

NOTES:

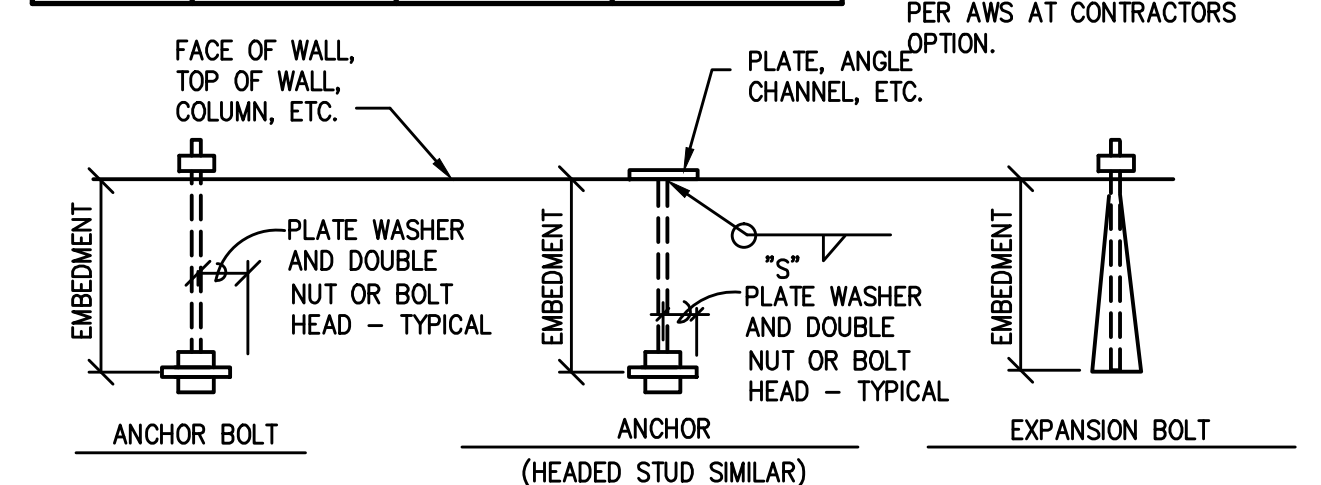
- MASONRY WALL.
- CONTROL JOINT MATERIAL PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
- DEPTH OF MASONRY CELLS TO MATCH VERTICAL WALL REINFORCING.
- CONTINUOUS BOND BEAM BARS - WRAP BARS WITH MASTIC FOR BOND BREAK.

NOTE:

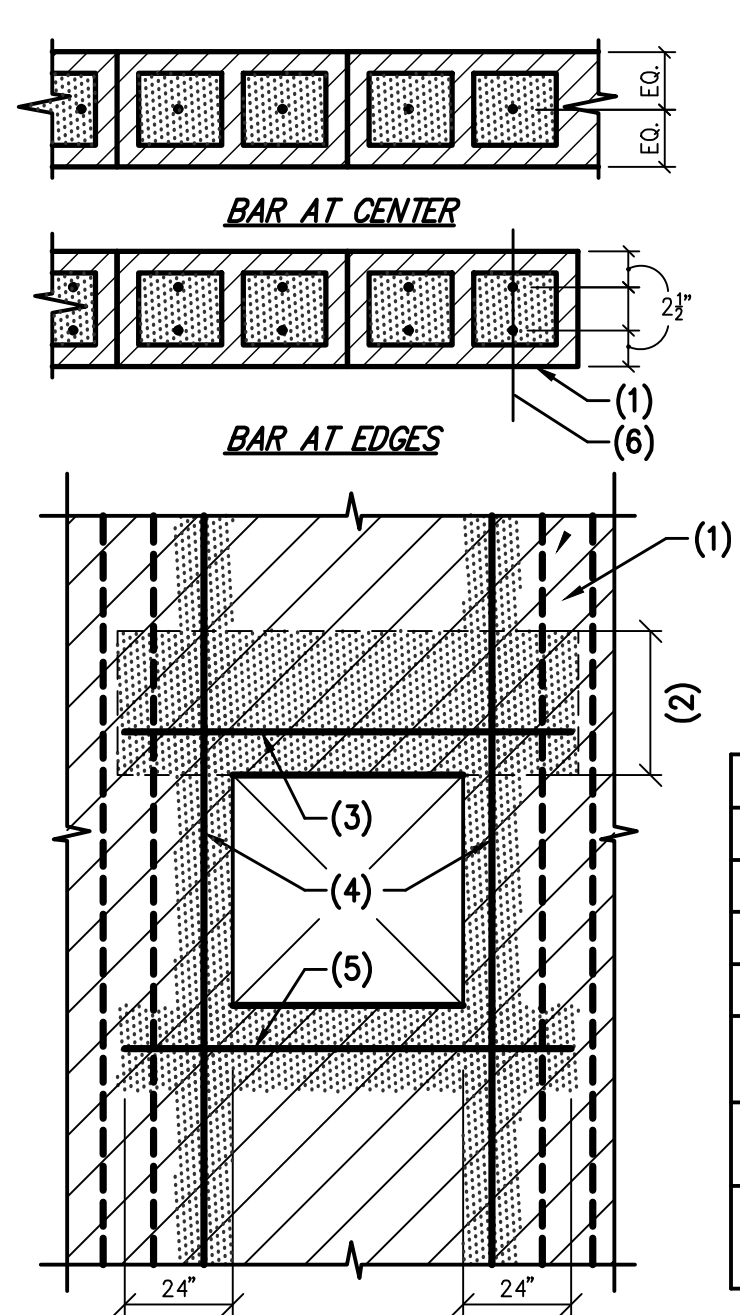
- BOND BEAM BARS SHALL NOT BE LAPPED WITHIN 8'-0" OF CONTROL JOINT.
- MAX C.J. SPACING = 24'-0" U.N.O.

16 CONTROL JOINT IN MASONRY WALL NO SCALE

BOLT DIAMETER	VERT BOLT EMBEDMENT LENGTH	HORIZ BOLT EMBEDMENT LENGTH	HEADED STUD FILLET WELD SIZE, "S", *
1/2"	6"	4"	1/4"
5/8"	6"	4"	5/16"
3/4"	7"	5"	5/16"
7/8"	8"	6"	5/16"
1"	9"	7"	3/8"
1 1/8"	10"	8"	---
1 1/4"	11"	9"	---



12 TYPICAL ANCHOR, ANCHOR BOLT, AND EXPANSION BOLT SCHEDULE NO SCALE

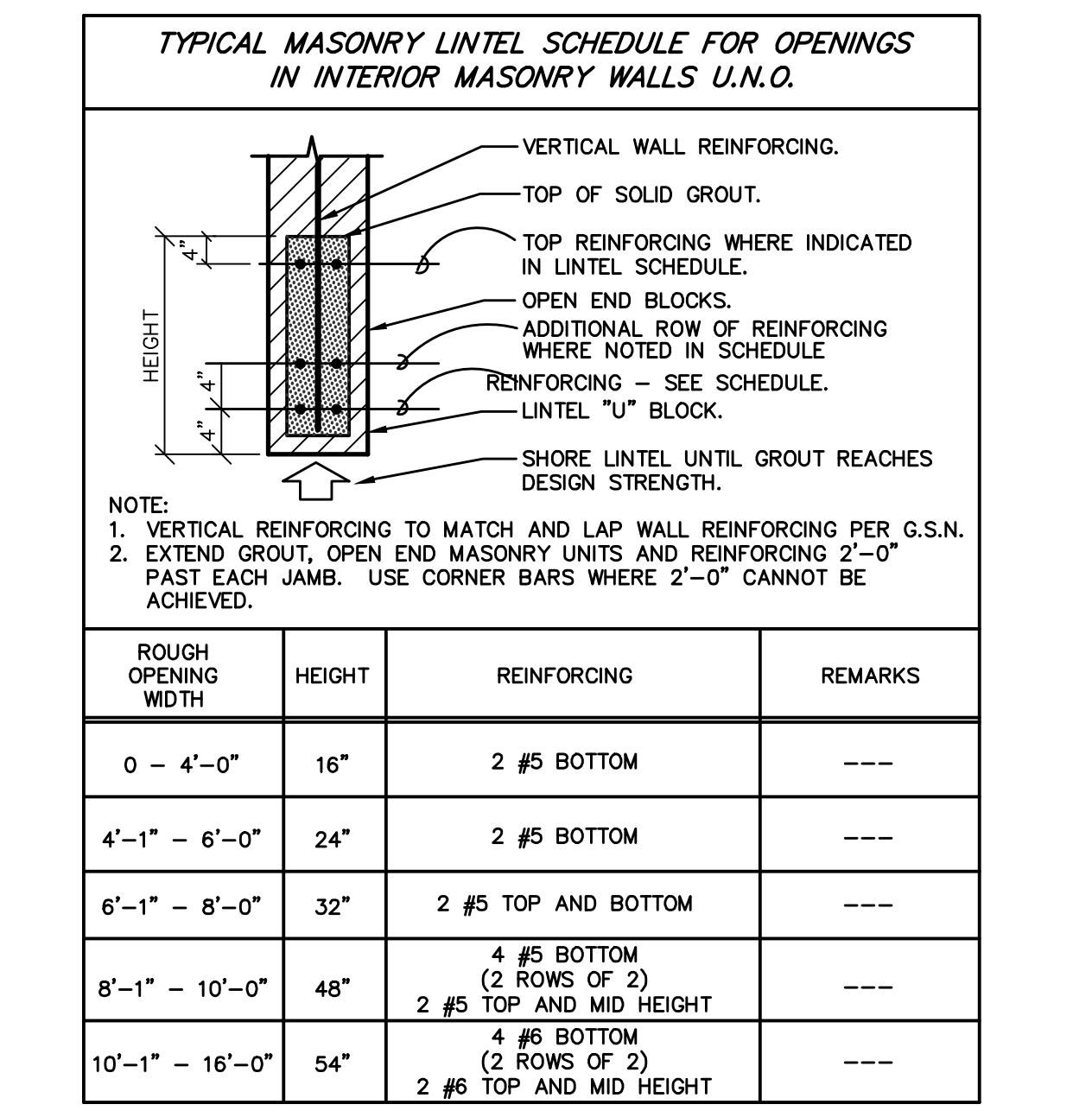


NOTES:

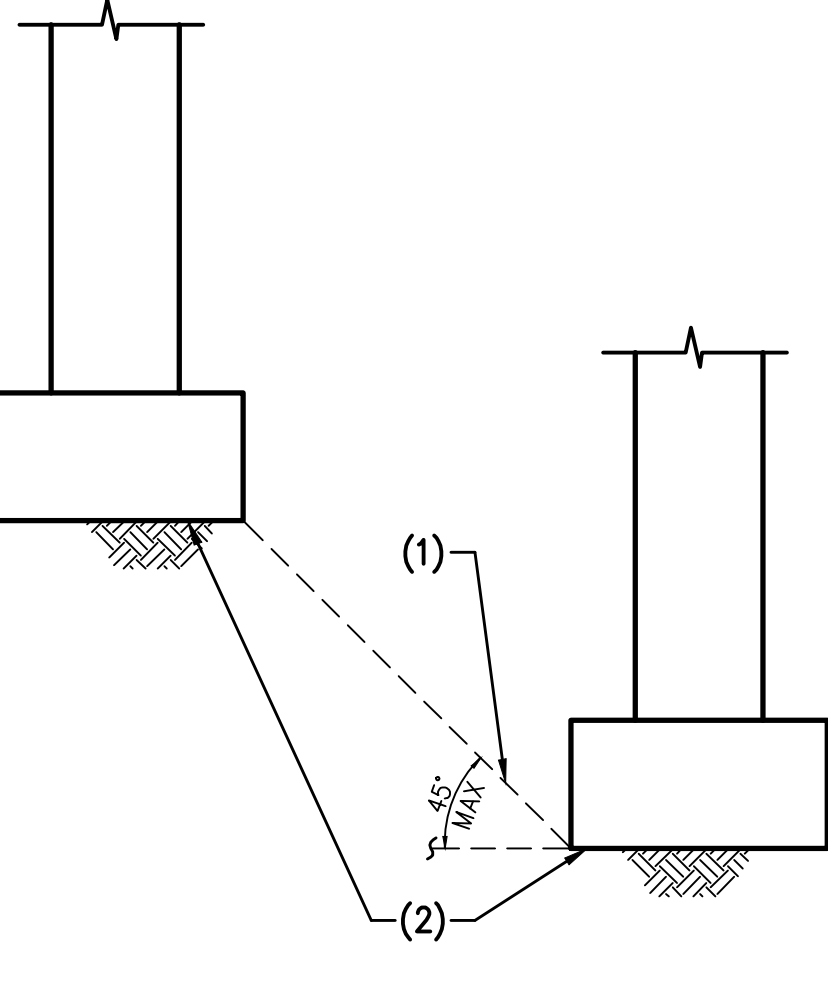
- MASONRY WALL.
- DEPTH OF MASONRY UNITS BELOW - SEE PLANS AND SCHEDULE.
- LANTEL REINFORCING PER SCHEDULE.
- VERTICAL JAMB BAR IN GROUTED CELL. SIZE TO MATCH VERTICAL WALL REINFORCING - FULL HEIGHT OF WALL - SEE SCHEDULE BELOW FOR NUMBERS OF JAMB BARS, ONE BAR PER CELL.
- 2 #5 BARS IN 8" DEEP SOLID GROUTED BOND BEAM - HOOK BARS UP AT CORNERS.
- VERTICAL REINFORCING AS SHOWN ON PLANS.

JAMB BARS	WALL OPENING
1	0'-0" - 4'-0"
2	4'-1" - 8'-0"
3	8'-1" - 10'-0"
4	10'-1" - 12'-0"
2 BARS IN FIRST 4 CELLS (8 BARS)	12'-1" - 16'-0"
2 BARS IN FIRST 6 CELLS (12 BARS)	16'-1" - 20'-0"

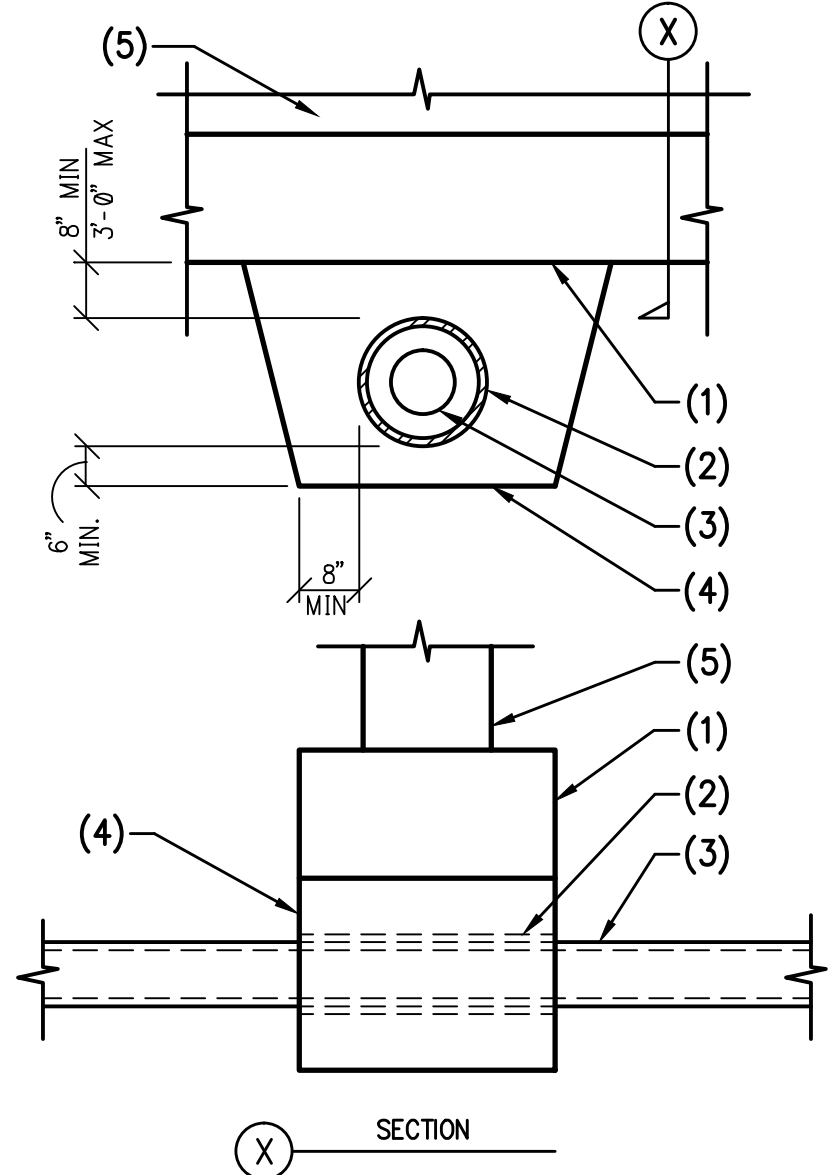
FOR OPENINGS LARGER THAN 20'-0" SEE PLAN. IF SPECIAL JAMB BARS ARE NOT SHOWN, USE WALL BRACES TO STRUCTURE.



09 TYPICAL OPENING IN INTERIOR MASONRY WALL WITH MASONRY LANTEL (FOR EXTERIOR WALLS SEE DETAIL 22/5004) NO SCALE



05 TYPICAL MAXIMUM SLOPE BETWEEN ADJACENT FOOTING NO SCALE



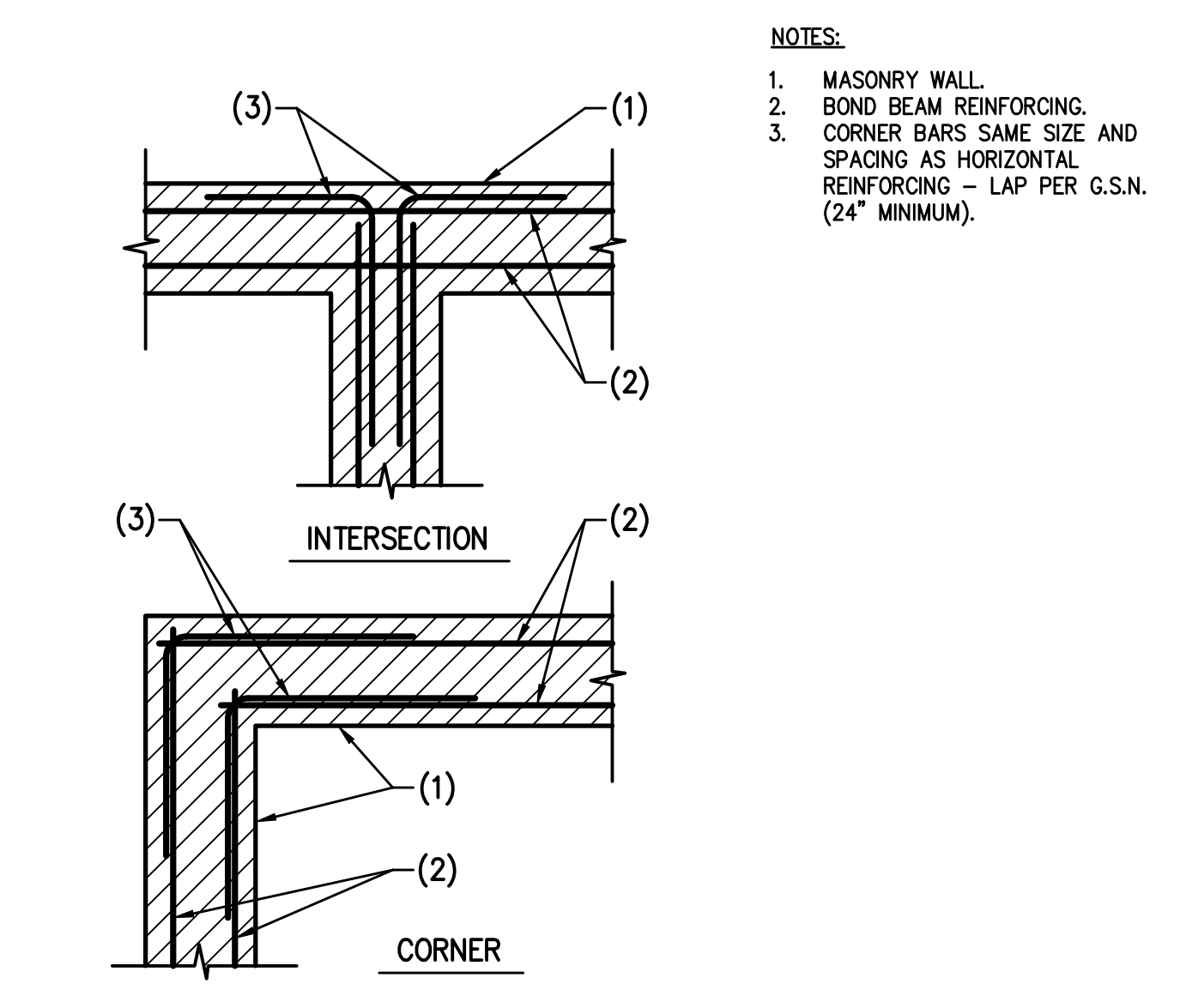
06 PIPE PASSING UNDER WALL FOOTING OR GRADE BEAM IN SHALLOW TRENCH NO SCALE

CONC. PSI	CLASS B TENSION SPlice LENGTHS						COMP. BARS
	f _c = 2,500 PSI / f _c = 3,000 PSI		f _c = 4,000 PSI		f _c = 5,000 PSI AND HIGHER		
	REGULAR	TOP	REGULAR	TOP	REGULAR	TOP	
#3	24"	31"	19"	24"	17"	22"	12"
#4	32"	41"	25"	33"	23"	29"	15"
#5	39"	51"	31"	41"	28"	36"	19"
#6	47"	61"	37"	49"	34"	43"	23"
#7	69"	89"	54"	71"	49"	63"	26"
#8	78"	102"	62"	81"	56"	72"	30"
#9	88"	115"	70"	91"	63"	81"	34"
#10	100"	129"	79"	102"	70"	92"	38"
#11	110"	143"	87"	113"	78"	102"	42"

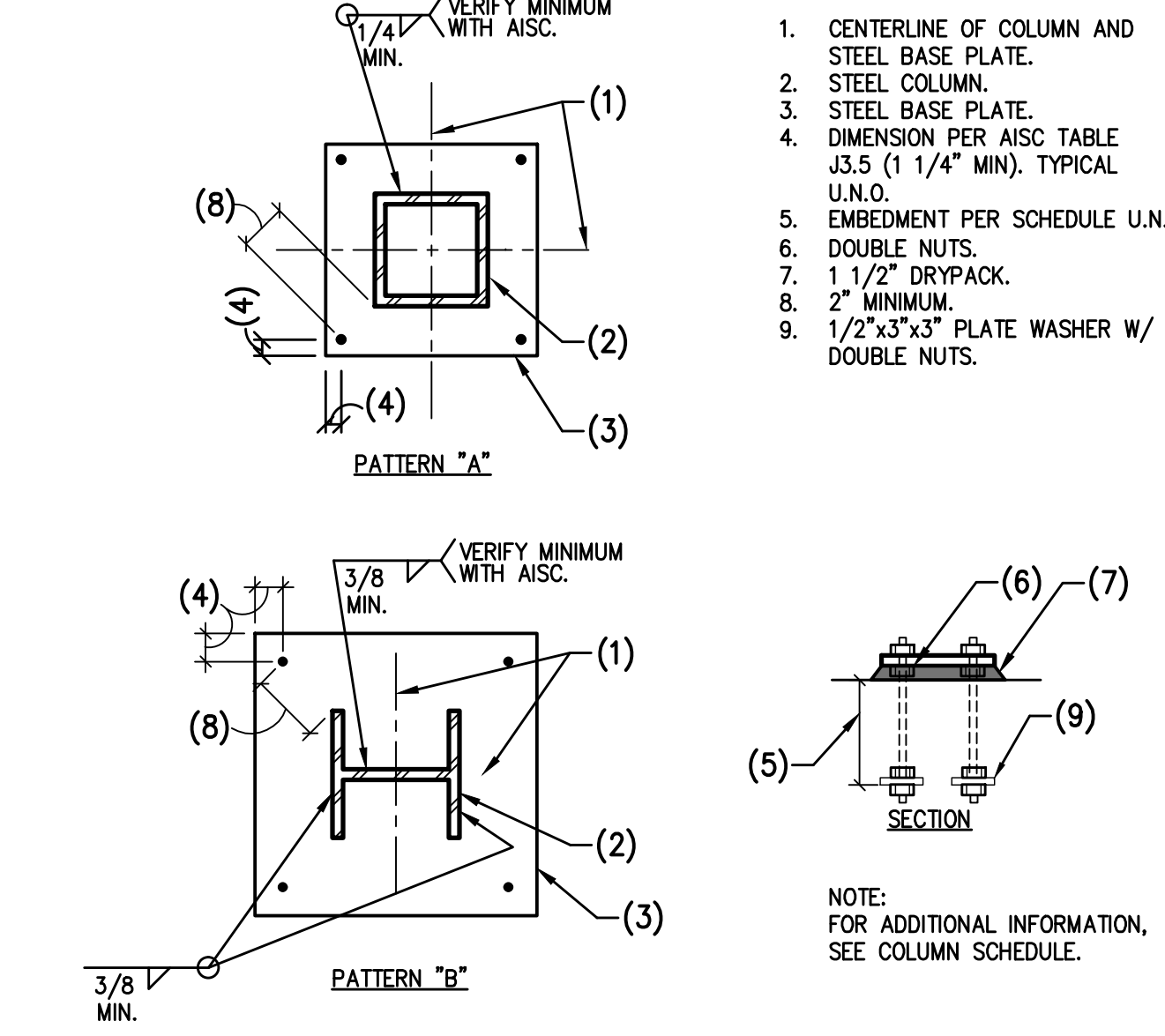
NOTES:

- TOP BARS ARE ANY HORIZONTAL BARS PLACED SO THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT.
- UNLESS NOTED OTHERWISE, LAP SPICES IN CONCRETE BEAMS, SLABS AND WALLS SHALL BE CLASS "B" TENSION SPICES. CONCRETE COLUMNS MAY USE COMPRESSION LAP SPICES UNLESS CONTRACT STRUCTURAL ENGINEER'S CENTER TO CENTER SPACING OF REINFORCING IS LESS THAN OR EQUAL TO 3 BAR DIAMETERS $\leq 3d$ OR 2d CLEAR SPACING BETWEEN BARS.
- WHERE CLEAR COVER $\leq 4d$, MULTIPLY TENSION LAP SPICE BY 1.5.
- ALL SPICES MUST BE FULL CONTACT.

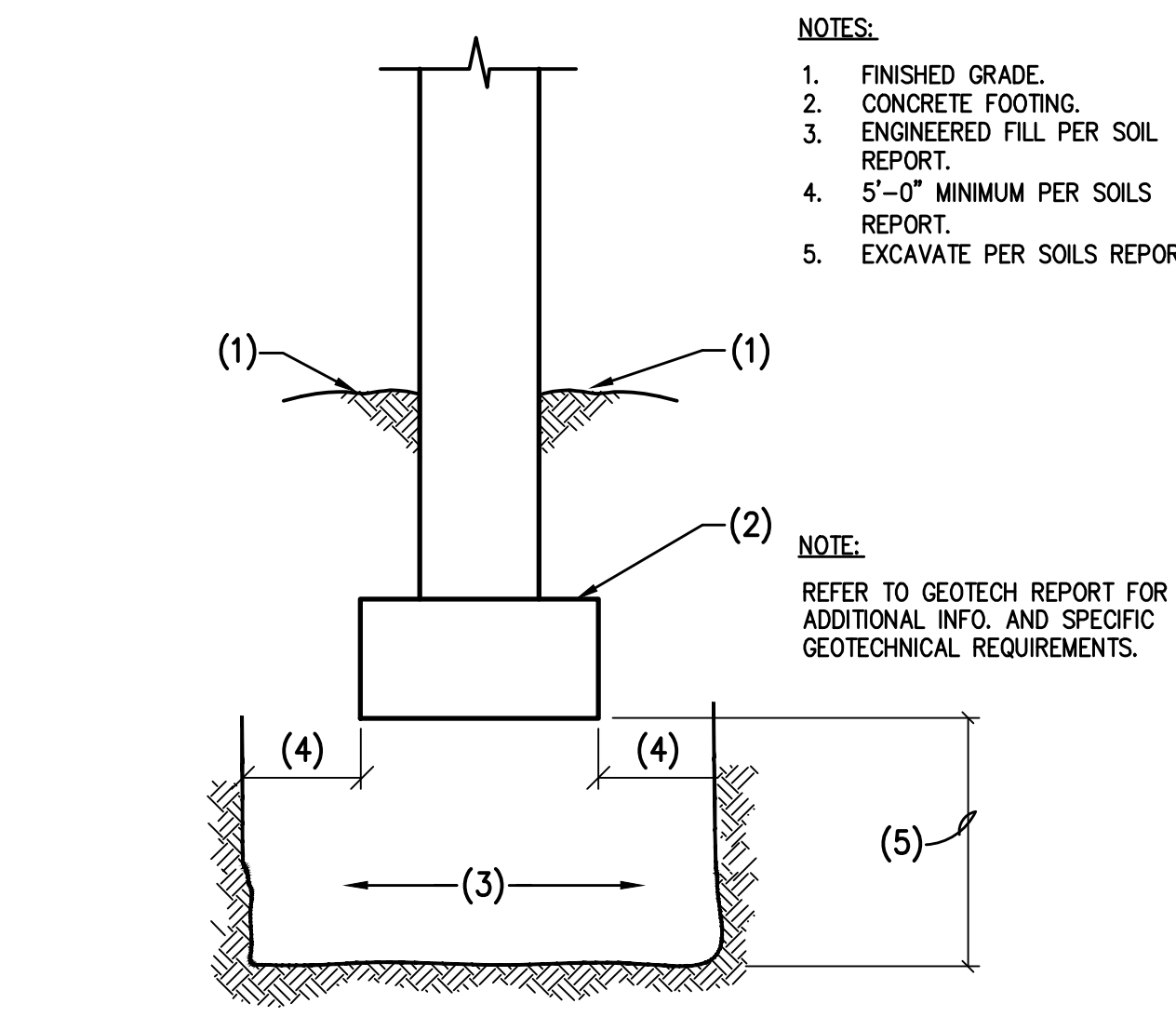
01 LAP SCHEDULE FOR REINFORCING STEEL NO SCALE



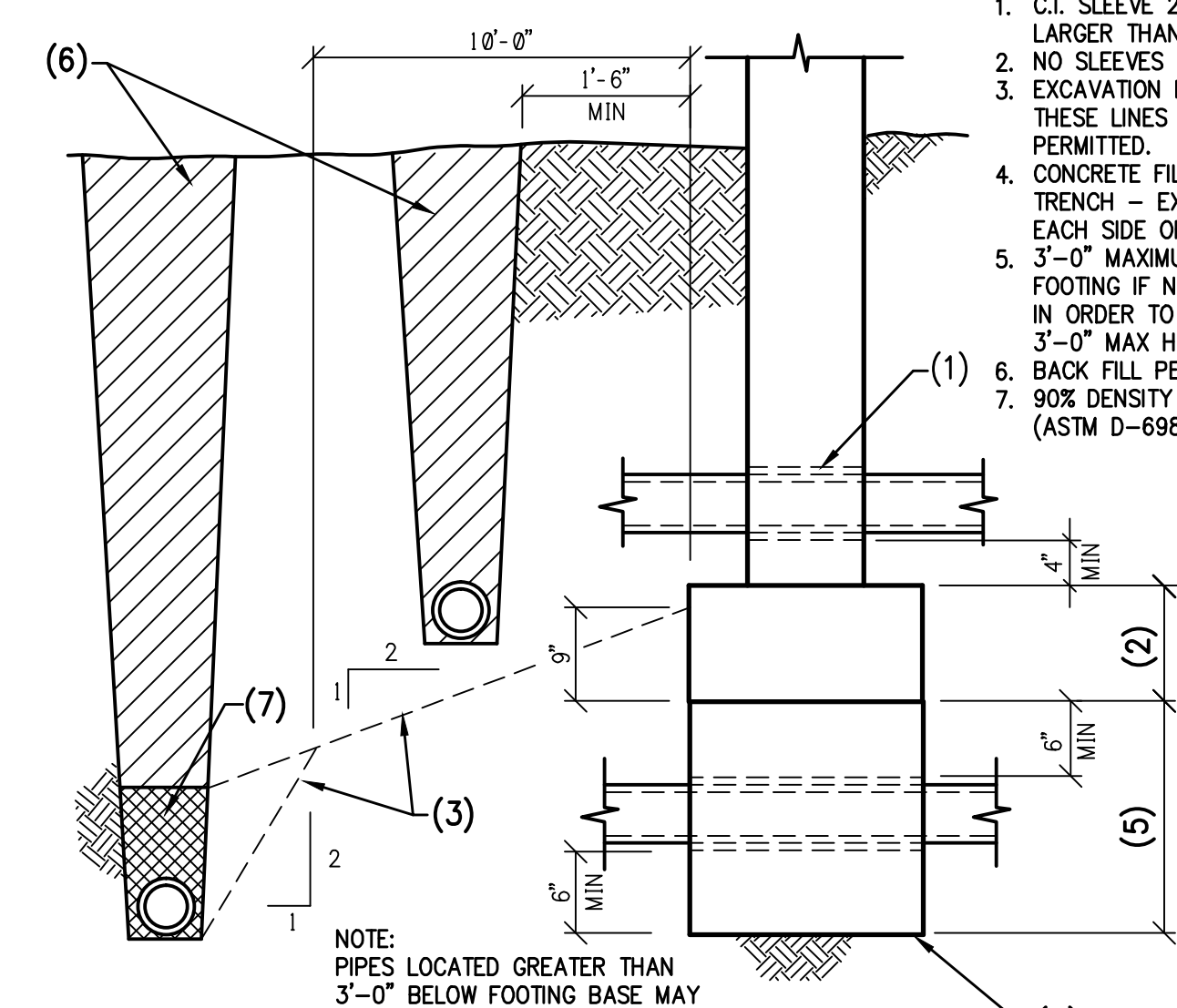
17 MASONRY BOND BEAM AT INTERSECTING WALLS NO SCALE



13 PLAN VIEW - STEEL COLUMN AT STEEL BASE PLATE NO SCALE



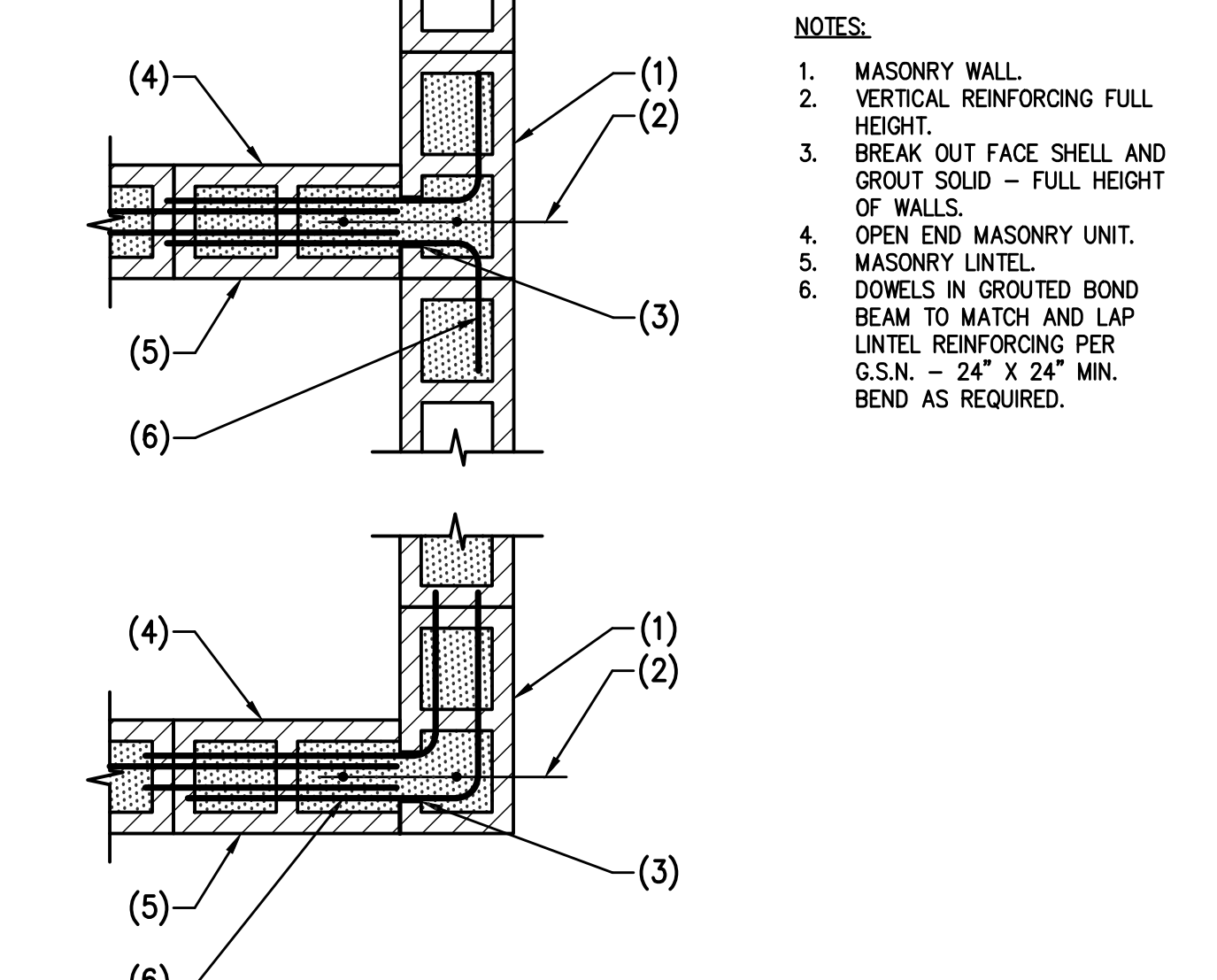
10 TYPICAL CONCRETE FOOTING ON ENGINEERED FILL NO SCALE



07 TYPICAL PIPE THROUGH FOOTING AND TRENCH NO SCALE

BAR SIZE	HOOKED EMBEDMENT			EXTENSION			STRAIGHT BAR EMBEDMENT		
	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE	90° HOOK	180° HOOK	5000 PSI CONCRETE	4000 PSI CONCRETE	3000 PSI CONCRETE	
#3	6	6	6	4.5	2.5	13	14	16	
#4	8	7	6	6.0	2.5	17	19	22	
#5	10	8	7	7.5	2.5	21	24	27	
#6	12	10	9	9.0	3.0	26	30	33	
#7	13	12	10	10.5	3.5	37	42	48	
#8	15	13	12	12.0	4.0	43	47	55	
#9	17	15	13	13.5	4.5	48	54	62	
#10	19	17	15	15.2	5.1	54	60	70	
#11	22	19	17	16.9	5.6	60	67	77	

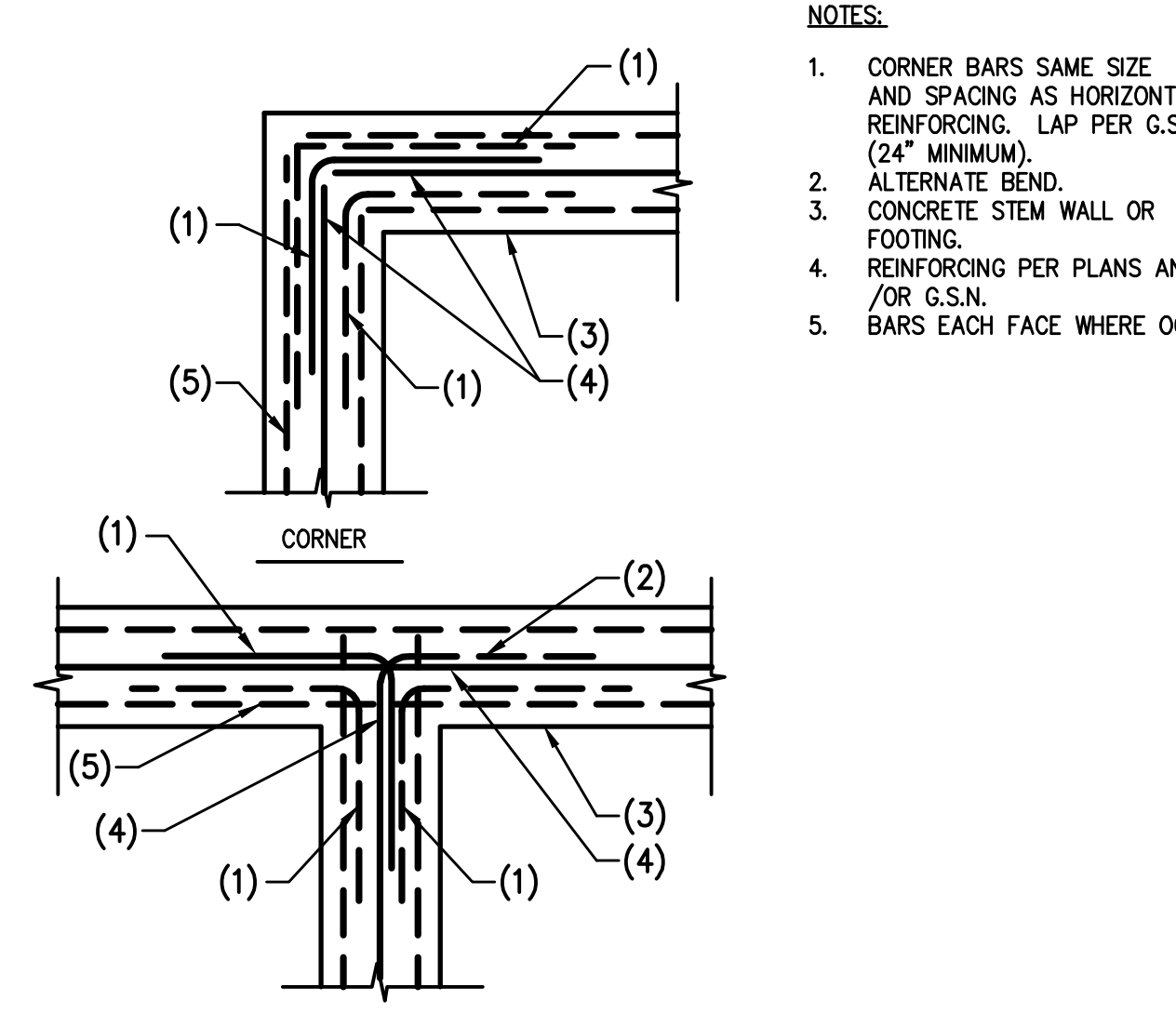
02 DOWEL DEVELOPMENT LENGTH IN TENSION (INCHES) NO SCALE



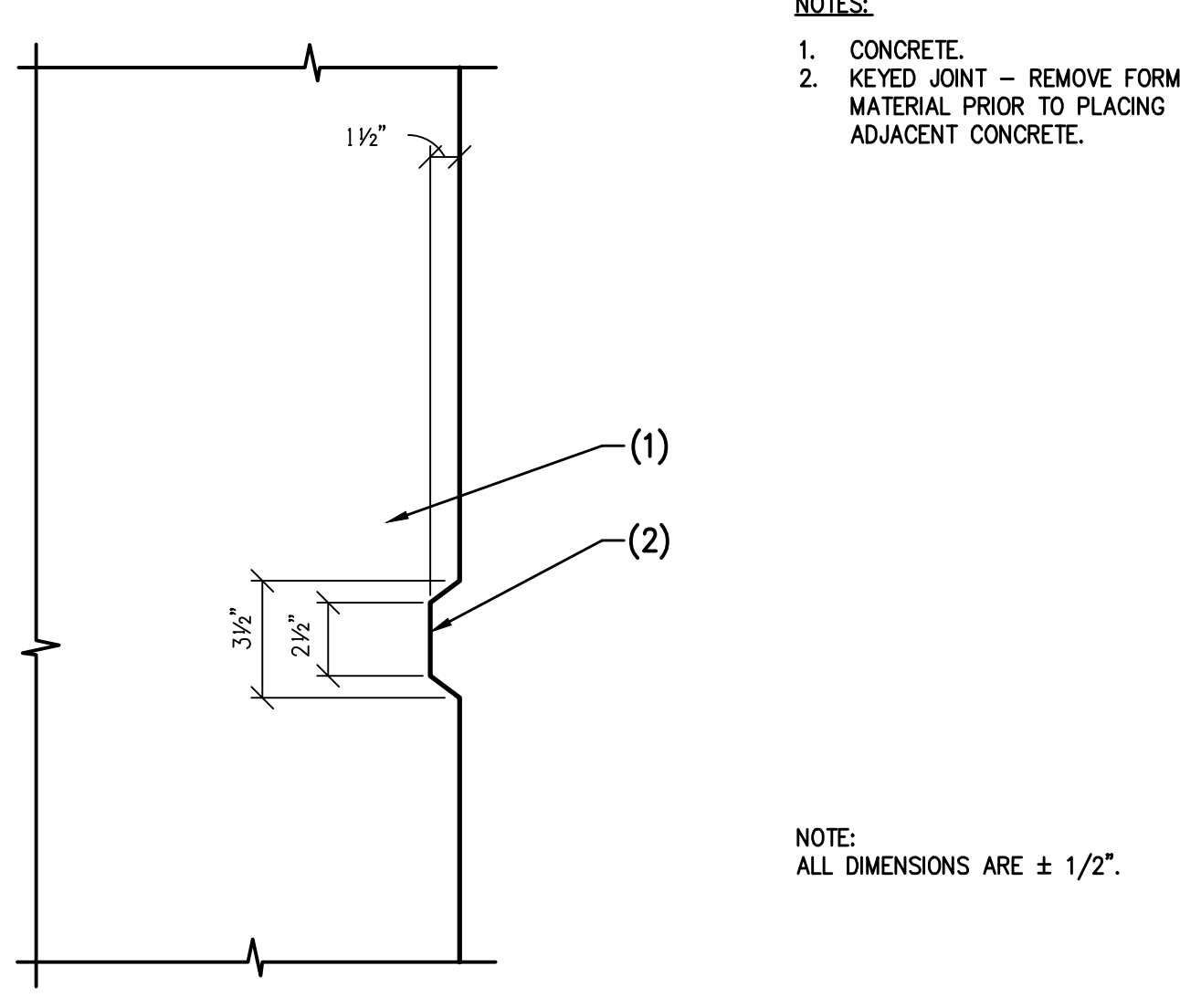
18 PLAN VIEW - MASONRY WALL INTERSECTION AT MASONRY LANTEL NO SCALE



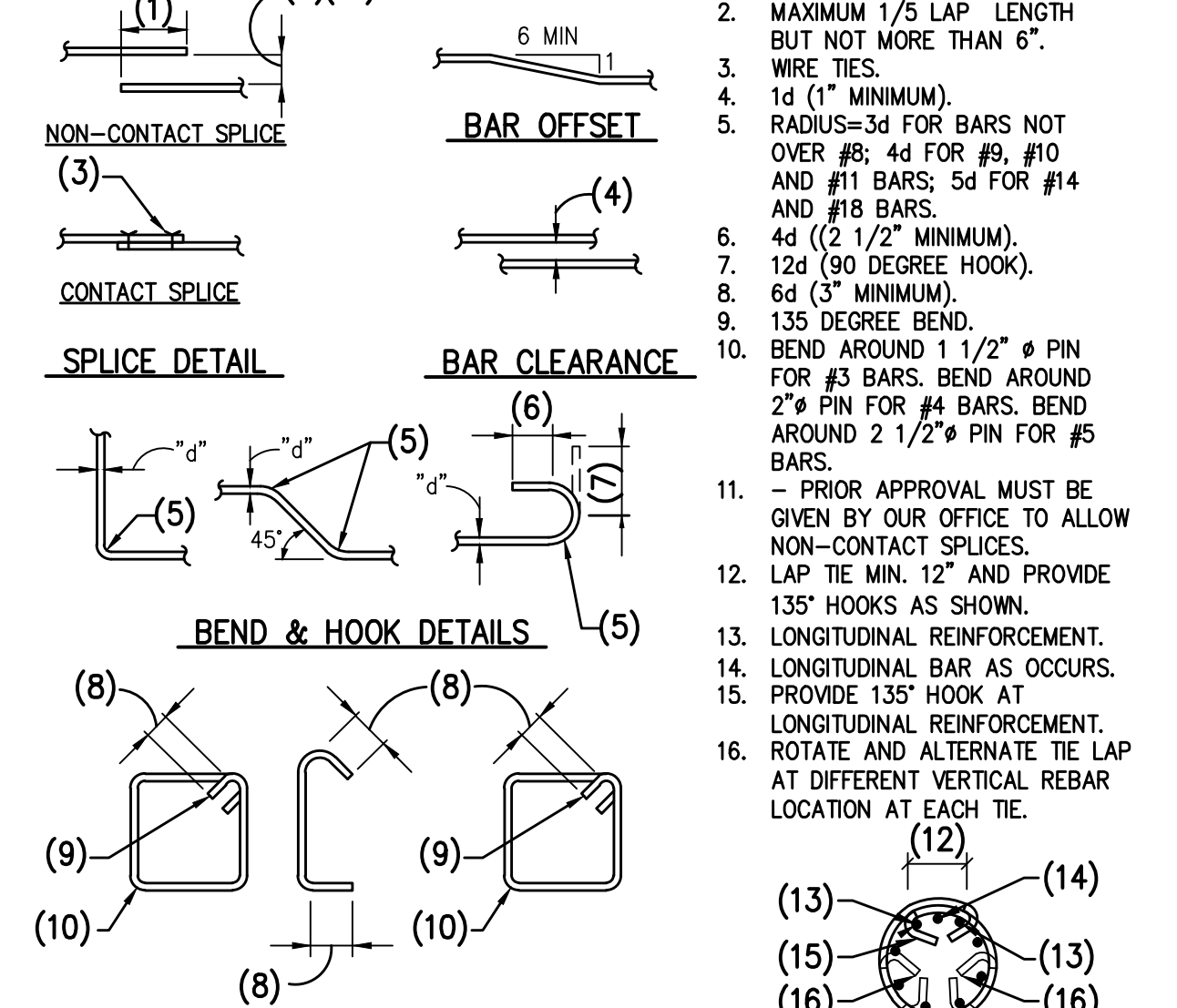
14 SLEEVE FOR PIPE AT SLAB NO SCALE



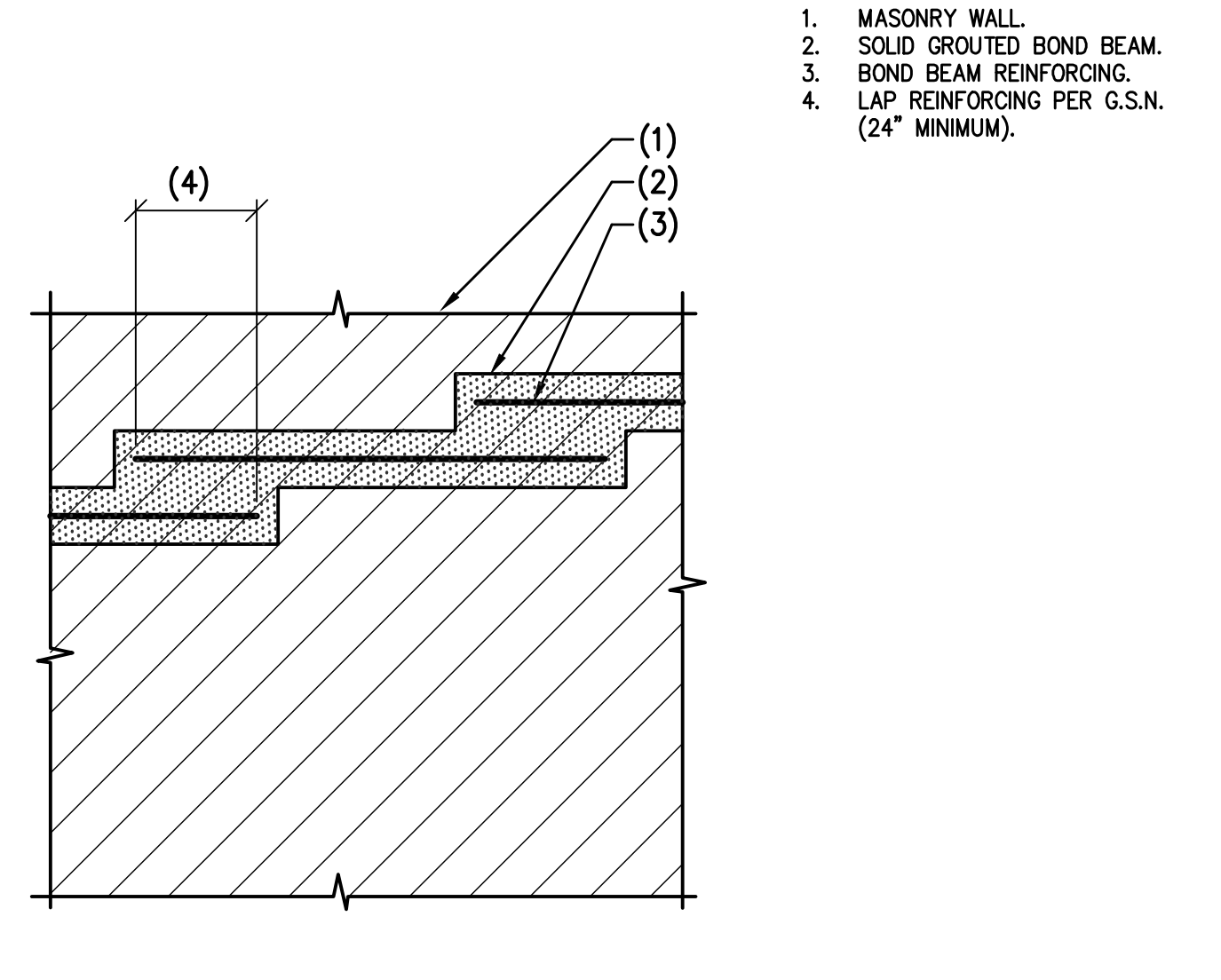
11 PLAN - CORNER REINFORCING IN CONCRETE WALL, GRADE BEAM AND/OR FOOTING NO SCALE



08 TYPICAL KEY IN CONCRETE NO SCALE



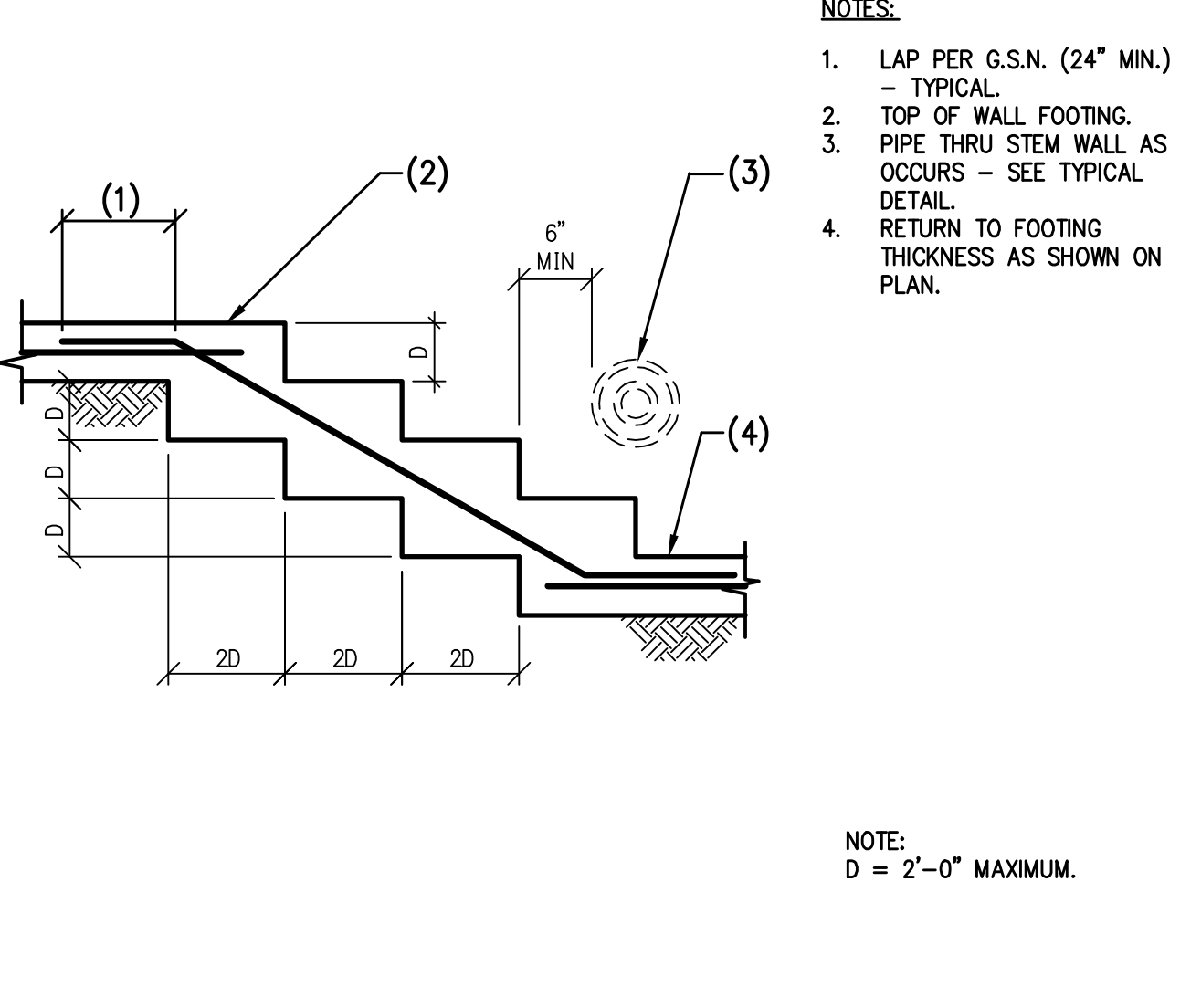
03 TYPICAL CONCRETE REINFORCING BAR DETAILS NO SCALE



19 STEPPED MASONRY WALL BOND BEAM NO SCALE



15 TYPICAL CONNECTION FOR NON-TOOTHED ABUTTING MASONRY WALLS NO SCALE



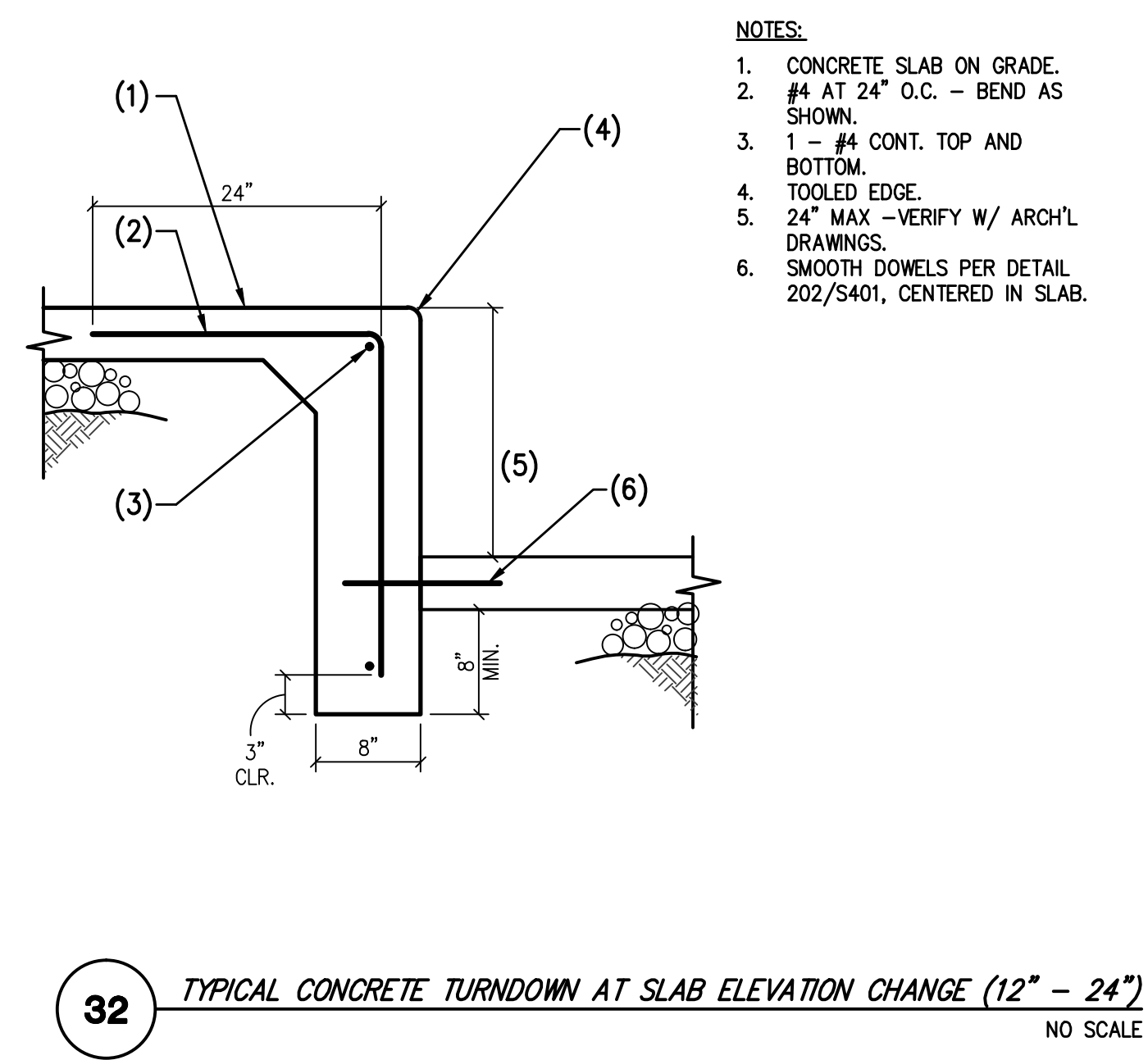
04 TYPICAL STEP IN CONCRETE FOOTING NO SCALE

Key Plan:

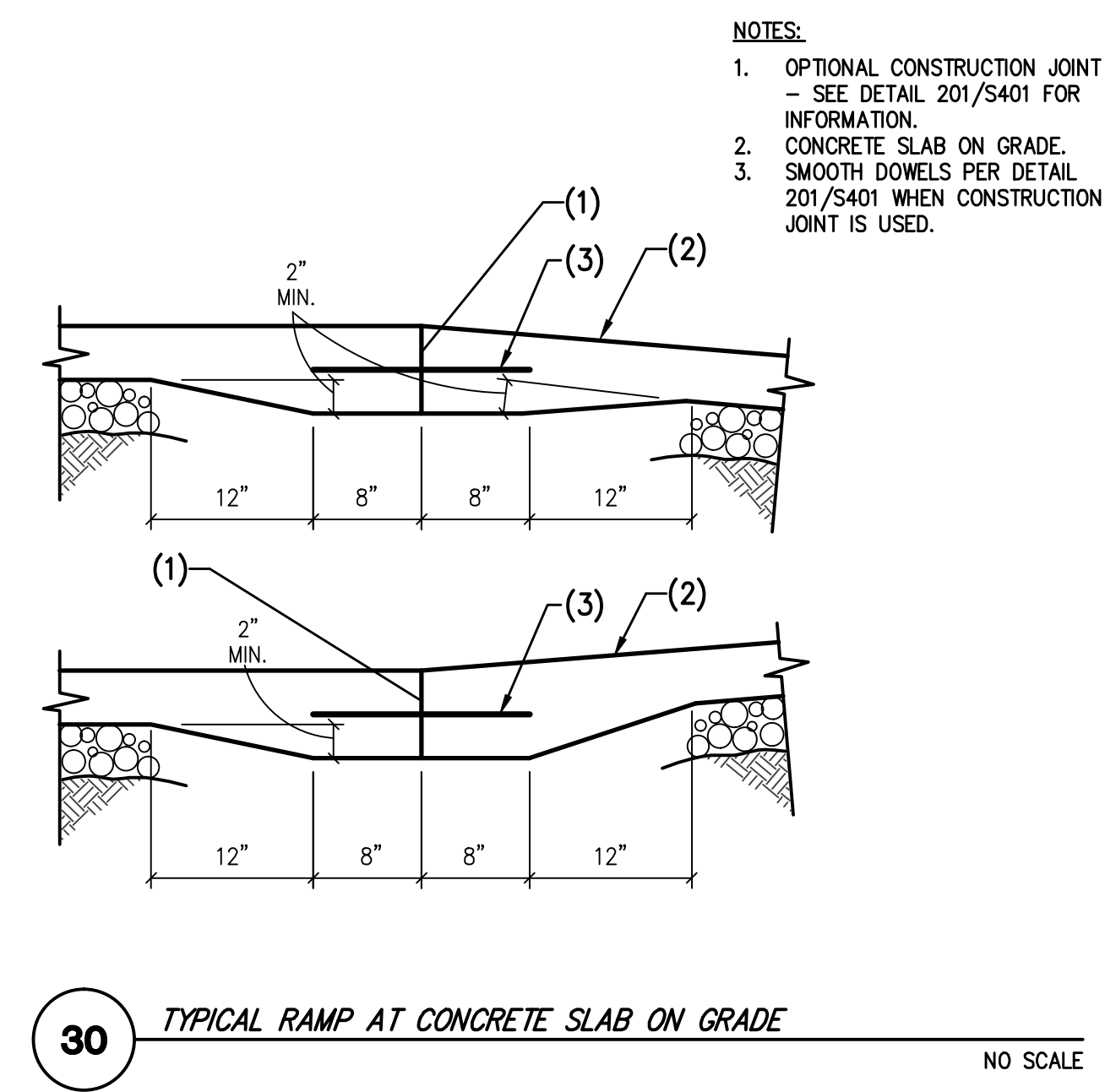
No.	Description	Date
17	STRUCTURAL CLARIFICATIONS	10/19/14
	CONFORM SET	09/03/17
	CONFORM SET	09/19/17

Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.
 Sheet Number:
 TYPICAL DETAILS
 Sheet Number:
S003
 ACTUAL SHEET SIZE: 36" X 48"

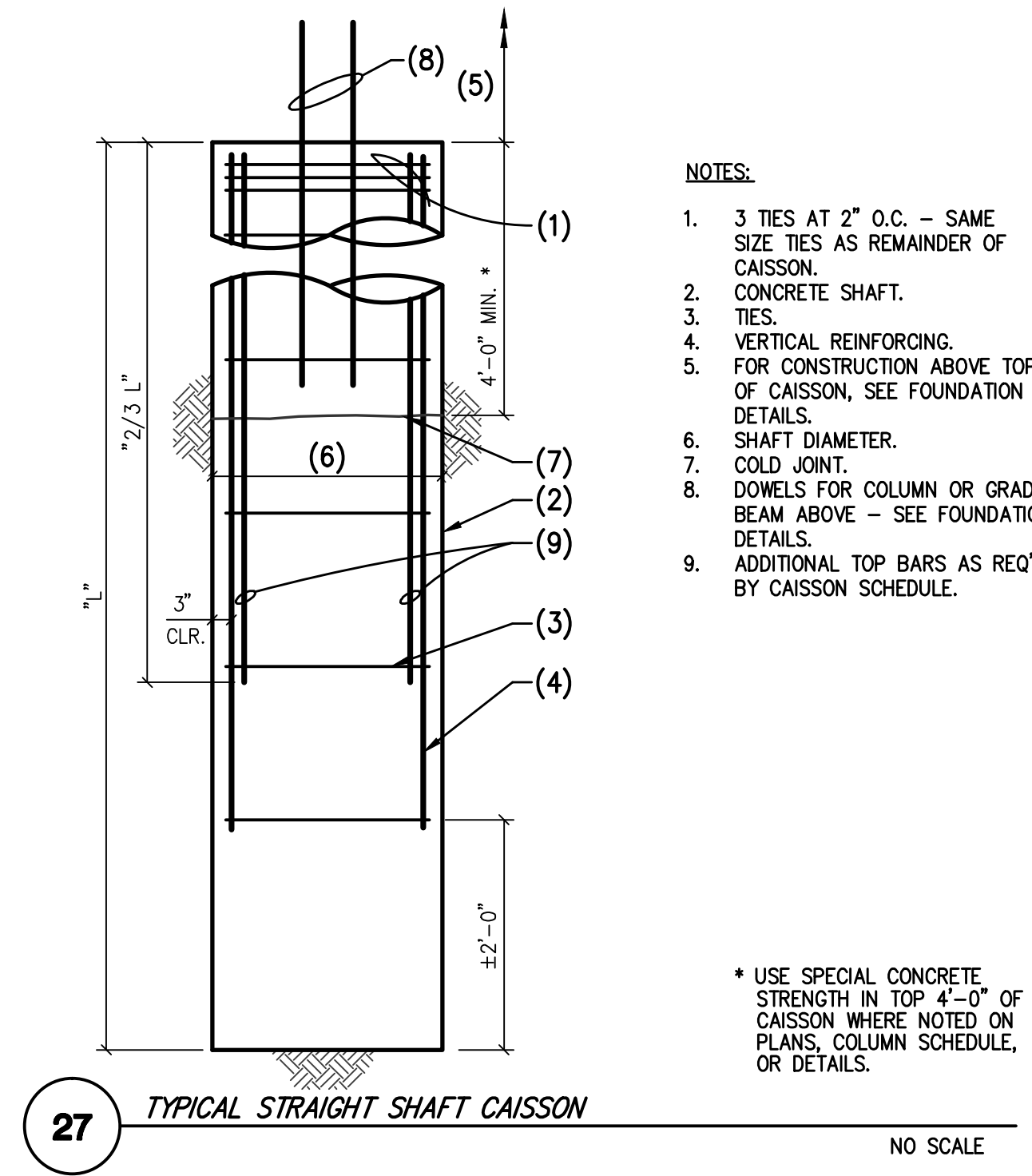
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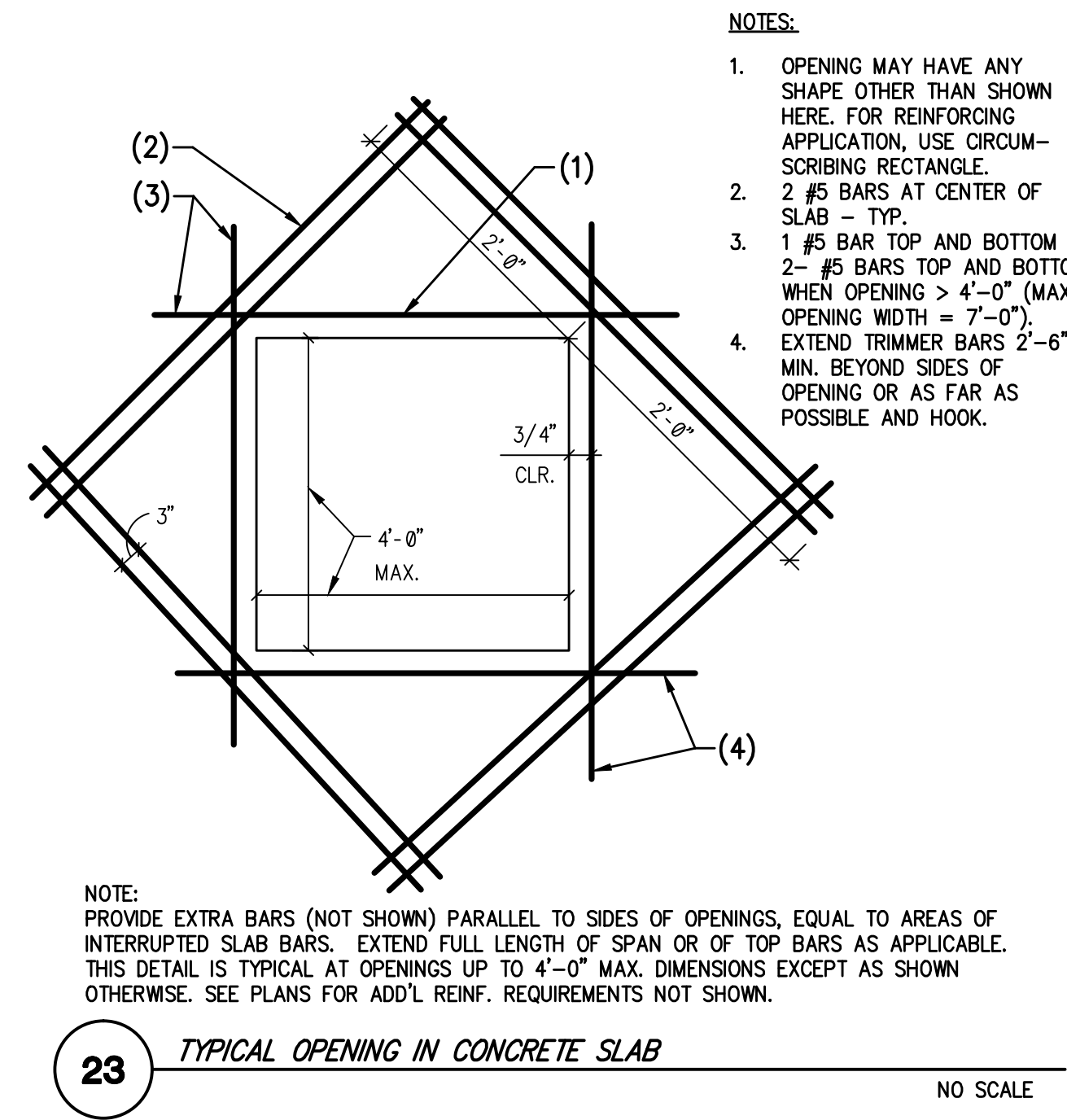
32 TYPICAL CONCRETE TURNDOWN AT SLAB ELEVATION CHANGE (12" - 24")
NO SCALE



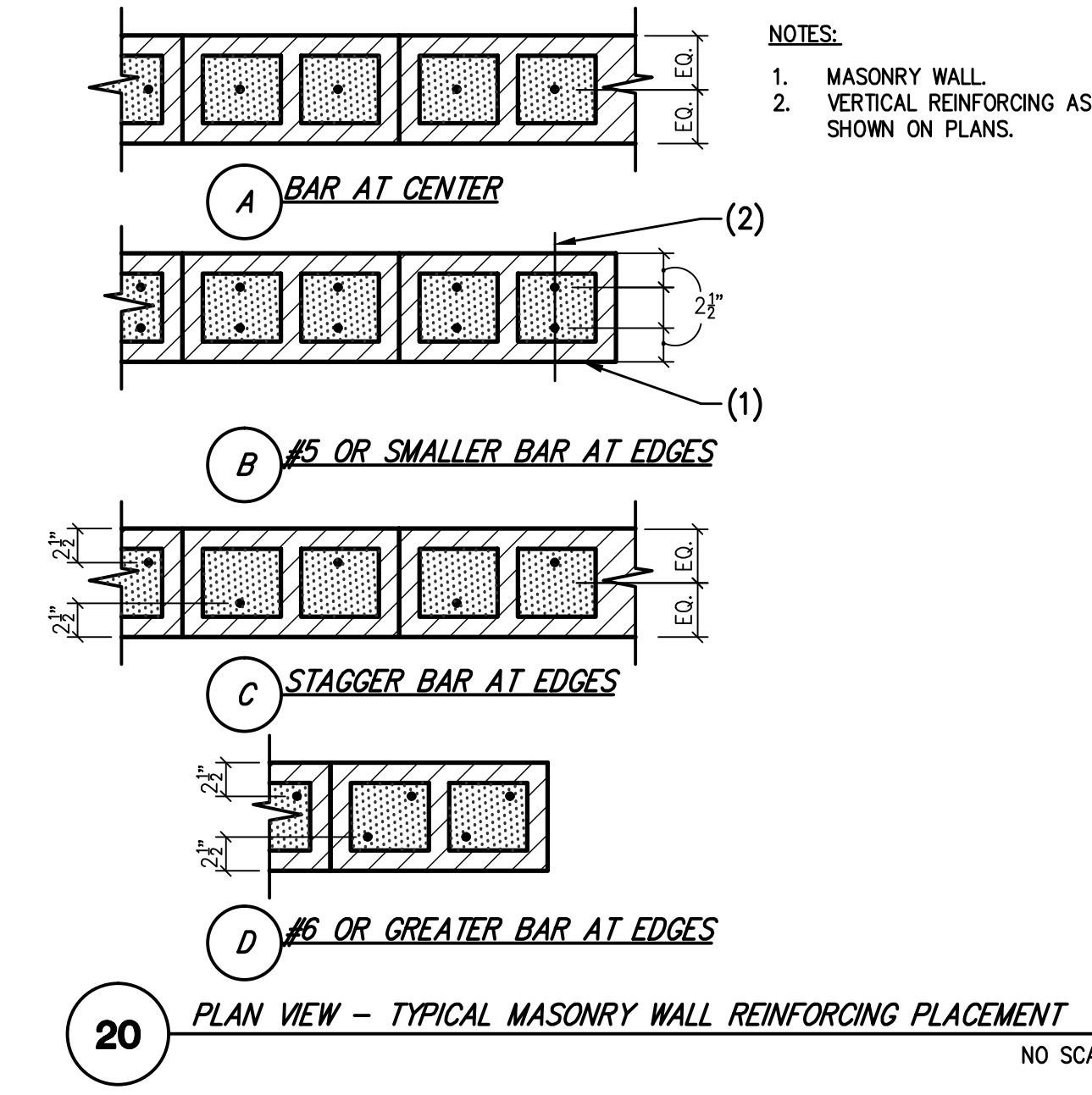
33 TYPICAL RAMP AT CONCRETE SLAB ON GRADE
NO SCALE



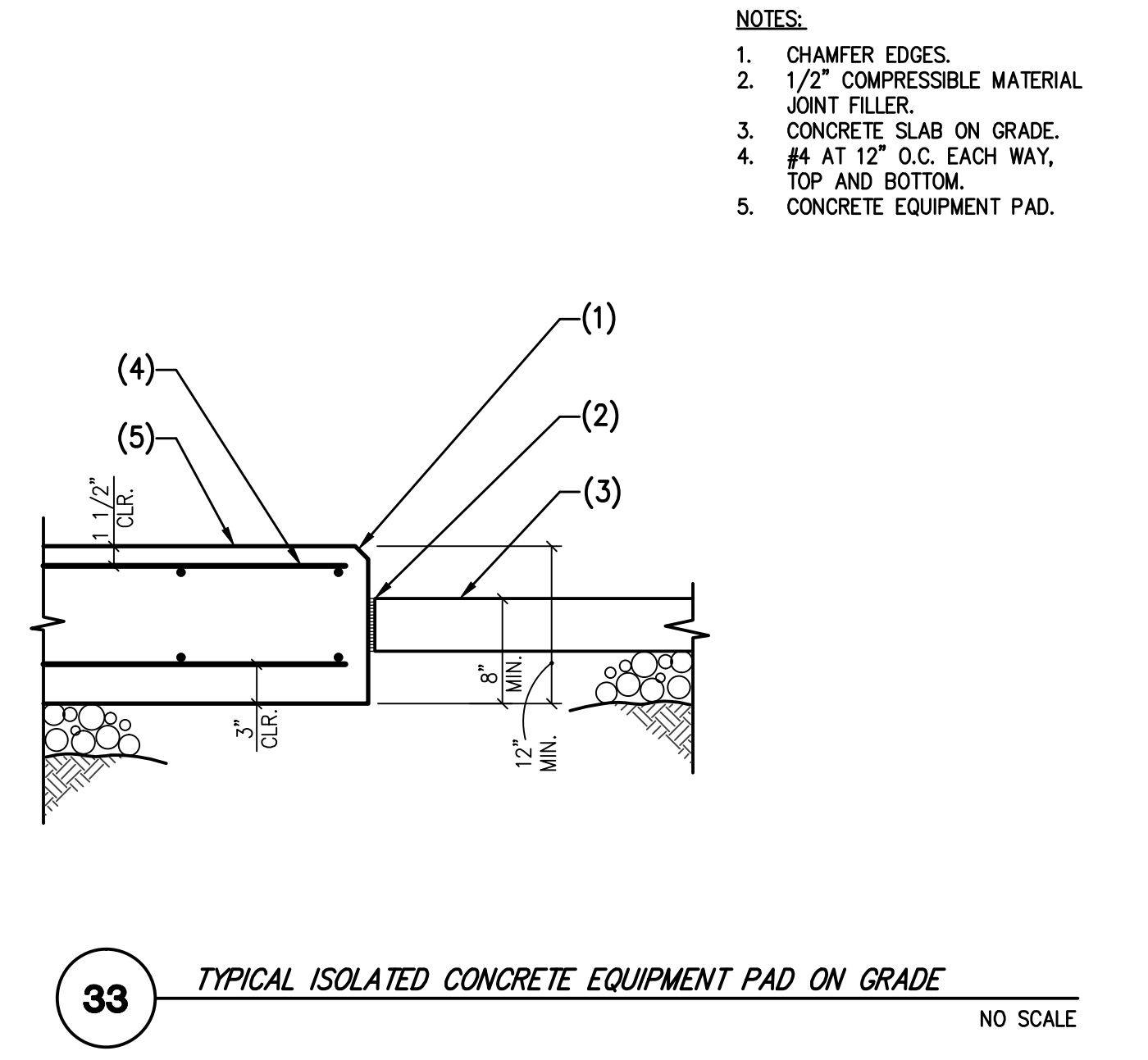
34 TYPICAL STRAIGHT SHAFT CAISSON
NO SCALE



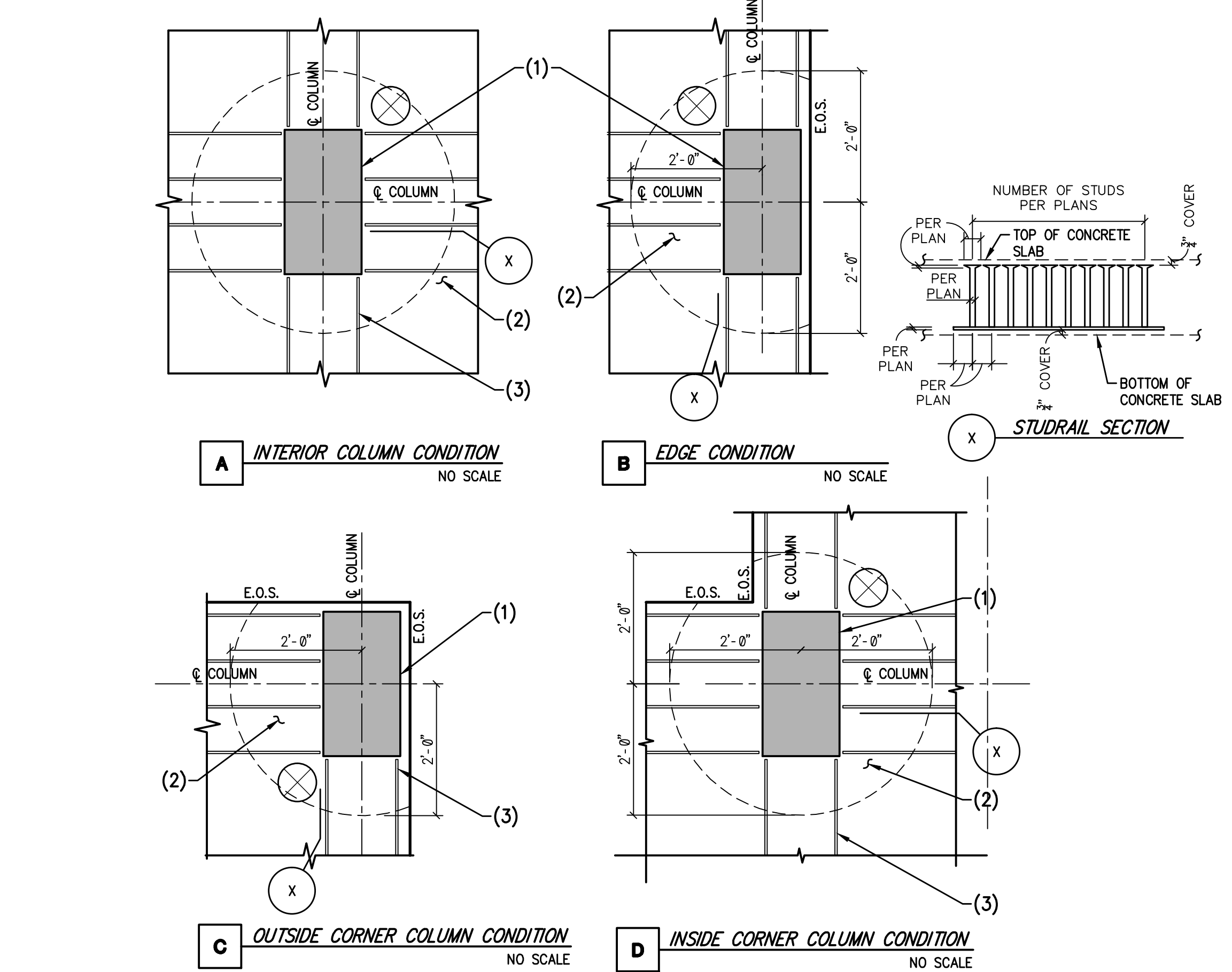
35 TYPICAL OPENING IN CONCRETE SLAB
NO SCALE



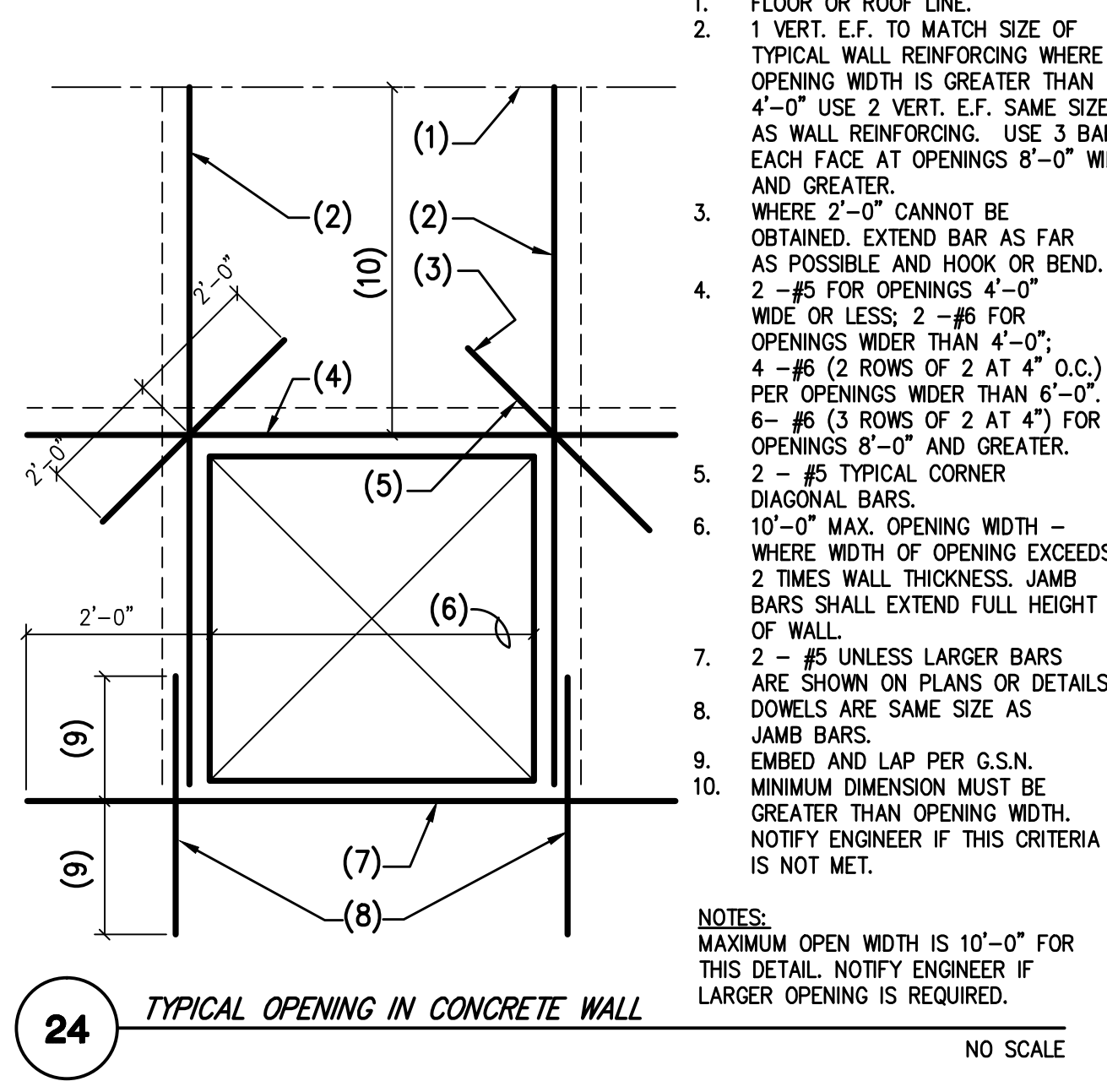
36 PLAN VIEW - TYPICAL MASONRY WALL REINFORCING PLACEMENT
NO SCALE



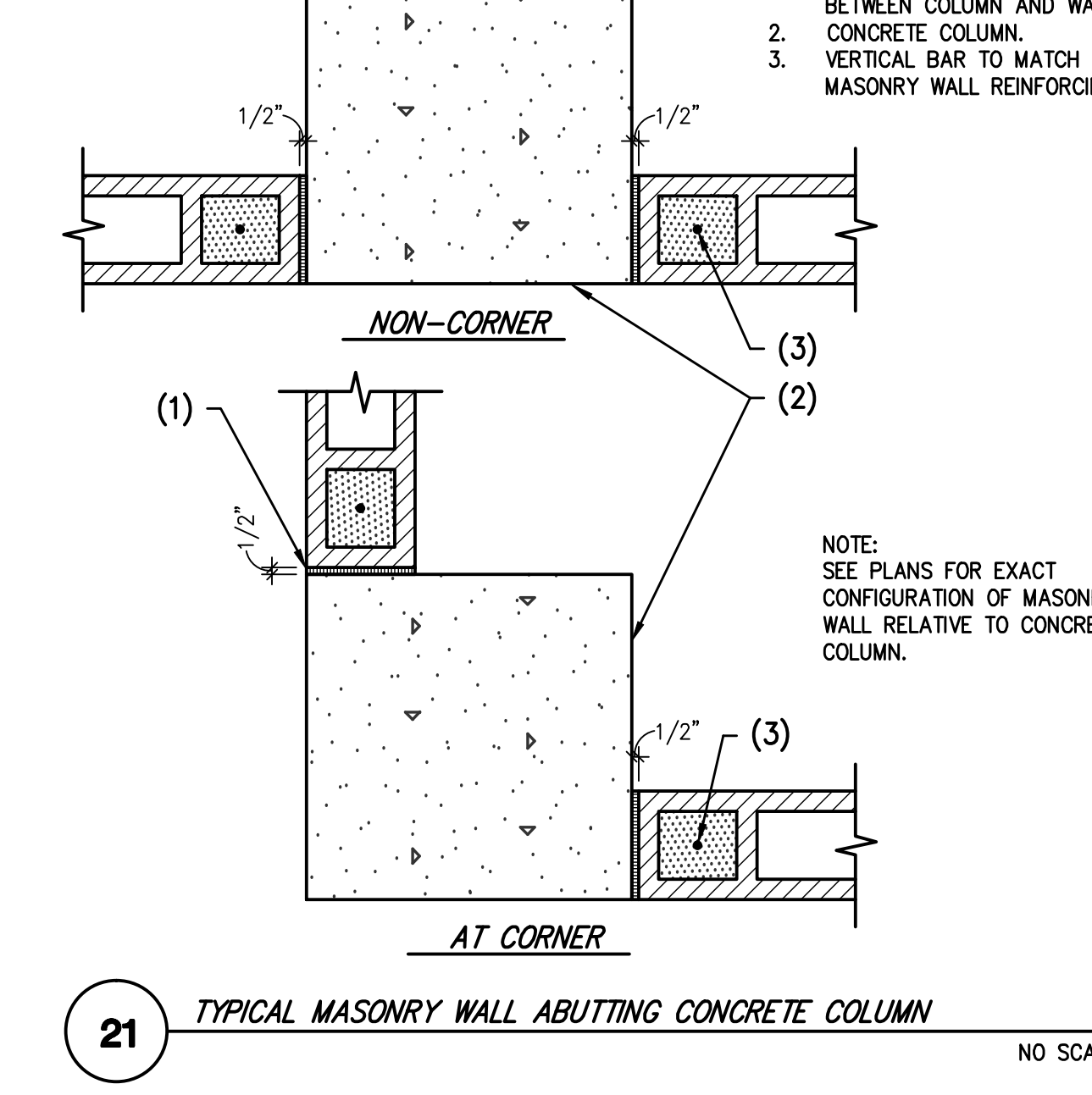
37 TYPICAL ISOLATED CONCRETE EQUIPMENT PAD ON GRADE
NO SCALE



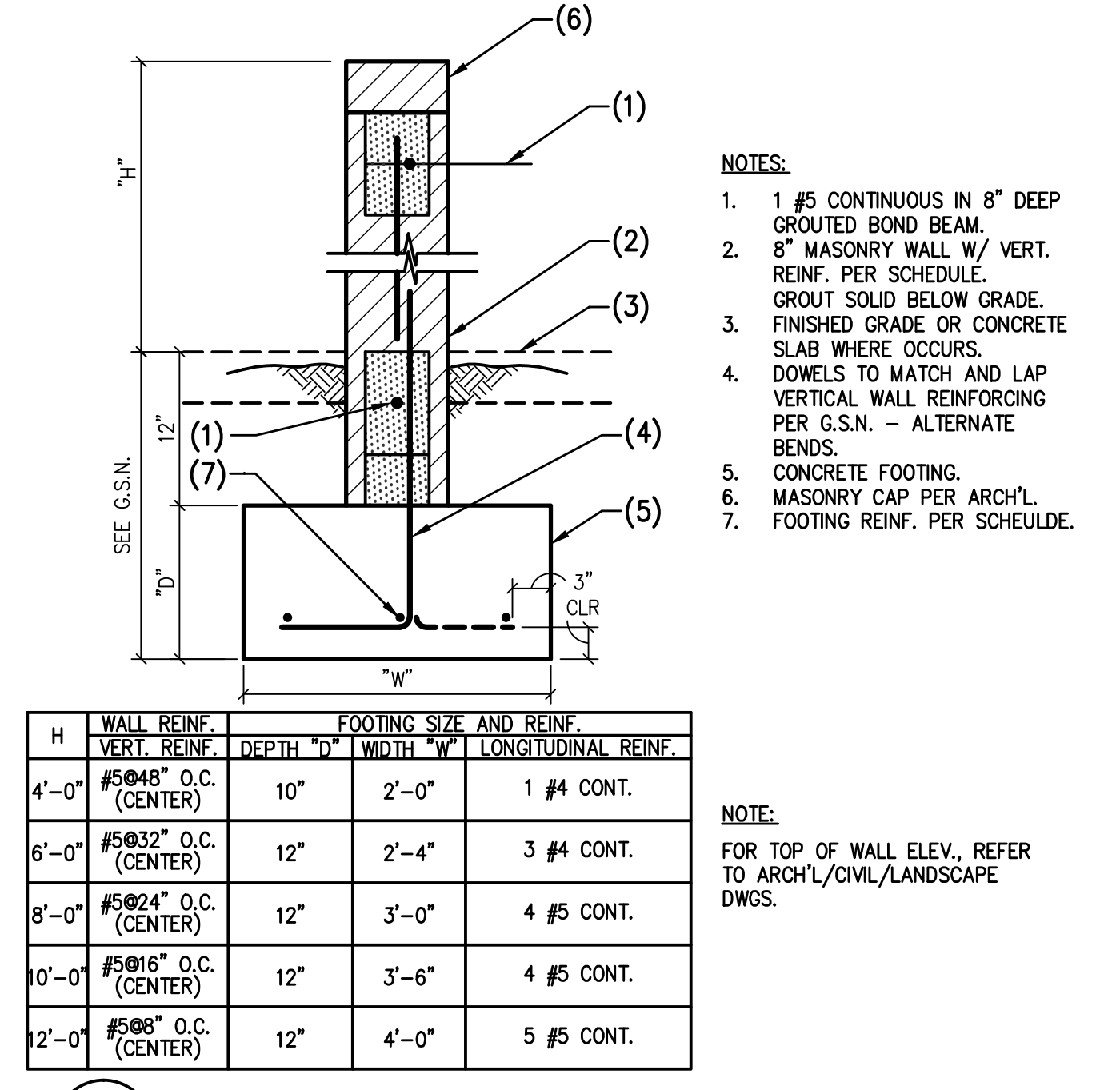
38 TYPICAL SMALL SLAB PENETRATIONS IN CONCRETE SLAB WITHIN 24" OF COLUMNS
NO SCALE



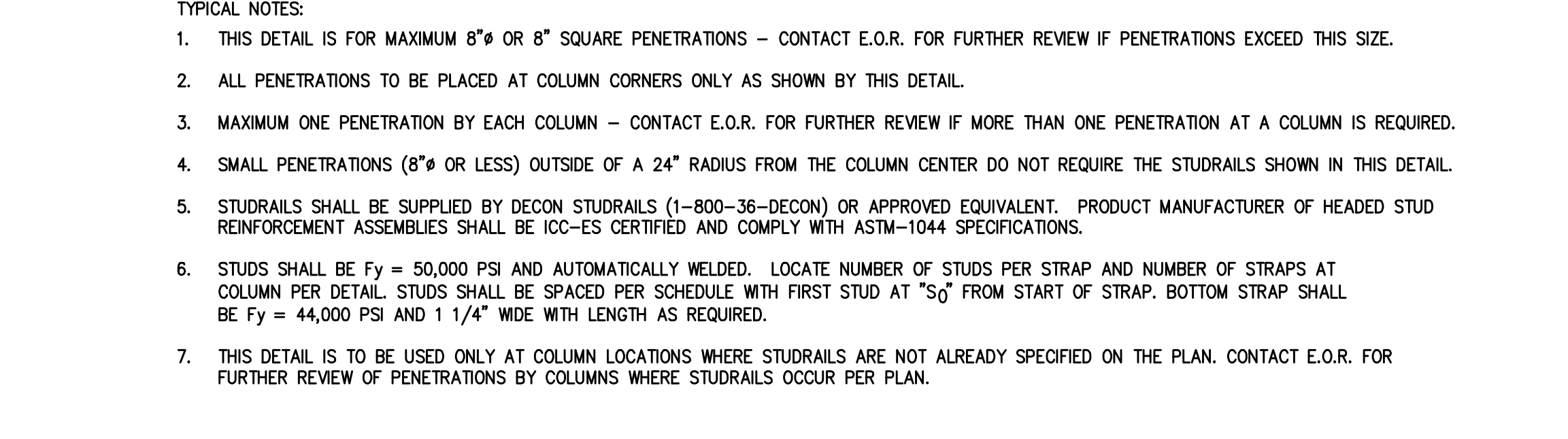
39 TYPICAL OPENING IN CONCRETE WALL
NO SCALE



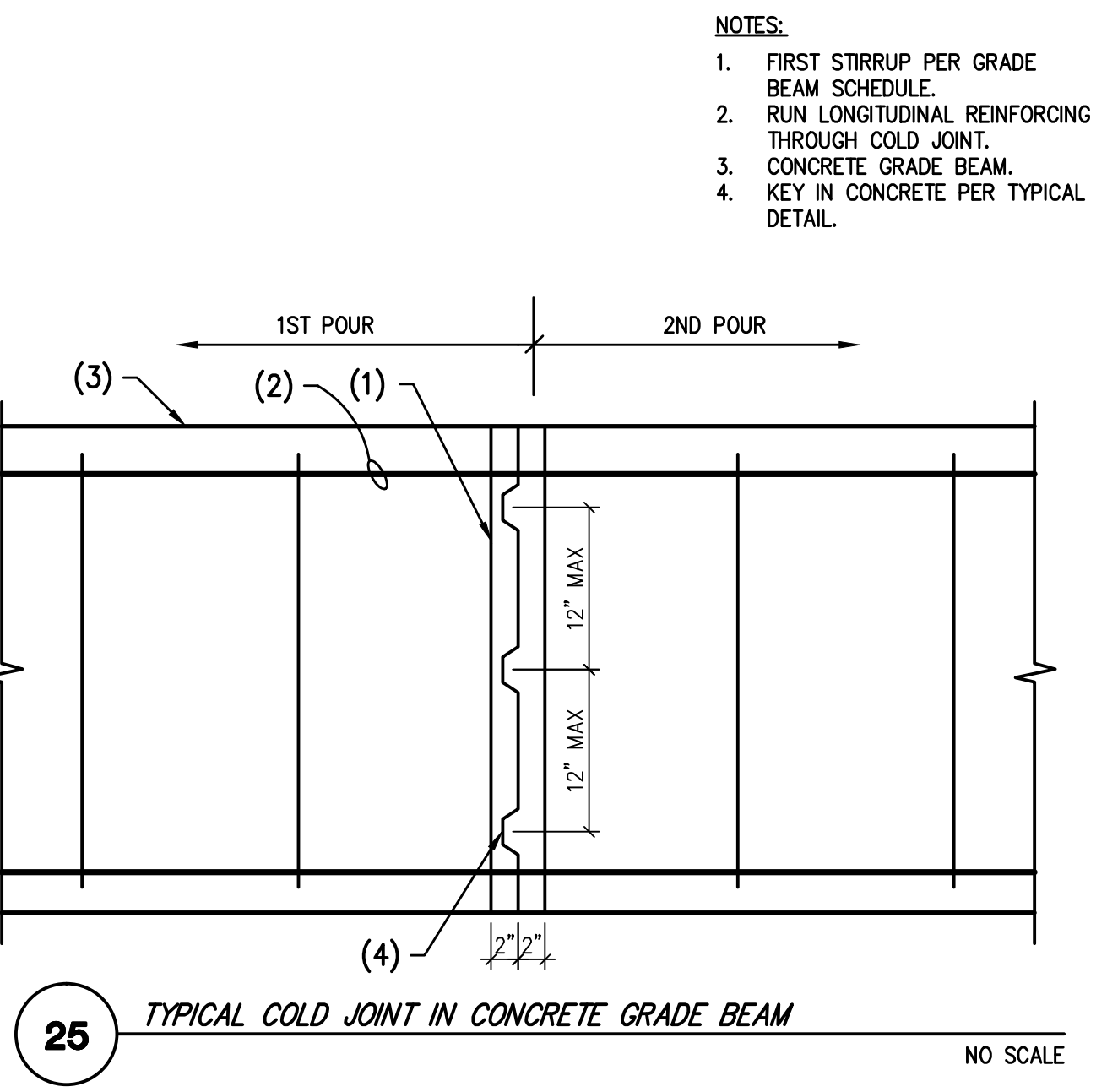
40 TYPICAL MASONRY WALL ABUTTING CONCRETE COLUMN
NO SCALE



41 TYPICAL FREE-STANDING MASONRY WALL AND FOOTING
NO SCALE



42 TYPICAL COLD JOINT IN CONCRETE GRADE BEAM
NO SCALE



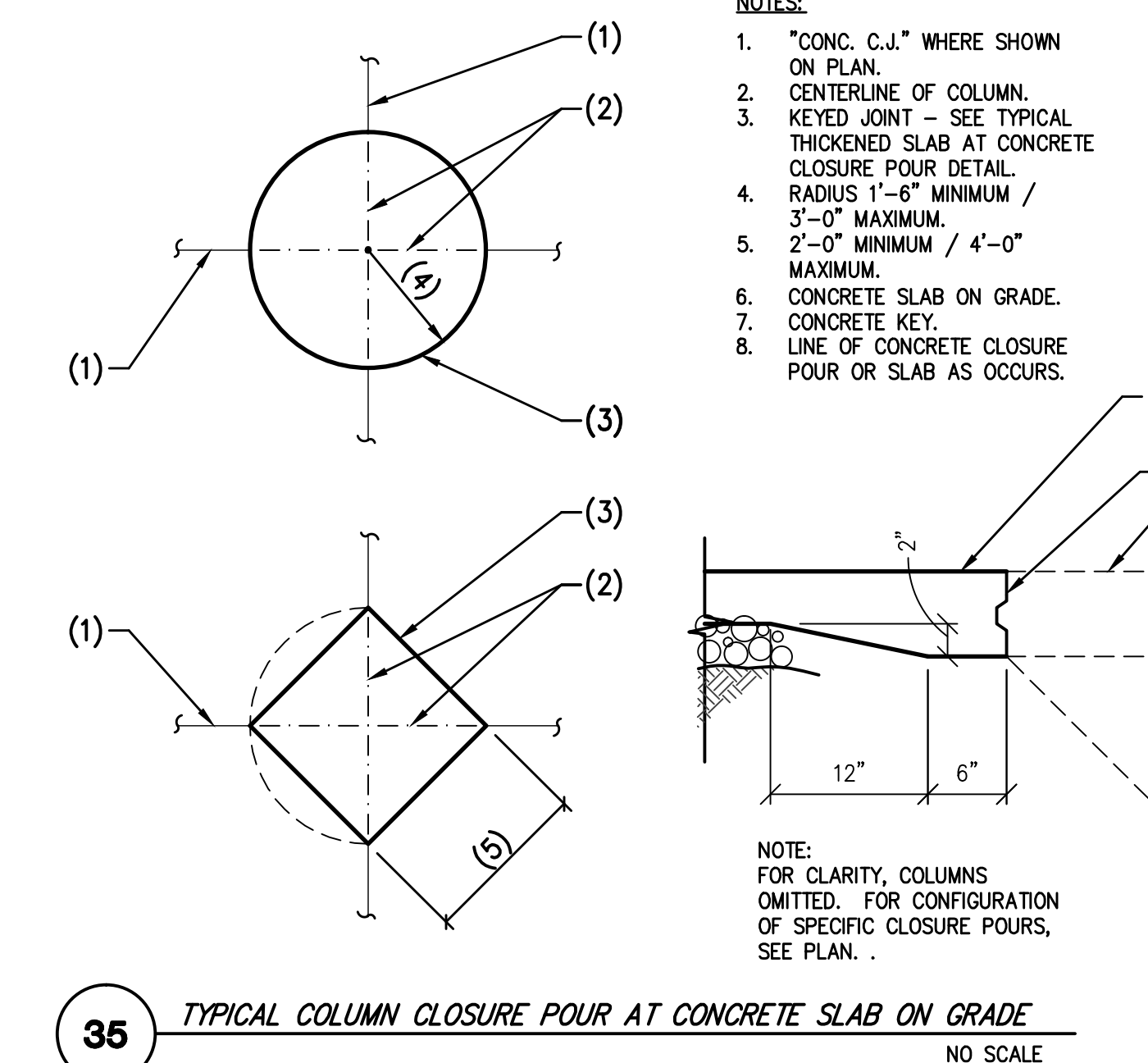
43 TYPICAL COLD JOINT IN INTERSECTING CONCRETE GRADE BEAM
NO SCALE

TYPICAL MASONRY LINTEL SCHEDULE FOR OPENINGS IN EXTERIOR MASONRY WALLS U.N.O.

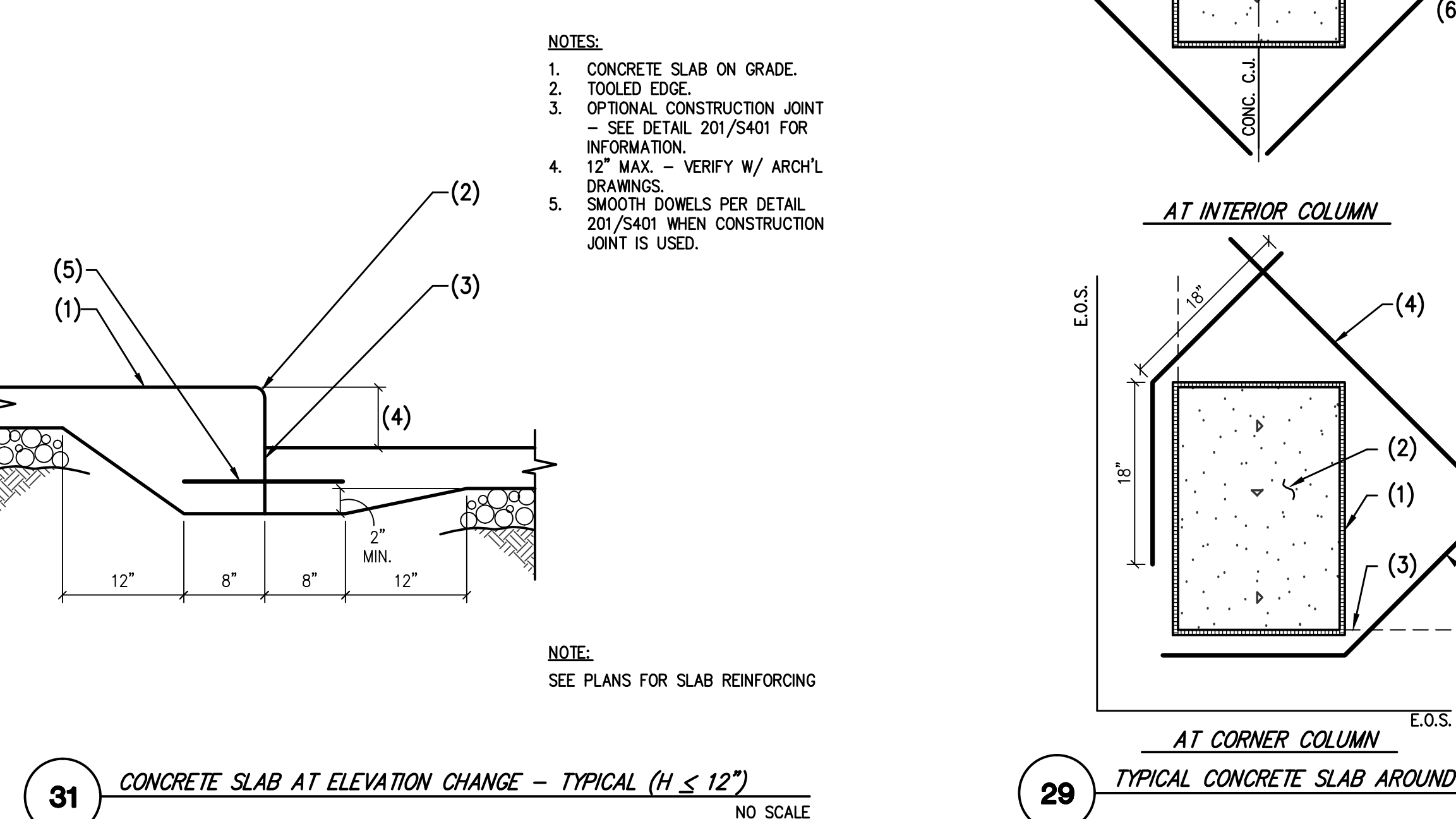
NOTE:
1. VERTICAL REINFORCING TO MATCH AND LAP WALL REINFORCING PER G.S.N.
2. EXTEND GROUT, OPEN END MASONRY UNITS AND REINFORCING 2'-0" PAST EACH JAMB. USE CORNER BARS WHERE 2'-0" CANNOT BE ACHIEVED.

ROUGH OPENING WIDTH	HEIGHT	REINFORCING	REMARKS
0 - 4'-0"	16"	2 #5 TOP & BOTTOM	---
4'-1" - 6'-0"	24"	2 #5 TOP & BOTTOM	---
6'-1" - 8'-0"	32"	2 #5 TOP & BOTTOM	---
8'-1" - 10'-0"	48"	4 #5 BOTTOM (2 ROWS OF 2) 2 #5 TOP	---

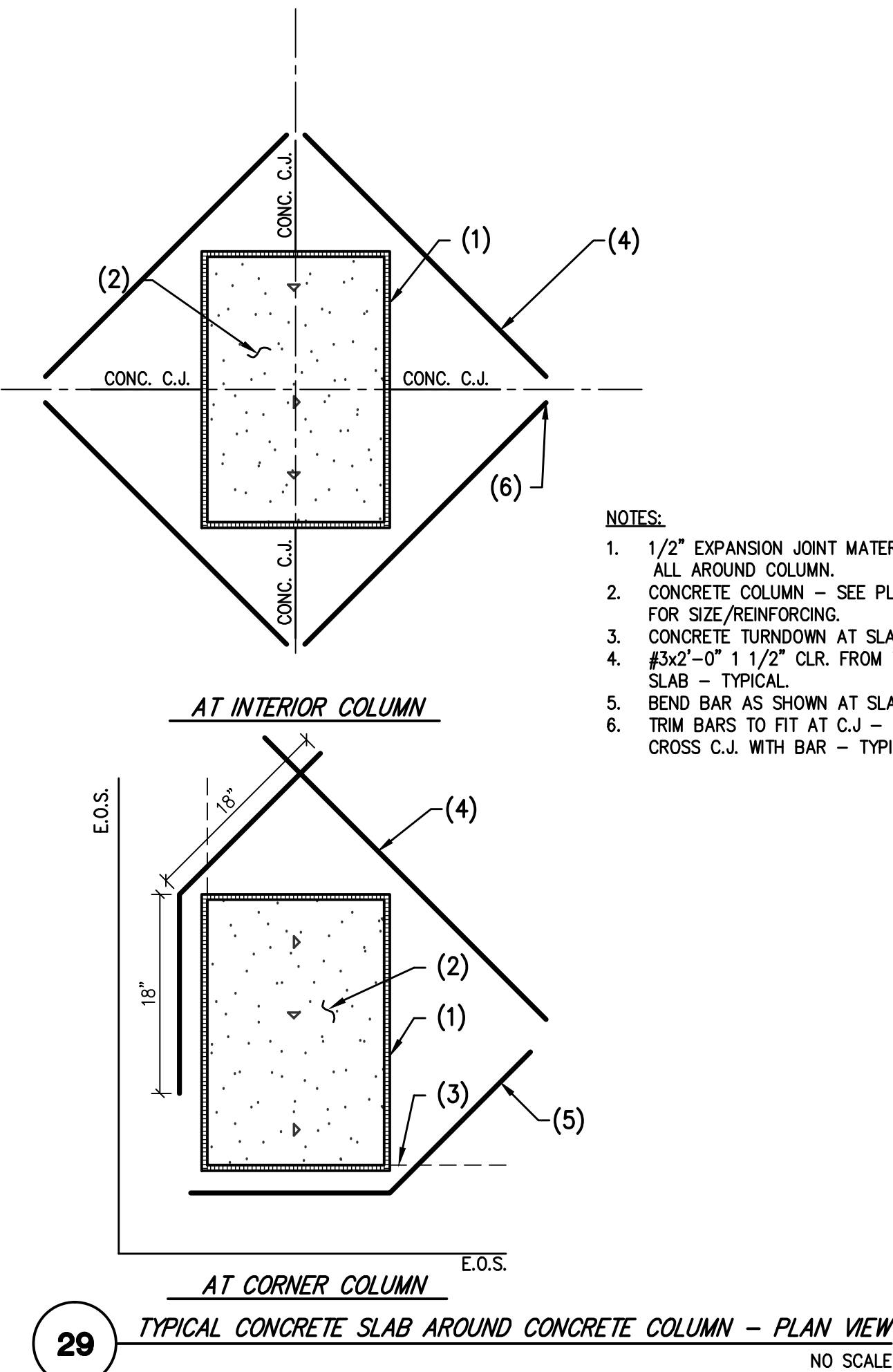
44 TYPICAL MASONRY LINTEL SCHEDULE FOR OPENINGS IN EXTERIOR MASONRY WALLS U.N.O.
NO SCALE



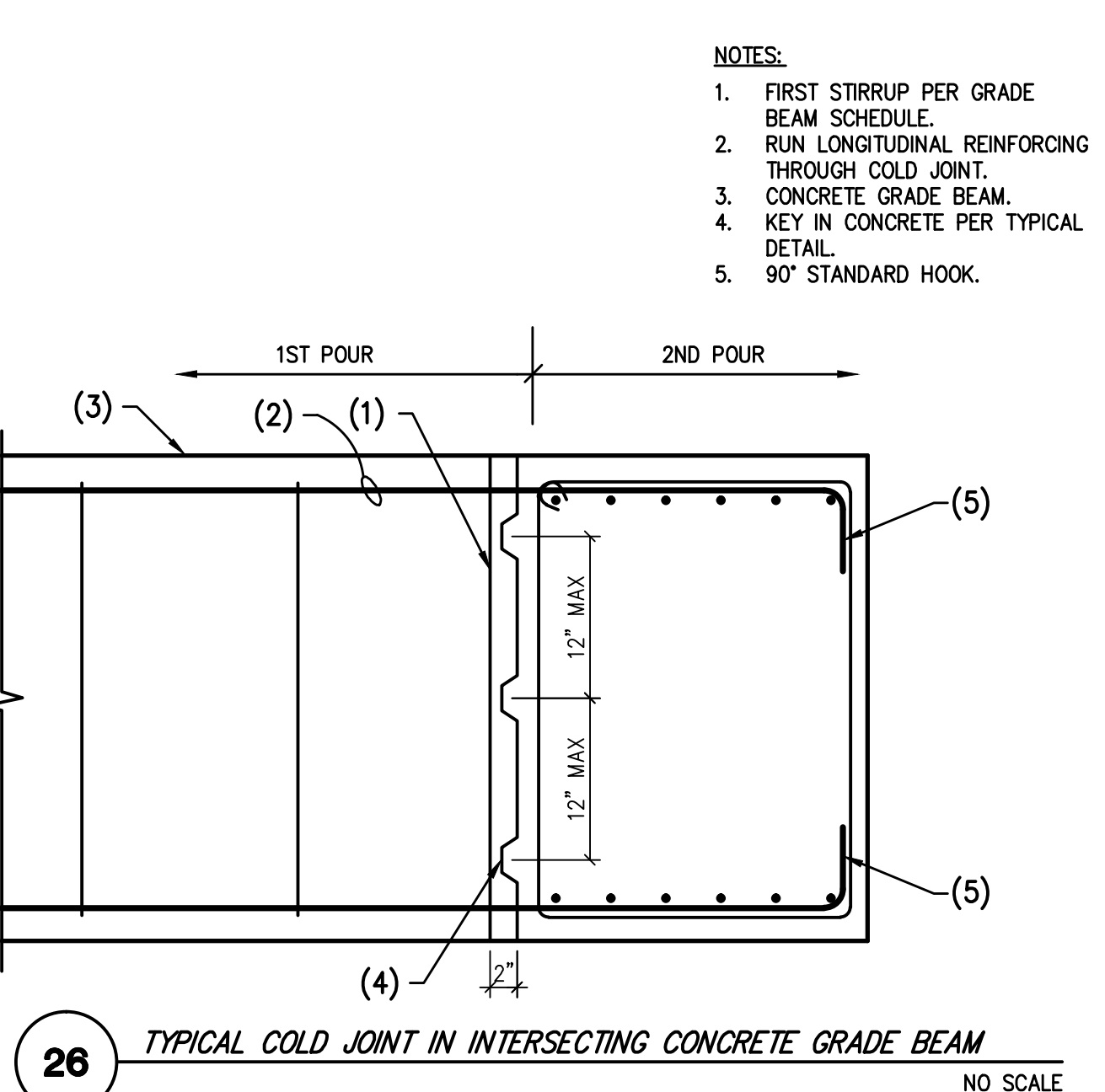
45 TYPICAL COLUMN CLOSURE POUR AT CONCRETE SLAB ON GRADE
NO SCALE



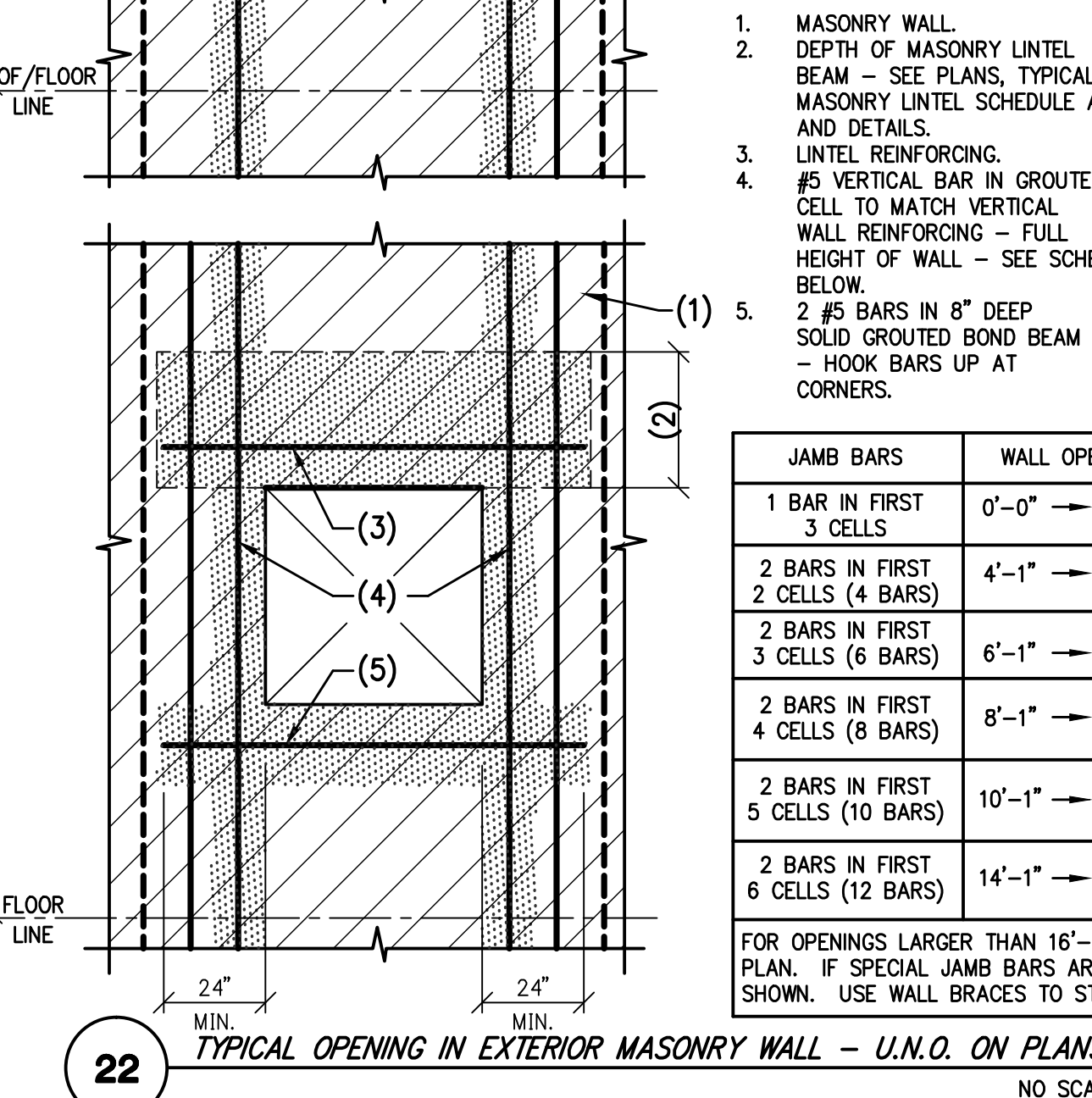
46 CONCRETE SLAB AT ELEVATION CHANGE - TYPICAL (H < 12")
NO SCALE



47 TYPICAL CONCRETE SLAB AROUND CONCRETE COLUMN - PLAN VIEW
NO SCALE



48 TYPICAL COLD JOINT IN INTERSECTING CONCRETE GRADE BEAM
NO SCALE



49 TYPICAL OPENING IN EXTERIOR MASONRY WALL - U.N.O. ON PLANS
NO SCALE

Key Plan:

Revisions:

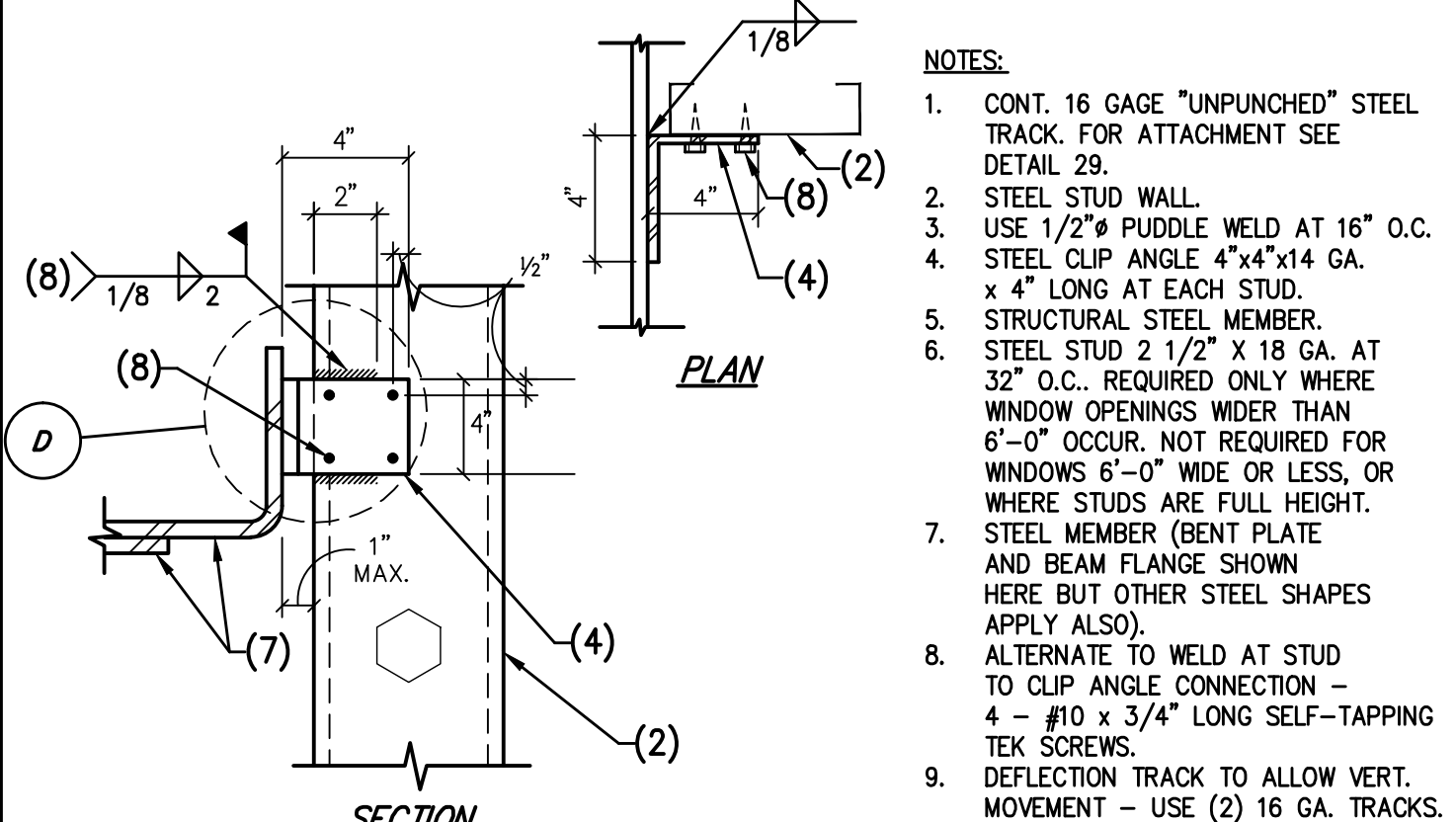
No.	Description	Date
17	STRUCTURAL CLARIFICATIONS	10/19/14
	CONFORM SET	03/03/17
	CONFORM SET	02/10/17

Project Number: 16022
Date: 09/02/2016
Drawn By: L.E.
Checked By: S.S.

