GENERAL NOTES

1 THE WORK SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED IN ACCORDANCE WITH THE STRUCTURAL REQUIREMENTS OF THE 2020 BUILDING CODE OF NEW YORK STATE.

2 THE STRUCTURAL COMPONENTS HAVE BEEN DESIGNED FOR THE FOLLOWING LOADS:

A FLOOR LIVE LOAD:	
LIBRARY:	
LOBBY	100 PSF
MEETING ROOM	100 PSF
B ROOF SNOW LOAD:	
GROUND SNOW LOAD (Pg)	40 PSF
1 FLAT ROOF SNOW LOAD (Pf)	40 PSF
2 SNOW EXPOSURE FACTOR (Ce)	1.0
3 SNOW IMPORTANCE FACTOR (Is)	1.0
4 THERMAL FACTOR (Ct)	1.1
5 UNBALANCED SNOW LOAD	N/A
6 DRIFT SURCHARGE LOAD (Pd)	18 PSF
C ROOF LIVE LOAD:	20 PSF
D WIND DESIGN DATA:	
1 BASIC WIND SPEED (3-SECOND GUST)	110 MPH
2 RISK CATEGORY: II	
3 WIND EXPOSURE	B
4 INTERNAL PRESSURE COEFFICIENT	±0.18
5 COMPONENTS AND CLADDING(A = 50 SF)	
WALLS: WITHIN 8 FT OF CORNER:	+30.4 PSF -36.2 PSF
WALLS: OTHER:	+30.4 PSF -32.5 PSF
ROOF: WITHIN 8 FT OF EAVE:	+19.4 PSF -40.4 PSF
ROOF: OTHER:	+19.4 PSF -29.9 PS
E EARTHQUAKE DESIGN DATA:	
1 SEISMIC IMPORTANCE FACTOR (IE)	1.00
2 MAPPED SPECTRAL RESPONSE	
SS	0.212g
S1	0.056g
3 SITE CLASS	D
4 SPECTRAL RESPONSE COEFFICIENTS	
SDS	0.339g
SD1	0.134g
5 SEISMIC DESIGN CATEGORY	B
6 BASIC SEISMIC-FORCE-RESISTING SYSTEM	STRUCTURAL STEEL SYSTEM NOT SPECIFCALLY DETAILED FOR SEISMIC RESISTANCE
7 DESIGN BASE SHEAR	0.0754*W
8 SEISMIC RESPONSE COEFFICIENT (CS)	0.0754
9 RESPONSE MODIFICATION FACTOR (R)	3
10 ANALYSIS PROCEDURE USED	EQUIVALENT LATERAL FORCE PROCEDURE
F INTERIOR PARTITION:	5 PSF
G OTHER LOADS:	
CONCENTRATED LOADS ON ALL FLOORS (ON 2-1/2 FEET SQUARE)	2,000 LBS OR AS INDICATED IN PLAN

3 ALL STRUCTURAL WORK SHOWN OR SPECIFIED ON THESE DRAWINGS IS SUBJECT TO REVIEW BY THE STRUCTURAL ENGINEER OF RECORD. ASPECTS OF THE WORK FOUND TO BE DEFECTIVE BECAUSE IT DOES NOT MEET THE REQUIREMENTS SHOWN OR SPECIFIED SHALL BE CORRECTED BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER AS DIRECTED BY THE ENGINEER.

4 THIS WORK HAS BEEN DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE CONSTRUCTION HAS BEEN COMPLETED. THE STABILITY OF THE STRUCTURE PRIOR TO COMPLETION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THIS RESPONSIBILITY EXTENDS TO ALL ASPECTS OF THE CONSTRUCTION ACTIVITY INCLUDING, BUT NOT LIMITED TO, JOBSITE SAFETY, ERECTION METHODS, ERECTION SEQUENCE, TEMPORARY BRACING AND SHORING, USE OF EQUIPMENT AND SIMILAR CONSTRUCTION PROCEDURES. REVIEW OF CONSTRUCTION BY THE ENGINEER IS FOR CONFORMANCE WITH THE DESIGN ASPECTS ONLY, NOT TO REVIEW THE CONTRACTOR'S CONSTRUCTION PROCEDURES. LACK OF COMMENT ON THE PART OF THE ENGINEER WITH REGARD TO CONSTRUCTION PROCEDURES IS NOT TO BE INTERPRETED AS APPROVAL OF THOSE PROCEDURES.

5 FOUR COPIES OF SHOP DRAWINGS (ERECTION AND DETAIL DRAWINGS) SHALL BE SUBMITTED BY THE CONTRACTOR THROUGH THE ARCHITECT TO THE ENGINEER FOR REVIEW FOR ALL REINFORCING BARS, AND WOOD TRUSSES. SHOP DRAWINGS SHALL INDICATE THE FABRICATOR, MANUFACTURER, LAYOUT, MATERIALS, FINISH, AND ACCESSORIES, AND SHALL BE CHECKED BY THE CONTRACTOR AND BEAR THE CHECKER'S INITIALS BEFORE SUBMISSION TO THE ARCHITECT AND ENGINEER. STRUCTURAL DRAWINGS WILL NOT BE USED AS SHOP DRAWINGS.

6 THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS, ANGLES AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK.

7 ALL SECTIONS AND DETAILS SHALL BE CONSIDERED TYPICAL AND APPLIED FOR THE SAME AND SIMILAR SITUATIONS THROUGHOUT THE BUILDING, UNLESS OTHERWISE SPECIFICALLY NOTED.

8 IF FAULTY CONSTRUCTION PROCEDURES, OR MATERIAL, RESULT IN DEFECTIVE WORK THAT REQUIRES ADDITIONAL ENGINEERING TIME TO DEVISE CORRECTIVE MEASURES, PROFESSIONAL FEES MAY BE CHARGED TO THE CONTRACTOR AT THE STANDARD HOURLY RATE OF ADDITIONAL SERVICES. SUCH FEES MAY BE WITHHELD FROM THE CONTRACTOR'S PAYMENT.

9 DO NOT SCALE DRAWINGS.

FOUNDATION AND EXCAVATION NOTES:

1 THE NEW FOUNDATIONS HAVE BEEN DESIGNED TO REST ON NATIVE SOIL OR CONTROLLED FILL HAVING A PRESUMPTIVE BEARING VALUE OF 3,000 PSF EXPECTED TO BE FOUND AT THE BOTTOM OF THE REQUIRED EXCAVATION, TO BE CONFIRMED DURING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IF SOIL OF QUESTIONABLE CAPACITY IS ENCOUNTERED DURING EXCAVATION.

2 WITHIN THE PERIMETER OF THE PROPOSED STRUCTURE STRIP THE GROUND SURFACE OF ALL EXISTING FILL AND ORGANIC MATERIAL THEN COMPACT THE TOP OF THE REMAINING SURFACE. THE EXTENT OF REMOVAL SHALL EXTEND AT LEAST 12" BELOW THE BOTTOM OF FOOTING ELEVATION, AND SHALL EXTEND 5'-0" MIN. BEYOND THE BUILDING PERIMETER. PLACE MIRAFI 500X OR EQUIVALENT GEOTEXTILE STABILIZATION FABRIC OVER THE COMPACTED SUBGRADE FOLLOWED BY 1'-0" OF CRUSHED STONE (AN EQUAL BLEND OF NYSDOT No.1 AND No.2, ANOTHER LAYER OF GEOTEXTILE STABILIZATION FABRIC, AND EITHER LIFTS OF ADDITIONAL CRUSHED STONE OR STRUCTURAL FILL (PER THE GEOTECHNICAL REPORT) UP TO THE SUB-GRADE ELEVATION FOR FOUNDATIONS AND SLABS. SEE GEOTECHNICAL REPORT FOR APPROXIMATE DEPTHS OF EXCAVATION REQUIRED.

3 THE BOTTOM OF EXTERIOR FOOTINGS NOT ON SOLID ROCK SHALL BE AT LEAST 4'-0” BELOW FINISHED GRADE. THE SURFACE OF THE SOIL BELOW ALL FOOTINGS SHALL BE MECHANICALLY COMPACTED PRIOR TO SETTING FOOTING FORMS. FOOTINGS ON LEDGE SHALL REST ON BROOM CLEAN SOLID ROCK. IF THE SLOPE OF THE ROCK SURFACE EXCEEDS 1 ON 6, THE FOOTING SHALL BE DOWELED TO THE LEDGE WITH 3/4” STEEL RODS DRILLED 10 INCHES INTO THE ROCK SURFACE AT 2 FEET ON CENTER.

4 PROTECT ALL SOIL UNDER FOUNDATIONS FROM FREEZING DURING CONSTRUCTION. DO NOT POUR CONCRETE ON FROZEN SOIL.

5 IF STANDING WATER IS PRESENT IN THE FOOTING EXCAVATION A 4 TO 6 INCH THICK LAYER OF 3/4” CRUSHED STONE SHALL BE COMPACTED INTO THE BOTTOM OF THE EXCAVATION AND DEWATERING METHODS USED THAT WILL NOT UNDERMINE THE BEARING OF THE NEW FOOTINGS.

6 DO NOT UNDERMINE EXISTING OR NEWLY PLACED FOUNDATIONS BY EXCAVATING WITHIN A ZONE DIRECTLY BELOW THESE FOUNDATIONS AND EXTENDING DOWN AND OUTWARDS AT A 1 ON 1 SLOPE.

7 IN AREAS REQUIRING FILL, THE FILL MATERIAL SHALL BE A UNIFORMLY GRADED MIXTURE OF SAND AND GRAVEL WEIGHING NO LESS THAN 120 PCF DRY DENSITY AFTER COMPACTION IN PLACE. THIS MIXTURE SHALL BE UNIFORMLY GRADED HAVING NO STONE GREATER THAN 3 INCHES IN ANY ONE DIMENSION, 30-75% PASSING A 1/4" SIEVE, 5-40% PASSING A No. 40 SIEVE, AND WITH LESS THAN 10% PASSING A #200 SIEVE (ALL PERCENTAGES BY WEIGHT). THE FILL SHALL BE PLACED IN MAXIMUM LIFTS OF 8 INCHES BEFORE COMPACTION. EACH LIFT SHALL BE COMPACTED WITH APPROPRIATE EQUIPMENT TO A MINIMUM OF 95% OF ITS MAXIMUM DENSITY AT OR NEAR OPTIMUM MOISTURE. AS DETERMINED BY MODIFIED PROCTOR TESTS. A SOILS TESTING LAB, HIRED BY THE OWNER, SHALL TEST THE MATERIAL BEFORE AND AFTER COMPACTION FOR CONFORMANCE WITH THIS SPECIFICATION. NO LIFTS SHALL BE PLACED WHEN WEATHER CONDITIONS ARE SUCH THAT THE MOISTURE CONTENT OF THE FILL CANNOT BE PROPERLY CONTROLLED.

8 IN PLACING AND COMPACTING FILL AND BACKFILL MATERIAL, DO NOT DAMAGE NOR DISPLACE CONCRETE WORK ALREADY IN PLACE BY CONTACT FROM COMPACTION MACHINERY, BY SUBJECTING IT TO OVERTURNING FROM HEAVY COMPACTING LOADINGS, OR ANY OTHER CAUSE. AT FROST WALLS BRING FILL AGAINST SUCH CONCRETE AT THE SAME RATE AS THE REMAINDER OF FILL, COMPACTING UNIFORMLY ON BOTH SIDES USING HAND OPERATED TAMPERS. IN BASEMENT/ CRAWL SPACE AREAS DO NOT BACKFILL AGAINST WALLS UNTIL THE FLOOR OR ROOF DECK BEARING ON THE WALLS HAS BEEN INSTALLED AND FULLY ATTACHED TO THE TOP OF THE FOUNDATION.

9 MINIMUM ANCHOR BOLT REQUIREMENTS FOR ATTACHMENT OF WOOD SUPERSTRUCTURE TO FOUNDATION SHALL BE AS FOLLOWS: 3/4” DIAMETER AT 4'-0” O.C. MAX SPACING

EMBED ANCHOR BOLTS A MINIMUM OF 15 INCHES INTO NEW MASONRY, 7 INCHES INTO NEW CAST CONCRETE. INSTALL BOLTS WITHIN 12 INCHES OF CORNERS ON ALL EXTERIOR WALLS. ANCHOR BOLTS ARE TO BE PLACED WITHIN ONE FOOT OF ALL CORNERS. ALL SILL PIECES SHALL HAVE A MINIMUM OF TWO ANCHOR BOLTS.

CONCRETE NOTES:

1 STRUCTURAL CONCRETE WORK SHALL CONFORM TO ALL THE REQUIREMENTS OF A.C.I. 318-14 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE " IN IT'S ENTIRETY. CERTAIN PORTIONS OF THIS SPECIFICATION ARE PRESENTED HERE ONLY FOR CLARIFICATION AND THE CONTRACTOR'S CONVENIENCE AND ARE NOT INTENDED TO REPLACE OR AMEND THIS SPECIFICATION..

2 CONCRETE SHALL BE NORMAL WEIGHT EXCEPT AS NOTED BELOW, DEVELOP A MINIMUM 28 DAY STRENGTH, F'C, AND HAVE A MAXIMUM WATER/ CEMENTITIOUS MATERIAL RATIO, (W/C+P), AS FOLLOWS:

LOCATION	F'C	W/C+P
FOOTINGS, FOUNDATIONS	3000 PSI	0.50
INTERIOR SLABS ON GRADE	3500 PSI	0.45
EXTERIOR SLABS ON GRADE	4000 PSI	0.42

3 NO ADMIXTURES ARE PERMITTED WITHOUT THE ENGINEERS WRITTEN PERMISSION. CONCRETE EXPOSED TO THE WEATHER, SUCH AS THAT USED IN FOUNDATION WALLS SHALL CONTAIN 6% ± 1.5% ENTRAINED AIR.

4 CEMENT SHALL BE TYPE I OR TYPE II AND CONFORM TO ASTM C 150.

5 OTHER CEMENTITOUS MATERIAL SUCH AS FLYASH OR GROUND GRANULATED BLAST- FURNACE SLAG MAY BE BLENDED WITH CEMENT FOR USE IN THE CONCRETE MIX. FLYASH SHALL CONFORM TO ASTM C618 AND MAY REPLACE CEMENT IFN THE FOLLOWING RANGES FOR THE 2 CLASSES OF FLYASH; CLASS C, 20 TO 35%; CLASS F, 15 TO 25%. GROUND GRANULATED BLAST- FURNACE SLAG SHALL CONFORM TO ASTM C989 AND MAY NOT EXCEED 50% OF TOTAL WEIGHT OF CEMENTITIOUS MATERIALS.

6 COARSE AGGREGATE SHALL BE 3/4” AND CONFORM TO ASTM C 33.

7 REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60.

8 NO WELDING OF REINFORCING WILL BE PERMITTED.

9 CONCRETE FORMWORK SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 6, ACI 318 - 14.

10 FABRICATION AND PLACEMENT OF REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 7, ACI 318 - 14.

11 THE PRODUCTION OF CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 5 ACI 318 - 14.

12 THE CONVEYANCE, PLACEMENT AND PROTECTION OF THE CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 5, ACI 399 - 14, SECTIONS 5.7 THROUGH 5.10. MECHANICAL VIBRATORS ARE TO BE USED TO CONSOLIDATE THE FRESHLY CAST CONCRETE AROUND THE REINFORCING AND AGAINST FORM SURFACES AND TO PREVENT THE FORMATION OF AIR OR STONE POCKETS, HONEYCOMBING, PITTING OR PLANES OF WEAKNESS. HOWEVER, CARE MUST BE USED TO AVOID OVERVIBRATION THAT CAN LEAD TO AGGREGATE SEGREGATION.

13 THE INSTALLATION OF SLABS SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 11, ACI-301 - 14. INTERIOR FINISH SLAB SURFACES ARE TO HAVE A CLASS A STEEL TROWEL FINISH. SURFACES OF SLABS FORMING THE SUBSTRATE FOR MUDJOBS ARE TO HAVE A CLASS C SCRATCHED SURFACE. EXTERIOR SLAB SURFACES ARE TO HAVE A CLASS B TOLERANCE WITH THE FINISH AS SPECIFIED ON THE ARCHITECTURAL DRAWINGS.

14 THE CURING AND PROTECTION OF CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 5 ACI 318 - 14, SECTIONS 5.11. CONCRETE SLABS SHALL BE PROTECTED FROM LOSS OF SURFACE MOISTURE FOR NOT LESS THAN 7 DAYS USING A CURING COMPOUND CONFORMING TO ASTM C 309 OR CONSTANTLY WETTED BURLAP. IF COLD WEATHER CONCRETING CONDITIONS EXIST AS DEFINED BY A PERIOD OF MORE THAN THREE DAYS WHEN THE AVERAGE OUTDOOR TEMPERATURE, (HIGH + LOW)/2, IS LESS THAN 40 F, THE PROCEDURES OUTLINED IN ACI 306R-16 STANDARD SPECIFICATION FOR “COLD WEATHER CONCRETING” SHALL BE UTILIZED. CURING COMPOUNDS SHALL BE COMPATIBLE WITH ANY INTENDED FLOORING OVERLAY. DO NOT INSTALL FINISH FLOORING UNTIL SLAB HAS ADEQUATELY DRIED PER THE FLOORING MANUFACTURER'S SPECIFICATIONS.

15 THE FOLLOWING SUBMITTALS ARE TO BE MADE TO AND APPROVED BY PRESTON ENGINEERING PRIOR TO COMMENCING ANY WORK:
(1) CONCRETE DESIGN MIX FOR EACH STENGTH OF CONCRETE REQUIRED ATTESTING THAT THE MIXES CAN ATTAINED THE MINIMUM REQUIRED STRENGTHS IN ACCORDANCE WITH CHAPTER 5 OF AC1 318-14.

16 CONCRETE ENGINEERED REINFORCING FIBERS SHALL BE POLYPROPYLENE, COLLATED, FIBRILLATED FIBERS FROM FIBERMESH COMPANY, 4019 INDUSTRY DRIVE CHATTANOOGA, TN OR EQUAL APPROVED BY THE ENGINEER. FIBERS SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS BUT IN NO INSTANCE WITH A DOSAGE RATE OF LESS THAN 1 1/2 LB. OF FIBERS PER CUBIC YARD OF CONCRETE.

17 A DESIGNATED TESTING LABORATORY SHALL CONDUCT STRENGTH TEST IN ACCORDANCE WITH THE FOLLOWING PROCEDURES: (A STRENGTH TEST CONSISTS OF FOUR CONCRETE CYLINDERS.)
  A MAKE ONE STRENGTH TEST FOR EACH 50 CUBIC YARDS OR FRACTION THEREOF FROM EACH MIX DESIGN OF CONCRETE PLACED IN ANY ONE DAY, EXCEPT THAT IN NO CASE SHALL A GIVEN MIX DESIGN BE REPRESENTED BY LESS THAN FIVE TESTS.
  B SECURE COMPOSITE SAMPLES IN ACCORDANCE WITH "METHOD OF SAMPLING FRESH CONCRETE" (ASTM C 172). EACH STRENGTH TEST SHALL BE OBTAINED FROM A DIFFERENT BATCH OF CONCRETE ON A REPRESENTATIVE, TRULY RANDOM BASIS. WHEN PUMPING OR PNEUMATIC EQUIPMENT IS USED, SAMPLES SHALL BE TAKEN AT THE DISCHARGE END.
  C MOLD FOUR SPECIMENS FROM EACH SAMPLE IN ACCORDANCE WITH "METHOD OF MAKING AND CURING CONCRETE COMPRESSION AND FLEXURE SPECIMENS IN THE FIELD" (ASTM C 31), AND CURE UNDER STANDARD MOISTURE AND TEMPERATURE CONDITIONS, IN ACCORDANCE WITH SECTION 7(A) AND 7(B) OF THE ABOVE ASTM METHOD.
  D DETERMINE SLUMP OF THE CONCRETE SAMPLE FOR EACH STRENGTH TEST AND WHENEVER CONSISTENCY OF CONCRETE APPEARS TO VARY USING "METHOD OF TEST OF SLUMP OF PORTLAND CEMENT CONCRETE" (ASTM C 143).
  E DETERMINE AIR CONTENT OF NORMAL WEIGHT CONCRETE SAMPLE FOR EACH STRENGTH TEST IN ACCORDANCE WITH EITHER "METHOD OF TEST FOR AIR CONTENT OF FRESHLY MIXED CONCRETE BY PRESSURE METHOD " (ASTM C 231), "METHOD OF TEST FOR AIR CONTENT OF FRESHLY MIXED CONCRETE BY THE VOLUMETRIC METHOD" (ASTM C 173).
  F TEST THREE SPECIMENS: ONE AT SEVEN DAYS, AND TWO AT 28 DAYS IN ACCORDANCE WITH "METHOD OF TEST FOR COMPRESSIVE STRENGTH OF MOLDED CONCRETE CYLINDERS" (ASTM C 39). THE 28 DAY TEST RESULT SHALL BE THE AVERAGE OF THE TWO SPECIMENS. IF THE AVERAGE OF THE TWO SPECIMENS IS LESS THAN THE REQUIRED STRENGTH, TEST THE FOURTH SPECIMEN AT 45 DAYS. WHEN HIGH EARLY STRENGTH IS REQUIRED, TWO SPECIMENS SHALL BE TESTED AT SEVEN DAYS.

STRUCTURAL STEEL NOTES:

1 DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE "LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AS ADOPTED IN 1999 BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.

