCHITECTURAL; ARCHITECT
MC	MISCELLANEOUS CHANNEL SHAPE	ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
MECH	MECHANICAL	AWPA	AMERICAN WOOD PRESERVERS ASSOCIATION
MFR	MANUFACTURER	AWS	AMERICAN WELDING SOCIETY
MIN	MINIMUM, MINUTE	ATC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
MISC	MISCELLANEOUS	ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
(N)	NEW	&	AND
N	NORTH	@	AT
NF	NEAR FACE	BLDG	BUILDING
NIC	NOT IN CONTRACT	BLK	BLOCK
NORM	NORMAL	BLKG	BLOCKING
NO or #	NUMBER	BM	BEAM
NS	NEAR SIDE	BN	BOUNDARY NAIL
NTS	NOT TO SCALE	BNDRY	BOUNDARY
OC	ON CENTER	BOT OR B	BOTTOM
OD	OUTSIDE DIAMETER	BRC	BRACE
OF	OUTSIDE FACE	BRG	BEARING
OH	OPPOSITE HAND	BT	BENT
OPNG	OPENING	BTWN	BETWEEN
OPP	OPPOSITE	CANT	CANTILEVER
ORIG	ORIGINAL	CAM OR C	CAMBER
OSB	ORIENTED STRAND BOARD	CC	CENTER TO CENTER
PARA OR //	PARALLEL	CG	CENTER OF GRAVITY
PC	PRECAST; PIECE	CIP	CAST-IN-PLACE
PERP	PERPENDICULAR	CJ	CONSTRUCTION JOINT; CONTROL JOINT
PI	PLYWOOD INDEX	CL	CENTER LINE
PL	PLATE	CLR	CLEARANCE; CLEAR
PL	PROPERTY LINE	CMU	CONCRETE MASONRY UNIT
PLF	POUNDS PER LINEAL FOOT	COL	COLUMN
PLCS	PLACES-	COMP	COMPRESSION
PLY	PLYWOOD	CONC	CONCRETE
PROP	PROPERTY	CONN	CONNECTION; CONNECT
PT	POST TENSIONED	CONSTR	CONSTRUCTION
PW	PLATE WASHER	CONT	CONTINUE; CONTINUOUS
PJP	PARTIAL JOINT PENETRATION WELD	CONTR	CONTRACTOR
PREFAB	PREFABRICATED	CJP	COMPLETE JOINT PENETRATION WELD
PSF	POUNDS PER SQUARE FOOT	CTR	CENTER
PSI	POUNDS PER SQUARE INCH	CTSK	COUNTERSINK; COUNTERSUNK
PVC	POLYVINYL CHLORIDE	CU FT	CUBIC FOOT
PVMT	PAVEMENT	J	PENNY (NAIL OR BAR DIA)
#	POUND; NUMBER	DBL	DOUBLE
REF	REFERENCE	DEPT	DEPARTMENT
REINF	REINFORCE; REINFORCING	DET	DETAIL
REQD	REQUIRED	DF	DOUGLAS FIR/LARCH
RF	ROOF	DIA OR ø	DIAMETER
Ø	DIAMETER	DIAG	DIAGONAL
SCHED	SCHEDULE	DIAPH	DIAPHRAGM
SECT	SECTION	DIM	DIMENSION
SEP	SEPERATION	DN	DOWN
SHT	SHEET	DO	DITTO (REPEAT)
SHTG	SHEATHING	DWG	DRAWING
SHW	SIMILAR	DOWL	DOWEL
SLBB	SHORT LEGS BACK-TO-BACK	EA	EACH
SOG	SLAB ON GRADE	EF	EACH FACE
SPCG	SPACING	EJ	EXPANSION JOINT
SPECS	SPECIFICATIONS	EL	ELEVATION
SPCL	SPECIAL	ELEC	ELECTRICAL
SQ	SQUARE	ELEV	ELEVATOR
SS	SELECT STRUCTURAL	EMBED	EMBEDMENT
SSL	SHORT SLOTTED HOLES	EN	EDGE NAIL
STAGG	STAGGER	ENGR	ENGINEER
STD	STANDARD	EQ	EQUAL OR EQUIVALENT
STIFF	STIFFENERS	EQUIP	EQUIPMENT
STIRRUP	STIRRUP	ES	EACH SIDE
STL	STEEL	ETC	ET CETERA
STRUCT	STRUCTURAL	EW	EACH WAY
STRUCT I	STRUCTURAL I	EXIST or (E)	EXISTING
SW	SHEAR WALL	EXT	EXTERIOR
SYM	SYMMETRICAL	FDN	FOUNDATION
TB	TIE BEAM	FF	FAR FACE
T&B	TOP AND BOTTOM	FF	FINISHED FLOOR
T&G	TONGUE & GROOVE	FIN	FINISH
		FJ	FLOOR JOIST
		FL	FLOOR LINE
		FLG	FLANGE
		FLR	FLOOR
		FN	FIELD NAIL
		FOC	FACE OF CONCRETE
		FOM	FACE OF MASONRY
		FOS	FACE OF STUD
		FOW	FACE OF WALL
		FP	FULL PENETRATION; FIRE PROOFING
		FRMG	FRAMING
		FS	FULL SIZE; FAR SIDE
		FT	FOOT; FEET
		FTG	FOOTING
		GA	GAUGE
		GALV	GALVANIZED
		GB	GRADE BEAM
		GLB	GLUED LAMINATED BEAM
		GR	GRADE
		GRND	GROUND
		H or HORIZ	HORIZONTAL
		HDR	HEADER
		HGR	HANGER
		HOSP	HOSPITAL
		HP	HIGH POINT
		HS	HIGH STRENGTH
		HSB	HORIZONTALLY SLOTTED HOLES
		HT	HEIGHT
		HR	HARD ROCK
		ID	INSIDE DIAMETER
		IF	INSIDE FACE
		I-JST	I-JOIST
		IN	INCH
		INCL	INCLUDE
		INFO	INFORMATION
		INSP	INSPECTION
		INT	INTERIOR
		JST	JOIST
		JT	JOINT
		K	KIPS
		KSI	KIPS PER SQUARE INCH
STRUCTURAL STEEL SHAPES			
Wx	W SHAPE		
Cx	AMERICAN STD CHANNEL SHAPE		
MC	MISC CHANNEL SHAPE		
Lx	ANGLE SHAPE		
WT, ST, MT	STRUCT TEE SHAPE		
PIPE	STANDARD PIPE SHAPE		
PIPE-X	EXTRA STRONG PIPE SHAPE		
PIPE-XX	DBL EXTRA STRONG PIPE SHAPE		
HSS	STRUCT TUBING SHAPE		

SHEET INDEX

SHEET NO.	SHEET NAME
S0.00	SHEET INDEX, ABBREVIATIONS & SYMBOLS
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S0.02	TESTING, SPECIAL INSPECTIONS, AND OBSERVATIONS
S3.01	LEVEL 1 FLOOR PLAN
S3.02	LEVEL 2 FLOOR PLAN
S3.03	LEVEL 3 FLOOR PLAN
S3.04	ROOF FRAMING PLAN
S3.20	SECOND FLOOR - REFLECTED CEILING PLAN
S4.00	EXTERIOR ELEVATIONS
S5.00	BUILDING SECTIONS
S6.00	TYPICAL CONCRETE DETAILS
S6.01	TYPICAL CONCRETE DETAILS
S7.00	TYPICAL STEEL FRAMING DETAILS
S7.01	TYPICAL STEEL FRAMING DETAILS
S7.02	TYPICAL STEEL FRAMING DETAILS
S8.00	TYPICAL INTERIOR METAL STUD WALL DETAILS
S8.01	TYPICAL INTERIOR METAL STUD WALL DETAILS
S8.02	TYPICAL INTERIOR METAL STUD WALL DETAILS
S9.00	CEILING RETROFIT DETAILS ABOVE LEVEL 2
S10.00	SHELVING ANCHORAGE DETAILS

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SHEET INDEX,
ABBREVIATIONS &
SYMBOLS

S0.00



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STRUCTURAL NOTES

GENERAL

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
2. ALL DRAWINGS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR ARCHITECT.
3. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
4. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING:
 - a. 2022 CALIFORNIA BUILDING CODE, VOLUME 2, REFERRED TO HERE AS "THE CODE", AND ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER WHICH ANY PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES & STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.
5. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
 - a. SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS, EXCEPT AS NOTED
 - b. SIZE AND LOCATION OF ALL INTERIOR AND EXTERIOR NON-BEARING PARTITIONS
 - c. SIZE AND LOCATION OF ALL CONCRETE CURBS, EQUIPMENT PADS, PITS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGE IN LEVEL, CHAMFERS, GROOVES, INSERTS, ETC.
 - d. SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS EXCEPT AS SHOWN.
 - e. FLOOR AND ROOF FINISHES.
 - f. DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
6. SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:
 - a. PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC., EXCEPT AS SHOWN OR NOTED.
 - b. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.
 - c. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.
 - d. SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES, ANCHOR BOLTS FOR MOTOR MOUNTS.
7. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACINGS FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTIONS OF THE ABOVE ITEMS.

OPENINGS, POCKETS, ETC., LARGER THAN 6" SHALL NOT BE PLACED IN CONCRETE SLABS, DECKS, WALLS, UNLESS SPECIALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., LARGER THAN 6" NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN STRUCTURAL MEMBERS. FOR ANY FURTHER RESTRICTIONS ON OPENINGS IN STRUCTURAL ELEMENTS, SEE APPLICABLE SECTIONS BELOW.

9. PIPES LARGER THAN 1-1/2" DIAMETER SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY APPROVED.
10. ASTM SPECIFICATIONS ON THE DRAWINGS SHALL BE OF THE LATEST REVISION.
11. CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

CONSTRUCTION MATERIAL SHALL BE SPREAD OUT IF PLACED ON FRAMED ROOF OR FLOOR. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.

DESIGN

1. FLOOR AND ROOF LIVE LOADS:

FIRST FLOOR 100 PSF (NON-REDUCIBLE)

2. SNOW LOADS:

SNOW LOADS ARE IN ACCORDANCE WITH SECTION 1608 OF THE CODE. GROUND SNOW LOAD, Pg = ZERO

3. WIND LOADS:

WIND LOADS ARE IN ACCORDANCE WITH SECTION 1609 OF THE CBC AND ASCE 7-16. BASIC WIND SPEED, V = 95 MPH (3-SECOND GUST)

WIND EXPOSURE C
WIND RISK CATEGORY = II
BUILDING HEIGHT = 63 FT

4. EARTHQUAKE LOADS:

EARTHQUAKE LOADS ARE IN ACCORDANCE WITH SECTION 1613 OF THE CBC AND ASCE 7-16.

RISK CATEGORY = III
SITE CLASS = D
SEISMIC DESIGN CATEGORY = D
IMPORTANCE FACTOR, I_p = 1.25

LOCATION: LATITUDE = 33.9803535, LONGITUDE = -118.2186882
S_s = 2.05g
S₁ = 0.83g
F_a = 1.0
F_v = 1.7
S_{WS} = 2.19g
S_{WS} = 1.73g
S_{DS} = 1.46g
S₀₁ = 1.15g

EARTHQUAKE LOADS ON NON-STRUCTURAL COMPONENTS:

EARTHQUAKE LOADS ARE IN ACCORDANCE WITH SECTION 1613 OF THE CODE.

I_p = 1.25 FOR ALL NONSTRUCTURAL COMPONENTS. EARTHQUAKE LOADS ON NONSTRUCTURAL COMPONENTS, SHALL BE DETERMINED IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:

CALCULATE F_p BASED ON ASCE 7-16 EQUATION 13.3-1
THE MAXIMUM AND MINIMUM VALUES FOR F_p SHALL BE DETERMINED FROM ASCE 7-16 EQUATIONS 13.3-2 AND 13.3-3 RESPECTIVELY.

ALL EARTHQUAKE LOADS ON NONSTRUCTURAL COMPONENTS SHALL BE BASED ON THE VALUES OF a_p AND R_p FROM ASCE 7-16 TABLES 13.5-1 AND 13.5-1.

PER THE GEOTECHNICAL INVESTIGATION REPORT THE PROJECT IS LOCATED WITHIN A LIQUEFACTION HAZARD ZONE. IT IS NOT WITHIN A STATE OF CALIFORNIA ALQUIST PRIOLO EARTHQUAKE FAULT ZONE.

STRUCTURAL SCOPE OF WORK

THE STRUCTURAL SCOPE OF WORK ILLUSTRATED IN THESE DRAWINGS CONSISTS OF THE FOLLOWINGS ITEMS:

- A. UTILITY TRENCHES AND CORES IN SLAB ON GRADE AND SECOND FLOOR SLAB.
- B. NEW DOOR OPENING IN EAST FACADE, FIRST FLOOR.
- C. NEW STEEL FRAMING AROUND OPERABLE PARTITION IN FIRST FLOOR.
- D. NEW STEEL FRAMING FOR ARCHITETURAL WALL BUMP UP ABOVE THIRD FLOOR.
- E. SEISMIC BRACING IMPROVEMENT/RETROFIT FOR EXISTING CEILING GRAVITY SUPPORT FRAMING ABOVE LEVEL 2.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED BY AN APPROVED AND LICENSED FABRICATOR IN ACCORDANCE WITH THE AISC SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS (LATEST EDITION), AND WITH CHAPTER 22A OF THE CODE.
2. ALL STRUCTURAL STEEL SHALL CONFORM WITH THE ASTM DESIGNATION AS INDICATED BELOW (UNO):

WF SHAPES, WT SHAPES	A992 OR A572, GRADE 50 (MULTI CERT)
PLATES, CONNECTION PLATES, AND MISC. UNO.	A-36, UNO
PIPE COLUMNS	A-53, GRADE B
TUBE SECTIONS	A-500, GRADE B
BOLTS	A-325 / A-490, AS NOTED ON DWGS
ANCHOR BOLTS IN CONCRETE/MASONRY	F-1554, GRADE 36
ANGLES, CHANNELS	A-36
3. THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS TO THE ARCHITECT OF ALL STEEL FOR ARCHITECTS AND STRUCTURAL ENGINEERS TO REVIEW AND APPROVAL BEFORE FABRICATION.
4. BOLT HOLES USED IN STEEL SHALL BE 1/16" LARGER IN DIAMETER THAN NORMAL SIZE OF BOLT USED, EXCEPT AS NOTED.
5. ALL STRUCTURAL STEEL SURFACES THAT ARE ENCASED IN CONCRETE, OR MASONRY, SPRAY ON FIREPROOFING, OR ARE ENCASED BY BUILDING FINISH, SHALL BE LEFT UNPAINTED.
6. ALL WELDING IS TO BE DONE BY CERTIFIED WELDERS USING E70XX ELECTRODES (UNO). ALL WELDS SHALL BE IN CONFORMITY WITH THE PROJECTS SPECIFICATIONS AND FOR THE CODE FOR WELDING IN BUILDING CONSTRUCTION (AWS D1.1 LATEST REVISION) OF THE AMERICAN WELDING SOCIETY. SEE SPECIAL INSPECTIONS SECTION FOR WELDING INSPECTION REQUIREMENTS.
7. WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED, WHERE FILLET WELD SYMBOL IS GIVEN WITHOUT INDICATION OF SIZE, USE MINIMUM SIZE WELDS AS SPECIFIED IN AISC MANUAL OF STEEL CONSTRUCTION, CHAPTER J, LATEST EDITION.
8. ALL STRUCTURAL STEEL AND MISCELLANEOUS METAL EXPOSED TO THE WEATHER SHALL BE HOT DIP GALVANIZED AFTER FABRICATION, UNLESS NOTED OTHERWISE ON THE CONSTRUCTION DOCUMENTS. REFER TO ARCH DRAWINGS FOR STEEL FINISH. PROTECT FIELD WELDS EXPOSED TO THE WEATHER SHALL RECEIVE PRIME AND PAINT OR BRUSH / COLD GALVANIZING, FOR EXPOSED STRUCTURAL STEEL CALLED OUT TO RECEIVE COATINGS SEE SPECIFICATION 05 1200 FOR PREPARATION AND PRIMING.
9. THE USE OF E70T-4 WELDING WIRE IS NOT PERMITTED.
10. ALL WELD FILLER MATERIAL SPECIFIED AS "NOTCH TOUGH" SHALL HAVE A MINIMUM CHARPY-V NOTCH (CVN) VALUE OF 20 FT-LBS AT A TEMPERATURE OF -20° F.
11. 100% UT TEST FOR ALL COMPLETE PENETRATION GROOVE WELDS.
12. DISCONTINUITIES IN WELD CREATED BY ERRORS OR BY FABRICATION OR ERECTION OPERATIONS, SUCH AS TACK WELDS, ERECTION AIDS, AIR ARC GOUGING AND FLAME CUTTING, SHALL BE REPAIRED AS REQUIRED BY THE ENGINEER OF RECORD.
13. WRITTEN WELDING PROCEDURE SPECIFICATIONS (WPS) PER THE RECOMMENDATIONS OF THE AMERICAN WELDING SOCIETY (AWS) SHALL BE DEVELOPED BY THE FABRICATOR/ERECTOR AND SUBMITTED FOR REVIEW TO THE ENGINEER PRIOR TO ANY WELDING OF THE STRUCTURAL STEEL. THE WELDING PROCEDURES SHALL INCLUDE ALL THE WELDED JOINTS AND CONFIGURATIONS TO BE USED ON THIS PROJECT-ONLY WPS WHICH ARE RELEVANT TO THIS PROJECT SHALL BE SUBMITTED. ALL WELDED JOINTS SHALL BE PRE-QUALIFIED PER AWS OR BE QUALIFIED BY TEST PER AWS. A PROSEDURE QUALIFICATION RECORD (PQR) SHALL BE INCLUDED WITH THE WPS IF THE WELDING PROCEDURE OR JOINT IS QUALIFIED BY TESTING. THE ELECTRODE MANUFACTURER AND PRODUCT/TRADE NAME SHALL BE IDENTIFIED IN THE WPS IN ADDITION TO THE AWS ELECTRODE CLASSIFICATION NAME. A COPY OF THE ELECTRODE MANUFACTURER'S TECHNICAL DATA SHEETS WITH THE RECOMMENDED WELDING PARAMETERS SHALL BE SUBMITTED WITH THE WPS.

POWER DRIVEN FASTENERS / SHOT PINS

1. ALL POWDER DRIVEN FASTENERS SHALL CONSIST OF SIMPSON 0.1570 PDPA (ICC ESR-2138) LOW VELOCITY POWDER DRIVEN FASTENERS. INSTALLATION OF ANCHORS SHALL BE IN CONFORMANCE WITH THE ICC REPORT AND MANUFACTURER RECOMMENDATIONS.
2. WHEN INSTALLING POWDER DRIVEN FASTENERS IN NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE REINFORCING BARS.
3. THE SPECIAL INSPECTOR MUST BE ON THE JOBSITE CONTINUOUSLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, ANCHOR SPACING, EDGE DISTANCES, SLAB THICKNESS AND ANCHOR EMBEDMENT.
4. POWDER DRIVEN FASTENERS ARE NOT PERMITTED FOR USE ON CONCRETE CURBS.
5. FASTENERS MAY BE USED FOR SHEAR LOADS AND THEY MAY BE USED IN TENSION TO SUPPORT LOADS LESS THAN 100 POUNDS FOR MINOR LOADS LIKE ACOUSTICAL CEILINGS, DUCT WORK, CONDUIT, ETC.
6. THE ALLOWABLE LOADS SHALL BE 100 POUNDS OR 80% OF ICC EVALUATION REPORT APPROVED VALUES, WHICHEVER IS LESS. QUALIFICATION FOR USE OF ALL POWER ACTUATED TOOLS MUST MEET ANSI A10.3 STANDARD AS REQUIRED BY THE MANUFACTURER AND ALL OSHA REQUIREMENTS.
7. TESTING - THE OPERATOR, TOOL AND FASTENER SHALL BE PRE-QUALIFIED BY THE PROJECT INSPECTOR. THE INSPECTOR SHALL OBSERVE THE TESTING OF THE FIRST 10 FASTENER INSTALLATIONS. A TEST "PULL-OUT" LOAD OF NOT LESS THAN TWICE THE DESIGN LOAD SHALL BE APPLIED TO THE PIN IN SUCH A MANNER AS NOT TO RESIST THE SPALLING TENDENCY OF THE CONCRETE SURROUNDING THE PIN. THEREAFTER RANDOM TESTS UNDER THE PROJECT INSPECTOR'S SUPERVISION SHALL BE MADE OF APPROXIMATELY 1 IN 10 PINS. IF ANY PIN FAILS TESTING, TEST ALL PINS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE PASS, THEN RESUME THE INITIAL TESTING FREQUENCY.

REINFORCING STEEL

1. REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 19A OF THE CODE, ASTM A615, GRADE 60 UNO. DEFORMATIONS SHALL BE IN ACCORDANCE WITH ASTM A-305.
2. BARS SHALL BE CLEAN OF RUST, GREASE, OR OTHER MATERIALS LIKELY TO IMPAIR BOND. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. PROVIDE LAPS AS PER ACI 318-19 SECTION 25.5, 6" MINIMUM. WWF SHALL BE SUPPORTED ON APPROVED CHAIRS.
4. REINFORCING BAR SPLICES SHALL BE MADE AS INDICATED ON THE DRAWINGS. MINIMUM SPLICE LENGTH FOR REINFORCING STEEL BARS IN MASONRY SHALL BE 48 BAR DIAMETERS, 24" MINIMUM. MINIMUM SPLICE LENGTH FOR REINFORCING STEEL BARS IN CONCRETE SHALL BE PER ACI 318-19 CHAPTER 25. LAP ALL HORIZONTAL BARS AT CORNERS AND INTERSECTIONS.
5. ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION IS MADE.
6. WHERE WELDING OF REINFORCING IS APPROVED BY THE STRUCTURAL ENGINEER, IT SHALL BE DONE BY AWS CERTIFIED WELDERS USING E90XX OR APPROVED ELECTRODES. WELDING PROCEDURES SHALL CONFORM TO THE REQUIREMENTS OF STRUCTURAL WELDING CODE: REINFORCING STEEL, AWS-D1.4, LATEST REVISION. REINFORCING BARS TO BE WELDED SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-706.
7. BARS IN SLABS SHALL BE SECURELY SUPPORTED ON WELL-CURED CONCRETE BLOCKS OR APPROVED METAL CHAIRS, PRIOR TO PLACING CONCRETE.
8. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", LATEST EDITION.
9. COMPLETE AND DETAILED REINFORCING PLACEMENT DRAWINGS SHALL BE PREPARED AND SUBMITTED TO THE ARCHITECT FOR REVIEW BY THE STRUCTURAL ENGINEER PRIOR TO FABRICATION IN ACCORDANCE WITH THE SPECIFICATIONS AND APPLICABLE CODES. THESE DRAWINGS SHALL BE AVAILABLE ON THE JOB SITE PRIOR TO PLACING OF CONCRETE.
10. MILL TEST REPORTS FOR GRADE 60 BARS SHALL BE SUBMITTED PRIOR TO PLACEMENT OF CONCRETE.
11. CONTINUOUS INSPECTION OF CONCRETE SHALL INCLUDE INSPECTION DURING INSTALLATION OF REINFORCING STEEL. INSPECTION SHALL BE SCHEDULED SO THAT PLACEMENT OF REINFORCING STEEL, CONDUIT, SLEEVES, AND EMBEDDED ITEMS MAY BE CORRECTED PRIOR TO PLACEMENT OF OVERLYING GRIDS OR REINFORCING STEEL.
12. ALL GRADE 60 REINFORCING STEEL SHALL BE CLEARLY MARKED TO DIFFERENTIATE THEM FROM GRADE 40 REINFORCING STEEL IF CONCURRENTLY ON SITE.
13. CONCRETE PROTECTION FOR REINFORCEMENT

THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

	MINIMUM COVER, IN.
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3
B. CONCRETE EXPOSED TO EARTH OR WEATHER: NO. 5 THROUGH NO. 18 BAR	2
NO. 5 BAR, W61 OR D31 WIRE & SMALLER	1 1/2
C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, WALLS, JOISTS NO. 14 AND NO. 18 BAR	1 1/2
NO. 11 BAR & SMALLER	1
BEAMS, COLUMNS: PRIMARY REINFORCEMENT TIES, STIRRUPS, SPIRALS	1 1/2

STRUCTURAL OBSERVATION

1. STRUCTURAL OBSERVATION SHALL BE PERFORMED BY THE STRUCTURAL ENGINEER OF RECORD IN ACCORDANCE WITH SECTION 1704.6 OF THE CODE.
2. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATION. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR.
3. THE STRUCTURAL ENGINEER OF RECORD SHALL PERFORM THE STRUCTURAL OBSERVATION. DSA REQUIRES THAT THE STRUCTURAL ENGINEER RESPONSIBLE FOR THE STRUCTURAL DESIGN PERFORM THIS DUTY UNLESS THE SEOR IS CHANGED VIA DSA FORM 108.
4. THE CONTRACTOR SHALL COORDINATE AND CALL FOR A PRE-CONSTRUCTION MEETING BETWEEN THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTORS AND DEPUTY INSPECTORS. THE PURPOSE OF THE MEETING SHALL BE TO IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS. A RECORD OF THE MEETING SHALL BE INCLUDED IN THE FIRST OBSERVATION REPORT SUBMITTED TO THE PROJECT INSPECTOR.

CONSTRUCTION STAGES

ELEMENTS/CONNECTIONS TO BE OBSERVED

EXTERIOR WALL PANEL INFILL REINFORCING STEEL, ANCHOR RODS

- THE STRUCTURAL OBSERVER SHALL PREPARE A REPORT FOR EACH SIGNIFICANT STATE OF CONSTRUCTION OBSERVED. THIS REPORT SHALL BE ON DSA FORM 6A-E. A COPY OF THE OBSERVATION REPORT SHALL BE SENT TO DSA, OWNER, CONTRACTOR, AND PROJECT INSPECTOR.

CONSTRUCTION JOINTS

1. ALL CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CODE SECTION 1906.4 AND THE TYPICAL CONSTRUCTION JOINT DETAILS SHOWN ON THE STRUCTURAL DRAWINGS.
2. ALL SURFACES OF CONSTRUCTION JOINTS SHALL BE CLEANED TO REMOVE DUST, CHIPS OR OTHER FOREIGN MATTER PRIOR TO PLACING THE ADJACENT CONCRETE.
3. THE CONTRACTOR SHALL SUBMIT THE PROPOSED LOCATIONS OF CONSTRUCTION JOINTS TO THE STRUCTURAL ENGINEER FOR REVIEW BEFORE STARTING CONSTRUCTION.

CHEMICALLY ADHERED CONCRETE ANCHORS

1. EPOXY ANCHORS SHALL BE THE FOLLOWING AS NOTED ON THE DRAWINGS OR AN SEOR APPROVED EQUAL:
 - a. HILTI HIT HY-200 ADHESIVE ANCHORS (ICC ESR-3187)
- INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS OF THE ICC REPORT.

POST-INSTALLED MECHANICAL CONCRETE ANCHORS

1. MECHANICAL ANCHORS SHALL BE THE FOLLOWING OR AS NOTED ON THE DRAWINGS OR AN SEOR APPROVED EQUAL:
 - a. HILTI KWIK BOLT T2Z (ICC ESR-4266) - STAINLESS STEEL REQUIRED AT EXTERIOR APPLICATIONS.
2. SCREW ANCHORS SHALL BE THE FOLLOWING OR AS NOTED ON THE DRAWINGS OR AN SEOR APPROVED EQUAL:
 - a. HILTI KWIK HUS EZ (ICC ERS-3027) - DRY, INTERIOR USE ONLY.
3. INSTALL ALL ANCHORS PER MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS OF THE ICC REPORT.

TABLE 2 - REQUIRED TESTING FOR SPECIAL INSPECTIONS			
SYSTEM OR MATERIAL	TESTING		REMARKS
	CODE REFERENCE	REFERENCED STANDARDS	
CONCRETE			
CONCRETE STRENGTH	1903 1705.3	ASTM C39	FABRICATE SPECIMENS AT TIME FRESH CONCRETE IS PLACED. TEST EACH 150 CY NOR LESS THAN EACH 5000 SF OF SLAB OR WALL PLACED EACH DAY
CONCRETE SLUMP		ASTM C143	
CONCRETE AIR CONTENT		ASTM C231	
CONCRETE TEMPERATURE		ASTM C1064	
UNIT WEIGHT OF FRESH STRUCTURAL LIGHTWEIGHT CONCRETE		ASTM C567	
FLOOR FLATNESS AND LEVELNESS		ASTM E1155	TEST WITHIN 24 HOURS OF FINISHING
SHOTCRETE STRENGTH	1910.5 1910.10	ASTM C39	SPECIMEN TAKEN FROM THE IN-PLACE OR FROM TEST PANELS. EACH 50 CY NOR LESS THAN EACH 5000 SF OF WALL PLACED EACH SHIFT
STEEL			
NDT OF COMPLETE JOINT PENETRATION WELDS	1705.2	AISC 360 J5b AWS D1.1 6.13 AND 6.14.3	ALL C.J.P. WELDS IN MATERIALS 5/16 AND THICKER REQUIRE UT TESTING
NDT OF ACCESS HOLES IN HEAVY SECTION		AISC 360 J1.6 & N5.5c	MT OR PT ALL THERMALLY CUT SURFACES OF ACCESS HOLES WHEN FLANGE EXCEEDS 2" FOR ROLLED SHAPES OR WEB EXCEEDS 2" FOR BUILT-UP SHAPES
PRE-CONSTRUCTION TESTING OF WELDING STUDS		AWS D1.1 7.7.1	TEST EACH SIZE AND TYPE OF STUD EACH SHIFT
PRE-INSTALLATION TESTING OF WELDING STUDS WELDED THROUGH DECKING		AWS D1.1 7.6	TEST EACH STUD SIZE AND DECK GAUGE COMBINATION
PRE-INSTALLATION VERIFICATION OF PRETENSIONED HIGH STRENGTH BOLTS		RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS SECTION 7	TEST EACH COMBINATION OF DIAMETER LENGTH, GRADE, AND LOT TO BE USED IN THE WORK

TABLE 1 - REQUIRED SPECIAL INSPECTIONS				
SYSTEM OR MATERIAL	INSPECTION			REMARKS
	INSPECTION TYPE	CODE REFERENCE	REFERENCED STANDARDS	
CONCRETE				
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS AND VERIFY PLACEMENT	PERIODIC	1705.3 1908.4	ACI 318 CHAPTER 20, 25.2 - 25.3, 26.6.1 - 26.6.3	TOLERANCE AND REINFORCING PLACEMENT PER ACI 318, SECTION 26.6.2
2. REINFORCING BAR WELDING				
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	PERIODIC	1705.3	ACI 318 26.6.4 AWS D1.4, SECTION 7	VISUALLY INSPECT ALL WELDS. MATERIAL VERIFICATION OF REINFORCING STEEL FOR WELDING (CERTIFIED MILL TEST REPORTS), VERIFICATION OF WELD FILLER METALS, USE OF PROPER WPS'S AND WELDER QUALIFICATIONS
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	PERIODIC			
C. INSPECT ALL OTHER WELDS	CONTINUOUS			
3. INSPECT ANCHORS CAST IN CONCRETE	PERIODIC		ACI 318 17.8.2	
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.				
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATION TO RESIST SUSTAINED TENSION LOADS.	CONTINUOUS		ACI 318 17.8.2.4	INSPECTION REQUIREMENTS PER ICC EVALUATION REPORT. VERIFY THAT ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATION ARE INSTALLED BY CERTIFIED INSTALLERS.
B. MECHANICAL ANCHORS AND ADHESIVE NOT DEFINED IN 4A.	PERIODIC		ACI 318 17.8.2	
5. VERIFY USE OF REQUIRED DESIGN MIX	PERIODIC	1904.1, 1904.2, 1908.2, 1908.3	ACI 318 CH 19, 24.4.3, 26.4.4	VERIFY THAT ALL MIXES USED COMPLY WITH APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED CODES AND STANDARDS
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TEST, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE TEMPERATURE OF CONCRETE.	CONTINUOUS	1908.10	ASTM C172 ASTM C31 ACI 318 26.4, 26.12	
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	CONTINUOUS	1904.6, 1908.7, 1908.8	ACI 318 26.5	
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	PERIODIC	1908.9	ACI 318 26.5.3 - 26.5.5	
9. INSPECT PRESTRESSED CONCRETE FOR:				
A. APPLICATION OF PRESTRESSING FORCES; AND	CONTINUOUS		ACI 318 26.10	
B. GROUTING OF BONDED PRESTRESSING TENDONS.	CONTINUOUS			
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	PERIODIC		ACI 318 26.8	
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	PERIODIC		ACI 318 26.11.2	
12. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF CONCRETE MEMBER BEING FORMED	PERIODIC		ACI 318 26.11.1.2(b)	
13. INSPECT INSTALLATION OF MECHANICAL COUPLING DEVICES.	CONTINUOUS		ICC EVALUATION REPORT	VERIFY GRADE AND SIZE OF REBAR BEING SPLICED, COUPLER IDENTIFICATION AND POSITION, AND INSTALLATION OF COUPLER
STEEL				
INSPECTION TASKS PRIOR TO WELDING				
1. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	PERFORM	1705.2.1	AISC 360, TABLE N5.4-1 AISC 341, TABLE J6-1	
2. MANUFACTURER CERTIFICATION FOR WELDING CONSUMABLES AVAILABLE	PERFORM			
3. MATERIAL IDENTIFICATION (TYPE/GRADE)	OBSERVE			
4. WELDER IDENTIFICATION SYSTEM	OBSERVE			
5. FIT-UP GROOVE WELDS (INCLUDING JOINT GEOMETRY)	OBSERVE			VERIFY JOINT PREPARATION, DIMENSIONS, CLEANLINESS, TACK WELD QUALITY, BACKING TYPE AND FIT
6. CONFIGURATION AND FINISH OF ACCESS HOLE	OBSERVE			
7. FIT-UP OF FILLET WELDS	OBSERVE			VERIFY ALIGNMENT, GAPS AT ROOT, CLEANLINESS OF STEEL SURFACES, AND QUALITY OF TACK WELD
8. CHECK WELDING EQUIPMENT	OBSERVE			
INSPECTION TASKS DURING WELDING				
1. USE OF QUALIFIED WELDERS	OBSERVE	1705.2.1	AISC 360, TABLE N5.4-2 AISC 341, TABLE J6-2	
2. CONTROL AND HANDLING OF WELDING CONSUMABLES	OBSERVE			VERIFY PACKAGING AND EXPOSURE CONTROL
3. NO WELDING OVER TACK WELDS	OBSERVE			
4. ENVIRONMENTAL CONDITIONS	OBSERVE			VERIFY WIND SPEED IS WITHIN LIMITS AS WELL AS PRECIPITATION AND TEMPERATURE
5. WELDING PROCEDURE SPECIFICATION (WPS) FOLLOWED	OBSERVE			VERIFY SETTINGS ON WELDING EQUIPMENT, TRAVEL SPEED, SELECTED WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RATE, PREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED, AND PROPER POSITION (F, V, H, OH)
6. WELDING TECHNIQUES	OBSERVE			VERIFY INTERPASS AND FINAL CLEANING, PROFILE LIMITATIONS AND QUALITY OF EACH PASS
INSPECTION TASKS AFTER WELDING				
1. WELDS CLEANED	OBSERVE	1705.2.1	AISC 360, TABLE N5.4-3 AISC 341, TABLE J6-3	
2. SIZE, LENGTH, AND LOCATION OF WELDS	PERFORM			
3. WELDS MEET VISUAL ACCEPTANCE CRITERIA	PERFORM			VERIFY CRACK PROHIBITION, WELD/BASE-METAL FUSION, CRATER CROSS SECTION, WELD PROFILES AND SIZE, UNDERCUT, AND POROSITY. DOCUMENT FINDINGS IN REPORT.
4. ARC STRIKES	PERFORM			
5. K-AREA	PERFORM			VISUALLY INSPECT WEB IN K-AREA FOR CRACKS WITHIN 3" OF WELD WHERE WELDS ARE PROVIDED IN THE K-AREA.
6. BACKING REMOVED AND WELD TABS REMOVED WHERE REQUIRED	PERFORM			
7. PLACEMENT OF REINFORCING OR CONTOURING FILLET WELDS WHERE REQUIRED	PERFORM			
8. REPAIR ACTIVITIES	PERFORM			
9. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	PERFORM			
INSPECTION TASKS PRIOR TO BOLTING				
1. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	PERFORM	1705.2.1	AISC 360, TABLE N5.6-1 AISC 341, TABLE J7-1	
2. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	OBSERVE			
3. PROPER FASTENER SELECTED FOR THE JOINT DETAIL	OBSERVE			VERIFY GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE.
4. PROPER BOLTING PROCEDURE SELECTED FOR THE JOINT DETAIL	OBSERVE			
5. CONNECTING ELEMENTS MEET APPLICABLE REQUIREMENTS	OBSERVE			VERIFY FAYING SURFACE CONDITION AND HOLD PREPARATION
6. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLING PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED.	OBSERVE			
7. PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENT	OBSERVE			
INSPECTION TASKS DURING BOLTING				
1. FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS ARE POSITIONED AS REQUIRED	OBSERVE	1705.2.1	AISC 360, TABLE N5.6-2 AISC 341, TABLE J7-2	
2. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING OPERATION	OBSERVE			
3. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	OBSERVE			
4. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT FORWARD TOWARD THE FREE EDGES	OBSERVE			
INSPECTION TASKS AFTER BOLTING				
1. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	PERFORM		AISC 360, TABLE N5.6-3 AISC 341, TABLE J7-3	

SPECIAL INSPECTIONS AND TESTING

SPECIAL INSPECTION NOTES:

- OWNER WILL RETAIN A QUALIFIED, INDEPENDENT SPECIAL INSPECTION AGENCY TO PERFORM SPECIAL INSPECTIONS AND TESTS PER CHAPTER 17 OF THE CODE. REFER TO THE TABLES 1 AND 2 FOR TESTS AND INSPECTIONS THAT WILL BE PERFORMED.
- THE SPECIAL INSPECTOR WILL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL NON-CONFORMING WORK WILL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION AND NOTED IN THE INSPECTION REPORTS.
- TESTING FREQUENCIES IDENTIFIED IN THE STATEMENT OF SPECIAL INSPECTION ARE DEFINED AS FOLLOWS:
 - CONTINUOUS: THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED.
 - PERIODIC: THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK.
 - OBSERVE: THE SPECIAL INSPECTOR WILL OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
 - PERFORM: THE SPECIAL INSPECTOR WILL PERFORM THESE TASKS FOR EACH ELEMENT.
 - DOCUMENT: THE SPECIAL INSPECTOR WILL DOCUMENT IN A REPORT THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

CONTRACTOR RESPONSIBILITY:

- THE CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE MAIN WIND/SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR A WIND/SEISMIC FORCE RESISTING COMPONENT LISTED IN TABLE 1 SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:
 - ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS.
 - ACKNOWLEDGEMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
 - PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION INCLUDING THE METHOD AND FREQUENCY OF REPORTING AND DISTRIBUTION OF THE REPORTS.
 - IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.



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DATE: 11/01/2024

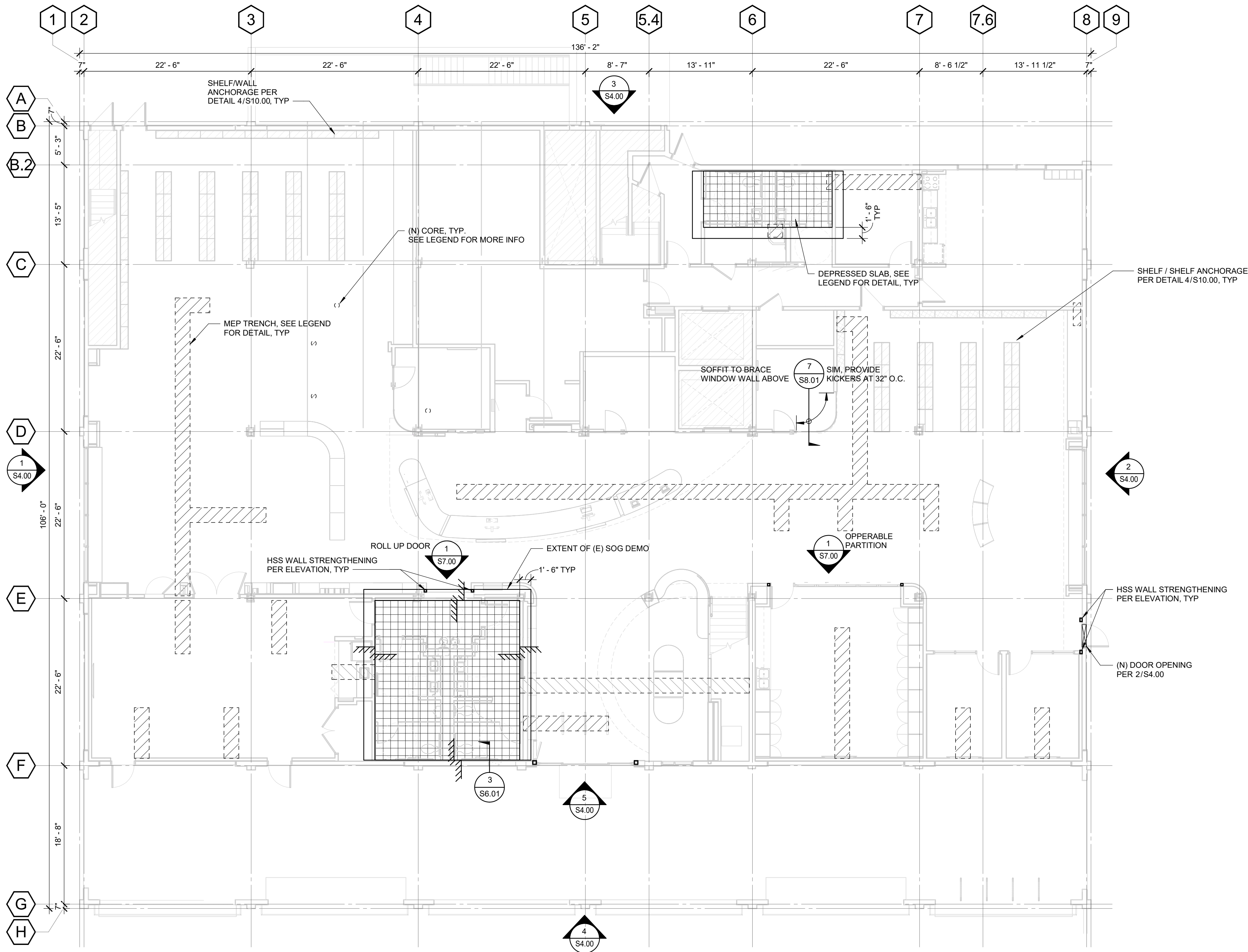
TESTING, SPECIAL INSPECTIONS, AND OBSERVATIONS



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LEVEL 1 FLOOR
PLAN

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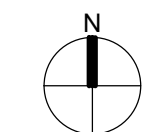
LEGEND

- (N) MEP TRENCHING PER DETAIL 15/S6.00
- (N) CORE, SEE ARCH DRAWINGS FOR LOCATION, MAX 4" CORE. LOCATE (E) REINFORCEMENT VIA NON-DESTRUCTIVE METHODS AND ADJUST CORE LOCATION TO NOT DAMAGE (E) REBAR
- (N) DEPRESSED SLAB PER DETAIL 14/S6.00 SEE ARCH FOR LOCATION

PLAN NOTES:

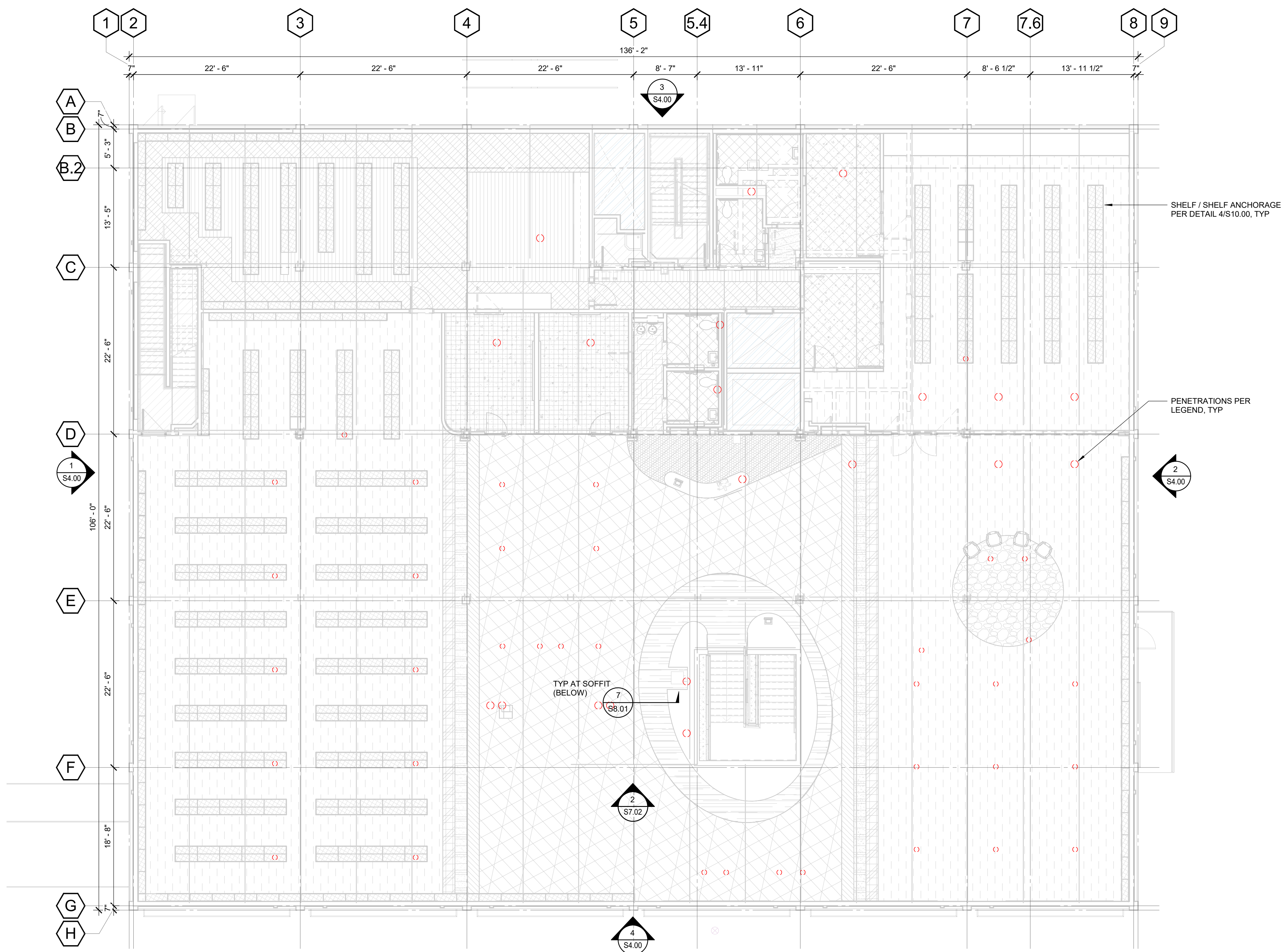
- REFER TO THE S-SERIES SHEETS LISTED BELOW FOR THE CORRESPONDING INFORMATION.

SHEET SERIES	INFORMATION
S0.00	ABBREVIATIONS, SYMBOLS & SHEET INDEX
S0.01	STRUCTURAL GENERAL NOTES
S4.XX	EXTERIOR ELEVATIONS
S5.XX	BUILDING SECTIONS
S6.XX	CONCRETE DETAILS
S7.XX	STRUCTURAL STEEL DETAILS
S8.XX	LIGHT GAGE METAL STUD WALL DETAILS
S9.XX	CEILING RETROFIT DETAILS
S10.XX	SHELVING ANCHORAGE
- VERIFY ALL DIMENSIONS, ELEVATIONS, FINISH SURFACES, SLOPES, DRAINS, SLAB DEPRESSIONS, SLAB OPENINGS, CURBS, ETC WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
- PENETRATIONS NOT SHOWN IN PLAN SHALL BE BROUGHT TO THE SEOR'S ATTENTIONS PRIOR TO THE INSTALLATION OF WORK.
- DO NOT DAMAGE EXISTING FOUNDATIONS DURING SLAB REMOVAL AND TRENCHING.





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DATE: 11/01/2024

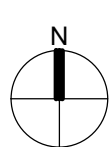
LEVEL 2 FLOOR
PLAN**S3.02****LEGEND**

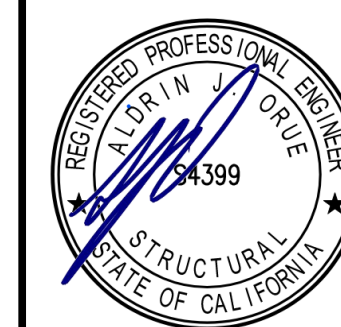
(N) CORE. SEE ARCH DRAWINGS FOR LOCATION. MAX 4" CORE. LOCATE (E) REINFORCEMENT VIA NON-DESTRUCTIVE METHODS AND ADJUST CORE LOCATION TO NOT DAMAGE (E) REBAR. CONTRACTOR TO SCAN SLAB VIA NON-DESTRUCTIVE METHODS AND IDENTIFY EXISTING REINFORCEMENT.

PLAN NOTES:

- REFER TO THE S-SERIES SHEETS LISTED BELOW FOR THE CORRESPONDING INFORMATION:

SHEET SERIES	INFORMATION
S0.00	ABBREVIATIONS, SYMBOLS & SHEET INDEX
S0.01	STRUCTURAL GENERAL NOTES
S4.XX	EXTERIOR ELEVATIONS
S5.XX	BUILDING SECTIONS
S6.XX	CONCRETE DETAILS
S7.XX	STRUCTURAL STEEL DETAILS
S8.XX	LIGHT GAGE METAL STUD WALL DETAILS
S9.XX	CEILING RETROFIT DETAILS
S10.XX	SHELVING ANCHORAGE
- VERIFY ALL DIMENSIONS, ELEVATIONS, FINISH SURFACES, SLOPES, DRAINS, SLAB DEPRESSIONS, SLAB OPENINGS, CURBS, ETC. WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
- PENETRATIONS NOT SHOWN IN PLAN SHALL BE BROUGHT TO THE SEOR'S ATTENTION PRIOR TO THE INSTALLATION OF WORK.
- DO NOT DAMAGE EXISTING FOUNDATIONS DURING SLAB REMOVAL AND TRENCHING.

**1 LEVEL 2 FLOOR PLAN**
SCALE: 1/8" = 1'-0"



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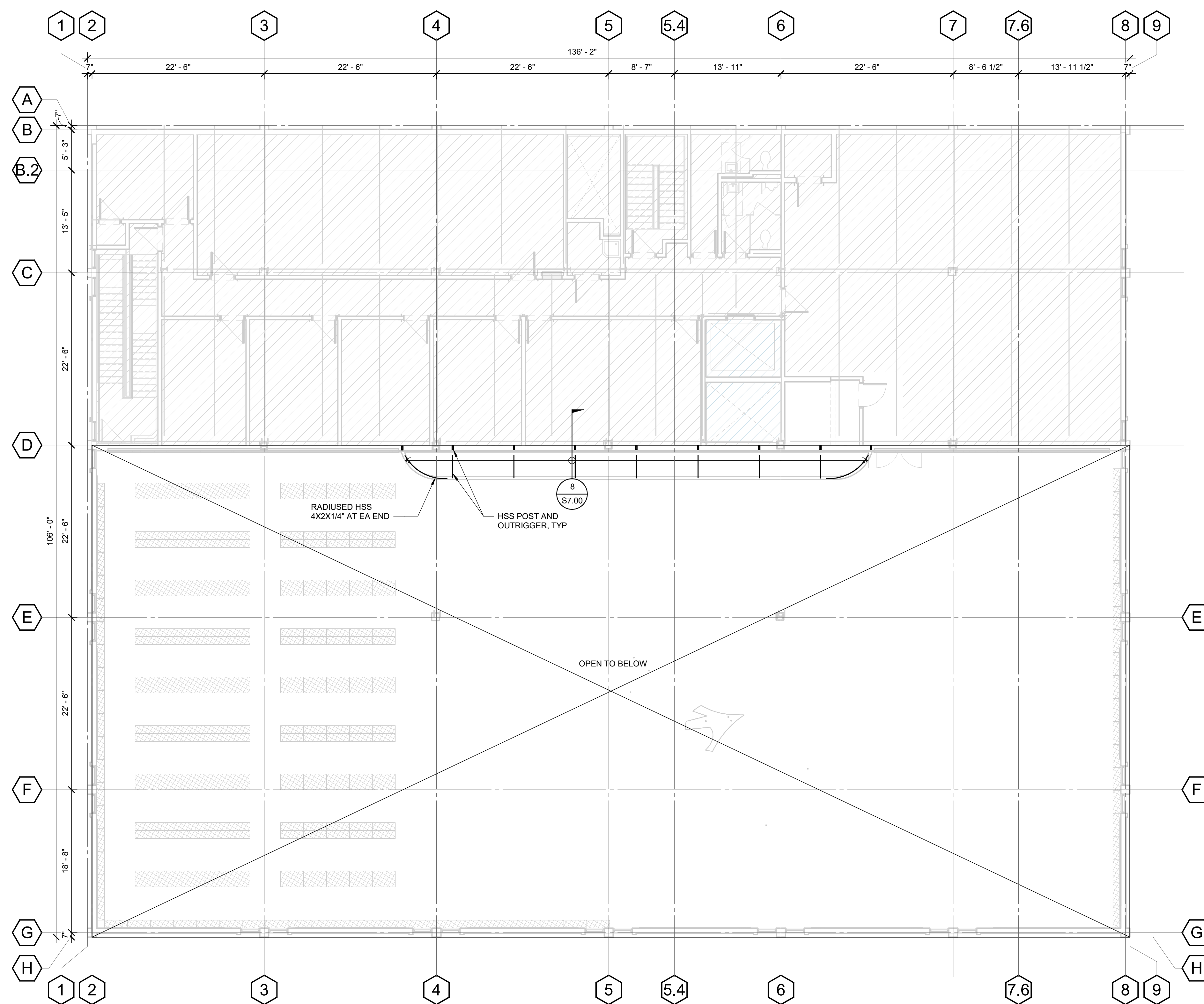


NAC

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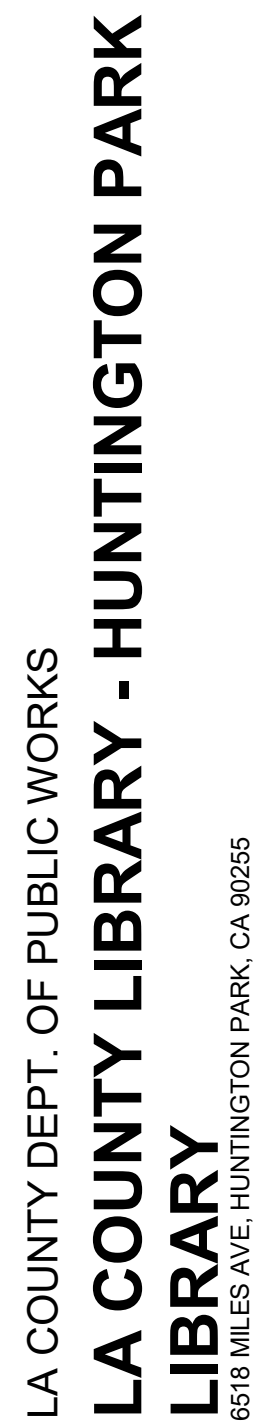
LEVEL 3 FLOOR
PLAN

S3.03



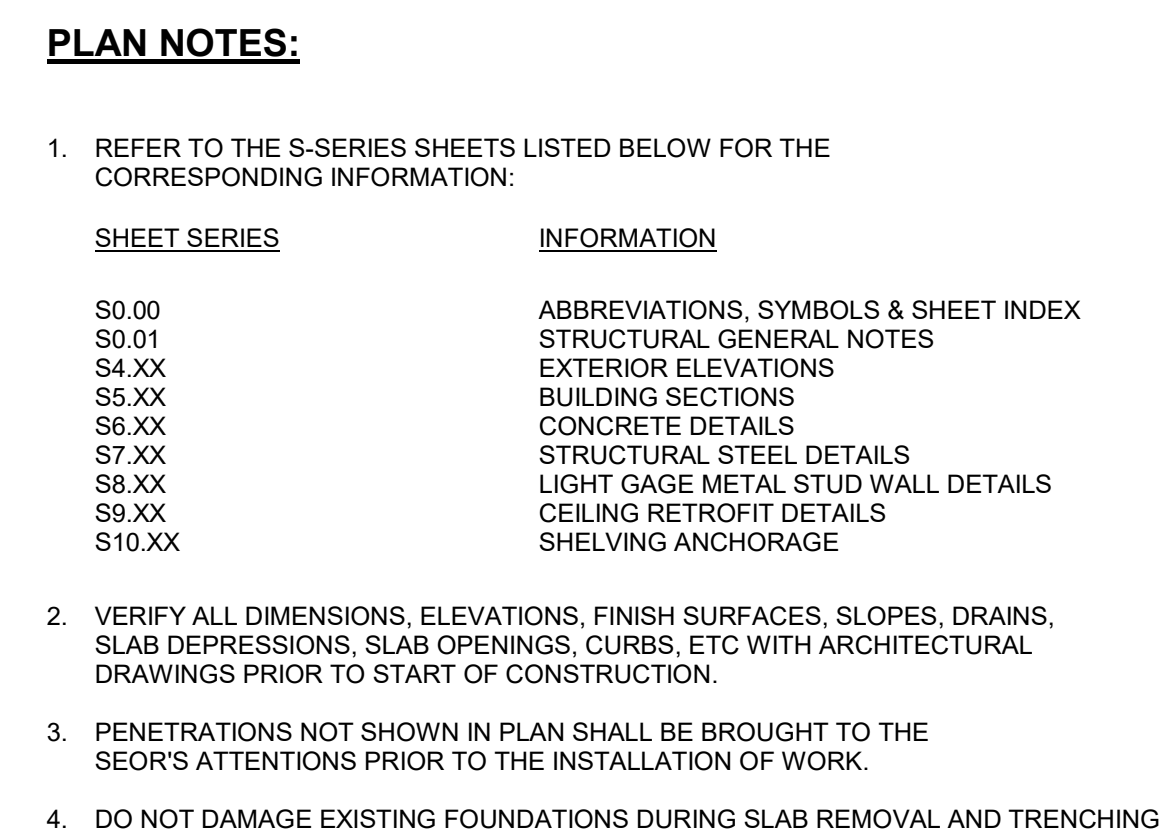
1. REFER TO THE S-SERIES SHEETS LISTED BELOW FOR THE CORRESPONDING INFORMATION:

<u>SHEET SERIES</u>	<u>INFORMATION</u>
S0.00	ABBREVIATIONS, SYMBOLS & SHEET INDEX
S4.00	STRUCTURAL GENERAL NOTES
S4.XX	EXTERIOR ELEVATIONS
S5.XX	BUILDING SECTIONS
S6.XX	CONCRETE DETAILS
S7.XX	STRUCTURAL STEEL DETAILS
S8.XX	LIGHT GAGE METAL STUD WALL DETAILS
S9.XX	CEILING RETROFIT DETAILS
S10.XX	SHELVING ANCHORAGE
2. VERIFY ALL DIMENSIONS, ELEVATIONS, FINISH SURFACES, SLOPES, DRAINS, SLAB DEPRESSIONS, SLAB OVERTURNS, CURBS, ETC. WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
3. PENETRATIONS NOT SHOWN IN PLAN SHALL BE BROUGHT TO THE SEOR'S ATTENTIONS PRIOR TO THE INSTALLATION OF WORK.
4. DO NOT DAMAGE EXISTING FOUNDATIONS DURING SLAB REMOVAL AND TRENCHING



