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GENERAL NOTES:

1. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS.

2. THE 2020 EDITION OF THE NEW YORK STATE BUILDING CODE, AND APPLICABLE EDITIONS OF THE FOLLOWING CODES AND STANDARDS SHALL APPLY:

   A. CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES - AISC.
   B. ANSI/AISC 360-10 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.
   C. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE - ACI 318.
   D. BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES - ACI 530, LOAD AND RESISTANCE FACTOR DESIGN
   E. SPECIFICATIONS FOR MASONRY STRUCTURES - ACI 530.1
   F. SPECIFICATIONS OF THE STEEL JOIST INSTITUTE.
   G. STANDARD SPECIFICATION FOR OPEN WEB JOISTS, K-SERIES, BY THE STEEL JOIST INSTITUTE.
   H. SDI-DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS – NO. 31

   IN CASE OF CONFLICT, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.

3. FIELD MEASUREMENTS SHALL BE TAKEN AT THE SITE BY THE CONTRACTOR TO VERIFY AND SUPPLEMENT ALL DIMENSIONS AND ADDITIONS AFFECTED BY EXISTING WORK OR NEW WORK THAT HAS ALREADY BEEN INSTALLED. ANY DISCREPANCIES FROM THE INFORMATION SHOWN ON PLANS SHALL BE REPORTED TO AND COORDINATED WITH THE ARCHITECT.

4. BEFORE COMMENCEMENT OF ANY WORK AND/OR FABRICATION, THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR HIS APPROVAL CONCRETE MIX DESIGNS FOR EACH TYPE OF CONCRETE TO BE USED, MILL REPORTS FOR STEEL, STRUCTURAL PENETRATIONS AND SHOP DRAWINGS FOR ALL STRUCTURAL TRADES AND OTHER DOCUMENTS AS REQUIRED PER PROJECT SPECIFICATIONS.

5. MEMBERS WITH SIZES INDICATED ON THE DRAWINGS ARE NEW UNLESS OTHERWISE NOTED (UON).

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL ROOF, FLOOR AND WALL PENETRATIONS, PATCHING, REPAIRING AND FLASHING AS REQUIRED.

7. ITEMS INDICATED AS "BY OTHERS" DENOTES DELEGATED DESIGN ITEMS TO BE PROVIDED BY THE CONTRACTOR (DESIGNED BY MANUFACTURER'S ENGINEER FOR PREFABRICATED ITEMS OR BY CONTRACTOR'S ENGINEER FOR CUSTOM ITEMS).

8. THE NOTES OF EACH FOLLOWING SECTION SHALL APPLY, EXCEPT AS SPECIFICALLY NOTED OR SHOWN OTHERWISE ON THE BALANCE OF THESE STRUCTURAL DRAWINGS.

FOUNDATION NOTES:

1. FOUNDATION DESIGN HAS BEEN BASED ON GEOTECHNICAL REPORT PREPARED BY TECTONIC DATED SEPTEMBER 13, 2024. A COPY OF THIS REPORT SHALL BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.

2. ALL EARTHWORK, SUBGRADE PREPARATION AND FOUNDATION WORK SHALL BE DONE ACCORDING TO THE GEOTECHNICAL REPORT AND UNDER SUPERVISION OF LICENSED GEOTECHNICAL ENGINEER IN OWNER'S DIRECT EMPLOY.

3. SPREAD FOOTINGS SHALL BEAR ON UNDISTURBED MEDIUM DENSE TO VERY DENSE NATIVE TILL SOILS, OR ON STRUCTURAL FILL PLACED OVER THESE MATERIALS, WITH A MINIMUM BEARING CAPACITY OF 1.5 TONS PER SQUARE FOOT. IF MATERIAL OF THIS CAPACITY IS NOT FOUND AT THE ELEVATIONS INDICATED THE FOOTINGS SHALL BE LOWERED AT THE DIRECTION OF THE LICENSED GEOTECHNICAL ENGINEER IN OWNER'S DIRECT EMPLOY.

4. MAKE NO EXCAVATION TO THE FULL DEPTH INDICATED WHEN FREEZING TEMPERATURES MAY BE EXPECTED UNLESS THE FOOTINGS OR SLABS CAN BE PLACED IMMEDIATELY AFTER THE EXCAVATION HAS BEEN COMPLETED. PROTECT THE BOTTOM OF EXCAVATION FROM FROST IF PLACING OF CONCRETE IS DELAYED. SHOULD PROTECTION FAIL, REMOVE FROZEN MATERIALS AND REPLACE WITH CONCRETE OR GRAVEL FILL.

5. WALLS SHALL BE TEMPORARILY BRACED AGAINST EARTH PRESSURE AND OTHER FORCES UNTIL SLABS, BEAMS AND OTHER MEMBERS DESIGNED TO BRACE THE FINISHED STRUCTURE HAVE BEEN IN PLACE AND HAVE ATTAINED REQUIRED CONCRETE ULTIMATE STRENGTH.

6. UNLESS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL ENGINEER'S REPORT, SLABS ON GRADE SHALL BE SUPPORTED BY A COMPACTED POROUS FILL AT LEAST 6 INCHES THICK. AT INTERIOR SLABS A VAPOR BARRIER AT LEAST 15 MILS THICK SHALL BE PLACED BETWEEN THE SLAB AND THE POROUS FILL. THE POROUS FILL SHALL, IN TURN, BE SUPPORTED BY EITHER CLEAN, INORGANIC ORIGINAL SOIL OR A COMPACTED FILL WITH A MODIFIED PROCTOR DENSITY OF 90.

UNDERPINNING AND SUPPORT OF EXCAVATION:

1. UNDERPINNING AND SUPPORT OF EXCAVATION, (SHEETING, SHORING, BRACING ETC.) SHALL BE DESIGNED BY A QUALIFIED PROFESSIONAL ENGINEER EXPERIENCED IN THIS TYPE OF WORK, EMPLOYED BY THE OWNER. THIS ENGINEER, FURTHER REFERRED TO AS THE SUPPORT OF EXCAVATION (SOE) ENGINEER SHALL BE RESPONSIBLE FOR INSPECTION OF THIS WORK AS REQUIRED BY THE PERTINENT BUILDING CODE.

2. THE SOE ENGINEER SHALL SUBMIT UNDERPINNING, SHEETING, SHORING AND BRACING DRAWINGS TO THE ARCHITECT FOR COORDINATION WITH DESIGN DRAWINGS. SUCH DRAWINGS SHALL BE SUBMITTED PRIOR TO FILING OF THE STRUCTURAL DRAWINGS BY THE OFFICE FOR APPROVAL BY DOB.

3. THE SOE ENGINEER SHALL CARRY PROPER PROFESSIONAL AND GENERAL LIABILITY INSURANCE. GACE SHALL BE NAMED AS AN "ADDITIONAL INSURED" ON AND UNDER SOE ENGINEER'S INSURANCE POLICIES FOR GACE'S BENEFIT.

4. UNDERPINNING, SHEETING, SHORING AND BRACING, AS WELL AS OTHER ELEMENTS OF SUPPORT OF EXCAVATION (SOE) SHALL BE SHOWN ON PLANS AND DETAILED BY THE SOE ENGINEER. THE SOE ENGINEER SHALL FILE SUCH PLANS AND OBTAIN APPROVAL FROM THE DEPARTMENT OF BUILDINGS AS PART OF THE FILING FOR THE FOUNDATION PERMIT.

CAST-IN-PLACE CONCRETE NOTES:

1. CONCRETE TYPES

   A. SLABS ON GRADE (OTHER THAN SIDEWALKS) – 4,000 PSI STONE CONCRETE.
   B. CONCRETE PLACED ON METAL DECK – 3,000 PSI LIGHTWEIGHT CONCRETE (115 PCF MAX.).
   C. NON-STRUCTURAL FILL – 3,000 PSI LIGHTWEIGHT CONCRETE (115 PCF MAX.).
   D. ALL OTHER CONCRETE – 5,000 PSI STONE CONCRETE.

2. BAR REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60 UNLESS HIGHER GRADE IS INDICATED ON DRAWINGS.

3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064 WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 70,000 PSI.

4. CONCRETE SHALL BE CAST MONOLITHICALLY BETWEEN JOINTS SHOWN ON THE STRUCTURAL DRAWINGS. REQUESTS FOR ADDITIONAL CONSTRUCTION JOINTS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. ADDITIONAL CONSTRUCTION JOINTS NOT SHOWN ON DRAWINGS MAY REQUIRE ADDITIONAL REINFORCING AT THE DIRECTION OF THE ENGINEER OF RECORD.

5. REINFORCEMENT MARKED "CONT." (CONTINUOUS) SHALL BE LAPPED A PROPER DISTANCE AT SPLICES AND CORNERS AND SHALL BE HOOKED OR EXTENDED A PROPER DISTANCE AT NON-CONTINUOUS ENDS AS PER SPLICE AND DEVELOPMENT LENGTH REQUIREMENTS SHOWN ON THE DRAWINGS. ALL HORIZONTAL WALL REINFORCING SHALL BE CONTINUOUS.

6. REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS. THE CONTRACTOR SHALL LOCATE CONSTRUCTION JOINTS AT POINTS OF MINIMUM SHEAR.

7. REINFORCING BARS SHALL HAVE THE FOLLOWING CONCRETE PROTECTION:

CONCRETE CAST AGAINST EARTH	- 3"
EXPOSED TO EARTH OR WEATHER	- 2"
SLABS NOT EXPOSED	- 3/4"
BEAMS AND GIRDERS NOT EXPOSED	- 1-1/2" TO STIRRUPS
COLUMNS NOT EXPOSED	- 1-1/2" TO TIES

8. MAXIMUM LENGTH OF CONCRETE POUR (DISTANCE BETWEEN CONSTRUCTION JOINTS) SHALL BE 50 FEET DURING JUNE, JULY, AUGUST AND SEPTEMBER AND 75 FEET DURING THE REST OF THE YEAR. LOCATION OF CONSTRUCTION JOINTS, IF REQUIRED, SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT.

9. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND LOCATIONS OF ALL OPENINGS, PIPE SLEEVES, ANCHOR BOLTS, ETC. AS REQUIRED BY TRADES BEFORE CONCRETE IS POURED.

10. THE CONTRACTOR SHALL PROVIDE SLAB BOLSTERS, HIGH CHAIRS AND ALL ACCESSORIES REQUIRED FOR PROPER PLACEMENT OF REINFORCING BARS AND WIRE MESH AS PER A.C.I. & C.R.S.I. STANDARDS.

11. CONCRETE MAY BE CONVEYED BY PUMPING. PUMPING METHODS SHALL COMPLY WITH REQUIREMENTS ESTABLISHED BY A.C.I. COMMITTEE 304, PLACING CONCRETE PUMPING METHODS.

12. PRIOR TO PLACING CONCRETE, ALL REINFORCEMENT SHALL BE FREE OF LOOSE FLAKY RUST, MUD, OIL OR OTHER COATING THAT WILL DESTROY, REDUCE OR HAMPER FULL BOND CAPACITY.

13. THE PLACEMENT OF DOWELS, ANCHOR RODS, OR ANY OTHER EMBEDMENTS INTO WET CONCRETE "WET STICKING", SHALL NOT BE PERMITTED.

14. CONTROL AND EXPANSION JOINTS SHALL BE PROVIDED TO MINIMIZE CRACKING AS PER ARCHITECTURAL AS WELL AS STRUCTURAL REQUIREMENTS AND IN ACCORDANCE WITH STANDARD PRACTICES ACCEPTED IN THE INDUSTRY.

15. THE FOLLOWING CRITERIA SHALL BE MET WITH REGARDS TO PLACEMENT OF CONDUITS, PIPES, ETC. IN CONCRETE SLABS.

   A. ALL CONDUITS SHALL BE CENTERED AT MID-DEPTH OF SLAB. CONDUIT DIAMETER SHALL NOT EXCEED 1/3 OF SLAB THICKNESS. CLEAR DISTANCE BETWEEN TWO ADJACENT CONDUITS SHALL BE A MINIMUM OF 3 DIAMETERS OF LARGER OF THE TWO CONDUITS.
   B. VERTICAL SLEEVES, PIPES, ETC. THROUGH SLAB EITHER CLUSTERED OR INDIVIDUAL, SHALL NOT INTERRUPT MORE THAN 1/3 OF THE WIDTH OF COLUMN STRIP.
   C. NO REINFORCEMENT BARS SHALL BE CUT, BENT, SHIFTED OR OTHERWISE ALTERED AS CONDUITS, PIPES, ETC. AS COMPARED TO WHAT IS SHOWN ON THESE DRAWINGS.
   D. ANY DEVIATIONS FROM ABOVE REQUIREMENTS SHALL BE SHOWN ON THE SHOP DRAWINGS AND SUBMITTED FOR APPROVAL BY THIS OFFICE.

MASONRY NOTES:

1. MASONRY WALL CONSTRUCTION SHOWN ON STRUCTURAL DRAWINGS SHALL CONFORM TO THE FOLLOWING:

   A. UNITS SHALL BE 16" LONG (NOMINAL) MEDIUM WEIGHT AGGREGATE CONCRETE HOLLOW UNITS WITH A MAXIMUM OVEN DRY DENSITY OF 125 PCF. UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C90. NET SOLID UNIT AREA SHALL NOT EXCEED THE FOLLOWING PERCENTAGES OF THE GROSS UNIT AREA:

      8" CMU- 55%
      10" CMU- 50%
      12" CMU- 45%

      MINIMUM UNIT COMPRESSIVE STRENGTHS TO BE USED ARE AS FOLLOWS:

      ALL FLOORS - 3,150 PSI f'm = 2,500 PSI

   B. MORTAR SHALL BE TYPE S OR TYPE M, IN CONFORMANCE WITH ASTM C270.
   C. GROUT SHALL CONFORM TO ASTM 476 AND SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH EQUAL TO THE MASONRY ASSEMBLY STRENGTHS (f'm) INDICATED IN NOTE 1A.
   D. USE SPECIAL UNITS AS REQUIRED TO ALLOW PROPER INSTALLATION OF BOTH VERTICAL AND HORIZONTAL REINFORCEMENT, AND ACCESSORIES TO ACCOMMODATE ARCHITECTURAL AND STRUCTURAL DESIGN. THESE MAY INCLUDE BUT NOT BE LIMITED TO BOND BEAM, LINTEL, TROUGH, CORNER AND OTHER SPECIAL UNITS.

2. GROUT SOLID ALL CELLS CONTAINING VERTICAL REINFORCEMENT BARS.

3. ALL VERTICAL REINFORCEMENT BARS SHALL BE CENTERED IN THE CELL IN BOTH DIRECTIONS.

4. THE MINIMUM HORIZONTAL REINFORCING FOR ALL MASONRY WALLS SHALL CONSIST OF TWO WIRE-9 GAGE RODS @ 16"O.C. SEE MASONRY SHEAR WALL SCHEDULES ON S-400 SERIES DRAWINGS FOR MASONRY SHEAR WALL REINFORCING.

5. THE FOLLOWING SHALL BE PROVIDED IN PARAPET WALLS:

   A. ALL CELLS AND ALL JOINTS IN SOLID, CAVITY OR MASONRY BONDED HOLLOW WALL CONSTRUCTION SHALL BE FILLED SOLID WITH GROUT AND MORTAR.
   B. HORIZONTAL WIRE REINFORCEMENT SHALL BE PROVIDED AT VERTICAL INTERVALS NOT GREATER THAN 12".
   C. HORIZONTAL REINFORCEMENT SHALL EXTEND AROUND THE CORNER FOR AT LEAST 4 FT. IN BOTH DIRECTIONS AND SPLICES SHALL BE LAPPED AT LEAST 6".
   D. NONREINFORCED PARAPET WALLS SHALL BE NOT LESS THAN 8" IN THICKNESS AND THEIR HEIGHT SHALL NOT EXCEED THREE TIMES THEIR THICKNESS.

6. HORIZONTAL REINFORCEMENT SHALL BE CONTINUOUS THROUGH CORNERS, INTERSECTION, AND PILASTERS IN BRICK AND C.M.U.

7. BONDING OF MASONRY UNITS SHALL BE CONTINUED THROUGH CORNERS, INTERSECTIONS, AND PILASTERS IN BRICK AND C.M.U.

8. VERTICAL REINFORCEMENT CONSISTING OF 1#4 MINIMUM SHALL BE PROVIDED AT BOTH SIDES OF ALL OPENINGS FULL HEIGHT OF WALL.

9. IN ADDITION TO REINFORCEMENT SHOWN ON PLAN, DETAILS, AND S-400 SERIES, PROVIDE MINIMUM 1#4 VERTICAL REINFORCEMENT FROM FLOOR TO FLOOR AT:

   A. EACH CORNER OF WALL.
   B. ALL ENDS OF WALLS.
   C. NEXT TO EXPANSION JOINTS

10. 1#4 CONTINUOUS REINFORCEMENT SHALL BE PLACED AT TOP AND BOTTOM OF ALL WALL OPENINGS AND SHALL EXTEND 24" MINIMUM OR 40 BAR DIAMETERS PAST EACH SIDE OF THE OPENINGS.

11. HORIZONTAL REINFORCEMENT SHALL BE PLACED CONTINUOUSLY AT THE TOP OF ALL C.M.U. WALLS AT EACH FLOOR, ROOF AND PARAPET WALL, 1#5 HORIZ AT 10" CMU; 2#5 HORIZ AT 12" CMU.

12. ALL GROUTING SHALL FOLLOW THE REQUIREMENTS OF ACI-530.1 ARTICLE 3.5. FOR "LOW LIFT" GROUTING, WALLS SHALL BE LAID UP AND GROUTED AT MAXIMUM INTERVAL HEIGHTS OF 5'-0". PLACE REINFORCEMENT BARS AND EXTEND THEM A SPLICE LENGTH ABOVE LIFT. LEVEL OF GROUT TO BE KEPT 1 1/2" FROM TOP OF MASONRY FORMING A GROUT KEY. "HIGH LIFT" GROUTING SHALL FOLLOW ALL REQUIREMENTS STATED IN ACI-530.1 ARTICLE 3.5D. CLEANOUT HOLES FOR INSPECTION ARE REQUIRED AT THE BASE OF THE WALL FOR ALL POURS OVER 5'-0". ALL GROUT SHALL BE CONSOLIDATED IN ACCORDANCE WITH ARTICLE 3.5E.

13. OPENINGS FOR ROUND DUCTS, PIPING AND ELECTRICAL CONDUIT BETWEEN 4 AND 12 INCHES IN DIAMETER SHALL BE SLEEVED WITH SCHEDULE 40 STEEL PIPE. NO OPENING SHALL BE IN PLACED REINFORCED GROUTED CELLS.

14. GROUT SOLID TOP TWO COURSES OF C.M.U. DIRECTLY UNDER BEARING POINTS.

15. HORIZONTAL AND VERTICAL CONTROL AND EXPANSION JOINTS IN FACE BRICK SHALL BE LOCATED AS PER ARCHITECTURAL DRAWINGS.

16. EXPOSED STEEL, STEEL LINTELS OR STEEL WITHIN 4" OF WEATHERING FACE OF MASONRY SHALL BE GALVANIZED.

17. ALL LINTELS SHALL BEAR 8" AT EACH JAMB. FULL CONTACT BETWEEN LINTEL AND SUPPORTING MASONRY SHALL BE PROVIDED.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:
   A. WIDE FLANGE AND TEE SHAPES - ASTM A992 GRADE 50
   B. CHANNELS, S SHAPES, ANGLES, PLATES AND BARS - ASTM A36
   C. STEEL PIPE - ASTM A53 GRADE B
   D. ROUND, SQUARE & RECTANGULAR HSS SHAPES - ASTM A500 GRADE B

2. SHOP CONNECTIONS SHALL BE WELDED OR BOLTED. FIELD CONNECTIONS SHALL BE BOLTED UNLESS SPECIFICALLY SHOWN OTHERWISE ON STRUCTURAL DRAWINGS.

3. ALL BOLTING SHALL CONFORM TO THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", LATEST EDITION.

4. BOLTED CONNECTIONS SHALL UTILIZE ASTM A325 OR A490 BOLTS. ALL BOLTS SHALL BE 3/4 INCH DIAMETER MINIMUM. BOLTED SIMPLE SHEAR CONNECTIONS SHALL UTILIZE HIGH STRENGTH BOLTS IN BEARING TYPE CONNECTIONS AND SHALL BE INSTALLED "SNUG TIGHT". BOLTED MOMENT CONNECTIONS, SPLICE CONNECTIONS AND BRACING CONNECTIONS SHALL BE PRETENSIONED JOINTS WITH FULLY PRETENSIONED HIGH-STRENGTH BOLTS IN BEARING. CONNECTIONS WITH OVERSIZE HOLES OR SLOTTED HOLES IN WHICH THE LOAD IS NOT APPLIED NORMAL TO THE LONG DIMENSION OF THE SLOT REQUIRE SLIP CRITICAL BOLTS.

5. ALL WELDING ELECTRODES SHALL BE LOW HYDROGEN, AS REQUIRED BY AWS "STRUCTURAL WELDING CODE" AND "CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION" TO SATISFY BASE-TO-FILLER METAL COMBINATION CRITERIA. ALL FILLER METAL SHALL HAVE A MINIMUM CVN TOUGHNESS OF 20 FT. LBS. AT MINUS 20 DEGREES F.

6. ALL WELDING SHALL BE DONE BY QUALIFIED WELDERS AND SHALL CONFORM TO THE AWS "CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION", LATEST EDITION. WELDER CERTIFICATES SHALL BE SUBMITTED TO GACE BEFORE COMMENCEMENT OF WORK.

7. MINIMUM SIZE OF FILLET WELDS SHALL BE 1/4" MIN. FOR FIELD WELDS AND AS REQUIRED PER AISC SPECIFICATION RELATIVE TO BASE METAL THICKNESS FOR SHOP WELDS.

8. ALL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO AISC "LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND AISC "CODE OF STANDARD PRACTICE", LATEST EDITIONS.

9. CONNECTIONS OF ALL BEAMS AND GIRDERS SHALL BE DESIGNED FOR REACTIONS INDICATED ON STRUCTURAL DRAWINGS. ALL OTHER CONNECTIONS SHALL BE DESIGNED FOR THE FULL CAPACITY OF THE MEMBERS.

10. KNIFE CONNECTIONS SHALL NOT BE PERMITTED UNLESS SPECIFICALLY REQUESTED BY A CONTRACTOR AND APPROVED BY STRUCTURAL ENGINEER PRIOR TO SHOP DRAWING APPROVAL. CONTRACTOR'S BIDS SHALL BE SUBMITTED BASED ON THE KNIFE CONNECTIONS NOT ALLOWED. SPECIFIC KNIFE CONNECTION DETAILS SHALL BE SUBMITTED FOR APPROVAL AT THE TIME WHEN TYPICAL DETAILS AND ERECTION PLANS ARE SUBMITTED. THE DETAILS SHALL BE ACCOMPANIED BY CALCULATIONS SIGNED AND SEALED BY PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE PROJECT IS TO BE BUILT. CALCULATIONS SHALL DEMONSTRATE THAT THE WELDS ARE NOT OVERSTRESSED DUE TO SECONDARY STRESSES DUE TO BOLT TIGHTENING, PRYING ACTION, ETC.

11. INSPECTION AND TESTING OF WELDS AND BOLTS SHALL BE AS FOLLOWS:

   A. A TESTING AGENCY ACCEPTABLE TO THE ENGINEER OF RECORD SHALL BE EMPLOYED BY THE OWNER TO PERFORM ALL SHOP AND FIELD INSPECTIONS AND TESTING OUTLINED BELOW.
   B. ALL WORK SHALL BE SCHEDULED BY THE CONTRACTOR TO ALLOW THE BELOW SHOP AND FIELD TESTING TO BE COMPLETED:
   C. ALL WELDS SHALL BE VISUALLY INSPECTED. FIFTEEN (15) PERCENT OF RANDOMLY SELECTED FILLET, PLUG AND SLOT WELDS SHALL BE MEASURED.
   D. FIFTEEN (15) PERCENT OF RANDOMLY SELECTED FILLET WELDS IN BEAM AND GIRDER SHEAR CONNECTION PLATES, ANGLES, ETC. SHALL BE CHECKED BY MAGNETIC PARTICLE METHOD. ONLY THE FINAL PASS SHALL BE CHECKED.
   E. ULTRASONICALLY TEST 100 PERCENT OF ALL FULL AND PARTIAL PENETRATION WELDS. WELD PREPARATION OF 100 PERCENT OF WELDS SHALL BE INSPECTED.
   F. ALL BOLTS SHALL BE VISUALLY INSPECTED.
   G. ALL SLIP CRITICAL BOLTS SHALL BE CHECKED FOR PROPER TENSIONING USING THE "DIRECT TENSION INDICATOR" METHOD. MEASURE WITH FEELER GAGES AT LEAST 15% OF BOLTS IN EACH CONNECTION, BUT NOT LESS THAN TWO BOLTS PER CONNECTION.
   H. A MINIMUM OF 15 PERCENT OF BOLTS, BUT NOT LESS THAN TWO BOLTS IN EACH BEARING TYPE CONNECTION SHALL BE CHECKED FOR PROPER TENSIONING USING THE CALIBRATED TORQUE WRENCH METHOD.
   I. IN CASE MULTIPLE DEFECTS HAVE BEEN DETECTED, THE ABOVE EXTENT OF INSPECTION SHALL BE INCREASED AT DISCRETION OF STRUCTURAL ENGINEER OF RECORD.

