

A. GENERAL

1. THESE GENERAL NOTES APPLY UNLESS SPECIFICALLY NOTED OTHERWISE.
2. SPECIFIC NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. ALL TYPICAL DETAILS SHALL APPLY, THOUGH NOT NECESSARILY INDICATED ON THE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAILS. DETAILS NOT FULLY SHOWN OR NOTED SHALL BE SIMILAR TO DETAILS SHOWN FOR SIMILAR CONDITIONS, ALL OMISSIONS AND/OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THESE DRAWINGS AND/OR SPECIFICATIONS AND SHOP DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE WORK INVOLVED.
3. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN OR OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NET, SUPPORT AND BRACING FOR CRANES AND GIN POLES, ETC. CONTRACTOR, AT HIS OWN EXPENSE, SHALL ENGAGE PROPERLY QUALIFIED PERSONS TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURES SHALL BE USED AND INSPECT THE SAME IN THE FIELD. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER OR HIS FIELD REPRESENTATIVE SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS. CONTRACTOR SHALL PROTECT ADJOINING PROPERTY DURING EXCAVATION. PROTECTION SHALL BE SUCH THAT ANY EARTH OR STRUCTURE OF THE ADJOINING PROPERTY WILL NOT CAVE, SETTLE OR CRACK. CONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 18 OF THE BUILDING CODE.
4. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON SUSPENDED FLOORS OR ROOF. LOAD SHALL NOT EXCEED DESIGN LIVE LOADS FOR EACH PARTICULAR LEVEL.
5. DRAWINGS SHALL NOT BE SCALED. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS.
6. THE CONTRACTOR AND HIS SUBS SHALL VERIFY ALL DIMENSIONS AS WELL AS FEASIBILITY OF CONNECTIONS AND DETAILS SHOWN PRIOR TO STARTING ANY WORK, INCLUDING BUT NOT LIMITED TO PREPARING SHOP DRAWINGS, ORDERING MATERIALS, ETC. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
7. CONTRACTOR SHALL VERIFY RELEVANT FEATURES OF EXISTING CONSTRUCTION AND NOTIFY ARCHITECT OF ANY VARIATION OR DISCREPANCIES. CONTRACTOR SHALL VERIFY, LOCATE, AND RELOCATE AS NECESSARY UTILITIES, SPRINKLERS, DUCTS, ETC. CONTRACTOR SHALL INVESTIGATE SITE DURING FOUNDATION OPERATIONS FOR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
8. SHOP DRAWINGS ARE PRODUCED TO FACILITATE FABRICATION AND COORDINATION BY THE CONTRACTORS. THEY SHALL IN NO WAY TAKE PRECEDENCE OVER THE GOVERNING APPROVED CONTRACT DOCUMENTS. REVIEW OF SHOP DRAWINGS BY THE ARCHITECT AND STRUCTURAL ENGINEER IS INTENDED TO BENEFIT THE FABRICATOR AND CONTRACTOR. NO APPROVAL IS IMPLIED OR INTENDED FOR VARIATIONS BETWEEN SHOP DRAWINGS AND THE CONTRACT DOCUMENTS. THE GENERAL CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS AND STAMP THEM "REVIEWED" PRIOR TO SUBMITTING TO THE ARCHITECT FOR REVIEW.
9. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:  
a. SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS  
b. SIZE AND LOCATION OF ALL INTERIOR AND EXTERIOR NON-BEARING PARTITIONS  
c. SIZE AND LOCATION OF ALL FLOOR DRAINS, SLOPES, DEPRESSED AREAS, ETC.  
d. SIZE AND LOCATION OF ALL FLOOR AND ROOF CURBS FLOOR AND ROOF FINISHES  
e. STAIR DETAILS  
f. WATERPROOFING DETAILS
11. SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:  
a. PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC.  
b. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS  
c. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES  
d. MACHINE OR EQUIPMENT BASES, ANCHOR BOLTS FOR MOTOR MOUNTS  
e. UNDERGROUND CONCRETE DUCTS, TRENCHES, PITS OR MANHOLES
12. SEE CIVIL DRAWINGS FOR INFORMATION REGARDING OUTDOOR SLAB AND SITE DRAINAGE.
13. OPENINGS, POCKETS, ETC. SHALL NOT BE PLACED IN SLABS, DECKS, BEAMS, JOISTS, COLUMNS, WALLS, ETC. UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER WHEN OTHER DRAWINGS SHOW OPENINGS, POCKETS, ETC. BUT ARE NOT LIKEWISE SHOWN ON STRUCTURAL DRAWINGS.
- B. DESIGN BASIS
1. ALL WORK SHALL CONFORM TO THE 2013 CALIFORNIA BUILDING CODE (CBC).
2. DEAD LOADS:  
BASED ON WEIGHT OF STRUCTURAL & ARCHITECTURAL ELEMENTS INCLUDING PARTITIONS, AND OTHER FIXED SERVICE EQUIPMENT
3. LIVE LOADS  
(REDUCED AS PERMITTED BY BUILDING CODE):  
a. AT MEZZANINE LOFT: 50 PSF  
b. PARTITION ALLOWANCE: 15 PSF  
c. AT LOBBY/STAIRS: 100 PSF
3. MINIMUM LATERAL WALL PRESSURE: 5 PSF
4. SEISMIC LOADS:  
a. SITE CLASS: D  
b. DESIGN SPECTRAL ACCELERATION, SDS: 1.13  
c. DESIGN SPECTRAL ACCELERATION, SD1: 0.67  
d. IMPORTANCE FACTOR, I: 1.0  
e. SEISMIC DESIGN CATEGORY: D

C. CONCRETE

1. ALL CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH ACI 318 LATEST EDITION & PROJECT SPECIFICATIONS.
2. CONCRETE STRENGTH:  
a. SUSPENDED SLAB 4000 PSI  
b. MISC. CONCRETE 3000 PSI
3. CONCRETE MIXING OPERATIONS SHALL CONFORM TO ASTM C-94. CONCRETE SHALL BE POURED WITHIN 60 MINUTES AFTER ADDITION OF WATER WHEN AIR TEMPERATURE EXCEEDS 75°F.
4. ALL REINFORCING BARS, ANCHOR BOLTS, AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.

D. REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE NEW STOCK AND PLACED IN CONFORMANCE WITH "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318 LATEST EDITION), AND THE "ACI DETAILING MANUAL" (ACI 315 LATEST EDITION) AS MODIFIED BY PROJECT DRAWINGS AND SPECIFICATIONS.
2. REINFORCING STEEL TO BE:  
a. ASTM A615, GRADE 60 DEFORMED BARS U.O.N.  
b. ASTM A185, FOR WELDED WIRE FABRIC  
c. ASTM A706, GRADE 60, LOW ALLOY, FOR FRAME MEMBERS, SHEAR WALL BOUNDARY ELEMENTS (TRIM BARS) AND WHERE WELDING IS REQUIRED
3. CLEAR COVERAGE OF CONCRETE OVER OUTER REINFORCING BARS SHALL BE AS FOLLOWS:  
  
CAST AGAINST AND EXPOSED TO EARTH 3 IN.  
FORMED AND EXPOSED TO EARTH OR WEATHER #5 AND SMALLER 1-1/2 IN.  
#6 AND LARGER 2 IN.  
FORMED AND NOT EXPOSED TO EARTH OR WEATHER SLABS, WALLS, JOISTS 1 IN.  
BEAMS, COLUMNS 1-1/2 IN.  
  
MINIMUM COVER SHALL NOT BE SMALLER THAN THE MAXIMUM SIZE OF COARSE AGGREGATE USED IN CONCRETE MIX DESIGN. NOTIFY ENGINEER WHERE DISCREPANCIES OCCUR.
4. ALL REINFORCING BAR BENDS TO BE MADE COLD. SLOPE SHALL BE 1:8 MAXIMUM IN COLUMN VERTICAL REINFORCING.
5. REINFORCEMENT SHALL BE PLACED IN POSITION SHOWN ON THE DRAWINGS. PLACEMENT OF REINFORCING TO BE SUCH THAT ADEQUATE SPACE IS PROVIDED BETWEEN BARS TO ALLOW PASSAGE OF CONCRETE VIBRATOR, ETC. FOR BEAMS AND SLABS, THE MINIMUM CLEAR DISTANCE BETWEEN PARALLEL BARS SHALL BE THE DIAMETER OF THE BAR OR 1 1/3 TIMES THE AGGREGATE SIZE, BUT IN NO CASE LESS THAN 1". FOR COLUMNS, THE MINIMUM CLEAR DISTANCE BETWEEN BARS SHALL BE 1 1/2" BAR DIAMETER BUT IN NO CASE LESS THAN 1 1/2".
6. ALL LAP SPLICES OF REINFORCING SHALL BE AS NOTED ON SCHEDULE. USE WELDED SPLICE OR MECHANICAL CONNECTOR IF THE BAR LAP SPLICE REINFORCEMENT DOES NOT HAVE A MINIMUM SPACING AND MINIMUM SPLICE COVER.
- E. STRUCTURAL STEEL
1. STRUCTURAL STEEL SHALL CONFORM TO AISC SPECIFICATIONS, FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, AS MODIFIED BY PROJECT SPECIFICATIONS.
2. STRUCTURAL STEEL SHALL CONFORM WITH THE FOLLOWING, UNLESS OTHERWISE NOTED ON DRAWINGS:  
  
WIDE FLANGE SHAPES ASTM A992, GRADE 50  
OTHER STRUCTURAL SHAPES ASTM A36  
PLATES ASTM A572, GRADE 50  
RECTANGULAR HSS ASTM A500, GRADE B, 46 KSI  
HIGH STRENGTH BOLTS ASTM A325 OR ASTM A1852  
MACHINE BOLTS ASTM A307-X  
ANCHOR BOLTS ASTM F1554, GRADE 36  
HIGH STRENGTH ANCHOR BOLTS ASTM F1554, GRADE 105  
THREADED RODS ASTM A572, GRADE 50  
WELDED STUDS ASTM A108
3. WELDING SHALL CONFORM TO AWS D1.1 SPECIFICATIONS. WELDING SHALL BE DONE ONLY BY CERTIFIED WELDERS. SHOP AND FIELD WELDING SHALL BE INSPECTED BY AN APPROVED TESTING LABORATORY. WELDING PROCEDURE MUST BE SUBMITTED TO THE OWNER AND ITS TESTING AGENCY FOR REVIEW PRIOR TO FABRICATION.
4. CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS PER SPECIFICATIONS FOR ALL STEEL FOR REVIEW PRIOR TO FABRICATION.
5. UNLESS A LARGER SIZE FILLET WELD IS SPECIFIED ON PLANS, PROVIDE MINIMUM SIZE WELD AND LENGTH PER AISC SPECIFICATIONS. ALL BUTT WELDS ARE TO BE COMPLETE PENETRATION U.O.N.
6. WELDING ELECTRODE SHALL BE E70 XX, U.O.N. EXCEPT THAT E70 XX T4 SHOULD NOT BE USED. SEE ALSO CONNECTION DETAILS FOR REQUIREMENTS OF WELD METAL.
7. BOLT HOLES SHALL BE NO MORE THAN 1/16" OVERSIZE, U.O.N. WHERE OVERSIZE HOLE IS REQUIRED, PROVIDE 5/16"x3/32" PLATE WASHER WELDED TO THE STRUCTURAL MEMBER.
8. BURNED HOLES ARE NOT ALLOWED UNLESS WRITTEN PERMISSION IS GIVEN BY THE STRUCTURAL ENGINEER.
9. UNLESS OTHERWISE NOTED, ALL STIFFENER PLATES ARE 3/8" THICK (MIN.).
10. STEEL BEAMS ARE EQUALLY SPACED BETWEEN DIMENSION POINTS OR GRID LINES, U.O.N.
11. ALL FRAME MEMBERS AND ANCHOR BOLTS BELOW FINISHED FLOOR SHALL BE ENCASED IN MINIMUM 3" CONCRETE PROTECTION AGAINST SOIL. USE WIRE MESH AS REQUIRED.
12. ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIP ZINC GALVANIZED U.O.N. STEEL NOT RECEIVING FIRE PROOFING SHALL BE SHOP PRIMED.
13. TOP OF STEEL BEAMS FRAMING INTO SLOPING MEMBERS SHALL BE FRAMED FLUSH W/ TOP OF STEEL OF SLOPING MEMBER (U.O.N.)

F. LIGHT GAUGE METAL FRAMING

1. ALL MATERIAL AND WORKMANSHIP TO CONFORM WITH AISI "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS," LATEST EDITION, AND TO SSMA "ARCHITECTURAL SPECIFICATION FOR COLD-FORMED METAL" IN THE SSMA PRODUCT TECHNICAL INFORMATION CATALOG (ICC-ESR-3064P).
2. LIGHT GAUGE STRUCTURAL STEEL MEMBER SIZES AND SECTION PROPERTIES SHALL CONFORM WITH SSMA CATALOG. MEMBERS SHALL BE FORMED FROM STEEL THAT MEETS FOLLOWING REQUIREMENT:  
a. 43 MILS (18 GAUGE) AND THINNER: 33 KSI, (U.O.N.)  
b. 54 MILS (16 GAUGE) AND THICKER: 50 KSI, (U.O.N.)
3. ALL MEMBERS SHALL BE CUT TO BE FITTED AND SEATED PROPERLY TO ABUTTING MEMBERS. SPLICES IN STUDS AND JOISTS SHALL NOT BE PERMITTED. JOINTS IN TRACKS SHALL BE SPLICED PER THE DRAWINGS.
4. ALL WELDS SHALL BE FILLET, PLUG, BUTT OR SEAM AND MADE ACCORDING TO AWS D1.3 FOR STEEL SHEETS. ELECTRODES FOR LIGHT GAUGE METAL (14 GA. OR THINNER) SHALL BE EITHER EXX OR ETX, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
5. PROVIDE BRIDGING FOR STUDS AT 4'-0" O.C., UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
6. RUNNER TRACKS SHALL BE ATTACHED TO NON-PRESTRESSED CONCRETE WITH 0.143 INCH SHANK DIAMETER, LOWER VELOCITY POWDER DRIVEN FASTENER PINS AT 12 INCHES ON CENTER, UNLESS OTHERWISE NOTED.
7. EACH STUD SHALL BE SCREWED TO THE TOP AND BOTTOM TRACKS WITH SHEET METAL SCREWS ON BOTH SIDES.
8. STUDS SHALL BEAR ON BOTTOM TRACKS. WEBS OF TOP TRACKS SHALL SET TIGHT TO TOP OF BEARING STUDS. BOTTOM TRACKS OF BEARING WALLS BEARING ON CONCRETE SLABS SHALL BE SHIMMED AND GROUTED WITH CEMENTITIOUS GROUT AS NEEDED TO ACCOMMODATE VARIATIONS IN CONCRETE SLAB FLATNESS AND LEVELNESS AS PERMITTED IN ACI 117 FOR CONVENTIONAL CONSTRUCTION.
9. PROVIDE DIAGONAL BRACING FOR WALLS AS FOLLOWS, UNLESS OTHERWISE SHOWN ON DRAWING: PROVIDE TWO 3"x20 GA. DIAGONAL BRACING STRAPS (ONE AT EACH FACE PLACED AT 45 DEGREES AND IN OPPOSITE DIRECTIONS) AT EACH END OF WALL WITH #10 SHEET METAL SCREWS TO EACH STUD, TOP AND BOTTOM TRACKS.
10. VERTICAL MOVEMENT OF AT LEAST 1/2" BETWEEN FLOOR, UNLESS A LARGER GAP IS SHOWN ON DRAWINGS, SHALL BE ALLOWED FOR NON BEARING WALLS BY USING TOP TRACKS WITH VERTICAL SLOTS FOR SCREWS.
11. JOIST RIM TAB OR SUPPORT CLIP MUST BE ATTACHED TO THE INNER FACE OF THE JOIST.
12. ALL MEMBERS SHALL BE GALVANIZED OR PRIMED WITH A RUST-INHIBITIVE PAINT; FIELD ABRASIONS AND WELDS SHALL BE TOUCHED UP IN THE FIELD AFTER ERECTION.
13. ALL SHEET METAL SCREWS SHALL PROTRUDE 1/4" INCHES THROUGH FRAMING METAL.
14. MINIMUM SPACING AND EDGE DISTANCE:  
a. FOR FASTENERS INSTALLED IN CONCRETE, MINIMUM SPACING BETWEEN FASTENERS IS 4" O.C. AND MINIMUM EDGE DISTANCE IS 3" O.C. TYP., U.O.N.  
b. FOR FASTENERS INSTALLED IN STEEL (3/16" MIN. THICKNESS), MINIMUM SPACING BETWEEN FASTENERS IS 1 1/2" O.C. AND MINIMUM EDGE DISTANCE IS 1/2". FASTENERS SHALL BE DRIVEN TO A PENETRATION WHERE THE SHANK PIERCES THE STEEL BASE, U.O.N. ON PLAN.  
c. FOR SHEET METAL SCREWS INSTALLED IN LIGHT GAUGE METAL FRAMING, MINIMUM SPACING BETWEEN FASTENERS IS 1 1/2" O.C. AND MINIMUM EDGE DISTANCE IS 3/4" TYP., U.O.N.
- G. STEEL DECK
1. STEEL DECKING AND ACCESSORIES SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A653-SS. THE STEEL COATING OF ZINC CONFORMING TO ASTM A653, G60 SEE SPECIFICATION.
2. DECKING UNITS SHALL BE LAID CONTINUOUS OVER TWO OR MORE SPANS AND SHALL BE ATTACHED TO SUPPORTING MEMBERS WITH NET 1/2" # RUDDLE WELD TO:  
a. SUPPORTING BEAMS AND/OR JOISTS AT EACH VALLEY PER UNIT  
b. BEAMS AND/OR JOISTS PARALLEL TO DECK SPAN AT 12" TYPICAL
3. SIDE LAP JOINTS SHALL BE MECHANICALLY CRIMPED AT NOT OVER 24" O.C., OR IF WELDED, NOT OVER 36" O.C.
4. ONLY WELDERS POSSESSING VALID CERTIFICATE FOR LIGHT GAUGE STEEL WELDING SHALL BE PERMITTED TO WELD ON THE DECK.
5. CONTRACTOR SHALL PROPOSE LOCATIONS OF COLD CONSTRUCTION JOINTS FOR CONCRETE SLABS ON METAL DECKING FOR APPROVAL BY ARCHITECT.
6. CONCRETE FILL THICKNESSES SHOWN ON FRAMING PLANS ARE MINIMUM. CONTRACTOR TO MAKE ALLOWANCE FOR ADDITIONAL CONCRETE FILL REQUIRED TO COMPENSATE FOR FRAME OR DECK DEFLECTIONS AND TO MAINTAIN SURFACE TOLERANCES SPECIFIED.
- H. ANCHORAGE TO EXISTING CONCRETE
1. ACCEPTABLE EPOXY ANCHORS:  
a. HILTI HIT RESOQ-SD (ICC ESR-2322)  
b. SIMPSON STRONG-TIE SET-XP (ICC ESR-2508)
2. ACCEPTABLE EXPANSION ANCHORS:  
a. HILTI KWIK BOLT TZ (ICC ESR-1917)  
b. SIMPSON STRONG BOLT (ICC ESR-1771)
3. INSTALLATION:  
a. HOLES FOR GROUTED ANCHORS AND DOWELS SHALL BE DRILLED WITH A ROTARY HAMMER OR OTHER SUITABLE METHOD TO ENSURE THAT EXISTING REINFORCING IS NOT DAMAGED. ALL MISDRILLED OR UNANCHORED HOLES SHALL BE GROUTED SOLID. DO NOT USE CORE DRILL.  
b. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH REQUIREMENTS GIVEN IN THE ICC REPORT FOR THE SPECIFIC MANUFACTURER.

4. TESTING AND SPECIAL INSPECTION:

- a. ALL ANCHORS SHALL BE SUBJECT TO PERIODIC SPECIAL INSPECTION IN ACCORDANCE WITH CHAPTER 17 OF THE BUILDING CODE. 5% OF ALL ANCHORS SHALL BE SUBJECT TO DIRECT TENSION TEST AND AN ADDITIONAL 20% SHALL BE TESTED USING A TORQUE CALIBRATED WRENCH.  
b. TEST LOAD FOR EXPANSION ANCHORS  
c. TEST LOAD FOR EPOXY ANCHORS
5. SPALLING OF CONCRETE DUE TO DRILLING OF HOLES SHALL BE REPAIRED USING SIKa REPAIR 222 OR 223 PATCHING MATERIAL. USE S1-1 APPLICATION METHOD SPECIFIED IN SIKa SPEC BUILDER.

I. DESIGN BUILD ITEMS/DEFERRED SUBMITTALS

1. DEFERRED SUBMITTALS ARE DEFINED AS THOSE PORTIONS OF THE DESIGN NOT BY THE STRUCTURAL ENGINEER OF RECORD, THAT ARE NOT SUBMITTED AT THE TIME OF THE BUILDING PERMIT APPLICATION AND ARE TO BE SUBMITTED PRIOR TO ERECTION.
2. DESIGN, DETAILING, ANCHORING AND BRACING OF THESE ITEMS IS THE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING:  
a. ANCHORAGE OF M/E/P EQUIPMENT
3. DESIGN SHALL CONFORM TO THE REQUIREMENTS OF THE CODE. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN CALIFORNIA TO THE ENGINEER OF RECORD AND TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

J. STRUCTURAL OBSERVATION

1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD OF THE FOLLOWING SIGNIFICANT STAGES OF CONSTRUCTION, IN ORDER THAT STRUCTURAL OBSERVATION REQUIREMENTS PER BUILDING CODE (SECTION 1702) MAY BE SATISFIED:  
a. PRIOR TO PLACEMENT OF CONCRETE IN SUSPENDED SLABS.  
b. DURING STRUCTURAL STEEL ERECTION FOR COLUMNS, BEAMS & CONSTRUCTIONS.  
c. DURING LIGHT GAUGE METAL FRAMING FOR WALLS & FLOORS.  
d. PRIOR TO WELDING OF METAL DECKING.
2. THE ENGINEER OF RECORD SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE EVENT LISTED ABOVE.
- K. SPECIAL INSPECTION
1. ALL SPECIAL INSPECTIONS SHALL BE PERFORMED ACCORDING TO CHAPTER 17 OF THE BUILDING CODE AND SHALL BE PAID FOR BY THE OWNER. THE INSPECTOR SHALL HAVE A MINIMUM OF 5 YEARS OF INSPECTION EXPERIENCE IN THE TYPE OF CONSTRUCTION TO BE INSPECTED.
2. ALL TEST INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT INSPECTION AGENCY. JOB SITE VISITS BY THE STRUCTURAL ENGINEER DO NOT CONSTITUTE AND ARE NOT A SUBSTITUTE FOR INSPECTIONS UNLESS THE STRUCTURAL ENGINEER IS CONTRACTED TO DO SO.
3. A COPY OF ALL TESTING & INSPECTION REPORT SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL.
4. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO SEE THAT THESE TESTS AND INSPECTIONS ARE PERFORMED.
5. IN ADDITION TO THE INSPECTIONS REQUIRED BY THE LOCAL BUILDING DEPARTMENT, SPECIAL INSPECTION BY A QUALIFIED INSPECTOR IS REQUIRED FOR THE FOLLOWING:

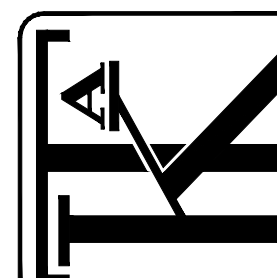
INSPECTION TYPE	CONTINUOUS	PERIODIC
1. CONCRETE		
MIX VERIFICATION		X
CONCRETE PLACEMENT	X	
TAKING OF TEST SPECIMENS	X	
CURING TECHNIQUES		X
3. REINFORCEMENT		
BAR PLACEMENT		X
ANCHOR BOLTS & EMBED PLACEMENT	X	
SAMPLING & TESTING		X
7. WELDING		
CP & PP WELDS	X	
MULTI PASS FILLET WELDS	X	
SINGLE PASS FILLET WELDS > 5/16"	X	
SINGLE PASS FILLET WELDS < 5/16"		X
STEEL DECKING		X
HEADED STUDS		X
REBAR SPLICE	X	
8. HIGH STRENGTH BOLTING		
TESTING & INSPECTIONS		X
9. POST-INSTALLED ANCHORS		
TESTING & INSPECTIONS	X	
10. STRUCTURAL STEEL		
MATERIAL VERIFICATION		X
MEMBER PLACEMENT		X
SAMPLING & TESTING		X
T2. LIGHT GAUGE STEEL FRAMING		
TESTING & INSPECTIONS		X


6. AT LEAST ONE EXISTING LEVEL 1 BEAM SLATED TO RECEIVE A NEW MEMBER PER DETAIL 4/24.0 SHALL BE TESTED BY MAGNETIC PARTICLE TESTING. BEAM TO BE SELECTED BY SEQR AFTER CONCRETE FIREPROOFING REMOVED FROM ALL SUBJECT LOCATIONS.