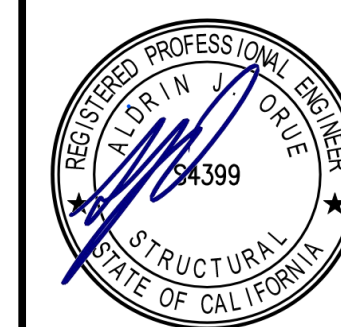
NAC NO	2300226
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S3.04



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





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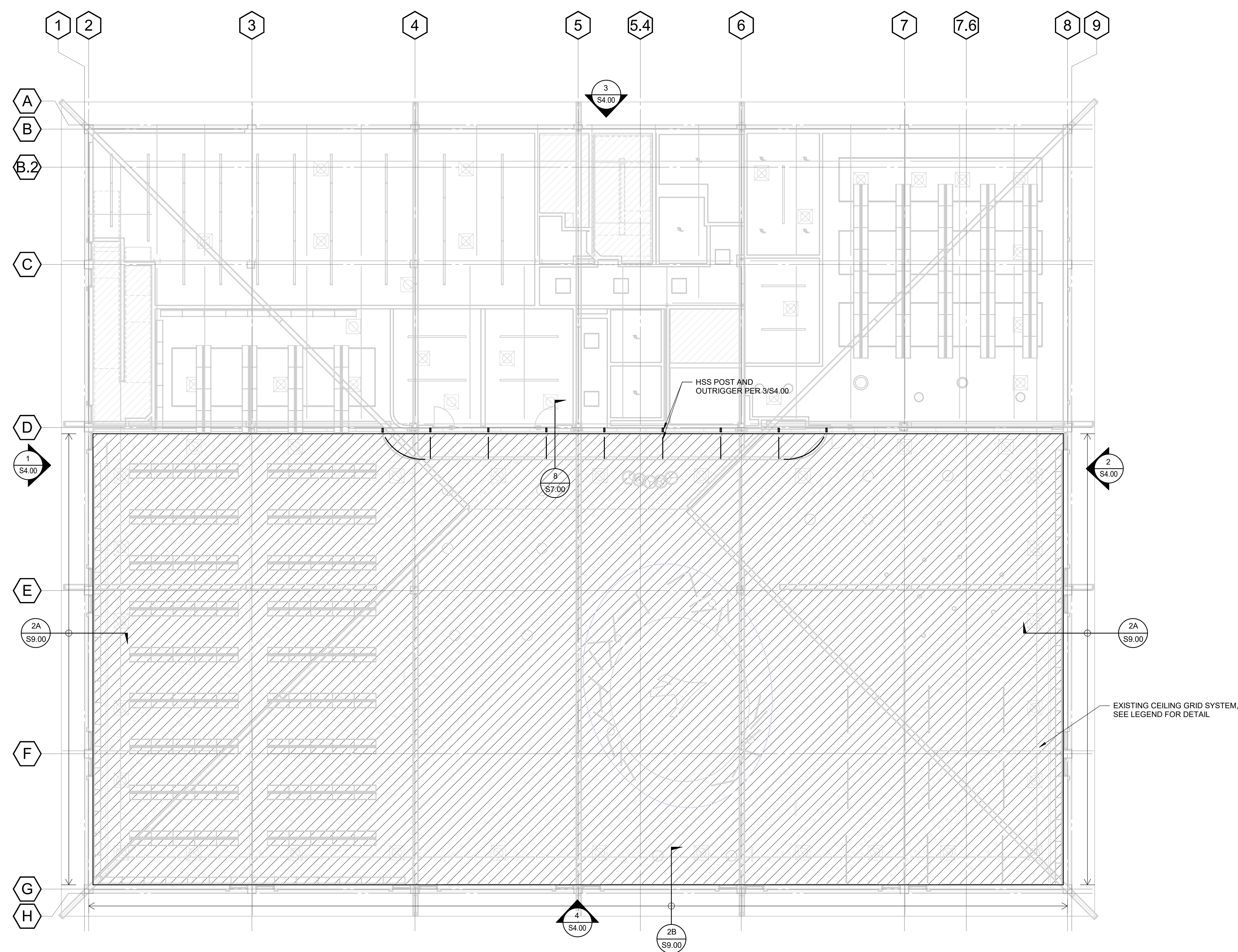


NAC

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DRAW N	Author
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DATE	11/01/2024

SECOND FLOOR -
REFLECTED
CEILING PLAN

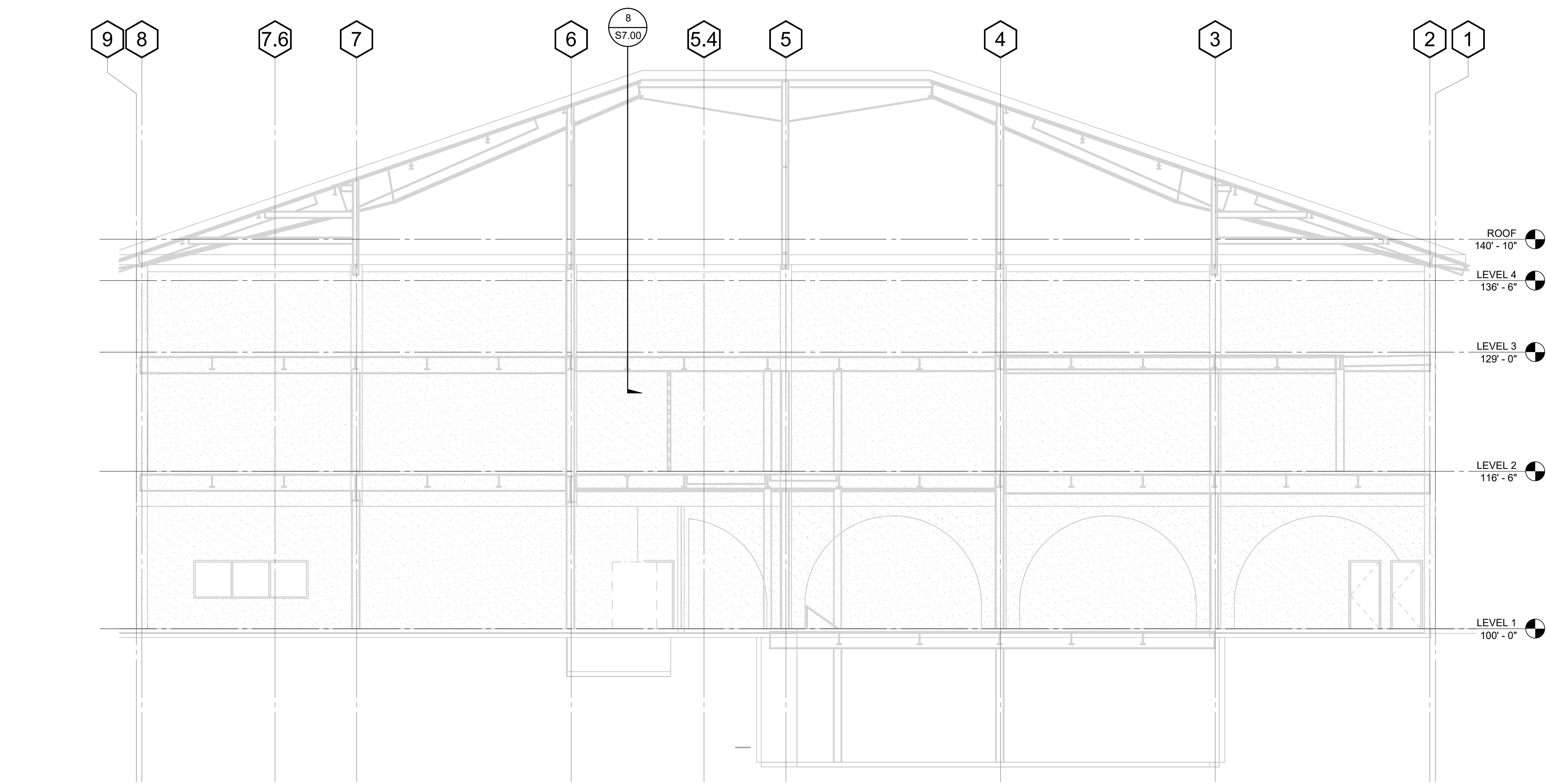
S3.20



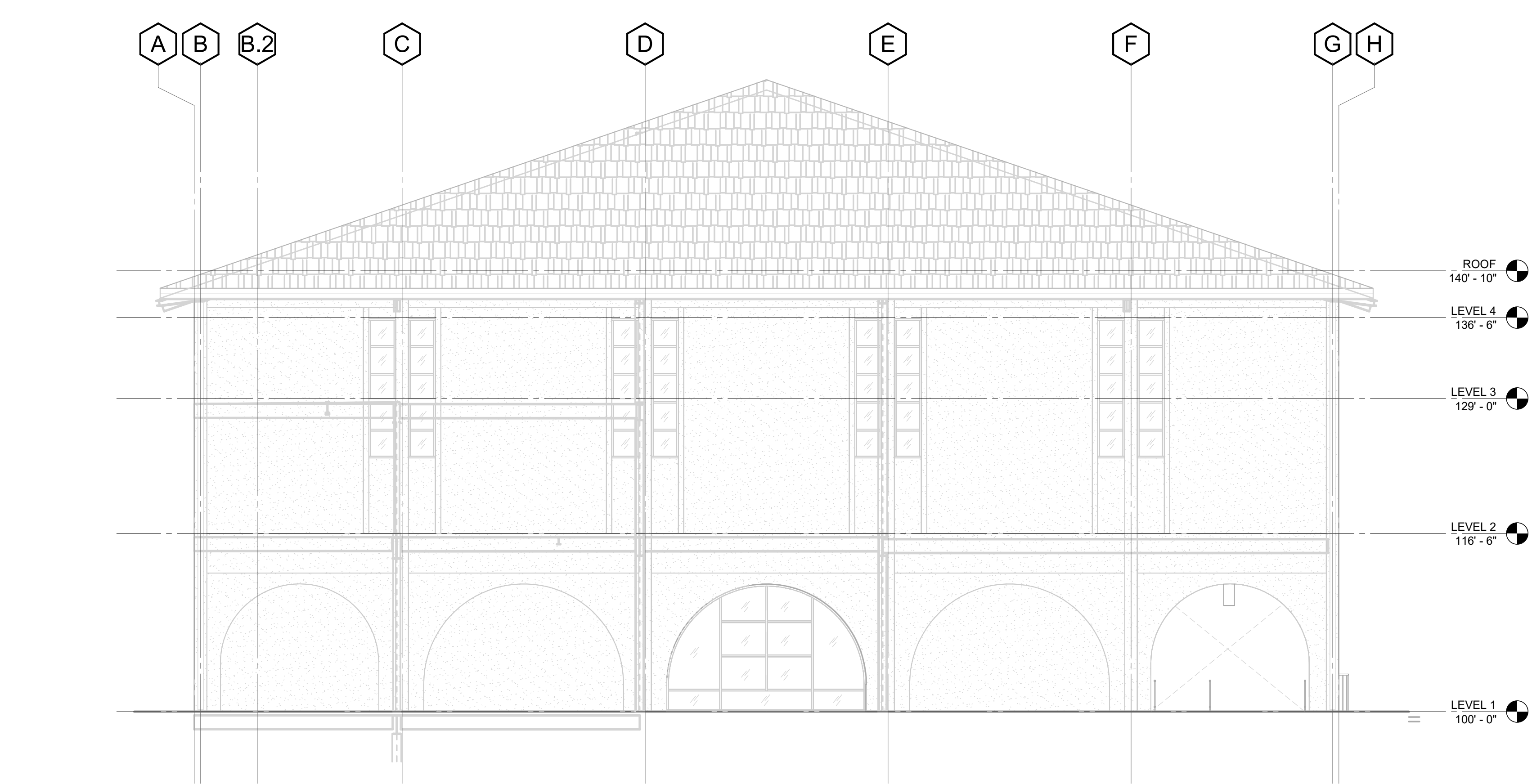
1. REFER TO THE S-SERIES SHEETS LISTED BELOW FOR THE CORRESPONDING INFORMATION:

<u>SHEET SERIES</u>	<u>INFORMATION</u>
50.00	ABBREVIATIONS, SYMBOLS & SHEET INDEX
50.01	STRUCTURAL GENERAL NOTES
54.00	EXTERIOR ELEVATIONS
55.00	BUILDING SECTIONS
58.00	CONCRETE DETAILS
57.00	STRUCTURAL STEEL DETAILS
58.00	LIGHT GAGE METAL STUD WALL DETAILS
59.00	CEILING RETROFIT DETAILS
51.00	SHELVING ANCHORAGE
2.	VERIFY ALL DIMENSIONS, ELEVATIONS, FINISH SURFACES, SLOPES, DRAINS, SLAB DEPRESSIONS, SLAB ORNATIONS, CURBS, ETC WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION
3.	PENETRATIONS NOT SHOWN IN PLAN SHALL BE BROUGHT TO THE OWNER'S ATTENTIONS PRIOR TO THE INSTALLATION OF WORK.
4.	DO NOT DAMAGE EXISTING FOUNDATIONS DURING SLAB REMOVAL AND TRENCHING

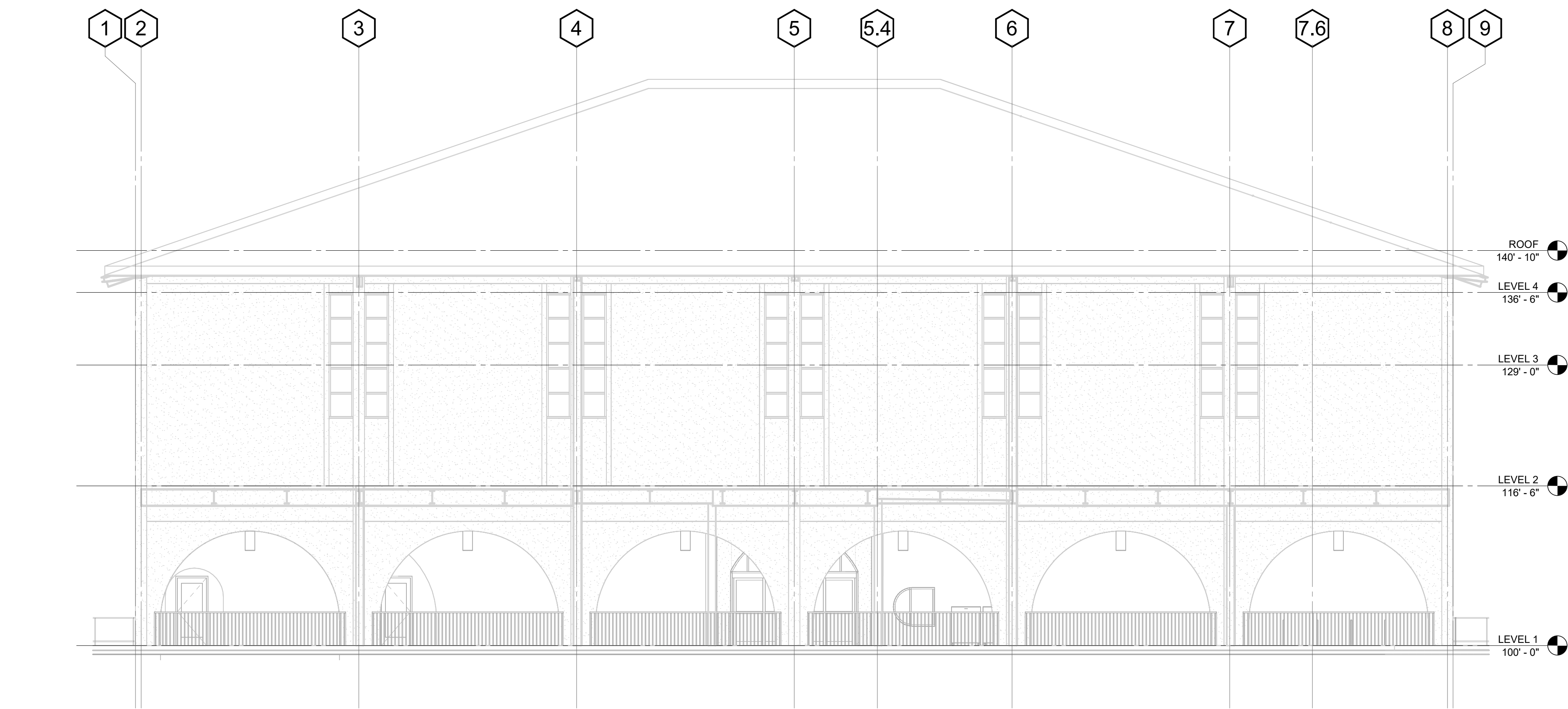
 EXTENTS OF (E) CEILING SUPPORT SYSTEM / GRID PER
DETAIL 1/S9.00



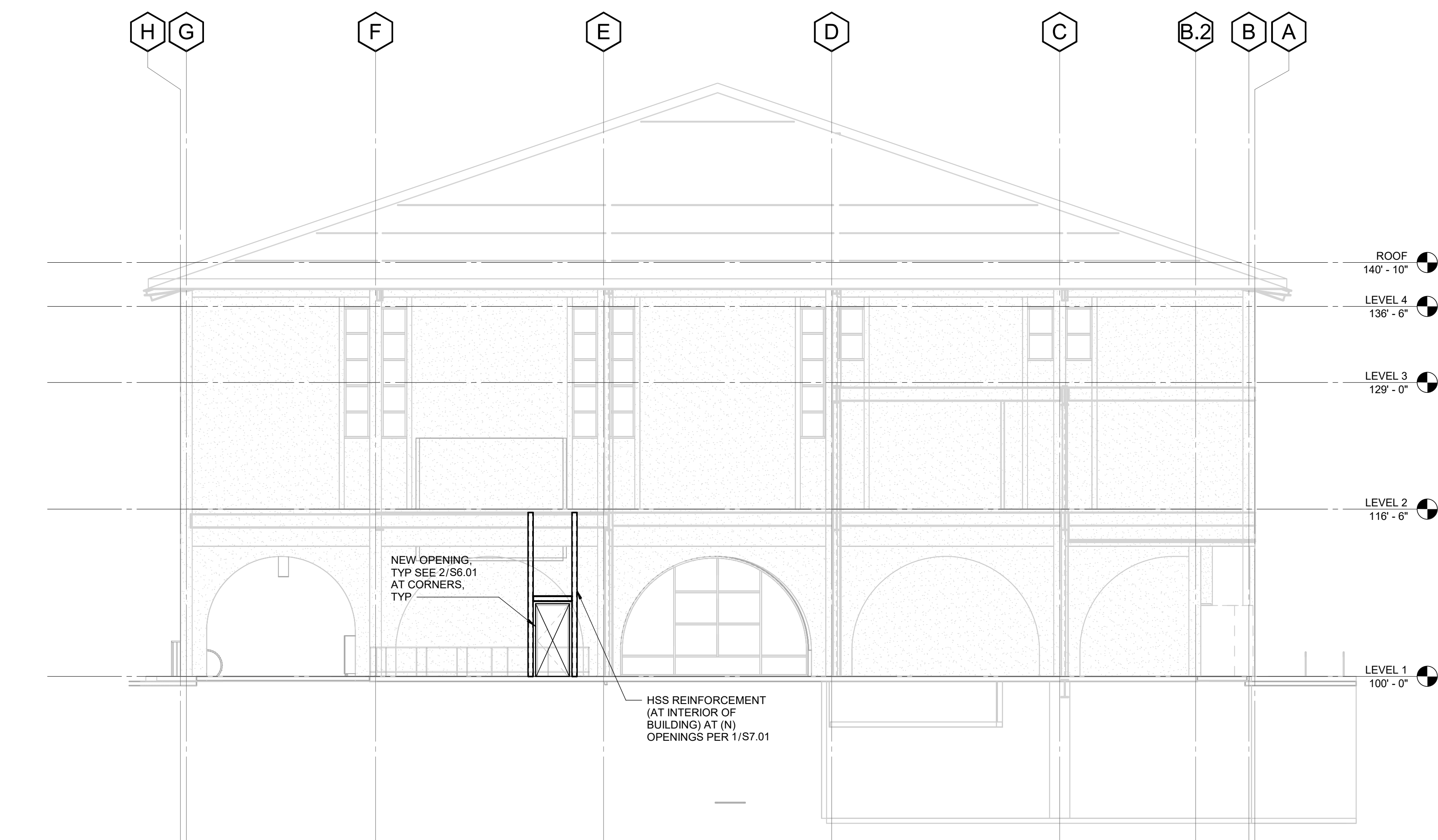
3 NORTH ELEVATION
SCALE : 1/8" = 1'-0"



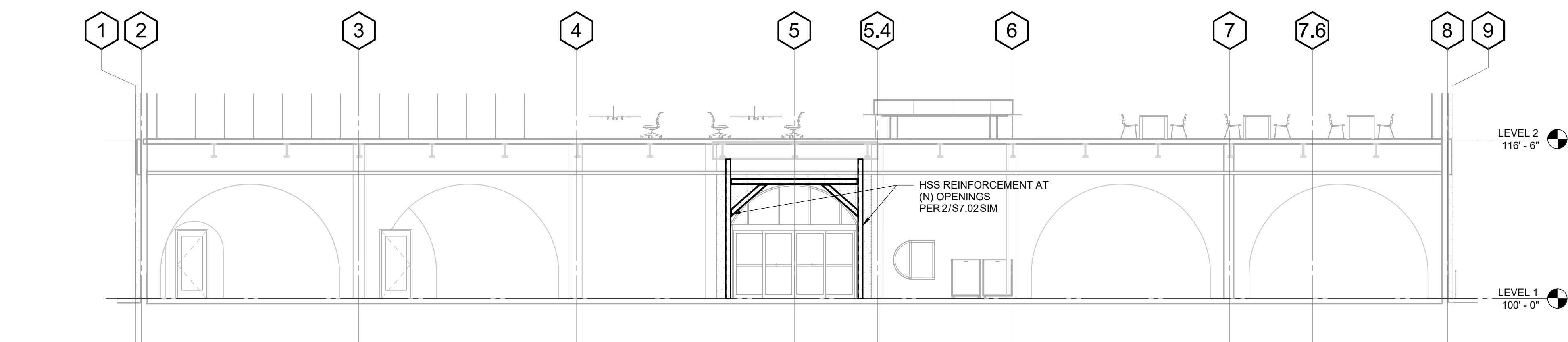
1 WEST ELEVATION
SCALE : 1/8" = 1'-0"



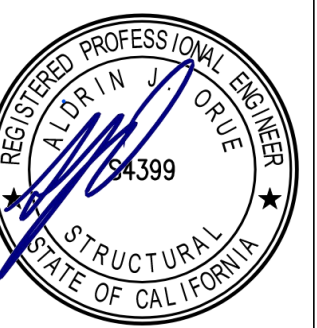
4 SOUTH ELEVATION
SCALE : 1/8" = 1'-0"



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



5 ARCADE ELEVATION
SCALE : 1/8" = 1'-0"



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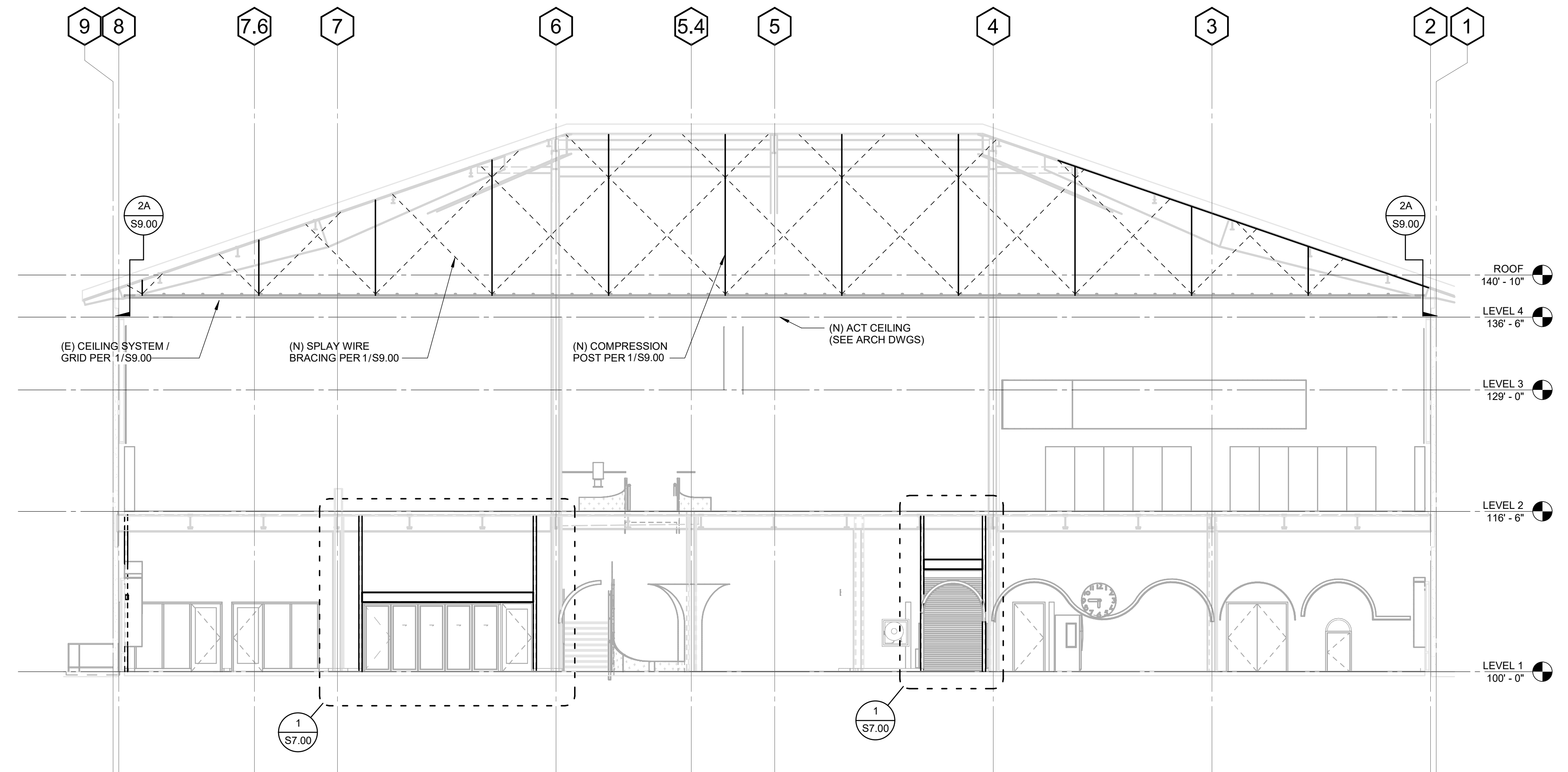


NAC

2300226
Author
Checker
11/01/2024

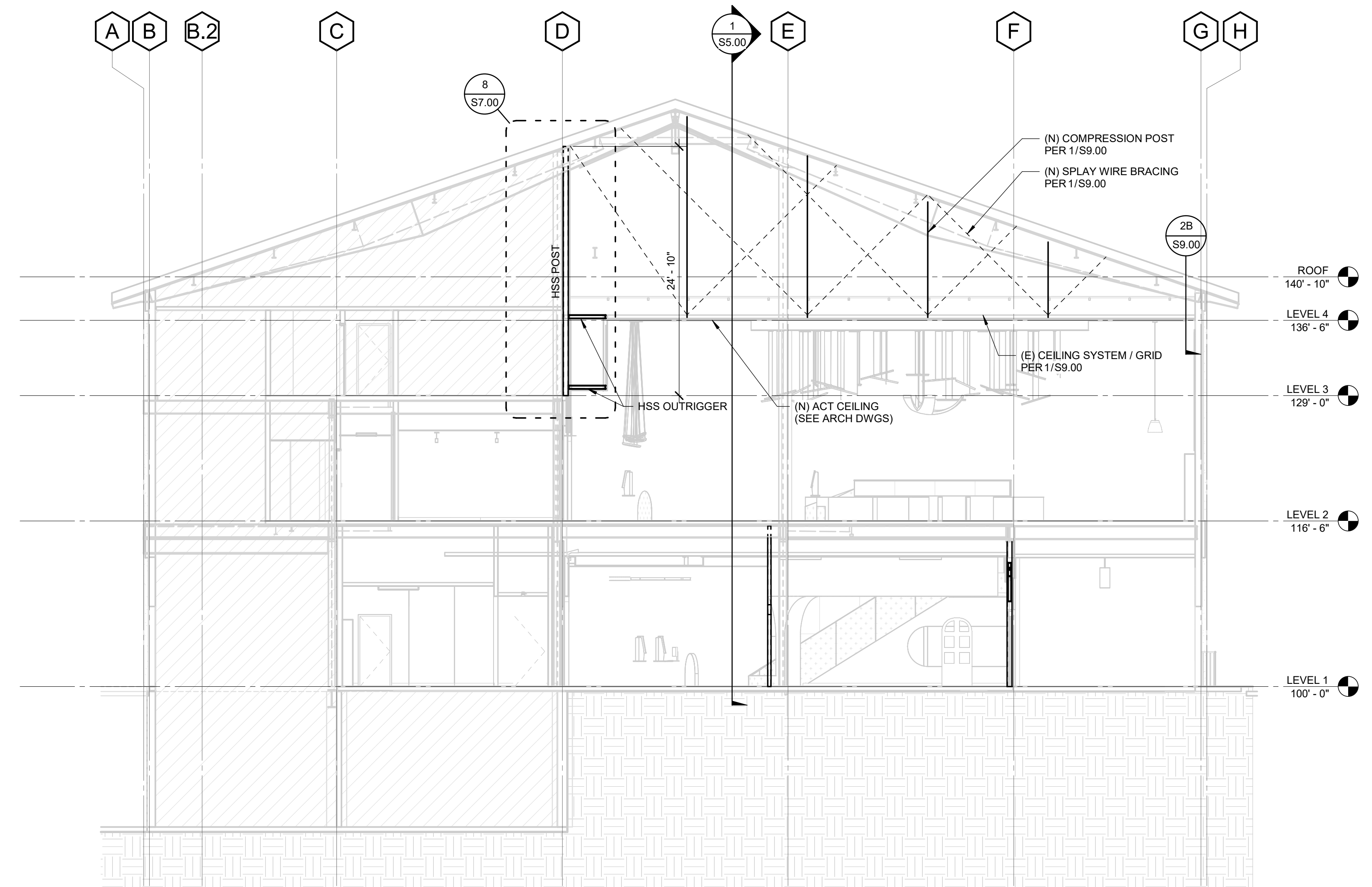
BUILDING CTIONS

\$5.00

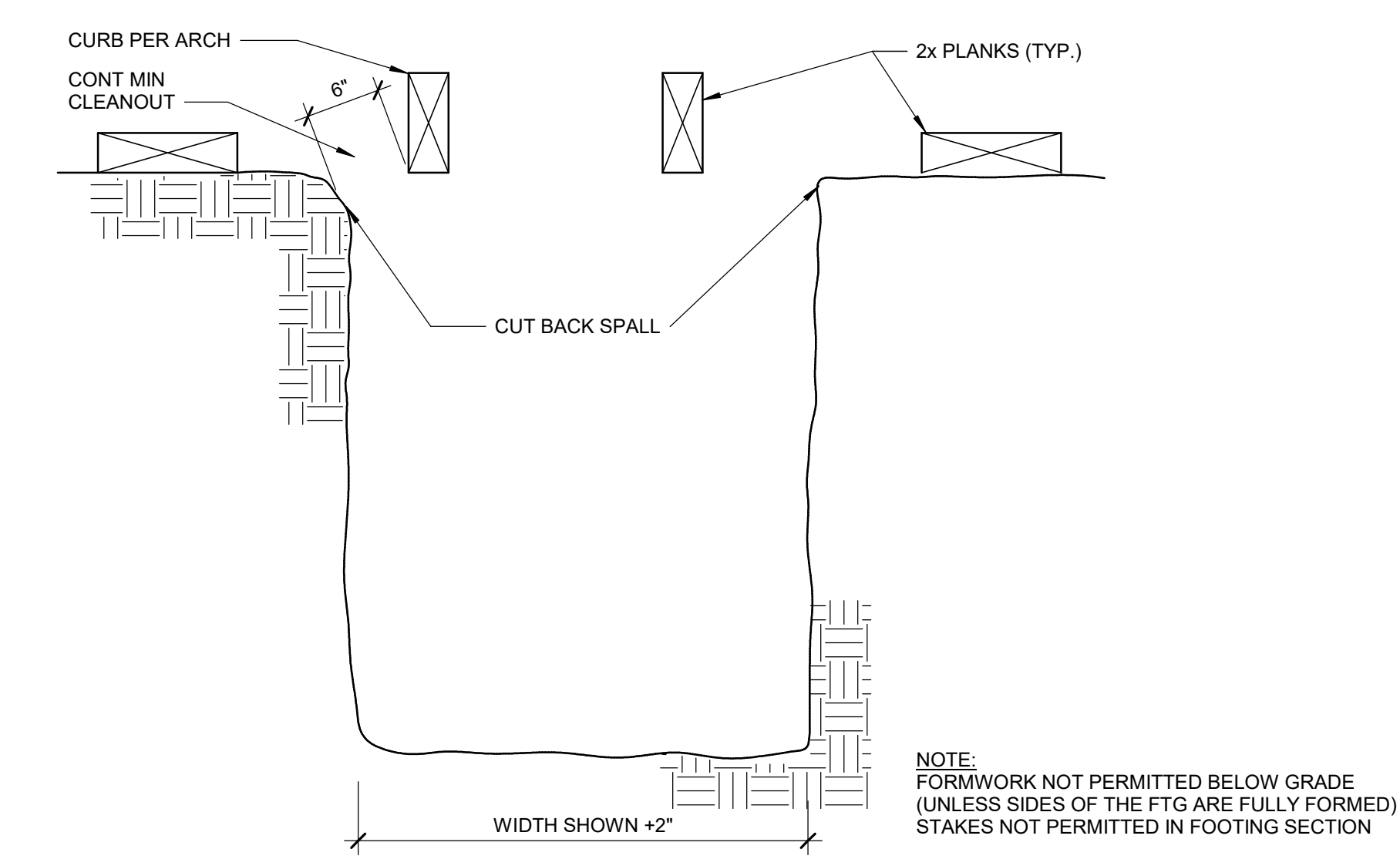


1 BUILDING SECTION

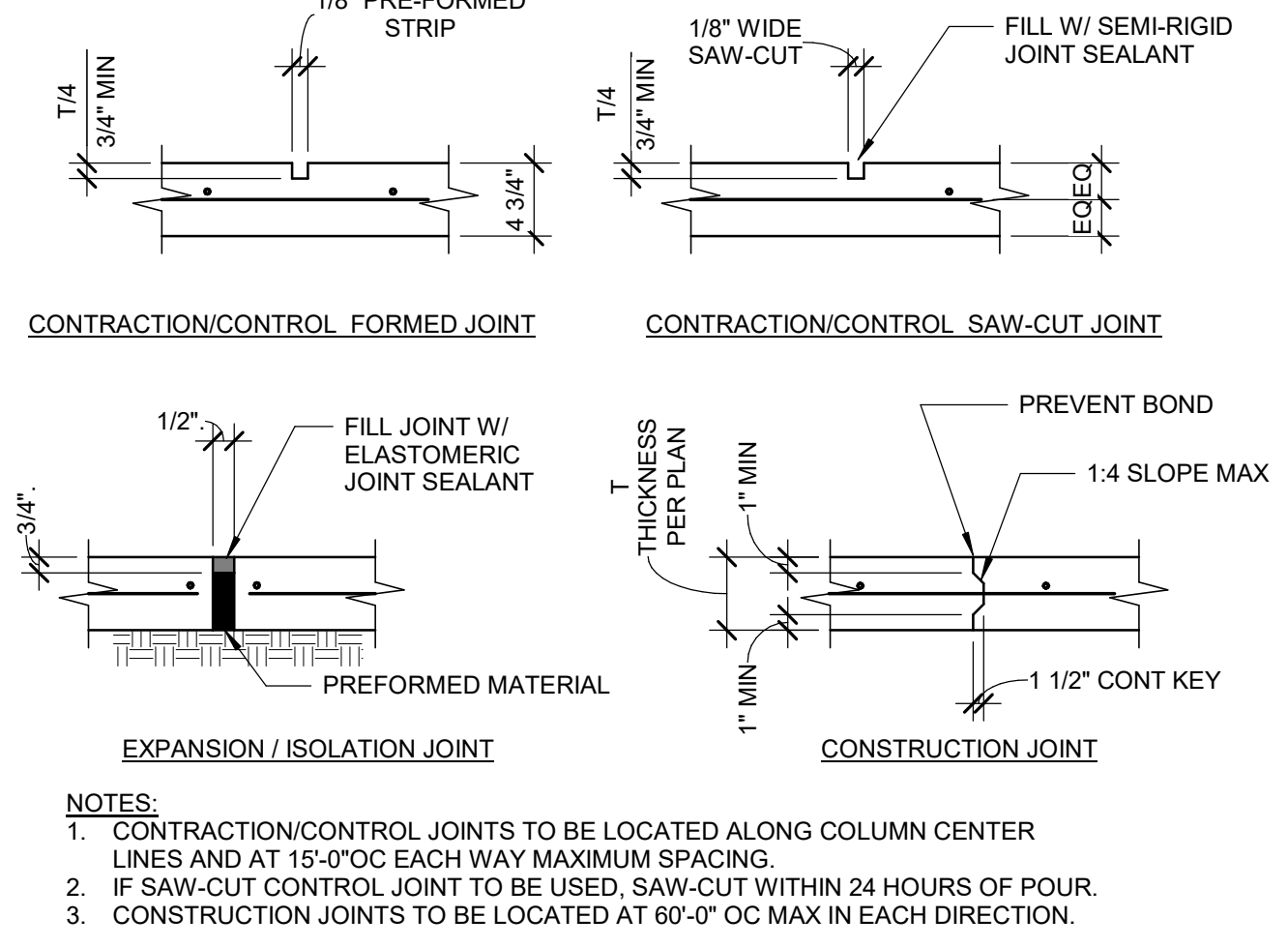
SCALE : 1/8" = 1'-0"



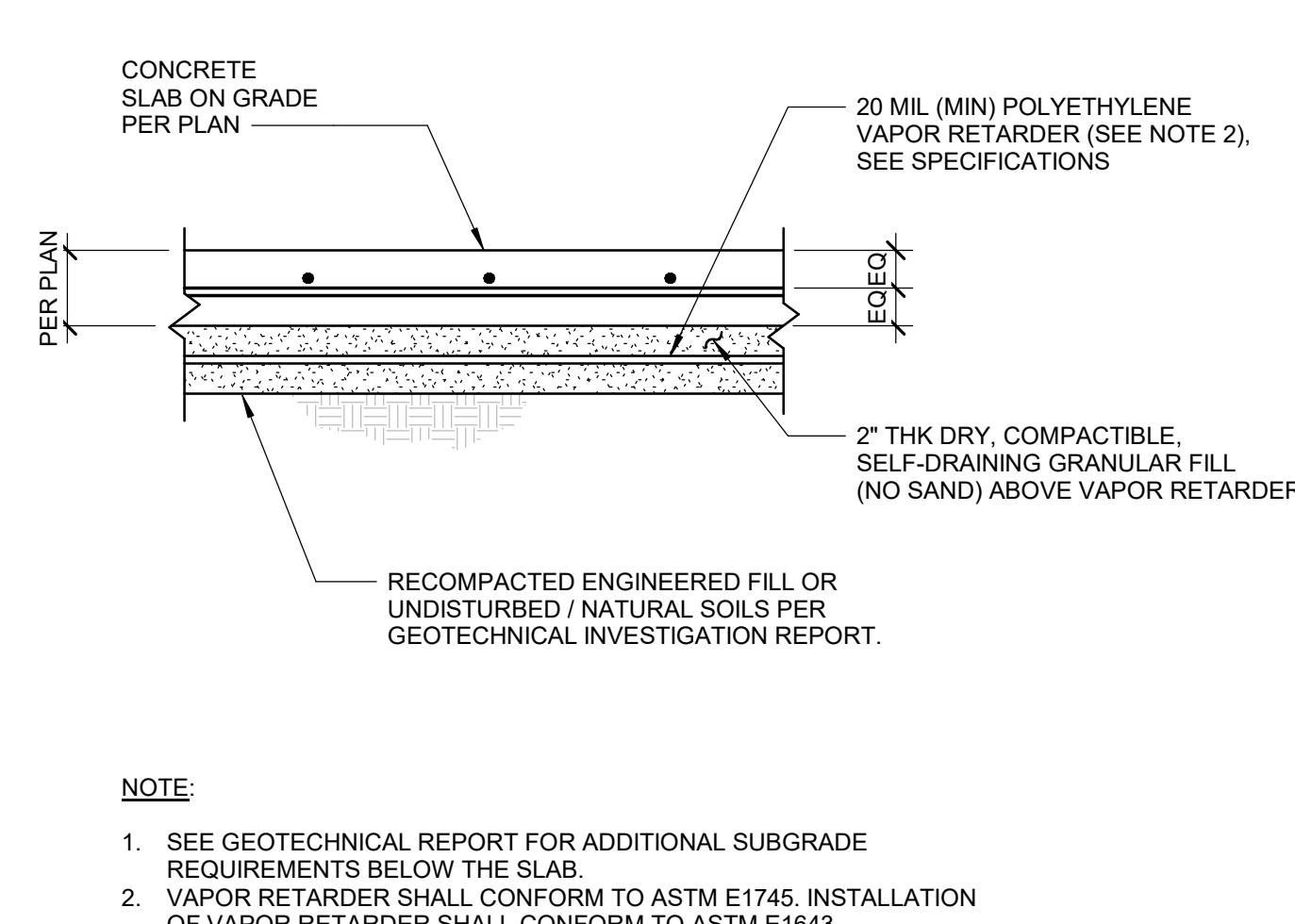
2 BUILDING SECTION



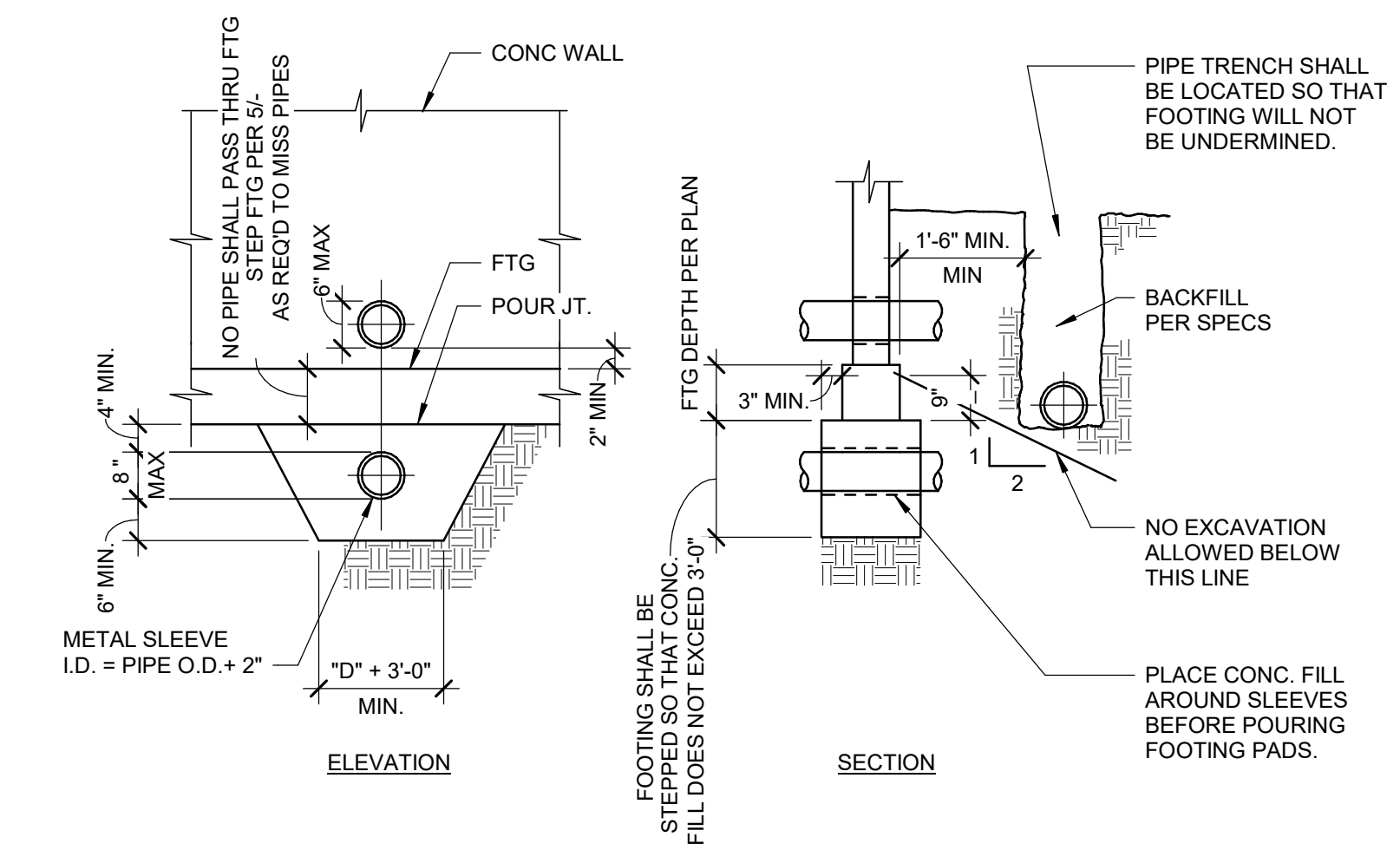
12 MANDATORY MINIMUM FORMWORK
1" = 1'-0"



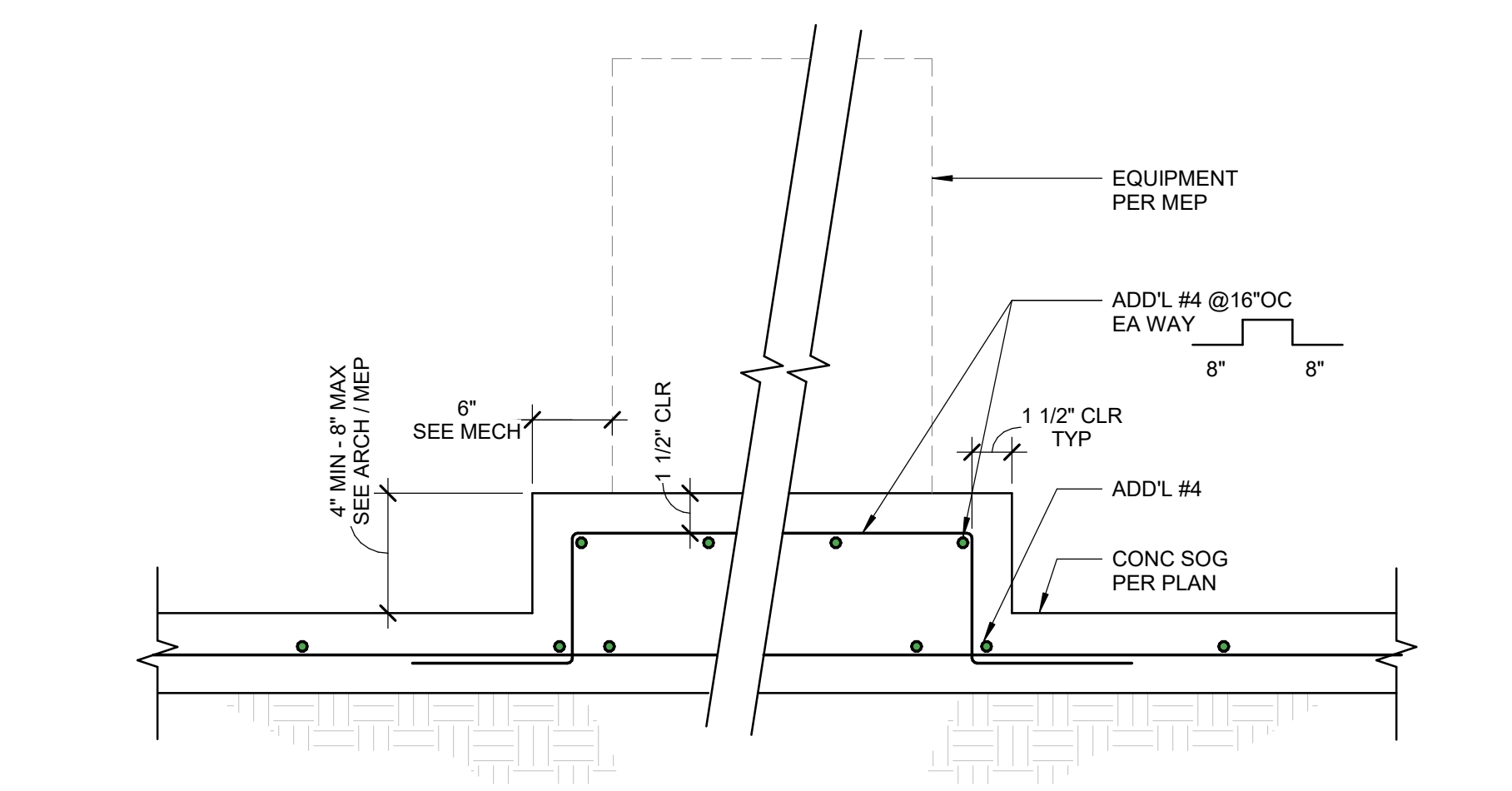
9 SLAB ON GRADE JOINTS
1" = 1'-0"



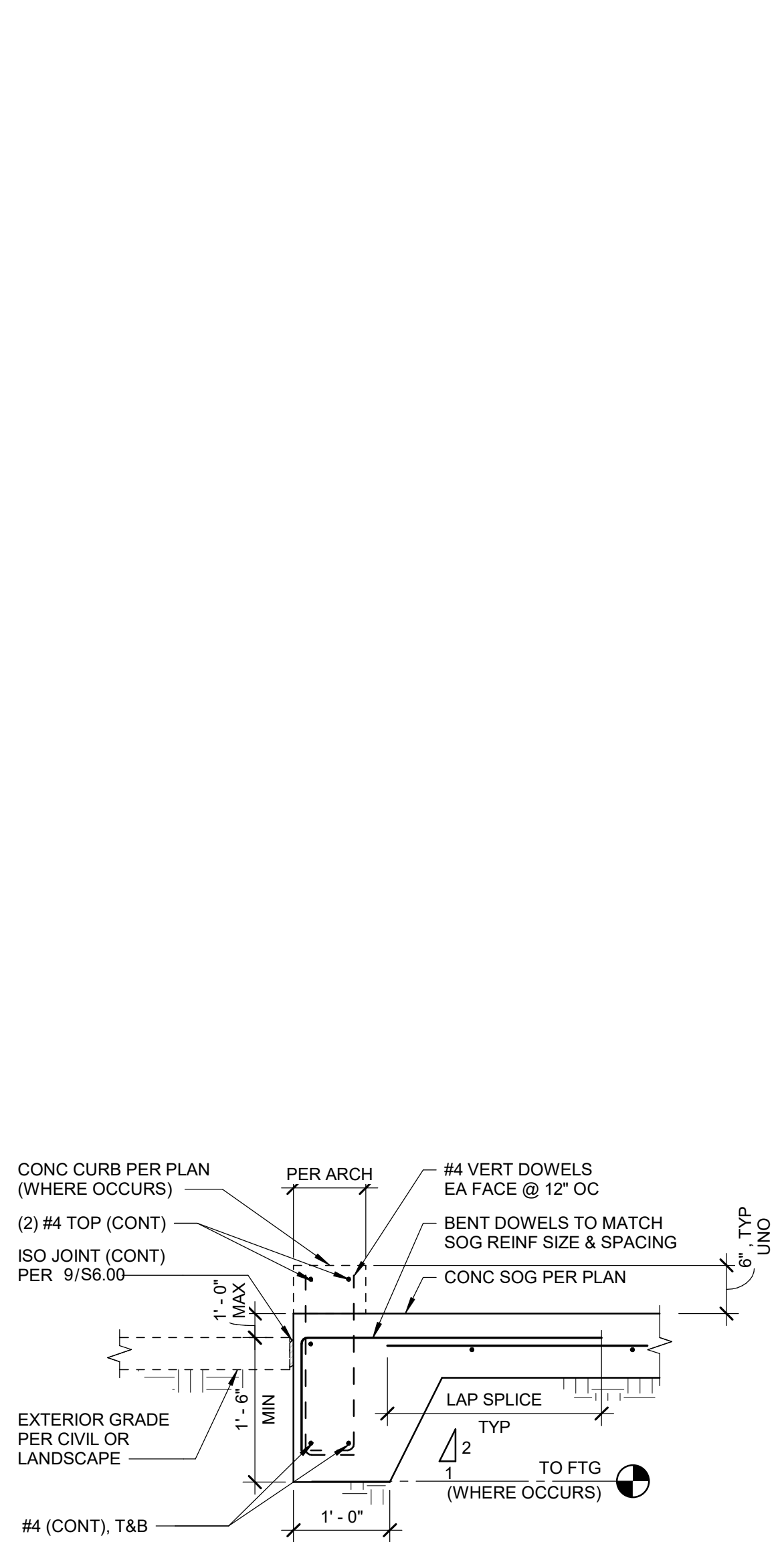
5 TYPICAL SLAB ON GRADE
1" = 1'-0"



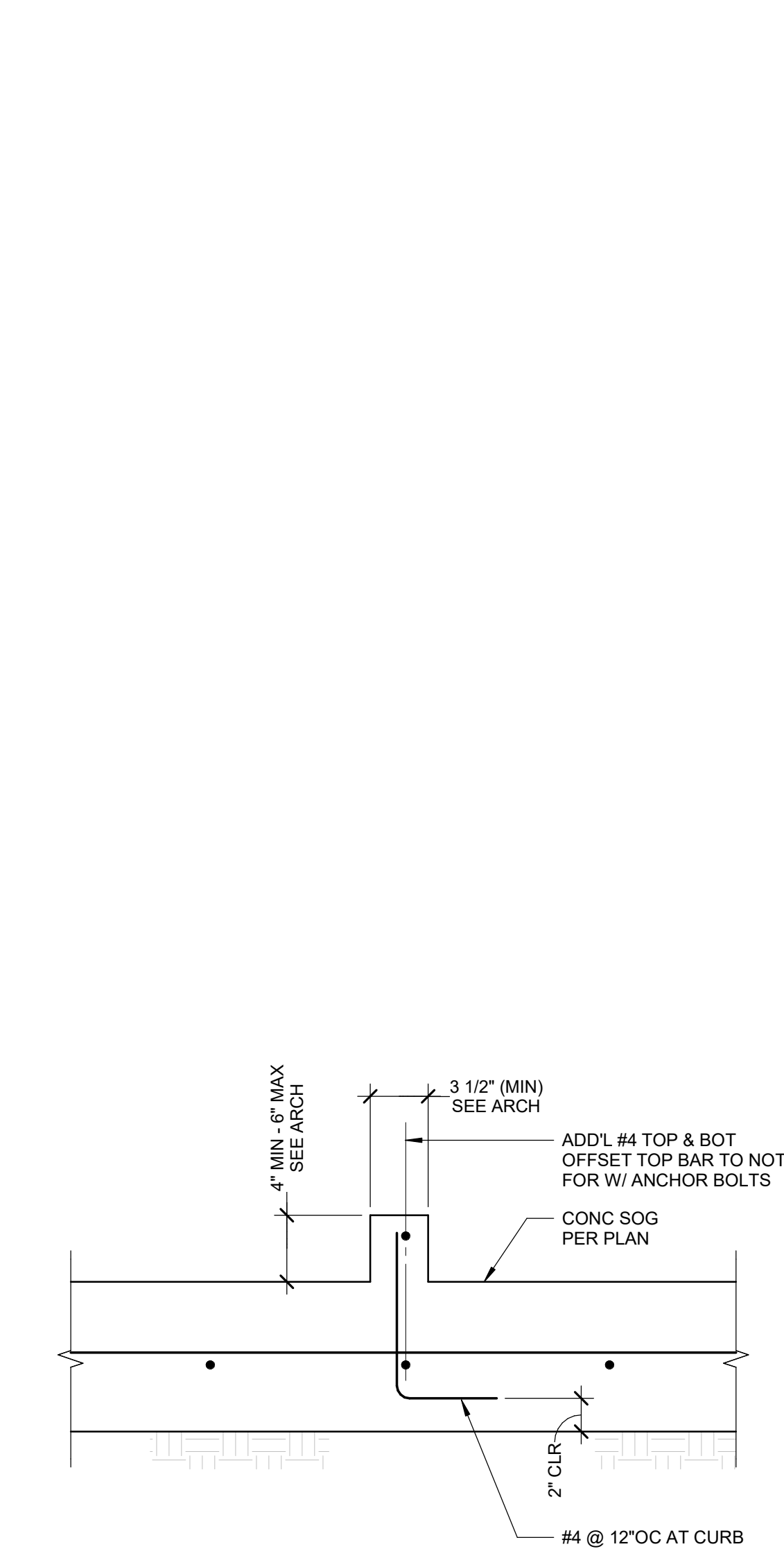
1 PIPE SLEEVE AND TRENCH FOOTING DETAIL
1" = 1'-0"



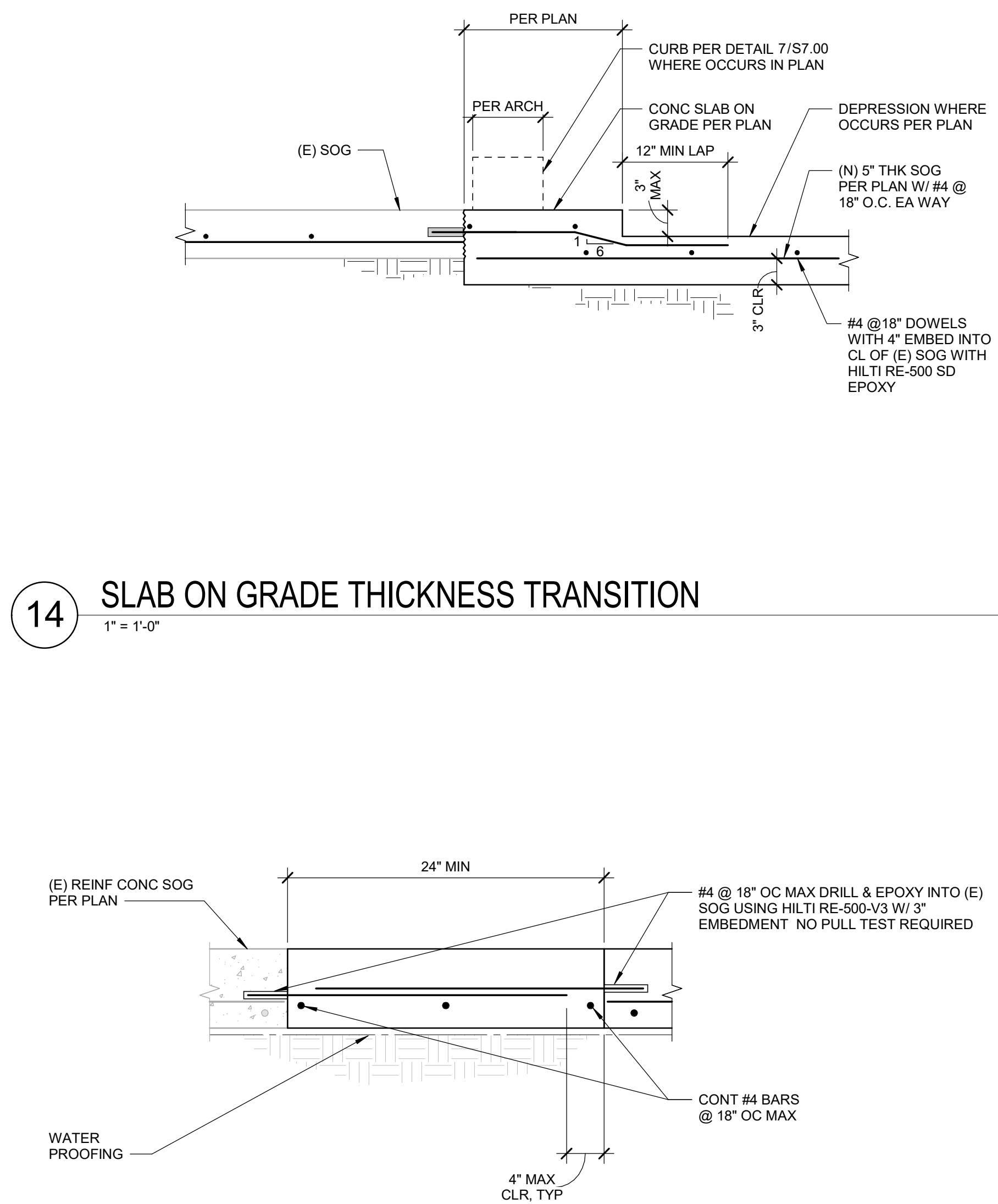
13 HOUSE KEEPING/RAISED PAD ON GRADE
1 1/2" = 1'-0"