12. SUBMITTALS

   A. SEE "SUBMITTALS NOTES" SECTION FOR GENERAL REQUIREMENTS.
   B. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT, FOR REVIEW, ENGINEERED SHOP AND ERECTION DRAWINGS SHOWING SHOP FABRICATION DETAILS FOR EACH PIECE OF STEEL, FIELD ASSEMBLY DETAILS AND ERECTION DIAGRAMS FOR ALL STEEL.
   C. PIECE DETAIL SHALL NOT BE SUBMITTED PRIOR TO APPROVAL OF ERECTION DRAWINGS AND RELATED CONNECTION DETAILS, DIAGRAMS, SCHEDULES, ETC.
   D. IN ADDITION TO BASIC INFORMATION GIVEN ON STRUCTURAL DRAWINGS, ERECTION DRAWINGS SHALL INCLUDE THE ERECTION MARK, LOCATION, SIZE AND GRADE OF EACH INDIVIDUAL PIECE OF STEEL, REINFORCING OF BEAM PENETRATIONS, THE ELEVATION OF TOP OF BEAM, THE ELEVATION OF WORK POINT AT BOTH ENDS OF SLOPED BEAMS AND CAMBER FOR EACH PIECE.
   E. ROLLED SHAPES, TUBES, PLATES AND OTHER COMPONENTS SHALL BE INDENTIFIED BY USING THE STANDARD DESIGNATIONS USED IN AISC DETAILING FOR STEEL CONSTRUCTION. THE STRUCTURAL DRAWINGS MAY BE USED FOR THI PURPOSE TO THE EXTENT DESIRED BY THE CONTRACTOR.
   F. EACH FIELD CONNECTION SHALL BE SHOWN COMPLETE WITH DATA AND DETAILS NECESSARY FOR ASSEMBLING THE STEEL.
   G. THE FOLLOWING INFORMATION SHALL BE CLEARLY INDICATED ON ALL SHOP DRAWINGS: THE GRADE, SIZE AND NUMBER OF BOLTS, THE TYPE, NUMBER, POSITION, DESIGNATION AND ORIENTATION OF EACH WASHER, THE BOLT TENSION INDICATING SYSTEM AND THE SIZE OF EACH HOLE, WHETHER SLOTTED OR ROUND. CONNECTION DETAILS SHALL BE PROPORTIONED TO ENSURE ADEQUATE WRENCH CLEARANCE FOR CORRECT BOLT TENSIONING PROCEDURES.
   H. DETAILS SHALL BE PREPARED IN ACCORDANCE WITH AND TO ACCOMMODATE CONTRACTOR'S FIELD MEASUREMENTS OF SUPPORTING AND ADJOINING CONSTRUCTION.
   I. WELDS AND NONDESTRUCTIVE TESTS SHALL BE INDICATED BY USING THE SYMBOLS CONFORMING TO AWS A2.4, STANDARD SYMBOLS FOR WELDING, BRAZING AND NONDESTRUCTIVE EXAMINATION. WHERE NECESSARY FOR CLARITY, JOINT DESIGNATION, WELDING PROCESS OR OTHER DATA SHALL BE INDICATED IN THE TAIL OF THE WELDING SYMBOL.
   J. REVIEW OF SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING:
      - MEMBER SIZE, GRADE, SPACING AND ELEVATION.
      - STRUCTURAL INTEGRITY OF CONNECTIONS.
      - PENETRATIONS, INCLUDING SIZE AND LOCATION.
   K. WHERE DIRECTED, SUBMIT CERTIFIED COPIES OF MILL TEST REPORTS FOR ALL STEEL FURNISHED. COMPLY WITH ALL APPLICABLE PARTS OF ASTM SPECIFICATIONS. BEYOND ORDERING INFORMATION NORMALLY PROVIDED BY CONTRACTOR, THE MILL SHALL BE INSTRUCTED TO COLOR-CODE IN ACCORDANCE WITH ASTM A6 AND TO MARK WITH HEAT NUMBER, SIZE AND TYPE AND GRADE OF STEEL.
   L. MILL TEST REPORTS SHALL STATE CLEARLY THE GOVERNING ASTM SPECIFICATION AND SHALL BE CERTIFIED AND NOTARIZED BY CONTRACTOR AS CONFORMING IN ALL RESPECTS TO THAT SPECIFICATION.
   M. MATERIAL PROVIDED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS MAY BE USED IN THE WORK WITHOUT FURTHER LOCAL TEST. IN THE CASE OF CONTROVERSY, CONTRACTOR SHALL PERFORM TENSION, BEND AND SUCH OTHER TESTS AS ARE REQUIRED TO DEMONSTRATE COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
   N. WHERE DIRECTED, SUBMIT MANUFACTURER'S CERTIFICATION OF BOLTS, NUTS, WASHERS, DTI'S, ETC. FOR EACH GRADE OF EACH TYPE AND OF EACH SIZE OF FASTENER COMPONENT AND WELDING FILLER MATERIAL.
   O. FURNISH TEMPLATES AND LAYOUT DRAWINGS FOR EXACT LOCATIONS OF ITEMS TO BE EMBEDDED IN CONCRETE, WITH SETTING INSTRUCTIONS REQUIRED FOR INSTALLATION OF EMBEDDED ITEMS.
   P. SUBMIT FOR ACCEPTANCE THE NAMES OF THE FOLLOWING PRODUCTS AND/OR PRODUCERS ALONG WITH CERTIFICATION THAT THE PRODUCTS CONFORM IN ALL RESPECTS TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS:
      - PLATES AND SHAPES
      - BOLTS, NUTS AND WASHERS
      - SHOP AND FIELD PAINT
      - COATING OF MILLED SURFACE
      - WELDING MATERIALS
      - STUD SHEAR CONNECTORS
      - SHIELDING GAS
   Q. SPECIAL ATTENTION SHALL BE DIRECTED TO THE POSSIBLE NEED FOR INSTALLATION OF GUY CABLES, BRACING OR SHORING TO PREVENT DEFORMATION OF EXISTING OR NEW STRUCTURE DUE TO STRESSES CAUSED BY ERECTION ACTIVITIES AND EQUIPMENT, BY CONSTRUCTION LOADINGS AND BY OTHER FORCES.
   R. TEMPORARY MEMBERS AND CONNECTIONS WHICH MAY BE REQUIRED FOR TEMPORARY CONSTRUCTION, ERECTION AND SIMILAR WORK SHALL BE DEPICTED AND IDENTIFIED. HOWEVER, THEY SHALL NOT BE SUBJECT TO ENGINEER'S REVIEW.
   S. TEMPORARY, SHIPPING, HANDLING, ERECTION OR SIMILAR LOADS SHALL NOT BE CONSIDERED IN THE ENGINEER'S REVIEW OF SHOP DRAWINGS.
   T. ALL STEEL THAT IS NOT PROPERLY IDENTIFIED OR WHOSE SOURCE IS SUBJECT TO QUESTION SHALL BE REJECTED AND RETURNED WITHOUT REVIEW.
   U. UPON COMPLETION OF WORK SUBMIT AN AFFIDAVIT ATTESTING THAT ALL MATERIALS AND PRODUCTS PROVIDED FOR THE WORK CONFORM TO THE APPLICABLE SPECIFICATIONS, STANDARDS, YIELD POINTS, GRADE, ETC. REQUIRED BY CONTRACT DOCUMENTS.

13. ALL CONNECTIONS SHALL BE DESIGNED AND DETAILED BY A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF NEW YORK, HIRED BY THE CONTRACTOR. IF REQUESTED BY THE ENGINEER OF RECORD, CALCULATIONS SHALL BE SUBMITTED FOR THE ENGINEER OF RECORD'S REFERENCE. ALL REFERENCE CALCULATIONS SHALL BE SIGNED AND SEALED BY THE CONTRACTOR'S ENGINEER.

14. DETAILING SHALL BE PERFORMED USING APPROPRIATE ENGINEERING DESIGN PRINCIPLES AND ACCEPTED INDUSTRY STANDARDS, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. DETAILER SHALL BE AWARE THAT THE DETAILS AND SECTIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE CONCEPTUAL ONLY AND DO NOT INDICATE THE NUMBER OF BOLTS, WELD SIZES, AND OTHER INFORMATION REQUIRED TO BE SHOWN ON THE SHOP DRAWINGS, UNLESS SPECIFICALLY NOTED.

15. ALL STAIR AND OTHER MISCELLANEOUS STEEL STRUCTURES SHALL BE DESIGNED AND DETAILED BY AN ENGINEER EMPLOYED BY THE CONTRACTOR. DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK AND SHALL BE SUBMITTED FOR REVIEW BY STRUCTURAL ENGINEER OF RECORD. CALCULATIONS SHALL BE SUBMITTED FOR REFERENCE.

16. EXISTING STRUCTURAL STEEL SHALL BE REMOVED ONLY WITH ARCHITECT'S (OR HIS REPRESENTATIVE) APPROVAL. NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES OR FOR ANY OTHER REASON SHALL BE PERMITTED UNLESS APPROVED BY

GENERAL NOTES CONTINUED:

POST INSTALLED ANCHORS

1. ANCHOR CAPACITY SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY THE ANCHOR MANUFACTURER OR OTHER METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD ("ENGINEER").

2. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS SHALL BE EVALUATED BY THEIR HAVING AN INTERNATIONAL CODE COUNCIL EVALUATION SERVICE REPORT (ICC ESR) SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION SHALL CONSIDER EFFECTS OF CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.

3. ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER INSTRUCTIONS INCLUDED IN THE ANCHOR PACKAGING.

4. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE HILTI PROFI SYSTEM OR OTHER MANUFACTURER'S EQUAL OR BETTER SYSTEM, IF APPROVED BY THE ENGINEER IN ADVANCE.

5. THE CONTRACTOR SHALL ARRANGE ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE ENGINEER MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF THEIR INSTALLATION.

6. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO THE EDGE OF CONCRETE. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH SPACING AND EDGE DISTANCES INDICATED ON THE STRUCTURAL DRAWINGS.

7. REINFORCING BARS OR OTHER ELEMENTS EMBEDDED IN THE EXISTING CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS, ETC. CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE EMBEDDED BARS, ETC. BY GROUND PENETRATING RADAR (GPR), X-RAY, CHIPPING OR OTHER MEANS.

8. CONTINUOUS OR PERIODIC SPECIAL INSPECTIONS FOR POST INSTALLED ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 4.4 OF THE INDIVIDUAL INTERNATIONAL CODE COUNCIL- EVALUATION SERVICE (ICC- ES) REPORT FOR THE INDIVIDUAL ANCHOR. THE CONTRACTOR SHALL GIVE THE SPECIAL INSPECTOR SUFFICIENT ADVANCE NOTICE TO ALLOW ENOUGH TIME FOR PROPER INSPECTION OF HOLE PREPARATION, ANCHOR INSTALLATION, TIGHTENING, ETC. ANCHORS INSTALLED WITHOUT INSPECTION AT ALL THESE PHASES SHALL BE REJECTED AND WILL HAVE TO BE REPLACED AT CONTRACTOR'S EXPENSE.

STEEL PAINTING NOTES - EXPOSED STEEL:

1. CLEAN STEEL IN ACCORDANCE WITH SSPC-SP6 COMMERCIAL BLAST CLEANING AND COAT WITH TNEMEC OMNITHANE 530 PRIME TO 2 - 3 MILS DRY FILM THICKNESS (DFT), OR APPROVED EQUAL, WITHIN 4 HOURS OF CLEANING. AFTER ERECTION AND TOUCH UP APPLY A FULL COAT OF TNEMEC N69F HI-BUILD EPOXOLINE II TO 3 - 5 MILS DFT FOR TEMPERATURES DURING APPLICATION / CURING BELOW 50 DEG. F DOWN TO 35 DEG. F, AND TNEMEC SERIES 135 CHEMBUILD TO 5 - 6 MILS DFT FOR TEMPERATURES DURING APPLICATION / CURING ABOVE 50 DEGREE F.

STEEL JOIST NOTES:

1. STEEL JOISTS AND BRIDGING SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS OF THE STEEL JOIST INSTITUTE, LATEST EDITION.

2. ADDITIONAL JOIST SHALL BE PROVIDED UNDER PARALLEL PARTITIONS WHEN THE PARTITION LENGTH EXCEEDS ONE-HALF THE JOIST SPAN AND AROUND ALL FLOOR AND ROOF OPENINGS WHICH INTERRUPT ONE OR MORE SPANNING MEMBERS.

3. STEEL JOISTS SHALL BE WELDED TO STRUCTURAL SUPPORTS.

4. UNIFORM AND LEVEL JOIST BEARING SHALL BE PROVIDED AT BEARING WALLS BY MEANS OF SHIMS AND/OR NON-SHRINK GROUT.

METAL DECK NOTES:

1. METAL DECK SHALL CONFORM TO AISI "SPECIFICATION FOR THE DESIGN OF LIGHT GAUGE COLD FORMED STEEL STRUCTURAL MEMBERS" AND TO THE STEEL DECK INSTITUTE SPECIFICATIONS AND RECOMMENDATIONS.

2. ALL METAL DECK SHALL BE COMPOSITE TYPE. STEEL SHALL CONFORM TO ASTM A653, GRADE 40. ALL MATERIAL SHALL BE HOT-DIPPED, GALVANIZED.

3. THE CONTRACTOR SHALL SUBMIT FOR ARCHITECT'S APPROVAL SHOP DRAWINGS INDICATING LOCATION, GAUGE AND SIZE OF EACH PIECE OF METAL DECK. THE DRAWINGS SHALL SHOW DETAILS OF WELDING TO STRUCTURAL STEEL AND SIDE LAP CONNECTION DETAILS. DETAILS RELATED TO SUPPORT OF THE DECK ON WALLS, BEAMS, ETC. SHALL BE INCLUDED.

4. METAL DECK SHALL BE PUDDLE WELDED TO THE STRUCTURAL STEEL SUPPORTS AT 12 INCHES ON CENTER (MAXIMUM). SIDE LAPS OR ADJOINING PANELS SHALL BE PUNCHED TOGETHER OR WELDED EVERY 24 INCHES ON CENTER (MAXIMUM).

5. ALL PUDDLE WELDS SHALL BE 3/4 INCH DIAMETER. ALL METAL DECK SHALL BE WELDED TO STRUCTURAL STEEL BY QUALIFIED WELDERS, USING PRE QUALIFIED PROCEDURES. THE ERECTOR SHALL ESTABLISH A WELDING PROCEDURE FOR PUDDLE WELDING PRIOR TO THE START OF ERECTION OF THE STEEL DECK. EACH WELDER SHALL BE QUALIFIED USING THIS PROCEDURE AS MONITORED BY THE QUALIFIED TESTING LABORATORY, IN OWNER'S DIRECT EMPLOY.

6. PROVIDE CONTINUOUS SHEET METAL CLOSURES AT ALL SLAB EDGES. PROVIDE SHEET METAL CLOSURES AT COLUMNS, CANT STRIPS, SUMP PANS, ROOF DRAINS, PIPE PENETRATIONS, ETC. CLOSURE THICKNESS SHALL BE 18 GAUGE (MINIMUM). THE APPROPRIATE GAGE SHALL BE DESIGNED BY A STRUCTURAL ENGINEER IN METAL DECK CONTRACTOR'S EMPLOY. THE GAGE SHALL BE SHOWN ON THE SHOP DRAWINGS SUBMITTED FOR ARCHITECT'S APPROVAL.

7. PROVIDE SUPPLEMENTAL FRAMING AT OPENINGS, MOMENT CONNECTIONS ETC. AS REQUIRED FOR SUPPORT OF THE METAL DECK.

8. METAL DECK SHALL BE CAPABLE OF SUPPORTING THE WET CONCRETE AND OTHER CONSTRUCTION LOADS WITHOUT SHORING.

9. ALL WELDS CONNECTING METAL DECK TO SUPPORTING STEEL SHALL BE VISUALLY INSPECTED BY A QUALIFIED TESTING AGENCY IN OWNER'S DIRECT EMPLOY.

SPECIAL INSPECTION NOTES:

1. THE FOLLOWING SPECIAL INSPECTION ITEMS RELATED TO STRUCTURAL WORK SHOWN ON GACE DRAWINGS ARE REQUIRED BY NEW YORK STATE BUILDING CODE:

A. STRUCTURAL STEEL (1705.2.1)
B. COLD-FORMED STEEL DECK (1705.2.2)
C. OPEN-WEB STEEL JOISTS (1705.2.3)
D. CONCRETE CONSTRUCTION (1705.3)
E. MASONRY CONSTRUCTION (1705.4)
F. SOILS – BY GEOTECHNICAL ENGINEER (1705.6)
G. FABRICATED ITEMS (1705.10 IN ACCORDANCE WITH 1704.2.5)

THE CONTRACTOR IS OBLIGATED TO NOTIFY THE INSPECTOR AT LEAST 72 HOURS BEFORE INSTALLATION OF SUCH ITEMS SO THAT PROPER INSPECTION CAN BE MADE. IN NO CASE SHALL SUCH ITEMS BE INSTALLED OR CONSTRUCTED WITHOUT COMPLETE APPROVAL OF THE INSPECTOR. UNAPPROVED INSTALLATION IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S SOLE EXPENSE.

ALL SPECIAL INSPECTIONS SHALL BE PERFORMED BASED ON APPROVED SHOP DRAWINGS. INSPECTIONS PERFORMED BASED ON UNAPPROVED DRAWINGS SHALL BE CONSIDERED INVALID AND SHALL BE REJECTED.

BIDDER'S WARRANTY:

BY THE ACT OF SUBMITTING A BID FOR THE PROPOSED CONTRACT, THE BIDDER WARRANTS THAT:

1. THE BIDDER AND ALL SUBCONTRACTORS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS, SPECIFICATIONS AND OTHER CONSTRUCTION CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM AMBIGUITIES AND SUFFICIENT FOR THE CONTRACTOR TO BID, FABRICATE, AND INSTALL THE WORK ON TIME, FURTHER THAT,

2. THE BIDDER AND ALL WORKMEN, EMPLOYEES AND SUBCONTRACTORS HE INTENDS TO USE ARE SKILLED AND EXPERIENCED IN THE TYPE OF CONSTRUCTION REPRESENTED BY THE CONSTRUCTION CONTRACT DOCUMENTS BID UPON; FURTHER THAT,

3. NEITHER THE BIDDER NOR ANY OF HIS EMPLOYEES, AGENTS INTENDED SUPPLIERS OR SUBCONTRACTORS HAVE RELIED UPON ANY VERBAL REPRESENTATIONS, ALLEGEDLY AUTHORIZED OR UNAUTHORIZED FROM THE OWNER, HIS EMPLOYEES OR AGENTS INCLUDING ARCHITECTS, ENGINEERS OR CONSULTANTS, IN ASSEMBLING THE BID FIGURE; AND FURTHER THAT,THE BID FIGURE IS BASED SOLELY UPON THE CONSTRUCTION CONTRACT DOCUMENTS AND PROPERLY ISSUED WRITTEN ADDENDA AND NOT UPON ANY OTHER WRITTEN REPRESENTATION.

4. THE BIDDER ALSO WARRANTS THAT HE HAS CAREFULLY EXAMINED THE SITE OF THE WORK AND THAT FROM HIS OWN INVESTIGATIONS HE HAS SATISFIED HIMSELF AS TO THE NATURE AND LOCATION OF THE WORK AND THE CHARACTER, QUALITY, QUANTITIES OF MATERIALS AND DIFFICULTIES TO BE ENCOUNTERED, THE KIND AND EXTENT OF EQUIPMENT AND OTHER FACILITIES NEEDED FOR THE PERFORMANCE OF THE WORK, THE GENERAL AND LOCAL CONDITIONS, AND OTHER ITEMS WHICH MAY, IN ANY WAY, AFFECT THE WORK OR ITS PERFORMANCE.

SHORING NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SUPPORT AND ADEQUATE PROTECTION FOR THE STABILITY AND INTEGRITY OF THE STRUCTURE (OR PORTIONS THEREOF) DURING THE ENTIRE CONSTRUCTION PERIOD AND TO MAINTAIN IT AT LEVELS ACCEPTABLE WITHIN THE CONSTRUCTION INDUSTRY BY THE USE OF ALL MEANS AVAILABLE, INCLUDING BUT NOT LIMITED TO TEMPORARY BRACING AND SHORING (SHORING SYSTEM). IN NO CASE SHALL THE STRUCTURE BE ALLOWED TO BECOME UNSTABLE AND/OR UNSAFE, AS DEFINED BY LOCAL GOVERNMENTAL AGENCIES.

2. THE SHORING SYSTEM SHALL BE DESIGNED TO SUPPORT ALL APPLICABLE LOADS THAT MAY BE IMPOSED ON THE STRUCTURE DURING CONSTRUCTION IN ACCORDANCE WITH INDUSTRY STANDARDS AND GENERALLY ACCEPTED ENGINEERING PRINCIPLES.

3. THE SHORING SYSTEM, INCLUDING ALL DETAILS AND SEQUENCING, SHALL BE DESIGNED AND DETAILED BY A SPECIALTY STRUCTURAL ENGINEER (SSE) LICENSED AND REGISTERED IN THE STATE OF NEW YORK. THE SSE SHALL SIGN AND SEAL ITS DRAWINGS ILLUSTRATING THE SHORING SYSTEM AND SEQUENCING, WHICH MAY NEED TO BE FILED AND APPROVED BY ALL APPLICABLE GOVERNMENTAL AUTHORITIES.

4. REFERENCES TO SHORING IN THE STRUCTURAL DRAWINGS BY GACE ARE SOLELY FOR THE PURPOSE OF COORDINATION WITH GACE'S DESIGN. THE SHORING ENGINEER SHALL SUBMIT SHORING AND BRACING DRAWINGS TO THE ARCHITECT FOR REVIEW OF EFFECT ON THE PERMANENT STRUCTURAL ELEMENTS THAT ARE DESIGNED BY THIS OFFICE. GACE IS NOT RESPONSIBLE FOR THE DESIGN, DETAILING, REVIEW, INSPECTION, OR APPROVAL OF THE SHORING DESIGN OR PROPOSED SEQUENCING.

5. THE SHORING SYSTEM SHALL BE INSPECTED BY THE SSE WHO PREPARED THE DRAWINGS/SPECIFICATIONS AND SEQUENCING OR A THIRD-PARTY SPECIAL INSPECTOR. THE SSE OR SPECIAL INSPECTOR SHALL CERTIFY IN A WRITTEN STATEMENT THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE SIGNED AND SEALED DRAWINGS/SPECIFICATIONS.

SUBMITTAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING, PREPARING AND DELIVERING ALL SHOP DRAWINGS AND OTHER SUBMITTALS ("SUBMITTALS") REQUIRED BY THE CONTRACT DOCUMENTS IN A TIMELY MANNER. ALL MATERIAL SHALL BE DELIVERED GRADUALLY SO AS TO AVOID SUBMISSION OF LARGE NUMBER OF SUBMITTALS NOT ALLOWING THE ENGINEER TIMELY REVIEW.

2. THE STRUCTURAL ENGINEER OF RECORD ("EOR") SHALL REVIEW SUBMITTALS PERTINENT TO STRUCTURAL DESIGN (SHOP DRAWINGS AND OTHER PERTINENT DOCUMENTS SUCH AS MATERIAL, PRODUCT, ASSEMBLY INFORMATION, ETC.) SUBMITTED BY THE CONTRACTOR. THE ENGINEER SHALL COMMENT ON THE SUBMITTALS AND APPROVE OR DISAPPROVE WITH COMMENTS, AS APPROPRIATE, FOR GENERAL CONFORMANCE WITH THE INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS. REVIEW OF SUCH SUBMITTALS SHALL NOT BE FOR THE PURPOSE OF DETERMINING THE ACCURACY AND COMPLETENESS OF OTHER INFORMATION SUCH AS DIMENSIONS, QUANTITIES, INSTALLATION OR PERFORMANCE OF EQUIPMENT OR SYSTEMS, ETC. WHICH SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ENGINEER'S REVIEW SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS/HER RESPONSIBILITY TO ACCURATELY AND COMPLETELY INTERPRET THE CONTRACT DOCUMENTS.

3. IF REQUIRED BY SPECIFICATIONS, SHOP DRAWINGS AND OTHER DOCUMENTS SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS TO BE CONSTRUCTED.

