

DESIGN CRITERIA

1. BUILDING CODE - FLORIDA BUILDING CODE (FBC) 2023 / ASCE7-22	
2. DEAD LOADS	
ROOF	20 PSF
3. ROOF LIVE LOADS	20 PSF
4. FLOOR LIVE LOADS	
PUBLIC AREAS	100 PSF
STORAGE (LIGHT)	125 PSF
5. WIND LOADS	
ULTIMATE WIND SPEED, V	157 MPH
RISK CATEGORY	II
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFFICIENT, Gcpi	#0.18
COMPONENTS & CLADDING NOT DESIGNED BY THE ENGINEER OF RECORD SHALL BE DESIGNED FOR THE WIND PRESSURES SHOWN ON THE COMPONENTS AND CLADDING DIAGRAM. WIND PRESSURES FOR LARGER TRIBUTARY AREAS MAY BE USED BASED ON DELEGATED DESIGN CALCULATIONS.	
6. SEISMIC LOADS	
RISK CATEGORY	II
IMPORTANCE FACTOR, Ie	1.0
SITE CLASS	D
MAPPED SPECTRAL RESPONSE ACCELERATIONS	
Ss	0.051 g
S1	0.029 g
SPECTRAL RESPONSE COEFFICIENTS	
SDS	0.054 g
SD1	0.046 g
SEISMIC DESIGN CATEGORY	A
SEISMIC FORCE RESISTING SYSTEM	ORDINARY REINFORCED MASONRY WALLS
RESPONSE MODIFICATION FACTOR, R	2
RESPONSE COEFFICIENT, Cs	0.027
DESIGN BASE SHEAR	Cs x (WEIGHT OF BUILDING)
ANALYSIS PROCEDURE	EQUVALENT LATERAL FORCE
7. SOIL DESIGN VALUES	
REFERENCE GEOTECHNICAL REPORT NUMBER:	DATED 06/12/2019
PREPARED BY GFA INTERNATIONAL	
ALL VALUES ARE ASSUMED UNLESS REFERENCED IN GEOTECHNICAL REPORT	
SOIL UNIT WEIGHT (γ)	120 PCF
LATERAL EARTH PRESSURE:	
ACTIVE (RETAINING WALLS)	45 PSF/FT
AT-REST (BASEMENT WALLS)	60 PSF/FT
PASSIVE / BEARING PRESSURE LATERAL	150 PSF/FT
ALLOWABLE SOIL BEARING PRESSURES	
VERTICAL (NET)	2,000 PSF
LATERAL SLIDING RESISTANCE	
COEFFICIENT OF SLIDING FRICTION	0.25
COHESION (CLAY)	N/A PSF
SUBGRADE MODULUS	150 PCI

GENERAL REQUIREMENTS

- THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INCLUDE THE METHOD OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, TEMPORARY STRUCTURES, AND PARTIALLY COMPLETED WORK. OBSERVATION VISITS TO THE SITE BY STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
- GENERAL CONTRACTOR TO DISTRIBUTE ALL SHEETS IN THE SET TO SUBCONTRACTORS.
- THE ARCHITECT AND/OR ENGINEER OF RECORD SHALL NOT HAVE CONTROL OVER OR BE IN CHARGE OF, AND SHALL NOT BE RESPONSIBLE IN ANY WAY FOR CONSTRUCTION MEANS, METHODS TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH ANY CONSTRUCTION ACTIVITIES, SINCE THESE ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY.
- SUBMITTALS PREPARED BY SUBCONTRACTORS SHALL BE REVIEWED BY CONTRACTOR PRIOR TO SUBMITTING TO ARCHITECT/ENGINEER.
- CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS AT THE JOB SITE. ANY DISCREPANCIES BETWEEN THE CONDITIONS FOUND AND THOSE INDICATED IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
- SEE DOCUMENTS FROM OTHER DISCIPLINES FOR FLOOR, WALL, AND ROOF OPENINGS, TRENCHES, PITS, PIPE SLEEVES, EQUIPMENT PADS, METAL PAN STAIRS, MISCELLANEOUS IRON, ETC.
- DO NOT PLACE PIPES, DUCTS, CHASES, ETC. IN STRUCTURAL BEAM AND COLUMN MEMBERS. DO NOT CUT ANY STRUCTURAL MEMBER FOR PIPES, DUCTS, ETC., UNLESS NOTED OTHERWISE. NOTIFY STRUCTURAL ENGINEER WHEN DOCUMENTS BY OTHER DISCIPLINES SHOW OPENINGS, POCKETS, ETC. NOT INDICATED IN THE STRUCTURAL DRAWINGS BUT ARE LOCATED IN THE STRUCTURAL MEMBERS. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM STRUCTURAL ENGINEER FOR INSTALLATION OF SUCH PIPES, DUCTS, CHASES, ETC.
- DETAILS LABELED "TYPICAL" ON THE STRUCTURAL DRAWINGS APPLY TO ALL SITUATIONS OCCURRING ON PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE LOCATIONS SPECIFICALLY INDICATED. WHERE A DETAIL IS NOT INDICATED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR CONDITIONS.
- CONTRACTOR DESIGNED ELEMENTS SHALL BE DESIGNED BY LICENSED PROFESSIONAL ENGINEERS REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, DESIGN LOAD DATA, SUPPORT REACTIONS, AND CERTIFICATION THAT ELEMENTS WERE DESIGNED FOR LOADS SPECIFIED IN THE CONTRACT DOCUMENTS OR IN THE BUILDING CODE. ALLOW MINIMUM 10 BUSINESS DAYS FOR REVIEW BY EOR. ALL DOCUMENTS NOTED SHALL BE SEALED BY THE LICENSED ENGINEER. IF CRITERIA INDICATED ARE NOT SUFFICIENT, SUBMIT A WRITTEN REQUEST FOR ADDITIONAL INFORMATION TO THE ARCHITECT. THE FOLLOWING ELEMENTS AND THEIR CONNECTIONS SHALL BE CONTRACTOR DESIGNED:
 - STRUCTURAL STEEL CONNECTIONS NOT DETAILED OR SHOWN ON THE DRAWINGS
 - STEEL JOIST & JOIST GIRDERS
 - PREFABRICATED EXTERIOR CANOPIES & BALCONIES
 - EARTH RETENTION SYSTEMS
 - TEMPORARY SHORING DURING CONSTRUCTION

SPREAD FOUNDATIONS

- ALL FOUNDATIONS SHALL BE SUPPORTED ON APPROVED EXISTING SUBGRADE OR APPROVED COMPACTED STRUCTURAL FILL HAVING A MINIMUM ALLOWABLE BEARING CAPACITY AS INDICATED IN THE SOIL DESIGN VALUES.
- SUBSURFACE CONDITIONS SHALL BE IMPROVED TO MEET CAPACITY WHEN REQUIRED, AS RECOMMENDED IN GEOTECHNICAL REPORT.
- THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE VALIDITY OF THE SUBSURFACE CONDITIONS DESCRIBED IN THE DRAWINGS, SPECIFICATIONS, TEST BORINGS OR GEOTECHNICAL REPORTS. THIS DATA IS INCLUDED TO ASSIST THE CONTRACTOR DURING BIDDING AND SUBSEQUENT CONSTRUCTION, AND TO REPRESENT CONDITIONS ONLY AT SPECIFIC LOCATIONS AT THE PARTICULAR TIME THE OBSERVATIONS WERE MADE.
- ALL EXTERIOR FOUNDATIONS SHALL BEAR ON APPROVED SUBGRADE EXTENDED BELOW THE FROST LINE DEPTH OF THE LOCALITY.
- FOOTING ELEVATIONS SHOWN ON THE DRAWINGS REPRESENT ESTIMATED DEPTHS AND ARE NOT TO BE CONSTRUED AS LIMITING THE AMOUNT OF EXCAVATION REQUIRED TO REACH SUITABLE BEARING MATERIAL.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORTS IN ALL EXCAVATIONS AS REQUIRED TO PREVENT HORIZONTAL MOVEMENT OR VERTICAL SETTLEMENT OF SURROUNDING SOIL AND/OR PROPERTY WHICH WILL ENDANGER LIVES OR PROPERTY.
- THE CONTRACTOR SHALL PROVIDE CONTROL OF SURFACE AND SUBSURFACE WATER PROMPTLY TO ENSURE THAT ALL FOUNDATION WORK IS PERFORMED IN A DRY CONDITION.
- FOUNDATIONS SHALL NOT BE PLACED ON FROZEN SUBGRADE.
- THE CONTRACTOR SHALL PROTECT IN-PLACE FOUNDATIONS AND SLABS-ON-GRADE FROM FROST PENETRATION UNTIL THE PROJECT IS COMPLETE.
- FOUNDATION WALLS SHALL BE BRACED DURING BACKFILLING AND COMPACTION OPERATIONS. BRACING SHALL BE LEFT IN PLACE UNTIL PERMANENT STRUCTURAL SUPPORT SYSTEM IS INSTALLED AND APPROVED BY THE ENGINEER.
- WHERE FOUNDATION WALLS HAVE FILL ON BOTH SIDES, BACKFILLING SHALL BE DONE SIMULTANEOUSLY ON BOTH SIDES OF THE WALL.

CONCRETE REINFORCING

CODES:		
ACI 315	DETAIL AND DETAILING OF CONCRETE REINFORCEMENT	
ACI 318	BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE	
MSP2	CRSI MANUAL OF STANDARD PRACTICE	
AWS D1.4	STRUCTURAL WELDING CODE - REINFORCING STEEL	
WRI	WELDED WIRE FABRIC MANUAL OF STANDARD PRACTICE	
MATERIALS:		
REINFORCING BARS	ASTM A615 Gr 60	Fy=60 KSI
WELDED WIRE FABRIC	ASTM A185	
MACRO FIBER REINFORCING	ASTM C1116 Type III	
WELDABLE REINFORCING BARS	ASTM A706	Fy=60 KSI
1. THE REINFORCEMENT FABRICATOR SHALL PROVIDE AND SCHEDULE ON SHOP DRAWINGS ALL REQUIRED REINFORCING STEEL AND NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN PLACE AT THE CORRECT LOCATIONS.		
2. THE REQUIRED CLEARANCE FOR REINFORCEMENT (UNO) SHALL BE 3" FOR CONCRETE PLACED DIRECTLY AGAINST EARTH, 2" (#6 & LARGER) AND 1 1/2" (#5 & SMALLER) FOR CONCRETE EXPOSED TO EARTH OR WEATHER, 1 1/2" (#14 & LARGER) AND 3/4" (#11 & SMALLER) FOR CONCRETE NOT EXPOSED TO EARTH OR WEATHER.		
3. THE CONTRACTOR SHALL REFER TO TYPICAL DETAILS SHOWN ON THE CONTRACT DRAWINGS FOR ADDITIONAL REINFORCING REQUIREMENTS.		
4. WHERE REINFORCEMENT IS REQUIRED IN SECTIONS, REINFORCEMENT IS CONSIDERED TYPICAL WHERE EVER THE SECTION APPLIES.		
5. WELDED WIRE FABRIC SHALL HAVE A MINIMUM OF 6" LAP AND BE TIED TOGETHER.		
6. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF COMPLETION OF REINFORCEMENT INSTALLATION AND ALLOW AT LEAST 24 HOURS BEFORE SCHEDULED CONCRETE PLACEMENT FOR THE ARCHITECT TO INSPECT REINFORCEMENT.		

CONCRETE

CODES:		
ACI 301	SPECIFICATION FOR STRUCTURAL CONCRETE	
ACI MCP	MANUAL OF CONCRETE PRACTICE	
ACI 318	BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE	
ACI 318.1	BUILDING CODE REQUIREMENTS FOR STRUCTURAL PLAIN CONCRETE	
MATERIALS (28 DAY COMPRESSIVE STRENGTH):		
FOOTINGS		fc=3,000 PSI
INTERIOR SLAB ON GRADE		fc=4,000 PSI
EXTERIOR SLAB ON GRADE (EXCLUDING SIDEWALKS)		fc=5,000 PSI
FOUNDATION WALLS / GRADE BEAMS / PIERS		fc=4,500 PSI
BEAMS / COLUMNS		fc=4,000 PSI
CONCRETE ON METAL DECK		fc=4,000 PSI
CONCRETE TOPPING		fc=4,000 PSI

- CONCRETE MIX DESIGN (INCLUDING AGGREGATE SIZE, WATER CEMENT RATIO, AIR ENTRAINMENT, ADMIXTURES, SLUMP AND HISTORY OF BREAK TESTS) SHALL BE SUBMITTED TO THE EOR FOR APPROVAL PRIOR TO THE COMMENCEMENT OF ANY WORK. CONCRETE SHALL BE NORMAL WEIGHT UNO.
- MAXIMUM WATER/CEMENT RATIO PERMITTED SHALL BE 0.55 FOR FOOTINGS, 0.50 FOR INTERIOR SLABS ON GRADE, 0.45 FOR BELOW GRADE CONCRETE AND 0.40 FOR CONCRETE EXPOSED TO WATER AND DEICING CHEMICALS.
- CONCRETE WHICH WILL BE EXPOSED TO THE WEATHER (INCLUDING FOUNDATION WALLS) SHALL HAVE AIR-ENTRAINING ADMIXTURE AS REQUIRED TO PROVIDE 6% ± 1% AIR ENTRAINMENT.
- MAXIMUM AGGREGATE SIZE SHALL BE 3/4" FOR SLABS ON GRADE, WALLS, BEAMS & COLUMNS, 1" FOR FOOTINGS AND 3/8" FOR TOPPING SLABS. NORMAL WEIGHT AGGREGATE TO CONFORM TO ASTM C33, LIGHTWEIGHT AGGREGATE TO CONFORM TO ASTM C330.
- CONCRETE SHALL BE EVALUATED ACCORDING TO METHOD 1 OR METHOD 2 AS DESCRIBED IN ACI 301. THE RESULTS OF THESE ANALYSES SHALL BE SUBMITTED TO THE EOR FOR APPROVAL PRIOR TO ANY WORK.
- THE CONTRACTOR SHALL MAKE PROVISIONS TO ALLOW AN INDEPENDENT TESTING AGENCY TO CAST 4 TEST CYLINDERS FOR EACH 50 CUBIC YARDS OF CONCRETE PLACED, OR FOR ANY DAY'S OPERATION. THE TESTING AGENCY SHALL BE RESPONSIBLE FOR CASTING AND CURING SPECIMENS IN COMPLIANCE TO ASTM C31 AND CASTING TESTING SPECIMENS IN COMPLIANCE TO ASTM C39.
- DRAWINGS SHOWING THE LOCATION OF CONSTRUCTION JOINTS, CONTROL JOINTS, AND PLACING SEQUENCE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE PREPARATION OF REINFORCING SHOP DRAWINGS. MAXIMUM POUR LENGTHS OF WALLS TO BE 40'-0" AND A MINIMUM OF 4'-0" AWAY FROM INTERSECTIONS AND CORNERS.
- GROUT USED TO SET PLATES SHALL BE NON-SHRINK AND NON-METALLIC.
- THE CONTRACTOR SHALL USE SMOOTH FORMS FOR EXPOSED CONCRETE SURFACES. BOARD FORMS MAY BE USED FOR UNEXPOSED CONCRETE SURFACES. EARTH FORMS ARE FORBIDDEN.
- PROVIDE COMPACTED GRANULAR FILL UNDER ALL SLABS ON GRADE, SEE CONCRETE SLAB ON GRADE SCHEDULE.
- VAPOR BARRIER TO BE AS INDICATED ON TYPICAL SLAB JOINT DETAIL, LAP MINIMUM 6" AND TAPE ALL SEAMS. VERIFY ADDITIONAL REQUIREMENTS WITH ARCHITECT.
- FLOOR FLATNESS AND LEVELNESS OF SLAB ON GRADE CONCRETE SHALL HAVE THE FOLLOWING TOLERANCES, AS RECOGNIZED BY THE MOST CURRENT VERSION OF ASTM E 1155 AND ACI 302.1. SEE SPECIFICATION FOR FURTHER REQUIREMENTS (F(F) SPECIFIED OVERALL VALUE (SOV) OF 50, MINIMUM LOCALIZED VALUE (MLV) OF 25 AND F(L) SPECIFIED OVERALL VALUE (SOV) OF 33, MINIMUM LOCALIZED VALVE (MLV) OF 17).