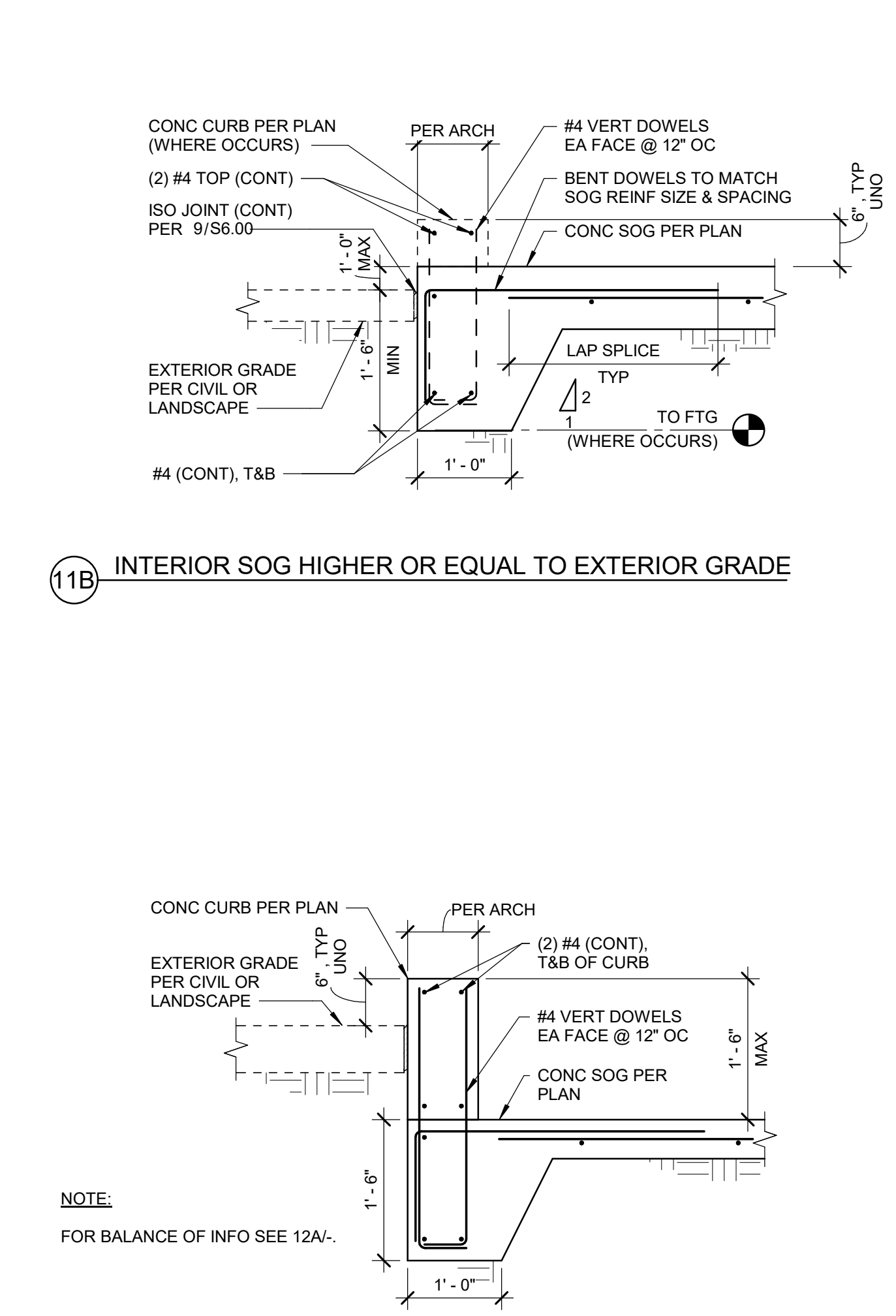
11B INTERIOR SOG HIGHER OR EQUAL TO EXTERIOR GRADE



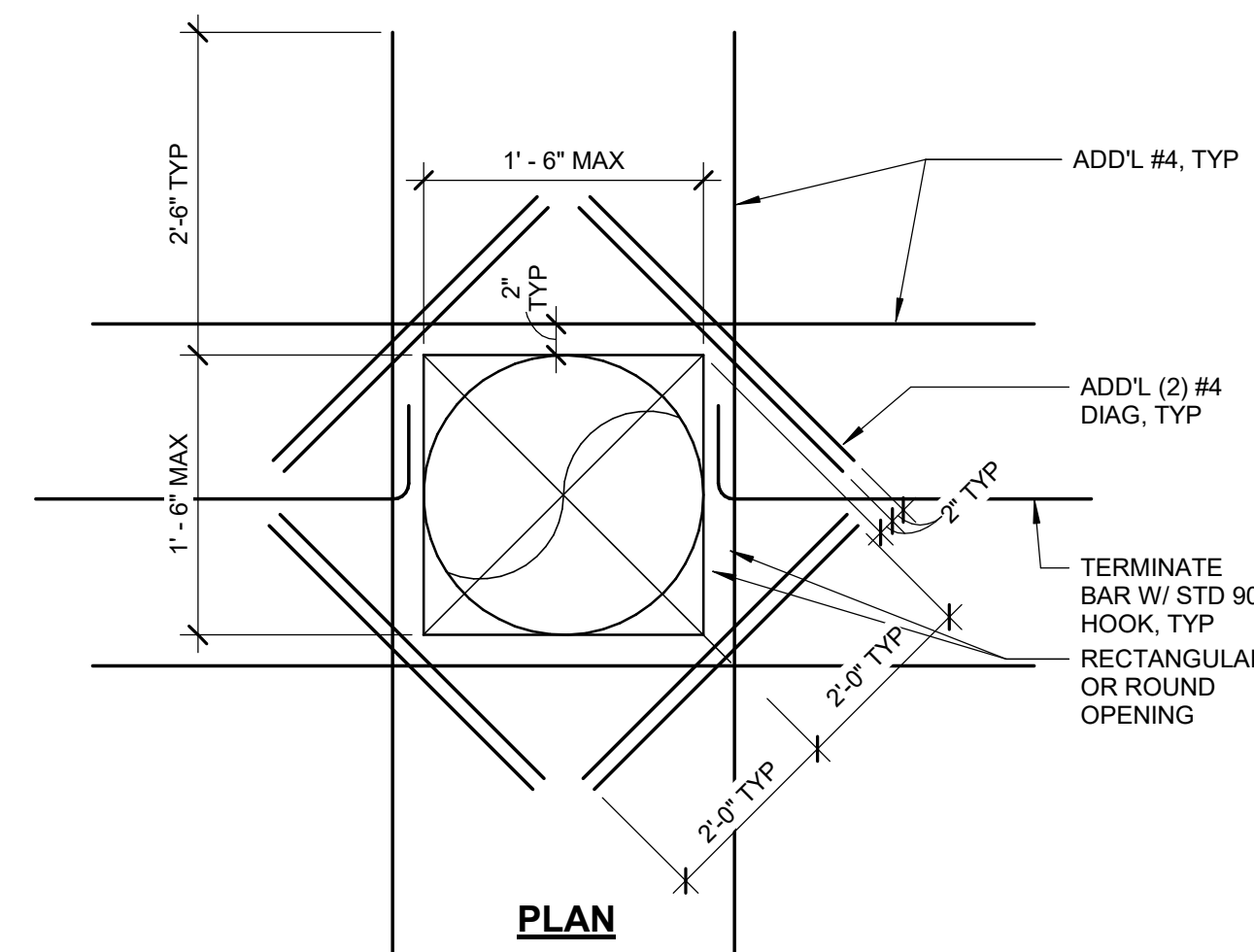
7 INTERIOR CONC CURB
1 1/2" = 1'-0"



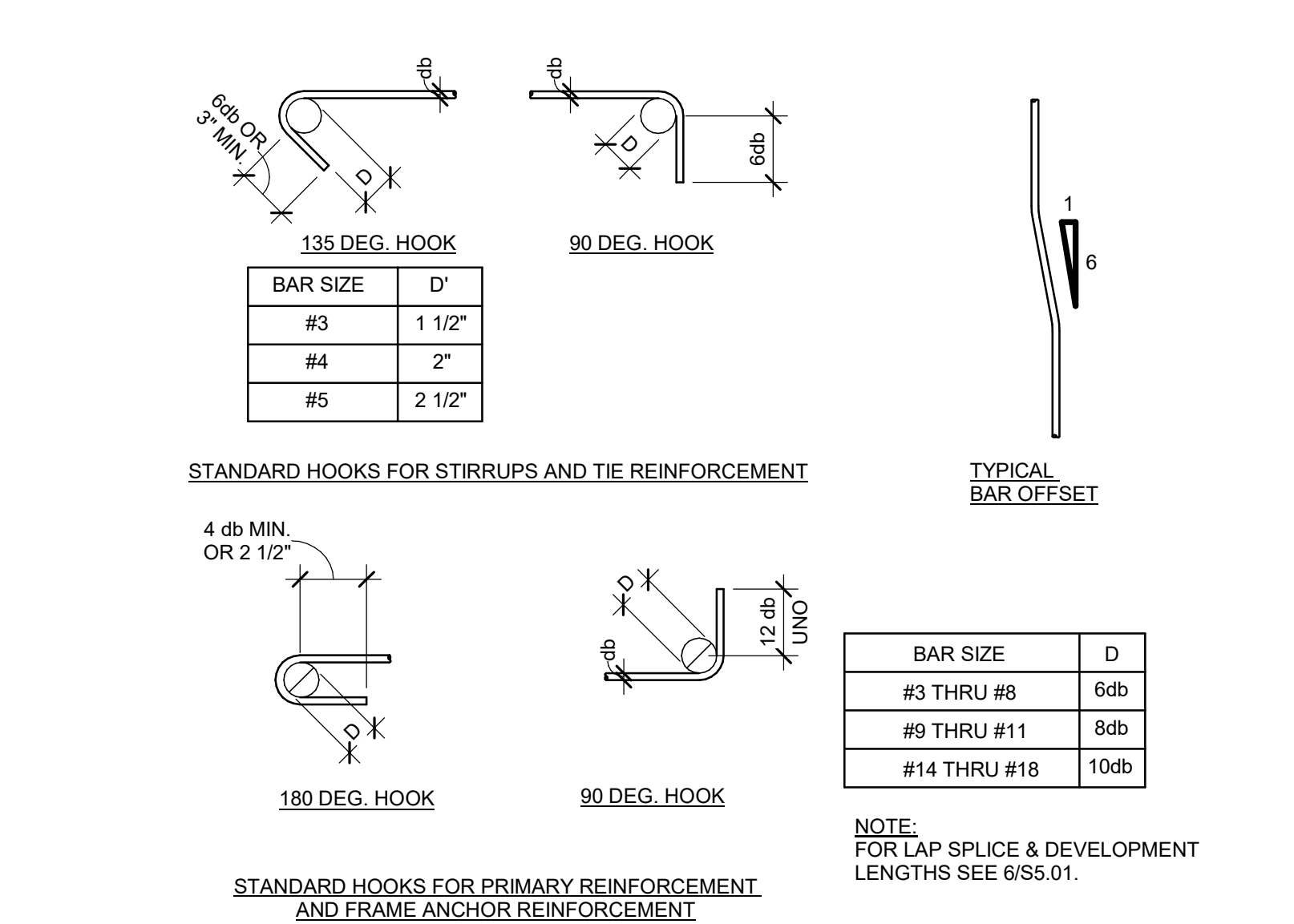
14 SLAB ON GRADE THICKNESS TRANSITION
1" = 1'-0"



11B INTERIOR SOG LOWER THAN EXTERIOR GRADE



8 OPENING AT SLAB ON GRADE
1" = 1'-0"



2 CONCRETE REINFORCING BAR BENDING DETAILS
NTS

15 SLAB ON GRADE TRENCH INFILL
SCALE : 1 1/2" = 1'-0"

11 CONC SOG EDGE
3/4" = 1'-0"

8 OPENING AT SLAB ON GRADE
1" = 1'-0"

4 CONCRETE CONSTRUCTION JOINTS
3/4" = 1'-0"



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TYPICAL
CONCRETE
DETAILS

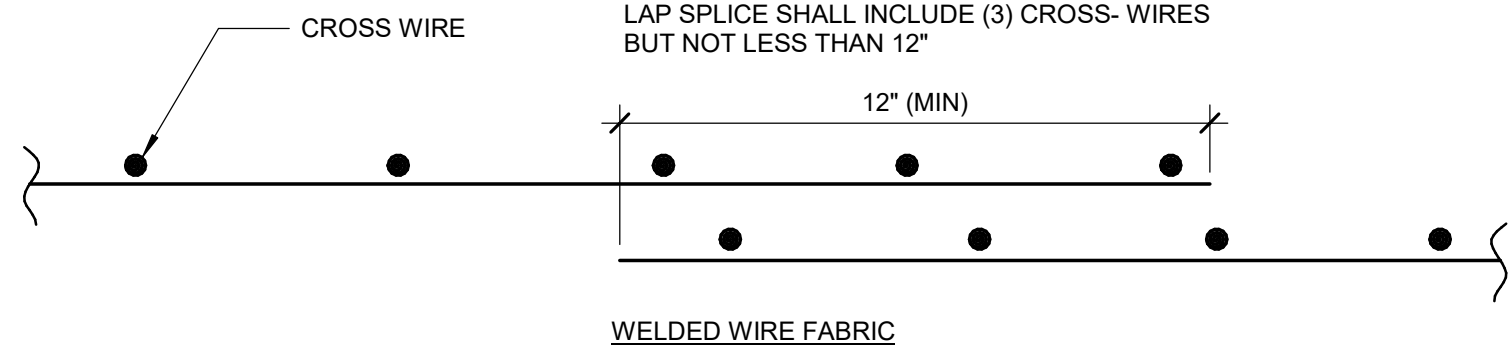
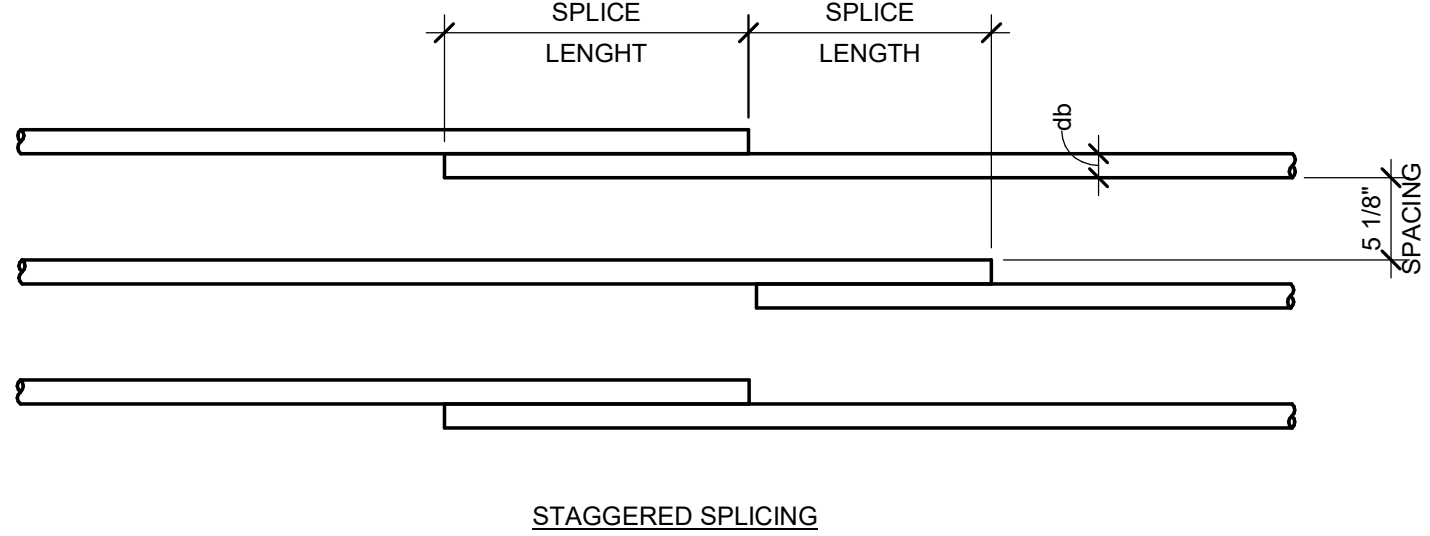
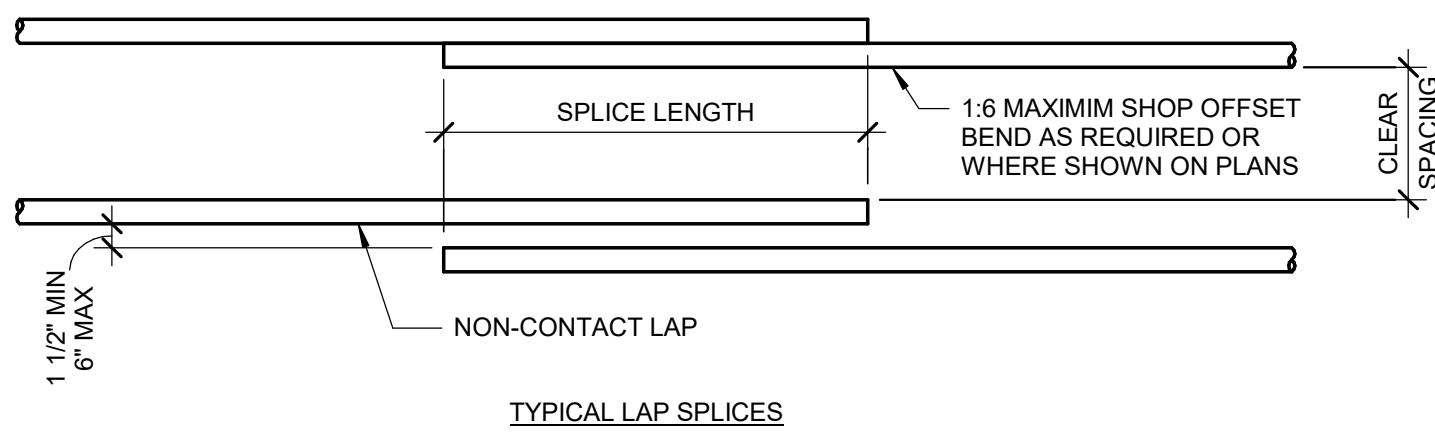
S6.00



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DATE: 11/01/2024

TYPICAL
CONCRETE
DETAILS

REINFORCING BAR LAP SPICE AND DEVELOPMENT LENGTH (GRADE 60)																					
BAR DESCRIPTION	F _c (psi)	BAR SIZE	#11		#10		#9		#8		#7		#6		#5		#4		#3		
		LAP CLASS	DEVELOPMENT LENGTH L _d	LAP SPICE LENGTH L _s	DEVELOPMENT LENGTH L _d	LAP SPICE LENGTH L _s	DEVELOPMENT LENGTH L _d	LAP SPICE LENGTH L _s	DEVELOPMENT LENGTH L _d	LAP SPICE LENGTH L _s	DEVELOPMENT LENGTH L _d	LAP SPICE LENGTH L _s	DEVELOPMENT LENGTH L _d	LAP SPICE LENGTH L _s	DEVELOPMENT LENGTH L _d	LAP SPICE LENGTH L _s	DEVELOPMENT LENGTH L _d	LAP SPICE LENGTH L _s	DEVELOPMENT LENGTH L _d	LAP SPICE LENGTH L _s	
CLEAR SPACING OF BARS NOT LESS THAN d_b . CLEAR COVER NOT LESS THAN d_b . AND STIRRUPS AND TIES THROUGHOUT l_d NOT LESS THAN THE CODE MINIMUM OR CLEAR SPACING OF BARS NOT LESS THAN $2d_b$ AND CLEAR COVER NOT LESS THAN d_b	3000	NWC	TOP	8'-5"	10'-11"	7'-7"	9'-11"	6'-9"	8'-9"	6'-0"	7'-10"	5'-3"	6'-9"	3'-7"	4'-8"	3'-0"	3'-11"	2'-5"	3'-2"	2'-5"	3'-1"
			OTHER	6'-6"	8'-5"	5'-10"	7'-7"	5'-2"	6'-9"	4'-7"	6'-0"	4'-0"	5'-3"	2'-10"	3'-8"	2'-4"	3'-0"	1'-11"	2'-5"	1'-11"	2'-6"
	4000	NWC	TOP	7'-3"	9'-6"	6'-7"	8'-7"	5'-10"	7'-6"	5'-2"	6'-9"	4'-6"	5'-10"	3'-1"	4'-1"	2'-7"	3'-5"	2'-1"	2'-9"	1'-7"	2'-1"
			OTHER	5'-7"	7'-3"	5'-1"	6'-8"	4'-6"	5'-10"	4'-0"	5'-2"	3'-6"	4'-7"	2'-5"	3'-1"	2'-0"	2'-7"	1'-7"	2'-1"	1'-2"	1'-7"
	5000	NWC	TOP	6'-6"	8'-6"	5'-11"	7'-8"	5'-3"	6'-9"	4'-8"	6'-0"	4'-1"	5'-4"	2'-10"	3'-8"	2'-4"	3'-0"	1'-11"	2'-6"	1'-5"	1'-10"
			OTHER	5'-0"	6'-6"	4'-6"	5'-11"	4'-0"	5'-3"	3'-7"	4'-8"	3'-2"	6'-6"	2'-2"	2'-10"	1'-10"	2'-4"	1'-6"	1'-11"	1'-1"	1'-5"
	3000	LWC	TOP	11'-2"	14'-7"	10'-1"	13'-2"	9'-0"	11'-8"	8'-0"	10'-5"	7'-0"	9'-1"	4'-10"	6'-3"	4'-0"	5'-2"	3'-2"	4'-2"	2'-5"	3'-1"
			OTHER	8'-7"	11'-2"	7'-10"	10'-2"	6'-11"	8'-12"	6'-1"	7'-11"	5'-5"	7'-0"	3'-8"	4'-10"	3'-1"	4'-0"	2'-6"	3'-3"	1'-11"	2'-6"
OTHER CASES	3000	NWC	TOP	12'-7"	16'-4"	11'-5"	14'-10"	10'-1"	13'-2"	9'-0"	11'-8"	7'-10"	10'-2"	5'-5"	7'-0"	4'-6"	5'-10"	3'-7"	4'-8"	2'-8"	3'-6"
			OTHER	9'-8"	12'-7"	8'-8"	11'-4"	7'-10"	10'-2"	6'-11"	9'-0"	6'-0"	7'-10"	4'-2"	5'-6"	3'-6"	4'-6"	2'-10"	3'-8"	2'-1"	2'-9"
	4000	NWC	TOP	10'-11"	14'-2"	9'-8"	12'-9"	8'-8"	11'-4"	7'-10"	10'-2"	6'-9"	8'-10"	4'-8"	6'-1"	3'-11"	5'-1"	3'-1"	4'-1"	2'-5"	3'-1"
			OTHER	8'-5"	10'-11"	7'-7"	9'-11"	6'-8"	8'-9"	6'-0"	7'-10"	5'-3"	6'-9"	3'-7"	4'-8"	3'-0"	3'-11"	2'-5"	3'-1"	1'-10"	2'-4"
	5000	NWC	TOP	9'-10"	12'-9"	8'-10"	11'-5"	7'-10"	10'-2"	6'-11"	9'-0"	6'-1"	7'-11"	4'-2"	5'-6"	3'-6"	4'-7"	2'-10"	3'-8"	2'-2"	2'-9"
			OTHER	7'-6"	9'-9"	6'-10"	8'-10"	6'-0"	7'-10"	5'-5"	7'-0"	4'-8"	6'-1"	3'-3"	4'-2"	2'-8"	3'-6"	2'-2"	2'-10"	1'-7"	2'-1"
	3000	LWC	TOP	16'-10"	21'-10"	15'-1"	19'-8"	13'-5"	17'-5"	11'-11"	15'-6"	10'-5"	13'-6"	7'-2"	9'-4"	6'-0"	7'-10"	4'-10"	6'-3"	3'-7"	4'-8"
			OTHER	12'-11"	16'-9"	11'-7"	15'-1"	10'-4"	13'-5"	9'-2"	11'-12"	8'-0"	10'-5"	5'-6"	7'-2"	4'-7"	5'-12"	3'-8"	4'-10"	2'-10"	3'-8"



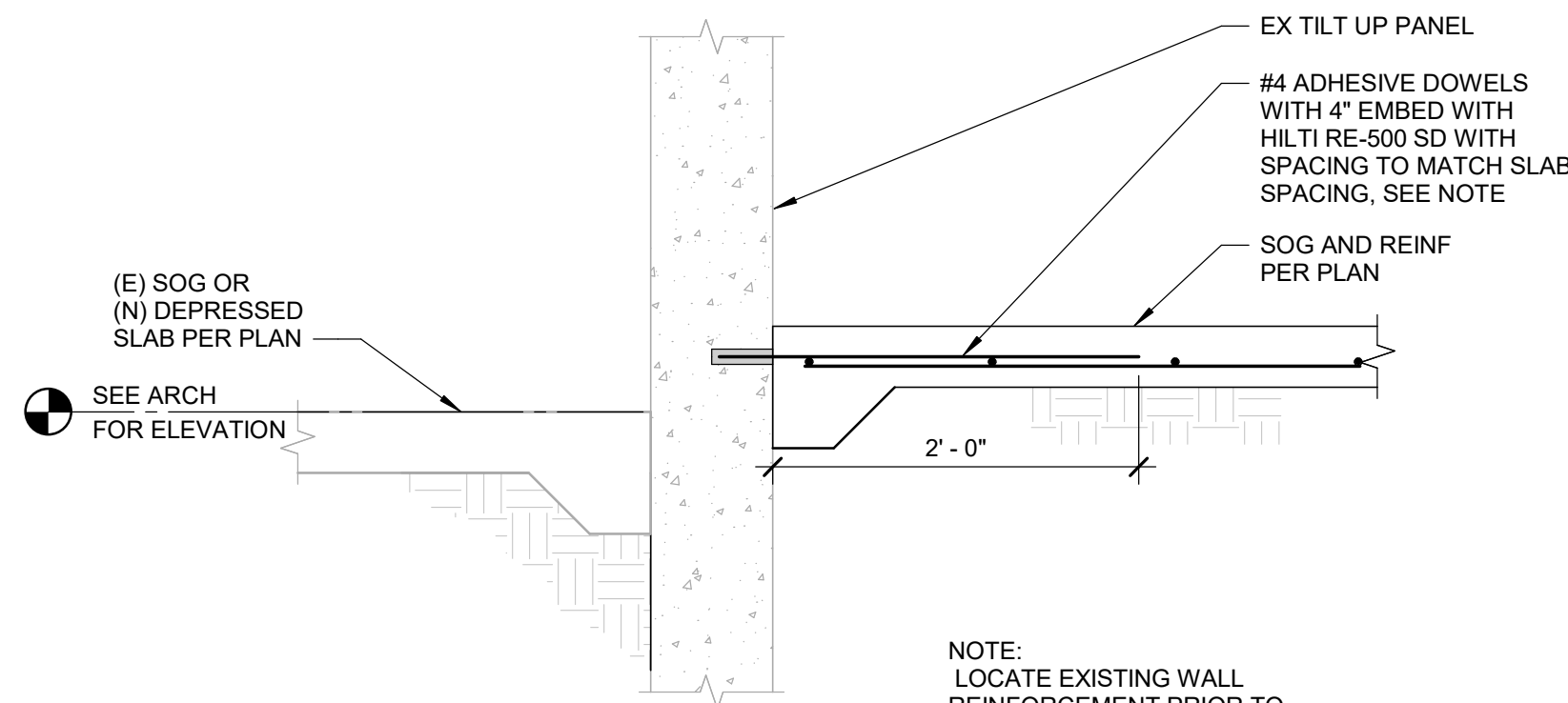
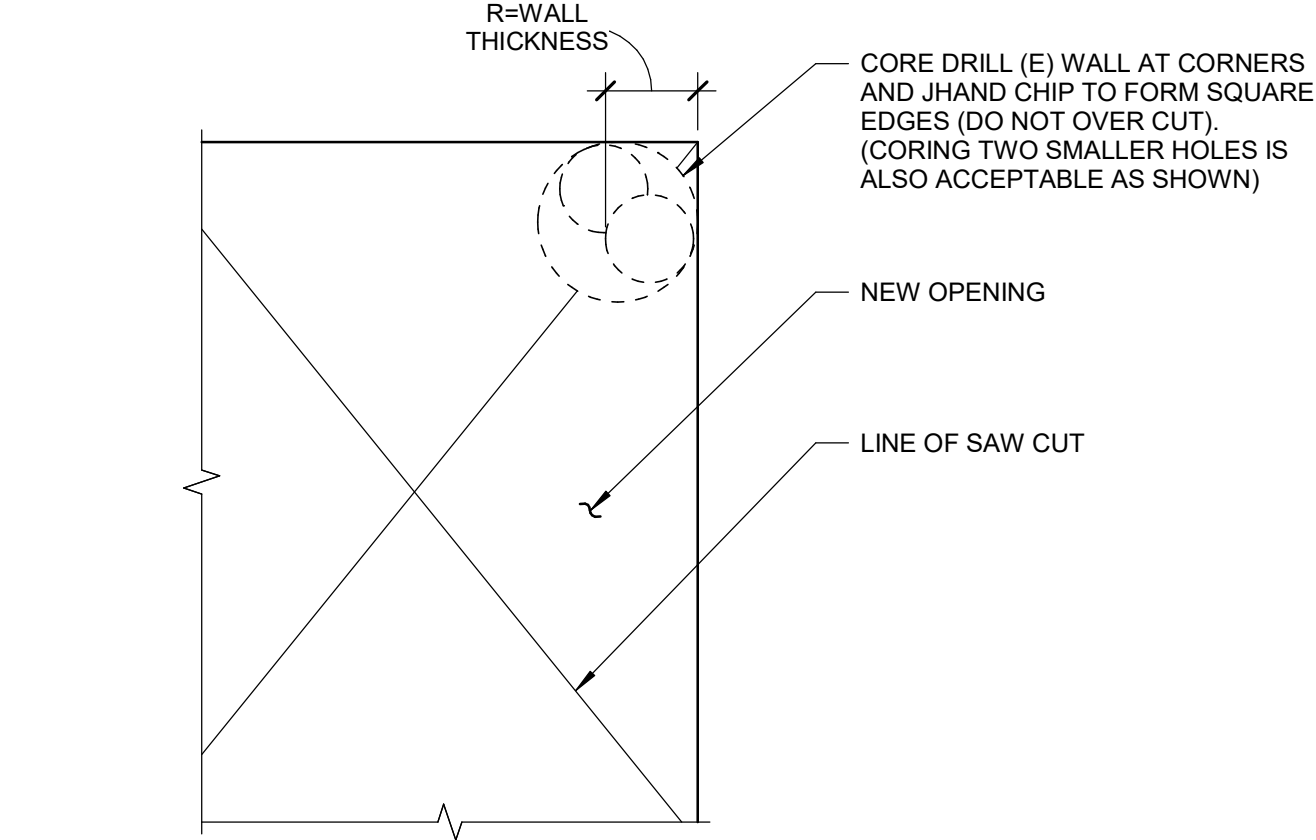
- NOTES:
- BAR SPLICES NOT COVERED BY THIS SCHEDULE ARE SPECIFICALLY DETAILED AND DIMENSIONED ON PLANS.
 - TOP BARS ARE HORIZONTAL REINFORCEMENT WITH MORE THAN 12" OF CONCRETE CAST BELOW BAR.
 - OTHER BARS ARE VERTICAL REINFORCEMENT, AND HORIZONTAL REINFORCEMENT WITH LESS THAN 12" OF CONCRETE CAST BELOW BAR.
 - COVER DESIGNATES CLEAR CONCRETE COVER FROM SPLICED BAR TO FACE OF MEMBER. SPACING DESIGNATES CENTER - TO - CENTER SPACING OF SPLICED BARS.
 - FOR SHEAR WALLS, SPlice LENGTHS FOR VERTICAL BARS TO FOOTING DOWELS SHALL BE INCREASED BY A FACTOR OF 1.25 TIMES L_s FROM TABLE.
 - L_s INDICATES LAP SPlice, L_d INDICATES DEVELOPMENT LENGTH.

1 DEVELOPMENT LENGTH AND LAP SPLICES OF CONCRETE STEEL REINFORCING BARS

SCALE : NTS

2 WALL OPENING DETAIL

SCALE : 1" = 1'-0"



3 SLAB-ON-GRADE TO TILT-UP WALL DETAIL

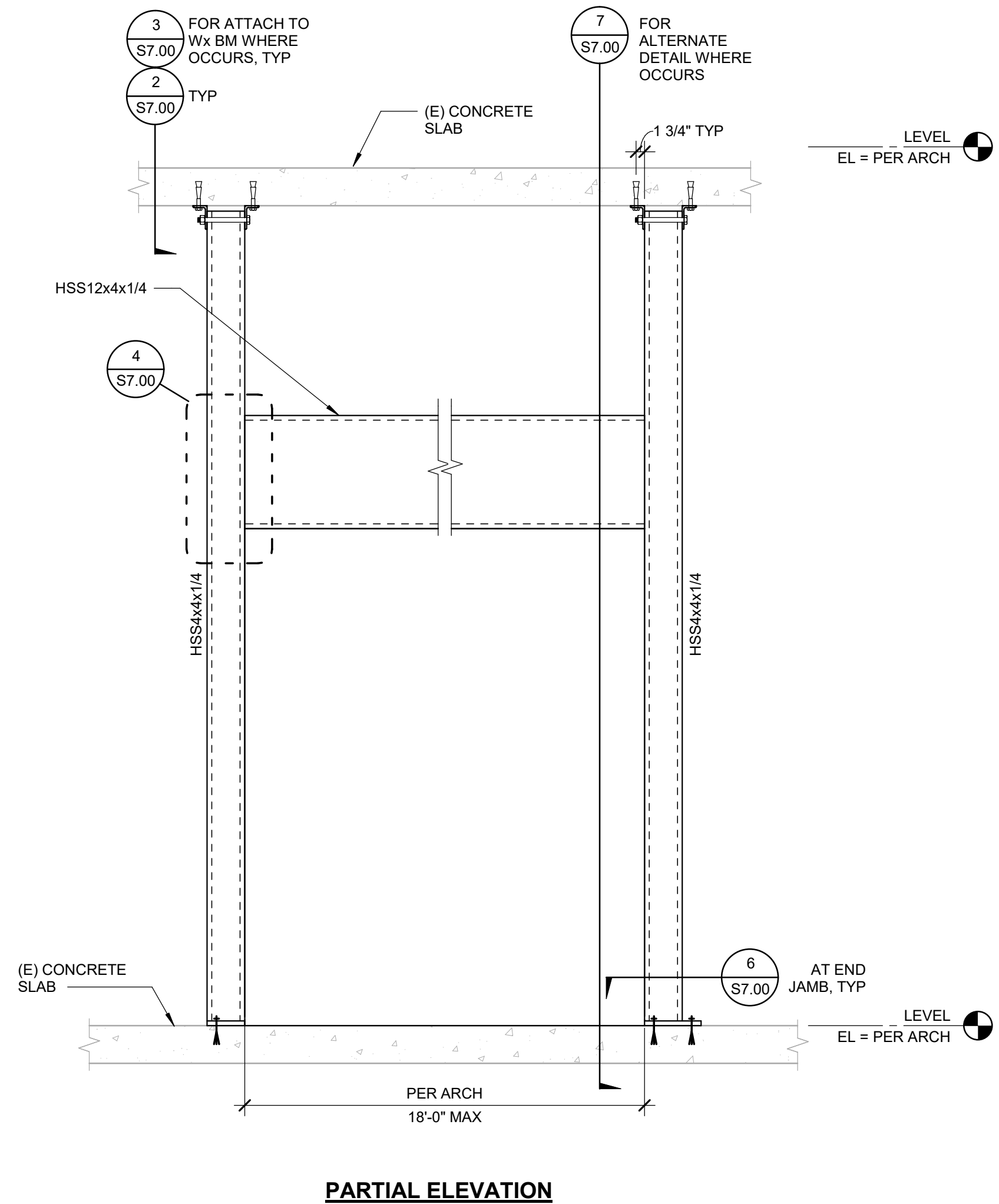
SCALE : 1" = 1'-0"



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TYPICAL STEEL FRAMING DETAILS

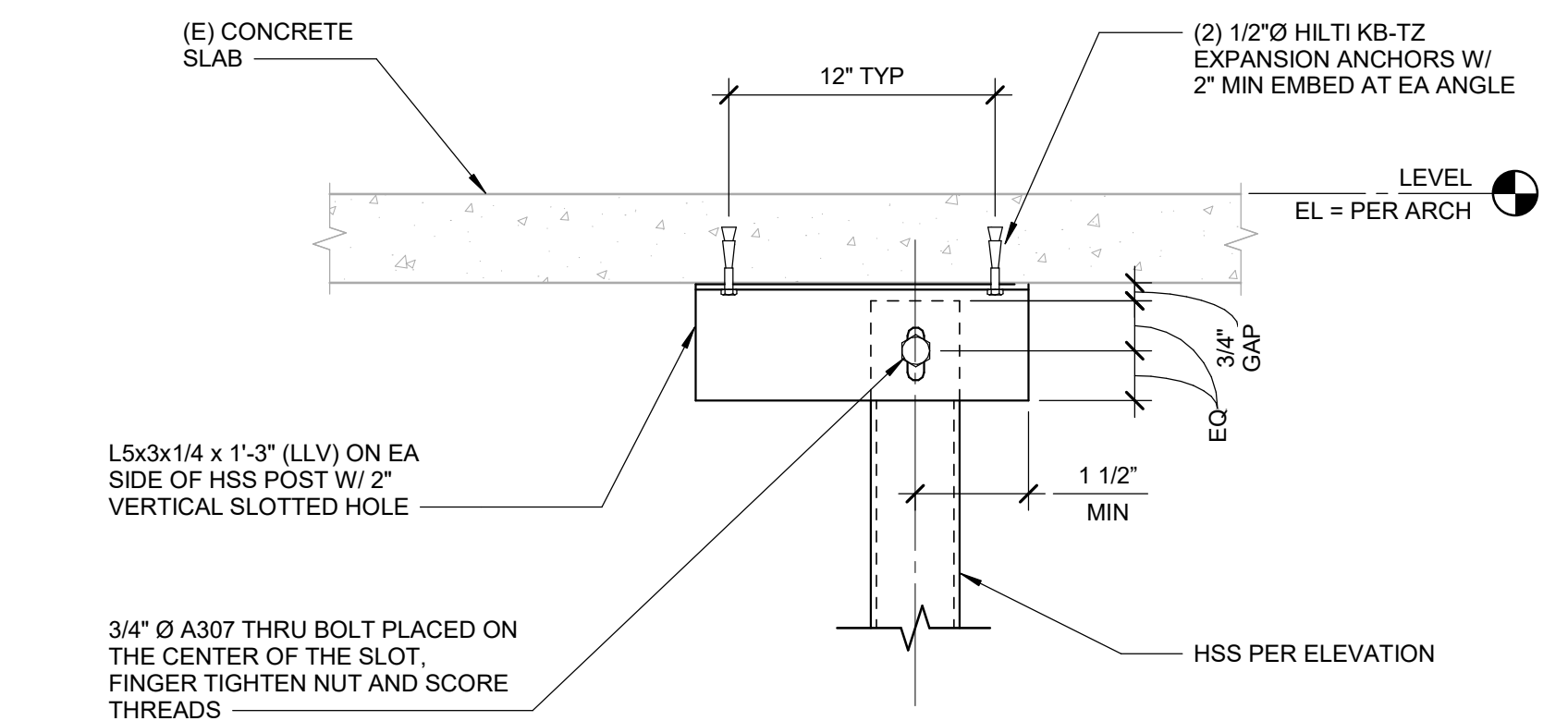
\$7.00



NOTE:
1. LOCATE THE REINFORCEMENT BY NON-DESTRUCTIVE MEANS. DO NOT DAMAGE THE REINFORCEMENT.

JAMB AND HEADER ELEVATION AT ROLL UP DOOR AND OPERABLE PARTITION

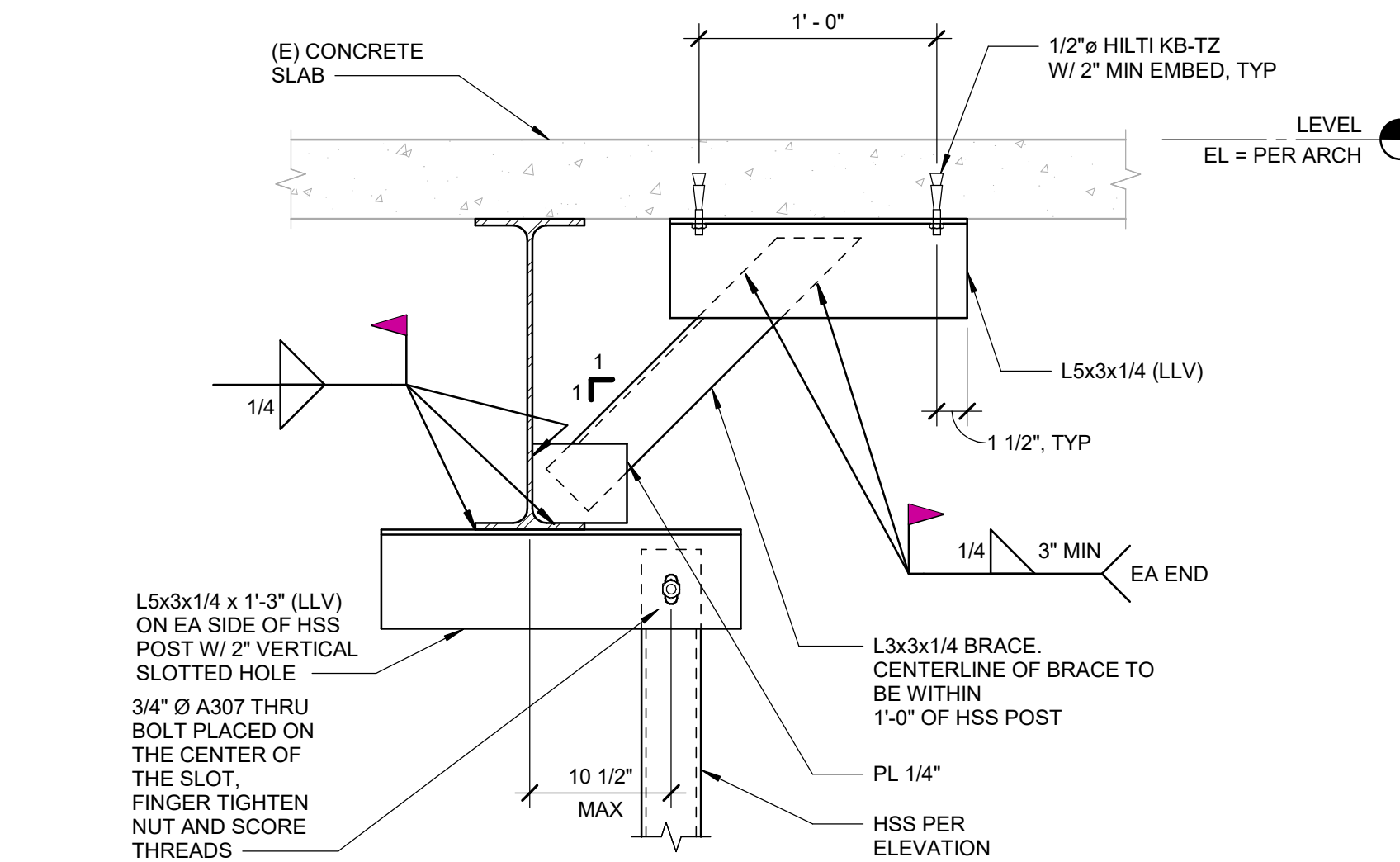
SCALE : 1" = 1'-0"



NOTE:
LOCATE THE REINFORCEMENT BY NON-DESTRUCTIVE MEANS. DO NOT DAMAGE THE REBAR.

TYPICAL JAMB TOP CONNECTION

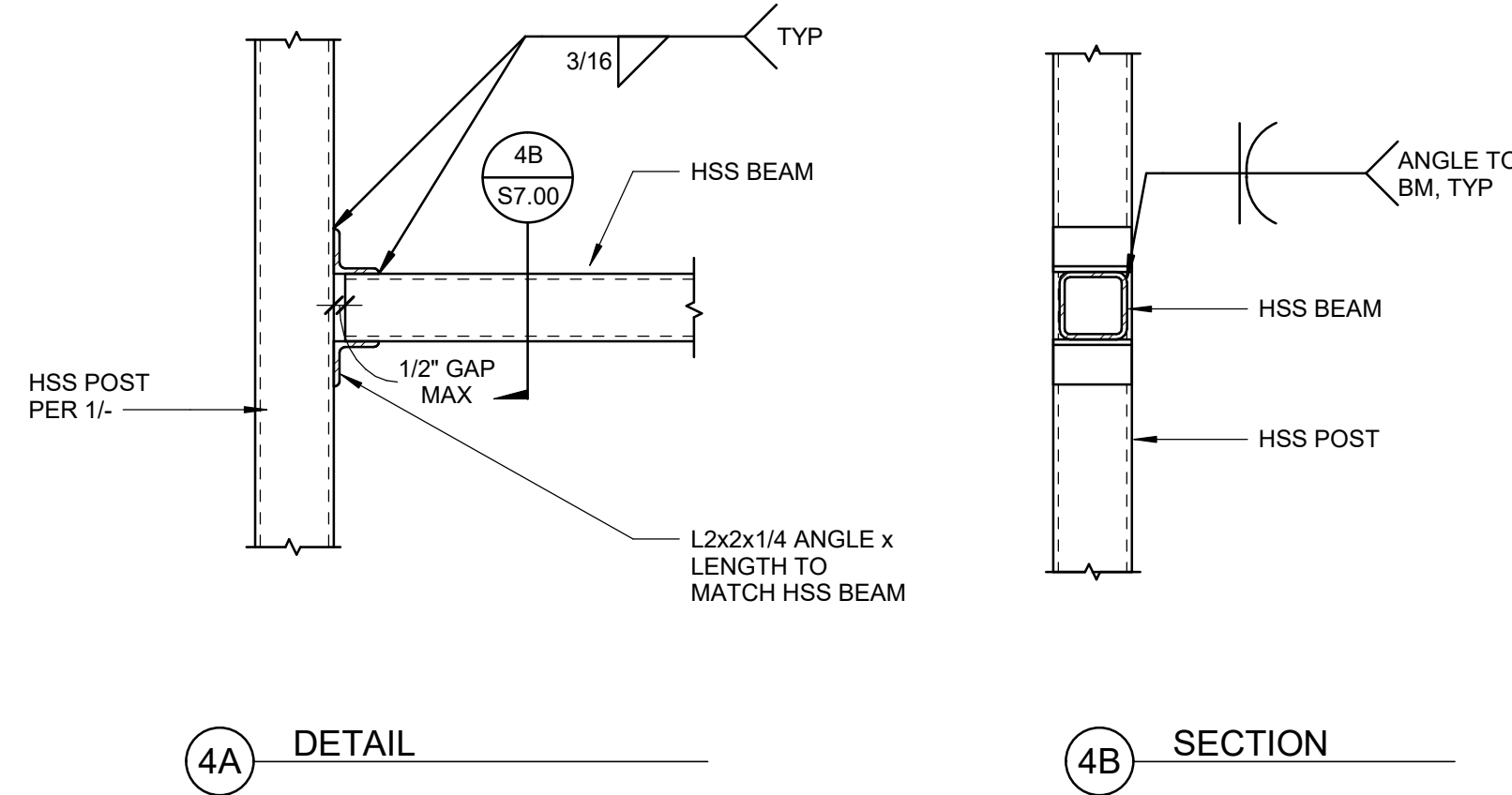
SCALE : 1 1/2" = 1'-0"



NOTE:
1. LOCATE THE REINFORCEMENT BY NON-DESTRUCTIVE MEANS. DO NOT DAMAGE THE REBAR.

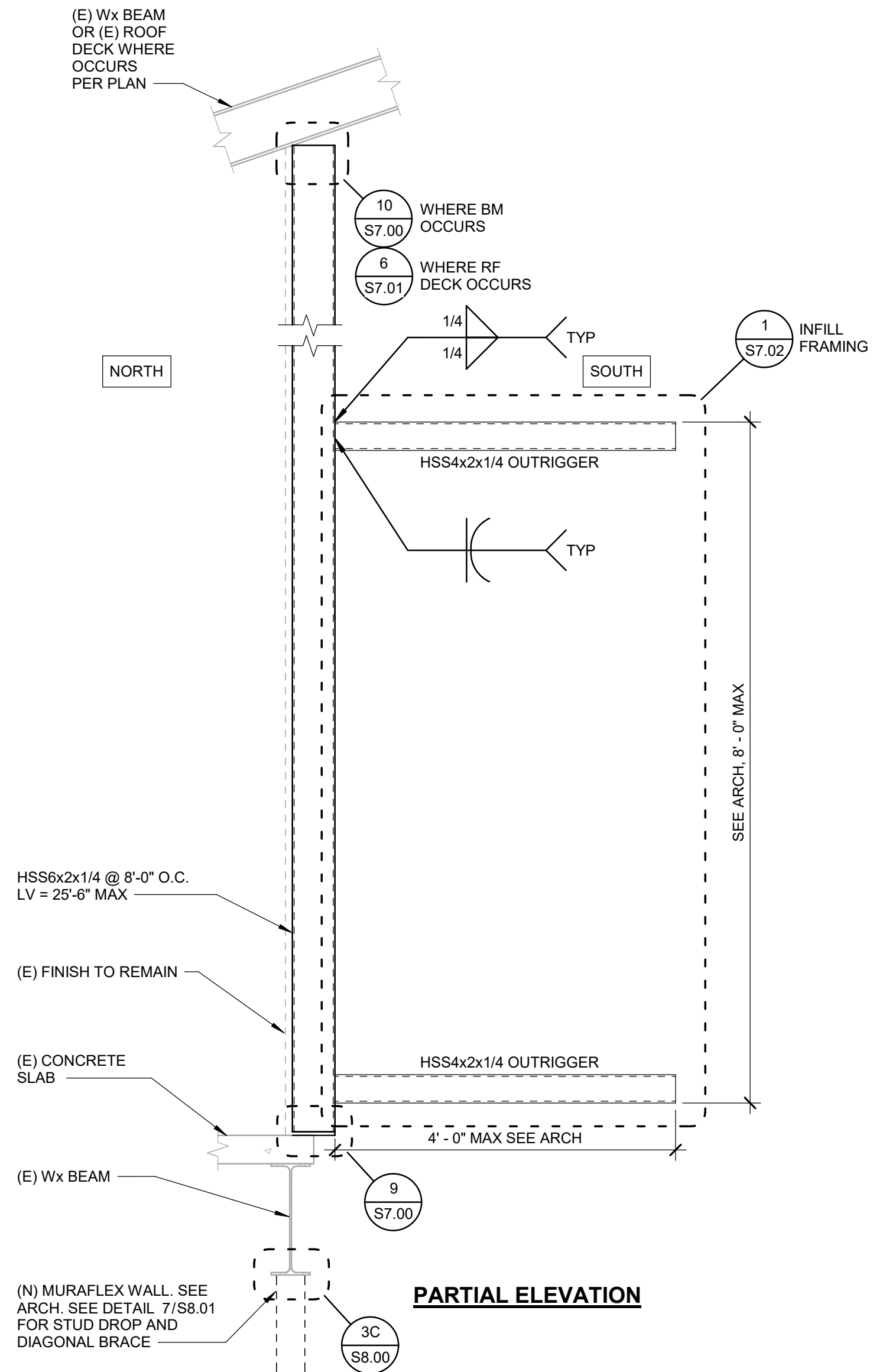
JAMB TOP CONNECTION TO Wx BEAM

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



HSS POST TO BEAM CONNECTION

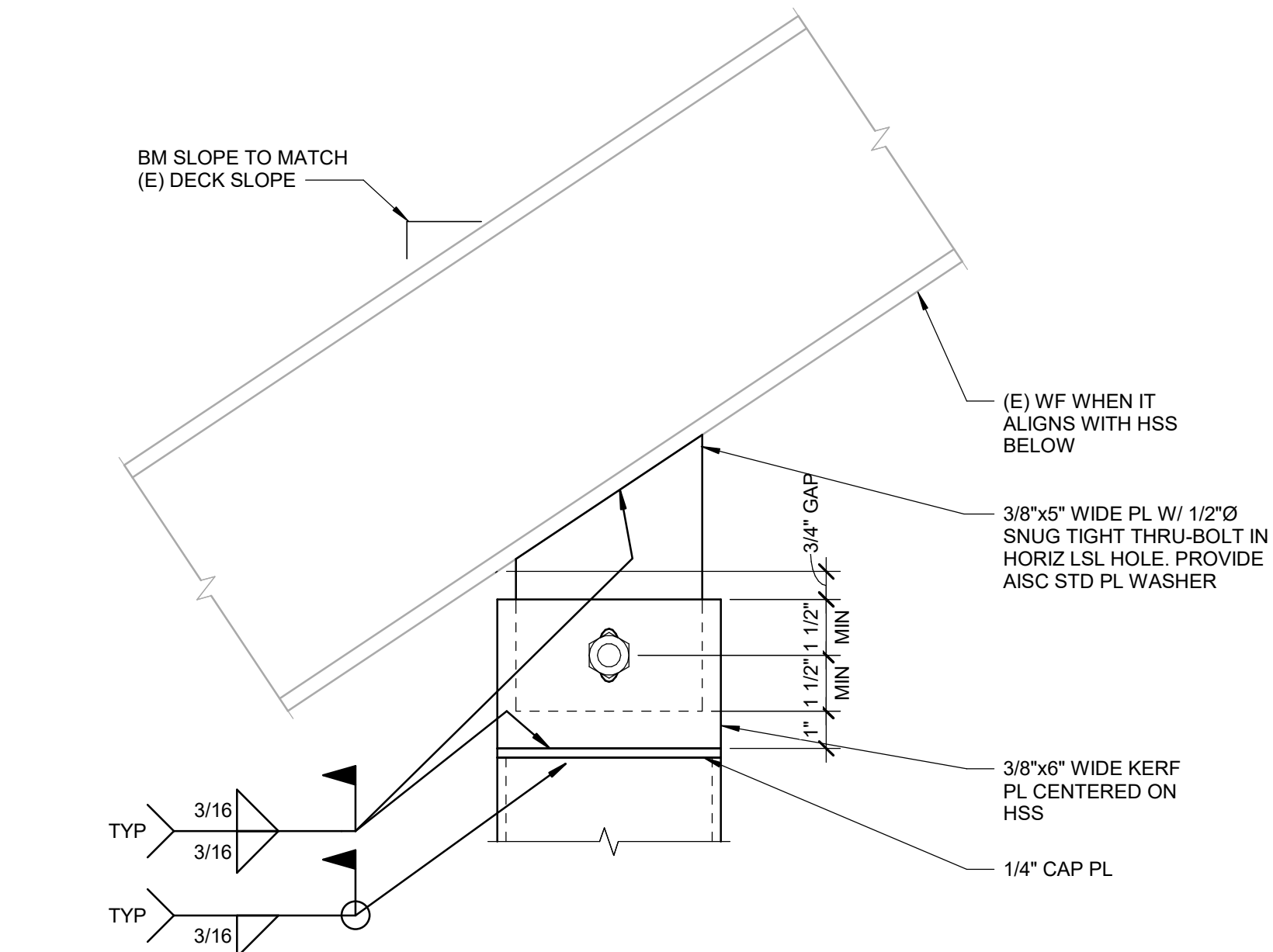
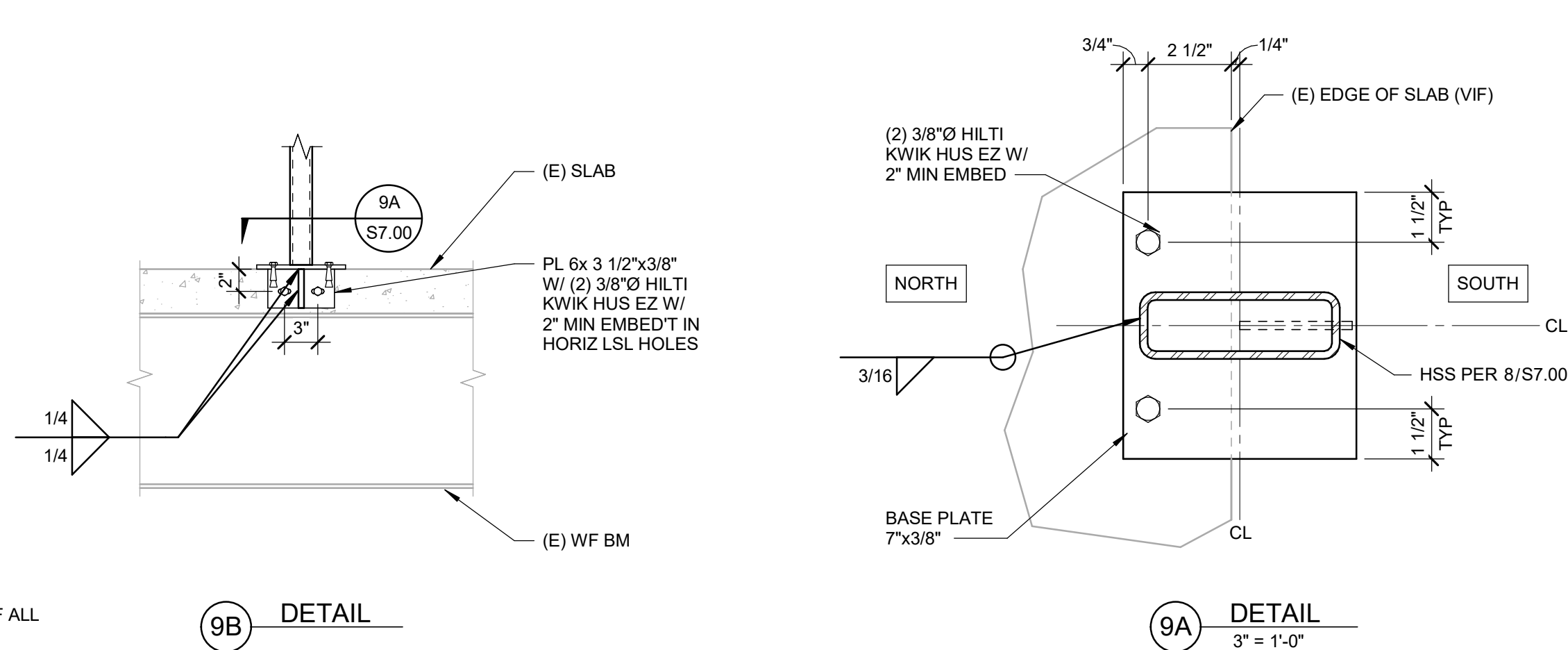
SCALE : 1 1/2" = 1'-0"



NOTES:
1. LOCATE THE REINFORCEMENT BY NON-DESTRUCTIVE MEANS. DO NOT DAMAGE THE REINFORCEMENT.
2. SEE 11/S7.00 FOR MORE INFORMATION.
3. CFS IS NOT DESIGNED AS A WALKABLE SURFACE OR TO SUPPORT THE WEIGHT OF STORAGE ETC.

