

ABBREVIATIONS

(E) or EXIST	Existing	EA	Each	LOC(s)	Location(s) or Locate	REINF	Reinforce(ing)(d)(ment)
(S)	Salvaged	EC	Epoxy Coated	LONG	Longitudinal	REQQ	Required
/	Per	EE	Each End	Lr	Roof Live Load	REQT(s)	Requirement(s)
@	At	EF	Each Face	LSL	Laminated Strand Lumber	RET	Return
AB	Anchor Bolt	EJ	Expansion Joint	LT	Light	RO	Rough Opening
ACI	American Concrete Institute	EL	Elevation	LTE	Tension Embedment	ROF	Random Oriented Fiber
ADDNL	Additional	ELEV	Elevator	LTS	Tension Lap Splice Length	S	South
AESS	Architecturally Exposed Structural Steel	EMBED	Embedded	LTWT	Lightweight	SC	Slip Critical
AFF	Above Finish Floor	EN	Edge Nail	LVL	Level or Laminated Veneer Lumber	SCHED	Schedule
ALT	Alternate	ENGR	Engineer	LWC	Light Weight Concrete	SECT	Section
ALUM	Aluminum	EOR	Engineer-of-Record	MACH	Machine	SIM	Similar
APA	American Plywood Association	EQ	Equal	MACH RM	Machine Room	SL	Snow Load
APPROX	Approximate	EQ SP	Equally Spaced	MAS	Masonry	SLH	Short Leg Horizontal
ARCH	Architect or Architectural	EQUIP	Equipment	MATL	Material	SLRS	Seismic Load Resisting System
B or BO	Bottom of	ES	Each Side	MAS	Maximum	SLV	Short Leg Vertical
BAI	Balance	EW	Each Way	MBS	Metal Building Supplier	SOG	Slab on Grade
BD	Board	EXP	Expansion	MCJ	Masonry Control Joint	SP	Space(s)
BF	Braced Frame	EXP ANCH	Expansion Anchor	MECH	Mechanical	SP @	Space at
BG	Backgauge	EXT	Exterior	MEP	Mech/Elect/Plumb	SPECS	Specifications
BL	Brick Ledger	F	Fluid Load	MIL	Micro-Lam	SPRT	Support
BLDG	Building	Fa	Flood Load	MIN	Minimum	SS	Stainless Steel
BLKG	Blocking	FAB	Fabricate	MISC	Miscellaneous	STD	Standard
BM	Beam	FD	Footing Dowel	MLS	Millimeter	STIFF	Stiffener
BN	Boundary Nail	FF	Finished Floor	mm	Millimeter	STL	Steel
BOS	Bottom of Steel	FIN	Finish(ed)	MNFR	Manufacturer	STR	Structural
BOT or B	Bottom	FLG	Flange	MO	Masonry Opening	SW	Shearwall
BRG	Bearing	FLR	Floor	MTL	Metal	SYM	Symmetrical
BSMT	Basement	FND	Foundation	N	North	T	Top or Thermal Load
BTWN	Between	FO	Face of	N-S	North-South	T&B	Top and Bottom
CC	Center to Center	FP	Full Penetration or Fire Proofing	NIC	Not in Contract	Ti or T.O.	Top of
CF	Cold Formed	FRAM	Framing	NM		THK	Thick or Thickness
CG	Center of Gravity	FS	Far Side	NO OR #	Number	TL	Total Load
CIP	Cast-In-Place	FT	Foot or Feet	NOM	Nominal	TOC	Top of Concrete
CJ	Control Joint	FTG	Footing	NS	Non-Shrink or Near Side	TOF	Top of Footing
CJP	Complete Joint Penetration	FV	Field Verify	NTS	Not to Scale	TOM	Top of Masonry
CL	Centerline	GA	Gage or Gauge	NWC	Normal Weight Concrete	TOP	Topping
CLG	Ceiling	GALV	Galvanized	O.F.	Outside Face	TOS	Top of Steel
CLMS	Ceiling/Light/Mechanical/ Superimposed Load	GC	General Contractor	OAE	Or Approved Equivalent	TOW	Top of Wall
CLR	Clear	GL	Glu-lam	OC	On Center	TRANS	Transverse
CMU	Concrete Masonry Unit	GR	Grade or Grind	OD	Outside Diameter	TWS	Two-Way Slab
COL	Column	GR BM	Grade Beam	OH	Opposite Hand	TYT	Typical
CONC	Concrete	H	Soil Lateral Load	OPNG	Opening	ULT	Ultimate
CONN	Connection	HAS or HDAS	Headed Anchor Stud	OPP	Opposite	UNO	Unless Noted Otherwise
CONST	Construction	HD	Headed or Holddown	OVS	Oversized	Vasd	Service Level/Nominal Design Wind Speed
CONT	Continue or Continuous	HDAR	Headed Anchor Rod	OVS	One-Way Slab	VERT	Vertical
CONTR	Contractor	HDG	Hot Dipped Galvanized	PAF	Powder Actuated Fastener	VIF	Verify in Field
COORD	Coordinate	HK	Hook	PWF	Powder Actuated Fastener	Vult	Ultimate Design Wind Speed
CSJ	Construction Joint	HORIZ	Horizontal	PC	Precast	W	Wind Load
CTR(D)	Center(ed)	HT	Height	PCA	Portland Cement Association	W/	With
d	Penny	HVAC		PD	Pier Dowel	W/O	Without
D or DL	Dead Load	I.F.	Inside Face	PEMB	Pre-Engineered Metal Building	W	Width or Wood
DAS	Deformed Anchor Stud	IN	Inch	PEN	Penetration	WF	Wide Flange
DBL	Double	INT	Interior	PERP	Perpendicular	WI	Wind-on-Ice Load
DCW	Demand Critical Weld	IS	Inside Diameter	PL	Plate (Steel)	WP	Working Point or Waterproofing
DFS	Deferred Submittal	IT	Precast Inverted Tee Beam	PLF	Pounds Per Lineal Foot	WPS	Welding Procedure Specification
Di	Gravity Ice Load	JST	Joist	PREFAB	Precast	WT	Weight
DIA OR Ø	Diameter	JT	Joint	PRELIM	Preliminary	WWR	Welded Wire Reinforcing
DIAG	Diagonal	k	Kip	PS	Prestressed	WxH	Width x Height
DIM	Dimension	L	Length or Live Load	PSF	Pounds Per Square Foot		
DN	Down	LB	Precast L-shaped Beam	PSI	Pounds Per Square Inch		
DO	Drilled Pier or Deep	LB(S)	Pound(s)	PT	Point or Post-Tension or Pretensioned		
DP	Drilled Pier or Deep	LCE	Compression Embedment	QTY	Quantity		
DT	Precast Double Tee	LCS	Compression Lap Splice	R	Radius or Rain Load		
DTL(s)	Detail(s)	LDH	Hook Development Length	RAD	Radius		
DWG(s)	Drawing(s)	LG	Length	RB	Precast Rectangular Beam		
DWL(s)	Dowels(s)	LL	Live Load	RC	Reinforced Concrete		
E	Earthquake Load	LLH	Long Leg Horizontal	RE: or REF	Refer to (Reference)		
E-W	East-West	LLV	Long Leg Vertical				

1J) POWDER ACTUATED FASTENERS (PA) INTO CONCRETE OR CMU SHALL NOT BE USED TO RESIST TENSION LOADS. POWDER ACTUATED FASTENERS SHALL NOT BE USED TO RESIST GRAVITY LOADS WHICH INCLUDE BRICK VENEER.

1J) REFERENCE COLD-FORMED STEEL FRAMING NOTES FOR ADDITIONAL DEFERRED SUBMITTAL DESIGN CRITERIA.

ROOF AREA	10 SF	100 SF	500 SF
ROOF INTERIOR NEG (ZONE 1)	-46.2	-35	-54.4
- USE THESE FOR JOIST UPLIFT WIND DESIGN FORCES UNO			
ROOF INTERIOR NEG (ZONE 1')	-24.5	-24.5	-16.0
ROOF NEGATIVE (ZONE 2)	-62.6	-48.2	-76.2
- EAVES, RAKES, RIDGES			
ROOF CORNERS NEG (ZONE 3)	-62.6	-48.2	-76.2
ROOF POSITIVE ALL ZONES	-16	-16	-16.0
ROOF NEGATIVE OVERHANG ZONE 1 & 1'	-46.2	-43.5	-54.4
ROOF NEGATIVE OVERHANG ZONE 2	-62.6	-43.4	-59.8
ROOF NEGATIVE OVERHANG ZONE 3'	-62.6	-43.4	-59.8
PARAPET PRESSURES			
PARAPET OP = 27.2 psf			
SOLID PARAPET PRESSURE	10 SF	100 SF	500 SF
PARAPET CASE A: ZONE 2:	87.0	68.6	54.4
ZONE 3:	87.0	68.6	54.4
PARAPET CASE B: INTERIOR ZONE:	-49.0	-42.2	-35.4
CORNER ZONE:	-73.4	-58.5	-43.5
PARAPET CASE A = PRESSURE TOWARDS BUILDING (POS)			
PARAPET CASE B = PRESSURE AWAY FROM BLDG (NEG)			
PARAPET CAP UPLIFT PRESSURES			
ZONE 2:	-68.0 PSF		
ZONE 3:	-68.0 PSF		
5) LATERAL LOAD RESISTING SYSTEM DESCRIPTION:			
SEISMIC RESISTING SYSTEM NOT CONSIDERED FOR ANCILLARY STRUCTURE ADDITION IN LEVEL B1 AND NEW SLAB REPLACEMENT AT LEVEL 1.			
ESCALATOR CANOPY STRUCTURE - ROOF HSS FRAME AS DIAPHRAGM AND WOOD GLULAM COLUMN, HSS BEAM, AND ROD BRACE AS LATERAL FRAMES IN SHORT DIRECTION, WOOD GLULAM COLUMN MOMENT FRAMES IN LONG DIRECTION.			
6) GRAVITY LOADS			
(6A) SEE LOAD KEY ON SHEET 1B-S0.02 FOR SUPERIMPOSED DEAD LOAD AND LIVE LOADS USED IN DESIGN.			
(6B) DRIFTING, SLIDING AND UNBALANCED SNOW			
GROUND SNOW LOAD = 132.0 PSF			
SNOW EXPOSURE FACTOR, $C_e = 1.0$			
SNOW LOAD IMPORTANCE FACTOR, $I_s = 1.0$			
THERMAL FACTOR, $C_t = 1.20$ (ESCALATOR CANOPY)			
UNIFORM ROOF SNOW LOAD = 110.9 PSF			
FLAT ROOF SNOW LOAD = 110.9 PSF			
7) RAIN LOADS:			
(7A) DESIGN RAIN INTENSITY = 2.5 INCHES PER HOUR			
(7B) DESIGN RAIN ROOF PRESSURE = 21 PSF			

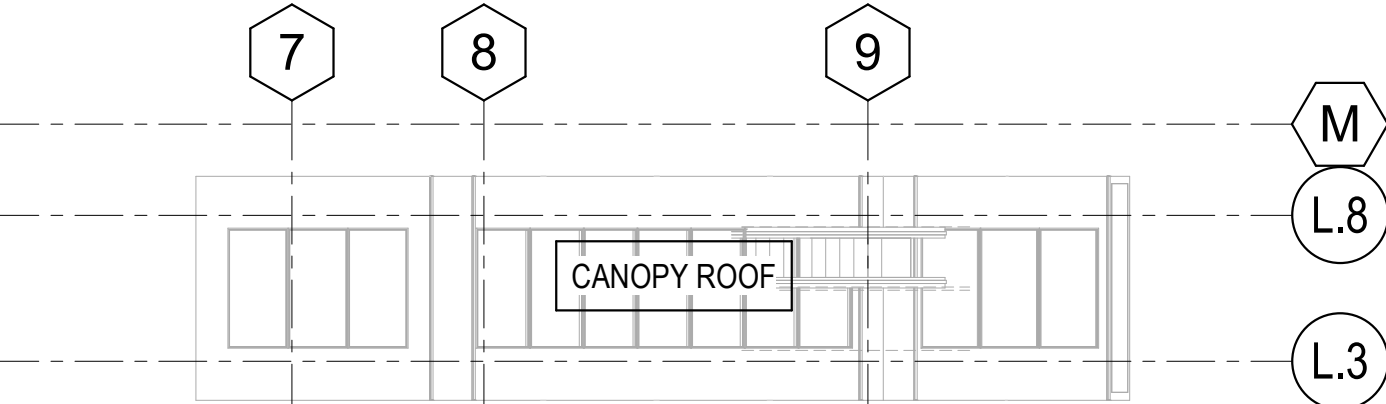
A map of the United States is shown at the bottom right of the page. The state of Michigan is highlighted in gray and labeled with a large black letter 'B'.

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MIL JOB # - 23-1115-01
DESIGNER: NC, MARTIN
LEAD REVIT TECH COLIN KNOWLES
DATE PRINTED 5/19/2021 11:35:47 AM
PLOT PATH: E:\03-2023\03-1155-001 - Steamboat_Retain\03-7835-000_Steamboat_SRR_CSD_2301_1\2021-14

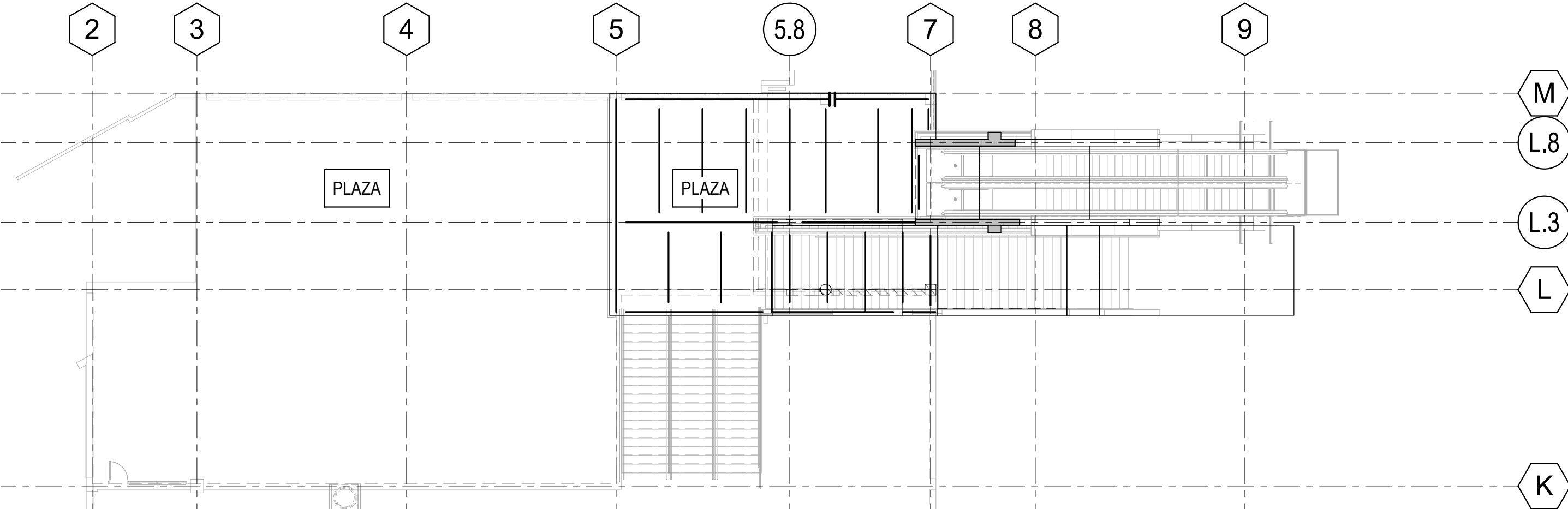
MIL JOB # - 23-1115-01
PRINCIPAL: KELLY KNOWLES
FOR: KELLY KNOWLES
PROJECT MANAGER: C. A. CHEN

GRAVITY LOADS					
LOCATION	SUPERIMPOSED DEAD LOAD...	LIVE LOAD (PSF)	LIVE LOAD REDUCTION	POINT LOAD (LB)	NOTES
PLAZA	63 PSF PAVER SYSTEM + 10 PSF CLUMP 73 PSF TOTAL	100	NO	4,000 LBS PER 1971 ORIGINAL DRAWING	--
CANOPY ROOF	10 PSF	20 PSF ROOF	NO	--	SEE ROOF SNOW



ESCALATOR ROOF LOADING PLAN

1/16" = 1'-0"



GOLDWALK LOADING PLAN

1/16" = 1'-0"

FOUNDATION NOTES

1) DESIGN CRITERIA:

THE GEOTECHNICAL REPORT PREPARED BY NORTHWEST COLORADO CONSULTANTS, INC., NUMBER 20-12000, DATED APRIL 22, 2021 PROVIDED CRITERIA FOR THE FOUNDATION DESIGN FOR THE PROJECT.

2) FOOTINGS:

- 2A) FOOTING DESIGN CRITERIA:
- MAXIMUM TOTAL LOAD BEARING PRESSURE = 3000 PSF
 - MINIMUM CONTINUOUS FOOTING WIDTH = 1 FT
 - MINIMUM SPREAD FOOTING WIDTH = 1 FT
 - ULTIMATE COEFFICIENT OF FRICTION TO RESIST LATERAL LOADS = 0.4
 - FROST DEPTH TO BOTTOM OF FOUNDATION = 48 IN

3) FOUNDATION WALLS:

2A) EQUIVALENT FLUID PRESSURES USED FOR WALL DESIGN:

- "ACTIVE" CONDITION = 45 PCF
- "AT REST" CONDITION = 55 PCF
- "PASSIVE" CONDITION = 275 PCF
- LATERAL PRESSURE DUE TO SURCHARGE = 250 PSF
- ULTIMATE COEFFICIENT OF FRICTION TO RESIST LATERAL LOADS = 0.4

3B) WALL DESIGN BASED ON IN-SITU SOILS ADJACENT TO FOUNDATION WALLS. SEE EARTHWORK SPECIFICATION FOR REQUIREMENTS.

4) SITE RETAINING WALLS:

4A) EQUIVALENT FLUID PRESSURES USED FOR WALL DESIGN:

- "ACTIVE" CONDITION = 45 PCF
- "AT REST" CONDITION = 55 PCF
- "PASSIVE" CONDITION = 275 PCF
- LATERAL PRESSURE DUE TO SURCHARGE = 100 PSF
- ULTIMATE COEFFICIENT OF FRICTION TO RESIST LATERAL LOADS = 0.4

4B) WALL DESIGN BASED ON IN-SITU SOILS ADJACENT TO SITE RETAINING WALLS. SEE EARTHWORK SPECIFICATION FOR REQUIREMENTS.

GENERAL NOTES

1) GENERAL:

1A) ENGINEER: REFERENCES ON THE STRUCTURAL DRAWINGS TO 'ENGINEER' MEAN THE STRUCTURAL ENGINEER OF RECORD. OTHER ENTITIES ARE SPECIFICALLY NOTED AS "CONTRACTOR'S ENGINEER", "MECHANICAL ENGINEER", ETC.

1B) THESE NOTES SUPPLEMENT THE SPECIFICATIONS, WHICH SHALL BE REFERENCED FOR ADDITIONAL REQUIREMENTS.

1C) UNDERGROUND UTILITIES: LOCATE EXISTING UTILITIES AND NOTIFY ARCHITECT OF EXISTING UTILITIES OR SUBGRADE CONDITIONS WHICH INTERFERE WITH WORK.

1D) STRUCTURAL ELEMENTS ARE CENTERED ON GRID LINES AND GRID LINE INTERSECTIONS UNLESS DIMENSIONED OTHERWISE.

2) USE OF DRAWINGS:

2A) DO NOT SCALE DRAWINGS.

2B) DETAILS ON DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

2C) DETAILS NOTED TYPICAL APPLY TO ALL SIMILAR CONDITIONS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ELSEWHERE ON THE PROJECT.

2D) WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES AND SPECIFICATIONS:

- CONTACT THE ARCHITECT PRIOR TO PROCEEDING WITH CONSTRUCTION
- THE MORE STRINGENT REQUIREMENTS SHALL GOVERN FOR BIDDING / PRICING

3) EXISTING STRUCTURES:

3A) CONTRACT DOCUMENTS HAVE BEEN PREPARED USING AVAILABLE DRAWINGS AND SITE OBSERVATION AS PERMITTED BY ACCESS RESTRICTIONS DURING DESIGN.

3B) DURING CONSTRUCTION, THE CONTRACTOR MAY ENCOUNTER EXISTING CONDITIONS WHICH ARE NOT KNOWN OR ARE AT VARIANCE WITH PROJECT DOCUMENTATION. CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ALL CONDITIONS NOT PER THE CONTRACT DOCUMENTS. EXAMPLES INCLUDE:

- SIZES OR DIMENSIONS OTHER THAN THOSE SHOWN
- DAMAGE OR DETERIORATION TO MATERIALS AND COMPONENTS
- CONDITIONS OF INSTABILITY OR LACK OF SUPPORT
- ITEMS NOTED AS EXISTING ON THE DRAWINGS BUT NOT FOUND IN THE FIELD

3C) PREPARE DIMENSIONAL DRAWINGS OF ALL DISCOVERED ITEMS.

3D) CONTRACTOR SHALL FIELD VERIFY ALL EXISTING STRUCTURAL CONDITIONS PRIOR TO SUBMITTING SHOP DRAWINGS.

3E) CONTRACTOR SHALL MAKE ALLOWANCE FOR THE RESOLUTION OF SUCH DISCOVERIES IN THE CONSTRUCTION SCHEDULE.

3F) SUBMIT A DIMENSIONED DRAWING OF ALL NEW OPENINGS THROUGH EXISTING STRUCTURE AND SECURE APPROVAL PRIOR TO CUTTING. NEW OPENING MAY BE EITHER SHOWN ON THE CONTRACT DOCUMENTS OR PROPOSED BY THE CONTRACTOR. DRAWING SHALL SHOW:

- VERTICAL & HORIZONTAL LOCATION AND SIZE OF NEW OPENING(S)
- ALL EXISTING OPENINGS IN THE VICINITY OF THE NEW OPENING(S)
- ALL EXISTING STRUCTURE (BEAMS, COLUMNS, SLABS, WALLS, ETC) IN THE VICINITY OF THE NEW OPENING(S)
- ALL REINFORCING BAR SIZES AND POSITIONS (LAYOUT LOCATION AND DEPTH) CONFLICTING WITH OR IN THE VICINITY OF THE NEW OPENING(S).

4) COORDINATION:

4A) STRUCTURAL DRAWINGS ARE NOT STAND-ALONE DOCUMENTS AND ARE INTENDED TO BE USED IN CONJUNCTION WITH CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND DRAWINGS FROM OTHER DISCIPLINES. THE CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS INTO SHOP DRAWINGS AND WORK.

4B) COORDINATE DIMENSIONS OF ALL OPENINGS, BLOCKOUTS, DEPRESSIONS, ETC., WITH ARCHITECTURAL DRAWINGS, DRAWINGS FROM OTHER DISCIPLINES, AND FIELD CONDITIONS PRIOR TO SHOP DRAWING SUBMITTAL.

4C) SEE ARCHITECTURAL PLANS FOR INTERIOR PARTITIONS. PARTITION FRAMING SHALL BE CONNECTED TO THE PRIMARY STRUCTURE IN SUCH A WAY SO AS TO ALLOW FOR VERTICAL LIVE LOAD DEFLECTIONS OF SPAN/360 AT FLOOR FRAMING OR SPAN/240 AT ROOF FRAMING. DO NOT MAKE RIGID VERTICAL AND HORIZONTAL CONNECTIONS TO THE PRIMARY STRUCTURE IN THE PLANE OF THE PARTITION.

5) SUBMITTALS AND SUBSTITUTIONS:

5A) SUBMITTALS: REFER TO SPECIFICATIONS FOR DETAILED REQUIREMENTS.

- IF THE CONTRACTOR REQUESTS A CHANGE FROM THE STRUCTURAL DRAWINGS, IT SHALL BE APPROVED BY THE ARCHITECT AND DESIGNED BY MARTIN/MARTIN, INC. PRIOR TO SUBMITTING SHOP DRAWINGS. VARIATION SHALL BE INDICATED ON THE SHOP DRAWINGS. CONTRACTOR SHALL COMPENSATE MARTIN/MARTIN, INC. FOR MAKING THE CHANGE.
- CONSTRUCTION DOCUMENTS SHALL NOT BE REPRODUCED FOR USE IN SUBMITTALS
- ALL SHOP DRAWINGS SHALL REFERENCE THE STRUCTURAL DRAWING NUMBER AND DETAIL USED TO PREPARE THE SUBMITTAL
- SUBMIT A STATEMENT OF RESPONSIBILITY FOR CONSTRUCTION OF THE LATERAL LOAD RESISTING SYSTEM IDENTIFIED IN THE DESIGN CRITERIA IN ACCORDANCE WITH IBC 2018 SECTION 1704

5B) SUBSTITUTIONS: ARCHITECT'S APPROVAL SHALL BE SECURED FOR ALL SUBSTITUTIONS

5C) NONCONFORMANCE: NOTIFY ARCHITECT OF CONDITIONS NOT CONSTRUCTED PER THE CONTRACT DOCUMENTS PRIOR TO PROCEEDING WITH CORRECTIVE WORK. SUBMIT PROPOSED REPAIR TO THE ARCHITECT FOR ACCEPTANCE. CONTRACTOR SHALL COMPENSATE MARTIN/MARTIN, INC. FOR DESIGNING THE REPAIR.

6) TEMPORARY CONDITIONS, CONSTRUCTION ENGINEERING, AND OSHA STANDARDS:

6A) THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION AND ONLY FOR LOADS ANTICIPATED DURING THE STRUCTURE'S SERVICE LIFE.

6B) THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES. REFER TO "LATERAL LOAD RESISTING SYSTEM DESCRIPTION" IN DESIGN CRITERIA FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL PROVIDE ALL REQUIRED ENGINEERING AND OTHER MEASURES TO ACHIEVE THE MEANS, METHODS, AND SEQUENCES OF WORK WHICH MAY INCLUDE, BUT IS NOT LIMITED TO:

- LAYOUT
- DESIGN FOR FORMWORK, SHORING, AND RESHORING
- DESIGN OF CONCRETE MIXES
- ERECTION PROCEDURES WHICH ADDRESS STABILITY OF THE FRAME DURING CONSTRUCTION
- WELD PROCEDURES
- DESIGN OF TEMPORARY BRACING OF WALLS FOR WIND, SEISMIC, OR SOIL LOADS
- SURVEYING TO VERIFY CONSTRUCTION TOLERANCES
- EVALUATION OF TEMPORARY CONSTRUCTION LOADS ON STRUCTURE DUE TO EQUIPMENT AND MATERIALS
- STRUCTURAL ENGINEERING TO RESIST ANY OTHER LOADS NOT IDENTIFIED ON DESIGN DRAWINGS

6C) FOUNDATION WALLS SHALL NOT BE BACKFILLED UNTIL THE SLABS-ON-GRADE AND UPPER SLABS ARE IN-PLACE AND REACH FULL STRENGTH UNLESS ADEQUATE BRACING IS PROVIDED. USE ONLY HAND OPERATED TOOLS FOR COMPACTION ADJACENT TO FOUNDATION WALLS AND GRADE BEAMS. GRADE BEAMS SHALL BE BACKFILLED EVENLY ON BOTH SIDES.

6D) NOTHING SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE CONSTRUED AS ELIMINATING THE NEED FOR THE CONTRACTOR TO COMPLY WITH ALL OSHA REQUIREMENTS. WHERE THE STRUCTURAL DRAWINGS APPEAR TO CONFLICT WITH OSHA REQUIREMENTS, THE STRUCTURAL DRAWINGS REPRESENT FINAL CONDITIONS ONLY.

- THE CONTRACTOR SHALL ADD ALL ERECTION FRAMING NECESSARY TO COMPLY WITH OSHA.
- THE CONTRACTOR SHALL ADD ALL NECESSARY BOLTS, ANCHOR BOLTS, PLATES, STIFFENER PLATES, STABILIZER PLATES, BRACING, ETC., AS WELL AS CLOSURES FOR OPENINGS. IN ADDITION, FIELD WELD ANYTHING THAT MAY BE CONSIDERED A TRIP HAZARD, SUCH AS SHEAR STUDS, AFTER PROTECTIVE DECKING IS INSTALLED.
- WASHERS OR RINGS MAY BE WELDED TO COLUMNS TO PROVIDE FOR SAFETY CABLES. HOLES IN COLUMNS FOR SAFETY CABLES SHALL BE SHOP INSTALLED AND SHALL BE INDICATED ON SHOP DRAWINGS. ADJUST COLUMN SPLICE LOCATIONS OR ADD COLUMN SPLICES AS NECESSARY TO COMPLY WITH OSHA REQUIREMENTS. SUBMIT PROPOSED LOCATIONS.

WOOD NOTES

1. GLUED LAMINATED MEMBERS:

1A) COMBINATION SYMBOL:

- SINGLE SPAN: 24F-V4
 - MULTI- SPAN: 24F-V8
- 1B) MINIMUM DESIGN VALUES ARE BASED ON THE 2018 NDS.

2) METAL CONNECTORS:

2A) FRAMING CONNECTORS SHALL CONFORM TO IBC 2018 SECTION 2303.5. SEE DETAILS FOR REQUIREMENTS.

2B) ALL CONNECTOR HOLES SHALL BE FILLED WITH PROPER NAILS/BOLTS INCLUDING OPTIONAL NAIL LOCATIONS FOR UPLIFT. ALL BOLT HOLES SHALL BE DRILLED INTO FRAMING MEMBERS. MAXIMUM HOLE DIAMETER IS 1/16" LARGER THAN THE BOLT DIAMETER.

3) OPENINGS:

3A) OPENING, POCKETS, ETC., SHALL NOT BE PLACED UNLESS DETAILED ON THE STRUCTURAL DRAWINGS.

MASS TIMBER MATERIAL TABLE

WOOD ELEMENT	SPECIES/ GRADE	Fb TOP/BOT (PSI)	Fv (PSI)	E (PSI)	REMARKS
GLULAMS - SINGLE SPAN	24F-V4	1850/2400	265	1,800,000	-
GLULAMS - MULTI-SPAN/COLS	24F-V4	2400/2400	265	1,800,000	SEE NOTE 2

NOTES:

1. PROPERTIES LISTED SHALL BE MET OR EXCEEDED.
2. MULTI-SPAN CONDITIONS INCLUDE GLULAM MEMBERS WITH CANTILEVERS.



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Seal / Signature

△ Date	Description
- 2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name
SSRC BASE AREA IMPROVEMENTS
Project Number
003.7835.000
Description
NOTES

Scale
As indicated

1B-S0.02

MIL JOB # - 03-1415-01
DESIGNER: NC, MARTIN
LEAD REVIT TECH COLIN KNOWLES
DATE PRINTED 5/19/2021 11:35:50 AM
PLOT PATH: E:\MIL\03-1415-01\1B-S0.03 - Steamboat.dgn
PRINCIPAL: KELLY KNOWLES
FOR KELLY KNOWLES
PROJECT MANAGER: C. A. CHEN

STEEL NOTES				
1) CONNECTIONS: 1A) PROVIDE CONNECTIONS AS SHOWN IN THE 'STEEL BEAM CONNECTION SCHEDULES' AND DETAILS HEREIN. REFER TO SPECIFICATION FOR ALTERNATIVES AND CONNECTIONS NOT SHOWN.				
2) STEEL MATERIALS: 2A) SEE 'STEEL MATERIAL TABLE'				
3) WELDING REQUIREMENTS: 3A) WELDERS: HAVE IN POSSESSION CURRENT EVIDENCE OF PASSING THE APPROPRIATE AWS. QUALIFICATION TESTS. 3B) MINIMUM WELDS: AISC SPECIFICATION, NOT LESS THAN 3/16" FILLET, CONTINUOUS UNLESS OTHERWISE NOTED. 3C) WELD SIZES AND LENGTHS CALLED FOR ON THE DRAWINGS ARE THE NET EFFECTIVE REQUIRED. INCREASE WELD SIZE IF GAPS EXIST AT THE FAYING SURFACE. 3D) WELD SIZES SHALL BE AS SHOWN UNLESS A GREATER SIZE IS REQUIRED BY ANSI/AISC 360-05 TABLES J2.3 AND J2.4. 3E) ALL GROOVE WELDS SHALL BE COMPLETE PENETRATION UNLESS NOTED. 3F) FIELD WELDING SYMBOLS INDICATE SEQUENCE CONSIDERED DURING DESIGN. THE CONTRACTOR SHALL REQUEST APPROVAL FROM THE ENGINEER TO MODIFY WELD INSTALLATION LOCATION INDICATED ON THE DOCUMENTS: - FROM SHOP TO FIELD - FROM FIELD TO SHOP 3G) DEFORMED ANCHOR STUDS (DAS) AND HEADED ANCHOR STUDS (HAS / HDAS) SHALL BE SHOP OR FIELD WELDED AT CONTRACTOR'S OPTION UNLESS NOTED OTHERWISE 4) COMPOSITE GRAVITY FRAMING: 4A) COMPOSITE BEAMS ARE DESIGNED ASSUMING STUDS ARE INSTALLED IN THE WEAK POSITION (Rp = 0.6). SEE TYPICAL METAL DECK DETAILS FOR PLACEMENT REQUIREMENTS. 4B) COMPOSITE GIRDERS ARE DESIGNED ASSUMING STUDS ARE WELDED THROUGH THE METAL DECK AND/OR METAL DECKING/SHEET STEEL COVERS MORE THAN HALF OF THE TOP FLANGE (Rp = 0.75). SEE TYPICAL METAL DECK DETAILS FOR PLACEMENT REQUIREMENTS. 5) CAMBER: 5A) FABRICATE BEAMS SUCH THAT ROLLING OR FABRICATION INDUCED CAMBER IS UP AFTER ERECTION. 5B) CAMBER SHOWN IS BASED ON THE COMPUTED DEFLECTION OF THE BEAM DUE TO SELF WEIGHT OF CONCRETE PLACED. DESIGN IS BASED ON THE THEORETICAL CONCRETE THICKNESS PLUS 1/2" THICKNESS FOR DECK LEVELING AND 1/2" THICKNESS FOR BEAM LEVELING. INCLUDE QUANTITY OF ADDED CONCRETE DUE TO DECK AND BEAM DEFLECTION IN BID. 6) STRUCTURAL STEEL INSTALLATION: 6A) UNLESS INDICATED OTHERWISE, SNUG TIGHTEN ALL JOINTS AS DEFINED BY AISC CONNECTIONS AS INDICATED BELOW SHALL BE PRETENSIONED PER TABLE J3.1 OF ANSI/ AISC 360-16 6B) CONNECTIONS NOTED ON THE DRAWINGS AS "SC" SHALL MEET THE FOLLOWING REQUIREMENTS: - FAYING SURFACES SHALL BE CLASS A PER AISC UNLESS NOTED OTHERWISE BOLTS SHALL BE PRETENSIONED PER TABLE J3.1 OF ANSI/AISC 360-16 7) METAL DECK: 7A) SEE 'METAL DECK SCHEDULE' FOR MATERIALS, PROFILE, AND CONNECTIONS TO STRUCTURE. 7B) QUALITY CONTROL AND QUALITY ASSURANCE FOR STEEL DECK INSTALLATION SHALL BE IN ACCORDANCE WITH SDI QA/QC-2011, "STANDARD FOR QUALITY CONTROL AND QUALITY ASSURANCE FOR THE INSTALLATION OF STEEL DECK" AS MODIFIED BY TABLE C-1 CONTAINED IN THE COMMENTARY TO THAT STANDARD. 7C) DECK DESIGN IS IN ACCORDANCE WITH STEEL DECK INSTITUTE (SDI) FLOOR DECK DESIGN MANUAL (2014), SDI ROOF DECK DESIGN MANUAL (2013), AND SDI DIAPHRAGM DESIGN MANUAL, 4TH EDITION (2015) 7D) PLACE CONCRETE ON METAL DECK IN ACCORDANCE WITH SDI FLOOR DECK DESIGN MANUAL (2014) TO LIMIT CONSTRUCTION LOADS TO ALLOWABLE MAGNITUDES. 7E) SCREED CONCRETE TO PROVIDE CONSTANT THICKNESS. 7F) REINFORCE OPENINGS IN METAL ROOF DECK AND FLOOR DECK SUPPORTING CONCRETE FILL IN ACCORDANCE WITH TYPICAL DECK OPENING DETAILS. 7G) INSTALL DECK OVER 4 SUPPORTS (3 SPAN CONTINUOUS) UNLESS NOTED OTHERWISE. DO NOT INSTALL DECK AS SINGLE SPAN UNLESS SPECIFICALLY SHOWN ON DRAWINGS. 7H) PROVIDE DECK ATTACHMENTS AS NOTED ON DRAWINGS. 7I) HANGERS: SEE TYPICAL METAL DECK DETAILS FOR ALLOWABLE HANGER LOADS, SPACING AND ATTACHMENT. 8) COLD FORMED METAL FRAMING: 8A) COLD FORMED METAL FRAMING IS A PERFORMANCE SPECIFIED ITEM DESIGNED BY THE CONTRACTOR. PROVIDE STUD DEPTH INDICATED ON THE DRAWINGS. DO NOT EXCEED MAXIMUM SPACING INDICATED. VARY FLANGE WIDTH, GAGE, YIELD STRENGTH, BRACING, STUD SPACING, ETC. AS REQUIRED TO SATISFY PERFORMANCE CRITERIA IN THE CONTRACT DOCUMENTS. MINIMUM STUD GAGE SPECIFIED IS REQUIRED FOR ATTACHMENT OF OTHER MATERIALS TO STUDS. DO NOT BASE BIDS ON MINIMUM GAUGE OR MAXIMUM SPACING SPECIFIED. 8B) REFER TO DETAILS FOR MINIMUM CONNECTIONS AND OTHER REQUIREMENTS. DEVELOP FORCES NOTED. DO NOT IMPOSE FORCES ON THE BUILDING STRUCTURE IN DIRECTIONS OR AT LOCATIONS OTHER THAN THAT SHOWN ON THE STRUCTURAL DRAWINGS. DO NOT IMPOSE FORCES LARGER THAN SPECIFIED. CONNECTIONS TO CONCRETE SHALL NOT USE PAFs TO RESIST TENSION LOADS.				

STEEL MATERIAL TABLE				
STEEL ELEMENT	ASTM/TYPE	Fy (KSI)	Fu (KSI)	COMMENTS
ANCHOR RODS	F1554 GR 55	55	75	WELDABLE, HEAVY HEX HEADED
ANCHOR RODS IN MASONRY	F1554 GR 36, F1554 GR 55, OR A307 GRADE A/C	36	58	WELDABLE, STD HEX HEAD
BOLTS	F3125 - TYPE A325 OR F1852	--	120	BOLTS ARE 3/4"Ø UNO. USE TENSION-CONTROLLED WHERE POSSIBLE
CANOPY STEEL ROD	A572 GR 50	50	65	--
COLD-FORMED STUDS/PLATE, 33 AND 43 MIL	A1003	33	--	--
COLD-FORMED STUDS/PLATE, 54 MIL AND HEAVIER	A1003	50	--	--
COLD-FORMED TRACK, ALL THICKNESSES	A1003	33	--	--
DAS	A1064	70	80	--
HAS	A108	51	65	STUDS ARE 3/4"Ø UNO
OTHER SHAPES	A36	36	58	--
PIPE	A53 GR B	35	60	--
PLATES	A36	36	58	--
RECT HSS	A500 GR C	50	62	--
ROUND HSS	A500 GR C	46	62	--
STEEL GRATING				PER NAAMM MBG 531, 'METAL BAR GRATING MANUAL'
WELDING ELECTRODES, THICKNESS OF THINNER PART > 0.1 INCHES (12 GA)	E70			PER AWS
WELDING ELECTRODES, THICKNESS OF THINNER PART ≤ 0.1 INCHES (12 GA)	E60 OR E70	--	--	PER AWS
WF, WT	A992	50	65	--

MASONRY NOTES				
1) DEFINITIONS: 1A) STRUCTURAL MASONRY IS DEFINED AS BEING EITHER LOAD BEARING AND/OR SERVING AS PART OF THE LATERAL LOAD RESISTING SYSTEM. STRUCTURAL MASONRY IS SHOWN ON THE STRUCTURAL PLANS AND DEFINED IN SCHEDULES AND DETAILS ON THE STRUCTURAL DRAWINGS. 1B) SEE ARCHITECTURAL DRAWINGS FOR LOCATION, THICKNESS AND EXTENT OF MASONRY PARTITIONS. SEE DETAILS ON THE STRUCTURAL DRAWINGS FOR GENERAL MASONRY PARTITION REQUIREMENTS. 2) DESIGN STRENGTH: 2A) DEVELOP 2000 PSI COMPRESSIVE STRENGTH (fm) IN 28 DAYS. 2B) STEEL REINFORCING: - PRIMARY REINFORCING: ASTM A615, 60 KSI - HORIZONTAL JOINT REINFORCING: ASTM A951, PREFABRICATED, LADDER TYPE 3) SPLICES: 3A) SEE MASONRY LAP SPlice SCHEDULE FOR LAP LENGTHS. 4) INSTALLATION REQUIREMENTS: 4A) GROUT SOLID ALL CELLS CONTAINING REINFORCING, EMBEDDED ITEMS, AND ALL OTHER CELLS NOTED ON THE CONTRACT DOCUMENTS.				
POST-INSTALLED ANCHOR NOTES				
1) PERSONNEL REQUIREMENTS: 1A) THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. SUBMIT DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS HAVE PASSED THE TRAINING COURSE PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS. 1B) PERSONNEL WHO WILL INSTALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS IN CONCRETE THAT SUPPORT SUSTAINED TENSION LOADS SHALL BE CERTIFIED BY THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM. THESE ANCHORS ARE DESIGNATED WITH A (CERT) AFTER THE ANCHOR CALL OUT. SUBMIT DOCUMENTED CONFIRMATION THAT PERSONNEL HAVE PASSED THE TRAINING COURSE PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS. 2) INSTALLATION REQUIREMENTS: 2A) ALL POST-INSTALLED ANCHORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS AND PER MANUFACTURER'S ON-SITE TRAINING. 2B) ALL ADHESIVE ANCHORS AND ADHESIVE ANCHORED REINFORCEMENT DESIGNS ARE FOR INSTALLATION IN THE FOLLOWING CONDITIONS, UNLESS NOTED OTHERWISE. WRITTEN APPROVAL MUST BE RECEIVED FROM ENGINEER PRIOR TO INSTALLATION IN ALTERNATE CONDITIONS. - DRY CONCRETE, UNLESS NOTED OTHERWISE - CONCRETE TEMPERATURE AT TIME OF INSTALLATION THROUGH CURE TIME MUST BE WITHIN THE TEMPERATURE RANGE SPECIFIED IN MANUFACTURER'S PRINTED INSTALLATION INSTRUCTION FOR ADHESIVE GEL AND CURE TIMES. - ANCHOR HOLES TO BE HAMMER DRILLED AND CLEANED. - CONCRETE MUST BE AT LEAST 21 DAYS OLD BEFORE INSTALLATION OF ANCHORS. - HOLES TO BE CLEANED AND PREPARED IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS AND EVALUATION REPORT PRIOR TO ADHESIVE INJECTION. 2C) THE POSITION OF EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE SHALL BE LOCATED PRIOR TO INSTALLING POST INSTALLED ANCHORS OR REINFORCEMENT. EXISTING REINFORCEMENT SHALL BE LOCATED USING A SCANNER, GPR, X-RAY, CHIPPING OR OTHER MEANS. DO NOT DAMAGE OR CUT EXISTING REINFORCEMENT. 3) SUBSTITUTION REQUESTS: 3A) SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS AND PRODUCT DATA DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS IN COMPLIANCE WITH THE RELEVANT BUILDING CODES, LOAD RESISTANCE, INSTALLATION CATEGORY, CREEP APPROVAL, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE OF THE SPECIFIED PRODUCT.				

POST-INSTALLED ANCHOR TABLE				
ANCHOR TYPE	PRODUCT	Fy (KSI)	Fu (KSI)	COMMENT
ADHESIVE (IN CONCRETE)	HILTI HIT-HY 200	-	-	SUBMIT CALCULATIONS FOR SUBSTITUTIONS
ADHESIVE (IN CONCRETE W/>12" EMBEDMENT)	HILTI HIT-RE 500 V3	-	-	SUBMIT CALCULATIONS FOR SUBSTITUTIONS
ADHESIVE (IN GROUTED OR HOLLOW MASONRY)	HILTI HIT-HY 270	-	-	SUBMIT CALCULATIONS FOR SUBSTITUTIONS
ADHESIVE ANCHOR RODS	-	36 MIN	58 MIN	THREADED ROD, UNGREASED
EXPANSION ANCHORS (IN CONCRETE)	HILTI KWIK BOLT TZ	-	-	SUBMIT CALCULATIONS FOR SUBSTITUTIONS
EXPANSION ANCHORS (IN GROUTED MASONRY)	HILTI KWIK BOLT 3	-	-	SUBMIT CALCULATIONS FOR SUBSTITUTIONS
SCREW ANCHORS	HILTI KWIK HUS-EZ	-	-	SUBMIT CALCULATIONS FOR SUBSTITUTIONS

METAL GAUGE CONVERSION	
GAUGE	MINIMUM THICKNESS (MILS*)
22	27
20	33
18	43
16	54
14	68
12	97

NOTES:
* 1 MIL = 1/1000"

CONCRETE NOTES				
1) GENERAL: 1A) ALL WORK SHALL CONFORM WITH ACI 301-10, UNLESS NOTED OTHERWISE IN DRAWINGS OR PROJECT SPECIFICATIONS. 1B) DETAIL BARS IN ACCORDANCE WITH THE DRAWINGS, PROJECT SPECIFICATIONS, AND ACI PUBLICATION SP-66 (2004): 'ACI DETAILING MANUAL' 2) REINFORCING MATERIALS: 2A) SEE 'REINFORCING MATERIAL TABLE' 3) REINFORCING FABRICATION: 3A) SPLICES: - NO SPLICING OF REINFORCEMENT PERMITTED EXCEPT AS NOTED ON DRAWINGS. MAKE BARS CONTINUOUS AROUND CORNERS WHERE DETAIL NOT PROVIDED. WHERE PERMITTED, SPLICES MAY BE MADE BY CONTACT LAPS OR MECHANICAL CONNECTORS. - SEE 'LAP SPlice SCHEDULE' FOR LAP LENGTHS. - SPlice CONTINUOUS TOP AND BOTTOM BARS IN WALLS, BEAMS, AND GRADE BEAMS 'LTS' UNLESS NOTED OTHERWISE. - SPlice TOP BARS AT MIDSPAN AND BOTTOM BARS OVER SUPPORT UNLESS NOTED OTHERWISE. 3B) MISCELLANEOUS REINFORCING REQUIREMENTS: - PROVIDE ADDITIONAL BARS OR STIRRUPS REQUIRED TO SECURE REINFORCING IN PLACE DURING CONCRETE PLACEMENT. - MAKE ALL REINFORCING BAR BENDS IN THE FABRICATOR'S SHOP UNLESS NOTED. - NO WELDING OF REINFORCING PERMITTED UNLESS NOTED ON DRAWINGS. WHERE PERMITTED, PERFORM WELDING IN ACCORDANCE WITH AWS D1.4-2011. - PROVIDE ADDED REINFORCING TO TRIM ALL OPENINGS, NOTCHES, AND REENTRANT CORNERS AS NOTED IN TYPICAL DETAILS. 4) STRUCTURAL CONCRETE MIX REQUIREMENTS: 4A) SEE 'CONCRETE MIX TABLE' 5) SLAB-ON-GRADE: 5A) VERIFY ALKALINITY OF CONCRETE SURFACE, SLAB VAPOR TRANSMISSION, AND SLAB FLATNESS/LEVELNESS ARE COMPATIBLE WITH FLOORING SYSTEM AND ADHESIVES PRIOR TO INSTALLING FLOORING. 5B) TAKE PRECAUTIONS TO MINIMIZE SLAB CURLING. GRIND SLAB OR USE LEVELING COMPOUND IF FLOOR FLATNESS AND LEVELNESS VALUES ARE NOT ACCEPTABLE TO THE ARCHITECT. 6B) ACHIEVE 6000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. 7) PLACING REINFORCEMENT: 7A) REINFORCEMENT PROTECTION: - SEE 'REBAR COVER TABLE' - SEE ACI 117-10 FOR REINFORCEMENT PLACING TOLERANCES 7B) PROVIDE ACCESSORIES NECESSARY TO PROPERLY SUPPORT REINFORCING AND WELDED WIRE REINFORCEMENT AT POSITIONS SHOWN ON PLANS. ALL REINFORCING, DOWELS, BOLTS, AND EMBEDDED PLATES SHALL BE SET AND TIED IN PLACE BEFORE THE CONCRETE IS POURED. 'STABBING' INTO PREVIOUSLY PLACED CONCRETE IS NOT PERMITTED. 8) CONSTRUCTION/CONTROL JOINTS: 8A) SUBMIT DRAWINGS SHOWING CONSTRUCTION AND CONTROL JOINT LOCATIONS ALONG WITH THE SEQUENCE OF POURS. 8B) CONCRETE CONSTRUCTION JOINT SURFACE SHALL BE CLEANED AND ALL LAITANCE AND LOOSE MATERIAL REMOVED PRIOR TO SECOND CONCRETE PLACEMENT. 8C) INTENTIONALLY ROUGHENED CONSTRUCTION JOINTS: WHERE CONSTRUCTION JOINTS ARE LABELED AS "ROUGHENED" ON THE DRAWINGS, THE ENTIRE JOINT SURFACE SHALL BE MECHANICALLY ROUGHENED TO A 1/4" AMPLITUDE AND THOROUGHLY CLEANED. EXPOSE THE COARSE AGGREGATE IN THE HARDENED CONCRETE AND REMOVE ALL LAITANCE AND LOOSE MATERIAL. 9) MODIFICATIONS TO HARDENED OR EXISTING CONCRETE 9A) UNLESS NOTED ON THE STRUCTURAL DOCUMENTS MODIFICATIONS AS LISTED BELOW SHALL NOT BE MADE TO HARDENED OR EXISTING CONCRETE WITHOUT APPROVAL OF THE ARCHITECT: - SAW CUTTING - CORING - CHIPPING 9B) DO NOT CUT OR DAMAGE ANY REINFORCING WITHOUT APPROVAL OF THE ARCHITECT 10) SLEEVES, OPENINGS, AND EMBEDDED PIPE/CONDUITS: 10A) GENERAL - REFER TO TYPICAL DETAILS FOR REQUIREMENTS FOR CONDUIT AND PIPE EMBEDDED IN WALLS AND SLABS - REFER TO TYPICAL DETAILS FOR SPACING AND LAYOUT LIMITATIONS FOR SLEEVES AND OPENINGS - FORM OPENINGS AND PROVIDE SLEEVES BEFORE PLACING CONCRETE. CORING OF CONCRETE IS NOT PERMITTED - AT COMPOSITE SLABS DO NOT CUT DECK FOR AT LEAST 7 DAYS AFTER CONCRETE PLACEMENT 10B) REINFORCING - REFER TO TYPICAL DETAILS FOR REINFORCEMENT REQUIREMENTS AT SLEEVES, OPENINGS OR CONDUIT - DO NOT CUT REINFORCING WHICH MAY CONFLICT				

REINFORCING MATERIAL TABLE				
REINF ELEMENT	ASTM	Fy (KSI)	Fu (KSI)	COMMENTS
TYP REINFORCING	A615	60	90	-
WELDED & FIELD BENT REINF	A706	60	80	-
WELDED WIRE REINFORCING, SMOOTH	A1064	65	75	-
EPOXY COATING OF REINFORCING	A775 OR A934	-	-	-

CONCRETE MIX TABLE1							
CONC MIX TYPE	INTENDED USE	28 DAY STRENGTH f'c (KSI)	CONC WEIGHT	MAX W/C RATIO, INCLUDING FLY ASH	MAX AGGREGATE SIZE (IN), NOTE a	TOTAL AIR CONTENT (%), NOTE b	OTHER REQTS, NOTE c
1	FOOTINGS	3.5	NWC	-	1	-	-
2	BSMT WALLS	4.5	NWC	0.45	3/4	6	-
3	INT TOPPING SLABS, SLABS ON DECK	3.5	NWC	0.50	3/4	NP	-
4	INT SLABS ON GRADE	3.5	NWC	-	1	NP	FRC
5	ALL CONC OTHERWISE NOT SPECIFIED	4	NWC	0.50	3/4	6	-

CONCRETE MIX TABLE NOTES:
PROPORTIONS OF MATERIALS IN CONCRETE MIX SHALL BE ESTABLISHED TO:
- PROVIDE THE MINIMUM COMPRESSIVE STRENGTH AS INDICATED IN THE MIX TABLE. DO NOT EXCEED THE MAXIMUM WATER-CEMENT RATIO NOTED.

- PROVIDE WORKABILITY AND CONSISTENCY TO PERMIT CONCRETE TO BE WORKED READILY INTO FORMS AND AROUND REINFORCEMENT UNDER CONDITIONS OF PLACEMENT TO BE EMPLOYED. WITHOUT SEGREGATION OR EXCESSIVE BLEEDING, CONTRACTOR SHALL SELECT APPROPRIATE SLUMP. USE ADMIXTURES AS REQUIRED TO OBTAIN DESIRED RESULTS.

USE TYPE III PORTLAND CEMENT UNLESS NOTED OTHERWISE. FOR CONCRETE MIXES USED ON FLOORS MINIMUM CEMENTITIOUS CONTENT SHALL BE 540 POUNDS PER CUBIC YARD.

FOR CONCRETE PLACED BY PUMPING PROVIDE CONCRETE MIX FLOWABILITY TO FACILITATE PUMPING. ENTRAINED AIR MAY BE USED TO FACILITATE PUMPING SUBJECT TO THE PROVISIONS OF NOTE b BELOW.

- a. FOR THE MAXIMUM COARSE AGGREGATE SIZE INDICATED, USE THE FOLLOWING AGGREGATE SIZE NUMBERS PER ASTM C33:
- 3/4": #67 AGGREGATE
1": #57 AGGREGATE
- b. WHERE AIR CONTENT IS INDICATED IN THE MIX TABLE, PROVIDE AIR ENTRAINING ADMIXTURE. TOTAL AIR CONTENT LIMITS INCLUDE BOTH ENTRAINED AND ENTRAPPED AIR +/- 1 1/2%. 'NP' IN COLUMN INDICATES ADDITION OF ENTRAINED AIR IS NOT PERMITTED EXCEPT WHERE CONTRACTOR CAN DEMONSTRATE THAT SLABS WITH ENTRAINED AIR WILL HAVE A FINISH ACCEPTABLE TO THE ARCHITECT WITHOUT BLISTERS. AIR CONTENT NOTED IS BASED ON 3/4" AGGREGATE. IF 3/8" AGGREGATE IS USED, INCREASE AIR CONTENT BY 1 1/2%.
- c. ABBREVIATIONS FOR OTHER REQUIREMENTS AS FOLLOWS:
FRC = FIBER REINFORCED CONCRETE. 1 1/2 LB/YD



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May 19, 2021

Seal / Signature

Date	Description
- 2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name
SSRC BASE AREA IMPROVEMENTS
Project Number
003.7835.000
Description
NOTES
Scale
12" = 1'-0"

1B-S0.03

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DESIGNER: NC MARTIN
LEAD REVIT TECH COLIN WINKLES
DATE PRINTED 5/19/2021 11:35:54 AM
PLOT PATH: S:\03\003\103\103\001 - Steamboat Redesign\03 TBSS\000_Structural_SBP_GSO_2021_1\2021-14

MIL JOB # - 2014115-01
PRINCIPAL: KELLY KNOWLES
FOR: KELLY KNOWLES
PROJECT MANAGER: C. A. CHEN

POST-INSTALLED ANCHORS/REINFORCING STEEL SPECIAL INSPECTIONS			
ITEM	FREQUENCY	STANDARD	CRITERIA
EXPANSION ANCHORS, SLEEVE ANCHORS, SCREW ANCHORS			
- PRIOR TO START OF WORK	-	ICC-ES REPORT	REVIEW CONTRACTOR'S INSTALLATION PROCEDURE
- PRIOR TO INSTALLATION OF ANCHOR	EACH ANCHOR	ICC-ES REPORT	VERIFY TYPE, DIAMETER, LENGTH, FINISH, AND BASE MATERIAL. VERIFY SOLID GROUTED AREA AROUND ANCHORS IN GROUTED MASONRY. VERIFY MAXIMUM IMPACT WRENCH TORQUE RATING FOR SCREW ANCHORS
- DURING INSTALLATION OF ANCHOR	C	ICC-ES REPORT	CONTINUOUS INSPECTION REQUIRED REGARDLESS IF PERIODIC INSPECTION IS PERMITTED BY ICC-ES REPORT. VERIFY HOLE DIMENSIONS, HOLE CLEANING, ANCHOR EMBEDMENT, EDGE DISTANCES AND SPACING
- AFTER INSTALLATION OF ATTACHED ASSEMBLY	100% VISUAL	-	VERIFY NUMBER, EDGE DISTANCES, AND ANCHOR FLUSH WITH AND PERPENDICULAR TO THE RECEIVING SURFACE
ADHESIVE ANCHORS, REINFORCING STEEL ANCHORED INTO HARDENED CONCRETE			
- PRIOR TO START OF WORK	-	ICC-ES REPORT	REVIEW CONTRACTOR'S INSTALLATION PROCEDURE
- PRIOR TO INSTALLATION OF ANCHOR	EACH ANCHOR	ICC-ES REPORT	VERIFY TYPE, DIAMETER, LENGTH, FINISH, AND BASE MATERIAL. VERIFY SOLID GROUTED AREA AROUND ANCHORS IN GROUTED MASONRY
- DURING INSTALLATION OF ANCHOR	C	ICC-ES REPORT	CONTINUOUS INSPECTION REQUIRED REGARDLESS IF PERIODIC INSPECTION IS PERMITTED BY ICC-ES REPORT. VERIFY HOLE DIMENSIONS, HOLE CLEANING, ANCHOR EMBEDMENT, EDGE DISTANCES AND SPACING
- AFTER INSTALLATION OF ATTACHED ASSEMBLY	100% VISUAL	-	VERIFY NUMBER, EDGE DISTANCES, AND ANCHOR FLUSH WITH AND PERPENDICULAR TO THE RECEIVING SURFACE
- CURE TIME	100% VISUAL	-	VERIFY FULL CURE TIME HAS ELAPSED PRIOR TO APPLICATION OF TORQUE OR LOAD TO ANCHOR

POST-INSTALLED ANCHOR/REINFORCING STEEL TESTING			
ITEM	FREQUENCY	STANDARD	CRITERIA
EXPANSION ANCHORS, SLEEVE ANCHORS, SCREW ANCHORS			
- TORQUE TEST	100%	-	TEST ANCHOR WITH CALIBRATED TORQUE WRENCH TO 100% OF THE INSTALLATION TORQUE NOTED IN ICC-ES REPORT. ATTAIN SPECIFIED TORQUE WITHIN 1/2 TURN OF THE NUT
ADHESIVE ANCHORS, REINFORCING STEEL ANCHORED INTO HARDENED CONCRETE			
- TENSION TEST	FIRST 3 AND 1% OF REMAINING	ASTM E488	TEST THE INSTALLATION OF THE FIRST 3 OF EACH TYPE, BASE MATERIAL, AND POSITION (DOWN, HORIZONTAL, OVERHEAD). OBSERVE ASTM E488 MINIMUM EDGE DISTANCES FOR DETERMINING TEST LOCATIONS. SUBMIT PROPOSED TEST LOCATIONS AND REQUESTS FOR REQUIRED TENSION TEST LOAD VALUES TO ENGINEER

STRUCTURAL CONCRETE TESTING			
ITEM	FREQUENCY	STANDARD	CRITERIA
REINFORCING STEEL, BOLTS AND EMBEDMENTS			
- WELDING	-	-	PER STRUCTURAL STEEL TESTING
CONCRETE			
- COMPOSITE SAMPLE			OBTAIN AT POINT OF PLACEMENT. FOR DRILLED PIERS OBTAIN NEAR BEGINNING OF LOAD PRIOR TO PLACEMENT IN SHAFT. ADJUST FREQUENCY AS REQUIRED TO PROVIDE MINIMUM 5 TOTAL TESTS PER MIX BUT NOT MORE THAN ONE SAMPLE PER TRUCK LOAD
1. $f_c < 5000$ PSI	100 CY/MIX/DAY	ASTM C172	SPECIFIED SLUMP SHALL BE AS SUBMITTED IN THE MIX DESIGN $\pm 1\frac{1}{2}$ ". PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE
2. $f_c \geq 5000$ PSI AND SHOTCRETE	50 CY/MIX/DAY		
- SLUMP/SLUMP FLOW	EACH COMPOSITE SAMPLE	ASTM C143 (SLUMP) OR ASTM C1611 (SLUMP FLOW)	
- AIR CONTENT WHEN AIR ENTRAINMENT IS SPECIFIED AND LIGHTWEIGHT CONCRETE	EACH COMPOSITE SAMPLE	ASTM C231 PRESSURE METHOD (NWC) OR ASTM C173 VOLUMETRIC METHOD (LWC)	-
- TEMPERATURE	EACH COMPOSITE SAMPLE AND 60 MINUTE INTERVALS	ASTM C1064	REQUIRED WHEN AIR TEMPERATURE IS 40 °F AND BELOW OR 80°F AND ABOVE
- UNIT WEIGHT FOR STRUCTURAL LIGHTWEIGHT	EACH COMPOSITE SAMPLE	ASTM C138	-
- COLD WEATHER CURING	-	ASTM C1074	RECORD MAXIMUM AND MINIMUM CONCRETE TEMPERATURE DURING CURING PERIOD, WHEN DAILY AVERAGE AIR TEMPERATURE OF 40 °F OR BELOW IS EXPECTED FOR 3 SUCCESSIVE DAYS DURING CURING PERIOD
- COMPRESSIVE STRENGTH	EACH COMPOSITE SAMPLE	ASTM C31 ASTM C39 EITHER: (4)6x12 OR (6)4x8 CYLINDERS	TEST PER SCHEDULE BELOW: - 7 DAYS: (1) 6x12 OR (1) 4x8 - 28 DAYS: (2) 6x12 OR (3) 4x8 - 56 DAYS: (1) 6x12 OR (2) 4x8 (IF 28 DAY TESTS DO NOT ACHIEVE SPECIFIED 28 DAY STRENGTH) ACCEPTANCE CRITERIA PER ACI 318
SHOTCRETE (ADDITIONAL REQUIREMENTS)			
- COMPRESSIVE	-	IBC 2018 - 1908.10	-
- CURING	-	IBC 2018 - 1908.9	-
FLOOR FLATNESS REQUIREMENTS			
- MEASURE CONCRETE FLOOR FLATNESS (FF) AND FLOOR LEVELNESS (FL)	-	ASTM E1155	PERFORM MEASUREMENTS WITHIN 48 HOURS OF FINISHING OPERATIONS AND PRIOR TO REMOVAL OF SHORES OR FORMS. MEASURE AREAS INDICATED IN THE SPECIFICATIONS

STRUCTURAL CONCRETE TESTING NOTES:

1. NONDESTRUCTIVE TESTING MAY BE PERMITTED BY THE ARCHITECT, BUT WILL NOT BE USED AS SOLE BASIS FOR APPROVAL OR REJECTION OF DEFICIENT CONCRETE.
2. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE FOLLOWING INFORMATION: DATE OF CONCRETE PLACEMENT, LOCATION OF CONCRETE BATCH IN WORK, DESIGN 28-DAY COMPRESSIVE STRENGTH, SLUMP, CONCRETE SUPPLIER AND MIXTURE ID NUMBER, TIME OF BATCH AND PLACEMENT, AMBIENT AIR TEMPERATURE, SITE ADDED WATER AND ADMIXTURES, UNIT WEIGHT, AND AS REQUIRED BY ASTM C39.