REINFORCED MASONRY

CODES:		
ACI 530.1/ASCE 6/TMS 602	SPECIFICATION FOR MASONRY STRUCTURES	
ACI 530/ASCE 5/TMS 402	BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES	
MATERIALS:		
CONCRETE MASONRY BLOCK	ASTM C-90	2,000 PSI
TYPE M/S MORTAR	ASTM C270	
GROUT (28 DAY STRENGTH)	ASTM C476	2,000 PSI
REINFORCING BARS	ASTM A615 Gr 60	Fy=60 KSI
1. THE REQUIRED MINIMUM 28 DAY COMPRESSIVE STRENGTH OF THE COMBINATION OF CONCRETE BLOCK, GROUT AND MORTAR ON THE NET AREA OF THE CONSTRUCTION (fm) SHALL BE A MINIMUM OF 2,000 PSI.		
2. ALL CONCRETE BLOCK MASONRY UNITS SHALL BE NORMAL WEIGHT.		
3. ALL CONCRETE BLOCK MASONRY UNITS SHALL BE LAID IN RUNNING BOND. UNO.		
4. MASONRY BLOCK CELLS CONTAINING VERTICAL REINFORCING SHALL BE GROUTED FULL. FILLING CELLS WITH MORTAR IS UNACCEPTABLE.		
5. ALL BOND BEAMS TO BE GROUTED SOLID.		
6. THE BASE OF EACH CELL IN WHICH REINFORCING BAR IS PLACED MUST HAVE A CLEAN CUT HOLE.		
7. VERTICAL REINFORCING BARS SHALL BE LAPPED PER SCHEDULE. MECHANICAL SPLICES MAY BE USED IN LIEU OF LAP SPLICES.		
8. PROVIDE CONTINUOUS REINFORCED BOND-BEAMS IN ALL REINFORCED MASONRY WALLS AT THE TOP, AND AS REQUIRED IN THE CONTRACT DRAWINGS. BOND-BEAMS AT THE TOP OF THE WALL SHALL BE CONTINUOUS AT MASONRY CONTROL JOINTS. ALL OTHER BOND-BEAMS SHALL NOT BE CONTINUOUS AT MASONRY CONTROL JOINTS. BOND-BEAM REINFORCING SHALL EXTEND INTO AND BE CONTINUOUS WITH ALL INTERSECTING BOND-BEAMS.		
9. REINFORCED MASONRY WALLS SHALL HAVE #9 GAUGE (LADDER TYPE) HORIZONTAL REINFORCING AT SPACING AS NOTED ON CONTRACT DRAWINGS, BUT AT A MAXIMUM OF 16" O.C. VERTICALLY.		
10. FILL CORES OF MASONRY UNDER ALL BEARING PLATES. THE MINIMUM WIDTH SHALL BE 3 TIMES THE BEARING PLATE LENGTH FOR THREE COURSES BELOW BEARING. UNO.		
11. BRACE ALL MASONRY WALLS DURING CONSTRUCTION AS REQUIRED TO RESIST WIND AND OTHER TEMPORARY LOADS UNTIL FINAL STRUCTURAL MEMBERS ARE INSTALLED.		
12. PROVIDE BAR POSITIONERS ON ALL REINFORCING TO HOLD AND MAINTAIN PROPER REBAR LOCATIONS AND COVER DURING GROUTING.		

MASONRY VENEERS

CODES:		
ACI 530.1/ASCE 6/TMS 602	SPECIFICATION FOR MASONRY STRUCTURES	
ACI 530/ASCE 5/TMS 402	BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES	
MATERIALS:		
VENEER ANCHORS	ASTM A153 CLASS B2	
TYPE N/S MORTAR	ASTM C270	
GROUT (28 DAY STRENGTH)	ASTM C476	2,000 PSI
REINFORCING BARS	ASTM A615 Gr 60	Fy=60 KSI

- SEE ACI 530.1/ASCE 6/TMS 602-05 TABLES C-4 AND C-5 FOR ASTM SPECIFICATION REQUIREMENTS.
- THE AIR SPACE BETWEEN THE VENEER AND THE BUILDING WALL IS TO BE NO LESS THAN 1" AND NO GREATER THAN 4 1/2".
- WICK AND TUBE WEEP SPACING SHALL NOT BE GREATER THAN 16" OC, OPEN HEAD JOINT WEEPS SHALL NOT BE SPACED GREATER THAN 24" OC.
- VENEER ANCHORS SHALL BE A MINIMUM W1.7 ADJUSTABLE WIRE, ANCHORS, HOT DIPPED GALVANIZED, TWO PIECE. THE HORIZONTAL SPACING SHALL BE 32" OC, MAX., THE VERTICAL SPACING SHALL BE 18" OC, MAX. THE MAXIMUM WALL AREA THAT ONE ANCHOR MAY TIE SHALL BE LESS THAN 2 SQFT.
- VENEER ANCHORS SHALL BE SECURED TO STEEL STUDS THRU SHEETING WITH A MINIMUM OF (2)-#10 (190° Ø) SELF-TAPPING SCREWS, TO WOOD STUDS THRU SHEETING WITH A MINIMUM OF (2)-#4 (131° Ø) GALVANIZED NAILS AND TO STRUCTURAL MASONRY WALL WITH A MINIMUM OF (2)-3/16" Ø MASONRY SCREWS.
- VERTICAL EXPANSION JOINTS SHALL BE PLACED AT A MAXIMUM OF 25'-0" OC, WITHIN 10'-0" OF CORNERS, AT OFFSETS, INTERSECTIONS, SETBACKS AND CHANGES IN WALL HEIGHT.
- HORIZONTAL EXPANSION JOINTS SHALL BE PLACED IMMEDIATELY BELOW SHELF ANGLES.

POST-INSTALLED ANCHORS

- THE DIAMETER, EMBEDMENT LENGTH AND TYPE OF ADHESIVE ANCHORS, EXPANSION ANCHORS, AND SCREW ANCHORS SHALL BE AS SPECIFIED ON THE DRAWINGS.
- THE SUBSTITUTION OF OTHER MANUFACTURER'S SIMILAR PRODUCTS IS ALLOWED, PROVIDED THAT THE SIZE IS EQUAL TO, AND CAPACITY IN SHEAR AND UPLIFT ARE EQUAL TO OR GREATER THAN WHAT IS SPECIFIED ON THE DRAWINGS. THE COST OF REDESIGN OF SUCH SUBSTITUTIONS SHALL BE BORE BY THE CONTRACTOR.
- INSTALLATION OF ANCHORS SHALL STRICTLY FOLLOW ALL MANUFACTURER'S WRITTEN INSTRUCTIONS AND SPECIFICATIONS. ALL DRILL HOLE PREPARATIONS SHALL BE FOLLOWED.
- NO LOAD SHALL BE APPLIED TO ADHESIVE ANCHORS PRIOR TO THE FULL CURE TIME AS SPECIFIED BY THE MANUFACTURER.
- TESTING OF 10% OF ALL INSTALLED ANCHORS IS REQUIRED. TESTED ANCHORS SHALL MEET THE MANUFACTURERS PROOF LOAD REQUIREMENTS AND/OR INSTALLATION TORQUE REQUIREMENTS. MALFUNCTIONING FASTENERS SHALL BE REPLACED.

STRUCTURAL STEEL

CODES:		
AISC	SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STEEL FOR BUILDINGS	
AISC	CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES	
AWS D1.1	STRUCTURAL WELDING CODE - STEEL	
AISC	STRUCTURAL STEEL DETAILING MANUAL	
MATERIALS:		
HOT ROLLED W & WT SHAPES	ASTM A992	Fy=50 KSI
ANGLES, CHANNELS & PLATES	ASTM A36	Fy=36 KSI
S + M SHAPES	ASTM A36	Fy=36 KSI
HP SHAPES	ASTM A572 Gr 50	Fy=50 KSI
STEEL PIPE	ASTM A53 Gr B	Fy=35 KSI
RECTANGULAR HSS	ASTM A500 Gr C	Fy=50 KSI
ROUND HSS	ASTM A500 Gr C	Fy=46 KSI
HIGH STRENGTH BOLTS	ASTM A438	
HEAVY HEX NUTS	ASTM A563	
HARDENED STEEL WASHERS	ASTM A438	
ANCHOR RODS	ASTM F1554 Gr 36	Fy=36 KSI
THREADED RODS	ASTM A36	Fy=36 KSI
HEADED STUD ANCHORS	ASTM A108	

- PROVIDE 2 MIL THICKNESS RED OR GRAY OILC PRIMER ON ALL STEEL SURFACES (UNO).
- ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 AND FASTENERS HOT DIPPED GALVANIZED PER ASTM A153.
- ANCHOR RODS SHALL BE PRESET WITH TEMPLATES.
- COLUMN BASE PLATES SHALL BE GROUTED UNDER WITH NON-SHRINK, NON-METALLIC GROUT.
- CONNECTIONS MAY BE BOLTED OR WELDED AT THE FABRICATORS OPTION. BOLTED CONNECTIONS SHALL BE A MINIMUM BOLT DIAMETER OF 3/4" (UNO), HIGH STRENGTH BOLTS IN SINGLE OR DOUBLE SHEAR (UNO) AND SIMPLE SHEAR CONNECTIONS SHALL BE CAPABLE OF END ROTATION PER AISC REQUIREMENTS FOR UNRESTRAINED MEMBERS.
- THE MINIMUM FILLET WELD SIZE SHALL NOT BE LESS THAN 3/16" (UNO).
- ALL WELDS SHALL USE WELD METAL CONFORMING TO E70XX AND CONFORMING TO AWS WELDING PROCEDURES AND STANDARDS.
- ALL WELDS SHALL BE MADE BY AWS CERTIFIED WELDERS CERTIFIED IN THE POSITION IN WHICH THE WELD IS TO BE MADE.
- THE ERECTION OF ANY STRUCTURAL STEEL MEMBERS SHALL NOT COMMENCE UNTIL ALL SUPPORTING CONCRETE/MASONRY ELEMENTS HAVE ATTAINED AT LEAST 75% OF THEIR INTENDED MINIMUM COMPRESSIVE STRENGTH.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SUPPORTS FOR THE SAFE ERECTION OF ALL STEEL.
- TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL PERMANENT BRACING HAS BEEN INSTALLED AND FLOOR SLAB CONCRETE HAS ATTAINED 75% OF ITS REQUIRED STRENGTH.
- STRUCTURAL STEEL SHALL BE TRUE AND PLUMB BEFORE FINAL BOLTING OR WELDING OF CONNECTIONS.
- THE CONTRACTOR SHALL NOT MODIFY OR CUT ANY STRUCTURAL STEEL WITHOUT WRITTEN APPROVAL FROM THE EOR.
- THE CONTRACTOR SHALL FIELD TOUCH UP ALL ABRASIONS, BURNS, AND SIMILAR DEFECTS IN PAINT OF STRUCTURAL STEEL.
- PROVIDE 1/4" CLOSURE/END PLATES FOR ALL OPEN ENDS OF HSS & PIPE MEMBERS.

STEEL DECK AND SHEAR CONNECTORS

CODES:		
AISC	SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STEEL FOR BUILDINGS	
AISI	SPECIFICATION FOR THE DESIGN OF LIGHT GAUGE COLD FORMED STEEL STRUCTURAL MEMBERS	
AWS D1.3	STRUCTURAL WELDING CODE - SHEET METAL	
SDI	CODE OF PRACTICE	

MATERIALS:		
ROOF DECK - PAINTED	ASTM A611 Gr C	Fy=33 KSI
ROOF DECK - GALVANIZED	ASTM A446 Gr A	Fy=33 KSI
NONCOMPOSITE DECK - PAINTED	ASTM A446 Gr E	Fy=50 KSI
COMPOSITE DECK - GALVANIZED	ASTM A446 Gr 1	Fy=50 KSI
GALVANIZING	ASTM A525 CLASS G60 MIN	

- PRIMER PAINT SHALL BE SHOP APPLIED OVER CLEAN AND PHOSPHATIZED STEEL.
- STEEL DECK SHALL EXTEND OVER THREE OR MORE SPANS WHENEVER POSSIBLE. MINIMUM BEARING AT ENDS SHALL BE 1 1/2".
- STEEL DECK SHALL BE FASTENED AS SHOWN ON THE PLANS.
- IF STEEL DECK IS TO BE FASTENED WITH THE USE OF WELDS, USE 16 GA. WELD WASHERS AT ALL THICKNESS LESS THAN 22 GA. WELDS SHALL NOT BE USED AT SIDE LAP FASTENERS AND DECK SHALL BE WELDED TO SUPPORTS WITH HOBART 1139 WIRE (IRON POWER RODS) OR AN APPROVED EQUAL.
- SHEAR CONNECTORS, NUMBER INDICATED ON THE FRAMING PLANS AT EACH BEAM BY (X) SHALL BE EQUALLY SPACED OVER THE LENGTH OF THE BEAM STARTING AS NEAR AS POSSIBLE TO THE BEAM SUPPORTS. WHERE STEEL DECK CORRUGATIONS DO NOT ALLOW FOR AN EVEN SPACING, THE SPACING SHALL BE VARIED SO THAT THE HIGHEST DENSITY OF CONNECTORS OCCURS NEAREST THE SUPPORT.

STEEL JOIST

CODES:		
SJI	STANDARD SPECIFICATION FOR OPEN WEB, LONG SPAN AND DEEP LONG SPAN STEEL JOISTS AND JOIST GIRDERS	
SJI	RECOMMENDED CODE OF STANDARD PRACTICE FOR STEEL JOISTS AND JOIST GIRDERS	

- STANDARD SEAT DEPTHS SHALL BE 2 1/2" FOR K SERIES JOISTS, 5" FOR LH & DLH JOISTS AND 7-1/2" MINIMUM FOR JOIST GIRDERS.
- SUPPLIER SHALL PROVIDE BRIDGING AND CROSS BRACING PER SJI REQUIREMENTS AND UPLIFT REQUIREMENTS AS SHOWN ON DRAWINGS.
- JOISTS SHALL RECEIVE ONE COAT OF SHOP APPLIED PAINT CONFORMING TO THE MINIMUM REQUIREMENTS OF THE "STEEL STRUCTURES PAINTING COUNCIL SPECIFICATIONS.
- PROVIDE BOLTED CONNECTIONS AT ALL COLUMN LINES.
- CONTRACTOR SHALL SUBMIT COMPLETE AND DETAILED SHOP DRAWINGS TO THE EOR FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION. INCLUDE METHODS OF FASTENING, BRIDGING LAYOUT AND MISCELLANEOUS ITEMS.

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833 E. Michigan St. | Suite 540 | Milwaukee, WI 53202
ph. 414.278.6904 | www.instudioarch.com

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L A Z

BOY

HOME FURNISHINGS & DÉCOR

VERO BEACH, FL

ISSUED FOR: 08-13-24

PERMIT REVISION
No. 62664
8/14/24
STATUTORY
PROFESSIONAL ENGINEER

SHEET TITLE:

STRUCTURAL
GENERAL
NOTES

STORE NAME:

LA-Z-BOY -
VERO BEACH

SHEET NO.

S0.1

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STEEL COLUMN SCHEDULE					
UPPER ROOF 120'-5 1/4"					UPPER ROOF 120'-5 1/4"
LOWER ROOF 117'-6"	HSS8X8X5/16	HSS8X8X5/16	HSS8X8X5/16	HSS8X8X5/16	LOWER ROOF 117'-6"
FIRST FLOOR 100'-0"					FIRST FLOOR 100'-0"
Column Locations	B-2	B-3	C-2	C-3	
Base PL Size	14"x14"	14"x14"	14"x14"	14"x14"	Base PL Size
Base PL Thick	3/4"	3/4"	3/4"	3/4"	Base PL Thick
Anchor Rods	(4) 5/8" Ø	(4) 5/8" Ø	(4) 5/8" Ø	(4) 5/8" Ø	Anchor Rods
Base PL Detail	A/S002	A/S002	A/S002	A/S002	Base PL Detail
Remarks					Remarks

FOOTING SCHEDULE					
MARK	DIMENSIONS			REINFORCING	REMARKS
	WIDTH	LENGTH	THICKNESS		
F5	5'-0"	5'-0"	1'-0"	(5) #5 EW	
F7	7'-0"	7'-0"	1'-2"	(9) #5 EW	

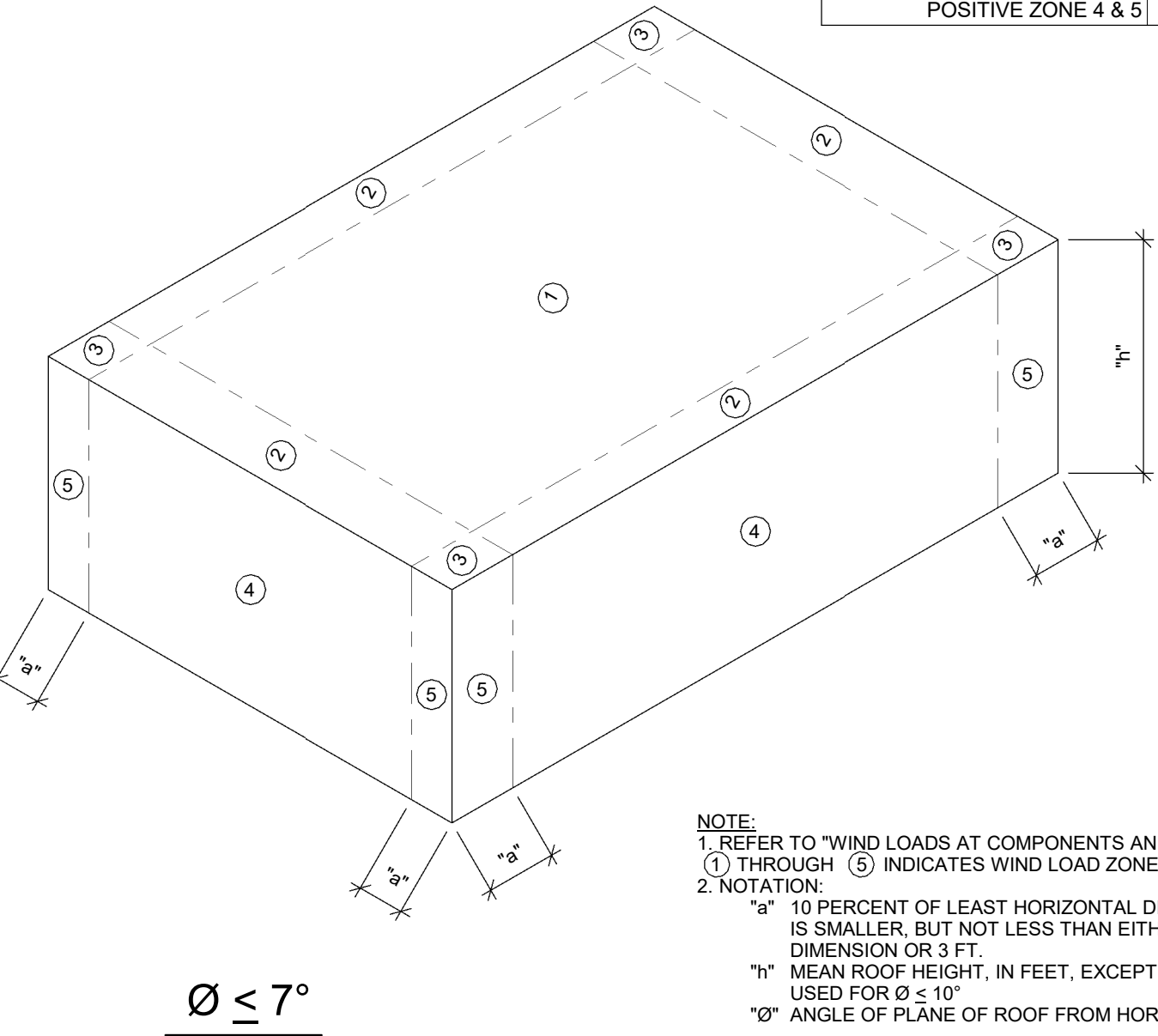
CONCRETE SLAB ON GRADE SCHEDULE					
MARK	CONCRETE SLAB			COMPACTED GRAVEL THICKNESS	REMARKS
	TYPE	THICKNESS	SLAB REINFORCING		
SOG 4	NWC	4"	FORTA FERRO FIBER REINFORCING (3 LB/CY)	6"	SEE TYPICAL SLAB JOINT DETAIL
SOG 22	NWC	1'-10"	#5 @ 12" OC EACH WAY TOP & BOTTOM	8"	