S. ABBREVIATIONS

A.B.	ANCHOR BOLT
ADD.L	ADDITIONAL
ALT.	ALTERNATE
BOTT.	BOTTOM
BLK.	BLOCK
BM.	BEAM
B.O.F.	BOTTOM OF FOOTING
CJ.	CONSTRUCTION JOINT
CL.	CENTER LINE
CLR.	CLEAR
COMPR.	COMPRESSIBLE
CONN.	CONNECTION
CONT.	CONTINUOUS
CONTR. JT.	CONTROL JOINT
CP.	COMPLETE PENETRATION
DBL.	DOUBLE
DEPR.	DEPRESSION
DIA.	DIAMETER
DWG.	DRAWING
EA.	EACH
EF.	EACH FACE
EL.	ELEVATION
ENG.	ENGINEERED
ES.	EACH SIDE
EXP. JT.	EXPANSION JOINT
EXT.	EXTERIOR
PT.	FAR FACE
FLR.	FLOOR
F.O.C.	FACE OF CONCRETE
F.O.S.	FACE OF STUD
GLB.	GLU LAM BEAM
HDR.	HEADER
HORIZ.	HORIZONTAL
HSB.	HIGH STRENGTH BOLT
HYDR.	HYDROSTATIC
JST.	JOIST
LT. WT.	LIGHT WEIGHT
MAX.	MAXIMUM
MIN.	MINIMUM
MISC.	MISCELLANEOUS
NF.	NEAR FACE
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
O.A.	ON CENTER
OH.	OPPOSITE HAND
PERP.	PERPENDICULAR
P.L.P.	POUR IN PLACE
PL.	PLATE
PLWD.	PLYWOOD
PSF.	POUND PER SQUARE FOOT
PT.	POST TENSIONED
P.T.	PRESSURE TREATED
REINF.	REINFORCEMENT
S.A.D.	SEE ARCHITECT DRAWING
S.B.	SOLID BLOCKING
S.E.D.	SEE ELECTRICAL DRAWING
SIM.	SIMILAR
S.L.D.	SEE LANDSCAPE DRAWING
S.M.D.	SEE MECHANICAL DRAWING
S.O.G.	SLAB ON GRADE
STD.	STANDARD
STL.	STEEL
SUPP.	SUPPORT
T.	TOP
T&B	TOP AND BOTTOM
THR'D	THREADED
T.O.F.	TOP OF FOOTING
T.O.S.	TOP OF SLAB
T.O.STL	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
VERT.	VERTICAL
WWF.	WELDED WIRE FABRIC

KOMOROUS-TOWEY  
ARCHITECTS  
410 TWELFTH STREET, SUITE 300  
OAKLAND, CA 94612  
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kto@ktarch.com kt@ktarch.com



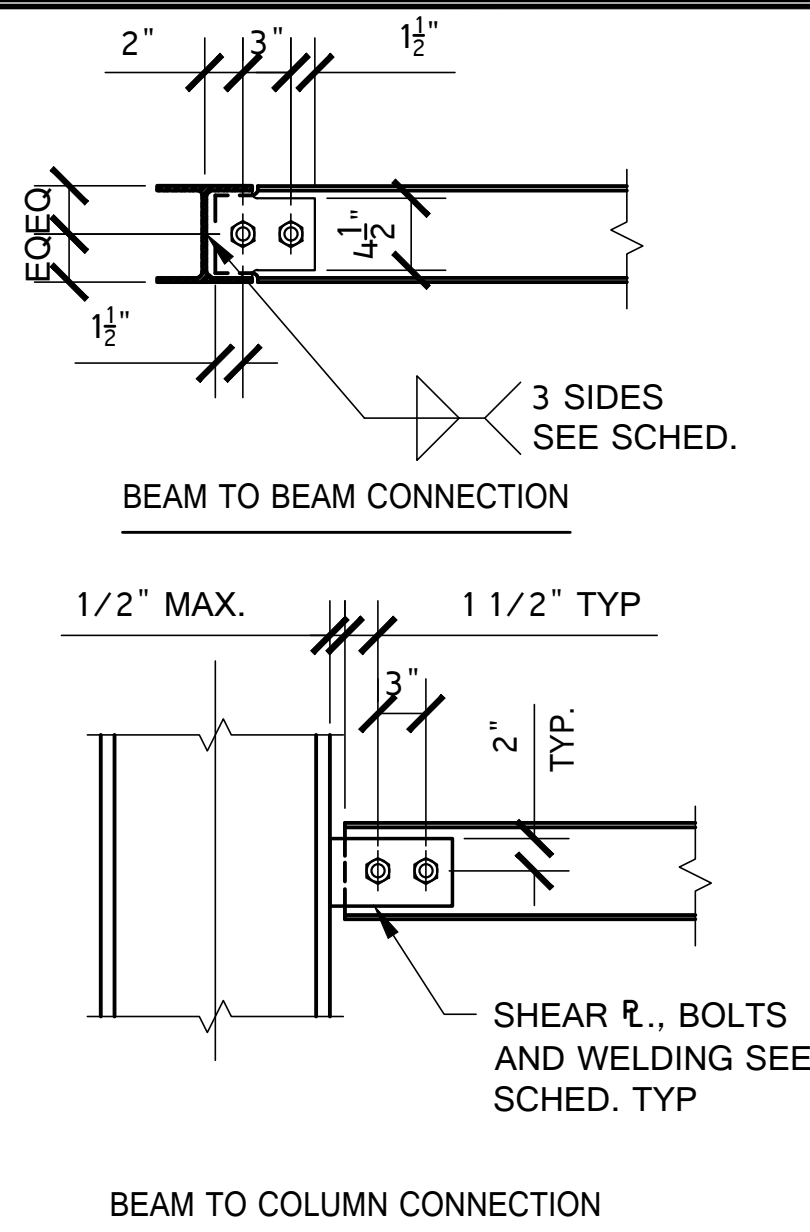
  
OLM CONSULTING ENGINEERS  
Oakland, CA 94612  
San Francisco, CA 94109  
Phone: 510.433.0828

GENERAL NOTES

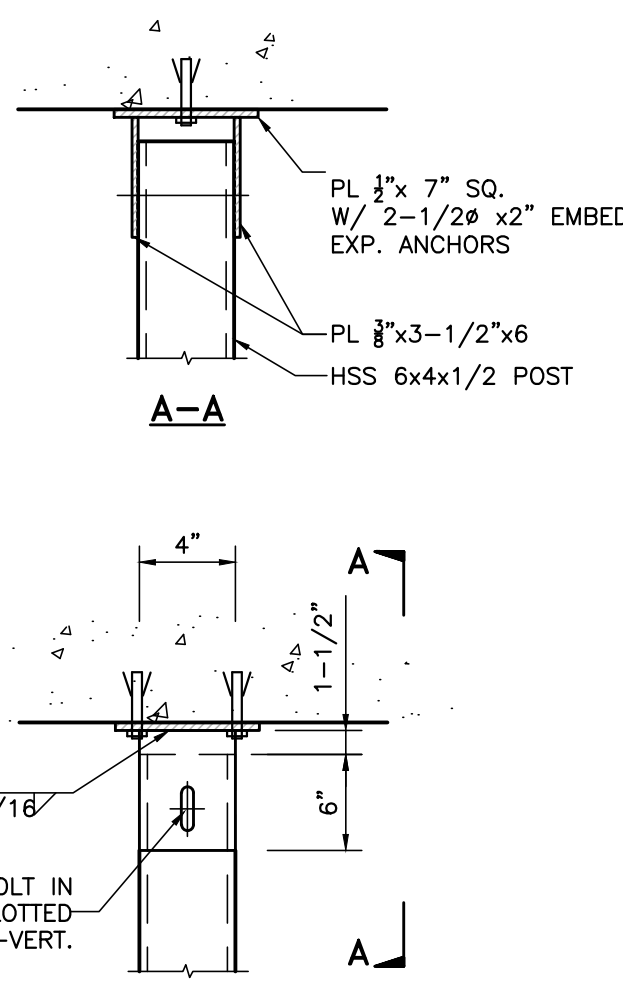
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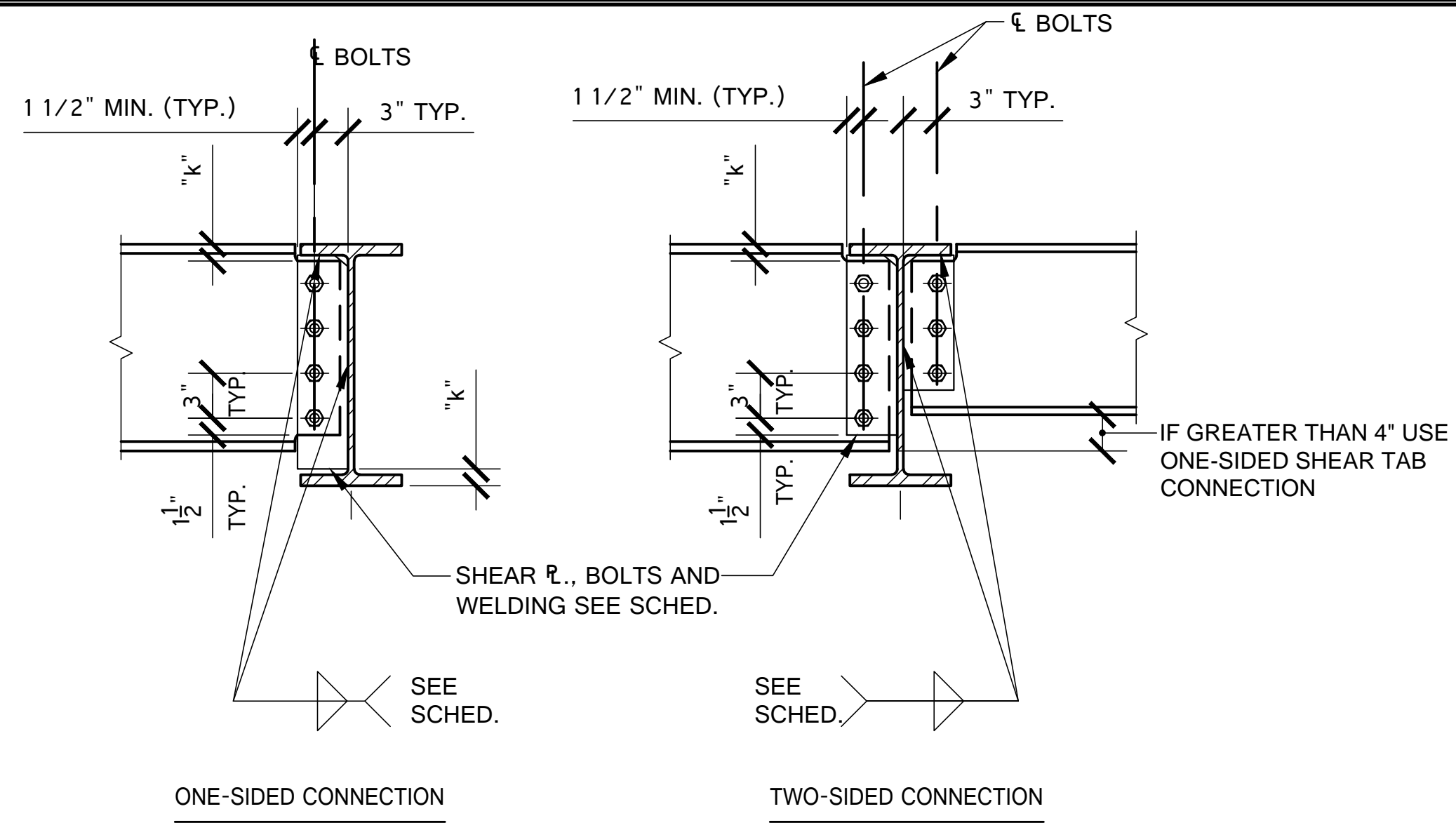
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13 W6 SIMPLE BEAM CONN  
SCALE: 1"=1'-0"



10 TYP. HSS COLUMN TOP CONNECTION  
SCALE: 1"=1'-0"

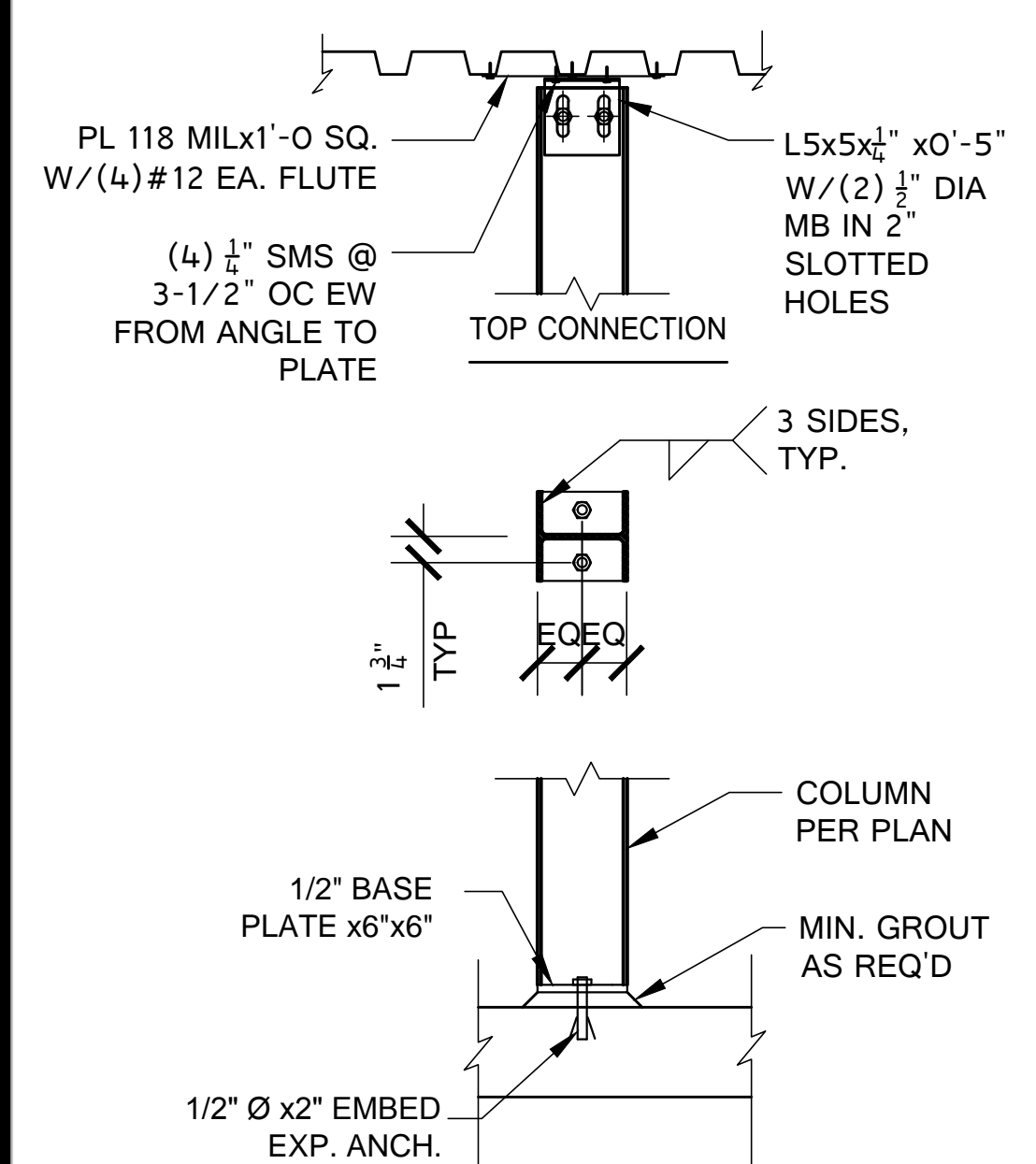


7 TYP. BEAM TO BEAM SIMPLE CONNECTION  
SCALE: 1"=1'-0"

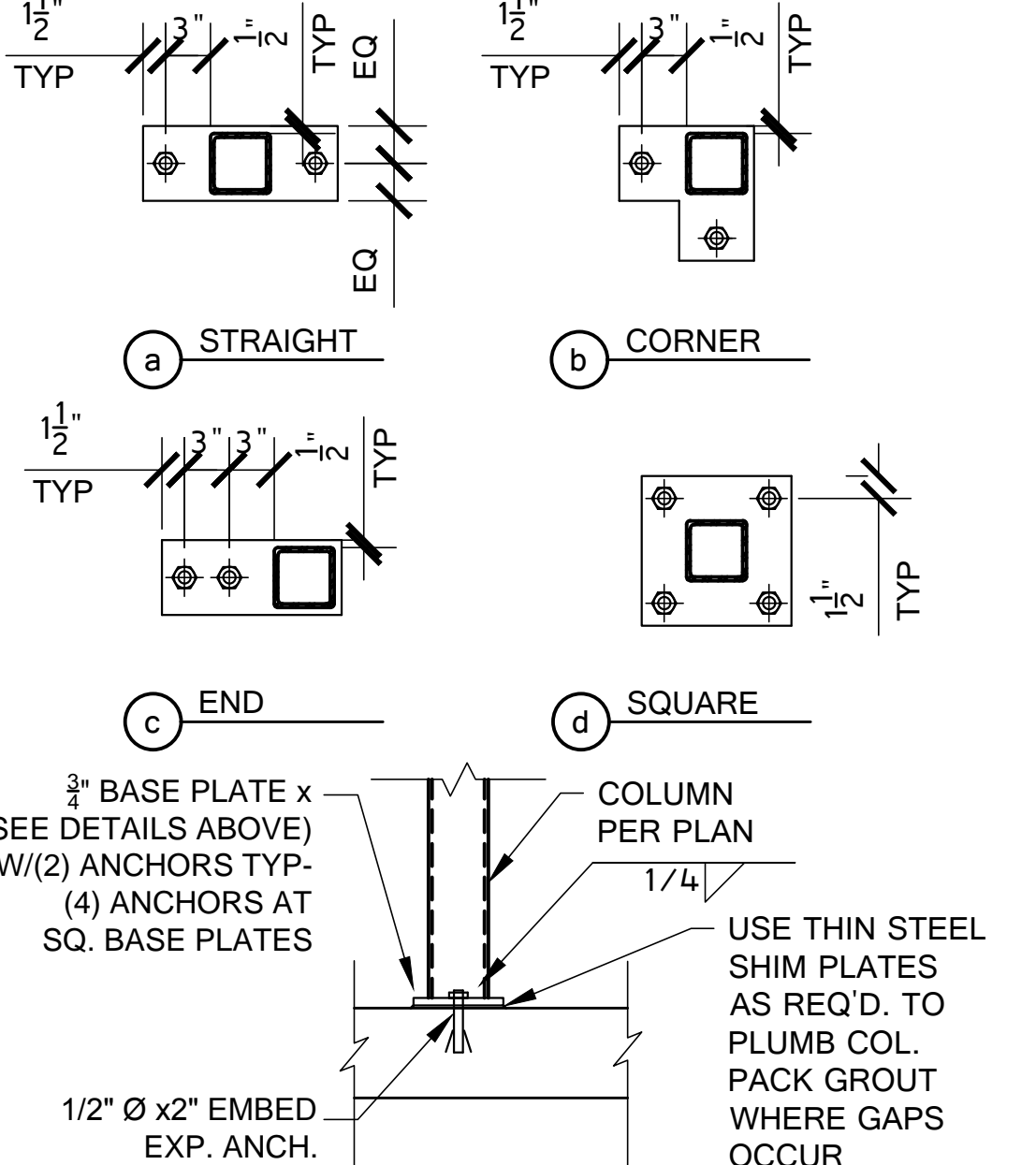
BEAM SIZE (1)	NO. OF BOLTS 7/8" Ø A325-N	SHEAR R. (THICKNESS)	WELD SIZE "A"
W6(4), W8, W10	2	3/8"	1/4 (2)
W12, W14	3	3/8"	1/4 (2)
W16, W18	4	1/2"	5/16

- WHERE GIRDER DEPTH IS LESS THAN BEAM DEPTH USE NO. OF BOLTS BASED ON GIRDER.
- UNLESS LARGER SIZE WELD IS REQUIRED BY AISC SPECS. FOR WELDING TO THICK PLATES.
- USE AISC STANDARD HOLES IN SHEAR R U.O.N.
- SEE 13/- FOR W6 DETAILS.

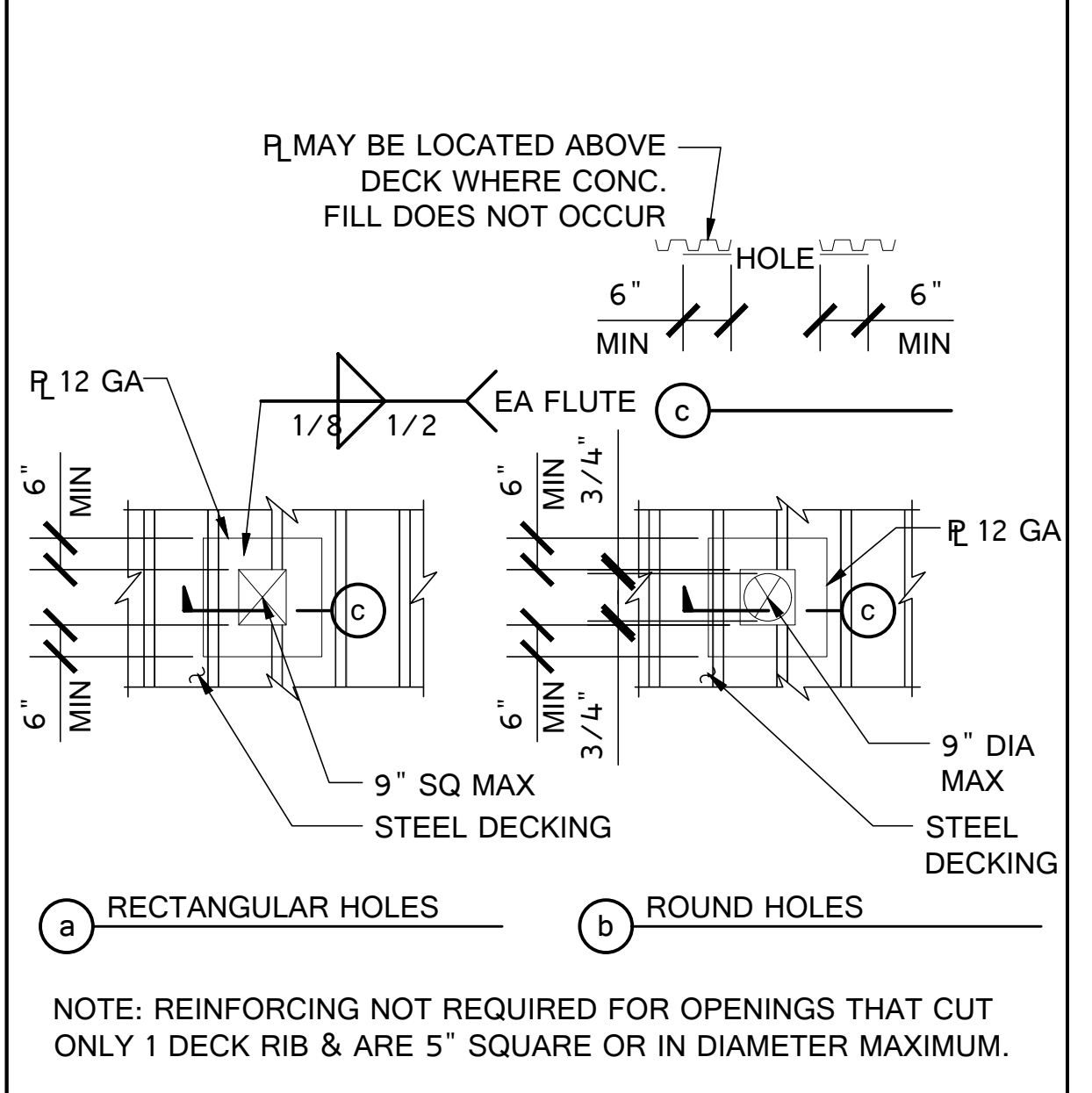
1 SIMPLE CONNECTION SCHEDULE  
SCALE: 1"=1'-0"



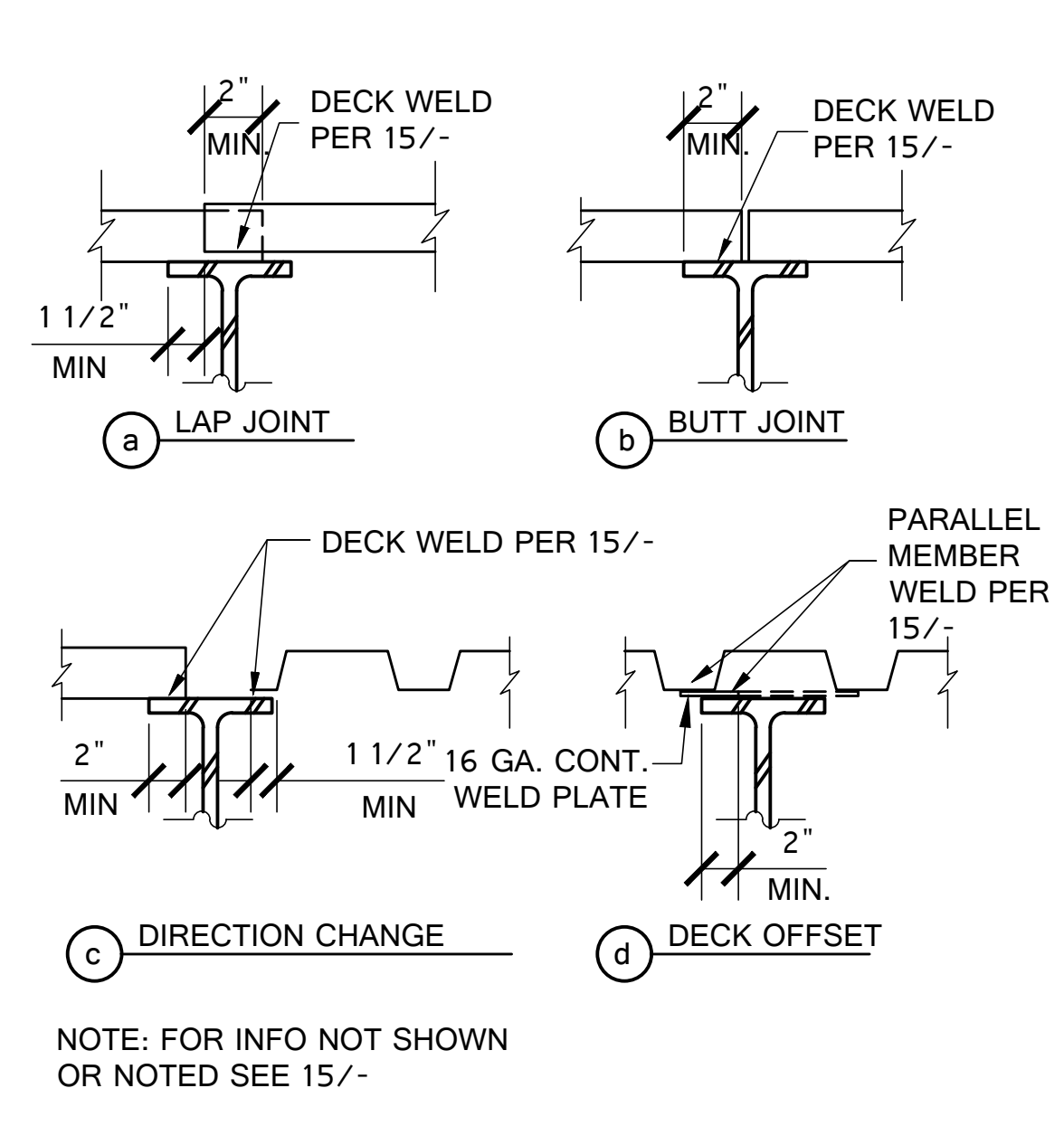
14 TYP. W6 COLUMN BASE & TOP CONN,  
SCALE: 1"=1'-0"



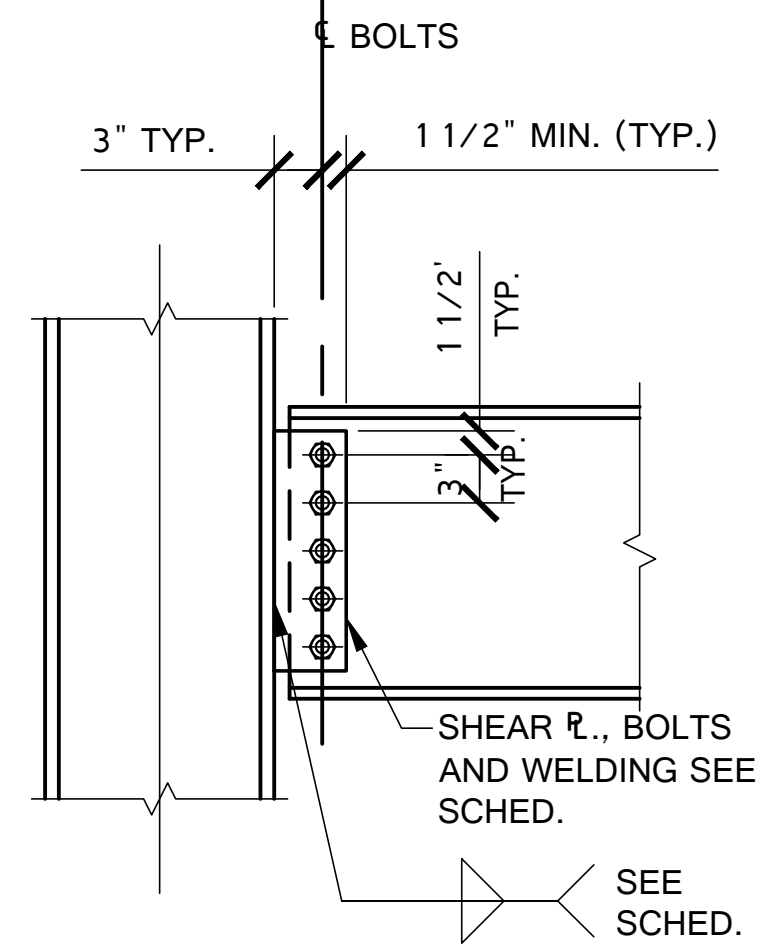
11 TYP. HSS COLUMN BASE PLATE  
SCALE: 1"=1'-0"



8 METAL DECK OPENING REINF.  
SCALE: 1"=1'-0"



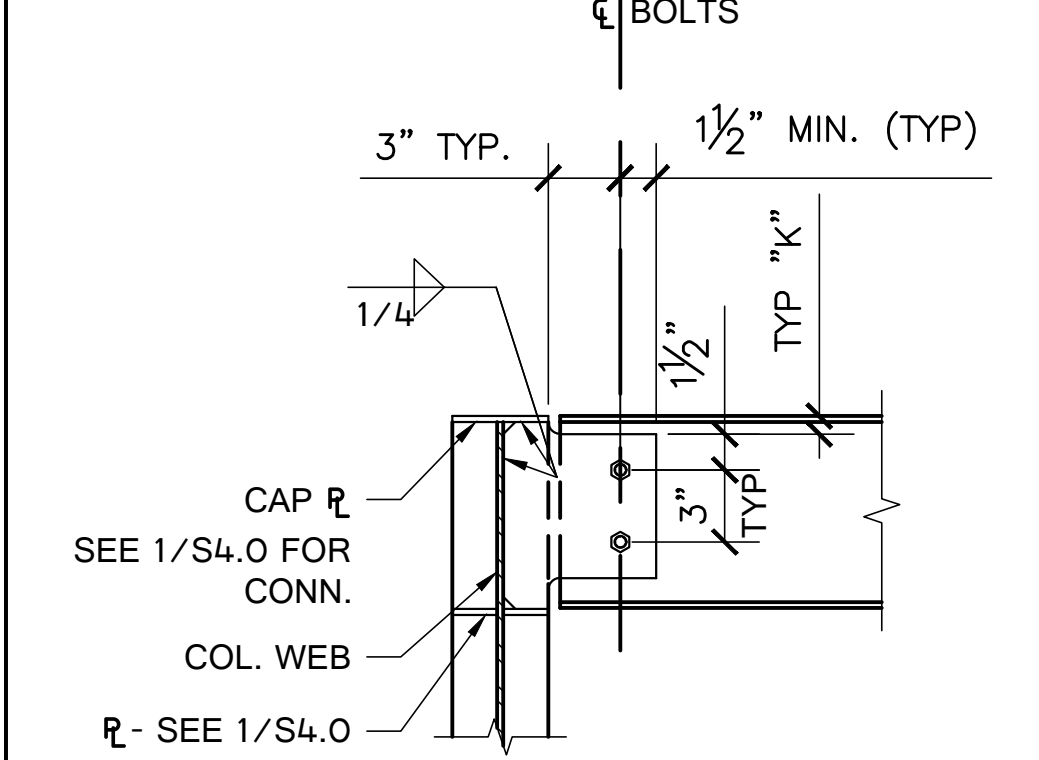
5 METAL DECK DETAILS  
SCALE: 1"=1'-0"