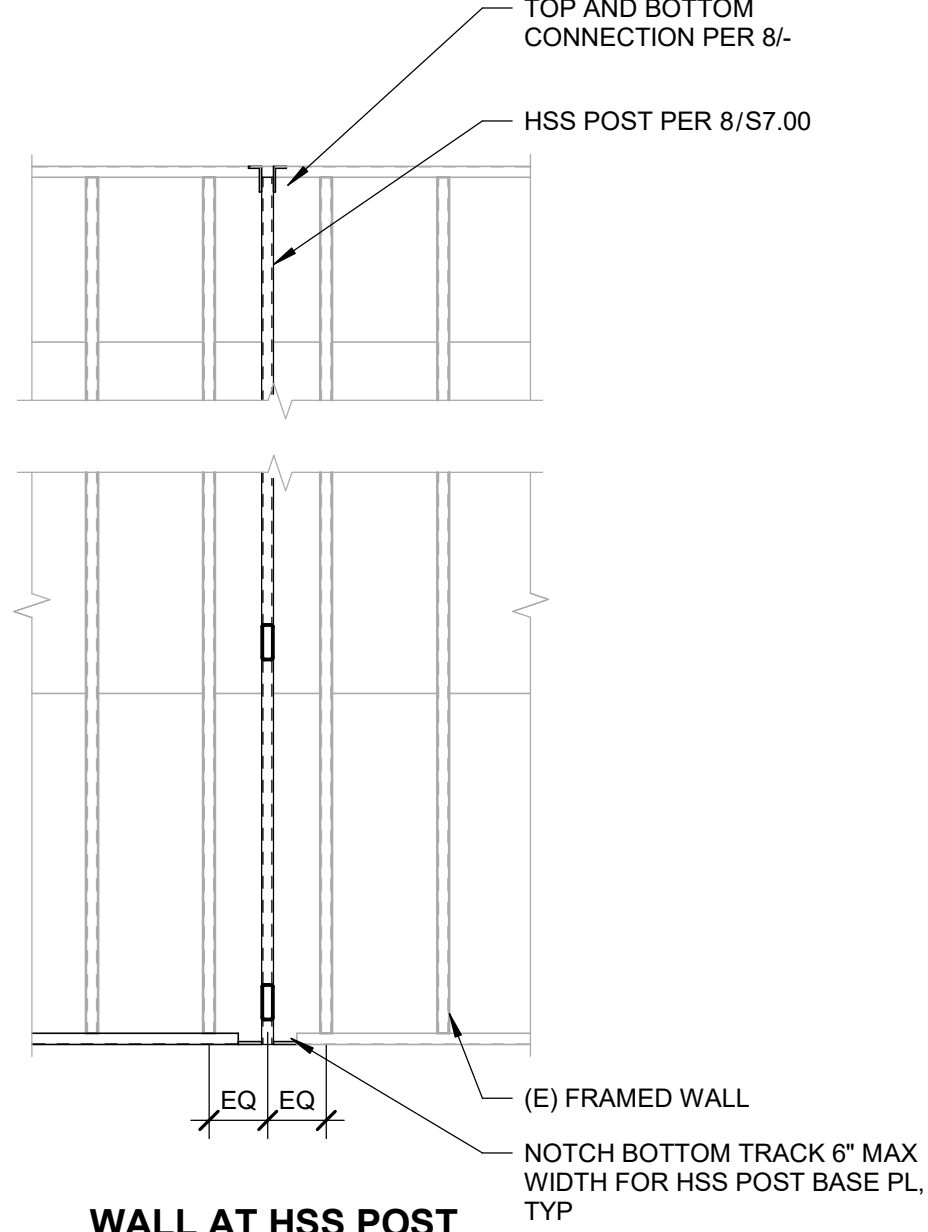
FRAMING FOR ARCHITECTURAL FEATURE

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



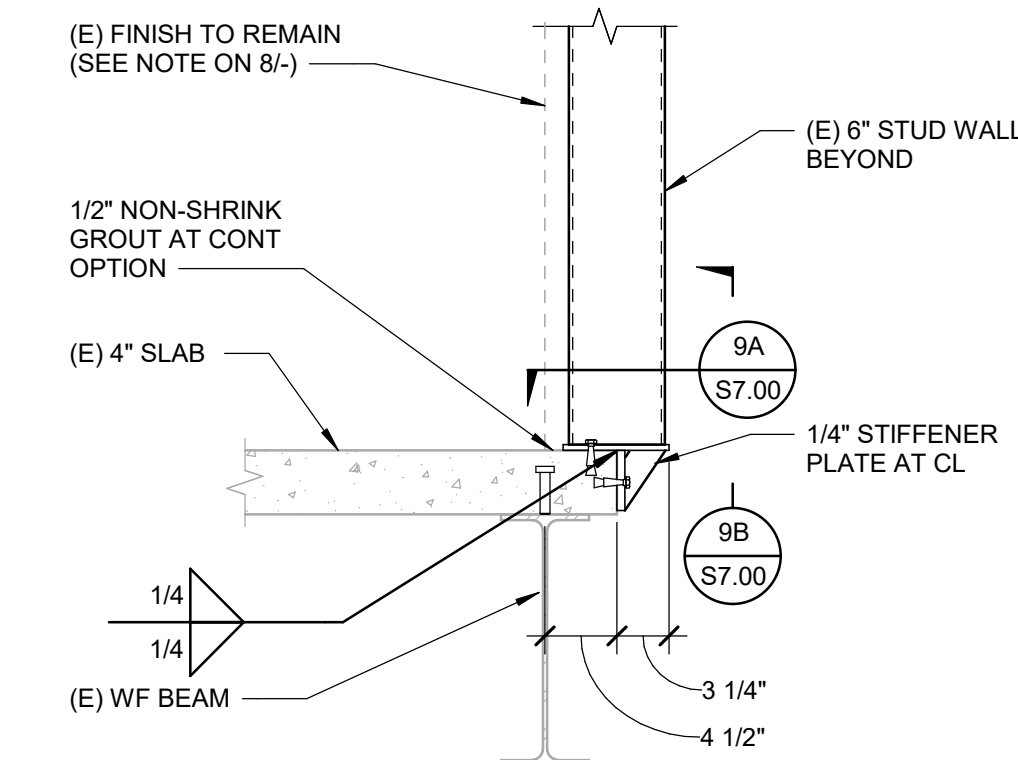
HSS POST TO TOP CONNECTION

SCALE : 3" = 1'-0"



HSS POST ELEVATION

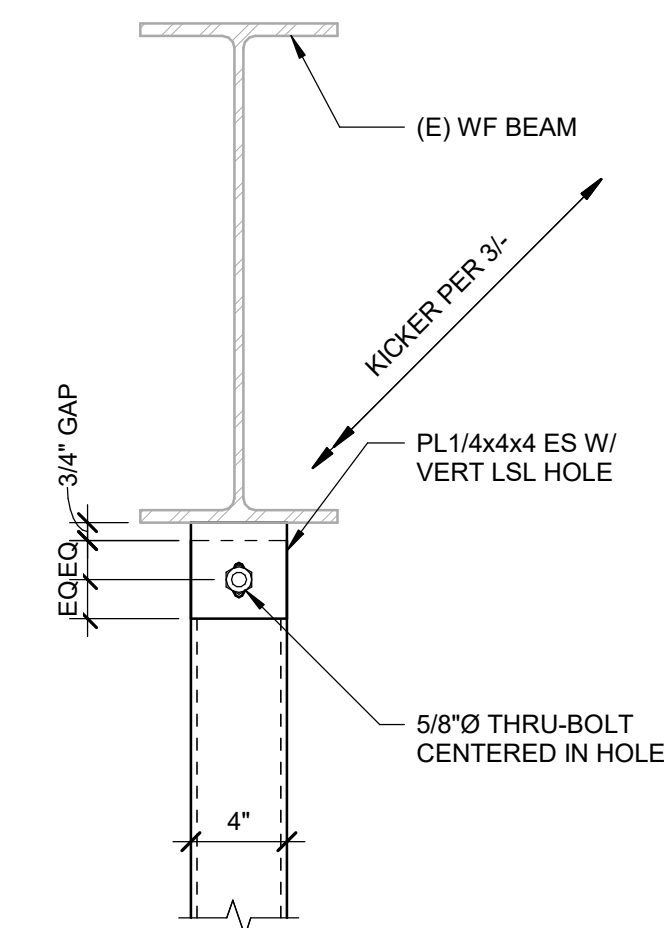
SCALE : 3/8" = 1'-0"



NOTES:
1. ALIGN BASE PLATE TO BE INSIDE ARCH LIGHT GA STUD WALLS. CONTRACTOR TO VIF ALL DIMENSIONS IN FIELD.
2. LOCATE THE REINFORCEMENT AND STUDS BY NON-DESTRUCTIVE MEANS. DO NOT DAMAGE THE REINFORCEMENT OR BEAM STUDS. LOCATE THE REINFORCEMENT AND STUDS BY NON-DESTRUCTIVE MEANS. DO NOT DAMAGE THE REINFORCEMENT OR BEAM STUDS.

HSS POST TO BOTTOM CONNECTION

SCALE : 1" = 1'-0"



JAMB TOP CONNECTION

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

TYPICAL JAMB TOP CONNECTION

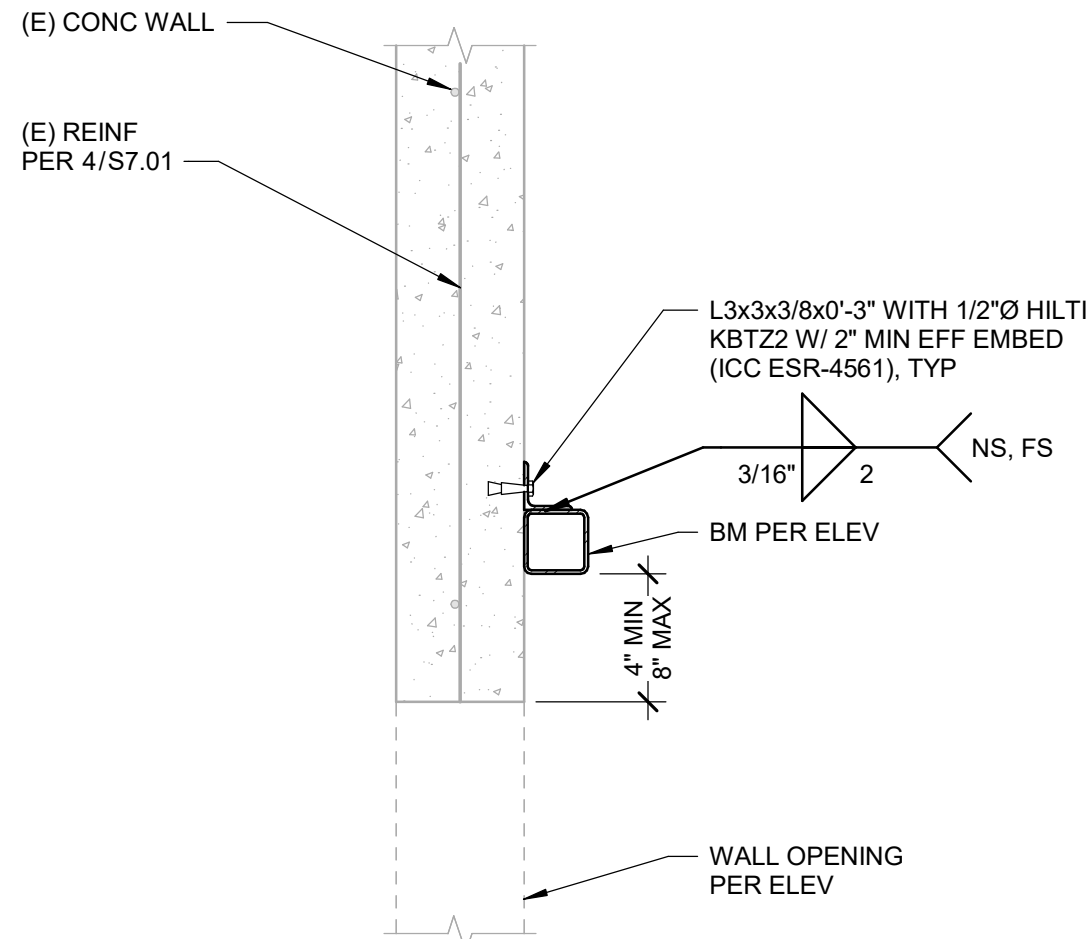
SCALE : 1 1/2" = 1'-0"



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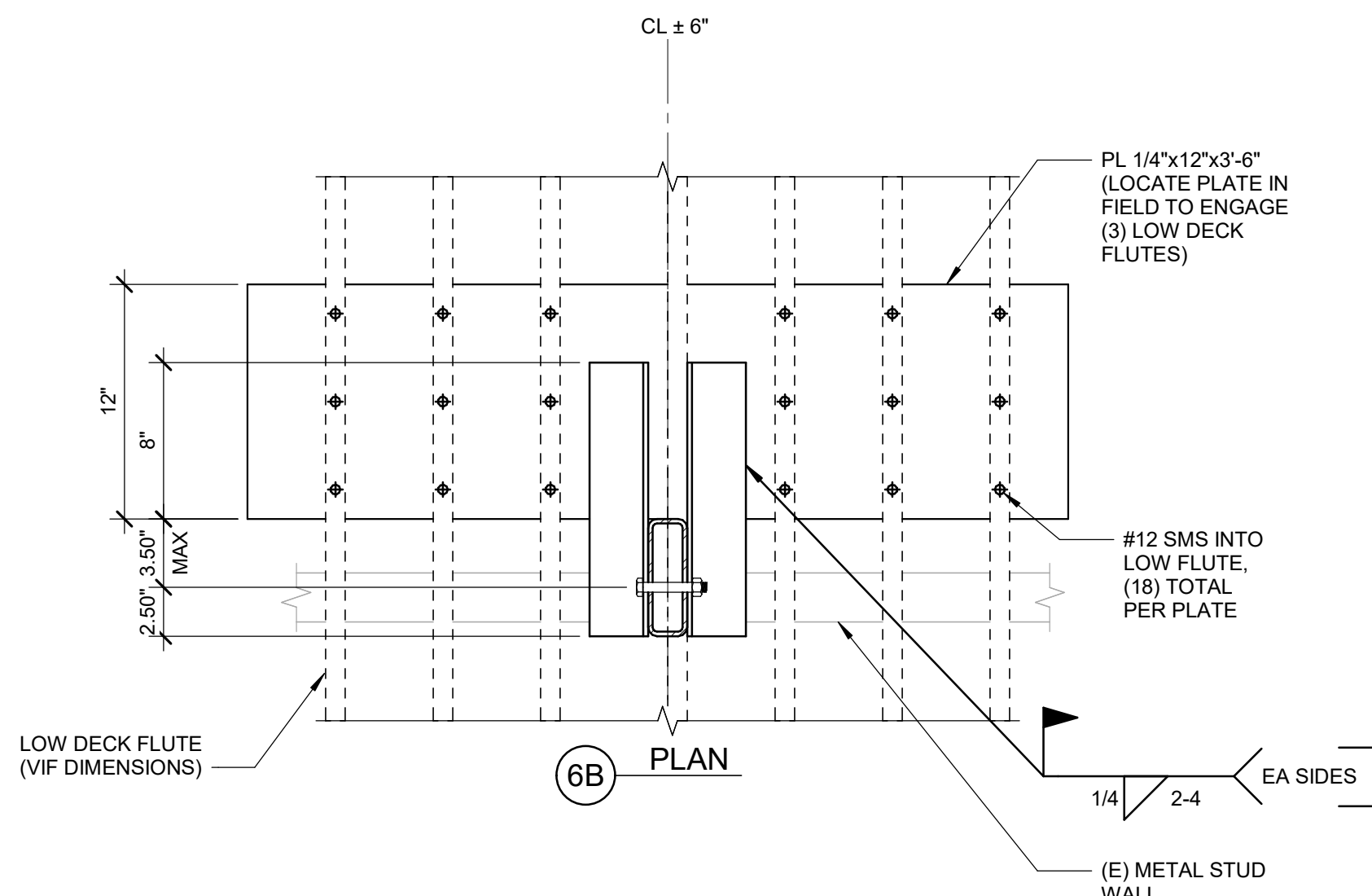
TYPICAL STEEL FRAMING DETAILS

S7.01

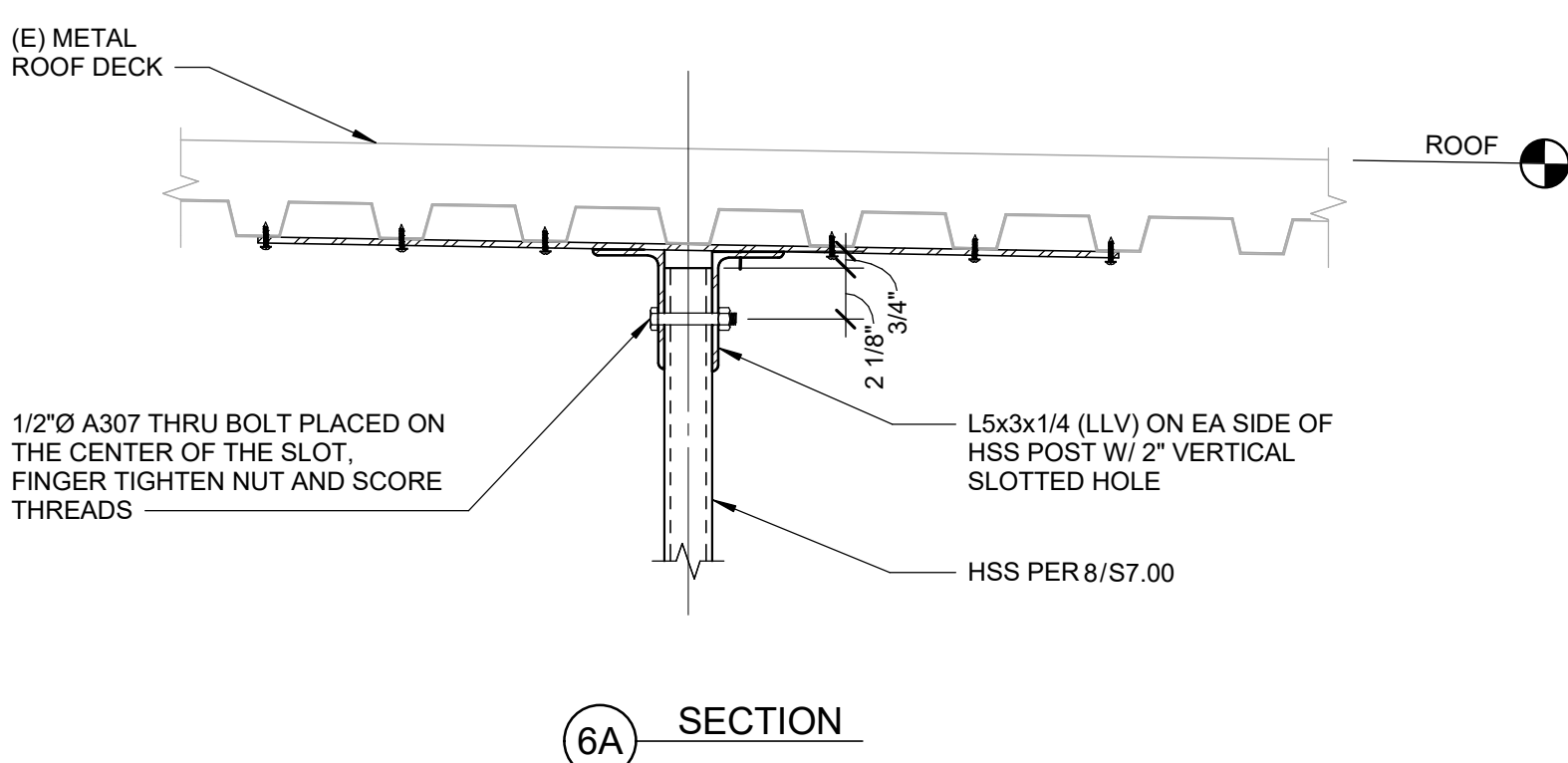


NOTE:
LOCATE REINFORCING BARS IN EXISTING CONCRETE WALL AND SLAB BY NON-DESTRUCTIVE MEANS (GPR, PACHOMETER, ETC.) PRIOR TO PERFORMING ANY WORK. DAMAGE TO EXISTING REINFORCEMENT SHALL BE AVOIDED.

5 HSS TO EXITING CMU WALL CONNECTION
SCALE: 1" = 1'-0"

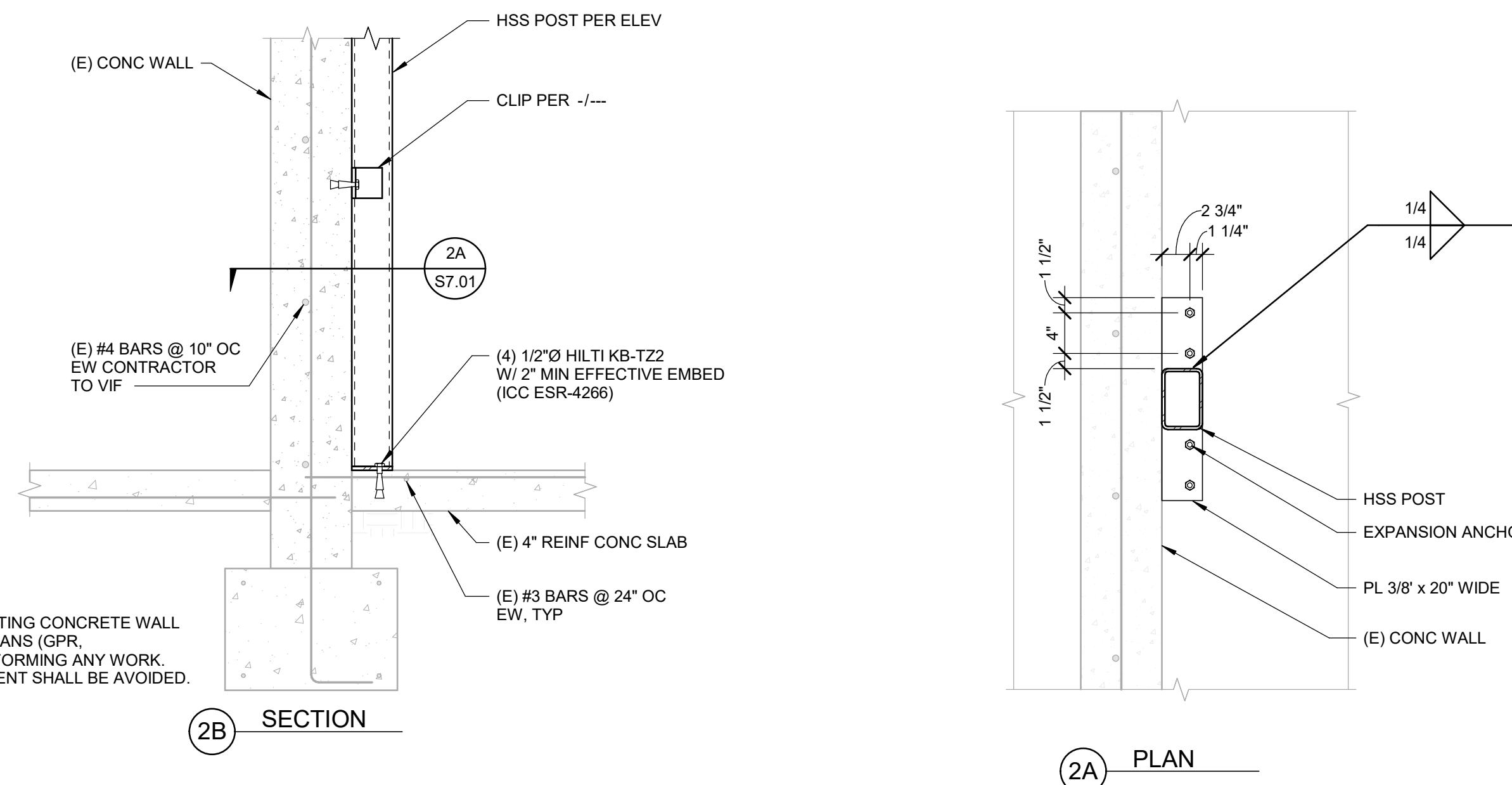


6 JAMB TOP CONNECTION
SCALE: 1" = 1'-0"



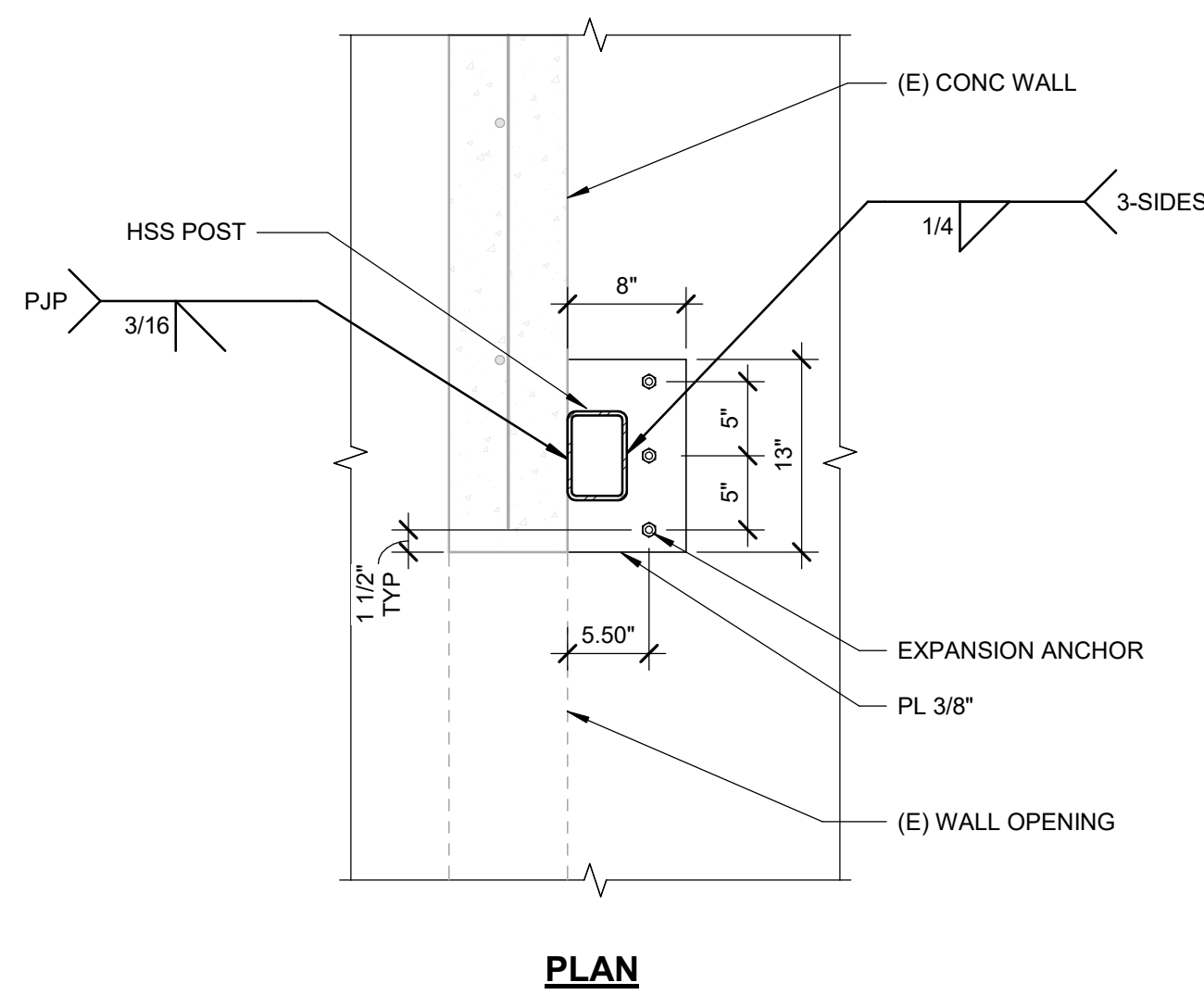
NOTE:
AT INTERIOR AND EXTERIOR CONDITIONS WHERE STRUCTURAL STEEL IS EXPOSED TO VIEW - ALL STEEL COLUMNS & BRACES TO BE AESS CATEGORY 3, ALL STEEL OVERHEAD MEMBERS TO BE AESS CATEGORY 2.

1 WALL ELEVATION AT NEW DOOR OR WINDOW OPENING
SCALE: 3/8" = 1'-0"



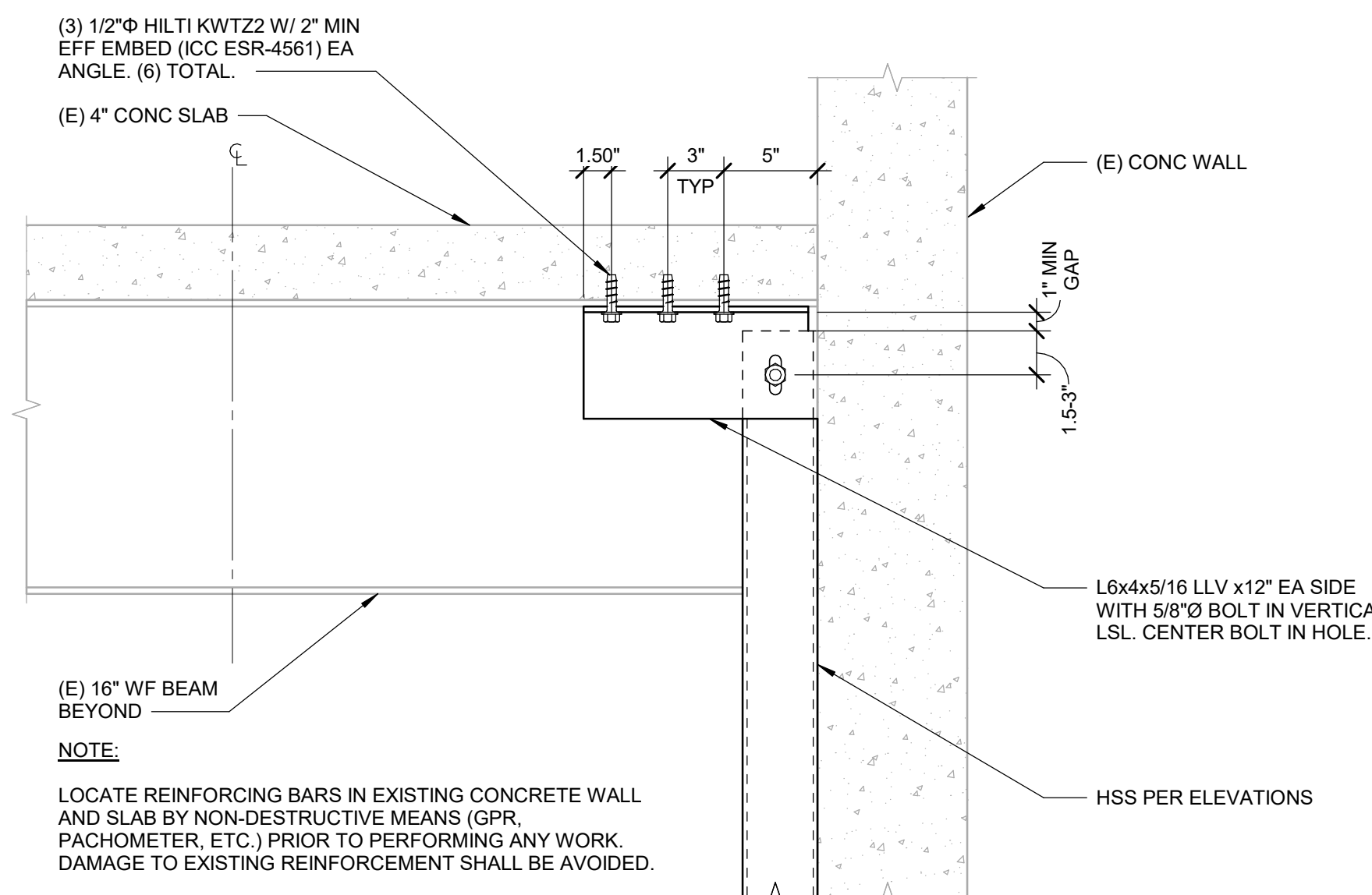
NOTE:
LOCATE REINFORCING BARS IN EXISTING CONCRETE WALL AND SLAB BY NON-DESTRUCTIVE MEANS (GPR, PACHOMETER, ETC.) PRIOR TO PERFORMING ANY WORK. DAMAGE TO EXISTING REINFORCEMENT SHALL BE AVOIDED.

7 HSS TO HSS AT WINDOW WALL HSS FRAMING
SCALE: 1" = 1'-0"



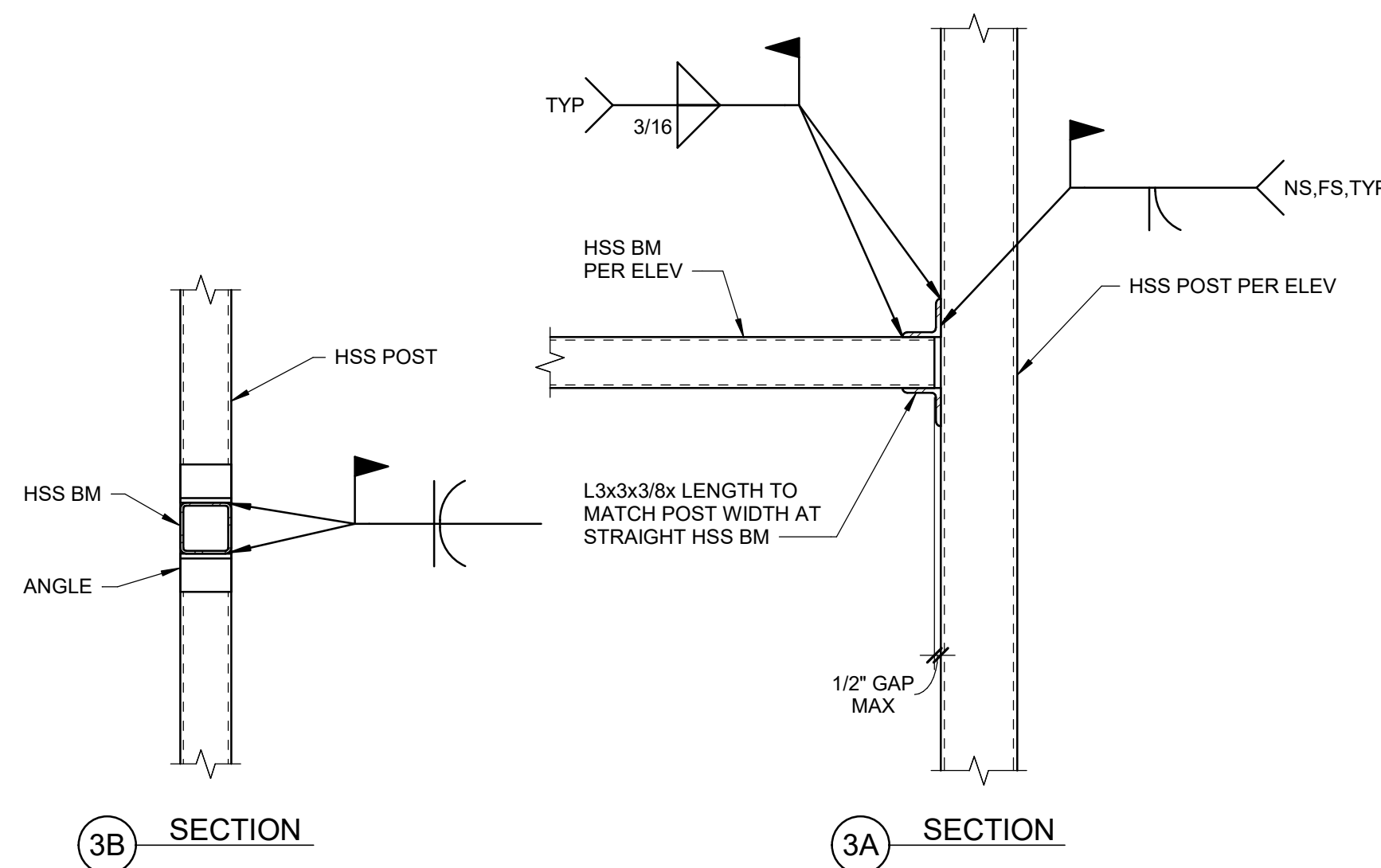
8 MAIN ENTRANCE POST ANCHORAGE
SCALE: 1" = 1'-0"

2 BOTTOM OF HSS POST TO CONCRETE SLAB CONN
SCALE: 1" = 1'-0"



NOTE:
LOCATE REINFORCING BARS IN EXISTING CONCRETE WALL AND SLAB BY NON-DESTRUCTIVE MEANS (GPR, PACHOMETER, ETC.) PRIOR TO PERFORMING ANY WORK. DAMAGE TO EXISTING REINFORCEMENT SHALL BE AVOIDED.

4 TOP OF HSS CONNECTION
SCALE: 1 1/2" = 1'-0"

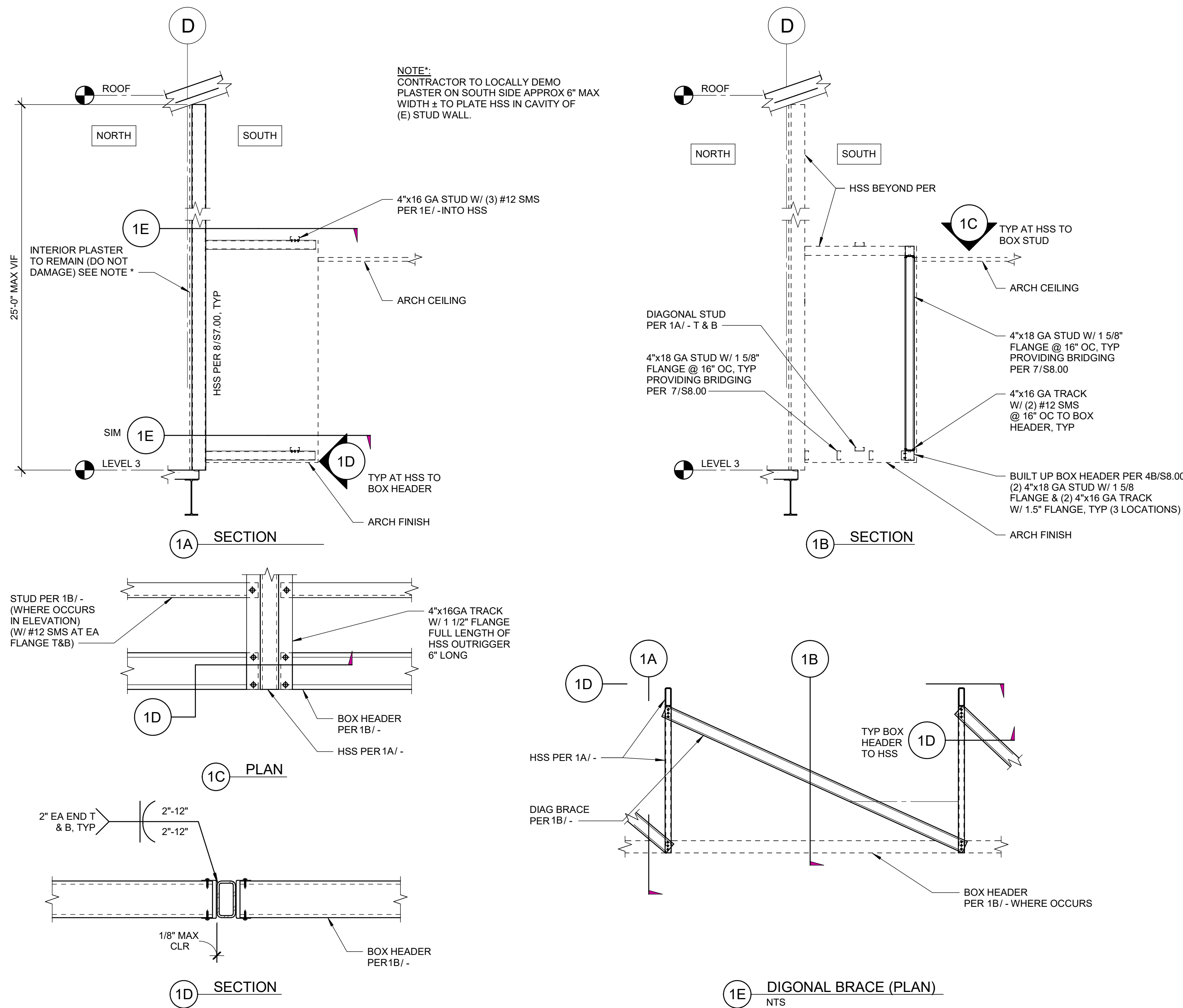


3 HSS BM TO HSS POST CONNECTION AT NEW DOOR OPENING
SCALE: 1" = 1'-0"

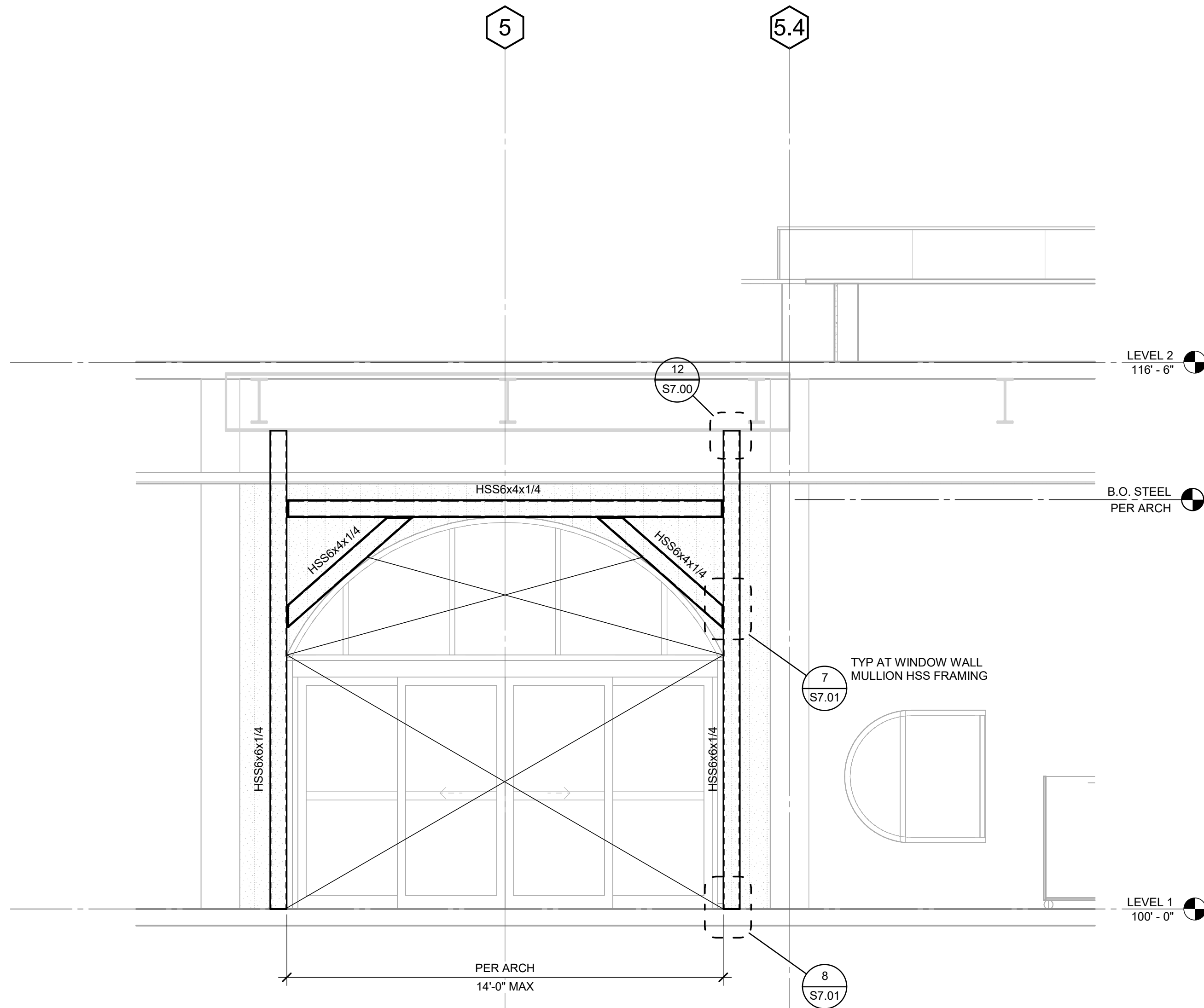


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TYPICAL STEEL
FRAMING DETAILS



1 ARCH BUMP OUT FEATURE
SCALE : 3/8" = 1'-0"



NOTE:
COORDINATE LOCATION OF ANGLED HSS WITH WINDOW SUPPLIER FOR ALIGNMENT WITH WINDOW ATTACHMENTS

2 ENLARGED ARCADE ELEVATION
SCALE : 3/8" = 1'-0"



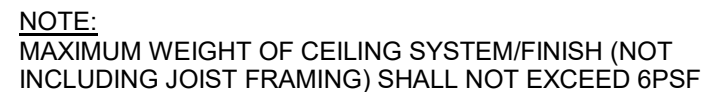
SCALE : N.T.S.

SCALE : N.T.S.



3

SCALE : N.T.S.



6

SCALE : 1" = 1'-0"



1. BRIDGING IS NOT REQUIRED WHERE SHEATHING IS INSTALLED FULL-HEIGHT ON BOTH SIDES OF WALL.
2. BRIDGING IS NOT REQUIRED WHERE EXTERIOR SIDE IS FULLY SHEATHED AND INTERIOR SHEATHING IS STOPPED 6" ABOVE CEILING LINE.
3. PROVIDE BRIDGING @ 4' MAX O.C. ALONG LENGTH WHERE SHEATHING IS NOT PROVIDED AT BOTH SIDES OF WALL.

SCALE : 3" = 1'-0"



INTERIOR NON-LOAD BEARING WALL CFS FRAMING SCHEDULE 16'-6" MAX WALL HEIGHT				
MEMBER	4" DEPTH FRAMING		6" DEPTH FRAMING	
	FRAMING	DETAIL	FRAMING	DETAIL
TYP WALL, STUD SIZE & SPACING	400S125-43 @ 16" OC (NOTE 7)	2/S8.01	600S125-43 @ 16" OC	2/S8.01
HEADER BEAM LENGTH L ≤ 3'-6"	400S162-33 + 400T150-30	2/S8.00	(2) 600S125-30 + 600T150-30 T&B	4/S8.00
HEADER BEAM LENGTH 3'-6" < L ≤ 6'-6"	(2) 400S125-43 + 400T150-30 T&B	4/S8.00	(2) 600S137-33 + 600T150-30 T&B	4/S8.00
HEADER BEAM LENGTH 6'-6" < L ≤ 9'-0"	(2) 400S162-43 + 400T200-43 T&B	4/S8.00	(2) 600S137-43 + 600T150-33 T&B	4/S8.00
SILL BEAM LENGTH L ≤ 3'-6"	400T150-30	3/S8.00	600T150-30	3/S8.00
SILL BEAM LENGTH 3'-6" < L ≤ 6'-6"	400T150-30	5/S8.00	600T150-30	5/S8.00
JAMB STUDS AT OPNG LENGTH L ≤ 3'-6"	(1) 400S200-43	2,3,4/S8.00 2/S8.01	(2) 600S162-33	2,3,4/S8.00 2/S8.01
JAMB STUDS AT OPNG LENGTH 3'-6" < L ≤ 6'-6"	(2) 400S200-43	2,3,4/S8.00 2/S8.01	(2) 600S200-33	2,3,4/S8.00 2/S8.01
JAMB STUDS AT OPNG LENGTH 6'-6" < L ≤ 9'-0" (NOTE 8)	(2) 400S250-54	2,4/S8.00 2/S8.01	(2) 600S162-43	2,4/S8.00 2/S8.01
HANGING STUDS (NOTE 6)	400S250-33 @ 16" OC	3/S8.01	N/A	N/A

1

SCALE : N.T.S.