2 MATERIALS:

WIDE FLANGE(W) SHAPES:	ASTM A 992
STANDARD (S), MISCELLANEOUS (M), ANGLES (L), PILES(HP):	A572, GR 50
PLATES AND BARS:	A36
HOLLOW STRUCTURAL SECTIONS (HSS)- SQUARE, RECTANGULAR & ROUND:	ASTM A 500, GRADE B
PIPE (P)	ASTM A 53, TYPE S, GRADE B
BOLTS:	ASTM A 325
ANCHOR RODS:	ASTM F 1554
WELDING ELECTRODE:	ASTM E70XX - LOW HYDROGEN

3 ALL WELDING SHALL CONFORM TO THE CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION OF THE AMERICAN WELDING SOCIETY AND BE PERFORMED BY A CERTIFIED WELDER IN ACCORDANCE WITH A.W.S. STANDARDS. ALL WELDS ARE TO BE CLEANED OF SLAG TO PERMIT VISUAL INSPECTION.

4 PROVIDE BITUMASTIC PROTECTION COATING FOR ALL STRUCTURAL STEEL BELOW GRADE.

5 ALL STEEL MEMBERS AND BOLTING EXPOSED TO WEATHER (INCLUDING ALL CANOPY FRAMING) SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 123. MINIMUM ACCEPTABLE ZINC COATING WEIGHT SHALL BE 2 OZ. PER SQ. FT. SEE ARCH. DRAWINGS FOR FINISHED PAINT.

6 ALL FIELD WELDING IS TO BE VISUAL INSPECTED BY AN A.W.S. CERTIFIED WELD INSPECTOR. REPORTS ARE TO BE SENT TO THE ARCHITECT, ENGINEER, AND OWNER IN A TIMELY MANNER.

STEEL DECK NOTES:

1 STEEL DECK SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE CURRENT SPECIFICATION AND CODE OF STANDARD PRACTICE OF THE STEEL DECK INSTITUTE (SDI).

2 SHOP DRAWINGS SHALL INDICATE THE FINISH, TYPE, GAGE AND LAYOUT OF ALL DECK AND ACCESSORIES. DRAWINGS MUST BE SUBMITTED TO THE ENGINEER THROUGH THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION.

3 COMPOSITE FORMED STEEL FLOOR DECK SHALL BE 1 1/2" DEEP, 20 GAGE (UNCOATED STEEL THICKNESS = 0.0358"), UNLESS OTHERWISE NOTED, GALVANIZED, LOK-FLOOR, COMPOSITE FLOOR DECK, AS MANUFACTURED BY UNITED STEEL DECK, INC., OR AN APPROVED EQUAL.

4 THE STEEL DECK SHALL BE SUPPLIED IN MINIMUM LENGTHS AS REQUIRED TO PROVIDE A "3-SPAN" CONDITION. END CLOSURES, ROOF SUMPS, CLOSURES AT PENETRATIONS AND ALL OTHER ACCESSORIES FOR A COMPLETE INSTALLATION ARE REQUIRED.

5 METAL DECK MUST BE PROTECTED BEFORE AND AFTER ERECTION AND ALL DEBRIS CLEANED FROM ITS SURFACE WHERE CONCRETE WILL BE POURED.

6 STEEL FLOOR DECK SHALL BE PUDDLE WELDED TO SUPPORTING STEEL WITH 5/8" DIAM. PUDDLE WELDS AT 12" o.c. INTERMEDIATE SIDE LAP CONNECTIONS SHALL BE MADE WITH #10 SELF-TAPPING SCREWS. THE MAXIMUM SPACING OF SIDE LAP CONNECTIONS SHALL BE 3'-0".

7 FORMED STEEL ROOF DECK TO BE 1 1/2" 20 GAGE (UNCOATED STEEL THICKNESS = 0.0358") GALVANIZED, WIDE RIB, TYPE "WR" DECK, AS MANUFACTURED BY UNITED STEEL DECK, INC., OR AN APPROVED EQUAL.

8 FORMED STEEL ROOF DECK SHALL BE WELDED TO SUPPORTING STEEL WITH 5/8" Ø PUDDLE WELDS AT ALL EDGE RIBS PLUS A SUFFICIENT NUMBER OF INTERIOR RIBS TO LIMIT THE SPACING BETWEEN ADJACENT POINTS OF ATTACHMENT TO 6" o.c. UNLESS OTHERWISE NOTED ON DRAWINGS. INTERMEDIATE SIDE CONNECTIONS SHALL BE MADE WITH #10 SELF-TAPPING SCREWS AT MIDSPAN OR 3'-0" o.c., WHICHEVER IS SMALLER, UNLESS OTHERWISE NOTED ON DRAWINGS. END LAPS SHALL BE A MINIMUM OF 2" AND SHALL OCCUR OVER SUPPORTS. ROOF DECK USED AS EQUIPMENT SCREEN SHALL BE FASTENED WITH "TEK SCREWS" AS INDICATED IN SECTION.

COLD-FORMED METAL FRAMING NOTES:

1 DESIGN, FABRICATION AND ERECTION OF COLD-FORMED METAL FRAMING SHALL CONFORM TO THE, "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION, BY THE AMERICAN IRON AND STEEL INSTITUTE AND THE SPECIFICATIONS OF THE MANUFACTURER OF THE COLD-FORMED METAL FRAMING.

2 ALL STUDS AND/OR JOISTS AND ACCESSORIES SHALL BE OF THE TYPE, SIZE, STEEL THICKNESS AND SPACING SHOWN ON THE DRAWINGS. STUDS, TRACKS, BRACING AND BRIDGING SHALL BE MANUFACTURED PER ASTM C955.

3 ALL STUDS, JOISTS AND ACCESSORIES SHALL BE FORMED FROM STEEL THAT CONFORMS TO THE REQUIREMENTS OF ASTM A-446 WITH A MINIMUM YIELD AS FOLLOWS:

16 GA. OR HEAVIER	50 KSI
18 GA.	37 KSI
20 GA.	33 KSI

4 ALL STUDS, JOISTS AND ACCESSORIES SHALL BE GALVANIZED WITH A MINIMUM G-60 COATING.

5 CONNECTIONS SHALL BE ACCOMPLISHED WITH SELF-DRIVING SCREWS OR WELDING SO THAT THE CONNECTION MEETS OR EXCEEDS THE DESIGN LOADS REQUIRED AT THAT CONNECTION.

ALL CONNECTIONS SHALL BE MADE WITH A MINIMUM OF FOUR (4) #12-16 SCREWS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

SCREW SPACING AND EDGE DISTANCE SHALL NOT BE LESS THAN 1"

MINIMUM CONNECTION ANGLE THICKNESS SHALL BE 16 GA.

6 TRACKS SHALL BE SECURELY FASTENED TO THE STRUCTURE WITH SCREWS, BOLTS OR POWDER ACTUATED FASTENERS (PAF'S). PROVIDE DEFLECTION TRACKS AT TOP OF NON-BEARING WALLS AND 1/2 INCH CLEARANCE BETWEEN TOP OF STUD AND BASE OF TRACK.

7 PROVIDE CONTINUOUS MECHANICAL BRIDGING OR BRACING FOR WALL STUDS AT NO MORE THAN 5 FEET ON CENTER, 10 FEET ON CENTER FOR JOIST OR RAFTER CONSTRUCTION. TEMPORARY BRACING SHALL BE LEFT IN PLACE UNTIL WORK IS PERMANENTLY STABILIZED WITH THE INSTALLATION OF SHEATHING OR FINISH PANELS.

8 WELDING SHALL CONFORM TO STRUCTURAL WELDING CODE D1.1 AND SPECIFICATION FOR WELDING SHEET IN STRUCTURES E1.3 OF THE AMERICAN WELDING SOCIETY AND BE PERFORMED BY A CERTIFIED WELDER IN ACCORDANCE WITH AWS STANDARDS.

9 TOUCHUP PAINT: IMMEDIATELY AFTER FABRICATION AND ERECTION, CLEAN WELDS, FASTENERS AND DAMAGED GALVANIZED SURFACES. TOUCHUP AND REPAIR SURFACES WITH GALVANIZED REPAIR PAINT IN ACCORDANCE WITH ASTM A780, APPLIED BY BRUSH OR SPRAY TO PROVIDE MINIMUM DRY FILM THICKNESS OF 2.0 MILS.

10 ALL FRAMING COMPONENTS: CUT SQUARELY OR AT AN ANGLE TO FIT SQUARELY AGAINST ABUTTING MEMBERS. ALL MEMBERS: HELD FIRMLY IN POSITION UNTIL PROPERLY FASTENED. ERECT ALL MEMBERS LEVEL, PLUMB AND TRUE TO LINE AND TO DIMENSIONS AND ELEVATIONS INDICATED.

11 ALL BUILT-UP FRAMING MEMBERS SHALL BE WELDED CONSTRUCTION, UNLESS OTHERWISE NOTED.

12 AVOID HOLES AT END OF MEMBERS. HOWEVER, SHOULD HOLES OCCUR, PROVIDE ADDITIONAL REINFORCING AT ENDS OF THE MEMBER WHERE HOLES OCCUR, UNLESS OTHERWISE NOTED.

13 PROVIDE LATERAL BLOCKING, BRIDGING AND WEB STIFFENERS FOR VERTICAL AND HORIZONTAL FRAMING MEMBERS, AND OTHER FRAMING MEMBERS, AS REQUIRED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS OR RECCOMENDATIONS, UNLESS OTHERWISE NOTED IN THE DRAWINGS.

14 SPLICES IN STUDS AND OTHR FRAMING COMPONENTS ARE NOT PERMITTED.

15 MEMBER SHAPE DESIGNATIONS AND SECTION PROPERTIES ARE BASED ON MARINO/WARE STUD-RITE LIGHTWEIGHT STEEL FRAMING SYSTEMS CATALOG (WARE INDUSTRIES, INC. IN SOUTH PLAINFIELD, NJ). SUBSTITUTIONS FOR MARINO/WARE ARE ACCEPTABLE IF THE SECTION PROPERTIES OF THE SUBSTITUTED SHAPE ARE EQUAL TO OR GREATER THAN THOSE SHOWN IN THE MARINO/WARE STUD-RITE CATALOG.

LINTEL NOTES:

1 OPENINGS FOR WHICH NO SPECIFIC LINTELS OR LINTEL SIZES ARE INDICATED SHALL HAVE ONE ANGLE FOR EACH 4" OF MASONRY, OR AN APPROVED EQUIVALENT THEREOF AS FOLLOWS:

ANGLE SIZE	MAX. M.O.	BEARING EACH END
3 1/2" x 4" x 5/16" (LLV)	3'-6"	6"
3 1/2" x 5" x 5/16" (LLV)	5'-0"	6"
3 1/2" x 6" x 5/16" (LLV)	6'-0"	8"
3 1/2" x 6" x 3/8" (LLV)	8'-0"	8"

2 SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.

3 WHEN OPENINGS OCCUR IN BEARING WALLS OR THE HEIGHT OF MASONRY ABOVE THE LINTEL IS LESS THAN THE WIDTH OR WHEN A CONTROL JOINT IS LOCATED WITHIN 16" OF THE JAMB OPENING AND DRAWINGS DO NOT OTHERWISE INDICATE A SPECIFIC LINTEL DESIGN, CONSULT WITH THE ENGINEER TO CONFIRM LINTEL REQUIREMENTS.

4 OPENINGS IN CMU OR MULTYWYTHE BRICK WALLS WHERE NO SPECIFIC LINTEL SIZES ARE INDICATED SHALL HAVE THE FOLLOWING SIZES:

MAX M.O.	WALL THICKNESS	LINTEL SIZE
9'-0"	8-13"	W8x31 + 5/16" PLATE
12'-0"	8-13"	W8x35 + 5/16" PLATE

PLATES INDICATED IN ABOVE LINTELS SHALL HAVE WIDTH 1" LESS THAN WALL THICKNESS

FOR ALL WALL BEARING BEAMS PROVIDE 7 1/2" x 5/8" x 7 1/2" BEARING PLATES ON 3/4" GROUT BED WITH (2) - 5/8" Ø. x 6" LONG AUTOMATICALLY WELDED HEADED ANCHOR STUDS AT 3" o.c. UNLESS OTHERWISE NOTED. FIELD WELD BOTTOM FLANGE OF BEAM TO BEARING PLATE WITH 1/4" WELD EACH SIDE OF FLANGE.

5 LINTELS SUPPORTING EXTERIOR MASONRY SHALL BE HOT-DIPPED GALVANIZED.

ABBREVIATIONS AND DESIGNATIONS:

ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ARCH	ARCHITECT
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
AWS	AMERICAN WELDING SOCIETY
BM	BEAM
BOT	BOTTOM
BTWN	BETWEEN
B/	BOTTOM OF
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CL	CENTERLINE
DIAM.	DIAMETER (Ø)
DIM	DIMENSION
DWG	DRAWING
ELEV	ELEVATION
EOS	EDGE OF SLAB
EQ	EQUAL
EXP	EXPANSION
FDN	FOUNDATION
FT	FOOT OR FEET
FTG	FOOTING
GA	GAGE
GALV	GALVANIZED
HORIZ	HORIZONTAL
HT	HEIGHT
INT	INTERIOR
K	KIPS
L	STEEL ANGLE
LBS	POUNDS
LVL	LAMINATED VENEER LUMBER
MAX	MAXIMUM
MIN	MINIMUM
NDS	NATIONAL DESIGN SPECIFICATION
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
PAF	POWDER ACTUATED FASTENER
PERP	PERPENDICULAR
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
QTY	QUANTITY
SECT	SECTION
SIM	SIMILAR
T/	TOP OF
UON	UNLESS OTHERWISE NOTED
VIF	VERIFY IN FIELD
WWF	WELDED WIRE FABRIC
Ø	DIAMETER

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Ballston Spa
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PROJECT :

MARLBORO FREE LIBRARY ADDITION + RENOVATIONS

**MARLBORO FREE LIBRARY
1251 ROUTE 9W
MARLBORO, NY**

ISSUED FOR BIDDING 5/20/25

RYAN T PRESTON
084832-1

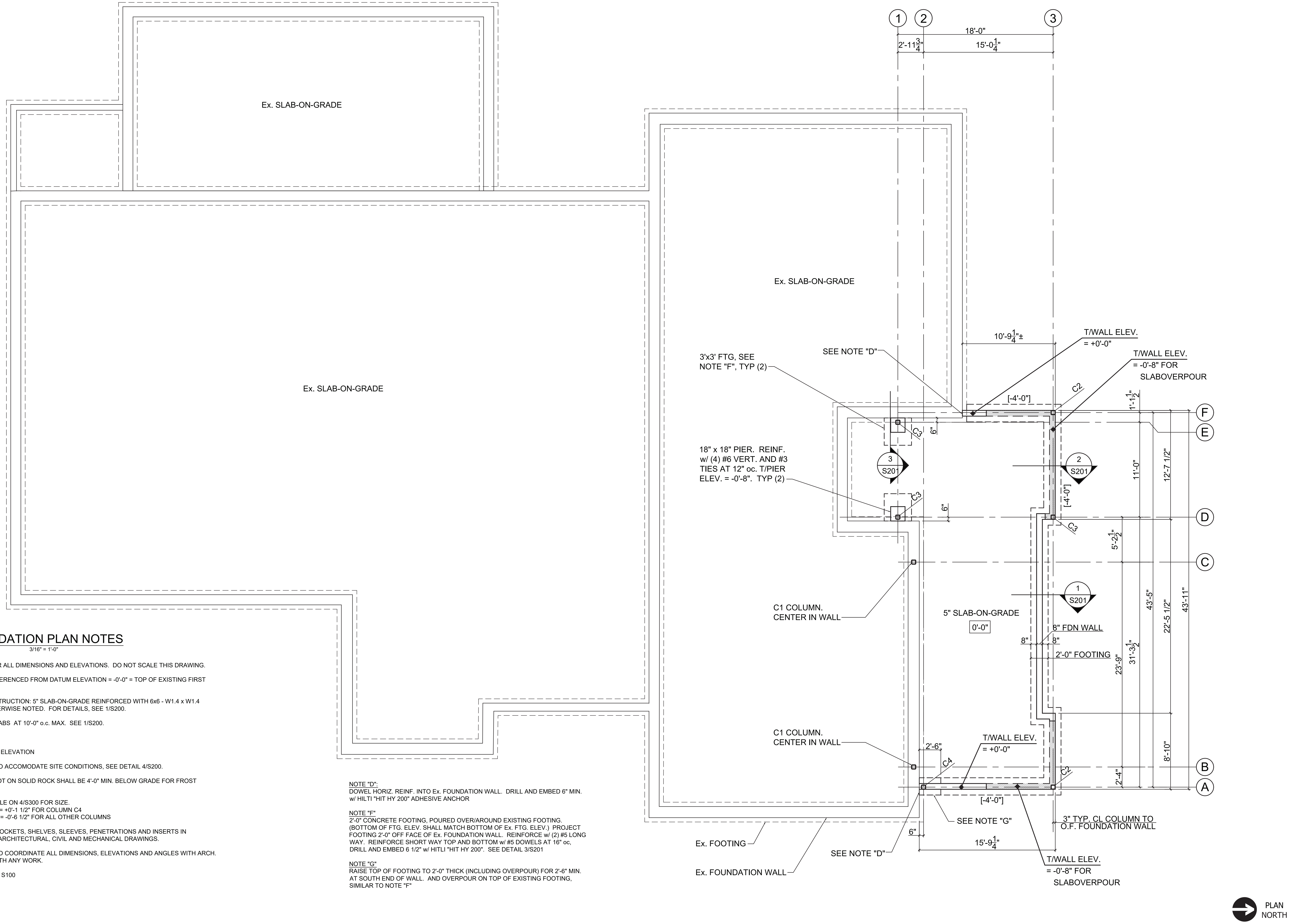
NO.	REVISION	DATE

SHEET TITLE:
GENERAL NOTES AND SPECIFICATIONS

SCALE:
NO SCALE

DATE:
MAY 20, 2025

SHEET NO.
S100



FOUNDATION PLAN NOTES

3/16" = 1'-0"

SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND ELEVATIONS. DO NOT SCALE THIS DRAWING.

ALL ELEVATIONS THIS PLAN ARE REFERENCED FROM DATUM ELEVATION = -0'-0" = TOP OF EXISTING FIRST FLOOR SLAB-ON-GRADE ELEVATION

FIRST FLOOR SLAB-ON-GRADE CONSTRUCTION: 5" SLAB-ON-GRADE REINFORCED WITH 6x6 - W1.4 x W1.4 WELDED WIRE FABRIC, UNLESS OTHERWISE NOTED. FOR DETAILS, SEE 1/S200.

PROVIDE CONTROL JOINTS IN ALL SLABS AT 10'-0" o.c. MAX. SEE 1/S200.

T/PIER ELEV. = -0'-8", U.O.N.

[±X'-XX"] INDICATES TOP OF FOOTING ELEVATION

IF STEPPED FOOTING IS REQUIRED TO ACCOMODATE SITE CONDITIONS, SEE DETAIL 4/S200.

BOTTOM OF ALL FTG. ELEVATIONS NOT ON SOLID ROCK SHALL BE 4'-0" MIN. BELOW GRADE FOR FROST PROTECTION

C# INDICATES COLUMN, SEE SCHEDULE ON 4/S300 FOR SIZE.
BOTTOM OF BASE PLATE ELEVATION = +0'-1 1/2" FOR COLUMN C4
= -0'-6 1/2" FOR ALL OTHER COLUMNS

COORDINATE ALL PITS, TRENCHES, POCKETS, SHELVES, SLEEVES, PENETRATIONS AND INSERTS IN CONCRETE WALLS AND SLABS WITH ARCHITECTURAL, CIVIL AND MECHANICAL DRAWINGS.

THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS, ELEVATIONS AND ANGLES WITH ARCH. DRAWINGS BEFORE PROCEEDING WITH ANY WORK.

