

GENERAL NOTES

DESIGN CRITERIA:

- BUILDING CODE = 2012 INTERNATIONAL BUILDING CODE (IBC 2012)
OCCUPANCY CATEGORY = II
- GRAVITY LOADS:
DEAD:
SELF WEIGHT OF ALL COMPONENTS
LIVE:
ROOF (REDUCIBLE) = 20 psf
FLOOR = 250 psf
SNOW:
GROUND SNOW, p_g = 20 psf
EXPOSURE FACTOR = 1.0
THERMAL FACTOR = 1.0
IMPORTANCE FACTOR = 1.0
- CRANE LOADS:
CRANE CAPACITY =20T
CRANE CLASSIFICATION =C
NUMBER OF WHEELS =4
HOIST WEIGHT =2,780 LBS.
BRIDGE WEIGHT =14,175 LBS.
MAXIMUM WHEEL LOAD =22,500 LBS.
- WIND LOADS:
BASIC WIND SPEED = 115 MPH
EXPOSURE = C
STRUCTURE CLASSIFICATION = ENCLOSED
WIND IMPORTANCE FACTOR, I_w = 1.0
- SEISMIC:
 S_s = 0.099 g
 S_1 = 0.057 g
 S_{ps} = 0.106 g
 S_{p1} = 0.091 g
IMPORTANCE FACTOR = 1.0
SITE CLASS = D
SEISMIC DESIGN CATEGORY = B
REDUNDANCY FACTOR = 1.0
- DATUM: ??'-0" = 100'-0"

GENERAL:

- ALL DESIGN AND CONSTRUCTION SHALL COMPLY WITH THE 2012 INTERNATIONAL BUILDING CODE AND ALL APPLICABLE LOCAL ORDINANCES.
- REFERENCE TO 'CONTRACTOR' IN THESE DOCUMENTS SHALL MEAN THE OVERALL SUPERVISING GENERAL CONTRACTOR OR CONSTRUCTION MANAGER.
- ALL CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF THE FOLLOWING CODES, STANDARDS AND SPECIFICATIONS (LATEST EDITIONS, UNO.), EXCEPT WHERE NOTED TO THE CONTRARY ON DRAWINGS OR WHERE MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR SHOWN:
ACI 117 "STANDARD SPECIFICATIONS FOR TOLERANCE OF CONCRETE CONSTRUCTION AND MATERIALS"
ACI 301 "SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS"
ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
ACI 530 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES"
AISI "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS"
SJI "SPECIFICATIONS, LOAD TABLES AND WEIGHT TABLES FOR STEEL JOISTS AND JOIST GIRDERS"
AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (INCLUDING COMMENTARIES)"
AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS & BRIDGES"
AISC "STEEL DESIGN GUIDE 3 - SERVICEABILITY DESIGN CONSIDERATIONS FOR STEEL BUILDINGS"
SDI "STEEL DECK MANUAL FOR FLOOR DECKS AND ROOF DECKS"
AWS D1.1 "STRUCTURAL WELDING CODE - STEEL"
AWS D1.3 "STRUCTURAL WELDING CODE - SHEET STEEL"
- STRUCTURAL MEMBERS WILL REQUIRE INTERACTION WITH OTHER ELEMENTS FOR STABILITY AND RESISTANCE TO LATERAL FORCES. ALL FRAMING AND WALLS SHALL BE TEMPORARILY BRACED BY THE CONTRACTOR UNTIL PERMANENT BRACING, WALLS, FLOOR, AND ROOF DECKS HAVE BEEN INSTALLED AND CONNECTIONS BETWEEN THESE HAVE BEEN MADE. SEE MATERIAL SPECIFIC NOTES FOR STEEL AND CONCRETE FOR ADDITIONAL NOTES.
- NEEDHAM-DBS IS NOT ASSUMING ANY PROVISIONS OF SUPERVISION OF CONSTRUCTION MEANS, METHODS, OR PROCESSES.
- DO NOT SCALE DRAWINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS BEFORE STARTING WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT OR ENGINEER.
- FRAMING CONDITIONS NOT SPECIFICALLY SHOWN OR INDICATED SHALL BE FRAMED SIMILAR TO DETAILS SHOWN FOR THE RESPECTIVE MATERIAL OR CONDITIONS.
- THE SIZE AND LOCATIONS OF ALL EQUIPMENT PADS AND PENETRATIONS THROUGH THE STRUCTURE FOR MECHANICAL, ELECTRICAL AND PLUMBING WORK SHALL BE VERIFIED BY THE CONTRACTOR. PENETRATIONS SHALL BE SUBJECT TO APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR OPENING LOCATIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- SUBMITTALS FOR ITEMS WITH DELEGATED DESIGN RESPONSIBILITIES SUCH AS PREMANUFACTURED STAIRS, LIGHT GAGE METAL STUDS, STEEL JOISTS, AND JOIST GIRDERS MUST BE SUBMITTED AND APPROVED BEFORE INSTALLATION CAN BEGIN.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE CONDITIONS DURING COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSON AND PROPERTY.
- LOADINGS FOR MECHANICAL EQUIPMENT ARE BASED ON THE UNITS SHOWN ON THE STRUCTURAL DRAWINGS. ANY CHANGES IN TYPE, SIZE, WEIGHT, OR NUMBER OF UNITS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO FABRICATION.

SOIL/FOUNDATION CONDITIONS:

- OWNER TO RETAIN QUALIFIED SOILS ENGINEER TO MONITOR FOUNDATION AND SUB-GRADE DURING SITE PREPARATION AND FOUNDATION CONSTRUCTION. EACH FOOTING EXCAVATION SHALL BE INSPECTED TO ENSURE THAT SATISFACTORY SOIL EXISTS BELOW THE BASE OF THE FOOTING. ALL EXCAVATION, FOUNDATION CONSTRUCTION, & SUBGRADE PREPARATION MUST BE IN STRICT COMPLIANCE WITH THE GEOTECHNICAL REPORT.
- STRUCTURAL DESIGN IS BASED UPON A NET ALLOWABLE SOIL PRESSURE OF 2500 PSF FOR BOTH SPREAD FOOTINGS AND WALL FOOTINGS. FOOTINGS SHALL BEAR ON EXISTING SUBGRADE OR ENGINEERED FILL AS DESCRIBED IN THE GEOTECHNICAL REPORT BY TERRACON CONSULTANTS, INC., LENEXA, KS LABELED 'ALTEC-DESIGN ASSURANCE ADDITIONS', TERRACON PROJECT NO. 02165258 DATED JANUARY 19, 2017.
- MINIMUM FOUNDATION EMBEDMENT DEPTH IS 36 INCHES BELOW GRADE. ALL EXTERIOR FOOTINGS SHALL BEAR BELOW MINIMUM DEPTH.
- ALL FOOTING EXCAVATIONS SHALL BE FREE FROM LOOSE OR SOFT SOILS, WATER, ICE AND OTHER UNSUITABLE MATERIALS BEFORE FOUNDATION PLACEMENT CAN CONTINUE.
- THE FLOOR SLAB SHALL BE SUPPORTED ON A 6 INCH LAYER OF CLEAN GRANULAR MATERIAL SUCH AS SAND AND GRAVEL, OR CRUSHED STONE. A SUBGRADE MODULUS OF 100 pci IS USED FOR THE SLAB ON GRADE. SEE FOUNDATION DRAWINGS FOR ADDITIONAL INFORMATION.
- FLOOR SLAB POURS SHALL BE SEPARATED BY A CONSTRUCTION JOINT. CONTROL JOINTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ARCHITECT OR ENGINEER.

(03 30 00) CONCRETE:

- THE EXTENT OF THE CONCRETE WORK IS SHOWN ON THE DRAWINGS.
- SUBMITTALS ARE REQUIRED FOR REINFORCEMENT, CONCRETE MIXES, ADMIXTURES, CURING COMPOUNDS AND ANY OTHER ITEM AS REQUESTED BY THE CONSTRUCTION MANAGER.
- ALL DESIGN SHALL BE PER THE LATEST EDITION OF THE ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY."
- CONCRETE TESTING SHALL BE PERFORMED PER ACI REQUIREMENTS. SAMPLES SHALL BE TAKEN PER ASTM C172 WITH FREQUENCY AS FOLLOWS:
A) A MINIMUM OF ONE SAMPLE A DAY WITH NO LESS THAN 5 SAMPLES FOR A GIVEN CLASS OF CONCRETE, TAKEN FROM 5 RANDOMLY SELECTED BATCHES, OR FROM EACH BATCH IF LESS THAN 5 BATCHES ARE USED.
B) A MINIMUM OF ONE SAMPLE PER 150 CUBIC YARDS.
C) A MINIMUM OF ONE SAMPLE FOR EACH 5,000 SQUARE FEET OF SLAB OR WALL.
D) IF LESS THAN 50 CUBIC YARDS OF A GIVEN CLASS OF CONCRETE IS NEEDED, THE NEED FOR STRENGTH TESTS MAY BE WAIVED WITH THE APPROVAL OF THE ENGINEER.

SAMPLES SHALL BE MOLDED AND CURED PER ASTM C31 SAMPLES SHALL BE TESTED PER ASTM C39 USING 4x8 OR 6x12 SAMPLES.

- CONCRETE MEMBERS SHALL BE ASSIGNED DURABILITY REQUIREMENTS PER CHAPTER 4 OF ACI 318 AS SHOWN.

	FREEZE/THAW	SULFATE	PERMEABILITY	CORROSION
ALL CONCRETE UNO:	FO	SO	PO	CO
FOOTINGS, PIERS & GRADE BEAMS:	FO	SO	PO	CO
SLAB ON GRADE:	FO	SO	PO	CO
CONCRETE FILL:	FO	SO	PO	CO
RETAINING WALLS:	FO	SO	PO	CO

- MATERIALS SHALL COMPLY WITH LATEST EDITION OF ACI 318 AND AS NOTED BELOW.

PORTLAND CEMENT:	ASTM C150 TYPE I
FLY ASH (SEE NOTE 7):	ASTM C618
NORMAL WEIGHT AGGREGATE:	ASTM C33
LIGHT WEIGHT AGGREGATE:	ASTM C330
WATER:	ASTM C1602
NON WELDABLE REBAR:	ASTM A615, GRADE 60
WELDABLE REBAR:	ASTM A706
WELDED WIRE FABRIC:	ASTM A1064
AIR ENTRAINMENT (SEE NOTE 8):	ASTM C260

- FLY ASH (CLASS C) CONTENT IN MIX DESIGN SHALL NOT EXCEED 20% OF TOTAL CEMENTIOUS MATERIAL CONTENT.
- NORMAL WEIGHT AND LIGHT WEIGHT CONCRETE SUBJECT TO EXPOSURE CLASSES F1, F2, OR F3 SHALL BE AIR ENTRAINMENT WITH AIR CONTENT AS INDICATED. CONCRETE SUBJECT TO EXPOSURE CLASS F0 DOES NOT REQUIRE AIR ENTRAINMENT.

NOMINAL AGGREGATE SIZE	AIR CONTENT, %	
	F1	F2, F3
3/8"	6	7.5
1/2"	5.5	7
3/4"	5	6
1"	4.5	6
1 1/2"	4.5	5.5
2"	4	5
3"	3.5	4.5

- COMPRESSIVE STRENGTH OF CONCRETE (28 DAY STRENGTH) AS FOLLOWS:

ALL CONCRETE U.N.O.:	4,000 PSI
FOOTINGS, PIERS, & GRADE BEAMS:	3,000 PSI
SLAB-ON-GRADE:	4,000 PSI
RETAINING WALLS:	4,000 PSI
CONCRETE FILL:	2,500 PSI

- PROPORTION ALL MIX DESIGNS TO HAVE A MAXIMUM SLUMP OF 4 INCHES UNLESS SPECIFICALLY APPROVED BY THE ENGINEER. MIX DESIGNS CONTAINING HIGH-RANGE WATER REDUCING ADMIXTURES SHALL HAVE A MAXIMUM SLUMP OF 8 INCHES AFTER ADMIXTURE IS ADDED TO THE CONCRETE.
- THE MAXIMUM WATER/CEMENTIOUS MATERIAL SHALL BE LIMITED TO THE FOLLOWING UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.
ALL CONCRETE U.N.O.:

ALL CONCRETE U.N.O.:	0.45
FOOTINGS, PIERS, & GRADE BEAMS:	0.55
SLAB-ON-GRADE:	0.45
CONCRETE FILL:	0.60
RETAINING WALLS:	0.45

- FOR CONCRETE SUBJECT TO EXPOSURE CLASS C0, THE MAXIMUM WATER SOLUBLE CHLORIDE ION CONTENT IN CONCRETE AS DETERMINED BY ASTM C1218 SHALL BE 1.0% OF WEIGHT OF CEMENT.
- ANCHOR RODS SHALL BE ASTM F1554-36 MATERIAL AND SHALL HAVE A MINIMUM EMBEDMENT OF 12 INCHES INTO THE CONCRETE UNLESS CALLED FOR OTHERWISE ON THE DRAWINGS. ALL THREADS SHALL BE CUT AND NOT ROLLED. THE EMBEDDED END SHALL CONSIST OF A HEAVY HEX NUT OR OTHER MECHANICAL ANCHOR. HOOK BOLTS ARE NOT ACCEPTABLE. ALL ANCHOR RODS MUST BE CLEANED OF OIL, RUST AND OTHER DELETERIOUS COATINGS PRIOR TO PLACEMENT. SET ALL EMBEDMENTS BY MEANS OF A TEMPLATE WHERE POSSIBLE.
- DETAILING: ALL REINFORCING SHALL BE DETAILED, BOLSTERED AND SUPPORTED PER ACI STANDARDS #315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCING CONCRETE STRUCTURES." NO MORE THAN 1/2 OF BARS MAY BE SPLICED AT ONE LOCATION.
- CURING AND SEALING COMPOUNDS SHALL COMPLY WITH ASTM C309 OR ASTM C1315.
- REINFORCEMENT SHALL BE SPLICED W/ A MECHANICAL, WELDED, OR LAP SPLICE THAT MEETS ACI 318. WELDED SPLICES SHALL CONFORM TO AWS & SHALL DEVELOP 125% OF THE YIELD STRENGTH OF THE BAR. WELDED REINFORCEMENT SHALL CONFORM TO ASTM A706. MECHANICAL SPLICES SHALL DEVELOP 125% OF THE YIELD STRENGTH OF THE BAR & SHALL BE APPROVED BY THE ENGINEER. LAP SPLICES SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLES FOR CLASS A&B SPICES. WHERE SPLICE CLASS IS NOT CALLED OUT ON DRAWINGS, A CLASS B SPLICE SHALL BE USED.

BAR SIZE	TENSION SPLICES (INCHES)				COMPRESSION SPLICES (INCHES) ALL BARS
	TOP BARS		OTHER BARS		
	"A"	"B"	"A"	"B"	
#3	13	17	12	13	12
#4	21	28	16	21	15
#5	31	41	24	31	19
#6	43	56	33	43	23
#7	69	90	53	69	26
#8	85	111	66	85	30
#9	103	134	79	103	34
#10	121	158	93	121	38
#11	140	183	108	140	42

THE TABLE IS BASED ON THE FOLLOWING ASSUMPTIONS: $f_c=3000$ psi. CONCRETE IS NORMAL WEIGHT, BARS ARE NOT EPOXY COATED, CLEAR SPACING OF BARS IS EQUAL TO OR GREATER THAN TWO BAR DIAMETERS, AND CLEAR COVER IS 3/4". FOR LARGER CONCRETE STRENGTHS OR GREATER CONCRETE COVER, THE LAP SPLICE LENGTH MAY BE REDUCED THRU AN APPROVED SUBMITTAL TO THE ENGINEER. LAP SPLICES IN LIGHTWEIGHT CONCRETE ARE LARGER THAN SHOWN. CONTRACTOR TO SUBMIT LAP SPLICE LENGTHS IN LIGHTWEIGHT CONCRETE FOR APPROVAL BY THE ENGINEER. NOTE THAT "TOP" BARS INDICATE HORIZONTAL REINFORCEMENT THAT IS PLACED W/ 12" OR MORE OF FRESH CONCRETE BELOW THE SPLICE.