4. BEFORE SUBMITTING A SHOP DRAWING OR ANY OTHER DOCUMENT TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW AND APPROVE EACH SUCH SUBMITTAL FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. EVERY COPY OF EACH SUBMITTAL SHALL BEAR THE CONTRACTOR'S REVIEW STAMP SHOWING THAT THEY HAVE BEEN REVIEWED AND APPROVED. THE ENGINEER SHALL RETURN WITHOUT REVIEW MATERIAL WHICH HAS NOT BEEN APPROVED BY THE CONTRACTOR.

5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO, INCLUDING REFLECTION OF EXISTING FIELD CONDITIONS. APPROVAL OF ANY SUBMITTAL BY THE ENGINEER SHALL NOT BE CONSTRUED AS ACCEPTANCE OF ANY OF THE FOREMENTIONED ASPECTS OF CONTRACTOR'S WORK.

6. THE ENGINEER SHALL ASSUME THAT NO SUBMITTED SHOP DRAWING OR OTHER DOCUMENT COMPRISES A VARIATION FROM THE CONTRACT UNLESS THE CONTRACTOR ADVISES THE ENGINEER OTHERWISE IN WRITING. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK RELATED TO SUCH VARIATION BEFORE RECEIPT OF ENGINEER'S WRITTEN ACCEPTANCE.

7. IN CASE RESUBMISSION OF SHOP DRAWINGS, CALCULATIONS AND OTHER WRITTEN SUBMITTALS INCLUDING ADDITIONS, DELETIONS OR CORRECTIONS THE CONTRACTOR SHALL CIRCLE OR OTHERWISE IDENTIFY ALL CHANGES FROM THE PRIOR ISSUE. ALL MATERIAL SUBMITTED WITHOUT EACH CHANGE CLEARLY IDENTIFIED SHALL BE RETURNED WITHOUT REVIEW FOR RESUBMISSION.

8. THE RETURNED SHOP DRAWINGS AND OTHER SUBMITTALS SHALL BE STAMPED BY THE ENGINEER. THE STAMP SHALL DENOTE REVIEW STATUS WHICH MAY OR MAY NOT REQUIRE FURTHER RESUBMISSION AS PER THE FOLLOWING:

STATUS:		RESUBMISSION:
A	NO EXCEPTION TAKEN	NOT REQUIRED
N	EXCEPTIONS NOTED	NOT REQUIRED
NR	EXCEPTIONS NOTED, REVISE & RESUBMIT	REQUIRED
RR	REJECTED	REQUIRED

9. CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS AND OTHER REVIEWED DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR FROM STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS OR FROM HIS RESPONSIBILITY FOR ERRORS AND OMMISSIONS ON SUCH DRAWINGS AND/OR OTHER DOCUMENTS. DRAWINGS AND DOCUMENTS RETURNED WITH 'NO EXCEPTION TAKEN' OF A PARTICULAR ITEM SHALL NOT BE INTERPRETED AS 'NO EXCEPTION TAKEN' OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT.

10. THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK REQUIRING SUBMISSION AND REVIEW OF SHOP DRAWINGS OR OTHER MATERIAL UNTIL THE RESPECTIVE SUBMITTAL HAS BEEN APPROVED BY THE ENGINEER. SUCH WORK SHALL BE PERFORMED IN ACCORDANCE ONLY WITH THE SUBMITTALS MARKED "NO EXCEPTION TAKEN" OR "EXCEPTIONS NOTED". THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND BEAR ALL THE COSTS WHICH MAY RESULT FROM ORDERING OF ANY MATERIAL OR FROM PROCEEDING WITH ANY PART OF THE WORK PRIOR TO THE RECEIPT OF APPROVED RESPECTIVE SUBMITTALS.

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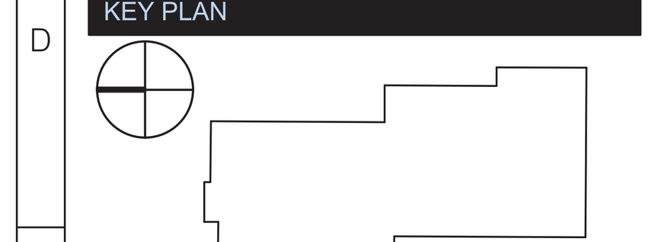
ROCKLAND BOCES P-TECH C-TEC BUILDING

SED #: 50-90-00-00-0-044-001

65 Parrot Rd,
West Nyack, NY 10994

KEY PLAN



REVISIONS

No.	Description	Date

ISSUED: BID SET ISSUANCE

DATE: 06/30/2025

SCALE: 12" = 1'-0"

SHEET NAME: GENERAL NOTES 2

SHEET NUMBER: S-002

BID SET

ABBREVIATIONS

@	= AT
ADJ.	= ADJACENT
ADD'L.	= ADDITIONAL
ALT.	= ALTERNATE
ARCH.	= ARCHITECTURAL
B, BOT.	= BOTTOM
B.F.	= BRACED FRAME
B.P.	= BASE PLATE, BEARING PLATE
B.H.	= BULKHEAD
BLDG.	= BUILDING
BM.	= BEAM
BRDG.	= BRIDGING
BRNG.	= BEARING
BSMT.	= BASEMENT
℄, CL.	= CENTERLINE
C.A.	= COLUMN ABOVE
C.B.	= COLUMN BELOW
C.J.	= CONSTRUCTION JOINT, CONTROL JOINT
CANT.	= CANTILEVER
CLR.	= CLEARANCE, CLEAR
COL.	= COLUMN
CONC.	= CONCRETE
CONN.	= CONNECTION
CONST.	= CONSTRUCTION
CONT.	= CONTINUOUS
Φ, DIA.	= DIAMETER
D.L.	= DEAD LOAD
DET.	= DETAIL
DIAG.	= DIAGONAL
DIM.	= DIMENSION
DWG(S).	= DRAWING(S)
DWL(S).	= DOWEL(S)
E.E.	= EACH END
E.F.	= EACH FACE
E.J.	= EXPANSION JOINT
E.M.R.	= ELEVATOR MACHINE ROOM
E.S.	= EACH SIDE
E.W.	= EACH WAY
EA.	= EACH
EL.	= ELEVATION
ELECT.	= ELECTRICAL
Em	= DEVELOPMENT LENGTH IN MASONRY
EMBED.	= EMBEDMENT
EQ.	= EQUAL
EXIST.	= EXISTING
EXP.	= EXPANSION
EXT.	= EXTERIOR
E-W	= EAST – WEST
F.F.	= FAR FACE
FDN.	= FOUNDATION
FIN.	= FINISHED
FL./ FLR.	= FLOOR
FT.	= FOOT
FTG.	= FOOTING
FT-K	= FOOT – KIP
GA.	= GAUGE
GALV.	= GALVANIZED
GEN.	= GENERAL
HORIZ.	= HORIZONTAL
I.F.	= INSIDE FACE
IN.	= INCH
INT.	= INTERIOR
JT.	= JOINT
K, KIP	= 1000 LBS
KLF	= KIP(S) PER FOOT
KSF	= KIP(S) PER SQUARE FOOT
KSI	= KIP(S) PER SQUARE INCH
L.L.	= LIVE LOAD
L.L.H.	= LONG LEG HORIZONTAL
L.L.V.	= LONG LEG VERTICAL
Ldc	= COMPRESSION DEVELOPMENT LENGTH
Ldh	= HOOKED BAR TENSION DEVELOPMENT LENGTH
Ldt	= TENSION DEVELOPMENT LENGTH
Lsc	= COMPRESSION SPLICE LENGTH
LSL.	= LONG SLOTTED
Lst	= TENSION SPLICE LENGTH
LB(S).	= POUND(S)
LG.	= LONG
LT.	= LIGHT
M.C.	= MOMENT CONNECTION
M.D.	= METAL DECK
MAX.	= MAXIMUM
MECH.	= MECHANICAL
MEZZ.	= MEZZANINE
MFR.	= MANUFACTURER
MIN.	= MINIMUM
MISC.	= MISCELLANEOUS
MOM.	= MOMENT
N.I.C.	= NOT IN CONTRACT
N.F.	= NEAR FACE
N.S.	= NON-SHRINK
N.T.S.	= NOT TO SCALE
NO.	= NUMBER
N-S	= NORTH – SOUTH
O.C.	= ON CENTER
O.F.	= OUTSIDE FACE
OPNG.	= OPENING
P.C.	= PRECAST, PILE CAP
℘, PL.	= PLATE
PLF	= POUND(S) PER FOOT
PSF	= POUND(S) PER SQUARE FOOT
PSI	= POUND(S) PER SQUARE INCH
R	= RADIUS
REF.	= REFERENCE
REINF.	= REINFORCEMENT
REQ'D	= REQUIRED
REV.	= REVISION, REVISED
S.F.	= SQUARE FOOT
S.L.H.	= SHORT LEG HORIZONTAL
S.L.V.	= SHORT LEG VERTICAL
S.O.G.	= SLAB ON GRADE
SEC.	= SECTION
SL.	= SLAB, SLOPE
Sm	= SPLICE LENGTH IN MASONRY
SPEC(S).	= SPECIFICATION(S)
SQ.	= SQUARE
SSL.	= SHORT SLOTTED
STD.	= STANDARD
STL.	= STEEL
STRUCT	= STRUCTURAL
T	= TOP
T.O.S.	= TOP OF SLAB
TEMP.	= TEMPORARY
THK.	= THICKNESS, THICK
TYP.	= TYPICAL
U.O.N.	= UNLESS OTHERWISE NOTED
VERT.	= VERTICAL
W.P.	= WATERPROOFING, WORK POINT
W.W.F.	= WELDED WIRE FABRIC
WF.	= WIDE FLANGE
WD.	= WOOD
WT.	= WEIGHT

BUILDING DESIGN INFORMATION SUMMARY 2020 BUILDING CODE OF NEW YORK STATE

NO.	TOPIC	CODE SECTION
1.	SNOW LOADING CRITERIA	GROUND SNOW LOAD, P_g = 30 psf
		FLAT-ROOF SNOW LOAD, P_f = 22 psf
		SNOW EXPOSURE FACTOR, C_e = 0.9
		SNOW IMPORTANCE FACTOR, I_s = 1.1
		THERMAL EXPOSURE FACTOR, C_t = 1.0
2.	SEISMIC LOADING CRITERIA	RISK CATEGORY = III
		SEISMIC IMPORTANCE FACTOR, Ie = 1.25
		Ss = 0.297 SI = 0.062
		SITE CLASS = C
		SHORT PERIOD DESIGN SPECTRAL RESPONSE, SDS = 0.257 g
		ONE SECOND DESIGN SPECTRAL RESPONSE, SDI = 0.062 g
		SEISMIC DESIGN CATEGORY = B
		BASIC SEISMIC FORCE RESISTING SYSTEM = NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
		DESIGN SEISMIC BASE SHEAR, V = 333 kips
		SEISMIC RESPONSE COEFFICIENT, Cs = 0.0657
		RESPONSE MODIFICATION FACTOR, R = 3
		ANALYSIS METHOD USED = EQUIVALENT LATERAL FORCE PROCECURE
3.	WIND LOADING CRITERIA	ULTIMATE DESIGN WIND SPEED (3 SECOND GUST), Vult = 123 mph
		NOMINAL DESIGN WIND SPEED, Vasd = 95 mph
		RISK CATEGORY = III
		WIND EXPOSURE CATEGORY = B
		DESIGN WIND BASE SHEAR - E-W, V = 58 kips N-S, V = 150 kips
		INTERNAL PRESSURE COEFFICIENT GC_{pi} = +/- 0.18
		COMPONENTS & CLADDING DESIGN WIND PRESSURE (PER Vasd): ZONE 4 = + 18 psf / -20 psf ZONE 5 = + 18 psf / -24 psf
4.	HYDROSTATIC & FLOOD LOADING CRITERIA	DESIGN GROUND WATER ELEVATION = N/A
		FLOOD ZONE = N/A
		100 YEAR DESIGN FLOOD ELEVATION = N/A

NOTES:

1. DESIGN LOADS COMPLY WITH BC1604.

2. REFER TO ARCHITECTURAL DRAWINGS FOR EXTERIOR WALL. DESIGN OF NON-LOAD BEARING EXTERIOR WALLS AND ANCHORAGES TO COMPLY WITH LOADS SHOWN ABOVE, AND WITH BC705 AND BC CHAPTER 14.

LAP SPLICE LENGTHS FOR CONCRETE 'Ls' (in.)

SIZE	fy (ksi)	4000 psi TENSION TYP.	4000 psi TENSION TOP	4000 psi COMP.	5000 psi TENSION TYP.	5000 psi TENSION TOP	5000 psi COMP.
#3	60	18	24	12	17	22	12
#4	60	25	32	15	22	29	15
#5	60	31	40	19	28	36	19
#6	60	37	49	23	34	44	23
#7	60	54	70	27	49	63	27
#8	60	62	80	30	56	72	30
#9	60	70	91	34	63	81	34
#10	60	79	102	39	71	92	39
#11	60	87	114	43	78	102	43

STRAIGHT BAR DEVELOPMENT LENGTHS FOR CONCRETE 'Ld' (in.)

SIZE	fy (ksi)	4000 psi TENSION TYP.	4000 psi TENSION TOP	4000 psi COMP.	5000 psi TENSION TYP.	5000 psi TENSION TOP	5000 psi COMP.
#3	60	15	19	8	13	17	8
#4	60	19	25	10	17	23	9
#5	60	24	31	12	22	29	12
#6	60	29	38	15	26	34	14
#7	60	42	54	17	38	49	16
#8	60	48	62	19	43	56	18
#9	60	54	70	22	48	63	21
#10	60	61	79	24	54	71	23
#11	60	67	87	27	60	78	25

HOOKED BAR TENSION DEVELOPMENT LENGTHS FOR CONCRETE 'Ldh' (in.)

SIZE	fy (ksi)	4000 psi	5000 psi
#3	60	8	7
#4	60	10	9
#5	60	12	11
#6	60	15	13
#7	60	17	15
#8	60	19	17
#9	60	22	20
#10	60	25	22
#11	60	27	24

NOTES:

1. THESE DEVELOPMENT AND SPLICE LENGTHS ARE COMPUTED FOR UNCOATED BARS IN ELEMENTS OF NORMAL WEIGHT CONCRETE WITH A MINIMUM CLEAR COVER OF 1 BAR DIAMETER AND A MINIMUM CLEAR SPACING OF 1 BAR DIAMETER IN BEAMS AND COLUMNS, AND 2X THE BAR DIAMETER IN OTHER ELEMENTS.

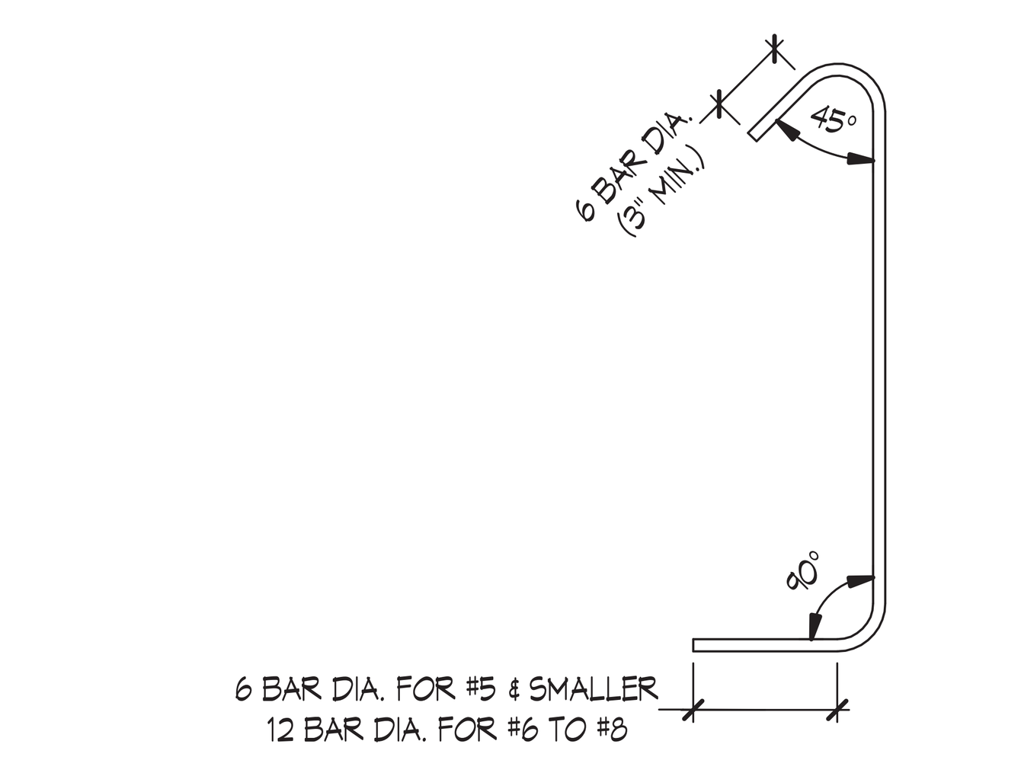
2. THESE DEVELOPMENT AND SPLICE LENGTHS SHALL BE MULTIPLIED BY ALL OF THE APPLICABLE FACTORS THAT FOLLOW:

   EPOXY-COATED REINFORCING (FOR TYP. REINF.) x1.50
   EPOXY-COATED REINFORCING (FOR TOP REINF.) x1.31
   REINFORCING PLACED IN LIGHTWEIGHT CONCRETE x1.34
   #7 BARS AND LARGER WITH CLEAR COVER
   LESS THAN 1 BAR DIAMETER........................x1.50

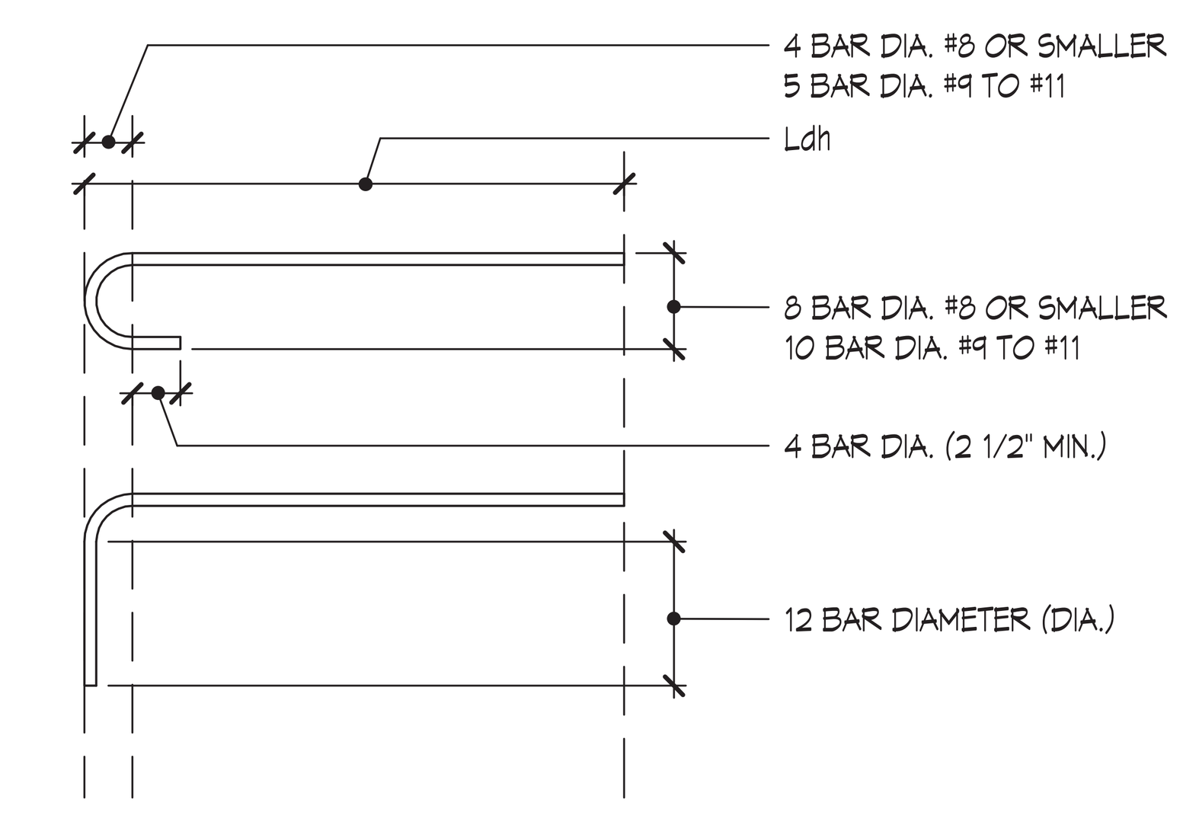
3. 'Ld' CAN BE USED AS ACI CLASS A SPLICE.
   'Ls' CAN BE USED AS ACI CLASS B SPLICE.

4. USE TOP CONDITION FOR ANY HORIZONTAL BARS WITH MORE THAN 12 INCHES OF FRESH CONCRETE BELOW.

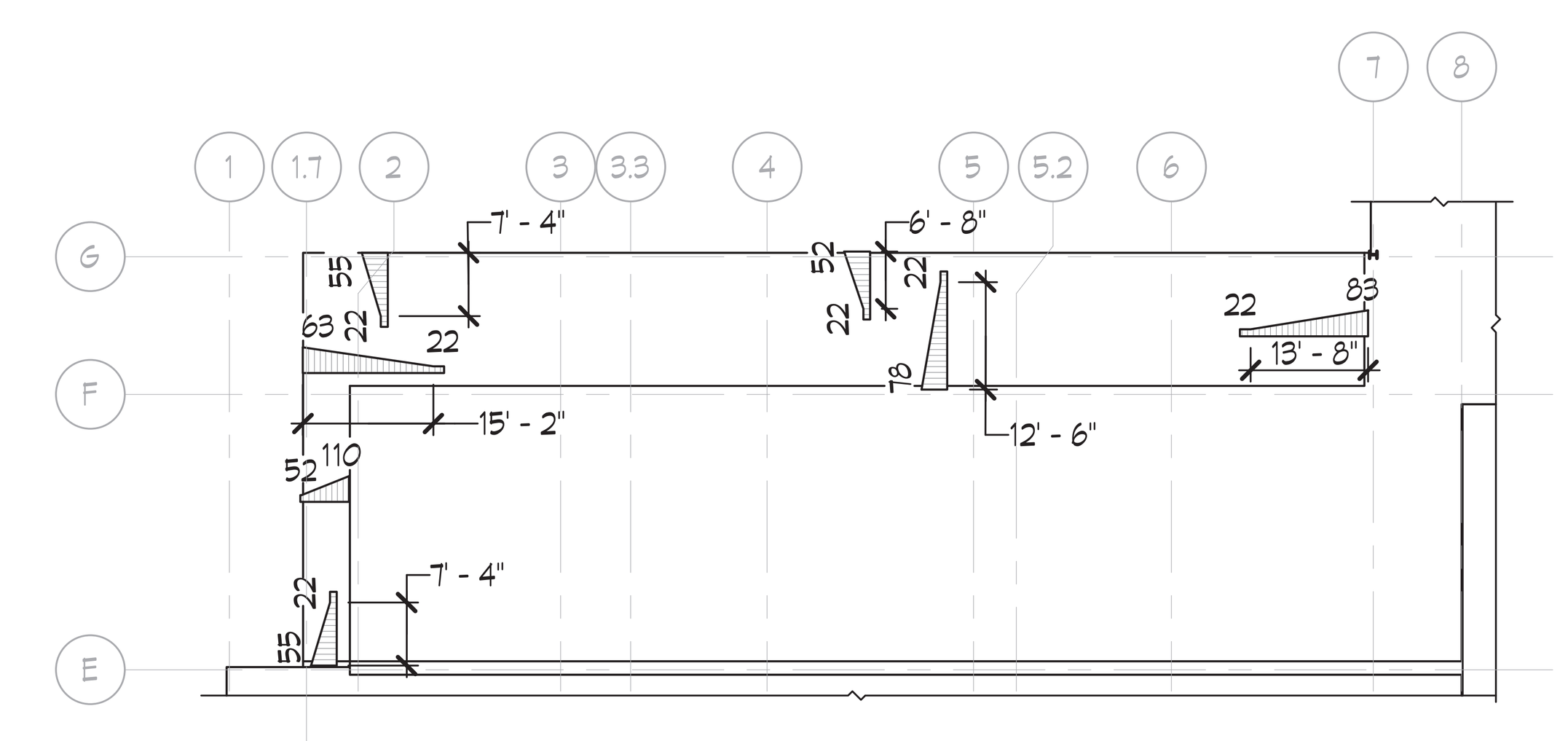
5. WHEN BARS OF DIFFERENT SIZE ARE SPLICED, SPLICE LENGTH SHALL BE THE LARGER OF THE DEVELOPMENT LENGTH OF LARGER BAR AND LAP SPLICE LENGTH OF SMALLER BAR.



