

DESIGN

BUILDING CODE: INTERNATIONAL BUILDING CODE 2018 (IBC) W/ GEORGIA AMENDMENTS

RISK CATEGORY: II

WIND:

V_W = 113 MPH (3-SECOND GUST)
V_H = 88 MPH (3-SECOND GUST)
EXPOSURE CATEGORY: B
COMPONENTS AND CLADDING: COMPONENTS AND CLADDING ELEMENTS NOT SPECIFICALLY DESIGNED ON THESE DRAWINGS SHALL BE DESIGNED ACCORDING TO THE WIND PRESSURES STIPULATED BY IBC 2018 FOR THE TRIBUTARY AREA OF THE SPECIFIC COMPONENT.

MIN DESIGN PRESSURE = 24.0 PSF (WALLS, 100 SQ FT, NON-END ZONE)

MAIN WIND LATERAL LOADS
AREA A/D BASE SHEAR N/S = 40 KIPS E/W = 50 KIPS
AREA B BASE SHEAR N/S = 15 KIPS E/W = 11 KIPS

SNOW:

GROUND SNOW LOAD = 5 PSF
S_e = 11
FLAT ROOF SNOW LOAD = 5 PSF
SNOW EXPOSURE FACTOR C_e = 1.0 SNOW THERMAL FACTOR C_t = 1.0

SEISMIC
S_s = 0.19 S₁ = 0.086 S_{ds} = 0.166 S_{d1} = 0.086
I_e = 1.25 R = 10
C_s = 0.085
SITE CLASS = C
SEISMIC DESIGN CATEGORY = B

ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE
SEISMIC RESISTING SYSTEM

N/S DIRECTION: BEARING WALL/INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
R = 3/12 Ω_e = 2/12 C_d = 2/14

E/W DIRECTION: BEARING WALL/INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
R = 3/12 Ω_e = 2/12 C_d = 2/14

AREA A/D BASE SHEAR N/S = 30 KIPS E/W = 86 KIPS
AREA B BASE SHEAR N/S = 14.5 KIPS E/W = 16 KIPS

SHEET INDEX

51.00	STRUCTURAL NOTES
51.01	STRUCTURAL NOTES
52.00	AXONOMETRIC VIEW AND KEY PLAN
52.01	AREA 'A' FOUNDATION PLAN
52.02	AREA 'B' FOUNDATION PLAN
52.03	AREA 'C' FOUNDATION PLAN
52.04	AREA 'D' FOUNDATION PLAN
53.00	UPLIFT AND FASTENING DIAGRAMS
53.01	AREA 'A' TRACK FRAMING PLAN
53.02	AREA 'D' FLOOR AND LOW ROOF FRAMING PLAN
53.03	AREA 'A' H ROOF FRAMING PLAN
53.04	AREA 'B' ROOF FRAMING PLAN
53.05	AREA 'C' ROOF FRAMING PLAN
53.06	AREA 'D' H ROOF FRAMING PLAN
54.01	SECTIONS AND DETAILS
54.02	SECTIONS AND DETAILS
54.03	SECTIONS AND DETAILS
54.04	SECTIONS AND DETAILS
54.05	SECTIONS AND DETAILS
54.06	SECTIONS AND DETAILS
54.07	SECTIONS AND DETAILS
54.08	SECTIONS AND DETAILS
54.09	SECTIONS AND DETAILS
55.01	TYPICAL SECTIONS & DETAILS
55.02	TYPICAL SECTIONS & DETAILS
55.03	TYPICAL SECTIONS & DETAILS

MISCELLANEOUS

1. THE FOLLOWING NOTES APPLY TO ALL PROJECT RELATED STRUCTURAL DRAWINGS. THIS INCLUDES THESE DRAWINGS, FIELD SKETCHES AND RESPONSES TO REQUESTS FOR INFORMATION (RFIs), UNLESS OTHERWISE INDICATED.

2. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

3. STRUCTURAL DRAWINGS SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING PERTINENT ASPECTS OF ALL DISCIPLINES INTO THEIR SHOP DRAWINGS AND WORK, AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR OMISSIONS.

4. NO OPENINGS OR MODIFICATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT.

5. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT.

6. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL DESIGN ADEQUACY, SAFETY AND STABILITY OF TEMPORARY BRACING AND SHORING THAT MAY BE REQUIRED AS A RESULT OF THE CONTRACTORS CONSTRUCTION METHODS AND/OR SEQUENCES. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURAL FRAMING. APPLIED CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF ANY STRUCTURAL BUILDING ELEMENT.

7. THE CONTRACTORS CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION LIFECYCLE.

8. DO NOT SCALE THESE DRAWINGS. USE DIMENSIONS FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS. SEE ARCHITECTURAL DRAWINGS.

9. THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD. REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC. UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION AND THE ARCHITECT HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.

10. WHERE A SECTION OR DETAIL IS CUT ON THE PLAN, IT IS UNDERSTOOD TO BE REPRESENTATIVE OF ALL LIKE OR SIMILAR CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.

11. AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOBSITE INCLUDING SAFETY OF PERSONS AND PROPERTY. THE ARCHITECT'S OR ENGINEER'S PRESENCE AT THE JOB SITE FOR REVIEW OF WORK DOES NOT IMPLY CONFORMATION OF THE ADEQUACY OF THE CONTRACTORS MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLIANCE WITH OSHA REGULATIONS.

12. CONSULT ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATION, SIZES, AND EXTENT OF CHASES, INSERTS, RECESSES, RIDGES, FINISHES, DEPRESSIONS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS.

13. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER OF RECORD IN WRITING OF ALL CONDITIONS ENCOUNTERED IN THE FIELD THAT ARE CONTRADICTORY TO THOSE SHOWN ON THE STRUCTURAL DRAWINGS.

14. STRUCTURAL CONTRACT DOCUMENTS SHALL NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR ANY MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR OR SUBCONTRACTOR.

15. REFERENCE TO STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD, CODE, SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AND PUBLISHED AT THE DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.

16. SEE ARCHITECTURAL DRAWINGS FOR FLOOR ELEVATIONS, SLOPE, AND LOCATION OF DEPRESSIONED FLOOR AREAS. THE CONTRACTOR SHALL COMPARE STRUCTURAL SECTIONS WITH THE ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATING OR INSTALLING STRUCTURAL MEMBERS.

17. PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. OPENINGS 1'-4" IN WIDTH OR LENGTH (AND LESS) ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. THE GENERAL CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL REQUIRED OPENINGS. ALL MECHANICAL OPENING LOCATIONS, UNIT OPERATING WEIGHTS, AND SIZES SHALL BE VERIFIED WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION. ANY DEVIATION FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION FOR APPROVAL.

18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES IN ORDER TO COMPLY WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.

SUBMITTALS

1. STRUCTURAL DRAWINGS GIVE REPRESENTATIVE DETAILS AND ARE NOT INTENDED TO SHOW ALL CONDITIONS THAT MAY BE PRESENT. SHOP DRAWINGS SHALL DETAIL ALL CONDITIONS IN ACCORDANCE WITH THE SPECIFIC REQUIREMENTS AS INDICATED IN THE PROJECT DOCUMENTS.

2. REVIEW OF SUBMITTALS OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER OF RECORD DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE STRUCTURAL ENGINEER OF RECORD. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.

3. COMPLETE SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL FABRICATED AND SPECIALTY BUILDING COMPONENTS INCLUDING (BUT NOT LIMITED TO) EXTERIOR CORNERS, AWNINGS, STAIRS, WINDOWS, AND CANOPY SYSTEMS. SHOP DRAWINGS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF GEORGIA. ALL SIGNED AND SEALED DRAWINGS SHALL BE SUBMITTED TO GWINNETT COUNTY BUILDING PLANNING REVIEW FOR REVIEW AND APPROVAL.

4. ALL APPROVED SUBMITTALS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, SHALL BE MADE AVAILABLE ON THE JOBSITE FOR REVIEW BY THE INSPECTOR.

5. REPRODUCTION OF CONTRACT DOCUMENTS FOR USE AS SHOP DRAWINGS IS NOT PERMITTED.

FOUNDATIONS

1. SPREAD FOOTINGS SHALL BEAR ON SOL CAPABLE OF SUSTAINING AN ASSUMED NET ALLOWABLE BEARING PRESSURE OF 3.0 KSF FOR ALL INDIVIDUAL FOOTINGS.

2. THE SITE SHALL BE PREPARED IN ACCORDANCE WITH CIVIL DRAWINGS, PROJECT SPECIFICATIONS, AND GEOTECHNICAL ENGINEERING REPORT, DIACULA PARK ACTIVITY CENTER EXPANSION, 2375 ALBURN AVE, DIACULA, GWINNETT COUNTY, GA BY EGS SOUTH-EAST, LLP, EGS PROJECT NUMBER 1010273 AND DATED MAY 15, 2020. A QUALIFIED GEOTECHNICAL ENGINEER SHALL VERIFY ALL ASSUMPTIONS AND REPORT ANY VARIATIONS OR DISCREPANCIES TO THE ENGINEER.

3. THE FOOTINGS HAVE BEEN POSITIONED AT THE ESTIMATED ELEVATION WHICH WILL PROVIDE SUITABLE BEARINGS. HOWEVER, IF ADEQUATE BEARING CAPACITY IS NONEXISTENT AT THESE ESTIMATED ELEVATIONS, THE FOOTING SHALL BE LOWERED TO AN ELEVATION WHERE THE PRESUMED SAFE BEARING CAPACITY EXISTS (AS RECOMMENDED BY A QUALIFIED GEOTECHNICAL ENGINEER).

4. FOOTINGS MAY BE CAST INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.

5. EXCAVATION FOR FOOTINGS SHALL BE CUT TO ACCURATE SIZE AND DIMENSIONS AS SHOWN ON PLANS. ALL SOIL BELOW SLABS AND FOOTINGS SHALL BE PROPERLY COMPACTED AND SUBGRADE BROUGHT TO A REASONABLE TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE.

6. IN AREA OF THE BUILDING, EXISTING ORGANIC MATERIAL, UNSUITABLE SOIL, ABANDONED FOOTINGS AND ANY OTHER EXISTING UNSUITABLE MATERIALS SHALL BE REMOVED. REFER TO REPORT OF GEOTECHNICAL EXPLORATION, AS REFERENCED IN NOTE 2, FOR FULL MATERIAL PLACEMENT REQUIREMENTS.

7. FOOTING CONCRETE SHALL BE CAST ON THE SAME DAY THE EXCAVATION IS APPROVED. IF THE BEARING SURFACE IS ALLOWED TO BECOME DISTURBED IN ANY WAY, IT SHALL BE REMOVED TO THE SATISFACTION OF AN INDEPENDENT TESTING AGENCY PRIOR TO CASTING OF THE CONCRETE.

8. ALL EXCAVATIONS AND STRUCTURE BEARING PADS SHALL BE INSPECTED BY AN INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL.

9. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 1'-0" BELOW FINAL GRADE FOR FROST PROTECTION.

10. NO EXCAVATION SHALL BE CLOSER THAN AT A SLOPE OF 2:1 (2 HORIZONTAL TO 1 VERTICAL) TO A FOOTING. PROVIDE SHORING AND PROTECTION FOR EXCAVATION BANKS AS NECESSARY TO PRESERVE SAFETY AND PREVENT CAVING.

11. ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED.

12. BACKFILL AGAINST WALLS SHALL BE PLACED IN 8" LIFTS AND SHALL BE DEPOSITED EVENLY AGAINST EACH SIDE OF WALL UNTIL THE LOWER FINAL GRADE IS REACHED. BACKFILL SHALL NOT BE PLACED AGAINST WALLS DEPENDANT UPON TOP AND BOTTOM SLABS FOUNDATION FOR SUPPORT UNTIL SUCH SLABS HAVE ATTAINED MINIMUM SUPPORT BRACING AND SHORING FOR ALL WORK DURING THE CONSTRUCTION PROCESS. RETAINING WALLS ARE NOT DESIGNED TO CANTILEVER AT ANY TIME UNLESS EXPLICITLY NOTED ON DRAWINGS.

13. THE CONTRACTOR SHALL PROVIDE AN ADEQUATE DRAINAGE SYSTEM FOR ALL BACKFILL CONDITIONS PER CIVIL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

14. COLUMN FOOTINGS AND WALL FOOTINGS SHALL BE POLURED MONOLITHIC WITH TOPS OF ADJACENT FOOTINGS AT THE SAME ELEVATION.

15. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ANY FOOTING WITHOUT PRIOR WRITTEN APPROVAL FROM ENGINEER.

CONCRETE

1. ALL CONCRETE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318-14 AND ACI 308-10.

2. CEMENT USED SHALL BE TYPE I OR II CONFORMING TO ASTM C-150. CONCRETE SHALL DEVELOP A MINIMUM 28 DAY STRENGTH AND DENSITY AS FOLLOWS:

	STRENGTH (PSI)	DENSITY (PCF)
FOOTINGS	3000	145 - 150
INTERIOR 4" SLAB ON GRADE	3000	145 - 150
INTERIOR 6" SLAB ON GRADE	3000	145 - 150
EXTERIOR 6" SLAB ON GRADE	4000	145 - 150
ELEVATED SLAB-ON-DECK	3000	10 - 15

3. AGGREGATE SHALL BE WELL GRADATED AND SHALL CONFORM TO THE FOLLOWING:

FOOTINGS, PERS. SLAB-ON-GRADE SLAB ON GRADE 6 WALLS (DENSITY 145 - 150 PCF)	1 1/2" COARSE AGGREGATE (ASTM C-330)
ELEVATED SLAB-ON-DECK	3/4" COARSE AGGREGATE (ASTM C-330)

4. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW IN ADVANCE OF CONCRETE PLACEMENT. CONCRETE MIX DESIGN SHALL INCLUDE ALL STRENGTH DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECIFICATIONS BY EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD AND SHALL BE CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA. RESULTS OF ALL COMPRESSIVE STRENGTH TEST SHALL BE MADE AVAILABLE AT THE JOB SITE FOR REVIEW BY THE INSPECTOR.

5. ALL MIXING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE.

6. NO ADDITIONAL WATER SHALL BE ADDED TO CONCRETE AT THE JOB SITE.

7. MINIMUM CONCRETE COVER UNLESS NOTED OTHERWISE	
A. #11 BARS AND SMALLER	3/4 INCHES
B. UNFORMED SURFACE IN CONTACT WITH THE GROUND	3 INCHES
C. FORMED SURFACES EXPOSED TO EARTH OR WEATHER	
16 BARS AND LARGER	2 INCHES
16 BARS AND SMALLER	1 1/2 INCHES
D. FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER	
BEAMS, GIRDERS AND COLUMNS	1 1/2 INCHES
SLABS, WALLS, AND JOISTS	3/4 INCHES

8. SLAB-ON-GRADE SHALL BE SAW CUT NO MORE THAN 12 HOURS AFTER CONCRETE HAS BEEN FINISHED. CONTRACTOR TO SUBMIT LAYOUT AND CONSTRUCTION SCHEDULE (BOFT-CUT INTERNATIONAL OR SIM).

9. PLACEMENT OF CONCRETE, COLD WEATHER AND HOT WEATHER PRECAUTIONS, MATERIAL AND PROPORTIONING REQUIREMENTS, REBAR COVER AND DETAILING SHALL CONFORM TO REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE (ACI) 318-14.

10. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS FOR SLAB FINISHES, SLAB DEPRESSIONS, ELEVATIONS AND ENCASED OR EMBEDDED ITEMS.

11. PIPES AND CONDUITS EMBEDDED IN CONCRETE SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
- NO MATERIAL HARMFUL TO CONCRETE (SUCH AS, BUT NOT LIMITED TO, ALUMINUM) IS PERMITTED.
 - NO EMBEDMENT OR PENETRATION WHICH IMPAIRS THE STRUCTURAL STRENGTH OR INTEGRITY IS PERMITTED.
 - CONDUITS AND PIPES SHALL NOT HAVE A DIAMETER THAT EXCEEDS 1/3 THE OVERALL THICKNESS OF THE STRUCTURAL ELEMENT IN WHICH THEY ARE EMBEDDED.
 - MINIMUM CENTER TO CENTER SPACING SHALL NOT BE CLOSER THAN 3 DIAMETERS OR WIDTHS.
 - PLACEMENT SHALL OCCUR ABOVE BOTTOM LAYER OF REINFORCEMENT AND BELOW TOP LAYER OF REINFORCEMENT AND SHALL NOT CAUSE REINFORCEMENT TO BE CUT, BENT OR DISPLACED IN ANY MANNER.
 - PLACEMENT SHALL MAINTAIN A MINIMUM CLEARANCE FROM REINFORCEMENT OF 3" REINFORCING BAR DIAMETERS OR 3/4" FROM WELDED WIRE FABRIC REINFORCEMENT.
 - PLUMBING AND ELECTRICAL CONDUITS SHALL BE PLACED BELOW SLAB ON GRADE.

12. UNLESS NOTED OTHERWISE, PROVIDE CONTROL JOINTS IN SLABS ON GRADE NOT TO EXCEED 15 FEET ON CENTER IN EACH DIRECTION, UNLESS OTHERWISE APPROVED BY THE STRUCTURAL ENGINEER.

13. FORMING SHALL BE OF WOOD, STEEL, OR FIBERGLASS OF SATISFACTORY QUALITY AND CONDITION.

14. NO ADMIXTURES SHALL BE ADDED TO THE CONCRETE UNLESS APPROVED BY THE ENGINEER.

15. REINFORCING SHALL CONFORM TO ASTM A615, GR60 UNLESS NOTED OTHERWISE.

16. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 GRADE 60.

17. REINFORCING STEEL AND ACCESSORIES SHALL BE DETAILED IN ACCORDANCE WITH ACI 315 (MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES) AND CRSI M54.1 (MANUAL OF STANDARD PRACTICE), LATEST EDITION.

18. ALL CONTINUOUS REINFORCEMENT SHALL HAVE MINIMUM LAP OF 3' TYPE (ACI 318-14, CHAPTER 25) AT SPLICES UNLESS NOTED OTHERWISE. SEE 11/55.01 FOR SCHEDULE.

19. PROVIDE REINFORCING CHAIRS FOR ALL SLAB-ON-GRADE REINFORCING.

20. SUBMIT REINFORCING PLACEMENT AND DETAIL (SHOP) DRAWINGS FOR REVIEW. NO REINFORCING BARS SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.

21. ALL REINFORCING SHALL BE SUPPORTED IN FORMS SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER IN ACCORDANCE WITH CRSI MANUAL OF STANDARD PRACTICE (27TH EDITION).

22. WHERE WELDED WIRE FABRIC REINFORCEMENT IS SPECIFIED IN SLABS ON GRADE, PLACEMENT SHALL BE 1" BELOW TOP OF SLAB, OVERLAP EACH REINFORCING SHEET TWO FULL PANELS AND TIE CROSS WIRES ON EACH SIDE.

23. SCHEDULED OR DETAILED REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. WELDED REINFORCING STEEL AND/OR SPLICES ARE PERMITTED ONLY WHERE SHOWN ON DRAWINGS. WHERE WELDING IS PERMITTED IT SHALL CONFORM TO AWS D14, STRUCTURAL WELDING CODE - REINFORCING STEEL.

24. BASE PLATES, ANCHOR RODS, SUPPORT ANGLES, ETC. BELOW GRADE SHALL BE COVERED WITH A MINIMUM OF 4" OF CONCRETE.

25. WHERE FOOTINGS, WALLS, OR OTHER STRUCTURAL ELEMENTS INTERSECT, CORNER OR TEE, PROVIDE CORNER BARS WITH REQUIRED LAP LENGTHS TO PROVIDE CONTINUITY OF HORIZONTAL STEEL REINFORCING UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL

DESIGN CODE
AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - 15TH EDITION (AISC)

1. STEEL SHALL CONFORM TO THE FOLLOWING GRADSES:	
STRUCTURAL WASHES	ASTM A992 (F _y =50ksi)
ALL CHANNELS, ANGLES, PLATES, ETC. (UNQ)	ASTM A36 (F _y =36ksi)
STRUCTURAL TUBES	ASTM A500 GRADE C (F _y =50ksi)
STEEL PIPE	ASTM A601 (F _y =36ksi)
ANCHOR RODS	ASTM F1554 (F _y =55ksi)
HIGH STRENGTH BOLTS	ASTM A193
HEX NUTS - GRADE A	ASTM A563
WELDING ELECTRODES	ETON HARDBOND STEEL
WASHERS - TYPE I	ASTM F436

2. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE (2016) EXCEPT AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS.

3. THE STEEL STRUCTURE IS A NON-SELF-SUPPORTING STEEL FRAME AND IS DEPENDENT UPON DIAPHRAGM ACTION OF THE METAL ROOF DECK AND ATTACHMENT TO THE MASONRY WALLS AND METAL STUD SHEAR WALLS FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES. PROVIDE ALL TEMPORARY SUPPORTS REQUIRED FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES UNTIL THESE ELEMENTS ARE COMPLETE AND ARE CAPABLE OF PROVIDING THIS SUPPORT.

4. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF ALL CONNECTIONS SHOWN ON THE STRUCTURAL DRAWINGS. CONNECTIONS SHOWN ARE SCHEMATIC AND ARE ONLY INTENDED TO SHOW THE RELATIONSHIP OF MEMBERS CONNECTED. CONNECTION DETAILS INDICATED ON THE DRAWINGS SHALL BE INCORPORATED INTO FABRICATORS CONNECTION DESIGN ONLY AS THEY ARE DEEMED APPROPRIATE AND ADEQUATE. BOLTED CONNECTIONS SHALL BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH AISC 15TH EDITION SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS.

5. SPLACING OF STEEL MEMBERS UNLESS SHOWN ON THE DRAWINGS IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE ARCHITECT.

6. NO HOLES SHALL BE CUT IN ANY STEEL ELEMENT UNLESS THEY ARE DETAILED ON THE DRAWINGS.

7. UNLESS NOTED OTHERWISE, BEAMS SHALL BEAR 8" MINIMUM ON CONCRETE OR MASONRY. ANCHOR BEAMS TO MASONRY WITH TWO 3/8" DIAMETER ANCHOR RODS WITH 1'-0" EMBEDMENT INTO GROUT FILLED MASONRY.

8. WHERE BEAMS INTERSECT AT THE TERMINATING ELEVATION OF A COLUMN, THE BEAM WITH THE GREATEST REACTION SHALL BEAR ON TOP OF THE COLUMN UNLESS NOTED OTHERWISE ON DRAWINGS. WHERE BEAMS INTERSECT AT THE INTERMEDIATE ELEVATION OF A COLUMN, THE FRAMING BEAMS SHALL BE CONNECTED TO THE COLUMNS WITH A WT CONNECTION. FIN PLATE CONNECTIONS ARE NOT PERMITTED.

9. CONNECTIONS FOR NON-COMPOSITE BEAMS WHICH CANNOT CONFORM TO AISC TYPICAL CONNECTION DETAILS SHALL BE DETAILED IN ACCORDANCE WITH THE FOLLOWING:

- WHERE BEAM REACTIONS ARE NOT SHOWN ON THE DRAWINGS, CONNECTIONS SHALL BE DESIGNED FOR ONE-HALF THE MAXIMUM UNIFORM LOAD WHICH THE BEAM WILL SUPPORT (AS SIMPLE SPAN) FOR THE SPAN SHOWN ON THE DRAWINGS (TABLE 3-6, AISC 14TH EDITION).
- WHERE CONNECTIONS ARE SUBJECT TO ECCENTRICITY, SUCH ECCENTRICITY SHALL BE TAKEN INTO ACCOUNT WHEN DESIGNING THE CONNECTION.
- WHERE CONNECTIONS SUPPORT BEAMS WHICH ARE SUBJECT TO CONCENTRATED LOADS, SUCH CONCENTRATED LOADS SHALL BE TAKEN INTO ACCOUNT WHEN DESIGNING THE CONNECTION.
- BOLTED CONNECTIONS SHALL BE BEARING TYPE WITH A325 BOLTS. MINIMUM DIAMETER OF ALL BOLTS SHALL BE 3/4"; MAX DIA 1 1/8". PROVIDE AT LEAST 2 BOLTS PER CORNER, TIGHTENED SNUG TIGHT.
- END CONNECTIONS OF FLOOR MEMBERS SHALL ACCOMMODATE END ROTATIONS OF SIMPLE, UNRESTRAINED BEAMS. FOR THIS PURPOSE, ELASTIC ACTION IN THE CONNECTION IS PERMITTED.
- COPED OR CUT ENDS OF MEMBERS SHALL BE REINFORCED WHERE REQUIRED TO SUSTAIN THE SPECIFIED REACTIONS.

10. TENSILE CONNECTIONS SHALL BE DESIGNED FOR A FORCE RESULTING FROM MULTIPLYING THE GROSS AREA BY 20 KSI.

11. FABRICATE AND ERECT MEMBERS WITH NATURAL CAMBER UP.

12. STRUCTURAL STEEL CONTRACTOR TO PROVIDE DECK SUPPORT ANGLES AS REQ'D (1/3x3/4 MINIMUM UNQ). THE CONTINUOUS ANGLE AT THE ROOF PERIMETER SHALL BE SPACED SUCH THAT THE FULL TENSION FORCE THAT CAN BE DEVELOPED BY THE ANGLE WILL BE TRANSFERRED THROUGHOUT THE SPLICE.

13. UNLESS OTHERWISE SHOWN ON DRAWINGS, SIZE OF WELDS SHALL NOT BE SMALLER THAN 3/16". ALL WELDED JOINTS SHALL CONFORM TO THE PROVISIONS OF AWS D11, STRUCTURAL WELDING CODE BY AMERICAN WELDING SOCIETY. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE DURING TIMES OF INSPECTION.

14. THE CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL COST, ALL ADDITIONAL STEEL CONNECTIONS, GUNNING, ETC. REQUIRED FOR ERECTION.

15. OBTAIN ALL FIELD MEASUREMENTS REQUIRED FOR PROPER FABRICATION AND INSTALLATION OF WORK PRIOR TO DETAILING. PRECISE MEASUREMENTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

16. PROVIDE STIFFENERS FINISHED TO BEAR UNDER ALL LOAD CONCENTRATIONS ON SUPPORTING MEMBERS, ON ALL MEMBERS FRAMING OVER COLUMNS, AT BEAM COLUMN JOINTS (AS REQUIRED BY THE AISC SPECIFICATIONS) AND WHERE SHOWN ON THE DRAWINGS.

17. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND ELEVATIONS OF LOOSE LINTELS.

18. THE FABRICATOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING ON THE SHOP DRAWINGS, ERRORS IN FABRICATION, AND FOR THE CORRECT FITTING OF STRUCTURAL STEEL MEMBERS.

19. WELDING INSPECTION SHALL MEET REQUIREMENTS AS STATED IN THE SCHEDULE OF SPECIAL INSPECTIONS.

20. ALL STRUCTURAL STEEL NOT RECEIVING FIRE PROOFING SHALL RECEIVE ONE SHOP COAT OF RUST INHIBITIVE PRIMER.

MASONRY

1. ALL MASONRY DESIGN AND CONSTRUCTION SHALL CONFORM TO TMS 402, 403 & 404.2016 ED.

2. MASONRY SHALL BE LIGHTWEIGHT AND HAVE A MINIMUM COMPRESSIVE STRENGTH F_m OF 1900 PSI BASED ON GROSS AREA. MORTAR SHALL CONFORM TO ASTM C270 TYPE S OR M. GROUT SHALL CONFORM TO ASTM C476, WITH A MAXIMUM AGGREGATE SIZE OF 3/8" AND A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.

3. REINFORCING BARS SHALL CONFORM TO ASTM A 615 GRADE 60 UNLESS NOTED OTHERWISE.

4. CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE GALVANIZED LADDER TYPE FABRICATED UNITS WITH A SINGLE PAIR OF 8-GAUGE SIDE RODS AND CROSS RODS FABRICATED FROM COLD DRAWN STEEL WIRE COMPLYING WITH ASTM A62. JOINT REINFORCING SHALL BE SPACED AT 16" O.C. VERTICALLY IN ALL MASONRY WALLS UNLESS NOTED OTHERWISE.

5. VERTICAL CONTROL JOINTS IN MASONRY WALLS ARE NOT INDICATED ON THESE DRAWINGS. HORIZONTAL BOND BEAM AND LINTEL REINFORCING SHALL BE CONTINUOUS ACROSS VERTICAL CONTROL JOINTS. HORIZONTAL JOINT REINFORCING (BURD-O-WALL) SHALL BE TERMINATED ON EITHER SIDE OF VERTICAL CONTROL JOINTS. WALLS SHORTER THAN 15'-0" IN LENGTH SHALL NOT HAVE VERTICAL CONTROL JOINTS.

A. AT EXTERIOR WALLS, SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF VERTICAL CONTROL JOINTS. JOINTS SHALL BE PLACED AT A SPACING NOT TO EXCEED 30'-0" ON CENTER. JOINTS SHALL NOT BE LOCATED CLOSER THAN 2'-6" TO THE JAMBS OF ANY EXTERIOR WALL OPENING. JOINTS SHALL NOT BE LOCATED FURTHER THAN 15'-0" FROM ANY CORNER, NOR CLOSER THAN 5'-0" FROM ANY CORNER.

B. AT INTERIOR SHEAR WALLS, JOINTS SHALL BE PLACED AT A SPACING NOT TO EXCEED 30'-0" ON CENTER. JOINTS SHALL NOT BE LOCATED CLOSER THAN 2'-6" TO THE JAMBS OF ANY SHEAR WALL OPENING. JOINTS SHALL NOT BE LOCATED FURTHER THAN 15'-0" FROM ANY CORNER, NOR CLOSER THAN 5'-0" FROM ANY CORNER.

C. AT INTERIOR NON-SHEAR WALLS, VERTICAL CONTROL JOINTS SHALL BE PLACED AT A SPACING NOT TO EXCEED 30'-0" ON CENTER. JOINTS SHALL BE LOCATED AT WALL JAMBS, WHERE PRACTICAL, AND SHALL STEP 8" HORIZONTALLY AT MASONRY LINTEL LOCATIONS, WHERE WALLS SIT ON TOP OF A CAST SLAB-ON-GRADE. ALIGN WALL CONTROL JOINTS WITH SLAB CONTROL JOINTS. JOINTS SHALL BE LOCATED AT ALL CORNER/TEE INTERSECTIONS WHERE THE LEGS OF EACH CORNER/TEE EXCEED 15'-0" IN LENGTH.

6. ALL REINFORCED CELLS AND ALL CELLS BELOW FINISH FLOOR SHALL BE GROUTED SOLID.

7. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN SIX VERTICAL. DOWELS MAY BE GROUTED INTO A CELL IN VERTICAL ALIGNMENT EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCING.

8. REINFORCING STEEL SHALL BE SECURED IN PLACE BEFORE GROUTING STARTS.

9. VERTICAL BARS SHALL BE HELD IN POSITION WITH PRE-MANUFACTURED TIES AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 200 DIAMETERS OF THE REINFORCING, NOR 10 FEET.

10. VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE A VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL. AREA NOT LESS THAN 2'-1/2" x 3'.

11. GROUTING SHALL BE STOPPED 1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE FOUR JOINT.

STEEL JOISTS (K SERIES)

- STEEL JOISTS SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS, K-SERIES (2015) OF THE STEEL JOIST INSTITUTE (SJI).
- STEEL JOISTS SHALL BE DESIGNED BY THE MANUFACTURER. THE MANUFACTURER'S ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN, ADEQUACY AND SAFETY OF ALL STEEL JOISTS. ALL SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN GEORGIA.
- UNLESS OTHERWISE NOTED, STEEL JOISTS SHALL BE DESIGNED AS SIMPLY SUPPORTED UNIFORMLY LOADED TRUSSES WITH THE TOP CHORD BRACED AGAINST LATERAL BUCKLING. THE UNIFORM DESIGN LOAD SHALL BE THE TOTAL SAFE UNIFORMLY DISTRIBUTED LOAD AS SHOWN IN THE SJI STANDARD LOAD TABLE.
- WHEN NET UPLIFT FORCES DUE TO WIND ARE SHOWN ON THE DRAWINGS, THE MANUFACTURER SHALL DESIGN THE JOISTS, BRIDGING, AND CONNECTIONS OF THE JOISTS TO THE SUPPORTING STRUCTURE FOR THE NET UPLIFT. A SINGLE LINE OF BOTTOM CHORD BRIDGING MUST BE PROVIDED NEAR THE FIRST BOTTOM CHORD PANEL. POINTS WHENEVER UPLIFT DUE TO WIND FORCES IS SHOWN ON THE DESIGN DRAWINGS.
- WHEN NON-UNIFORM OR CONCENTRATED LOADS ARE SHOWN ON THE DRAWINGS, THE MANUFACTURER SHALL DESIGN THE JOISTS IN ACCORDANCE WITH THE SJI STANDARD SPECIFICATION FOR OPEN WEB STEEL JOISTS, K-SERIES.
- STEEL JOIST BRIDGING SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE SJI SPECIFICATION. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE PLACED AND STEEL JOIST ENDS FIXED PRIOR TO THE APPLICATION OF ANY LOADS. BRIDGING THAT TERMINATES AT, OR IS INTERRUPTED BY, STRUCTURAL STEEL BEAMS, MASONRY WALLS OR CONCRETE WALLS SHALL BE ATTACHED THERETO. COORDINATE BRIDGING LOCATIONS TO AVOID INTERFERENCE WITH ALL MECHANICAL, ELECTRICAL, FIRE PROTECTION EQUIPMENT, AND ARCHITECTURAL CONDITIONS.
- MINIMUM BEARING REQUIREMENTS FOR K-SERIES JOISTS, UNLESS NOTED OTHERWISE, SHALL BE 2 1/2" ON STRUCTURAL STEEL AND 4" ON STEEL BEARING PLATES OVER MASONRY OR CONCRETE.
- UNLESS NOTED OTHERWISE, K-SERIES STEEL JOISTS SHALL BE ATTACHED TO SUPPORTING STEEL WORK OR STEEL BEARING PLATE WITH TWO 1/8" FILLET WELDS (ONE EACH SIDE), 2" LENGTH MINIMUM, OR WITH (2) 1/2" DIAMETER BOLTS (ONE EACH SIDE).
- STEEL JOISTS AT COLUMN CENTER LINES SHALL BE BOLTED TO STRUCTURAL STEEL WITH TWO 1/2" DIAMETER BOLTS. WHERE STEEL JOISTS DO NOT SPACE TO COLUMN CENTER LINES, USE BOLTED CONNECTIONS FOR THE STEEL JOIST CLOSEST TO THE CENTERLINE.
- HOLES IN STEEL JOIST CHORDS ARE NOT PERMITTED, EXCEPT FOR BOLTED CONNECTIONS AT THE BEARING END OF THE STEEL JOIST.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING JOIST ANCHORAGE THAT MEETS ALL OSHA REQUIREMENTS.
- ALL ITEMS SUCH AS MECHANICAL EQUIPMENT, DUCT WORK, PPES, CEILING FIXTURES, ETC. THAT ARE TO BE SUPPORTED OR HUNG FROM THE STEEL JOISTS SHALL BE FRAMED WITH AUXILIARY FRAMING TO THE PANEL. POINTS OF THE STEEL JOISTS. METHODS OF FRAMING THAT INDUCE BENDING TO THE STEEL JOIST CHORDS OR WEB MEMBERS WILL NOT BE PERMITTED.
- ALL JOISTS SHALL RECEIVE RUST-INHIBITIVE PRIMER PER PROJECT SPECIFICATIONS.

COLD FORM METAL FRAMING (METAL STUDS)

- METAL STUDS SHALL BE FABRICATED AND ERECTED PER 2016 AISI NORTH AMERICAN SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS.
- UNLESS NOTED OTHERWISE, TRACKS SHALL BE SAME DEPTH AS STUDS AND EQUAL OR THICKER GAUGE THAN STUDS. TRACKS SHALL BE CONNECTED TO SUPPORTS AT 16" OC MAX.
- ALL 43 MIL MATERIAL (AND LESS) SHALL HAVE A MINIMUM YIELD OF 33,000 PSI (UNLESS NOTED OTHERWISE). ALL 34 MIL MATERIAL (AND GREATER) SHALL HAVE A MINIMUM YIELD OF 50,000 PSI (UNLESS NOTED OTHERWISE).
- THE CONTRACTOR SHALL SUBMIT THE FOLLOWING:
 - SHOP DRAWINGS FOR ALL COMPONENTS AND INSTALLATIONS NOT FULLY DIMENSIONED OR DETAILED IN MANUFACTURER'S PRODUCT DATA.
 - PRODUCT CATALOG WITH SECTION AND MATERIAL PROPERTIES OF ALL MATERIAL.
- ALL STUDS AND ACCESSORIES SHALL BE FORMED FROM STEEL, HAVING A HOT-DIPPED, GALVANIZED COATING MEETING ASTM A653 G60 AND G95, U.N.C.
- INSTALLATION:
 - TRACKS:
INSTALL CONTINUOUS TRACKS SIZED TO MATCH STUDS. ALIGN TRACKS ACCURATELY TO LAYOUT AT BASE AND TOPS OF STUDS. PROVIDE FASTENERS AT CORNERS AND END OF TRACKS. ALL TRACK BUTT JOINTS SHALL BE SECURELY ANCHORED TO A COMMON STRUCTURAL ELEMENT, OR THEY SHALL BE BUTT WELDED OR SPICED TOGETHER.
 - WALL STUDS:
SECURE STUDS TO TOP AND BOTTOM RUNNER TRACKS BY SCREW FASTENING AT BOTH INSIDE AND OUTSIDE FLANGES. ATTACH STUDS WITH SUB-TRACK CONNECTION TO UNDERSIDE OF BEAMS TO ALLOW VERTICAL DEFLECTION OF STEEL BEAM (NOT APPLICABLE IN LOAD BEARING APPLICATIONS). AT LOAD BEARING APPLICATIONS, SUB-TRACK CONNECTION SHALL ACCOMMODATE A DEFLECTION OF BEAM SPAN DIVIDED BY 240.
 - SUPPLEMENTARY FRAMING:
PROVIDE BLOCKING AND BRACING IN METAL FRAMING SYSTEM WHEREVER WALL OR PARTITIONS ARE INDICATED TO SUPPORT FIXTURES, EQUIPMENT, SERVICE CASEWORK, HEAVY TRIM AND FURNISHINGS, AND SIMILAR WORK REQUIRING ATTACHMENT TO THE WALL OR PARTITION. WHERE TYPE OF SUPPLEMENTARY SUPPORT IS NOT OTHERWISE INDICATED, COMPLY WITH STUD MANUFACTURER'S RECOMMENDATIONS AND INDUSTRY STANDARDS IN EACH CASE, CONSIDERING WEIGHT OR LOADING RESULTING FROM ITEM SUPPORTED.
 - WALL OPENINGS:
OPENINGS LARGER THAN 2 FEET SQUARE TO BE FRAMED WITH A MINIMUM OF DOUBLE STUDS AT EACH JAMB OR FRAME EXCEPT WHERE MORE ARE REQUIRED.
 - ALL MEMBERS SHALL BE PLUMBED, ALIGNED AND SECURELY ATTACHED TO SUPPORTING MEMBERS.
- ALL SCREWS SHALL BE NON CORROSIVE NO. 12-34 STANDARD SELF DRILLING SCREWS UNLESS NOTED OTHERWISE ON DRAWINGS (DO NOT USE STAINLESS STEEL OR COPPER COATED FASTENERS).
- ALL SCREWS SHALL HAVE A MINIMUM EDGE DISTANCE OF 1" UNLESS NOTED OTHERWISE ON DRAWINGS.
- ALL SCREWS SHALL BE A MINIMUM OF 1" ON CENTER UNLESS NOTED OTHERWISE ON DRAWINGS.
- ALL METAL STUD WALLS SHALL HAVE CONTINUOUS WALL BRIDGING @ 3'-6" OC MAXIMUM. CONTINUOUS BRIDGING MAY CONSIST OF 1 1/2" - 33 MIL STRAPS (2 1/2" - 43 MIL AT WALLS USED AS SHEAR WALLS OR WALLS WITH X STRAP BRACING), AS AN ALTERNATE TO STRAP BRIDGING, FOR 3 5/8" OR 4" STUDS ONLY. PROVIDE 1 1/2" CRC CHANNEL BRIDGING (50-150-54 AT THE CENTERLINE OF STUDS WITH (2) #8 SCREWS PER ANGLE FLANGE.
- CONTINUOUS STUDS EACH SIDE OF HEADERS SHALL BE EQUAL TO THE NUMBER OF THE INTERRUPTED STUDS PLUS ONE STUD AT EACH SIDE. USE MINIMUM OF TWO (2) STUDS EACH SIDE.
- VOIDS BENEATH WALL TRACK SHALL NOT BE PERMITTED. WHERE UNEVENNESS OR SUPPORTING FLOOR PREVENTS CONTINUOUS SOLID BEARING, PANEL OR TRACK SHALL BE LEVELED BY PLACING MORTAR OR GROUT BENEATH TRACK.
- MINIMUM TRACK FASTENING INTO CONCRETE SHALL BE 0.145" DIAMETER POWDER ACTUATED FASTENERS AT 16" OC (UNCL) WITH 3/4" PENETRATION INTO CONCRETE.