LINTEL SCHEDULE				
MARK	LINTEL	JAMB REINF	LINTEL TYPE	REMARKS
L1	W8X10 W/ 3/8" BOTTOM PL	(1) #5	A	
L2	W16X26 W/ 3/8" BOTTOM PL	(2) #5	A	

METAL DECK SCHEDULE								
MARK	SYSTEM DEPTH	METAL DECK			CONCRETE FILL			REMARKS
		TYPE	DEPTH	GA	FINISH	DEPTH	TYPE	REINFORCING
MD1.5	1 1/2"	METAL DECK - TYPE B	1 1/2"	22	GALVANIZED		-	

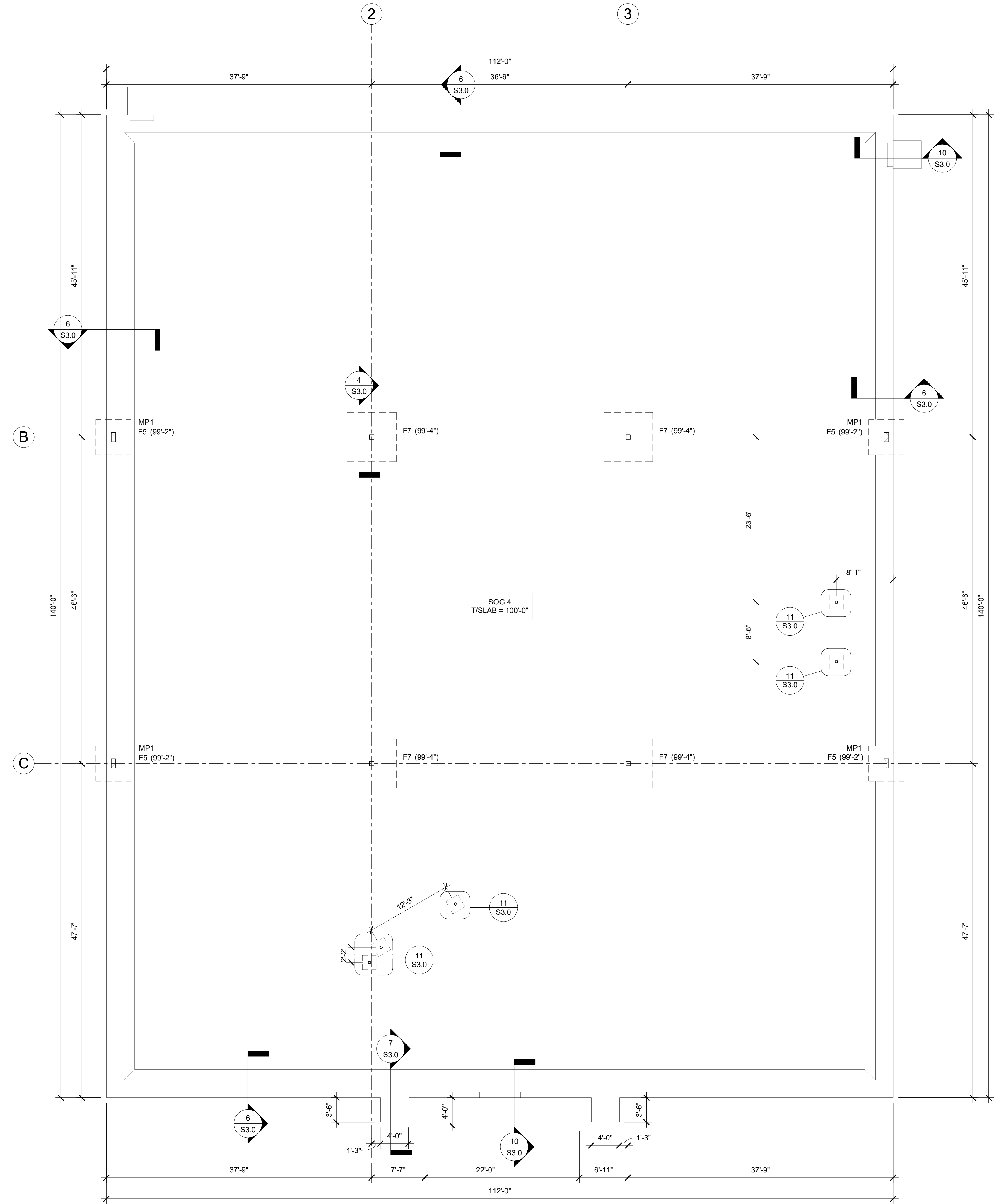
PIER SCHEDULE					
MARK	DIAMETER	DIMENSIONS		REINFORCING	REMARKS
		WIDTH	LENGTH	VERTICAL	TIES
MP1		7 5/8"	1'-4"	(4)-#4	#0 @0" OC

ULTIMATE ROOF SURFACE PRESSURE (PSF)			
AREA (SF)	10.0	100.0	500.0
NEGATIVE ZONE 1	-63.6	-55.8	-55.8
NEGATIVE ZONE 2	-44.0	-34.6	-27.4
NEGATIVE ZONE 3	-84.7	-74.8	-74.8
POSITIVE ZONE 1	-84.7	-74.8	-74.8
POSITIVE ZONES 2 & 3	18.0	18	18
OVERHANG ZONE 1 & 2	41.3	38.3	36.1
OVERHANG ZONE 3	-63.5	-47.3	-47.3
ULTIMATE PARAPET SURFACE PRESSURE (PSF)			
AREA (SF)	10.0	50.0	100.0
CASE A: INTERIOR ZONE	157.9	134.2	123.9
CASE A: CORNER ZONE	157.9	134.2	123.9
CASE B: INTERIOR ZONE	-93.3	-82.3	-77.6
CASE B: CORNER ZONE	-106.6	-90.2	-83.1
ULTIMATE WALL SURFACE PRESSURE (PSF)			
AREA (SF)	10.0	100.0	200.0
NEGATIVE ZONE 4	-55.4	-47.8	-45.6
NEGATIVE ZONE 5	-68.1	-53.1	-48.6
POSITIVE ZONE 4 & 5	51.1	43.6	41.3



1
S0.2
COMPONENTS & CLADDING DIAGRAM
SCALE: 1" = 1'-0"

8/14/2024 11:28:53 AM



1
S1.0

FOUNDATION PLAN

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

- FOUNDATION PLAN NOTES:**
1. SEE SHEET S001 FOR STRUCTURAL GENERAL NOTES AND S002 FOR STRUCTURAL SCHEDULES.
 2. SEE SHEET S300 FOR FOUNDATION WALL CONSTRUCTION JOINTS AND TYPICAL REINFORCING DETAILS.
 3. TOP OF INTERIOR FOOTING ELEVATION = 99'-4" UNO.
 4. SEE MECHANICAL DRAWINGS FOR HOUSEKEEPING PADS REQUIRED FOR MECHANICAL EQUIPMENT.
 5. SEE ARCHITECTURAL DRAWINGS FOR DOOR OPENING SIZES AND LOCATIONS IN WALLS.
 6. COORDINATE WITH ARCHITECTURAL DRAWINGS AND FRAMING PLANS FOR HOLDDOWN REINFORCING LOCATIONS IN FOUNDATION WALLS.
 7. GENERAL CONTRACTOR TO PROVIDE ALL SHORING REQUIRED FOR NEW BUILDING. SEE GENERAL REQUIREMENTS NOTE 1 FOR ADDITIONAL INFORMATION.

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SHEET TITLE:

FOUNDATION
PLAN

STORE NAME:

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SHEET NO.

S1.0

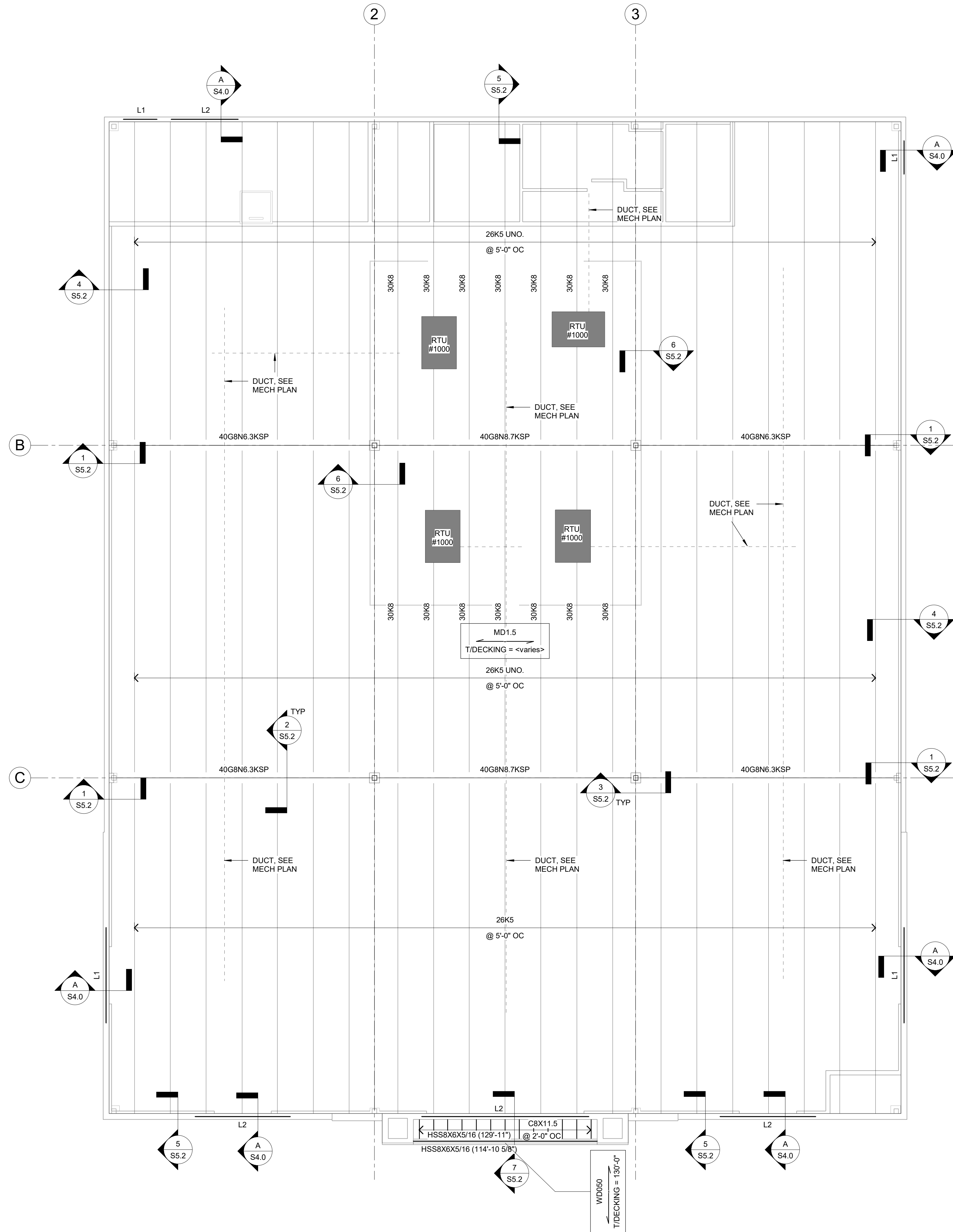
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1
S1.2

ROOF FRAMING PLAN

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

- ROOF PLAN NOTES:**
- SEE SHEET S001 FOR STRUCTURAL GENERAL NOTES AND S002 FOR STRUCTURAL SCHEDULES.
 - SEE SHEET S400 FOR TYPICAL MASONRY SECTIONS AND DETAILS, INCLUDING TYPICAL WALL REINFORCING.
 - SEE SHEET S500 FOR TYPICAL STEEL SECTIONS AND DETAILS.
 - SEE ARCHITECTURAL DRAWINGS FOR TRUSS PROFILES, HEEL HEIGHTS, TRUSS BEARING ELEVATIONS AND ROOF SLOPES.
 - COORDINATE FINAL SIZE AND LOCATION OF OPENINGS, EQUIPMENT AND ROOF DRAINS WITH MECHANICAL AND PLUMBING CONTRACTORS.
 - DESIGN JOISTS FOR A NET UPLIFT OF 15 PSF.
 - ALL HEADERS AND BEAMS TO BE DROPPED UNO.
 - GENERAL CONTRACTOR TO PROVIDE ALL SHORING REQUIRED FOR NEW BUILDING. SEE GENERAL REQUIREMENTS NOTE 1 FOR ADDITIONAL INFORMATION.

- STEEL CONNECTION SYMBOLS:**
- MOMENT
 - CANTILEVER MOMENT
 - END PLATE
 - SHEAR SPLICE
 - SLIP CRITICAL

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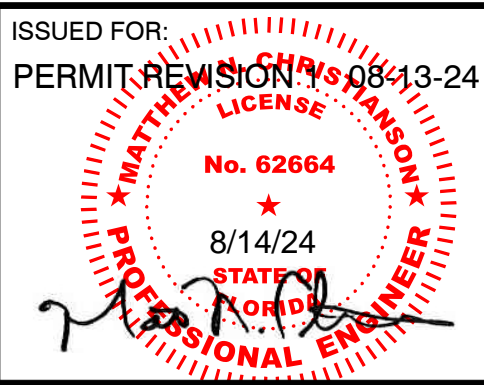
Project No. 23-053 Drawn By C4E Original Issue Date 03/07/2022

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ROOF FRAMING
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S1.2