FOR GENERAL NOTES, SEE DRAWING S100

NOTE "D":
DOWEL HORIZ. REINF. INTO Ex. FOUNDATION WALL. DRILL AND EMBED 6" MIN. w/ HILTI "HIT HY 200" ADHESIVE ANCHOR

NOTE "F"
2'-0" CONCRETE FOOTING, POURED OVER/AROUND EXISTING FOOTING. (BOTTOM OF FTG. ELEV. SHALL MATCH BOTTOM OF Ex. FTG. ELEV.) PROJECT FOOTING 2'-0" OFF FACE OF Ex. FOUNDATION WALL. REINFORCE w/ (2) #5 LONG WAY. REINFORCE SHORT WAY TOP AND BOTTOM w/ #5 DOWELS AT 16" oc, DRILL AND EMBED 6 1/2" w/ HITLI "HIT HY 200". SEE DETAIL 3/S201

NOTE "G"
RAISE TOP OF FOOTING TO 2'-0" THICK (INCLUDING OVERPOUR) FOR 2'-6" MIN. AT SOUTH END OF WALL. AND OVERPOUR ON TOP OF EXISTING FOOTING, SIMILAR TO NOTE "F"

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LIBRARY ADDITION
+ RENOVATIONS**

**MARLBORO FREE
LIBRARY
1251 ROUTE 9W
MARLBORO, NY**

**ISSUED FOR
BIDDING 5/20/25**

STATE OF NEW YORK
RYAN T PRESTON
084832-1
LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	DATE

SHEET TITLE:
FOUNDATION PLAN

SCALE:
3/16" = 1'-0"

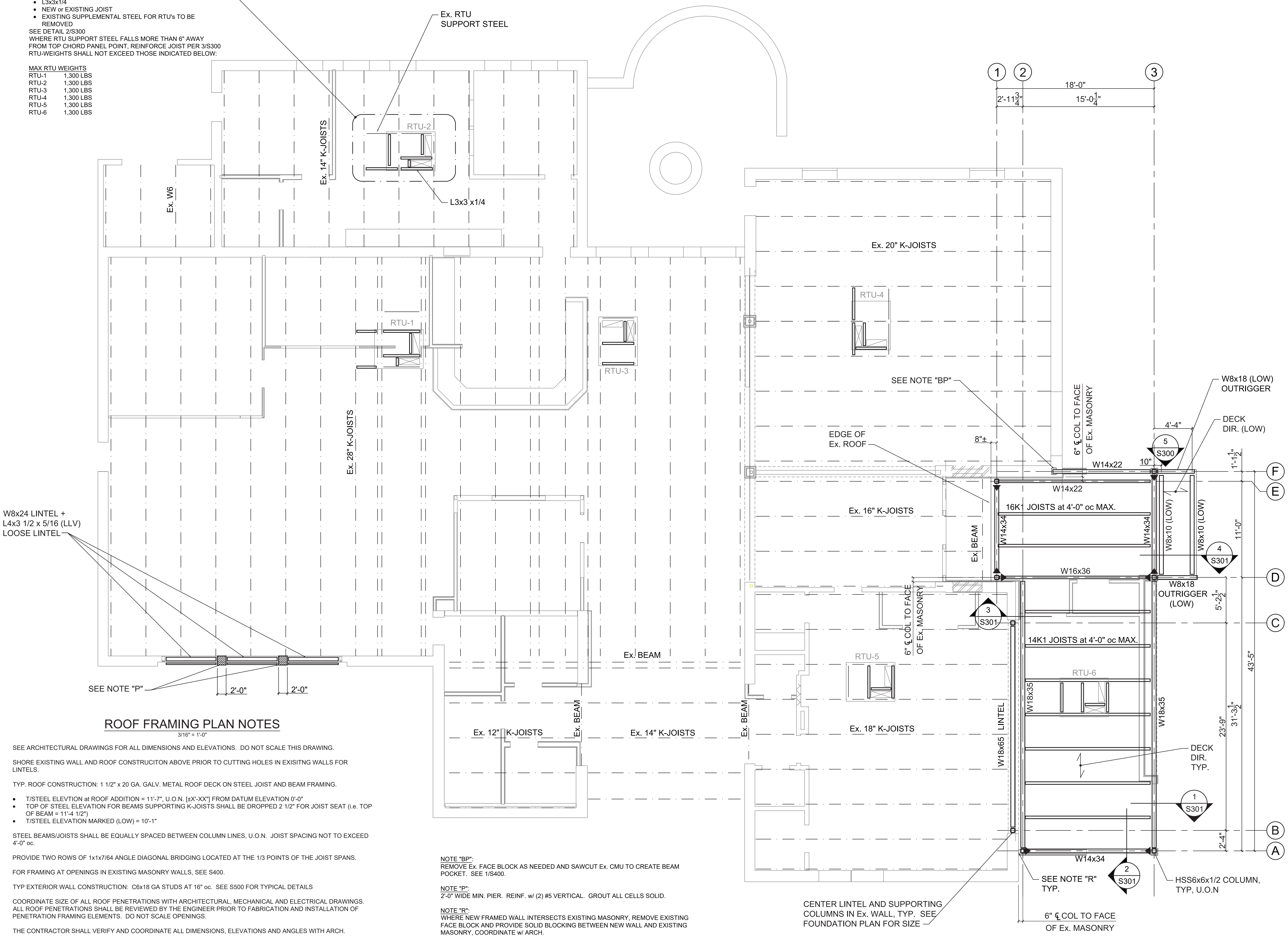
DATE:
MAY 20, 2025

SHEET NO.
S101

RTU ANGLE SUPPORT FRAMING NOTES, TYP.
SUPPORT CURB ON EACH SIDE OF RTU, AND SUPPORT EDGE OF DECK AROUND DUCT PENETRATIONS, WITH EITHER
- L3x3x1/4
- NEW or EXISTING JOIST
- EXISTING SUPPLEMENTAL STEEL FOR RTU's TO BE REMOVED

SEE DETAIL 2/S300
WHERE RTU SUPPORT STEEL FALLS MORE THAN 6" AWAY FROM TOP CHORD PANEL POINT, REINFORCE JOIST PER 3/S300
RTU-WEIGHTS SHALL NOT EXCEED THOSE INDICATED BELOW:

MAX RTU WEIGHTS	
RTU-1	1,300 LBS
RTU-2	1,300 LBS
RTU-3	1,300 LBS
RTU-4	1,300 LBS
RTU-5	1,300 LBS
RTU-6	1,300 LBS



ROOF FRAMING PLAN NOTES

3/16" = 1'-0"

SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND ELEVATIONS. DO NOT SCALE THIS DRAWING.

SHORE EXISTING WALL AND ROOF CONSTRUCITON ABOVE PRIOR TO CUTTING HOLES IN EXISITNG WALLS FOR LINTELS.

TYP. ROOF CONSTRUCTION: 1 1/2" x 20 GA. GALV. METAL ROOF DECK ON STEEL JOIST AND BEAM FRAMING.

- T/STEEL ELEVTION at ROOF ADDITION = 11'-7", U.O.N. [±X'-XX"] FROM DATUM ELEVATION 0'-0"
- TOP OF STEEL ELEVATION FOR BEAMS SUPPORTING K-JOISTS SHALL BE DROPPED 2 1/2" FOR JOIST SEAT (i.e. TOP OF BEAM = 11'-4 1/2")
- T/STEEL ELEVATION MARKED (LOW) = 10'-1"

STEEL BEAMS/JOISTS SHALL BE EQUALLY SPACED BETWEEN COLUMN LINES, U.O.N. JOIST SPACING NOT TO EXCEED 4'-0" oc.

PROVIDE TWO ROWS OF 1x1x7/64 ANGLE DIAGONAL BRIDGING LOCATED AT THE 1/3 POINTS OF THE JOIST SPANS.

FOR FRAMING AT OPENINGS IN EXISTING MASONRY WALLS, SEE S400.

TYP EXTERIOR WALL CONSTRUCTION: C6x18 GA STUDS AT 16" oc. SEE S500 FOR TYPICAL DETAILS

COORDINATE SIZE OF ALL ROOF PENETRATIONS WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. ALL ROOF PENETRATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO FABRICATION AND INSTALLATION OF PENETRATION FRAMING ELEMENTS. DO NOT SCALE OPENINGS.

THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS, ELEVATIONS AND ANGLES WITH ARCH. DRAWINGS BEFORE PROCEEDING WITH ANY WORK.

FOR GENERAL NOTES, SEE DRAWING S100

NOTE "BP":
REMOVE Ex. FACE BLOCK AS NEEDED AND SAWCUT Ex. CMU TO CREATE BEAM POCKET. SEE 1/S400.

NOTE "P":
2'-0" WIDE MIN. PIER. REINF. w/ (2) #5 VERTICAL. GROUT ALL CELLS SOLID.

NOTE "R":
WHERE NEW FRAMED WALL INTERSECTS EXISTING MASONRY, REMOVE EXISTING FACE BLOCK AND PROVIDE SOLID BLOCKING BETWEEN NEW WALL AND EXISTING MASONRY, COORDINATE w/ ARCH.

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084832-1

NO.	REVISION	DATE

SHEET TITLE:
FIRST FLOOR FRAMING PLAN

SCALE:
3/16" = 1'-0"

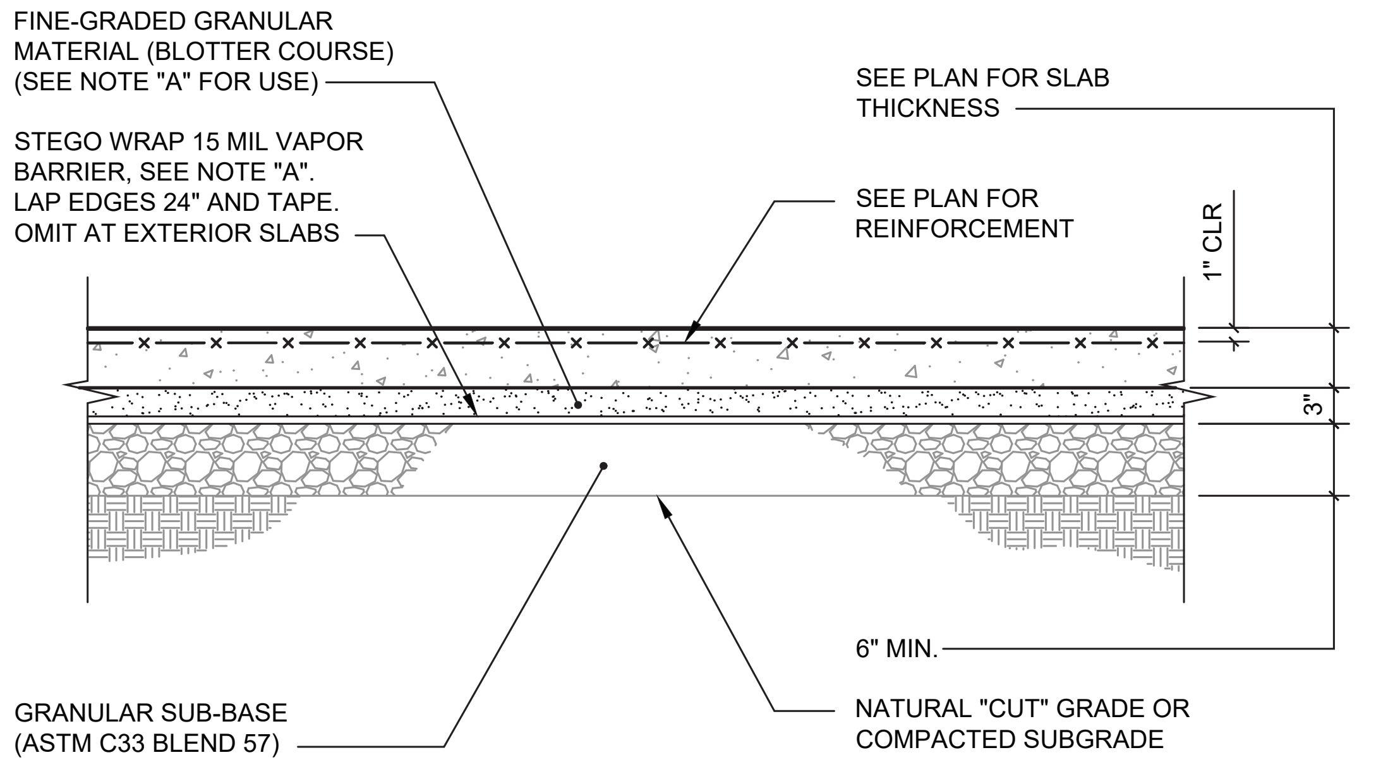
DATE:
MAY 20, 2025

SHEET NO.
S102

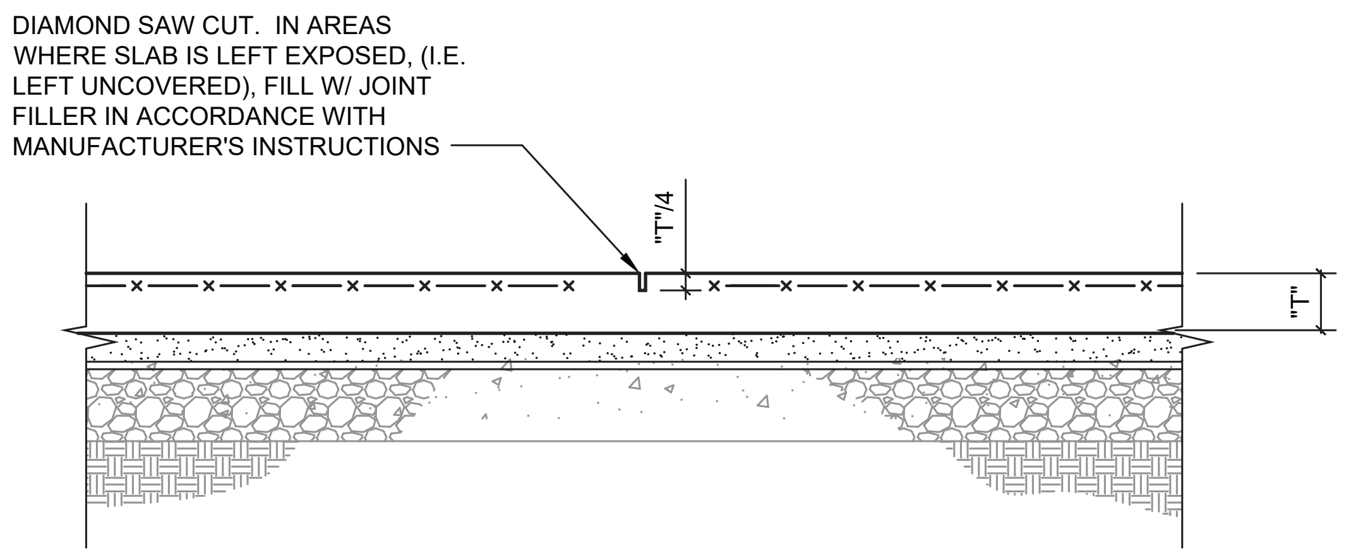
NOTE "A" - PLACEMENT LOCATION OF VAPOR BARRIER

PLACEMENT LOCATION No. 1 (AS SHOWN): THIS DETAIL SHOULD BE USED WHEN THE CONSTRUCTION SEQUENCE WILL PROTECT THE SLAB BASE FROM MOISTURE INFILTRATION. FOR EXAMPLE, THE ROOF MEMBRANE IS IN PLACE PRIOR TO PLACEMENT OF CONCRETE SLAB ON GRADE.

PLACEMENT LOCATION No. 2 (NOT SHOWN): PLACE THE VAPOR BARRIER DIRECTLY UNDER THE CONCRETE SLAB ON GRADE AND OMIT THE FINE-GRADED GRANULAR MATERIAL LAYER. TOP SURFACE OF THE GRANULAR SUBBASE LAYER SHALL BE CHOKED (BUT STILL PERMITTING WATER PASSAGE) WITH FINE-GRADED GRANULAR MATERIAL TO PROVIDE SMOOTH SURFACE FOR THE VAPOR BARRIER. THE CONTRACTOR MUST BE AWARE THAT BY PLACING THE VAPOR BARRIER DIRECTLY BENEATH THE SLAB, THE RISK OF SLAB CURLING IS INCREASED. THE CONTRACTOR MUST PROVIDE A LOW SHRINKAGE CONCRETE MIXTURE DESIGN WITH A WATER/CEMENT RATIO NOT EXCEEDING 0.40, PROVIDE CLOSER CONTROL JOINT SPACING THAN SHOWN ON THE PLANS, AND PROVIDE OTHER MEASURES TO MINIMIZE SLAB CURL.



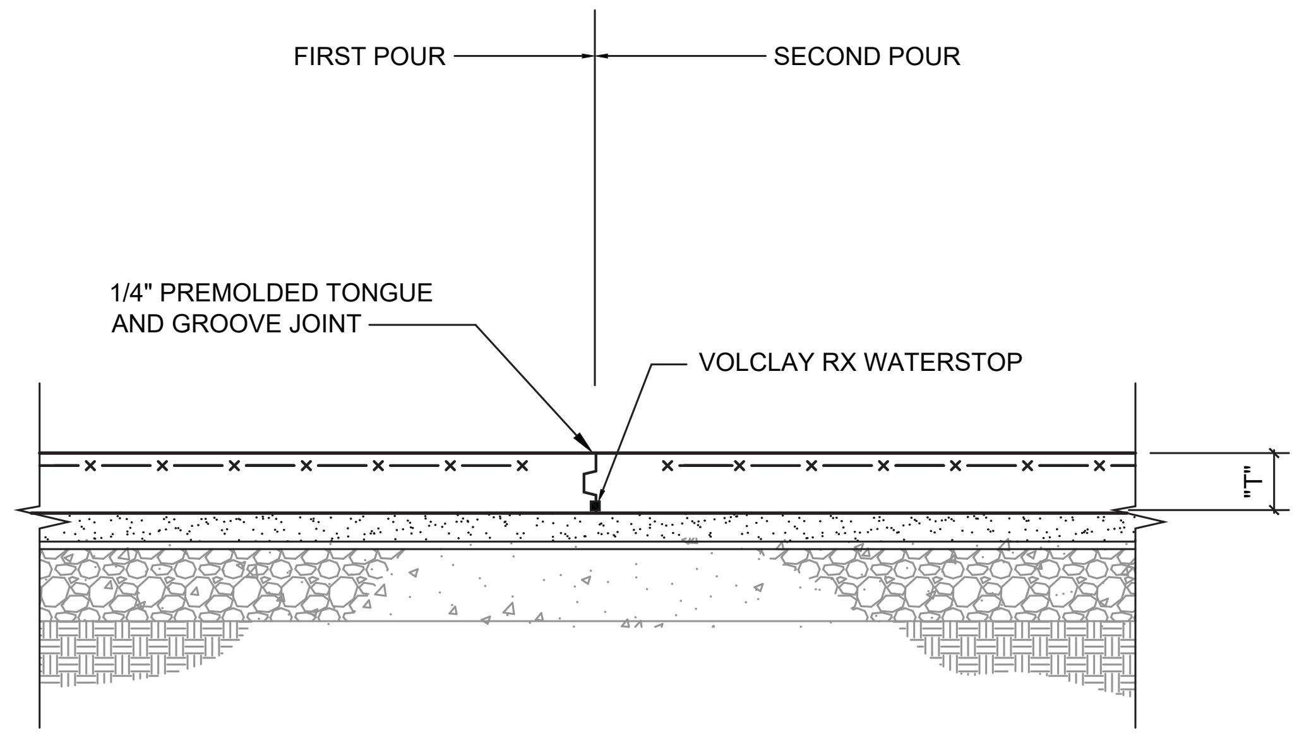
SLAB ON GRADE DETAIL



SEE SLAB PLAN FOR CONTROL JOINT LOCATIONS NOTED "CJ"

NOTE:
THE SAW CUT IS TO BE PERFORMED UP TO 12 HOURS AFTER THE CONC. IS POURED, REFER TO ACI 301

CONTROL JOINT DETAIL

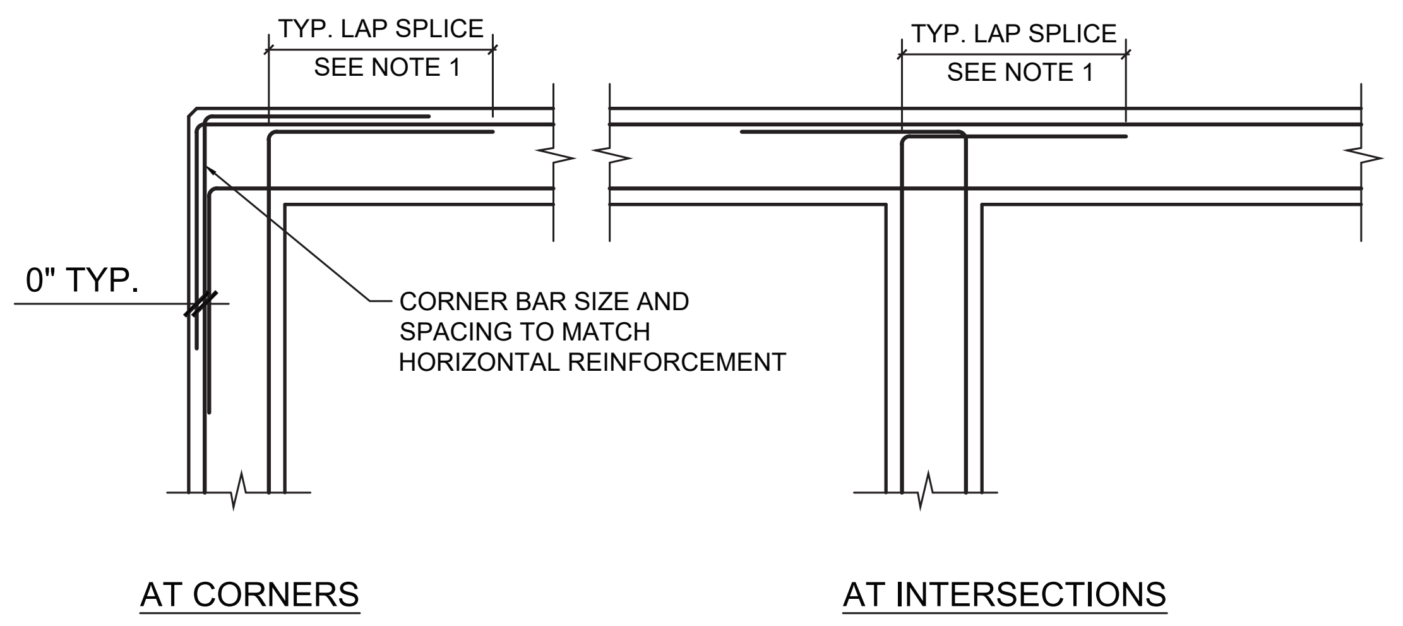


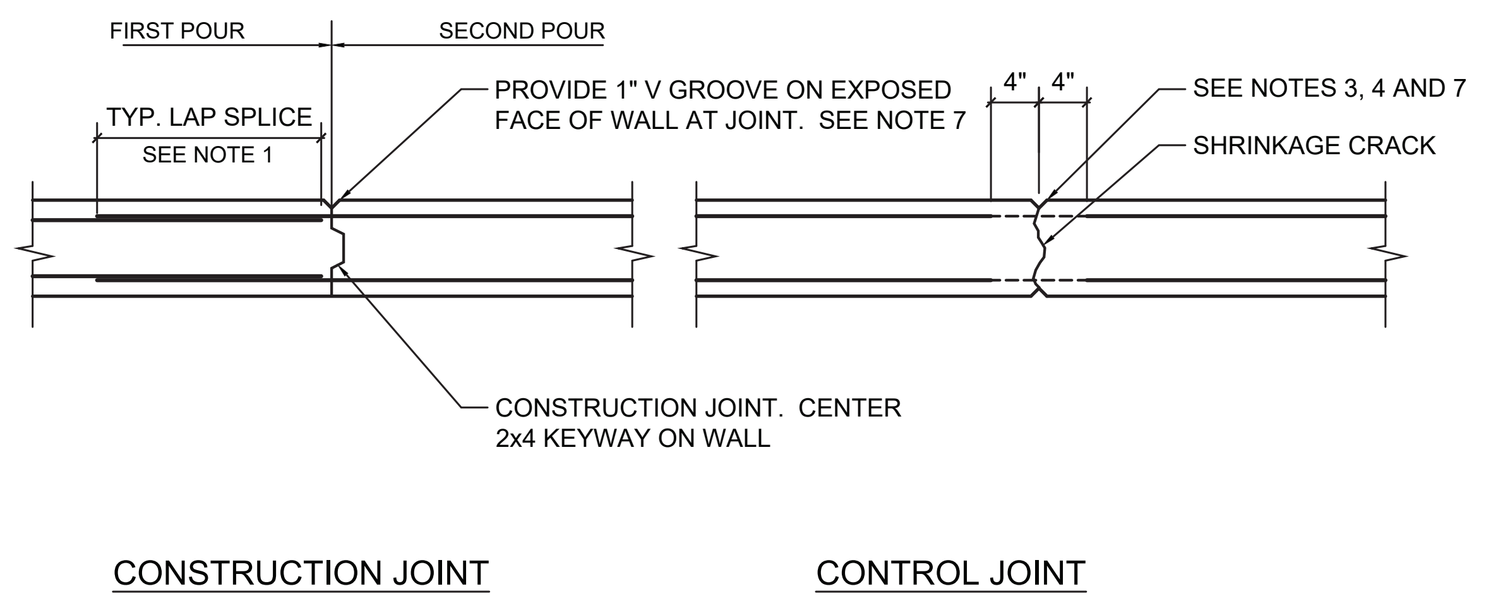
CONSTRUCTION JOINTS ARE TO BE USED WHEN CONCRETE OPERATIONS ARE TO BE INTERRUPTED. CONSTRUCTION JOINTS MAY ONLY BE USED AT LOCATIONS SPECIFIED FOR CONTROL JOINTS. SEE SLAB PLAN AND DETAIL.