- WELDED WIRE FABRIC SHALL BE LAPPED ONE SPACING OF CROSS WIRES PLUS 2 INCHES.
- COMPRESSION DOWEL EMBEDMENT SHALL BE 22 BAR DIAMETERS.
- PROVIDE CORNER REINFORCING TO MATCH CONTINUOUS REINFORCEMENT SIZE AND QUANTITY AT INTERSECTIONS AND CORNERS OF WALLS AND FOOTINGS.
- WALL, PIER, AND COLUMN DOWELS SHALL BE THE SAME SIZE, SPACING, AND MATERIAL AS WALL, PIER AND COLUMN REINFORCING, UNLESS NOTED OTHERWISE.
- ALL CONCRETE IS REINFORCED UNLESS SPECIFICALLY NOTED "UNREINFORCED", REINFORCE ALL CONCRETE NOT OTHERWISE SHOWN WITH THE THE SAME REINFORCEMENT AS SIMILAR SECTIONS.

EXECUTION:

- ALL CONCRETE SHALL BE MIXED PER ASTM C94.
- THE CONCRETE FOUNDATIONS AND SLAB-ON-GRADE MUST BE PLACED ON A SOUND BASE AS DESCRIBED IN THE SOILS REPORT & THE SOILS / FOUNDATION CONDITIONS NOTES.
- PLACEMENT OF CONCRETE SHALL BE PER LATEST EDITION OF ACI 318. CONCRETE SHALL BE DEPOSITED AS NEAR TO ITS FINAL POSITION AS POSSIBLE. ALL CONCRETE SHALL BE THOROUGHLY CONSOLIDATED AROUND REINFORCEMENT AND EMBEDDED ITEMS. ALL REINFORCING STEEL MUST BE FREE FROM DIRT, RUST AND OTHER DELETERIOUS MATERIAL PRIOR TO PLACEMENT. DOWELS, ANCHOR BOLTS, INSERTS, ETC. SHALL BE SECURELY TIED IN PLACE PRIOR TO POURING OF CONCRETE OR GROUT.
- SPECIFIED CONCRETE CLEAR COVERS ARE AS FOLLOWS:
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
CONCRETE PERMANENTLY EXPOSED TO EARTH OR WEATHER:
NO. 5 BAR OR SMALLER: 1 1/2"
NO. 6 BAR OR LARGER: 2"
SLABS NOT EXPOSED TO EARTH OR WEATHER (TO #11 BARS): 3/4"
BEAMS AND COLUMNS NOT EXPOSED TO EARTH OR WEATHER: 1 1/2"
- PROVIDE CONTINUOUS 2" X 4" KEY-WAY IN ALL HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS. OTHERWISE, ROUGHEN AND CLEAN ALL CONSTRUCTION JOINTS.
- NO PIPES, DUCTS OR CONDUIT SHALL BE PLACED IN CONCRETE UNLESS SPECIFICALLY DETAILED OR NOTED.
- NO ADMIXTURES OTHER THAN AIR ENTRAINMENT MAY BE ADDED WITHOUT THE SPECIFIC APPROVAL OF THE ENGINEER. NO CALCIUM CHLORIDE SHALL BE USED AT ANY TIME. WATER REDUCTION AGENTS SHALL MEET ASTM C494. WORKABILITY AGENTS SHALL CONFORM TO ASTM C1017.
- CONCRETE SHALL BE MAINTAINED ABOVE 50°F AND IN A MOIST CONDITION FOR AT LEAST 7 DAYS AFTER PLACEMENT UNLESS AN ACCELERATED CURING METHOD IS USED. THIS ACCELERATED METHOD SHALL BE APPROVED BY THE ENGINEER.
- CAST IN PLACE WALL CONTROL JOINTS SHALL BE PROVIDED AT A MAXIMUM OF 25'-0" O.C. COORDINATE W/ ARCHITECTURAL DRAWINGS.
- PROVIDE CURING AND SEALING COMPOUND TO ALL EXPOSED INTERIOR SLABS AND TO ALL EXTERIOR SLABS, WALKS AND CURBS AS SOON AS FINAL FINISHING IS COMPLETE.
- CONCRETE PLACED IN COLD WEATHER SHALL BE IN COMPLIANCE WITH ACI 306. DO NOT PLACE CONCRETE ON FROZEN SUB-GRADE OR ON GRADES CONTAINING FROZEN MATERIALS.
- CONCRETE PLACED IN HOT WEATHER SHALL BE IN COMPLIANCE WITH ACI 305.

**PRELIMINARY
NOT FOR CONSTRUCTION**

NO.	REVISION	ISSUE DATE
-	-	-

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MAY ??, 2017

**GENERAL
NOTES**

S100

(04 20 00) MASONRY CONSTRUCTION:

- ALL MASONRY CONSTRUCTION SHALL COMPLY WITH ACI 530.
- FOR ALL CONCRETE MASONRY UNITS, THE EXTERIOR SURFACE OF MASONRY SHALL BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS. ALL MASONRY UNITS MUST BE FROM THE SAME SUPPLIER.
- ALL CONCRETE MASONRY UNITS SHALL COMPLY WITH ASTM C90 AND HAVE A MINIMUM AVERAGE NET-AREA COMPRESSIVE STRENGTH OF 1,900 PSI. THE MINIMUM COMPRESSIVE STRENGTH OF THE IN-PLACE MASONRY ASSEMBLAGE SHALL BE $f_m = 1,500$ PSI UNLESS NOTED OTHERWISE ON THE DRAWINGS. CONCRETE MASONRY UNITS SHALL BE LIGHTWEIGHT AND LAID IN RUNNING BOND, UNLESS NOTED OTHERWISE.
- MORTAR SHALL BE TYPE "S" WITHOUT ADMIXTURES AND SHALL BE PREPARED IN ACCORDANCE WITH ASTM C-270, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- ALL MASONRY SHALL BE REINFORCED MASONRY UNLESS NOTED OTHERWISE ON THE DRAWINGS. STEEL REINFORCING BARS SHALL BE ASTM A615, GRADE 60. MASONRY JOINT REINFORCEMENT SHALL BE ASTM A951, MILL-GALVANIZED FOR INTERIOR WALLS AND HOT-DIP GALVANIZED FOR EXTERIOR WALLS. SIZE AND SPACING OF ALL MASONRY WALL REINFORCEMENT SHALL BE AS SHOWN ON THE DRAWINGS OR AS FOLLOWS:

MINIMUM VERTICAL WALL REINFORCING-
FOR 8" CMU WALLS: USE (1)-#5 @ 16" O/C IN GROUTED CELLS.
FOR 4" CMU WALLS: USE (1)-#4 @ 72" O/C IN GROUTED CELLS.
MINIMUM CONTINUOUS HORIZONTAL JOINT REINFORCEMENT-
FOR ALL CMU: USE "LADDER" TYPE DUROWALL (OR EQUAL),
(2)-NO. 9 GA. WIRES @ 16" O/C IN HORIZONTAL MORTAR JOINTS.
- GROUT SHALL BE PROPORTIONED TO HAVE A COMPRESSIVE STRENGTH OF 2,000 PSI AT 28 DAYS. BATCHING AND MIXING SHALL MEET THE REQUIREMENTS OF ASTM C-476. SOLID GROUT ALL CELLS IN FIRE-RATED WALL, BOND BEAMS, CELLS CONTAINING BOLTS, ANCHORS OR REINFORCING, CELLS BELOW BEAM BEARING POINTS, BASEPLATES OR POINTS OF CONCENTRATED LOAD, ALL CELLS BELOW GRADE AND WHERE NOTED ON PLANS, SECTIONS AND DETAILS. CONSOLIDATE ALL GROUT POURS EXCEEDING 12 INCHES IN HEIGHT BY MECHANICAL VIBRATION. HEIGHT OF GROUT LIFTS SHALL NOT EXCEED 4'-8".
- LAP ALL REINFORCING 50 BAR DIAMETERS. CONTINUE ALL BAR REINFORCING AROUND CORNERS AND LAP WITH HORIZONTAL REINFORCING. REINFORCING SHALL HAVE A MINIMUM ONE BAR DIAMETER GROUT COVERAGE.
- PROVIDE (1)-#4 AROUND ALL SIDES OF ALL OPENINGS, AT CORNERS, AT ENDS OF WALLS AND ON EACH SIDE OF CONTROL JOINTS, OR AS SHOWN ON THE DRAWINGS. ALSO PROVIDE (1)-#4 IN ALL BOND COURSES IN ALL 8" CMU WALLS, AND (1)-#4 IN ALL BOND COURSES IN ALL 4" CMU WALLS. BOND COURSES SHALL BE INSTALLED AT THE TOP OF ALL WALLS AND AT ALL FLOOR LEVELS AND WHERE SHOWN ON THE DRAWINGS.
- PROVIDE LINTELS OVER ALL OPENINGS AND RECESSES IN BOTH EXTERIOR AND INTERIOR WALLS UNLESS OTHERWISE NOTED. THE LOCATIONS OF MECHANICAL AND ELECTRICAL OPENINGS ARE SHOWN ON THE M/E/P DRAWINGS. THE GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL OPENINGS.
- STEEL LINTELS NOT SCHEDULED ON THE DRAWINGS SHALL BE AS FOLLOWS:

MASONRY OPNG.	NOM. WALL THK.	REQUIRED LINTEL	MIN. BEARING EACH END
4'-0" OR LESS	8" CMU	(2) - L31/2 x 31/2 x 5/16	6"
	12" CMU	(2) - L5 x 31/2 x 5/16 SLBB	6"
	BRICK	(1) - L31/2 x 31/2 x 1/4	6"
4'-1" TO 6'-0"	8" CMU	(2) - L5 x 31/2 x 5/16 LLBB	8"
	12" CMU	(2) - L5 x 5 x 5/16	8"
	BRICK	(1) - L31/2 x 31/2 x 1/4	8"
6'-1" TO 8'-0"	8" CMU	W8x18 w/ 5/16 BOT. PL.	8"
	12" CMU	W8x31 w/ 5/16 BOT. PL.	8"
	BRICK	(1) - L5 x 31/2 x 5/16 LLBB	8"
OVER 8'-0"	SEE DRAWINGS		

ALL EXTERIOR WALL STEEL LINTELS SHALL BE GALVANIZED. ALL DOUBLE ANGLE STEEL LINTELS SHALL BE WELDED TOGETHER. SUBMIT ALL STEEL LINTELS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

- PRECAST LINTELS DESIGNED BY A PRECAST SUPPLIER MAY BE SUBSTITUTED FOR ALL LINTELS EXCEPT STEEL BEAM SECTIONS WITH THE APPROVAL OF THE ENGINEER. PRECAST LINTELS ARE TO BE SCORED AND TEXTURED TO MATCH MASONRY.
- THE GENERAL CONTRACTOR SHALL COORDINATE ALL MASONRY ROUGH OPENINGS WITH ALL TRADES.
- MASONRY VERTICAL CONTROL JOINTS ARE TO BE COORDINATED WITH THE GENERAL CONTRACTOR, ARCHITECT, MECHANICAL AND STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION. CONTROL JOINTS SHALL NOT EXCEED 30 FEET ON CENTER AND SHALL OCCUR AT ALL CHANGES IN WALL DIRECTION AND HEIGHT. CONTROL JOINTS SHALL NOT EXCEED 15 FEET FROM ANY WALL CORNER IF CORNERS ARE TIED. CONTROL JOINTS SHALL BE A MINIMUM OF 2 FEET FROM JAMBS OF OPENINGS AND WALL CORNERS.
- CONSTRUCTION BRACING FOR MASONRY WALLS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MISSOURI. MASONRY SHOP DRAWING SUBMITTALS SHALL CONTAIN A LETTER SEALED BY THE ENGINEER, STATING DESIGN LOADS AND CRITERIA WHICH WERE USED IN THE BRACING DESIGN AND BE APPROVED PRIOR TO THE STARTING OF MASONRY ERECTION.

(05 12 00) STRUCTURAL STEEL:

- THE EXTENT OF THE STRUCTURAL STEEL AND METAL FABRICATION IS AS SHOWN ON THE DRAWINGS.
- FOR STEEL AND METAL ITEMS NOT SPECIFICALLY DETAILED ON THE DRAWINGS, THE FABRICATOR SHALL DESIGN AND SUPPLY APPROPRIATE PRODUCTS.
- ALL METAL ITEMS MUST BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS MUST SHOW ALL MATERIAL SIZES, WELDS (USE STANDARD AWS SYMBOLS), DETAILS AND ERECTION INFORMATION.
- ALL DESIGN SHALL BE PER THE FOURTEENTH EDITION OF THE AISC "STEEL CONSTRUCTION MANUAL" AND THE 2010 EDITION OF THE AISC "CODE OF STANDARD PRACTICE".
- STEEL FABRICATOR SHALL BE AISC CERTIFIED FACILITY.
- ALL WELDING SHALL CONFORM TO LATEST VERSION OF AWS D1.1. ALL SHOP AND FIELD WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.

PRODUCTS:

- ALL STRUCTURAL STEEL, EMBEDDED ITEMS AND OTHER PLATES SHALL BE A36 MATERIAL OR AS NOTED BELOW:

STEEL WIDE FLANGE SHAPES: ASTM A992
MISC. ANGLES, CHANNELS, & PLATES: ASTM A36 U.N.O.
HIGH STRENGTH BOLTS: ASTM A325
ORDINARY BOLTS: ASTM A307
NUTS, HEAVY HEX: ASTM A563, GRADE C
HARDENED WASHERS: ASTM F436
BRACING RODS: ASTM A572, GRADE 50
PIPE SECTIONS: ASTM A53, GRADE B
HOLLOW STRUCTURAL SECTIONS (HSS): ASTM A500, GRADE B
BUILT-UP SECTIONS: ASTM A572, GRADE 50
ANCHOR RODS: ASTM F1554-36
HEADED STUDS: ASTM A108

- ALL BOLTED CONNECTIONS IN STRUCTURAL STEEL SHALL UTILIZE ASTM A325 BOLTS WITH THREADS INCLUDED IN THE SHEAR PLANE UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL HIGH-STRENGTH BOLTS IN CONNECTIONS SUBJECT TO MOMENT, TENSILE FORCES, STRESS REVERSAL OR FATIGUE SHALL BE FULLY TENSIONED.
- ALL STEEL ITEMS, EXCEPT THOSE EMBEDDED IN CONCRETE SHALL HAVE A MINIMUM OF ONE MIL RUST INHIBITIVE PRIMER PER THE FABRICATORS STANDARDS.

EXECUTION:

- STEEL COLUMNS SHALL BE SET DIRECTLY ON THE CONCRETE FOUNDATION AND SHALL BE ERECTED IN A PLUMB CONDITION PER AISC TOLERANCES.
- THE STEEL ERECTOR SHALL PROVIDE ALL TEMPORARY SHORING AS REQUIRED TO STABILIZE THE BUILDING DURING CONSTRUCTION.
- ALL FIELD WELDING SHALL BE BY CERTIFIED AWS WELDERS PER AWS D1.1. ALL WELDING SHALL BE DONE WITH E70 ELECTRODES U.N.O.
- ALL FIELD WELDING AND GAS CUT AREAS SHALL BE TOUCHED UP WITH PRIMER BY THE STEEL ERECTOR.
- ALL STEEL SHALL BE CLEANED TO BE FREE FROM DIRT, MUD AND CORROSION AFTER ERECTION. THE ERECTOR SHALL TOUCH UP PAINT AS REQUIRED.
- NON-SHRINK GROUT SHALL BE INSTALLED IMMEDIATELY AFTER COLUMN IS PLUMBED. CONTRACTOR SHALL NOT LOAD COLUMN ANCHOR BOLTS BEFORE PLACEMENT OF NON-SHRINK GROUT WITHOUT TAKING MEASURES TO PREVENT BUCKLING OF ANCHOR RODS UNDER CONSTRUCTION LOAD.
- ALL STEEL NOTED AS AESS (ARCHITECTURAL EXPOSED STRUCTURAL STEEL) SHALL MEET THE REQUIREMENTS LISTED FOR AESS IN DIVISION 5 OF THE SPECIFICATIONS.