2 TYP. BEAM TO COLUMN FLANGE SIMPLE CONNECTION  
SCALE: 1"=1'-0"

SLAB TYPE	DECK TYPE	HEIGHT	GAUGE	FACTORY VENTED	MINIMUM SECTION PROPERTIES			FILL		ATTACHMENT TYPE				SIDE LAP	REMARKS
								TYPE	MINIMUM THICKNESS ABOVE TOP FLUTE	TO PERIMETER SUPPORT		TO INTERMEDIATE SUPPORT			
					I (IN. <sup>2</sup> /FT)	S+ (IN. <sup>2</sup> /FT)	S- (IN. <sup>2</sup> /FT)			PERPENDICULAR TO DECK	PARALLEL TO DECK	PERPENDICULAR TO DECK	PARALLEL TO DECK		
D1	HSB36	1 1/2"	18	NO	0.395	0.318	0.331	—	—	1/2"Ø PUDDLE WELD AT ALL DOWN FLUTES	1/2"Ø PUDDLE WELD @ 12" O.C.	1/2"Ø PUDDLE WELD AT ALL DOWN FLUTES	1/2"Ø PUDDLE WELD @ 12" O.C.	SEAM WELD BP @ 12"	(2) LAYERS OF 3/4" PLYW SECURED TO TOP OF DECK W/ #8 SMS @ 6" EDGES & 12" E.W. FIELD. OFFSET SHEET EDGES - S.A.D.
D2	HSB36	1 1/2"	18	NO	0.395	0.318	0.331	NORMAL WEIGHT CONCRETE	7"	1/2"Ø PUDDLE WELD AT ALL DOWN FLUTES	1/2"Ø PUDDLE WELD @ 12" O.C.	1/2"Ø PUDDLE WELD AT ALL DOWN FLUTES	1/2"Ø PUDDLE WELD @ 12" O.C.	SEAM WELD BP @ 12"	

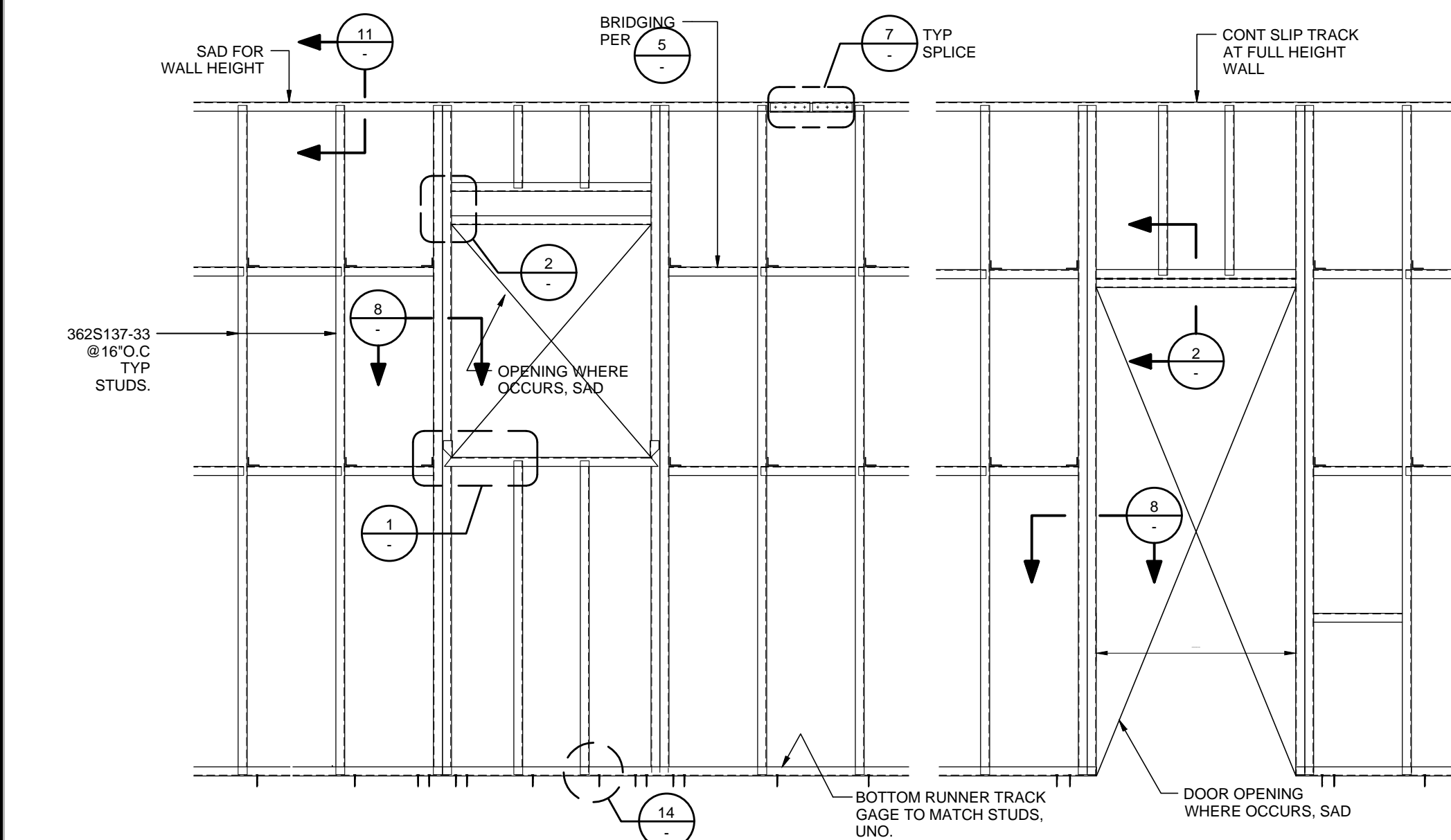
- NOTES:
- WHENEVER POSSIBLE, DECK LAYOUTS SHALL PROVIDE SHEETS OF SUFFICIENT LENGTH TO SPAN CONTINUOUSLY ACROSS AT LEAST THREE SPANS. ENDS SHALL TERMINATE OVER A SUPPORT PERPENDICULAR TO THE DECK SPAN, EXCEPT AT OPENINGS OR BUILDING EDGES WHERE DECKS MAY BE CANTILEVERED.
  - SHORE DECK AS REQUIRED BY MANUFACTURER.
  - PROVIDE A MINIMUM OF 2" BEARING AT SUPPORTING MEMBERS PERPENDICULAR TO DECK SPAN AND 1 1/2" AT MEMBERS PARALLEL TO DECK SPAN.
  - DIAMETER OF PUDDLE WELD SHOWN REPRESENTS EFFECTIVE FUSION AREA.
  - EACH PUDDLE WELD SHOWN MAY BE REPLACED WITH A SHEAR STUD WELDED THROUGH DECK.
  - CONCRETE FILL THICKNESS SHOWN ON FRAMING PLANS AND DETAIL SHEETS ARE MINIMUM THICKNESS. PROVIDE ADDITIONAL CONCRETE FILL AS REQUIRED TO COMPENSATE FOR BEAM OR DECK DEFLECTIONS AND TO MAINTAIN SURFACE TOLERANCES SPECIFIED.



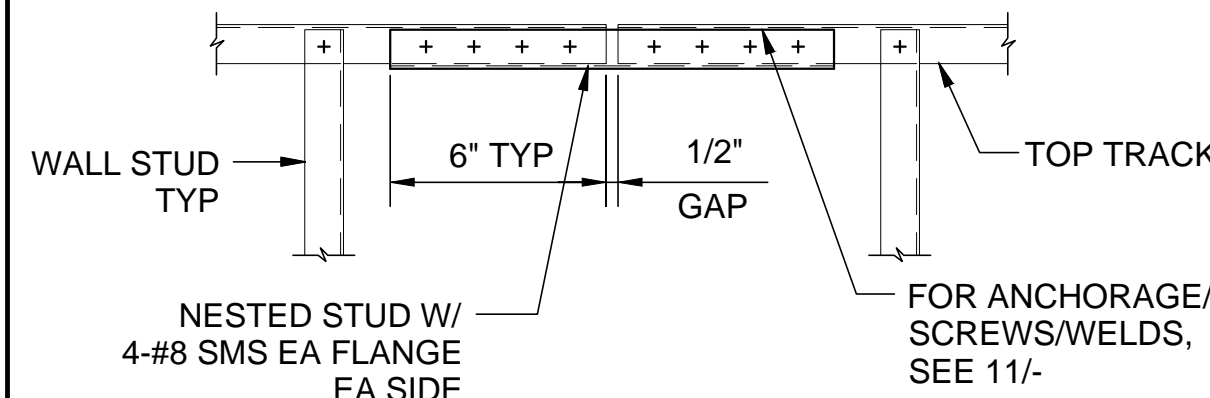
3 TYP. BEAM TO COL. WEB SIMPLE CONNECTION  
SCALE: 1 1/2"=1'-0"

15 METAL DECK SCHEDULE

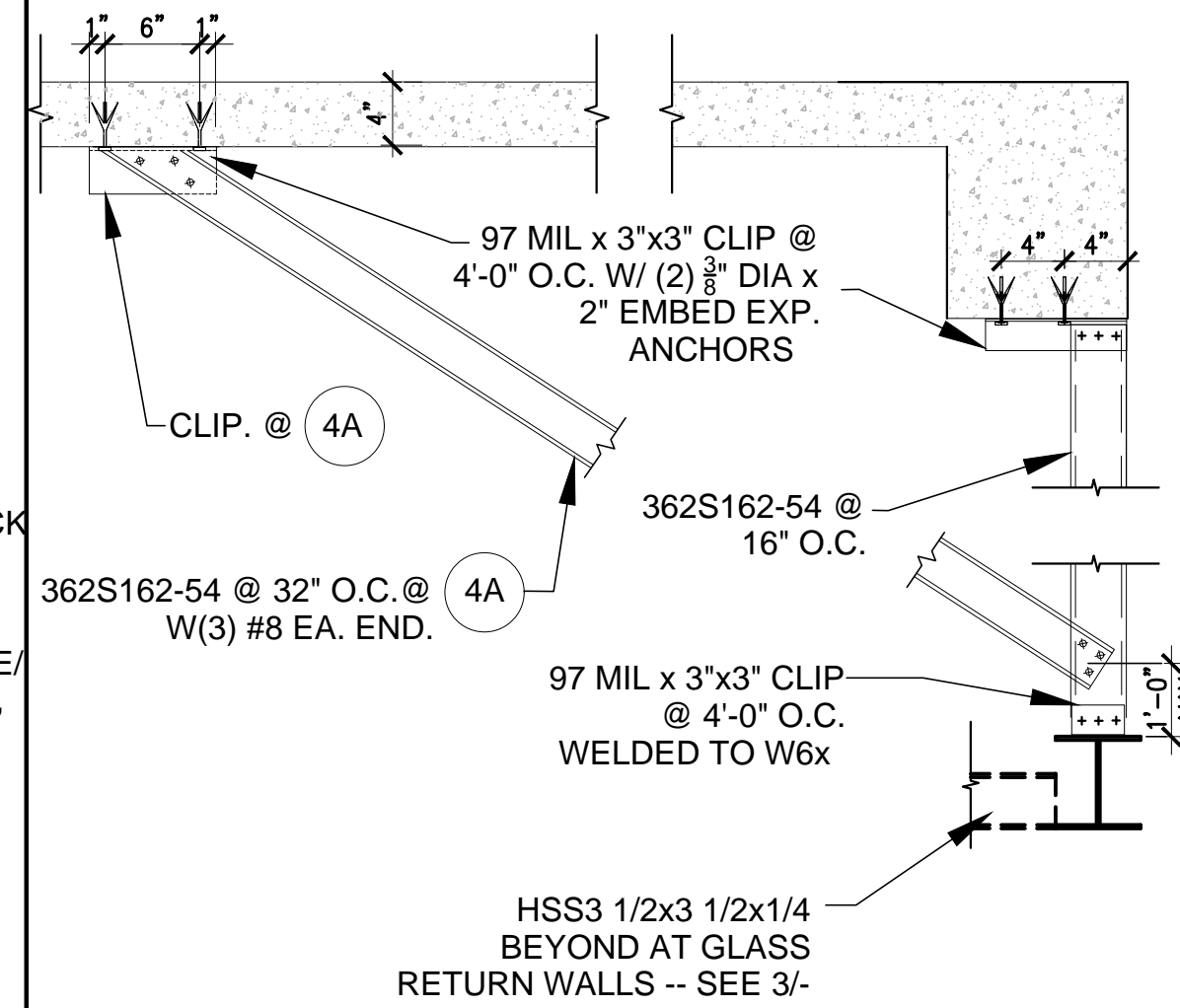




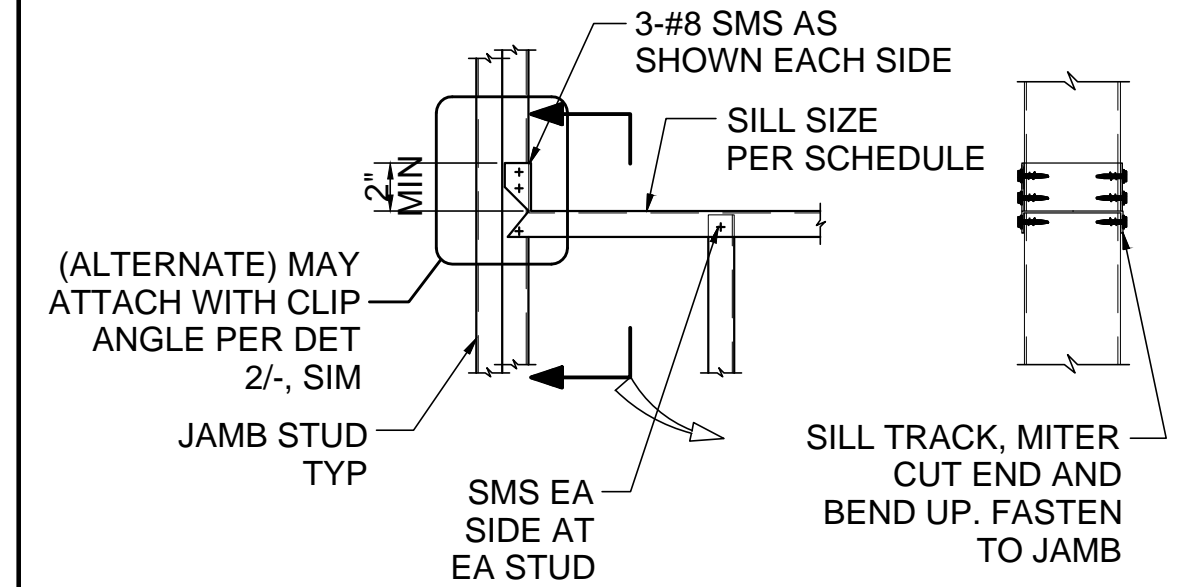
**13 ELEVATION-TYP INTERIOR NON-BEARING WALL FRAMING** SCALE: N.T.S.



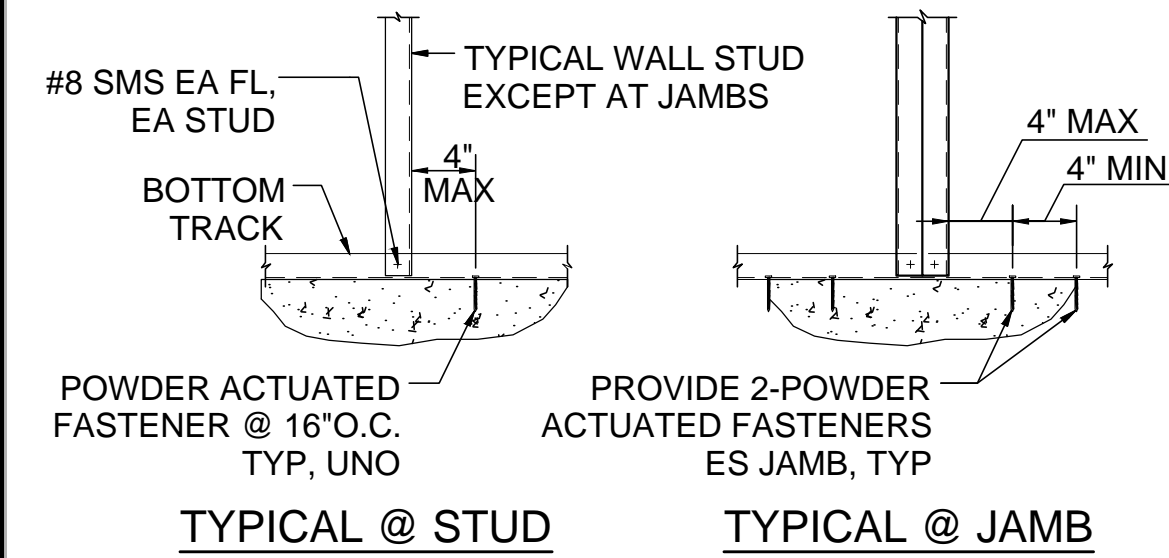
**7 TRACK SPLICE DETAIL** SCALE: N.T.S.



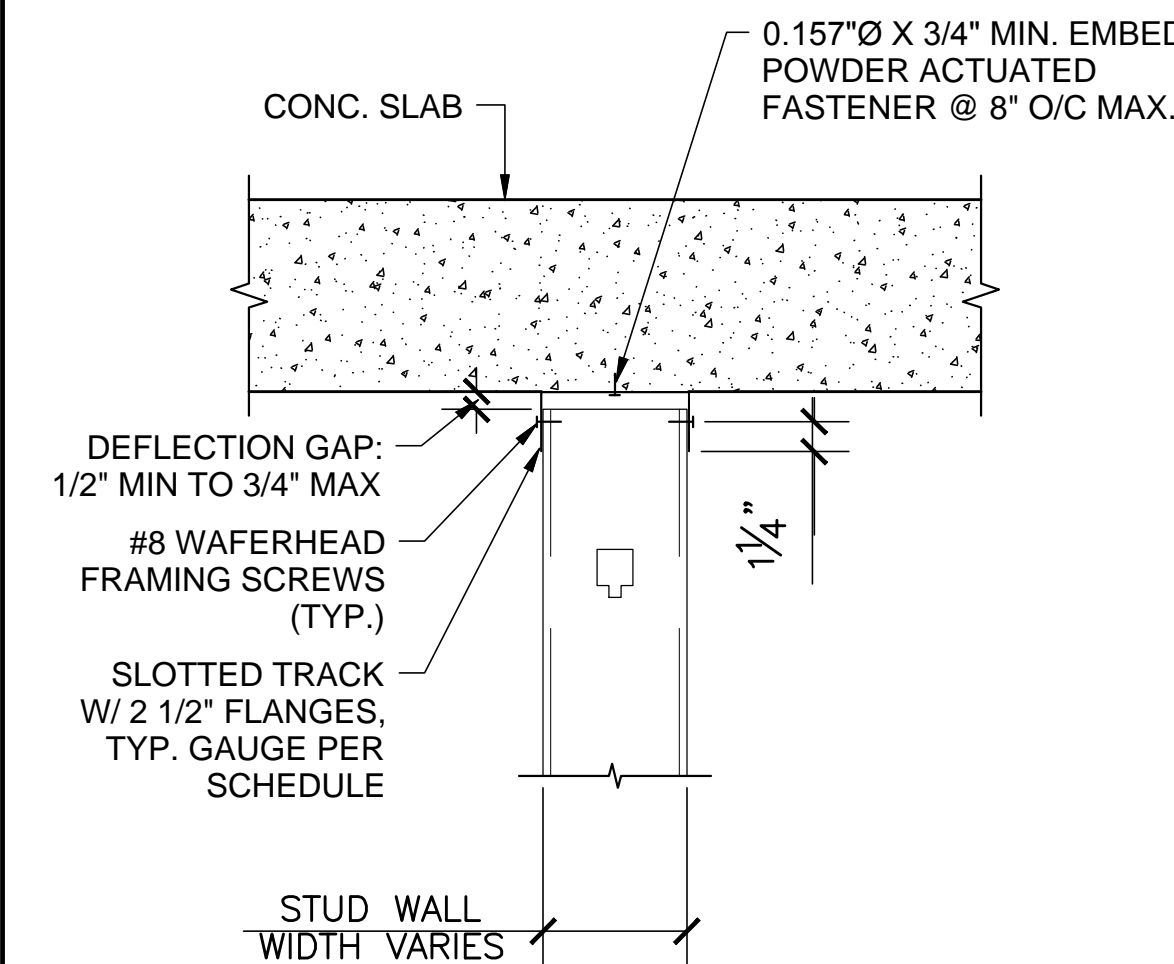
**4 4A SUSPENDED HEADER AT GLASS WALL** SCALE: N.T.S.



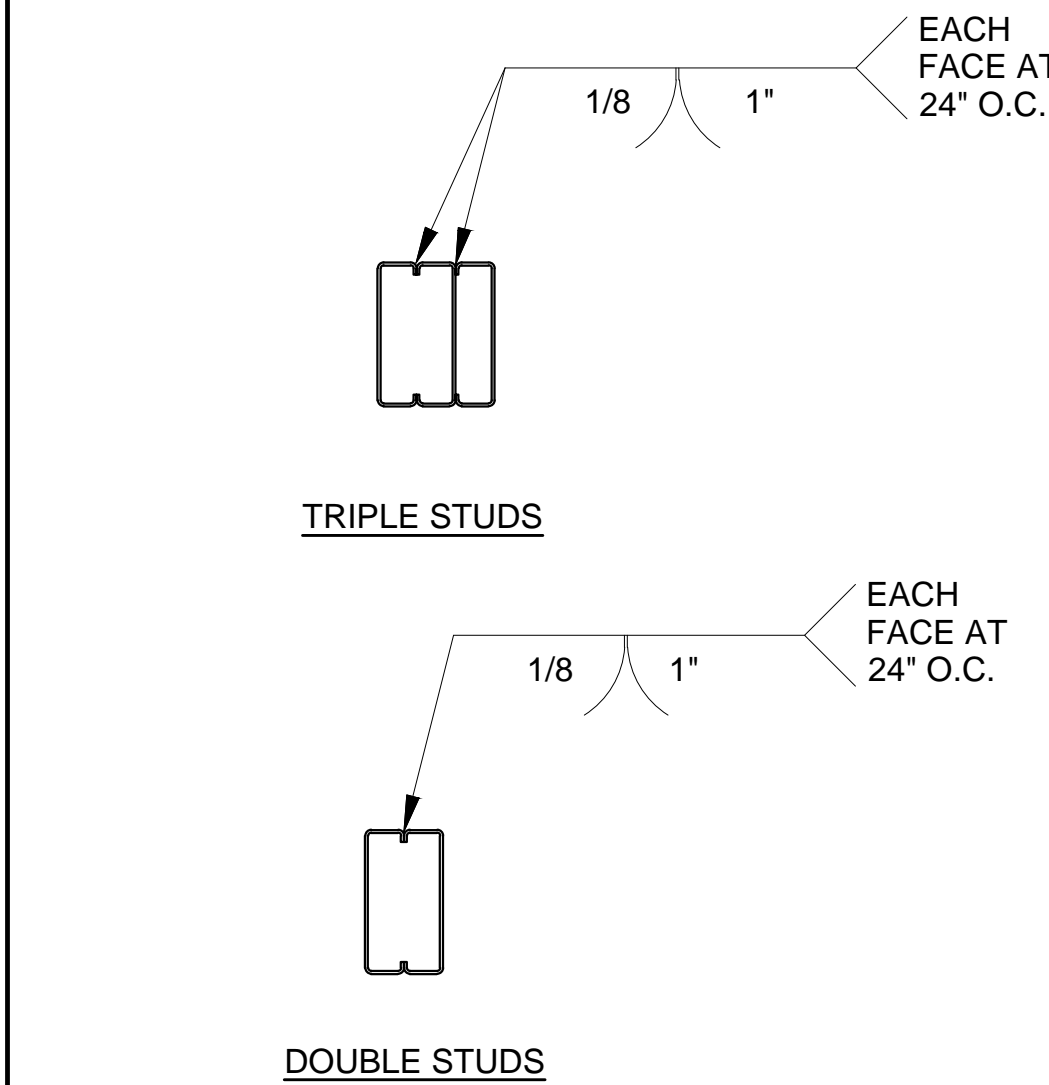
**1 SILL @ OPENING DETAIL** SCALE: N.T.S.



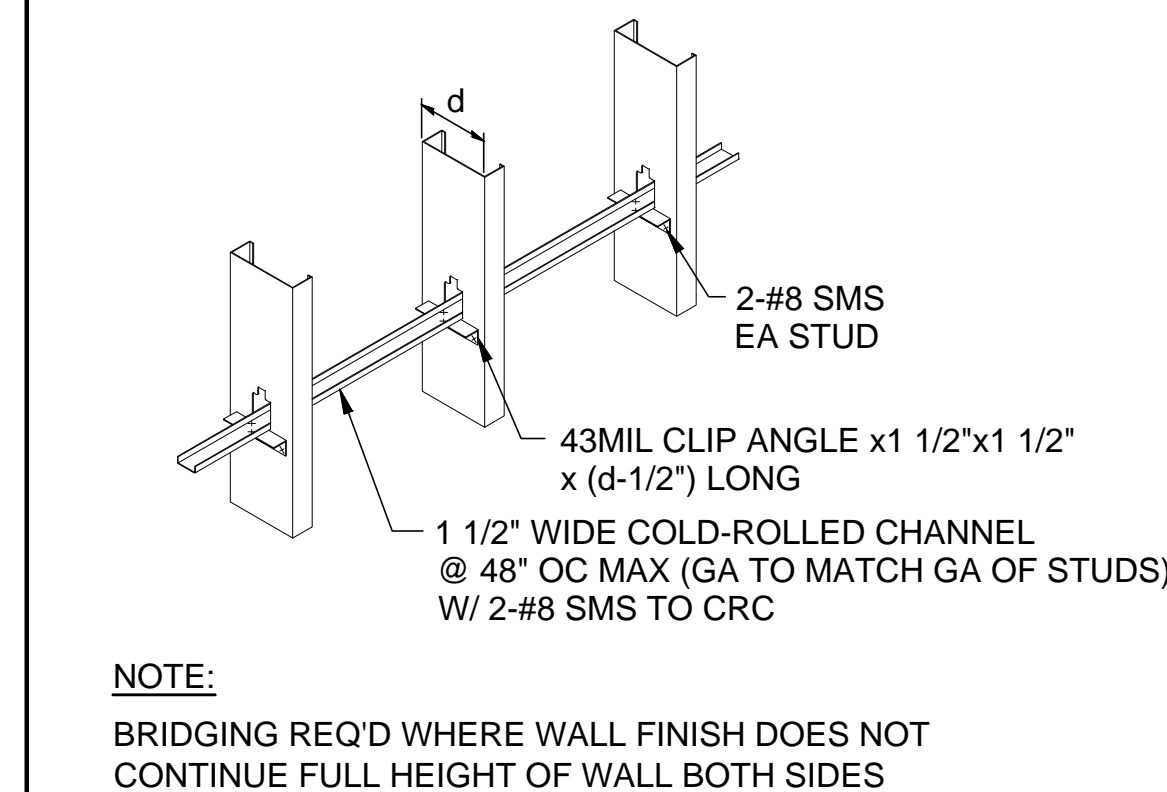
**14 WALL STUD/JAMB TO BOTTOM TRACK** SCALE: N.T.S.