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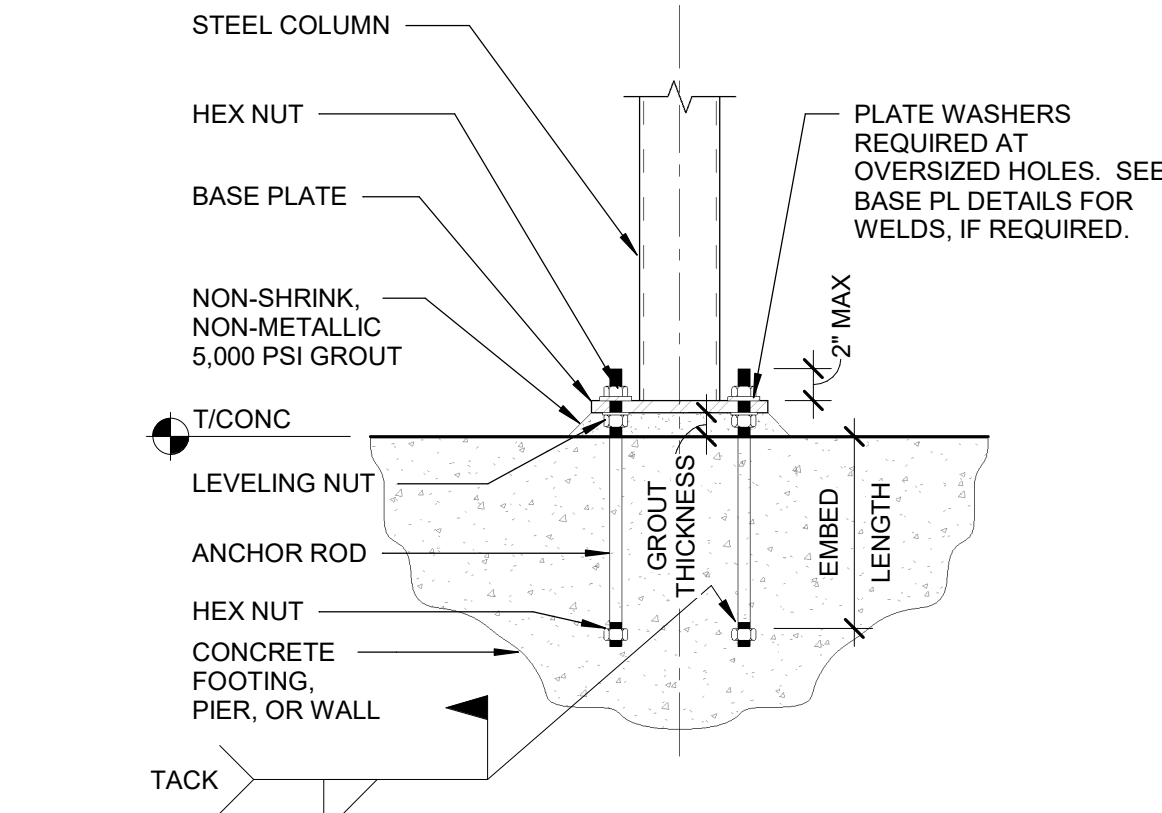
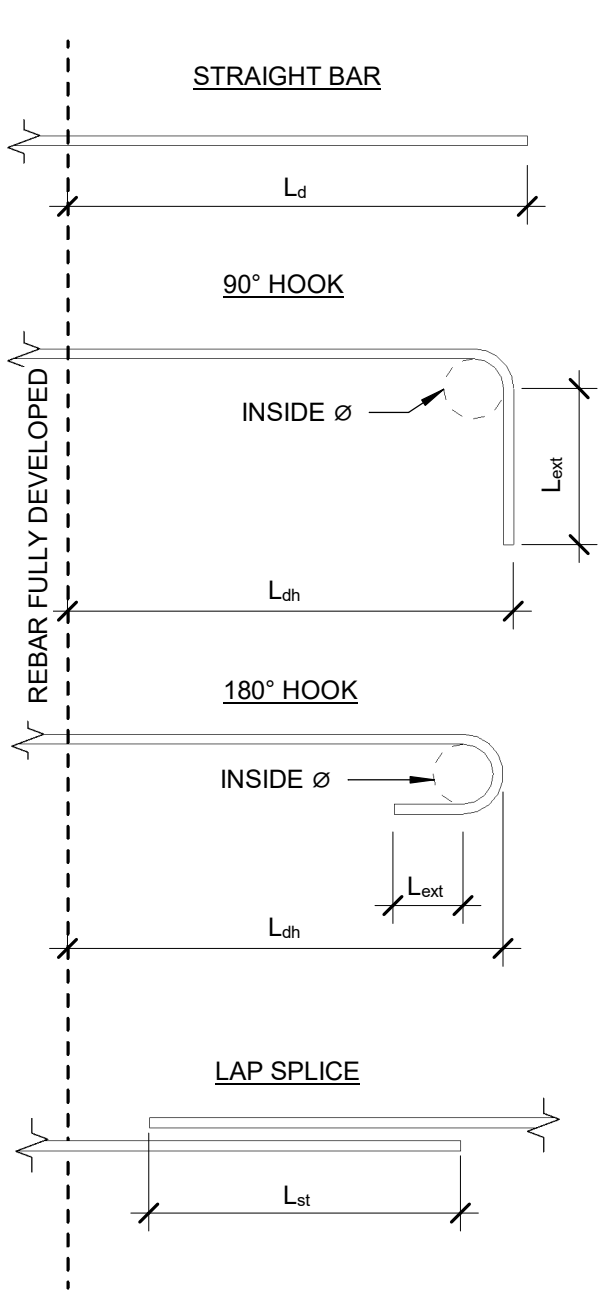
BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11
INSIDE BEND Ø	2.25"	3	3.75	4.5	5.25	6	9.0	10.2	11.3
L _{ext} - 90° HOOK	4.5"	6	7.5	9	10.5	12	13.5	15.2	16.8
L _{ext} - 180° HOOK	2.5"	2.5	2.5	3	3.5	4	4.5	5.1	5.6

3000 PSI	L _d	16.4	21.9	27.4	32.9	47.9	54.8	1.8	69.6	77.2
	L _{dh}	8.2	11.0	13.7	16.4	19.2	21.9	24.7	27.8	30.9
	L _{ext} TOP BARS	28	38	47	56	81	93	105	118	131
	L _{ext} OTHERS	22	29	36	43	63	72	81	91	101

4000 PSI	L _d	14.2	19.0	23.7	28.5	41.5	47.4	53.5	60.2	66.9
	L _{dh}	7.1	9.5	11.9	14.2	16.6	19.0	21.4	24.1	26.8
	L _{ext} TOP BARS	25	33	41	49	71	81	91	102	114
	L _{ext} OTHERS	19	25	31	37	54	62	70	79	87

5000 PSI	L _d	12.7	17.0	21.2	25.5	37.1	42.4	47.9	53.9	59.8
	L _{dh}	6.4	8.5	10.6	12.7	14.9	17.0	19.1	21.6	23.9
	L _{ext} TOP BARS	22	29	36	43	63	72	81	92	102
	L _{ext} OTHERS	17	23	28	34	49	56	63	70	78

- NOTE:
- TABULATED VALUED ARE BASED ON GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE.
 - TENSION LAP SPICE LENGTHS ARE CALCULATED PER ACI 318-14. LENGTHS ARE IN INCHES.
 - TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
 - SPICE COVERS IN THIS SCHEDULE ARE BASED ON CLEAR COVER AT LEAST 1.0 BAR Ø AND CLEAR SPACING AT LEAST 2.0 BAR Ø.



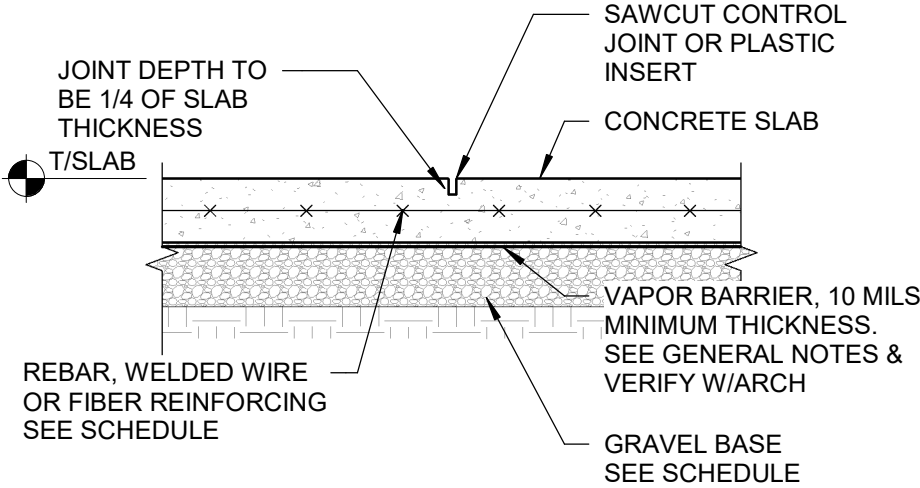
BOLT Ø (IN.)	WASHER SIZE (IN.)	WASHER THICKNESS (IN.)	MAXIMUM HOLE Ø (IN.)	EMBED LENGTH (IN.)	GROUT THICKNESS (IN.)
3/4	2 x 2	1/4	1 5/16	8	1 1/2
7/8	2 1/2 x 2 1/2	5/16	1 9/16	12	1 1/2
1	3 x 3	3/8	1 13/16	14	1 1/2
1 1/4	3 x 3	1/2	2 1/16	16	2 1/2
1 1/2	3 1/2 x 3 1/2	1/2	2 5/16	18	2 1/2
1 3/4	4 x 4	5/8	2 3/4	20	2 1/2
2	5 x 5	3/4	3 1/4	22	3 1/2
2 1/2	5 1/2 x 5 1/2	7/8	3 1/4	24	3 1/2

- SECTION 1: SLAB-ON-GRADE NOTES
- SLAB-ON-GRADE CONSTRUCTION SHOULD CONFORM WITH THE RECOMMENDATIONS AND REQUIREMENTS SET FORTH IN THE LATEST RELEASE OF ACI 302 GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION.
 - REFER TO GEOTECHNICAL REPORT AND/OR ARCHITECTURAL DRAWINGS & SPECIFICATIONS FOR SUB-FLOOR DRAINAGE SYSTEM, SUBGRADE PREPARATION, MUD SLAB AND/OR VAPOR RETARDER REQUIREMENTS.
 - THE SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.
 - REFER TO PLANS FOR SLAB THICKNESS ("T") AND REINFORCEMENT (WWF OR REINFORCEMENT BARS). REFER TO SPECIFICATIONS FOR FIBER REINFORCEMENT TO BE INCORPORATED IN CONCRETE MIX, IF ANY, WHERE PRESENT. REINFORCING BARS SHALL BE CHAIR BY SOIL SUPPORTED SLAB BOLSTERS.
 - PROVIDE (2) #5 x 4'-0" AT ALL RE-ENTRANT CORNERS AND OTHER SIMILAR SLAB DISCONTINUITIES.
 - UNLESS SHOWN OTHERWISE ON THE DRAWINGS, PROVIDE CONTROL AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN LINE AND IN BETWEEN THE COLUMNS SUCH THAT THE JOINT SPACING DOES NOT EXCEED 36X ("T") UNO, THE RESULTING PANELS SHOULD BE APPROXIMATELY SQUARE.

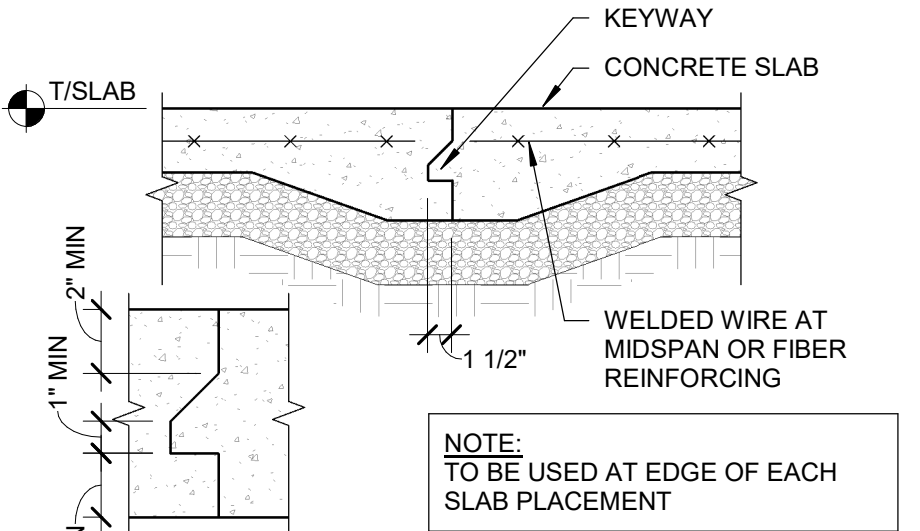
- SECTION 2: CONSTRUCTION JOINT NOTES
- BREAK THE BOND BETWEEN NEW AND PREVIOUSLY PLACES SLABS BY SPRAYING OR BY PAINTING THE EXPOSED SIDE OF THE JOINT WITH A CURING COMPOUND, ASPHALTIC EMULSION, OR FORM OIL.

- SECTION 3: CONTROL JOINT NOTES
- FOR SAW-CUT CONTROL JOINTS, MAKE THE SAW-CUT AS SOON AS THE SLAB IS ABLE TO SUPPORT THE WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO THE FINISHED SURFACE OF THE SLAB, BUT WITHIN 24 HOURS.
 - DEPTH OF SAW-CUT SHOULD BE 1 1/4" IF PRODUCED USING THE EARLY ENTRY DRY-CUT PROCESS AND 1 1/4" (1" MIN) IF PRODUCED USING THE CONVENTIONAL WET-CUT PROCESS.
 - REFER TO SPECIFICATIONS REGARDING EPOXY RESIN OR ELASTOMERIC SEALANT REQUIREMENTS FILL CONTROL JOINTS.

- SECTION 4: FORMED CONTROL JOINT OPTION NOTES
- FORM CONTROL JOINTS BY INSERTING A PRE-MOLDED STRIP INTO THE FRESH CONCRETE UNTIL THE TOP SURFACE OF THE STRIP IS FLUSH WITH THE TOP SURFACE OF THE SLAB.
 - TOOL THE SLAB EDGES ROUND ON EACH SIDE OF THE INSERT, 1/8" MAX RADIUS.
 - AFTER THE CONCRETE HAS CURED, REMOVE THE INSERTS AND CLEAN THE GROOVE OF LOOSE DEBRIS.



SLAB CONTROL JOINT



SLAB CONSTRUCTION JOINT

REINFORCING STEEL TYPICAL DEVELOPMENT LENGTHS & LAP SPLICES

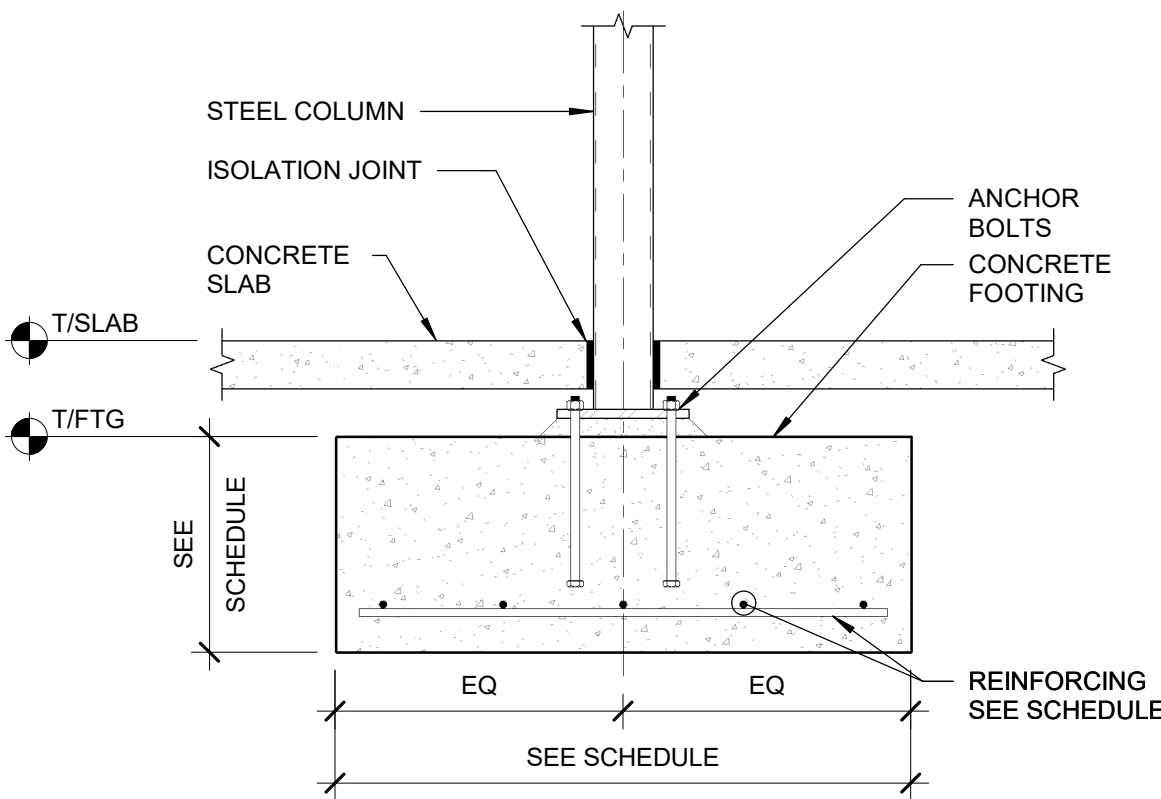
SCALE: 1" = 1'-0"