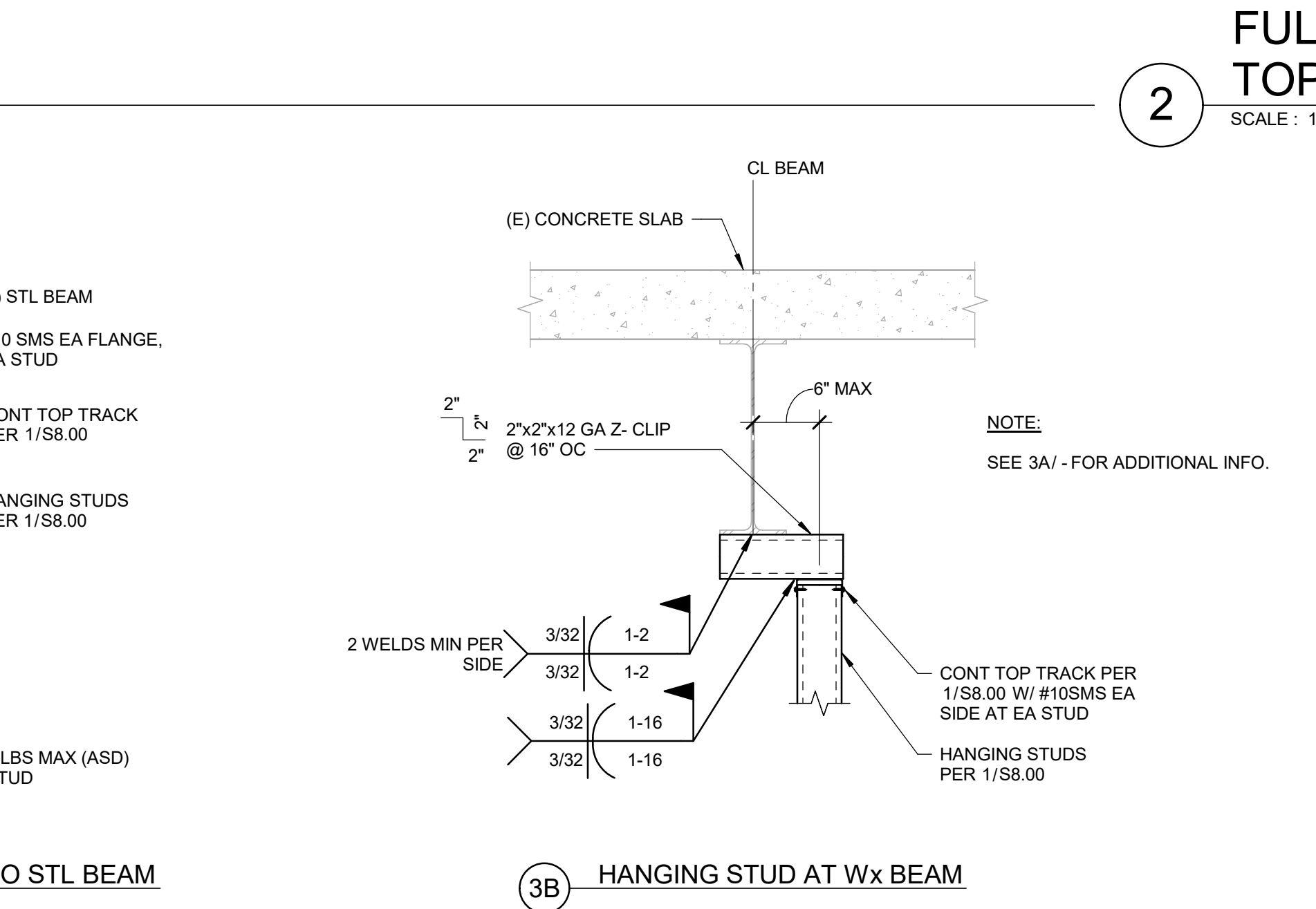
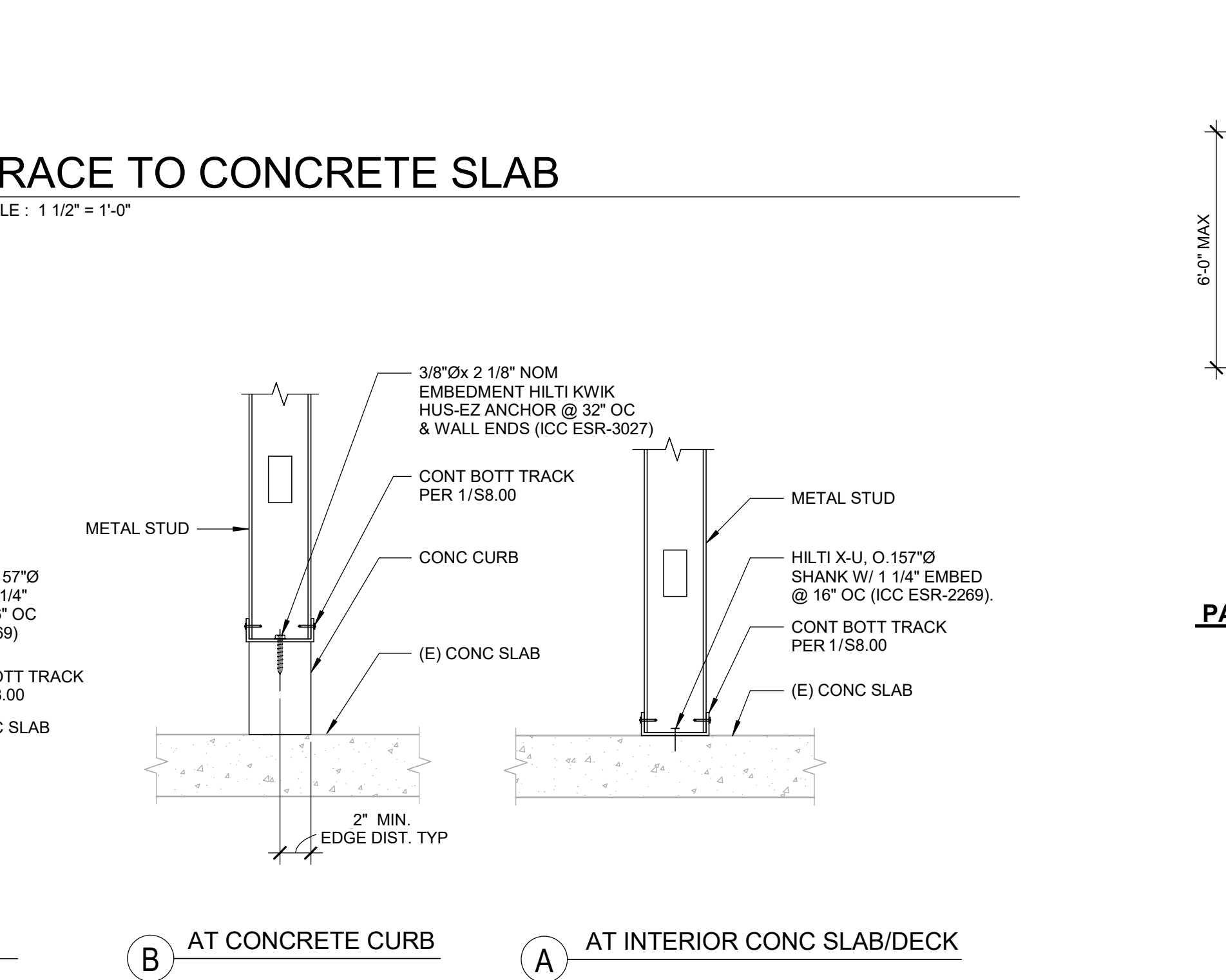
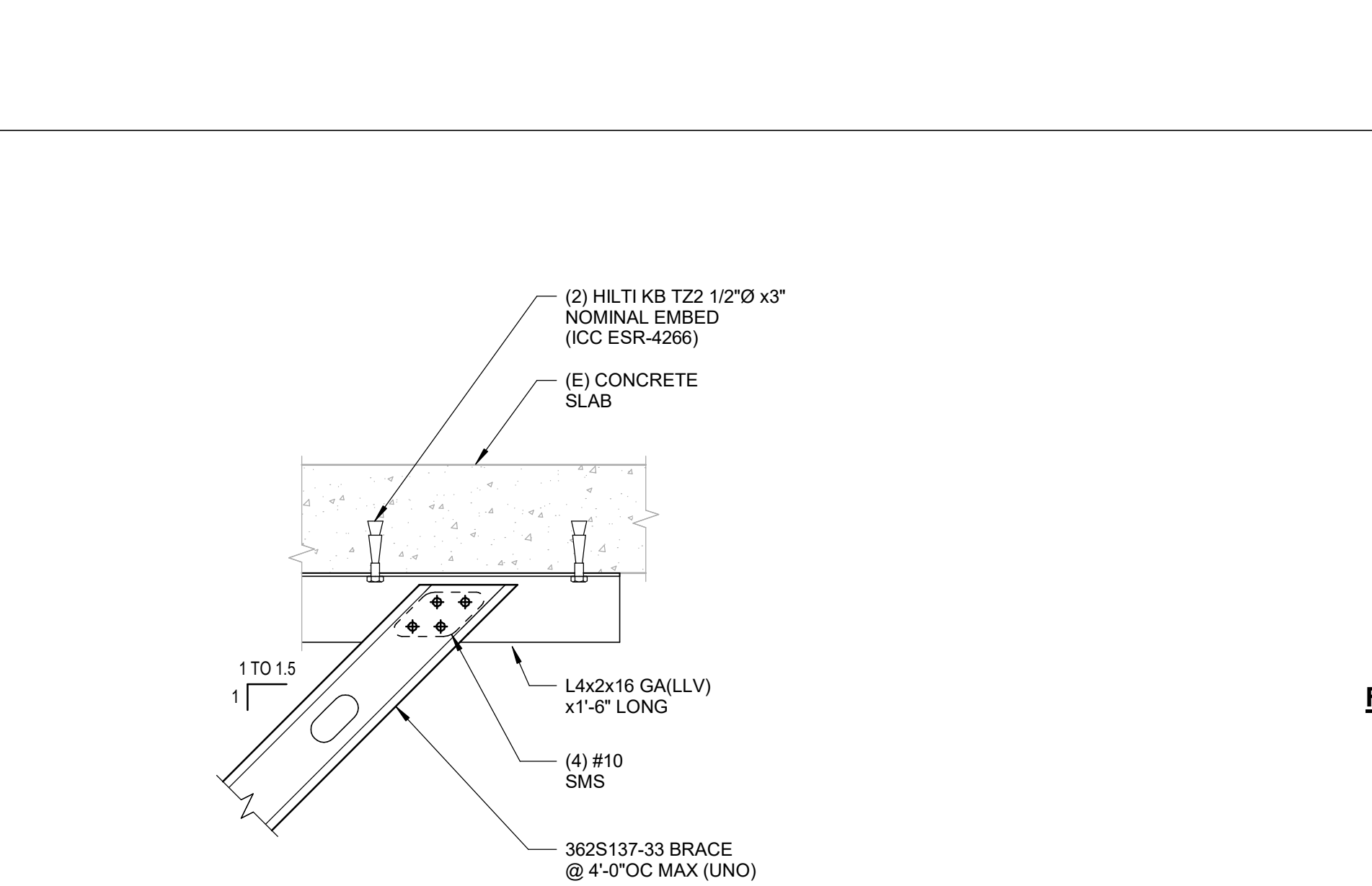
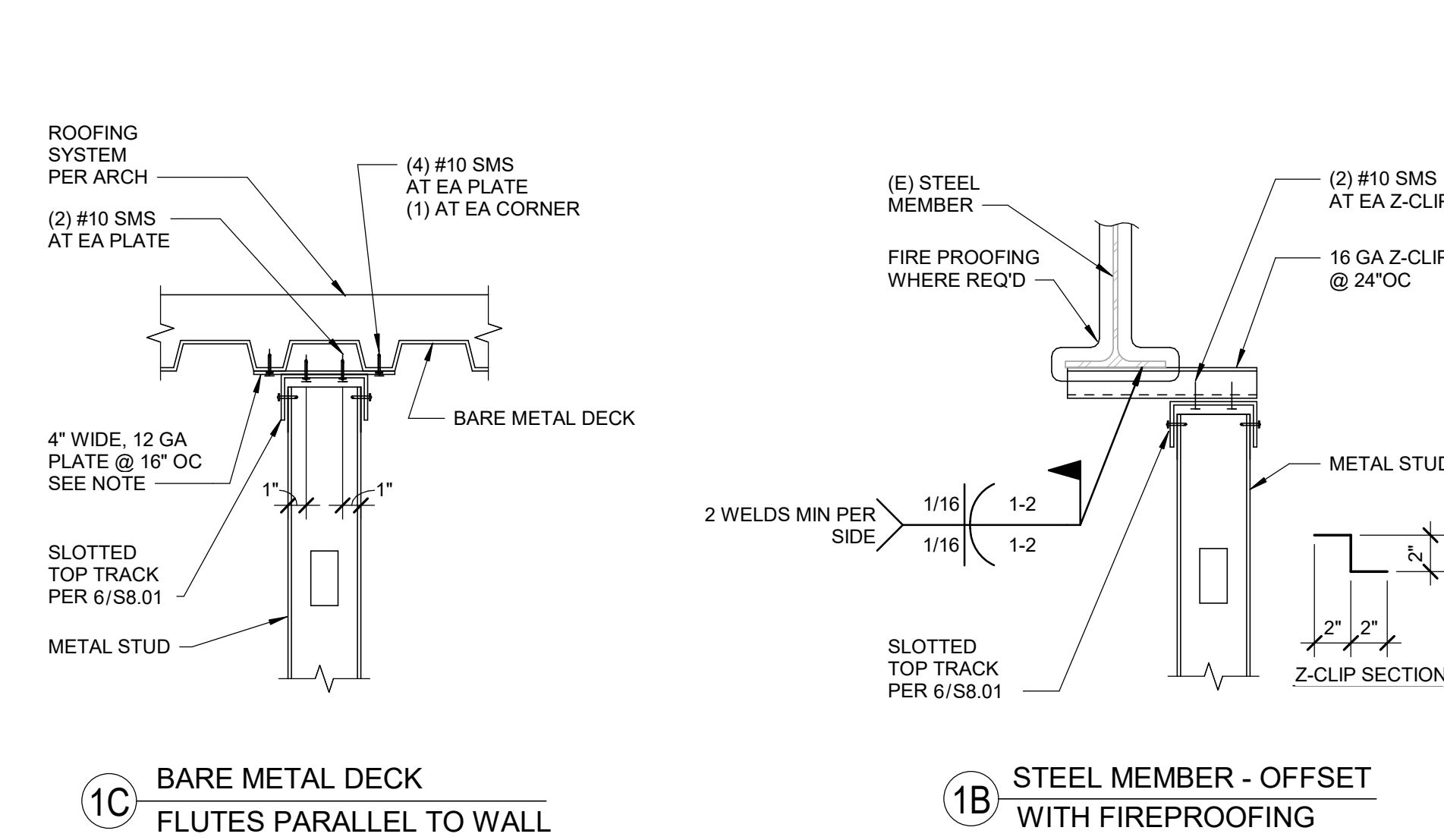
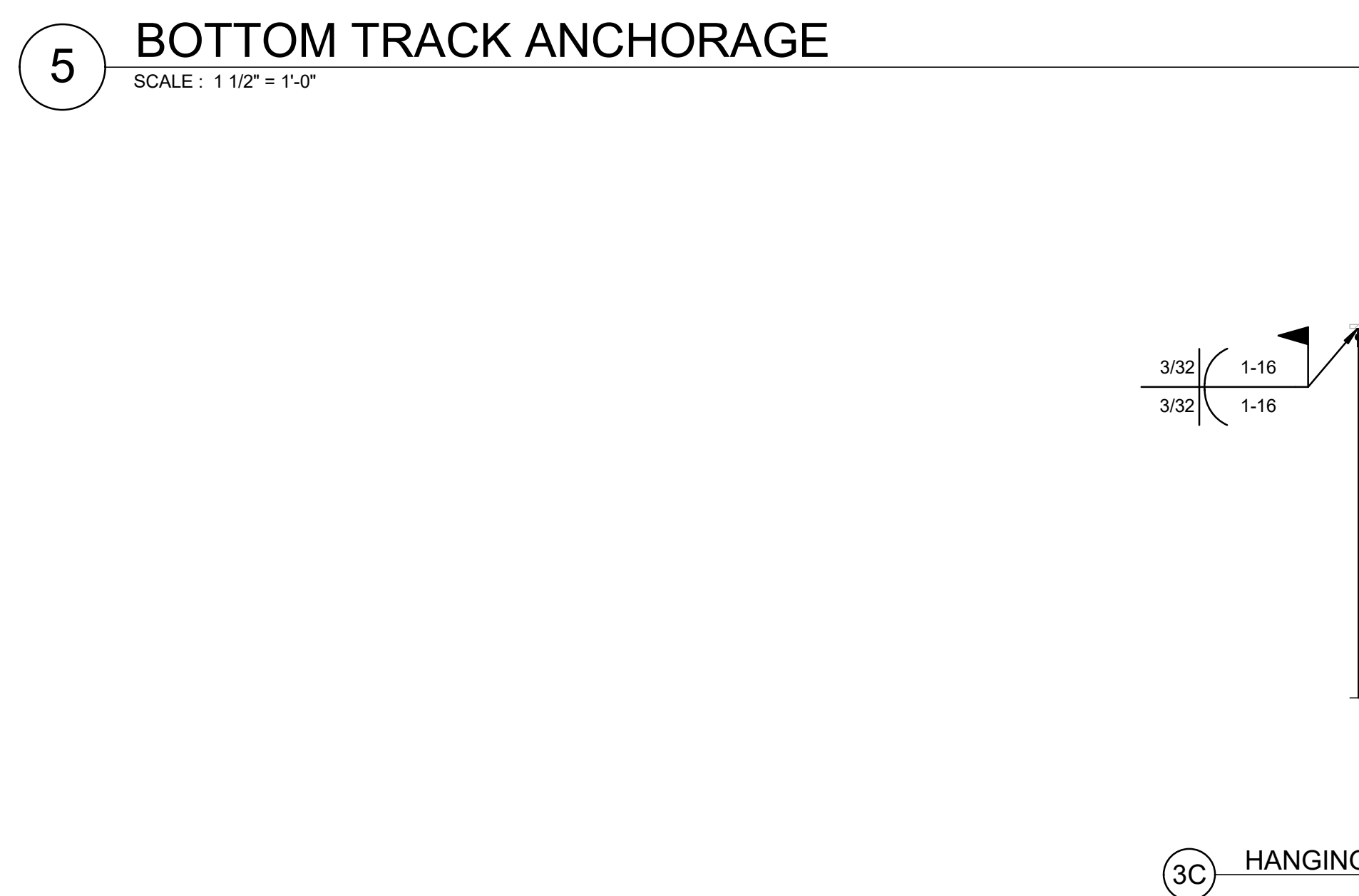
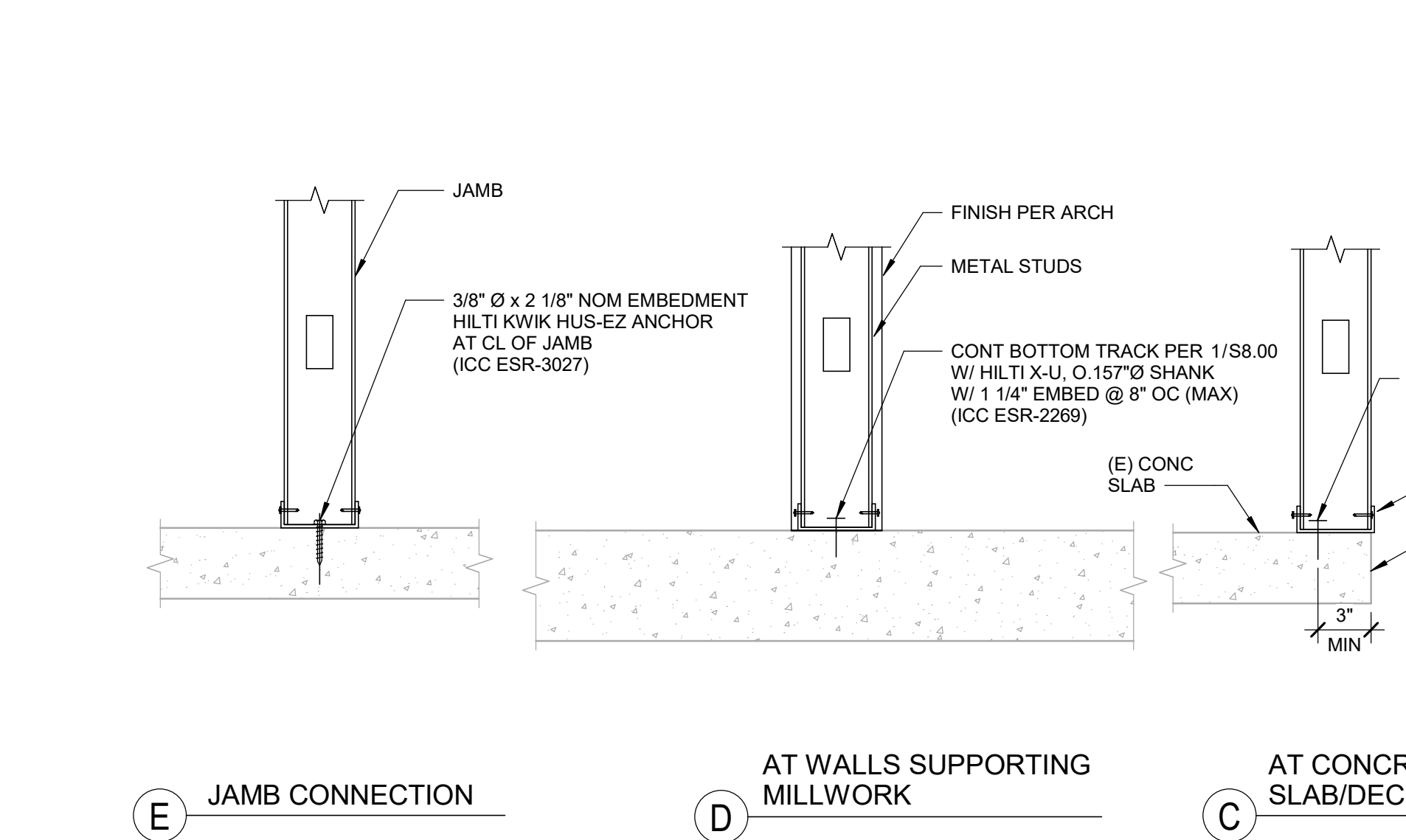
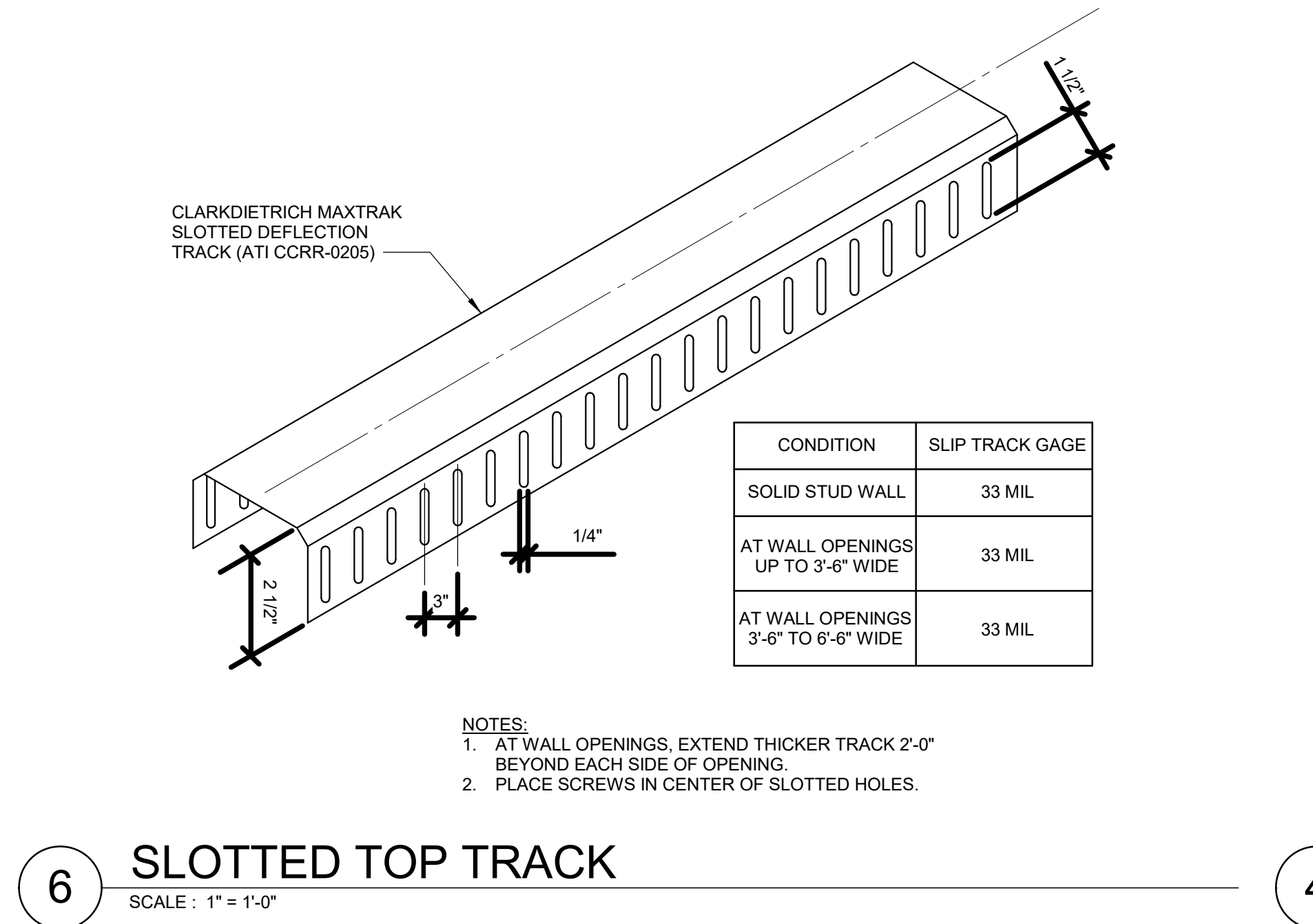
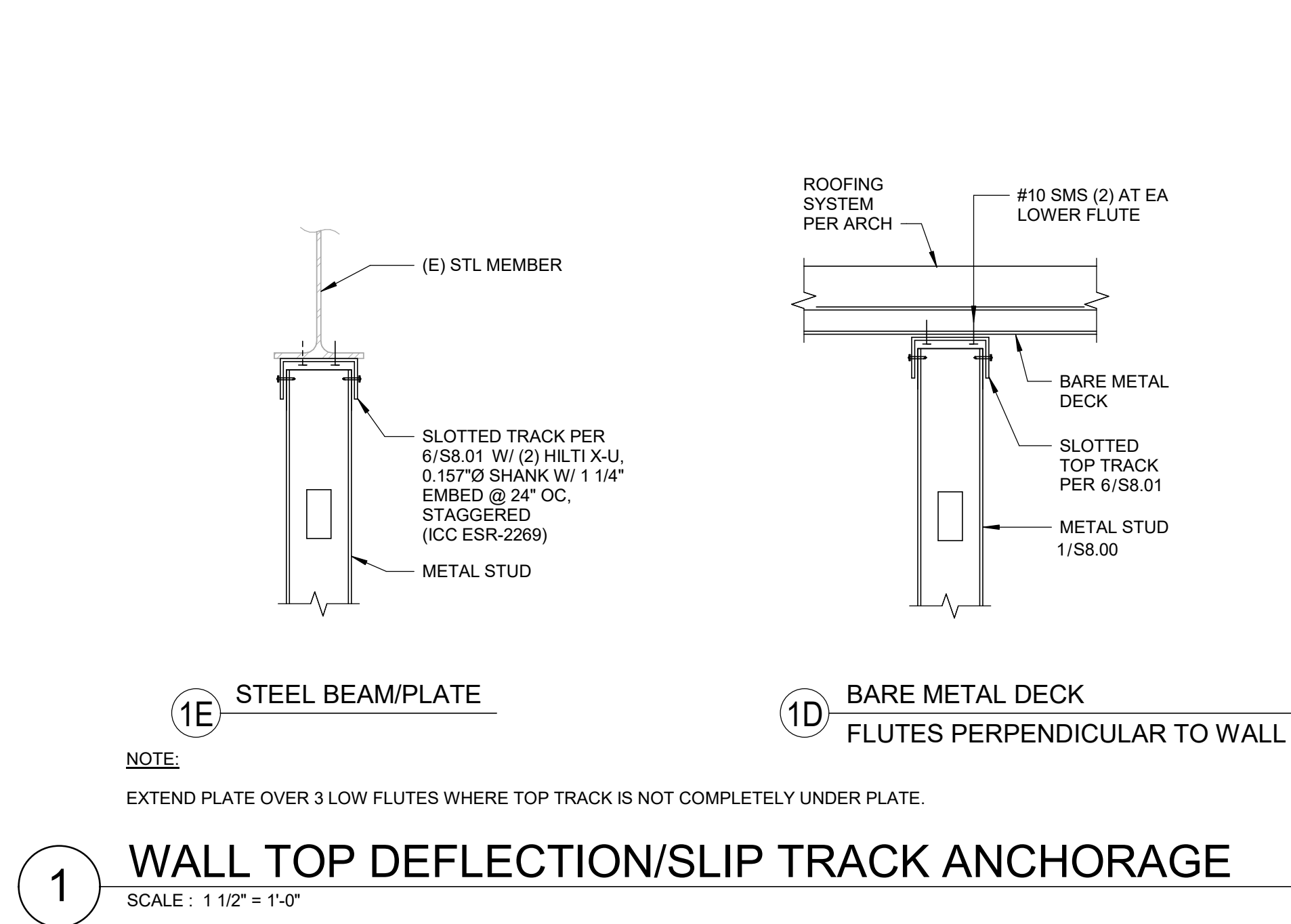
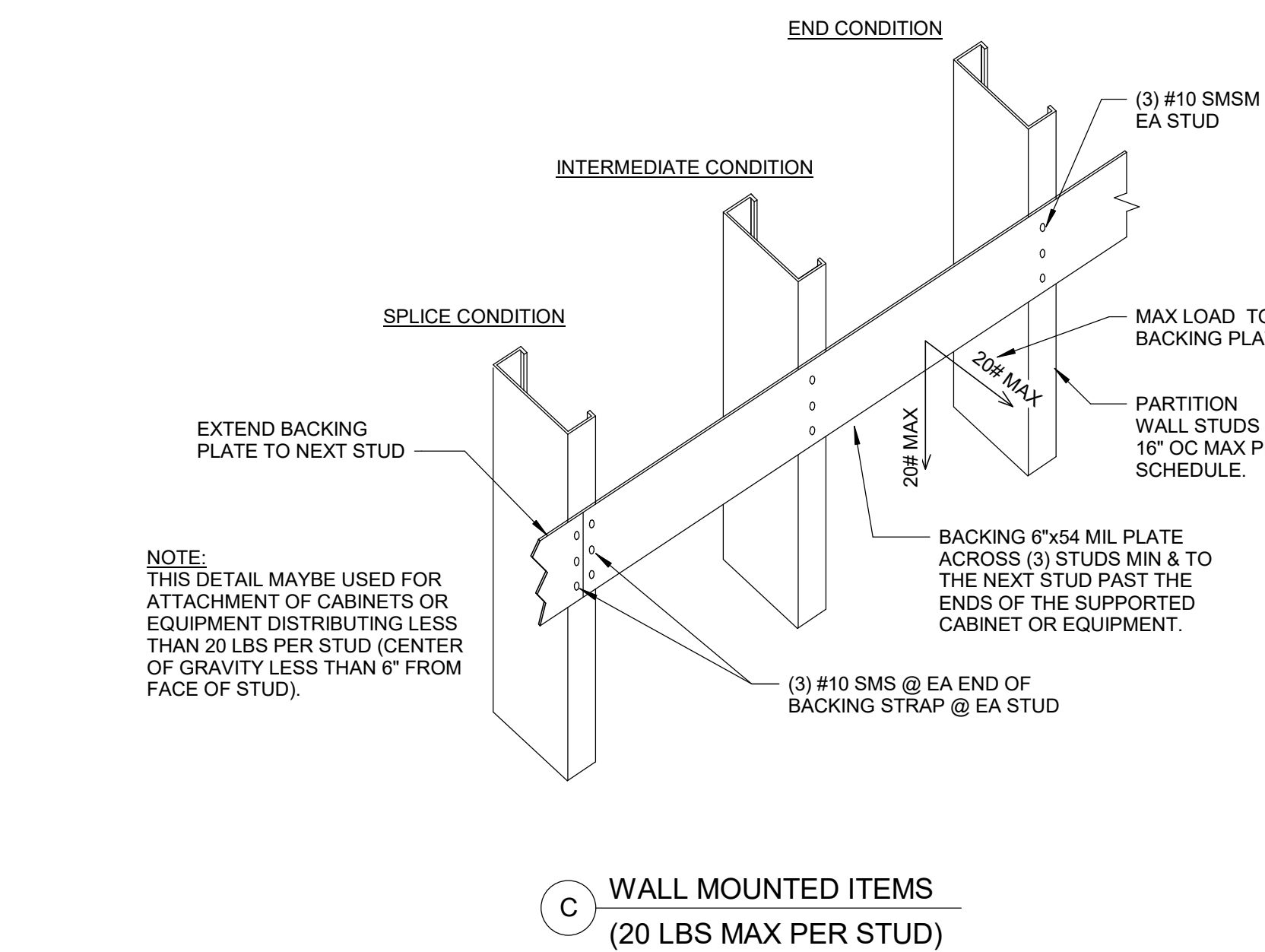
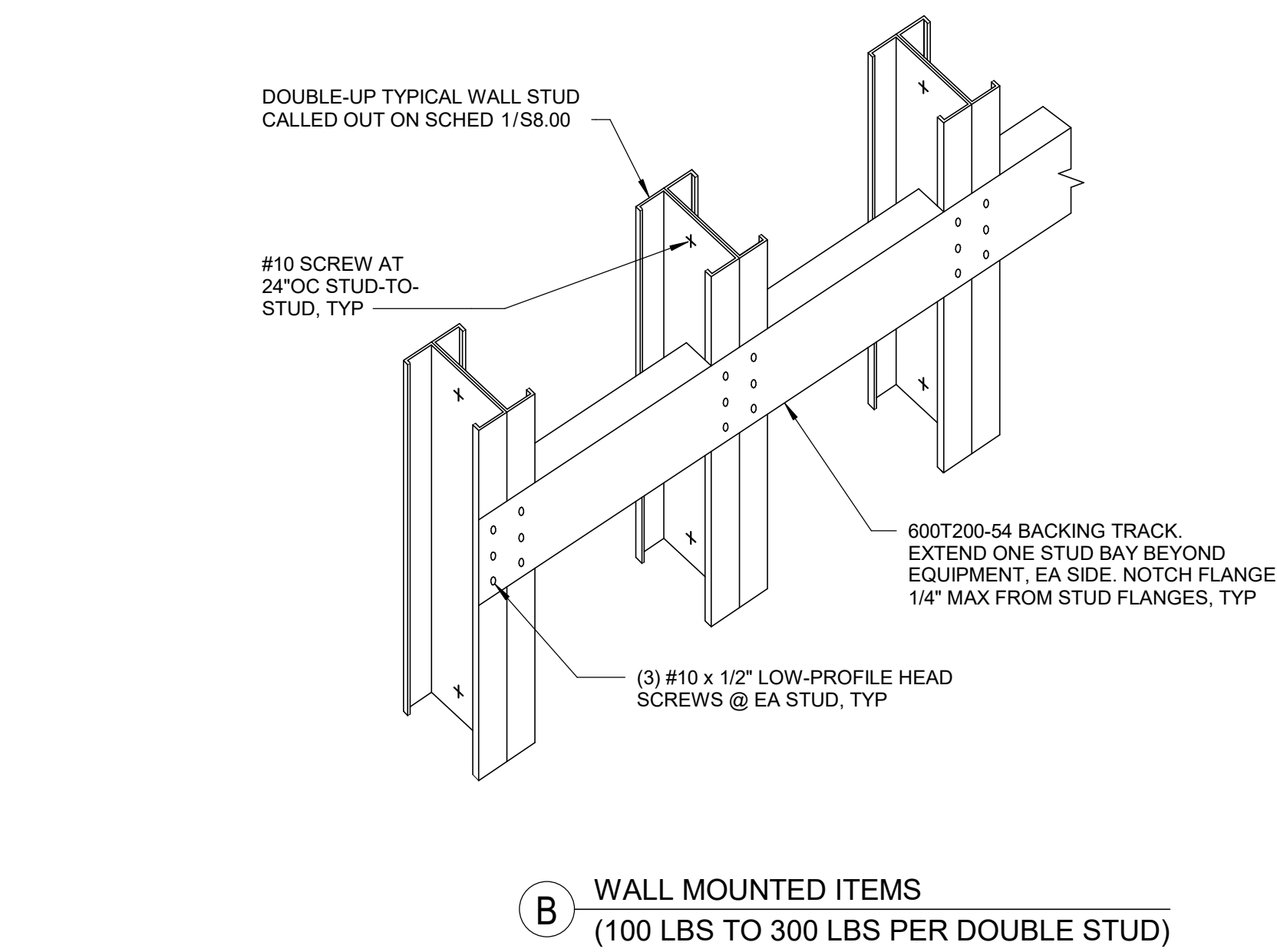
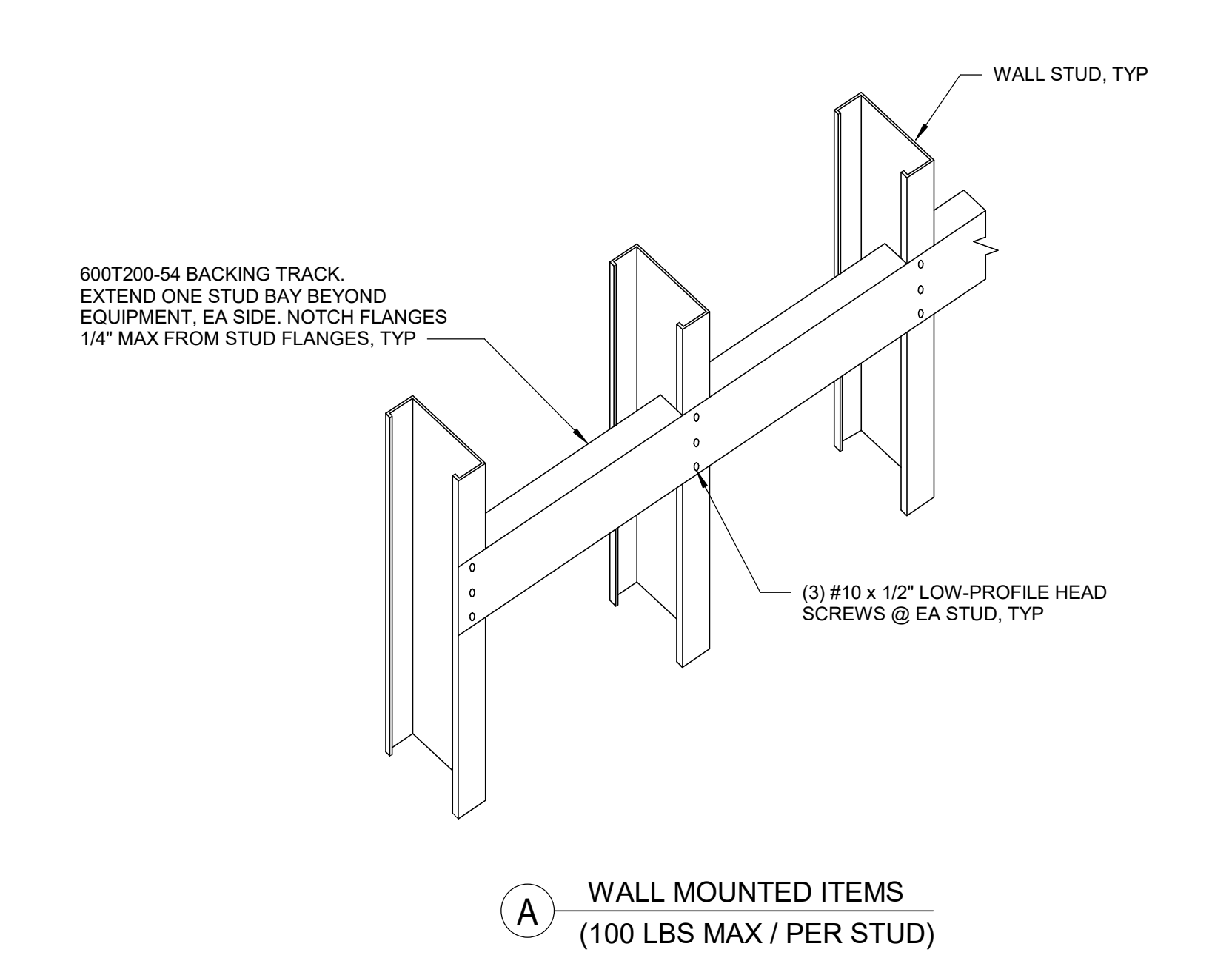
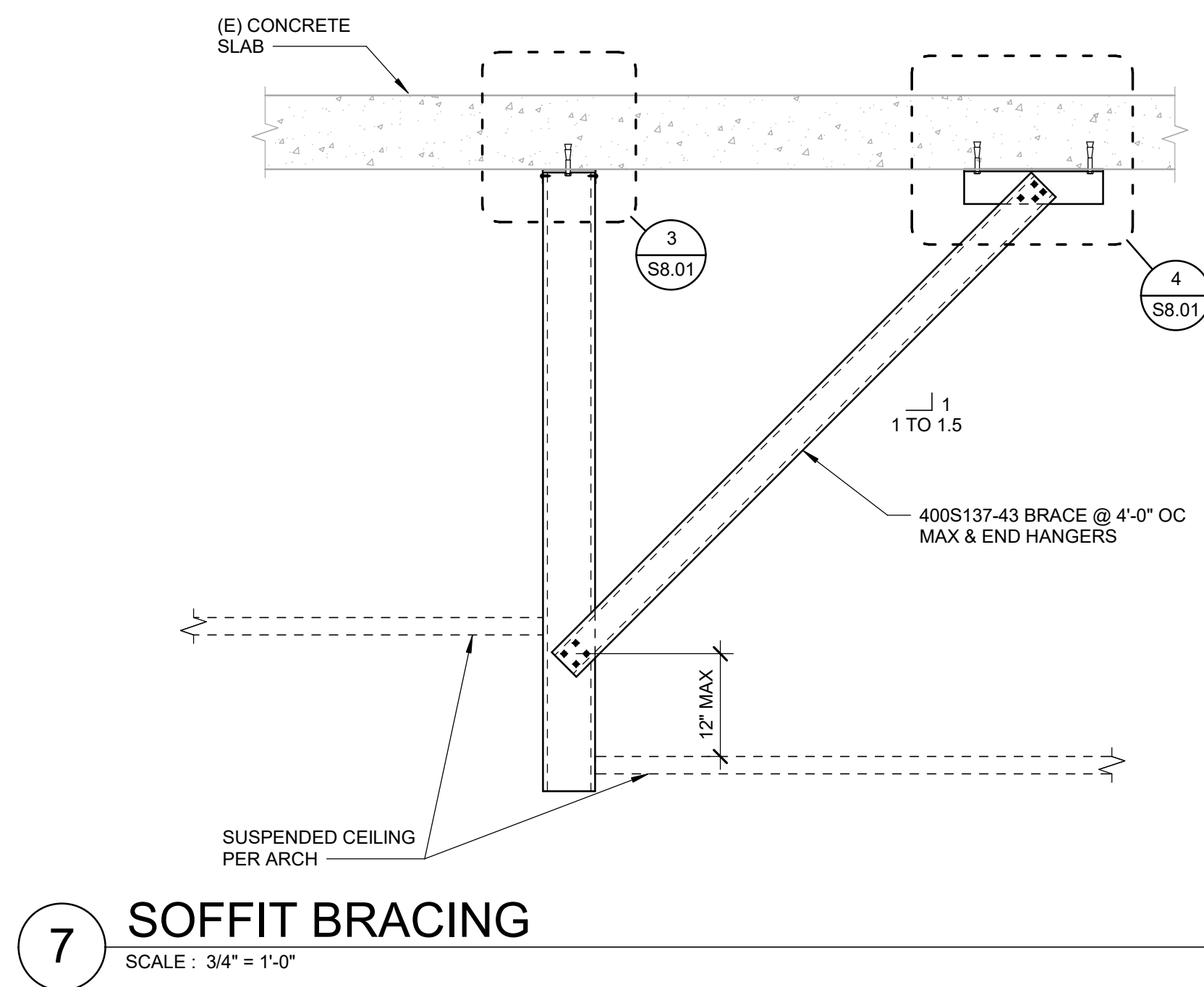
2

SCALE : N.T.S.



3

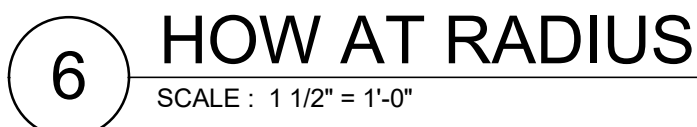
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TM
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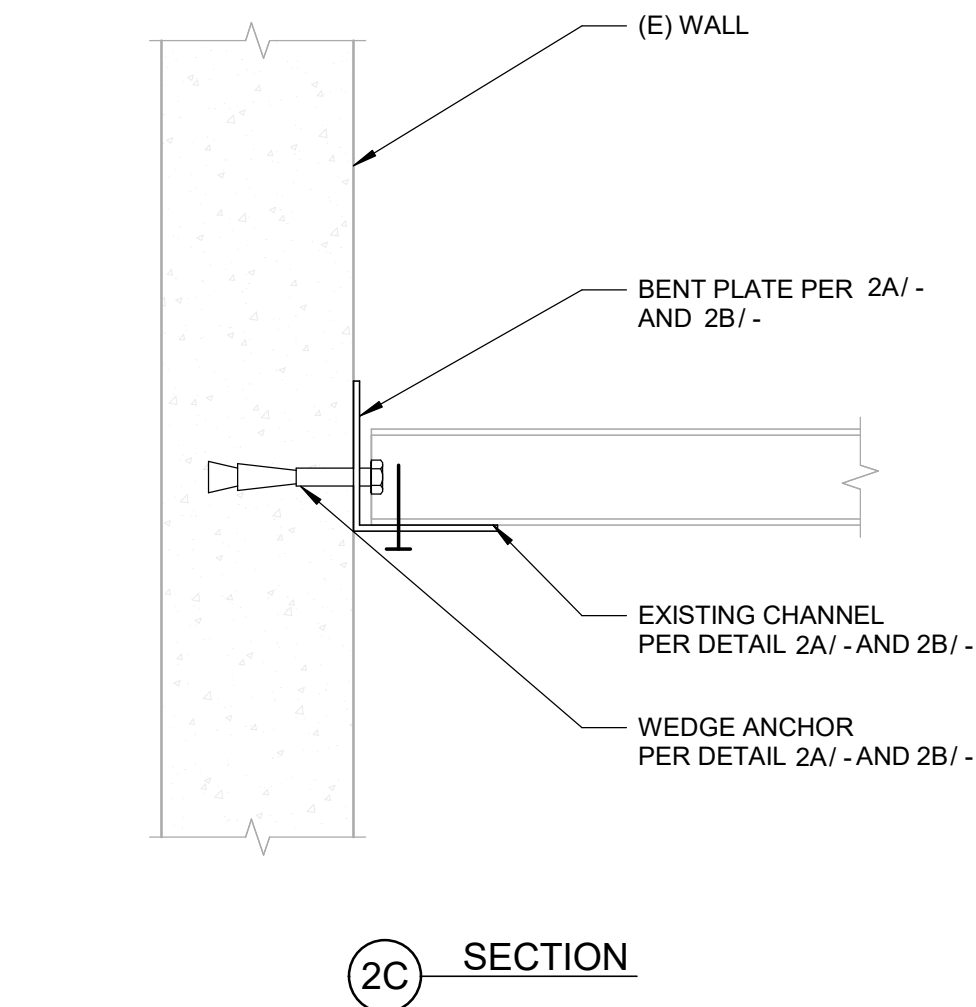
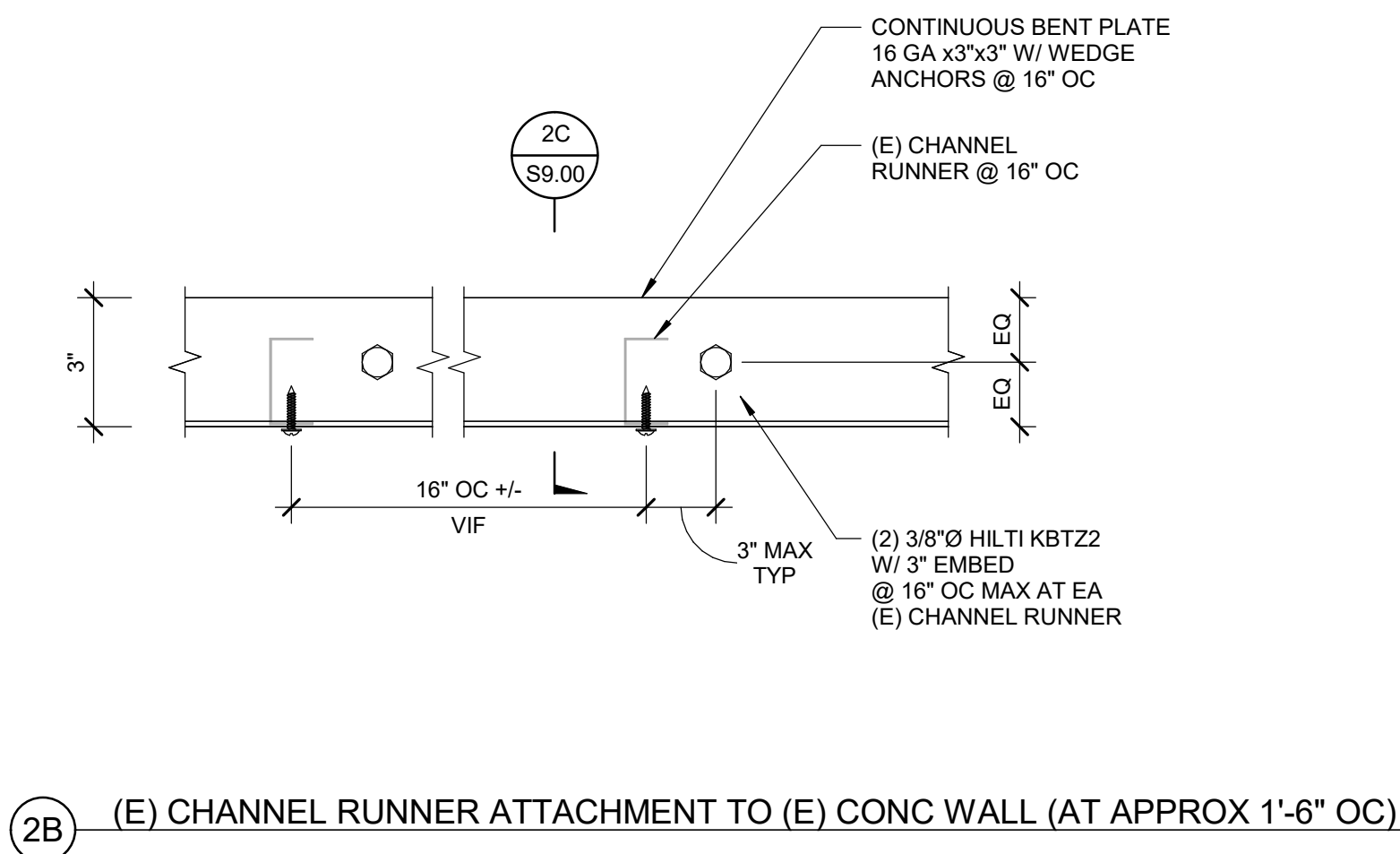
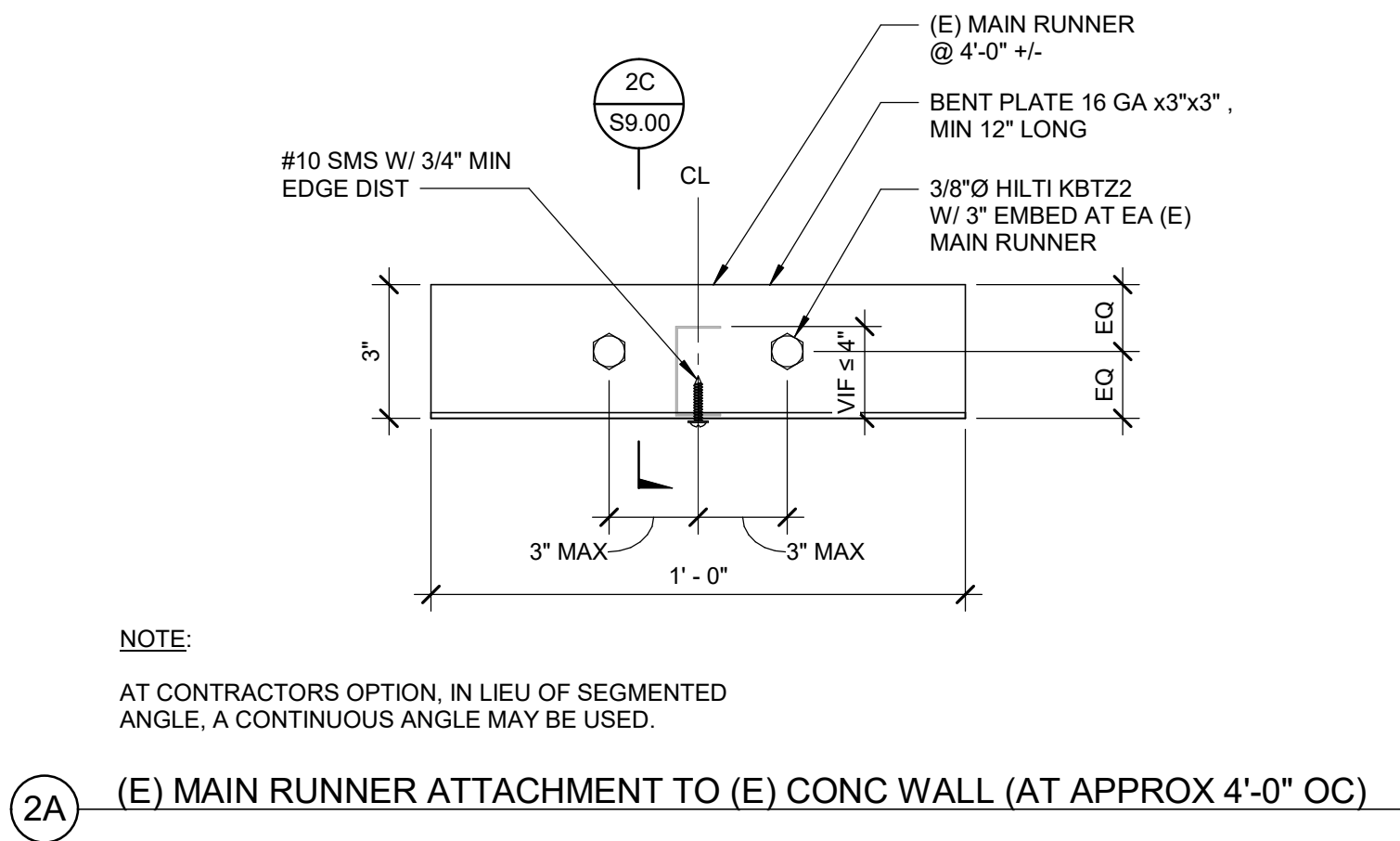
1. CEILING ADJACENT TO STUD WALL TO BE INDEPENDENTLY HUNG AND Laterally BRACED.
2. WALL STUDS ARE DESIGNED FOR A MAXIMUM OUT OF PLANE DEFLECTION OF HEIGHT/240 (UNO).
3. ALL FRAMING MEMBER FLANGE WIDTH, STEEL THICKNESS, AND STEEL STRENGTH ARE SHOWN AS MINIMUM REQUIRED. MEMBER FLANGE WIDTH, STEEL THICKNESS, AND STEEL STRENGTH MAY BE GREATER THAN MINIMUM.
4. (2) 5/8" GYP BOARD LAYERS EACH SIDE MAX FOR TYP WALL STUDS UNO.

INTERIOR NON-LOAD BEARING WALL CFS FRAMING SCHEDULE 16'-6" MAX WALL HEIGHT				
MEMBER	4" DEPTH FRAMING		6" DEPTH FRAMING	
	FRAMING	DETAIL	FRAMING	DETAIL
TYP WALL STUD SIZE & SPACING	400S300-54 @ 16" OC (2) 400S137-43 @ 16" OC	2/S8.01	600S125-54 @ 16" OC	2/S8.01



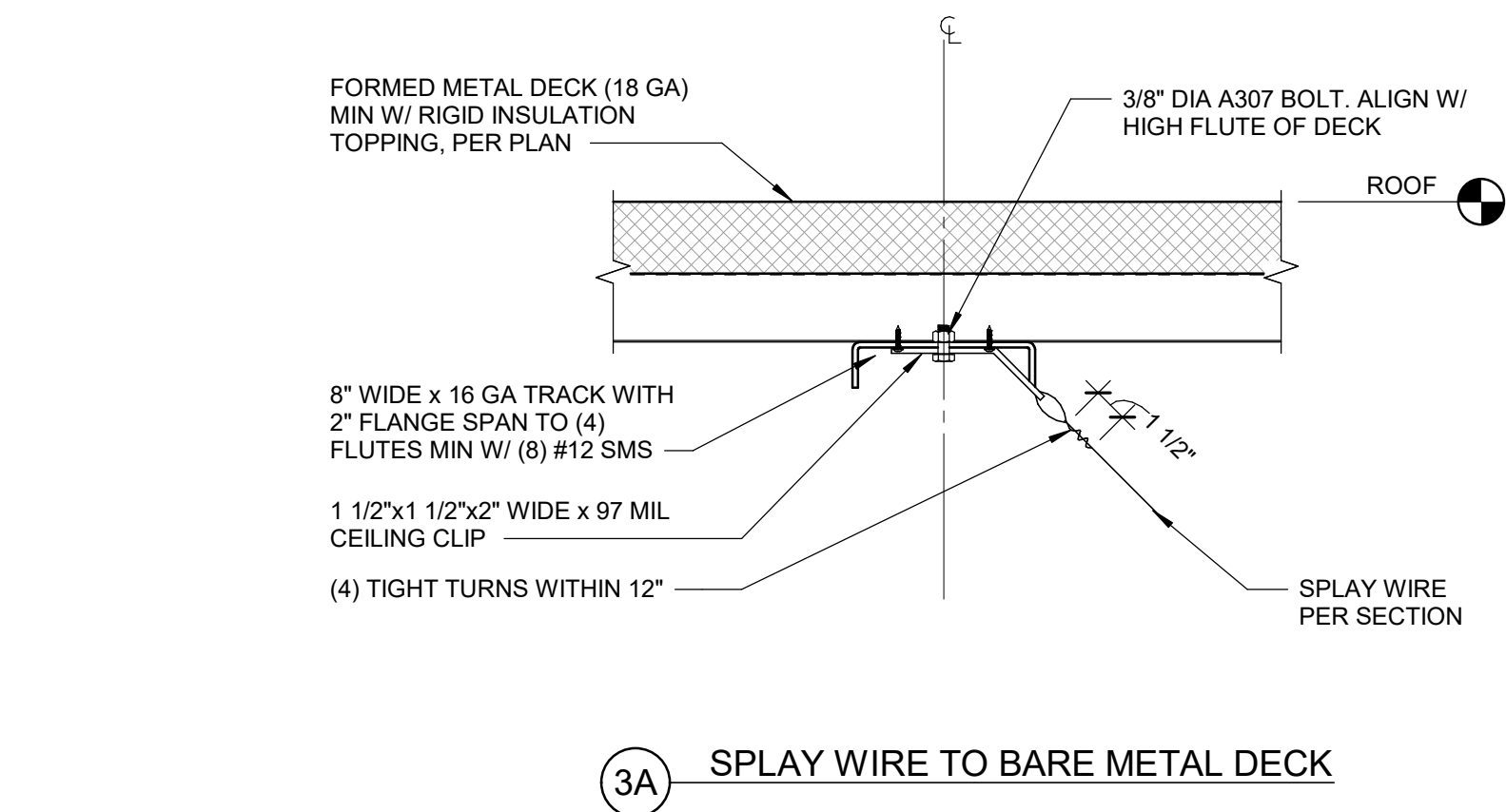


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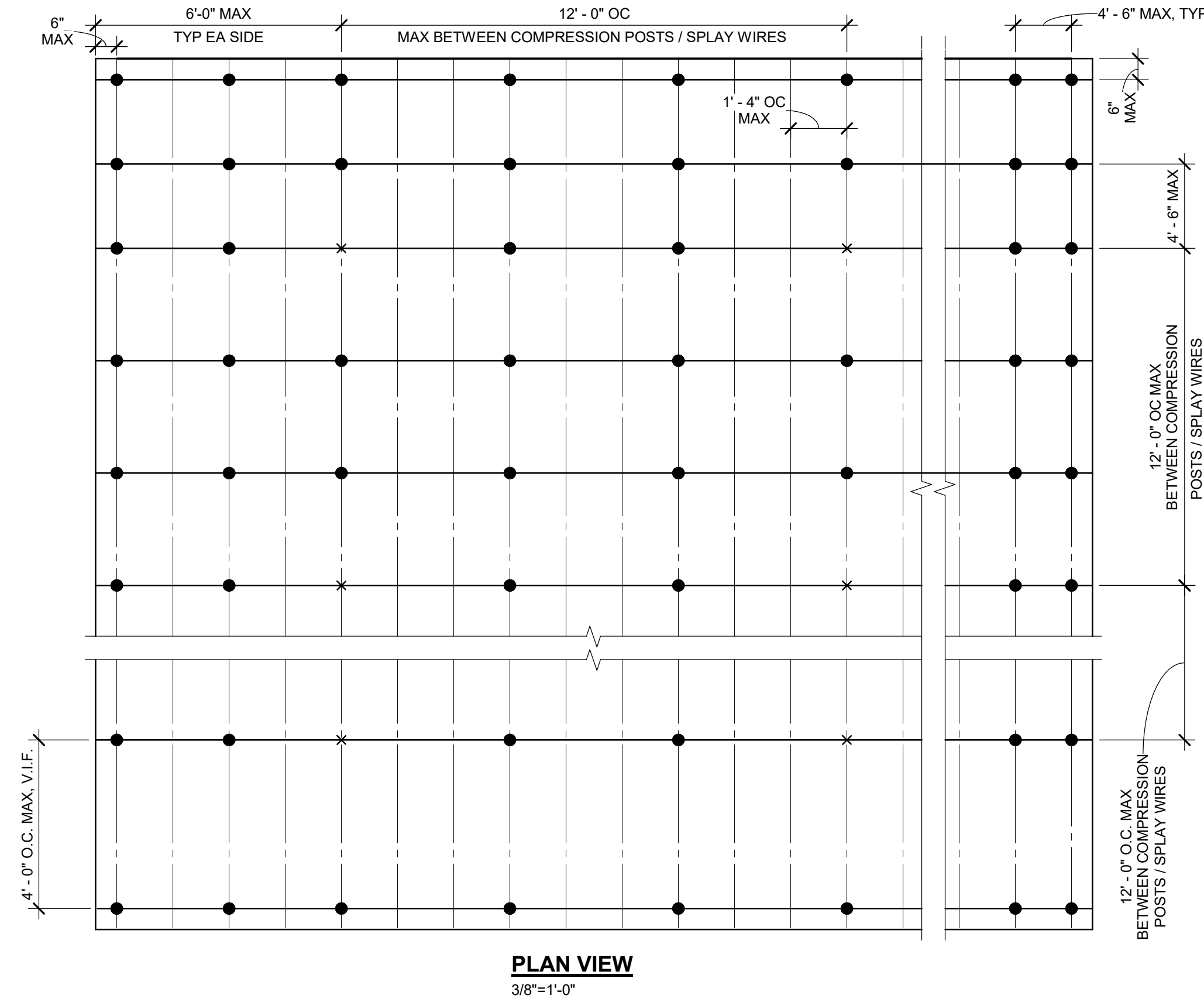
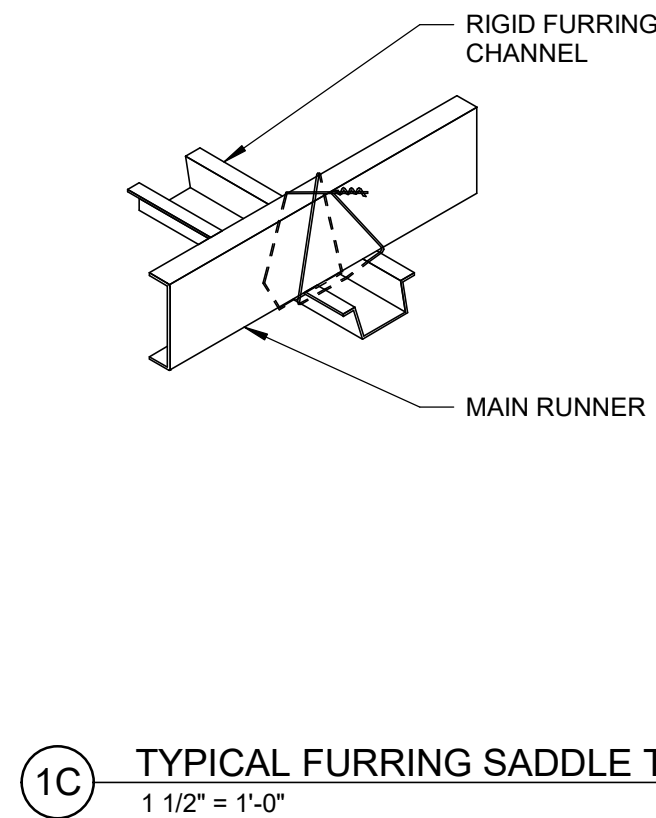
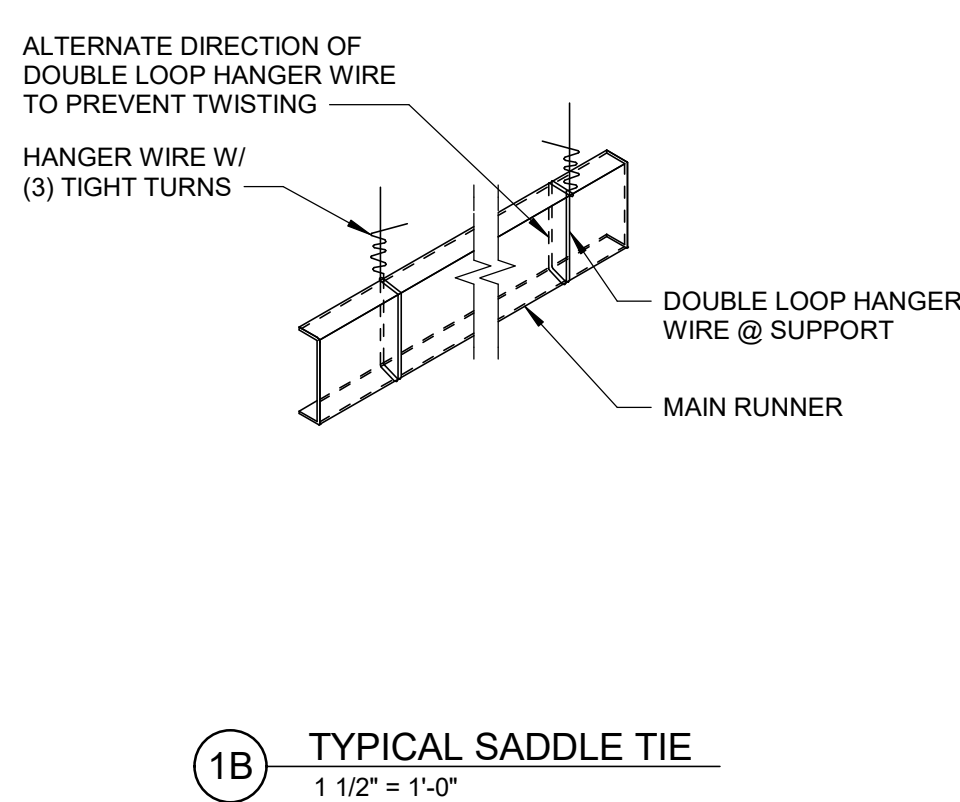
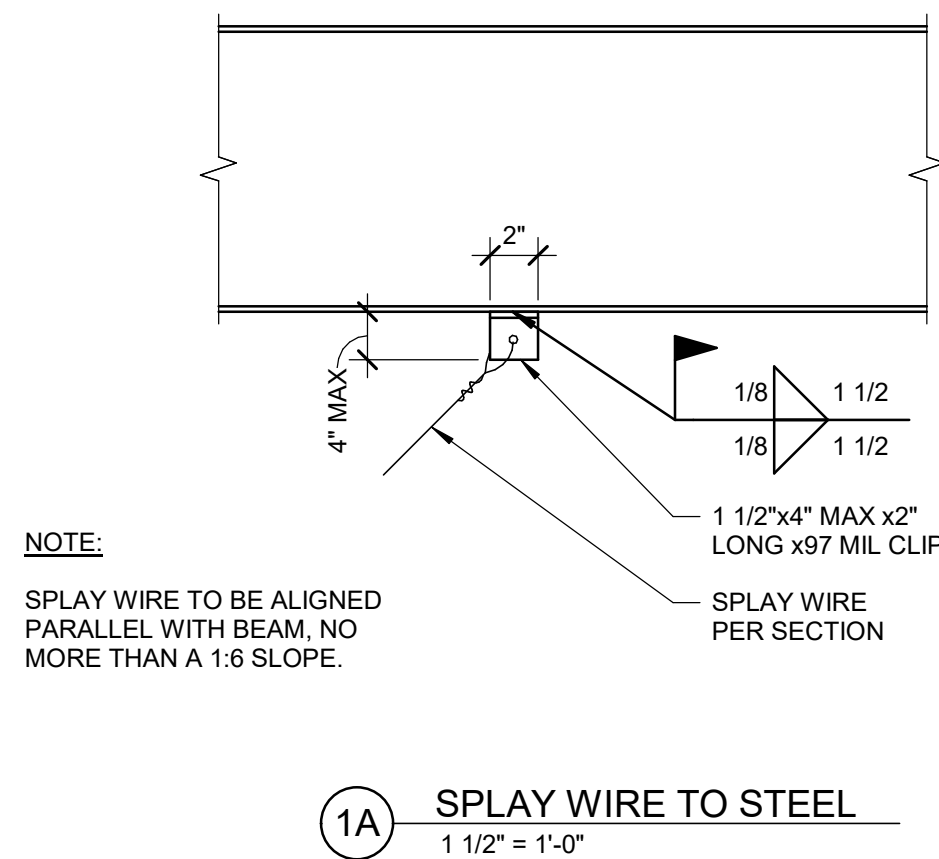
2 EXISTING CEILING STRUCTURE ATTACHMENT TO EXISTING CONCRETE WALL

SCALE : 3" = 1'-0"

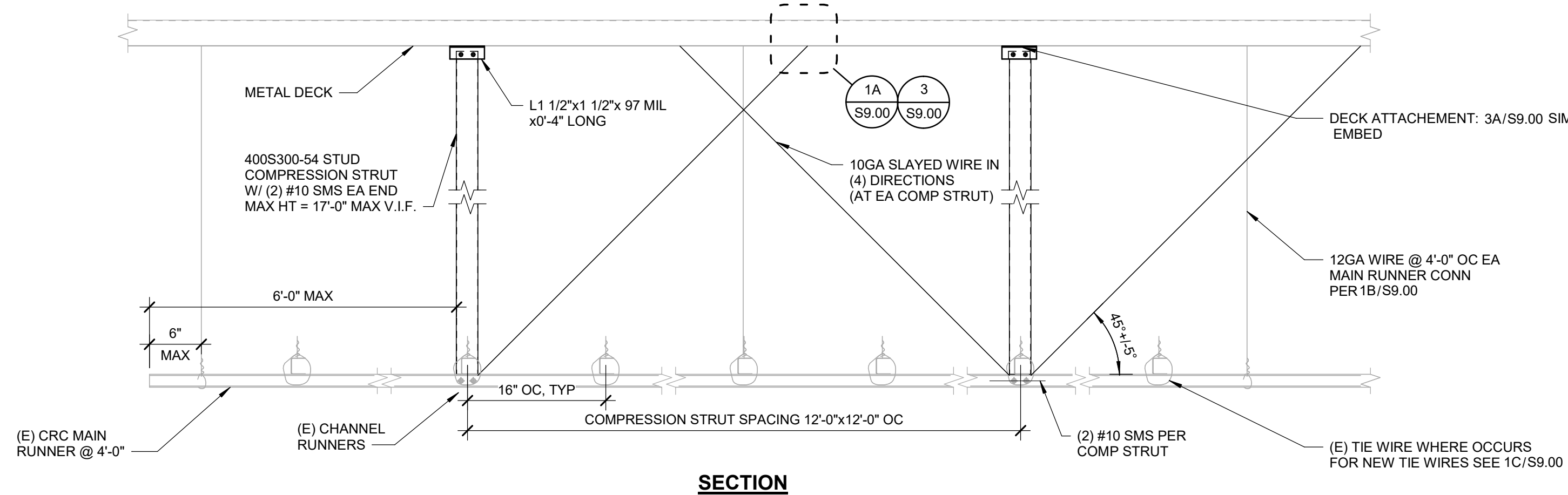


3 ATTACHMENT DETAILS - METAL DECK W/O FILL

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



- NOTES:
- INDICATES (E) DROP VIF.
 - X INDICATES (N) COMP. POST & SPLAYS. COMPRESSION POSTS SHALL NOT REPLACE HANGER WIRE.
 - SUSPENDED CEILINGS ARE NOT TO BE ACCESSIBLE OR HAVE CEILING ACCESS HATCHES.
 - TOTAL CEILING WEIGHT MAY NOT EXCEED (E) CEILING WEIGHT.
 - ALL HANGER WIRES AND/OR BRACES SHALL BE 6" MIN FROM ALL UNBRACED MEP.