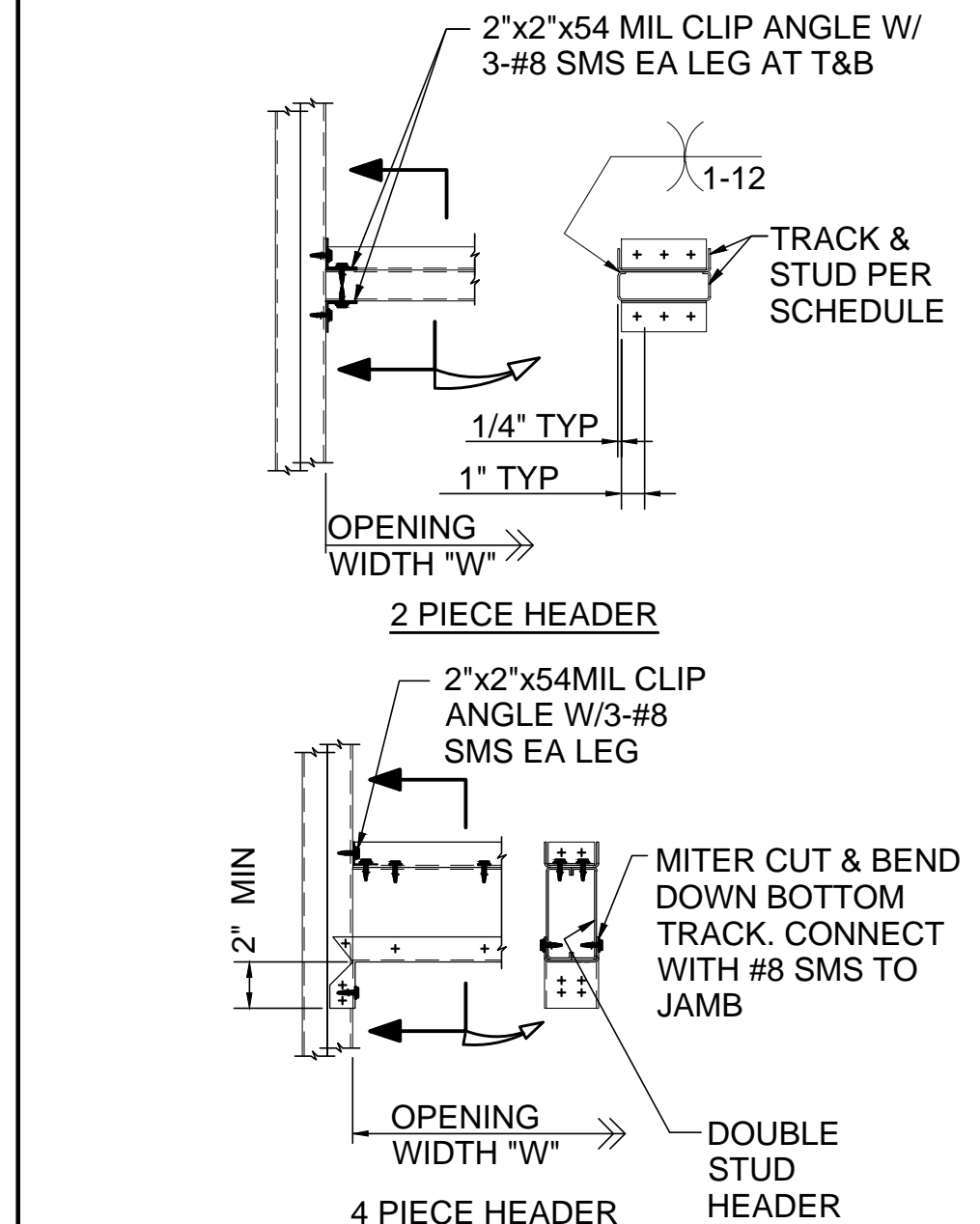
**11 TYPICAL TOP CONNECTION DETAIL** SCALE: N.T.S.



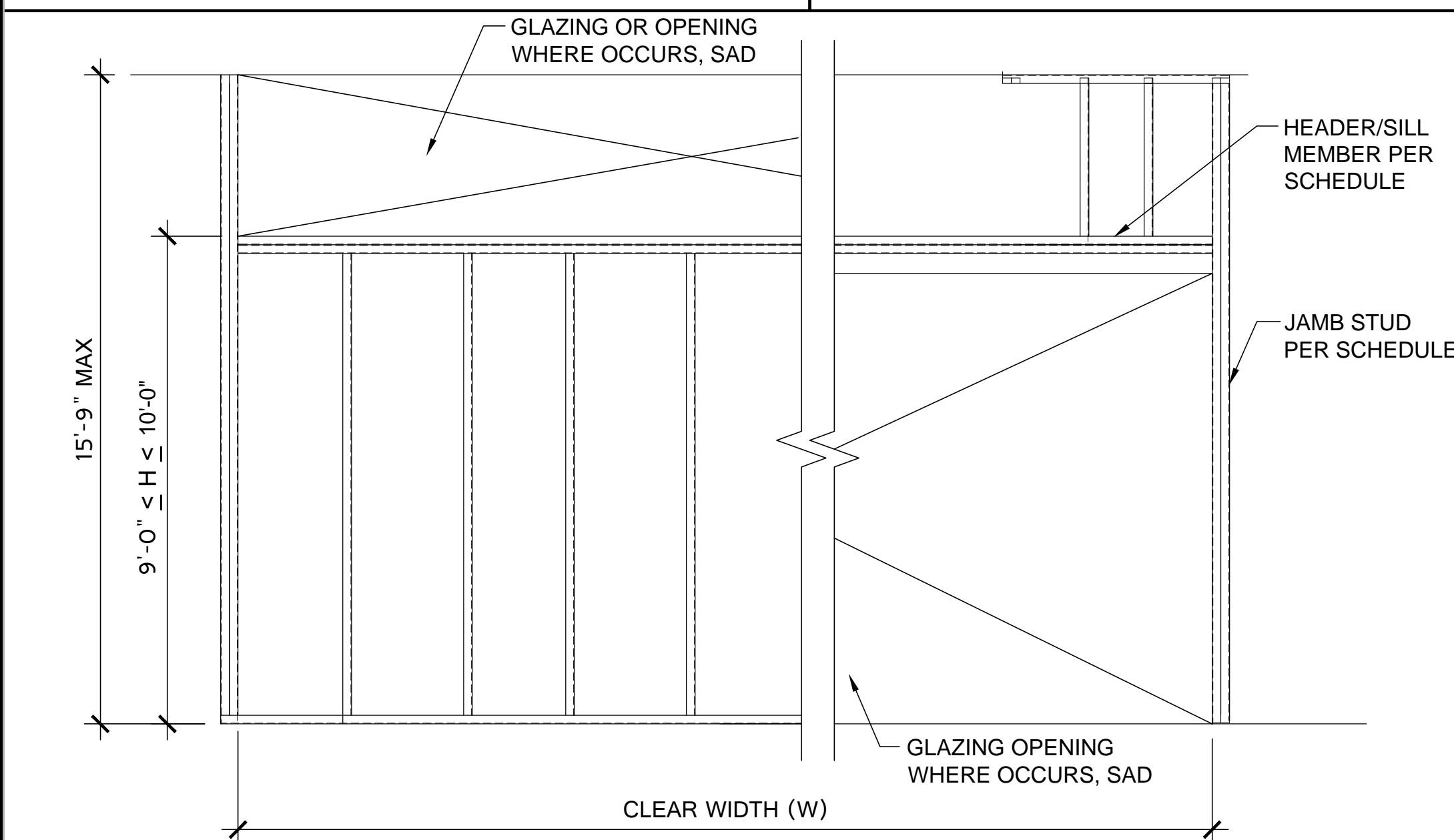
**8 TYPICAL BUILT-UP STUDS FRAMING DETAILS** SCALE: N.T.S.



**5 LATERAL BRIDGING DETAIL** SCALE: N.T.S.



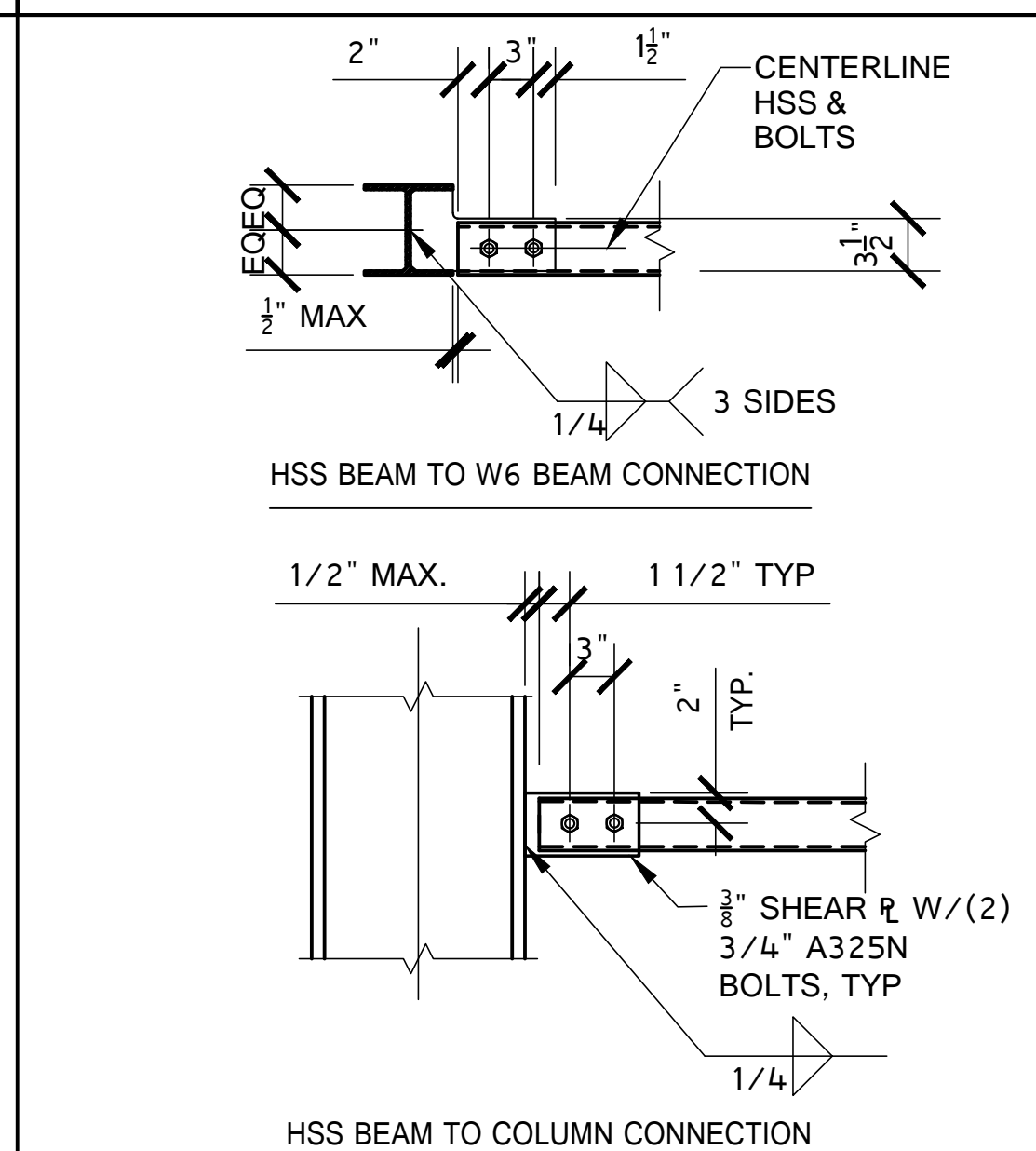
**2 TYP. HEADER DETAIL** SCALE: N.T.S.



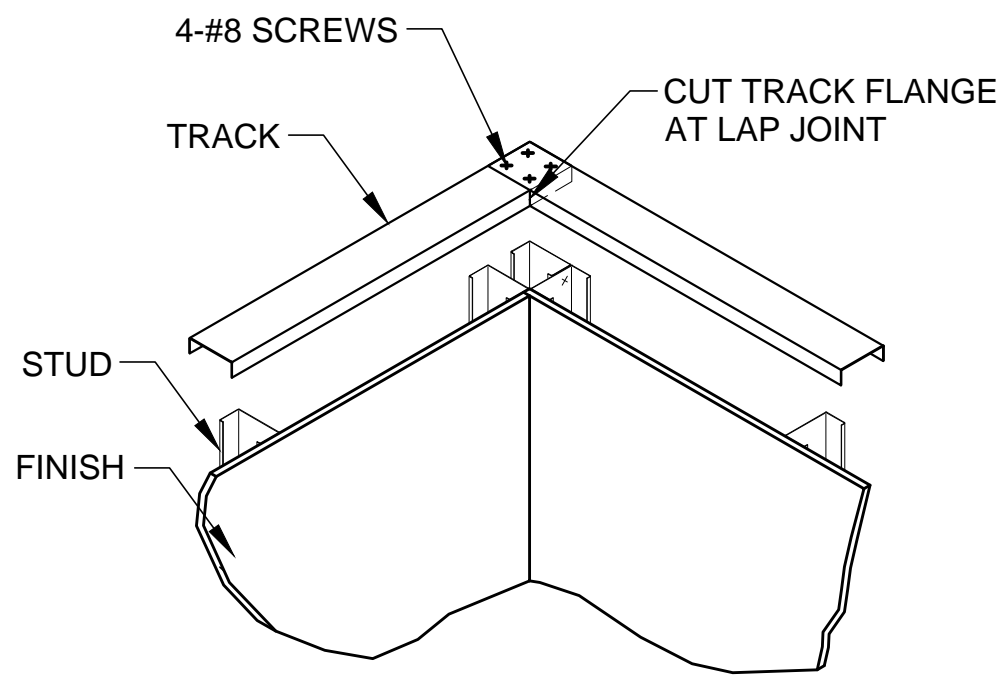
**15 FRAMING ELEVATION-TYP. INTERIOR GLAZING OPENINGS** SCALE: N.T.S.

MEMBER		MAX. OPENING WIDTH, W				REMARK
		0 TO 11'-0"	11'-1" TO 14'-0"	14'-1" TO 16'-0"	16'-1" TO 26'-0"	
HEADER/SILL		362T200-68	362S162-68 + 362T300-68	(2) 362S162-68 + 362T150-54 + 362T300-54	HSS5x5x5/16	
	ALT:	W6x15	W6x15	W6x15	W6x25 W/ $\bar{r}$	EXPOSED CONDITION - SAD, SEE 8/S4.0
JAMB STUD		(2) 362S162-54	(2) 362S162-68	(2) 362S200-68	HSS3 1/2x3 1/2x1/4	
	ALT:	W6x15	W6x15	W6x15	-	EXPOSED CONDITION - SAD

- NOTES:**
- ALL STUD CONSTRUCTION SHALL CONFORM TO ICC EVALUATION REPORT #4943-P.
  - UNO STUDS SHALL HAVE KEY HOLE OR OVAL TYPE PUNCHOUTS, JOISTS SHALL NOTE HAVE HOLES OR PUNCHOUTS.
  - $F_y=33$  KSI FOR 18GA AND THINNER  
 $F_y=50$  KSI FOR 16GA AND THICKER

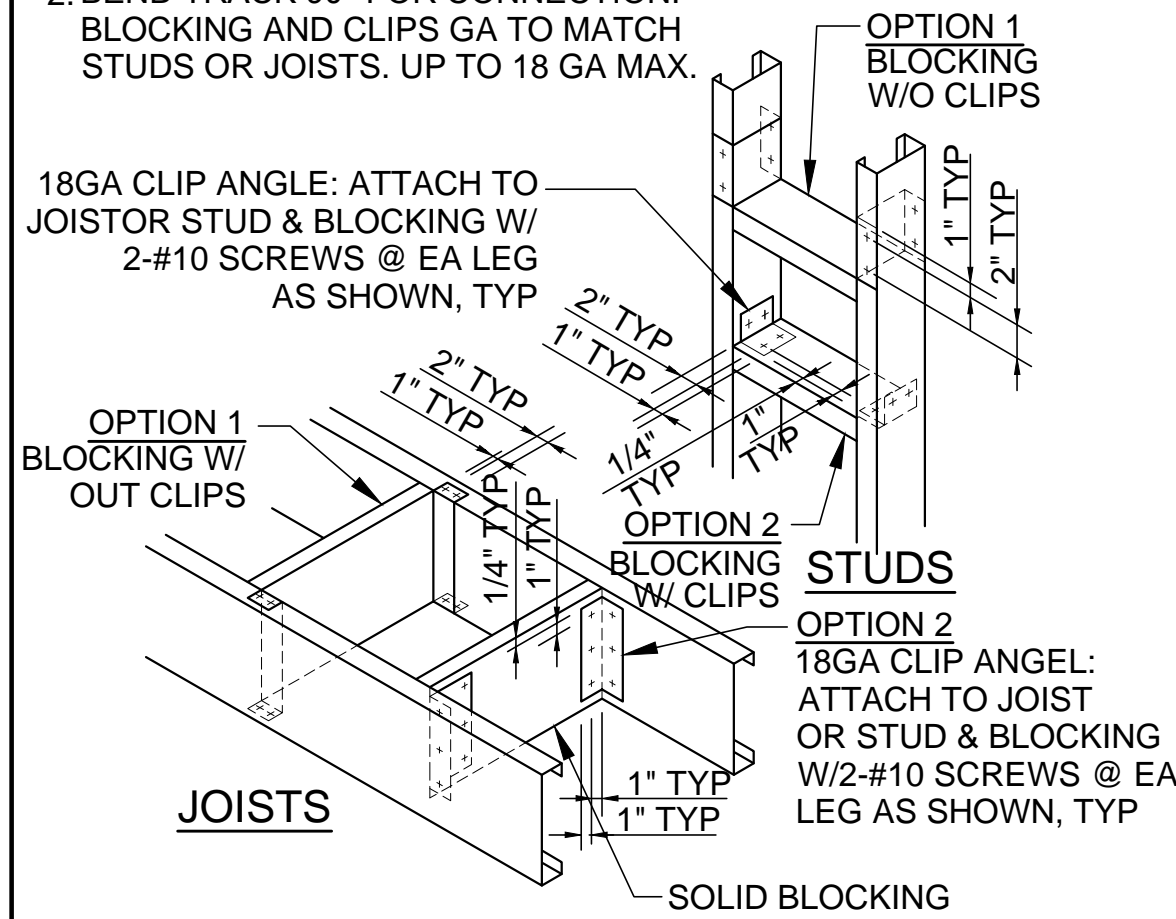


**3 HSS HEADER DETAIL** SCALE: N.T.S.

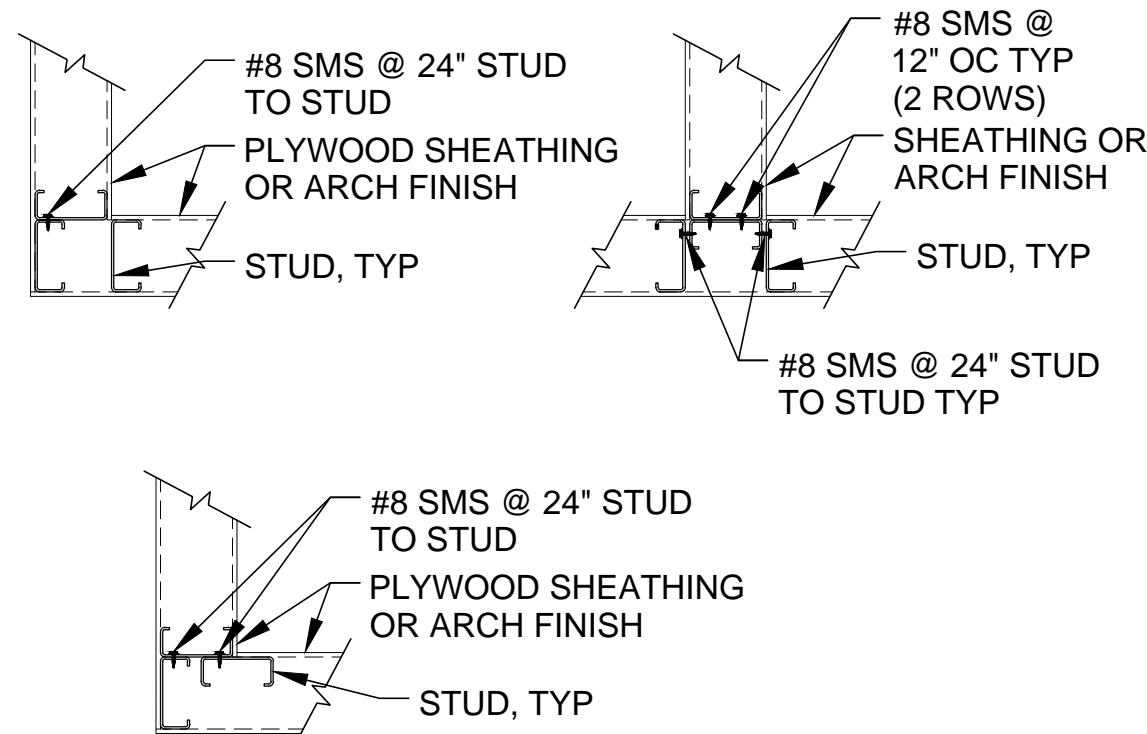


13 WALL FRAMING AT CORNER TRACK LAP CONNECTION SCALE: N.T.S.

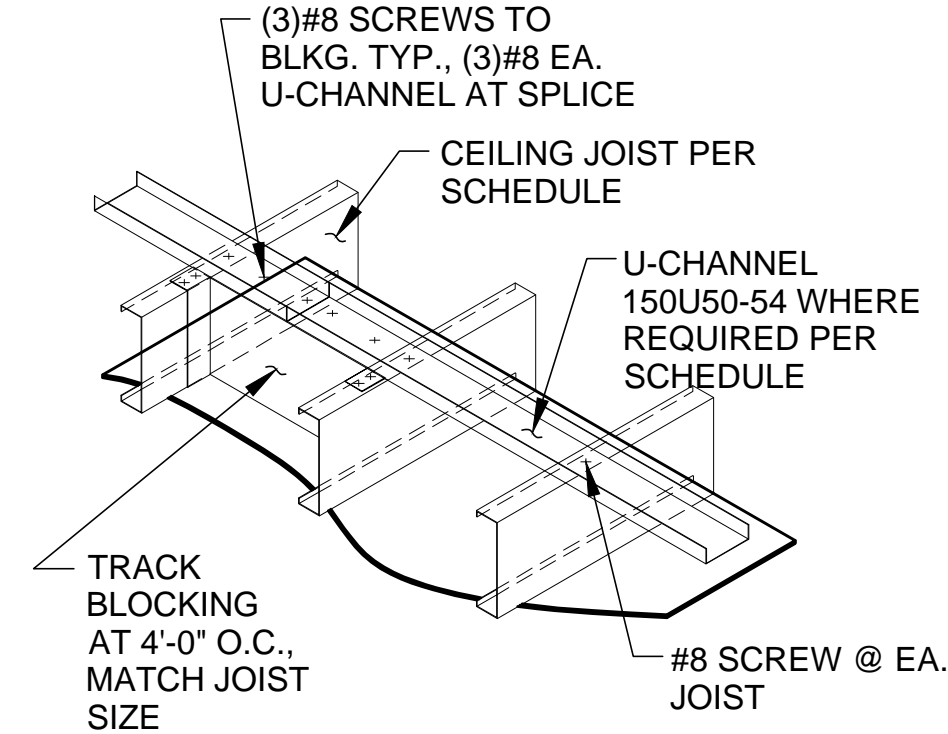
NOTES:  
1. WHERE BLOCKING MATERIAL THICKNESS ALLOWS, NOTCH AND  
2. BEND TRACK 90° FOR CONNECTION. BLOCKING AND CLIPS GA TO MATCH STUDS OR JOISTS. UP TO 18 GA MAX.



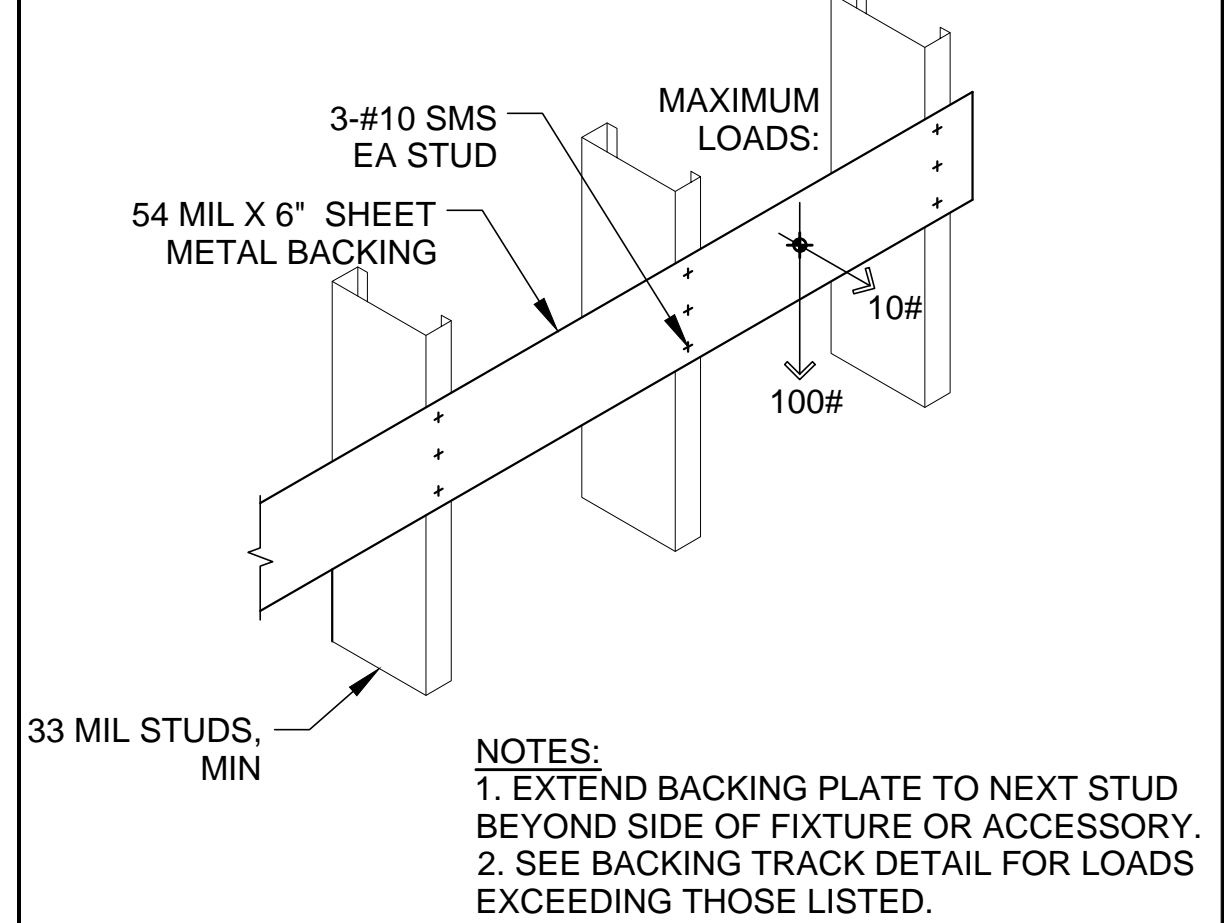
10 TYPICAL SOLID BLOCKING DETAILS SCALE: N.T.S.