STRUCTURAL CONCRETE SPECIAL INSPECTIONS			
ITEM	FREQUENCY	STANDARD	CRITERIA
REINFORCING STEEL			
- DURING PLACEMENT	P	ACI 301-16 3.2.3.3	VERIFY GRADE, FINISH, SIZE, BAR QUANTITY, LOCATION, SPACING, COVER, HOOK LENGTHS, SPLICE LENGTH, SPLICE LOCATIONS, BEND DIAMETERS, COATING, SURFACE CONDITION, AND SUPPORT
- PRIOR TO PLACEMENT OF CONCRETE	100%		
- WELDING	C	AWS D1.4	VERIFY ASTM A706 REINFORCING STEEL
- FIELD BENDING	P	ACI 301-16 3.3.2.8	-
- COATED REINFORCING	P	ACI 301-16 3.2.1.2	-
- MECHANICAL CONNECTORS	C	ICC-ES REPORT	-
BOLTS AND EMBEDMENTS			
- PRIOR TO PLACEMENT OF CONCRETE	100%	-	VERIFY TYPE, FINISH, DIAMETER, LENGTH, QUANTITY, EMBEDMENT LENGTH, SPACING AND EDGE DISTANCES. VERIFY USE OF PLACING TEMPLATE WHERE SPECIFIED
- WELDING	-	-	INSPECT PER THE STRUCTURAL STEEL TABLE
CONCRETE			
- MIX DESIGN	EACH TRUCK	-	VERIFY USE OF APPROVED DESIGN MIXTURE FOR EACH TRUCK LOAD
- FORMWORK PRIOR TO PLACEMENT OF CONCRETE	P	ACI 301-16 2.2.2.3	INSPECT FIRST POUR OF EACH TYPE (GRADE, BEAM, COLUMN, STRUCTURAL SLAB, SLAB-ON-DECK, ETC.)
- PLACEMENT OF CONCRETE	C	ACI 301-16 5.3.2	-
- CURING	P	ACI 301-16 5.3.6	-
- SHORE/FORM REMOVAL	P	ACI 301-16 2.3.2	FOR BEAMS AND STRUCTURAL SLABS

QUALITY ASSURANCE GENERAL NOTES	
STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING	
<p>1. GENERAL:</p> <p>A. SCOPE OF WORK</p> <ul style="list-style-type: none">• THE OWNER WILL ENGAGE A QUALIFIED INSPECTION AND TESTING AGENCY(S) TO PERFORM SPECIAL INSPECTIONS AND TESTING FOR ALL STRUCTURAL MEMBERS AND ASSEMBLIES AS NOTED HEREIN.• SPECIAL INSPECTIONS ARE IN ADDITION TO INSPECTIONS BY THE AUTHORITY HAVING JURISDICTION REQUIRED BY IBC 2018 SECTION 110.• REFER TO THE SPECIFICATIONS FOR REPORTING AND PROCEDURAL REQUIREMENTS FOR QUALITY ASSURANCE AND QUALITY CONTROL.• REFER TO ARCHITECT/ENGINEER/CIVIL SPECIFICATIONS AND DRAWINGS FOR ADDITIONAL SPECIAL INSPECTION AND TESTING THAT MAY BE REQUIRED. <p>B. SPECIAL INSPECTIONS AND TESTING ARE APPLICABLE TO ALL REVISIONS AND/OR FUTURE WORK ADDED BY AMENDMENTS TO THESE DOCUMENTS.</p> <p>C. DEFINITIONS</p> <ul style="list-style-type: none">• SPECIAL INSPECTOR: THE AGENCY ENGAGED BY THE OWNER AND APPROVED BY THE AUTHORITY HAVING JURISDICTION TO ACT AS THE DESIGNATED REPRESENTATIVE TO PERFORM INSPECTIONS.• SPECIAL INSPECTION: INSPECTION PERFORMED BY THE SPECIAL INSPECTOR ACCORDING TO IBC 2018 SECTION 1704 TO ENSURE COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS.• (P) PERIODIC INSPECTION: THE PART-TIME OR INTERMITTENT OBSERVATION BY THE SPECIAL INSPECTOR OF WORK BEING PERFORMED. SPECIAL INSPECTOR SHALL BE PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED. OBSERVATION OF ALL WORK (100% VISUAL) SHALL BE MADE AT THE COMPLETION OF THE WORK.• (C) CONTINUOUS INSPECTION: THE FULL-TIME OBSERVATION BY THE SPECIAL INSPECTOR OF WORK BEING PERFORMED. SPECIAL INSPECTOR SHALL BE PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED. OBSERVATION OF ALL WORK (100% VISUAL) SHALL BE MADE AT THE COMPLETION OF THE WORK. <p>D. DEFICIENCIES IN WORK</p> <ul style="list-style-type: none">• CORRECT DEFICIENCIES IN WORK THAT TESTS AND INSPECTIONS INDICATE DO NOT COMPLY WITH THE CONTRACT DOCUMENTS AND REFERENCED STANDARDS.• ALL COST OF ADDITIONAL TESTING AND/OR INSPECTIONS FOR CORRECTIVE WORK SHALL BE BORNE BY THE CONTRACTOR. <p>2. SHOP FABRICATIONS:</p> <p>A. GENERAL</p> <ul style="list-style-type: none">• PERFORM INSPECTIONS AND TESTING FOR ALL SHOP FABRICATED STRUCTURAL MEMBERS AND ASSEMBLIES AS NOTED HEREIN. SPECIAL INSPECTOR SHALL PERFORM SPECIAL INSPECTIONS AND TESTING UNLESS THE FABRICATOR IS REGISTERED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION OR FABRICATION HAS A CURRENT ICC-ES EVALUATION REPORT.• SPECIAL INSPECTOR SHALL VERIFY THE FABRICATOR MAINTAINS AND FOLLOWS DETAILED SHOP FABRICATION AND QUALITY CONTROL PROCEDURES, UNLESS FABRICATOR IS REGISTERED AND APPROVED.• AT THE COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE AUTHORITY HAVING JURISDICTION ACCORDING TO IBC 2018 SECTION 1704.2.5.1.• APPROVED FABRICATORS MAY PERFORM TESTING NOTED HEREIN EXCEPT THAT NONDESTRUCTIVE TESTING (NDT) SHALL ONLY BE PERFORMED BY PERSONNEL WITH QUALIFICATIONS THAT MEET OR EXCEED THE CRITERIA OF AWS D1.1 SUBCLAUSE 6.14.6 AND AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING (ASNT) SNT-TC-1A OR ASNT CP-189. <p>B. SHOP FABRICATIONS INCLUDED</p> <ul style="list-style-type: none">• SHOP FABRICATED STRUCTURAL STEEL INCLUDING STAIRS AND RAILING ELEMENTS• SHOP FABRICATED STEEL CONNECTIONS FOR STRUCTURAL WOOD CONNECTIONS	

SOILS SPECIAL INSPECTIONS			
ITEM	FREQUENCY	STANDARD	CRITERIA
SUBGRADE			
- EXCAVATION	P	-	VERIFY EXCAVATIONS ARE EXTENDED TO THE PROPER DEPTH AND HAVE REACHED THE PROPER BEARING MATERIAL
- BEARING MATERIAL	P	SOILS REPORT	VERIFY BEARING MATERIAL IS ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY
CONTROLLED FILL			
- PRIOR TO PLACEMENT	P	-	VERIFY SUBGRADE HAS BEEN PROPERLY PREPARED
- PLACEMENT	C	-	VERIFY USE OF PROPER MATERIALS, DENSITIES, COMPACTION, AND LIFT THICKNESSES

SOILS SPECIAL INSPECTION NOTES:

1. SEE CIVIL DRAWINGS AND/OR SPECIFICATIONS FOR ADDITIONAL EARTHWORK AND UTILITY INSPECTION REQUIREMENTS.
2. SEE CIVIL DRAWINGS AND/OR SPECIFICATIONS FOR CLASSIFICATION AND TESTING REQUIREMENTS FOR COMPACTED FILL AND/OR CONTROLLED LOW-STRENGTH MATERIAL.



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DESIGNWORKSHOP



me
engineers



May 19, 2021

Seal / Signature

Date	Description
- 2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name
SSRC BASE AREA IMPROVEMENTS
Project Number
003.7835.000
Description
QUALITY ASSURANCE
Scale
12" = 1'-0"

1B-S0.10

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LEAD REVIT TECH: COLIN KNOWLES
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PRINCIPAL: KELLY KNOWLES
FOR KELLY KNOWLES
PROJECT MANAGER: C. A. CHEN

STRUCTURAL COLD FORMED STEEL DECK SPECIAL INSPECTIONS			
ITEM	FREQUENCY	STANDARD	CRITERIA
PRIOR TO DECK PLACEMENT			
- VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS	PERFORM	SDI QA/QC-2011	-
- DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES	PERFORM	SDI QA/QC-2011	-
PRIOR TO WELDING			
- WELDING PROCEDURE SPECIFICATION (WPS) AVAILABLE	OBSERVE	SDI QA/QC-2011	-
- MANUFACTURER CERTIFICATIONS OF WELDING CONSUMABLES AVAILABLE	OBSERVE	SDI QA/QC-2011	-
- MATERIAL IDENTIFICATION (TYPE/GRADE)	OBSERVE	SDI QA/QC-2011	-
- CHECKING WELDING EQUIPMENT	OBSERVE	SDI QA/QC-2011	-
PRIOR TO MECHANICAL FASTENING (SCREWS AND PAFs)			
- MANUFACTURER INSTALLATION INSTRUCTIONS ARE AVAILABLE FOR MECHANICAL FASTENERS	OBSERVE	SDI QA/QC-2011	-
- PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATIONS	OBSERVE	SDI QA/QC-2011	-
- PROPER STORAGE FOR MECHANICAL FASTENERS	OBSERVE	SDI QA/QC-2011	-
DURING DECK INSTALLATION			
DURING WELDING DECK CONNECTION INSTALLATION			
- USE OF QUALIFIED WELDERS		SDI QA/QC-2011	-
- CONTROL AND HANDLING OF WELDING CONSUMABLES	OBSERVE	SDI QA/QC-2011	-
- ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE)	OBSERVE	SDI QA/QC-2011	-
- WPS FOLLOWED	OBSERVE	SDI QA/QC-2011	-
DURING MECHANICAL DECK CONNECTION INSTALLATION			
- FASTENING (SCREWS AND PAFs)	OBSERVE	SDI QA/QC-2011	-
- FASTENERS ARE POSITIONED AS REQUIRED	OBSERVE	SDI QA/QC-2011	-
- FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS	OBSERVE	SDI QA/QC-2011	-
AFTER DECK PLACEMENT			
- VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION COMPLY WITH CONSTRUCTION DOCUMENTS	PERFORM	SDI QA/QC-2011	-
- VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS	PERFORM	SDI QA/QC-2011	-
- DOCUMENT ACCEPTANCE OR REJECTION OF THE INSTALLATION OF DECK AND DECK ACCESSORIES	PERFORM	SDI QA/QC-2011	VERIFY CUTS OR NOTCHES THROUGH DECK ARE REPAIRED
AFTER WELDING			
- VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS	PERFORM	AWS D1.3, SDI C, SDI NC, SDI RD	-
- WELDS MEET VISUAL ACCEPTANCE CRITERIA	PERFORM	AWS D1.3, SDI C, SDI NC, SDI RD	-
- VERIFY REPAIR ACTIVITIES	PERFORM	AWS D1.3, SDI C, SDI NC, SDI RD	VERIFY WELDED AREAS ARE TREATED WITH APPROVED TREATMENT TO MATCH CORROSION RESISTANCE OF AFFECTED AREA
- DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	PERFORM	AWS D1.3, SDI C, SDI NC, SDI RD	-
AFTER MECHANICAL FASTENING (SCREWS AND PAFs)			
- CHECK SPACING, TYPE, DIAMETER, AND INSTALLATION OF SUPPORT, SIDELAP, AND PERFORM PERIMETER FASTENERS	PERFORM	SDI C, SDI NC, SDI RD, ICC-ES REPORTS	VERIFY SCREWS ADEQUATELY PENETRATE BASE MATERIAL (3 THREADS MIN). NO POPPED SCREW HEADS OR STRIPPED SCREWS ARE PERMITTED. ALL DAMAGE SCREWS SHALL BE REPLACED. VERIFY PAFs ARE FULLY DRIVEN
- VERIFY REPAIR ACTIVITIES	PERFORM	SDI C, SDI NC, SDI RD	-
- DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL FASTENERS	PERFORM	SDI C, SDI NC, SDI RD	VERIFY MATERIALS HAVE BEEN DRAWN TOGETHER

STRUCTURAL STEEL TESTING			
ITEM	FREQUENCY	STANDARD	CRITERIA/REMARKS
WELDING			
- COMPLETE JOINT PENETRATION GROOVE WELDS FOR MATERIAL 5/16" THICK AND GREATER	10%	UT	FREQUENCY SHALL BE INCREASED SHOULD THE REJECT RATE EXCEED 5% FOR AN INDIVIDUAL WELDER, IN ACCORDANCE WITH AISC 360, CHAPTER N.
- THERMALLY CUT SURFACES OF BEAM COPEES AND ACCESS HOLES WHEN MATERIAL THICKNESS EXCEEDS 2 INCHES	100%	MT OR PT	-
- SHEAR CONNECTOR, HEADED ANCHOR STUDS, DEFORMED ANCHOR STUDS, THREADED STUDS	2 BEND TESTS AT START OF EACH SHIFT, 1% BEND TEST, 100% RING TEST	AWS D1.1 SECTION 7	BEND TEST: PER AWS D1.1 BENT STUD (TORQUE TEST FOR THREADED STUDS) ACCEPTANCE CRITERIA: RING TEST: STRIKE WITH HAMMER. IF THE STUD RINGS, STUD IS ACCEPTABLE. IF STUD DOES NOT RING, PERFORM BEND TEST
FRAMING			
- SHAPES EXCEEDING 1 1/2 INCHES THICK, LOADED IN TENSION IN THE THROUGH- THICKNESS	100%	ASTM A898 (LEVEL 1 CRITERIA)	NOT REQUIRED FOR STEEL PRODUCED IN USA. CRITERIA TO BE MET 6 INCHES ABOVE AND BELOW EACH WELD. REQUIRED WHERE NOTED AS 'TTT' IN DRAWINGS
- PLATES EXCEEDING 3/4 INCH, LOADED IN TENSION IN THE THROUGH-THICKNESS DIRECTION IN TEE AND CORNER JOINTS	100%	ASTM A435	NOT REQUIRED FOR STEEL PRODUCED IN USA. ANY DISCONTINUITY CAUSING A TOTAL LOSS OF BACK REFLECTION THAT CANNOT BE CONTAINED WITHIN A CIRCLE 3 INCHES IN DIAMETER SHALL BE REJECTED. REQUIRED WHERE NOTED AS 'TTT' IN DRAWINGS
- EMBEDDED PLATE ASSEMBLIES WITH PLATES EXCEEDING 3/4 INCH	100%	UT	NOT REQUIRED FOR STEEL PRODUCED IN USA. TEST ALONG CENTERLINE OF PLATE WIDTH AFTER WELDING

UT - ULTRASONIC TESTING
MT - MAGNETIC PARTICLE TESTING
PT - PENETRANT TESTING
TTT - TENSION THRU THICKNESS, SEE STR STEEL TESTING

STRUCTURAL STEEL INSPECTIONS			
ITEM	INSPECTION TASK	STANDARD	CRITERIA/REMARKS
- PRIOR TO FABRICATION OR ERECTION	PERFORM	AISC 360, CHAPTER N	REVIEW MATERIAL TEST REPORTS AND CERTIFICATIONS FOR STRUCTURAL STEEL, FASTENERS, ANCHOR RODS, HEADED STUD ANCHORS
PRIOR TO WELDING			
- REVIEW MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AND WELDING PROCEDURE SPECIFICATIONS	PERFORM	AISC 360, CHAPTER N	-
- FIT UP OF WELDS, INCLUDING JOINT GEOMETRY AND CONFIGURATIONS AND FINISH OF ACCESS HOLES	OBSERVE	AISC 360, CHAPTER N	-
- MATERIAL IDENTIFICATION	OBSERVE	AISC 360, CHAPTER N	-
- WELDER IDENTIFICATION SYSTEM	OBSERVE	AISC 360, CHAPTER N	-
DURING WELDING			
- USE OF QUALIFIED WELDERS	OBSERVE	AISC 360, CHAPTER N	-
- CONTROL AND HANDLING OF WELDING CONSUMABLES	OBSERVE	AISC 360, CHAPTER N	-
- NO WELDING OVER CRACKED TACK WELDS	OBSERVE	AISC 360, CHAPTER N	-
- ENVIRONMENTAL CONDITIONS, AND WPS FOLLOWED	OBSERVE	AISC 360, CHAPTER N	-
- WELDING TECHNIQUES - SINGLE PASS WELDS	OBSERVE	AISC 360, CHAPTER N	-
- WELDING TECHNIQUES - MULTI-PASS WELDS	OBSERVE	AISC 360, CHAPTER N	-
AFTER WELDING			
- WELDS CLEANED	OBSERVE	AISC 360, CHAPTER N	-
- SIZE, LENGTH, AND LOCATION OF WELDS	PERFORM	AISC 360, CHAPTER N	-
- WELDS MEET VISUAL ACCEPTANCE CRITERIA	PERFORM	AISC 360, CHAPTER N, AWS D1.1	WHERE INSPECTOR OBSERVES QUESTIONABLE WELDS, NON-DESTRUCTIVE TESTING SHALL BE PERFORMED
- ARC STRIKES	PERFORM	AISC 360, CHAPTER N	-
- K-AREA	PERFORM	AISC 360, CHAPTER N	-
- REPAIR ACTIVITIES	PERFORM	AISC 360, CHAPTER N	-
- PLACEMENT AND INSTALLATION OF HEADED STUD ANCHORS	PERFORM	AISC 360, CHAPTER N	-
- DOCUMENT ACCEPTANCE OR REJECTION OF WELDED MEMBER OR JOINT	PERFORM	AISC 360, CHAPTER N	-
PRIOR TO BOLTING			
- REVIEW MANUFACTURER CERTIFICATIONS FOR FASTENER MATERIALS	PERFORM	AISC 360, CHAPTER N	-
- FASTENERS MARKS IN ACCORDANCE WITH ASTM REQUIREMENTS	OBSERVE	AISC 360, CHAPTER N	-
- PROPER FASTENERS AND BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	OBSERVE	AISC 360, CHAPTER N	-
- CONNECTING ELEMENTS MEET REQUIREMENTS, INCLUDING HOLE REPAIR AND FAYING SURFACE	OBSERVE	AISC 360, CHAPTER N	-
- PRE-INSTALLATION VERIFICATION TESTING	OBSERVE	AISC 360, CHAPTER N	NOT APPLICABLE FOR SNUG TIGHT JOINTS
- PROPER STORAGE FOR FASTENER COMPONENTS	OBSERVE	AISC 360, CHAPTER N	-
DURING BOLTING			
- FASTENERS PLACED IN ALL HOLES AND POSITIONED AS REQUIRED	OBSERVE	AISC 360, CHAPTER N	-
- PRETENSIONED AND SLIP-CRITICAL JOINTS	OBSERVE	AISC 360, CHAPTER N AND RCSC SPECIFICATION	JOINT BROUGHT IN SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING, FASTENER PREVENTED FROM ROTATING, PRETENSIONED IN PROPER SEQUENCE
- PRETENSIONED AND SLIP-CRITICAL JOINTS USING CALIBRATED WRENCH OR TURN-OF-NUT METHOD WITHOUT MATCH-MARKING	PERFORM	AISC 360, CHAPTER N AND RCSC SPECIFICATION	JOINT BROUGHT IN SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING, FASTENER PREVENTED FROM ROTATING, PRETENSIONED IN PROPER SEQUENCE. INSPECTOR SHALL BE RESENT DURING INSTALLATION OF FASTENERS
AFTER BOLTING			
- DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	PERFORM	DOCUMENT ACCEPTANCE OR REJECTION MEMBER OR JOINT	-

OBSERVE - OBSERVE THESE ITEMS ON A RANDOM BASIS
PERFORM - THESE INSPECTIONS SHALL BE PERFORMED FOR EACH WELDED CONNECTION, EACH BOLTED CONNECTION, AND EACH ITEM, PRIOR TO ACCEPTANCE



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△	Date	Description
-	2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

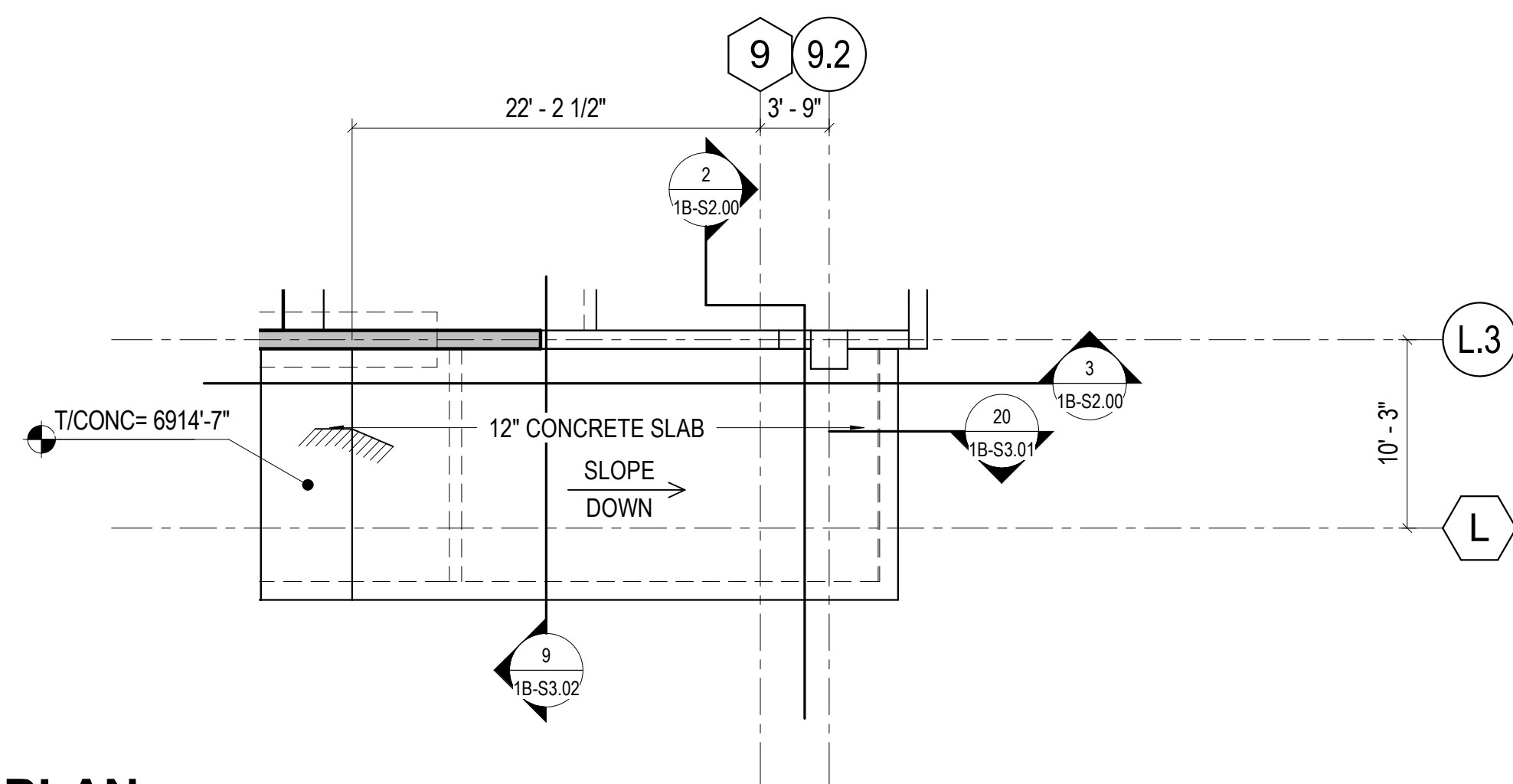
Project Name
SSRC BASE AREA IMPROVEMENTS
Project Number
003.7835.000
Description
QUALITY ASSURANCE

Scale

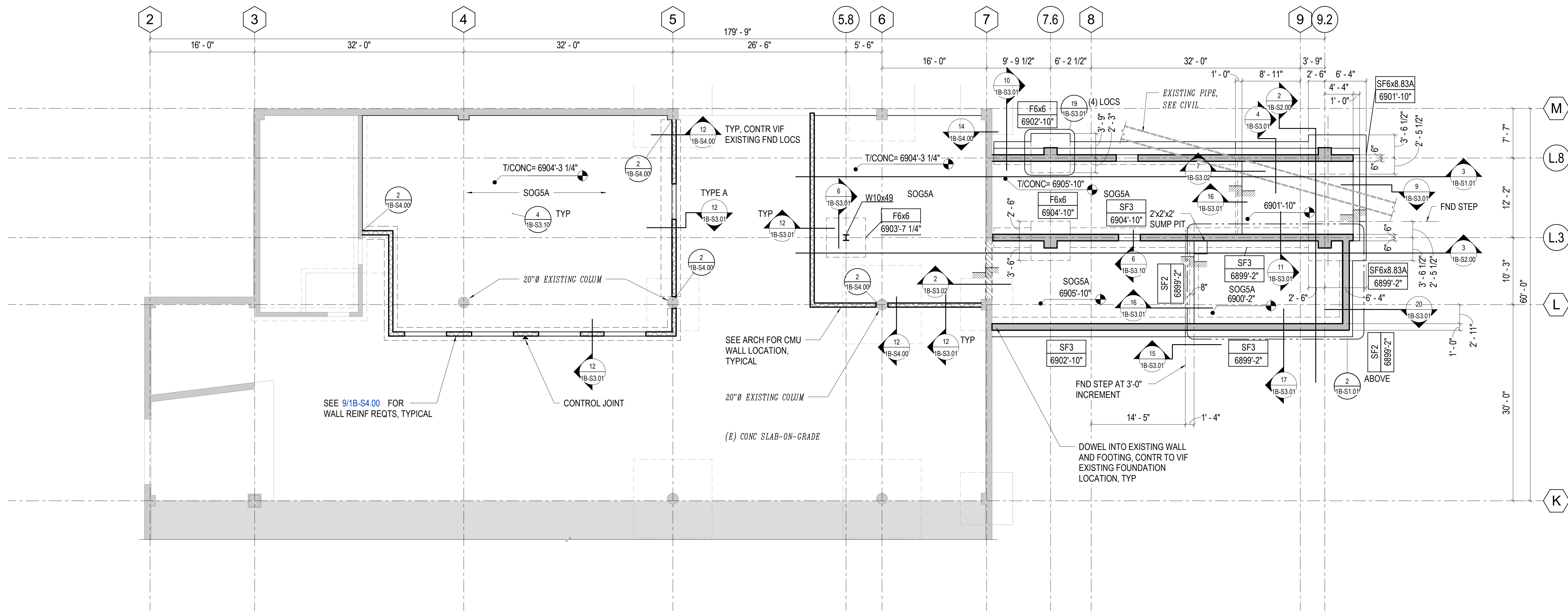
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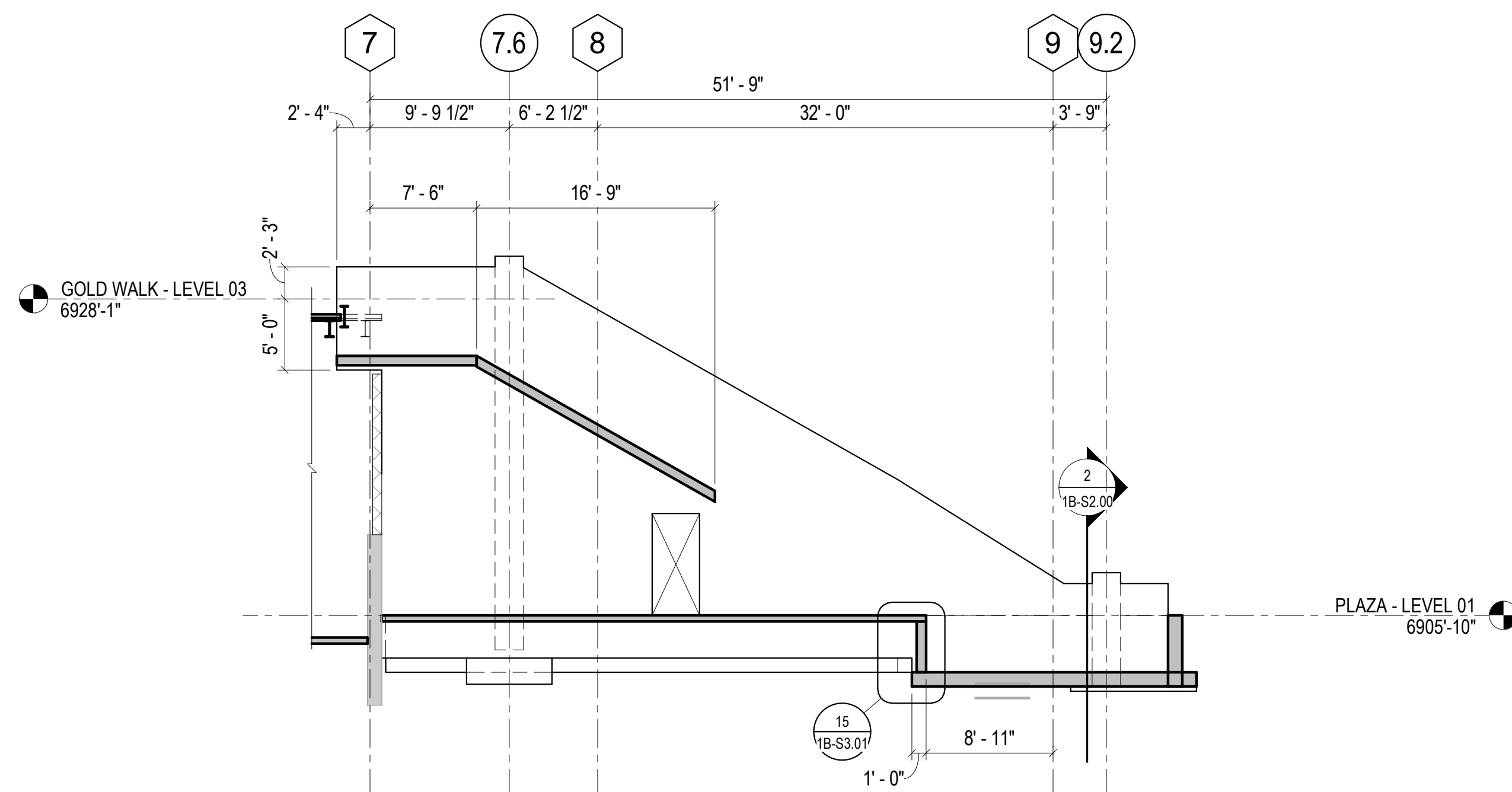
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2 PARTIAL STAIR FRAMING PLAN



1 PLAZA PARTIAL FRAMING PLAN



3 ESCALATOR PIT SECTION

PLAN NOTES

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITION PRIOR TO STEEL FABRICATION.
2. CONTRACTOR TO FIELD LOCATE ALL UTILITIES BELOW GRADE. CONTRACTOR SHALL NOTIFY ARCHITECT BY DIMENSIONED DRAWING OF LOCATIONS WHERE UTILITIES CONFLICT WITH FOUNDATION INSTALLATION. CONTRACTOR SHALL MAKE ALLOWANCE FOR THE RESOLUTION OF SUCH DISCOVERIES PRIOR TO PROCEEDING WITH EFFECTED FOUNDATIONS.
3. SEE ARCH AND MECH DRAWINGS FOR SLAB SLOPES, DEPRESSIONS, FILL, PADS, AND CURBS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
4. SEE 1B-S4-00 FOR TYPICAL MASONRY WALL DETAILS. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF ALL MASONRY WALLS.



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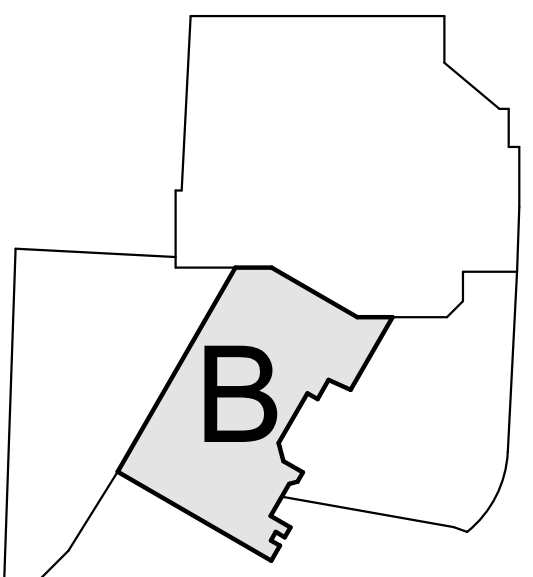
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△ Date	Description
- 2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

LEGEND

 OUT OF SCOPE



KEY PLAN

Project Name

SSRC | BASE AREA
IMPROVEMENTS

Project Number

003.7835.000

Description
GOLDWALK - LEVEL 1 FRAMING PLAN

Scale

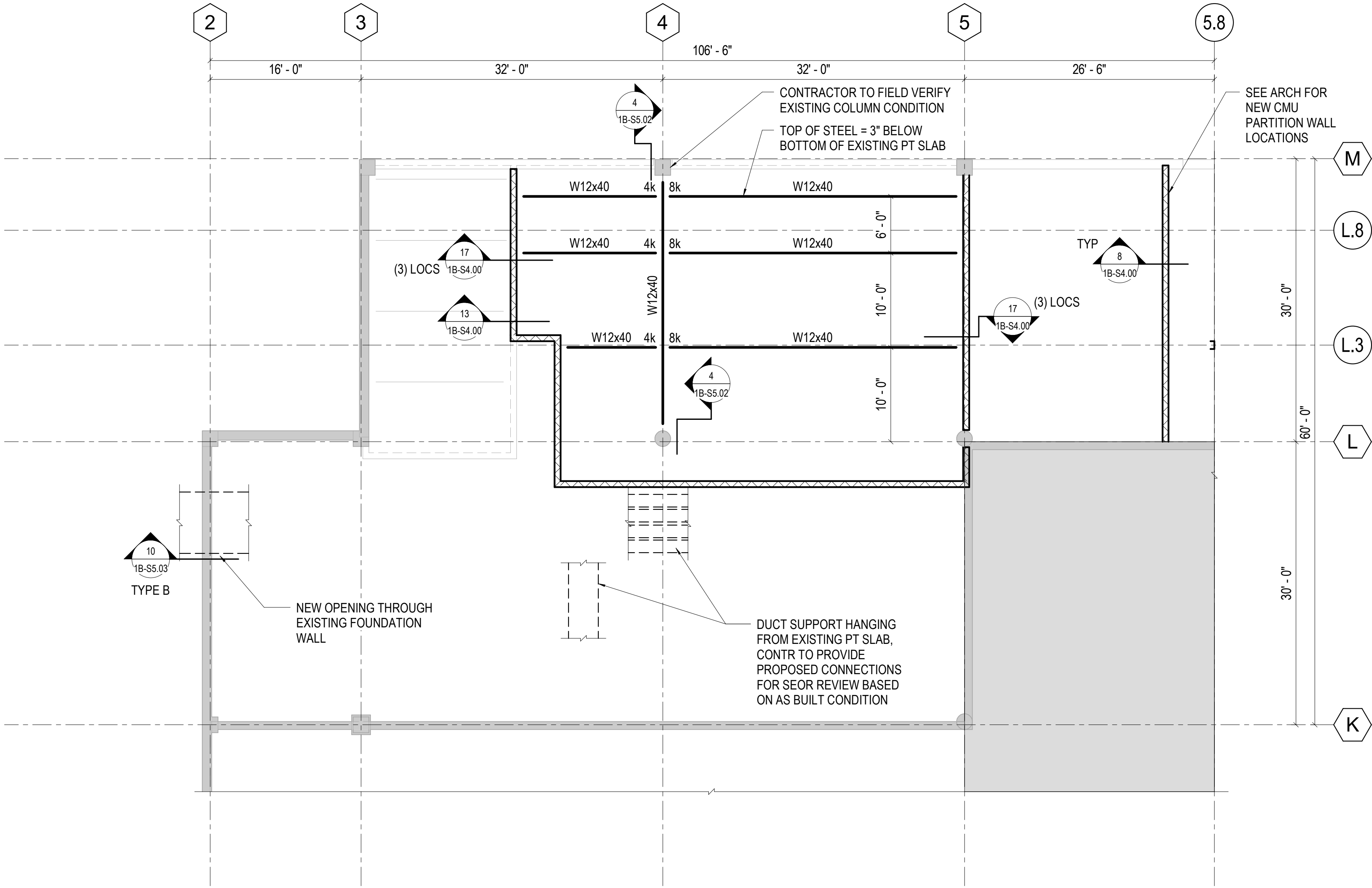
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of North

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ML 009 # 231415.01
DESIGNER: NC, MARTIN
LEAD REVIT TECH COLIN WINKLES
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PLOT PATH: E:\009\003\7835\000_Steamwalk_SSRC_GSO_2021_1\2021.14

ML 009 # 231415.01
PRINCIPAL: KELLY WINKLES
FOR: KELLY WINKLES
PROJECT MANAGER: C. A. CHEN



1 GOLDWALK - BOILER ROOM - LEVEL 2 FRAMING PLAN
1/8" = 1'-0"

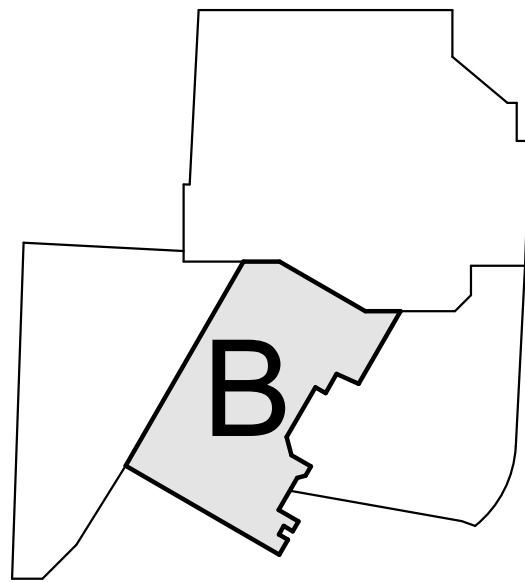
PLAN NOTES

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITION PRIOR TO STEEL FABRICATION.
2. CONTRACTOR TO FIELD LOCATE ALL EXISTING UTILITIES HANGING FROM EXISTING SLAB. CONTRACTOR SHALL NOTIFY ARCHITECT BY DIMENSIONED DRAWING OF LOCATIONS WHERE UTILITIES CONFLICT WITH NEW INSTALLATION. CONTRACTOR SHALL MAKE ALLOWANCE FOR THE RESOLUTION OF SUCH DISCOVERIES.
3. SEE ARCH AND MECH DRAWINGS FOR SLAB SLOPES, DEPRESSIONS, FILL, PADS, AND CURBS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
4. STEEL BEAMS:
 - A. STEEL BEAMS SHALL BE EQUALLY SPACED BETWEEN GRIDLINES/COLUMNS/GIRDERS UNLESS DIMENSIONED OTHERWISE.
 - B. REQUIRED BEAM END CONNECTION CAPACITY IN KIPS NOTED ON PLAN THUS: XXk. IF TWO SYMBOLS ARE SHOWN THEY DENOTE THE REQUIRED CONNECTION CAPACITY AT THE CORRESPONDING BEAM END. IF ONLY ONE SYMBOL IS SHOWN IT DENOTES THE REQUIRED CONNECTION CAPACITY AT EACH END OF THE BEAM. DETAIL CONNECTIONS FOR REQUIRED CONNECTIONS CAPACITY PER SHEET S5.00. ALL BEAM END CONNECTIONS NOTED ON PLAN HAVE BEEN FACTORED PER THE ASCE 7 STRENGTH DESIGN LOAD COMBINATIONS.
4. SEE 1B-S4.00 FOR TYPICAL MASONRY WALL DETAILS. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF ALL MASONRY WALLS.

LEGEND

OUT OF SCOPE

KEY PLAN



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May 19, 2021

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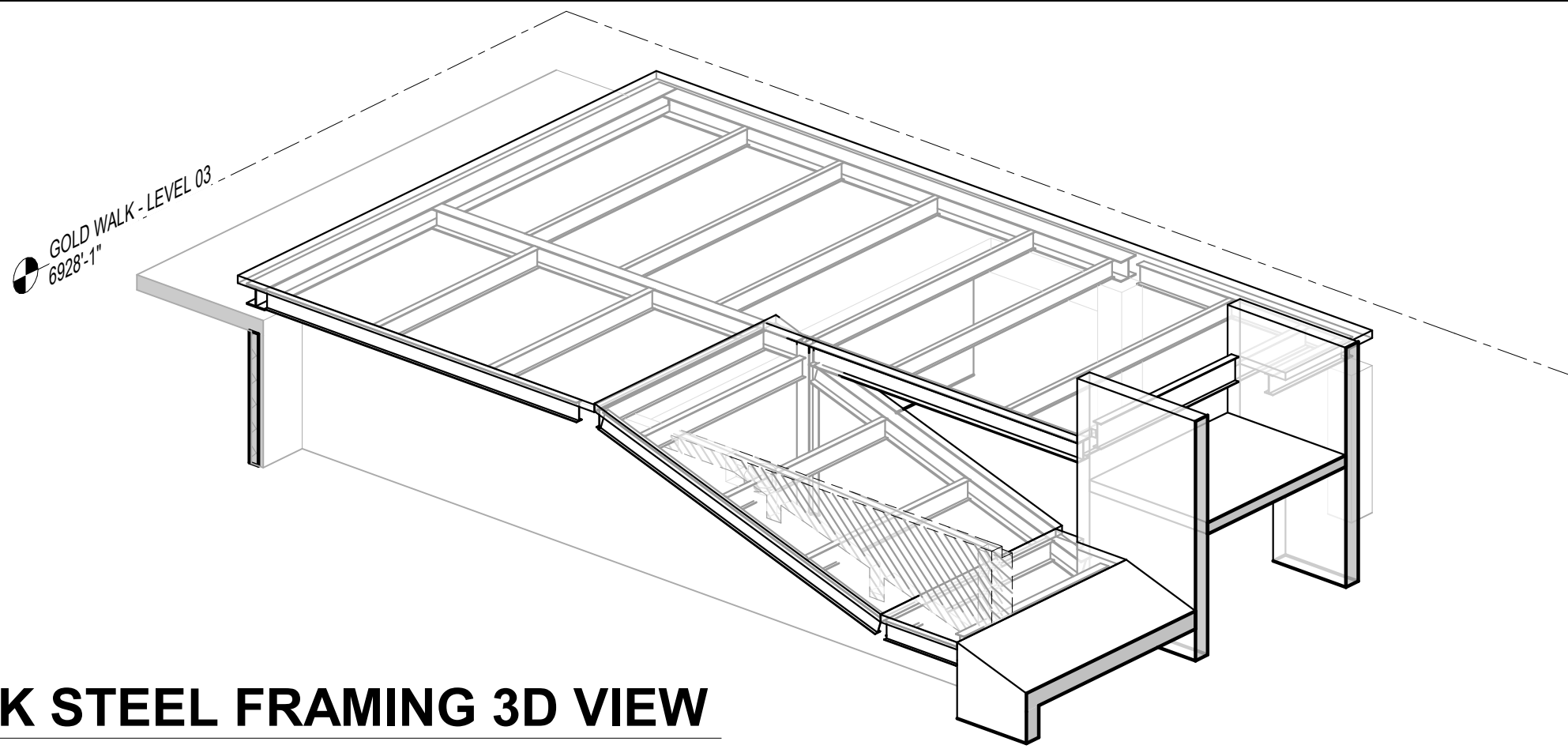
Date	Description
2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name	SSRC BASE AREA IMPROVEMENTS
Project Number	003.7835.000
Description	GOLDWALK - LEVEL 2 FRAMING PLAN

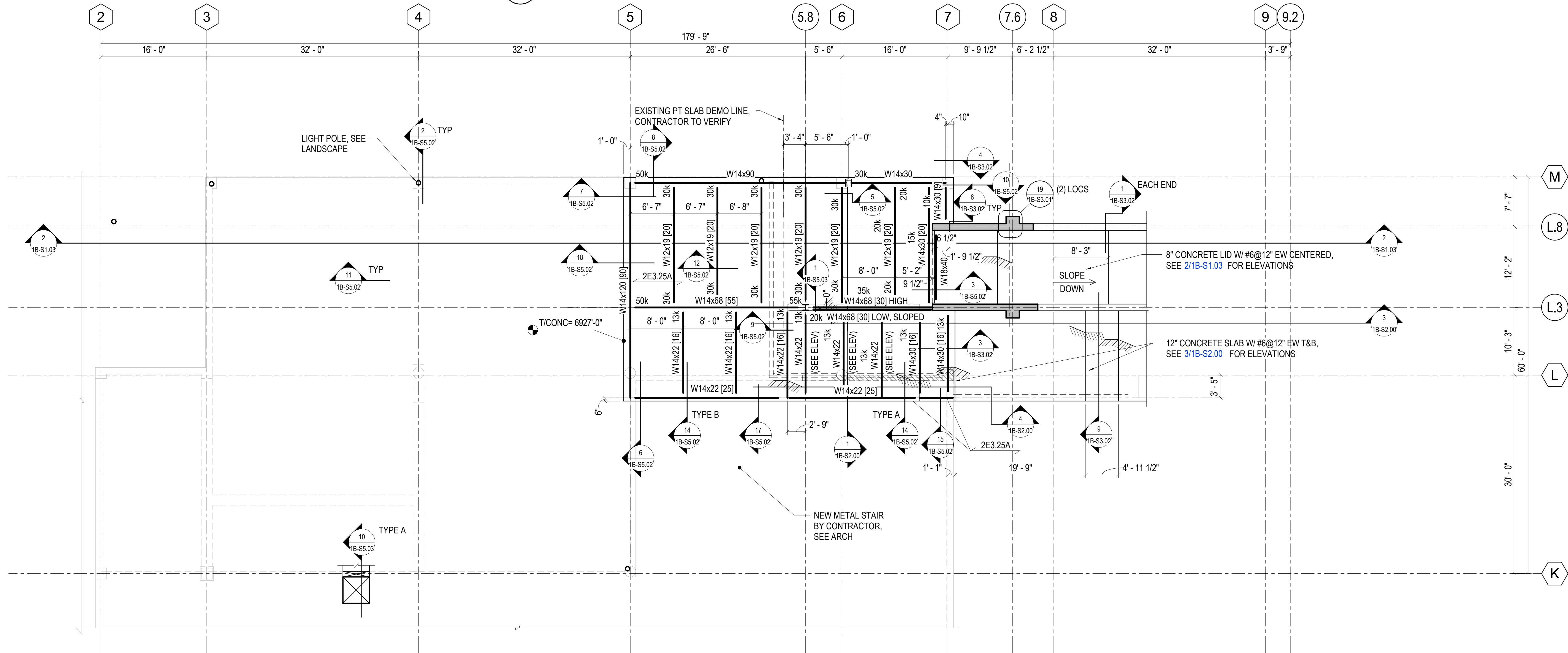
Scale
As indicated

1B-S1.02

DESIGNER: NC MARTIN
LEAD REVIT TECH: COLIN KNOWLES
DATE PRINTED: 5/19/2021 11:40:03 AM
PLOT PATH: E:\B\380\3803\385\001 - Steamboat Redesign\385\000 - Structural_SRF_CSD_2021_2021.14
ML_03B# - 2314115.01
PRINCIPAL: KELLY KNOWLES
FOR: KELLY KNOWLES
PROJECT MANAGER: C. A. CHEN

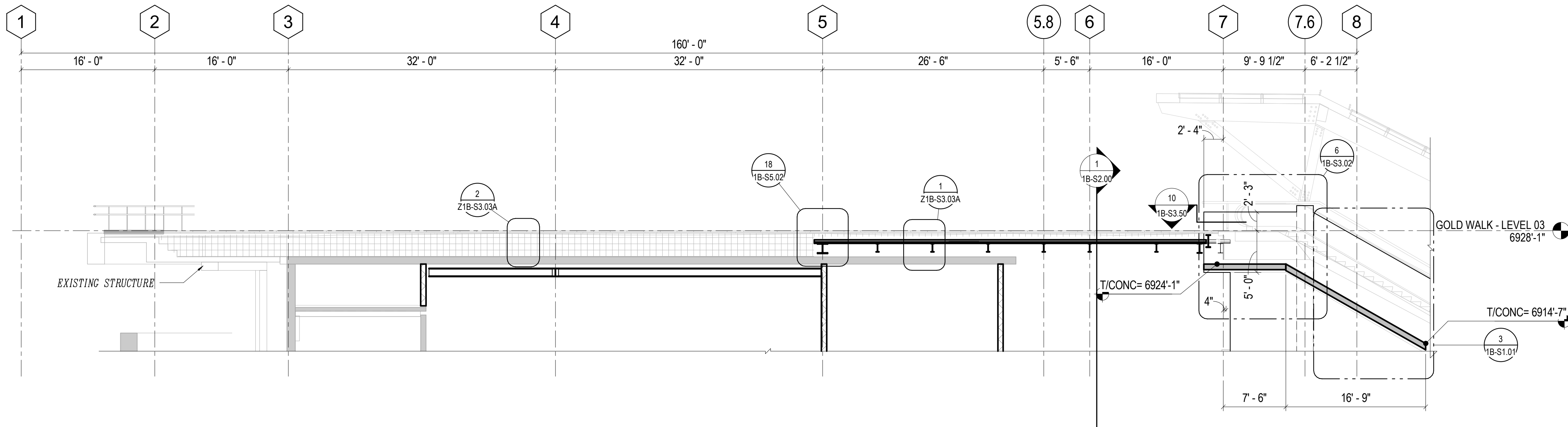


3 GOLDWALK STEEL FRAMING 3D VIEW



1 GOLDWALK FRAMING PLAN

1/8" = 1'-0"



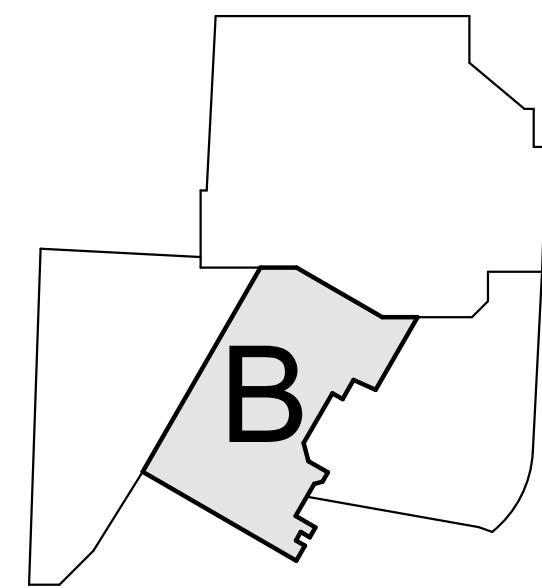
2 GOLDWALK CROSS SECTION

1/8" = 1'-0"

PLAN NOTES

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITION PRIOR TO STEEL FABRICATION.
2. CONTRACTOR TO FIELD LOCATE ALL UTILITIES ON THE EXISTING SLAB. CONTRACTOR SHALL NOTIFY ARCHITECT BY DIMENSIONED DRAWING OF LOCATIONS WHERE UTILITIES CONFLICT WITH NEW INSTALLATION. CONTRACTOR SHALL MAKE ALLOWANCE FOR THE RESOLUTION OF SUCH DISCOVERIES.
3. SEE ARCH AND MECH DRAWINGS FOR SLAB SLOPES, DEPRESSIONS, FILL, PADS, AND CURBS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
4. STEEL BEAMS AND JOISTS:
 - A. STEEL BEAMS SHALL BE EQUALLY SPACED BETWEEN GRIDLINES / COLUMNS / GIRDERS UNLESS DIMENSIONED OTHERWISE.
 - B. TOP OF STEEL BEAMS SHALL EQUAL BOTTOM OF METAL DECK ELEVATION. SEE PLAN FOR TOP OF CONCRETE ELEVATION AND SLAB THICKNESS TO DETERMINE BOTTOM OF METAL DECK ELEVATION.
 - C. REQUIRED BEAM END CONNECTION CAPACITY IN KIPS NOTED ON PLAN THUS: XXK. IF TWO SYMBOLS ARE SHOWN THEY DENOTE THE REQUIRED CONNECTION CAPACITY AT THE CORRESPONDING BEAM END. IF ONLY ONE SYMBOL IS SHOWN IT DENOTES THE REQUIRED CONNECTION CAPACITY AT EACH END OF THE BEAM. DETAIL CONNECTIONS FOR REQUIRED CONNECTION CAPACITY PER SHEET S5.00. ALL BEAM END CONNECTIONS NOTED ON PLAN HAVE BEEN FACTORED PER THE ASCE 7 STRENGTH DESIGN LOAD COMBINATIONS.
 - D. PLACE NUMBER OF SHEAR STUDS INDICATED ON PLAN THUS: [XX] PER DETAIL 11/S5.31. ALL SHEAR STUDS ARE 3/4". SEE DETAIL 11/S5.31 FOR NET IN-PLACE LENGTH OF SHEAR STUDS.