METAL ROOF DECK

- THE METAL DECK WORK SHALL CONSIST OF FURNISHING EVERYTHING (LABOR, MATERIALS, ACCESSORIES, EQUIPMENT, ETC.) NECESSARY AND INCIDENTAL TO THE EXECUTION AND COMPLETION OF ALL METAL DECK WORK AS INDICATED AND SPECIFIED ON THE DRAWINGS.
- SUBMIT PLACEMENT AND DETAILED (SHOP) DRAWINGS FOR REVIEW. NO METAL DECK SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.
- METAL DECK SHALL CONFORM TO STEEL DECK INSTITUTES CURRENT STANDARDS.
- METAL DECK SHALL BE OF THE CONFIGURATION, DEPTH AND MINIMUM GAGE AS SHOWN ON THE DRAWINGS. ATTACHMENT TO THE SUPPORTING STRUCTURE SHALL BE AS SHOWN ON THE DRAWINGS AS A MINIMUM. SEE PLAN NOTES.
- DO NOT HANG OR SUPPORT ANY LOADS FROM METAL ROOF DECK.
- WHERE POSSIBLE, METAL ROOF DECK SHALL BE CONTINUOUS OVER A MINIMUM OF 3 SPANS. TWO SPAN DECK SHALL BE USED ONLY WHERE DECK LAYOUT DOES NOT PERMIT THE USE OF THREE SPANS. SINGLE SPAN DECK IS NOT PERMITTED.
- ROOF OPENINGS LESS THAN 6' SQUARE OR DIAMETER REQUIRE NO REINFORCEMENT. OPENINGS 6' TO 10' ACQUISSE SHALL BE REINFORCED WITH A 20 GAUGE GALVANIZED PLATE WELDED TO THE DECK AT EACH CORNER AND 6" MAXIMUM CENTERS WITH A 5/8" DIAMETER RIBBLE WELD OR SHEET METAL SCREWS. SEE DRAWINGS FOR REINFORCEMENT OF OPENINGS LARGER THAN 10'.
- DECK SHALL BE POSITIONED SO THAT A COMPLETE RIB BEARS ON STEEL SUPPORT.

METAL FLOOR DECK

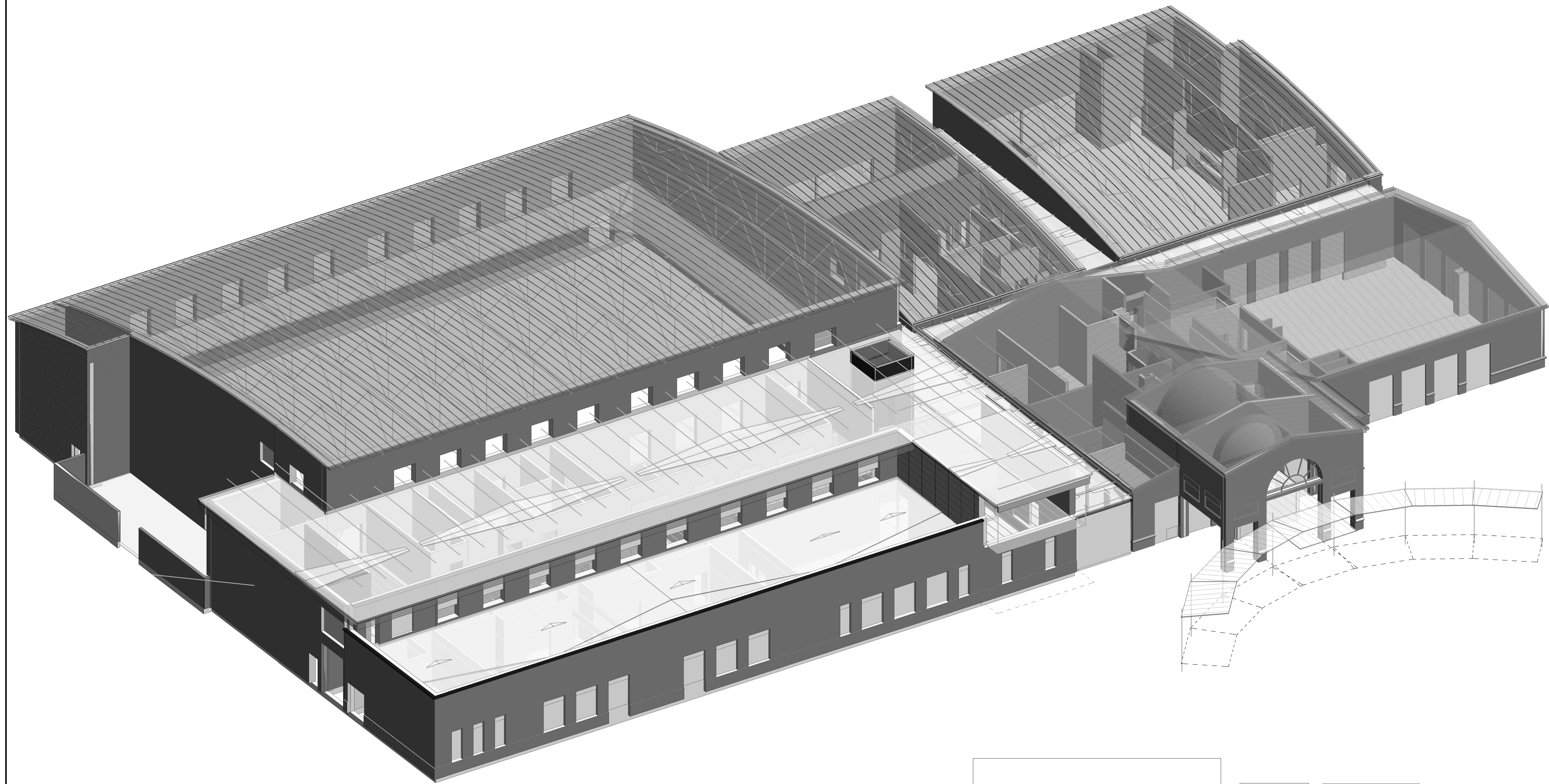
- METAL FLOOR DECK SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE STANDARD FOR STEEL FLOOR DECK.
- THE METAL DECK WORK SHALL CONSIST OF FURNISHING EVERYTHING (LABOR, MATERIALS, ACCESSORIES, EQUIPMENT, ETC.) NECESSARY AND INCIDENTAL TO THE EXECUTION AND COMPLETION OF ALL METAL DECK WORK AS INDICATED AND SPECIFIED ON THE DRAWINGS.
- SUBMIT PLACEMENT AND DETAILED (SHOP) DRAWINGS FOR REVIEW. NO METAL DECK SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.
- METAL DECK SHALL CONFORM TO STEEL DECK INSTITUTES CURRENT STANDARDS.
- METAL DECK SHALL BE OF THE CONFIGURATION, DEPTH AND MINIMUM GAGE AS SHOWN ON THE DRAWINGS. ATTACHMENT TO THE SUPPORTING STRUCTURE SHALL BE AS SHOWN ON THE DRAWINGS AS A MINIMUM. SEE PLAN NOTES.
- DO NOT HANG OR SUPPORT ANY LOADS FROM METAL ROOF DECK.
- DECK SHALL BE POSITIONED SO THAT A COMPLETE RIB BEARS ON STEEL SUPPORT.

VERIFICATION AND SPECIAL INSPECTION

- THE PROJECT OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PERFORM INSPECTIONS AND TESTING DURING CONSTRUCTION FOR THE TYPES OF WORK INDICATED BY BC SECTIONS 1704, 1705, 1706, AND 1707. SUBMIT DOCUMENTATION THAT SUMMARIZES THE QUALIFICATIONS AND CREDENTIALS OF EACH SPECIAL INSPECTOR AND DEMONSTRATES COMPETENCE FOR THE BUILDING INSPECTOR FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- APPROVED SPECIAL INSPECTORS SHALL FURNISH INSPECTION AND TESTING REPORTS TO THE OWNER, ARCHITECT AND BUILDING OFFICIAL AND STRUCTURAL ENGINEER OF RECORD WHICH INDICATES THE WORK INSPECTED WAS DONE IN CONFORMANCE WITH APPROVED CONSTRUCTION DOCUMENTS. REPORTS WHICH DOCUMENT THE RESULTS OF THE SPECIAL INSPECTIONS SHALL BE SUBMITTED PERIODICALLY AT A FREQUENCY APPROVED BY THE BUILDING OFFICIAL PRIOR TO CONSTRUCTION. A FINAL REPORT DOCUMENTING ALL THE WORK HAS BEEN PERFORMED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS SHALL BE SUBMITTED AT THE END OF THE PROJECT.
- SEE THE PROJECT SPECIFICATIONS AND SECTION 1704 OF THE BUILDING CODE FOR FULL CRITERIA AND EXCEPTIONS FOR INSPECTION REQUIREMENTS.
- SPECIAL INSPECTION REPORTS AND A FINAL REPORT IN ACCORDANCE WITH SECTION 1704.24 SHALL BE SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO THE TIME THAT PHASE OF THE WORK IS APPROVED FOR OCCUPANCY.

DEFINITIONS

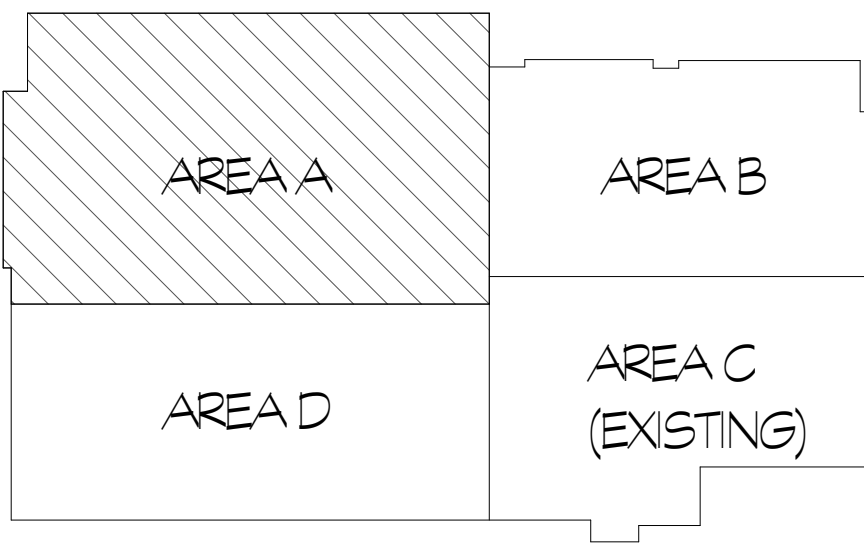
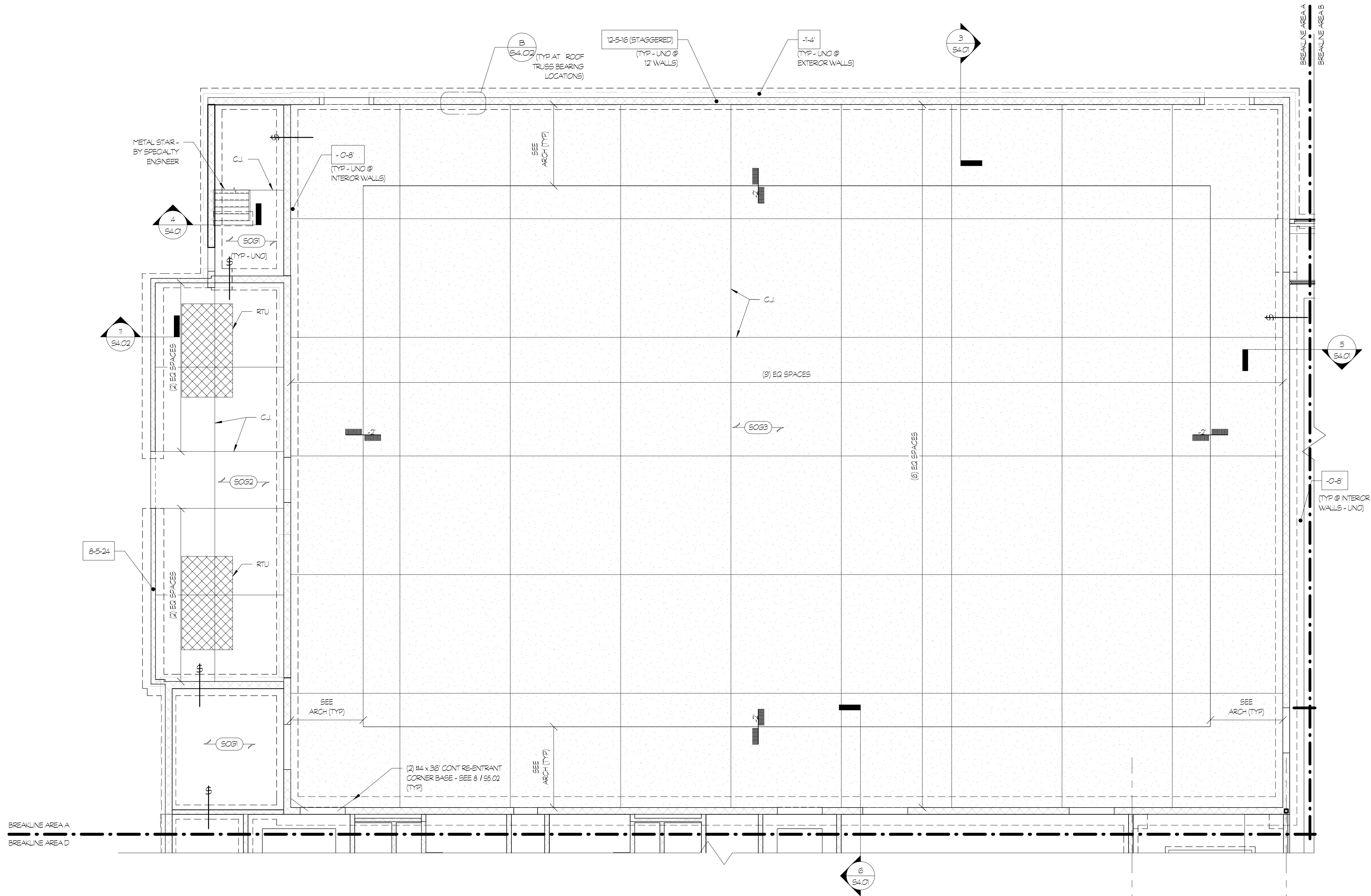
- SPECIAL INSPECTION, PERIODIC: A PART-TIME OR INTERMITTENT OBSERVATION WORK BEING PERFORMED REQUIRING A PRESENCE WHEN THE WORK IS BEING PERFORMED AND AFTER COMPLETION OF THE WORK, PRESENCE AT THE JOB SITE SHALL BE WEEKLY AT MINIMUM OR GREATER AS REQUESTED BY THE OWNER.
- SPECIAL INSPECTION, CONTINUOUS: A FULL-TIME OBSERVATION OF WORK REQUIRING CONTINUOUS JOBSITE PRESENCE WHEN AND WHERE THE WORK IS BEING PERFORMED.



1 AXONOMETRIC VIEW
5/2/00



2 KEY PLAN
5/2/00 1/32" = 1'-0"



KEY PLAN

STRUCTURAL FOUNDATION SCHEDULE				
Type Mark	Length	Width	Thickness	Reinforcing
F4	4' - 0"	4' - 0"	1' - 0"	(4) #5 EW BOT

1
52.01
1/8" = 1'-0"

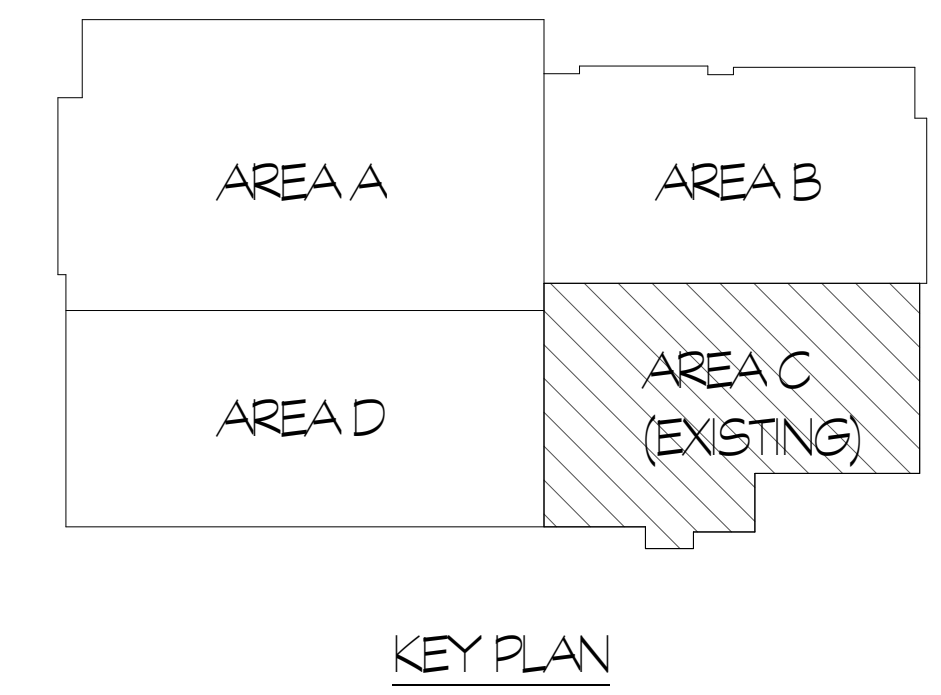
AREA "A" FOUNDATION PLAN

FOUNDATION AND SLAB NOTES:

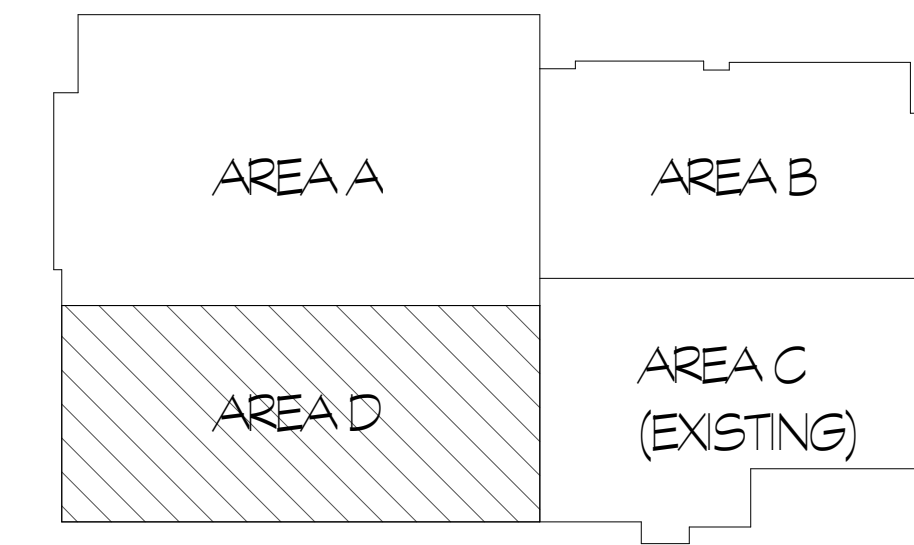
1. SLAB ON GRADE SHALL BE 4" CONC SLAB (3000 PS) ON 6 MIL (MIN) POLYETHYLENE VAPOR RETARDER ON 4" FLOOR SLAB BASE MATERIAL W/ (1) LAYER 6x6-W1.4x1.4 WWF 1" FROM TOP OF SLAB, UNO ON PLAN. ALL SLOPES TO DRAINS SHALL BE ACCOMMODATED BY SLOPING BOTTOM AND TOP OF SLAB AT THE SAME RATE (SEE B/S-3.1). FFE = + 0'-0", UNO
2. SLAB ON GRADE SHALL BE 6" CONC SLAB (4000 PS) ON 6 MIL (MIN) POLYETHYLENE VAPOR RETARDER ON 4" FLOOR SLAB BASE MATERIAL W/ (1) LAYER 6x6-W2.0x2.0 WWF 1 1/2" FROM TOP OF SLAB, UNO ON PLAN. ALL SLOPES TO DRAINS SHALL BE ACCOMMODATED BY SLOPING BOTTOM AND TOP OF SLAB AT THE SAME RATE (SEE B/S-3.1). FFE = + 0'-0", UNO
3. SLAB ON GRADE SHALL BE 6" CONC SLAB (3000 PS) ON 6 MIL (MIN) POLYETHYLENE VAPOR RETARDER ON 4" FLOOR SLAB BASE MATERIAL W/ (1) LAYER 6x6-W2.0x2.0 WWF 1" FROM TOP OF SLAB, UNO ON PLAN. ALL SLOPES TO DRAINS SHALL BE ACCOMMODATED BY SLOPING BOTTOM AND TOP OF SLAB AT THE SAME RATE (SEE B/S-3.1). FFE = + 0'-0", UNO
4. INDICATES TOP OF FOOTING ELEVATION BELOW FFE.
5. INDICATES PARTIALLY GROUTED, MASONRY WALLS. SEE S5.02 FOR TYPICAL REQUIREMENTS
6. INDICATES CMU WALL REINFORCEMENT. ALL REINFORCEMENT TO BE 4 CENTERED IN CELLS, UNO. AT MINIMUM, ALL REINFORCED CELLS SHALL BE GROUTED SOLID. ALL MASONRY WALLS SHALL HAVE LADDER TYPE HORIZONTAL REINFORCING AT 16" OC, UNO. SEE S5.02 FOR TYPICAL REQUIREMENTS.
7. BAR SPACING (INCHES)
8. BAR SIZE
9. NOMINAL WALL SIZE (INCHES)
10. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN.
11. 'CJ' INDICATES CONTROL/CONSTRUCTION JOINTS IN SLAB ON GRADE. SEE STRUCTURAL NOTES FOR ADDL INFORMATION WITH REGARD TO CONTROL JOINT REQUIREMENTS. SEE 3/55.01
12. INDICATES STEP IN FFE. - SEE DETAIL 2/55.01 FOR MORE INFORMATION.
13. ALL CMU WALLS THAT DO NOT CONNECT TO STRUCTURE AT THE TOP SHALL BE BRACED PURSUANT TO DETAIL 1/55.03.
14. ALL CMU WALLS THAT CONNECT TO THE ROOF STRUCTURE ACT AS PART OF THE LATERAL LOAD RESISTING SYSTEM AND ARE CONSIDERED SHEARWALLS.

NOTES TO CONTRACTOR

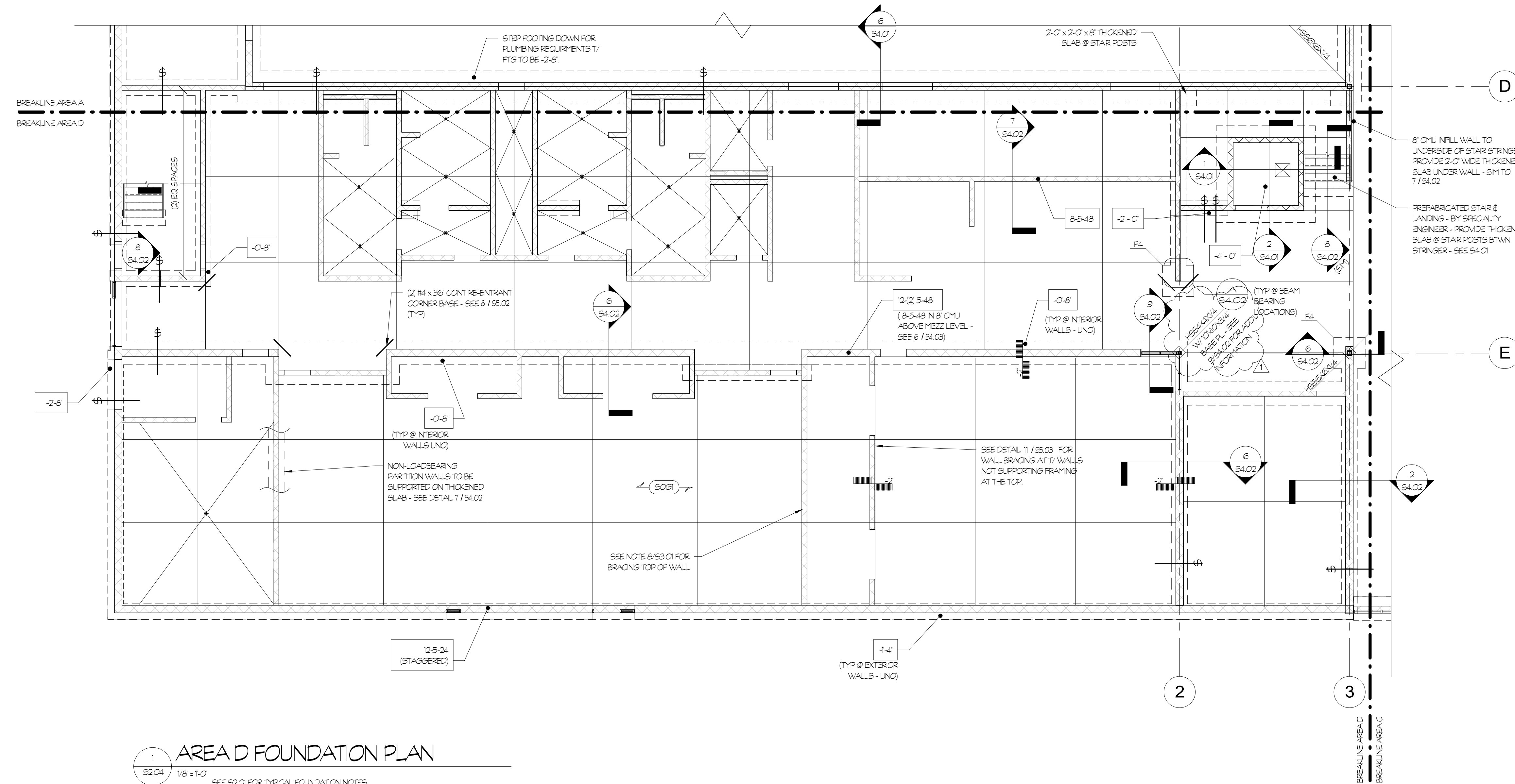
- THE CONTRACTOR SHALL REFER TO THE PLUMBING, MECHANICAL, & ELECTRICAL DRAWINGS AND NOTE THE LOCATION OF ALL UNDERGROUND OR UNDER FLOOR PIPING & CONDUITS. THE CONTRACTOR SHALL INCORPORATE ALL FOOTING STEPS NECESSARY PER THE REQUIREMENTS OF ALL UNDERGROUND OR UNDER FLOOR PLUMBING, MECHANICAL, AND ELECTRICAL PIPING. THE CONTRACTOR SHALL REFER TO THE TYPICAL FOUNDATION DETAILS 6, 7, 8/ 55.01 WHEN PERFORMING THIS WORK. LOCATION OF ALL STEPPED FOOTINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL STEP FOOTING LOCATIONS SHALL BE SHOWN ON THE FOUNDATION SHOP DRAWINGS AND REVIEWED BY THE SEOR PRIOR TO INSTALLATION.



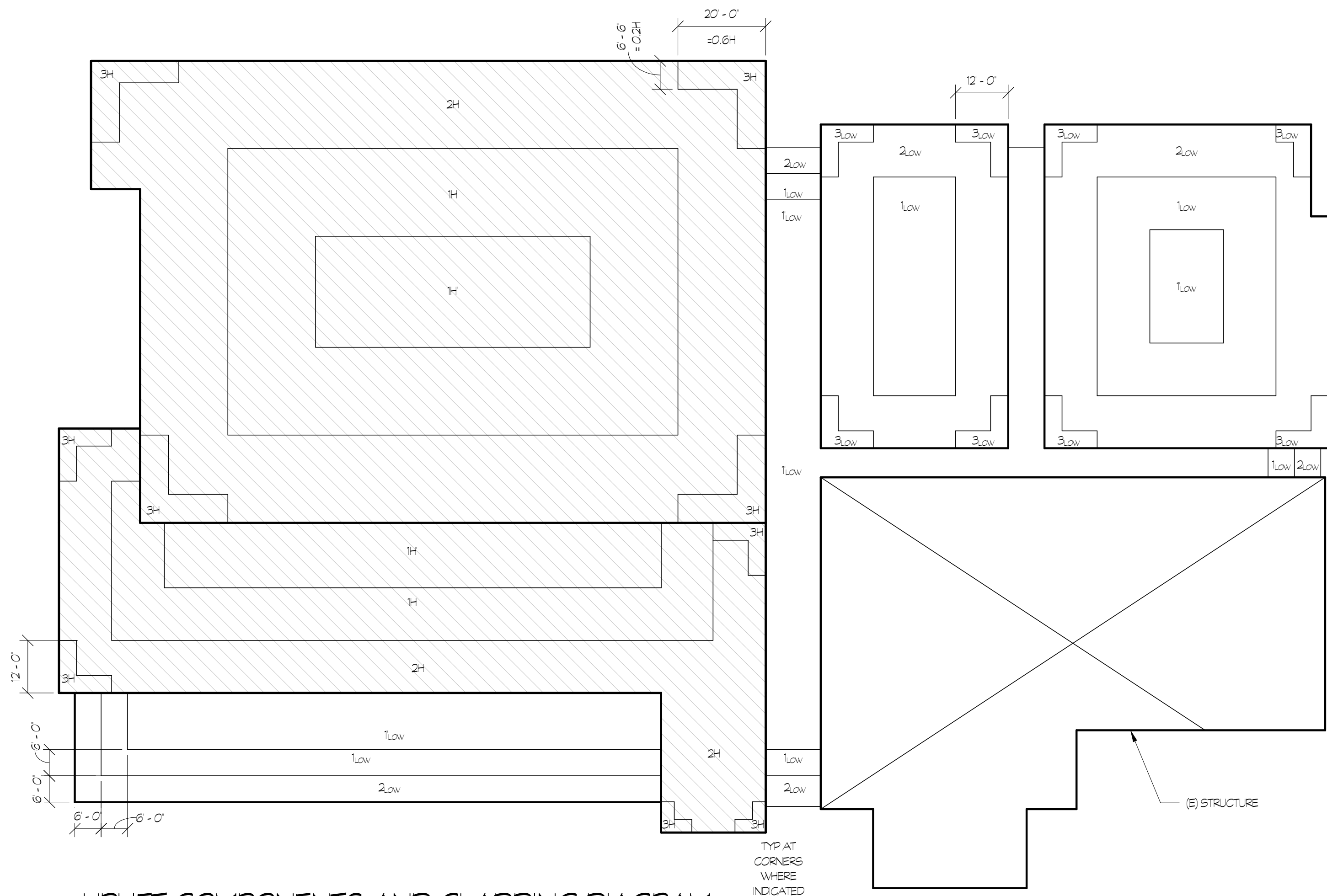
THE EXISTING STRUCTURE IS BEING TREATED AS AN ISOLATED STRUCTURE AND HAS BEEN ANALYZED FOR GRAVITY AND LATERAL LOADS AND IT HAS BEEN FOUND TO BE IN COMPLIANCE WITH CHAPTER 34 OF THE IBC SECTION 3404 FOR BUILDING ALTERATIONS.



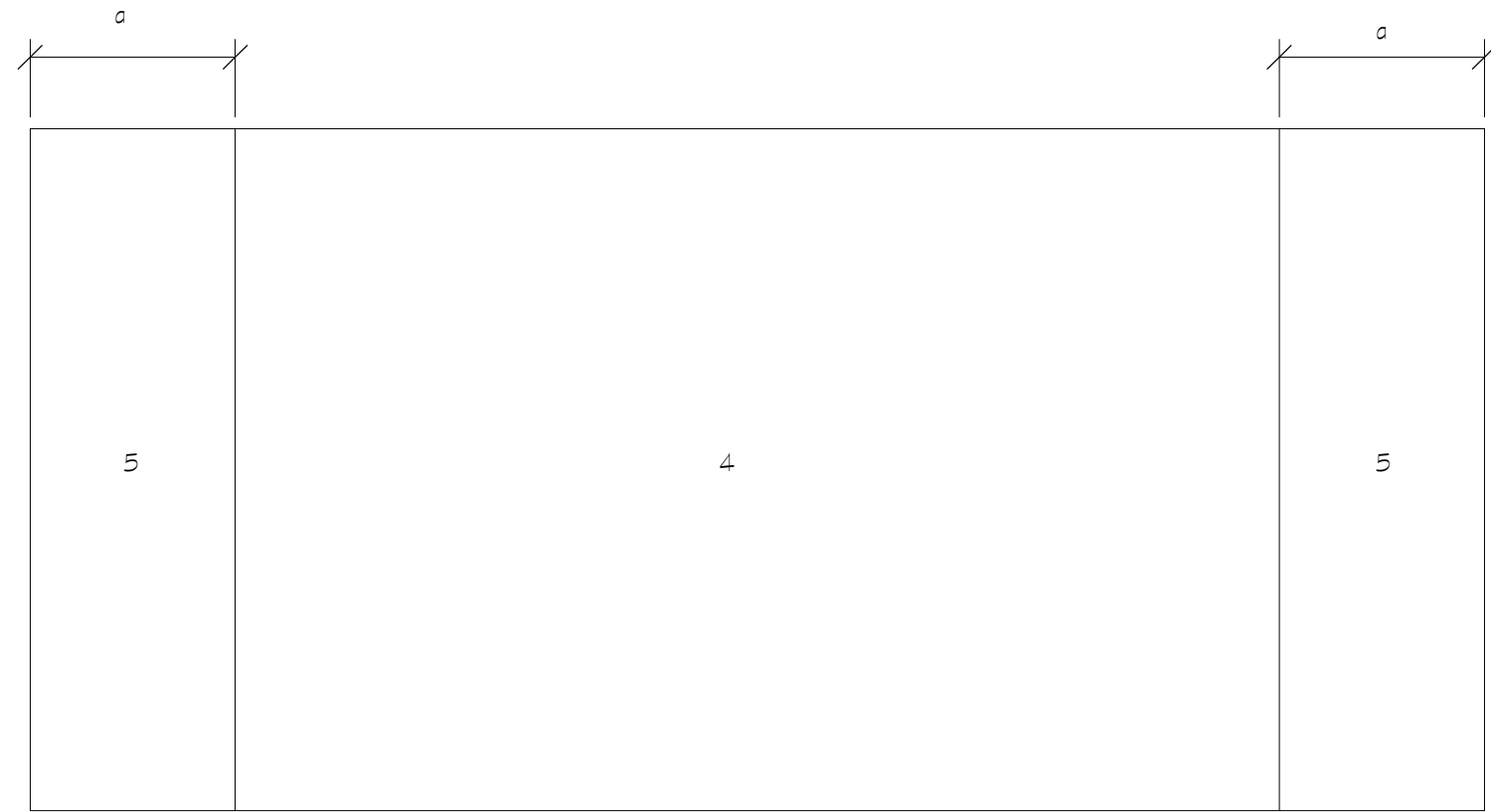
KEY PLAN



1
52.04
1/8" = 1'-0"
SEE 52.01 FOR TYPICAL FOUNDATION NOTES.



UPLIFT COMPONENTS AND CLADDING DIAGRAM



a = 10'-0" @ AREA A
= 7'-0" @ AREA B
= 10'-0" @ AREA D

WALL COMPONENTS AND CLADDING DIAGRAM

ROOF COMPONENTS AND CLADDING LOADS

LOW ROOF - COMPONENTS AND CLADDING ROOF (ENCLOSED) 88 MPH EXP. 'B' ASD EXTERNAL GROSS PRESSURES (PSF)				
A _E (EFFECTIVE AREA)	ZONE 1	ZONE 1	ZONE 2	ZONE 3
A _E 10 FT²	+10.0	+10.0	+10.0	+10.0
A _E 20 FT²	-13.0	-22.5	-28.5	-40.0
A _E 50 FT²	+10.0	+10.0	+10.0	+10.0
A _E 200 FT²	-13.0	-18.75	-24.75	-30.5
A _E 200 FT²	+10.0	+10.0	+10.0	+10.0
A _E 200 FT²	-10.5	-16.5	-21.0	-23.5

HI ROOF - COMPONENTS AND CLADDING ROOF (ENCLOSED) 88 MPH EXP. 'B' ASD EXTERNAL GROSS PRESSURES (PSF)				
A _E (EFFECTIVE AREA)	ZONE 1H	ZONE 1H	ZONE 2H	ZONE 3H
A _E 10 FT²	+10.5	+10.5	+10.5	+10.5
A _E 20 FT²	-13.7	-26.75	-33.75	-44.5
A _E 50 FT²	+10.0	+10.0	+10.0	+10.0
A _E 200 FT²	-13.7	-25.5	-31.5	-41.0
A _E 200 FT²	+10.0	+10.0	+10.0	+10.0
A _E 200 FT²	-13.7	-23.0	-28.0	-35.0
A _E 200 FT²	+10.0	+10.0	+10.0	+10.0
A _E 200 FT²	-11.5	-20.75	-25.4	-27.8

WALL ELEVATION

COMPONENTS AND CLADDING WALL (ENCLOSED) 88 MPH EXP. 'B' ASD EXTERNAL GROSS PRESSURES (PSF)			
A _E (EFFECTIVE AREA)	ZONE 4	ZONE 5	NOTES
A _E 10 FT²	+14.0	+14.0	
A _E 20 FT²	-18.5	-18.75	
A _E 50 FT²	+14.5	+13.0	
A _E 200 FT²	-12.5	-11.5	
A _E 200 FT²	+13.5	+15.75	
A _E 200 FT²	+11.0	+11.0	
A _E 200 FT²	-12.5	-13.5	

GYM - COMPONENTS AND CLADDING WALL (ENCLOSED) 88 MPH EXP. 'B' ASD EXTERNAL GROSS PRESSURES (PSF)			
A _E (EFFECTIVE AREA)	ZONE 4	ZONE 5	NOTES
A _E 10 FT²	+18.5	+18.5	
A _E 20 FT²	-19.5	-23.0	
A _E 50 FT²	+17.5	+17.5	
A _E 200 FT²	-19.0	-22.0	
A _E 200 FT²	+16.5	+16.5	
A _E 200 FT²	+17.5	+20.0	
A _E 200 FT²	-15.5	-15.5	
A _E 200 FT²	-16.5	-17.75	

- NOTES:
- INTERPOLATION MAY BE UTILIZED FOR EFFECTIVE AREAS THAT OCCUR BETWEEN VALUES SHOWN ON THE TABLE.
 - PLUS AND MINUS SIGN INDICATES THE PRESSURE ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY.
 - FORCES AND DIAGRAMS ARE BASED ON IBC/ASCE 7.
 - NET PRESSURES CAN BE ACHIEVED BY SUBTRACTING 5 PSF FROM THE ABOVE ROOF VALUES ONLY. NO FURTHER REDUCTION IS PERMITTED.

ROOF FASTENING SCHEDULE

HI ROOF AREA 'A' 2DA 20 GA 2' DOVETAIL ACCOUSTIC DECK				
	ZONE 1	ZONE 1	ZONE 2	ZONE 3
FASTENER	X-ENR-19 L15	X-ENR-19 L15	X-ENR-19 L15	X-ENR-19 L15
SPACING	24.5/4	24.5/4	24.5/4	24.5/4
SOELAP CONNECTOR	S-SLC 02 M HWH	S-SLC 02 M HWH	S-SLC 02 M HWH	S-SLC 02 M HWH
SOELAP NUMBER	9	9	10	10

HI ROOF AREA 'D' 11/2' 22 GA B-DECK				
	ZONE 1	ZONE 1	ZONE 2	ZONE 3
FASTENER	S-RTS-19 SCREW	S-RTS-19 SCREW	S-RTS-19 SCREW	S-RTS-19 SCREW
SPACING	36/4	36/4	36/7	36/7
SOELAP CONNECTOR	S-SLC 02 M HWH	S-SLC 02 M HWH	S-SLC 02 M HWH	S-SLC 02 M HWH
SOELAP NUMBER	2	2	3	3

LOW ROOF AREA 'D' 11/2' 22 GA B-DECK				
	ZONE 1	ZONE 1	ZONE 2	ZONE 3
FASTENER	S-RTS-19 SCREW	S-RTS-19 SCREW	S-RTS-19 SCREW	S-RTS-19 SCREW
SPACING	36/4	36/4	36/7	36/7
SOELAP CONNECTOR	S-SLC 02 M HWH	S-SLC 02 M HWH	S-SLC 02 M HWH	S-SLC 02 M HWH
SOELAP NUMBER	2	2	3	3

LOW ROOF AREA 'B' 2D 22 GA 2' DOVETAIL DECK				
	ZONE 1	ZONE 1	ZONE 2	ZONE 3
FASTENER	X-HEN 24	X-HEN 24	X-HEN 24	X-HEN 24
SPACING	24.5/4	24.5/4	24.5/4	24.5/4
SOELAP CONNECTOR	S-SLC 02 M HWH	S-SLC 02 M HWH	S-SLC 02 M HWH	S-SLC 02 M HWH
SOELAP NUMBER	3	3	9	9

LOW ROOF CORRIDOR AREA 2D 22 GA 2' DOVETAIL DECK				
	ZONE 1	ZONE 1	ZONE 2	ZONE 3
FASTENER	X-HEN 24	X-HEN 24	X-HEN 24	X-HEN 24
SPACING	24.5/4	24.5/4	24.5/4	24.5/4
SOELAP CONNECTOR	S-SLC 02 M HWH	S-SLC 02 M HWH	S-SLC 02 M HWH	S-SLC 02 M HWH
SOELAP NUMBER	3	3	9	9

Joist
Description Quantity
M01 7

Deck V3 (ALL Page)										
	Description	Deck Type	Deck Gauge	Deck Finish	Lap or Waste	Deck SQ	No of Floors	Screw Pattern	Screw Total	Comments-Add'l Loads
	Cellular or Acoustic	RS2.0	22	G60	2%	108.99	1 Floor	12" O/C	5,449	
	Cellular or Acoustic	RS2.0A	20	G60	2%	156.36	1 Floor	12" O/C	7,818	ACOUSTICAL DECK
	Form	UFS35	28	G60	2%	62.07	1 Floor	8" O/C	3,192	
	Reveal	RS2.0	22	G60	2%	12.71	1 Floor	12" O/C	636	
	Reveal	RS2.0C	20	G60	No Lap/Waste	2.40	1 Floor	24" O/C	60	
	Reveal	RS2.0C	20	G60	No Lap/Waste	52.27	1 Floor	24" O/C	1,306	
						25.58	1 Floor	18" O/C	2,793	

Deck Accessories (ALL Page)				
	Label	Description	Total Length	Total Qty's
	2" Cell Closure	Cell Closure	245.31	380.00
				Linear Feet

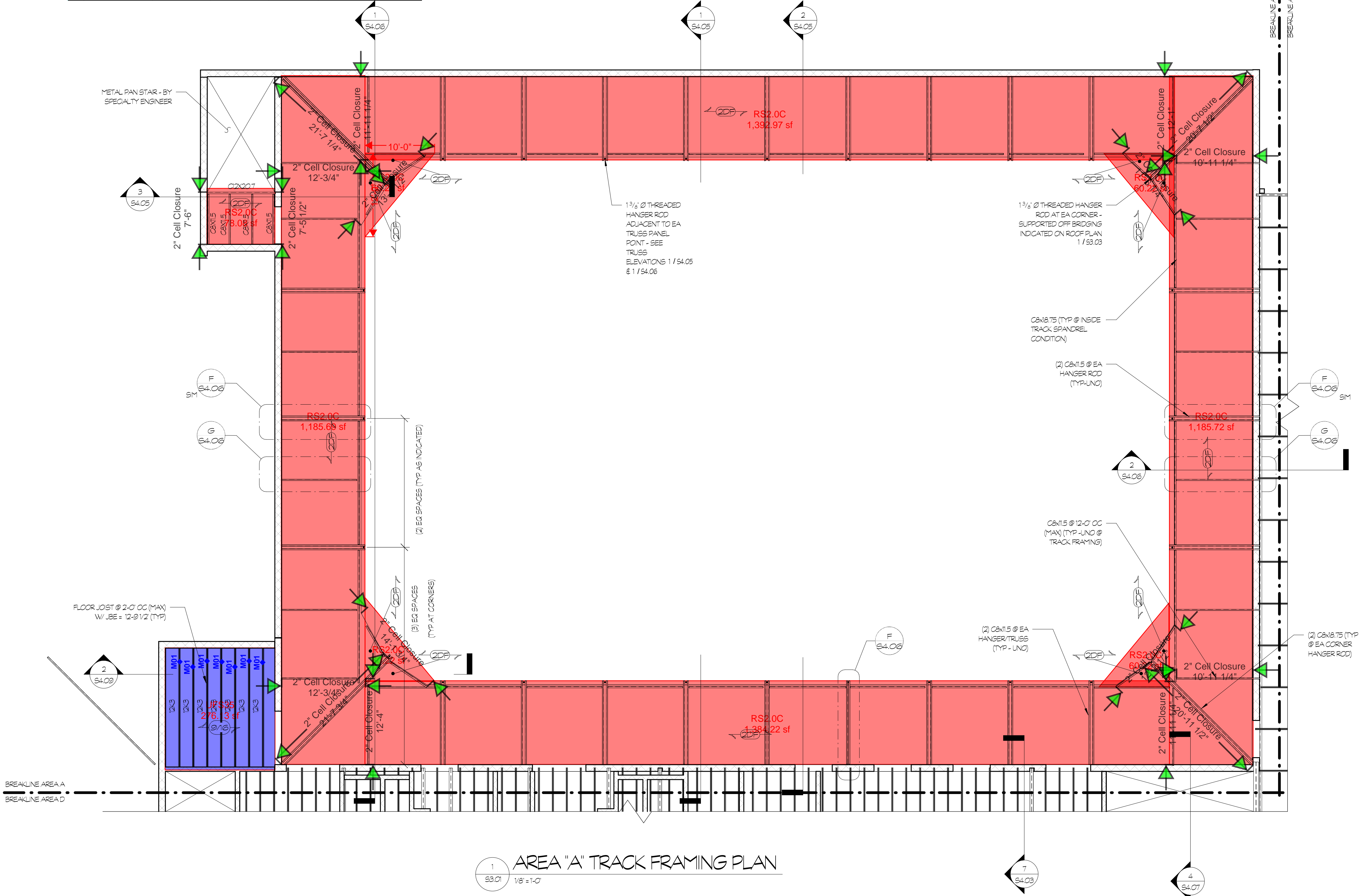
Qualifications:
Floor & Roof deck quoted with galvanized G60.

