

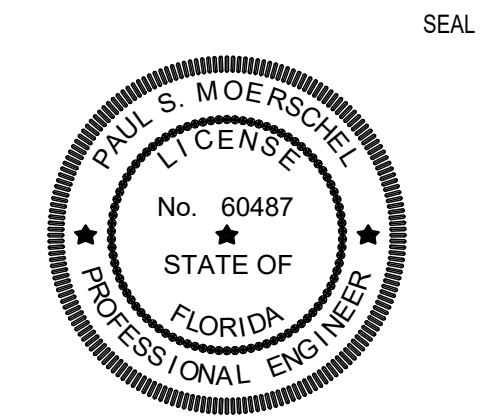




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FILE No. 22FTM211 (R22)

OWNER



PROJECT TITLE

LAKES PARK - CANOPY & CONTROL BLDG

PROJECT ADDRESS

REVISIONS

Table with columns: NO., DESCRIPTION, DATE. Multiple empty rows for revisions.

DATE ISSUED: 10-13-2022

REVIEWED BY: PSM

DRAWN BY: RHE

DESIGNED BY: PSM

PROJECT NUMBER:

SHEET TITLE

STRUCTURAL NOTES & ABBREVIATIONS

SHEET ID

S002

STRUCTURAL NOTES

3307 PENETRATIONS:

A. NO PENETRATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBERS OTHER THAN THOSE SPECIFICALLY DESIGNATED ON THE STRUCTURAL DRAWINGS WITHOUT PREVIOUS APPROVAL OF THE ENGINEER. CONTRACTOR SHALL SUBMIT A PENETRATION PLAN FOR APPROVAL INDICATING ANY PENETRATIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS PRIOR TO CONCRETE PLACEMENT.

3505 ARCHITECTURAL PRECAST CONCRETE:

- A. REFER TO THE ARCHITECT'S DRAWINGS AND SPECIFICATIONS FOR DIMENSIONAL, FINISH, AND OTHER REQUIREMENTS OF ARCHITECTURAL PRECAST.
B. PRECAST MANUFACTURER IS TO BE RESPONSIBLE FOR THE DESIGN OF ALL PRECAST MEMBERS AND THEIR CONNECTION TO THE STRUCTURE.
C. ANY CONNECTIONS SHOWN ON CONTRACT DRAWINGS ARE SHOWN FOR GENERAL ARRANGEMENT ONLY.
D. THE ERECTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TEMPORARY BRACING UNTIL ALL CONNECTIONS HAVE BEEN MADE AND TOPPING HAS BEEN CAST.
E. PRECAST MANUFACTURER SHALL PROVIDE STABILIZING ANGLES, AS REQUIRED IN ALL PRECAST WORK.
F. ALL EXPOSED STEEL CONNECTIONS AND SUPPORT ANGLES, PLATES, BARS, AND BOLTS (IN CONJUNCTION) USED WITH ALL PRECAST CONCRETE SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION AND FIELD TOUCHED UP WITH ZINC RICH PAINT.
G. SUPPORTING BEAMS AND STRUCTURE WILL DEFLECT AND/OR ROTATE. PRECAST MANUFACTURER AND ERECTOR SHALL COORDINATE CONNECTION/ERECTION SEQUENCE TO ACCOUNT FOR THIS MOVEMENT AND MAKE FINAL ADJUSTMENTS TO ALIGN AND PLUMB PRECAST.

3601 POST-INSTALLED ANCHORS:

- A. CONTRACTOR SHALL OBTAIN APPROVAL FROM ENGINEER OF RECORD PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN ANCHORS.
B. CARE SHALL BE GIVEN TO AVOID DAMAGING EXISTING REBAR WHEN DRILLING HOLES. HOLES SHALL BE DRILLED AND CLEANED PER MANUFACTURER'S INSTRUCTIONS.
C. UNLESS SPECIFIED OTHERWISE, ANCHORS SHALL BE EMBEDDED IN THE APPROPRIATE SUBSTRATE WITH A MINIMUM EMBEDMENT OF 8 TIMES THE NOMINAL ANCHOR DIAMETER OR THE EMBEDMENT REQUIRED FOR SUPPORT OF THE INTENDED LOAD.
D. SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE LISTED BELOW SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL WITH CALCULATIONS PREPARED, SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE JURISDICTION OF THE PROJECT SHOWING THAT THE SUBSTITUTED PRODUCT WILL ACHIEVE AN EQUIVALENT CAPACITY USING THE APPROPRIATE DESIGN PROCEDURE.
E. ACCEPTABLE PRODUCTS FOR ANCHORS NOT EXPOSED TO WEATHER ARE AS FOLLOWS:
a. EXPANSION ANCHORS FOR NON-CRACKED CONCRETE ONLY:
- WEDGE-ALL (WA) BY SIMPSON STRONG-TIE
- KWIK BOLT 3 BY HILTI
b. CRACKED CONCRETE MECHANICAL ANCHORS:
- STRONG-BOLT (STB) BY SIMPSON STRONG-TIE
- KWIK BOLT (TZ) BY HILTI
c. SCREW ANCHORS:
- TITEN HD (THD) BY SIMPSON STRONG-TIE
- HUS-H BY HILTI
d. ADHESIVE ANCHORS INTO SOLID CONCRETE OR FULLY GROUTED CMU:
- ACRYLIC-TIE (AT)
- SET EPOXY-TIE (SET) WITH RETROFIT BOLTS (RFB) BY SIMPSON
- HY 200 MAX BY HILTI
e. FOR ANCHORING INTO HOLLOW BASE MATERIAL:
- CONTACT ENGINEER
F. ACCEPTABLE PRODUCTS FOR ANCHORS EXPOSED TO WEATHER OR FOR ENVIRONMENTAL STRUCTURES ARE AS FOLLOWS:
a. CONCRETE MECHANICAL ANCHORS:
- TRUBOLT BY ITW REDHEAD - AISI 316 STAINLESS STEEL
- KWIK BOLT 3 BY HILTI - AISI 316 STAINLESS STEEL
- POWER STUD BY POWERS - AISI 316 STAINLESS STEEL
b. SCREW ANCHORS:
- TAPPER BY POWERS - AISI 316 STAINLESS STEEL
- HUS-H BY HILTI
c. CONCRETE OR SOLID GROUTED CMU ADHESIVE ANCHORS:
- HY 200 MAX BY HILTI - AISI 316 STAINLESS STEEL