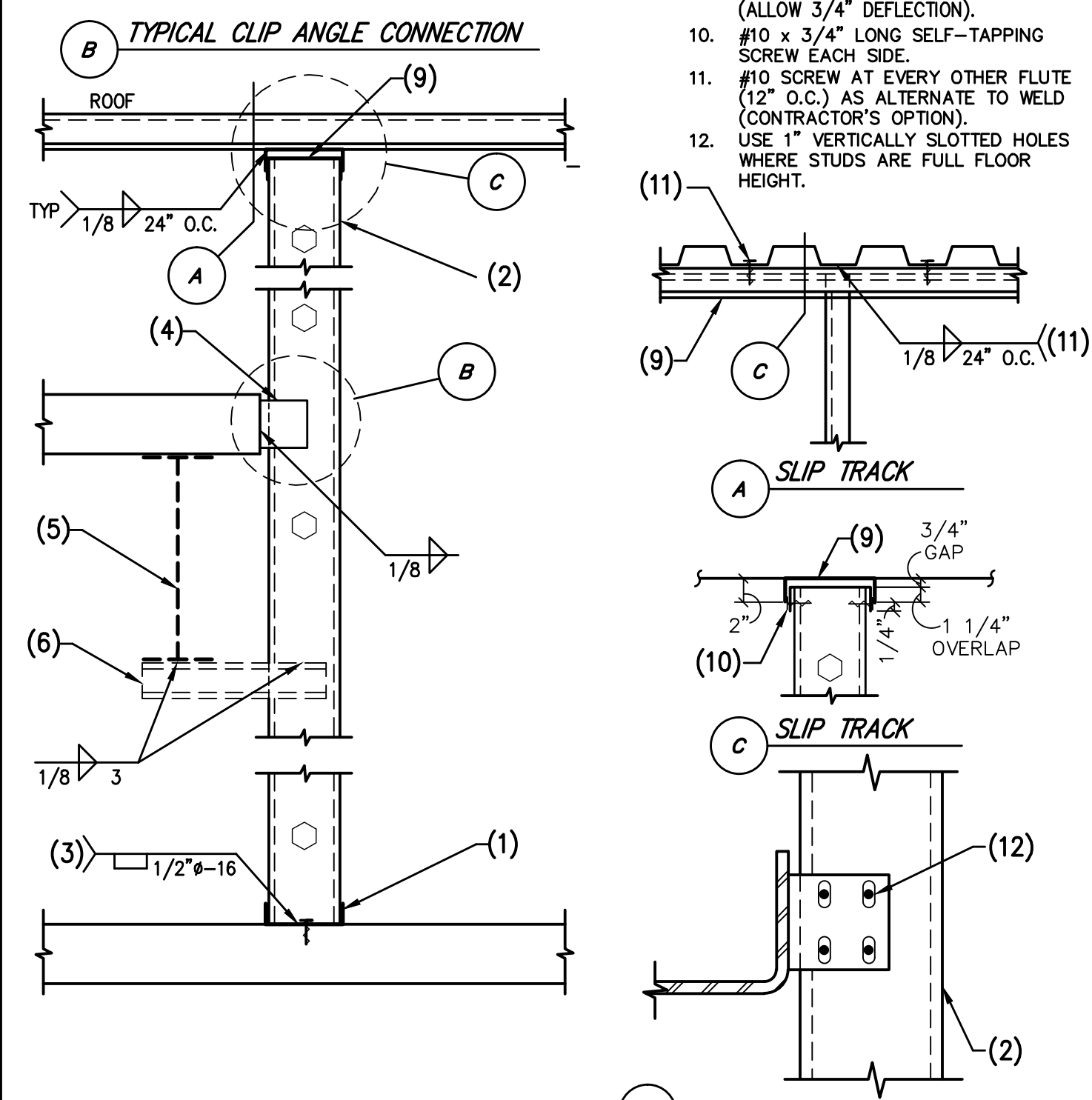
TYPICAL DETAILS

Sheet Number: S004

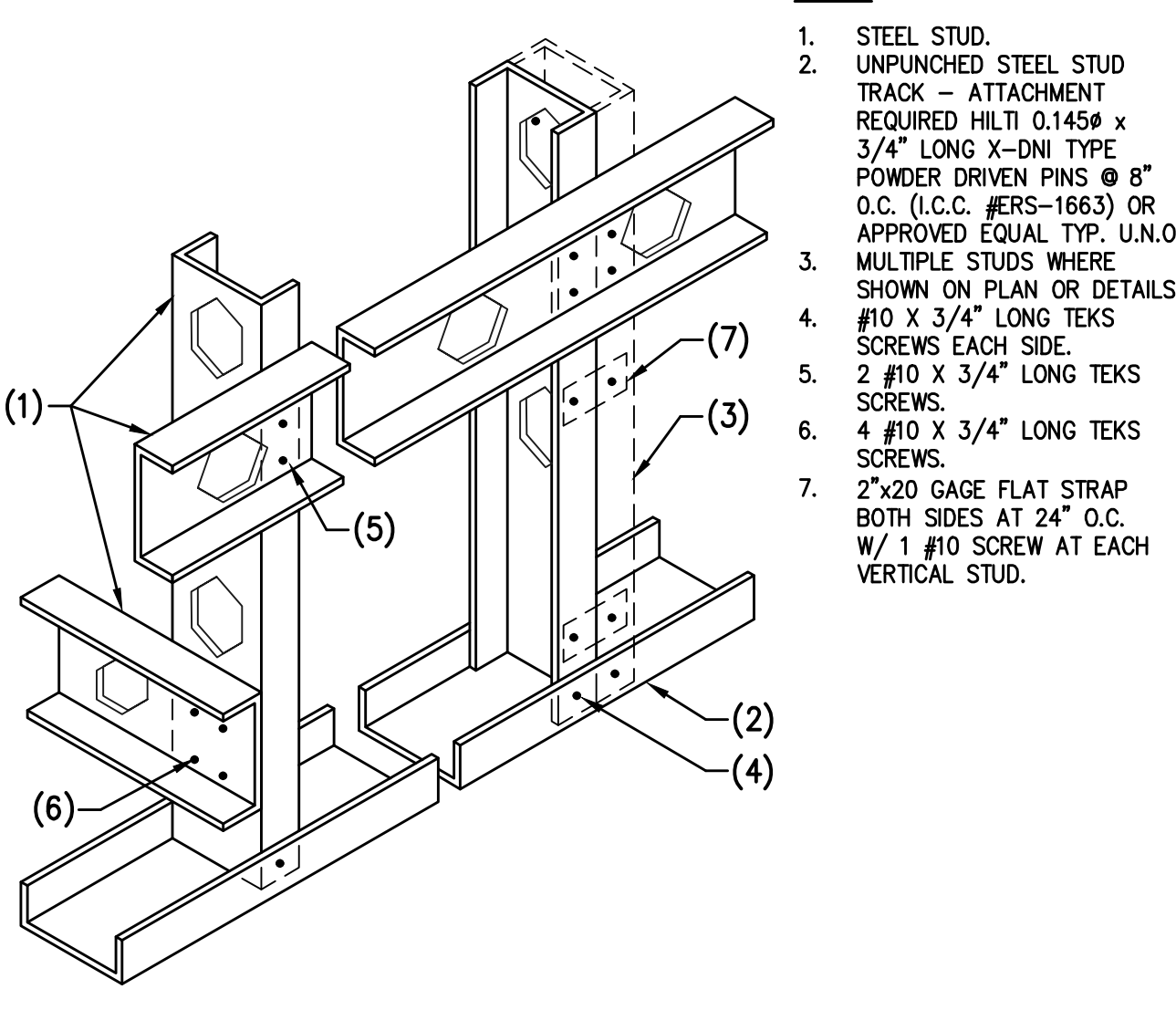
ACTUAL SHEET SIZE: 36" X 48"



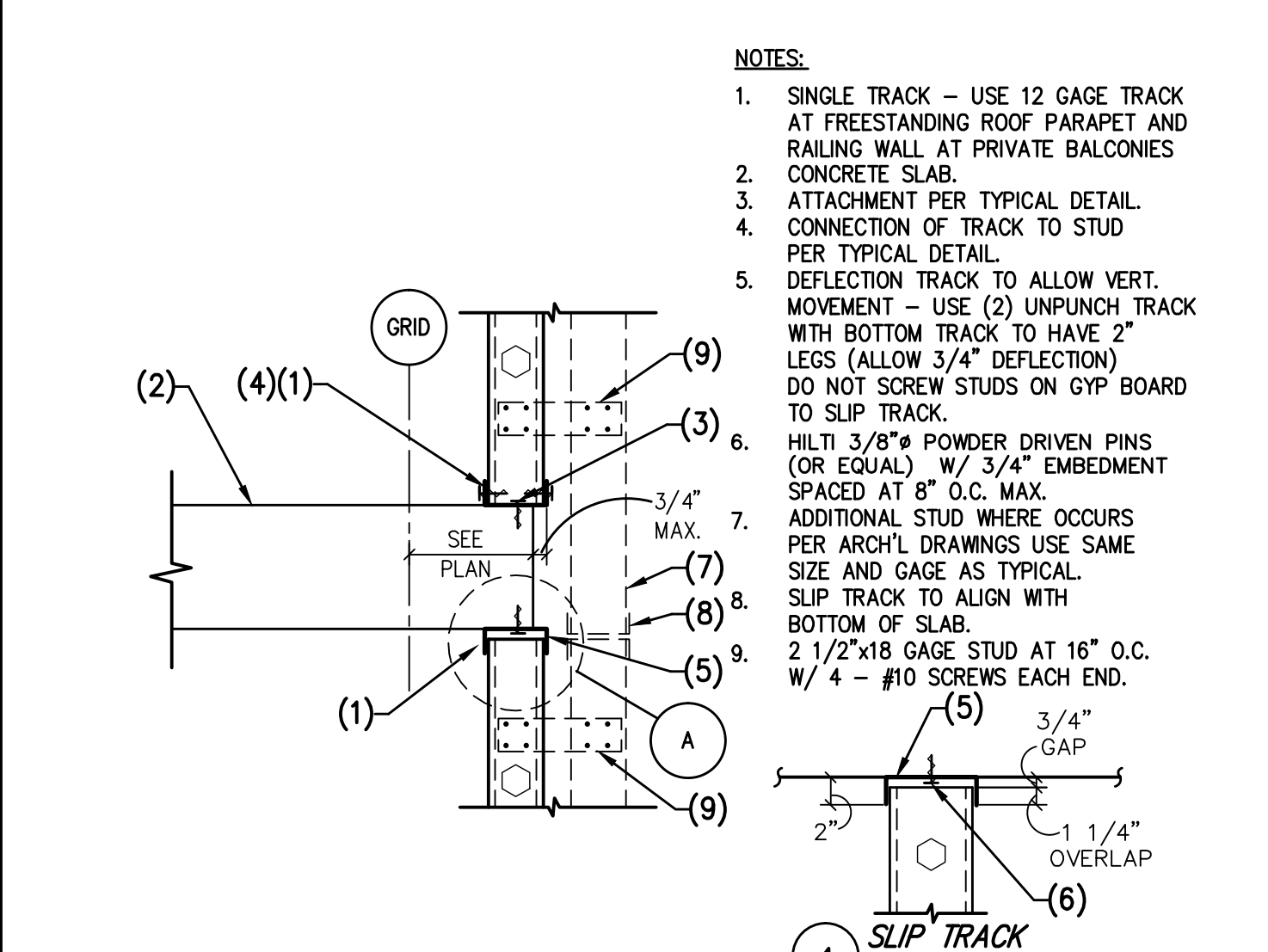
45 TYPICAL CONCRETE EQUIPMENT PAD DETAIL NO SCALE



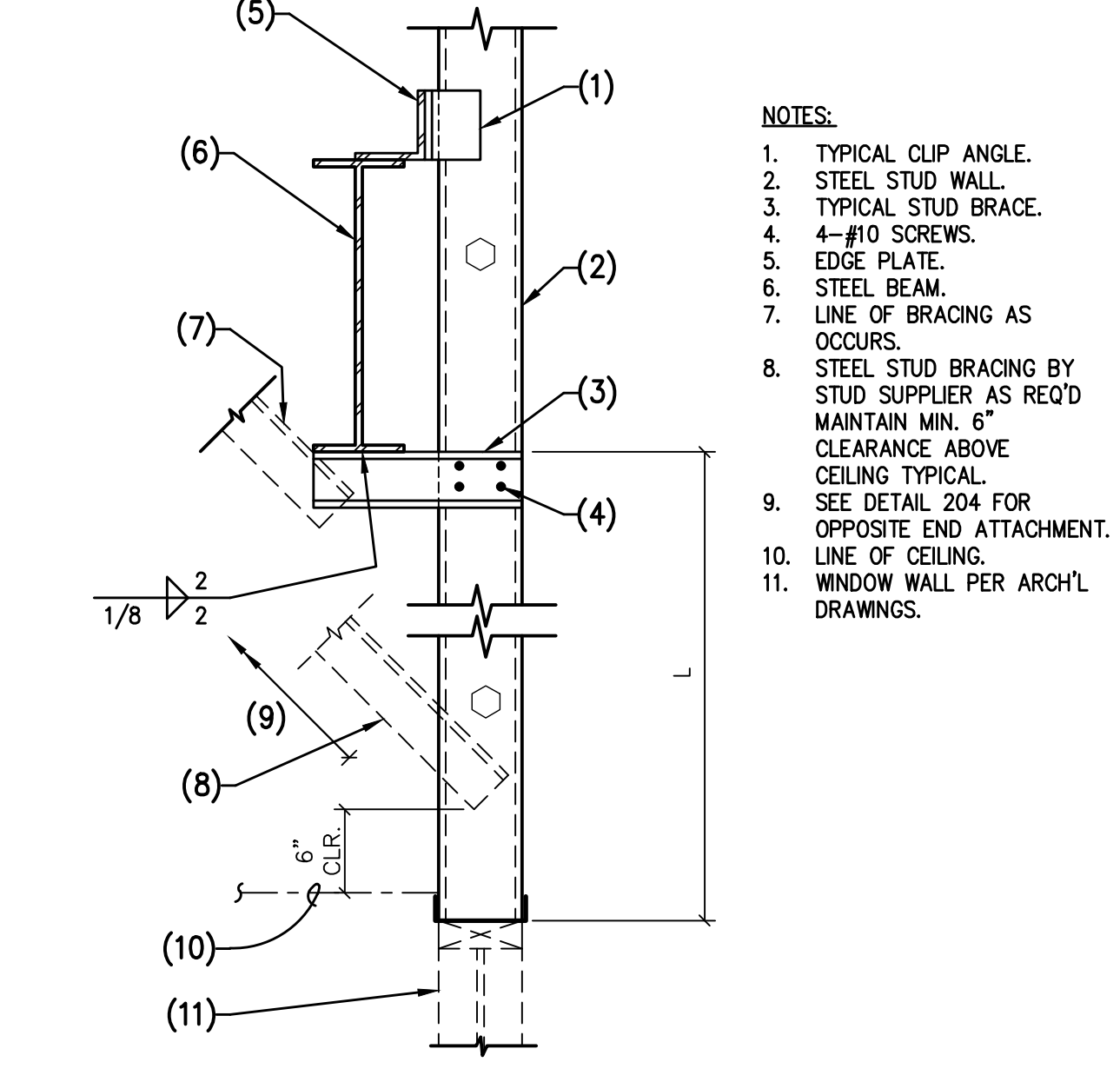
48 TYPICAL STEEL STUD ATTACHMENT (DELEGATED DESIGN - FOR REFERENCE ONLY) NO SCALE



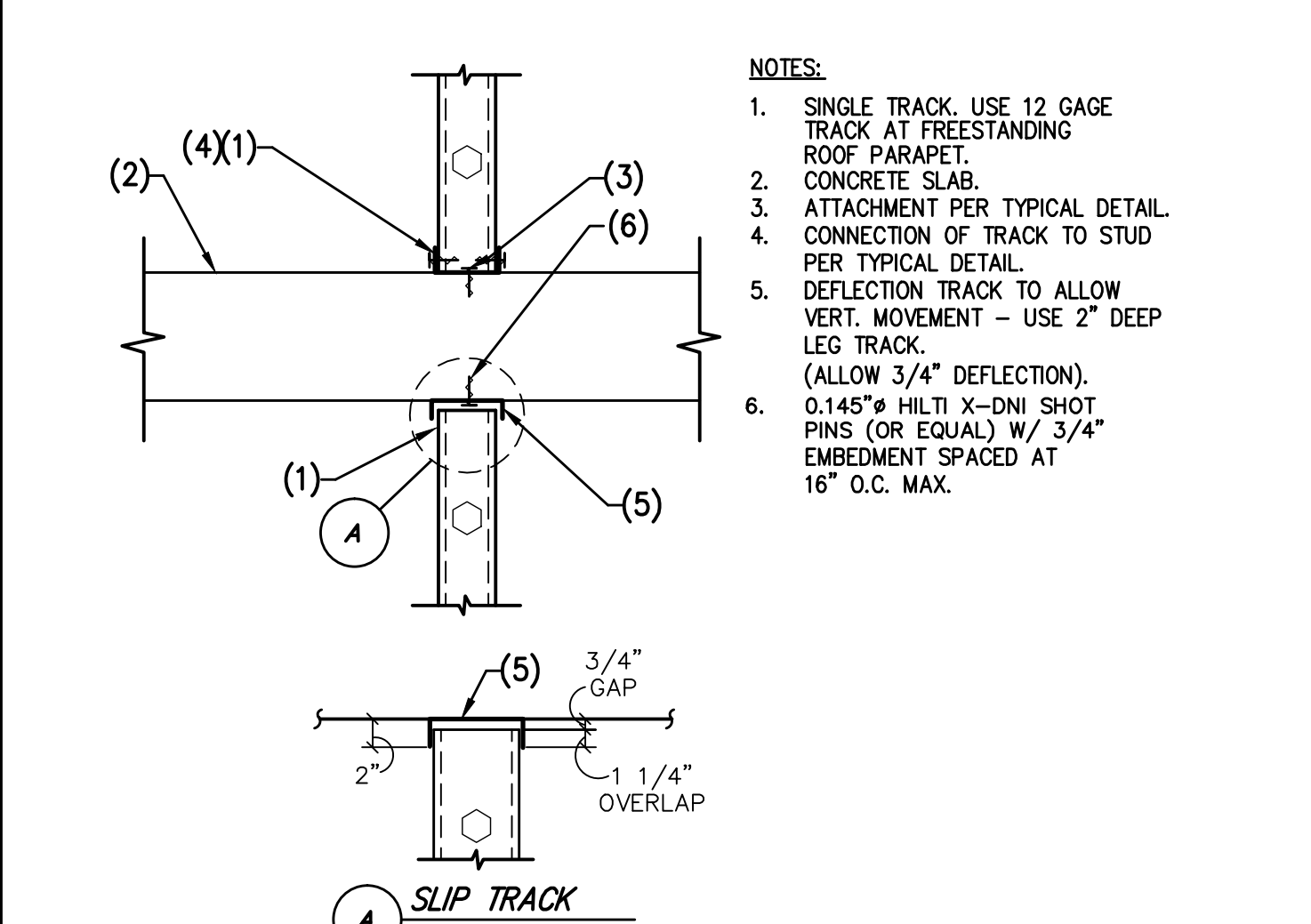
46 TYPICAL STEEL STUD WALL - SCREW CONNECTION (DELEGATED DESIGN - FOR REFERENCE ONLY) NO SCALE



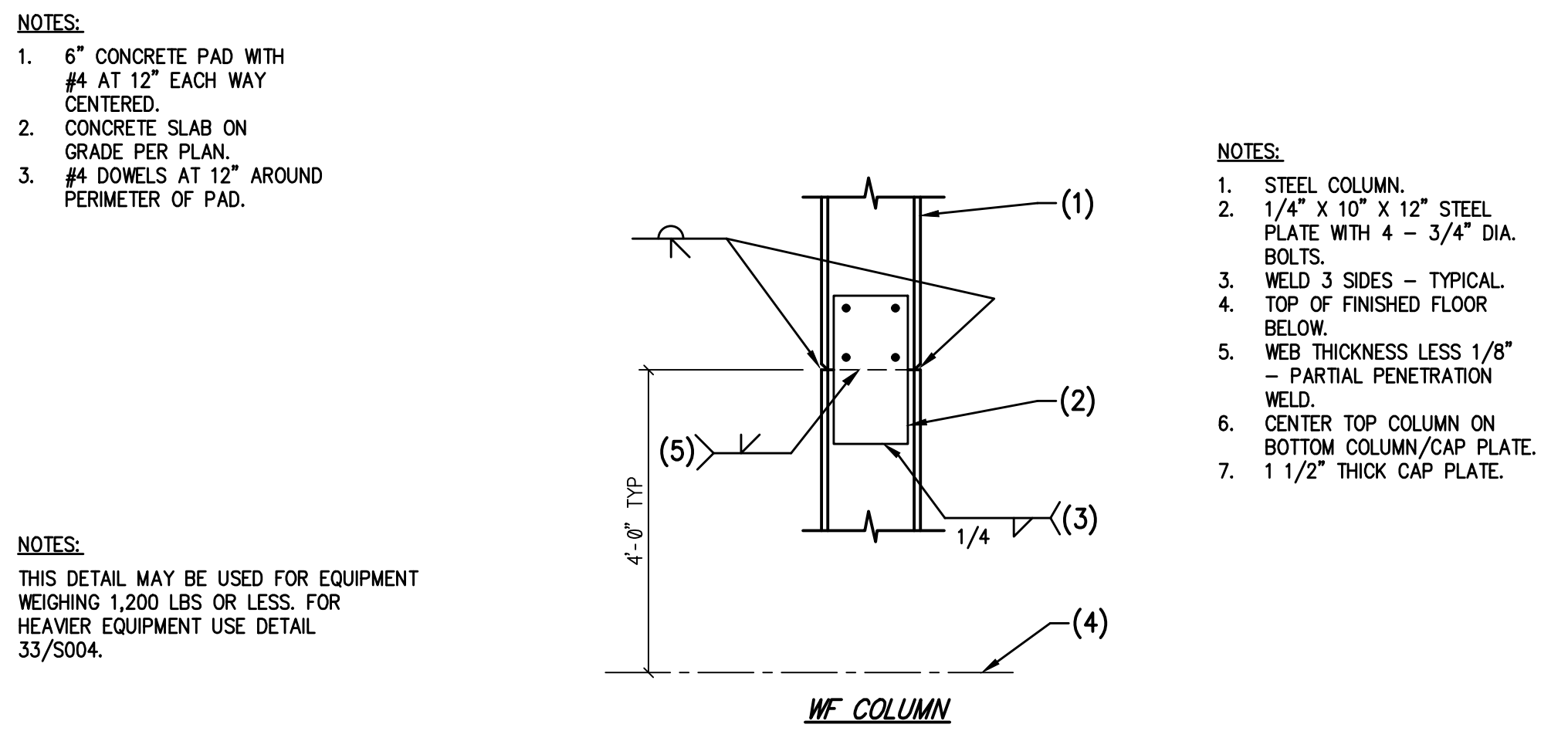
49 TYPICAL STEEL STUD WALL AT EDGE OF SLAB (DELEGATED DESIGN - FOR REFERENCE ONLY) NO SCALE



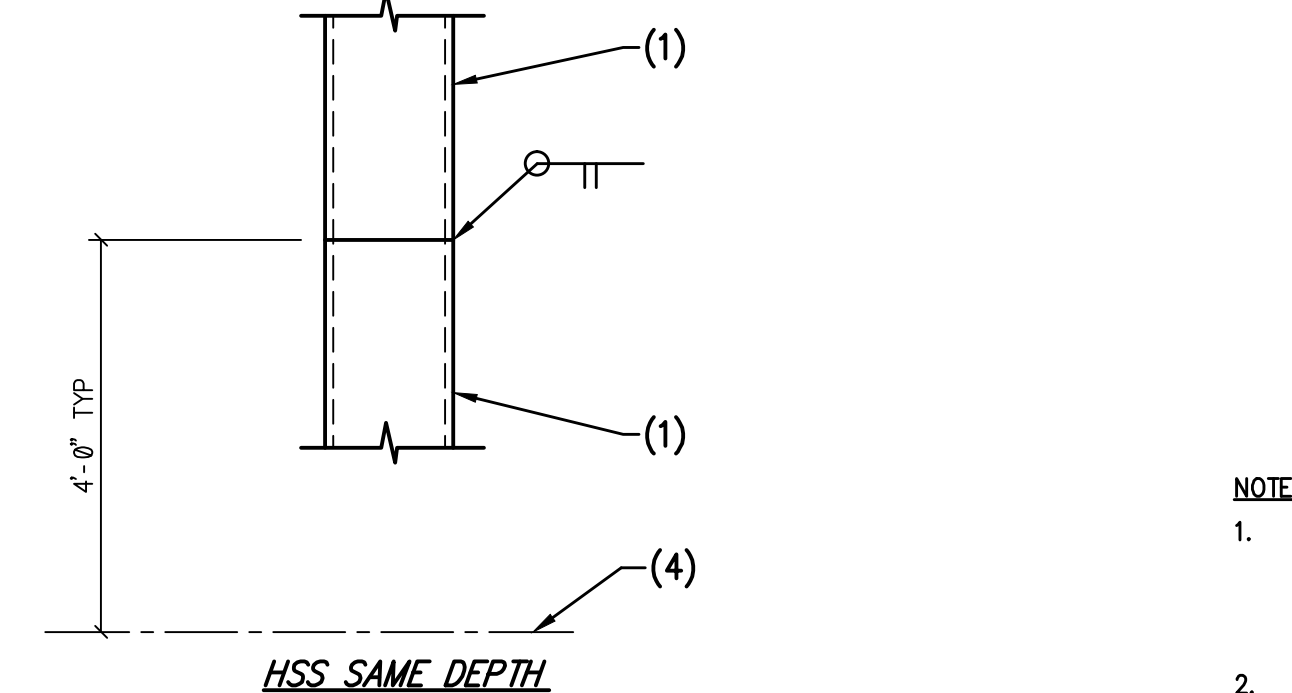
47 TYPICAL STUD BRACE FOR WINDOW AT STEEL BEAM (DELEGATED DESIGN - FOR REFERENCE ONLY) NO SCALE



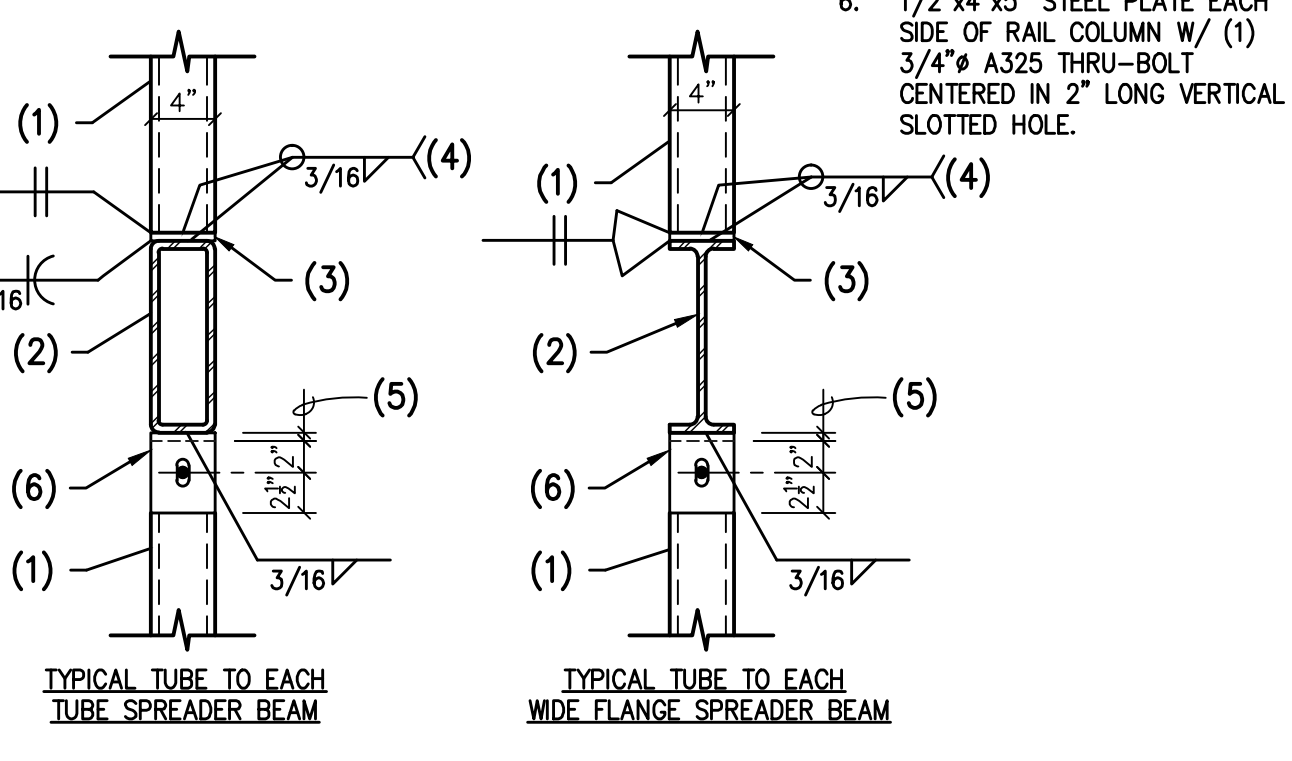
60 TYPICAL NON-BEARING INTERIOR STEEL STUD WALL AT SLAB (DELEGATED DESIGN - FOR REFERENCE ONLY) NO SCALE



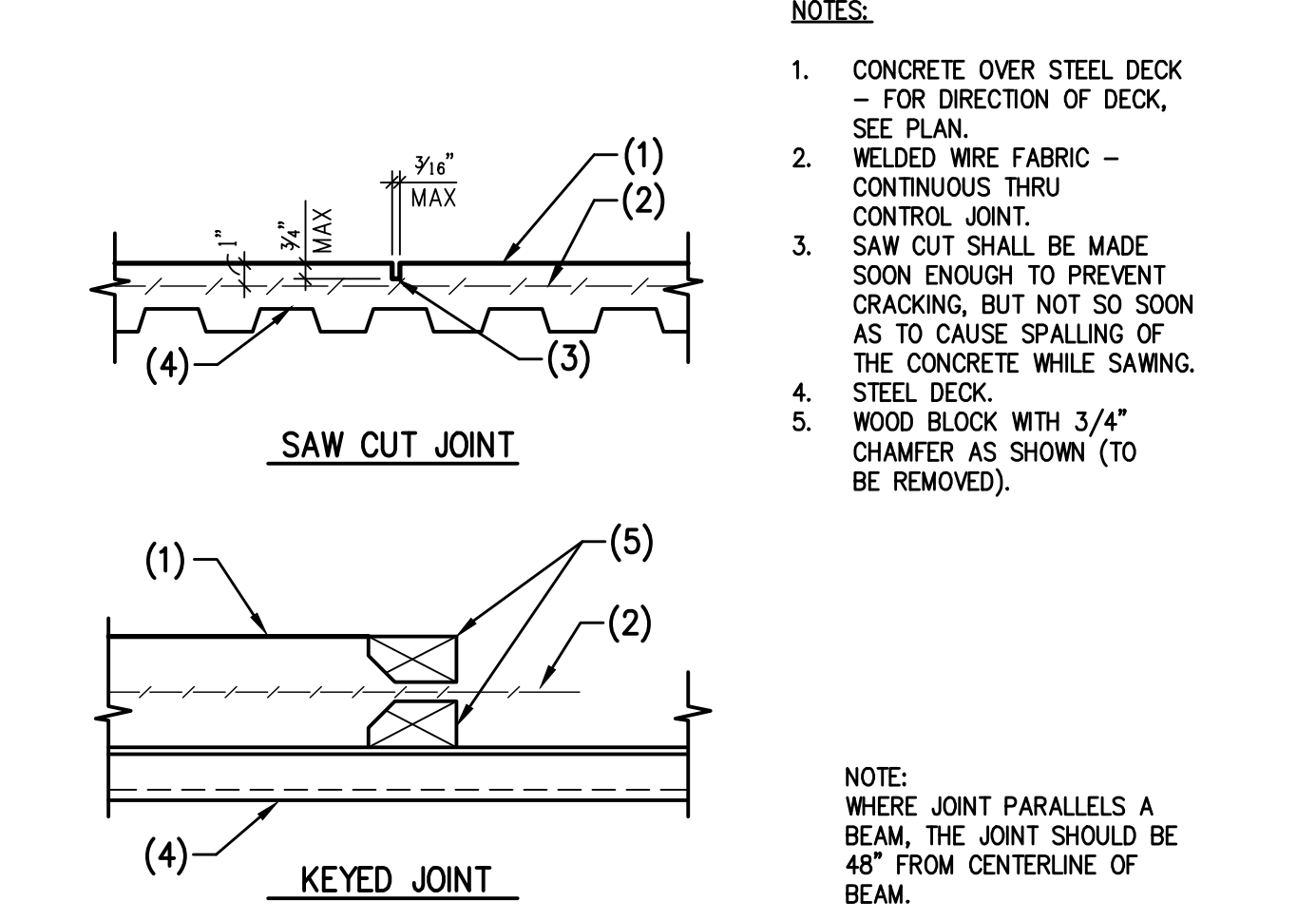
44 TYPICAL REBAR IN SLAB ON GRADE AT JOINT NO SCALE



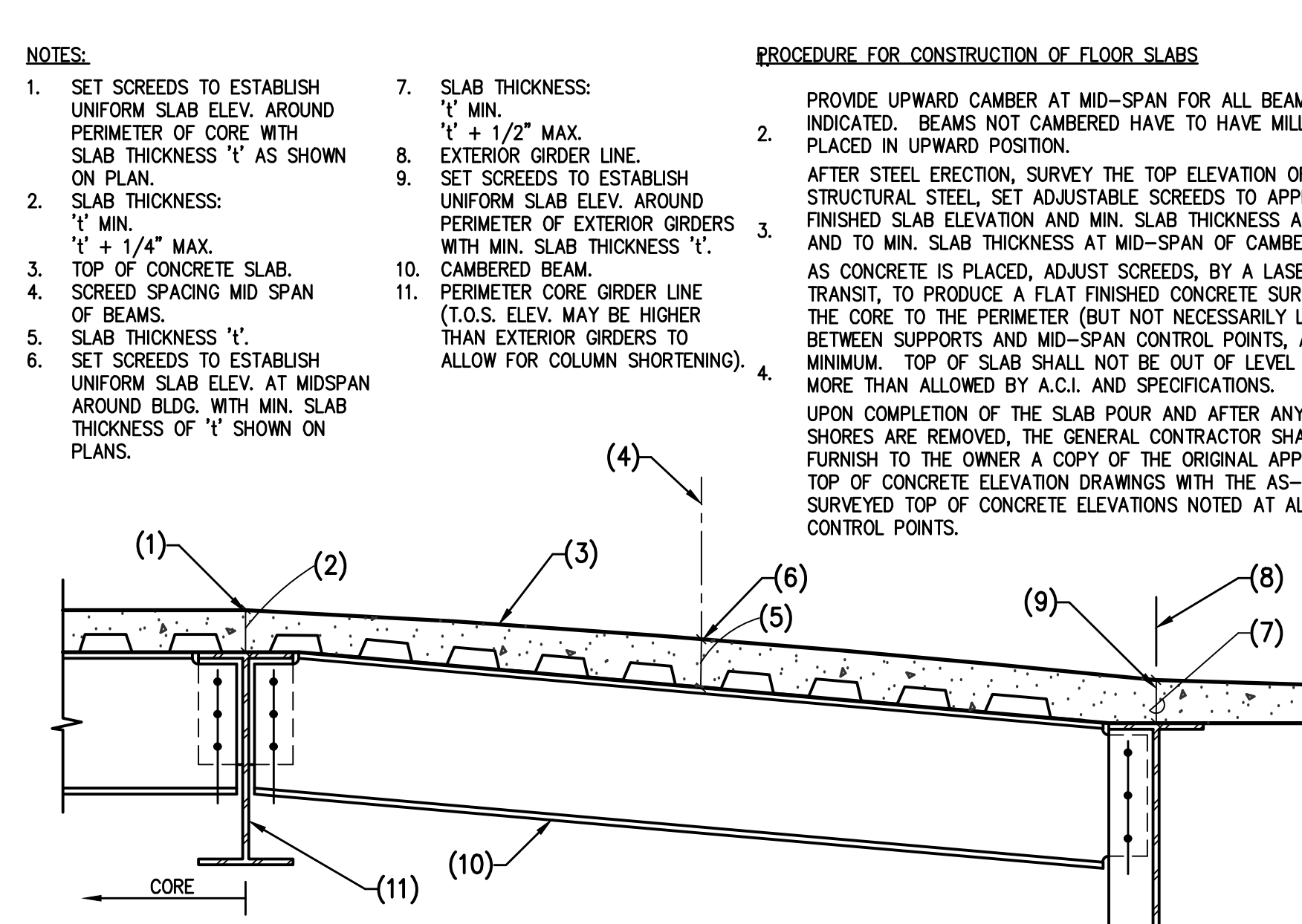
42 TYPICAL GRAVITY ONLY COLUMN SPLICE DETAIL NO SCALE



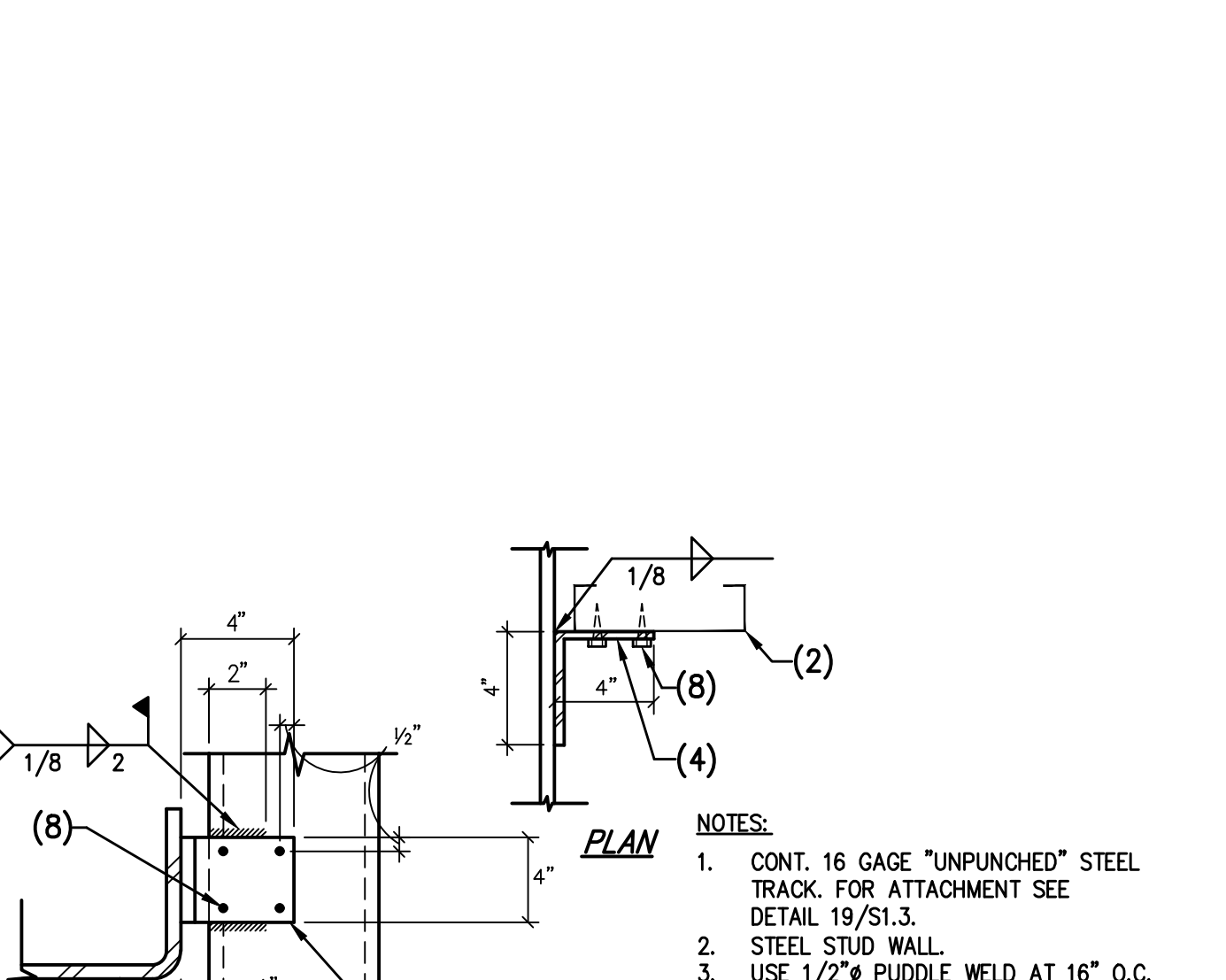
43 TYPICAL ELEVATOR RAIL COLUMN ATTACHMENT NO SCALE



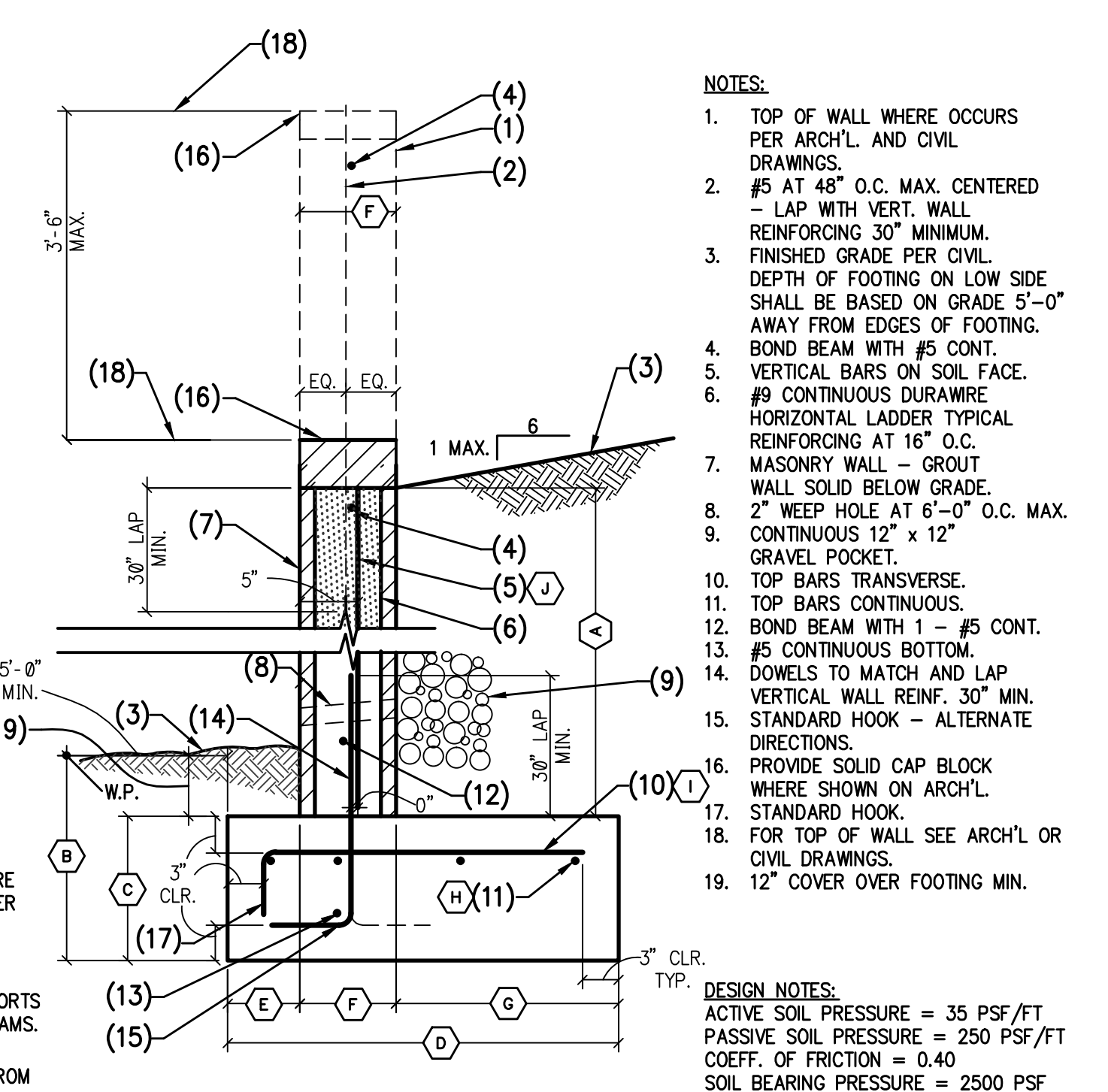
39 CONTROL JOINTS IN CONCRETE OVER STEEL DECK NO SCALE



40 SLAB ON CAMBERED STEEL BEAMS NO SCALE



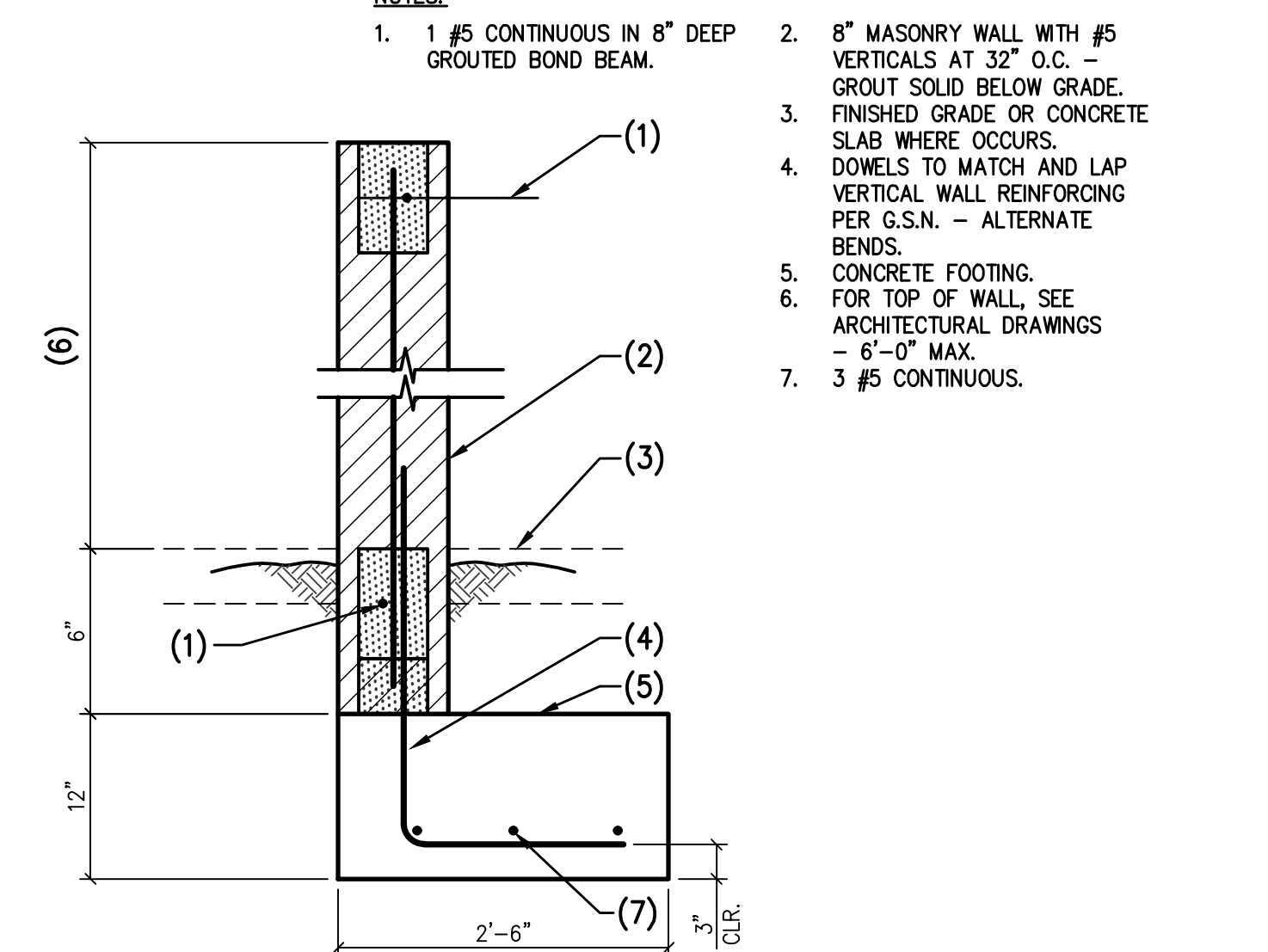
41 TYPICAL LIGHT GAGE STEEL STUD ATTACHMENT (DELEGATED DESIGN - FOR REFERENCE ONLY) NO SCALE



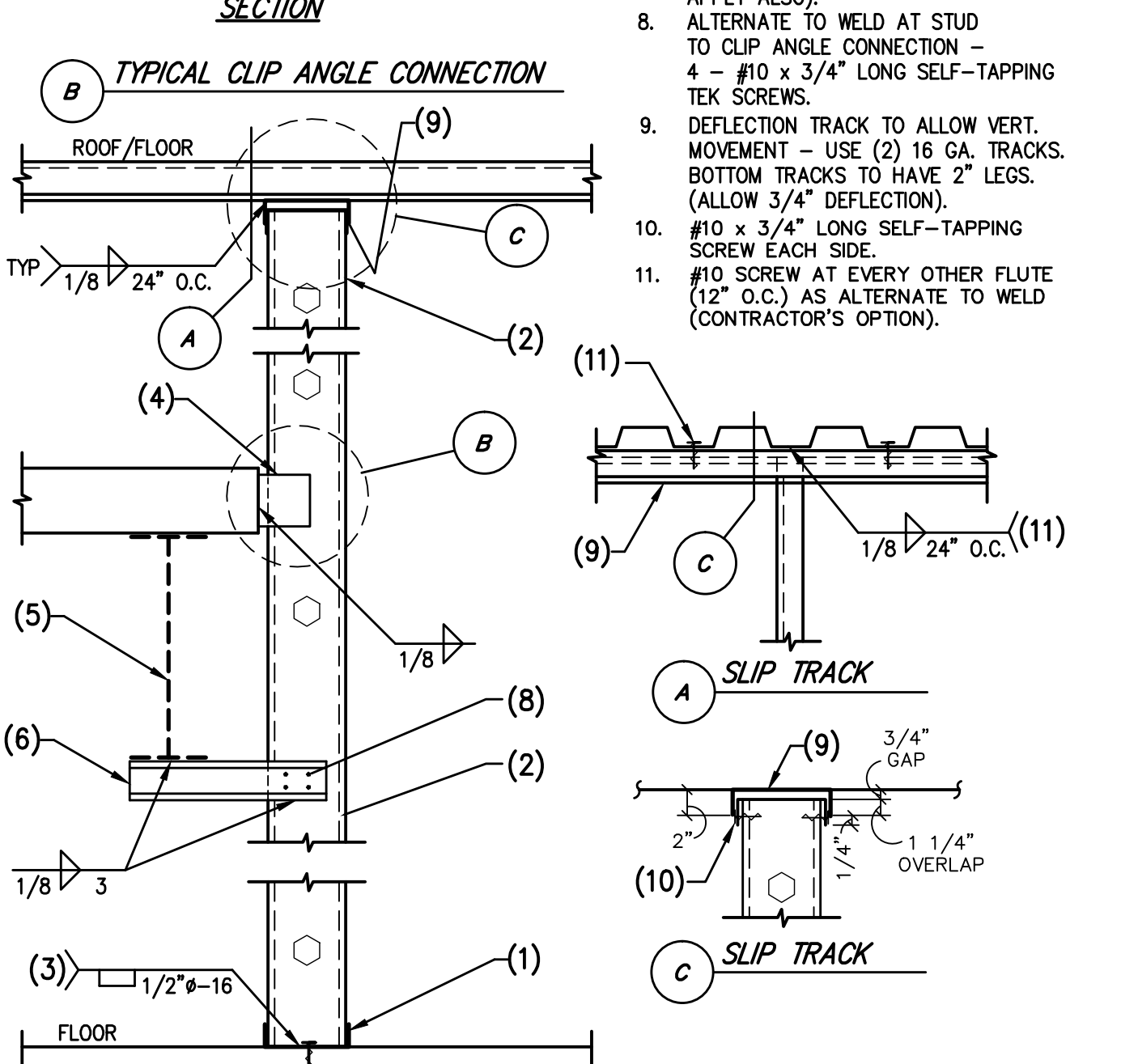
36 RETAINING WALL DETAIL NO SCALE

RETAINED HEIGHT	MIN. WALL THICKNESS	MIN. WALL HEIGHT	MIN. WALL WEIGHT	MIN. WALL STRENGTH	MIN. WALL STRENGTH	MIN. WALL STRENGTH
0' TO 3'-0"	18"	2'-8"	2'	14'	3 #5 CONT.	#5 @ 48" O.C. @ EDGE
3'-1" TO 4'-0"	18"	14'-0"	8'	11'-8"	3 #5 CONT.	#5 @ 36" O.C. @ EDGE
4'-1" TO 5'-0"	18"	14'-0"	12'	8'-0"	3 #5 CONT.	#5 @ 36" O.C. @ EDGE
5'-1" TO 6'-0"	18"	14'-0"	12'	8'-0"	3 #5 CONT.	#5 @ 36" O.C. @ EDGE
6'-1" TO 7'-0"	18"	14'-0"	12'	8'-0"	3 #5 CONT.	#5 @ 36" O.C. @ EDGE
7'-1" TO 8'-0"	18"	14'-0"	12'	8'-0"	3 #5 CONT.	#5 @ 36" O.C. @ EDGE
8'-1" TO 9'-0"	18"	14'-0"	12'	8'-0"	3 #5 CONT.	#5 @ 36" O.C. @ EDGE
9'-1" TO 10'-0"	18"	14'-0"	12'	8'-0"	3 #5 CONT.	#5 @ 36" O.C. @ EDGE

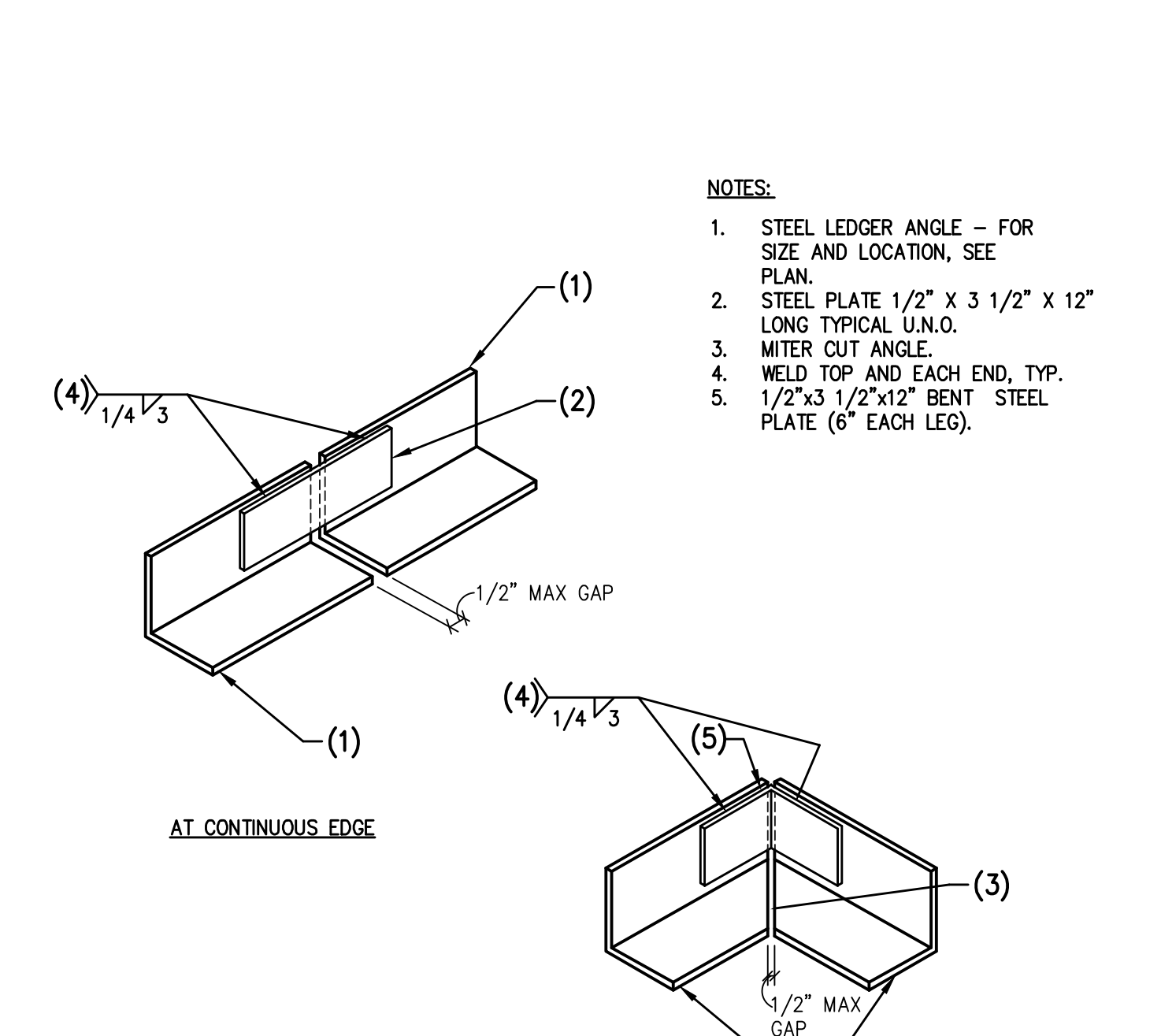
36 RETAINING WALL SCHEDULE INSPECTED CANTILEVER WALL NO SCALE



37 6'-0" MAXIMUM FREE-STANDING MASONRY WALL AND FOOTING AT PROPERTY LINE NO SCALE



51 TYPICAL LIGHT GAGE STEEL STUD ATTACHMENT (DELEGATED DESIGN - FOR REFERENCE ONLY) NO SCALE



38 TYPICAL SPLICE IN CONTINUOUS STEEL LEDGER ANGLE NO SCALE

Key Plan:

No.	Description	Date
17	STRUCTURAL CLARIFICATIONS	10/16/14
	CONFORM SET	02/03/17
	CONFORM SET	02/10/17

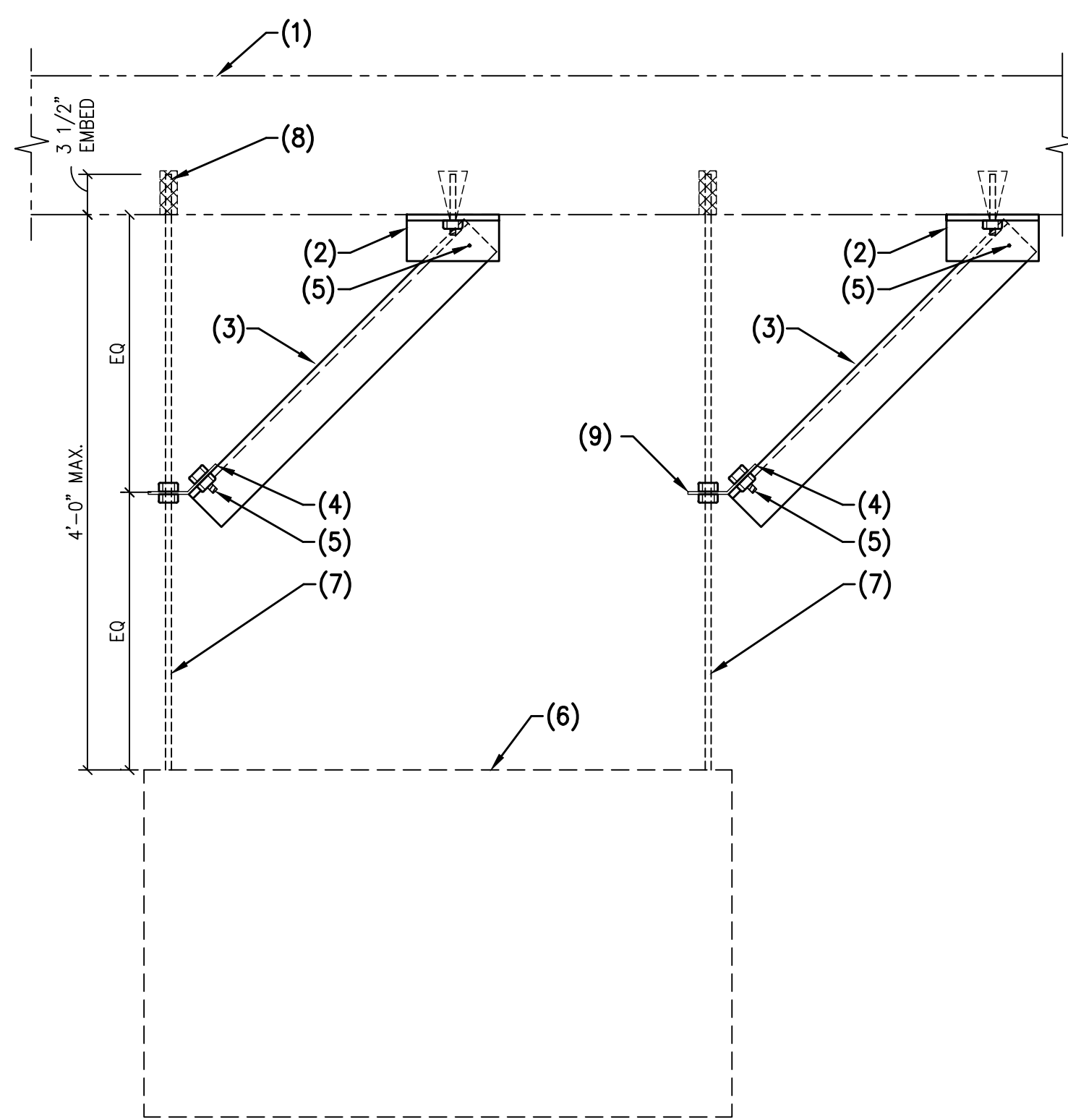
Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Number:
TYPICAL DETAILS
 Sheet Number:
S005

ACTUAL SHEET SIZE: 36" x 48"

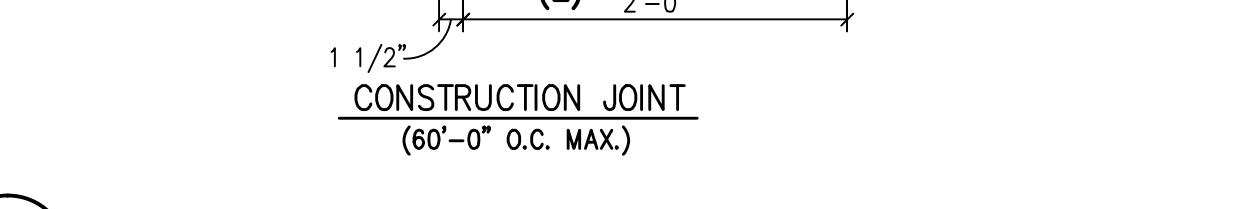
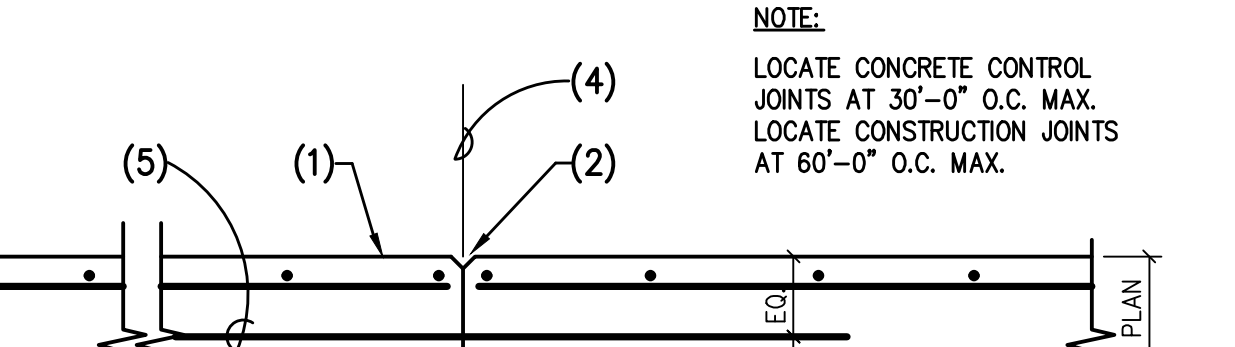
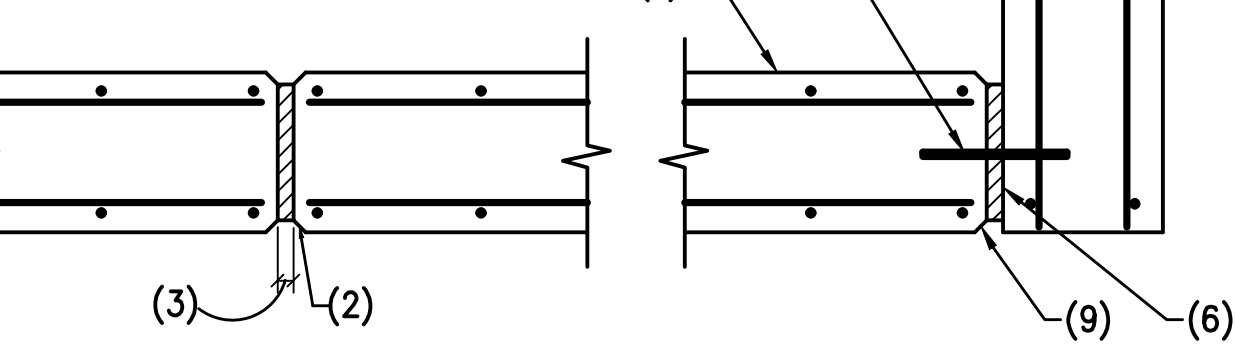
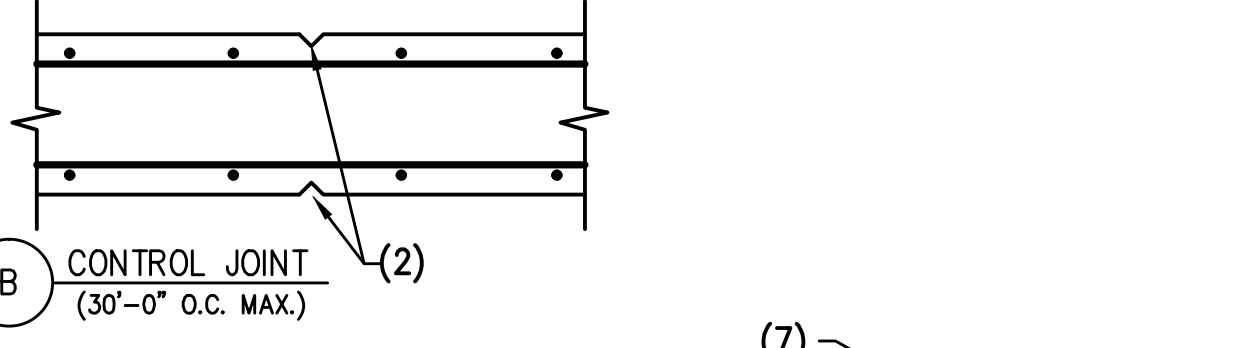
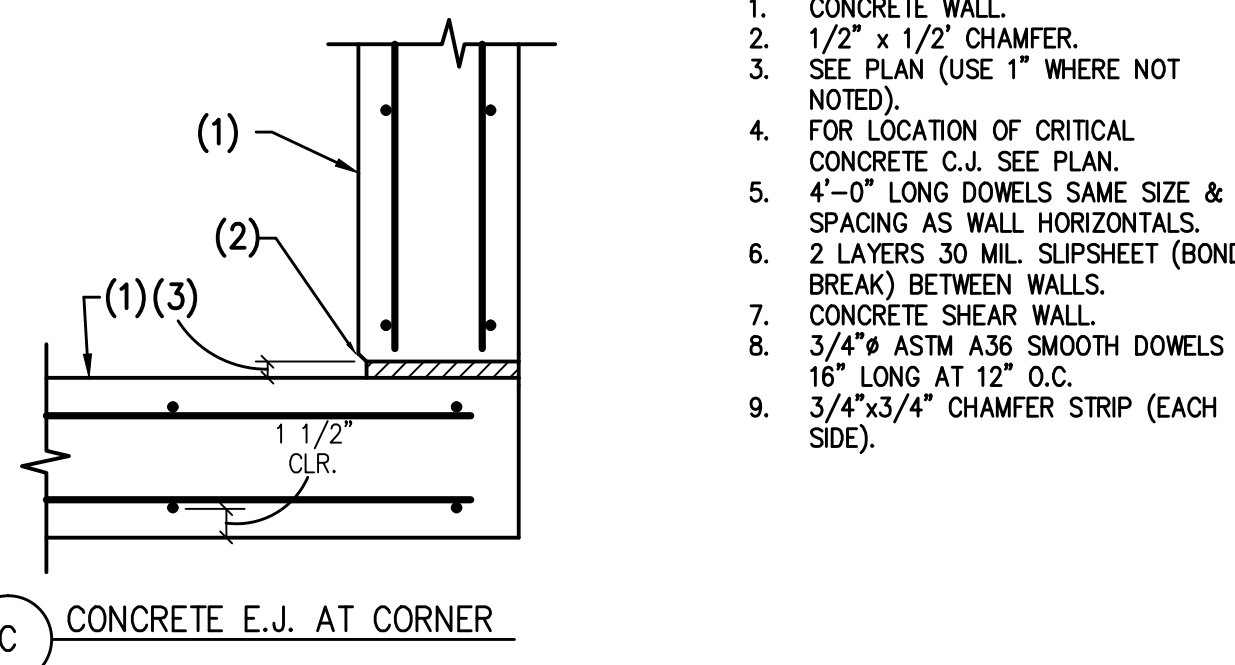
02-17-2017 CONFORM SET

- NOTES:
- EXISTING CONCRETE SLAB.
 - 4"x4"x1/4"x8" LONG STEEL ANGLE W/ 1/2" EXPANSION ANCHOR.
 - STEEL ANGLE BRACE 4"x4"x1/4".
 - 1/4" STEEL CLIP ANGLE.
 - 1/2" THRU-BOLT.
 - LINE OF HOOD BY OTHERS.
 - 3/4" ALL THREADED ROD.
 - DRILL AND EPOXY IN CLEAN DRY HOLES.
 - DOUBLE NUTS.

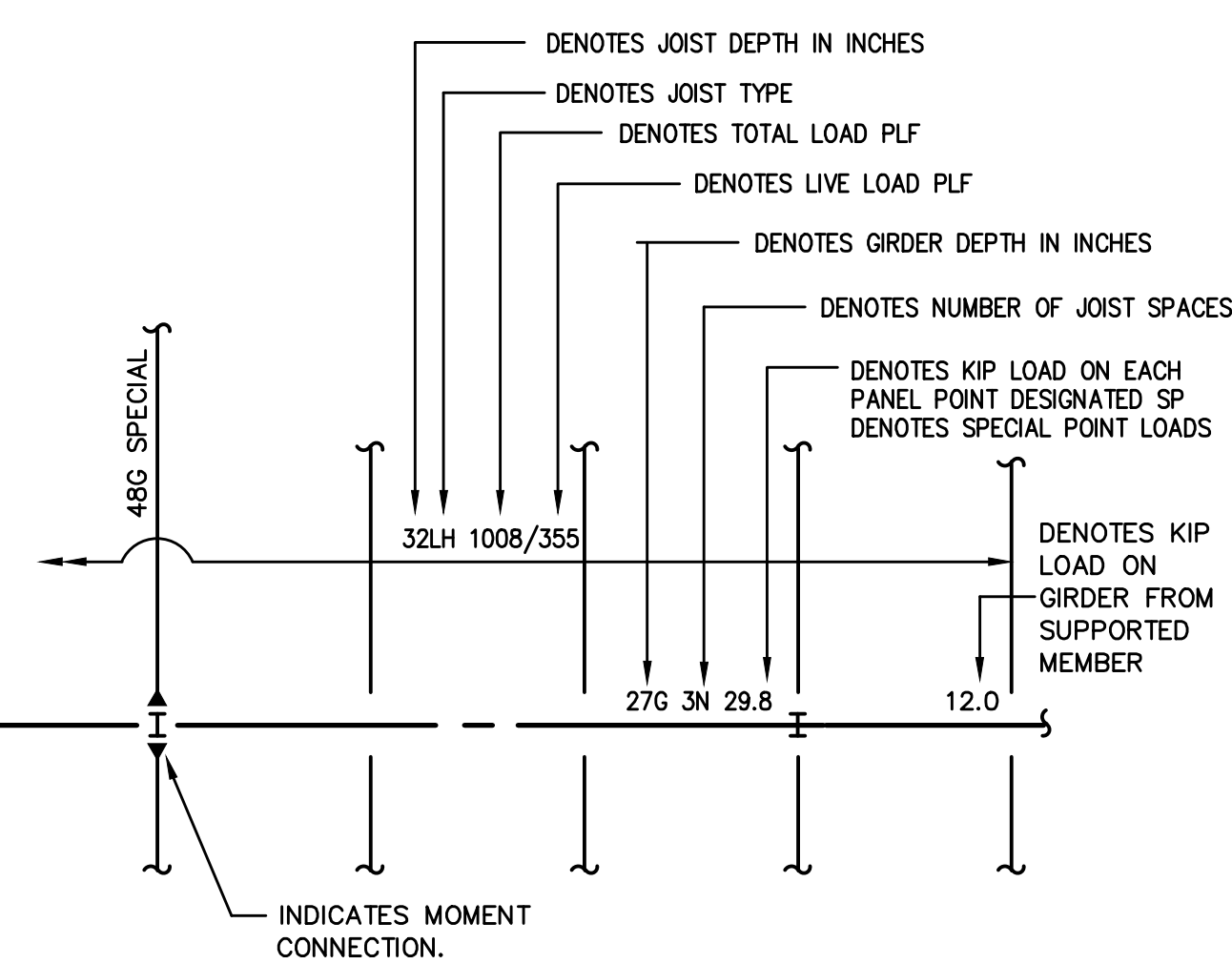


63 HOOD SUPPORT DETAIL NO SCALE

- NOTES:
- CONCRETE WALL.
 - 1/2" x 1/2" CHAMFER.
 - SEE PLAN FOR 1" WHERE NOT NOTED.
 - FOR LOCATION OF CRITICAL CONCRETE C.J. SEE PLAN.
 - 4'-0" LONG DOMELS SAME SIZE & SPACING AS WALL HORIZONTALS.
 - 2 LAYERS 30 MIL SULPHURET (BOND BREAK) BETWEEN WALLS.
 - CONCRETE SHEAR WALL.
 - 3/4" ASTM A36 SMOOTH DOMELS x 16" LONG AT 12" O.C.
 - 3/4"x3/4" CHAMFER STRIP (EACH SIDE).

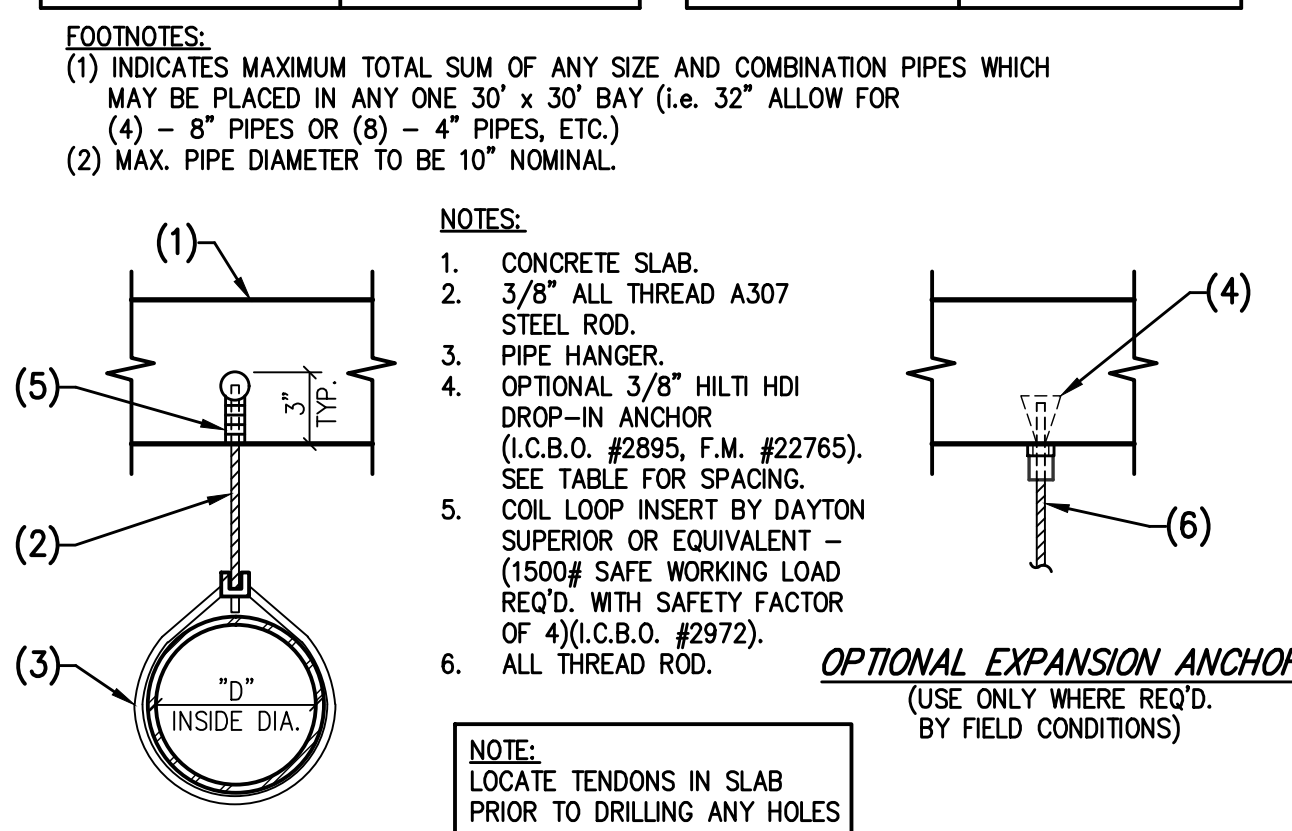


64 PLAN VIEW - TYPICAL CONCRETE WALL CONTROL CONSTRUCTION AND EXPANSION JOINT NO SCALE

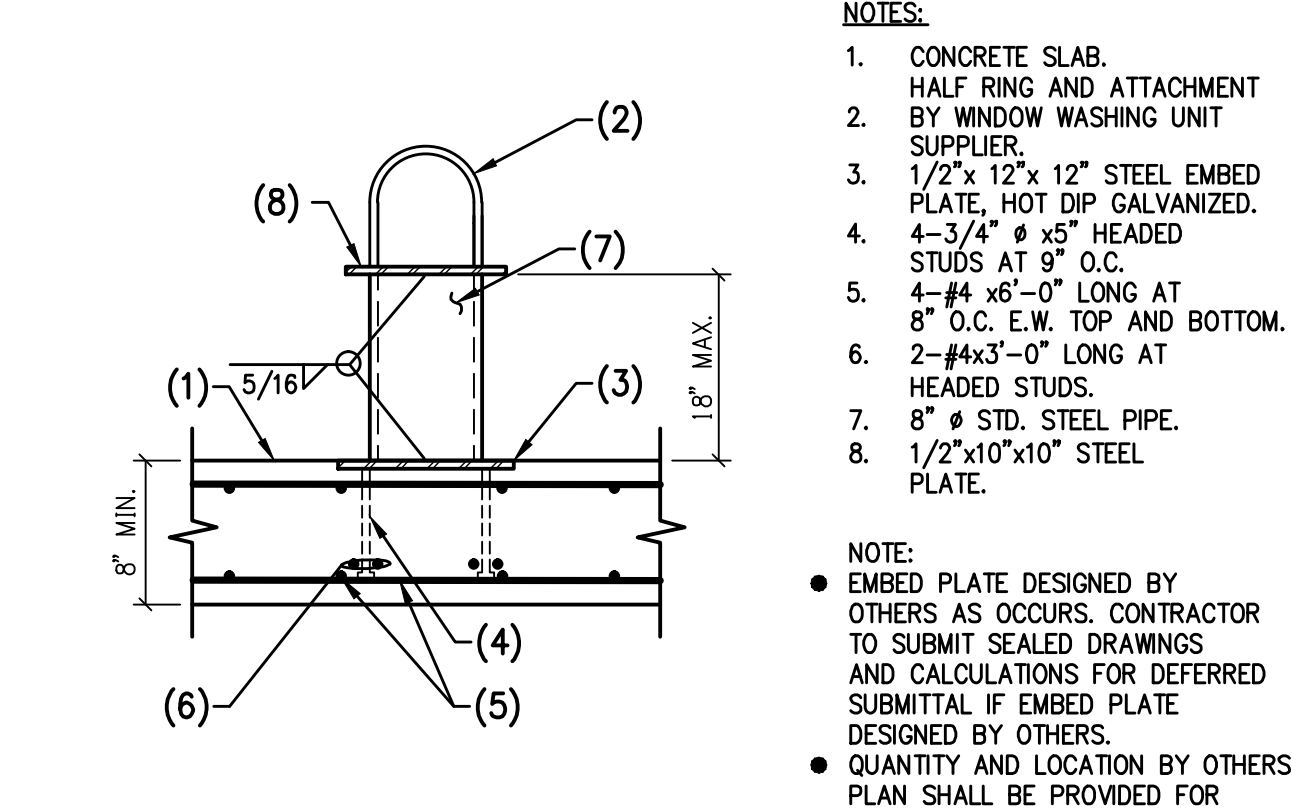


59 NOTE TO STEEL JOIST AND JOIST GIRDER MANUFACTURER NO SCALE

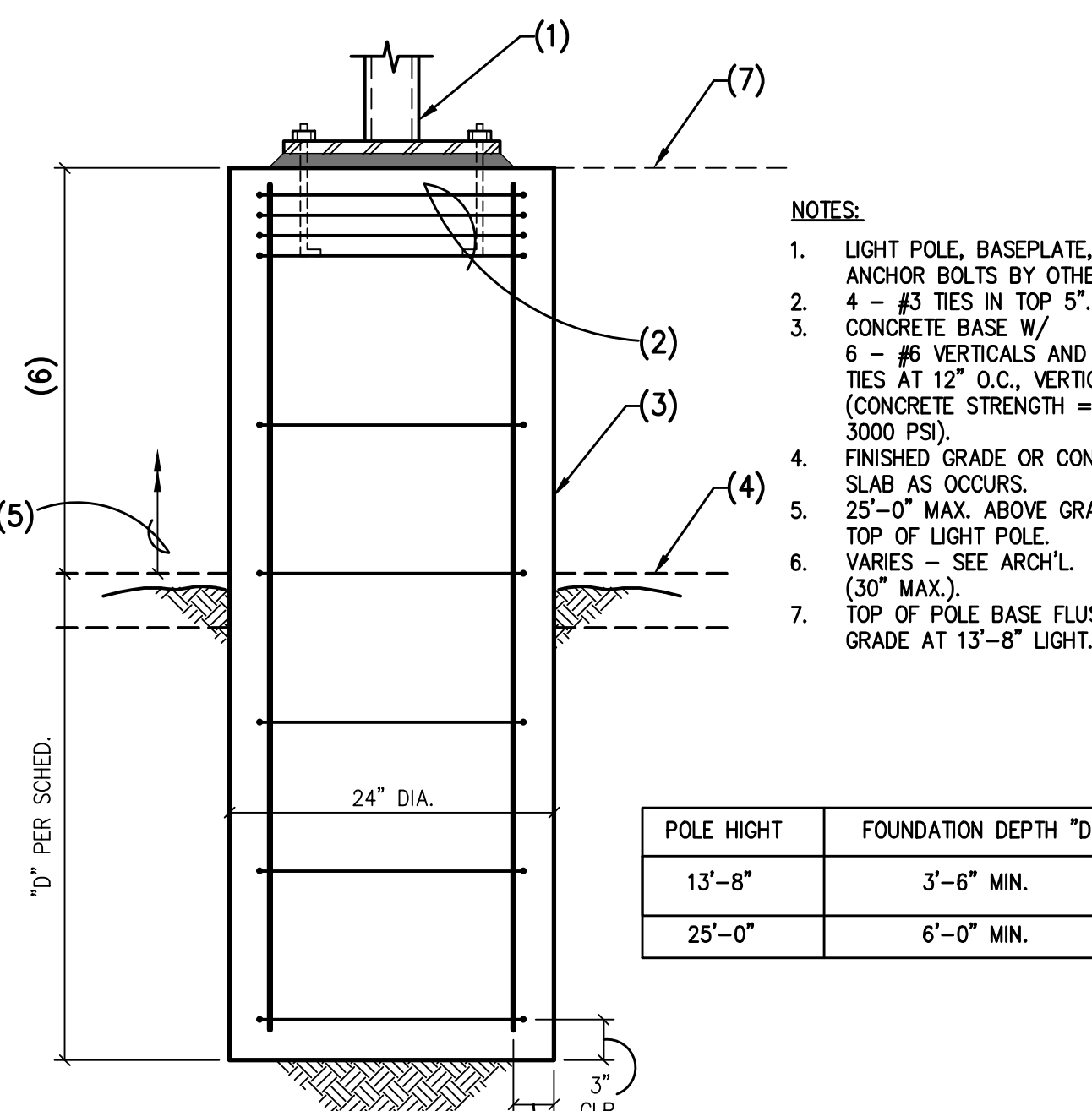
DISTRIBUTION OF PIPING REQUIREMENTS		MAXIMUM SPACING OF HANGER	
BUILDING LEVEL	MAX. PIPE DIAMETER SUM PER BAY (1)(2)	INSIDE PIPE DIAMETER (2)	MAX. HANGER SPACING
FLOOR/ ROOF P.T. SLAB	32"	≤ 4"	10'-0"
		6"	8'-0"
		8"	6'-0"
		10"	4'-0"



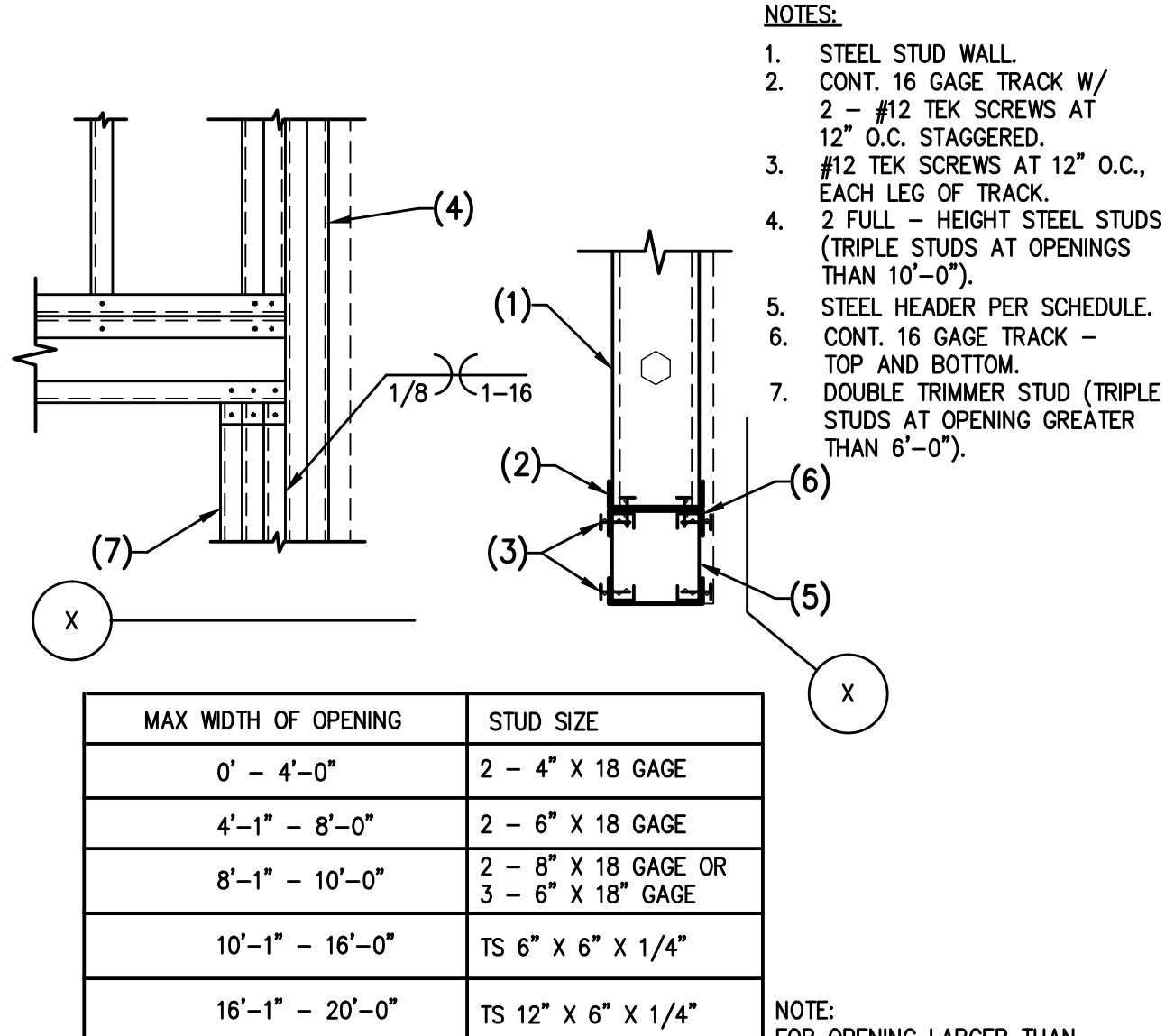
60 TYPICAL PIPE HANGER DETAIL AT CONCRETE SLAB NO SCALE



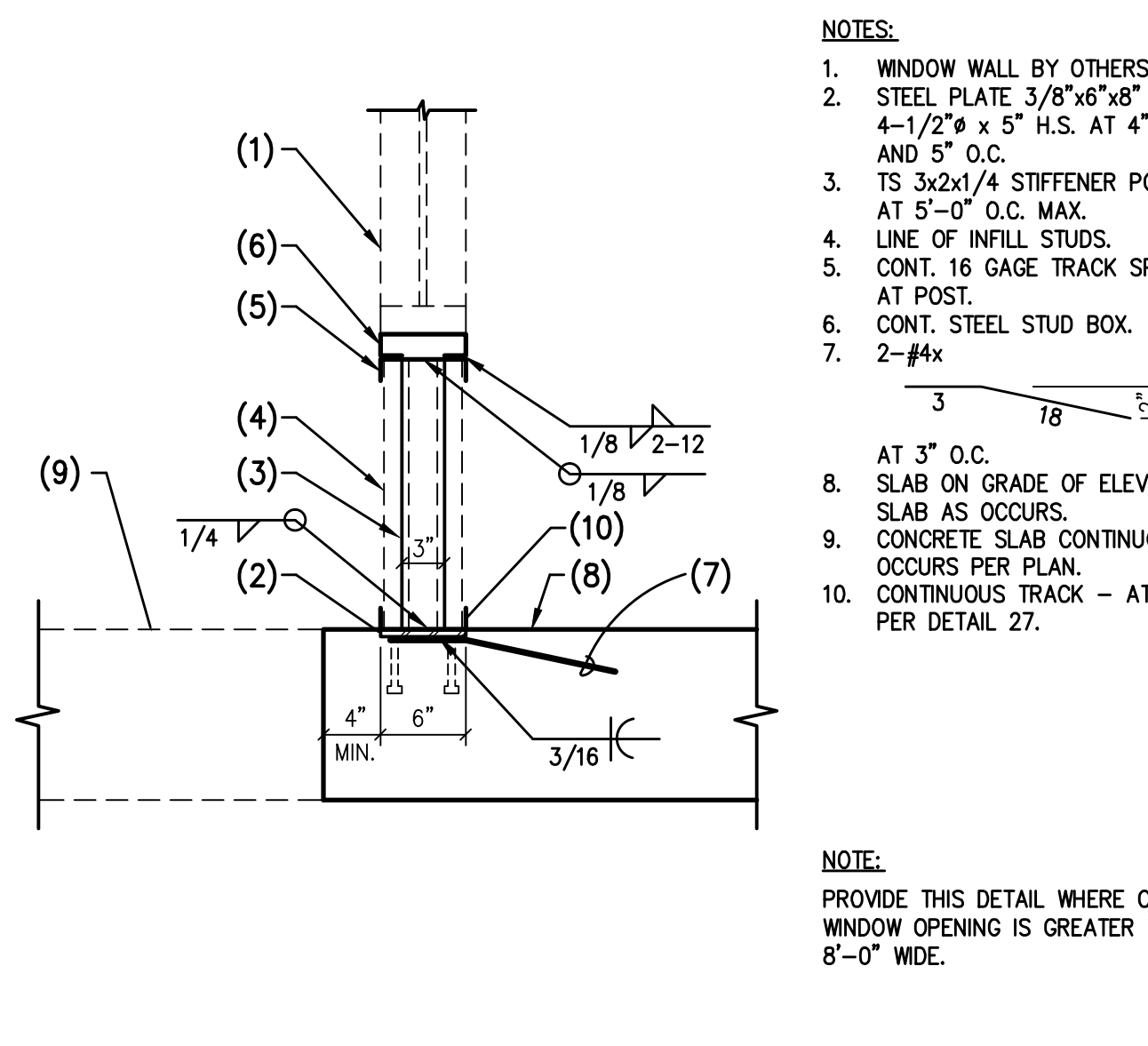
55 WINDOW WASH TIE BACK DETAIL NO SCALE



56 TYPICAL LIGHT POLE BASE DETAIL NO SCALE

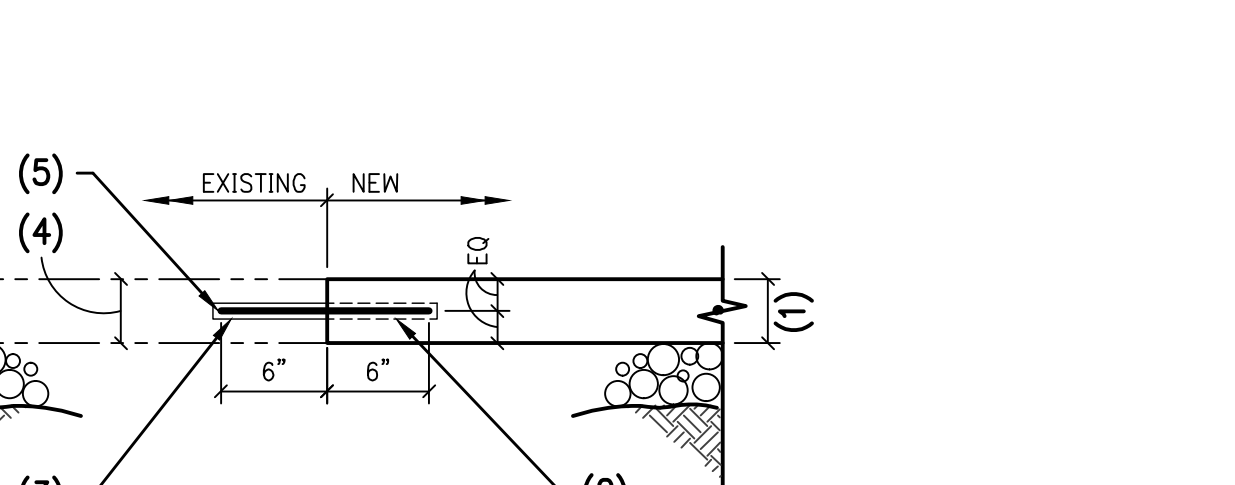


51 HEADER IN LIGHT GAGE FRAMED WALL (DELEGATED DESIGN - FOR REFERENCE ONLY) NO SCALE



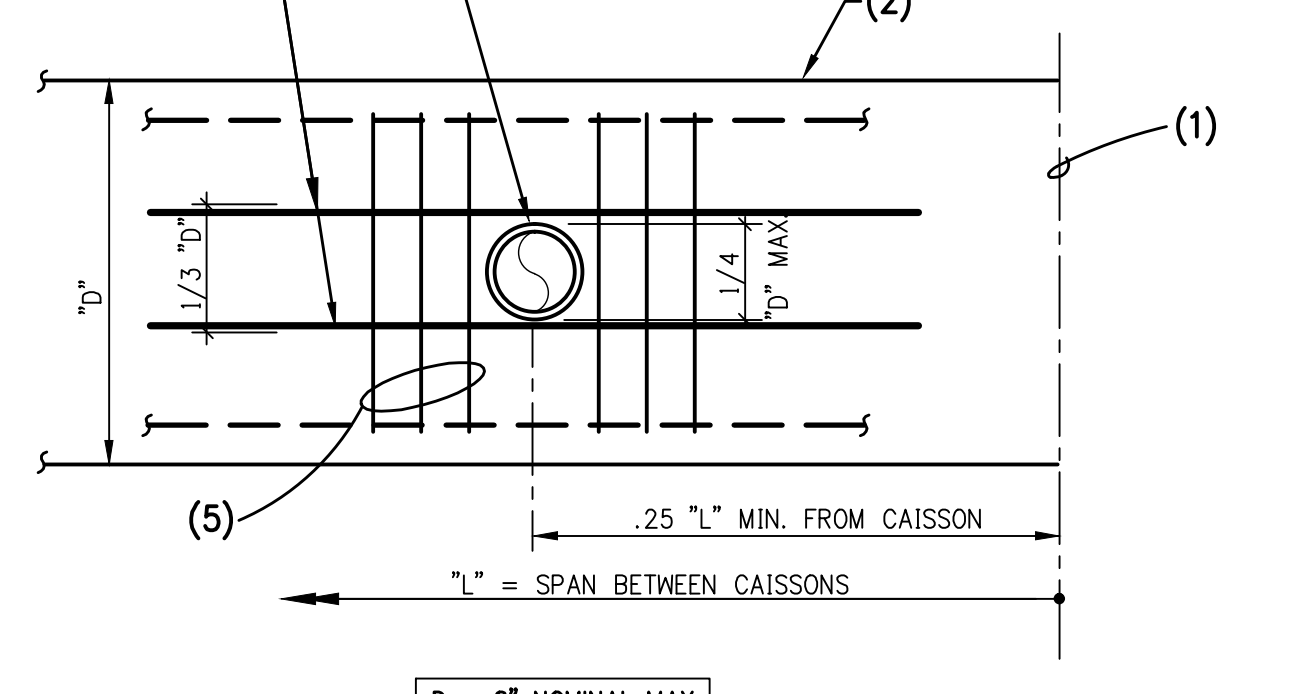
52 TYPICAL WINDOW SILL WALL SUPPORT DETAIL NO SCALE

- NOTES:
- MATCH EXISTING SLAB THICKNESS (4" MIN).
 - GREASE BOTH ENDS OF DOWEL.
 - DRILL 9/16" HOLE - DO NOT EPOXY.
 - FIELD VERIFY SLAB THICKNESS.
 - 1/2"x2" LONG SMOOTH DOWEL AT 16" O.C.



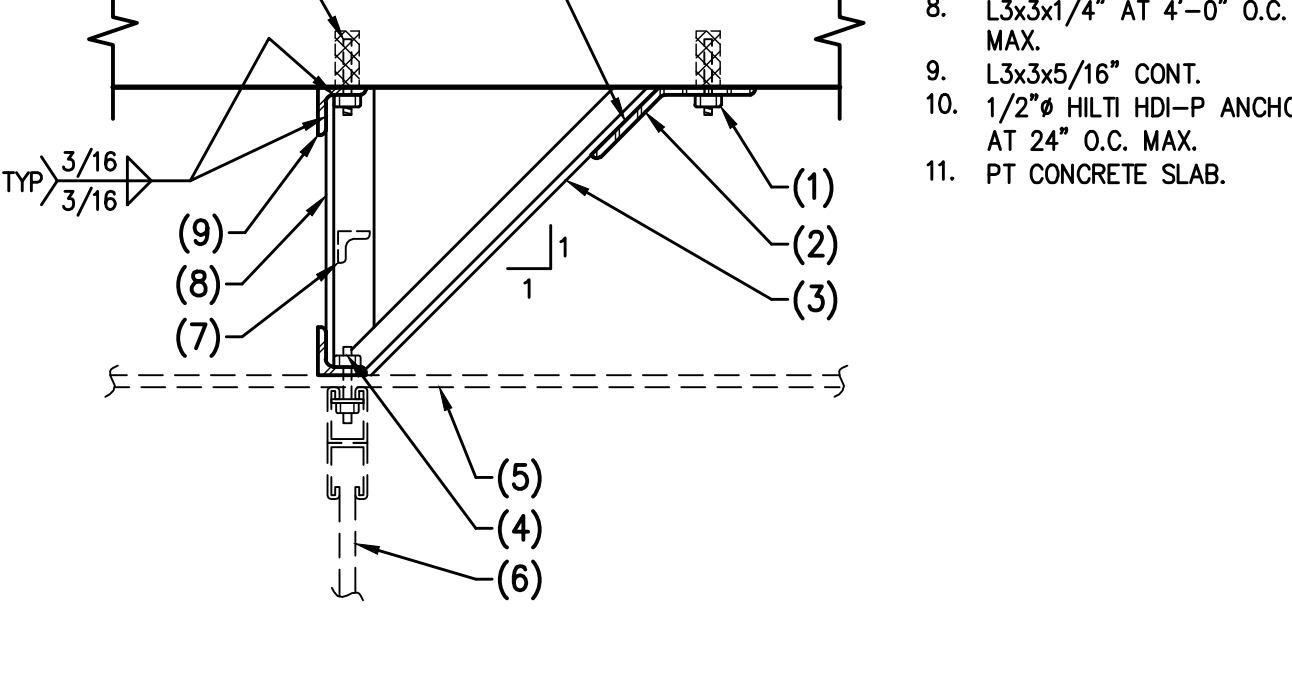
62 NEW CONCRETE SLAB INFILL AT EXISTING CONCRETE SLAB NO SCALE

- NOTES:
- C.L. OF CAISSON.
 - CONCRETE GRADE BEAM.
 - 3/4" SCH. 40 STEEL PIPE SLEEVE.
 - 4 #5 x 4'-0" TOP AND BOTTOM EQUALLY SPACED.
 - 2 TYPICAL TIES AT 3" O.C. EACH SIDE OF PIPE.

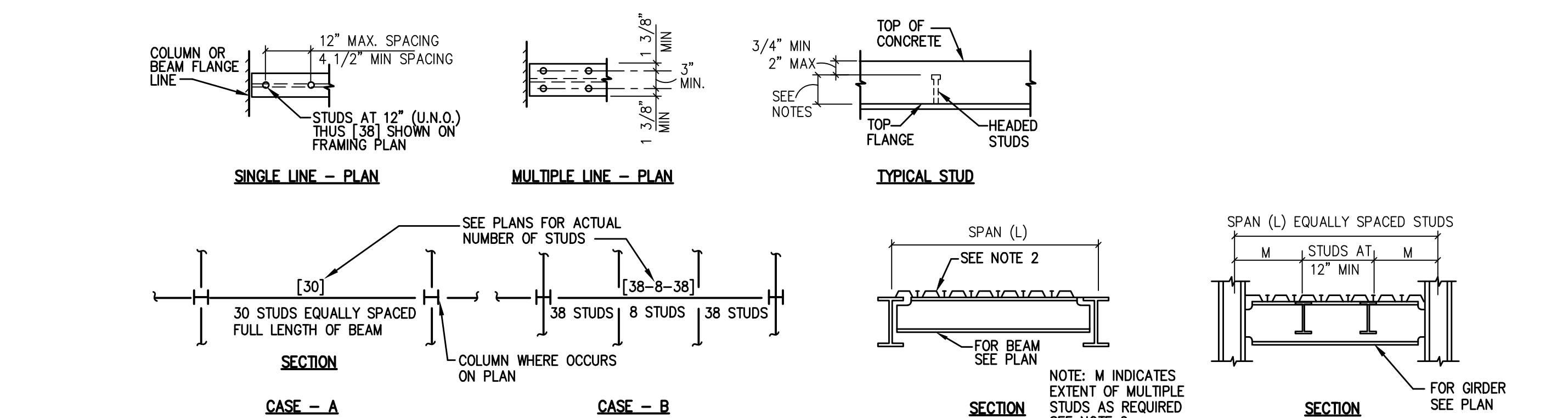


57 TYPICAL SLEEVE IN CONCRETE GRADE BEAM NO SCALE

- NOTES:
- 2- 1/2" HULTI HD-P ANCHOR AT 3" O.C.
 - 3/8" THICK NON-SHRINK STEEL PLATE W/ 5" WIRE LESS.
 - 1/2"x2 1/4" AT EACH VERT. BOLTS PER ARCH.
 - CEILING PER ARCH.
 - PARTITION, SEE ARCH.
 - 1/2"x2 1/4" DIAGONAL BRACE AT 12" O.C. MAX.
 - 1/2"x2 1/4" AT 4'-0" O.C. MAX.
 - 1/2" HULTI HD-P ANCHORS AT 24" O.C. MAX.
 - PT CONCRETE SLAB.

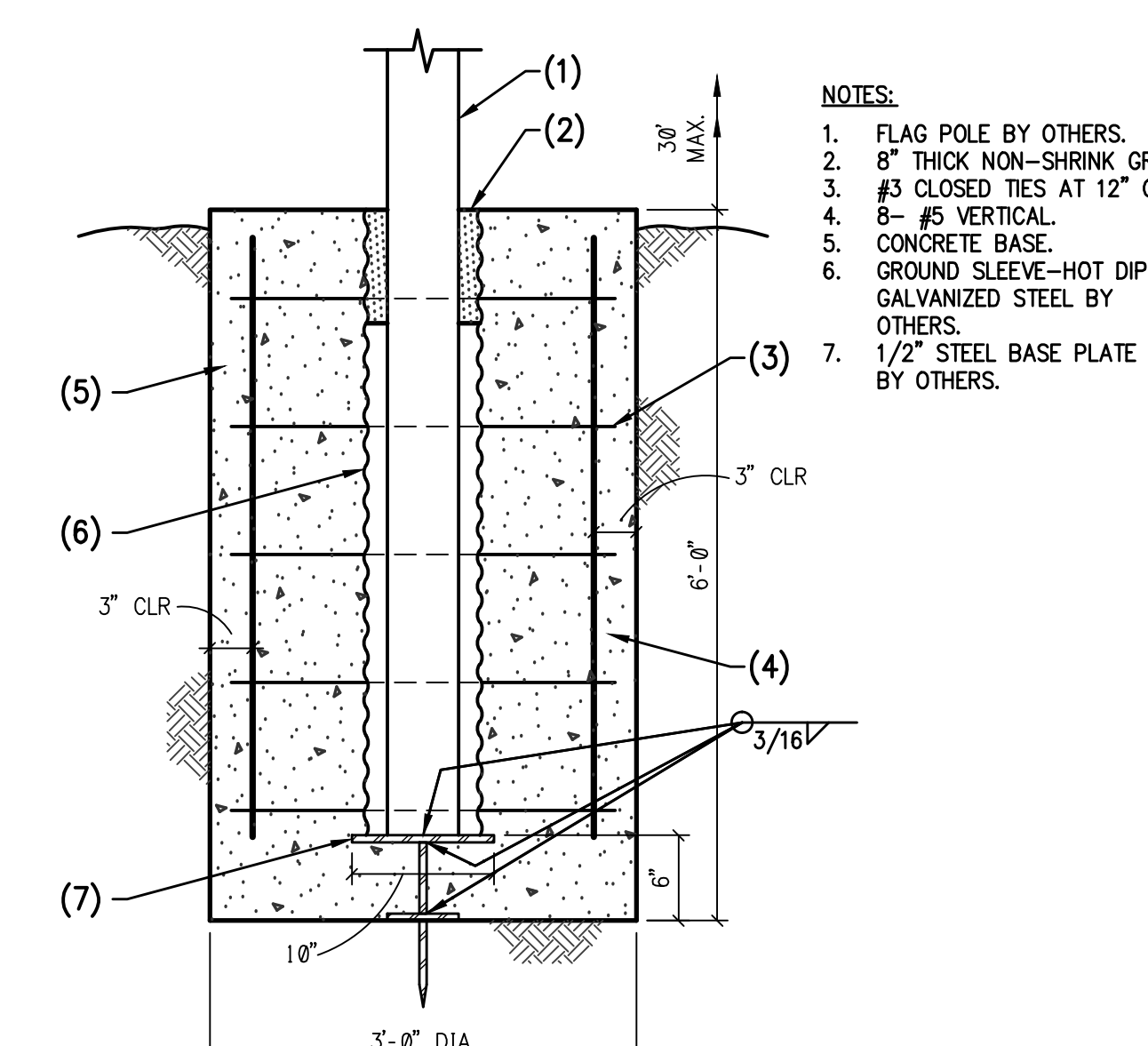


53 TYPICAL CEILING HUNG TOILET PARTITION SUPPORT NO SCALE



- NOTES:
- ALL HEADED SHEAR STUDS SHALL BE 3/4" # TOP OF ALL STUDS TO BE 1 1/2" (MIN. ABOVE TOP OF STEEL DECK (TYPICAL) SEE PLANS FOR NUMBER.
 - WHERE STUDS FALL EVERY TROUGH THEN REMAINING STUDS SHALL BE INSTALLED ON TWO OR MORE ROWS STARTING AT EACH END OF BEAM OR GIRDER.
 - CASE "A" STUDS ARE EQUALLY SPACED. IF EQUAL SPACING NOT POSSIBLE DUE TO DECK CONFIGURATION, STRUCTURAL ENGINEER MUST BE NOTIFIED.
 - AT FRAMED AREAS WHERE NUMBER OF STUDS IS NOT INDICATED PROVIDE STUDS AT 12" O.C. MAX.
 - STUDS WELDED THRU DECKING MAY BE SUBSTITUTED FOR TYPICAL PLUG WELD.
 - MAINTAIN 1" CLEARANCE AROUND ALL STUDS FOR PROPER EMBEDMENT.
 - STUDS TO EXTEND AS FAR AS STANDARD STUD LENGTHS ALLOW INTO TOPPING SLAB U.N.O.

58 TYPICAL WELDED HEADED STUD LAYOUT AT COMPOSITE STEEL BEAMS NO SCALE



54 TYPICAL FLAG POLE BASE DETAIL NO SCALE

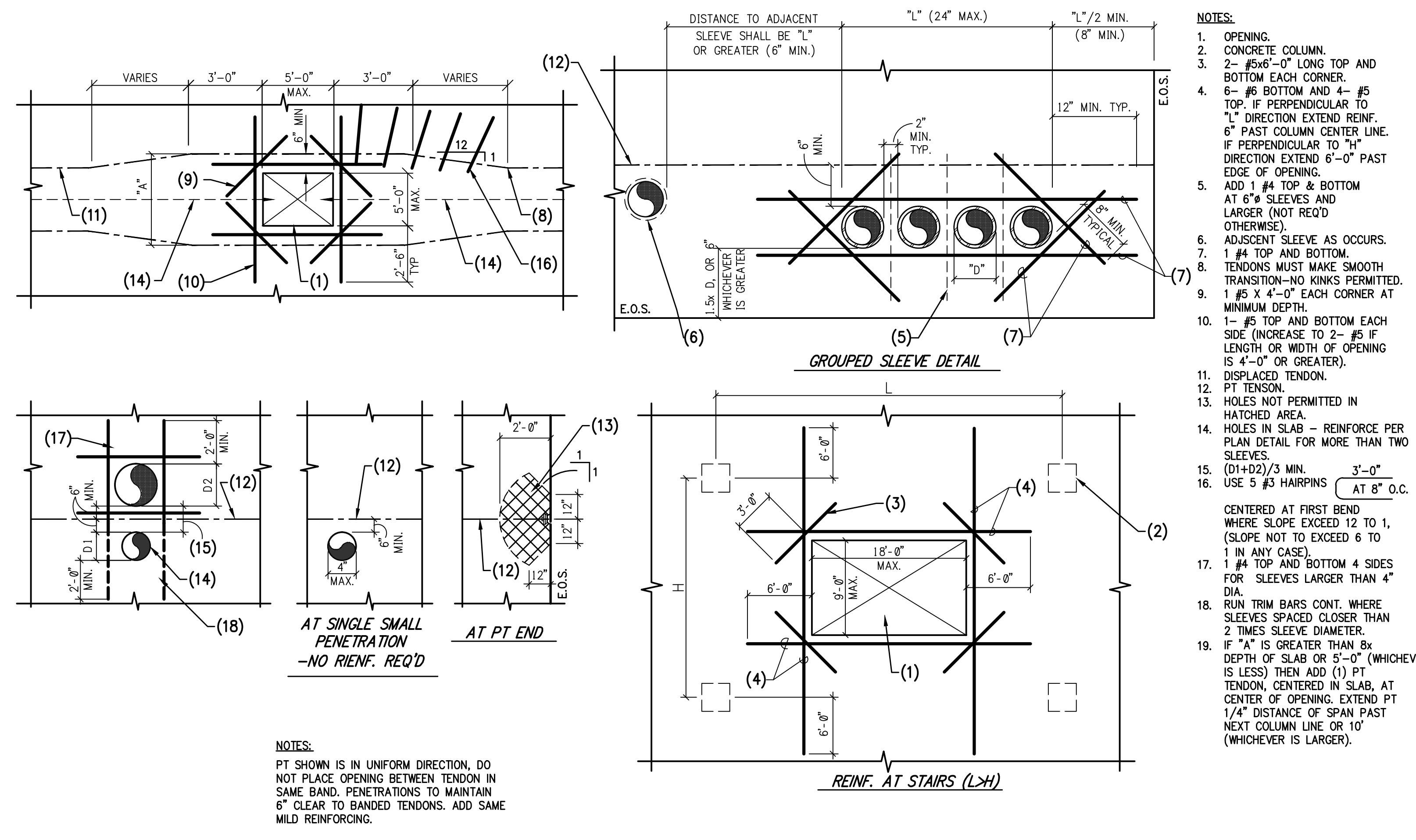
Key Plan:

Revisions:		
No.	Description	Date
17	STRUCTURAL CLARIFICATIONS	10/16/16
	CONFORM SET	09/03/17
	CONFORM SET	09/13/17

Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Number: S006

ACTUAL SHEET SIZE: 36" x 48"

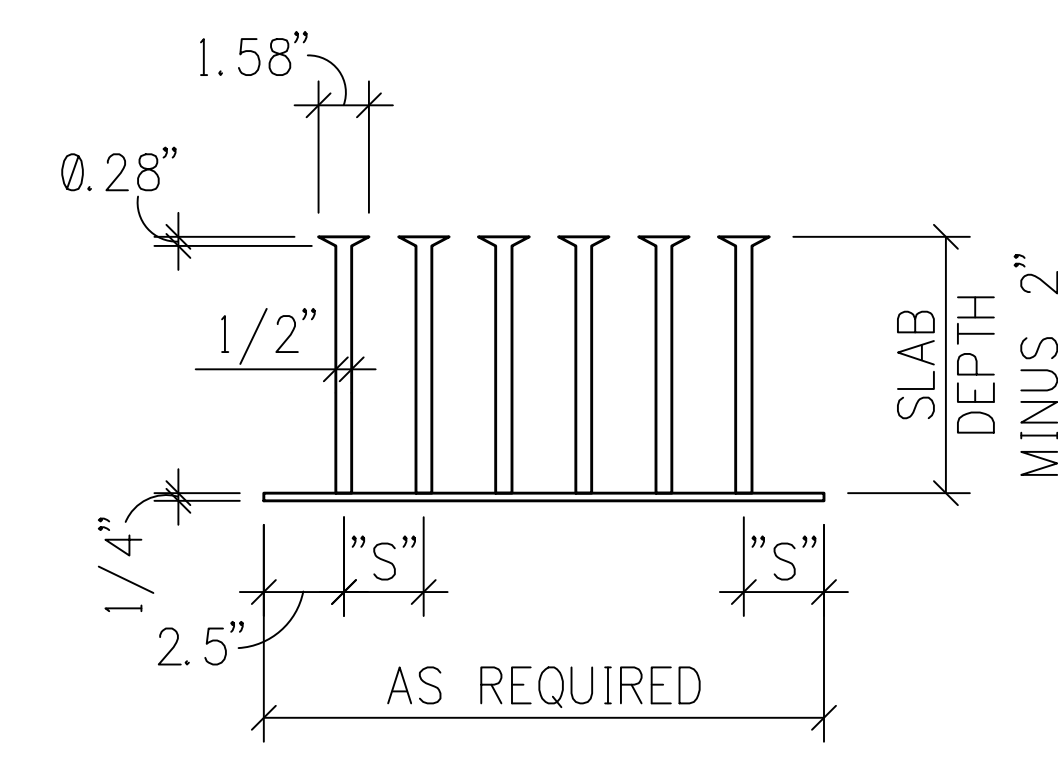


NOTES:
 PT SHOWN IS IN UNIFORM DIRECTION, DO NOT PLACE OPENING BETWEEN TENDON IN SAME BAND. PENETRATIONS TO MAINTAIN 6" CLEAR TO BANDED TENDONS. ADD SAME MILD REINFORCING.

TYPICAL OPENINGS IN P.T. SLAB (NOT TO SCALE)

TYPICAL STUD RAIL REINFORCEMENT

1. PLACE STUD RAILS AT ALL COLUMNS U.N.O. ON PLANS.
2. EACH SIDE OF COLUMN TO HAVE 1 STUD RAIL FOR 12" WIDTH (2 MIN.)
3. EACH RAIL TO HAVE 8 STUDS (10 STUDS AT 10" OR THICKER SLABS) U.N.O.
4. STUD RAILS MUST BE INSTALLED WITH THES STUD VERTICAL (NOT LEANING OVER DUE TO REBAR, P.T. STRANDS, ETC.)
5. STUD RAIL REINF. SHALL BE SUPPLIED BY DECON STUDRAILS (1-800-36-DECON) STUDS SHALL BE $F_y=50,000$ PSI. AND AUTOMATICALLY WELDED. STUD SIZE SHALL BE $1/2" \phi \times$ SLAB DEPTH MINUS 2" WITH 0.28" THICK \times 1.58" ϕ HEAD. (TOTAL DEPTH = SLAB DEPTH MINUS 1 3/4"). STUDS SHALL BE SPACED WITH FIRST STUD AT 2.5" FROM START OF STRAP. SPACE FROM FACE OF COLUMN TO FIRST STUD SHALL BE "S" BOTTOM STRAP SHALL BE $F_y = 44,000$ PSI 1 1/4" \times 1/4" BY LENGTH AS REQUIRED.



MARK	DIAGRAM	MARK	DIAGRAM
INTERIOR		EDGE	
INTERIOR CORNER		EXTERIOR CORNER	
INTERIOR CORNER			

TYPICAL COLUMN HEAD REINFORCING AND LENGTHS FOR P.T. CONCRETE SLABS

1. 10 #5 TOP BARS EACH WAY SHALL BE USED AS TYPICAL.
2. COLUMN HEAD STEEL TO BE ADDED TO TYPICAL UNIFORM BARS SHOWN ON PLAN -TYPICAL.
3. BARS TO BE CENTERED OVER COLUMN -U.N.O. IF SHOWN OFFSET IN SCHEDULE LONGER DIMENSION SHALL BE INSTALLED IN LONGER SPAN.
4. UNIFORMLY SPACED BARS SHOWN ACROSS SPECIAL COLUMN HEAD REINFORCING SHALL BE IN ADDITION TO.
5. BAR LENGTHS MEASURED USING THE CLEAR SPAN FROM COLUMN FACE TO COLUMN FACE, OR WALL FACE.
6. BAR LENGTHS LISTED SHOULD BE THE GREATER SPECIFIED LENGTH.
7. BAR SPACING AT 5" O.C. UNLESS NOTED OTHERWISE.