SPECIAL NOTES
Deck to be FM Listed.

Exclusions:
Loading due to Angle kicker/braces per 7A & 7B/S5.03 & (location not found).
Loose BCX angles.
Loading & Special web geometry for Sprinkler line, Duct.
Bowstring Trusses.
Load from wall.
Painting of deck.



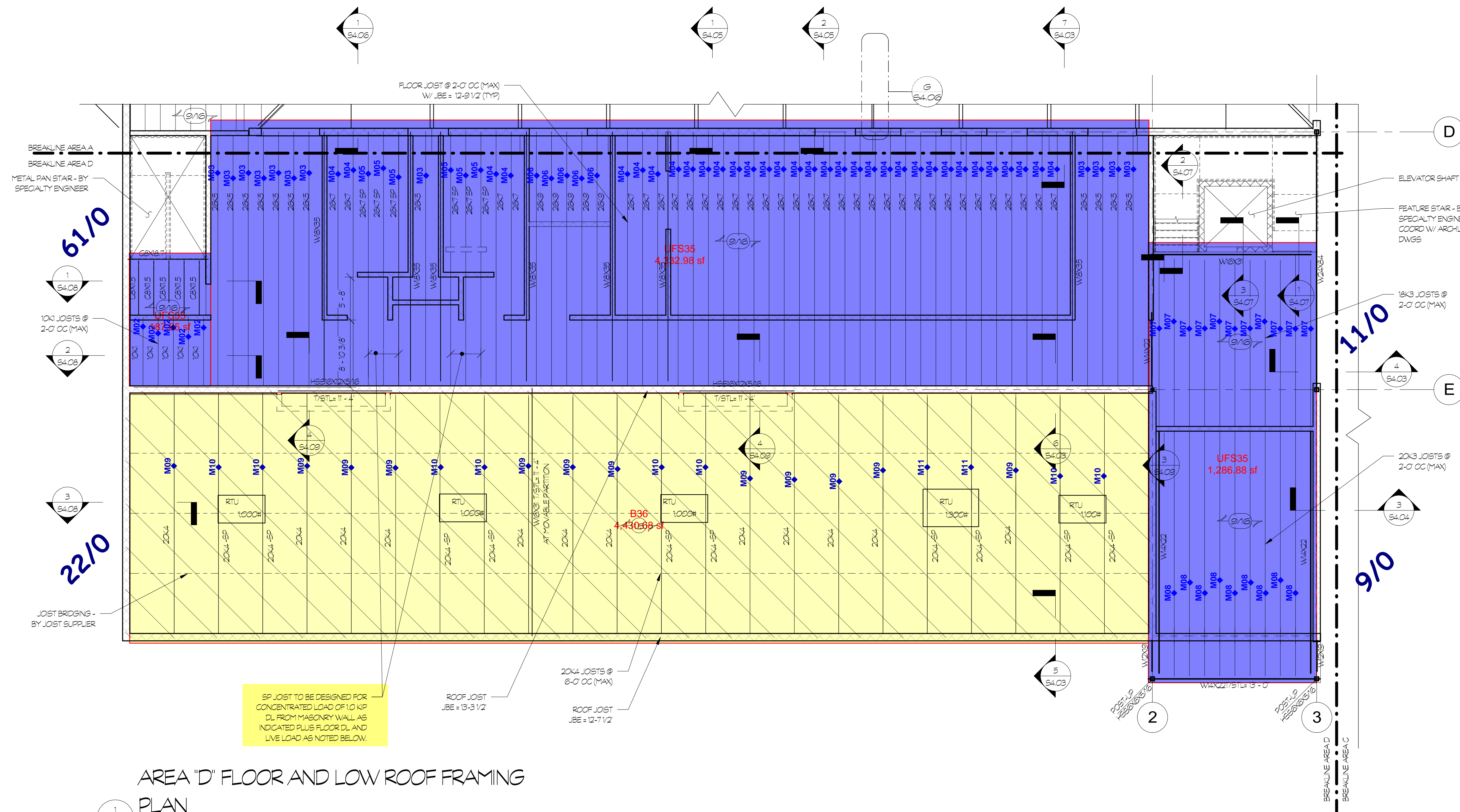
KEY PLAN



TRACK FRAMING NOTES

- INDICATES DIRECTION OF 2" DOVETAIL FLOOR DECK. DECK TO BE 2" DEEP, 20 GA MIN GALVANIZED 2.0D FORMLOCK FLOOR DECK (OR APPROVED EQUAL) W/ 2 (MIN) LIGHTWEIGHT CONCRETE TOPPING (TOTAL SLAB THICKNESS = 4" W/ 1 LAYER OF 6x6 W2X1W21 WAF 1 FROM 1/2" SLAB) FASTEN TO ALL SUPPORTS WITH HLT-X-ENP-19 L15 PAF ON A 24/4 PATTERN. FASTEN SIDE LAPS W/ (5) EVENLY SPACED #10 TEK SCREWS BETWEEN SUPPORTS. FASTEN AT PERIMETER WITH HLT-X-ENP-19 L15 PAF AT 6" OC.
- ALL DOVETAIL FLOOR DECK SHALL BE 2 SPAN MINIMUM AND ALL DECKING TO BE SHORED DURING CONSTRUCTION.
- 1/2" STL ELEVATION FOR ALL TRACK FRAMING AND STAIR LANDING SERVING TRACK = 13'-0"
- SEE S3.02 FOR GENERAL FLOOR FRAMING NOTES NOT INDICATED.

Joist	
Description	Quantity
M02	5
M03	12
M04	33
M05	6
M06	5
M07	11
M08	9
M09	12
M10	8
M11	2



AREA "D" FLOOR AND LOW ROOF FRAMING PLAN

TYPICAL FLOOR FRAMING NOTES

- INDICATES DIRECTION TO SPAN METAL DECK. 9/16" DEEP 28 GAGE GALVANIZED NON-COMPOSITE METAL FLOOR DECK 3 7/16" LIGHT WEIGHT CONCRETE TOPPING (4" TOTAL THICKNESS) (1) LAYER 6x6 W/4x4 W/4 W/4 PLACED 1' FROM TOP OF SLAB ATTACH AT SUPPORTS UTILIZING 5/8" DIA RUDLE WELDS IN A 30/4 PATTERN FASTEN SIDELAPS WITH (2) EVENLY SPACED #10 TEK SCREWS ATTACH AT PERIMETER UTILIZING 5/8" DIA RUDLE WELDS AT 6" ON CENTER
- T/STL FOR ALL FLOOR FRAMING = 13'-0" LNO
- CONTRACTOR SHALL COORDINATE AND VERIFY SIZES AND LOCATIONS OF ALL FLOOR OPENINGS WITH MECHANICAL AND PLUMBING DRAWINGS.
- INDICATES MASONRY WALL - SEE FOUNDATION PLANS FOR WALL SIZE AND REIN.
- INDICATES LOW ROOF - SEE TYPICAL ROOF FRAMING NOTES AND LOADING.

FLOOR LOADING CRITERIA

DEAD LOADS:	2.00	9/16
DECK/CONCRETE:	4.65	3/6
ADDL CONC ALLOWANCE:	5	5
FLOORING:	1	1
CEILING/LIGHTS:	1	2
MECHANICAL:	0	2
MISCELLANEOUS:	1.5	1.5
TOTAL:	55	47.5

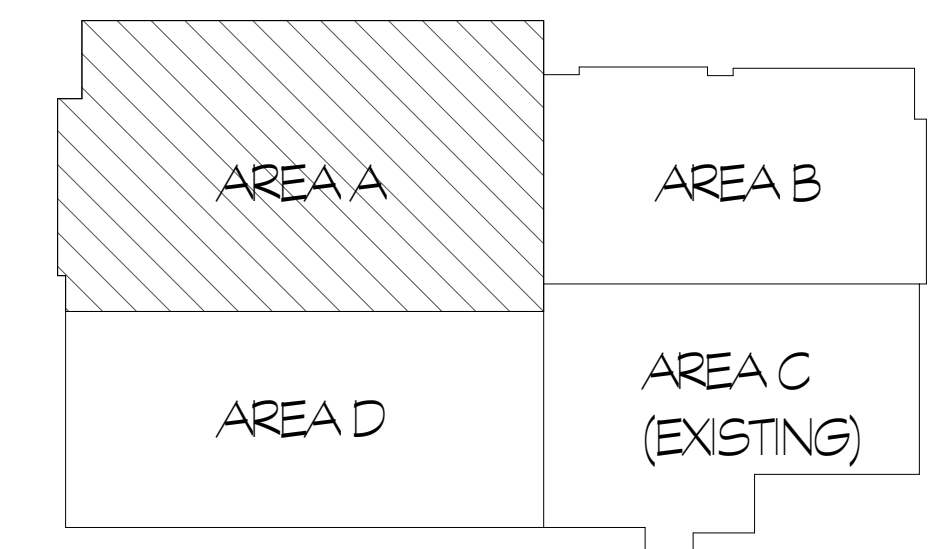
LIVE LOADS (REDUCED WHERE PERMITTED PER IBC 1607.9)	
CORRIDORS/STAIRS	100 PSF (OR 1000 LBS ON 6.25 SF)
OFFICE	50 PSF + 15 PSF PARTITIONS (OR 2000 ON 6.25 SF)
STAIRS:	100 PSF (OR 300 LBS ON 4 SF)

TYPICAL ROOF FRAMING NOTES

- INDICATES SPAN OF 2' DOVETAIL ROOF DECK, 22 GA METAL ROOF DECK, FASTEN TO ALL SUPPORTS - FASTEN DECK TO STRUCTURE AS INDICATED ON S3.0
- INDICATES SPAN OF 2' ACOUSTIC DOVETAIL ROOF DECK, 20 GA METAL ROOF DECK - FASTEN DECK TO STRUCTURE AS INDICATED ON S3.0
- INDICATES SPAN OF 1 1/2', 22 GA WIDE RB METAL ROOF DECK - FASTEN DECK TO STRUCTURE AS INDICATED ON S3.0
- 'JBE' INDICATES JOIST BEARING ELEVATION ABOVE FFE. INDICATES TRUSS BEARING ELEVATION ABOVE FFE
- T/STL EQUALS ELEVATION OF TOP OF STEEL ELEVATION ABOVE FFE. T/STL EL AS SHOWN IS A NOMINAL ELEVATION. CONTRACTOR SHALL DETERMINE PRECISE T/STL ELEVATION BY COORDINATING WITH ARCHITECTURAL HEAD ELEVATIONS.
- (+) INDICATES T/STL EL SHALL MATCH T/JOIST ELEVATION.
- (S) INDICATES SLOPED STEEL
- CONTRACTOR SHALL COORDINATE THE LOCATIONS AND SIZES OF ALL ROOF OPENINGS.

- CONTRACTOR SHALL COORDINATE LOCATION, SIZE, AND OPERATING WEIGHT OF ALL MECHANICAL UNITS.
- JOIST MANUFACTURER SHALL COORDINATE ALL JOIST BRIDGING WITH LOCATIONS OF MECHANICAL DUCTWORK. WHERE DUCTS RUN BETWEEN JOISTS, JOIST MANUFACTURER SHALL PROVIDE HORIZONTAL BRIDGING IN LIEU OF 'X' BRIDGING AS REQUIRED TO AVOID INTERFERENCE WITH MECHANICAL DUCTWORK. ALL 'SP' JOIST SHALL BE DESIGNED FOR THAT ADDL POINT LOADS INDICATED ON PLAN. (I.E. RTUS, ETC.)
- ROOF JOISTS DESIGNATED 'SP' SHALL BE DESIGNED BY THE JOIST MANUFACTURER FOR ALL LOADS INDICATED AND FOR SPECIAL GEOMETRY CONSIDERATIONS - SEE COORDINATE LOCATIONS OF RTUS IN TENANT DRAWINGS WITH JOIST SUBMITTAL.
- SEE ARCHITECTURAL PLANS FOR DIMENSIONS NOT SHOWN IN STRUCTURAL PLANS.
- INDICATES PARTIALLY GROUTED, MASONRY, SHEARWALLS. SEE FOUNDATION PLANS FOR MORE INFORMATION.
- SEE S3.00 FOR ROOF UPLIFT AND DECK FASTENING DIAGRAMS

ROOF LOADS:	2AD (20 GA)	2D (22GA)	15 (22 GA)
ROOFING (STANDING SEAM)	2.5	2.5	2.5
DECK	2.6	2.1	1.8
FRAMING	12.5	1.0	1.5
INSULATION	4.5	4.5	4.5
CEILING	0.0	0.0	1.0
MEP	2.0	2.0	2.0
MSC	0.9	0.9	1.7
TOTAL DEAD LOAD =	25	11	15.0
LIVE LOAD:	20 PSF (TYP)		

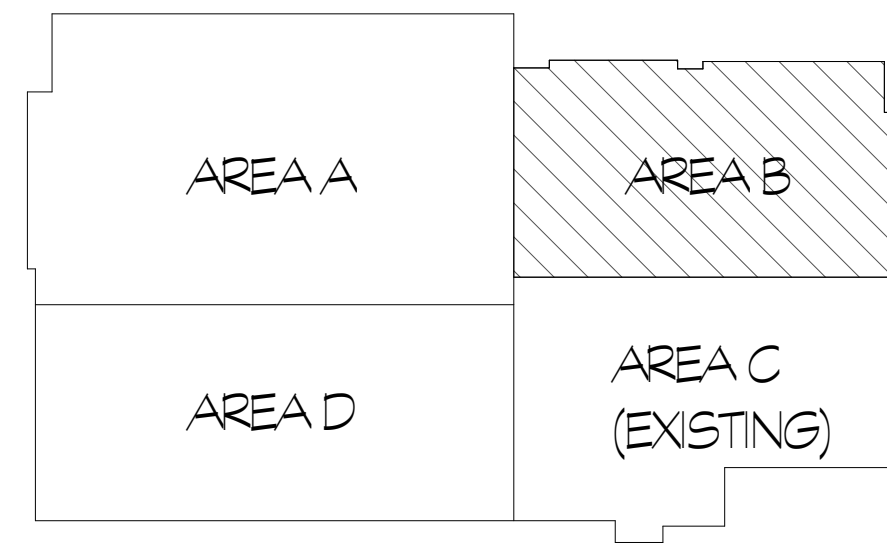


1
S3.03

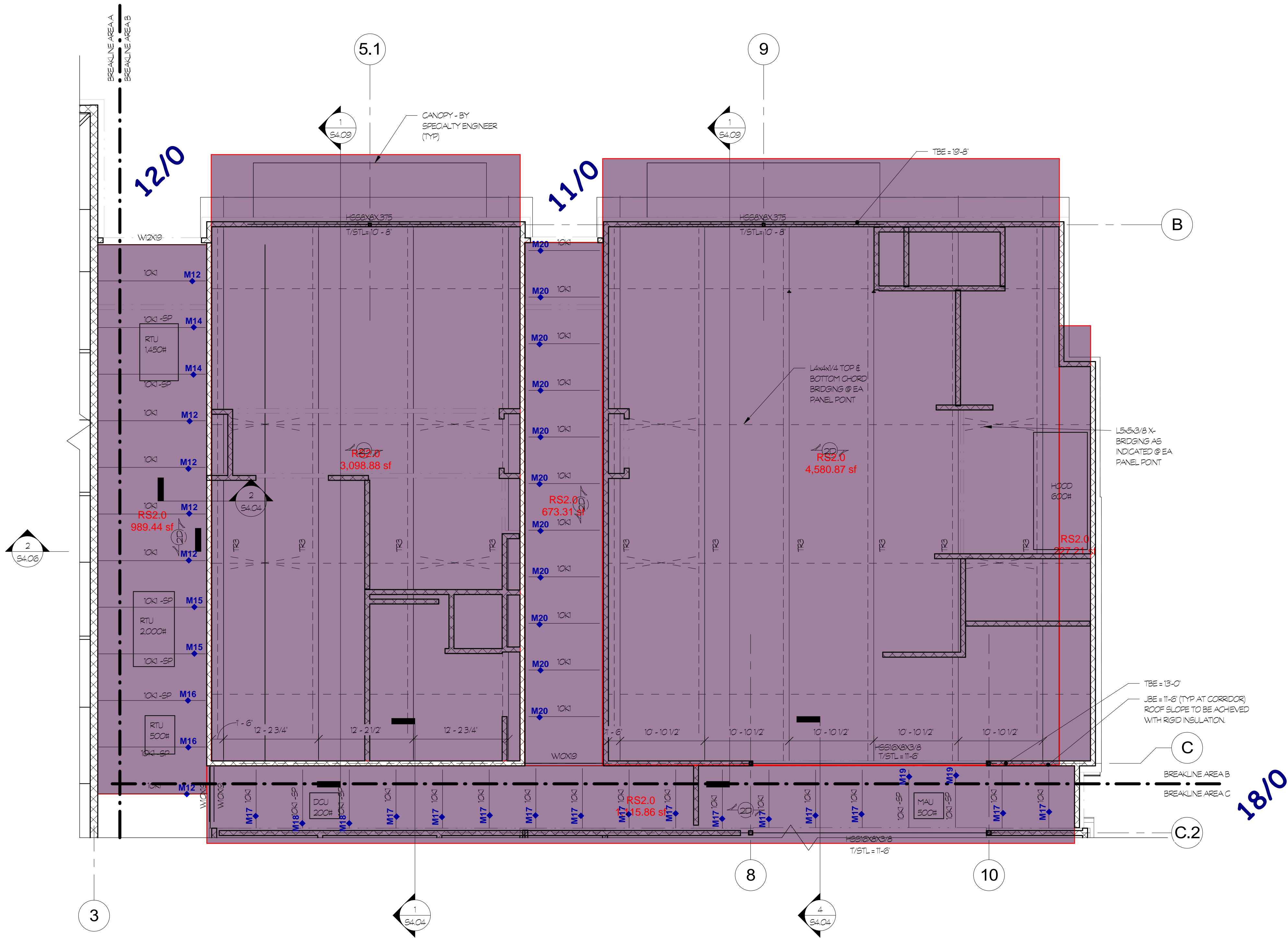
AREA "A" HI ROOF PLAN

1/8" = 1'-0"
SEE S3.02 FOR TYPICAL ROOF FRAMING

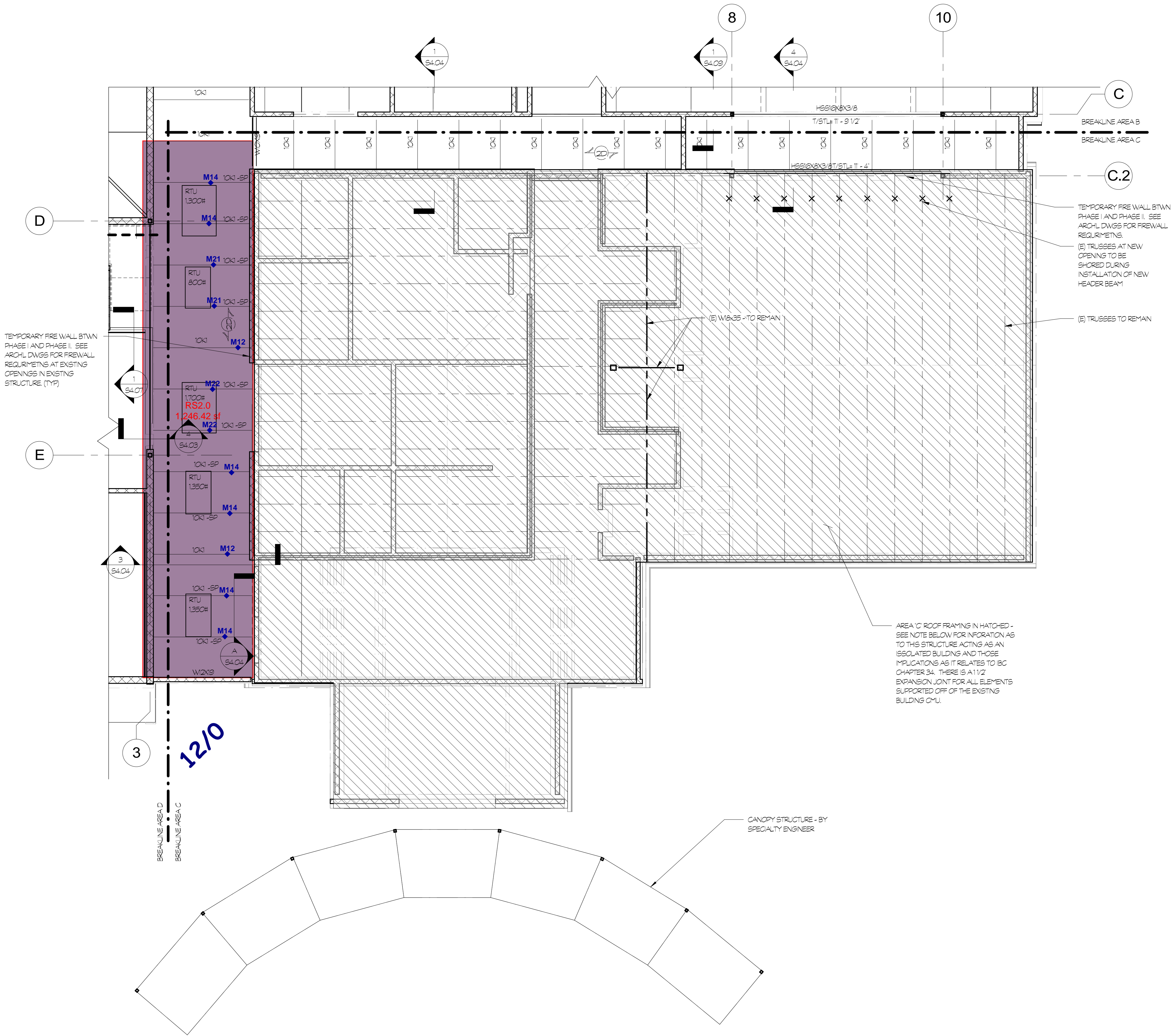
Joist		
	Description	Quantity
└─	M12	6
└─	M14	2
└─	M15	2
└─	M16	2
└─	M17	14
└─	M18	2
└─	M19	2
└─	M20	11



KEY PLAN



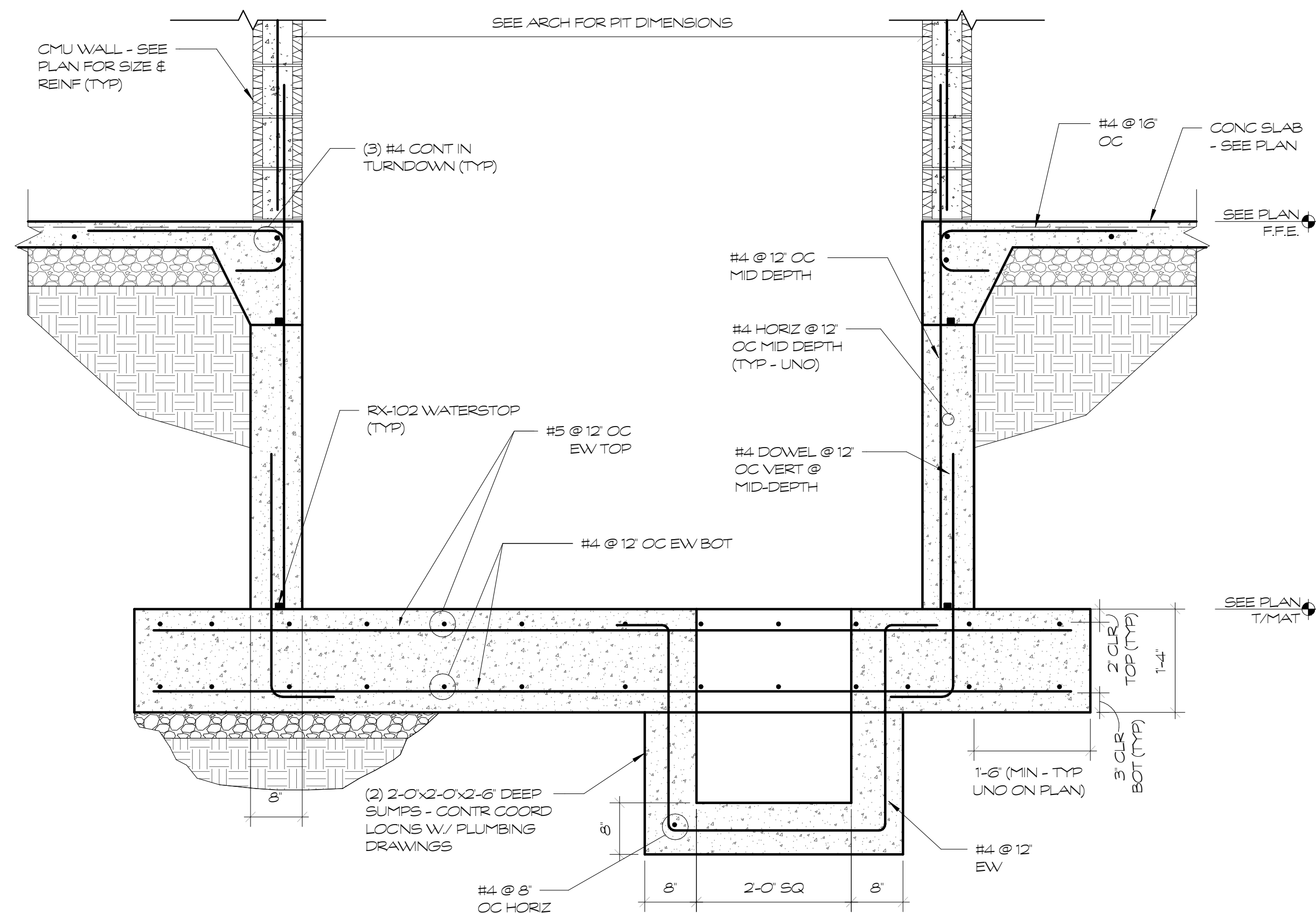
1 AREA "B" ROOF FRAMING PLAN
1/8" = 1'-0"
SEE 53.02 FOR TYPICAL ROOF FRAMING



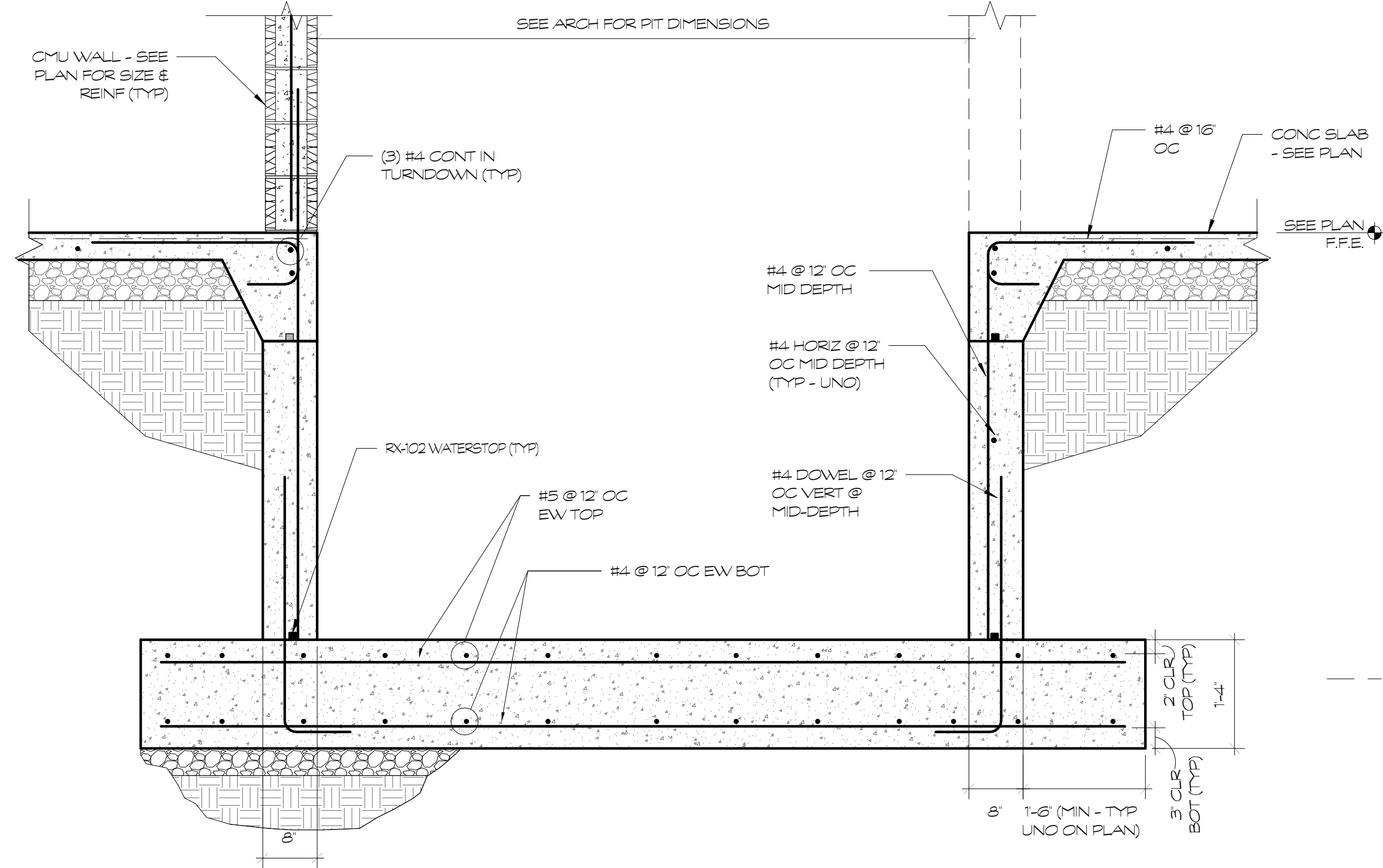
Joist		
Description	Quantity	
M12	2	
M14	6	
M21	2	
M22	2	

AREA "C" ROOF FRAMING PLAN

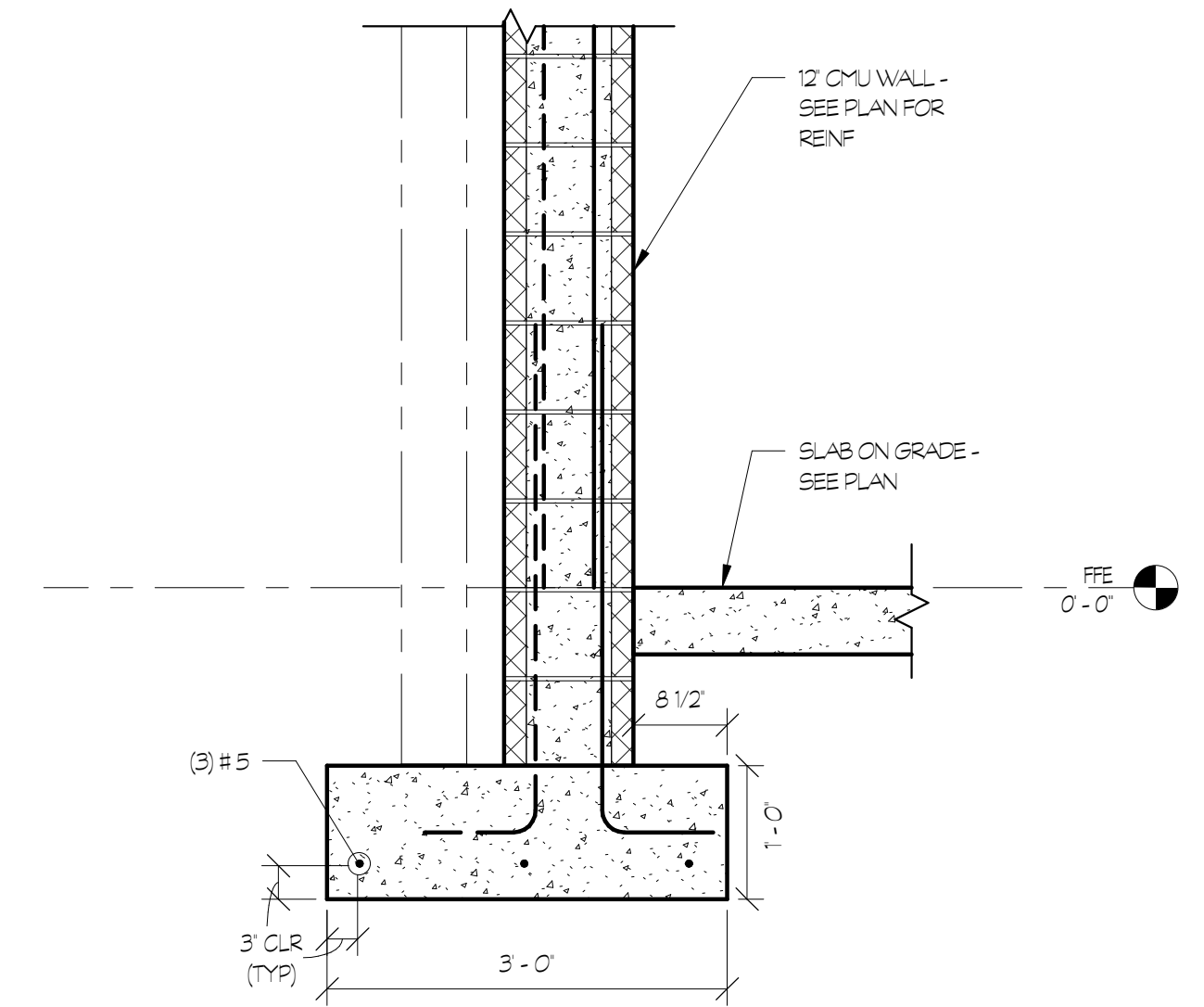
1/8" = 1'-0"
SEE S3.02 FOR TYPICAL ROOF FRAMING
THE EXISTING STRUCTURE IS BEING TREATED AS AN ISOLATED STRUCTURE AND HAS BEEN ANALYZED FOR GRAVITY AND LATERAL LOADS AND IT HAS BEEN FOUND TO BE IN COMPLIANCE WITH CHAPTER 34 OF THE IBC SECTION 3404 FOR BUILDING ALTERATIONS.



