

CITY OF DAYTON NEW POLICE STATION WEST PATROL DISTRICT

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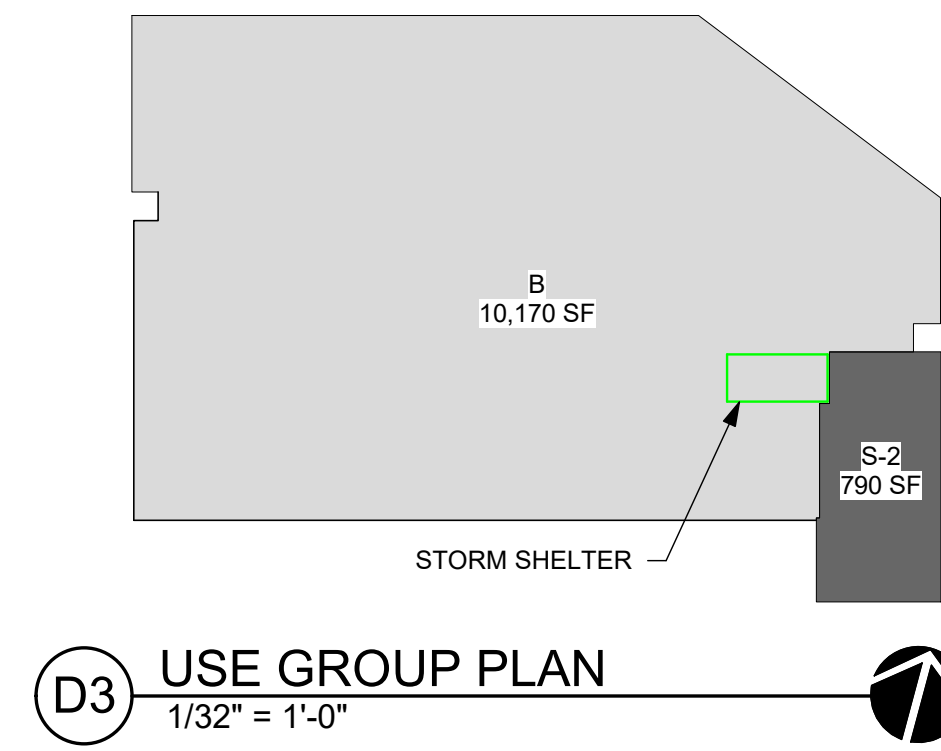
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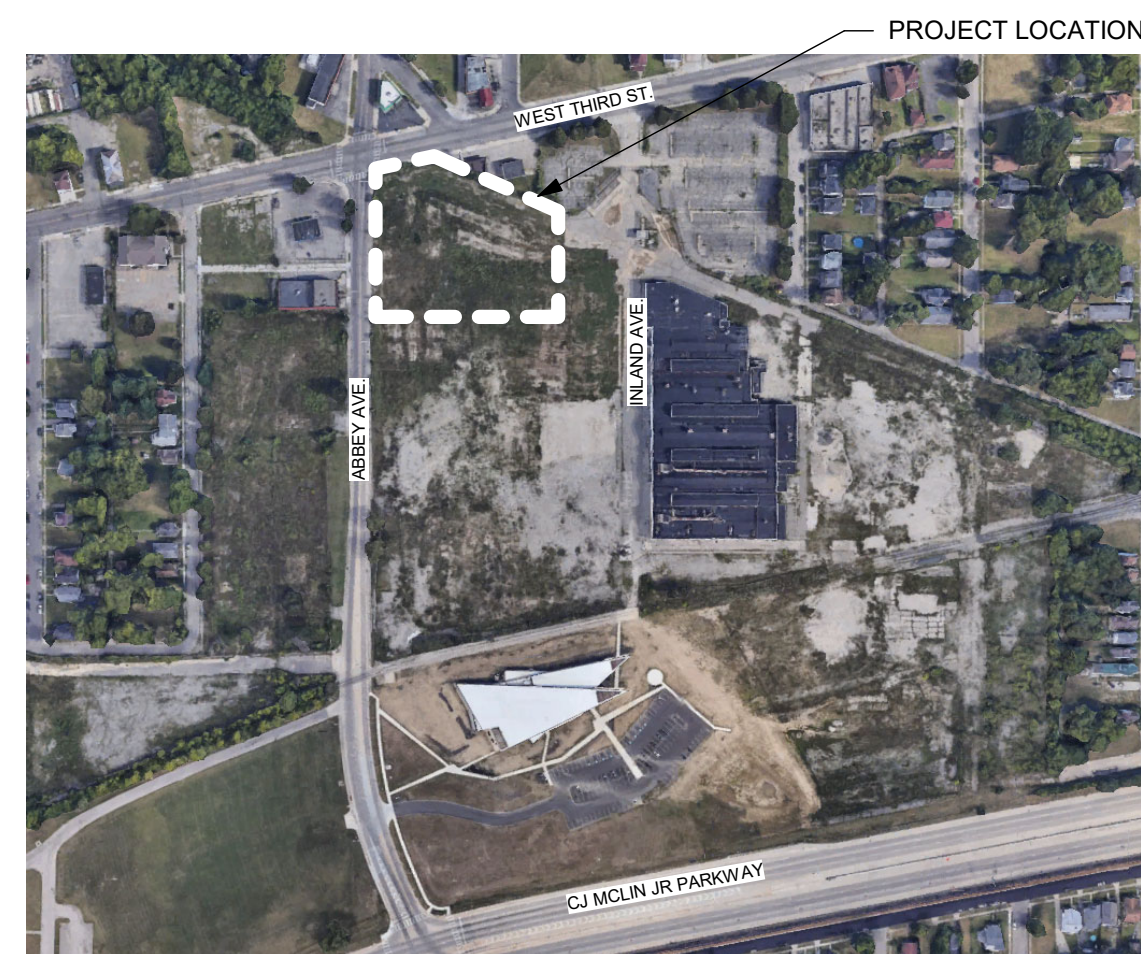
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CITY OF DAYTON
**NEW POLICE STATION
WEST PATROL DISTRICT**
10 Abbey Ave, Dayton, Ohio 45417

VICINITY MAP



CODE INFORMATION (OBC 2024)

PROJECT DESCRIPTION

PROJECT CONSISTS OF CONSTRUCTION OF A NEW POLICE STATION FOR THE CITY OF DAYTON WEST PATROL DISTRICT.

USE GROUP CLASSIFICATION

OBC (302) USE GROUP = B: BUSINESS- POLICE DEPARTMENT
S2: STORAGE- VEHICLE PARKING BAY
OBC (508.3) MIXED OCCUPANCIES = UNSEPARATED MIXED USE

CONSTRUCTION TYPE CLASSIFICATION

OBC (602) CONSTRUCTION TYPE = IIB
BUILDING DESCRIPTION = CONCRETE SLAB WITH STEEL COLUMNS, STEEL BAR JOISTS AND METAL DECK.

HEIGHT AND AREA LIMITATIONS

OBC (503) BUILDING AREA AND HEIGHT ALLOWABLE
=B - 4 STORIES/ 92,000 SF - STORY
=S-2- 4 STORIES/ 104,000 SF - STORY
BUILDING DESCRIPTION:
ACTUAL AREA: ONE STORY
=B - 10,170 SF
=S-2 - 790 SF
TOTAL -10,960 SF

OCCUPANT LOAD

OBC (1004) ALLOWABLE:
S.F. PER OCCUPANT
B = 10,170 SF/150 = 67 OCCUPANTS ALLOWABLE
S2 = 790 SF/200 = 3 OCCUPANTS ALLOWABLE
DECLARED OCCUPANT LOAD:
DECLARED OCCUPANT LOAD IS BASED ON 1 SINGLE SHIFT ALLOWING FOR 24/7 SHIFT CHANGES.
1 RECEPTIONIST
3 COMMAND OFFICERS
4 SERGEANTS (OF 12 WORKSTATIONS)
8 PATROL OFFICERS
B = 16 OCCUPANTS DECLARED
S-2 = 0 OCCUPANTS DECLARED
TOTAL = 16 OCCUPANTS DECLARED

FIRE PROTECTION

BUILDING DESCRIPTION : FULLY SPRINKLERED
FIRE ALARM SYSTEM PROVIDED THROUGHOUT.

PLUMBING FIXTURES REQUIRED

OBC (2902)	WC	LAVS	SHOWERS	DF	SERVICE SINK
REQUIRED B:	1	1	0	1	1
S-2:	1	1	0	0	1
TOTAL	2	2	0	1	2
PROPOSED	7	14	3	1	2

STORM SHELTER PROVISIONS

REFER TO SHEET G0.3 FOR STORM SHELTER INFORMATION IN FUTURE BUILDING PACKAGE.

ISSUE

NO.	DATE	DESCRIPTION
10/03/2024	FOUNDATION PACKAGE	

DATE	10/03/24
JOB NO.	4205.00
DRAWN	MLG
CHECKED	RFW

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TITLE
**FOUNDATION PACKAGE
COVER SHEET**

SHEET NO.

GO.1B

STRUCTURAL NOTES:

GENERAL STRUCTURAL NOTES:

GOVERNING CODE

OHIO BUILDING CODE 2024

CLASSIFICATION OF BUILDING STRUCTURE CATEGORY III, TABLE 1604.5

DESIGN LOADS: MAIN BUILDING (SEE S0.3 FOR STORM SHELTER)

- 1. ROOF LOAD
 - A. MINIMUM LIVE LOAD OR SNOW LOAD (Pf): 20 PSF
- 2. SNOW LOAD
 - A. GROUND SNOW LOAD, P/G = 20 PSF MODIFIED BY APPLICABLE DRIFT COEFFICIENTS
 - B. FLAT ROOF SNOW LOAD, P/F = 20 PSF MODIFIED BY APPLICABLE BUILDING COEFFICIENTS
 - C. SNOW LOAD IMPORTANCE FACTOR I = 1.20
 - D. SNOW EXPOSURE FACTOR Ce = 1.0
 - E. THERMAL FACTOR, Ct = 1.00
- 3. FLOOR LOAD:
 - A. LIVE LOAD: 100 PSF
- 4. WIND LOAD:
 - A. MAIN WINDFORCE-RESISTING SYSTEM: 120 MPH PER ASCE 7 (3-SECOND GUST)
 - B. WIND EXPOSURE C
 - C. BASIC WIND VELOCITY PRESSURE, qh = 17.21 PSF
 - D. INTERNAL GUST PRESSURE COEFFICIENT GCP = 0.18, ENCLOSED BUILDING
- 5. SEISMIC LOAD
 - A. COUNTY = MONTGOMERY
 - B. BUILDING SITE CLASSIFICATION = D
 - C. SPECTRAL RESPONSE ACCELERATION, Ss = 15.4%
 - Sds (EQUATION 16-19) = 16.4%
 - D. SPECTRAL RESPONSE ACCELERATION, S1 = 7.2%
 - Sd1 (EQUATION 16-18) = 11.6%
 - E. SEISMIC DESIGN CATEGORY, SDC = C
 - F. SEISMIC IMPORTANCE FACTOR = 1.5
 - G. SEISMIC FORCE RESISTING SYSTEM =
 - H. LIGHT FRAMED WALLS WITH SHEAR PANELS OF ALL OTHER MATERIALS
 - H. RESPONSE MODIFICATION FACTOR, R = 2.0
 - I. ANALYSIS PROCEDURE = ELFP
 - J. SEISMIC RESPONSE COEFFICIENT, Cs = 0.064
 - K. DESIGN BASE SHEAR, V = Cs*W MAX

MISCELLANEOUS CONSTRUCTION REQUIREMENTS:

- 1. MINIMUM EMBEDMENT LENGTH OF AN EPOXY DOWEL SHALL BE:
 - #3 REBAR - 3" LG EMBEDMENT
 - #4 REBAR - 4" LG EMBEDMENT
 - #5 REBAR - 6" LG EMBEDMENT
- 2. ALL STEEL EXPOSED TO WEATHER SHALL BE GALVANIZED (OR STAINLESS STEEL). OTHER STEEL MEMBERS SHALL HAVE ONE COAT OF SHOP PRIMER. TOUCH UP ALL DAMAGED GALVANIZING OR PAINT AFTER INSTALLATION IS COMPLETED. TOUCH UP FIELD WELDED AREAS AS SPECIFIED. STEEL MEMBERS RECEIVING TYPE 1 FIREPROOFING SHALL NOT HAVE ANY PRIMER.
- 3. ALL SUPPORTED STRUCTURE IS REQUIRED TO BE FIREPROOFED. SEE SPECIFICATION AND ARCHITECTURAL DETAILS FOR THE APPROVED METHODS OF FIREPROOFING. SPECIALIZED FIREPROOF PAINTING IS REQUIRED AT CERTAIN LOCATIONS FOR CLEARANCE AND FOR AESTHETIC REASONS.
- 4. MAXIMUM CORE THROUGH STRUCTURAL MEMBERS WITHOUT REINFORCING SHALL BE AS FOLLOWS:
 - A. STEEL - 1 1/2" DIA.
 - B. CONCRETE FLOOR (NO BEAMS OR RIBS) - 6" DIA.
 - C. CONCRETE BEAM/RIB - 2 1/2" DIA. (AT MID DEPTH)

CONNECTIONS, FASTENERS AND ACCESSORIES:

UNLESS SPECIFICALLY NOTED OTHERWISE PROVIDE FASTENERS AND ACCESSORIES AS INDICATED HEREIN:

- 1. PROVIDE TYPE 304 OR 316 STAINLESS-STEEL FASTENERS FOR EXPOSED TO EXTERIOR AND ZINC-PLATED FASTENERS WITH COATING COMPLYING WITH ASTM B 633, CLASS FE/ZN 5, WHERE BUILT INTO EXTERIOR WALLS. SELECT FASTENERS FOR TYPE, GRADE AND CLASS REQUIRED.
- 2. ANCHOR BOLTS: ASTM F 1554, GRADE 36. MACHINE SCREWS: ASME B18.6.3 LAG BOLTS: ASME B18.2.1 PLAIN WASHERS: ROUND, CARBON L, ASME B18.22.1 LOCK WASHERS: HELICAL, SPRING TYPE, CARBON STEEL, ASME B18.21.1
- 3. EXPANSION ANCHORS: ANCHOR BOLT AND SLEEVE ASSEMBLY MATERIAL INDICATED BELOW WITH CAPABILITY TO SUSTAIN, WITHOUT FAILURE, A LOAD EQUAL TO SIX TIMES THE LOAD IMPOSED WHEN INSTALLED IN UNIT MASONRY AND EQUAL TO FOUR TIMES THE LOAD IMPOSED WHEN INSTALLED IN UNIT MASONRY AND DETERMINED BY TESTING PER ASTM E 488, CONDUCTED BY A QUALIFIED INDEPENDENT TESTING AGENCY. MATERIAL: ALLOY GROUP 1 & 2 STAINLESS-STEEL BOLTS COMPLYING WITH ASTM F 594 AND NUTS COMPLYING WITH ASTM F594.
- 4. GROUT: NONSHRINK, NONMETALLIC GROUT: FACTORY-PACKAGED, NONSTAINING, NONCORROSIVE, NONGASEOUS GROUT COMPLYING WITH ASTM C 1107. PROVIDE GROUT SPECIFICALLY RECOMMENDED BY MANUFACTURER FOR INTERIOR AND EXTERIOR APPLICATIONS.

- 5. CAST-IN-PLACE ANCHORS IN CONCRETE: ANCHORS OF TYPE INDICATED BELOW, FABRICATED FROM CORROSION-RESISTANT MATERIALS CAPABLE OF SUSTAINING, WITHOUT FAILURE, THE LOAD IMPOSED WITHIN A SAFETY FACTOR OF 4, AS DETERMINED BY TESTING PER ASTM E 488, CONDUCTED BY A QUALIFIED INDEPENDENT TESTING AGENCY.
- 6. THREADED OR WEDGE TYPE: GALVANIZED FERROUS CASTINGS, ASTM A47 MALLEABLE IRON OR ASTM A27 CAST STEEL. PROVIDE BOLTS, WASHERS, AND SHIMS AS NEEDED, HOT-DIP GALVANIZED PER ASTM A153.
- 7. WELDING RODS AND BARE ELECTRODES: SELECT ACCORDING TO AWS SPECIFICATIONS FOR METAL ALLOY WELDED.
- 8. MINIMUM EMBEDMENT OF FASTENERS SHALL BE AS FOLLOWS U.N.O:
 - A. 3/8" DIA. - 3" LG EMBEDMENT
 - B. 1/2" DIA. - 4" LG EMBEDMENT
 - C. 3/4" DIA. - 6" LG EMBEDMENT
 - D. MAXIMUM SPACING SHALL BE 24" O.C.

CONCRETE:

- 1. CAST-IN-PLACE CONCRETE WORK SHALL CONFORM TO THE LATEST EDITIONS OF:
 - A. AMERICAN CONCRETE INSTITUTE CODES AND STANDARDS, INCLUDING, BUT NOT LIMITED TO ACI 310 (AS MODIFIED IN THE PROJECT MANUAL), ACI 305.1, ACI 306, ACI 315, ACI 318 AND SP-15.
 - B. CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE."
- 2. KEEP A COPY OF THE "FIELD REFERENCE MANUAL OF STANDARD PRACTICE."
- 3. CONCRETE WORK IN COLD WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 306.1 "STANDARD SPECIFICATION FOR COLD WEATHER CONCRETING". AND ACI 306R "COLD WEATHER CONCRETING".
- 4. CONCRETE WORK IN HOT WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 305R "HOT WEATHER CONCRETING". THE AIR TEMPERATURE, RELATIVE HUMIDITY, CONCRETE TEMPERATURE, AND WIND VELOCITY SHALL BE ENTERED INTO THE NOMOGRAPH OF THIS REFERENCE TO DETERMINE IF PRECAUTIONS AGAINST PLASTIC SHRINKAGE ARE REQUIRED.
- 5. CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR EACH TYPE OF CONCRETE FOR APPROVAL IN ACCORDANCE WITH ACI 301 SECTION 4.2.3.4 FIELD TEST DATA OR TRIAL MIXTURES.
- 6. SUBMIT SHOP DRAWINGS FOR REINFORCING STEEL.
- 7. MATERIALS: (fc BASED ON 28 DAY UNLESS NOTED)
 - A. CONCRETE UNLESS NOTED: fc= 4000 PSI., NORMAL AGGREGATE.
 - B. CONCRETE FOR INTERIOR FLOOR SLABS: fc=4000 PSI AT 28 DAYS, 1800 PSI AT 3 DAYS, NORMAL WEIGHT AGGREGATE, MINIMUM PORTLAND CEMENT CONTENT PER ACI 301 TABLE 4.2.2.1, WATER NOT PERMITTED TO BE ADDED AT THE SITE, HRWR ADMIXTURE REQUIRED, MAXIMUM WATER/CEMENTITIOUS RATIO=0.50
 - C. CONCRETE FOR EXTERIOR FLAT WORK, WALKS, ETC.: fc=4500 PSI, 4.5% TO 7.5% ENTRAINED AIR, MINIMUM PORTLAND CEMENT CONTENT=520#/CY, MAXIMUM WATER/CEMENTITIOUS RATIO=0.45
 - D. CONCRETE FOR ELEVATED SLAB ON METAL DECK: fc=4000 PSI AT 28 DAYS, NORMAL WEIGHT AGGREGATE, MINIMUM PORTLAND CEMENT CONTENT PER ACI 301 TABLE 4.2.2.1, WATER NOT PERMITTED TO BE ADDED AT THE SITE, HRWR ADMIXTURE REQUIRED, MAXIMUM WATER/CEMENTITIOUS RATIO=0.50. SEE PLAN FOR REINFORCING REQUIREMENTS.
 - E. CONCRETE FOR FOUNDATION WALLS AND RETAINING WALLS WITH EXTERIOR EXPOSURE: fc=4000 PSI, (4.5% TO 7.5% ENTRAINED AIR), MAXIMUM WATER/CEMENTITIOUS RATIO=0.50.
 - F. CONCRETE FOR FOOTINGS: fc=3000 PSI.
 - G. LEAN CONCRETE BELOW FOOTINGS: fc=1500 PSI, MINIMUM PORTLAND CEMENT 376 LB/CU. YD.
 - H. REINFORCING STEEL: ASTM A615 60 KSI YIELD DEFORMED BARS AND ASTM A185 MESH, FLAT SHEETS ONLY.
 - I. FLY ASH: ASTM C618, TYPE F OR C. FLY ASH-TO-TOTAL CEMENTITIOUS RATIO SHALL NOT EXCEED 25% MAXIMUM.
 - J. GROUND GRANULATED BLAST FURNACE SLAG: ASTM C989, TOTAL GROUND GRANULATED BLAST FURNACE SLAG-TO-TOTAL CEMENTITIOUS RATIO SHALL NOT EXCEED 50% MAXIMUM.
 - K. HIGH RANGE WATER REDUCER (HRWR) ADMIXTURE: ASTM C494.
 - L. CHLORIDE CONTENT OF CONCRETE: LIMIT TOTAL CHLORIDE ION CONTENT TO AMOUNT INDICATED IN TABLE 4.2.2.6 OF ACI 318. ADMIXTURES CONTAINING CHLORIDE ARE NOT PERMITTED IN REINFORCED CONCRETE OR CONCRETE CONTAINING METALS.
- 8. SLUMP SHALL BE MEASURED PRIOR TO THE ADDITION OF HRWR.
- 9. LAP SPLICE REINFORCING BARS 48 BAR DIAMETERS UNLESS NOTED OTHERWISE.
- 10. BAR CLEARANCES BETWEEN ADJACENT BARS AND FORMWORK SHALL BE AS NOTED ON THE DRAWINGS OR A MINIMUM AS PER ACI REQUIREMENTS.
- 11. AT CORNERS AND INTERSECTIONS OF FOOTINGS, WALLS AND GRADE BEAMS, PROVIDE BENT BARS OF EQUAL SIZE AND AT SAME SPACING AS TYPICAL REINFORCING AROUND CORNER AND/OR INTO ABUTTING WALL OR GRADE BEAM. BARS SHALL HAVE EMBEDMENT OF 30 DIAMETERS (18" MIN.).
- 12. SEE ARCHITECTURAL DRAWINGS IN FUTURE BUILDING PACKAGE AND SPECIFICATIONS FOR VAPOR BARRIER REQUIREMENTS. VAPOR BARRIER, WHERE REQUIRED, SHALL BE PLACED OVER COMPACTED GRANULAR SUBBASE.

- 13. AT SLAB AND WALL OPENING CORNERS AND REENTRANT CORNERS, PROVIDE (1) #5 BAR IN EACH FACE PARALLEL TO EACH EDGE EXTENDING A MINIMUM OF 2'-0" PAST EDGE OF OPENING. THIS STEEL MAY BE OMITTED IF TYPICAL REINFORCING STEEL EXCEEDS THIS MINIMUM REQUIREMENT.
- 14. REINFORCE ALL INTERIOR SLABS ON GROUND WITH 6x6xW2.9/W2.9 (42#) MESH. LOCATE MESH 2" CLEAR BELOW TOP OF SLAB.
- 15. LAP WELDED WIRE FABRIC MINIMUM 1 FULL SPACE PLUS 2".
- 16. FINISH OF CONCRETE HANDICAP RAMPS TO CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA). COORDINATE LOCATION AND PATTERN WITH ARCHITECTURAL DRAWINGS.
- 17. CONSTRUCTION JOINTS IN SLABS ON GROUND MAY BE LOCATED AT ANY CONTROL JOINT LOCATION. CONSTRUCTION JOINTS SHALL HAVE A KEY FORMED AT MID-DEPTH OF THE FIRST CAST SECTION. THE KEY SHALL BE 1 1/2" DEEP AND SHALL BE 1/3 OF THE SLAB THICKNESS HIGH.
- 18. PROVIDE 3/4" CHAMFER AT CORNERS OF EXPOSED CONCRETE.
- 19. WHERE BRITTLE FLOOR FINISHES ARE TO BE APPLIED TO FLOOR SLABS, COORDINATE CONTROL JOINT LOCATIONS WITH FLOOR FINISH JOINT LOCATIONS AND ARCHITECT.

FOUNDATIONS:

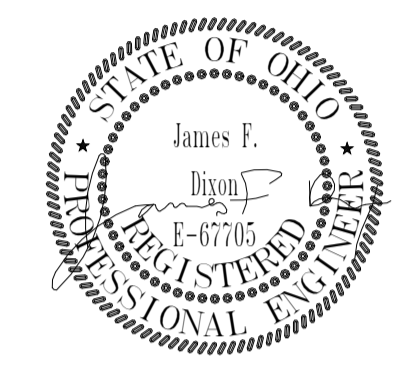
- 1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH SUB-SURFACE INVESTIGATION REPORT BY DHDC ENGINEERING CONSULTING SERVICES DATED JULY 16, 2024. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SURVEY AND THE SUB-SURFACE INVESTIGATION REPORT BEFORE BEGINNING CONSTRUCTION. COPIES OF THE SOILS AND FOUNDATION INVESTIGATION REPORT AREA ARE AVAILABLE FOR INSPECTION IN THE OFFICE OF THE ARCHITECT.
- 2. CONFORM TO THE RECOMMENDATION OF THE SOIL ENGINEER FOR EXCAVATION, BACKFILL, PREPARATION OF SUBSOIL, UNDERCUTTING AND COMPACTION OF EXISTING SOIL, ENGINEERED BACK FILL, BUILDING PAD PREPARATION, SITE DRAINAGE, ETC. FOR EARTH WORK FOR BUILDING CONSTRUCTION.
- 3. NOTIFY THE A/E AS SOON AS POSSIBLE OF ANY UNUSUAL SOIL CONDITIONS OR SOIL CONDITIONS IN VARIANCE WITH TEST BORINGS, SUCH AS UNEXPECTED SPRING OR SEEPAGE WATER, MATERIAL DIFFERING FROM TEST BORINGS, OR SOIL OF QUESTIONABLE BEARING CAPACITY.
- 4. SET FOUNDATIONS AT ELEVATIONS SHOWN, OR ON FIRM UNDISTURBED MATERIAL OF DESIGN BEARING CAPACITY, WHICHEVER IS LOWER. THE CONTRACTOR SHALL RETAIN AN INDEPENDENT SOIL ENGINEERING CONSULTANT TO VERIFY THAT EACH FOOTING PLACED IS BEARING ON DESIGN MATERIAL. FOUNDATION DESIGN BEARING CAPACITY, PER SUB-SURFACE INVESTIGATION REPORT = 3,000 PSF.
- 5. STRUCTURAL FILL SHALL BE PLACED IN 8" LIFTS COMPACTED TO 98% STANDARD PROCTOR DENSITY. UNLESS STRICTER REQUIREMENT IS SPECIFIED, OR RECOMMENDED BY THE SOIL ENGINEER.
- 6. PROVIDE LEAN CONCRETE UNDER ALL OVER EXCAVATION OF FOOTING.
- 7. NO BACKFILLING OF FOUNDATION WALLS SHALL BE UNDERTAKEN UNTIL SUITABLE WALL BRACING, TEMPORARY OR PERMANENT, HAS BEEN PROVIDED. BACKFILL BOTH SIDE OF WALL SIMULTANEOUSLY UNLESS BRACED WALL CONSTRUCTION IS INDICATED.
- 8. DO NOT PLACE FILL ON FROZEN GROUND. ALL SOIL SURROUNDING AND UNDER FOOTINGS SHALL BE PROTECTED FROM FREEZING AND FROST ACTION DURING THE COURSE OF CONSTRUCTION. SOIL THAT HAS BEEN ALLOWED TO FREEZE SHALL BE REMOVED.
- 9. BOTTOMS OF EXTERIOR FOOTINGS SHALL BE AT LEAST 36" BELOW FINISHED GRADE OR AS PER THE LOCAL FROST DEPTH REQUIREMENT, WHICHEVER IS GREATER.
- 10. EXCAVATION THROUGH EXISTING SLABS-ON-GRADE SHALL BE CONDUCTED SO AS NOT TO UNDERMINE REMAINING SLABS. UNDERMINED SLABS SHALL BE REPLACED AT CONTRACTOR'S EXPENSE. (RENOVATION/ADDITON PROJECT).
- 11. SUPPORT BASEMENT RETAINING WALLS AND FOUNDATION WALLS LATERALLY WITH FIRST FLOOR FRAMING BEFORE PLACING ANY BACKFILL. AT THE CONTRACTOR'S OPTION, WALLS MAY BE BRACED AND BACKFILL INSTALLED. ANY SUCH BRACING SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL REMAIN IN PLACE UNTIL THE FIRST FLOOR IS COMPLETED TO THE SATISFACTION OF THE A/E.
- 12. DOWELS IN FOOTINGS TO MATCH VERTICAL COLUMN OR WALL REINFORCING UNLESS SHOWN OTHERWISE.