1 TYPICAL TIE HOOK (HAIR PIN)
3/4" = 1'-0"



2 TYPICAL STANDARD HOOK
3/4" = 1'-0"
NOTE: FOR DEVELOPMENT LENGTH Ldh SEE SCHEDULE.



SNOW DRIFT LOADING PLAN AT 2ND FLOOR
3/64" = 1'-0"

NOTES:

1. ALL VALUES SHOWN IN POUNDS PER SQUARE FOOT (PSF).

2. SNOW DRIFT LOADS ARE SHOWN WITH 22 PSF UNIFORM SNOW LOADS ON THE REMAINDER OF THE ROOF.

LOADING SCHEDULE

LEVEL	OCCUPANCY	LIVE LOAD REDUCTION.	DEAD LOAD SLAB/ DECK	DEAD LOAD STEEL	DEAD LOAD CLNG/ MEP	DEAD LOAD FIN.	DEAD LOAD PART.	DEAD LOAD RFG. & INSUL.	DEAD LOAD TOTAL	LIVE LOAD	TOTAL
FIRST FLOOR	CLASSROOM	N	63	-	-	5	15	-	83	40	123
	GYMNASIUM	N	63	-	-	5	-	-	68	100	168
	LOCKER ROOM	N	63	-	-	5	15	-	83	50	133
	KITCHEN	N	63	-	-	5	-	-	68	100	168
	DINING ROOM	N	63	-	-	5	-	-	68	100	168
	CORRIDORS	N	63	-	-	5	-	-	68	100	168
	OFFICE	N	63	-	-	5	15	-	83	50	133
	MECHANICAL	N	63	-	-	5	15	-	83	75	158
SECOND FLOOR	CLASSROOM	Y	50	8	10	5	15	-	88	40	128
	LABORATORY	Y	50	8	10	5	15	-	88	60	148
	FITNESS CENTER	Y	50	8	10	5	-	-	73	100	173
	OFFICE	Y	50	8	10	5	15	-	88	50	138
	CORRIDORS	Y	50	8	10	5	15	-	88	80	168
	TERRACE	N	50	8	10	25	-	20	113	100	213
ROOF**	ROOF	N	5	8	10	-	-	20	43	22*	65
	GYM ROOF	N	5	8	3	-	-	20	36	22*	58

NOTES:

1. LIVE LOADS HAVE BEEN REDUCED FOR THE INDICATED OCCUPANCIES IN ACCORDANCE WITH SECTION 1607.11 OF THE BUILDING CODE.

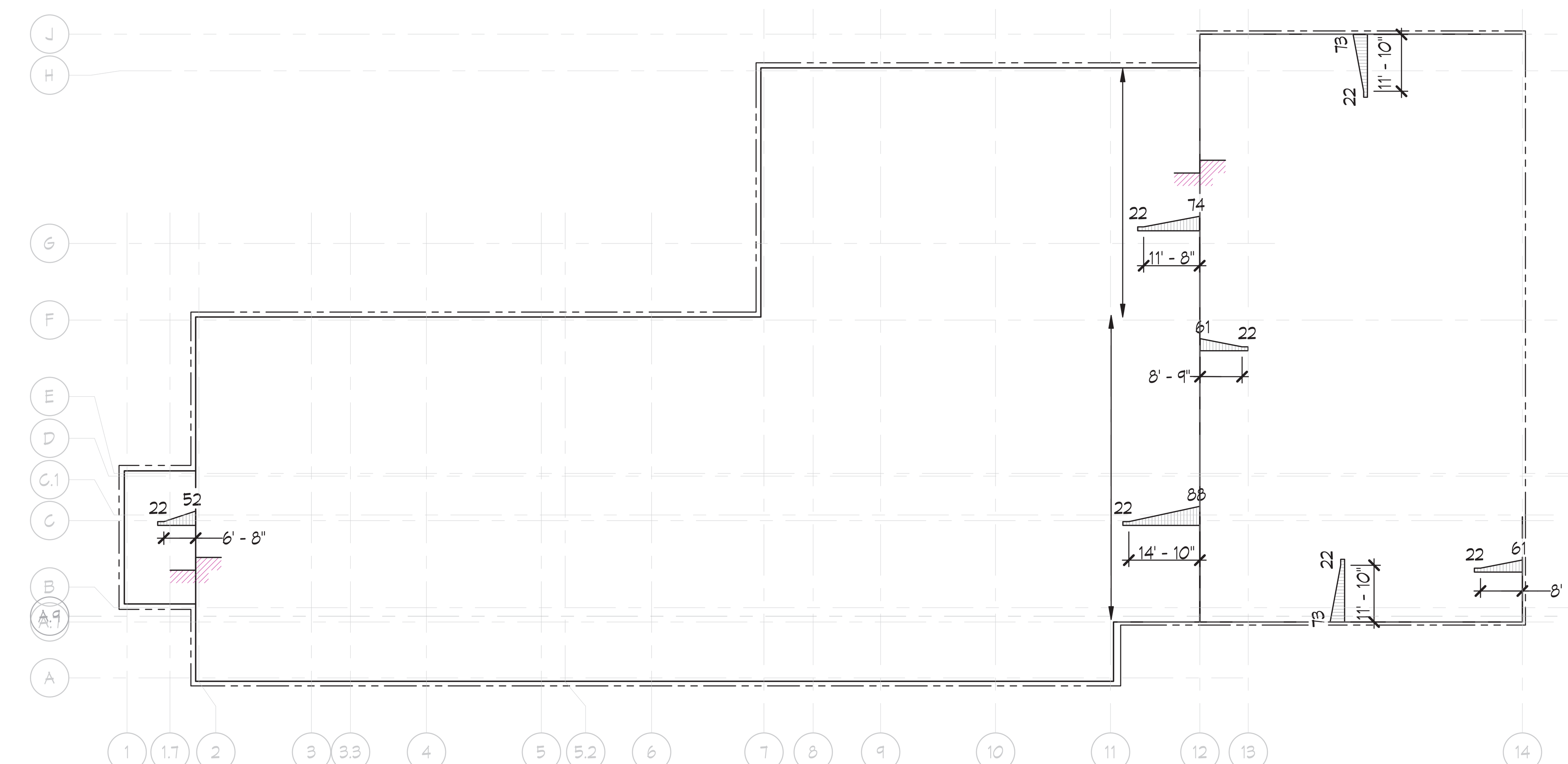
2. *DENOTES ROOF LIVE LOAD, EQUAL TO FLAT ROOF SNOW LOAD. SEE SNOW DRIFT LOADING PLAN ON THIS SHEET FOR SNOW DRIFT LOADING INFO. AT LOCALIZED AREAS.

3. **DENOTES ROOF UNIFORM LOADS. SEE PLAN FOR EQUIPMENT LOADS IN ADDITION TO UNIFORM LOADS.

MASONRY DEVELOPMENT AND SPLICE LENGTH

BAR/ WIRE SIZE	DIAMETER	f'm = 2,500 PSI DEVELOPMENT LENGTH (Em) IN.	f'm = 2,500 PSI TENSION SPLICE LENGTH (Sm) IN.
W1.7	0.148	8	8
W2.1	0.162	8	8
W2.8	0.189	10	10
#3	0.375	12	12
#4	0.5	12	12
#5	0.625	18	18
#6	0.75	34	34
#7	0.875	47	47
#8	1	71	71

NOTE:
EPOXY-COATED BAR LENGTHS SHALL BE INCREASED BY 50 PERCENT.
STEEL YIELD STRENGTH Fy = 60,000 PSI
MECHANICAL SPLICES SHALL HAVE THE BARS CONNECTED TO DEVELOP IN TENSION OR COMPRESSION, AS REQUIRED, AT LEAST 125% OF THE SPECIFIED YIELD STRENGTH OF THE BAR



SNOW DRIFT LOADING PLAN AT ROOF
3/64" = 1'-0"

NOTES:

1. ALL VALUES SHOWN IN POUNDS PER SQUARE FOOT (PSF).

2. SNOW DRIFT LOADS ARE SHOWN WITH 22 PSF UNIFORM SNOW LOADS ON THE REMAINDER OF THE ROOF.

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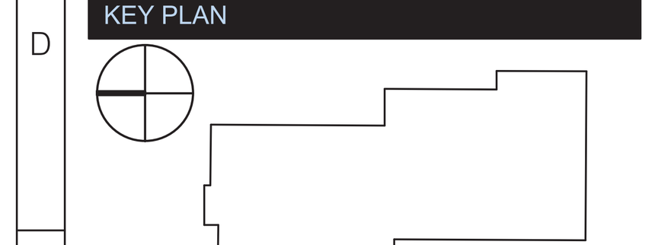
KEY PLAN

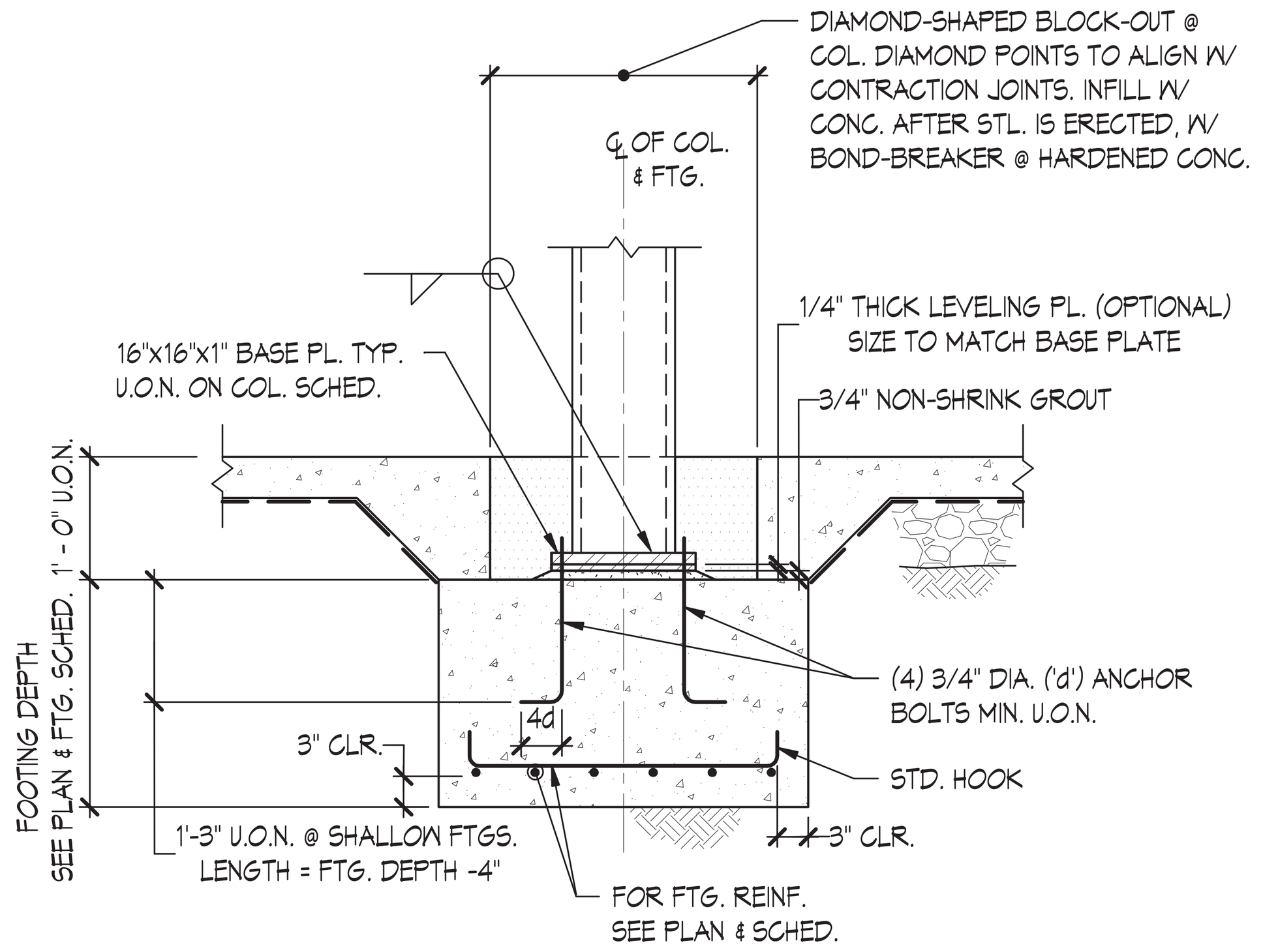


REVISIONS

No.	Description	Date

ISSUED: BID SET ISSUANCE
DATE: 06/30/2025
SCALE: As indicated
SHEET NAME: DESIGN CRITERIA
SHEET NUMBER: S-003

BID SET

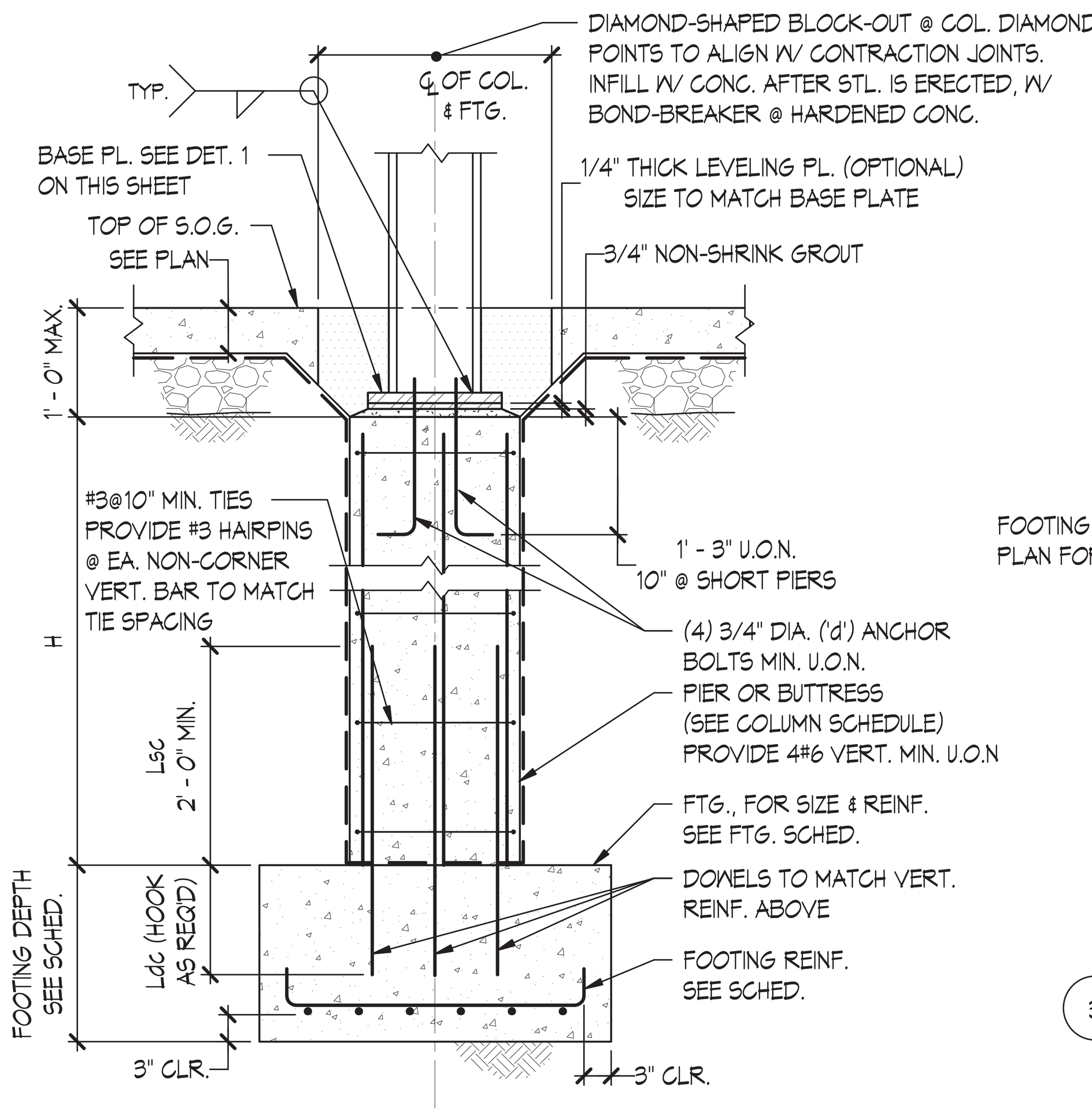


1 TYPICAL STEEL COLUMN AND FOOTING

3/4" = 1'-0"

NOTES:

1. SEE COLUMN SCHEDULE FOR BASE PLATE SIZE AND THICKNESS.
2. BOTTOM OF PERIMETER FOOTINGS SHALL BE MINIMUM 4'-0" BELOW LOWEST ADJACENT GRADE ELEVATION.

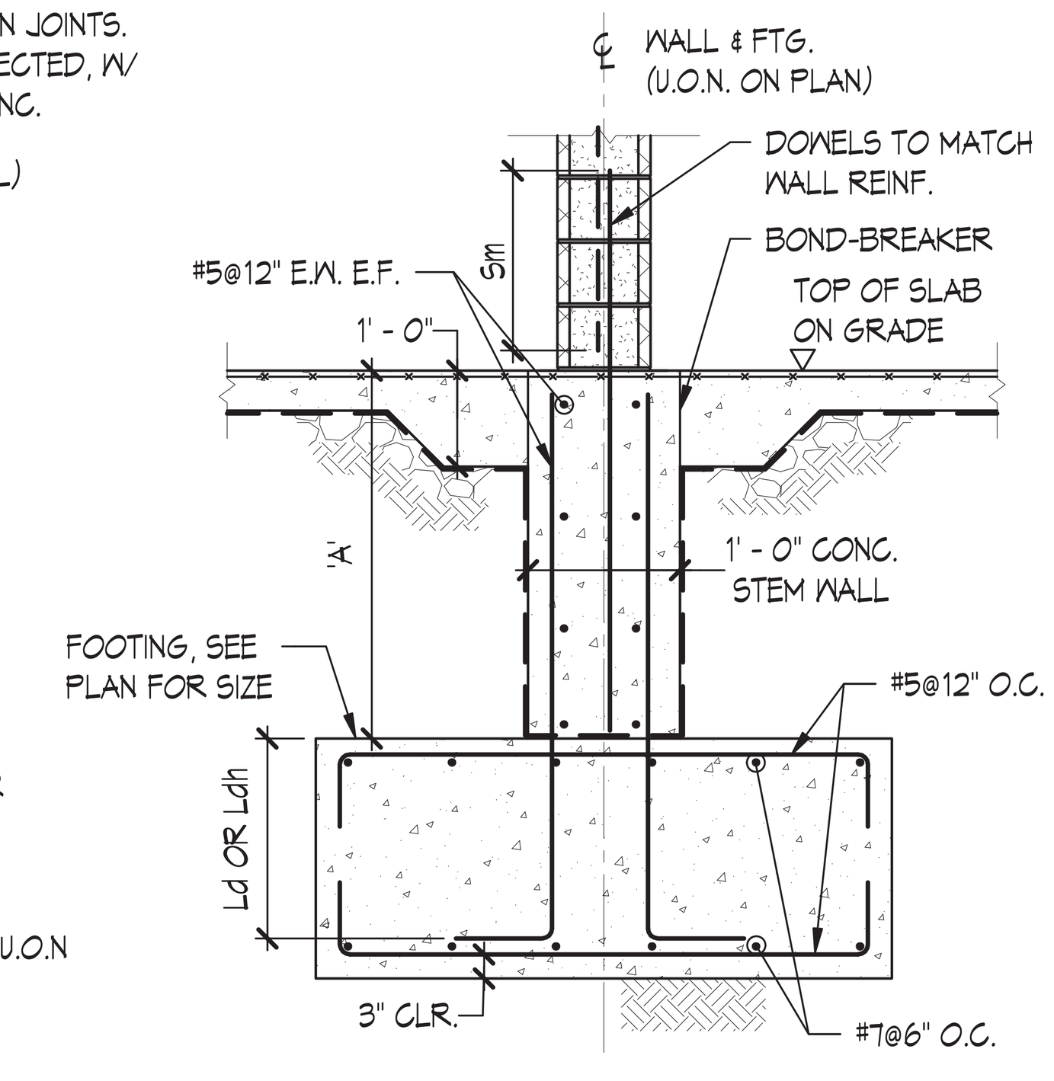


2 TYPICAL STEEL COLUMN AND FOOTING WITH PIER OR BUTTRESS

3/4" = 1'-0"

NOTES:

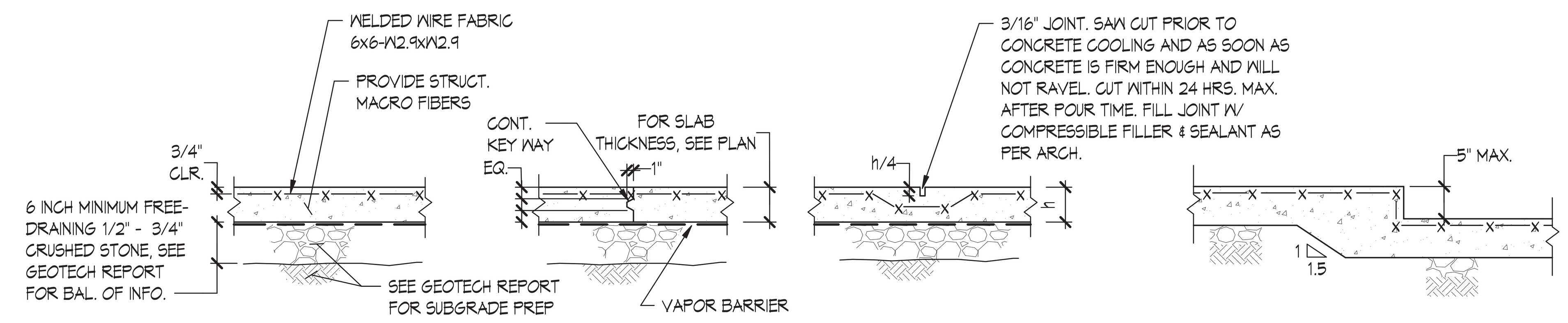
1. SEE COLUMN SCHEDULE FOR BASE PLATE SIZE AND THICKNESS.
2. BOTTOM OF PERIMETER FOOTINGS SHALL BE MINIMUM 4'-0" BELOW LOWEST ADJACENT GRADE ELEVATION.
3. WHERE H IS LESS THAN 1'-0", ELIMINATE PIER, EXTEND STEEL COLUMN/BASE PLATE ASSEMBLY TO TOP OF FOOTING, AND HAUNCH CONCRETE TO TOP OF FOOTING.



3 TYPICAL INTERIOR CMU WALL STRIP FOOTING

1/2" = 1'-0"

NOTE: HAUNCH SLAB ON GRADE TO TOP OF FOOTING WHERE 'A' IS LESS THAN 12" AND PROVIDE BOND BREAKER BETWEEN TOP OF FOOTING AND SLAB.



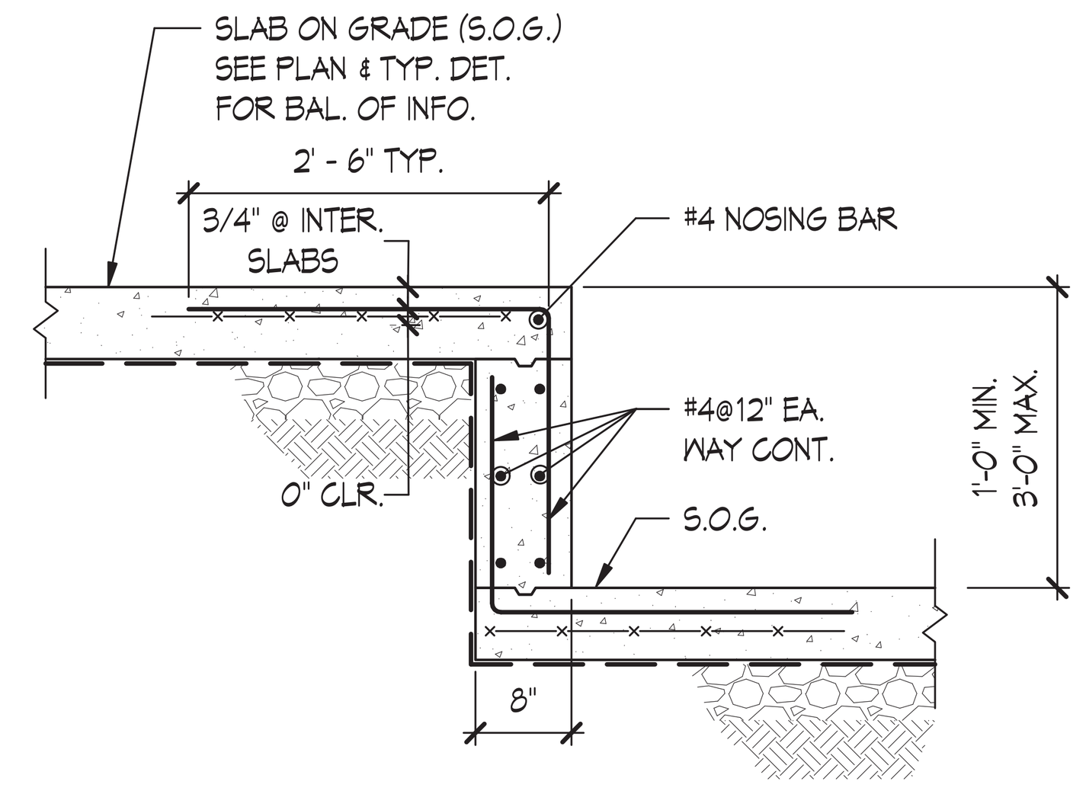
NOTE: PROVIDE CONTINUOUS WATERSTOP IN ALL JOINTS AS REQ'D. BY ARCHITECT.