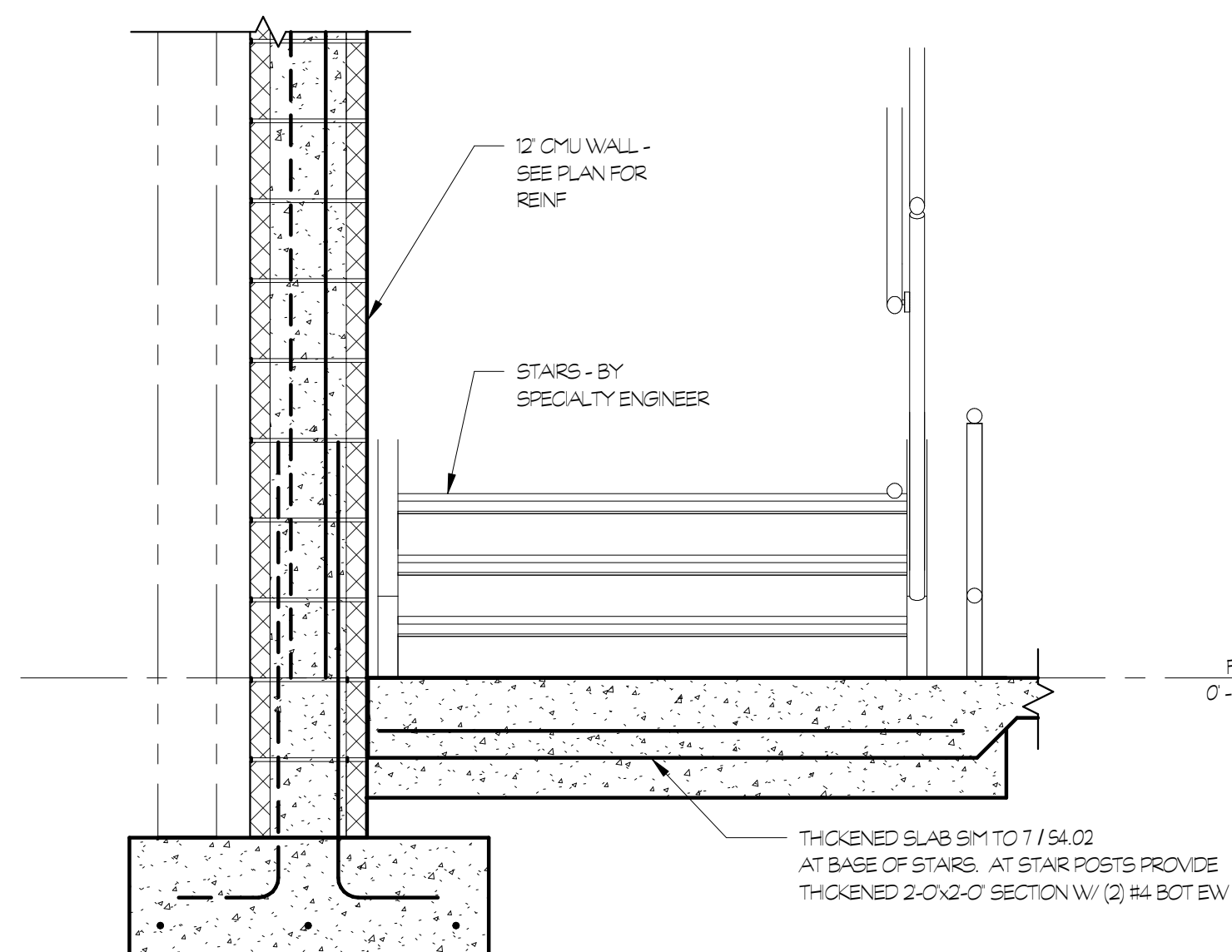
1
SECTION
3/4" = 1'-0"



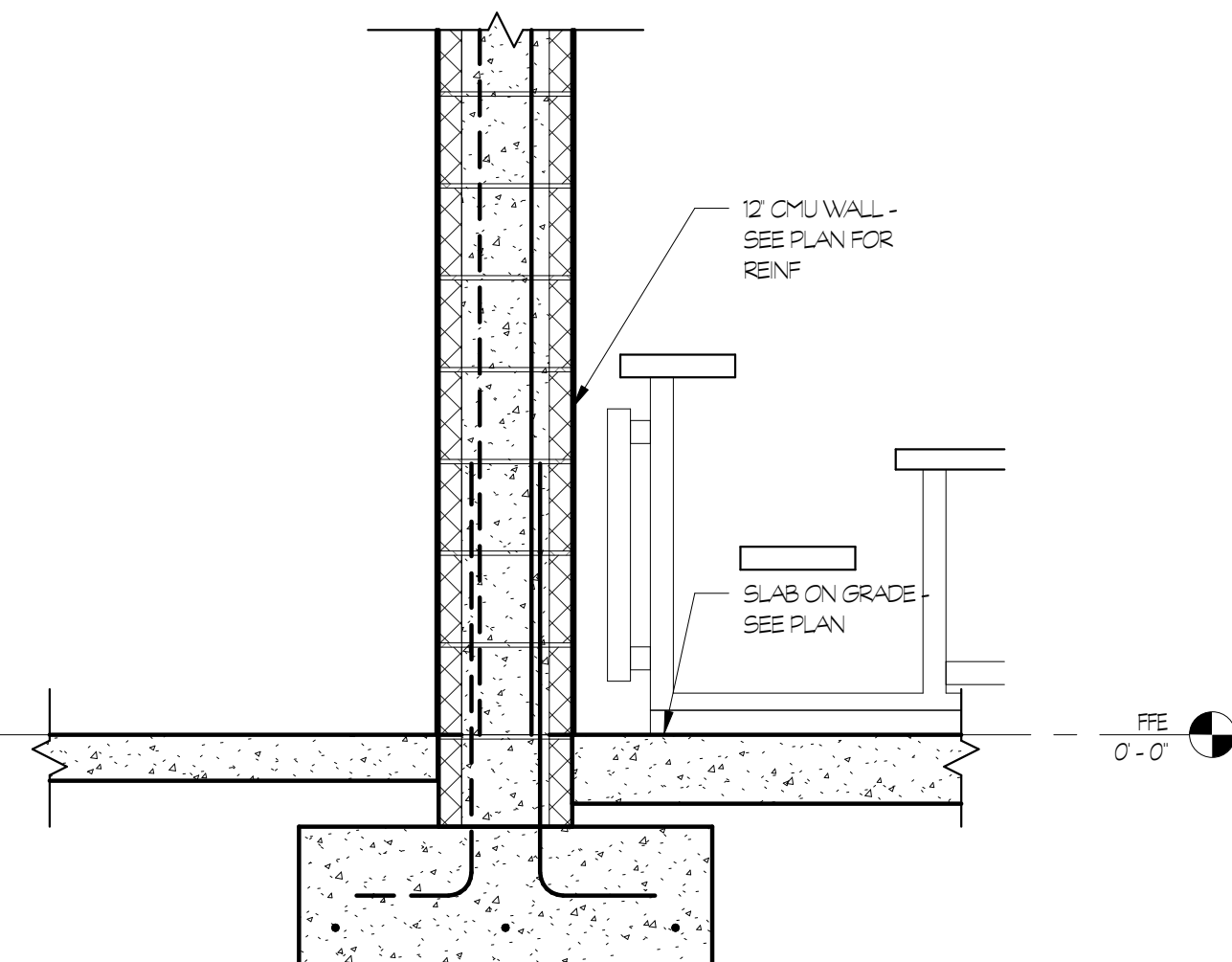
2
SECTION
3/4" = 1'-0"



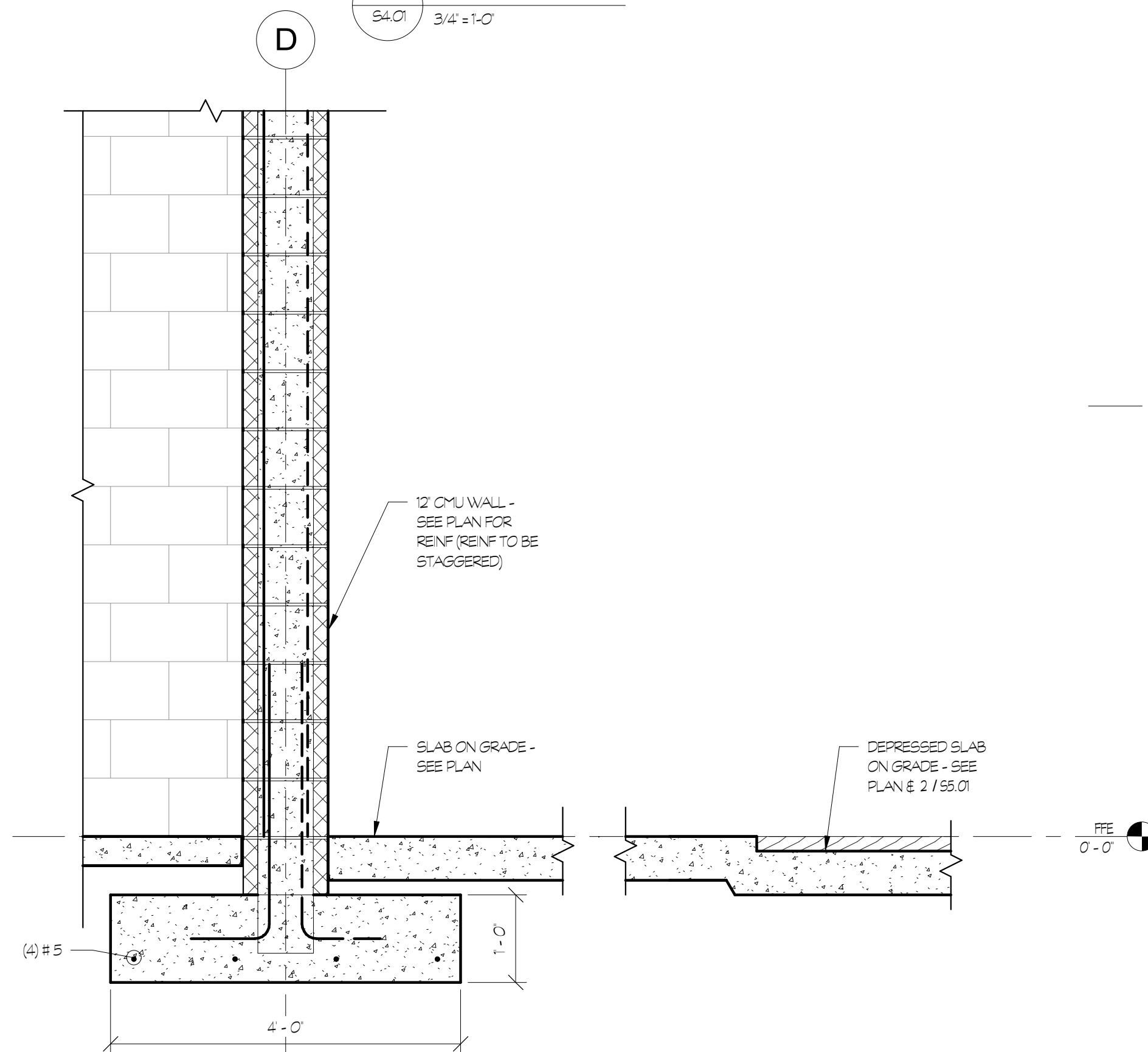
3
SECTION
3/4" = 1'-0"



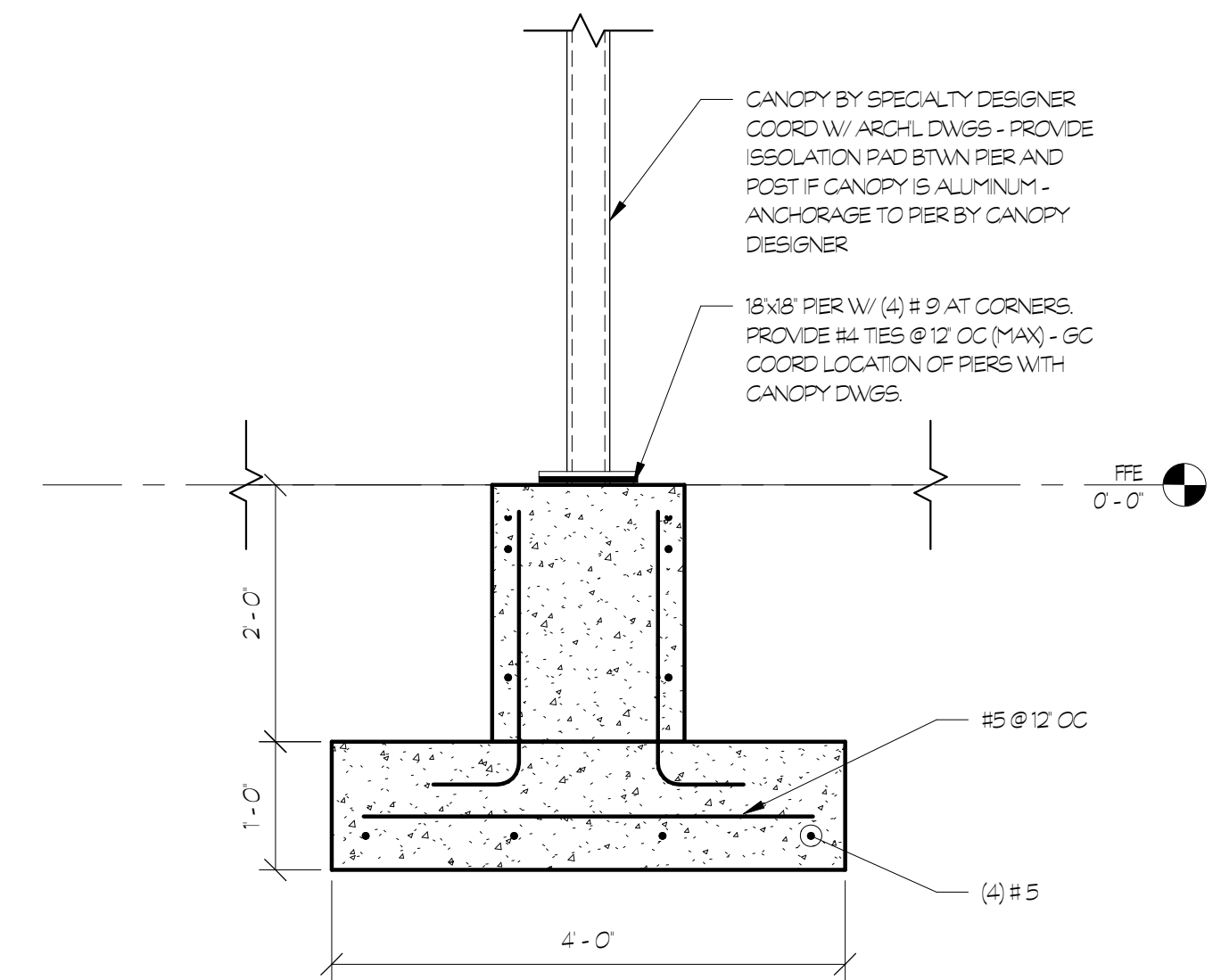
4
SECTION
3/4" = 1'-0"



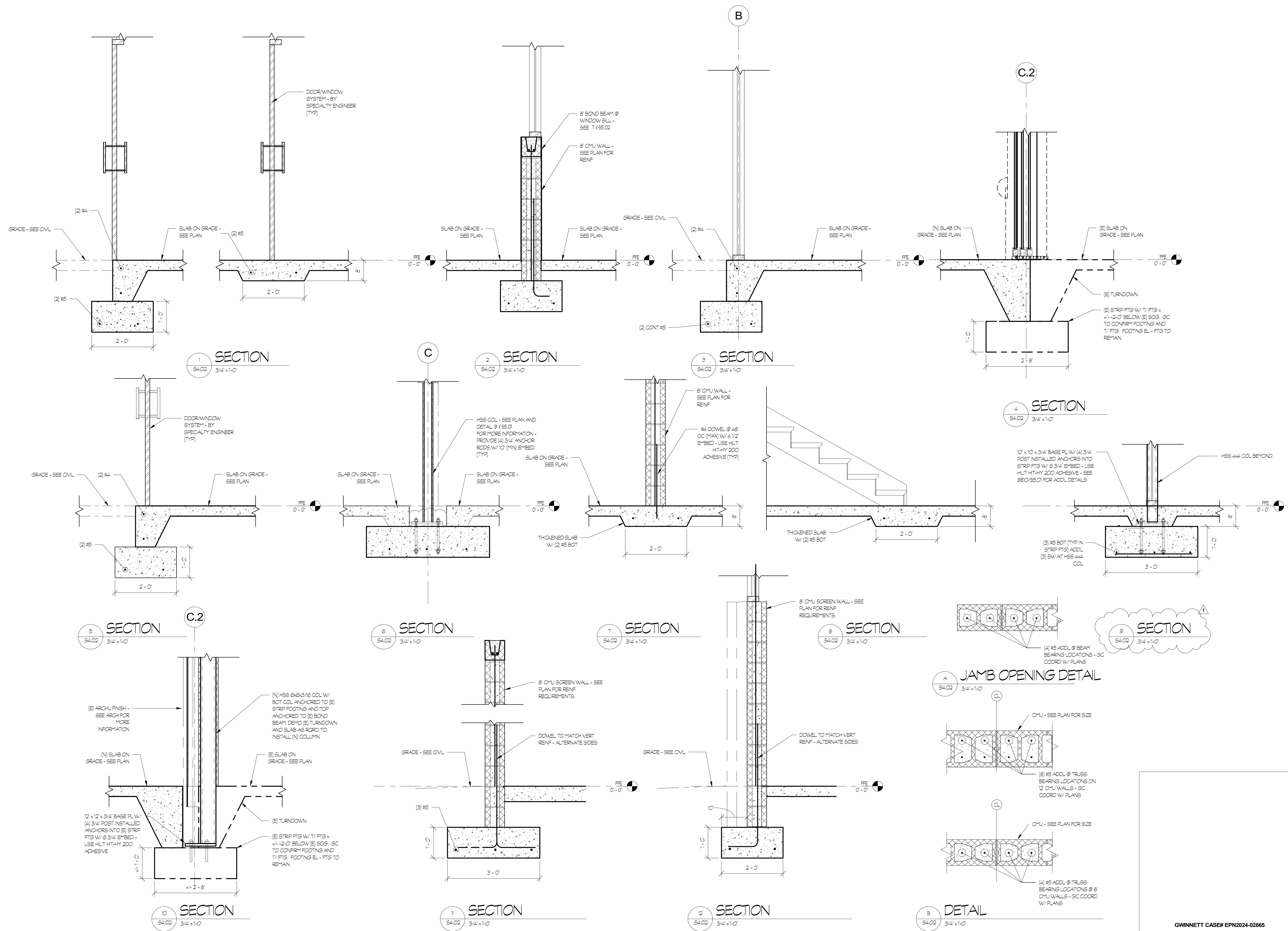
5
SECTION
3/4" = 1'-0"

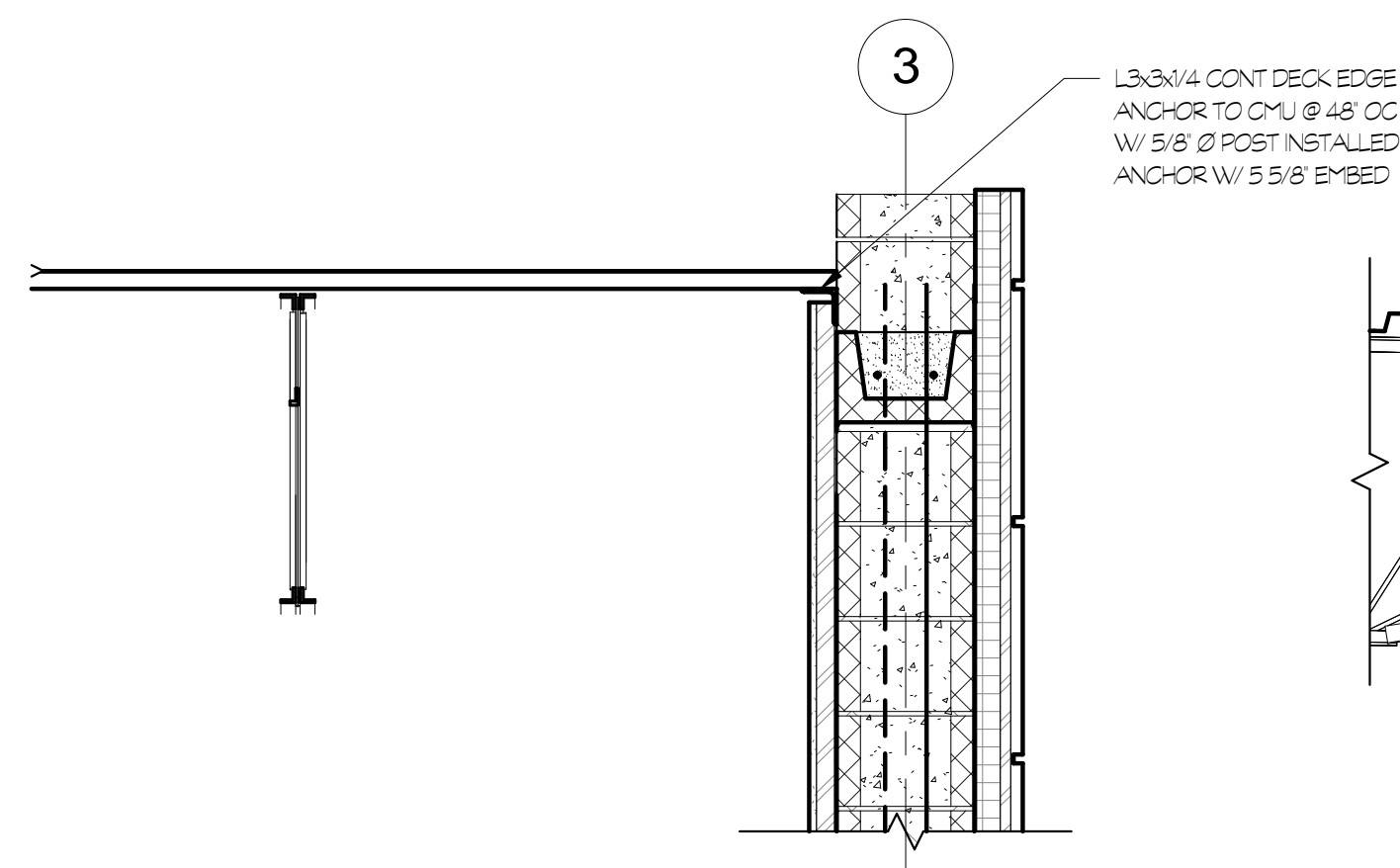


6
SECTION
3/4" = 1'-0"

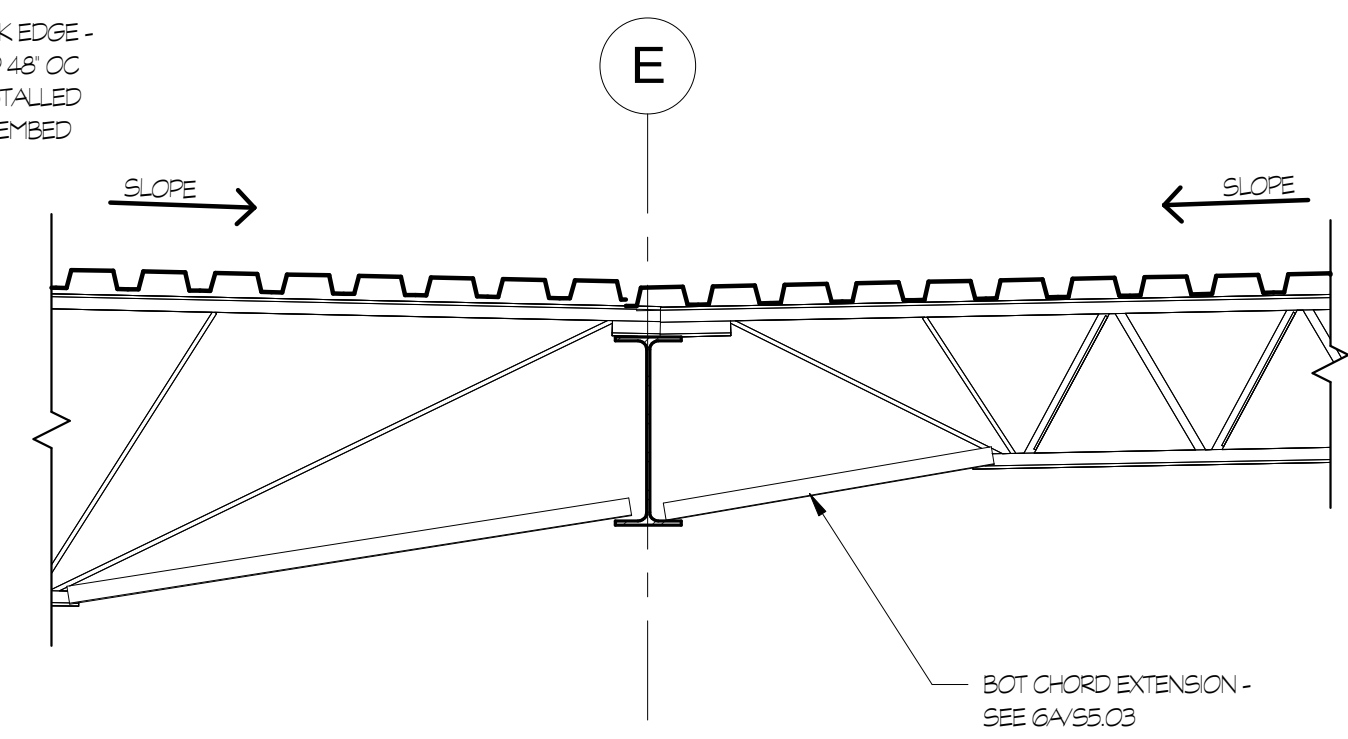


7
SECTION
3/4" = 1'-0"

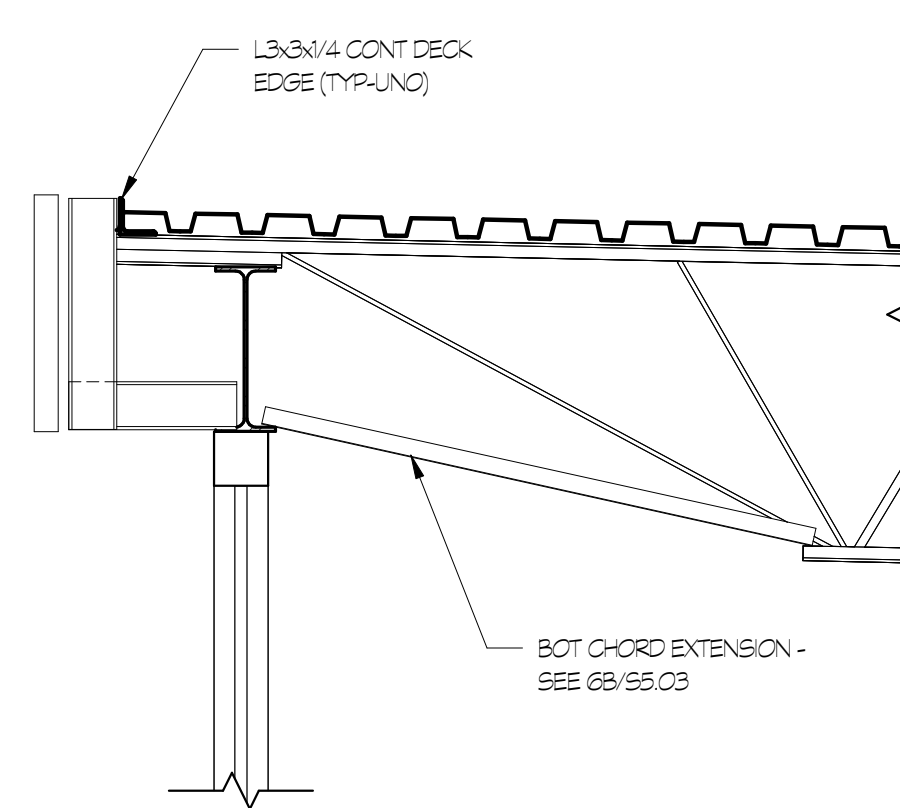




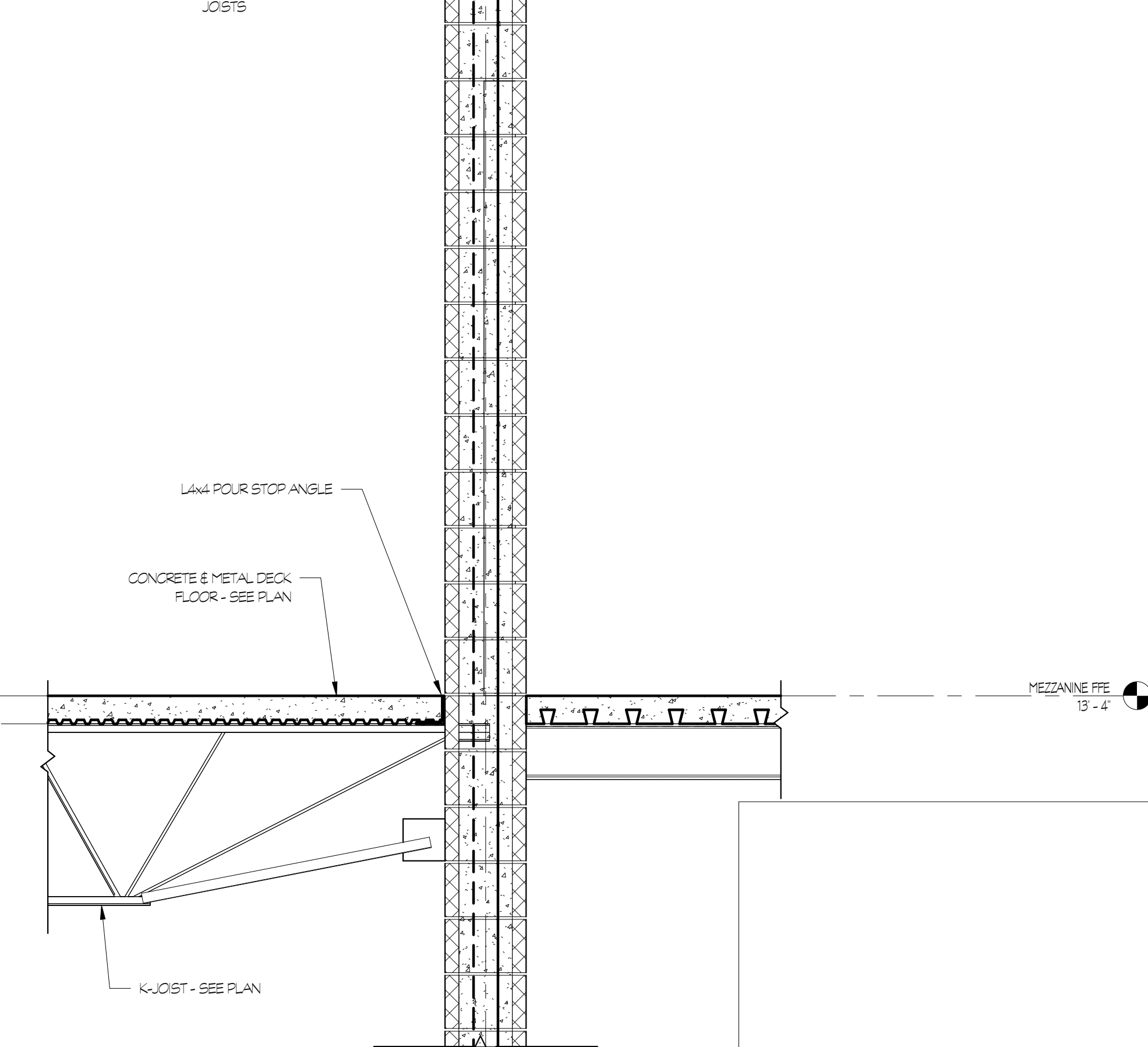
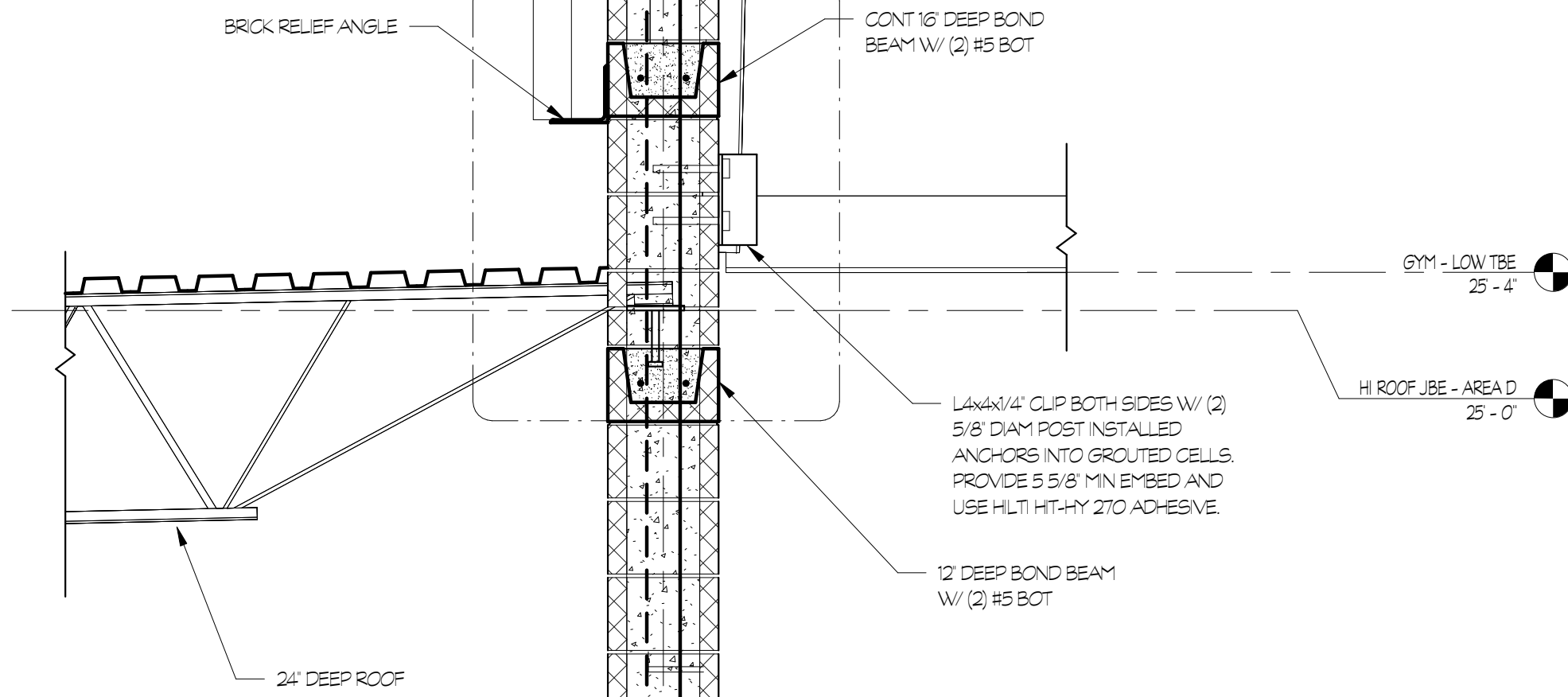
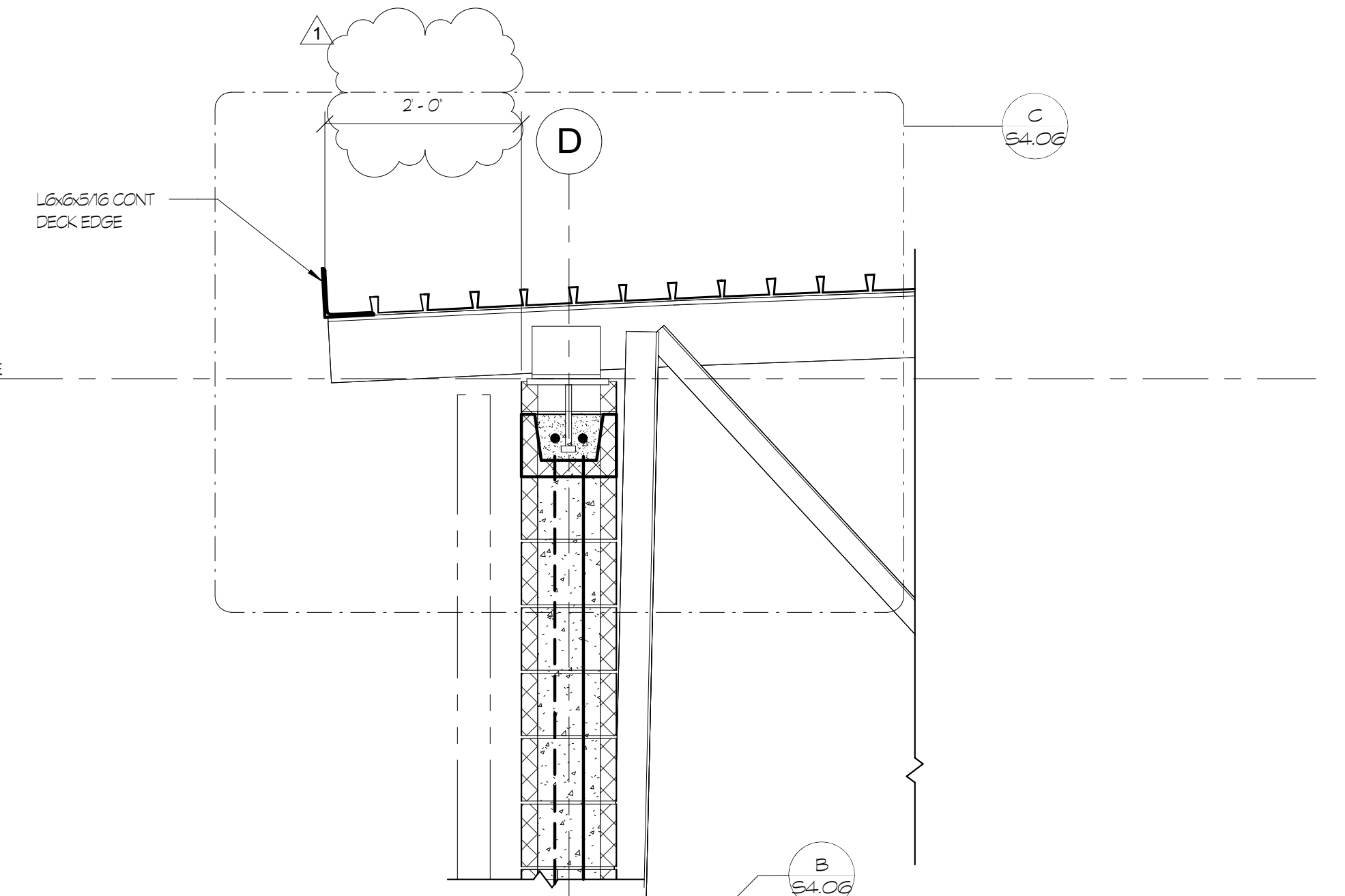
1 SECTION
54.03 3/4" ± 1'-0"



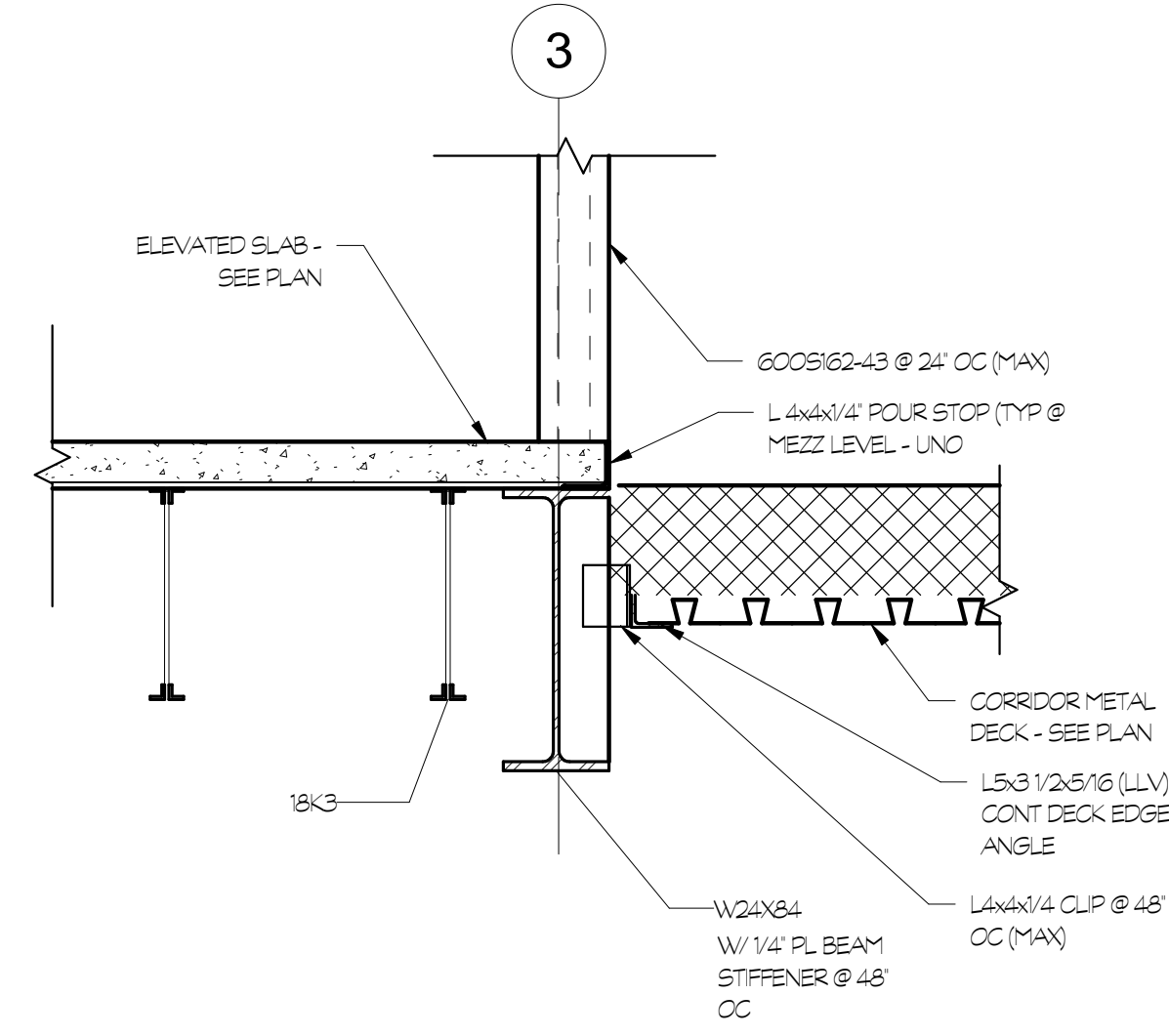
2 SECTION
54.03 3/4" ± 1'-0"



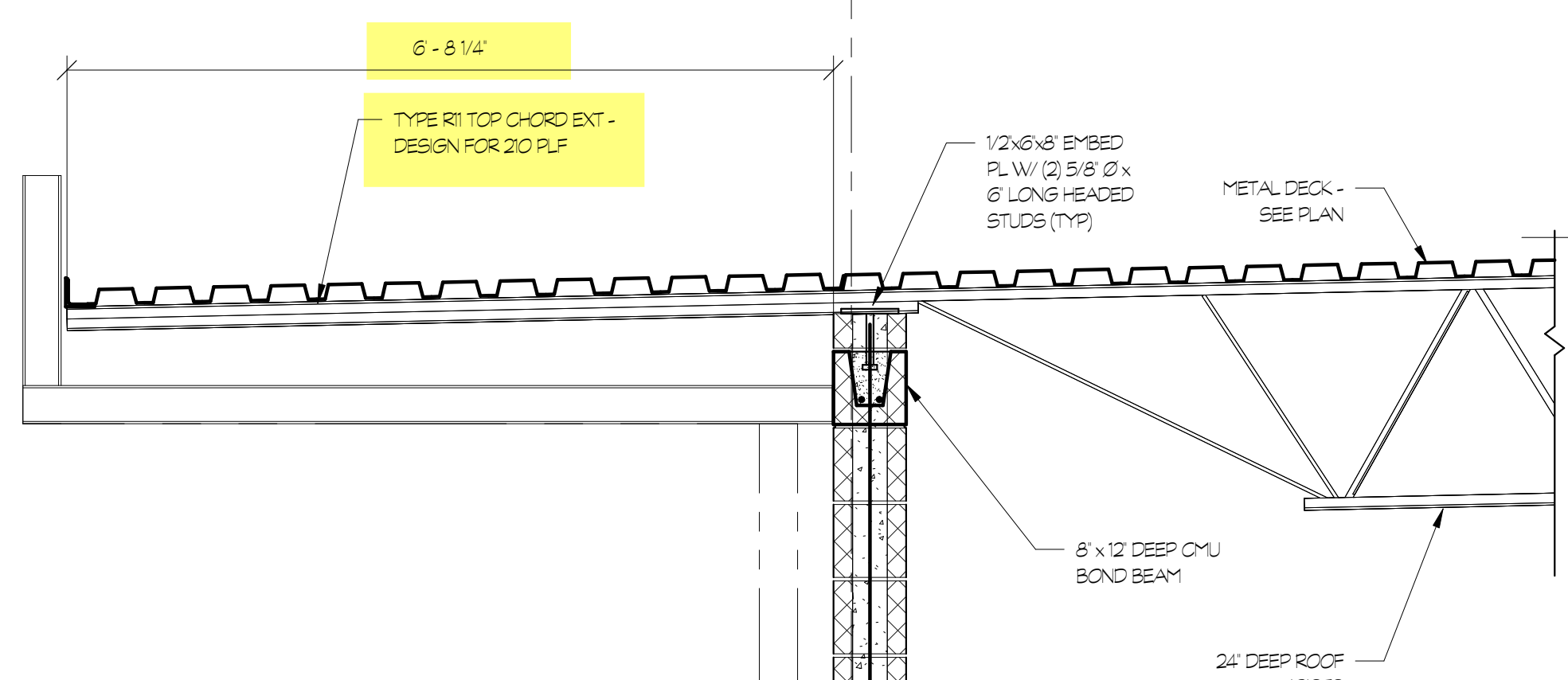
3 SECTION
54.03 3/4" ± 1'-0"