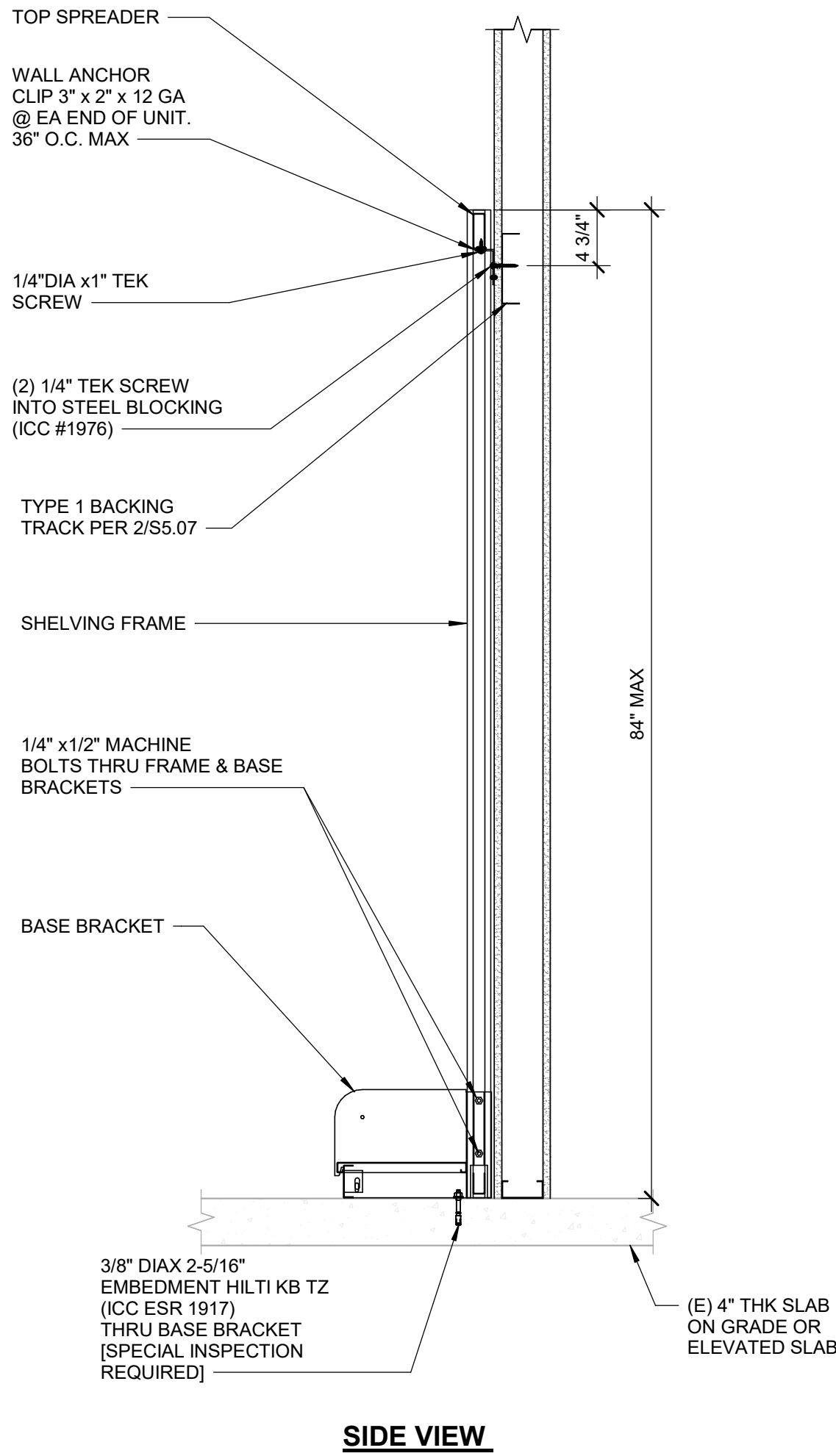
1 TYPICAL SUSPENDED GYPSUM BOARD / WOOD CEILING (CRC AND HAT CHANNEL)

SCALE : 1" = 1'-0"

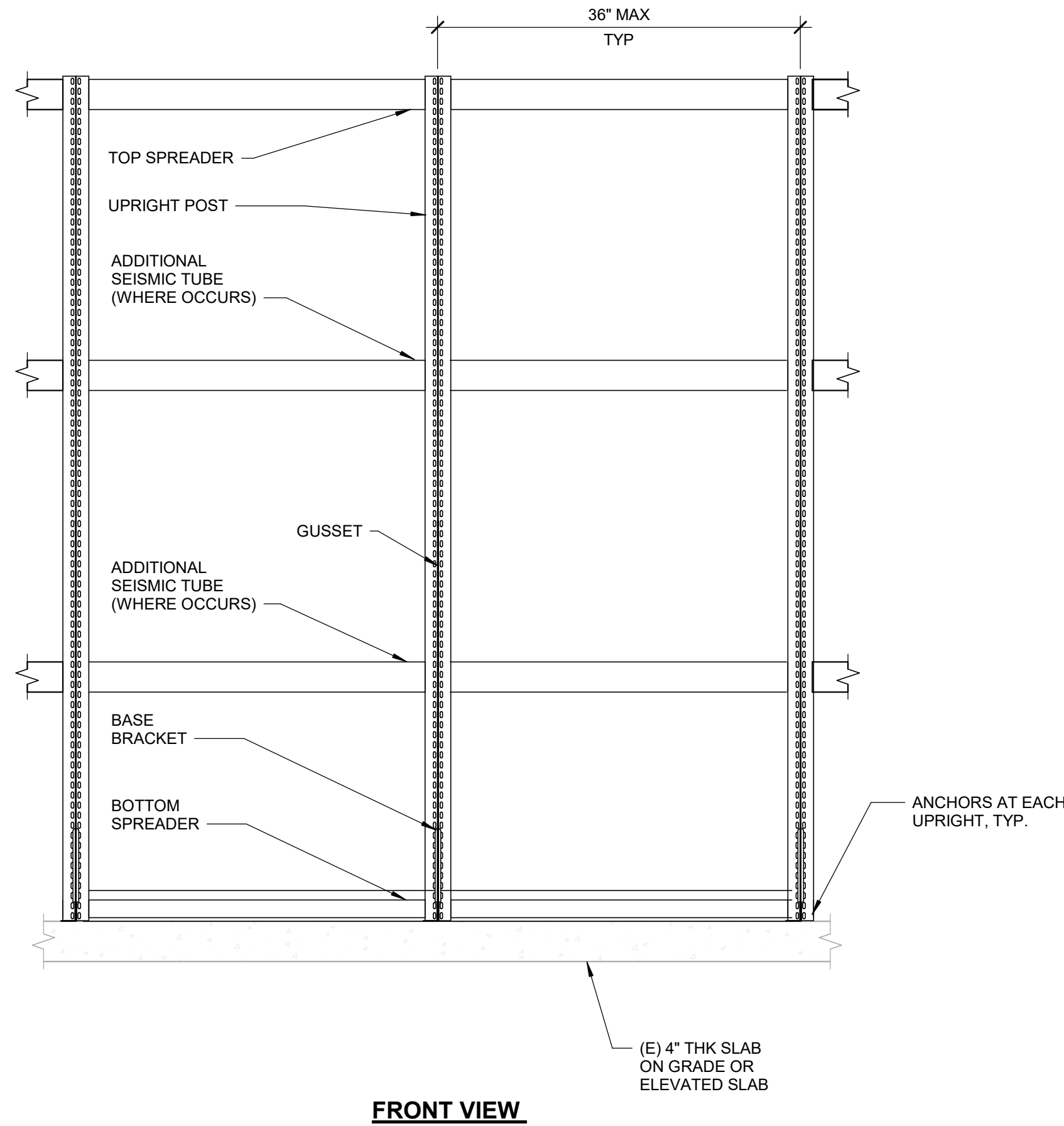


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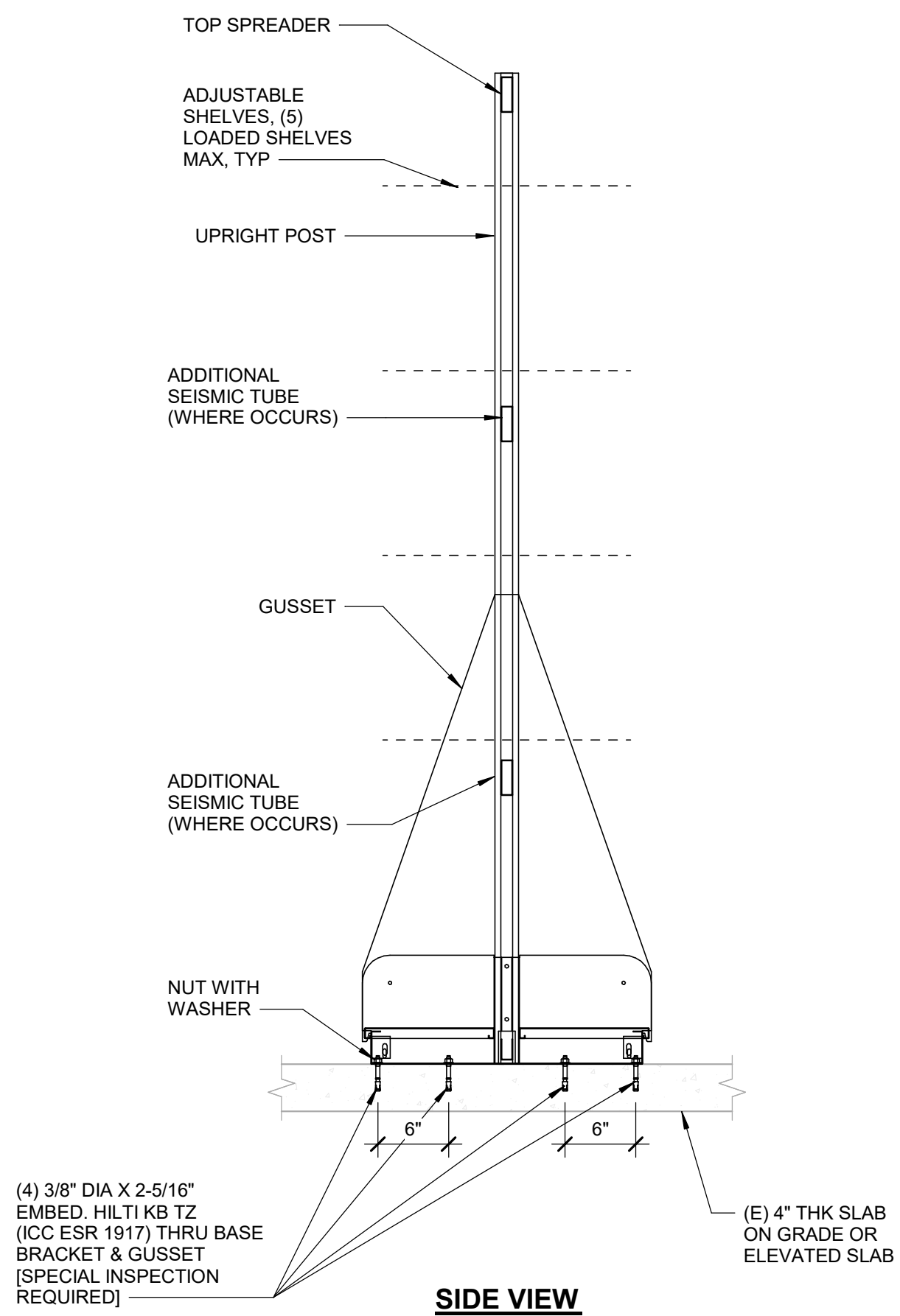
SHELVING
ANCHORAGE
DETAILS



SIDE VIEW



FRONT VIEW



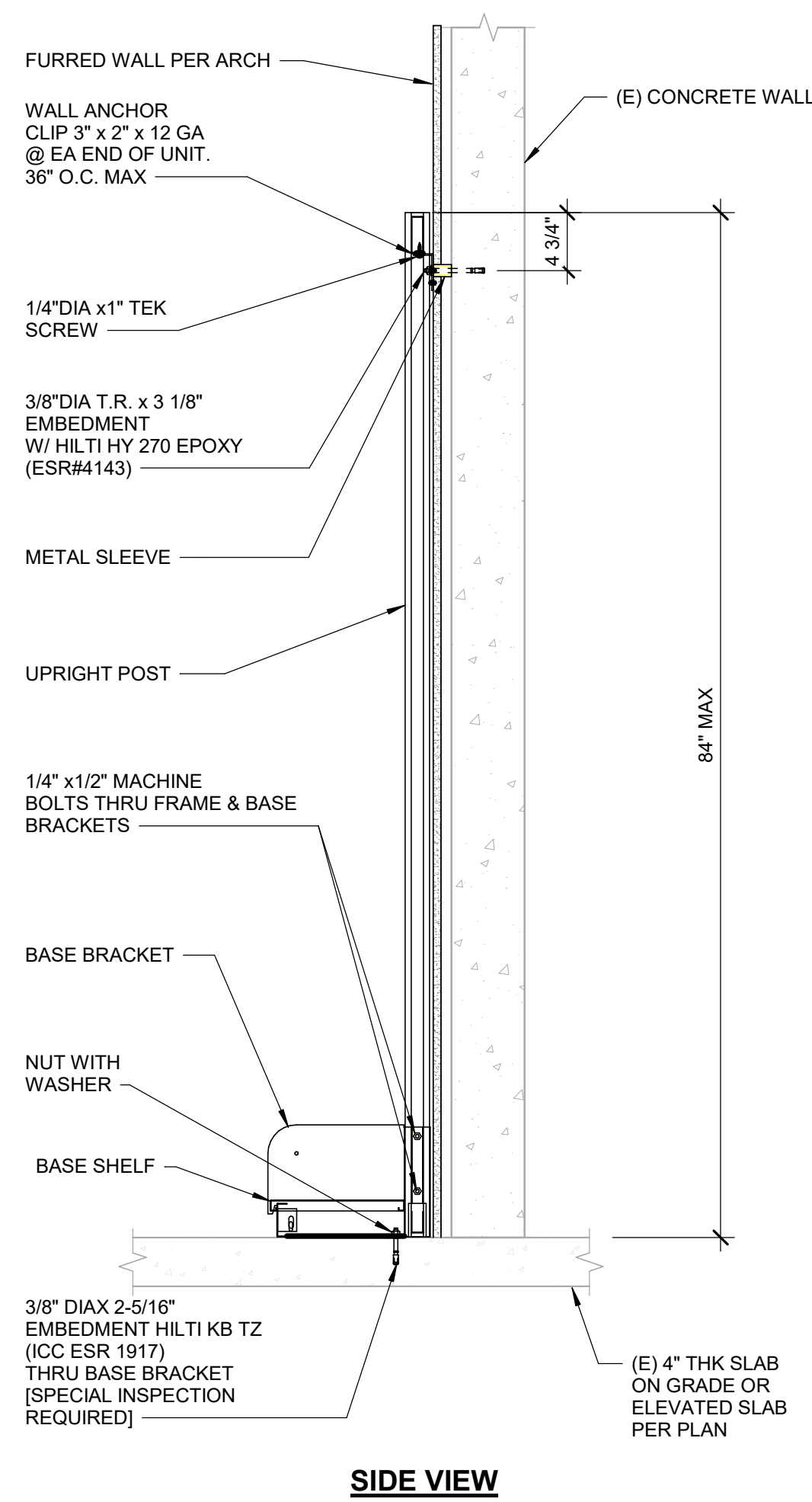
SIDE VIEW

**WALL ANCHOR INSTALLATION
(STEEL BLOCKING OPTION) (69" HIGH
AND HIGHER)**

4 SCALE : 1" = 1'-0"

FLOOR ANCHORING DETAIL (69" HIGH DOUBLE FACE & HIGHER)

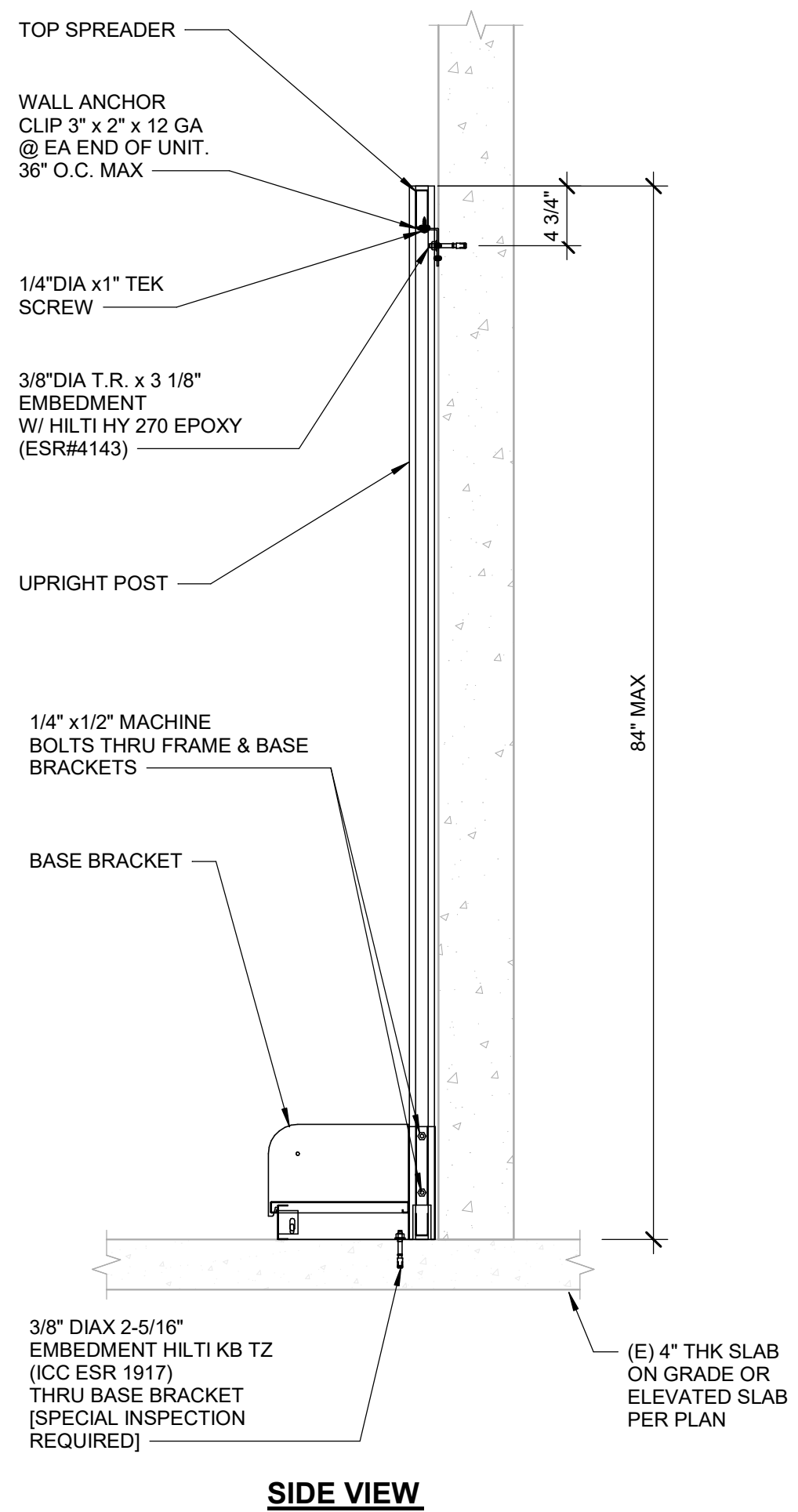
1 SCALE : 1" = 1'-0"



SIDE VIEW

**WALL ANCHOR INSTALLATION AT
FURRED WALL (69" HIGH AND
HIGHER)**

3 SCALE : 1" = 1'-0"



SIDE VIEW

**WALL ANCHOR INSTALLATION @
MASONRY WALL (69" HIGH AND
HIGHER)**

2 SCALE : 1" = 1'-0"

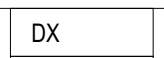
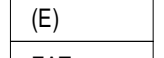
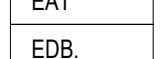
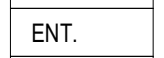
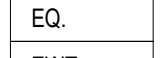
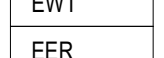
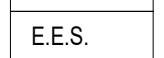
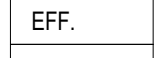
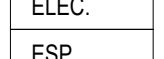

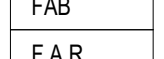

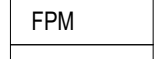
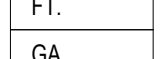
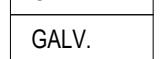
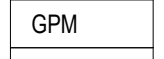
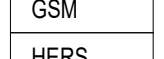
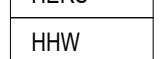
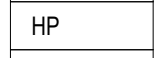
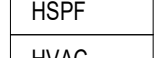
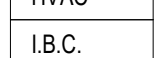
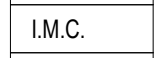
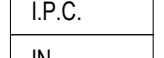
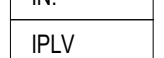

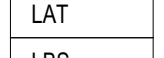
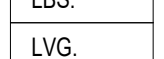


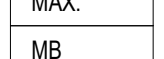
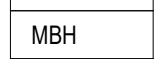
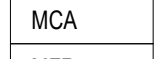
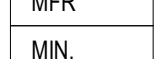
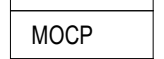
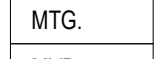
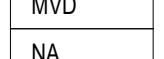

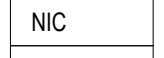
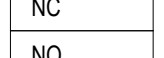
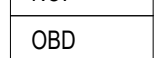
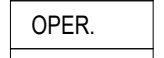
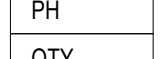
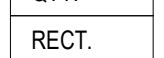
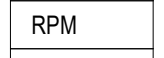
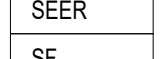
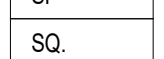
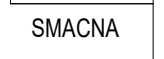
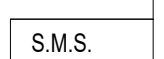
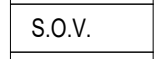
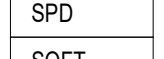
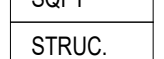
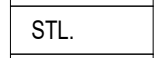
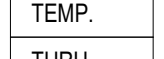
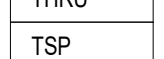
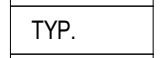
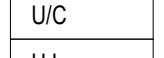
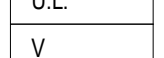
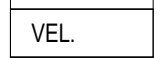
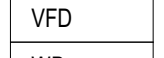
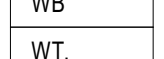


















MANDATORY HVAC SYSTEM MEASURES

- ALL WORK INDICATED ON DRAWINGS AND/OR SPECIFICATIONS SHALL BE COORDINATED WITH WORKS OF OTHER TRADES PRIOR TO START OF WORK.
- ALL HVAC EQUIPMENT LISTED IN SECTION 100(G) OF THE E.E.S. MUST BE C.E.C. CERTIFIED.
- ALL PIPING INSULATION SHALL BE CONSISTENT WITH THE REQUIREMENTS OF C.M.C. SECTIONS 120.1.2 AND TABLE E, AND E.E.S. SECTION 120.3 A.
- ALL DUCTWORK INSULATION SHALL BE CONSISTENT WITH THE REQUIREMENTS OF SECTIONS C.M.C. SECTION 604 TITLE 24 E.E.S. SECTION 150.1-A.
- ALL HVAC EQUIPMENT AND APPLIANCE SHALL MEET THE REQUIREMENTS PER SECTIONS 110.1-110.2, 110.5 AND 120.1-120.7 E.E.S.
- ALL HVAC SYSTEMS SHALL MEET THE CONTROL REQUIREMENTS PER SECTION 110.2 AND 120.2 E.E.S.
- ALL VENTILATION SYSTEMS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE C.M.C.
- THE CONTRACTOR SHALL PROVIDE THE BUILDING OWNER, MANAGER, AND THE ORIGINAL OCCUPANTS A LIST OF THE HEATING, VENTILATION, AND AIR CONDITIONING FEATURES, MATERIALS, AND COMPONENTS INSTALLED IN THE BUILDING AND OPERATING INSTRUCTIONS.
- INSULATION MATERIAL SHALL MEET THE CALIFORNIA QUALITY STANDARD PER SECTION 120.3 AND 120.4 E.E.S.
- ALL SPACE CONDITIONING AND VENTILATION SYSTEMS SHALL BE BALANCED TO THE QUANTITIES SPECIFIED IN THESE PLANS, IN ACCORDANCE WITH THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) PROCEDURAL STANDARDS, OR ASSOCIATED AIR BALANCE COUNCIL (AABC) NATIONAL STANDARDS. TESTING AND BALANCING SHALL BE DONE BY AN INDEPENDENT QUALIFIED AGENCY.
- ALL SYSTEMS SHALL PROVIDE THE MINIMUM OUTSIDE AIR AS SHOWN ON THE MECHANICAL DRAWINGS, AND SHALL BE MEASURED AND CERTIFIED BY AN INDEPENDENT QUALIFIED TESTING AGENCY.
- DUCT INSULATION SHALL HAVE A MINIMUM INSTALLED R-VALUE OF 6.0.
- DURING CONSTRUCTION, ENDS OF DUCT OPENINGS SHALL BE SEALED AND MECHANICAL EQUIPMENT SHALL BE COVERED TO PROTECT INTEGRITY OF SYSTEM CLEANLINESS.
- PRIOR TO FINAL APPROVAL OF THE BUILDING, THE LICENSED CONTRACTOR, ARCHITECT, OR ENGINEER IN RESPONSIBLE CHARGE OF THE OVERALL CONSTRUCTION MUST COMPILE AND SIGN THE GREEN BUILDING STANDARDS CERTIFICATION FORM AND GIVE TO THE BUILDING DEPARTMENT OFFICIAL TO BE FILED WITH THE APPROVED PLANS.
- PROVIDE TEMPORARY MEANS OF BUILDING VENTILATION DURING CONSTRUCTION IN ACCORDANCE WITH CGSBC SECTION 5.504.1.1.
- BUILDING FLUSH-OUT SHALL BE PERFORMED AND MONITORED UPON CONSTRUCTION COMPLETION IN ACCORDANCE WITH CGSBC SECTION 5.504.2.
- ALL ENVELOPE AND MECHANICAL CERTIFICATE OF ACCEPTANCE FORMS AND ALL RELATED ACCEPTANCE DOCUMENTS SHALL BE SUBMITTED TO THE FIELD INSPECTOR DURING CONSTRUCTION. CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL THESE FORMS ARE REVIEWED AND APPROVED.
- FOR PROJECTS OVER 10,000 SQUARE FEET IN FLOOR AREA, UNLESS NOTED OTHERWISE, FUNDAMENTAL BUILDING COMMISSIONING FOR HVAC, LIGHTING AND DOMESTIC HOT WATER SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION SECTION 23.08.00 AND THE CGSBC SECTION 5.410.2.
- THERMOSTATIC CONTROL FOR ALL SINGLE ZONE AIR CONDITIONERS AND HEAT PUMPS SHALL COMPLY WITH THE REQUIREMENTS OF EES SECTION 110.2(C) AND REFERENCE JOINT APPENDIX JAS. THERMOSTAT SHALL BE CAPABLE OF COMMUNICATING THROUGH EITHER (1) AT LEAST ONE EXPANSION PORT WITH A REMOVABLE MODULE TO ENABLE COMMUNICATION, OR (2) ON BOARD COMMUNICATION DEVICE.
- ALL ENVELOPE AND MECHANICAL CERTIFICATE OF ACCEPTANCE FORMS AND ALL RELATED ACCEPTANCE DOCUMENTS SHALL BE SUBMITTED TO THE FIELD INSPECTOR DURING CONSTRUCTION. CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL THESE FORMS ARE REVIEWED AND APPROVED.
- INSULATION MATERIAL SHALL MEET THE CALIFORNIA QUALITY STANDARD PER SECTION 110.8 ENERGY EFFICIENCY STANDARDS (E.E.S.).
- DOORS AND WINDOWS SHALL MEET THE MINIMUM INFILTRATION REQUIREMENTS PER SECTION 110.6 AND 110.7 E.E.S.
- ALL HVAC SYSTEMS SHALL MEET THE CONTROL REQUIREMENTS PER SECTION 110.2 AND 120.1 E.E.S.
- THE AUTOMATIC CARBON MONOXIDE SENSING DEVICES SHALL BE USED TO MODULATE THE VENTILATION SYSTEM TO MAINTAIN A MAXIMUM CONCENTRATION NOT GREATER THAN 200 PARTS PER MILLION FOR A PERIOD NOT EXCEEDING ONE HOUR.
- CONTINUOUS EXHAUST SYSTEMS REQUIRE HERS BLOWER DOOR TESTING TO SHOW NO MORE THAN 0.3 CFM/SQFT. LEAKAGE BASE UPON THE ENVELOPE SURFACE AREA. MECHANICAL PERMIT WILL BE PLACED ON TIER 3 HOLDING. HERS BLOWER DOOR TESTING SHALL BE PERFORMED PRIOR TO REMOVING TIER 3 HOLDING AND FINAL INSPECTION.
- EXHAUST DUCTS SHALL BE EQUIPPED WITH BACK-DRAFT DAMPERS PER SEC. 504.1.1 C.M.C.
- DRYER VENTS SHALL BE EQUIPPED WITH BACK-DRAFT DAMPERS PER SECTION 504.1.1 C.M.C. SCREENS/SLOUVERS SHALL NOT BE INSTALLED AT DRYER VENT TERMINATIONS PER SE. 504.4 C.M.C.
- FLEXIBLE CLOTHES DRYER TRANSITION DUCTS SHALL NOT BE CONCEALED WITHIN CONSTRUCTION (REF. SECTION 504.4.2.2).
- EXHAUST DUCT FOR TYPE 1 DRYERS SHALL COMPLY WITH SECTION 504.4.2 C.M.C.
- AIR CONDITIONING CONDENSERS ARE REQUIRED TO BE LOCATED AT LEAST 5 FEET FROM A CLOTHES DRYER VENT OUTLET, REF. SEC. 150.0(H)3 BEES.
- AT THE TIME OF ROUGH INSTALLATION AND DURING STORAGE ON THE CONSTRUCTION SITE UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEETMETAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST, WATER AND DEBRIS WHICH MAY ENTER THE SYSTEM (CAL GREEN SECTION. 5.504.3).
- IN MECHANICALLY VENTILATED BUILDINGS, REGULARLY OCCUPIED AREAS OF THE BUILDING SHALL BE PROVIDED WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR THAT PROVIDES AT LEAST A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8. MERV 8 FILTERS SHALL BE INSTALLED PRIOR TO OCCUPANCY, AND RECOMMENDATIONS FOR MAINTENANCE WITH FILTERS OF THE SAME VALUE SHALL BE INCLUDED IN THE INCLUDED IN THE OPERATION AND MAINTENANCE MANUAL (CAL GREEN SECTION: 5.504.5.3).
- INSTALLATIONS OF HVAC, REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT SHALL COMPLY WITH SECTIONS 5.508.1.1 AND 5.508.1.2. HVAC, REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT SHALL NOT CONTAIN CHLOROFLOUROCARBONS (CFCs) AND SHALL NOT CONTAIN HALONS (SECTION: 5.508.1).
- INSTALLED FILTERS SHALL BE CLEARLY LABELED BY THE MANUFACTURER INDICATING THE MERV RATING.
- BATHROOM EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT AND DUCTED TO TERMINATE OUTSIDE THE BUILDING.
- UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, BATHROOM EXHAUST FANS MUST BE CONTROLLED BY HUMIDITY CONTROL, WHICH SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF 50 TO 80% (SEC 4.508.2).
- ACCESS TO FIRE AND SMOKE DAMPERS, LARGE ENOUGH TO PERMIT INSPECTION AND MAINTENANCE OF THE DAMPER AND ITS OPERATING PARTS, SHALL BE PROVIDED. THE ACCESS SHALL NOT AFFECT THE INTEGRITY, NOR REDUCE THE FIRE-RESISTANCE RATING OF THE FIRE-RESISTANCE-RATED ASSEMBLIES. ACCESS POINTS SHALL BE PERMANENTLY IDENTIFIED ON THE EXTERIOR BY A LABEL HAVING LETTERS NOT LESS THAN 0.5" IN HEIGHT READING: FIRE/SMOKE DAMPER, SMOKE DAMPER OR FIRE DAMPER. ACCESS DOORS IN DUCTS SHALL BE TIGHT FITTING AND SUITABLE FOR THE REQUIRED DUCT CONSTRUCTION.
- FIRE AND/OR SMOKE DAMPER ASSEMBLIES, INCLUDING SLEEVES, AND INSTALLATION PROCEDURES SHALL BE APPROVED BY THE BUILDING INSPECTOR PRIOR TO INSTALLATION.



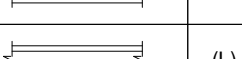



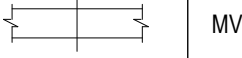
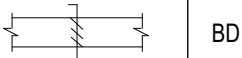
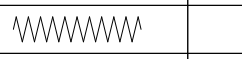
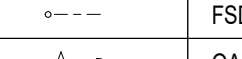

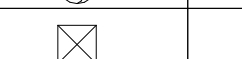
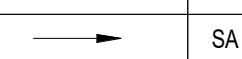
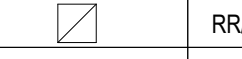
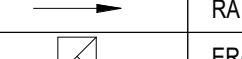
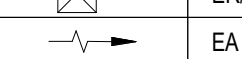



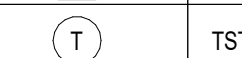
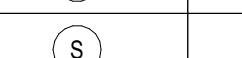
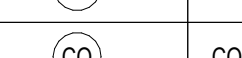
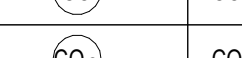
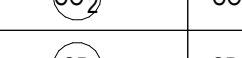
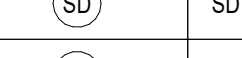
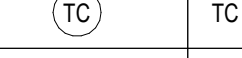



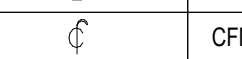


































APPLICABLE CODES

- 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC)
- 2022 CALIFORNIA BUILDING CODE (CBC)
- 2022 CALIFORNIA ELECTRICAL CODE (CEC)
- 2022 CALIFORNIA MECHANICAL CODE (CMC)
- 2022 CALIFORNIA PLUMBING CODE (CPC)
- 2022 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR
- 2022 CALIFORNIA FIRE CODE (CFC)
- 2022 CALIFORNIA EXISTING BUILDING CODE (CEBC)
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CAL Green)
- 2022 CALIFORNIA REFERENCED STANDARDS CODE
- 2023 COUNTY OF LOS ANGELES BUILDING CODE (TITLE 26)
- 2023 COUNTY OF LOS ANGELES ELECTRICAL CODE (TITLE 27)
- 2023 COUNTY OF LOS ANGELES PLUMBING CODE (TITLE 28)
- 2023 COUNTY OF LOS ANGELES MECHANICAL CODE (TITLE 29)
- 2023 COUNTY OF LOS ANGELES GREEN BUILDING STANDARDS CODE (TITLE 31)

LEGEND (CONT.)

SYMBOL	ABBREV.	DESCRIPTION
	DX	DIRECT EXPANSION
	(E)	EXISTING
	EAT	ENTERING AIR TEMPERATURE
	EDB	ENTERING DRY BULB
	ENT	ENTERING
	EQ	EQUAL
	EWT	ENTERING WATER TEMPERATURE
	EER	ENERGY EFFICIENCY RATIO
	E.E.S.	ENERGY EFFICIENCY STANDARDS
	EFF	EFFICIENCY
	ELEC	ELECTRICAL
	ESP	EXTERNAL STATIC PRESSURE (INCHES OF WATER)
	FAB	FABRICATED
	F.A.R.	FREE AREA REQUIRED
	FLA	FULL LOAD AMPS
	FPM	FEET PER MINUTE
	FT	FEET
	GA	GAUGE
	GALV.	GALVANIZED
	GPM	GALLONS PER MINUTE
	GSM	GALVANIZED SHEET METAL
	HERS	HOME ENERGY RATING SYSTEM
	HHW	HEATING HOT WATER
	HP	HORSEPOWER
	HSPF	HEATING SEASONAL PERFORMANCE FACTOR
	HVAC	HEATING, VENTILATION AND AIR CONDITIONING
	I.B.C.	INTERNATIONAL BUILDING CODE
	I.M.C.	INTERNATIONAL MECHANICAL CODE
	I.P.C.	INTERNATIONAL PLUMBING CODE
	IN	INCHES
	IPLV	INTEGRATED PART-LOAD VALUE
	KW	KILOWATT
	LAT	LEAVING AIR TEMPERATURE
	LBS	POUNDS
	LVG	LEAVING
	LWT	LEAVING WATER TEMPERATURE
	MECH	MECHANICAL
	MAX	MAXIMUM
	MB	MACHINE BOLT
	MBH	1000 BTUH
	MCA	MINIMUM CIRCUIT AMPACITY
	MFR	MANUFACTURER
	MIN	MINIMUM
	MOCP	MAXIMUM OVERCURRENT PROTECTION
	MTG	MOUNTING
	MVD	MANUAL VOLUME DAMPER
	NA	NOT APPLICABLE
	N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION
	NIC	NOT IN CONTRACT
	NC	NOISE CRITERIA
	NO	NUMBER
	OBD	OPPOSED BLADE DAMPER
	OPER	OPERATING
	PH	PHASE
	QTY	QUANTITY
	RECT.	RECTANGLE/RECTANGULAR
	RPM	REVOLUTIONS PER MINUTE
	SEER	SEASONAL ENERGY EFFICIENCY RATIO
	SF	SQUARE FEET
	SQ	SQUARE
	SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION
	S.M.S.	SHEET METAL SCREW
	S.O.V.	SHUT-OFF VALVE
	SPD	STATIC PRESSURE DROP
	SQFT	SQUARE FEET
	STRUC	STRUCTURAL
	STL	STEEL
	TEMP	TEMPERATURE
	THRU	THROUGH
	TSP	TOTAL STATIC PRESSURE
	TYP	TYPICAL
	UIC	UNDERCUT DOOR
	U.L.	UNDERWRITER'S LABORATORIES
	V	VOLTAGE/VOLTS
	VEL	VELOCITY
	VFD	VARIABLE FREQUENCY DRIVE
	WB	WET BULB
	WT	WEIGHT

LEGEND

SYMBOL	ABBREV.	DESCRIPTION
		FLEXIBLE CONNECTION, DUCTWORK
	106	DUCT SIZE (1ST NUMBER INDICATES SIDE SHOWN)
	(IL)	INTERNALLY LINED DUCTWORK
	TV	SQUARE ELBOW WITH TURNING VANES
		ROUND ELBOW
	MVD	MANUAL VOLUME DAMPER
	BD	BACKDRAFT DAMPER
		FLEXIBLE DUCTWORK
	FSD	FIRE SMOKE DAMPER
	OA	OUTSIDE AIR
		ROUND DUCT UP
		CEILING SUPPLY AIR DIFFUSER (4-WAY THROW UNLESS NOTED OTHERWISE)
	SA	SUPPLY AIR
	RRRG	RETURN AIR REGISTER/GRILLE
	RA	RETURN AIR
	EREG	EXHAUST AIR REGISTER/GRILLE
	EA	EXHAUST AIR
	AP	CEILING ACCESS PANEL
		RECTANGULAR SUPPLY DUCT UP
		RECTANGULAR RETURN DUCT UP
		RECTANGULAR EXHAUST DUCT UP
	TSTAT	THERMOSTAT
		WALL SWITCH/WALL STAT
	CO	CARBON MONOXIDE SENSOR
	CO 2	CARBON DIOXIDE SENSOR
	SD	DUCT MOUNTED SMOKE DETECTOR INTERLOCK WITH FIRE ALARM. SEE ELECT. DWGS.
	TC	TIME CLOCK (ELECTRONIC PROGRAMMABLE)
	TS	TIMER SWITCH
	POC	POINT OF CONNECTION
	POD	POINT OF DISCONNECT
	CFM	CUBIC FEET PER MINUTE
	ACI	AMERICAN CONCRETE INSTITUTE
	A.D.A.	AMERICANS WITH DISABILITIES ACT
	A.F.F.	ABOVE FINISH FLOOR
	A.G.A.	AMERICAN GAS ASSOCIATION
	AL	ALUMINUM
	AMB	AMBIENT
	APRXX	APPROXIMATE(LY)
	ARCH	ARCHITECT OR ARCHITECTURAL
	ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
	BHP	BRAKE HORSEPOWER
	BLDG	BUILDING
	BTU/H	BRITISH THERMAL UNIT (PER HOUR)
	B.U.R.	BUILT-UP ROOFING
	CAP	CAPACITY
	C.B.C.	CALIFORNIA BUILDING CODE
	C.E.C.	CALIFORNIA ENERGY COMMISSION
	C.M.C.	CALIFORNIA MECHANICAL CODE
	C.P.C.	CALIFORNIA PLUMBING CODE
	CD	CONDENSATE DRAIN
	CGSBC	CALIFORNIA GREEN BUILDING STANDARDS COMMISSION
	CONC	CONCRETE
	COND	CONDITIONS
	CONN	CONNECTIONS
	COORD	COORDINATE
	C.O.P.	COEFFICIENT OF PERFORMANCE
	CORR	CORRIDOR
	CU	COPPER
	CW	COLD WATER
	DB	DRY BULB
	DET	DETAIL
	DIM	DIMENSIONS
	DN	DOWN
	DWG(S)	DRAWING(S)

GENERAL NOTES

- THESE DOCUMENTS MAY NOT BE USED FOR ANY REPRODUCTION, BIDDING, OR CONSTRUCTION UNLESS AUTHORIZED, IN WRITING, BY SALAS O'BRIEN AND THE ENGINEER OF RECORD RESPONSIBLE FOR THEIR PREPARATION.
- ALL BRANCH DUCTS SHALL HAVE BALANCE DAMPERS WITH QUADRANT LOCKS.
- ALL DUCT SIZES SHOWN ARE NET INSIDE DIMENSIONS.
- DUCTWORK SHALL BE GALVANIZED SHEET METAL IN COMPLETE CONFORMANCE WITH C.M.C. AND SMACNA HVAC DUCT CONSTRUCTION STANDARDS. FLEXIBLE DUCTS MAY BE USED TO CONNECT INTO AIR OUTLETS AND INLETS. MAXIMUM LENGTH OF FLEXIBLE DUCTWORK SHALL BE 5'-0". DUCTWORK ON ROOF SHALL BE INTERNALLY LINED AND PAINTED. ALL JOINTS AND SEAMS SHALL BE WEATHERPROOF. ALL BRACING OF DUCTS AND PIPING SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA GUIDELINES. DUCTS SERVING TYPE 1 KITCHEN HOODS SHALL BE CONSTRUCTED OF MINIMUM 16 GAUGE CARBON STEEL OR MINIMUM 18 GAUGE STAINLESS STEEL WITH FULLY WELDED JOINTS. DISHWASHER EXHAUST SHALL BE MINIMUM 18 GAUGE STAINLESS STEEL.
- ALL FLEXIBLE DUCTS SHALL BE INSULATED. MINIMUM BEND RADIUS SHALL BE TWICE THE DUCT DIAMETER.
- SUPPLY AND RETURN DROPS SHALL BE LINED SHEET METAL PLENUMS.
- DUCT AND PLENUM INSULATION SHALL BE IN ACCORDANCE WITH THE 2022 CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 1, ENERGY EFFICIENCY STANDARDS, TABLE 150.1-4 AND THE LATEST EDITION OF THE CALIFORNIA MECHANICAL CODE (C.M.C.) SECTION 604.0.
- ALL SHEET METAL DUCTS SHALL BE INSULATED BY MEANS OF FOIL WRAP, 3/4 LB. DENSITY FIBERGLASS INSULATION. INSULATION SHALL BE UL LISTED. DUCT LINERS SHALL BE NON-FIBERGLASS TYPE WITH THICKNESS AS REQUIRED TO MEET T-24 REQUIREMENTS.
- THERMOSTATS SHALL BE LOCATED AT 4" - 0" ABOVE FINISHED FLOOR (46" MAX. IF MOUNTED OVER CASEWORK OR OTHER OBSTRUCTION) IN ACCORDANCE WITH A.D.A. REQUIREMENTS, UNLESS NOTED OTHERWISE.
- CONDENSATE DRAIN PIPING SHALL BE COPPER TYPE "L", AND SHALL BE ROUTED TO AN APPROVED RECEPTOR.
- PROVIDE FLEXIBLE CONNECTIONS AT THE INLET AND OUTLET OF ALL FANS.
- COORDINATE FINAL LOCATIONS OF AIR DISTRIBUTION DEVICES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS, I.E. LIGHTS, SPEAKERS, TILES AND SPRINKLER HEADS.
- ALL SUPPLY CEILING DIFFUSERS SHALL HAVE 4-WAY AIR FLOW DISTRIBUTION PATTERNS, UNLESS INDICATED OTHERWISE.
- COORDINATE FINAL LOCATIONS OF THERMOSTATS WITH ARCHITECT AND OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. FIELD COORDINATE LOCATIONS WITH OTHER TRADES INCLUDING ELECTRICAL, TELEPHONE, ETC.
- FIRE/SMOKE DAMPERS SHALL BE INSTALLED ON ALL DUCTWORK PASSING THROUGH FIRE SEPARATING WALLS, AND SHALL BE INSTALLED AS PER 2022 CMC SECTION 605.0, 2022 CBC SECTION 717, AND U.L., LOCAL, STATE, AND N.F.P.A. FIRE CODES.
- ALL ROOF PENETRATIONS, CUTTING, PATCHING, BLOCKOUTS, STRUCTURAL SUPPORT, ROOF OPENINGS, LEVELING OF PRE-FAB CURBS SHALL BE BY GENERAL CONTRACTOR. CONTRACTOR SHALL VERIFY EXACT ROOF OPENING SIZES WITH UNIT MANUFACTURER PRIOR TO START OF WORK AND SHALL MAKE ALL NECESSARY ADJUSTMENTS AT NO EXTRA COST TO OWNER.
- LOCATION OF ALL MECHANICAL EQUIPMENT SHOWN ARE SCHEMATIC. CONTRACTOR SHALL FIELD COORDINATE EXACT LOCATIONS AND REQUIRED SERVICE/MAINTENANCE CLEARANCES PRIOR TO START OF WORK.
- CONTRACTOR SHALL VERIFY WEIGHTS OF ALL MECHANICAL EQUIPMENT WITH

MECHANICAL DUCTWORK AND PIPE INSULATION SCHEDULE						
ITEMS	SYSTEM	LOCATION	INSULATION		FIELD APPLIED JACKET	REMARKS
			MATERIAL	THICKNESS		
DUCTWORK: LN - LINER; DW - DUCTWRAP; DB - DUCTBOARD						
SUPPLY AIR DUCT	ALL	INDOOR	LN	1"	-	
SUPPLY AIR DUCT	ALL	INDOOR	DW	2"	-	
RETURN AIR DUCT	ALL	INDOOR	LN	1"	-	
RETURN AIR DUCT	ALL	INDOOR	DW	2"	-	
GENERAL EXHAUST DUCT (NO ENERGY TO BE RECOVERED FROM AIR STREAM)	ALL	INDOOR/OUTDOOR	-	-	-	
TRANSFER DUCT	ALL	INDOOR	LN	1"	-	
PIPES: PPI - PREFORMED PIPE INSULATION; BKT - BLANKET INSULATION						
AC CONDENSATE	ALL	INDOOR	PPI	1"	-	
NOTES:						
1. REFER TO PROJECT SPECIFICATION AND/OR SPECIFICATION NOTES ON DRAWINGS FOR PRODUCT MATERIAL INFORMATION, AND INSTALLATION REQUIREMENTS.						
2. NO INSULATION REQUIRED FOR EXPOSED DUCTS WITHIN THE SPACES THEY ARE SERVING.						
3. REFER TO BASE BUILDING DRAWINGS AND MATCH.						

SINGLE ZONE SPLIT SYSTEM SCHEDULE																											
EQUIPMENT NUMBER	AREA SERVED	TOTAL CFM	ESP IN	INDOOR UNIT (HIGH WALL)								OUTDOOR UNIT															NOTES
				MECHANICAL COOLING				HEATING				CARRIER MODEL NUMBER	UNIT NUMBER	NOMINAL TONNAGE	REFRIGERANT TYPE	COOLING		HEATING		MCA	MOCP	V	PH	HITACHI MODEL NUMBER	WEIGHT		
				EAT °F DB	TOTAL CAPACITY MBH	SEER2	EAT °F DB	TOTAL CAPACITY MBH	HSPF 2	SOUND dBA									AMBIENT °F DB							AMBIENT °F DB	
FC-1	MCR	706	--	80	24	22.7	70	27	10.3	41	RAV-SM242KRTP-JUL	CU-1	2.0	R410A	95	43	17	25	208	1	RAV-SP-242AT2P-JUL	152	1-9				
NOTES: 1. PROVIDE REFRIGERANT PIPING AND INSULATION INCLUDING FULL REFRIGERANT CHARGE. SIZES SHALL BE BASED ON FINAL DEVELOPED LENGTH AND MR'S REQUIREMENTS. PROVIDE ALL REFRIGERANT PIPING ACCESSORIES PER MFR'S RECOMMENDATION. VERIFY SIZING WITH MFR. 2. PROVIDE WITH NON-CFC REFRIGERANT BASED SYSTEM 3. PROVIDE FAN COIL WITH POLYCARBONATE DRAIN PAN AND CONDENSATE DRAIN OVERFLOW CUTOUT SWITCH. INTERLOCK CUTOUT SWITCH AUTOMATICALLY SHUT-DOWN FAN COIL IN THE EVENT OF OVERFLOW. 4. PROVIDE UL 900 (CLASS 1 OR 2) MERV-13 DISPOSABLE PLEATED FILTERS. 5. PROVIDE WITH PROGRAMMABLE THERMOSTAT 6. PROVIDE DISCONNECT SWITCH 7. PROVIDE ALL CONTORL WIRING INSIDE CONDUIT AND ALL OTHER ACCESSORIES REQUIRED MY MFR FOR PROPER OPERATION. 8. PROVIDE WITH ACCESSORY CONDENSATE PUMP, POWERED SEPARATELY "CP-FC-1" LOCATED WITH UNIT. "TATTOO16-120V" OR SIMILAR 2.8 GAL/HR RATED AT 10' HEAD, 120V, 1PH, 1 AMP. 9. INDOOR UNIT POWERED BY OUTDOOR UNIT.																											

EXHAUST FAN SCHEDULE											
EQUIPMENT NUMBER	AREA SERVED	TYPE	CFM	EXT. SP IN-WG	dBA	DRIVE	MOTOR DATA			GREENHECK MODEL NUMBER	NOTES
							FLA / MOCP	V	PH		
EF-1	STORAGE 114	CEILING MOUNTED CENTRIFUGAL	70	0.2	20	DIRECT	0.2 / 15	115	1	CSP-A110	1,2,3,4,5
EF-2	MENS TR 112	CEILING MOUNTED CENTRIFUGAL	280	0.3	32	DIRECT	1.9 / 15	115	1	CSP-A380	1,2,3,4,5
EF-3	WOMENS TR 111	CEILING MOUNTED CENTRIFUGAL	280	0.3	32	DIRECT	1.9 / 15	115	1	CSP-A380	1,2,3,4,5
EF-5	STAFF TR 119	CEILING MOUNTED CENTRIFUGAL	70	0.2	20	DIRECT	0.2 / 15	115	1	CSP-A110	1,2,3,4,5
EF-6	STAFF TR 116	CEILING MOUNTED CENTRIFUGAL	70	0.2	20	DIRECT	0.2 / 15	115	1	CSP-A110	1,2,3,4,5
EF-7	JC 117	CEILING MOUNTED CENTRIFUGAL	70	0.2	20	DIRECT	0.2 / 15	115	1	CSP-A110	1,2,3,4,5
EF-8	LEVEL 2 AND 3 STAFF TR'S	IN LINE	300	0.7	58	DIRECT	3.8 / 15	115	1	SQ-98-VG	1,2,3,5
NOTES:											
1. PROVIDE WITH INTEGRAL BACKDRAFT DAMPER.											
2. PROVIDE ALL MOUNTING HARDWARE INCLUDING SEISMIC BRACING.											
3. PROVIDE DECORATIVE WHITE STANDRD MANUFACTURERS CEILING GRILLE.											
4. FAN TO RUN CONTINUOUSLY.											
5.. COORDINATE PENETRATIONS IN ROOF AND/OR WALL WITH ARCHITECT AND STRUCTURAL ENGINEER.											

AIR DISTRIBUTION DEVICE SCHEDULE						
TAG	SERVICE	TYPE	AIR PATTERN	MATERIAL	PRICE MODEL NUMBER	NOTES
CS-1	SUPPLY	ROUND CONAL DIFFUSER, DUCT MOUNT	4-WAY	STEEL	RCD	1,4
EG-1	EXHAUST	45 DEGREE DEFLECTION HORIZONTAL BARS, SURFACE MOUNT	1-WAY	ALUMINUM	620L	1,4
LR-1	RETURN	(2x) 1" SLOT LINEAR GRILLE LAY-IN FRAME	1-WAY	STEEL	SDS	1,4,5
LS-2	SUPPLY	(1x) 1-1/2" SLOT LINEAR GRILLE LAY-IN WITH 72" INSULATED PLENUM	2-WAY	STEEL	SDS / SDBI	1,3,4,5
R-1	RETURN	EGG CRATE LAY-IN 24/24 RETURN GRILLE	1-WAY	STEEL	80	1,2,4
S-1	SUPPLY	8" INLET 24/24 PLAQUE LAY-IN DIFFUSER	4- WAY	STEEL	SPD	1,4
S-2	SUPPLY	12" INLET 24/24/ PLAQUE LAY-IN DIFFUER	4- WAY	STEEL	SPD	1,4
NOTES: 1. COLOR TO BE WHITE UNLESS OTHERWISE NOTED. 2. PROVIDE 90 DEGREE LINED RIGID ELBOW ON ALL PLENUM RETURN GRILLES IN ENCLOSED ROOMS FOR SOUND ATTENUATION. 3. PROVIDE FIXED 2-WAY PATTERN CONTROLLERS. 4. COORDINATE WITH ARCHITECT CEILING AND LIGHTING PLAN. 5. ALL LINEAR SUPPLY SLOTS TO APPEAR CONTINUOUS WITH DISCRETE ACTIVE PORTIONS. PASSIVE GRILLES TO BE ADDED TO MAINTAIN CONTINUOUS FINISH LOOK.						

REVISIONS

CONSTRUCTION DOCUMENTS



Salas O'Brien
www.sob.com
Irvine
8225 Research Drive
Irvine, CA 92618
Project No.: 2023-0101-00



LOS ANGELES COUNTY PUBLIC WORKS
HUNTINGTON PARK LIBRARY
6518 MILES AVE
HUNTINGTON PARK, CA 92255



NAC NO 161-23025
DRAWN LB/CS
CHECKED SP
DATE 2/28/2025

MECHANICAL
SCHEDULES

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Project Name: Huntington Park Library Renovation
Report Page: (Page 10 of 12)
Date Prepared: 2024-10-16T20:36:46-04:00

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-4
Form/Title
NRC-MCH-01-E - Must be submitted for all buildings

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-4
Form/Title
NRC-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION
There are no NRCV forms required for this project.