KEY PLAN



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Project Name

SSRC | BASE AREA
IMPROVEMENTS

Project Number

003.7835.000

Description

GOLDWALK - LEVEL 3 FRAMING PLAN

Scale

1/8" = 1'-0"

1B-S1.03

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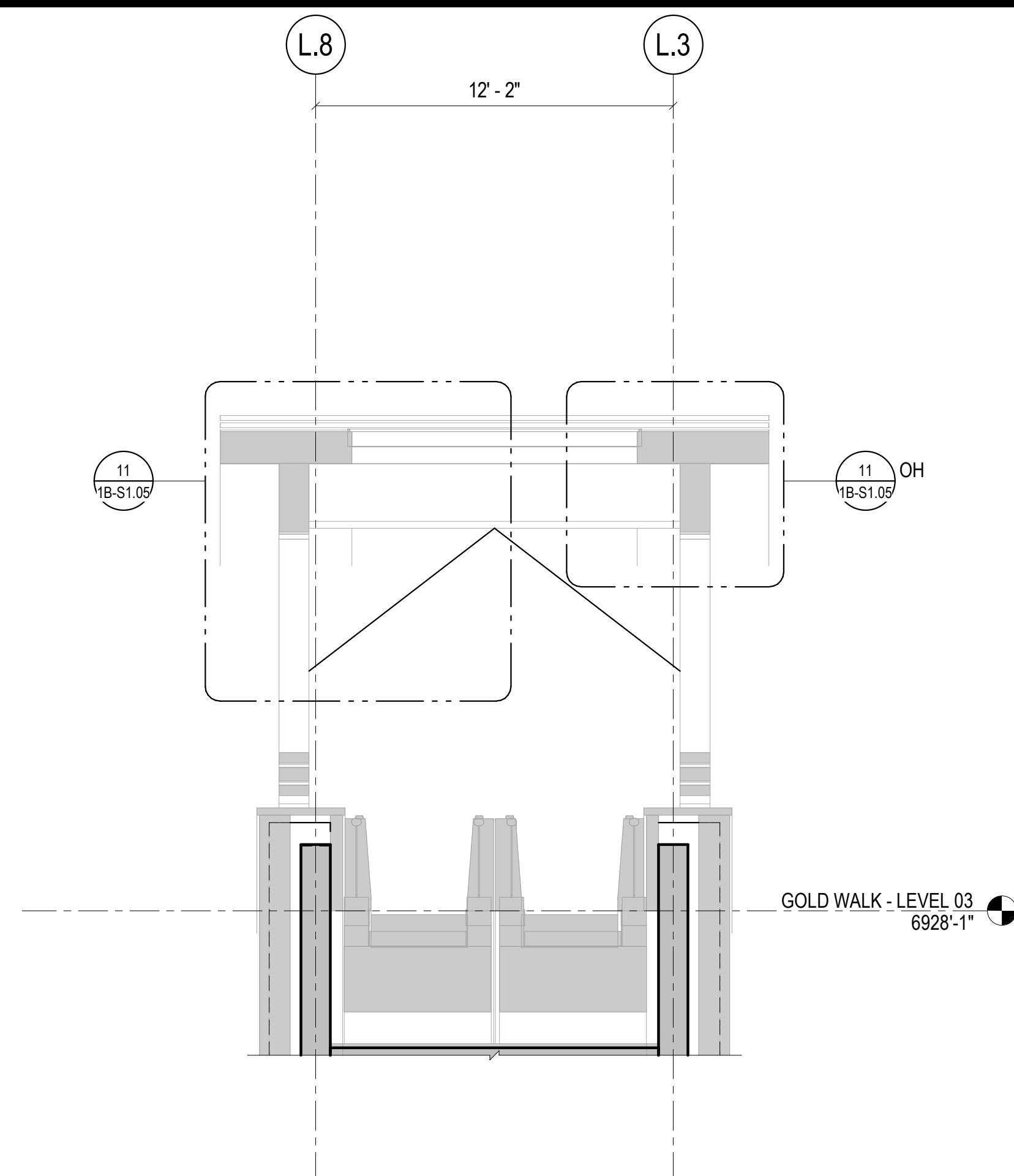
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Date	Description
2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name	SSRC BASE AREA IMPROVEMENTS
Project Number	003.7835.000
Description	GOLDWALK - CANOPY ROOF FRAMING PLAN

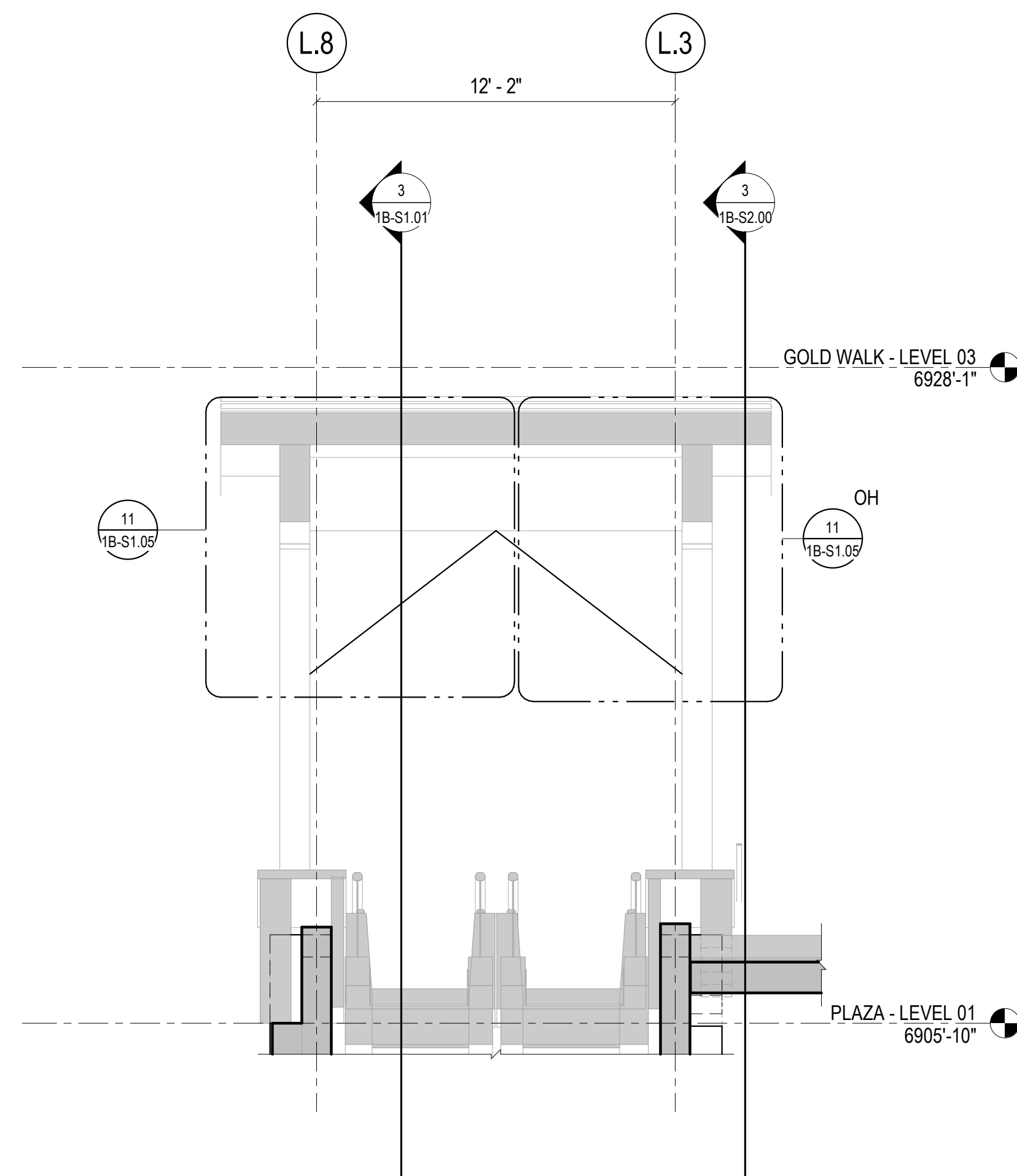
Scale	1/4" = 1'-0"
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1B-S1.04



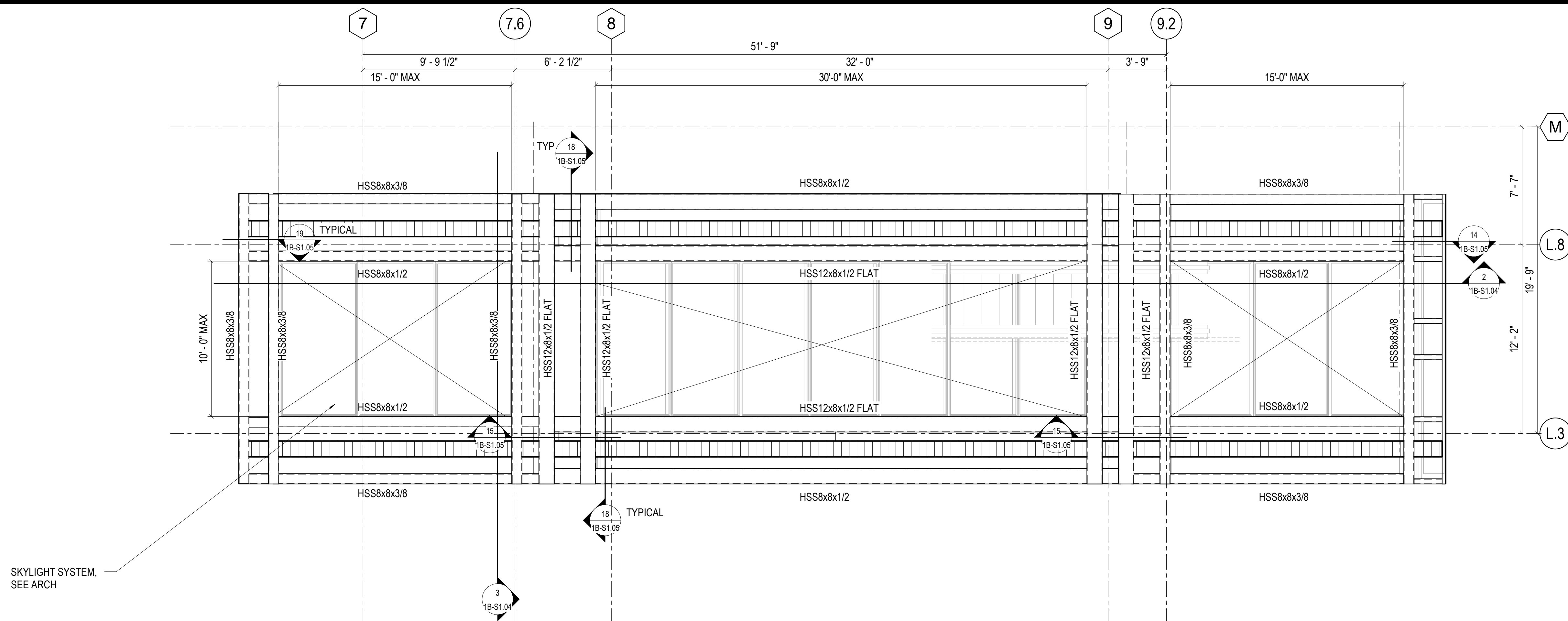
3 HIGH FRAME

1/4" = 1'-0"



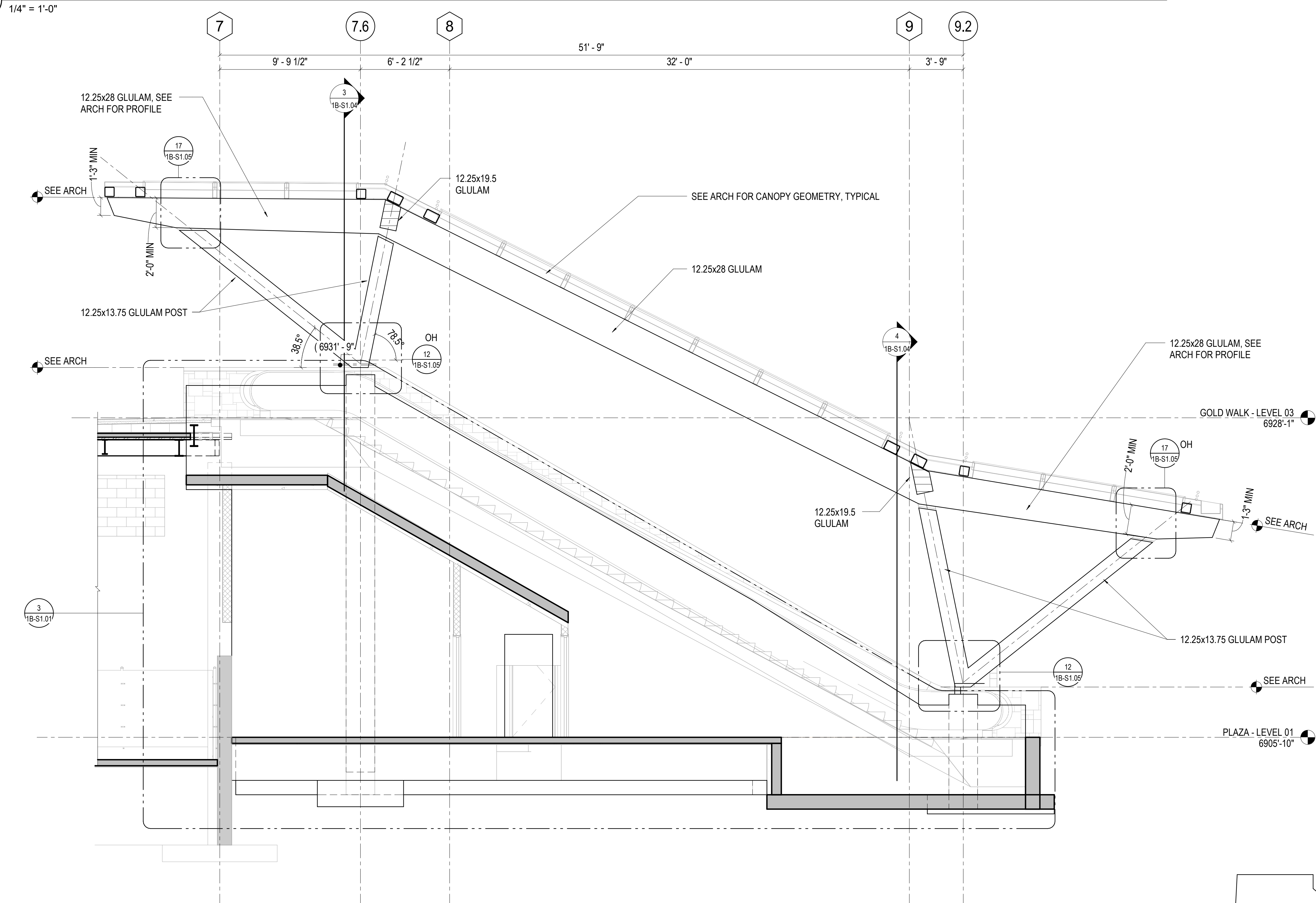
4 LOW FRAME

1/4" = 1'-0"



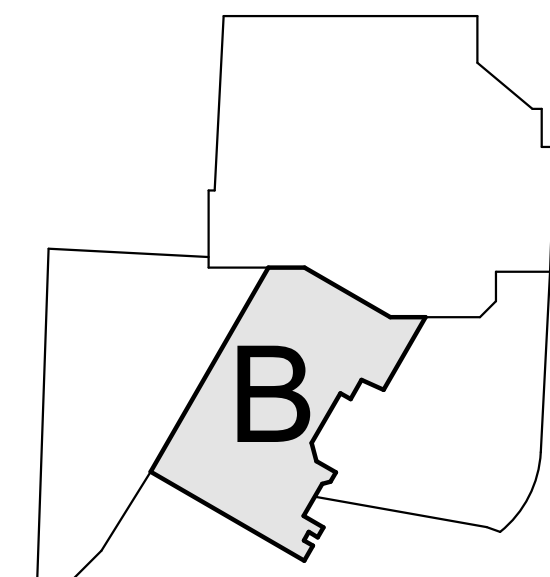
1 ESCALATOR ROOF FRAMING

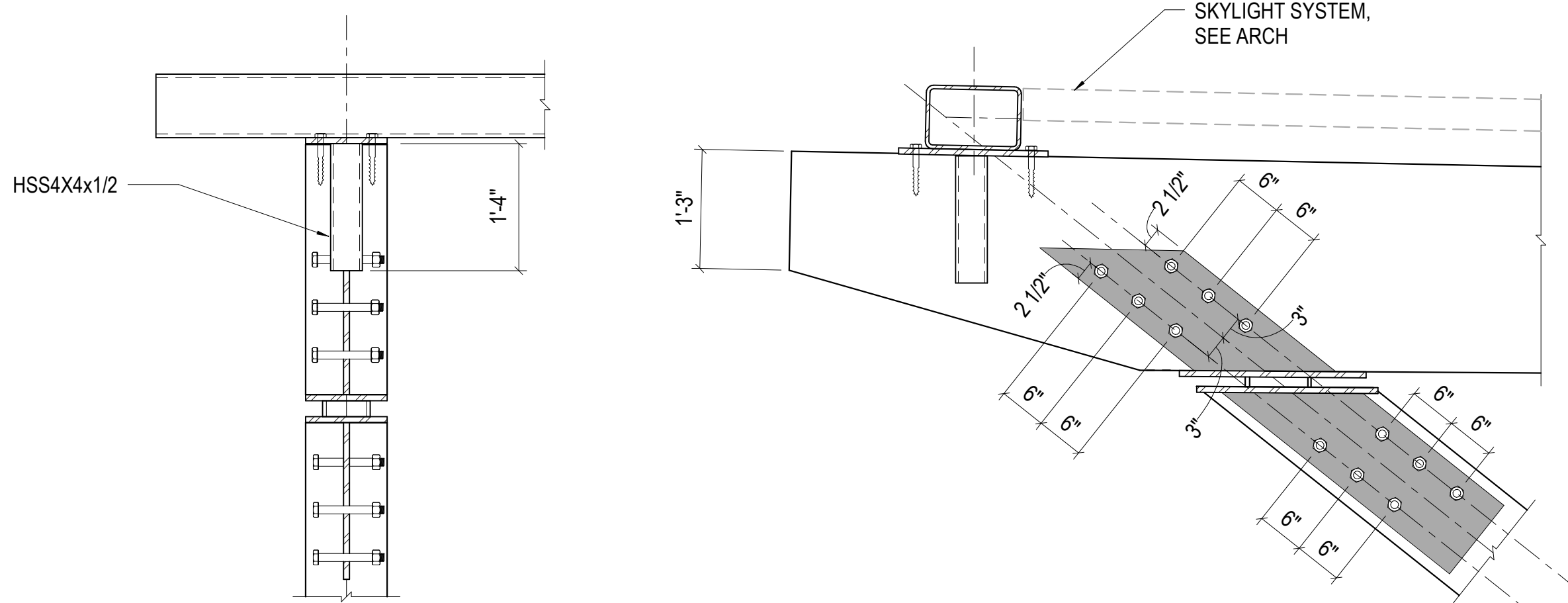
1/4" = 1'-0"



2 ESCALATOR ROOF FRAME

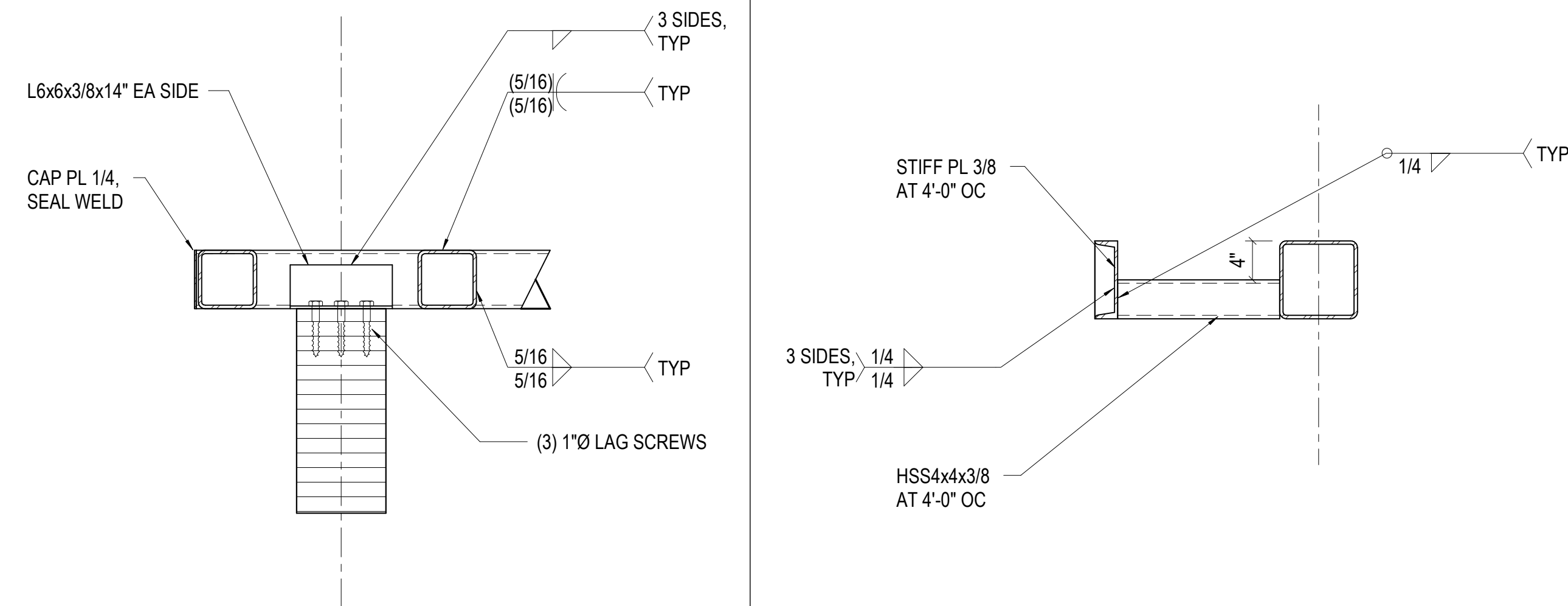
1/4" = 1'-0"



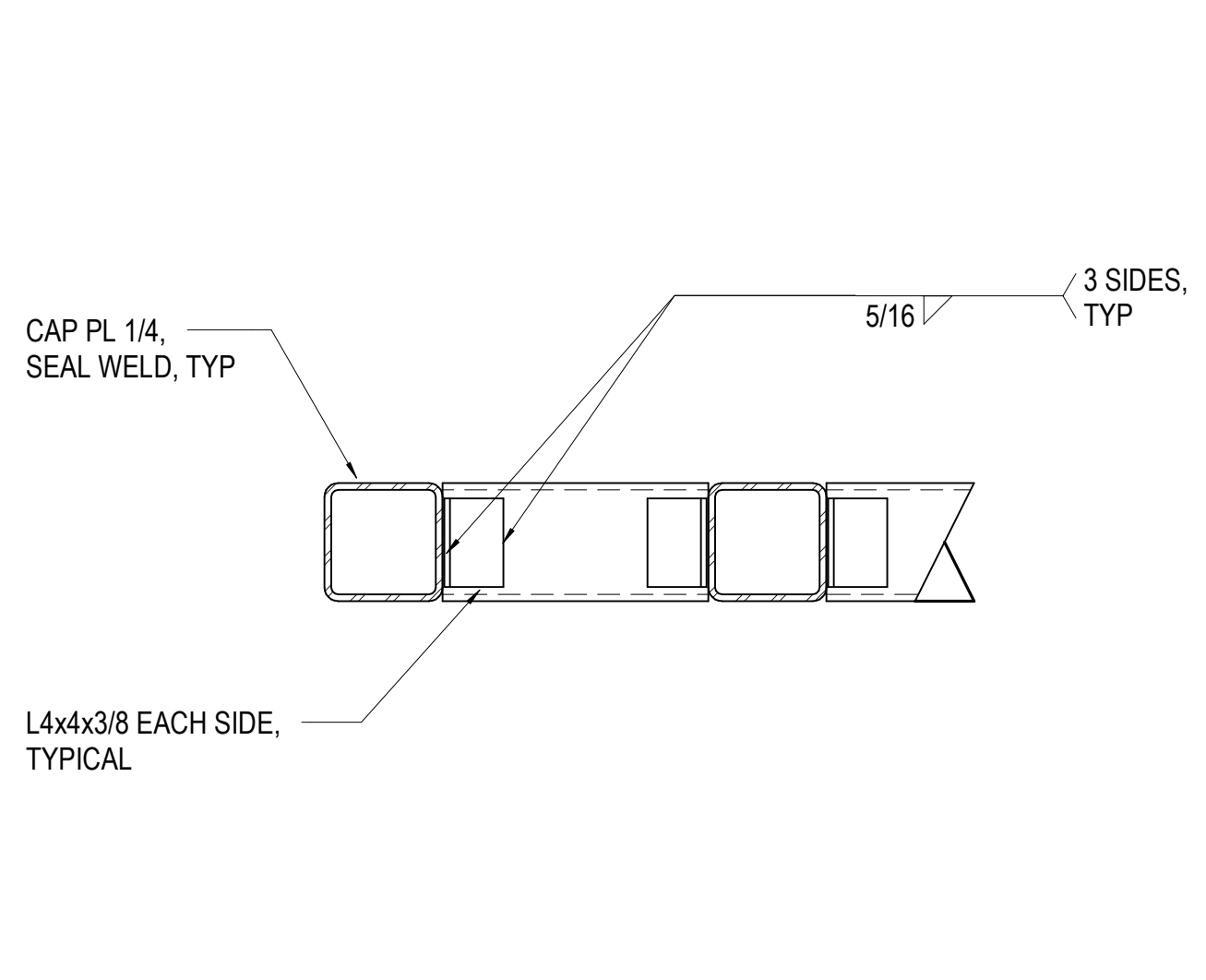


NOTE:
ALL CONNECTIONS TO BE CONCEALED. SEE 1/1B-S1.05

17 3/4" = 1'-0" CANOPY FRONT CONNECTION

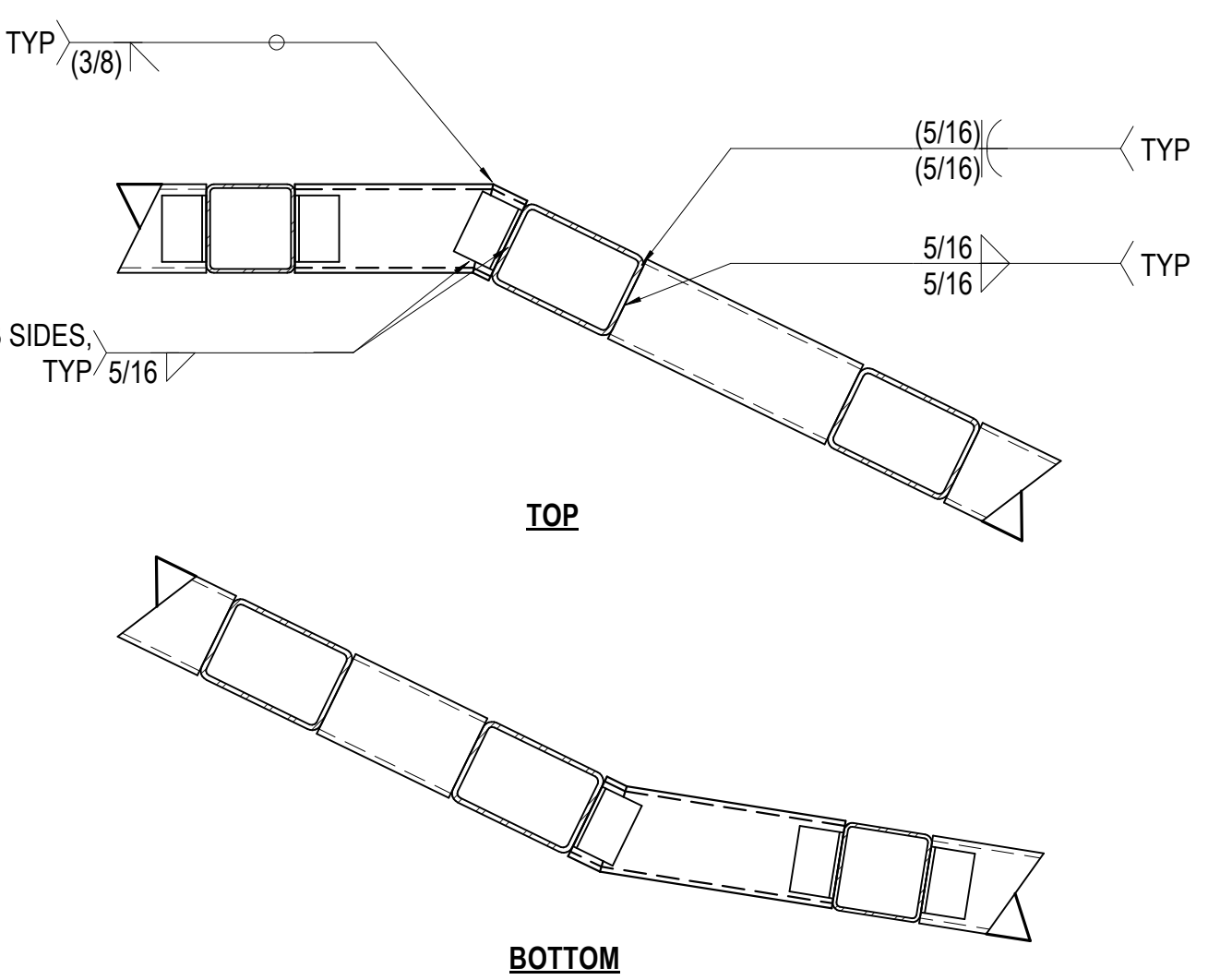


18 3/4" = 1'-0" CANOPY HSS STEEL CONNECTION

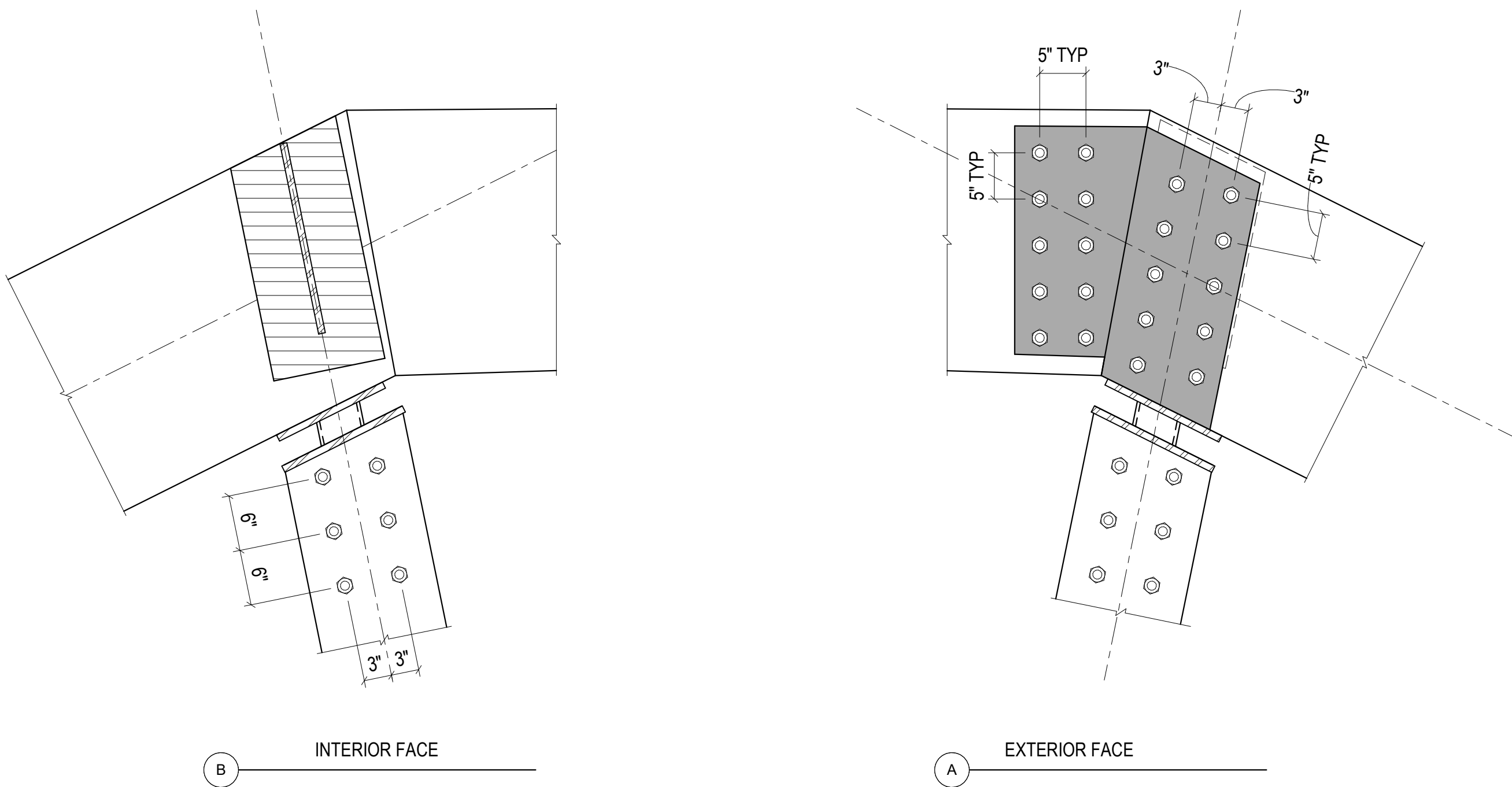


19 1" = 1'-0" CANOPY HSS TOP CONNECTION

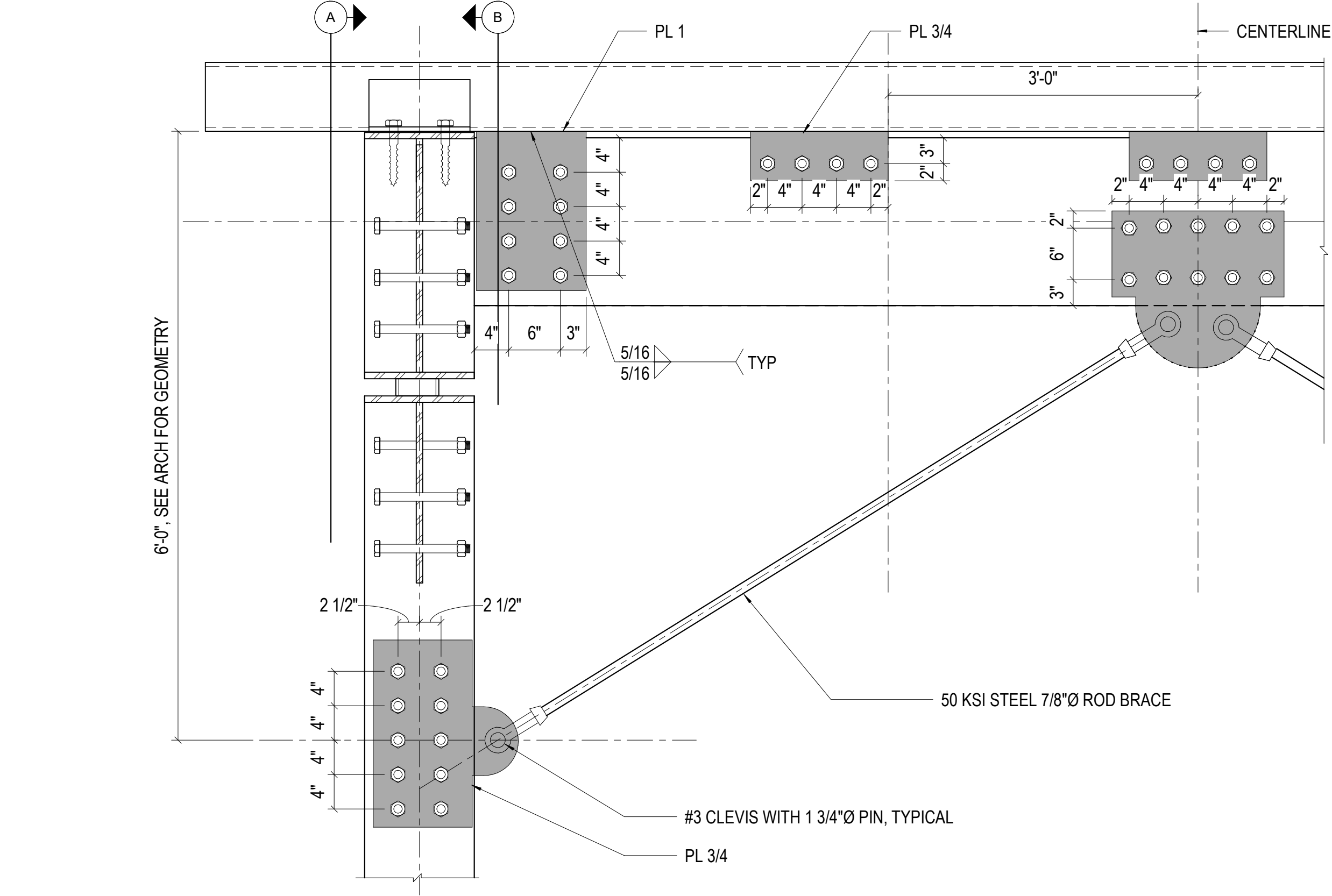
14 1" = 1'-0" CANOPY LOW EDGE HSS BEAM



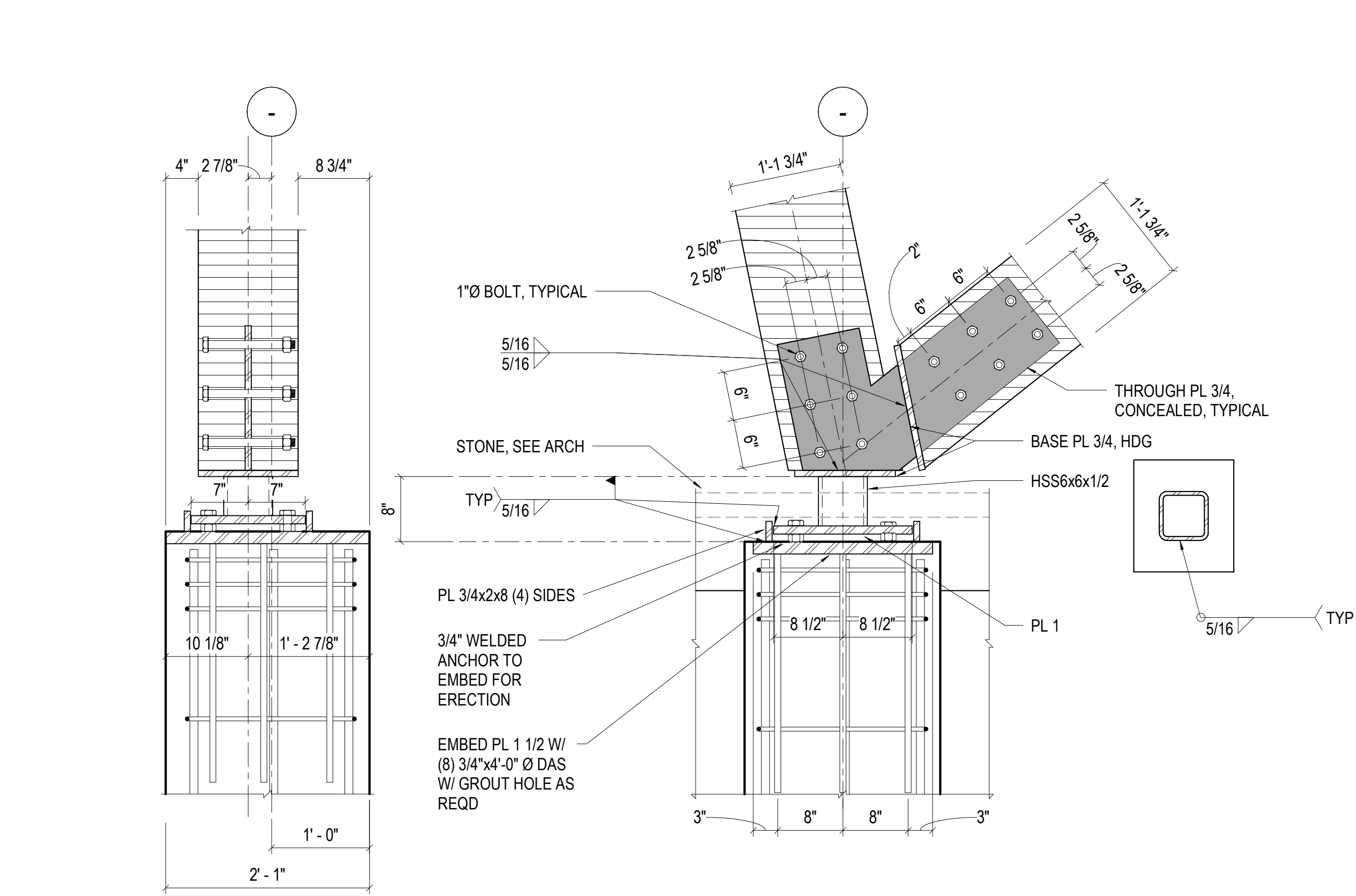
15 3/4" = 1'-0" CANOPY HSS STEEL CONNECTION AT SLOPE CHANGE



NOTE:
ALL CONNECTIONS TO BE CONCEALED. SEE 1/1B-S1.05



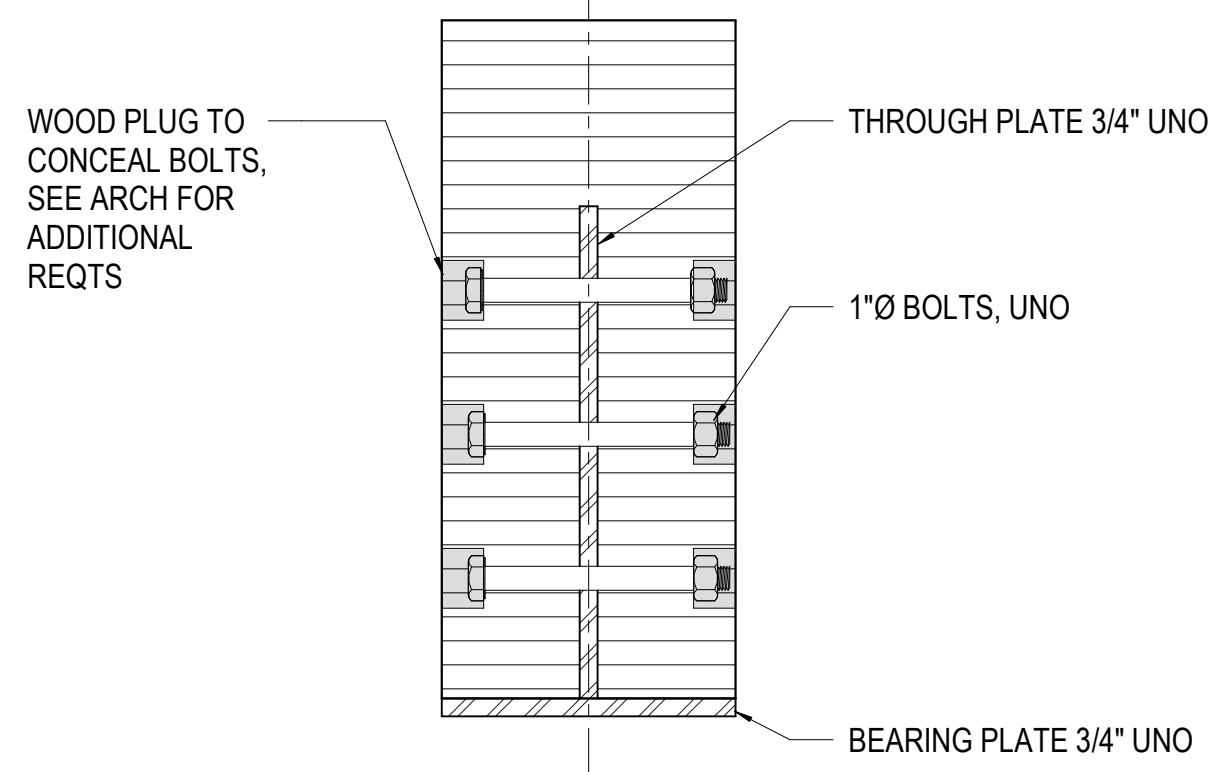
11 1" = 1'-0" CANOPY TOP CONNECTION - 1



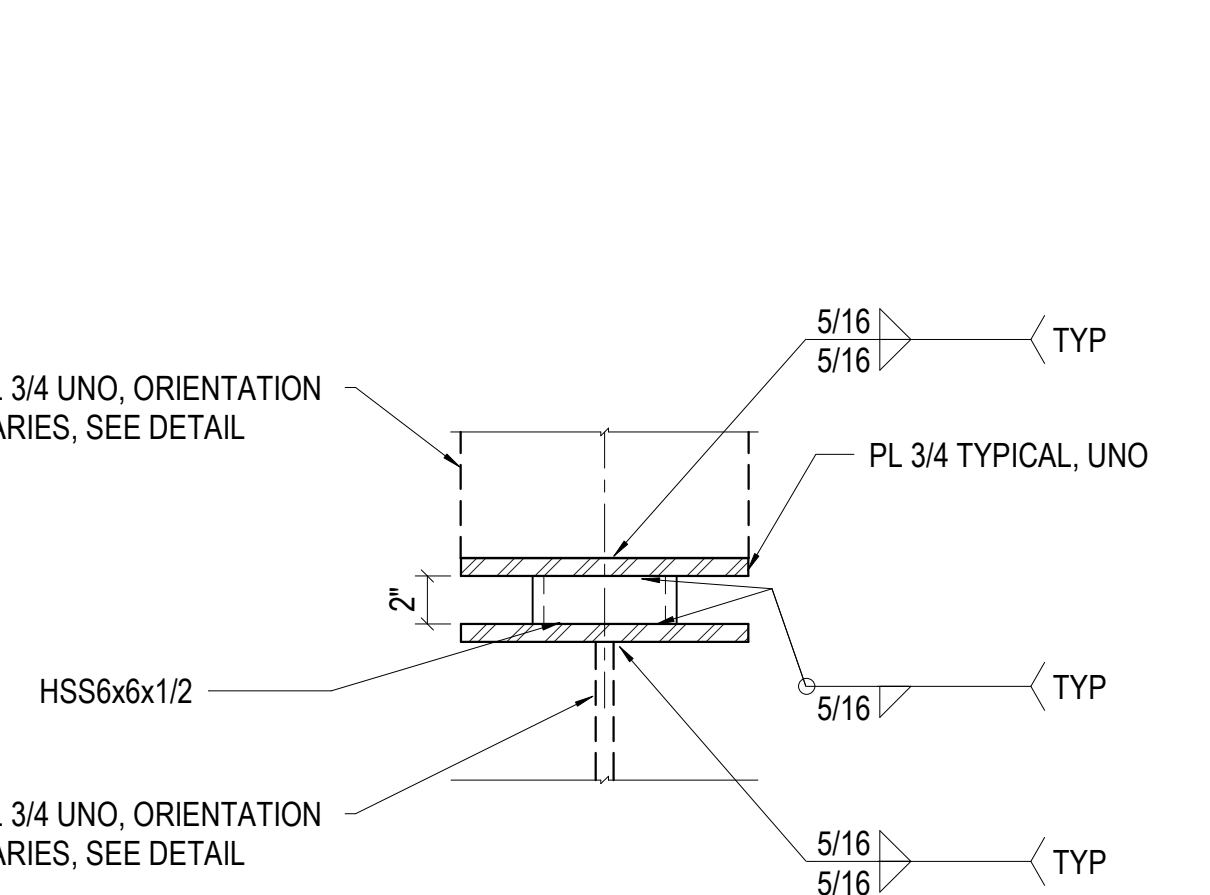
NOTE:
ALL CONNECTIONS TO BE CONCEALED. SEE 1/1B-S1.05

12 1" = 1'-0" CANOPY V POST BASE CONNECTION - 1

GLULAM STEEL CONNECTIONS ARE DETAILED FOR PERMIT AND BIDDING PURPOSES. CONTRACTOR TO REVIEW CONSTRUCTION TOLERANCE AND SEQUENCE WITH GLULAM SUPPLIER. CONNECTIONS TO BE FINALIZED IN THE FUTURE ISSUANCE. ALL SHADED PLATES ARE CONCEALED FLITCH PLATE CONNECTIONS INSIDE THE GLULAM MEMBER. ALL BOLTS ARE TO BE CONCEALED WITH WOOD PLUGS UNO. SEE ARCHITECTURAL DRAWINGS FOR AESTHETIC REQUIREMENTS.



1 1 1/2" = 1'-0" GLULAM CONCEALED CONNECTION



2 1 1/2" = 1'-0" CANOPY CONNECTION HSS GAP



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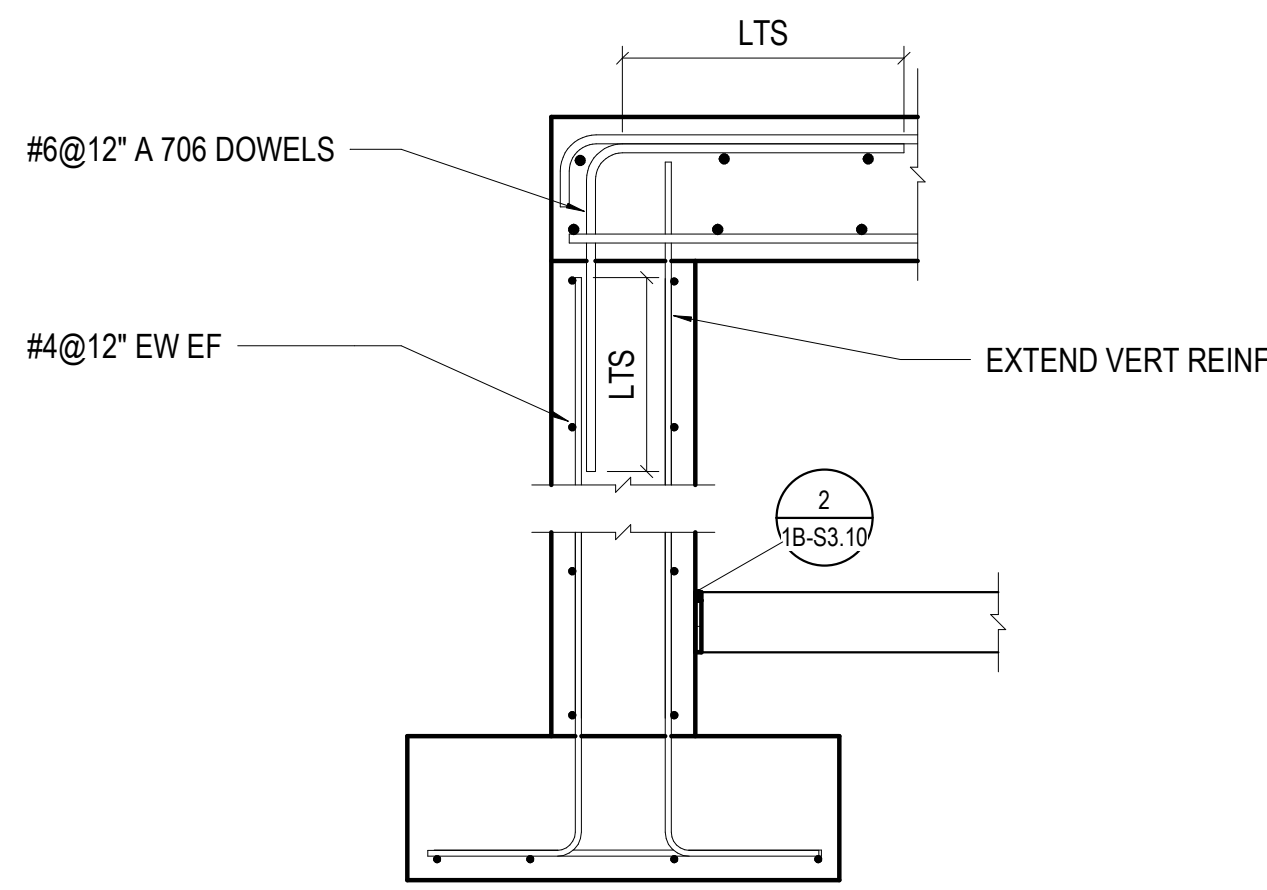
Date	Description
2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name
SSRC | BASE AREA IMPROVEMENTS
Project Number
003.7835.000
Description
GOLDWALK CANOPY DETAILS

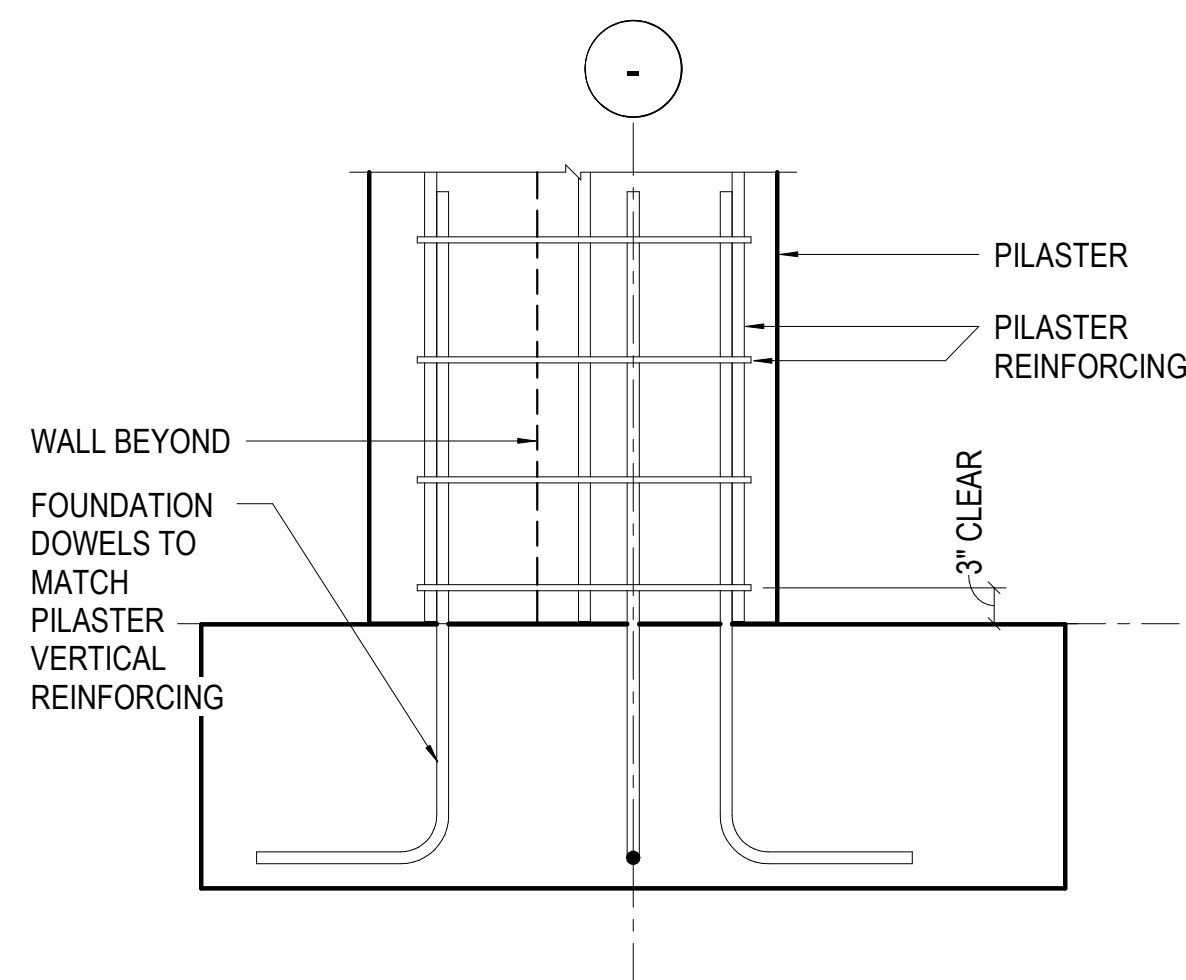
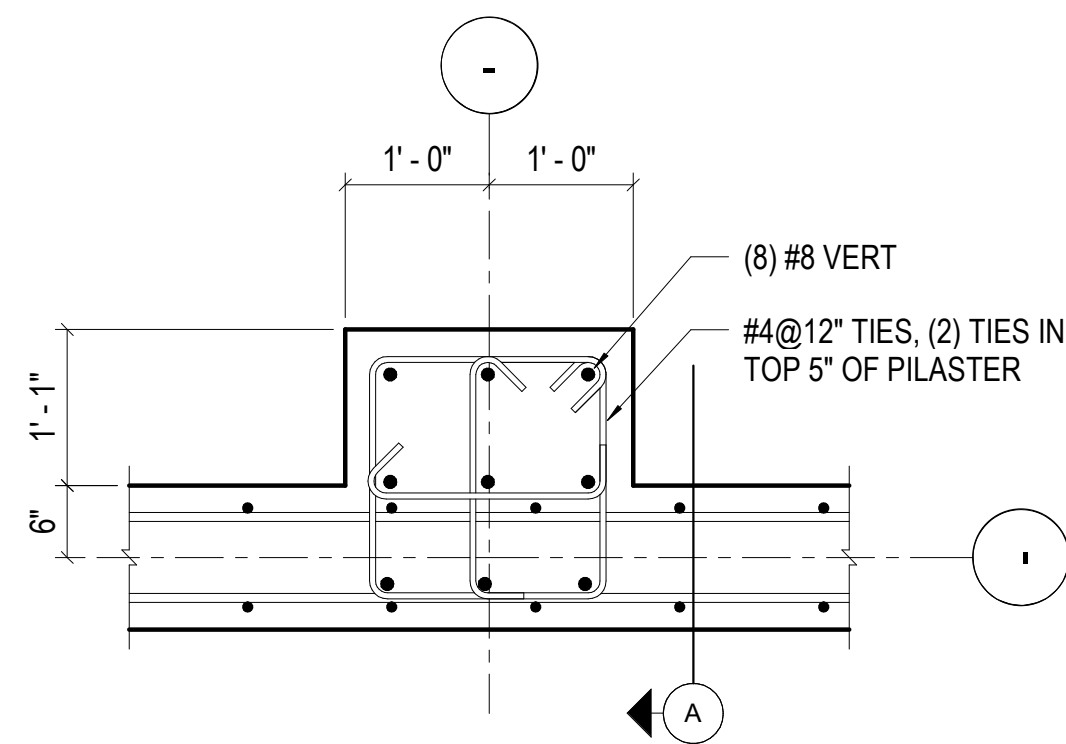
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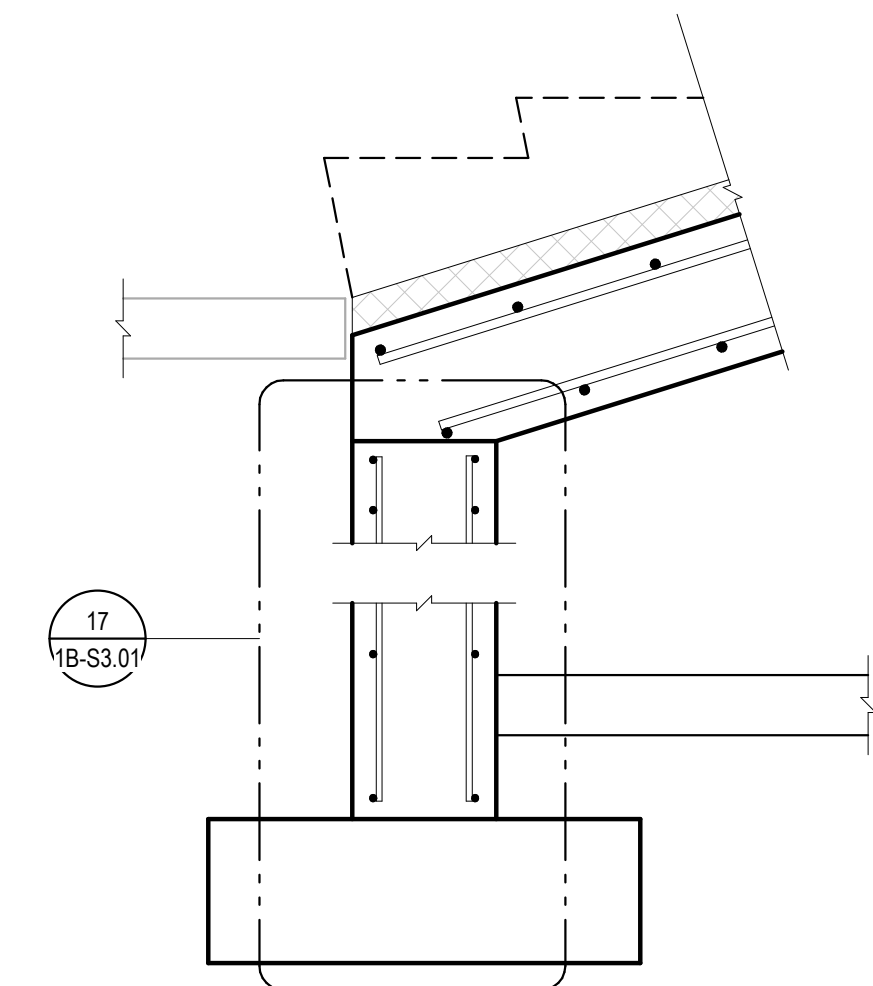




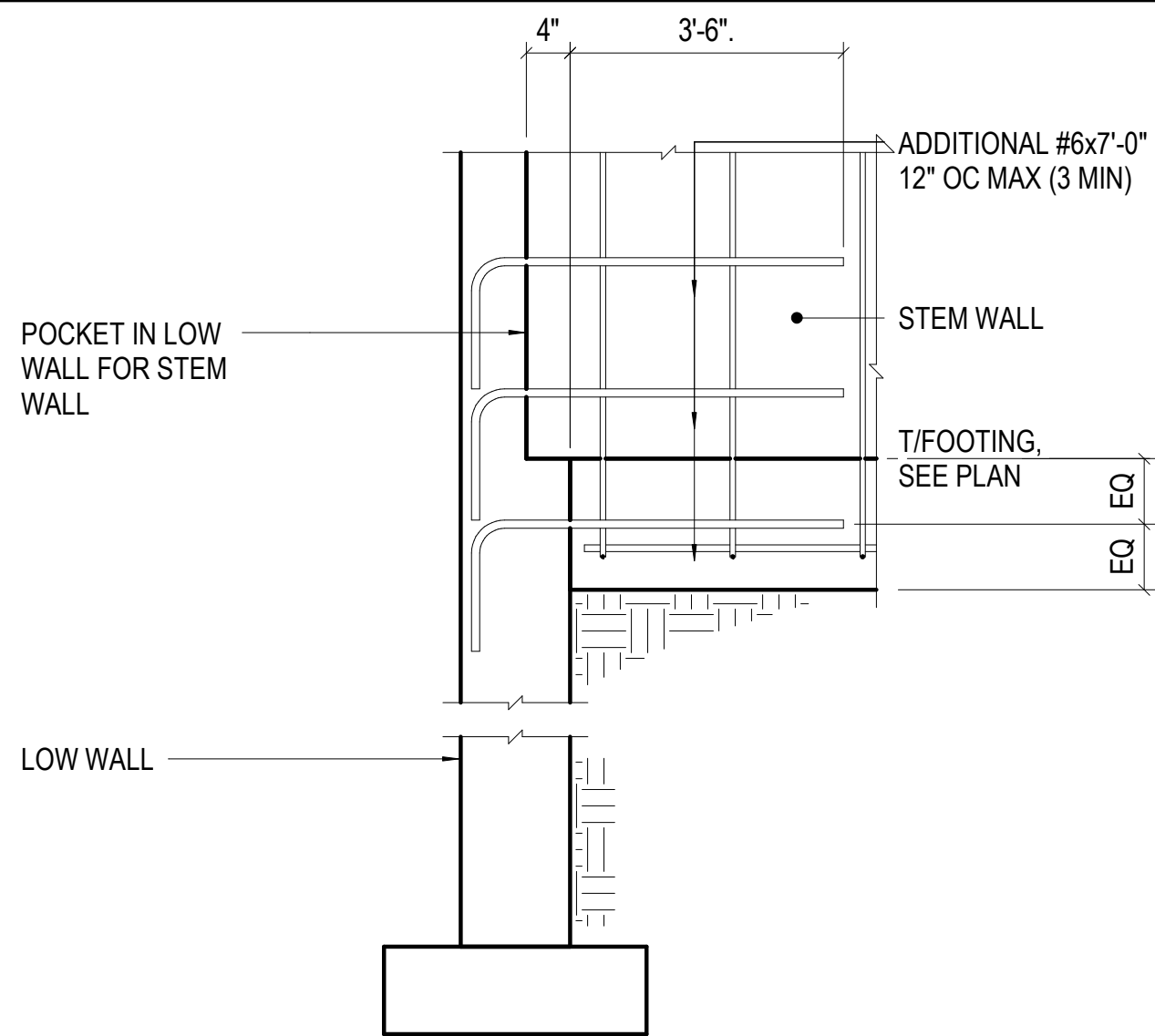
17 3/4" = 1'-0" STAIR EDGE WALL



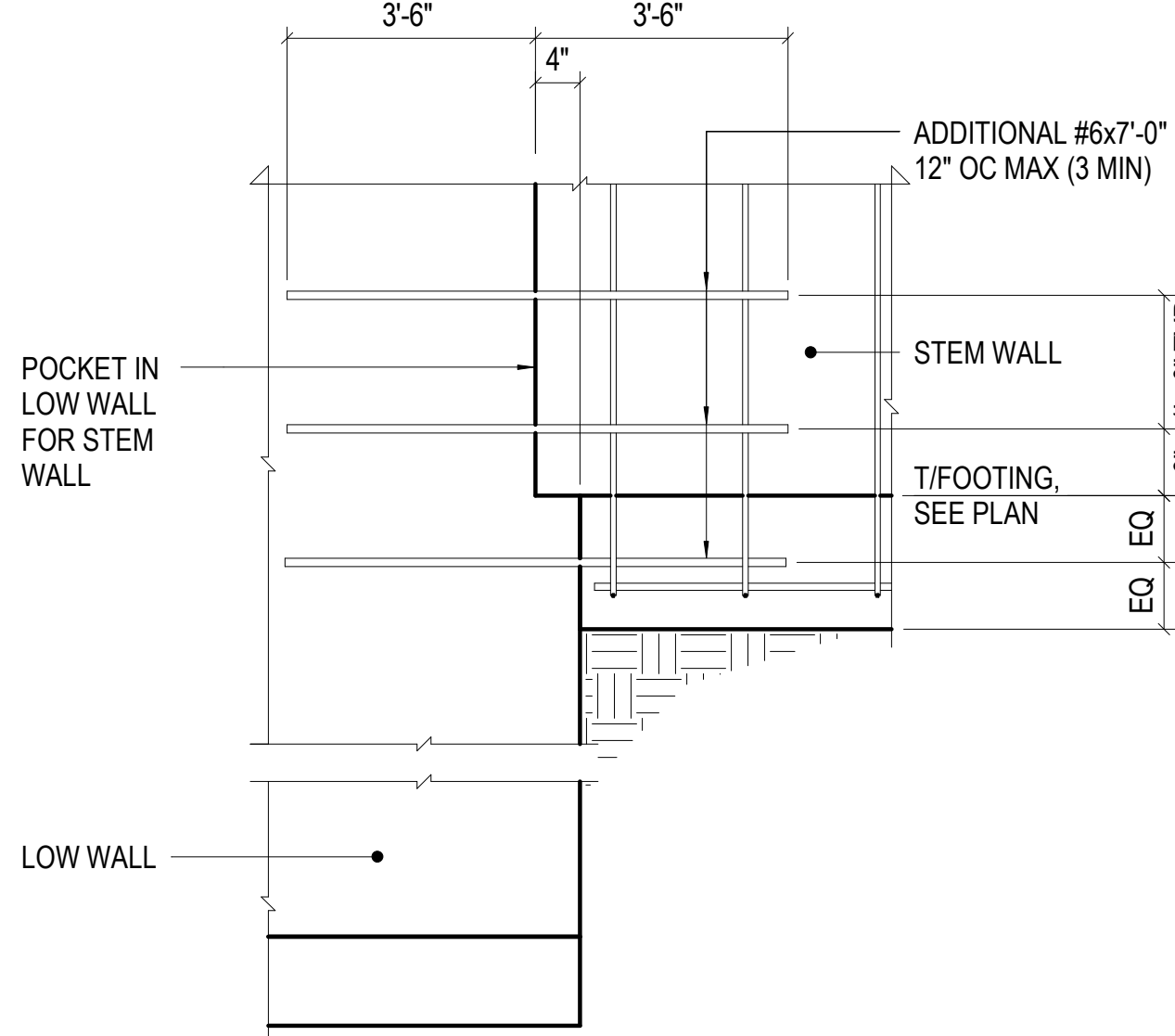
19 3/4" = 1'-0" CANOPY PILASTER



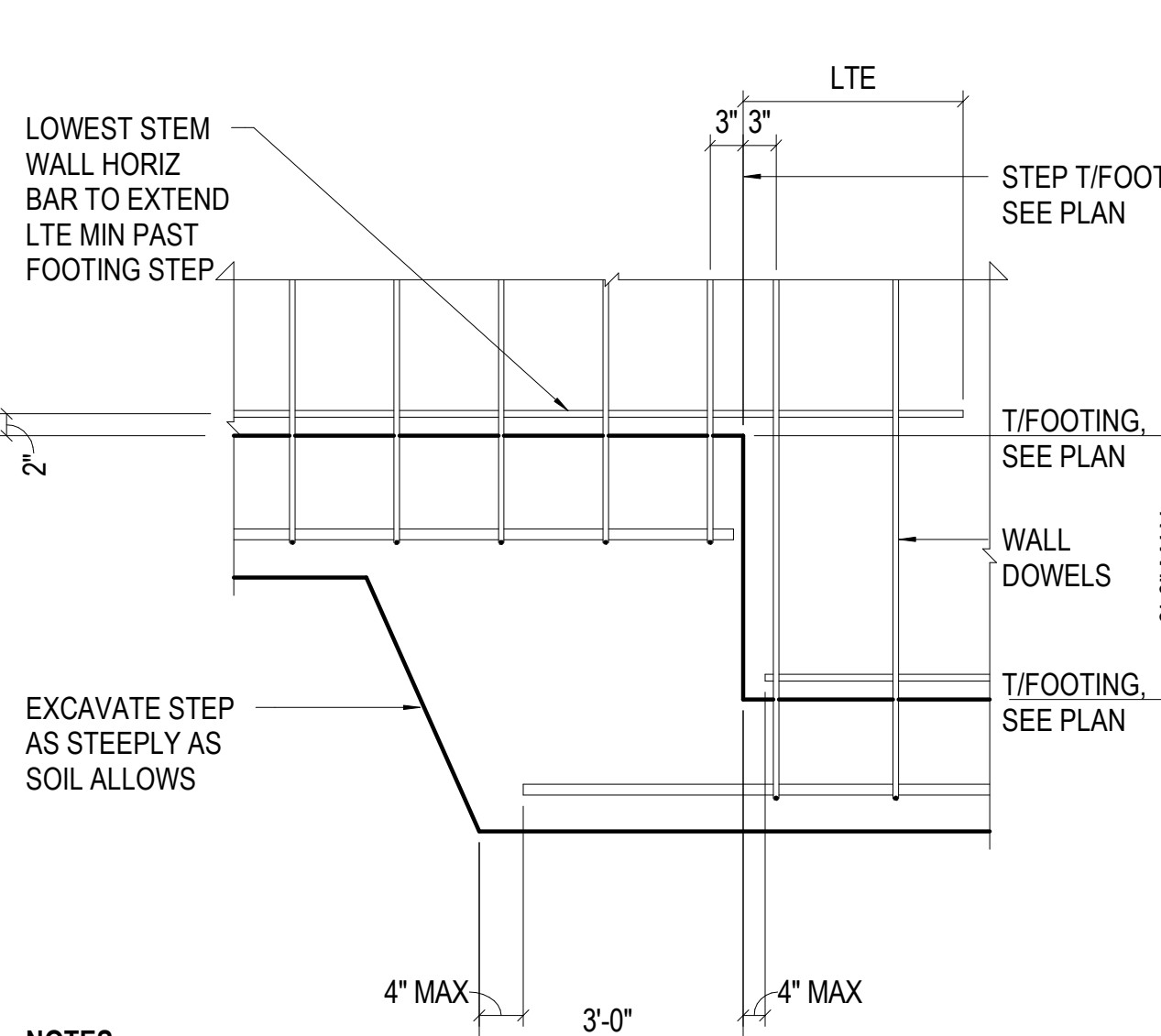
20 3/4" = 1'-0" CIP STAIR TO SITE SLAB



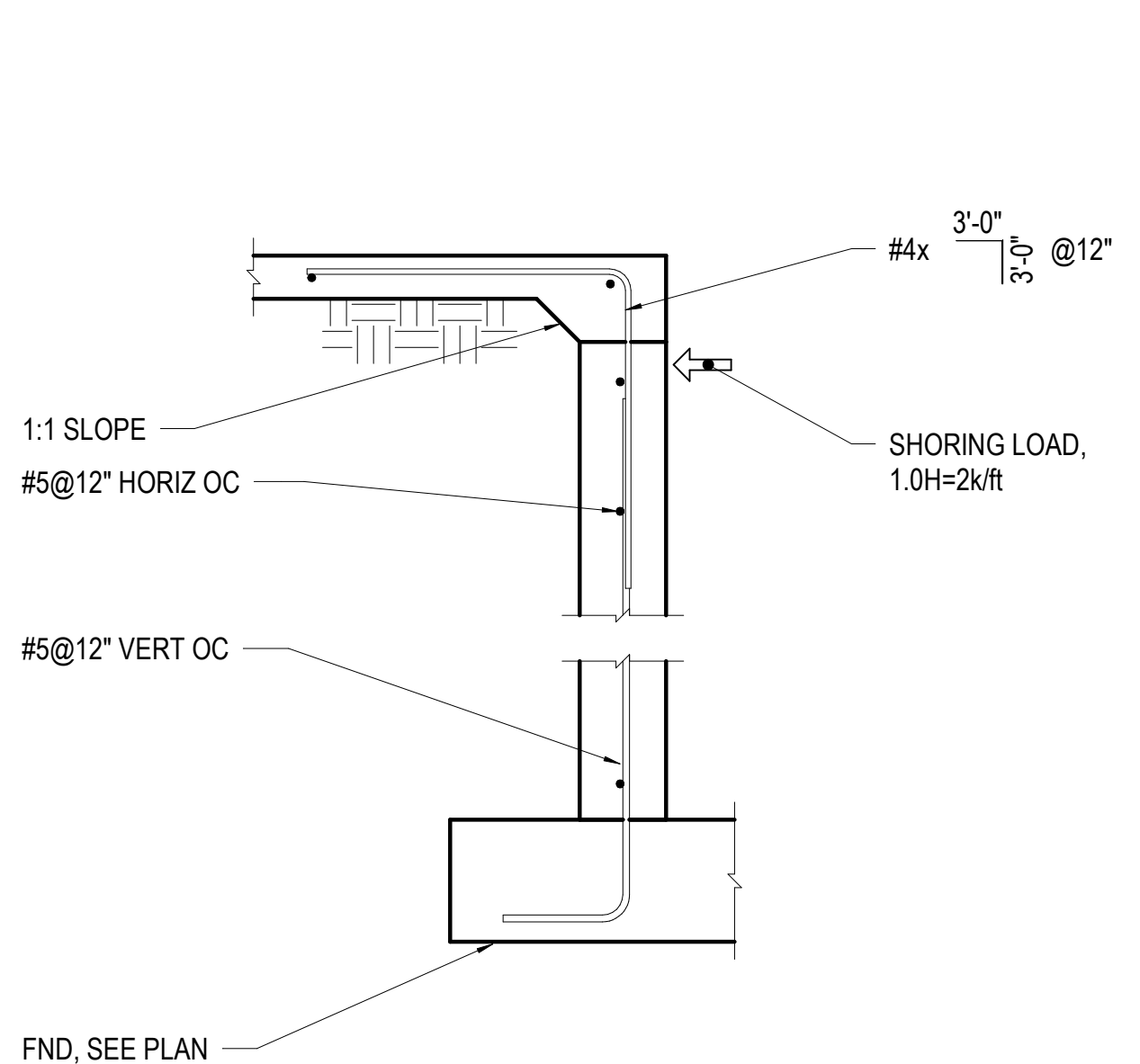
14 3/4" = 1'-0" STRIP FOOTING w/CIP STEM WALL STEP, GREATER THAN 3'-0"