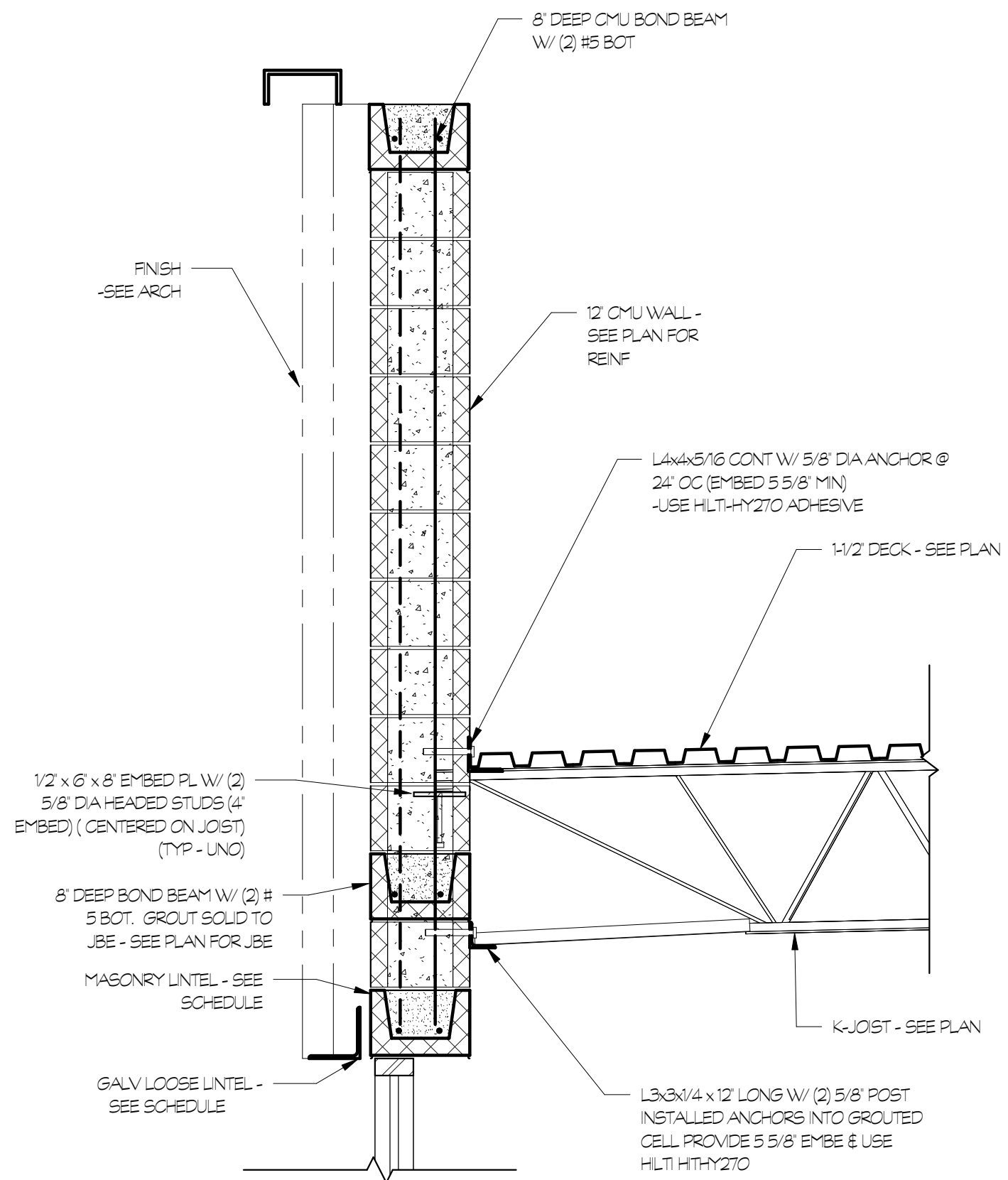
7 SECTION
54.03 3/4" ± 1'-0"



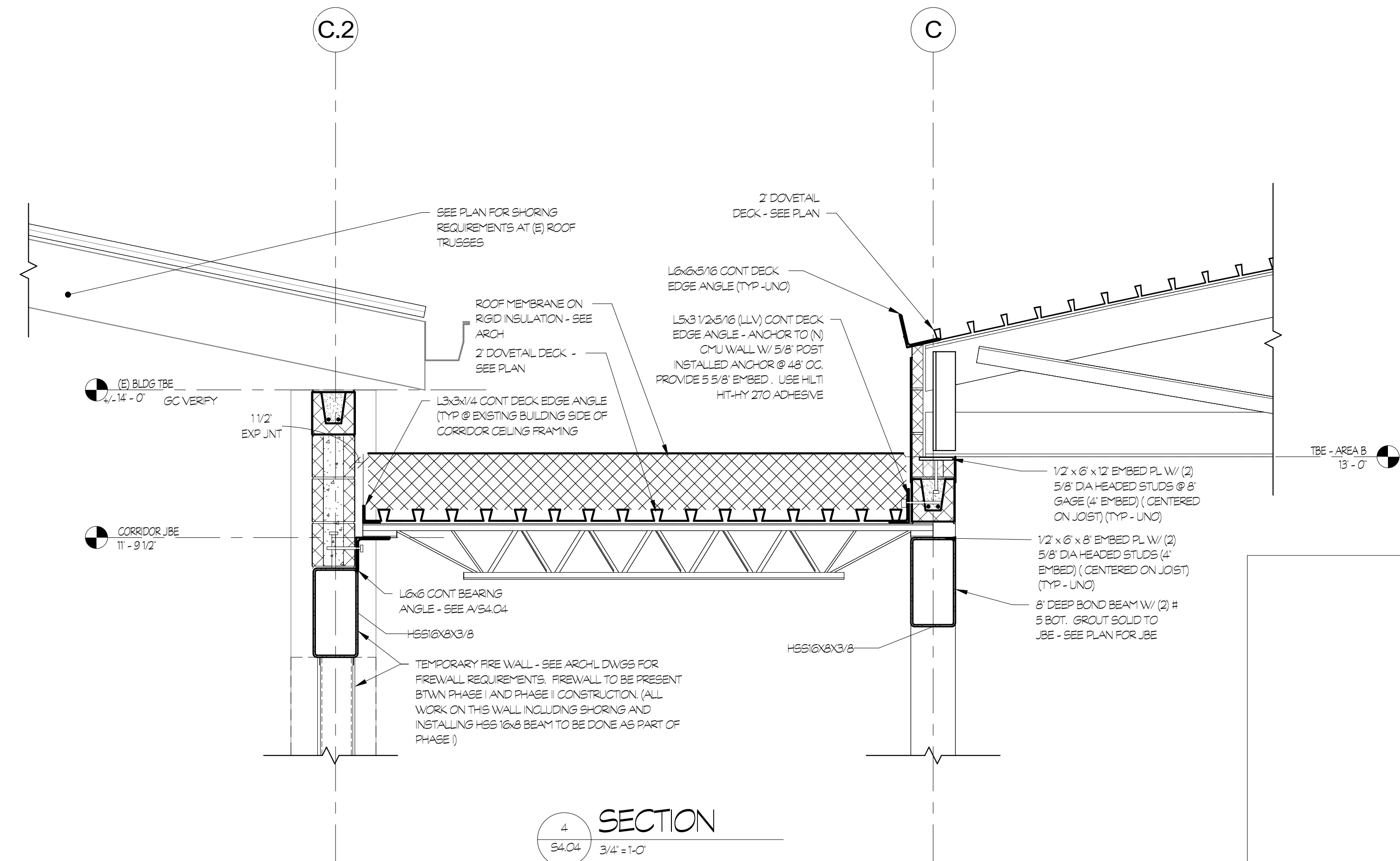
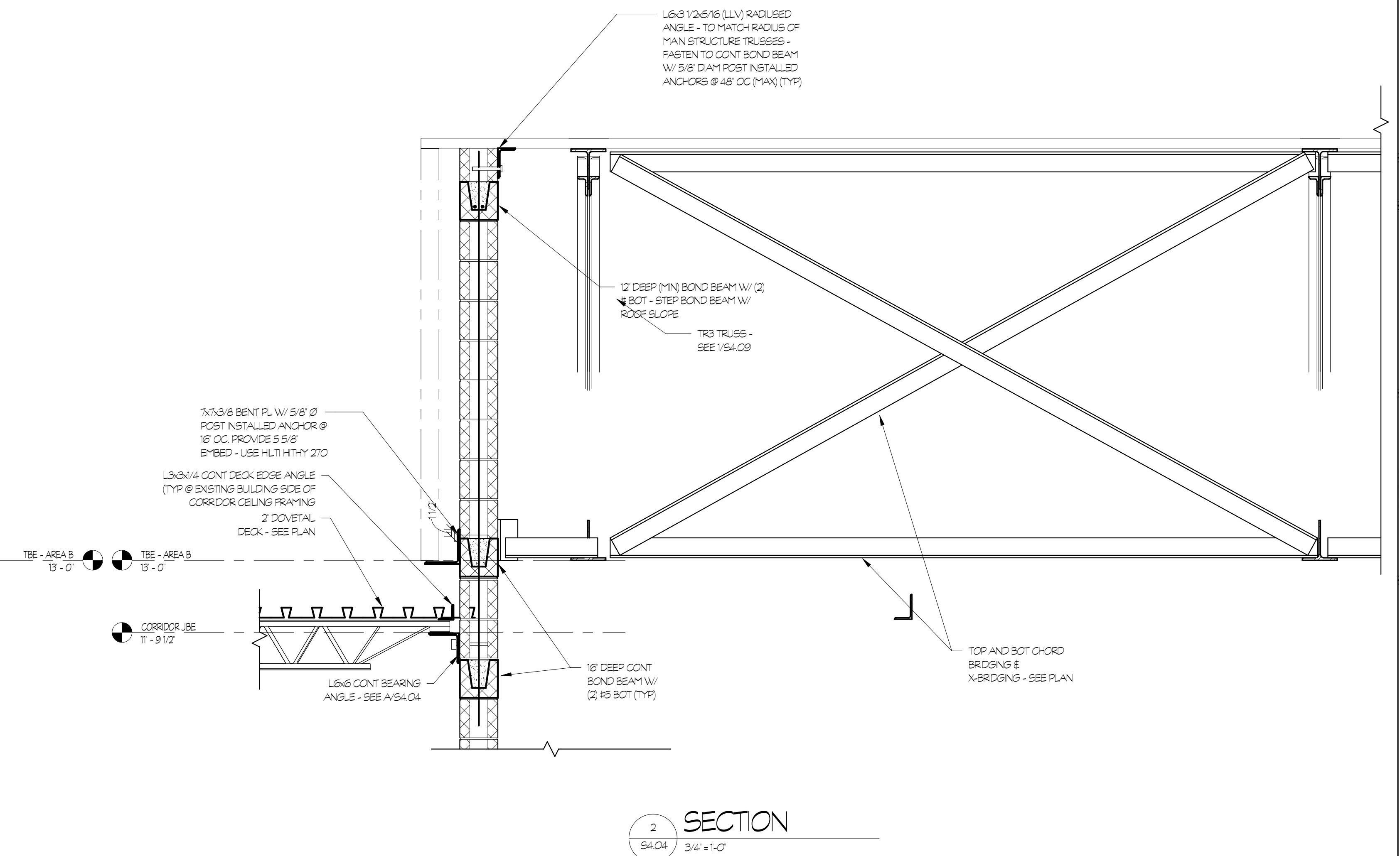
4 SECTION
54.03 3/4" ± 1'-0"

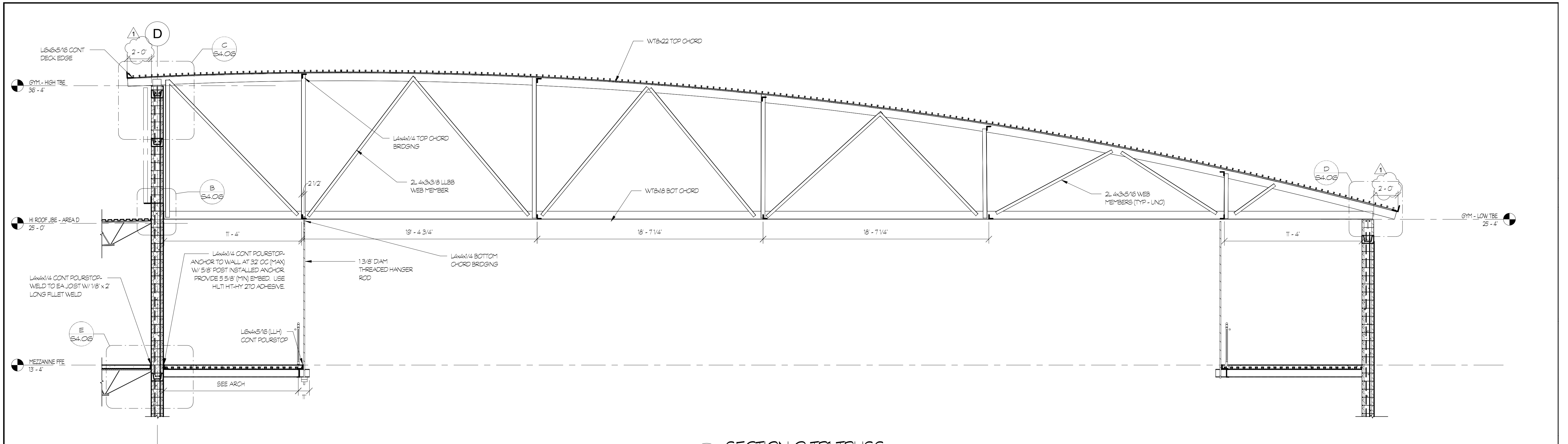


6 SECTION
54.03 3/4" ± 1'-0"

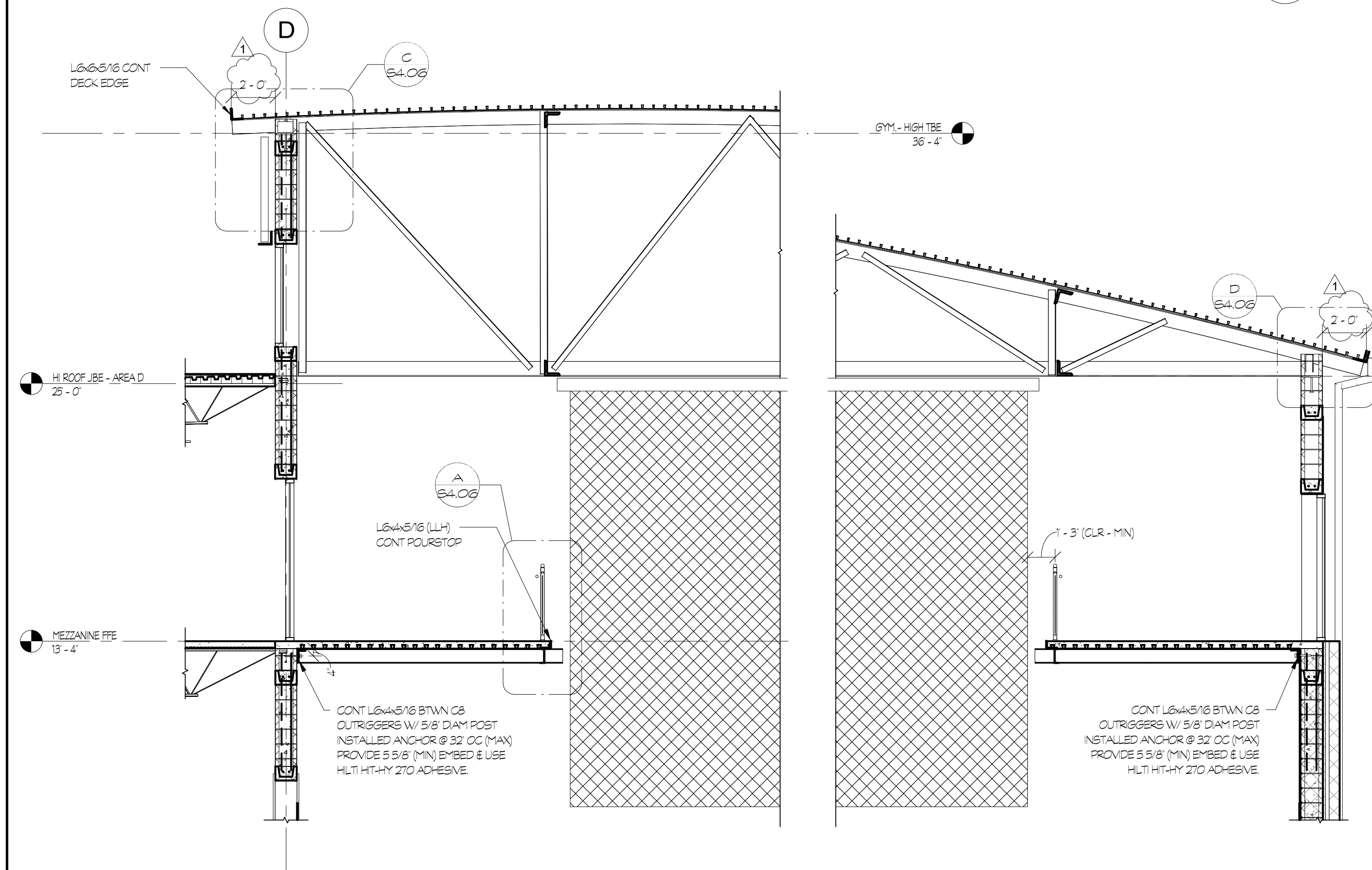


5 SECTION
54.03 3/4" ± 1'-0"

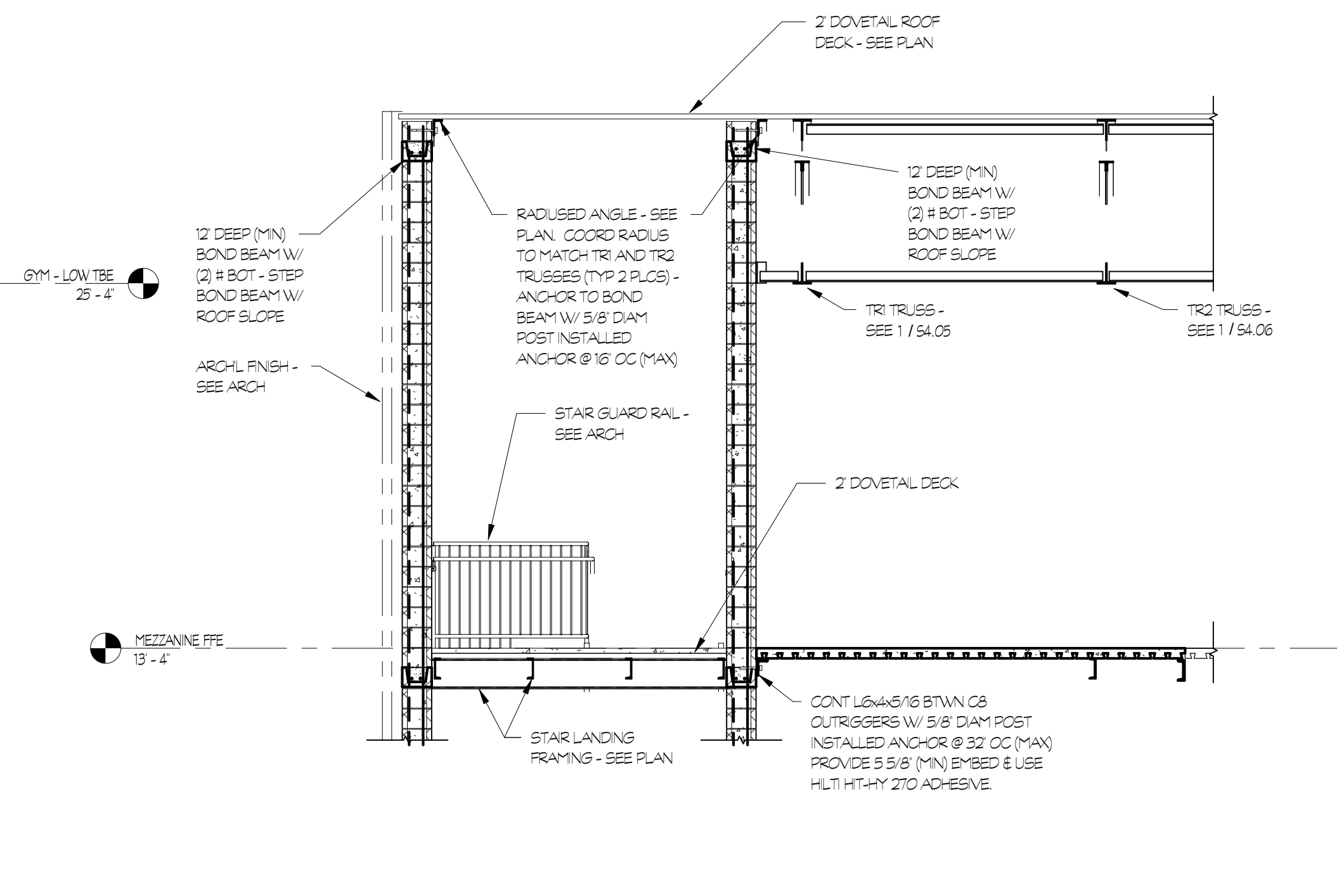




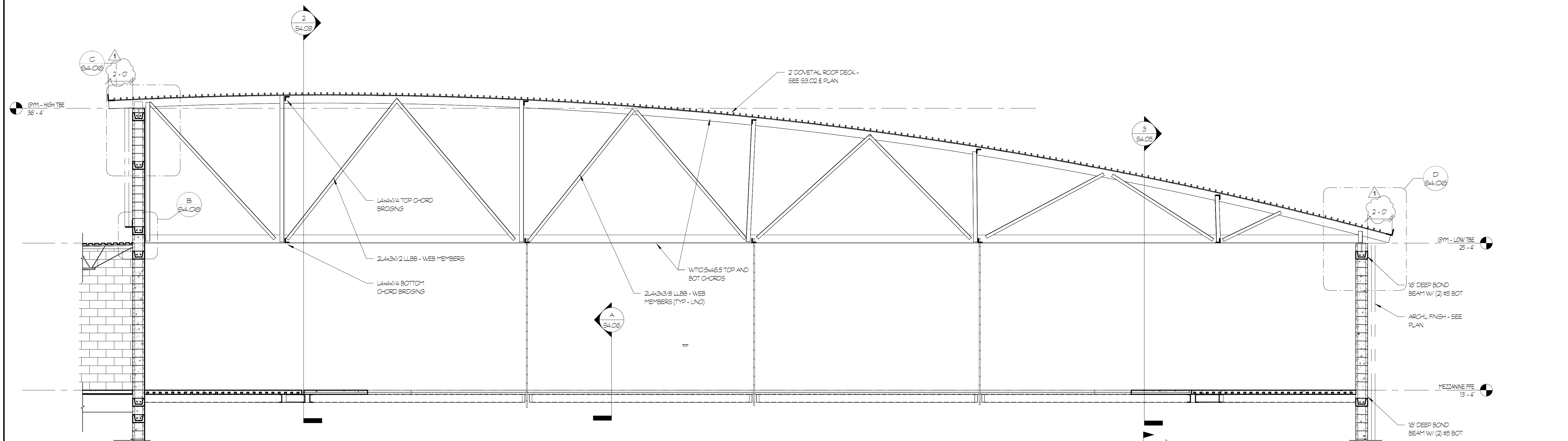
1 SECTION @ TRI TRUSS
S4.05 1/4" = 1'-0"



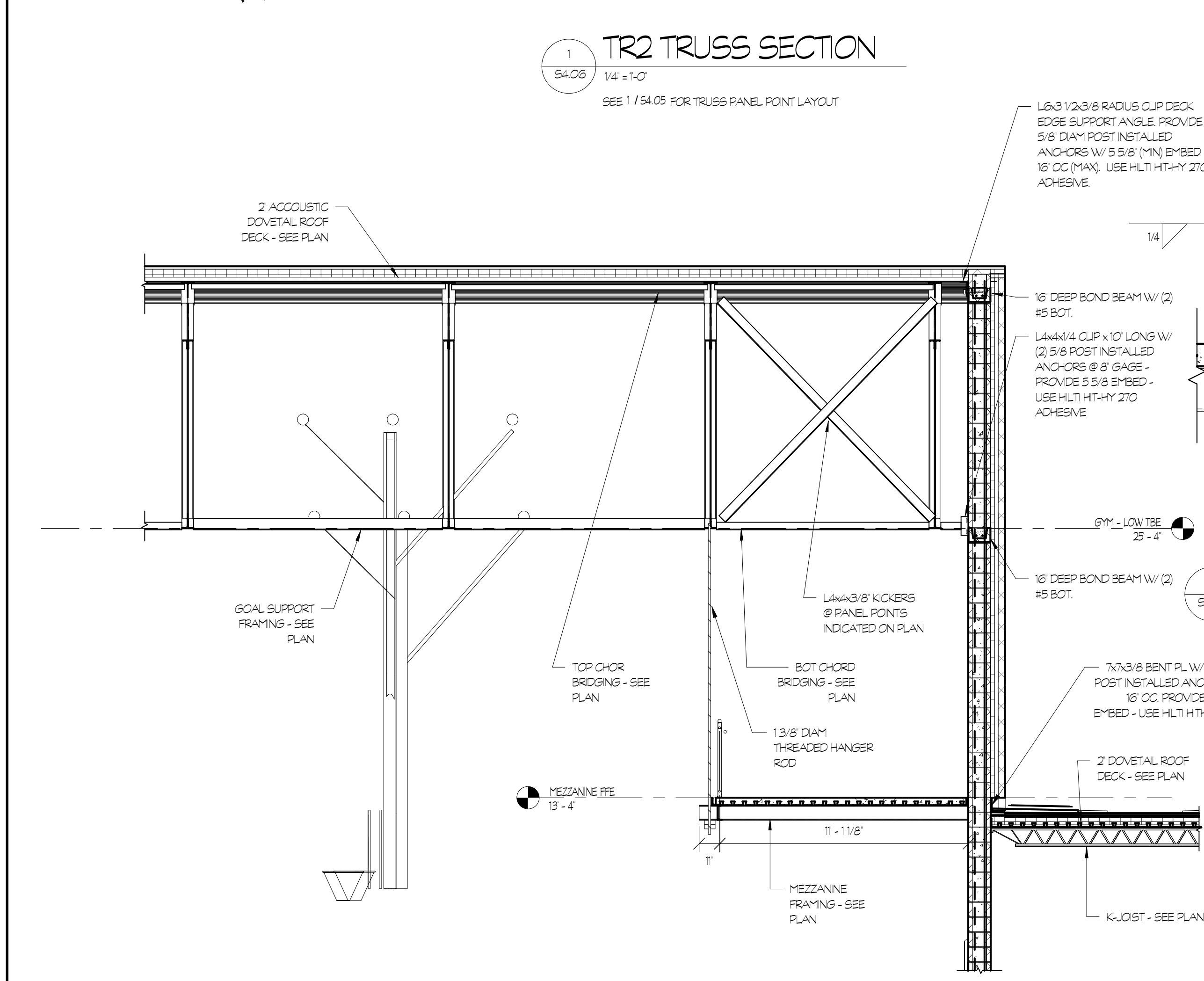
2 SECTION
S4.05 1/4" = 1'-0"



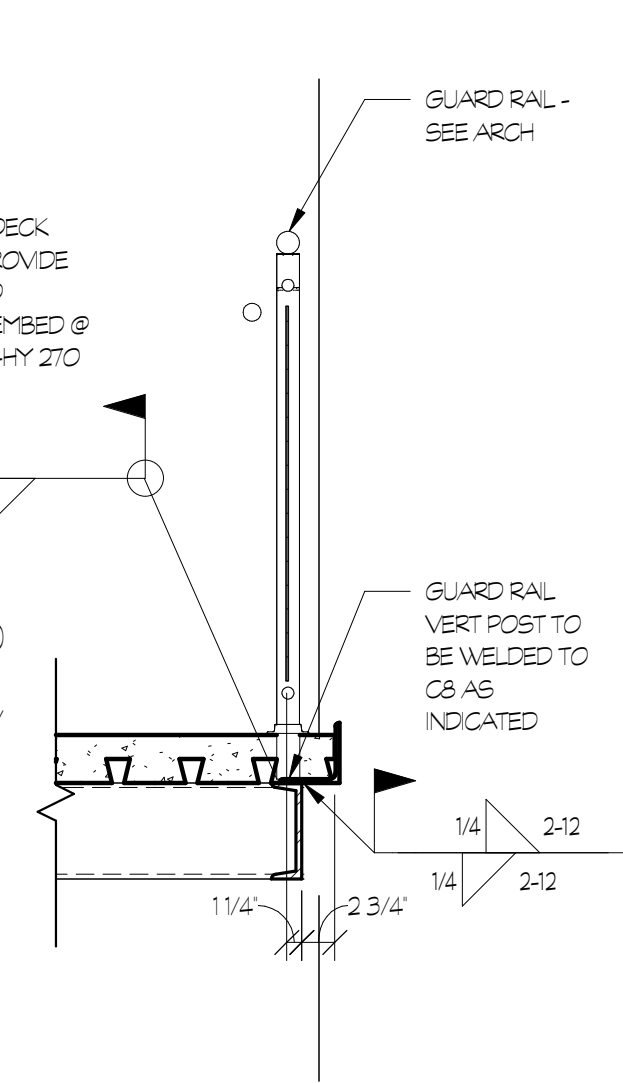
3 SECTION
S4.05 1/4" = 1'-0"



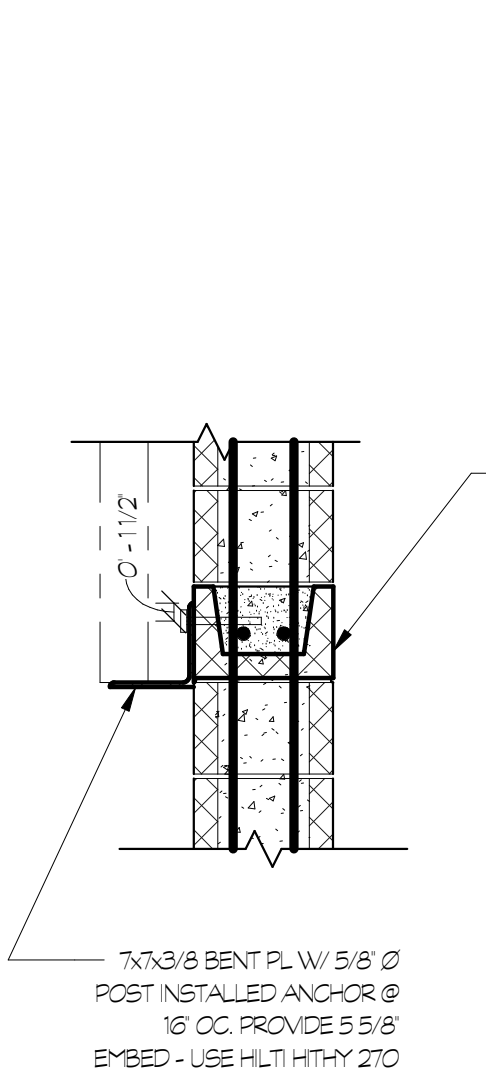
1 TR2 TRUSS SECTION
 54.06 1/4" = 1'-0"
 SEE 1 / 54.05 FOR TRUSS PANEL POINT LAYOUT



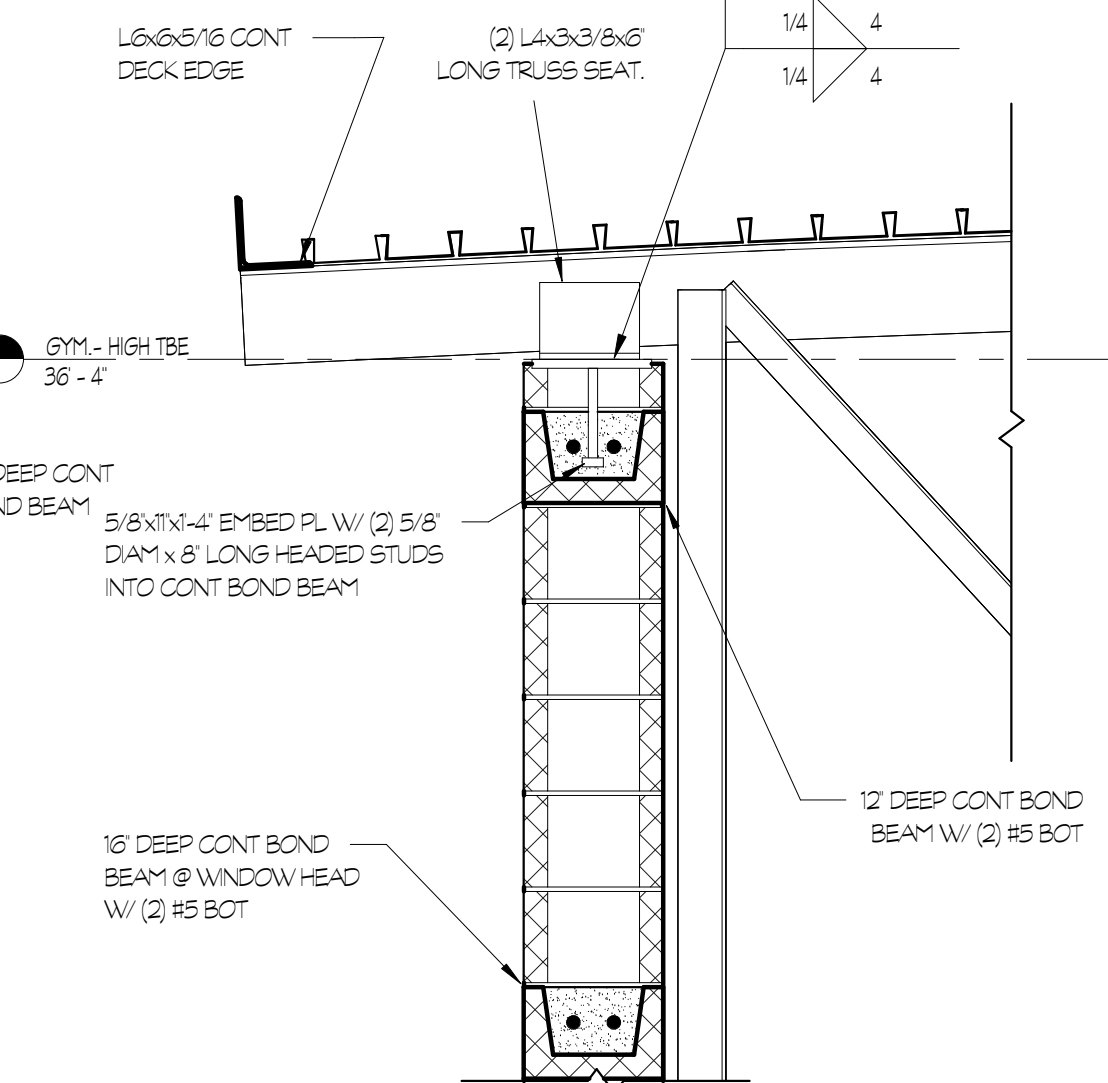
2 SECTION
 54.06 1/4" = 1'-0"



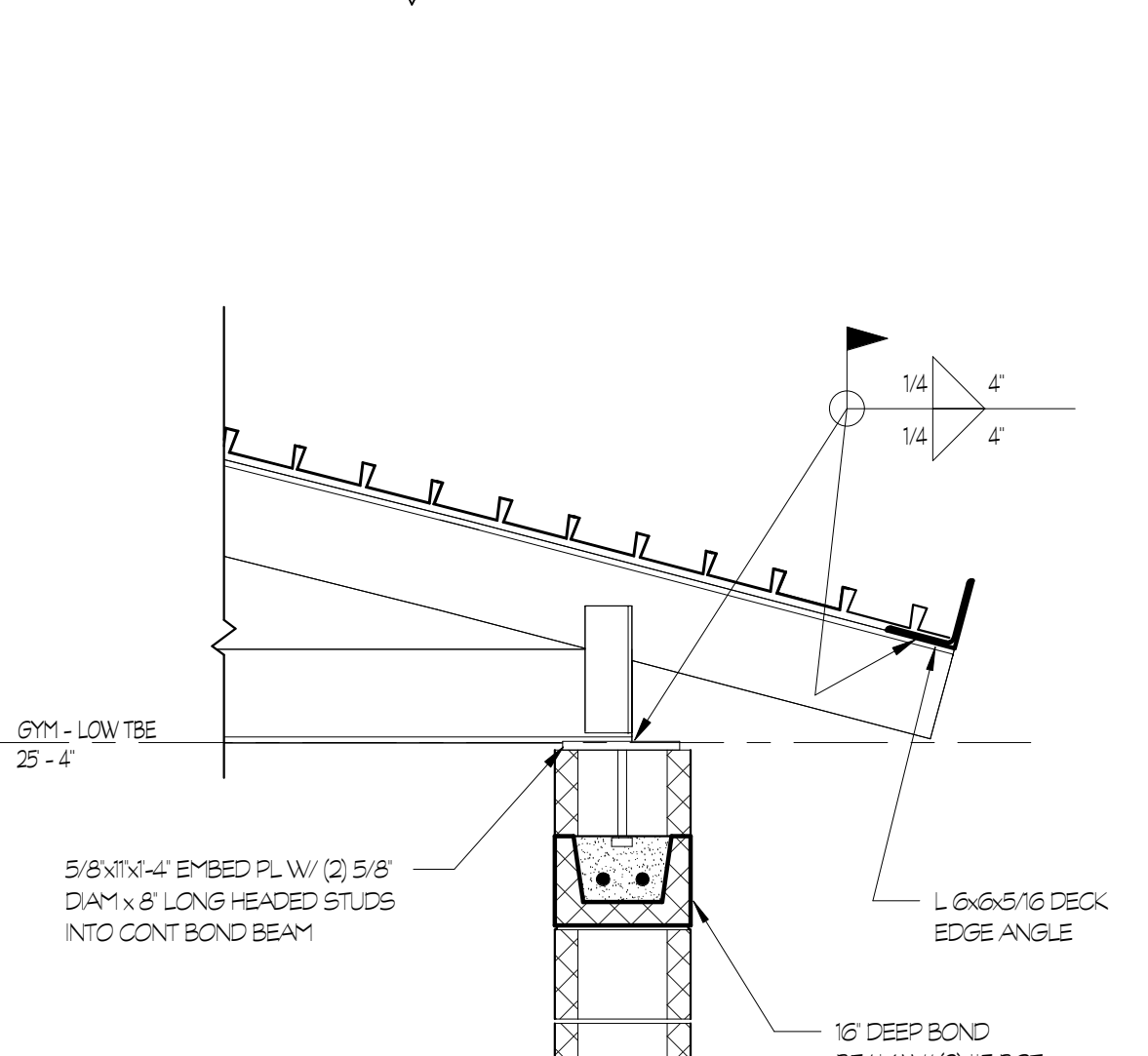
A DETAIL
 54.06 3/4" = 1'-0"



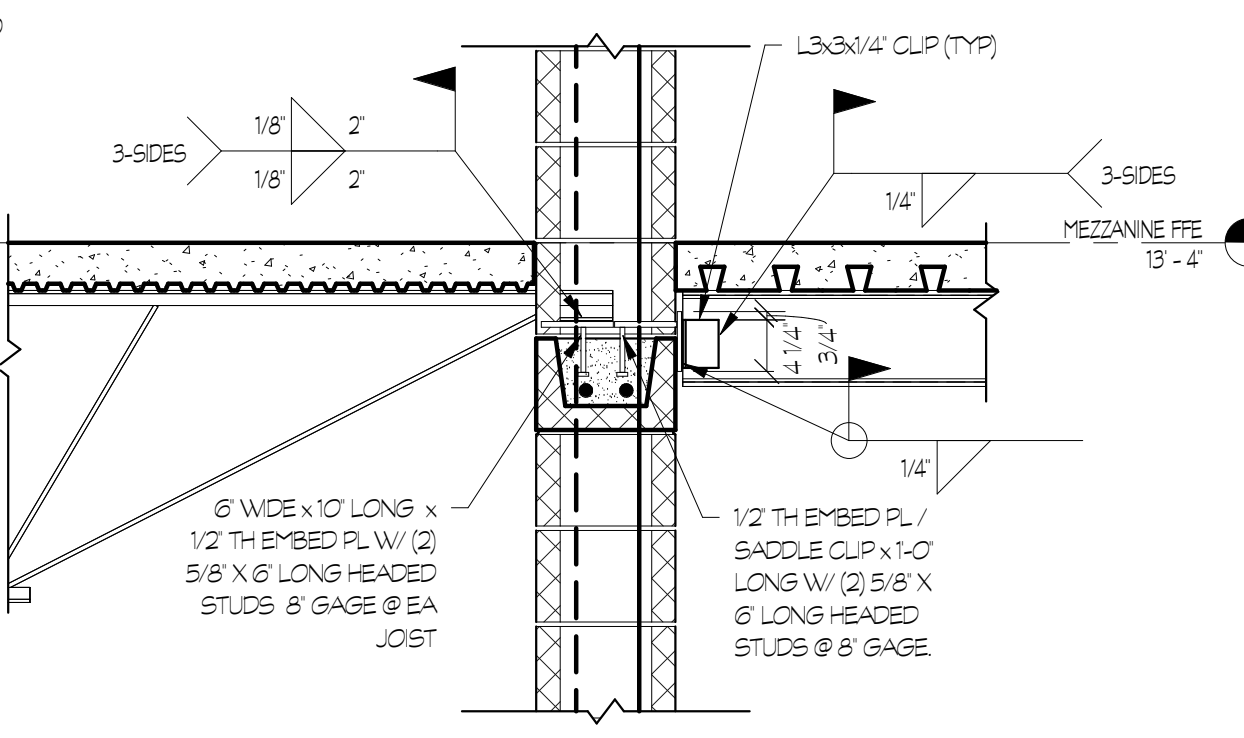
B DETAIL
 54.06 3/4" = 1'-0"