MARK	DIAGRAM	MARK	DIAGRAM
INTERIOR		EDGE	
CORNER		WALL CORNER	
WALL END		INSIDE CORNER	

Key Plan:

Revisions:		
No.	Description	Date
17	STRUCTURAL CLARIFICATIONS	10/10/2016
	CONFORM SET	09/02/2017
	CONFORM SET	09/02/2017

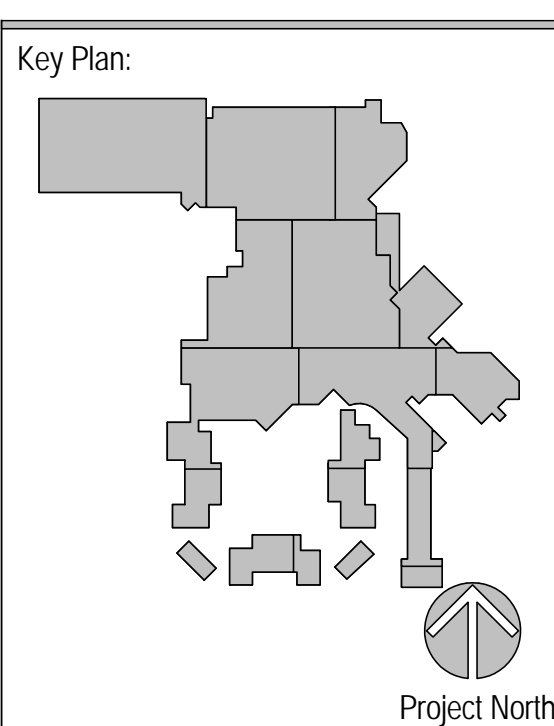
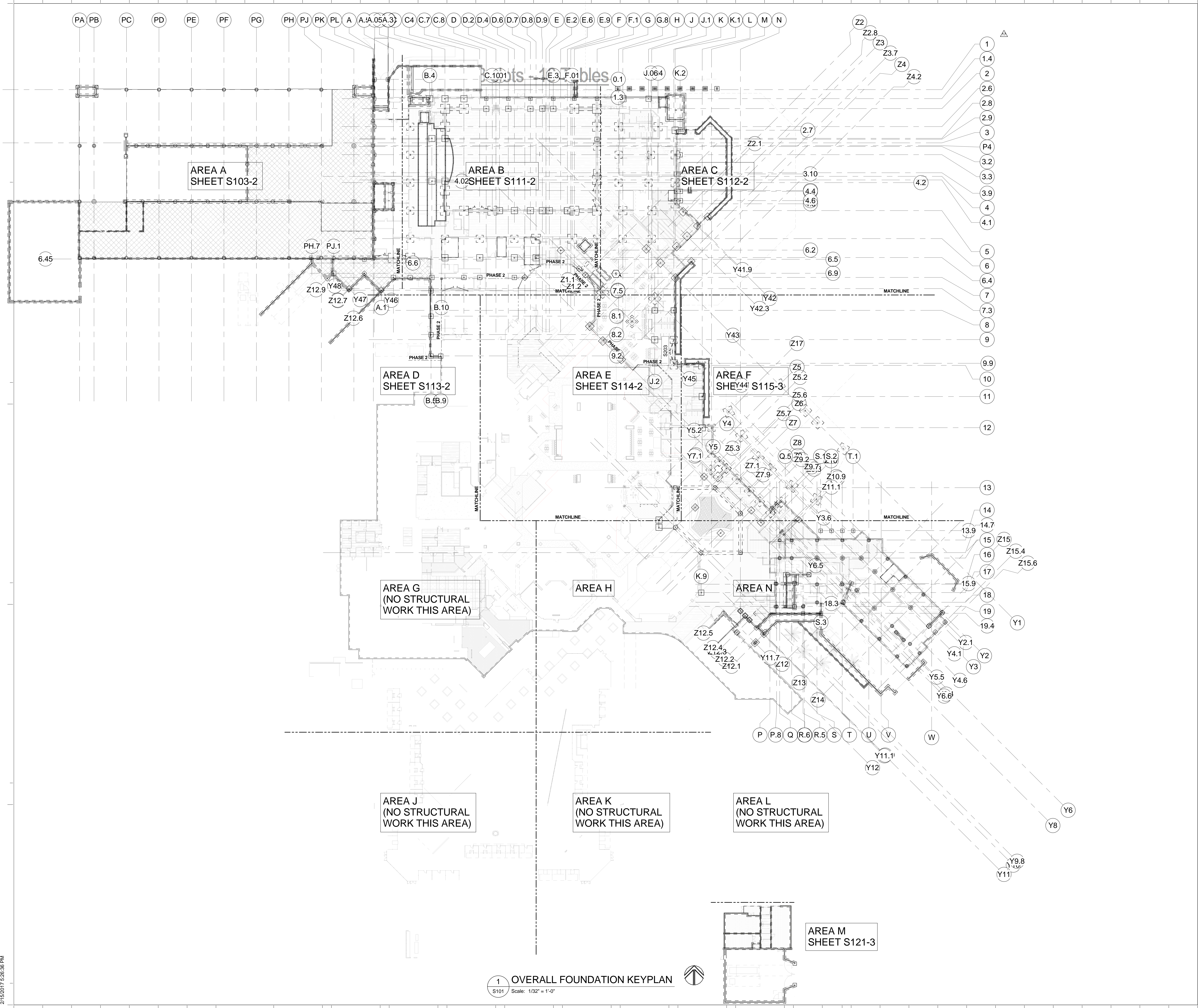
Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Name:
SCHEDULE SHEET

Sheet Number:
S008

02-17-2017 CONFORM SET

ACTUAL SHEET SIZE: 36" X 48"



Revisions:		
No.	Description	Date
01	STRUCTURAL CLASSIFICATIONS	10/10/16
02	CONFORM SET	02/02/17
03	CONFORM SET	02/17/2017

Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

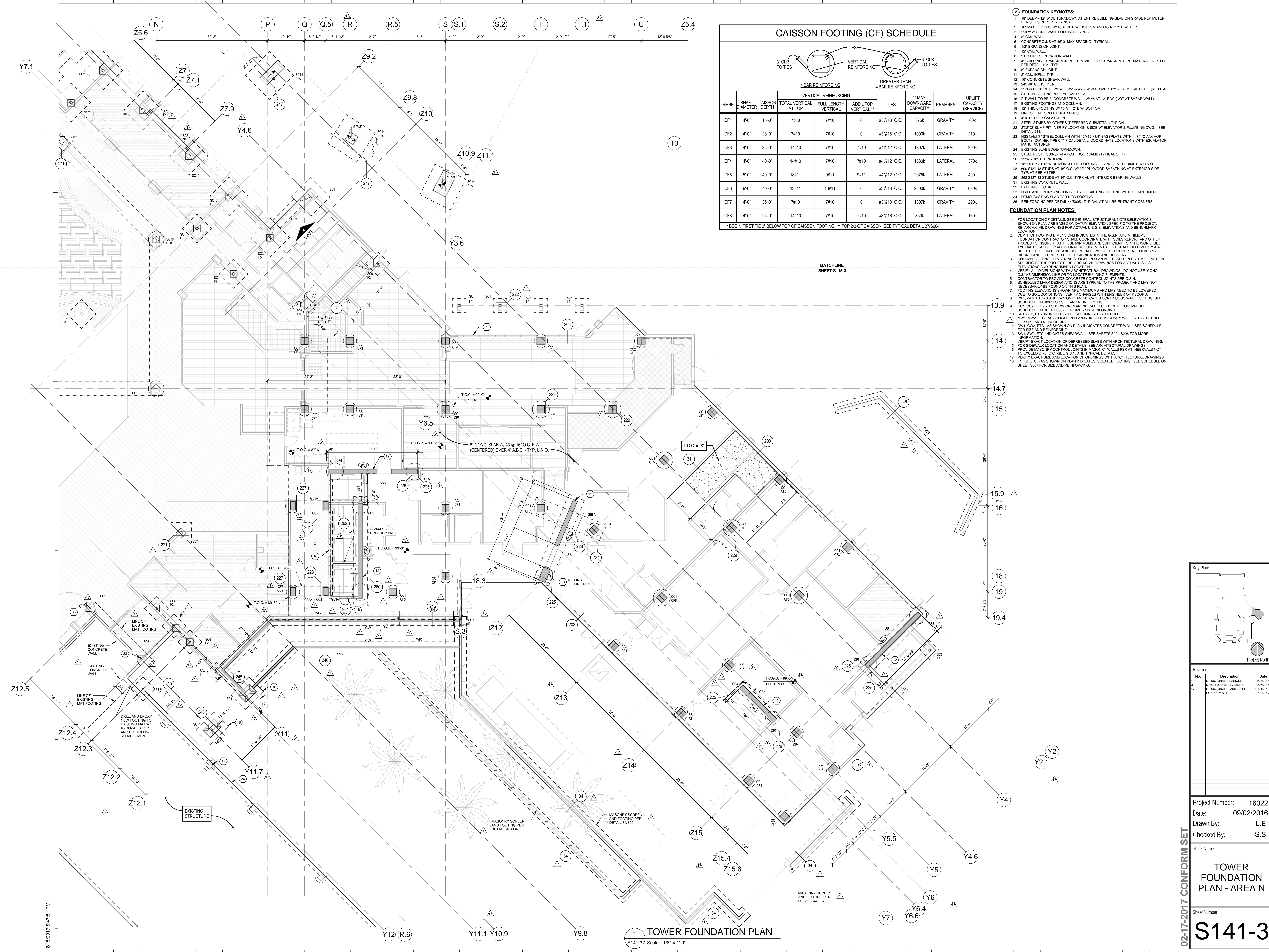
Sheet Name:
OVERALL FOUNDATION PLAN
 Sheet Number:
S101

1 OVERALL FOUNDATION KEYPLAN
 S101 Scale: 1/32" = 1'-0"

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02-17-2017 CONFORM SET

ACTUAL SHEET SIZE: 36" X 48"



CAISSON FOOTING (CF) SCHEDULE

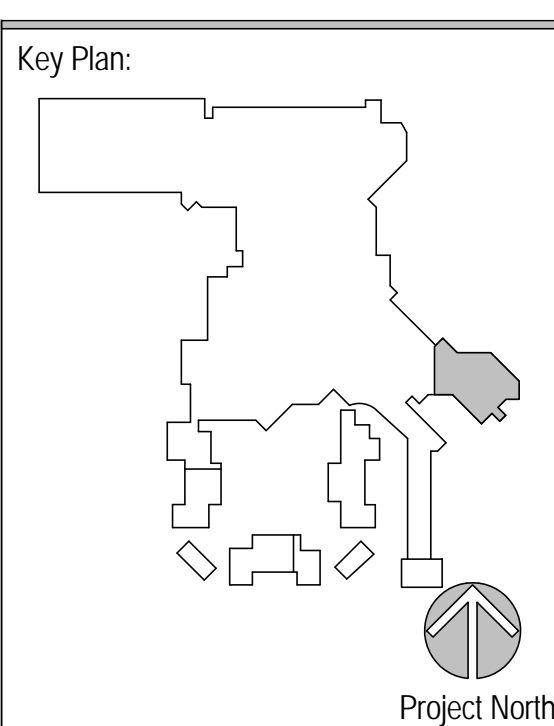
MARK	SHAFT DIAMETER	CAISSON DEPTH	VERTICAL REINFORCING			TIES	** MAX DOWNWARD CAPACITY	REMARKS	UPLIFT CAPACITY (SERVICE)
			TOTAL VERTICAL AT TOP	FULL LENGTH VERTICAL	ADD'L TOP VERTICAL**				
CF1	4'-0"	15'-0"	7#10	7#10	0	#3@18" O.C.	375K	GRAVITY	60K
CF2	4'-0"	28'-0"	7#10	7#10	0	#3@18" O.C.	1000K	GRAVITY	210K
CF3	4'-0"	35'-0"	14#10	7#10	7#10	#4@12" O.C.	1307K	LATERAL	290K
CF4	4'-0"	40'-0"	14#10	7#10	7#10	#4@12" O.C.	1530K	LATERAL	370K
CF5	5'-0"	40'-0"	18#11	9#11	9#11	#4@12" O.C.	2075K	LATERAL	490K
CF6	6'-0"	40'-0"	13#11	13#11	0	#3@18" O.C.	2500K	GRAVITY	620K
CF7	4'-0"	35'-0"	7#10	7#10	0	#3@18" O.C.	1307K	GRAVITY	290K
CF8	4'-0"	25'-0"	14#10	7#10	7#10	#3@18" O.C.	850K	LATERAL	180K

* BEGIN FIRST TIE 2" BELOW TOP OF CAISSON FOOTING. ** TOP 2/3 OF CAISSON. SEE TYPICAL DETAIL 27/5004.

- #### FOUNDATION KEYNOTES:
- 1" DEEP x 12" WIDE TURNDOWN AT ENTIRE BUILDING SLAB ON GRADE PERIMETER PER SOILS REPORT - TYPICAL.
 - 16" MAT FOOTING W/ #6 AT 8" E.W. BOTTOM AND #5 AT 12" E.W. TOP.
 - 2" OX 12" CONT. WALL FOOTING - TYPICAL.
 - 8" CMU WALL.
 - CONCRETE C.J.S AT 15'-0" MAX SPACING - TYPICAL.
 - 12" EXPANSION JOINT.
 - 12" CMU WALL.
 - 2 HR FIRE SEPARATION WALL.
 - 4" BUILDING EXPANSION JOINT. PROVIDE 1/2" EXPANSION JOINT MATERIAL AT S.O.G. PER DETAIL 105 - TYP.
 - 5" EXPANSION JOINT.
 - 8" CMU INFILL, TYP.
 - 16" CONCRETE SHEAR WALL.
 - 24"x48" CONC. PIER.
 - 3" W. CONCRETE W/ #6 @ .W2.8W2.3 W.W.F. OVER 3"x18 GA. METAL DECK. (6" TOTAL).
 - STEP FOOTING PER TYPICAL DETAIL.
 - PIT WALL TO BE 8" CONCRETE WALL W/ #5 AT 12" E.W. (NOT AT SHEAR WALL).
 - EXISTING FOOTINGS AND COLUMNS.
 - 12" THICK FOOTING W/ #6 AT 12" E.W. BOTTOM.
 - LINE OF UNIFORM PT DEAD ENDS.
 - 4" DEEP ESCALATOR PIT.
 - STEEL STAIRS BY OTHERS (DEFERRED SUBMITTAL) TYPICAL.
 - 2'x2'x2' SUMP PIT - VERIFY LOCATION & SIZE W/ ELEVATOR & PLUMBING DWG. - SEE DETAIL 211.
 - HSS4x4x3/8" STEEL COLUMN WITH 12"x12"x3/4" BASEPLATE WITH 4 - 3/4" ANCHOR BOLTS. CONNECT PER TYPICAL DETAIL. COORDINATE LOCATIONS WITH ESCALATOR MANUFACTURER.
 - EXISTING SLAB EDGE TURNDOWN.
 - STEEL POST HSS6x6x1/4 AT O.H. DOOR JAMB (TYPICAL OF 4).
 - 12"W x 18"D TURNDOWN.
 - 18" DEEP x 1'-6" WIDE MONOLITHIC FOOTING - TYPICAL AT PERIMETER U.N.O.
 - 600 S137-43 STUDS AT 16" O.C. W/ 3/8" PLYWOOD SHEATHING AT EXTERIOR SIDE - TYP. AT PERIMETER.
 - 302 S137-43 STUDS AT 16" O.C. TYPICAL AT INTERIOR BEARING WALLS.
 - EXISTING CONCRETE WALL.
 - EXISTING FOOTING.
 - DRILL AND EPOXY ANCHOR BOLTS TO EXISTING FOOTING WITH 1" EMBEDMENT.
 - REMOVE EXISTING SLAB FOR NEW FOOTING.
 - REINFORCING PER DETAIL 44/5005. TYPICAL AT ALL RE-ENTRANT CORNERS.

- #### FOUNDATION PLAN NOTES:
1. FOR LOCATION OF DETAILS, SEE GENERAL STRUCTURAL NOTES ELEVATIONS SHOWN ON PLAN ARE BASED ON DATUM ELEVATION SPECIFIC TO THE PROJECT. RE: ARCH. CIVIL DRAWINGS FOR ACTUAL U.S.G.S. ELEVATIONS AND BENCHMARK LOCATION.
 2. DEPTH OF FOOTING DIMENSIONS INDICATED IN THE G.S.N. ARE MINIMUMS. FOUNDATION CONTRACTOR SHALL COORDINATE WITH SOILS REPORT AND OTHER TRADES TO INSURE THAT THESE MINIMUMS ARE SUFFICIENT FOR THE WORK. SEE TYPICAL DETAILS FOR ADDITIONAL REQUIREMENTS. G.C. SHALL FIELD VERIFY AS-BUILT T.O.F. ELEVATIONS AND COORDINATE W/ STEEL SUPPLIER. RESOLVE ANY DISCREPANCIES PRIOR TO STEEL FABRICATION AND DELIVERY.
 3. COLUMN FOOTING ELEVATIONS SHOWN ON PLAN ARE BASED ON DATUM ELEVATION SPECIFIC TO THE PROJECT. RE: ARCH. CIVIL DRAWINGS FOR ACTUAL U.S.G.S. ELEVATIONS AND BENCHMARK LOCATION.
 4. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. DO NOT USE "CONC. C.J." AS DIMENSION LINE OR TO LOCATE BUILDING ELEMENTS.
 5. CONTRACTOR TO PROVIDE CONCRETE CONTROL JOINTS PER G.S.N.
 6. SCHEDULED MARK DESIGNATIONS ARE TYPICAL TO THE PROJECT AND MAY NOT NECESSARILY BE FOUND ON THIS PLAN.
 7. FOOTING ELEVATIONS SHOWN ARE MAXIMUMS AND MAY NEED TO BE LOWERED DUE TO SOIL CONDITIONS. VERIFY CHANGES WITH ENGINEER OF RECORD.
 8. WF1, WF2, ETC. - AS SHOWN ON PLAN INDICATES CONTINUOUS WALL FOOTING. SEE SCHEDULE ON SHEET 5007 FOR SIZE AND REINFORCING.
 9. CC1, CC2, ETC. - AS SHOWN ON PLAN INDICATES CONCRETE COLUMN. SEE SCHEDULE ON SHEET 5007 FOR SIZE AND REINFORCING.
 10. SC1, SC2, ETC. INDICATES STEEL COLUMN. SEE SCHEDULE FOR SIZE AND REINFORCING.
 11. MW1, MW2, ETC. - AS SHOWN ON PLAN INDICATES MASONRY WALL. SEE SCHEDULE FOR SIZE AND REINFORCING.
 12. CW1, CW2, ETC. - AS SHOWN ON PLAN INDICATES CONCRETE WALL. SEE SCHEDULE FOR SIZE AND REINFORCING.
 13. SW1, SW2, ETC. INDICATES SHEARWALL. SEE SHEETS S204-S205 FOR MORE INFORMATION.
 14. VERIFY EXACT LOCATION OF DERESSED SLABS WITH ARCHITECTURAL DRAWINGS. FOR SIDEWALK LOCATION AND DETAILS, SEE ARCHITECTURAL DRAWINGS. PROVIDE MASONRY CONTROL JOINTS IN MASONRY WALLS PER 1' INTERVALS NOT TO EXCEED 24" O.C. - SEE G.S.N. AND TYPICAL DETAILS.
 15. VERIFY EXACT SIZE AND LOCATION OF OPENINGS WITH ARCHITECTURAL DRAWINGS. F1, F2, ETC. - AS SHOWN ON PLAN INDICATES ISOLATED FOOTING. SEE SCHEDULE ON SHEET 5007 FOR SIZE AND REINFORCING.

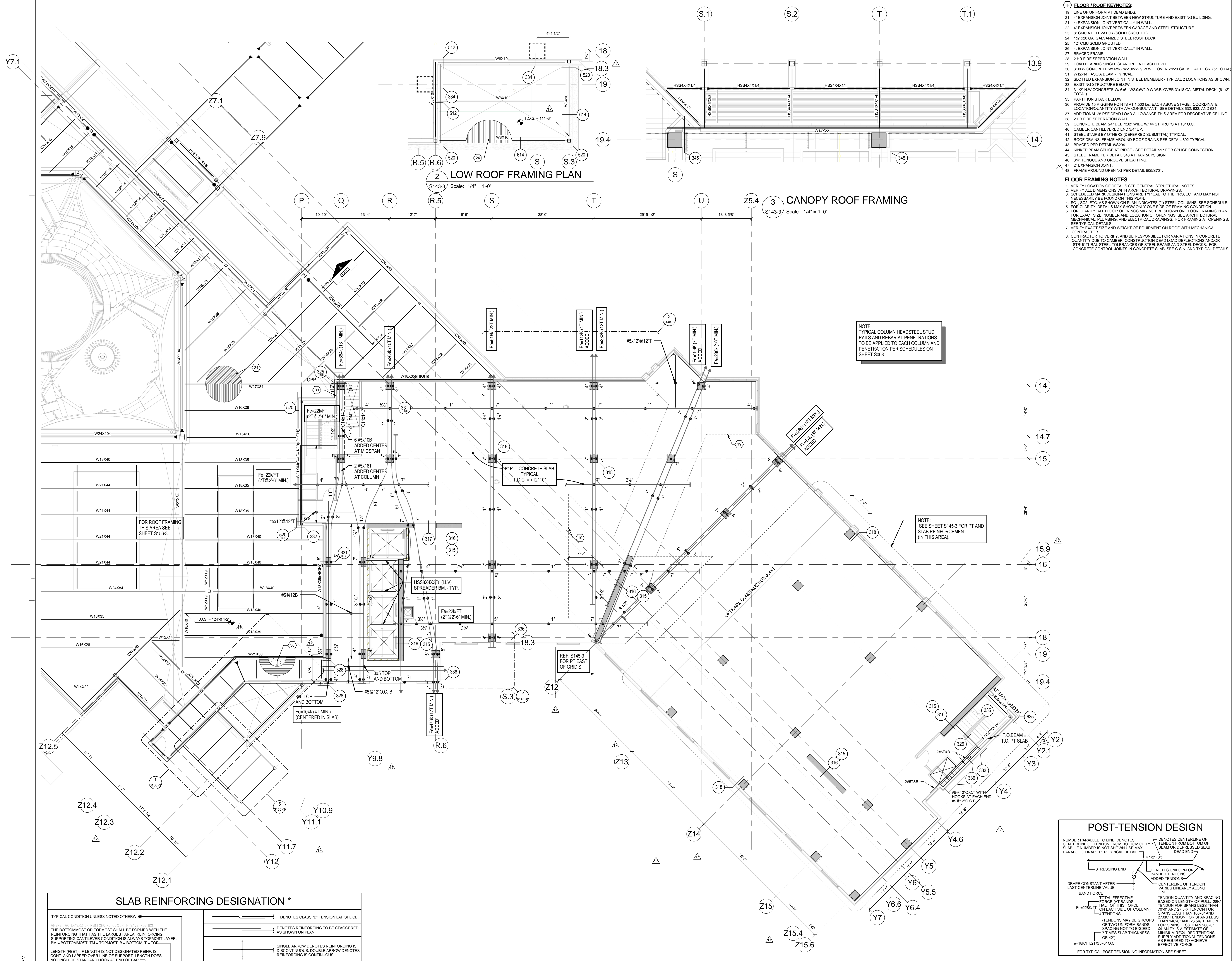
MATCHLINE
SHEET S115-3



No.	Description	Date
1	STRUCTURAL REVISIONS	09/02/2016
2	MISC. FUTURE REVISIONS	10/07/2016
3	STRUCTURAL CLARIFICATIONS	10/21/2016
4	CONFORM SET	02/03/2017

Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Name:
TOWER FOUNDATION PLAN - AREA N
 Sheet Number:
S141-3



- FLOOR / ROOF KEYNOTES:**
- LINE OF UNIFORM PT DEAD ENDS.
 - 4" EXPANSION JOINT BETWEEN NEW STRUCTURE AND EXISTING BUILDING.
 - 4" EXPANSION JOINT VERTICALLY IN WALL.
 - 4" EXPANSION JOINT BETWEEN GARAGE AND STEEL STRUCTURE.
 - 8" CMU AT ELEVATOR (SOLID GROUTED).
 - 1 1/2" x 20 GA. GALVANIZED STEEL ROOF DECK.
 - 12" CMU (SOLID GROUTED).
 - 4" EXPANSION JOINT VERTICALLY IN WALL.
 - BRACED FRAME.
 - 2 HR FIRE SEPARATION WALL.
 - LOAD BEARING SINGLE SPANDREL AT EACH LEVEL.
 - 3" N.W. CONCRETE W/ 6# - W2.8W2.9 W.W.F. OVER 2"x20 GA. METAL DECK (5' TOTAL).
 - W14X14 FASCIA BEAM - TYPICAL.
 - SLOTTED EXPANSION JOINT IN STEEL MEMBER - TYPICAL. 2 LOCATIONS AS SHOWN.
 - EXISTING STRUCTURE BELOW.
 - 3 1/2" N.W. CONCRETE W/ 6# - W2.8W2.9 W.W.F. OVER 3"x18 GA. METAL DECK (6' 1/2" TOTAL).
 - PARTITION STACK BELOW.
 - PROVIDE 15 RIGGING POINTS AT 1,500 LBS. EACH ABOVE STAGE. COORDINATE LOCATION QUANTITY WITH A/V CONSULTANT. SEE DETAILS 632, 633, AND 634.
 - ADDITIONAL 25 PSF DEAD LOAD ALLOWANCE THIS AREA FOR DECORATIVE CEILING.
 - 2 HR FIRE SEPARATION WALL.
 - CONCRETE BEAM, 24" DEEP x 32" WIDE W/ #4 STIRRUPS AT 16" O.C.
 - CAMBER CANTILEVERED END 3/4" UP.
 - STEEL STAIRS BY OTHERS (DEFERRED SUBMITTAL) TYPICAL.
 - ROOF DRAINS, FRAME AROUND ROOF DRAINS PER DETAIL 602 TYPICAL.
 - BRACED PER DETAIL 83204.
 - KINKED BEAM SPLICE AT RIDGE - SEE DETAIL 517 FOR SPLICE CONNECTION.
 - STEEL FRAME PER DETAIL 343 AT HANGARWAYS SIGN.
 - 3/4" TONGUE AND GROOVE SHEATHING.
 - 2" EXPANSION JOINT.
 - FRAME AROUND OPENING PER DETAIL 505/50701.

- FLOOR FRAMING NOTES:**
- VERIFY LOCATION OF DETAILS SEE GENERAL STRUCTURAL NOTES.
 - VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
 - SCHEDULED MARK DESIGNATIONS ARE TYPICAL TO THE PROJECT AND MAY NOT NECESSARILY BE FOUND ON THIS PLAN.
 - BCI, SC2, ETC. AS SHOWN ON PLAN INDICATES #11 STEEL COLUMNS. SEE SCHEDULE.
 - FOR CLARITY, DETAILS MAY SHOW ONLY ONE SIDE OF FRAMING CONDITION.
 - FOR CLARITY, ALL FLOOR OPENINGS MAY NOT BE SHOWN ON FLOOR FRAMING PLAN. FOR EXACT SIZE, NUMBER AND LOCATION OF OPENINGS, SEE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS. FOR FRAMING AT OPENINGS, SEE TYPICAL DETAILS.
 - VERIFY EXACT SIZE AND WEIGHT OF EQUIPMENT ON ROOF WITH MECHANICAL CONTRACTOR.
 - CONTRACTOR TO VERIFY, AND BE RESPONSIBLE FOR VARIATIONS IN CONCRETE QUANTITY DUE TO CAMBER, CONSTRUCTION DEAD LOAD DEFLECTIONS AND/OR STRUCTURAL STEEL TOLERANCES OF STEEL BEAMS AND STEEL DECK. FOR CONCRETE CONTROL JOINTS IN CONCRETE SLAB, SEE G.S.N. AND TYPICAL DETAILS.

NOTE: TYPICAL COLUMN HEADSTEEL STUD RAILS AND REBAR AT PENETRATIONS TO BE APPLIED TO EACH COLUMN AND PENETRATION PER SCHEDULES ON SHEET S008.

NOTE: SEE SHEET S145-3 FOR PT AND SLAB REINFORCEMENT IN THIS AREA.

SLAB REINFORCING DESIGNATION *

TYPICAL CONDITION UNLESS NOTED OTHERWISE.

THE BOTTOMMOST OR TOPMOST SHALL BE FORMED WITH THE REINFORCING THAT HAS THE LARGEST AREA. REINFORCING SUPPORTING CANTILEVER CONDITION IS ALWAYS TOPMOST LAYER. BM = BOTTOMMOST, TM = TOPMOST, B = BOTTOM, T = TOP.

LENGTH (FEET), IF LENGTH IS NOT DESIGNATED REINF. IS CONT. AND LAPPED OVER LINE OF SUPPORT. LENGTH DOES NOT INCLUDE STANDARD HOOK AT END OF BAR.

TOTAL NUMBER OF BARS, IF NUMBER IS NOT DESIGNATED, REINFORCING IS CONT IN DIRECTION SHOWN.

12 #5 X 16 AT 6 BM (TYP.)

SPACING (INCHES)

REINFORCING BAR SIZE

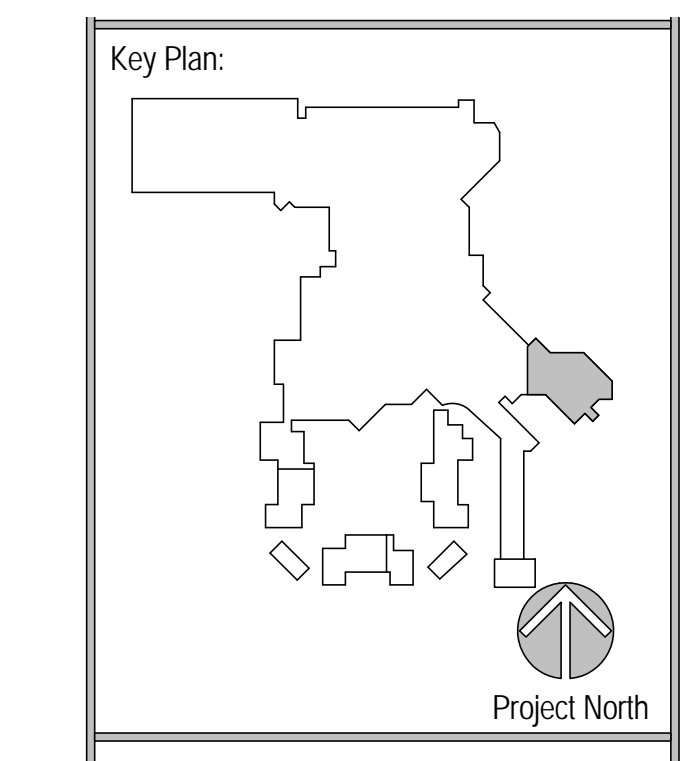
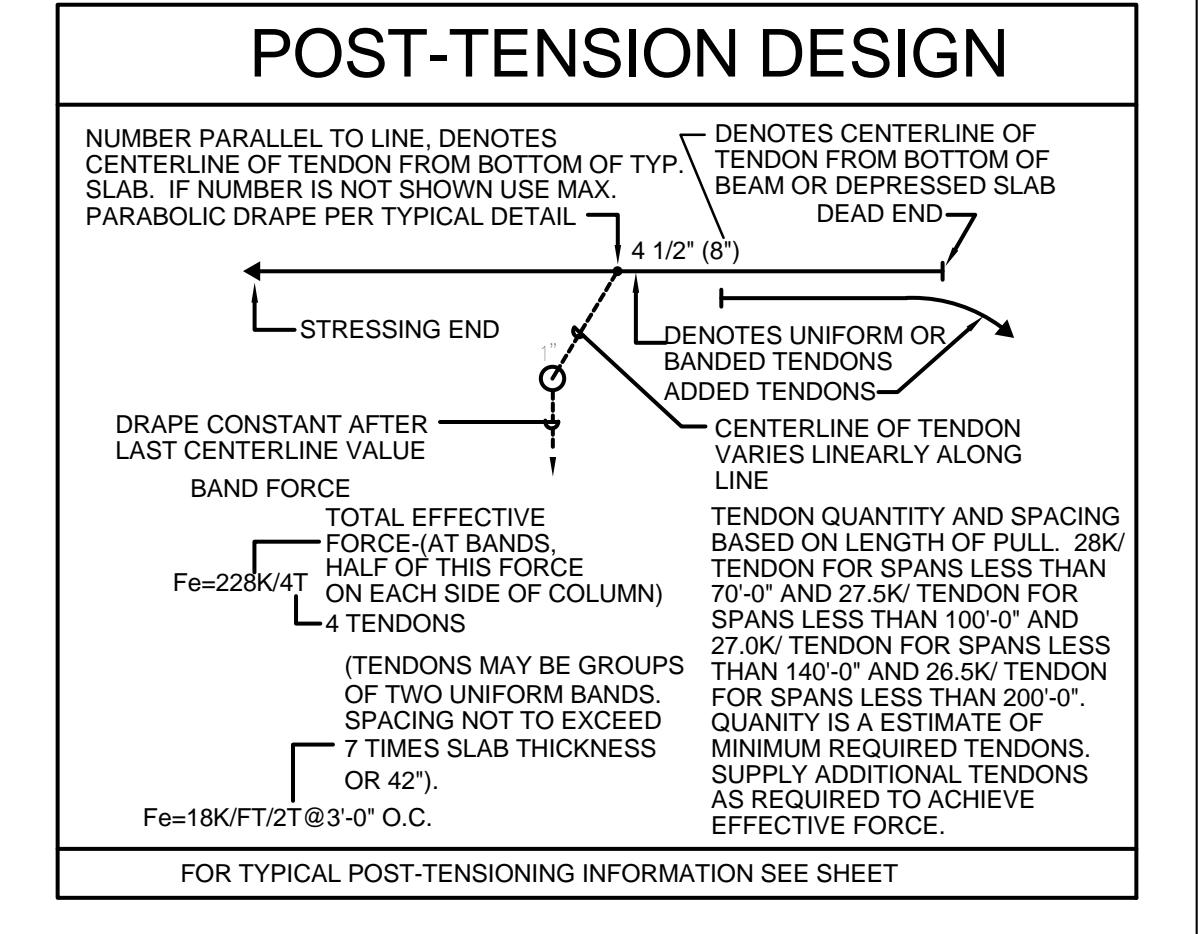
--- DENOTES CLASS "B" TENSION LAP SPLICE.

--- DENOTES REINFORCING TO BE STAGGERED AS SHOWN ON PLAN.

--- SINGLE ARROW DENOTES REINFORCING IS DISCONTINUOUS. DOUBLE ARROW DENOTES REINFORCING IS CONTINUOUS.

--- DENOTES 12 BAR DIAMETER HOOK AT END, UNLESS NOTED OTHERWISE.

*VERIFY SIZE AND SPACING ON ALL REINFORCING SHOWN IN DETAIL BUT NOT SHOWN ON PLAN.



Revisions:

No.	Description	Date
1	PLAN REVIEW COMMENTS	09/02/2016
2	MISC. FUTURE REVISIONS	10/07/2016
3	STRUCTURAL CLARIFICATIONS	10/21/2016
17	CONFORM SET	02/03/2017
	CONFORM SET	02/17/2017

Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Number: **TOWER THIRD FLOOR PLAN - AREA N**

Sheet Number: **S143-3**

02-17-2017 CONFORM SET

POST-TENSION DESIGN

NUMBER PARALLEL TO LINE DENOTES CENTERLINE OF TENDON FROM BOTTOM OF TYP. SLAB. IF NUMBER IS NOT SHOWN USE MAX. PARABOLIC DRAPE PER TYPICAL DETAIL.

DENOTES CENTERLINE OF TENDON FROM BOTTOM OF BEAM OR DEPRESSIONED SLAB (IF APPLICABLE).

STRESSING END

DRAPE CONSTANT AFTER LAST CENTERLINE VALUE

BAND FORCE

TOTAL EFFECTIVE FORCE AT ENDS

HALF OF THIS FORCE ON EACH SIDE OF COLUMN

4 TENDONS

(TENDONS MAY BE GROUPS OF TWO UNIFORM BANDS SPACING NOT TO EXCEED 7 TIMES SLAB THICKNESS OR 42")

DENOTES UNIFORM OR Banded TENDONS

CENTERLINE OF TENDON VARIES LINEARLY ALONG LINE

TENDON QUANTITY AND SPACING BASED ON LENGTH OF FULL 28W TENDON FOR SPANS LESS THAN 75'-0" AND 27.5K TENDON FOR SPANS LESS THAN 100'-0" AND 27.5K TENDON FOR SPANS LESS THAN 140'-0" AND 28.5K TENDON FOR SPANS LESS THAN 200'-0". QUANTITY IS AN ESTIMATE OF MINIMUM REQUIRED TENDONS SUPPLY ADDITIONAL TENDONS AS REQUIRED TO ACHIEVE EFFECTIVE FORCE.

FOR TYPICAL POST-TENSIONING INFORMATION SEE SHEET

- #### FLOOR / ROOF KEYNOTES:
- LINE OF UNIFORM PT DEAD ENDS.
 - EXPANSION JOINT BETWEEN NEW STRUCTURE AND EXISTING BUILDING.
 - EXPANSION JOINT VERTICALLY IN WALL.
 - EXPANSION JOINT BETWEEN GARAGE AND STEEL STRUCTURE.
 - CMU AT ELEVATOR (SOLID GROUTED).
 - 1 1/2" X 20 GA. GALVANIZED STEEL ROOF DECK.
 - 12" CMU SOLID GROUTED.
 - EXPANSION JOINT VERTICALLY IN WALL.
 - BRACED FRAME.
 - 2 HR FIRE SEPARATION WALL.
 - LOAD BEARING SINGLE SPANDREL AT EACH LEVEL.
 - 3" W CONCRETE W/ 6# - W2.8W/2.9 W.W.F. OVER 2"x20 GA. METAL DECK. (5" TOTAL)
 - W/104 FASCIA BEAM - TYPICAL.
 - SLOTTED EXPANSION JOINT IN STEEL MEMBER - TYPICAL. 2 LOCATIONS AS SHOWN.
 - EXISTING STRUCTURE BELOW.
 - 3 1/2" W CONCRETE W/ 6# - W2.8W/2.9 W.W.F. OVER 3"x18 GA. METAL DECK. (6 1/2" TOTAL)
 - PARTITION STACK BELOW.
 - PROVIDE 15 RIGGING POINTS AT 1,500 LBS. EACH ABOVE STAGE. COORDINATE LOCATION QUANTITY WITH AV CONSULTANT. SEE DETAILS 632, 633, AND 634.
 - ADDITIONAL 25 PSF DEAD LOAD ALLOWANCE THIS AREA FOR DECORATIVE CEILING.
 - 2 HR FIRE SEPARATION WALL.
 - CONCRETE BEAM 24" DEEP X 32" WIDE W/ #4 STIRRUPS AT 18" O.C.
 - CAMBER CANTILEVERED END 3/4" UP.
 - STEEL STAIRS BY OTHERS (DEFERRED SUBMITTAL) TYPICAL.
 - ROOF DRAINS, FRAME AROUND ROOF DRAINS PER DETAIL 602 TYPICAL.
 - BRACED PER DETAIL 83204.
 - KINKED BEAM SPLICE AT RIDGE - SEE DETAIL 517 FOR SPLICE CONNECTION.
 - STEEL FRAME PER DETAIL 343 AT HARBORHS SIGN.
 - 3/4" TONGUE AND GROOVE SHEATHING.
 - 2" EXPANSION JOINT.
 - FRAME AROUND OPENING PER DETAIL 505/507/1.

- #### FLOOR FRAMING NOTES
- VERIFY LOCATION OF DETAILS SEE GENERAL STRUCTURAL NOTES.
 - VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
 - SCHEDULED MARK DESIGNATIONS ARE TYPICAL TO THE PROJECT AND MAY NOT NECESSARILY BE FOUND ON THIS PLAN.
 - SC1, SC2, ETC. AS SHOWN ON PLAN INDICATES (") STEEL COLUMNS. SEE SCHEDULE.
 - FOR CLARITY, DETAILS MAY SHOW ONLY ONE SIDE OF FRAMING CONDITION.
 - FOR CLARITY, ALL FLOOR OPENINGS MAY NOT BE SHOWN ON FLOOR FRAMING PLAN FOR EXACT SIZE, NUMBER AND LOCATION OF OPENINGS. SEE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS. FOR FRAMING AT OPENINGS, SEE TYPICAL DETAILS.
 - VERIFY EXACT SIZE AND WEIGHT OF EQUIPMENT ON ROOF WITH MECHANICAL CONTRACTOR.
 - CONTRACTOR TO VERIFY, AND BE RESPONSIBLE FOR VARIATIONS IN CONCRETE QUANTITY DUE TO CAMBER, CONSTRUCTION DEAD LOAD DEFLECTIONS AND/OR STRUCTURAL STEEL TOLERANCES OF STEEL BEAMS AND STEEL DECK. FOR CONCRETE CONTROL JOINTS IN CONCRETE SLAB, SEE G.S.N. AND TYPICAL DETAILS.

NOTE:
TYPICAL COLUMN HEADSTEEL STUD RAILS AND REBAR AT PENETRATIONS TO BE APPLIED TO EACH COLUMN AND PENETRATION PER SCHEDULES ON SHEET S008.

NOTE:
SEE SHEET S145-3 FOR PT AND SLAB REINFORCEMENT (IN THIS AREA).

FOR ROOF FRAMING THIS AREA SEE SHEET S156-3.

SLAB REINFORCING DESIGNATION *

TYPICAL CONDITION UNLESS NOTED OTHERWISE:

WHERE TWO LAYERS OF REINFORCING OCCUR IN SAME POSITION THE BOTTOMMOST OR TOPMOST SHALL BE FORMED WITH THE REINFORCING THAT HAS THE LARGEST AREA. REINFORCING SUPPORTING CANTILEVER CONDITION IS ALWAYS TOPMOST LAYER. BM = BOTTOMMOST, TM = TOPMOST, B = BOTTOM, T = TOP.

LENGTH (FEET), IF LENGTH IS NOT DESIGNATED REINF. IS CONT. AND LAPPED OVER LINE OF SUPPORT. LENGTH DOES NOT INCLUDE STANDARD HOOK AT END OF BAR.

TOTAL NUMBER OF BARS, IF NUMBER IS NOT DESIGNATED, REINFORCING IS CONT. IN DIRECTION SHOWN.

12 #5 X 16 AT 6 BM (TYP.)

REINFORCING BAR SIZE: _____

SPACING (INCHES): _____

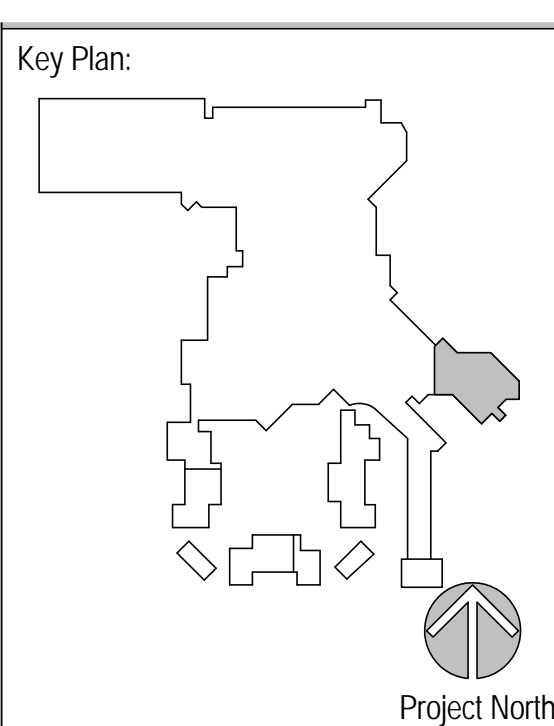
DENOTES CLASS 'B' TENSION LAP SPLICE.

DENOTES REINFORCING TO BE STAGGERED AS SHOWN ON PLAN.

SINGLE ARROW DENOTES REINFORCING IS DISCONTINUOUS. DOUBLE ARROW DENOTES REINFORCING IS CONTINUOUS.

DENOTES 12 BAR DIAMETER HOOK AT END, UNLESS NOTED OTHERWISE.

* VERIFY SIZE AND SPACING ON ALL REINFORCING SHOWN IN DETAIL BUT NOT SHOWN ON PLAN.



No.	Description	Date
1	PLAN REVIEW COMMENTS	09/02/2016
2	MISC. FUTURE REVISIONS	10/07/2016
3	STRUCTURAL CLARIFICATIONS	10/21/2016
4	CONFORM SET	02/03/2017
5	CONFORM SET	02/17/2017

Project Number: 16022
Date: 09/02/2016
Drawn By: L.E.
Checked By: S.S.

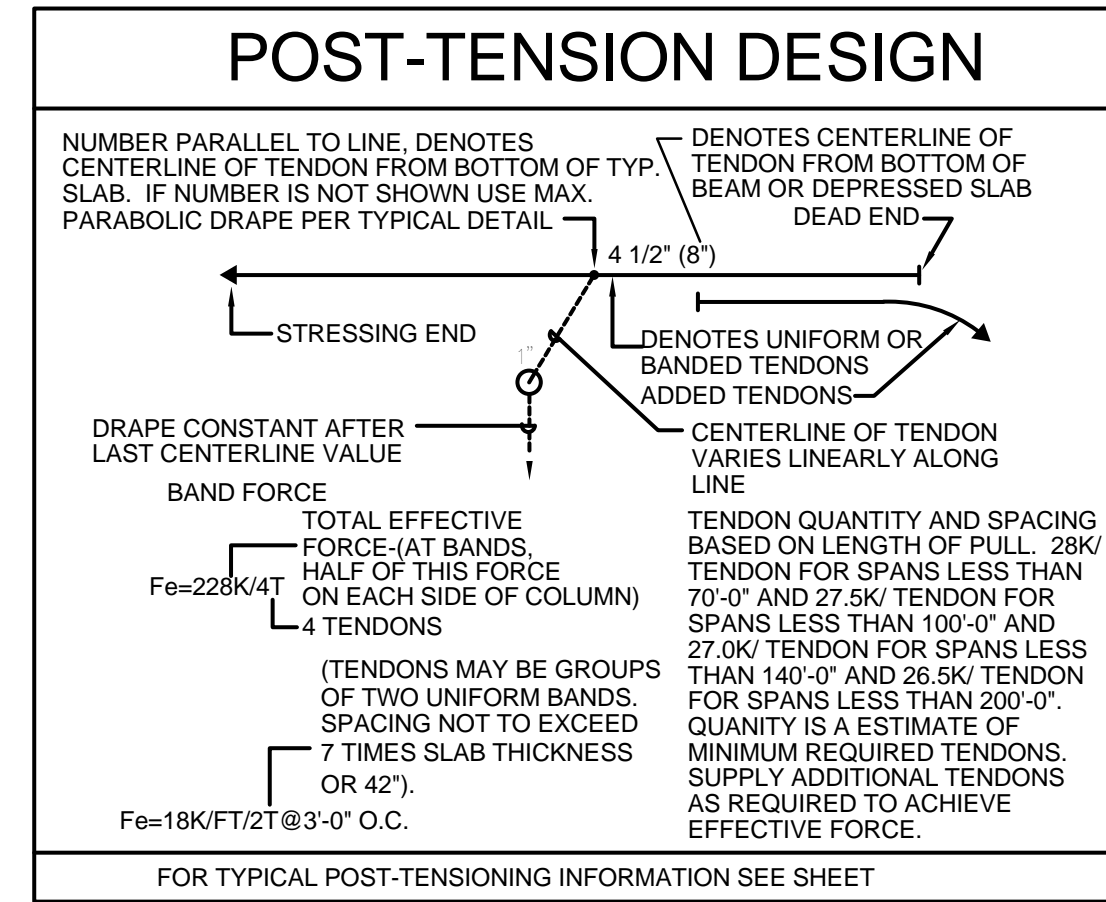
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TOWER FOURTH FLOOR PLAN - AREA N

Sheet Number:
S144-3

ACTUAL SHEET SIZE: 36" X 48"

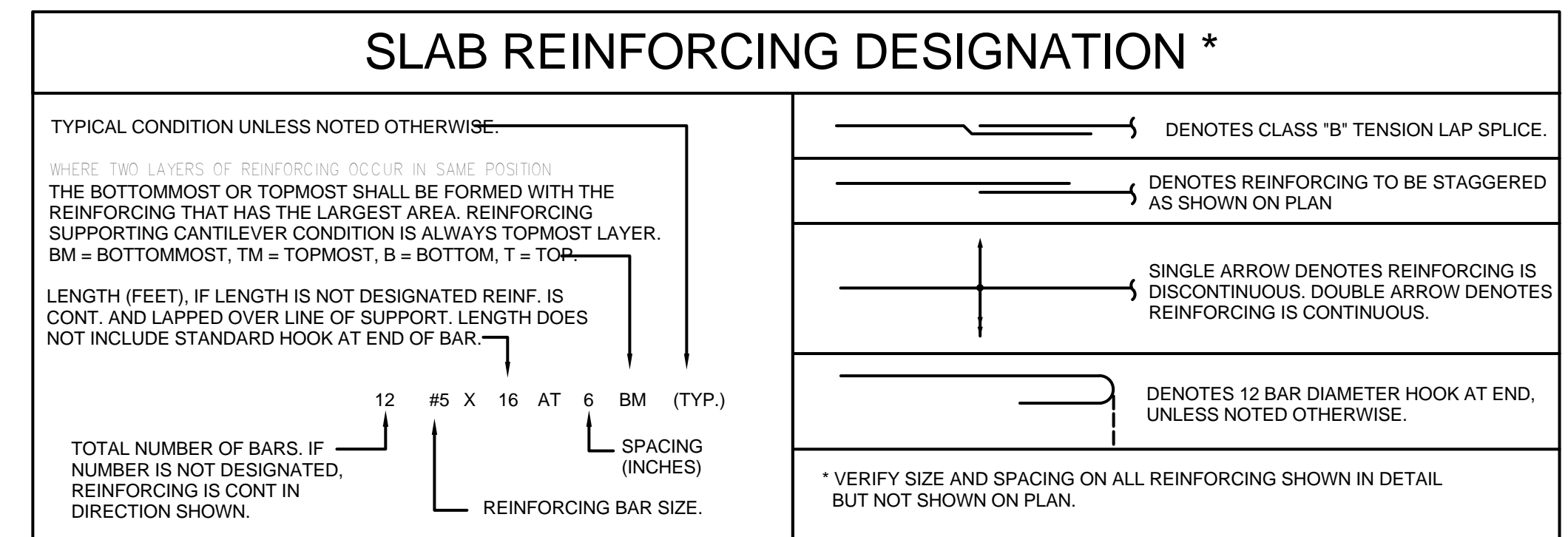
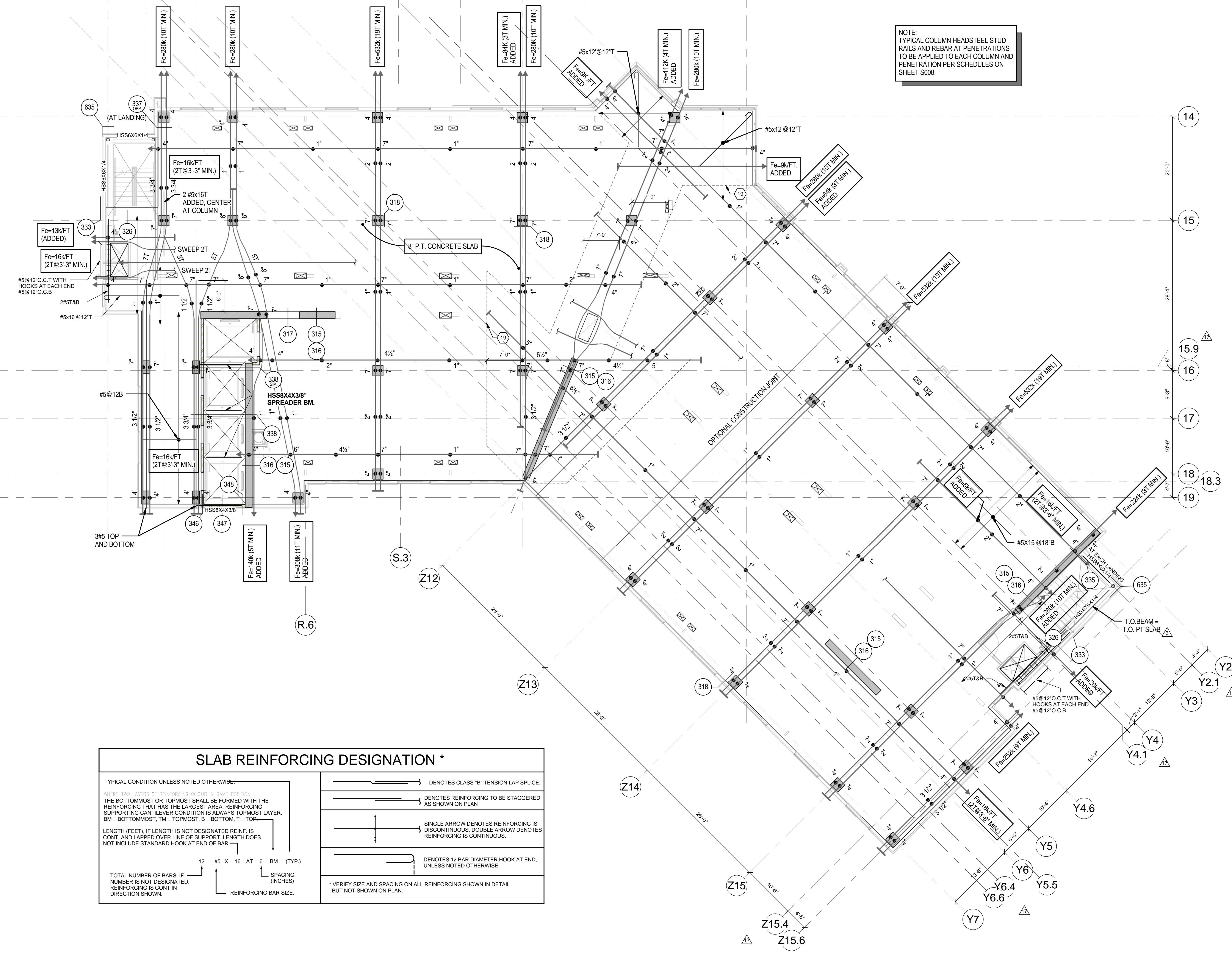
P P.8 Q Q.5 R R.5 S S.1 S.2 T T.1 U Z5.4

- FLOOR / ROOF KEYNOTES:**
- LINE OF UNIFORM PT DEAD ENDS.
 - EXPANSION JOINT BETWEEN NEW STRUCTURE AND EXISTING BUILDING.
 - EXPANSION JOINT VERTICALLY IN WALL.
 - EXPANSION JOINT BETWEEN GARAGE AND STEEL STRUCTURE.
 - CMU AT ELEVATOR (SOLID GROUTED).
 - 1 1/2" x 20 GA. GALVANIZED STEEL ROOF DECK.
 - CMU ISOLID GROUTED.
 - EXPANSION JOINT VERTICALLY IN WALL.
 - BRACED FRAME.
 - 2 HR FIRE SEPARATION WALL.
 - LOAD BEARING SINGLE SPANREL AT EACH LEVEL.
 - 3" N.W. CONCRETE W/ 6#6 - W2.8W2.9 W.W.F. OVER 2"x20 GA. METAL DECK. (5' TOTAL)
 - W/24x4 FASCIA BEAM - TYPICAL.
 - SLOTTED EXPANSION JOINT IN STEEL MEMBER - TYPICAL 2 LOCATIONS AS SHOWN.
 - EXISTING STRUCTURE BELOW.
 - 3 1/2" N.W. CONCRETE W/ 6#6 - W2.8W2.9 W.W.F. OVER 3"x18 GA. METAL DECK. (6 1/2' TOTAL)
 - PARTITION STACK BELOW.
 - PROVIDE 15 RIGGING POINTS AT 1,500 LBS. EACH ABOVE STAGE. COORDINATE LOCATION QUANTITY WITH A/V CONSULTANT. SEE DETAILS 632, 633, AND 634.
 - ADDITIONAL 25 PSF DEAD LOAD ALLOWANCE THIS AREA FOR DECORATIVE CEILING.
 - 2 HR FIRE SEPARATION WALL.
 - CONCRETE BEAM 24" DEEP x 32" WIDE W/ #4 STIRRUPS AT 18" O.C.
 - CAMBER CANTILEVERED END 3/4" UP.
 - STEEL STAIRS BY OTHERS (DEFERRED SUBMITTAL) TYPICAL.
 - ROOF BRANS, FRAME AROUND ROOF DRAINS PER DETAIL 602 TYPICAL.
 - BRACED PER DETAIL 83204.
 - KINKED BEAM SPLICE AT RIDGE - SEE DETAIL 517 FOR SPLICE CONNECTION.
 - STEEL FRAME PER DETAIL 343 AT HARBORHS SIGN.
 - 3/4" TONGUE AND GROOVE SHEATHING.
 - 2" EXPANSION JOINT.
 - FRAME AROUND OPENING PER DETAIL 505/50701.



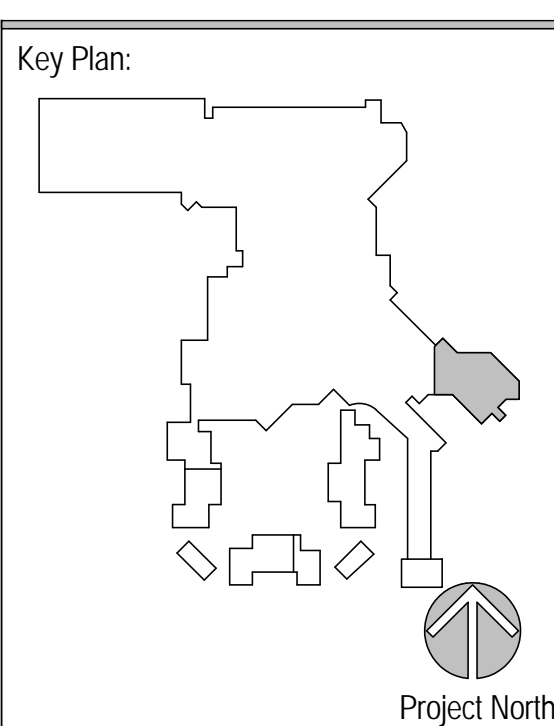
- FLOOR FRAMING NOTES**
- VERIFY LOCATION OF DETAILS SEE GENERAL STRUCTURAL NOTES.
 - VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
 - SCHEDULE MARK DESIGNATIONS ARE TYPICAL TO THE PROJECT AND MAY NOT NECESSARILY BE FOUND ON THIS PLAN.
 - S.C.I., S.C.Z, ETC. AS SHOWN ON PLAN INDICATED (1) STEEL COLUMNS. SEE SCHEDULE.
 - FOR CLARITY, DETAILS MAY SHOW ONLY ONE SIDE OF FRAMING CONDITION.
 - FOR CLARITY, ALL FLOOR OPENINGS MAY NOT BE SHOWN ON FLOOR FRAMING PLAN.
 - FOR EXACT SIZE, NUMBER AND LOCATION OF OPENINGS, SEE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS. FOR FRAMING AT OPENINGS, SEE TYPICAL DETAILS.
 - VERIFY EXACT SIZE AND WEIGHT OF EQUIPMENT ON ROOF WITH MECHANICAL CONTRACTOR.
 - CONTRACTOR TO VERIFY, AND BE RESPONSIBLE FOR VARIATIONS IN CONCRETE QUANTITY DUE TO CAMBER, CONSTRUCTION DEAD LOAD DEFLECTIONS AND/OR STRUCTURAL STEEL TOLERANCES OF STEEL BEAMS AND STEEL DECK. FOR CONCRETE CONTROL JOINTS IN CONCRETE SLAB, SEE G.S.N. AND TYPICAL DETAILS.

NOTE: TYPICAL COLUMN HEADSTEEL STUD RAILS AND REBAR AT PENETRATIONS TO BE APPLIED TO EACH COLUMN AND PENETRATION PER SCHEDULES ON SHEET S008.



TOP OF CONCRETE F.F. ELEVATIONS:

6TH FLOOR	= +43'-0"
7TH FLOOR	= +43'-6"
8TH FLOOR	= +44'-0"
9TH FLOOR	= +44'-6"
10TH FLOOR	= +45'-0"
11TH FLOOR	= +45'-6"
12TH FLOOR	= +46'-0"



Revisions:

No.	Description	Date
1	PLAN REVIEW COMMENTS	09/02/2016
2	MISC. FUTURE REVISIONS	10/07/2016
3	STRUCTURAL CLARIFICATIONS	10/21/2016
4	CONFORM SET	02/03/2017
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Project Number: 16022
 Date: 09/02/2016
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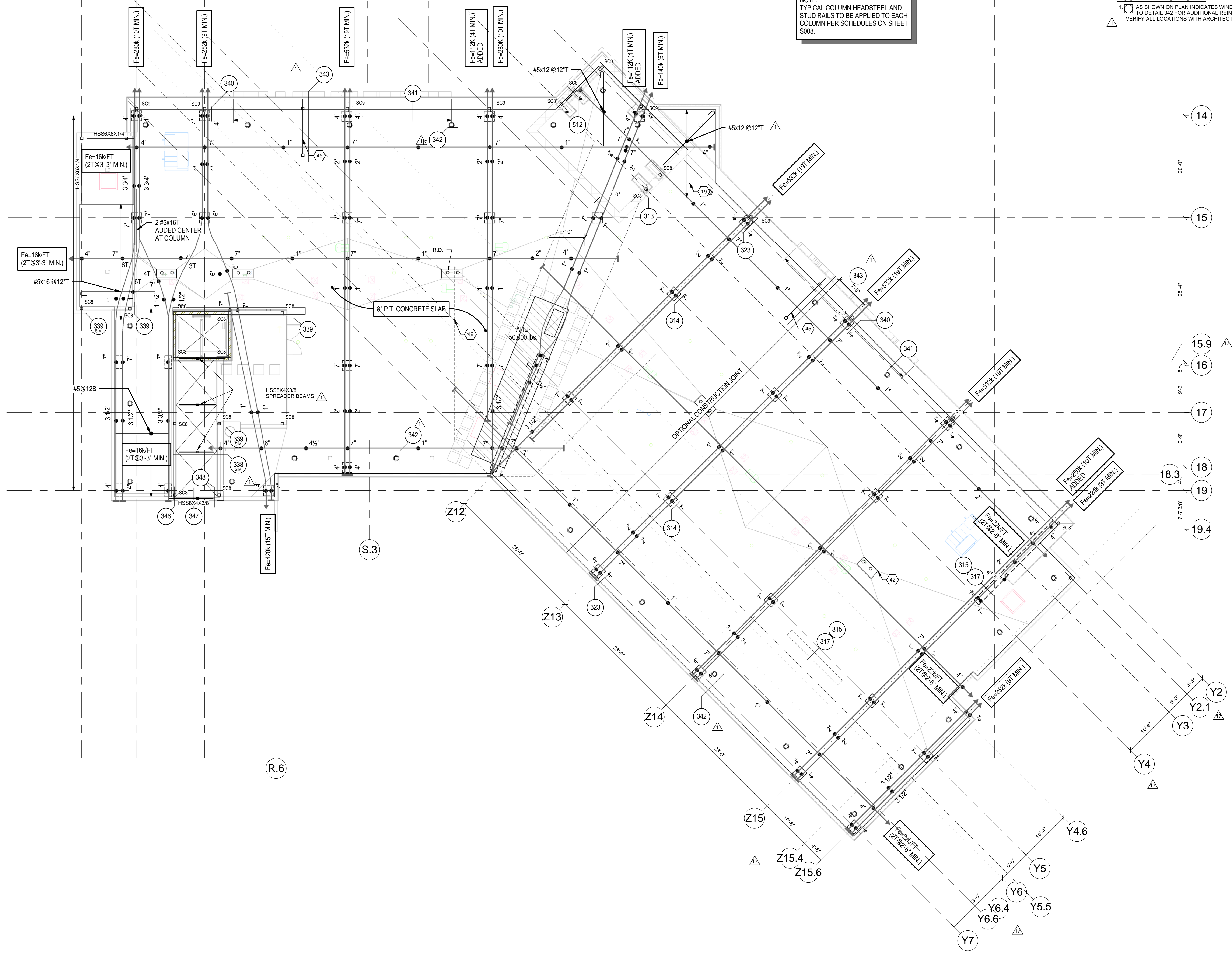
Sheet Name:
TOWER FIFTH THRU TWELFTH FLOOR PLAN - AREA N

Sheet Number:
S145-3

P P.8 Q Q.5 R R.5 S S.1 S.2 T T.1 U Z5.4 W

- FLOOR / ROOF KEYNOTES:**
- LINE OF UNIFORM PT DEAD ENDS.
 - 4" EXPANSION JOINT BETWEEN NEW STRUCTURE AND EXISTING BUILDING.
 - 4" EXPANSION JOINT VERTICALLY IN WALL.
 - 4" EXPANSION JOINT BETWEEN GARAGE AND STEEL STRUCTURE.
 - 8" CMU AT ELEVATOR (SOLID GROUTED).
 - 1 1/2" x 20 GA. GALVANIZED STEEL ROOF DECK.
 - 12" CMU SOLID GROUTED.
 - 4" EXPANSION JOINT VERTICALLY IN WALL.
 - BRACED FRAME.
 - 2 HR FIRE SEPERATION WALL.
 - LOAD BEARING SINGLE SPANREL AT EACH LEVEL.
 - 3" N.W. CONCRETE W/ 66 - W2.8W2.9 W.W.F. OVER 2"x20 GA. METAL DECK. (5" TOTAL)
 - W12x14 FASCIA BEAM - TYPICAL.
 - SLOTTED EXPANSION JOINT IN STEEL MEMBER - TYPICAL 2 LOCATIONS AS SHOWN.
 - EXISTING STRUCTURE BELOW.
 - 3 1/2" N.W. CONCRETE W/ 66 - W2.8W2.9 W.W.F. OVER 3"x18 GA. METAL DECK. (6 1/2" TOTAL)
 - PARTITION STACK BELOW.
 - PROVIDE 15 RIGGING POINTS AT 1,500 LBS. EACH ABOVE STAGE. COORDINATE LOCATION QUANTITY WITH A.V. CONSULTANT. SEE DETAILS 632, 633, AND 634.
 - ADDITIONAL 25 PSF DEAD LOAD ALLOWANCE THIS AREA FOR DECORATIVE CEILING.
 - 2 HR FIRE SEPERATION WALL.
 - CONCRETE BEAM 24" DEEPx32" WIDE W/ #4 STIRRUPS AT 18" O.C.
 - CAMBER CANTILEVERED END 3/4" UP.
 - STEEL STAIRS BY OTHERS (DEFERRED SUBMITTAL) TYPICAL.
 - ROOF BRANS. FRAME AROUND ROOF DRAINS PER DETAIL 602 TYPICAL.
 - BRACED PER DETAIL 83204.
 - KINKED BEAM SPLICE AT RIDGE - SEE DETAIL 517 FOR SPLICE CONNECTION.
 - STEEL FRAME PER DETAIL 343 AT HARBORHS SIGN.
 - 3/4" TONGUE AND GROOVE SHEATHING.
 - 2" EXPANSION JOINT.
 - FRAME AROUND OPENING PER DETAIL 505/507/1.
- ROOF FRAMING NOTES:**
- FOR LOCATION OF DETAILS SEE GENERAL STRUCTURAL NOTES.
 - VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. ROOF ELEVATIONS, WHERE SHOWN, ARE TO BE PROVIDED AND VERIFIED BY THE ARCHITECT.
 - SCHEDULED MARK DESIGNATIONS ARE TYPICAL TO THE PROJECT AND MAY NOT NECESSARILY BE FOUND ON THIS PLAN.
 - SC1, SC2, ETC. AS SHOWN ON PLAN INDICATES (1") STEEL COLUMNS. SEE SCHEDULE.
 - FOR CLARITY, DETAILS MAY SHOW ONLY ONE SIDE OF FRAMING CONDITION.
 - FOR CLARITY, ALL ROOF OPENINGS MAY NOT BE SHOWN ON ROOF FRAMING PLAN. FOR EXACT SIZE, NUMBER AND LOCATION OF OPENINGS, SEE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS. FOR FRAMING AT OPENINGS, SEE TYPICAL DETAILS.
 - VERIFY EXACT SIZE AND WEIGHT OF EQUIPMENT ON ROOF WITH MECHANICAL CONTRACTOR.
 - CONTRACTOR TO VERIFY, AND BE RESPONSIBLE FOR VARIATIONS IN CONCRETE QUANTITY DUE TO CAMBER, CONSTRUCTION DEAD LOAD DEFLECTIONS AND/OR STRUCTURAL STEEL TOLERANCES OF STEEL BEAMS AND STEEL DECKS. FOR CONCRETE CONTROL JOINTS IN CONCRETE SLAB, SEE G.S.N. AND TYPICAL DETAILS.
 - REFER TO HINGE DESIGN LOAD SCHEDULE ON SHEET 5007 FOR PIPE SIZES AND LOADS.
 - ALL BEAMS AND JOISTS TO BE EQUALLY SPACED BETWEEN COLUMNS, U.N.O.
- ROOF FRAMING LEGEND:**
- AS SHOWN ON PLAN INDICATES WINDOW WASHING DAVIT LOCATION. REFER TO DETAIL 342 FOR ADDITIONAL REINFORCING REQUIRED IN SLAB AT BASE PLATES. VERIFY ALL LOCATIONS WITH ARCHITECTURAL DRAWINGS.

NOTE:
TYPICAL COLUMN HEADSTEEL AND STUD RAILS TO BE APPLIED TO EACH COLUMN PER SCHEDULES ON SHEET 5008.



Key Plan

Project North

Revisions:		
No.	Description	Date
1	STRUCTURAL REVISIONS	09/02/2016
2	PLAN REVIEW COMMENTS	09/24/2016
3	STRUCTURAL CLARIFICATIONS	10/21/2016
4	CONFORM SET	02/03/2017
5	CONFORM SET	02/17/2017

Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Name:
TOWER ROOF FRAMING PLAN - AREA N

Sheet Number:
S146-3

02-17-2017 CONFORM SET

1 TOWER ROOF FRAMING PLAN - AREA N
 S146-3 Scale: 1/8" = 1'-0"

- FLOOR / ROOF KEYNOTES:**
- LINE OF UNIFORM PT DEAD ENDS.
 - EXPANSION JOINT BETWEEN NEW STRUCTURE AND EXISTING BUILDING.
 - EXPANSION JOINT VERTICALLY IN WALL.
 - EXPANSION JOINT BETWEEN GARAGE AND STEEL STRUCTURE.
 - CMU AT ELEVATOR (SOLID GROUTED).
 - GA. GALVANIZED STEEL ROOF DECK.
 - CMU SOLID GROUTED.
 - EXPANSION JOINT VERTICALLY IN WALL.
 - EXPANSION JOINT VERTICALLY IN WALL.
 - BRACED FRAME.
 - HR FIRE SEPERATION WALL.
 - LOAD BEARING SINGLE SPANDREL AT EACH LEVEL.
 - 3" N.W.CONCRETE W/ 6#6 - W2.9W2.9 W.W.F. OVER 2"x20 GA. METAL DECK. (5" TOTAL)
 - W12x14 FASCIA BEAM - TYPICAL.
 - SLOTTED EXPANSION JOINT IN STEEL MEMBER - TYPICAL 2 LOCATIONS AS SHOWN.
 - EXISTING STRUCTURE BELOW.
 - 3 1/2" N.W.CONCRETE W/ 6#6 - W2.9W2.9 W.W.F. OVER 3"x18 GA. METAL DECK. (6 1/2" TOTAL)
 - PARTITION STACK BELOW.
 - PROVIDE 15 RIGGING POINTS AT 1500 lbs. EACH ABOVE STAGE. COORDINATE LOCATION QUANTITY WITH A/C CONSULTANT. SEE DETAILS 632, 633, AND 634.
 - ADDITIONAL 25 PSF DEAD LOAD ALLOWANCE THIS AREA FOR DECORATIVE CEILING.
 - HR FIRE SEPERATION WALL.
 - CONCRETE BEAM, 24" DEEPx32" WIDE W/ #4 STIRRUPS AT 18" O.C.
 - CAMBER CANTILEVERED END 3/4" UP.
 - STEEL STAIRS BY OTHERS (DEFERRED SUBMITTAL) TYPICAL.
 - ROOF DRAINS, FRAME AROUND ROOF DRAINS PER DETAIL 602 TYPICAL.
 - BRACED PER DETAIL 620H.
 - KINKED BEAM SPICE AT BRIDGE - SEE DETAIL 517 FOR SPICE CONNECTION.
 - STEEL FRAME PER DETAIL 343 AT HARRAHS SIGN.
 - 3/4" TONGUE AND GROOVE SHEATHING.
 - 2" EXPANSION JOINT.
 - FRAME AROUND OPENING PER DETAIL 505/510.
- ROOF FRAMING NOTES:**
- FOR LOCATION OF DETAILS SEE GENERAL STRUCTURAL NOTES.
 - VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. ROOF ELEVATIONS, WHERE SHOWN, ARE TO BE PROVIDED AND VERIFIED BY THE ARCHITECT.
 - SCHEDULED MARK DESIGNATIONS ARE TYPICAL TO THE PROJECT AND MAY NOT NECESSARILY BE FOUND ON THIS PLAN.
 - SC1, SC2, ETC. AS SHOWN ON PLAN INDICATES (*) STEEL COLUMNS. SEE SCHEDULE FOR CLARITY. DETAILS MAY SHOW ONLY ONE SIDE OF FRAMING CONDITION.
 - FOR CLARITY, ALL ROOF OPENINGS MAY NOT BE SHOWN ON ROOF FRAMING PLAN FOR EXACT SIZE, NUMBER AND LOCATION OF OPENINGS. SEE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS. FOR FRAMING AT OPENINGS, SEE TYPICAL DETAILS.
 - VERIFY EXACT SIZE AND WEIGHT OF EQUIPMENT ON ROOF WITH MECHANICAL CONTRACTOR.
 - CONTRACTOR TO VERIFY, AND BE RESPONSIBLE FOR VARIATIONS IN CONCRETE QUANTITY DUE TO CAMBER, CONSTRUCTION DEAD LOAD DEFLECTIONS AND/OR STRUCTURAL STEEL TOLERANCES OF STEEL BEAMS AND STEEL DECKS. FOR CONCRETE CONTROL JOINTS IN CONCRETE SLAB, SEE G.S.M. AND TYPICAL DETAILS.
 - REFER TO PIPING DESIGN LOAD SCHEDULE ON SHEET S007 FOR PIPE SIZES AND LOADS.
 - ALL BEAMS AND JOISTS TO BE EQUALLY SPACED BETWEEN COLUMNS, U.N.C.

2 LOW RING CANOPY FRAMING
S147-3 Scale: 1/8" = 1'-0"
(ELEVATIONS PER ARCH. OCCURS AT 3 ELEVATIONS)

3 MID RING CANOPY FRAMING
S147-3 Scale: 1/8" = 1'-0"

4 HIGH RING CANOPY FRAMING
S147-3 Scale: 1/8" = 1'-0"

8 LOW ROOF BEAMS
S147-3 NO SCALE

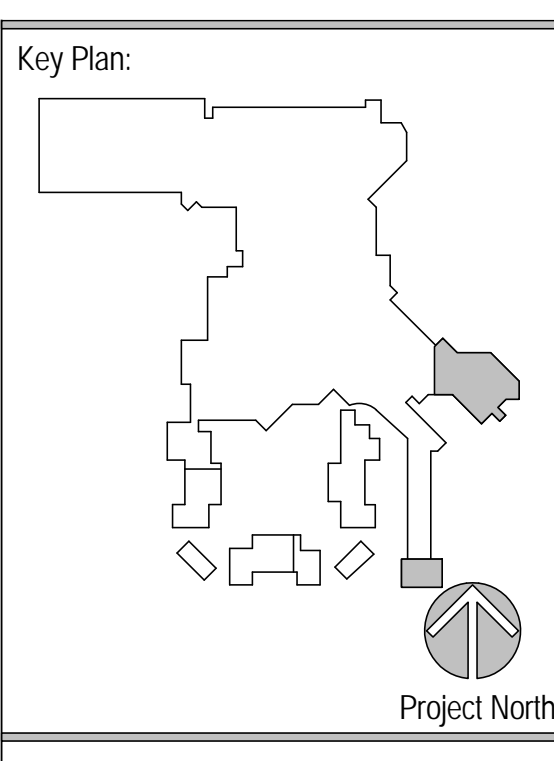
7 ELEVATOR MACHINE BEAMS AND SUPPORTS
S147-3 Scale: 1/4" = 1'-0"

6 MID ROOF BEAMS
S147-3 Scale: 1/4" = 1'-0"

5 HIGH ROOF BEAMS
S147-3 Scale: 1/4" = 1'-0"

9 ELEVATOR MACHINE SUPPORT FRAMING
S147-3 Scale: 1/4" = 1'-0"

1 TOWER HIGH ROOF FRAMING PLAN - AREA N
S147-3 Scale: 1/8" = 1'-0"



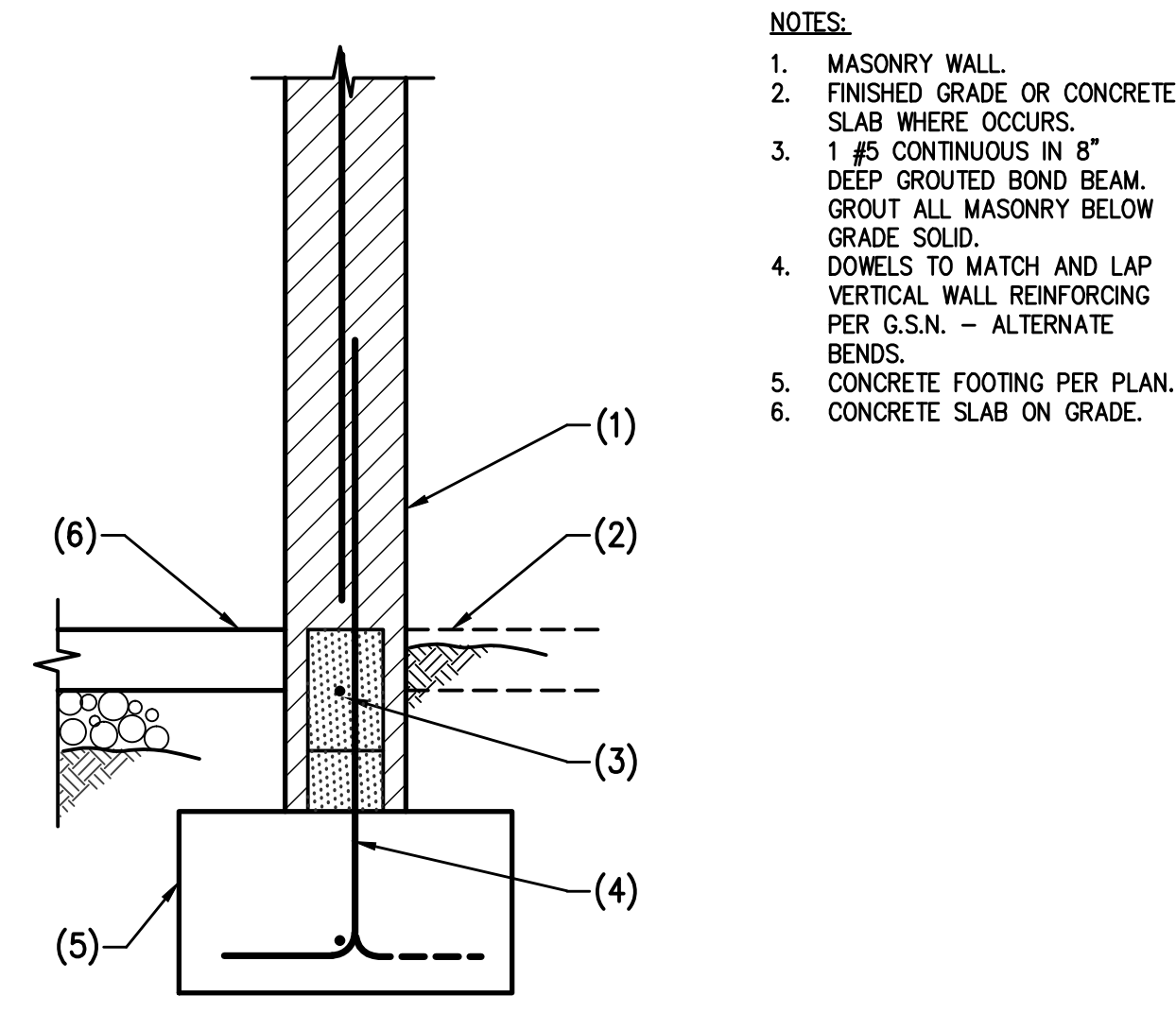
No.	Description	Date
1	STRUCTURAL REVISIONS	09/02/2016
2	PLAN REVIEW COMMENTS	09/24/2016
3	STRUCTURAL CLARIFICATIONS	10/21/2016
4	CONFORM SET	02/03/2017
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Project Number: 16022
Date: 09/02/2016
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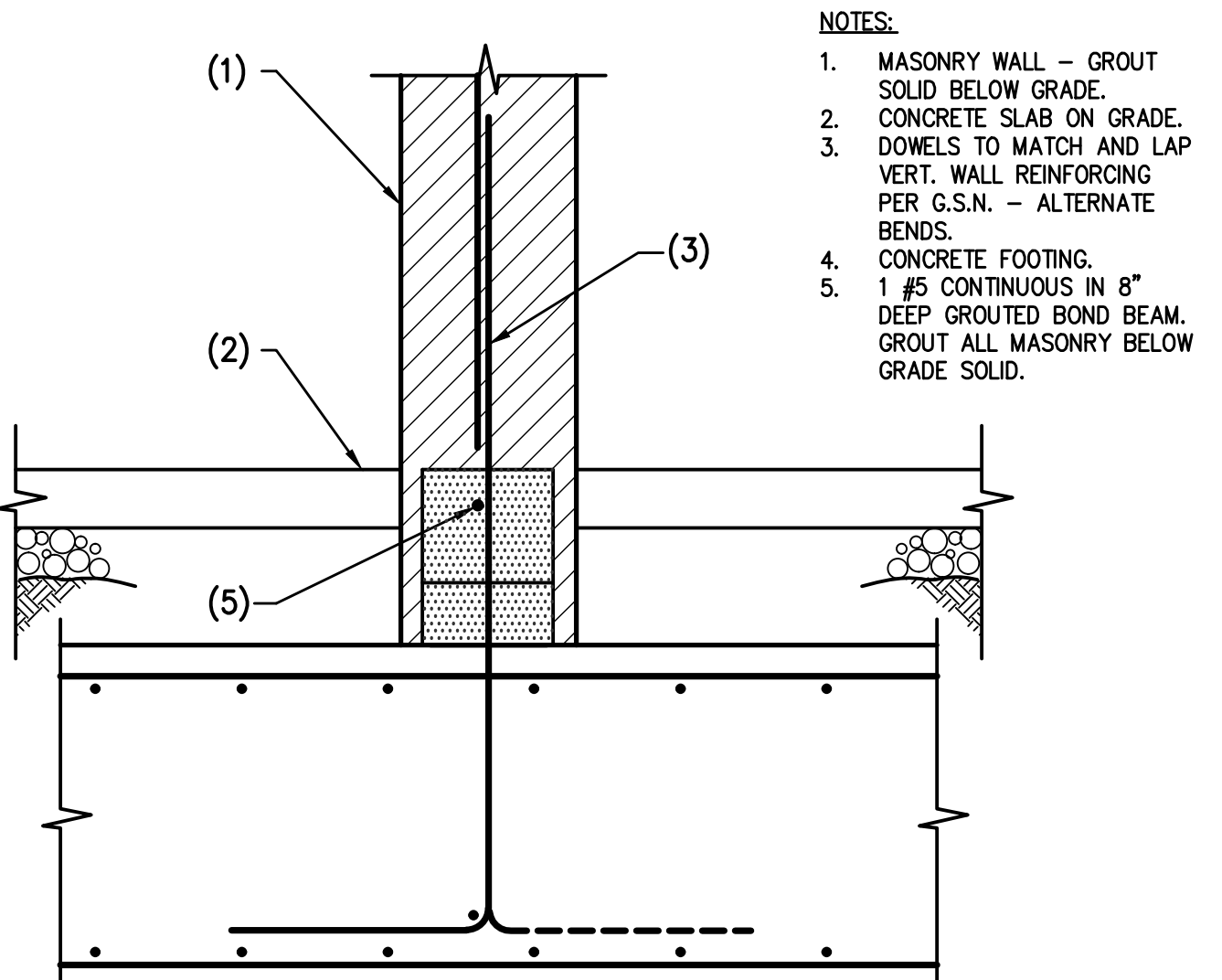
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HIGH ROOF FRAMING PLAN - AREA N

Sheet Number:
S147-3

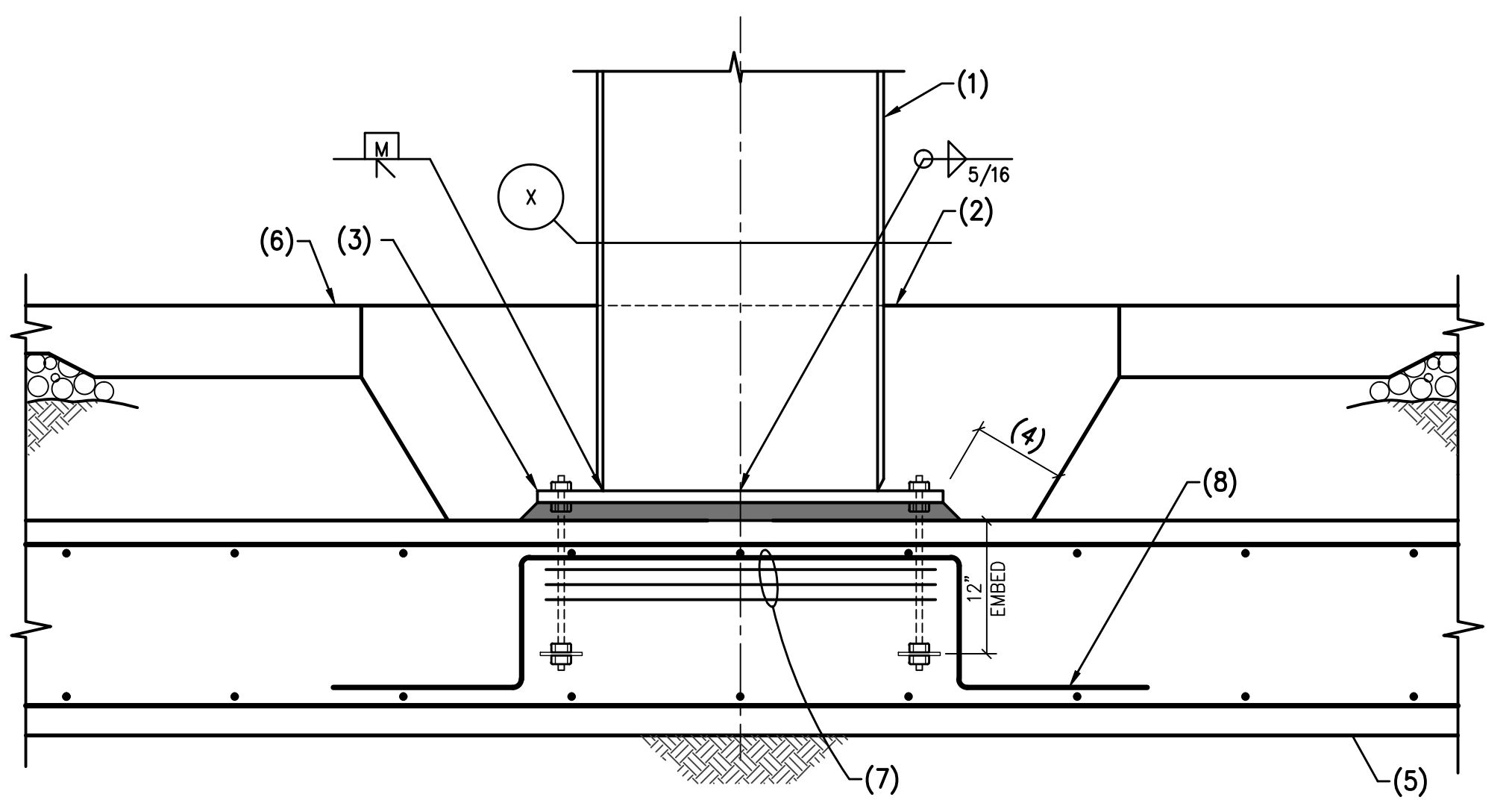
ACTUAL SHEET SIZE: 36" X 48"



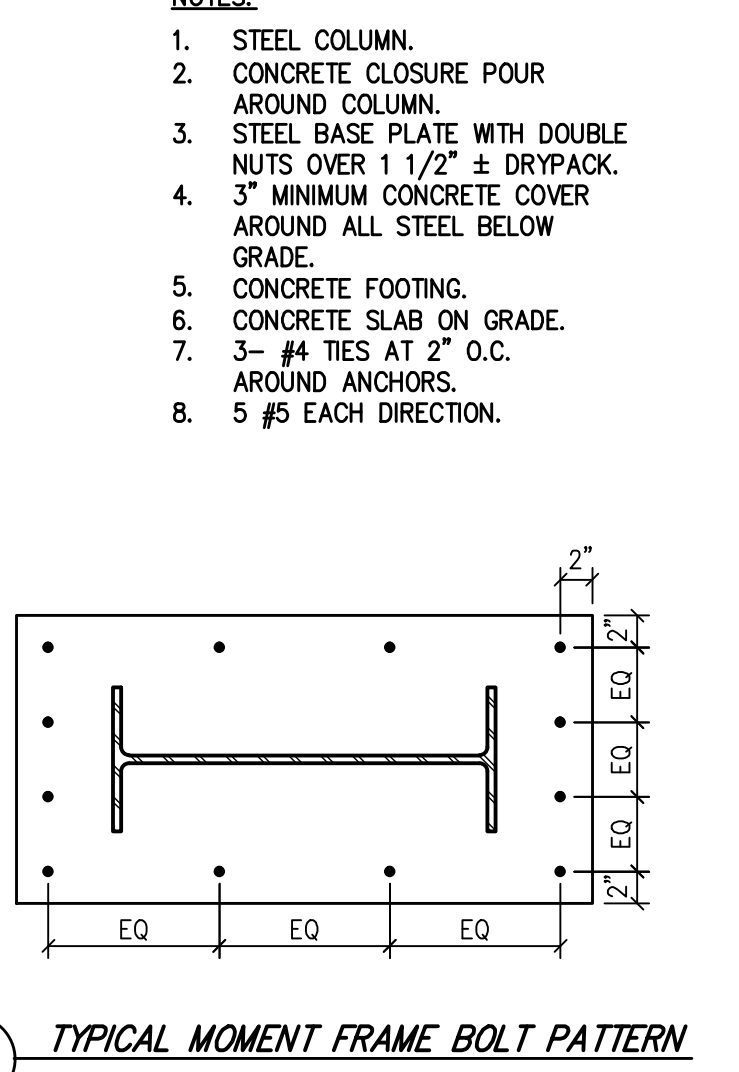
216 TYPICAL MASONRY WALL FOOTING
NO SCALE



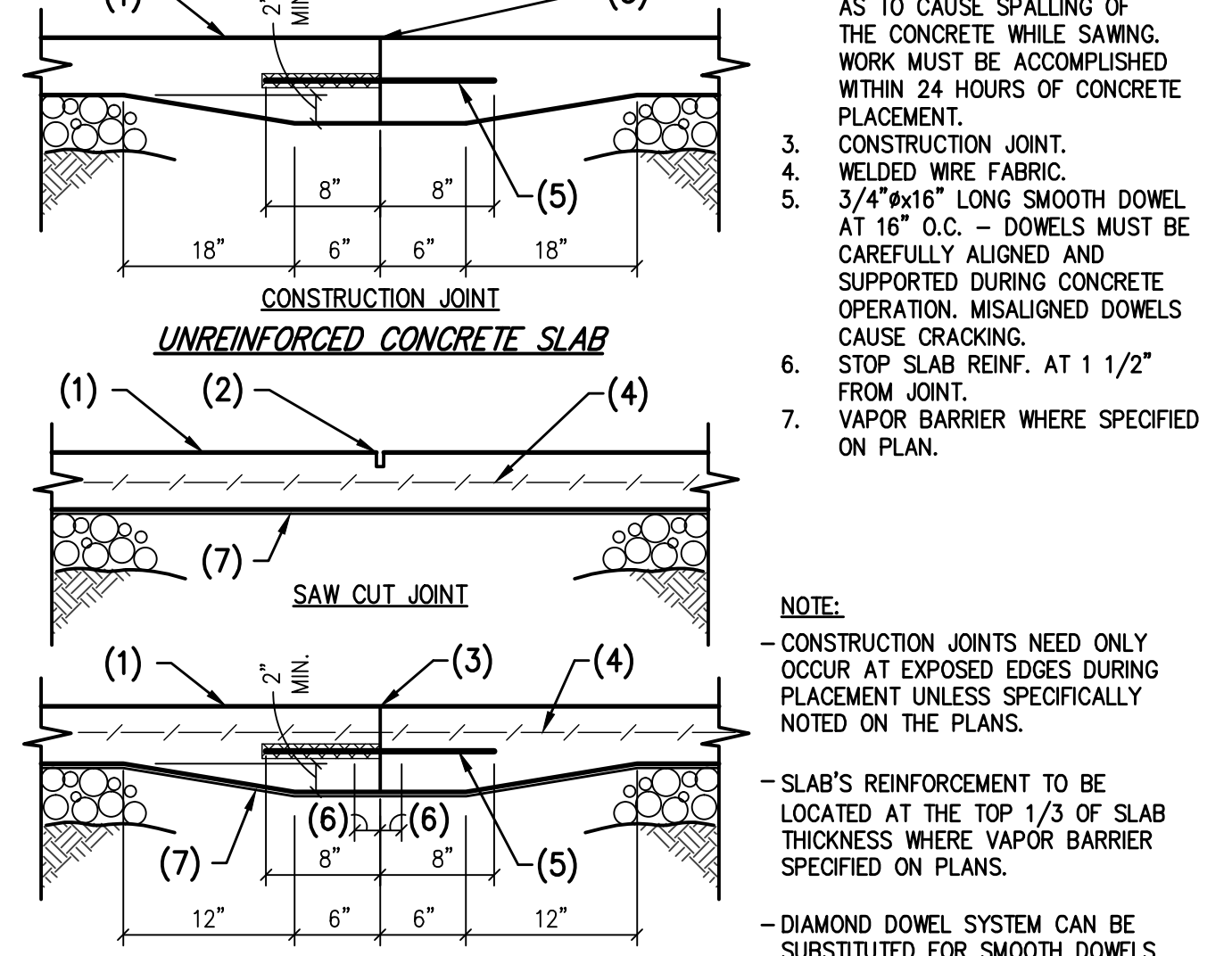
212 INTERIOR MASONRY WALL AT MAT FOOTING
NO SCALE



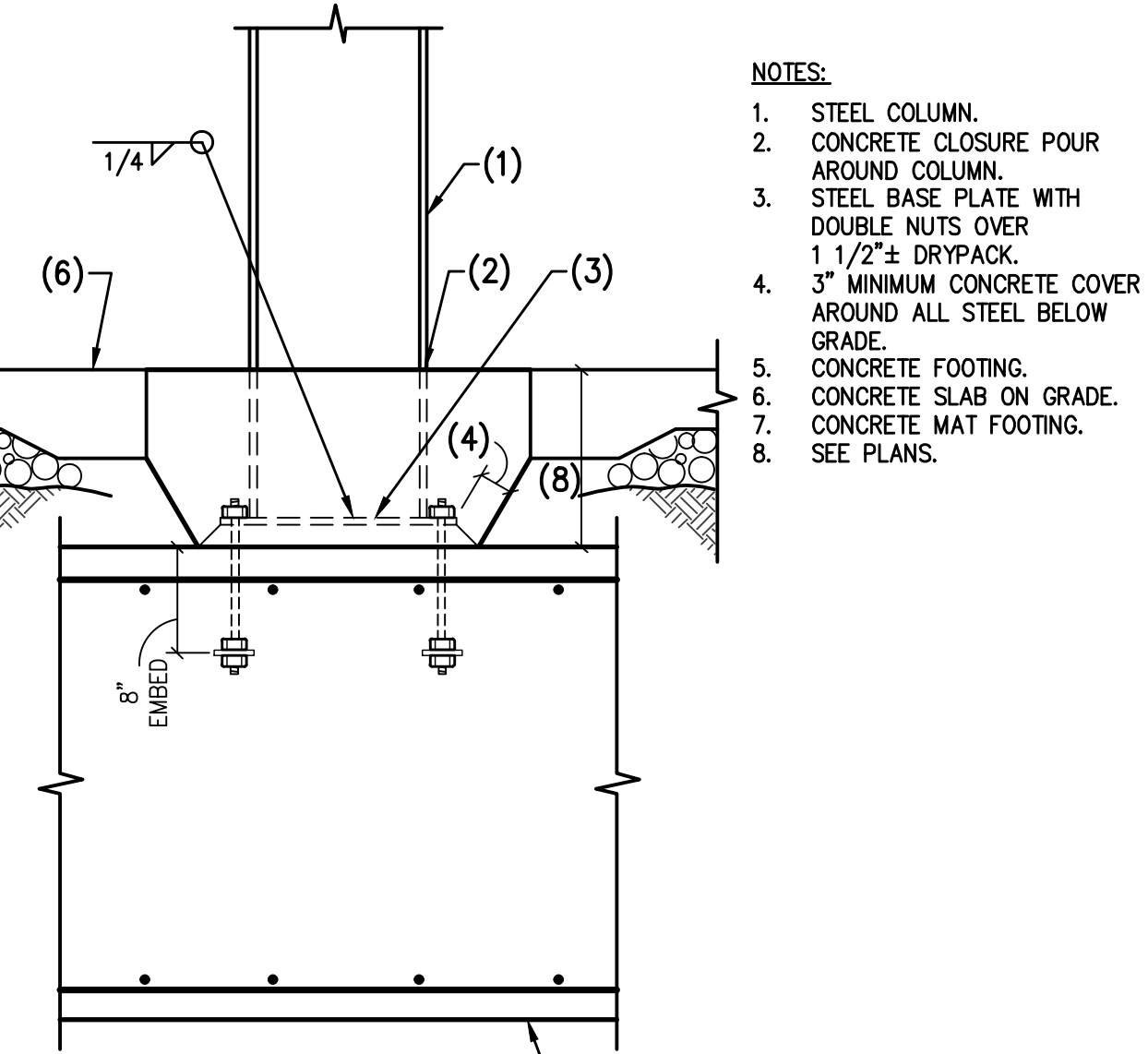
205 INTERIOR STEEL BRACE/MOMENT FRAME COLUMN FOOTING-MOMENT CONNECTION
NO SCALE



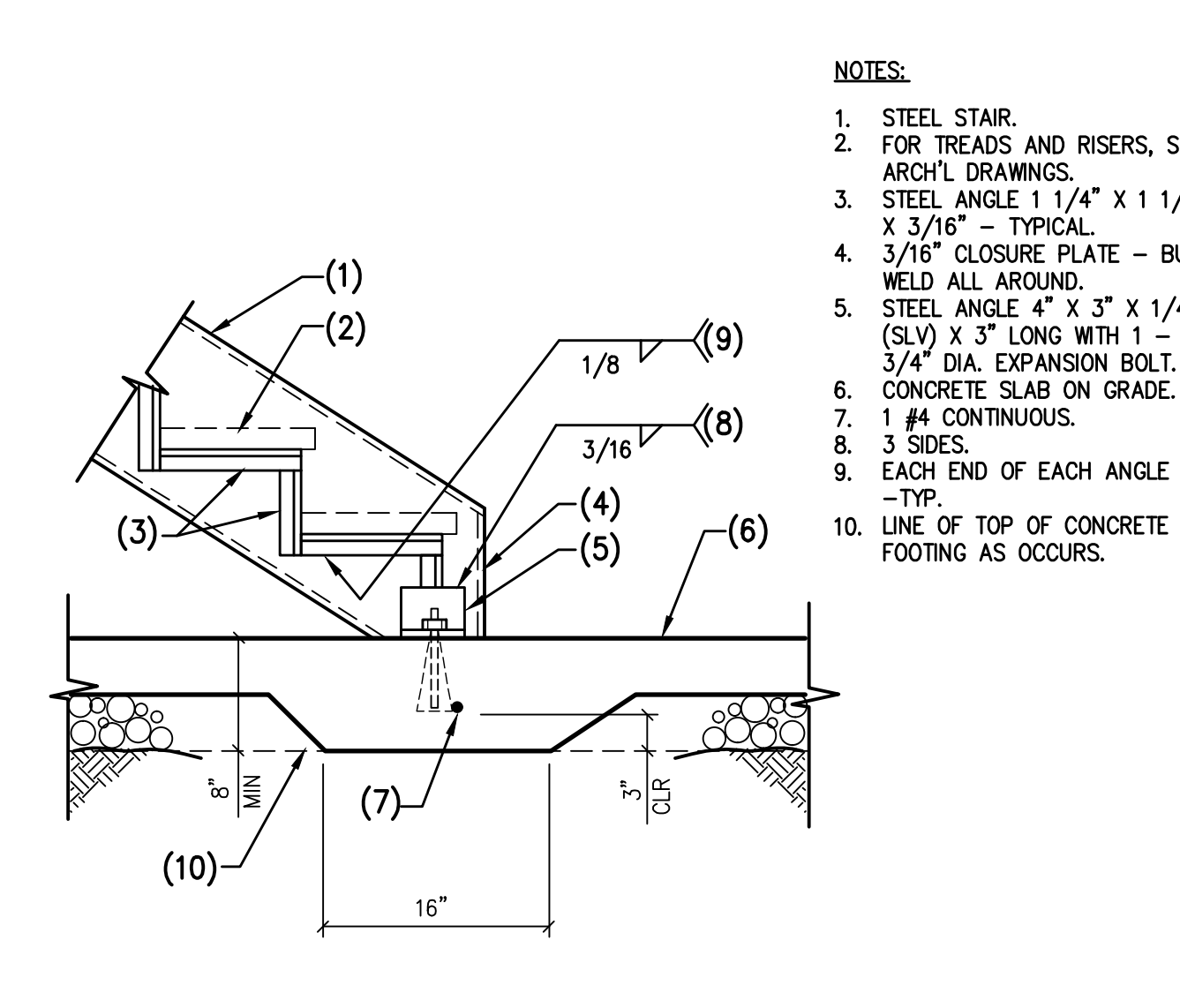
201 CONTROL JOINTS IN CONCRETE SLAB ON GRADE
NO SCALE



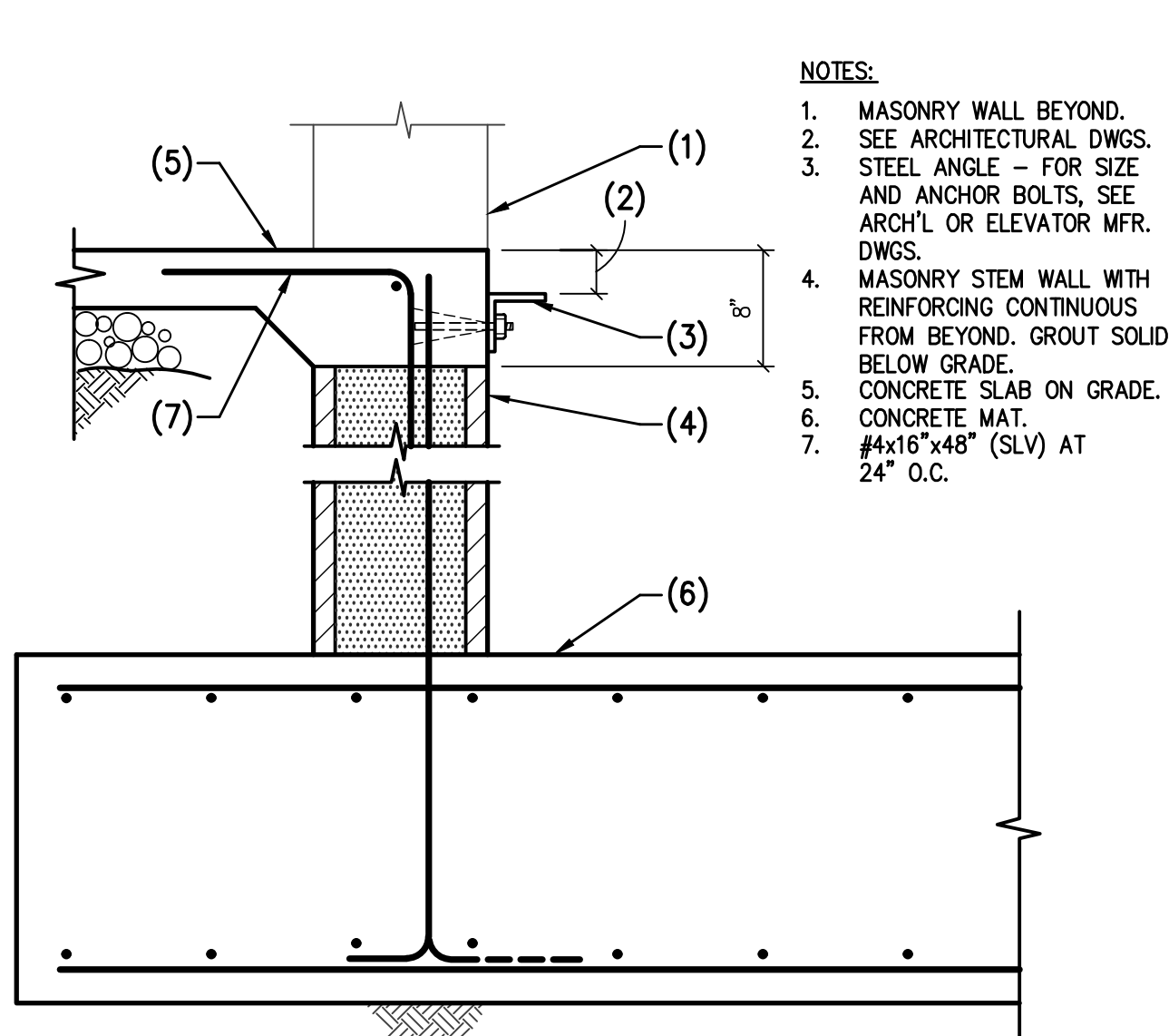
200 TYPICAL CONCRETE TURNDOWN AT SLAB EDGE
NO SCALE



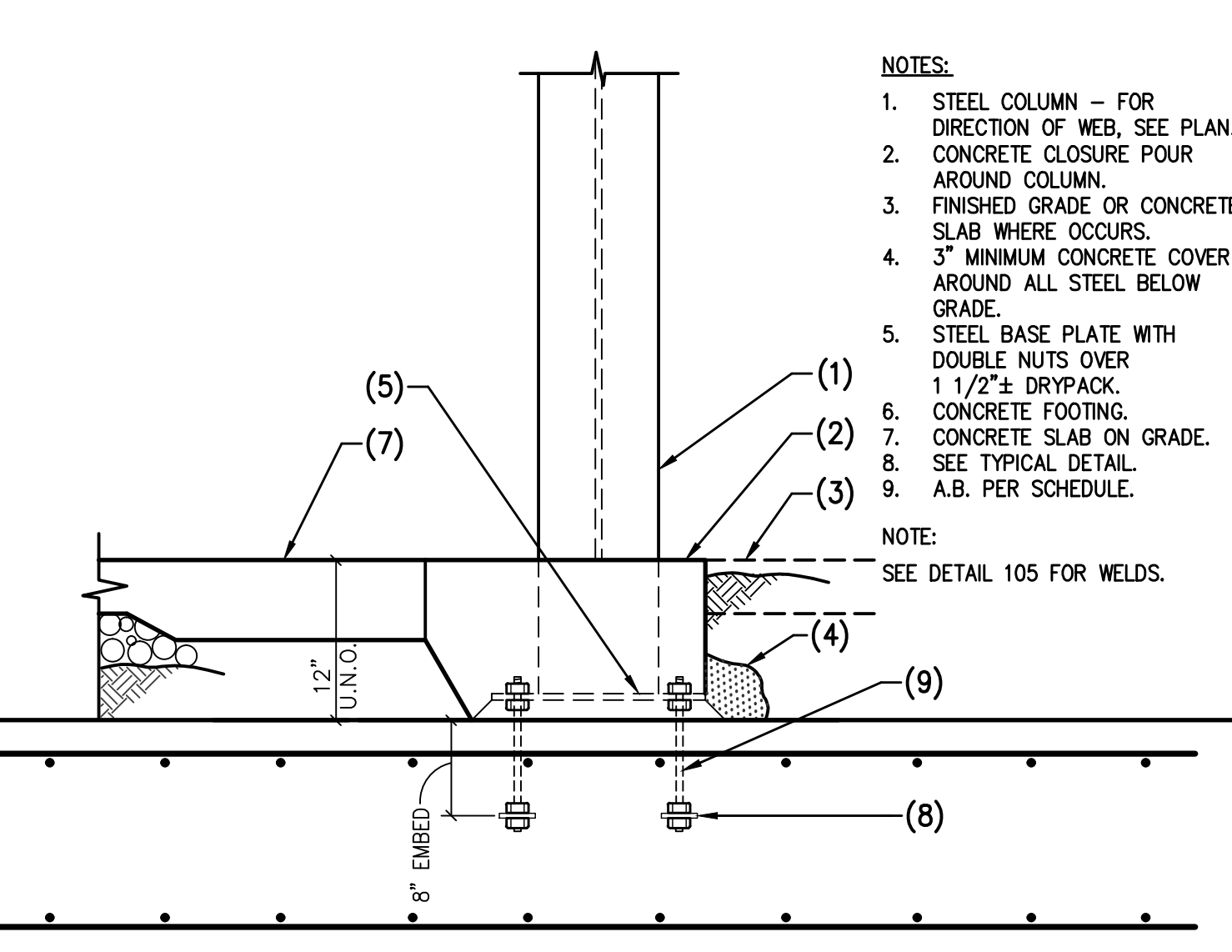
217 INTERIOR WIDE-FLANGE STEEL COLUMN AT MAT FOOTING
NO SCALE



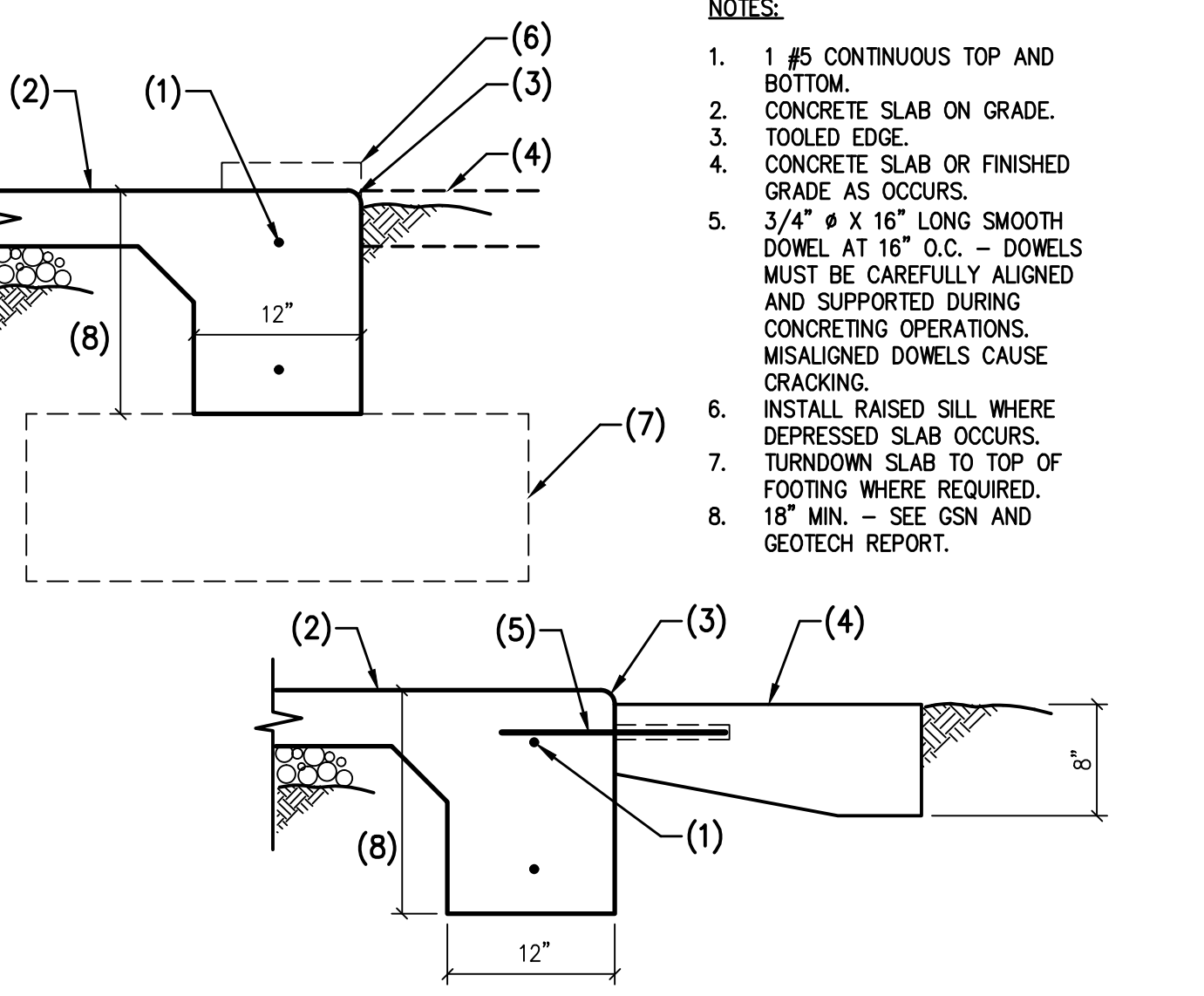
213 STEEL PAN STAIRS AT SLAB ON GRADE
NO SCALE



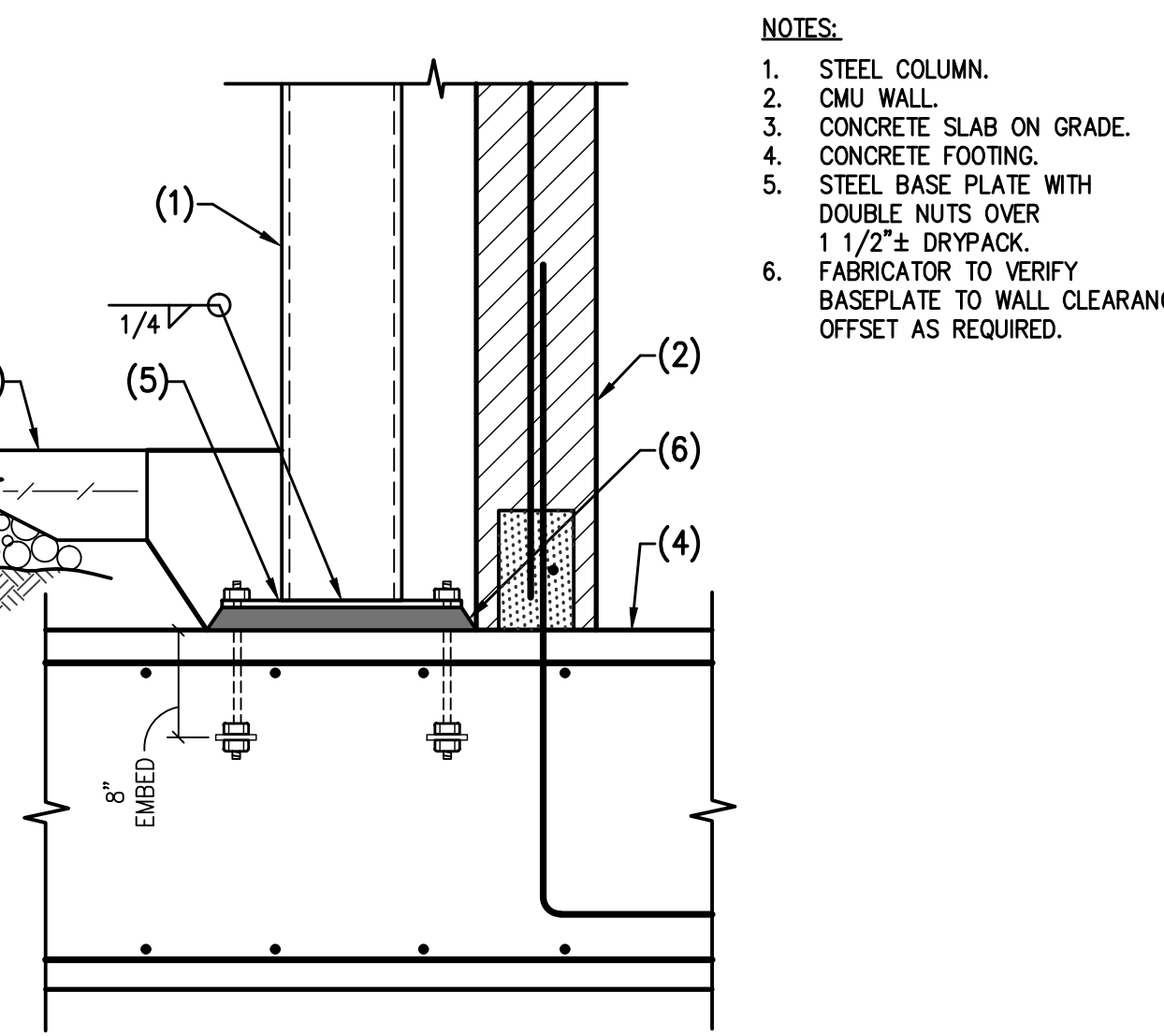
209 ELEVATOR PIT STEM WALL AND FOOTING AT DOOR OPENING
NO SCALE



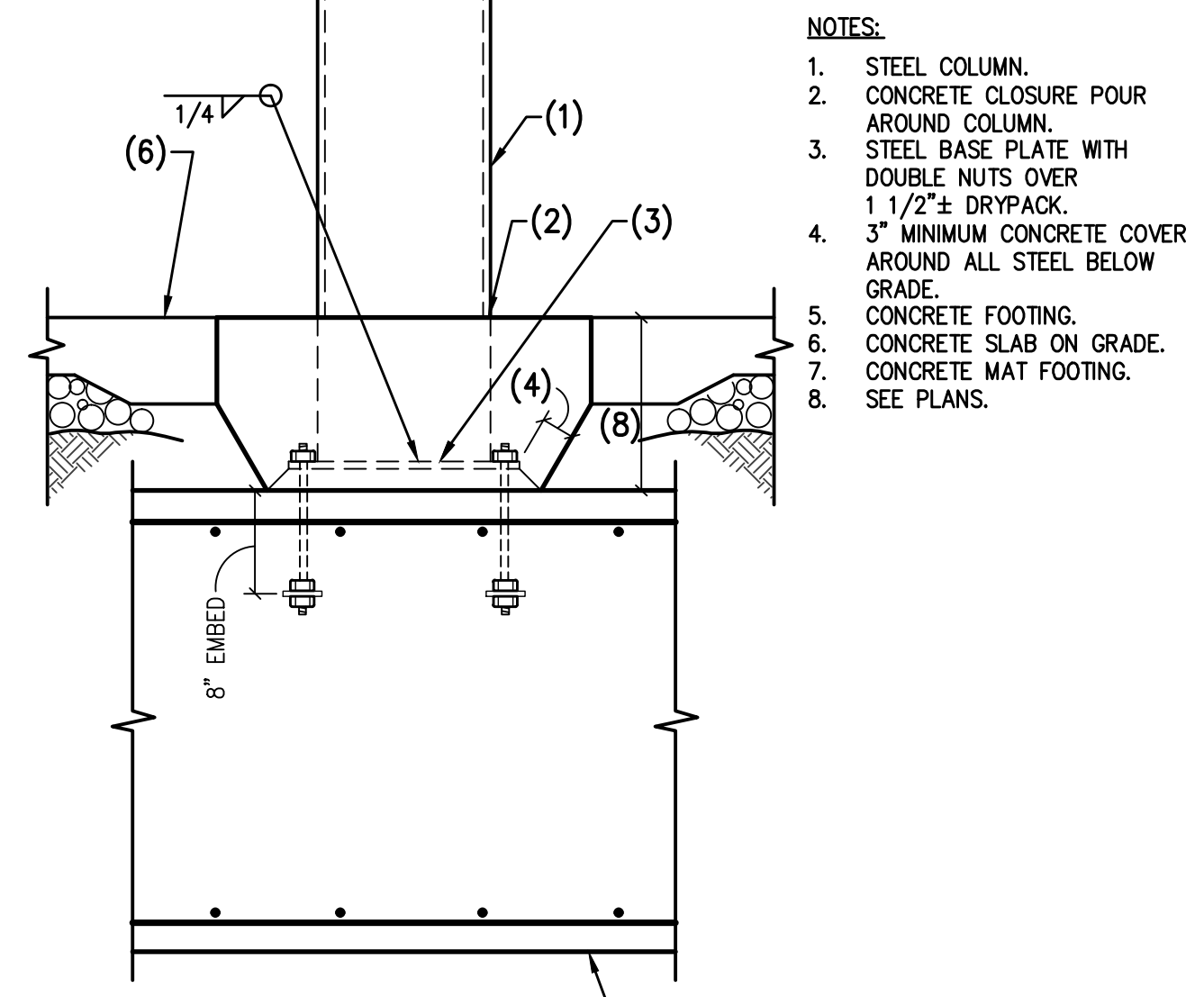
206 EXTERIOR WIDE-FLANGE STEEL COLUMN FOOTING
NO SCALE



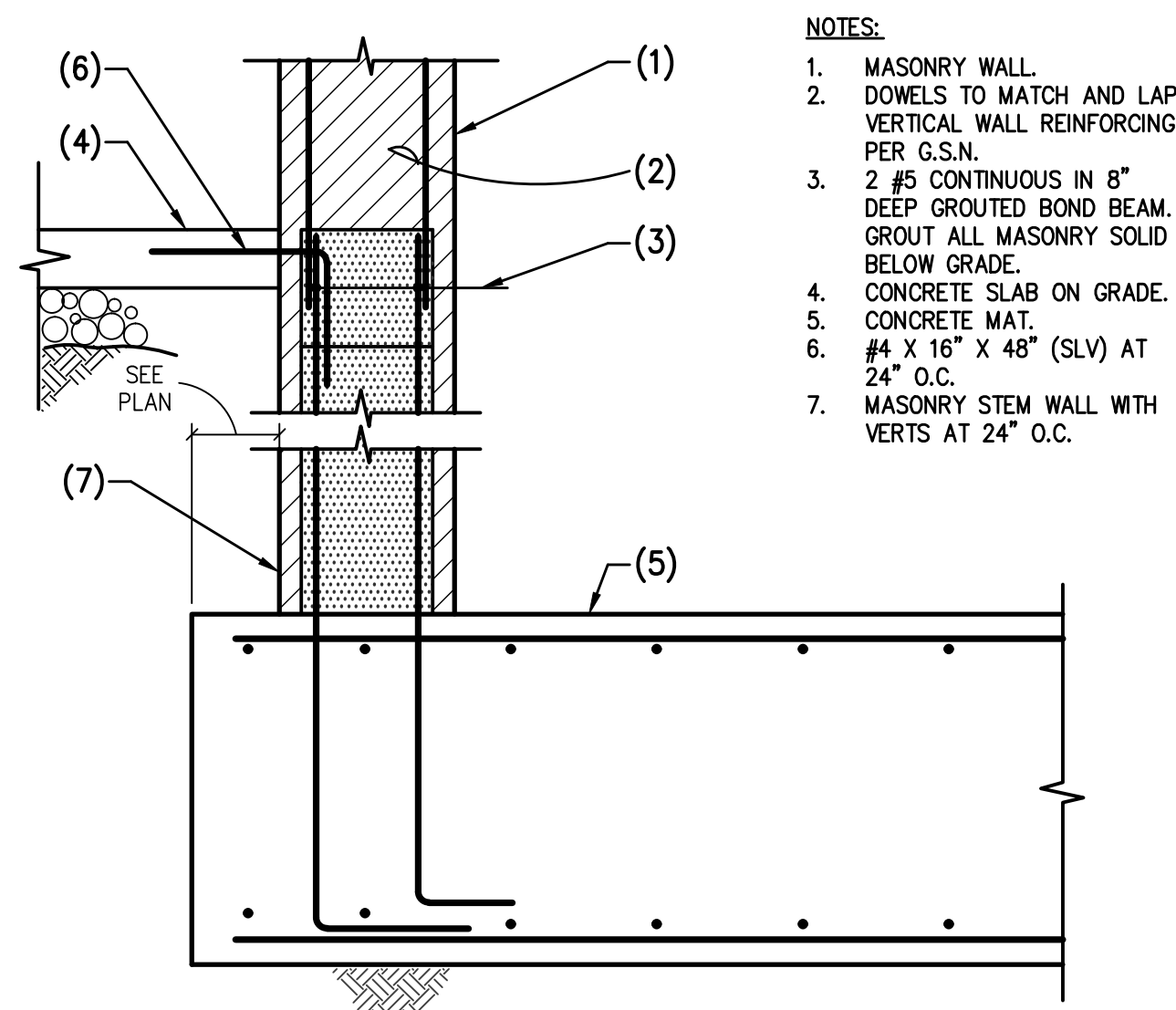
202 TYPICAL CONCRETE TURNDOWN AT SLAB EDGE
NO SCALE



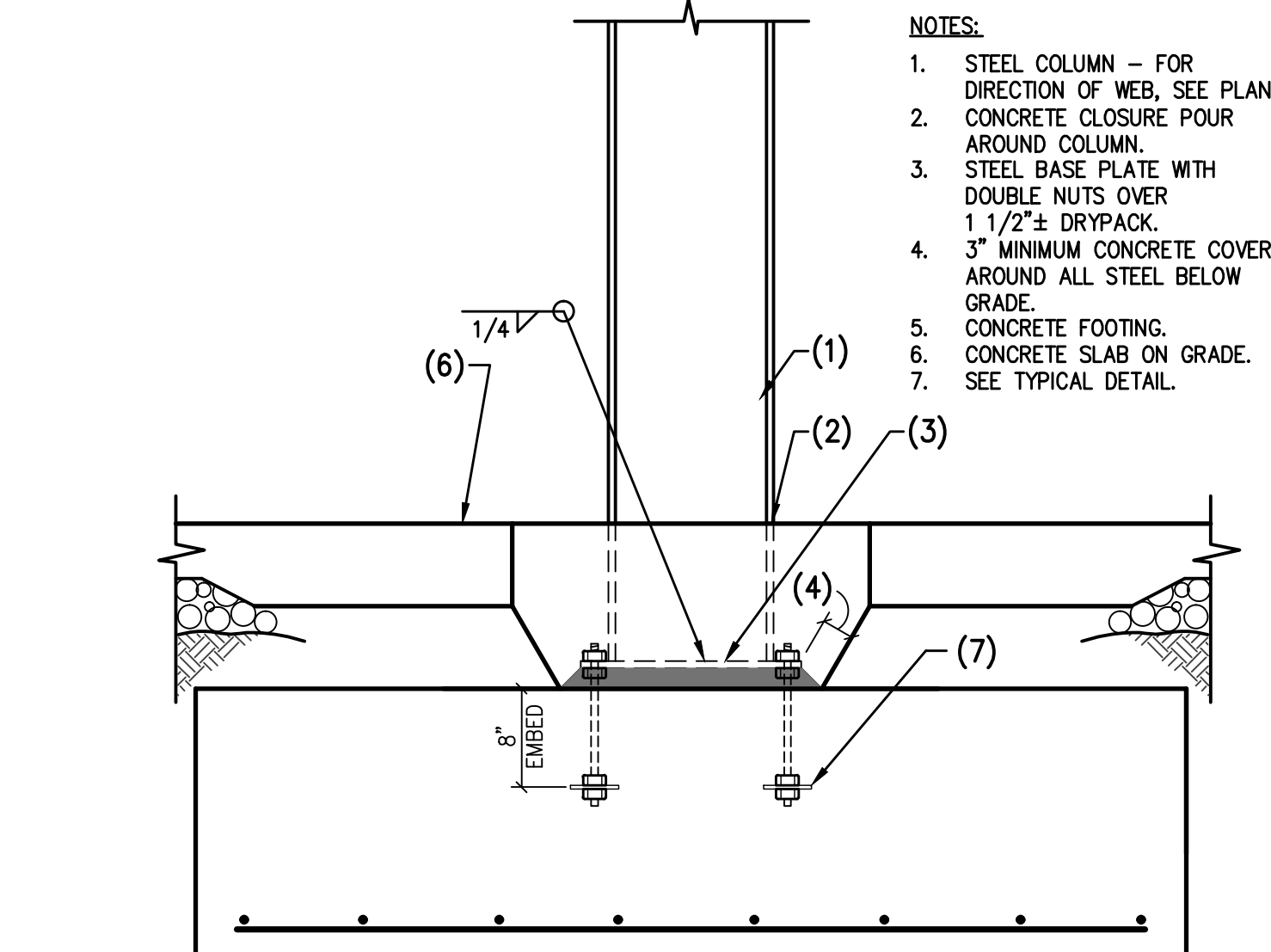
218 HSS STEEL COLUMN AND CMU WALL AT FOOTING
NO SCALE



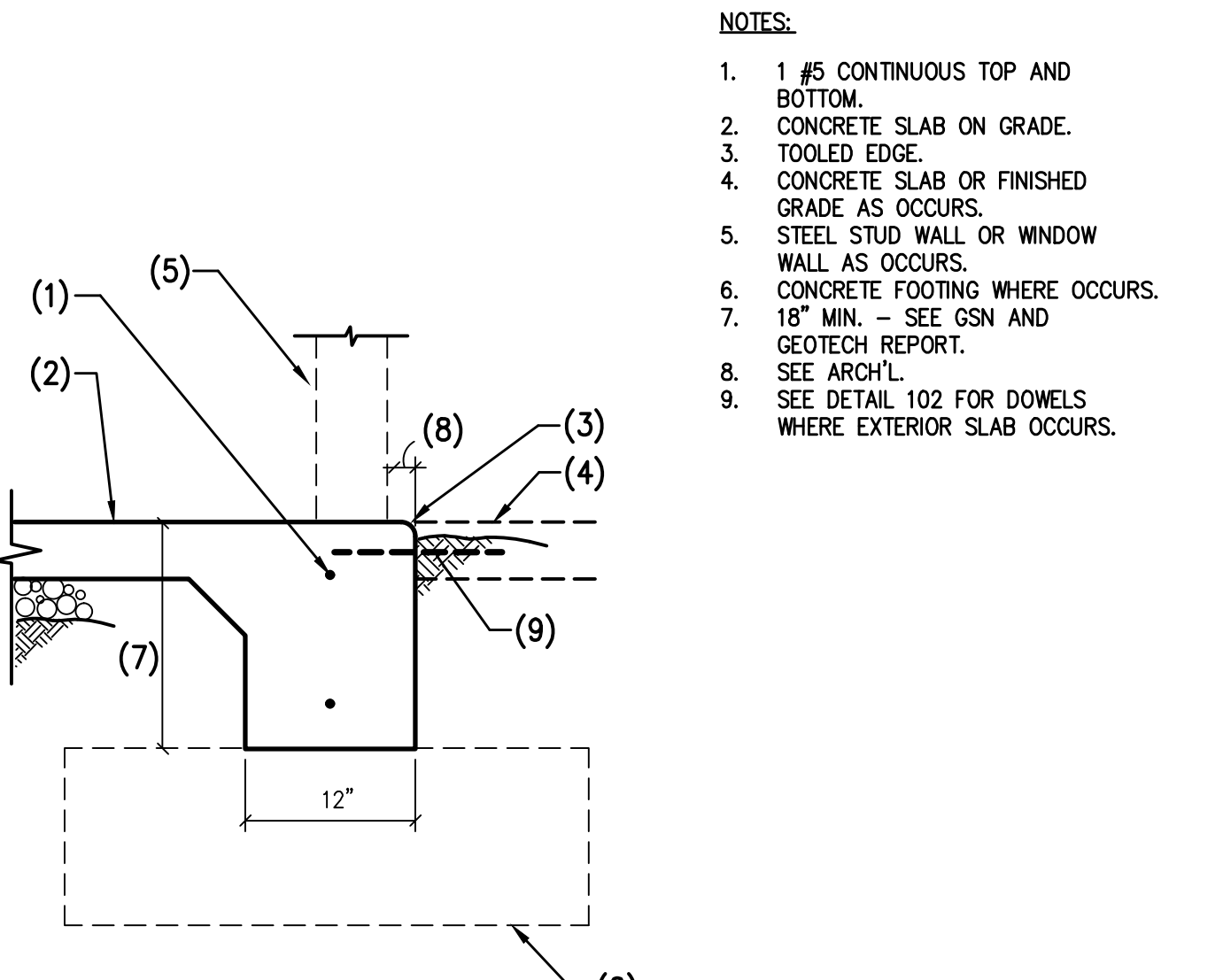
214 INTERIOR STEEL COLUMN AT MAT FOOTING
NO SCALE