5150 ALUMINUM:

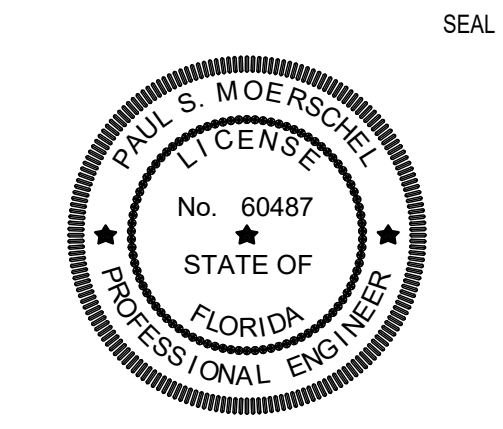
- A. ALUMINUM FABRICATION SHALL BE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF THE ALUMINUM ASSOCIATION "STANDARD FOR ALUMINUM STRUCTURES". ALL MEMBERS SHALL BE ALUMINUM ASSOCIATION STANDARD STRUCTURAL SHAPES. WELDING OF ALUMINUM SHALL BE IN ACCORDANCE WITH AWS D1.2, "STRUCTURAL WELDING CODE - ALUMINUM", LATEST EDITION. FABRICATION WORK SHALL BE IN ACCORDANCE WITH CURRENT INDUSTRY PRACTICE.
B. IN ADDITION TO THE REQUIREMENTS OF CODES LISTED ABOVE, ALUMINUM DESIGN, FABRICATION AND ERECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING CODES:
a. (ADM 2005) 2005 EDITION OF THE ALUMINUM DESIGN MANUAL
b. (AAF 2010) ALUMINUM ASSOCIATION OF FLORIDA 2010 GUIDE TO ALUMINUM CONSTRUCTION IN HIGH WIND AREAS
C. ALL MEMBERS NOTED AS ALUMINUM SHALL BE ALUMINUM ASSOCIATION STANDARD STRUCTURAL SHAPES OR EXTRUSIONS WHERE SPECIFIED WITH PROPERTIES AND SHAPES AS DEPICTED ON DRAWINGS.
D. ROLLED SECTIONS SHALL CONFORM TO ASTM B308, ALLOY 6061-T6, PLATE MATERIAL SHALL CONFORM TO ASTM B209, ALLOY 6061-T6. EXTRUDED SECTIONS SHALL CONFORM TO ASTM B221 ALLOY 6063-T6. ALUMINUM FINISH ON EXPOSED MEMBERS SHALL MEET AAMA 2605 STANDARDS.
E. WHERE ALUMINUM ALLOY PARTS ARE IN CONTACT WITH, OR ARE FASTENED TO STEEL MEMBERS OR OTHER DISSIMILAR MATERIALS, THE ALUMINUM SHALL BE KEPT FROM DIRECT CONTACT BY PAINTING WITH ZINC CHROMATE PRIMER IN ACCORDANCE WITH FEDERAL SPECIFICATION TT-P-645, FOLLOWED BY (2) COATS OF PAINT CONSISTING OF 2 LBS. OF ALUMINUM PASTE PIGMENT (ASTM SPECIFICATION D962-66, TYPE Z, CLASS B) PER GALLON OF VARNISH MEETING FEDERAL SPECIFICATION TT-V-814, TYPE II, OR EQUIVALENT. 300 SERIES STAINLESS STEEL OR HOT-DIP GALVANIZED STEEL PLATE IN CONTACT WITH ALUMINUM NEED NOT BE PAINTED.
F. ALUMINUM SHOULD NOT BE PLACED IN DIRECT CONTACT WITH CONCRETE, GROUT, MASONRY, WOOD, FIBERBOARD OR OTHER POROUS MATERIAL THAT MAY ABSORB WATER AND CAUSE CORROSION. WHEN SUCH CONTACTS CANNOT BE AVOIDED, AN INSULATING BARRIER BETWEEN THE ALUMINUM AND THE POROUS MATERIAL SHALL BE INSTALLED. ALUMINUM SURFACES SHALL BE GIVEN A HEAVY COAT OF ALKALI RESISTANT BITUMINOUS PAINT OR OTHER COATING PROVIDING EQUIVALENT PROTECTION BEFORE INSTALLATION.
G. SHEET METAL FASTENERS (SMS) FOR ALUMINUM SHALL BE BI-FLEX 300 SERIES (18-8) STAINLESS STEEL BI-METAL SELF DRILLING FASTENERS BY ELCO.
H. SEE ARCHITECTURAL DRAWINGS FOR FINISH REQUIREMENTS.

ABBREVIATIONS

Table with columns: Abbreviation, Description. Includes entries like ADDL - ADDITIONAL, AR - ANCHOR ROD, APPROX - APPROXIMATELY, ARCH - ARCHITECT, etc.

11/16/2022 8:25:45 AM Autodesk Docs://Lakes Park Shelter-Johnson/22FTM211-Lakes Park Canopy & Bldg-R22.rvt

OWNER



PROJECT TITLE  
**LAKES PARK - CANOPY & CONTROL BLDG**

PROJECT ADDRESS

REVISIONS

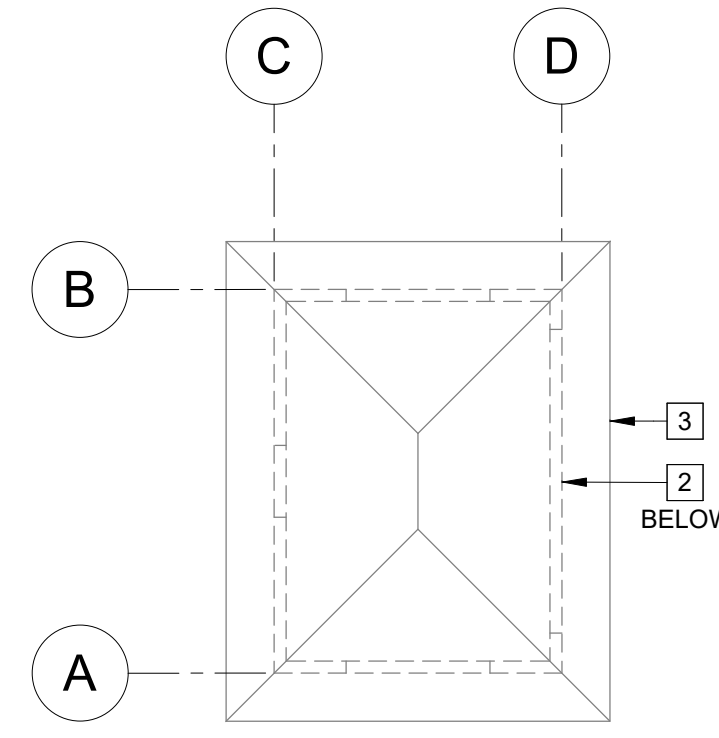
NO.	DESCRIPTION	DATE

DATE ISSUED: 10-13-2022  
REVIEWED BY: PSM  
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DESIGNED BY: PSM  
PROJECT NUMBER: SHEET TITLE