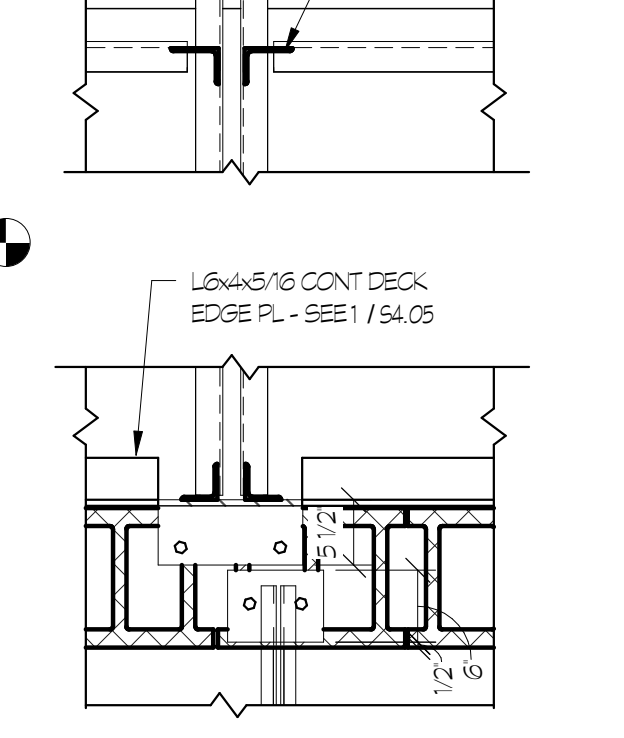
C DETAIL
 54.06 3/4" = 1'-0"



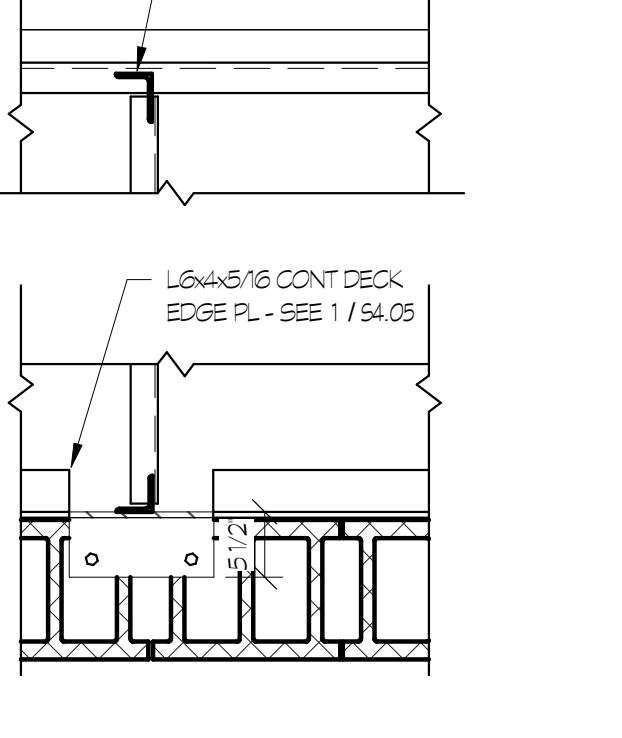
D DETAIL
 54.06 3/4" = 1'-0"



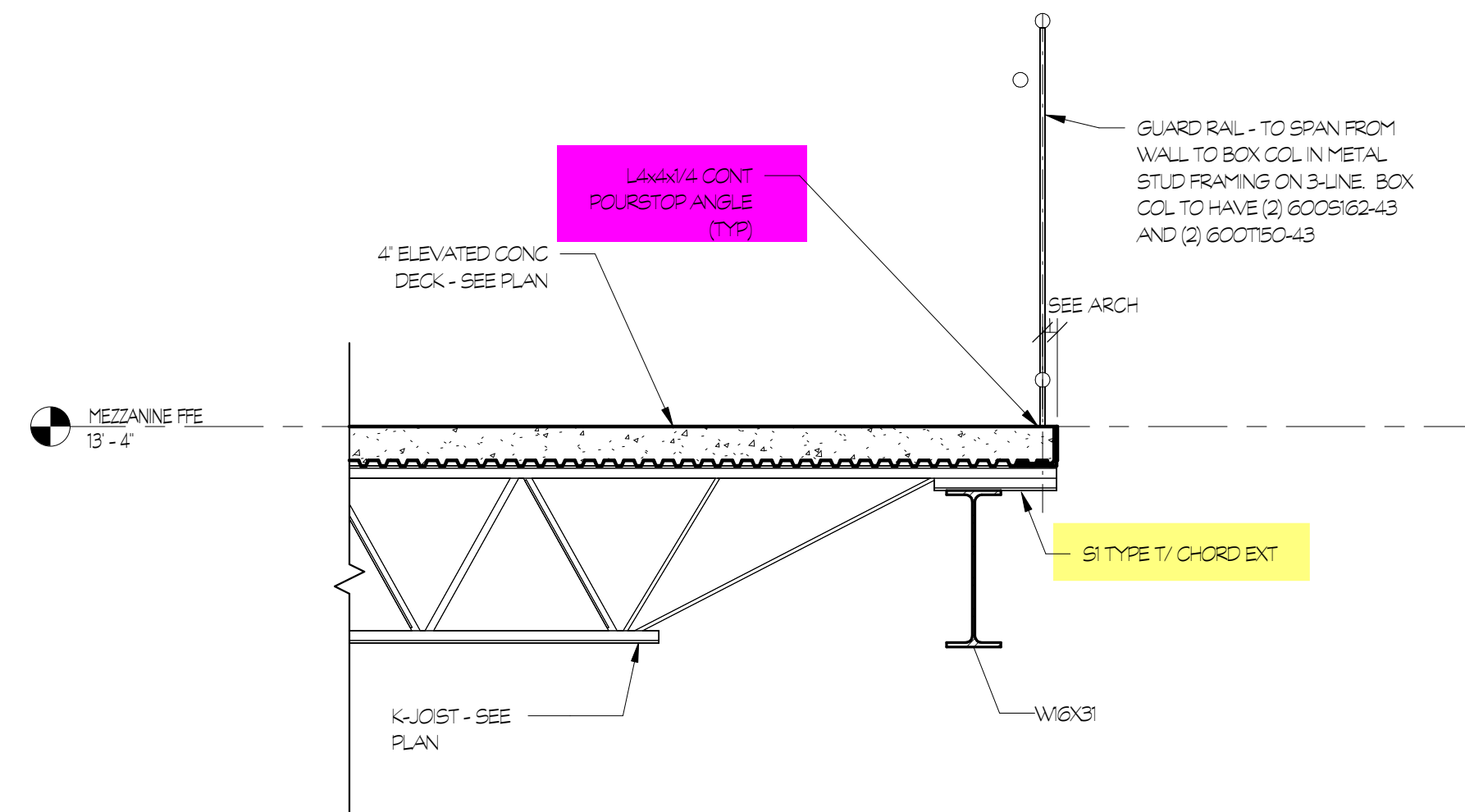
E DETAIL
 54.06 3/4" = 1'-0"



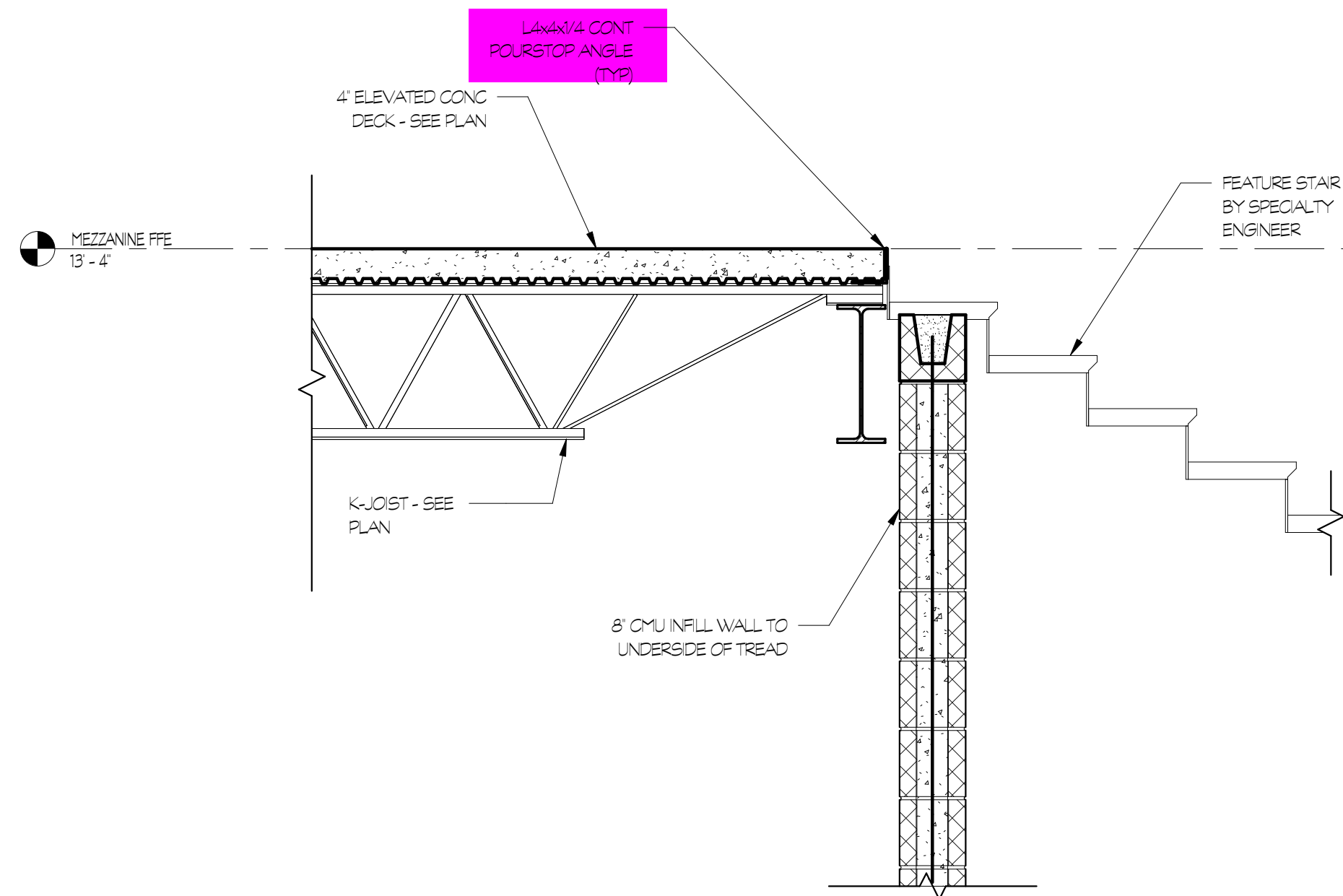
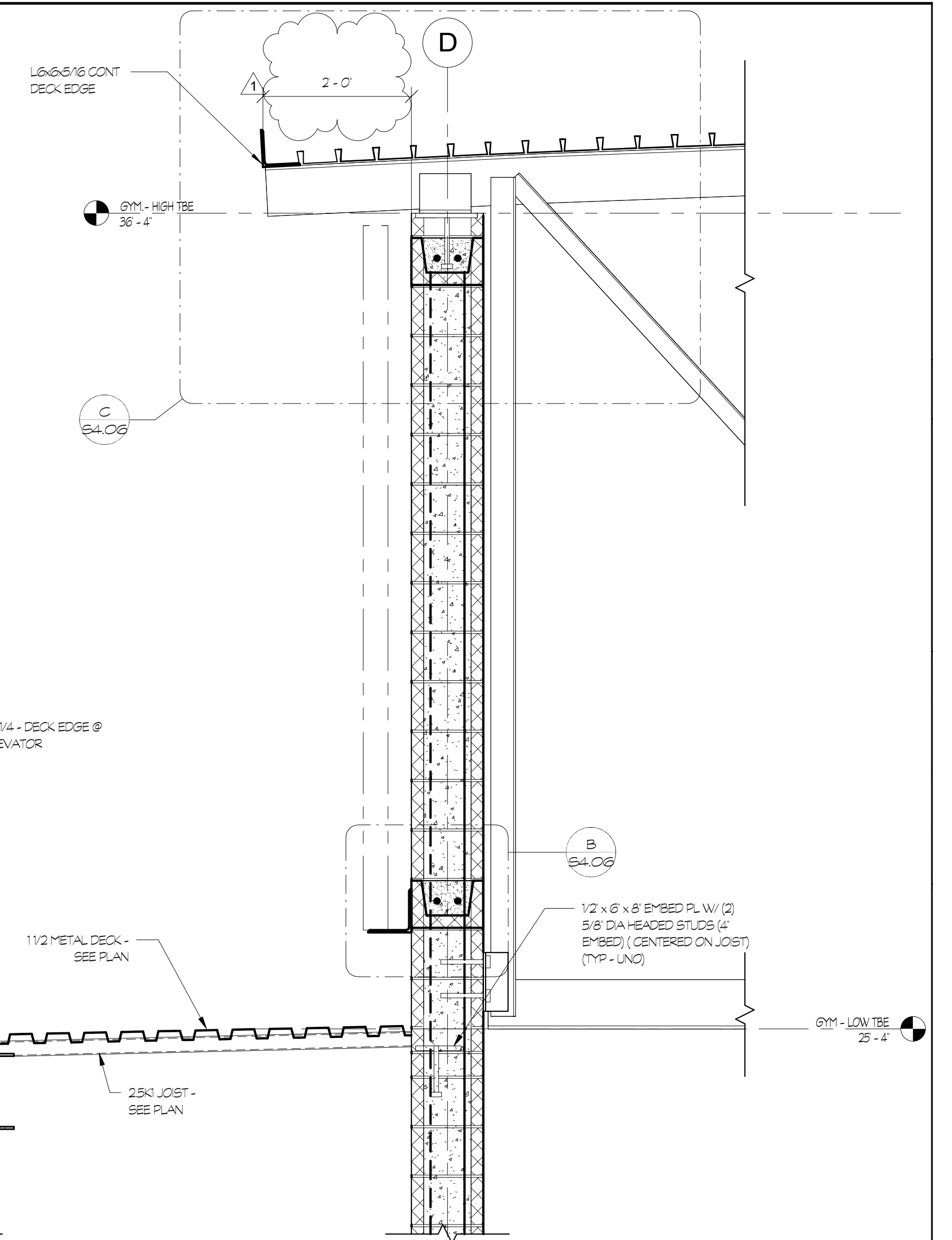
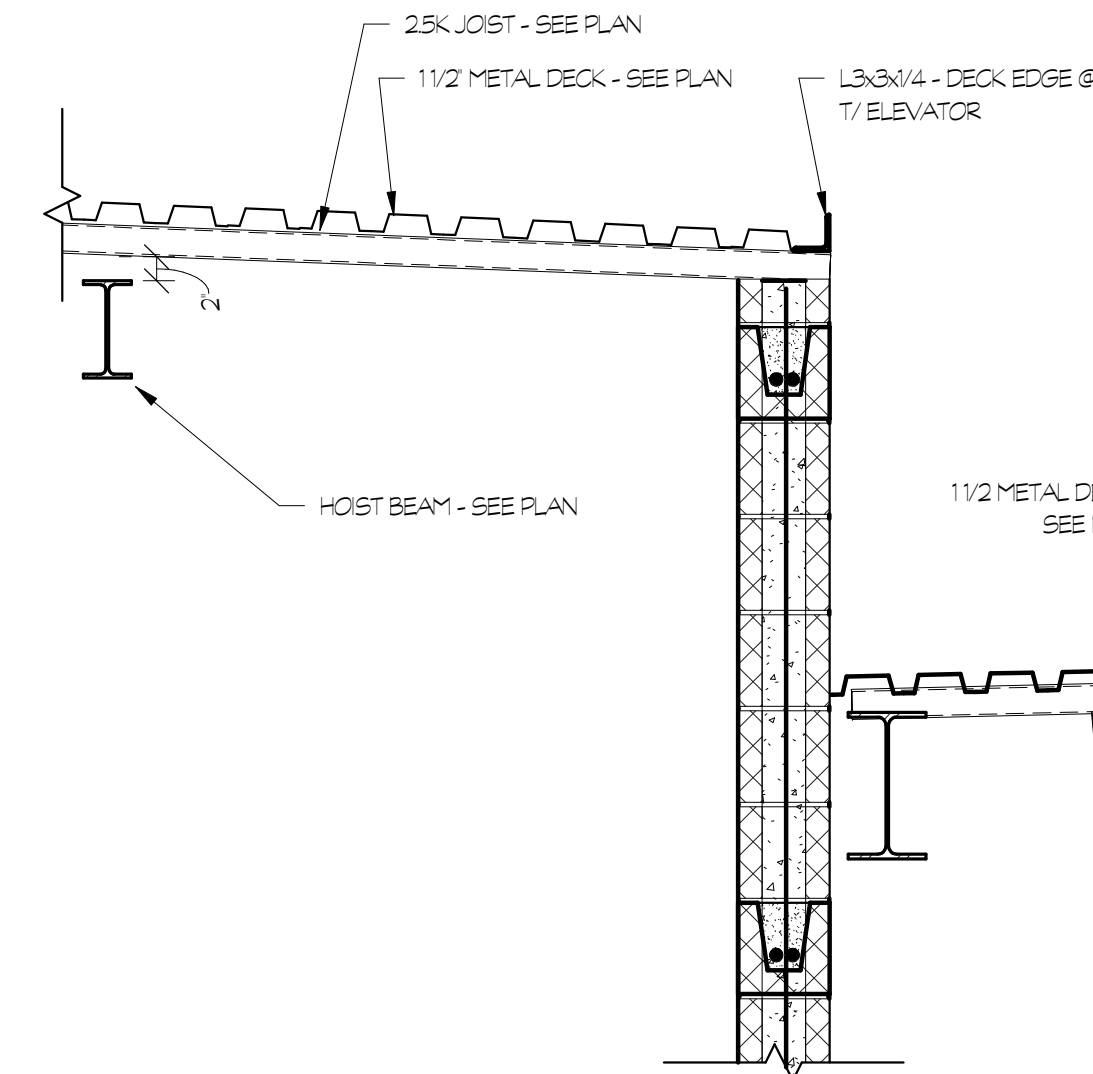
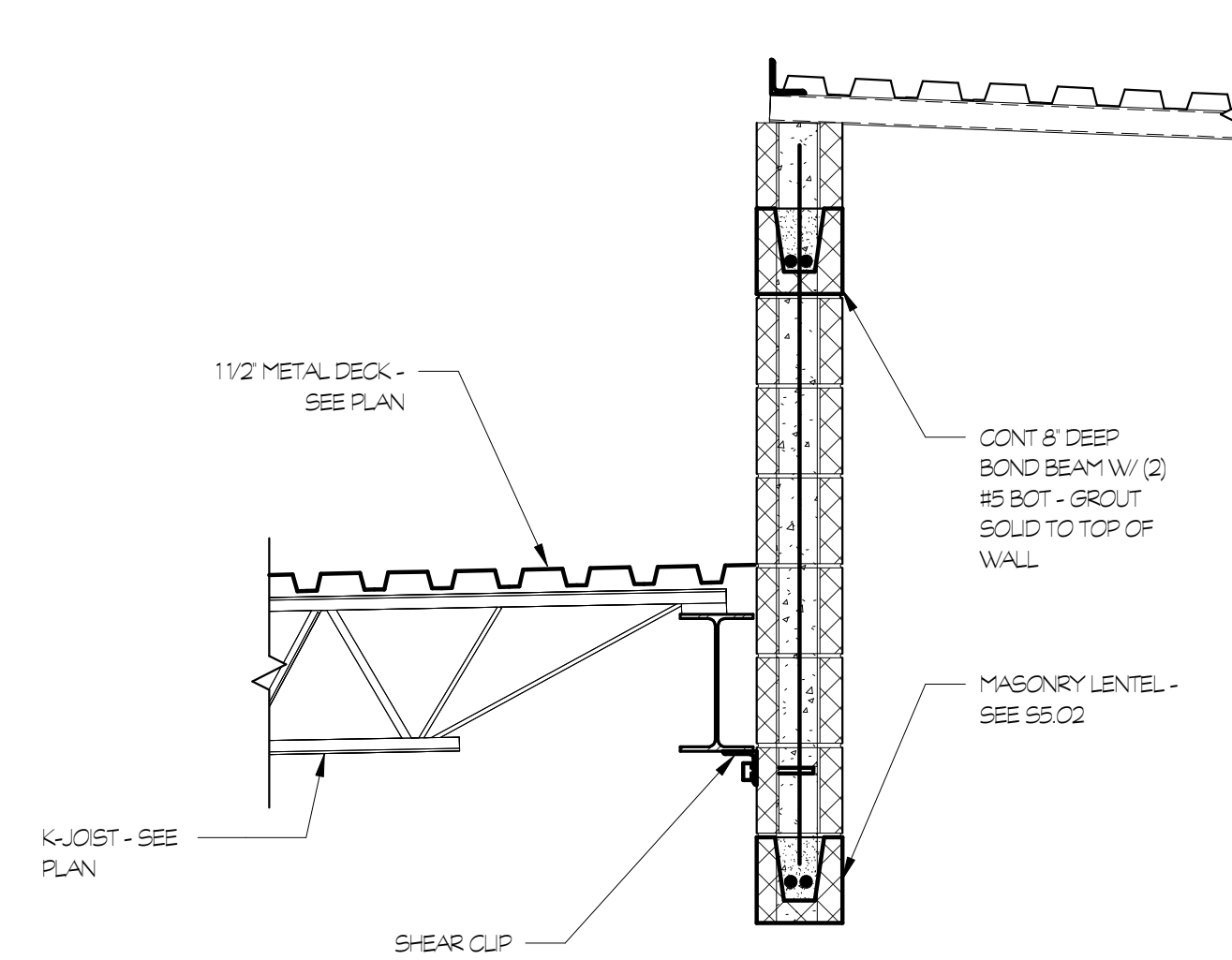
F DETAIL PARTIAL PLAN
 54.06 3/4" = 1'-0"



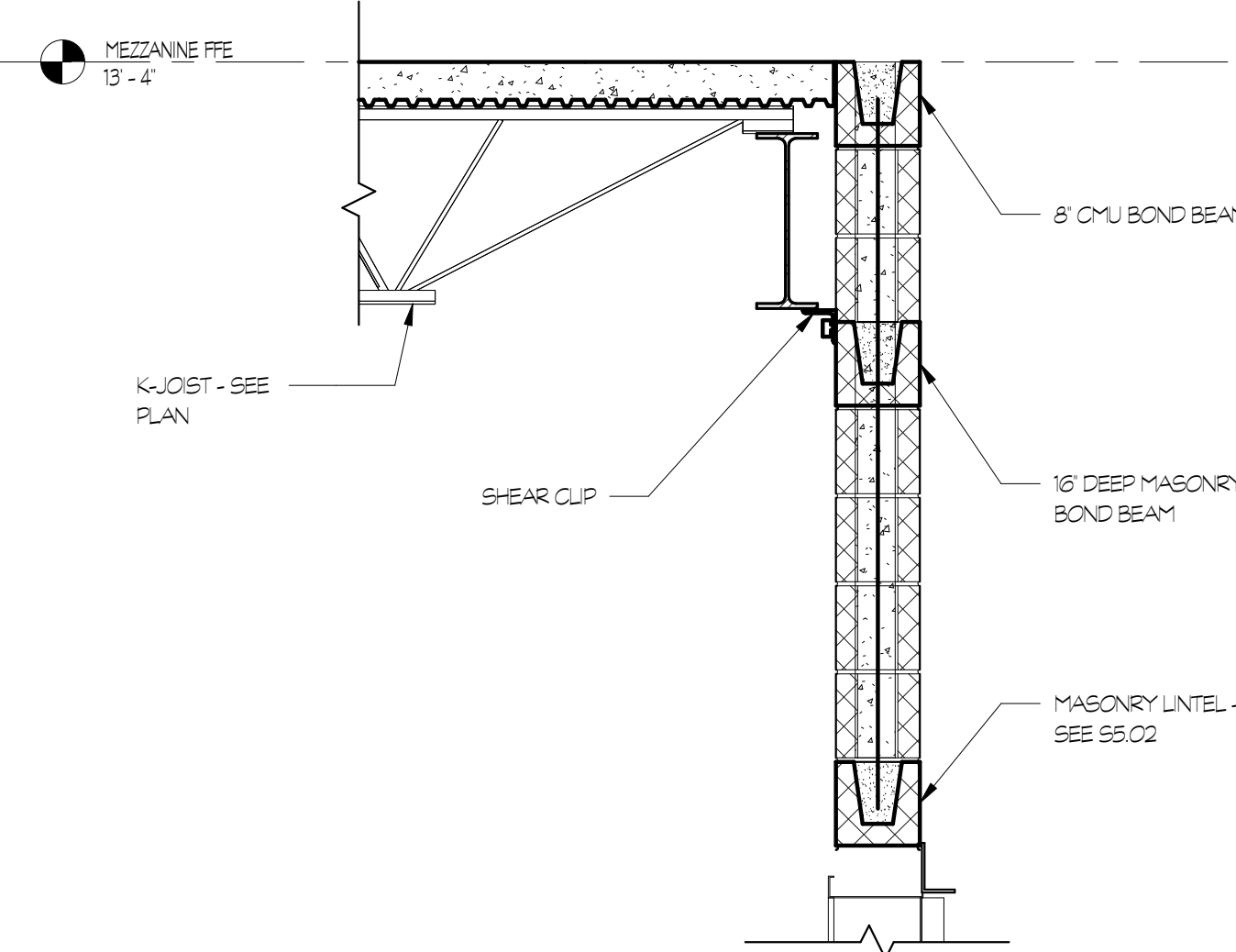
G DETAIL PARTIAL PLAN
 54.06 3/4" = 1'-0"



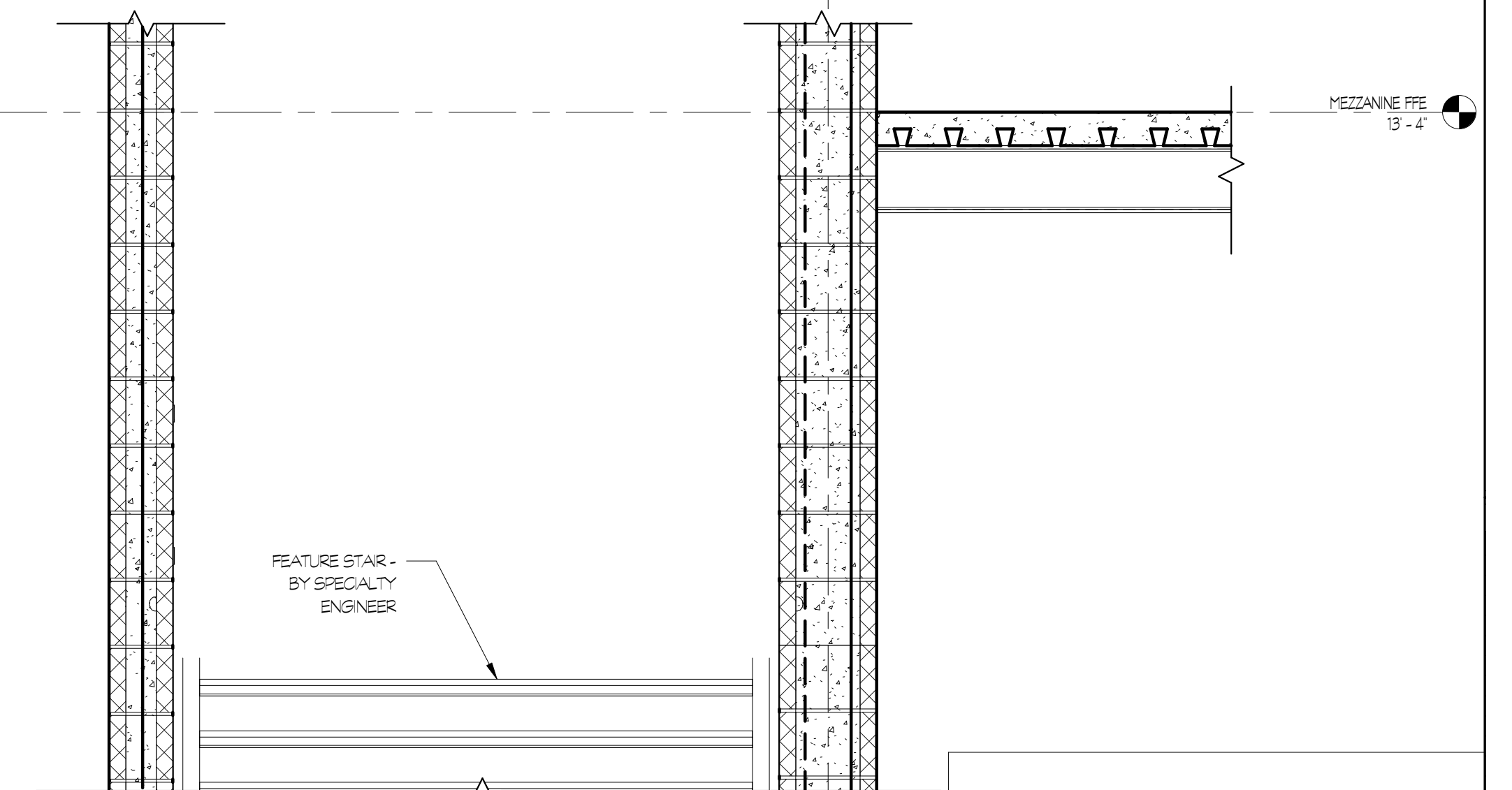
1
SECTION
S4.07 3/4" = 1'-0"



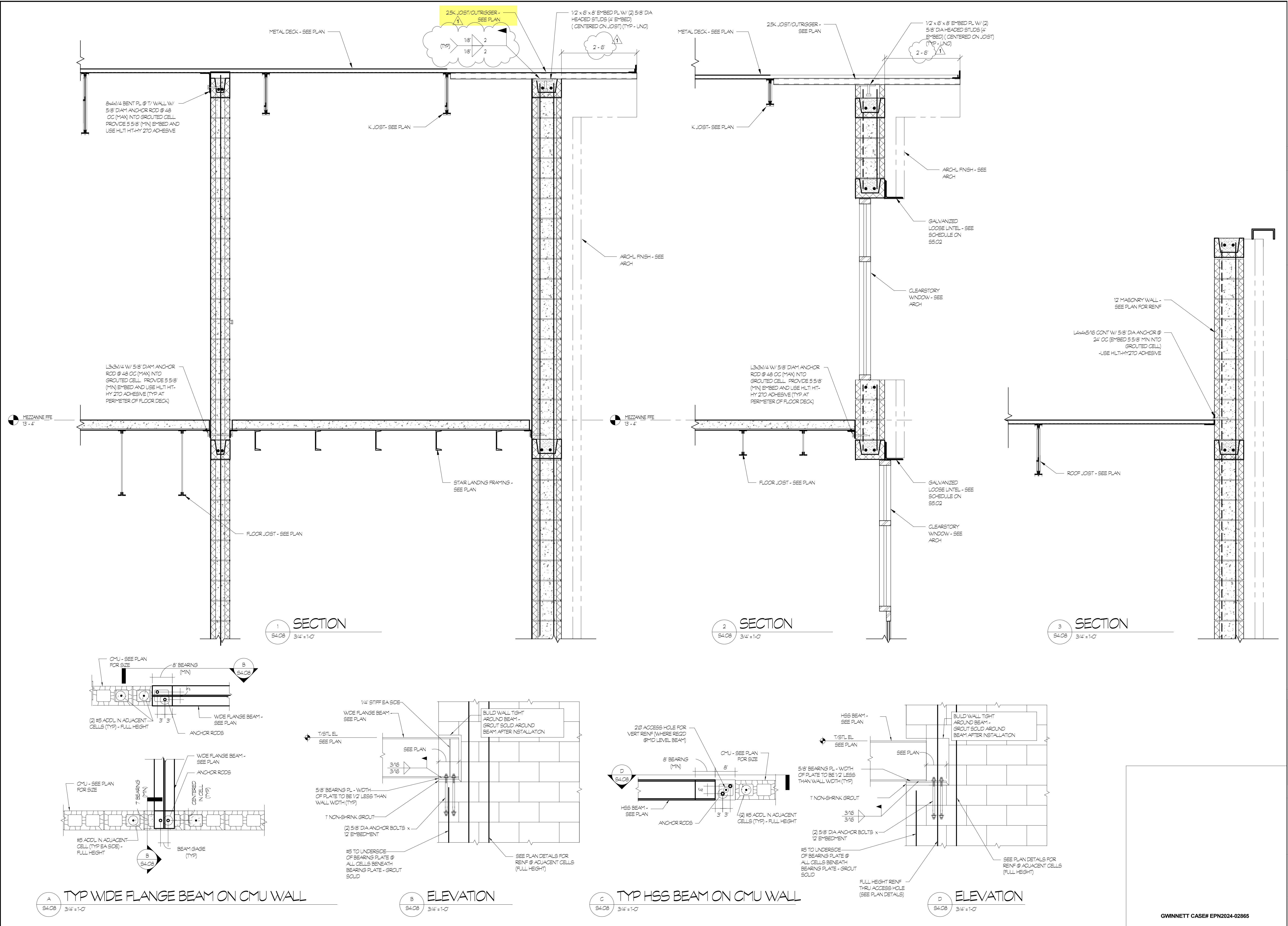
2
SECTION
S4.07 3/4" = 1'-0"

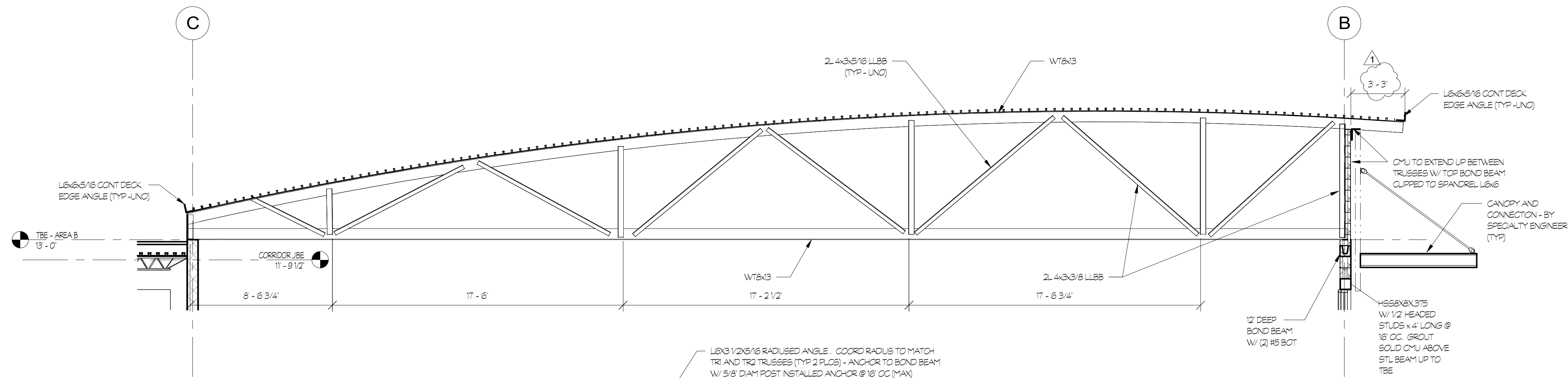


3
SECTION
S4.07 3/4" = 1'-0"

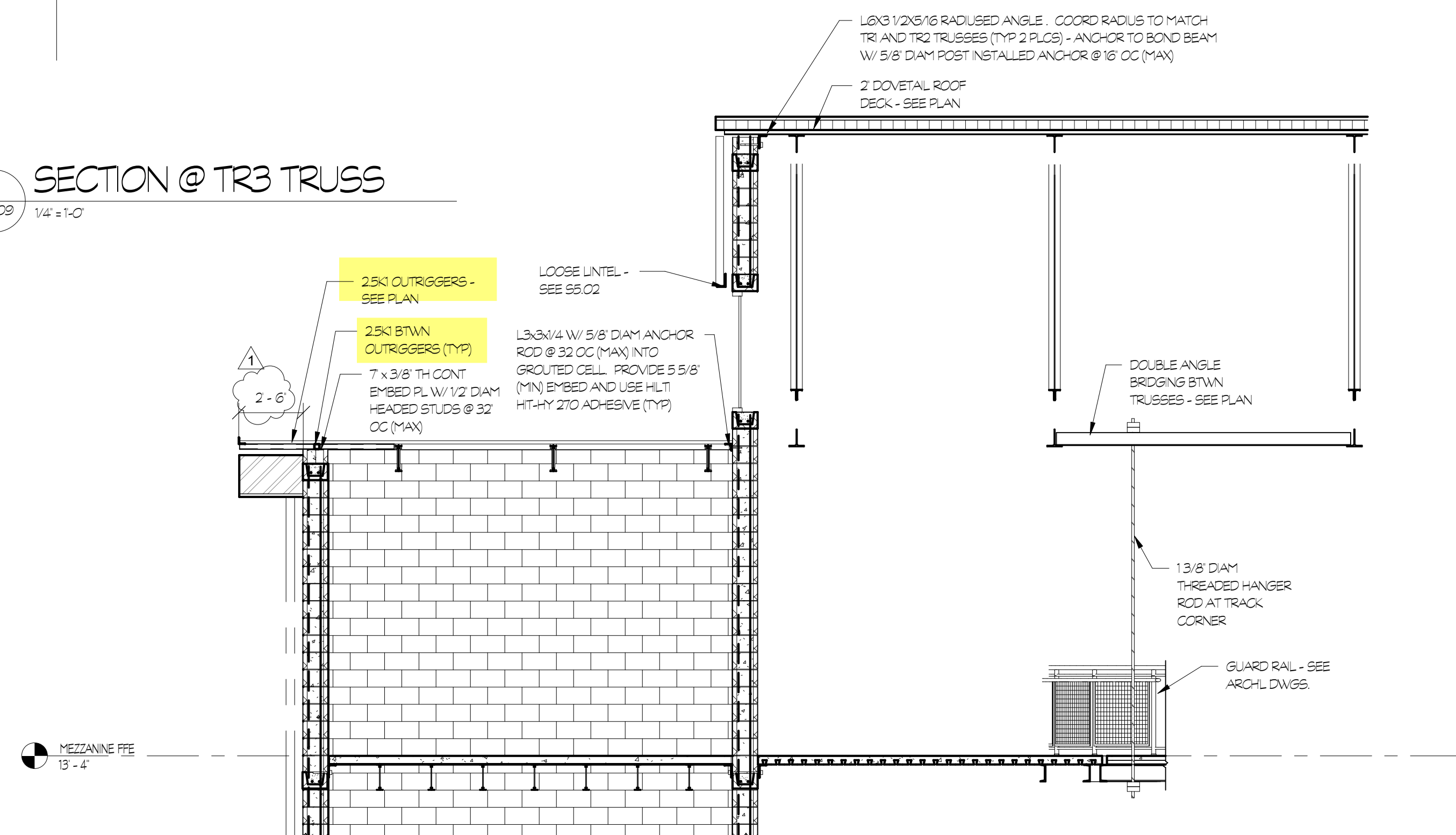


4
SECTION
S4.07 3/4" = 1'-0"

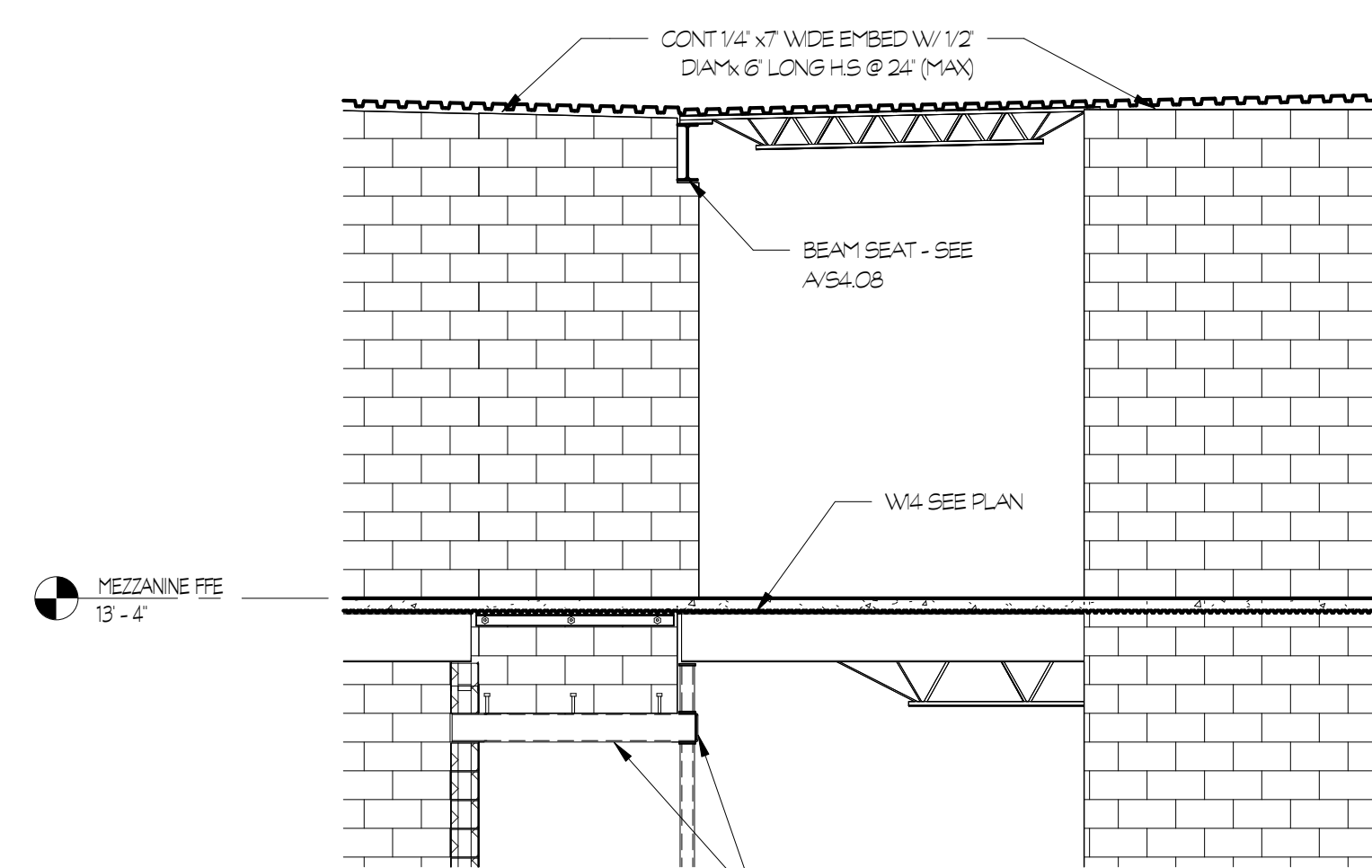




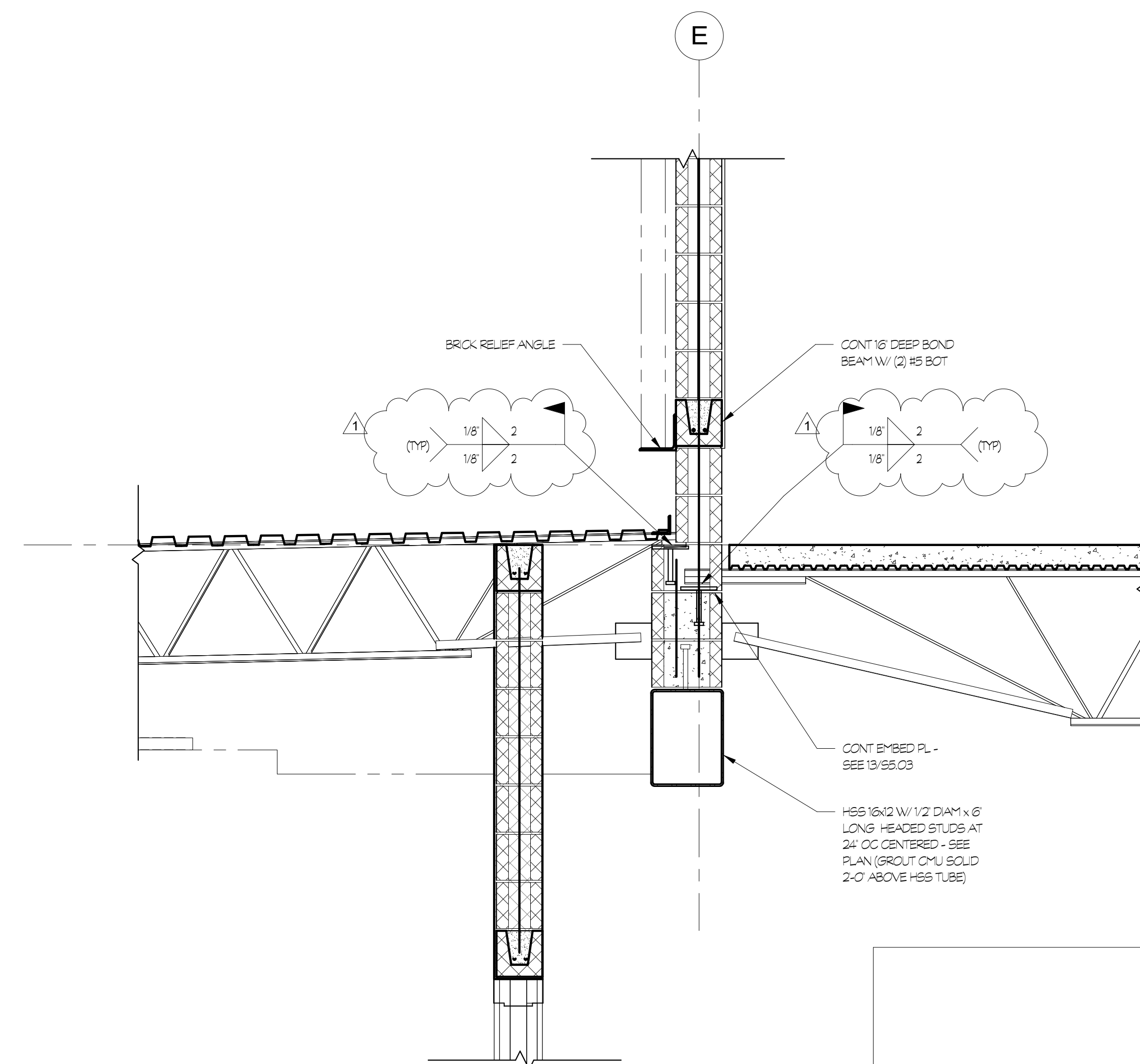
1 SECTION @ TR3 TRUSS
54.09 1/4" = 1'-0"