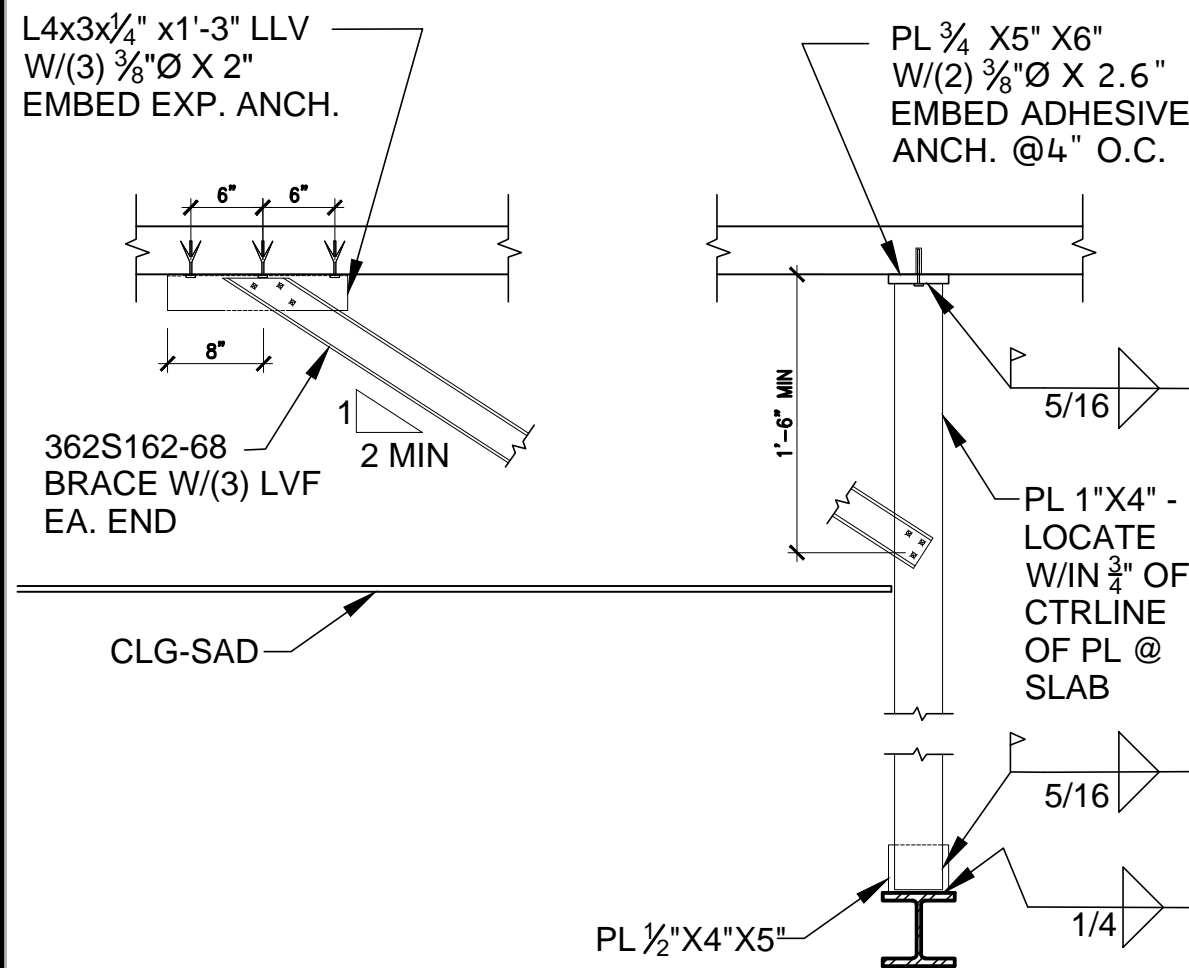
7 TYPICAL METAL STUD INTERSECTION DETAIL SCALE: N.T.S.



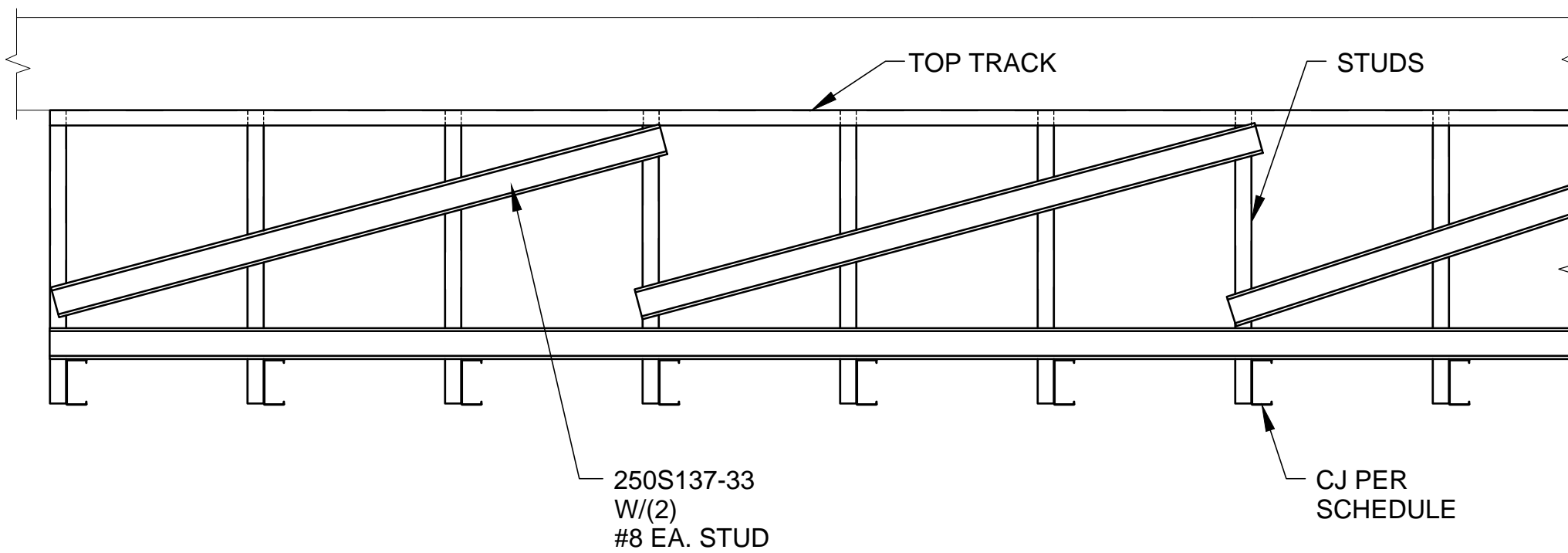
4 CEILING JOIST BRACING DETAILS SCALE: N.T.S.



1 BACKING PLATE DETAIL SCALE: N.T.S.



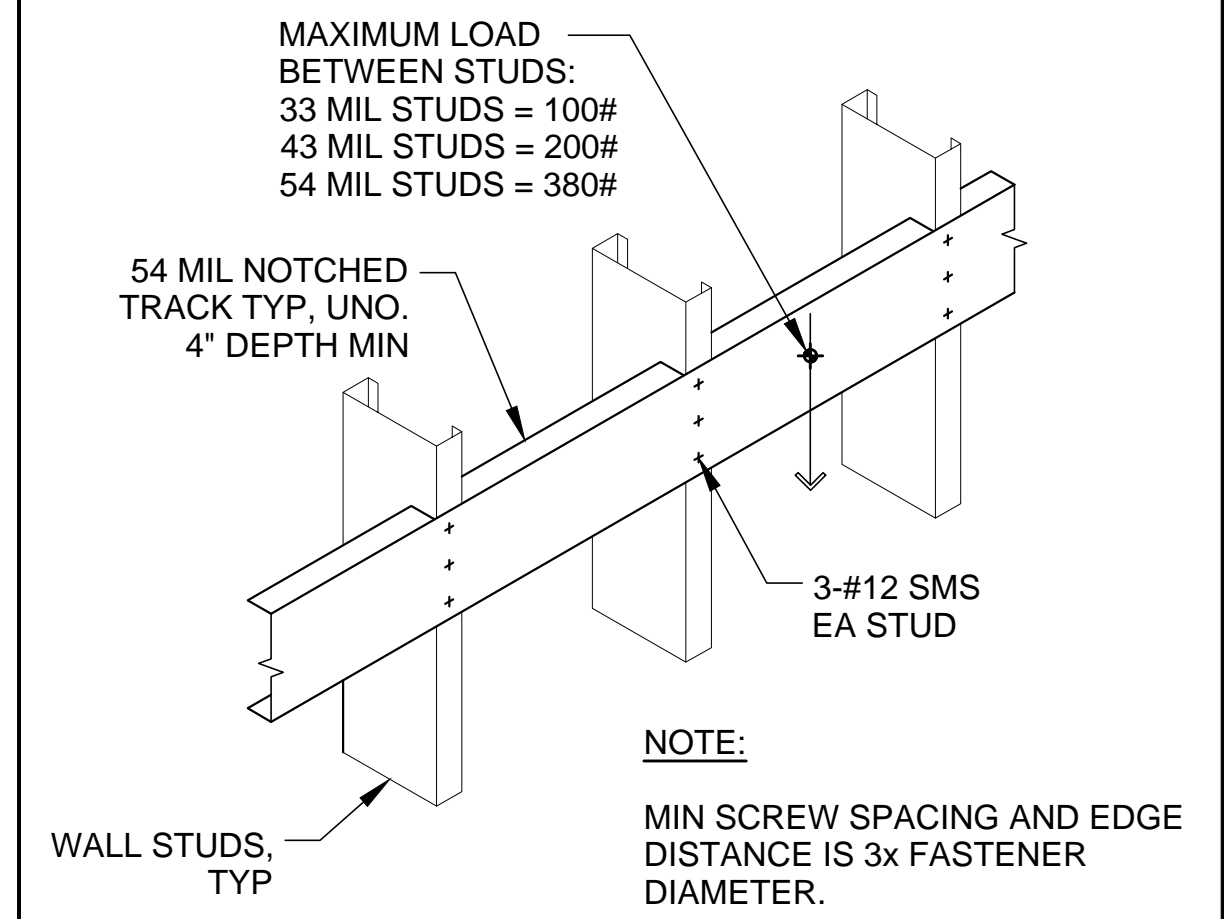
14 W6 CONN. DETAIL



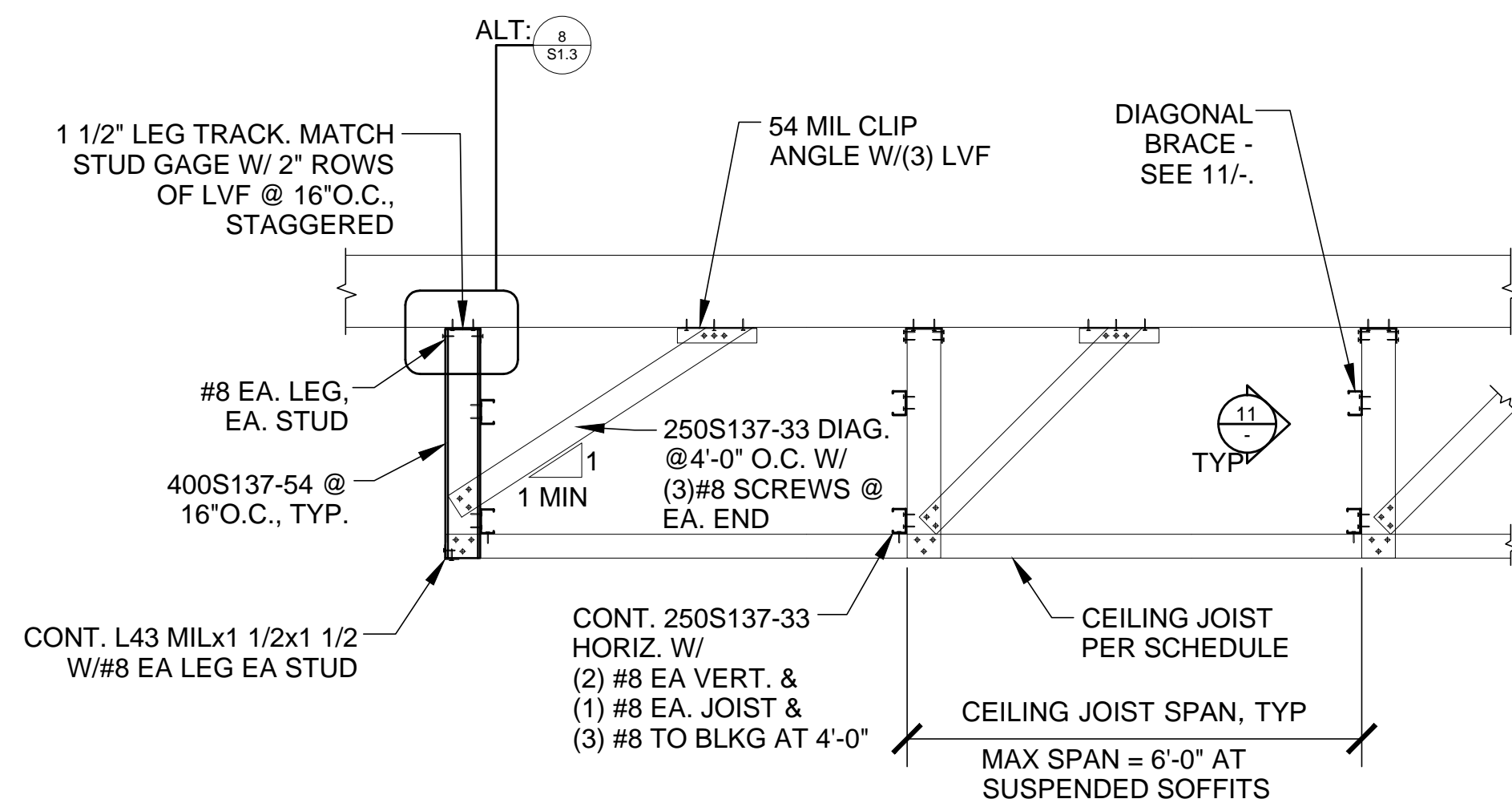
11 TYPICAL IN-PLANE BRACING SCALE: N.T.S.

STUD SIZE	CEILING JOIST SCHEDULE	
	MAXIMUM SPAN	
	UNBRACED	BRACED AT MIDSPAN PER 4/-
162S125-33	6'-0"	-
250S137-43	8'-6"	9'-6"
250S162-43	9'-6"	10'-4"
362S162-33	9'-8"	12'-6"
362S162-43	10'-9"	13'-8"
600S162-33	11'-6"	16'-6"
600S162-43	12'-4"	17'-6"
600S200-43	-	20'-0"

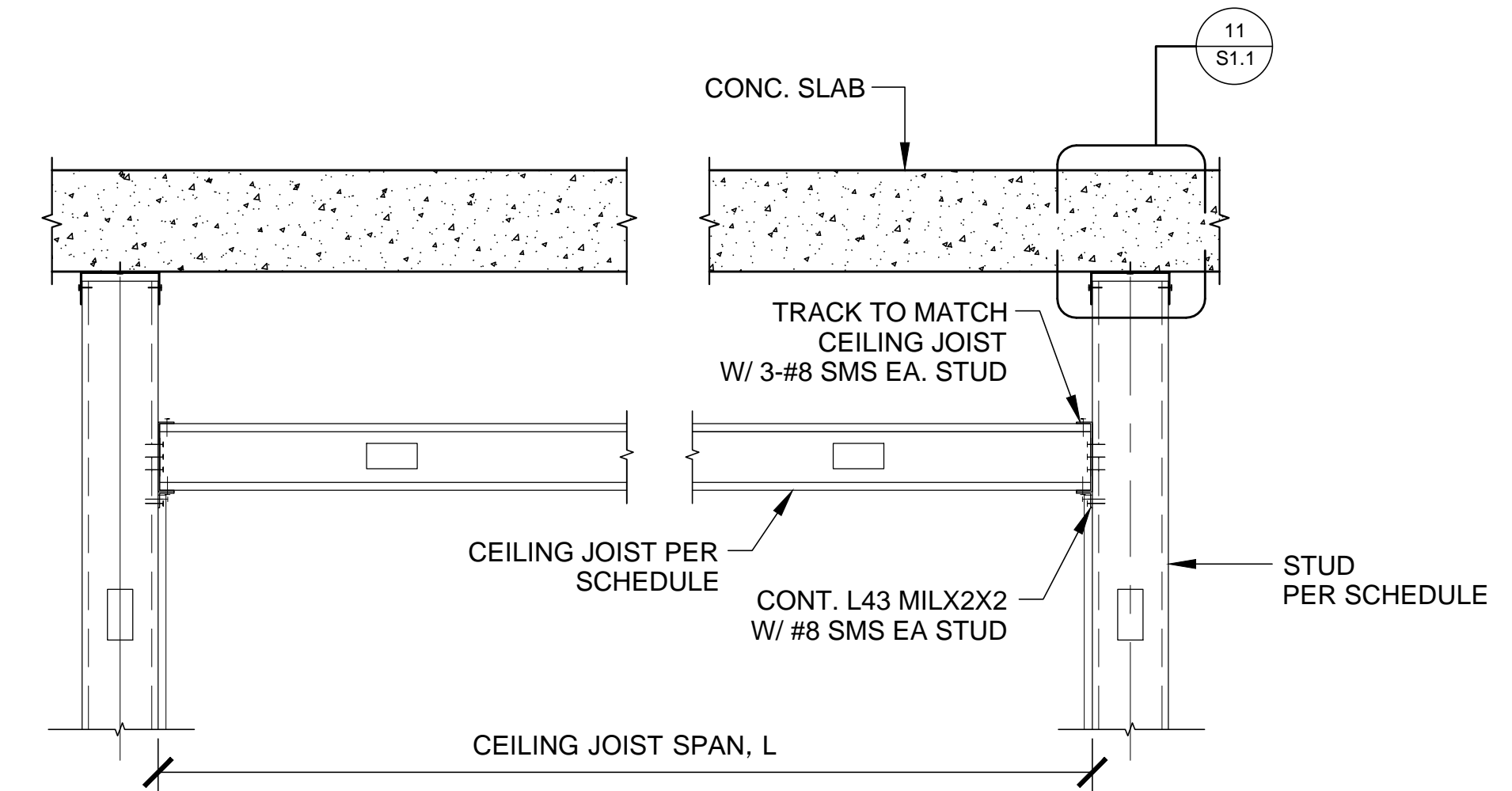
5 CEILING JOIST SCHEDULE SCALE: N.T.S.



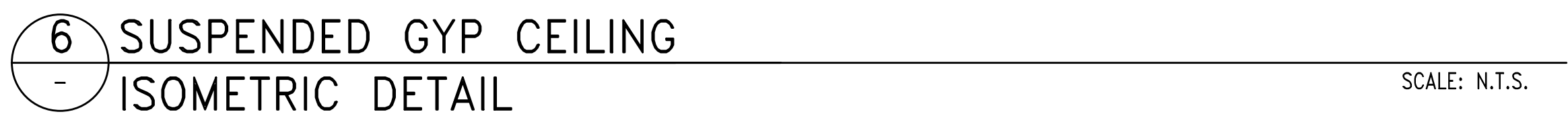
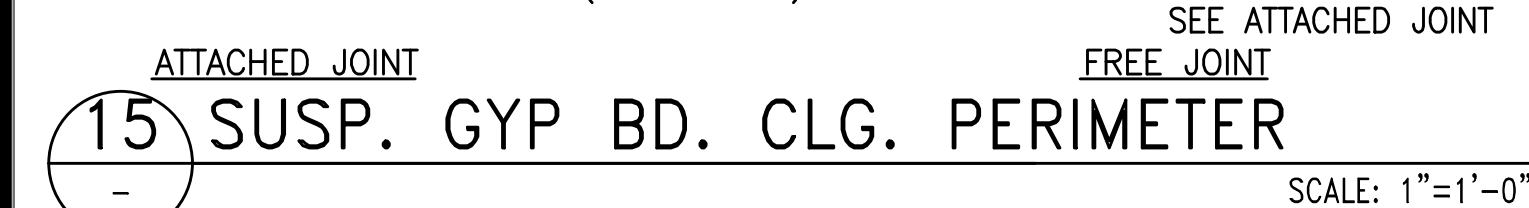
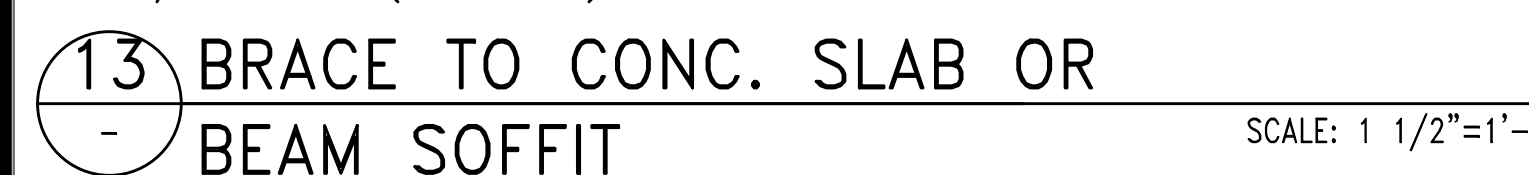
2 BACKING TRACK DETAIL SCALE: N.T.S.

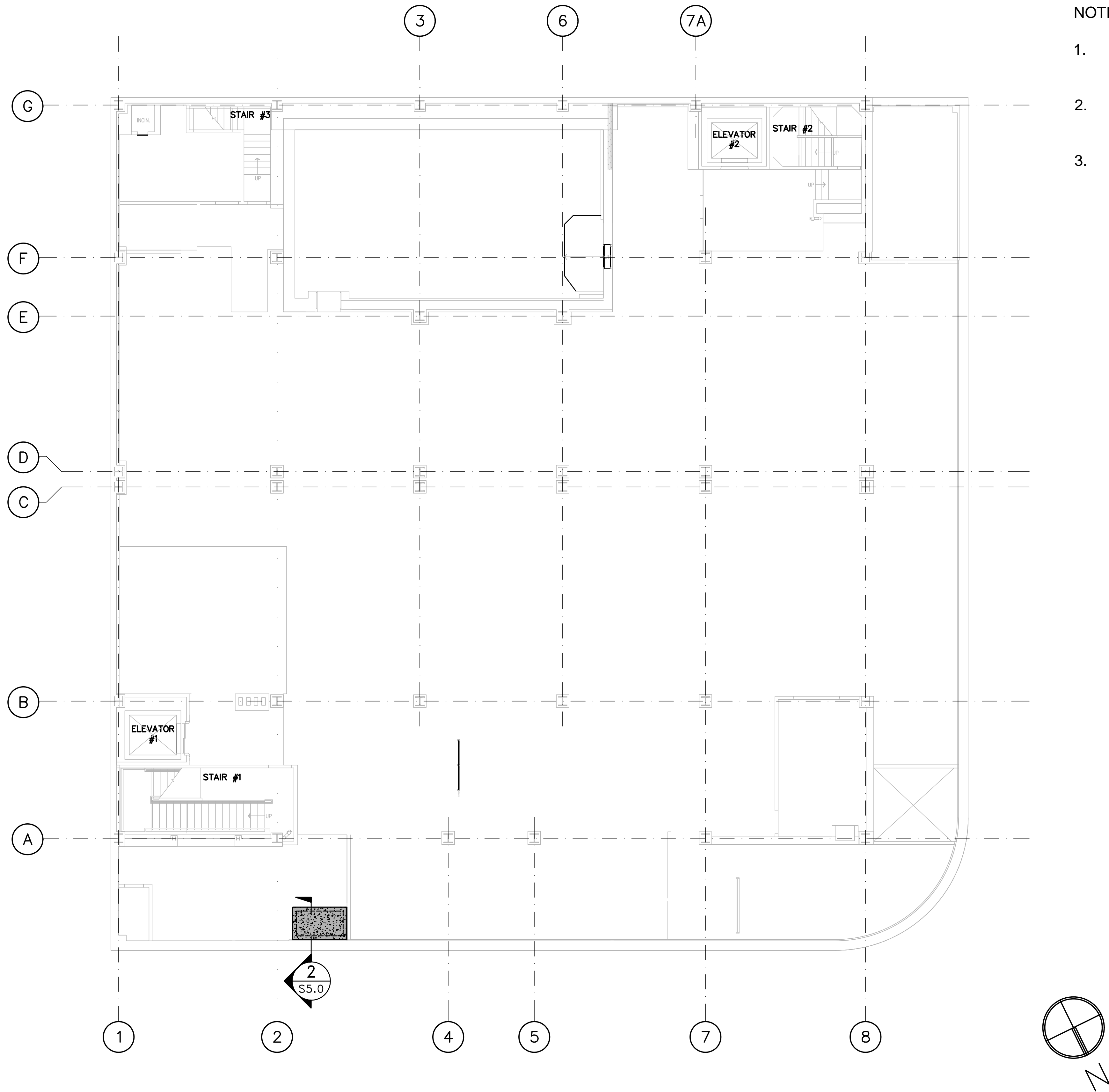


12 SUSPENDED SOFFIT FRAMING SCALE: N.T.S.

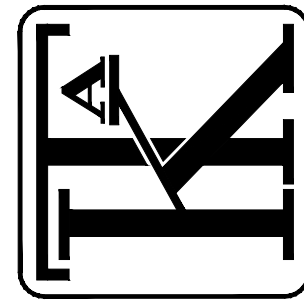


6 CEILING FRAMING-CEILING JOISTS SPANNING BETWEEN INTERIOR PARTITIONS SCALE: N.T.S.





- NOTES:
- FOR DIMENSIONS, ELEVATIONS, ETC.,  
S.A.D. & V.I.F.
  - FOR TYPICAL STEEL DETAILS,  
SEE S1.0.
  - FOR TYPICAL PARTITION & CEILING  
DETAILS, SEE S1.1, S1.2, S1.3.







INDICATES EXPOSED  
W6 ABOVE-SEE 15/S1.1

1 FIRST FLOOR FRAMING PLAN  
- SCALE: 1/8"=1'-0"

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

1. FOR DIMENSIONS, ELEVATIONS, ETC.,  
S.A.D. & V.I.F.
2. FOR TYPICAL STEEL DETAILS,  
SEE S1.0.
3. FOR TYPICAL PARTITION & CEILING  
DETAILS, SEE S1.1, S1.2, S1.3.

— (E) WF BEAMS &  
GIRDERS, TYP

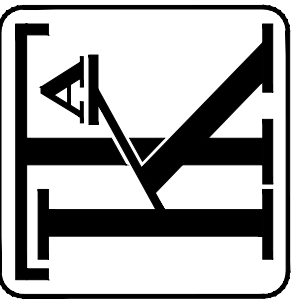
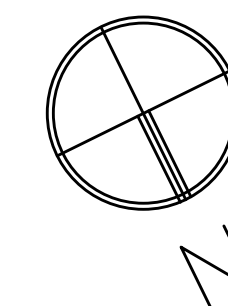
— (N) W16x36 FLOOR  
REINFORCING BEAM,  
TYP. CAREFULLY  
REMOVE CONCRETE  
FROM (E) WF TO  
CONNECT

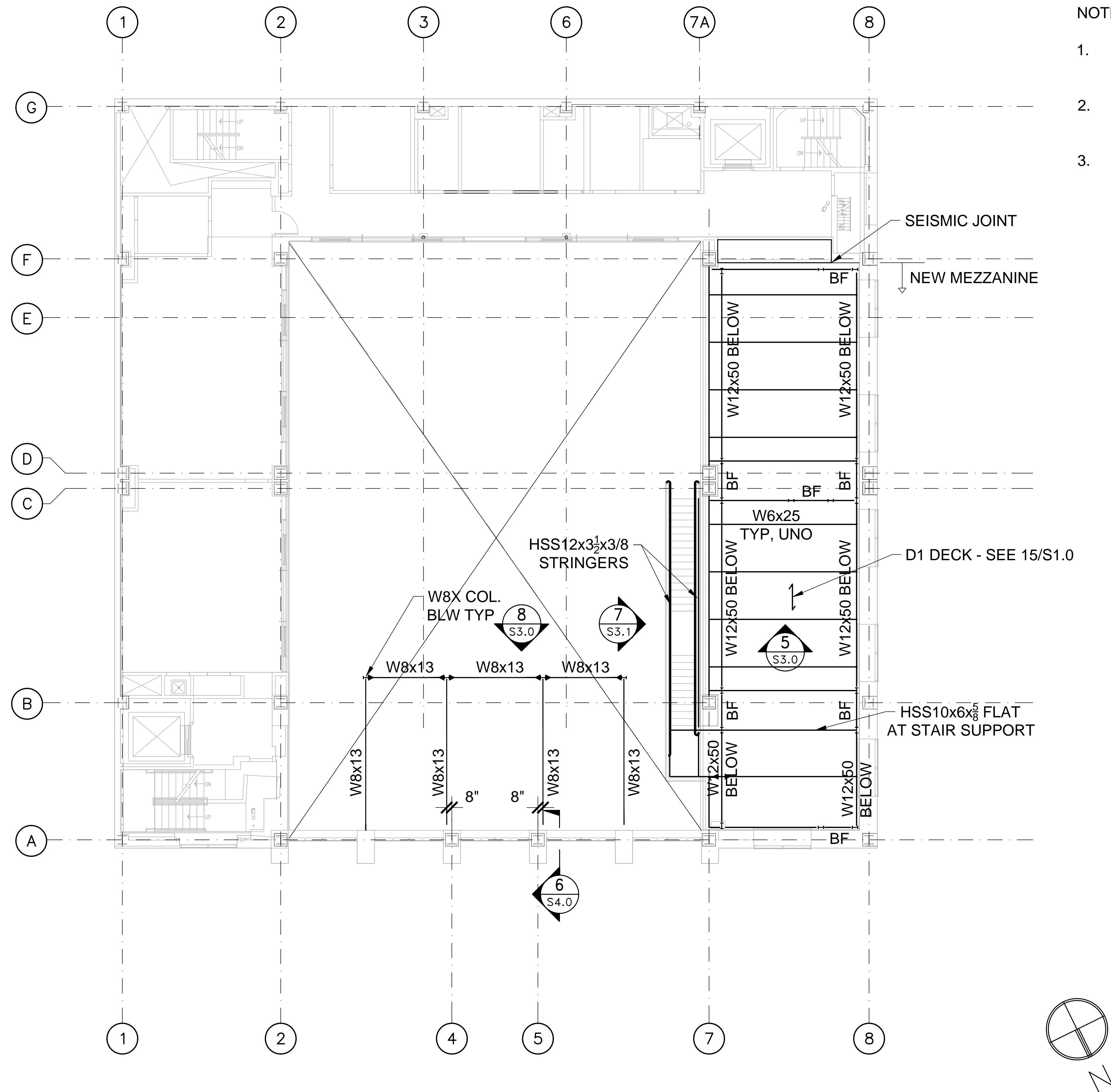
— INDICATES (N) BRACED FRAME  
ABOVE PER ELEVATION ON  
3/S3.0 (7 TOTAL)

— (N) W6x15 COL @ GLASS WALL,  
TYP

GLASS WALL HEADER  
SUPPORT FROM  
COLUMN PER 3/S4.0

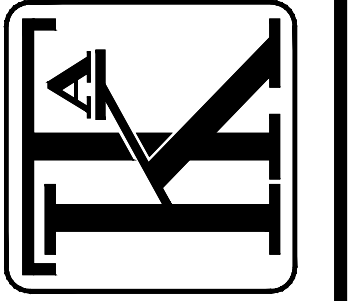
(N) W10x26  
COLUMN  
ABOVE





- NOTES:
1. FOR DIMENSIONS, ELEVATIONS, ETC., S.A.D. & V.I.F.
  2. FOR TYPICAL STEEL DETAILS, SEE S1.0.
  3. FOR TYPICAL PARTITION & CEILING DETAILS, SEE S1.1, S1.2, S1.3.