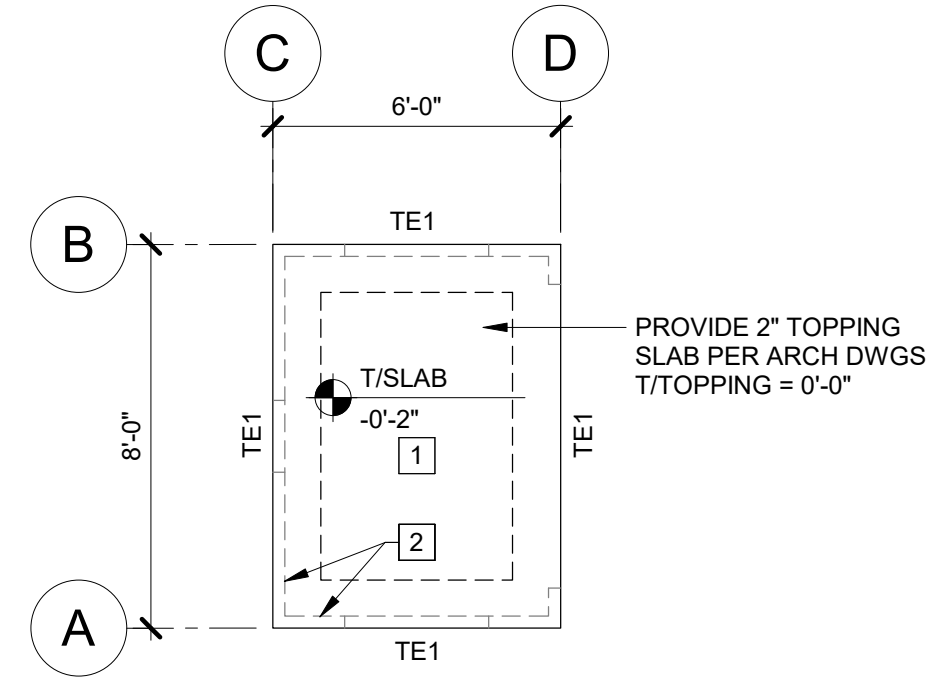
**FOUNDATION & ROOF PLANS**

SHEET ID

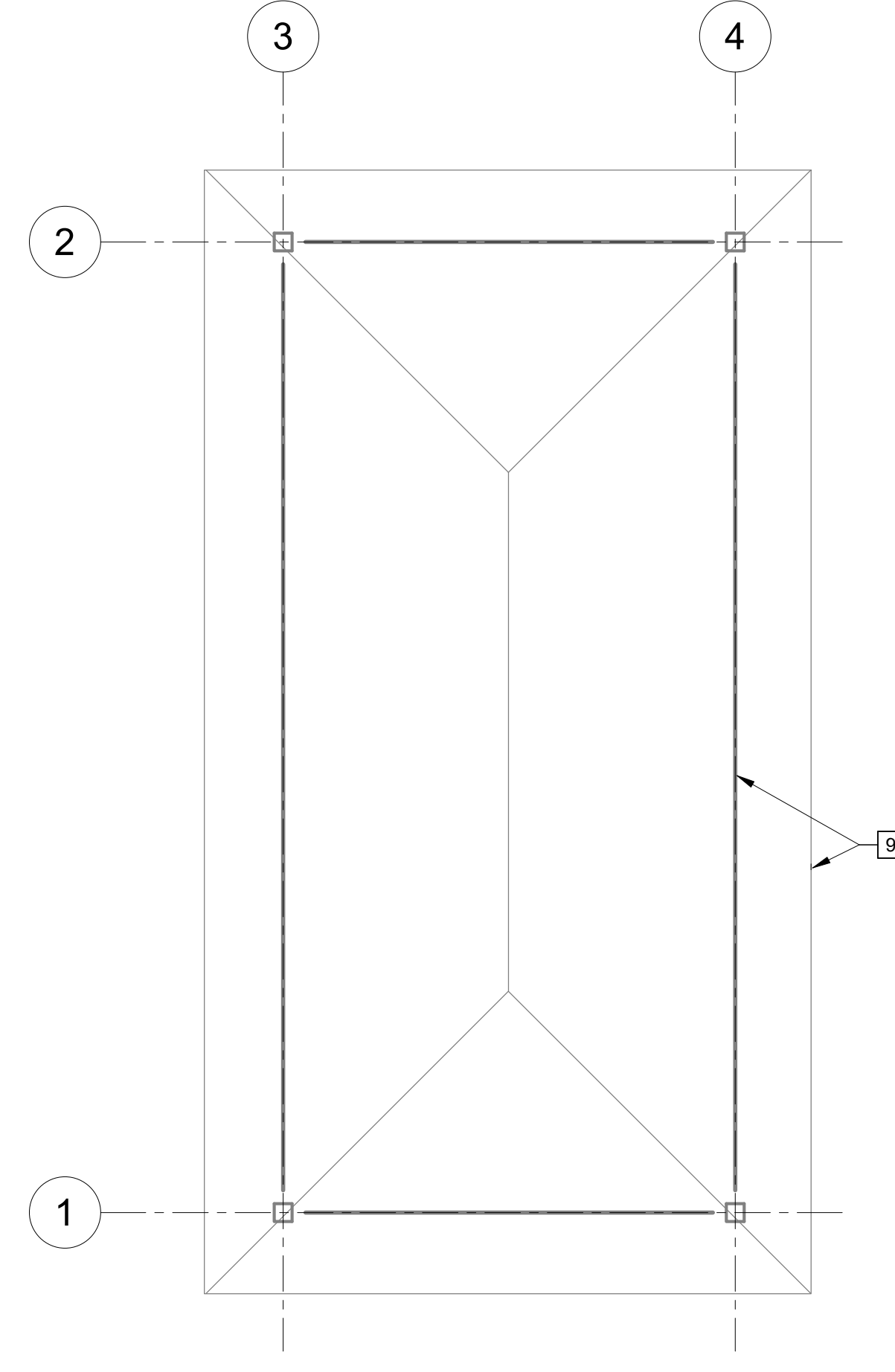
**S101**



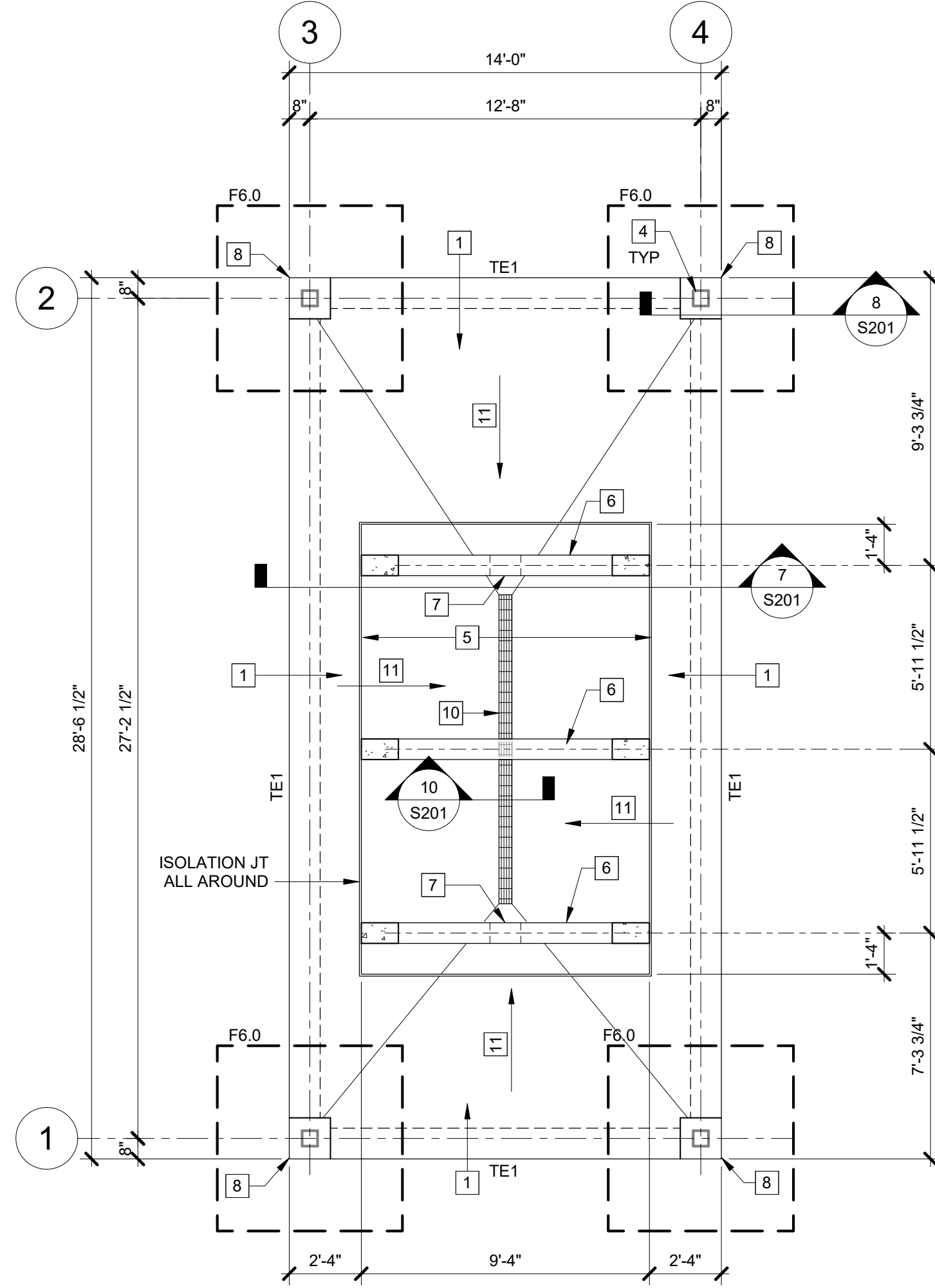
2 CONTROL BUILDING ROOF PLAN  
S101 1/4" = 1'-0"