210 ELEVATOR PIT STEM WALL AND FOOTING
NO SCALE



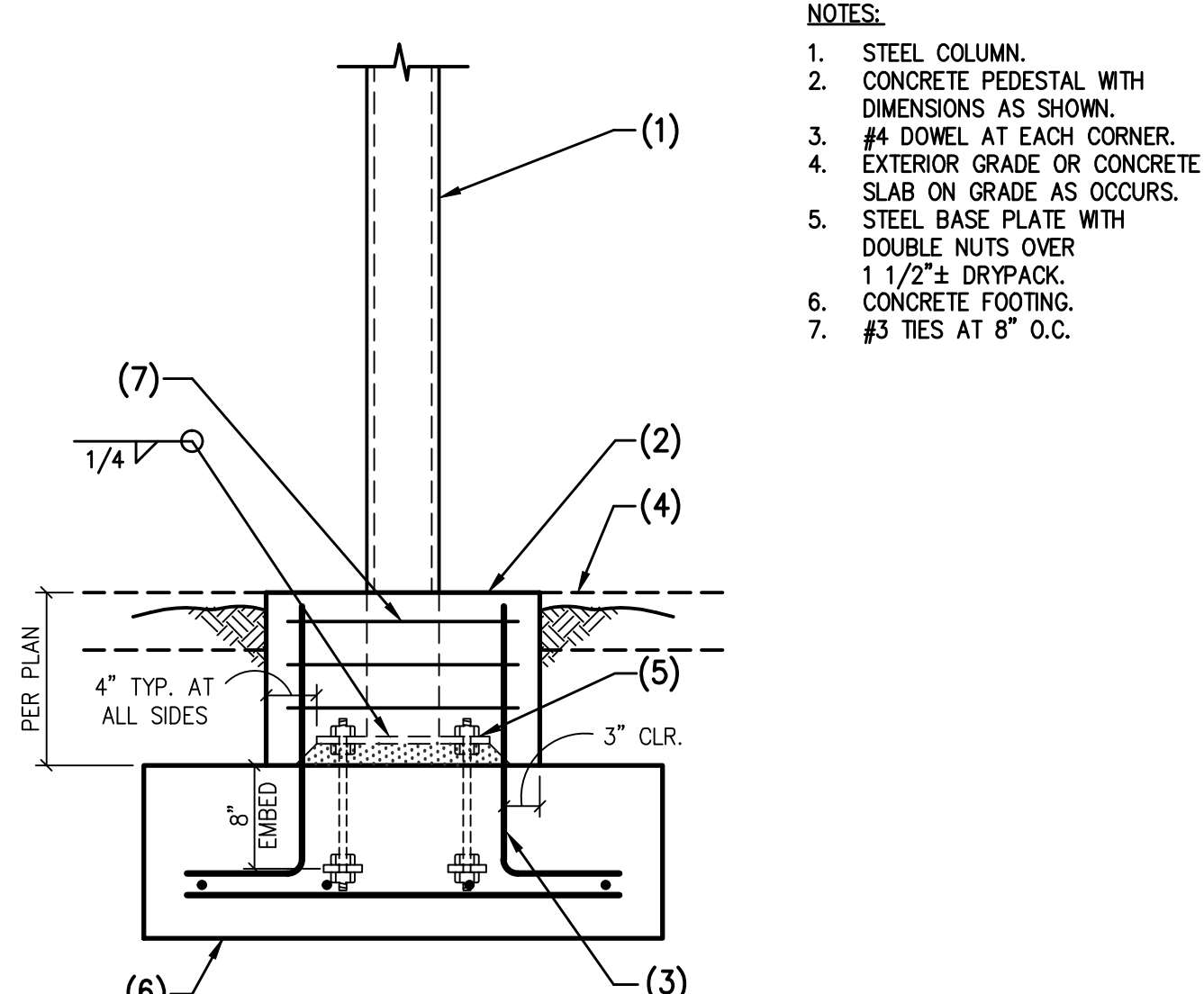
207 INTERIOR WIDE-FLANGE STEEL COLUMN FOOTING
NO SCALE



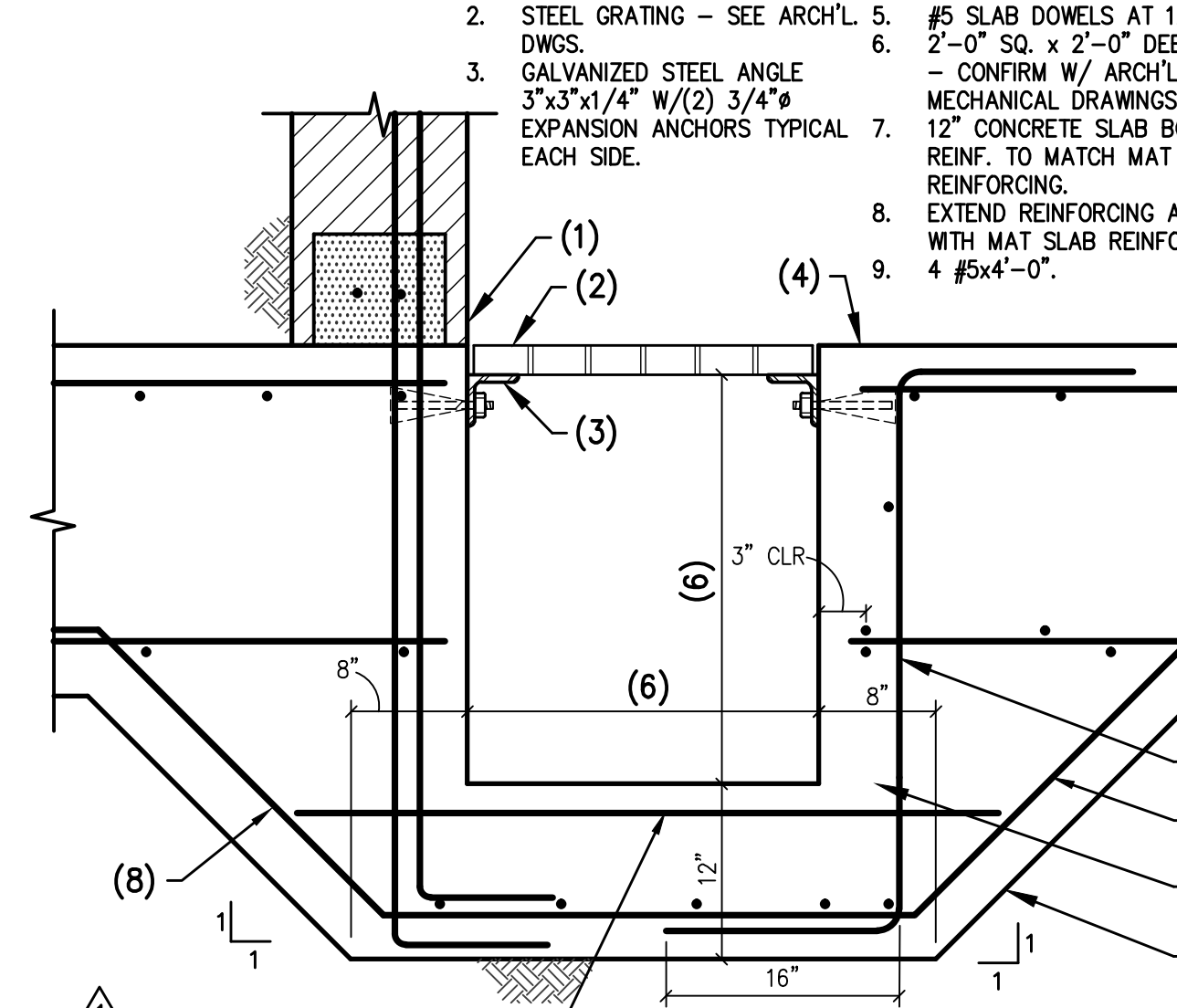
203 TYPICAL CONCRETE TURNDOWN AT BUILDING EDGE
NO SCALE



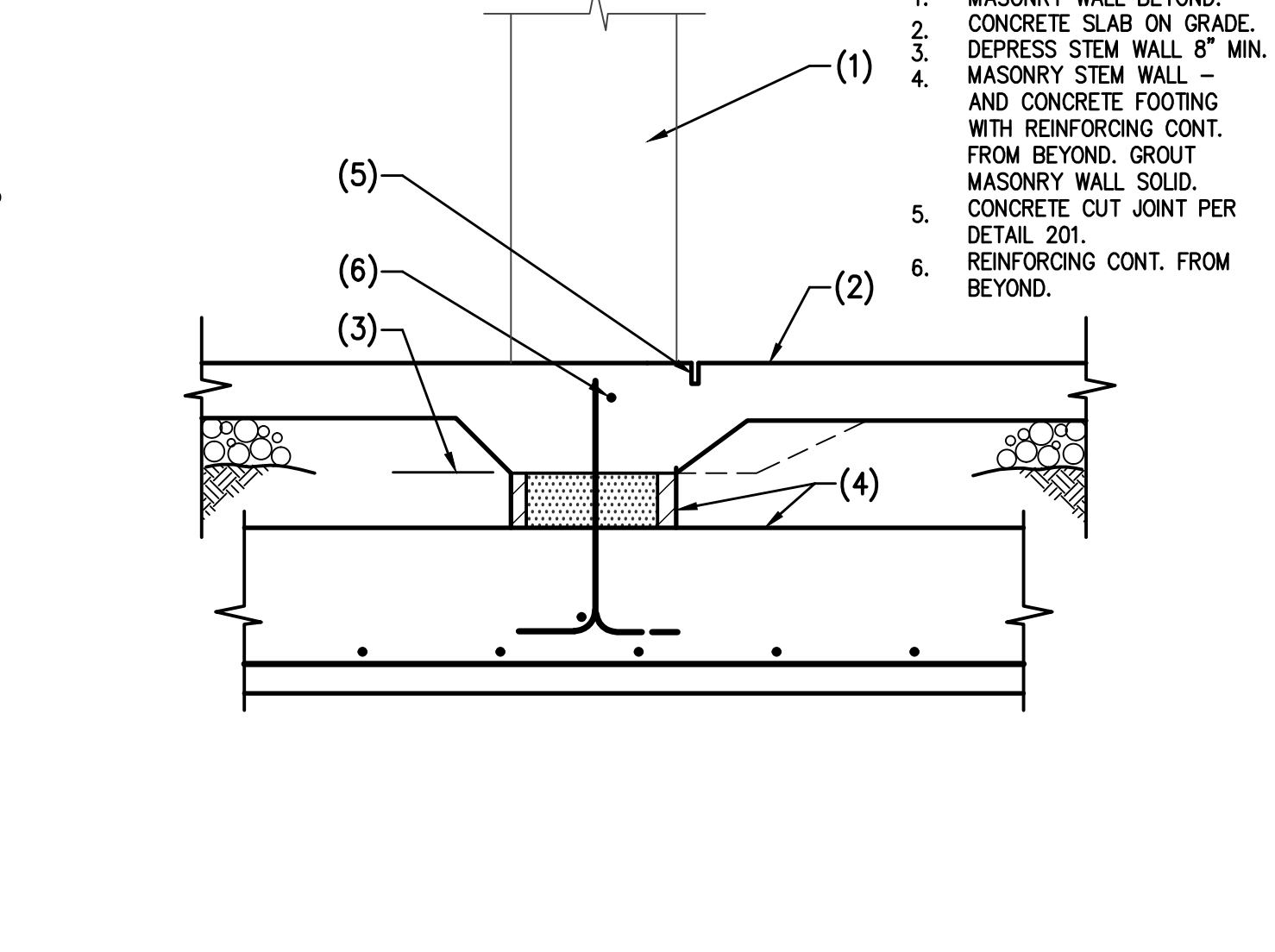
215 EXTERIOR HSS STEEL COLUMN FOOTING AND PEDESTAL
NO SCALE



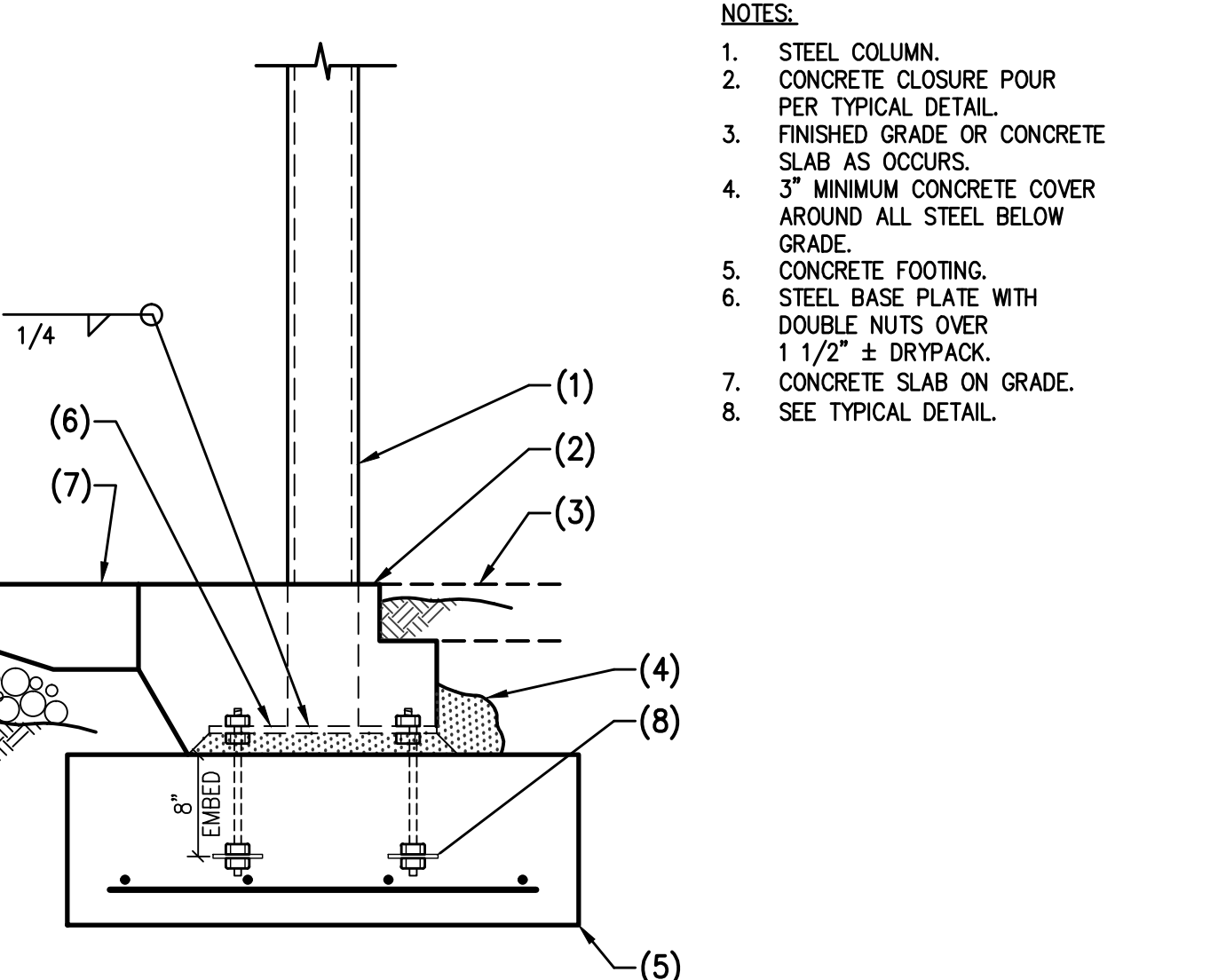
211 SUMP PIT AT ELEVATOR
NO SCALE



208 INTERIOR MASONRY WALL FOOTING AT OPENING
NO SCALE



204 PERIMETER HSS STEEL COLUMN FOOTING
NO SCALE



204 PERIMETER HSS STEEL COLUMN FOOTING
NO SCALE

Key Plan:

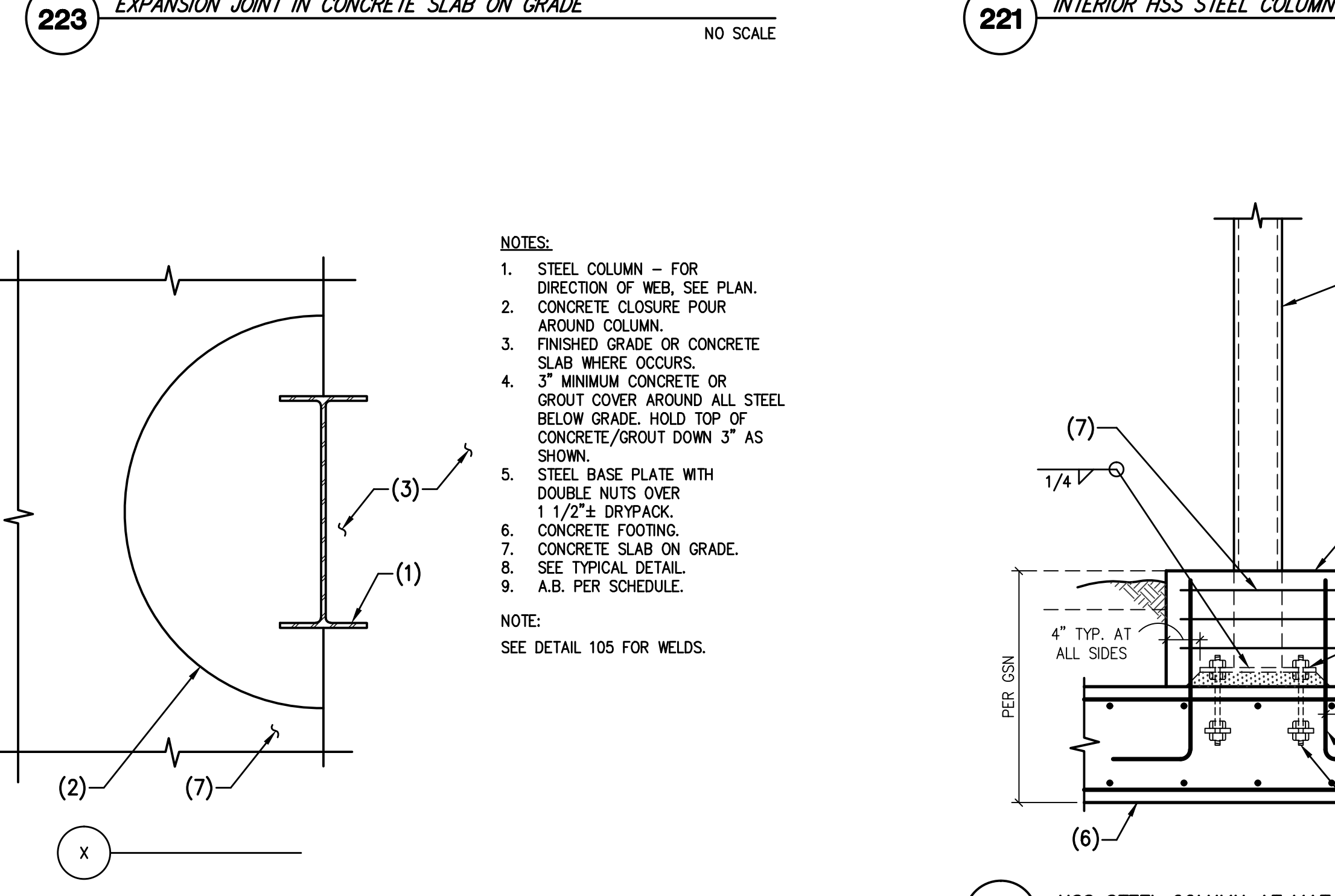
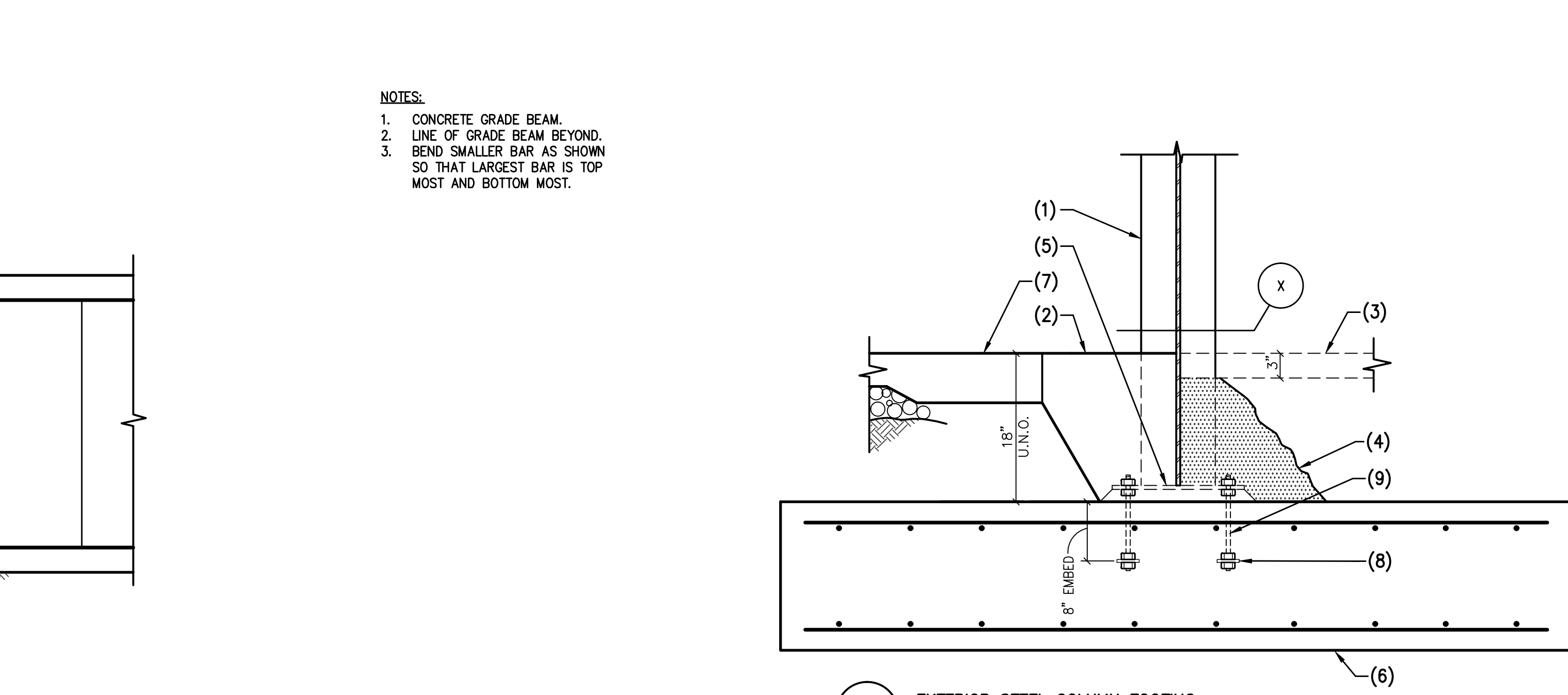
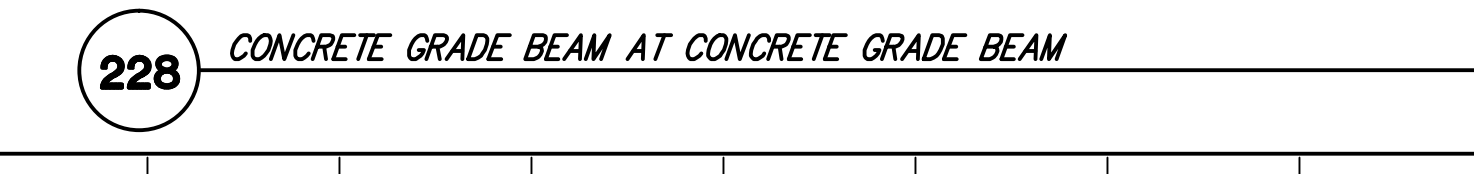
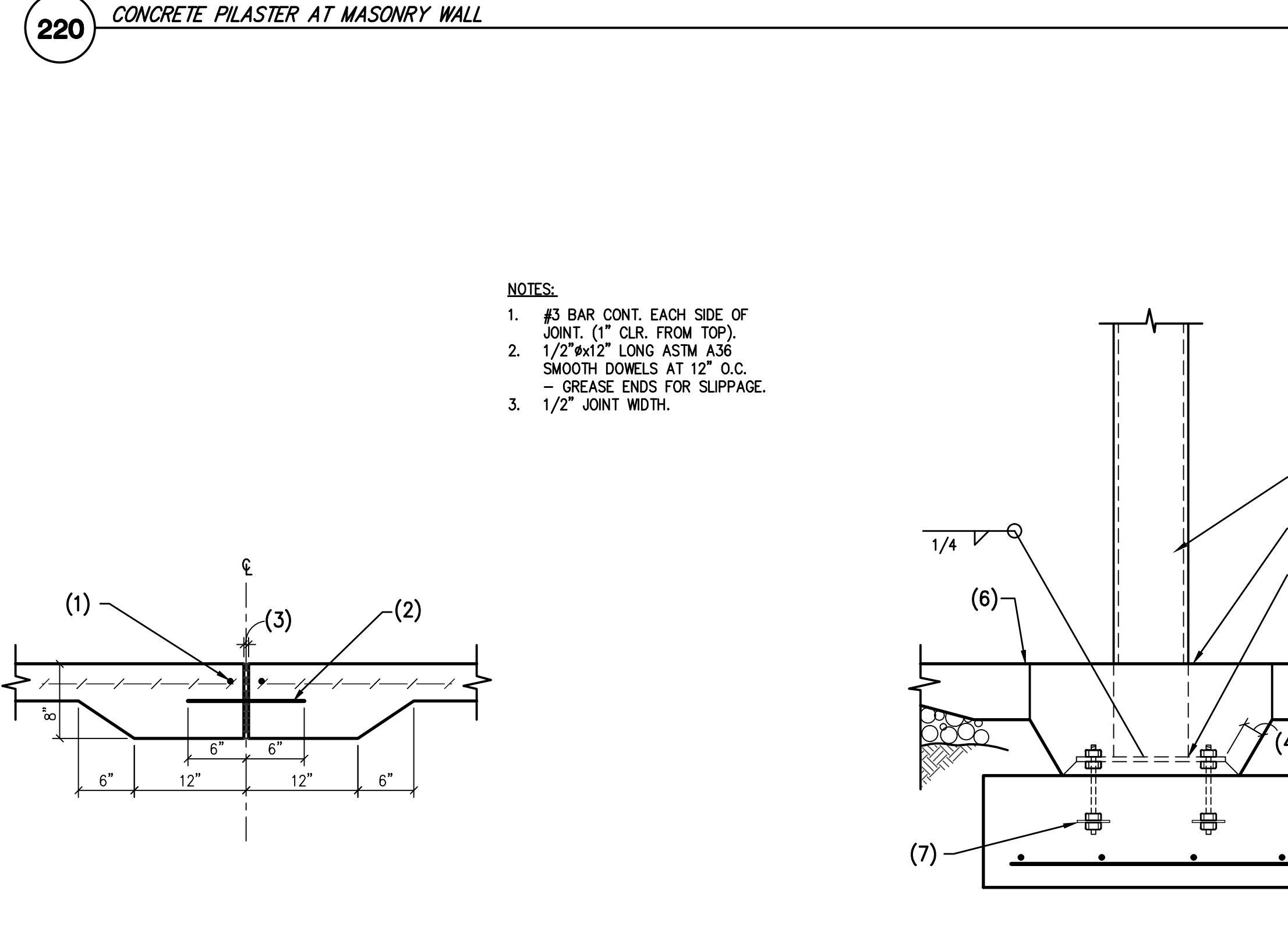
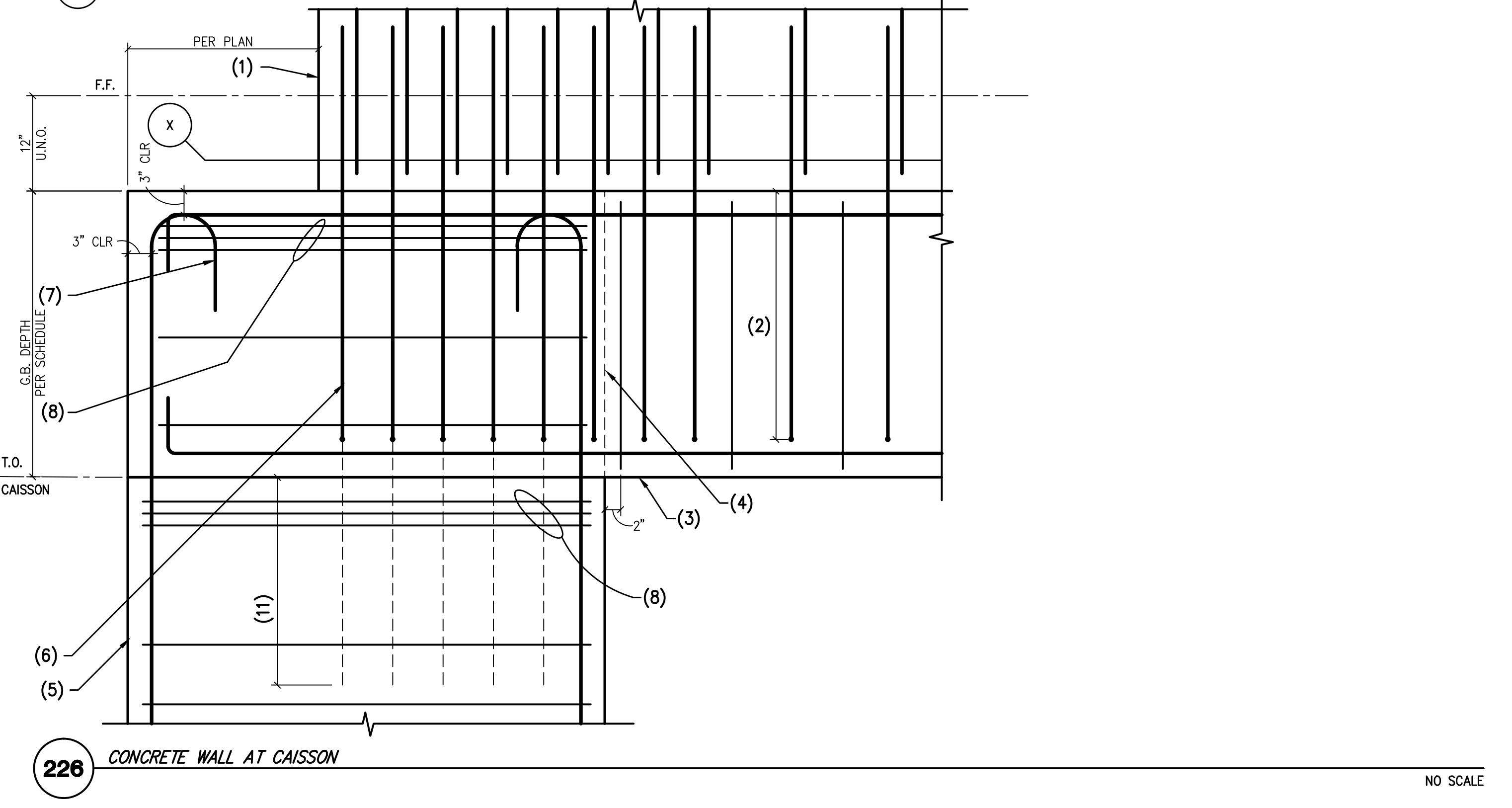
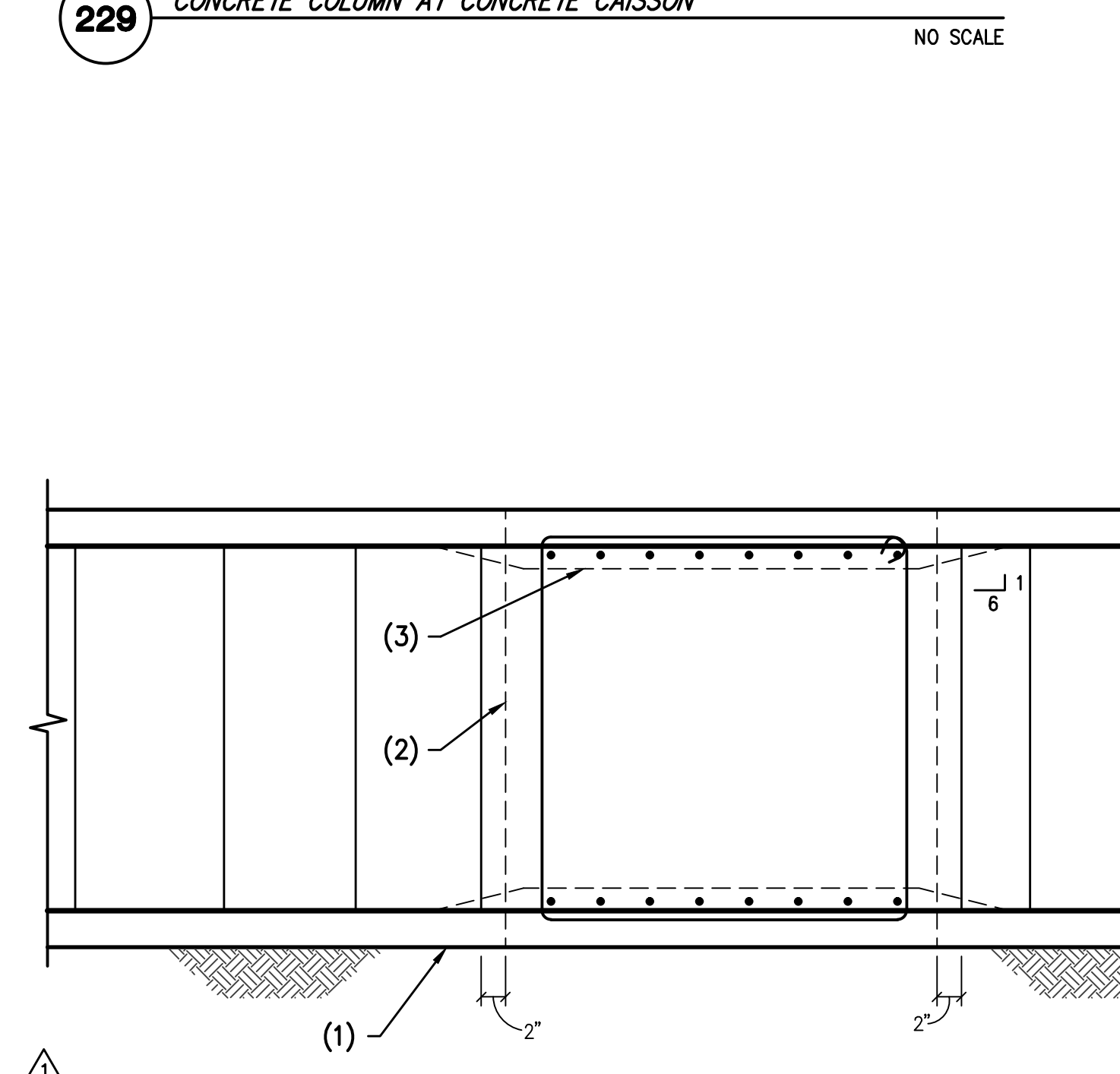
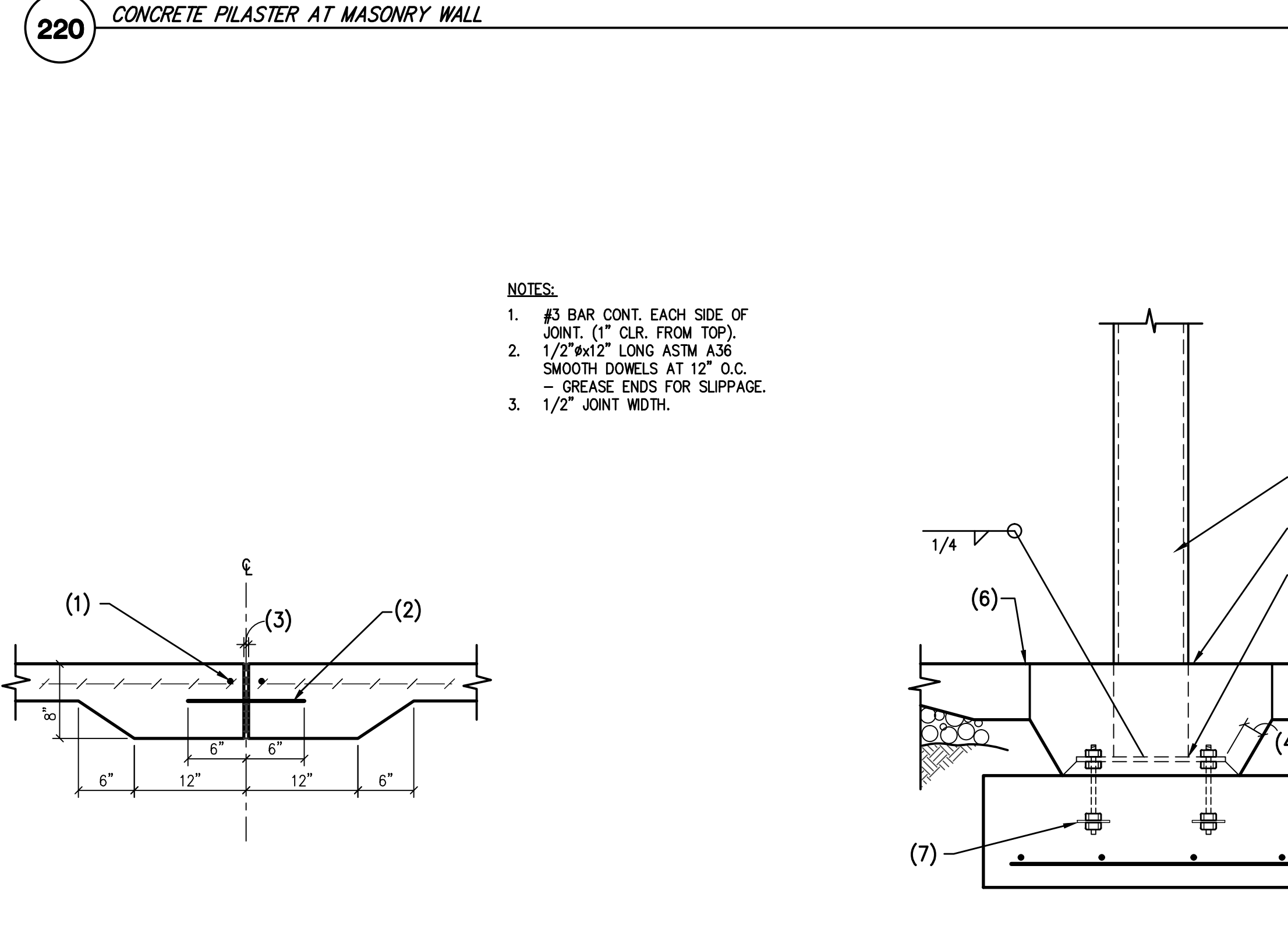
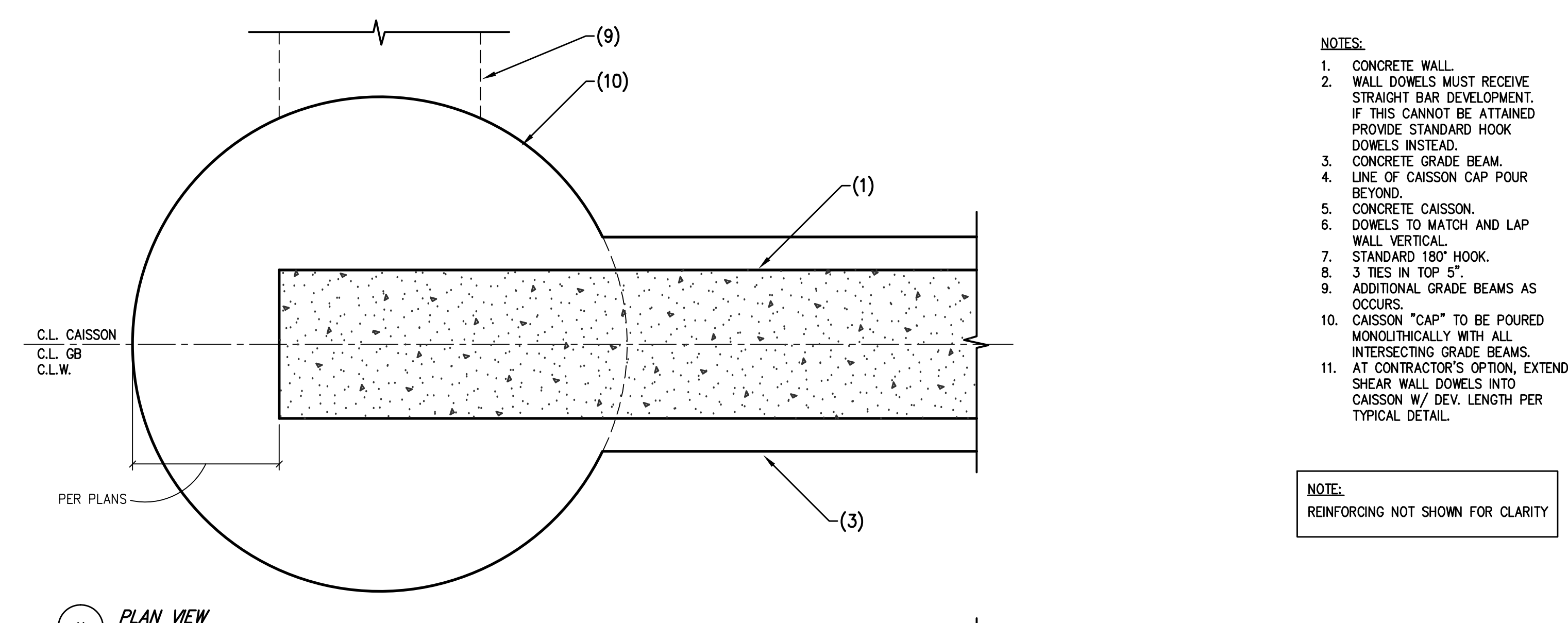
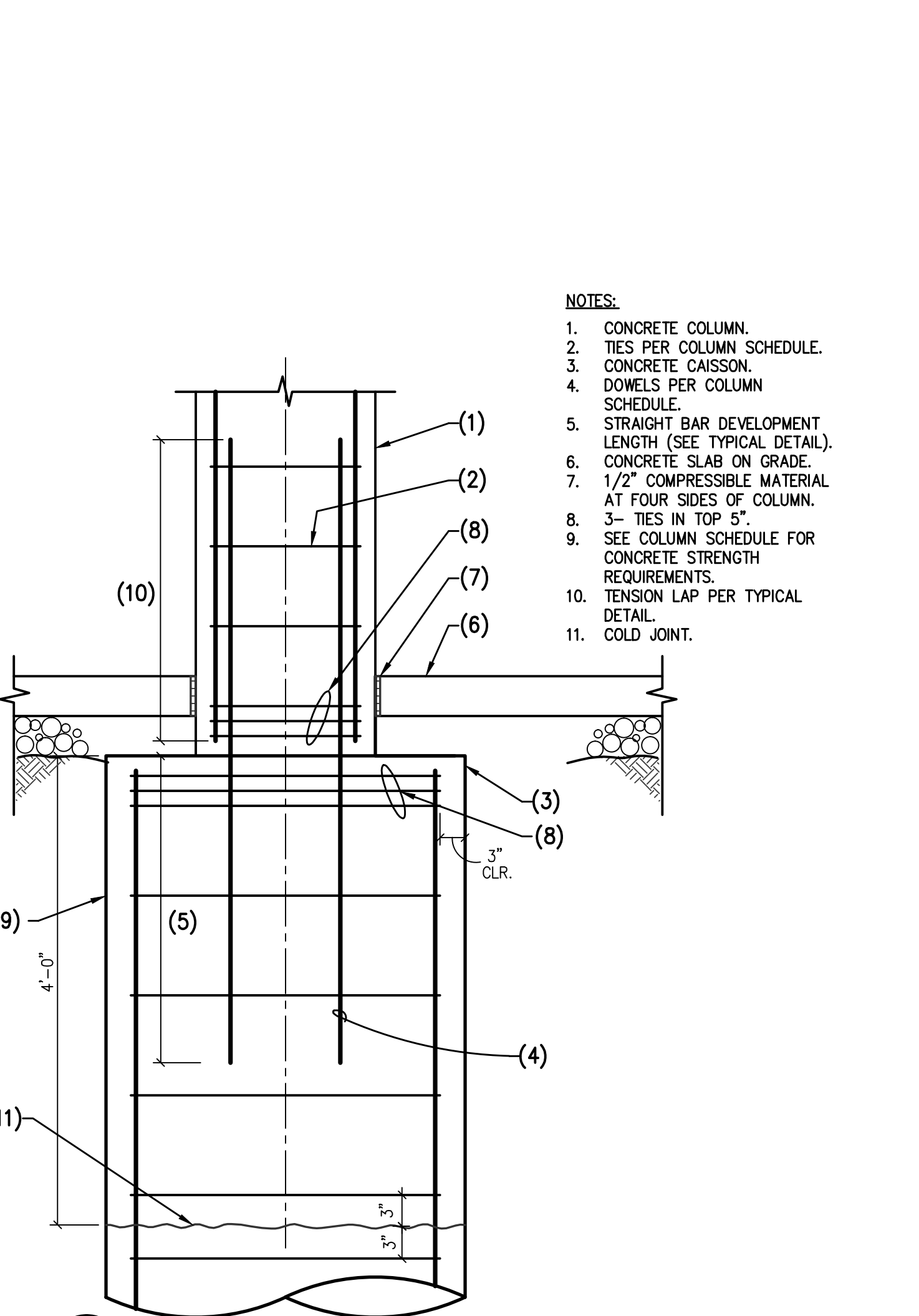
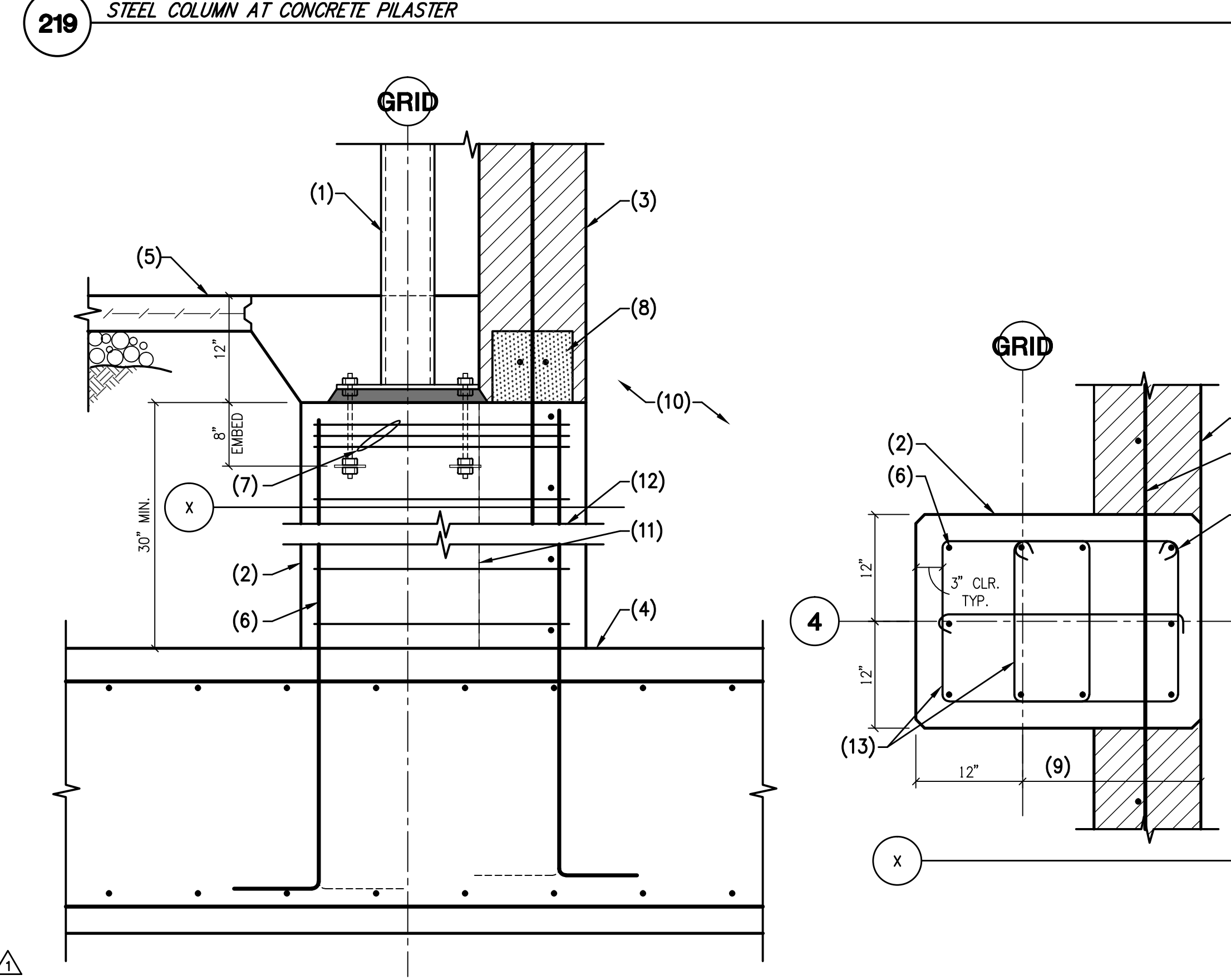
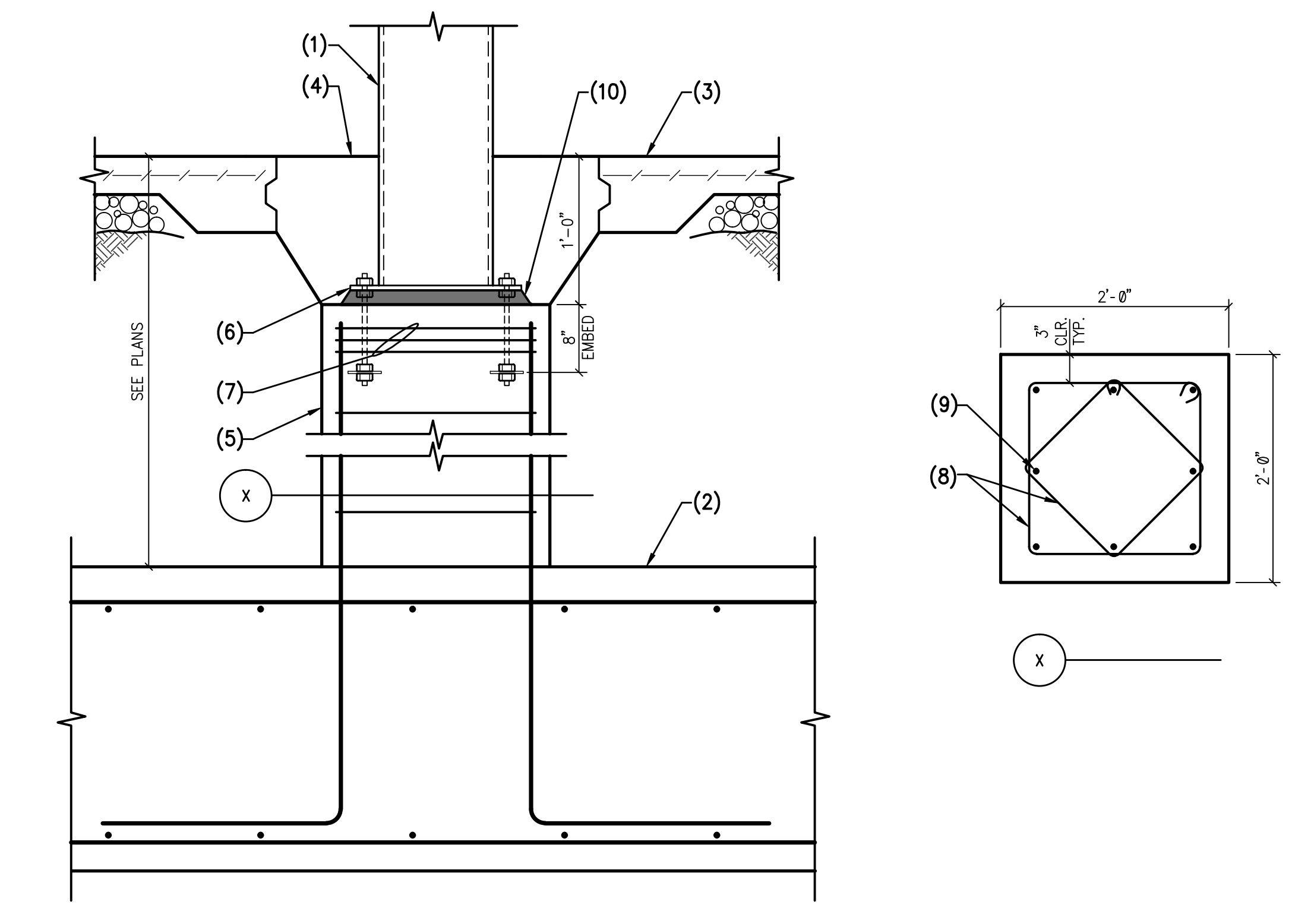
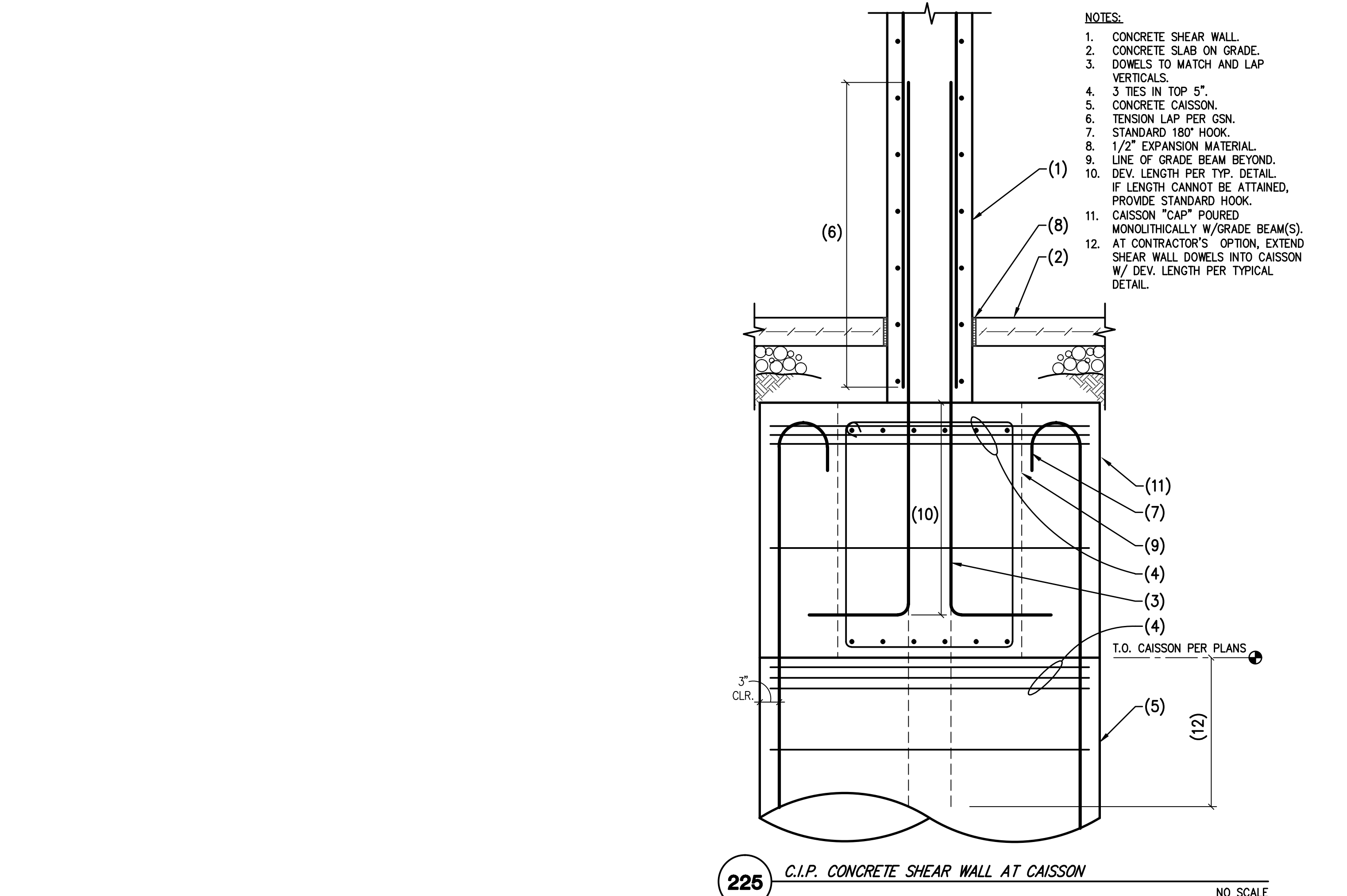
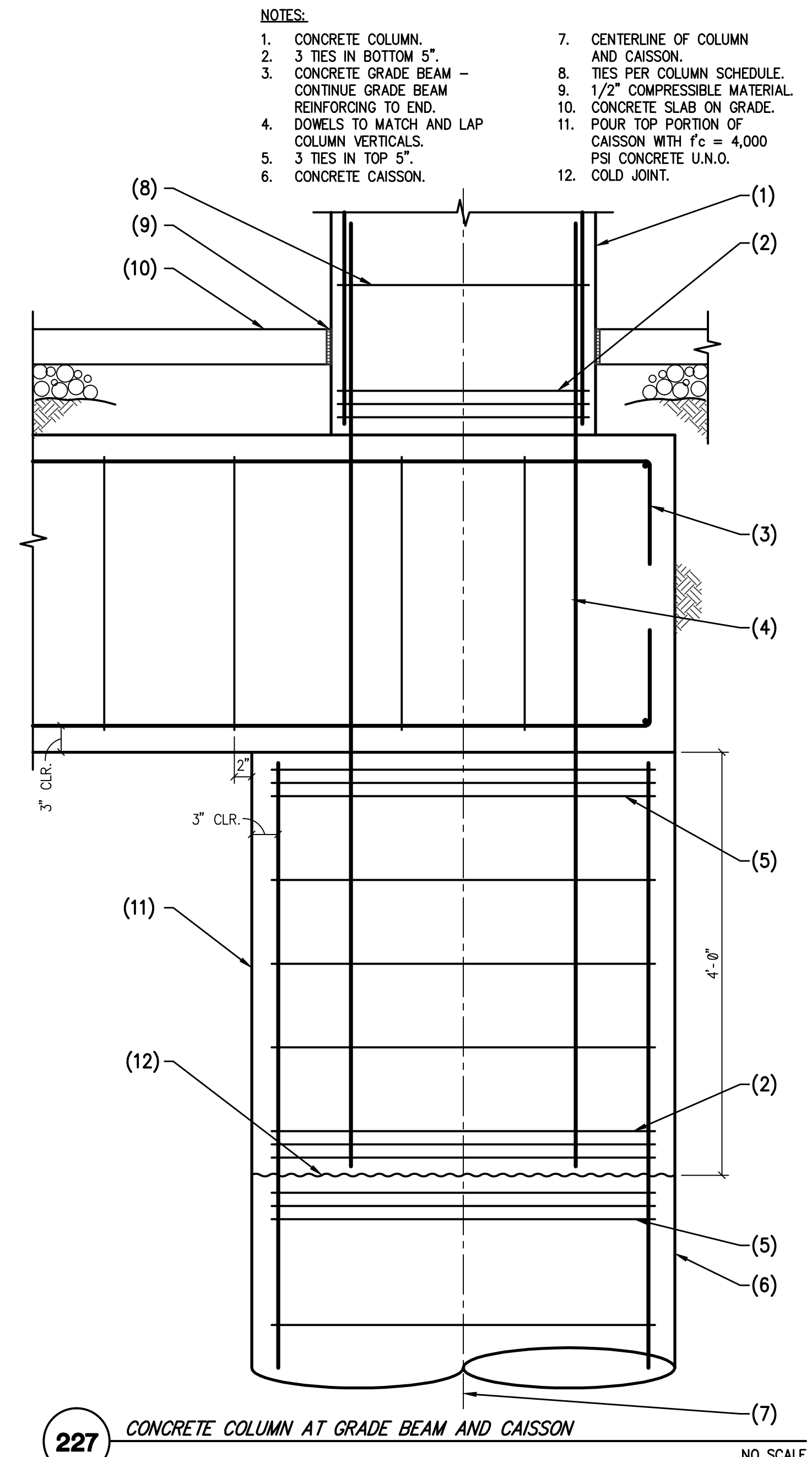
No.	Description	Date
1	STRUCTURAL REVISIONS	02/02/16
2	MISC. PICTURE REVISIONS	10/10/16
17	STRUCTURAL CLARIFICATIONS	10/10/16
	CONFORM SET	02/02/17
	CONFORM SET	02/02/17

Project Number: 16022
Date: 09/02/2016
Drawn By: L.E.
Checked By: S.S.

Sheet Number:
BUILDING FOUNDATION DETAILS

Sheet Number:
S401

02-17-2017 CONFORM SET



Key Plan:

Revisions:		
No.	Description	Date
1	STRUCTURAL REVISIONS	09/02/16
17	STRUCTURAL CLARIFICATIONS	10/10/16
	CONFORM SET	09/03/17
	CONFORM SET	09/10/17

Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

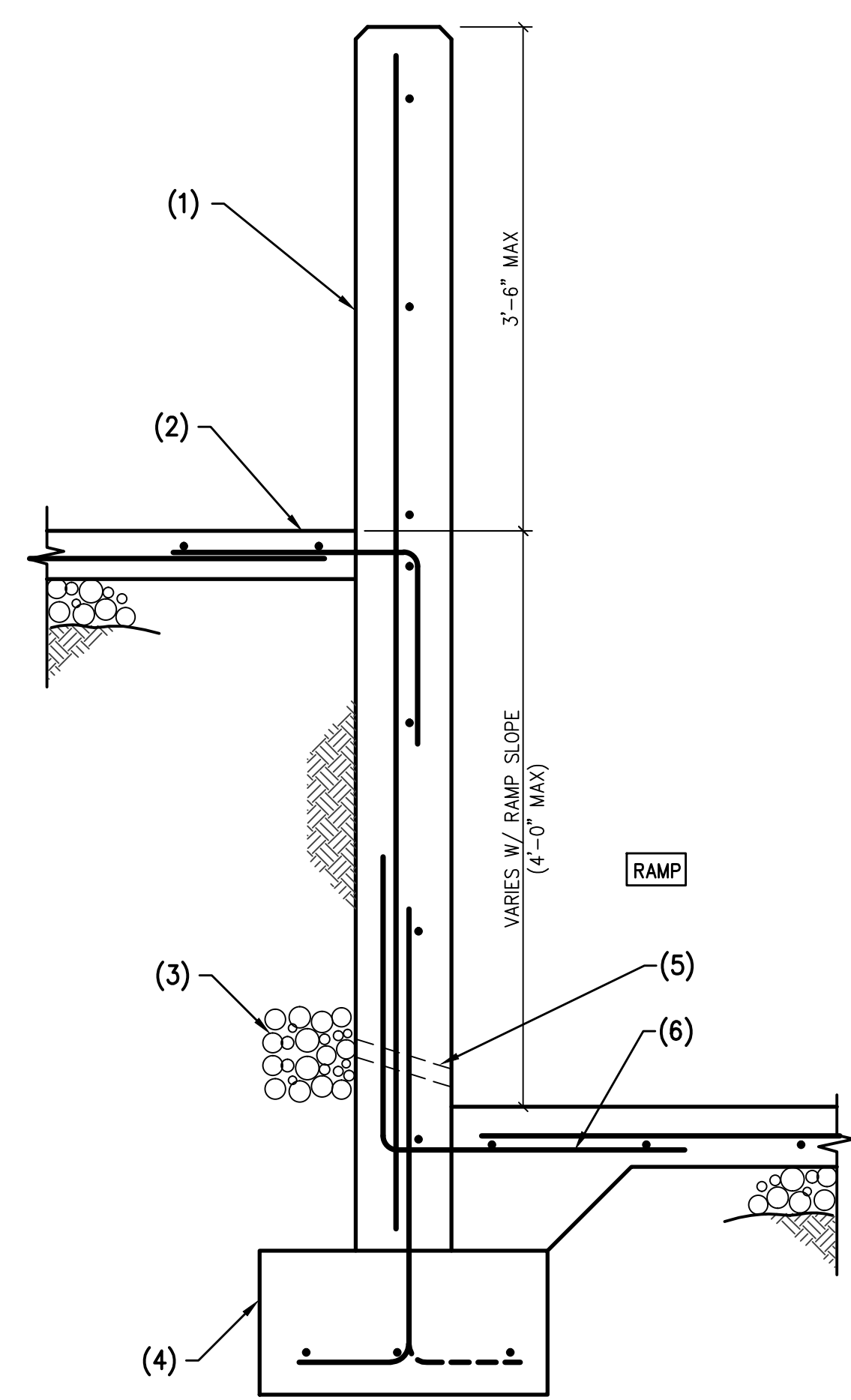
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BUILDING FOUNDATION DETAILS

Sheet Number:
S402

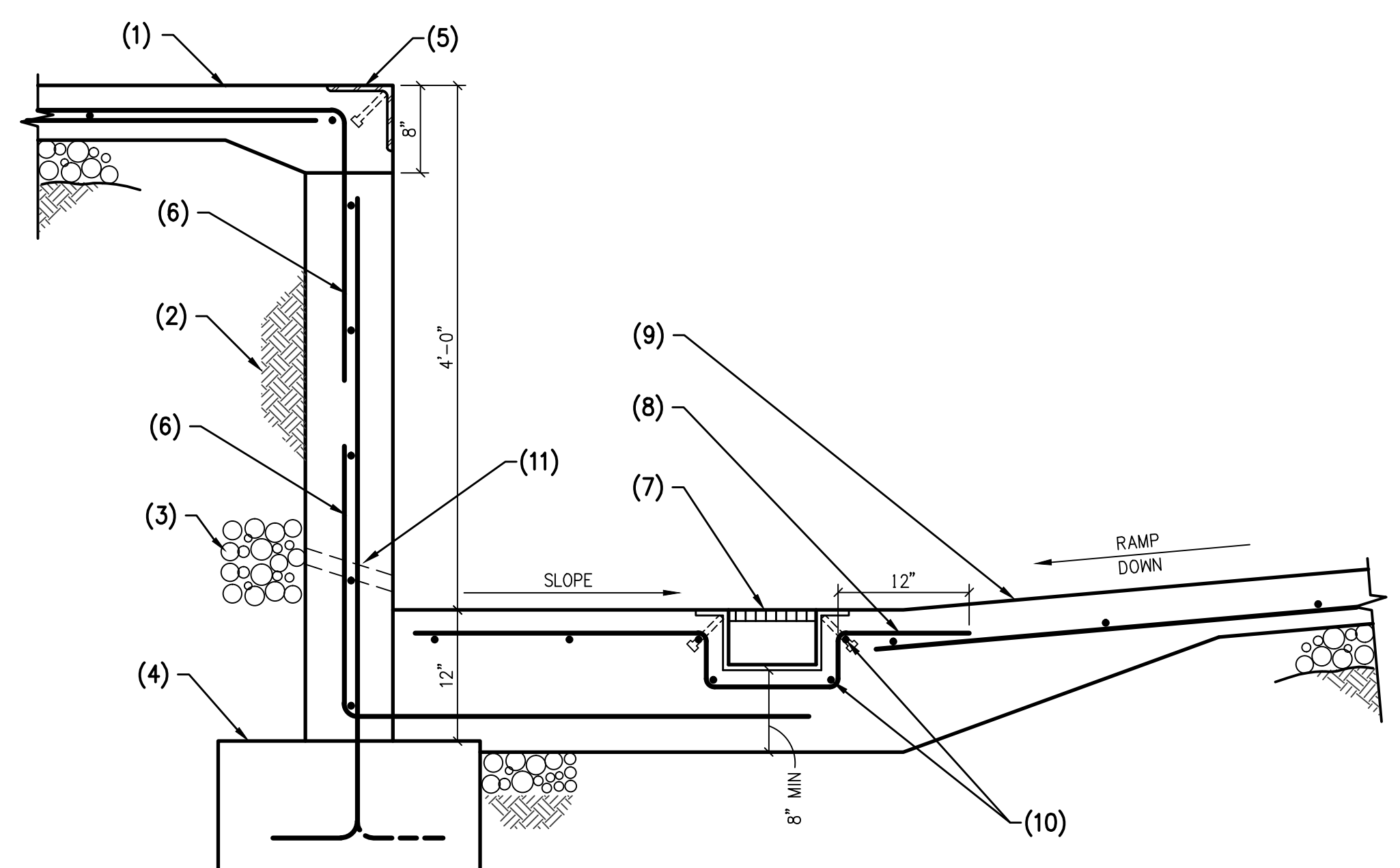
ACTUAL SHEET SIZE: 36" X 48"

02-17-2017 CONFORM SET

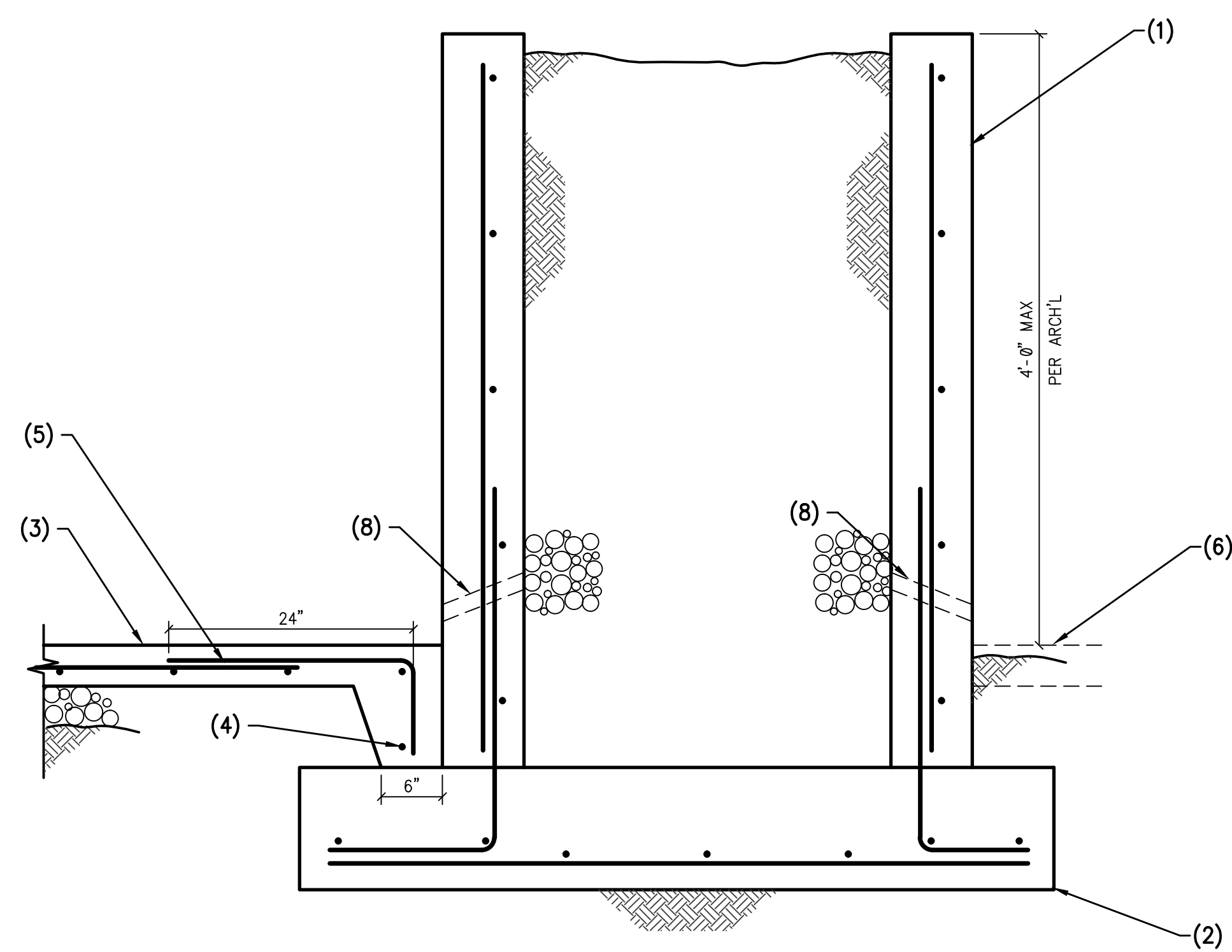
- NOTES:
1. CONCRETE WALL PER PLANS.
 2. CONCRETE SLAB ON GRADE PER PLANS.
 3. CONTINUOUS FREE-DRAINING GRAVEL BEHIND WEEP HOLES.
 4. CONCRETE FOOTING PER PLAN.
 5. 2" WEEP HOLES AT 4'-0" O.C.
 6. #5@24"x24" SLAB DOWELS AT 18" O.C.



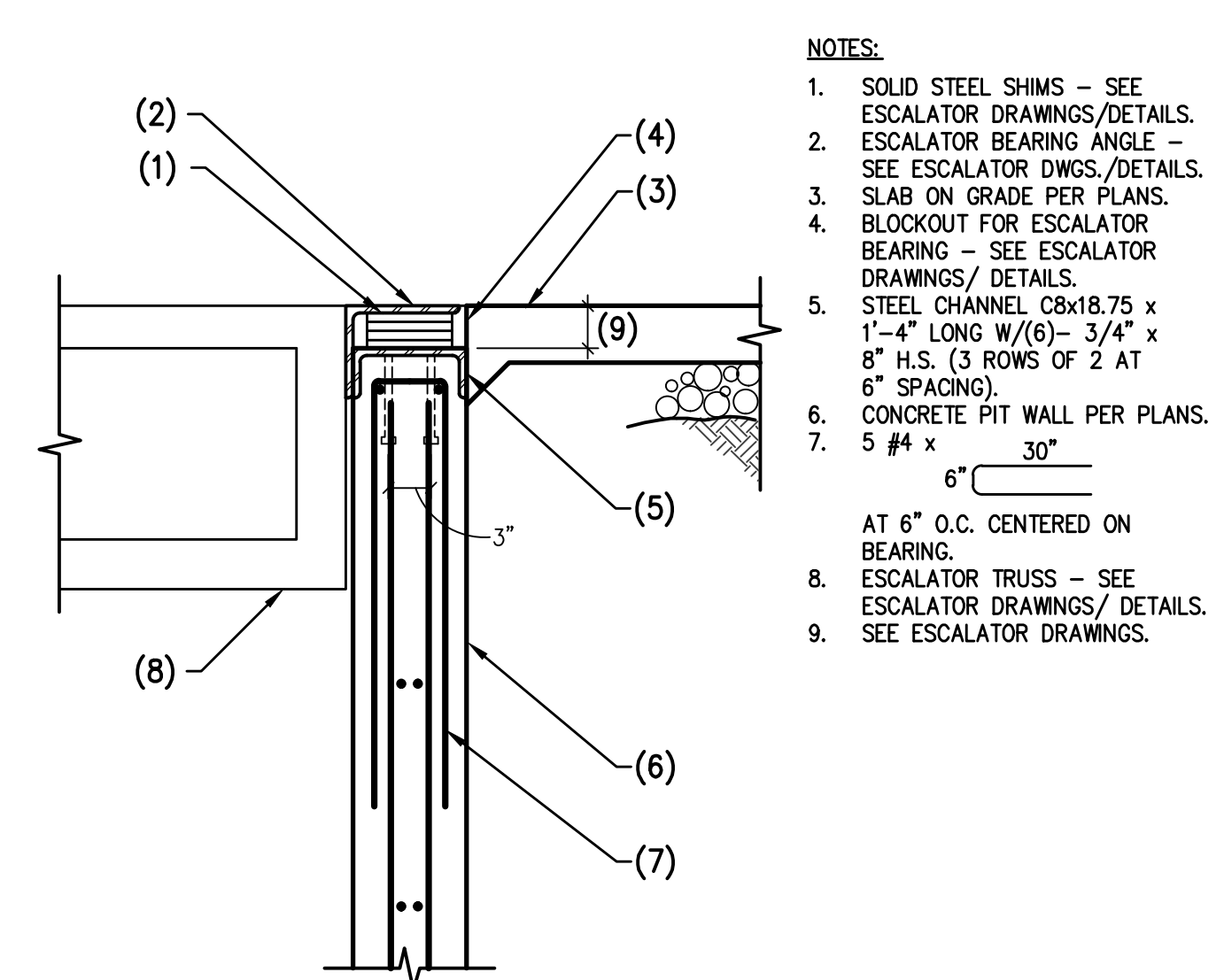
234 CONCRETE RAMP WALL AT LOADING DOCK NO SCALE



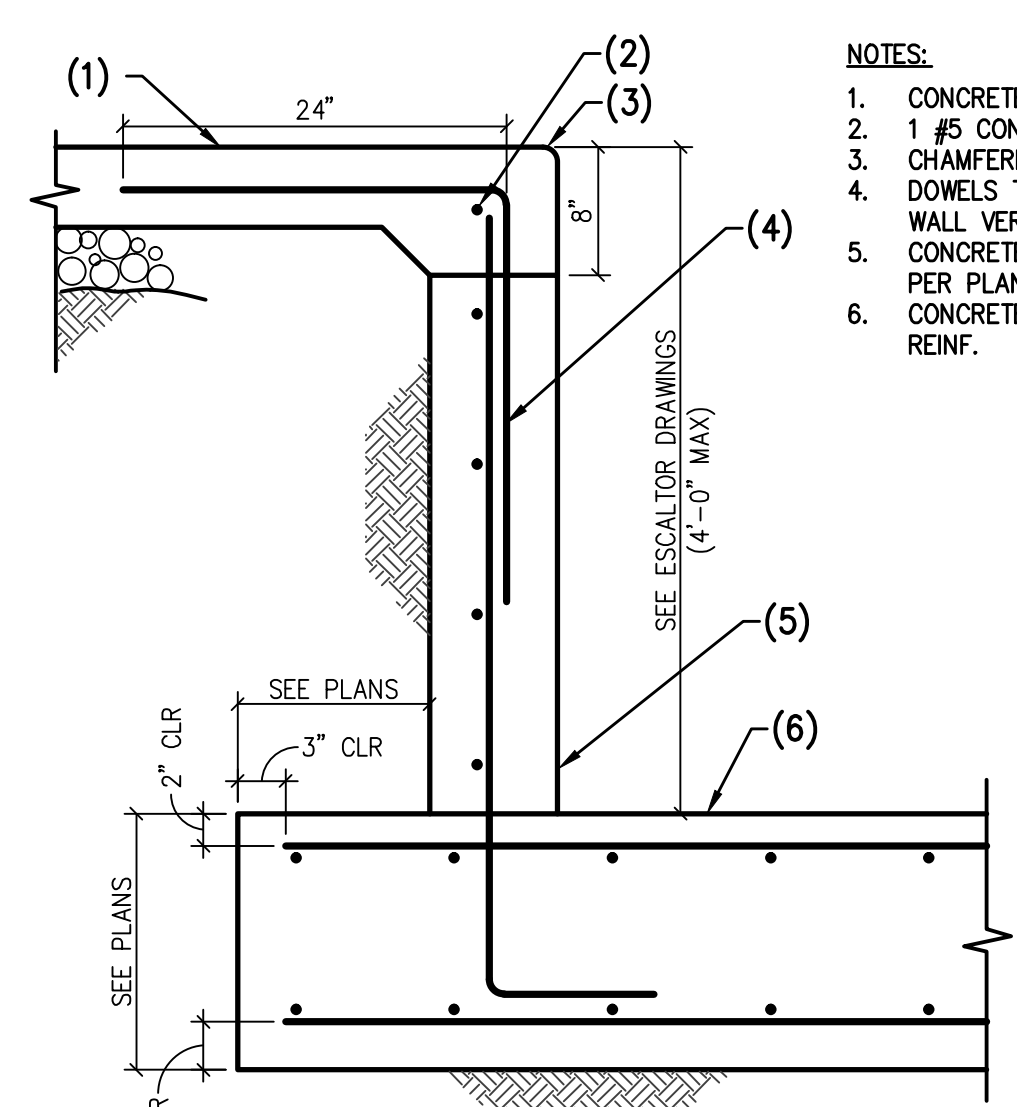
235 LOADING DOCK DETAIL NO SCALE



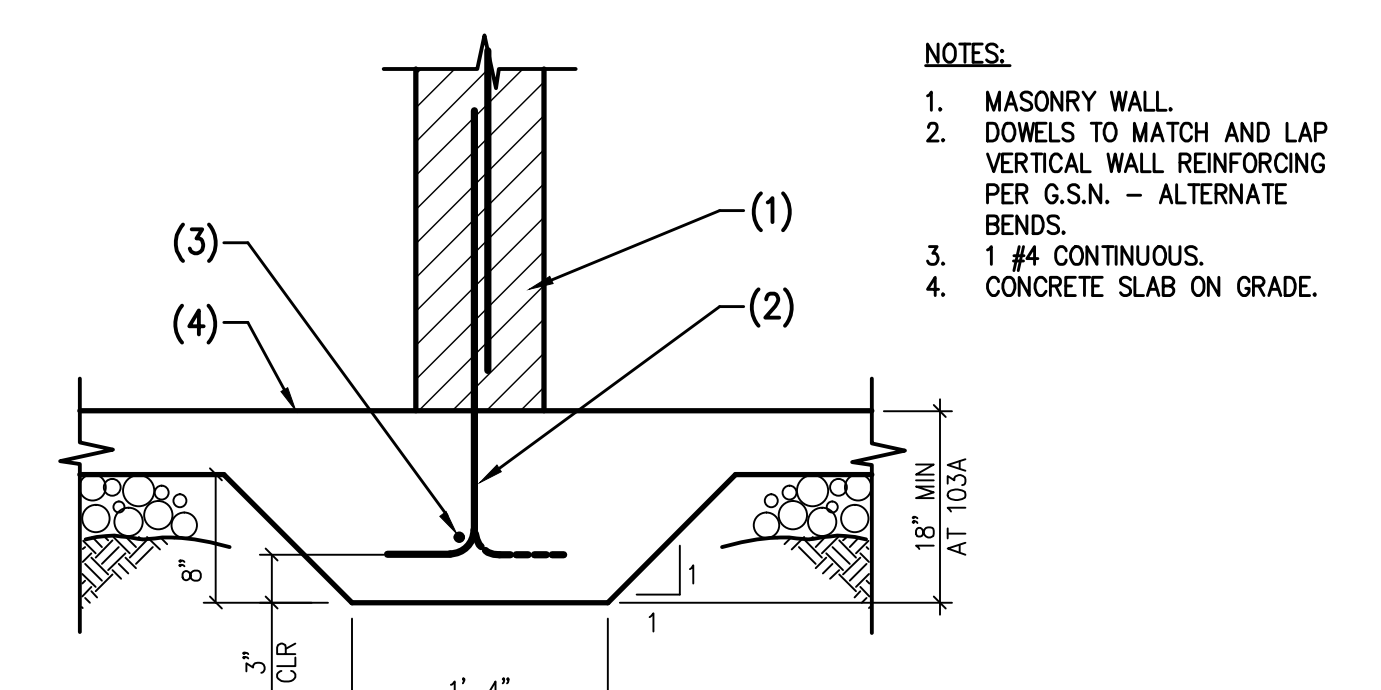
236 CONCRETE WALLS AT CONCRETE FOOTING NO SCALE



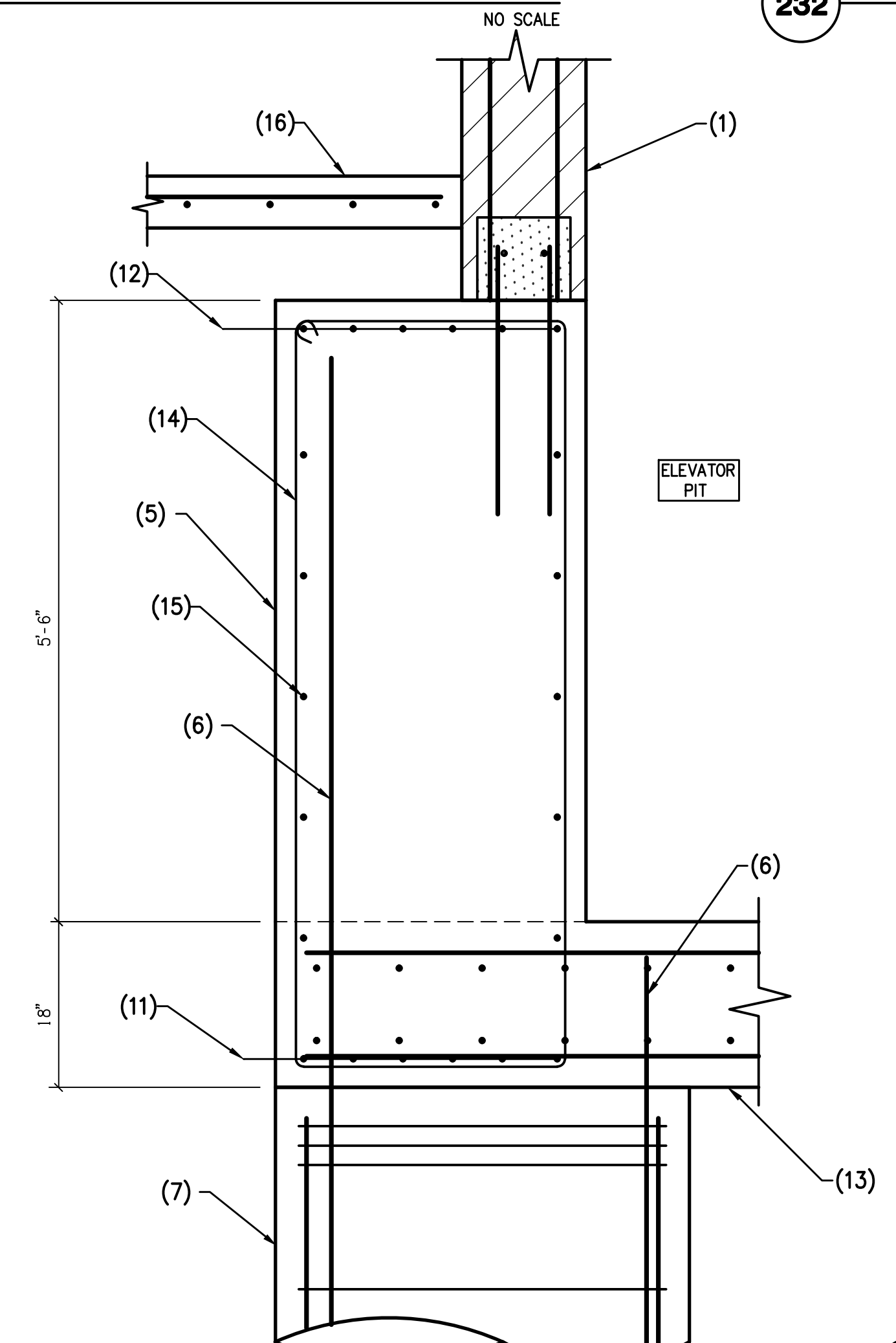
233 ESCALATOR BEARING DETAIL NO SCALE



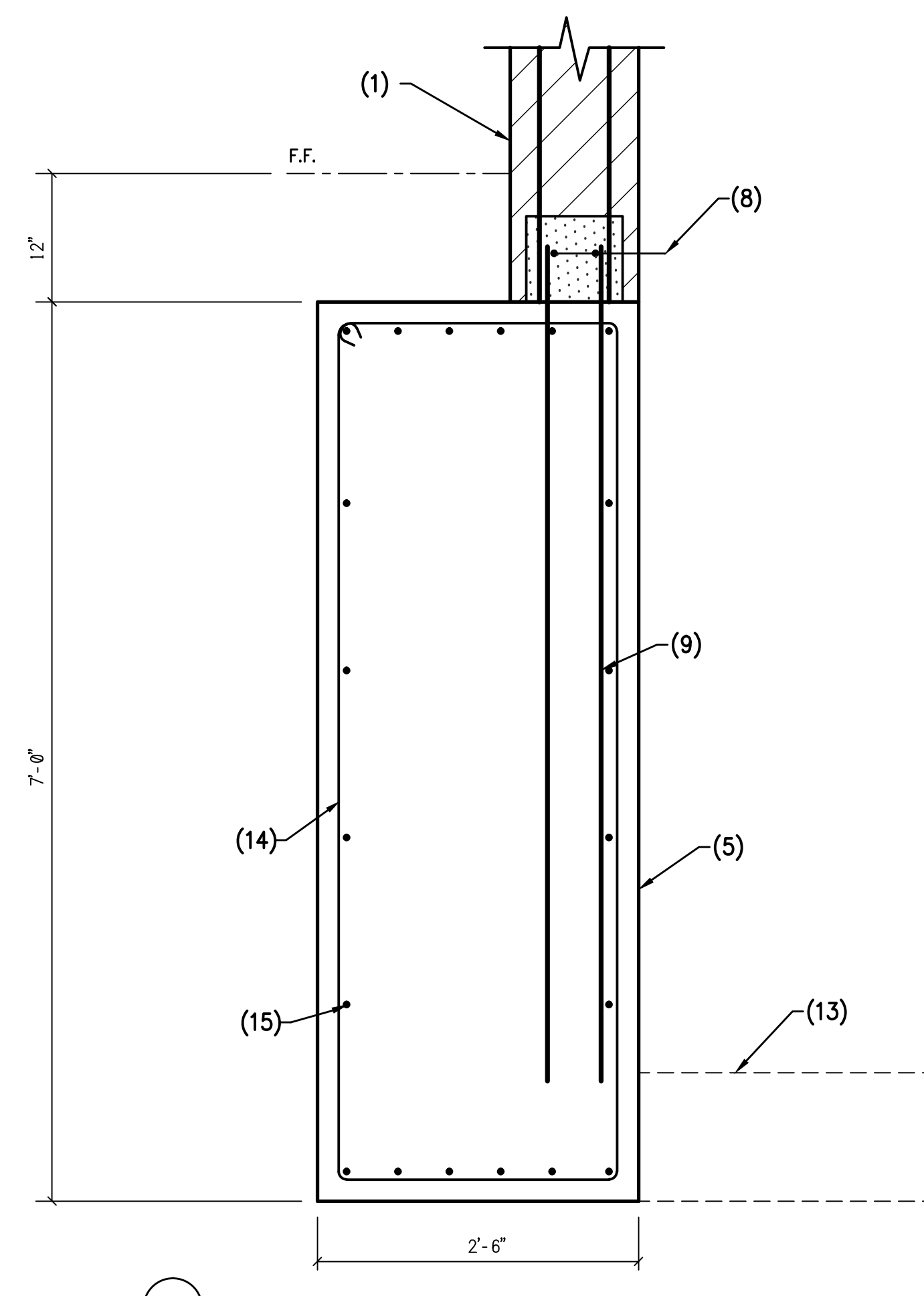
232 ESCALATOR PIT DETAIL NO SCALE



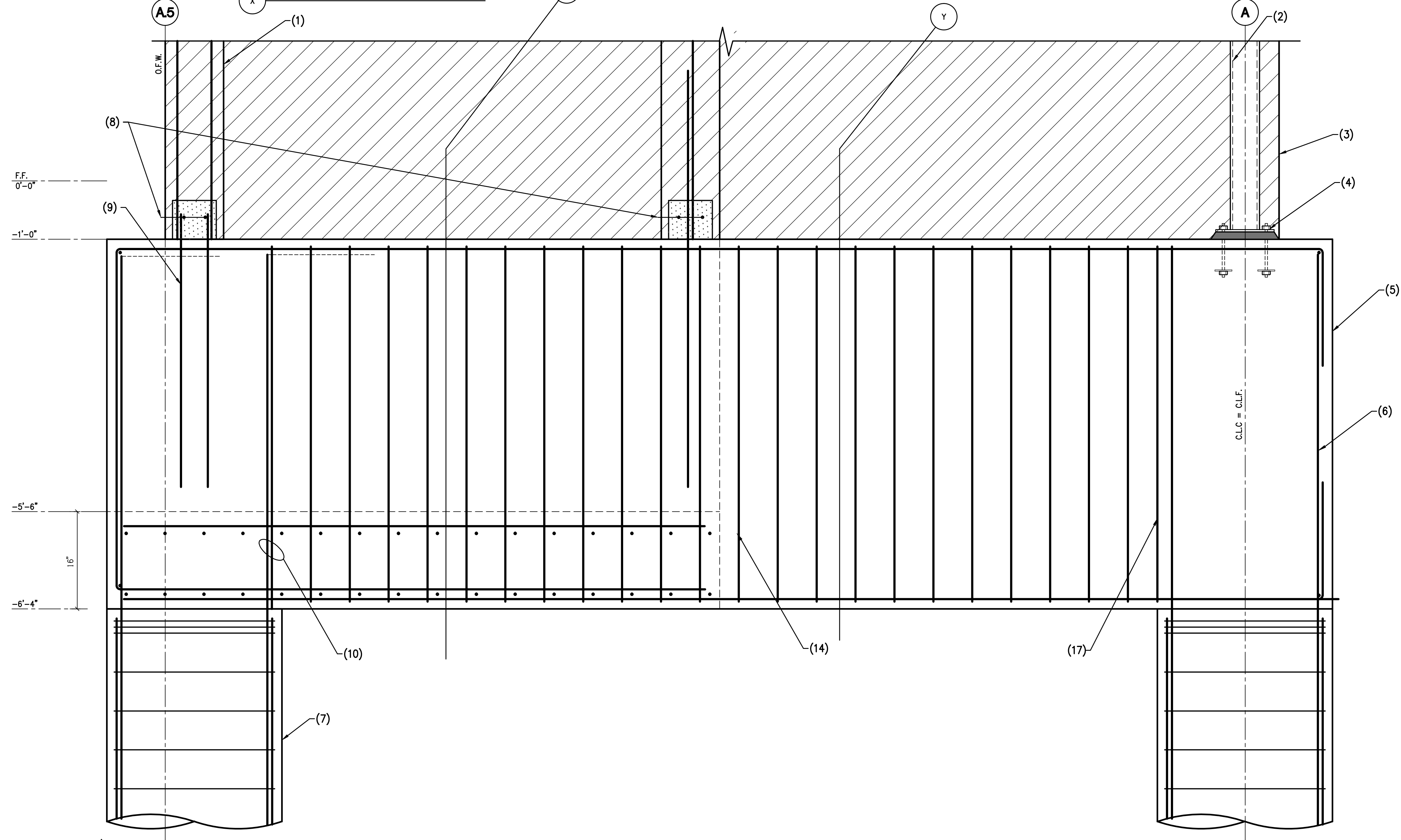
230 THICKENED CONCRETE SLAB AT NONBEARING MASONRY WALL AS NOTED NO SCALE



231 GRADE BEAM AND MAT SLAB AT FOUNDATION NO SCALE



- NOTES:
1. MASONRY WALL.
 2. STEEL COLUMN.
 3. PRECAST WALL.
 4. BASE PLATE CONNECTION PER COLUMN SCHEDULE.
 5. CONCRETE GRADE BEAM.
 6. DOWELS TO MATCH AND LAP CAISSON VERTICAL BAR PER TYPICAL DETAIL.
 7. WEIR REINFORCING CANNOT REACH FULL LAP LENGTH PROVIDE 90° HOOK AND FULLY DEVELOP.
 8. CONCRETE CAISSON.
 9. BOND BEAM PER G.S.N.
 10. BARS TO MATCH AND LAP PER TYPICAL DETAIL.
 11. BARS TO MATCH AND LAP GRADE BEAM REINFORCING PER TYPICAL DETAIL.
 12. TOP BARS PER G.S. SCHEDULE.
 13. MAT SLAB PER PLANS.
 14. TIES PER G.S. SCHEDULE.
 15. #5 AT 12" O.C. EACH FACE.
 16. SLAB ON GRADE.
 17. STARTY FIRST TIE 3" FROM CAISSON DOWELS.



231 GRADE BEAM AND MAT SLAB AT FOUNDATION NO SCALE

Key Plan:

Revisions:		
No.	Description	Date
1	STRUCTURAL REVISIONS	09/02/16
17	STRUCTURAL CLARIFICATIONS	10/10/16
	CONFORM SET	09/03/17
	CONFORM SET	09/10/17

Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Name:
BUILDING FOUNDATION DETAILS

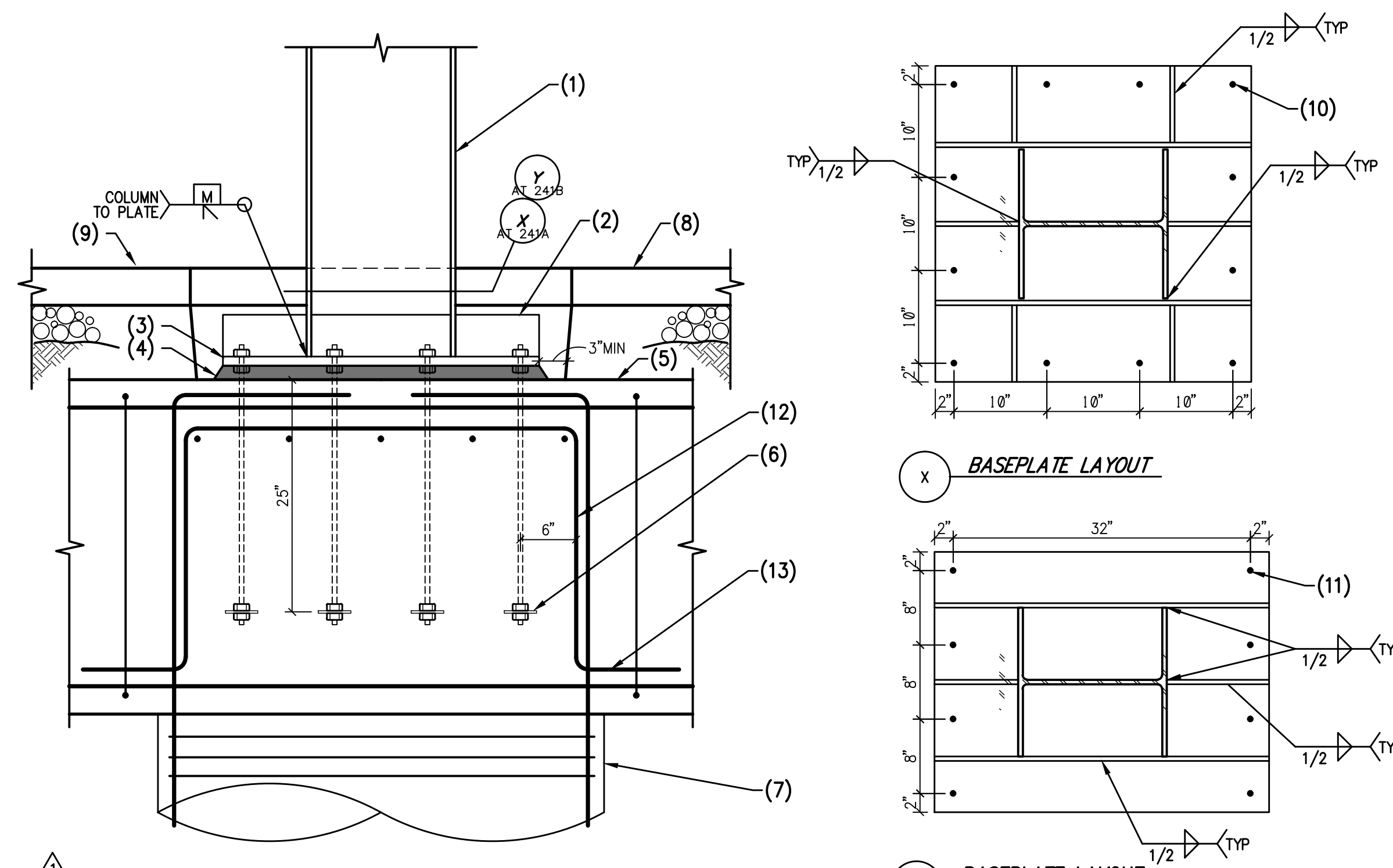
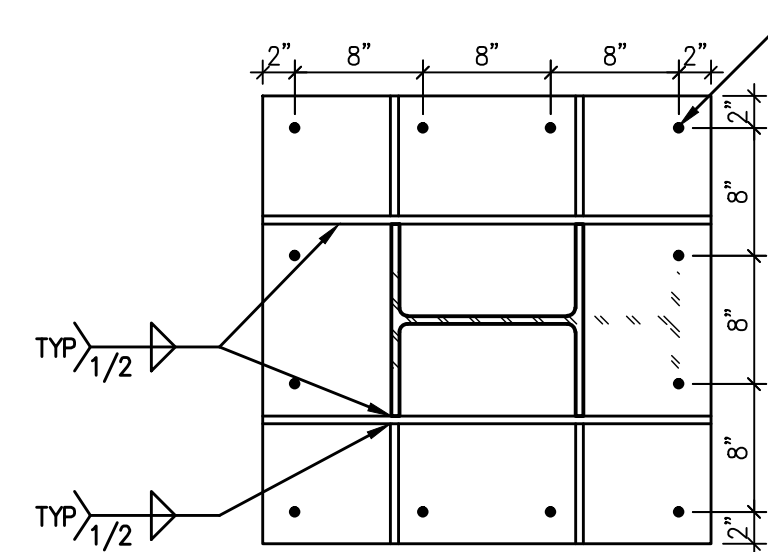
Sheet Number:
S403

ACTUAL SHEET SIZE: 36" X 48"

02-17-2017 CONFORM SET

NOTES:

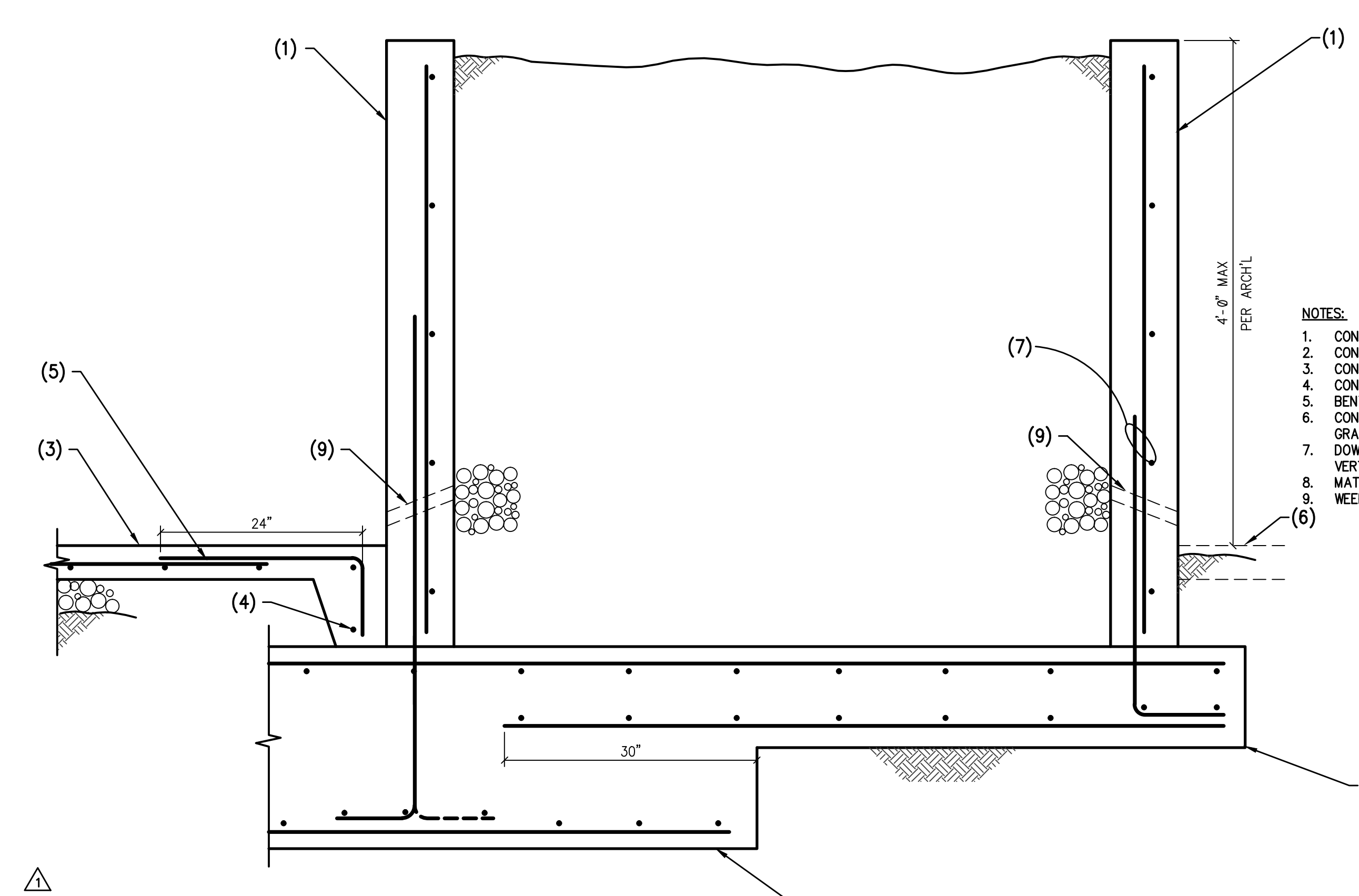
1. STEEL COLUMN.
2. STEEL STUDS BY OTHERS.
3. CONCRETE POUR BACK.
4. (3) #4 CLOSED TIES.
5. 1" THICK x 50 KSI STEEL BASE PLATE.
6. #1 1/2" DRYPACK.
7. CONCRETE FOOTING.
8. 1"x3" SQUARE STEEL PLATE WASHER.
9. 3/4"x3" STEEL STIFFENER PLATES.
10. CONCRETE SLAB OR FINISHED GRADE AS OCCURS.
11. (12) 1 1/4" F1554 GR105 ANCHOR BOLTS.



241 MOMENT FRAME COLUMN AT CONCRETE CAISSON
AS NOTED

NOTES:

1. STEEL COLUMN.
2. 1"x6" STEEL GUSSET PLATES.
3. 1" 50 KSI STEEL BASEPLATE.
4. #1 1/2" DRYPACK.
5. CONCRETE GRADE BEAM.
6. 1"x6" SQUARE STEEL PLATE WASHER.
7. CONCRETE CAISSON PER PLAN - SEE TYPICAL DETAIL FOR ADDITIONAL INFO.
8. CONCRETE POUR BACK.
9. CONCRETE SLAB.
10. (12) - 1 1/4" F1554 GR105 ANCHOR BOLTS.
11. 1 1/4" F1554 GR105 ANCHOR BOLTS.
12. #8 BENT BAR AT 12" O.C. EACH WAY.
13. STANDARD HOOK.



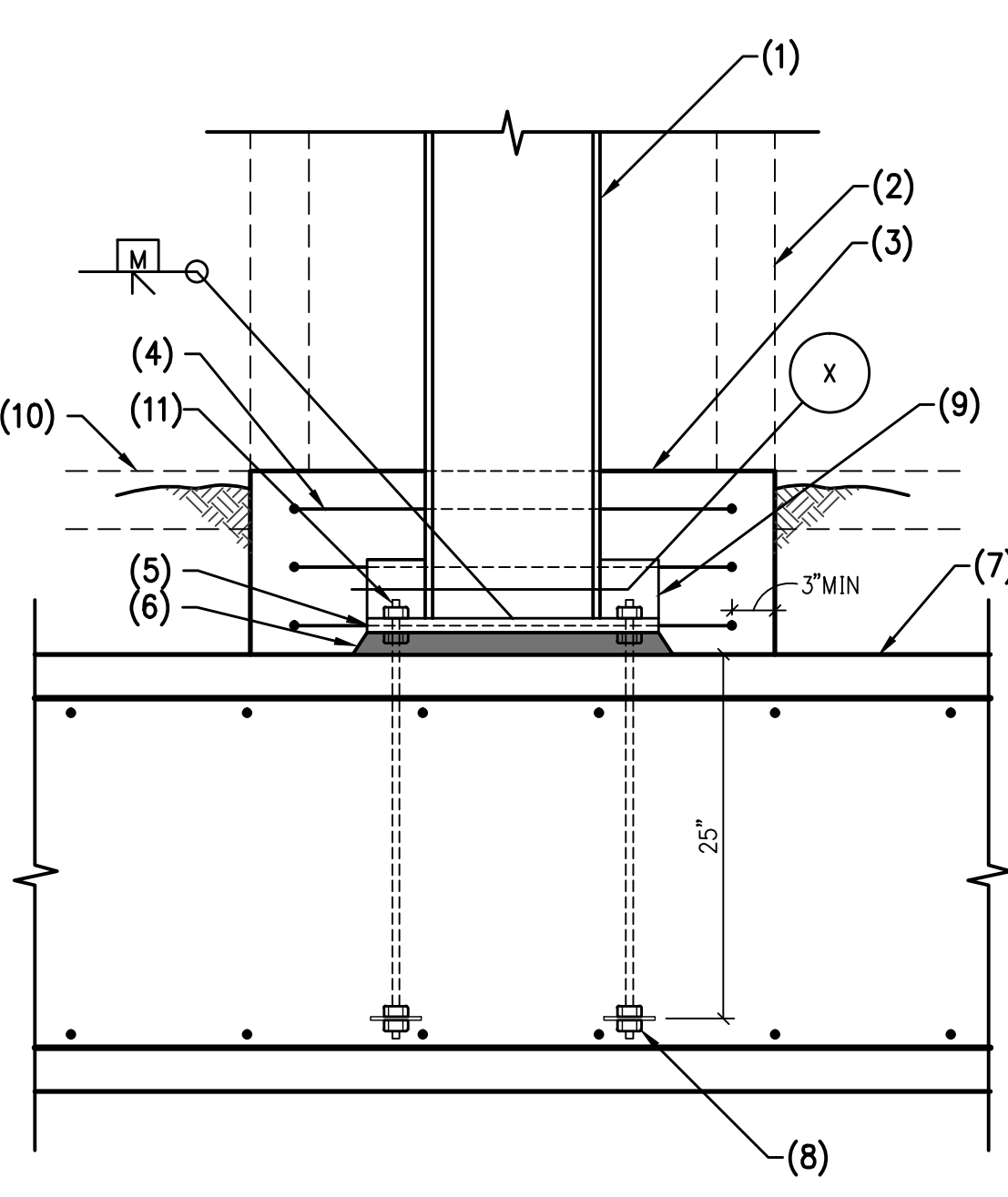
237 CONCRETE PLANTER WALL AT MAT FOOTING

NOTES:

1. CONCRETE WALL.
2. CONCRETE FOOTING.
3. CONCRETE SLAB.
4. CONT. #3 TOP AND BOTTOM.
5. BENT #3 AT 16" O.C.
6. CONCRETE SLAB OR FINISHED GRADE AS OCCURS.
7. DOMELS TO MATCH AND LAP VERTICAL WALL REINFORCING.
8. MAT FOOTING.
9. WEEP HOLES - SEE DETAIL 234.

NOTES:

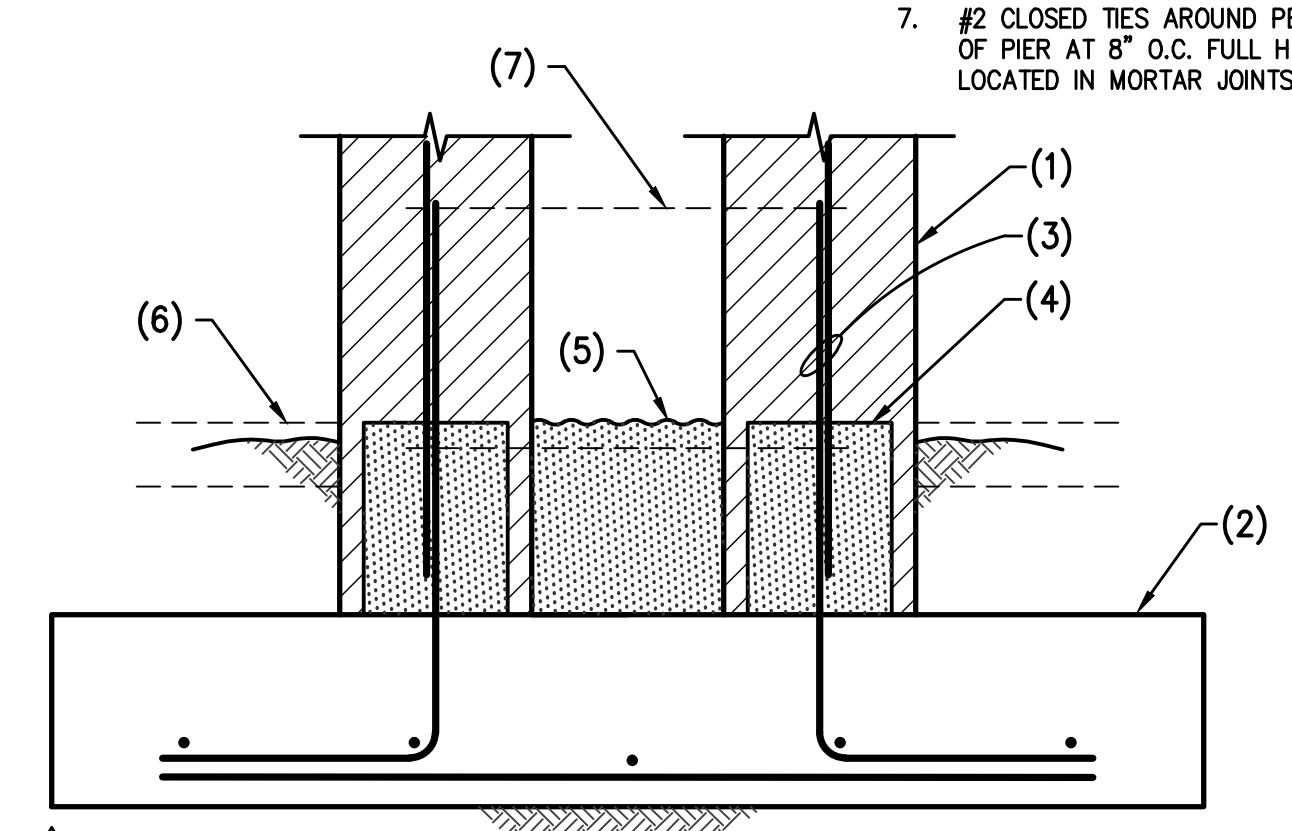
1. MASONRY WALL.
2. CONCRETE FOOTING.
3. DOMELS TO MATCH AND LAP VERTICAL WALL REINFORCING.
4. GROUT SOLID BELOW GRADE.
5. FILL VOID W/ GROUT UP TO GRADE.
6. CONCRETE OR FINISHED SLAB AS OCCURS.
7. #2 CLOSED TIES ALONG PERIMETER OF PIER AT 8" O.C. FULL HEIGHT LOCATED IN MORTAR JOINTS.



247 EXTERIOR STEEL COLUMN MOMENT FRAME AT CONCRETE FOOTING

NOTES:

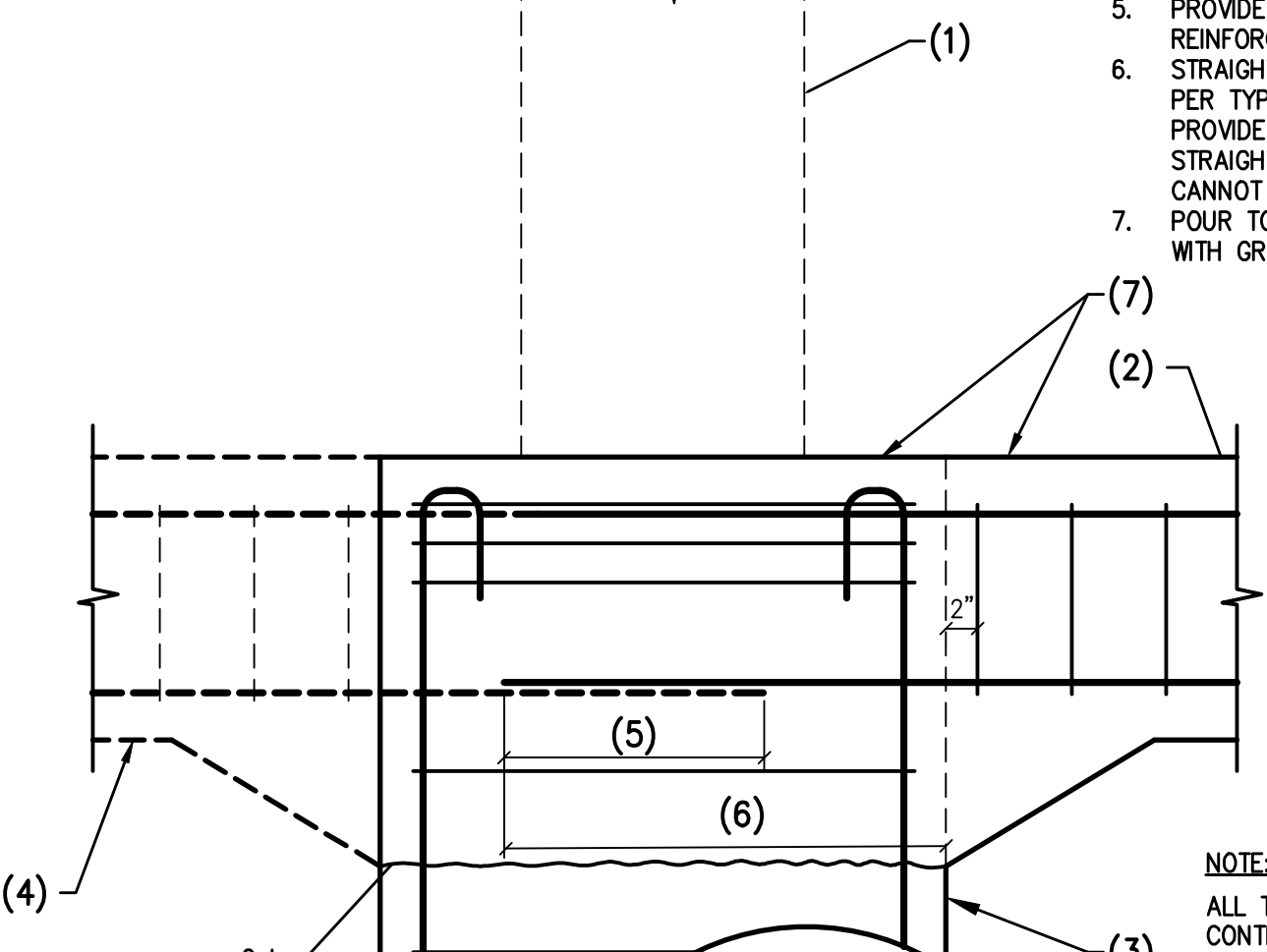
1. CONCRETE COLUMN OR STEEL COLUMN AS OCCURS.
2. CONCRETE GRADE BEAM.
3. CONCRETE CAISSON.
4. GRADE BEAM AS OCCURS.
5. PROVIDE TENSION LAP OF BOTTOM REINFORCING OVER CAISSON.
6. STRAIGHT BAR DEVELOPMENT PER TYPICAL DETAIL.
7. PROVIDE STANDARD HOOK IF STRAIGHT BAR DEVELOPMENT CANNOT BE ACHIEVED.
8. POUR TOP OF CAISSON INTEGRAL WITH GRADE BEAM.



245 MASONRY PIER AT CONCRETE FOOTING

NOTES:

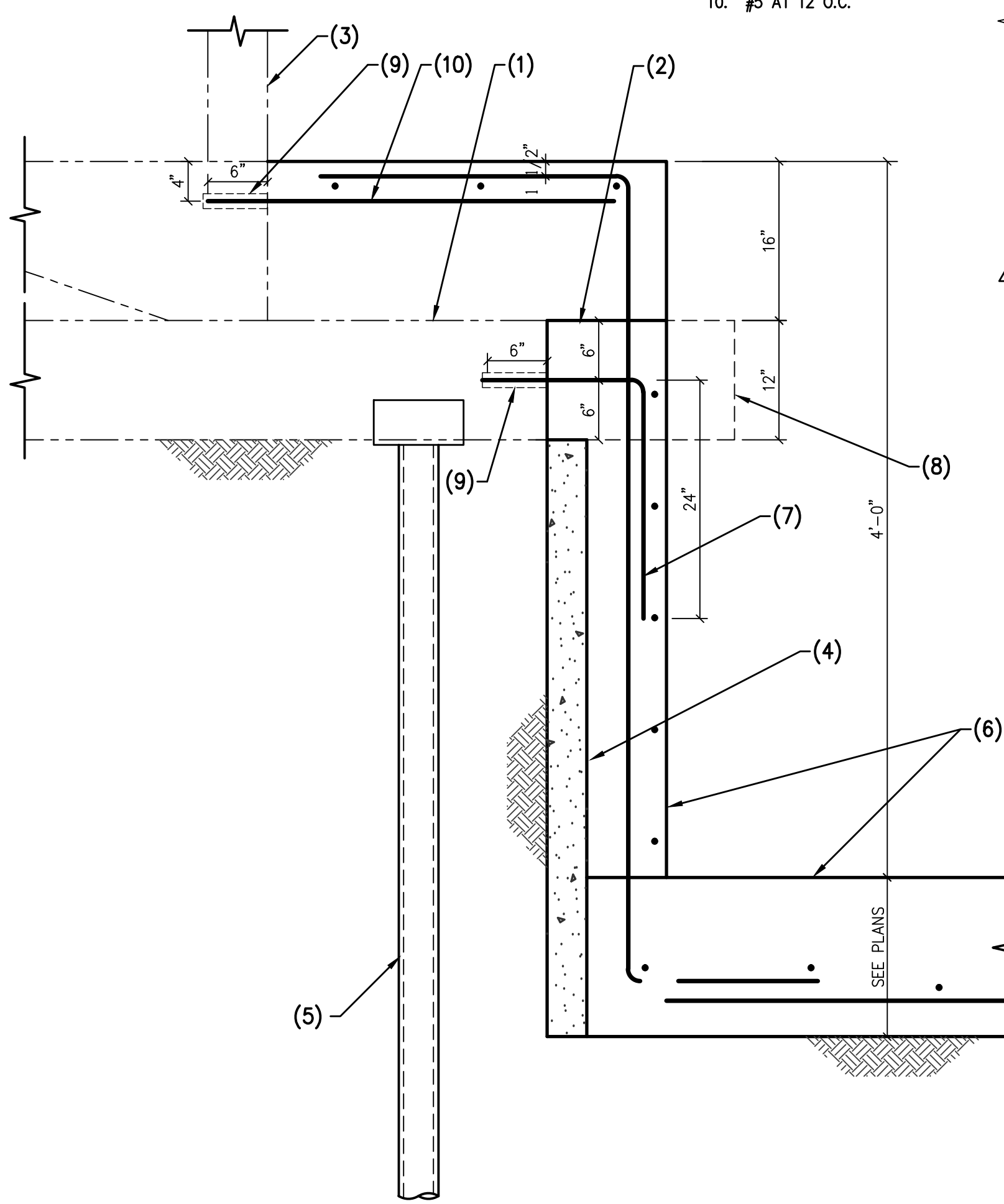
1. CONCRETE COLUMN OR STEEL COLUMN AS OCCURS.
2. CONCRETE GRADE BEAM.
3. CONCRETE CAISSON.
4. GRADE BEAM AS OCCURS.
5. PROVIDE TENSION LAP OF BOTTOM REINFORCING OVER CAISSON.
6. STRAIGHT BAR DEVELOPMENT PER TYPICAL DETAIL.
7. PROVIDE STANDARD HOOK IF STRAIGHT BAR DEVELOPMENT CANNOT BE ACHIEVED.
8. POUR TOP OF CAISSON INTEGRAL WITH GRADE BEAM.