1 LOFT & ENTRY STRUCTURE FRAMING PLANS  
SCALE: 1/16"=1'-0"

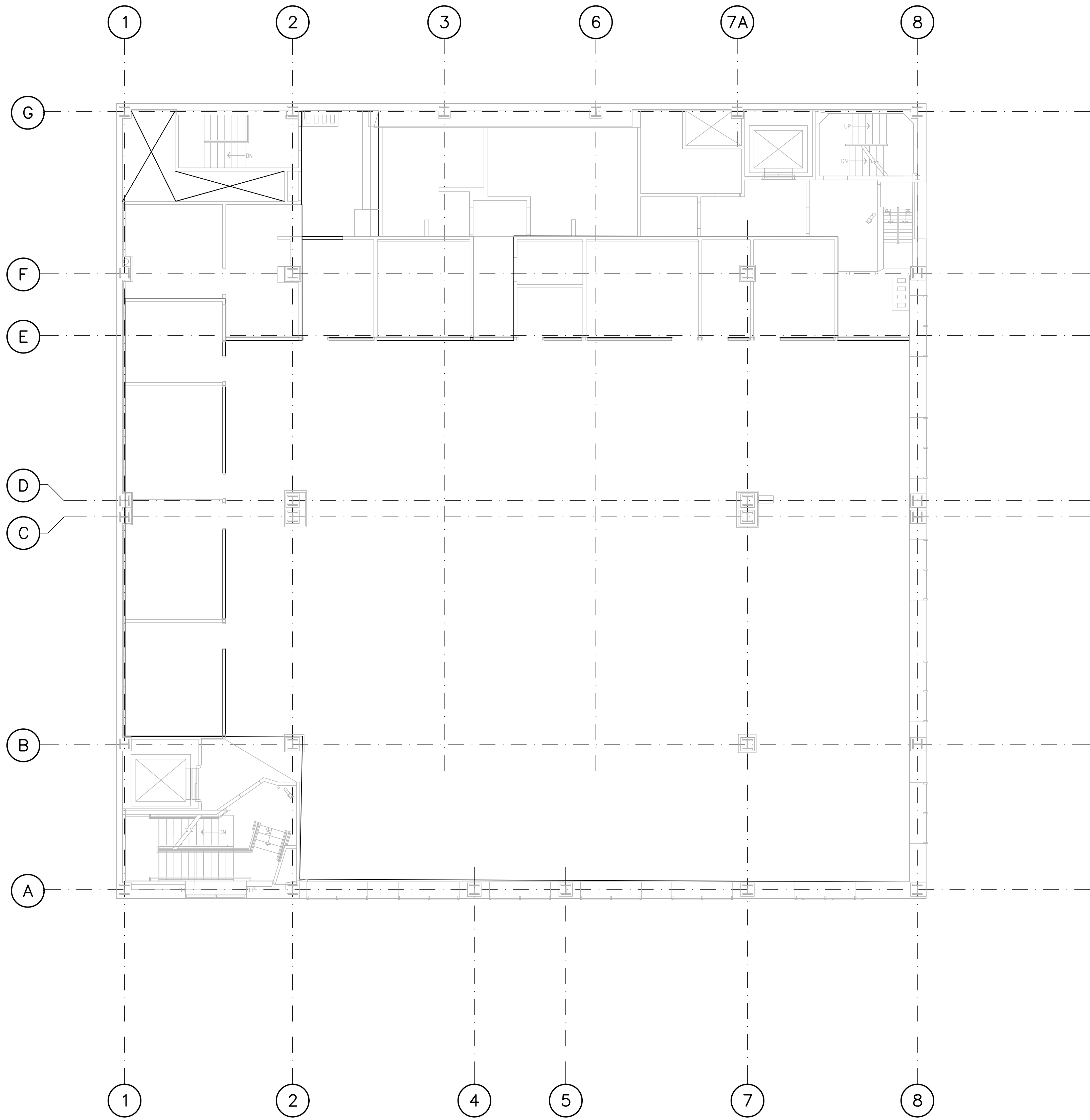




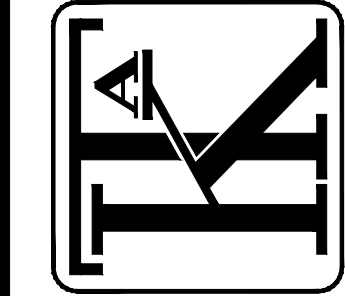
1

SECOND FLOOR PLAN

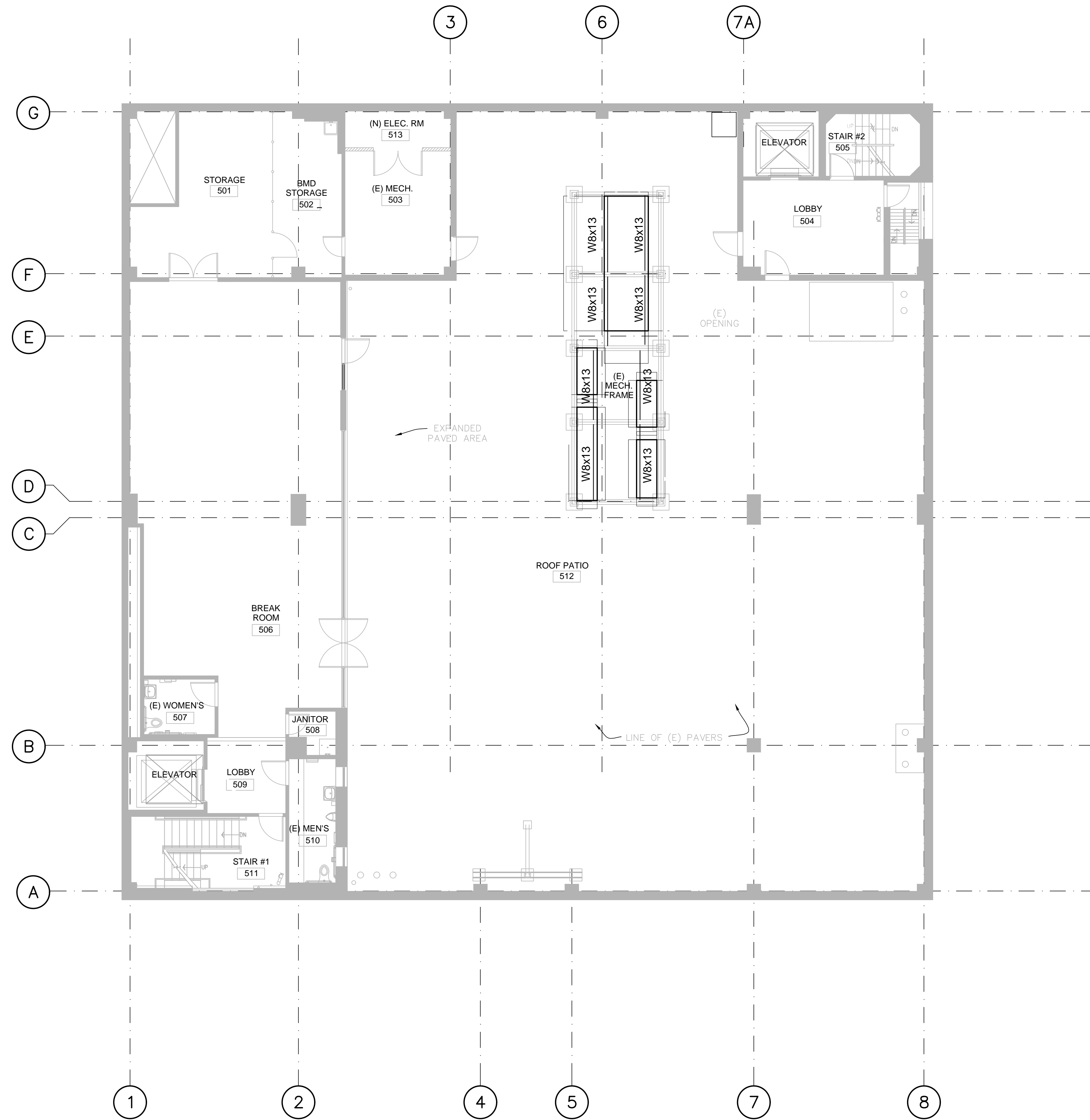
SCALE: 1/8"=1'-0"



- NOTES:
- FOR DIMENSIONS, ELEVATIONS, ETC., S.A.D. & V.I.F.
  - FOR TYPICAL STEEL DETAILS, SEE S1.0.
  - FOR TYPICAL PARTITION & CEILING DETAILS, SEE S1.1, S1.2, S1.3.

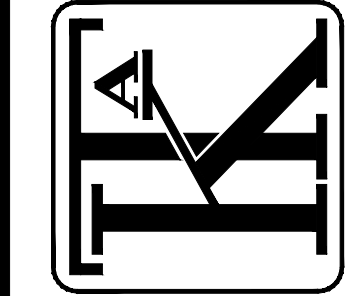


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DATE: 03/31/2017
DRAWN BY: PD
PROJECT NO.: 1203.22

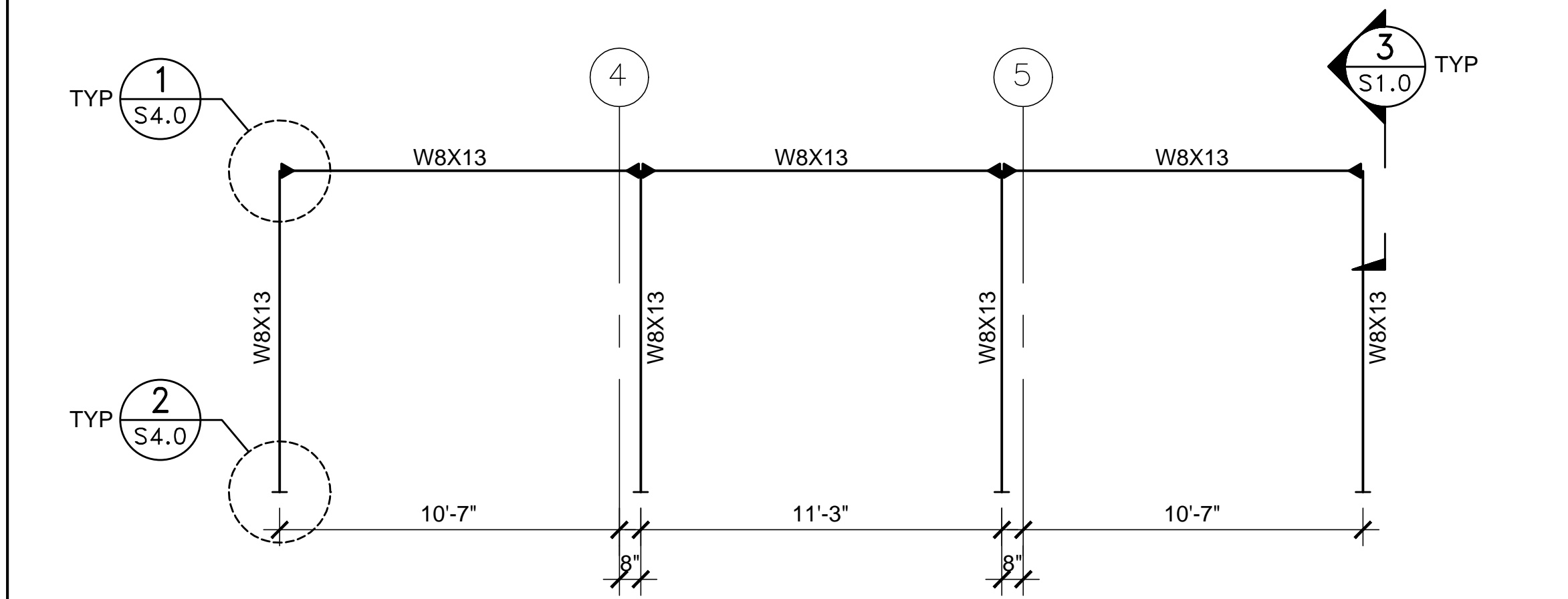


- NOTES:
1. FOR DIMENSIONS, ELEVATIONS, ETC., S.A.D. & V.I.F.
  2. FOR TYPICAL STEEL DETAILS, SEE S1.0.
  3. FOR TYPICAL PARTITION & CEILING DETAILS, SEE S1.1, S1.2, S1.3.
  4. SIZE & LOCATION OF NEW BEAMS AT MECHANICAL PLATFORM ARE APPROXIMATE & FOR ESTIMATING PURPOSES ONLY. FINAL DESIGN OF SUPPORT & ANCHORAGE OF MECHANICAL UNITS, AS WELL AS DESIGN OF ANY STAIRS, GUARDRAILS & PLATFORMS NECESSARY FOR THEIR MAINTENANCE, IS TO BE PERFORMED ON A DESIGN-BUILD BASIS BY AN ENGINEER LICENSED IN THE STATE OF CALIFORNIA.

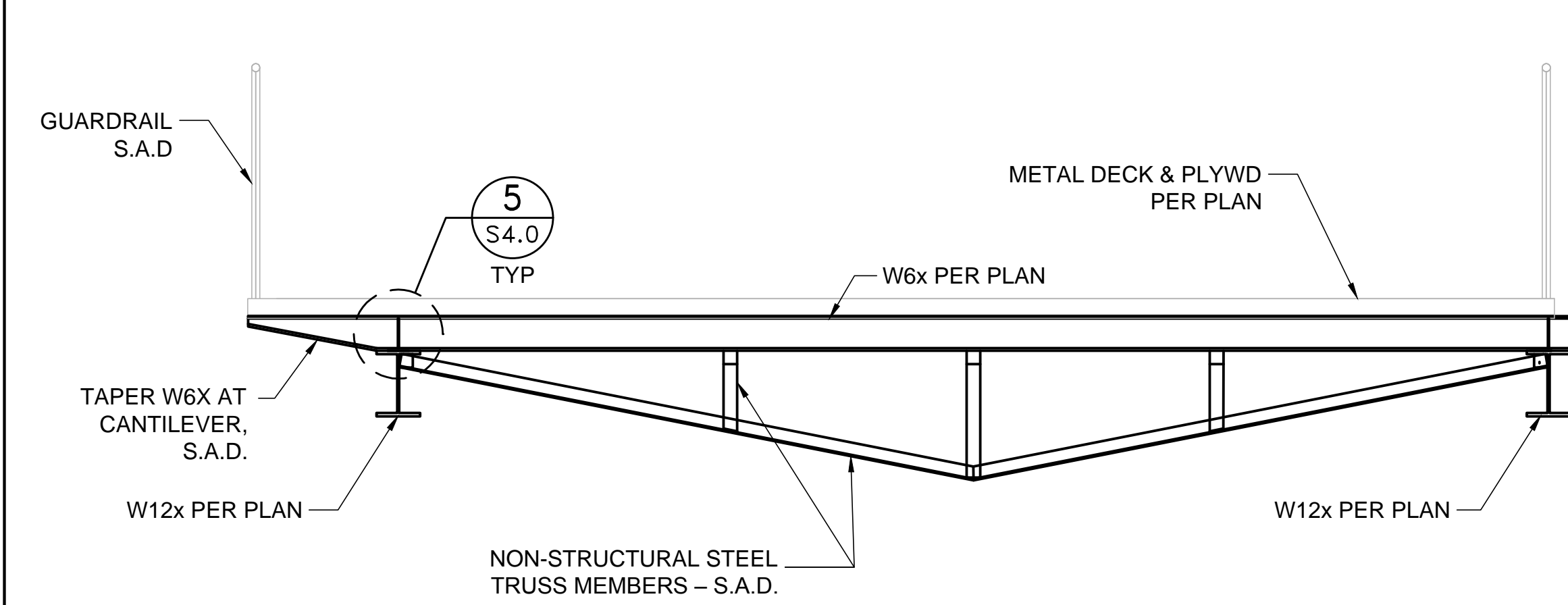
1 THIRD FLOOR/LOW ROOF PLAN  
SCALE: 1/8"=1'-0"



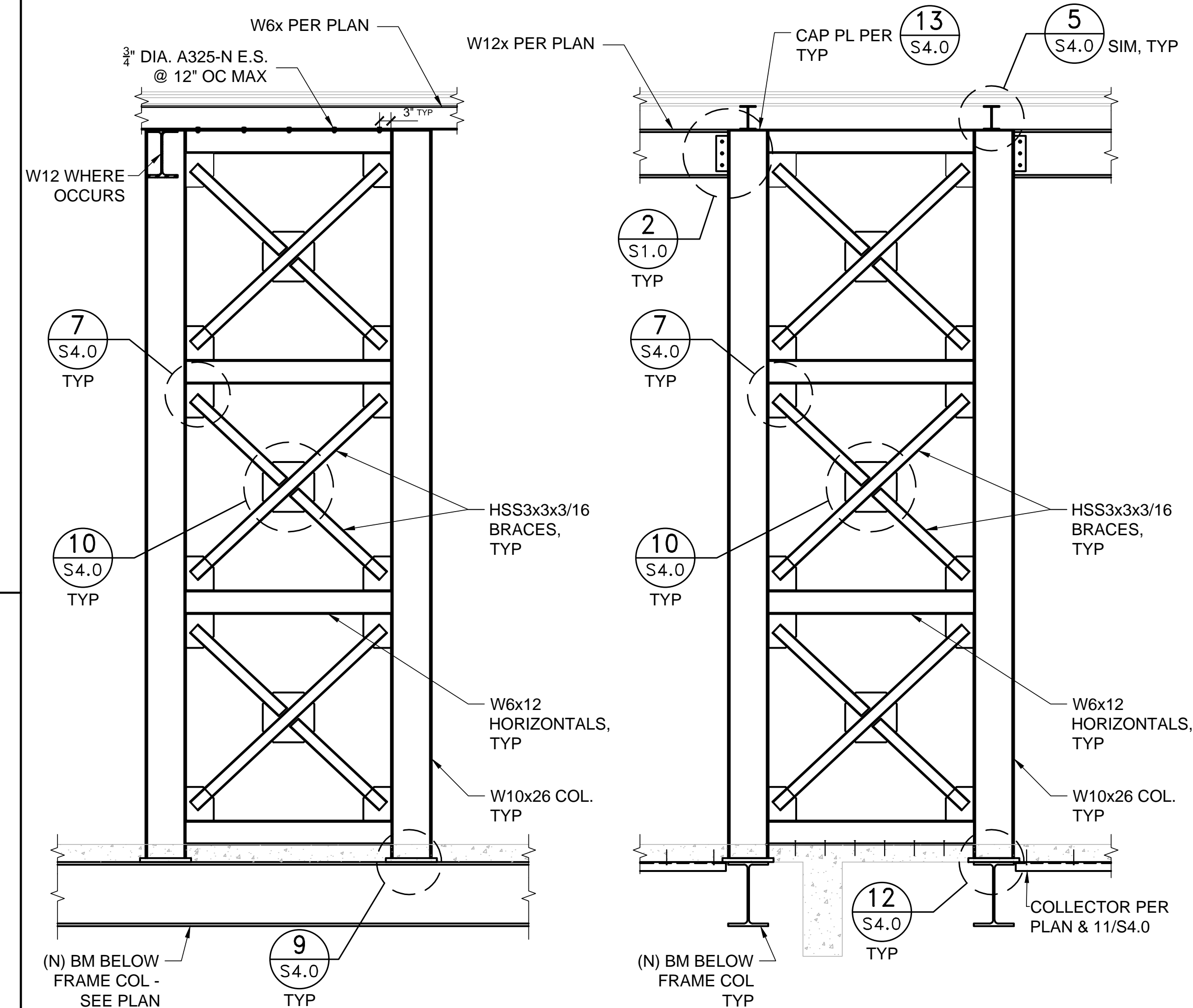
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10 ENTRY MOMENT FRAME ELEVATION  
SCALE: 1/4"=1'-0"

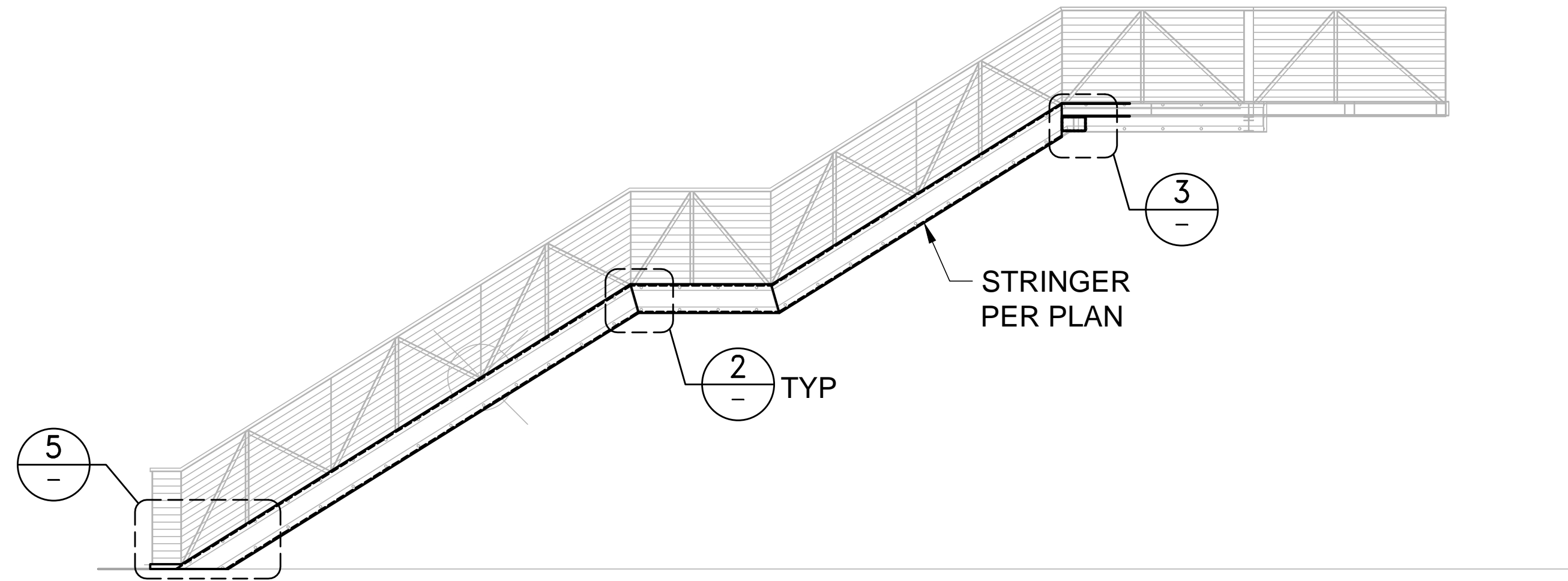


4 BEAM-TRUSS ELEVATION  
SCALE: 1/2"=1'-0"



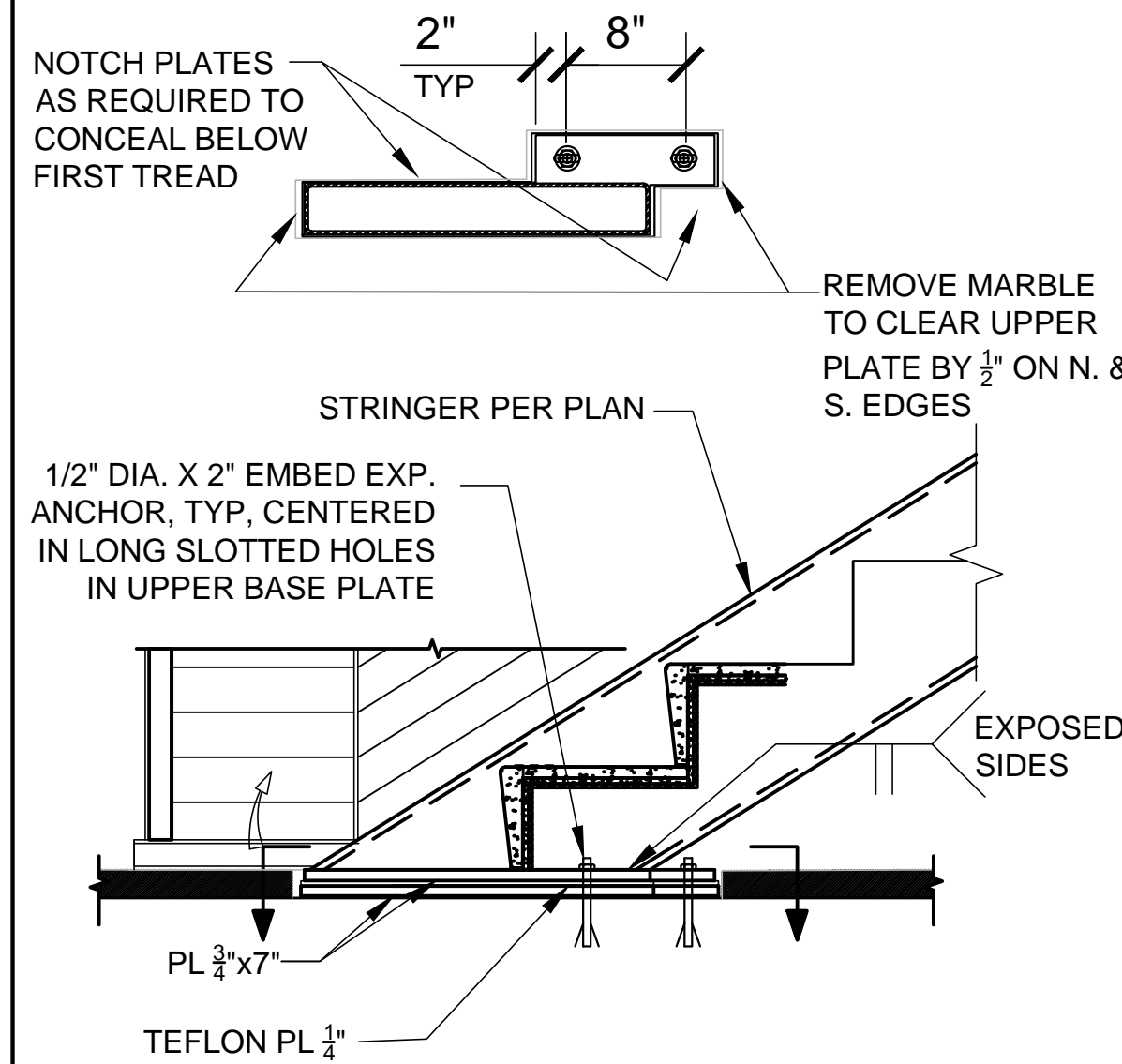
3 BRACED FRAME ELEVATIONS  
SCALE: 1/2"=1'-0"