1 CONTROL BUILDING FOUNDATION PLAN  
S101 1/4" = 1'-0"



4 STORAGE TANK SHADE STRUCTURE ROOF PLAN  
S101 1/4" = 1'-0"



3 STORAGE TANK SHADE STRUCTURE FOUNDATION PLAN  
S101 1/4" = 1'-0"

CLASS 'B' SPLICE SCHEDULE									
DEVELOPMENT LENGTH SHALL BE PER FOLLOWING TABLE MODIFIED PER NOTES BELOW									
GRADE 60 STEEL									
NORMAL WEIGHT CONCRETE STRENGTH									
BAR	3000 PSI	4000 PSI	5000 PSI	6000 PSI	7000 PSI	8000 PSI	9000 PSI	10000 PSI AND HIGHER	
#3	1'-9"	1'-6"	1'-5"	1'-3"	1'-2"	1'-1"	1'-0"	1'-0"	
#4	2'-4"	2'-1"	1'-10"	1'-8"	1'-7"	1'-5"	1'-4"	1'-4"	
#5	3'-3"	2'-7"	2'-4"	2'-1"	2'-0"	1'-10"	1'-9"	1'-8"	
#6	3'-7"	3'-1"	2'-9"	2'-6"	2'-4"	2'-2"	2'-1"	2'-0"	
#7	5'-2"	4'-6"	4'-0"	3'-8"	3'-5"	3'-2"	3'-0"	2'-10"	
#8	6'-0"	5'-2"	4'-7"	4'-2"	4'-0"	3'-8"	3'-5"	3'-3"	
#9	6'-8"	5'-10"	5'-2"	4'-9"	4'-5"	4'-1"	3'-10"	3'-8"	
#10	7'-6"	6'-6"	5'-10"	5'-4"	5'-0"	4'-7"	4'-4"	4'-2"	
#11	8'-4"	7'-3"	6'-6"	6'-0"	5'-6"	5'-1"	4'-10"	4'-7"	
GRADE 75 STEEL									
NORMAL WEIGHT CONCRETE STRENGTH									
BAR	3000 PSI	4000 PSI	5000 PSI	6000 PSI	7000 PSI	8000 PSI	9000 PSI	10000 PSI AND HIGHER	
#3	2'-3"	2'-0"	1'-9"	1'-7"	1'-5"	1'-4"	1'-3"	1'-3"	
#4	3'-0"	2'-7"	2'-4"	2'-1"	2'-0"	1'-10"	1'-9"	1'-8"	
#5	3'-9"	3'-3"	2'-10"	2'-7"	2'-5"	2'-3"	2'-2"	2'-0"	
#6	4'-5"	3'-10"	3'-5"	3'-2"	3'-0"	2'-9"	2'-7"	2'-5"	
#7	6'-6"	5'-7"	5'-0"	4'-7"	4'-3"	4'-0"	3'-9"	2'-9"	
#8	7'-5"	6'-5"	5'-9"	5'-3"	4'-10"	4'-7"	4'-3"	4'-1"	
#9	8'-4"	7'-3"	6'-6"	6'-0"	5'-6"	5'-1"	4'-10"	4'-7"	
#10	9'-5"	8'-2"	7'-4"	6'-8"	6'-2"	5'-9"	5'-5"	5'-2"	
#11	10'-5"	9'-1"	8'-1"	7'-5"	6'-10"	6'-5"	6'-0"	5'-9"	

- NOTES:  
1. FOR CLEAR SPACING BETWEEN BARS <math>4d</math> AND/OR CLEAR COVER <math>4d</math>, MULTIPLY BY 1.5.  
2. FOR TOP BARS MULTIPLY BY 1.3.  
3. FOR EPOXY COATED BARS, IF SPECIFIED OR APPROVED AS AN ALTERNATE, MULTIPLY BY 1.3.  
4. FOR MMFX BARS, IF SPECIFIED OR USED, USE GRADE 75 KSI VALUES.  
5. WHERE MORE THAN ONE FACTOR APPLIES, PRODUCT OF ALL APPLICABLE FACTORS SHALL BE APPLIED.  
6. IF DETAILER IS TO USE A DIFFERENT SCHEDULE, HE/SHE MUST SUBMIT A SEALED LETTER INDICATING THAT HIS/HER VALUES CORRESPOND TO CURRENT ACI 318 CODE.