242 CONCRETE GRADE BEAM AT CONCRETE CAISSON

NOTES:

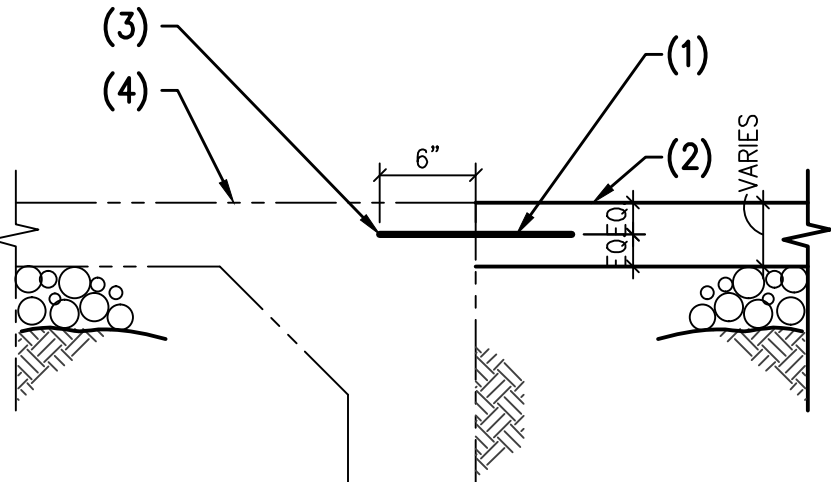
1. EXISTING FOOTING.
2. EXISTING SLAB ON GRADE GOLD JOINT.
3. EXISTING BUILDING WALL.
4. EXCAVATION CONTRACTOR SHALL STABILIZE SIDE OF EXCAVATION WITH SHOTCRETE AS REQUIRED.
5. MICROPILES OR HELICAL PILES ON EACH SIDE OF EXISTING FOOTING BY EXCAVATION CONTRACTOR TO STABILIZE EXISTING FOOTING PRIOR TO EXCAVATION FOR NEW ESCALATOR PIT.
6. ESCALATOR PIT PER PLANS AND DETAIL 232.
7. 4 #6 DOMELS AT EXISTING CORNER OF FOOTING.
8. EXISTING PORTION OF FOOTING TO BE REMOVED FOR NEW PIT.
9. DRILL AND EPOXY PER GSN.
10. #5 AT 12" O.C.



240 NEW ESCALATOR PIT ADJACENT TO EXISTING FOOTING

NOTES:

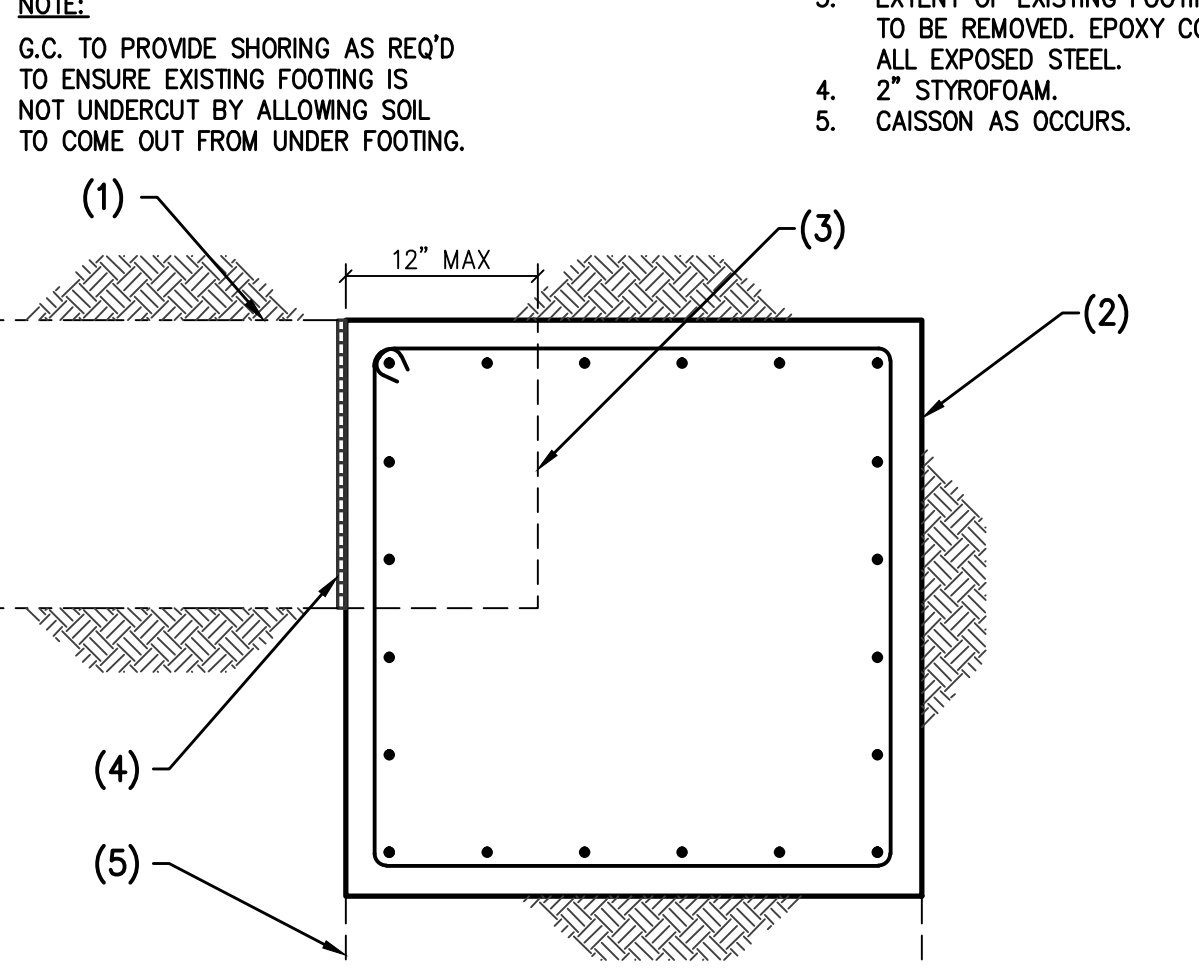
1. 1/2"x12" LONG SMOOTH BAR DOMEL AT 24" O.C. GREASE END IN NEW SLAB.
2. NEW CONCRETE SLAB ON GRADE.
3. DRILL 3/16" HOLE. DO NOT EPOXY.
4. EXISTING CONCRETE SLAB.



238 NEW CONCRETE SLAB AT EXISTING CONCRETE SLAB

NOTES:

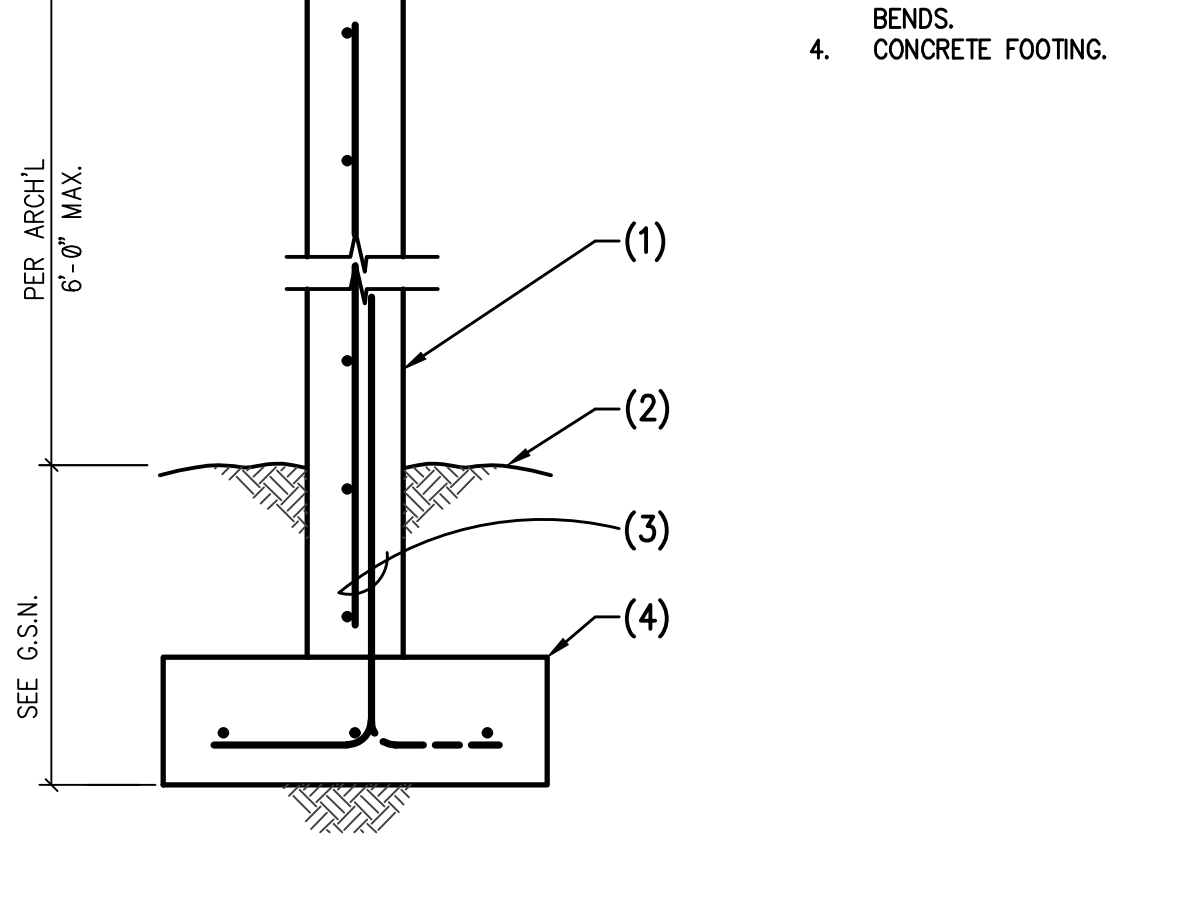
1. EXISTING FOOTING.
2. CONCRETE GRADE BEAM.
3. EXTENT OF EXISTING FOOTING TO BE REMOVED. EPOXY CONT.
4. ALL EXPOSED STEEL.
5. CAISSON AS OCCURS.



248 NEW GRADE BEAM AT EXISTING FOUNDATION

NOTES:

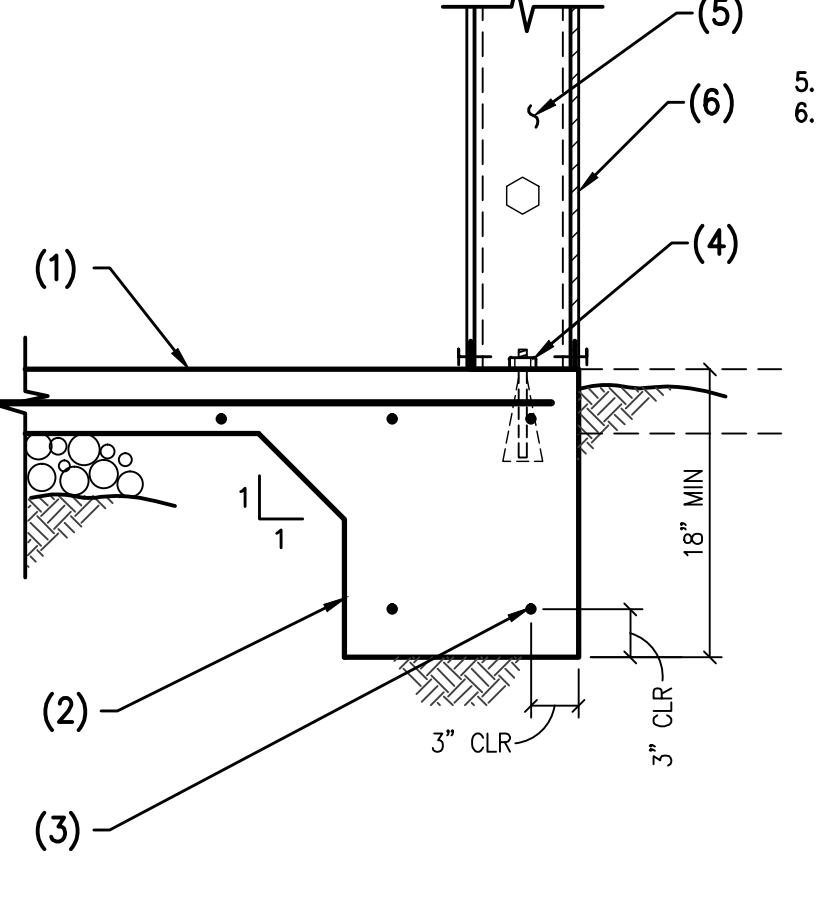
1. CONCRETE WALL.
2. FINISHED GRADE.
3. DOMELS TO MATCH AND LAP VERTICAL WALL REINFORCING PER G.S.N. - ALTERNATE BENDS.
4. CONCRETE FOOTING.



246 FREE-STANDING CONCRETE WALL FOOTING

NOTES:

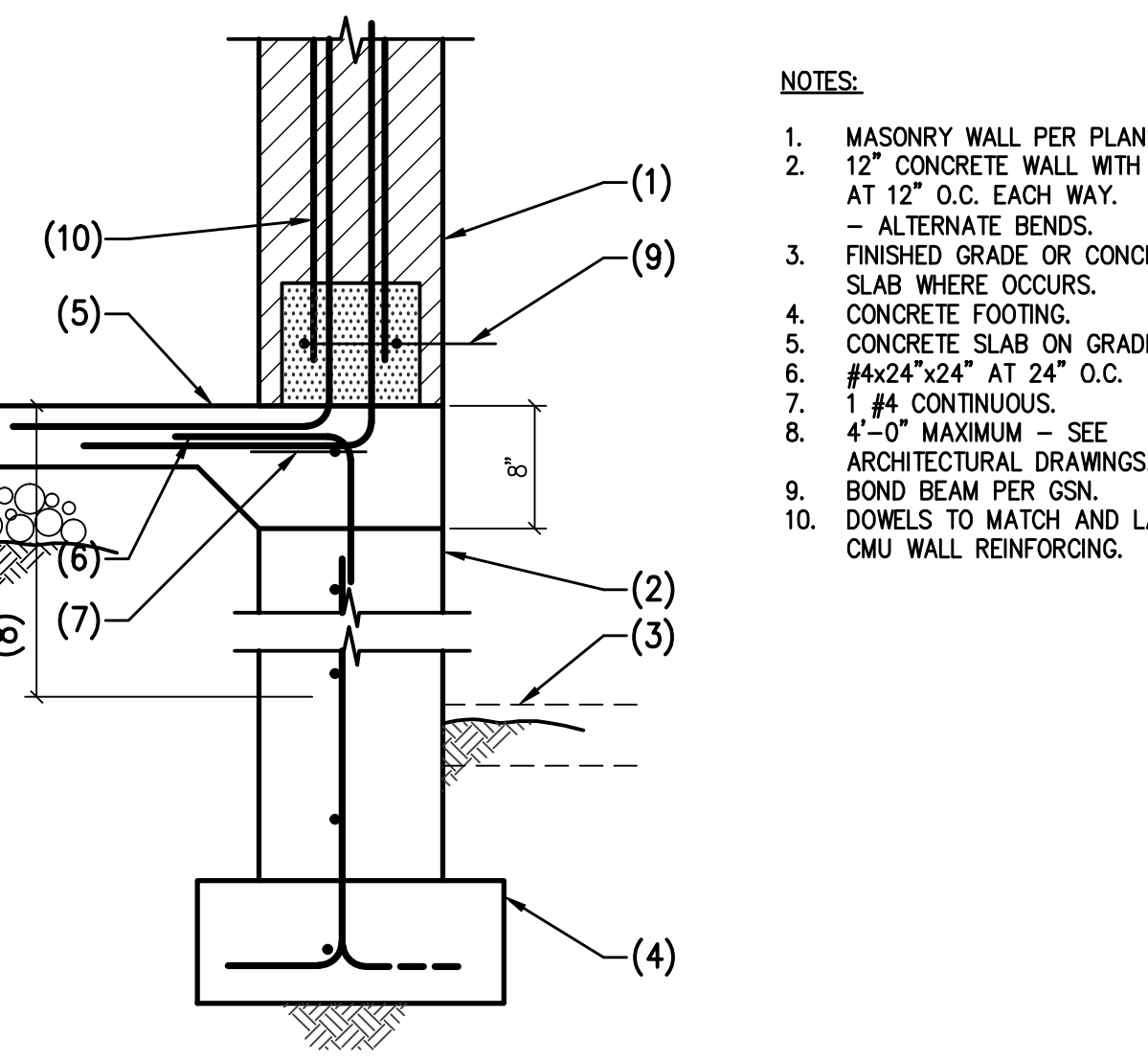
1. CONCRETE SLAB ON GRADE.
2. MONOLITHIC FOOTING PER PLANS.
3. 1/2" EXPANSION OR SCREW ANCHORS AT 32" O.C. - SEE GSN FOR ANCHOR SPECS.
4. STEEL STUD WALL.
5. STEEL STUD WALL.
6. PLYWOOD SHEATHING.



243 EXTERIOR STEEL STUD WALL AT MONOLITHIC FOOTING

NOTES:

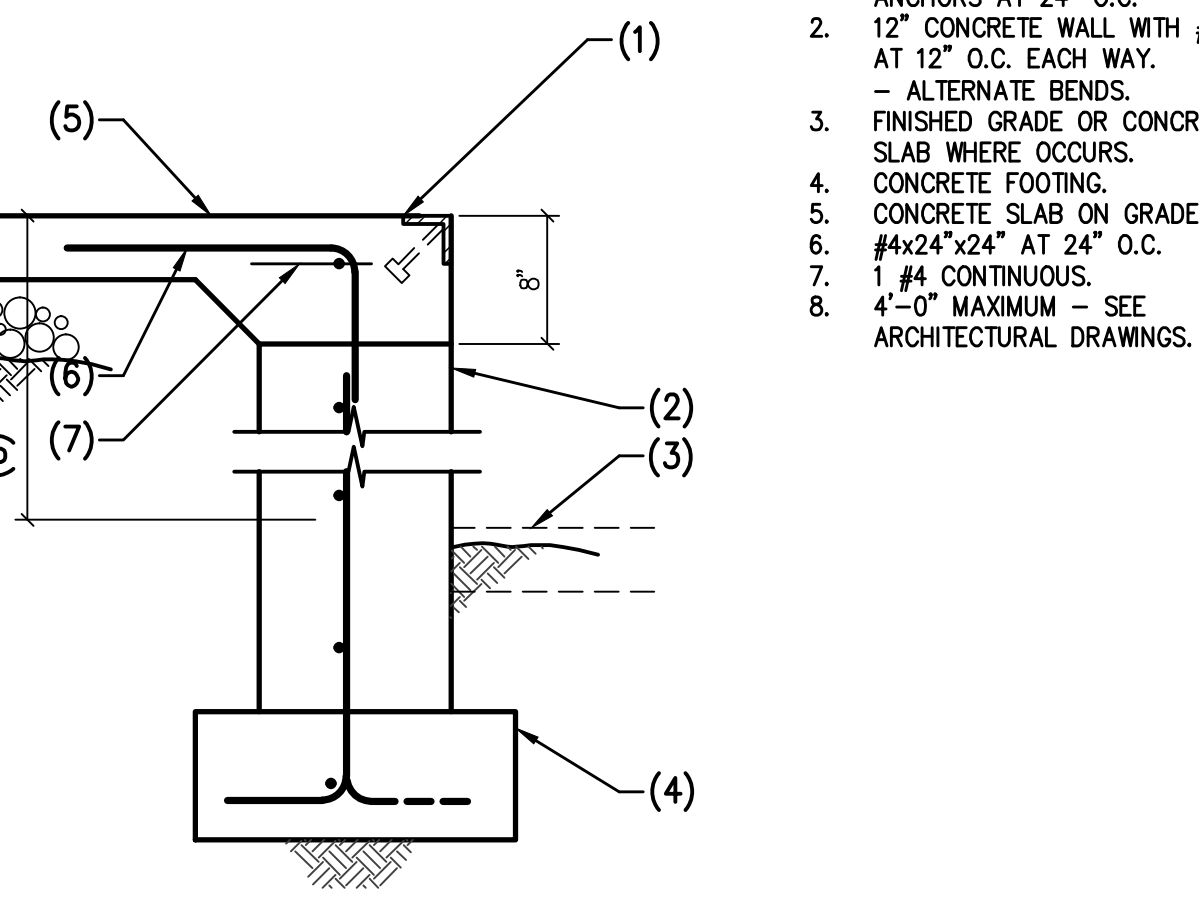
1. MASONRY WALL PER PLANS.
2. 12" CONCRETE WALL WITH #5 AT 12" O.C. EACH WAY.
3. FINISHED GRADE OR CONCRETE SLAB WHERE OCCURS.
4. CONCRETE FOOTING.
5. CONCRETE SLAB ON GRADE.
6. #4x24" AT 24" O.C.
7. 1 #4 CONTINUOUS.
8. 4"x4" MAXIMUM - SEE ARCHITECTURAL DRAWINGS.
9. BOND BEAM PER GSN.
10. DOMELS TO MATCH AND LAP CMU WALL REINFORCING.



250 CONCRETE DOCK WALL AT MASONRY WALL

NOTES:

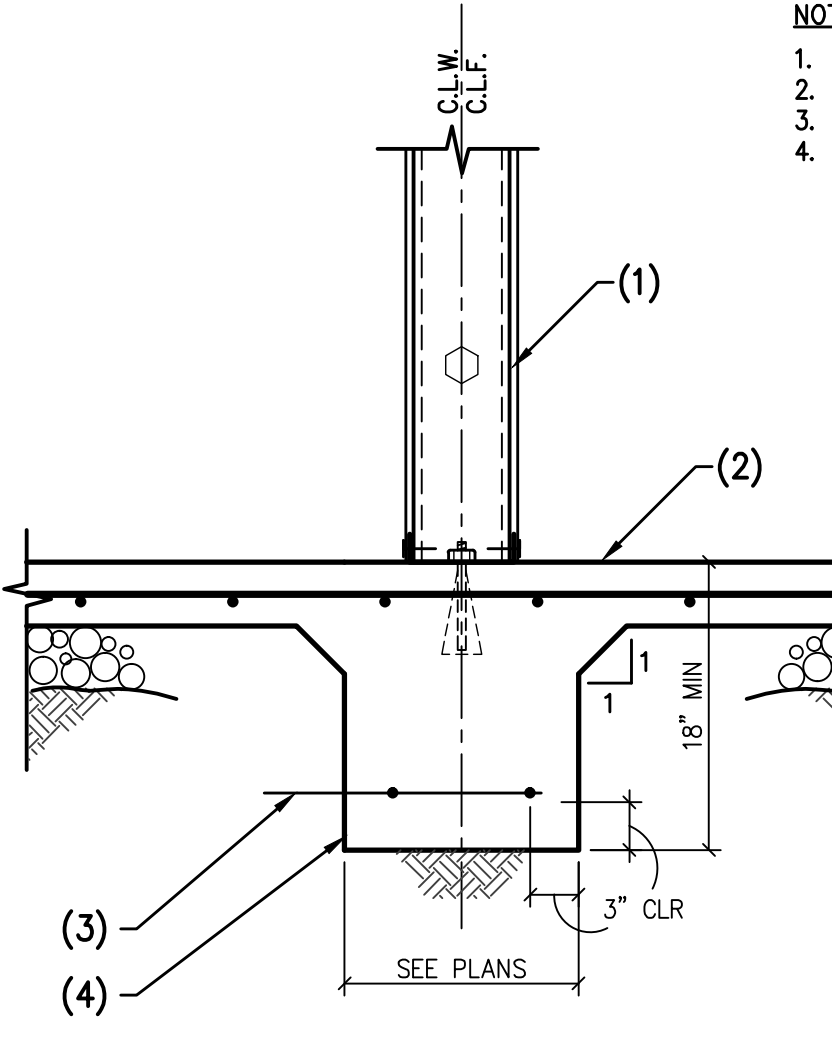
1. ANGLE FACING - 3"x3"x1/16" CONTINUOUS WITH 1/2" ANCHORS AT 24" O.C.
2. 12" CONCRETE WALL WITH #5 AT 12" O.C. EACH WAY.
3. FINISHED GRADE OR CONCRETE SLAB WHERE OCCURS.
4. CONCRETE FOOTING.
5. CONCRETE SLAB ON GRADE.
6. #4x24" AT 24" O.C.
7. 1 #4 CONTINUOUS.
8. 4"x4" MAXIMUM - SEE ARCHITECTURAL DRAWINGS.



249 CONCRETE DOCK WALL AT OPENING

NOTES:

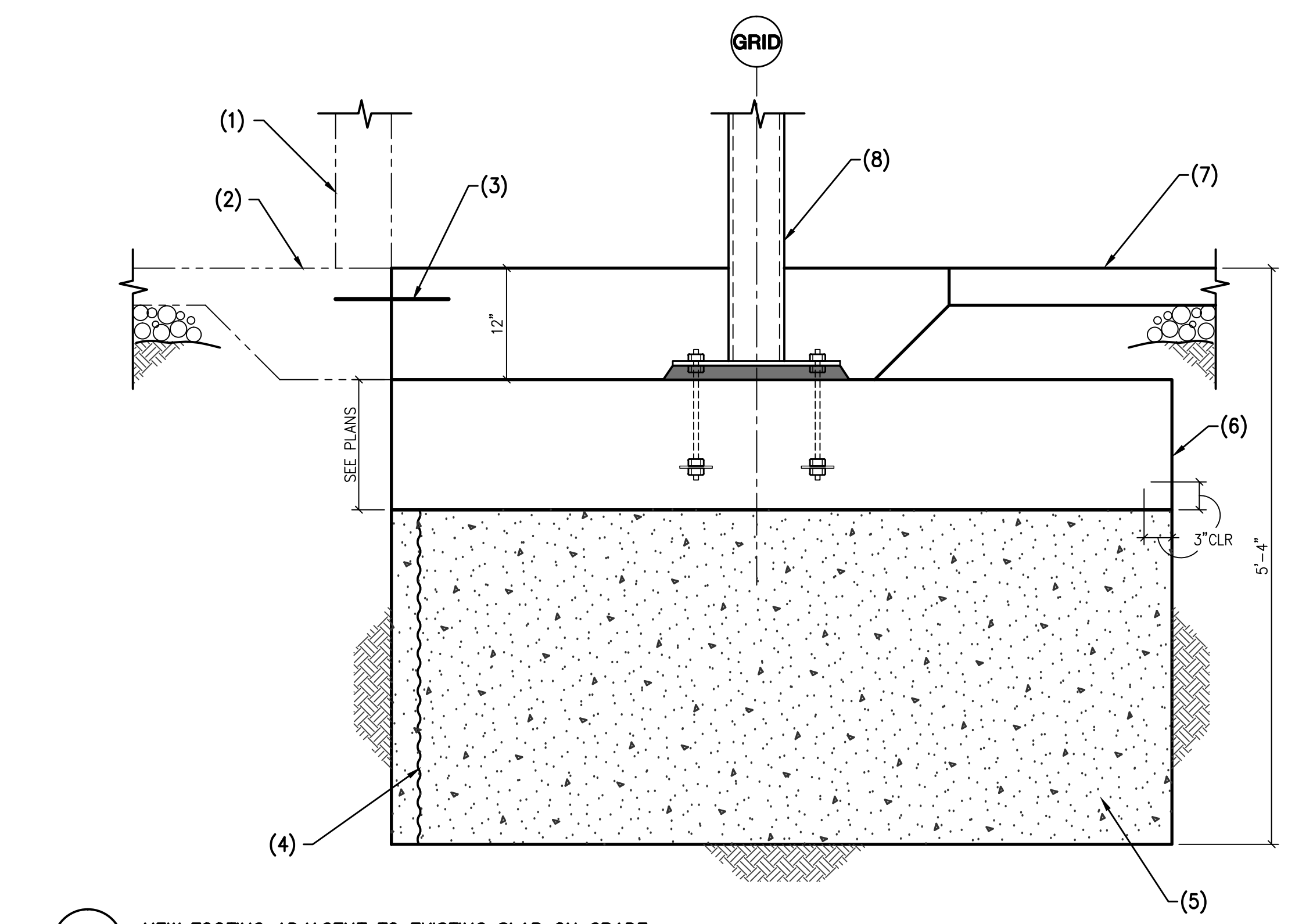
1. STEEL STUD WALL.
2. CONCRETE SLAB ON GRADE.
3. 2 #4 CONT. TOP AND BOTTOM.
4. MONOLITHIC FOOTING PER PLANS.



244 INTERIOR STEEL STUD WALL AT MONOLITHIC FOOTING

NOTES:

1. EXISTING NON-BEARING WALL.
2. EXISTING SLAB ON GRADE.
3. SMOOTH DOMELS PER DET. 238.
4. EXCAVATION CONTRACTOR SHALL STABILIZE SIDE OF EXCAVATION WITH SHOTCRETE AS REQUIRED.
5. 2 SACK LEAN CONCRETE SLURRY PLACED SAME DAY AS EXCAVATION.
6. NEW FOOTING PER PLAN.
7. NEW SLAB ON GRADE.
8. NEW STEEL COLUMN PER PLANS.



239 NEW FOOTING ADJACENT TO EXISTING SLAB ON GRADE

Key Plan:

Revisions:

No.	Description	Date
1	STRUCTURAL REVISIONS	09/02/16
17	STRUCTURAL CLARIFICATIONS	10/10/16
	CONFORM SET	09/03/17
	CONFORM SET	09/15/17

Project Number: 16022
Date: 09/02/2016
Drawn By: L.E.
Checked By: S.S.

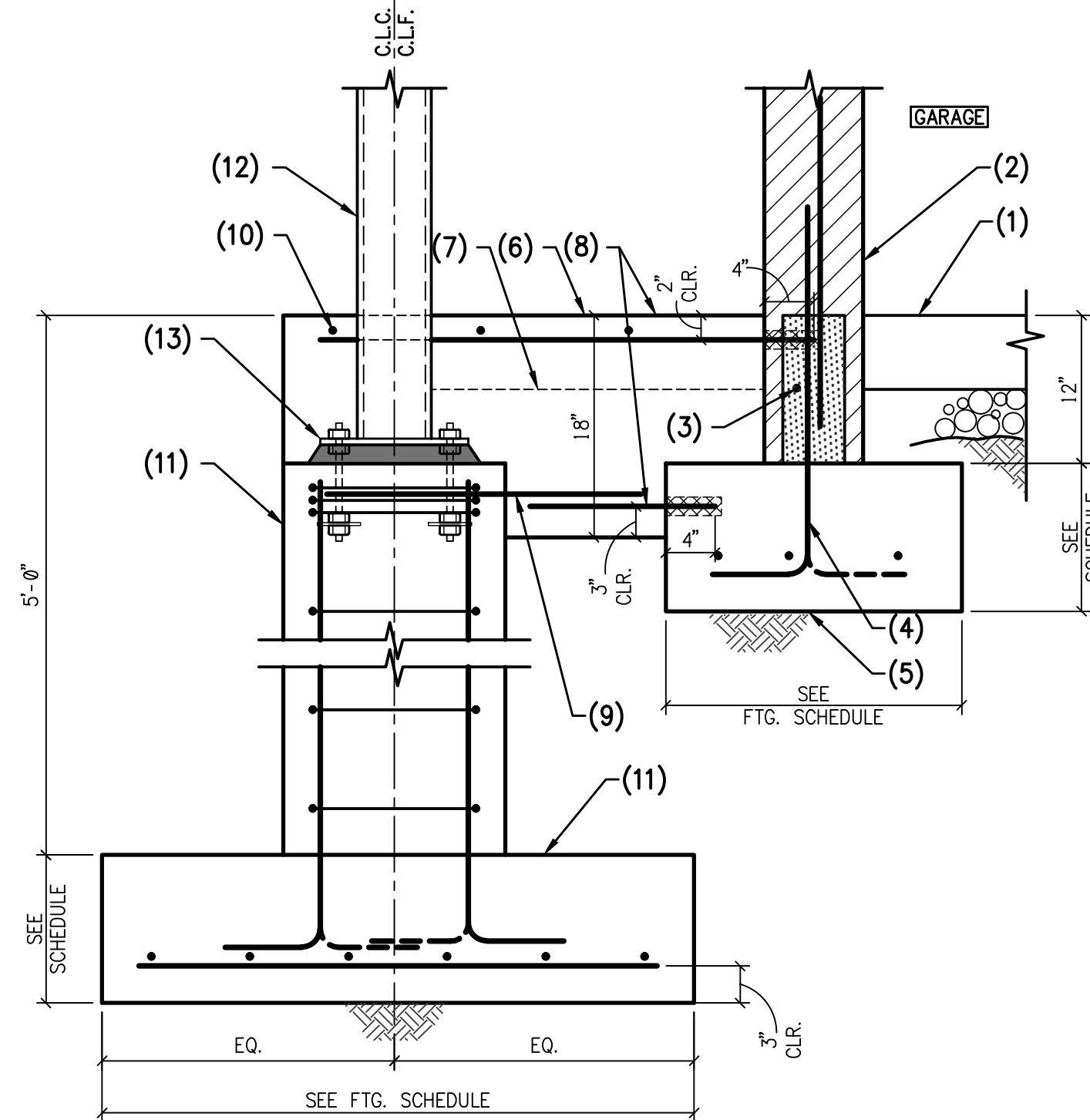
Sheet Name:
BUILDING FOUNDATION DETAILS

Sheet Number:
S404

ACTUAL SHEET SIZE: 36" X 48"

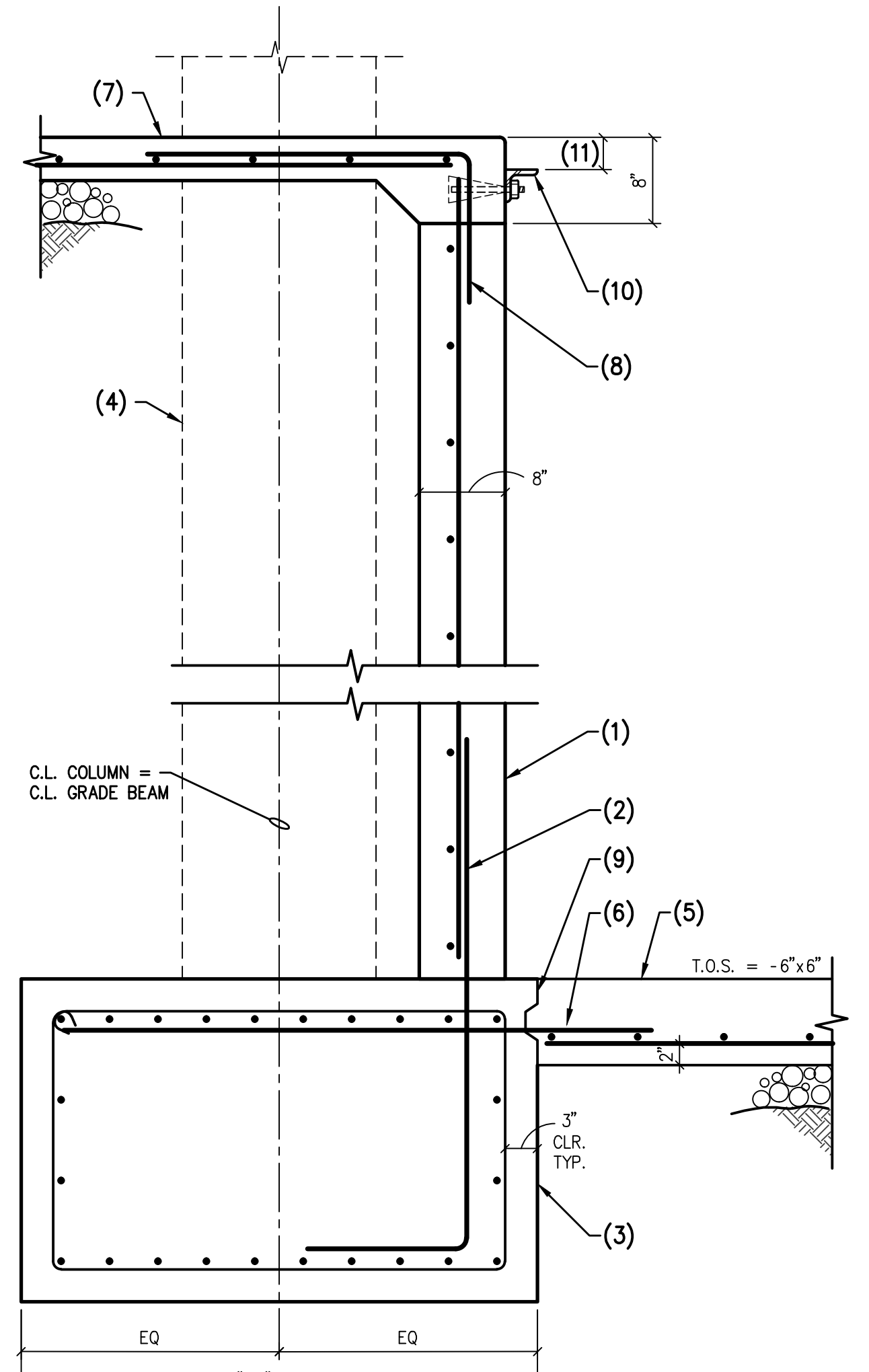
02-17-2017 CONFORM SET

- NOTES:
1. CONCRETE SLAB ON GRADE PER PLANS.
 2. MASONRY WALL PER PLANS.
 3. MASONRY WALL PER PLANS. 1" #5 CONTINUOUS IN 8" DEEP GROTTED BOND BEAM GROUT ALL MASONRY BELOW GRADE SOLID.
 4. DOWELS TO MATCH AND LAP VERTICAL WALL REINFORCING PER GSN - ALTERNATE BENDS.
 5. CONCRETE FOOTING PER PLANS.
 6. CONCRETE TURNDOWN PER DETAIL 203.
 7. LINE OF SLAB ON GRADE PER PLANS.
 8. DRILL AND EPOXY TOP AND BOTTOM #5 TURNDOWN BAR PER DETAIL 203 AS SHOWN. SEE GSN FOR ADDITIONAL DRILL AND EPOXY INFORMATION SPECIAL INSPECTION REQUIRED FOR ALL DRILL AND EPOXY.
 9. #5 BAR TO LAP WITH BOTTOM TURNDOWN BAR PER DETAIL 203.
 10. SLAB ON GRADE REINFORCING PER PLANS.
 11. CONCRETE PLASTER AND FOOTING PER DETAILS 253 AND 254A.
 12. STEEL COLUMN PER PLANS.
 13. BASEPLATE OVER 1 1/2" DRYPACK - SEE COLUMN SCHEDULE.



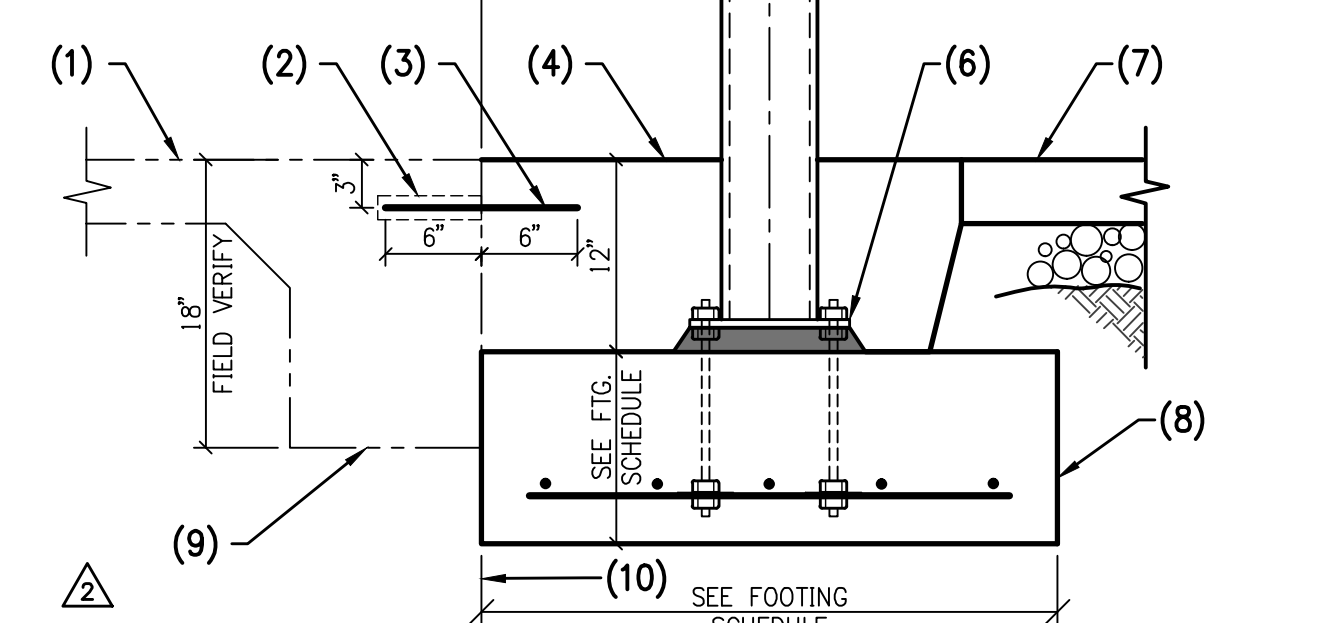
263 SLAB TURNDOWN AT CONCRETE PILASTER AND MASONRY WALL NO SCALE

- NOTES:
1. CONCRETE WALL PER PLAN.
 2. DOWELS TO MATCH AND LAP VERT. WALL REIN.
 3. CONCRETE GRADE BEAM PER PLANS.
 4. CONCRETE COLUMN BEYOND.
 5. 8" CONCRETE SLAB ON GRADE W/ #6 BARS AT 8" O.C. EACH WAY BOTTOM.
 6. DOWELS TO MATCH AND LAP SLAB REIN.
 7. CONCRETE SLAB ON GRADE PER PLAN.
 8. #6x16"x48" (SLV) AT 16" O.C. OPTIONAL CONCRETE KEY PER TYPICAL DETAILS.
 9. STEEL ANGLE - FOR SIZE AND ANCHOR BOLTS, SEE ARCH. OR ELEVATOR MFR. DRAWINGS.
 10. OR ELEVATOR MFR. DRAWINGS. SEE ARCH. DRAWINGS.



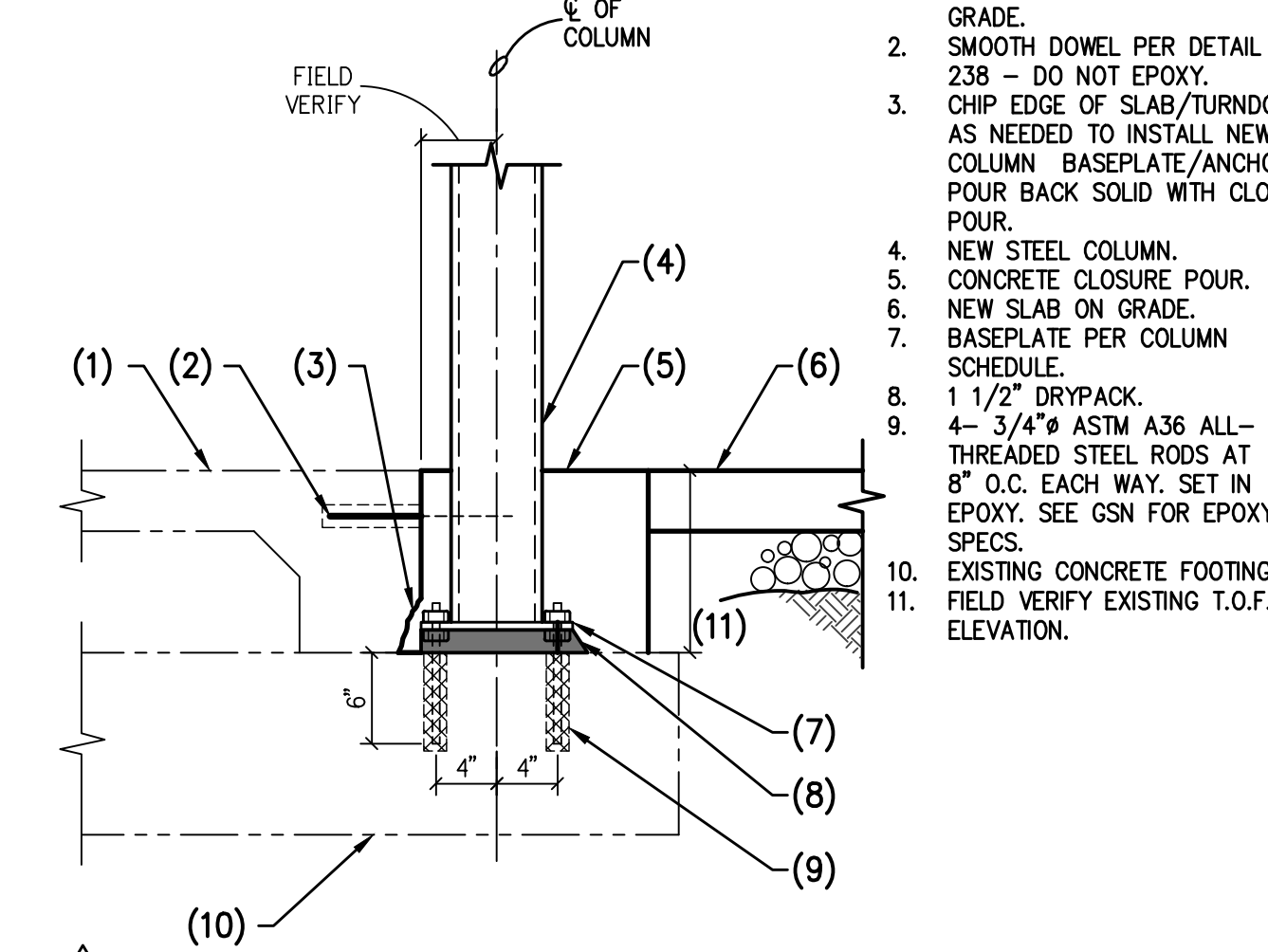
261 CONCRETE SLAB ON GRADE AT ELEVATOR PIT NO SCALE

- NOTES:
1. EXISTING SLAB ON GRADE.
 2. DRILL 9/16" HOLE - DO NOT EPOXY.
 3. 1/2"x12" SMOOTH DOWELS AT 12" O.C.
 4. CONCRETE CLOSURE POUR.
 5. NEW STEEL COLUMN.
 6. BASEPLATE/ANCHORS PER COLUMN SCHEDULE.
 7. NEW SLAB ON GRADE.
 8. NEW CONCRETE FOOTING.
 9. EXISTING TURNDOWN AT EDGE OF SLAB.
 10. POUR FOOTING TO EXISTING SLAB EDGE TURNDOWN.



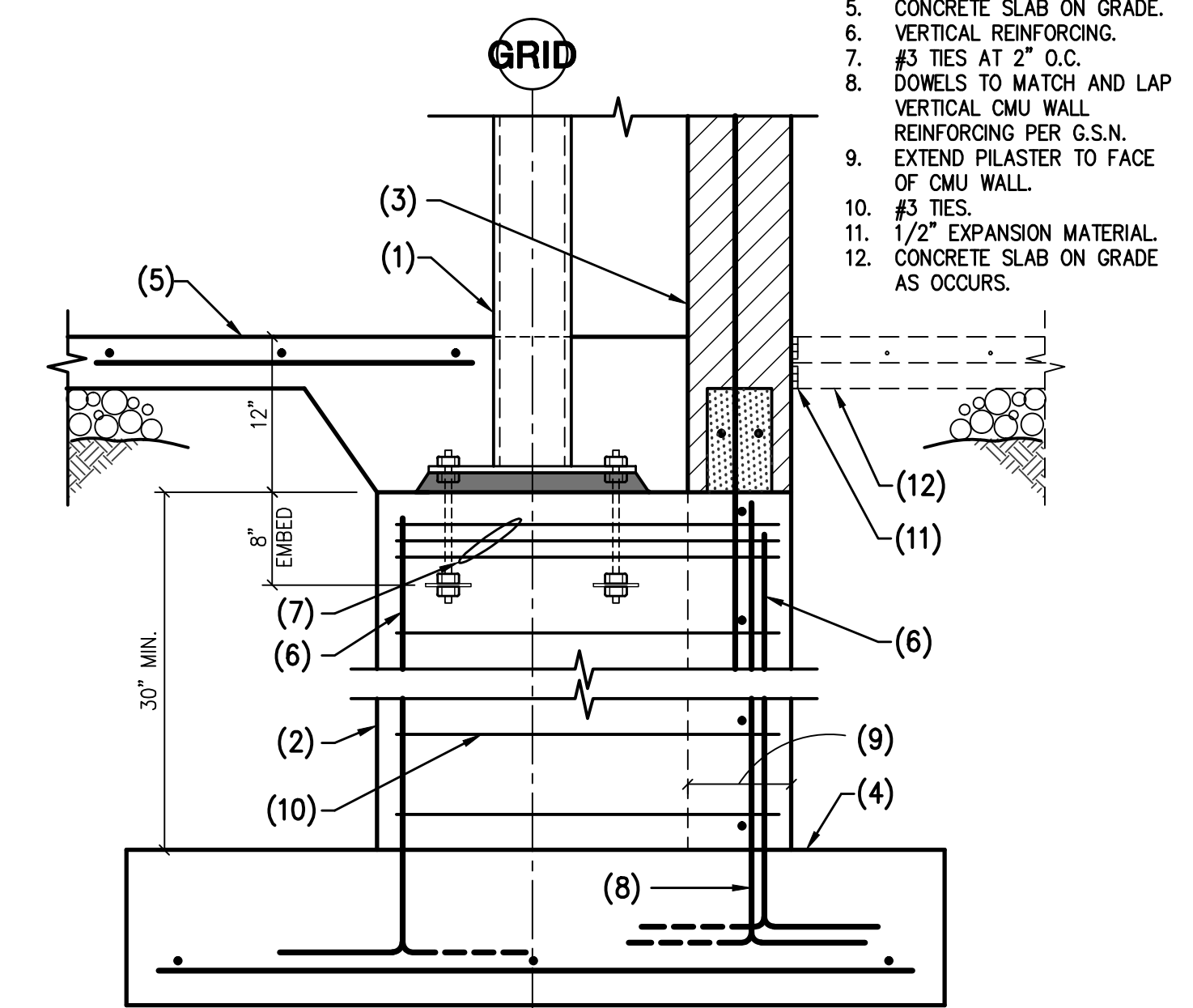
258 NEW FOOTING ADJACENT TO EXISTING SLAB EDGE NO SCALE

- NOTES:
1. EXISTING CONCRETE SLAB ON GRADE.
 2. SMOOTH DOWEL PER DETAIL 238 - DO NOT EPOXY.
 3. CHIP EDGE OF SLAB/TURNDOWN AS NEEDED TO INSTALL NEW COLUMN. BASEPLATE/ANCHORS. FOUR BACK SOLID WITH CLOSURE POUR.
 4. NEW STEEL COLUMN.
 5. CONCRETE CLOSURE POUR.
 6. NEW SLAB ON GRADE.
 7. BASEPLATE PER COLUMN SCHEDULE.
 8. 1 1/2" DRYPACK.
 9. 4 - 3/4" ASTM A36 ALL-THREADED STEEL RODS AT 8" O.C. EACH WAY. SET IN EPOXY. SEE GSN FOR EPOXY SPECS.
 10. EXISTING CONCRETE FOOTING.
 11. FIELD VERIFY EXISTING T.O.F. ELEVATION.



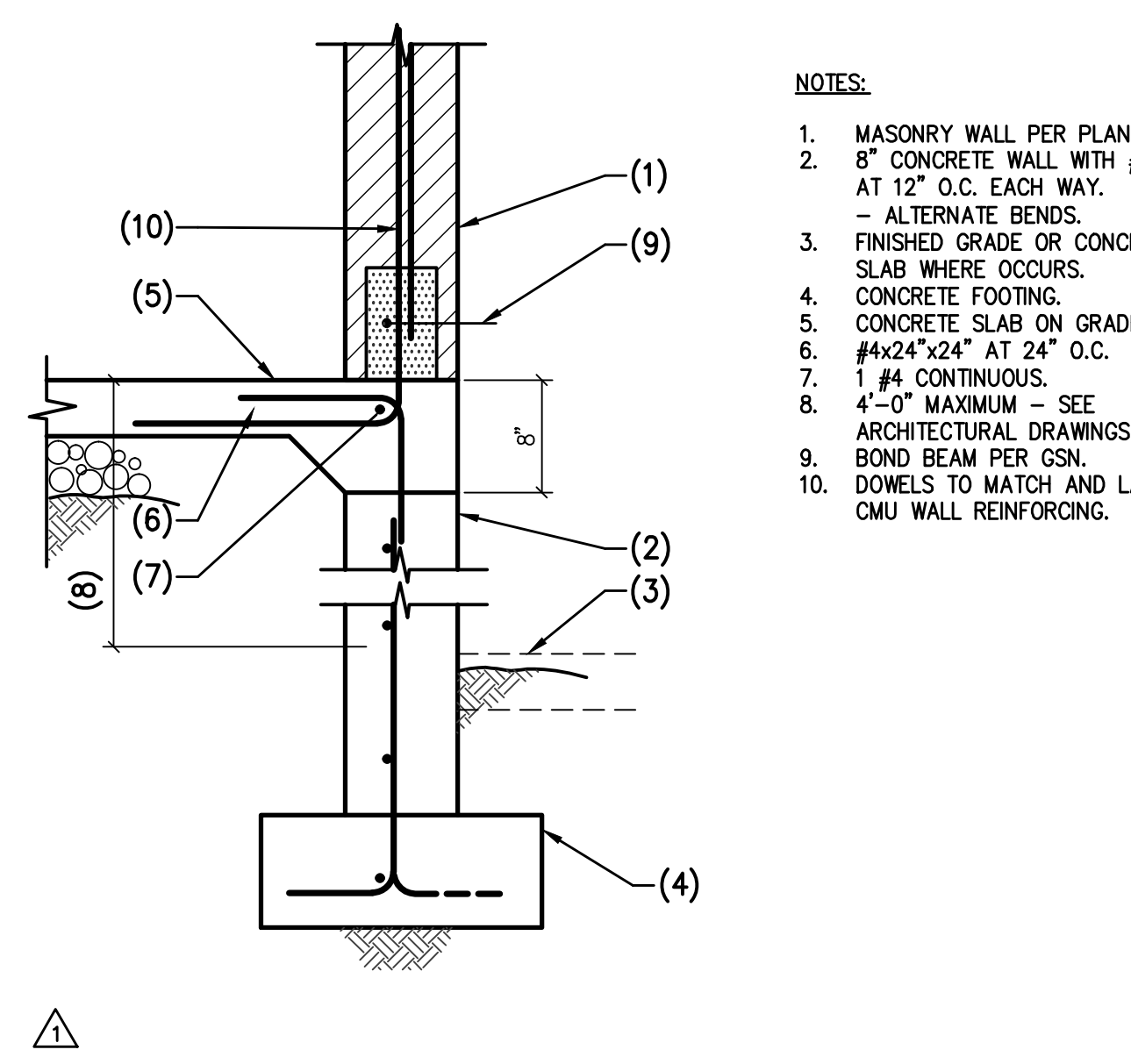
259 NEW STEEL COLUMN AT EXISTING CONCRETE FOOTING NO SCALE

- NOTES:
1. STEEL COLUMN.
 2. CONCRETE PLASTER.
 3. CMU WALL.
 4. CONCRETE FOOTING.
 5. CONCRETE SLAB ON GRADE.
 6. VERTICAL REINFORCING.
 7. #3 TIES AT 2' O.C.
 8. DOWELS TO MATCH AND LAP VERTICAL CMU WALL REINFORCING PER G.S.N.
 9. EXTEND PLASTER TO FACE OF CMU WALL.
 10. #3 TIES.
 11. 1/2" EXPANSION MATERIAL.
 12. CONCRETE SLAB ON GRADE AS OCCURS.



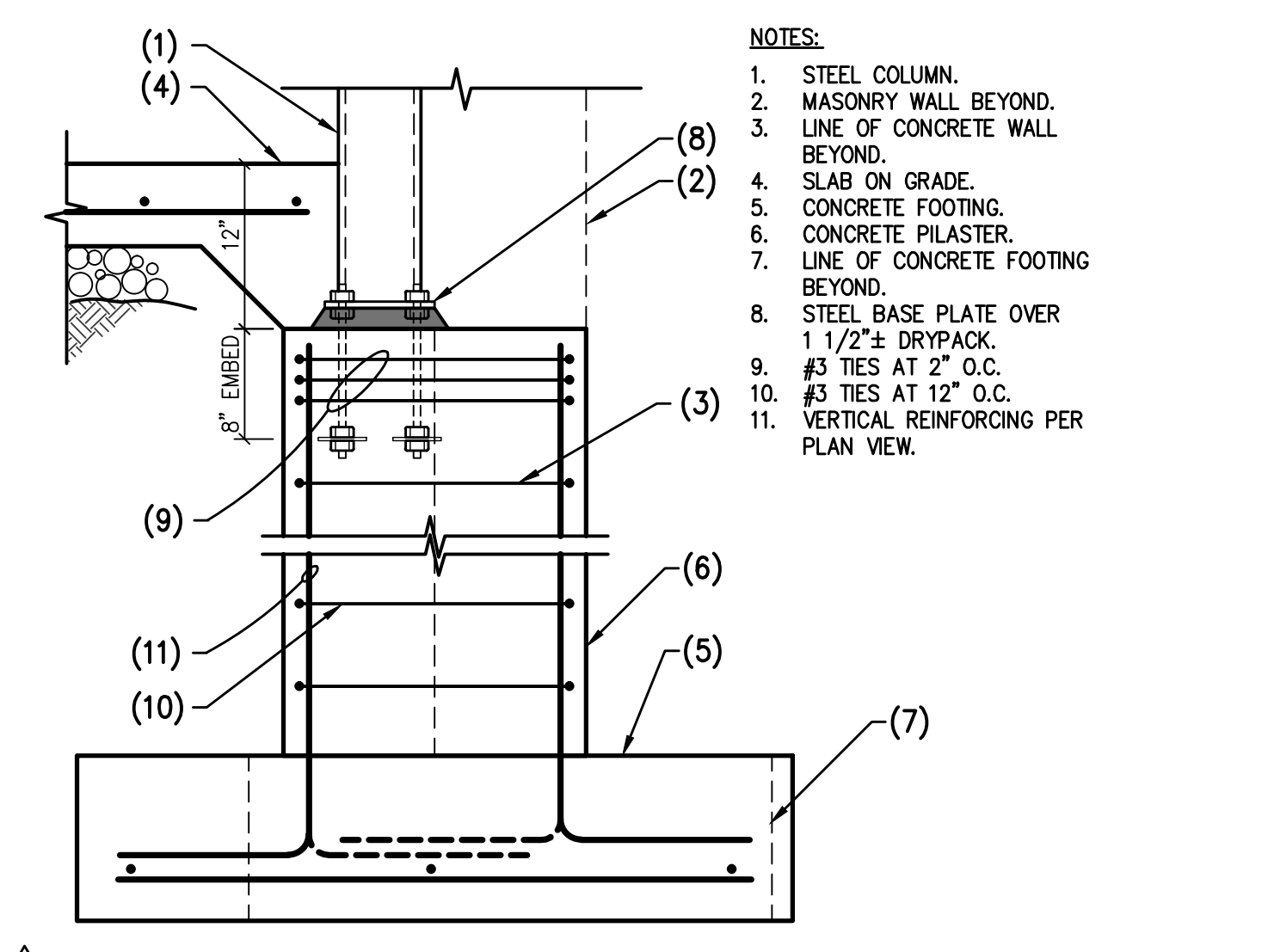
255 CONCRETE PILASTER AT MASONRY WALL NO SCALE

- NOTES:
1. MASONRY WALL PER PLANS.
 2. 8" CONCRETE WALL WITH #8 AT 12" O.C. EACH WAY. - ALTERNATE BENDS.
 3. FINISHED GRADE OR CONCRETE SLAB WHERE OCCURS.
 4. CONCRETE FOOTING.
 5. CONCRETE SLAB ON GRADE.
 6. #4x24" AT 24" O.C.
 7. #4 CONTINUOUS.
 8. 4"-0" MAXIMUM - SEE ARCHITECTURAL DRAWINGS.
 9. BOND BEAM PER GSN.
 10. DOWELS TO MATCH AND LAP CMU WALL REINFORCING.



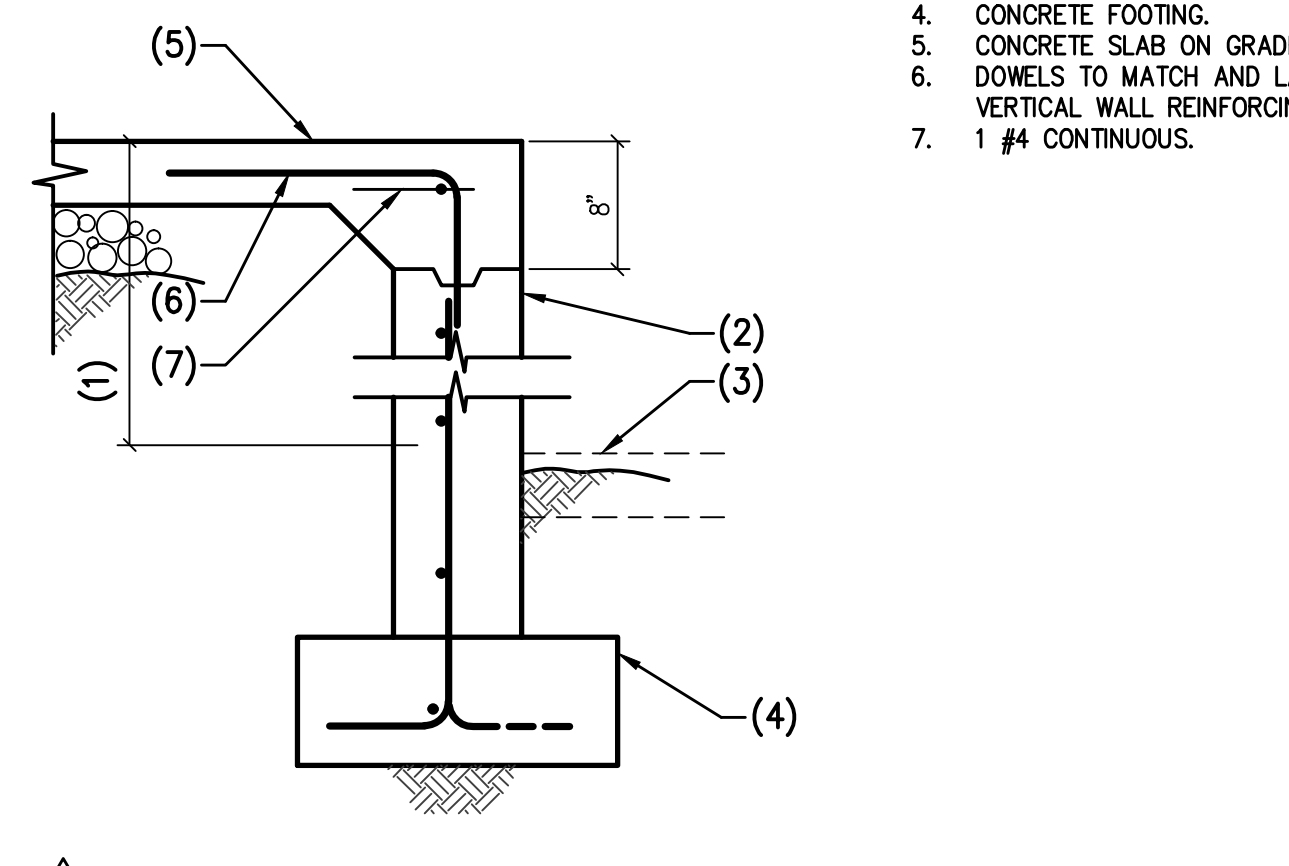
261 CONCRETE WALL AT MASONRY WALL NO SCALE

- NOTES:
1. STEEL COLUMN.
 2. MASONRY WALL BEYOND.
 3. LINE OF CONCRETE WALL BEYOND.
 4. SLAB ON GRADE.
 5. CONCRETE FOOTING.
 6. CONCRETE PLASTER.
 7. LINE OF CONCRETE FOOTING BEYOND.
 8. STEEL BASE PLATE OVER 1 1/2" DRYPACK.
 9. #3 TIES AT 2' O.C.
 10. #3 TIES AT 12" O.C.
 11. VERTICAL REINFORCING PER PLAN VIEW.



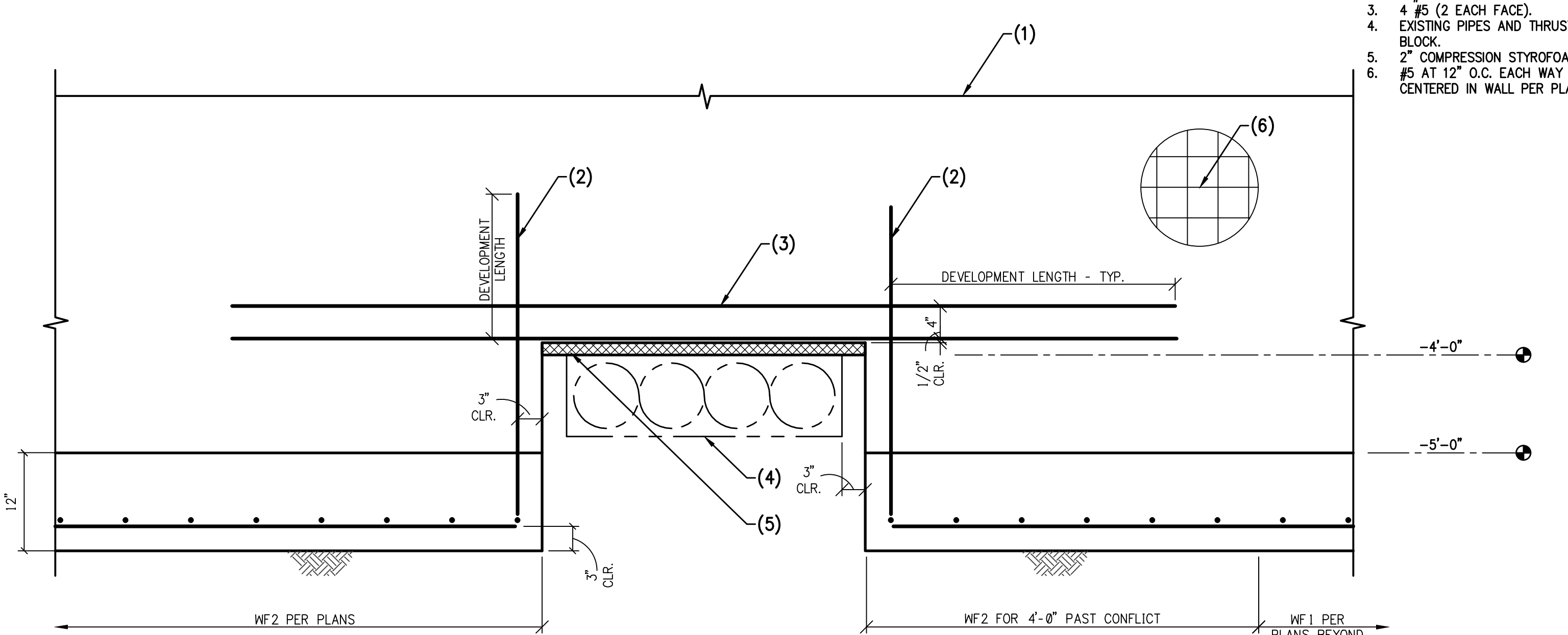
256 CONCRETE PILASTER AT MASONRY WALL BEYOND NO SCALE

- NOTES:
1. 4"-0" MAXIMUM - SEE ARCHITECTURAL DRAWINGS.
 2. CONCRETE WALL PER PLANS.
 3. FINISHED GRADE OR CONCRETE SLAB WHERE OCCURS.
 4. CONCRETE FOOTING.
 5. CONCRETE SLAB ON GRADE.
 6. DOWELS TO MATCH AND LAP VERTICAL WALL REINFORCING.
 7. #4 CONTINUOUS.



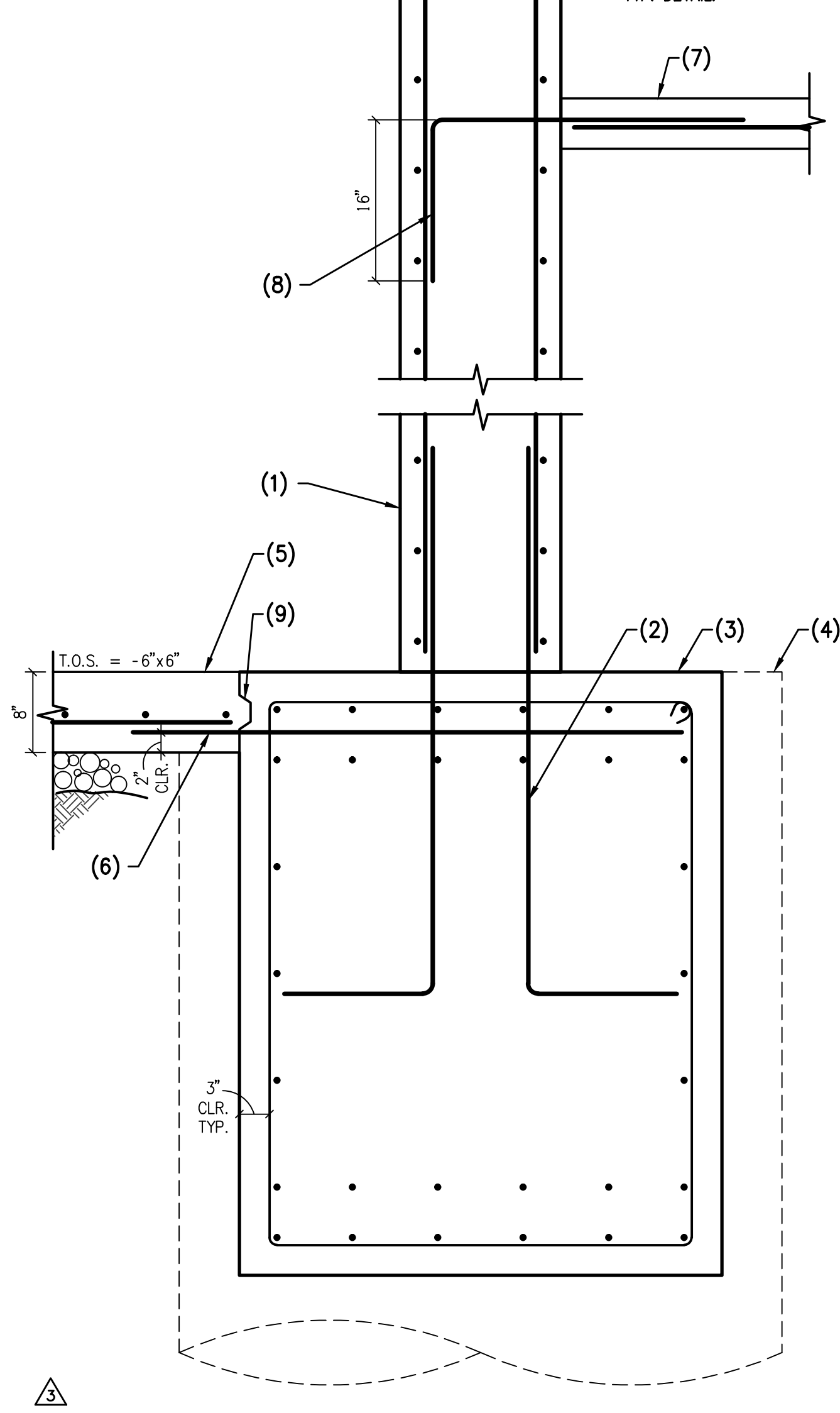
262 CONCRETE DOCK WALL NO SCALE

- NOTES:
1. 8" CONCRETE WALL PER PLANS.
 2. 1 #5 CENTERED IN WALL.
 3. 4 #5 (2 EACH FACE).
 4. EXISTING PIPES AND THRUST BLOCK.
 5. 2" COMPRESSION STYROFOAM.
 6. #3 AT 12" O.C. EACH WAY CENTERED IN WALL PER PLAN.



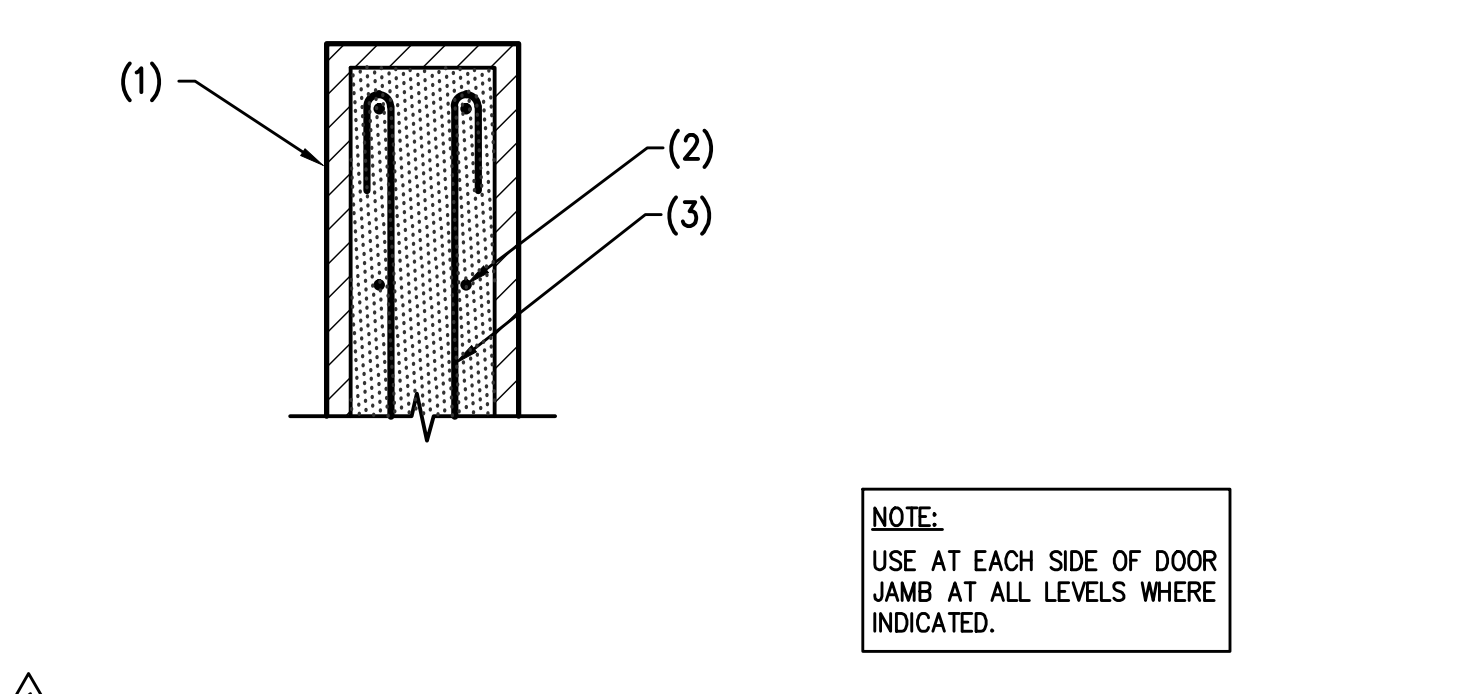
264 LOADING DOCK ALTERNATE AT PIPE CONFLICT NO SCALE

- NOTES:
1. CONCRETE SHEAR WALL.
 2. DOWELS TO MATCH AND LAP VERT. WALL REIN.
 3. CONCRETE GRADE BEAM PER PLANS.
 4. CONCRETE CAISSON BEYOND.
 5. 8" CONCRETE SLAB ON GRADE W/ #6 BARS AT 8" O.C. EACH WAY BOTTOM.
 6. DOWELS TO MATCH AND LAP SLAB REIN.
 7. CONCRETE SLAB ON GRADE PER PLANS.
 8. #6x16"x48" (SLV) AT 16" O.C. OPTIONAL CONCRETE KEY PER TYP. DETAIL.



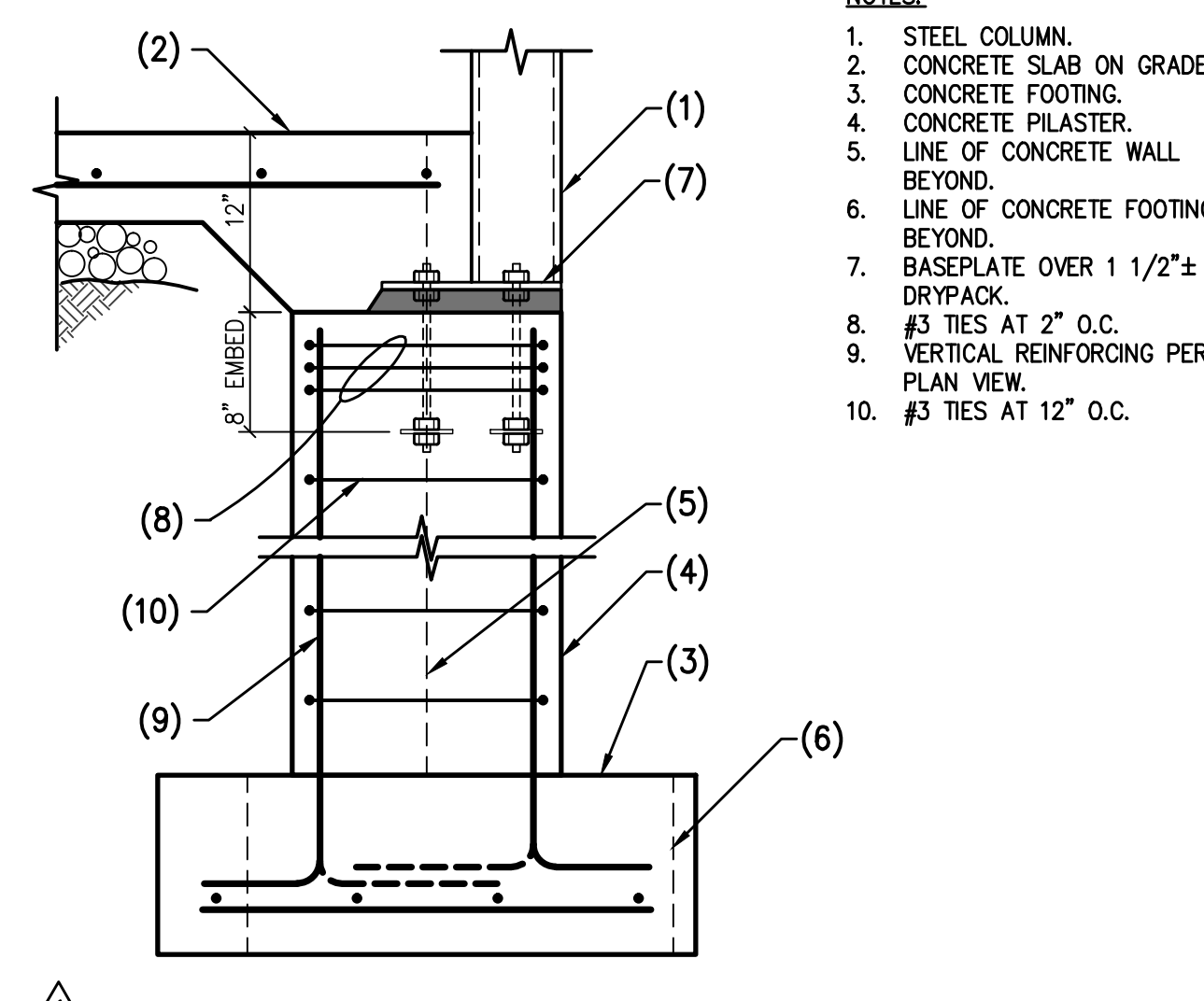
260 CONCRETE SHEAR WALL TO GRADE BEAM AT ELEVATOR PIT NO SCALE

- NOTES:
1. MASONRY SHEARWALL.
 2. VERTICAL REINFORCING PER PLAN.
 3. HORIZONTAL REIN. IN SOLID GROTTED BOND BEAM W/ ALTERNATING 180° STANDARD HOOKS.



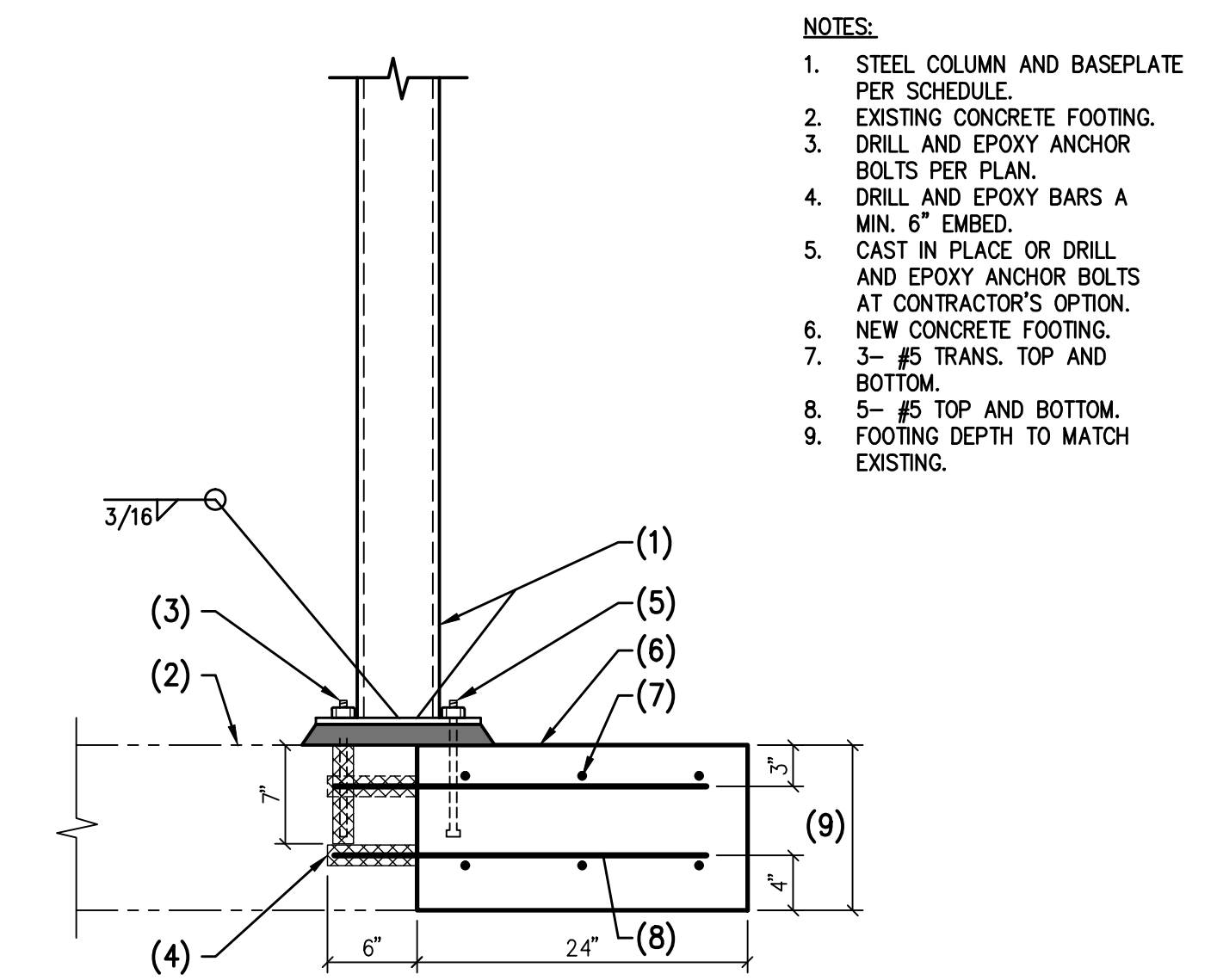
257 MASONRY HORIZONTAL SHEAR REINFORCING DETAIL AT DOOR JAMB NO SCALE

- NOTES:
1. STEEL COLUMN.
 2. CONCRETE SLAB ON GRADE.
 3. CONCRETE FOOTING.
 4. CONCRETE PILASTER.
 5. LINE OF CONCRETE WALL BEYOND.
 6. LINE OF CONCRETE FOOTING BEYOND.
 7. BASEPLATE OVER 1 1/2" DRYPACK.
 8. #3 TIES AT 2' O.C.
 9. VERTICAL REINFORCING PER PLAN VIEW.
 10. #3 TIES AT 12" O.C.



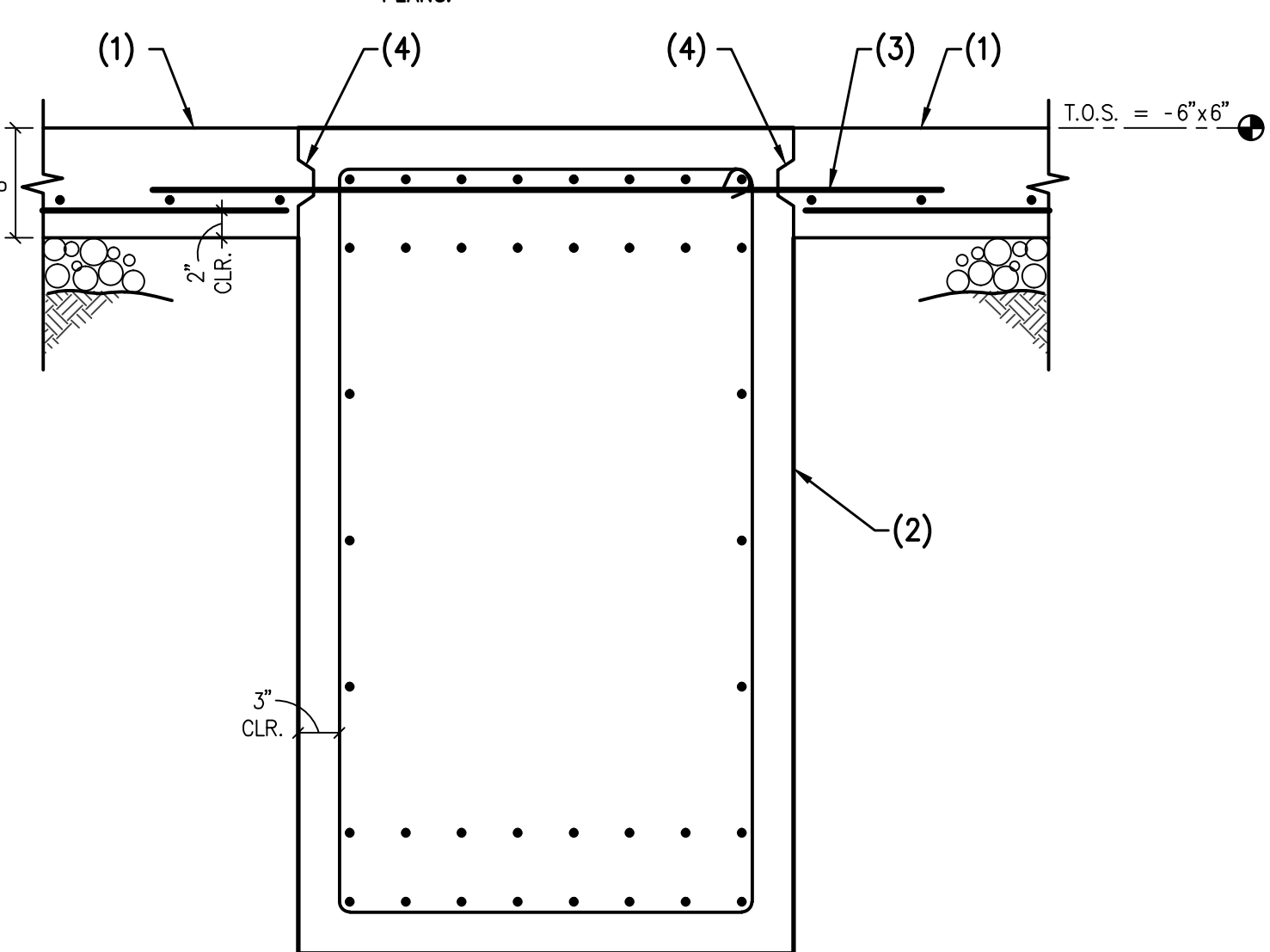
263 CONCRETE PILASTER AT CONCRETE WALL NO SCALE

- NOTES:
1. STEEL COLUMN AND BASEPLATE PER SCHEDULE.
 2. EXISTING CONCRETE FOOTING.
 3. DRILL AND EPOXY ANCHOR BOLTS PER PLAN.
 4. DRILL AND EPOXY BARS A MIN. 6" DIA.
 5. CAST IN PLACE OR DRILL AND EPOXY ANCHOR BOLTS AT CONTRACTOR'S OPTION.
 6. NEW CONCRETE FOOTING.
 7. 3-#5 TRANS. TOP AND BOTTOM.
 8. 5-#5 TOP AND BOTTOM.
 9. FOOTING DEPTH TO MATCH EXISTING.

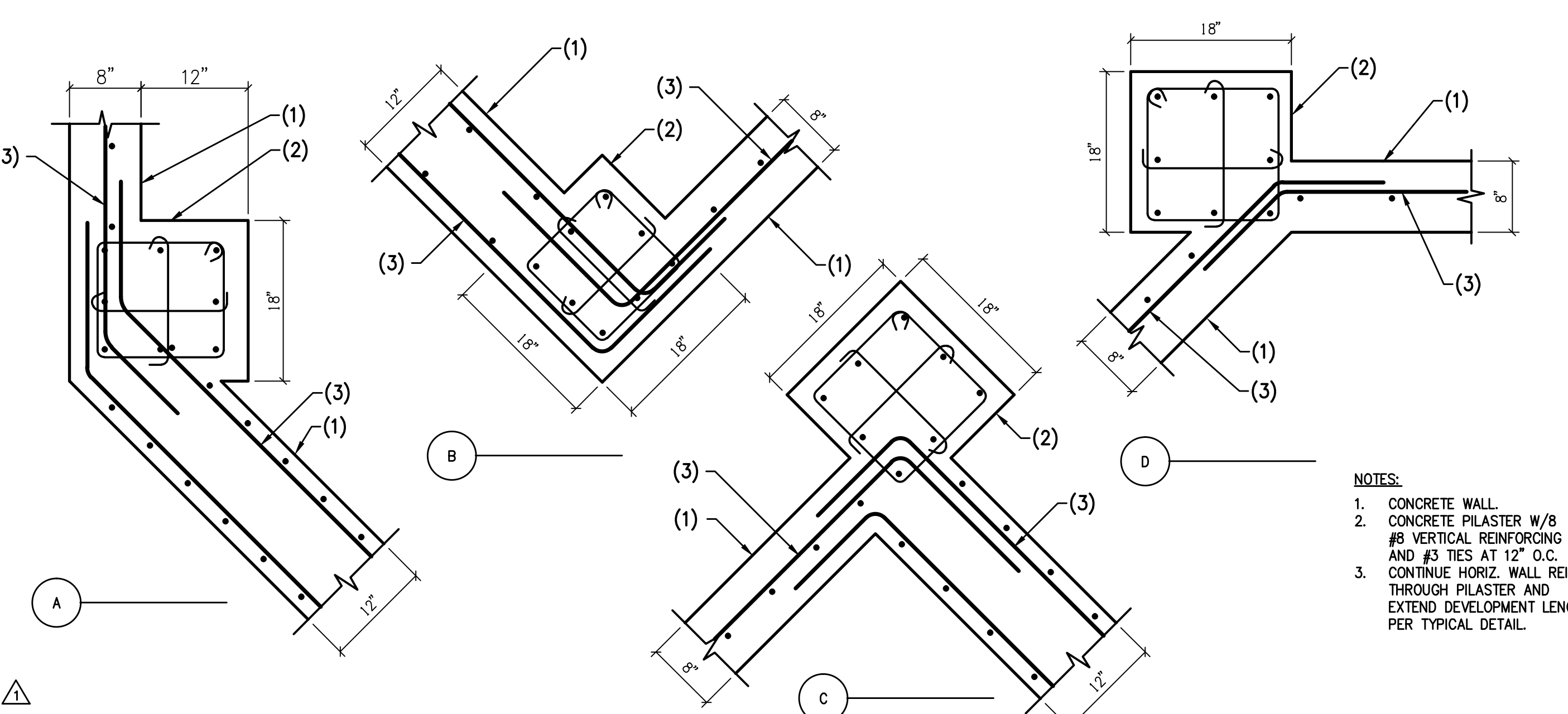


265 FOOTING EXTENSION AT EXISTING FOOTING NO SCALE

- NOTES:
1. 8" CONCRETE SLAB ON GRADE W/ #6 BARS AT 8" O.C. EACH WAY BOTTOM.
 2. CONCRETE GRADE BEAM PER PLANS.
 3. DOWELS TO MATCH AND LAP SLAB REIN.
 4. OPTIONAL CONCRETE KEY PER TYPICAL DETAIL.



262 CONCRETE SLAB ON GRADE TO GRADE BEAM AT ELEVATOR PIT NO SCALE



254 PLAN VIEW - PILASTER AT CONCRETE WALL NO SCALE

Key Plan:

No.	Description	Date
1	STRUCTURAL REVISIONS	03/02/16
2	PLAN REVIEW COMMENTS	03/02/16
3	BASE PLATE REVISION	03/02/16
17	STRUCTURAL CLARIFICATIONS	10/10/16
	CONFORM SET	03/02/17
	CONFORM SET	03/02/17

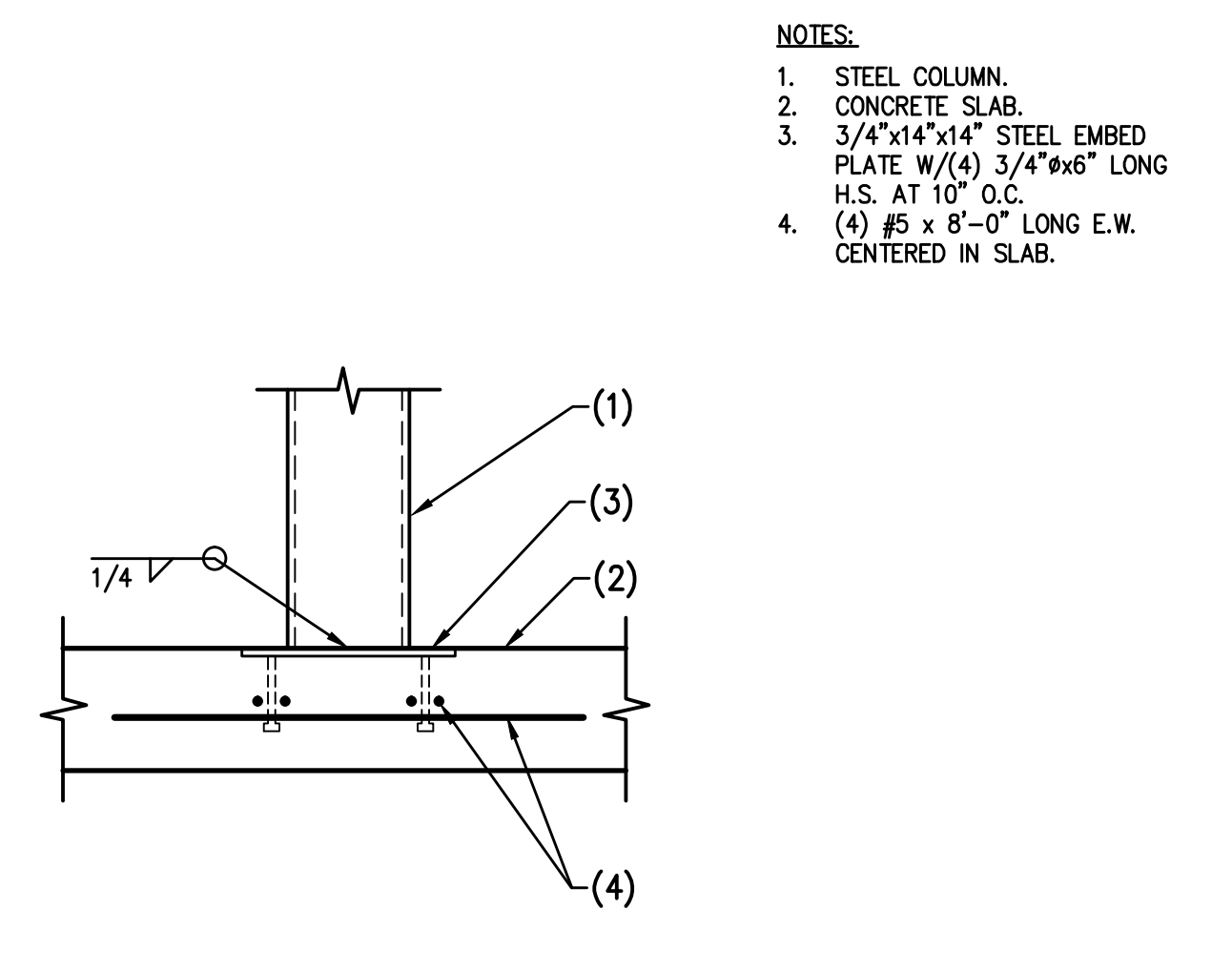
Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Name:
BUILDING FOUNDATION DETAILS

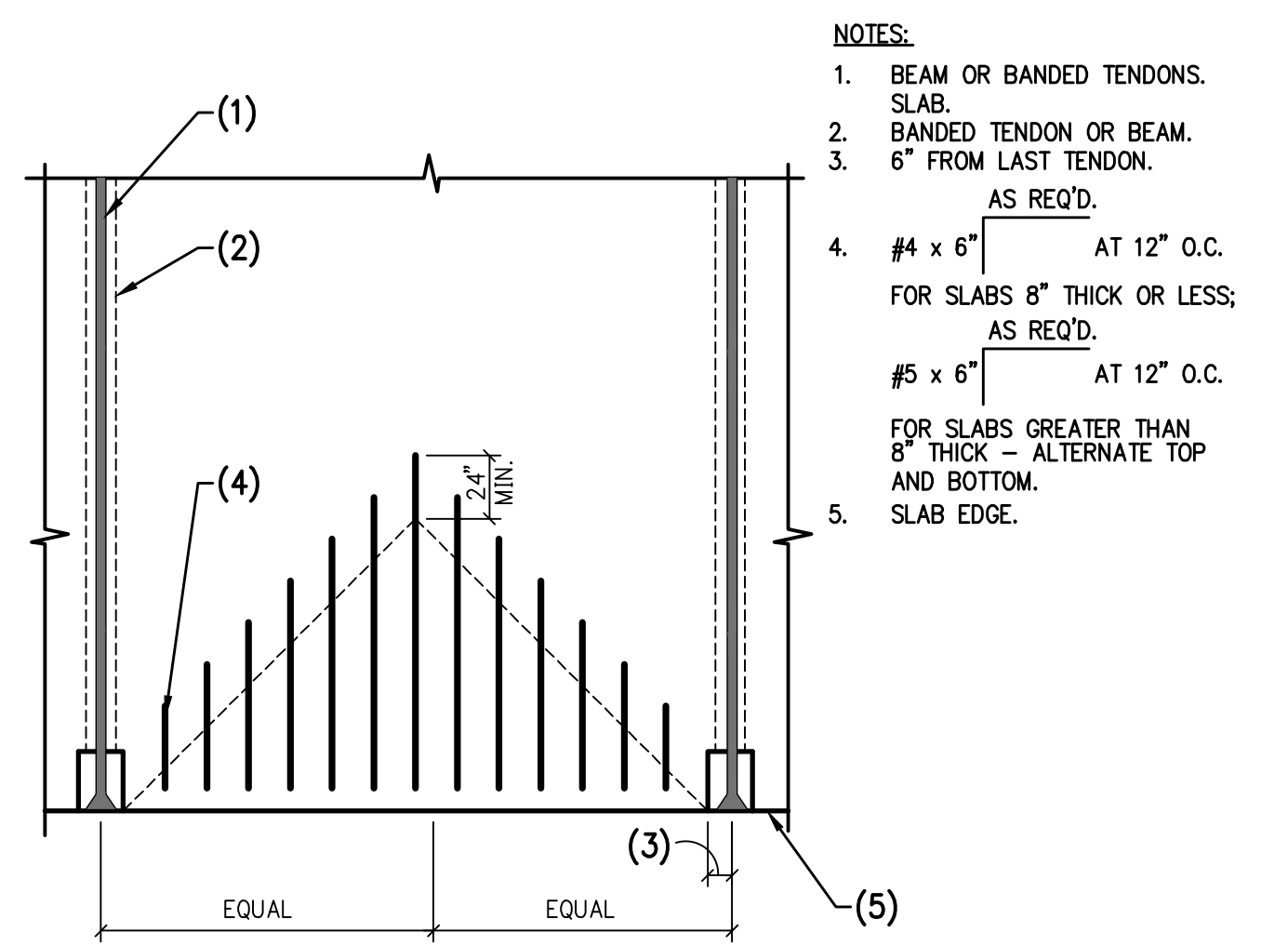
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ACTUAL SHEET SIZE: 36" X 48"

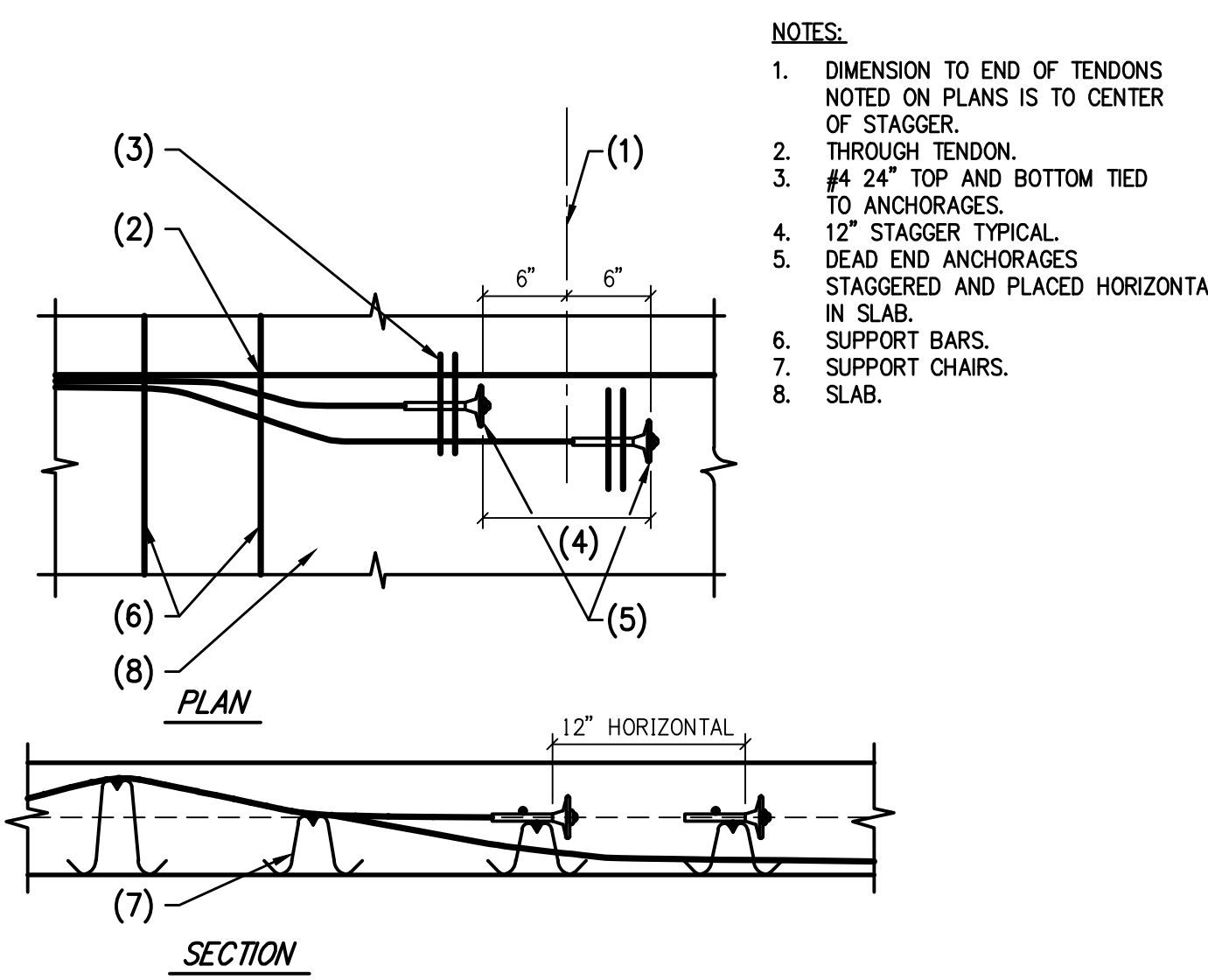
02-17-2017 CONFORM SET



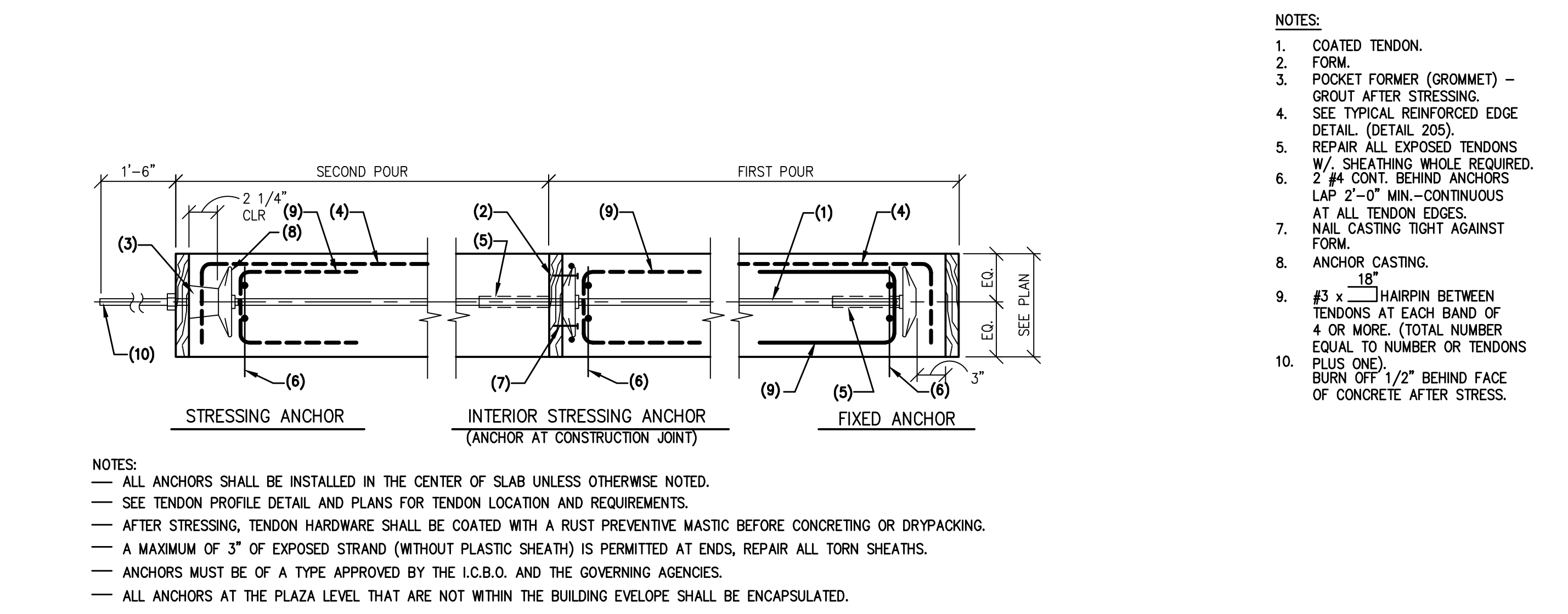
313 STEEL BEAM AT CONCRETE SLAB
NO SCALE



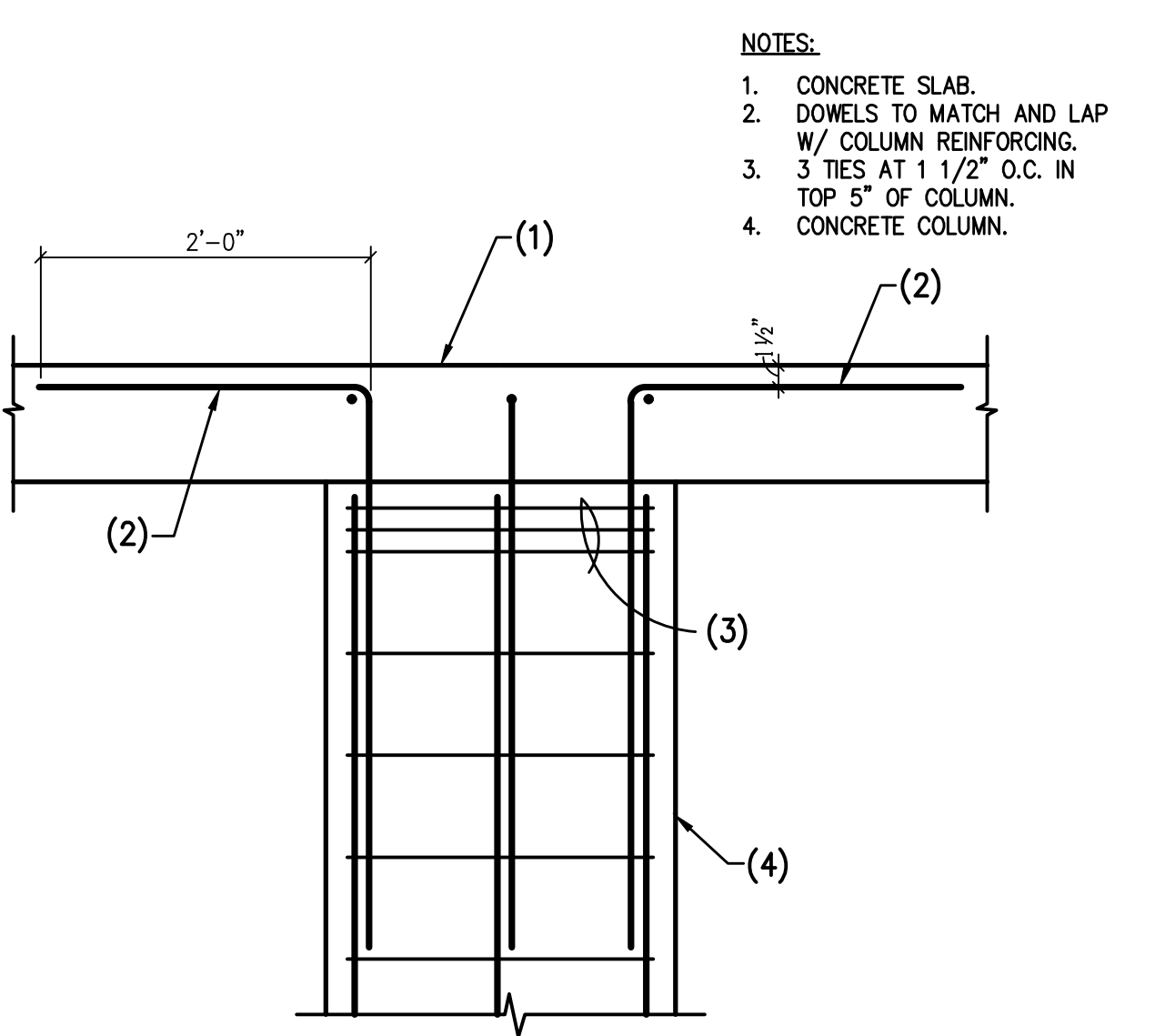
309 TYPICAL SHRINKAGE REINFORCEMENT BETWEEN BANDED TENDONS
NO SCALE



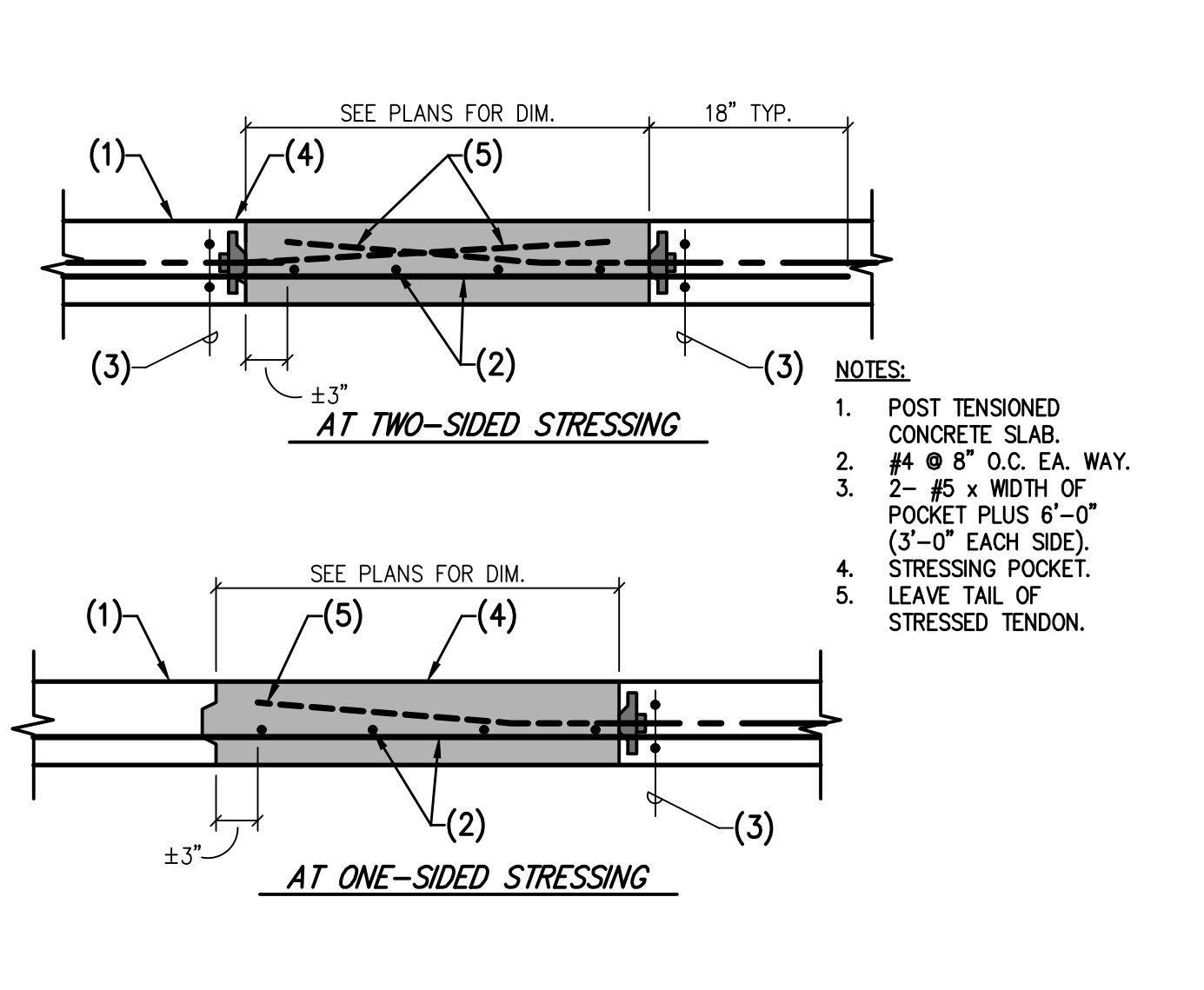
305 TYPICAL PLACEMENT OF ADDED TENDONS
NO SCALE



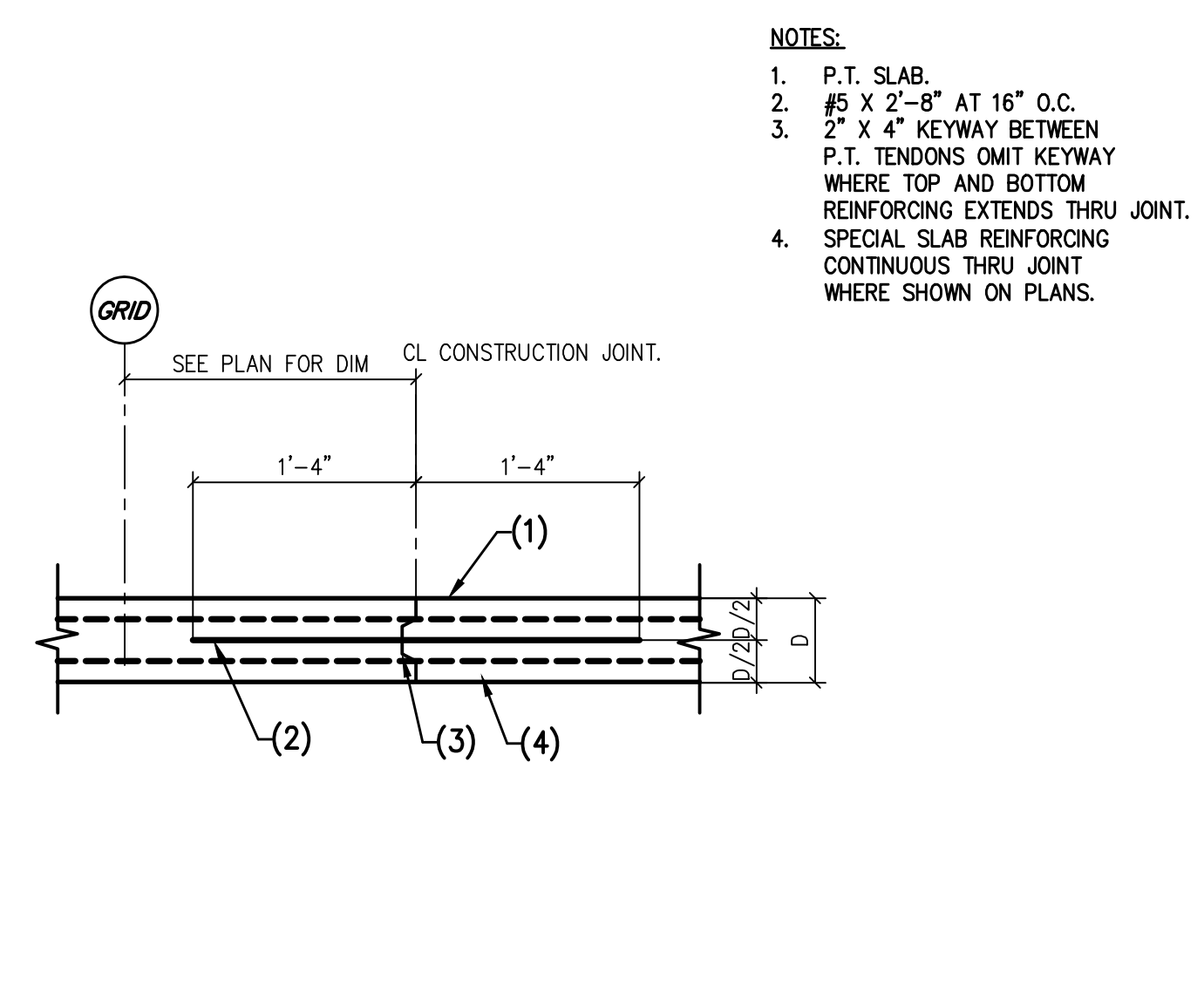
301 TENDON ANCHORAGE DETAIL FOR POST TENSIONED CONCRETE
NO SCALE



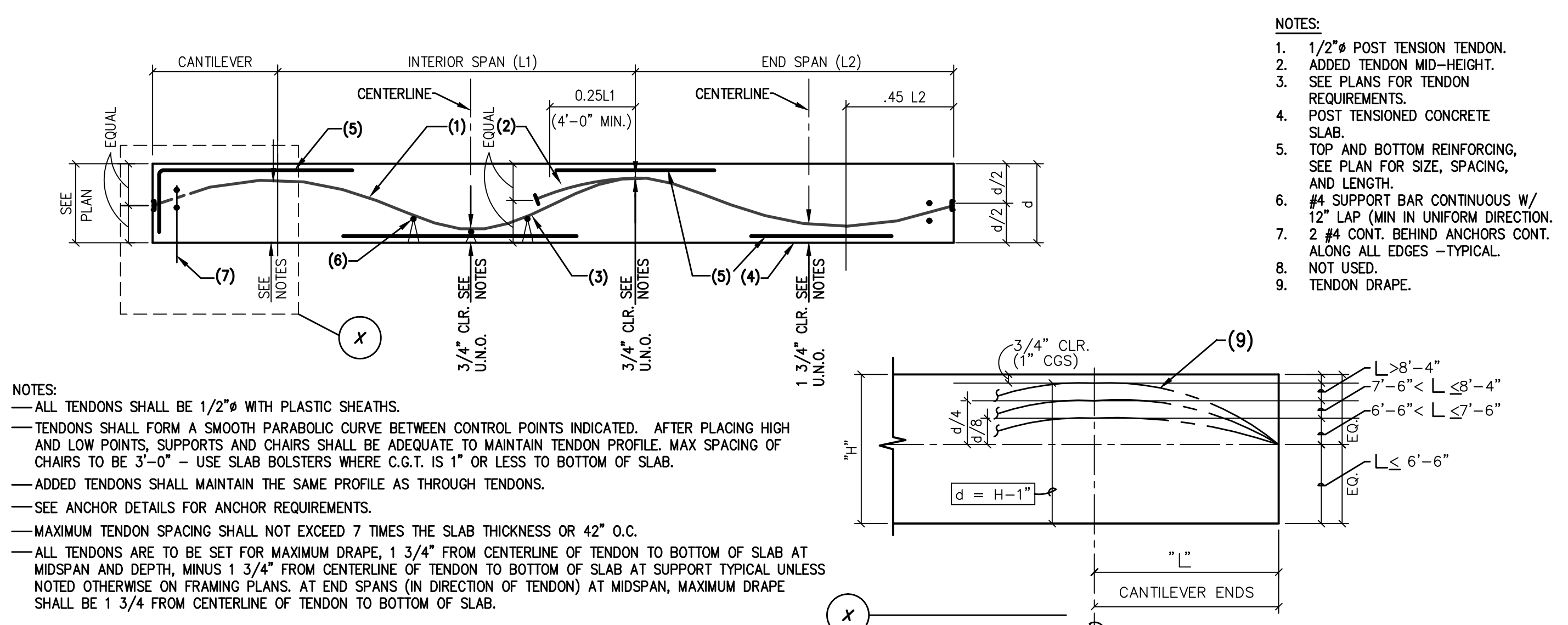
314 CONCRETE SLAB TO CONCRETE COLUMN
NO SCALE



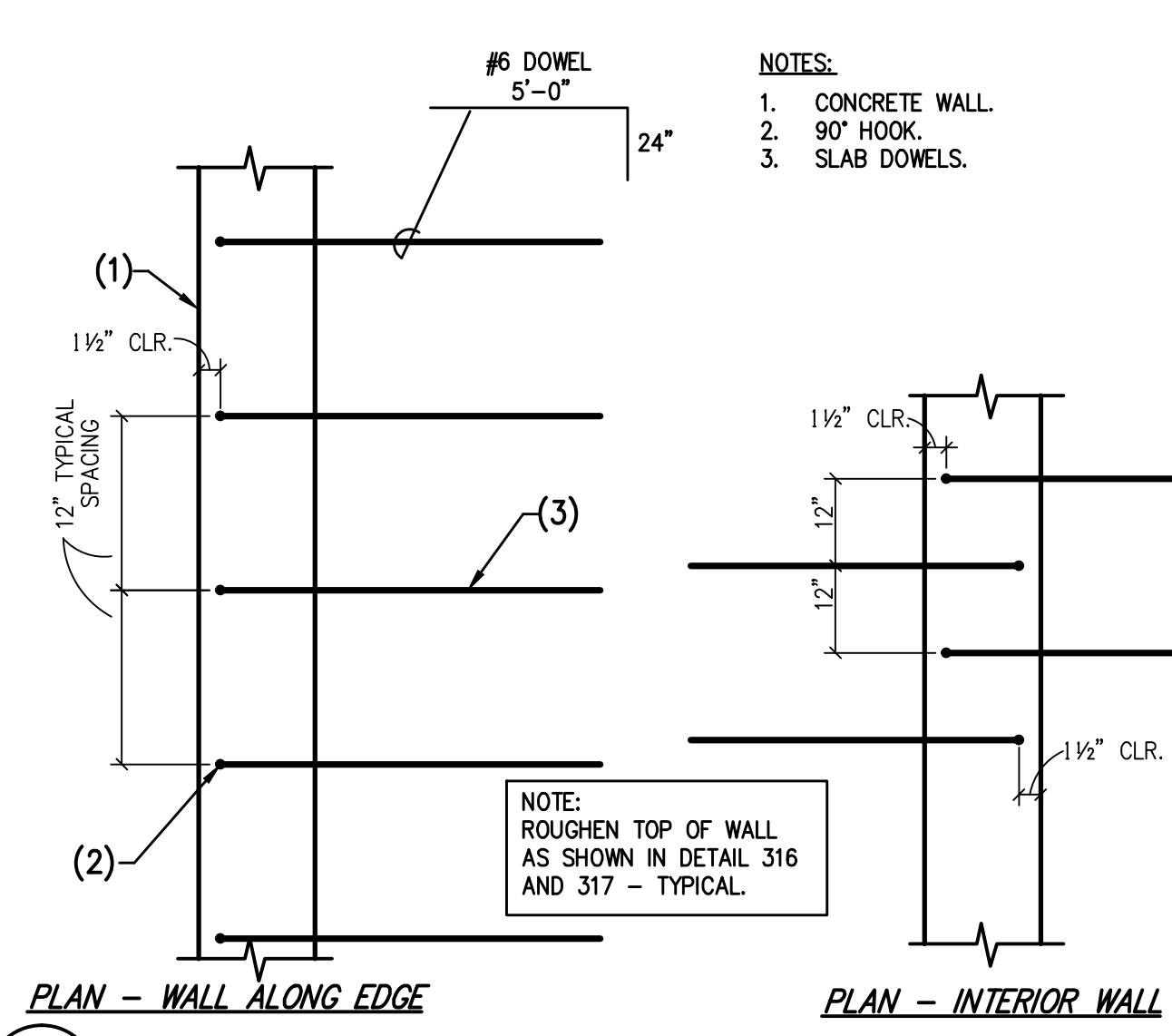
310 STRESSING POCKET AT CONCRETE SLABS
NO SCALE