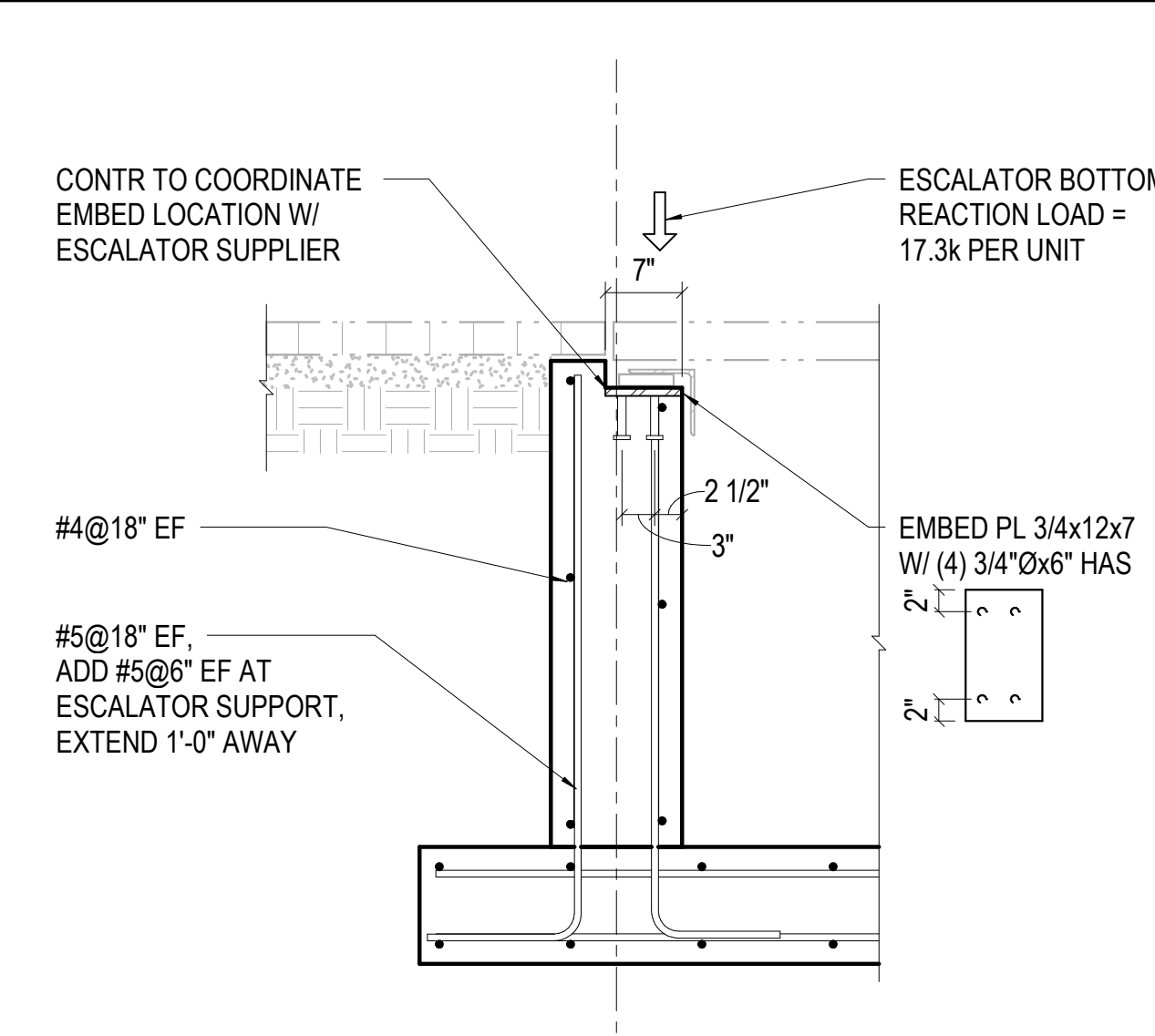
14 3/4" = 1'-0" STRIP FOOTING w/CIP STEM WALL STEP, GREATER THAN 3'-0"



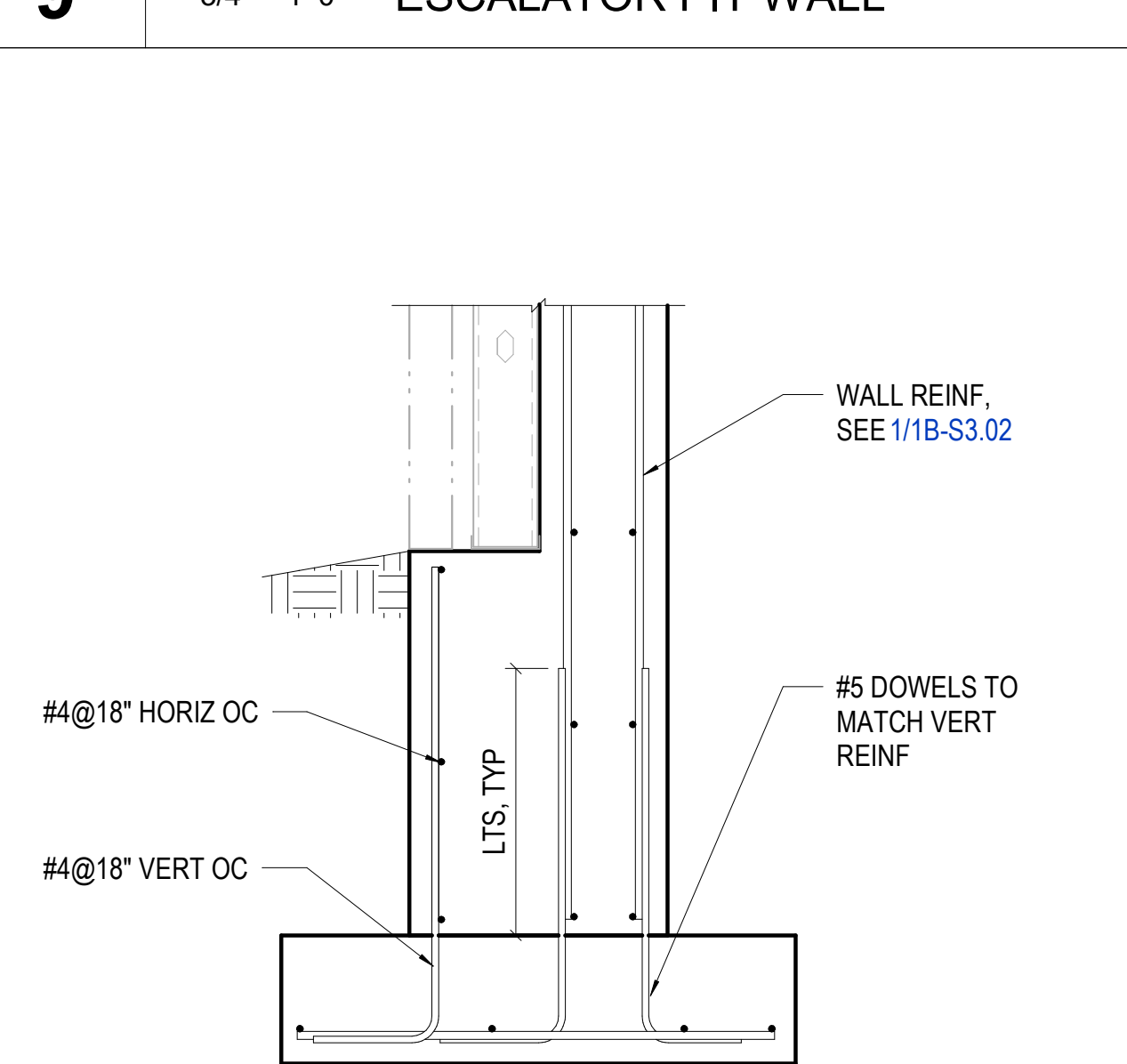
15 3/4" = 1'-0" STRIP FOOTING w/CIP STEM WALL STEP, 3'-0" AND LESS



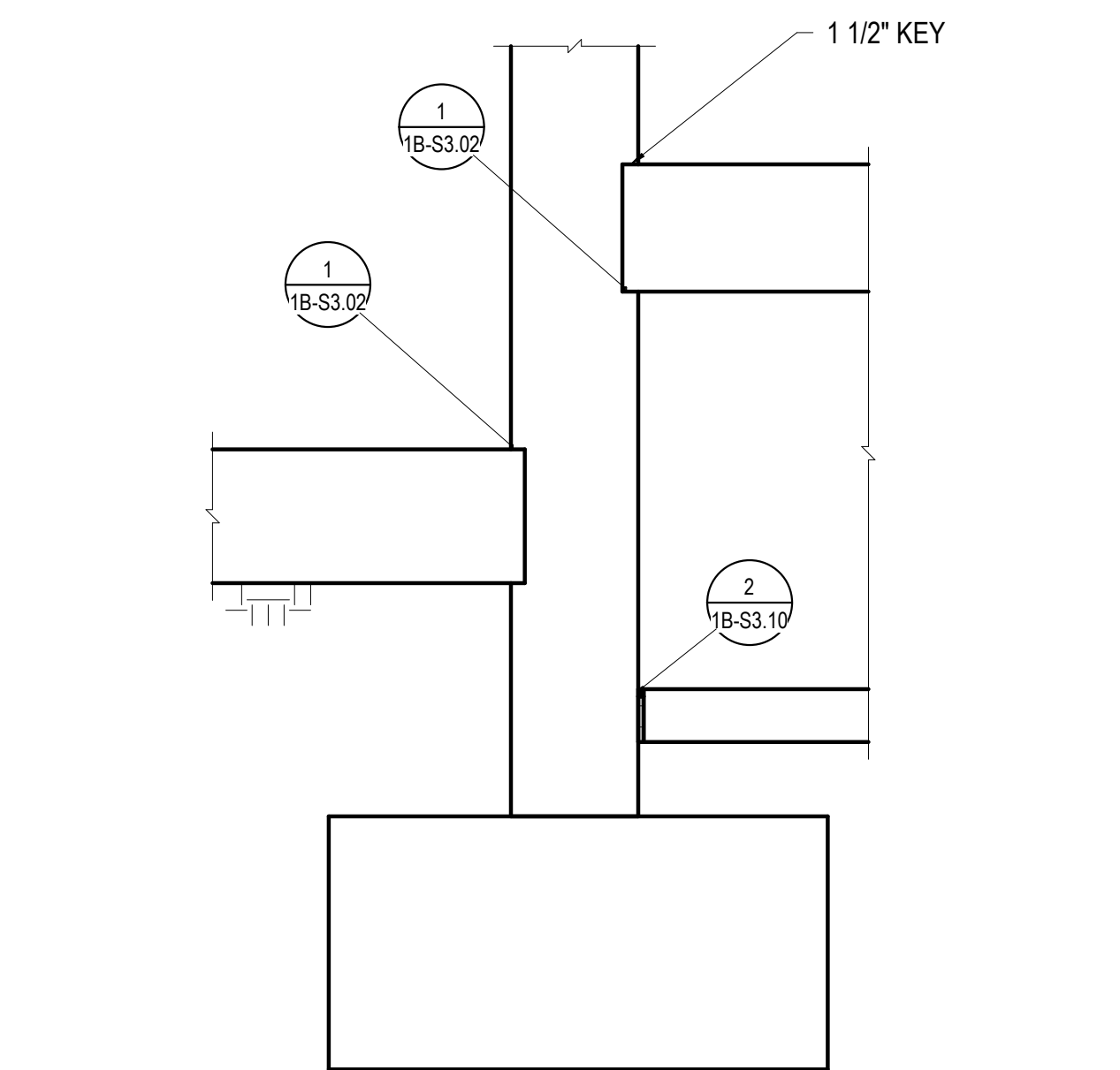
16 3/4" = 1'-0" PIT WALL REINF



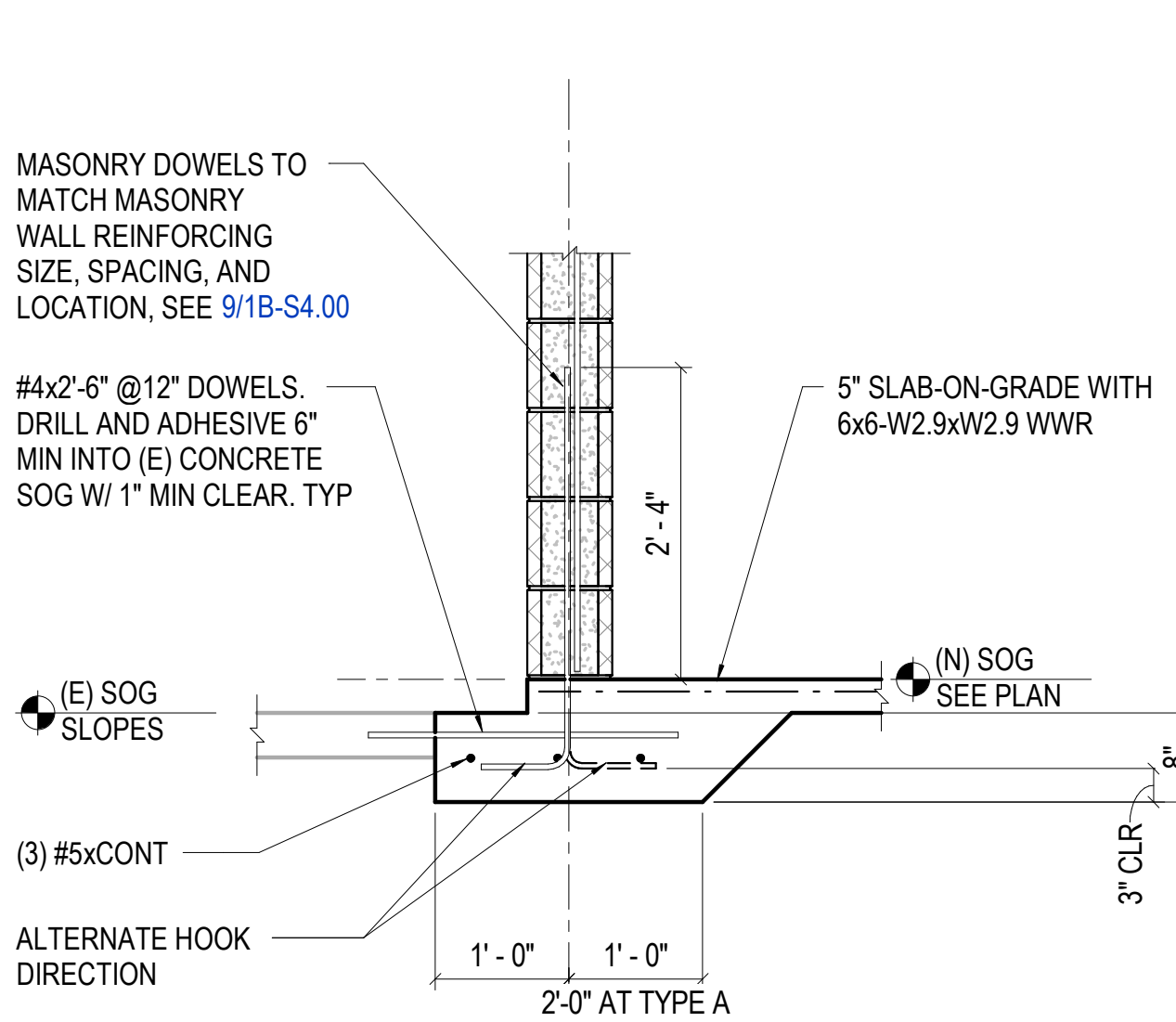
9 3/4" = 1'-0" ESCALATOR PIT WALL



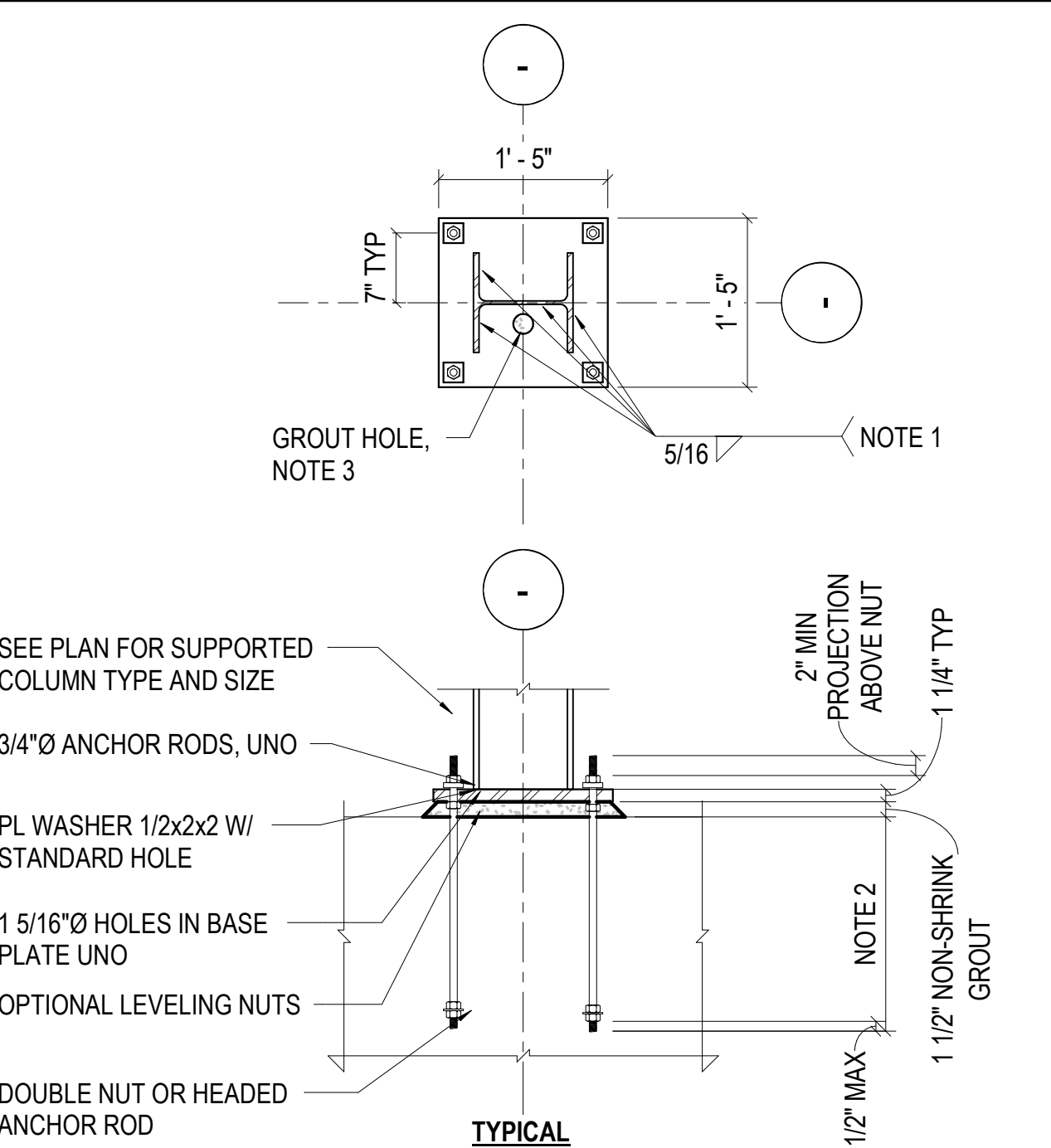
10 3/4" = 1'-0" ESCALATOR FOUNDATION WALL



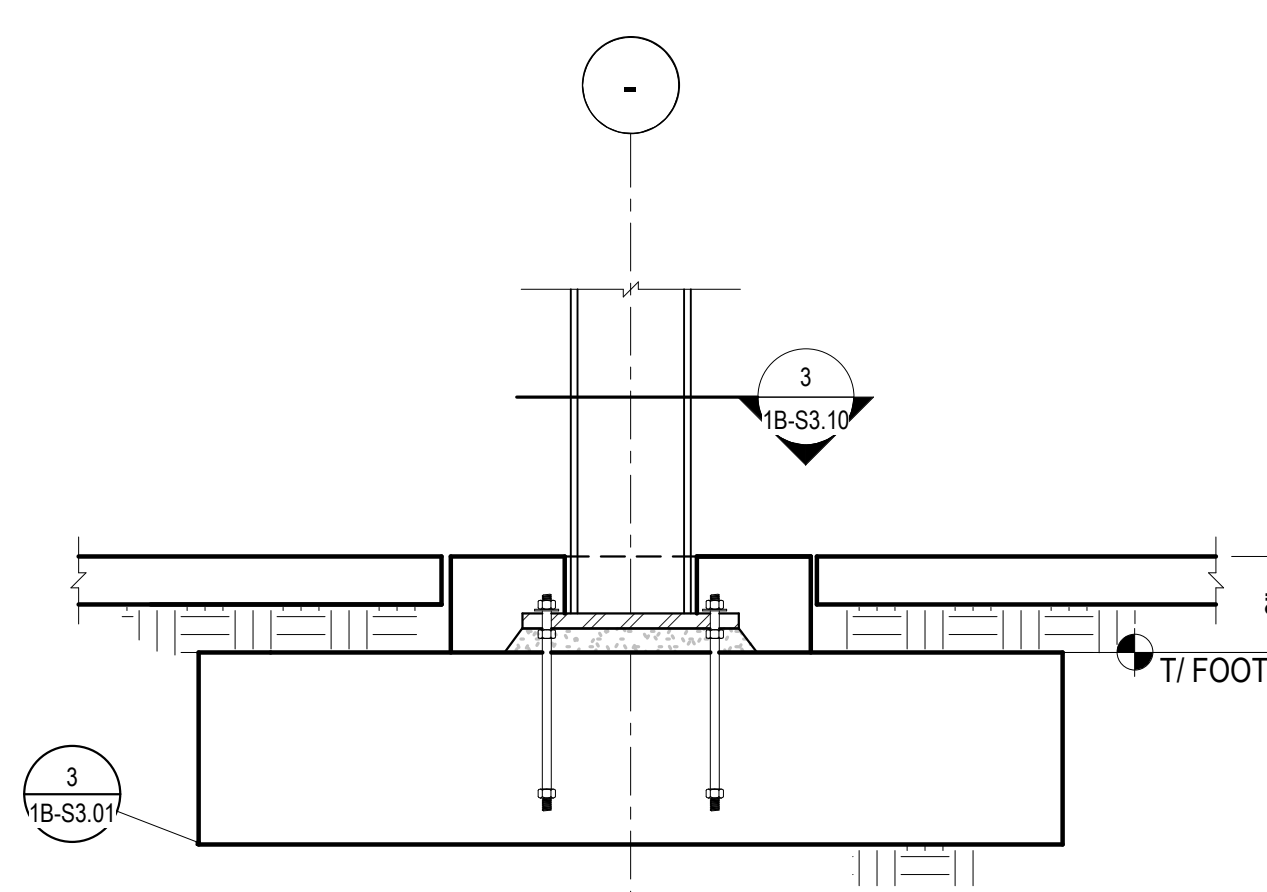
11 3/4" = 1'-0" ESCALATOR PIT WALL TO STAIR



12 3/4" = 1'-0" SOG BELOW MASONRY PARTITION WALL

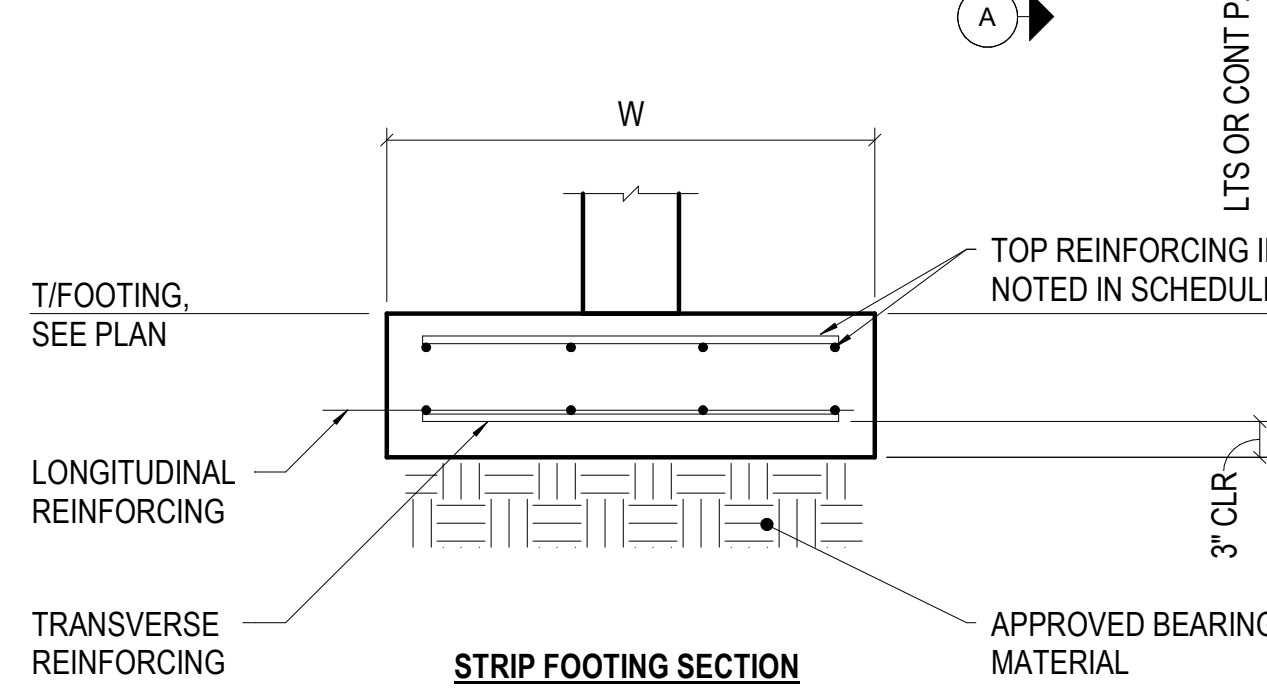
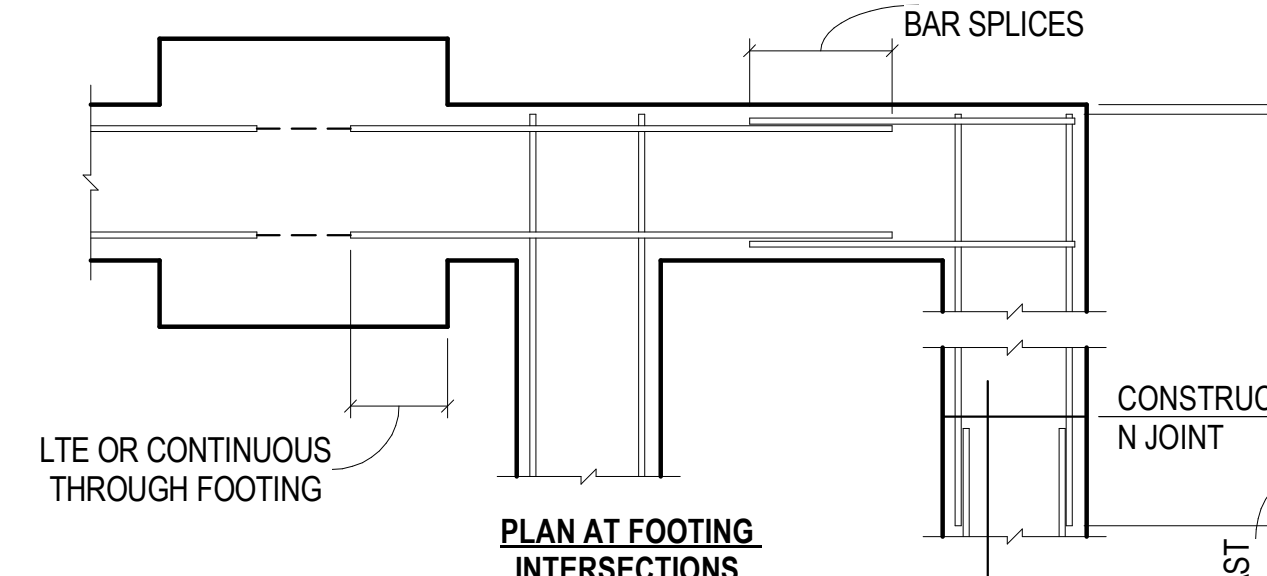
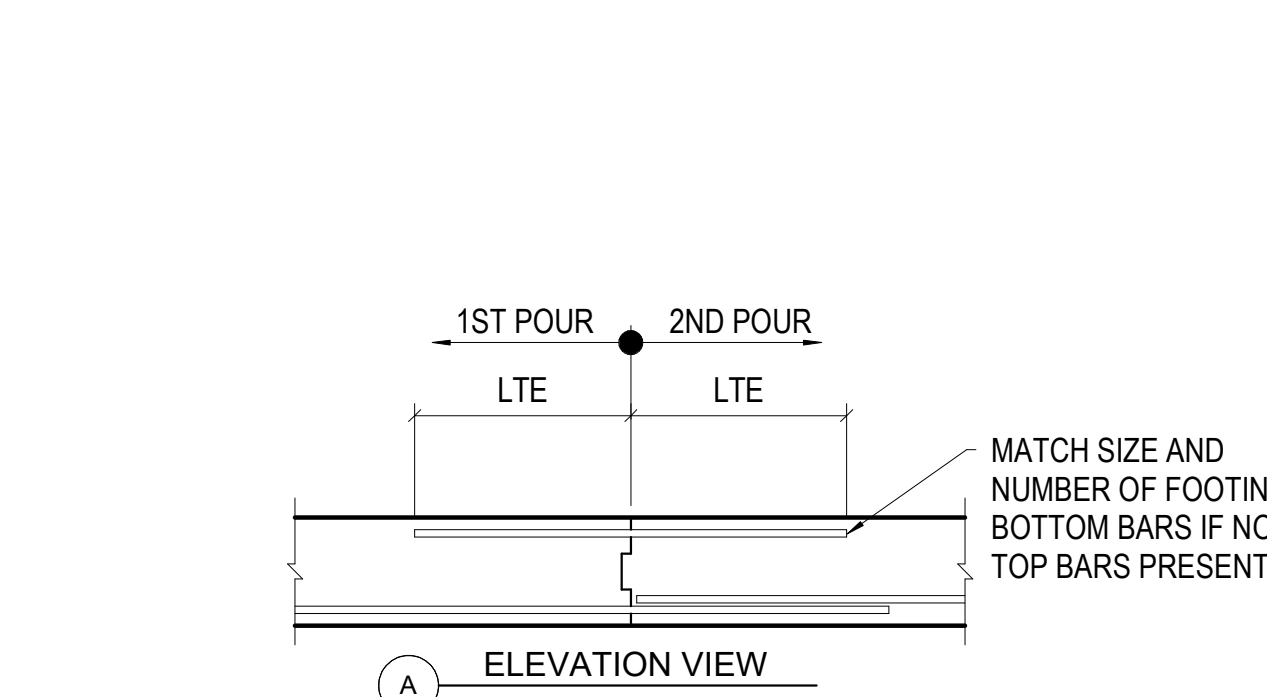


6 3/4" = 1'-0" INTERIOR COLUMN AT SPREAD FOOTING

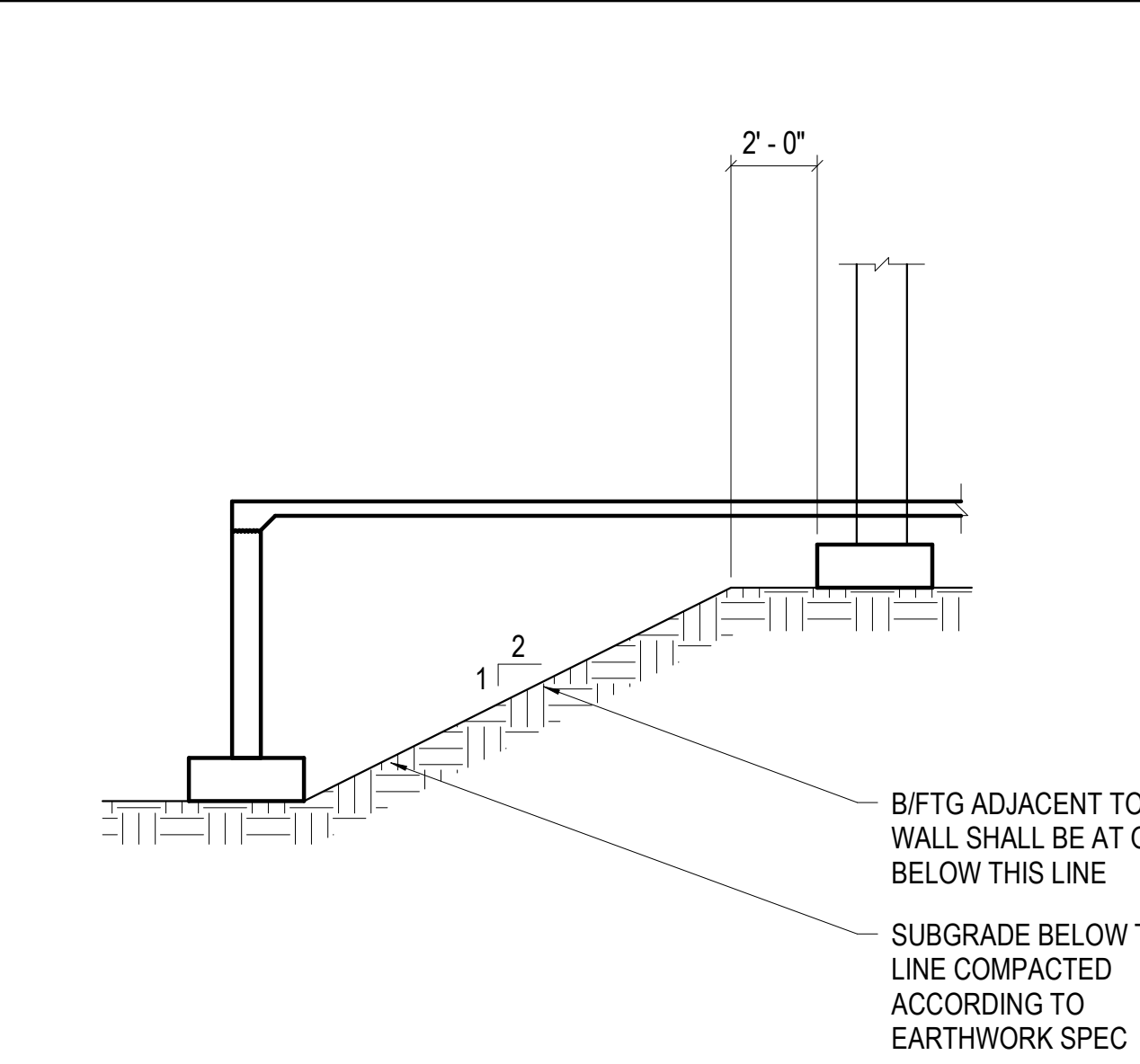
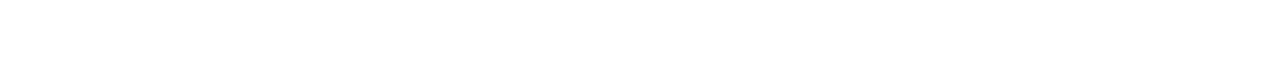


6 3/4" = 1'-0" INTERIOR COLUMN AT SPREAD FOOTING

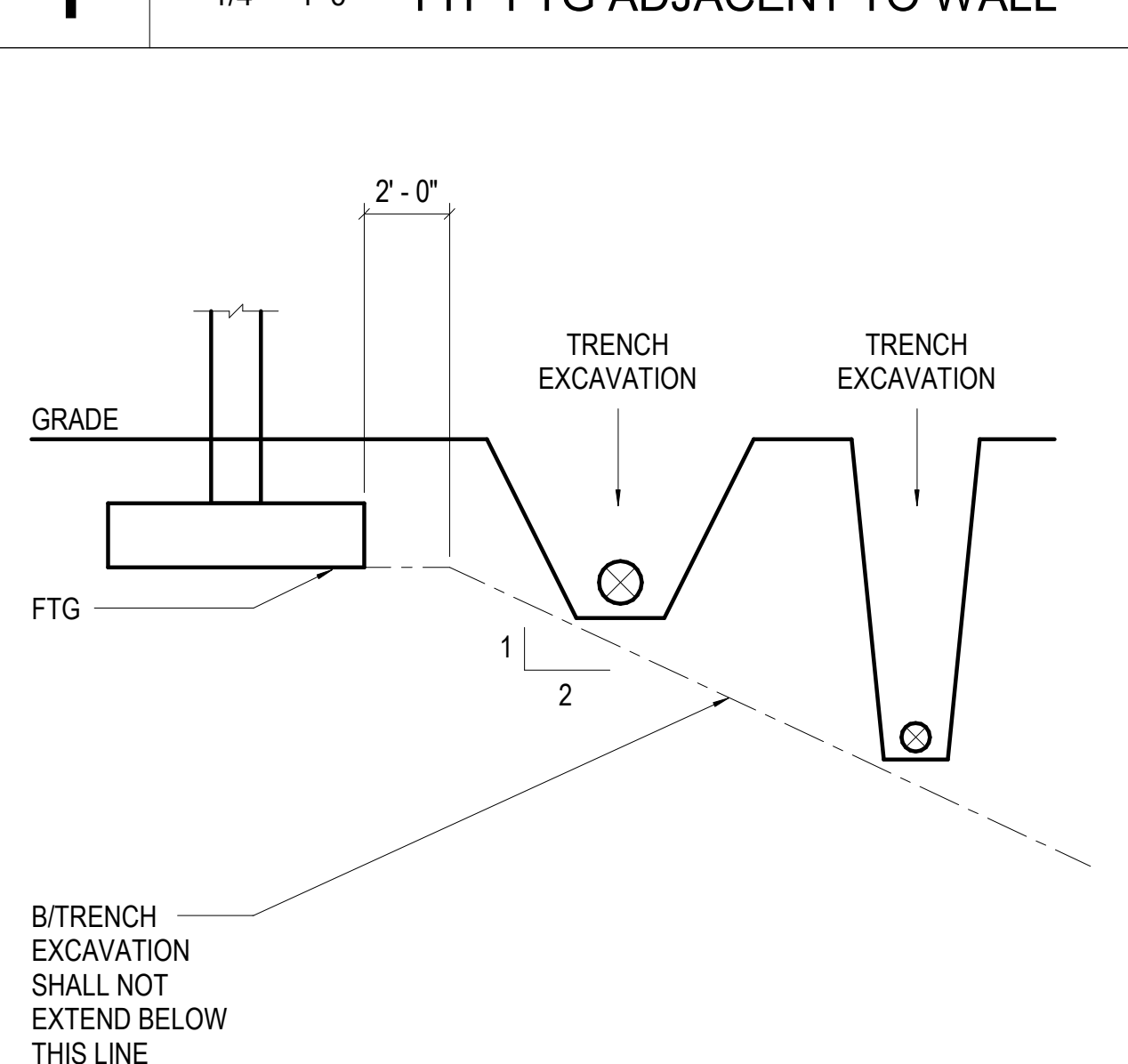
STRIP FOOTING SCHEDULE				
MARK	FOOTING SIZE L x W x T	LONG REINF	TRANS REINF	REMARKS
SF2	2'-0"x1'-0"	(3) #5	#4@12" OC	BOT ONLY
SF3	3'-0"x1'-0"	(3) #5	#4@12" OC	BOT ONLY
SF4	4'-0"x1'-0"	(4) #5	#4@12" OC	BOT ONLY



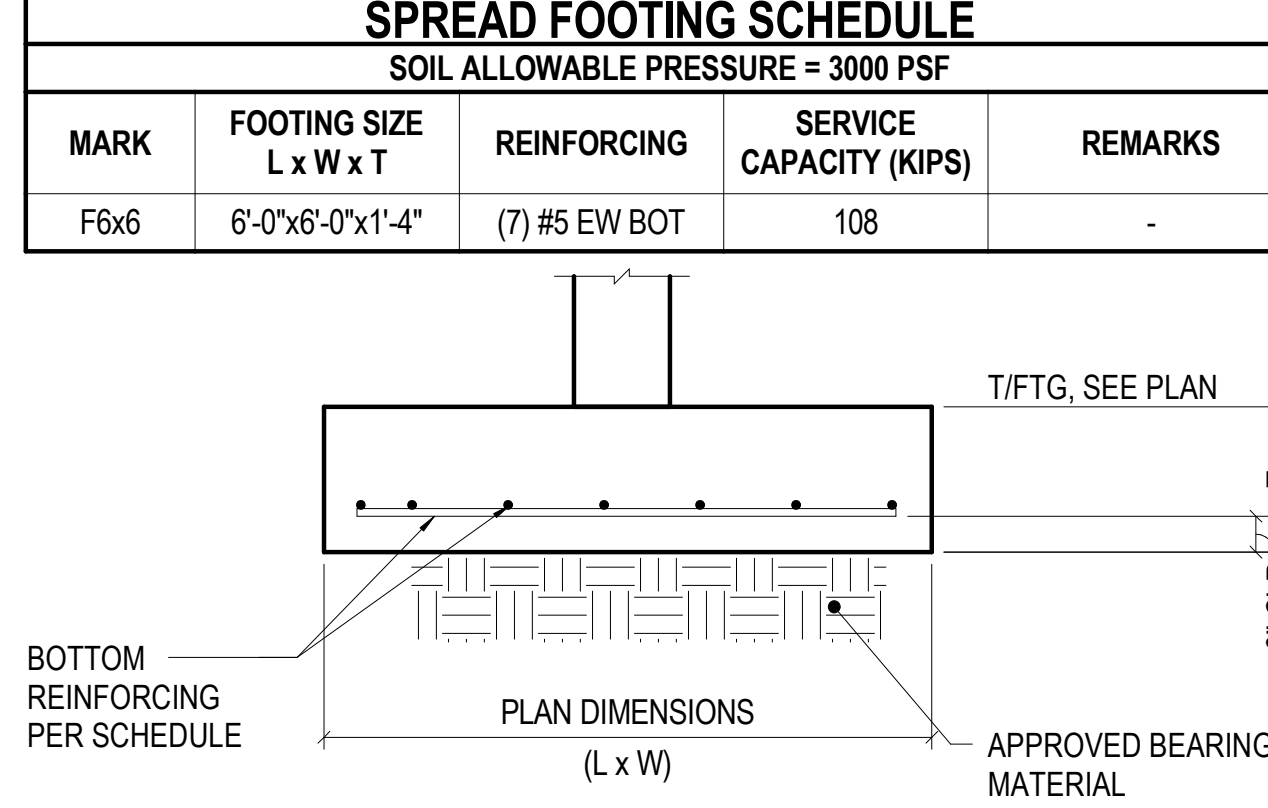
8 NO SCALE TYP STRIP FOOTING



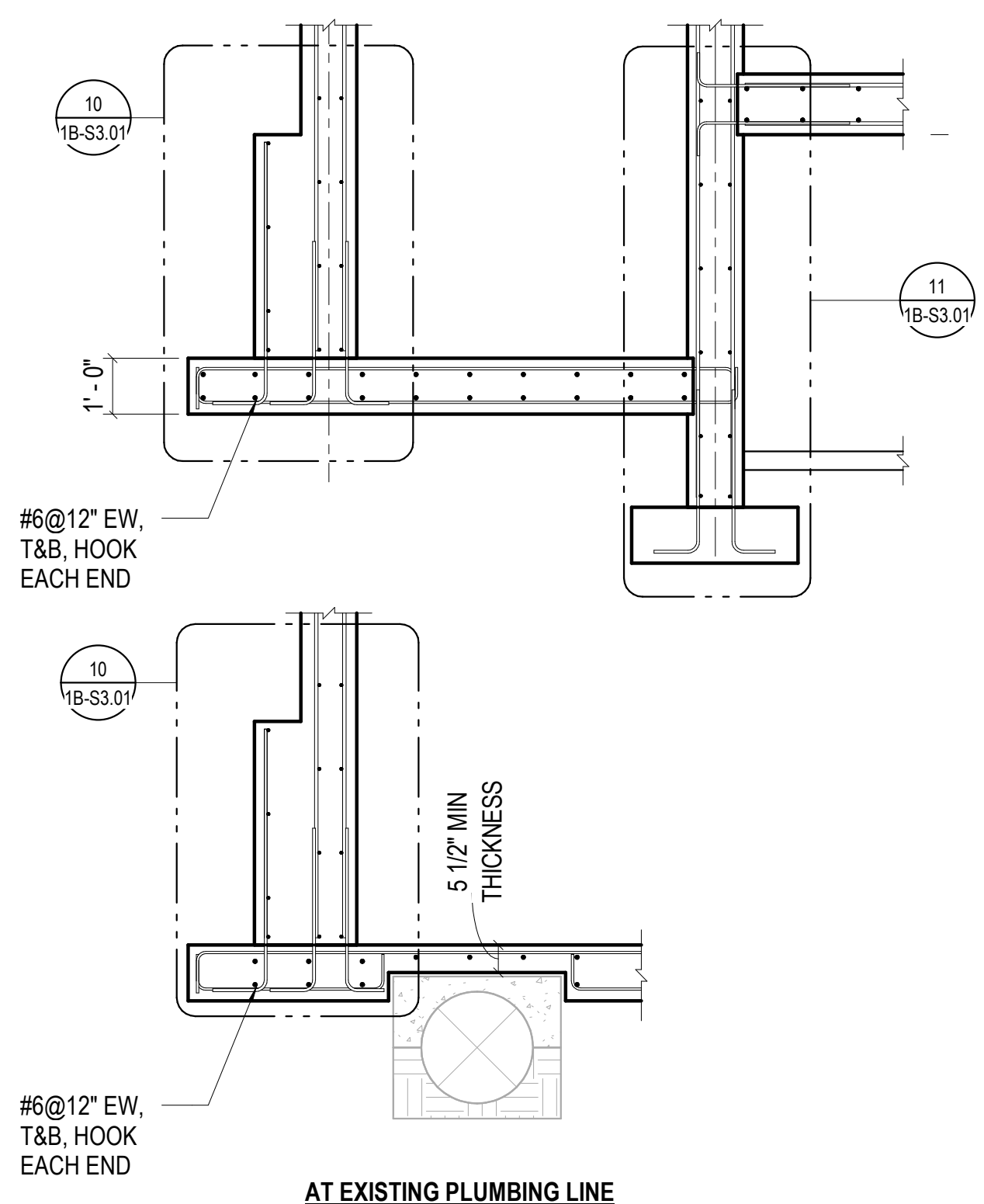
1 1/4" = 1'-0" TYP FTG ADJACENT TO WALL



2 NO SCALE TYP EXCAVATION AT FTG



3 NO SCALE TYP SPREAD FOOTING



4 NO SCALE ESCALATOR PIT



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Seal / Signature

Date

Description

2021.05.19

BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name

SSRC | BASE AREA IMPROVEMENTS

Project Number

003.7835.000

Description

FOUNDATION DETAILS

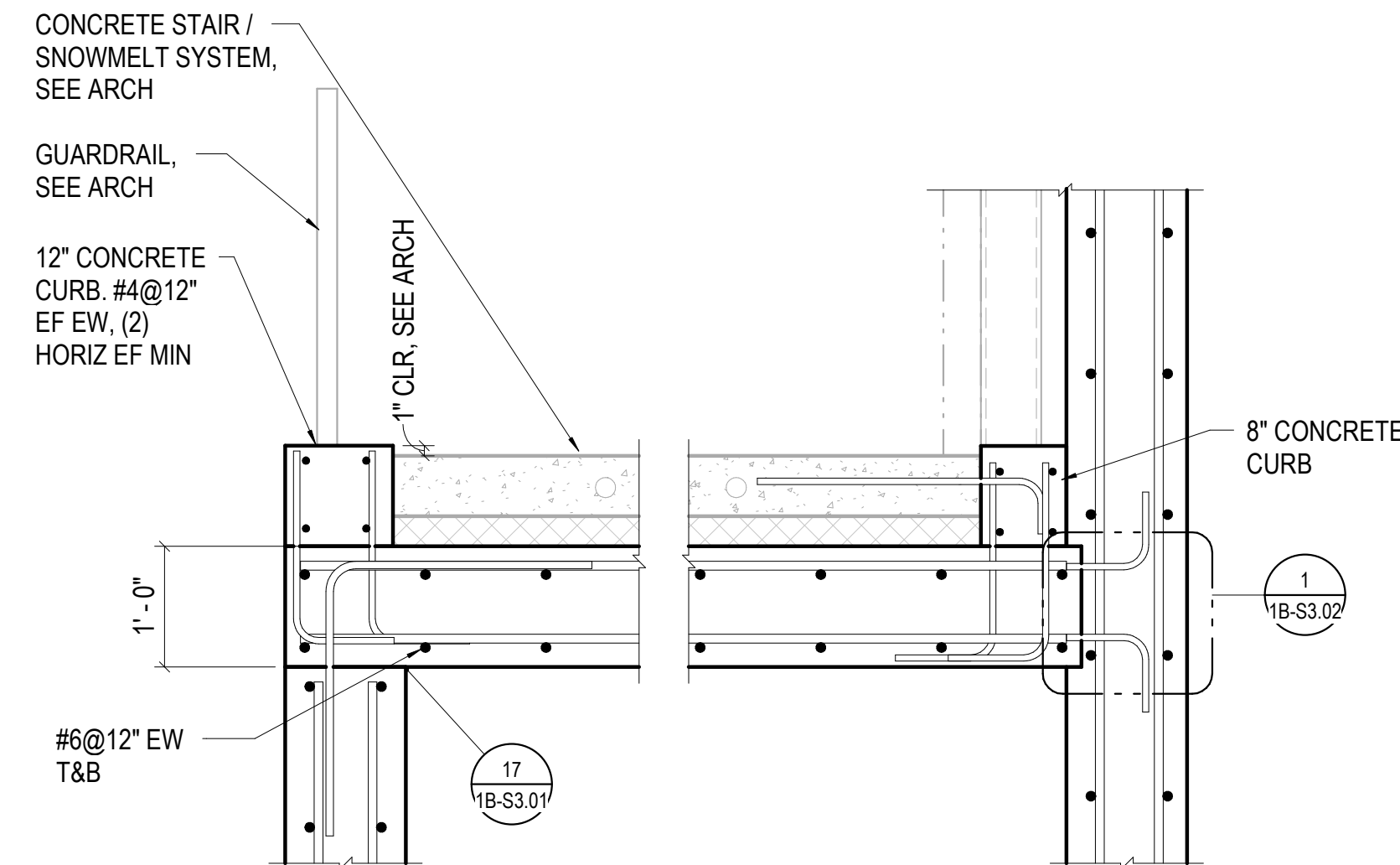
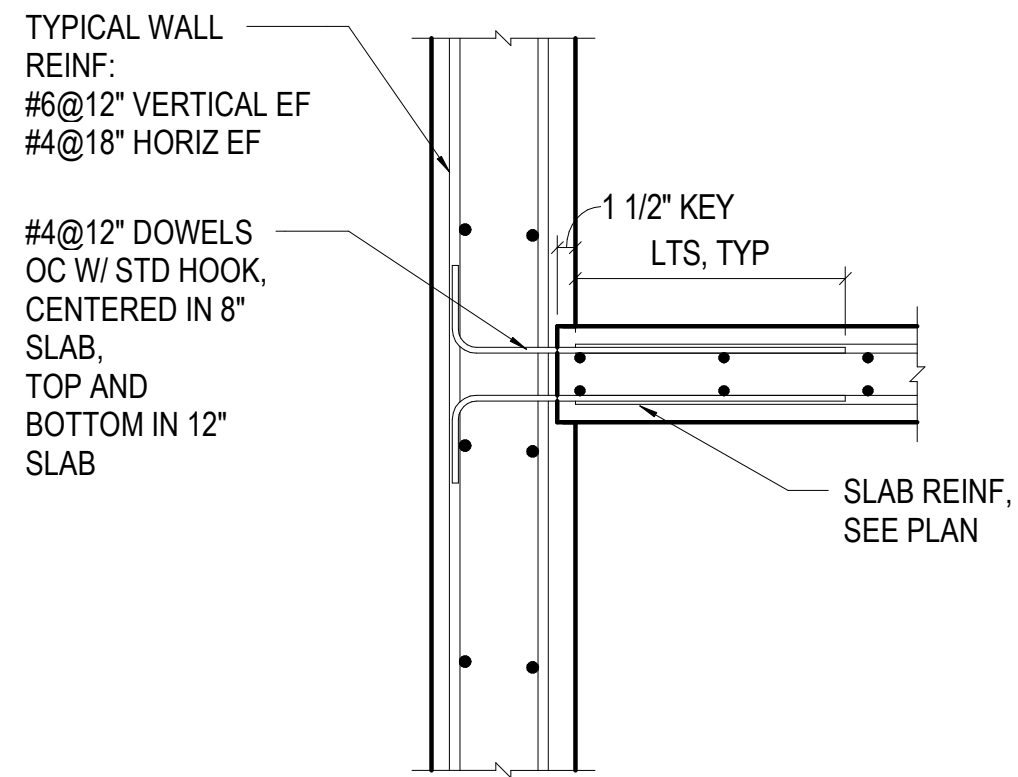
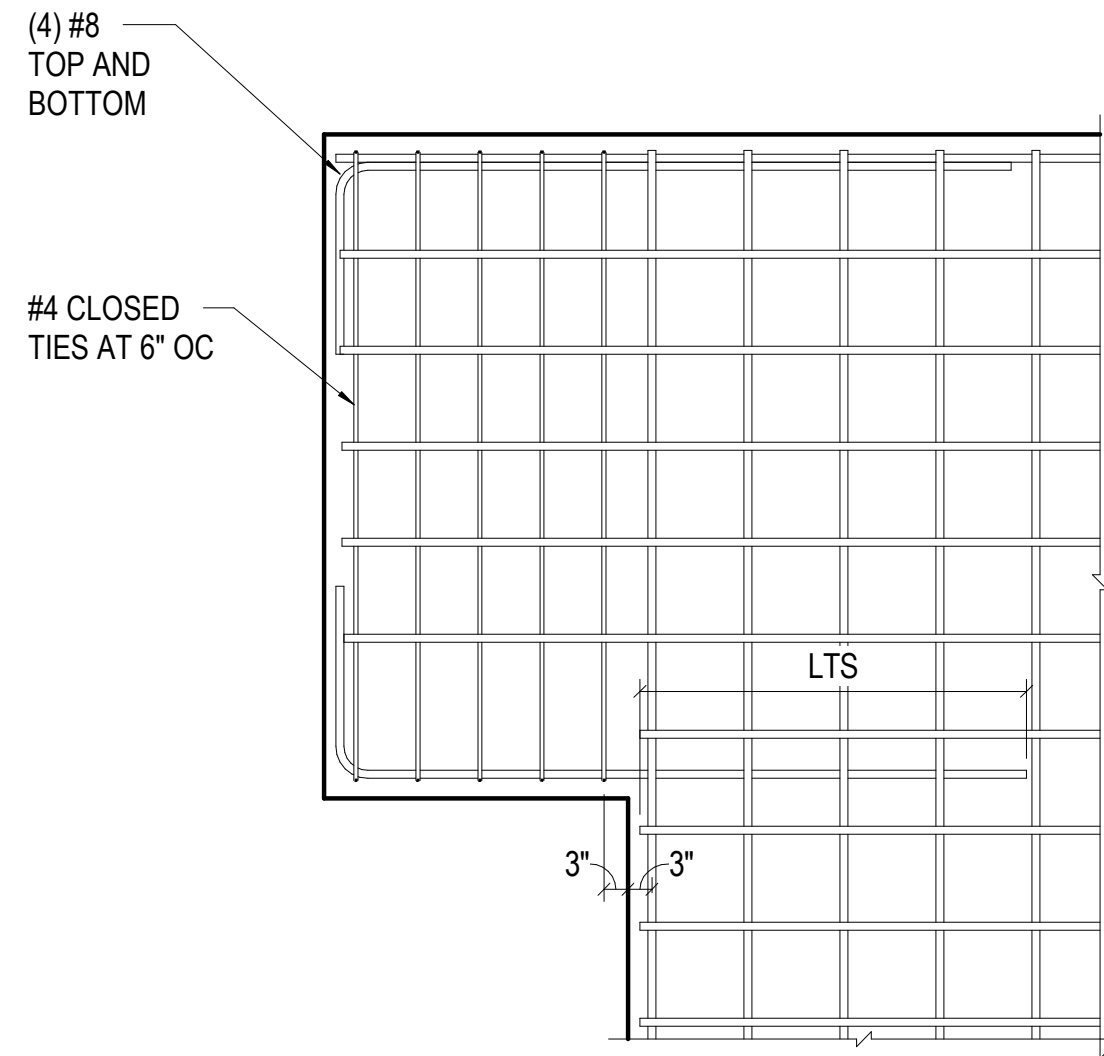
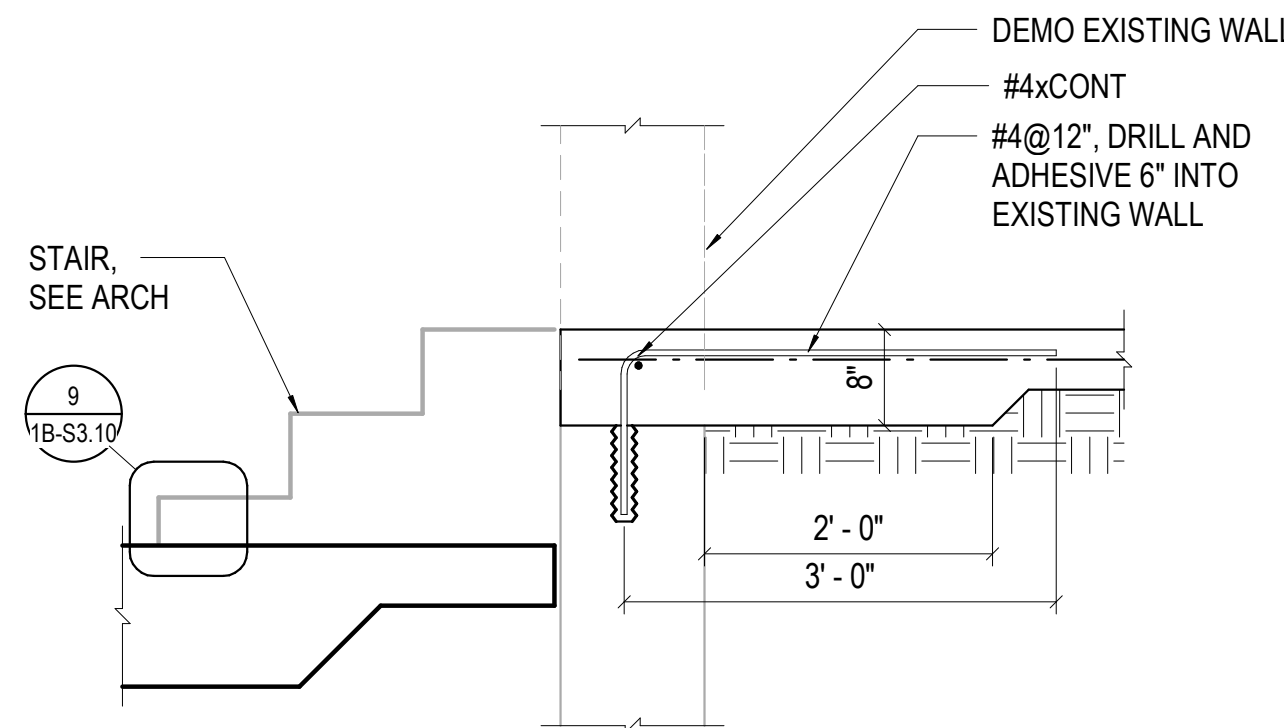
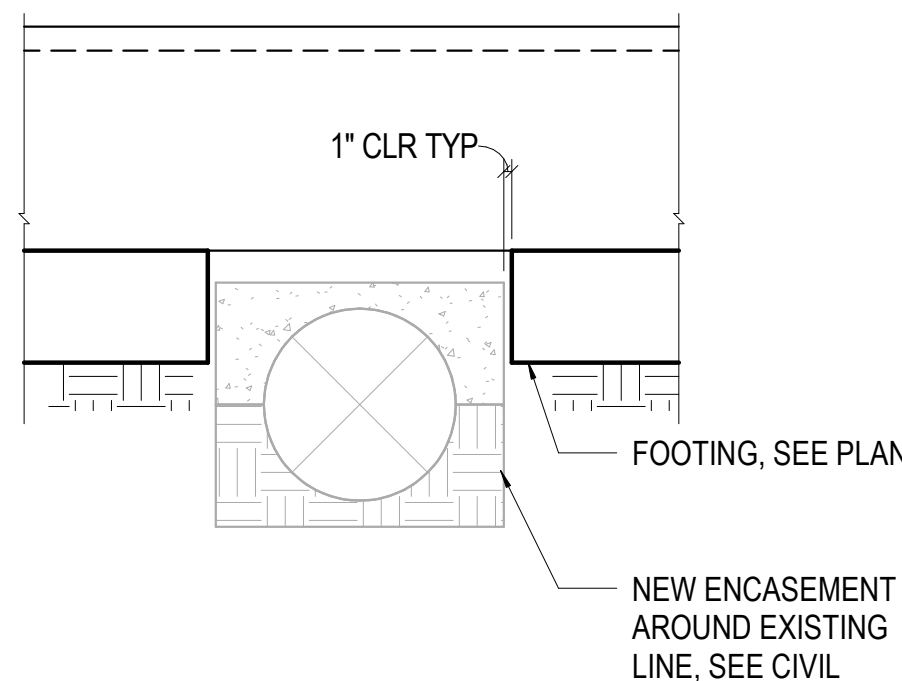
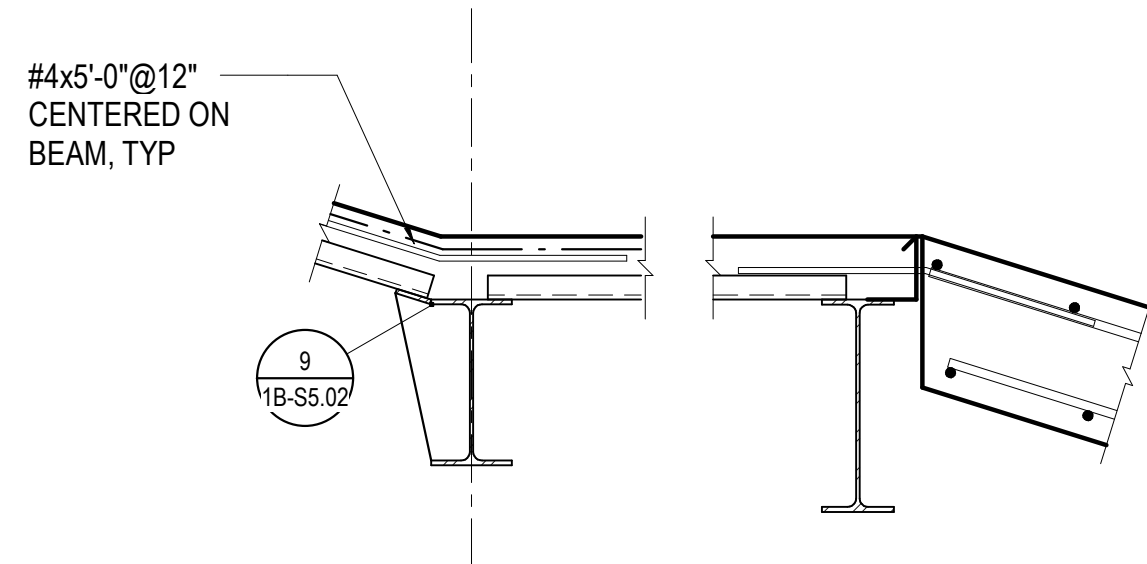
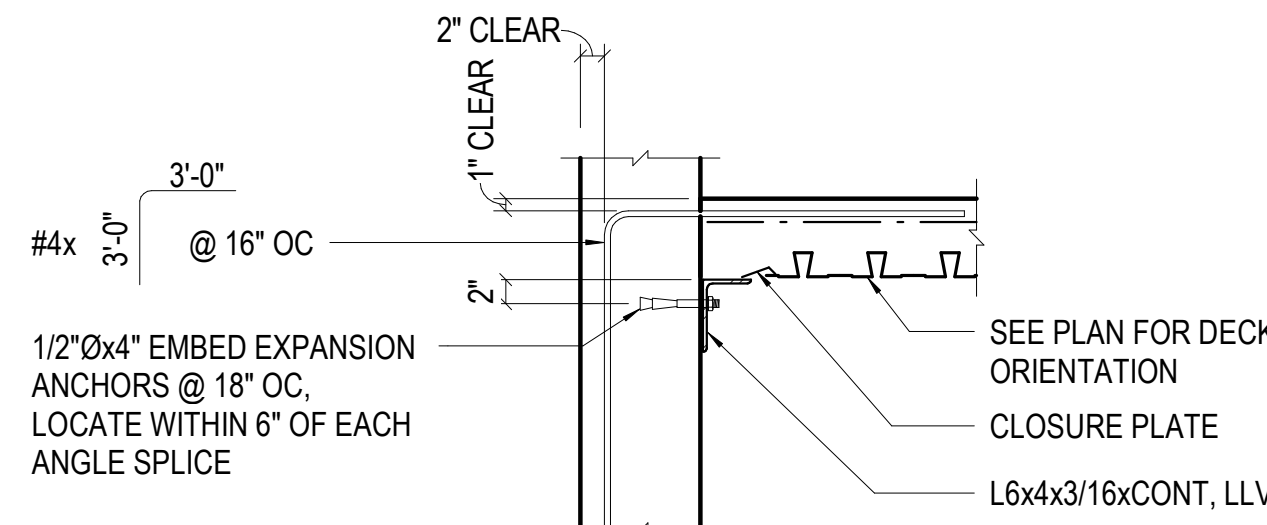
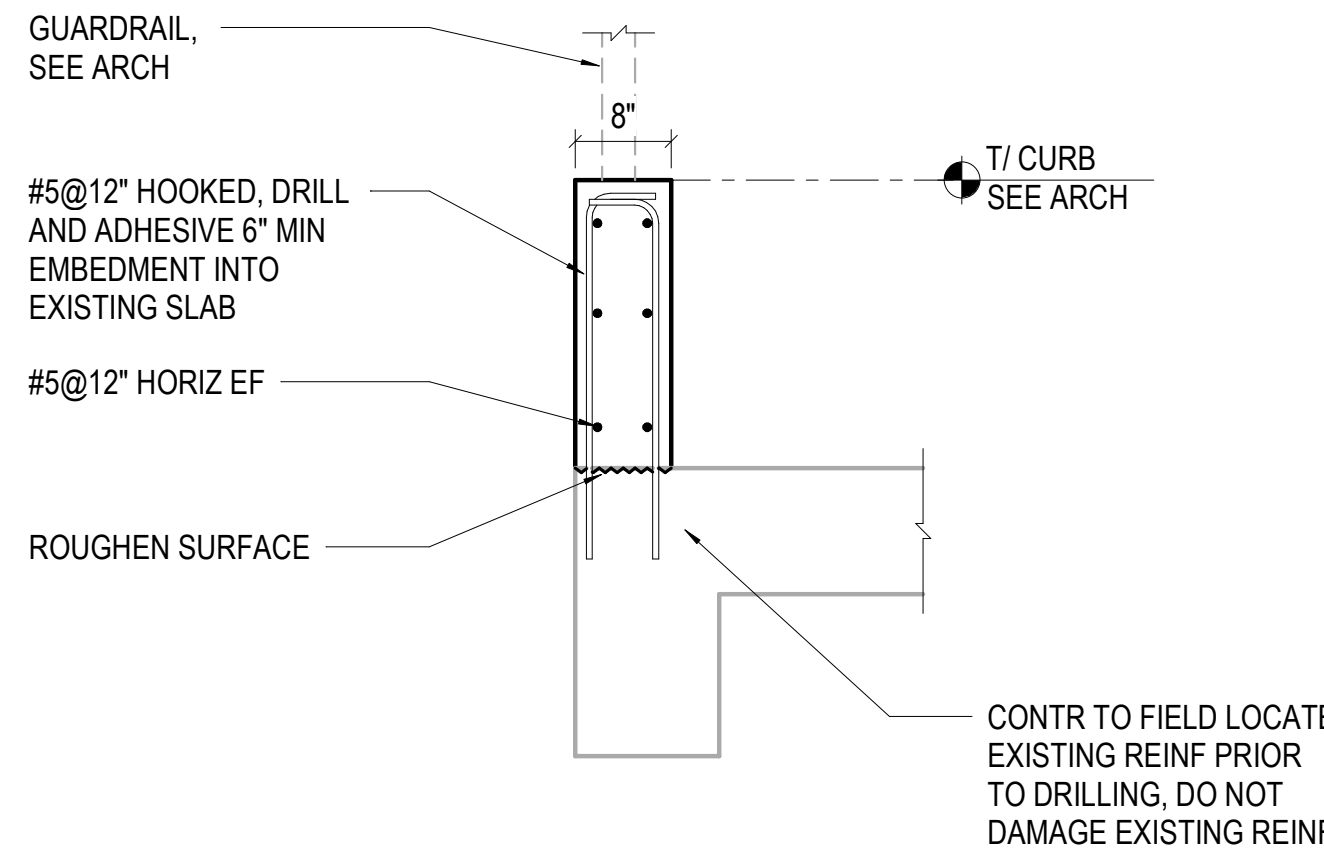
Scale