NOTES:

1. MAXIMUM JOINT SPACING: 15'-0" E.W. AT INTERIOR SLABS; 12'-0" EACH WAY AT EXTERIOR SLABS; PROVIDE JOINTS AT HALF THE INDICATED SPACING WHEN ADJACENT TO SLAB STEPS.
2. CONTRACTOR TO PROVIDE PROPOSED JOINT LAYOUT PLAN FOR REVIEW AND APPROVAL.

4 TYPICAL SLAB-ON-GRADE

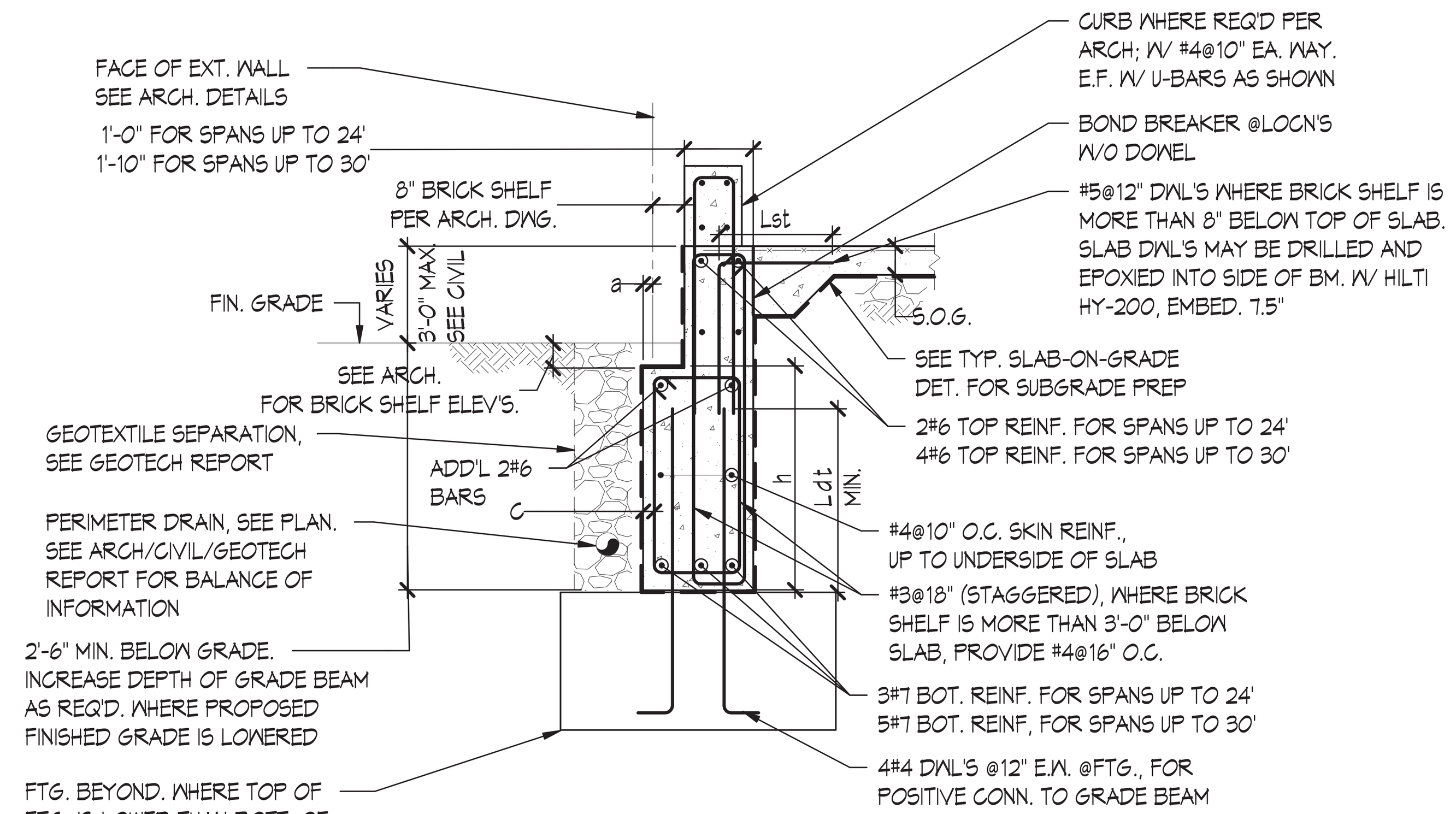
3/4" = 1'-0"



6 TYPICAL STEP IN SLAB-ON-GRADE

3/4" = 1'-0"

NOTE: PROVIDE CONTINUOUS WATERSTOPS IN ALL JOINTS ARE REQUIRED BY ARCHITECT.

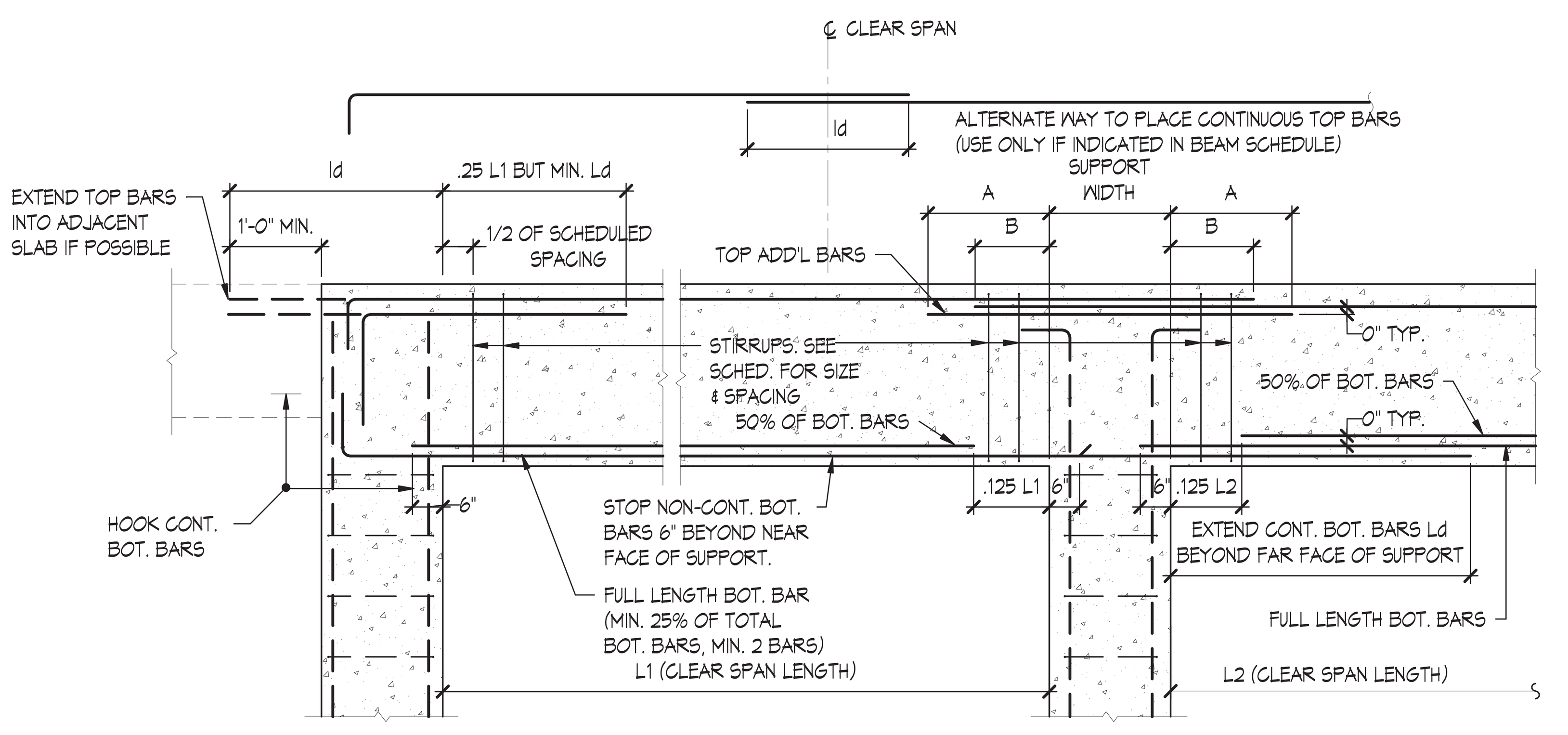


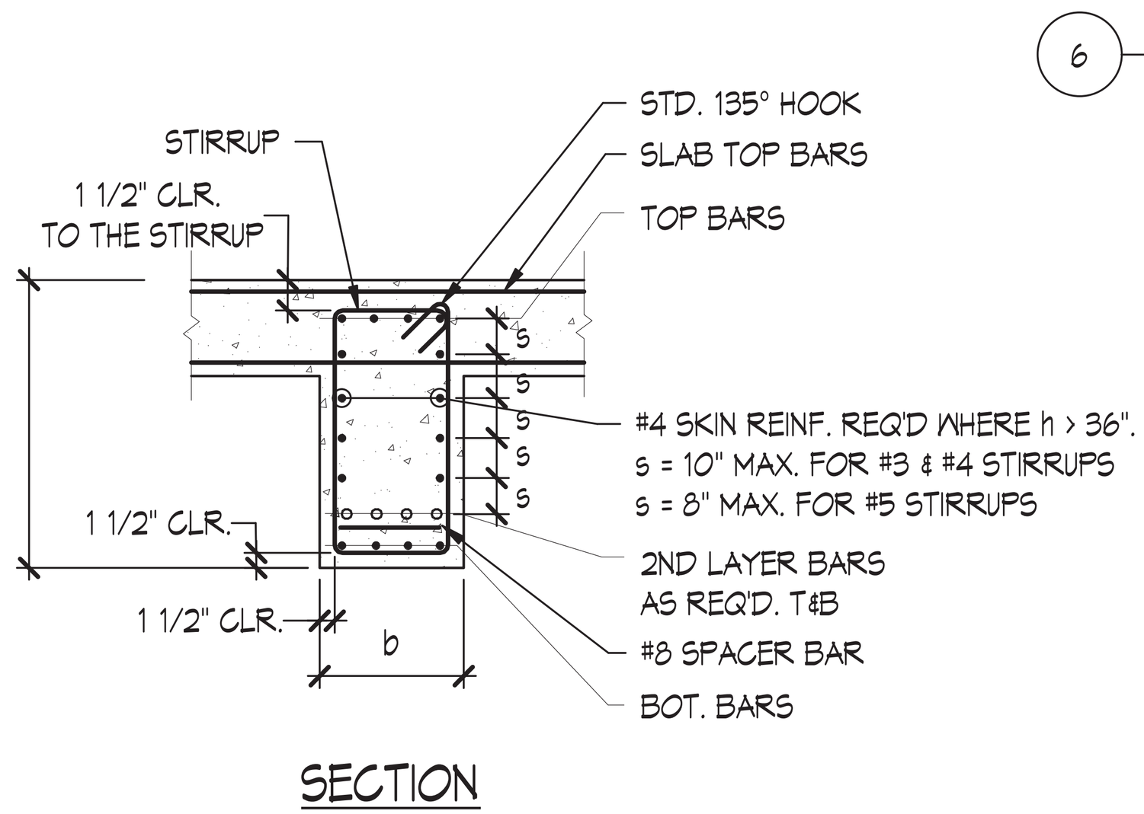
7 TYPICAL EXTERIOR GRADE BEAM WITH SLAB ON GRADE

1/2" = 1'-0"

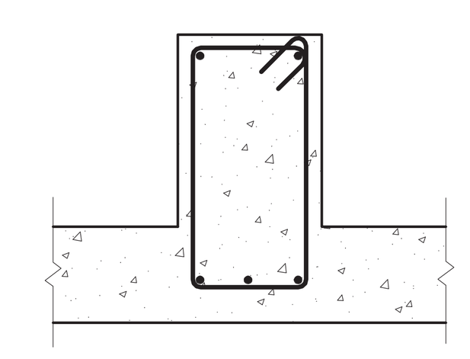
NOTES:

1. DIMENSIONS FOR h VARIES. SEE ARCH. AND CIVIL DRAWINGS FOR SLAB AND GRADE ELEVATIONS. hmin. = 24" FOR SPANS UP TO 24'; hmin. = 30" FOR SPANS UP TO 30'
2. a=0" & C=2" CLEAR WITH FORM WORK. a=1" & C=3" CLEAR WITH EARTH FORM.





NOTE: BEAM SIZES ON PLANS AND IN BEAM SCHEDULES ARE DESCRIBED THUS: b x h WHERE b AND h ARE GIVEN IN INCHES.



UPSET SECTION

5 TYPICAL CONCRETE BEAM

1/2" = 1'-0"

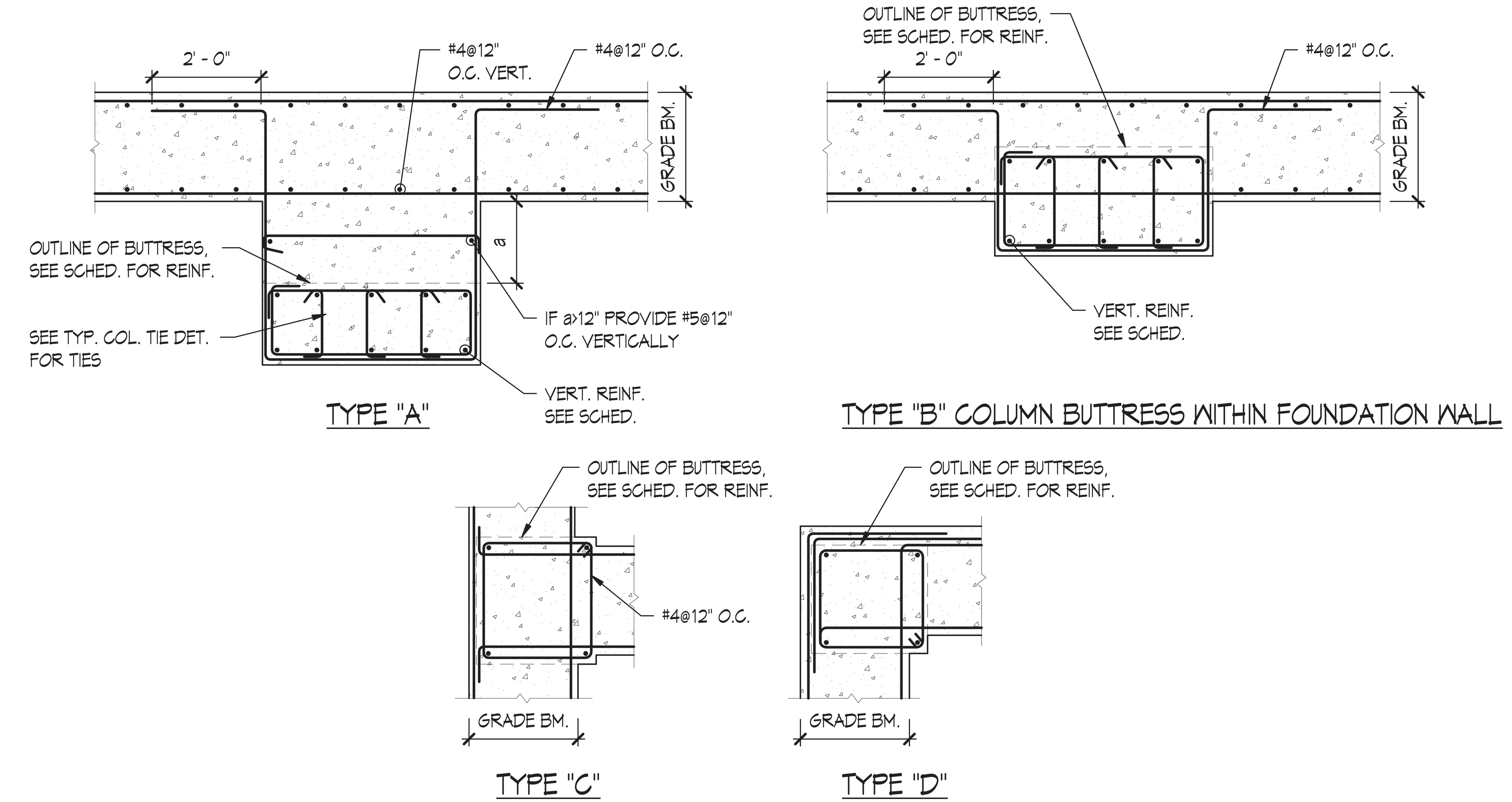
NOTES:

1. THIS DETAIL REPRESENTS TYPICAL CONDITION ONLY. SEE PLANS AND BEAM SCHEDULE FOR NON-TYPICAL REINFORCING DETAILS.
2. ALL BOTTOM BARS TO BE NON-CONTINUOUS UNLESS SPECIFICALLY DESCRIBED AS CONT. ON PLANS OR IN SCHEDULE.

ABBREVIATIONS:

A = .33 L1 OR L2 WHICHEVER IS GREATER BUT MIN. ld

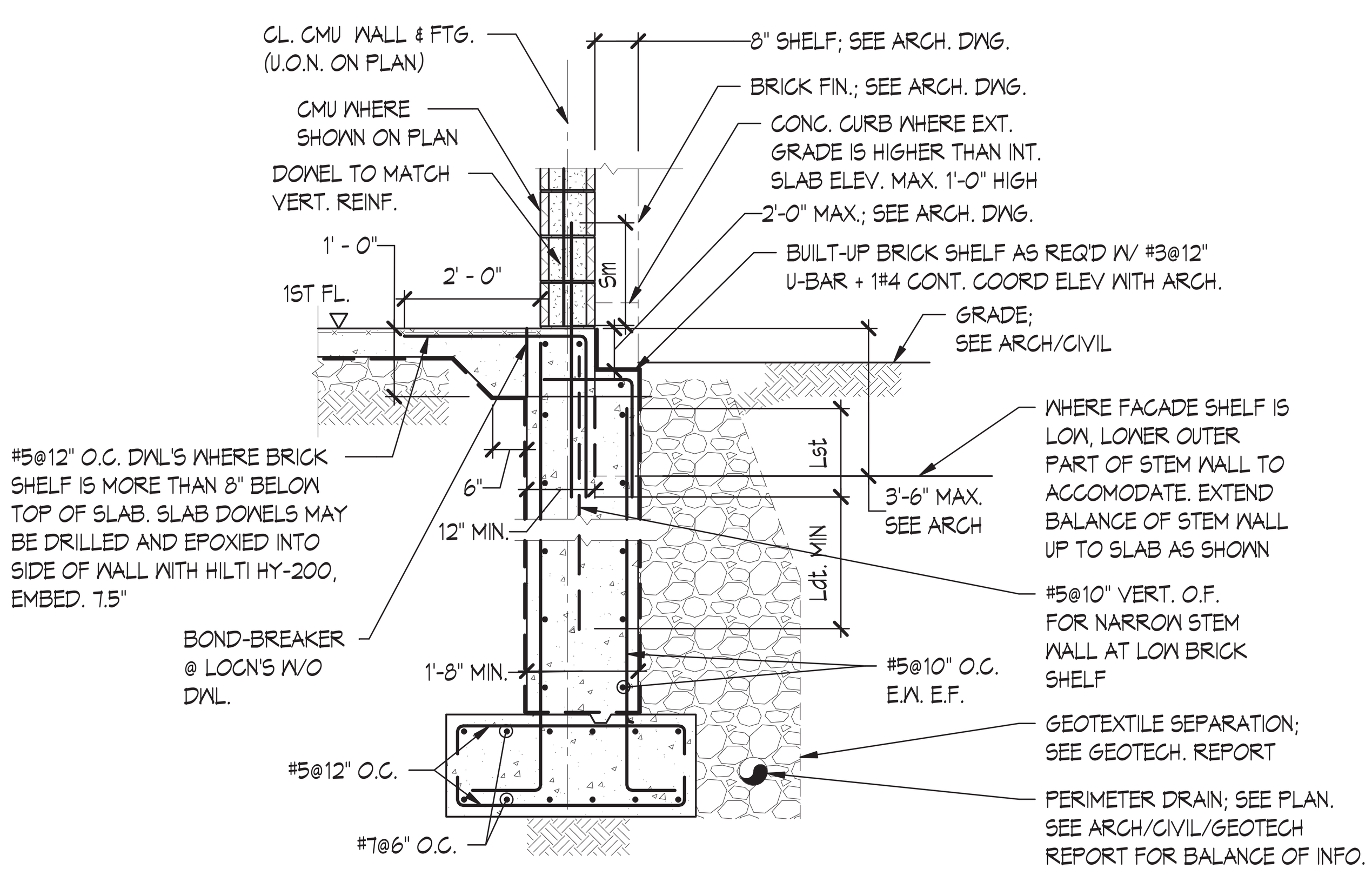
B = .2 L1 OR L2 WHICHEVER IS GREATER BUT MIN. ld



10 TYPICAL COLUMN BUTTRESS PLAN

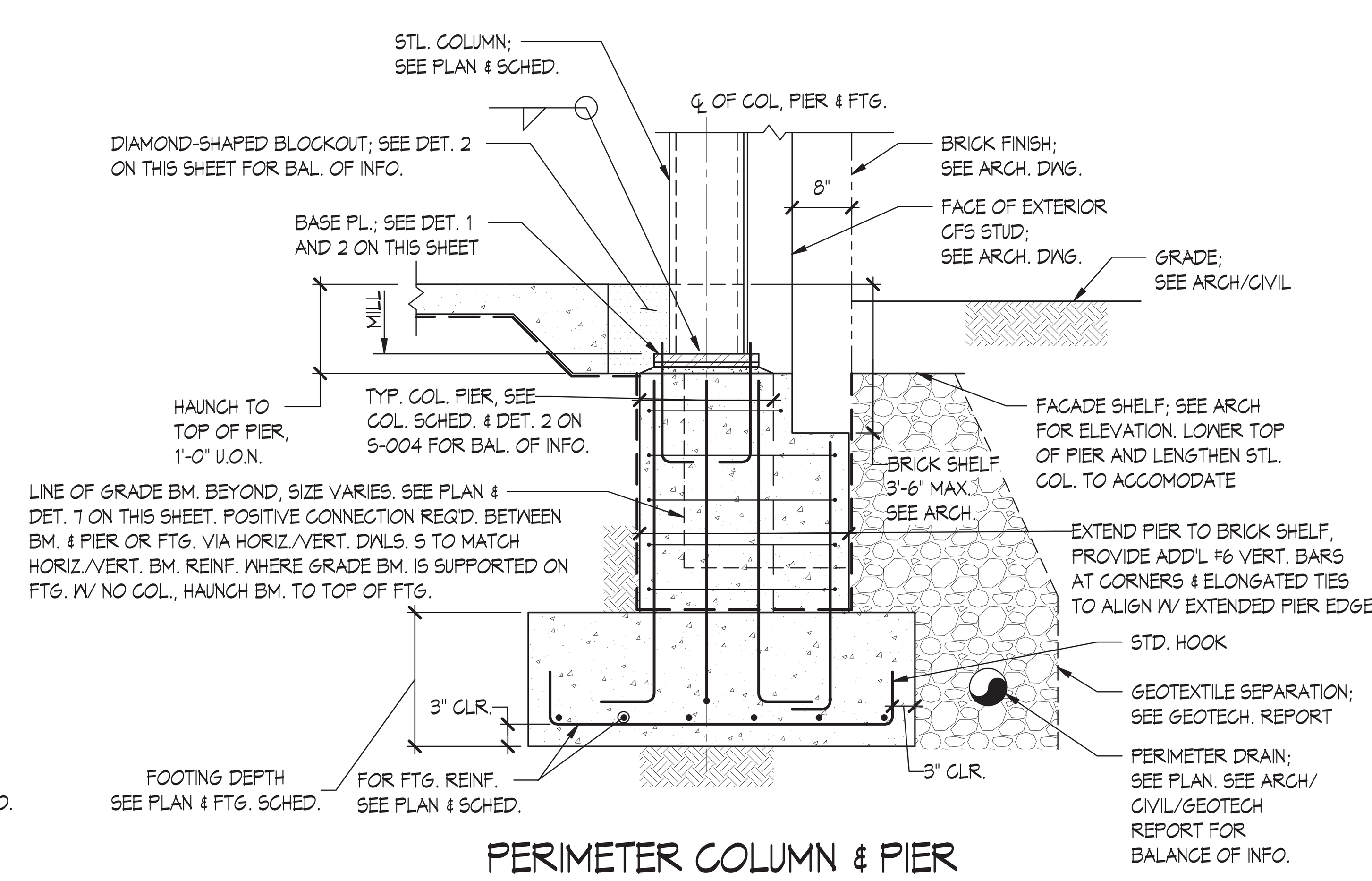
1/2" = 1'-0"

NOTE: FOR BALANCE OF BEAM REINFORCEMENT & OTHER INFORMATION SEE TYPICAL GRADE BEAM AND PIER-BUTTRESS DETAIL.