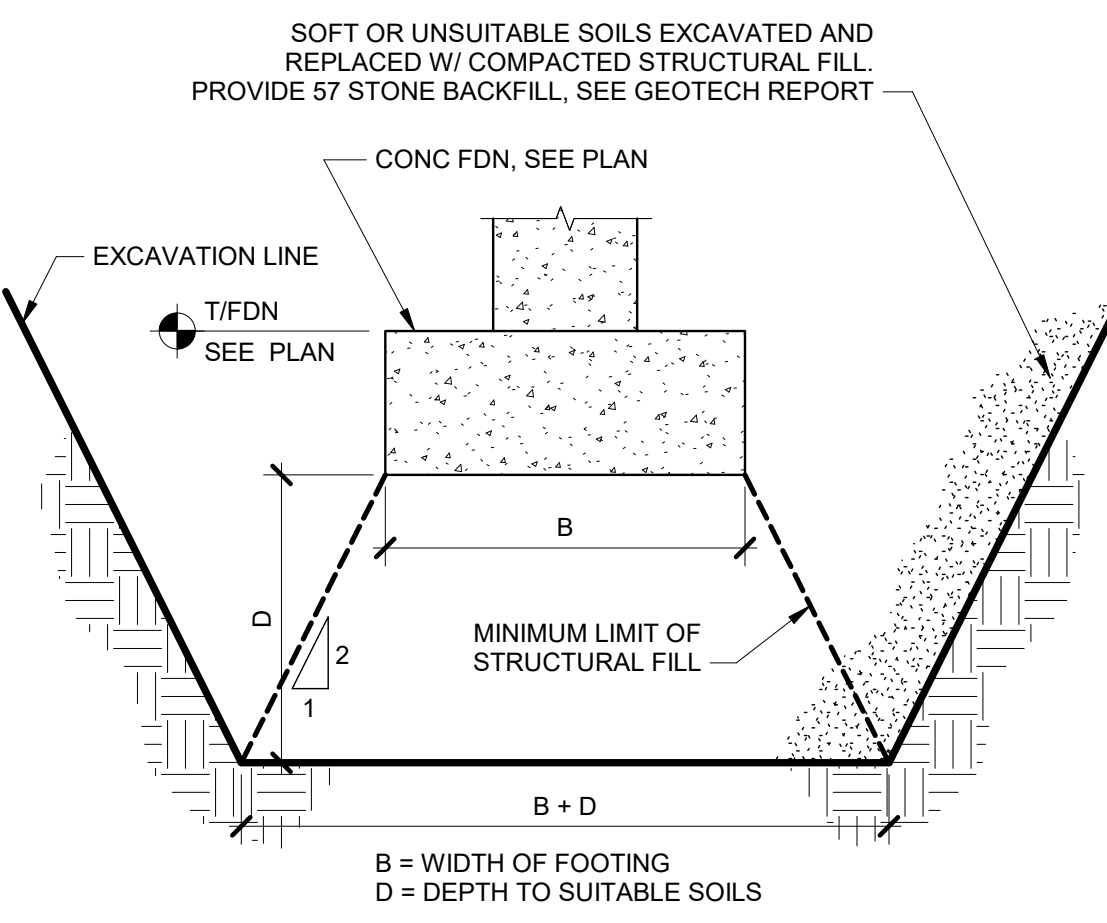
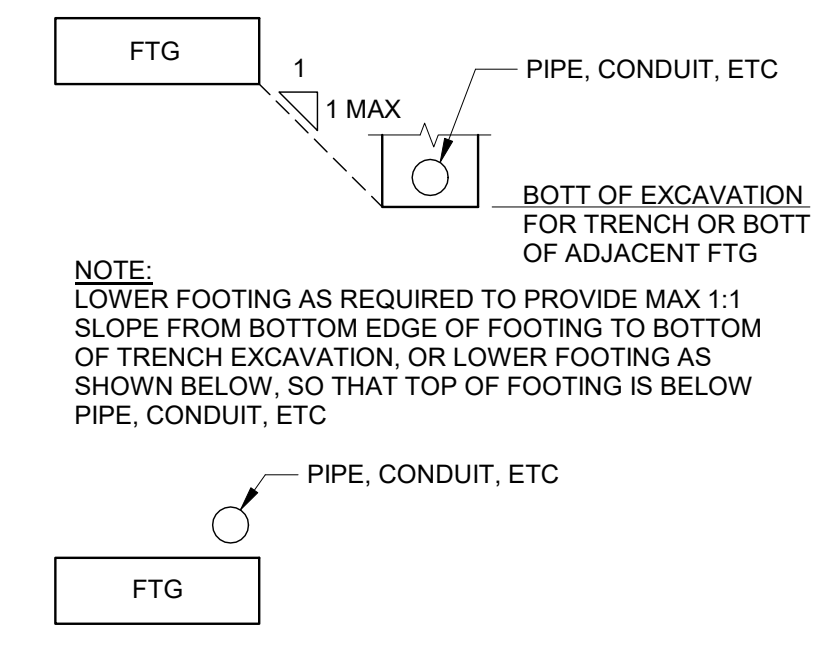
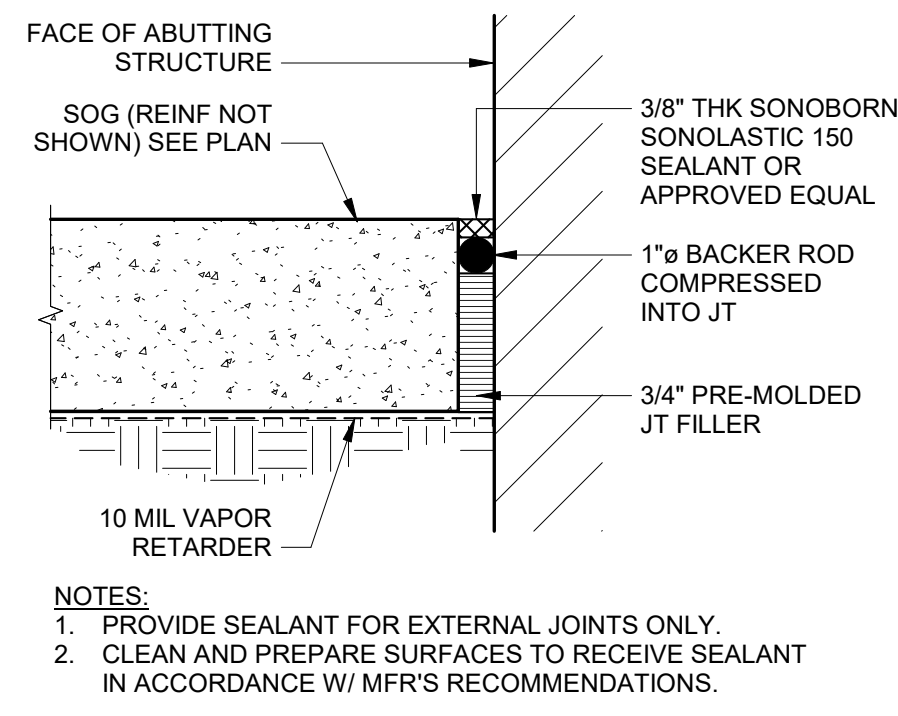
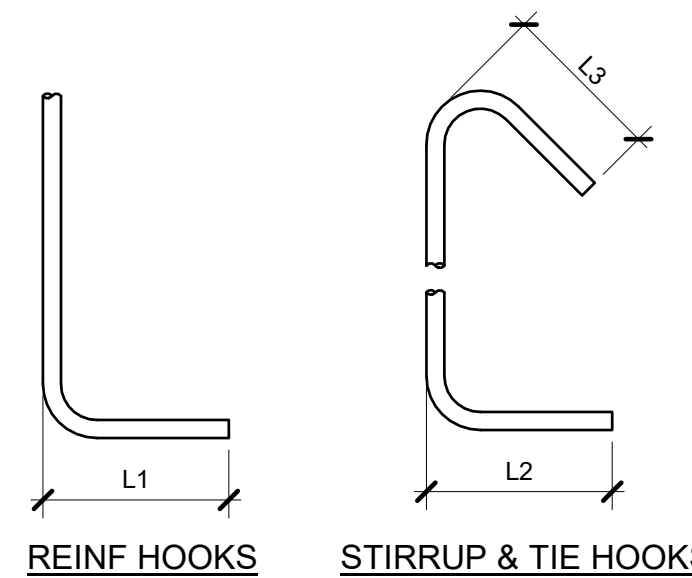
5 CLASS 'B' SPLICE SCHEDULE  
S101 12" = 1'-0"