As indicated

1B-S3.01

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			9	3/4" = 1'-0" CIP STAIR CROSS SECTION		1	3/4" = 1'-0" TYP CIP SLAB TO WALL CONN	
								
					6	1/2" = 1'-0" CIP WALL AT TOP OF ESCALATOR	2	3/4" = 1'-0" NEW SLAB ON GRADE TO EXISTING
								
					7	1/2" = 1'-0" EXISTING SEWER LINE ON NEW FOOTING	3	3/4" = 1'-0" CIP SLAB TO COMPOSITE DECK TRANSITION
								
					8	3/4" = 1'-0" COMPOSITE DECK TO CIP WALL	4	3/4" = 1'-0" NEW CURB ON EXISTING SLAB

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LANDMARK
CONSTRUCTION, INC.

DESIGNWORKSHOP

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engineers

PROFESSIONAL ENGINEER

88107

May 19, 2021

Seal / Signature

Date	Description
2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name

SSRC | BASE AREA IMPROVEMENTS

Project Number

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Description

CONCRETE DETAILS

Scale

As indicated

1B-S3.02

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DESIGNER: NC, MARTIN

LEAD REVIEW: TECH COLIN KNOWLES

DATE PRINTED: 5/19/2021 11:40:10 AM

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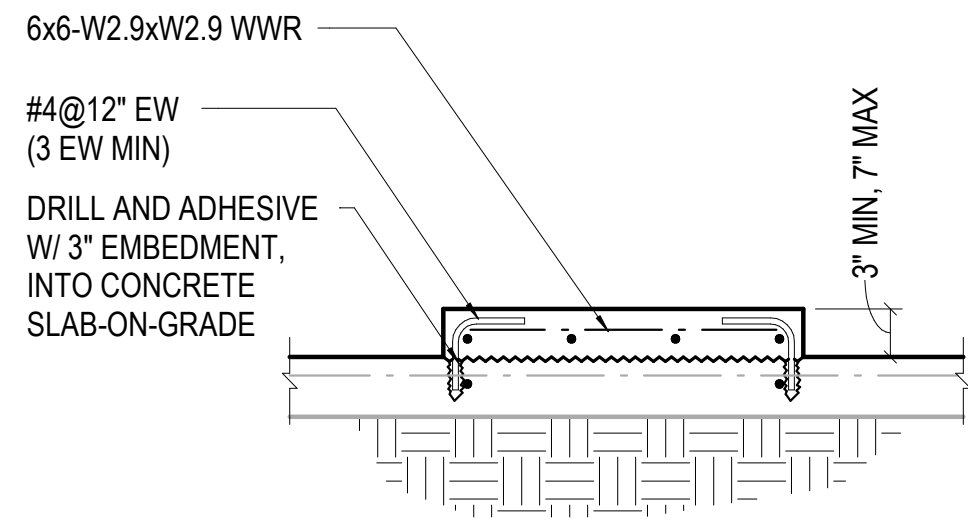
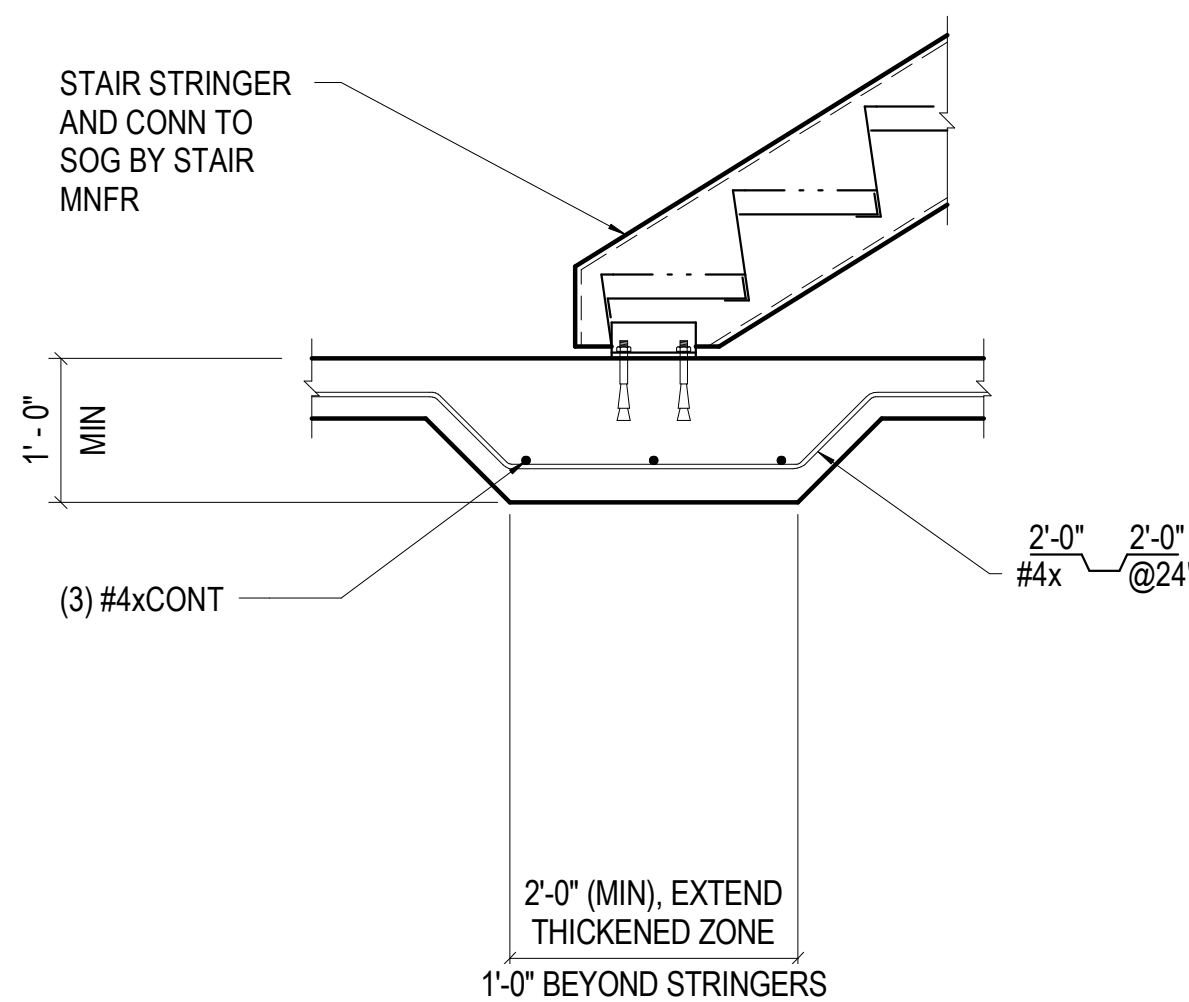
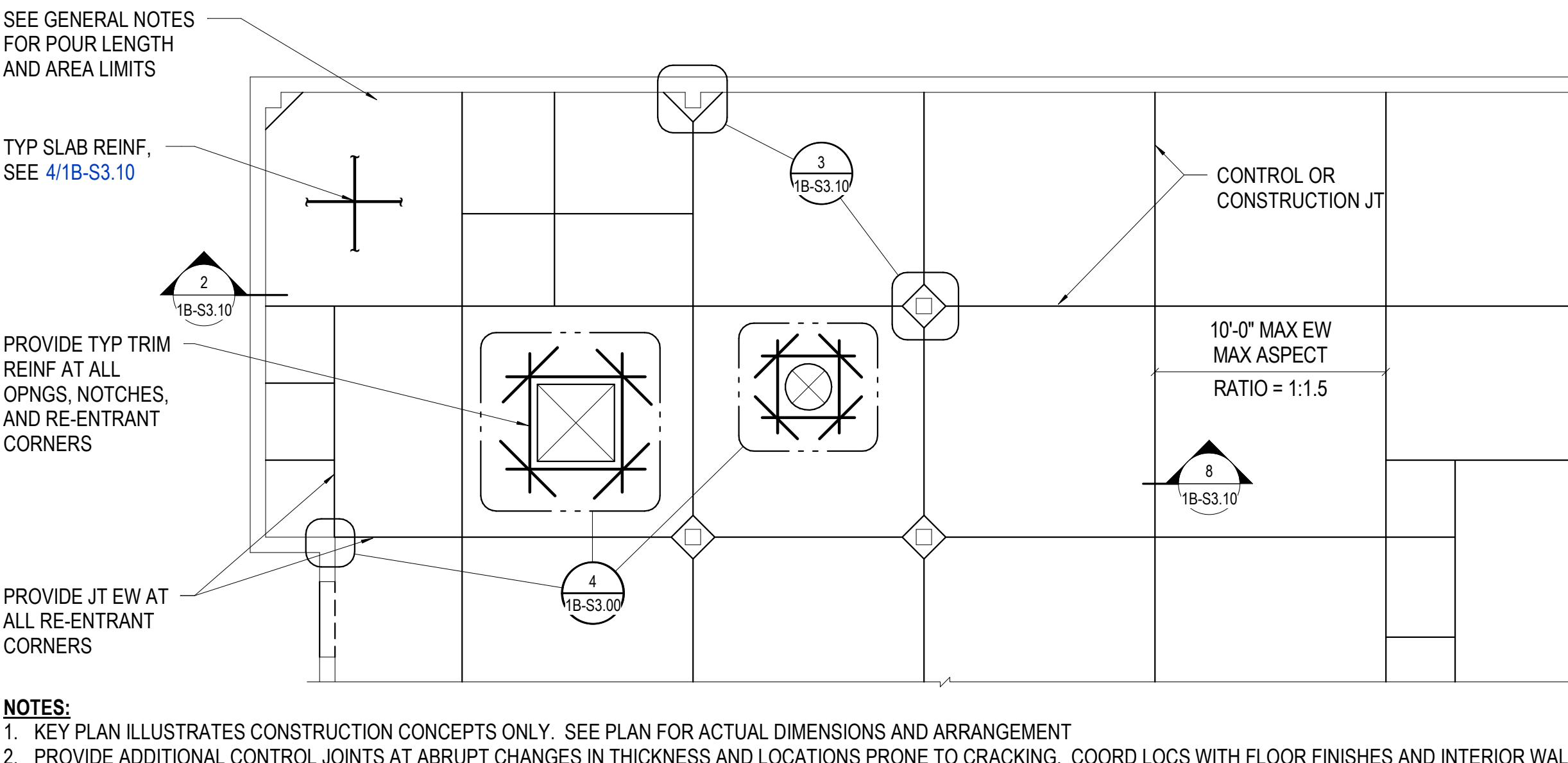
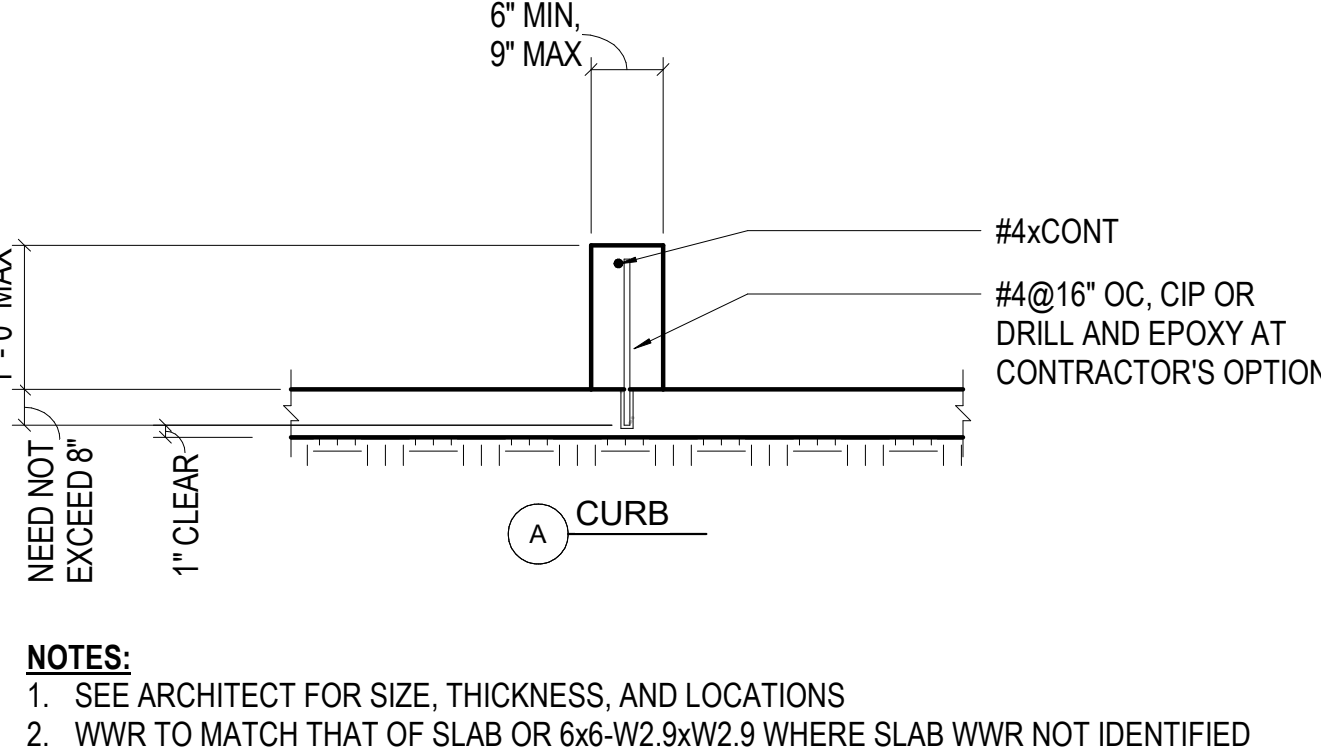
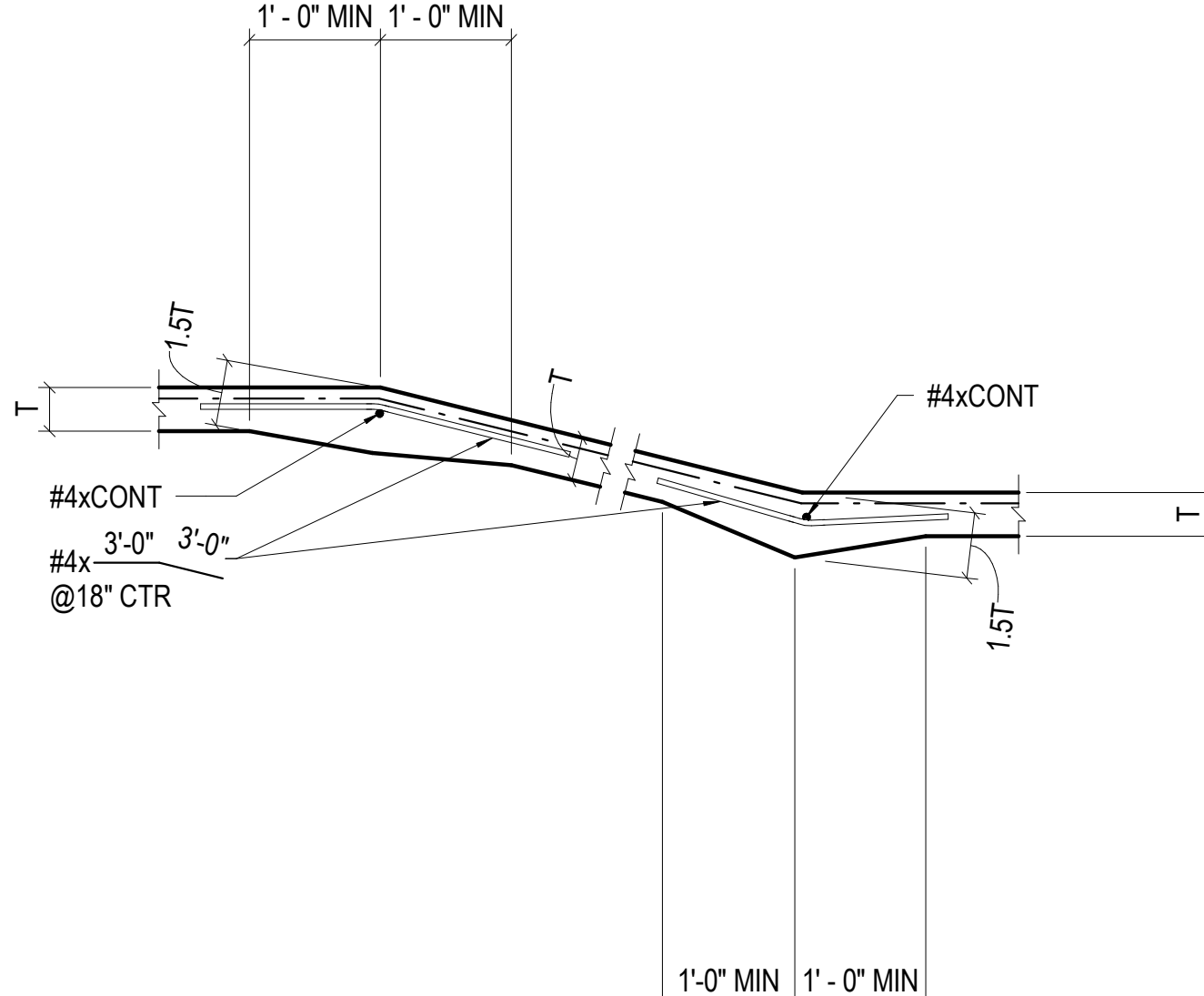
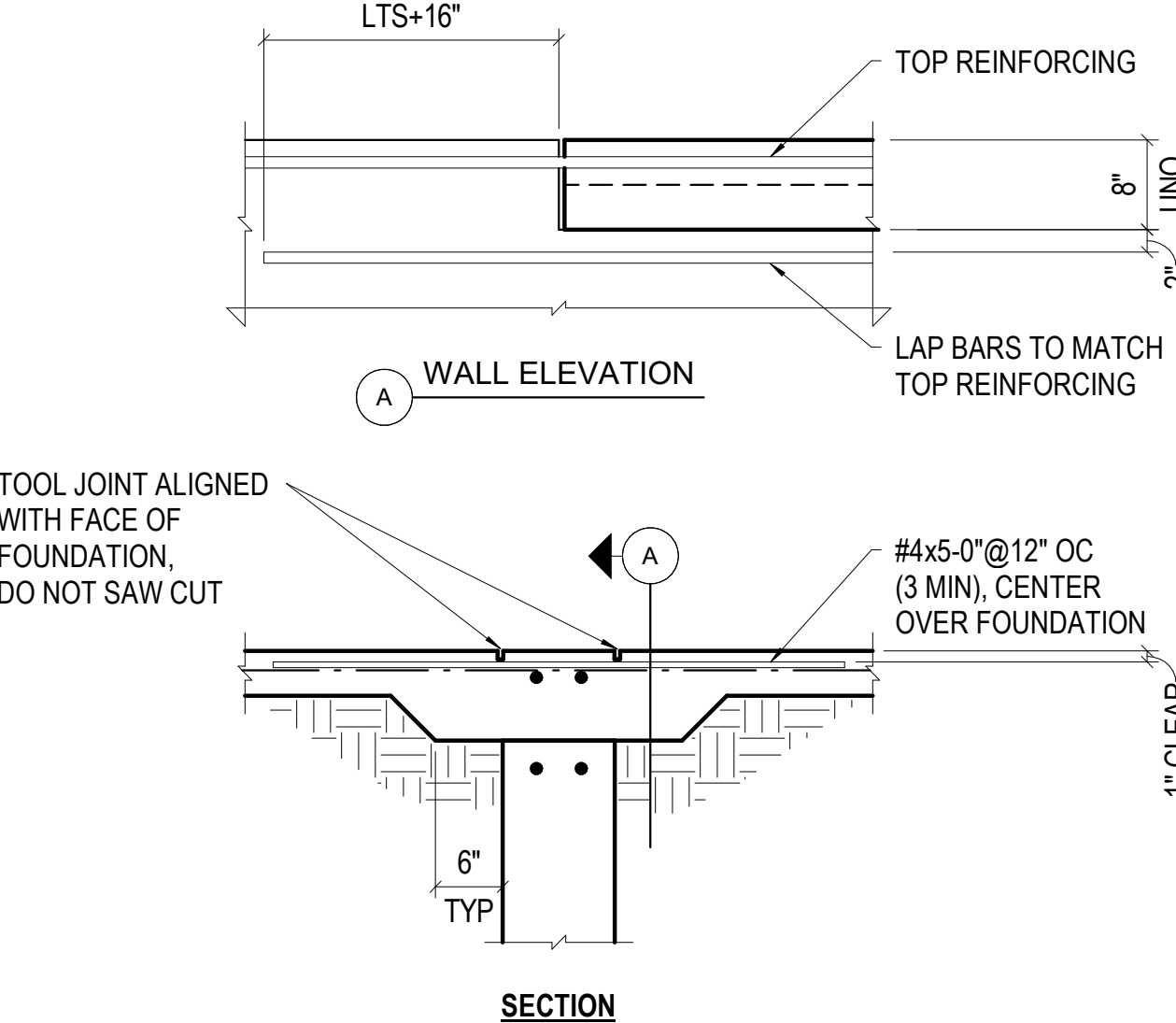
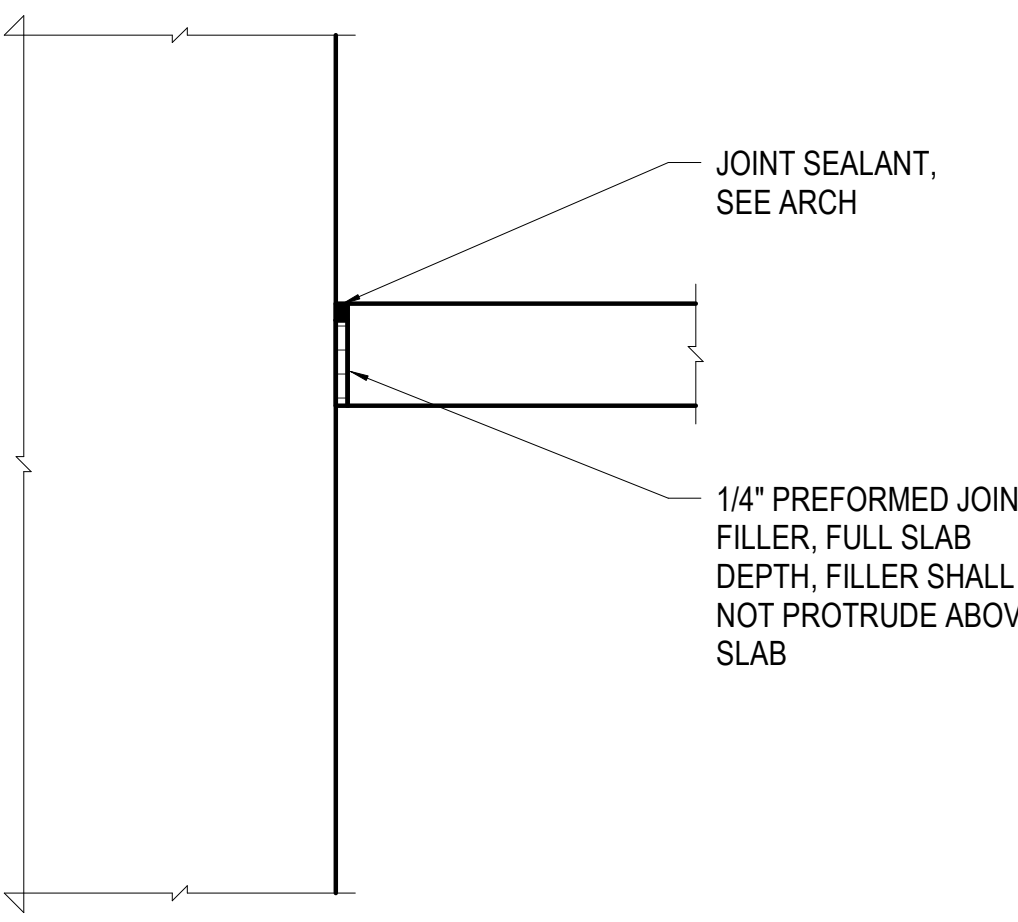
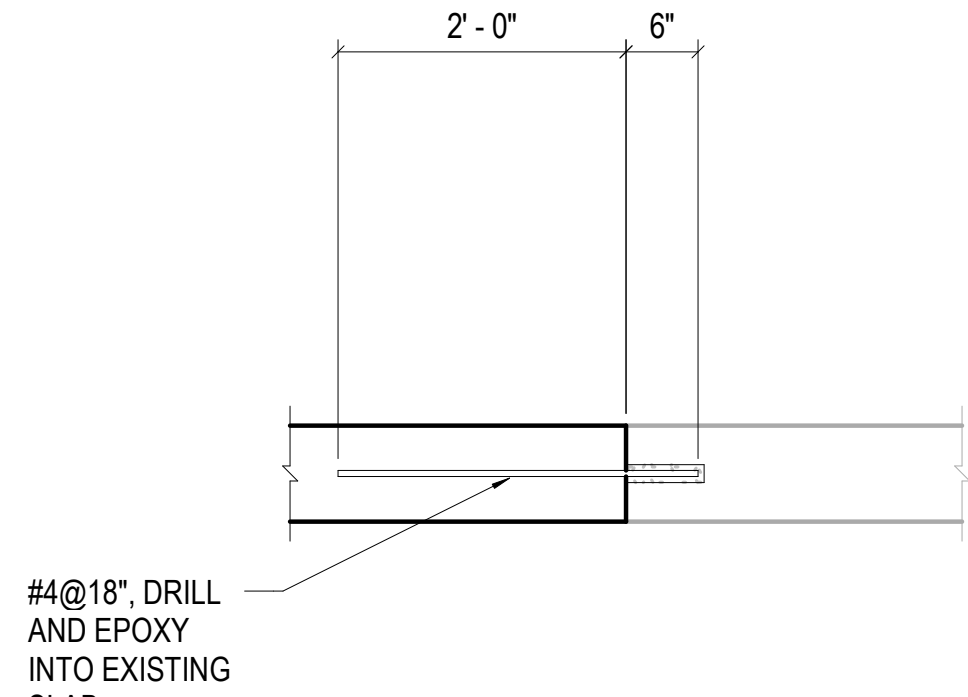
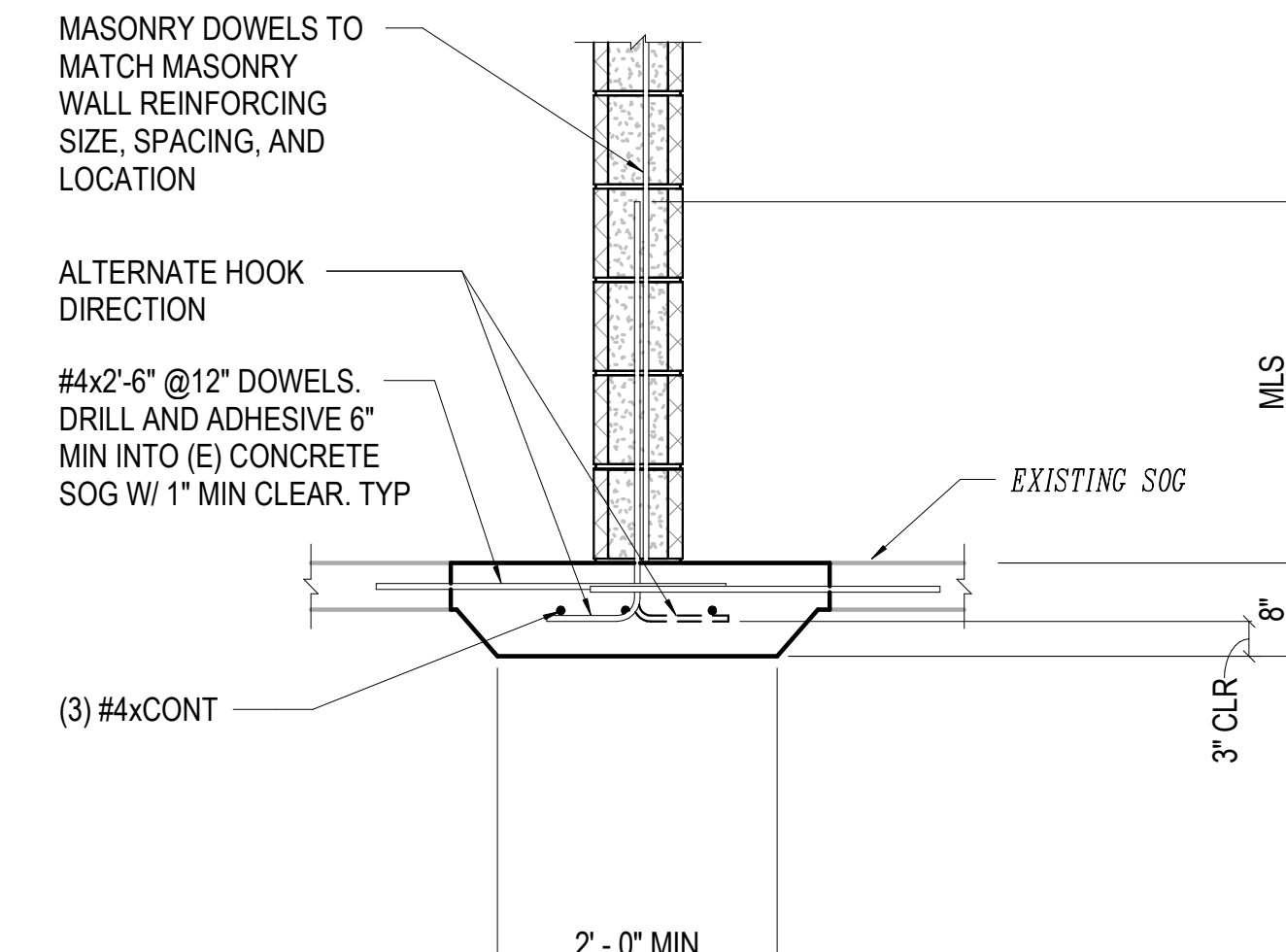
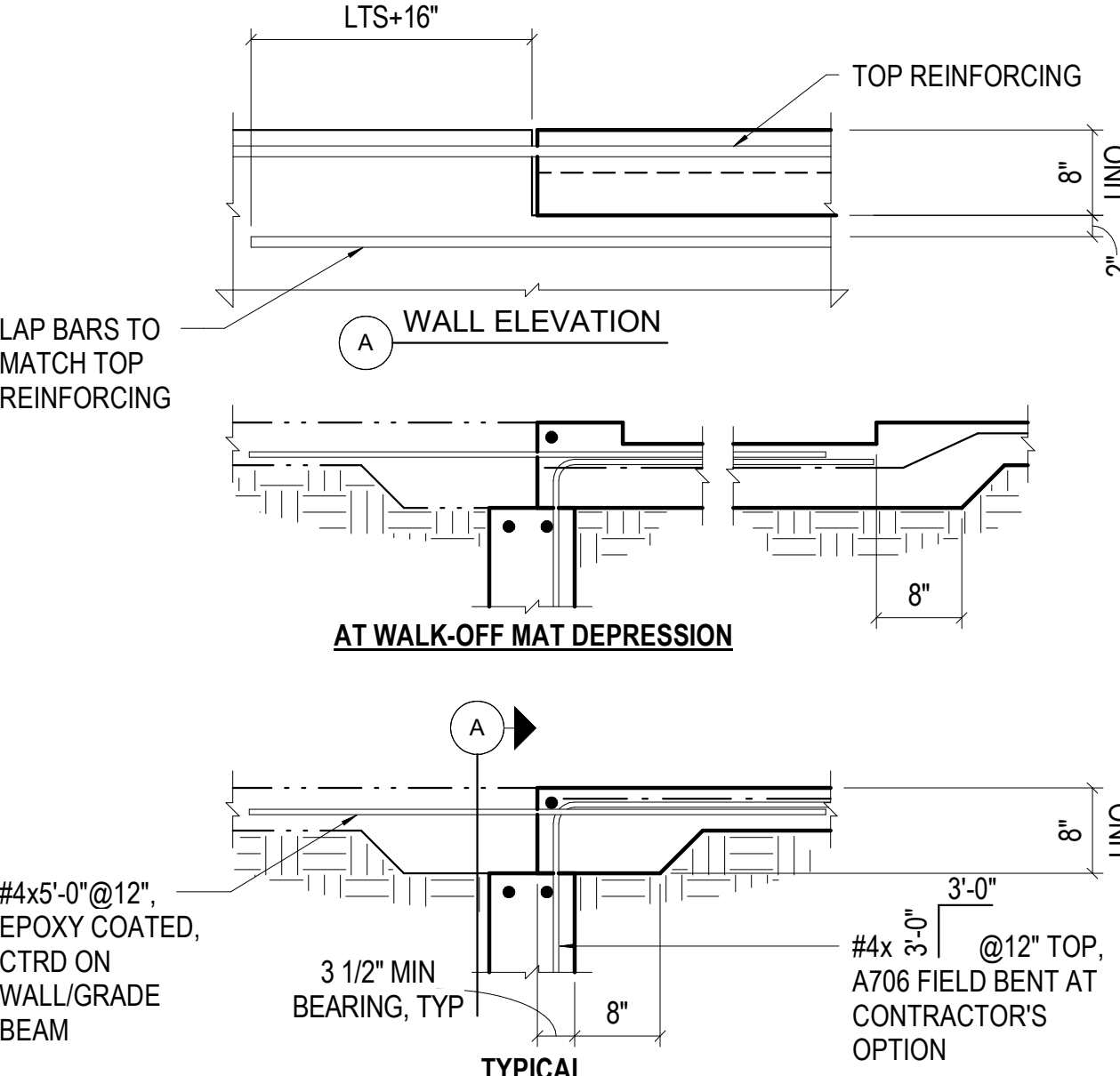
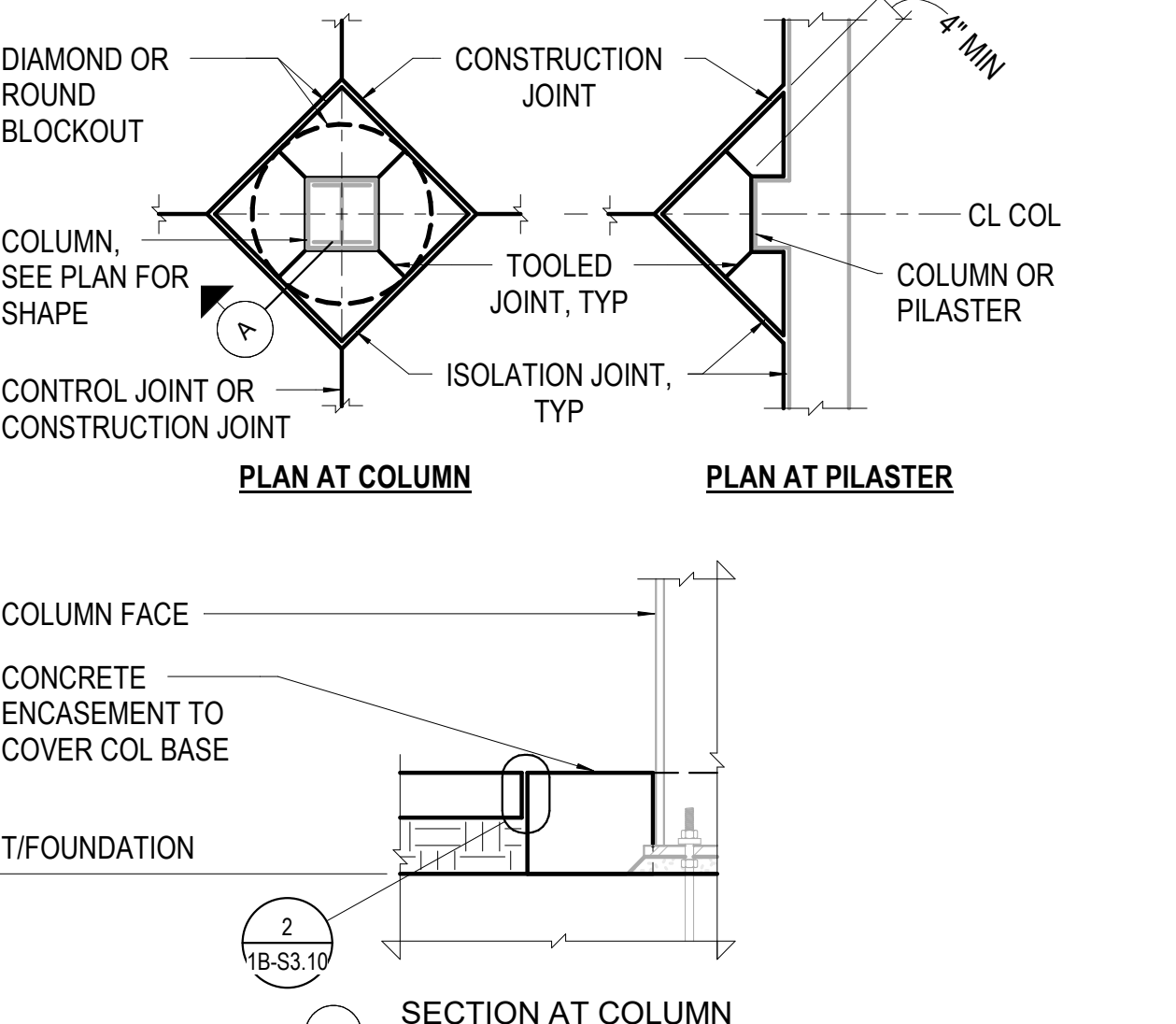
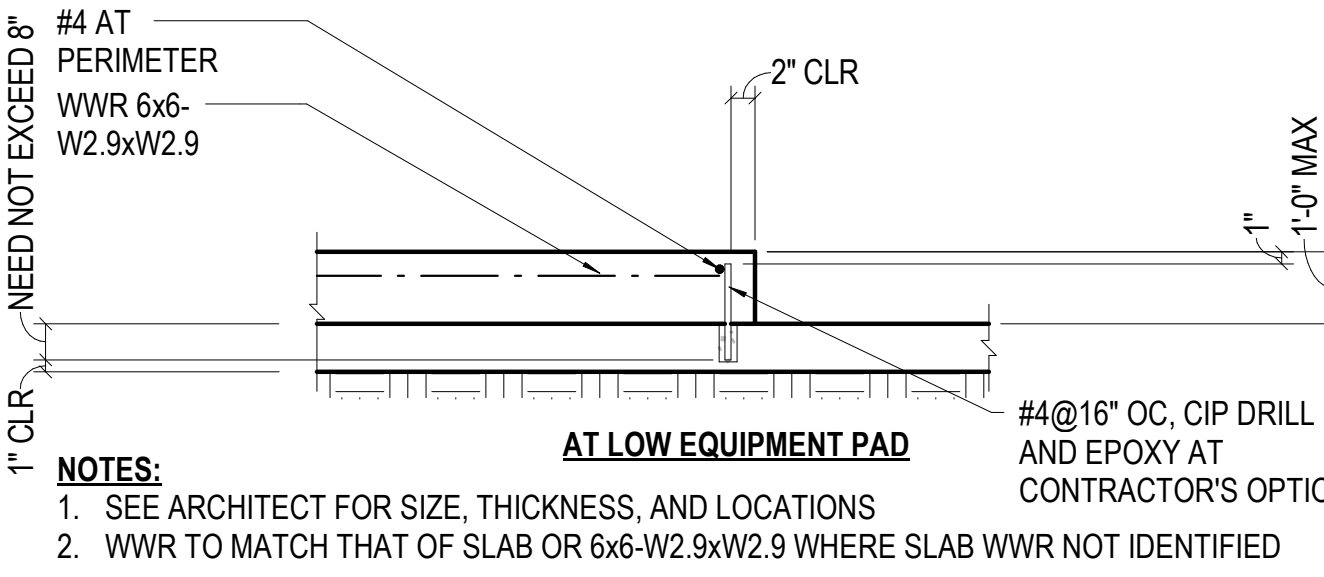
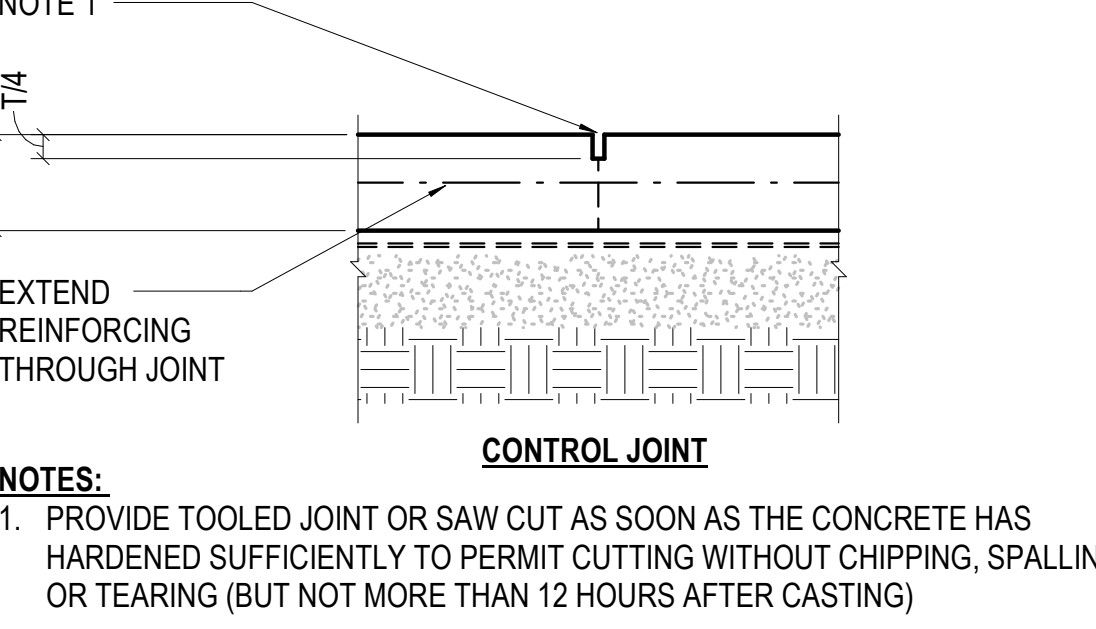
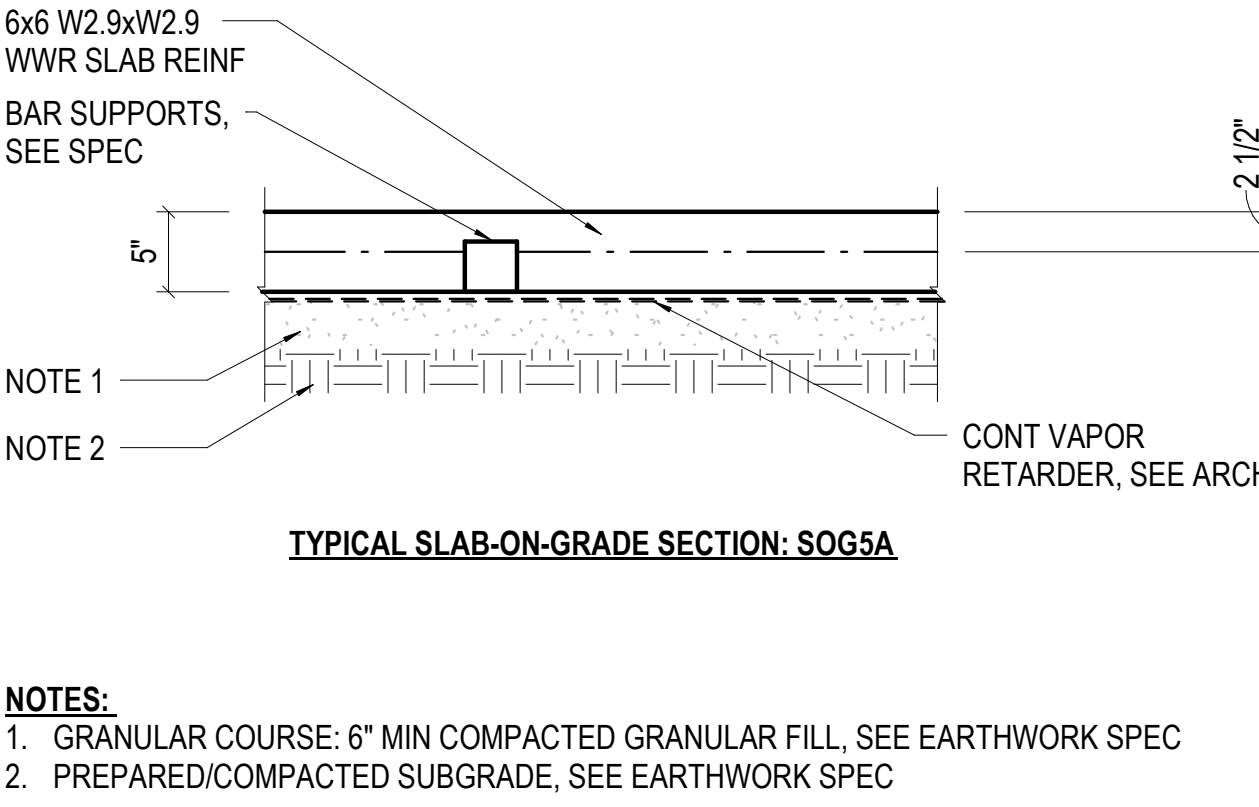
MIL JOB # 2314115.01

PRINCIPAL: KELLY KNOWLES

FOR: KELLY KNOWLES

PROJECT MANAGER: C. A. CHEN

DESIGNER: NC MARTIN
LEAD REVIT TECH COLIN KNOWLES
DATE PRINTED: 5/19/2021 11:40:11 AM
PLOT PATH: E:\03\7835\003_7835\001 - Steamboat\Revit\03_7835_000_01.dwg
ML_03B# - 23.14115.01
PRINCIPAL: KELLY KNOWLES
PROJECT MANAGER: C. A. CHEN

											
13	3/4" = 1'-0"	NEW CIP CONC EQUIPMENT BASE	9	3/4" = 1'-0"	SLAB-ON-GRADE SUPPORTING METAL PAN STAIR	5	NO SCALE	TYP SOG KEY PLAN			
											
14	3/4" = 1'-0"	SLAB-ON-GRADE CURB/EQUIPMENT PAD	10	3/4" = 1'-0"	TYPICAL SOG RAMP/SLOPE	6	3/4" = 1'-0"	SLAB-ON-GRADE INTERIOR THRESHOLD	2	1 1/2" = 1'-0"	TYP SOG ISOLATION JOINT
											
15	3/4" = 1'-0"	SOG DOWEL TO EXISTING	11	3/4" = 1'-0"	EXISTING SOG BELOW MASONRY PARTITION WALL	7	3/4" = 1'-0"	TYP SOG EXT THRESHOLD1	3	3/4" = 1'-0"	SOG BLOCKOUT AT COLUMN/PILASTER
											
12	3/4" = 1'-0"	TYPICAL SOG EQUIPMENT PAD	8	1 1/2" = 1'-0"	SLAB-ON-GRADE JOINTS	4	1" = 1'-0"	TYP SOG DETAIL - SOG5A			



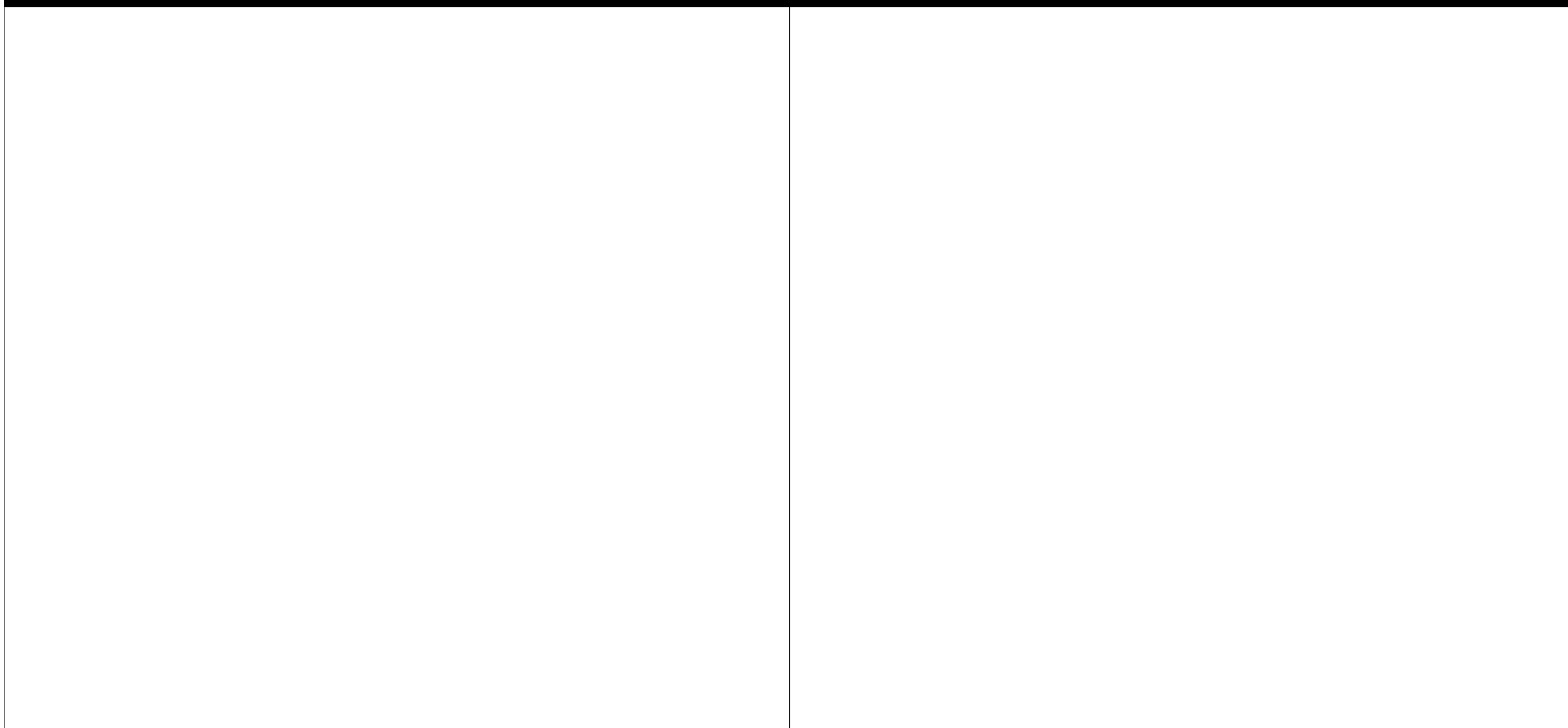
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△ Date	Description
- 2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name
SSRC BASE AREA IMPROVEMENTS
Project Number
003.7835.000
Description
TYPICAL SOG DETAILS