(05 40 00) COLD FORMED METAL FRAMING

- ALL LIGHT GAGE STEEL FRAMING SHALL BE DESIGNED AND FABRICATED PER THE LATEST EDITION OF AISI "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS." THE LIGHT GAGE SUPPLIER SHALL PROVIDE COMPLETE SHOP DRAWINGS SHOWING THE LOCATION AND TYPE OF ALL LIGHT GAGE STEEL FRAMING, AND OTHER PERTINENT INFORMATION. PROVIDE CALCULATIONS OF ALL LIGHT GAGE, SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF JURISDICTION.
- ALL STUDS, TRACKS, BRIDGING AND ACCESSORIES SHALL BE FORMED FROM STEEL HAVING A GALVANIZED COATING MEETING THE REQUIREMENTS OF ASTM A525, G60.
- LATERAL DEFLECTION REQUIREMENTS SHALL MEET THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE (IBC) SPECIFIED CRITERIA BASED ON THE SUPPORTED FINISHES UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED IN THE DESIGN DOCUMENTS.
- LIGHT GAGE FRAMING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS PRINTED INSTRUCTIONS AND RECOMMENDATIONS, UNLESS OTHERWISE NOTED. MANUFACTURERS WILL PROVIDE ALL NECESSARY ACCESSORIES.
- ALL STUDS SHALL BE PLUMBED, ALIGNED AND SECURELY ATTACHED TO TOP AND BOTTOM TRACKS BY EITHER WELDING OR SCREW FASTENING AT BOTH INSIDE AND OUTSIDE FLANGES. STUDS SHALL HAVE FULL BEARING AGAINST TRACK WEB, PRIOR TO STUD AND TRACK ATTACHMENT. SPLICES IN STUDS WILL NOT BE PERMITTED. PROVIDE SLIP CONNECTIONS TO STRUCTURE WHERE INDICATED.
- STUD U-TRACK GAGE SHALL MATCH STUD GAGE. USE DEEP FLANGE TRACK. ALL TRACK BUTT JOINTS AND ABUTTING PIECES OF TRACK SHALL BE BUTT WELDED OR SPLICED TOGETHER.
- WALL STUD BRIDGING SHALL BE ATTACHED IN A MANNER TO PREVENT STUD ROTATION. BRIDGING ROWS SHALL BE SPACED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. CONTRACTOR SHALL NOTE THAT WITHOUT LATERAL SUPPORT FROM BRIDGING AND/OR SHEATHING EACH FACE THE STUDS HAVE REDUCED CAPACITY AND WILL NOT SUPPORT THE FULL DESIGN LOADS.
- SCREWING, POWER-ACTUATED FASTENERS, WELDING OR A COMBINATION OF METHODS, SHALL ACCOMPLISH FASTENING OF THE COLD-FORMED METAL FRAMING SYSTEM. THE TYPE, SIZE AND SPACING OF THE FASTENERS SHALL BE AS REQUIRED BY THE MANUFACTURER OR APPROVED CONNECTION DETAILS. ALL CONNECTIONS SHALL BE DESIGNED FOR THE APPROPRIATED LOADS AS PROVIDED IN THE "DESIGN CRITERIA" SECTION OF THESE GENERAL NOTES. AS A MINIMUM, PROVIDE FASTENING PATTERNS IN ACCORDANCE WITH THE TYPICAL DETAILS DEPICTED IN THESE DRAWINGS.
- WELDING SHALL BE DONE WITH E70 ELECTRODES. MINIMUM SIZE OF WELDS SHALL EQUAL THICKNESS OF THINNER MEMBER BEING CONNECTED. ALL WELDERS SHALL BE AWS D1.1 & D1.3 CERTIFIED WELDERS. WELDS SHALL BE TOUCHED UP WITH ZINC RICH PAINT.
- INSTALL SUPPLEMENTARY FRAMING, BLOCKING AND BRACING IN STUD FRAMING TO SUPPORT FIXTURES, SERVICES, HEAVY TRIM, SHELIVING, FURNISHINGS, AND SIMILAR WORKS REQUIRING ATTACHMENT TO FRAMING. COMPLY WITH STUD MANUFACTURERS WRITTEN INSTRUCTIONS AND INDUSTRY STANDARDS.
- INSTALL HEADERS AT ALL WALL OPENINGS. FRAME OPENINGS WITH A DOUBLE STUD AT EACH JAMB.
- INTERIOR NON-LOAD-BEARING WALL STUDS AT 16 IN O.C.:
BASIC SIZE MAX HEIGHT
362S162-33 10'-0"
362S162-43 15'-0"
362S200-68 20'-0"
600S162-33 10'-0"
600S162-43 15'-0"
600S162-54 20'-0"

- INTERIOR LOAD-BEARING WALL STUDS AT 16 IN O.C.: MAX. LOAD IS FROM A 20 FOOT TRIBUTARY WIDTH OF CEILING WITH A WEIGHT OF 15 PSF TOTAL = 300PLF
BASIC SIZE MAX HEIGHT
362S162-33 10'-0"
362S162-43 15'-0"
- CEILING JOIST @ 16" O.C. WITH MAXIMUM SPAN OF 20 FEET AND 15 PSF LOAD
BASIC SIZE 600S200-43
- EXTERIOR NON-LOAD BEARING STUDS @ 16" O.C.
BASIC SIZE EQUIV GA MAX HEIGHT
600S162-33 20 GA 13'-6"
600S162-43 18 GA 16'-0"
600S162-54 16 GA 17'-6"
600S162-68 14 GA 19'-0"
600S162-97 12 GA 21'-0"
- STUD SIZE LEGEND: EXAMPLE: 362 S 162 - 33
362 3 OR 4 DIGIT NUMERAL INDICATING WEB DEPTH IN 1/100 INCHES
S TYPE OF PRODUCT S=C SHAPED STUD, T=TRACK
162 3 DIGIT NUMERAL INDICATING FLANGE WIDTH IN 1/100 INCH
33 2 OR 3 DIGIT NUMERAL INDICATING BASE METAL THICKNESS IN 1/1000 INCH (MILS)

PRE-ENGINEERED METAL BUILDING:

- THE PRE-ENGINEERING METAL BUILDING (PEMB) SHALL BE DESIGNED FOR THE LOADS SHOWN ON THESE DRAWINGS INCLUDING ALL CODE REQUIRED UNBALANCED LOADS.
- SUBMIT DRAWINGS AND CALCULATIONS WITH LETTER OF CERTIFICATION TO THE ARCHITECT/ENGINEER FOR APPROVAL. DRAWINGS, CALCULATIONS AND LETTER OF CERTIFICATION MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF JURISDICTION.
- THE PEMB SHALL BE SUPPLIED BY A MANUFACTURER WHO HAS BEEN REGULARLY ENGAGED IN THE METAL BUILDING INDUSTRY FOR A PERIOD OF NOT LESS THAN FIVE YEARS. THE MANUFACTURER MUST BE A MEMBER OF MBMA AND HOLD A CURRENT CLASS "MB" AISC CERTIFICATION.
- ALL PEMB SECONDARY MEMBERS, WALL SHEETING, ROOF SHEETING AND RELATED CONNECTIONS SHALL BE DESIGNED FOR ALL "ELEMENTS AND COMPONENTS" WIND FORCES AS PRESCRIBED IN THE CODE. THIS SHALL BE SHOWN CLEARLY IN ALL RELATED APPROVAL DRAWINGS AND CALCULATIONS.
- THE PEMB DESIGN SHALL INCORPORATE ALL APPLICABLE AISC DESIGN GUIDE 3 SERVICEABILITY CRITERIA. VERIFY PEMB DRIFT REQUIREMENTS WITH THE ARCHITECT, ENGINEER AND OWNER PRIOR TO SUBMITTAL OF APPROVAL DRAWINGS AND CALCULATIONS.
- IF SSR IS USED, STANDING SEAM ROOF AND PURLIN DESIGN SHALL UTILIZE THE BASE TEST METHOD OF DETERMINING POSITIVE MOMENT CAPACITY. OTHERWISE, THE DESIGN MUST CONSIDER NO LATERAL SUPPORT FROM THE STANDING SEAM ROOF.

SPECIAL INSPECTION

- SPECIAL INSPECTION & TESTING SHALL BE IN ACCORDANCE WITH CHAPTER 17 OF THE 2012 INTERNATIONAL BUILDING CODE (IBC).
- SPECIAL INSPECTION & TESTING SHALL BE PERFORMED BY AN APPROVED AGENCY EMPLOYED BY THE OWNER. APPROVED AGENCIES SHALL MEET THE REQUIREMENTS OF SECTION 1703 OF THE 2012 IBC.
- AGENTS OF THE APPROVED AGENCY SHALL BE SPECIAL INSPECTORS AS DEFINED BY THE IBC. DUTIES & RESPONSIBILITIES OF THE SPECIAL INSPECTOR ARE COVERED IN SECTION 1704.1 OF THE IBC.
- A CERTIFICATE OF SATISFACTORY COMPLETION OF WORK REQUIRING SPECIAL INSPECTION MUST BE COMPLETED AND SUBMITTED TO THE OWNER, ARCHITECT OF RECORD, & STRUCTURAL ENGINEER OF RECORD.
- REQUIRED VERIFICATION & INSPECTION ARE SHOWN IN THE IBC & THE TABLE BELOW. WORK WHICH, IN THE OPINION OF THE BLDG OFFICIAL, INVOLVES UNUSUAL HAZARD OR CONDITIONS SHALL ALSO HAVE PERIODIC SPECIAL INSPECTION.

CONSTRUCTION TYPE	IBC CHAPTER 17 REFERENCE	REFERENCE STANDARDS
STEEL	TABLE 1704.3 & SECTION 1704.3	AISC 360, AISI S100, AWS D.1, AWS D1.3, APPLICABLE ASTM STANDARDS
CONCRETE	TABLE 1704.4 & SECTION 1704.4	ACI 318, AWS D1.4, APPLICABLE ASTM STANDARDS
MASONRY	TABLE 1704.5.1 & SECTION 1704.5	ACI 530, AWS D1.4, APPLICABLE ASTM STANDARDS
SOILS	TABLE 1704.7 & SECTION 1704.7	SOILS REPORT REFERENCED IN NOTE #1 OF 'SOILS/FOUNDATION CONDITIONS'

- ALL FIELD WELDING SHALL BE INSPECTED AS SHOWN IN TABLE 1704.3 IN ACCORDANCE TO THE AMERICAN WELDING SOCIETY.
- ALL HIGH STRENGTH BOLTING SHALL BE TIGHTENED PER THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS PUBLICATION 'SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS' & INSPECTED PER TABLE 1704.3.

STANDARD ABBREVIATIONS-SEE S200.

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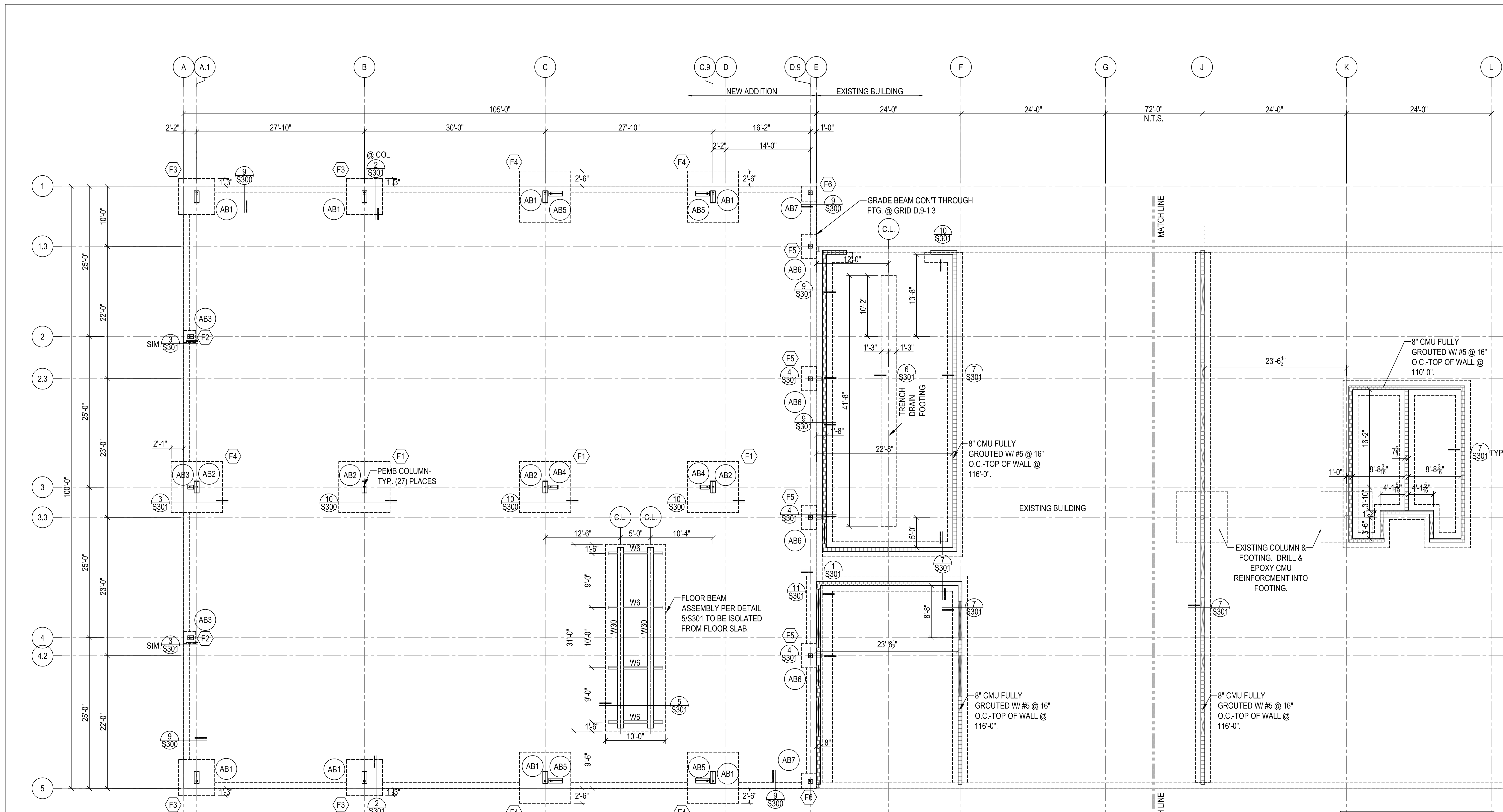
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GENERAL NOTES

S101



FOUNDATION PLAN NOTES:

- FOOTINGS BASED ON 2500 PSF ALLOWABLE BEARING PRESSURE FOR CONTINUOUS FOOTINGS AND SPREAD FOOTINGS AND LOADINGS PER THE DESIGN CRITERIA.
- ALL FOOTING ELEVATIONS ARE RELATIVE TO FINISH FLOOR ELEVATION OF 100'-0" AT FLOOR SLAB ON GRADE.
- (F) INDICATES FOUNDATION MARK. SEE FOUNDATION SCHEDULE FOR SIZE AND REINFORCEMENT DETAILS.
- (AB) INDICATES ANCHOR ROD DETAIL SHOWN ON DRAWING S301. SEE ALSO DETAIL 2/S300.
- SEE TYPICAL DETAILS FOR RE-ENTRANT CORNER DETAIL.
- CONSTRUCTION JOISTS SHALL BE SEPARATED BY A CONSTRUCTION JOINT. SEE TYPICAL DETAILS.
- SLAB SHALL HAVE CONTROL JOINTS AS DIRECTED BY THE ARCHITECT OR ENGINEER PER TYPICAL DETAILS.
- CONTRACTOR SHALL READ THE SOILS REPORT AND THOROUGHLY FAMILIARIZE THEMSELVES WITH THE SITE AND SUBGRADE INFORMATION GIVEN THEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT QUANTITIES FOR ESTIMATING AND CONSTRUCTION.
- REFER TO ARCHITECTURAL DRAWINGS FOR BOLLARD PLACEMENT. FINAL COORDINATION WITH ARCHITECTURAL AND CIVIL REQUIRED.
- COORDINATE FLOOR SLOPES AND DRAINS WITH ARCHITECTURAL, PLUMBING AND CIVIL PLANS.
- COLUMN FOOTING CENTERED ON COLUMN CENTERLINE LOCATIONS UNLESS NOTED OTHERWISE ON THE PLAN.