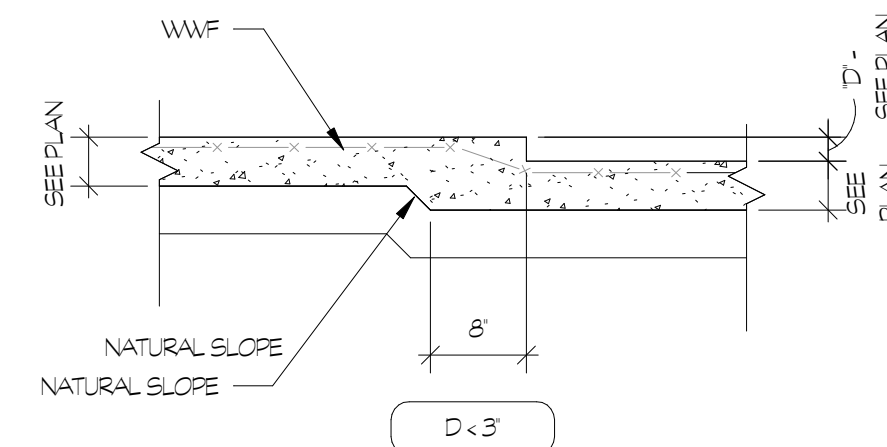
2 SECTION
54.09 1/4" = 1'-0"



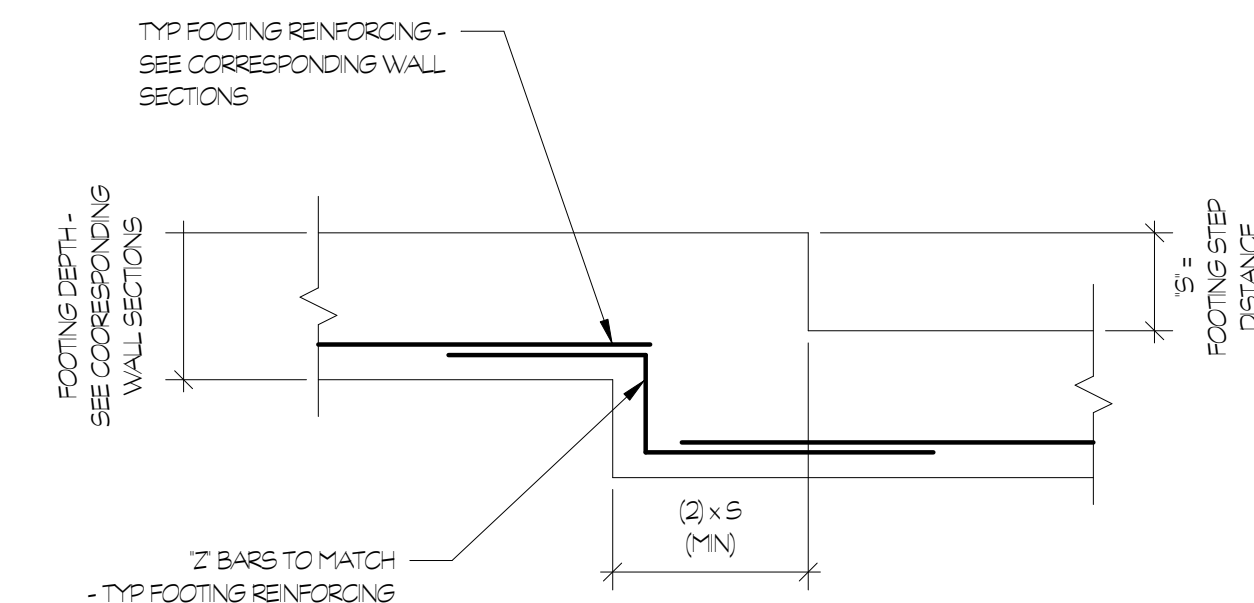
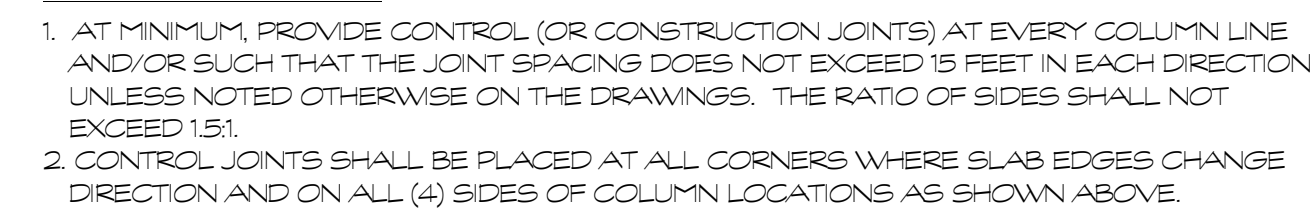
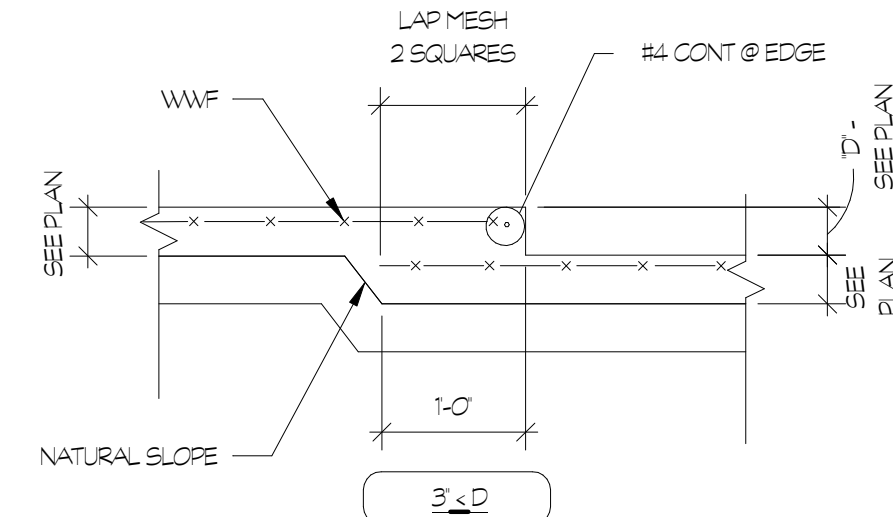
3 SECTION
54.09 1/4" = 1'-0"



4 SECTION
54.09 3/4" = 1'-0"



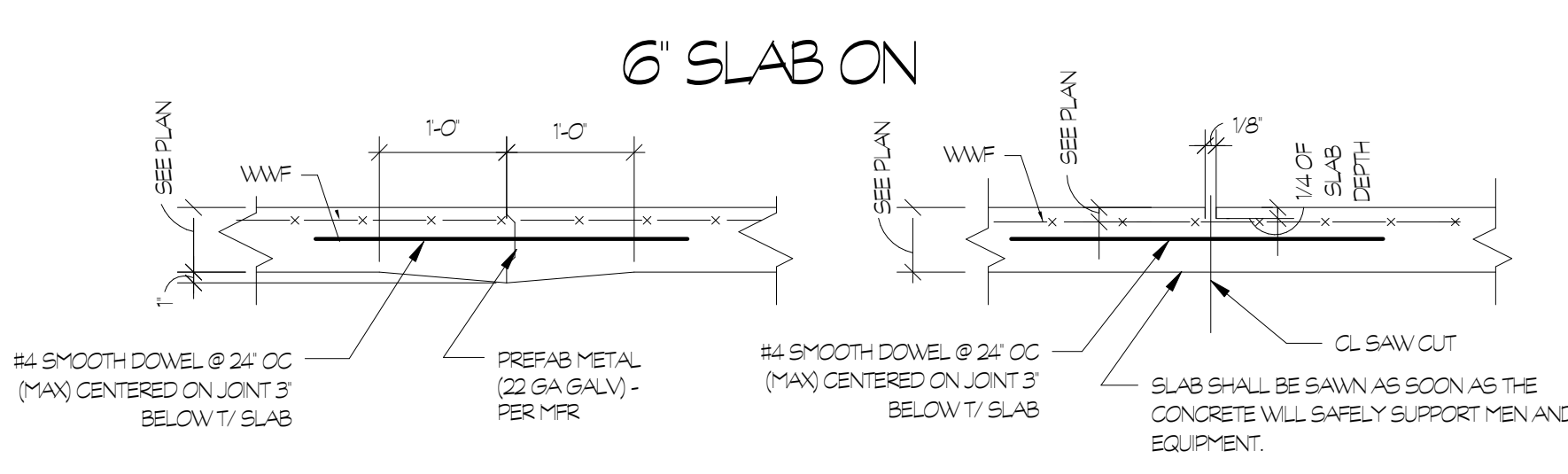
1. WVF TO BE POSITIONED WITHIN SLAB DEPTH W/PREFABRICATED CHAIRS.
2. COORDINATE DEPTHS AND LOCATIONS OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
3. PROVIDE (1) #4 x 4'-0" TOP AT INTERIOR CORNERS OF ALL DEPRESSIONS.
4. SLAB DEPRESSIONS ARE TYPICALLY SHOWN ON PLAN THUS:



5
55.01

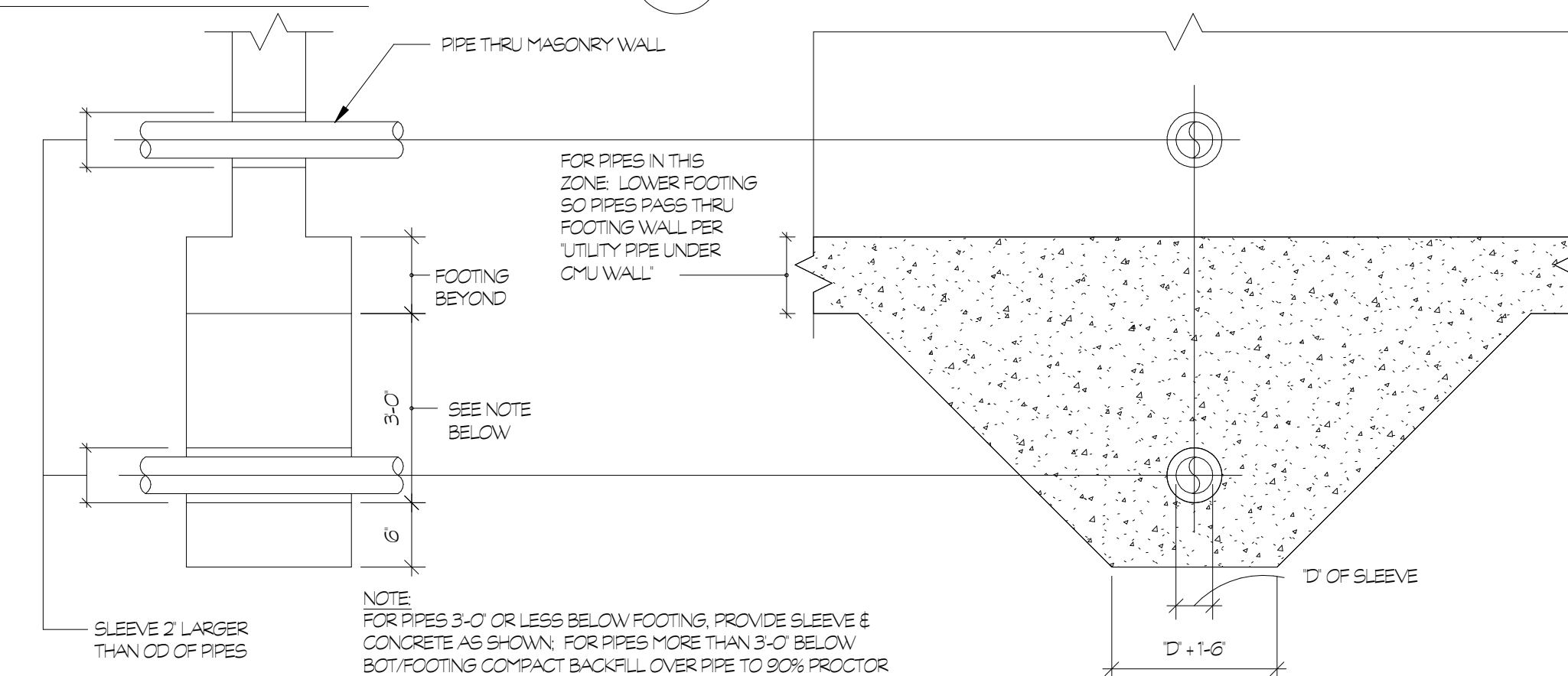
TYP STEPPED CONTINUOUS FOOTING DETAIL

3/4" = 1'-0"

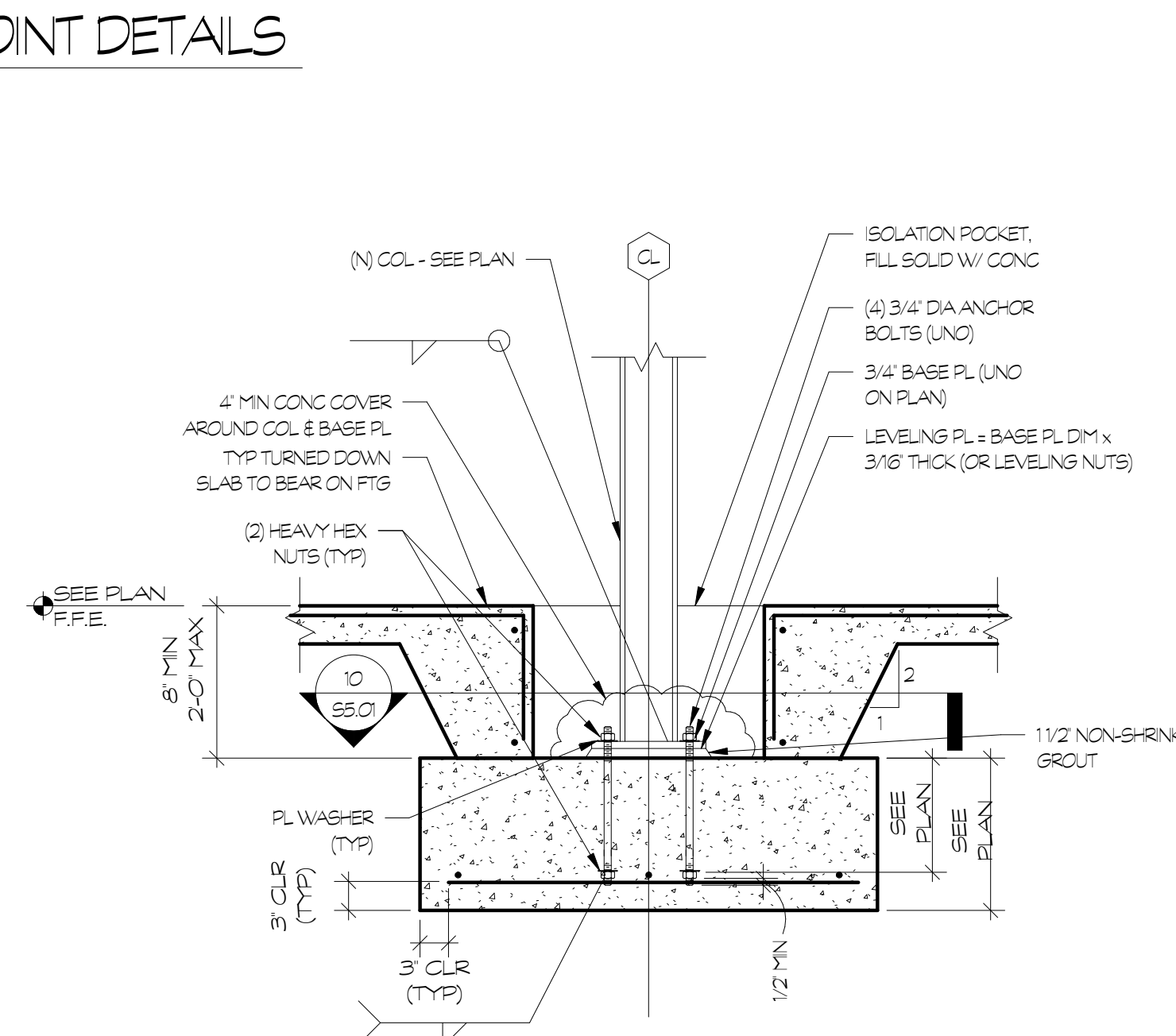


SAWED CONTROL

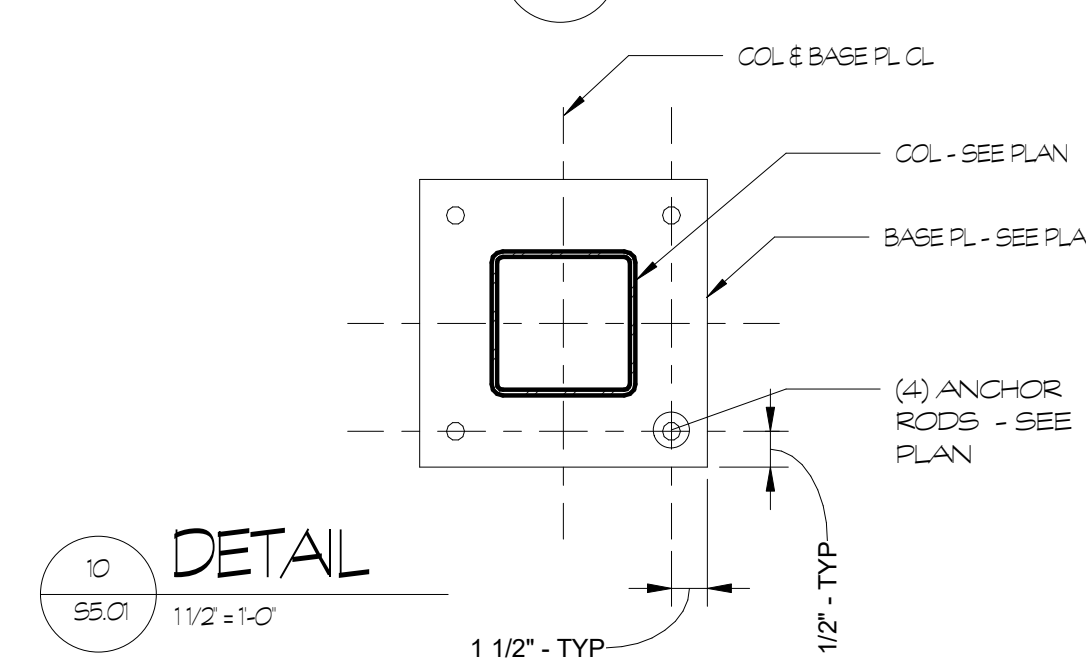
NOTE: USE CONSTRUCTION JOINT IN LIEU OF CONTROL JOINT.
A POUR STOP IS REQUIRED OR WHERE INDICATED ON



6
5501 3/4" = 1'-0"



9 SEC
55.01 3/4" = 1-0"



$$\frac{10}{55.01} \quad \text{DET} \quad 1\frac{1}{2} = 1.5$$

Diagram illustrating the required slope for trench excavation or lower footing so that the top of the footing is below the pipe, conduit, etc.

The diagram shows a cross-section of a trench. A horizontal line represents the "PIPE, CONDUIT, ETC." and a vertical line represents the "FOOTING". The slope is indicated by a triangle with a horizontal base of "1 MAX" and a vertical height of "1 1/2".

A detail view shows a cross-section of the trench with a sloped bottom and a horizontal line representing the "PIPE, CONDUIT, ETC." The detail view is labeled "1:0" and "1:1".

LOWER FOOTING AS REQUIRED TO PROVIDE MAX 1 1/2:1 SLOPE FROM BOTTOM EDGE OF FOOTING TO BOTTOM OF TRENCH EXCAVATION OR LOWER FOOTING SO THAT TOP OF FOOTING IS BELOW PIPE, CONDUIT, ETC.

TENSION LAP SPLICE LENGTHS, (BAR DIAMETER, d_b) FOR GRADE 60, UNCOATED BARS, NORMAL-WEIGHT CONCRETE.

f _c (psi)	Bar Size	Lap Class	Lap Lengths Per Spacing and Cover Code (Note 3)			
			Top Bars (Note 4)		Other Bars	
			Category (Note 2)		Category (Note 2)	
			1	2	1	2
3000	#3 - #6	A	86db	56db	66db	44db
		B	112db	74db	86db	56db
	#7 - #11	A	107db	72db	83db	55db
		B	137db	93db	107db	72db
4000	#3 - #6	A	74db	50db	56db	36db
		B	98db	66db	74db	50db
	#7 - #11	A	93db	62db	72db	48db
		B	121db	81db	93db	62db

1. LAP SPICE LENGTHS ARE BASED ON ACI 318-14 CHAPTER 25

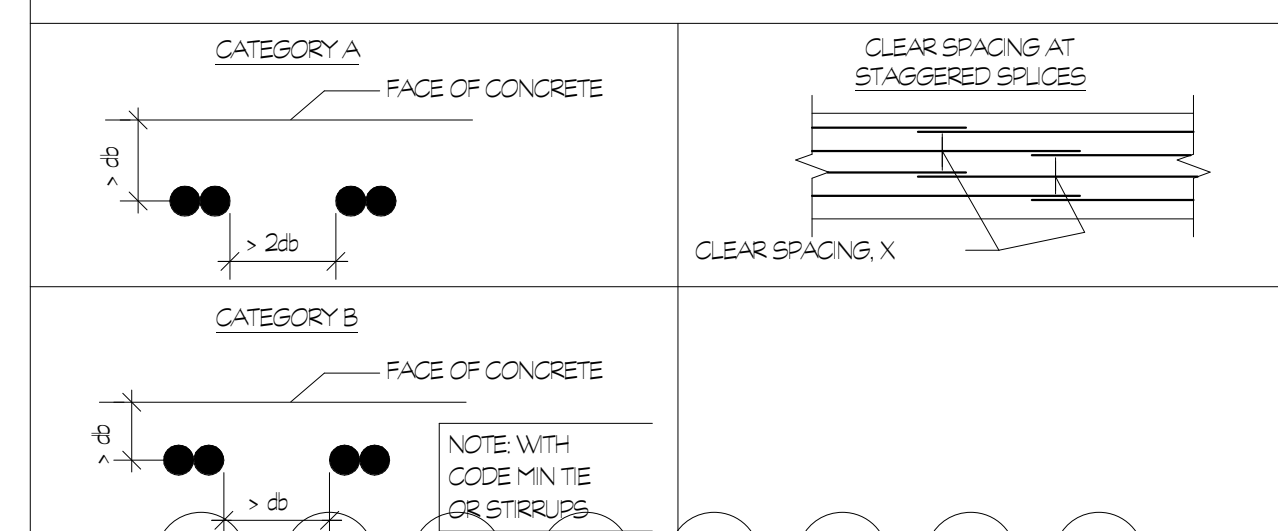
2. CATEGORY DEFINITIONS: (SEE FIGURES BELOW FOR ADDITIONAL INFORMATION)

CATEGORY 1 - CODE 25.4.2.2 OTHER CASES - DOES NOT MEET CATEGORY A OR B.

CATEGORY 2 - CODE 25.4.2.2 - CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN $2d_b$ AND CLEAR COVER NOT LESS THAN d_b (CATEGORY A) OR CLEAR SPACING OF BARS BEING DEVELOPED OR LAP SPLICED NOT LESS THAN d_b , CLEAR COVER AT LEAST d_b AND STIRRUPS OR TIES THROUGHOUT d_b NOT LESS THAN THE CODE MINIMUM (CATEGORY B).

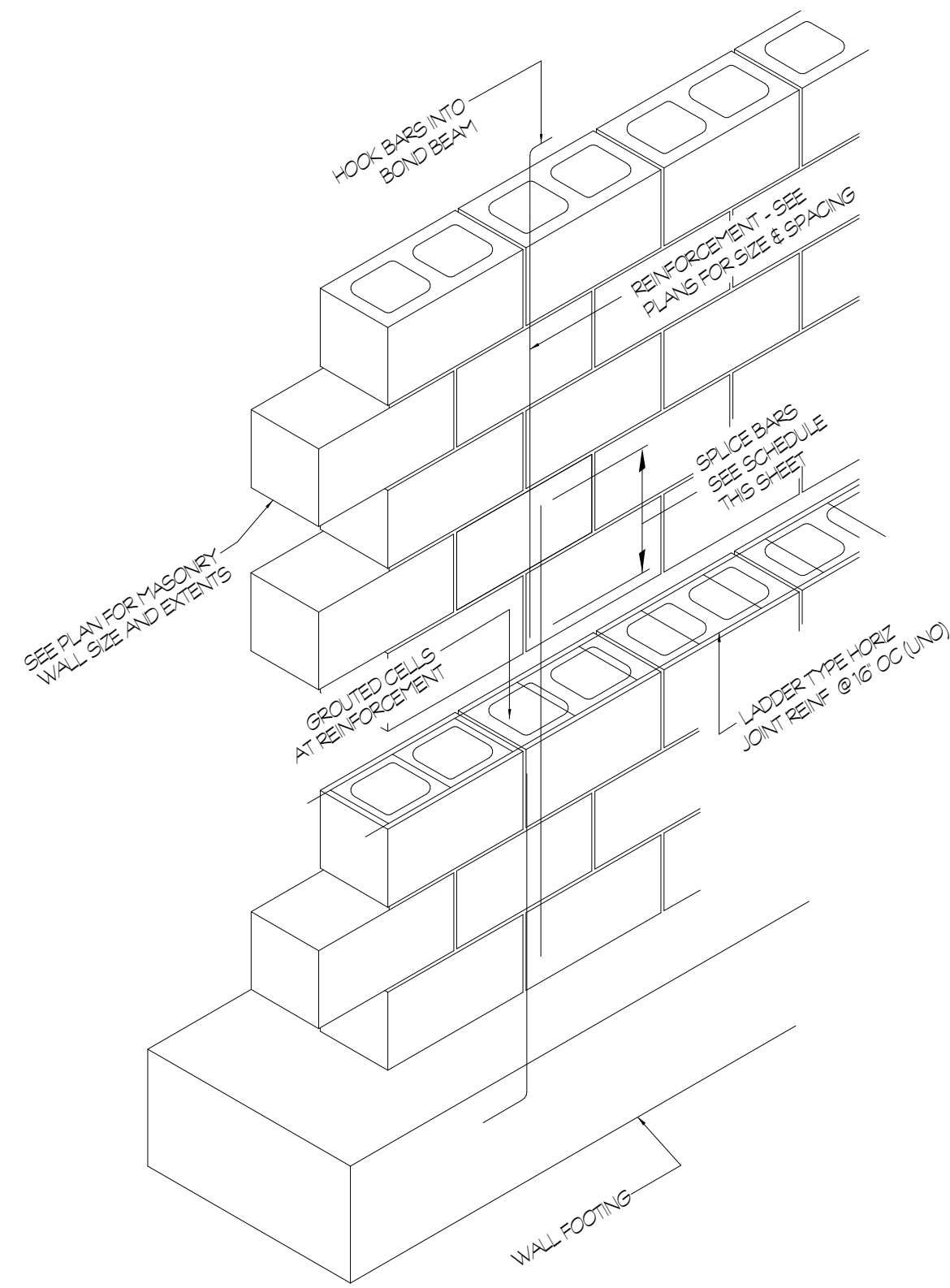
3. MINIMUM LAP SPICE SHALL NOT BE LESS THAN 12 INCHES

4. TOP BARS ARE DEFINED AS HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPLICE.



11
55.01

TYP
3/4" = 1'-0"

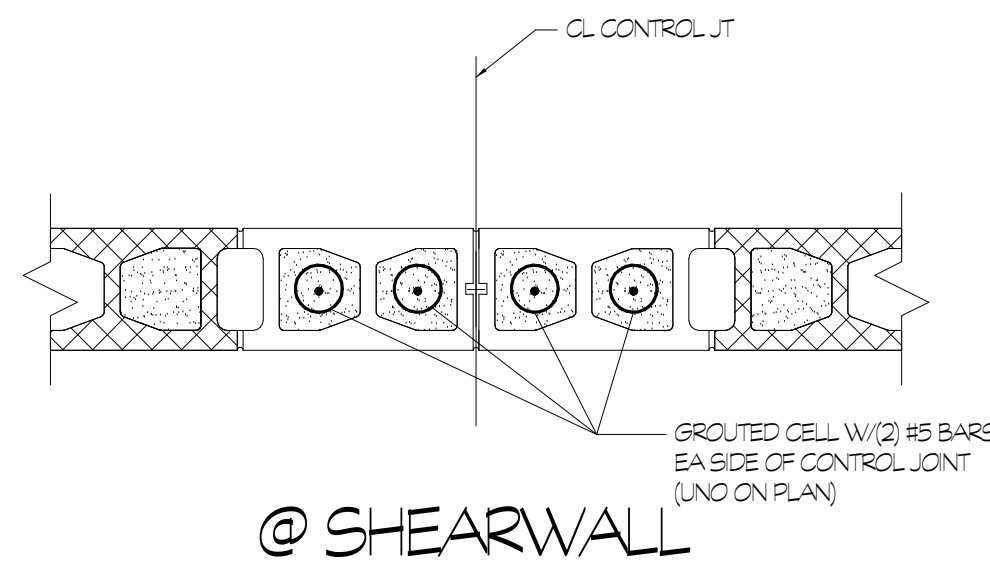


REINFORCING LAP LENGTH SCHEDULE	
BAR SIZE	LAP LENGTH
#4	2'
#5	26" (8 CMU) 36" (12 CMU)
#6	43"

* LAP LENGTHS APPLY TO 8" OR 12" CMU WITH REINFORCING CENTERED IN CELL (UNO).

LOW-LIFT GROUTING PROCEDURE

1. CONSTRUCT WALL TO HEIGHT OF 5'-0". ALLOW MORTAR TO SET SUFFICIENTLY TO WITHSTAND GROUT PRESSURE.
2. INSPECT UNITS FOR ALIGNMENT. CLEAN OUT CELLS TO BE FILLED.
3. FILL CELLS TO 1 1/2" BELOW TOP COURSE.
4. DELAY 3 TO 5 MINUTES PRIOR TO CONSOLIDATING TO ALLOW WATER TO BE ABSORBED BY MASONRY.



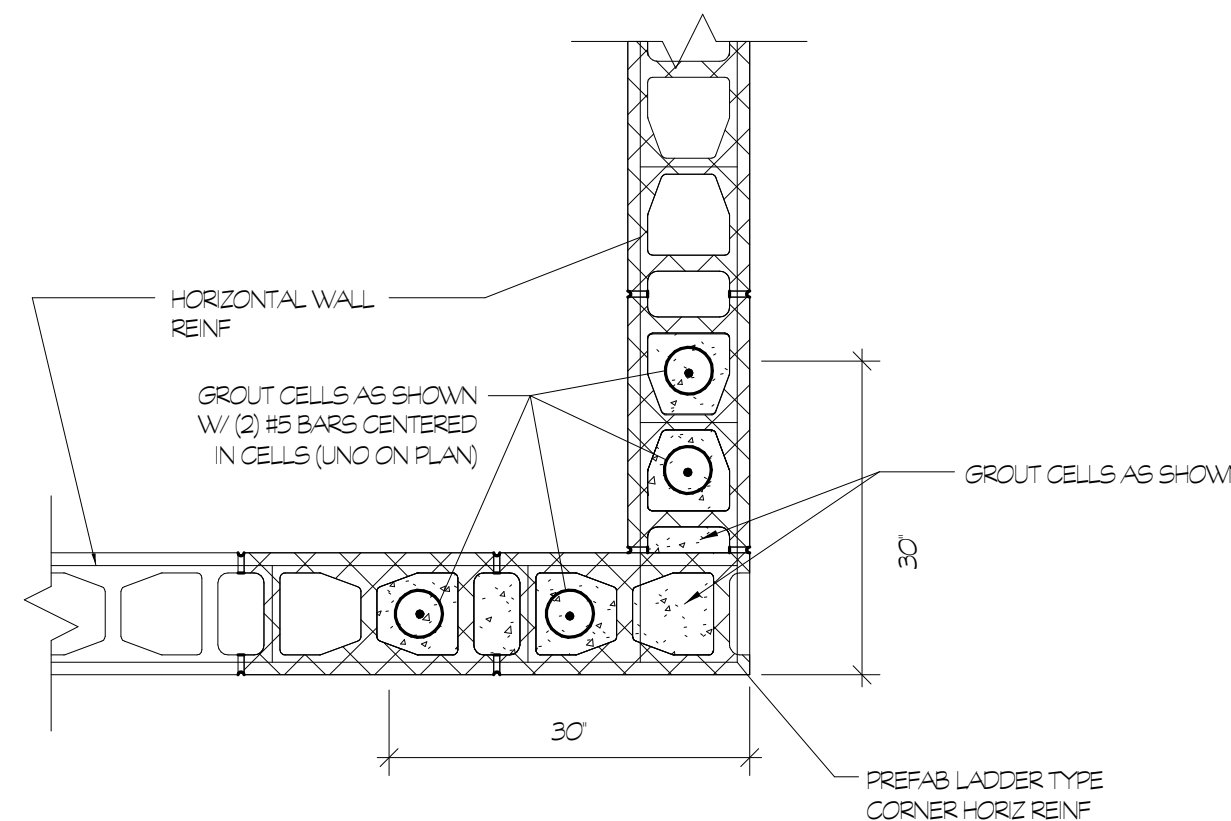
@ SHEARWALL

NOTES

1. SEE GENERAL NOTES FOR SPACING GUIDELINES FOR CONTROL JOINTS IN INTERIOR/EXTERIOR CMU WALLS.
2. SEE ARCH FOR EXACT LOCATIONS OF CONTROL JOINTS.
3. DISCONTINUE HORIZONTAL REINFORCING AT CONTROL JOINT LOCATIONS.

TYP CMU CONTROL JOINTS

55.02 3/4" ± 1'-0"



NOTES

1. CORNER REINF SHALL BE LAPPED WITH THE TYPICAL TRUSS TYPE HORIZ REINF AND EXTEND A MINIMUM OF 30" IN EACH DIRECTION AT THE INTERSECTION.
2. SEE PLAN FOR SPACING OF TYPICAL HORIZ REINF.

TYP CMU WALL CORNER INTERSECTION @ SHEARWALL

55.02 3/4" ± 1'-0"

MASONRY WALL LINTEL SCHEDULE							
OPENING WIDTH		STEEL LINTELS FOR EACH 4" WALL THICKNESS	MASONRY LINTELS LINTEL DEPTH AND REINFORCING*				
			DEPTH	4" WALL	6" WALL	8" WALL	12" WALL
-	2'-0"	L6 x 3 1/2 x 5/16 (SLV)	7 5/8"	(1) #4	(1) #4 BOTT.	(2) #5 BOTT.	(2) #5 BOTT.
2'-1"	3'-6"	L6 x 3 1/2 x 5/16 (SLV)	7 5/8"	(1) #4	(1) #4 BOTT.	(2) #5 BOTT.	(2) #5 BOTT.
3'-7"	5'-0"	L6 x 4 x 3/8 (SLV)	7 5/8"	(1) #4	(1) #5 BOTT.	(2) #5 BOTT.	(2) #5 BOTT.
5'-1"	6'-6"	L6 x 6 x 3/8	15 5/8"	-	(1) #5 BOTT.	(2) #5 BOTT.	(2) #6 BOTT.
6'-7"	8'-0"	L6 x 6 x 3/8	15 5/8"	-	(1) #5 BOTT.	(2) #5 BOTT.	(2) #6 BOTT.
8'-1"	10'-0"	L6 x 6 x 1/2	15 5/8"	-	(1) #5 BOTT.	(2) #5 BOTT.	(2) #6 BOTT.
10'-1"	12'-0"	L6 x 6 x 1/2 (LLV)	15 5/8"	-	(2) #5 BOTT.	(2) #5 BOTT.	(2) #6 BOTT.