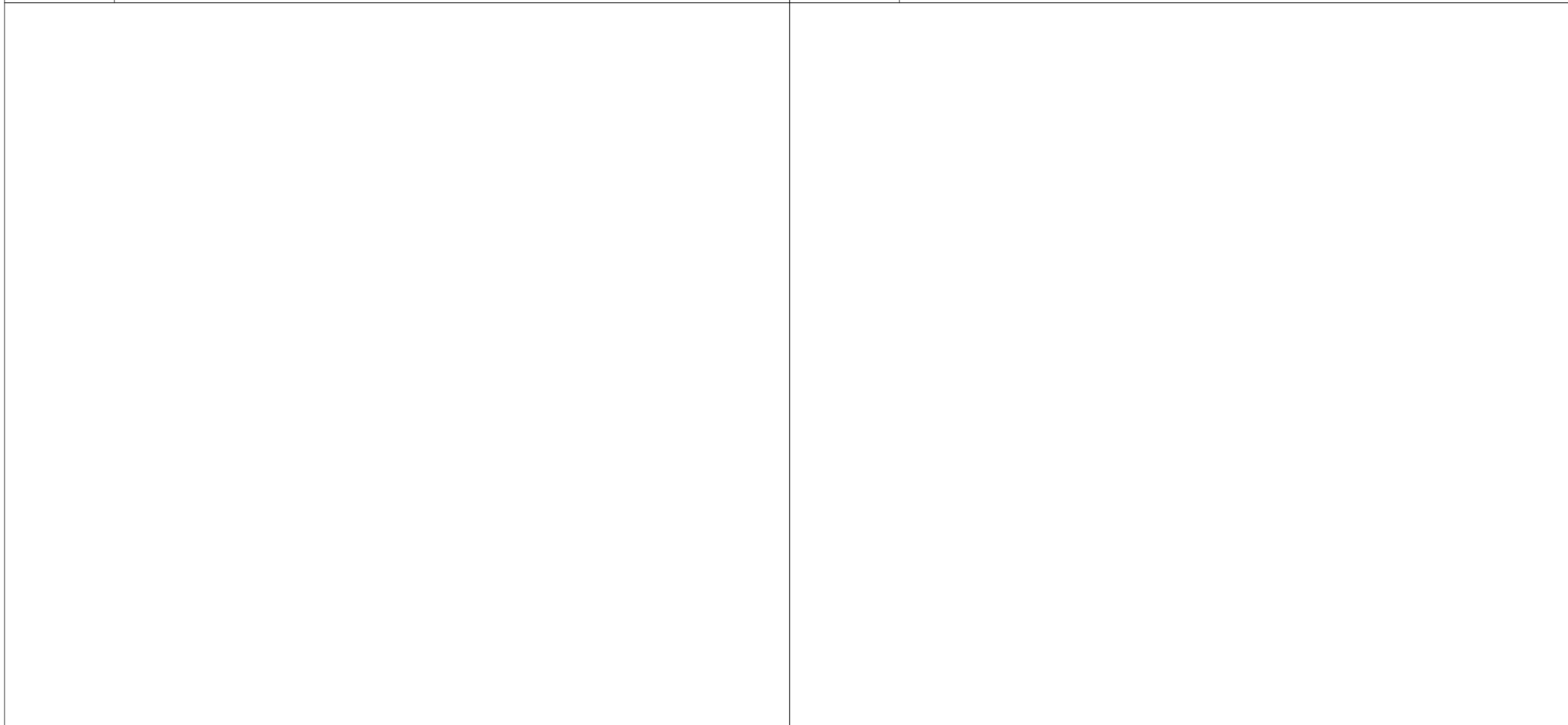
Scale
As indicated

DESIGNER: NC MARTIN
LEAD REVIT: TECH COLIN KNOWLES
DATE PRINTED: 5/19/2021 11:40:11 AM
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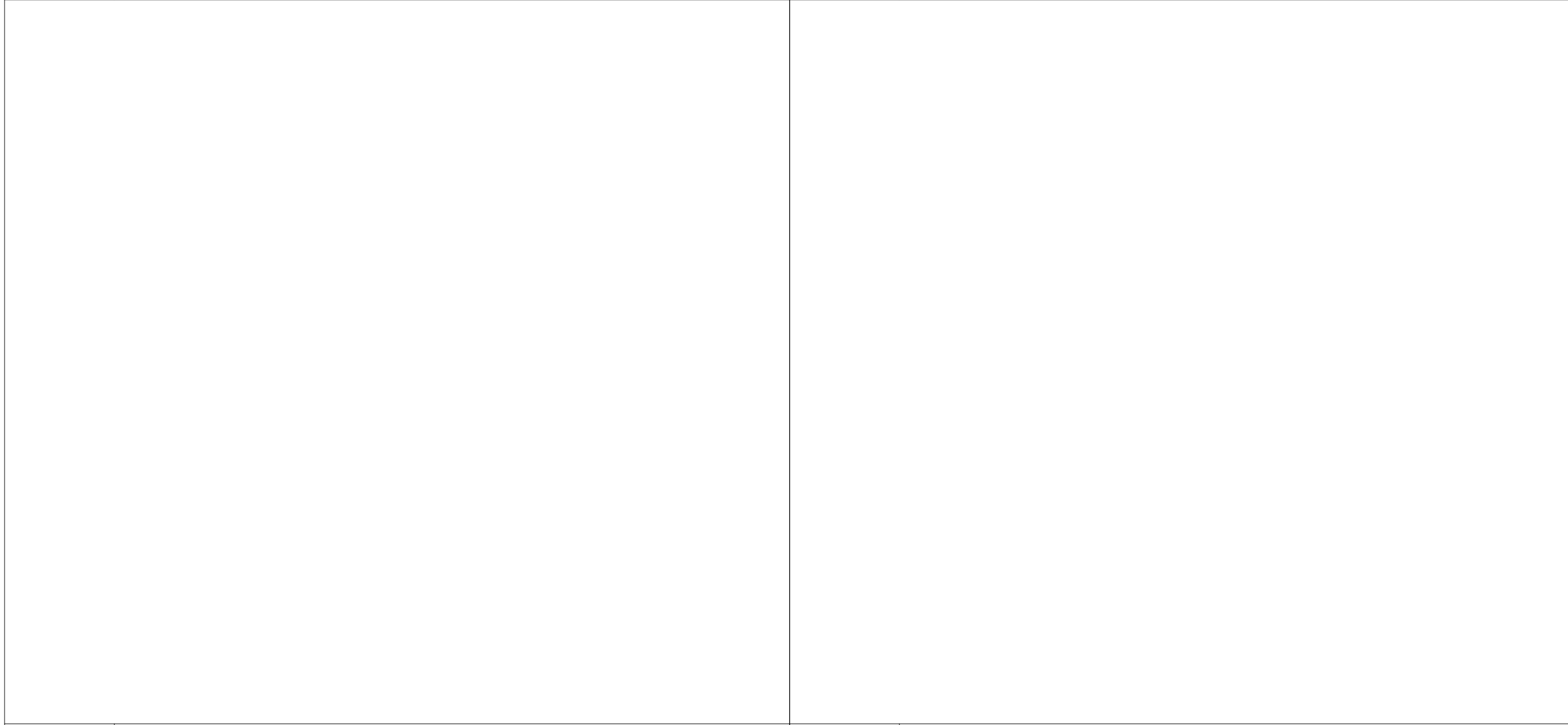
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PRINCIPAL: KELLY KNOWLES
FOR: KELLY KNOWLES
PROJECT MANAGER: C. A. CHEN



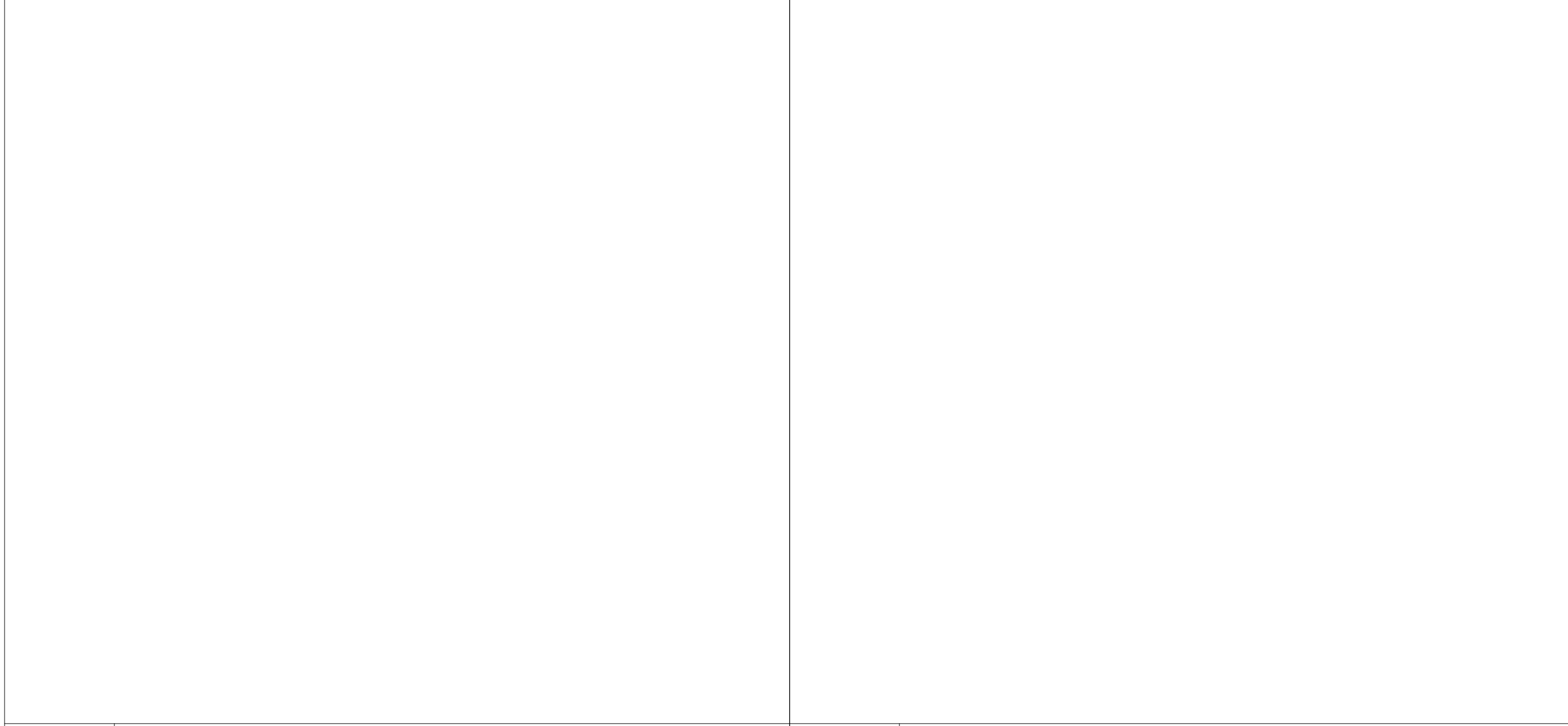
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9

NO SCALE TYPICAL BEAM EMBED PL CONNECTION & SCHEDULE - LRFD

6

NO SCALE BEAM EMBED NEAR TOP OF WALL SINGLE SIDED

2

NO SCALE BEAM EMBED NEAR TOP EDGE OF WALL

7

NO SCALE BEAM EMBED AT END OF WALL

3

NO SCALE BEAM EMBED NEAR EDGE OF WALL

4

NO SCALE BEAM EMBED NEAR BOTTOM OF WALL

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Seal / Signature

Date	Description
2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name
SSRC | BASE AREA IMPROVEMENTS

Project Number
003.7835.000

Description
CONCRETE SUPPORTING STEEL DETAILS

Scale
As indicated

1B-S3.50

								<p>KEYNOTES:</p> <p>1 TYPICAL WALL VERTICAL REINFORCING: #4@48" OC</p> <p>2 BOND BEAM W/ (1) #5 AT T/WALL</p> <p>3 BOND BEAM W/ (1) #5 AT BOT OF ALL OPENINGS</p> <p>4 HORIZ JOINT REINF: "LADDER" TYPE JOINT REINF W/ (2) W1.7 WIRES @ 16" OC</p> <p>5 LINTEL</p> <p>6 CONTROL JOINTS @ 20'-0" OC MAX AND EACH END OF WALL</p> <p>7 JAMB REINFORCEMENT EACH SIDE OF OPENING</p> <p>8 DOWELS TO MATCH SIZE AND LOCATION OF VERTICAL BARS</p> <p>9 TERMINATE ALL HORIZONTAL REINFORCEMENT AT CONTROL JOINTS</p> <p>10 T/WALL SUPPORT, SEE DETAILS THIS PAGE, LOCATE AT 8'-0" ON CENTER</p> <p>11 AT SERIES OF TWO OR MORE OPENINGS, MASONRY LINTEL REINFORCEMENT SHALL BE CONTINUOUS. IF SPACE BETWEEN OPENINGS IS LESS THAN 1'-4", USE OVERALL WIDTH OF SERIES OF OPENINGS TO DETERMINE LINTEL SIZE AND JAMB REINF</p> <p>12 WHERE EDGE OF OPENING IS FLUSH WITH PERPENDICULAR WALL, OR REQUIRED JAMB SIZE IS LARGER THAN AVAILABLE, A CONTROL JOINT IS NOT PERMITTED AT THIS INTERSECTION</p>							
17	1" = 1'-0"	MASONRY BEAM BEARING	13	3/4" = 1'-0"	NEW CMU WALL ON EXISTING CONCRETE DECK	9	1/4" = 1'-0"	TYPICAL MASONRY PARTITION ELEVATION							
18	3/8" = 1'-0"	MASONRY WALL AT BEAM POCKET	14	3/4" = 1'-0"	MASONRY WALL ON EXISTING WALL	10	3/4" = 1'-0"	MASONRY PARTITION SUPPORT - EOS	6	3/4" = 1'-0"	MASONRY PARTITION SUPPORT - ADJACENT TO STEEL BEAM	2	3/4" = 1'-0"	MASONRY WALL INTERSECTION - PARTITION TO STRUCTURAL WALL	
		15	1 1/2" = 1'-0"	TYPICAL MASONRY WALL CONTROL JOINT	11	3/4" = 1'-0"	TYP MASONRY PARTITION SUPPORT - PARALLEL/SKEWED TO DECK	7	3/4" = 1'-0"	TYPICAL MASONRY PARTITION SUPPORT - PERP TO DECK	3	3/4" = 1'-0"	PARTITION TO PARTITION WALL DETAIL		
													4	3/4" = 1'-0"	MASONRY PARTITION ON METAL DECK SLAB
					12	3/4" = 1'-0"	MASONRY WALL ON EXISTING FOUNDATION	8	3/4" = 1'-0"	MASONRY PARTITION SUPPORT - CIP SLAB	4	3/4" = 1'-0"	MASONRY PARTITION ON METAL DECK SLAB		

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Date Description
- 2021.05.19 BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name
SSRC | BASE AREA IMPROVEMENTS
Project Number
003.7835.000
Description
MASONRY DETAILS

Scale
As indicated

1B-S4.00

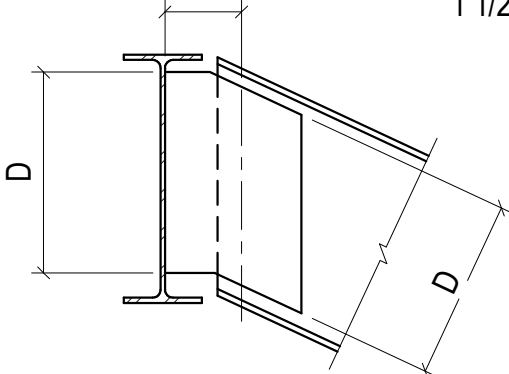
EXTENDED SINGLE PL CONNECTIONS							
# BOLT ROWS	BEAM SIZES	G ≤ 6"			G ≤ 10"		
		CAPACITY (KIPS)	C MAX TOP	T & B	CAPACITY (KIPS)	C MAX TOP	T & B
2	W8-W12	18	6"	6"	12	10"	10"
3	W10-W18	33	6"	6"	23	10"	10"
4	W16-W24	55	8"	6"	38	10"	10"
5	W18-W30	80	10"	6"	56	12"	10"
6	W21-W40	110	11"	8"	78	14"	10"
7	W24-W44	142	13"	9"	102	16"	12"
8	W30-W44	177	16"	11"	130	16"	15"
9	W33-W44	214	16"	14"	160	16"	16"

COPE BEAM WHERE REQD. SEE SCHED FOR MAXIMUM COPE BEAM COPE 'C' EXCEEDS 'G'. BRACE TOP FLANGE OF BEAM TO GIRDER. PROVIDE PL 3/8x4x6 ON TOP FLANGE. WELD 4 SIDES.

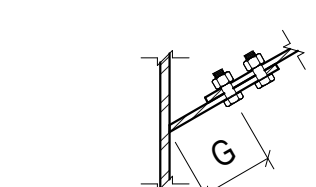
STD HOLES IN BEAM STD OR SSL IN PLATE COLUMN WEB/ FLANGE OR BEAM WEB

BOLT ROWS (4 SHOWN)

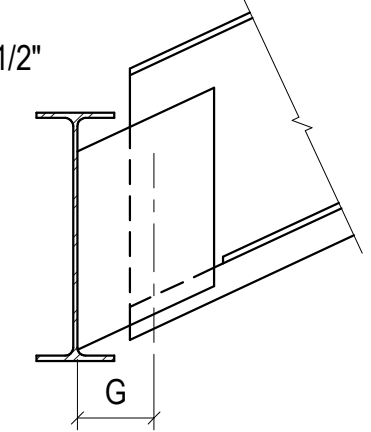
2 COLUMNS OF BOLTS



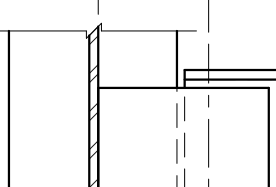
SECTION: BEAM SLOPING DOWN



PLAN: SKEWED BEAM SLOPING UP OR DOWN



SECTION: BEAM SLOPING UP



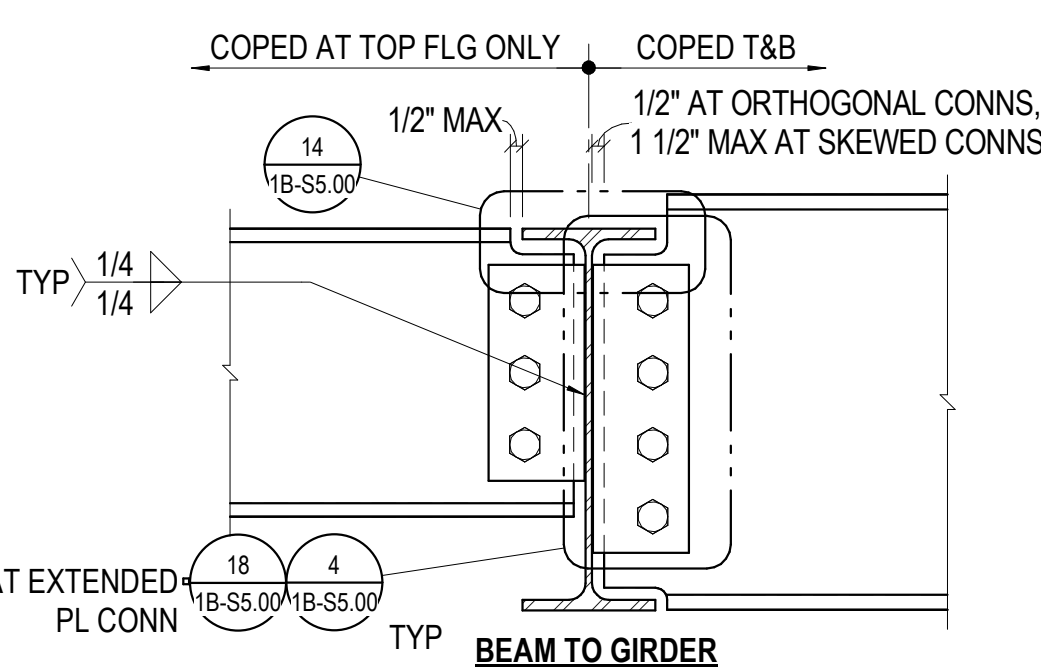
SECTION: BEAM TO COLUMN

- NOTES:**
1. ULTIMATE LEVEL (LRFD) IN KIPS.
 2. WHERE NO DECK IS PRESENT AT CONNECTION, AND BEAM COPE 'C' EXCEEDS 'G', BRACE TOP FLANGE OF BEAM TO GIRDER. PROVIDE PL 3/8x4x6 ON TOP FLANGE. WELD 4 SIDES.
 3. AT COLUMNS, BEAM COPE 'C' SHALL NOT EXCEED 'G'.
 4. MINIMUM BEAM WEB THICKNESS SHALL BE 0.23\".

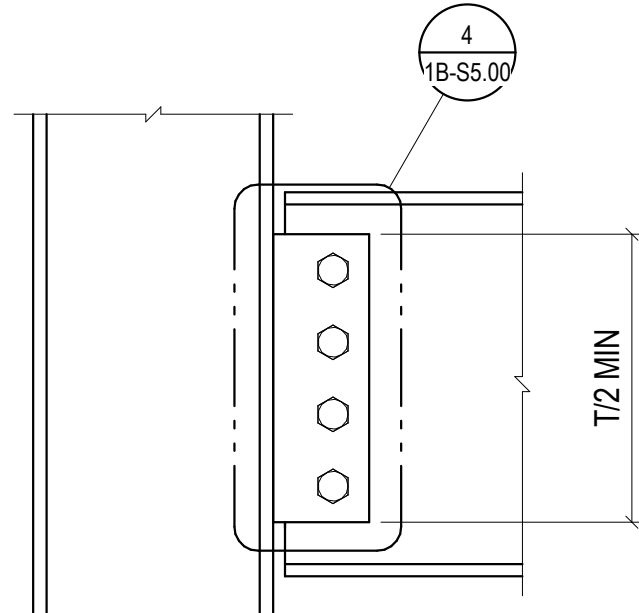
18 TYP BEAM EXTENDED SINGLE PL CONN - LRFD

		T INDICATES TOP COPE ONLY									TB INDICATES TOP AND BOTTOM COPE									3/4"Ø A325 SINGLE PLATE CONNECTION SCHEDULE - MAX REACTION (KIPS) - ULTIMATE LEVEL (LRFD)																																																																																																																				
		UNCOPED									COPE LENGTH ≤ 4"									COPE LENGTH ≤ 5 1/4"									COPE LENGTH ≤ 6 1/8"									COPE LENGTH ≤ 8"																																																																																																		
		# OF BOLTS																																																																																																																																						

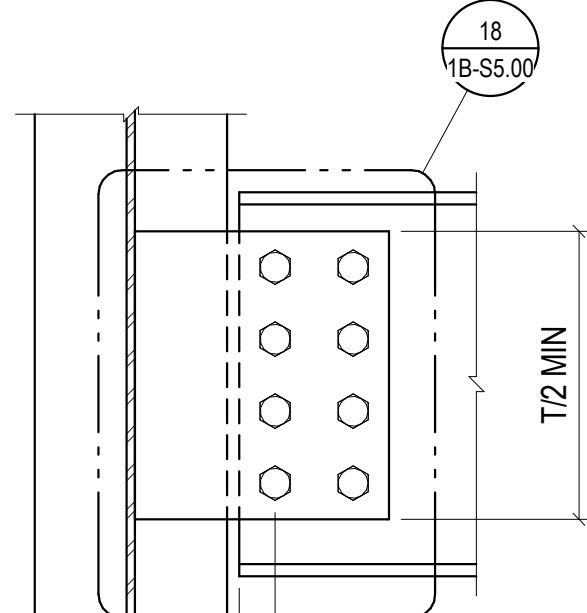
- NOTES:**
1. # INDICATES WEB REINFORCEMENT REQD TO ACHIEVE NOTED CAPACITY. SEE 3/1B-S5.00
 2. FOR SKEWED BEAM CONNECTIONS SEE 13/1B-S5.00



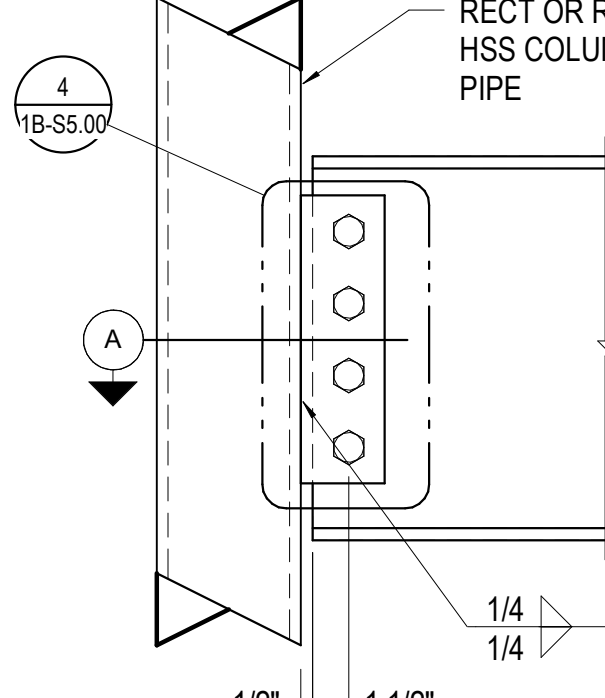
BEAM TO GIRDER



BEAM TO COLUMN WEB

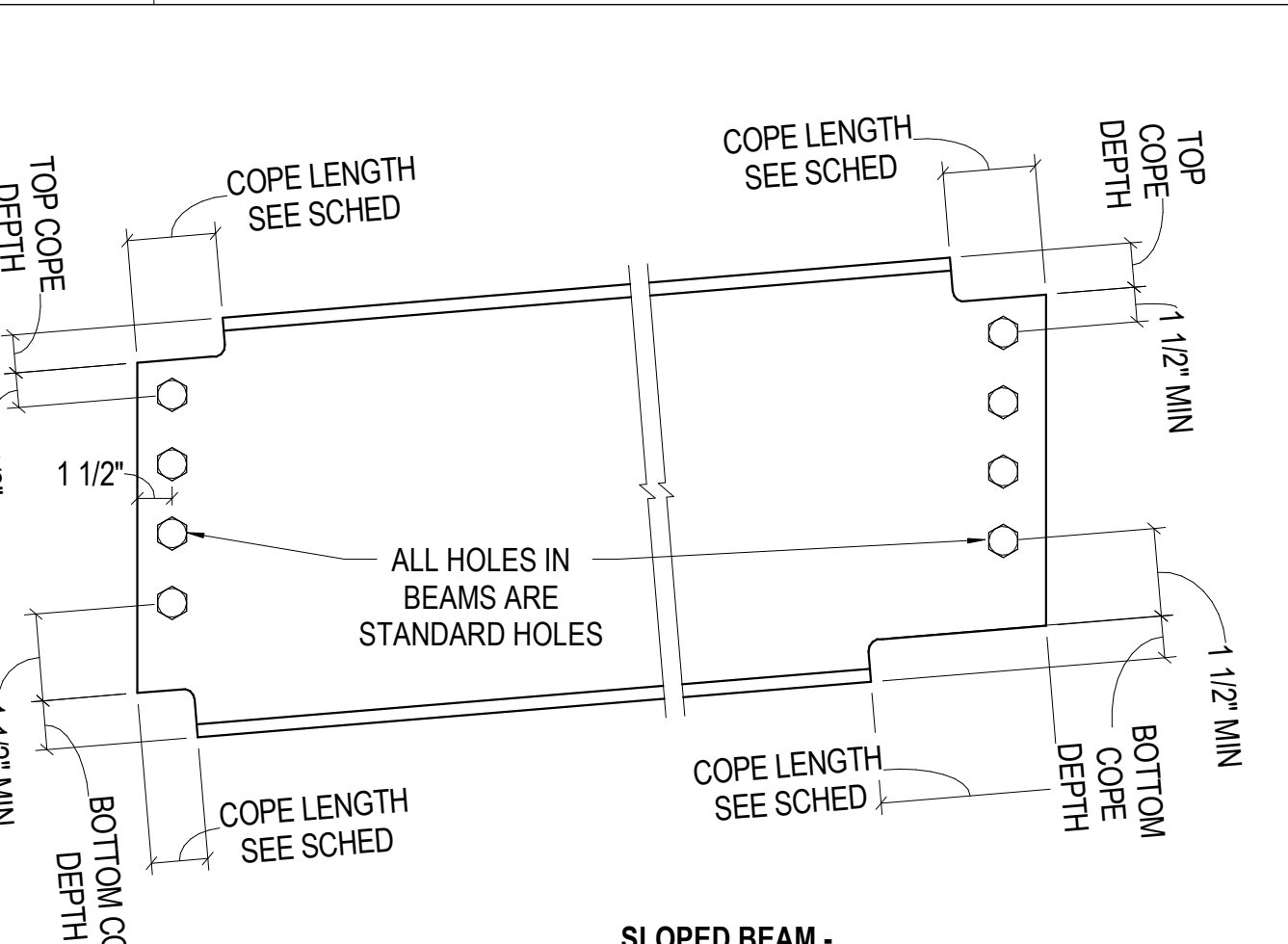


BEAM TO HSS COL



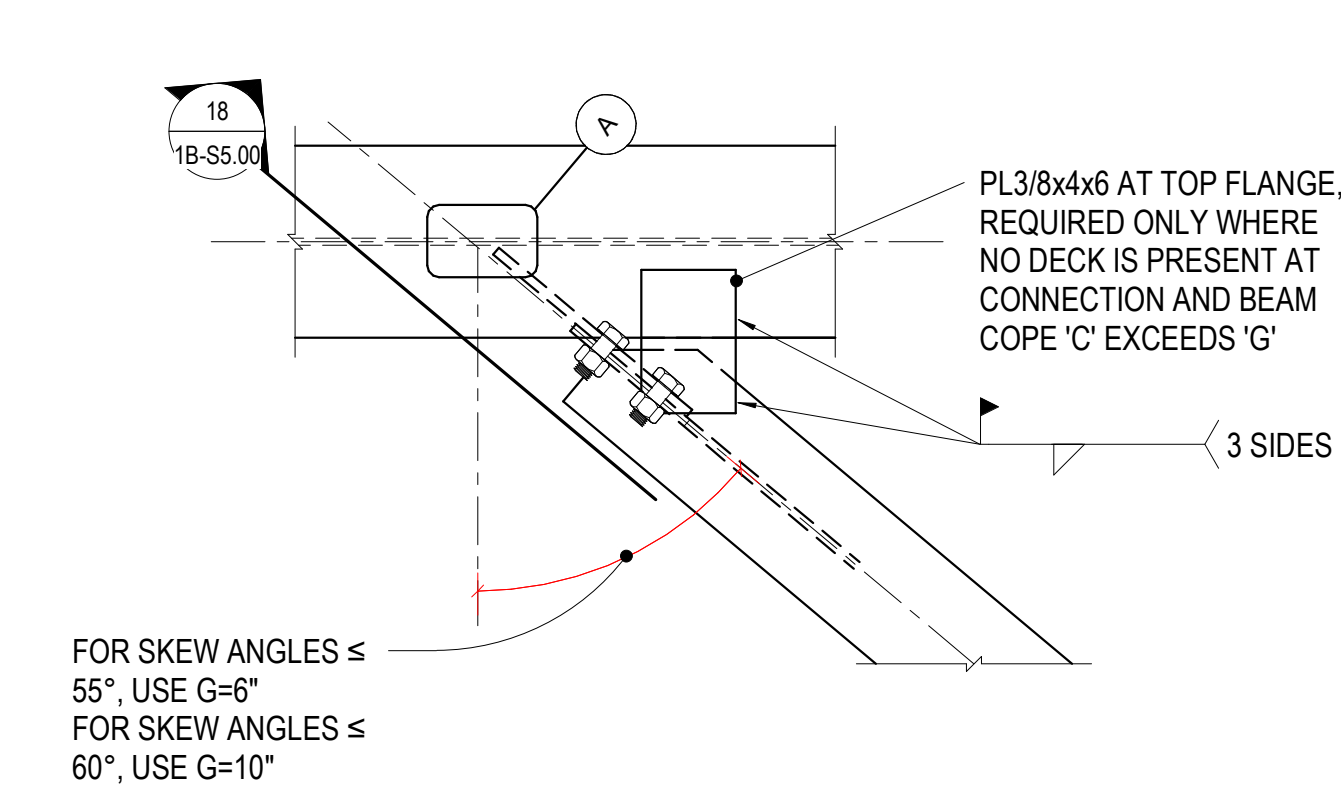
20 TYP BEAM SINGLE PLATE CONNECTION SCHEDULE - LRFD

13 TYP BEAM SKEWED CONN

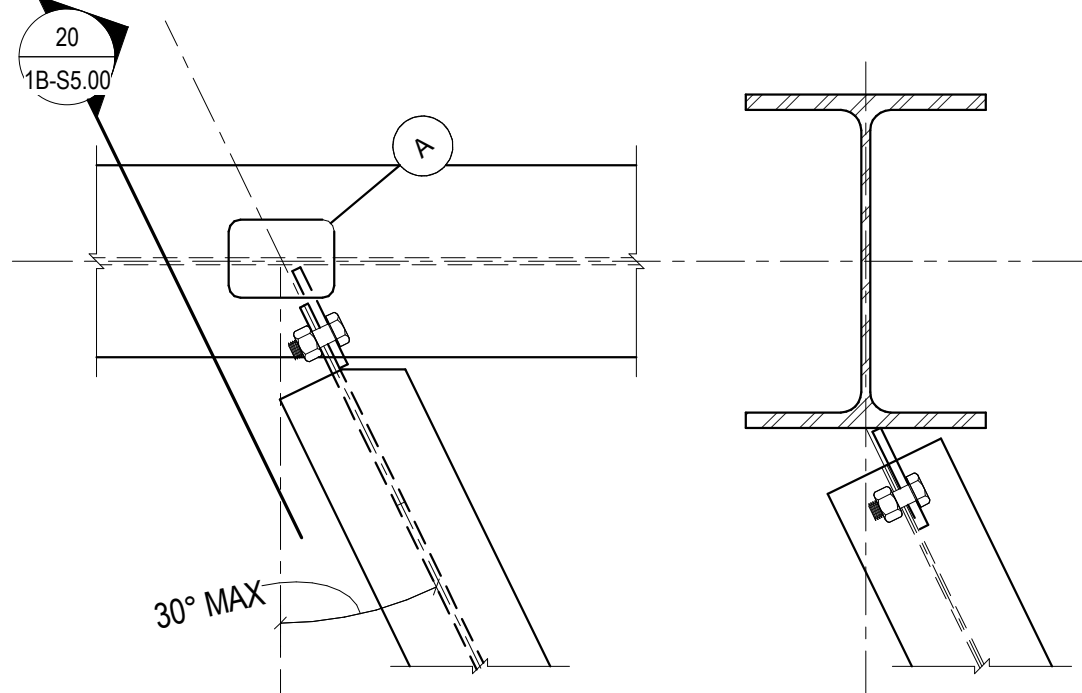


SLOPED BEAM - CONTRACTOR OPTION #2 (2:12 OR 10° MAX SLOPE)

- NOTES:**
1. DETAIL MAY BE USED AT MEMBERS SLOPED 10° (2:12) OR LESS AT CONTRACTOR'S OPTION



AT SKEW ≤ 60°



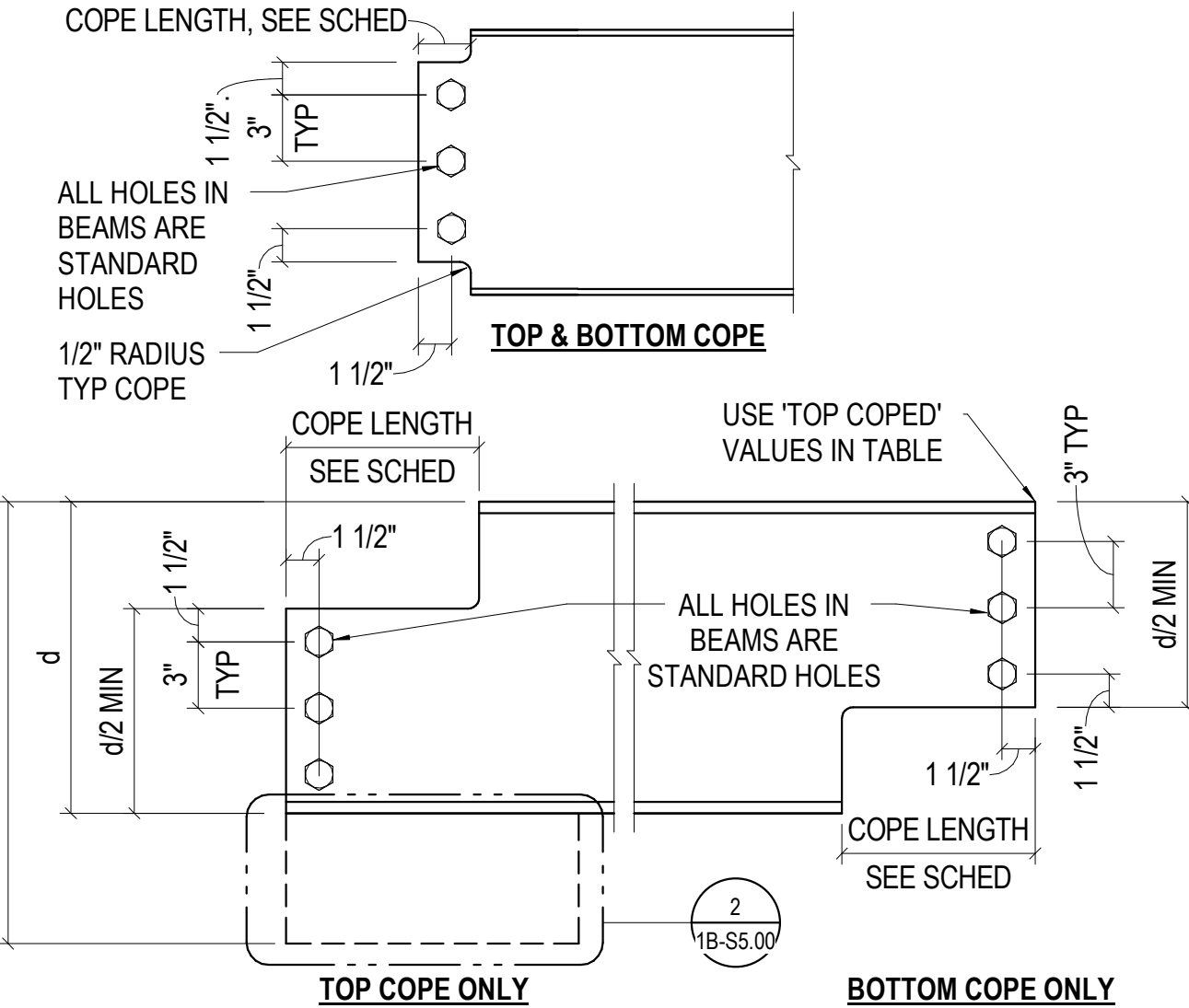
AT SKEW ≤ 30°

FOR SKEW ANGLES ≤ 55°, USE G=6"
FOR SKEW ANGLES ≤ 60°, USE G=10"

PL 3/8x4x6 AT TOP FLANGE. REQUIRED ONLY WHERE NO DECK IS PRESENT AT CONNECTION AND BEAM COPE 'C' EXCEEDS 'G'

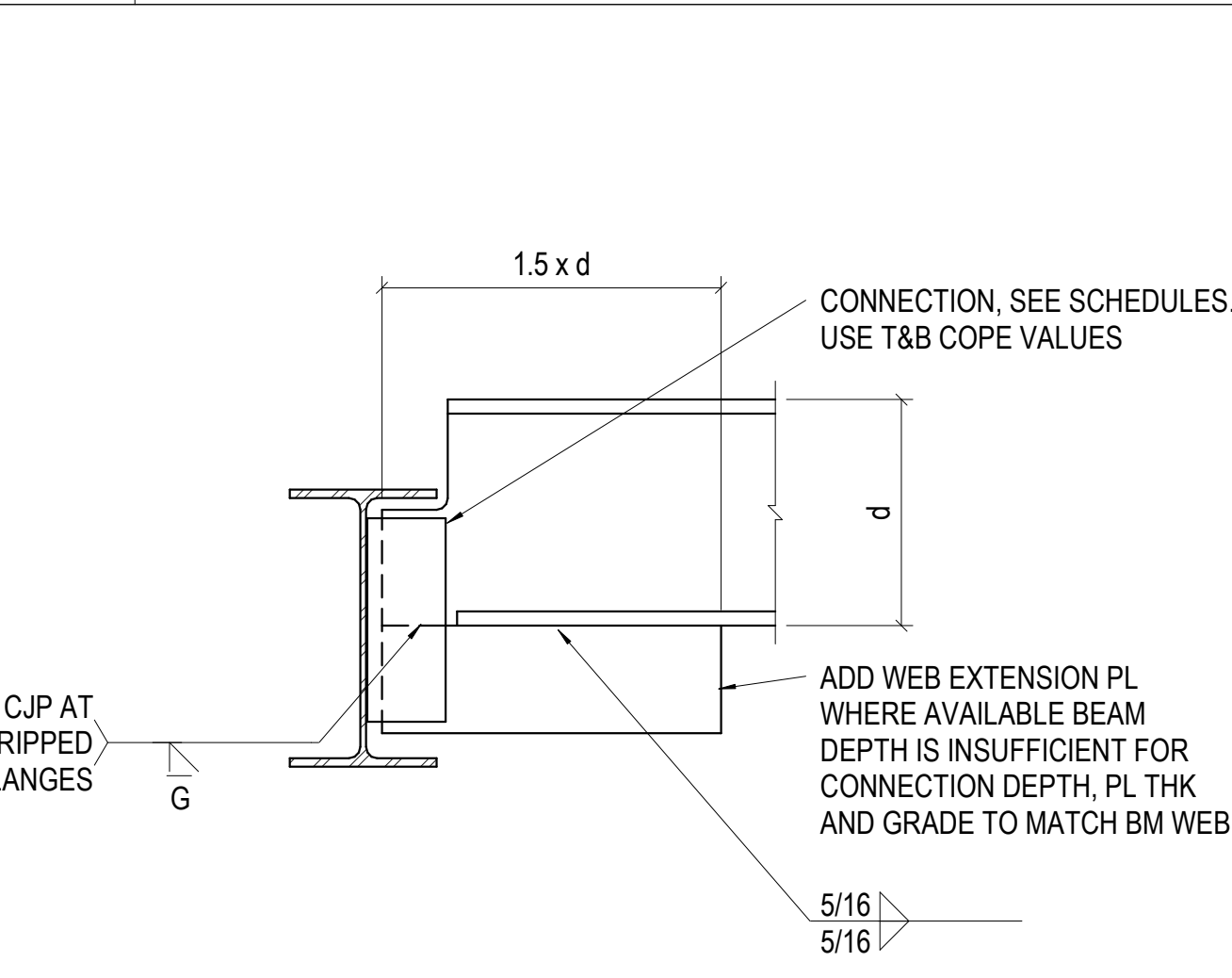
3 SIDES

- NOTES:**
1. DETAIL MAY BE USED AT MEMBERS SLOPED AT ANY PITCH AT CONTRACTOR'S OPTION

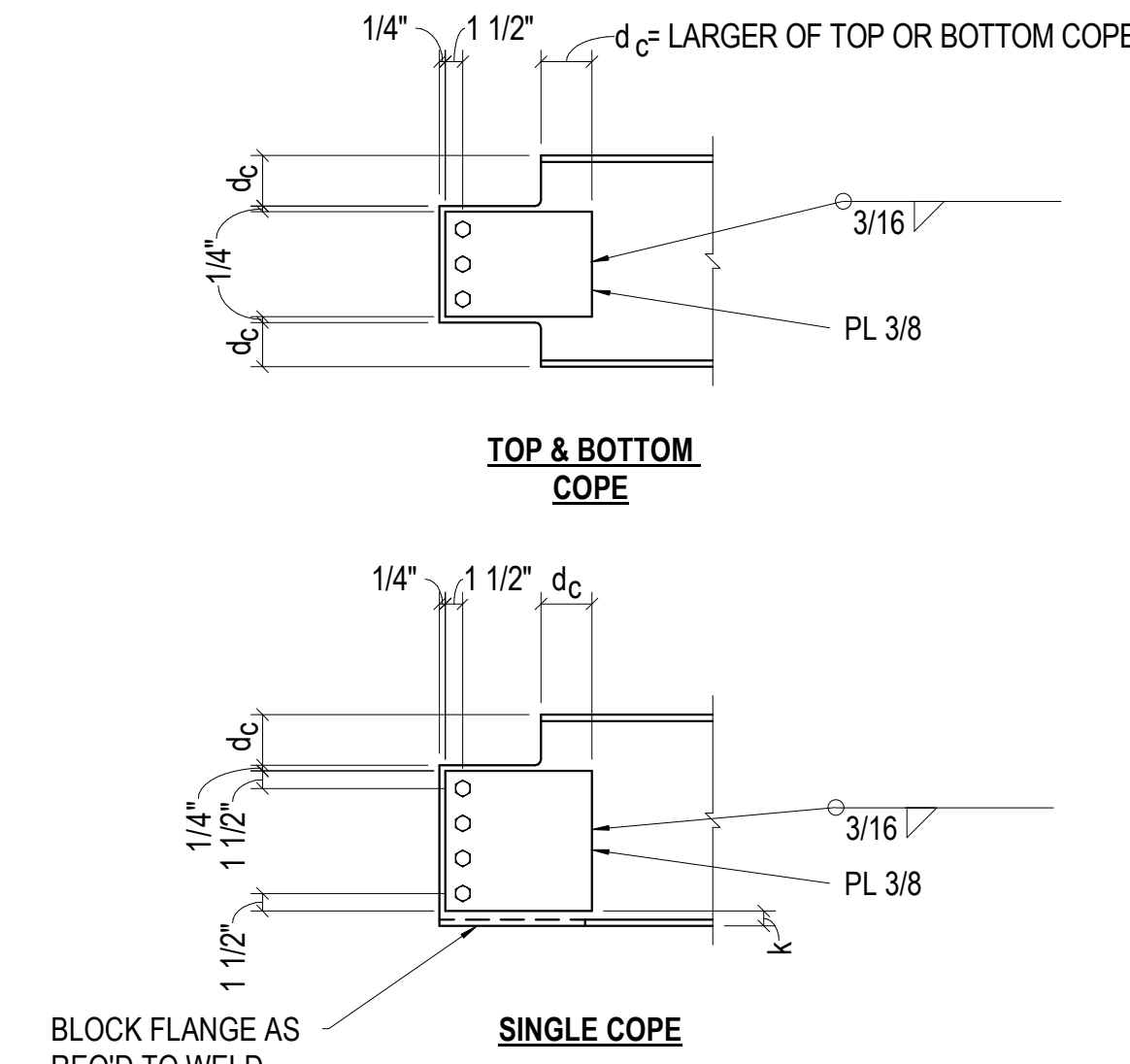


- NOTES:**
1. THE GEOMETRY SHOWN IS THE BASIS FOR CALCULATIONS OF LIMIT STATES INVOLVING COPE BEAMS. ALL EDGE DISTANCE DIMENSIONS SHOWN ARE MINIMUMS

1 TYP BEAM CONNECTIONS

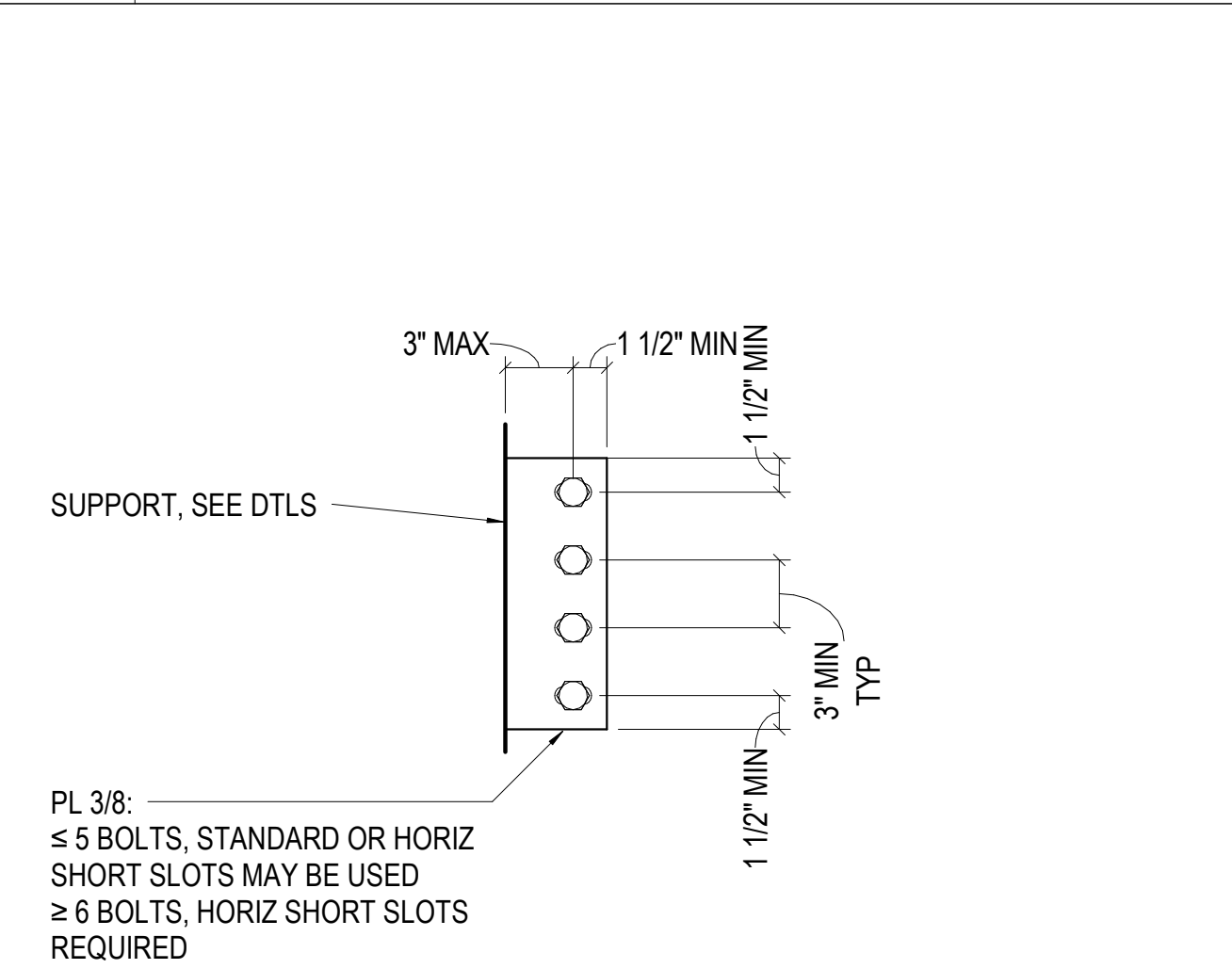


2 TYP BEAM WEB EXTENSION



- NOTES:**
1. DETAIL APPLIES ONLY WHERE INDICATED IN CONNECTION SCHEDULES

3 TYP BEAM WEB REINFORCING



4 TYP BEAM SINGLE PLATE

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MOUNTAIN COMPANY

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TYP STEEL BEAM CONNS - LRFD
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1B-S5.00