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



MARK	FOOTING SIZE & REINFORCEMENT		ANCHOR BOLTS		REMARKS
	SIZE (L x W x T)	REINFORCEMENT AT BOTTOM OF FOOTING (UNO)	QUANTITY AND SIZE	EMBED LENGTH & PROJECTION	
F1	8'-6" x 8'-6" x 1'-6"	(11) #5s EACH WAY T&B	SEE DETAIL	1'-0" / 11"	-
F2	2'-0" x 2'-0" x 2'-10"	(2) #4 EACH WAY T&B	SEE DETAIL	1'-0" / 11"	-
F3	6'-0" x 6'-0" x 2'-10"	(8) #5 EACH WAY T&B	SEE DETAIL	1'-0" / 11"	-
F4	8'-6" x 8'-6" x 2'-10"	(11) #5 EACH WAY T&B	SEE DETAIL	1'-0" / 11"	-
F5	4'-0" x 2'-6" x 1'-3"	(5) #5s EACH WAY T&B	SEE DETAIL	1'-0" / 11"	-
F6	2'-6" x 2'-6" x 2'-10"	(3) #5s EACH WAY T&B	SEE DETAIL	1'-0" / 11"	-

STANDARD ABBREVIATIONS

AESS	: ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	EQ.	: EQUAL	N.S.	: NEAR SIDE	T.O.F.	: TOP OF FOOTING
A.F.F.	: ABOVE FINISHED FLOOR	E.W.	: EACH WAY	N.T.S.	: NOT TO SCALE	T.O.G.	: TOP OF GIRDER
ALT.	: ALTERNATE	EXP.	: EXPANSION	O/C	: ON CENTER	T.O.J.	: TOP OF JOIST
B.O.F.	: BOTTOM OF FOOTING	EXT.	: EXTERIOR	PEMB	: PRE-ENGINEERED METAL BLDG.T.O.M.	T.O.M.	: TOP OF MASONRY
BLDG.	: BUILDING	EXIST.	: EXISTING	PEMBS	: PRE-ENGINEERED METAL BLDG.T.O.P.	T.O.P.	: TOP OF PIER
BOT.	: BOTTOM	F.B.	: FLANGE BRACE	SUPPLIER		T.O.S.	: TOP OF STEEL
B.M.	: BENCH MARK	FDN.	: FOUNDATION	PL.	: PLATE	T.O.SLAB	: TOP OF SLAB
c =	: CAMBER =	F.F.	: FINISHED FLOOR	R.	: RADIUS	TYP.	: TYPICAL
C.O.A.	: CENTER OF GRAVITY	F.S.	: FAR SIDE	R.D.	: ROOF DRAIN	U.N.O.	: UNLESS NOTED OTHERWISE
C.L.	: CENTER LINE	FTG.	: FOOTING	REINF.	: REINFORCING	VERT.	: VERTICAL
COL.	: COLUMN	G.B.	: GRADE BEAM	R.F.	: RIGID FRAME	W.P.	: WORKING POINT
CONC.	: CONCRETE	HT.	: HEIGHT	R.O.	: ROUGH OPENING	W.W.F.	: WELDED WIRE FABRIC
CORR.	: CORRUGATED	INSUL.	: INSULATION	S.B.	: SOIL BORING		
CONST.	: CONSTRUCTION	INT.	: INTERIOR	SCH.	: SCHEDULE		
DET.	: DETAIL	JT.	: JOINT	S.F.	: SQUARE FEET		
DIM.	: DIMENSION	L.G.	: LONG	SHT.	: SHEET SIM. : SIMILAR		
DWG.	: DRAWING	LLH	: LONG LEG HORIZONTAL	S.L.	: STRUCTURAL LINE		
E.J.	: EXPANSION JOINT	LLV	: LONG LEG VERTICAL	SLBB	: SHORT LEG BACK-TO-BACK		
EL.	: ELEVATION	LLBB	: LONG LEG BACK-TO-BACK	SPEC.	: SPECIFICATIONS		
ELEV.	: ELEVATION	M.O.	: MASONRY OPENING	STL.	: STEEL		
		NOM.	: NOMINAL	T.O.B.	: TOP OF BEAM		
				T.O.C.	: TOP OF CONCRETE		

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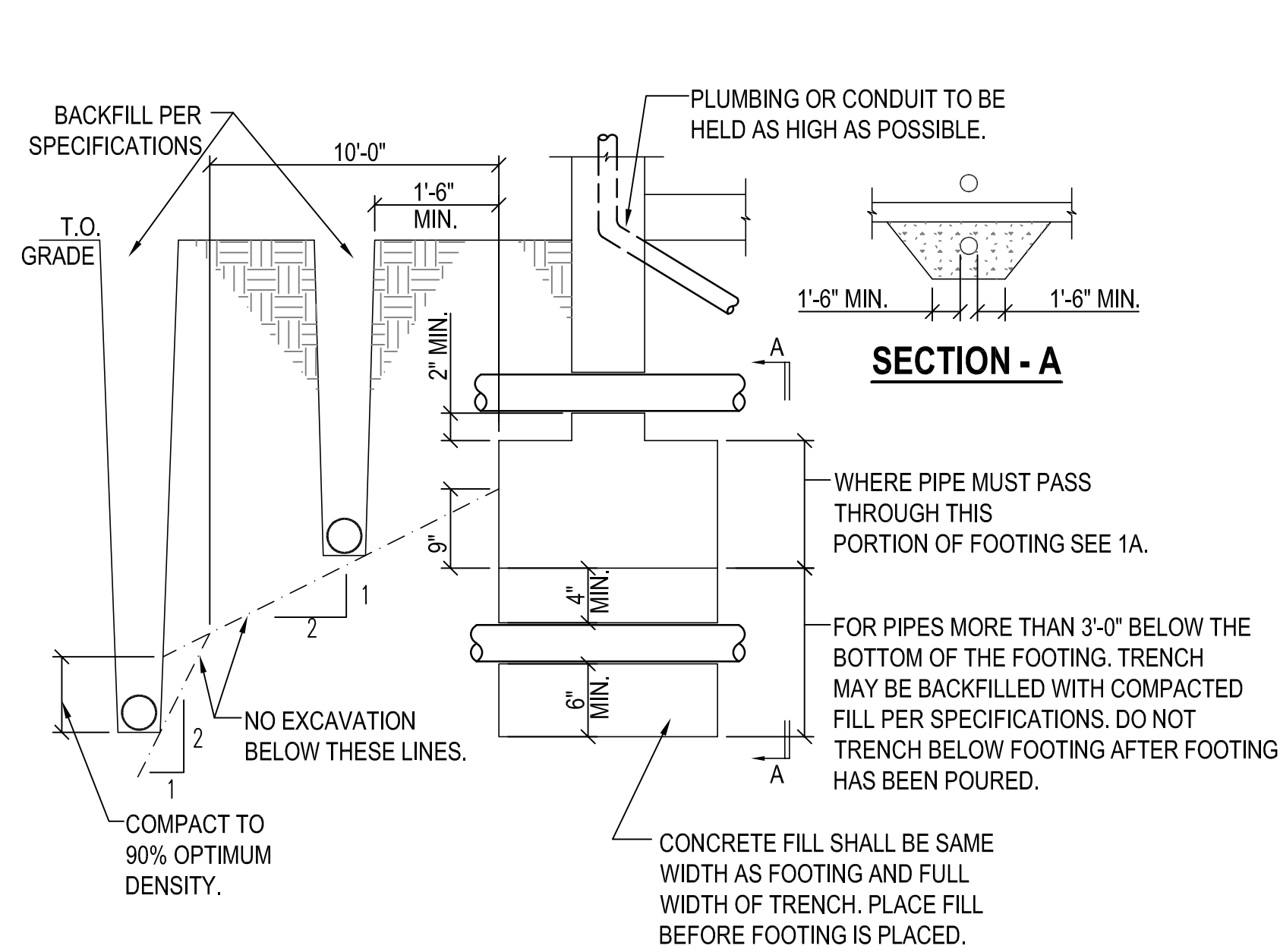
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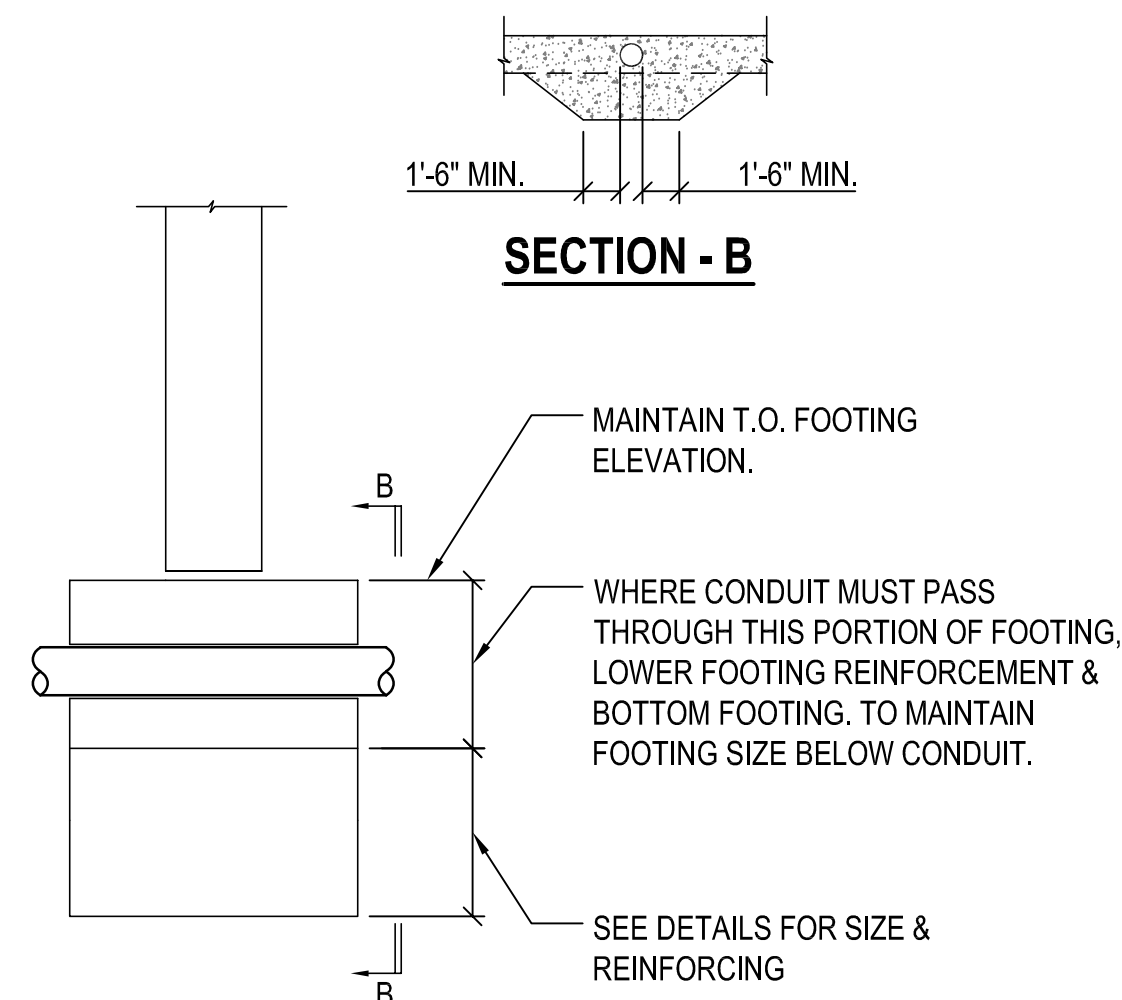
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FOUNDATION PLAN

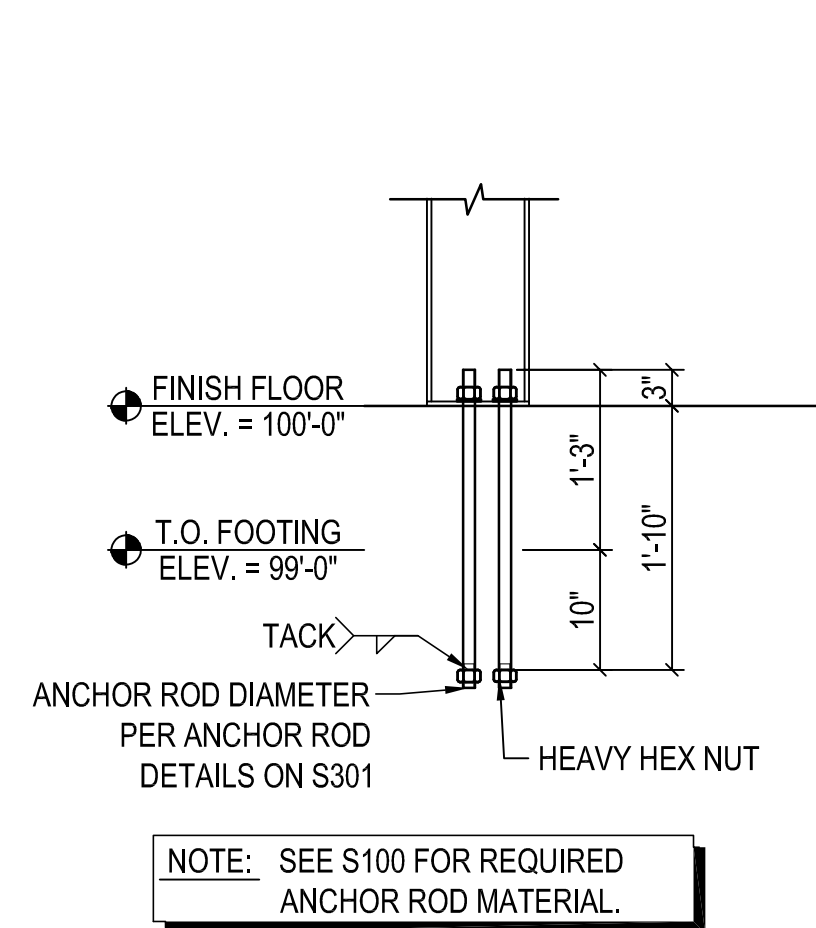
S200



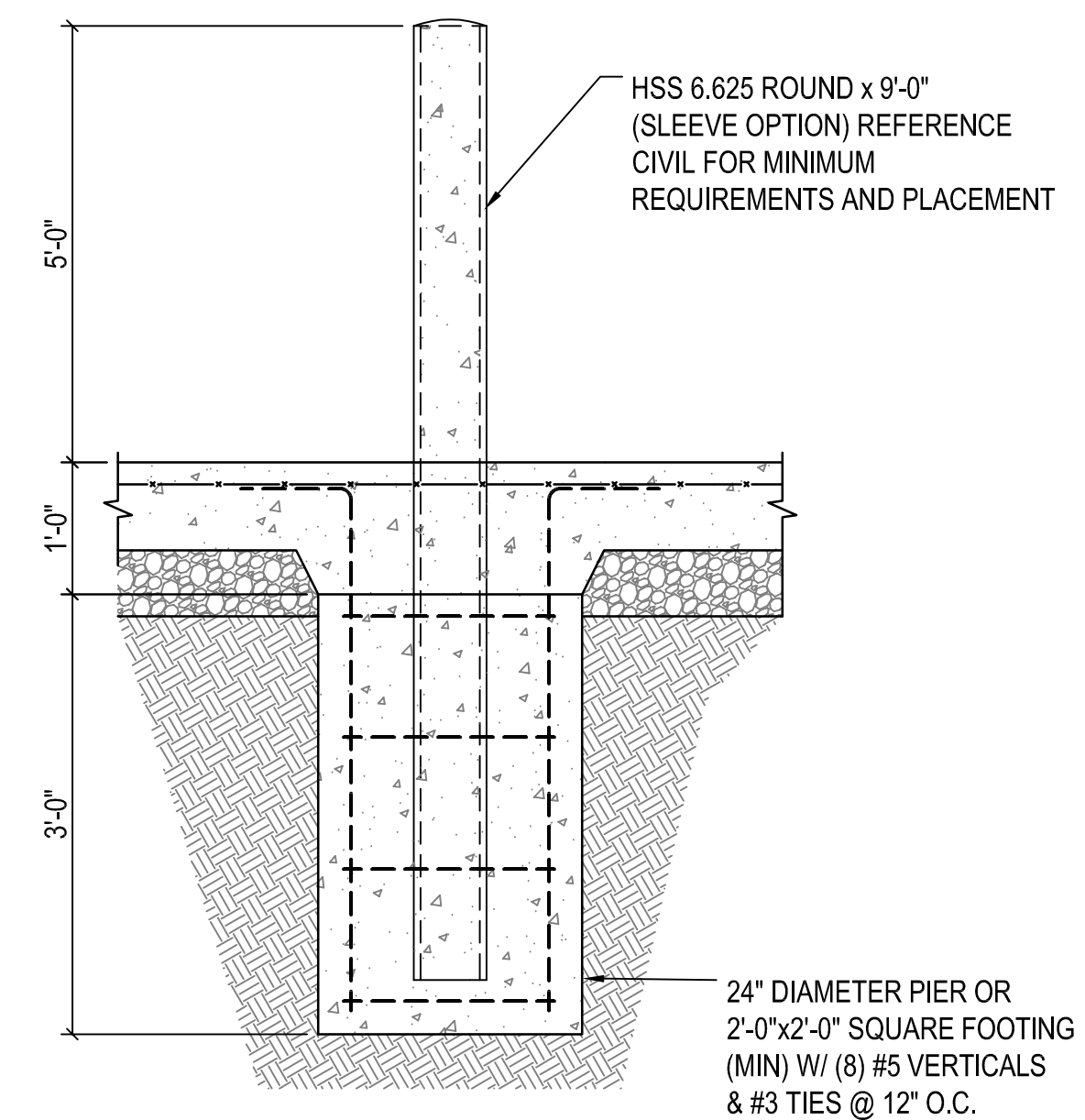
TYPICAL PIPE & TRENCH DETAIL 1
N.T.S. S300