MASONRY:

- 1. MORTAR MINIMUM COMPRESSIVE STRENGTH:
 - A. TYPE S = 1,800 PSI
 - B. TYPE M = 2,500 PSI
- 2. PROVIDE THE FOLLOWING MINIMUM WALL REINFORCEMENT:
 - A. VERTICAL: AS NOTED IN PLANS AND DETAILS
 - B. HORIZONTAL: TRUSS REINFORCING @ 16" O.C., MIN. EFFECTIVE AREA = 0.48 SQ.IN., U.O.N.
 - C. ANY CMU WALLS MARKED NON-BRG ON PLANS SHALL HAVE #4 @ 48" O.C. MIN.
- 3. START REINFORCING AT THE CORNER/END OF EACH WALL. PROVIDE ADDITIONAL REINFORCING AT THE END OF EACH OPENING AT LINTEL/BEAR BEARING. FILL CORES OF WALLS SOLID WHERE REINFORCING IS TO BE INSTALLED WITH CEMENT GROUT (ASTM C476). DO NOT USE MORTAR. CONTRACTOR MAY USE PEA GRAVEL CONCRETE IN LIEU OF GROUT.
- 4. PROVIDE BOND BEAM AS NOTED. BOND BEAM TO BE INTEGRAL WITH MASONRY COLUMNS. REINFORCEMENT IN BOND BEAMS SHALL BE CONTINUOUS AT CONTROL JOINTS.
- 5. COMPLY WITH RECOMMENDATIONS OF NATIONAL CONCRETE MASONRY ASSOCIATION FOR CONSTRUCTION, ERECTION, AND BONDING OF MASONRY STRUCTURES.
- 6. FILL ANY MASONRY VOIDS WITH MORTAR OR CONCRETE WHERE ANCHORS OCCUR.
- 7. ALL MASONRY CONSTRUCTION SHALL CONFORM TO THE BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530.92) AND SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1-92).
- 8. ALL MASONRY PILASTERS SHALL BE REINFORCED VERTICALLY WITH 1-#5 BAR IN EACH CORE OF THE BLOCK UNLESS OTHERWISE NOTED. PROVIDE 9 GAGE LATERAL TIES IN ALL MASONRY PILASTERS AT EVERY BLOCK COURSE (8 IN. O.C. VERTICALLY). BOND PILASTERS TO ADJACENT MASONRY WALLS WITH INTERLOCKING UNITS.
- 9. UNLESS SPECIFICALLY INDICATED OTHERWISE, PROVIDE CONTROL JOINTS AT 25 FEET O.C. FOR EXTERIOR MASONRY WALLS AND 35 FEET O.C. FOR INTERIOR MASONRY WALLS.
- 10. PROVIDE VERTICAL CONTROL JOINT WHERE INTERIOR MASONRY WALLS ARE PERPENDICULAR TO EXTERIOR MASONRY WALLS. ALSO, VERTICAL MASONRY CONTROL JOINTS SHOULD BE PLACED WHERE EVER NON BRG MASONRY WALLS INTERSECT BRG WALLS.
- 11. SEE STEEL LINTEL SCHEDULE ON DWG ### FOR OPNGS IN MASONRY WALLS
- 12. PROVIDE CONT BOND BEAMS AS NOTED ON PLANS AND SECTIONS. BOND BEAM TO BE INTEGRAL WITH MASONRY COLUMNS. BOND BEAM REINF SHALL BE CONTINUOUS AT CONTROL JOINTS. PROVIDE ADD'L LAPPED BARS @ CORNERS TO CONTINUE REINF.
 - BOND BEAM REINFORCING
 - 4" CMU (1)-#3
 - 6" CMU (1)-#4
 - 8" CMU (2)-#5
 - 12" CMU (4)-#5 (2) T&B
- 13. ALL MASONRY WALLS SHOWN ON STRUCTURAL FOUNDATION PLANS ARE "LOAD-BEARING" UNLESS OTHERWISE NOTED.
- 14. PROVIDE MASONRY INFILL AND GROUT IN ALL BEAM POCKETS AFTER BEAMS ARE INSTALLED.
- 15. PROVIDE SLEEVES FOR ALL PENETRATIONS THROUGH MASONRY WALLS UNLESS A LINTEL IS PROVIDED OR OTHERWISE SPECIFICALLY NOTED; AS FOLLOWS:
 - A. SLEEVES SHALL BE SCHEDULE 40 STEEL PIPE GROUTED SOLID IN THE WALL.
 - B. MINIMUM CLEAR DISTANCE BETWEEN SLEEVES = 3"
 - C. ALL MASONRY BETWEEN THE SLEEVES WITH LESS THAN 12" CLEARANCE SHALL BE SOLID.
 - D. INFILL ALL VOIDS WITH SOLID MASONRY OR GROUT.
 - E. COORDINATE LOCATIONS WITH ELECTRICAL/MECHANICAL.
- 16. GROUT ALL FDN WALL CMU CORES SOLID AT ALL LOCATIONS BELOW GRADE AND UP TO F.F. EL 100'-0".

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CITY OF DAYTON
NEW POLICE STATION
WEST PATROL DISTRICT

10 Abbey Ave., Dayton, Ohio 45417

ISSUE		
NO.	DATE	DESCRIPTION
1	10/03/2024	FOUNDATION PACKAGE

DATE	10/03/24
JOB NO.	4205.00
DRAWN	KABIL
CHECKED	JFD
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TITLE	
STRUCTURAL NOTES	

STRUCTURAL NOTES cont.

STRUCTURAL STEEL:

- 1. STRUCTURAL STEEL SHALL CONFORM TO THE AISC "SPECIFICATIONS FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS- ALLOWABLE STRESS DESIGN," LATEST EDITION.
- 2. WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISED CODE OF THE AMERICAN WELDING SOCIETY, AWS D1.1 - LATEST EDITION.
- 3. BOLTS AND BOLTED CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A-325 OR A-490 BOLTS - ALLOWABLE STRESS DESIGN" AS APPROVED BY THE COUNCIL ON REVERTED AND BOLTED JOINTS. USE BEARING-TYPE BOLTS WITH THREADS ALLOWED ACROSS THE SHEAR PLANE. ANCHOR BOLTS SHALL CONFORM TO ASTM A-307.
- 4. STRUCTURAL STEEL:
 - A. USE ASTM A992 GRADE 50 STEEL FOR WIDE FLANGE SHAPES.
 - B. ASTM A36, BARS AND RODS.
 - C. ASTM A500, GRADE B; TUBING.
 - D. ASTM A53, TYPE E OR S, GRADE B; STEEL PIPE.
 - E. EXPANSION BOLTS: HILTI "KWIK-BOLTS" OR APPROVED EQUAL.
 - F. EPOXY ANCHORS: HILTI OR APPROVED EQUAL.
- 5. CONTINGENCY:
 - A. PROVIDE AND ERECT 1 TON OF STRUCTURAL AND /OR MISCELLANEOUS STEEL (STRUCTURAL SHAPES, ANGLES, PLATES, ETC.) TO BE USED AS DIRECTED BY THE ARCHITECT. CONNECTIONS TO BE FIELD-WELDED IF REQUIRED.
- 6. WELDING ELECTRODES SHALL BE E-70 OR BETTER. FOR WELDING SYMBOLS WITH NO LENGTH DIMENSION GIVEN, THE WELDING SHALL BE CONTINUOUS BETWEEN ABRUPT CHANGES IN DIRECTION. WELDS NOT OTHERWISE NOTED SHALL BE 1/4" IN SIZE.
- 7. IN GENERAL, IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT ALL SHOP CONNECTIONS BE WELDED AND ALL FIELD CONNECTIONS BE BOLTED EXCEPT WHERE NOTED OTHERWISE.
- 8. TYPICAL BEAM SHEAR CONNECTIONS NOT SHOWN ON THE DRAWINGS SHALL BE DETAILED WITH STANDARD, DOUBLE-ANGLE TYPE CONNECTIONS, USING A325 BOLTS. SHEAR CONNECTION AS NOTED HERE IS:
 - A. NON-COMPOSITE BEAM CONNECTIONS SHALL BE DESIGNED TO DEVELOP 55% OF THE TOTAL LOAD CAPACITY DERIVED FROM THE UNIFORM LOAD CONSTANT TABLES, PART 2, LATEST EDITION OF THE AISC "MANUAL OF STEEL CONNECTION", UNLESS THE REACTION "R" IS SHOWN ON THE DRAWINGS.
 - B. MOMENT CONNECTIONS INDICATED ON THE DRAWINGS SHALL BE DESIGNED FOR THE MOMENTS NOTED. IF NO DESIGN MOMENT IS INDICATED, THEN THE FULL CAPACITY OF THE SECTION MUST BE DEVELOPED.
 - C. EXCEPT AS NOTED HEREIN, ALL OTHER CONNECTIONS TO DEVELOP FULL STRENGTH OF MEMBERS, PROVIDE STIFFENER PLATES, BEARING STIFFENERS AND STIFFENER ANGLES AS REQUIRED.
- 9. VERIFY THE EXACT SIZE AND LOCATION OF ALL OPENINGS PRIOR TO FABRICATION OF STEEL FRAMING MEMBERS.
- 10. OPENING THROUGH STEEL BEAMS SHALL BE PROVIDED AS DETAILED ON THE DRAWINGS. ALL SUCH OPENINGS SHALL BE MACHINE CUT. ALL RECTANGULAR OPENINGS SHALL HAVE A CORNER RADIUS OF 2 TIMES THE WEB THICKNESS, 1/2" MINIMUM.
- 11. PROVIDE BEARING PLATES UNDER STEEL BEAMS OF ADEQUATE SIZE TO KEEP MASONRY BEARING PRESSURE UNDER 200 PSI. STEEL BEAMS AND GIRDERS SHALL BEAR A MINIMUM OF 8" ON MASONRY, UNLESS OTHERWISE NOTED. MINIMUM THICKNESS OF BEARING PLATE SHALL BE 1/2".
- 12. PROVIDE A NON-METALLIC, NON-SHRINK GROUT UNDER ALL COLUMN BASE PLATES AND BEAM BEARINGS.
- 13. EMBEDMENT LENGTH OF EXPANSION BOLTS INTO SOLID MASONRY OR CONCRETE SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:
 - A. 1/2" DIAMETER BOLTS - 3 1/2" EMBEDMENT
 - B. 3/4" DIAMETER BOLTS - 5" EMBEDMENT
- 14. PROVIDE LINTELS OF ADEQUATE DESIGN OVER ALL OPENINGS NOT OTHERWISE COVERED. EXTEND BOTTOM PLATE ON MASONRY BEARING LINTELS TO END OF MEMBER UNLESS OTHERWISE NOTED.
- 15. PROVIDE 3/4" CAP PLATE OVER ALL COLUMNS HAVING BEAM BEARING, AND FIELD WELD THE BEAM FLANGE TO THE CAP PLATE WITH 1/4" FILLET WELD ALL AROUND.
- 16. PROVIDE 1/4" THICK WEB STIFFENERS FOR BEAMS 16" OR LESS IN DEPTH AND 3/8" FOR BEAMS DEEPER THAN 16" IN ALL LINTELS AND BEAMS AT MASONRY BEARING, AND A PAIR OF WEB STIFFENERS ALIGNED WITH THE FACE OF TUBE COLUMNS WHERE BEAM IS BEARING ON THE TOP OF THE COLUMN CAP PLATE.
- 17. UNLESS OTHERWISE APPROVED, THE BEAMS SUPPORTING ROOF OR FLOOR DECK SHALL BE CAMBERED FOR DEAD LOAD DEFLECTION ONLY.
- 18. PROVIDE COLUMN ANCHORS AT 16" C/C EACH SIDE, FOR ALL COLUMNS ABUTTING MASONRY WALLS.
- 19. UNLESS DETAILED OTHERWISE, THE MINIMUM FIELD WELD SIZE IS A CONT 3/16" FILLET WELD ALL AROUND ALL CONTACT EDGES OF TWO ADJACENT STEEL SURFACES.
- 20. UNLESS DETAILED OTHERWISE, THE MINIMUM SHOP WELD SIZE IS A CONT 1/4" FILLET WELD ALL AROUND ALL CONTACT EDGES OF TWO ADJACENT STEEL SURFACES.

- 21. SHEAR TAB CONNECTION MAY BE USED IN BM-TO-BM CONNECTIONS WHEN THE LOAD TRANSFERRED TO THE TO THE PRIMARY BEAM IS LESS THAN THE LIMIT LISTED HEREIN:

SHEAR TAB LIMIT TABLE - MAX ALLOWABLE LOAD

BEAM	SHEAR LOAD @CONNECTION
W8	9 KIPS
W10	12 KIPS
W12	15 KIPS
W14	17 KIPS
W16	20 KIPS
W18	28 KIPS
W21	37 KIPS
W24	43 KIPS
W27	60 KIPS
W30	68 KIPS

UNLESS DETAILED OTHERWISE, SHEAR TABS MAY BE USED AS BM TO COL CONNECTIONS ONLY IN CONJUNCTION W/ A STIFFENED ANGLE SEAT W/ A MIN ACTUAL BEARING L= 4" MIN. FOR W16 OR SMALLER. INCREASE BRG LENGTH ON ANGLE SEAT TO 5" FOR W18 TO W24 BEAMS, OR 6" BRG LENGTH FOR W27 OR LARGER BEAMS.

- 22. SEE SLEEVE REQUIREMENTS IN MASONRY NOTES.

STEEL DECK:

- 1. STEEL DECK FABRICATION AND ERECTION SHALL CONFORM TO THE LATEST STEEL DECK INSTITUTE SPECIFICATIONS.
- 2. DECK SHALL INCLUDE ANY MISCELLANEOUS CLOSURE PIECES, METAL SCREEDS, ROOF CURBS, DRAINS SUMP PANS, REINFORCING AROUND OPENINGS, ETC., REQUIRED TO MAKE A COMPLETE JOB. MISCELLANEOUS ITEMS SHALL BE GALVANIZED.
- 3. THE STEEL DECK SHALL BE AS FOLLOWS:
 - A. METAL ROOF DECK
 - a. METAL ROOF DECK SHALL BE 1 1/2" DEEP 20 GAGE WIDE RIB DECK. THE DECK SHALL BE LAID CONTINUOUS OVER A MINIMUM OF (3) SPANS. THE DECK SHALL BE FASTENED TO THE SUPPORTING MEMBERS WITH 5/8" DIA PUDDLE WELDS SPACED AT 12" ON CENTER. PROVIDE A MINIMUM OF (5) SIDE LAP FASTENERS BETWEEN SUPPORTS. FASTEN DECK AT 6" ON CENTER ALONG THE PERIMETER OF EACH THE ROOF DECK LEVEL.

STEEL JOISTS:

- 1. UNLESS SPECIFICALLY SHOWN OTHERWISE, STEEL JOIST DESIGN, MANUFACTURE AND ERECTION SHALL BE AS GOVERNED BY THE STANDARD SPECIFICATIONS FOR: OPEN WEB STEEL JOIST, K SERIES ADOPTED BY THE STEEL JOIST INSTITUTE.
- 2. DESIGN IN ACCORDANCE WITH THE REFERENCED STANDARDS. PROVIDE ADEQUATE JOIST BEARING BASES TO DISTRIBUTE LOAD TO MASONRY SUPPORTS AT MAXIMUM 250 PSI BEARING PRESSURE. SIZES OF BASES PROVIDED SHALL BE SHOWN ON THE SHOP DRAWINGS.
- 3. STEEL JOISTS OF THE SAME DEPTH AND CHORD DESIGNATION SHALL HAVE MEMBER SIZES OF UNIFORM CONSISTENCY. USE OF MULTIPLE ANGLE OR MEMBER SIZES TO PROVIDE THE SAME EQUIVALENT CHORD AREA IS STRICTLY PROHIBITED AND WILL BE CAUSE FOR REJECTION.
- 4. PAINT ALL JOISTS WITH MANUFACTURER'S STANDARD SHOP PRIMER EXCEPT THAT BLACK ASPHALT IS NOT PERMITTED.
- 5. PROVIDE ADDITIONAL WEB MEMBERS AS REQUIRED AT CONCENTRATED LOADS WHICH DO NOT OCCUR AT A PANEL POINT.
- 6. ANCHOR ALL BRIDGING TO INTERSECTING WALLS AND BEAMS UNLESS OTHERWISE SHOWN, PROVIDE CROSS BRIDGING AS SHOWN ON DRAWINGS.
- 7. CONNECTIONS TO SUPPORTING STRUCTURE:
 - A. WELD JOIST SEATS TO STEEL SUPPORTING SURFACES WITH 1 1/2" LONG OF 3/16" FILLET WELD EACH SIDE FOR SHORT SPAN JOIST.
 - B. BOLT JOIST SEATS TO STEEL SUPPORTING SURFACES WITH TWO 1/2" DIA. BOLTS. BOLT JOIST AT (OR NEAREST TO) THE COLUMN.
 - C. EXTEND JOIST BOTTOM CHORD OF JOIST IN LINE WITH COLUMN CENTERLINE AND WELD TO COLUMN.
- 8. ADJACENT JOISTS OF THE SAME DEPTH ARE TO HAVE WEB MEMBERS IN LINE TO PERMIT PASSAGE OF MECHANICAL DUCTS.
- 9. JOIST BRIDGING: PROVIDE ANGLE BRIDGING, NUMBER OF ROWS AND SIZE TO BE AS PER SJI-LATEST EDITION. TIE BRIDGING TO MASONRY WALL ANCHORS. WELD BRIDGING TO STEEL BEAMS AT EACH END.
 - A. THE JOIST MANUFACTURER SHALL ENSURE THAT THE BRIDGING FOR JOISTS SUPPORTING STANDING SEAM ROOF IS ADEQUATE TO BRACE THE TOP CHORD AGAINST LATERAL MOVEMENT UNDER FULL DESIGN LOADS.
- 10. BOTTOM CHORD OF ALL JOISTS TO BE ANGLE.
- 11. JOISTS TO BE DESIGNED TO RESIST A MINIMUM NET UPLIFT OF 10 PSF.
- 12. EXTEND BOTTOM CHORD OF STEEL JOIST AND WELD AT MIDSPAN OF BEAMS.
- 13. EXTEND BOTTOM CHORD OF ALTERNATE JOISTS BEARING ON WALLS AND WELD TO ANGLE FASTENED TO WALL.

- 14. BOTTOM CHORD OF JOISTS CONNECTED TO COLUMN SHALL BE DESIGNED FOR 3 KIPS COMPRESSION.
- 15. BOTTOM CHORD OF JOISTS CONNECTED TO COLUMN SHALL BE DESIGNED FOR 3 KIPS COMPRESSION.
- 16. THE FIRST ROW OF BRIDGING FOR ALL JOISTS SHALL BE PROVIDED AT THE FIRST BOTTOM CHORD PANEL POINT FROM THE SUPPORT.
- 17. PROVIDE ADDITIONAL DIAGONAL 'X' BRIDGING FOR THE NEXT TO THE LAST BAYS OF ALL BRIDGING LINES.
- 18. UNLESS OTHERWISE APPROVED, THE JOISTS SHALL BE CAMBERED FOR THE DEAD LOAD DEFLECTION ONLY.
- 19. CONFIRM TO OSHA REQUIREMENTS FOR BRACING, INSTALLATION AND SUPPORT REQUIREMENTS.
- 20. ALL TOP CHORD CANTILEVERED EXTENSIONS SHALL HAVE TYPE 'R' EXTENDED ENDS.

STRUCTURAL LIGHT-GAGE METAL FRAMING:

- 1. SPECIFICATIONS AND STANDARDS:
 - A. ALL STRUCTURAL PROPERTIES OF LIGHT-GAGE METAL FRAMING SHALL BE COMPUTED IN ACCORDANCE WITH AISI "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS" AND SHALL BE PUBLISHED IN THE MANUFACTURER'S CATALOG.
 - B. WELDING SHALL BE PERFORMED ONLY BY QUALIFIED OPERATORS USING PROPER EQUIPMENT FOR THE PARTICULAR TYPE OF WORK REQUIRED.
 - C. AWS STANDARD WELDING SYMBOLS.
 - D. AWS D1.3, SPECIFICATION FOR WELDING SHEET STEEL IN STRUCTURES.
 - E. DESIGN ALL WALLS FOR APPLICABLE LIVE LOAD AND MINIMUM OF 10 PSF HORIZONTAL LOAD. DESIGN CEILING FOR INDICATED LIVE LOAD AND APPLICABLE DEAD LOAD.
 - F. FOR THE PURPOSE OF REPRESENTATION, THE FRAMING MEMBERS INDICATED ON THE DRAWINGS ARE BASED UPON THE PRODUCTS OF "DIETRICH INDUSTRIES, INC." THE CONTRACTOR MAY SUBSTITUTE APPROVED EQUAL PRODUCTS AS APPLICABLE.
 - G. MAXIMUM DEFLECTION ALLOWED = L/240.
 - H. MINIMUM GAUGE OF MEMBERS SHALL BE 18 GAGE TOP & BOTTOM TRACKS SHALL BE 14 GAGE.
- 2. MATERIALS:
 - A. STRUCTURAL FRAMING MEMBERS 18 GAGE AND LIGHTER:
 - a. ASTM A446-76, GRADE B, Fy=33,000 PSI. MEMBERS
 - B. 16 GAGE AND HEAVIER:
 - a. Fy=50,000 PSI MINIMUM.
 - C. ALL BRACING AND BRIDGING MATERIAL:
 - a. Fy=33,000 PSI MIN.
 - D. WELDING ELECTRODES:
 - a. AWS A5.1, A5.5 OR A5.18 SERIES E60.
- 3. CONNECTIONS:
 - A. CUT ALL FRAMING COMPONENTS TO FIT SQUARELY AGAINST ABUTTING MEMBERS AND HOLD FIRMLY IN POSITION UNTIL PROPERLY FASTENED.
 - B. ALL PANELS SHALL BE SQUARE AND BRACED AGAINST RACKING.
 - C. THE COMPONENTS SHALL BE WELDED TOGETHER IN PLACE. FURNISH WELDED CONNECTION OF ALL THE STRUCTURAL MEMBERS.
 - D. WIRE TYING OF STRUCTURAL FRAMING COMPONENTS IS NOT PERMITTED.
 - E. FURNISH AND INSTALL BRACING AND BRIDGING AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURER. THE MINIMUM REQUIREMENTS ARE AS FOLLOWS:
 - a. WALLS:
 - MINIMUM TWO ROWS OF U CHANNEL BRIDGING.
 - DIAGONAL STRAPPING BRACING AT EACH CORNER.
 - b. CEILING:
 - SOLID BRIDGING, TWO END BAYS TYPICAL.
 - STRAP BRIDGING ALL OTHER BAYS TOP AND BOTTOM.
 - MINIMUM ROWS OF BRIDGING = 4.
 - SOLID BLOCKING AND WEB STIFFENER AS REQUIRED.
- 4. ERECTION:
 - A. ATTACH BOTTOM TRACK SECURELY TO THE FLOOR.
 - B. SEAT STUDS SQUARELY TO THE FLOOR AND OVERHEAD TRACK AND ATTACH SECURELY.
 - C. SPLICES IN STRUCTURAL FRAMING MEMBERS ARE NOT PERMITTED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.
 - D. DO NOT APPLY AXIAL LOADS TO STUDS UNTIL ALL BRIDGING, CONNECTIONS, AND ATTACHMENT OF COLLATERAL MATERIALS ARE COMPLETE.
 - E. BRACE ALL WALLS WITH ROOF AND FLOOR FRAMING AND/OR OTHER APPROVED BRACING TECHNIQUES.
 - F. SUBMIT SHOP DRAWING FOR APPROVAL PRIOR TO FABRICATION.

NOTE: THE FORE-STATED REQUIREMENTS ARE FOR STRUCTURAL LIGHT-GAGE METAL "C" STUDS AND "C" JOISTS ONLY. FOR THE NON-LOAD BEARING INTERIOR PARTITIONS, FURNISH 25 GAGE STANDARD METAL STUD AND CONSTRUCT TO THE INDUSTRY STANDARD. BRACE WALL W/ FLOOR OR CEILING CONSTRUCTION W/ FLEXIBLE CONNECTION TO INSURE THAT NO FLOOR OR CEILING LOADS ARE TRANSFERRED TO SUCH NON-BEARING WALLS. BRACE WALLS AFTER ALL DEAD LOADS ARE IN PLACE.

LINTEL SCHEDULE: (LT GA. METAL)
UNLESS OTHERWISE SPECIFICALLY INDICATED ON THE DRAWINGS, PROVIDE FOLLOWING LINTELS FOR ALL 4" MTL STUD WALL OPENINGS:

OPENING	MEMBERS	BEARING
0'-3"	2- 6" CEE JOIST	4" E.S.
0'-5"	2- 8" CEE JOIST	4" E.S.
5'-6"	2-10" CEE JOIST	4" E.S.
6'-8"	2-12" CEE JOIST	4" E.S.

- NOTES:
- 1. FOR 6" MTL STUD WALLS, PROVIDE AN ADD'L CEE JOIST MEMBER OF THE SAME SIZE.
 - 2. ALL OPENINGS WITH BRICK VENEER SHALL HAVE CONT ANGLE L5x5x3/8 WELDED TO CEE JST LINTEL. SHAPE ANGLE TO CONFORM WITH THE PROFILE OF THE OPENING. PROVIDE MINIMUM 6" BEARING EACH SIDE.

A

B

C

D

E

F

A

B

C

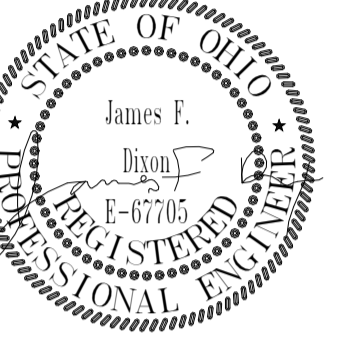
D

E

F

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CITY OF DAYTON
NEW POLICE STATION
WEST PATROL DISTRICT

10 Abbey Ave., Dayton, Ohio 45417

NO.	DATE	DESCRIPTION
1	10/03/2024	FOUNDATION PACKAGE

DATE	DESCRIPTION
10/03/24	FOUNDATION PACKAGE
4205.00	KABIL
JFD	JFD

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TITLE
STRUCTURAL NOTES

SHEET NO.
S0.2

STRUCTURAL NOTES cont.