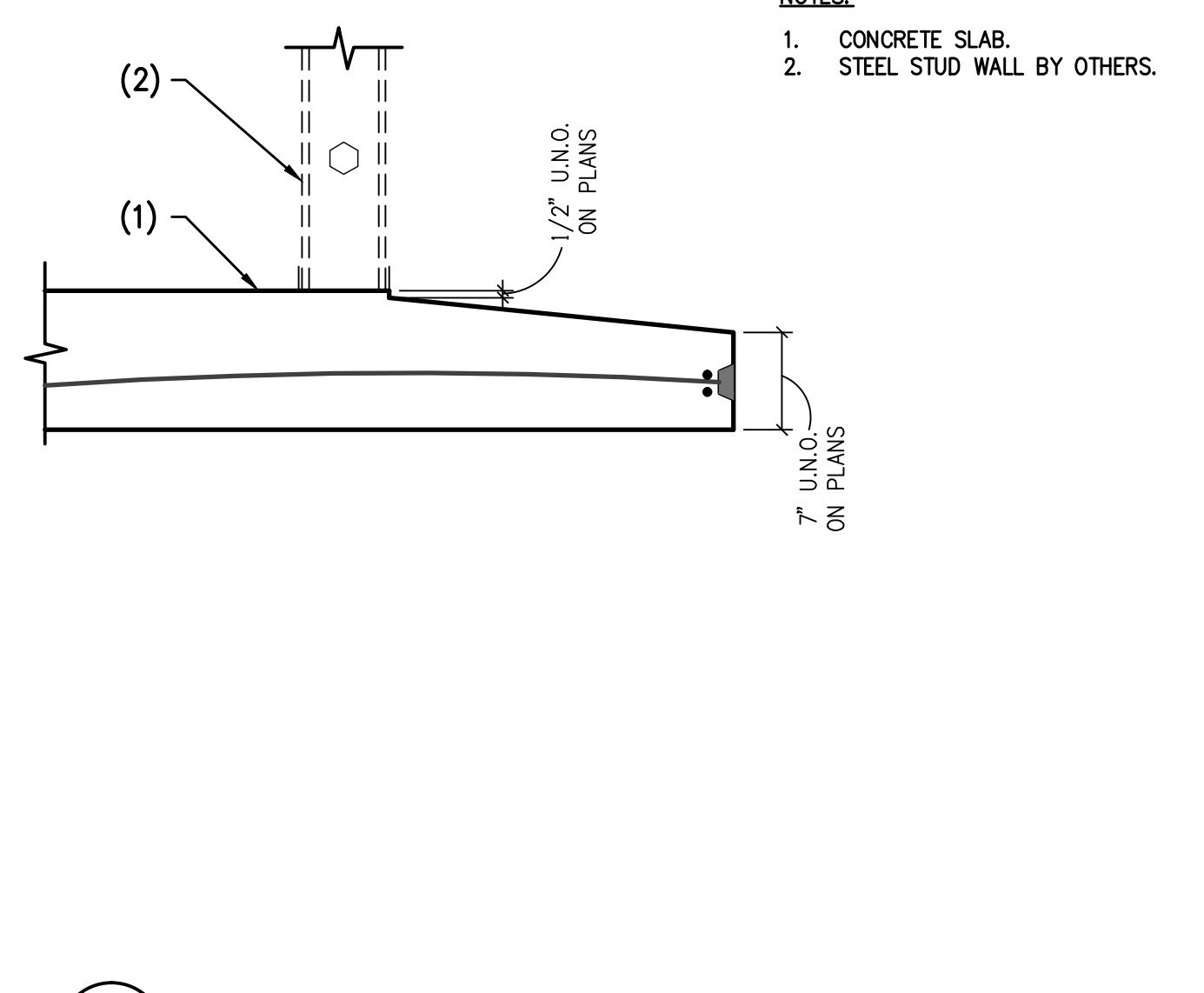
306 CONSTRUCTION JOINT
NO SCALE



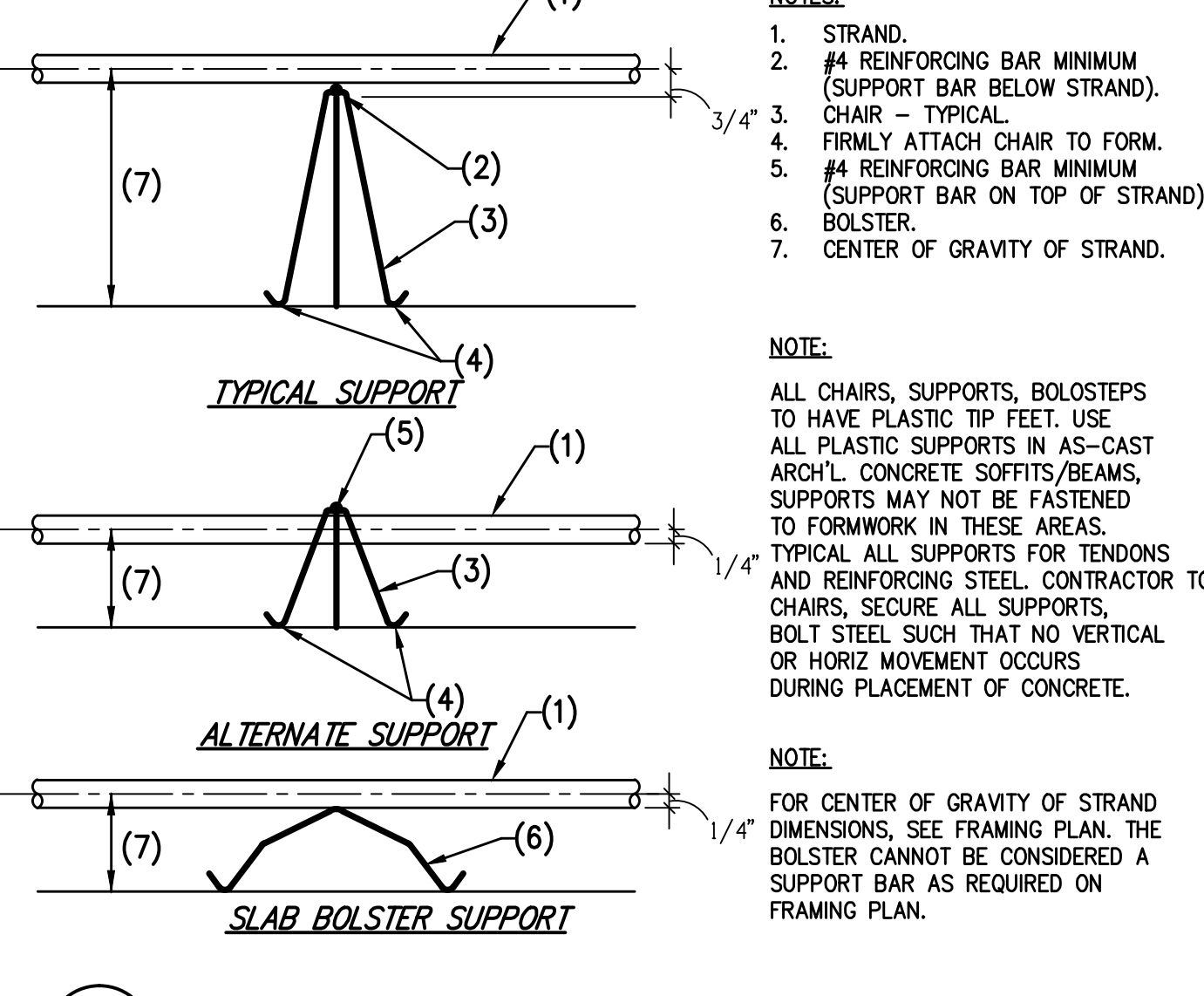
302 TENDON PROFILE FOR POST TENSIONED CONCRETE SLABS
NO SCALE



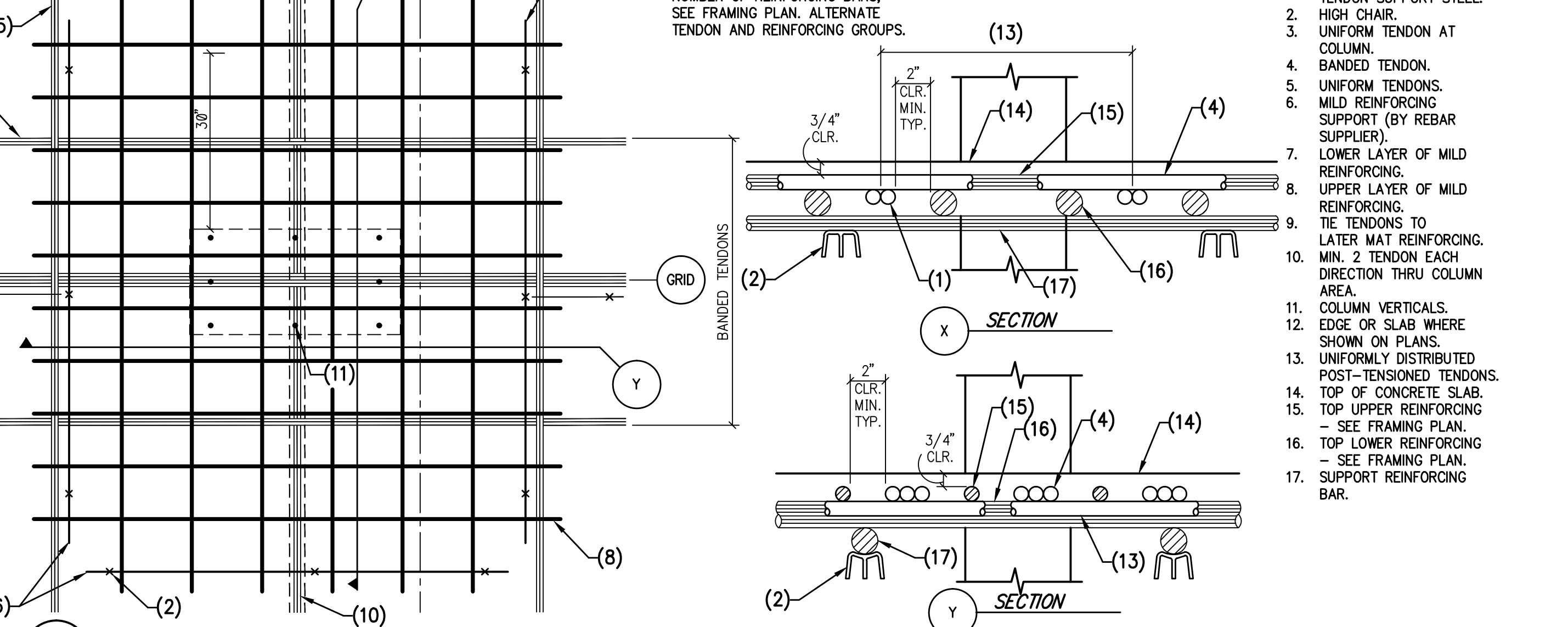
315 WALL DOMELS AT CONCRETE SHEAR WALLS
NO SCALE



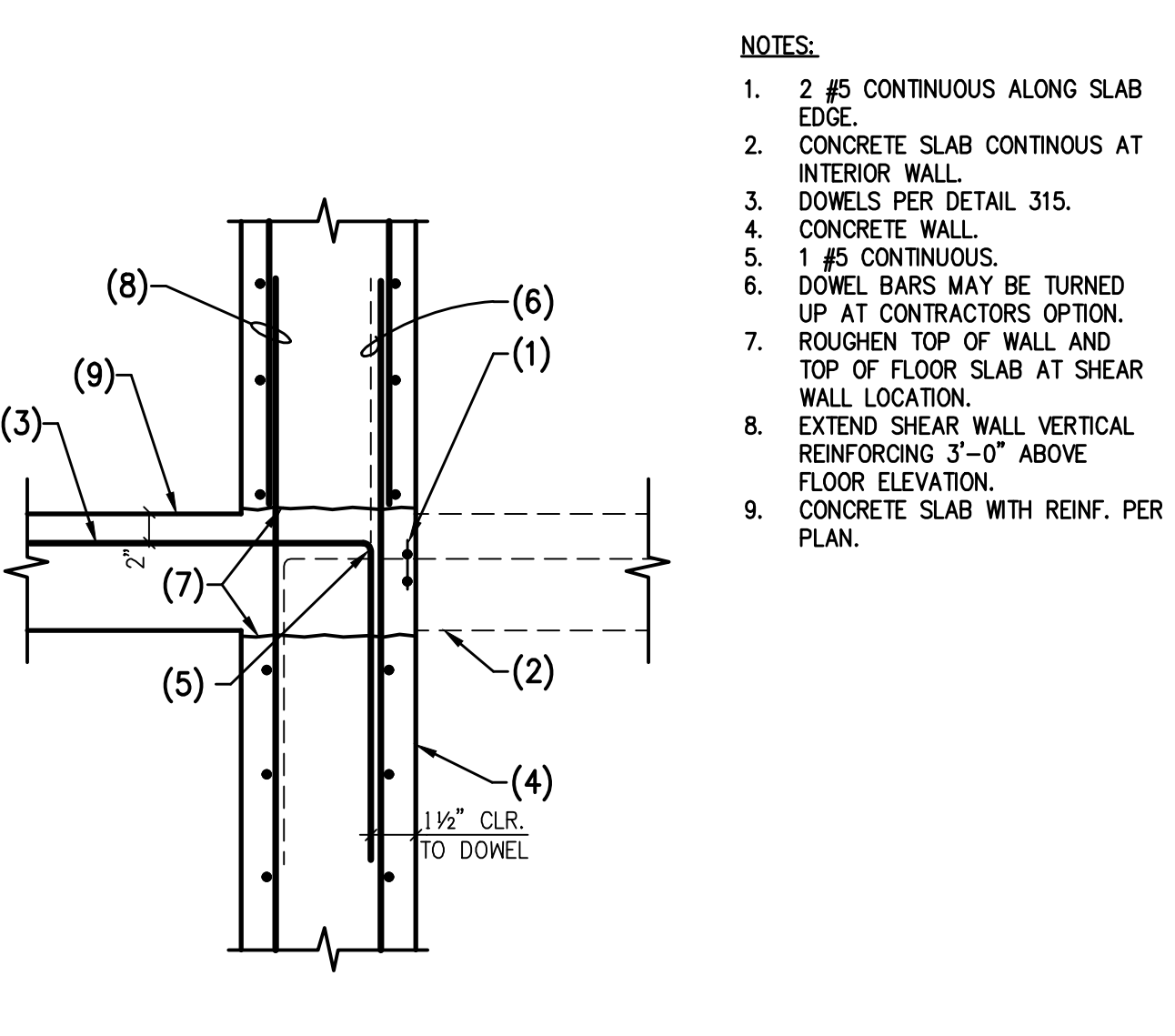
311 EDGE OF SLAB AT OVERHANG
NO SCALE



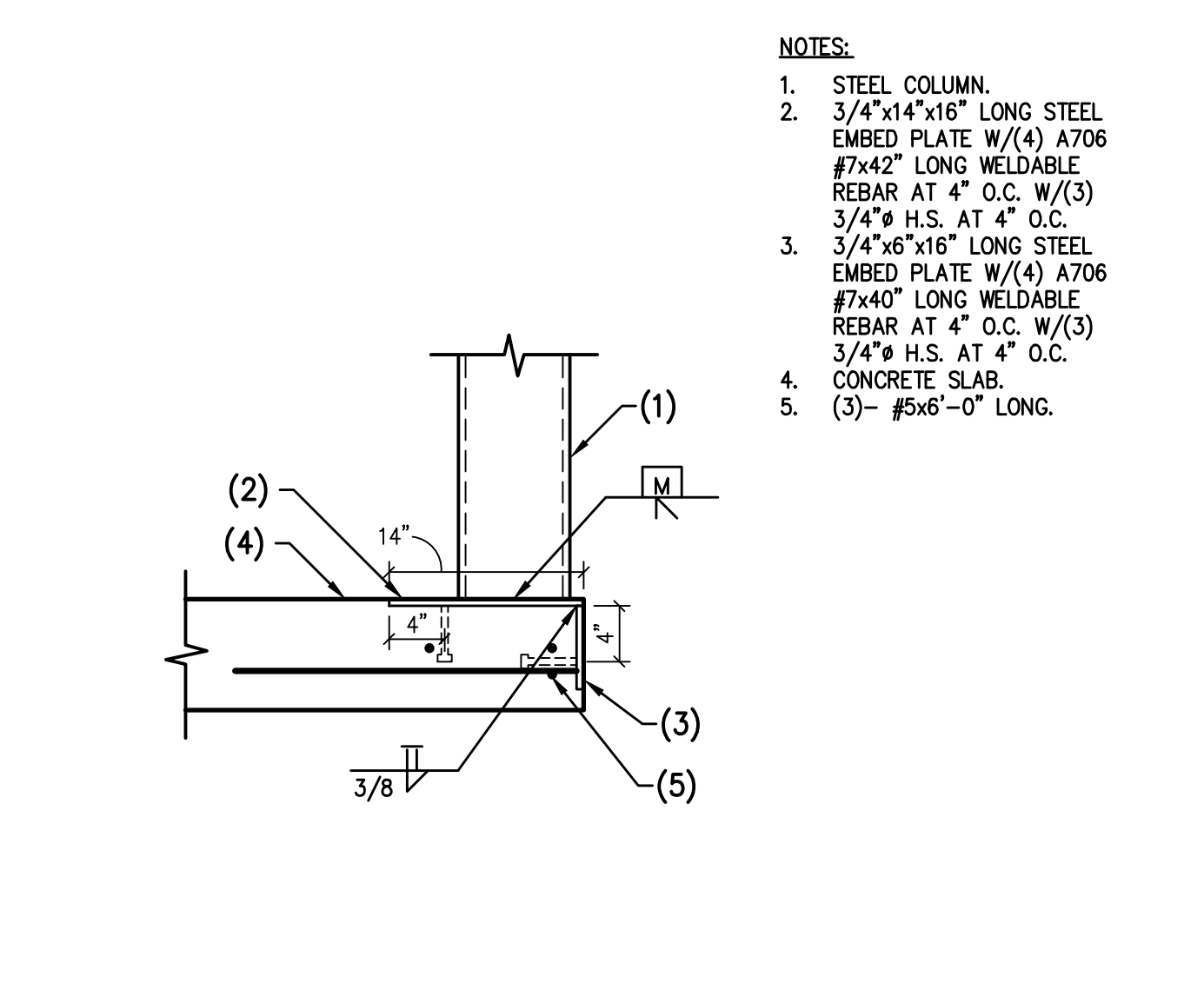
307 CHAIRS AND SUPPORTS FOR STRANDS IN POST-TENSIONED CONCRETE SLAB
NO SCALE



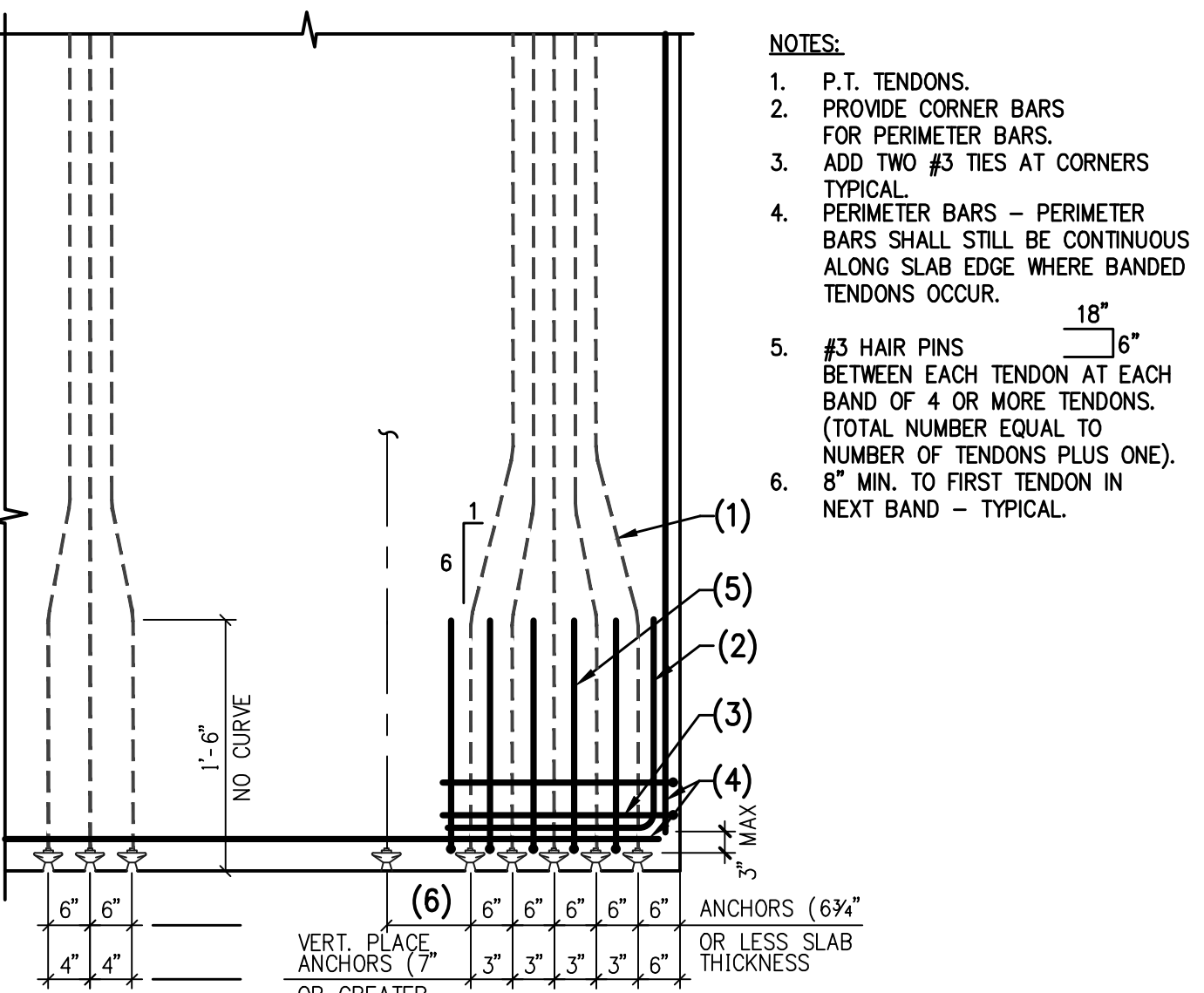
303 TENDONS AROUND COLUMN
NO SCALE



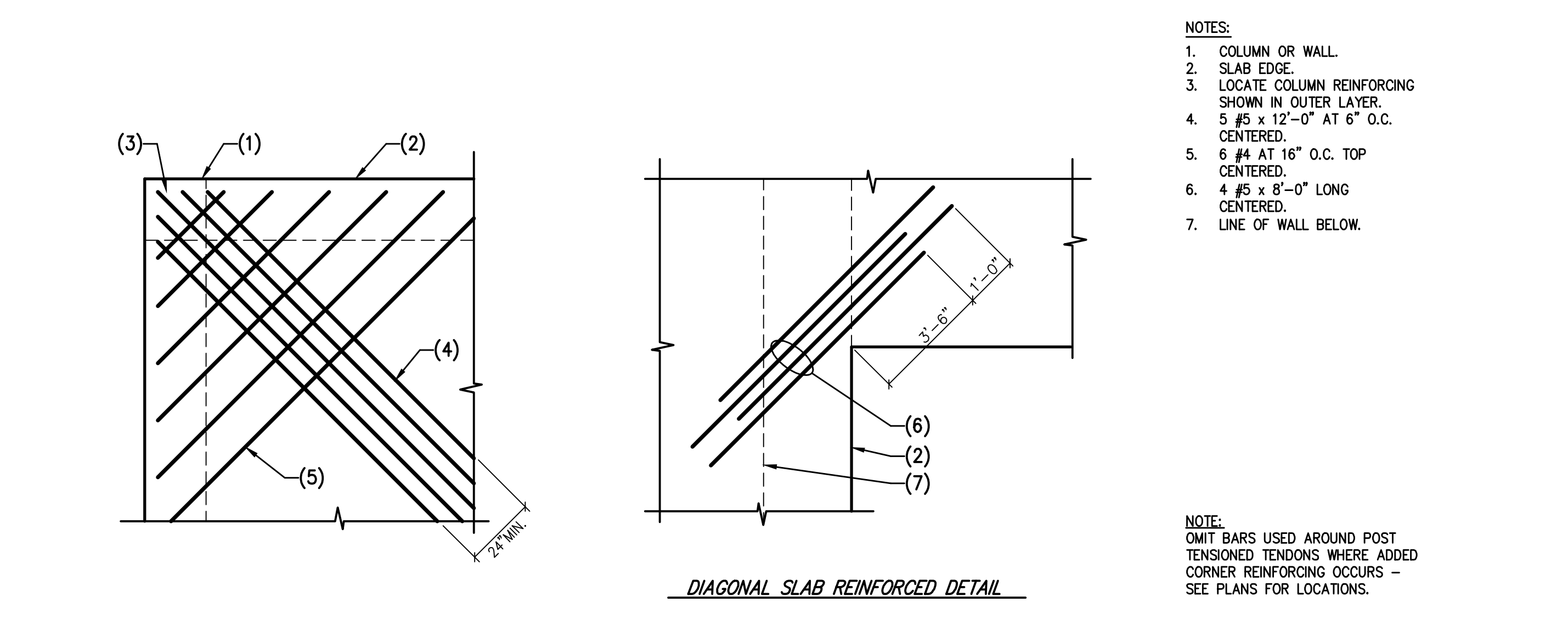
316 CONCRETE SLAB TO CONCRETE WALL
NO SCALE



312 STEEL COLUMN AT EDGE OF CONCRETE SLAB
NO SCALE



308 TYPICAL ANCHOR SPACING AT SLAB EDGE
NO SCALE



304 PLAN - ADDED CORNER REINFORCING FOR POST TENSIONED SLABS
NO SCALE

Key Plan:

No.	Description	Date
17	STRUCTURAL CLARIFICATIONS	10/10/14
	CONFORM SET	08/03/17
	CONFORM SET	02/10/17

Revisions:

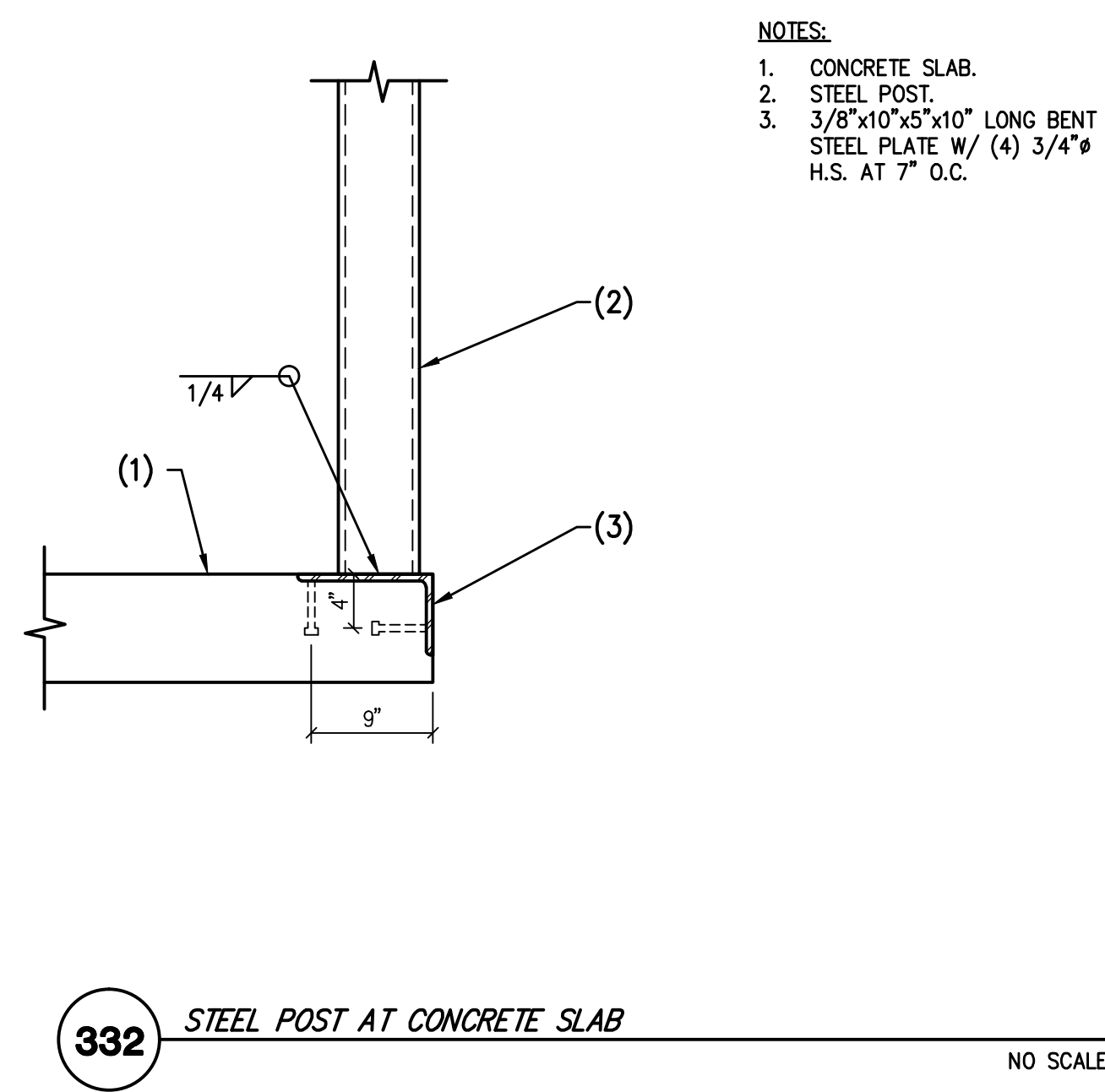
Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Name:
C.I.P. CONCRETE DETAILS

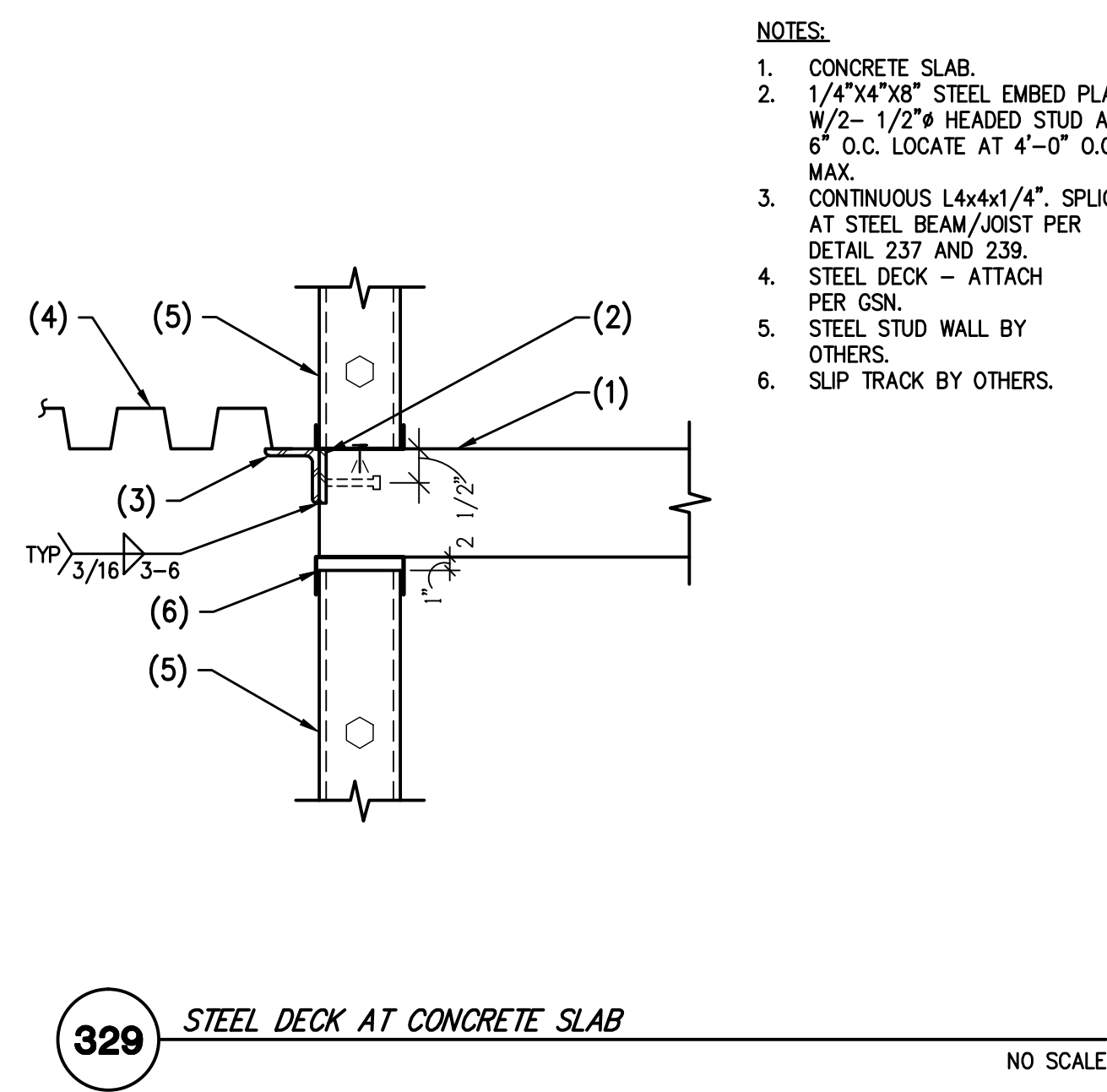
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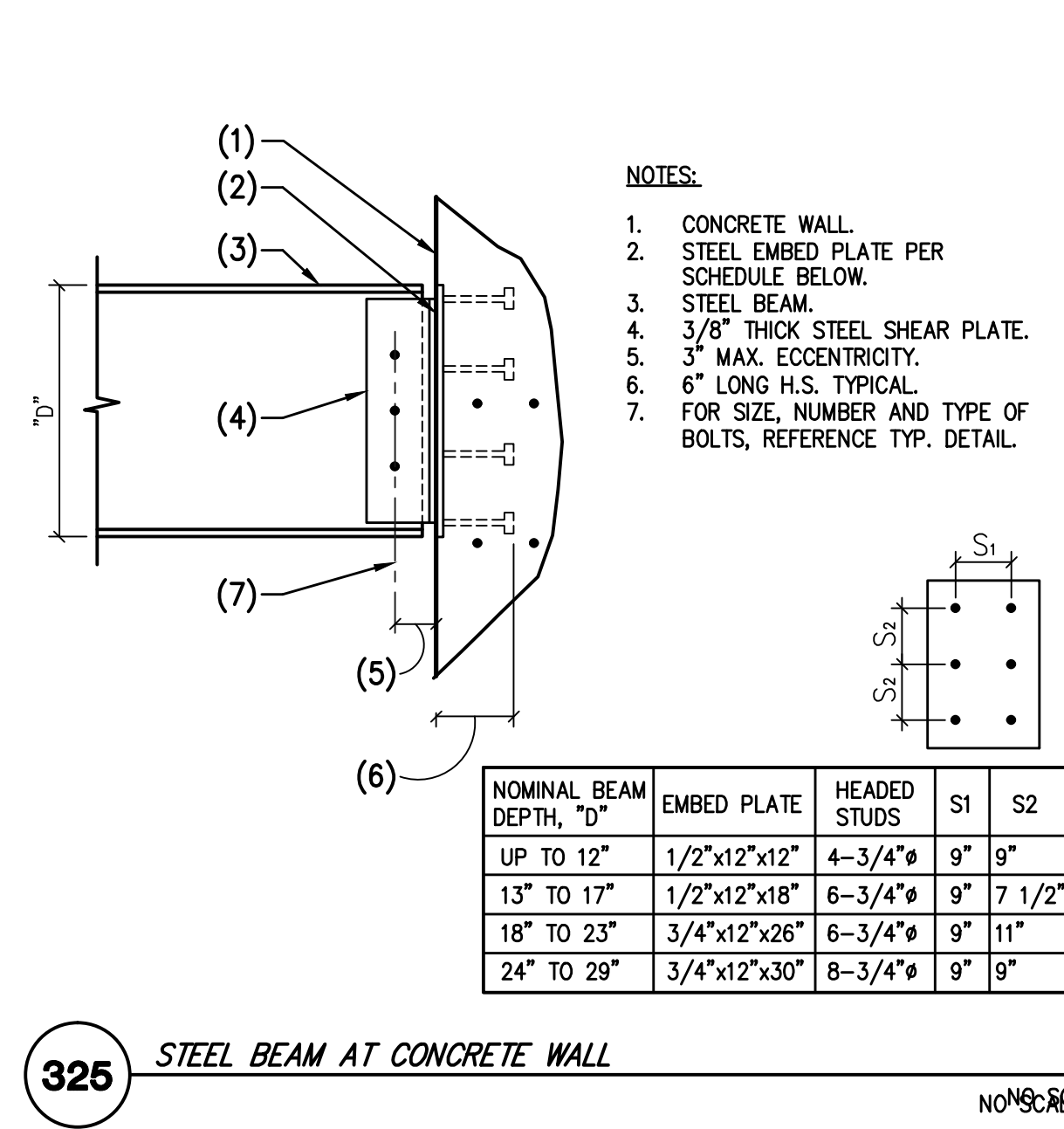
02-17-2017 CONFORM SET



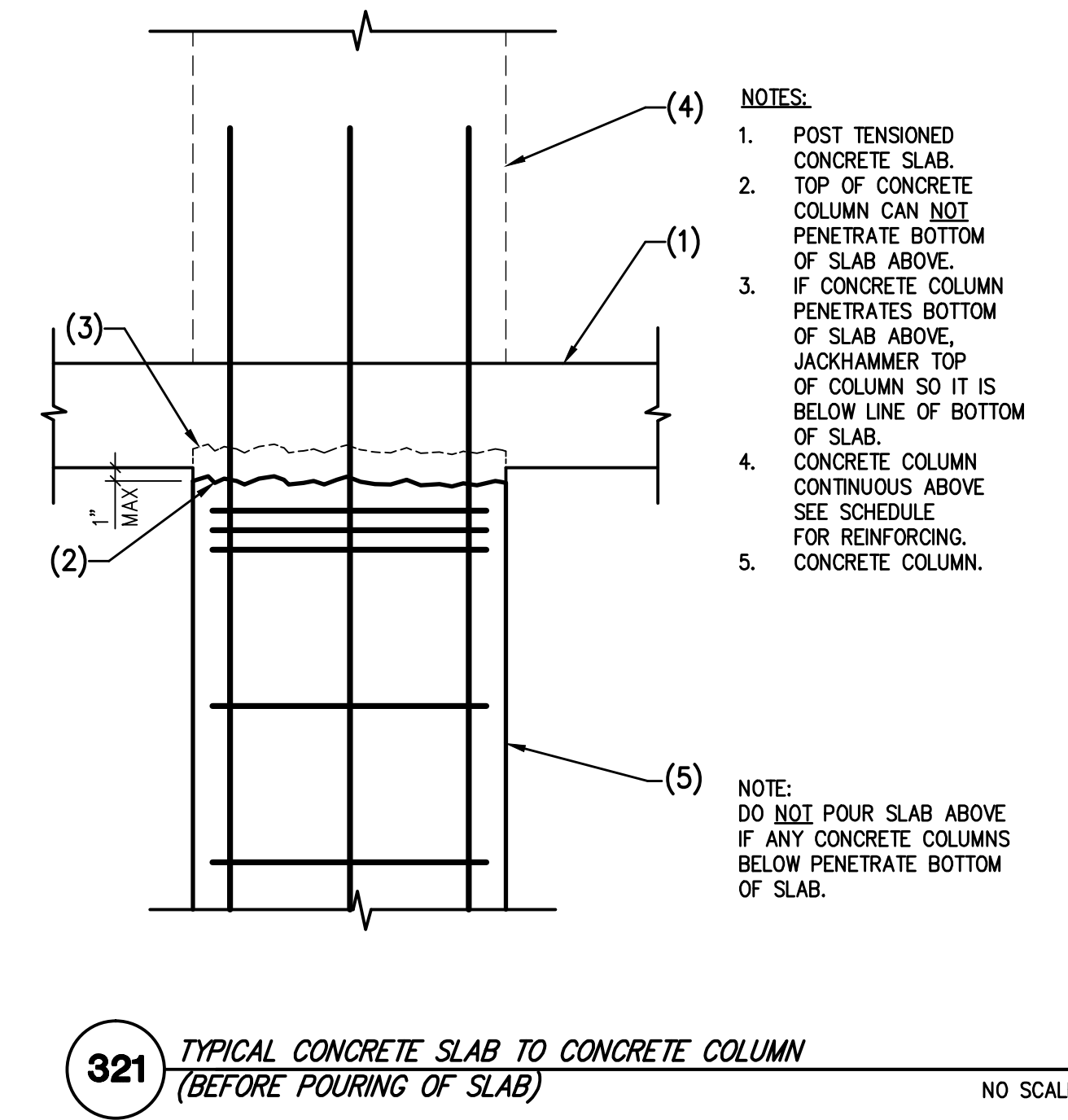
332 STEEL POST AT CONCRETE SLAB NO SCALE



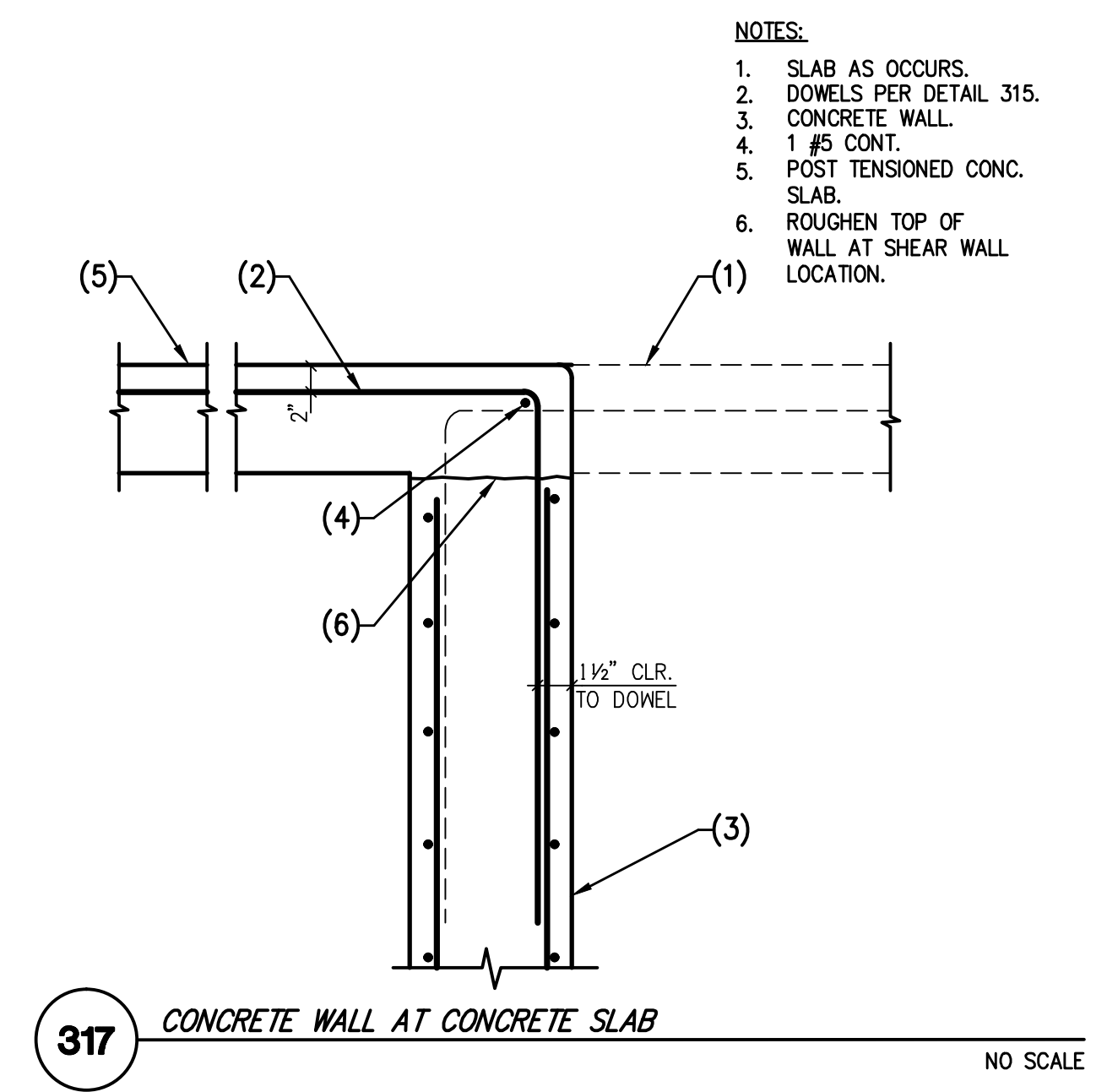
329 STEEL DECK AT CONCRETE SLAB NO SCALE



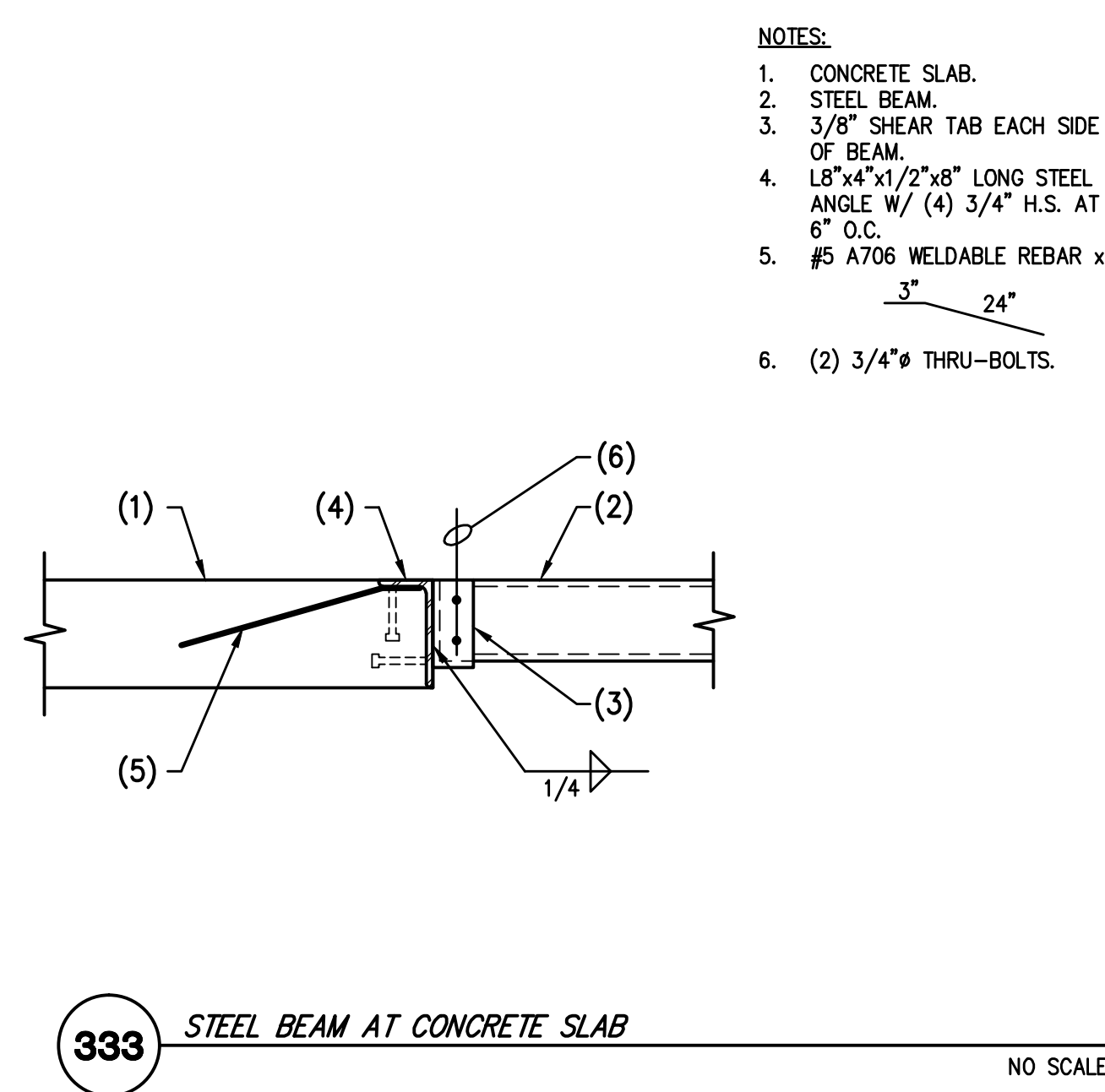
325 STEEL BEAM AT CONCRETE WALL NO SCALE



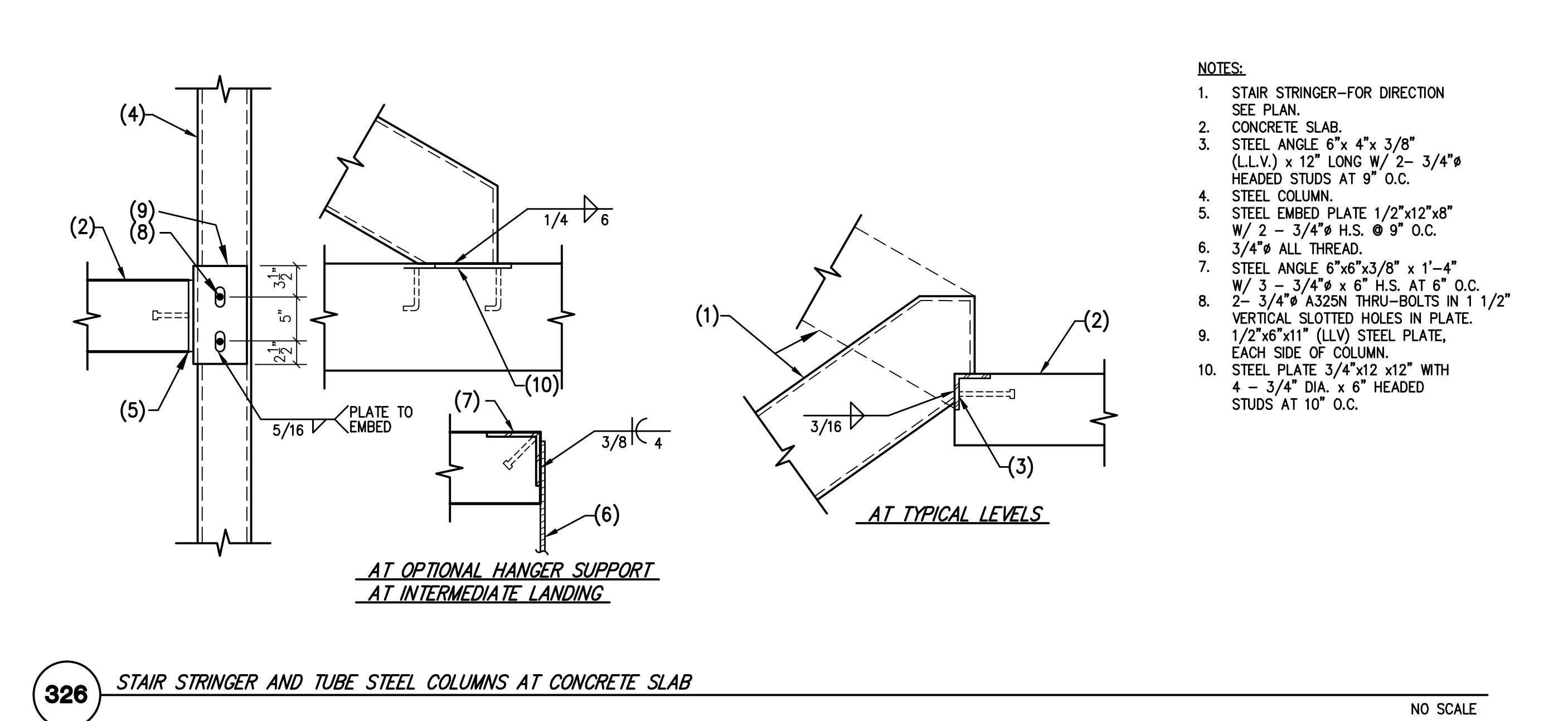
321 TYPICAL CONCRETE SLAB TO CONCRETE COLUMN (BEFORE POURING OF SLAB) NO SCALE



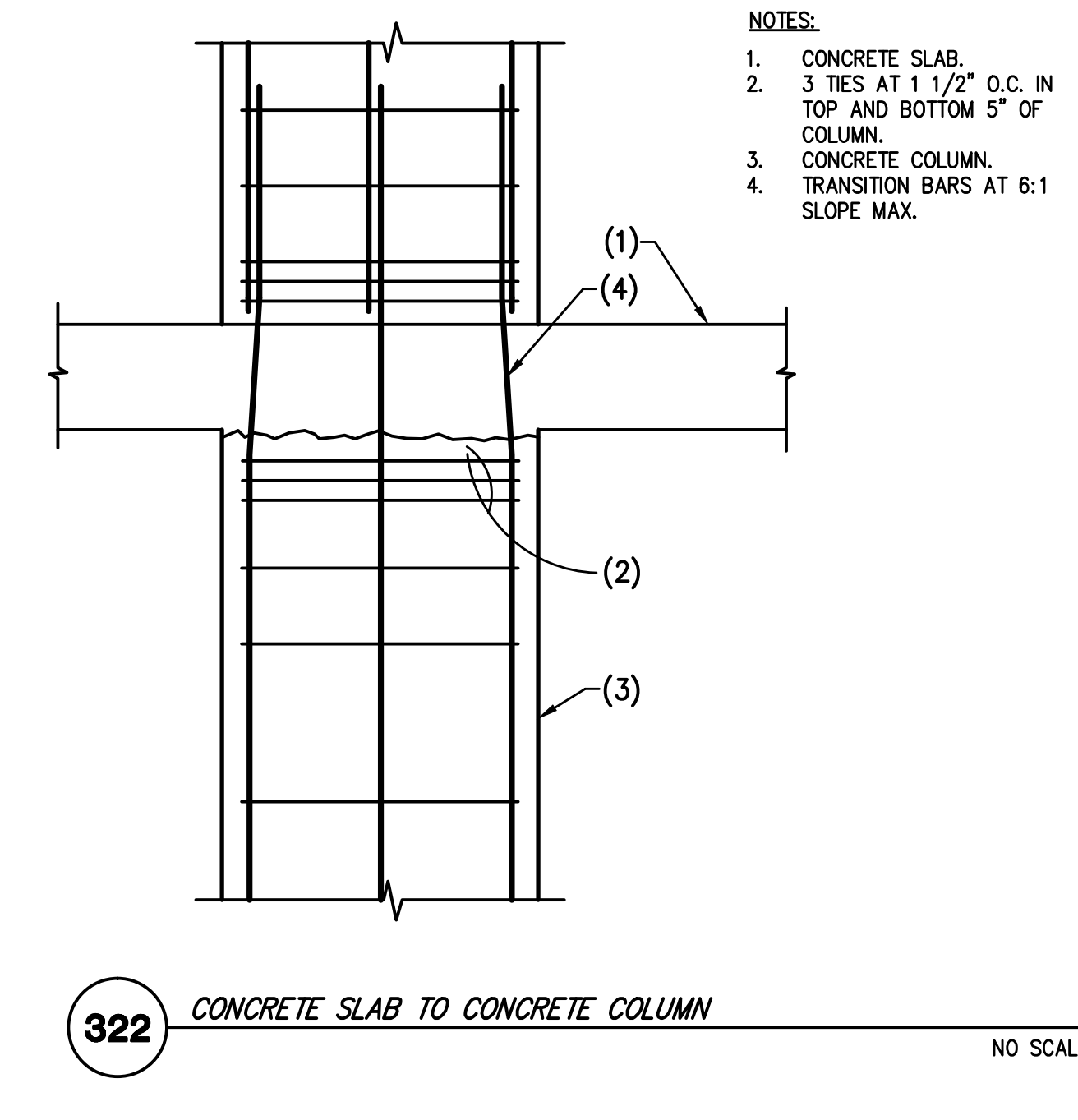
317 CONCRETE WALL AT CONCRETE SLAB NO SCALE



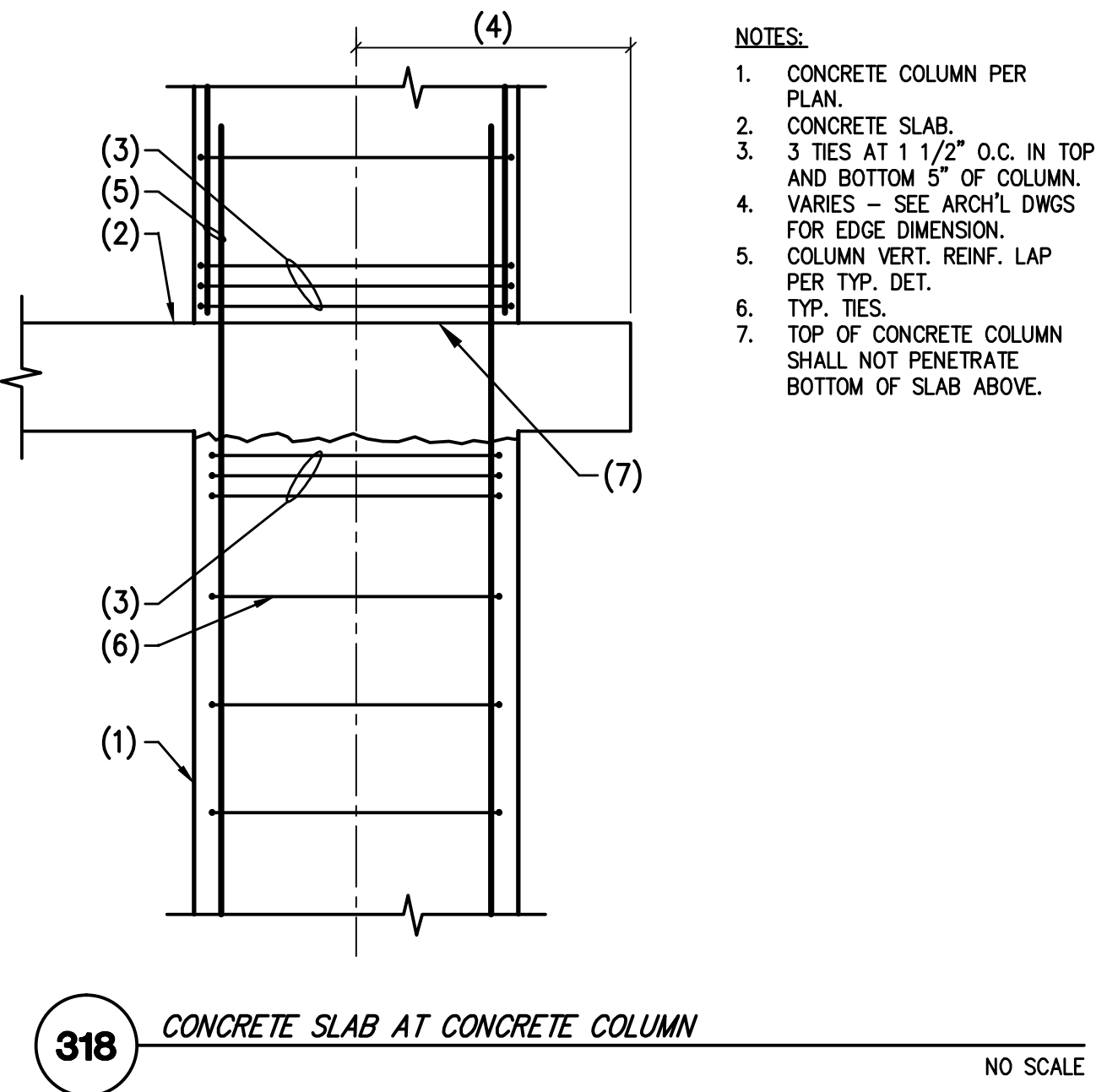
333 STEEL BEAM AT CONCRETE SLAB NO SCALE



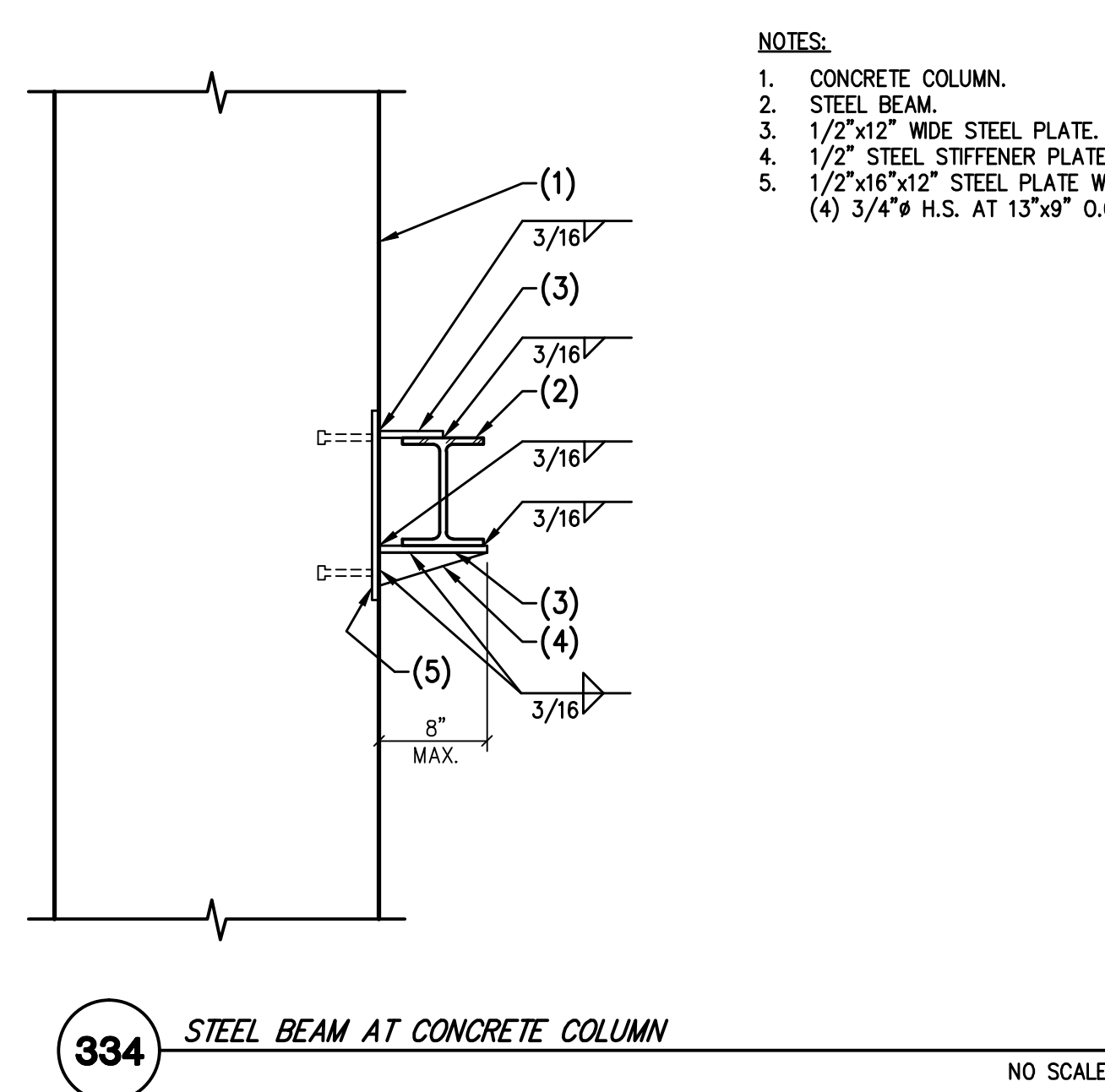
328 STAIR STRINGER AND TUBE STEEL COLUMNS AT CONCRETE SLAB NO SCALE



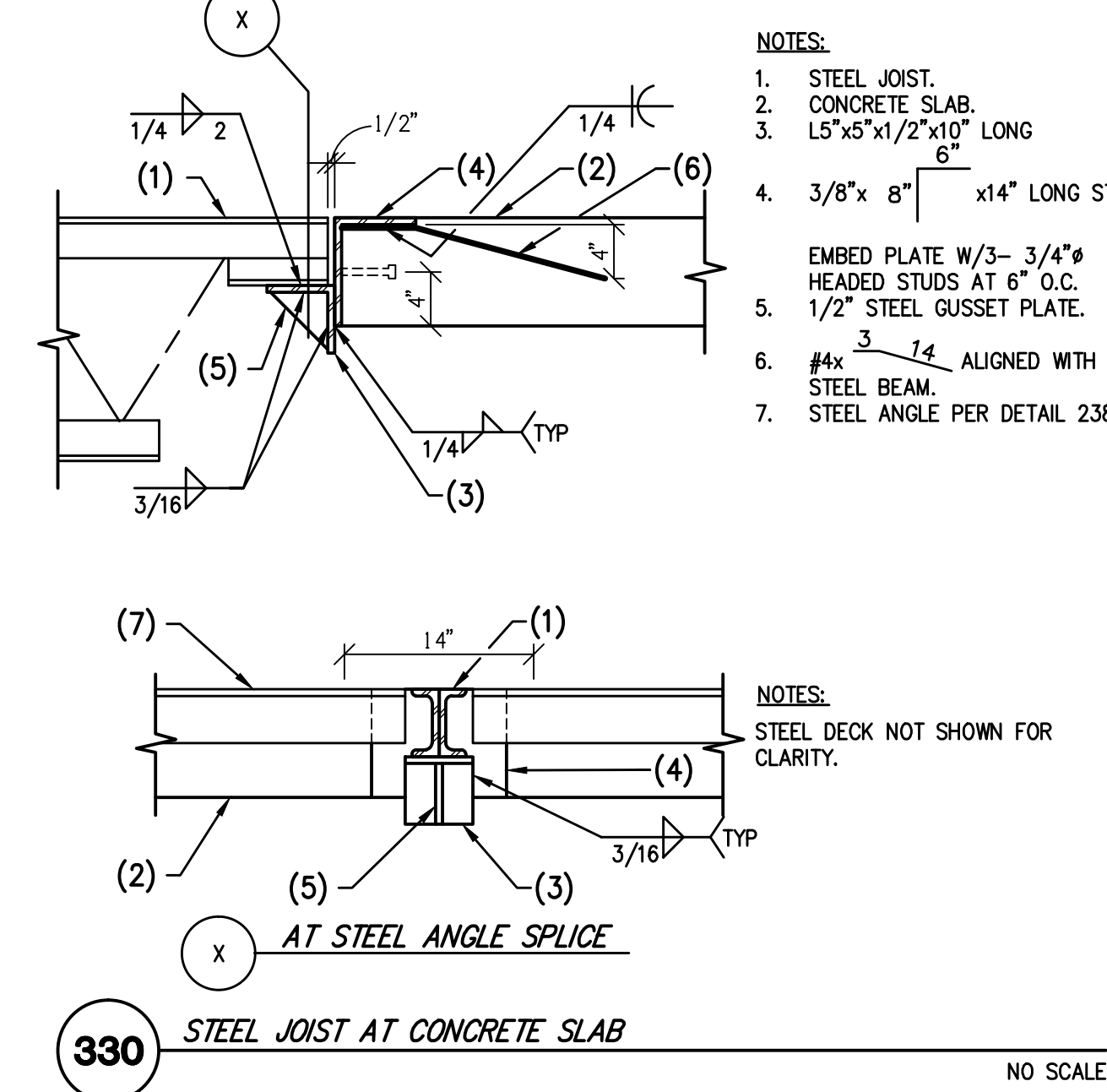
322 CONCRETE SLAB TO CONCRETE COLUMN NO SCALE



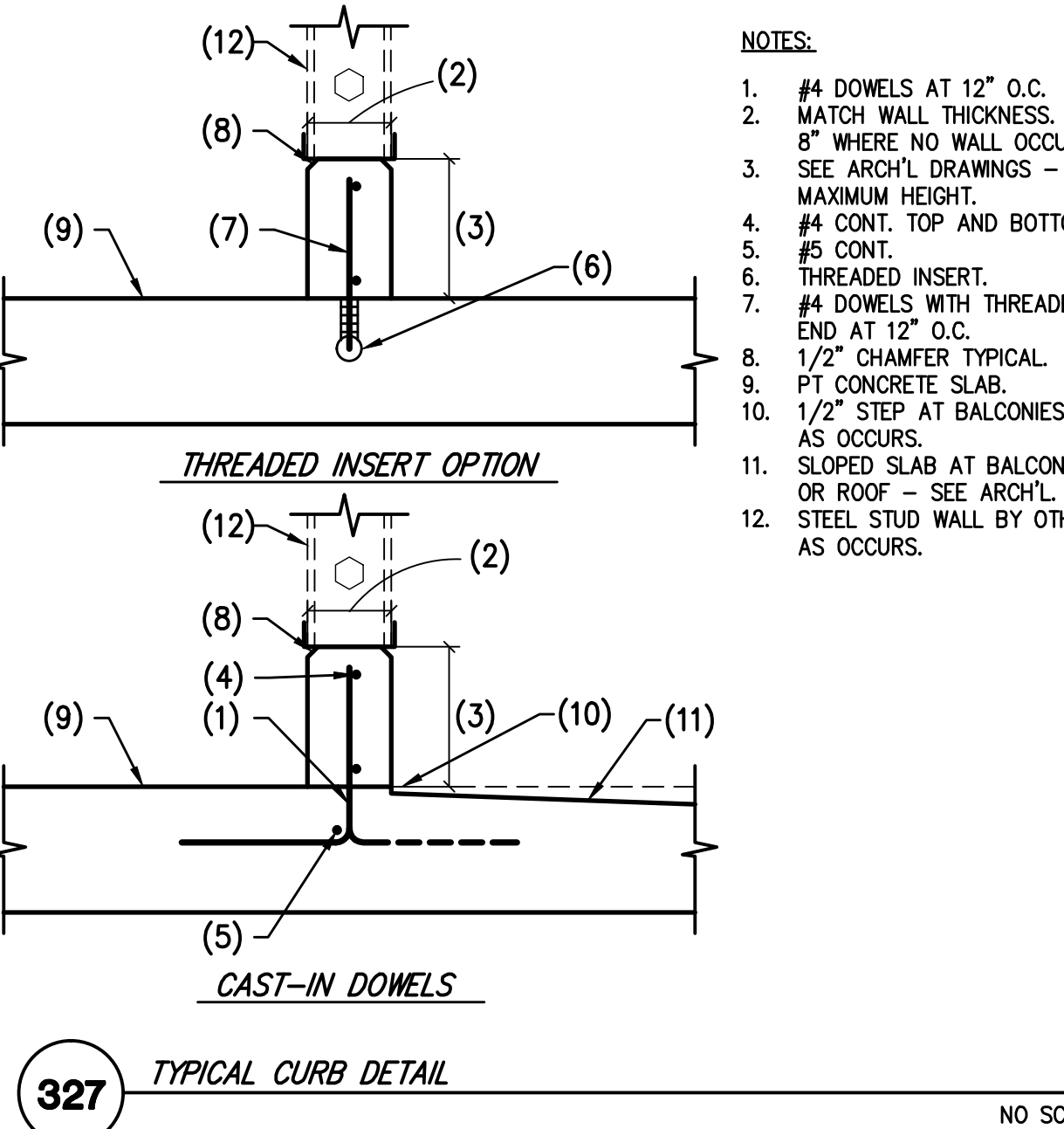
318 CONCRETE SLAB AT CONCRETE COLUMN NO SCALE



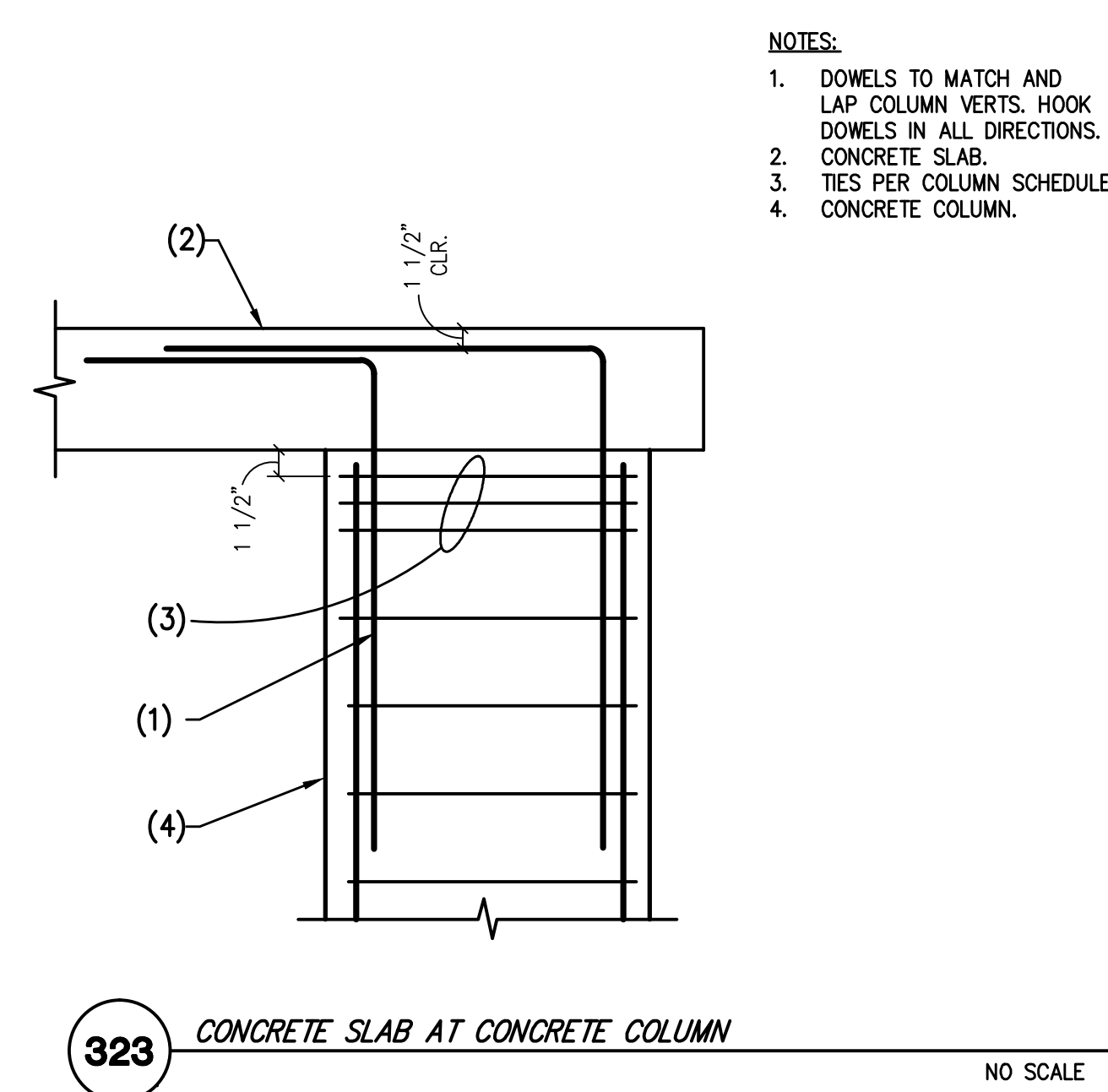
334 STEEL BEAM AT CONCRETE COLUMN NO SCALE



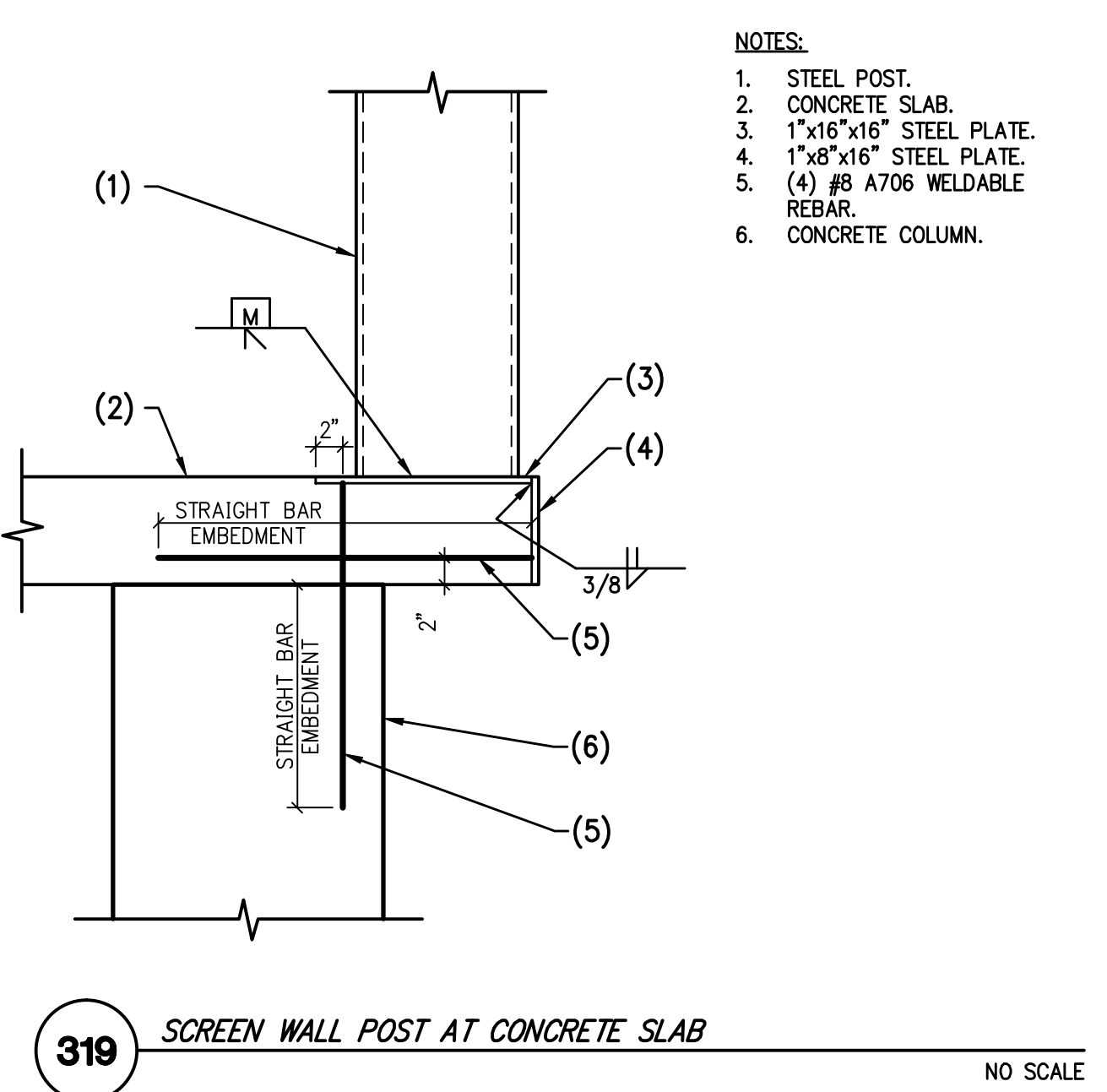
330 STEEL JOIST AT CONCRETE SLAB NO SCALE



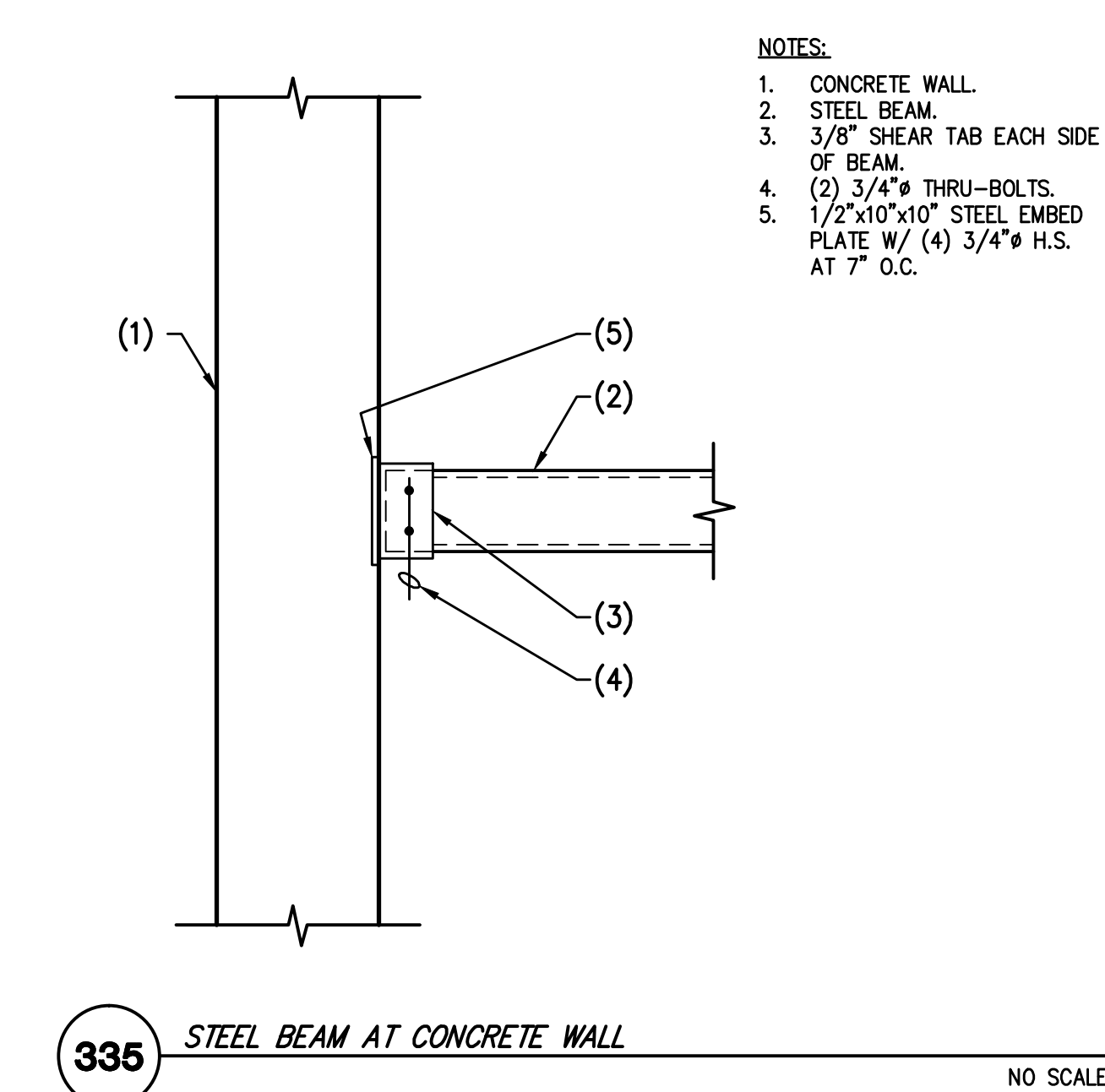
327 TYPICAL CURB DETAIL NO SCALE



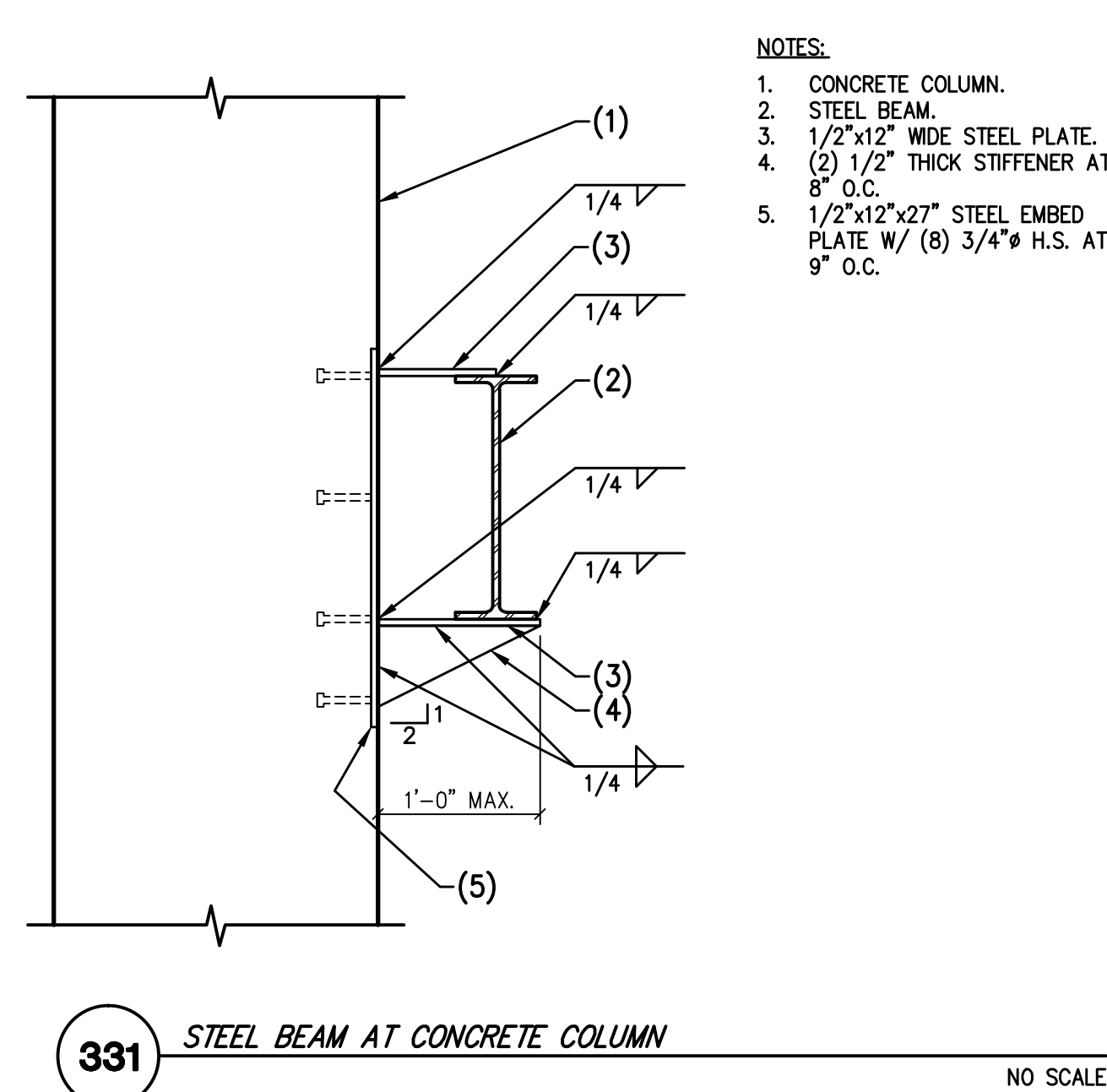
323 CONCRETE SLAB AT CONCRETE COLUMN NO SCALE



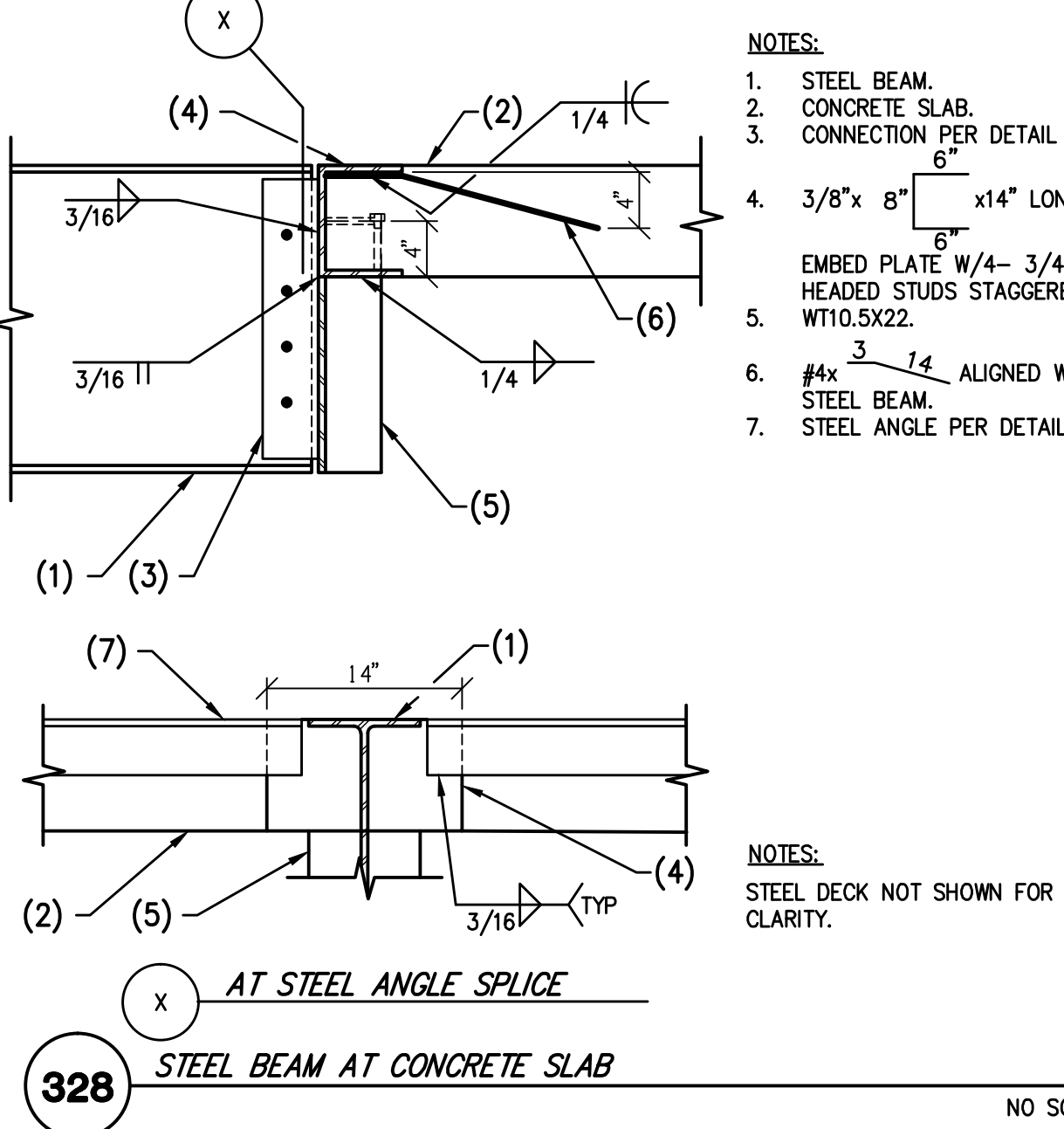
319 SCREEN WALL POST AT CONCRETE SLAB NO SCALE



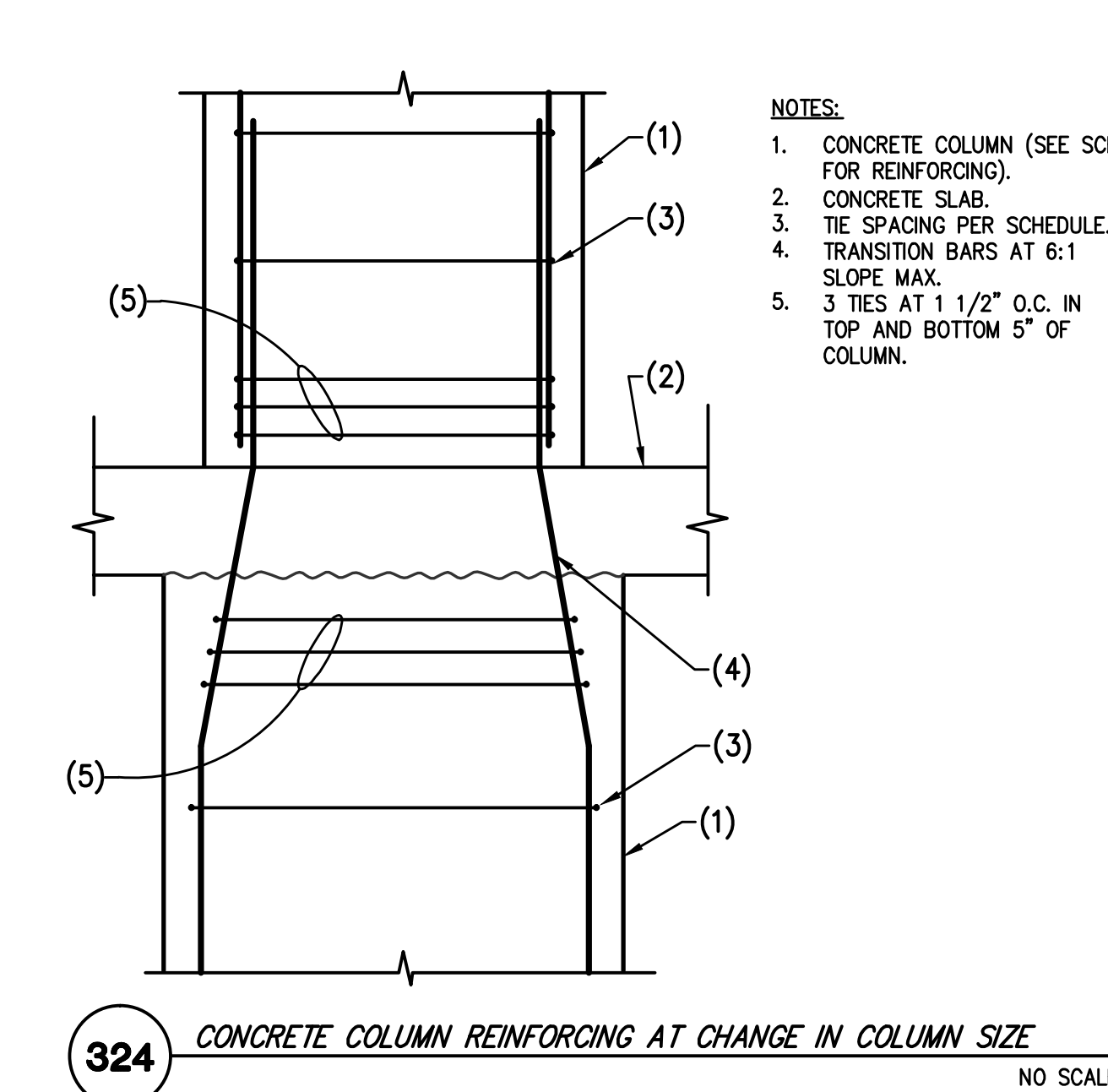
335 STEEL BEAM AT CONCRETE WALL NO SCALE



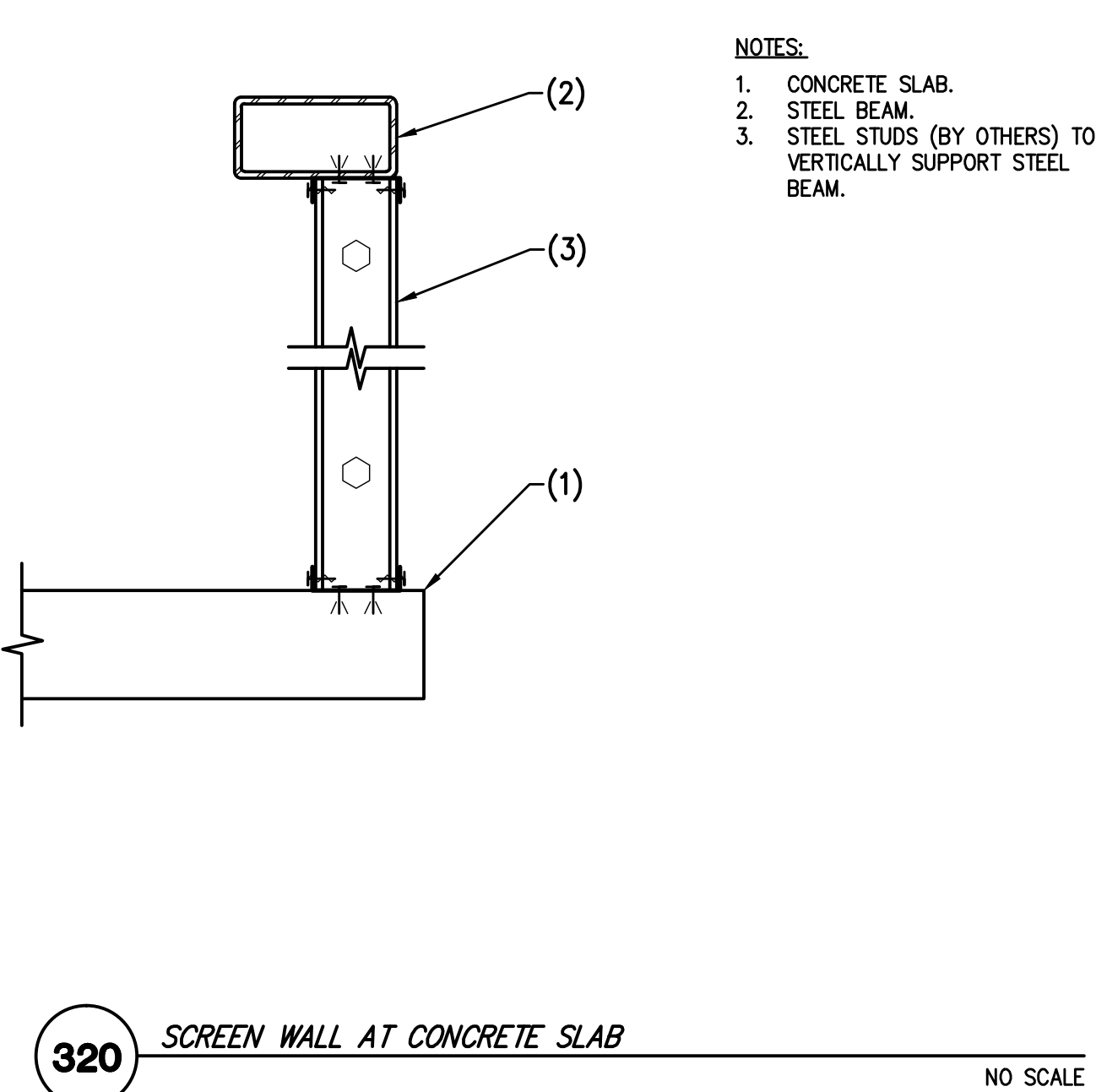
331 STEEL BEAM AT CONCRETE COLUMN NO SCALE



328 STEEL BEAM AT CONCRETE SLAB NO SCALE



324 CONCRETE COLUMN REINFORCING AT CHANGE IN COLUMN SIZE NO SCALE



320 SCREEN WALL AT CONCRETE SLAB NO SCALE

Key Plan:

No.	Description	Date
17	STRUCTURAL CLARIFICATIONS	10/10/18
	CONFORM SET	09/03/17
	CONFORM SET	02/10/17

Revisions:

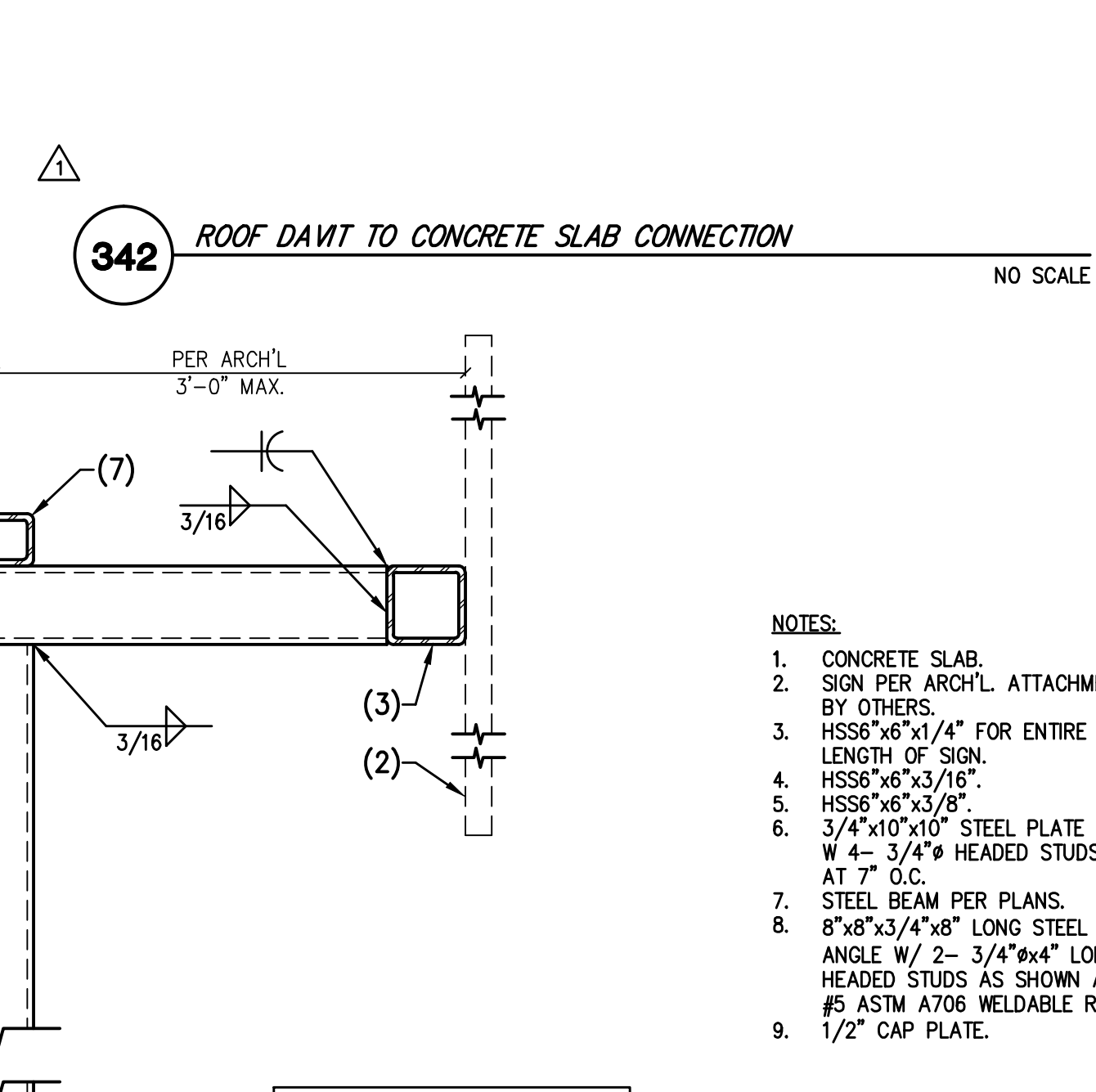
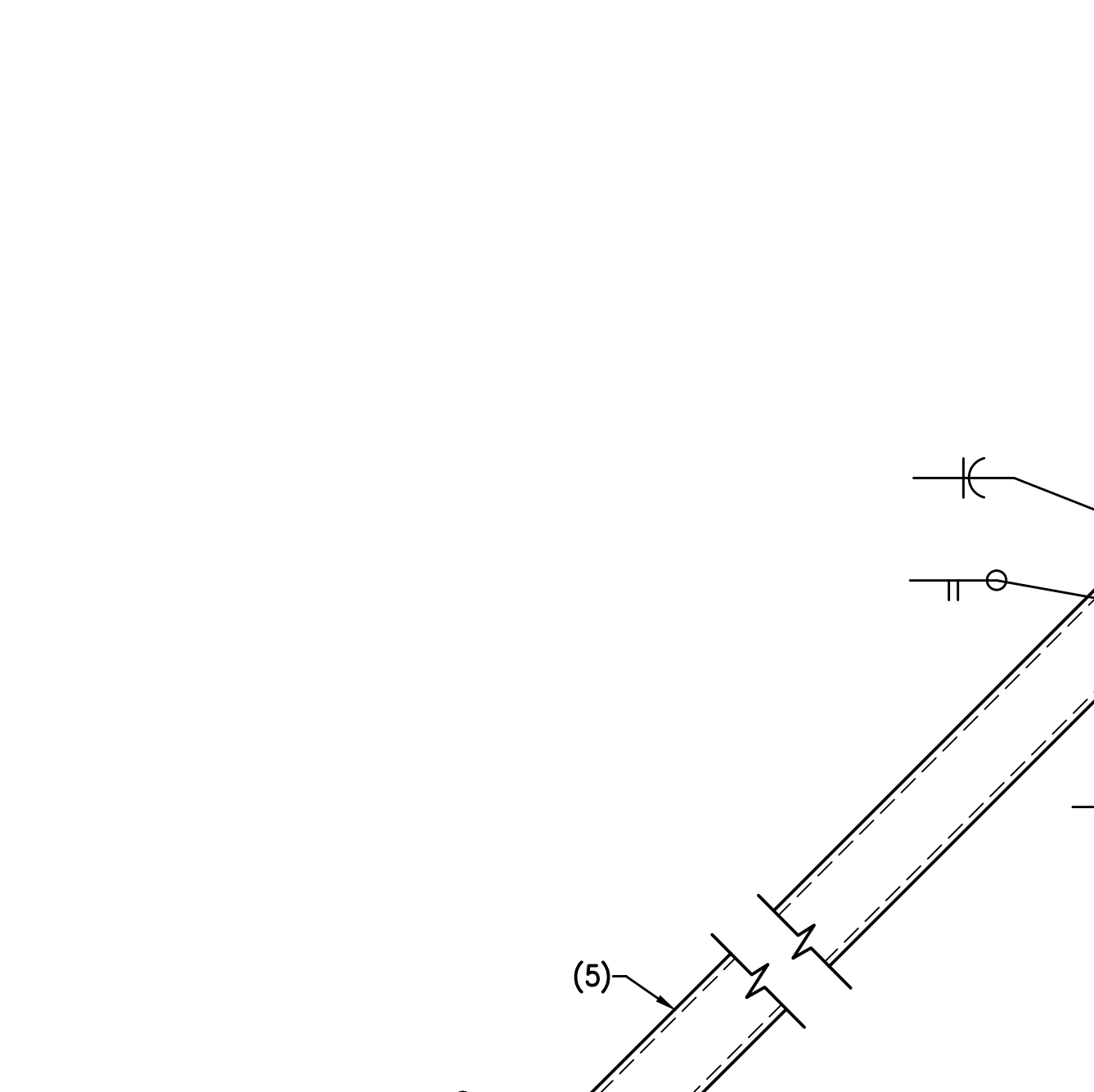
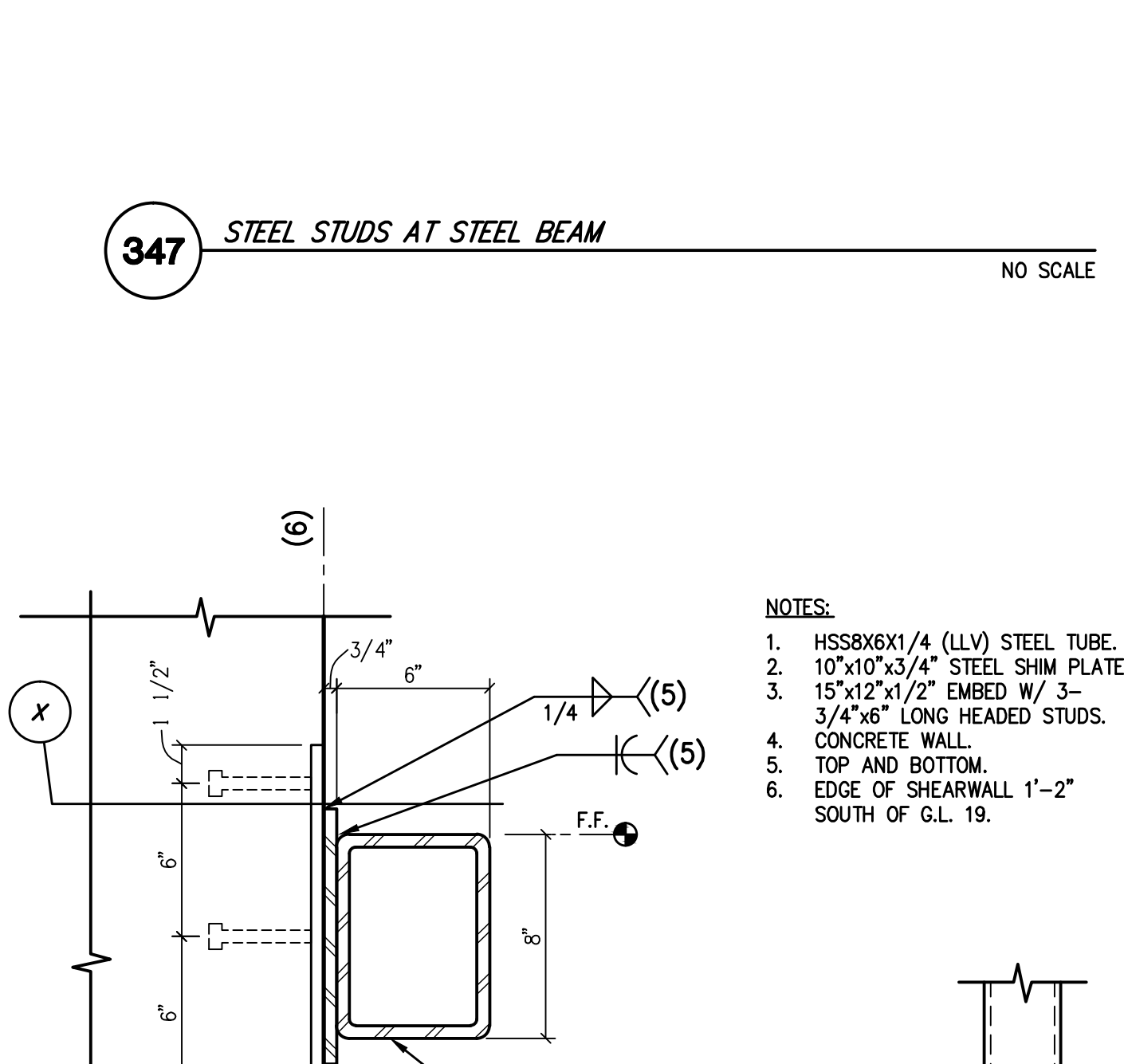
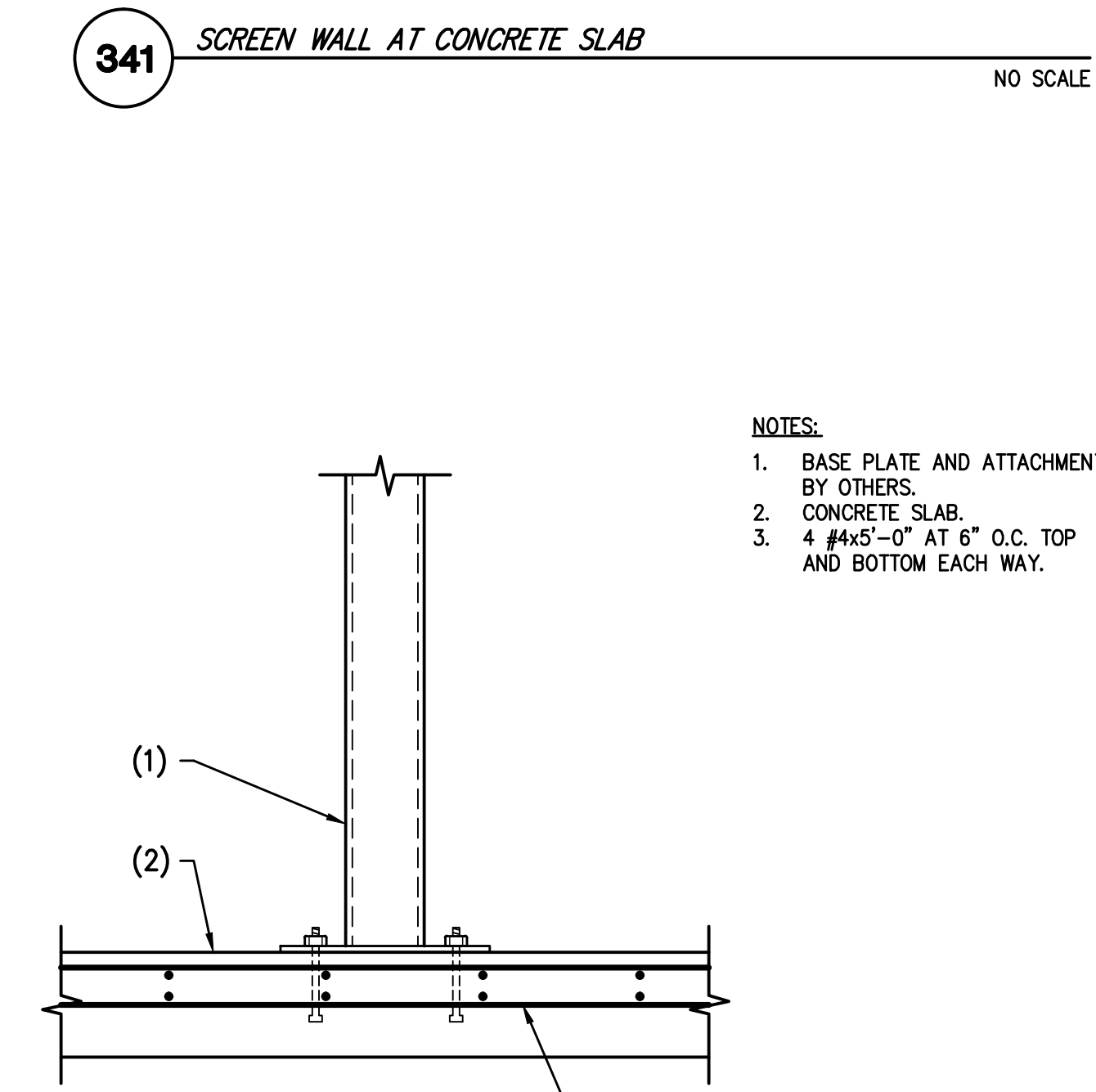
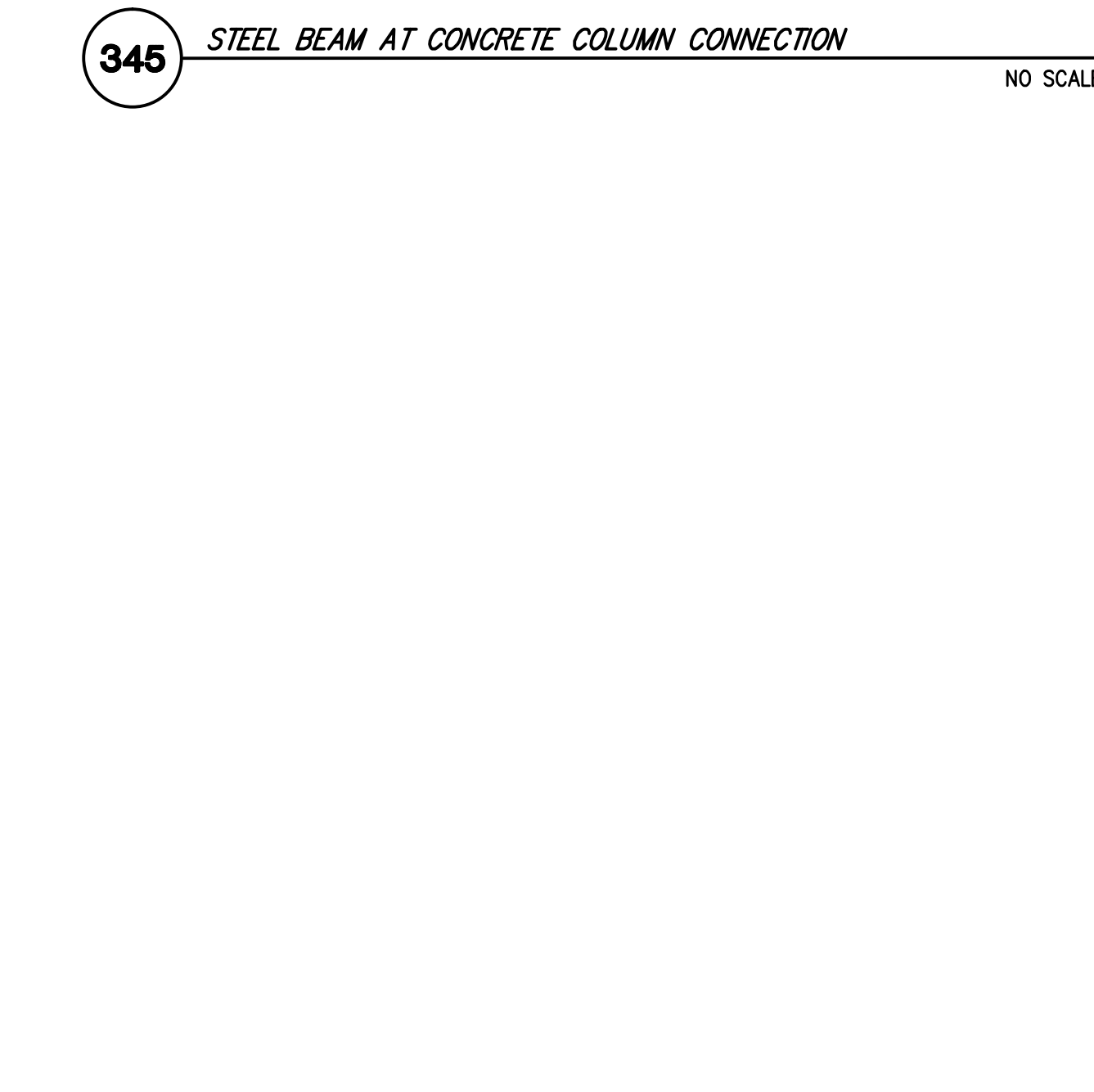
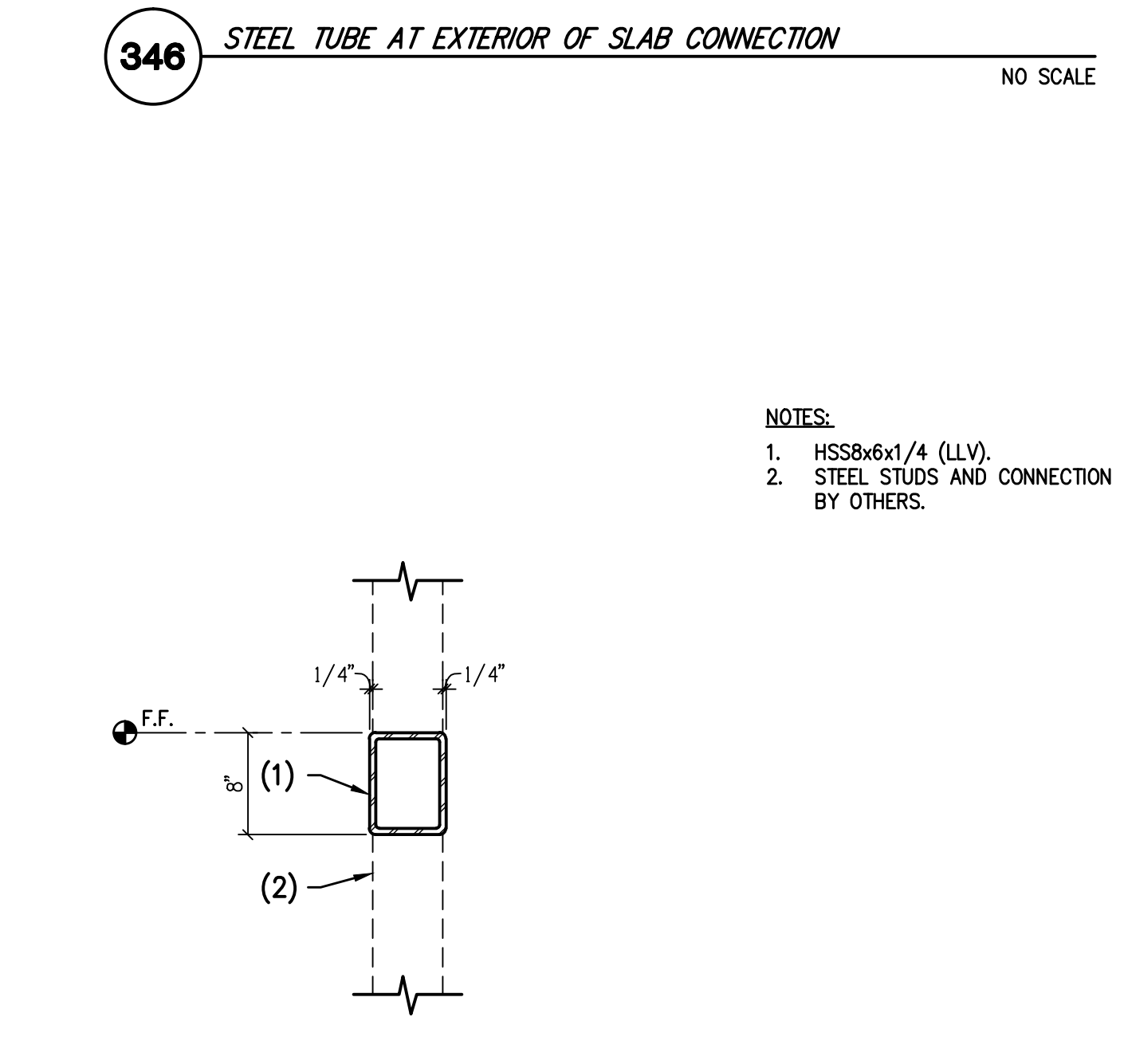
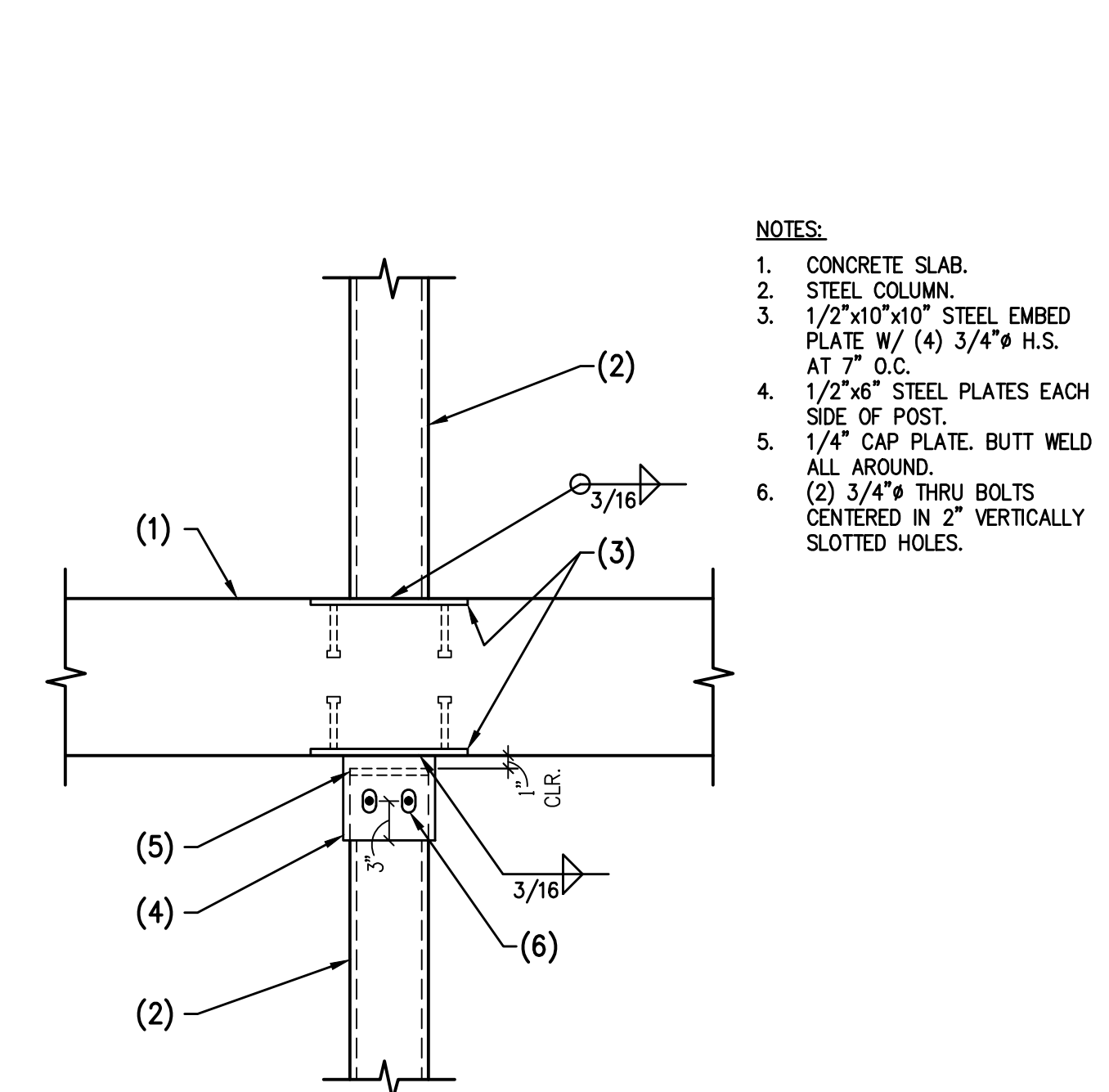
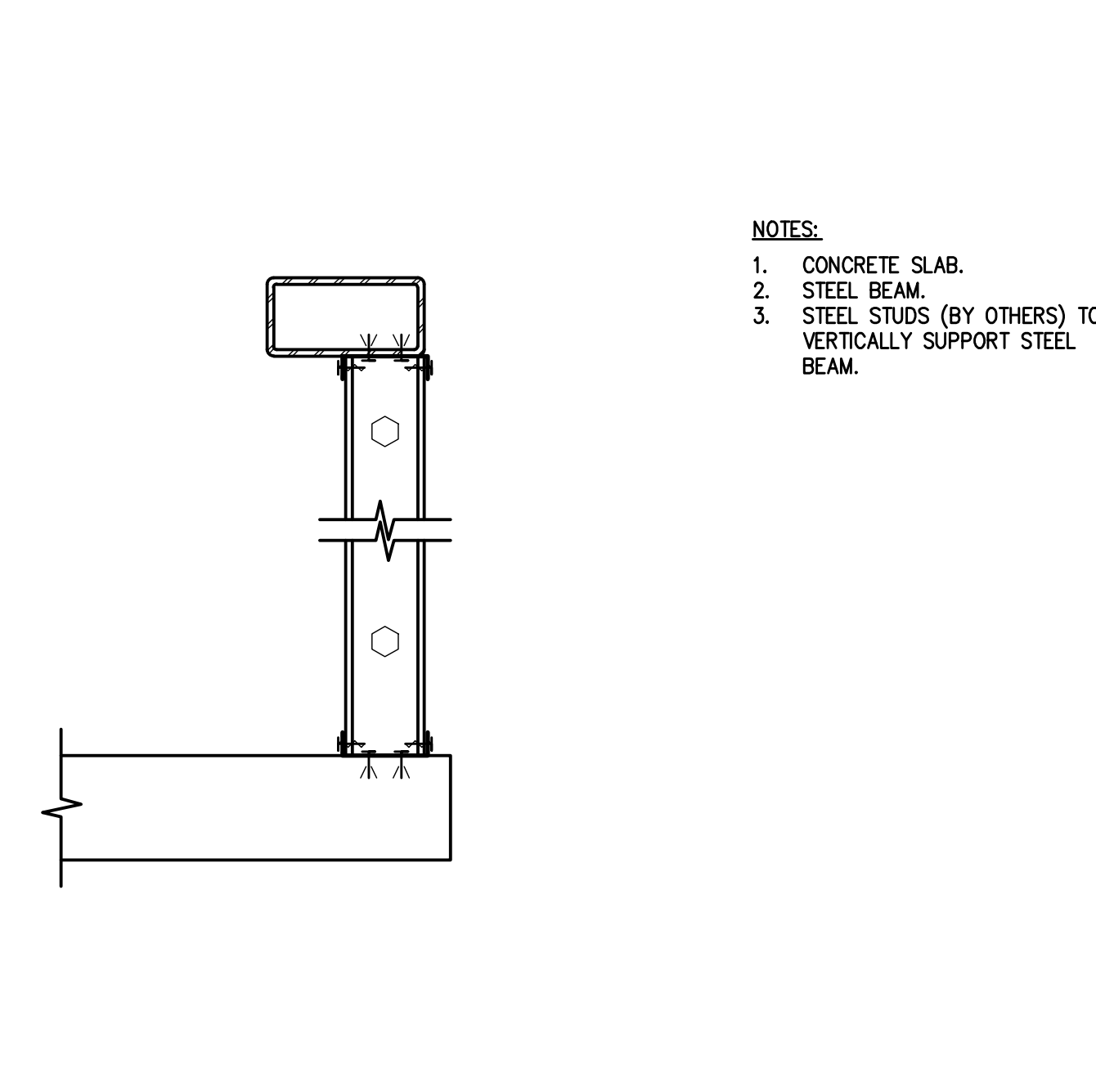
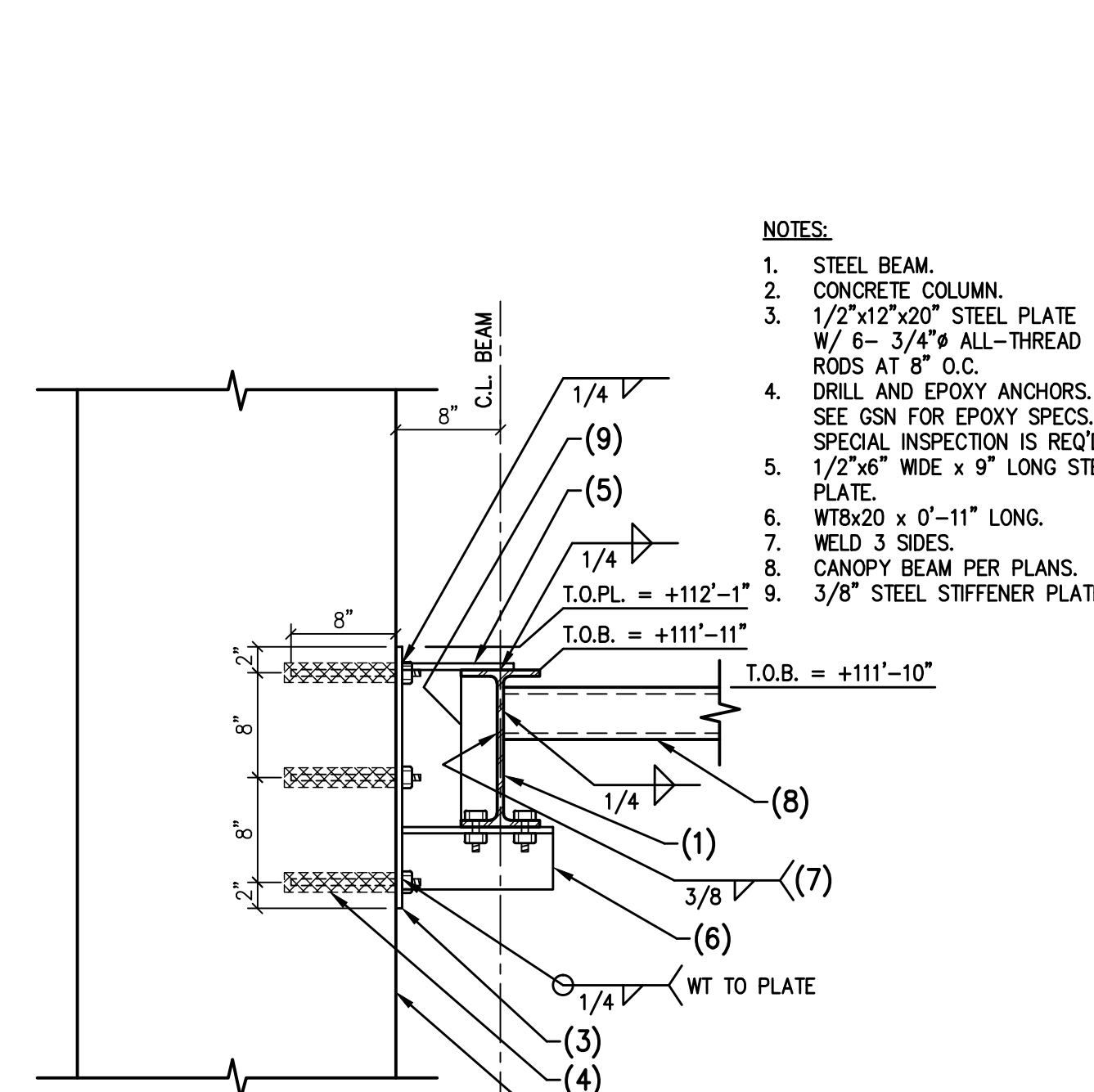
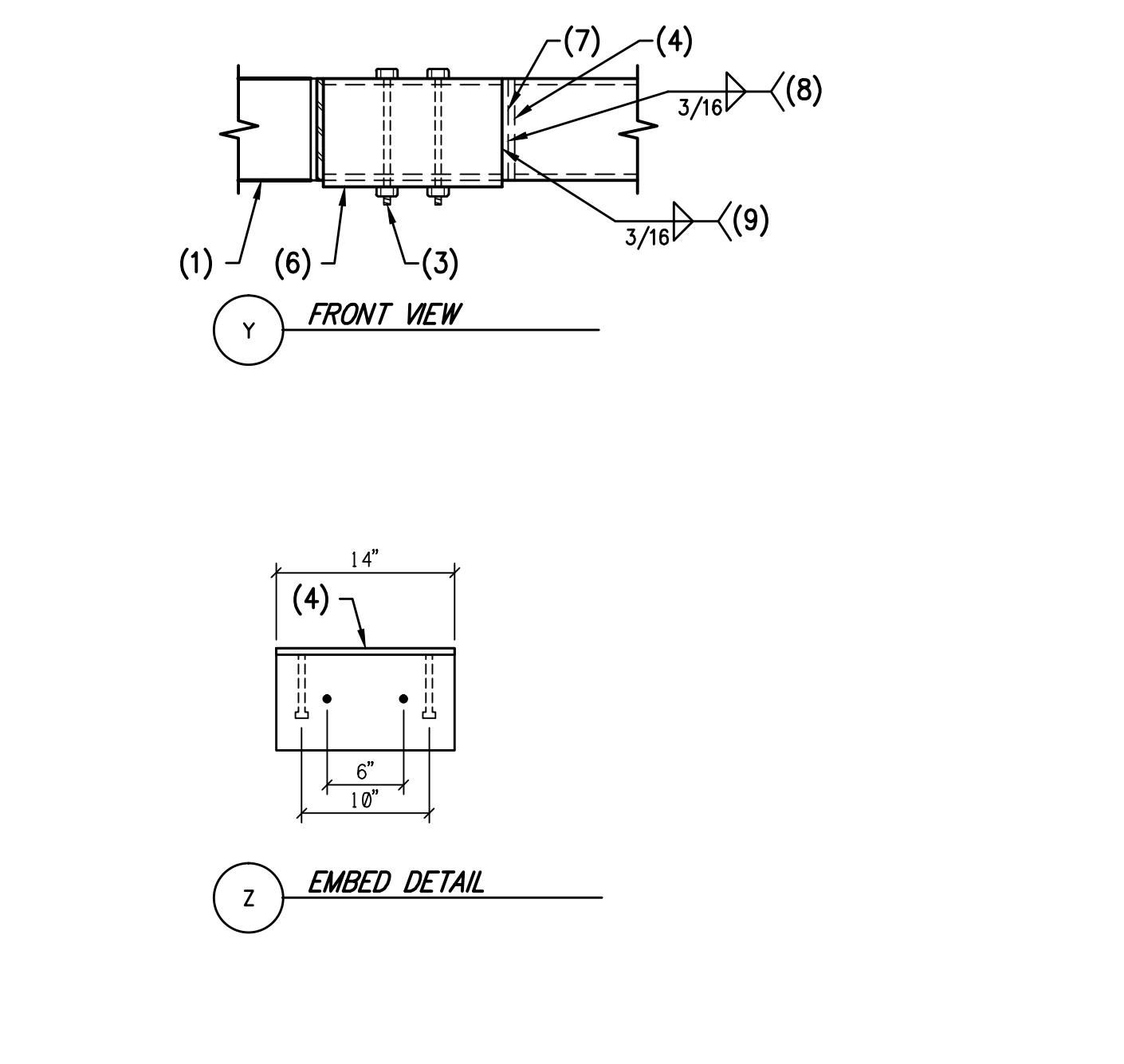
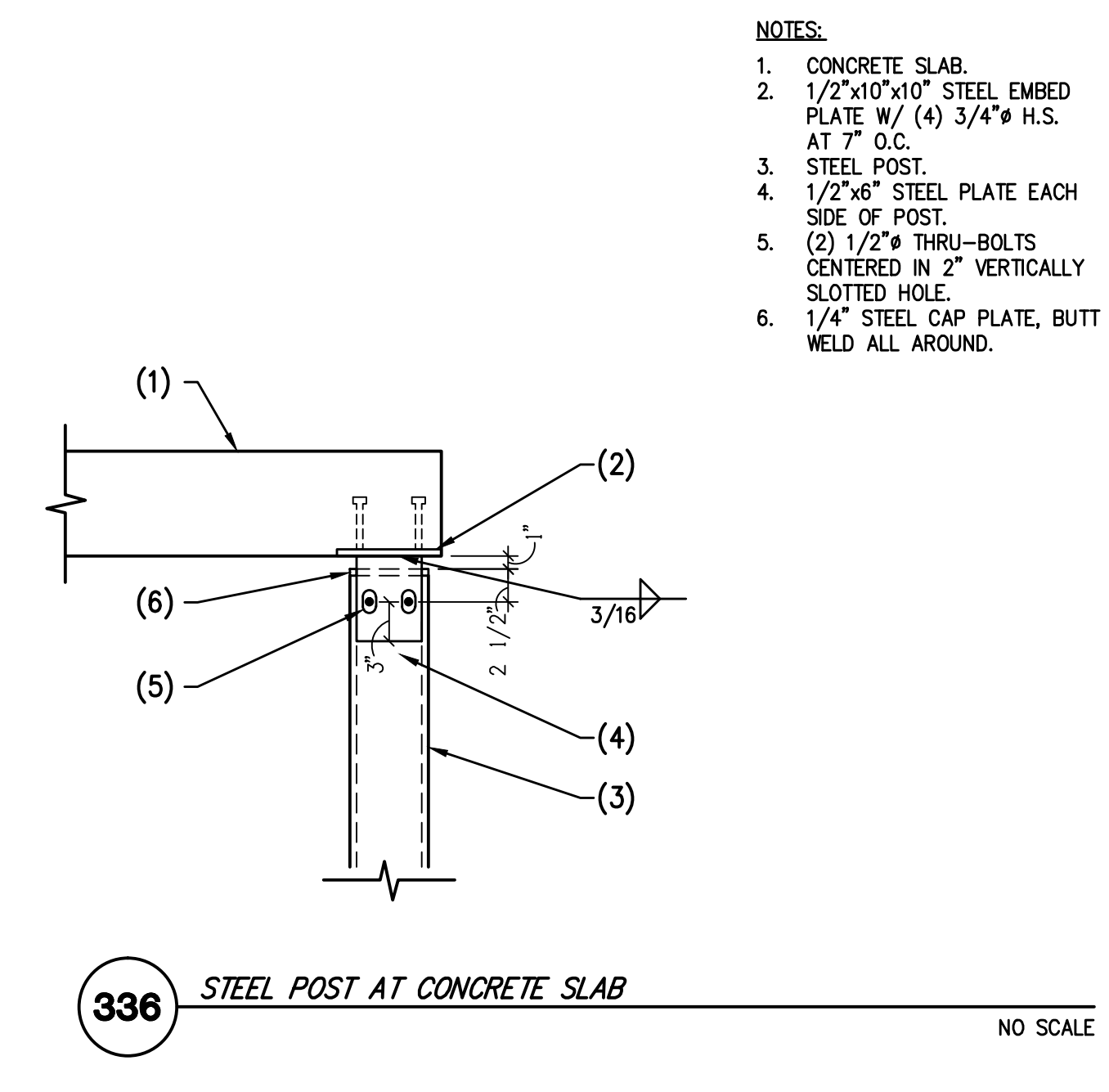
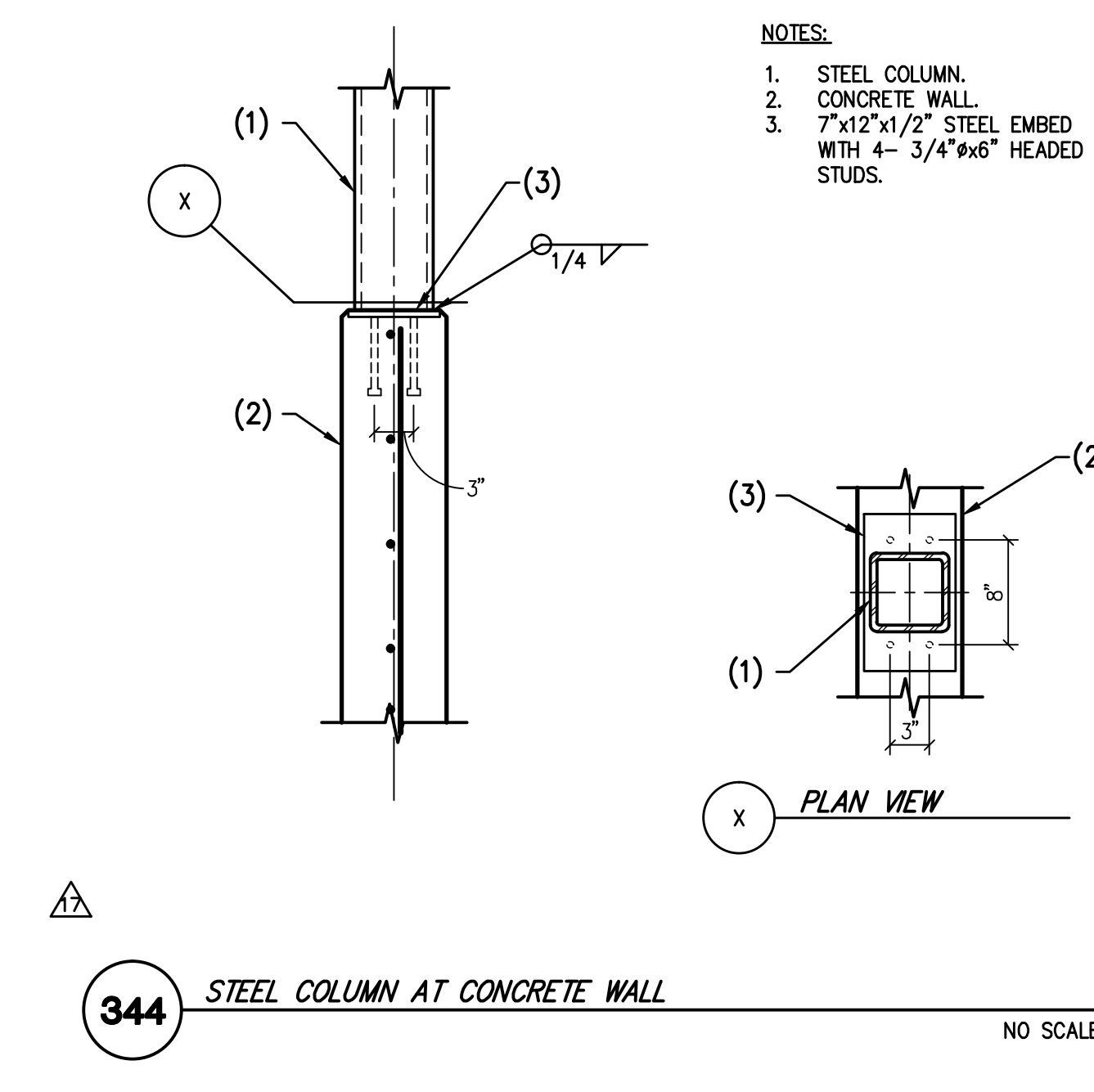
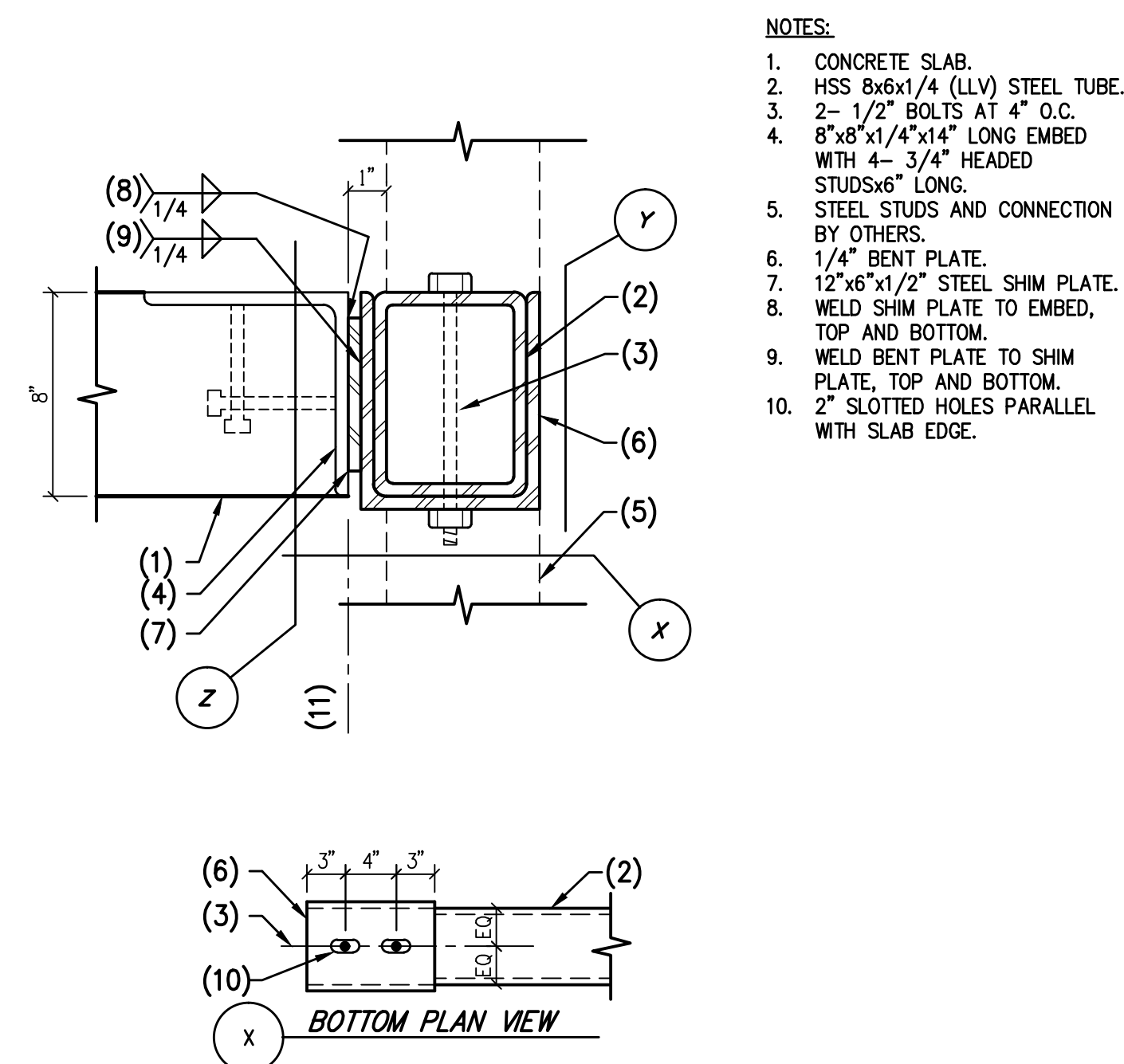
Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Name:
C.I.P. CONCRETE DETAILS