SLAB ON GRADE CONSTRUCTION JOINT DETAIL

1 TYPICAL SLAB ON GRADE DETAILS

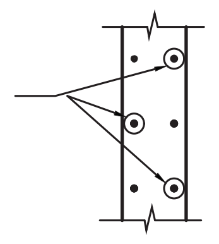
NO SCALE





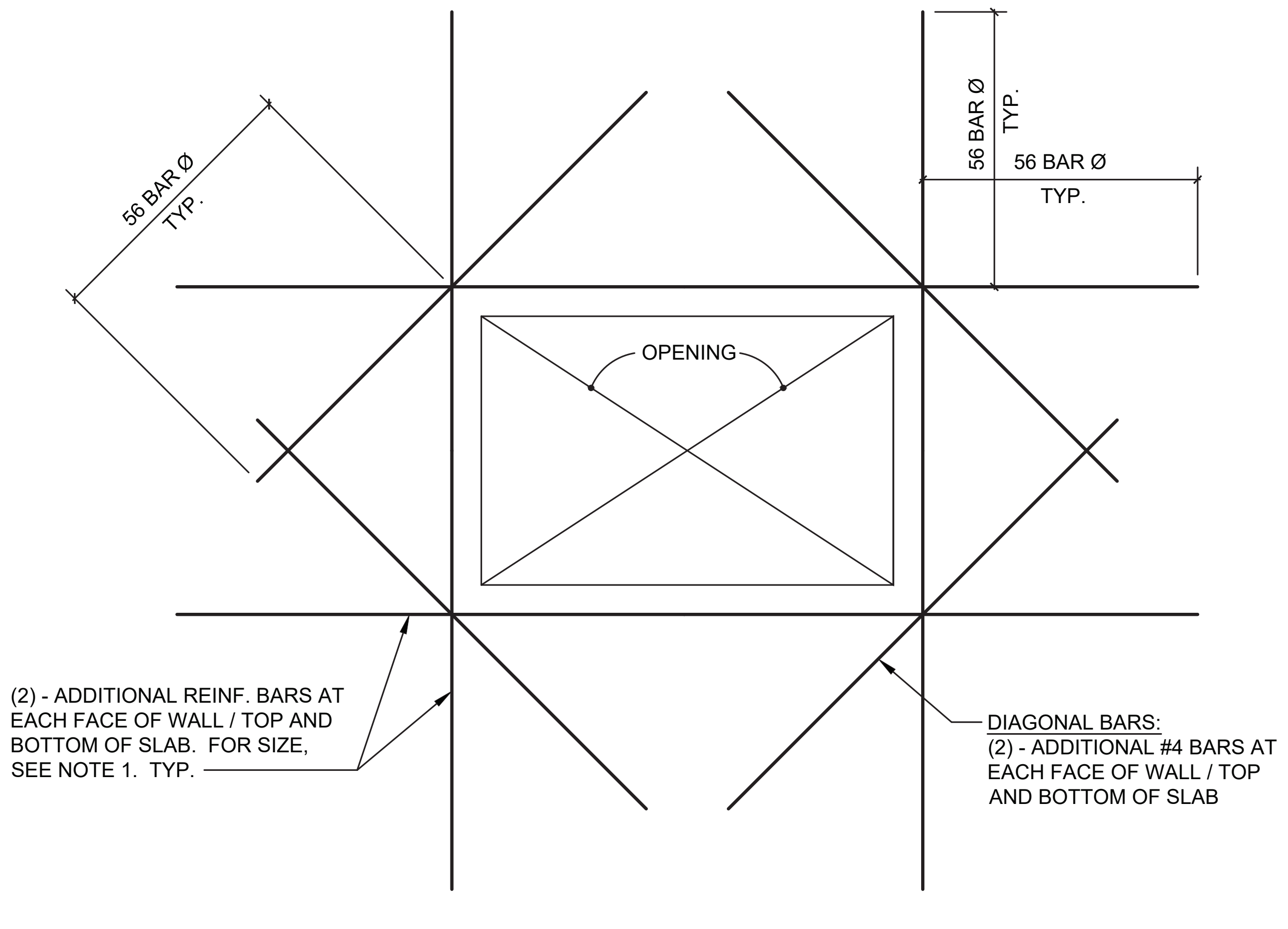
NOTES:

1. ALL BAR SPLICES SHALL BE CLASS "B" LAP SPLICES WITH 56 BAR DIAMETERS MINIMUM.
2. PROVIDE CONSTRUCTION JOINT AT END OF EACH DAY'S POUR OR AS REQUIRED TO LIMIT THE LENGTH OF WALL POUR TO A MAXIMUM OF 30 FEET.
3. PROVIDE CONSTRUCTION / CONTROL JOINTS AT FACE OF PIERS UNLESS OTHERWISE NOTED ON PLAN.
4. AT CONTROL JOINT, PROVIDE BEVEL JOINT "T"/10 INTO WALL SURFACE BOTH SIDES. STOP ALTERNATING HORIZONTAL REINFORCING BARS 6" SHORT OF CONTROL JOINT.
5. SEE APPROPRIATE SECTION FOR WALL REINFORCING.
6. VERTICAL REINFORCING AND/OR SUPPORT BARS NOT SHOWN FOR CLARITY.
7. PROVIDE CAULKING AT JOINTS AS PER SPECIFICATIONS.



2 TYPICAL CONCRETE WALL CONSTRUCTION

NO SCALE

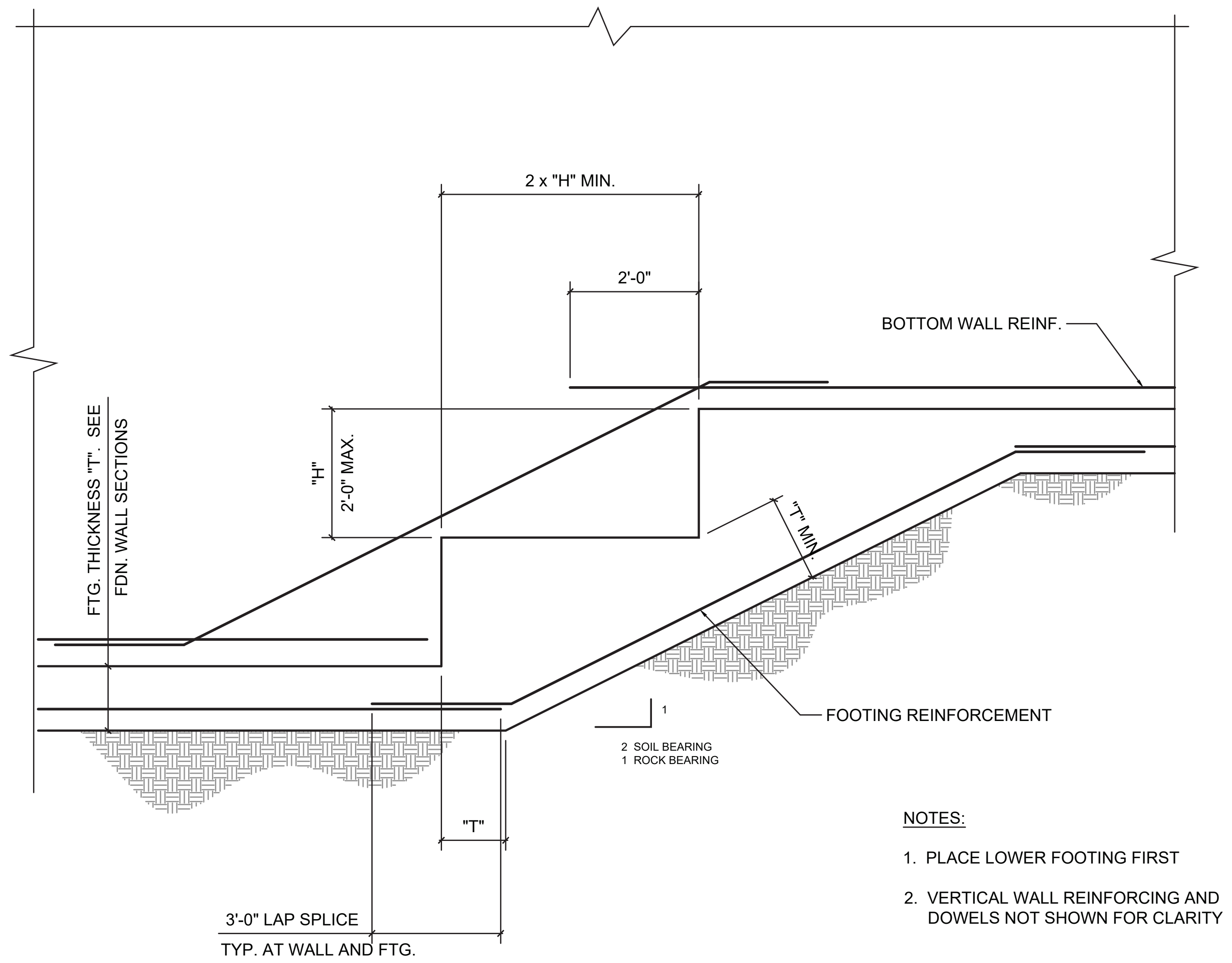


NOTES:

1. AT WALLS, ADDITIONAL REINFORCING SIZE SHALL MATCH HORIZONTAL AND VERTICAL REINFORCING. AT SLABS, USE #4 BARS.
2. THIS DETAIL APPLIES AT ALL OPENINGS 1'-0" X 1'-0" AND LARGER. DETAIL IS SIMILAR AT CIRCULAR OPENINGS 1'-0" Ø AND LARGER.
3. COORDINATE ALL OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

3 TYPICAL SLAB/WALL OPENING REINF.

NO SCALE

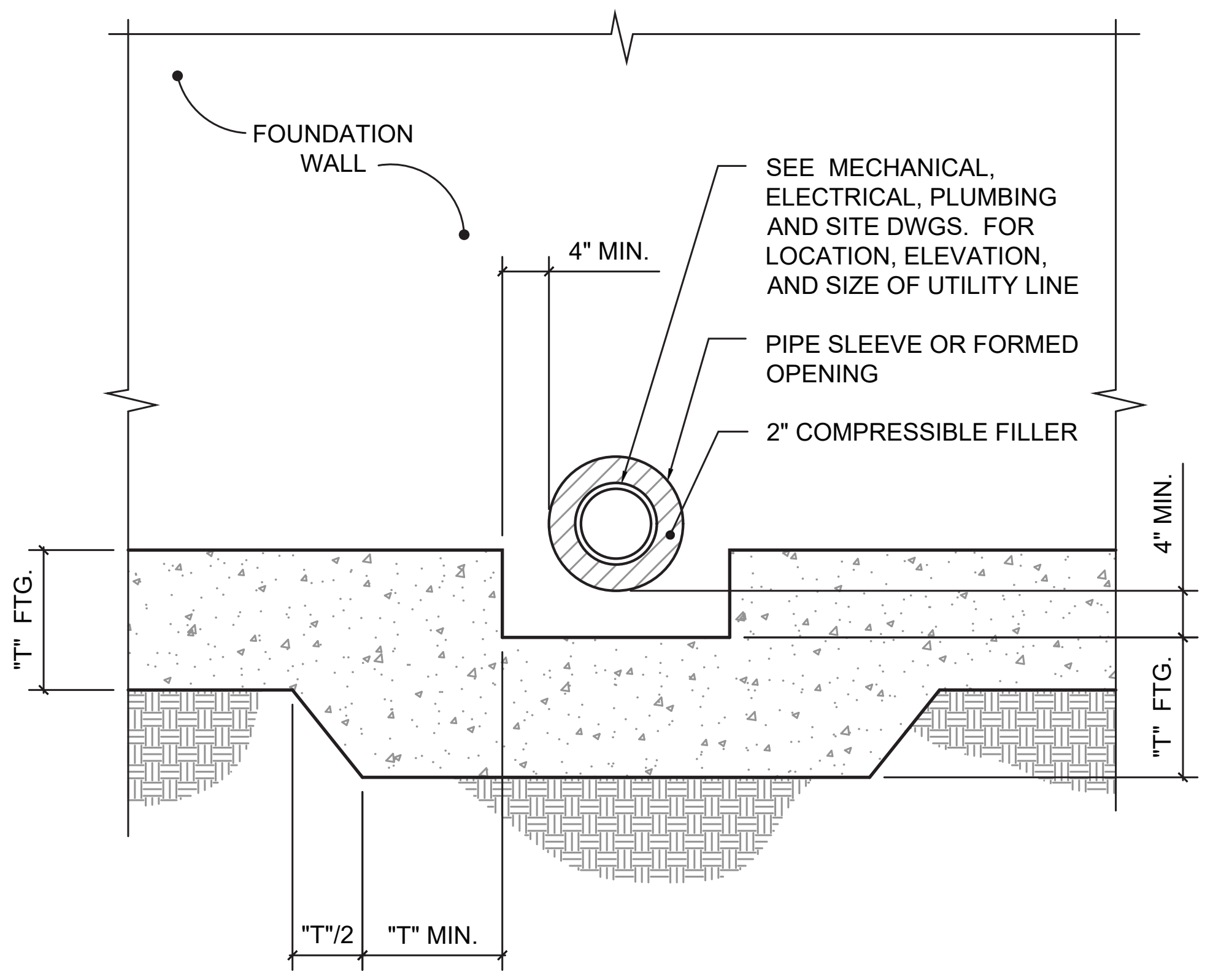


NOTES:

1. PLACE LOWER FOOTING FIRST
2. VERTICAL WALL REINFORCING AND DOWELS NOT SHOWN FOR CLARITY

4 TYP. STEPPED FOOTING DETAIL

NO SCALE



NOTES:

1. AT STEP FOOTING, FOR WALL AND FOOTING REINFORCING, SEE "TYPICAL STEPPED FOOTING DETAIL".
2. IF REQUIRED, FOR ADDITIONAL WALL REINFORCING, SEE "TYPICAL SLAB/WALL PENETRATION REINFORCING DETAIL".