* 8" BEARING EACH END FOR STEEL

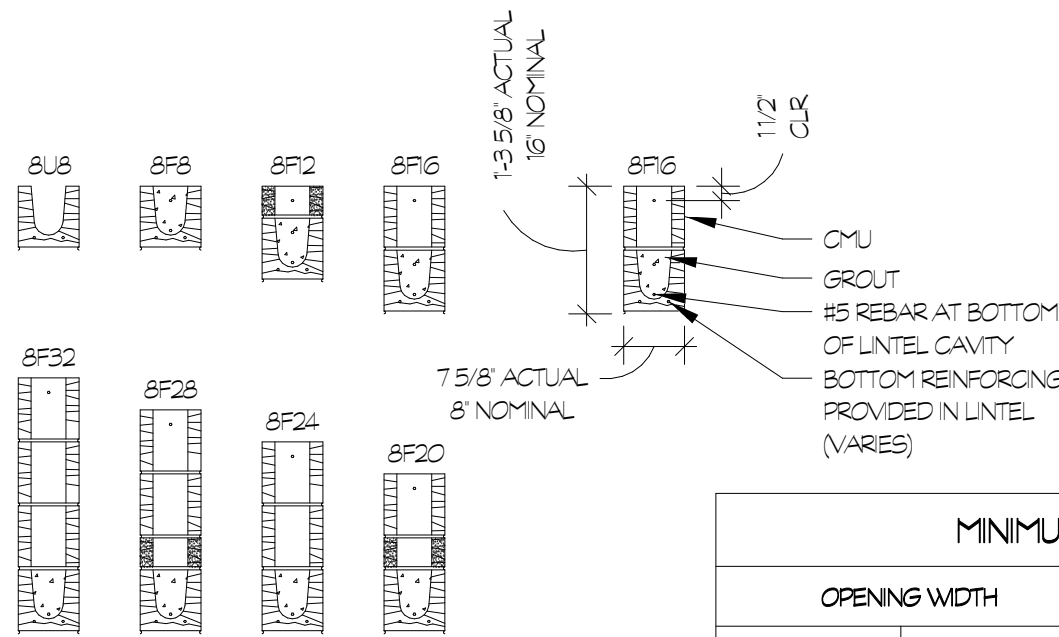
* 8" BEARING EACH END FOR U-BLOCK

NOTES

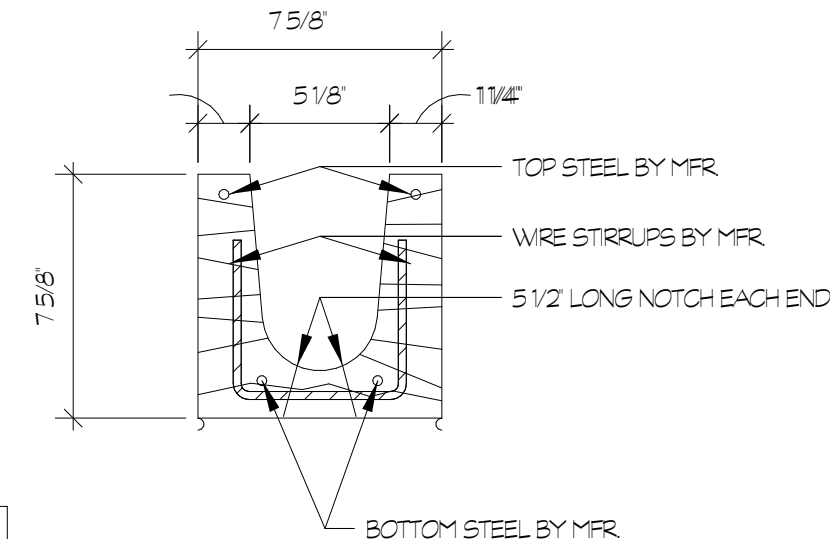
1. USE EITHER STEEL LINTEL OR MASONRY LINTEL (SEE ARCH HEAD DETAILS).
2. THIS SCHEDULE TO BE USED UNLESS NOTED OTHERWISE.
3. DO NOT USE THIS SCHEDULE IF CONCENTRATED LOAD IS APPLIED TO LINTEL.
4. DO NOT USE THIS SCHEDULE IF HEIGHT OF MASONRY ABOVE OPENING IS LESS THAN HALF OF THE OPENING WIDTH.

MASONRY WALL LINTEL SCHEDULE

55.02 3/4" ± 1'-0"



F = FILLED W/ GROUT
U = UNFILLED
QUANTITY OF #5 REBAR AT BOTTOM OF LINTEL CAVITY
QUANTITY OF #5 REBAR AT TOP
NOMINAL HEIGHT
NOMINAL WIDTH



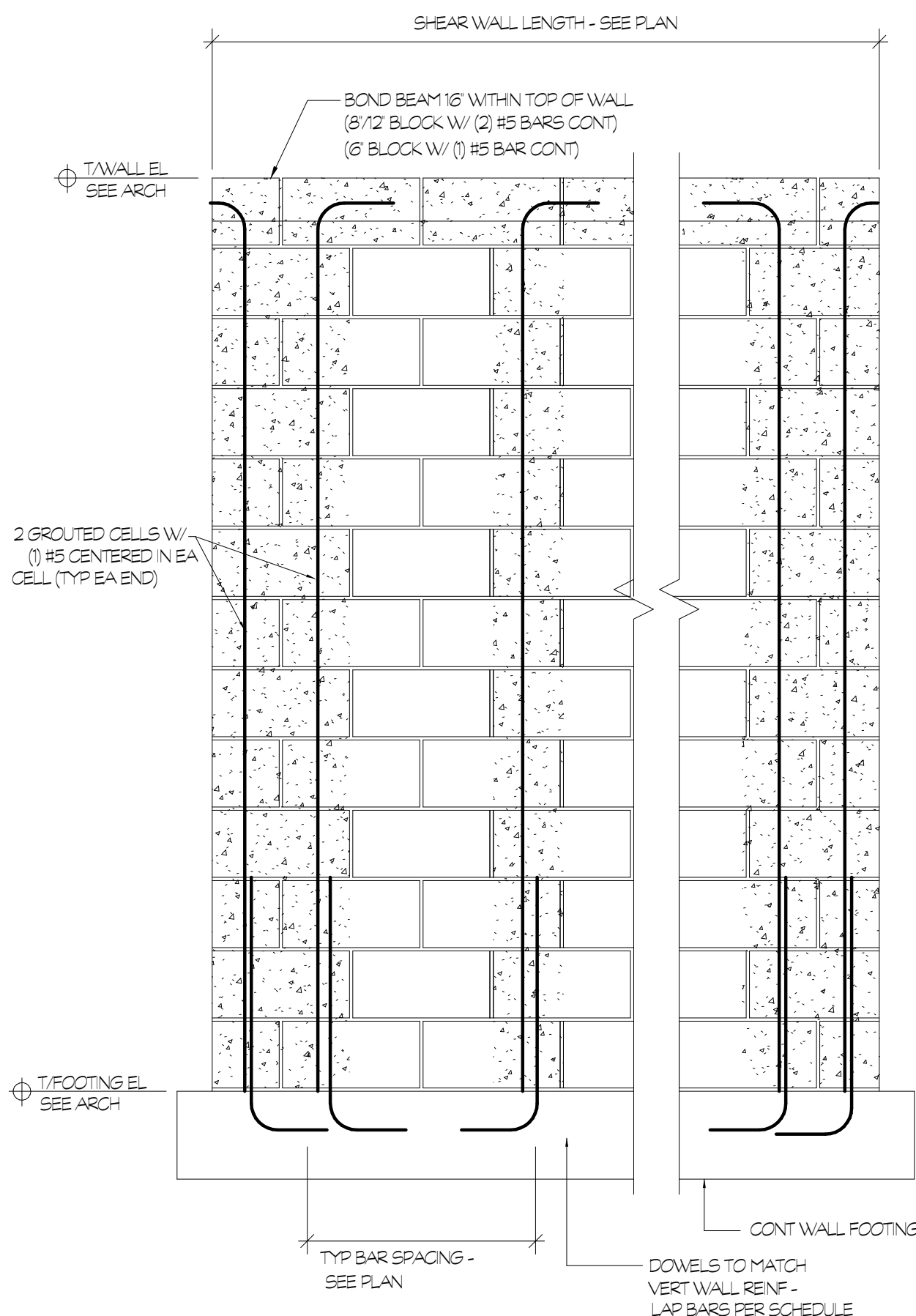
MINIMUM LAP SPlice LENGTH SCHEDULE			
OPENING WIDTH		8" CMU WALLS	12" CMU WALLS
MIN.	MAX.	CAST-CRETE PRECAST	CAST-CRETE PRECAST
0'-0"	2'-0"	8UB-08-0T	12UB-08-0T
2'-1"	3'-11"	8FB-18-0T	12FB-18-0T
3'-11"	7'-11"	8F6-18-1T	12F6-18-1T
7'-11"	9'-11"	8F24-18-1T	12F24-18-0T
9'-11"	11'-11"	8F32-18-1T	12F24-18-1T
11'-11"	15'-4"	8F48-18-1T	12F40-28-2T

NOTES

1. DO NOT USE THIS SCHEDULE IF CONCENTRATED LOAD IS APPLIED TO LINTEL.
2. DO NOT USE THIS SCHEDULE IF HEIGHT ABOVE OPENING IS LESS THAN HALF THE OPENING WIDTH PLUS 8".
3. LENGTH OF CAST-CRETE LINTEL SHOULD BE SMALLEST LENGTH AVAILABLE TO SPAN OPENING WITH 8" BEARING (MIN) ON EACH SIDE.
4. CAST-CRETE LINTELS SHALL BE USED IN CMU WALLS. SEE DETAILS FOR SPECIFIC SCHEDULED LINTELS CALLED OUT ON THE PLANS.

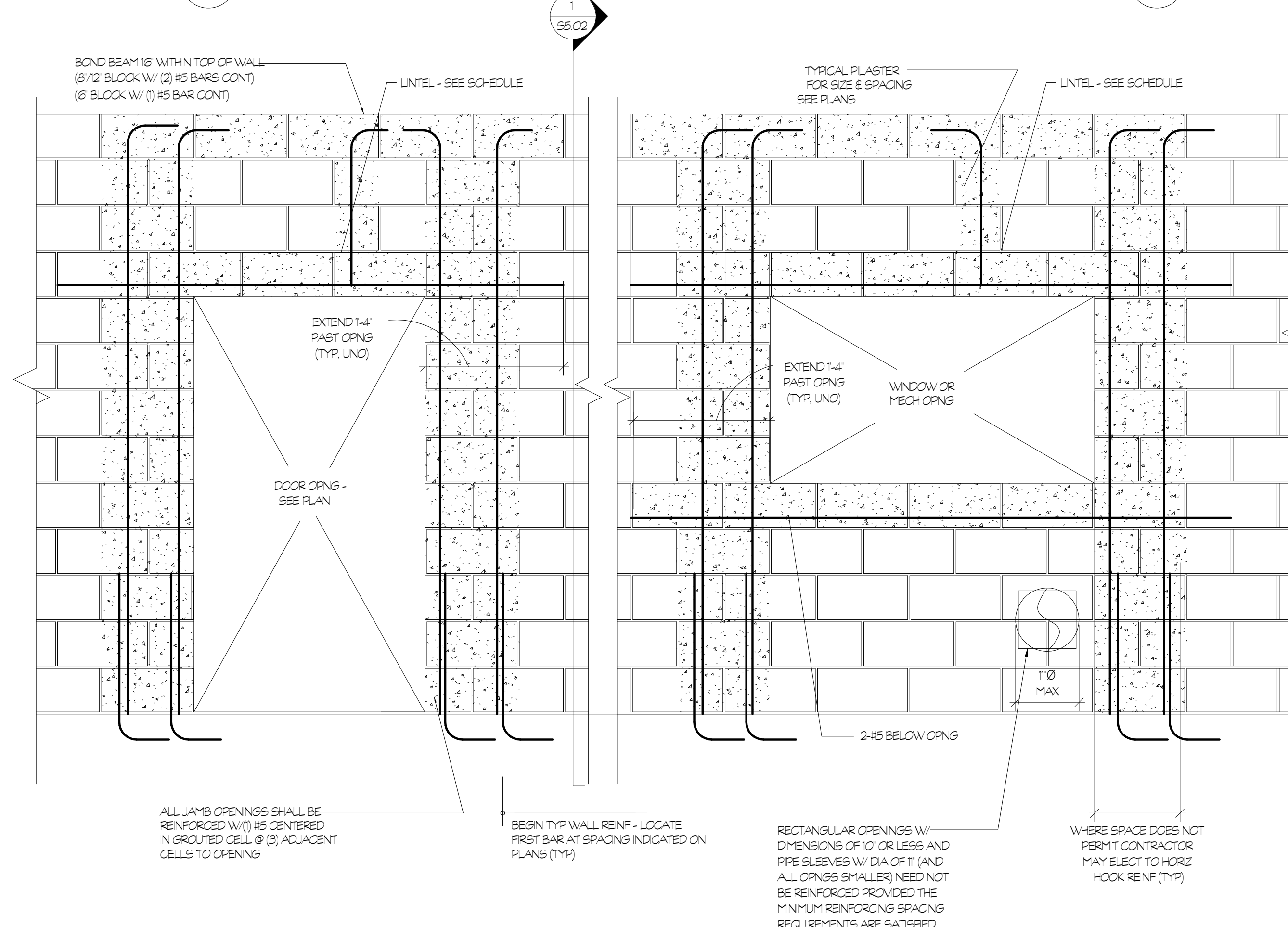
TYP DETAIL OF LOW-LIFT REINFORCED MASONRY CONSTRUCTION

55.02 3/4" ± 1'-0"



TYP CMU SHEARWALL ELEVATION

55.02 3/4" ± 1'-0"

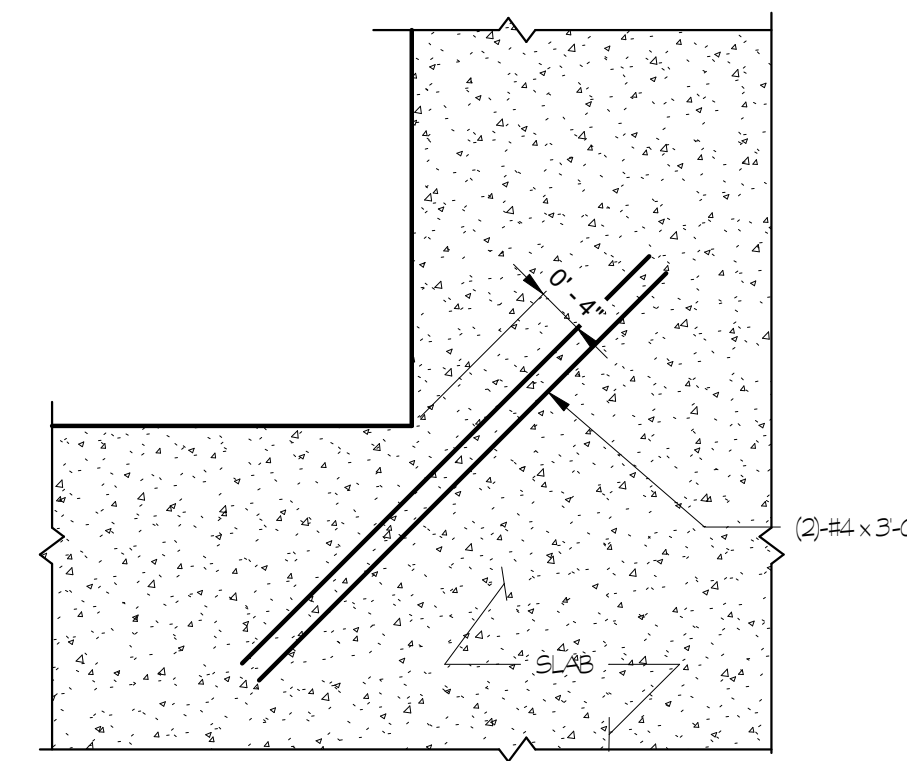


CMU DOOR/WINDOW SHEARWALL ELEVATIONS

55.02 3/4" ± 1'-0"

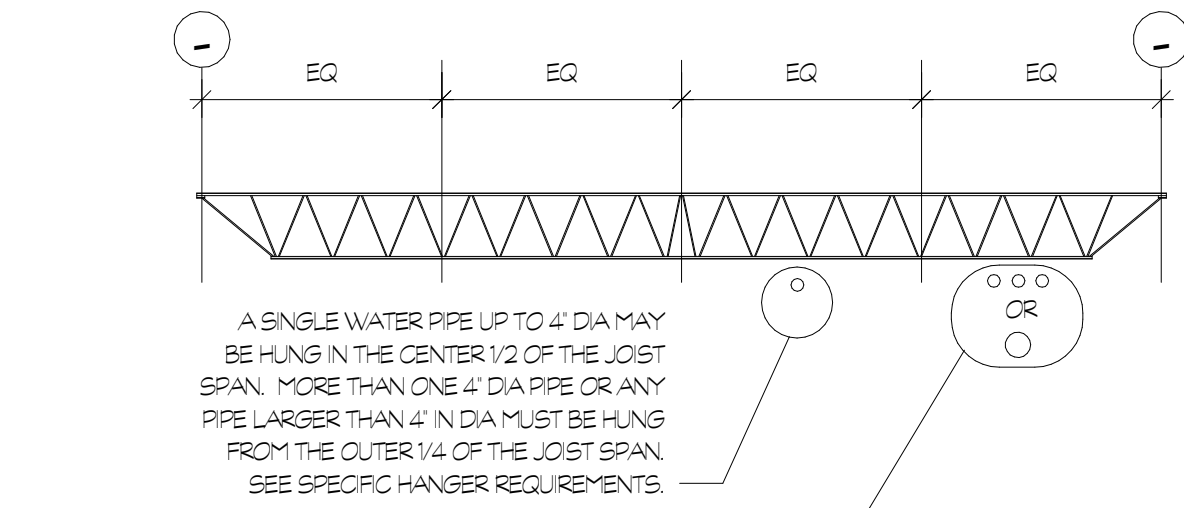
PRE-CAST WALL LINTEL SCHEDULE & DETAILS

55.02 1/8" ± 1'-0"



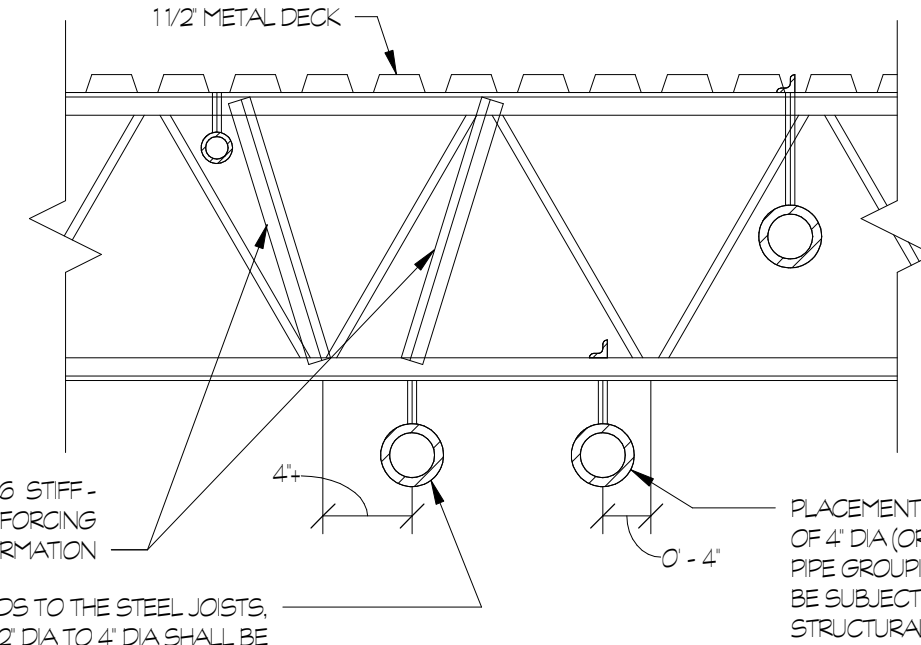
SLAB RE-ENTRANT CORNER DETAIL

55.02 3/4" ± 1'-0"



A SINGLE WATER PIPE GREATER THAN 4\"/>

PERPENDICULAR TO JOISTS



SPECIFIC HANGER REQUIREMENTS

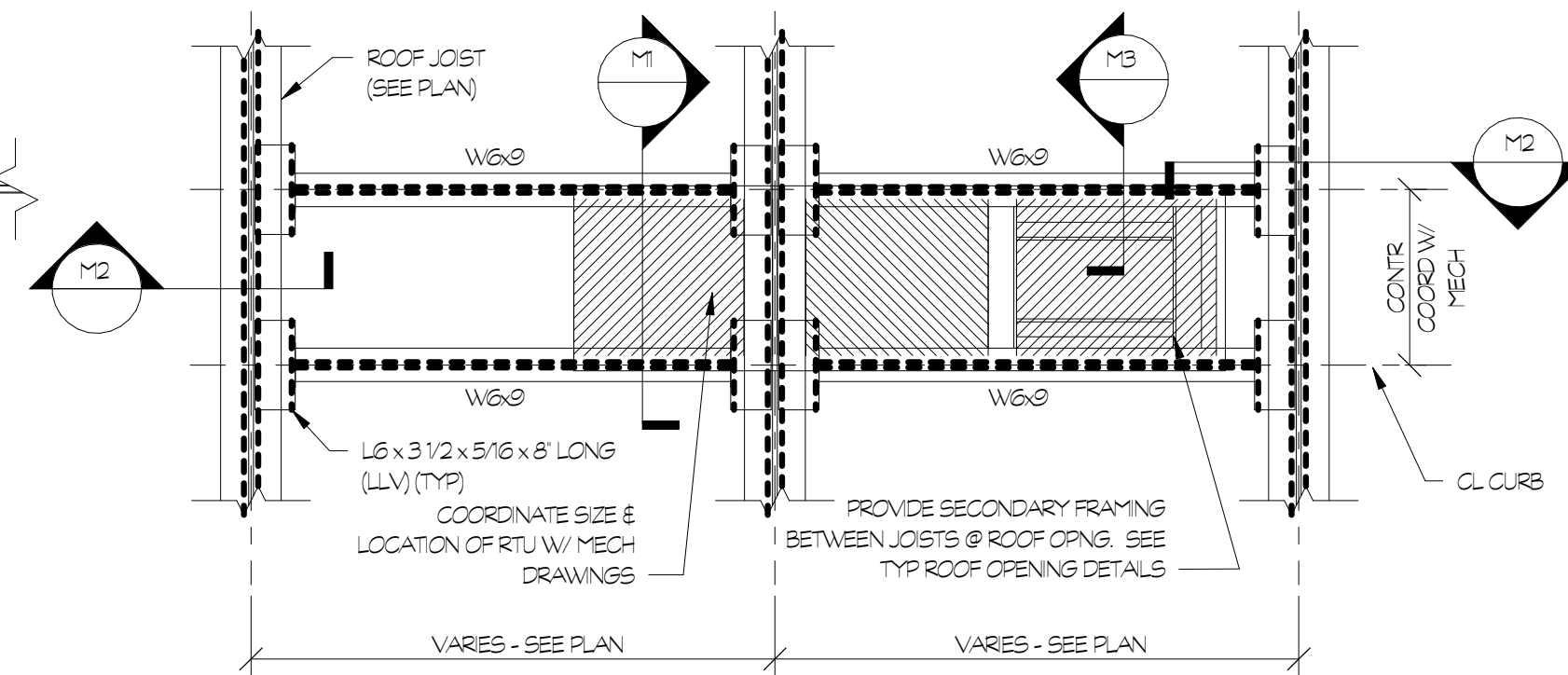
L2 1/2 x 2 1/2 x 3/16 STIFF - SEE TYPICAL JOIST REINFORCING DETAIL FOR MORE INFORMATION

ALL CONCENTRATED LOADS TO THE STEEL JOISTS INCLUDING PIPES 2\"/>

NOTE: ALL PIPING AND MECHANICAL (INCLUDING DUCTWORK) SHALL NOT BE HUNG FROM THE STEEL ROOF DECK. ALL HUNG ITEMS SHALL BE FROM JOISTS, BEAMS, OR SUPPLEMENTARY STEEL.

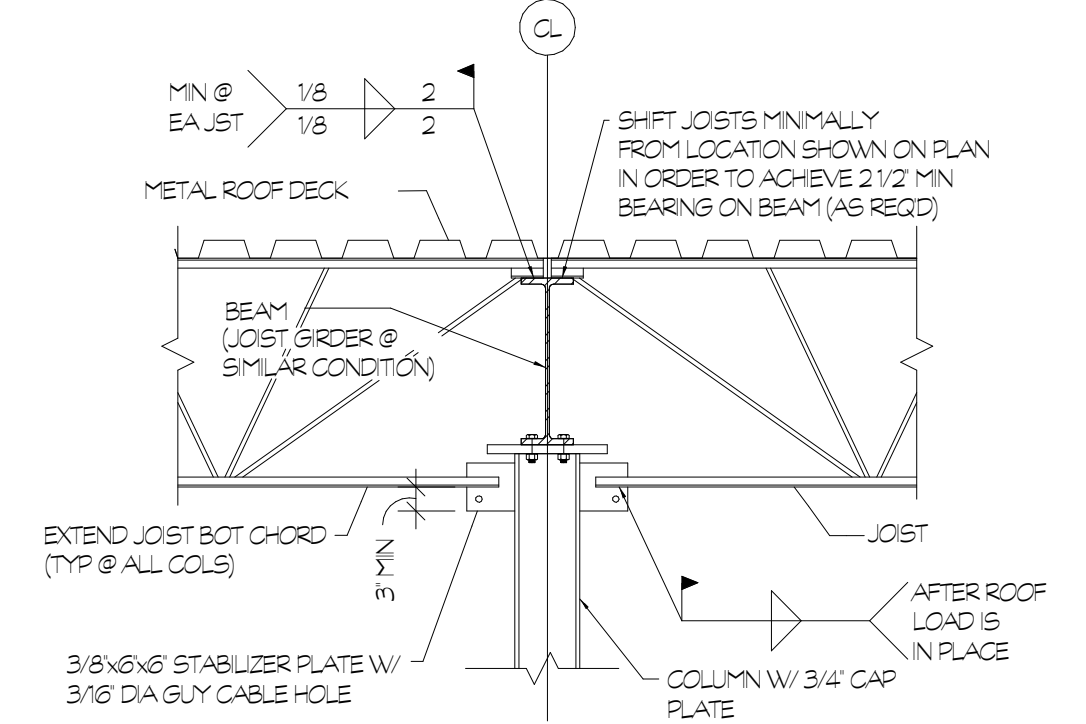
ANY SINGLE WATER PIPE GREATER THAN 4\"/>

PARALLEL TO JOISTS



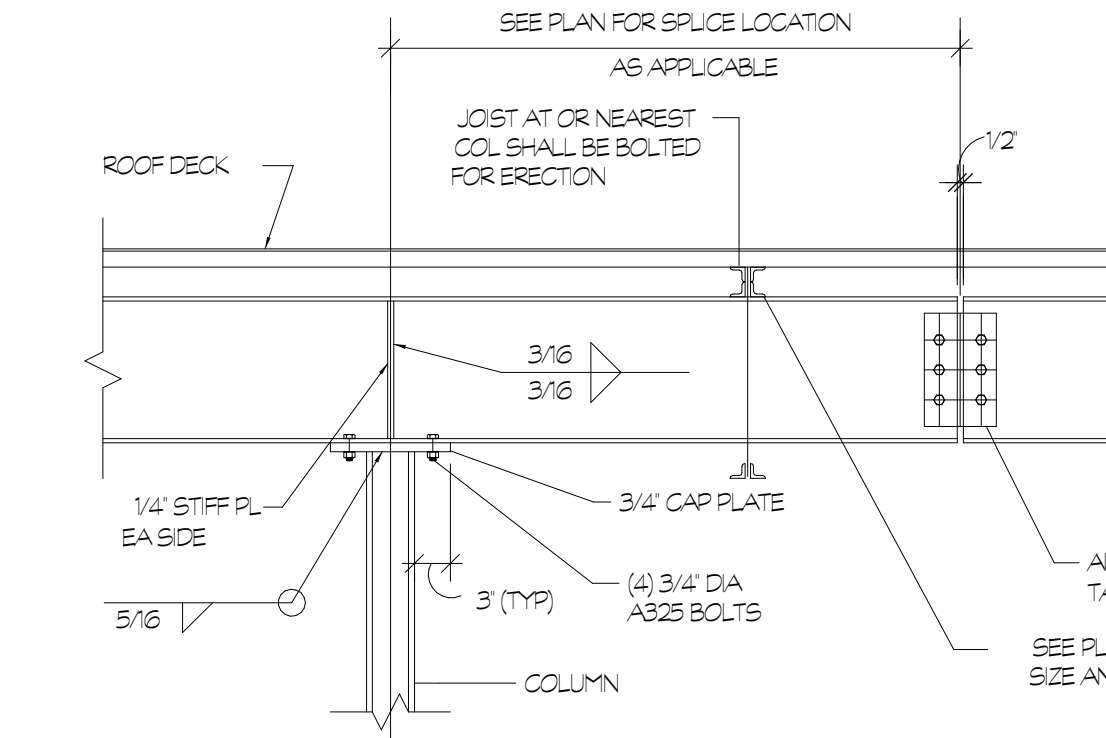
TYP JOIST REINFORCING DETAIL

3
SS.03 3/4\"/>



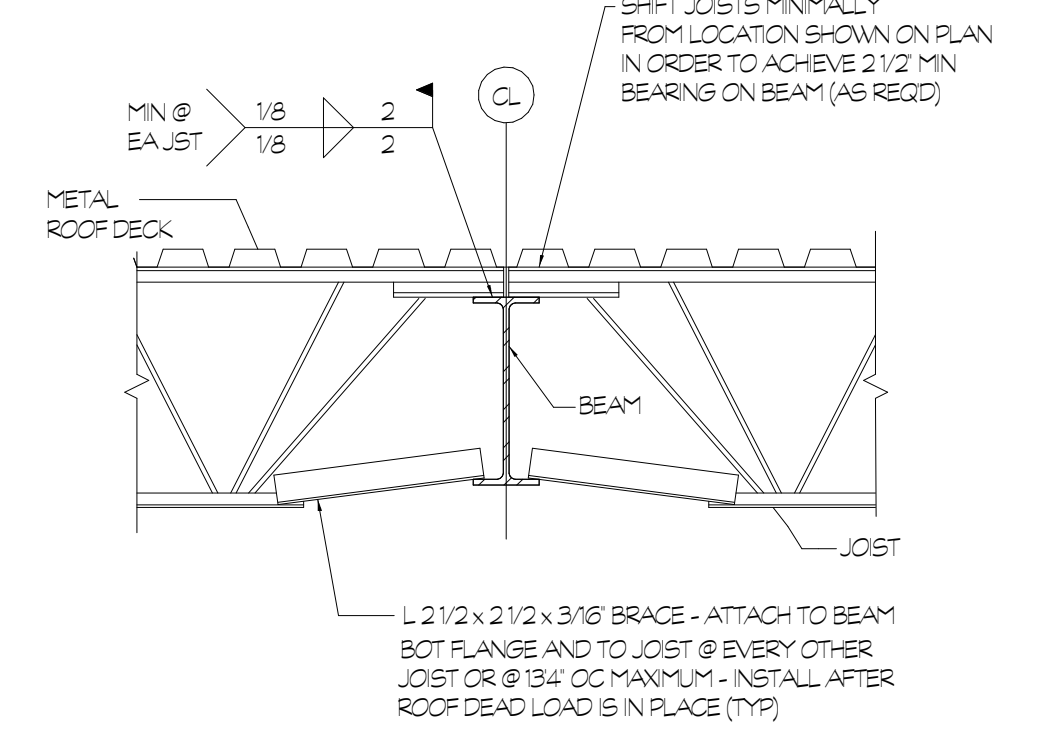
TYP JOIST EXTENSION @ COL

4
SS.03 3/4\"/>



TYP BEAM SPLICE & COLUMN DETAIL

5
SS.03 3/4\"/>



TYP JOIST EXTENSION

6A
SS.03 3/4\"/>

1 TYP DETAILS OF PIPES SUPPORTED BY JOISTS

SS.03 3/4\"/>

2 TYP MECHANICAL UNIT SUPPORT FRAMING DETAILS

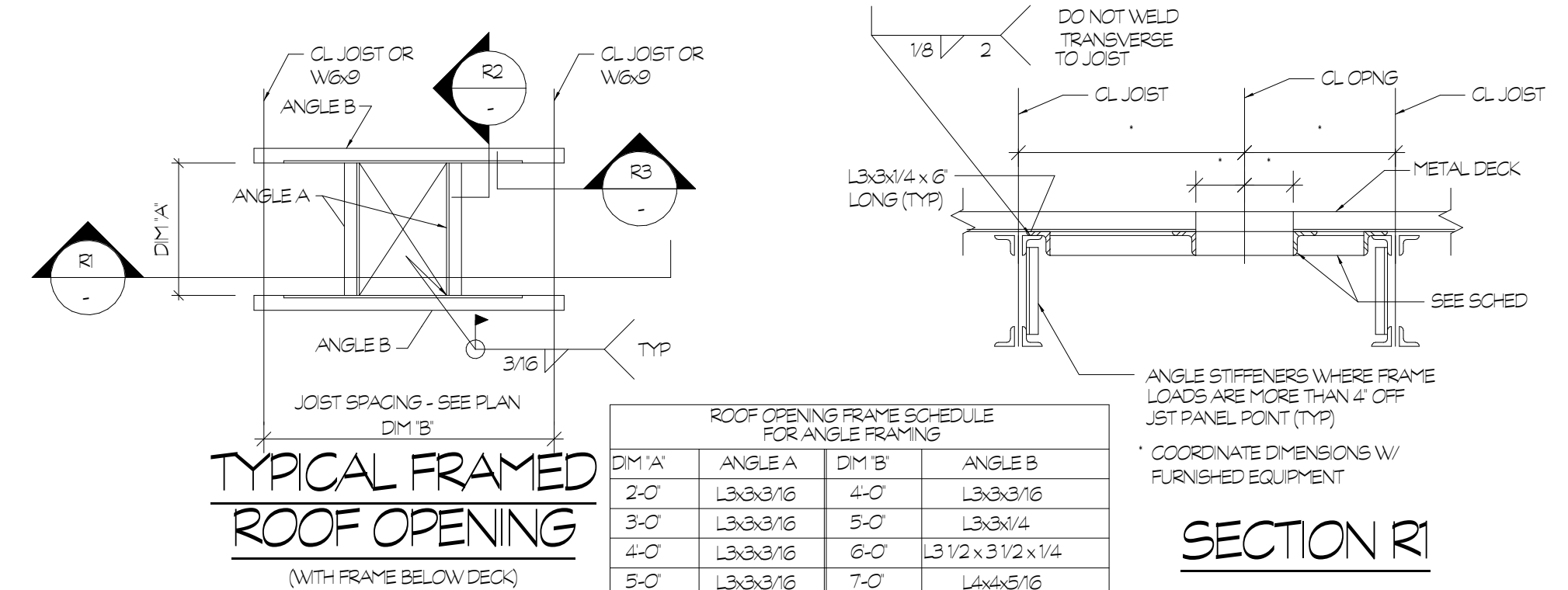
SS.03 3/4\"/>

5 TYP BEAM SPLICE & COLUMN DETAIL

SS.03 3/4\"/>

6A TYP JOIST EXTENSION

SS.03 3/4\"/>



TYPICAL FRAMED ROOF OPENING

(WITH FRAME BELOW DECK)

DIM 'A'	ANGLE A	DIM 'B'	ANGLE B
2'-0"	L3x3x3/16	4'-0"	L3x3x3/16
3'-0"	L3x3x3/16	5'-0"	L3x3x1/4
4'-0"	L3x3x3/16	6'-0"	L3 1/2 x 3 1/2 x 1/4
5'-0"	L3x3x3/16	7'-0"	L4x4x5/16

SECTION R1

SECTION R2

SECTION R3

- NOTES:
1. FRAMED OPENINGS REQUIRED IN ROOF FOR ALL OPENINGS GREATER THAN 6\"/>

6B TYP JOIST EXTENSION B

SS.03 3/4\"/>

7A TYP KICKER @ INTERIOR ROOF BEAM

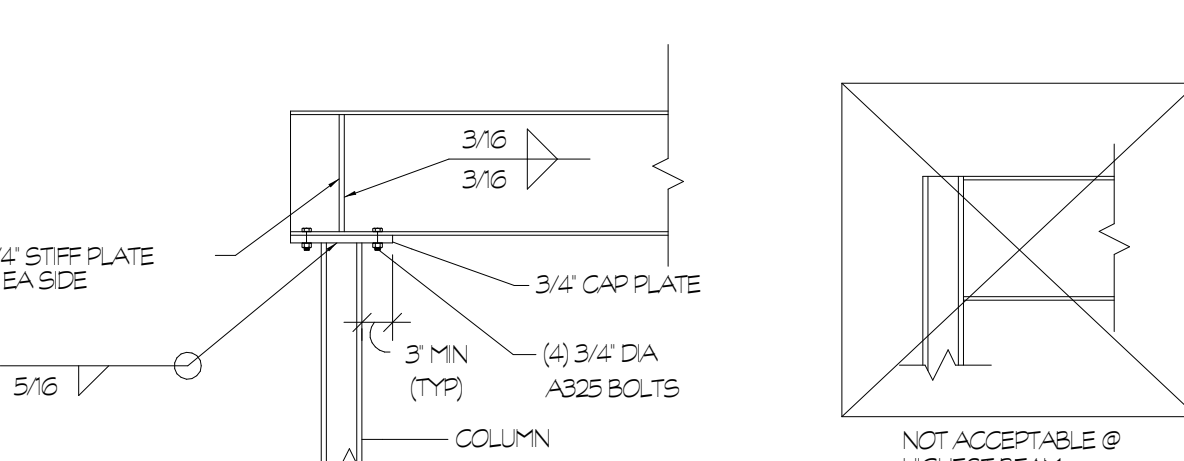
SS.03 3/4\"/>

7B TYP KICKER @ EXTERIOR BEAM

SS.03 3/4\"/>

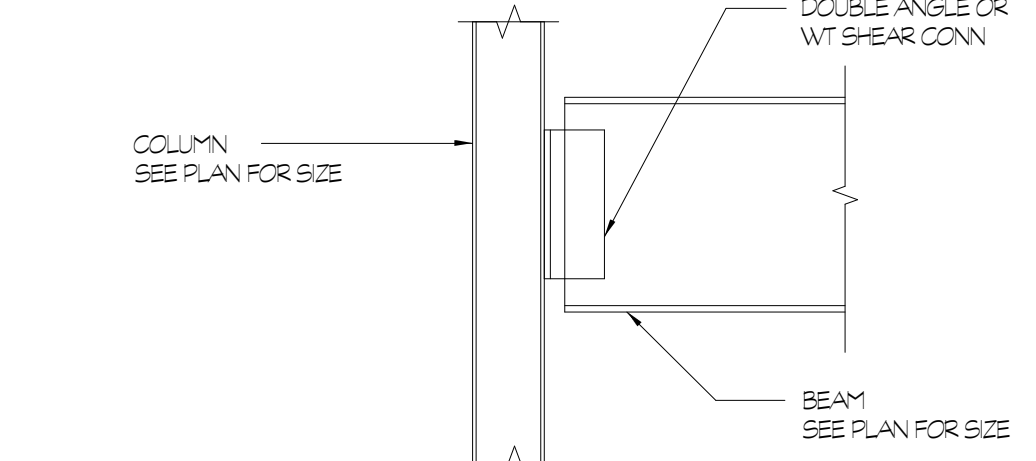
8 TYP FRAMED ROOF OPENING DETAILS

SS.03 3/4\"/>



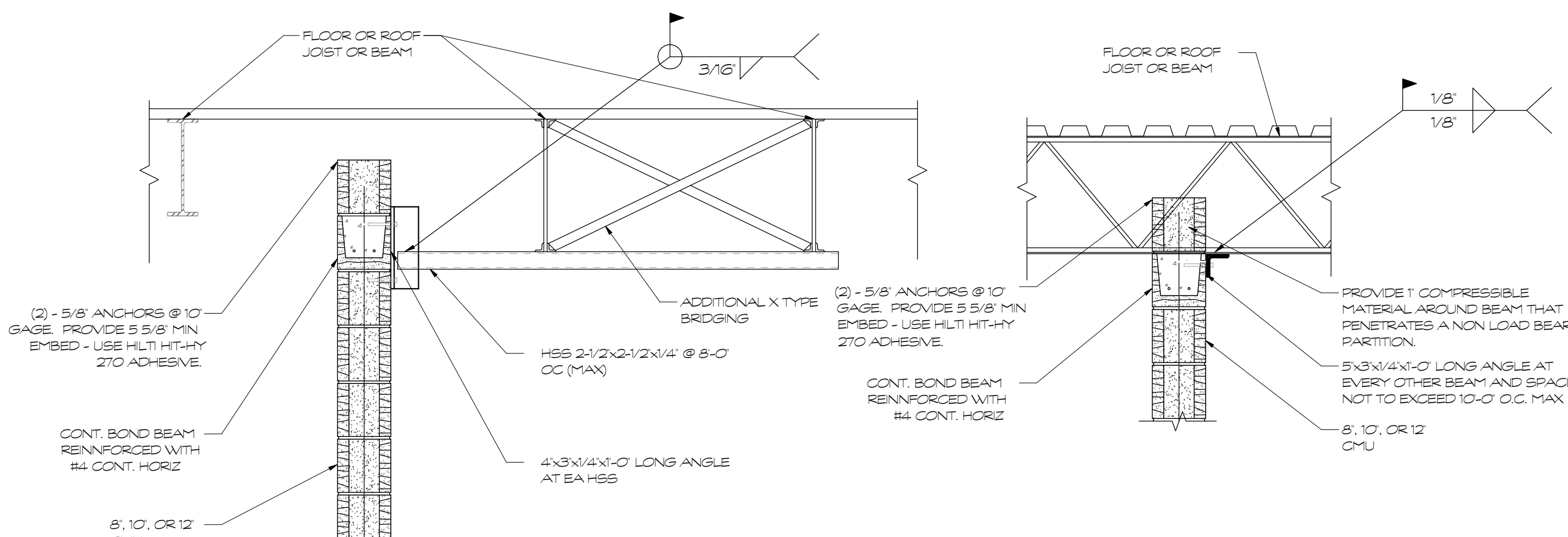
TYP ROOF BEAM BEARING DETAIL

9
SS.03 3/4\"/>



TYP FLOOR BEAM FRAMING DETAIL

10
SS.03 3/4\"/>



1 WALL BRACING DETAIL

1
SS.03 3/4\"/>