TYPICAL CAST-IN-PLACE ANCHOR

SCALE: NTS

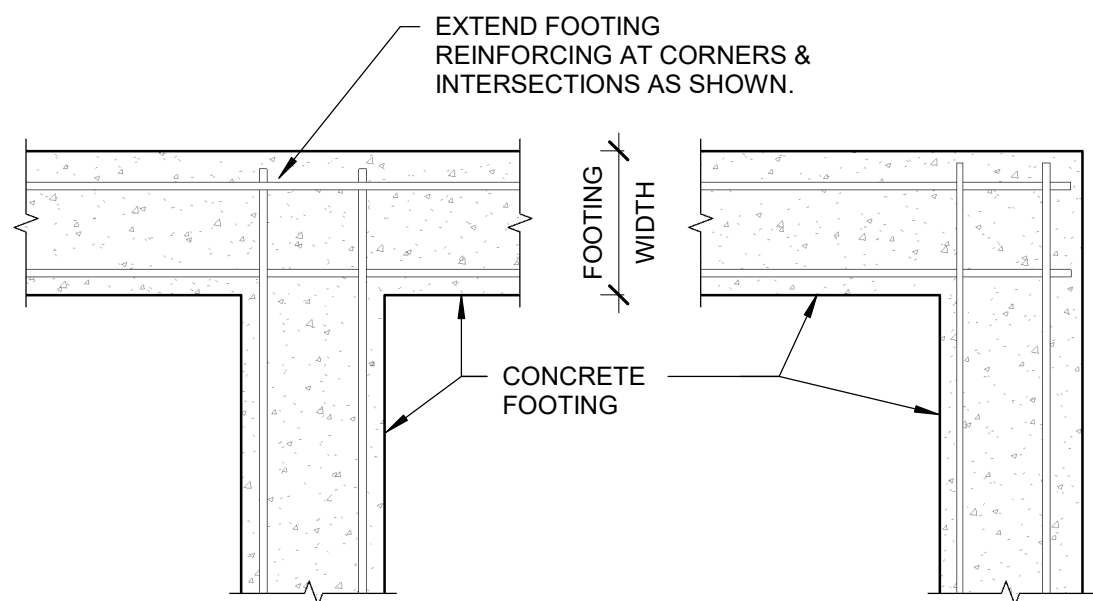
TYPICAL SLAB JOINTS

SCALE: NTS



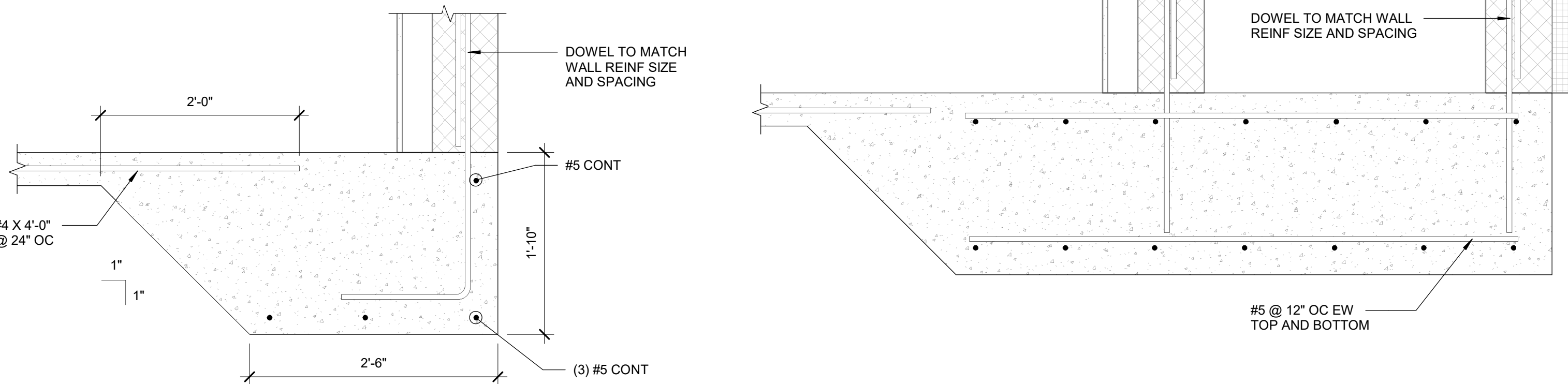
TYPICAL COLUMN BEARING

SCALE: NTS



TYPICAL FOOTING REINFORCING

SCALE: NTS

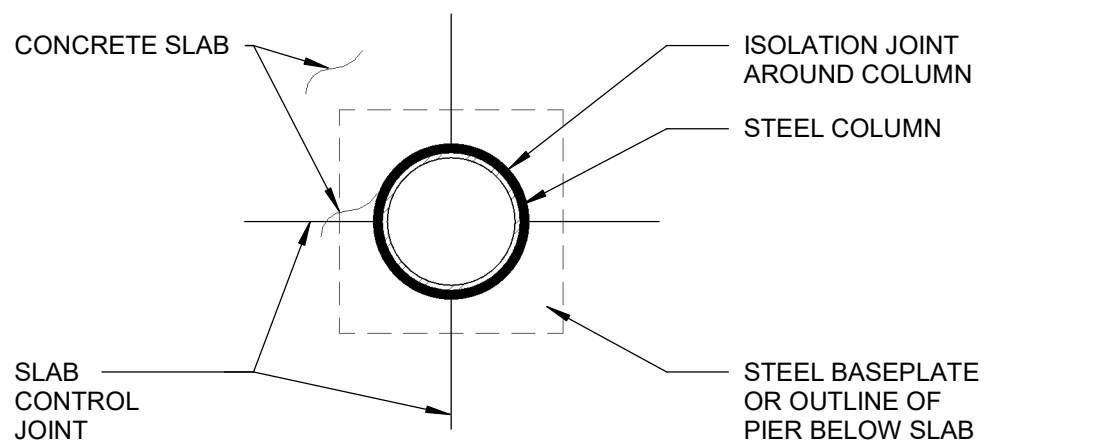


SECTION

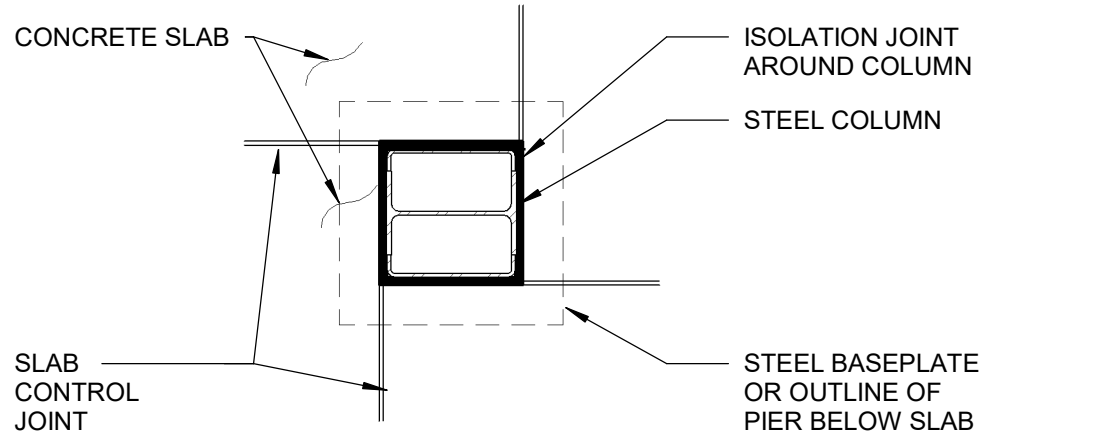
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SECTION

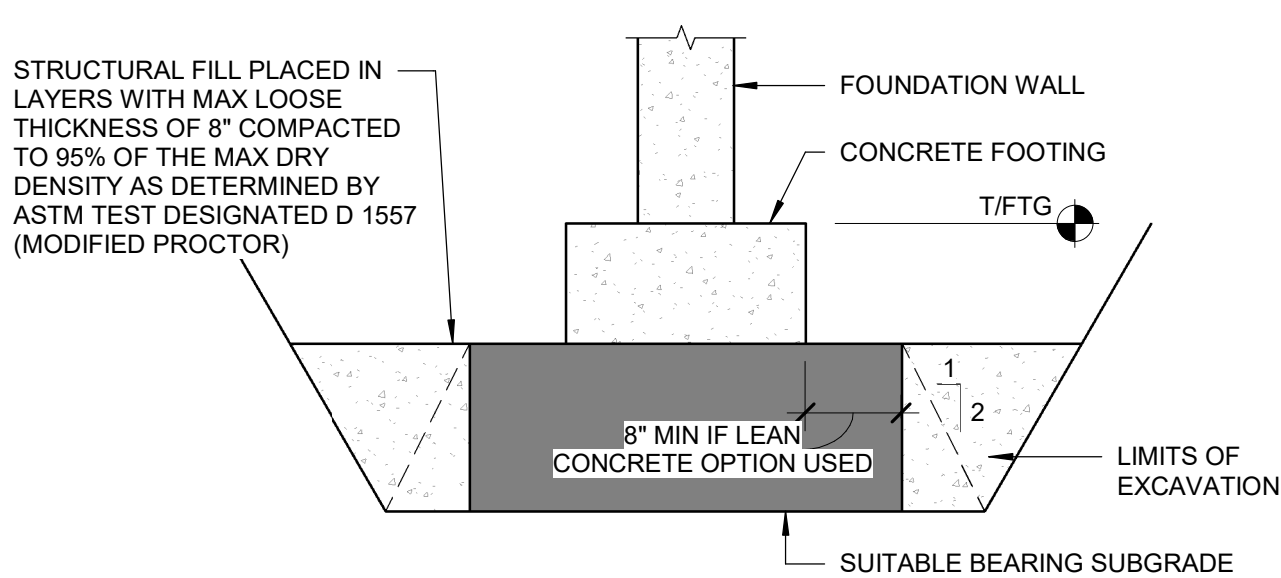
SCALE: 1" = 1'-0"



TYPICAL ROUND COLUMN JOINTS



TYPICAL SQUARE COLUMN JOINTS

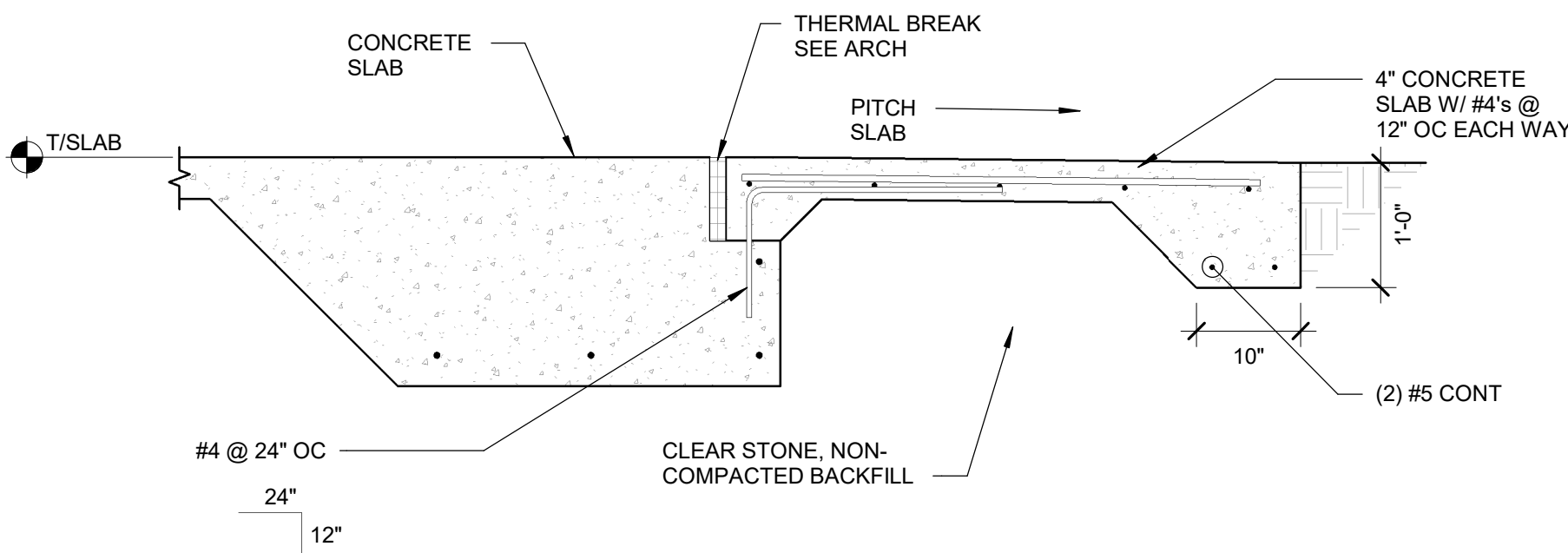


NOTES:

- CONTRACTOR'S OPTION: ELIMINATE STRUCTURAL FILL BY LOWERING DESIGNED FOOTING ELEVATION SO THAT FOOTING RESTS DIRECTLY ON SUITABLE BEARING SUBGRADE. PROVIDE LEAN CONCRETE (f_c = 500 PSI MIN) UNDER THE FOOTING AS SHOWN HATCHED ABOVE. OR INCREASE FOOTING THICKNESS TO REACH SUITABLE BEARING SUBGRADE.
- THIS DETAIL APPLIES ONLY AT THOSE LOCATIONS WHERE GEOTECH ENGINEER DEEMS SOILS AT DESIGNED FOOTING ELEVATIONS ARE INADEQUATE FOR FOOTING SUPPORT. WHERE THIS WORK IS REQUIRED, CONTRACTOR WILL BE COMPENSATED ON A PRE-ESTABLISHED UNIT COST AGREED UPON BY THE CONTRACTOR, ARCHITECT/ENGINEER, AND OWNER.

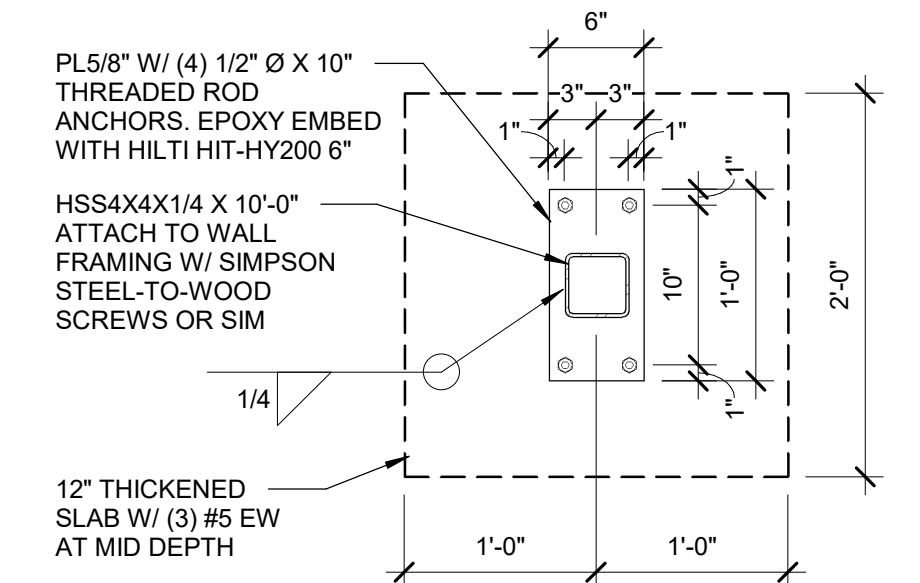
TYPICAL OVER EXCAVATION DETAIL

SCALE: NTS



TYPICAL STOOP SECTION

SCALE: NTS



WALL POST BASE

SCALE: 1" = 1'-0"

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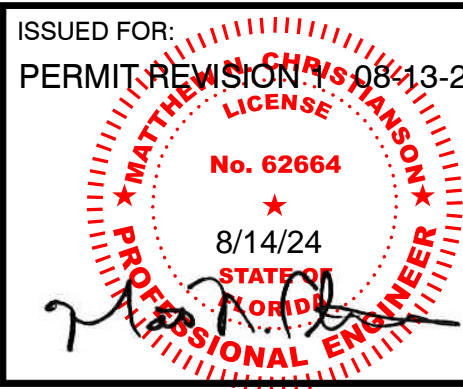
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SHEET TITLE:

CONCRETE SECTIONS & DETAILS

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SHEET NO.

S3.0

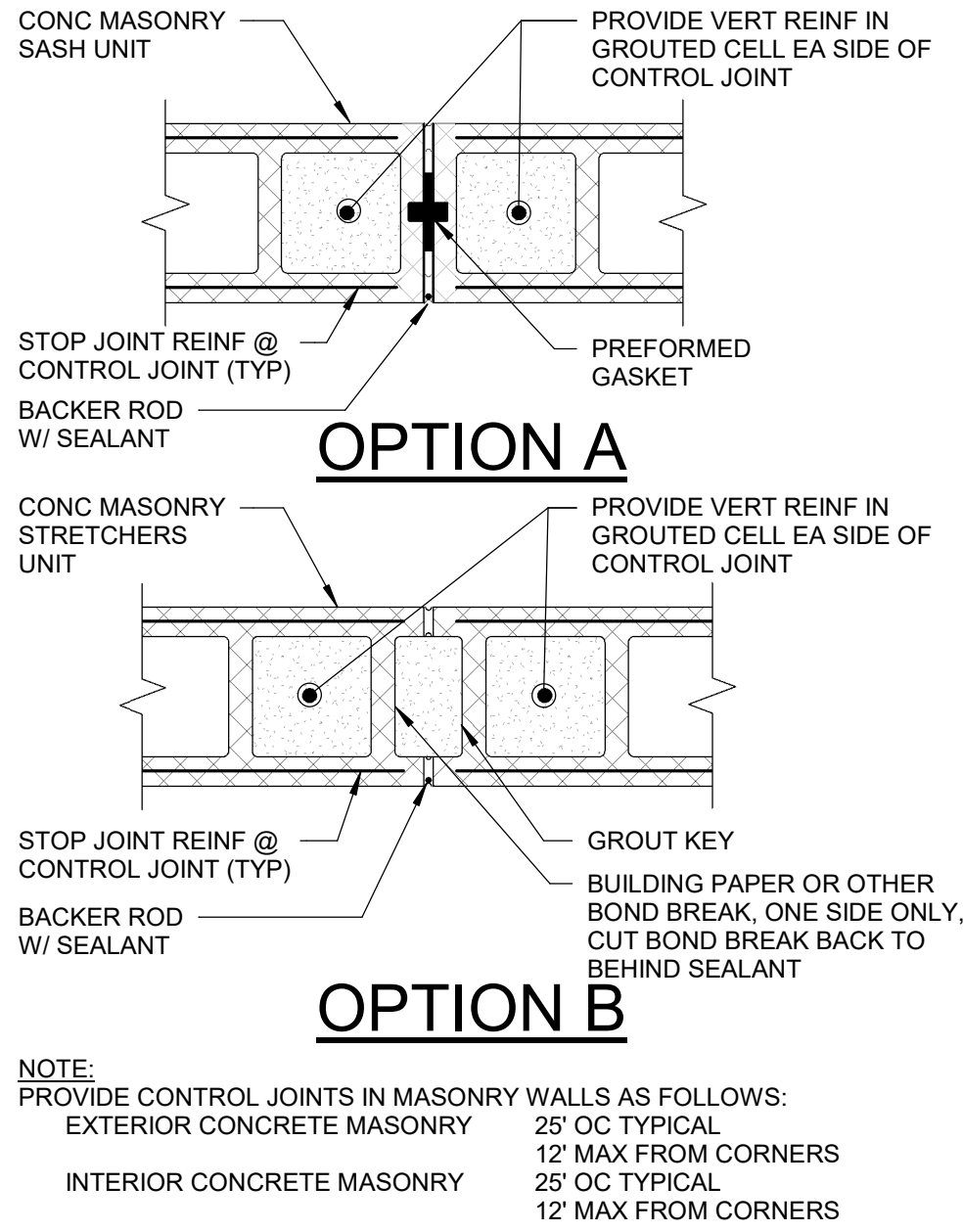
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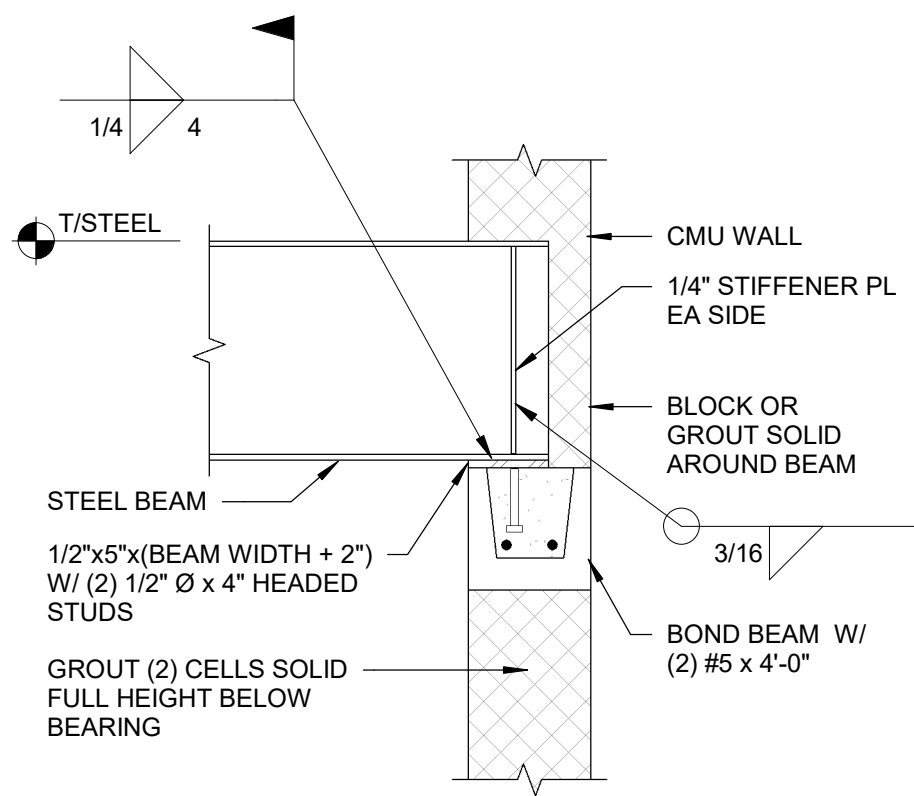
BAR SIZE	8" & 10" BLOCK CLEAR COVER ≥ 1 3/4"	12" BLOCK CLEAR COVER ≥ 2"	CENTERED IN 8" BLOCK	CENTERED IN 10" BLOCK	CENTERED IN 12" BLOCK
#3	15"	13"	12"	12"	12"
#4	25"	22"	13"	12"	12"
#5	39"	35"	20"	16"	13"
#6	MECH SP	MECH SP	38"	29"	24"
#7	MECH SP	MECH SP	MECH SP	40"	33"
#8	MECH SP	MECH SP	MECH SP	MECH SP	MECH SP
#9	NA	MECH SP	NA	MECH SP	MECH SP
#10	NA	MECH SP	NA	MECH SP	MECH SP
#11	NA	MECH SP	NA	NA	MECH SP