Sheet Number:
S502

02-17-2017 CONFORM SET

ACTUAL SHEET SIZE: 36" X 48"



Key Plan:

No.	Description	Date
1	STRUCTURAL REVISIONS	02/02/16
17	STRUCTURAL CLARIFICATIONS	02/02/16
	CONFORM SET	02/02/16
	CONFORM SET	02/02/16

Revisions:

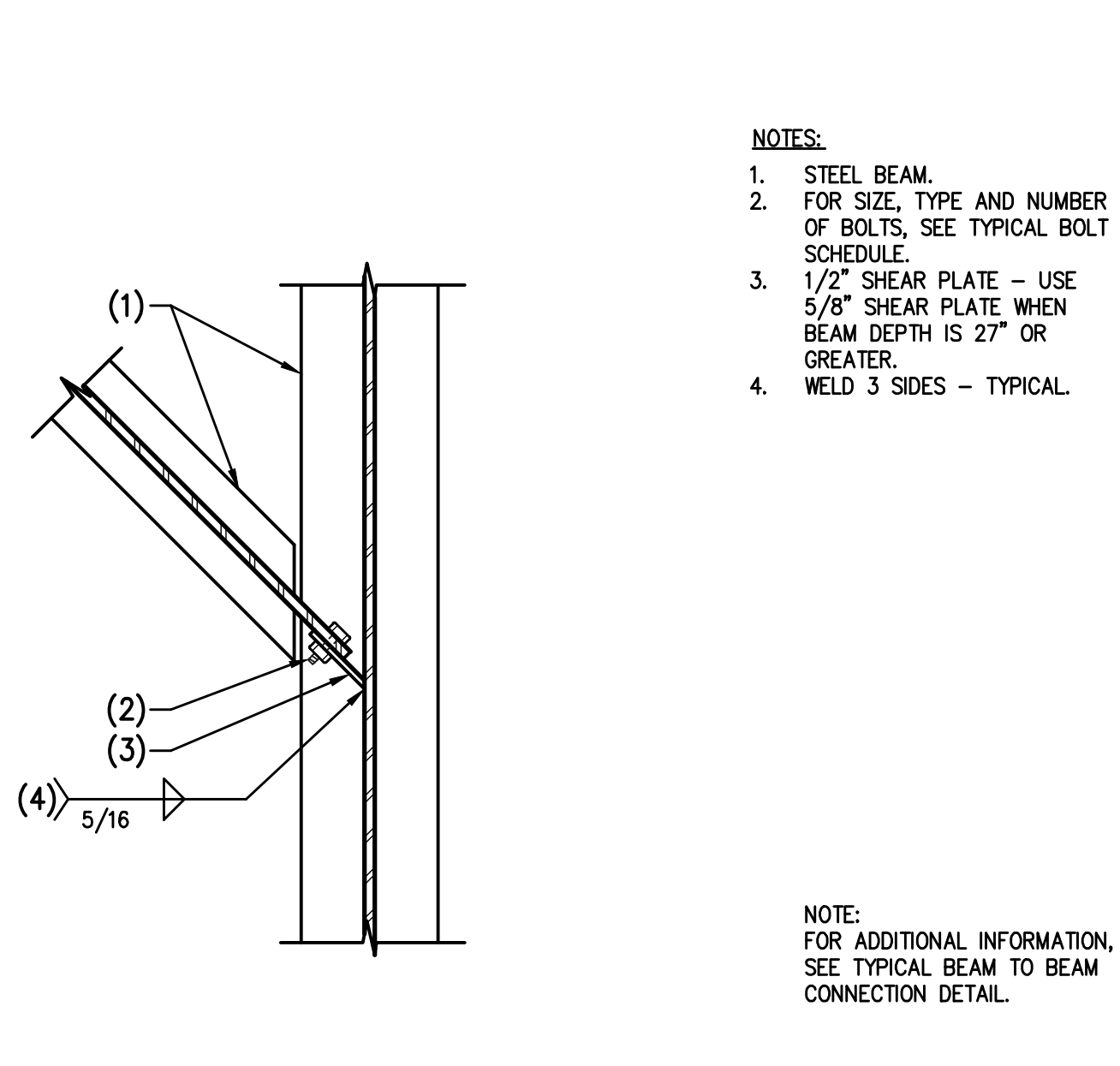
Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Name:
C.I.P. CONCRETE DETAILS

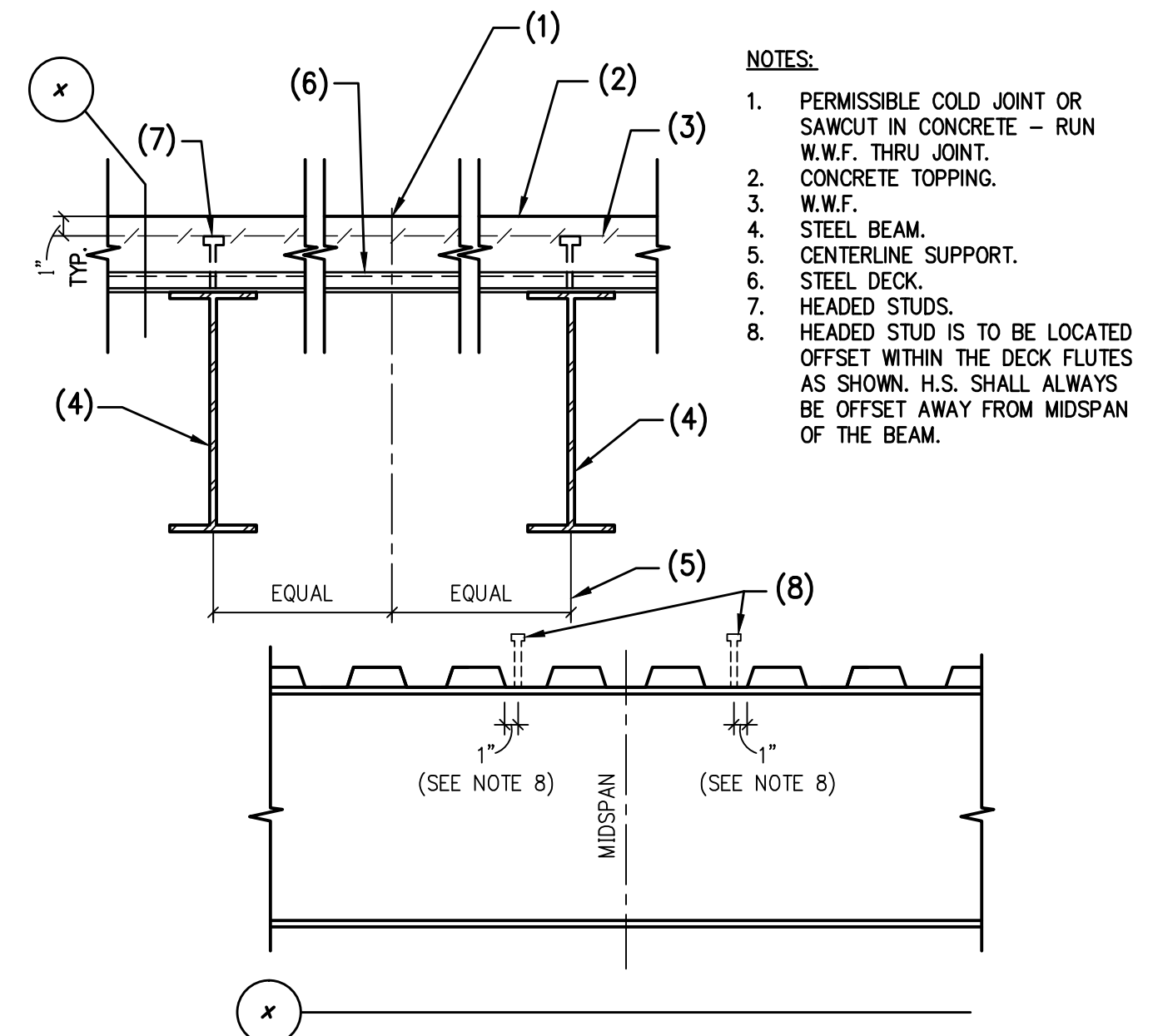
Sheet Number:
S503

02-17-2017 CONFORM SET

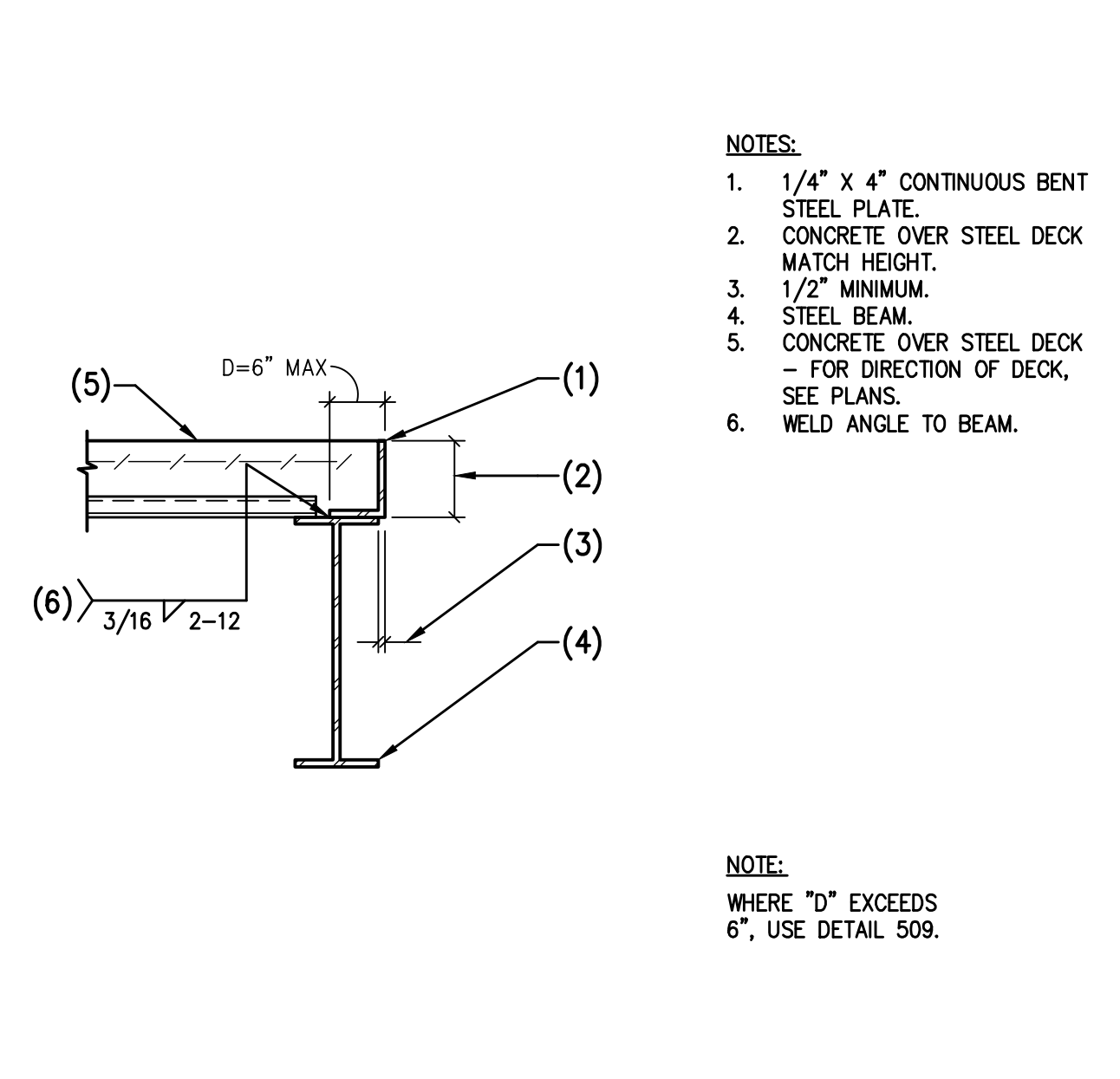
ACTUAL SHEET SIZE: 36" X 48"



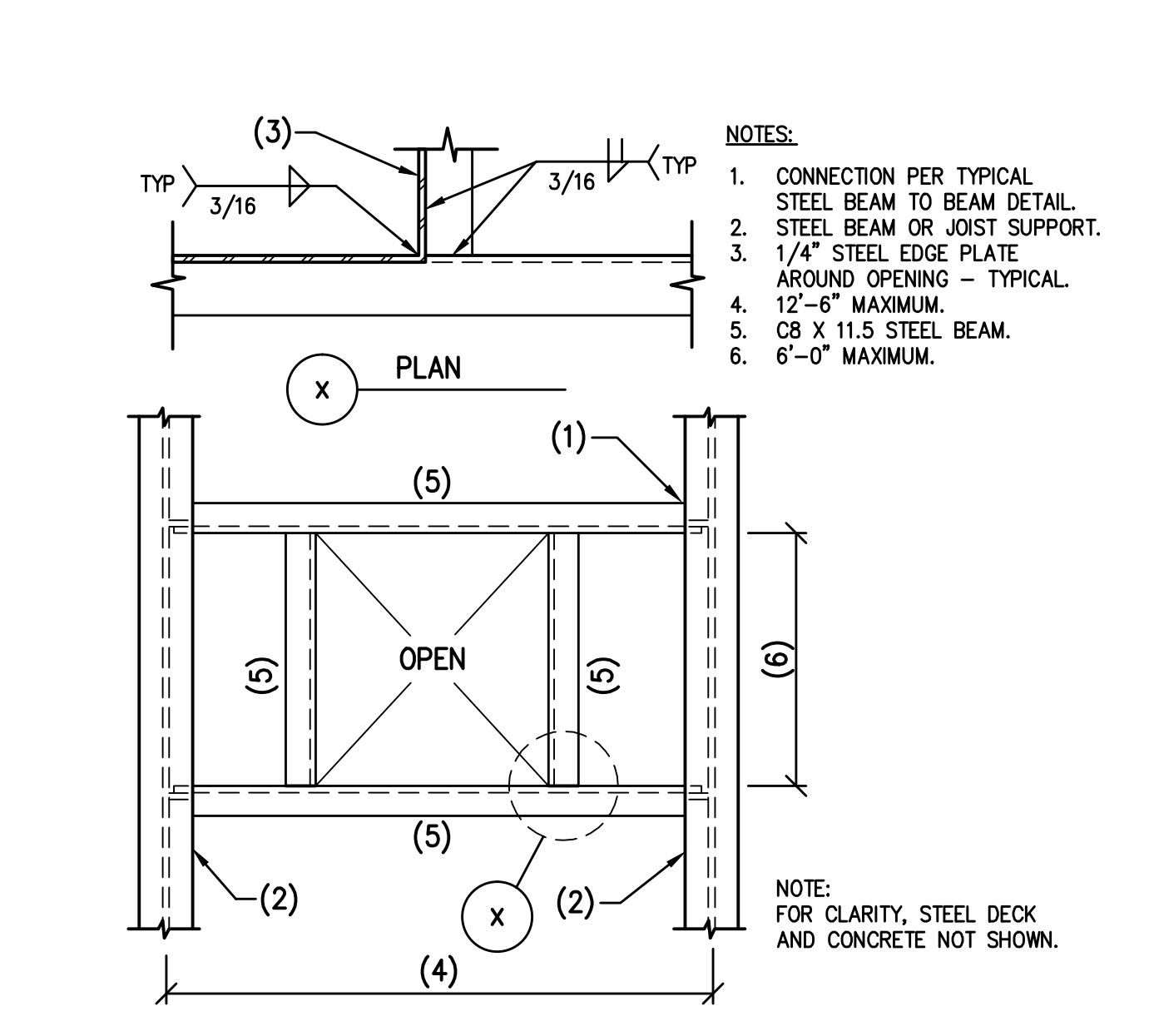
515 PLAN VIEW - TYPICAL SKEWED STEEL BEAM CONNECTION NO SCALE



511 TYPICAL HEADED STUD / COLD JOINT / SAWCUT PLACEMENT AT COMPOSITE STEEL BEAMS NO SCALE



508 STEEL DECK AT STEEL BEAM AT INTERIOR SLAB EDGE - TYPICAL NO SCALE



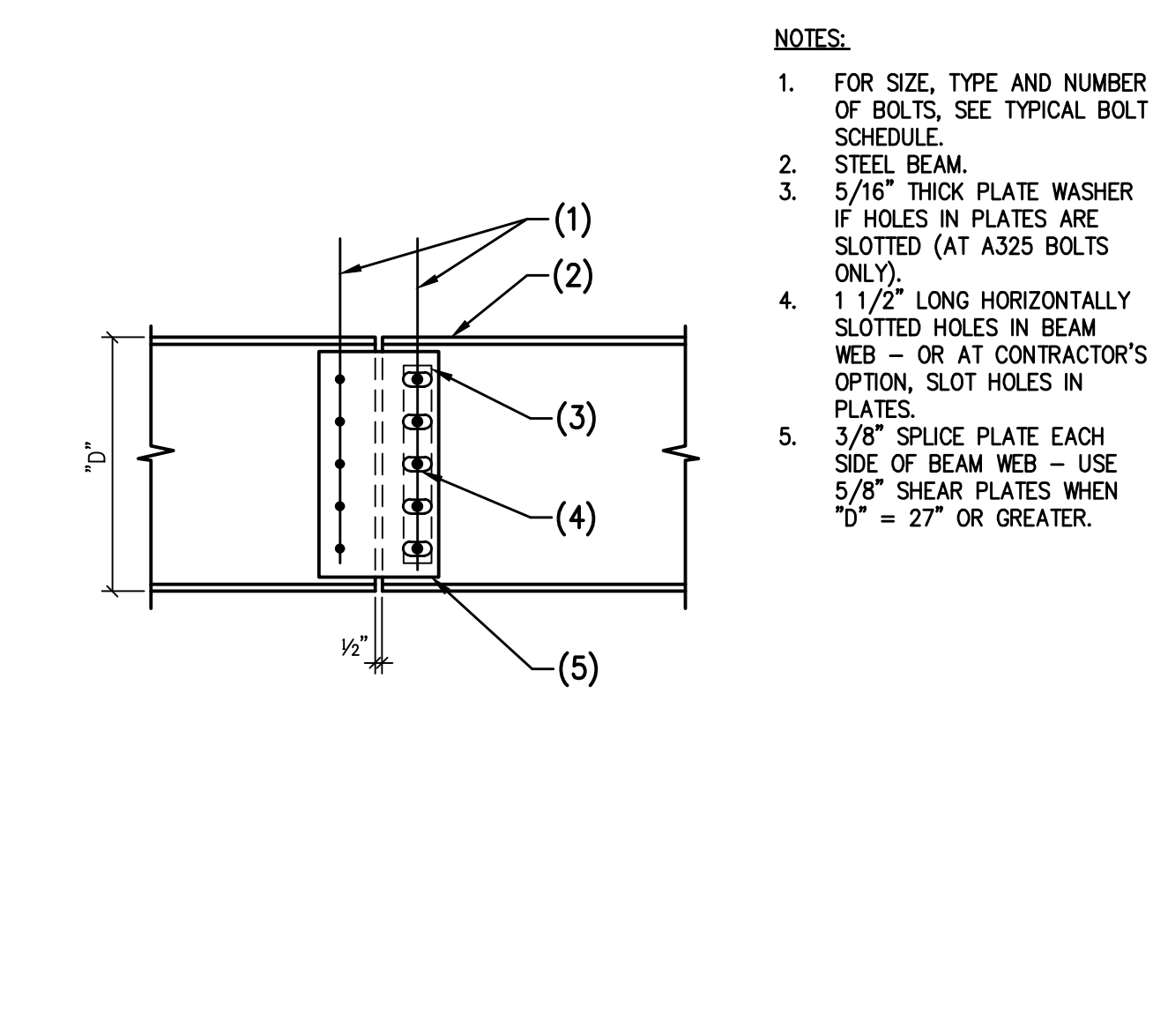
505 PLAN VIEW - TYPICAL FRAME OPENING AT LARGE OPENING OR MECHANICAL UNIT NO SCALE

501 BOLT SCHEDULE FOR TYPICAL STEEL CONNECTIONS

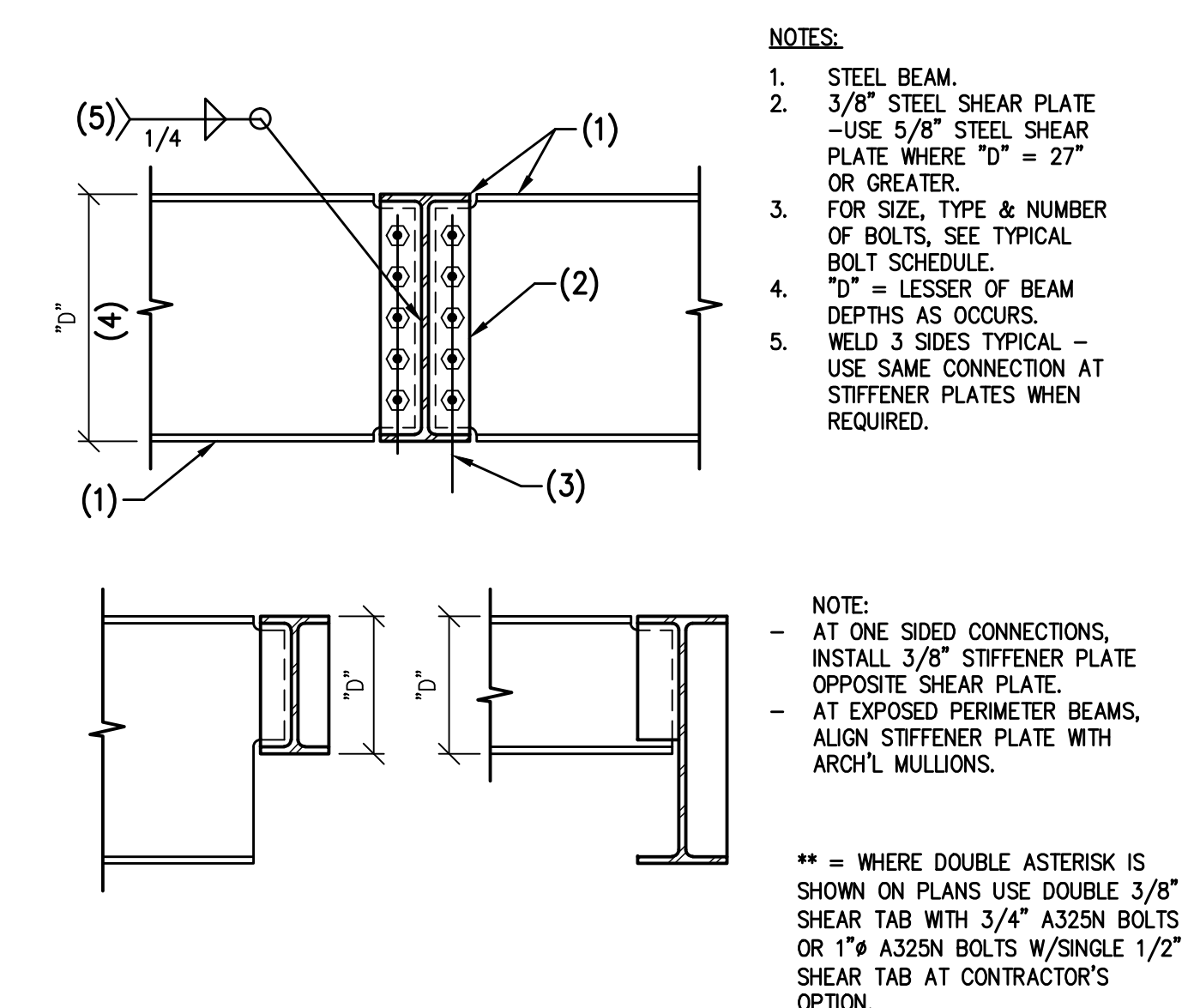
NOMINAL BEAM DEPTH "D"	NUMBER OF 3/4" DIA ASTM, A325N BOLTS
UP TO 7"	2
8" - 11"	2
12" - 14"	3
15" - 17"	4
18" - 20"	5
21" - 23"	6
24" - 29"	7
30" - 32"	8

NOTE: ** = WHERE DOUBLE ASTERISK IS SHOWN ON PLANS USE DOUBLE 3/8" SHEAR TAB WITH 3/4" A325N BOLTS OR 1" A325N BOLTS W/SINGLE 1/2" SHEAR TAB AT CONTRACTOR'S OPTION.

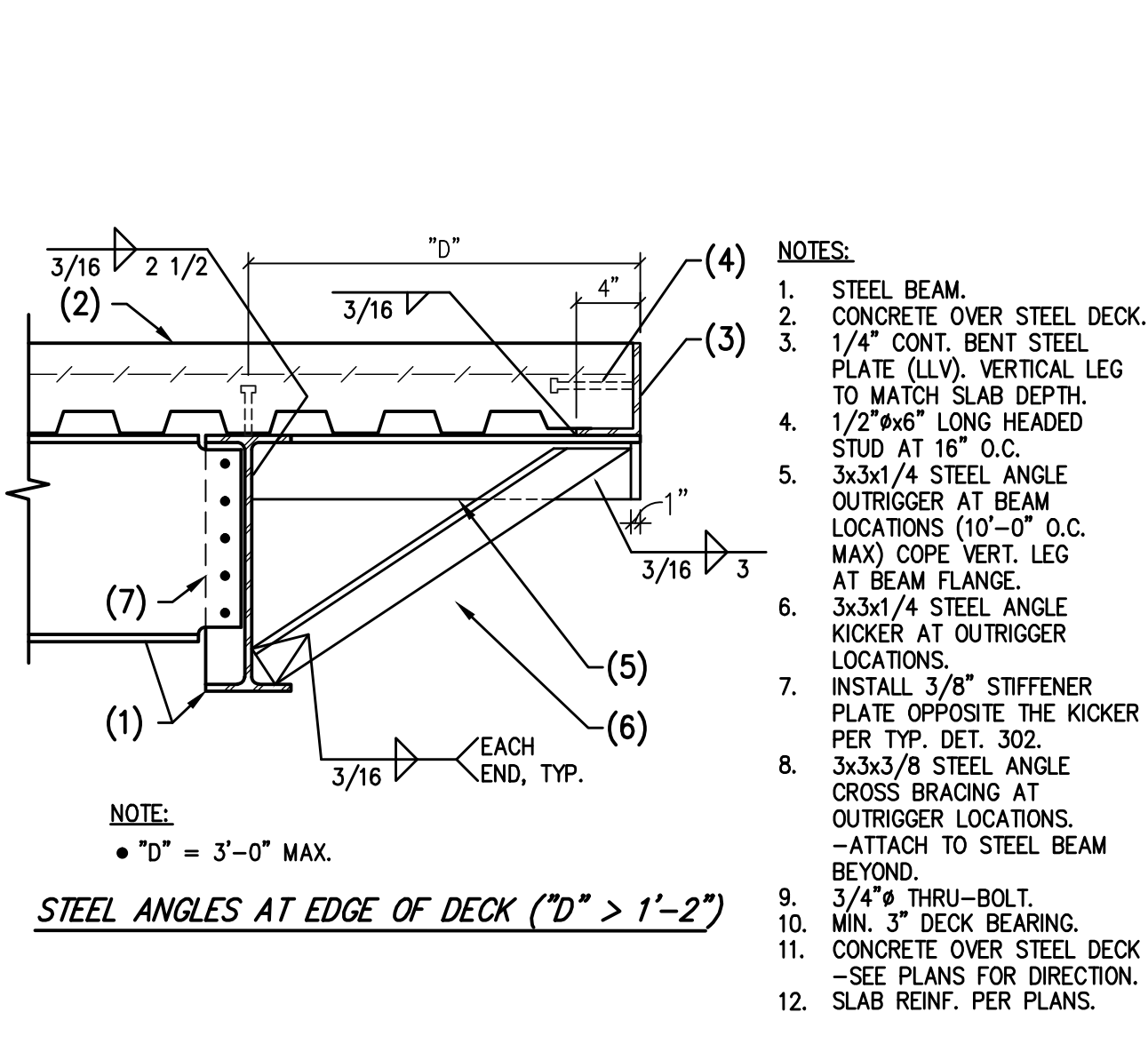
501 BOLT SCHEDULE FOR TYPICAL STEEL CONNECTIONS NO SCALE



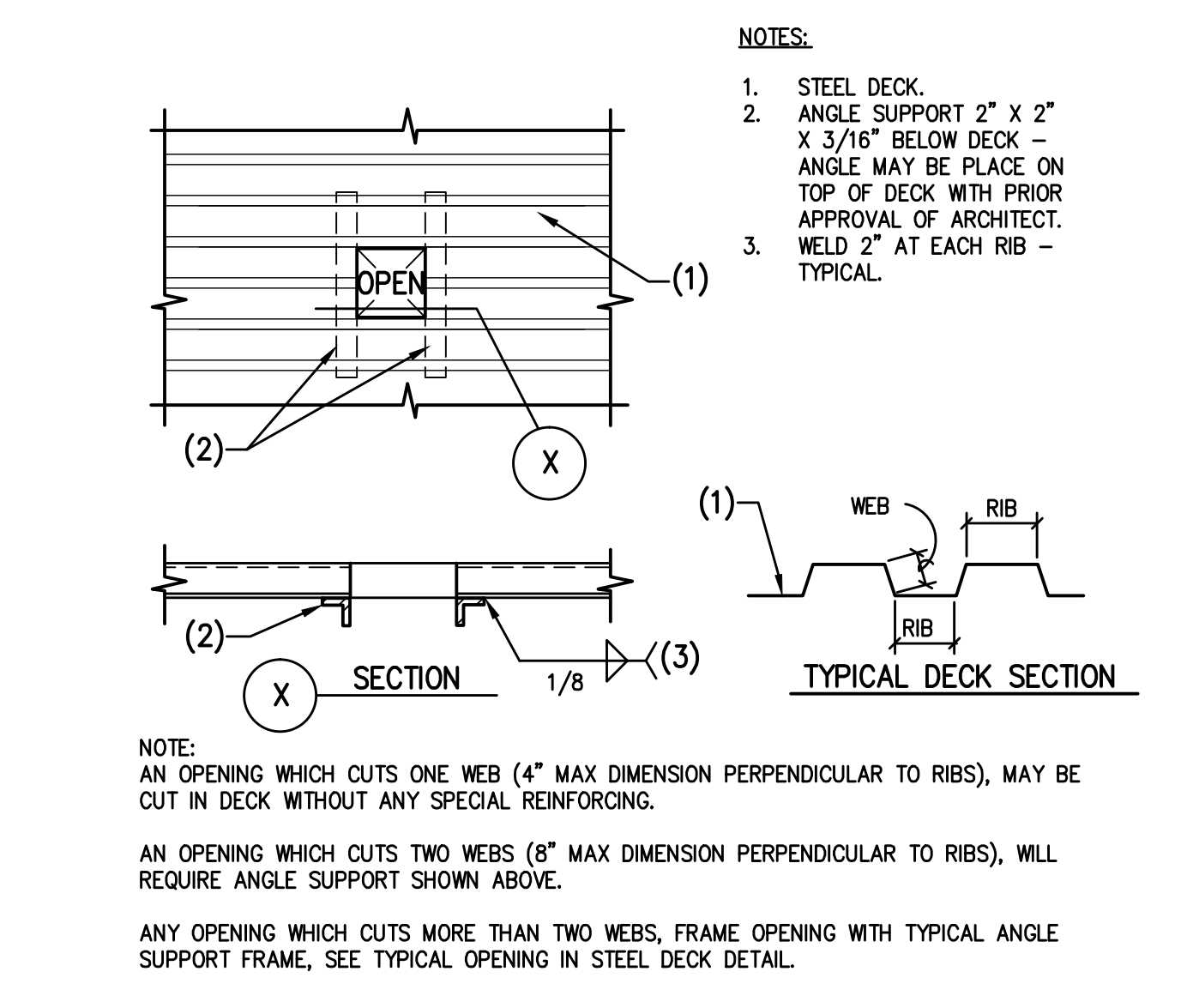
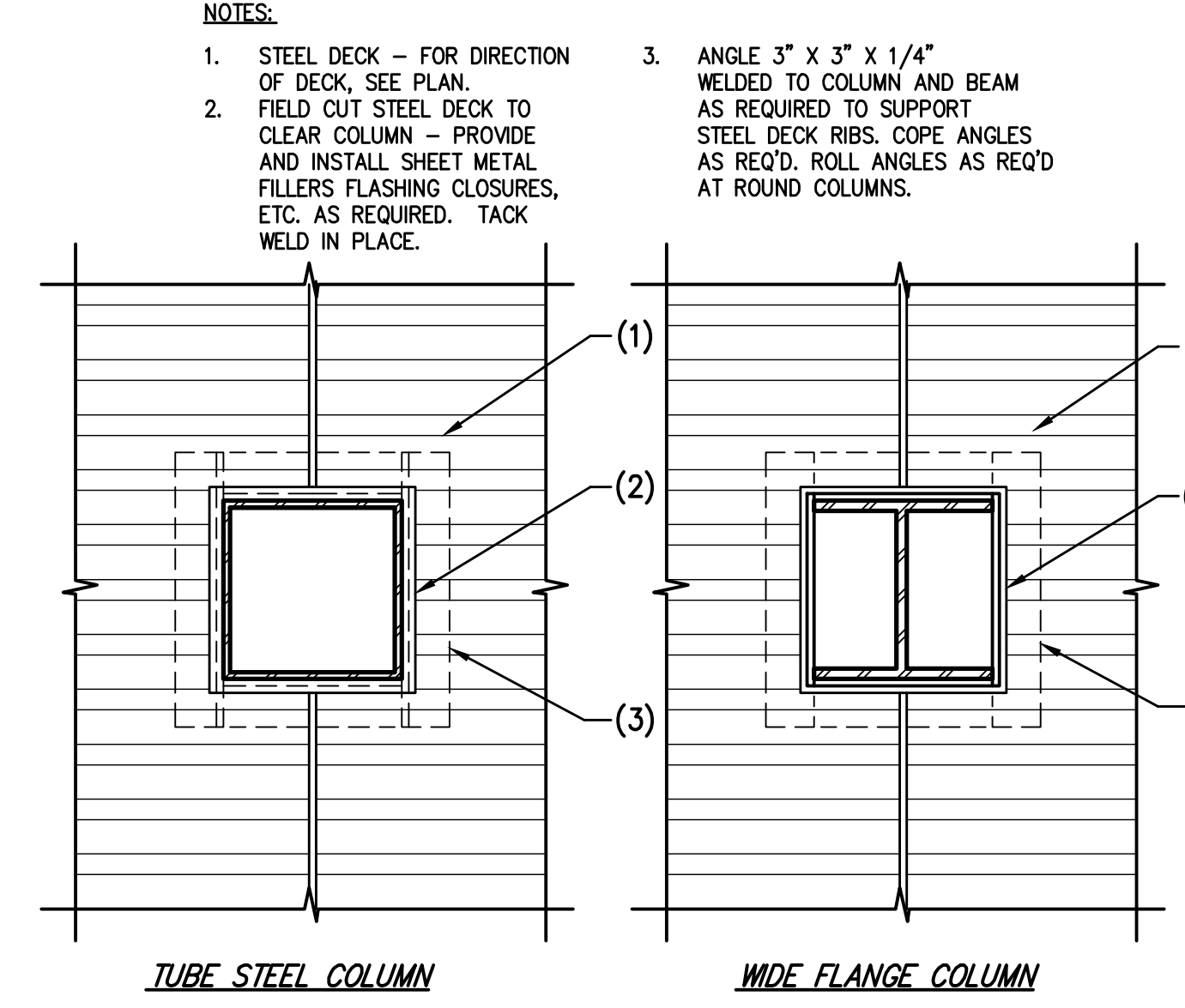
516 STEEL BEAM TO BEAM SHEAR CONNECTION NO SCALE



512 TYPICAL CONNECTION WIDE FLANGE BEAM TO BEAM NO SCALE

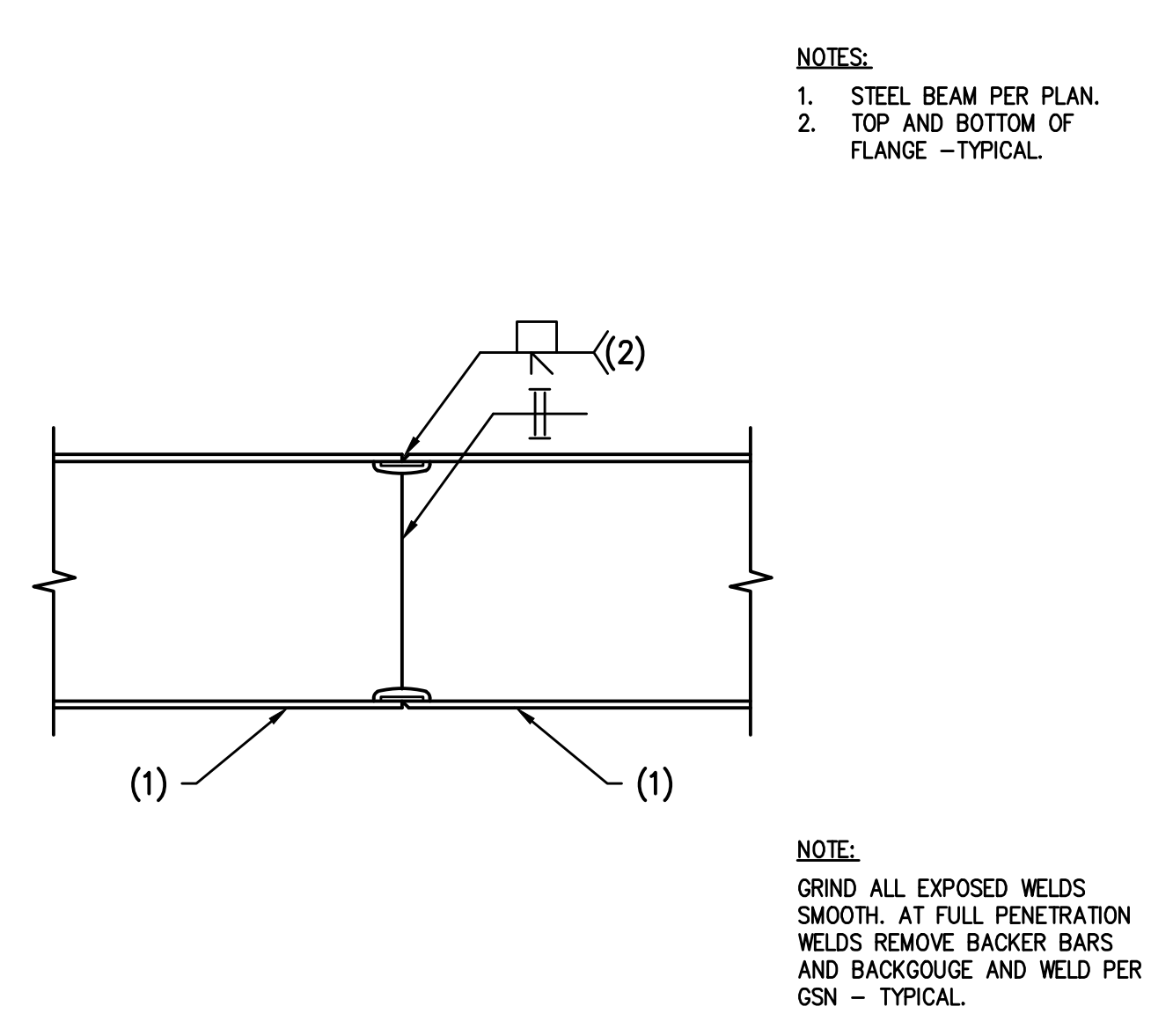


506 PLAN VIEW - TYPICAL STEEL DECK DETAIL AT STEEL COLUMN NO SCALE

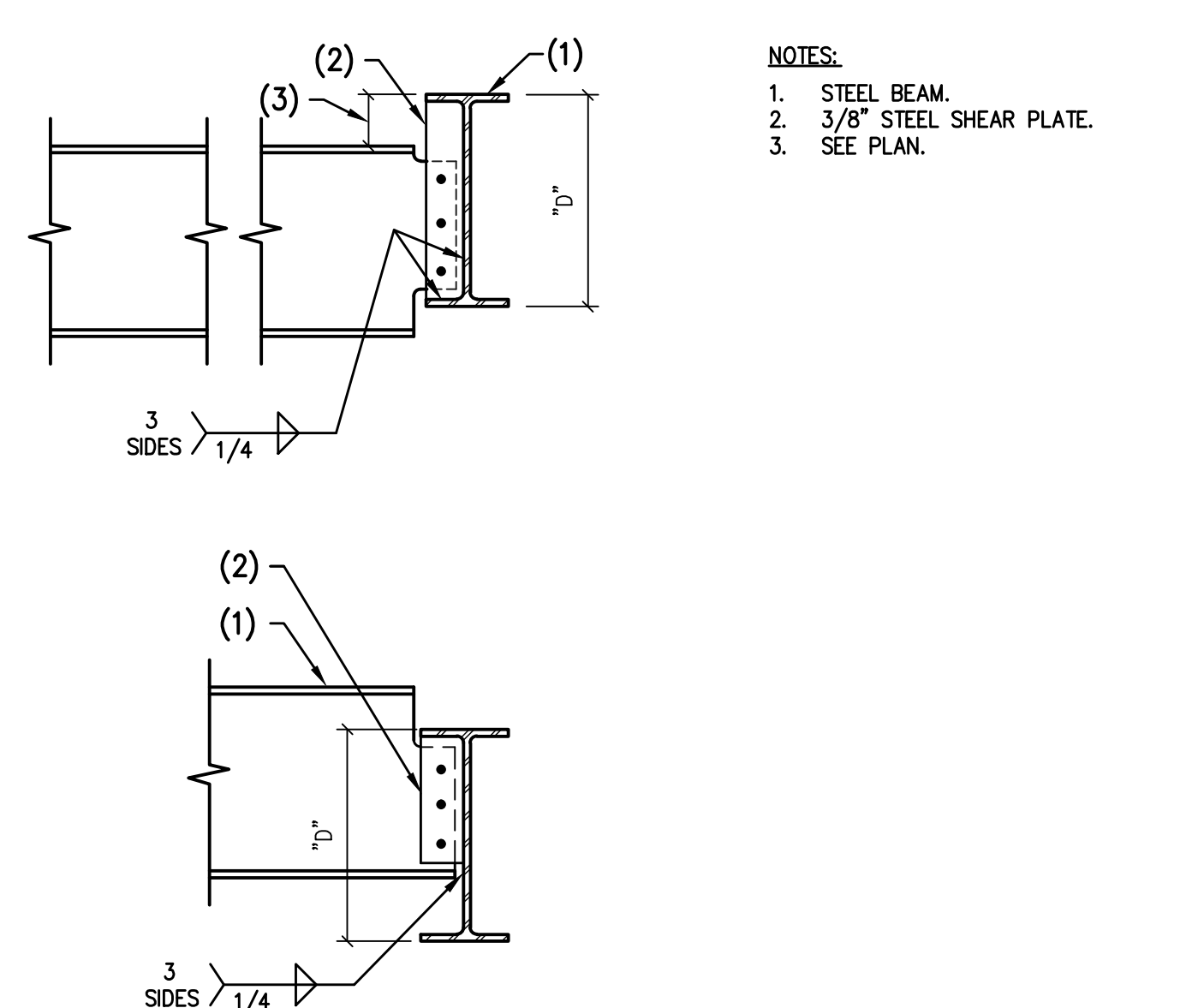


502 TYPICAL SMALL OPENING IN STEEL DECK NO SCALE

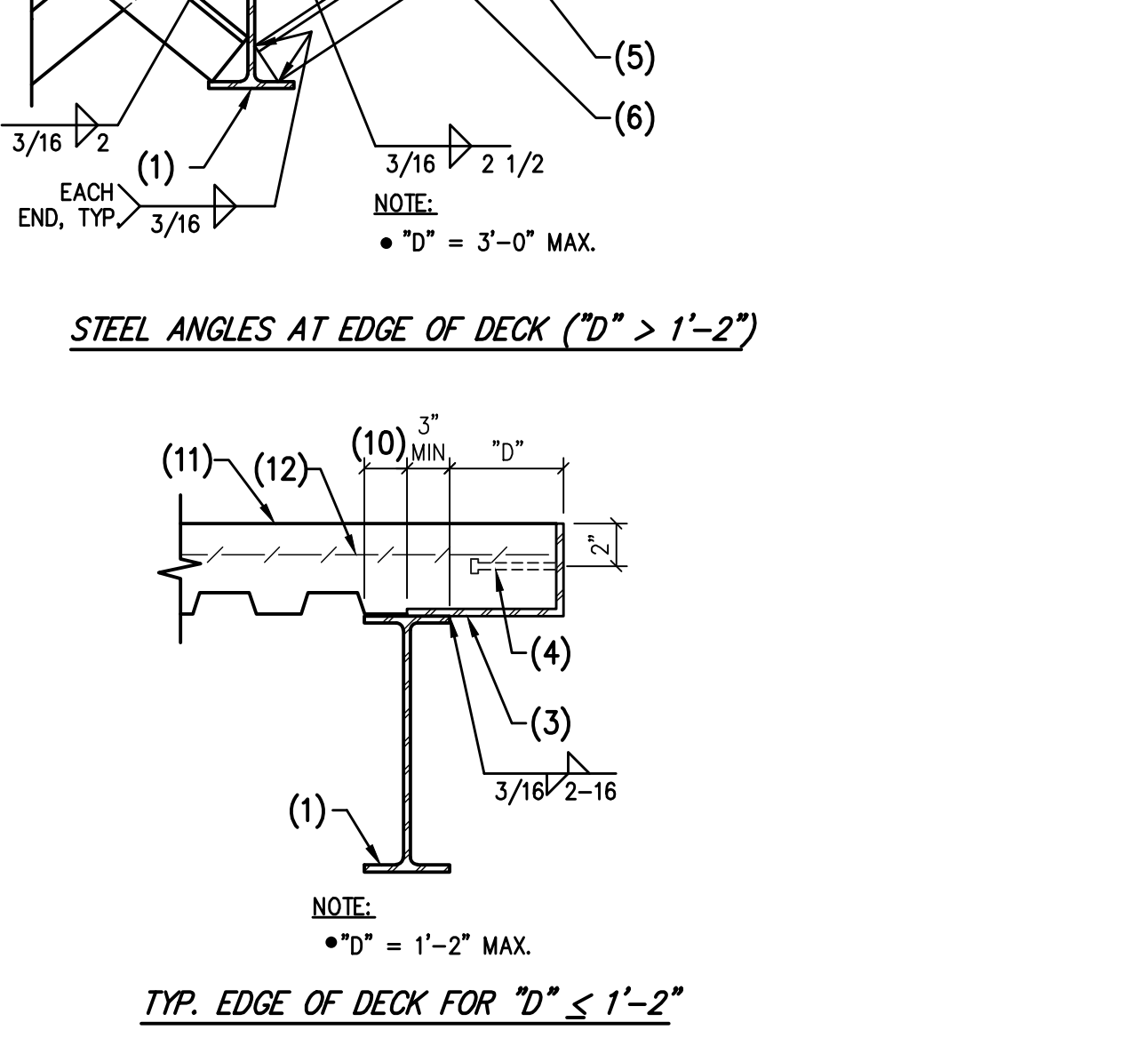
503 TYPICAL SMALL OPENING IN CONCRETE OVER STEEL DECK NO SCALE



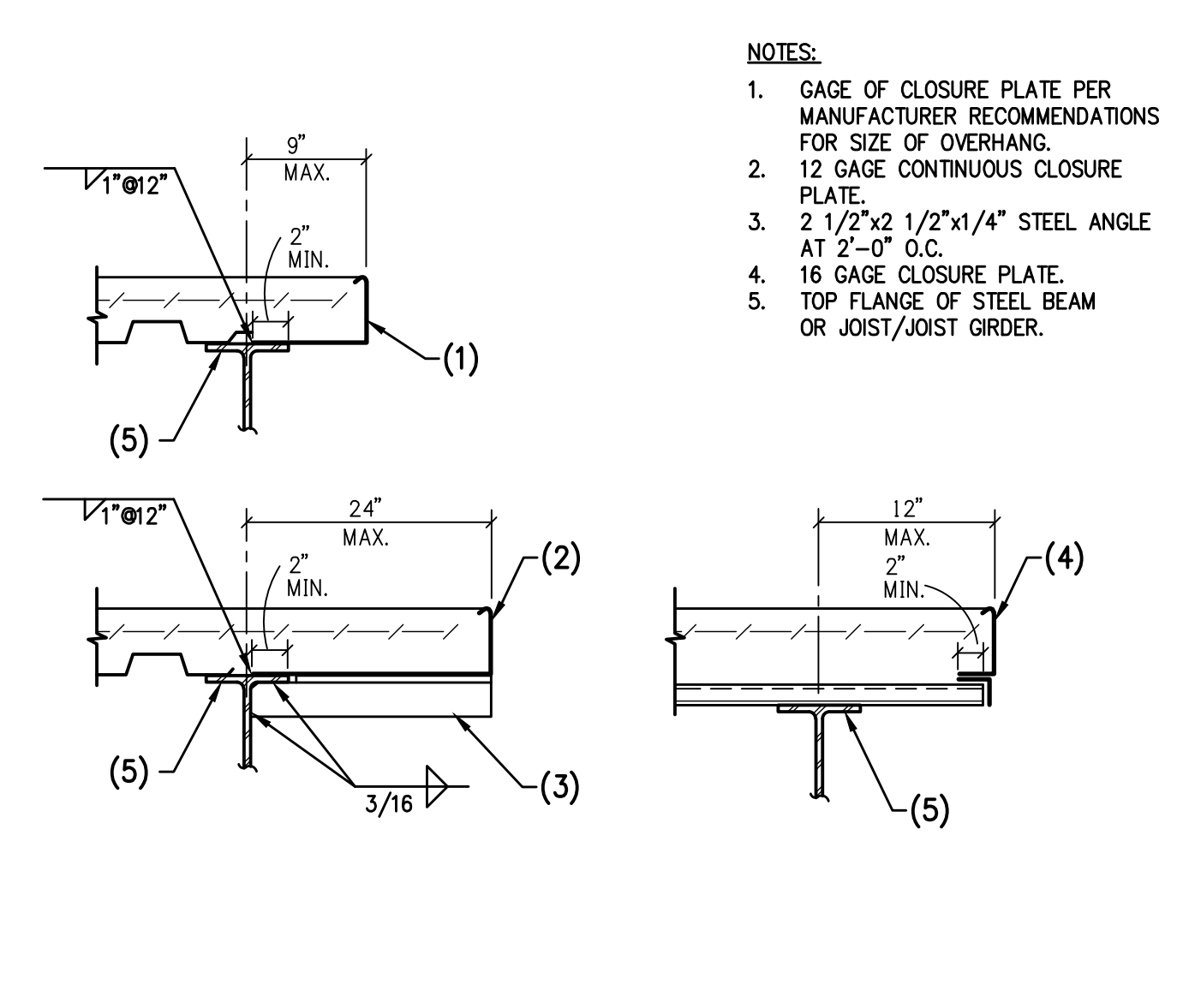
517 FULL PENETRATION WELDED BEAM SPLICE DETAIL NO SCALE



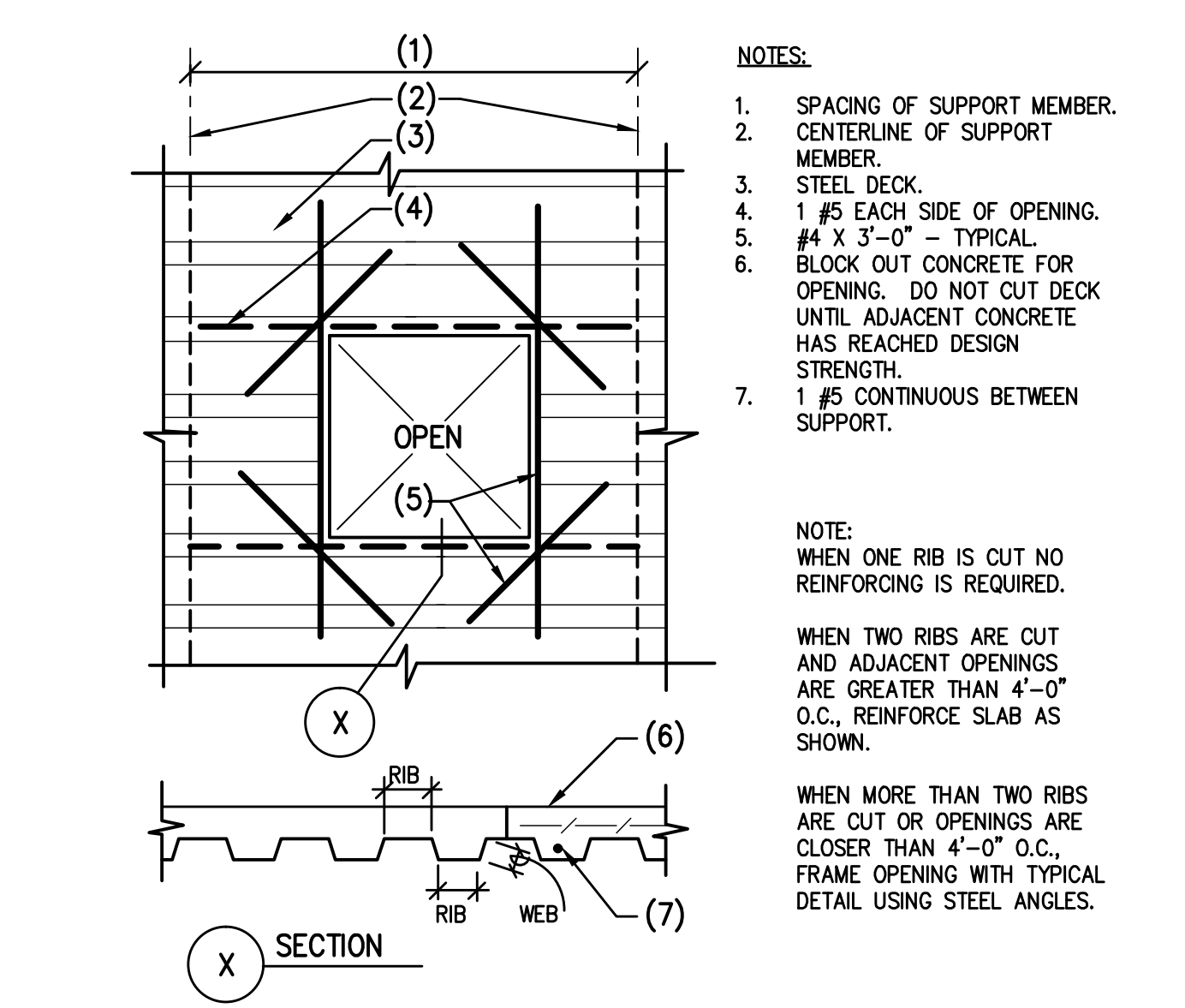
513 TYPICAL STEEL BEAM TO STEEL BEAM CONNECTION NO SCALE



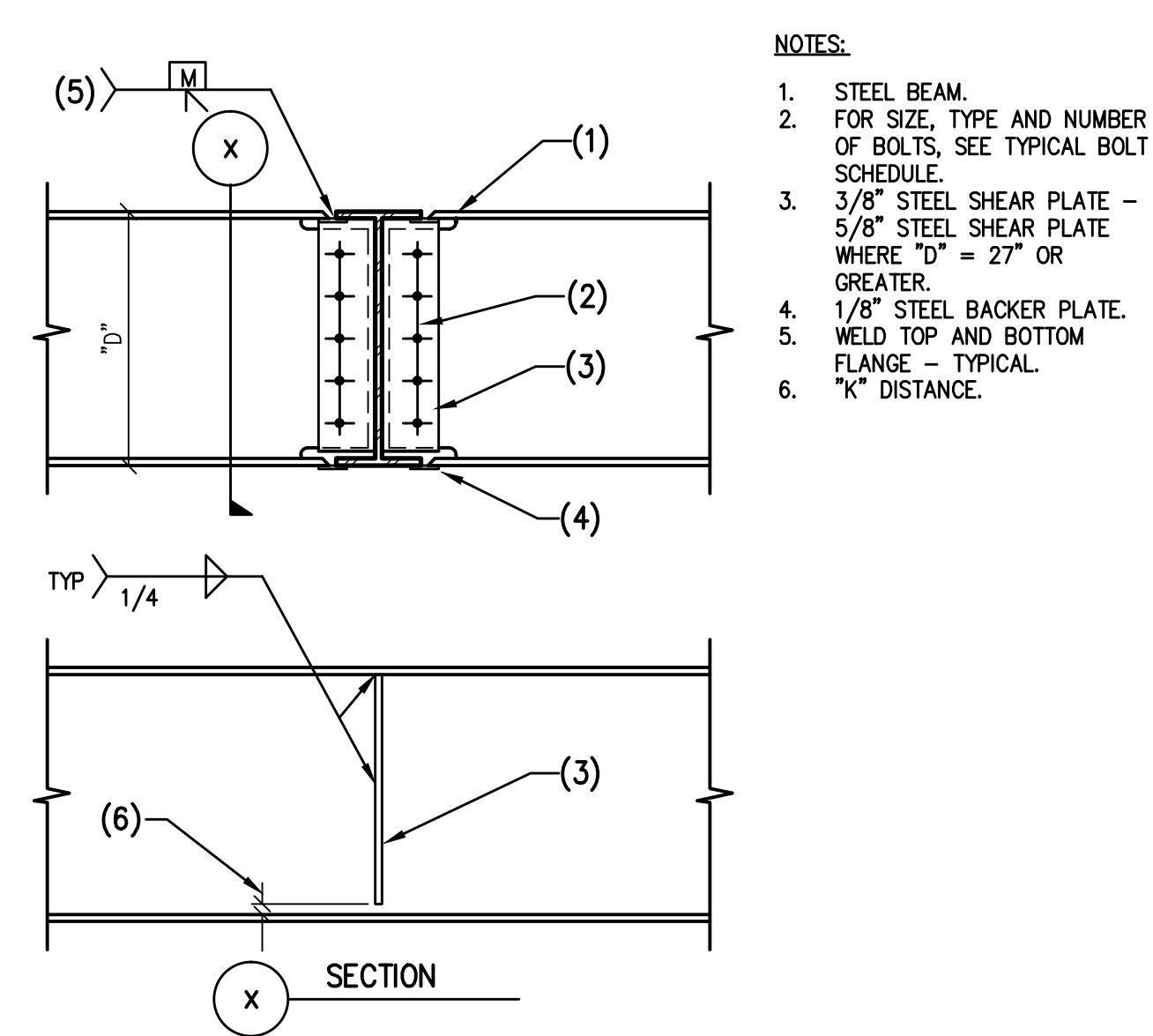
509 TYPICAL SLAB EDGE AT STEEL BEAM NO SCALE



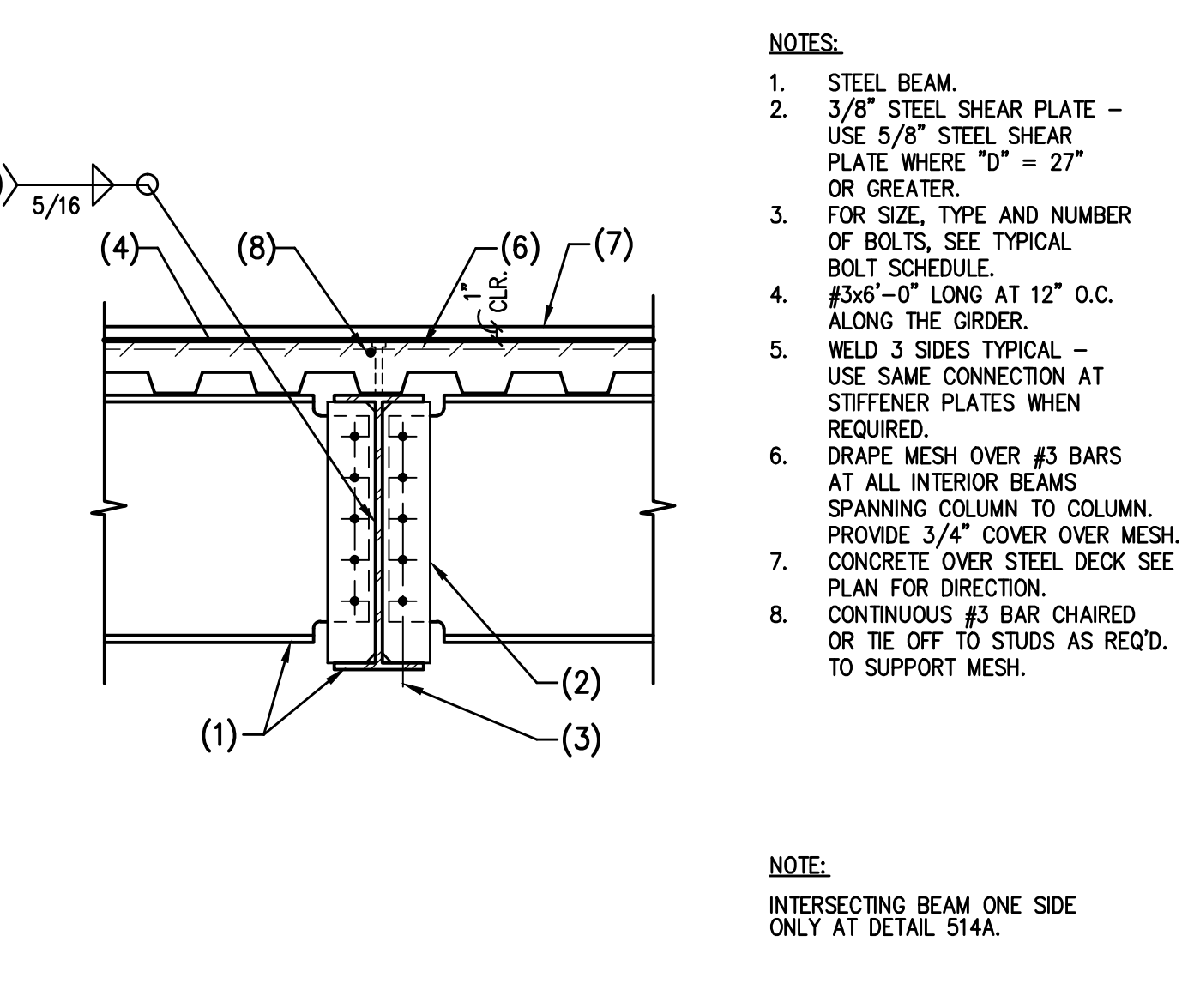
507 TYPICAL INTERIOR SLAB EDGE CONDITION AT FLOOR PENETRATION NO SCALE



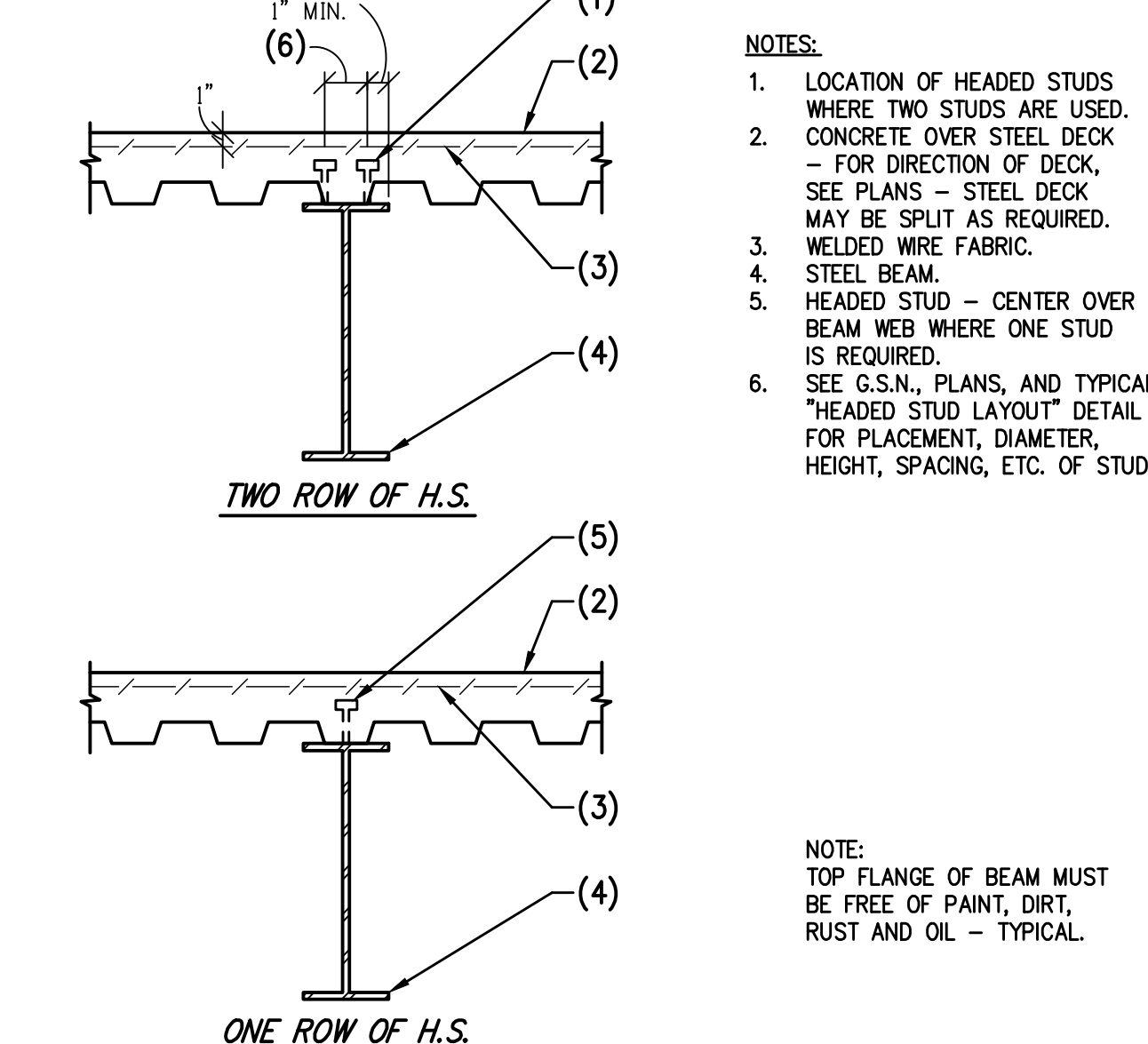
504 PLAN - TYPICAL FRAMING AT FLOOR OPENING NO SCALE



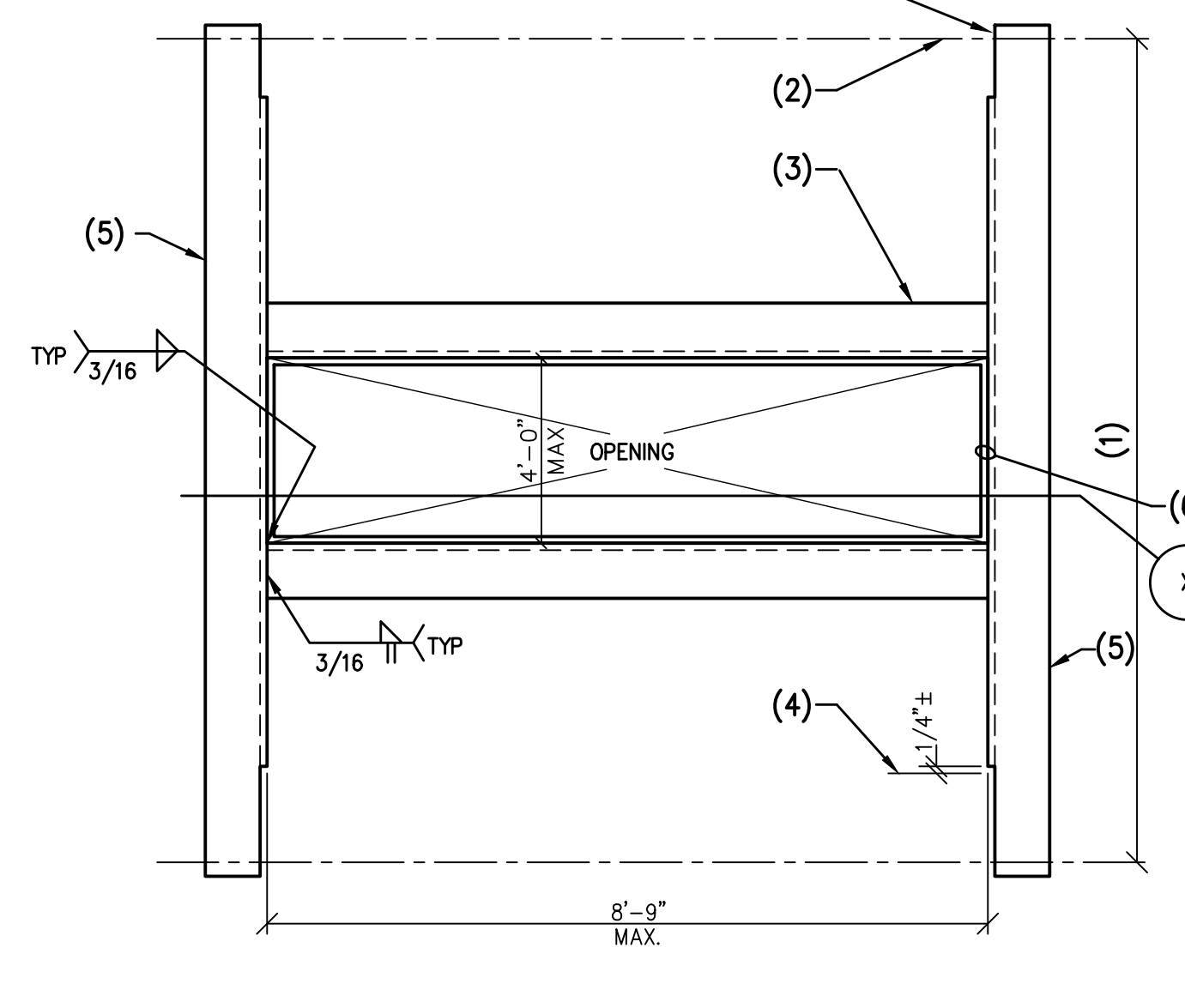
518 TYPICAL MOMENT CONNECTION - WIDE FLANGE BEAM TO BEAM NO SCALE



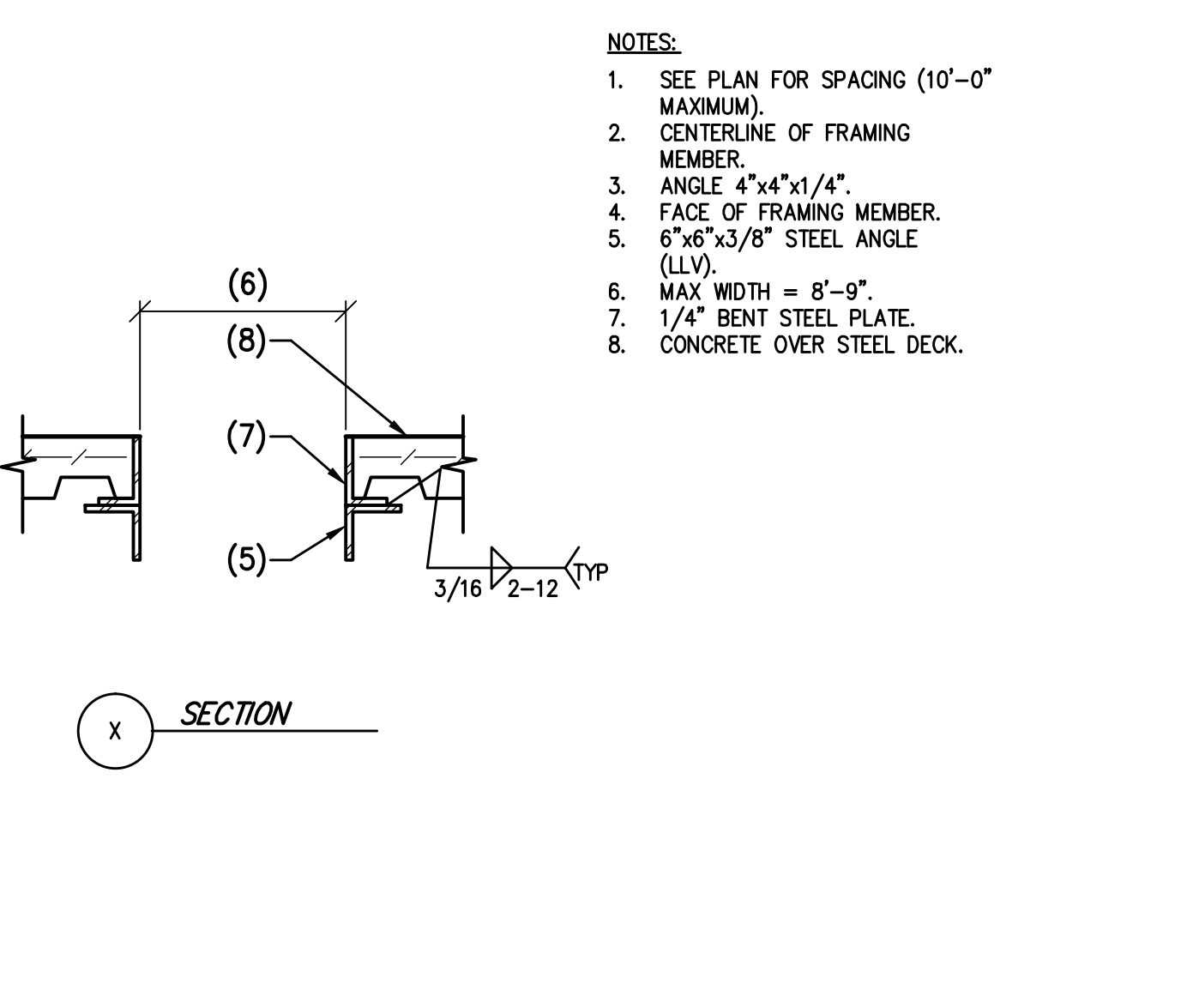
514 TYPICAL WELDED WIRE FABRIC AT INTERIOR STEEL GIRDER AS NOTED NO SCALE



510 TYPICAL SHEAR CONNECTORS TO COMPOSITE STEEL BEAM NO SCALE



504 PLAN - TYPICAL FRAMING AT FLOOR OPENING NO SCALE



503 TYPICAL SMALL OPENING IN CONCRETE OVER STEEL DECK NO SCALE

Key Plan:

No.	Description	Date
17	STRUCTURAL CLARIFICATIONS	10/10/2016
	CONFORM SET	09/03/2017
	CONFORM SET	02/10/2017

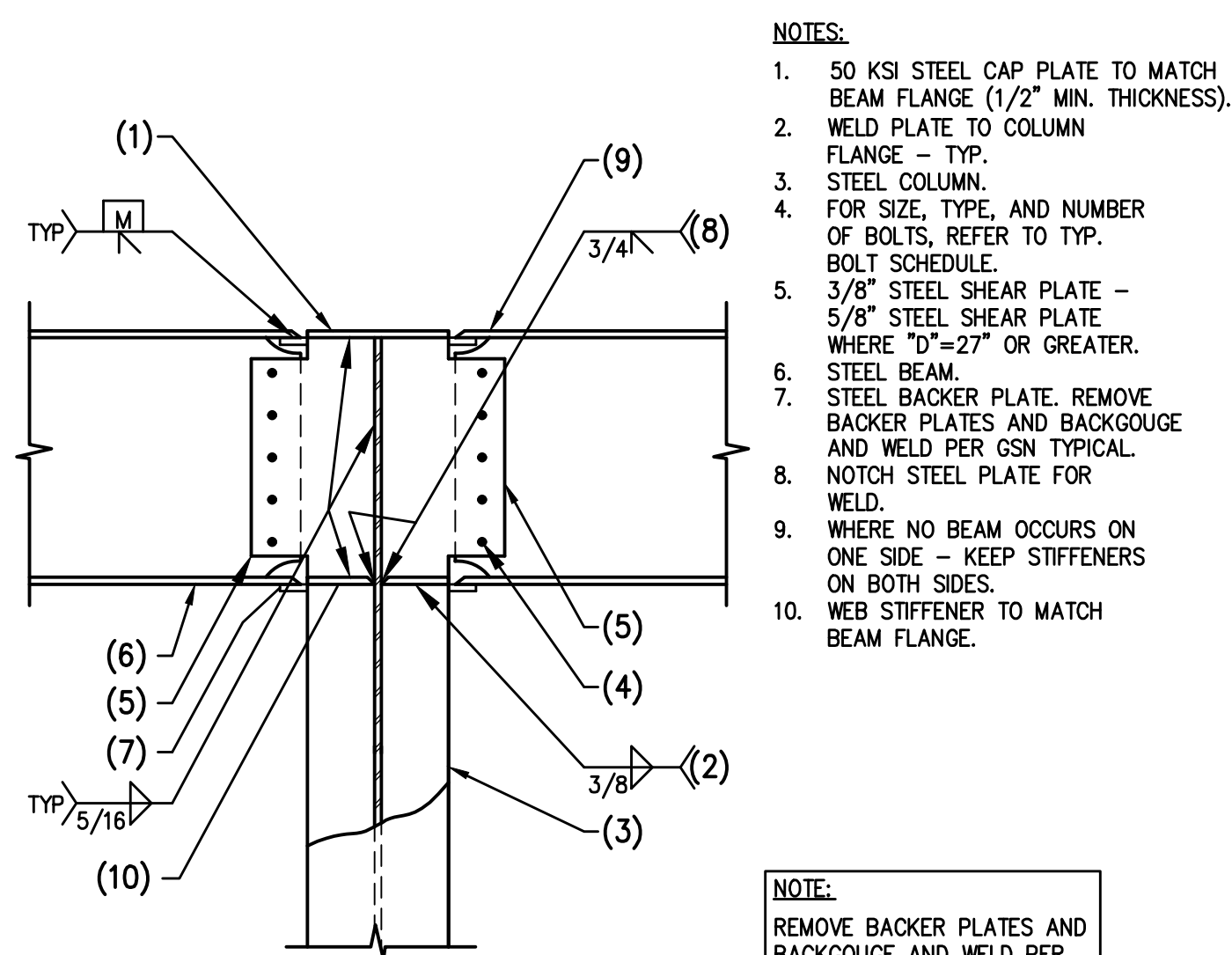
Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

STEEL FLOOR FRAMING DETAILS

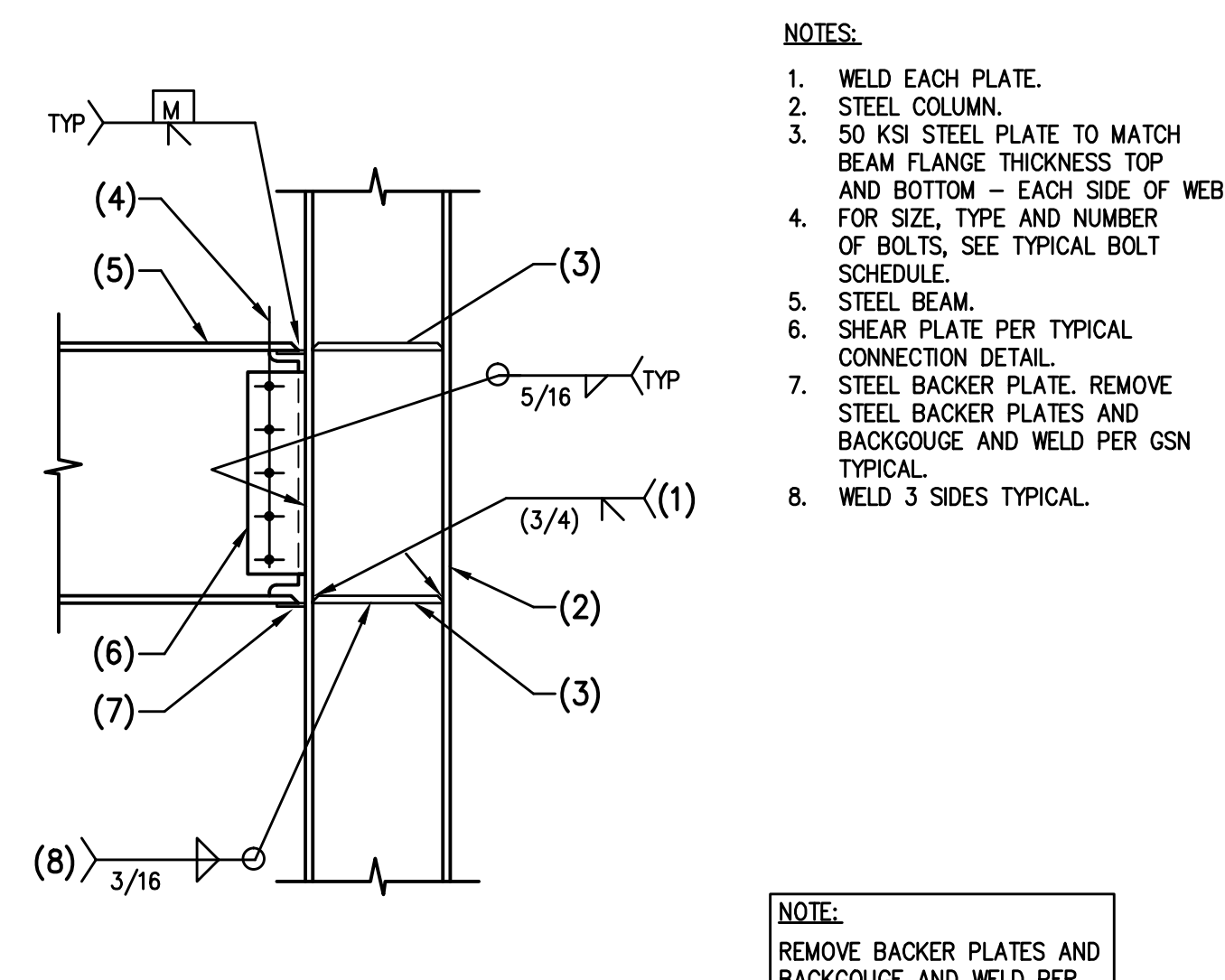
Sheet Number: **S701**

ACTUAL SHEET SIZE: 36" X 48"

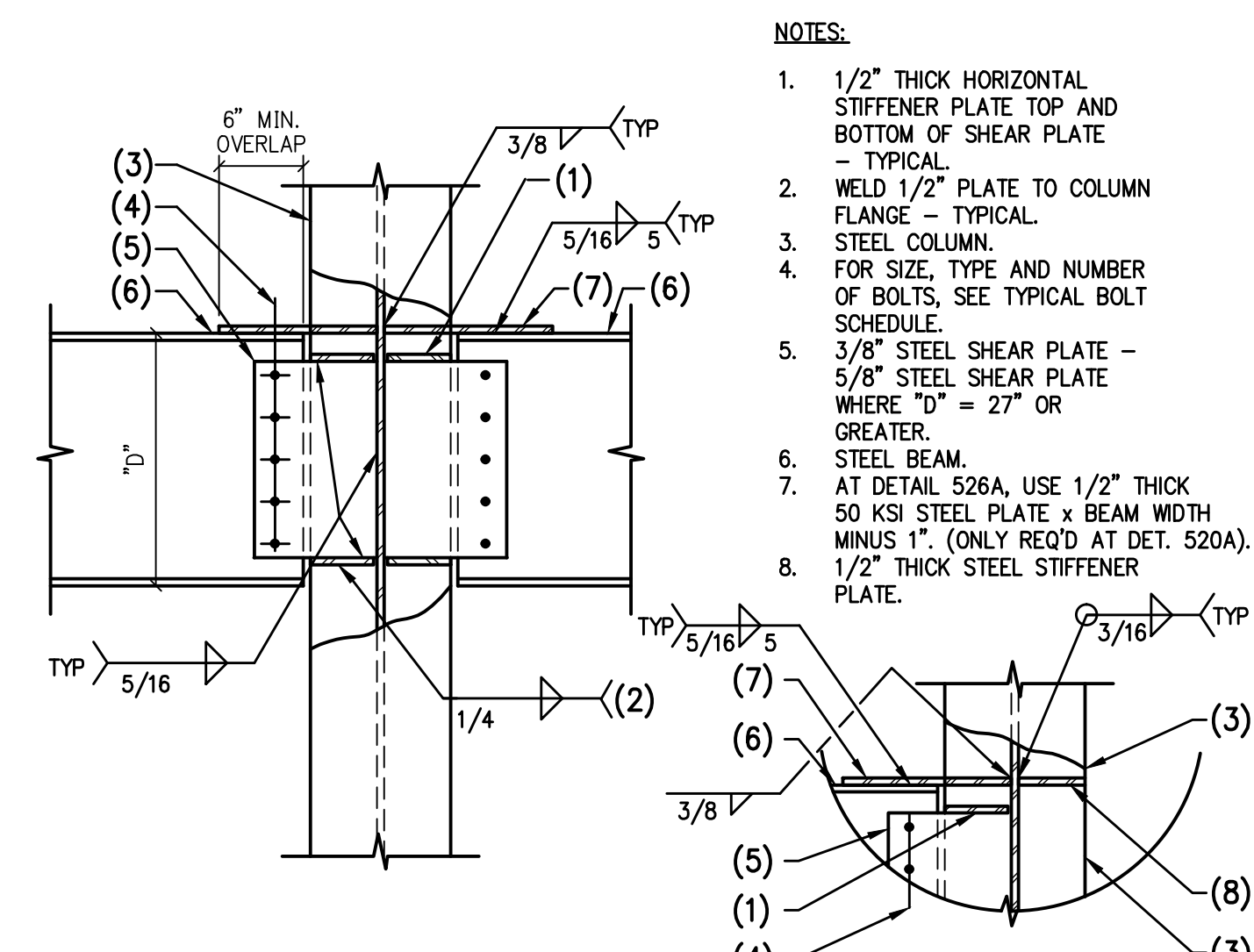
02-17-2017 CONFORM SET



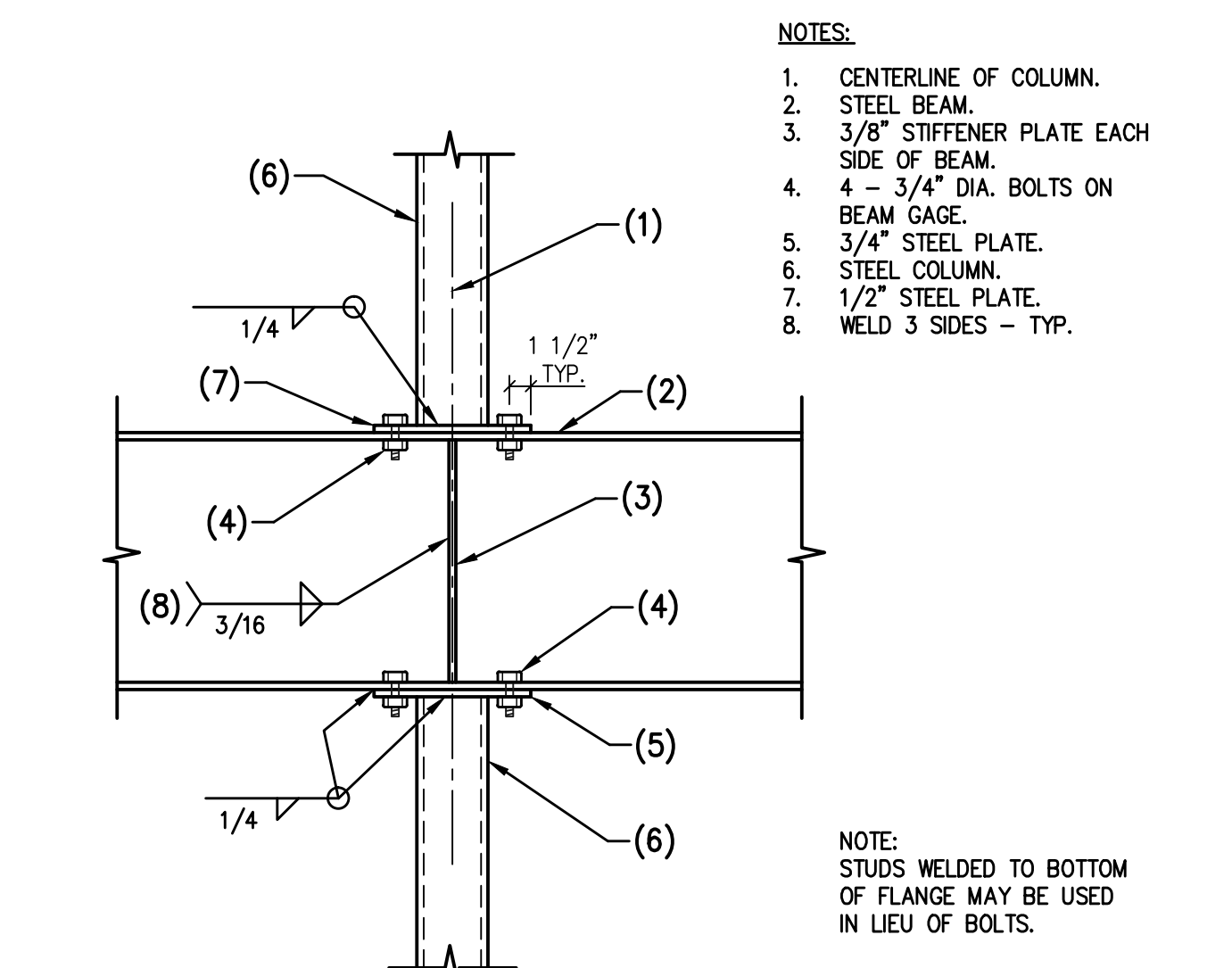
534 MOMENT CONNECTION - STEEL BEAMS TO STEEL COLUMN
NO SCALE



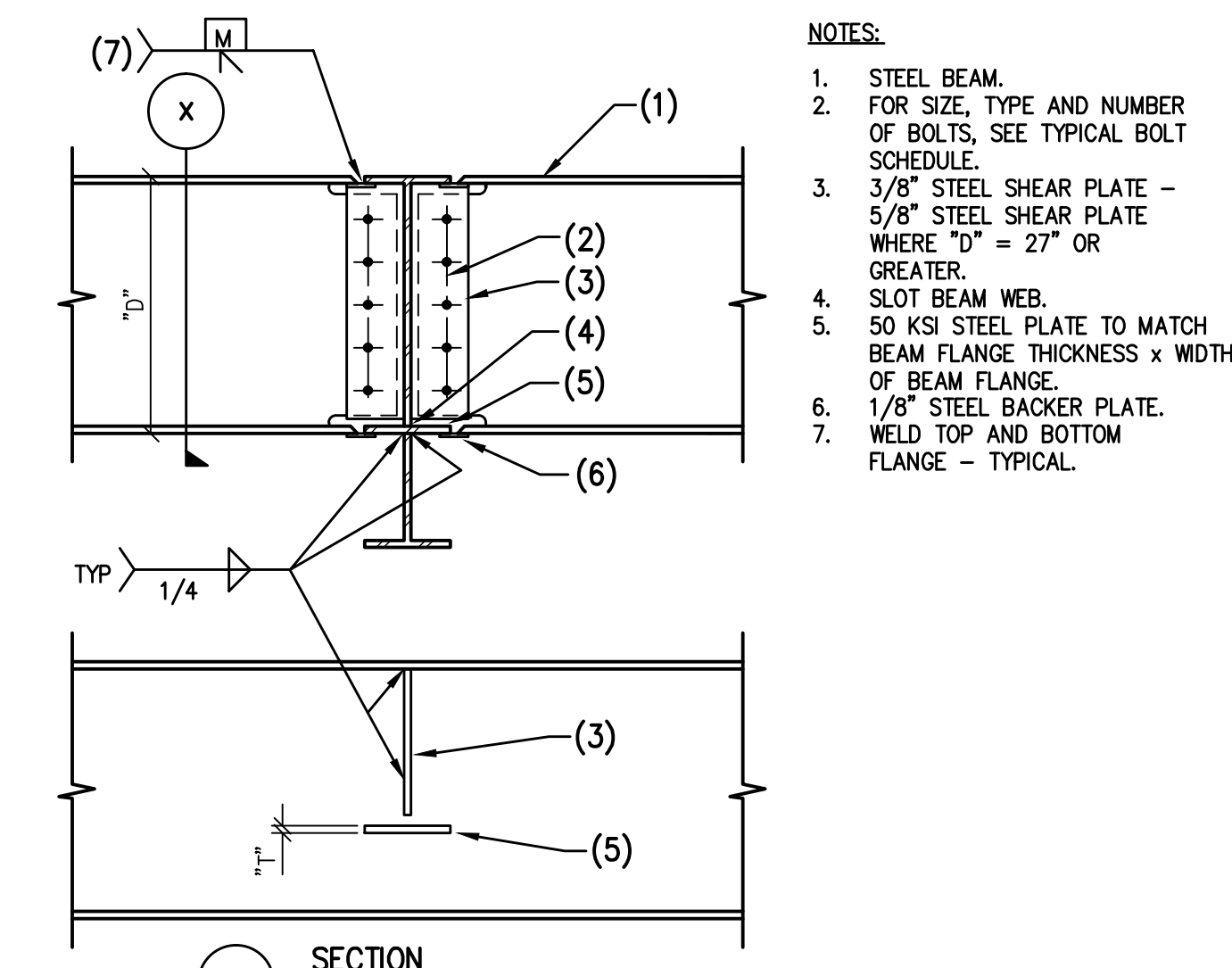
530 TYPICAL MOMENT CONNECTION - STEEL BEAM TO STEEL COLUMN
NO SCALE



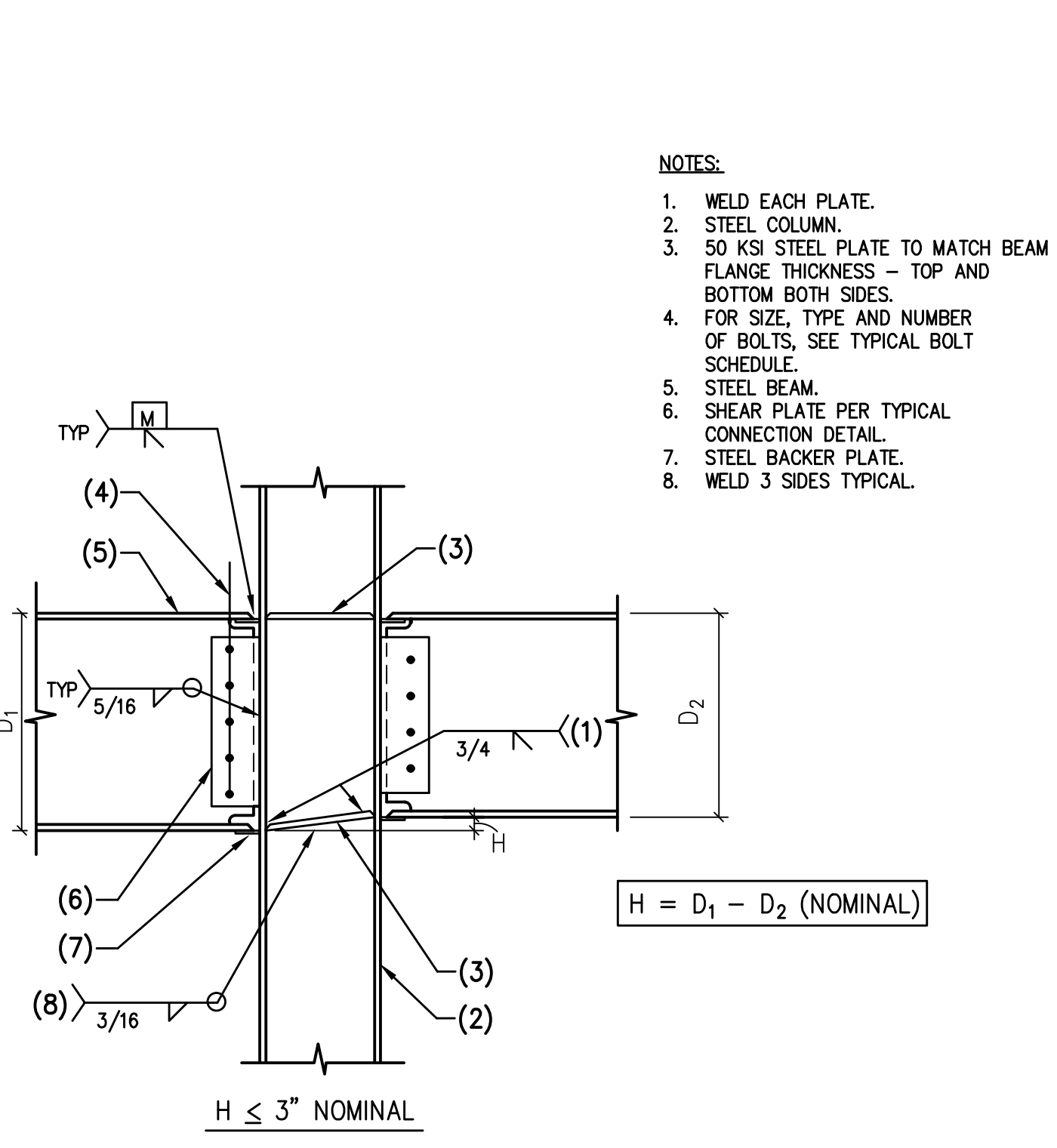
526 STEEL BEAM TO STEEL COLUMN
AS NOTED NO SCALE



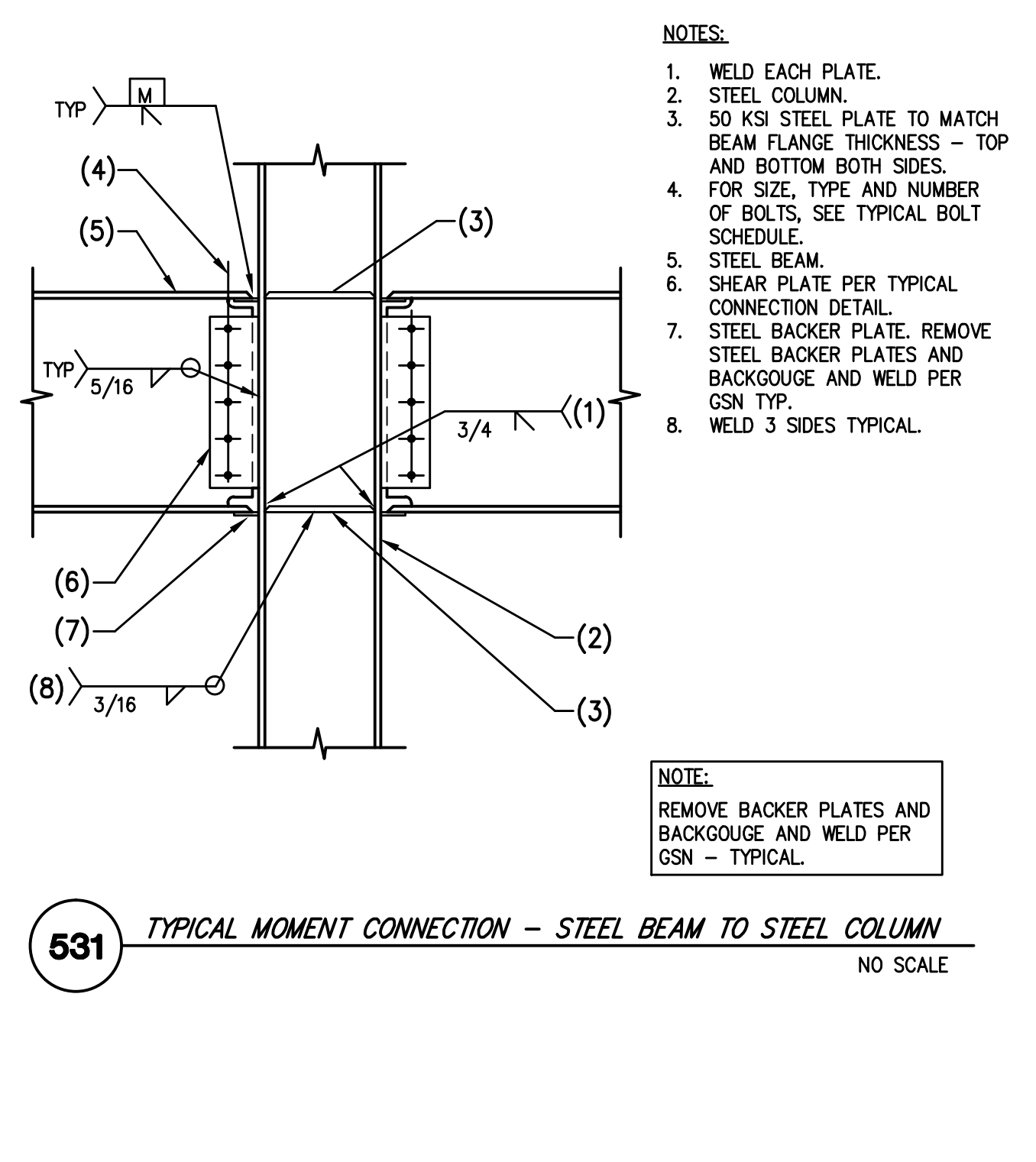
523 STEEL BEAM TO STEEL COLUMN CONNECTION
NO SCALE