DESIGN LOADS: STORM SHELTER:

1. ROOF LOAD
 - A. MINIMUM LIVE LOAD: 100 PSF
 - B. MINIMUM SNOW LOAD (Pf): 20 PSF
2. SNOW LOAD
 - A. GROUND SNOW LOAD, P/G = 20 PSF MODIFIED BY APPLICABLE DRIFT COEFFICIENTS
 - B. FLAT ROOF SNOW LOAD, P/F = 20 PSF MODIFIED BY APPLICABLE BUILDING COEFFICIENTS
 - C. SNOW LOAD IMPORTANCE FACTOR I = 1.20
 - D. SNOW EXPOSURE FACTOR Ce = 1.0
 - E. THERMAL FACTOR, Ct = 1.00
3. FLOOR LOAD:
 - A. LIVE LOAD: 100 PSF
4. WIND LOAD:
 - A. MAIN WINDFORCE-RESISTING SYSTEM: 250 MPH PER STANDARD ICC 500-2014 AND NSSA STANDARD FOR DESIGN AND CONSTRUCTION OF STORM SHELTERS.
 - B. WIND EXPOSURE C
 - C. WIND DIRECTIONAL FACTOR = 1.0
 - D. TOPOGRAPHICAL FACTOR = 1.0
 - E. ENCLOSURE CLASSIFICATION PER ASCE 7
 - F. INTERNAL GUST PRESSURE COEFFICIENT GCP = ±0.18
5. SEISMIC LOAD
 - A. COUNTY = MONTGOMERY
 - B. BUILDING SITE CLASSIFICATION = D
 - C. SPECTRAL RESPONSE ACCELERATION, Ss = 15.4%
 - D. Sds (EQUATION 16-19) = 16.4%
 - E. SPECTRAL RESPONSE ACCELERATION, S1 = 7.2%
 - F. Sd1 (EQUATION 16-18) = 11.6%
 - G. SEISMIC DESIGN CATEGORY, SDC = C
 - H. SEISMIC IMPORTANCE FACTOR = 1.5
 - I. SEISMIC FORCE RESISTING SYSTEM = ORDINARY REINFORCED CONCRETE SHEAR WALLS
 - J. RESPONSE MODIFICATION FACTOR, R = 4
 - K. TOPOGRAPHIC FACTOR, Kzt = 1.0
 - L. DIRECTIONALITY FACTOR, Kd = 1.0
6. FLOOD
 - A. THE SHELTER HAS NOT BEEN CONSTRUCTED WITHIN AN AREA SUSCEPTIBLE TO FLOODING IN ACCORDANCE TO CHAPTER 4.
7. MISSILE CRITERIA
 - A. DEBRIS IMPACT TEST MISSILE FOR ALL COMPONENTS OF THE SHELTER ENVELOPE SHALL BE A 15 POUND SAWN LUMBER 2x4 TRAVELING AT SPEEDS PER TABLE 305.1.1. 100 MPH VERTICAL SURFACES, 67 MPH HORIZONTAL SURFACES.
8. SURFACES
 - A. WALLS, DOORS AND OTHER ENVELOPE SURFACES INCLINED 30 DEGREES OR MORE FROM THE HORIZONTAL SHALL BE CONSIDERED AS VERTICAL SURFACES. SURFACES INCLINED LESS THAN 30 DEGREES FROM THE HORIZONTAL SHALL BE TREATED AS HORIZONTAL SURFACES.
9. OTHER DEBRIS HAZARDS:
 - A. LAY DOWN, ROLLOVER AND COLLAPSE HAZARDS SHALL BE CONSIDERED BY THE DESIGN PROFESSIONAL WHEN DETERMINING THE LOCATION OF SHELTERS ON THE SITE.

STORM SHELTER QUALITY ASSURANCE PLAN:

1. PRIOR TO CONSTRUCTION OF THE STORM SHELTER PORTION OF THE PROJECT, THE OWNER IS TO RETAIN AN INDEPENDENT AGENCY TO PERFORM THE SPECIAL INSPECTIONS, TESTING, AND STRUCTURAL OBSERVATIONS REQUIRED IN THIS QUALITY ASSURANCE PLAN. WHERE APPLICABLE, INDIVIDUALS PERFORMING SPECIAL INSPECTIONS AND TESTING ARE TO BE QUALIFIED THROUGH RECOGNIZED INDUSTRY CERTIFICATION. INDIVIDUALS PERFORMING STRUCTURAL OBSERVATIONS ARE TO REGISTERED DESIGN PROFESSIONALS IN THE JURISDICTION OF THE PROJECT.
2. THE REQUIREMENTS SPECIFIED IN THIS QUALITY ASSURANCE PLAN ARE APPLICABLE TO THE STORM SHELTER PORTION OF THE PROJECT, ITS REFERENCED DETAILS, AND ALL COMPONENTS THEREOF. SEE THE PLANS FOR AREA(S) DESIGNATED AS PART OF THE STORM SHELTER CONSTRUCTION.
3. THE SPECIAL INSPECTION AND STRUCTURAL OBSERVATION AGENCY SHALL SUBMIT WRITTEN REPORTS IDENTIFYING DEFICIENCIES IN THE STORM SHELTER CONSTRUCTION ON REGULAR BASES. AT THE COMPLETION OF THE STORM SHELTER CONSTRUCTION, THE AGENCY SHALL SUBMIT A STATEMENT INDICATING THAT ALL DEFICIENCIES IDENTIFIED DURING CONSTRUCTION HAVE BEEN PROPERLY ADDRESSED, AND THAT STRUCTURAL OBSERVATIONS HAVE BEEN REGULARLY PERFORMED. ALL REPORTS ARE TO BE SUBMITTED TO THE OWNER, ARCHITECT, CONSTRUCTION MANAGER, AND THE AUTHORITY HAVING JURISDICTION.
4. EACH CONTRACTOR RESPONSIBLE FOR CONSTRUCTING ELEMENTS OF THE STORM SHELTER SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER, ARCHITECT, CONSTRUCTION MANAGER, AND THE AUTHORITY HAVING JURISDICTION. PARTIES RESPONSIBLE FOR THIS STATEMENT INCLUDE, BUT ARE NOT LIMITED TO, THE SITE GRADING CONTRACTOR, CAST-IN-PLACE CONCRETE SUPPLIER AND CONTRACTOR, STRUCTURAL STEEL FABRICATOR AND ERECTOR, MASONRY CONTRACTOR, REINFORCING STEEL FABRICATOR AND IRON WORKERS, PRECAST MANUFACTURER AND ERECTOR, DOOR MANUFACTURER AND INSTALLER, AND OPENING PROTECTIVE DEVICE FABRICATOR AND ERECTOR. THIS STATEMENT IS TO INCLUDE THE FOLLOWING:
 - A. ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS IN THE QUALITY ASSURANCE PLAN.
 - B. ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.
 - C. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING, AND THE DISTRIBUTION OF REPORTS.
 - D. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.
5. THE FOLLOWING SPECIAL INSPECTIONS AND TESTING OF THE STORM SHELTER CONSTRUCTION ARE TO BE PERFORMED AS PART OF THIS QUALITY ASSURANCE PLAN. THESE REQUIREMENTS ARE IN ADDITION TO THE TESTING AND INSPECTIONS REQUIRED FOR THE REMAINDER OF THE BUILDING:
 - A. SOILS
 - i. PERIODICALLY INSPECT SOILS BELOW FOOTINGS FOR ADEQUATE BEARING CAPACITY AND CONSISTENCY WITH GEOTECHNICAL REPORT. INSPECT REMOVAL OF UNSUITABLE MATERIAL AND PREPARATION OF SUBGRADE PRIOR TO PLACEMENT OF CONTROLLED FILL.
 - ii. PERIODICALLY VERIFY DEPTH AND WIDTH OF FOUNDATION EXCAVATIONS.
 - B. CONCRETE
 - i. PERIODICALLY INSPECT SIZE, SPACING, COVER, POSITIONING, AND GRADE OF REINFORCING STEEL.
 - 1) VERIFY THAT REINFORCING BARS ARE FREE OF FORM OIL OR OTHER DELETERIOUS MATERIALS.
 - 2) INSPECT BAR LAPS AND MECHANICAL SPLICES.
 - 3) VERIFY THAT BARS ARE ADEQUATELY TIED AND SUPPORTED ON CHAIRS OR BOLSTERS.
 - ii. PERIODICALLY INSPECT SIZE, POSITIONING, AND EMBEDMENT OF ANCHOR RODS, WELD PLATES, AND ALL OTHER CAST-IN EMBEDDED ITEMS. INSPECT CONCRETE PLACEMENT AND CONSOLIDATION AROUND ANCHORS.
 - iii. CONTINUOUSLY INSPECT SIZE, POSITIONING, EMBEDMENT, AND INSTALLATION OF POST-INSTALLED CHEMICAL AND MECHANICAL ANCHORS.
 - 1) VERIFY INSTALLATION PROCEDURE IS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - 2) PULL-TEST ANCHORS THAT ARE DEEMED SUSPECT DUE TO IMPROPER TORQUE AND/OR INADEQUATE EMBEDMENT DEPTH.
 - iv. PERIODICALLY VERIFY USE OF PROPER MIX DESIGN.
 - v. PERIODICALLY VERIFY FORM WORK FOR SHAPE, LOCATION, AND DIMENSIONS OF CONCRETE BEING FORMED.
 - vi. PERIODICALLY INSPECT PLACEMENT OF CONCRETE.
 - 1) VERIFY THAT CONCRETE CONVEYANCE AND DEPOSITING AVOIDS SEGREGATION OR CONTAMINATION.
 - 2) VERIFY THAT CONCRETE IS PROPERLY CONSOLIDATED. INSPECT CURING, COLDWEATHER PROTECTION, AND HOT-WEATHER PROTECTION PROCEDURES.
 - vii. PERIODICALLY SAMPLE AND TEST CONCRETE FOR COMPRESSIVE STRENGTH, SLUMP, AIR CONTENT, AND TEMPERATURE. SAMPLE EACH 50 CUBIC YARDS OF CONCRETE, OR FRACTION THEREOF, PLACED IN ANY ONE DAY.
 - C. MASONRY
 - i. PERIODICALLY INSPECT PROPORTIONING, MIXING, AND RETEMPERING OF MORTAR AND GROUT. INSPECT CONSTRUCTION OF MORTAR JOINTS INCLUDING TOOLING AND FILLING OF HEAD JOINTS.
 - ii. PERIODICALLY INSPECT SIZE, LAYOUT, BONDING, GROUT SPACE, AND PLACEMENT OF MASONRY UNITS.
 - iii. PERIODICALLY INSPECT PLACEMENT, SIZE, GRADE, POSITIONING, AND LAPPING OF REINFORCING STEEL.
 - iv. CONTINUOUSLY INSPECT PLACEMENT AND CONSOLIDATION OF GROUT. INSPECT MASONRY CLEAN-OUTS FOR HIGH-LIFT GROUTING.

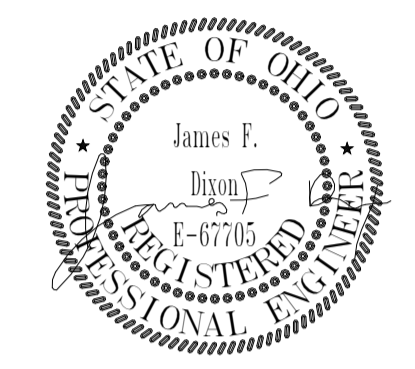
- v. PERIODICALLY INSPECT SIZE, POSITIONING, AND EMBEDMENT OF ANCHOR RODS, WELD PLATES, AND ALL OTHER CAST-IN EMBEDDED ITEMS. INSPECT CONCRETE PLACEMENT AND CONSOLIDATION AROUND ANCHORS.
 - vi. CONTINUOUSLY INSPECT SIZE, POSITIONING, EMBEDMENT AND INSTALLATION OF POST-INSTALLED CHEMICAL AND MECHANICAL ANCHORS. VERIFY INSTALLATION PROCEDURE IS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PULL-TEST ANCHORS THAT ARE DEEMED SUSPECT DUE TO IMPROPER TORQUE AND/OR INADEQUATE EMBEDMENT DEPTH.
 - vii. PERIODICALLY INSPECT COLD-WEATHER PROTECTION AND HOT-WEATHER PROTECTION PROCEDURES. VERIFY THAT WALL CAVITIES ARE PROTECTED AGAINST PRECIPITATION.
 - viii. PERIODICALLY SAMPLE AND TEST COMPRESSIVE STRENGTH OF MORTAR AND GROUT CUBE SAMPLES. TEST COMPRESSIVE STRENGTH OF ASSEMBLED MASONRY PRISMS.
- D. STEEL
- i. PERIODICALLY INSPECT INSTALLATION AND TIGHTENING OF BEARING-TYPE HIGH-STRENGTH BOLTS.
 - ii. CONTINUOUSLY VERIFY PROPER TIGHTENING SEQUENCE FOR SLIP-CRITICAL BOLTED CONNECTIONS. VERIFY THAT SPLINES HAVE SEPARATED FROM TENSION CONTROL BOLTS.
 - iii. PERIODICALLY VERIFY SIZE AND LENGTH, AND VISUALLY INSPECT ALL SINGLEPASS FILLET WELDS NOT EXCEEDING 5/16 INCH IN SIZE.
 - iv. CONTINUOUSLY VERIFY SIZE AND LENGTH, INSPECT PRE-HEAT, POST-HEAT, AND SURFACE PREPARATION BETWEEN PASSES, AND ULTRASONICALLY TEST ALL FILLET WELDS EXCEEDING 5/16 INCH IN SIZE, ALL MULTI-PASS FILLET WELDS, AND ALL PARTIAL AND COMPLETE PENETRATION GROOVE WELDS.
 - v. PERIODICALLY INSPECT STEEL FRAMING FOR COMPLIANCE WITH STRUCTURAL DRAWINGS, INCLUDING BRACING, MEMBER CONFIGURATION, AND CONNECTION DETAILS.
- E. OPENING PROTECTIVE DEVICES
- i. CONTINUOUSLY INSPECT INSTALLATION OF DOOR ANCHORAGES AND ANCHORAGE OF PROTECTIVE BAFFLES FOR OPENINGS.
 - ii. UPON COMPLETION, VERIFY THE PROPER OPERATION OF DOORS AND SHUTTERS.
 - iii. CONFIRM MAXIMUM ALLOWABLE GAPS AT THRESHOLDS, SILLS, JAMBS, AND HEADS OF OPENING LEAFS.
6. THE FOLLOWING STRUCTURAL OBSERVATIONS OF THE STORM SHELTER CONSTRUCTION ARE TO BE PERFORMED AS PART OF THIS QUALITY ASSURANCE PLAN. THESE OBSERVATIONS ARE TO VISUALLY VERIFY THAT THE IDENTIFIED ASSEMBLIES ARE BEING BUILT IN GENERAL CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. ADDITIONAL OBSERVATIONS OF THE CONSTRUCTION ARE TO BE PERFORMED AT THE OBSERVER'S DISCRETION.
- A. FOUNDATIONS
- i. VERIFY THAT DOWEL BARS IN FOUNDATIONS AND SLABS ARE BEING PROVIDED WHERE INDICATED. VERIFY THAT DOWELS HAVE BEEN SHORTENED AT LOCATIONS WHERE THE HOST BUILDING IS DESIGNED TO BREAK-FREE FROM THE STORM SHELTER CONSTRUCTION.
 - ii. VERIFY THAT ANCHOR BOLTS HAVE BEEN PROVIDED WITH SUFFICIENT LENGTHS TO RECEIVE FURTHER CONSTRUCTION. VERIFY THAT ANCHORS HAVE NOT BEEN BENT OR OTHERWISE MODIFIED.
- B. WALLS
- i. VERIFY THAT OPENINGS ARE BEING BUILT AS INDICATED.
 - ii. VERIFY THAT SUFFICIENT LAP LENGTHS ARE BEING PROVIDED BETWEEN SEQUENCES OF CONSTRUCTION.
 - iii. VERIFY THAT CAST-IN AND POST-INSTALLED ANCHORS HAVE SUFFICIENT LENGTH TO RECEIVE FURTHER CONSTRUCTION. VERIFY THAT ANCHORAGES HAVE NOT BEEN BENT OR OTHERWISE MODIFIED.
 - iv. VERIFY THAT PROPER CAST-IN ITEMS FOR DOORS AND SHUTTERS ARE BEING PROVIDED.
 - v. VERIFY THAT VERTICAL CONTROL JOINTS ARE 3/8" OR LESS IN WIDTH, AND HAVE BEEN FILLED ACCORDING TO TMS 602 FOR MASONRY OR ASTM C920 FOR CONCRETE.
 - vi. VERIFY THAT BOND PATTERN AT CORNERS HAS BEEN CONSTRUCTED AS INDICATED.
- C. ROOFS
- i. VERIFY THAT ANCHORAGES BETWEEN THE STORM SHELTER WALLS AND ROOFS ARE BEING PROVIDED AS INDICATED.
 - ii. VERIFY THAT MEMBER BRACING, CONFIGURATION, AND CONNECTIONS HAVE BEEN PROVIDED AS INDICATED.
 - iii. VERIFY THAT DOWELS, BARS, AND/OR ANCHORAGES HAVE BEEN SHORTENED AT LOCATIONS WHERE THE HOST BUILDING IS DESIGNED TO BREAK-FREE FROM THE STORM SHELTER CONSTRUCTION.
 - iv. VERIFY FILLING OF GAPS AND JOINTS BETWEEN ROOF FRAMING MEMBERS, AND AT BEARING LOCATIONS.
- D. OPENINGS
- i. VERIFY THAT POST-INSTALLED ANCHORAGES OF OPENING PROTECTIVE DEVICES HAVE BEEN INSTALLED.
 - ii. VERIFY THAT PROTECTIVE BAFFLES HAVE BEEN PROVIDED FOR ALL PENETRATIONS THROUGH THE STORM SHELTER ENVELOPE.

ABBREVIATIONS:

ADD'L	ADDITIONAL
ADJ	ADJACENT
A.F.F.	ABOVE FINISHED FLOOR
ANG	ANGLE
APPROX	APPROXIMATELY
ARCH	ARCHITECTURAL
AOR	ARCHITECT OF RECORD
B/	BOTTOM OF
BETW	BETWEEN
BRG	BEARING
BM	BEAM
BOT	BOTTOM
C/C	CENTER TO CENTER
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CMU	CONCRETE MASONRY UNIT
COMP	COMPOSITE
DBL	DOUBLE
DEMO	DEMOLISH
DIA	DIAMETER
DIM	DIMENSION
DWG	DRAWING
DWL	DOWEL
EA	EACH
E.E.	EACH END
E.F.	EACH FACE
ELEV	ELEVATION
EMBED	EMBEDMENT
EQ	EQUAL
E.S.	EACH SIDE
E.W.	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F.F.	FINISH FLOOR
FLR	FLOOR
GA	GAGE
G.C.	GENERAL CONTRACTOR
GALV	GALVANIZED
HT	HEIGHT
HORIZ	HORIZONTAL
JST	JOIST
LG	LONG
LT WT	LIGHT WEIGHT
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
MTL	METAL
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.H.	OPPOSITE HAND (OPP)
OPNG	OPENING
REINF	REINFORCING
REQ'D	REQUIRED
SCHED	SCHEDULE
SECT	SECTION
SIM	SIMILAR
S.O.G.	SLAB ON GRADE
SPC	SPACING
SPEC	SPECIFICATIONS
STIFF	STIFFENER
STL	STEEL
T/	TOP OF (T/STL, T/CONC, T/ST)
THK	THICK, THICKNESS
TYP	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
W/	WITH
WF	WIDE FLANGE (BM)
W.W.F.	WELDED WIRE FABRIC



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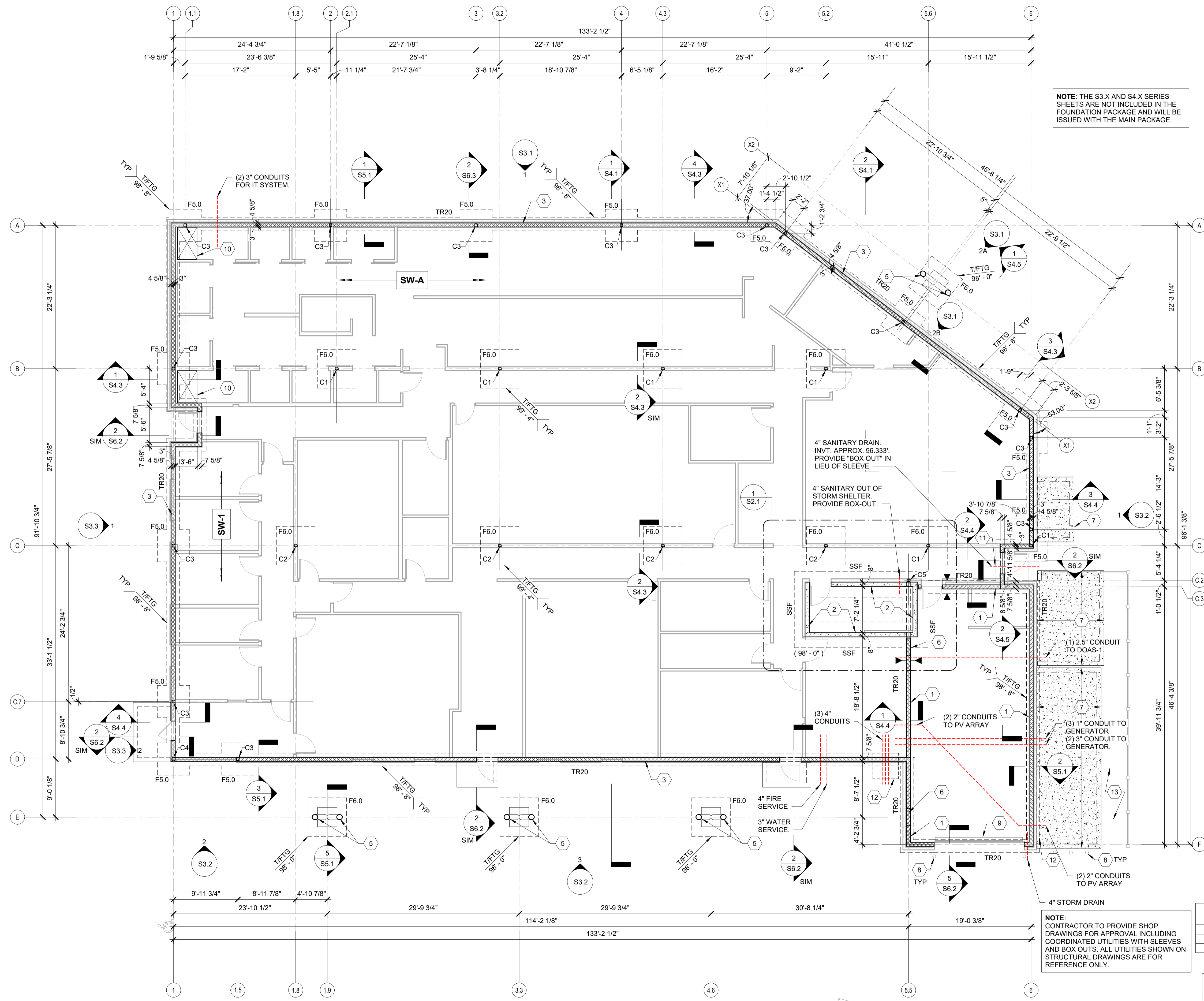
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STRUCTURAL NOTES

SHEET NO.
S0.3



GENERAL NOTES:

- COORDINATE ALL DIMENSIONS W/ ARCH DWGS. IN CASE OF CONFLICT, THE DIMENSIONS SHOWN IN THE ARCH DWGS GOVERN.
- STRUCTURAL PLANS ARE AN EXTENSION OF ARCHITECTURAL PLANS. COORDINATE LOCATIONS OF COLUMNS, WALLS, OPENINGS, ETC W/ ARCH DWGS.
- ALLOWABLE BEARING DESIGN PRESSURE:
CONT STRIP FOOTING = 3,000 PSF
SPREAD FOOTING = 3,000 PSF
- FLOOR CONSTRUCTION:
A. MAIN BUILDING:
4" SLAB ON GRADE REINF W/ 6x6xW2.9xW2.9 OVER 10 MIL VAPOR BARRIER ON 6" DEEP COMPACTED GRANULAR FILL. T/SLAB = 100'-0".
B. GARAGE/WASH BAY:
6" SLAB ON GRADE REINF W/ EPOXY COATED 6x6xW2.9xW2.9 OVER 10 MIL VAPOR BARRIER ON 6" AGGREGATE BASE.
- ALL EXTERIOR FOOTINGS TO EXTEND TO A MIN OF 36" BELOW GRADE.
- TR# INDICATES CONT TRENCH FOOTING MARK.
- WF# INDICATES CONT WALL FOOTING MARK.
- SSF# INDICATES CONT STORM SHELTER WALL FOOTING MARK.
- T/FTG XX'-XX" - INDICATES TOP OF FOOTING ELEVATION.
- ▲ - INDICATES FOOTING STEP - SEE DETAIL 7/S6.1
- WALL CONSTRUCTION:
A. FOR 8" CMU WALLS: (MARKED AS CODED NOTE #1)
#5 VERT BARS @32" O.C.
B. FOR 6" EXTERIOR COLD FORMED METAL STUD WALLS: (DESIGN BY SUPPLIER)
DESIGN INTENT: 600S200-54 (50 KSI) @16" O.C. (U.N.O.) - COORD W/ ARCH DWGS AND SUPPLIER.
- HOUSEKEEPING PADS BY GENERAL TRADES. NOT ALL PADS ARE SHOWN ON THE STRUCTURAL DWGS. SEE ARCH DWGS FOR SIZE, LOCATION AND QUANTITY - REFER TO DETAILS 3 & 4/S6.2
- CONTRACTOR TO COORDINATE ALL UNDERGROUND UTILITIES AS REQUIRED. SEE DETAIL 1/S6.2 FOR UTILITIES CROSSING THROUGHUNDER FOOTINGS. FOOTING MAY NEED TO STEP (DETAIL 7/S6.1) REFER TO ARCH DWGS FOR UTILITIES.
- SEE SHEETS S6.1 AND S6.4 FOR LINEL INFORMATION AND DETAILS (U.N.O.).
- COORDINATE ALL APRON SLAB LOCATIONS W/ ARCH AND CIVIL DWGS. PROVIDE APRON SLAB AND FROST WALLS PER DETAIL 2/S6.2
- SEE 1/S2.1 FOR STORM SHELTER FOUNDATION PLAN.
- SHEAR WALL "SW-A" TO BE DESIGNED FOR A SHEAR OF 300 plf. CFMS SUPPLIER MAY USE ALL OF THE WALL ALONG GRID LINE A, OR A PORTION. STEEL COLUMNS MAY BE USED AS A HOLD DOWN POST.
- SHEAR WALL "SW-1" TO BE DESIGNED FOR A SHEAR OF 240 plf. CFMS SUPPLIER MAY USE ALL OF THE WALL ALONG GRID LINE A, OR A PORTION. STEEL COLUMNS MAY BE USED AS A HOLD DOWN POST.