NOTES:
1. # INDICATES WEB REINFORCEMENT REQD TO ACHIEVE NOTED CAPACITY. SEE 3/1B-S5.00



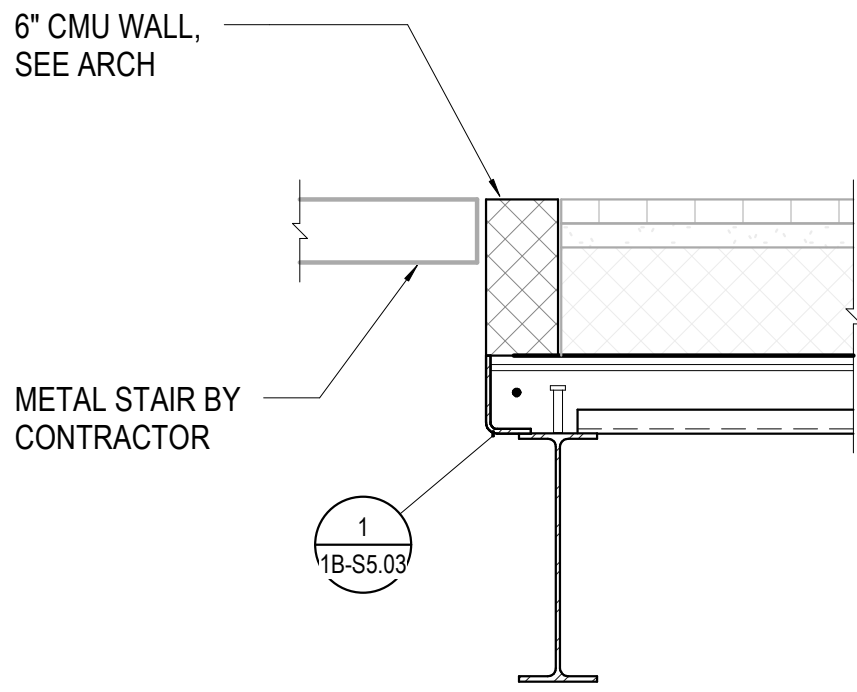
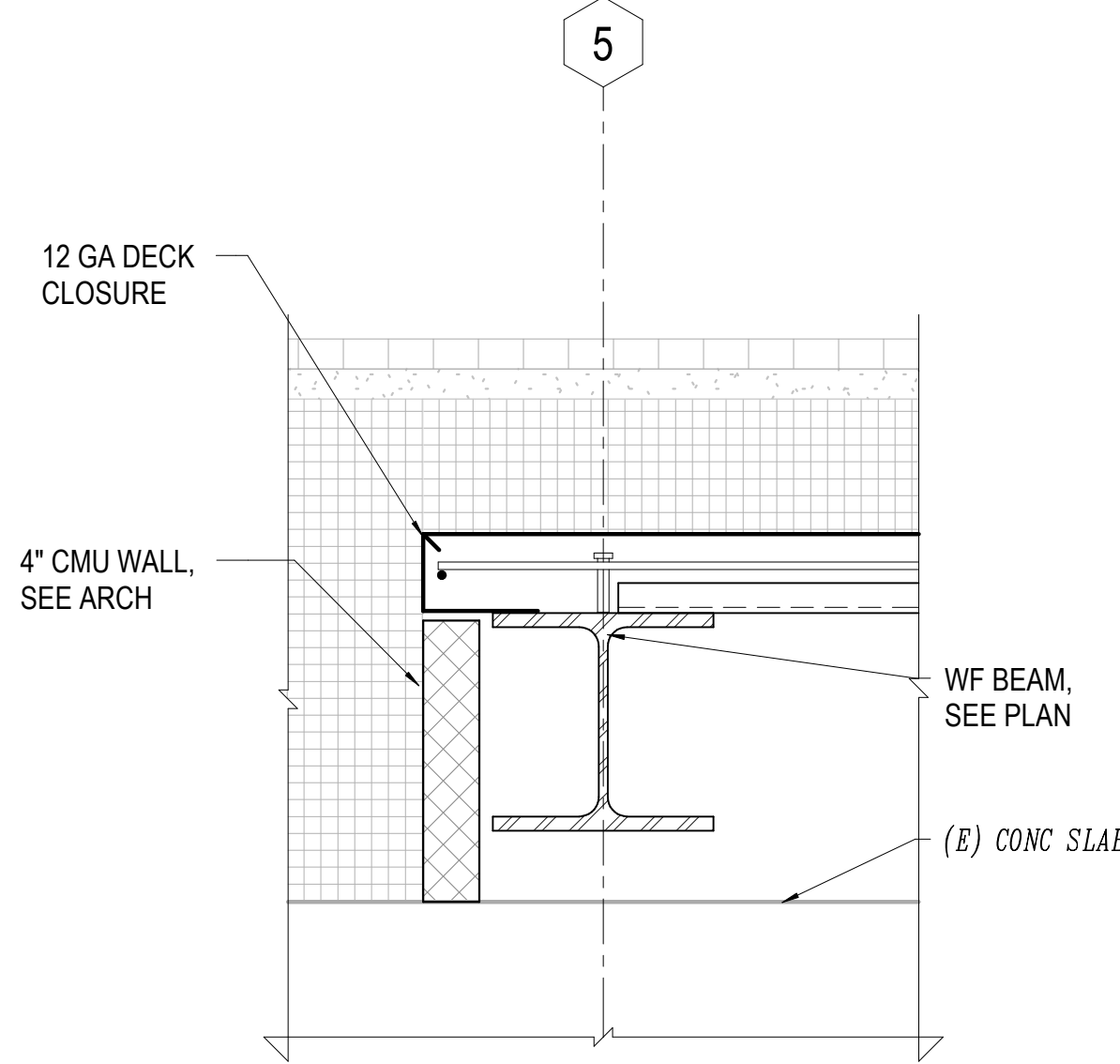
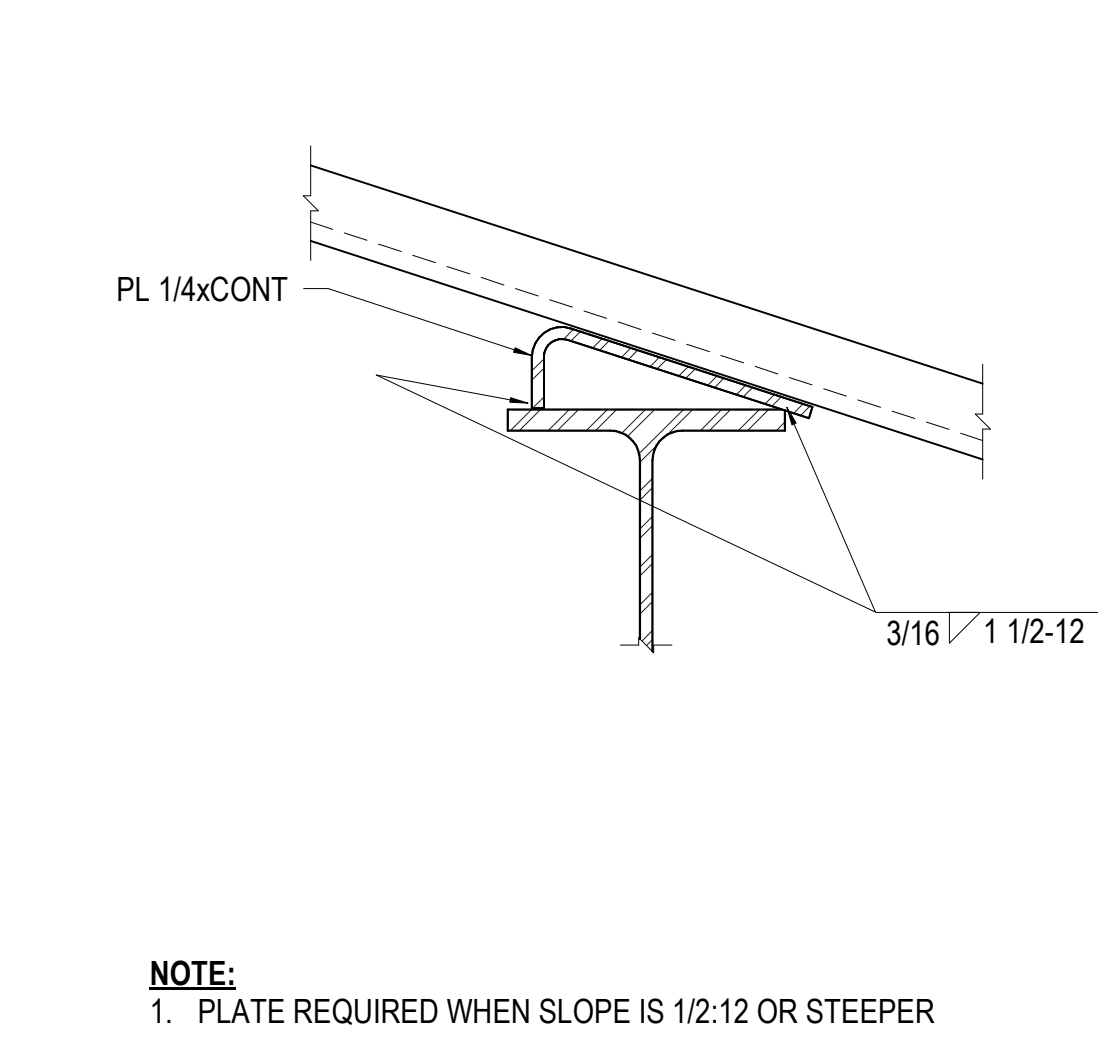
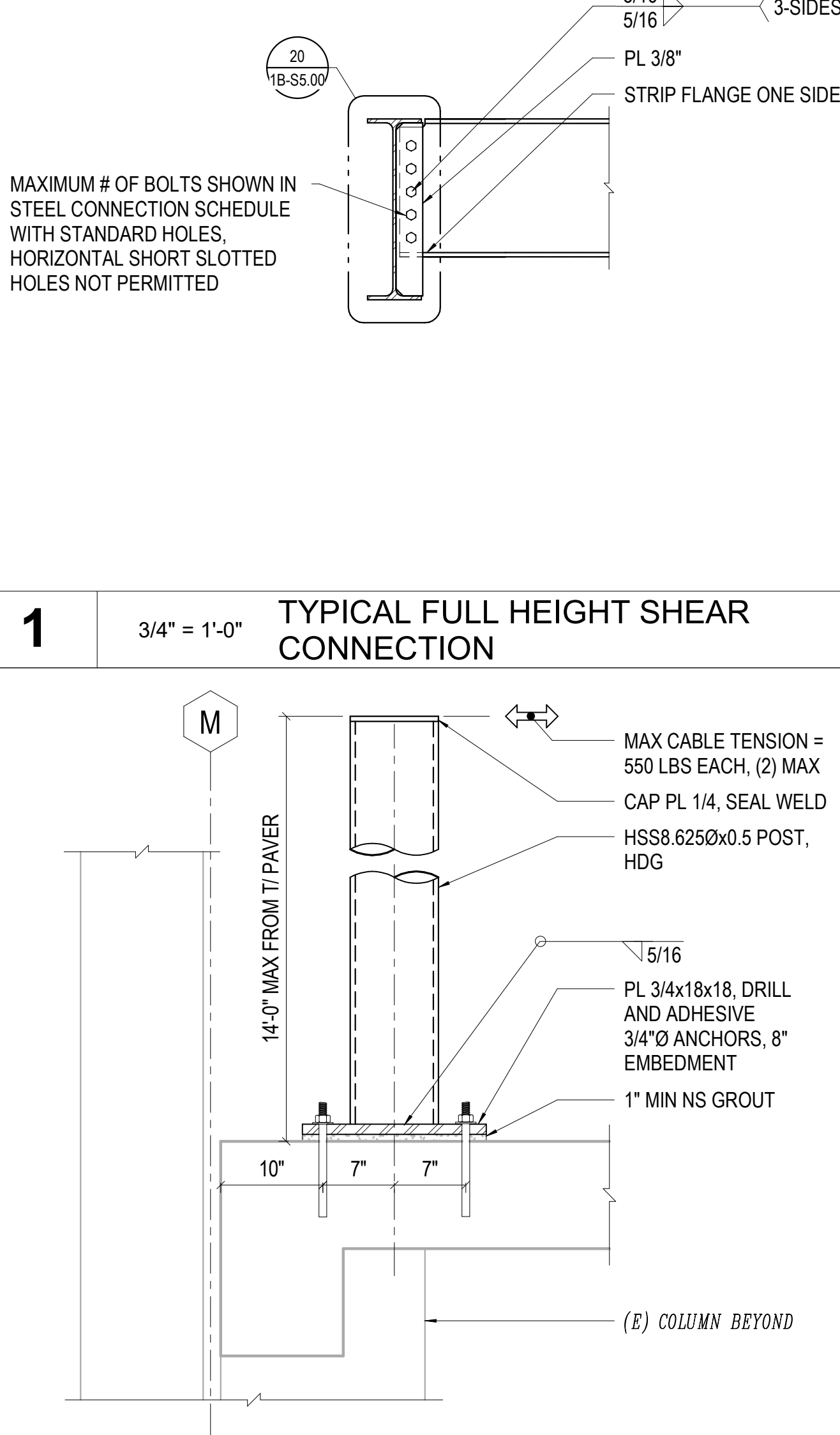
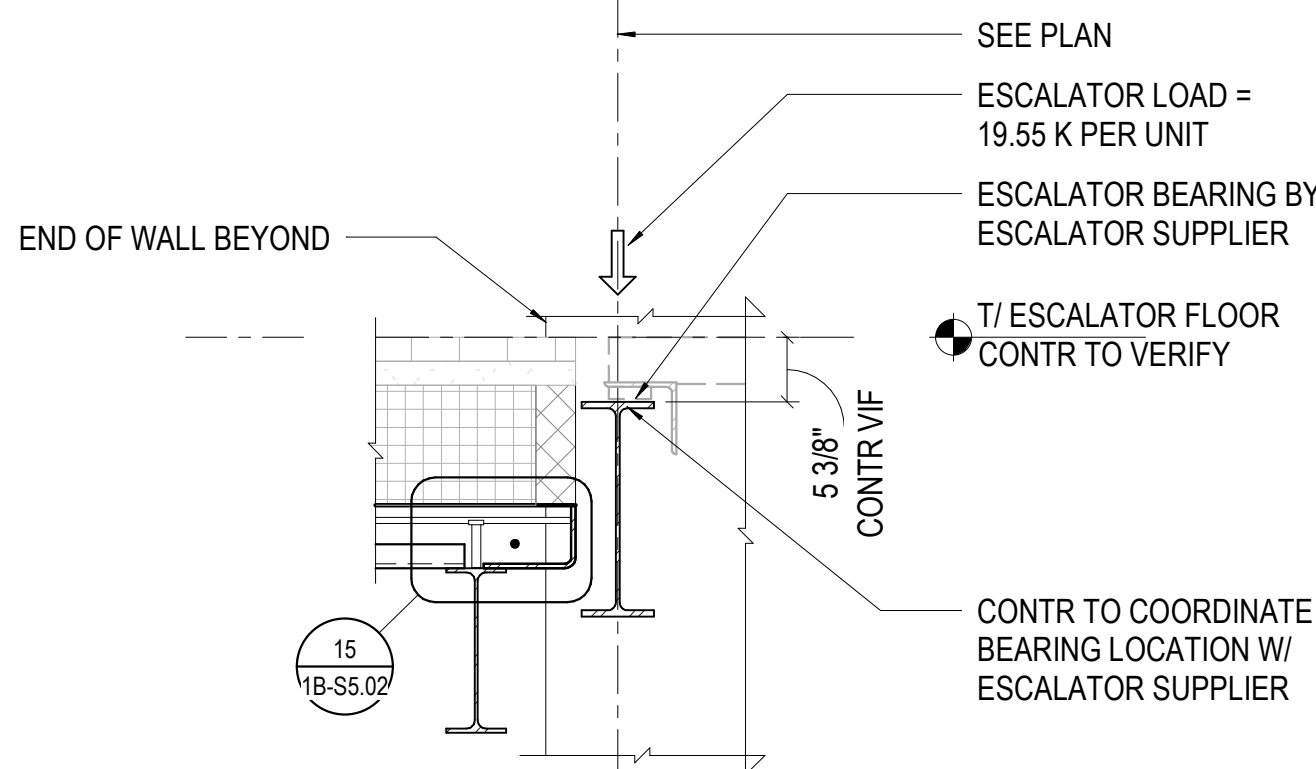
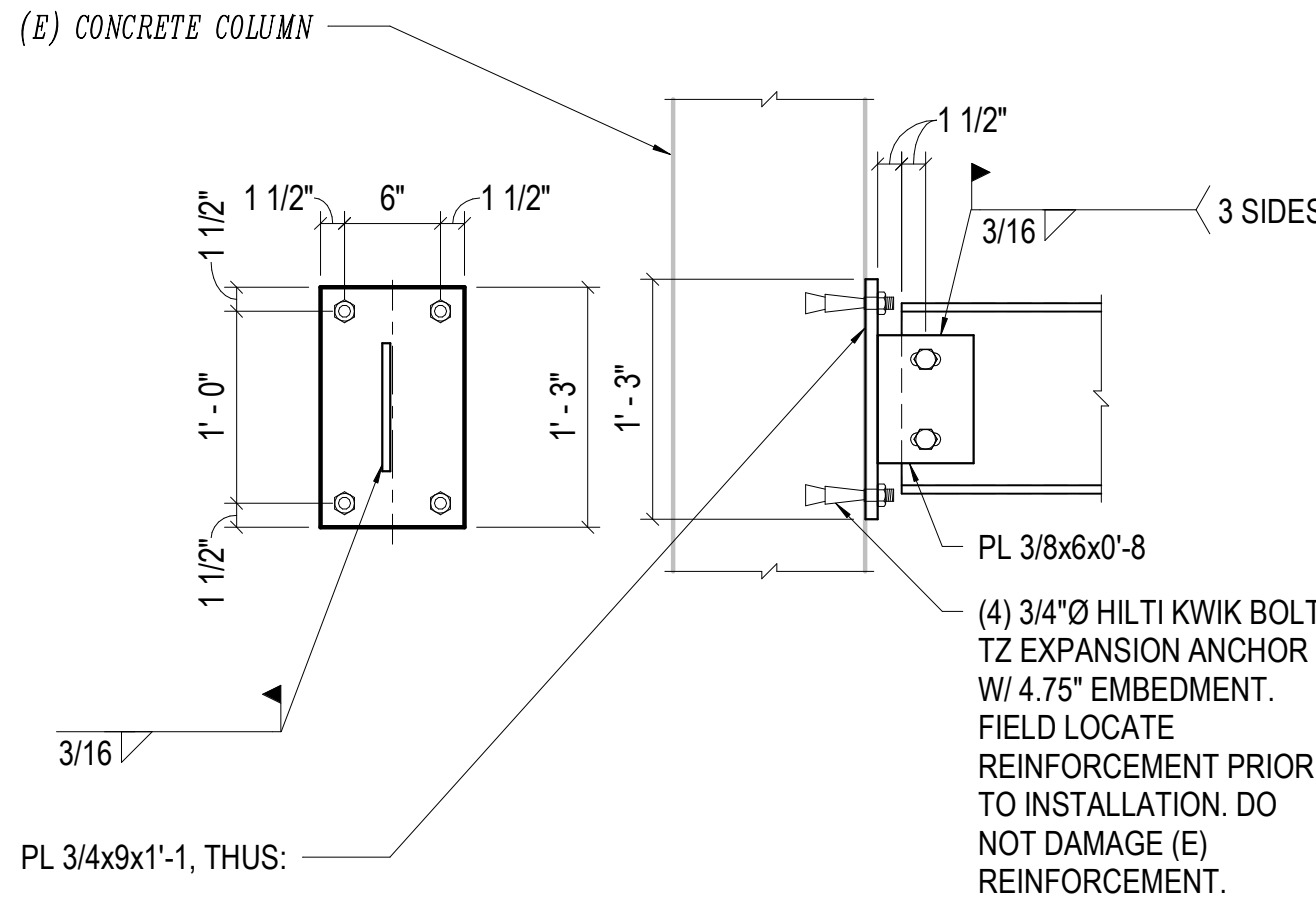
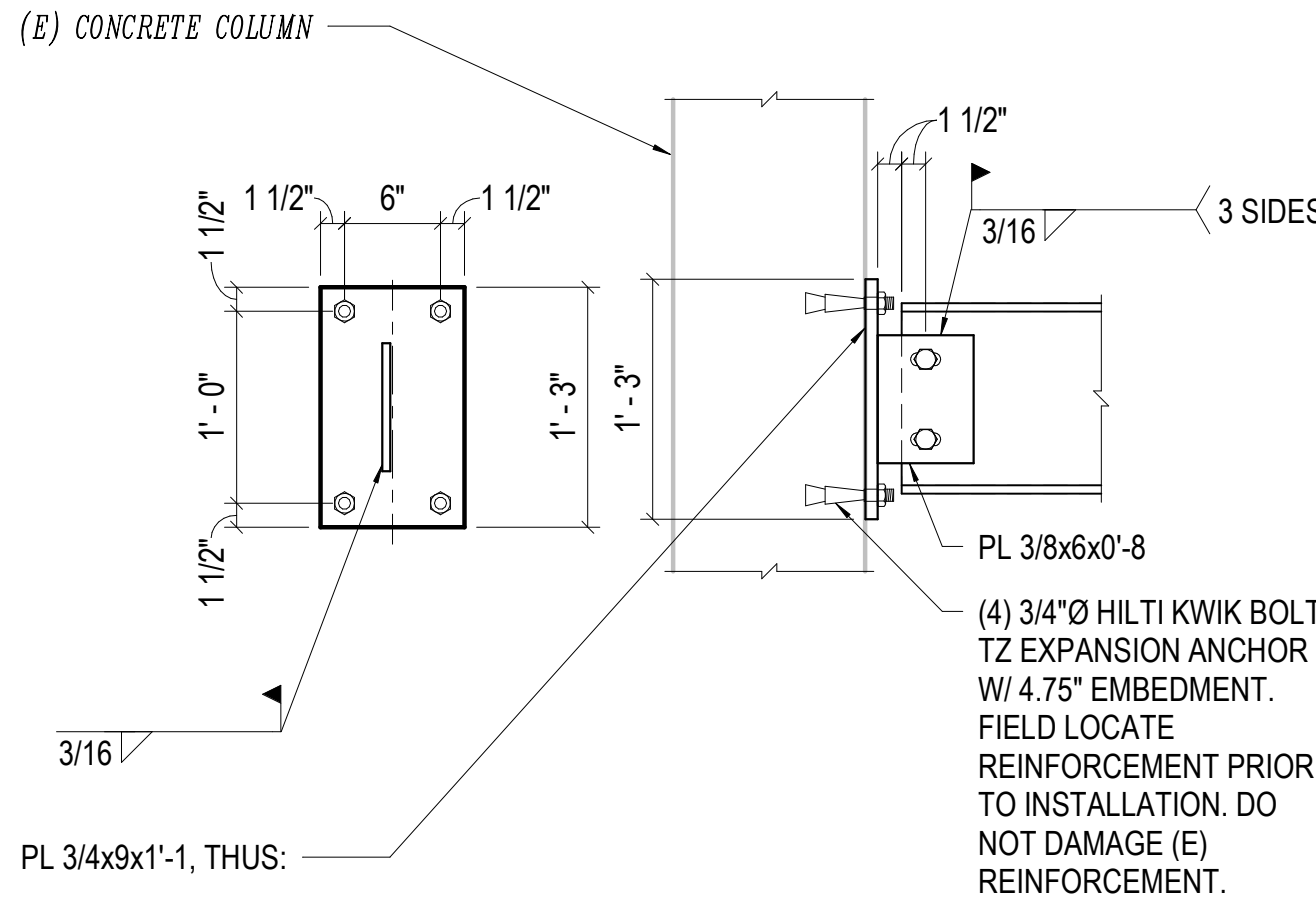
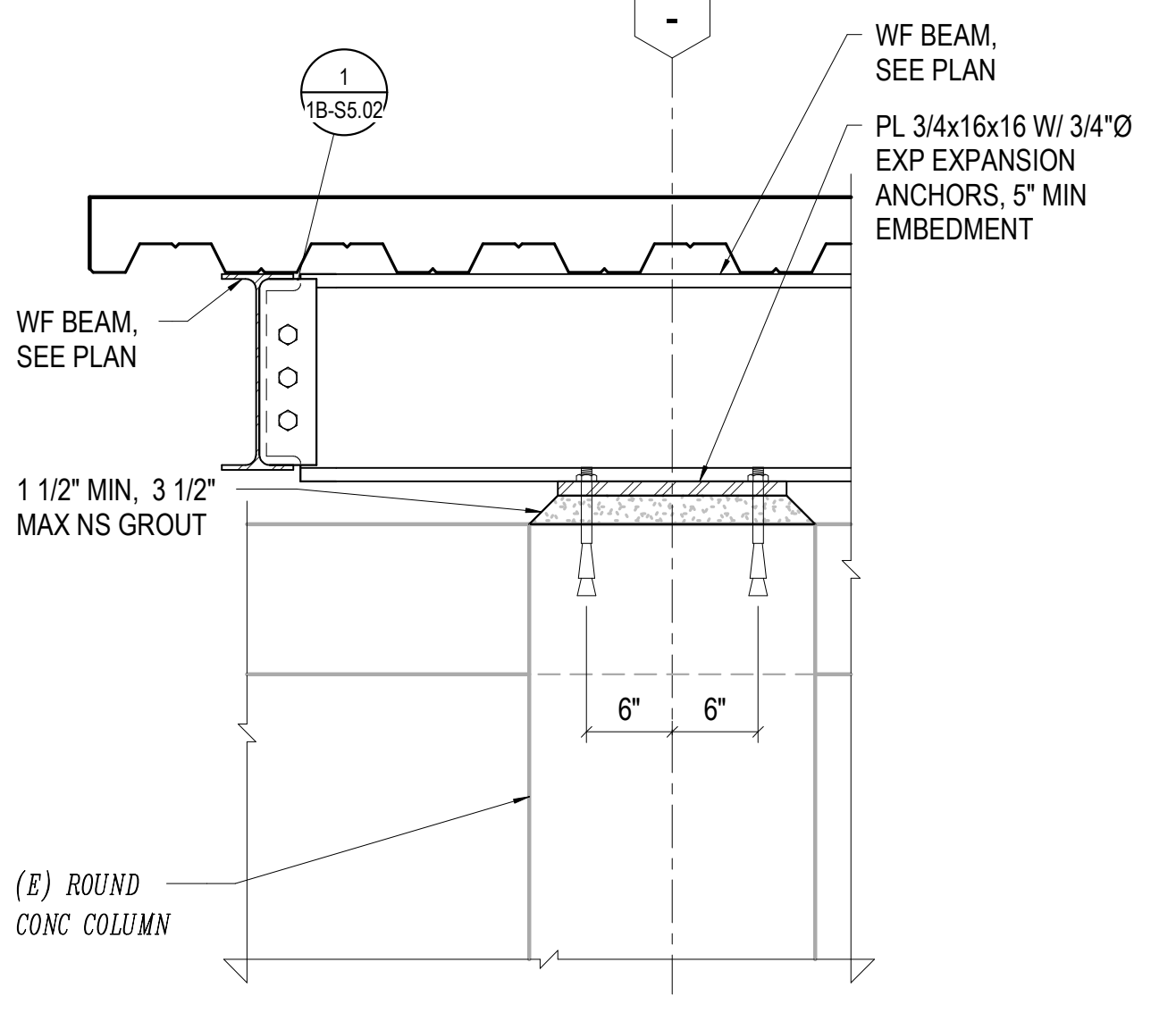
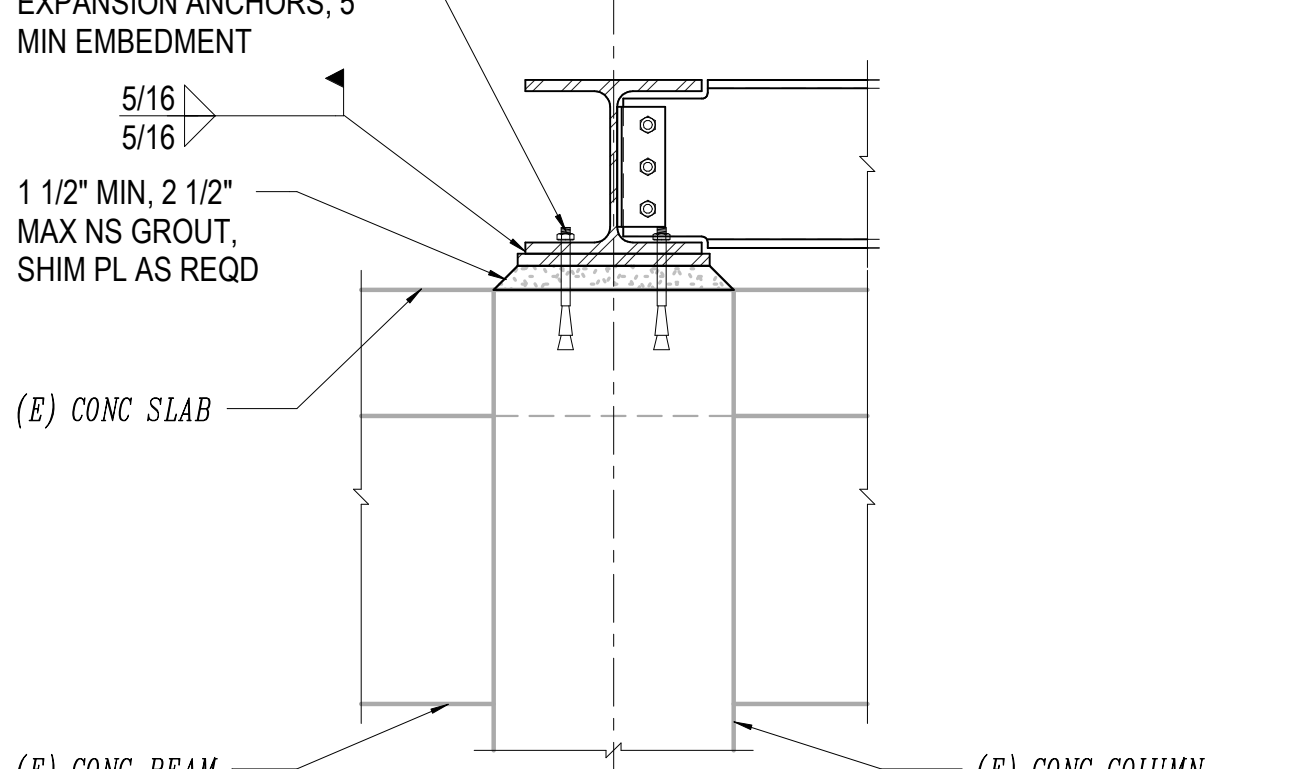
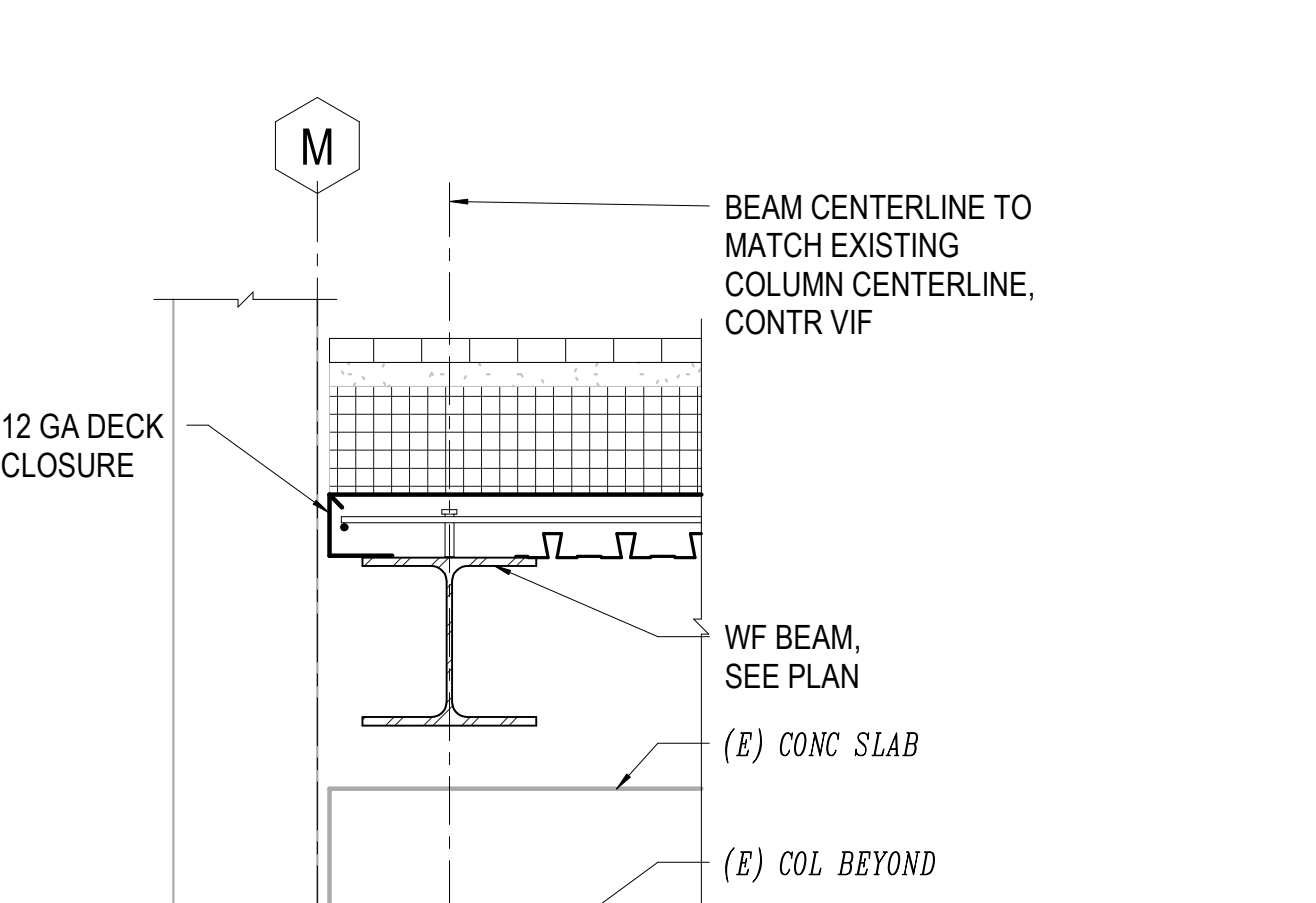
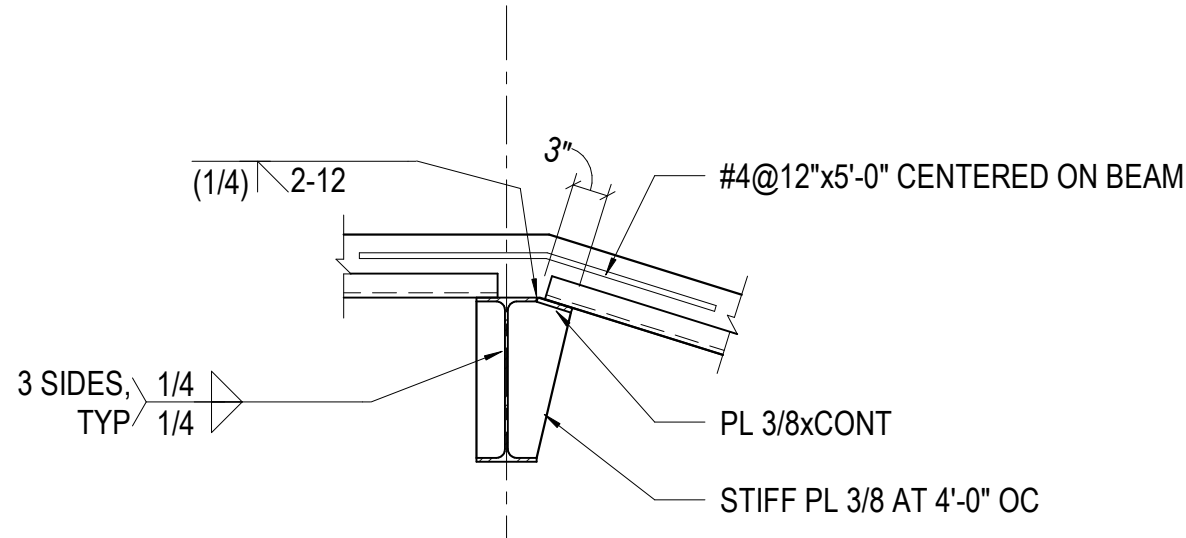
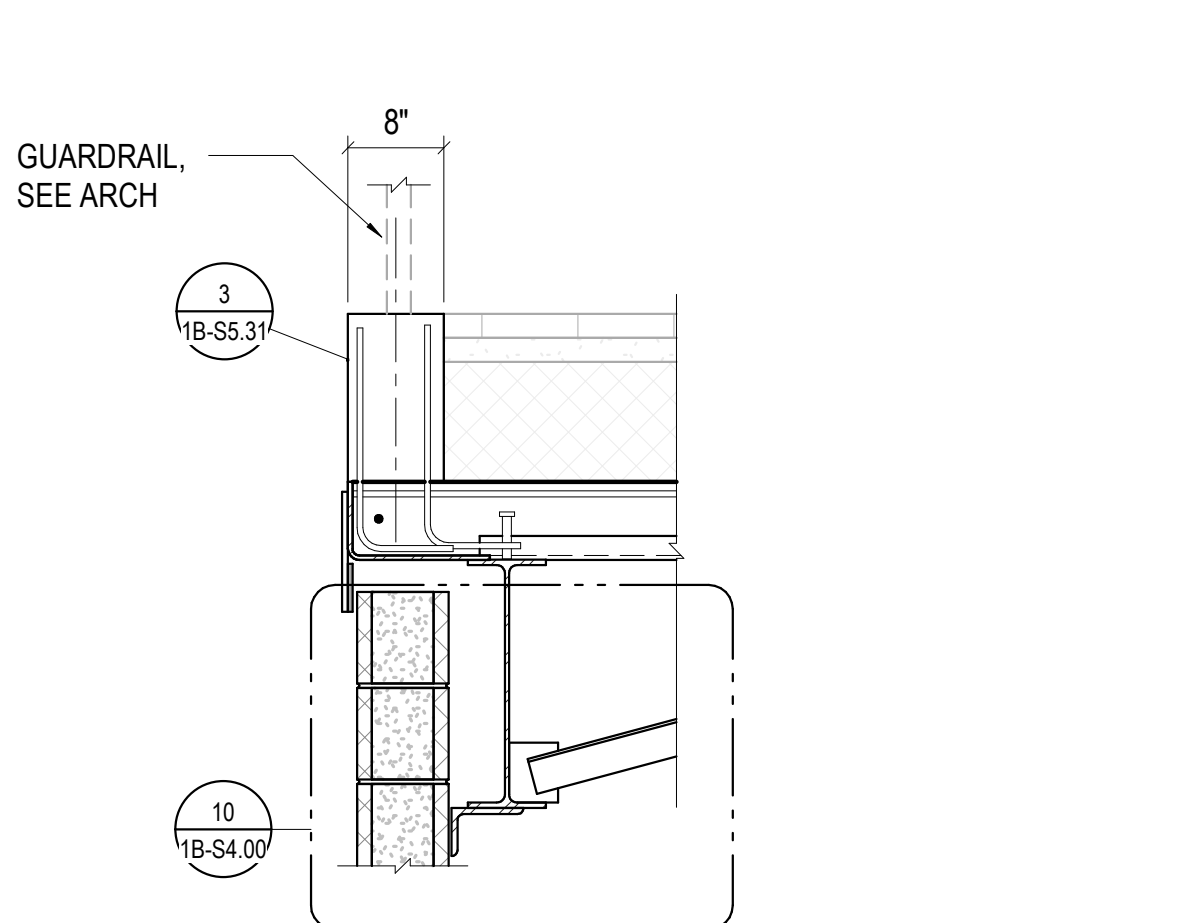
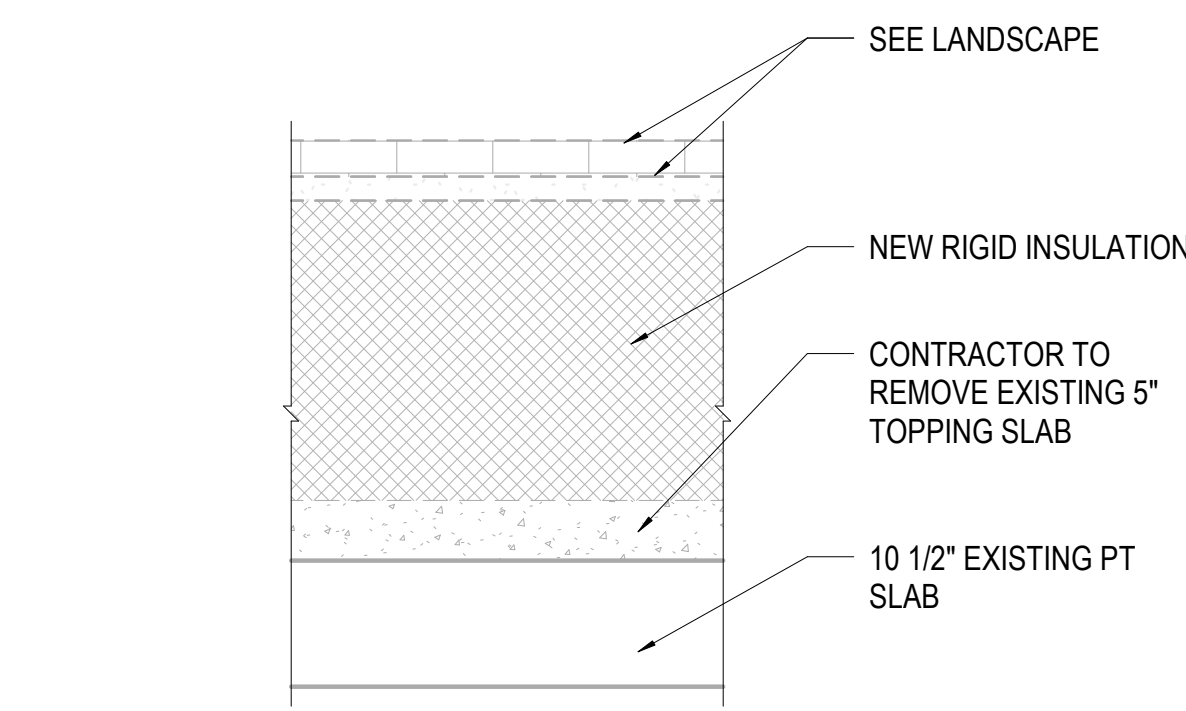
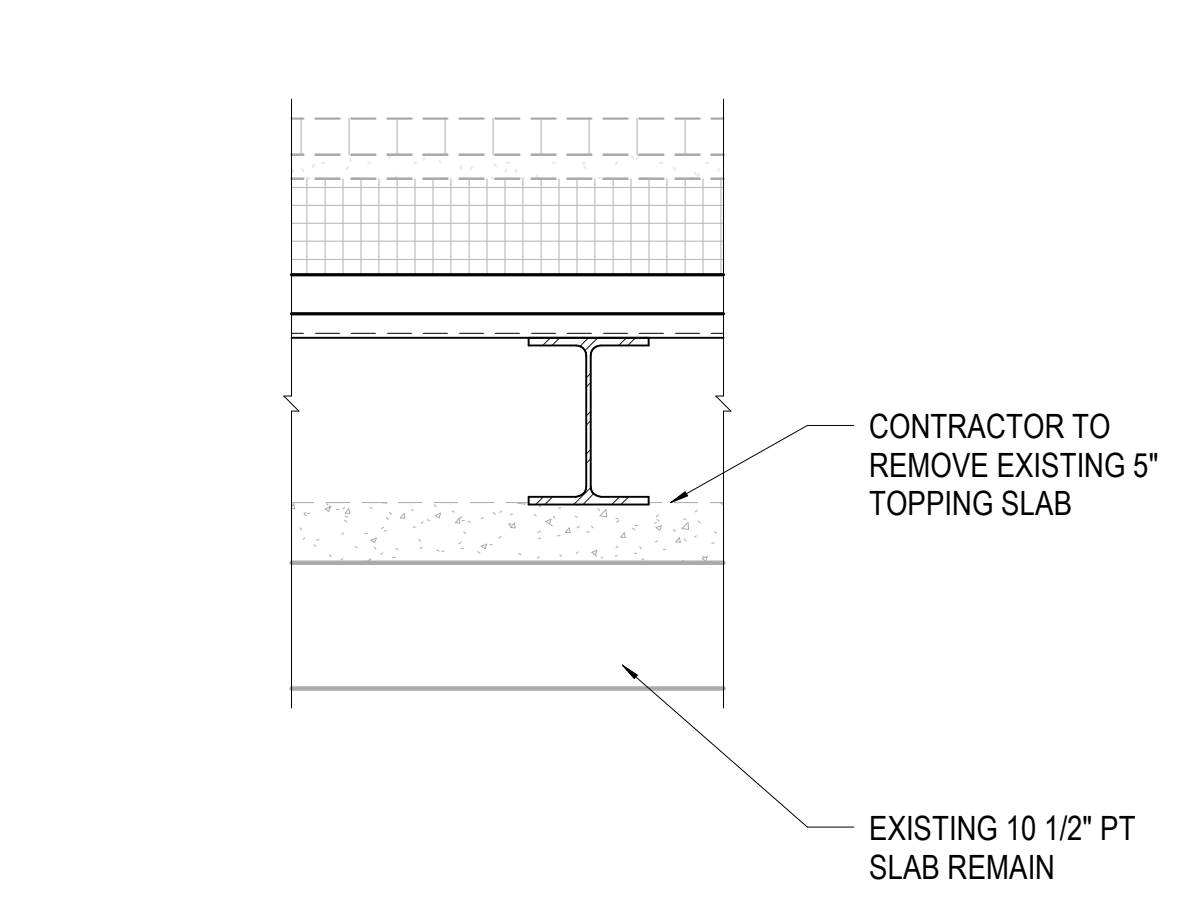
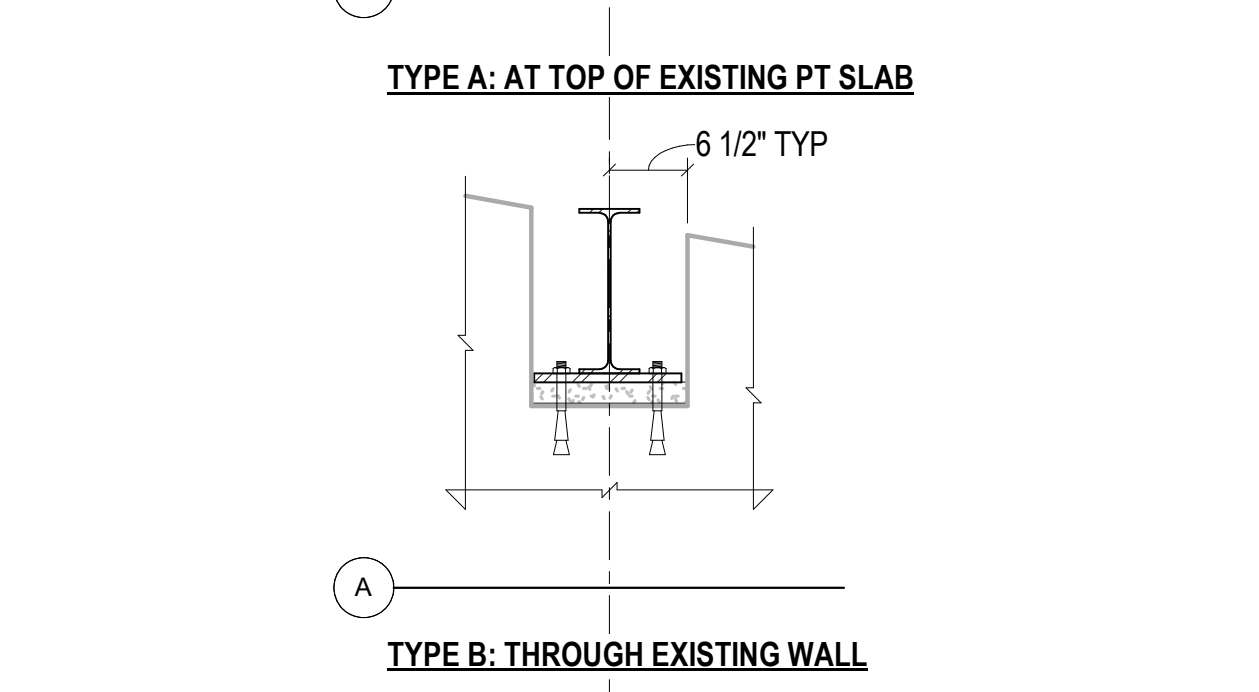
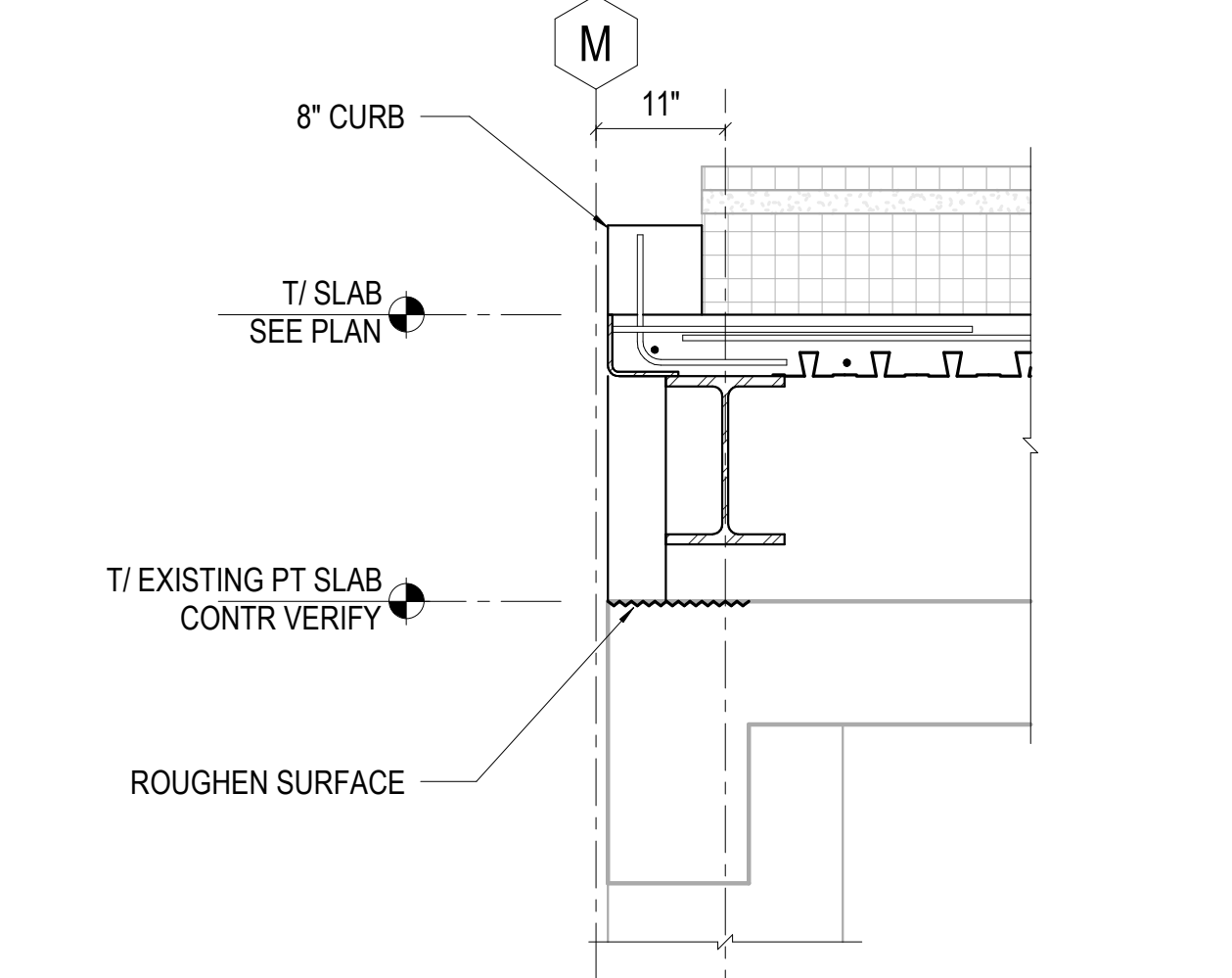
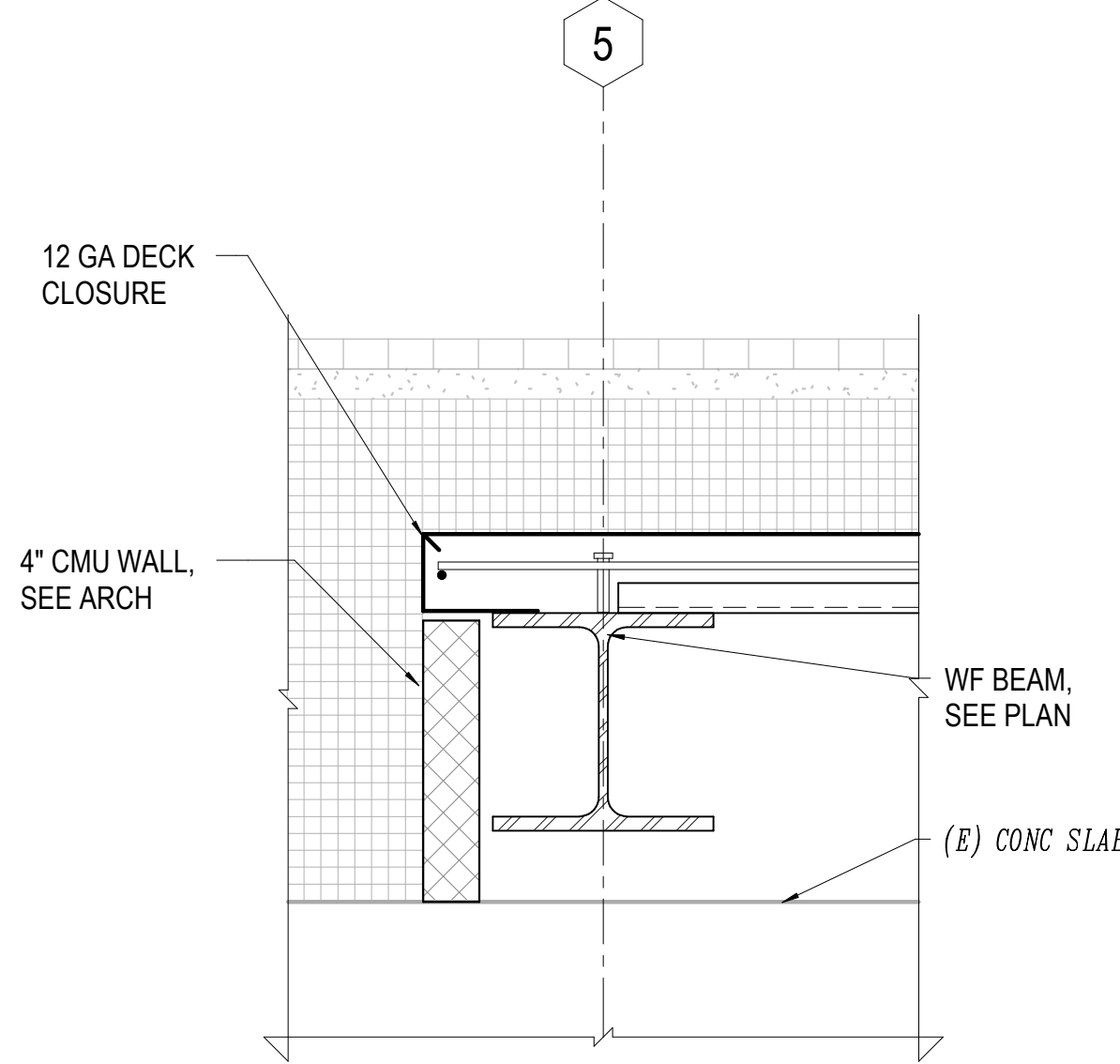
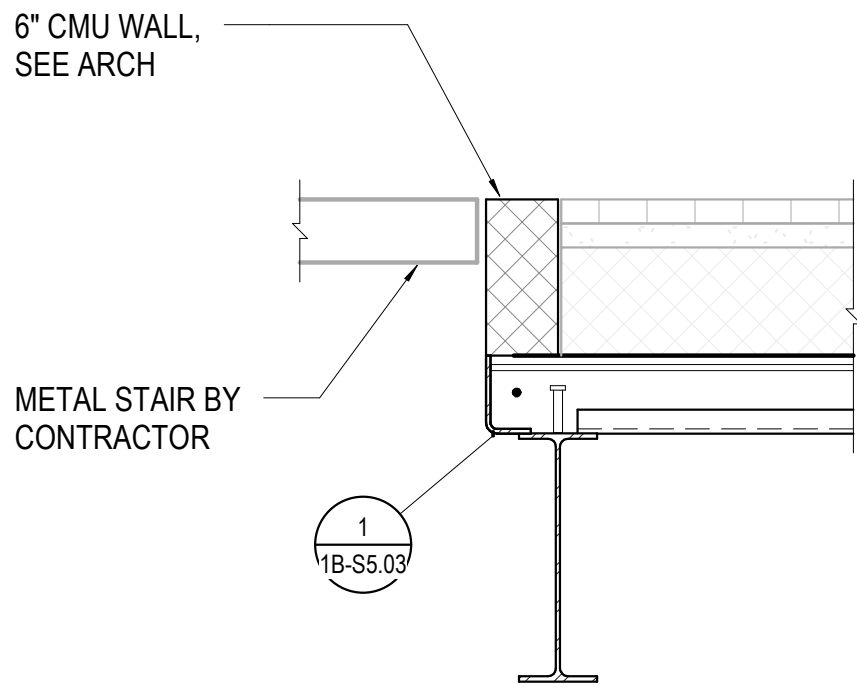
NOTES:
1. # INDICATES WEB REINFORCEMENT REQD TO ACHIEVE NOTED CAPACITY. SEE 3/1B-S5.00



TYPICAL AT COLUMN/GIRDER



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LEAD REVIT TECH COLIN KNOWLES
DATE PRINTED: 5/19/2021 11:40:28 AM
FILE PATH: E:\03\003\7835\001 - SSRC\Bldg\Revit\03_7835_001_SSR.dwg, SRF, CSO, 2021, 1/2021, 1/4
PROJECT MANAGER: C. A. CHEN
EOR KELLY KNOWLES

		17		3/4" = 1'-0"	COMPOSITE DECK TO NEW METAL STAIR
		18		1" = 1'-0"	SLAB TRANSITON AT GRID 5
		19		3" = 1'-0"	TYP METAL DECK AT BEAM PERPENDICULAR TO SLOPE
		1		3/4" = 1'-0"	TYPICAL FULL HEIGHT SHEAR CONNECTION
		2		NO SCALE	CATENARY LIGHT POST
		3		NO SCALE	ESCALATOR TOP CONNECTION TO STEEL BEAM
		4		NO SCALE	W-SHAPE TO (E) CONCRETE COLUMN
		5		1" = 1'-0"	BEAM CONNECTION AT (E) COLUMN
		6		1" = 1'-0"	BEAM CONNECTION AT (E) ROUND COLUMN
		8		3/4" = 1'-0"	COMPOSITE SLAB EDGE ALONG GRID M
		9		3/4" = 1'-0"	SLOPED SLAB TRANSITION
		10		3/4" = 1'-0"	EXTERIOR SLAB EDGE ALONG GRID 7
		11		3/4" = 1'-0"	GOLDWALK INFILL SLAB
		12		3/4" = 1'-0"	GOLDWALK SLAB ON METAL DECK
		14		3/4" = 1'-0"	NEW STEEL ON EXISTING SLAB
		16		3/4" = 1'-0"	NEW CURB ON STRUCTURAL STEEL
		18		1" = 1'-0"	SLAB TRANSITON AT GRID 5
		17		3/4" = 1'-0"	COMPOSITE DECK TO NEW METAL STAIR



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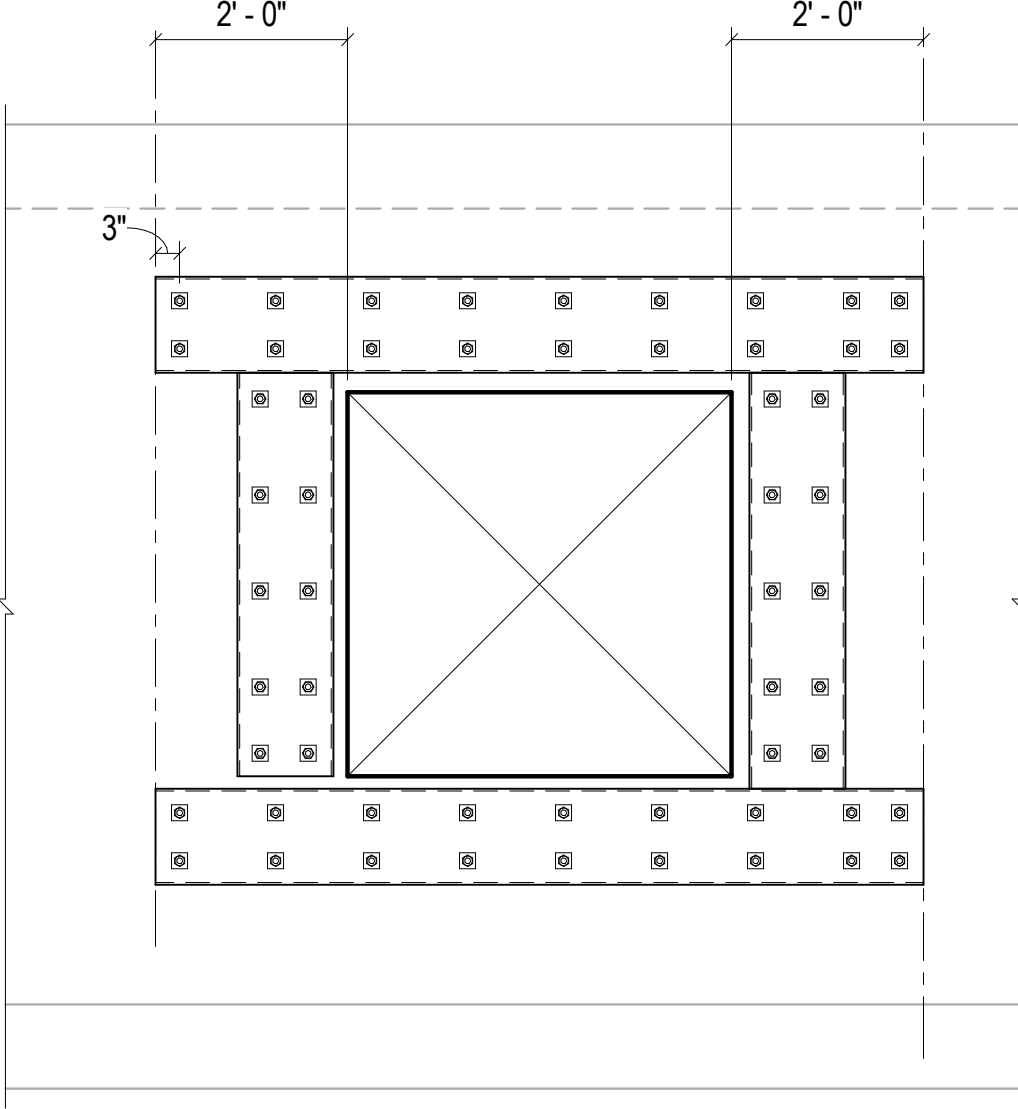
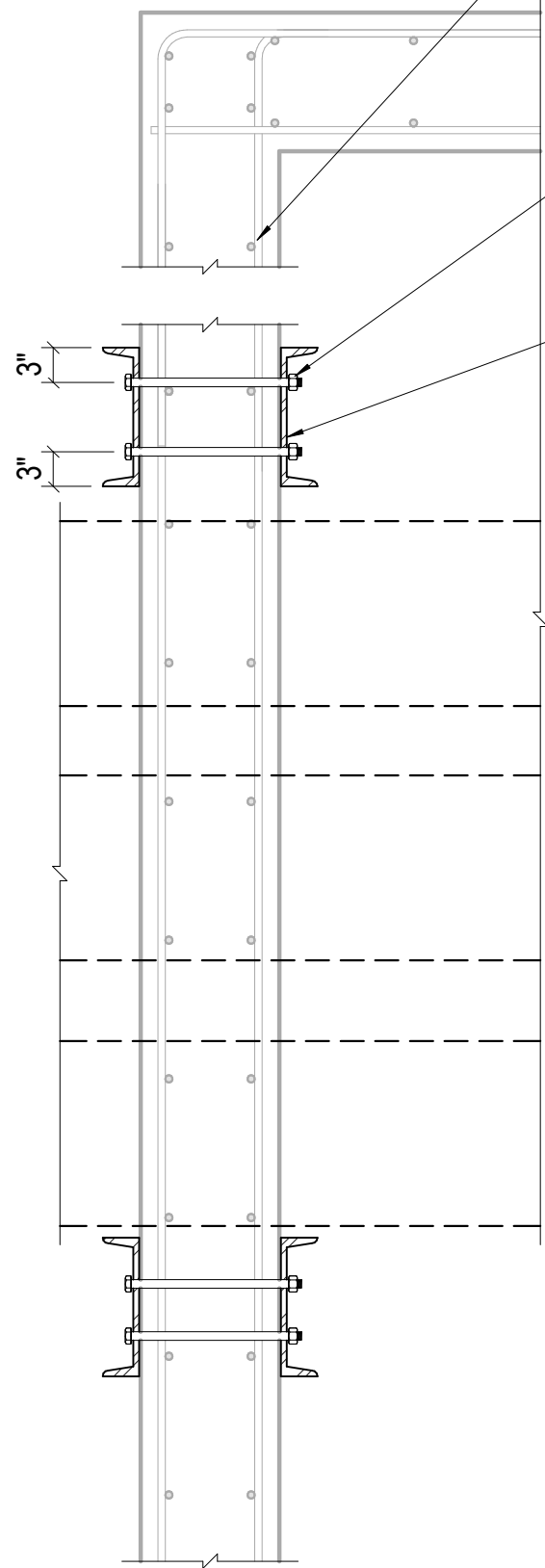
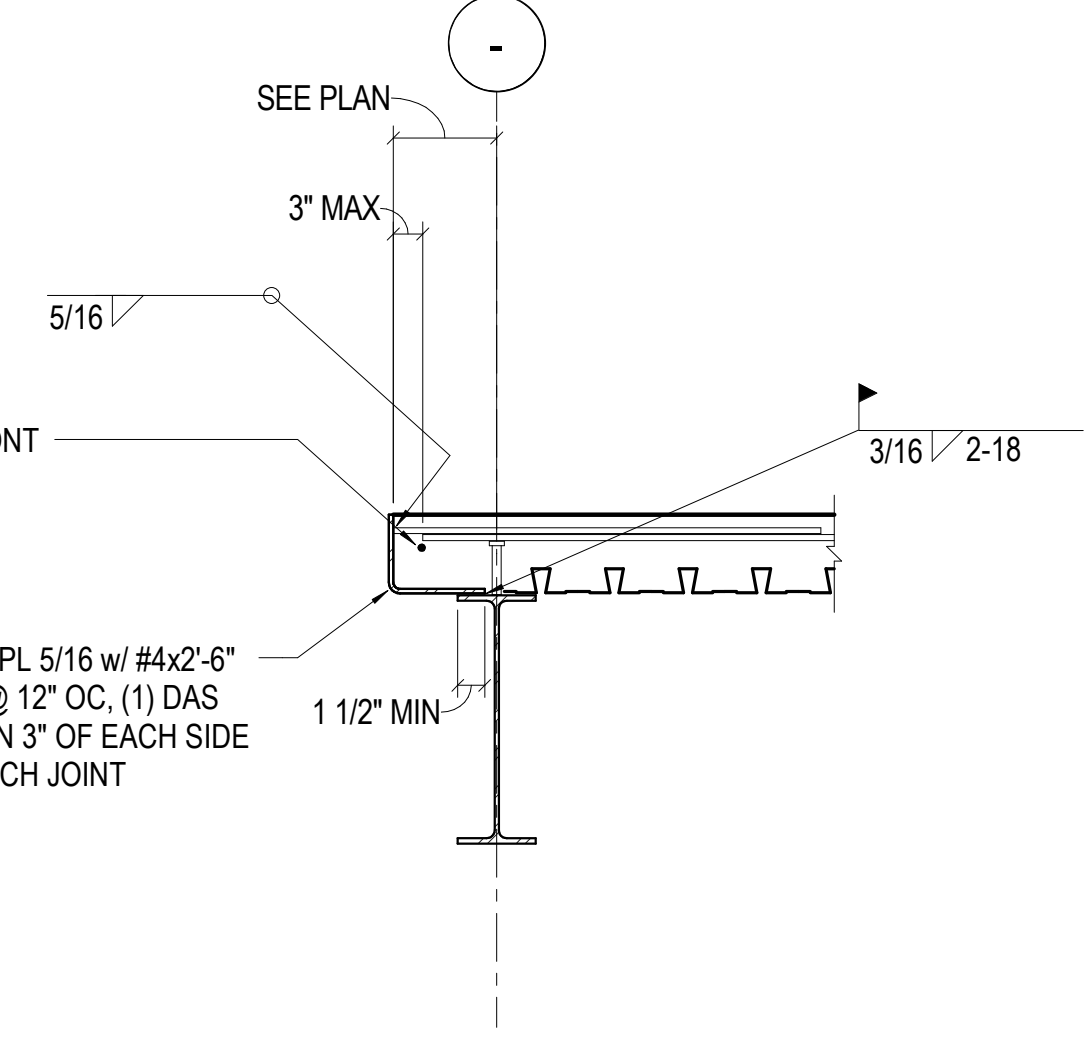
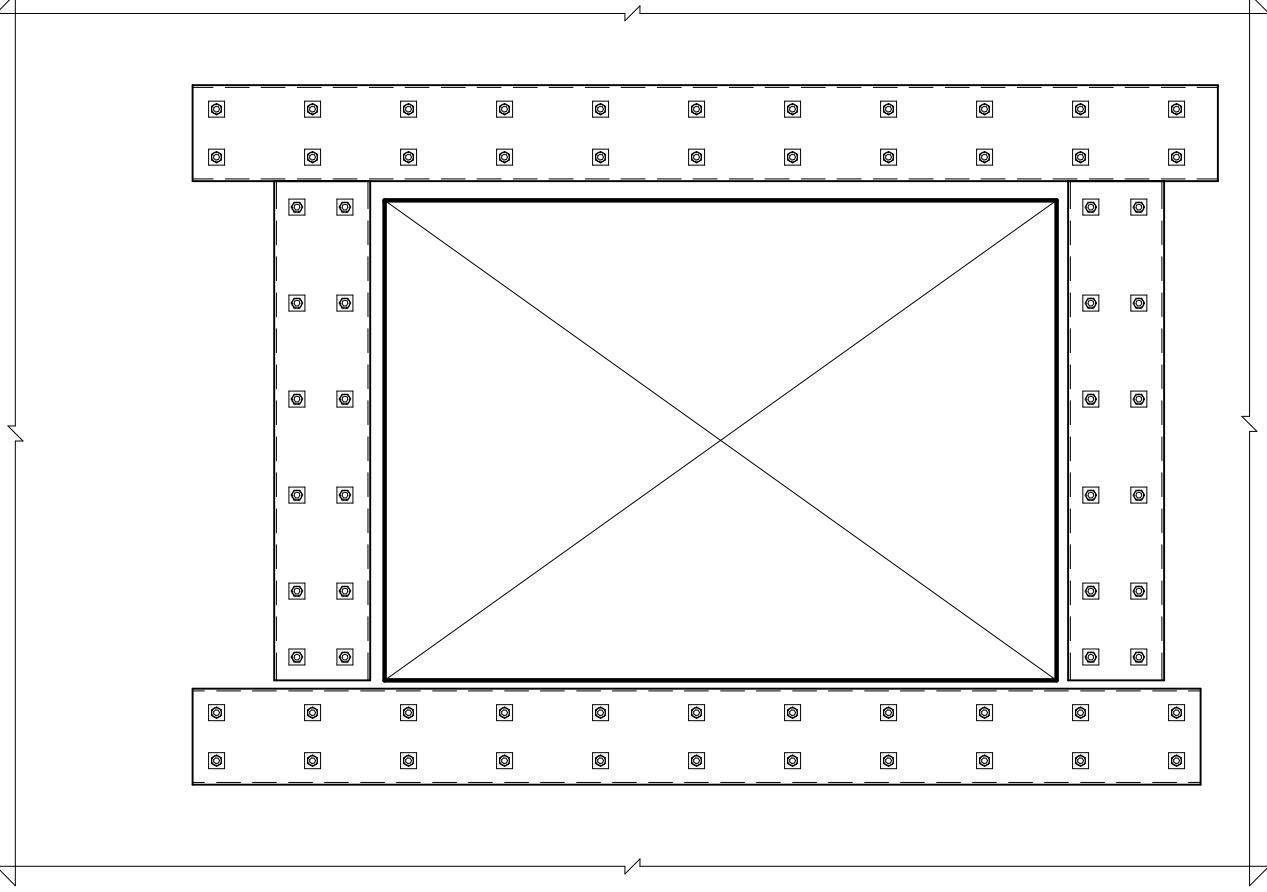
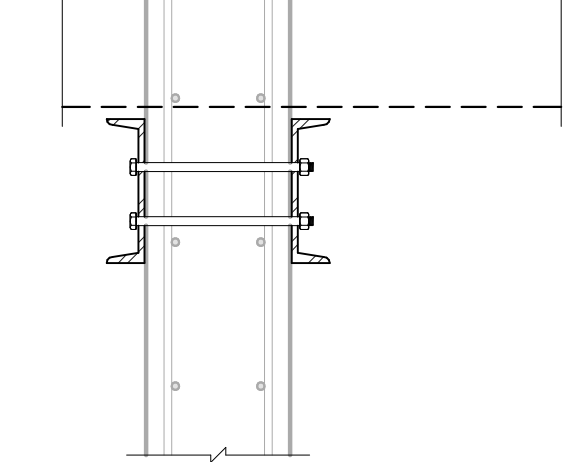
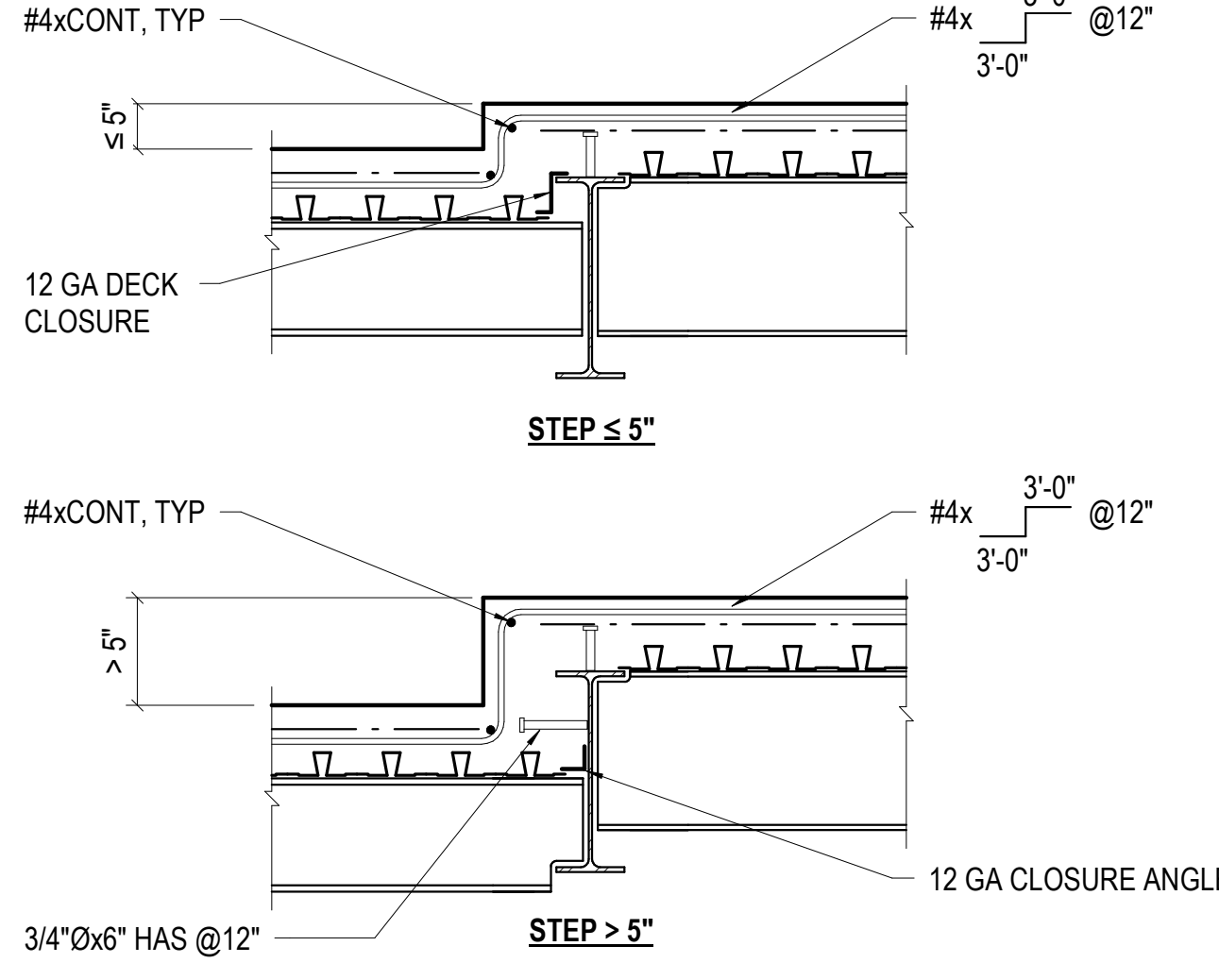
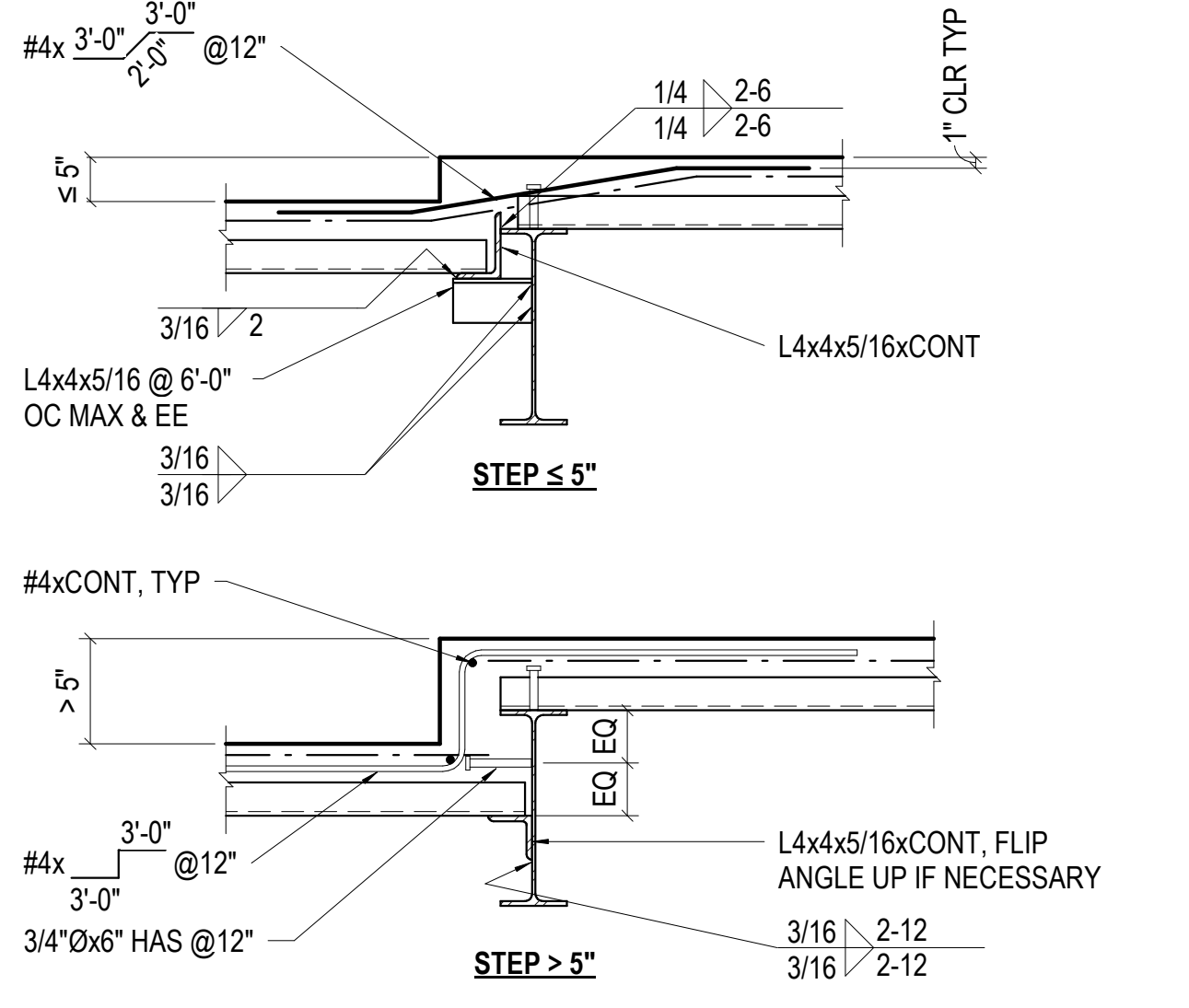
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Date	Description
2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name	SSRC BASE AREA IMPROVEMENTS
Project Number	003.7835.000
Description	STEEL DETAILS
Scale	As indicated