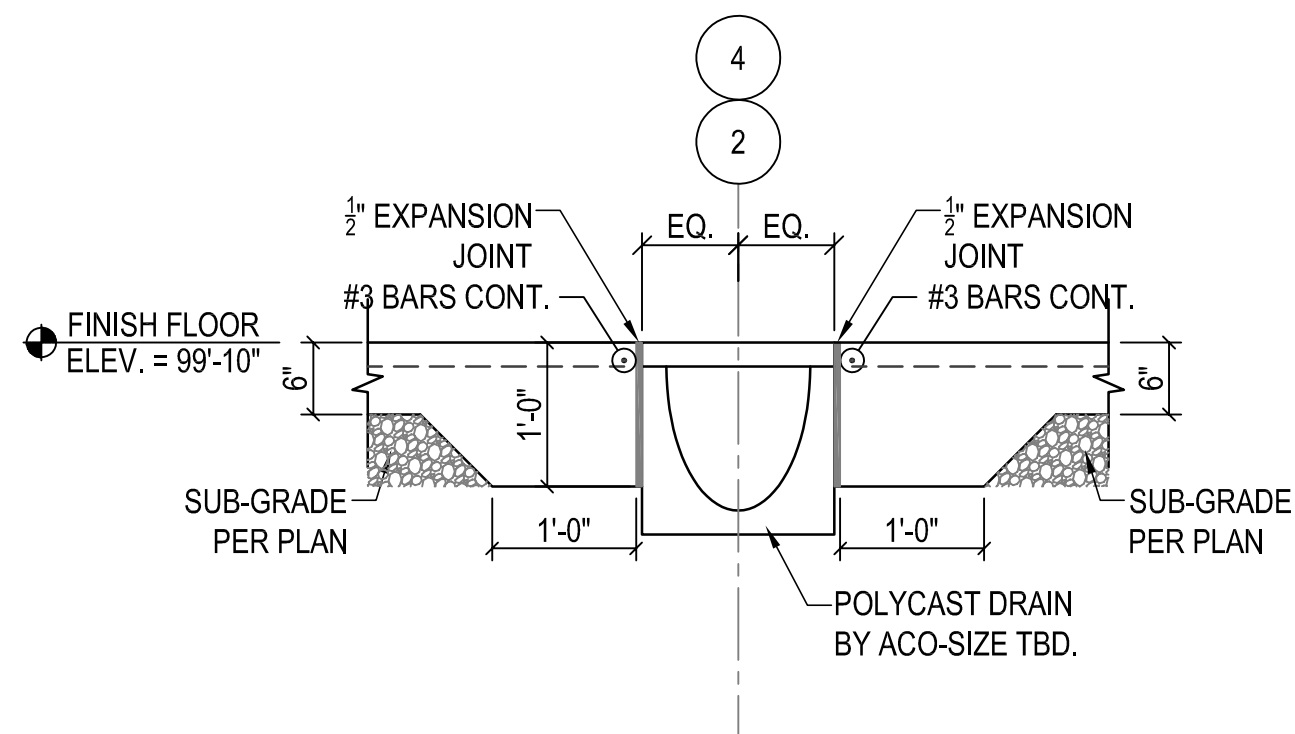
TYPICAL PIPE & TRENCH DETAIL 1A
N.T.S. S300



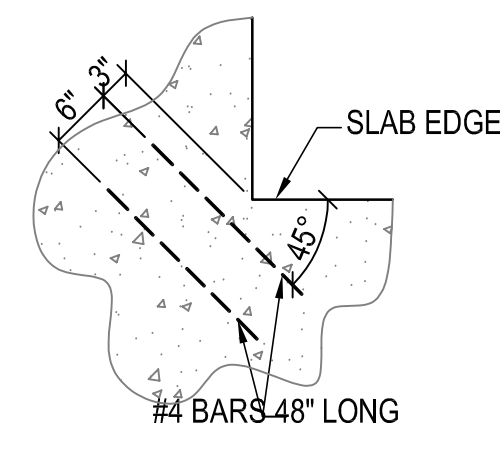
COLUMN ANCHOR BOLT DETAIL 2
SCALE: N.T.S. S300



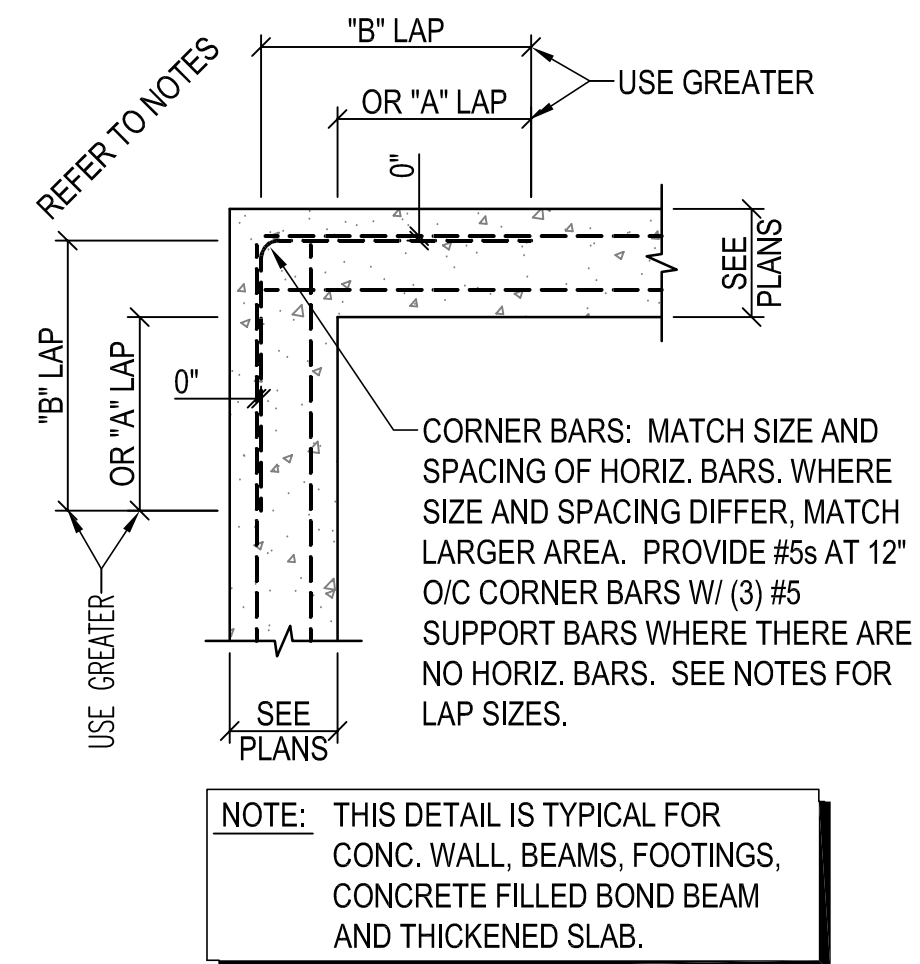
TYPICAL BOLLARD DETAIL 3
SCALE: 3/4" = 1'-0" S300



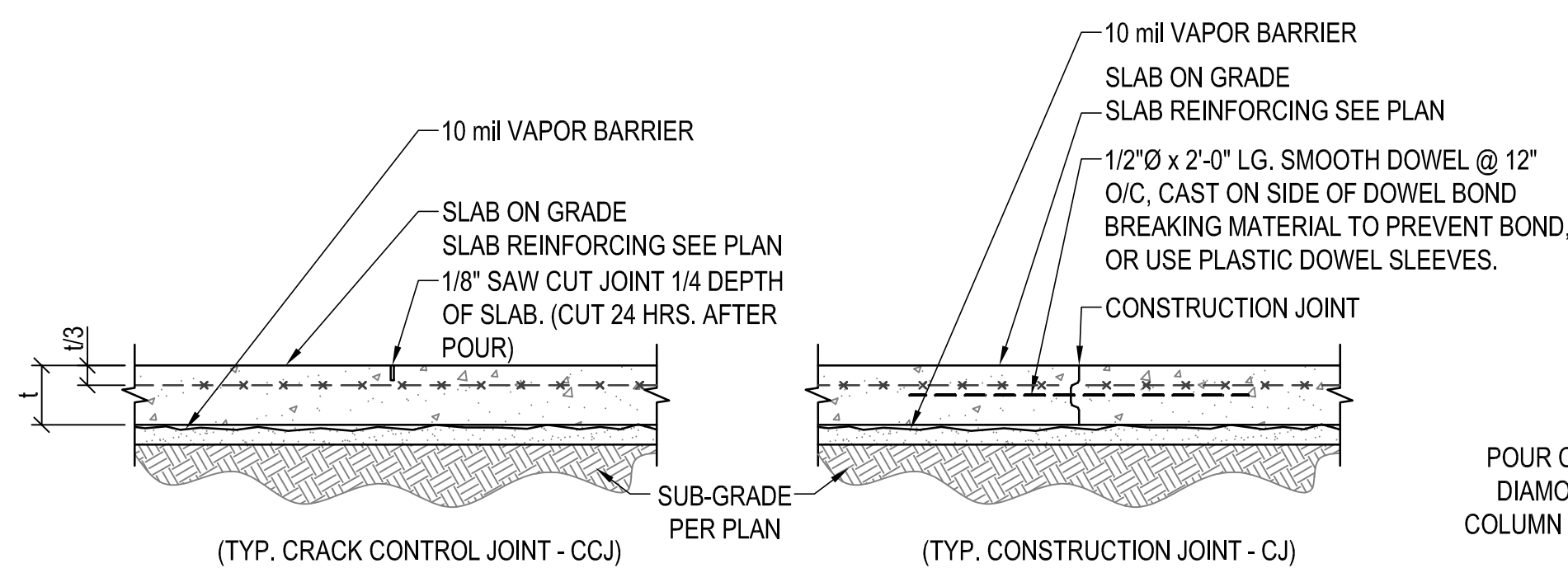
DETAIL @ UTILITY DRAIN 4
N.T.S. S300



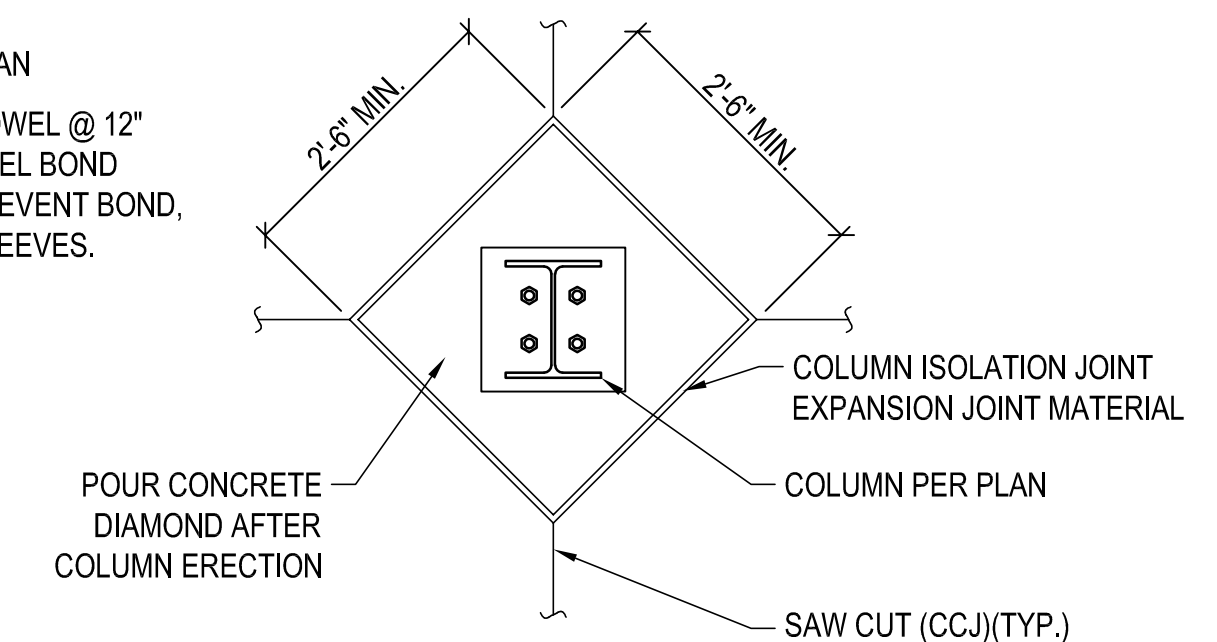
TYPICAL RE-ENTRANT CORNER REINF. 5
SCALE: 3/4" = 1'-0" S300