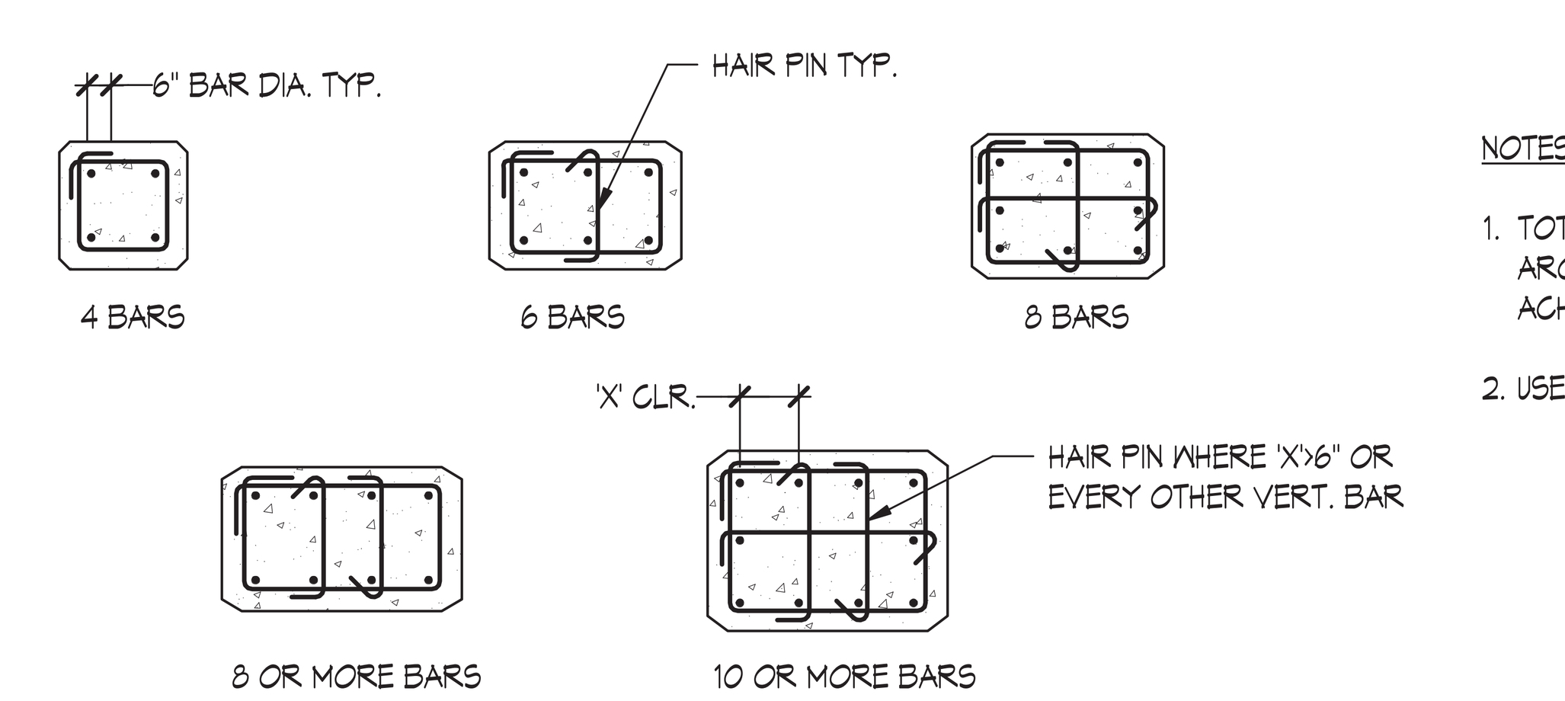
8 PERIMETER FOOTING SUPPORTING EXTERIOR CMU WALL WITH BRICK FACADE

1/2" = 1'-0"



9 PERIMETER COLUMN & PIER WITH BRICK FACADE

3/4" = 1'-0"



NOTES:

1. TOTAL NUMBER OF BARS SHOULD BE SPACED AROUND PERIMETER IN SUCH A WAY AS TO ACHIEVE APPROXIMATELY EQUAL SPACING.
2. USE THESE DETAILS AT PIERS AND BUTTRESSES.

11 TYPICAL TIED COLUMN PIERS AND BUTTRESSES

1/2" = 1'-0"

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SED #: 50-90-00-00-0-044-001

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KEY PLAN

REVISIONS

No.	Description	Date

ISSUED: BID SET ISSUANCE

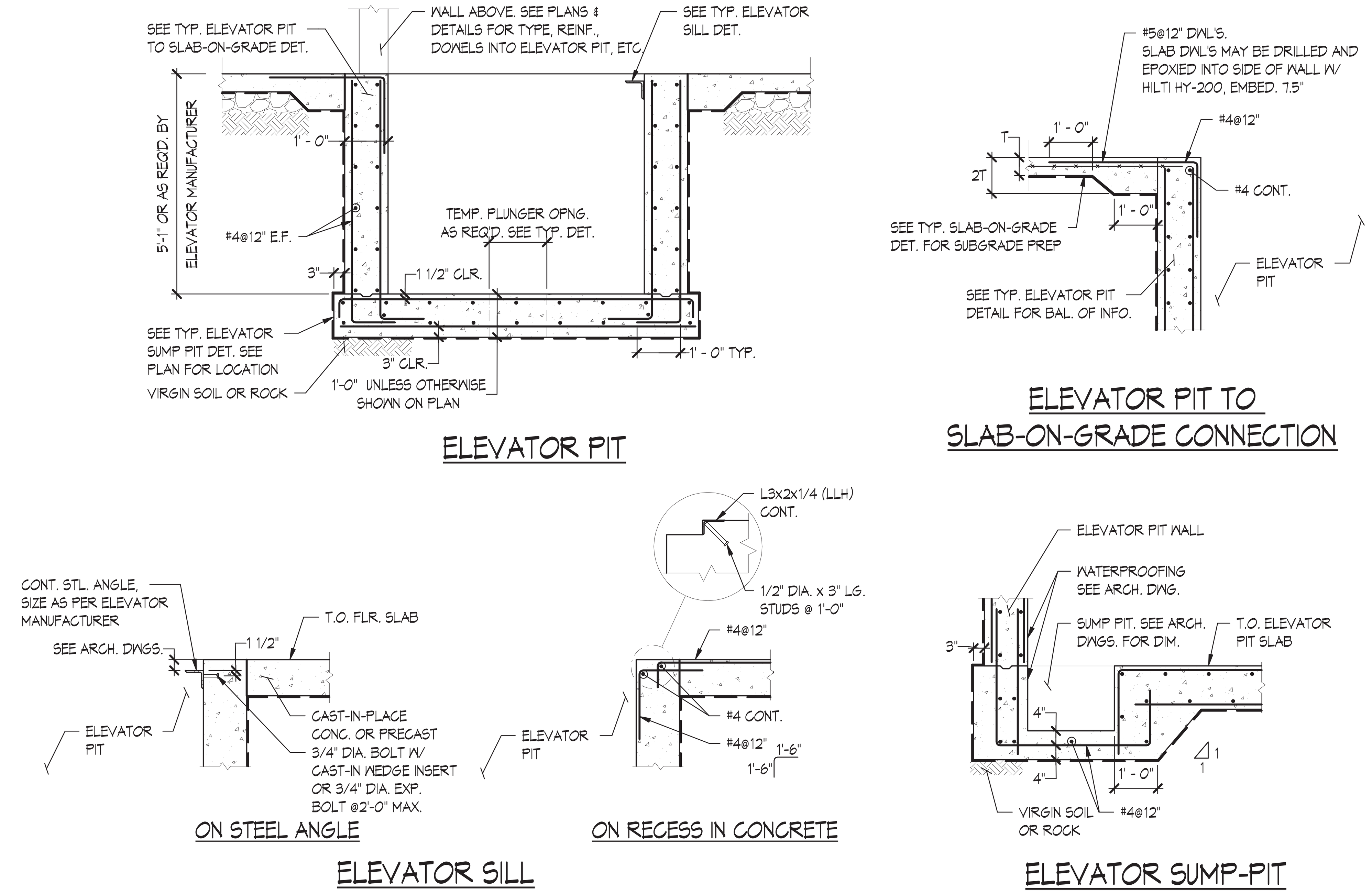
DATE: 06/30/2025

SCALE: As indicated

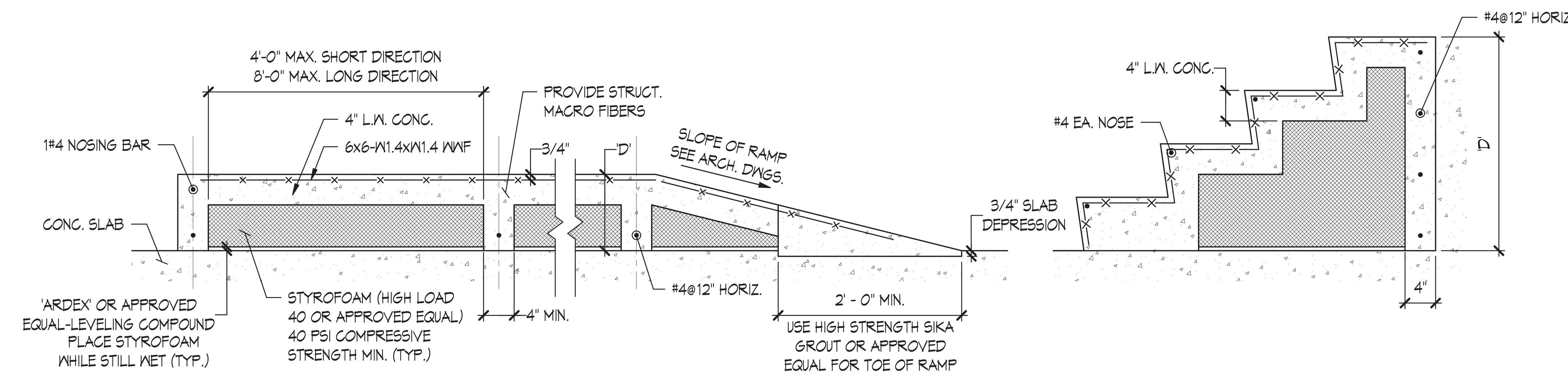
SHEET NAME: TYPICAL DETAILS 1

SHEET NUMBER: S-004

BID SET



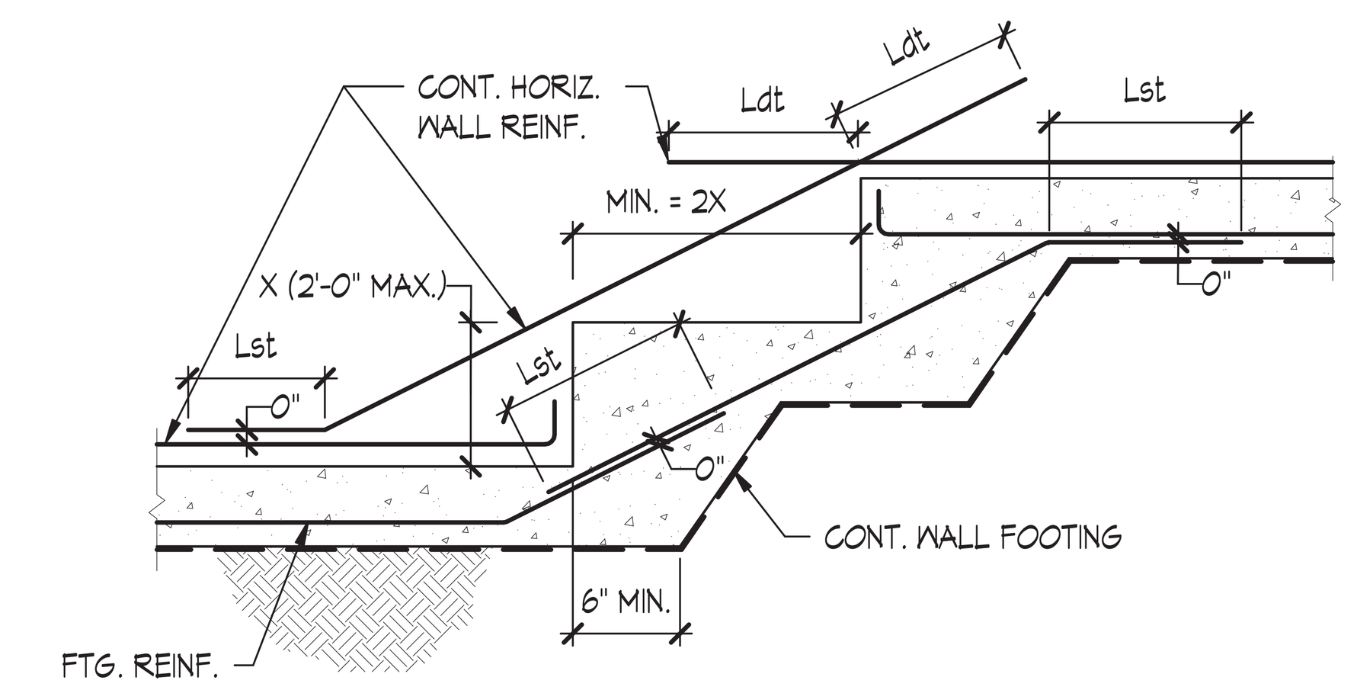
① TYPICAL ELEVATOR PIT
1/2" = 1'-0"



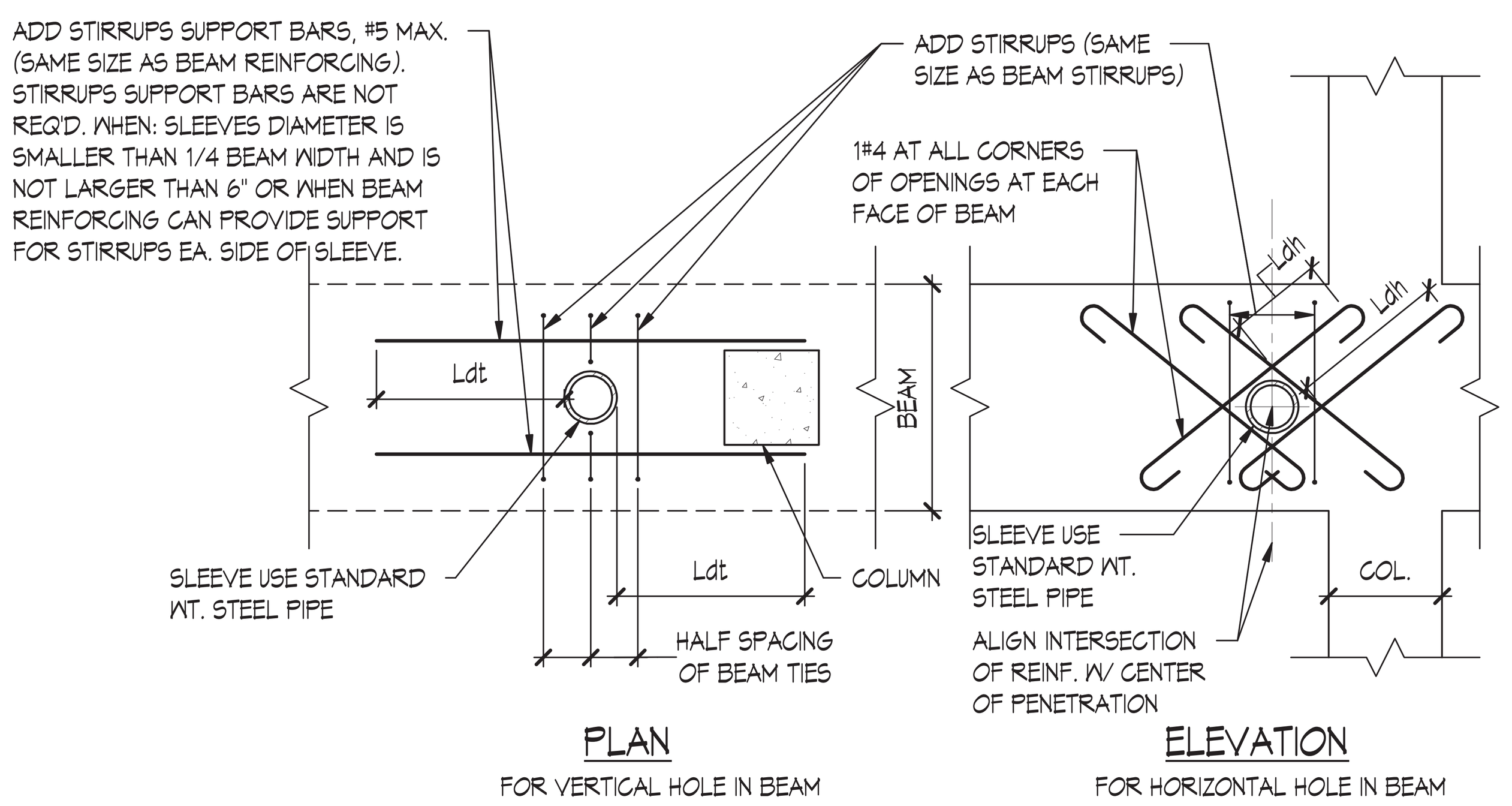
② TYPICAL INFILL OF DEPRESSED SLAB
1" = 1'-0"

NOTES:

1. WHERE DEPTH 'D' IS 4" OR LESS, OMIT STYROFOAM.
2. MAX. TOTAL DEPTH 'D' IS 4'-0".



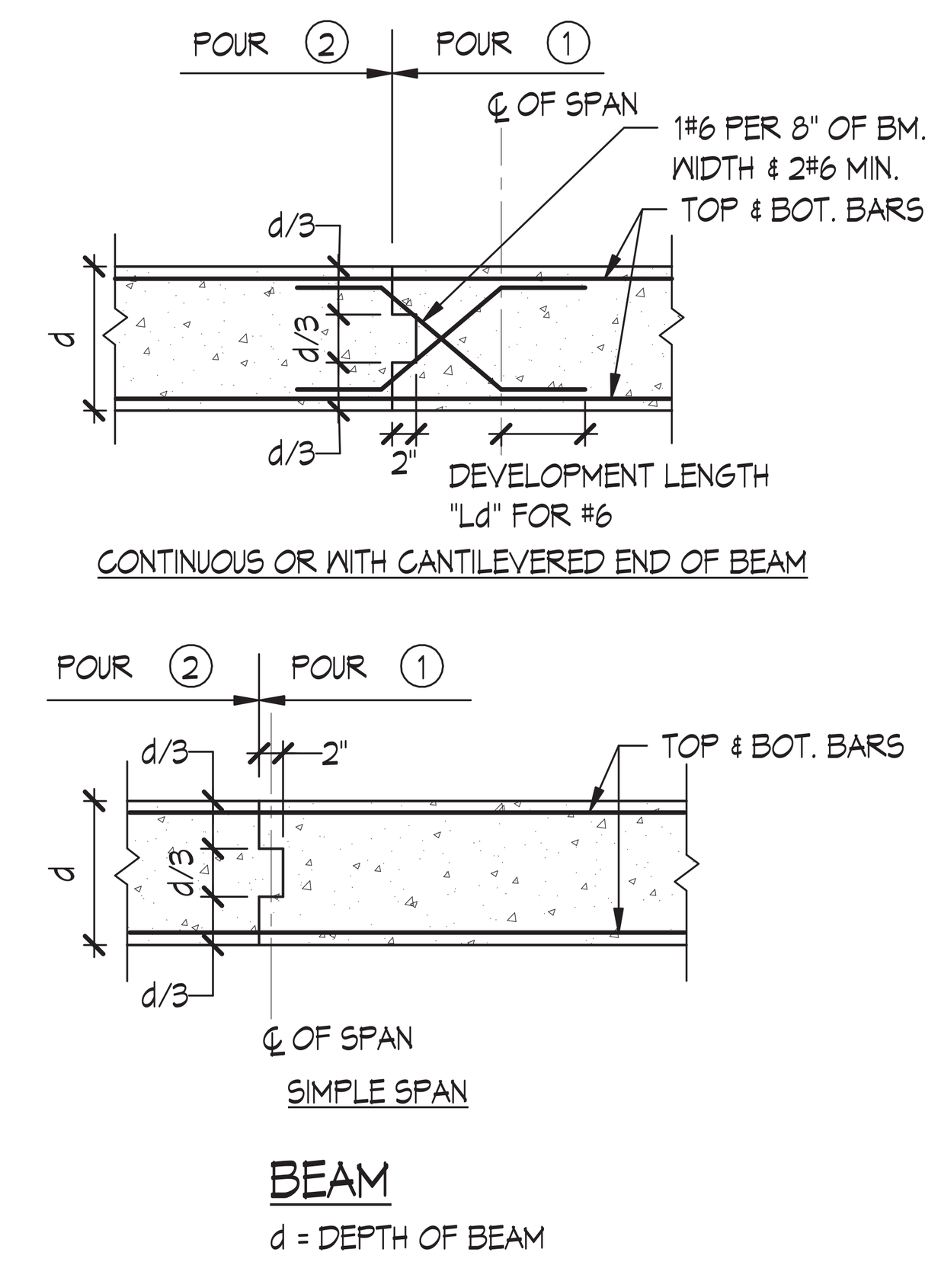
③ TYPICAL STEPPED FOOTING
1/2" = 1'-0"



④ TYPICAL OPENINGS IN CONCRETE BEAMS
3/4" = 1'-0"

NOTES:

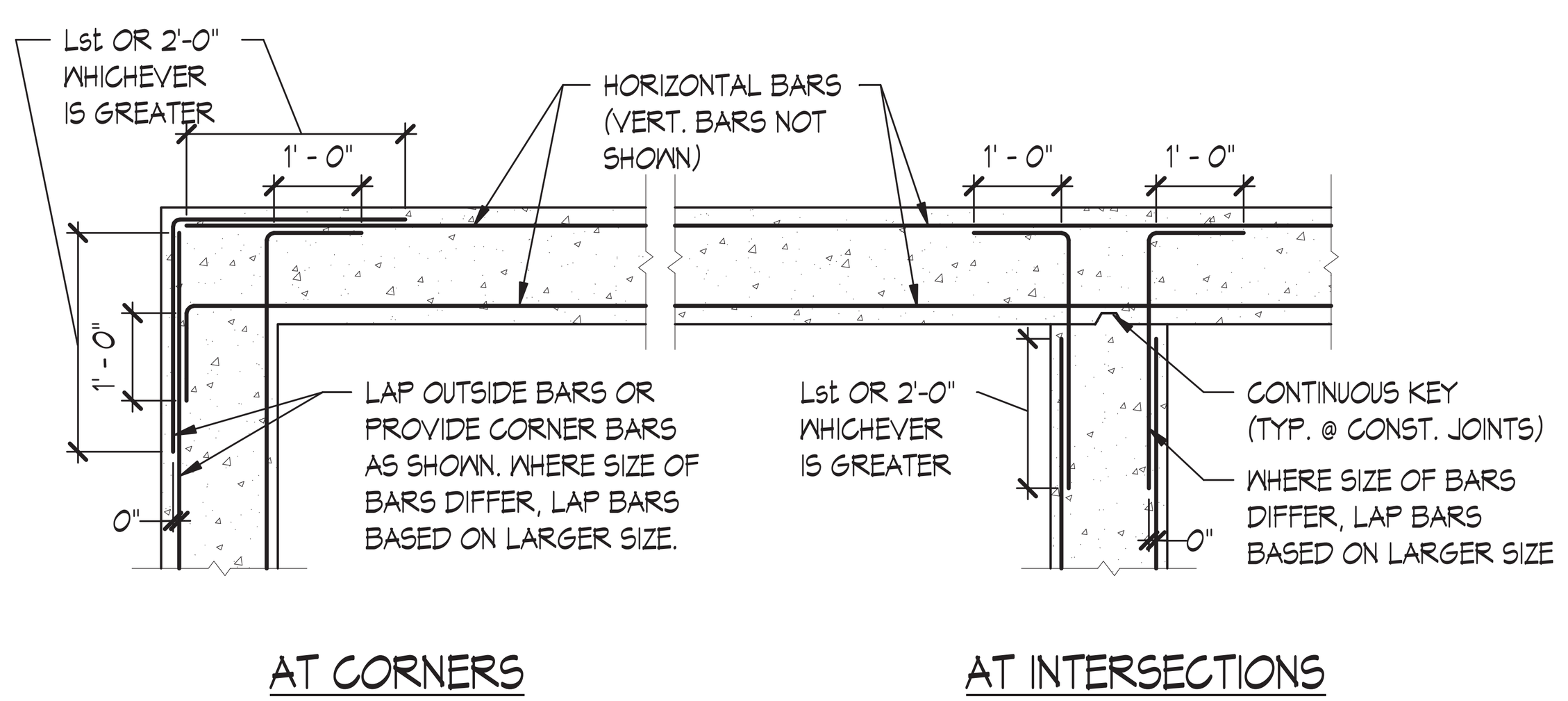
1. ALL OPENINGS REGARDLESS OF SIZE ARE SUBJECT TO APPROVAL OF STRUCTURAL ENGINEER. ALL PROPOSED OPENING SIZES, LOCATION & ELEVATIONS TO BE SUBMITTED FOR REVIEW. OPENINGS THAT REQUIRE SPECIFIED LONGITUDINAL REINFORCEMENT BE PLACED IN ADDITIONAL LAYERS WILL NOT BE PERMITTED.
2. NO OPENINGS ARE PERMITTED IN CONCRETE BEAMS LARGER THAN 2" DIA. UNLESS SPECIFICALLY INDICATED ON STRUCTURAL PLANS. ALL BEAM REINFORCMENT TO RUN THROUGH.