1B-S5.02

MIL JOB # 2014115.01
DESIGNER: NC MARTIN
LEAD REVIT TECH COLIN MONKES
DATE PRINTED 5/19/2021 11:40:29 AM
PRINCIPAL: KELLY KNOWLES
PROJECT MANAGER: C. A. CHEN
FILE PATH: E:\001\2003\1835.000 - Steamboat Redevel03\1835.000_Structural_SBR_CSD_2001_1\2021.14

						<p>CONTRACTOR TO FIELD VERIFY REINFORCING PRIOR TO CUTTING OPENING.</p> <p>WASHER PL 1/4x2x2</p> <p>C10x20 W/ 3/4"Ø THROUGH BOLTS AT 12" ON CENTER PRIOR WALL CUTTING, EXTENDING 2'-0" PAST OPENING, TOP AND BOTTOM AND BOTH SIDES</p>			
		<p>TYPE A: OPENING THROUGH SLAB WALL STEP</p>						<p>1 3/4" = 1'-0" TYPICAL EXTERIOR SLAB EDGE</p>	
									
		<p>TYPE B: OPENING THROUGH SLAB WALL STEP</p>						<p>2 3/4" = 1'-0" TYP SLAB STEP - DECK PARALLEL</p>	
									
								<p>3 3/4" = 1'-0" TYP SLAB STEP - DECK PERP</p>	

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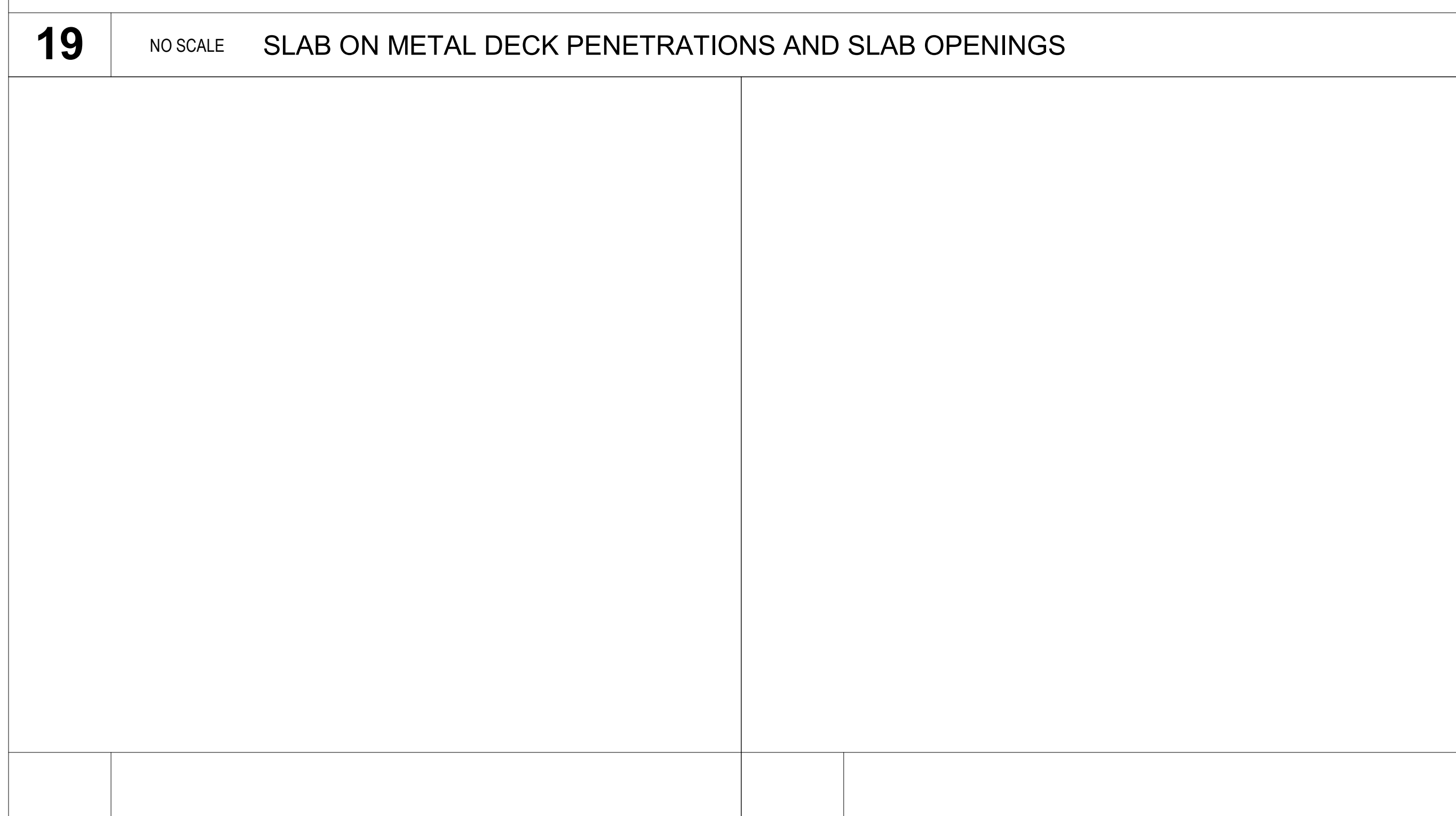
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Date	Description
2021.05.19	BP3: GOLDWALK - ISSUE FOR BID AND PERMIT

Project Name
SSRC BASE AREA IMPROVEMENTS
Project Number
003.7835.000
Description
STEEL DETAILS

Scale
As indicated

1B-S5.03



SLAB ON METAL DECK CONNECTION SCHEDULE

TYPE	PERPENDICULAR SUPPORT MEMBERS		PARALLEL SUPPORT MEMBERS		SIDELAPS	
	CONNECTION	PATTERN	CONN	PATTERN	CONN	PATTERN
A	3/4"Ø PUDDLE WELDS	24/3 AT 2.0 EPICORE	3/4"Ø PUDDLE WELDS	12" OC	#12 SCREW	3'-0" OC

NOTES:
 1. SHEAR STUDS MAY REPLACE PUDDLE WELDS ONE-FOR-ONE

CASE 1: # STUDS < # RIBS/2
 STEP 1 = ONE STUD EVERY THIRD RIB
 STEP 2 = 1/2 OF REMAINING STUDS AT EACH END OF BEAM, PLACE IN EVERY OTHER EMPTY RIB STARTING FROM EACH END OF BEAM

CASE 2: # STUDS < # RIBS
 STEP 1 = ONE STUD EVERY OTHER RIB
 STEP 2 = 1/2 OF REMAINING STUDS AT EACH END OF BEAM, PLACE IN EMPTY RIBS STARTING FROM EACH END OF BEAM

CASE 3: # RIBS < # STUDS < 2x # RIBS
 STEP 1 = ONE STUD EVERY RIB
 STEP 2 = 1/2 OF REMAINING STUDS AT EACH END OF BEAM, PLACE ONE IN EACH RIB STARTING FROM EACH END OF BEAM

CASE 4: # STUDS > 2x # RIBS
 STEP 1 = TWO STUDS EVERY RIB
 STEP 2 = 1/2 OF REMAINING STUDS AT EACH END OF BEAM, PLACE ONE IN EACH RIB STARTING FROM EACH END OF BEAM

11 NO SCALE TYPICAL SLAB ON METAL DECK

SLAB ON METAL DECK PROPERTIES

DECK TYPE	DECK DEPTH (IN)	DECK GAUGE	DECK F_y (KSI)	I POS (IN ⁴ /FT)	S POS (IN ³ /FT)	S NEG (IN ³ /FT)	MINIMUM DECK BEARINGS (IN)
							EXTERIOR INTERIOR
2" EPICORE	2	20	50	0.47	0.34	0.31	2 4
2" EPICORE	2	18	50	0.63	0.47	0.43	2 4

NOTES:

1. COMPOSITE METAL DECK SPECIFIED IS MANUFACTURED BY EPICORE. ALTERNATE COMPOSITE METAL DECK MAY BE SUPPLIED PROVIDED MINIMUM DECK PROPERTIES ARE SATISFIED AND THE RATIO OF THE RIB WIDTH MEASURED AT MID HEIGHT OF DECK TO RIB HEIGHT IS NO LESS THAN 1.5.

STUD PLACEMENT AT DECK PERPENDICULAR

NOTES:

1. PROVIDE STUDS AT 12" MAX WHERE NUMBER OF STUDS IS NOT INDICATED

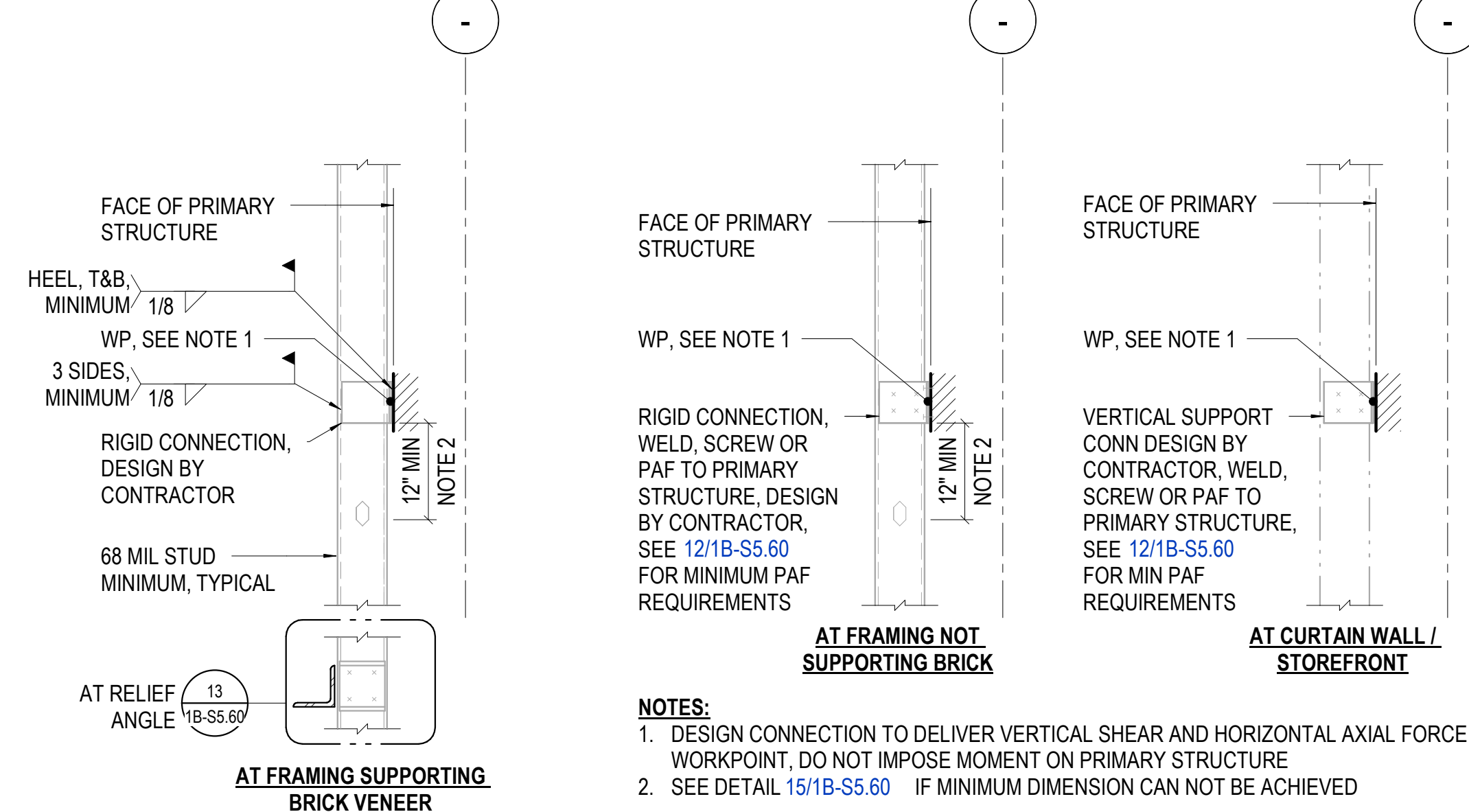
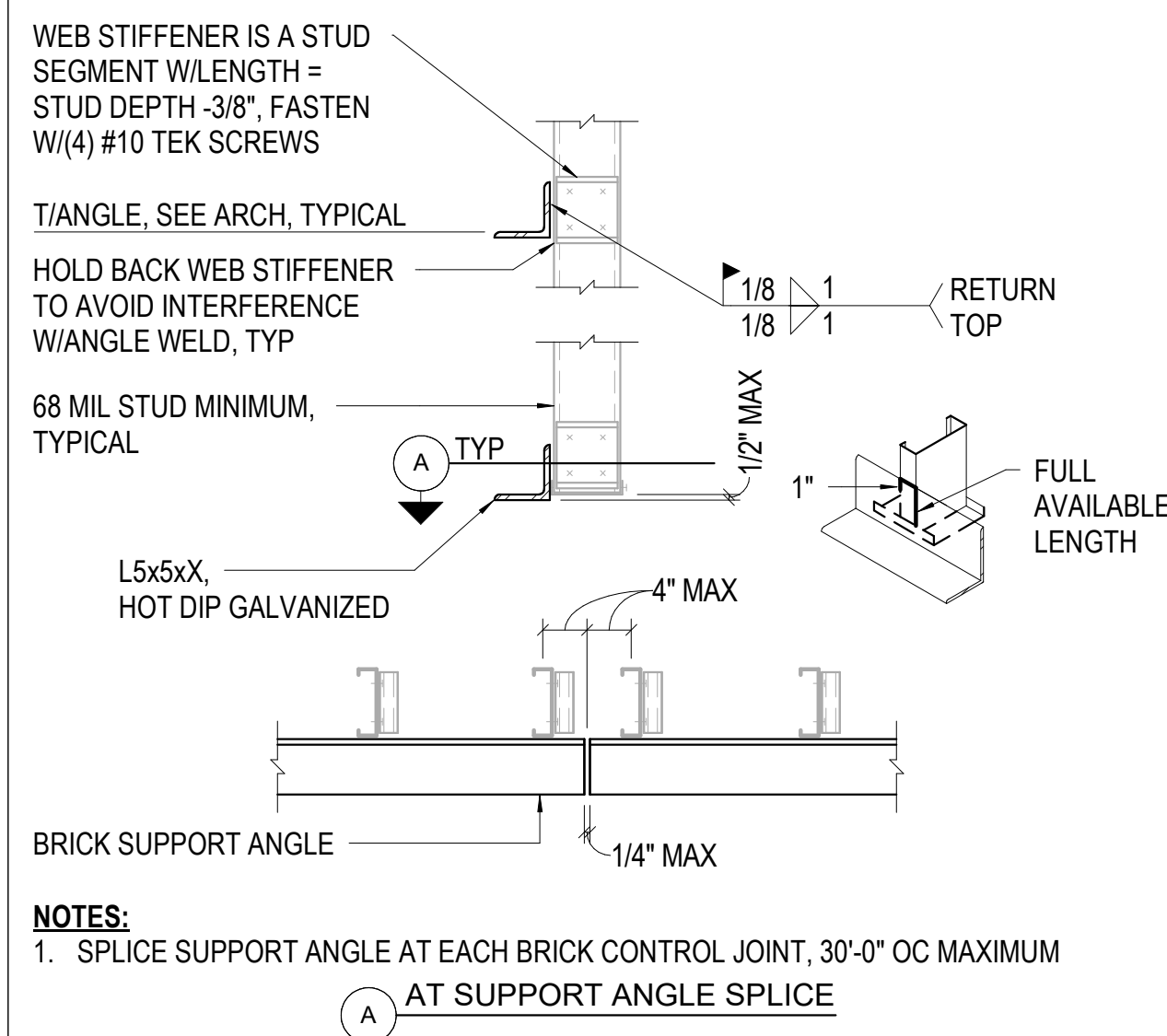
SLAB ON METAL DECK SCHEDULE										
SLAB MARK	DECK		CONCRETE				MAXIMUM UNSHORED DECK SPAN			
	TYPE	GAG E	CONC ABOVE DECK (IN)	TOTAL THK (IN)	CONC TYPE (SEE NOTE 8)	SLAB REINF	1 SPAN	2 SPAN	3 SPAN	CONN LEVE R
2E3.25A	2" EPICORE	20	3 1/4	5 1/4	3 (NWC)	#4@18" EW	7'-5"	7'-10"	8'-1"	-
NOTES:										
1. AT COMPOSITE SYSTEMS, NET-IN-PLACE LENGTH OF SHEAR STUDS SHALL MEET THE FOLLOWING:										
- 1 1/2" MIN ABOVE T/DECK										
- 1" MIN BELOW T/CONCRETE										
2. SEE SPECIFICATIONS FOR FLOOR FINISH & FLATNESS REQUIREMENTS.										
3. INSTALL DECK OVER 4 SUPPORTS (3 SPAN CONTINUOUS) WHERE POSSIBLE.										
4. COMPOSITE DECK DESIGN IS SIZED BASED UPON THE FOLLOWING MAXIMUM CONDITIONS:										
a. DECK DEFLECTION = 1/2"										
c. CONSTRUCTION LIVE LOAD = 20 PSF. IF CONSTRUCTION LIVE LOAD EXCEEDS 20 PSF, CONTRACTOR SHALL DESIGN FOR INCREASED LOADING										
d. NORMAL WEIGHT CONCRETE: 150 PCF WET WEIGHT, 145 PCF DRY WEIGHT										
6. SUBMIT SHOP DRAWINGS INDICATING STUD LAYOUT (NO. OF STUDS/RIB) AND PLACEMENT ALONG BEAM.										
7. IF ACTUAL DECK SPANS EXCEED MAXIMUMS SHOWN IN TABLE ABOVE, CONTRACTOR TO SHORE DECK, PROVIDE HEAVIER GAUGE DECK, OR PROVIDE MULTIPLE LAYERS OF DECK.										
8. SEE "CONCRETE MIX TABLE" IN GENERAL NOTES FOR CONCRETE MIX REQUIREMENTS										
9. HANGERS WITH A 50 POUND MAXIMUM LOAD MAY BE PLACED AT 4'-0" MINIMUM SPACING EACH WAY, UNO										

NOTES:

1. NO SAW CUT JOINTS IN ELEVATED SLAB ON METAL DECK UNO
2. SEE GENERAL NOTES FOR POUR LENGTH AND AREA LIMITS
3. SUBMIT DRAWINGS SHOWING CONSTRUCTION AND CONTROL JOINT LOCATIONS ALONG WITH THE SEQUENCE OF POURS. CONSTRUCTION JOINT LOCATIONS AND CASTING SEQUENCE SHALL BE ARRANGED TO MINIMIZE THE EFFECTS OF ELASTIC AND LONG-TERM SHORTENING/SHRINKAGE.

2	NO SCALE	TYPICAL SLAB ON METAL DECK CONSTRUCTION JOINT LOCATIONS
<p>NOTES:</p> <ol style="list-style-type: none"> 1. COORDINATE CURB WITH ARCHMECH/ELEC DRAWINGS AND EQUIPMENT SUPPLIER FOR SIZE, THICKNESS, AND LOCATIONS 		

3	3/4" = 1'-0"	CONCRETE CURB ON SLAB ON METAL DECK



DESIGN CRITERIA FOR PERFORMANCE SPECIFIED COLD FORMED STEEL FRAMING (CFSF)

1) GENERAL COLD FORMED STEEL FRAMING REQUIREMENTS

1A) COLD FORMED STEEL FRAMING (CFSF) USED FOR EXTERIOR CLADDING SUPPORT IS A PERFORMANCE SPECIFIED SYSTEM DESIGNED (ENGINEERED) AND PROVIDED BY THE CONTRACTOR

1B) THE CONTRACTOR SHALL DESIGN ALL MEMBERS AND CONNECTIONS FORMING A COMPLETE SYSTEM FOR THE CLADDING SELF WEIGHT, WIND AND SEISMIC FORCES INDICATED IN THE DESIGN CRITERIA SECTION AND AS INDICATED IN THE STRUCTURAL DOCUMENTS

1C) INFORMATION PERTAINING TO THE FRAMING IS SHOWN THROUGHOUT THE ARCHITECTURAL, AND STRUCTURAL DOCUMENTS AND IN THE SPECIFICATIONS. CONTRACTOR SHALL REFERENCE THE ARCHITECTURAL FRAMING WITH ALL TRADES AND DESIGN DOCUMENTS

1D) REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS INCLUDING PROFESSIONAL ENGINEERING AND SUBMITTAL REQUIREMENTS

1E) VARIATIONS PROPOSED BY THE CONTRACTOR TO ACCOMMODATE PREFABRICATION AND ALTERNATE SCHEMES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO PREPARING DRAWINGS AND ENGINEERING OF THE COLD FORMED STEEL FRAMING.

2) BIDDING REQUIREMENTS

2A) THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A BID THAT INCLUDES ALL ITEMS ASSOCIATED WITH THE DESIGN AND CONSTRUCTION OF THE EXTERIOR WALL AND SOFFIT FRAMING, INCLUDING BUT NOT LIMITED TO:

- DESIGN OF THE FRAMING MEMBERS (STUDS, SILL, HEADERS, JAMBS, SOFFITS, HANGERS & KICKERS, ETC.)
- CONNECTION DESIGN: BOTH FRAMING-TO-FRAMING CONNECTIONS AND CONNECTIONS BETWEEN FRAMING AND THE PRIMARY STRUCTURAL FRAME
- COORDINATION AND INSTALLATION OF ALL FRAMING

2B) BIDS SHALL BE BASED ON CONTRACTOR'S ENGINEERED SIZES TO RESIST THE DESIGN FORCES AND MEET THE MINIMUM REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS

- DO NOT BASE BIDS SOLELY ON THE MINIMUM REQUIREMENTS

2C) FRAMING MEMBERS DEPTHS SHALL BE AS NOTED ON ARCHITECTURAL DOCUMENTS, UNLESS NOTED OTHERWISE

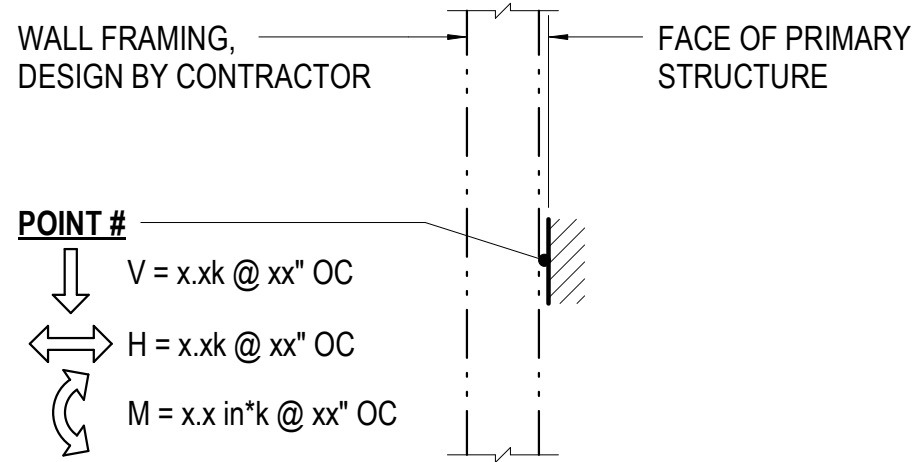
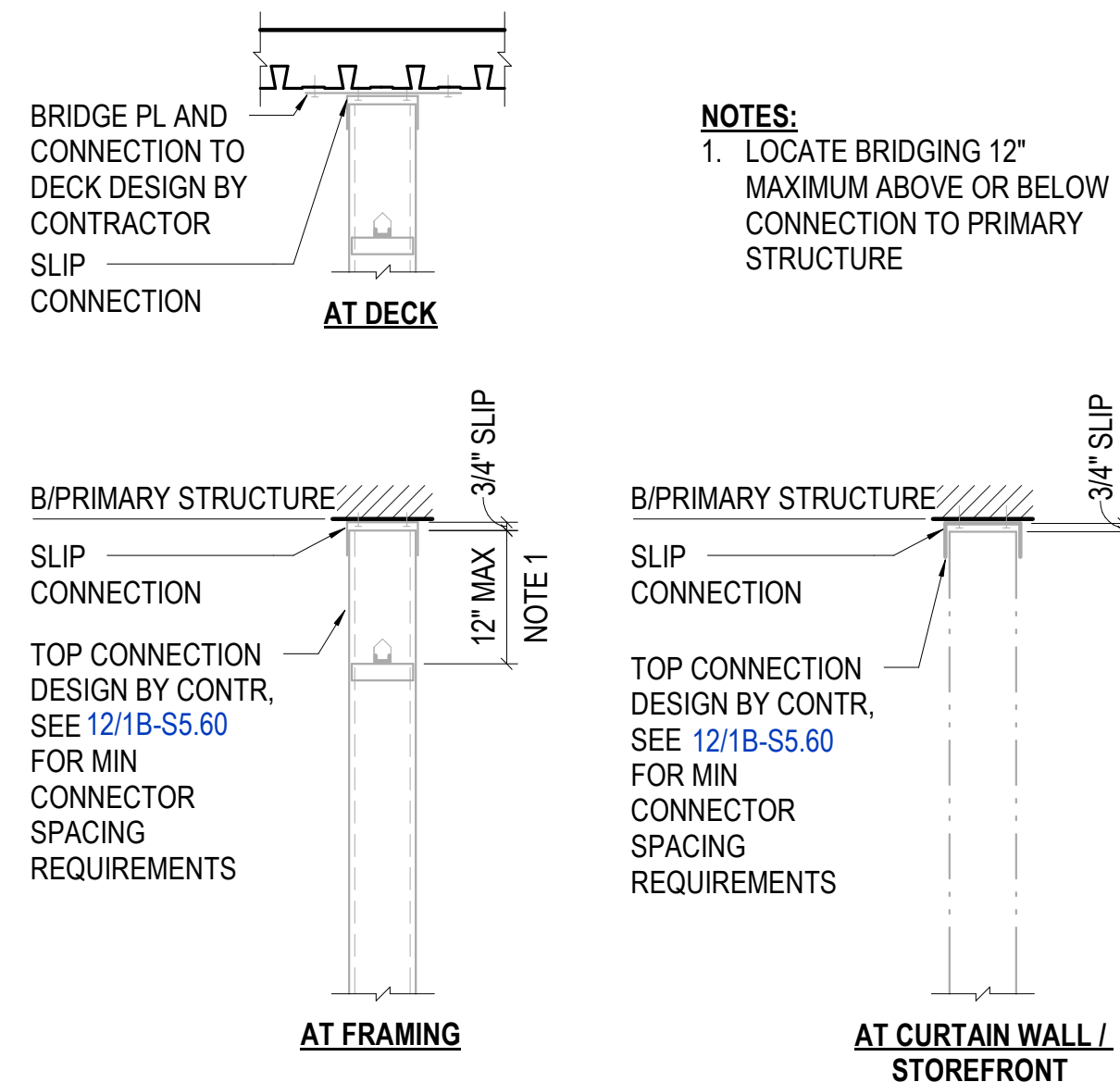
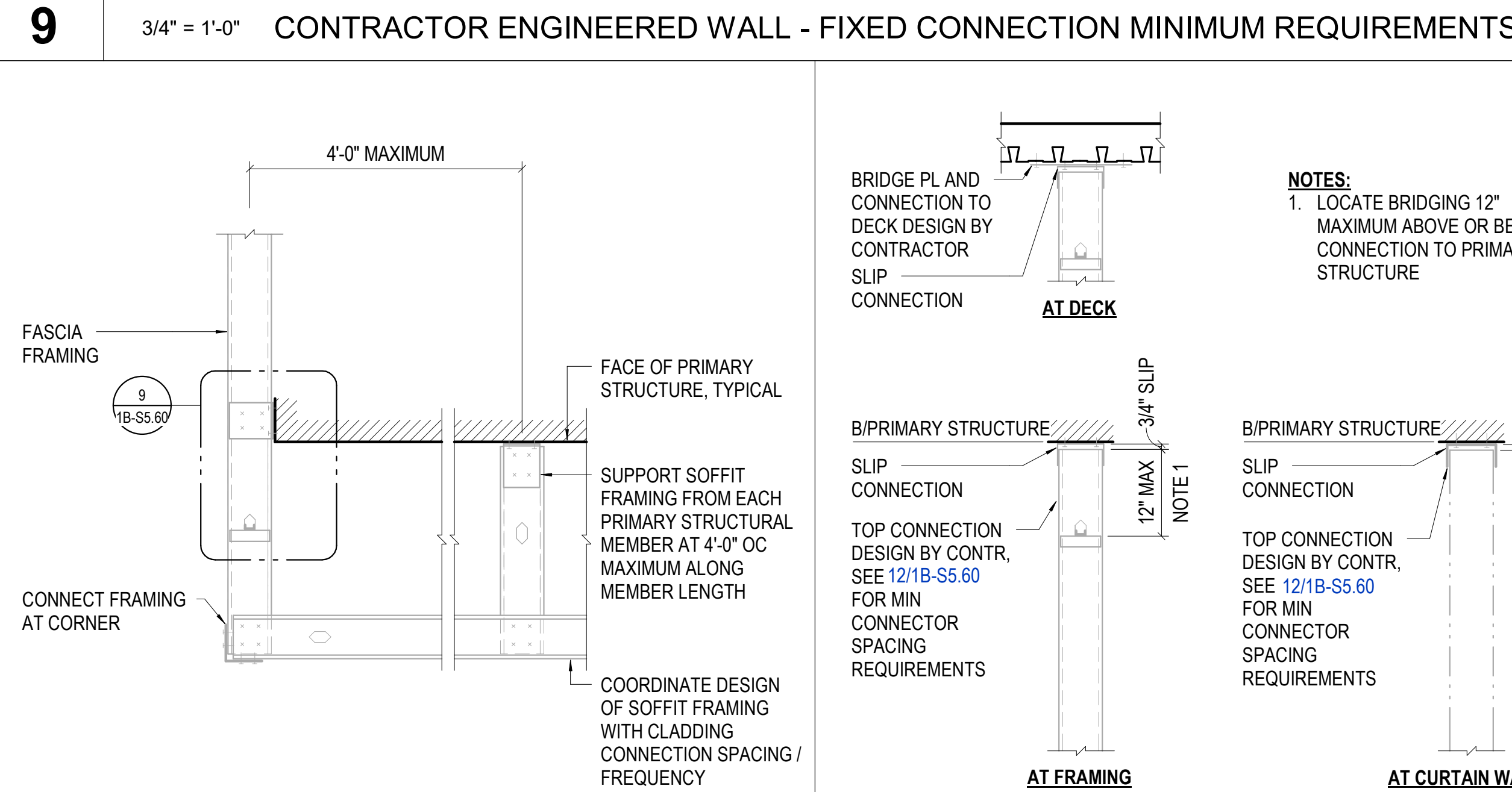
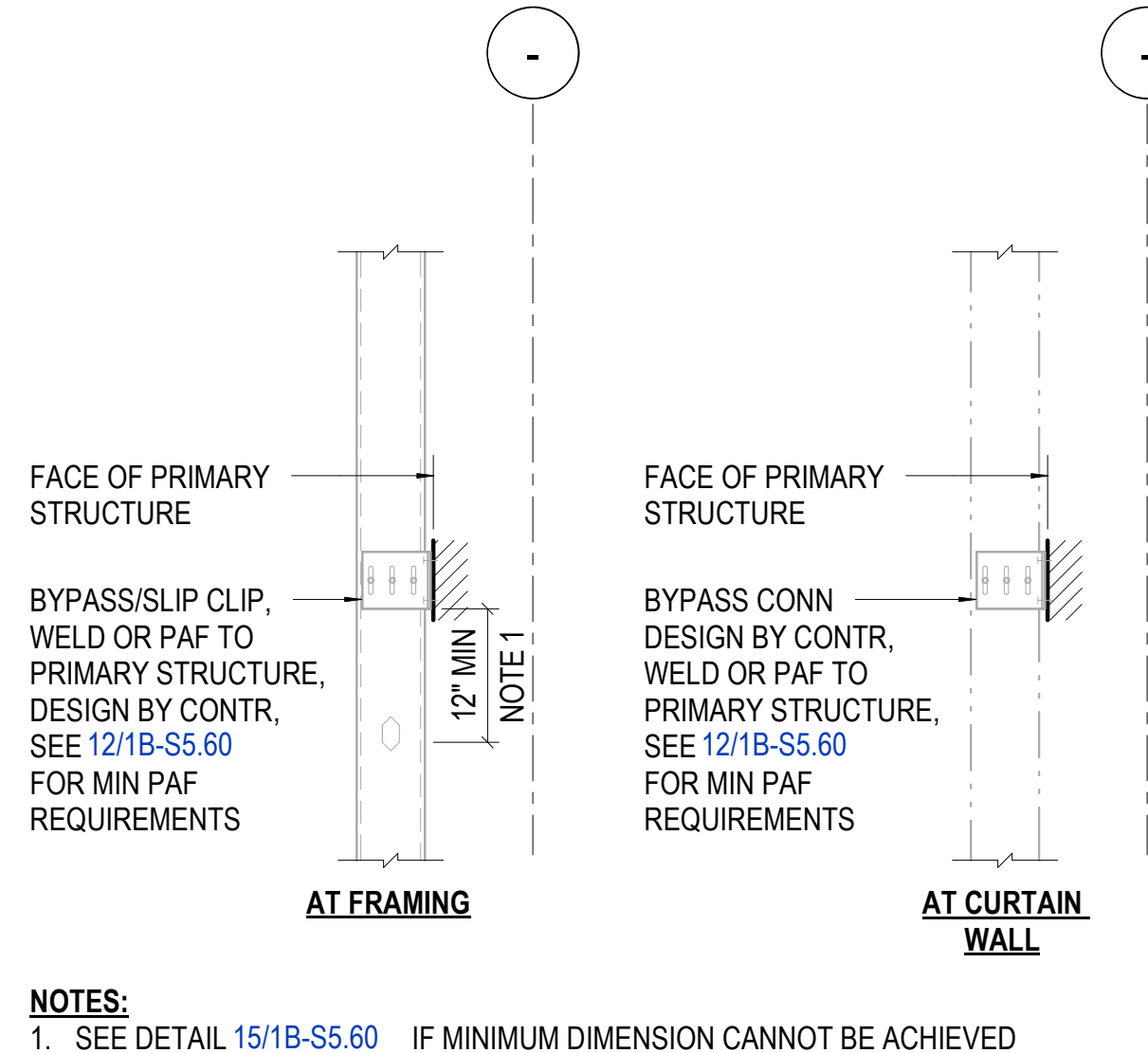
2D) VARY MEMBER THICKNESS, FLANGE WIDTH, YIELD STRESS, AND SPACING AS REQUIRED TO SATISFY

- INDICATED PERFORMANCE CRITERIA
- MINIMUM STRUCTURAL REQUIREMENTS INDICATED IN THE SPECIFICATIONS AND STRUCTURAL DETAILS

3) ENGINEERING REQUIREMENTS

3A) GENERAL:

- FRAMING MEMBERS SHALL BE AS NOTED ON THE ARCHITECTURAL DOCUMENTS, UNLESS NOTED OTHERWISE
- FRAMING MEMBERS SHALL DELIVER MAXIMUM FORCES TO THE PRIMARY STRUCTURAL FRAME AT THE LOCATIONS, DIRECTIONS, AND MAGNITUDES NOTED IN STRUCTURAL DETAILS THUS:

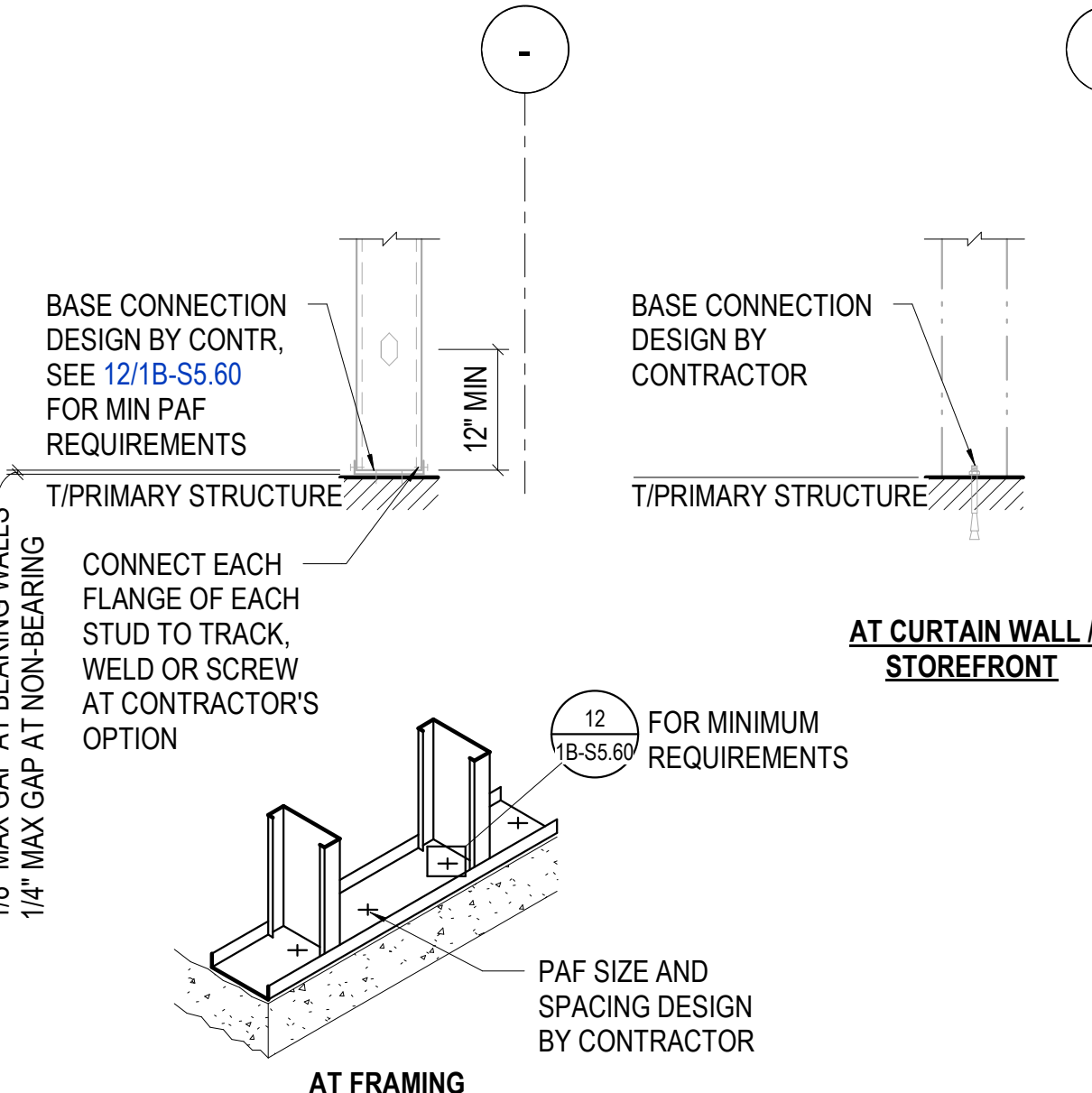
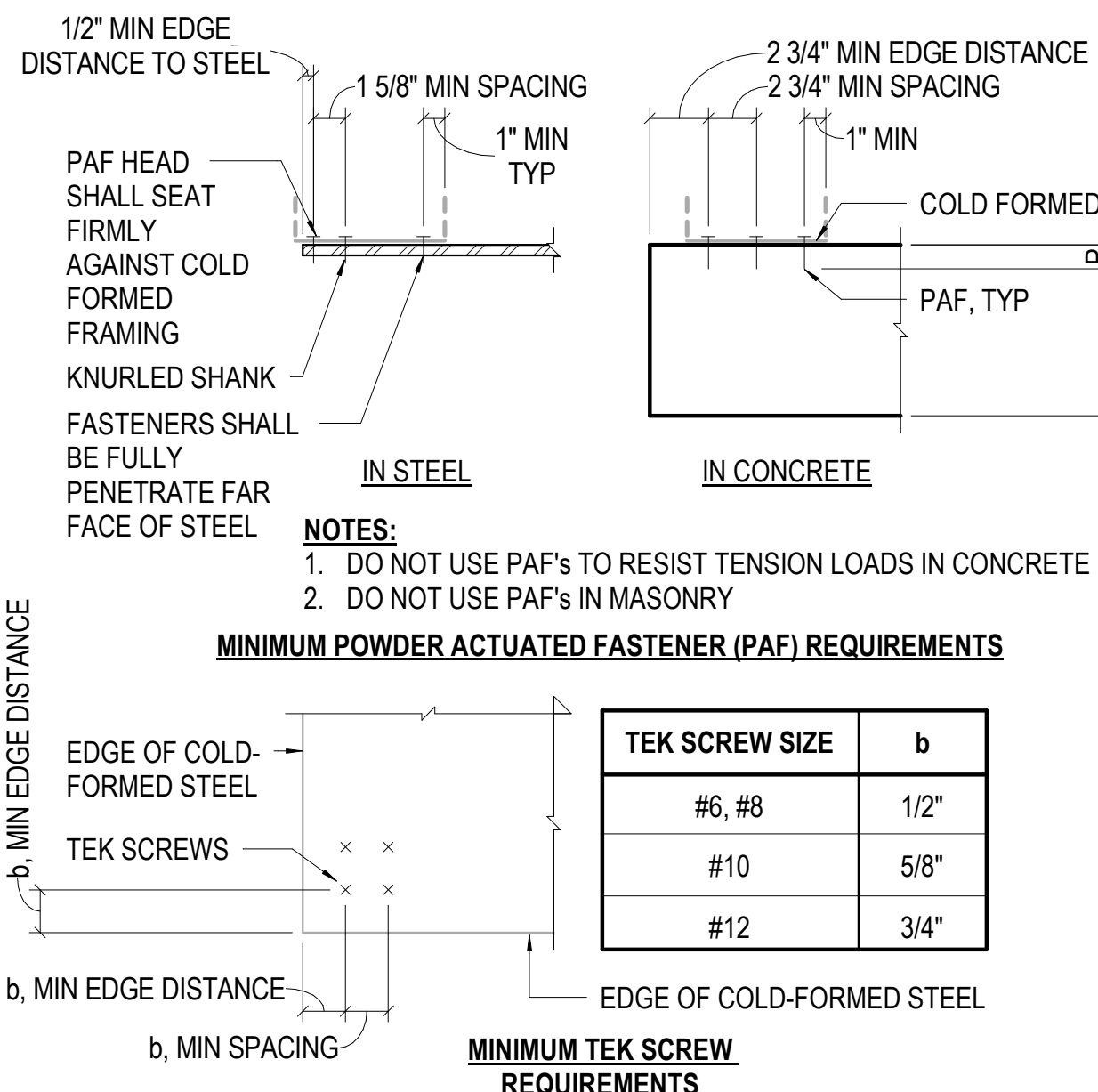
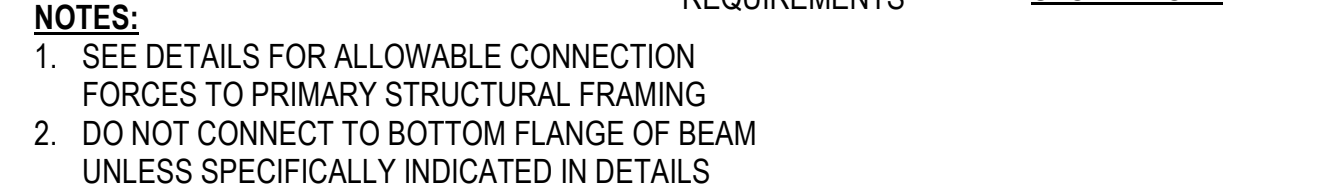
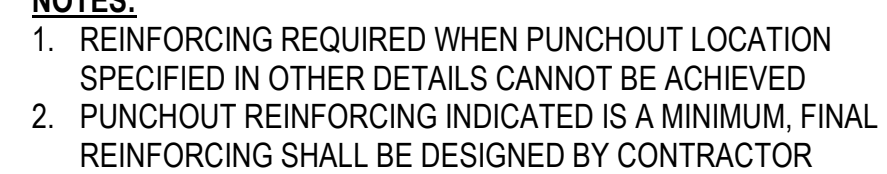
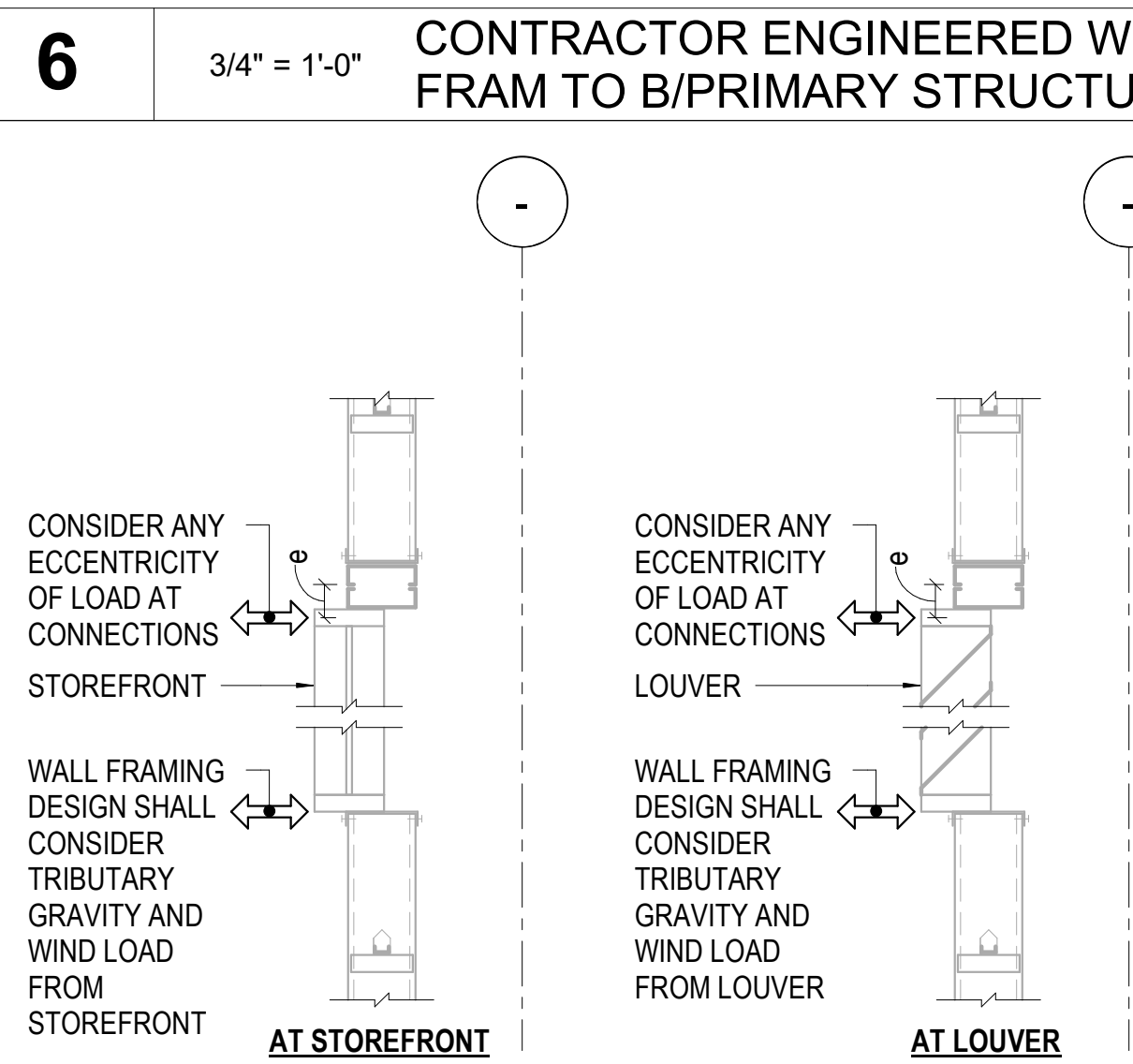
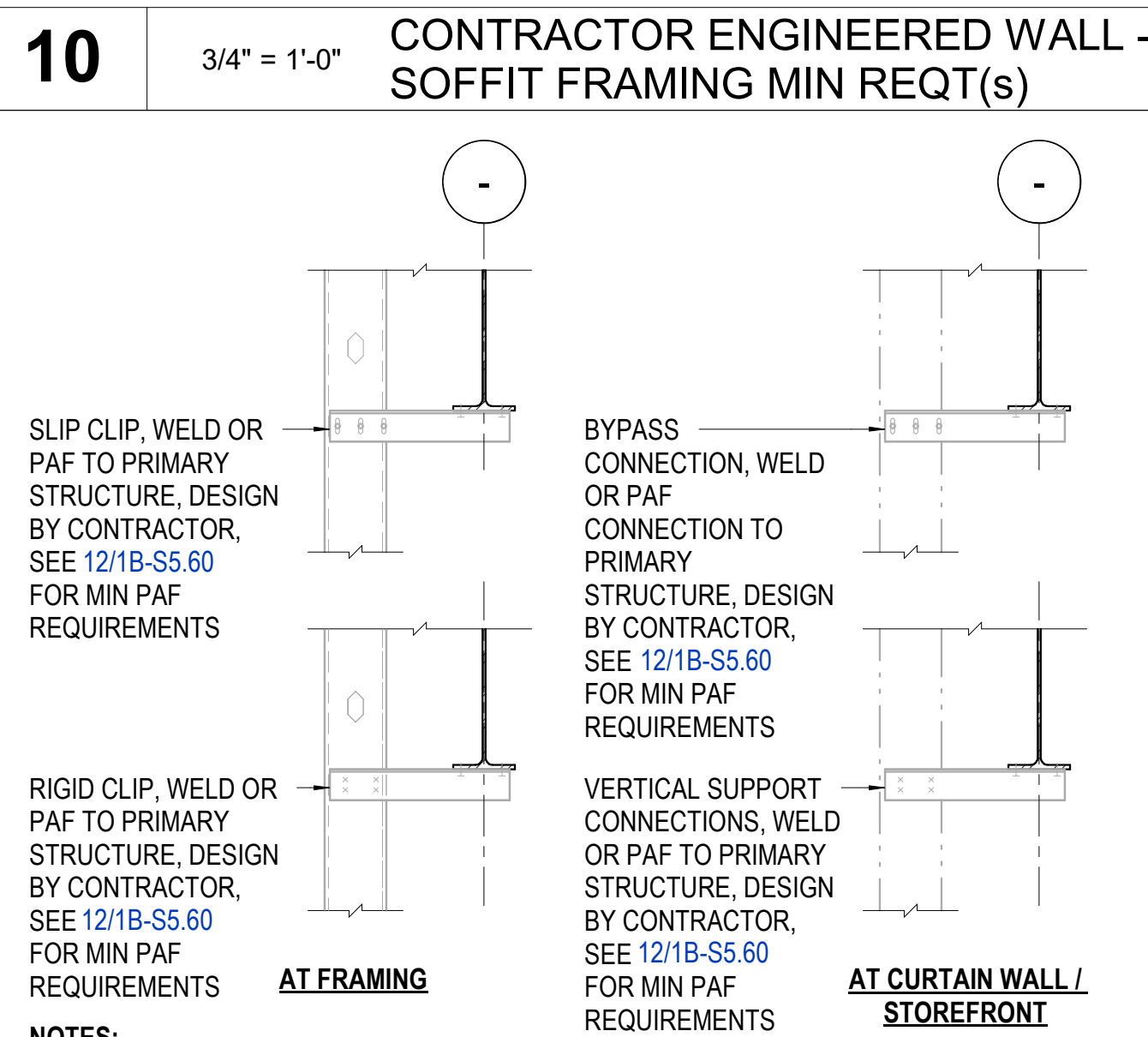
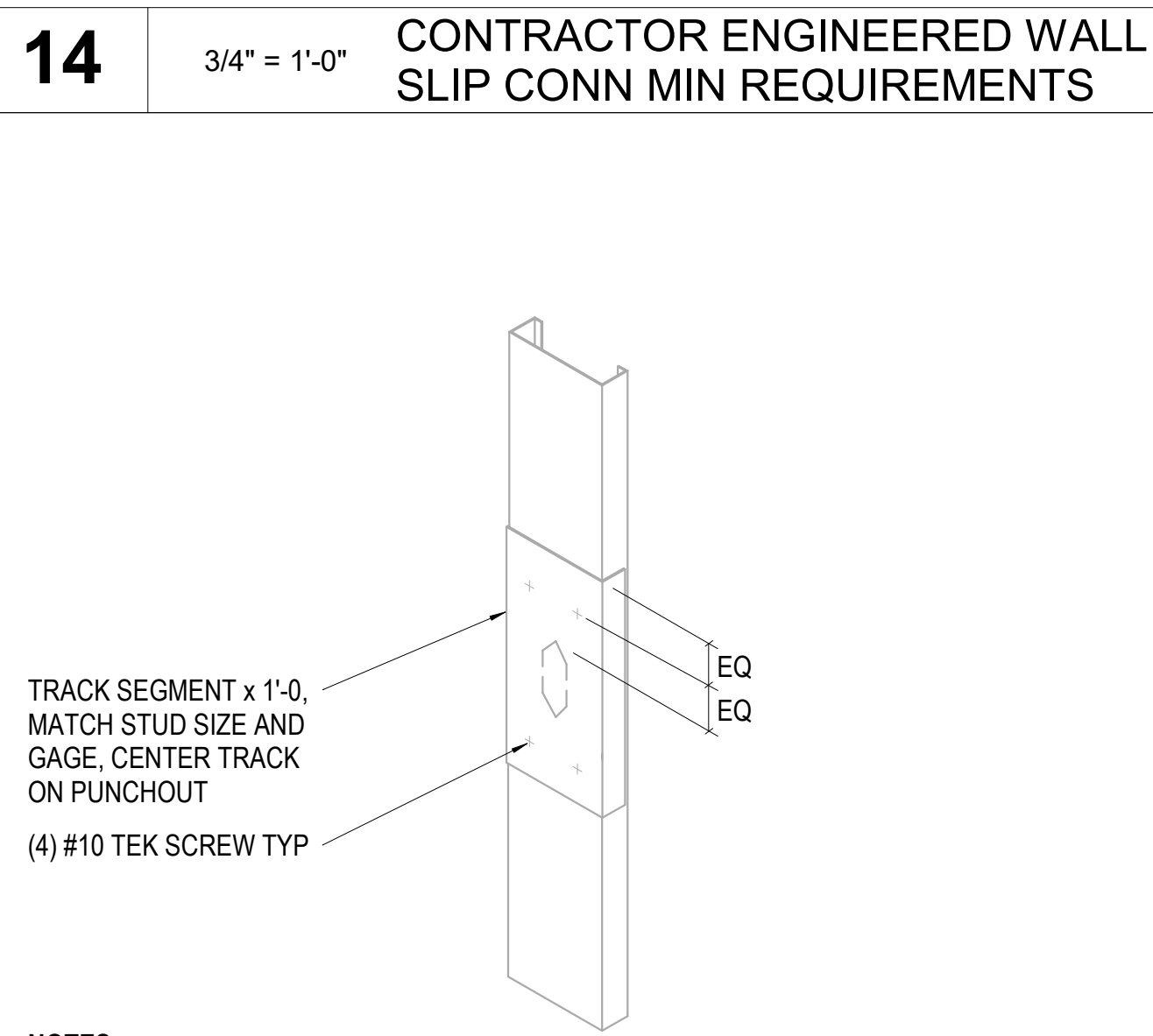


- DO NOT CONNECT FRAMING TO THE PRIMARY STRUCTURAL FRAMING AT LOCATIONS OR IN WAYS NOT SPECIFICALLY INDICATED IN THE DETAILS
- ALL CONNECTIONS TO PRIMARY STRUCTURE SHALL BE DESIGNED AS PINNED CONNECTIONS. DO NOT DELIVER MOMENT TO PRIMARY STRUCTURE UNLESS SPECIFICALLY INDICATED.
- DO NOT CONNECT FRAMING TO THE BOTTOM FLANGE OF BEAMS UNLESS SPECIFICALLY INDICATED IN STRUCTURAL DETAILS

3B16C / COLD FORMED STEEL FRAMING DESIGNER / CLADDING DESIGNER COORDINATION:

COLD FORMED STEEL FRAMING MEMBERS AND FRAMING ATTACHMENT SHALL BE DESIGNED FOR THE TRIBUTARY LOADING AT THE FRAMING SPACING INDICATED ON THE CONTRACT DOCUMENTS

- CLADDING SUPPLIER SHALL DESIGN CLADDING TO DISTRIBUTE LOAD UNIFORMLY TO AND



3F) HORIZONTAL DEFLECTION CRITERIA: DESIGN COLD FORMED METAL FRAMING MEMBERS TO MEET THE FOLLOWING HORIZONTAL DEFLECTION CRITERIA:

- FOR STUDS BACKING-UP MASONRY VENEER = SPAN / 600
- FOR STUDS BACKING-UP STUCCO OR THIN SET ADHERED VENEER = SPAN / 360
- FOR STUDS BACKING-UP METAL PANELS = SPAN / 240
- FOR STUDS BACKING-UP OTHER = SPAN / 240
- PER IBC TABLE 1604.3 FOOTNOTE F, WIND LOAD IS PERMITTED TO BE TAKEN AS 0.42 TIMES THE COMPONENT AND CLADDING ULTIMATE LOADS FOR THE PURPOSE OF DETERMINING DEFLECTION LIMITS.

4) CONSTRUCTION REQUIREMENTS

4A) CONSTRUCTION SHALL CONFORM TO THE MINIMUM REQUIREMENTS SHOWN ON THE FOLLOWING CONSTRUCTION DOCUMENTS, INCLUDING DETAILS THROUGHOUT THE STRUCTURAL DOCUMENTS AND MINIMUM REQUIREMENTS INDICATED IN DETAILS ON THIS SHEET

- SEE DETAILS THIS SHEET INCLUDING ADDITIONAL MINIMUM CSFS CRITERIA

4B) REQUIRED SITE VISITS

- THE CONTRACTOR'S COLD FORMED STEEL FRAMING ENGINEER SHALL MAKE SITE VISITS AS APPROPRIATE (1) MINIMUM) TO OBSERVE THE INSTALLATION OF THE COLD FORMED METAL FRAMING

4C) MINIMUM STUD GAGES: MINIMUM STUD THICKNESS BASED ON THE ATTACHMENT OF CLADDING MATERIAL IS GIVEN IN THE FOLLOWING TABLE

MATERIAL ATTACHED TO STUDS	MIN. MIL THICKNESS	MAX. STUD SPACING
WELDED MASONRY VENEER LEDGE	68	16" OC
MASONRY VENEER BACKUP	43	16" OC
ALL OTHERS	33	24" OC

4D) ADDITIONAL CRITERIA FOR CSFS:

- PROVIDE HORIZONTAL STUD BRIDGING AS REQUIRED TO BRACE FRAMING, MINIMUM OF (1) ROW AT MID-HEIGHT
- PROVIDE (1) STUD EACH SIDE OF MASONRY CONTROL JOINTS
- COLD FORMED STEEL TRUCK THICKNESS SHALL BE EQUAL TO OR GREATER THAN THE CONNECTED WALL STUD THICKNESS
- ALL CONNECTIONS SHALL USE PREFABRICATED FRAMING CONNECTORS (CLIPS). DO NOT SITE / FIELD FABRICATE CONNECTORS FROM TRACKS OR STUDS UNLESS SPECIFICALLY SHOWN ON THE CONTRACT DOCUMENTS
- DO NOT USE PAF'S TO RESIST TENSION LOADS IN CONCRETE
- DO NOT USE PAF'S IN MASONRY
- DO NOT CUT, DRILL OR OTHERWISE MODIFY FRAMING WITHOUT PRIOR WRITTEN APPROVAL OF THE DESIGN ENGINEER AND FOR