CODED NOTES:

- 8" REINF CMU WALL ON REINF CONC TRENCH FOOTING - SEE GENERAL NOTE 11A
- 8" REINF CONCRETE STORM SHELTER WALLS ON REINF CONC FOOTING - SEE SHEET S2.1
- 8" REINF CMU STEM WALL (#5 @ 32" O.C.) ON REINF CONC FOOTING. ALT: AT CONTRACTOR'S OPTION, A CONCRETE STEM WALL CAST-IN-PLACE MAY BE PROVIDED IN LIEU OF THE CMU STEM WALL. DETAILED SHOP DRAWINGS SHALL BE SUBMITTED. REFER TO 4/S5.1 FOR A TYPICAL STEM WALL REINFORCING DETAIL.
- EXTERIOR APRON SLAB W/ 8" FROST WALL - COORDINATE SIZE/LOCATION W/ ARCH DWGS - SEE DETAIL 2/S6.2
- EXTERIOR COLUMNS ON REINF CONC FOOTING - SEE DETAIL 5/S5.1
- 32" WIDE MASONRY PILASTER FULL HEIGHT OF CMU WALL - PROVIDE #5 VERT BARS IN EACH CELL
- NEW MECHANICAL PAD, COORDINATE SIZE, LAYOUT, AND LOCATION WITH REQUIREMENTS OF MECHANICAL UNIT SELECTED. SEE DETAIL 4/S6.2 FOR PAD THICKNESS AND TURNED DOWN WALLS
- BOLLARD, SEE CIVIL DWGS
- TRENCH DRAIN, COORD WITH ARCH DRAWINGS
- CONC SLAB DEPRESSION - COORD W/ ARCH - SEE TYPICAL SLAB DEPRESSION DETAIL 9/S6.1
- PROVIDE FOUNDATION BOX OUT WHERE SANITARY CROSSES THE FOUNDATION - SEE DETAIL 1B/S6.2. LINE TO BE PLACED ADJACENT TO SPREAD FOOTING
- PROVIDE FOUNDATION BOX OUT AT UTILITY STACK - SEE DETAIL 1B/S6.2
- AREA OF GRAVEL - SEE ARCH DWGS

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	ANCHORS
C1	HSS6x4x3/8	BP2 - SEE 5/S6.3	SEE 7/S6.3
C2	HSS6x4x1/2	BP2 - SEE 5/S6.3	SEE 7/S6.3
C3	HSS6x4x3/8	BP1 - SEE 5/S6.3	SEE 7/S6.3
C4	HSS6x6x3/8	BP3 - SEE 5/S6.3	SEE 7/S6.3
C5	HSS6x4x3/8	SEE 6/S5.1	SEE 6/S5.1

TRENCH & WALL FOOTING SCHEDULE

MARK	WIDTH	THICKNESS	LENGTH	REINFORCING	TOP OF FOOTING
SSF	4'-0"	2'-0"	CONT	(7) #6 BARS EA WAY, TOP & BOT	98'-0"
TR20	2'-0"	2'-6"	CONT	(4) #5 BARS	SEE PLAN

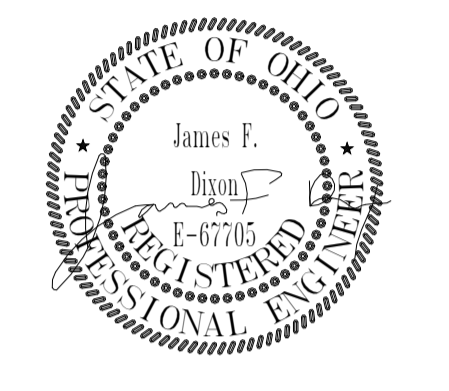
COLUMN FOOTING SCHEDULE

MARK	WIDTH	LENGTH	THICKNESS	REINFORCING	TOP OF FOOTING
F5.0	5'-0"	5'-0"	2'-6"	(6) #5 BARS EA WAY	98'-8"
F6.0	6'-0"	6'-0"	1'-0"	(7) #5 BARS EA WAY	SEE PLAN

NOTE: THE S3.X AND S4.X SERIES SHEETS ARE NOT INCLUDED IN THE FOUNDATION PACKAGE AND WILL BE ISSUED WITH THE MAIN PACKAGE.

NOTE: CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR APPROVAL INCLUDING COORDINATED UTILITIES WITH SLEEVES AND BOX OUTS. ALL UTILITIES SHOWN ON STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY.

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

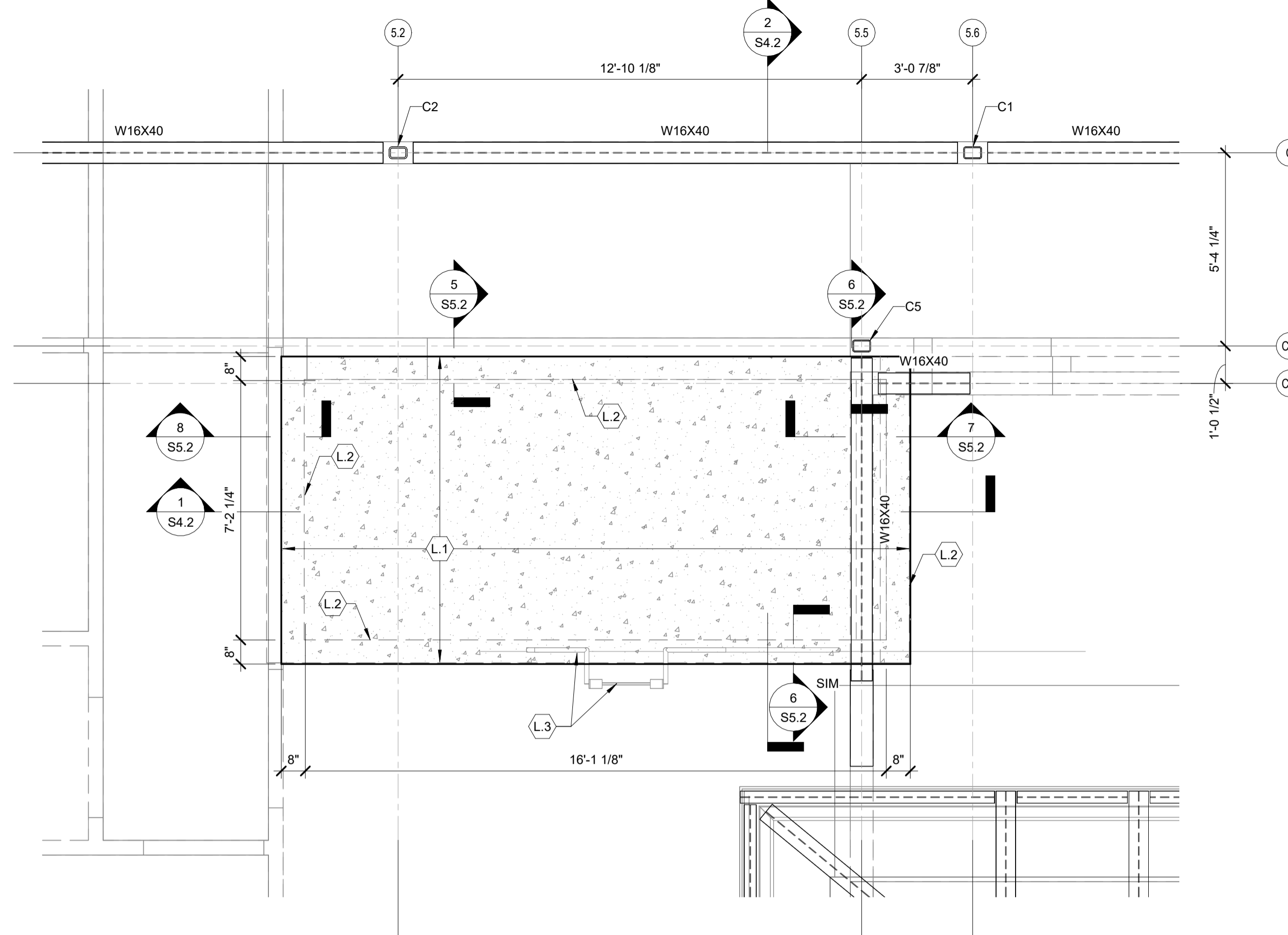


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CODED NOTES - SHELTER LID FRAMING : (LX)

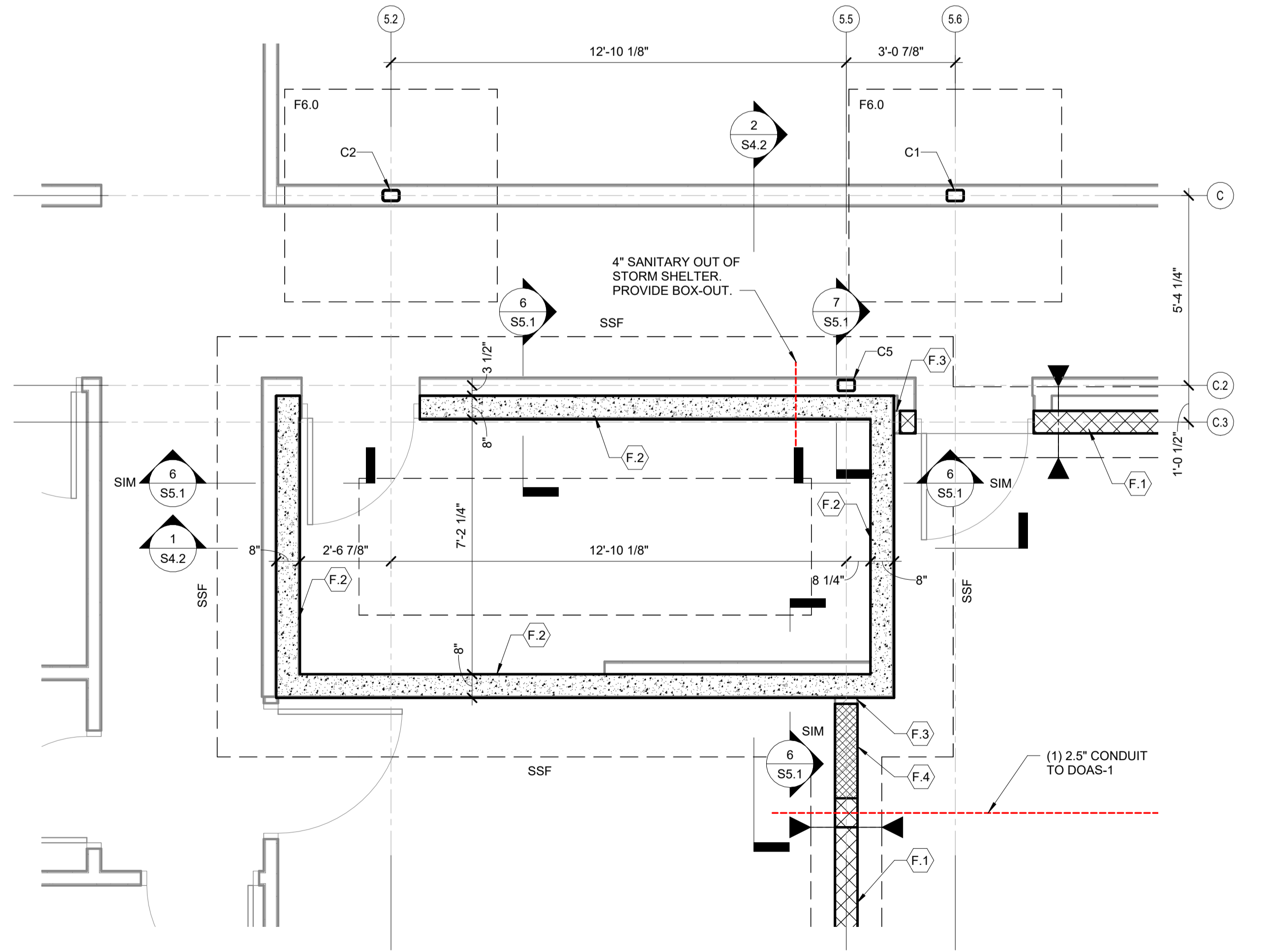
- (L.1) 8" THICK REINF CONC "SHELTER LID" (4,000 PSI) WITH #5 BAR @ 8" O.C.
- (L.2) STORM SHELTER WALLS BELOW
- (L.3) LADDER AND GUARDRAILS BY SUPPLIER - COORD W/ ARCH



2 STORM SHELTER LID FRAMING PLAN
3/8" = 1'-0"

CODED NOTES - SHELTER FOUNDATION : (FX)

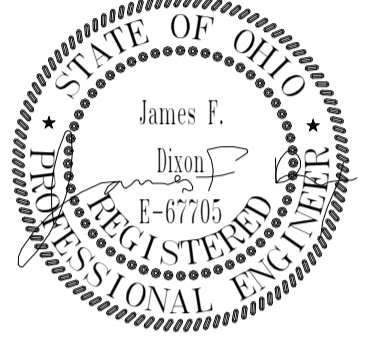
- (F.1) 8" REINF CMU WALL ON REINF CONC TRENCH FOOTING - SEE GENERAL NOTE 11A/S1.1
- (F.2) 8" REINF CONC STORM SHELTER WALL ON REINF CONC FOOTING
- (F.3) 2" EXPANSION JOINT BETWEEN STORM SHELTER WALL AND ADJACENT WALL
- (F.4) 32" WIDE MASONRY PILASTER FULL HEIGHT OF CMU WALL - PROVIDE #5 VERT BARS IN EACH CELL



1 STORM SHELTER FOUNDATION PLAN
3/8" = 1'-0"

GENERAL NOTES - SHELTER:

1. COORDINATE ALL DIMENSIONS W/ ARCH DWGS. IN CASE OF CONFLICT, THE DIMENSIONS SHOWN IN THE ARCH DWGS GOVERN.
2. STRUCTURAL PLANS ARE AN EXTENSION OF ARCHITECTURAL PLANS. COORDINATE LOCATIONS OF COLUMNS, WALLS, OPENINGS, ETC W/ ARCH DWGS.
3. FLOOR CONSTRUCTION:
 - A. STORM SHELTER: 4" SLAB ON GRADE REINF W/ 6x6xW2.9xW2.9 OVER 10 MIL VAPOR BARRIER ON 6" DEEP COMPACTED GRANULAR FILL. T/SLAB = 100'-0".
4. ALL EXTERIOR FOOTINGS TO EXTEND TO A MIN OF 36" BELOW GRADE.
5. TR# INDICATES CONT TRENCH FOOTING MARK.
6. WF# INDICATES CONT WALL FOOTING MARK.
7. SSF# INDICATES CONT STORM SHELTER WALL FOOTING MARK.
8. T/FTG XX'-XX" - INDICATES TOP OF FOOTING ELEVATION.
9. - INDICATES FOOTING STEP - SEE DETAIL 7/S6.1
10. WALL CONSTRUCTION:
 - A. FOR 8" CONCRETE STORM SHELTER WALLS: (MARKED AS CODED NOTE F.2) 8" THICK REINF CONC WALL (4,000 PSI) W/ #6 VERT @8" O.C. AND #4 HORIZ @8" O.C.
11. SEE SHEET S0.X FOR STORM SHELTER QUALITY ASSURANCE PLAN.
12. CONTRACTOR TO COORDINATE ALL UNDERGROUND UTILITIES AS REQUIRED. SEE DETAIL 1/S6.2 FOR UTILITIES CROSSING THROUGH/UNDER FOOTINGS. FOOTING MAY NEED TO STEP (DETAIL 7/S6.1). REFER TO ARCH DWGS FOR UTILITIES.
13. SEE SHEETS S0.X AND SX.X FOR SHELTER LINTEL INFORMATION AND DETAILS (U.N.O.).
14. SEE SHEET S1.1 FOR FOOTING AND COLUMN SCHEDULES.