KEYNOTES	
KEY	DESCRIPTION
1	4" THICK 4,000 PSI (NW 145 PCF) CONCRETE SLAB ON GRADE WITH 4% DOSE OF EUCLID EUCON ADMIXTURE. PROVIDE 6x6 W1.4xW1.4 WELDED WIRE REINFORCING (WWR) IN SHEETS NOT ROLLS CHAIRED TO TOP OF SLAB. PLACE CONCRETE ON 15 MIL VAPOR RETARDER. TAPE ALL SEAMS. PREPARE SUBGRADE IN ACCORDANCE WITH GEOTECH REPORT
2	PRECAST CONCRETE STRUCTURE BY OTHERS, SEE ARCHITECTURAL DRAWINGS FOR DETAILS
3	METAL ROOF SYSTEM BY OTHERS, SEE ARCHITECTURAL DRAWINGS FOR DETAILS
4	PRE-ENGINEERED STEEL COLUMNS AND CONNECTIONS BY DELEGATE ENGINEER, SEE ARCHITECTURAL DRAWINGS FOR DETAILS
5	16" THICK MINIMUM CONCRETE SLAB WITH #4@10" OC TOP AND BOTTOM EACH WAY
6	8" WIDE CONCRETE WALLS FOR TANK SUPPORT
7	DRAIN OPENING BELOW IN WALL
8	16" SQUARE CONCRETE PEDESTAL. SEE S201
9	PRE-ENGINEERED ALUMINUM CANOPY FRAMING AND CONNECTIONS BY DELEGATE ENGINEER, SEE ARCHITECTURAL DRAWINGS FOR DETAILS
10	TRENCH DRAIN, SEE ARCHITECTURAL DRAWINGS FOR LENGTH, WIDTH AND ADDITIONAL INFORMATION.
11	SLOPE TO DRAIN, 1/4":12."

- PLAN NOTES:  
1. TOP OF GROUND FLOOR SLAB = REFERENCE ELEVATION 0'-0".  
2. SEE SHEET S001 FOR STRUCTURAL NOTES AND DESIGN CRITERIA.  
3. VERIFY ALL DIMENSIONS, ELEVATIONS AND FINISHES WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION OR FABRICATION.  
4. TOP OF FOOTING ELEVATIONS SHALL BE -2'-0" UNLESS NOTED OTHERWISE. COORDINATE TOP OF FOOTING ELEVATIONS WITH SITE CIVIL. LOWER FOOTINGS AS REQUIRED TO AVOID FOUNDATION INFLUENCE. SEE 2/S201.  
5. CENTERLINES OF COLUMNS SHALL COINCIDE WITH THE FOUNDATION CENTERLINES, UNLESS NOTED OTHERWISE.

- FOOTING SCHEDULE -								
MARK	LENGTH	FTG WIDTH	THICKNESS	BOTTOM REINFORCING LW	BOTTOM REINFORCING SW	TOP REINFORCING LW	TOP REINFORCING SW	COMMENTS
F6.0	6'-0"	6'-0"	1'-4"	(7) #6	(7) #6	(7) #5	(7) #5	ALLOWABLE UPLIFT 10K ASD

BAR SIZE	SCHEDULE		
	REINF HOOK	STIRRUP & TIE HOOKS	
	L1	L2	L3
#3	6"	4"	2 1/2"
#4	8"	4 1/2"	3"
#5	10"	-	-
#6	1'-0"	-	-
#7	1'-2"	-	-
#8	1'-4"	-	-
#9	1'-7"	-	-
#10	1'-10"	-	-
#11	2'-0"	-	-



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OWNER

PROJECT TITLE

SEAL

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LAKES PARK - CANOPY & CONTROL BLDG

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REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 10-13-2022  
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SECTIONS AND DETAILS