5 TYP. STEP FTG. DET. AT PIPE PENETRATION

NO SCALE

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RYAN T PRESTON
084832-1

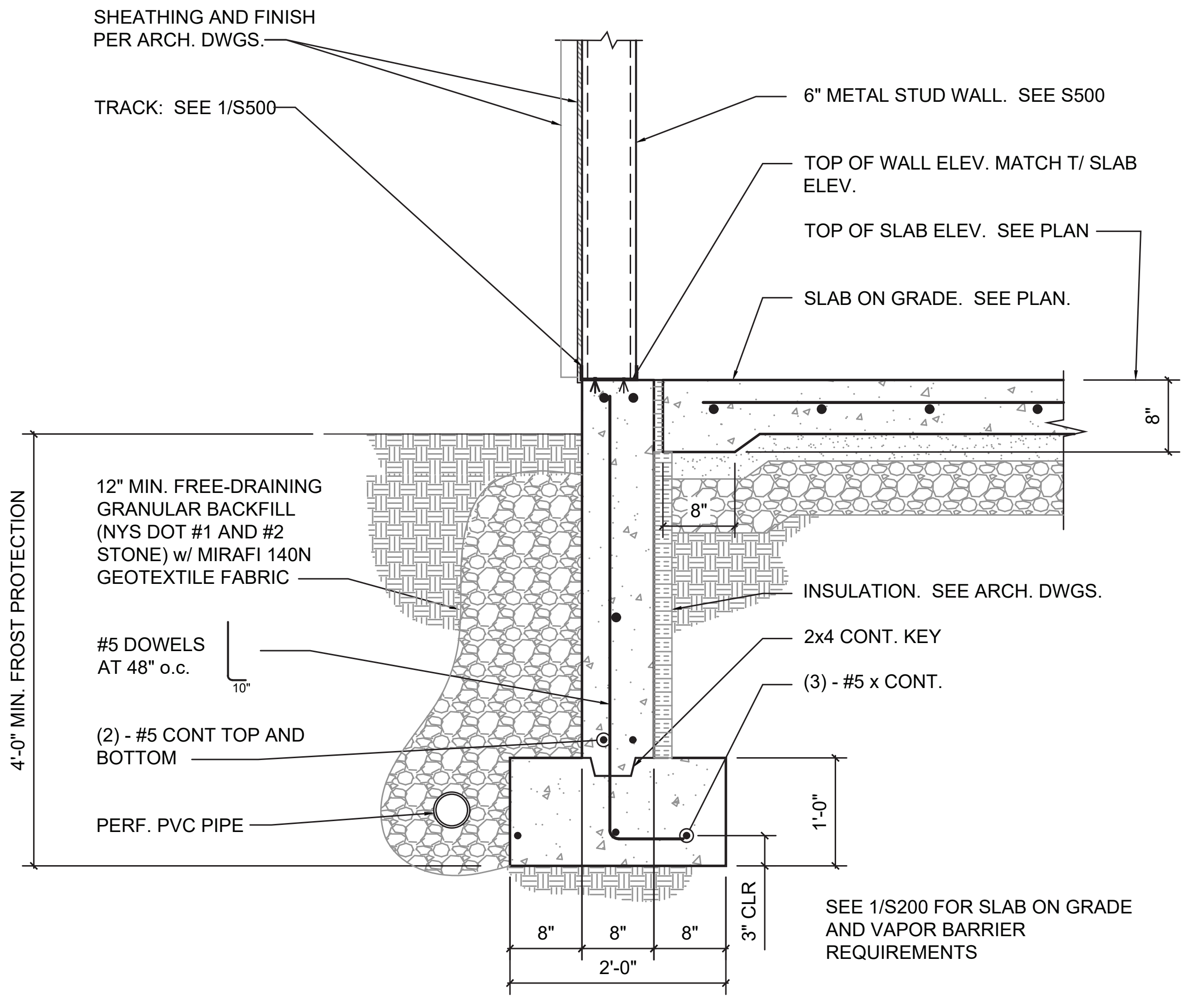
NO.	REVISION	DATE

SHEET TITLE:
FOUNDATION SECTIONS AND DETAILS

SCALE:
AS NOTED

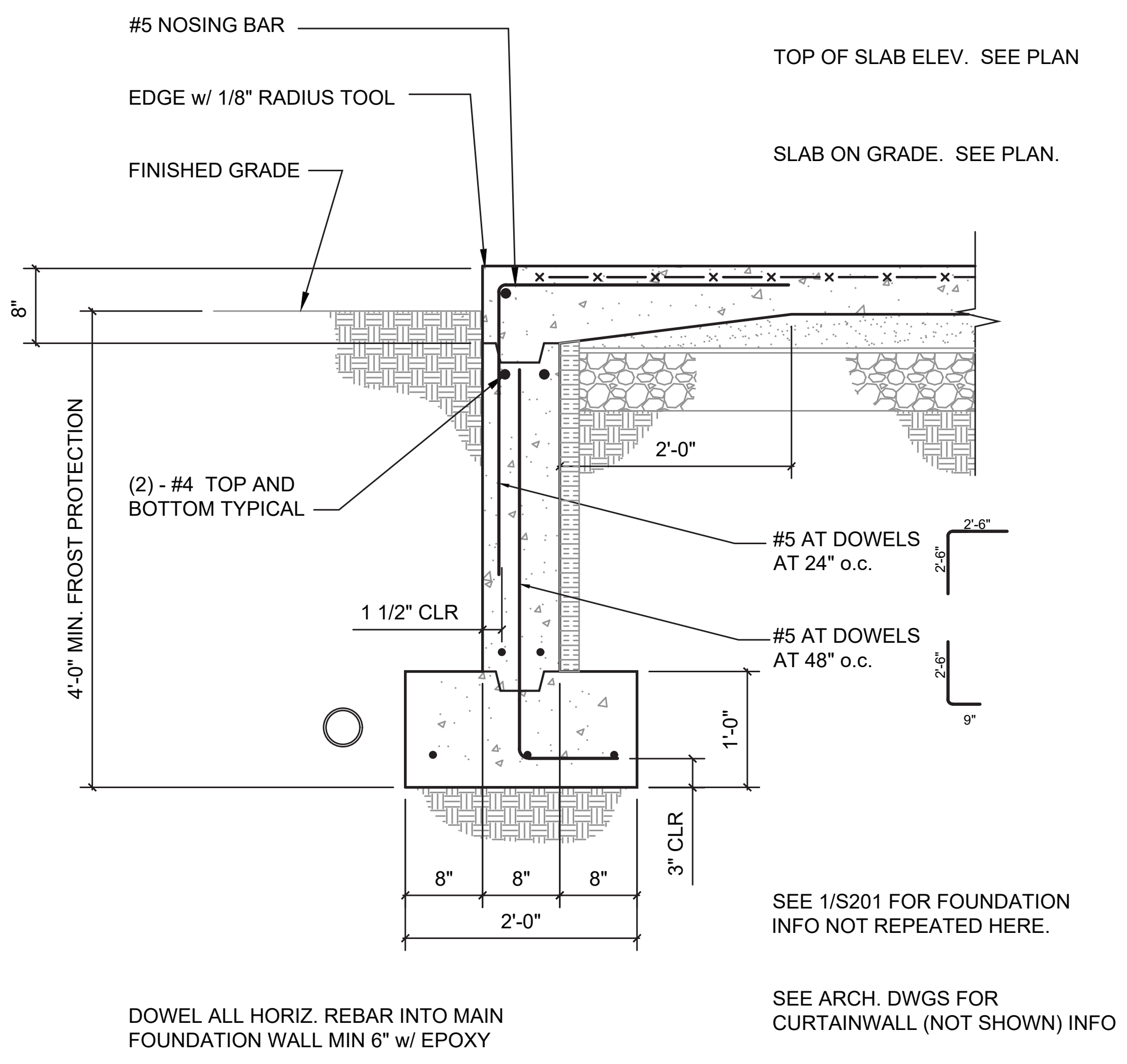
DATE:
MAY 20, 2025

SHEET NO.
S200



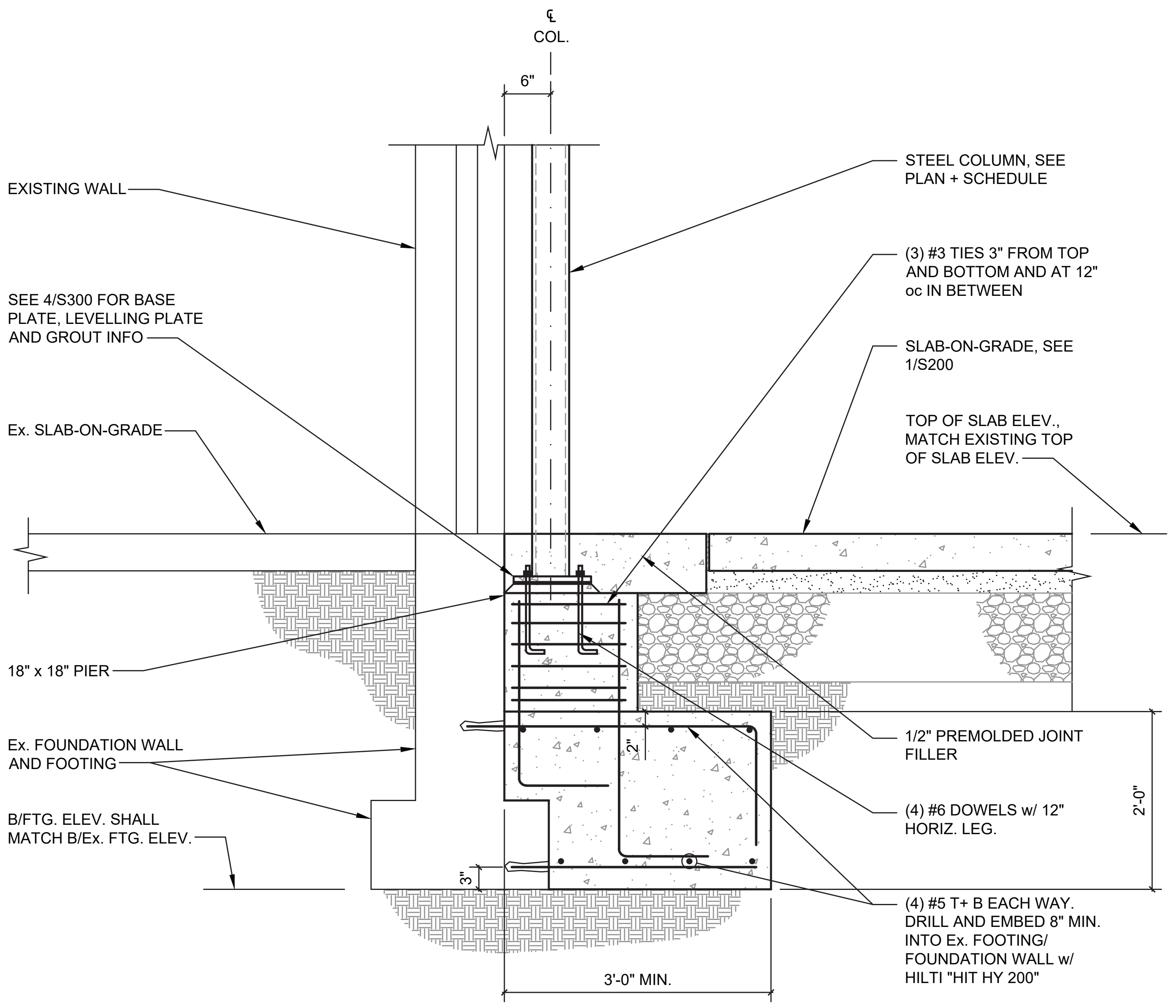
1 TYP. FOUNDATION SECTION - MAIN BLDG.

3/4" = 1'-0"



2 TYP. SECTION AT DOOR AND STOREFRONT

3/4" = 1'-0"



3 SECTION AT PIER

3/4" = 1'-0"

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SHEET TITLE:

FOUNDATION SECTIONS AND DETAILS

SCALE:

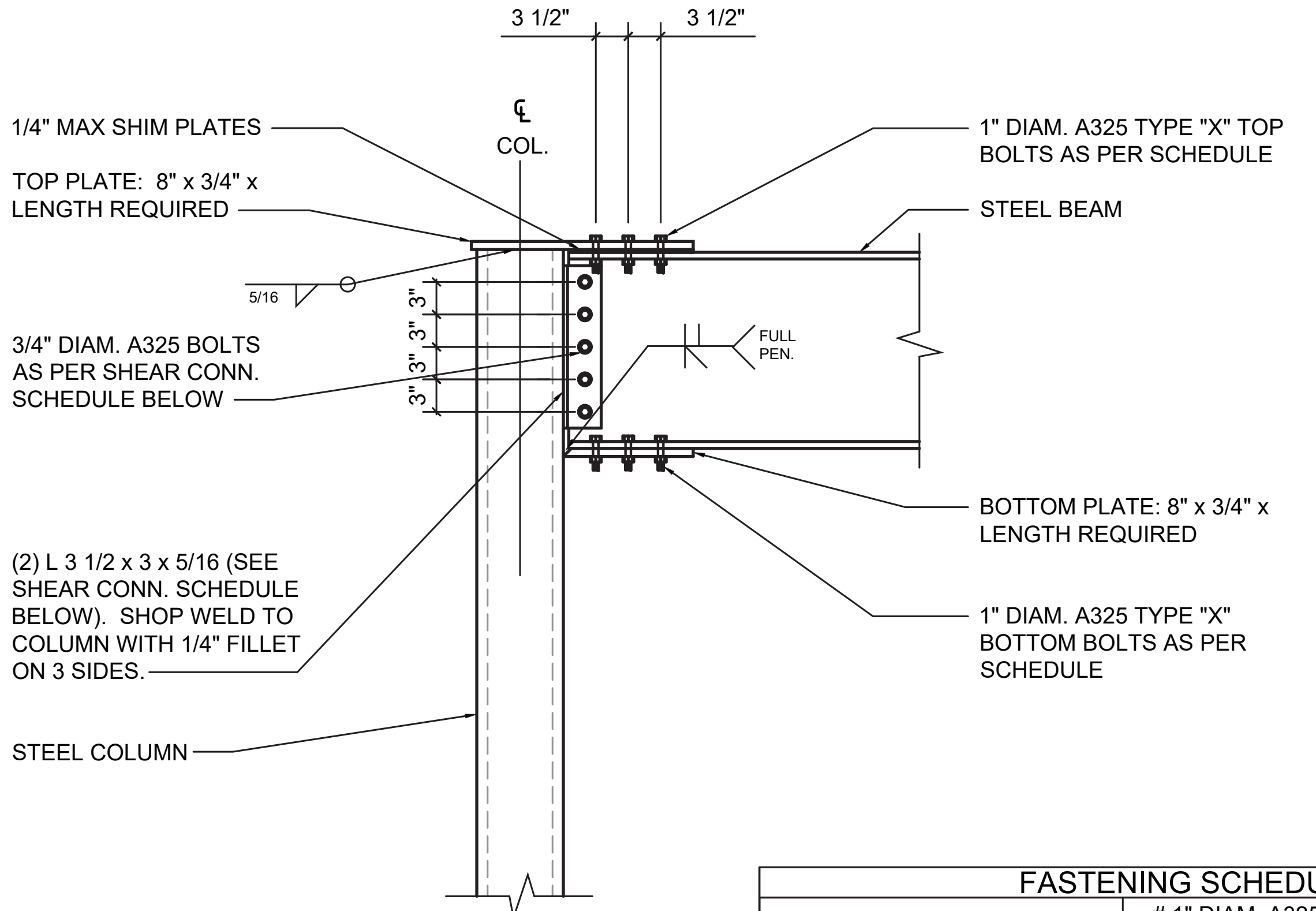
AS NOTED

DATE:

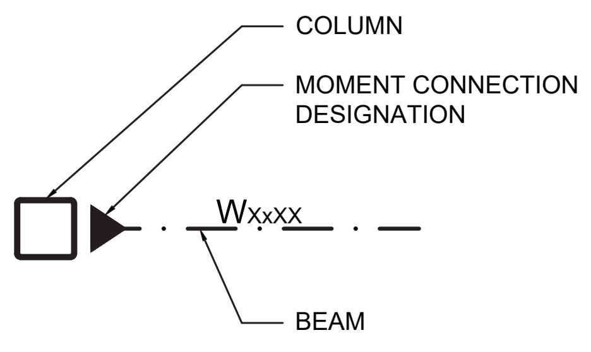
MAY 20, 2025

SHEET NO.

S201

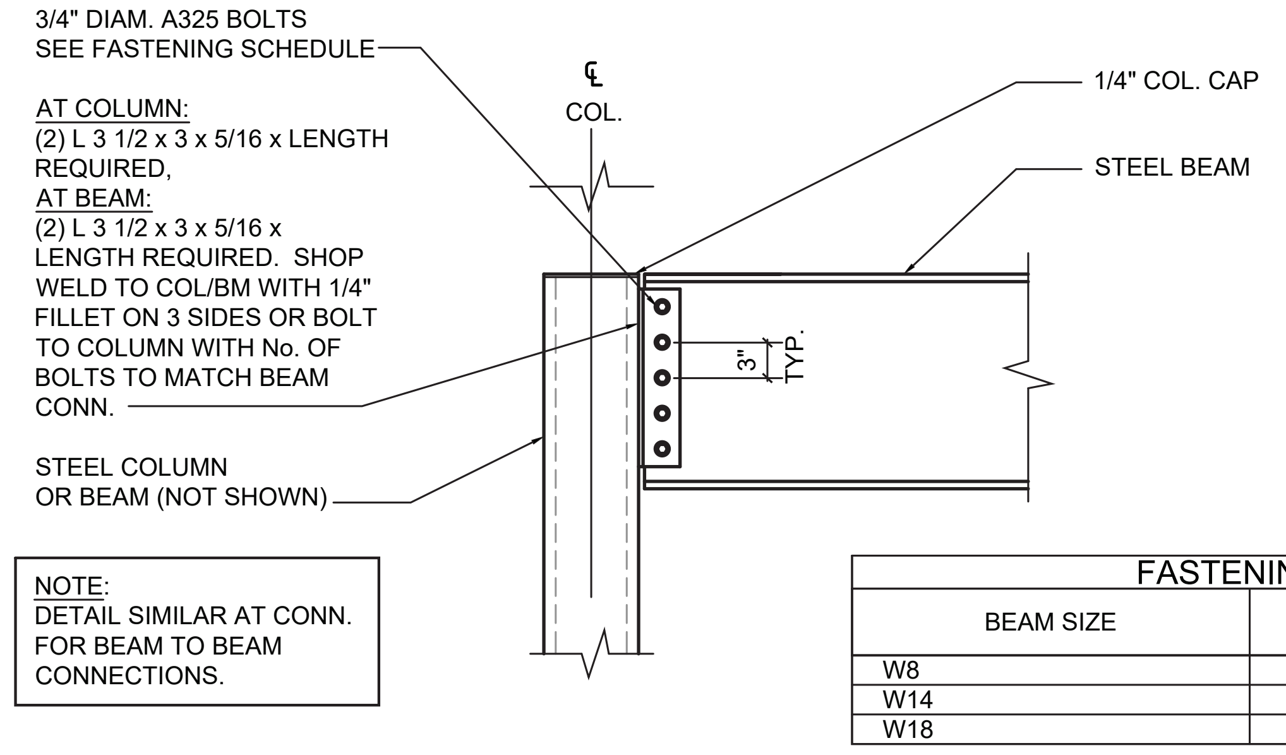


FASTENING SCHEDULE		
BEAM SIZE	# 1" DIAM. A325 "X" BOLTS EACH TOP AND BOTTOM	REMARKS
W14	6	



VIEW FROM PLAN

TYPICAL MOMENT CONNECTION



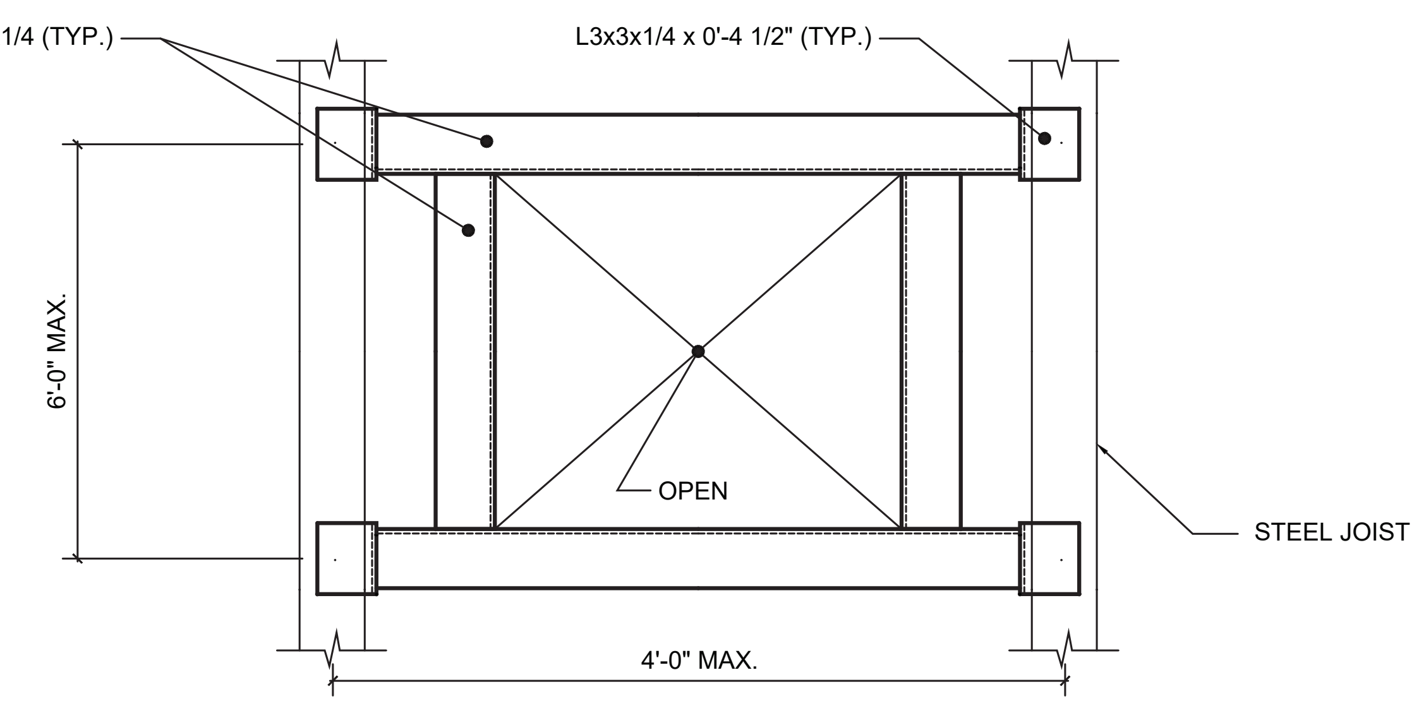
NOTE:
DETAIL SIMILAR AT CONN. FOR BEAM TO BEAM CONNECTIONS.

FASTENING SCHEDULE		
BEAM SIZE	# 3/4" DIAM. A325 BOLTS PER LEG	REMARKS
W8	2	
W14	4	
W18	5	

TYPICAL SHEAR CONNECTION

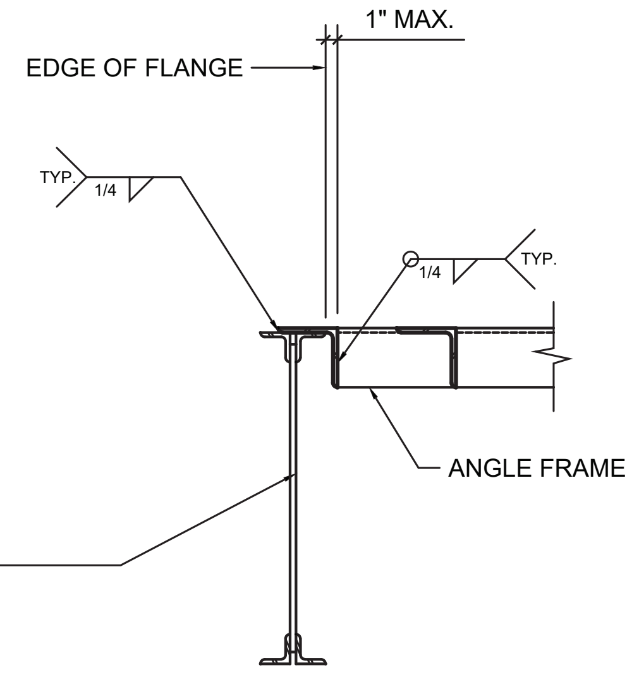
1 TYPICAL BEAM CONNECTION DETAILS

3/4" = 1'-0"

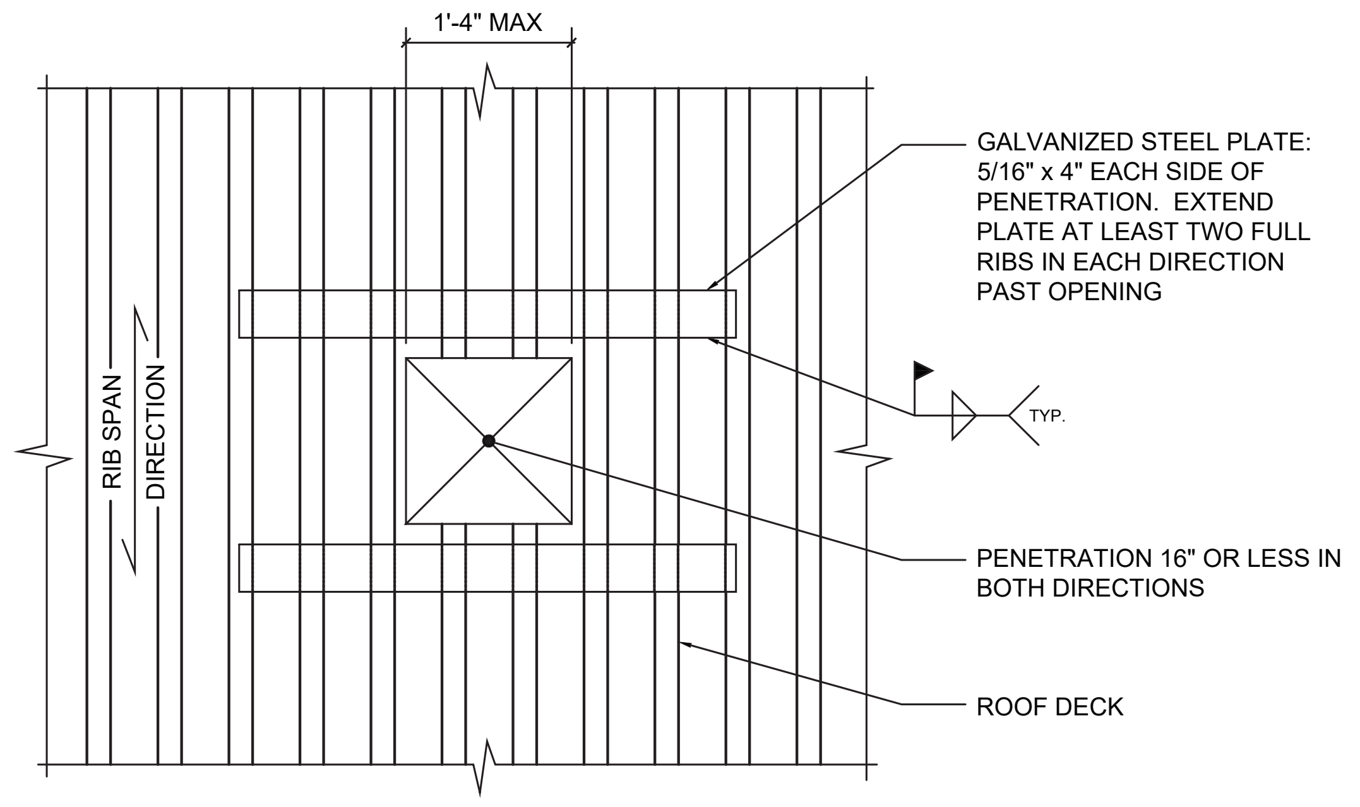


ROOF OPENING DETAIL GREATER THAN 1'-4" IN SIZE

(DECK NOT SHOWN FOR CLARITY)