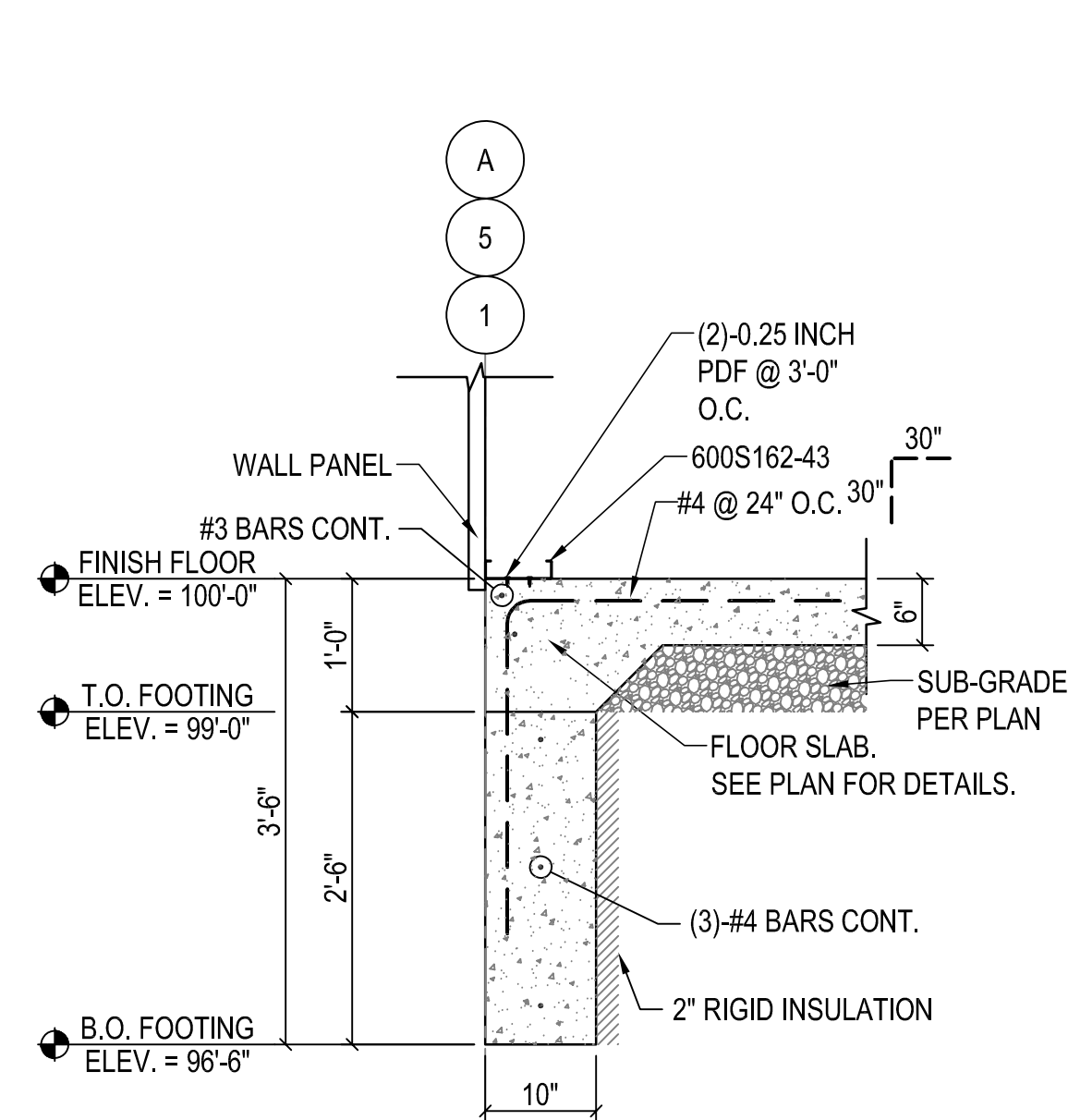
TYPICAL CORNER BAR DETAIL 6
SCALE: N.T.S. S300



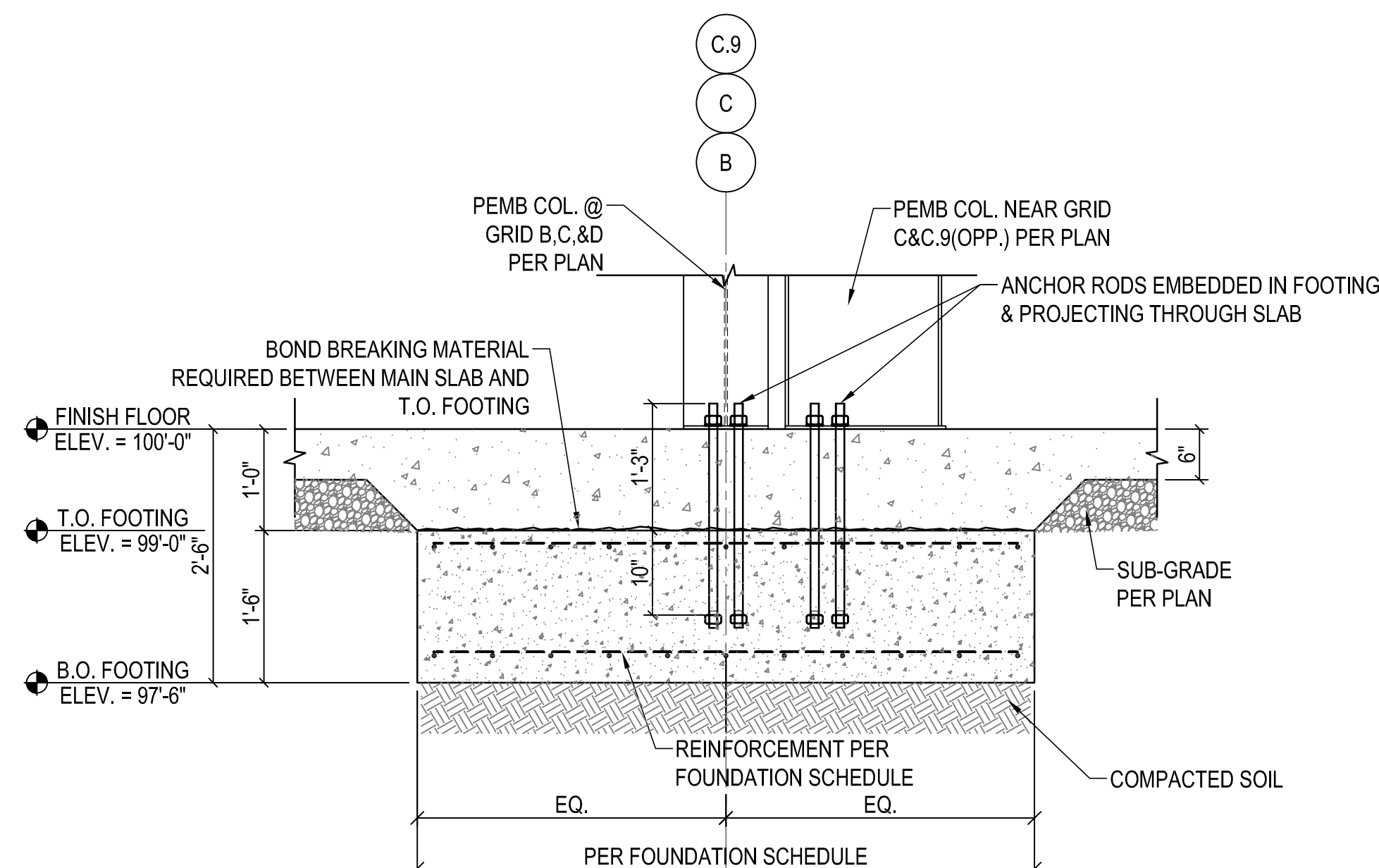
TYPICAL SLAB ON GRADE JOINT DETAILS 7
SCALE: 3/4" = 1'-0" S300



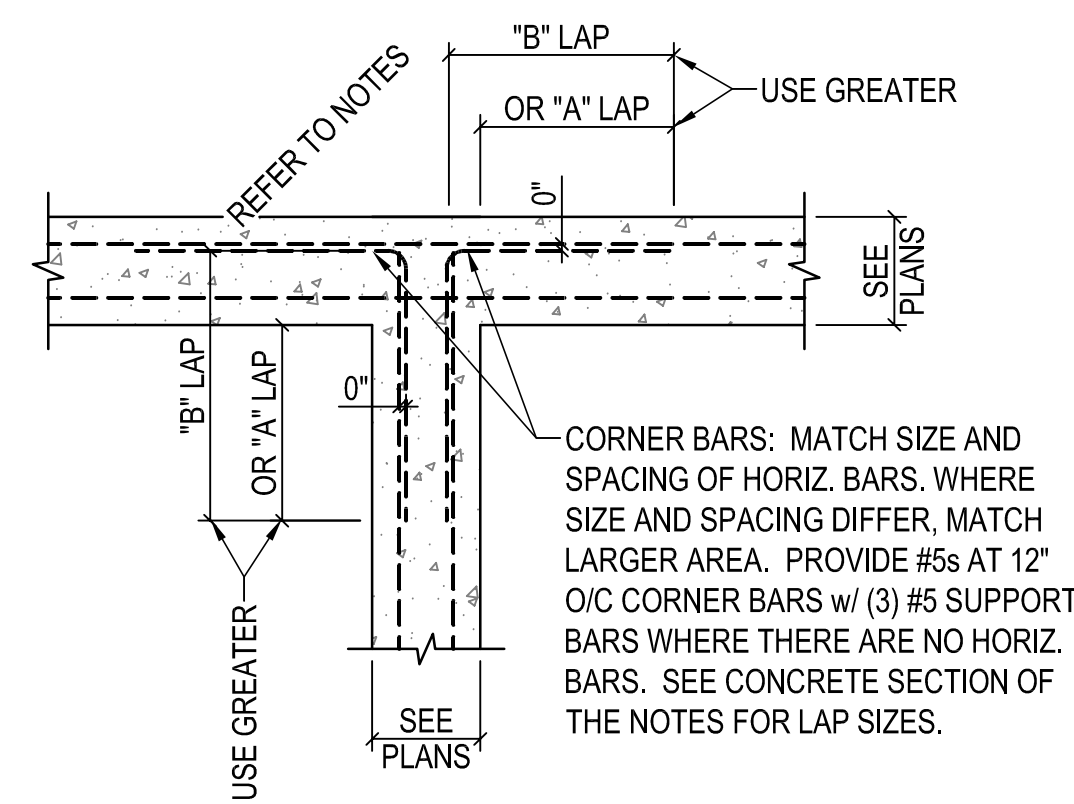
TYPICAL COLUMN DIAMOND BLOCKOUT 8
SCALE: 3/4" = 1'-0" S300



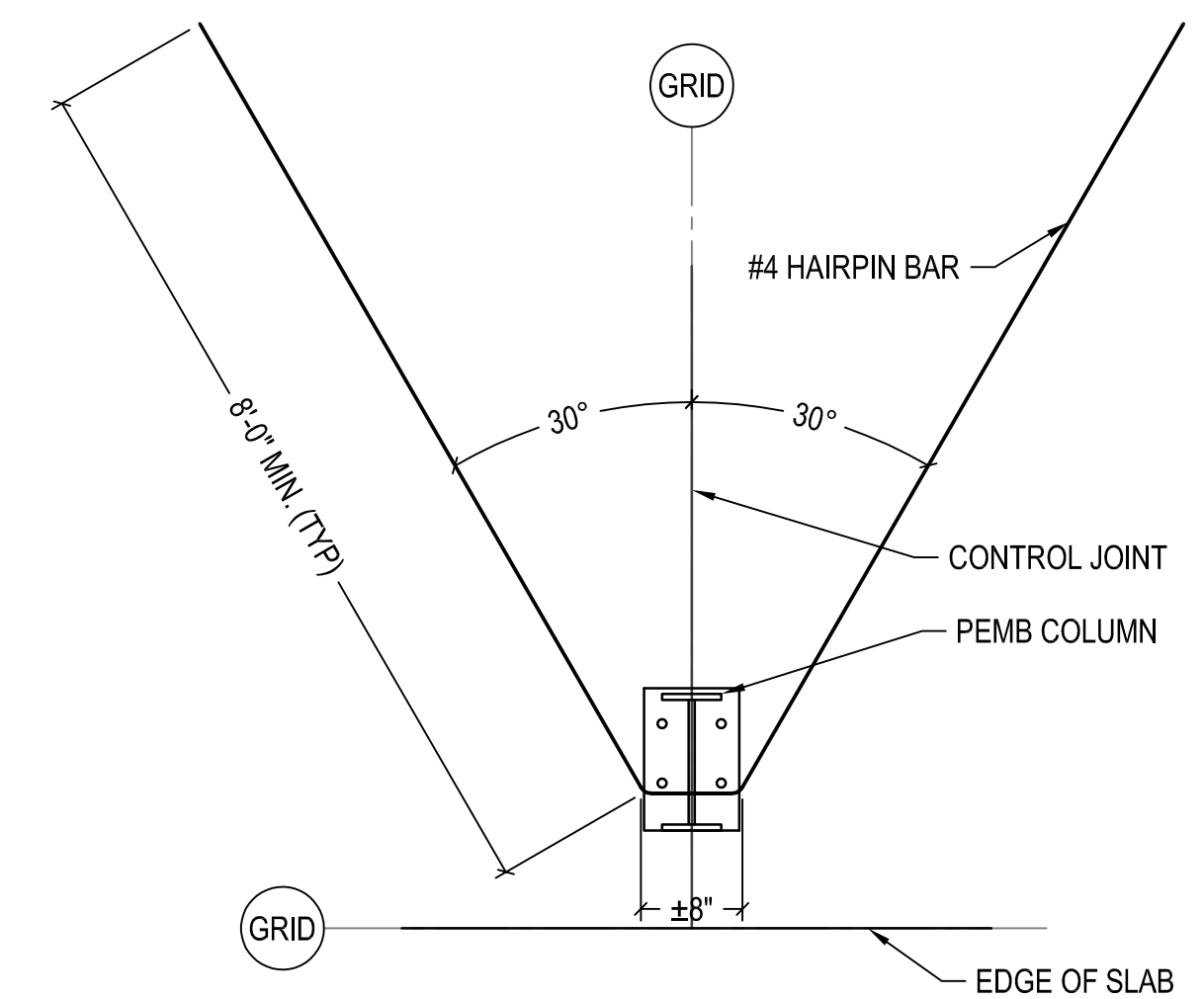
GRADE BEAM DETAIL 9
SCALE: 3/4" = 1'-0" S300