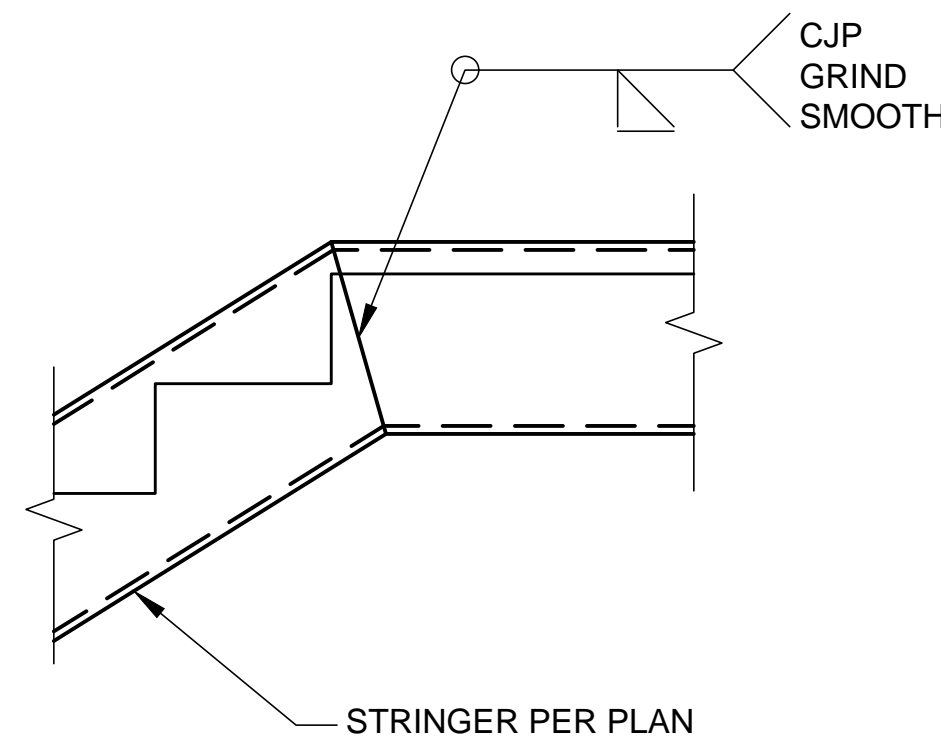
7 MEZZANINE STAIR ELEVATION

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



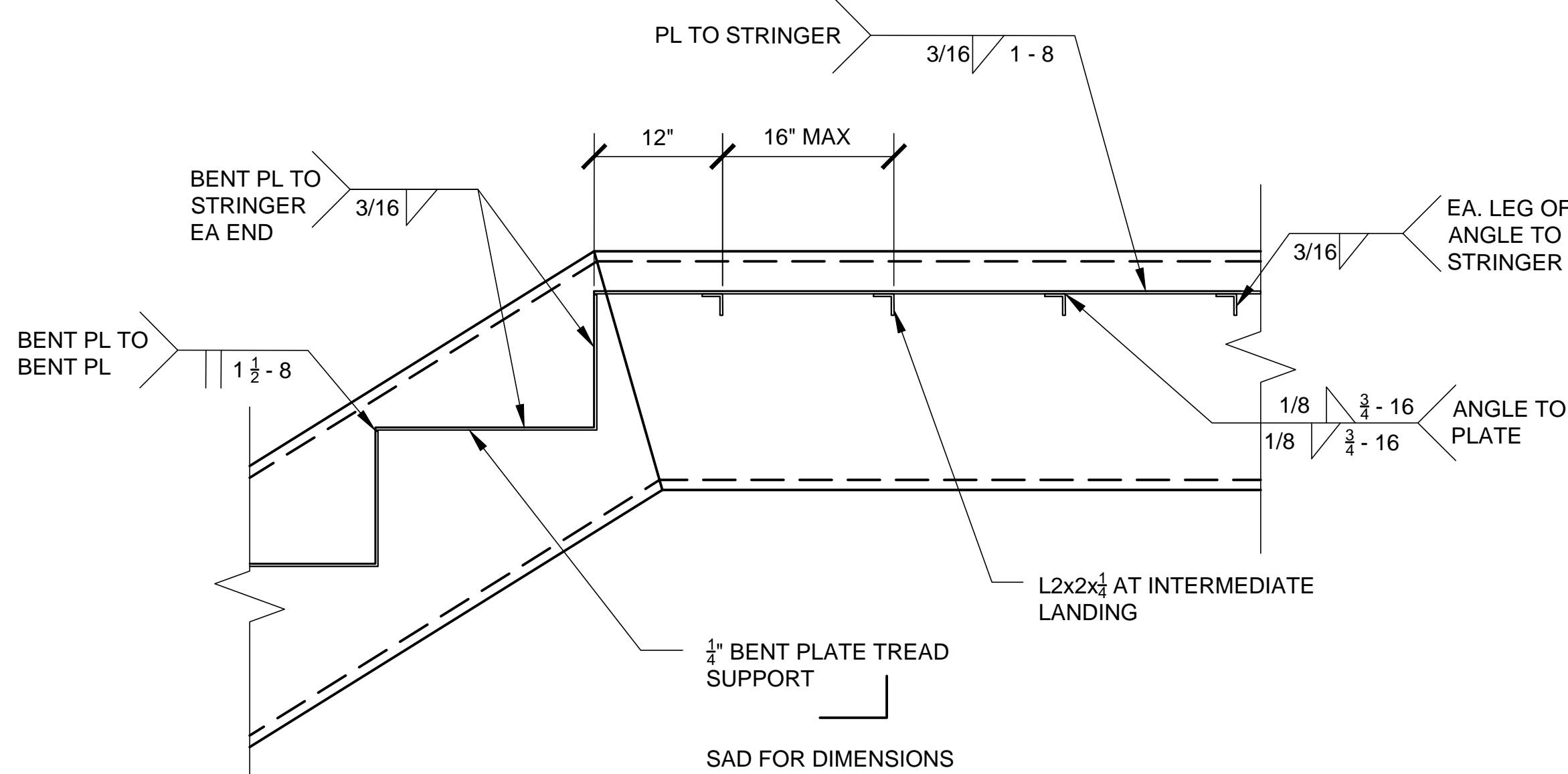
5 STRINGER CONN. @ BASE

SCALE: 1"=1'-0"



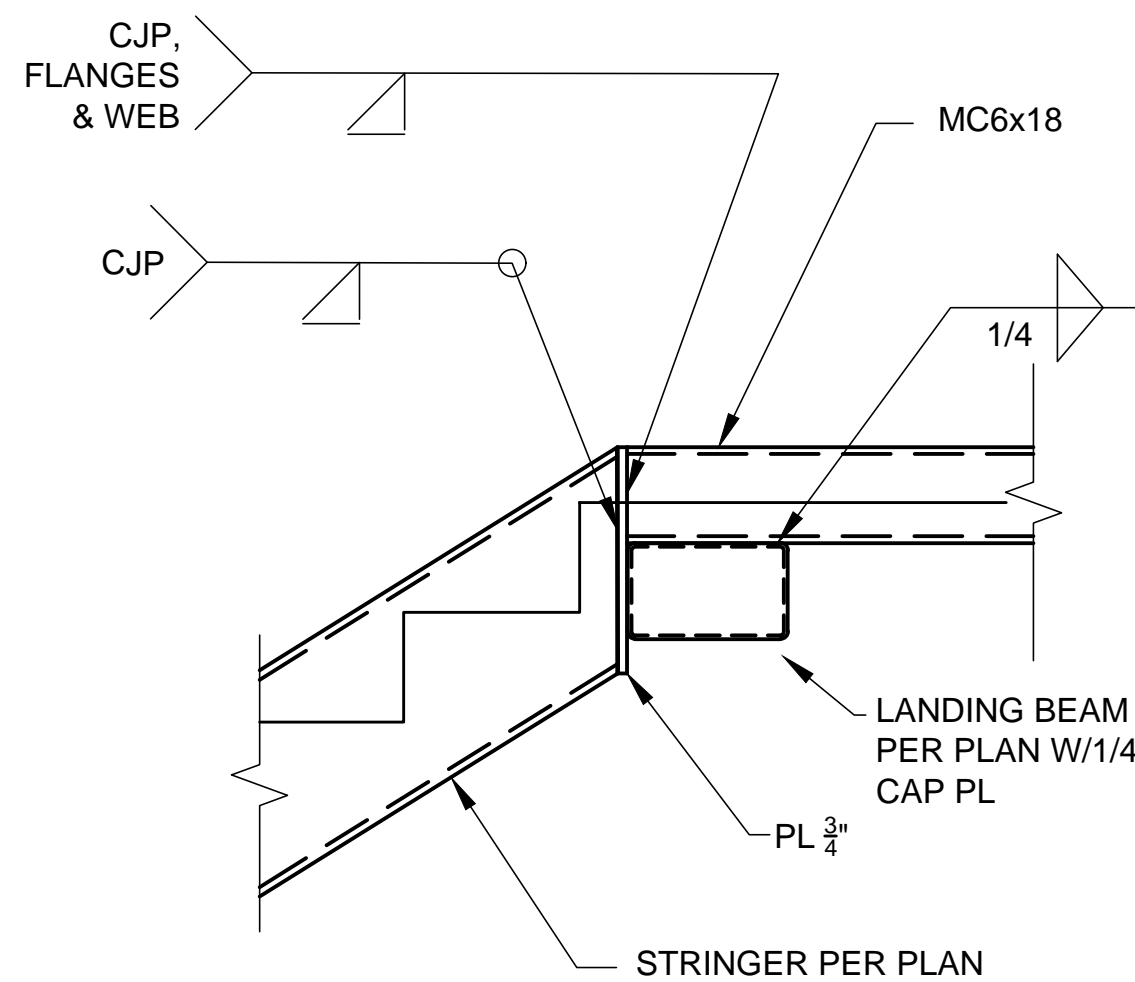
2 STRINGER KNEE JOINT

SCALE: 1"=1'-0"



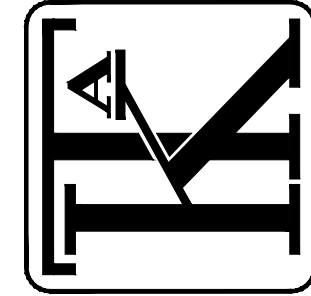
6 TREAD & LANDING DETAIL

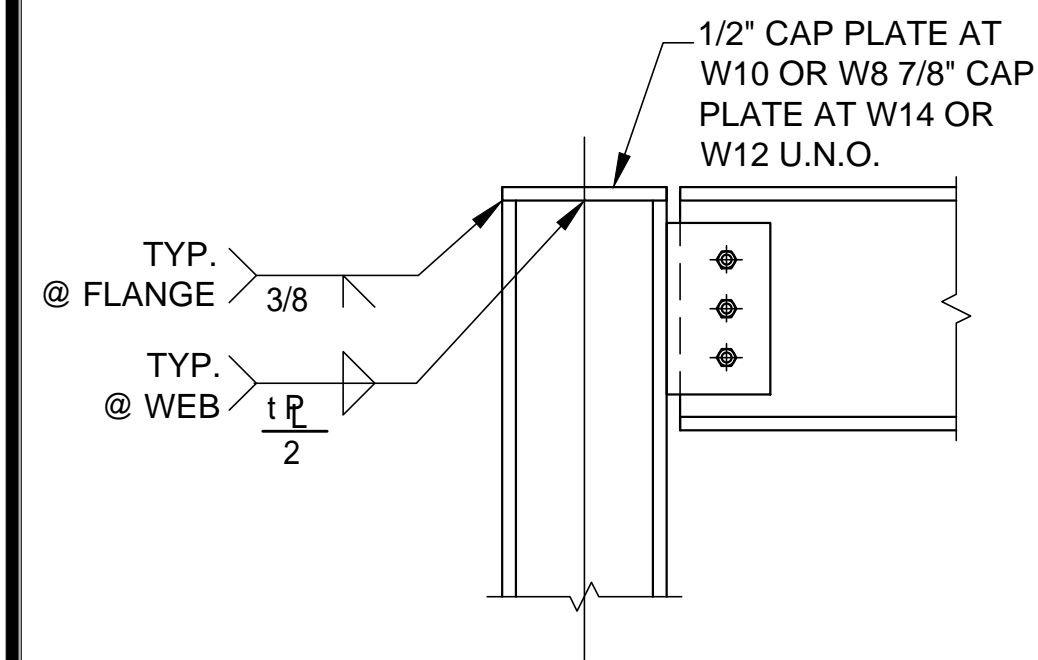
N.T.S.



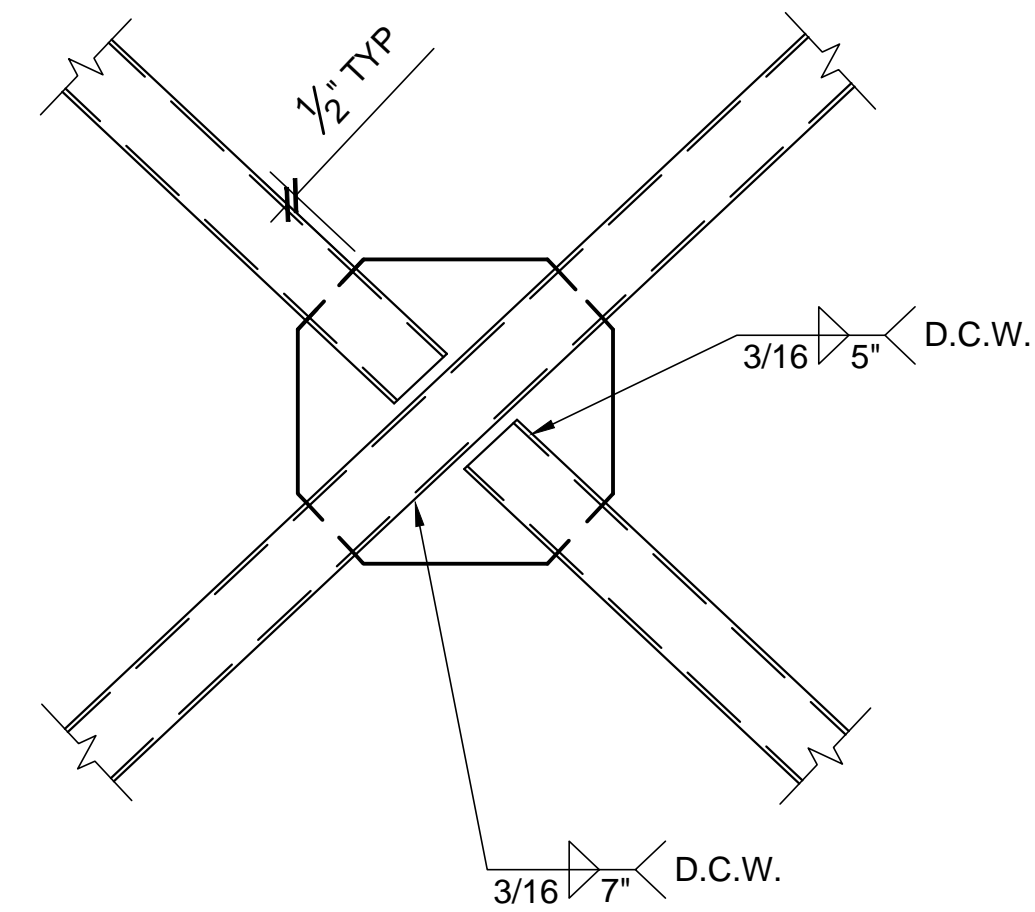
3 STRINGER CONN @ TOP

SCALE: 1"=1'-0"

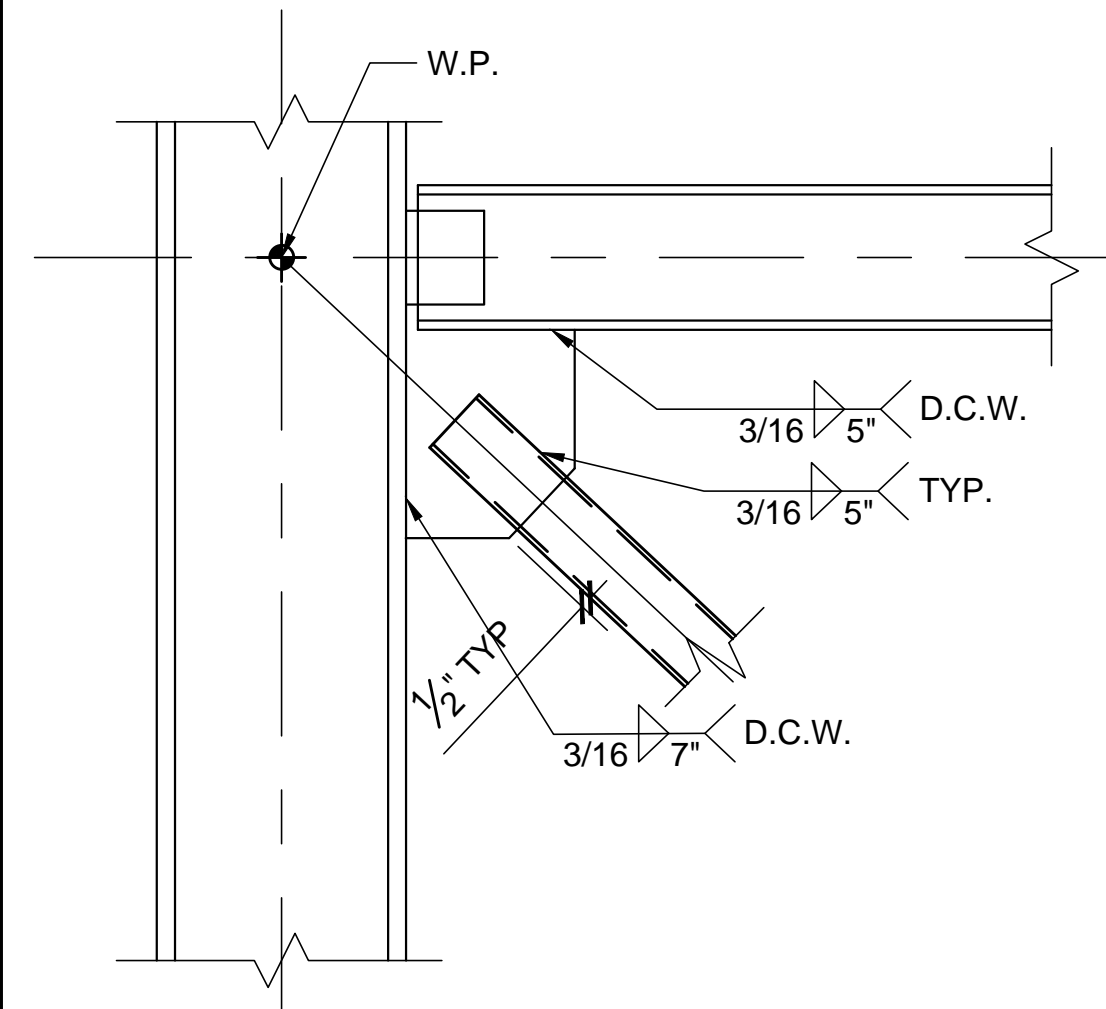




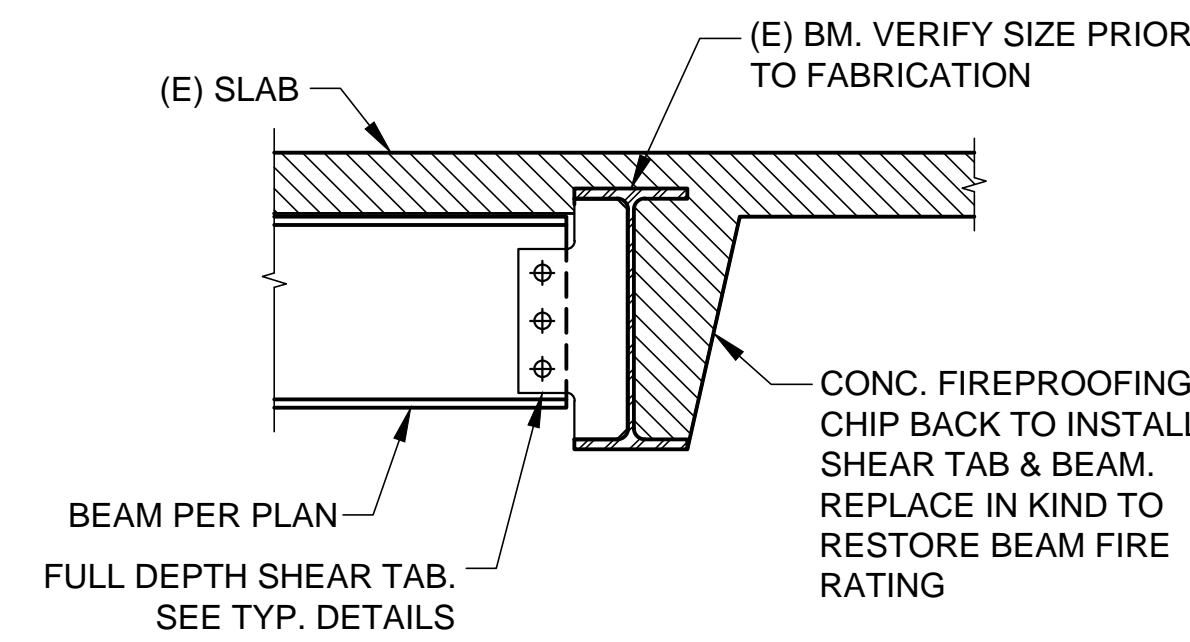
13 COLUMN CAP PLATE DETAIL  
N.T.S.



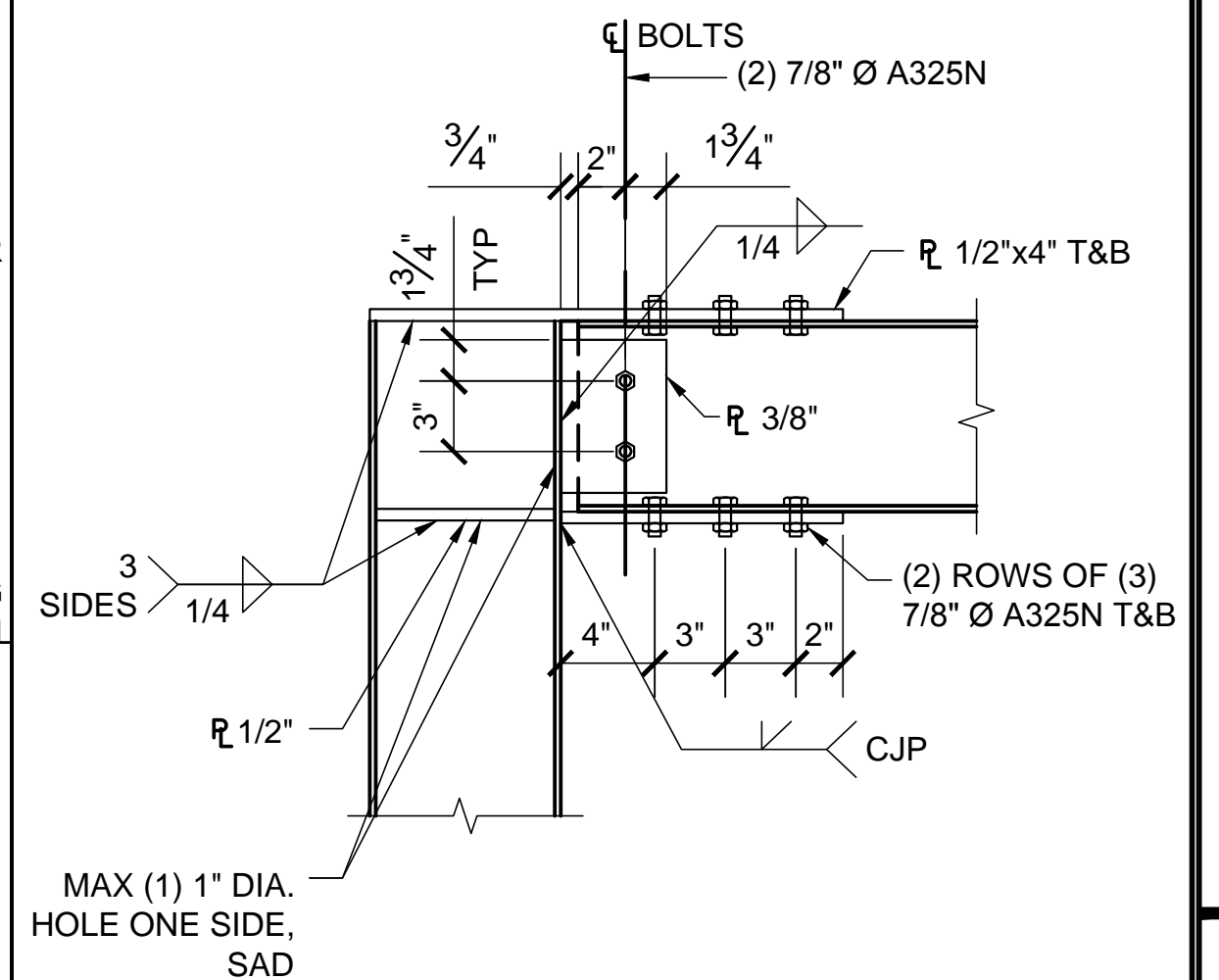
10 TYP. BRACE CONNECTION  
SCALE: 1 1/2"=1'-0"



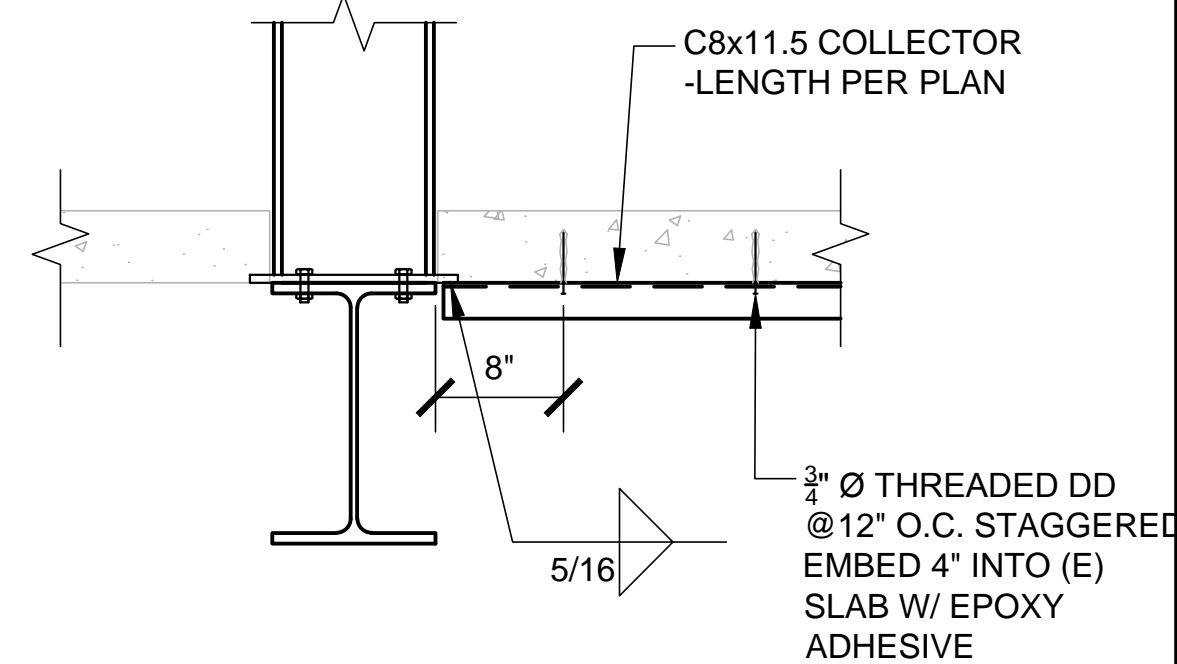
7 TYP. BRACE CONNECTION  
SCALE: 1 1/2"=1'-0"



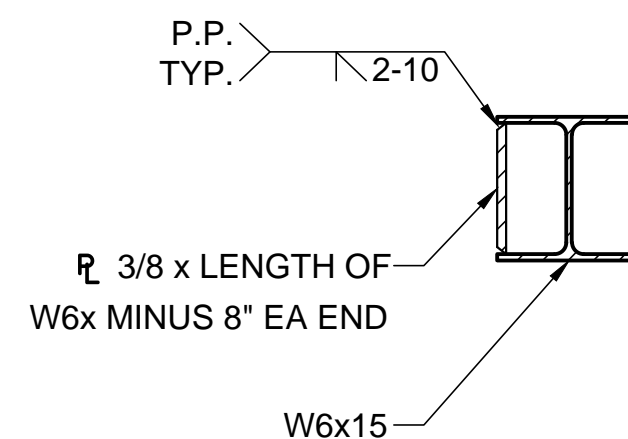
4 (N) TO (E) BEAM CONN.  
SCALE: 1"=1'-0"