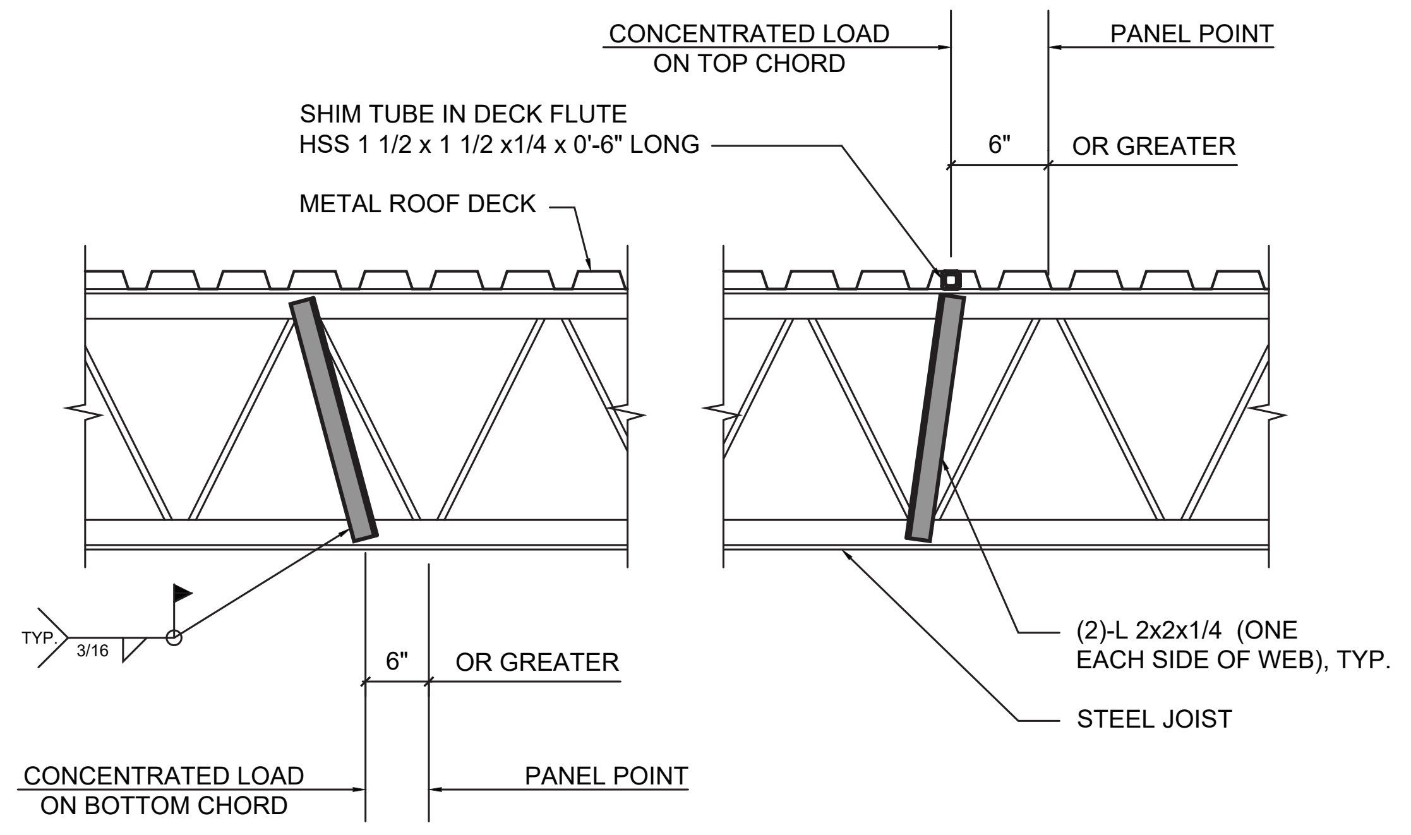
NOTE: THIS DETAIL ALSO APPLIES FOR SUPPORT OF RTU'S WEIGHING LESS THAN 1000 LBS PROVIDE ANGLES BENEATH EACH SIDE OF RTU/CURB



ROOF OPENING DETAIL 1'-4" OR LESS IN SIZE

2 TYPICAL ROOF OPENING DETAIL AND RTU SUPPORT DETAIL

NOT TO SCALE

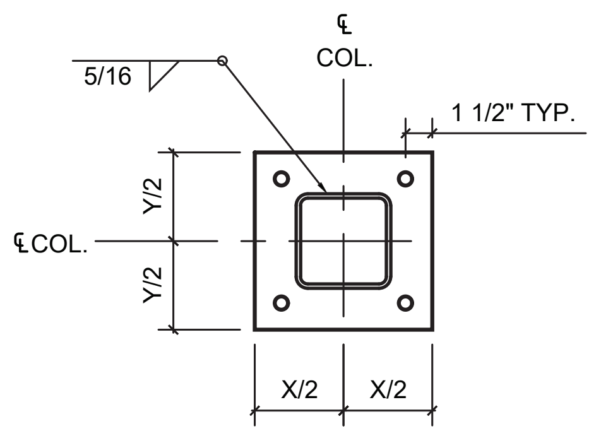


WEB STIFFENER DETAIL

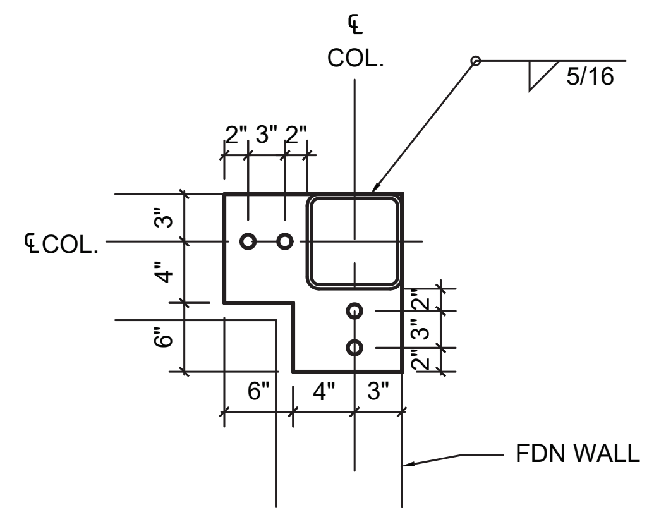
- A WEB STIFFENER MUST BE APPLIED TO ANY JOIST BETWEEN THE CHORD WHERE THE CONCENTRATED LOAD IS APPLIED AND THE PANEL POINT OF THE OPPOSITE CHORD WHEN A CONCENTRATED LOAD IS PLACED ON THE JOIST 6" OR MORE AWAY FROM A PANEL POINT.
- CONCENTRATED LOADS INCLUDE ANGLE FRAMES FOR RTU SUPPORT
- WHEN PIPES/CONDUITS ARE LESS THAN 4" Ø, JOISTS DO NOT REQUIRE REINFORCING.

3 TYP. JOIST REINFORCING DETAIL

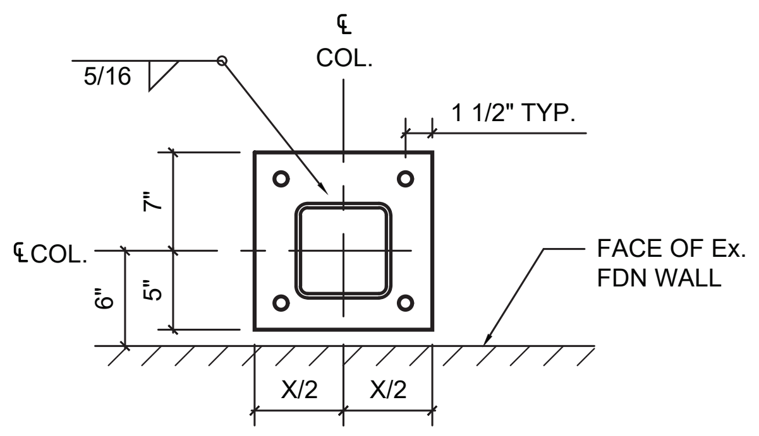
3/4" = 1'-0"



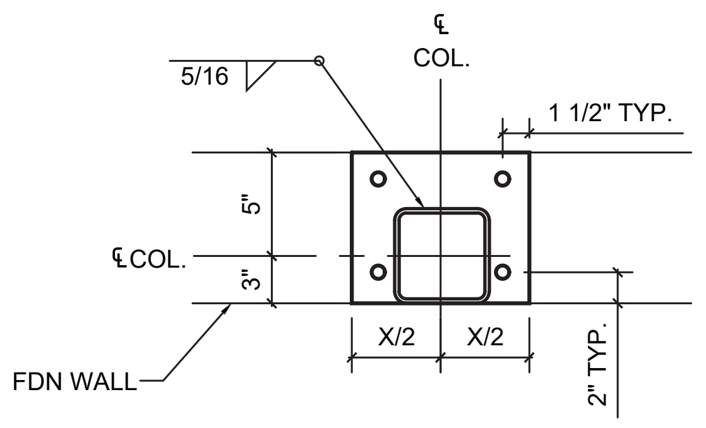
C1 BASE PLATE DETAIL



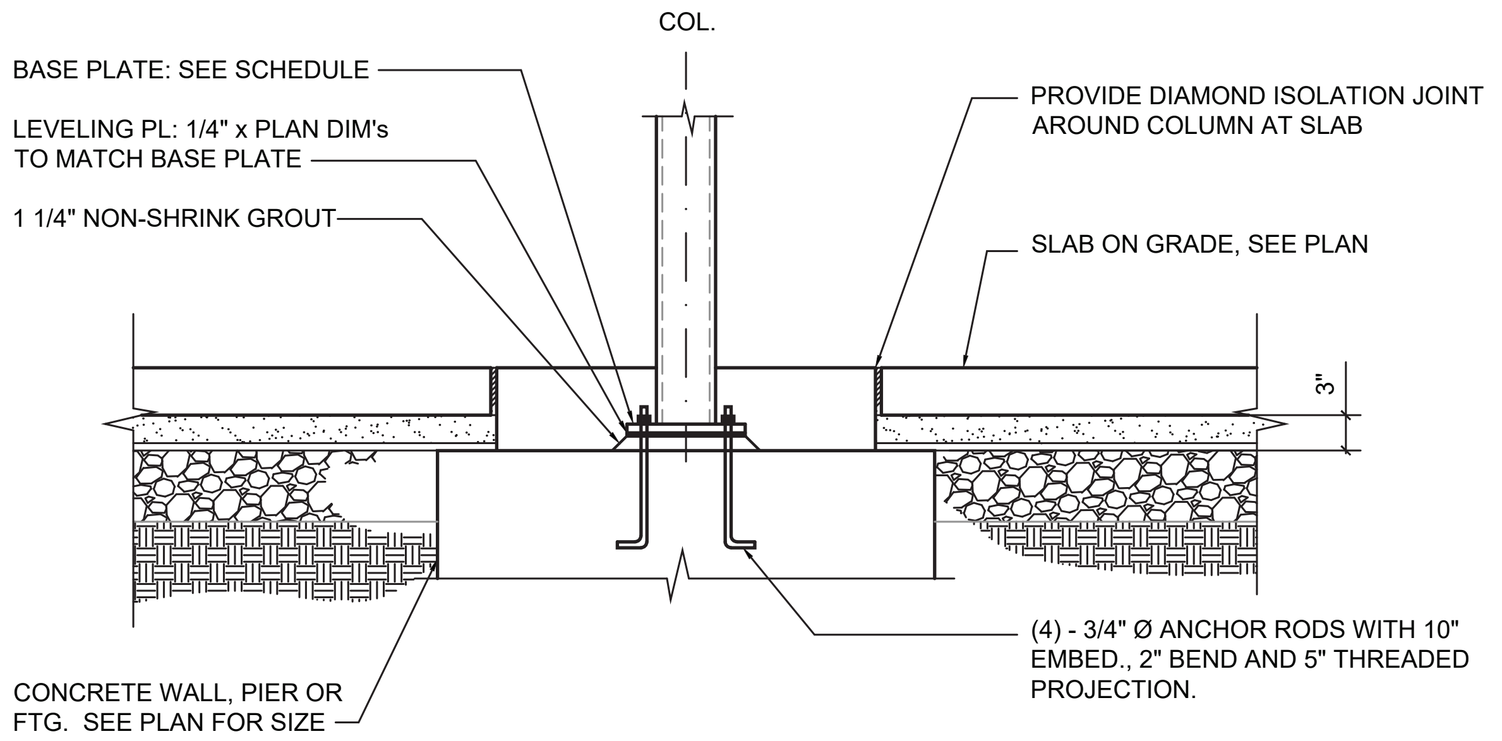
C2 BASE PLATE DETAIL



C3 BASE PLATE DETAIL



C4 BASE PLATE DETAIL

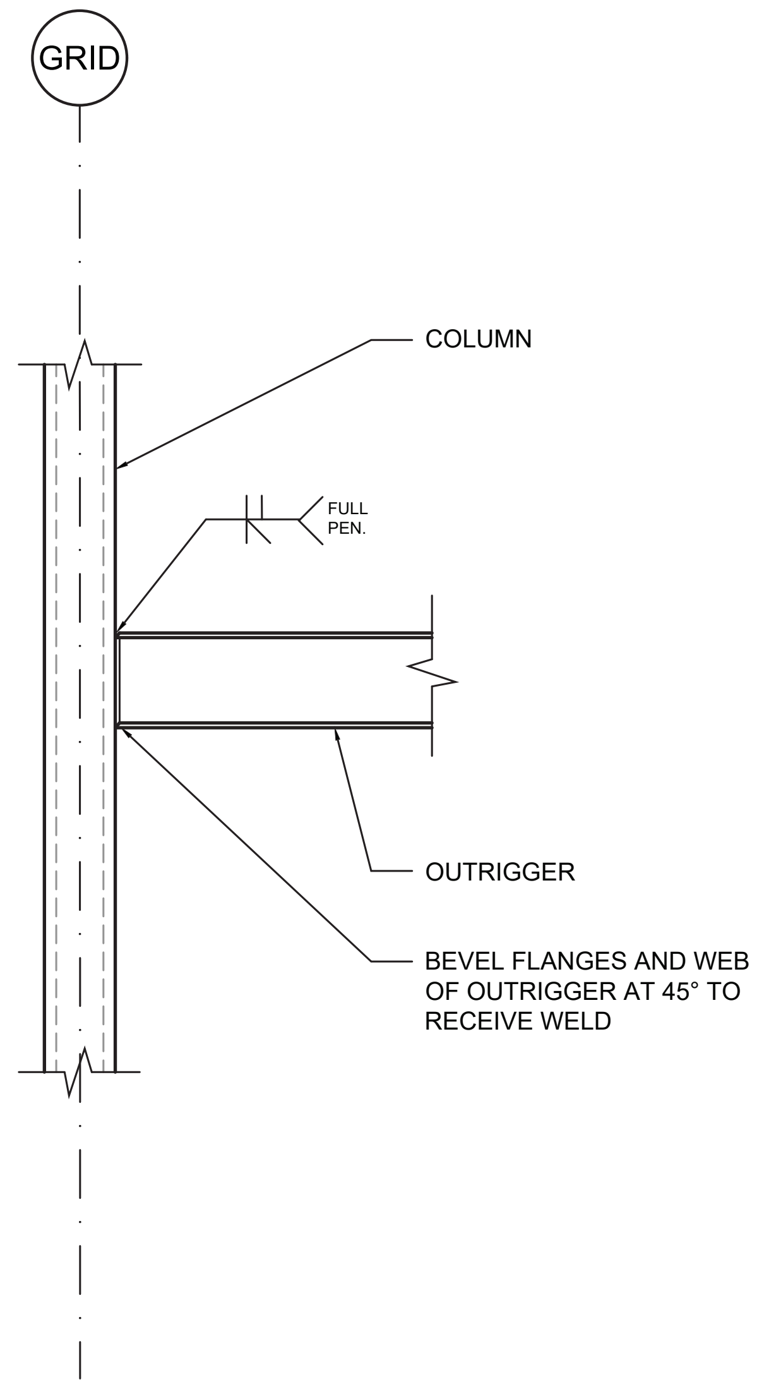


COLUMN SCHEDULE		
DESIGNATION	SIZE	BASE PLATE: 'X' DIM. x THICKNESS x 'Y' DIM
C1	HSS6x6x5/16	12" x 1" x 1-0"
C2	HSS6x6x1/2	1'-1" x 1" x 1-1" (L-SHAPED)
C3	HSS6x6x1/2	12" x 1" x 1'-0"
C4	HSS6x6x1/2	8" x 1" x 11 1/2" (LONG DIM PARALLEL TO WALL)

NOTE:
AT THE CONTRACTOR'S OPTION, ANCHOR RODS MAY BE DRILLED AND EMBEDDED 9" MIN. INTO CONCRETE WITH HILTI "HIT HY 200" ADHESIVE ANCHORING SYSTEM.

4 COLUMN SCHEDULE

3/4" = 1'-0"



5 OUTRIGGER TO COLUMN CONN. DETAIL

3/4" = 1'-0"

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57 West High Street
Ballston Spa
New York 12020

PROJECT :