NOTES:
1. MASONRY BAR LAP LENGTHS (Ld) F'm = 2,000 PSI
2. TENSION LAP SPLICE LENGTHS ARE CALCULATED PER ACI 540-13. LENGTHS ARE IN INCHES.

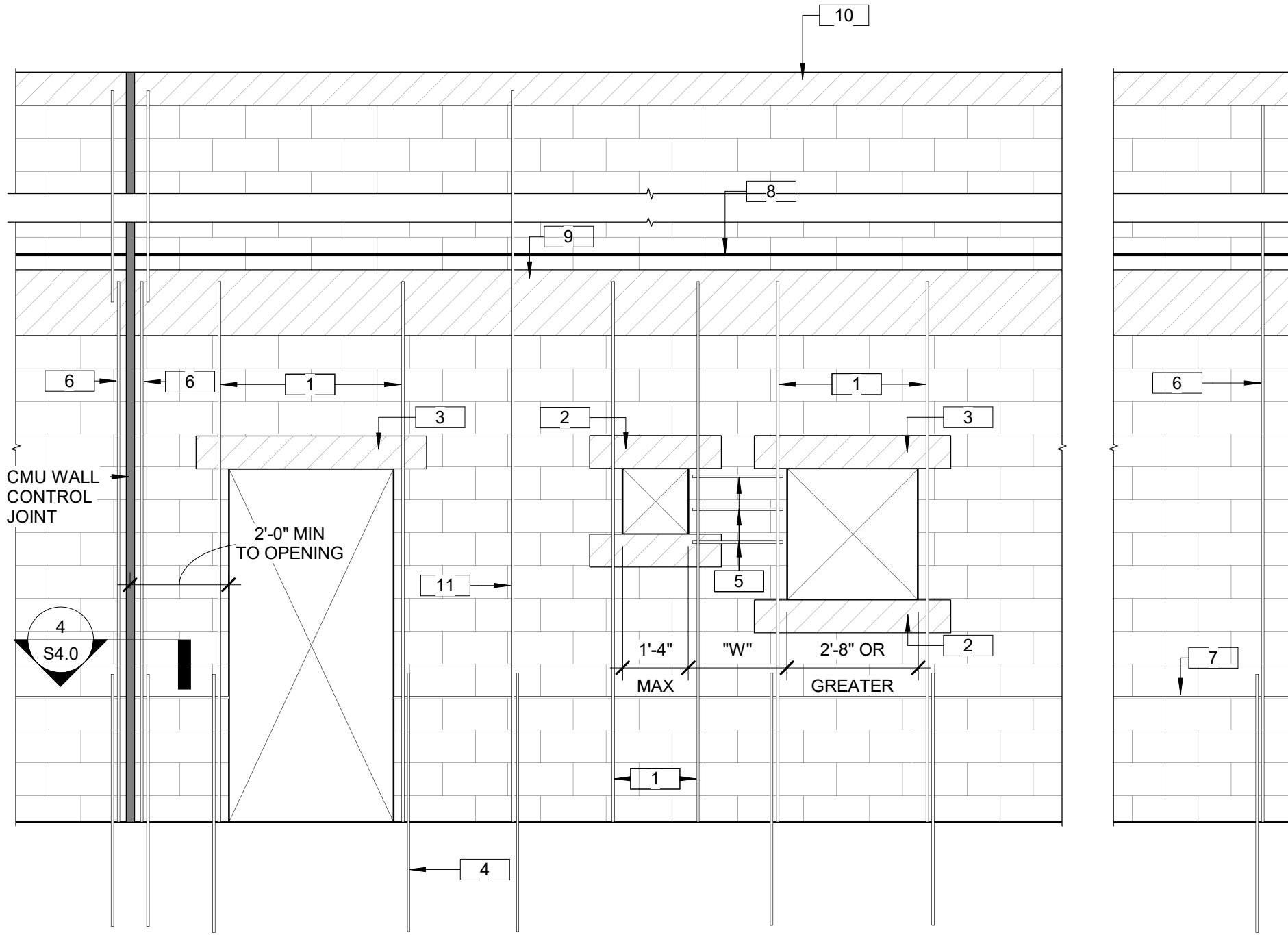
1
S4.0
TYPICAL MASONRY
REINFORCING LAP LENGTHS
SCALE: NTS



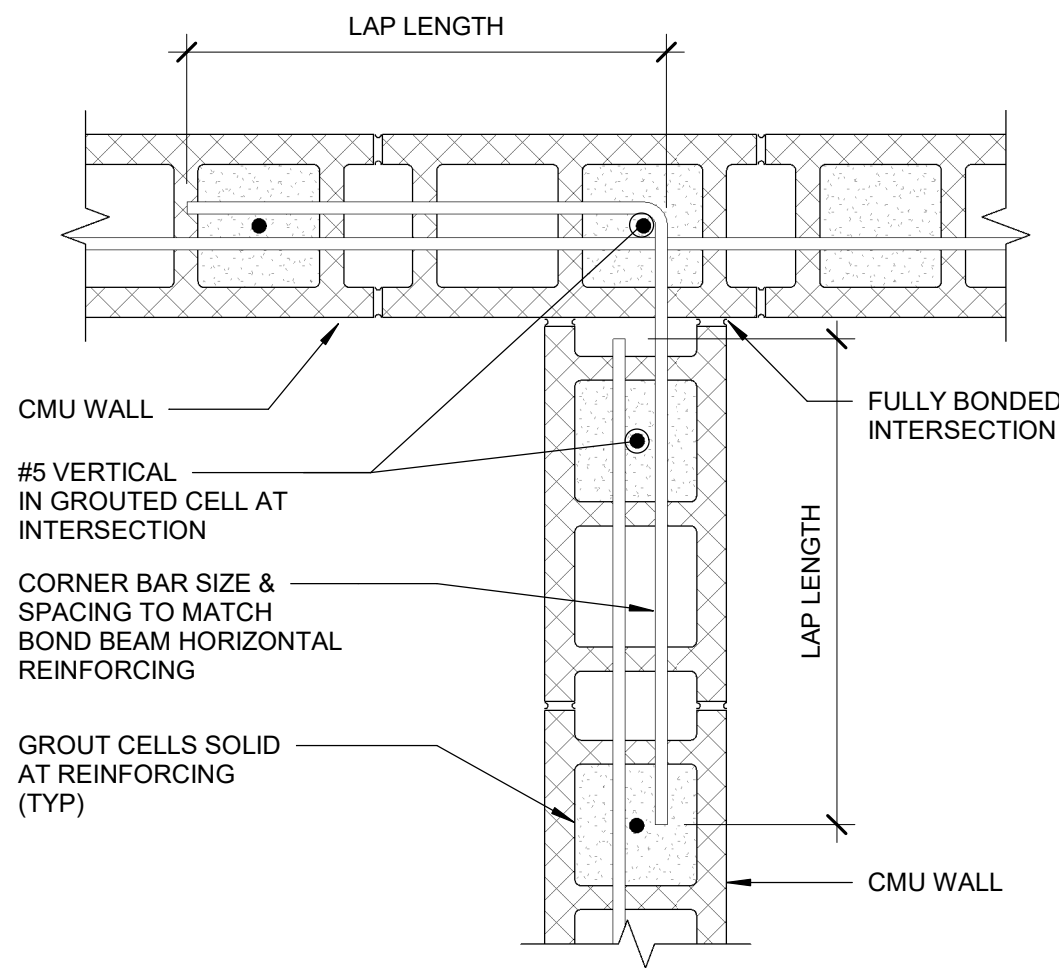
4
S4.0
CMU CONTROL JOINT
SCALE: NTS



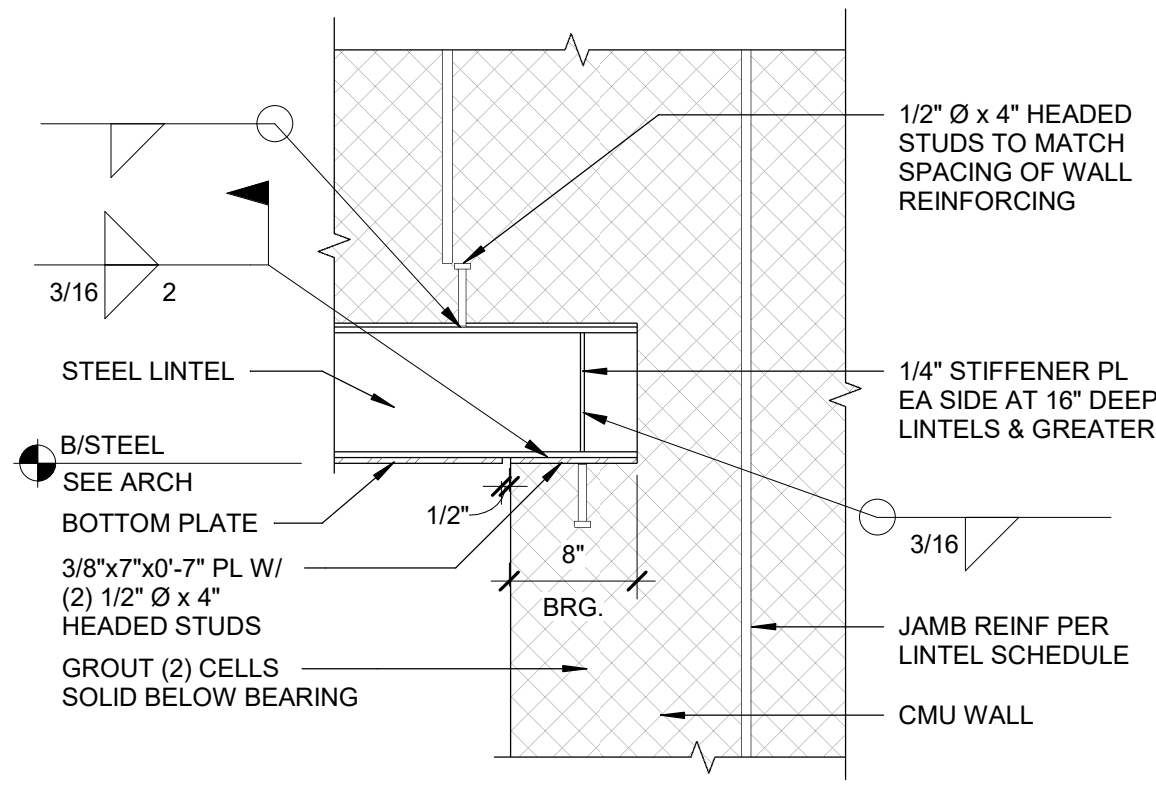
9
S4.0
STEEL BEAM BEARING DETAIL
SCALE: NTS