SHEET ID

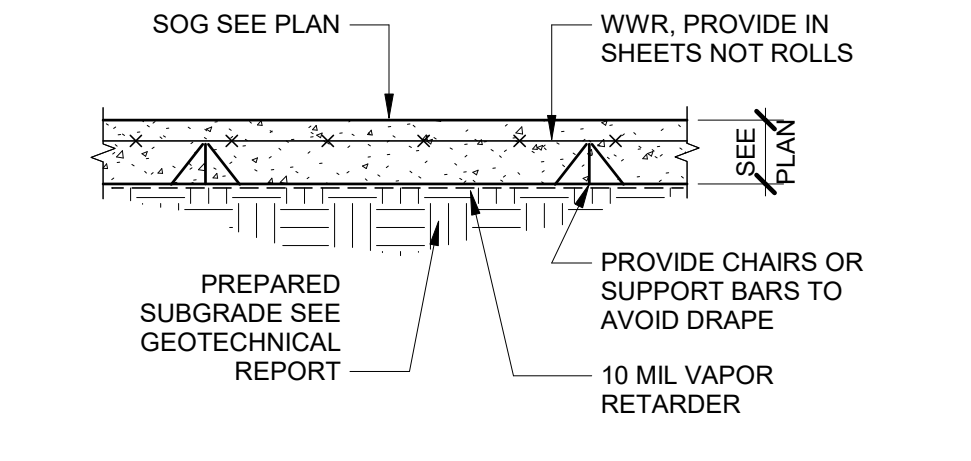
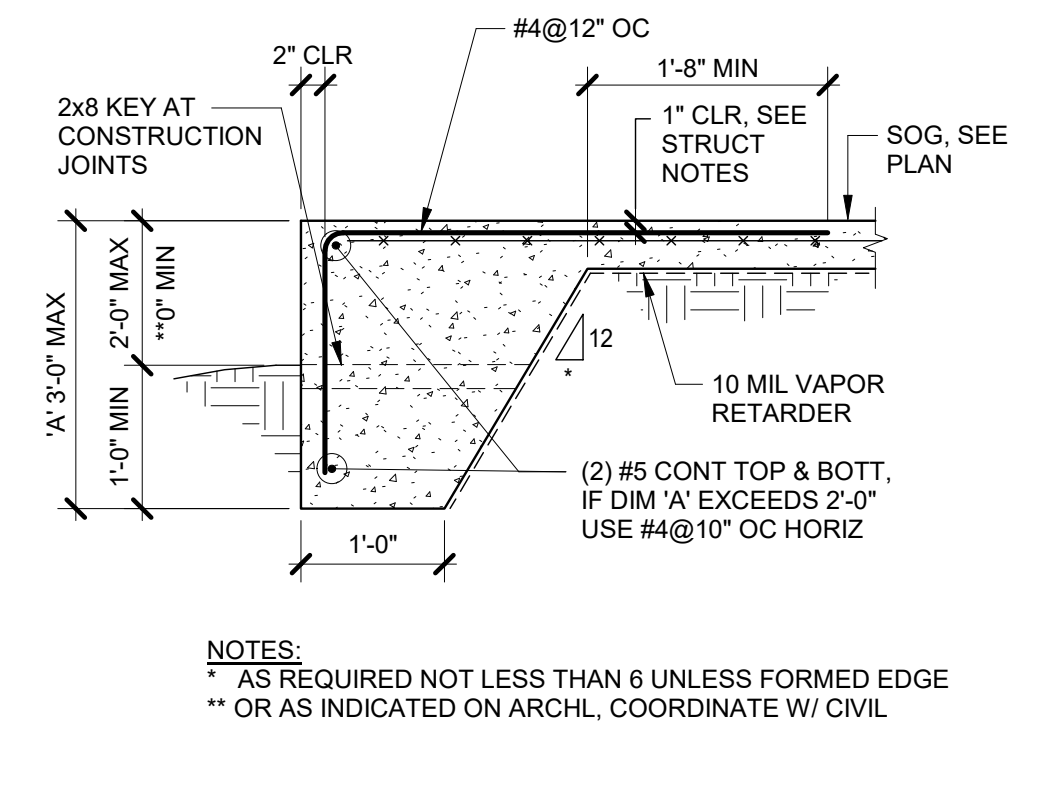
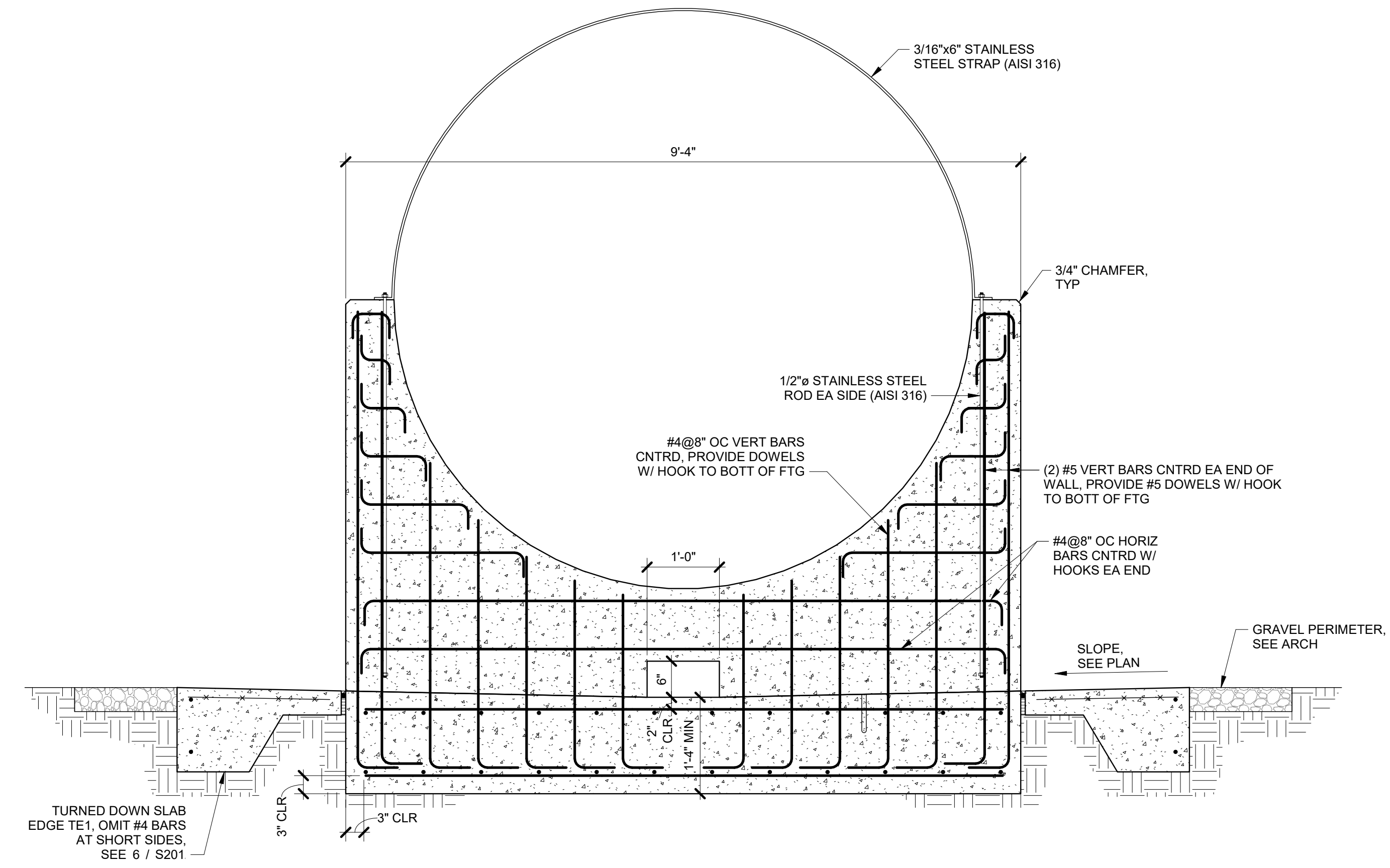
# S201

**4** STD HOOK LENGTHS  
S201 1" = 1'-0"

**3** ISOLATION JOINT AT SOG (IJ)  
S201 3" = 1'-0"

**2** FOUNDATION INFLUENCE  
S201 3/4" = 1'-0"

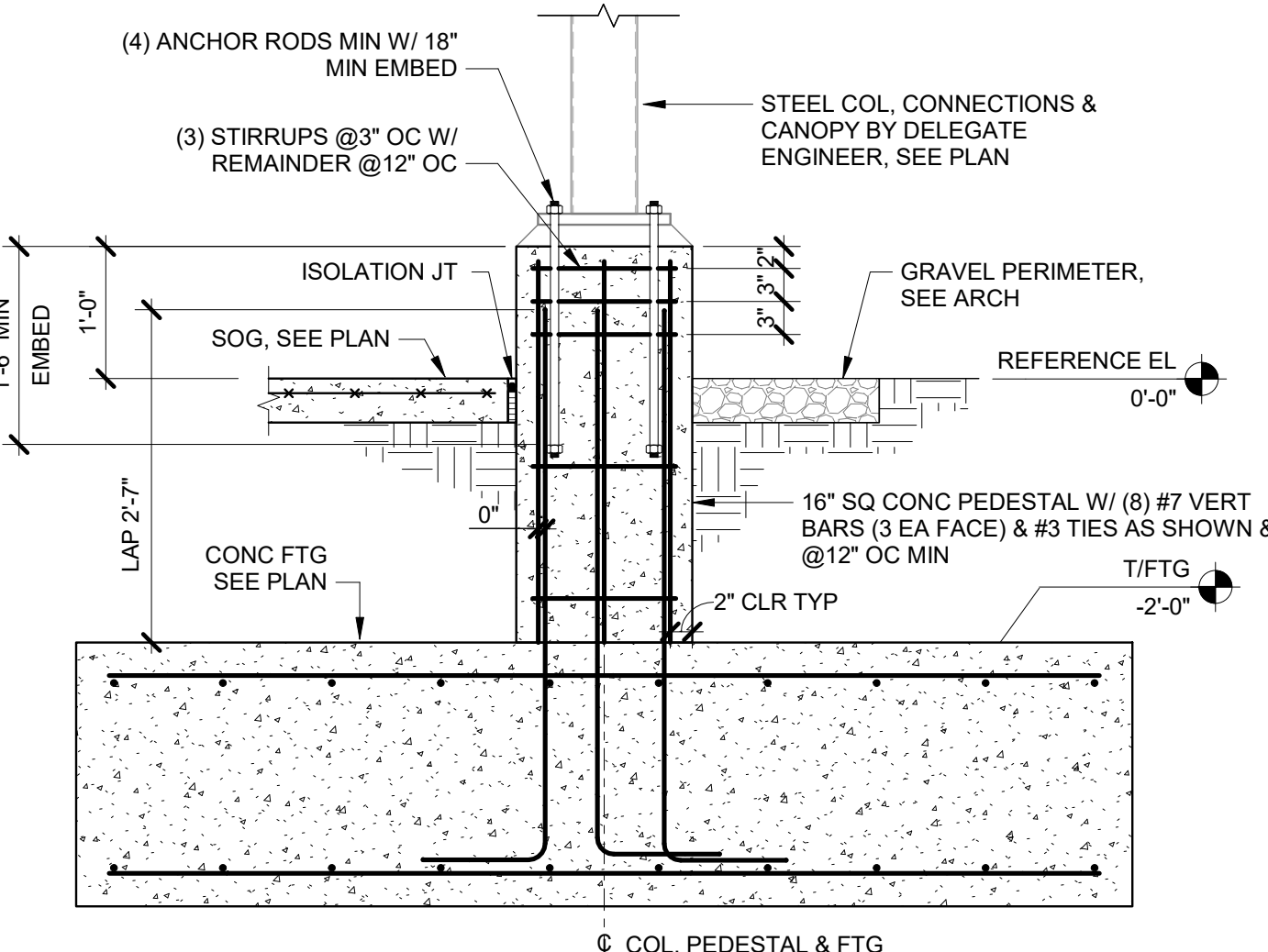
**1** FOUNDATION UNDERCUTTING  
S201 3/4" = 1'-0"