⑤ TYPICAL CONSTRUCTION JOINTS
3/4" = 1'-0"

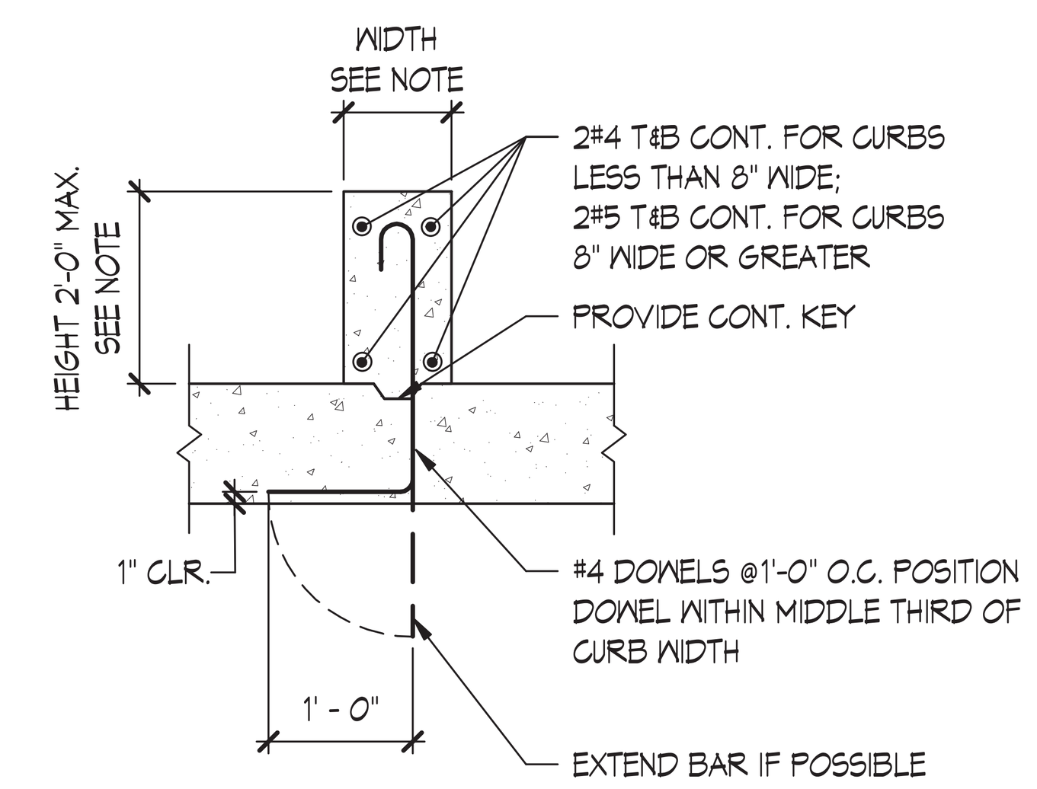
NOTES:

1. CONSTRUCTION JOINTS SHALL NOT BE PERMITTED FOR BEAMS WITH CONCENTRATED LOADS. CONSULT WITH ENGINEER FOR SPECIAL CASES.
2. CONTRACTOR SHALL SUBMIT ALL PROPOSED CONSTRUCTION JOINTS FOR APPROVAL.
3. PROVIDE CONTINUOUS WATERSTOPS IN ALL JOINTS AS REQUIRED BY ARCHITECT.



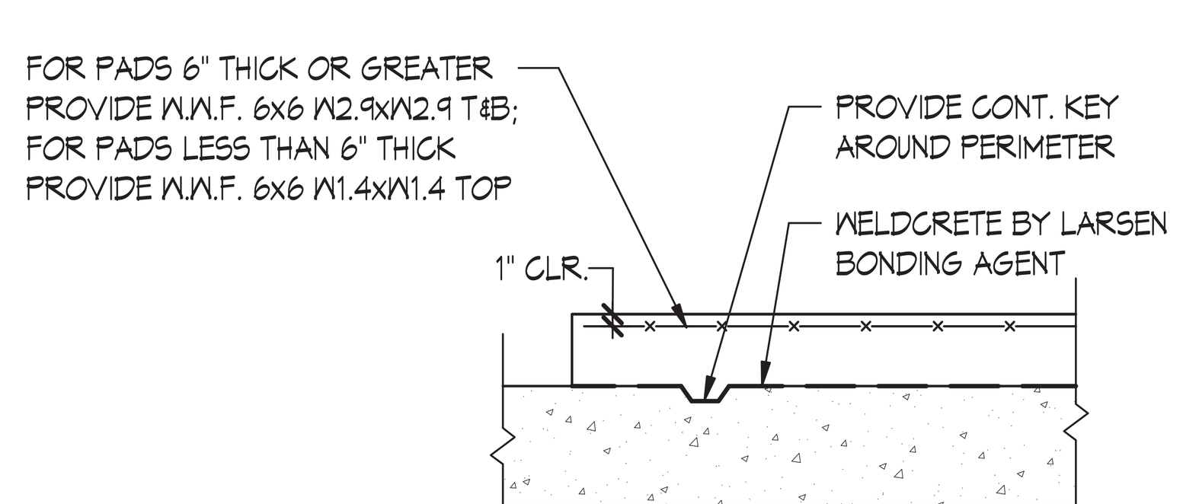
⑥ TYPICAL HORIZONTAL REINFORCING FOR CONCRETE WALLS AND BEAMS (PLAN)
1/2" = 1'-0"

NOTE: PROVIDE CONTINUOUSE WATERSTOPS IN ALL JOINTS AS REQUIRED BY ARCHITECT.

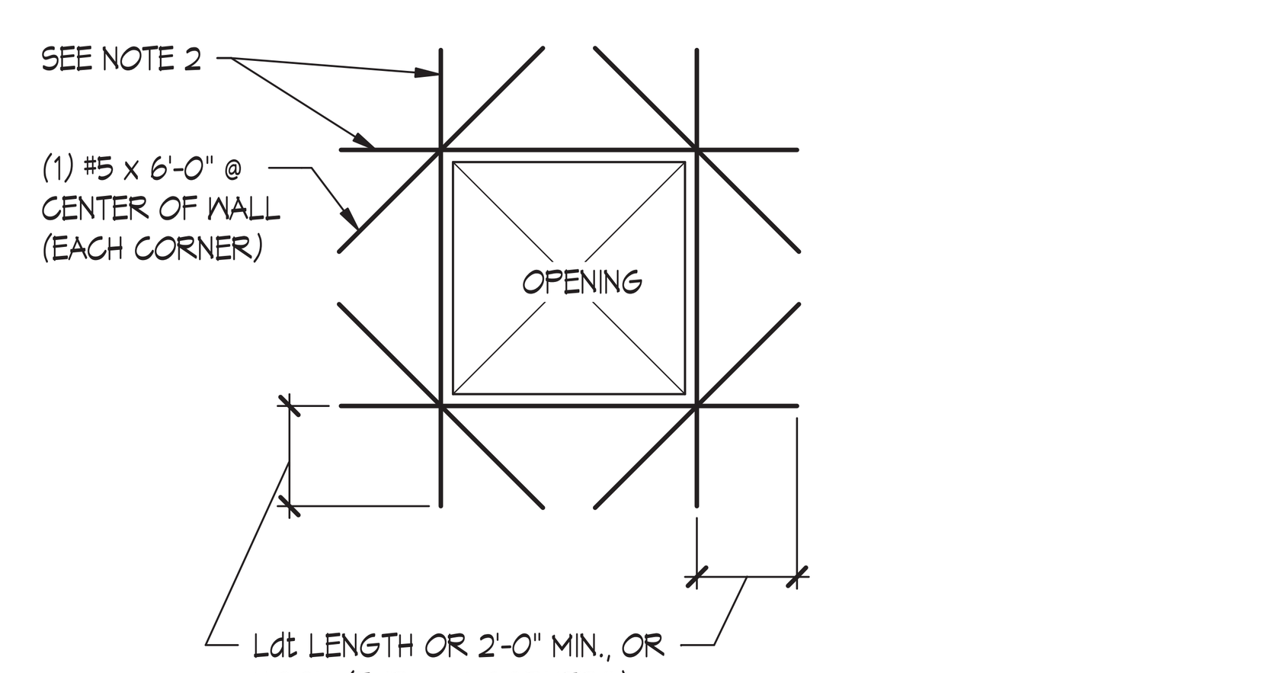


⑦ TYPICAL CONCRETE CURB
3/4" = 1'-0"

NOTE: FOR CURB HEIGHT & WIDTH SEE ARCHITECTURAL DRAWINGS.



⑧ TYPICAL CONCRETE PAD
3/4" = 1'-0"



⑨ TYPICAL OPENING IN CONCRETE WALL
1/2" = 1'-0"

NOTES:

1. HOOK ALL INTERRUPTED CONTINUOUS BARS.
2. PLACE ONE-HALF OF REINFORCING BAR AREA INTERRUPTED BY OPENING IN THE SAME FACE AT BOTH SIDES OF OPENING. TWO #5 EACH SIDE MIN.

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ROCKLAND BOCES P-TECH C-TEC BUILDING

SED #: 50-90-00-00-0-044-001

65 Parrot Rd,
West Nyack, NY 10994

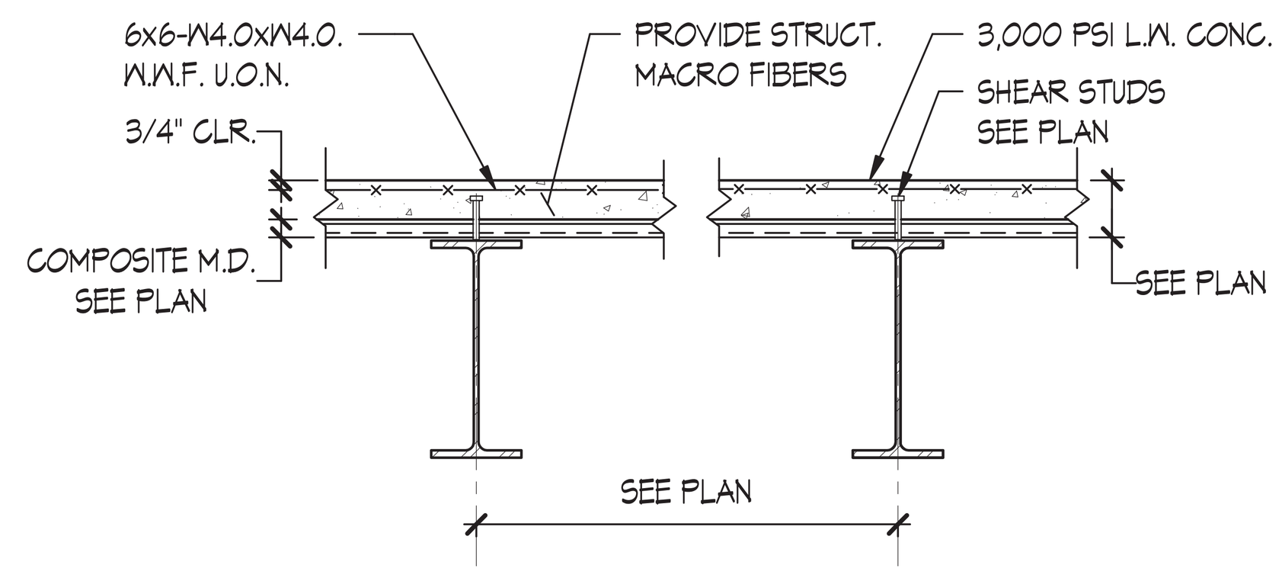
KEY PLAN

REVISIONS

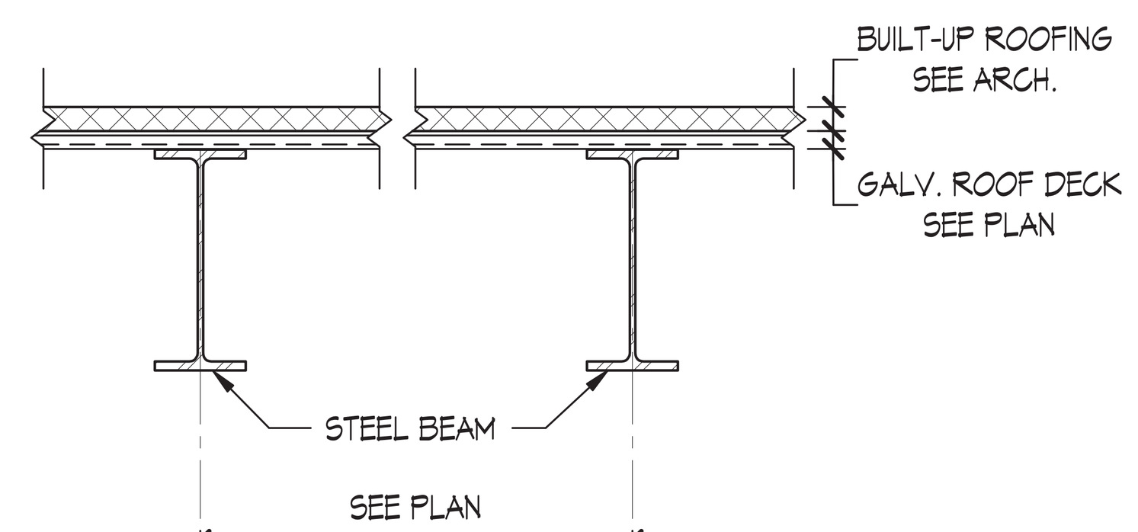
No.	Description	Date

ISSUED: BID SET ISSUANCE
DATE: 06/30/2025
SCALE: As indicated
SHEET NAME: TYPICAL DETAILS 2
SHEET NUMBER: S-005

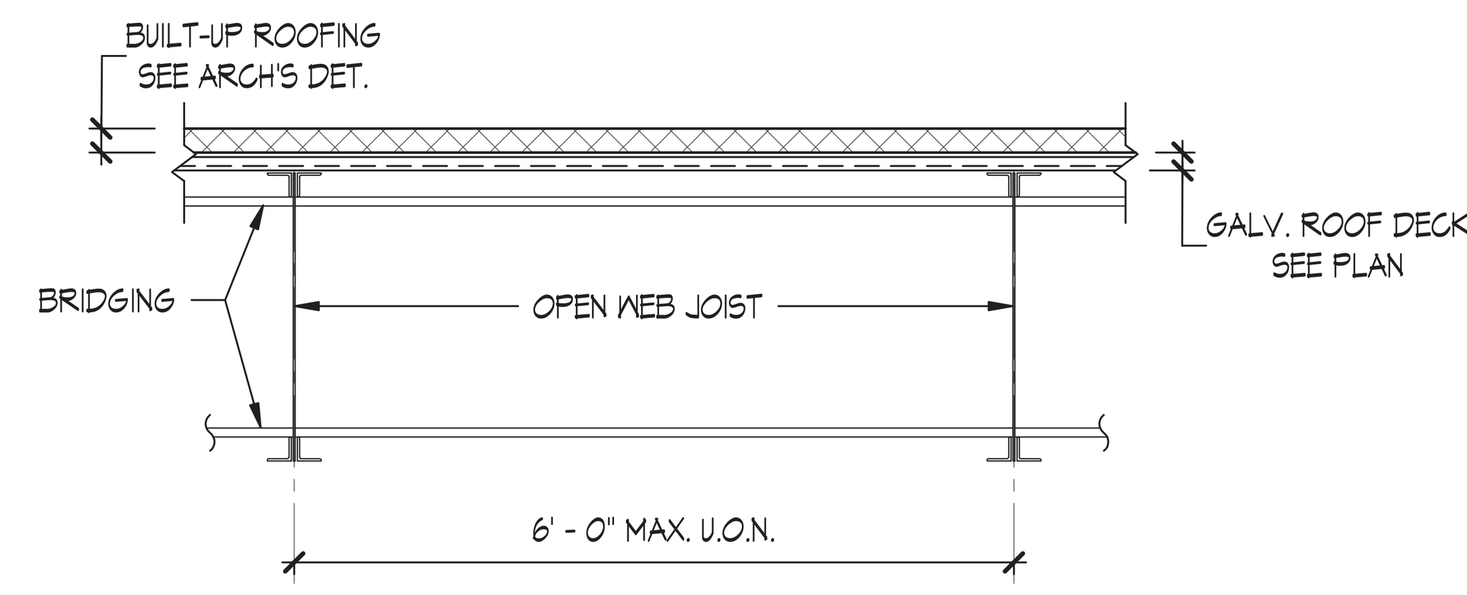
BID SET



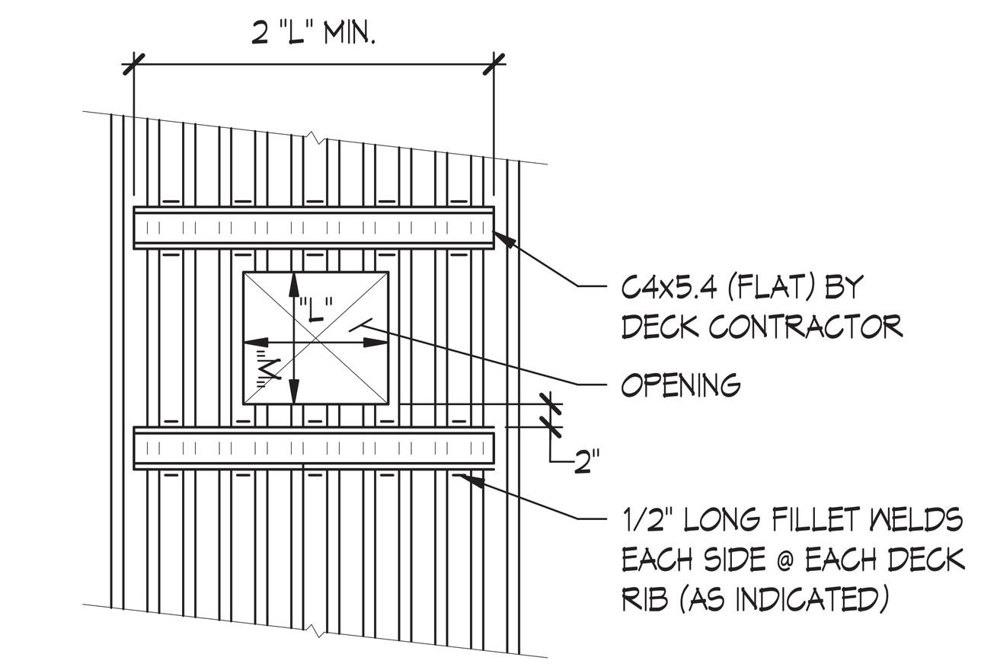
1 TYPICAL FLOOR CONSTRUCTION
3/4" = 1'-0"
NOTE: SEE ARCHITECTURAL DRAWINGS FOR FIREPROOFING REQUIREMENTS.



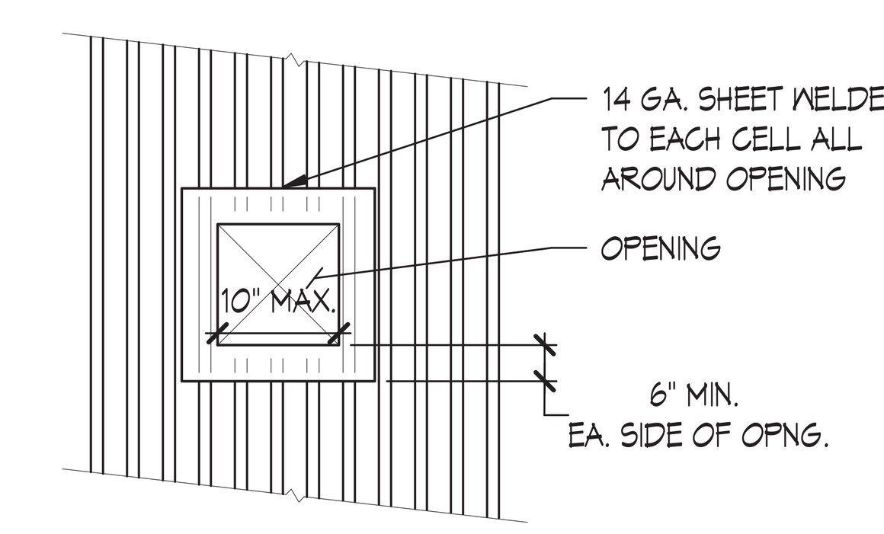
2 TYPICAL ROOF CONSTRUCTION
3/4" = 1'-0"
NOTE: SEE ARCHITECTURAL DRAWINGS FOR FIREPROOFING REQUIREMENTS.



3 TYPICAL ROOF CONSTRUCTION (OPEN WEB BAR JOIST)
3/4" = 1'-0"
NOTES:
OPEN WEB JOISTS SHALL BE DESIGNED BY MANUFACTURER'S ENGINEER PER DESIGN CRITERIA SHOWN ON STRUCTURAL DRAWINGS. SUBMIT SIGNED AND SEALED DRAWINGS FOR REVIEW.