MARLBORO FREE LIBRARY ADDITION + RENOVATIONS

MARLBORO FREE LIBRARY
1251 ROUTE 9W
MARLBORO, NY

ISSUED FOR BIDDING 5/20/25

STATE OF NEW YORK
RYANT PRESTON
084832-1
LICENSED PROFESSIONAL ENGINEER

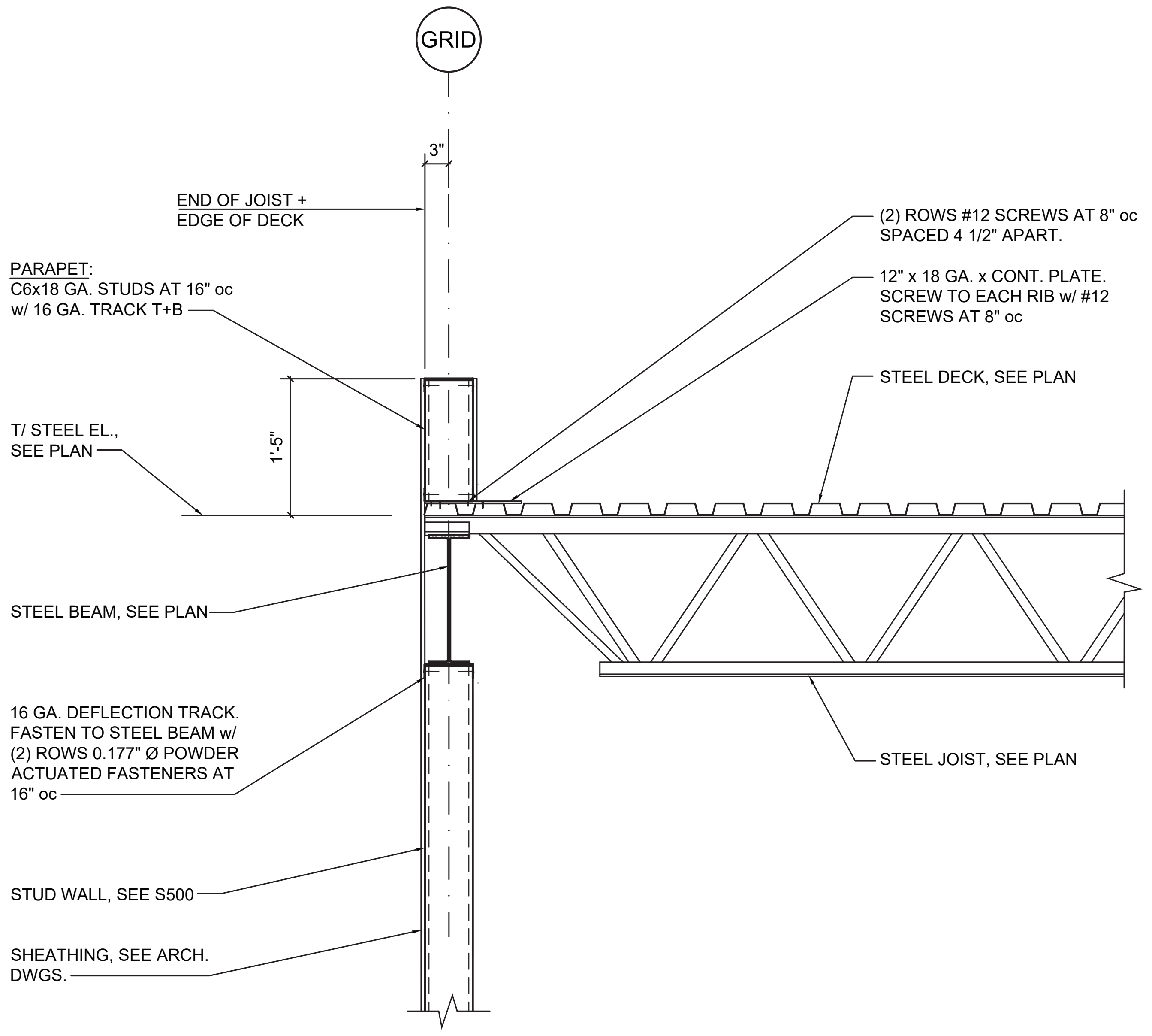
NO.	REVISION	DATE

SHEET TITLE:
TYP. FRAMING SECTIONS AND DETAILS

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

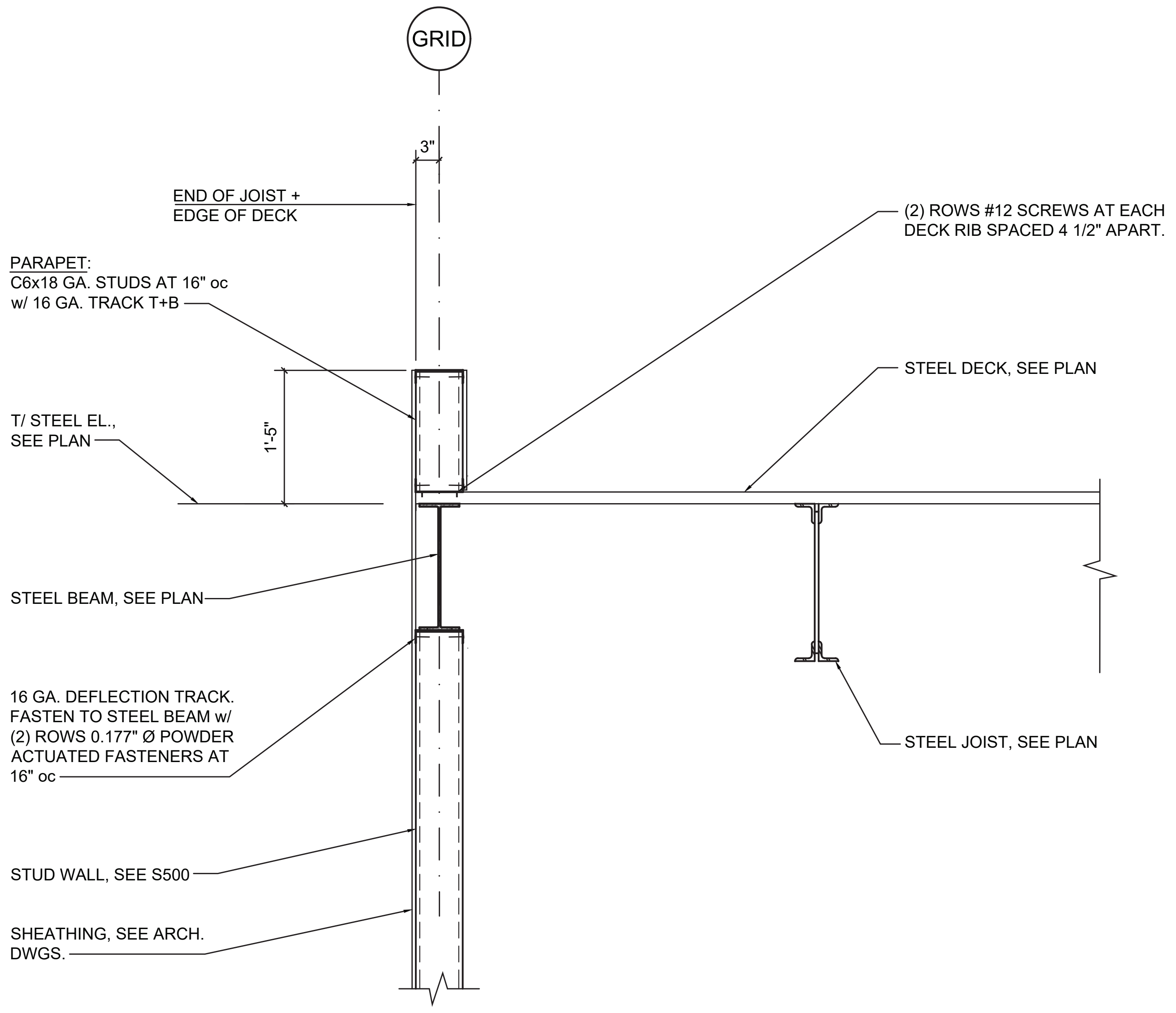
DATE:
MAY 20, 2025

SHEET NO.
S300



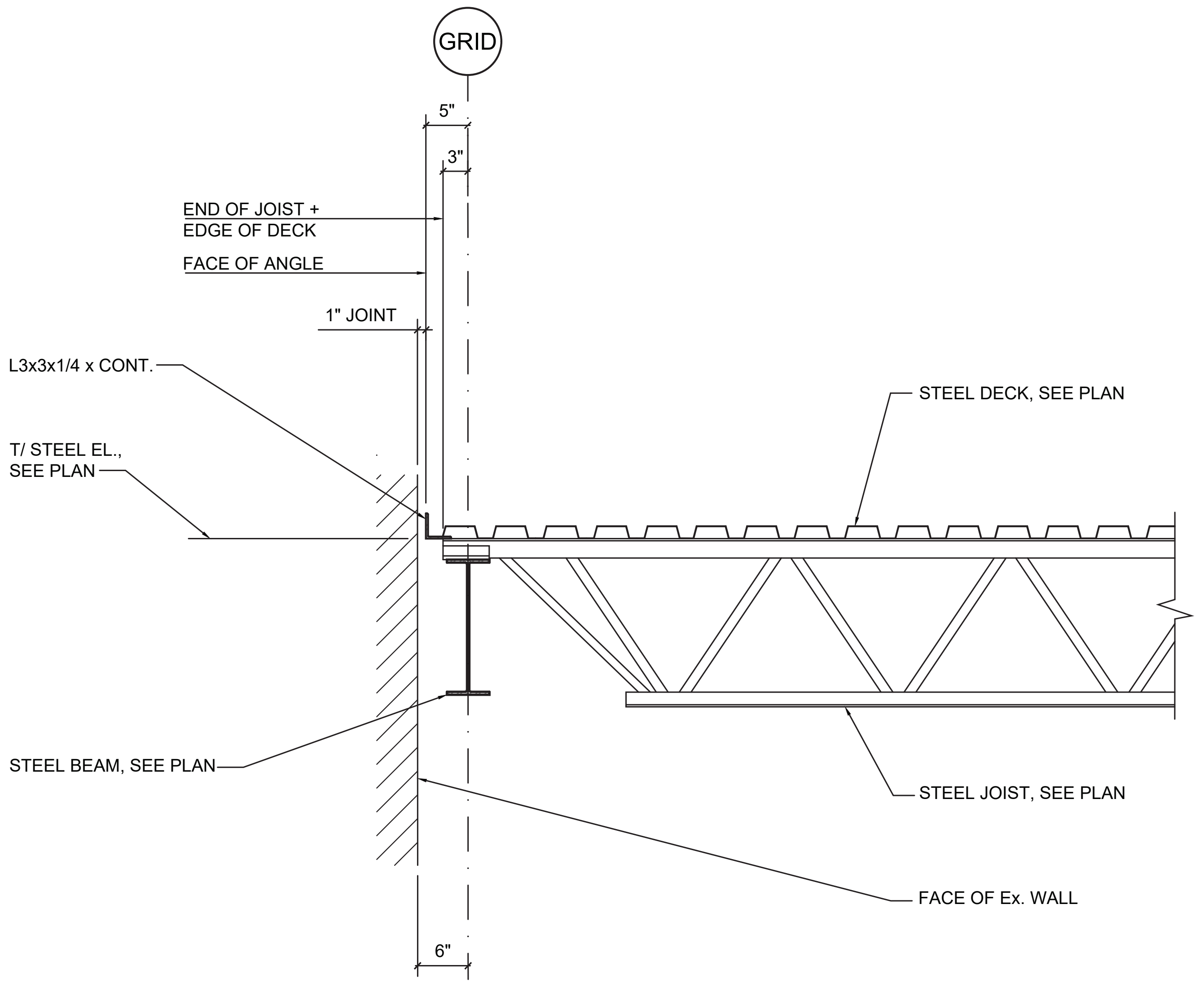
1 ROOF EDGE SECTION

3/4" = 1'-0"



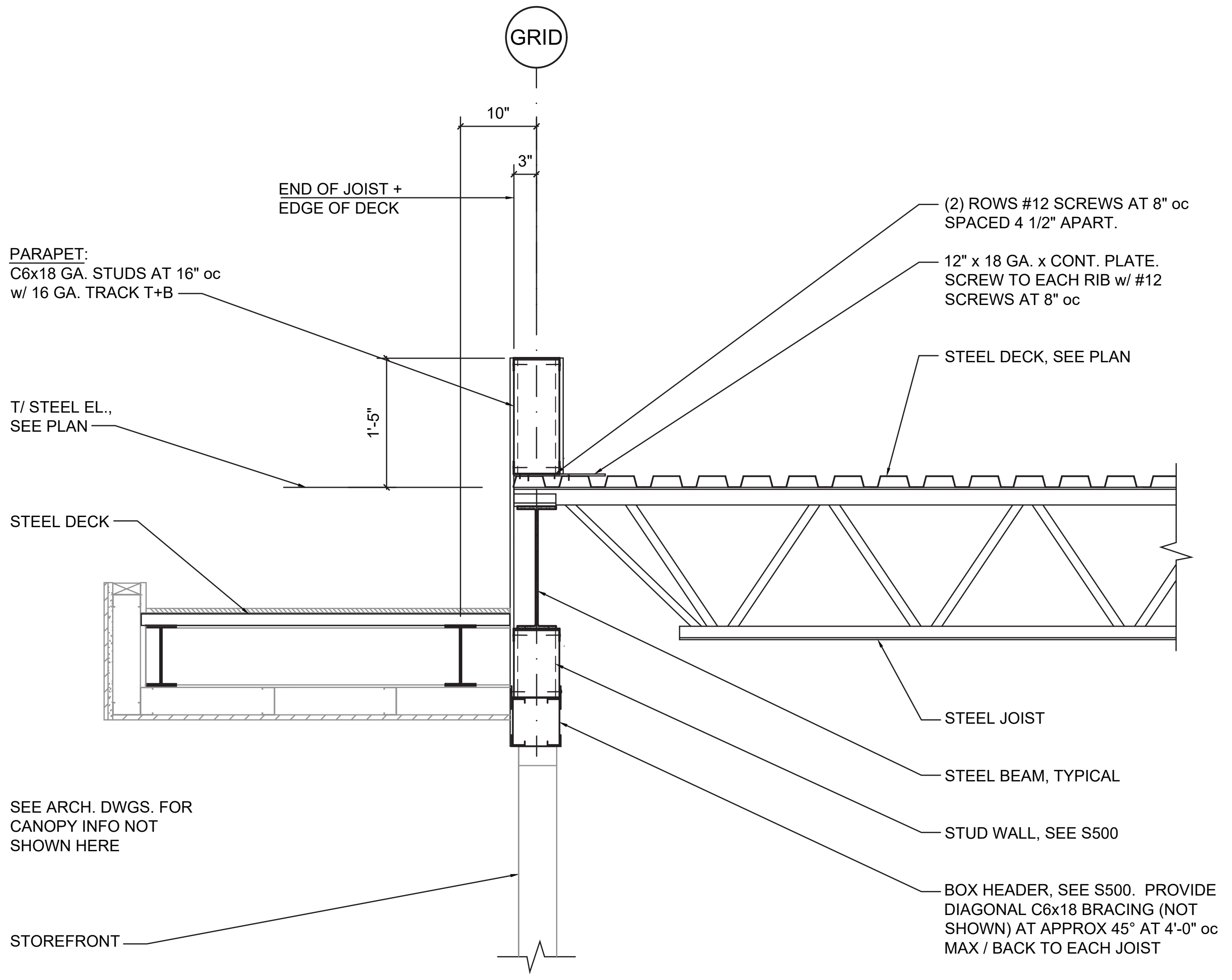
2 ROOF EDGE SECTION

3/4" = 1'-0"



3 ROOF SECTION

3/4" = 1'-0"



4 CANOPY SECTION

3/4" = 1'-0"

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RYAN T PRESTON
084832-1

NO.	REVISION	DATE

SHEET TITLE:
ROOF FRAMING
SECTIONS
AND DETAILS

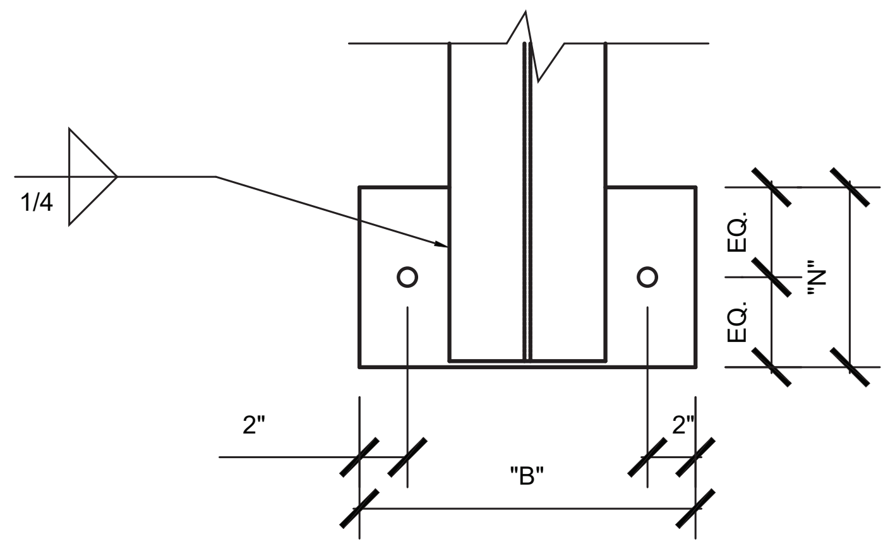
SCALE:
3/4" = 1'-0"

DATE:
MAY 20, 2025

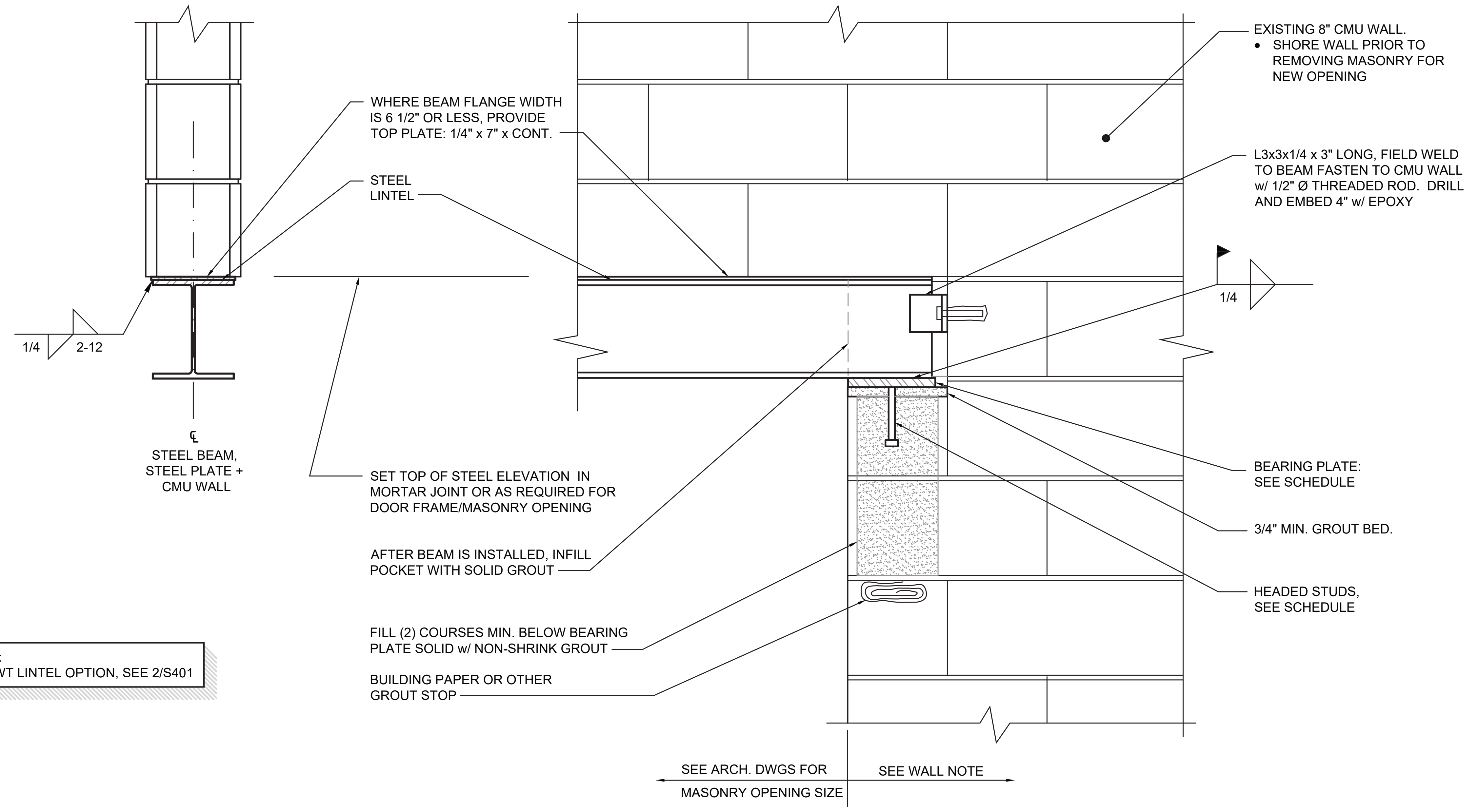
SHEET NO.
S301

BEARING PLATE SCHEDULE

LINTEL SIZE	BEARING PLATE DESIGNATION	BEARING PLATES ("B" x THICKNESS x "N")	ANCHORAGE
W8	BP-1	7 1/2" x 1/2" x 7 1/2"	(2) - 5/8" DIAM. x 0'-5" LONG HEADED STUDS, AUTOMATICALLY WELDED TO UNDERSIDE OF BEARING PLATE
W18	BP-2	7 1/2" x 1/2" x1'-0"	



BEARING PLATE DETAIL



NOTE:
FOR WT LINTEL OPTION, SEE 2/S401

LINTEL SECTION

W8 LINTEL BEARING DETAIL (W18 SIM.)

1 STEEL LINTEL BEARING PLATE SCHEDULE AND SUPPORT DETAILS

1 1/2" = 1'-0"