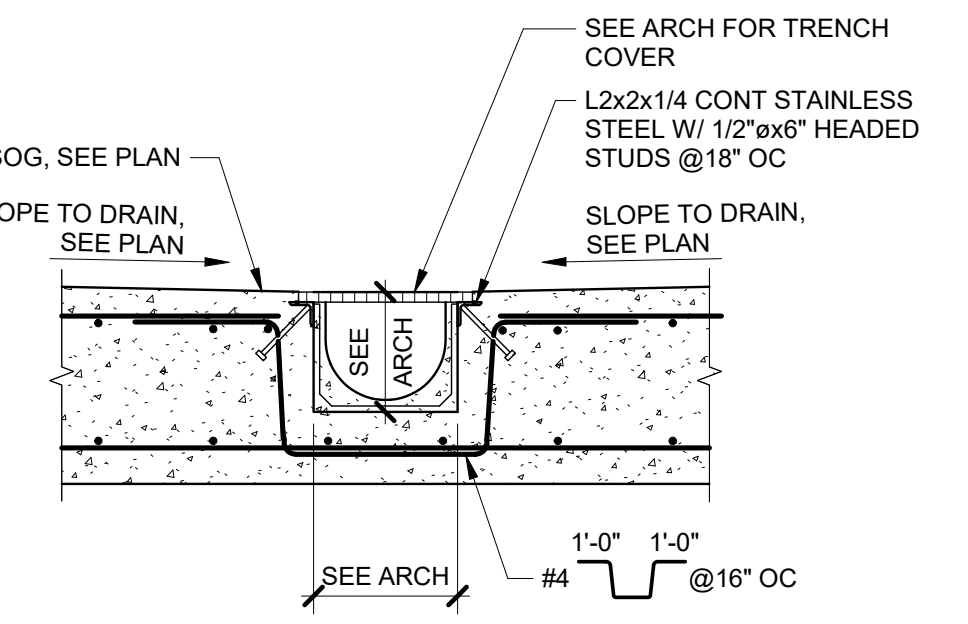
**6** TURNED DOWN SLAB EDGE TE1  
S201 3/4" = 1'-0"

**5** WWR AT SOG  
S201 1" = 1'-0"

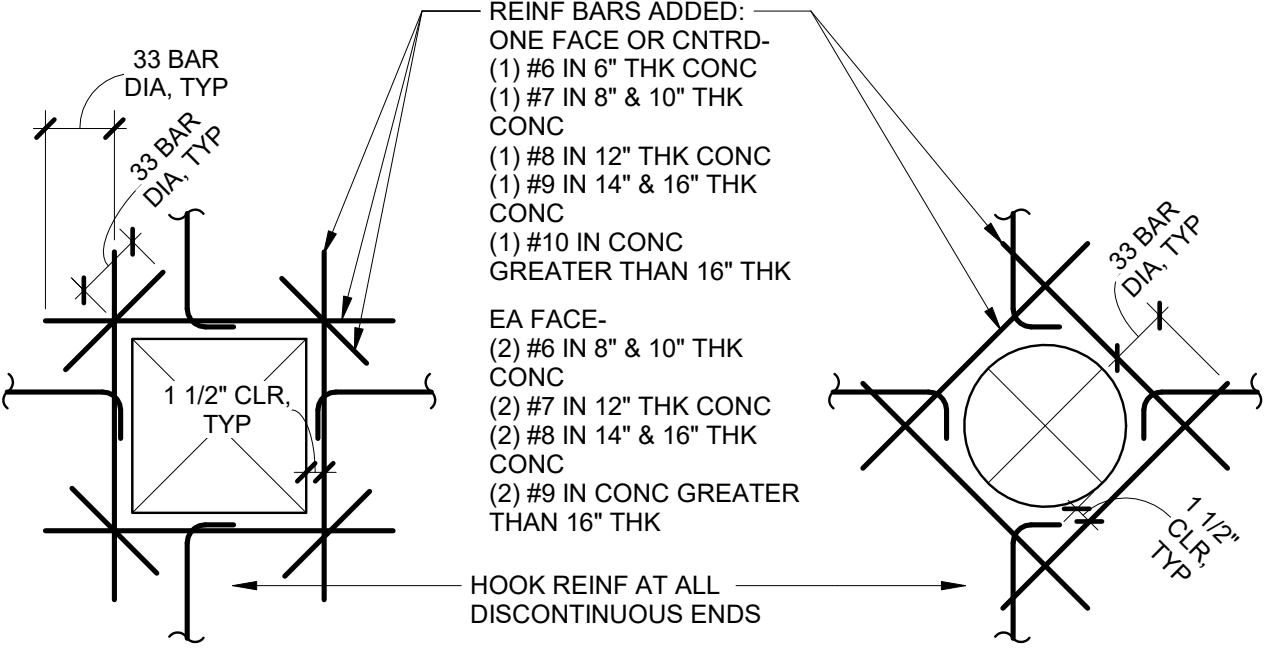
**7** STORAGE TANK SHADE STRUCTURE SLAB & WALL SECTION  
S201 3/4" = 1'-0"



**8** STORAGE TANK SHADE STRUCTURE CONCRETE PEDESTAL  
S201 3/4" = 1'-0"



**10** SECTION AT TRENCH DRAIN  
S201 3/4" = 1'-0"



**9** REINFORCING AT OPENINGS IN CONCRETE  
S201 3/4" = 1'-0"

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