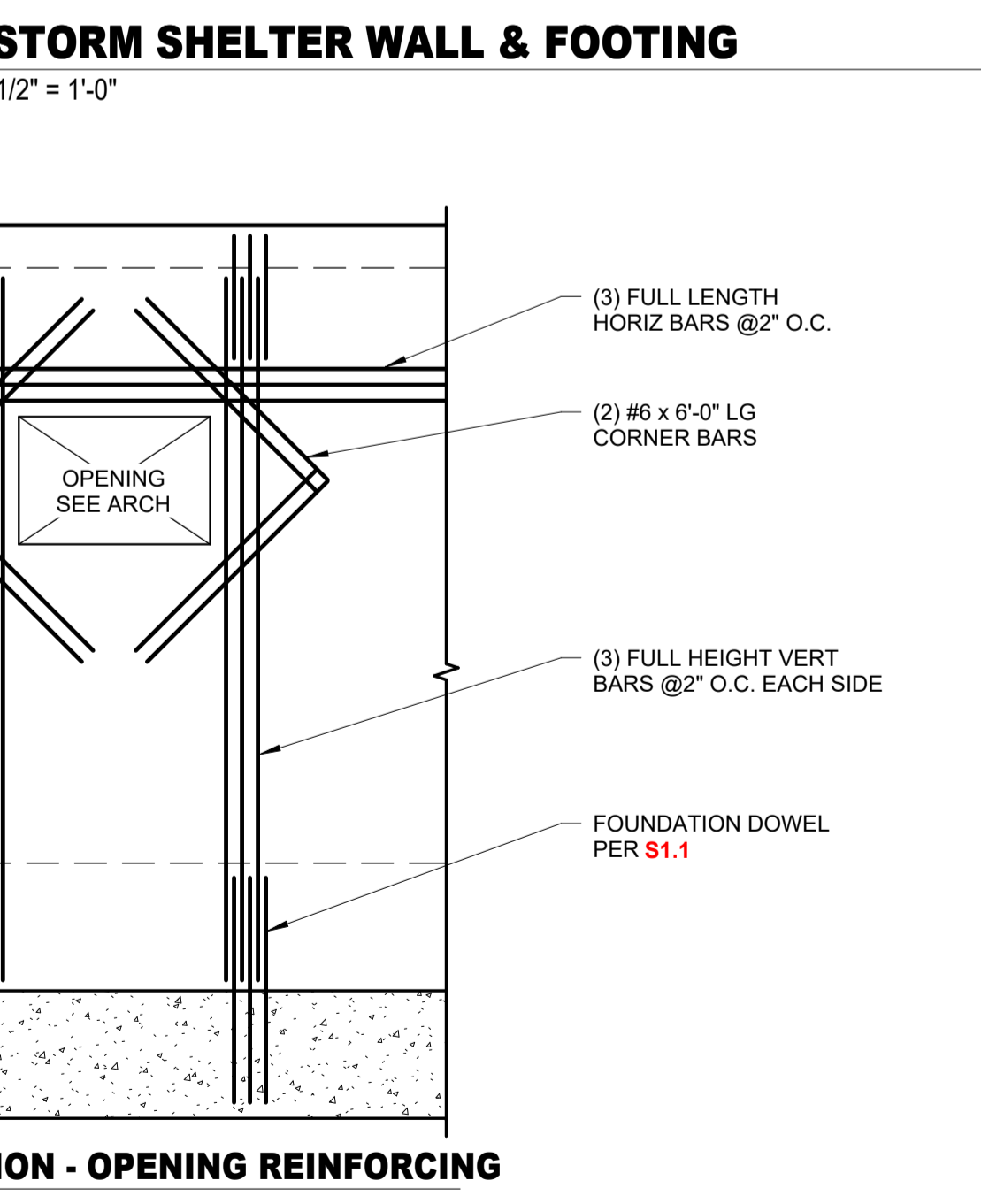
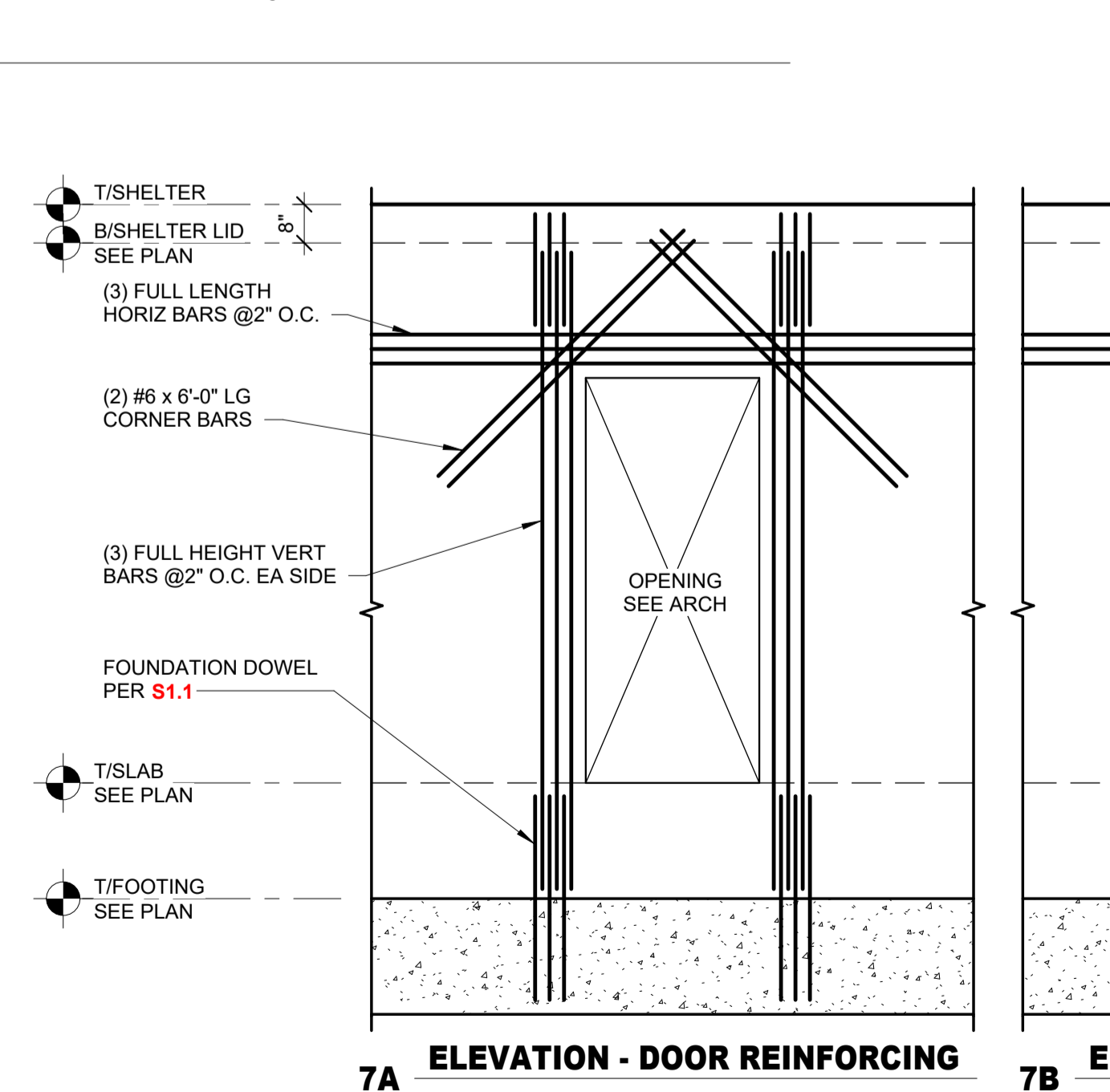
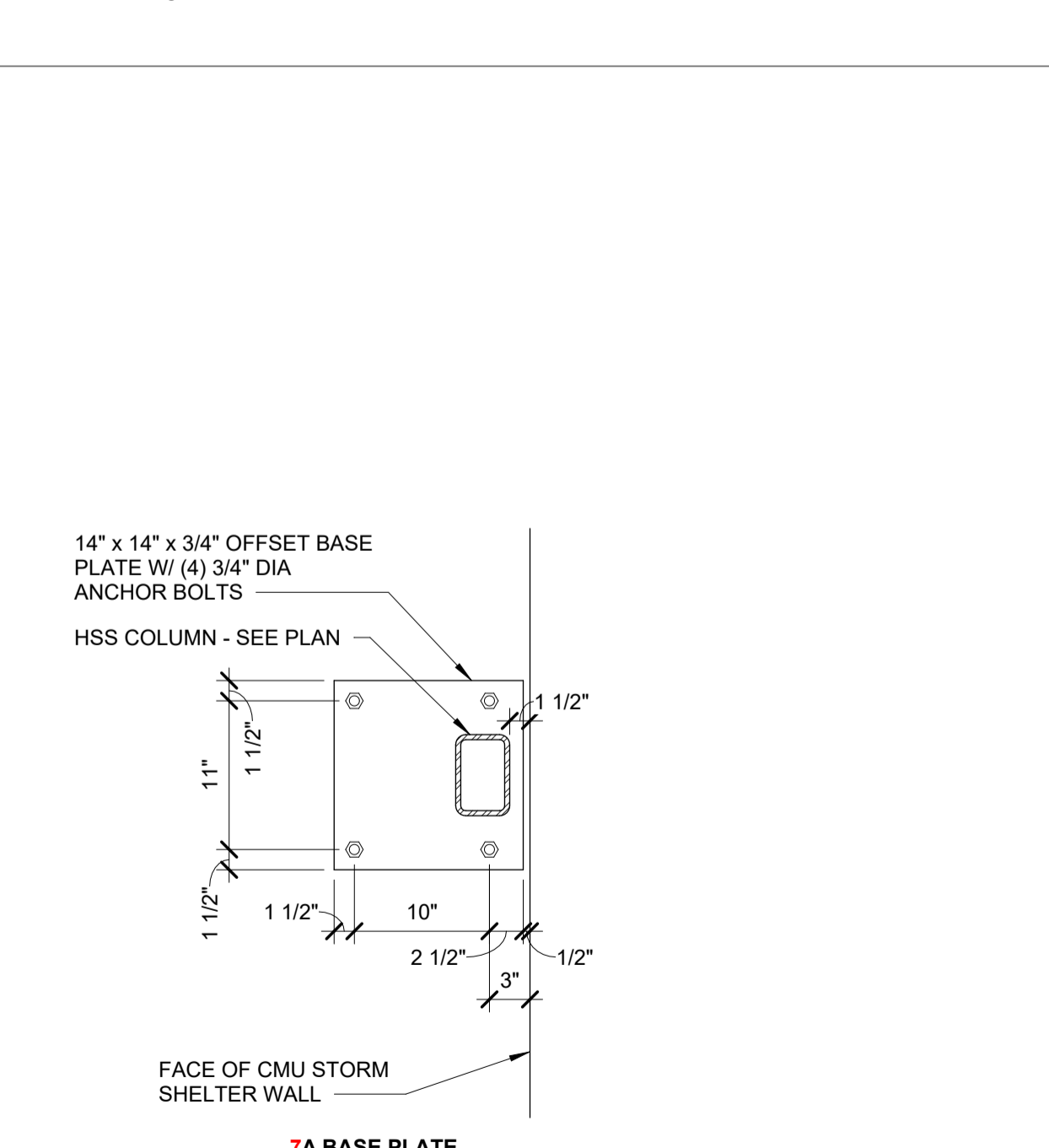
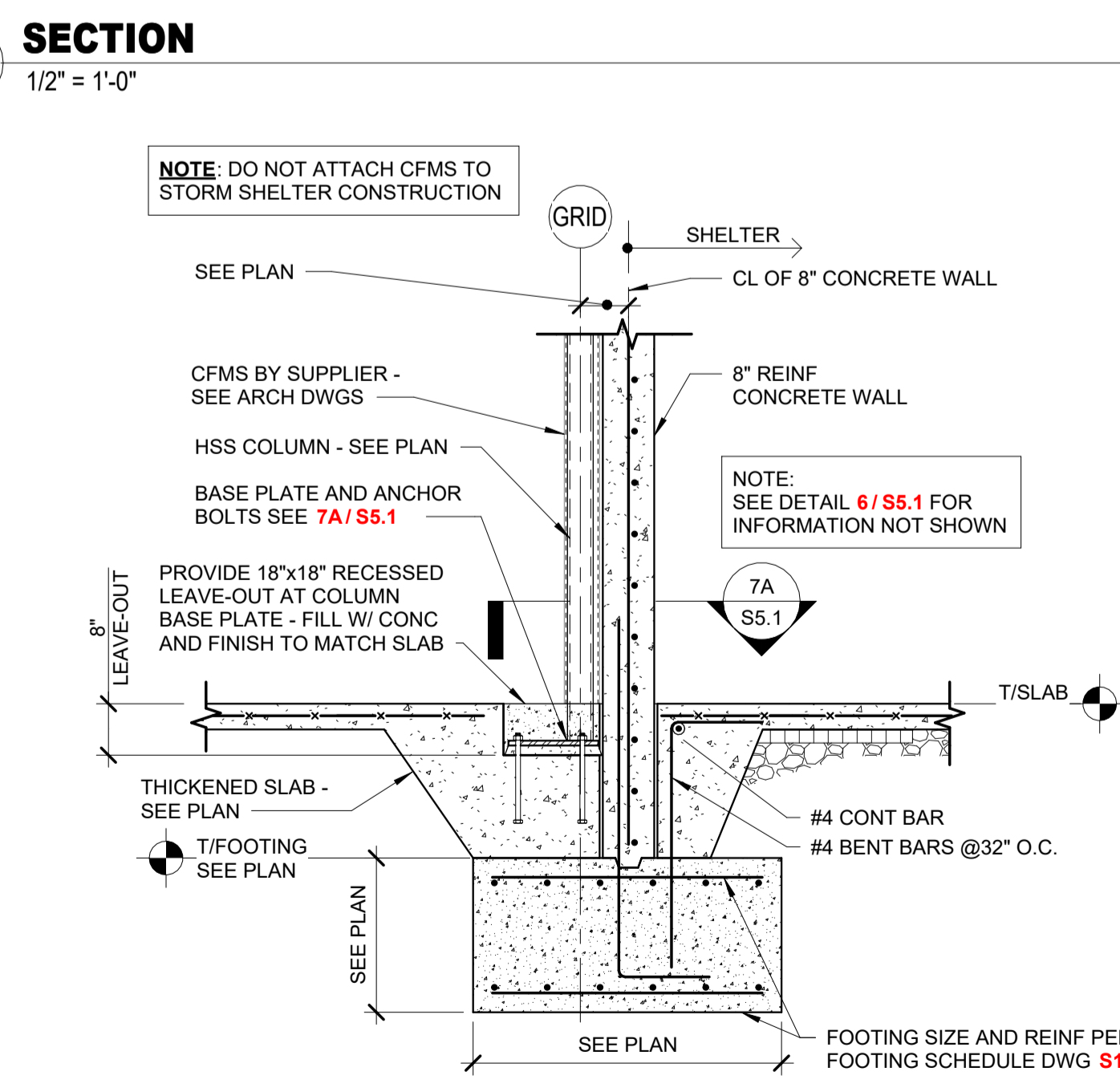
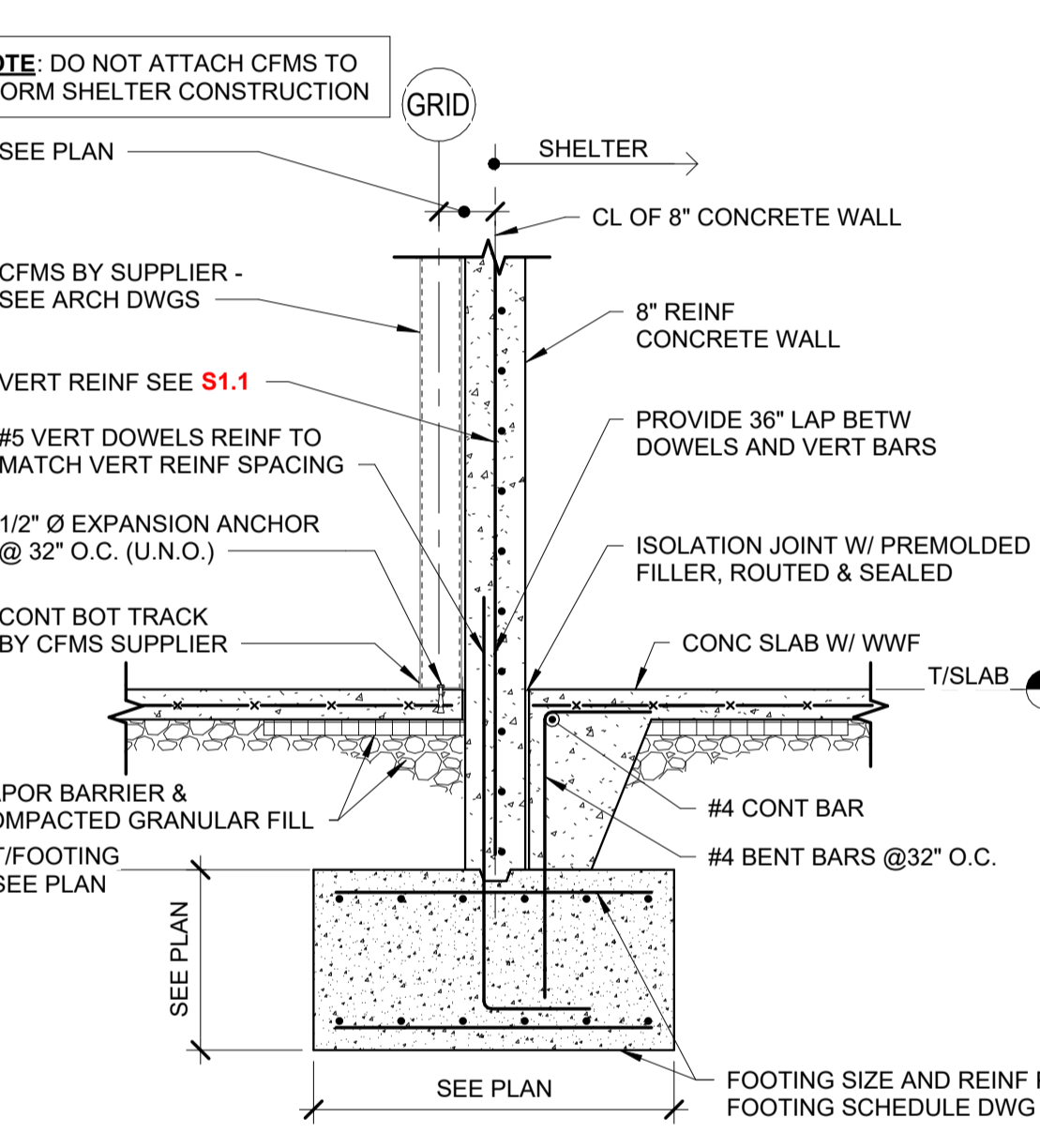
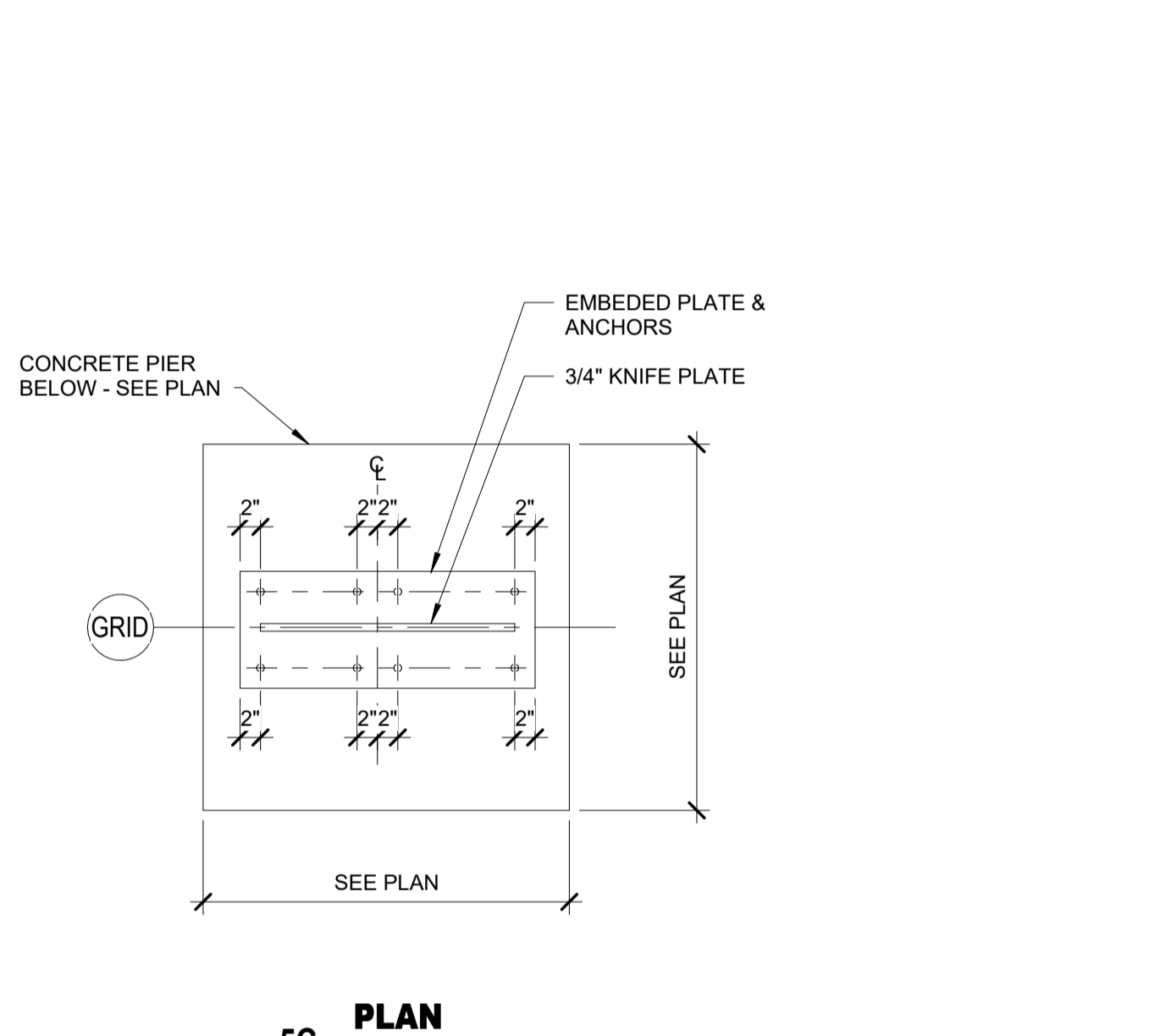
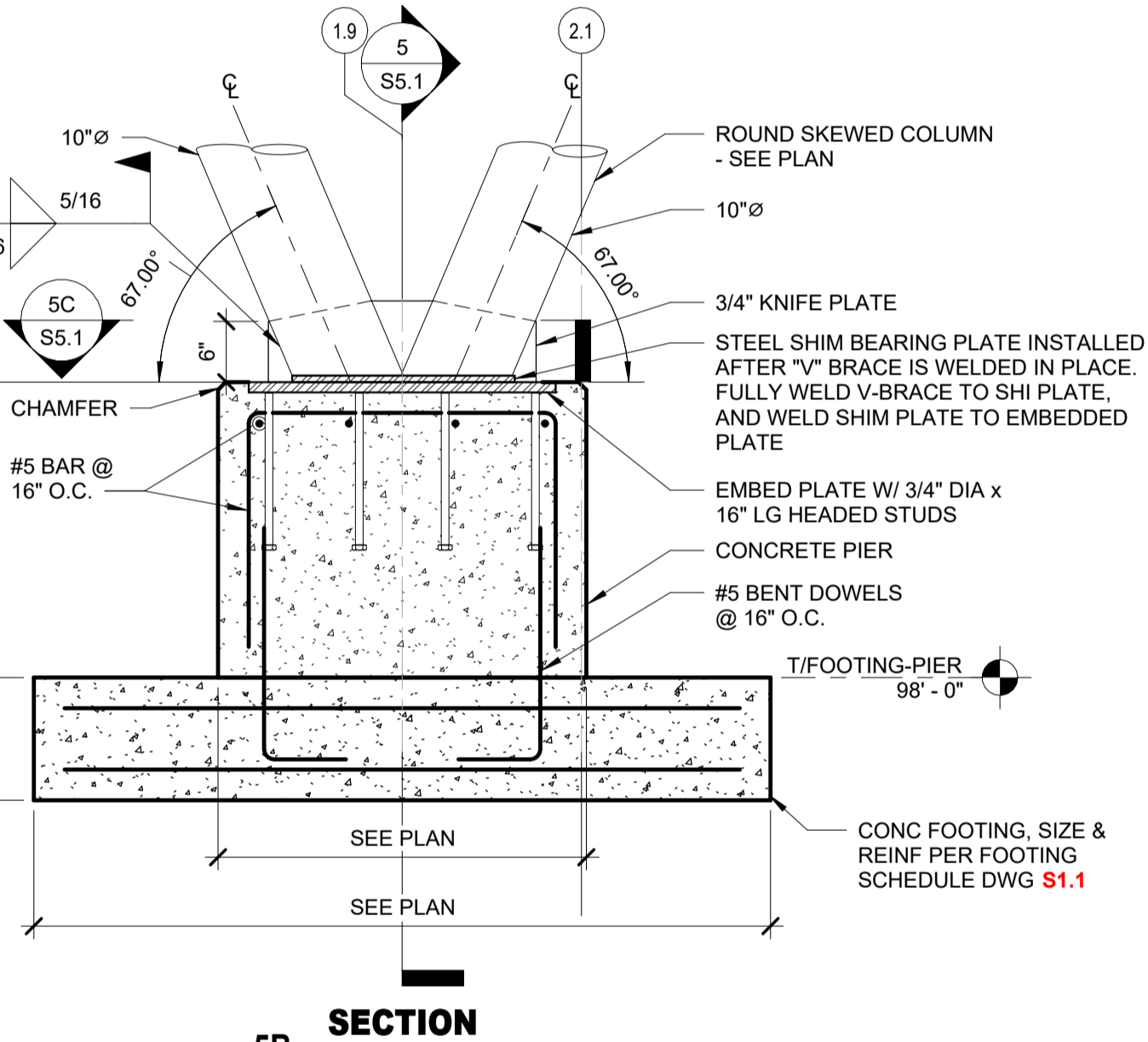
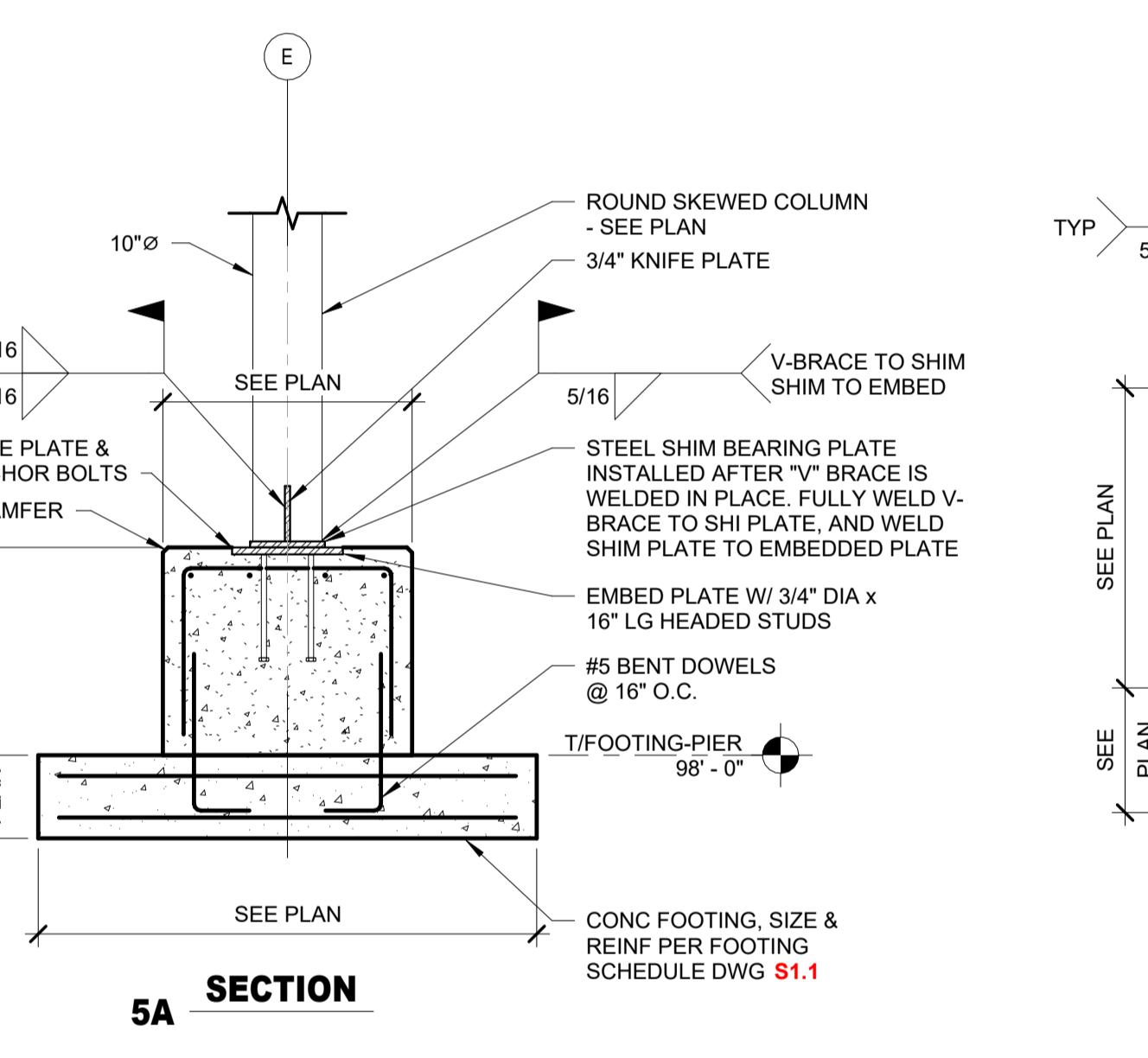
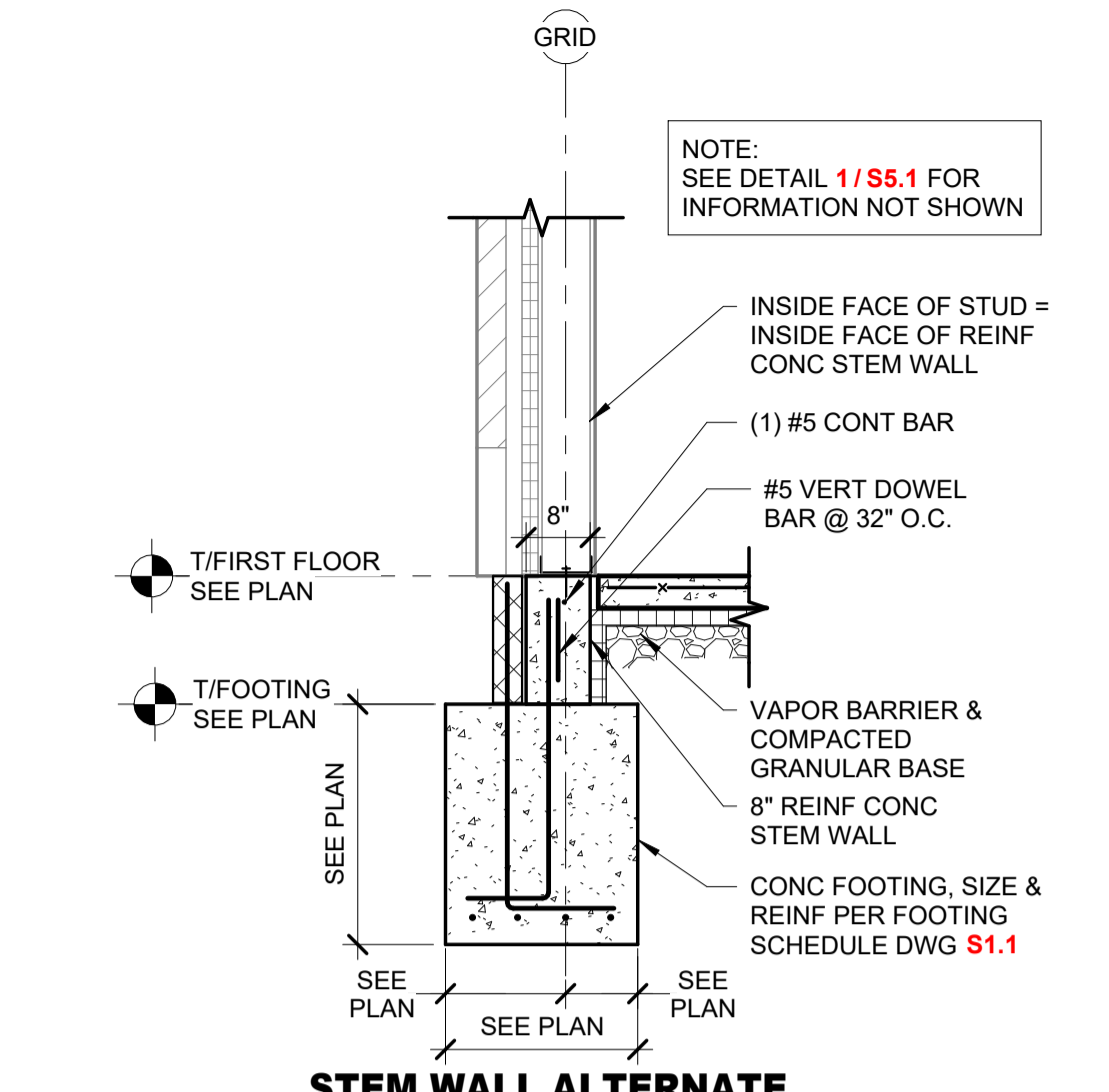
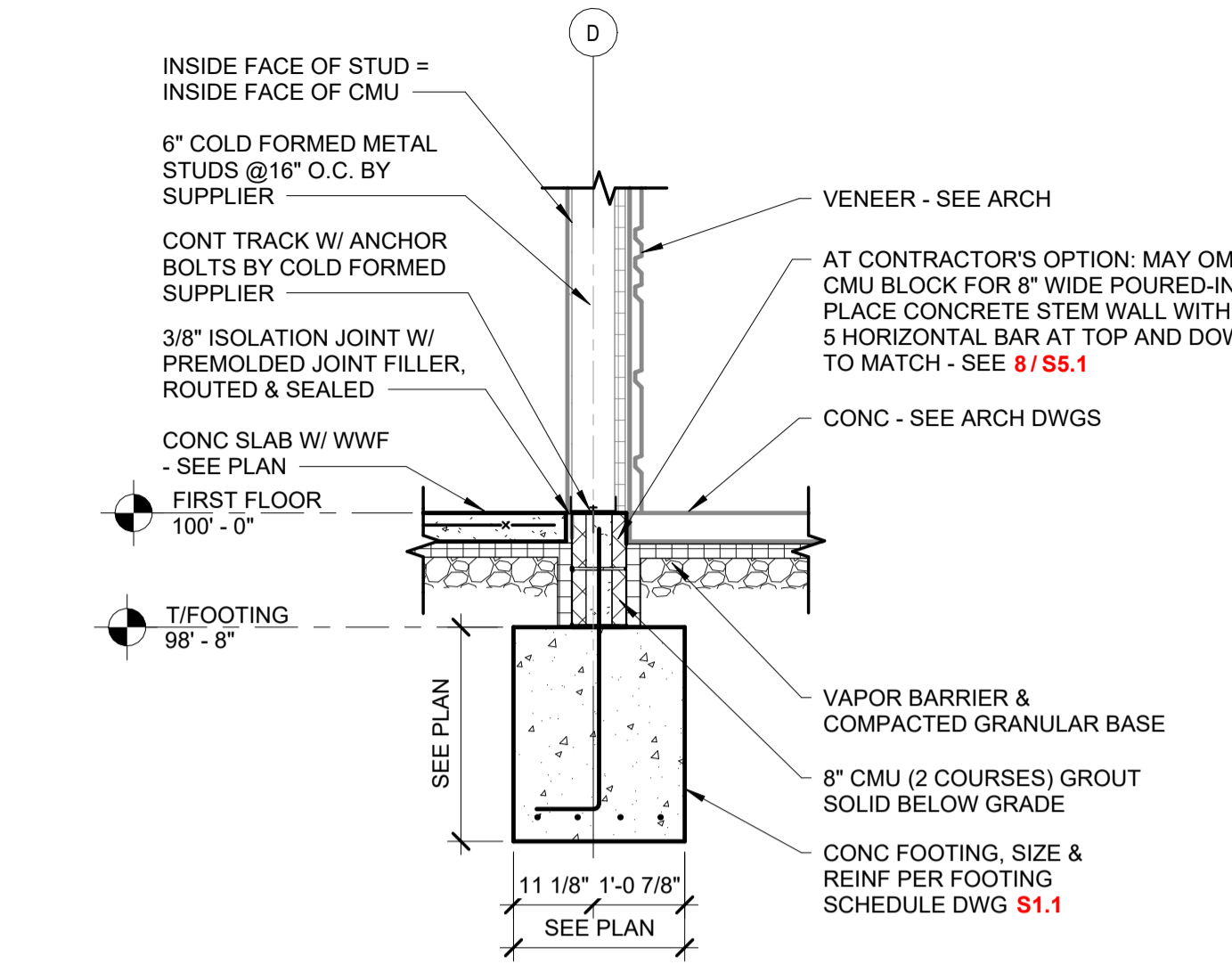
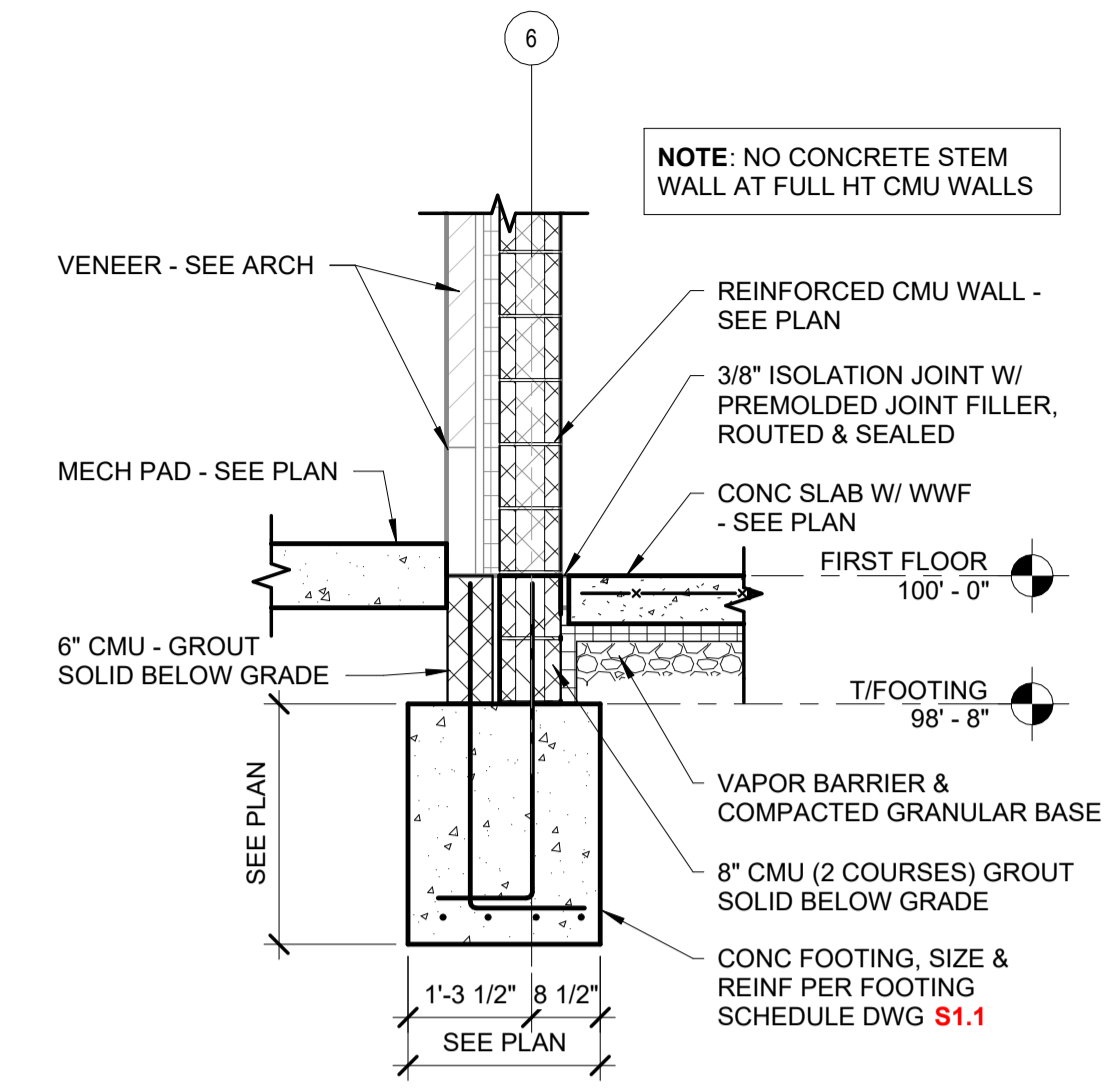
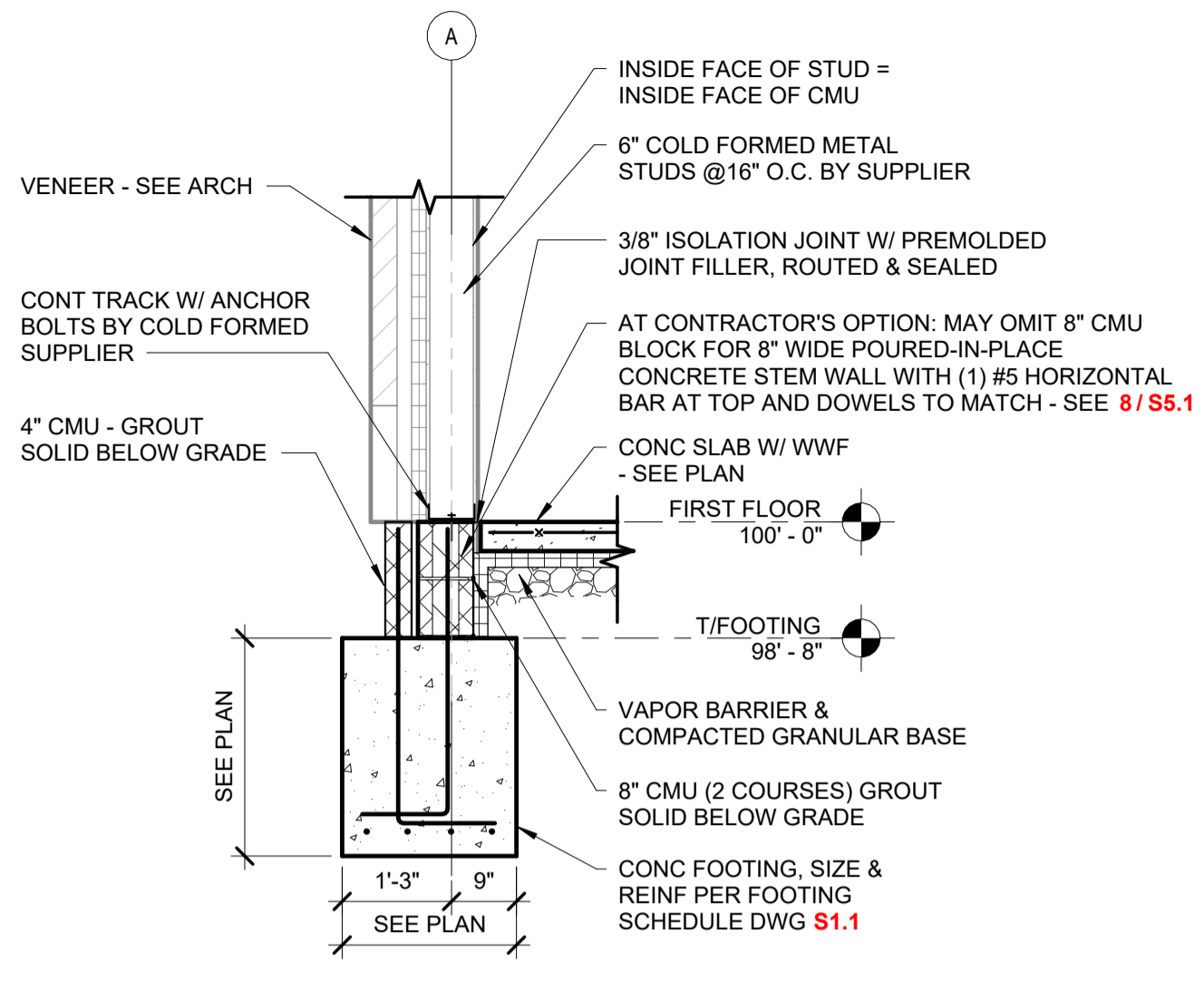
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ENLARGED STRUCTURAL PLANS