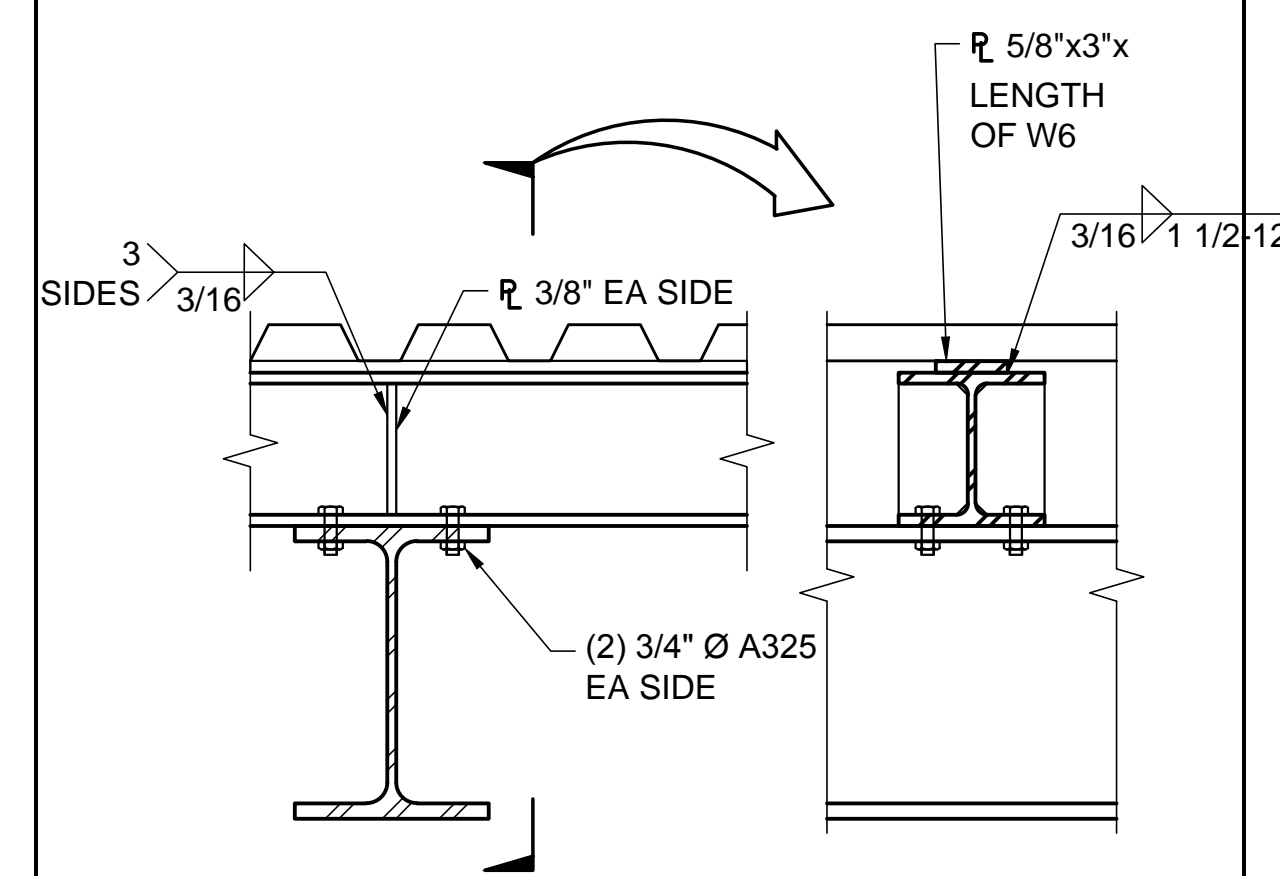
1 MOMENT CONNECTION DETAIL  
SCALE: 1 1/2"=1'-0"



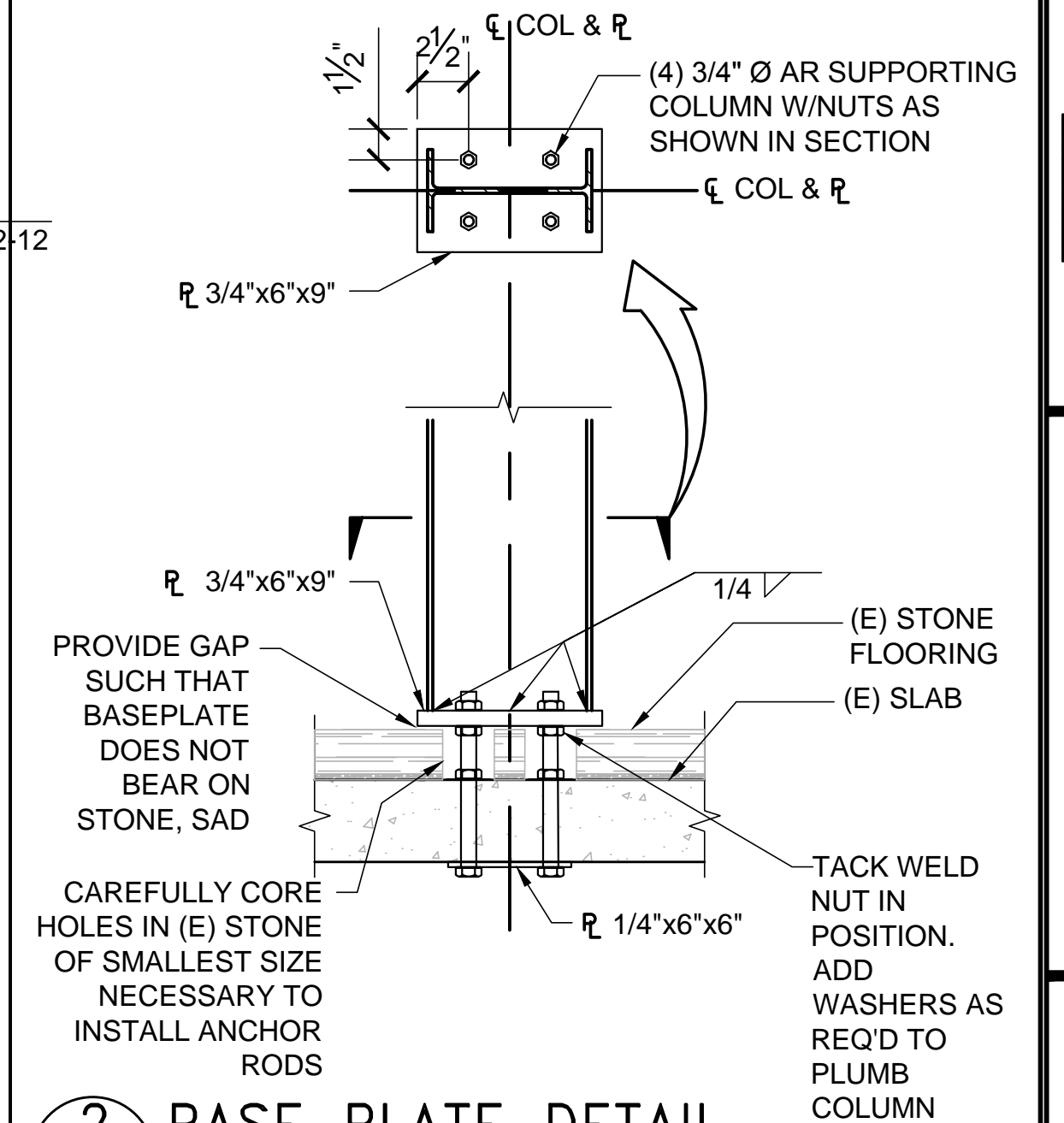
11 COLLECTOR DETAIL  
SCALE: 1"=1'-0"



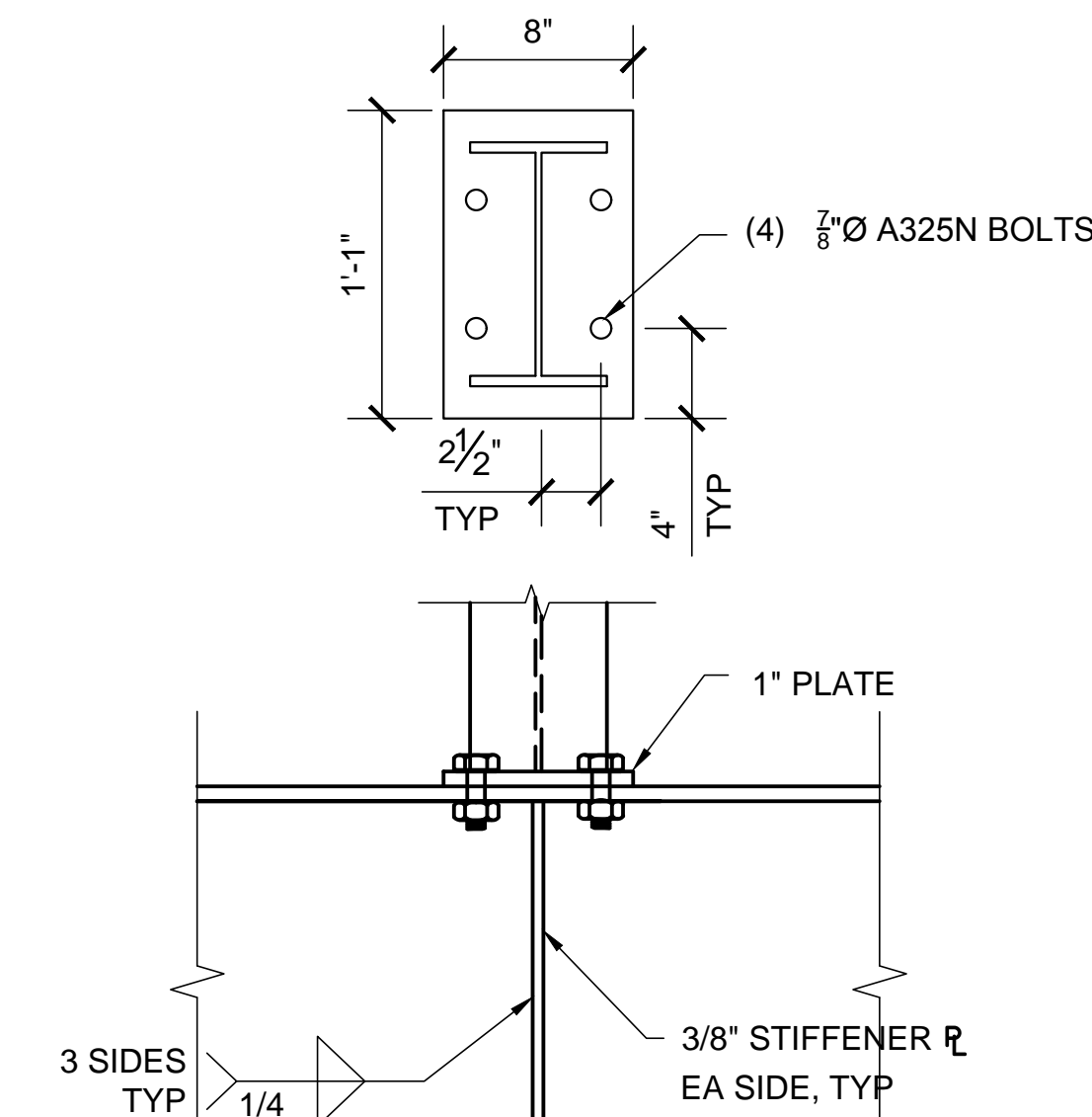
8 BUILT-UP W6 HEADER DETAIL  
SCALE: 1 1/2"=1'-0"



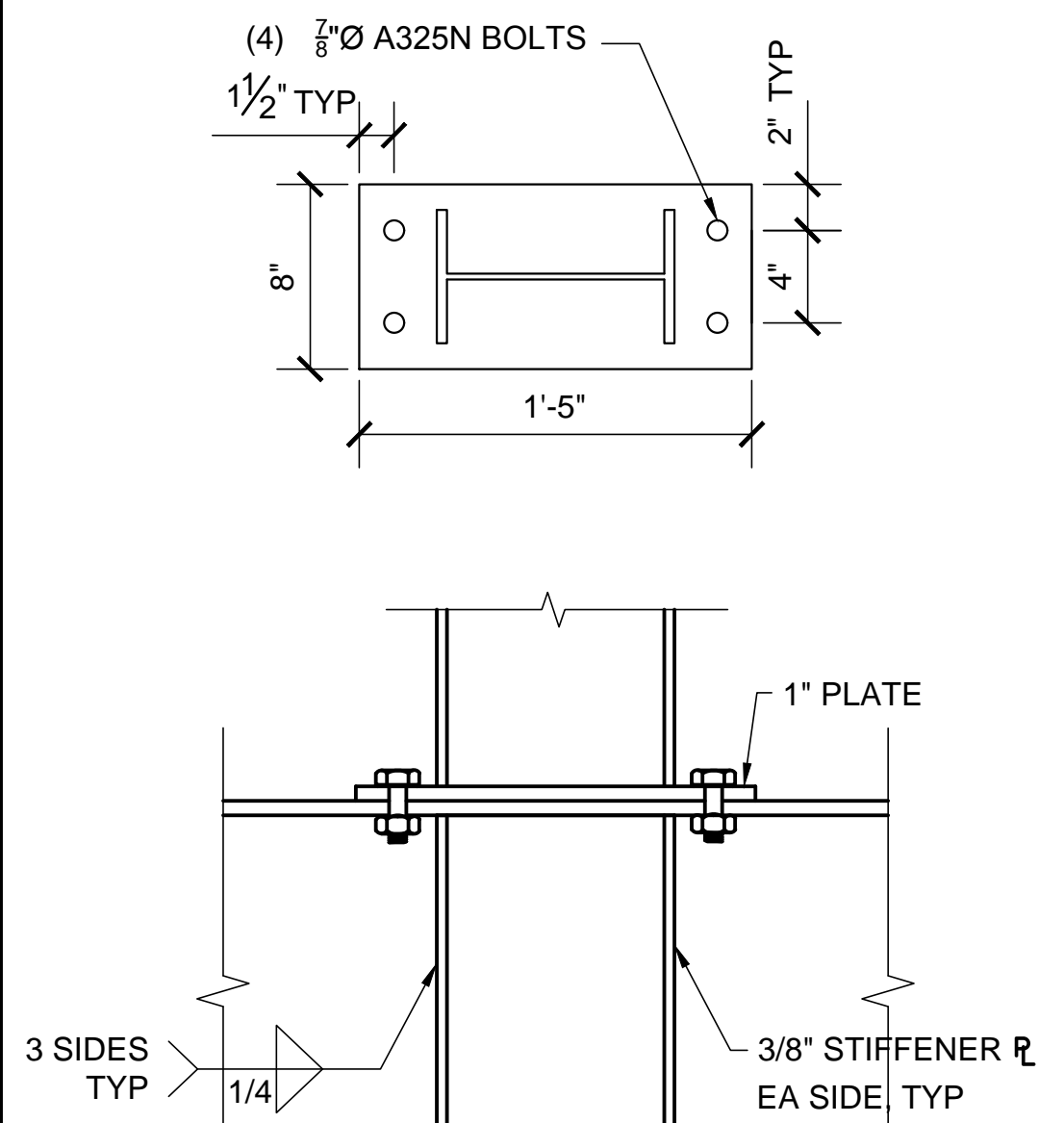
5 BEAM TO GIRDER CONNECTION  
SCALE: 1 1/2"=1'-0"



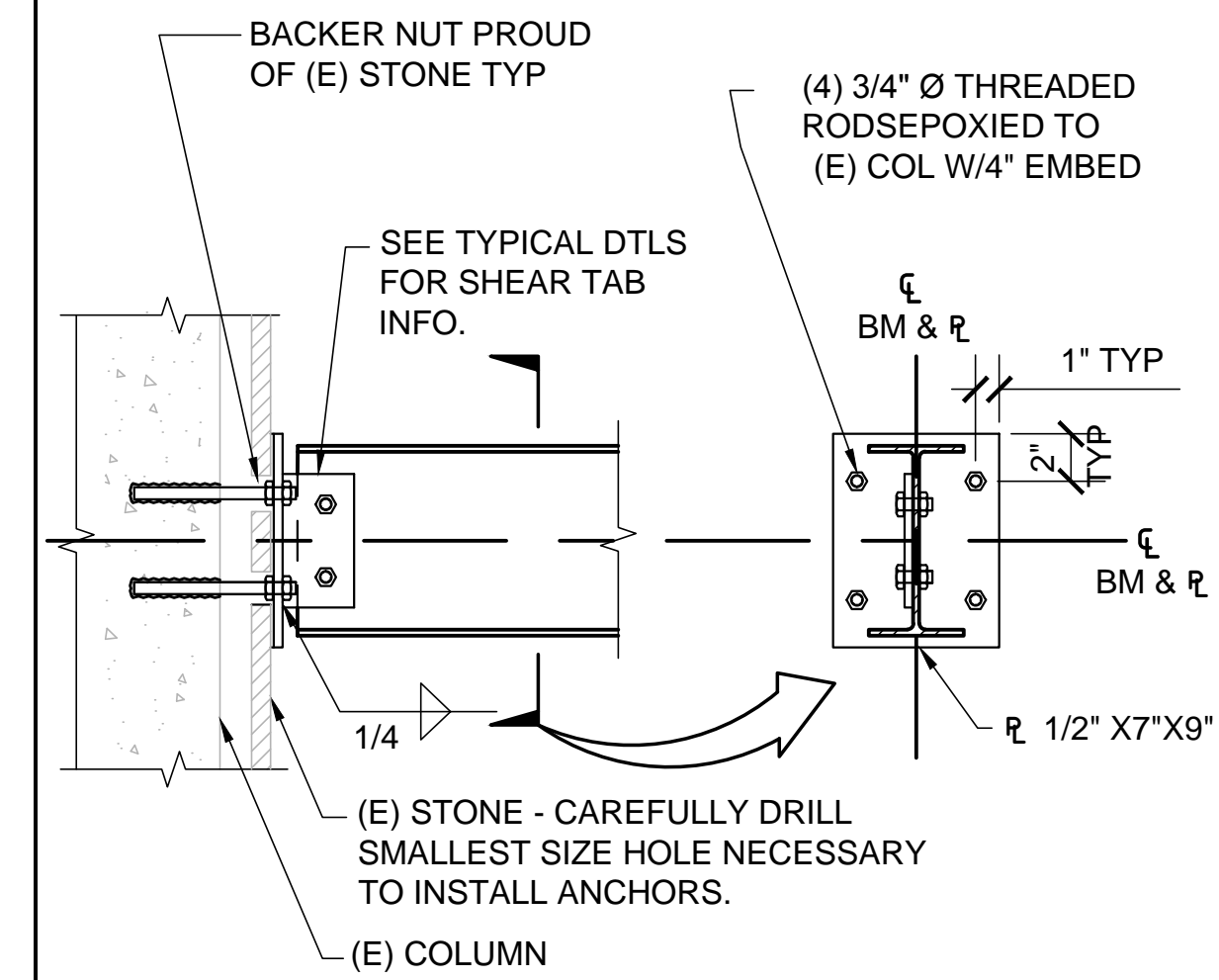
2 BASE PLATE DETAIL  
SCALE: 1 1/2"=1'-0"



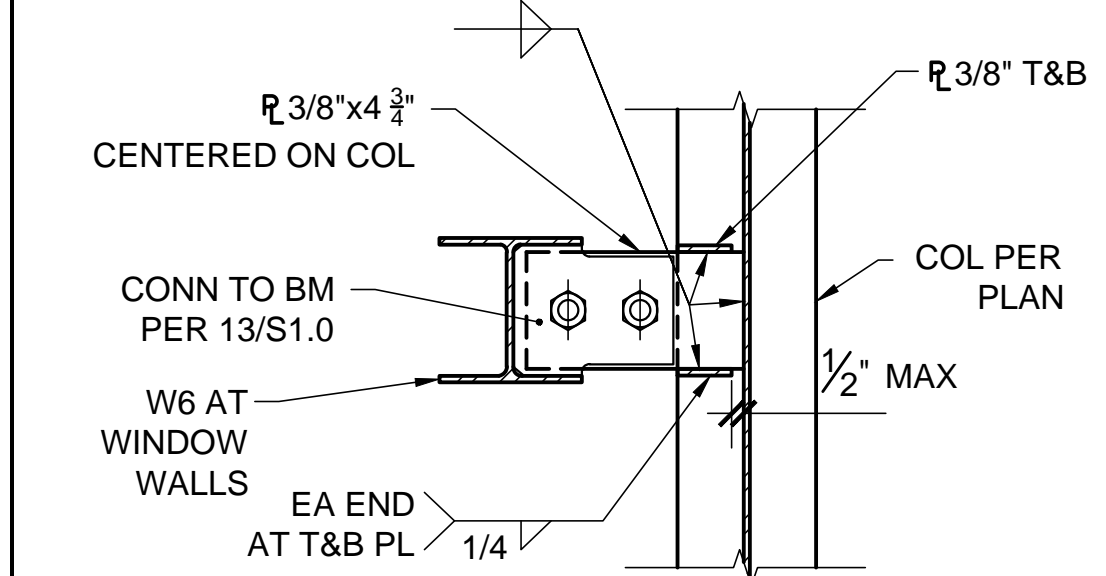
12 BRACED FRAME BASE PLATE  
SCALE: 1"=1'-0"



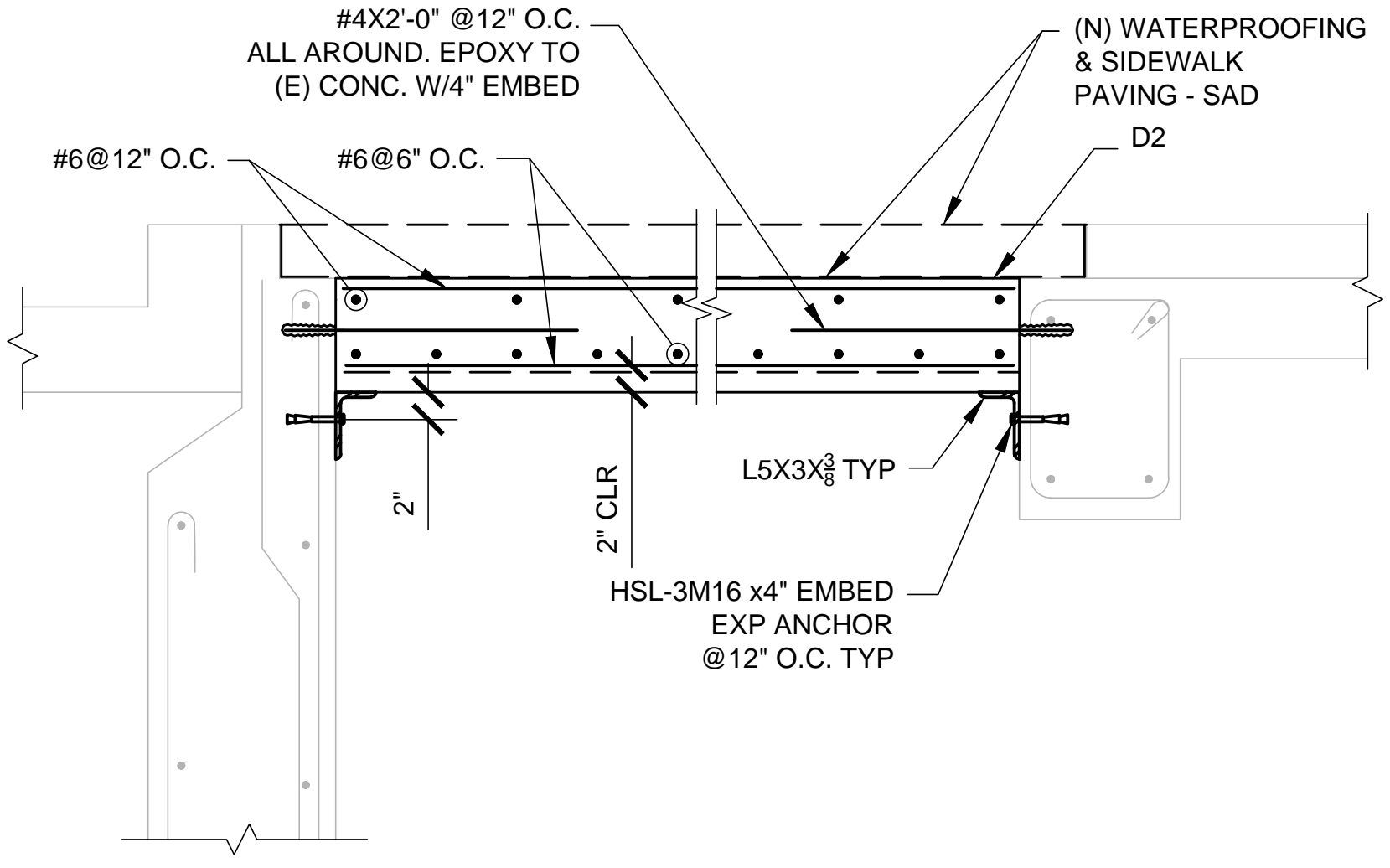
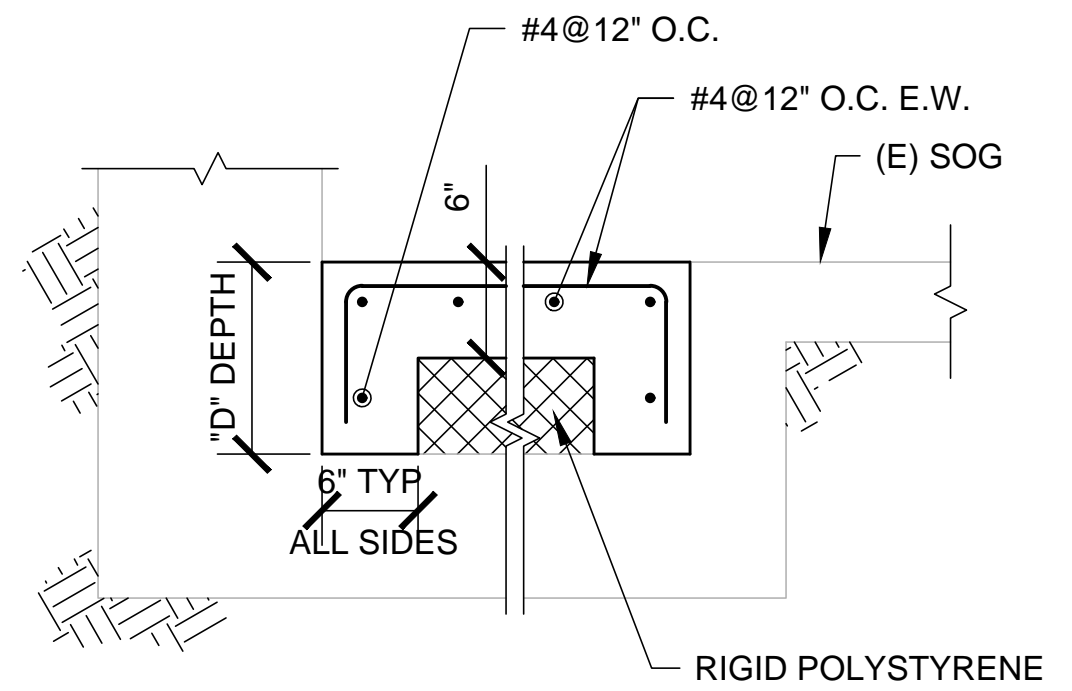
9 BRACED FRAME BASE PLATE  
SCALE: 1"=1'-0"



6 BEAM CONN TO (E) COLUMN  
SCALE: 1 1/2"=1'-0"



3 COL SUPPORT OF W6 HEADER  
SCALE: 1 1/2"=1'-0"

			<div></div> <div><div><div>4</div><div>-</div></div>FREIGHT ELEVATOR SLAB INFILL<div>SCALE: 1"=1'-0"</div></div>
			<div></div> <div><div><div>2</div><div>-</div></div>ELEVATOR PIT INFILL SECTION<div>SCALE: 1"=1'-0"</div></div>

KOMOROUS-TOWEY  
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REVISIONS

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DRAWN BY: AS

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