DETAIL @ INTERIOR COL. 10
SCALE: 3/4" = 1'-0" S300



TYPICAL TEE CORNER BAR DETAIL 11
SCALE: N.T.S. S300



SLAB HAIRPIN BAR DETAIL 12
SCALE: 3/4" = 1'-0" S300

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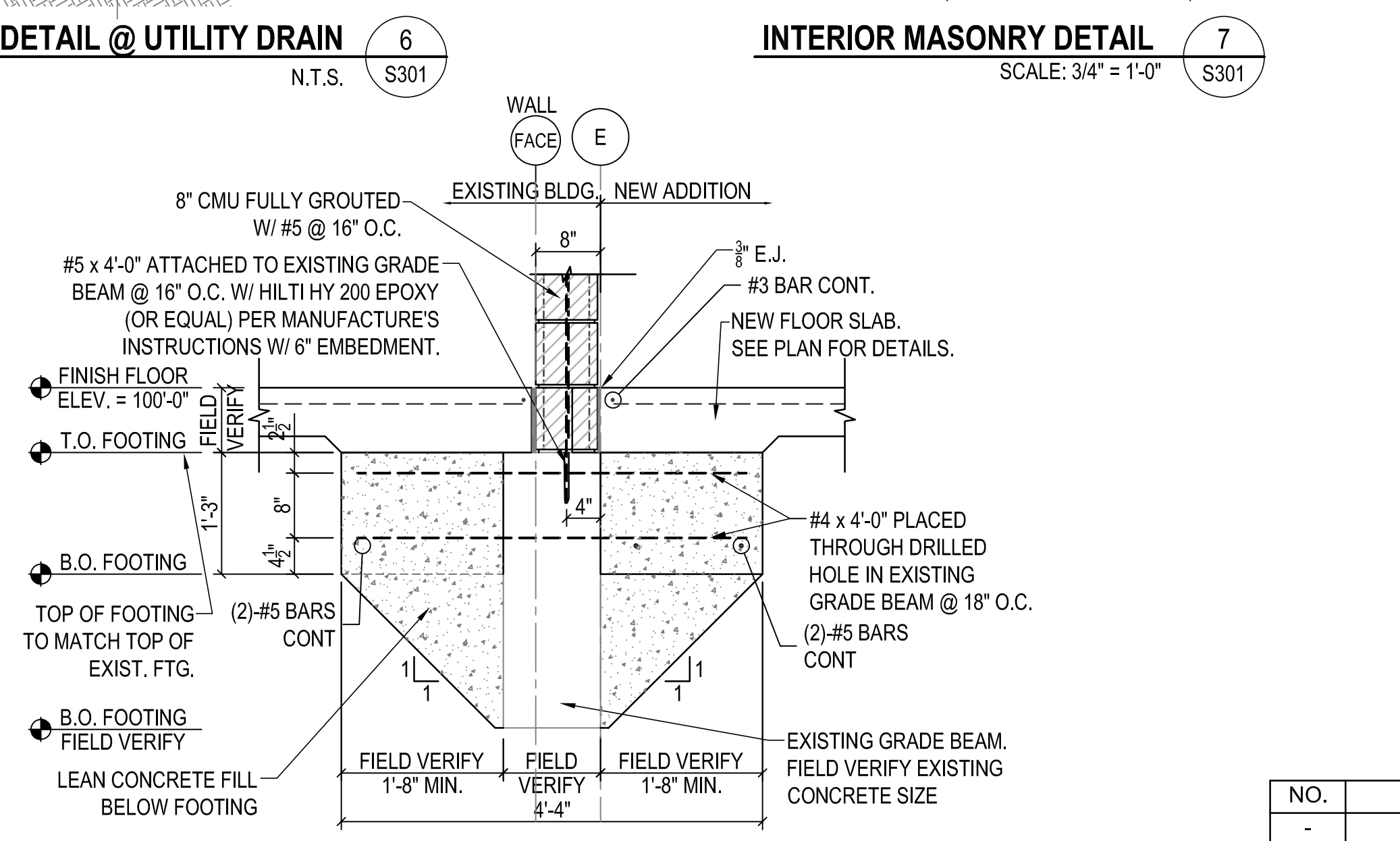
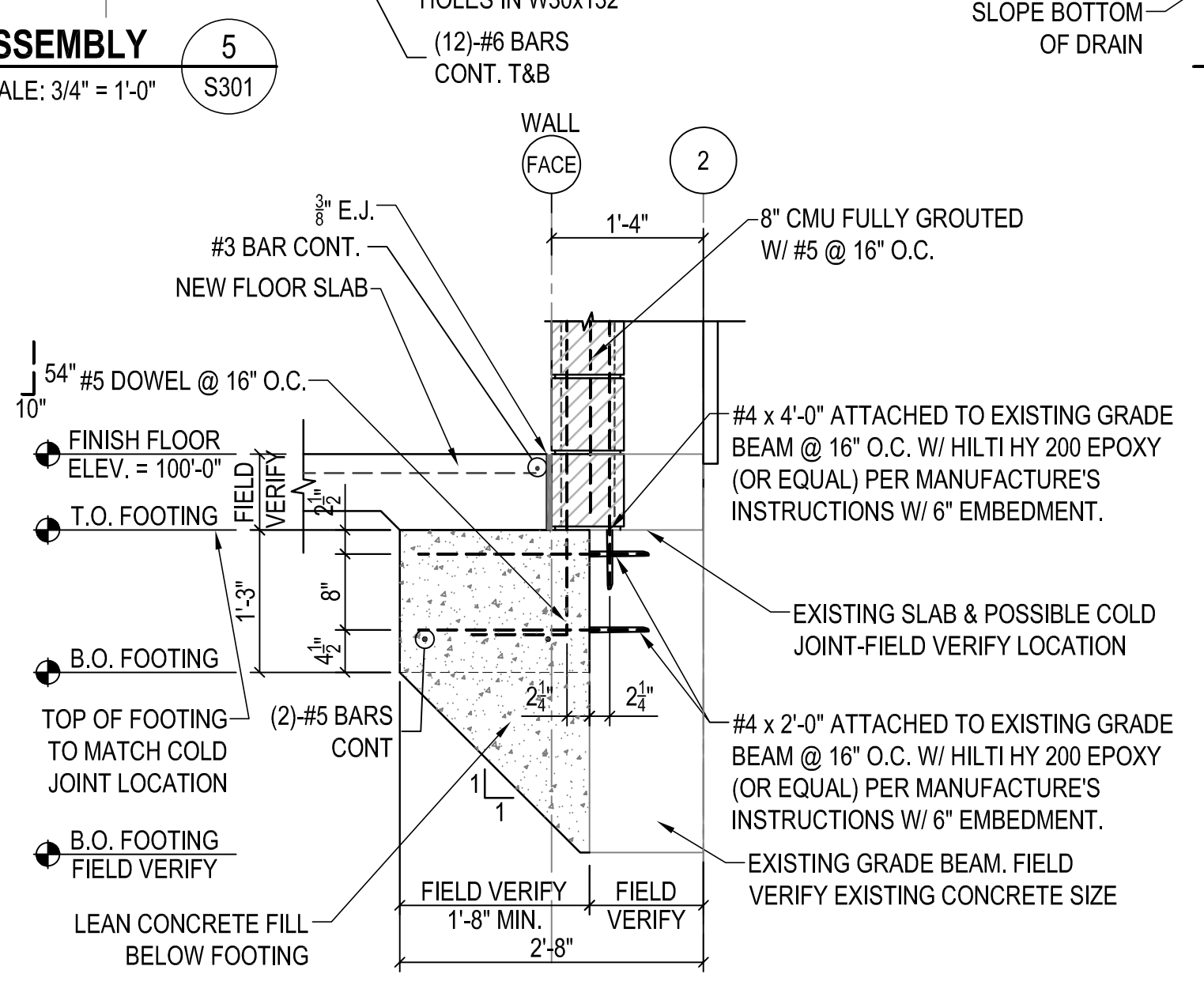
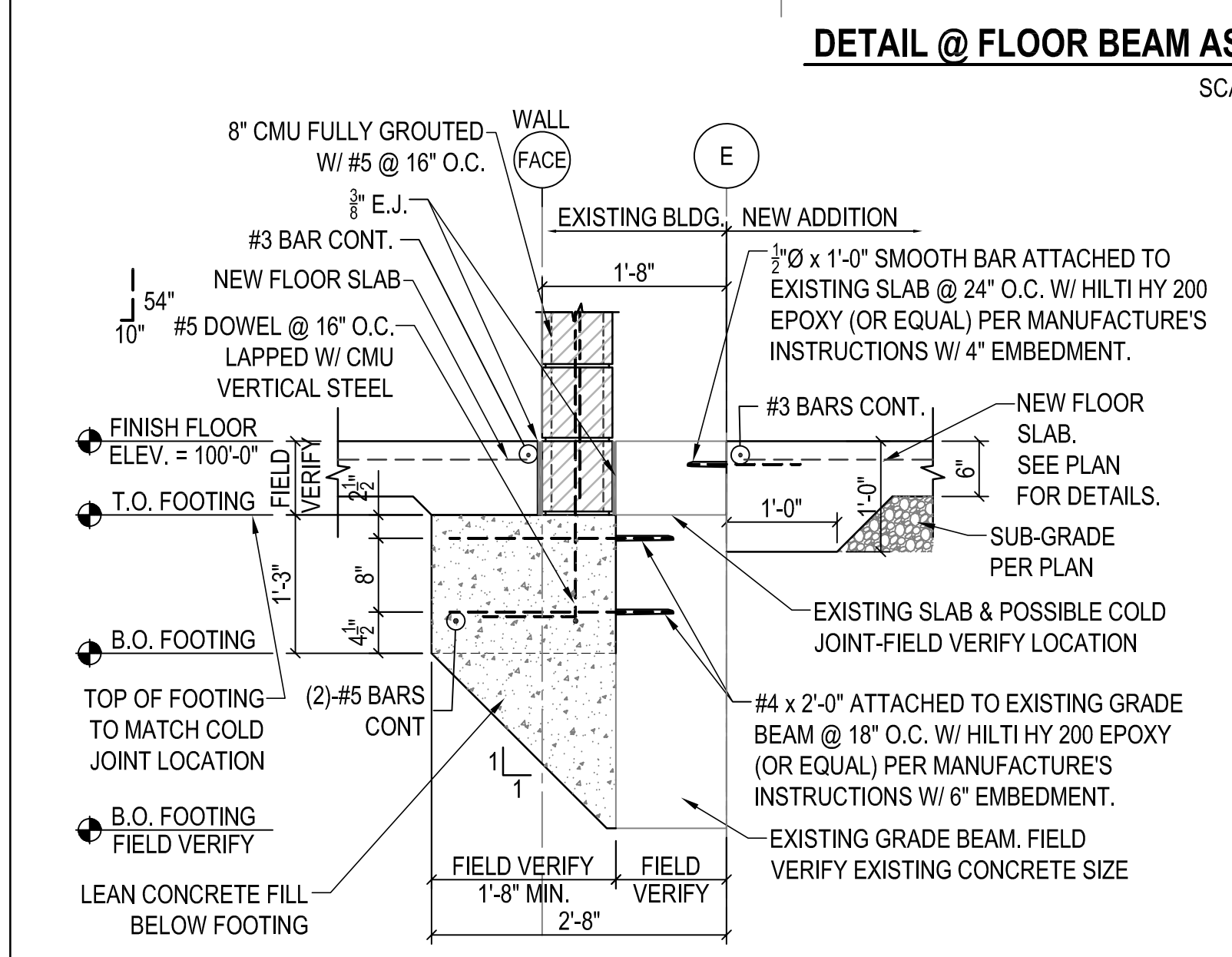
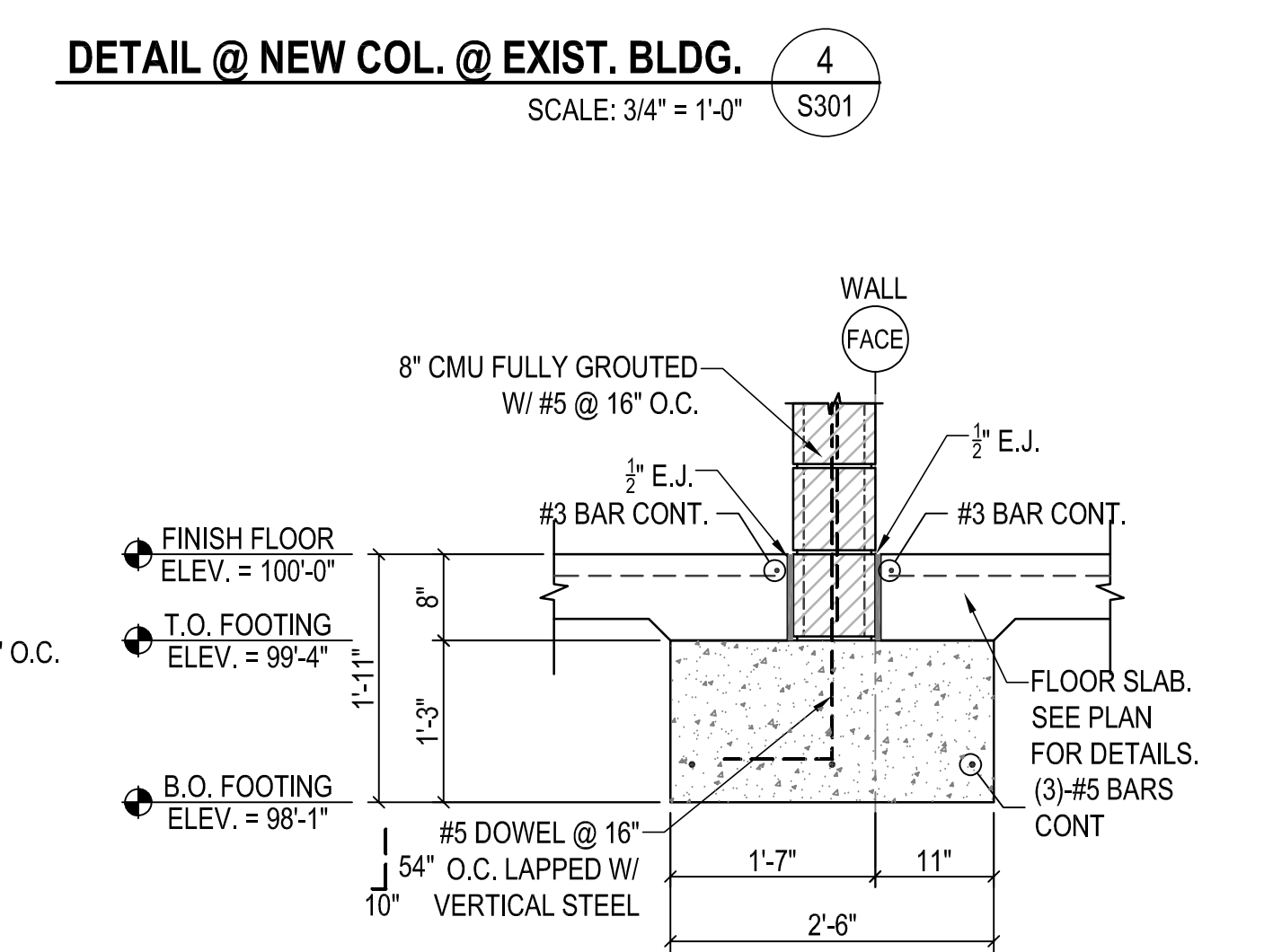
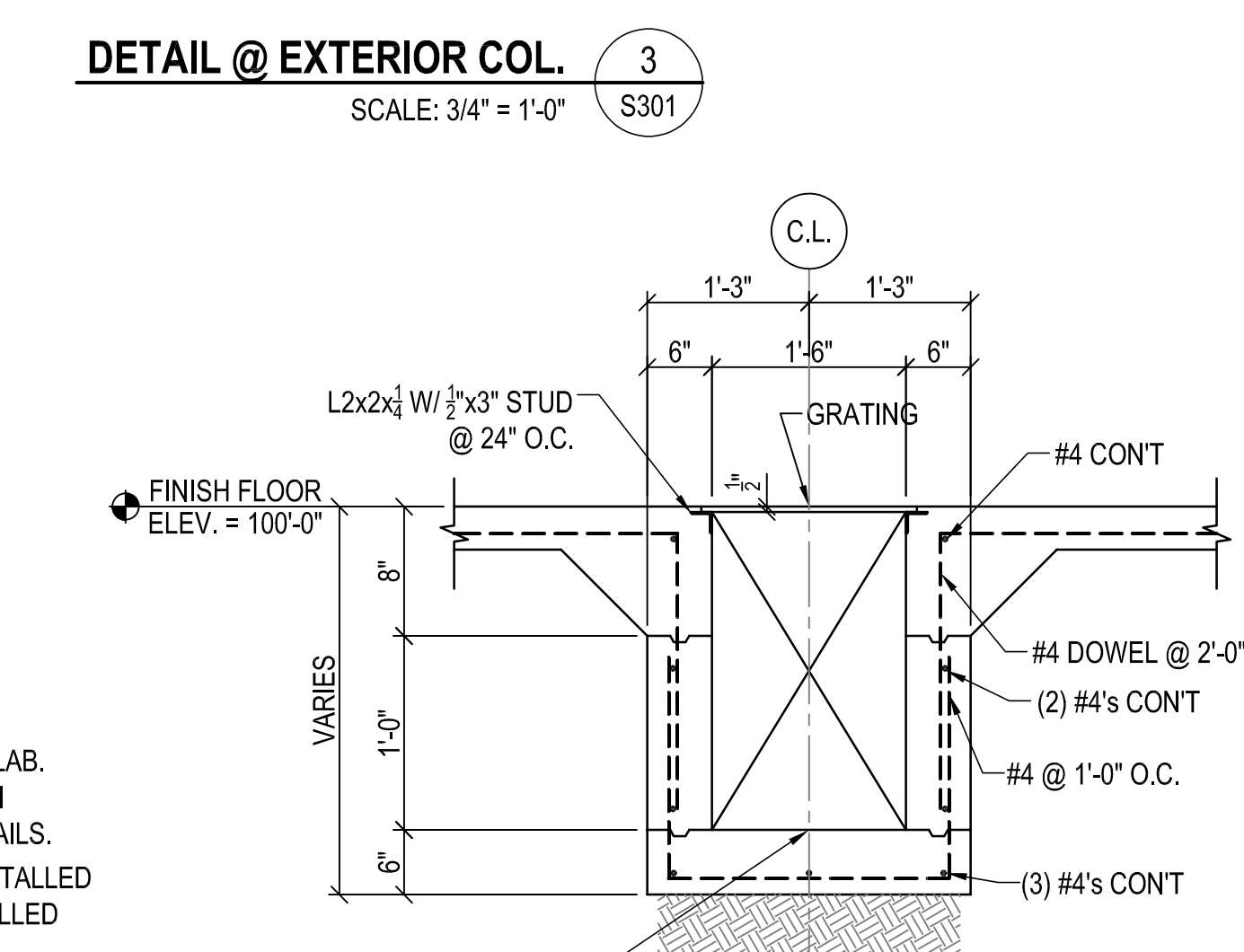
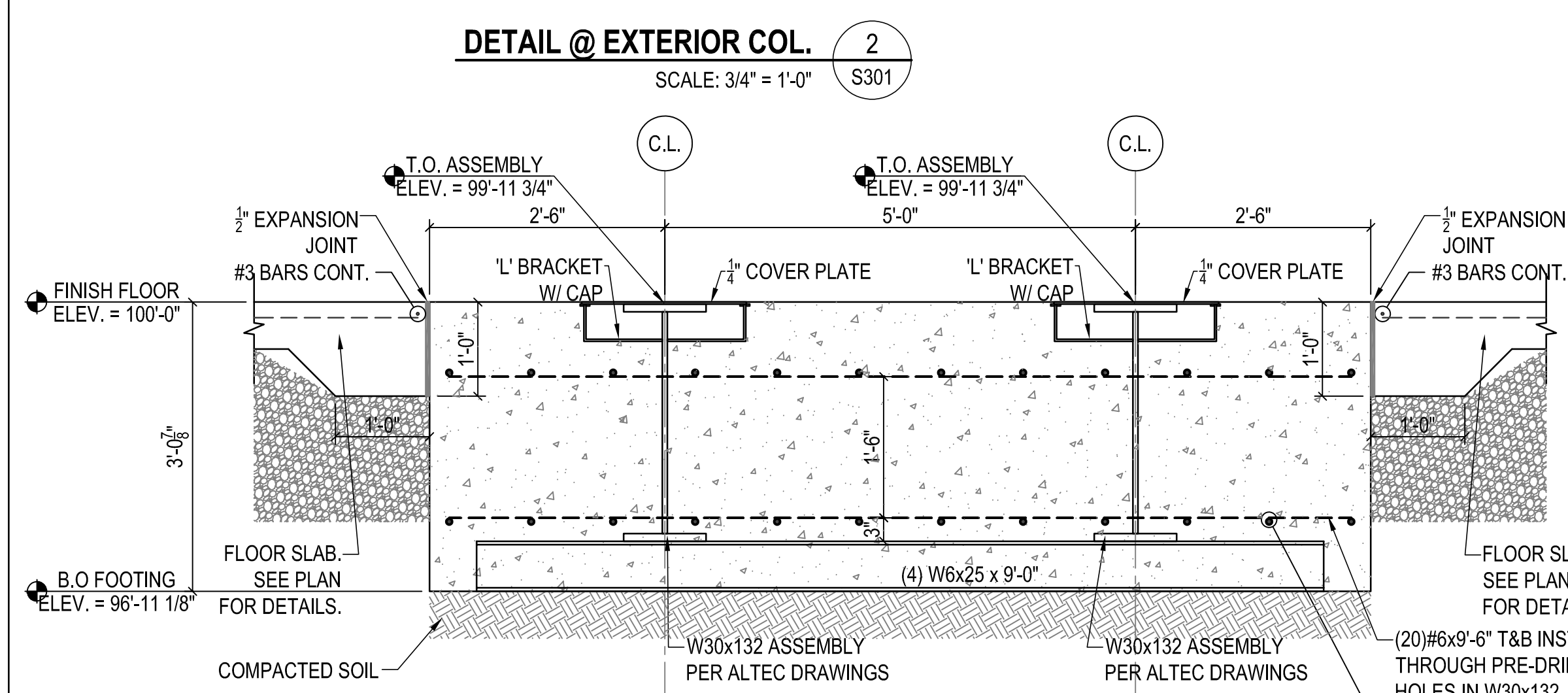
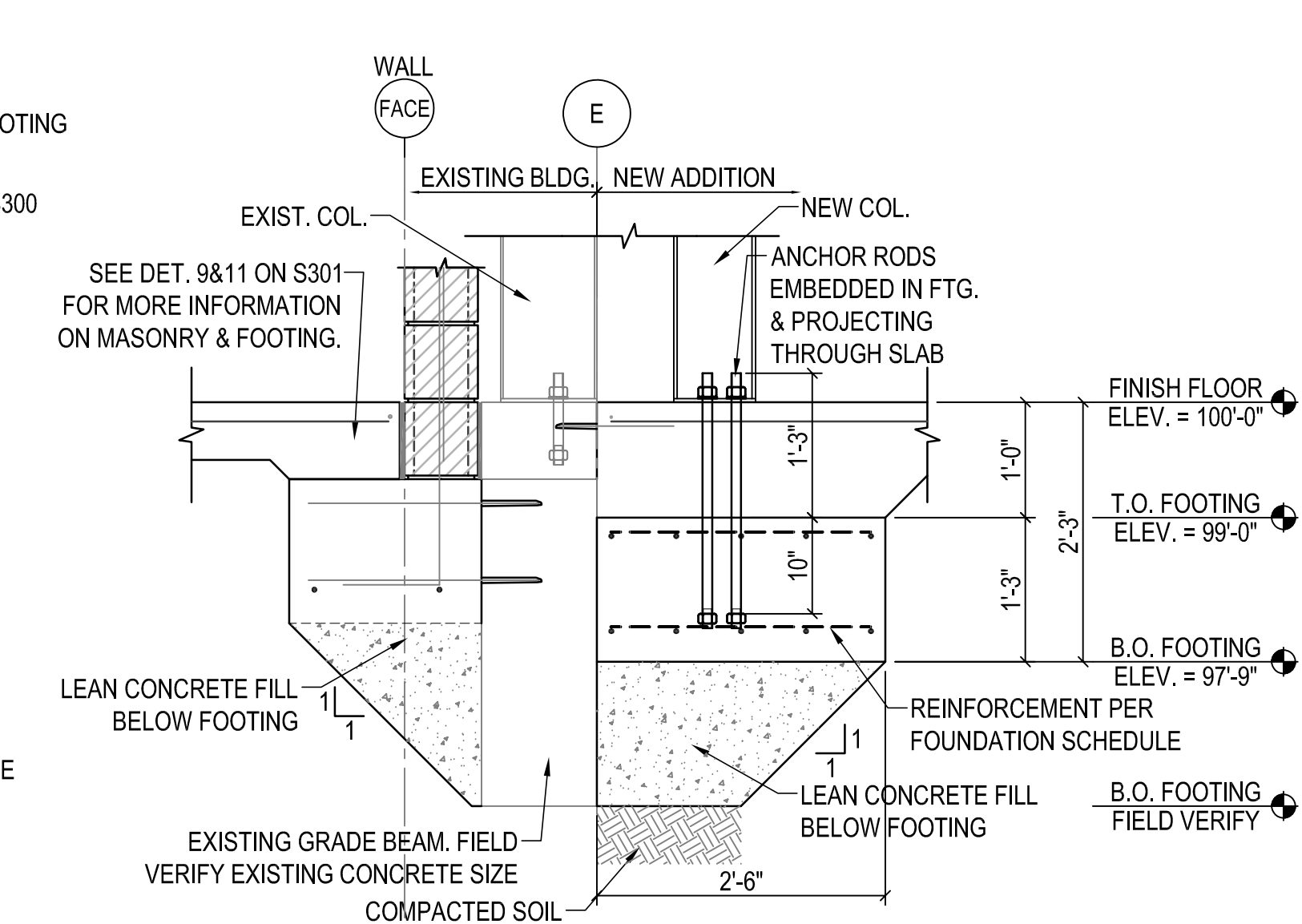
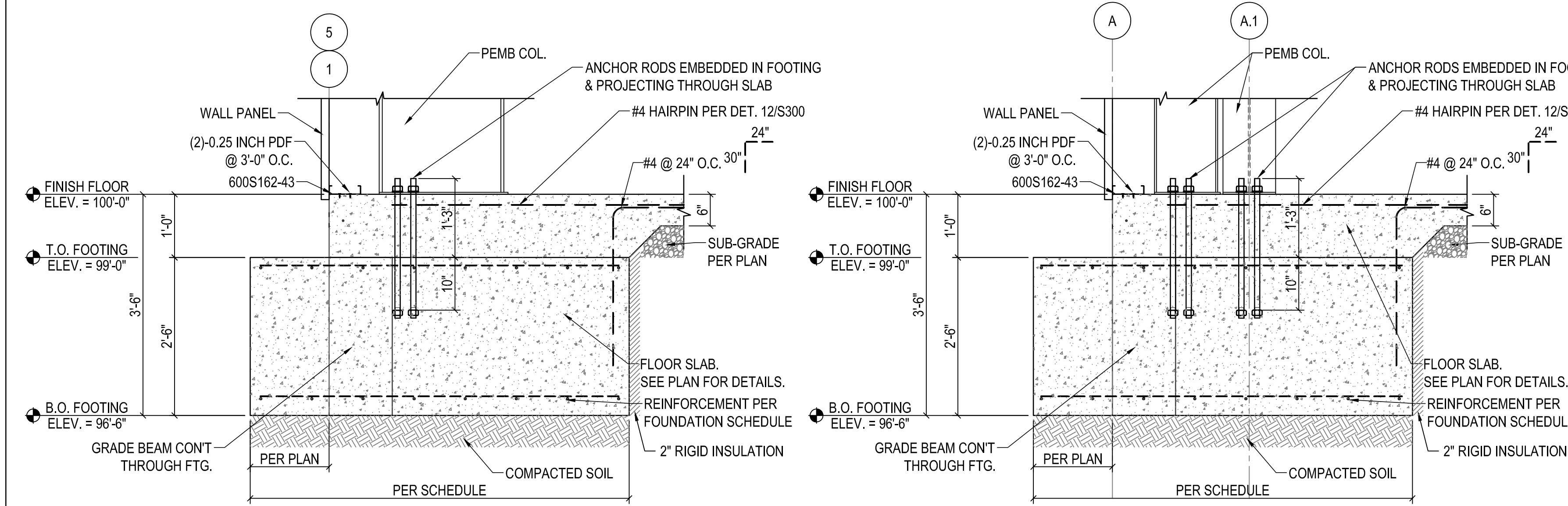
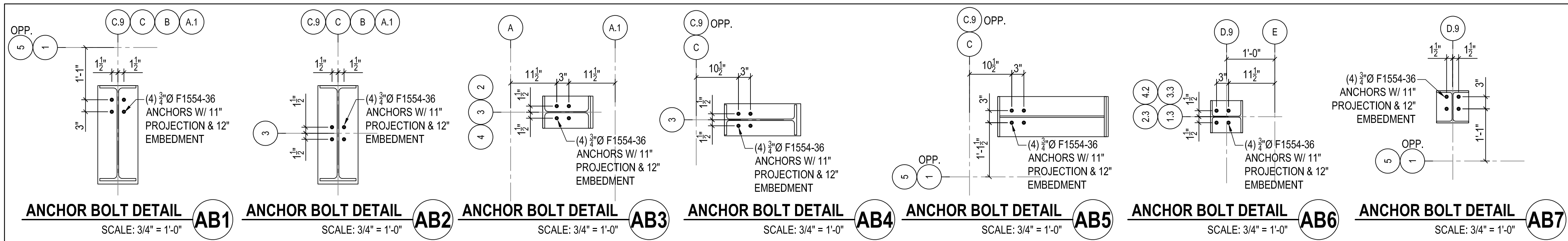