2
S4.0
TYP CMU WALL REINFORCEMENT
SCALE: NTS

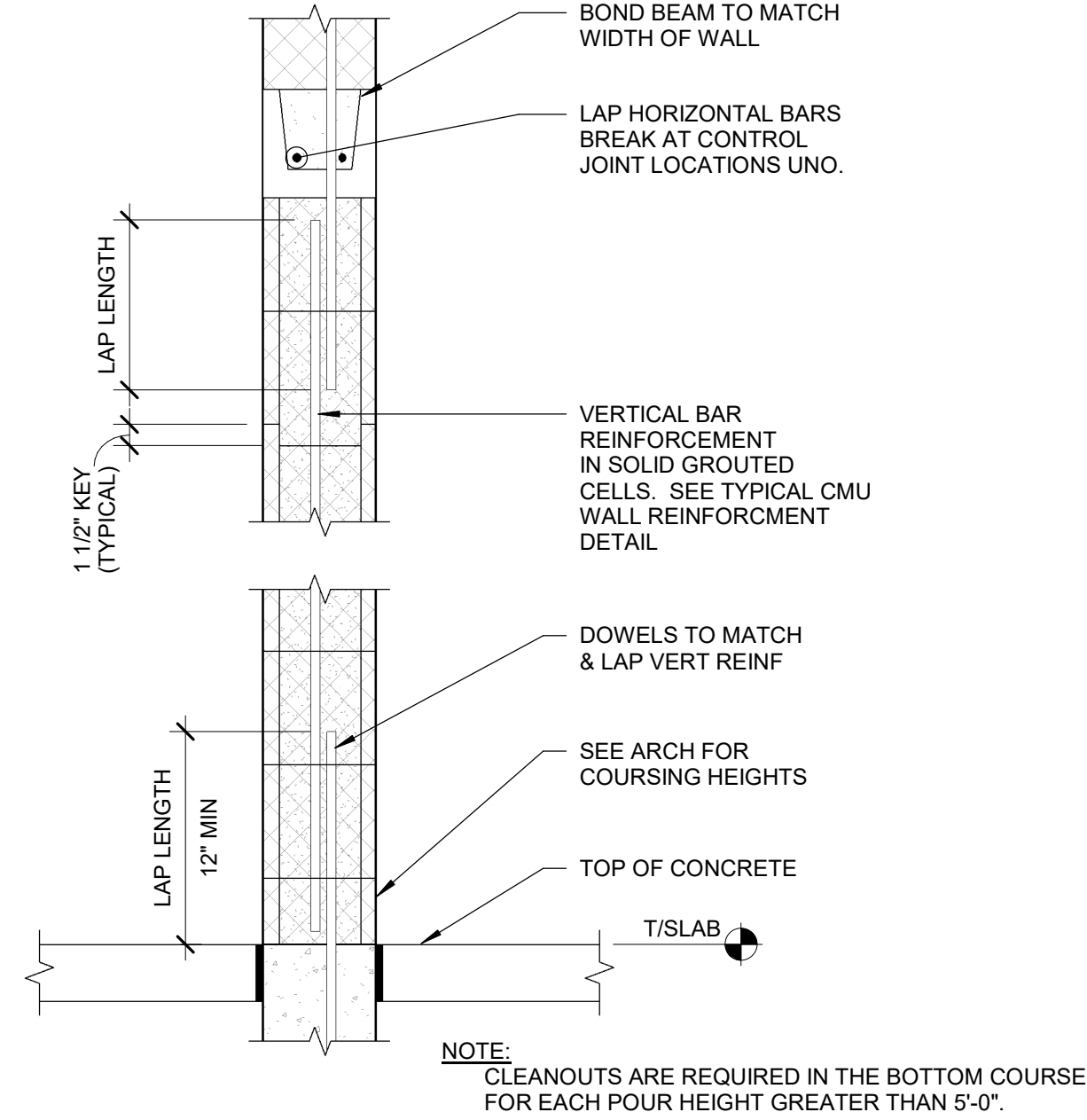


5
S4.0
CMU WALL INTERSECTION
SCALE: NTS

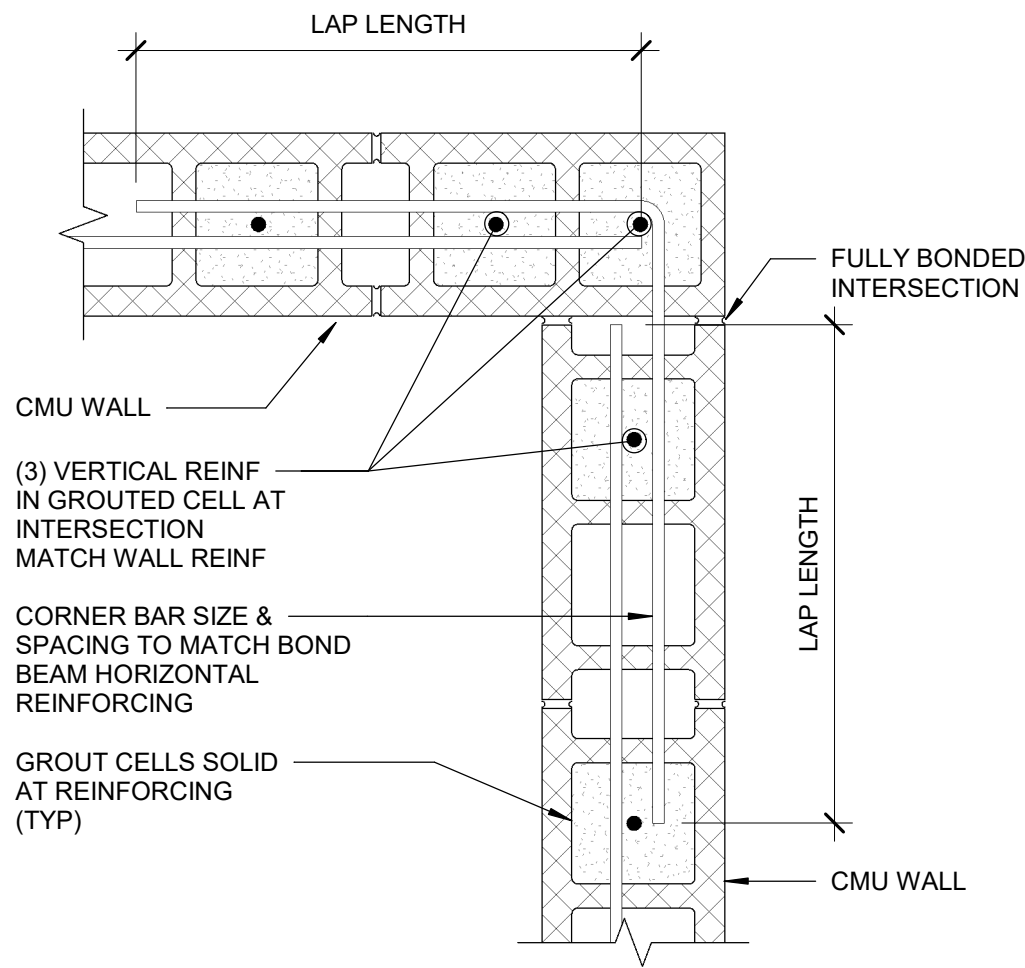


10
S4.0
STEEL LINTEL BEARING DETAIL
SCALE: NTS

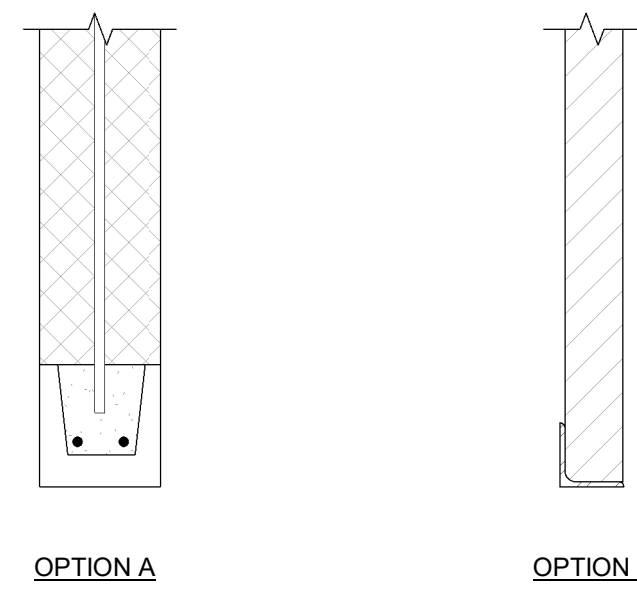
- NOTES:**
- JAMB REINFORCEMENT PER LINTEL SCHEDULE OR LINTEL DETAILS. MIN (1) #5 EA JAMB.
 - 8" BOND BEAM W/ (1) #5 CONT.
 - LINTEL, SEE SCHEDULE
 - DOWELS TO MATCH & LAP VERTICAL REINFORCEMENT
 - WHEN "W" IS LESS THAN 2'-0" AT 8" CMU WALL AND 3'-0" AT 12" CMU WALL, ADD 1/4" CLOSED TIE SETS AT 8" OC.
 - REINFORCE VERT CELLS AT END OF WALL AND ADJACENT TO CONTROL JOINTS.
 - HORIZ JOINT REINFORCEMENT, SEE GENERAL NOTES.
 - ROOF LINE BEYOND.
 - 16" TIE BEAM AT ROOF JOIST BEARING.
 - 8" BOND BEAM W/ (2) #4 CONT AT TOP OF WALL, UNO.
 - #5 @ 48" OC TYPICAL WALL REINFORCING, UNO.



3
S4.0
TYPICAL REINFORCED CMU WALL
CONSTRUCTION DETAIL
SCALE: NTS



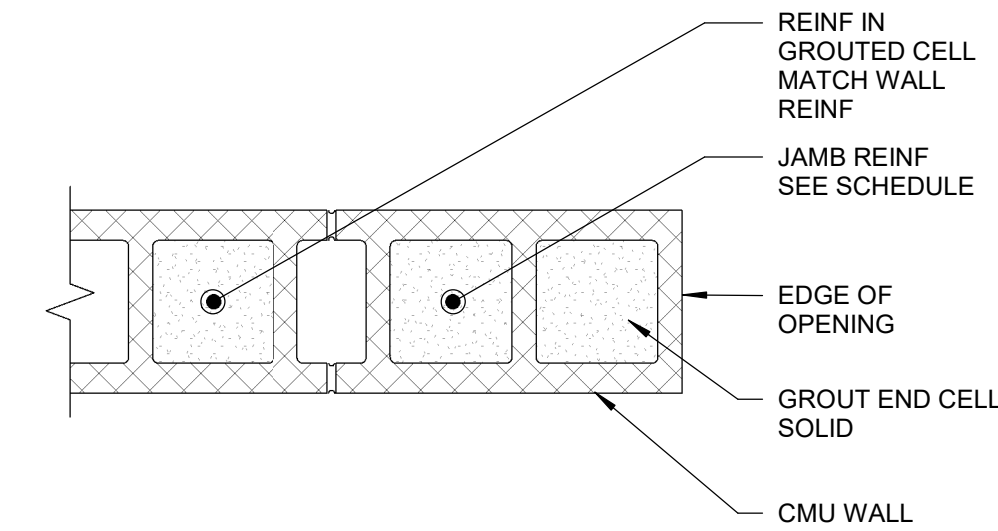
6
S4.0
CMU WALL CORNER
SCALE: NTS



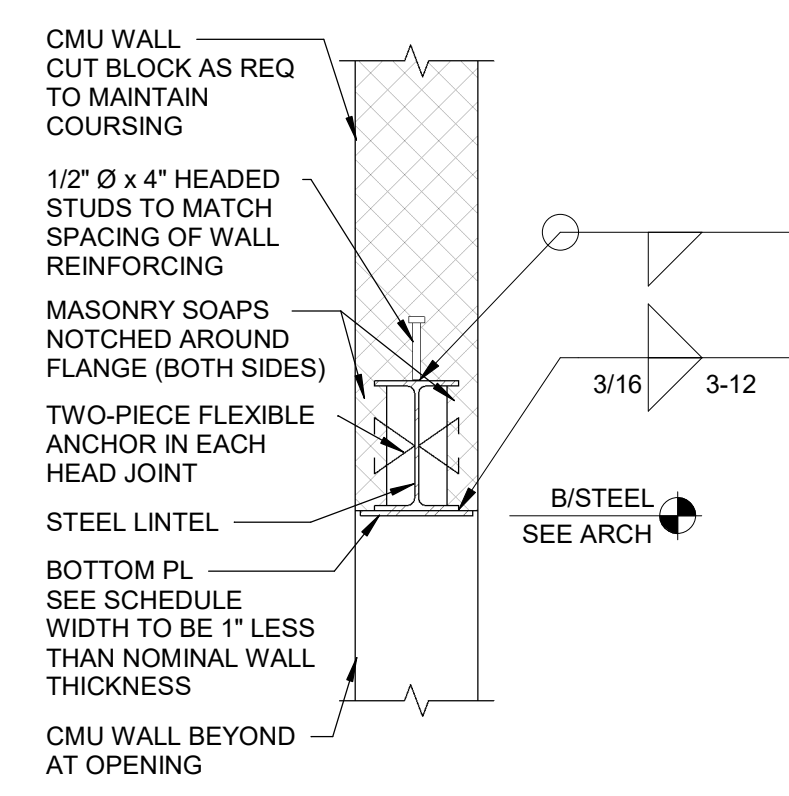
NOTE:
IN NON-LOAD BEARING WALLS PROVIDE AND INSTALL ON LINTEL FOR EACH 4" OF WALL THICKNESS ACCORDING TO THE FOLLOWING:

OPENING WIDTH	STEEL SIZE	BEARING @ EA END	CMU LINTEL
3'-0"	L3 1/2x3 1/2x5/16	8"	8" W/ (1) #4
4'-0"	L4x3 1/2x5/16 (LLV)	8"	8" W/ (1) #4
5'-0"	L4x3 1/2x5/16 (LLV)	8"	8" W/ (2) #4
6'-0"	L5x3 1/2x5/16 (LLV)	8"	8" W/ (2) #4
7'-0"	L6x3 1/2x5/16 (LLV)	8"	8" W/ (2) #4
8'-0"	L6x3 1/2x5/16 (LLV)	8"	8" W/ (2) #4

11
S4.0
NON-LOAD BEARING LINTEL
SCALE: NTS



7
S4.0
CMU WALL END
SCALE: NTS



A
S4.0
LINTEL TYPE A
SCALE: NTS

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ph. 414.278.6904 | www.instudioarch.com

Project No. 23-053 Drawn By C4E Original Issue Date 03/07/2022

FOR CONSTRUCTION

LA-Z-BOY
HOME FURNISHINGS & DÉCOR
VERO BEACH, FL

ISSUED FOR:
PERMIT REVISION 1/13/24
CHS
LICENSE
No. 62664
8/14/24
STAT OF
FLORIDA
PROFESSIONAL ENGINEER

SHEET TITLE:

MASONRY
SECTIONS &
DETAILS

STORE NAME:

LA-Z-BOY -
VERO BEACH

SHEET NO.

S4.0

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CORE4engineering
| Client-focused | Creative |
| Collaborative | Communicative |
12308 N. Corporate Pkwy, Suite 450
Mequon, WI 53092 | 262.236.9372
C4E Project #: 23162

SHEET TITLE:

STEEL
SECTIONS &
DETAILS

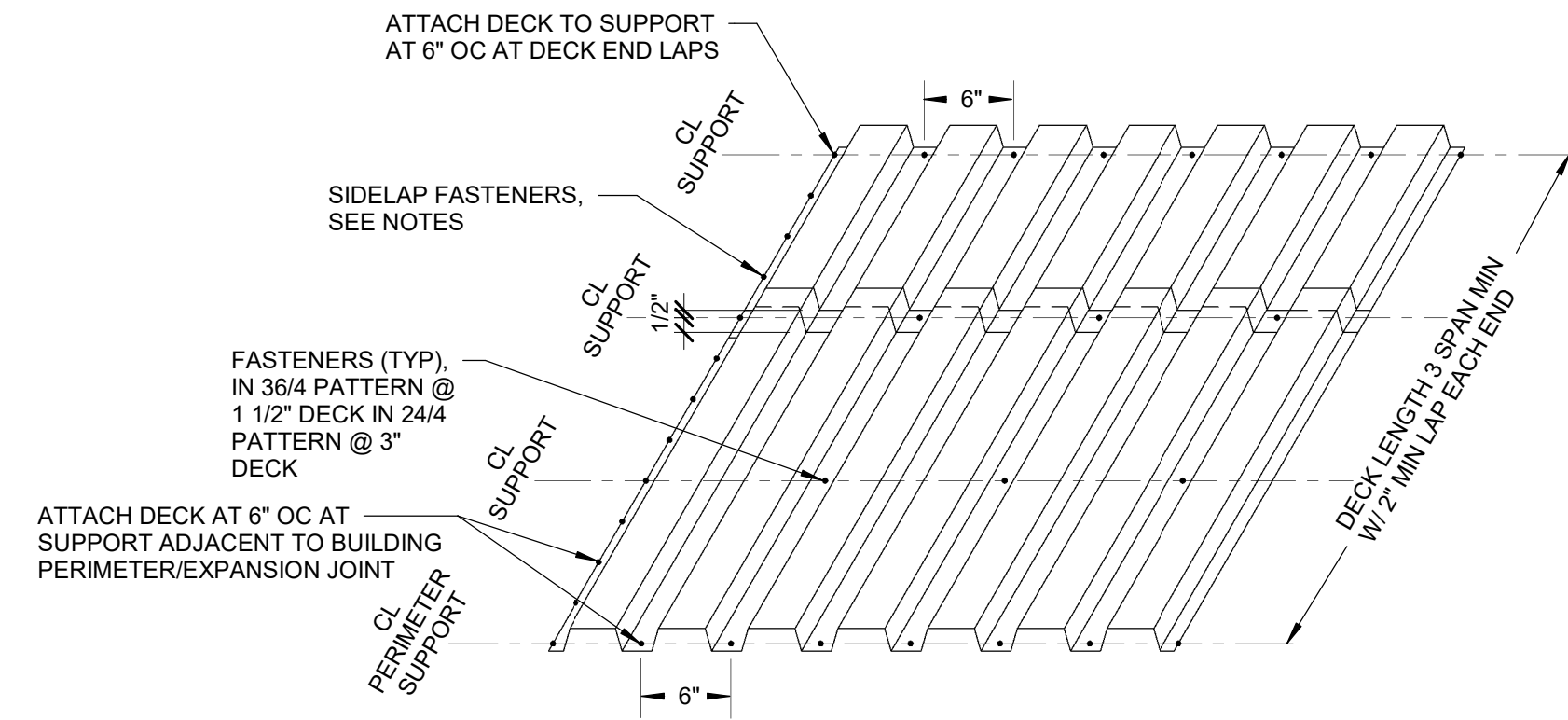
STORE NAME:

LA-Z-BOY -
VERO BEACH

SHEET NO.