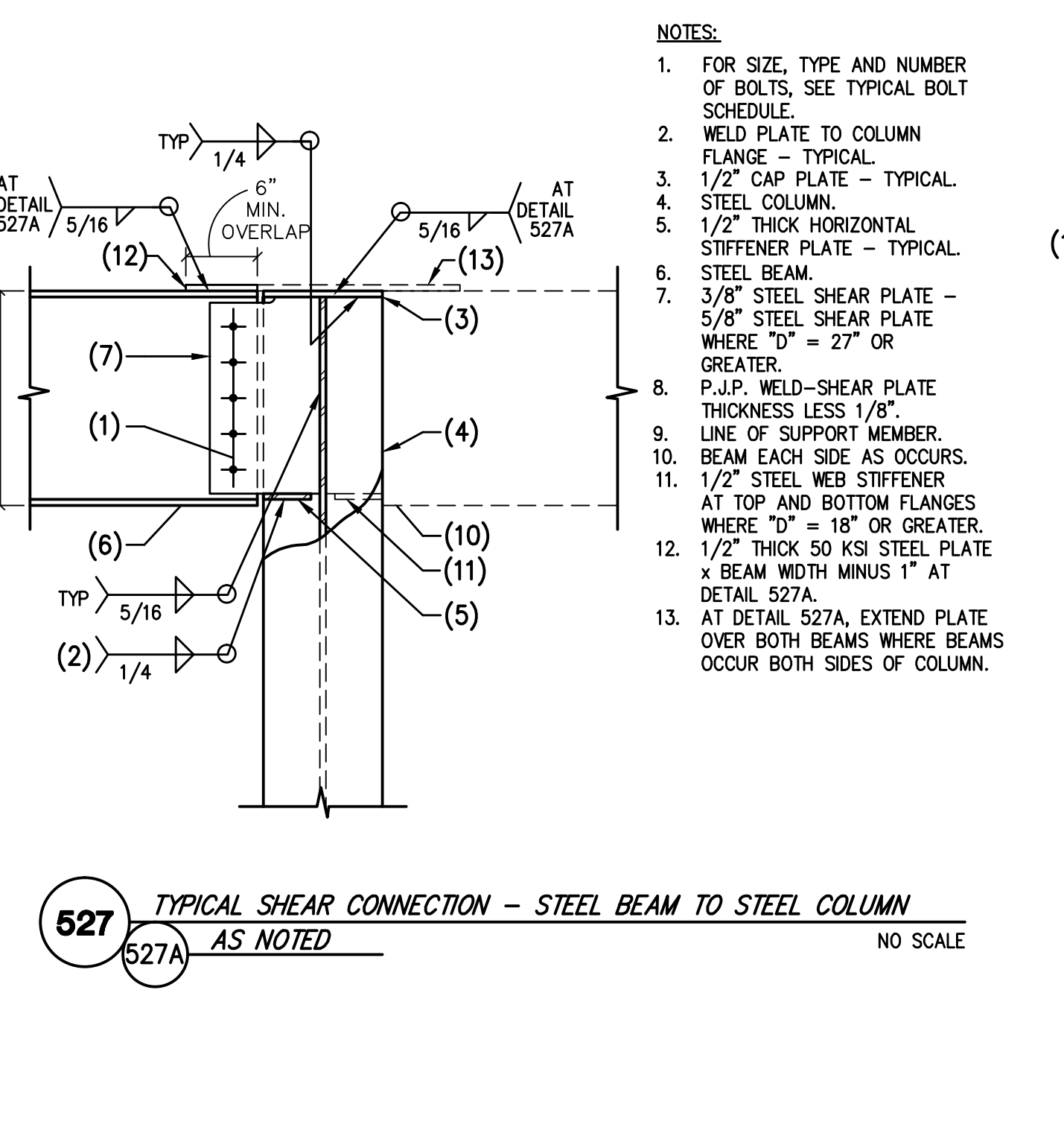
519 TYPICAL MOMENT CONNECTION - WIDE FLANGE BEAM TO BEAM
NO SCALE



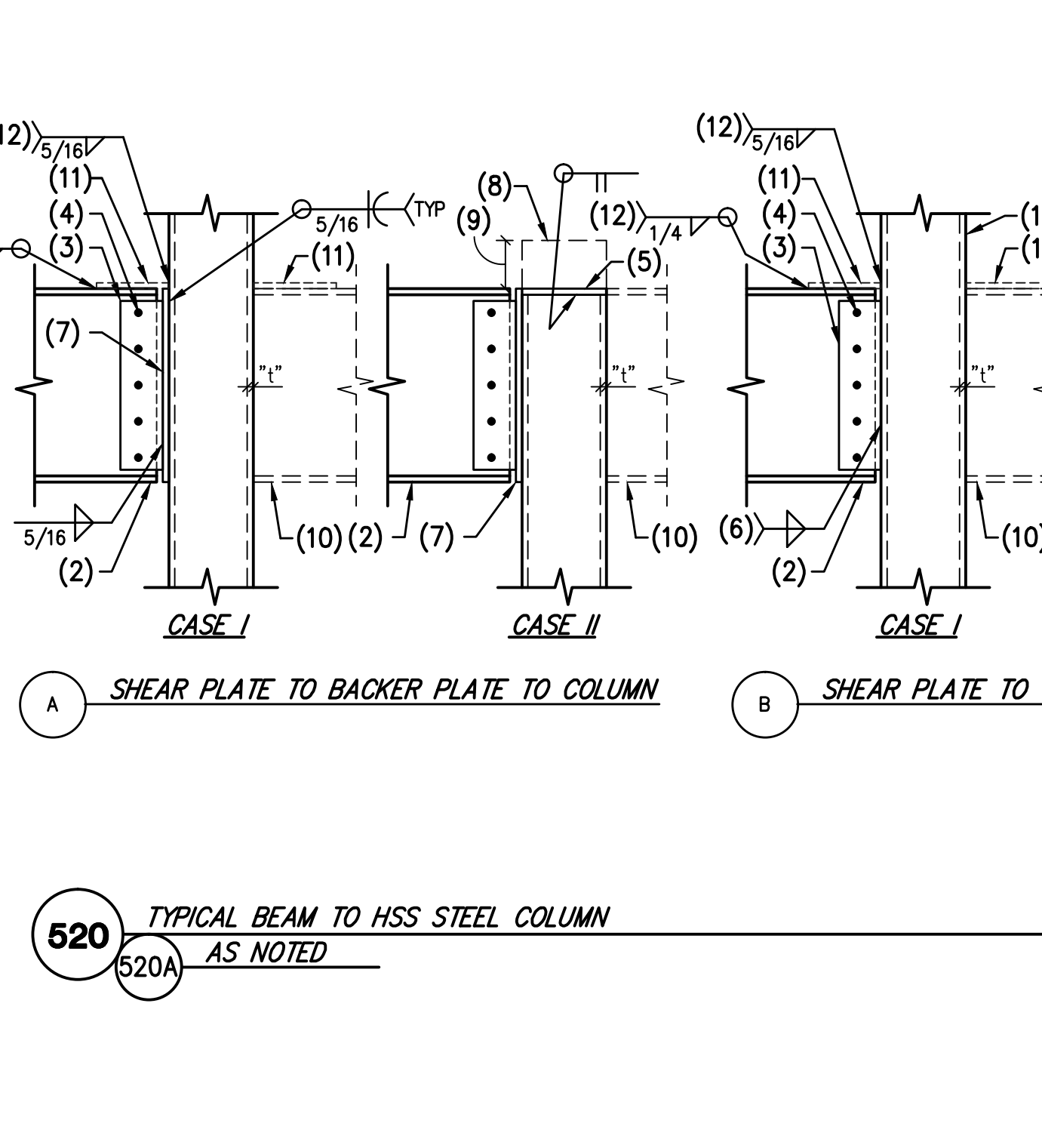
531 TYPICAL MOMENT CONNECTION - STEEL BEAM TO STEEL COLUMN
NO SCALE



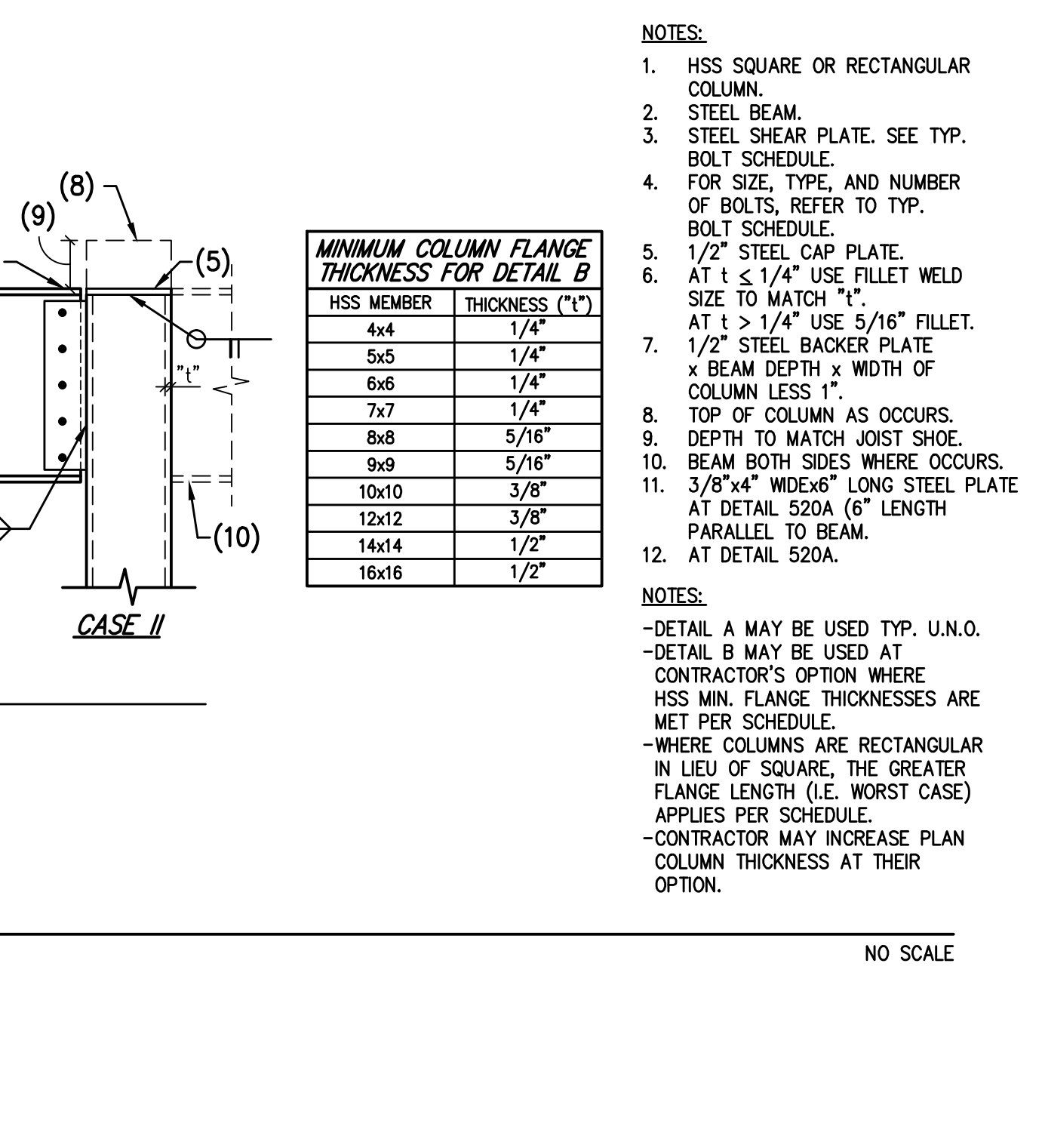
531 TYPICAL MOMENT CONNECTION - STEEL BEAM TO STEEL COLUMN
NO SCALE



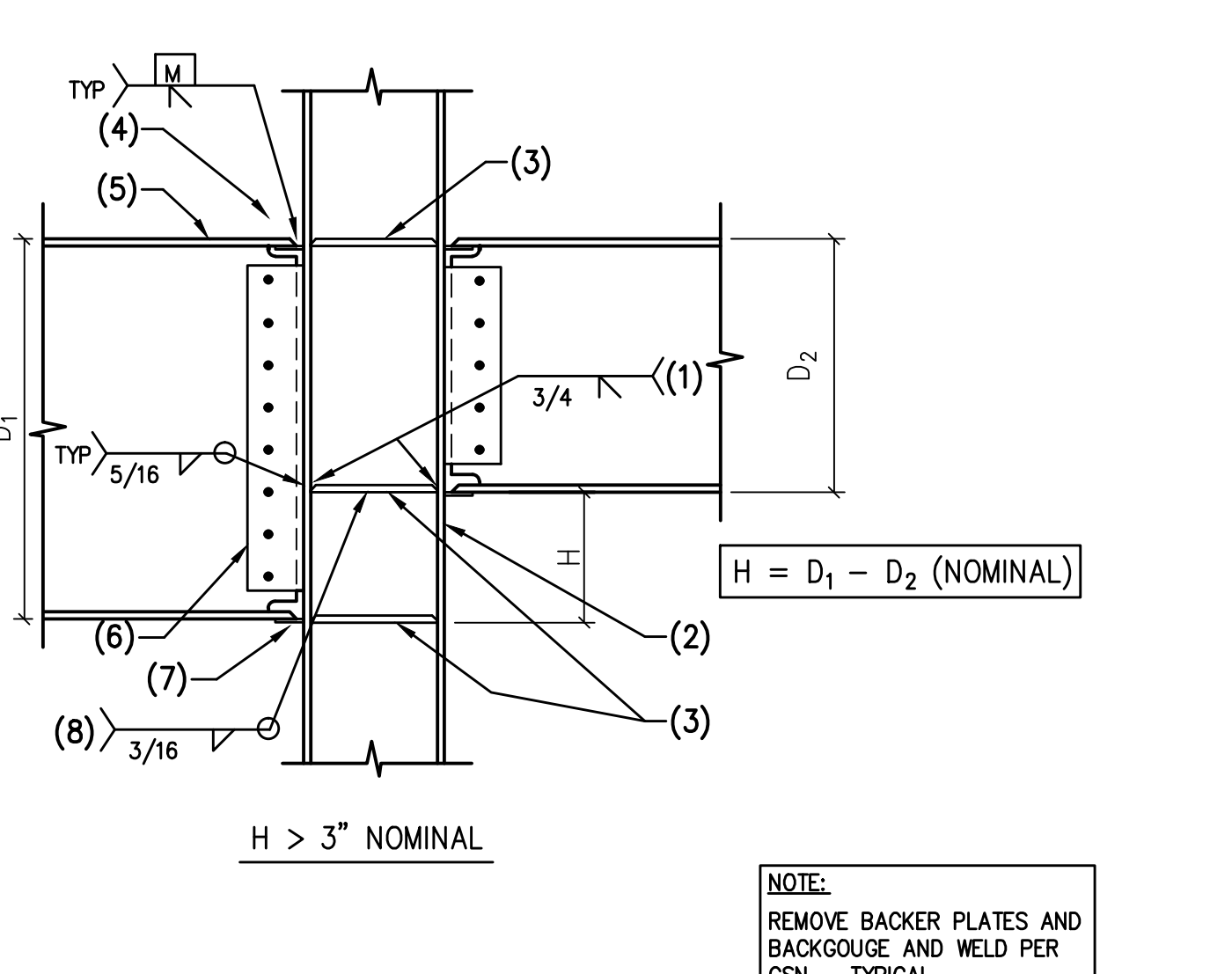
527 TYPICAL SHEAR CONNECTION - STEEL BEAM TO STEEL COLUMN
AS NOTED NO SCALE



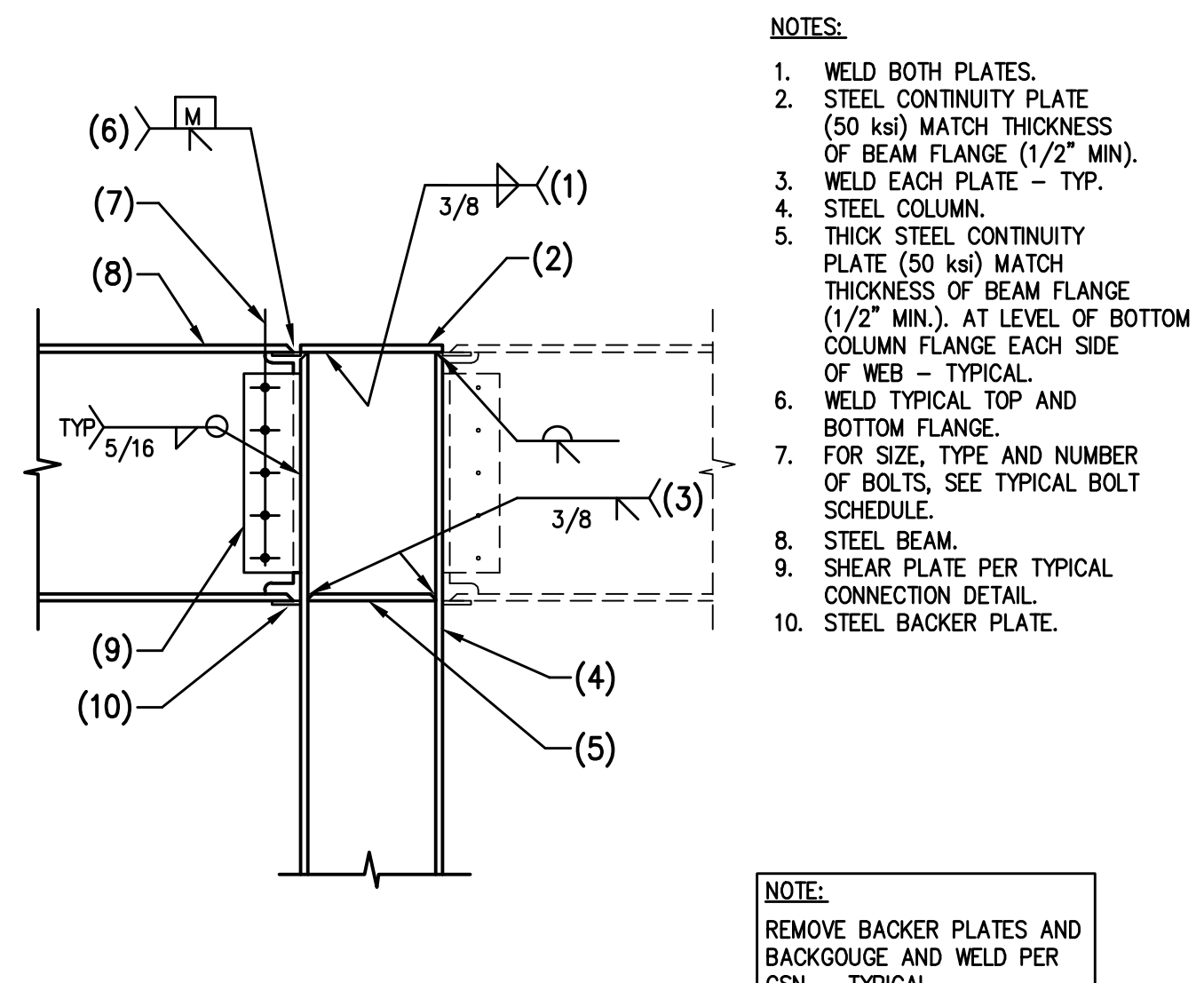
520 TYPICAL BEAM TO HSS STEEL COLUMN
AS NOTED NO SCALE



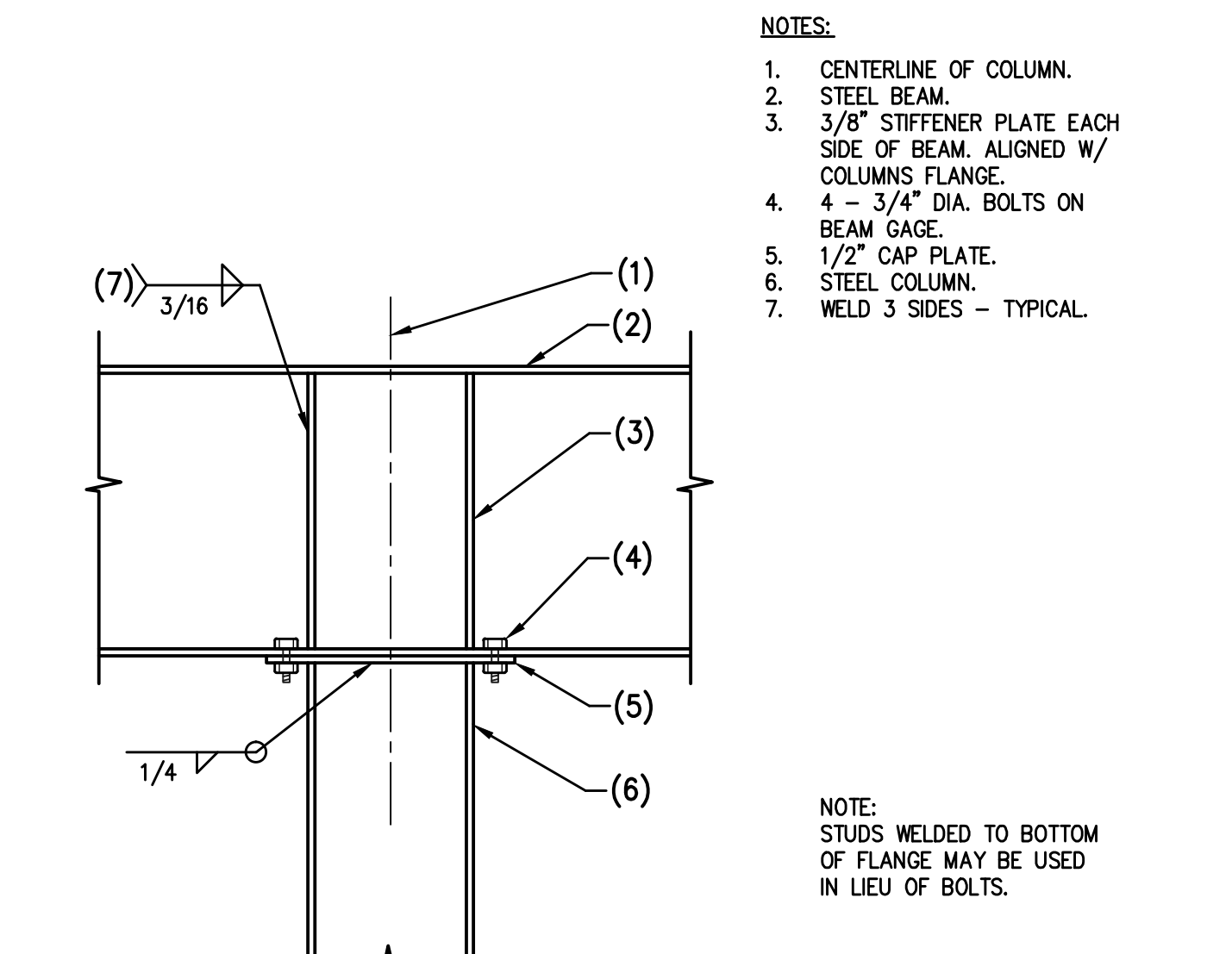
521 STEEL BEAM TO STEEL COLUMN CONNECTION
NO SCALE



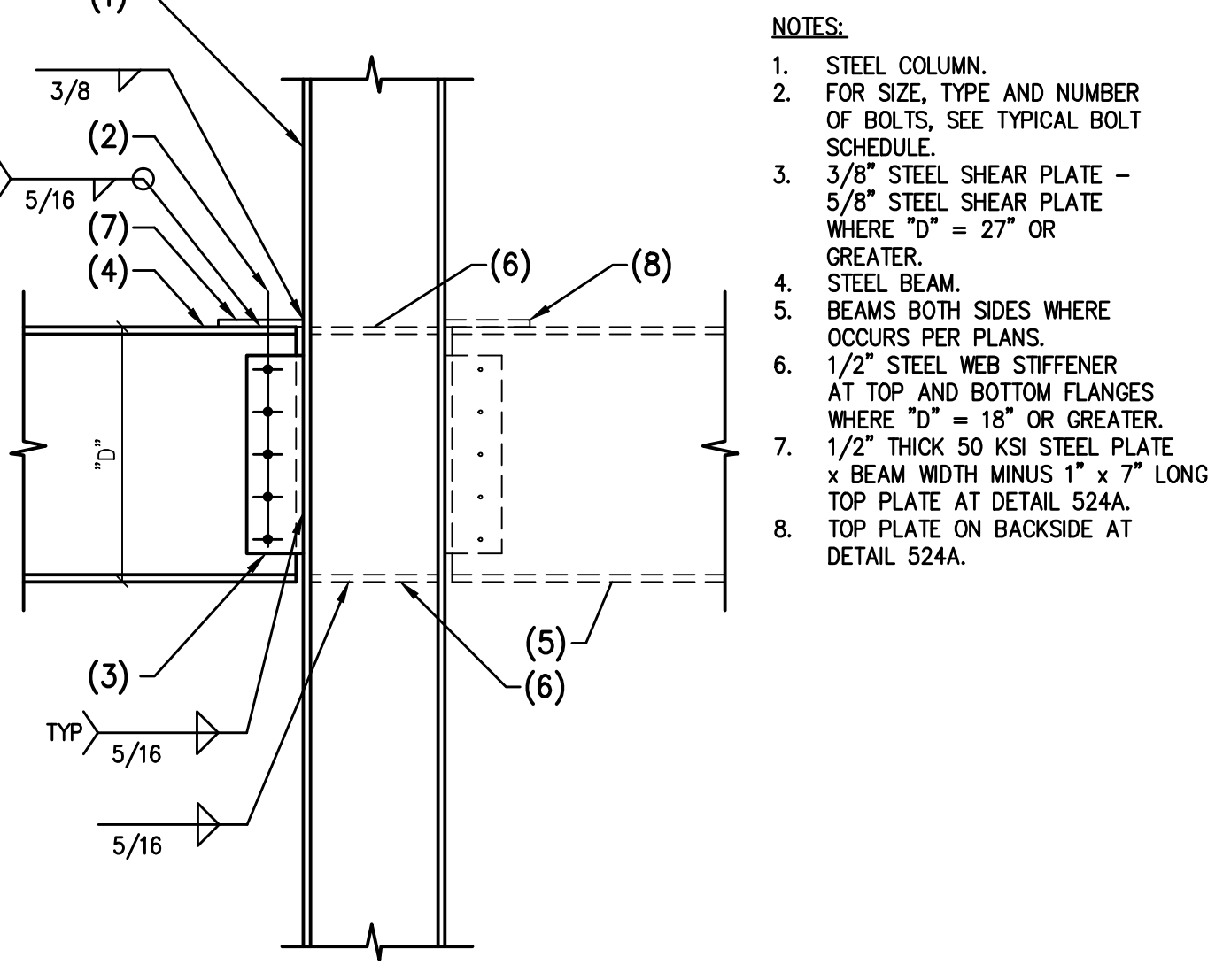
535 TYPICAL MOMENT CONNECTION - STEEL BEAM TO STEEL COLUMN
NO SCALE



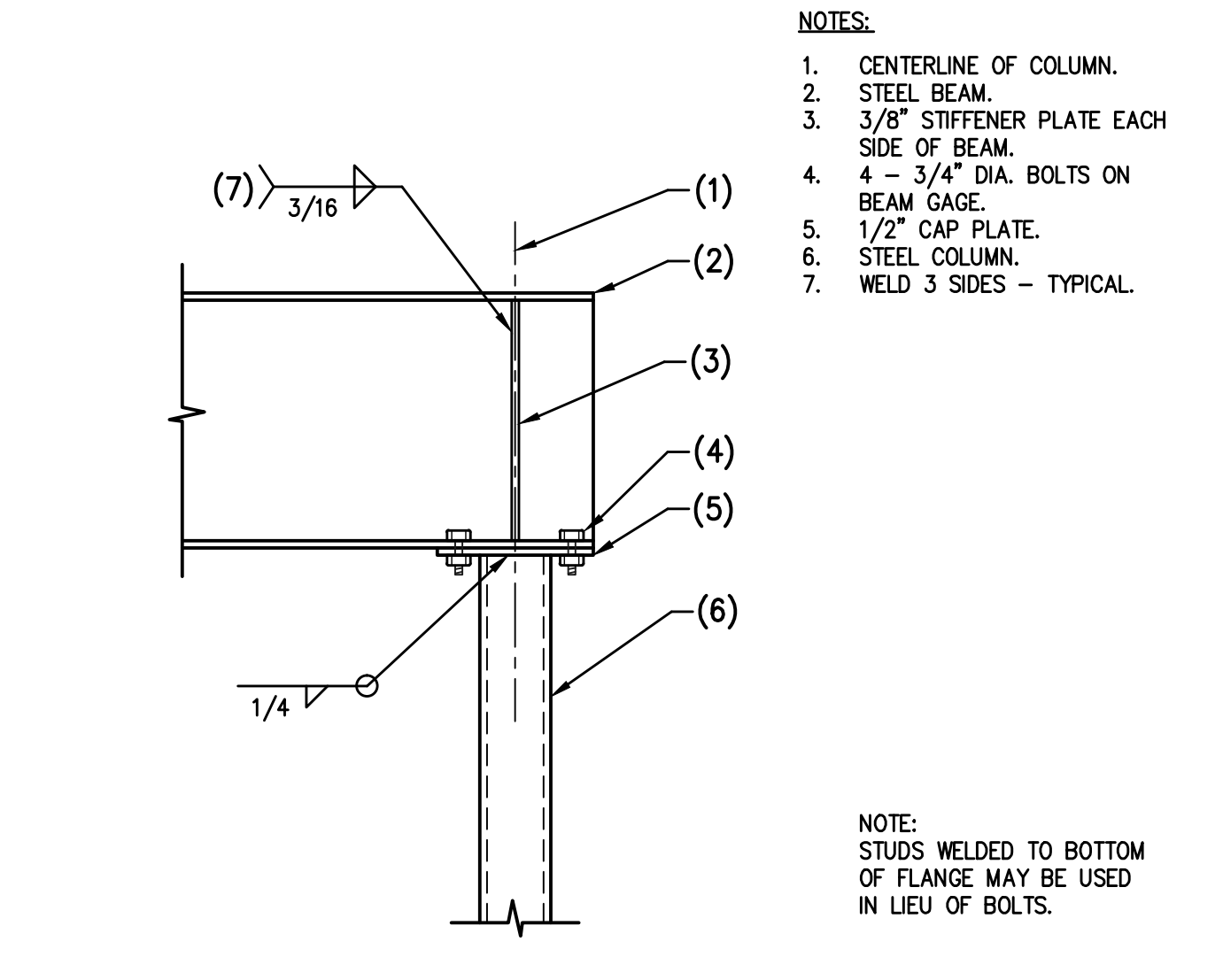
532 TYPICAL MOMENT CONNECTION - STEEL BEAM TO STEEL COLUMN
NO SCALE



528 STEEL BEAM TO STEEL COLUMN CONNECTION
NO SCALE



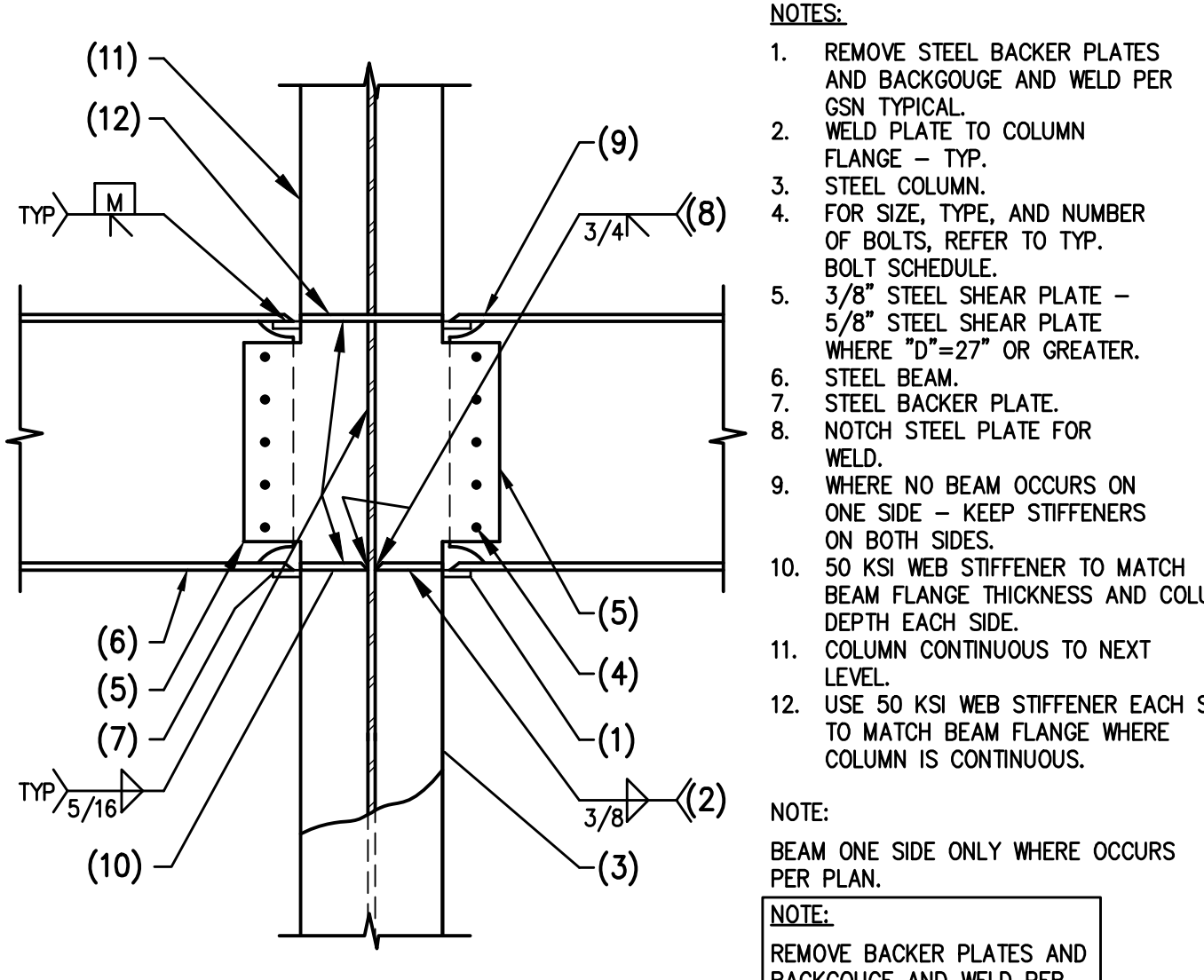
524 TYPICAL SHEAR CONNECTION - STEEL BEAM TO STEEL COLUMN
AS NOTED NO SCALE



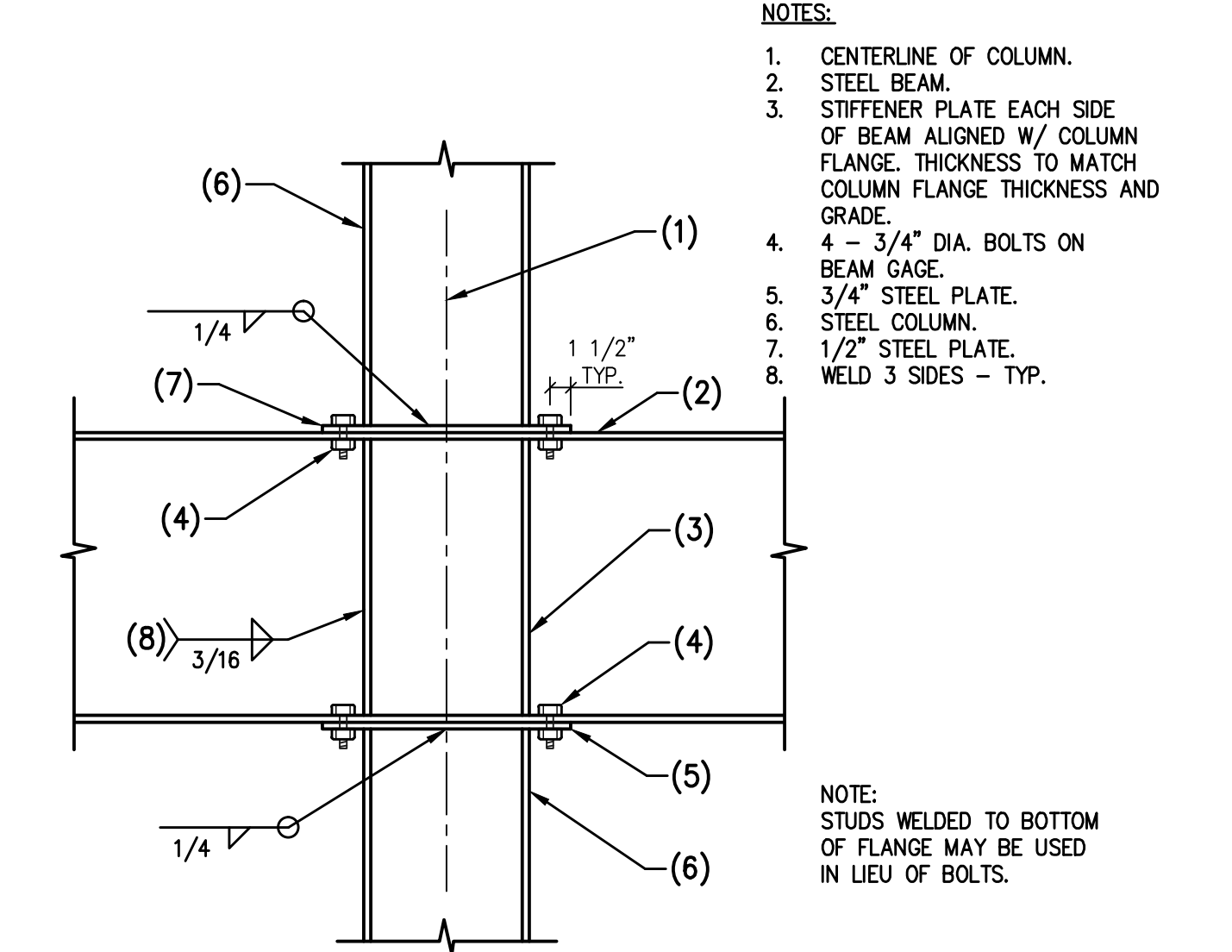
521 STEEL BEAM TO STEEL COLUMN CONNECTION
NO SCALE



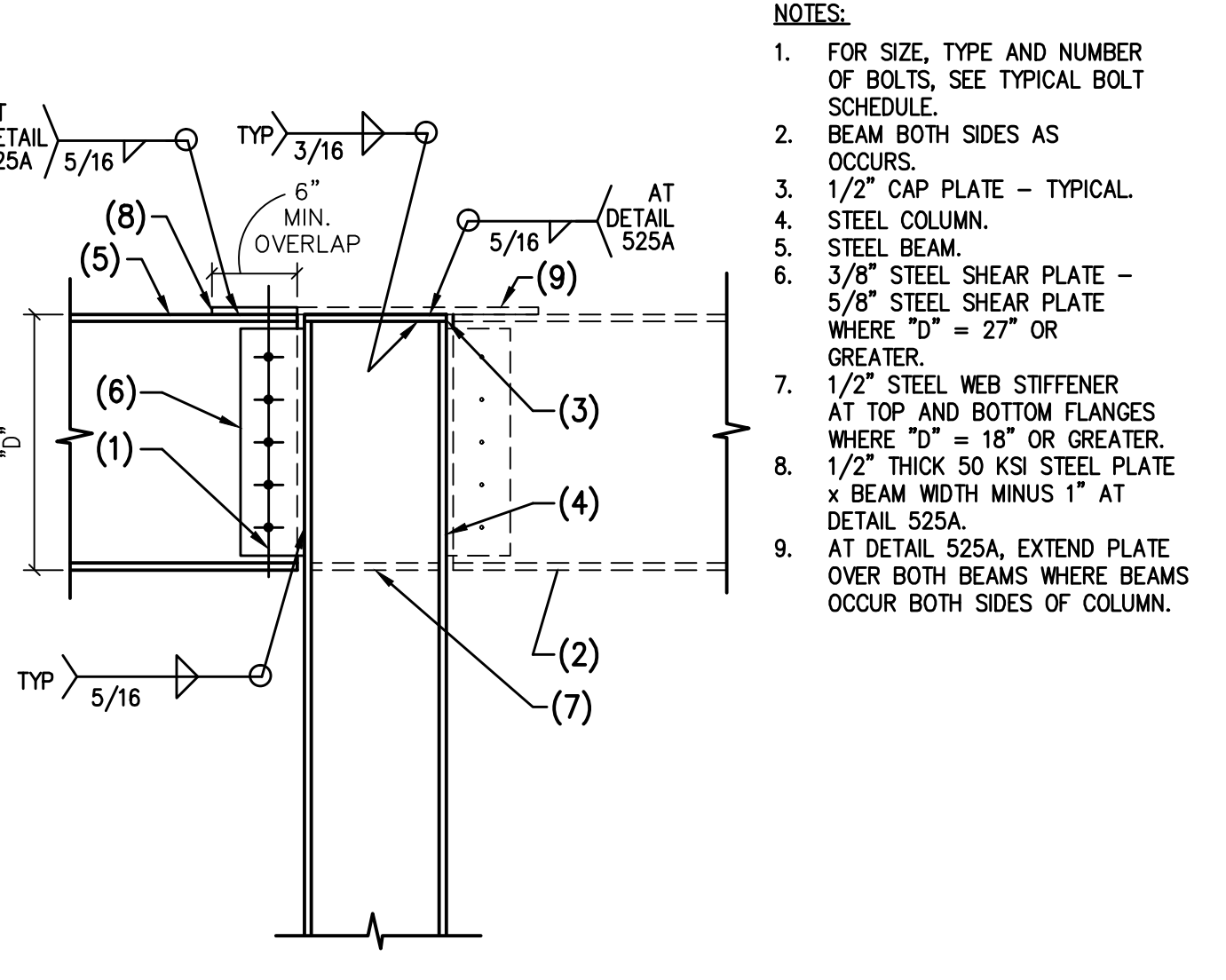
533 MOMENT CONNECTION - STEEL BEAMS TO STEEL COLUMN
NO SCALE



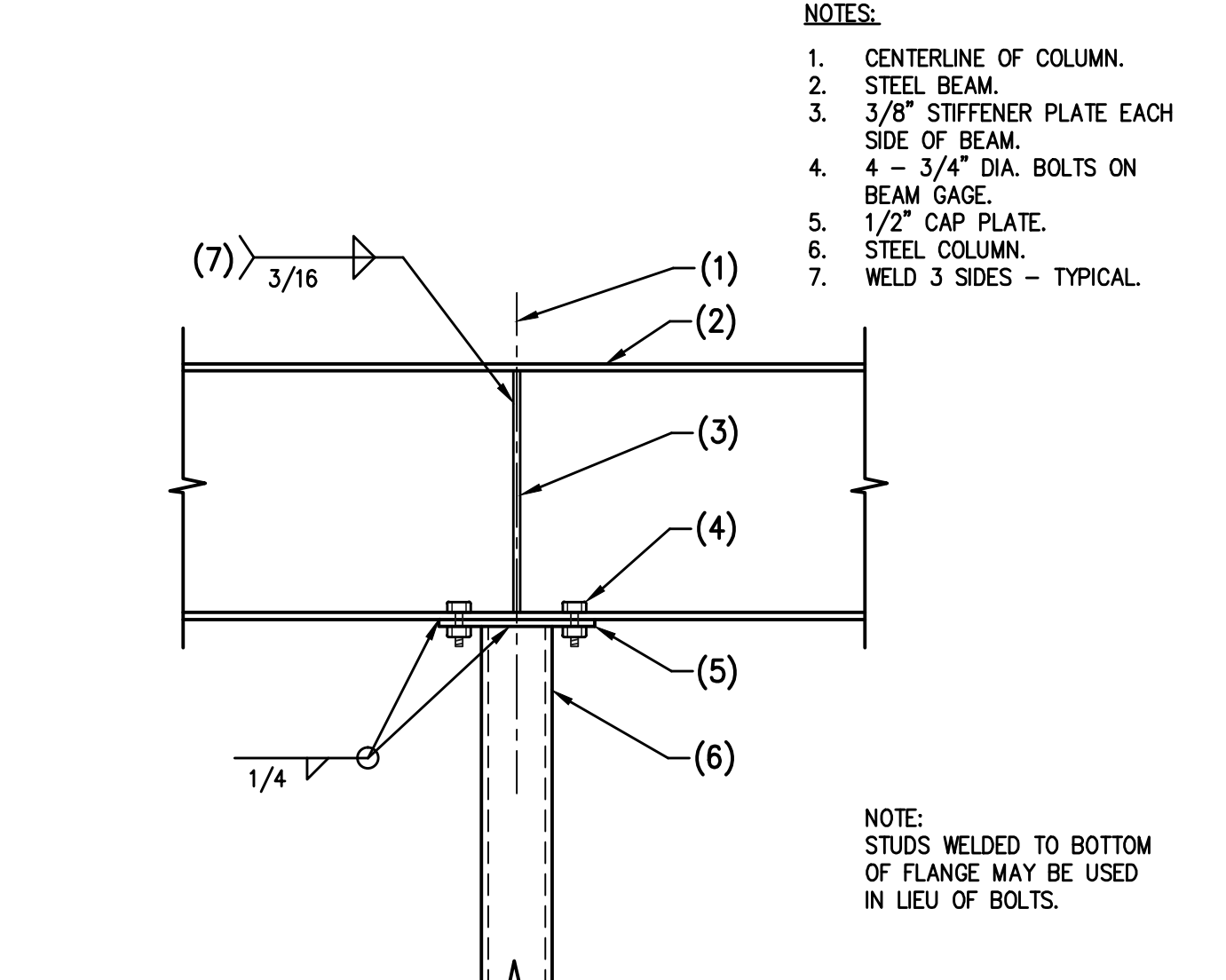
529 STEEL BEAM TO STEEL COLUMN CONNECTION
NO SCALE



525 TYPICAL SHEAR CONNECTION - STEEL BEAM TO STEEL COLUMN
AS NOTED NO SCALE



525 TYPICAL SHEAR CONNECTION - STEEL BEAM TO STEEL COLUMN
AS NOTED NO SCALE



522 STEEL BEAM TO STEEL COLUMN CONNECTION
NO SCALE

MINIMUM COLUMN FLANGE THICKNESS FOR DETAIL B

HSS NUMBER	THICKNESS (T)
444	1/4"
565	1/4"
666	1/4"
767	1/4"
868	5/16"
969	5/16"
1070	3/8"
1242	3/8"
1444	1/2"
1646	1/2"

Key Plan:

No.	Description	Date
17	STRUCTURAL CLARIFICATIONS	10/10/2016
	CONFORM SET	09/03/2017
	CONFORM SET	02/10/2017

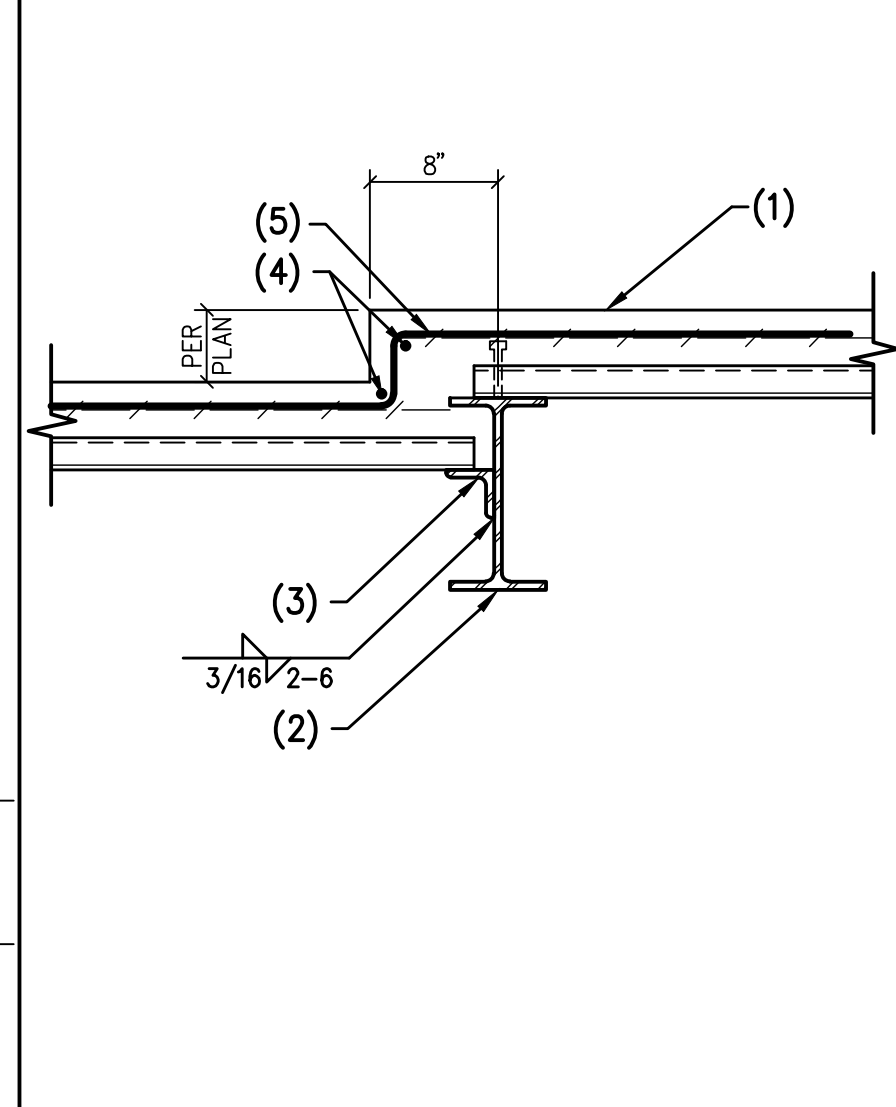
Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

STEEL FLOOR FRAMING DETAILS

Sheet Number: **S702**

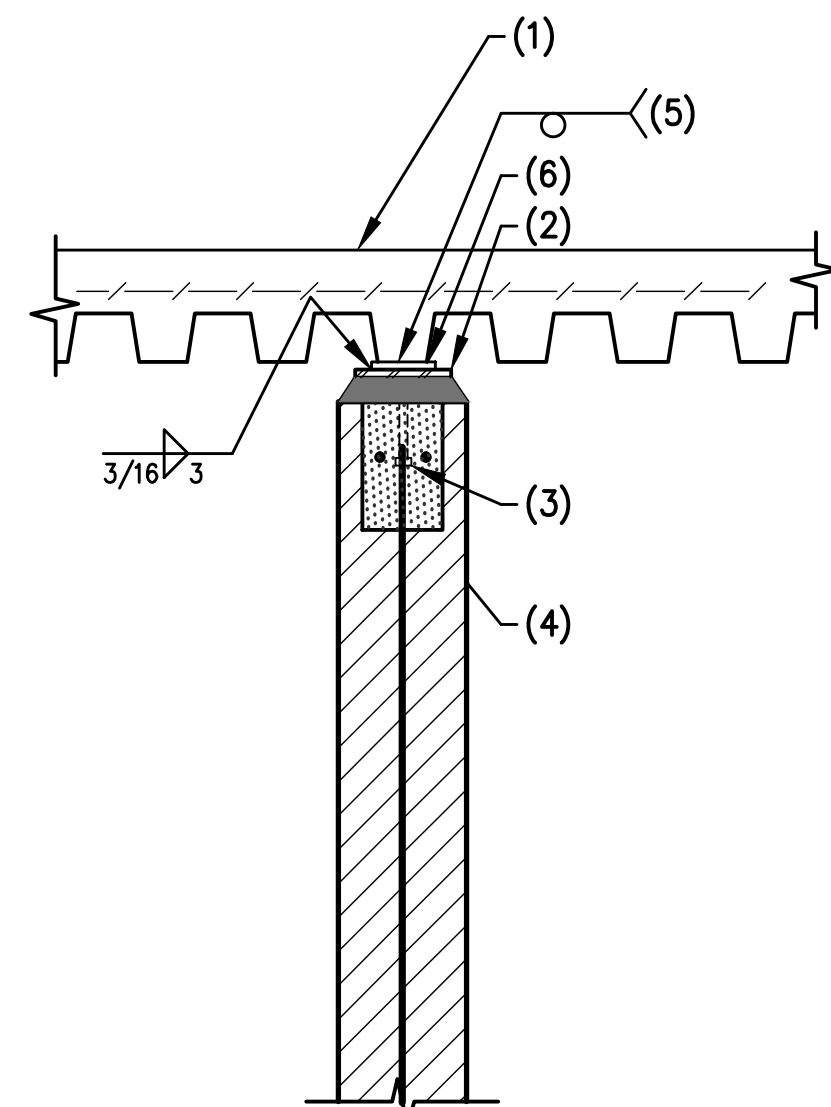
92-17-2017 CONFORM SET

ACTUAL SHEET SIZE: 36" x 48"



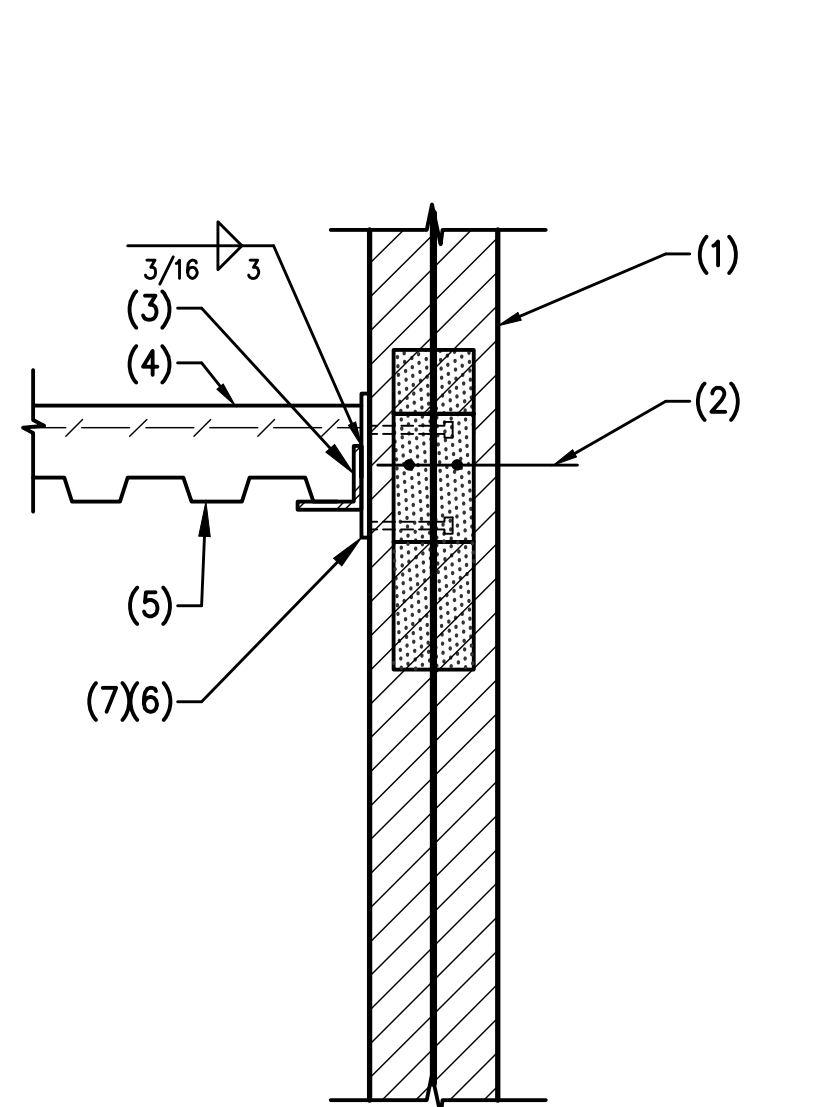
- NOTES:
1. CONCRETE OVER STEEL DECK - SEE PLAN FOR ORIENTATION.
 2. STEEL BEAM.
 3. #4 CONTINUOUS.
 4. #4 AT 12\"/>

561 STEEL BEAM AT DEPRESSED SLAB NO SCALE



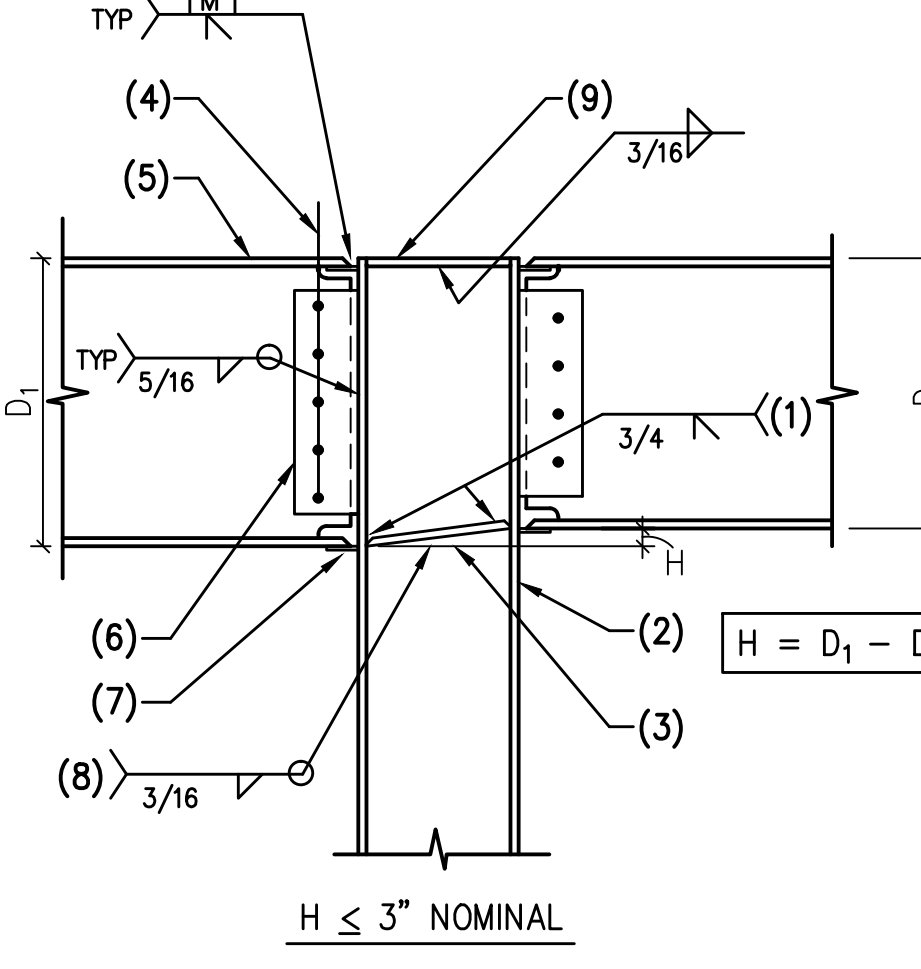
- NOTES:
1. CONCRETE OVER STEEL DECK FOR DIRECTION OF DECK SEE PLAN.
 2. 5/8\"/>

547 STEEL DECK AT MASONRY WALL NO SCALE



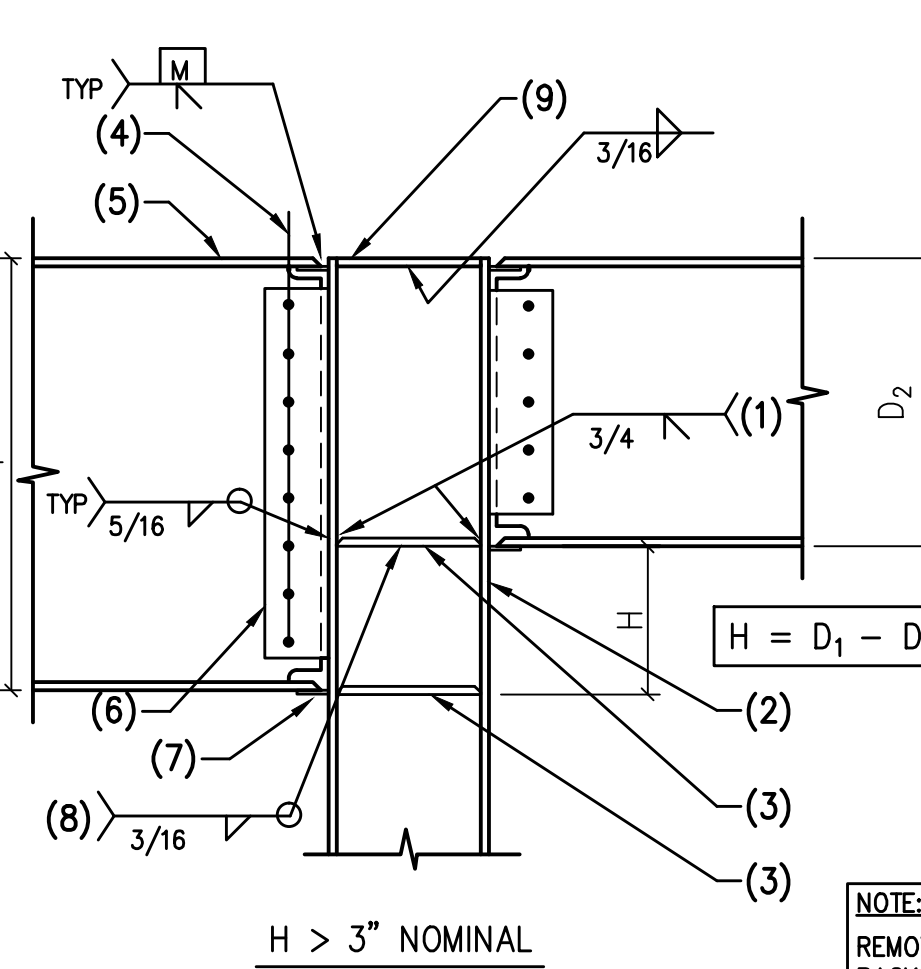
- NOTES:
1. MASONRY WALL.
 2. CONTINUOUS GROUTED BOND BEAM PER GSN.
 3. CONTINUOUS LEDGER ANGLE.
 4. CONCRETE OVER STEEL DECK.
 5. STEEL DECK - FOR DIRECTION, SEE PLANS.
 6. STEEL PLATE 3/8\"/>

543 LEDGER ANGLE AND STEEL DECK AT MASONRY WALL NO SCALE



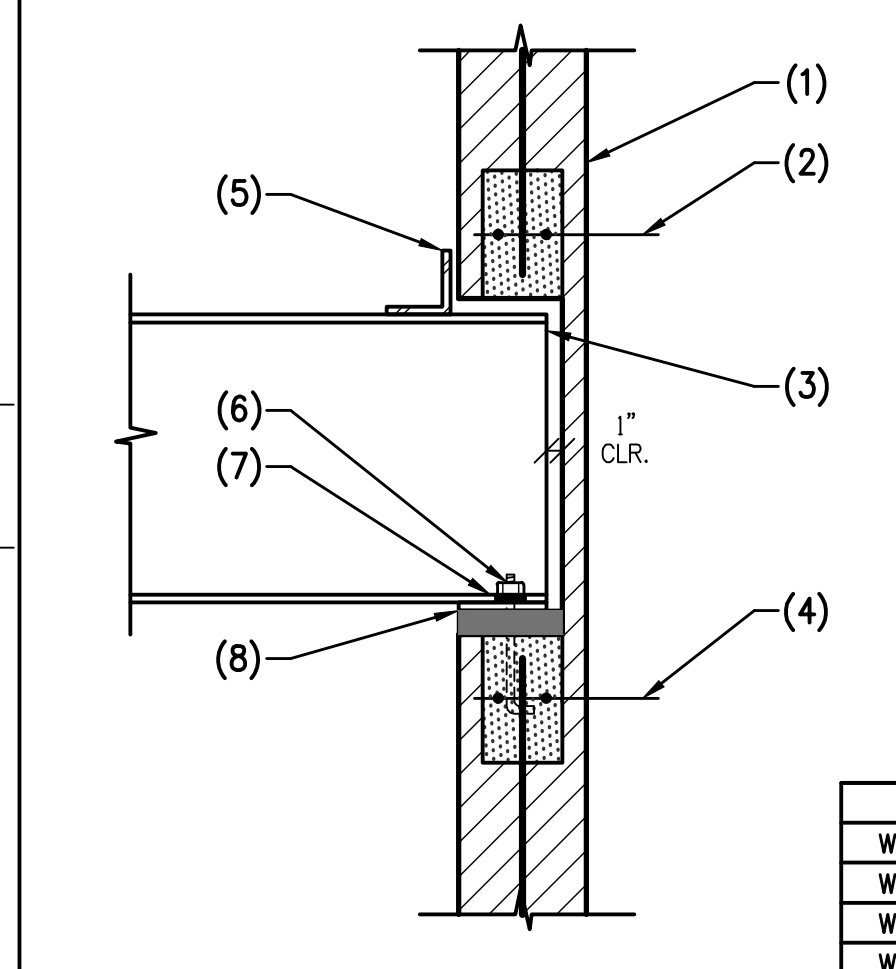
- NOTES:
1. WELD EACH PLATE.
 2. STEEL COLUMN.
 3. 50 KSI STEEL PLATE TO MATCH BEAM FLANGE THICKNESS - TOP AND BOTTOM BOTH SIDES.
 4. FOR SIZE, TYPE AND NUMBER OF BOLTS, SEE TYPICAL BOLT SCHEDULE.
 5. STEEL BEAM.
 6. SHEAR PLATE PER TYPICAL CONNECTION DETAIL.
 7. STEEL BACKER PLATE.
 8. WELD 3 SIDES TYPICAL.
 9. STEEL CAP PLATE (50 ksi).
 10. MATCH THICKNESS OF BEAM FLANGE (1/2\"/>

536 TYPICAL MOMENT CONNECTION - STEEL BEAM TO STEEL COLUMN NO SCALE



- NOTES:
1. WELD EACH PLATE.
 2. STEEL COLUMN.
 3. 50 KSI STEEL PLATE TO MATCH BEAM FLANGE THICKNESS - TOP AND BOTTOM BOTH SIDES.
 4. FOR SIZE, TYPE AND NUMBER OF BOLTS, SEE TYPICAL BOLT SCHEDULE.
 5. STEEL BEAM.
 6. SHEAR PLATE PER TYPICAL CONNECTION DETAIL.
 7. STEEL BACKER PLATE.
 8. WELD 3 SIDES TYPICAL.
 9. STEEL CAP PLATE (50 ksi).
 10. MATCH THICKNESS OF BEAM FLANGE (1/2\"/>

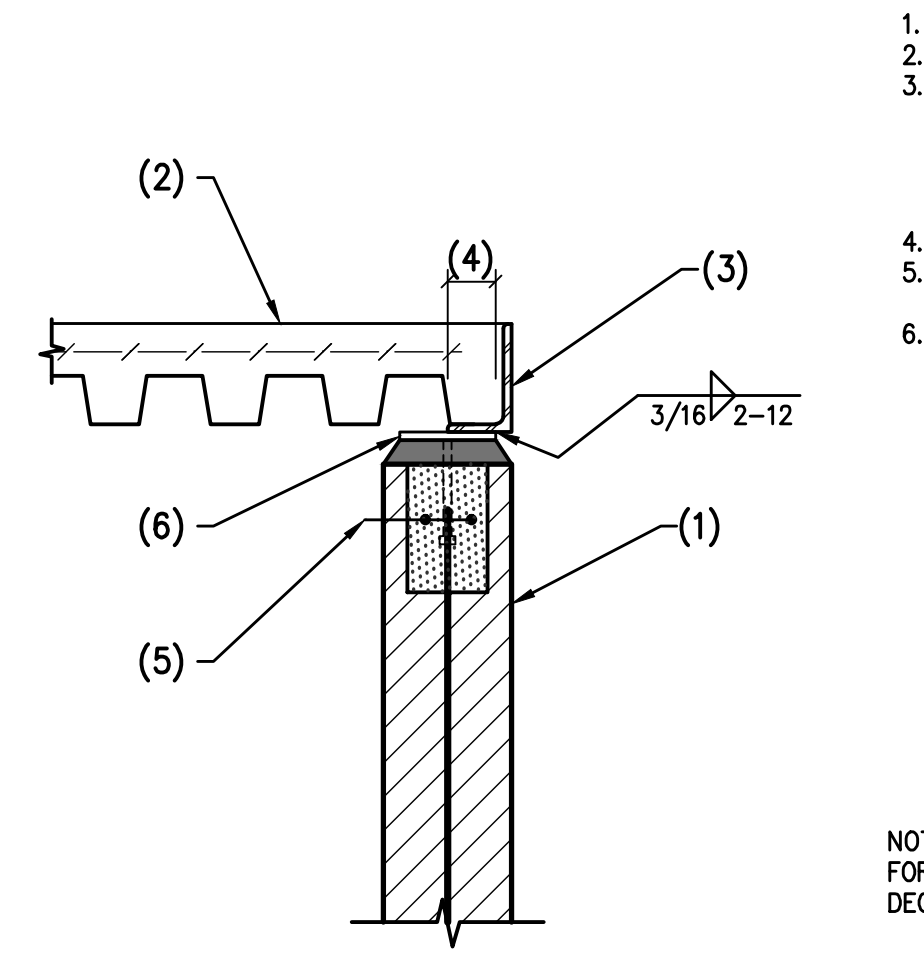
537 STEEL BEAM TO STEEL COLUMN MOMENT CONNECTION NO SCALE



- NOTES:
1. MASONRY WALL.
 2. BOND BEAM PER GSN.
 3. STEEL BEAM.
 4. 2\"/>

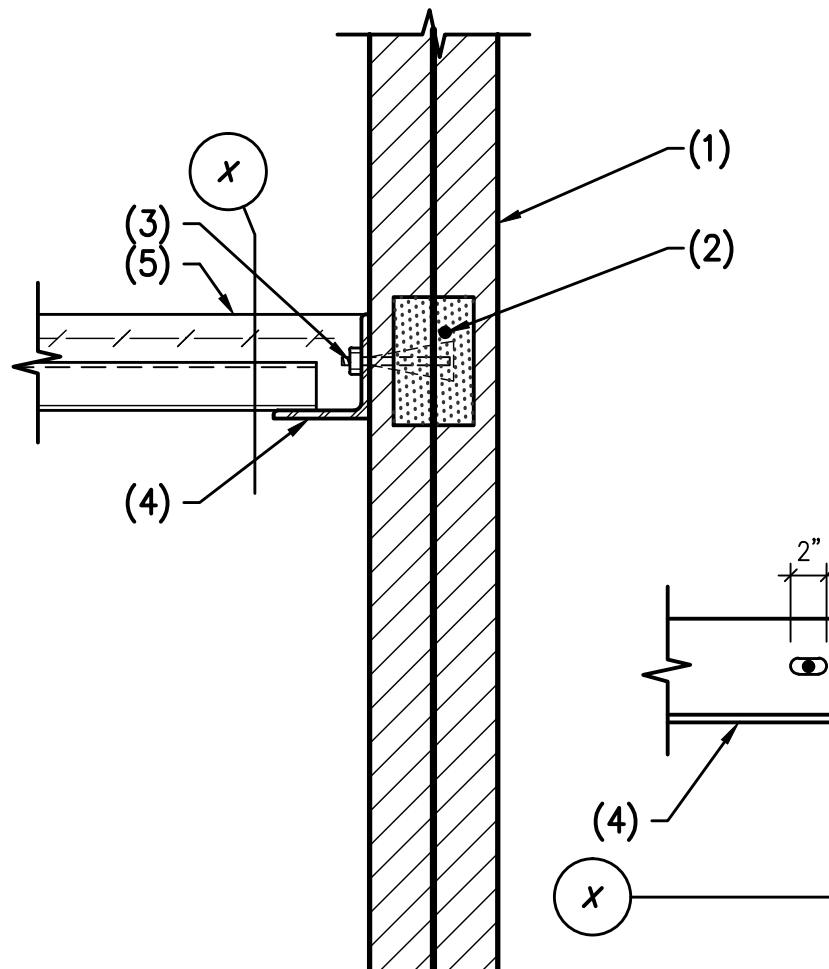
TYPICAL PLATE SCHEDULE	
WB, W10	1/2\"/>
W12, W14	1/2\"/>
W16, W18	3/4\"/>
W21, W24	1\"/>
W27, W30	1 1/4\"/>

552 STEEL BEAM AT MASONRY WALL NO SCALE



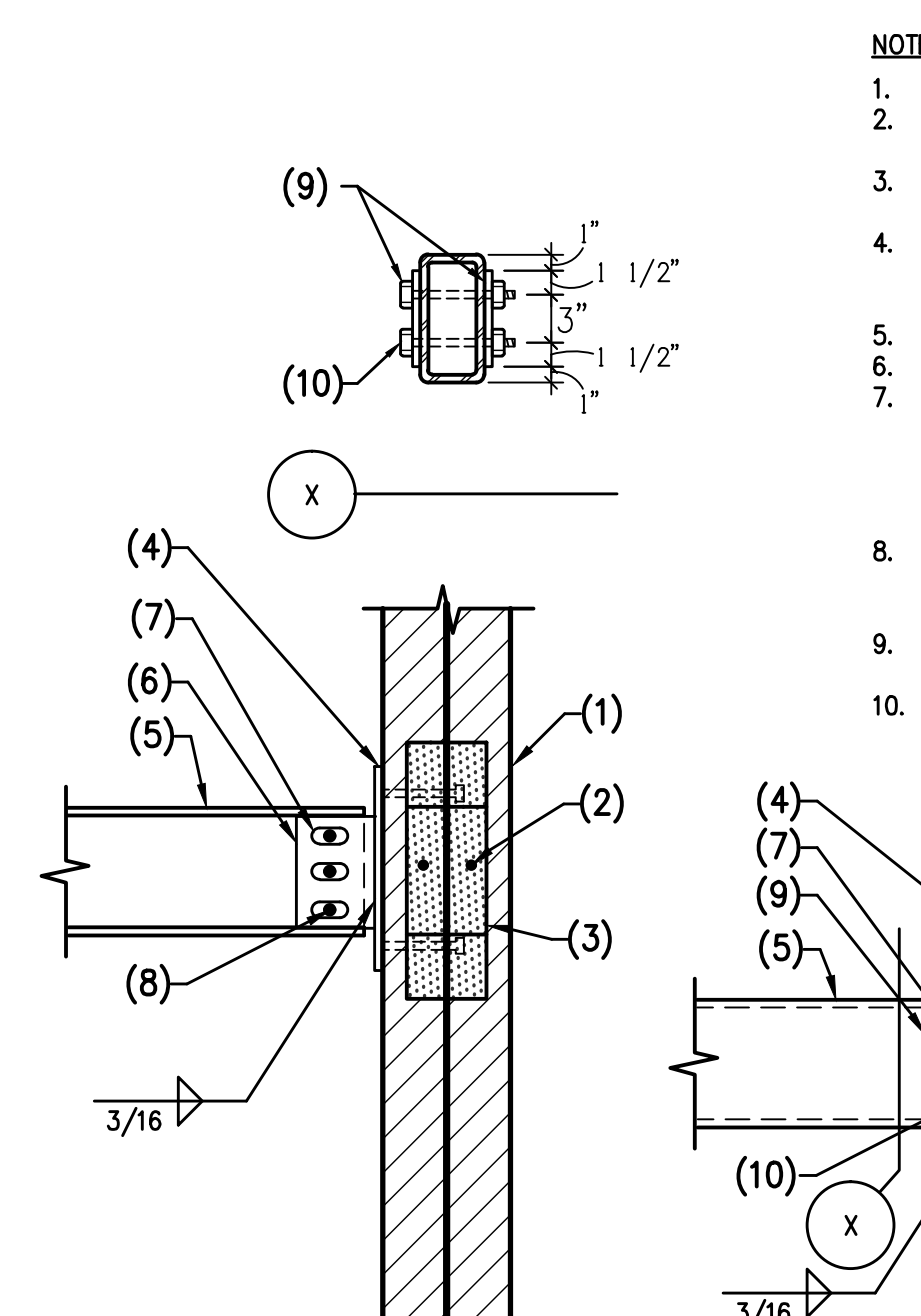
- NOTES:
1. MASONRY WALL.
 2. CONCRETE OVER STEEL DECK.
 3. 1/4\"/>

548 STEEL DECK SUPPORT AT MASONRY WALL NO SCALE



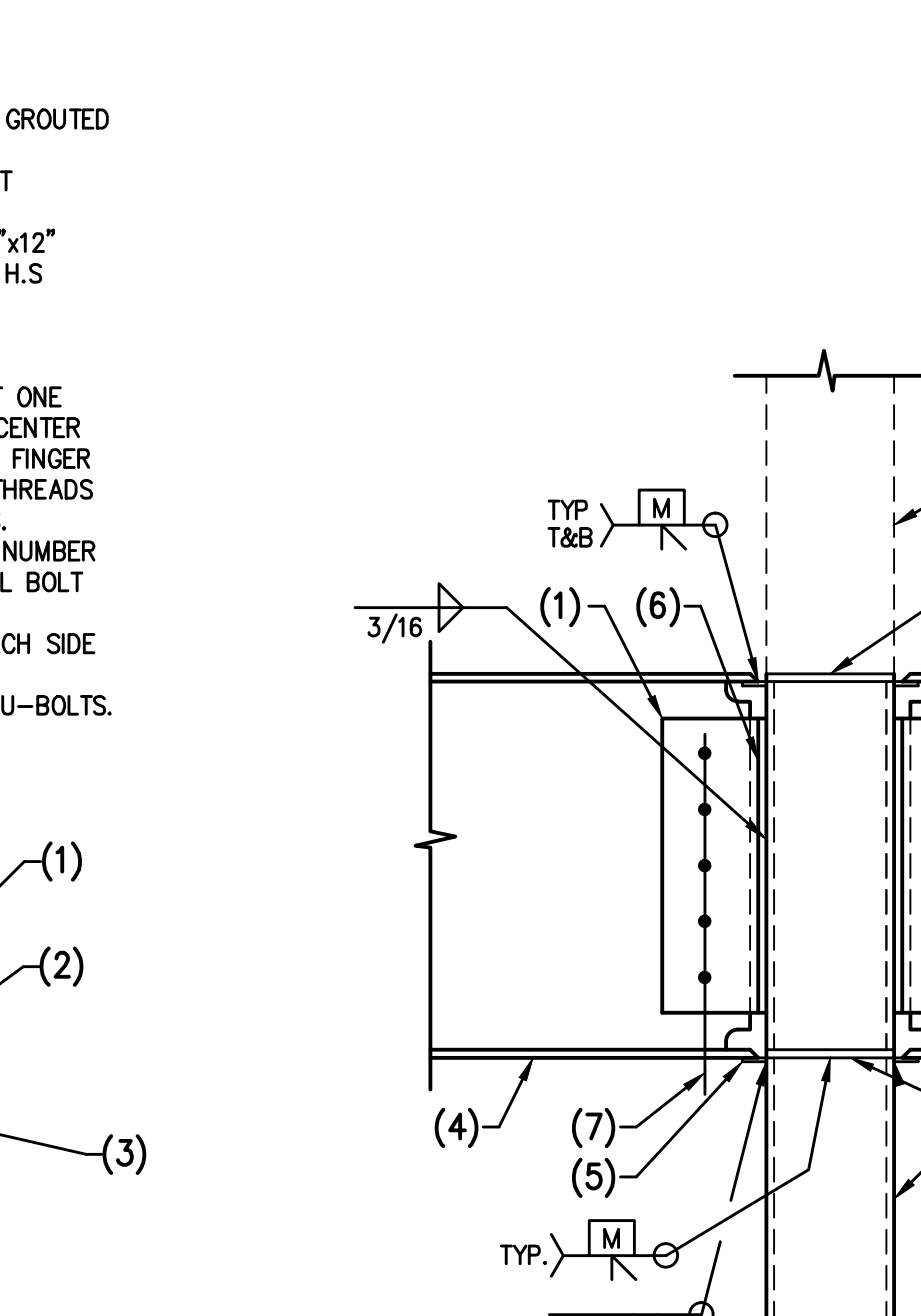
- NOTES:
1. MASONRY WALL.
 2. 1-#8 CONTINUOUS.
 3. PROVIDE 1- 3/4\"/>

544 STEEL LEDGER AT MASONRY WALL (SLOTTED CONN.) NO SCALE



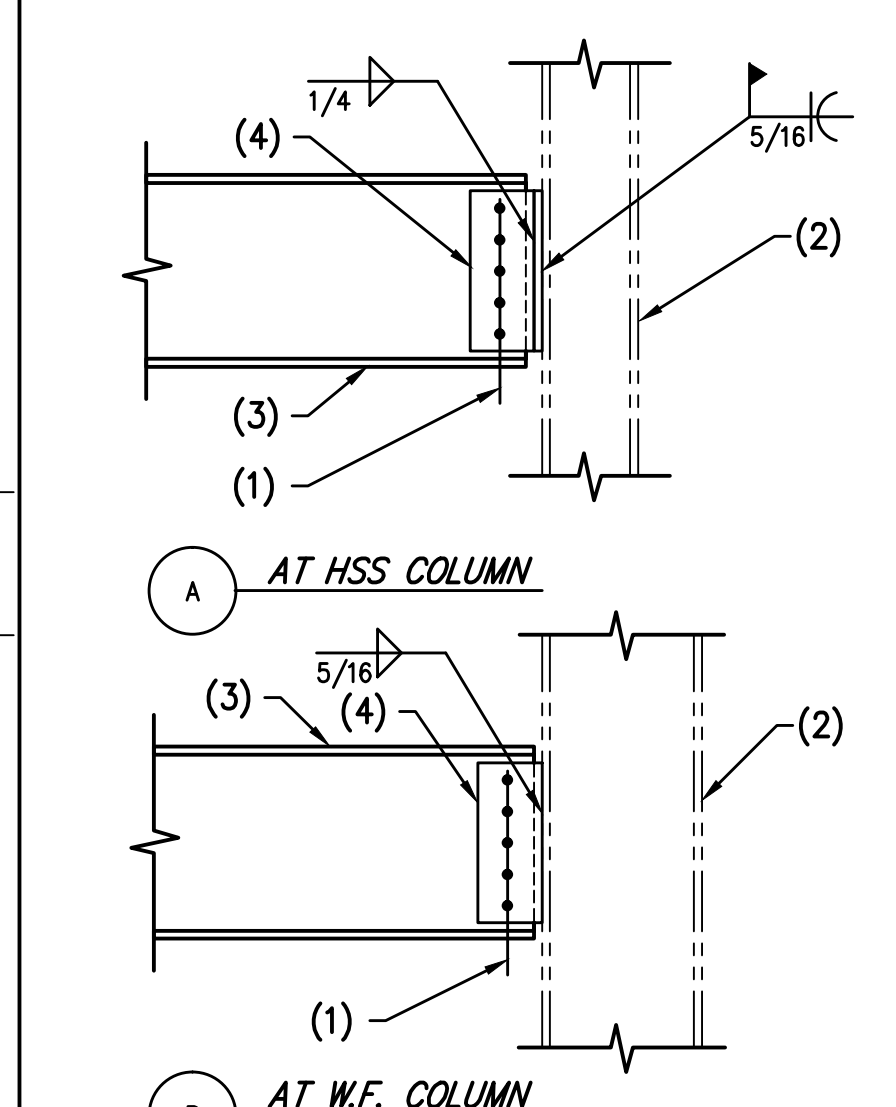
- NOTES:
1. MASONRY WALL.
 2. CONTINUOUS 8\"/>

540 STEEL BEAM TO MASONRY WALL CONNECTION NO SCALE



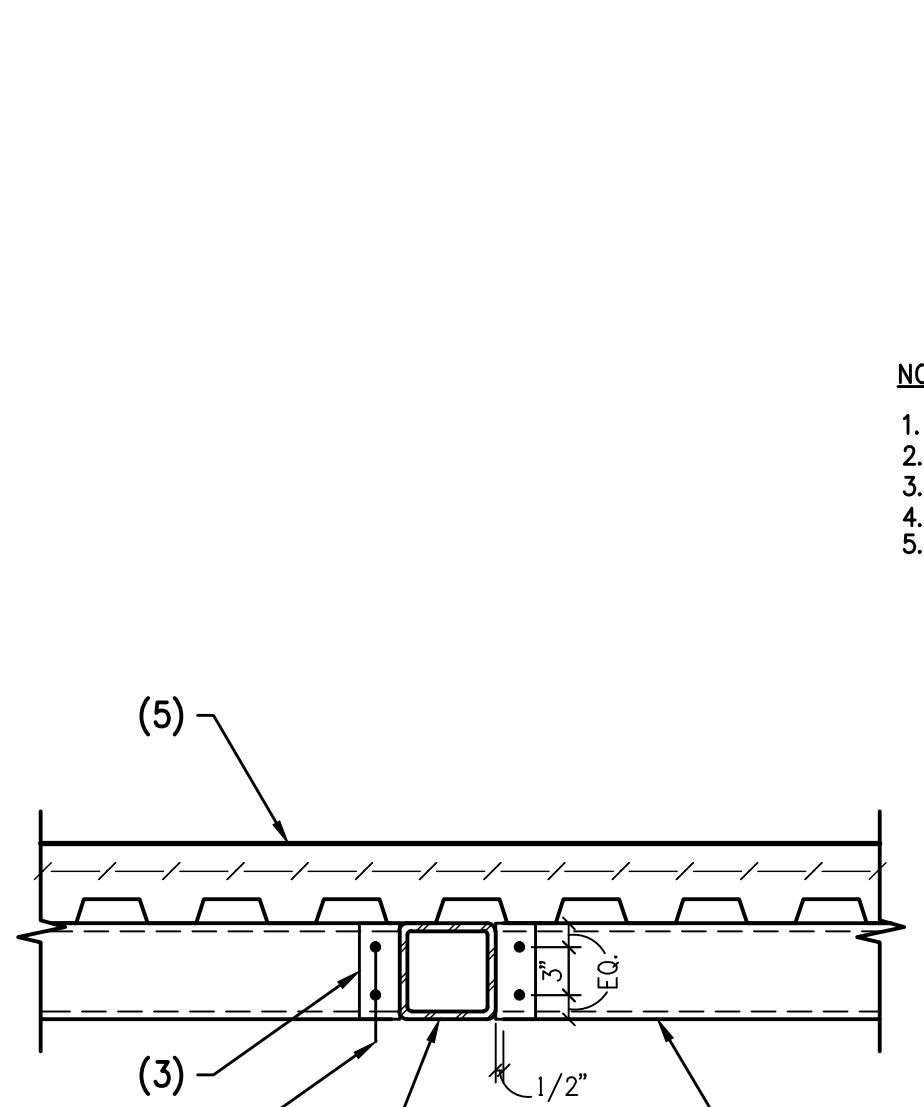
- NOTES:
1. SHEAR PLATE. SEE TYPICAL BOLT SCHEDULE FOR INFO.
 2. STEEL CONTINUITY PLATE TO MATCH BEAM FLANGE THICKNESS AND GRADE (1/2\"/>

537 STEEL BEAM TO STEEL COLUMN MOMENT CONNECTION NO SCALE



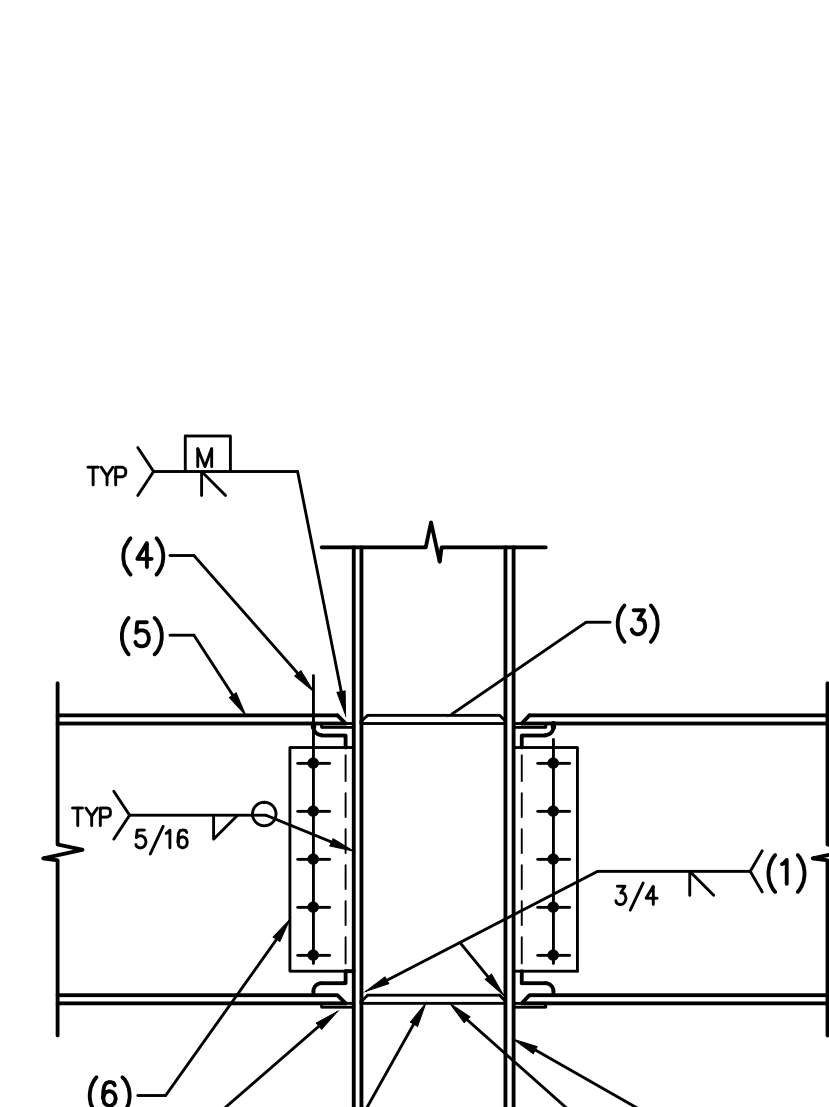
- NOTES:
1. BOLTS PER TYPICAL SCHEDULE.
 2. EXISTING STEEL COLUMN.
 3. STEEL BEAM.
 4. 1/2\"/>

553 NEW STEEL BEAM AT EXISTING STEEL COLUMN NO SCALE



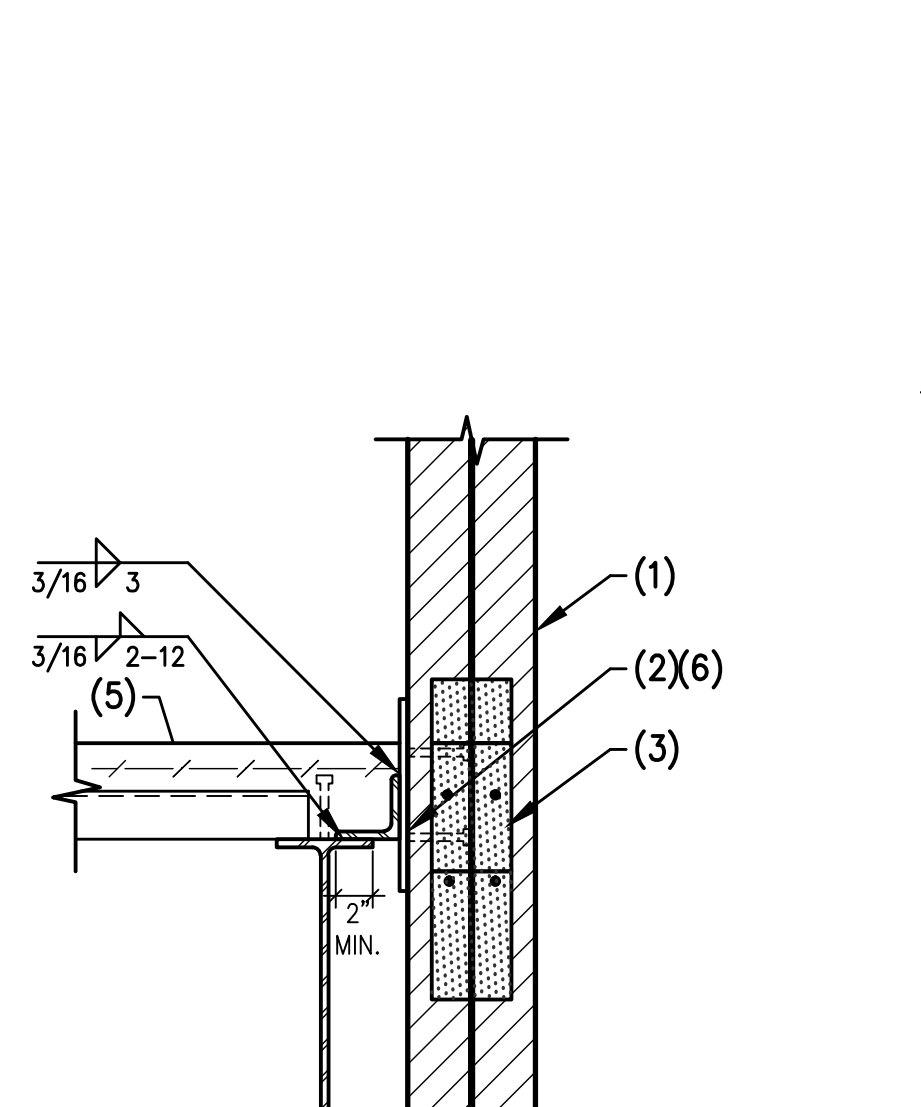
- NOTES:
1. HSS TUBE.
 2. STEEL CHANNEL.
 3. 3/8\"/>

549 STEEL CHANNEL TO STEEL TUBE CONNECTION NO SCALE



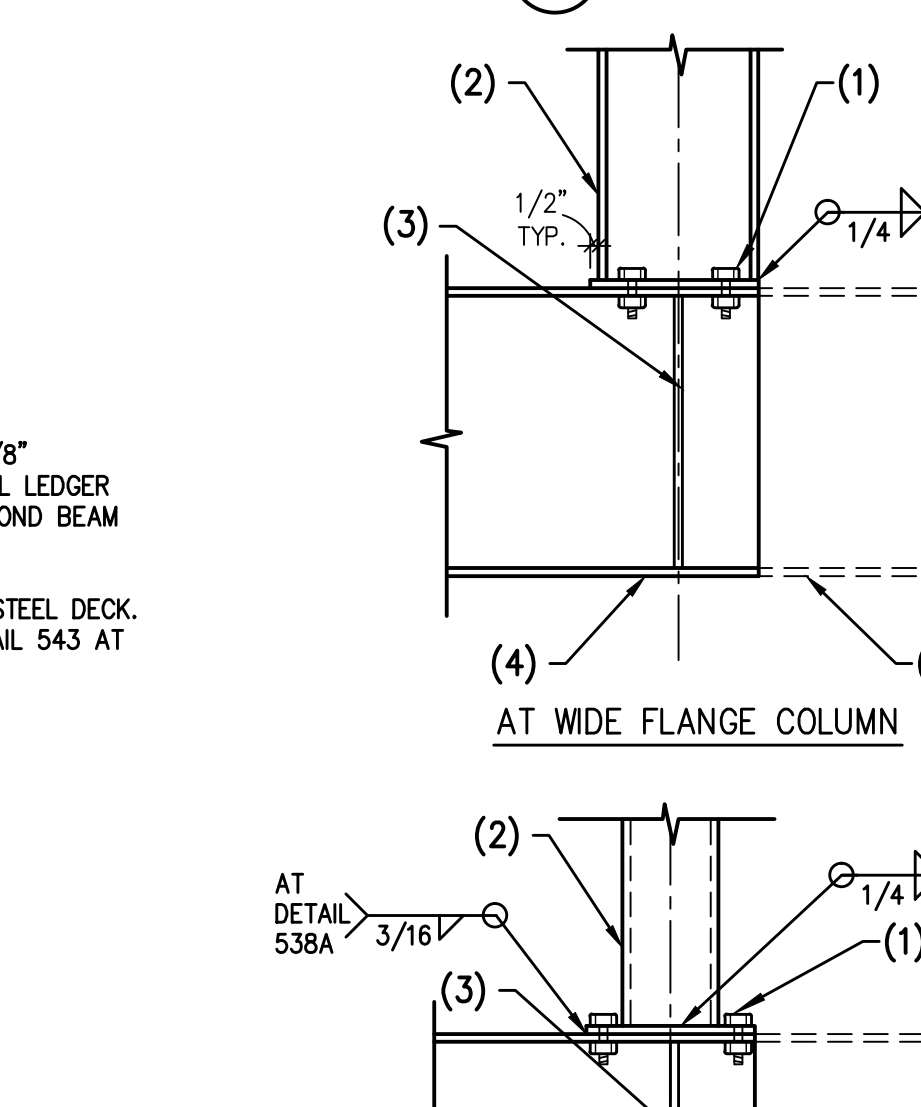
- NOTES:
1. WELD EACH PLATE.
 2. STEEL COLUMN.
 3. 50 KSI STEEL PLATE TO MATCH BEAM FLANGE THICKNESS - TOP AND BOTTOM BOTH SIDES.
 4. FOR SIZE, TYPE AND NUMBER OF BOLTS, SEE TYPICAL BOLT SCHEDULE.
 5. STEEL BEAM.
 6. SHEAR PLATE PER TYPICAL CONNECTION DETAIL.
 7. STEEL BACKER PLATE. REMOVE STEEL BACKER PLATES AND BACKGROUGE AND WELD PER GSN TYP.
 8. WELD 3 SIDES TYPICAL.

545 TYPICAL MOMENT CONNECTION - STEEL BEAM TO STEEL COLUMN NO SCALE



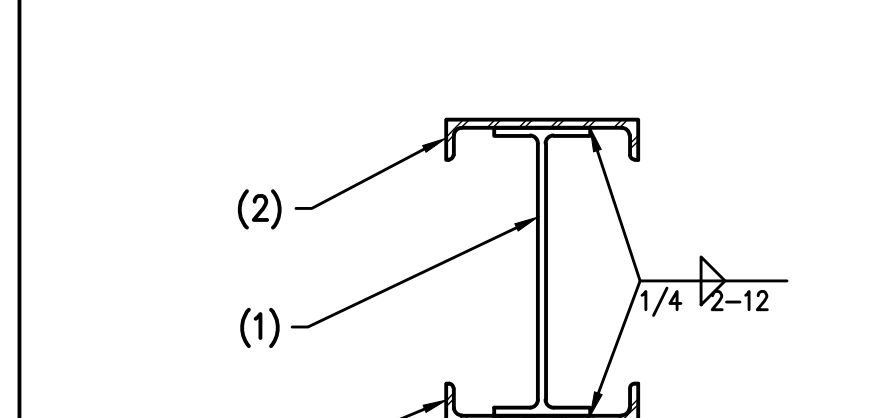
- NOTES:
1. MASONRY WALL.
 2. 1-#8 CONTINUOUS.
 3. PROVIDE 1- 3/4\"/>

541 CONCRETE SLAB AT MASONRY WALL NO SCALE



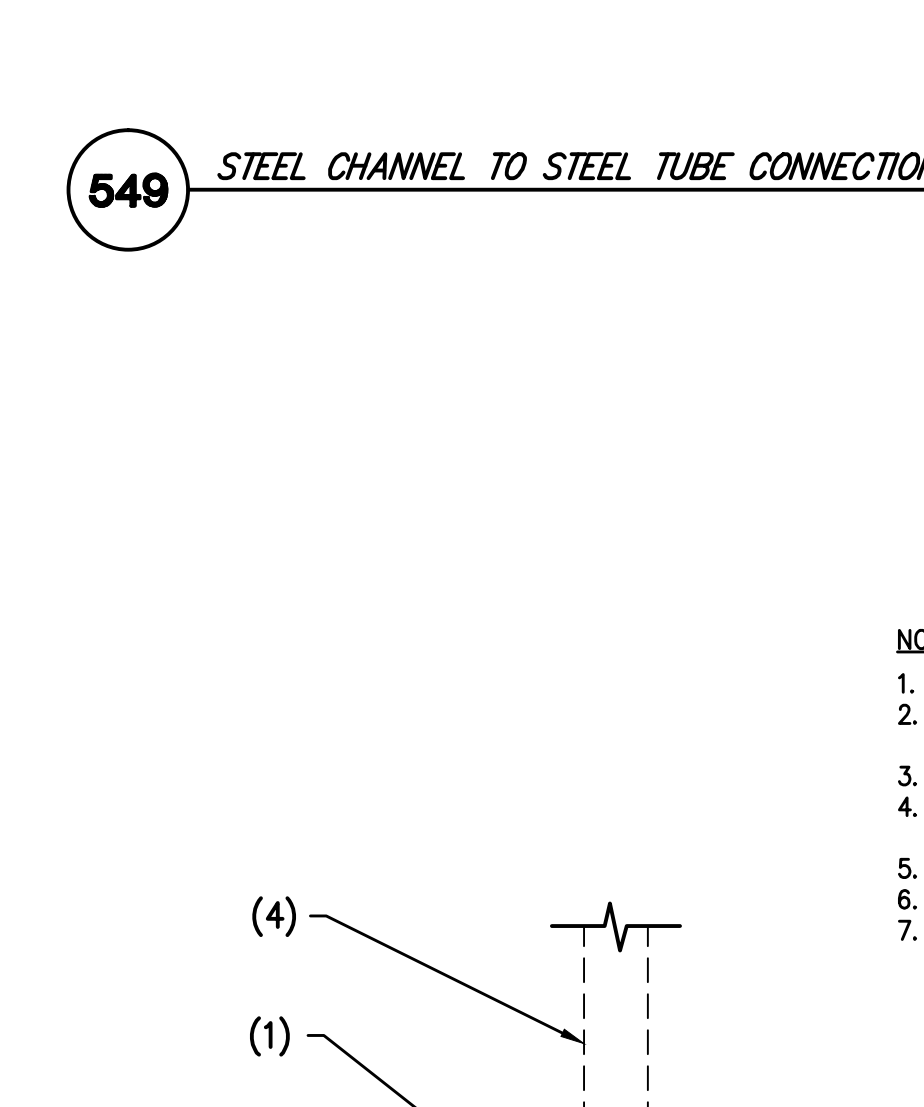
- NOTES:
1. (4) - 3/4\"/>

538 STEEL COLUMN AT WIDE FLANGE BEAM NO SCALE



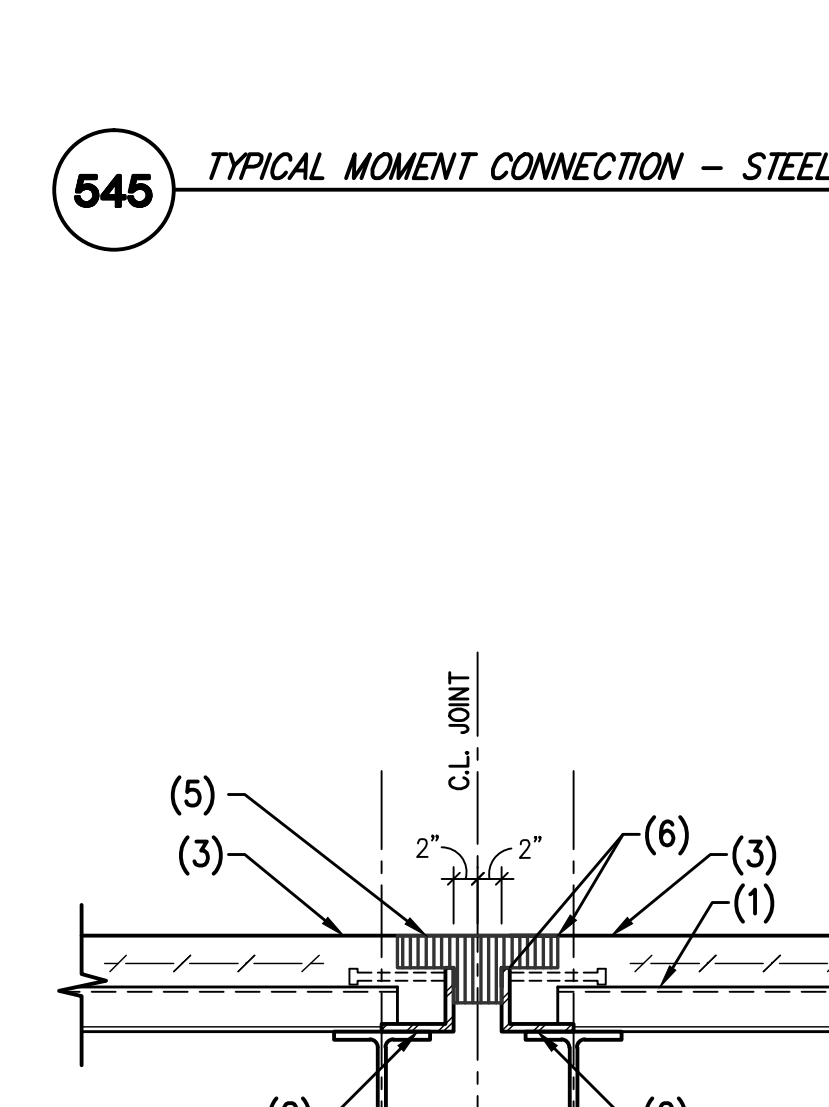
- NOTES:
1. STEEL BEAM PER PLAN.
 2. STEEL CHANNEL PER PLAN.

554 STEEL BEAM WITH CHANNELS NO SCALE



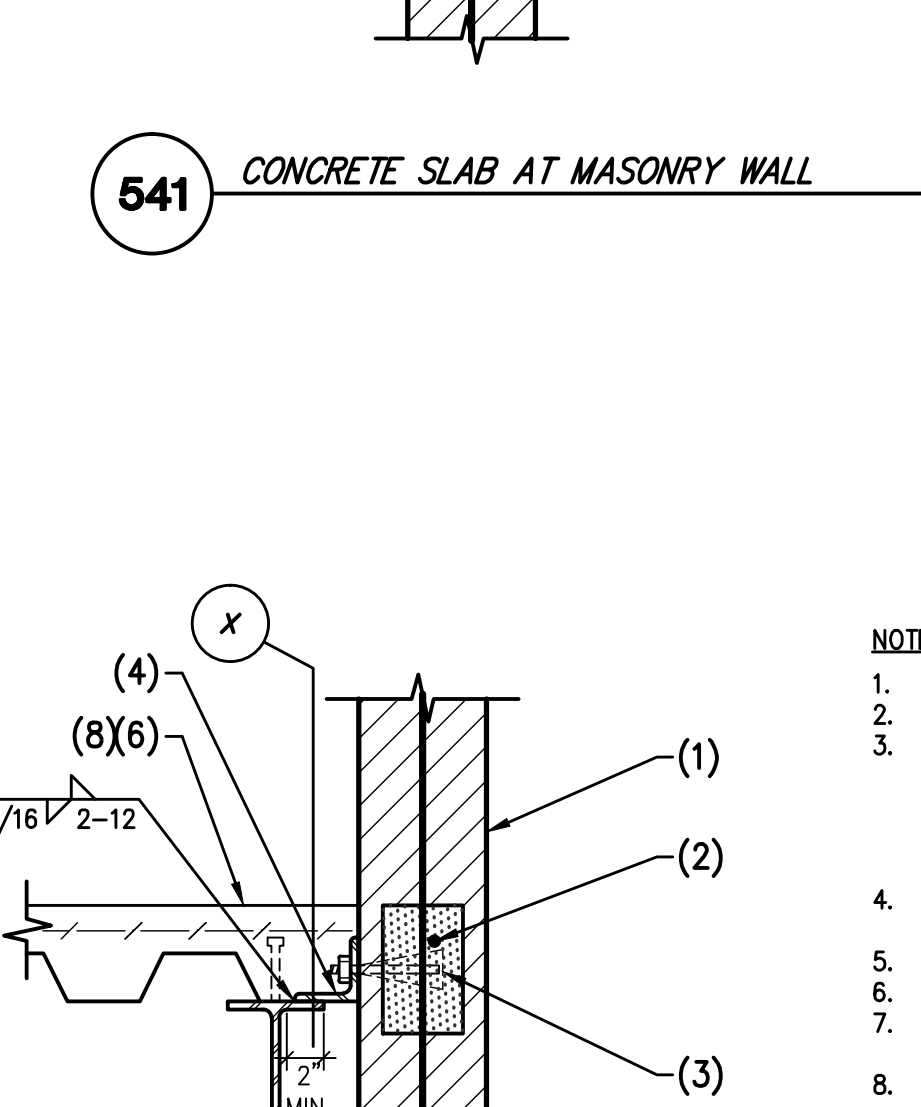
- NOTES:
1. EDGE PLATE PER DETAIL 509.
 2. CONCRETE OVER STEEL DECK PER PLANS.
 3. STEEL BEAM PER PLAN.
 4. LIGHT GAGE STUD WALL FRAMING BY OTHERS.
 5. ROOF DECK PER PLAN.
 6. 1/4\"/>

550 STEEL ROOF DECK AT FLOOR FRAMING NO SCALE



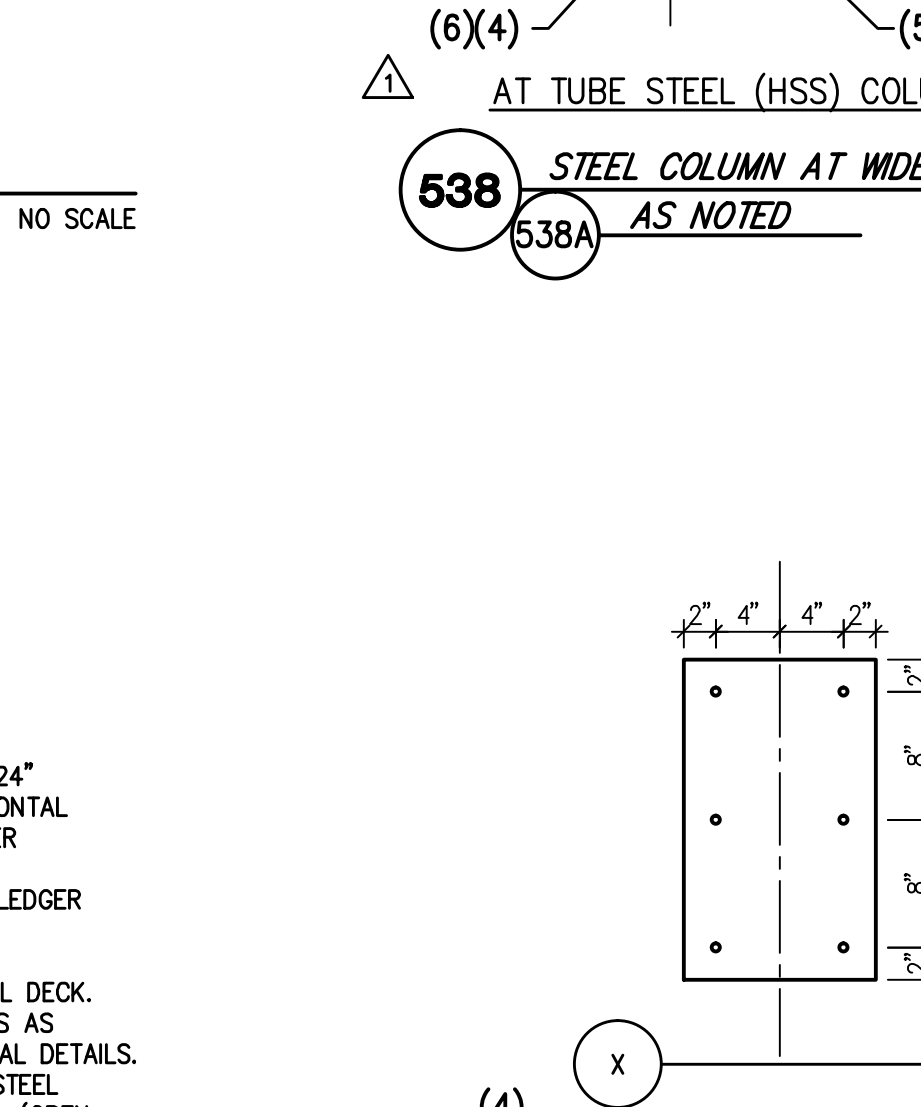
- NOTES:
1. DECK RUNS PARALLEL TO BEAM AT DETAIL 546A.
 2. CONT. EDGE ANGLE PER DETAIL 509.
 3. CONCRETE OVER STEEL DECK.
 4. STEEL BEAM PER PLAN.
 5. EXPANSION JOINT MATERIAL PER ARCHT.
 6. NOTCH TOP OF CONCRETE TOPPING AND EDGE PLATE AS SHOWN FOR EXPANSION JOINT.
 7. NO CONCRETE OVER STEEL DECK AT DETAIL 542A (OPEN TO BELOW).

546 EXPANSION JOINT DETAIL NO SCALE



- NOTES:
1. MASONRY WALL.
 2. 1-#8 CONTINUOUS.
 3. PROVIDE 1- 3/4\"/>

542 STEEL LEDGER AT MASONRY WALL (SLOTTED CONN.) NO SCALE



- NOTES:
1. MASONRY WALL.
 2. CONTINUOUS 8\"/>

539 STEEL BEAM TO MASONRY WALL CONNECTION NO SCALE

Key Plan:

Revisions:		
No.	Description	Date
1	STRUCTURAL REVISIONS	09/02/16
17	STRUCTURAL CLARIFICATIONS	10/10/16
	CONFORM SET	09/03/17
	CONFORM SET	09/20/17

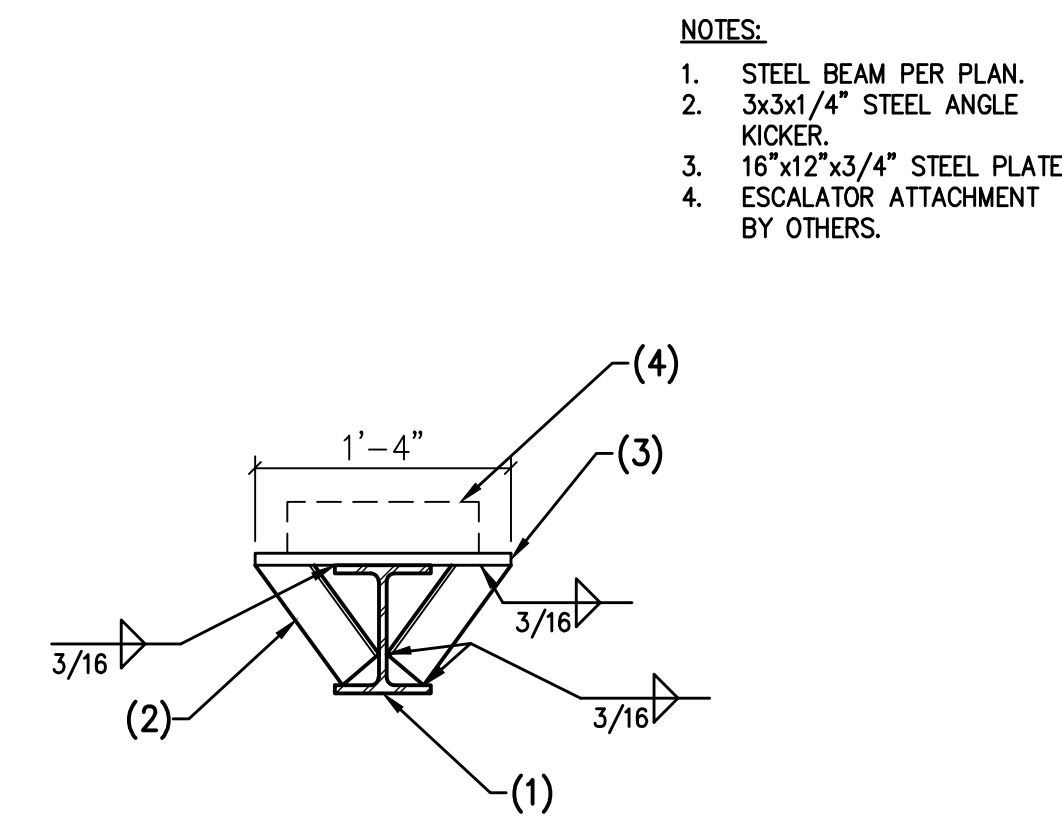
Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Name:
STEEL FLOOR FRAMING DETAILS

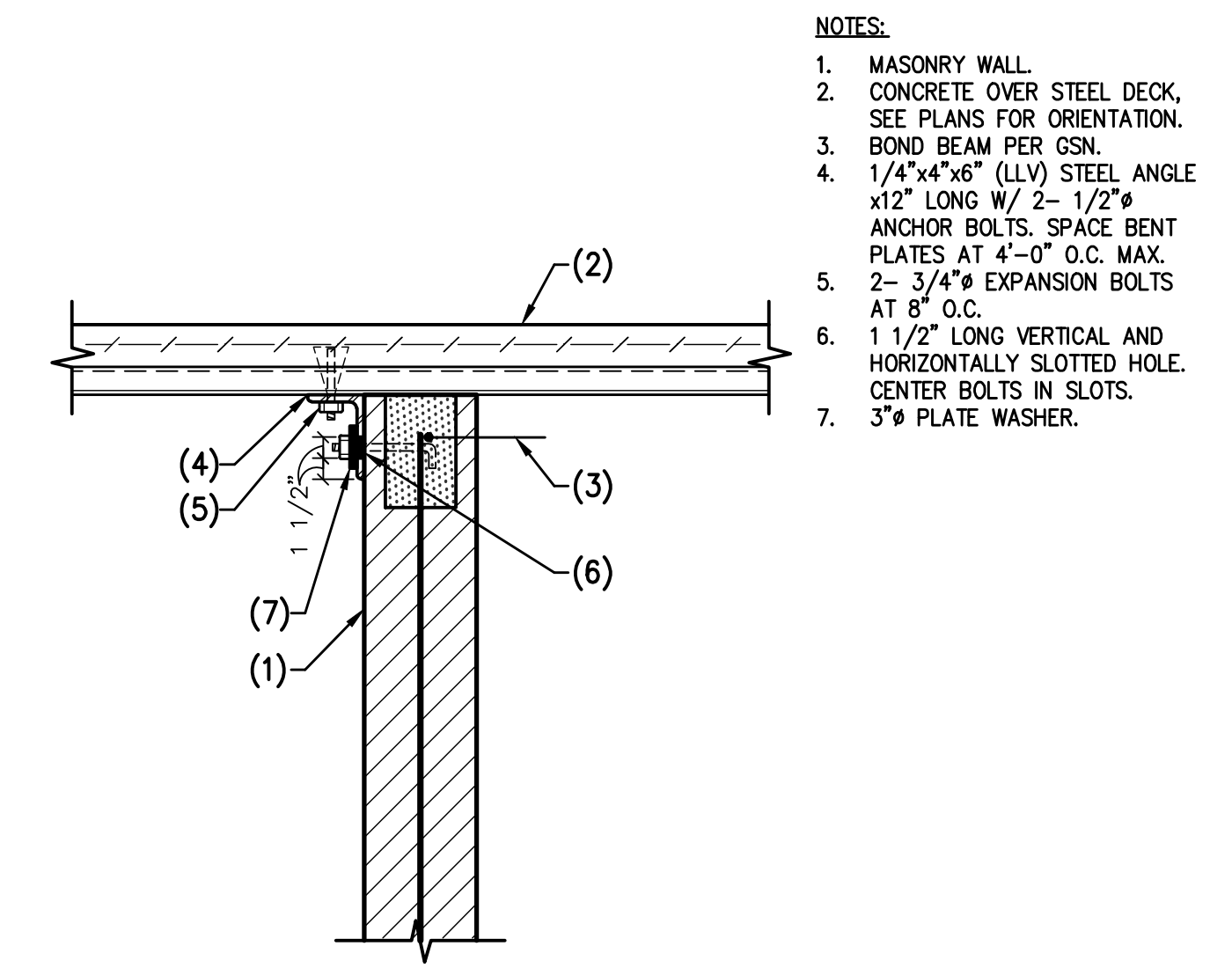
Sheet Number:
S703

ACTUAL SHEET SIZE: 36" x 48"

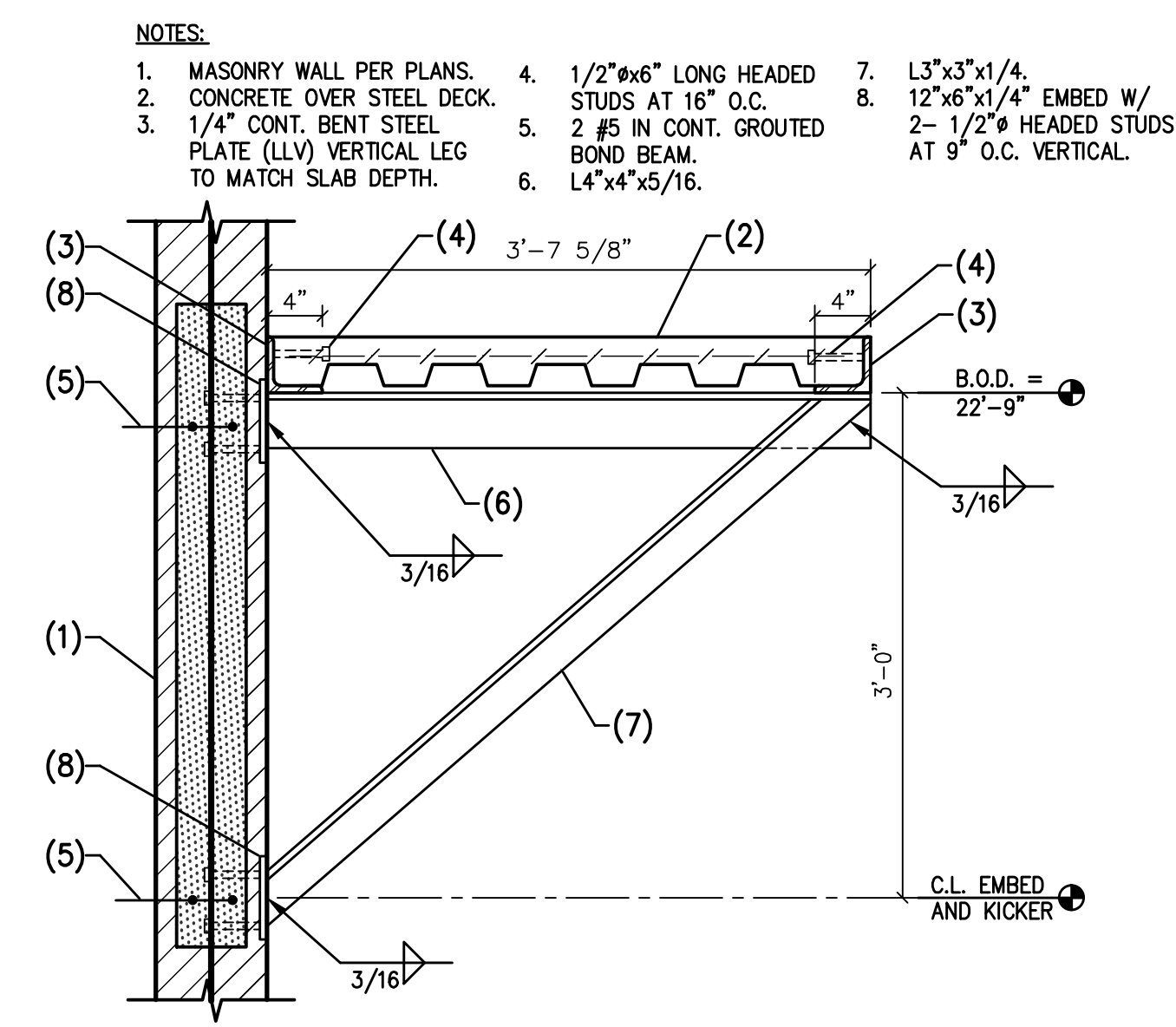
02-17-2017 CONFORM SET



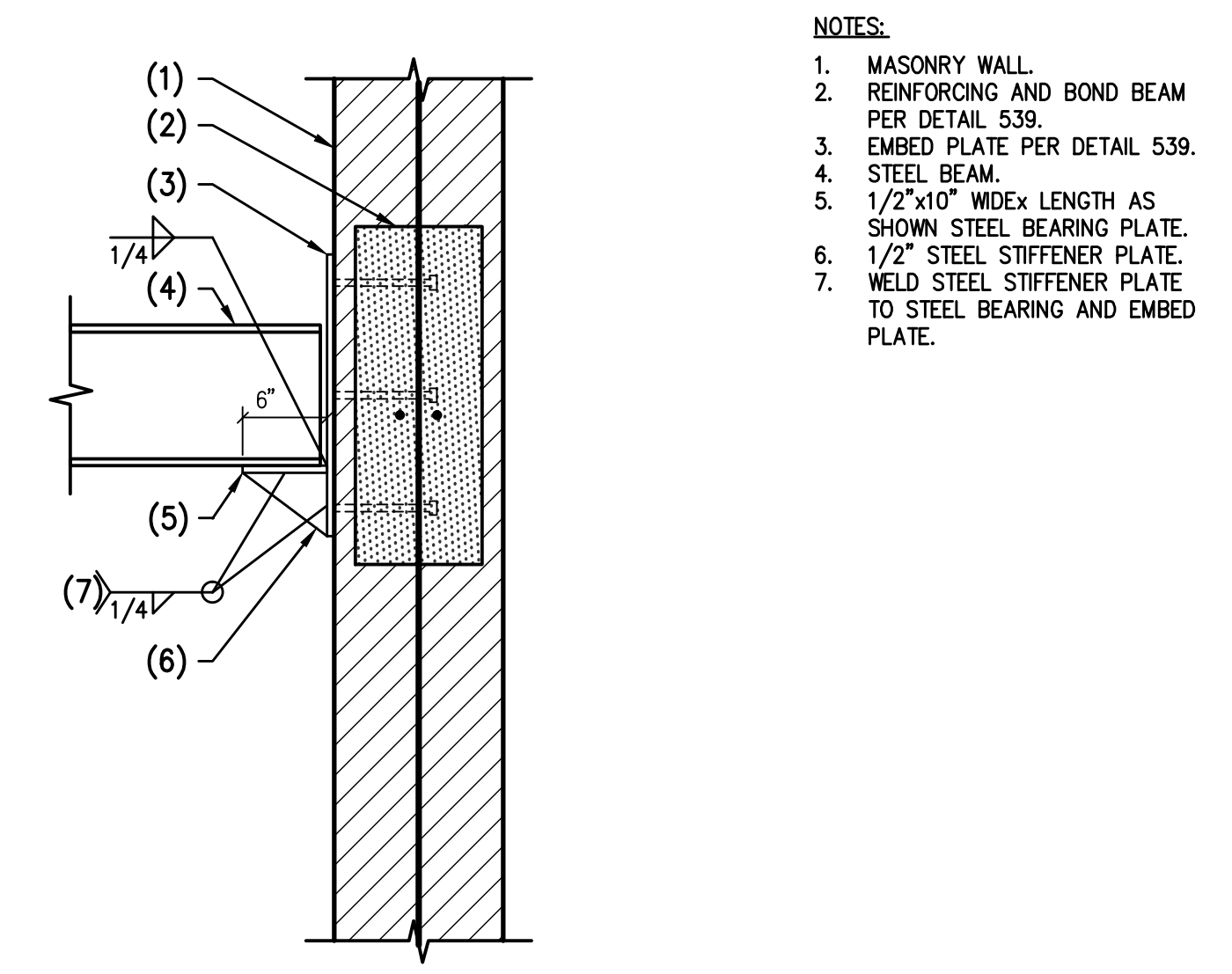
560 STEEL PLATE AT ESCALATOR INTERMEDIATE SUPPORT NO SCALE



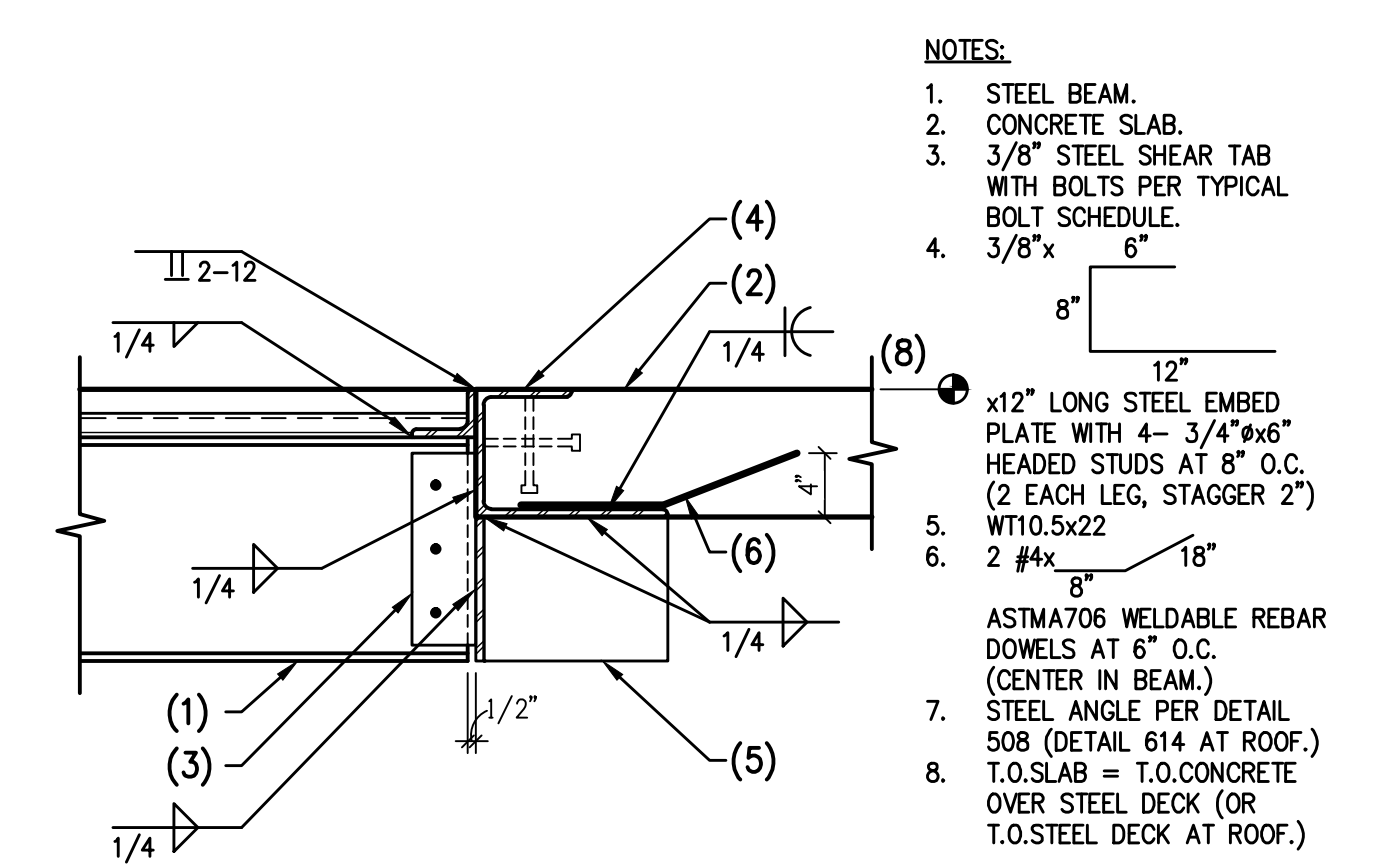
566 NON-BEARING MASONRY WALL AT CONCRETE OVER STEEL DECK NO SCALE



567 EDGE OF DECK SUPPORT AT MASONRY WALL NO SCALE



568 ELEVATOR MACHINE BEAM CONNECTION NO SCALE



569 STEEL BEAM TO CONCRETE SLAB NO SCALE

02-17-2017 CONFORM SET

Project Number: 16022
 Date: 09/02/2016
 Drawn By: L.E.
 Checked By: S.S.

Sheet Name:
STEEL FLOOR FRAMING DETAILS

Sheet Number:
S704

ACTUAL SHEET SIZE: 36" X 48"