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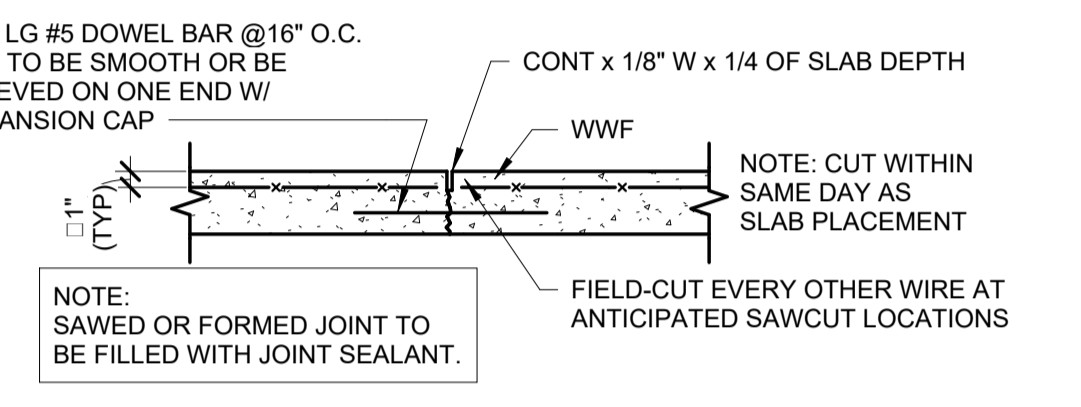
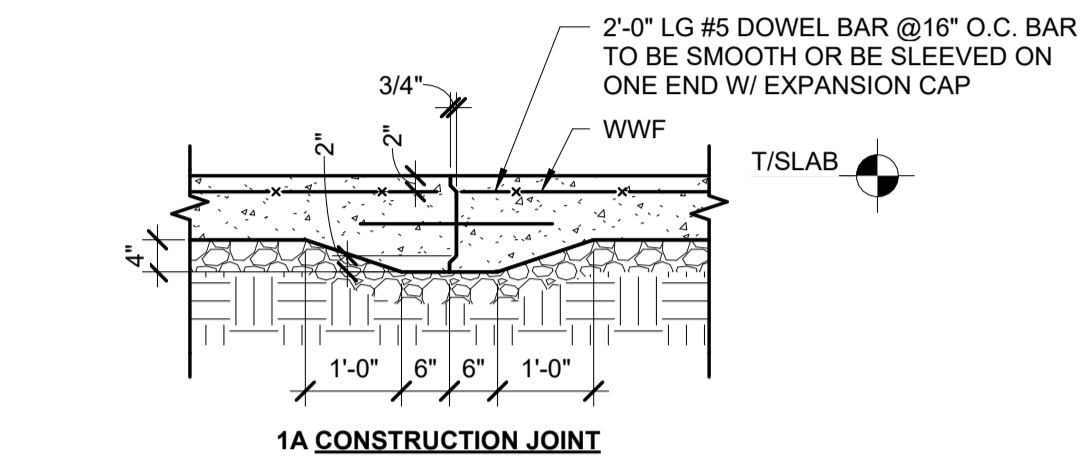
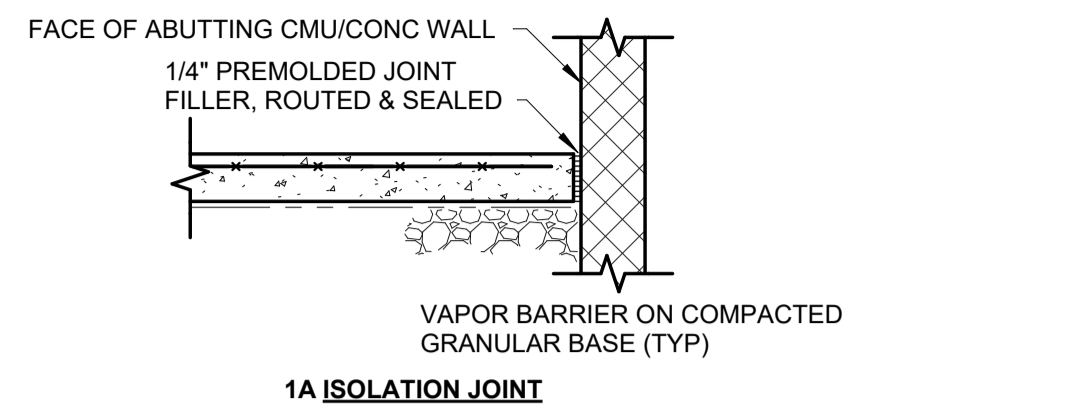
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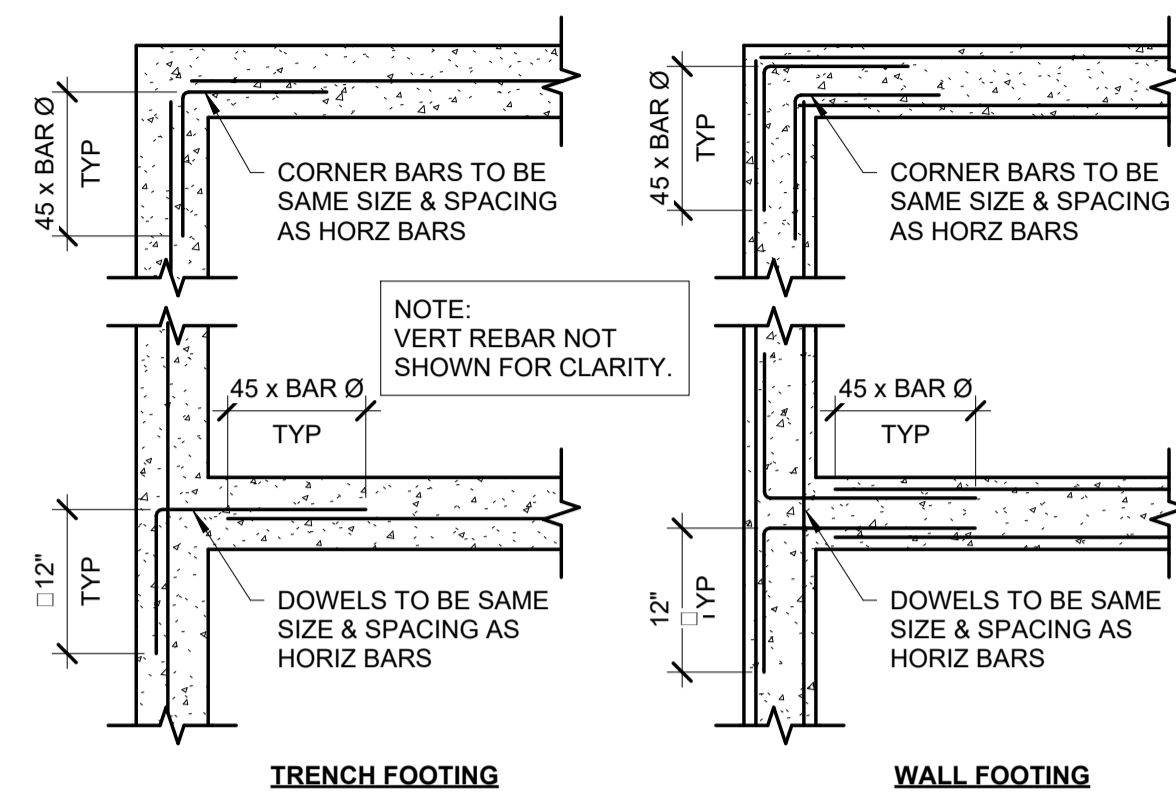
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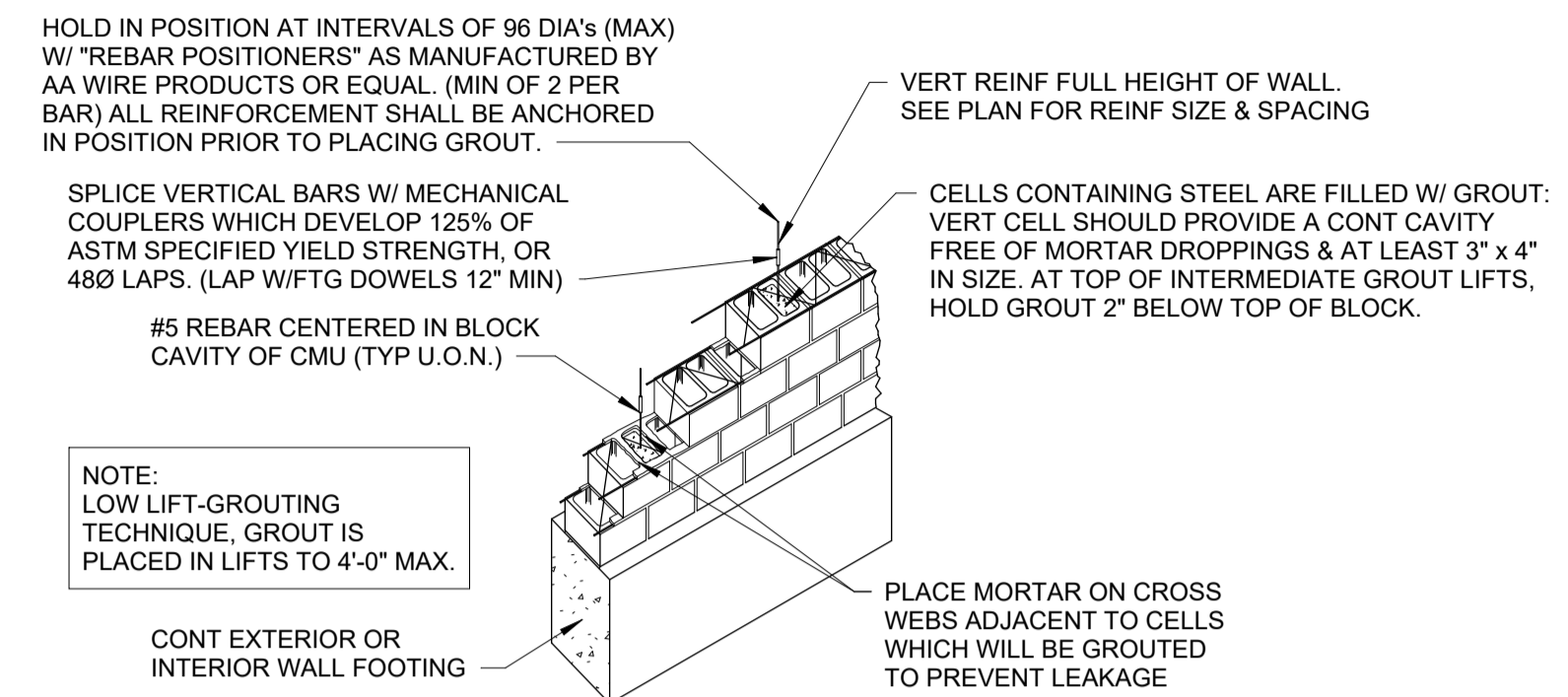
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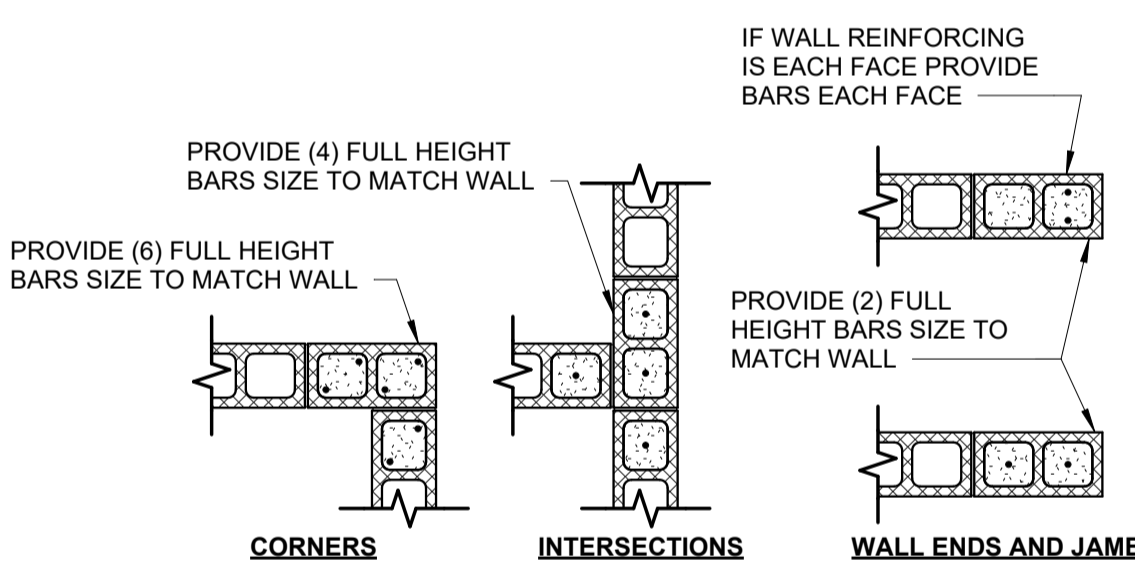
1 TYPICAL SLAB DETAILS
SCALE: N.T.S.



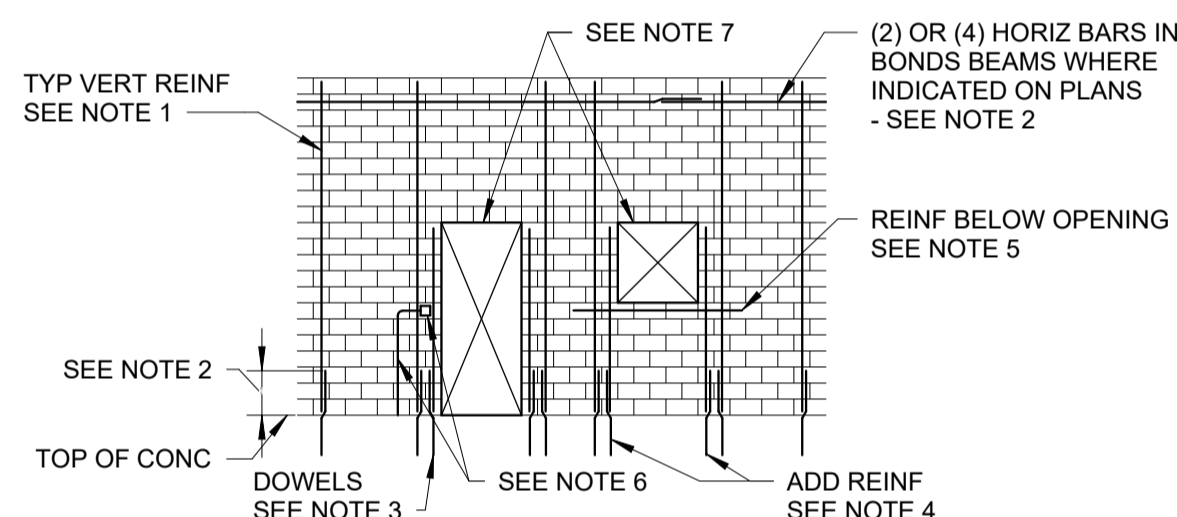
2 TYPICAL FOOTING CORNER REBAR
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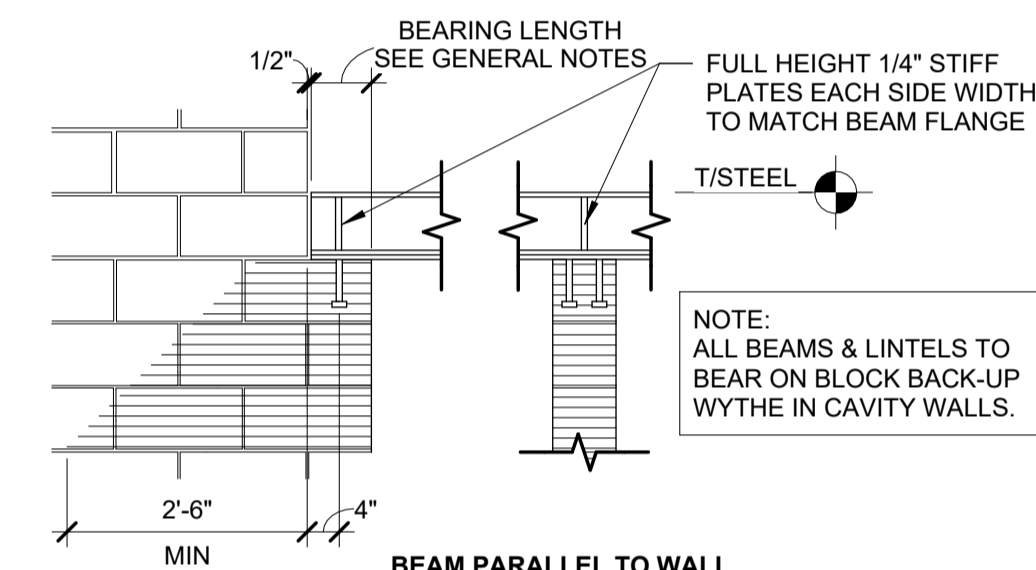
3 TYPICAL MASONRY WALL CONSTRUCTION ISOMETRIC
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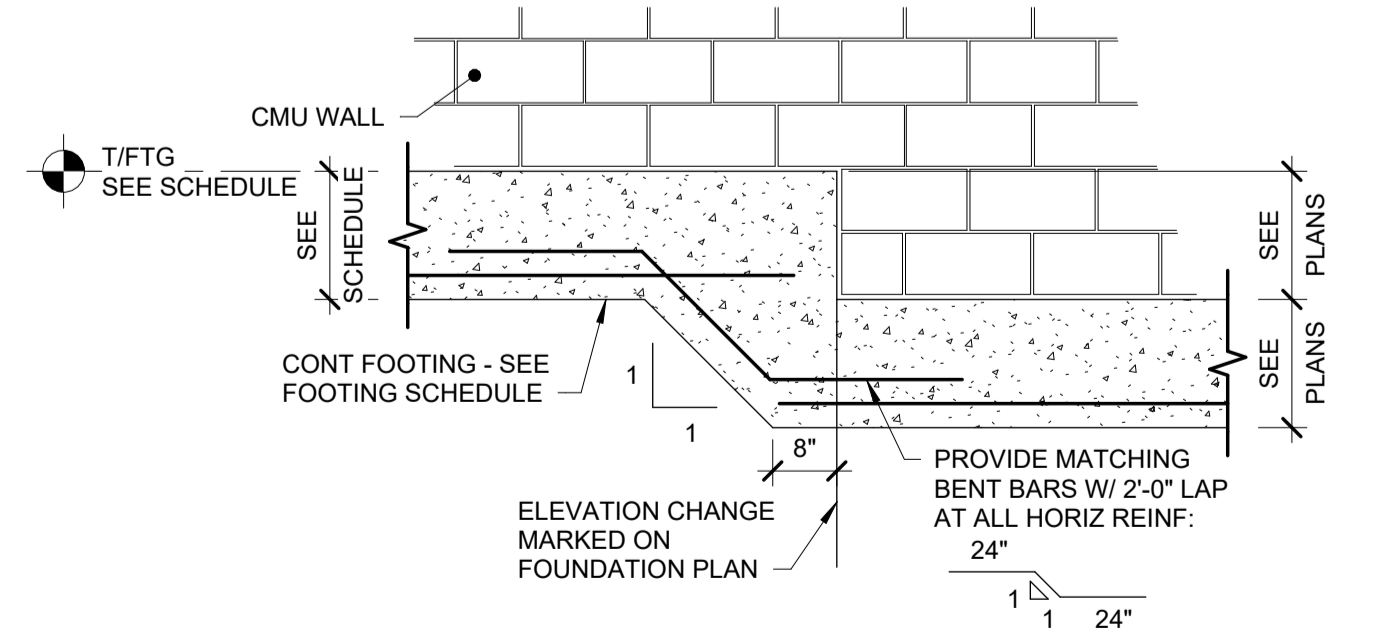
4 TYPICAL CMU WALL REINFORCING DETAILS
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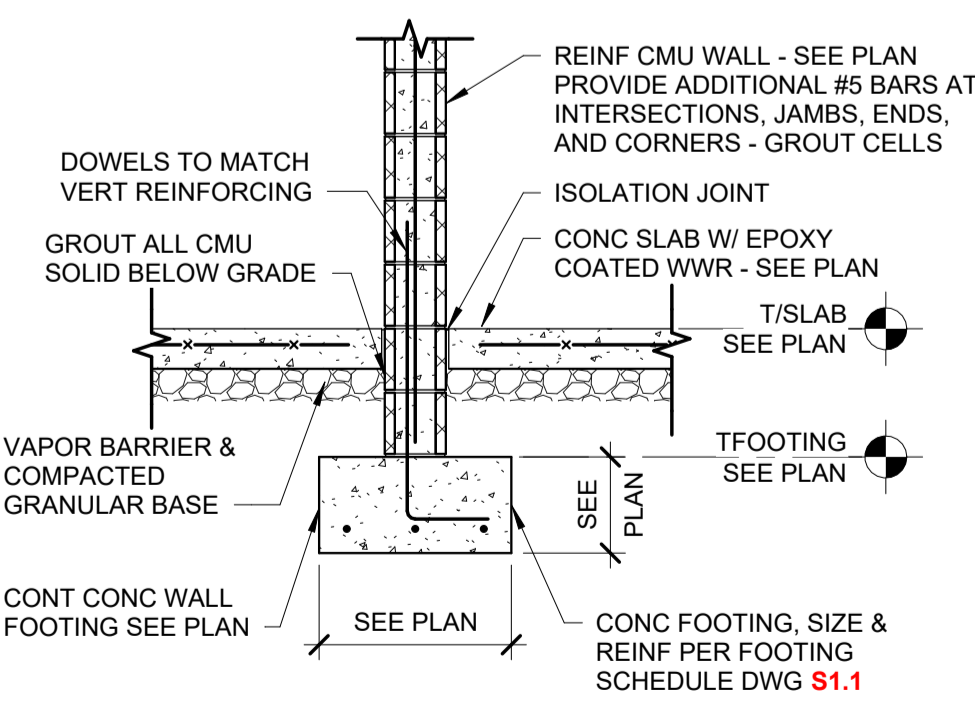
5 TYPICAL MASONRY CONSTRUCTION
SCALE: N.T.S.