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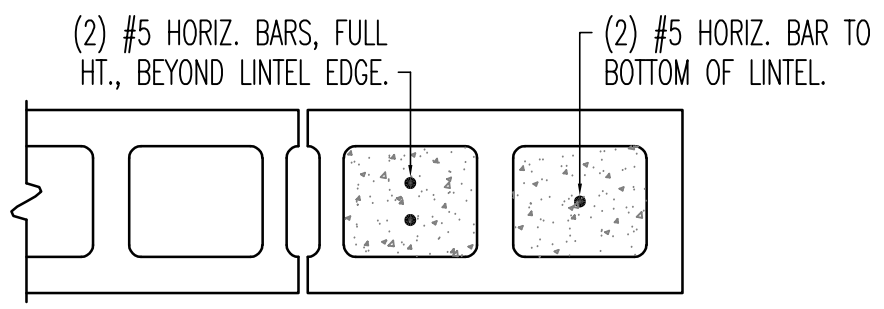
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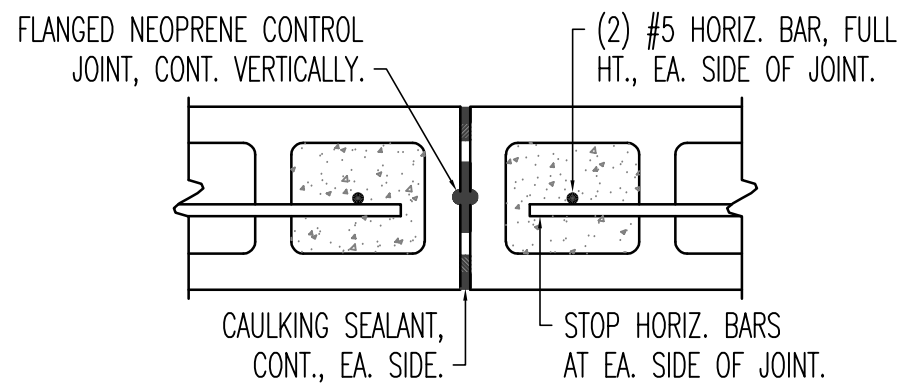
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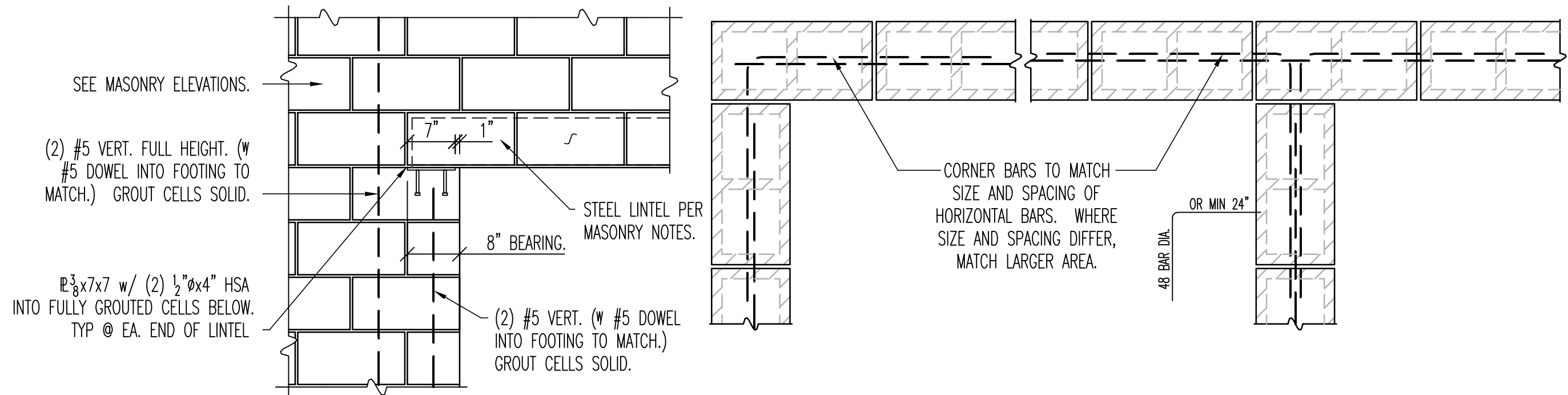
S302



TYP. MASONRY DOOR JAMB
 N.T.S.



TYP. MASONRY CONTROL JOINT
 N.T.S.



TYPICAL PLAN OF CORNER AND INTERSECTION OF MASONRY BOND COURSES
 N.T.S.

SEE MASONRY ELEVATIONS.
 (2) #5 VERT. FULL HEIGHT. (W #5 DOWEL INTO FOOTING TO MATCH.) GROUT CELLS SOLID.
 2 3/8 x 7/8 w/ (2) 1/2" x 4" HSA INTO FULLY GROUTED CELLS BELOW. TYP @ EA. END OF LINTEL

TYPICAL LINTEL BEARING DETAIL