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RYAN T PRESTON
084832-1

NO.	REVISION	DATE

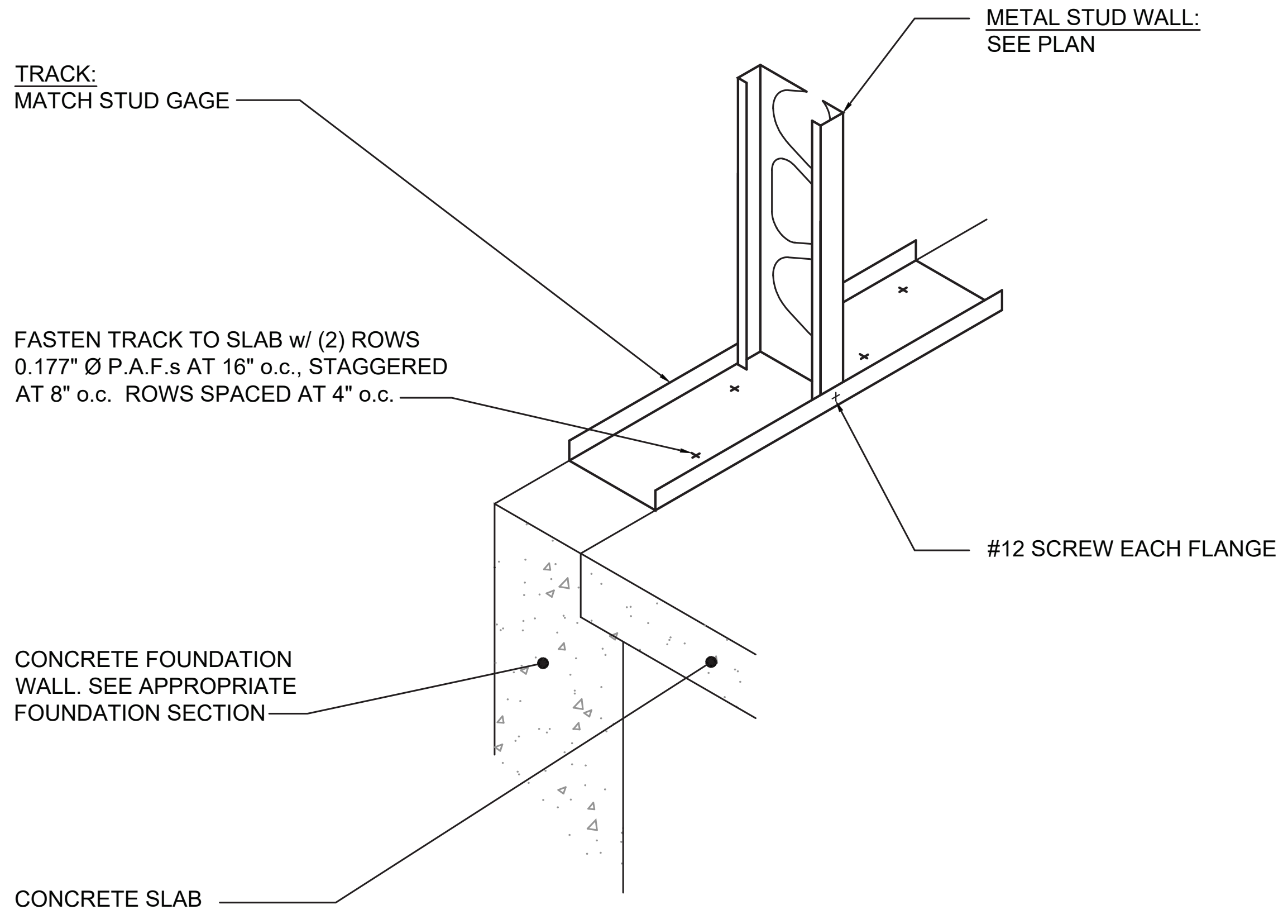
SHEET TITLE:
TYPICAL MASONRY DETAILS

SCALE:
No Scale

DATE:
MAY 20, 2025

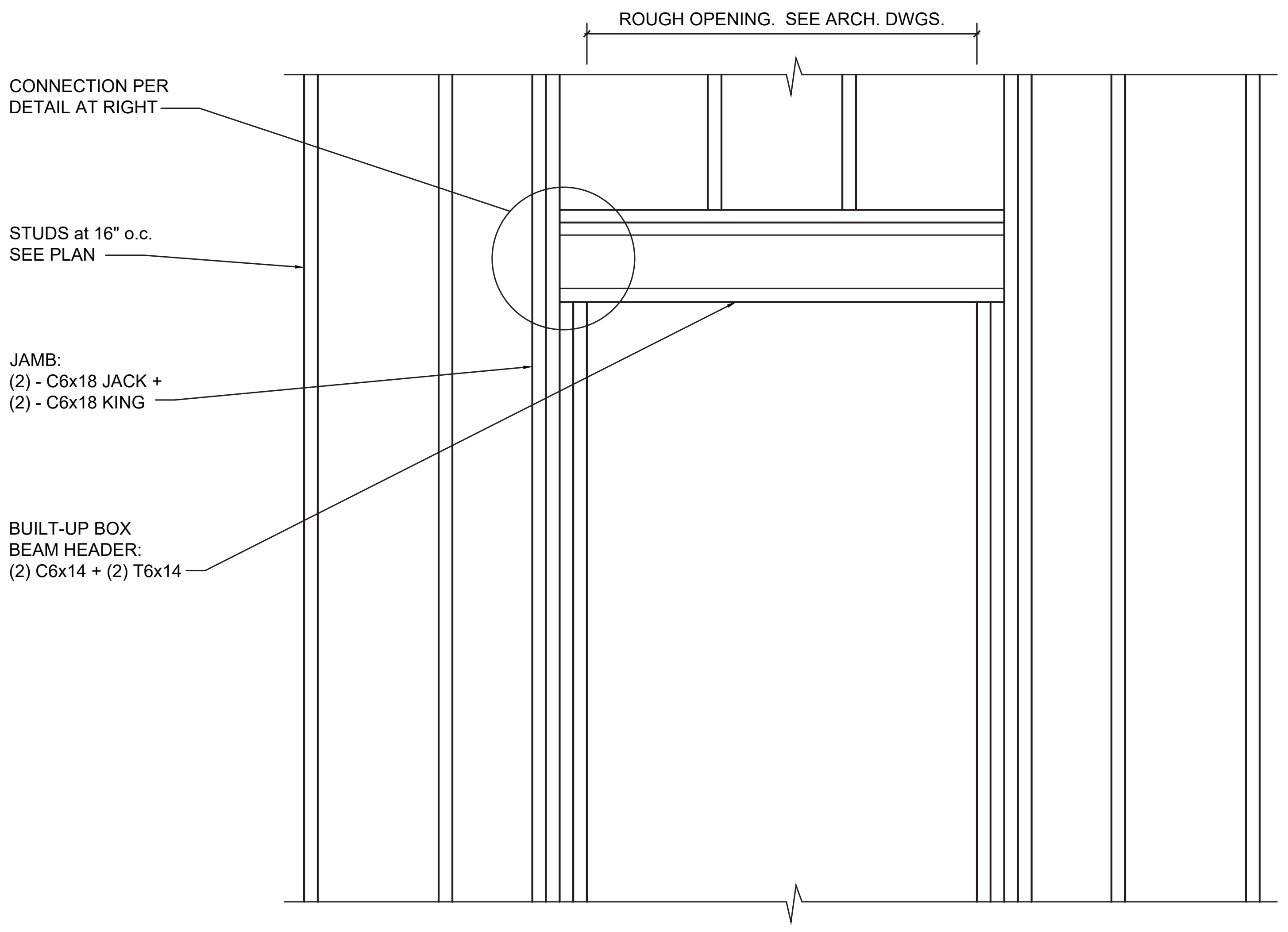
SHEET NO.

S400



1 TYP. COLD-FORMED FRAMING ANCHORAGE TO CONC.

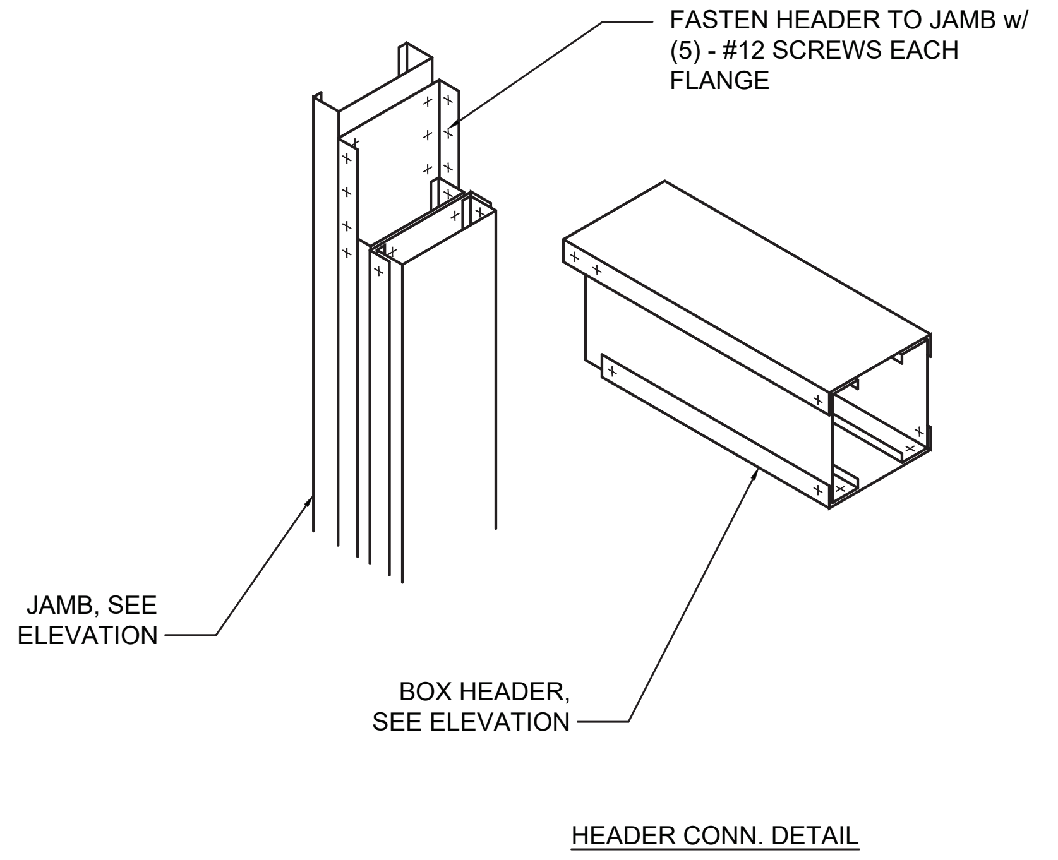
3/4" = 1'-0"



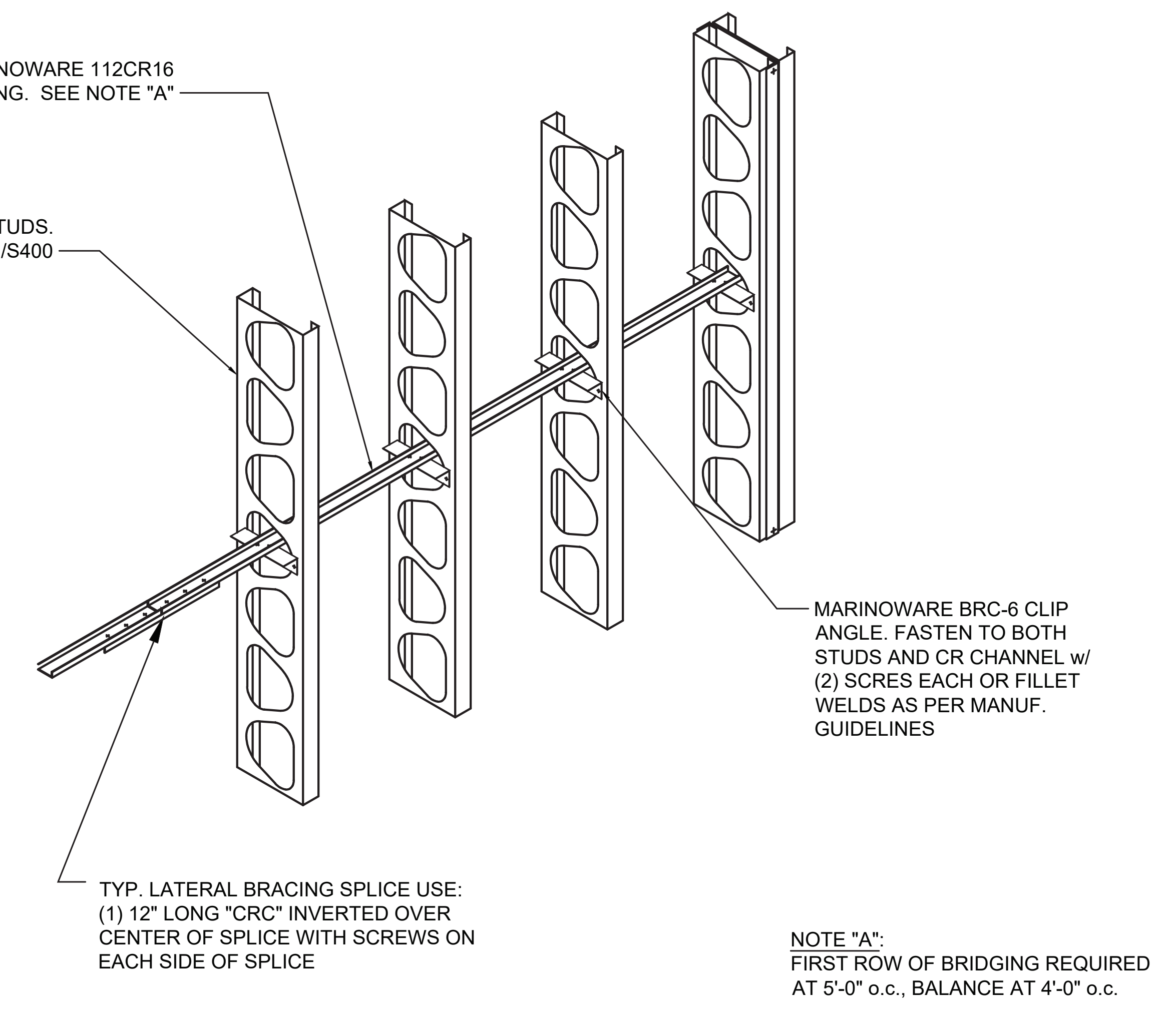
FOR CONN. OF TYP. STUDS TO TOP AND BOTTOM TRACKS, SEE APPROPRIATE SECTIONS

2 TYP. COLD-FORMED FRAMING AT OPENINGS

3/4" = 1'-0"



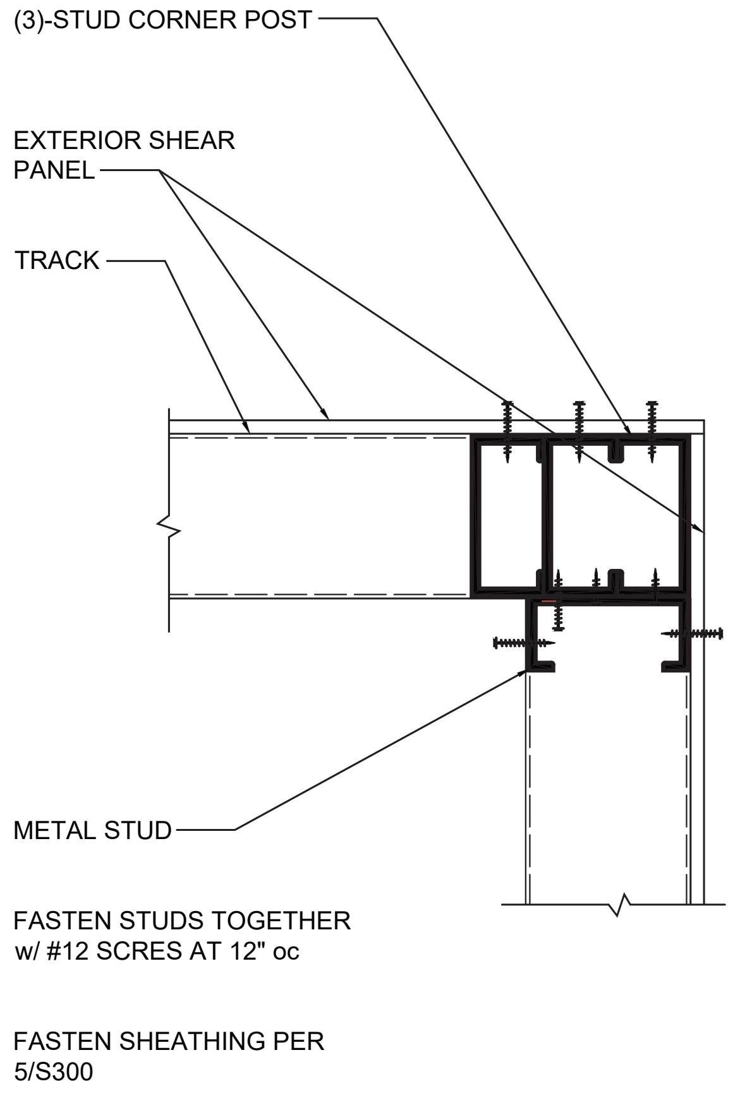
HEADER CONN. DETAIL



NOTE "A":
FIRST ROW OF BRIDGING REQUIRED AT 5'-0" o.c., BALANCE AT 4'-0" o.c.

3 TYP. MECHANICAL BRIDGING OF STUDS

NO SCALE



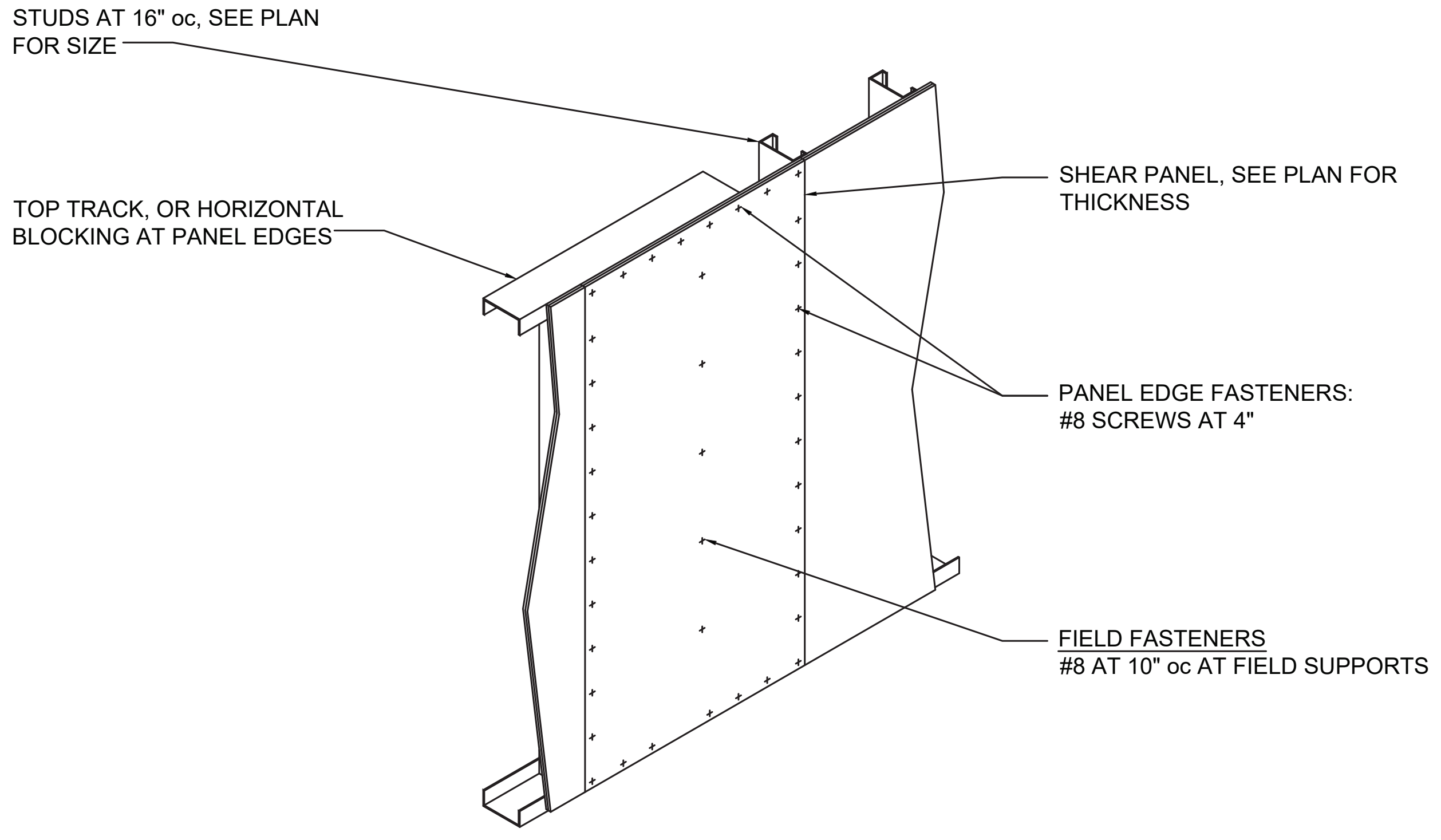
FASTEN STUDS TOGETHER w/ #12 SCRES AT 12" oc

FASTEN SHEATHING PER 5/S300

PLAN DETAIL

4 TYP. WALL CORNER FRAMING

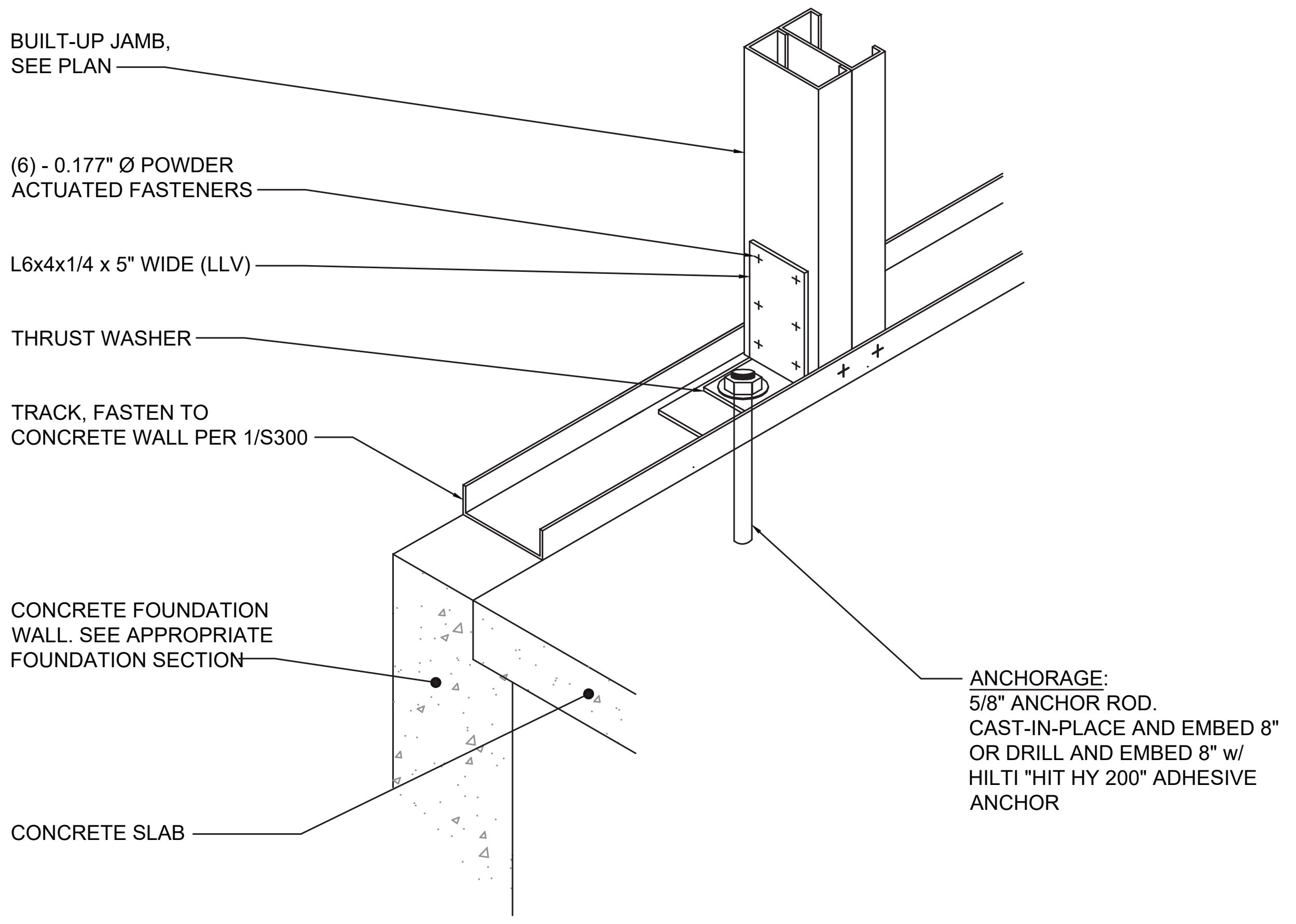
NO SCALE



BLOCK ALL SHEAR PANEL DIAPHRAGM EDGES

5 TYP. SHEAR PANEL FASTENING INFO

NO SCALE



6 TYP. DOOR/WINDOW JAMB ANCHORAGE

NO SCALE

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NO.	*REVISION*	*DATE*

SHEET TITLE:
TYPICAL COLD FORMED METAL FRAMING DETAILS

SCALE:
AS NOTED

DATE:
MAY 20, 2025

SHEET NO.
S500