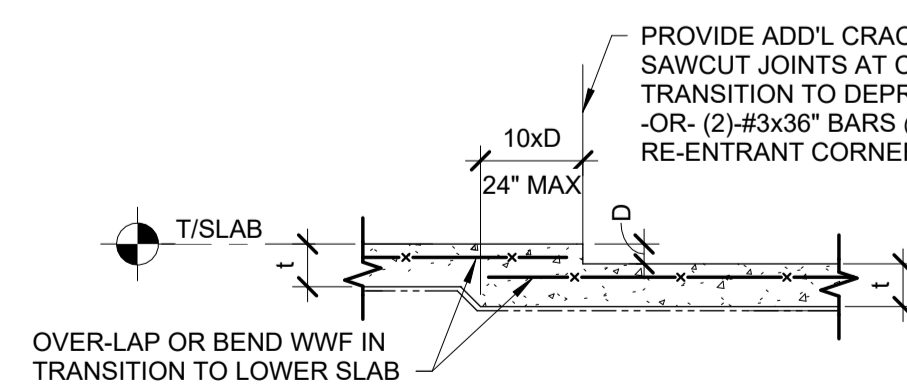
6 TYPICAL BEAM/LINTEL BEARING DETAILS
SCALE: N.T.S.



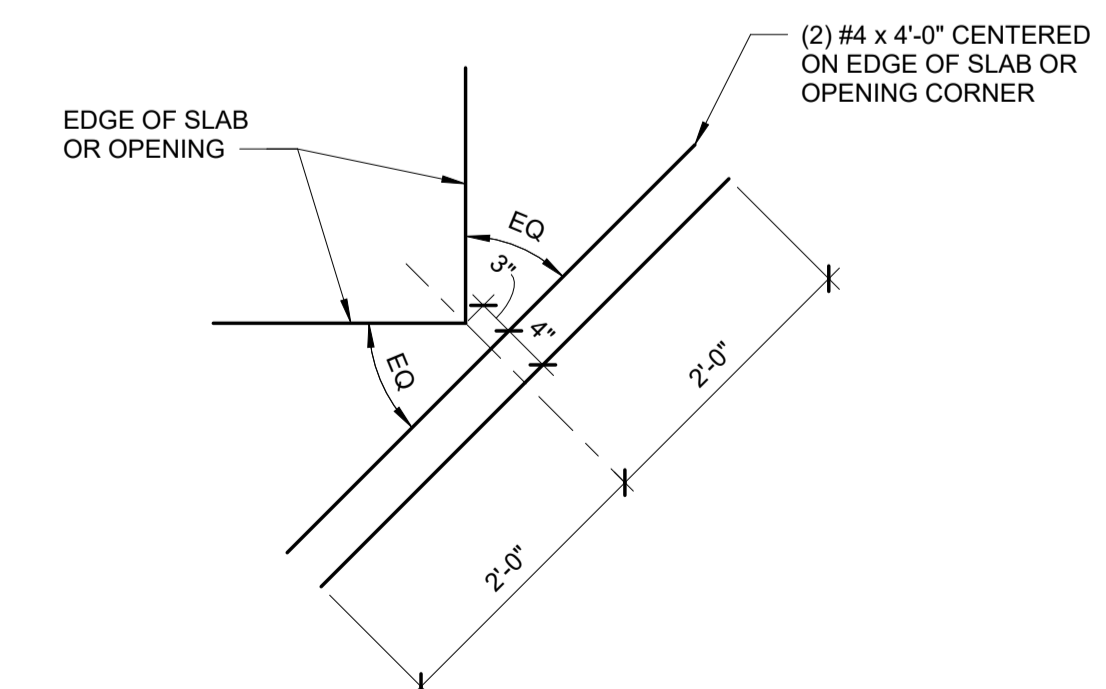
7 TYPICAL CONCRETE FOOTING STEP DETAIL
SCALE: N.T.S.



8 TYPICAL INTERIOR CMU BEARING WALL FOOTINGS
SCALE: N.T.S.



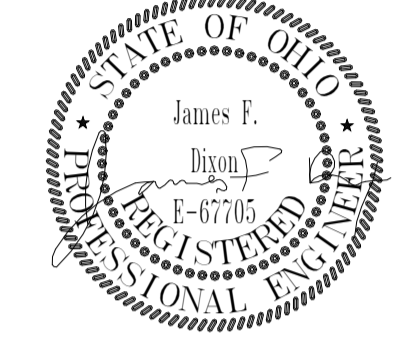
9 TYPICAL SLAB DEPRESSION
SCALE: N.T.S.



10 TYPICAL REENTRANT CORNER BARS
SCALE: N.T.S.

- NOTES:
- FOR TYPICAL MASONRY CONSTRUCTION SEE ISOMETRIC DETAIL 3 THIS SHEET.
 - STAGGER SPLICES IN ADJACENT HORIZONTAL BARS IN THE SAME COURSE BY 4'-0".
 - PROVIDE DOWEL BARS IN FOUNDATION TO MATCH ALL VERTICAL REINFORCING.
 - ADDED REINFORCING AT WALL INTERSECTIONS, CORNERS AND OPENINGS SEE DETAIL 4 THIS SHEET.
 - PROVIDE (2) #5 BARS BELOW OPENINGS IN GROUTED CORES.
 - DO NOT PLACE VERTICAL CONDUIT IN THE SAME CELL AS VERTICAL REINFORCING.
 - SEE GENERAL NOTES FOR STEEL BEAM LINTELS OVER MASONRY OPENINGS.

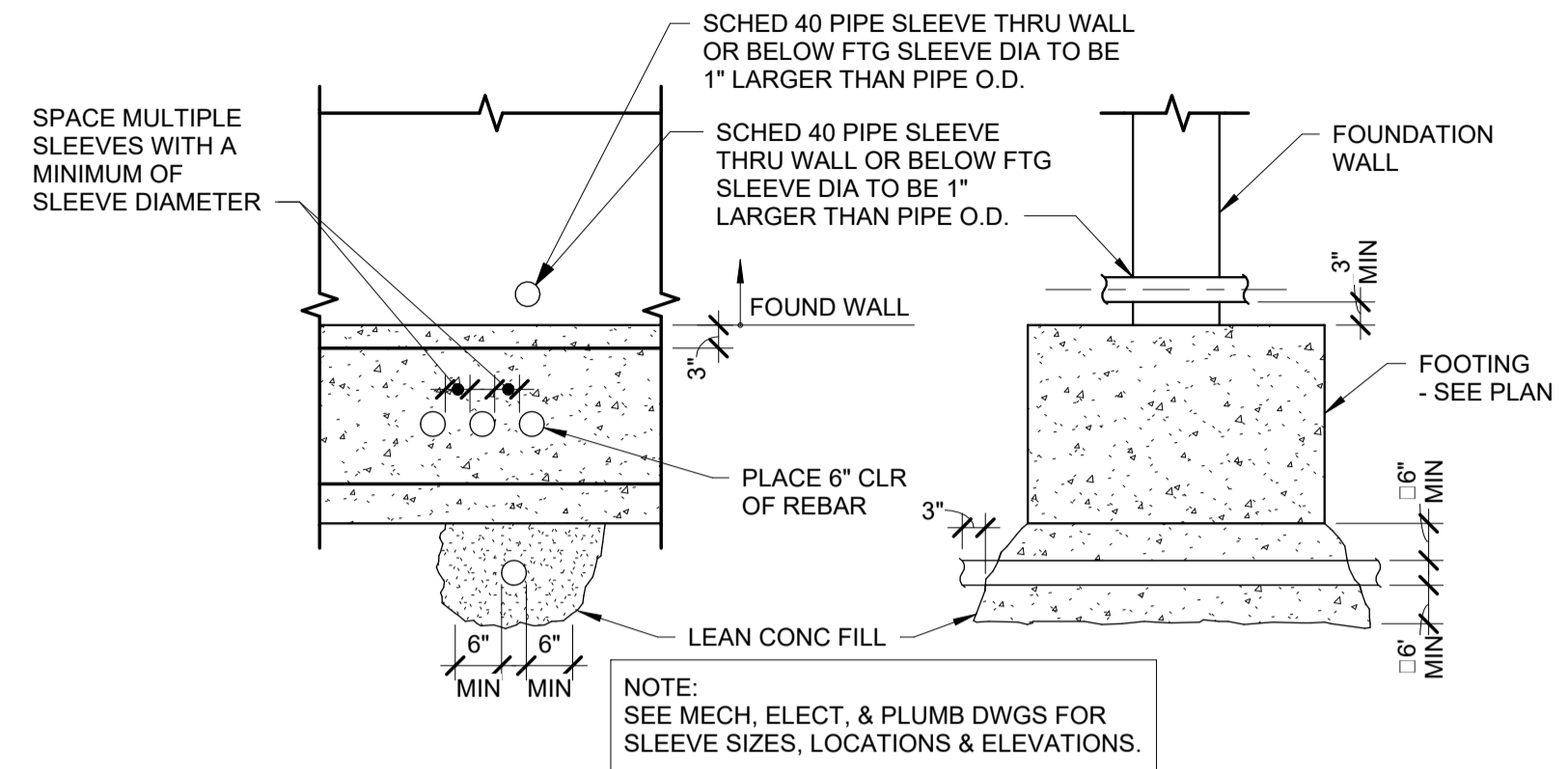
- NOTES:
- INFILL MASONRY AT BEAM POCKET (NOT SHOWN FOR CLARITY).
 - COORDINATE INSTALLATION W/ OTHER NOTES, TYP DETAILS & SCHEDULES.
 - ALL MASONRY CORES ENTIRELY OR PARTIALLY IN SHADED AREA SHALL BE GROUT FILLED OR SOLID CMU BLOCK (TYP).
 - DO NOT PLACE A MECHANICAL OPENING WITHIN THE SHADED AREA BELOW BEAMS.



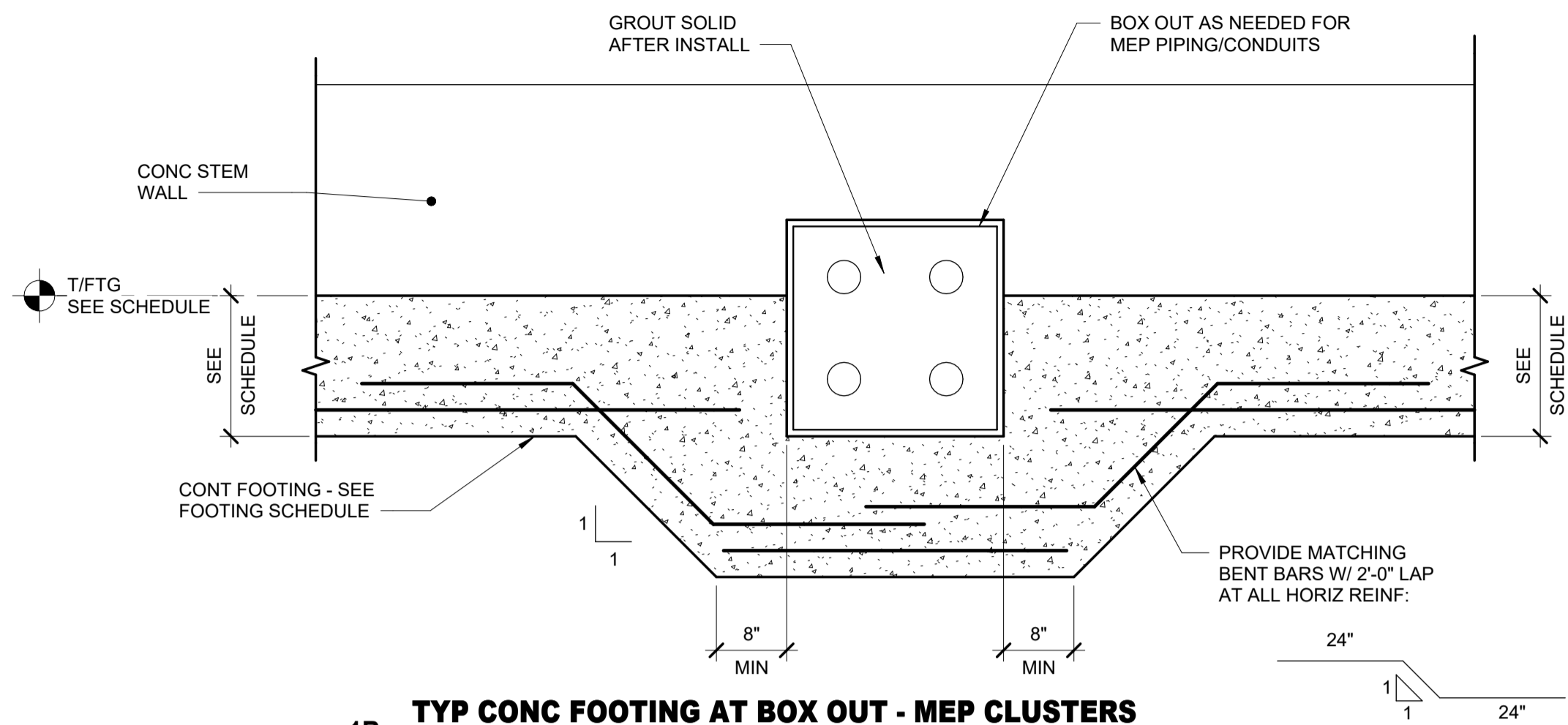
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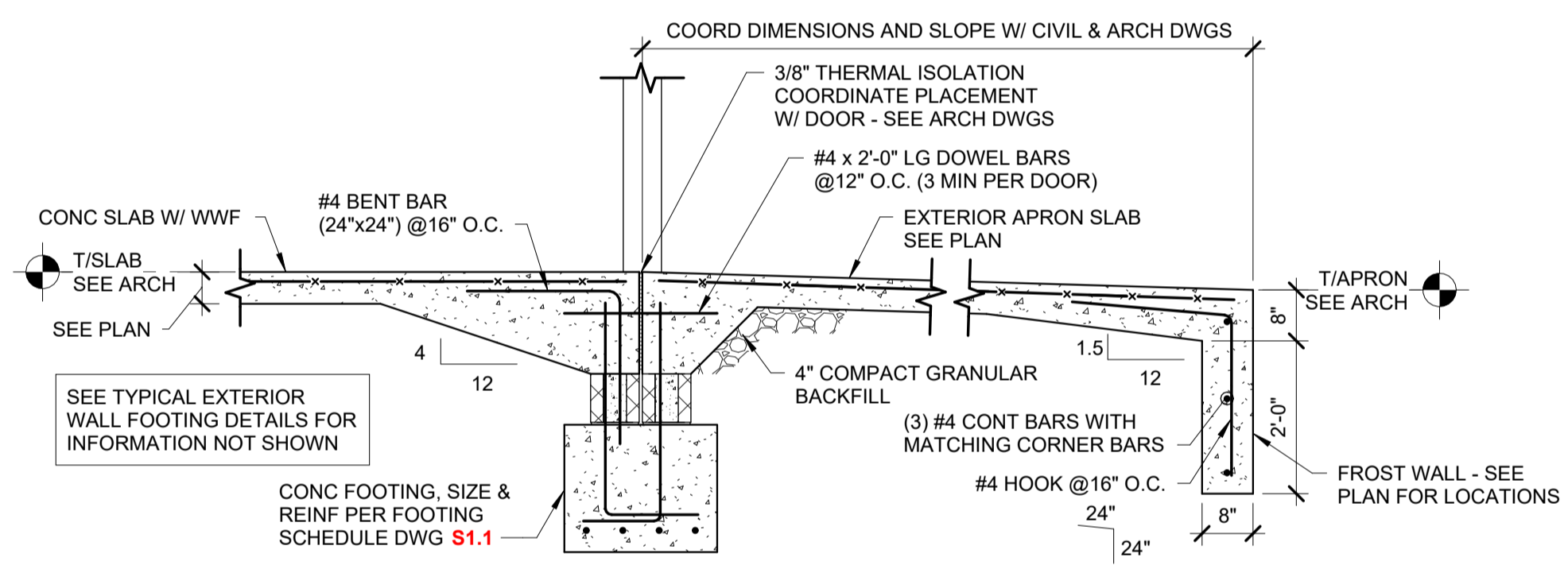


1A TYP PIPE SLEEVES THROUGH/UNDER FOUNDATION

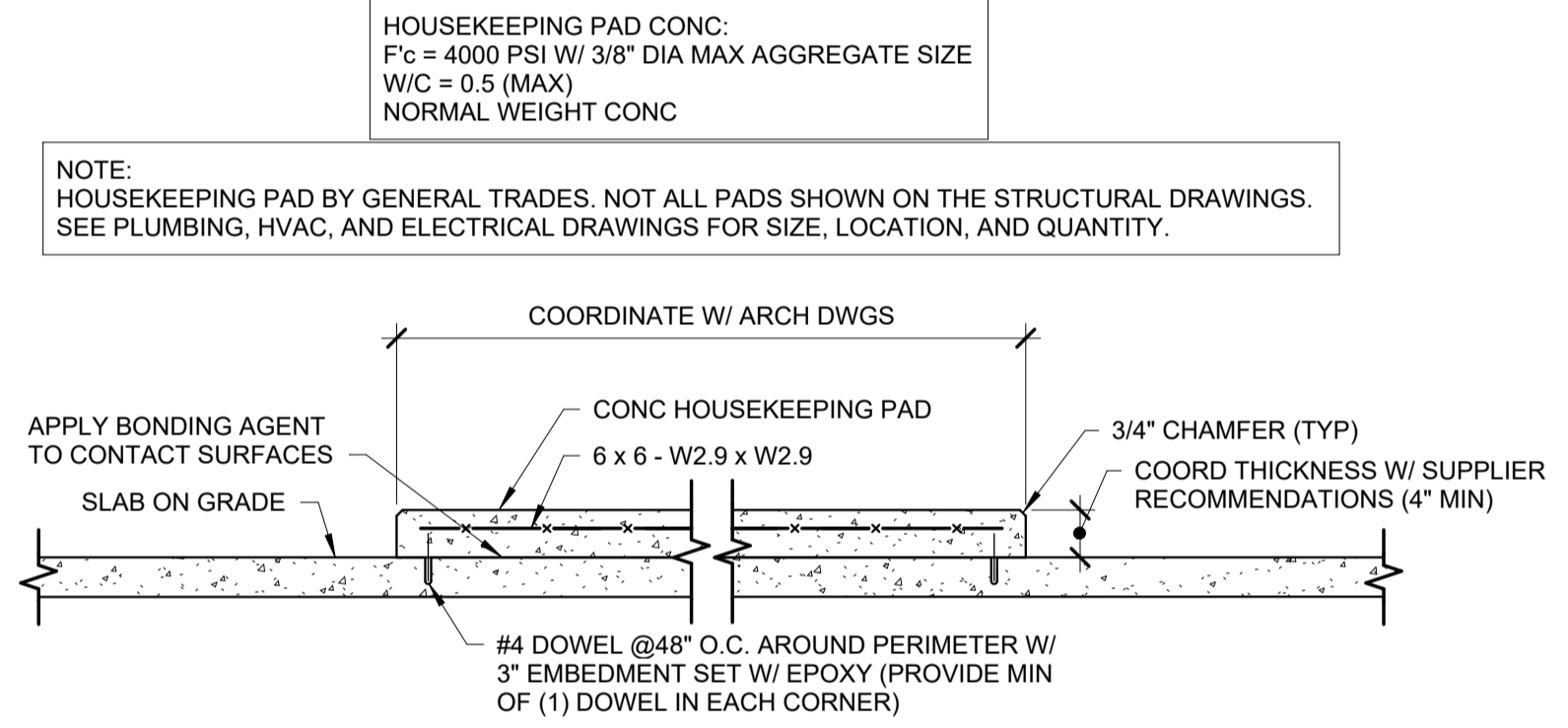


1B TYP CONC FOOTING AT BOX OUT - MEP CLUSTERS

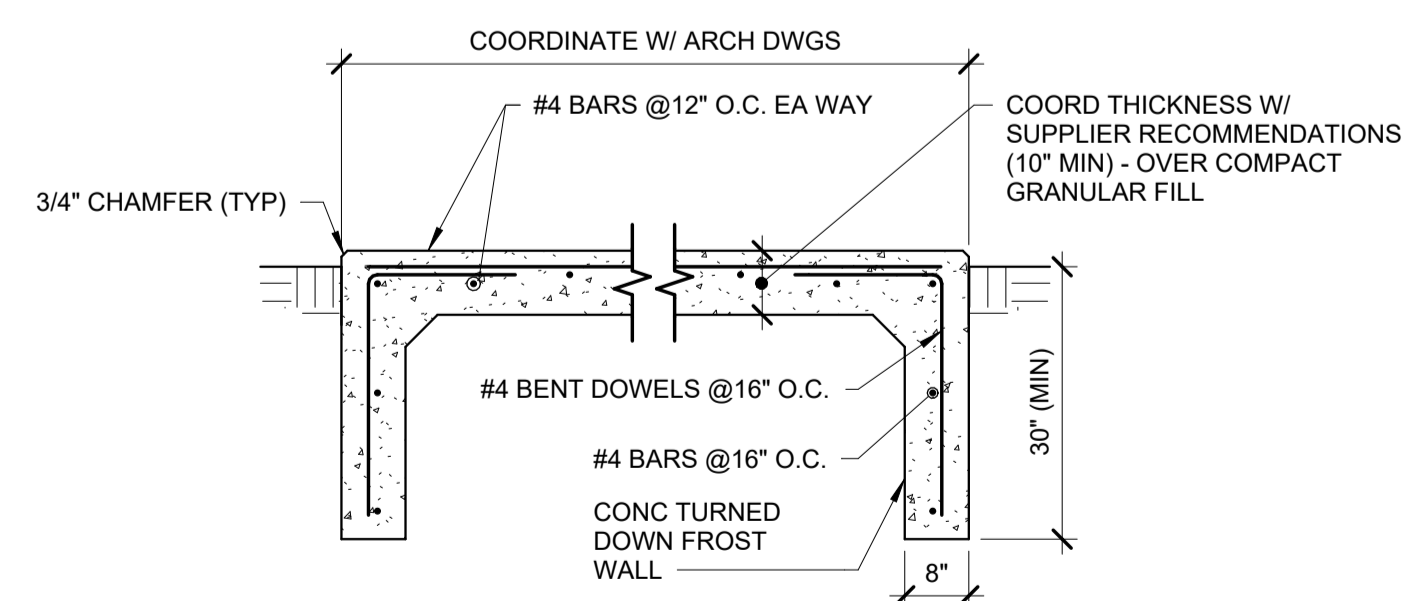
1 TYP MEP PENETRATIONS THROUGH/UNDER FOUNDATION
SCALE: N.T.S.



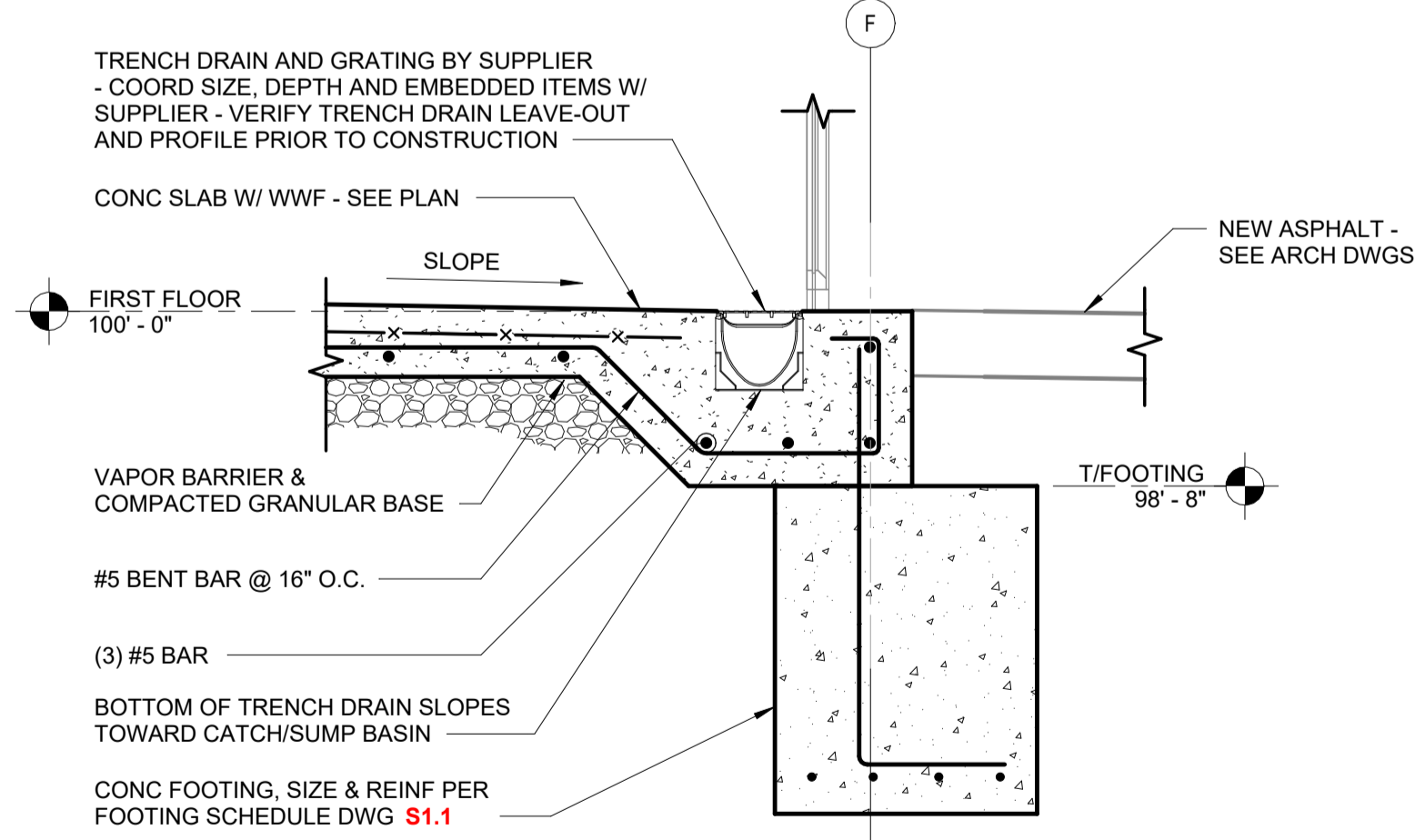
2 TYPICAL CONCRETE APRON & FROST WALL DETAIL
SCALE: N.T.S.



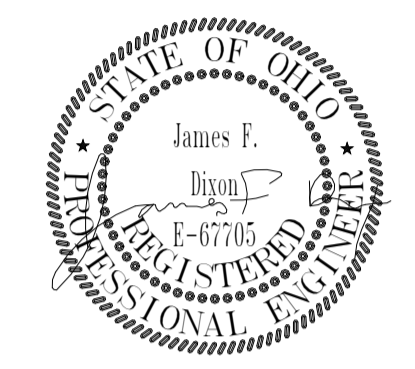
3 TYPICAL HOUSEKEEPING PAD - INTERIOR
SCALE: N.T.S.