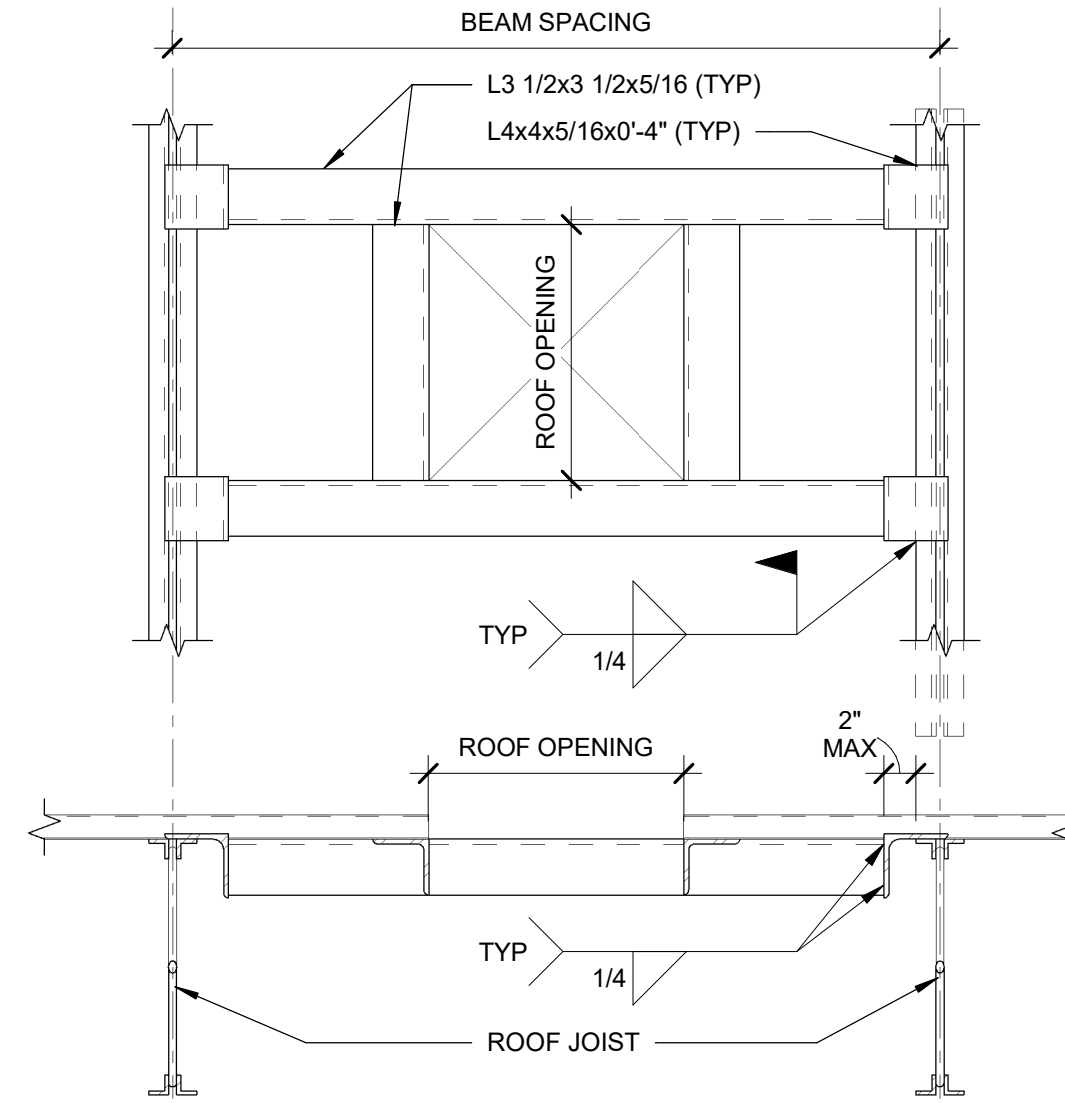
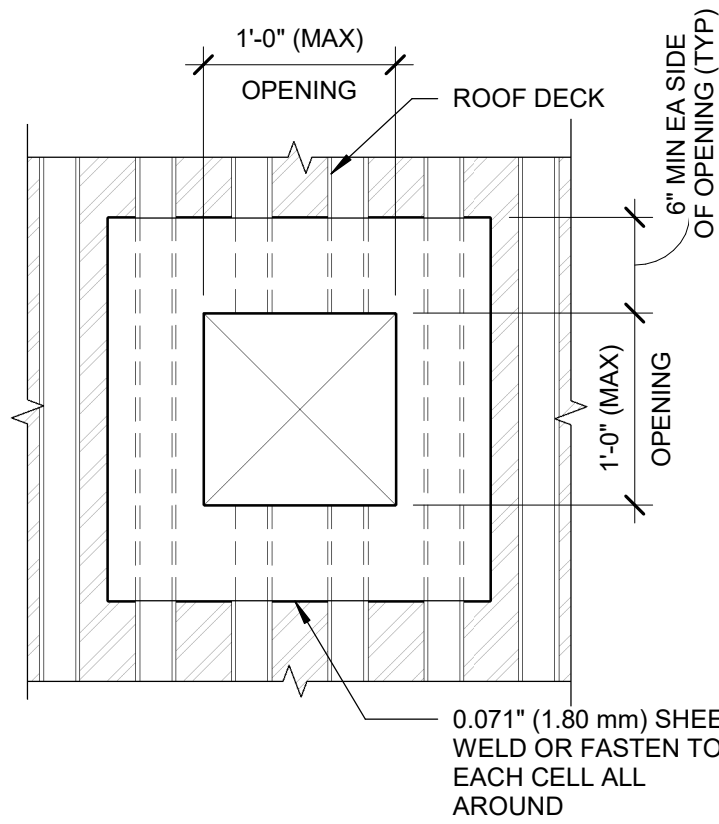
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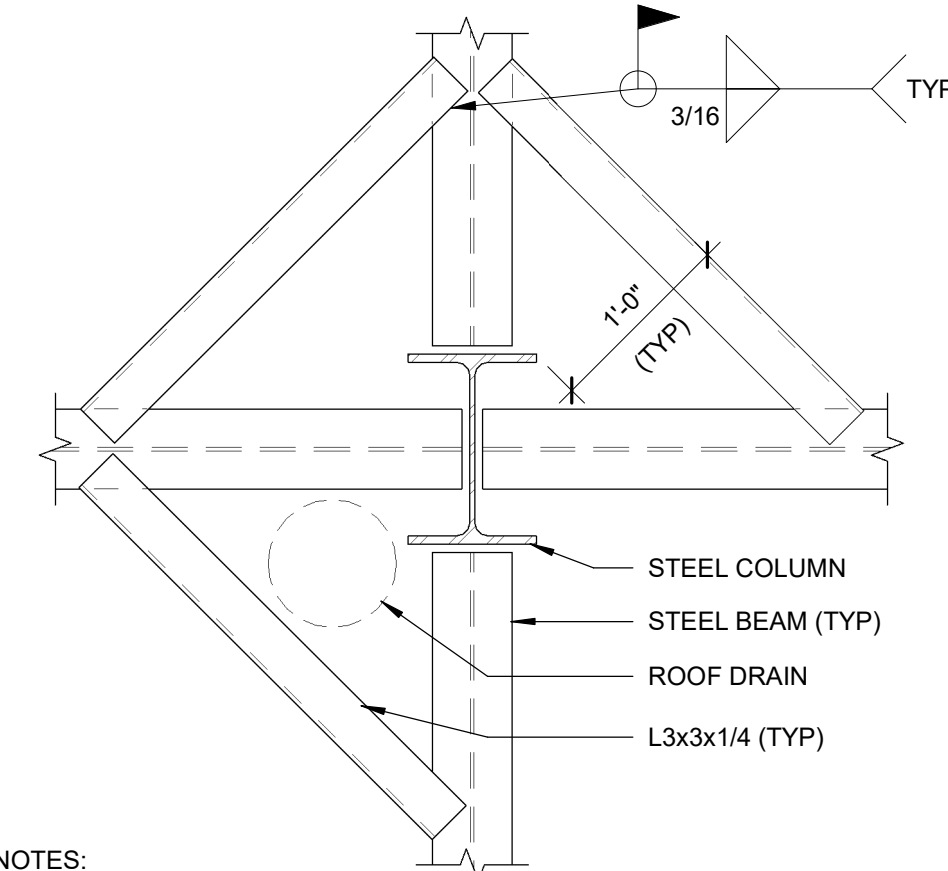
NOTES:

- FASTEN SIDELAPS AT INTERVALS NOT EXCEEDING 36". MIN OF (2) SIDELAP FASTENERS PER SPAN. SIDELAPS MAY BE FASTENED BY ANY ONE OF THE FOLLOWING METHODS:
 - BUILDDEX OR EQUAL #10 TEK SCREWS OR EQUAL (DEFAULT, UNO).
 - HILTI S-SLC 01 M HWM OR EQUAL. IF SUPPORT MATERIAL GREATER THAN 5/16" THICK, USE HILTI X-EDN 19-L15 FASTENERS INSTEAD.
- DECK MAY BE FASTENED TO SUPPORT MEMBERS BY ANY OF THE FOLLOWING METHODS:
 - POWDER ACTUATED FASTENERS: HILTI X-HSN24 OR EQUAL
 - SCREWING: #12 TEK SCREWS OR EQUAL
 - WELDING: ALL WELDS ARE TO BE 5/8" Ø PUDDLE WELDS. USE WELDING WASHERS ON ALL DECKS EQUAL TO OR LESS THAN 24 GAUGE THICKNESS.
 - PNEUMATICALLY-DRIVEN FASTENERS: PNEUTEK PINS OR EQUAL



NOTES:

- PROVIDE FRAMING FOR OPENINGS LARGER THAN 12"x12", 12" Ø OR SUPPORTING EQUIPMENT IN EXCESS OF 50 LBS.
- GENERAL CONTRACTOR TO COORDINATE FINAL SIZE AND LOCATIONS OF MECHANICAL AND PLUMBING OPENINGS.



NOTES:

- PROVIDE FRAMING FOR MECHANICAL AND PLUMBING VERTICAL SLEEVES/PIPING. VERIFY FINAL SIZE AND LOCATION W/ CONTRACTOR.
- PROVIDE FRAMING AT BEAM TO COLUMN MOMENT CONNECTION.

1 TYPICAL ROOF DECK FASTENING DETAIL

SCALE: NTS

2 TYPICAL ROOF OPENING ≤ 1'-0"

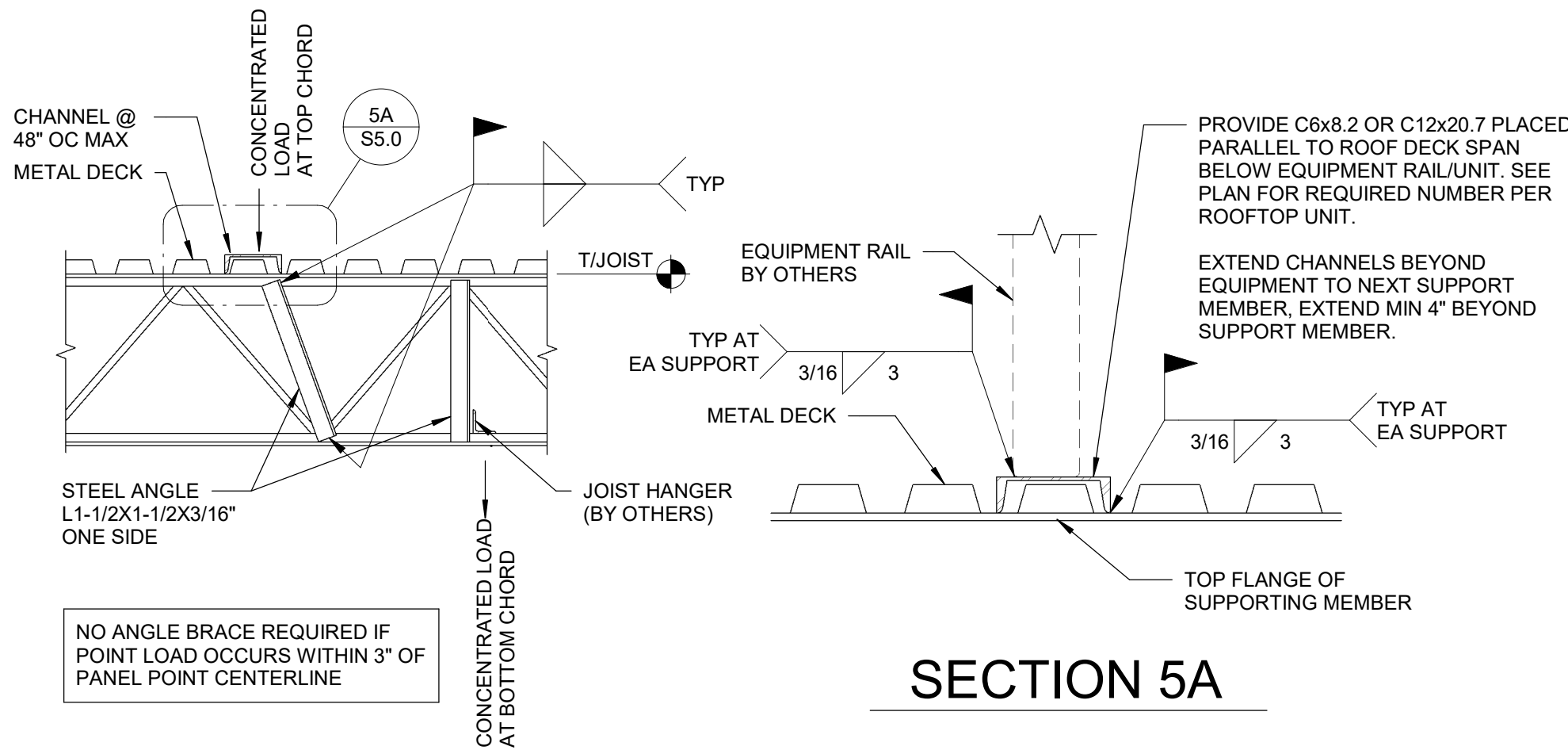
SCALE: NTS

3 TYPICAL ROOF OPENING > 1'-0"

SCALE: NTS

4 DECK SUPPORT AT COLUMNS

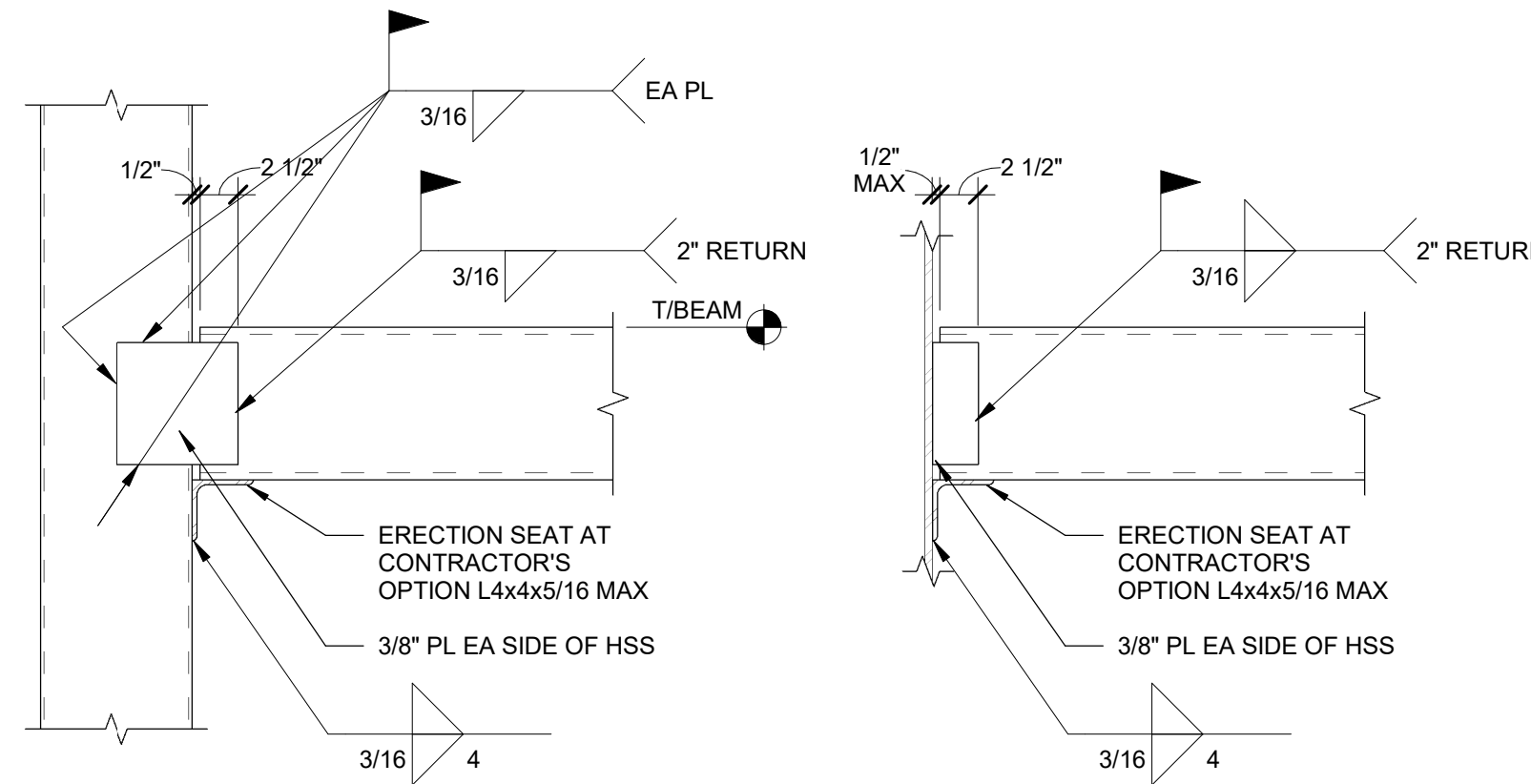
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SECTION 5A

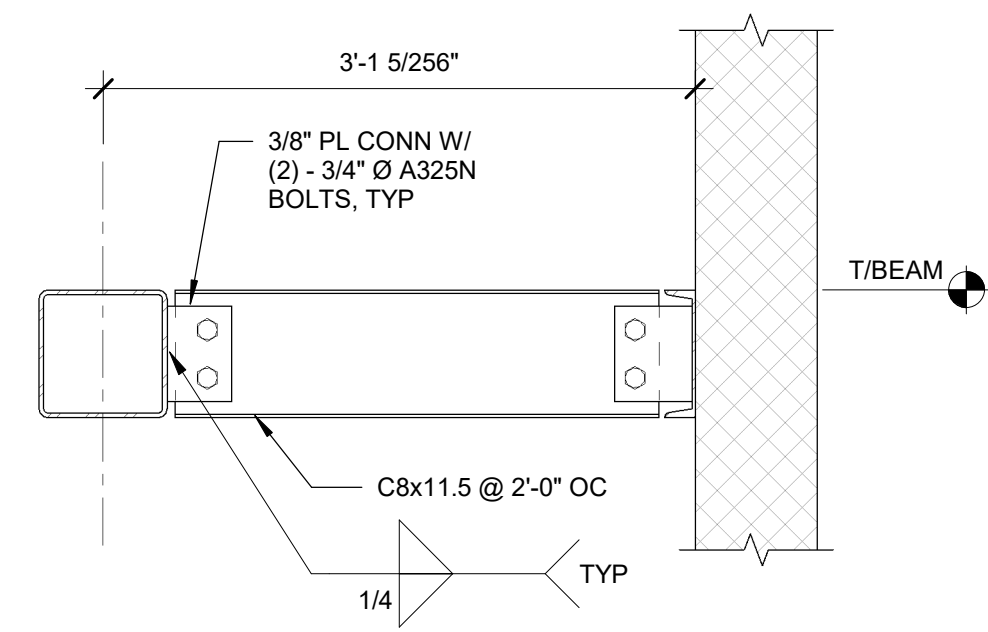
5 TYPICAL JOIST REINFORCING

SCALE: NTS



6 TYPICAL HSS BEAM CONNECTION

SCALE: NTS



7 SECTION

SCALE: NTS