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Report Version: 2022.0.000
Schema Version: rev 20220101
Compliance ID: 233845-1024-0003
Report Generated: 2024-10-16 17:36:51

STATE OF CALIFORNIA
Domestic Water Heating System
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Project Name: Huntington Park Library Renovation
Report Page: (Page 1 of 7)
Date Prepared: 2024-10-16T20:03:11-04:00

A. GENERAL INFORMATION
01 Project Location (city) Huntington Park
02 Climate Zone 8
03 Occupancy Types Within Project (select all that apply):
• Library

B. PROJECT SCOPE
This table includes domestic water heating systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive paths outlined in 140.1/170.2(d) and 141.0(a)/180.1, or 141.0(b)(2)/180.2 for additions or alterations. Solar water heating systems are documented on the NRCC-SAB compliance document. Combined hydronic water heating systems are documented on the NRCC-MCH compliance document.
01 My project consists of (check all that apply):
• New system (DHW system being installed for the first time)
• System alteration (equipment, distribution or controls)
02 System Type^{1,2} Individual System (serving nonresidential spaces)
03 System Components
• Equipment ☒ Distribution ☒ Controls
• Equipment ☐ Distribution ☐ Controls
¹FOOTNOTES: Point of use water heaters, or other non-central systems used to serve nonresidential spaces, are considered individual systems.
² Dwelling units refers to hotel/motel guest rooms and units in a multifamily residential occupancy.
³ DHW systems serving 2 or more dwelling units are considered "Central Systems" for multifamily occupancies

C. COMPLIANCE RESULTS
Table C will indicate if the project data input into the compliance document is compliant with water heating requirements. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. or the table indicated as not compliant for guidance.
01 Domestic Hot Water Equipment
02 Distribution Systems
03 Controls
04 Compliance Results
Table F Table G Table H
Yes Yes Yes COMPLIES

D. EXCEPTIONAL CONDITIONS
This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
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STATE OF CALIFORNIA
Domestic Water Heating System
CALIFORNIA ENERGY COMMISSION

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H. DOMESTIC HOT WATER CONTROLS
This table is used to demonstrate compliance with control requirements in 110.3 for all occupancies. For multifamily residential and hotel/motel occupancies, compliance is also demonstrated with requirements in 160.4(e) / 170.2(d).
01 Yes No Not Applicable Requirement
02 ☒ ☐ ☐ Construction documents require manufacturer certification that service water-heating systems are equipped with automatic temperature controls capable of adjusting temperature settings per 110.3(a).
03 ☐ ☐ ☒ Systems with capacity > 167,000 BTUH equipped with outlet temperature controls per 110.3(c)1 unless covered by California Plumbing Code 613.0.
04 ☐ ☐ ☒ Controls for circulating pumps or electrical heat trace systems are capable of automatically turning off the system per 610.3(c)2 unless systems serves healthcare facility.
05 ☐ ☐ ☒ For recirculation systems serving multiple dwelling units, design includes automatic pump controls per 170.2(d) or 180.1(b)3 for additions.
06 ☐ ☐ ☒ For recirculation systems serving individual dwelling units, design includes manual on/off controls as specified in Reference Appendix RA4.4.9 per 170.2(d).
07 ☐ ☐ ☒ Combustion air positive shut-off shall be provided per 160.4(3) on all newly installed commercial boilers as follows:
• Boilers with input capacity >= 2.5 MMBtu/h, in which the boiler is designed to operate with a nonpositive vent static pressure
• Boilers where one stack serves two or more boilers with a total combined input capacity per stack of 2.5 MMBtu/h.
Boiler combustion air fans with motor >= 10 hp shall meet one of the following
• The fan motor shall be driven by a variable speed drive OR
• The fan motor shall include controls that limit the fan motor demand to <=30% of the total design wattage at 50% of the design air volume.
08 ☐ ☐ ☒ Newly installed boilers with an input capacity (dgate) 5MMBtu/h and a steady state full-load combustion efficiency < 90% shall maintain excess (stack-gas) oxygen concentrations <= 5% by volume on a dry basis over firing rates of 20-100%. Combustion air volume shall be controlled with respect to firing rate or flue gas oxygen concentration. Use of a common gas and combustion air control linkage or jack shaft is prohibited.

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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Project Name: Huntington Park Library Renovation
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Q. MANDATORY MEASURES DOCUMENTATION LOCATION
This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.
01 02
Compliance with Mandatory Measures documented through MCH
Mandatory Measures Note Block
03 04
Mandatory Measure Plan sheet or construction document location
Heating Equipment Efficiency per 110.1 Mechanical Schedules
Cooling Equipment Efficiency per 110.1 Mechanical Schedules
Furnace Standby Loss Control per 110.2(d) N/A
Duct Insulation per 120.4 Mechanical General Notes
Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b) N/A
The air duct and plenum system is designed per 120.4(a)-(f) M-sheets
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2 N/A

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STATE OF CALIFORNIA
Domestic Water Heating System
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Project Name: Huntington Park Library Renovation
Report Page: (Page 3 of 7)
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F. DOMESTIC HOT WATER EQUIPMENT
This table is used to demonstrate compliance with mandatory equipment requirements in 110.1 and 110.3. Compliance with prescriptive requirements in 140.5(c) / 170.2(d) must also be demonstrated and with 141.0 / 180.1 / 180.2 for addition and alteration scopes.
Equipment Schedule: Water Heating Efficiency and Standby Loss
03 04 05 06
System Name EWH-1 Exception to 140.5(c)/170.2(d)3 Exceptions Do Not Apply ☐ Gas Service Water Heating System >= 1MMBtu/h¹ Capacity-weighted Average Efficiency %
07 08 09 10 11 12 13 14 15
Name or Item Tag Equipment Type Volume (gal) Rated Input Capacity (Btu/h) Max GPM/ First Hour Rating (FHR) Rated Efficiency Minimum Efficiency Required Efficiency Unit Designed Standby Loss Maximum Standby Loss
EWH-1 Consumer Rated Electric Instantaneous (<=12kW) <=2 0 <= GPM <1.7 0.91 0.91 UEF
¹FOOTNOTE: In systems >= 1MMBtu/h with multiple units, gas water heaters with input capacity >100,000 Btu/h may meet 90% E requirements via an input capacity-weighted average.
²FOOTNOTE: Compliant equipment may be found in the Modernized Appliance Efficiency Database System (MAEDBS) on the Energy Commission website: https://caenergyefficiency.energy.ca.gov/Pages/Search/AdvancedSearch.aspx
Water Heating Equipment All Occupancies
Yes No Not Applicable Requirement
18 ☒ ☐ ☐ Unfired storage tank insulation shall have Internal + External >=R-16 OR External >=R-3.5. Label required per 110.3(c)3
19 ☐ ☐ ☒ New state buildings 60% of energy for service water heating from site solar energy or recovered energy per 110.3(c)5
20 ☒ ☐ ☐ Isolation valves for instantaneous water heater with input rating >6.8 kBtUH or 2 kW has been specified per 110.3(c)6
21 ☐ ☐ ☒ School buildings < 25,000 ft² and < 4 stories must install a heat pump water heating system per 140.5(a)1. Water heating systems serving an individual bathroom space may be an instantaneous electric water heater.

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STATE OF CALIFORNIA
Domestic Water Heating System
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Project Name: Huntington Park Library Renovation
Report Page: (Page 6 of 7)
Date Prepared: 2024-10-16T20:03:11-04:00

I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online
Form/Title
NRCI-PLB-E - Must be submitted for all buildings

J. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
There are no forms required for this project.

K. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION
There are no forms required for this project.

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Report Version: 2022.0.000
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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Project Name: Huntington Park Library Renovation
Report Page: (Page 12 of 12)
Date Prepared: 2024-10-16T20:36:46-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I certify that this Certificate of Compliance documentation is accurate and complete.
Documentation Author Name: Logan Blosser
Signature Date: 10-16-2024
Company: Salas O'Brien
Address: 4160 Temescal Canyon Rd
City/State/Zip: Corona/CA/92883
CEA/ HERS Certification Identification (if applicable):
Phone: 949-753-1553

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.
Responsible Designer Name: Simon Painter
Signature: 
Company: Salas O'Brien
Date Signed: 10-16-2024
Address: 4160 Temescal Canyon Rd
City/State/Zip: Corona/CA/92883
License: M34993
Phone: 949-753-1553

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Report Version: 2022.0.000
Schema Version: rev 20220101
Compliance ID: 233845-1024-0003
Report Generated: 2024-10-16 17:36:51

STATE OF CALIFORNIA
Domestic Water Heating System
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Project Name: Huntington Park Library Renovation
Report Page: (Page 4 of 7)
Date Prepared: 2024-10-16T20:03:11-04:00

G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM
This table is used to demonstrate compliance for nonresidential occupancies with distribution requirements in 120.3 and 140.5. For multifamily and hotel/motel occupancies, compliance is demonstrated with requirements 110.3(c), 160.4, 170.2(d).
Mandatory Pipe Insulation All Occupancies
13 ☐ For systems serving dwelling units, pipe insulation must meet the minimum insulation requirements in Table 160.4-A (see blow) except:
• Piping that penetrates framing members shall not be required to have pipe insulation for the distance of the framing penetration. Piping that penetrates metal framing shall use grommets, plugs, wrapping or other insulating material to assure that no contact is made with the metal framing. Insulation shall abut securely against all framing members
• Piping installed in interior or exterior walls shall not be required to have pipe insulation if all of the requirements are met for compliance with Quality Insulation Installation (QII) as specified in the Reference Residential Appendix RA3.5.
• Piping surrounded with a minimum of 1 inch of wall insulation, 2 inches of crawlspace insulation, or 4 inches of attic insulation, shall not be required to have pipe insulation.
14 ☐ For systems serving nonresidential spaces, pipe insulation for the following applications is specified to comply with Table 120.3-A (see below) per 120.3:
• Recirculating system piping, including supply and return piping of the water heater
• The first 8 ft of hot and cold outlet piping, including between storage tank and heat trap, for a nonrecirculating storage system
• Pipes that are externally heated
15 ☒ Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service per 120.3(b) / 160.4(f). Pipe insulation buried below grade must be installed in a water proof and non-crushable casing or sleeve.
TABLE 120.3-A / 160.4-A PIPE INSULATION THICKNESS
Fluid Temperature Range (°F) Conductivity Range (Btu-in per hour per ft² per °F) Insulation Mean Rating Temp (°F) Nominal Pipe Diameter (in)
< 1 1 to < 1.5 1.5 to < 4 1.5 to < 4 Multifamily & Hotel/Motel
Minimum Insulation Required
105-140 0.22 - 0.28 100 1.0 in or R-7.7 1.5 in or R-12.5 1.5 in or R-11 2.0 in or R-16

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Report Version: 2022.0.000
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Report Generated: 2024-10-16 17:03:14

STATE OF CALIFORNIA
Domestic Water Heating System
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Project Name: Huntington Park Library Renovation
Report Page: (Page 7 of 7)
Date Prepared: 2024-10-16T20:03:11-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I certify that this Certificate of Compliance documentation is accurate and complete.
Documentation Author Name: Logan Blosser
Signature Date: 10-16-2024
Company: Salas O'Brien
Address: 4160 Temescal Canyon Rd
City/State/Zip: Corona/CA/92883
CEA/ HERS Certification Identification (if applicable):
Phone: 949-753-1553

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
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Address: 4160 Temescal Canyon Rd
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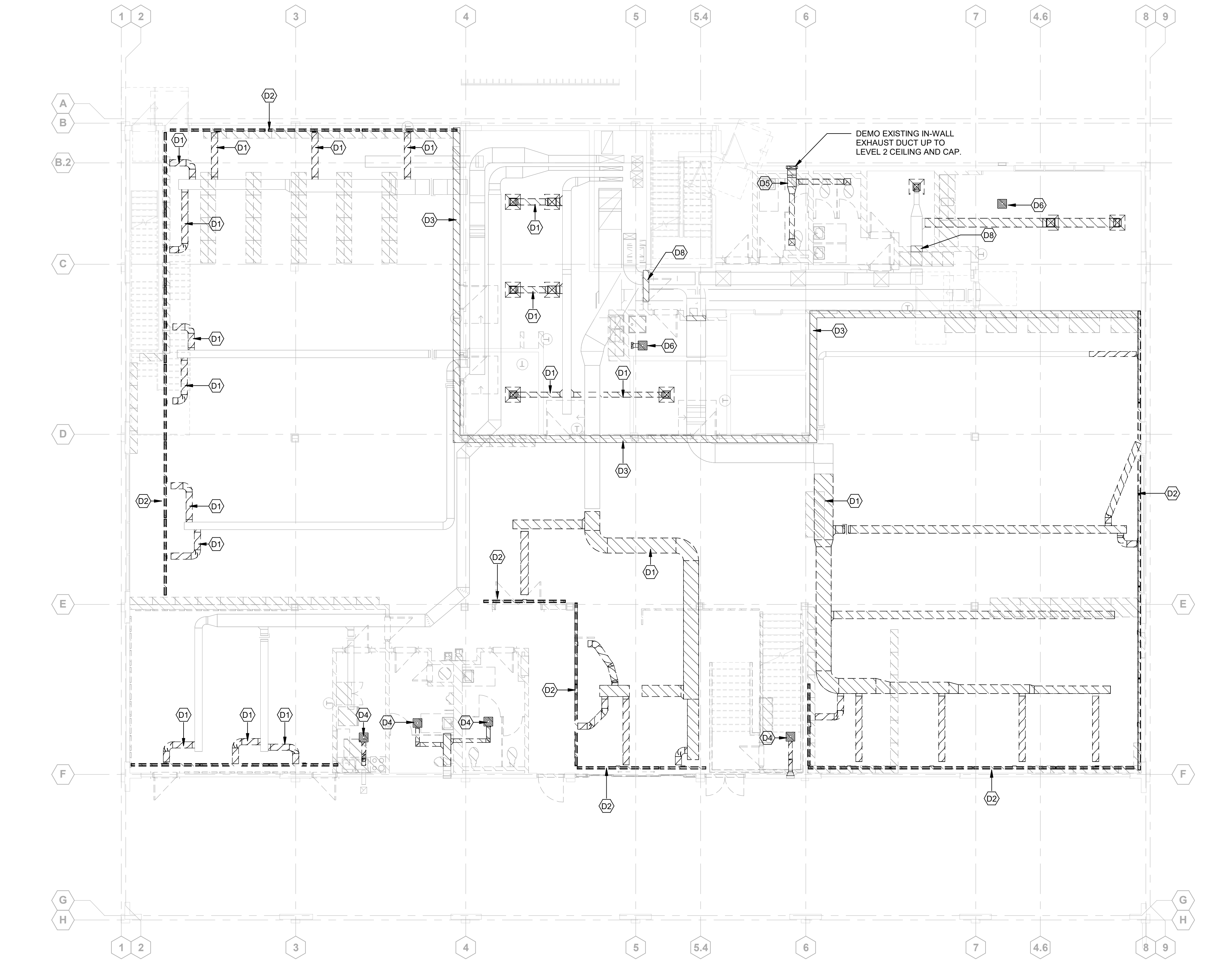
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GENERAL NOTES

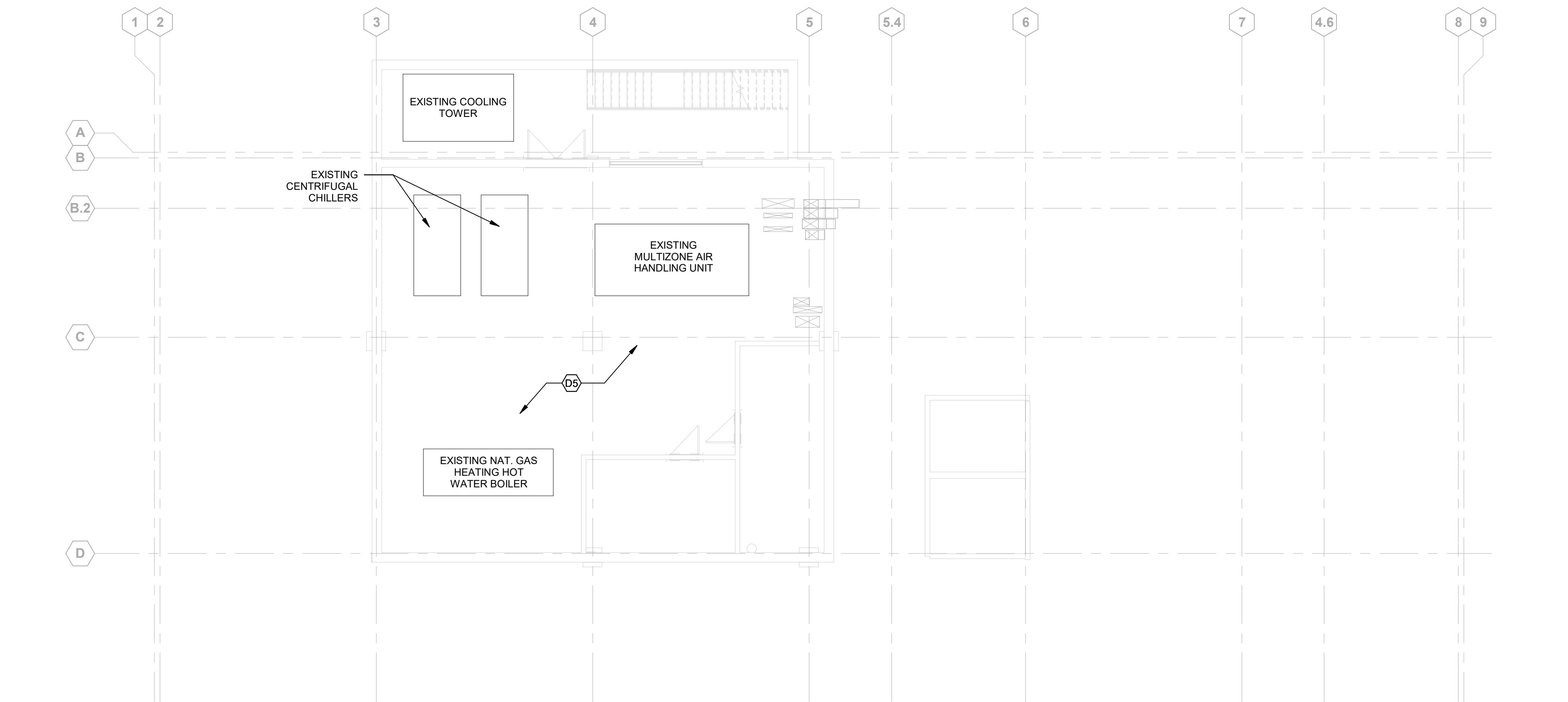
- A. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, DETERMINING EXTENT OF DEMOLITION, AND COORDINATE WITH ALL OTHER TRADES. IN CASE OF DISCREPANCIES OR ANY POTENTIAL CONFLICTS, INFORM THE ARCHITECT AND ENGINEER IN WRITING PRIOR TO START OF WORK.
- B. ALL EXISTING EQUIPMENT, DUCTWORK AND AIR DISTRIBUTION DEVICES, WHICH ARE TO REMAIN, SHALL BE CLEANED AND REFURBISHED TO ORIGINAL WORKING CONDITION.
- C. ALL WORK TO BE DEMOLISHED OR REMOVED SHALL NOT BE RE-INSTALLED UNLESS NOTED OTHERWISE.

KEY NOTES

- D1 DEMO EXISTING SUPPLY BRANCH BACK TO MAIN AND CAP. TO BE RECONNECTED.
- D2 DEMO EXISTING LINEAR SLOT SUPPLY DIFFUSER.
- D3 DEMO EXISTING EXHAUST FAN AND ASSOCIATED DUCTWORK TO LOUVER AND CAP.
- D4 UNLESS NOTED OTHERWISE, ALL MECHANICAL EQUIPMENT IN BASEMENT TO REMAIN.
- D5 DEMO EXISTING EXHAUST FAN.
- D6 DEMO EXISTING FUSIBLE LINK FIRE DAMPER IN DUCTS THRU CORRIDOR WALL.



1 LEVEL 1 MECHANICAL DEMO PLAN
1/8" = 1'-0"



2 BASEMENT MECHANICAL DEMO PLAN
1/8" = 1'-0"

Salas O'Brien

www.sob.com

Irvine

8225 Research Drive

Irvine, CA 92618

Project No.: 2023-0101-00

943.751.5103



LOS ANGELES COUNTY PUBLIC WORKS
HUNTINGTON PARK LIBRARY
6518 MILES AVE
HUNTINGTON PARK, CA 92555



NAC NO: 161-23025
DRAWN: LB/CS
CHECKED: SP
DATE: 2/28/2025

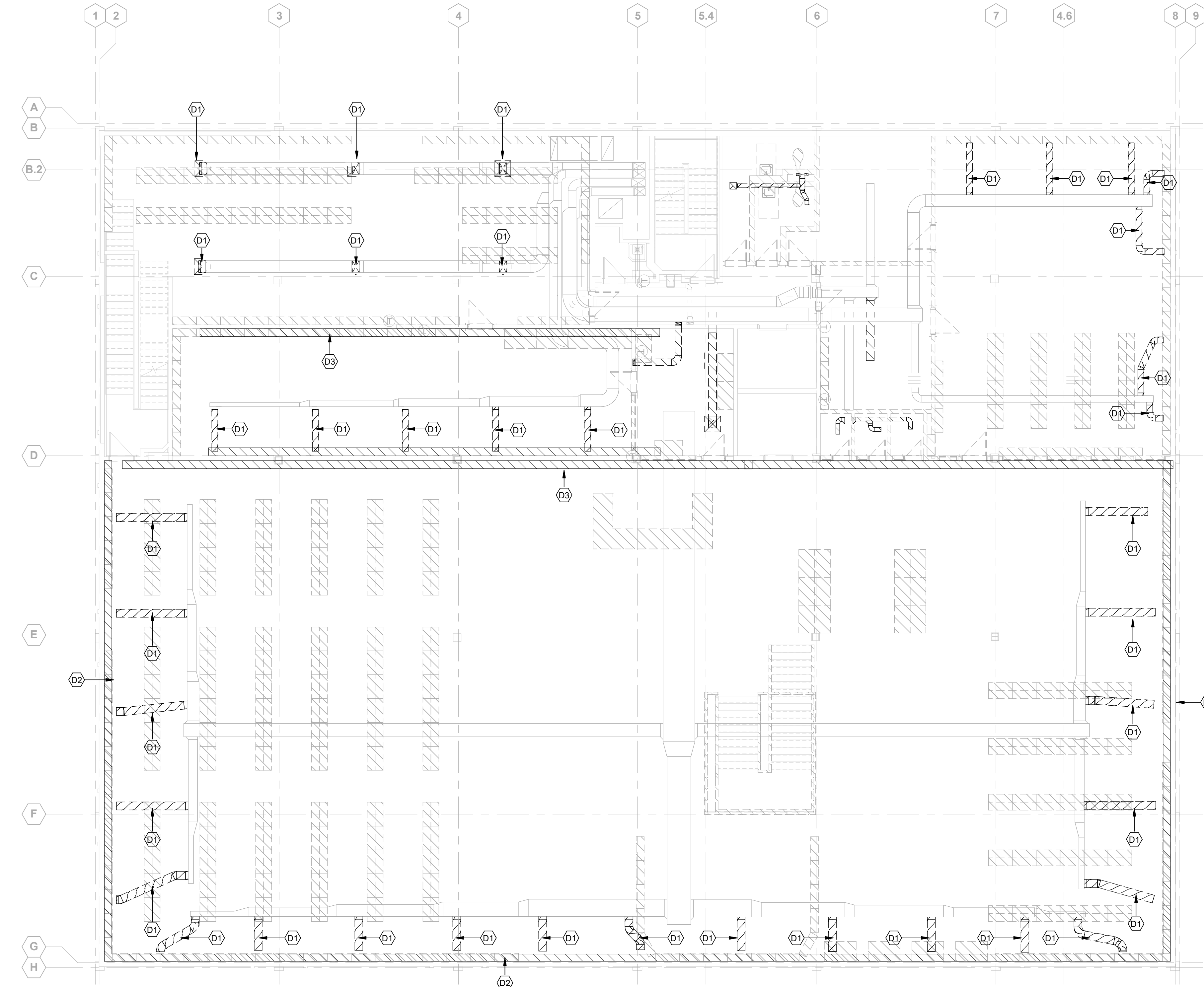
MECHANICAL
DEMO PLAN -
SECOND AND
THIRD FLOOR

GENERAL NOTES

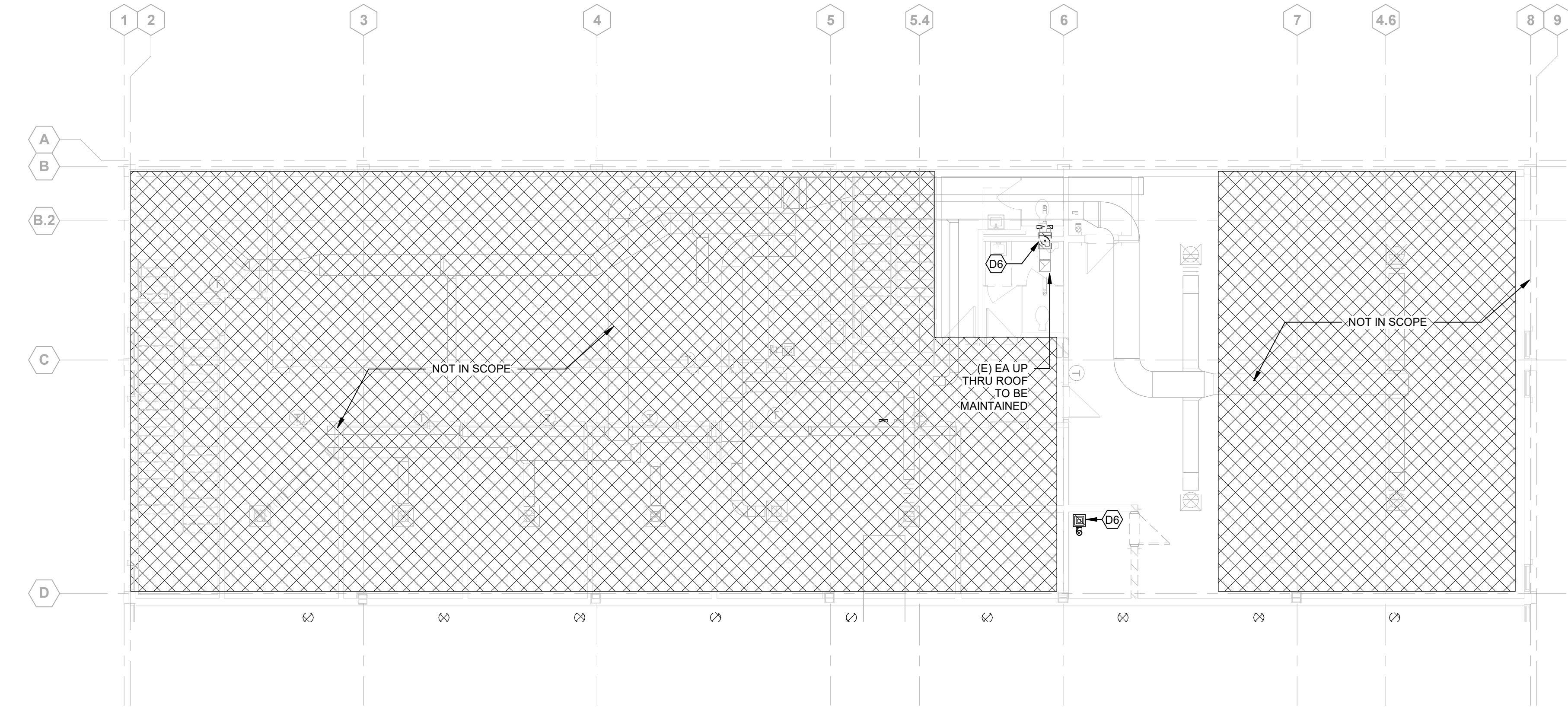
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- B. ALL EXISTING EQUIPMENT, DUCTWORK AND AIR DISTRIBUTION DEVICES, WHICH ARE TO REMAIN, SHALL BE CLEANED AND REFURBISHED TO ORIGINAL WORKING CONDITION.
- C. ALL WORK TO BE DEMOLISHED OR REMOVED SHALL NOT BE RE-INSTALLED UNLESS NOTED OTHERWISE.

KEY NOTES

- D1 DEMO EXISTING SUPPLY BRANCH BACK TO MAIN AND CAP. TO BE RECONNECTED.
- D2 DEMO EXISTING LINEAR SLOT SUPPLY DIFFUSER.
- D3 DEMO EXISTING LINEAR SLOT RETURN GRILLE.
- D6 DEMO EXISTING EX-HAUST FAN.



1 LEVEL 2 MECHANICAL DEMO PLAN
1/8" = 1'-0"



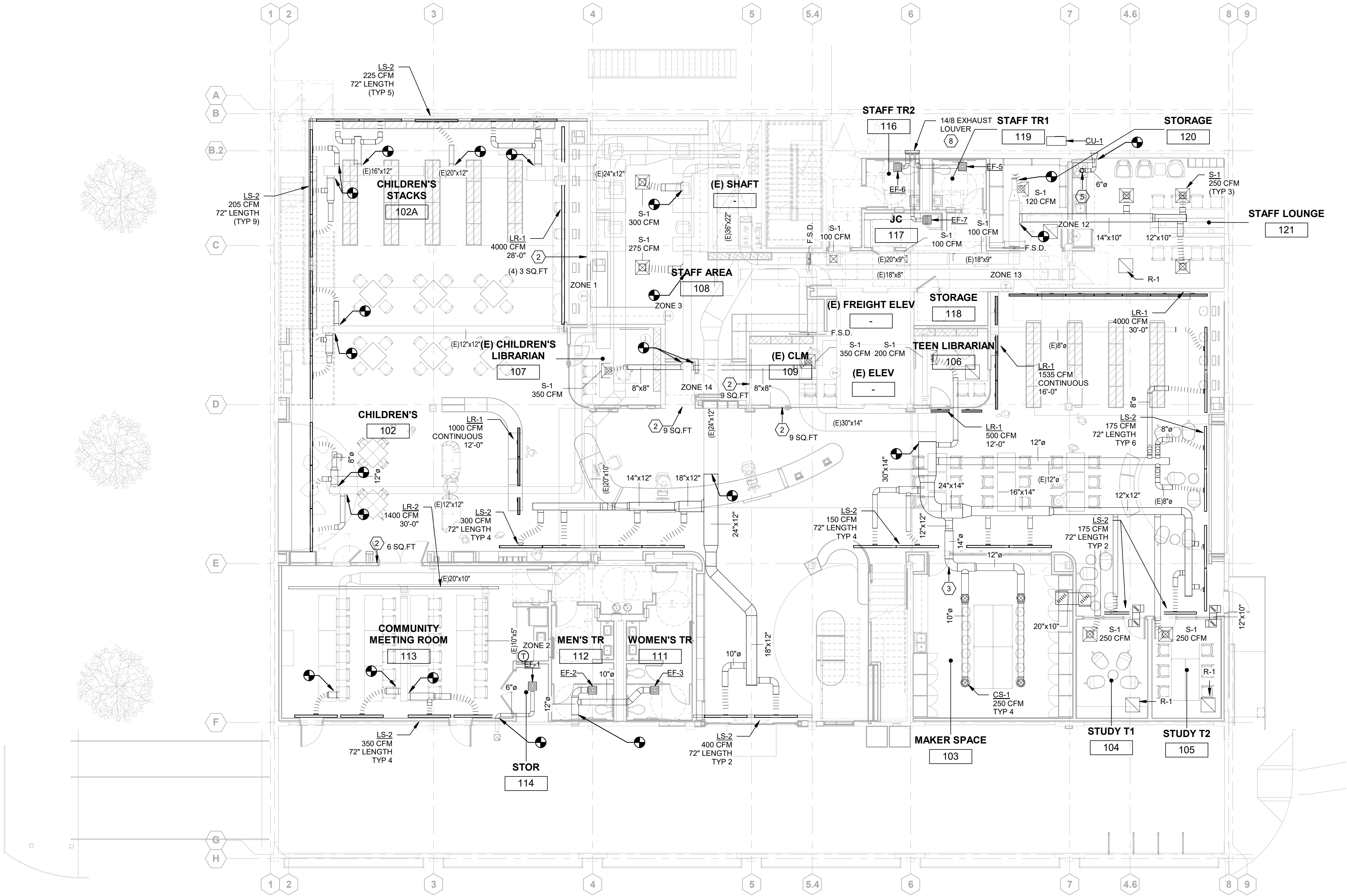
2 LEVEL 3 MECHANICAL DEMO PLAN
1/8" = 1'-0"

GENERAL NOTES

- A. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, DETERMINING EXTENT OF DEMOLITION, AND COORDINATE WITH ALL OTHER TRADES. IN CASE OF DISCREPANCIES OR ANY POTENTIAL CONFLICTS, INFORM THE ARCHITECT AND ENGINEER IN WRITING PRIOR TO START OF WORK.
- B. ALL EXISTING EQUIPMENT, DUCTWORK AND AIR DISTRIBUTION DEVICES, WHICH ARE TO REMAIN, SHALL BE CLEANED AND REFURBISHED TO ORIGINAL WORKING CONDITION.
- C. ALL WORK TO BE DEMOLISHED OR REMOVED SHALL NOT BE RE-INSTALLED UNLESS NOTED OTHERWISE.
- D. MAINTAIN ALL ABOVE-CEILING WALL OPENINGS TO MAINTAIN EXISTING RETURN AIR PLENUM DESIGN. IF OPENINGS CONFLICT WITH RENOVATION LAYOUT, PROVIDE NEW OPENING TO MAINTAIN CONSISTENT AREA.
- E. ALL NEW MATERIALS EXPOSED WITHIN DUCTS OR PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 AND A SMOKE-DEVELOPED INDEX NOT TO EXCEED 50, WHERE TESTED AS A COMPOSITE PRODUCT IN ACCORDANCE WITH ASTM E84 OR UL 723.
- F. PRESERVE EXISTING THERMOSTAT LOCATIONS AS MUCH AS POSSIBLE. IF LOCATION WILL BE AFFECTED BY CONSTRUCTION, PRESERVE AND REMAIN CONNECTED TO BE RELOCATED TO SAME LOCATION.

KEY NOTES

2. MAINTAIN OPENING(S) IN PARTITION WALL ABOVE CEILING FOR RETURN AIR. TOTAL FREE AREA OF OPENING(S) INDICATED ON PLANS.
3. DUCTWORK IN MAKER SPACE TO BE EXPOSED GALVANIZED SPIRAL ROUND WITH PAINT GRIP. CONSULT ARCHITECT FOR FINISH COLOR.
5. CONNECT 6" EXHAUST DUCT TO COLLAR ON DOMESTIC RANGE HOOD AND PROVIDE BACKDRAFT DAMPER EXHAUST RATE WHILE HOOD IS ON TO BE 100 CFM MINIMUM.
8. NEW EXHAUST LOUVER TO BE LOCATED AT LEAST 10'-0" ABOVE GROUND.



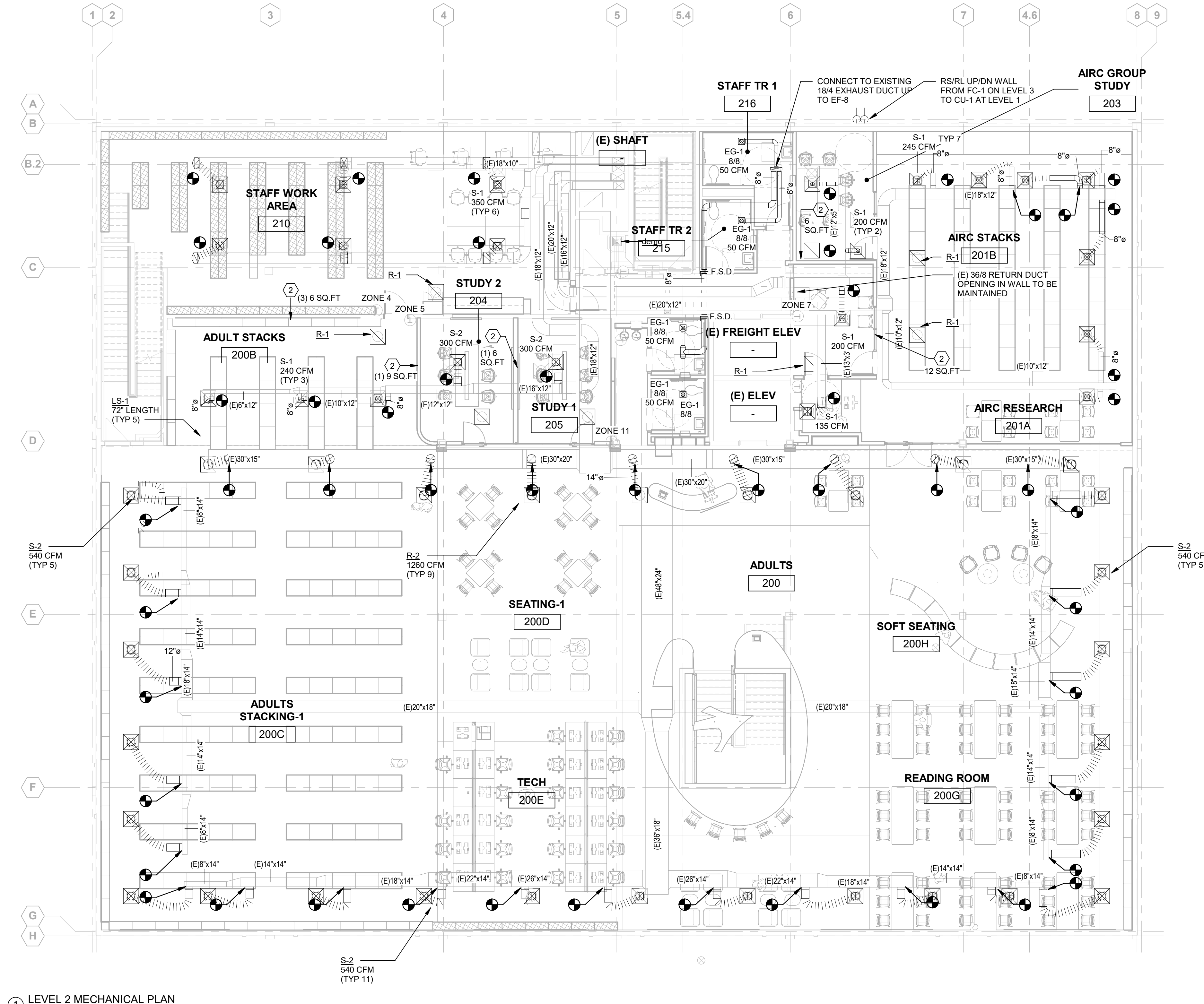
1 LEVEL 1 MECHANICAL PLAN
1/8" = 1'-0"

GENERAL NOTES

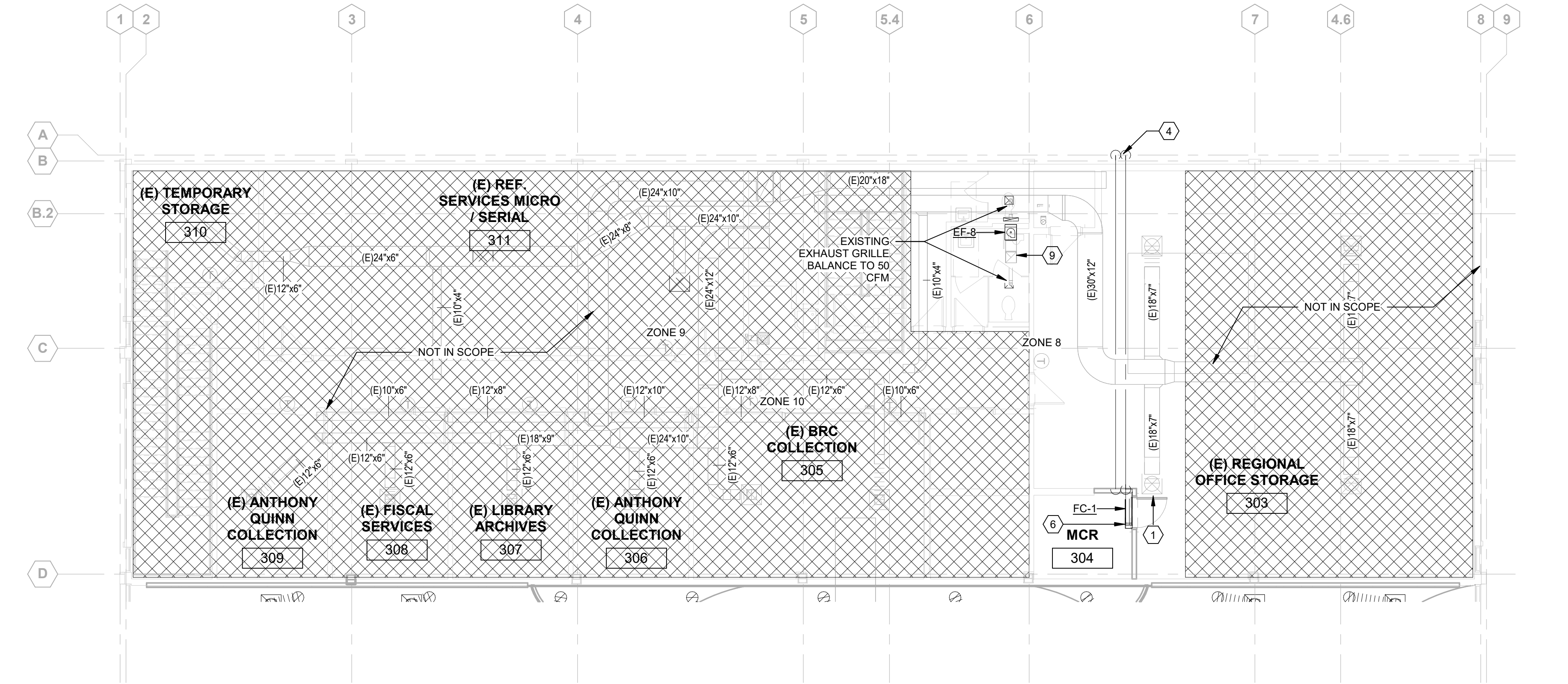
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- ALL EXISTING EQUIPMENT, DUCTWORK AND AIR DISTRIBUTION DEVICES, WHICH ARE TO REMAIN, SHALL BE CLEANED AND REFURBISHED TO ORIGINAL WORKING CONDITION.
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- MAINTAIN ALL ABOVE-CEILING WALL OPENINGS TO MAINTAIN EXISTING RETURN AIR PLENUM DESIGN. IF OPENINGS CONFLICT WITH RENOVATION LAYOUT, PROVIDE NEW OPENING TO MAINTAIN CONSISTENT AREA.
- ALL NEW MATERIALS EXPOSED WITHIN DUCTS OR PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 AND A SMOKE-DEVELOPED INDEX NOT TO EXCEED 50, WHERE TESTED AS A COMPOSITE PRODUCT IN ACCORDANCE WITH ASTM E84 OR UL 723.
- PRESERVE EXISTING THERMOSTAT LOCATIONS AS MUCH AS POSSIBLE. IF LOCATION WILL BE AFFECTED BY CONSTRUCTION, PRESERVE AND REMAIN CONNECTED TO BE RELOCATED TO SAME LOCATION.

KEY NOTES

- RELOCATE EXISTING SUPPLY GRILLE OUTSIDE OF MCR ROOM.
- MAINTAIN OPENING(S) IN PARTITION WALL ABOVE CEILING FOR RETURN AIR. TOTAL FREE AREA OF OPENING(S) INDICATED ON PLANS.
- ROUTE REFRIGERANT LINES DOWN THROUGH EXTERIOR WALL WITH PIPE SLEEVE DOWN TO CONDENSING UNIT AT LEVEL 1.
- CONDENSATE TO RISE VERTICALLY FROM PUMP DISCHARGE TO A POINT WHERE IT IS POSSIBLE TO CONNECT TO A GRAVITY CONDENSATE DRAIN LINE. SEE PLUMBING PLANS FOR CONDENSATE ROUTING. INTERLOCK CONDENSATE PUMP WITH FAN COIL UNIT.
- CONNECT TO EXISTING EXHAUST DUCT UP THRU ROOF.



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



2 LEVEL 3 MECHANICAL PLAN
1/8" = 1'-0"

			<p>(L)GALVANIZED SHEET METAL PLENUM 18" MIN. AIR DEVICE PER PLAN CEILING MOUNTED CEILING SEE ARCH. PLANS. GALVANIZED DUCT</p> <p>NOTE: CONTRACTOR TO VERIFY MINIMUM PLENUM HEIGHTS REQUIRED FOR DUCT CONNECTIONS</p>								
NOT USED	SCALE NONE	16	LINEAR SLOT DIFFUSER DETAIL	SCALE NONE	12	COND. UNIT WALL SUPPORT DETAIL	SCALE NONE	8	THERMOSTAT MOUNTING DETAIL	SCALE NONE	4
						<p>1 WALL SEE ARCH. PLANS. 2 UNISTRUT SUPPORT TO BE MOUNTED AT WALL 3 CONDENSING UNIT SEE DETAIL 8MS.0 FOR ADDITIONAL INFORMATION 4 2X2X1/4" UNIT STRUT SUPPORT</p>			<p>NOTES: 1. ALL THERMOSTATS SHALL BE INSTALLED AT A MAXIMUM HEIGHT OF 48" AFF 2. WHERE COINCIDENT WITH LIGHT SWITCHES ALIGN DEVICES HORIZONTALLY 3. THERMOSTATS SHALL BE PROVIDED WITH LOCKABLE COVERS OR DIGITALLY LOCKED OUT TO BE MADE ACCESSIBLE BY AUTHORIZED PERSONNEL ONLY</p>		
NOT USED	SCALE NONE	15	NOT USED	SCALE NONE	11	HANGING SUPPORT DETAIL	SCALE NONE	7	TYPICAL DUCT TAKEOFF DETAIL	SCALE NONE	3
						<p>HEAVY DUTY BEAM CLAMP STRUCTURAL STEEL BEAM; SEE PROJECT PLANS FOR SIZE HANGER ROD EYE SOCKET STEEL BEAM</p> <p>BENT STRAP "x"x" OVER VERT. LEGS OF ANGLE ONE ANGLE EACH SIDE OF WEB MEMBERS RESTS ON TOP OF BOTTOM CORD OF O.W.S.J. HANGER ROD STEEL JOIST</p> <p>RETAINING CLIP STEEL BEAM BEAM CLAMP HANGER ROD STEEL BEAM</p>			<p>MAIN DUCT AIR FLOW 45° ANGLE EASE-IN FITTING MANUAL DAMPER UNLESS NOTED OTHERWISE. BRANCH DUCT AIR FLOW STRAIGHT TAP FOR RETURN AND EXHAUST MANUAL DAMPER UNLESS NOTED OTHERWISE.</p> <p>DOUBLE THICKNESS TURNING VANES 3/16" GALVANIZED ROD DAMPER BLADE; BRACKET & LOCKING BALL JOINT WITH 1/4" Ø GALVANIZED OPERATOR ROD. 20 GA. DOUBLED SHEETMETAL AIRFOIL FULL DEPTH OF MAIN DUCT UP TO 12" WIDE BRANCHES. 18 GA. ON WIDER BRANCHES.</p>		
NOT USED	SCALE NONE	14	NOT USED	SCALE NONE	10	CONDENSING UNIT PIPING DETAIL	SCALE NONE	6	DUCT HANGING DETAIL	SCALE NONE	2
						<p>CONDENSING UNIT COMPRESSOR ACCESS REFRIGERANT GAUGE CONNECTION BACK-SEALED REFRIGERANT VALVE SIGHT GLASS WITH MOISTURE INDICATOR PLATFORM CONDUIT REFRIGERANT SUCTION LINE WITH INSULATION REFRIGERANT LIQUID LINE</p>			<p>POWER ACTUATED THREADED STUD FASTENER. CONCRETE HANGER STRAP SECURING TO CONCRETE STRAP HANGERS 12" MAX 3" THREADED ROD. SIZE BOLTS FOR LOAD. ANGLE IRON SIZED FOR LOAD TRAPEZE HANGERS PREFERRED STRAP ATTACHMENT</p> <p>FRICTION CLAMP "CADDY" OR EQUAL NUT AND BOLT SCREWS BOTTOM CHORD OF JOISTS STRAP HANGER LOOPED THRU CLAMP SECURING TO JOISTS</p>		
NOT USED	SCALE NONE	13	NOT USED	SCALE NONE	9	FIRE SMOKE DAMPER DETAIL	SCALE NONE	5	DIFFUSER TAKE OFF DETAIL	SCALE	1

PLUMBING LEGEND					
SYMBOL		DESCRIPTION	ABBR.	DESCRIPTION	
		SANITARY SEWER / WASTE PIPE	ABV	ABOVE	
		VENT PIPE	AFF	ABOVE FINISHED FLOOR	
		COLD WATER PIPE	AFG	ABOVE FINISHED GRADE	
		HOT WATER PIPE	AP	ACCESS PANEL	
		CONDENSATE DRAIN PIPE	BEL	BELOW	
		TRAP PRIMER PIPE	CO	CLEANOUT	
		FLOOR CLEAN OUT	DF	DRINKING FOUNTAIN	
		WALL CLEAN OUT	E	EXISTING	
		FLEXIBLE CONNECTION	ET	EXPANSION TANK	
		SHUT OFF VALVE	FCO	FLOOR CLEANOUT	
		GAS COCK	FD	FLOOR DRAIN	
		CHECK VALVE	FS	FLOOR SINK	
		BALL VALVE	FU	FIXTURE UNIT	
		PRESSURE REDUCING VALVE	GD	GARBAGE DISPOSAL	
		PRESSURE AND TEMPERATURE RELIEF VALVE	HB	HOSE BIBB	
		UNION	I.E.	INVERT ELEVATION	
		DIELECTRIC UNION	LAV	LAVATORY	
		CAPPED PIPE	MV	MIXING VALVE	
		CONTINUED OR CONTINUATION	NIC	NOT IN CONTRACT	
		TRAP PRIMER	NTS	NOT TO SCALE	
		WATER HAMMER ARRESTOR	POC	POINT OF CONNECTION	
		REDUCED PRESSURE BACKFLOW PREVENTER	SK	SINK	
		PIPE DOWN OR DROP	SOV	SHUT OFF VALVE	
		PIPE UP OR RISE	SS	SERVICE SINK	
		POINT OF CONNECTION / DISCONNECT	TP	TRAP PRIMER	
		AREA DRAIN OR FLOOR DRAIN	TYP	TYPICAL	
		FLOOR SINK OR ROOF RECEPTOR	UR	URINAL	
		TAGS WITH DASH 'E' INDICATE REFERENCE IS EXISTING	VTR	VENT THROUGH ROOF	
		TAGS WITH UNDERLINE INDICATE SCHEDULED FIXTURE	WC	WATER CLOSET	
			WCO	WALL CLEANOUT	
			WH	WATER HEATER	
			WHA	WATER HAMMER ARRESTOR	
			WM	WATER METER	
			UNO	UNLESS NOTED OTHERWISE	
			YB	YARD BOX	
			YCO	YARD CLEANOUT	

PLUMBING GENERAL NOTES:

- THE SYMBOLS AND FIXTURE SCHEDULES ARE FOR CONVENIENCE TO THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THAT FIXTURES SUPPLIED ARE APPROVED PER STATE AND LOCAL AUTHORITY HAVING JURISDICTION. ALL FIXTURES SHALL CONFORM TO FEDERAL ACCT 3.8/74
- FIXTURE SCHEDULE DESCRIPTIONS SHALL NOT BE CONSIDERED COMPLETE BUT ARE GIVEN AS AN AID TO THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE DESCRIPTIONS OF SCHEDULED FIXTURES AND SPECIFICATION BEFORE ORDERING.
- REFER TO THE PLUMBING FIXTURE SCHEDULE FOR ROUGH-IN CONNECTION SIZES. THESE VALUES ARE MINIMUM. LARGER CONNECTIONS MAY RESULT BASED ON THE DIFFERENT MANUFACTURERS' RECOMMENDATIONS.
- CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF ALL EXISTING UTILITY PIPES PRIOR TO START OF WORK. ANY NECESSARY ADJUSTMENTS TO THE PLUMBING LAYOUT SHALL BE DONE AT NO EXTRA COST.
- CONTRACTOR SHALL NOTIFY ALL LOCAL UTILITY COMPANIES INCLUDING BUT NOT LIMITED TO THE GAS COMPANY, ELECTRIC COMPANY, TELEPHONE COMPANY, AND THE WATER DEPARTMENT. PRIOR TO THE EXTENT OF PLUMBING WORK, ALL EXCAVATION WORK SHALL BE APPROVED BY ALL UTILITY COMPANIES TO ASSURE PREVENTION OF INTERRUPTION OF EXISTING SERVICES PRIOR TO START OF WORK.
- EACH CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN.
- EACH CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES CAUSED TO WALLS, FLOORS, CEILINGS AND ROOF.
- DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL LAYOUT OF PIPING, EQUIPMENT, ETC. AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. VERIFY ALL CLEARANCES REQUIRED PRIOR TO INSTALLATION TO PROVIDE PROPER ACCESS.
- ALL PIPING SHALL BE ROUTED AS HIGH AS POSSIBLE IN EXPOSED LOCATIONS.
- COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION TO AVOID INTERFERENCE WITH OTHER TRADES. DO NOT FABRICATE PRIOR TO VERIFYING CLEARANCES FOR ALL TRADES. ALL WORK SHALL BE COORDINATED WITH THE ARCHITECT/ENGINEER PRIOR TO FABRICATION OR EQUIPMENT ORDERS.
- PLUMBING CONTRACTOR SHALL CUT AND PATCH EXISTING AS REQUIRED FOR NEW WORK UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- IN AREAS WITH HARD LID CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE GC FOR ACCESS TO SHUT OFF VALVES. ETC. COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS PANELS PRIOR TO BIDDING.
- PROVIDE SHUT OFF VALVES AT THE FOLLOWING LOCATIONS:
 - A. WATER MAIN SHUT-OFF AT ENTRY TO TENANT DEMISE.
 - B. VALVE WITH HOSE CONNECTION ON DOWNSIDE/RAIN SIDE OF THE MAIN SHUT-OFF VALVE.
 - C. SHUT-OFF VALVE ON EACH SUPPLY TO EACH FIXTURE AND EQUIPMENT ITEM NOT PROVIDED WITH CONTROL STOP OR OTHER AUXILIARY SHUT-OFF VALVE. OPERATORS ON TOP OR ARE HORIZONTAL AND SO THAT VALVES ARE EASILY ACCESSIBLE FOR OPERATION, SERVICE, REMOVAL AND REPLACEMENT.
- ALL VENT TERMINATIONS AT ROOF SHALL BE AT LEAST 10 FEET AWAY FROM OUTSIDE AIR INTAKES, OPERABLE WINDOWS, AND THE LIKE.
- SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE PIPING, PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH APPROVED SEALING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR USE.
- CAULK ALL PIPE PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL, PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS WITHIN ROOMS.
- PROVIDE ALL FIXTURE COMPONENTS AS INDICATED ON DRAWINGS. PROVIDE ADDITIONAL COMPONENTS AS PER MANUFACTURER'S RECOMMENDATIONS FOR PROPER OPERATION OF THE FIXTURES.
- PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT.
- MAINTAIN MINIMUM 3/4" CLEARANCE IN FRONT OF ALL FIRE RISERS, ELECTRICAL PANELS, MOTOR STARTERS, SWITCHES, AND DISCONNECTS.
- DO NOT SUPPORT EQUIPMENT, PIPING FROM METAL DECKING OR OTHER NON-STRUCTURAL BUILDING OR OTHER MATERIALS. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS.
- ALL FIRE WATER SYSTEMS SHALL BE APPROVED BY THE FIRE DEPARTMENT.
- EXISTING BUILDING SEWERS AND BUILDING DRAINS MAY BE USED IF SUCH SEWERS HAVE BEEN PROPERLY MAINTAINED AND FOUND UPON EXAMINATION AND TEST PERFORMED BY THE OWNER OR OWNER'S DESIGNATED AGENT THAT THEY ARE IN WORKING CONDITION AND FREE FROM ANY DEFECT.
- ALL REQUIRED CLEANOUTS SHALL BE INSTALLED AS PER SEC. 707.8 & SEC.719.0 OF THE COUNTY OF LOS ANGELES PLUMBING CODE.
- WATER SUPPLY AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSTALLED AS OTHER WARE ARE REQUIRED TO BE INSTALLED TO PREVENT CONTACT, PROTECTORS, INSULATORS, OR BOTH SHALL COMPLY WITH ASSE A112.18.9, SEC. 403.3.
- POTABLE WATER SUPPLY TRAP SEAL PRIMER VALVES SHALL COMPLY WITH ASSE 101.8. DRAINAGE AND ELECTRONIC DESIGN TYPE TRAP SEAL PRIMER DEVICES SHALL COMPLY WITH ASSE 1044. SEC. 1007.2.
- NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE DISINFECTED PRIOR TO USE ACCORDING TO SECTION 609.9 (1-1) 9.0 OF THE PLUMBING CODE. CONTRACTOR SHALL PROVIDE A SIGNED WRITTEN DECLARATION TO THE AGENT FOR AT THE TIME OF INSPECTION THAT POTABLE WATER SYSTEM HAS BEEN DISINFECTED PER SECTION 609.9.
- PUBLIC LAVATORIES SHALL HAVE A WATER TEMPERING DEVICE THAT COMPLIES WITH ASSE 1070, ASME 112.1070 OR CSA B125.3. WATER HEATER THERMOSTAT SHALL NOT BE CONSIDERED A CONTROL TO MEET THIS PROVISION. SEC. 407.3.
- INSULATION OF DOMESTIC HOT WATER PIPING SHALL BE 1" THICK FOR PIPES LESS THAN 1", 1.5" THICK FOR PIPES 1" TO 1.5", AND 2" THICK FOR PIPES 2" OR LARGER AS INDICATED IN SECTIONS 150.401 AND 120.101 OF THE 2022 EDITION OF THE PLUMBING STANDARDS AND SECTION 608.12 IN THE 2023 COUNTY OF LOS ANGELES PLUMBING CODE.

DEMOLITION NOTES:

EXISTING CONDITIONS ARE SHOWN ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.

2. NOT ALL EXISTING PIPING IS SHOWN. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORK.
3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS
4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS. CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING.
5. WHERE EXISTING MECHANICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, PIPING IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REMOVE EXISTING MECHANICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING.
6. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR THE TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMITS FOR DRAINING BEFORE THE START OF DEMOLITION. COMPLETELY DRAINING SYSTEM. MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE.
7. UNLESS SPECIFICALLY SHOWN ON DRAWINGS, NO STRUCTURAL MEMBER SHALL BE CUT, DRILLED OR NOTCHED WITHOUT PRIOR AUTHORIZATION BY STRUCTURAL ENGINEER.