4 CONC MECH PAD/TURNED DOWN FROST WALL
SCALE: N.T.S.



5 SECTION
3/4" = 1'-0"

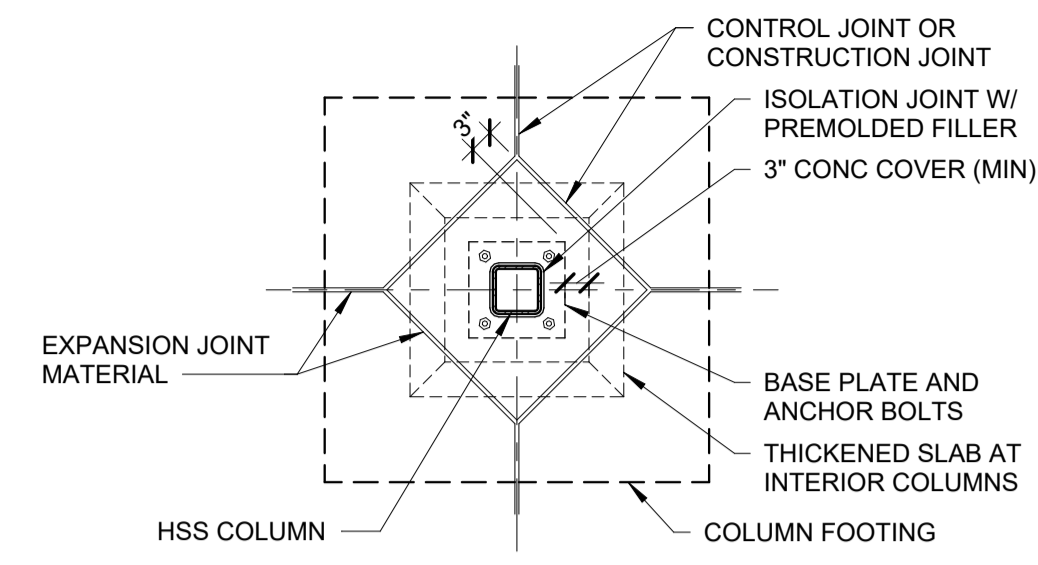


ISSUE		
NO.	DATE	DESCRIPTION
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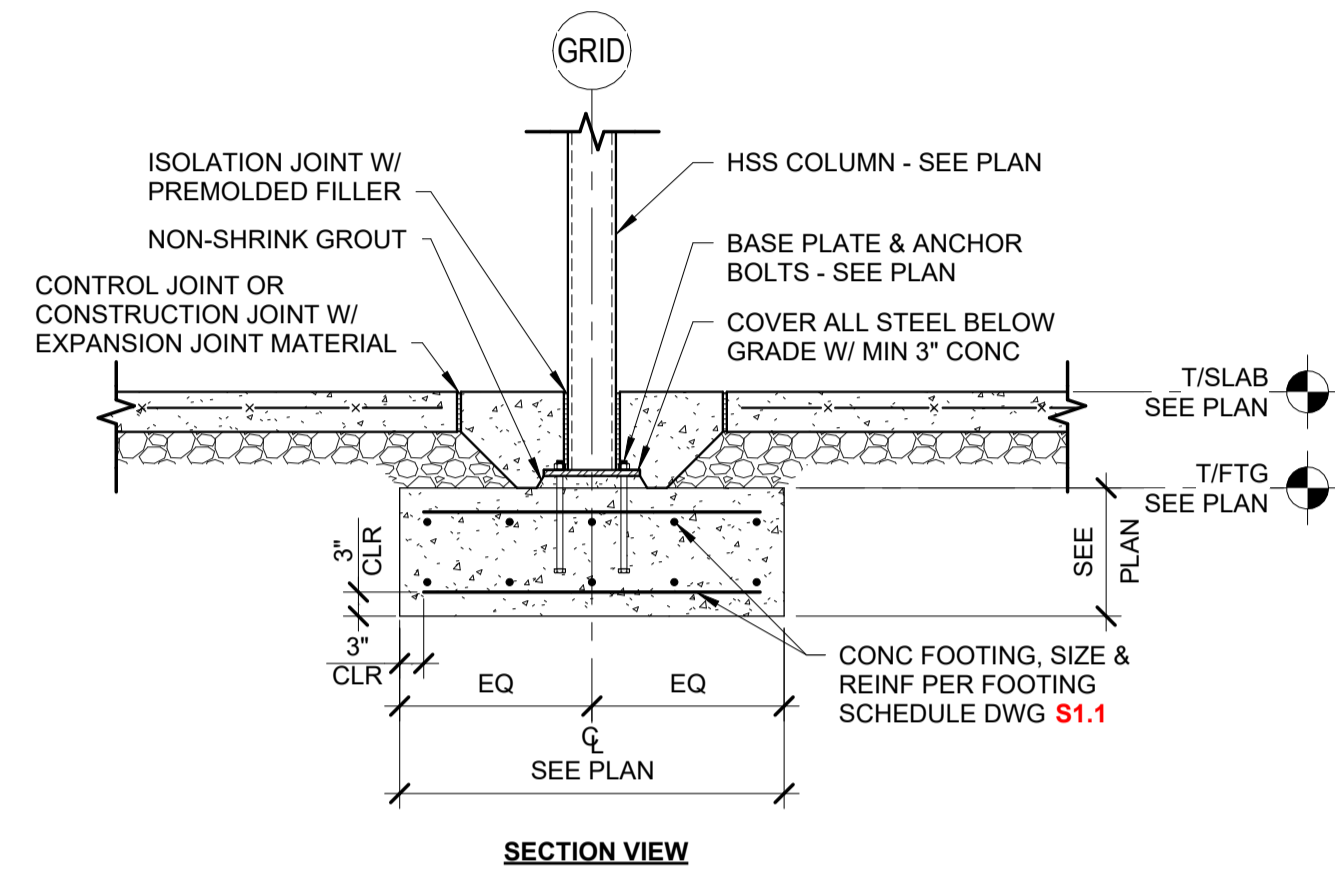
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SHEET NO.
S6.2

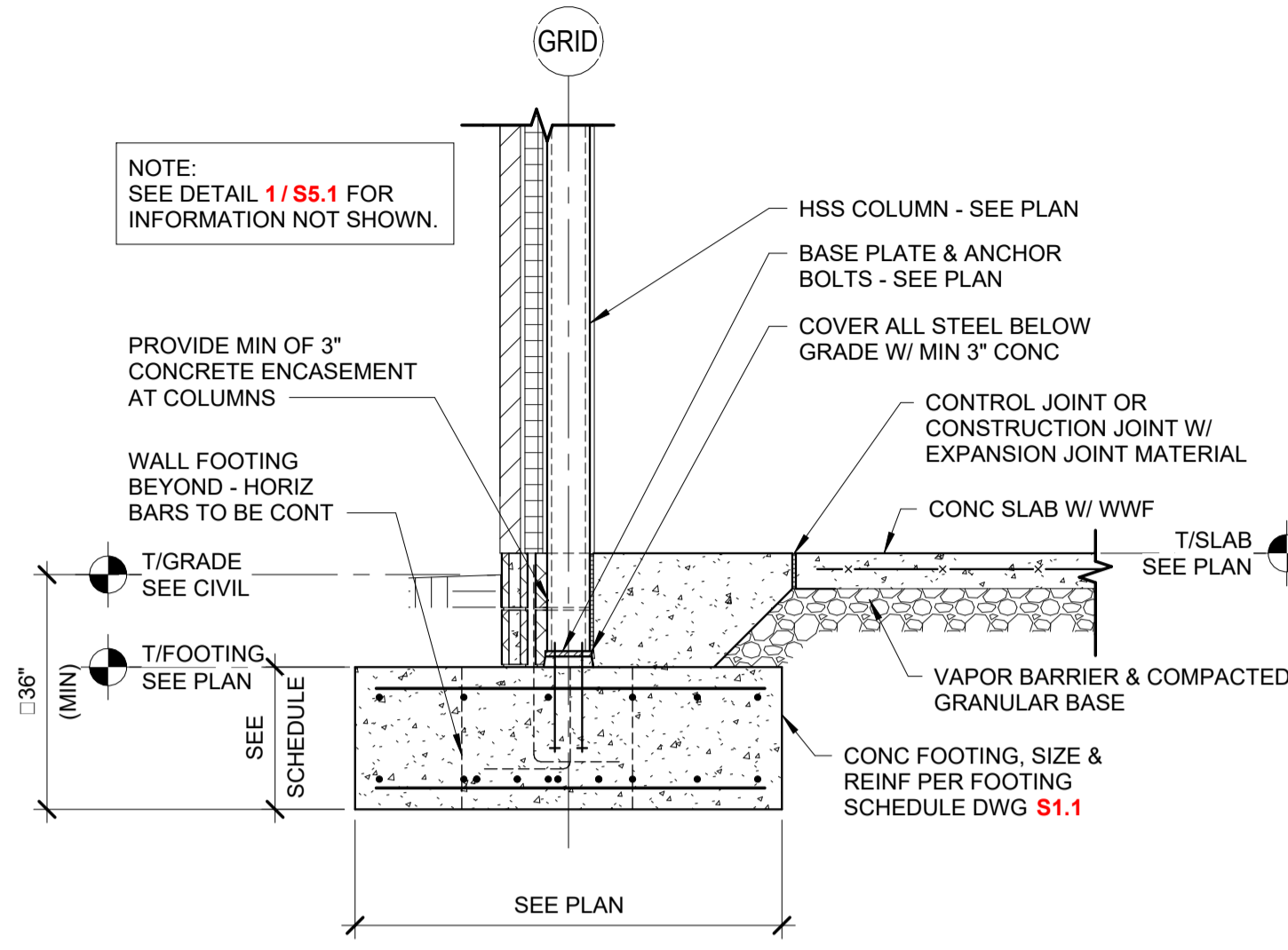


PLAN VIEW

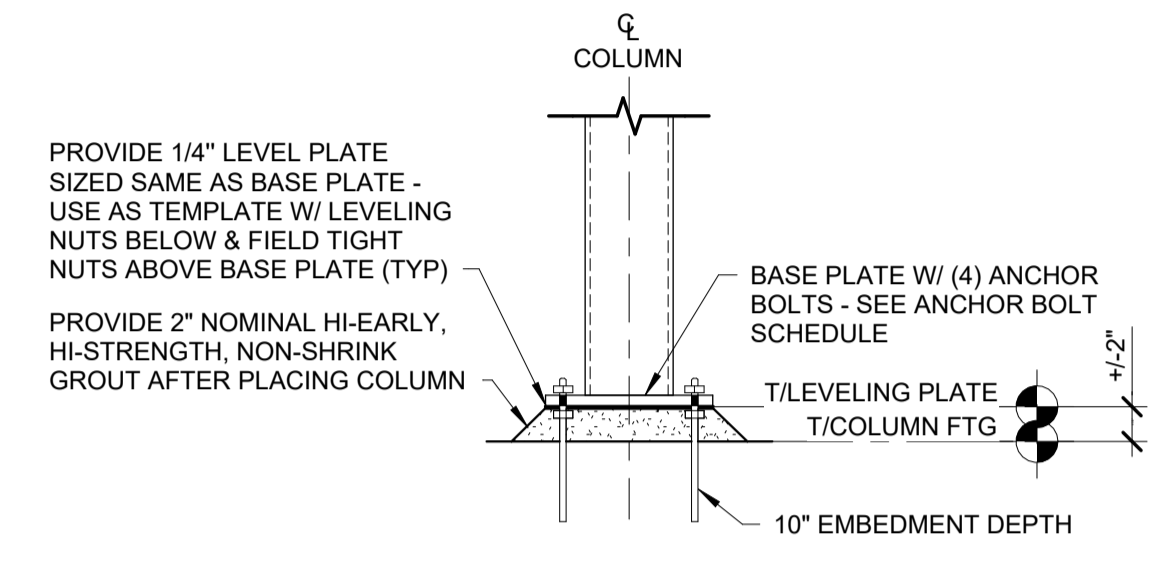


SECTION VIEW

1 TYPICAL COLUMN FOOTING - INTERIOR
1/2" = 1'-0"

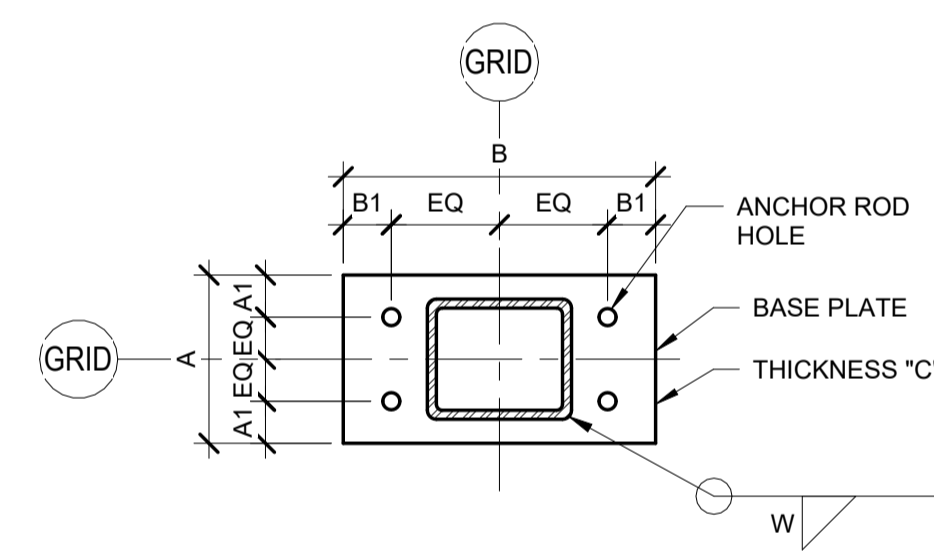


2 TYPICAL COLUMN FOOTING - EXTERIOR WALL AT COLUMN
1/2" = 1'-0"

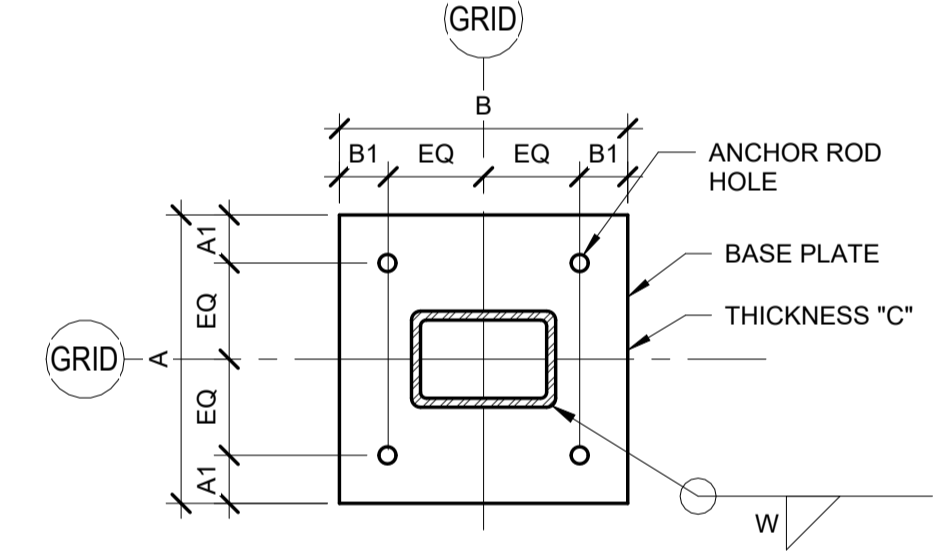


3 TYPICAL COL BASE PLATE/ANCHOR BOLTS
SCALE: N.T.S.

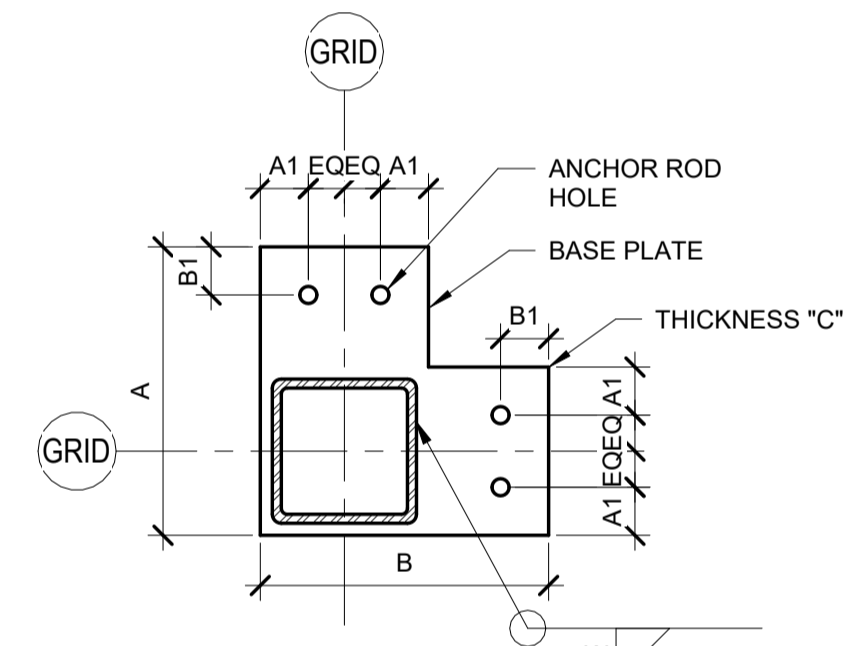
BASE PLATE (BP1 & BP2) SCHEDULE								
MARK	PLATE SIZE			HOLE LOCATION		WELD (W)	ANCHOR ROD (AR)	REMARKS
	A (IN)	B (IN)	C (IN)	A1 (IN)	B1 (IN)			
BP1	7	13	3/4	1 3/4	2	5/16	AR1	C3
BP2	12	12	3/4	2	2	5/16	AR1	C1, C2
BP3	12	12	3/4	2	2	5/16	AR1	C4



BASE PLATE (BP1) PLAN

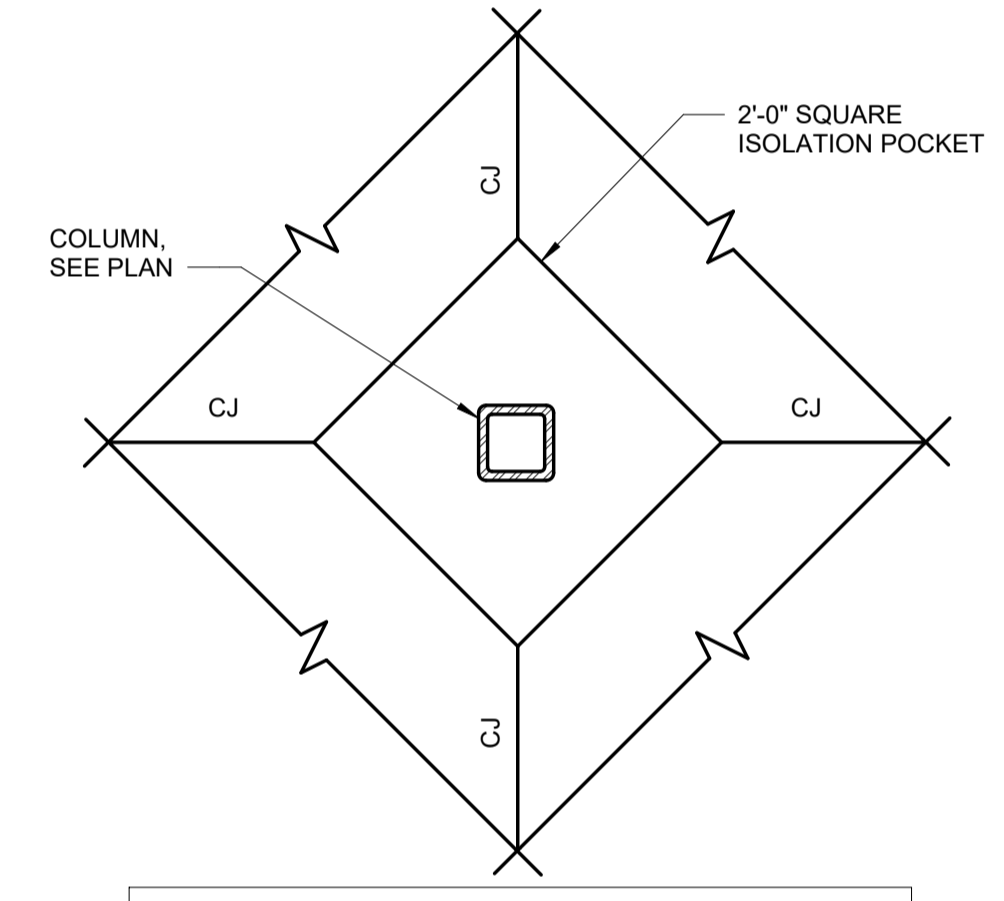


BASE PLATE (BP2) PLAN



BASE PLATE (BP3) PLAN

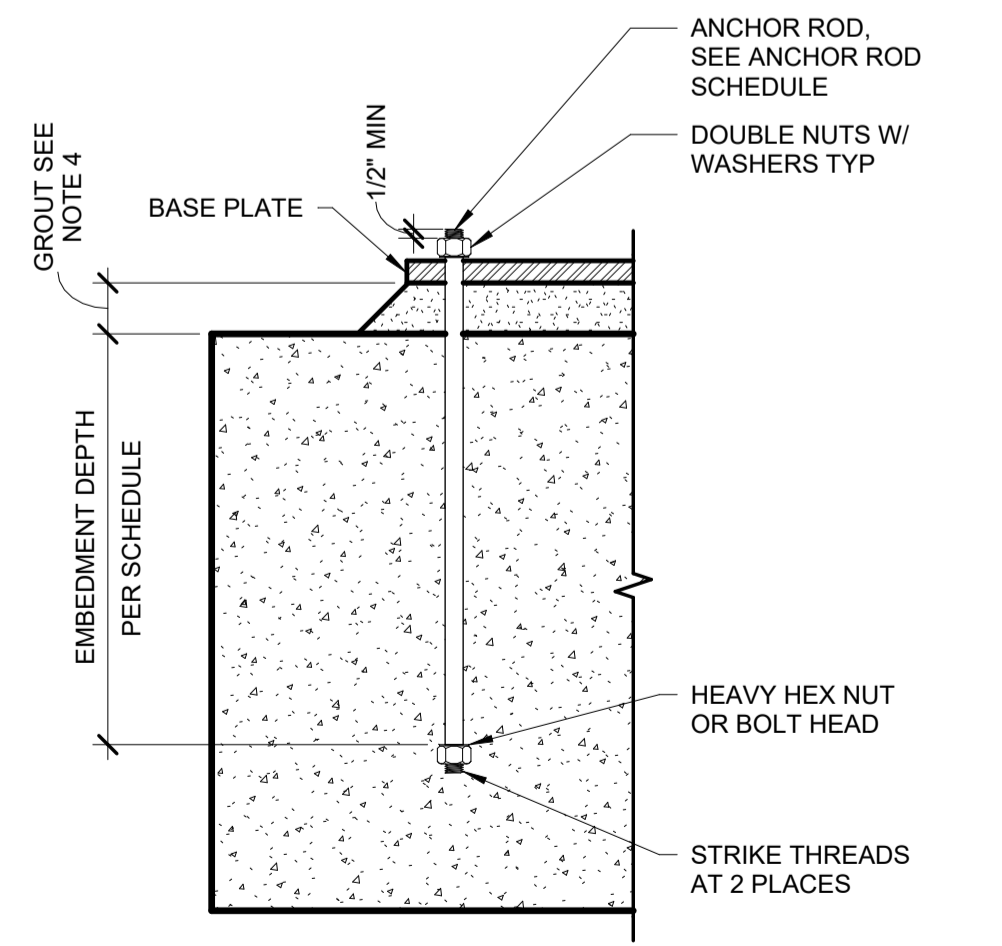
4 BASE PLATE DETAIL
SCALE: N.T.S.



5 TYP ISOLATION POCKET
SCALE: N.T.S.

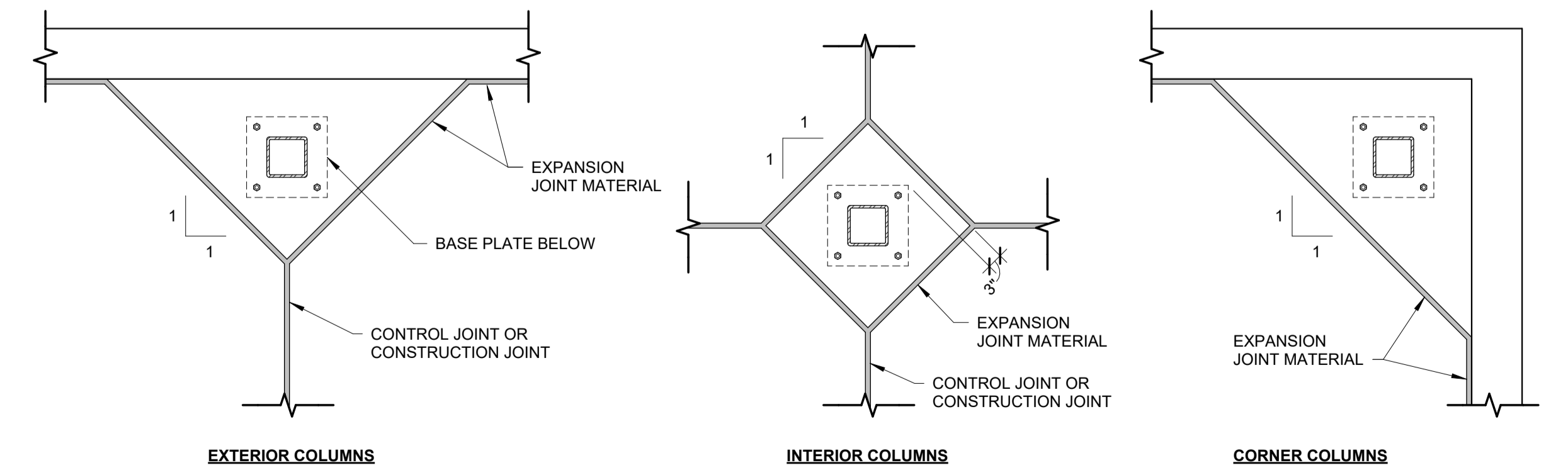
ANCHOR ROD (AR) SCHEDULE				
MARK	DESCRIPTION	EMBEDMENT (L)	WASHER PLATE (WP)	ANCHOR CASE
AR1	3/4" DIA. F1554 GR36	12"	PL 1/2" x 3" x 3"	CASE 1

- (AR) NOTES**
- UNLESS NOTED OTHERWISE, ALL RODS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC AFTER THE CONCRETE IS AT LEAST 14 DAYS OLD
 - OVERSIZED HOLE ALLOWED IN BASE PLATE ONLY. HOLE IN THE WASHER PLATE (WP) SHALL BE 1/16" MAXIMUM OVERSIZED
 - DEEPEN FOOTING LOCAL TO ANCHOR ROD AS REQ'D TO MAINTAIN 3" CLEAR COVER
 - FOR ANCHOR ROD DIAMETER LESS THAN OR EQUAL TO 1 1/2" USE 2" MIN GROUT THICKNESS. FOR ANCHOR ROD DIAMETER LESS THAN OR EQUAL TO 2 1/2" USE 3" MIN GROUT THICKNESS.
 - ALL GROUT HOLES IN BASE PLATE SHALL BE AUTHORIZED WITH ENGINEER.

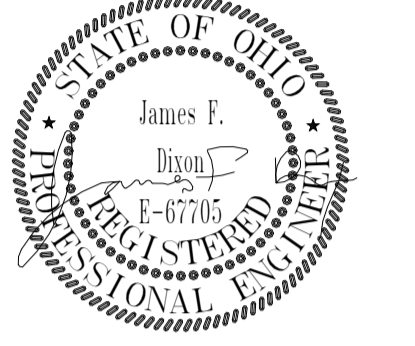


ANCHOR (CASE 1)

6 ANCHOR ROD (AR) DETAIL
SCALE: N.T.S.



7 TYPICAL ISOLATION JOINTS
SCALE: N.T.S.



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