APPLICABLE CODES

- 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC)
- 2022 CALIFORNIA BUILDING CODE (CBC)
- 2022 CALIFORNIA ELECTRICAL CODE (CEC)
- 2022 CALIFORNIA MECHANICAL CODE (CMC)
- 2022 CALIFORNIA PLUMBING CODE (CPC)
- 2022 CALIFORNIA ENERGY CODE (CEC) PART 6, TITLE 24 CCR
- 2022 CALIFORNIA FIRE CODE (CFC)
- 2022 CALIFORNIA EXISTING BUILDING CODE (CEBC)
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGreen)
- 2022 CALIFORNIA REFERENCED STANDARDS CODE
- 2023 COUNTY OF LOS ANGELES BUILDING CODE (TITLE 26)
- 2023 COUNTY OF LOS ANGELES ELECTRICAL CODE (TITLE 27)
- 2023 COUNTY OF LOS ANGELES PLUMBING CODE (TITLE 28)
- 2023 COUNTY OF LOS ANGELES MECHANICAL CODE (TITLE 29)
- 2023 COUNTY OF LOS ANGELES GREEN BUILDING STANDARDS CODE (TITLE 31)

PLUMBING SHEET INDEX	
Sheet Number	Sheet Name
P0.01	PLUMBING COVER SHEET
P0.02	PLUMBING SCHEDULES
P2.01	PLUMBING DEMO PLAN - BASEMENT AND FIRST FLOOR
P2.02	PLUMBING DEMO PLAN - SECOND AND THIRD FLOOR
P3.01	PLUMBING PLAN - BASEMENT AND FIRST FLOOR
P3.02	PLUMBING PLAN - SECOND AND THIRD FLOOR
P4.01	PLUMBING ENLARGED PLANS
P5.01	PLUMBING RISERS
P6.01	PLUMBING DETAILS



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MECHANICAL

STATE OF CALIFORNIA

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PLUMBING SCHEDULES

HYDRAULIC WATER CALCULATIONS	
<u>WATER PRESSURE:</u>	
WATER PRESSURE AVAILABLE AT THE BUILDING	= 50 PSI
MAXIMUM RESIDUAL PRESSURE	= 48 PSI
<u>BUILDING DEMAND:</u>	
TOTAL DEMAND 86.5 FIXTURE UNITS	= 40 GPM
<u>PRESSURE LOSSES:</u>	
BUILDING STATIC 30' X 0.433	= 13 PSI
RESIDUAL REQUIRED (FV)	= 25 PSI
(E) SITE METER (4")	= 3.8 PSI
TOTAL LOSSES	= 41.8 PSI
<u>PRESSURE AVAILABLE FOR FRICTION LOSS:</u>	
PRESSURE AVAILABLE FOR LOSSES	= 6.2 PSI
TOTAL DEVELOPED LENGTH 140 X 1.25 (FITTINGS)	= 175 FT.
PSI LOSSES PER 100FT.	= 3.15 PSI/100'
6.2 PSI X 100' / 200	
PIPE SIZED ON 3 PSI/100' PIPE FRICTION LOSS	
MAX 5 FT/SEC. VELOCITY - HOT WATER	
MAX 8 FT/SEC. VELOCITY - COLD WATER	

EXISTING FIXTURE UNIT LOADS								
SYMBOL	DESCRIPTION	QUANTITY	FIXTURE UNITS REQ.			FIXTURE UNITS TOTAL		
			CW	HW	SAN	CW	HW	DFU
WC-E	WATER CLOSET (VALVE)	10	5.0	--	4.0	50.0	--	40.0
L-E	LAVATORY	10	1.0	1.0	1.0	10.0	10.0	10.0
UR-E	URINAL	2	4.0	4.0	2.0	8.0	8.0	4.0
SK-E	SINK	2	1.5	1.5	2.0	3.0	3.0	4.0
SS-E	SERVICE SINK	3	3.0	3.0	3.0	9.0	9.0	9.0
DF-E	DRINKING FOUNTAIN	2	.5	--	1.0	1.0	--	--
TOTAL						81.0	30.0	67.0

NEW FIXTURE UNIT LOADS								
SYMBOL	DESCRIPTION	QUANTITY	FIXTURE UNITS REQ.			FIXTURE UNITS TOTAL		
			CW	HW	SAN	CW	HW	DFU
WC-1	WATER CLOSET (VALVE)	11	5.0	--	4.0	55.0	--	44.0
L-1	LAVATORY	12	1.0	1.0	1.0	12.0	12.0	12.0
UR-1	URINAL	4	4.0	4.0	2.0	16.0	--	8.0
S-1	SINK	3	1.5	1.5	2.0	4.5	4.5	6.0
MS-1	SERVICE SINK	1	3.0	3.0	3.0	3.0	3.0	3.0
DF-1	DRINKING FOUNTAIN	2	.5	--	1.0	1.0	--	2.0
TOTAL						91.5	19.5	75.0

DOMESTIC COLD WATER SIZING				
FRICTION LOSS 3.0 PSI PER 100 FT AVG, AT 8 FPS MAX. VELOCITY				
PIPE SIZE	WSFU		GPM	FPS
	FLUSH TANK	FLUSH VALVE		
3/4"	4	-	4	3.4
1"	12	-	9	4.1
1-1/4"	24	-	17	4.8
1-1/2"	46	10	31	5.4
2"	155	63	66	6.6
2-1/2"	380	245	115	7.7
3"	665	596	165	8.0

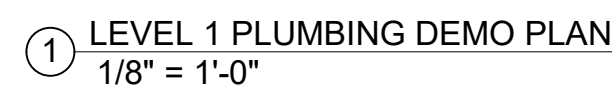
DOMESTIC HOT WATER SIZING				
FRICTION LOSS 3.0 PSI PER 100 FT AVG, AT 5 FPS MAX. VELOCITY				
PIPE SIZE	WSFU		GPM	FPS
	FLUSH TANK	FLUSH VALVE		
3/4"	4	-	5	3.4
1"	12	-	11	4.1
1-1/4"	24	-	19	4.8
1-1/2"	46	-	27	5.0
2"	119	-	48	5.0
2-1/2"	245	-	100	5.0

PLUMBING FIXTURE SCHEDULE						
SYMBOL	FIXTURE	MIN. PIPE SIZE				REMARKS
		CW	HW	V	S	
WC-1	WATER CLOSET FLUSH VALVE (ADA)	1-1/2"	--	2"	4"	WATER CLOSET: AMERICAN STANDARD (3351.528), ACCESSIBLE, ELONGATED WALL MOUNT, FLUSH VALVE, AMERICAN STANDARD (5901.100), ELONGATED OPEN FRONT SEAT.
						FLUSH VALVE: SLOAN (CROWN 111 SMO-1.28), SENSOR ACTIVATED, BATTERY POWER, 1.28GPF, POLISHED CHROME, 11-1/2" ROUGH-IN, 1-1/2" VACUUM BREAKER, 1" IPS SCREWDRIVER BACK-CHECK ANGLE STOP, ADA COMPLIANT.
UR-1	URINAL FLUSH VALVE (ADA)	1-1/2"	--	2"	3"	URINAL: AMERICAN STANDARD (MAYBROOK), WALL MOUNT, VITREOUS CHINA, FLUSH VALVE, 0.125 GPM, EVERCLEAN SURFACE, TOP SPUD.
L-1	LAVATORY (ADA)	1/2"	1/2"	1-1/2"	2"	FLUSH VALVE: SLOAN (CROWN 186 SMO-0.125), SENSOR ACTIVATED, BATTERY POWER, 0.125 GPF, POLISHED CHROME, 11-1/2" ROUGH-IN, VACUUM BREAKER, 1" IPS SCREWDRIVER BACK-CHECK ANGLE STOP, ADA COMPLIANT.
						LAVATORY: KOHLER (K-2084), WALL MOUNTED, WHITE PORCELAIN, 20" x 18", WITH OVERFLOW, ADA COMPLIANT. PROVIDE WITH INSULATION KIT-PLUMBEREX (PRO-EXTREME).
L-2	LAVATORY (ADA)	1/2"	1/2"	1-1/2"	2"	TRIM: CHICAGO FAUCETS (E-80-A11A-17ABCP1) DECK MOUNTED, BATTERY POWER, SINGLE HOLE, SENSOR ACTIVATED, POLISHED CHROME, 0.2 GALLON PER CYCLE.
						LAVATORY: KOHLER (K-5400), COUNTERTOP, WHITE PORCELAIN, 18" x 14", WITH OVERFLOW, ADA COMPLIANT. PROVIDE WITH INSULATION KIT-PLUMBEREX (PRO-EXTREME).
DF-1	DRINKING FOUNTAIN	1/2"	1/2"	1-1/2"	2"	TRIM: CHICAGO FAUCETS (E-80-A11A-17ABCP1) DECK MOUNTED, BATTERY POWER, SINGLE HOLE, SENSOR ACTIVATED, POLISHED CHROME, 0.2 GALLON PER CYCLE.
S-1	KITCHEN SINK AND FAUCET	3/4"	3/4"	1-1/2"	2"	ELKAY (LZWS-LRPMB28K) BI-LEVEL FOUNTAIN, MECHANICAL BUBBLERS, FILTERED REFRIGERATED, 8.0GPH, LAMINAR FLOW, BOTTLE FILLER WITH VISUAL MONITOR, ADA COMPLIANT.
						POWER REQUIREMENTS: 115V/60Hz
S-2	COMMUNITY SPACE SINK	3/4"	3/4"	1-1/2"	2"	SINK: KOHLER (K-3996-4), UNDERMOUNT, DOUBLE COMPARTMENT, 18GA STAINLESS STEEL, 33" x 22" x 6", CENTER DRAIN, ADA COMPLIANT. PROVIDE WITH INSULATION KIT-PLUMBEREX (PRO-EXTREME).
						TRIM: CHICAGO (436-ABCP) DECK MOUNTED, SINGLE HOLE, LEVEL HANDLE, POLISHED CHROME, 1.5 GPM.
GD-1	GARBAGE DISPOSAL	--	--	--	--	SINK: KOHLER (K-32027-1), UNDERMOUNT, SINGLE COMPARTMENT, 18GA STAINLESS STEEL, 15" x 15" x 6", CENTER DRAIN, ADA COMPLIANT. PROVIDE WITH INSULATION KIT-PLUMBEREX (PRO-EXTREME).
						TRIM: CHICAGO (436-ABCP) DECK MOUNTED, SINGLE HOLE, LEVEL HANDLE, POLISHED CHROME, 1.5 GPM.
EWH-1	WATER HEATER	--	--	--	--	TRIM: CHICAGO (436-ABCP) DECK MOUNTED, SINGLE HOLE, LEVEL HANDLE, POLISHED CHROME, 1.5 GPM.
						GARBAGE DISPOSAL: INSINKERATOR (EVOLUTION), COMPACT DISPOSER.
EWH-2	WATER HEATER	--	--	--	--	POWER REQUIREMENTS: 3/4 HP, 120V, 60HZ
						POINT OF USE WATER HEATER: EEMAX (SPEX 100) LED DISPLAY, 0.2 GPM ACTIVATED, 3/8" COMPRESSION FITTING, 30 PSI MIN. WORKING PRESSURE, ADA COMPLIANT, REPLACEABLE CARTRIDGE, UL LISTED. PROVIDE WITH SHUT OFF VALVES.
SS-1	UTILITY SINK AND FAUCET	3/4"	3/4"	1-1/2"	2"	POWER REQUIREMENTS: 277V, 1PH, 10kW.
						POINT OF USE WATER HEATER: EEMAX (SPEX 4277TS), 0.2 GPM ACTIVATED, 3/8" COMPRESSION FITTING, 35 PSI MIN. WORKING PRESSURE, ADA COMPLIANT, REPLACEABLE CARTRIDGE, UL LISTED. PROVIDE WITH SHUT OFF VALVES.
FD-1	FLOOR DRAIN	1/2"	--	1-1/2"	2"	POWER REQUIREMENTS: 277V, 1PH, 4.1kW.
FS-1	FLOOR SINK	1/2"	--	1-1/2"	3"	MOP BASIN: KOHLER (K-6710) FLOOR MOUNTED, CORNER INSTALLATION, ENAMELED CAST IRON, 28" x 28"W.
HB-1	HOSE BIBB	3/4"	--	--	--	FAUCET: CHICAGO (897-CP) WALL MOUNTED, 8" CENTERS, CHROME PLATED, LEVER HANDLE, 1/4 TURN, VACUUM BREAKER SPOUT, VANDAL PROOF.
TP-1	TRAP PRIMER	1/2"	--	--	--	MIFAB (F1000-C) CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, 6" ROUND, WEEPHOLES, STANDARD HEAVY DUTY, ADJUSTABLE POLISHED STAINLESS STRAINER, VANDAL RESISTANT WITH KEY SCREWS.
						MIFAB (FS1730-7) CAST IRON FLOOR SINK, 12"x12"x8" DEEP CAST BODY, 3" OUTLET, ACID RESISTANT PORCELAIN ENAMEL COATED INTERIOR, LOOSE 3/4" GRATE KIT, ANTI-SPLASH DOME STRAINER.
						WOODFORD MODEL B24, WALL BOX, 3/4" MALE HOSE THREAD, ANTI-SIPHON, NONREMOVABLE VACUUM BREAKER.
						SIOUX CHIEF MODEL NO. 695 SERIES, PRIMEPERFECT AUTOMATIC MECHANICAL TRAP PRIMER VALVE.

PLUMBING PIPE MATERIAL SCHEDULE									
SERVICE	LOCATION	PIPE MATERIAL							SLOPE
DOMESTIC WATER	ABOVE GRADE	ASTM B88 TYPE "L" HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS.							NONE
	BELOW GRADE	ASTM B88 TYPE "K" HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS.							
WASTE & VENT	ABOVE GRADE	ASTM A888 CAST IRON PIPE WITH ASTM A888 DWV FITTINGS.							1/4" PER 1'
CONDENSATE	ABOVE GRADE	ASTM B88 TYPE "K" HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS.							1/8" PER 1'
PIPE INSULATION THICKNESS									
PER 2022 CALIFORNIA ENERGY CODE TABLE 120.3-A									
FLUID TEMPERATURE RANGE (°F)	CONDUCTIVITY RANGE (BTU-INCH PER HOUR PER SQ. FT. PER °F)	INSULATION MEAN RATING TEMPERATURE (°F)	NOMINAL PIPE DIAMETER(INCHES)						
			<=1	1 < 1.5	1.5 - < 4	4 - < 8	8 <		
			INSULATION THICKNESS REQUIRED(INCHES)						
SPACE HEATING, HOT WATER SYSTEMS(STEAM, STEAM CONDENSATE AND HOT WATER) AND SERVICE HEATING SYSTEMS									
ABOVE 350	0.32 - 0.34	250	4.5	5.0	5.0	5.0	5.0		
251-350	0.29 - 0.31	200	3.0	4.0	4.5	4.5	4.5		
201-250	0.27 - 0.30	150	2.5	2.5	2.5	3.0	3.0		
141-200	0.25 - 0.29	125	1.5	1.5	2.0	2.0	2.0		
105-140	0.22 - 0.28	100	1.0	1.5	2.0	2.0	2.0		
SPACE COOLING SYSTEMS(CHILLED WATER, REFRIGERANT AND BRINE)									
40-60	0.21 - 0.27	75	0.5	0.5	1.0	1.0	1.0		

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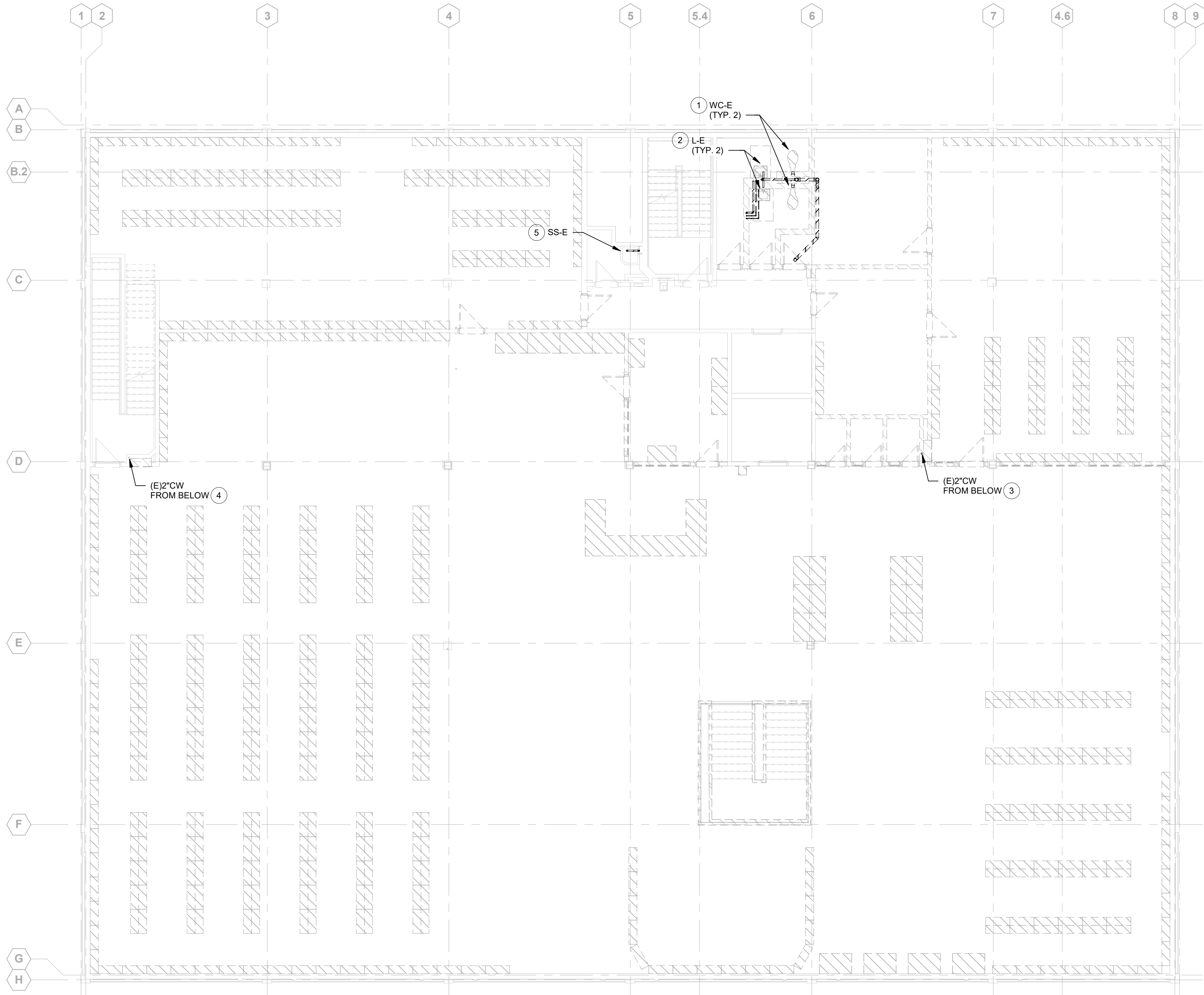
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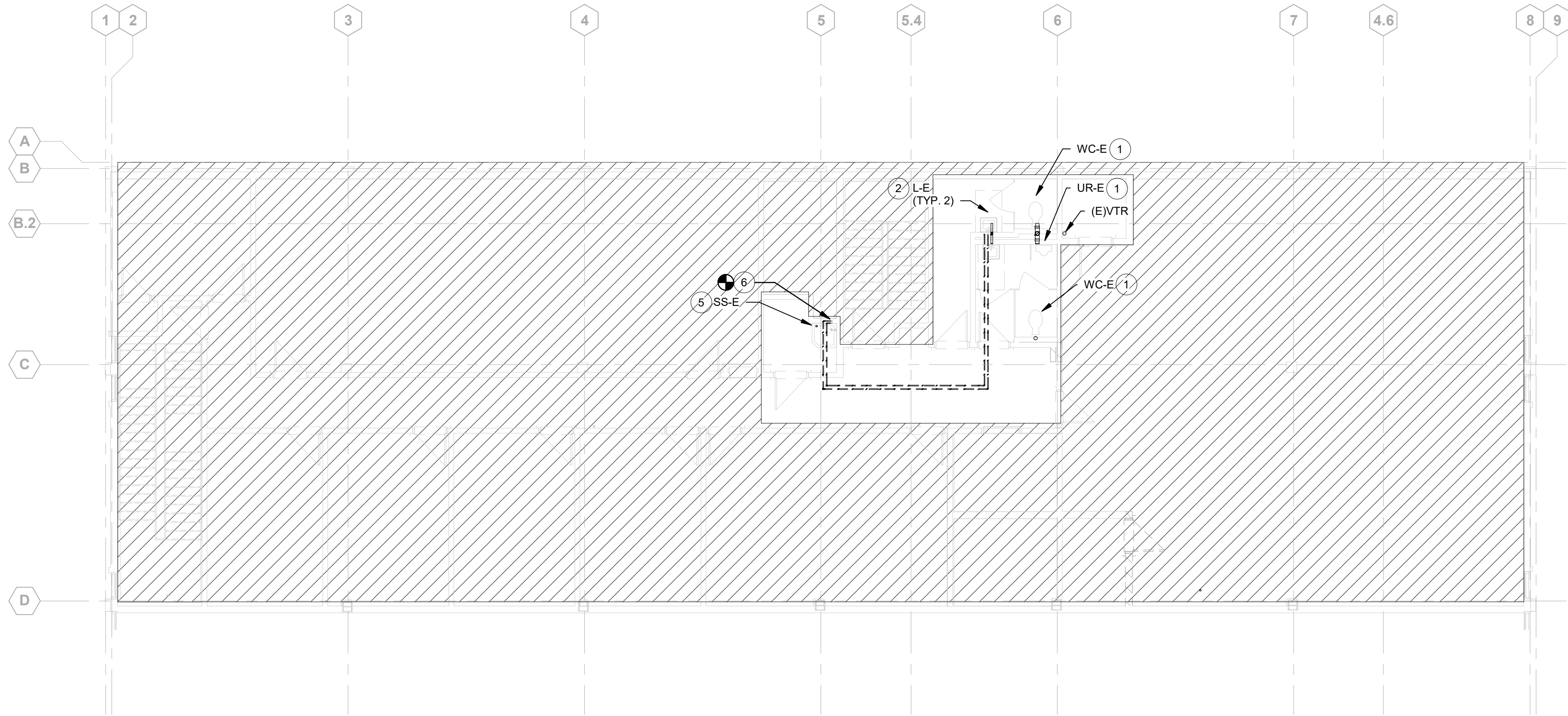
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PLUMBING DEMO
PLAN - BASEMENT
AND FIRST FLOOR

P2.01



1 LEVEL 2 PLUMBING DEMO PLAN
1/8" = 1'-0"



2 LEVEL 3 PLUMBING DEMO PLAN
1/8" = 1'-0"

KEYNOTES:

- 1 REMOVE EXISTING WATER CLOSET/URNAL AND FLUSH VALVE. DEMOLISH EXISTING DOMESTIC WATER, VENT AND WASTE PIPING BACK TO EXISTING MAIN AND CAP.
- 2 REMOVE EXISTING LAVATORY/SINK AND FAUCET. DEMOLISH EXISTING DOMESTIC WATER, VENT AND WASTE PIPING BACK TO EXISTING MAIN AND CAP.
- 3 REMOVE FIRE HOSE CABINET. DEMOLISH EXISTING DOMESTIC COLD WATER PIPING BELOW SLAB AND TEMPORARILY CAP. PREPARE FOR RECONNECTION IN REMODEL.
- 4 FIRE HOSE CABINET EXISTING TO REMAIN.
- 5 EXISTING FIXTURE TO REMAIN.
- 6 DEMOLISH EXISTING HOT WATER AND HOT WATER RETURN PIPING SERVING 3RD FLOOR RESTROOM. PROTECT IN PLACE CONNECTION TO SERVICE SINK.

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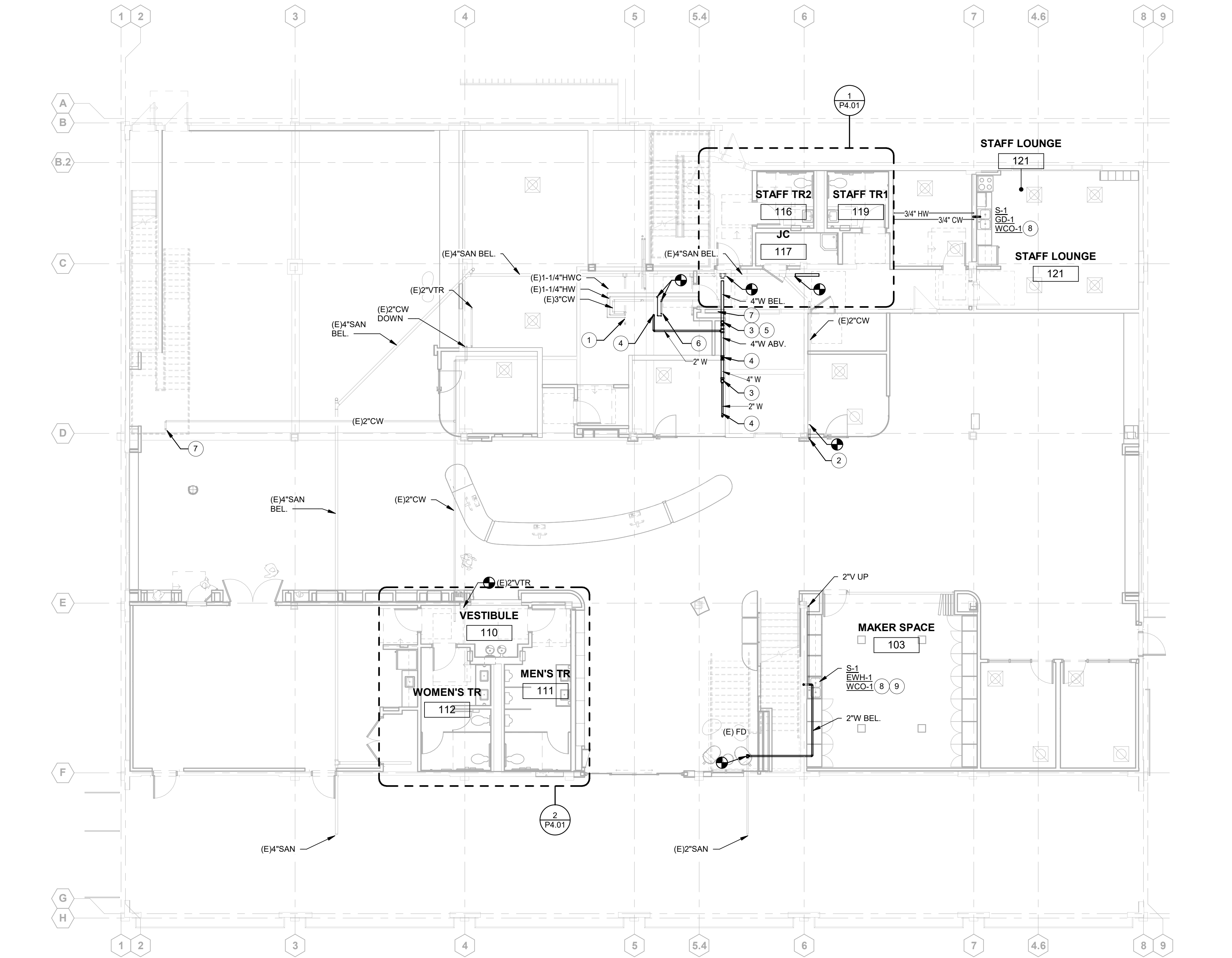
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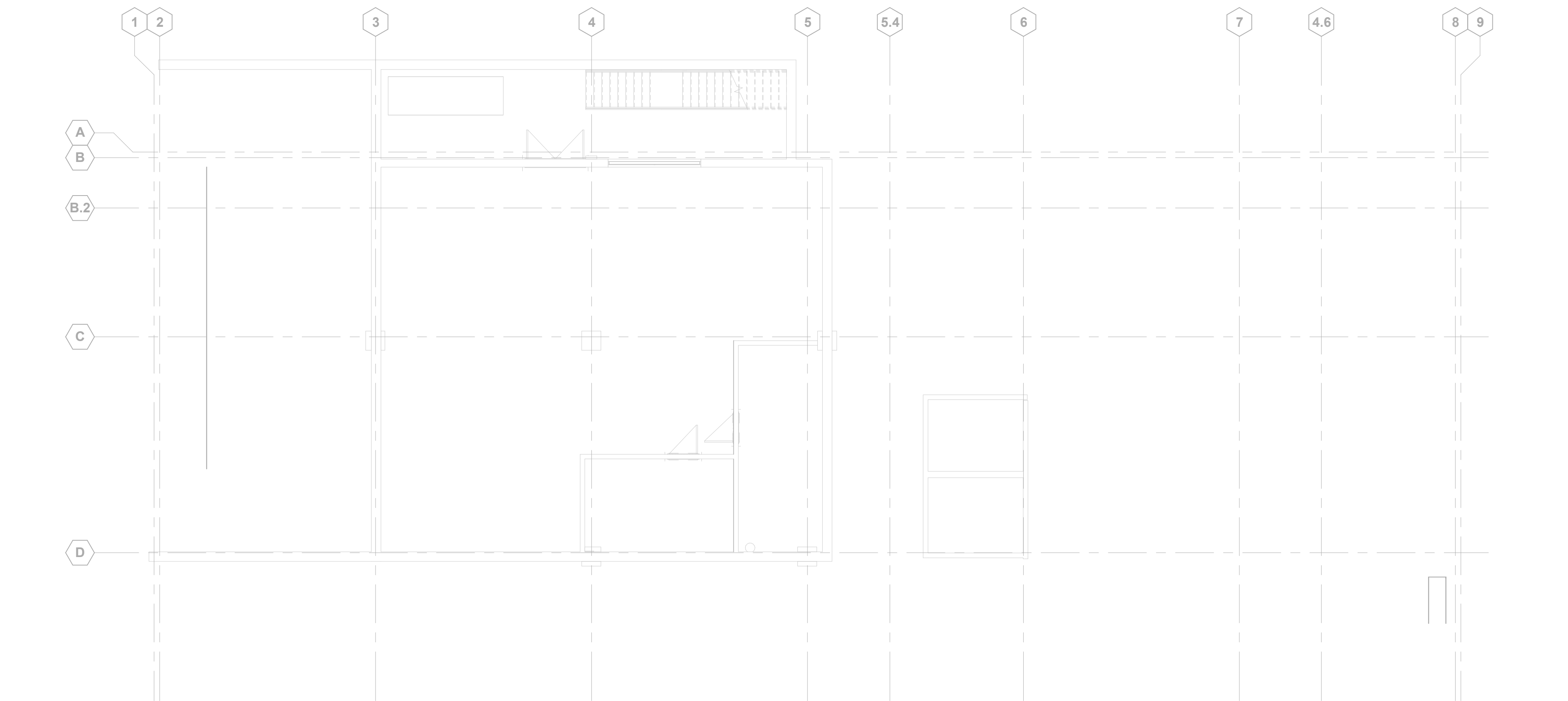
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PLUMBING DEMO
PLAN - SECOND
AND THIRD FLOOR

P2.02



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



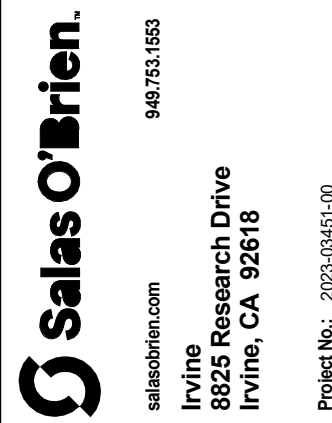
2 BASEMENT PLUMBING PLAN
1/8" = 1'-0"

KEYNOTES:

- (E)3"CW, (E)1-1/4"HW, (E)3/4" HWR DOWN RISER DOWN UP FROM BASEMENT LEVEL.
- 2"CW UP TO FIRE HOSE CABINET.
- 4"SAN UP TO FIXTURE ABOVE.
- 2"SAN UP TO FIXTURE ABOVE.
- 4"SAN DOWN BELOW.
- 1-1/2"CW AND 3/4"HW UP ABOVE.
- (E)2"CW TO EXISTING FIRE HOSE CABINET.
- 3/4"CW, 3/4"HW, 2"SAN AND 1-1/2"V TO NEW SINK FIXTURE.
- 3/4"CW UP FROM BASEMENT LEVEL.

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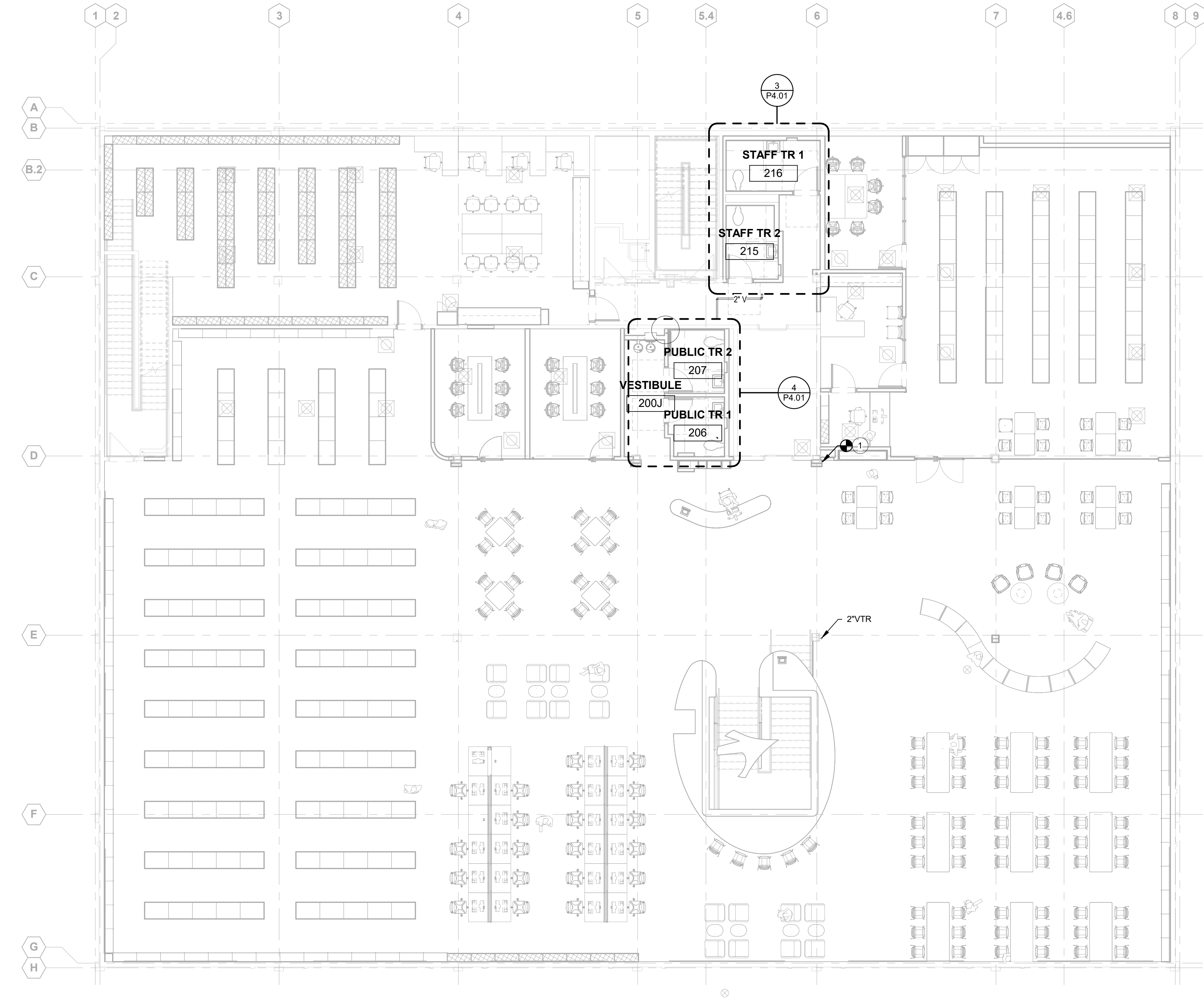
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PLUMBING PLAN -
BASEMENT AND
FIRST FLOOR

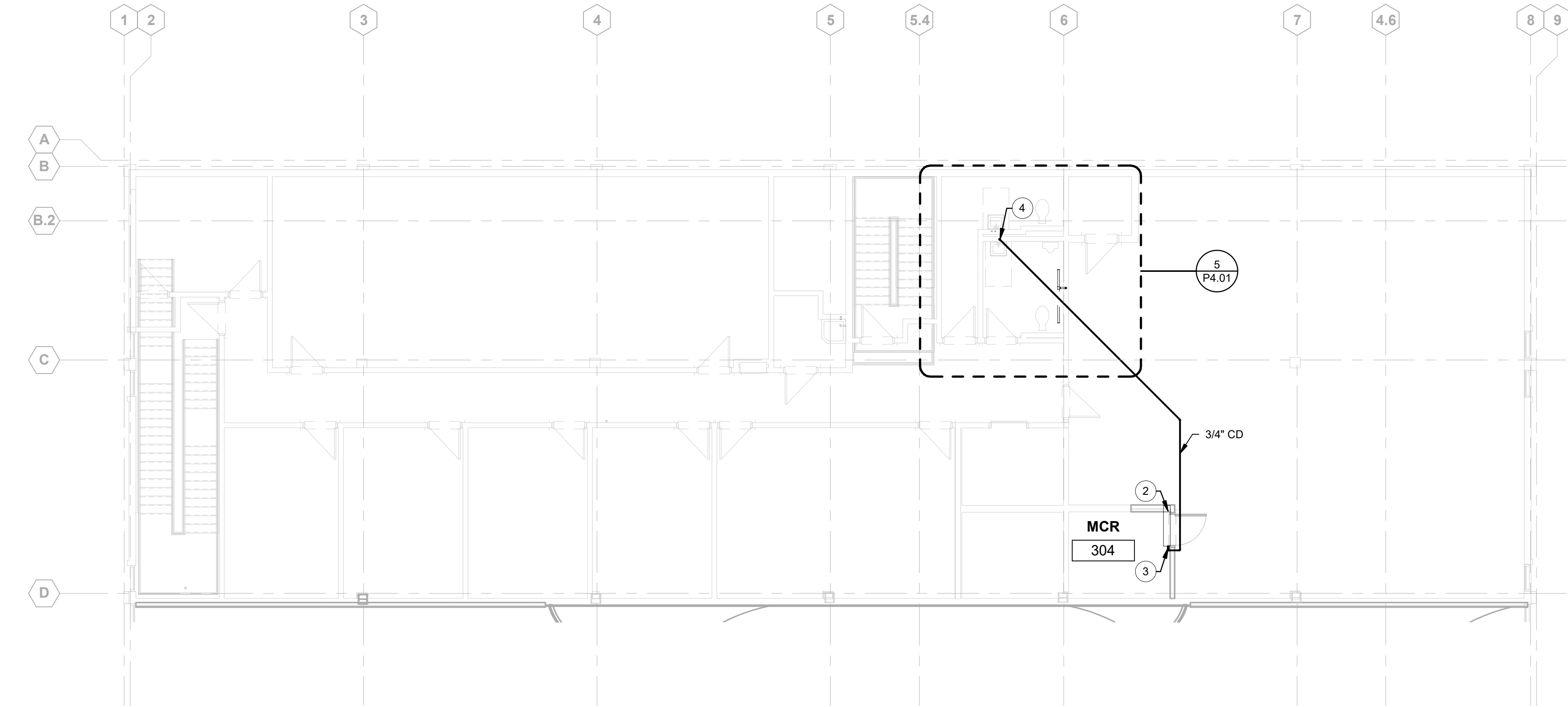
P3.01

KEYNOTES:

- 1
- CONNECT 2" CW FROM BELOW AND REINSTALL EXISTING FIRE HOSE CABINET.
- 2
- AC UNIT. SEE MECHANICAL PLANS.
- 3
- 3/4" CONDENSATE DRAIN TRAP.
- 4
- 3/4" CONDENSATE DRAIN DOWN IN WALL. SPILL TO LAVATORY TAILPEICE. SEE DETAIL 4/P5.01.



1 LEVEL 2 PLUMBING PLAN
1/8" = 1'-0"



2 LEVEL 3 PLUMBING PLAN
1/8" = 1'-0"

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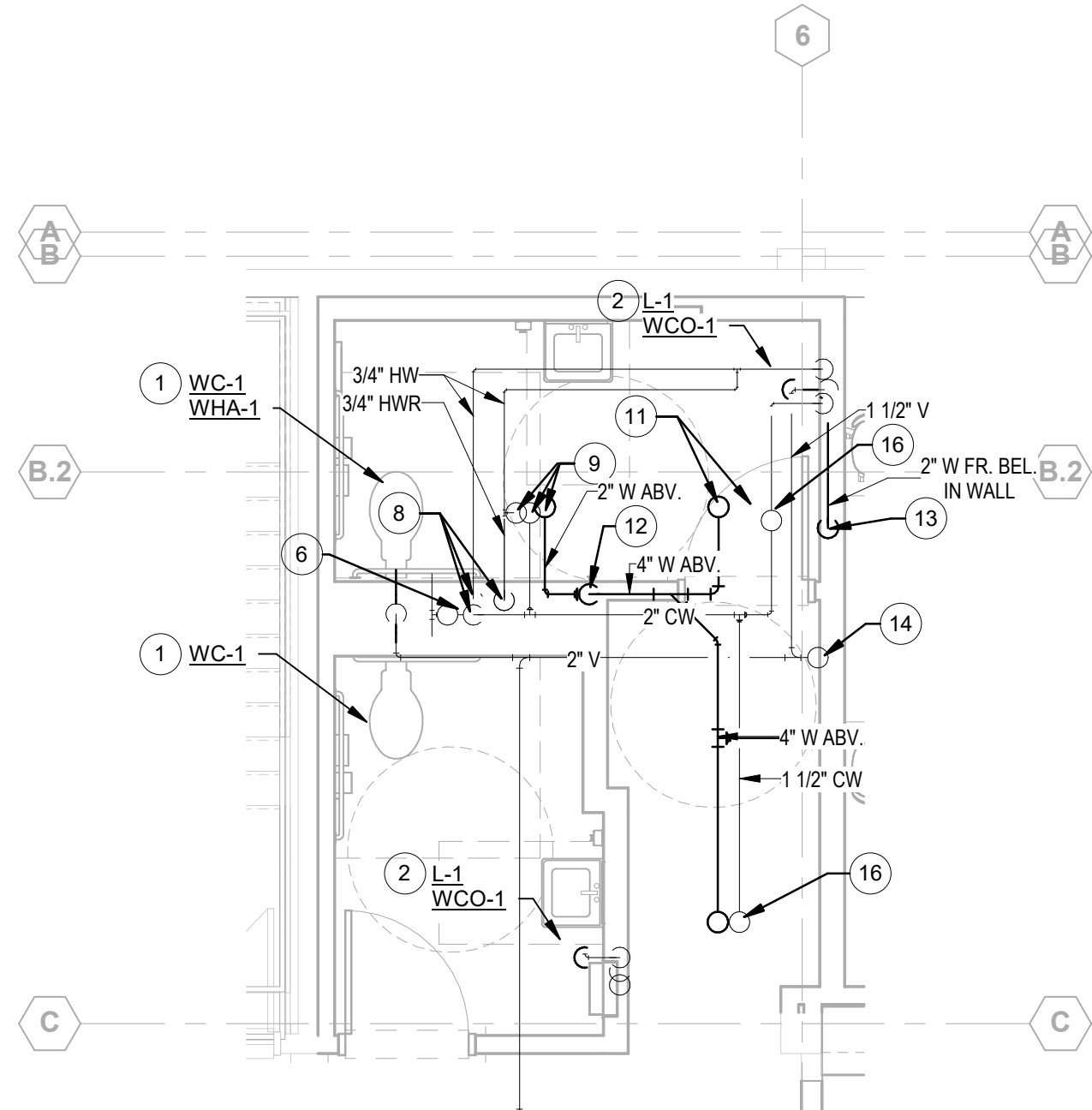


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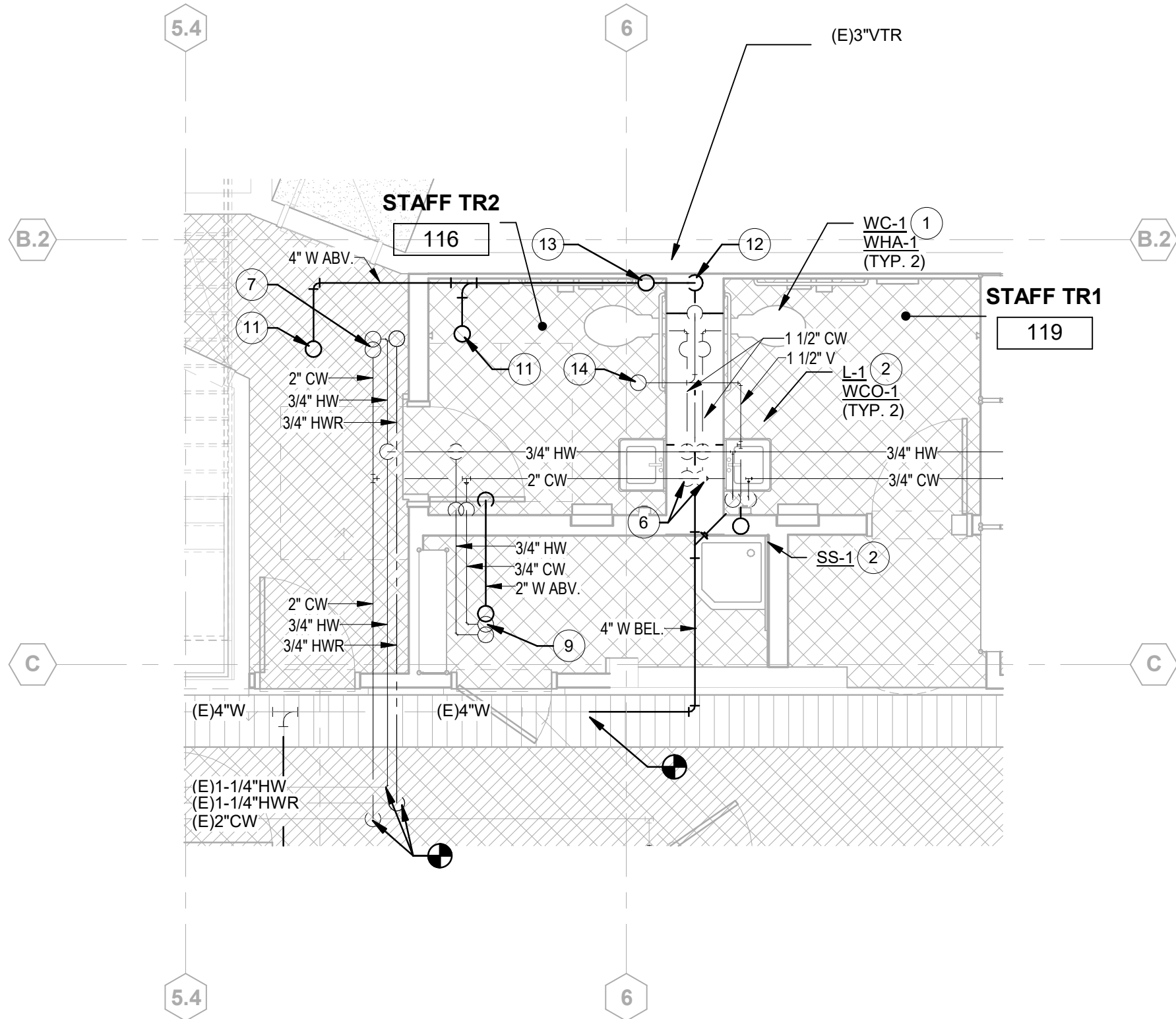
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PLUMBING PLAN -
SECOND AND
THIRD FLOOR

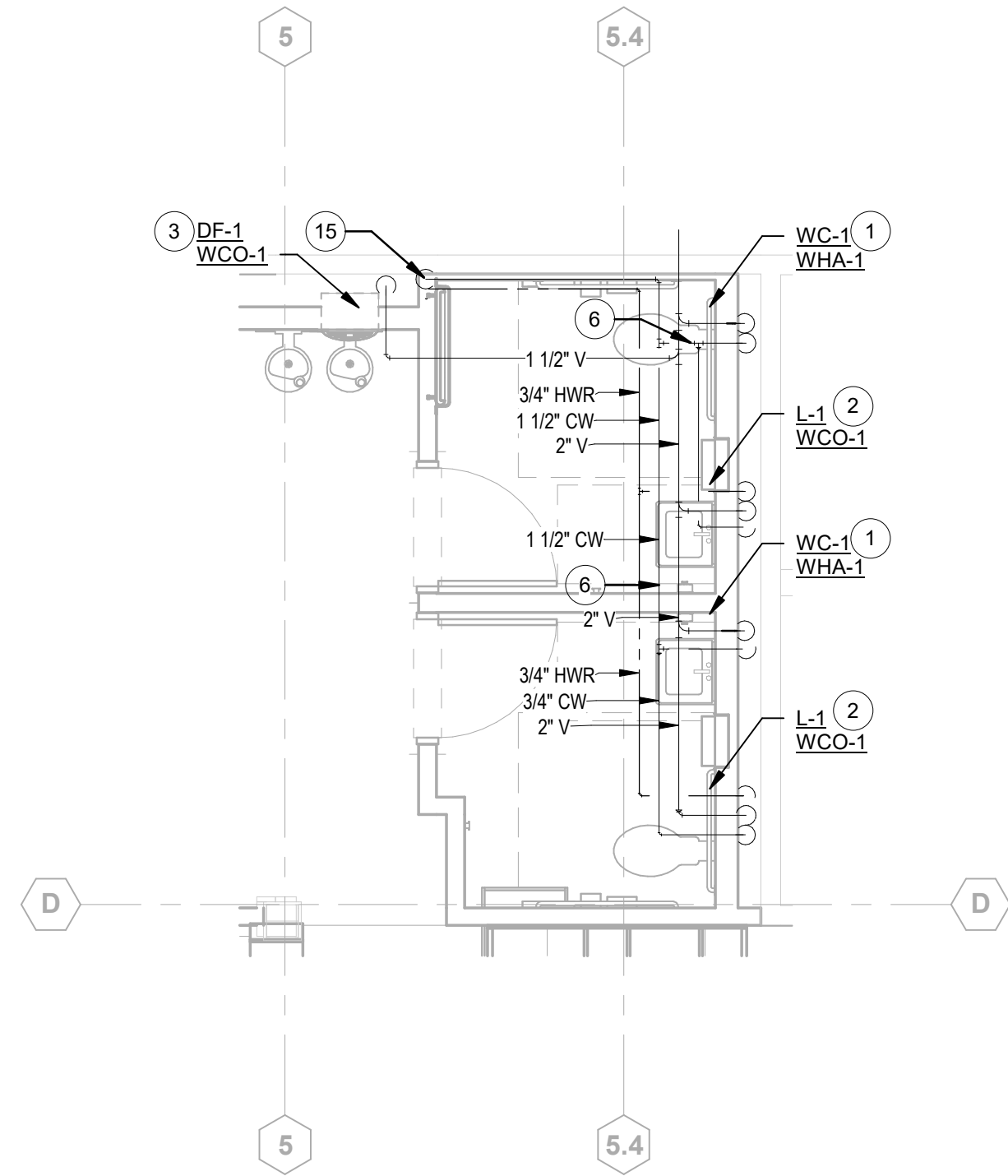
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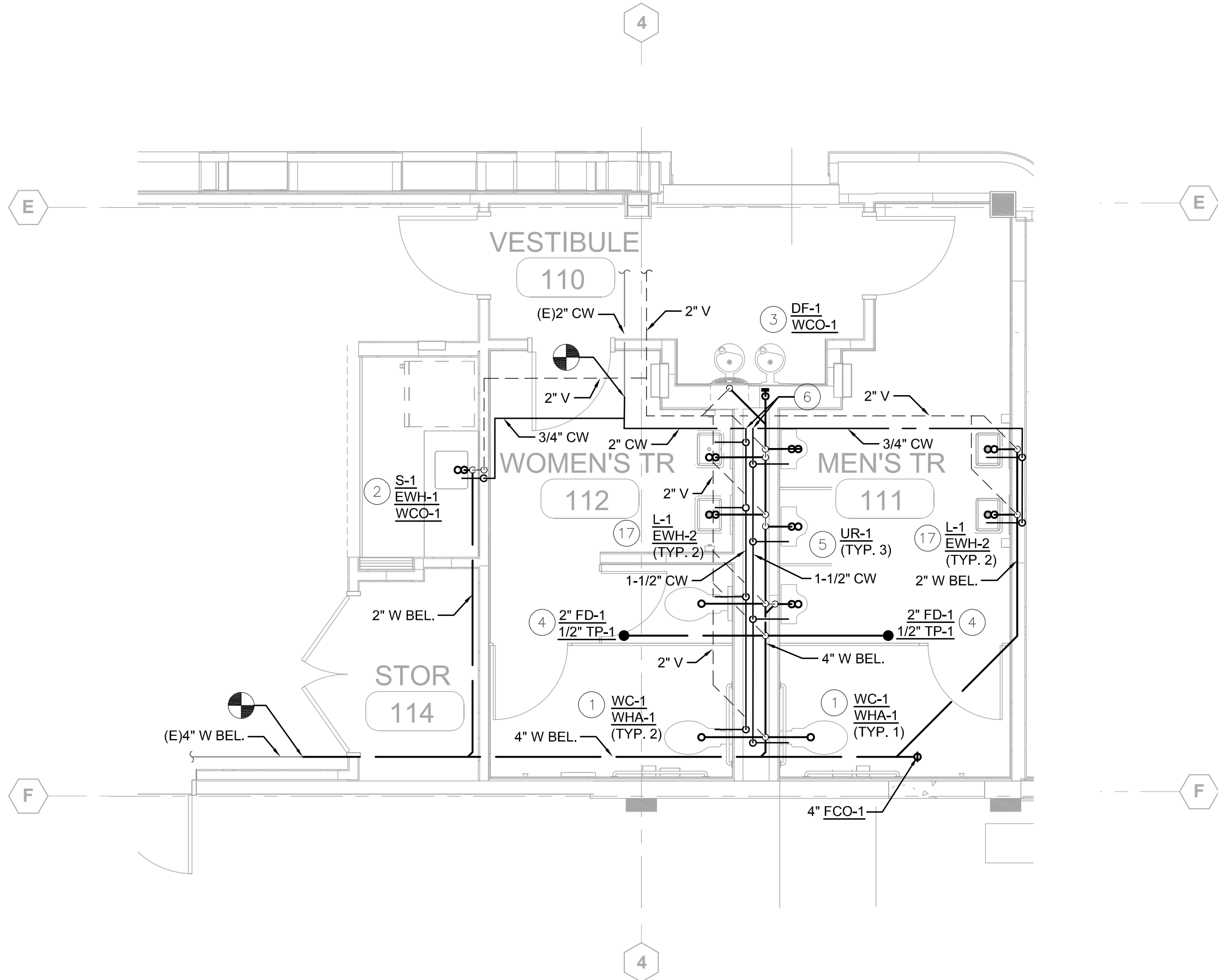
3 STAFF TR1 / TR 2 ENLARGED PLUMBING PLAN
1/4" = 1'-0"



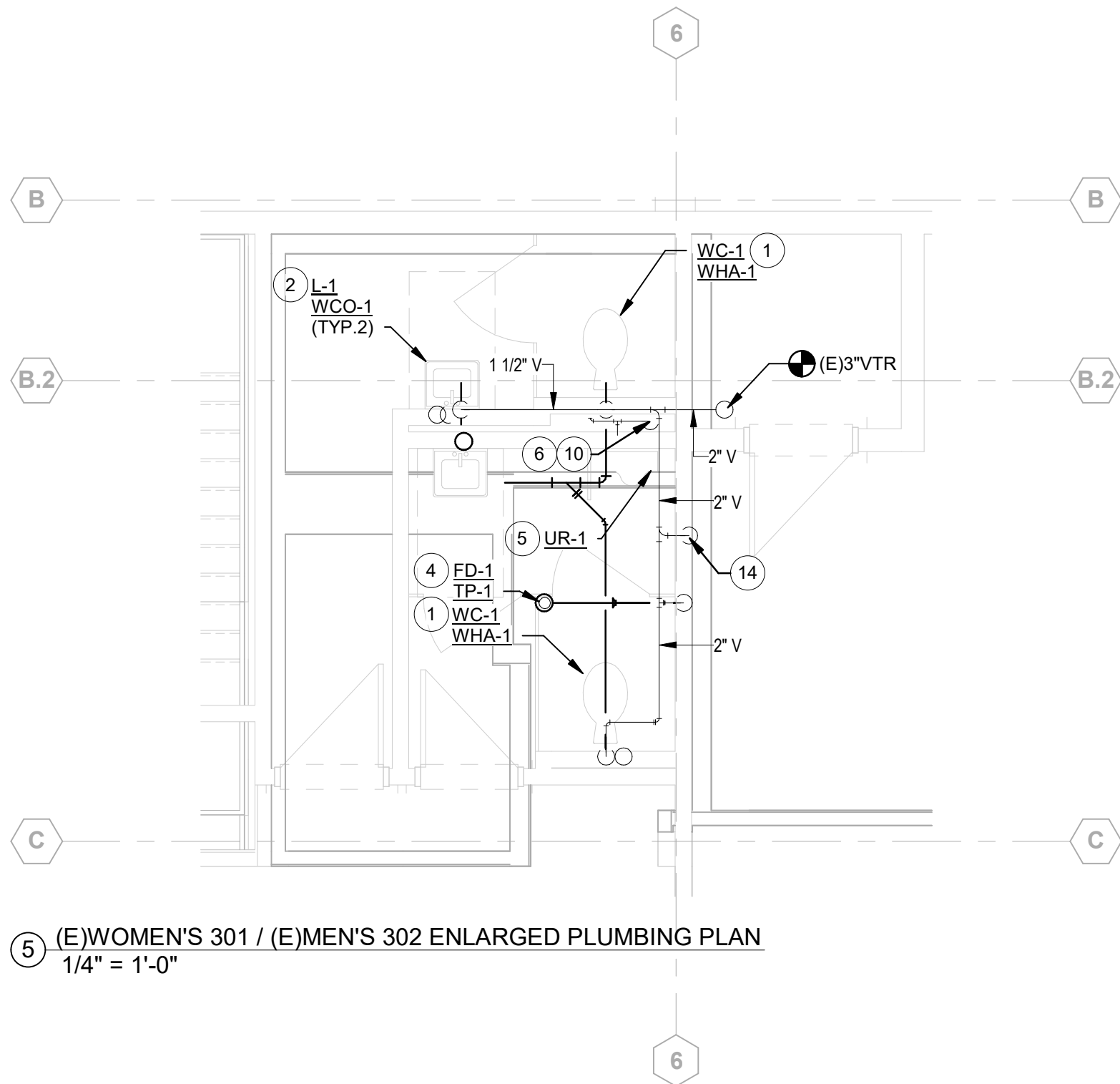
1 STAFF TR1/TR2 ENLARGED PLUMBING PLAN
1/4" = 1'-0"



4 PUBLIC TR1 / TR 2 & VESTIBULE ENLARGED PLUMBING PLAN
1/4" = 1'-0"



2 MEN'S 111 / WOMEN'S 112 TR ENLARGED PLUMBING PLAN
1/4" = 1'-0"



5 (E)WOMEN'S 301 / (E)MEN'S 302 ENLARGED PLUMBING PLAN
1/4" = 1'-0"

KEYNOTES:

- 1 INSTALL WATER CLOSET AND WATER HAMMER ARRESTOR. PROVIDE 1-1/2"CW, 4"SAN AND 2"V PIPING TO FIXTURE.
- 2 INSTALL SINK FIXTURE. PROVIDE 3/4"CW, 3/4"HW, 2"SAN AND 1-1/2"V PIPING TO FIXTURE.
- 3 INSTALL DRINKING FOUNTAIN. PROVIDE 3/4"CW, 2"SAN AND 1-1/2"V PIPING TO FIXTURE.
- 4 INSTALL FLOOR DRAIN. PROVIDE 1/2" TO TP-1, 2"SAN AND 1-1/2"V PIPING TO FLOOR DRAIN TO FIXTURE.
- 5 INSTALL URINAL. PROVIDE 1-1/2"CW, 2"SAN AND 2"V PIPING TO FIXTURE.
- 6 INSTALL SHUT OFF VALVE BEHIND ACCESS PANEL.
- 7 2"CW, 1-1/4"HW AND 3/4"HWR UP ABOVE.
- 8 2"CW, 1-1/4"HW AND 3/4"HWR FROM BELOW AND UP.
- 9 3/4"CW, 3/4"HW, 2"SAN UP TO FIXTURE ABOVE.
- 10 1-1/2"CW FROM BELOW.
- 11 4"SAN UP TO FIXTURE ABOVE.
- 12 4"SAN DOWN BELOW.
- 13 2"SAN UP TO FIXTURE ABOVE.
- 14 2"V UP ABOVE.
- 15 1-1/2"CW AND 3/4"HW FROM BELOW.
- 16 4" SAN AND 1-1/2"CW UP TO FIXTURE ABOVE.
- 17 INSTALL SINK FIXTURE. PROVIDE 3/4"CW, 2"SAN AND 1-1/2"V PIPING TO FIXTURE.
- 18 REINSTALL EXISTING FIRE HOSE CABINET. CONNECT NEW 2"CW TO EXISTING COLD WATER SUPPLY CAPPED IN CEILING. MODIFY CONNECTION TO ACCOMMODATE NEW CONDITION.

REVISIONS

95% CONSTRUCTION DOCUMENTS

Salas O'Brien

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