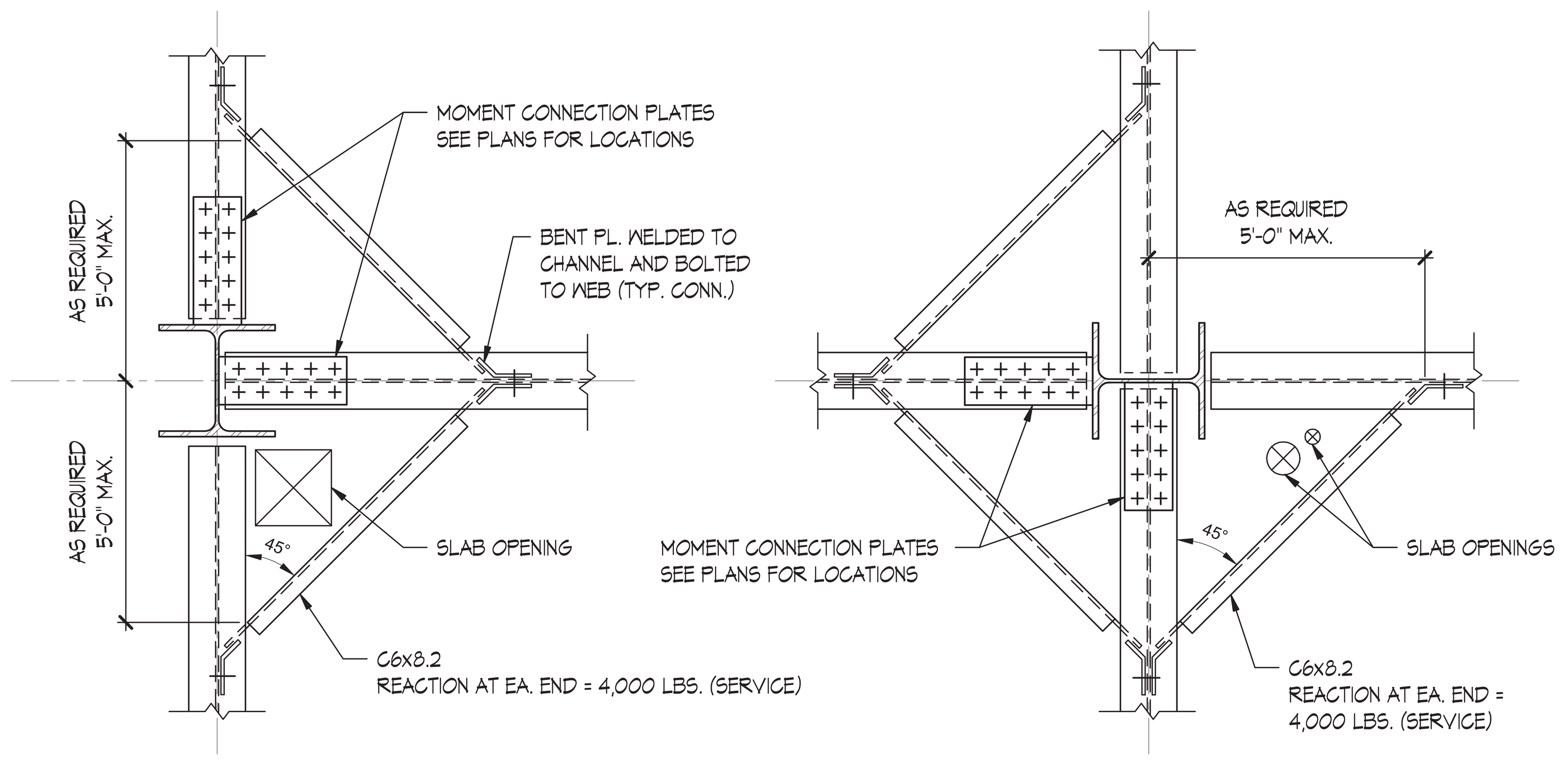


WHERE "L" IS GREATER THAN 10" UP TO 2'-0" MAXIMUM
NOTE: MAXIMUM WIDTH "W" = 2'-0"



OPENING GREATER THAN 6"x6" OR 6" DIAMETER & LESS THAN 10"x10" OR 10" DIAMETER

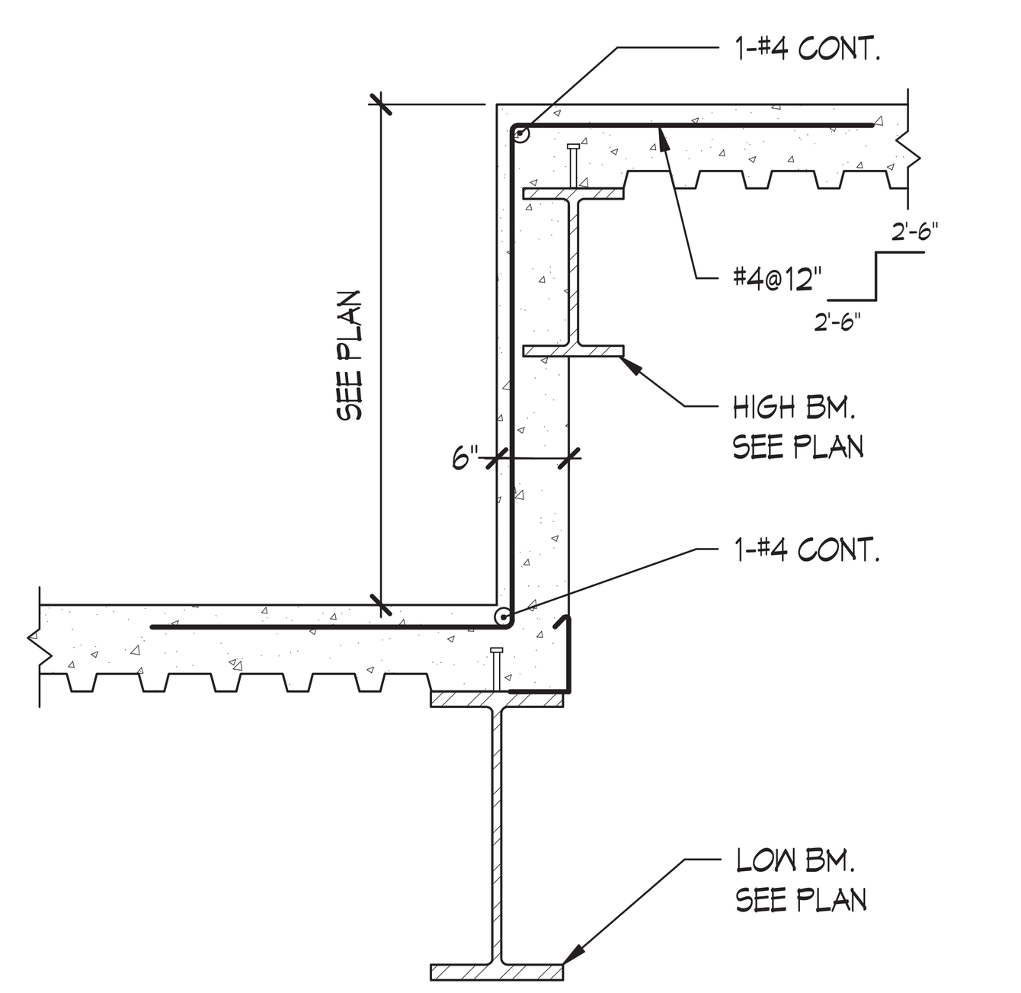
4 TYPICAL REINFORCING FOR UNFRAMED OPENINGS IN FLOORS
3/8" = 1'-0"
NOTE: NO PLATE REINFORCEMENT IS REQUIRED FOR ISOLATED 6"x6", 6" DIAMETER OR SMALLER. GROUPS OF CLUSTERED PENETRATIONS SHALL BE TREATED AS ONE LARGER OPENING ENCOMPASSING THE ENTIRE CLUSTER. COORDINATE PENETRATIONS WITH ARCH. AND MEP DRAWINGS.



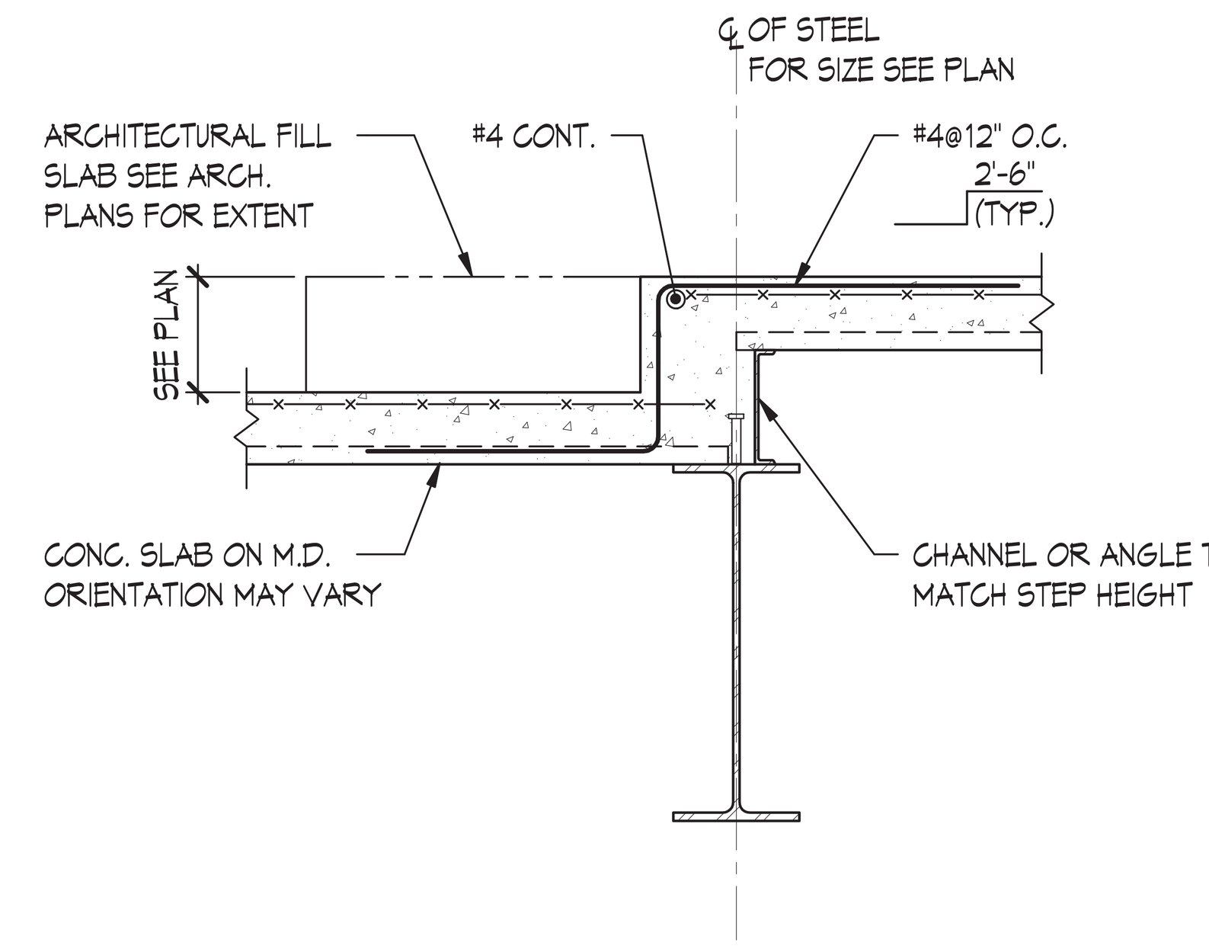
AT EXTERIOR COLUMNS WHERE REQUIRED

AT INTERIOR COLUMNS WHERE REQUIRED

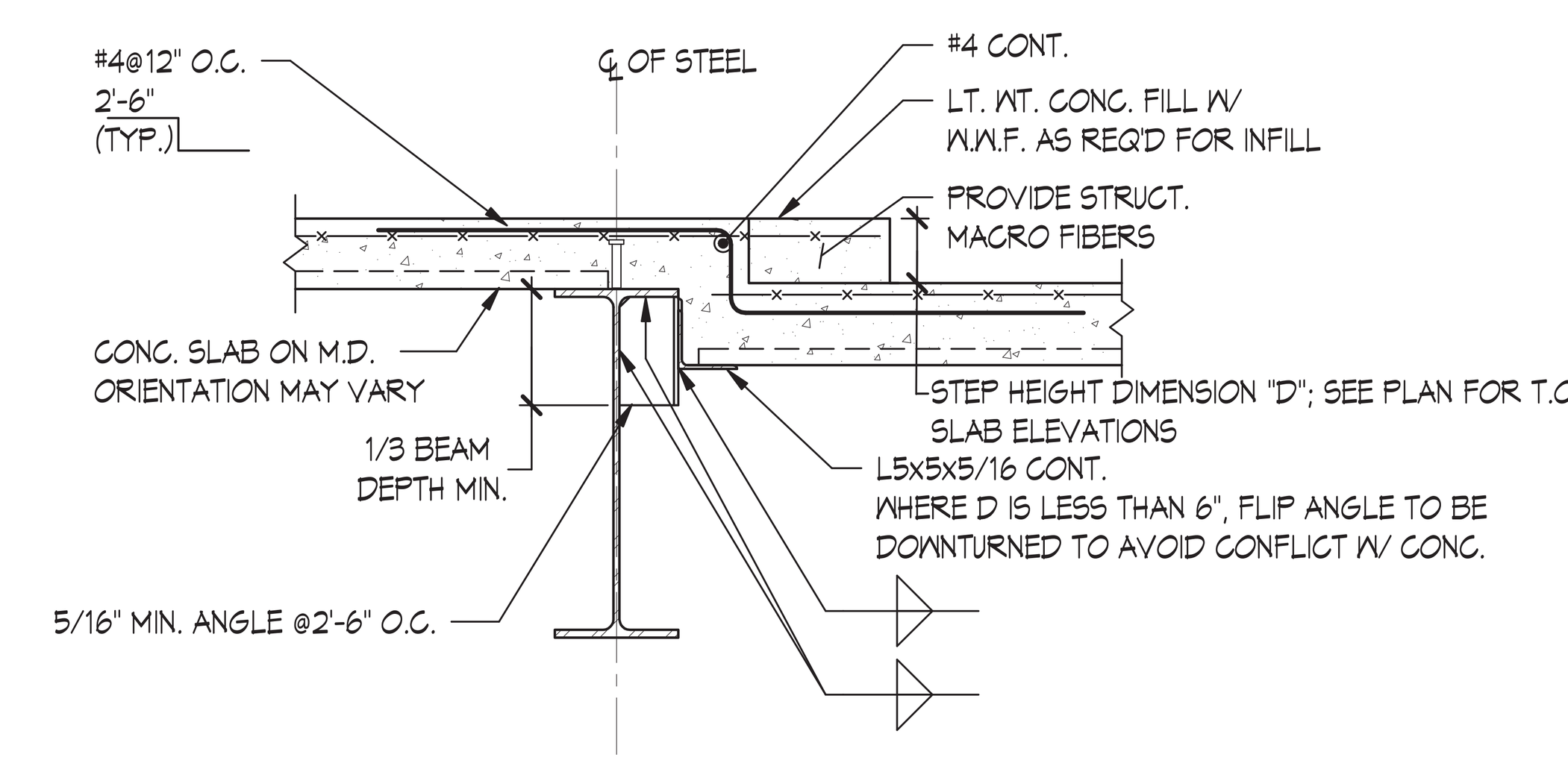
5 TYPICAL METAL DECK SUPPORTS @ COLUMNS WITH OPENINGS AND/OR MOMENT CONNECTION PLATES
3/4" = 1'-0"



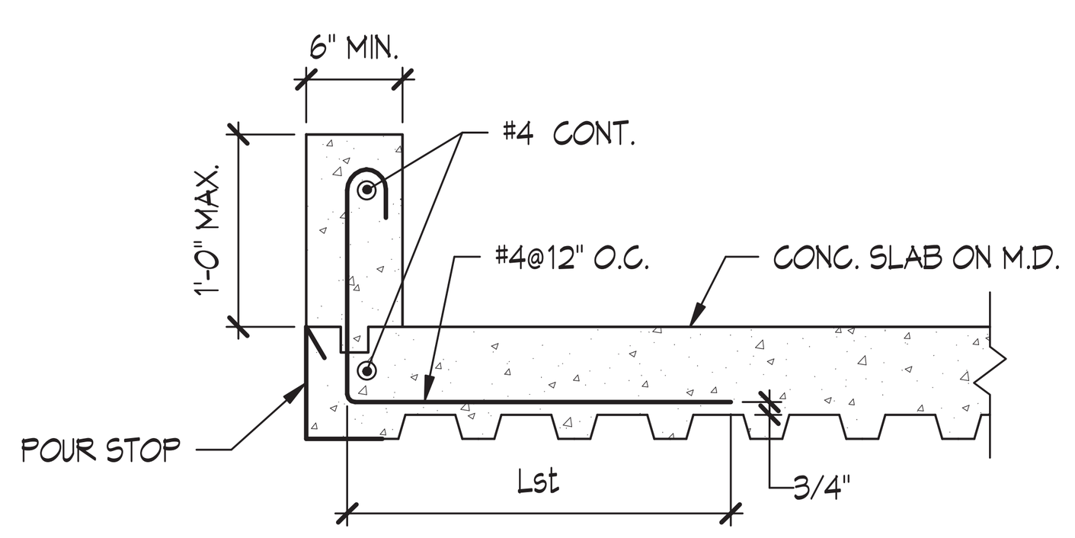
6 SLAB STEP - BEAMS HIGH & LOW
3/4" = 1'-0"



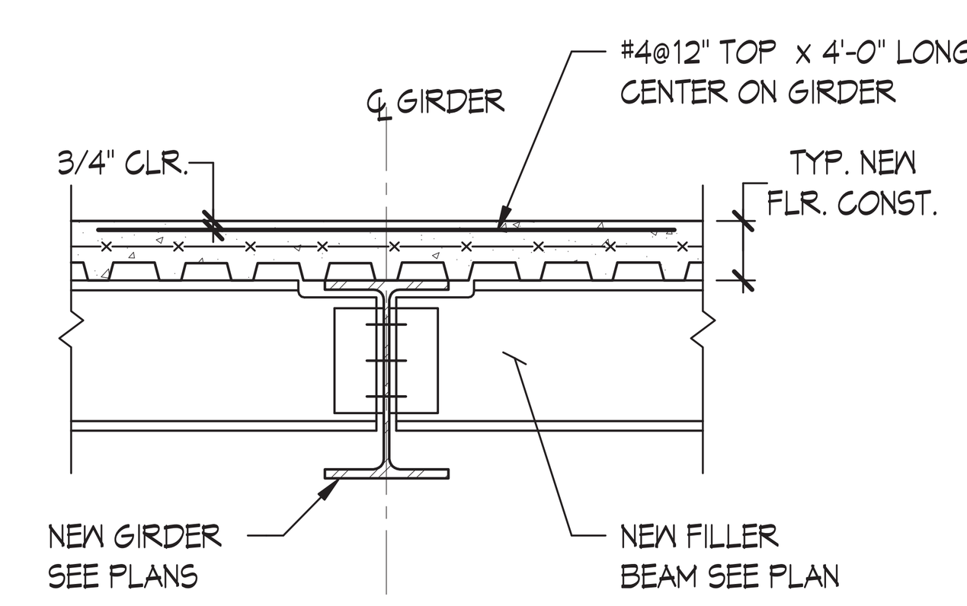
7 TYPICAL SLAB STEP - BEAM LOW
3/4" = 1'-0"
NOTE:
WHERE TOPPING IS POURED MONOLITHICALLY WITH FLOOR SLAB, PROVIDE UPPER AND LOWER LAYERS OF W.W.F. AND SHORE DECK AS REQ'D TO SUPPORT WET WT. OF CONC.



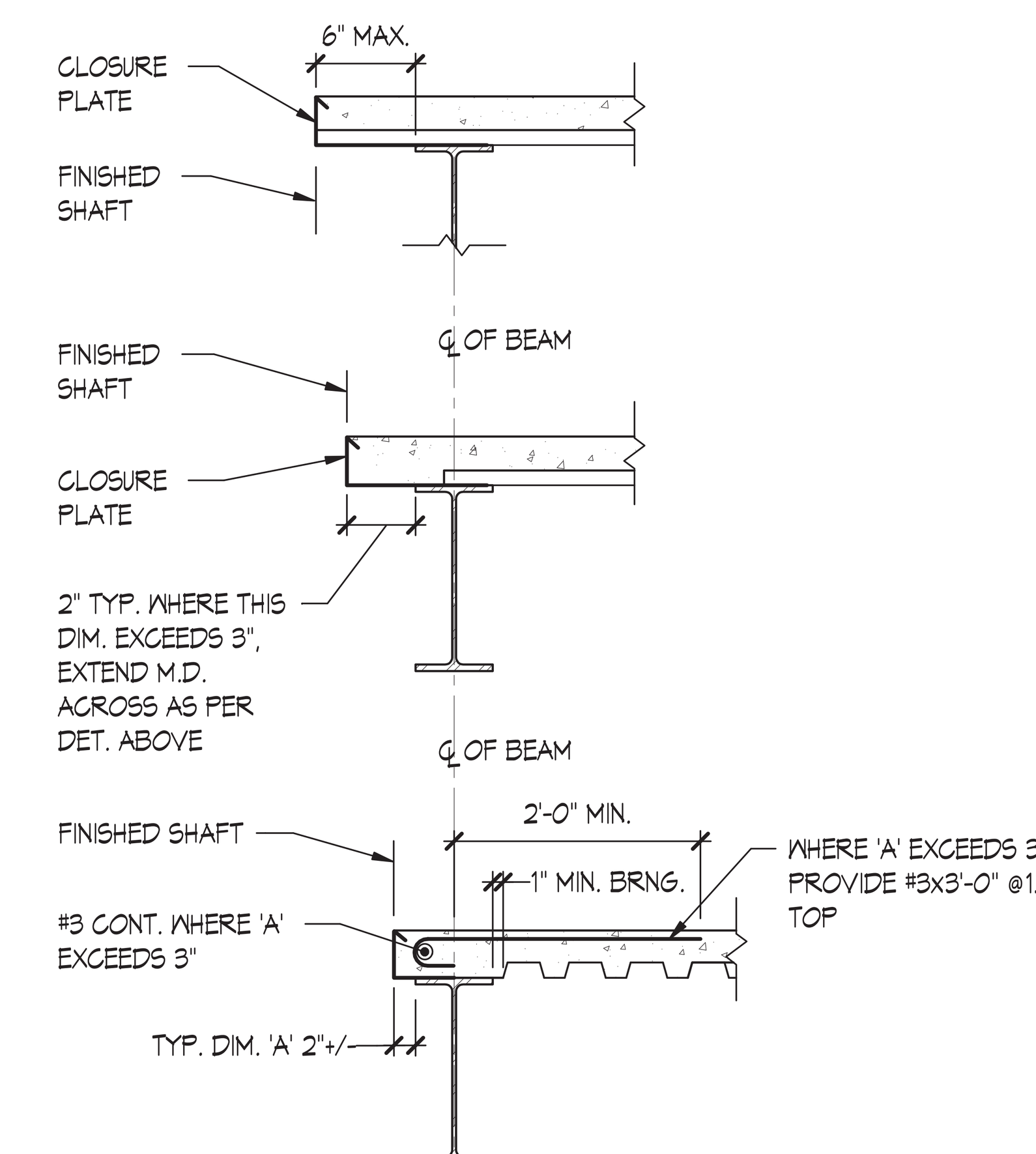
8 TYPICAL SLAB STEP - BEAM HIGH
3/4" = 1'-0"
NOTE:
WHERE TOPPING IS POURED MONOLITHICALLY WITH FLOOR SLAB, PROVIDE UPPER AND LOWER LAYERS OF W.W.F. AND SHORE DECK AS REQ'D TO SUPPORT WET WT. OF CONC.



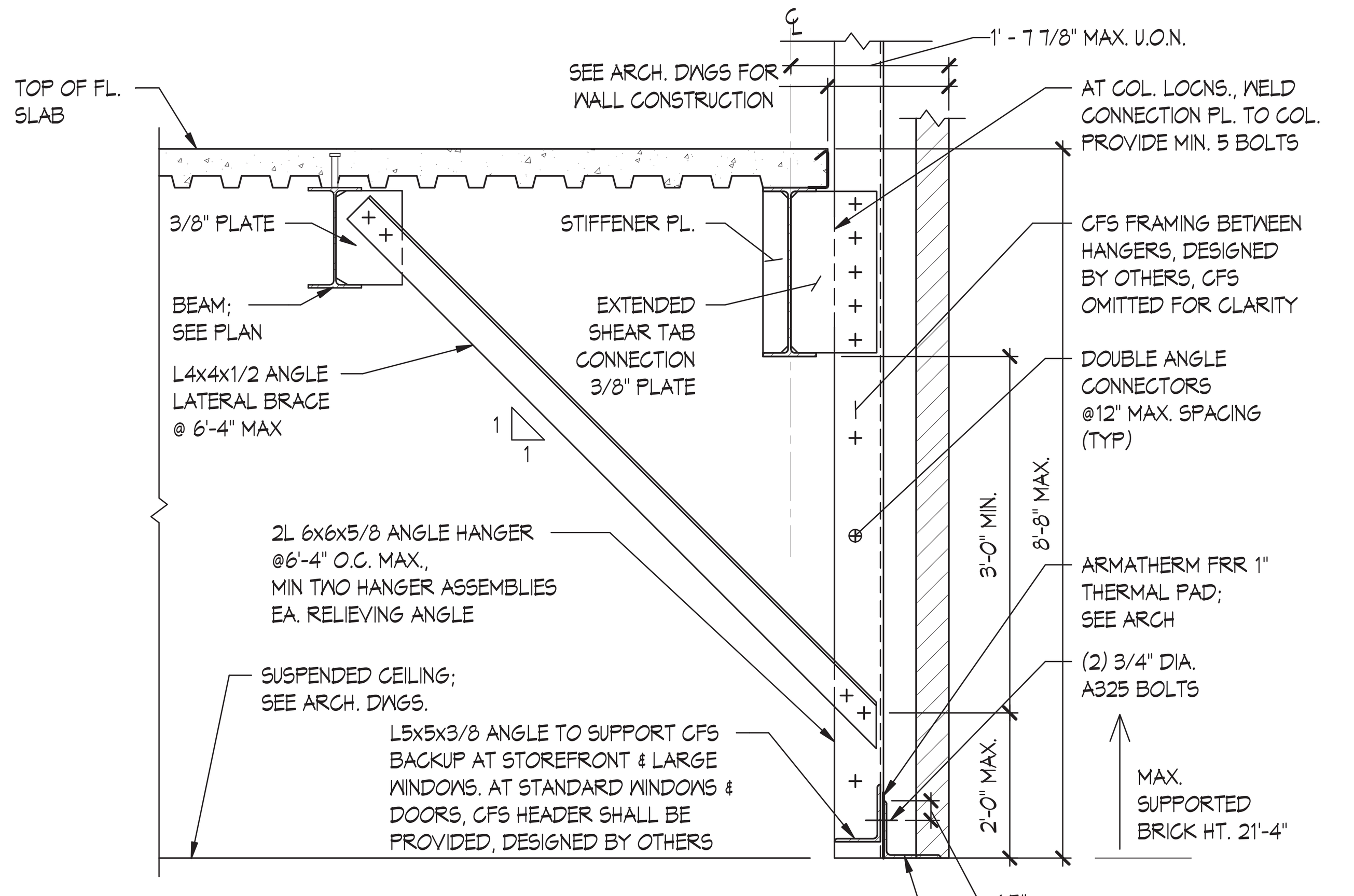
9 TYPICAL CONCRETE CURB ON COMPOSITE DECK
1" = 1'-0"



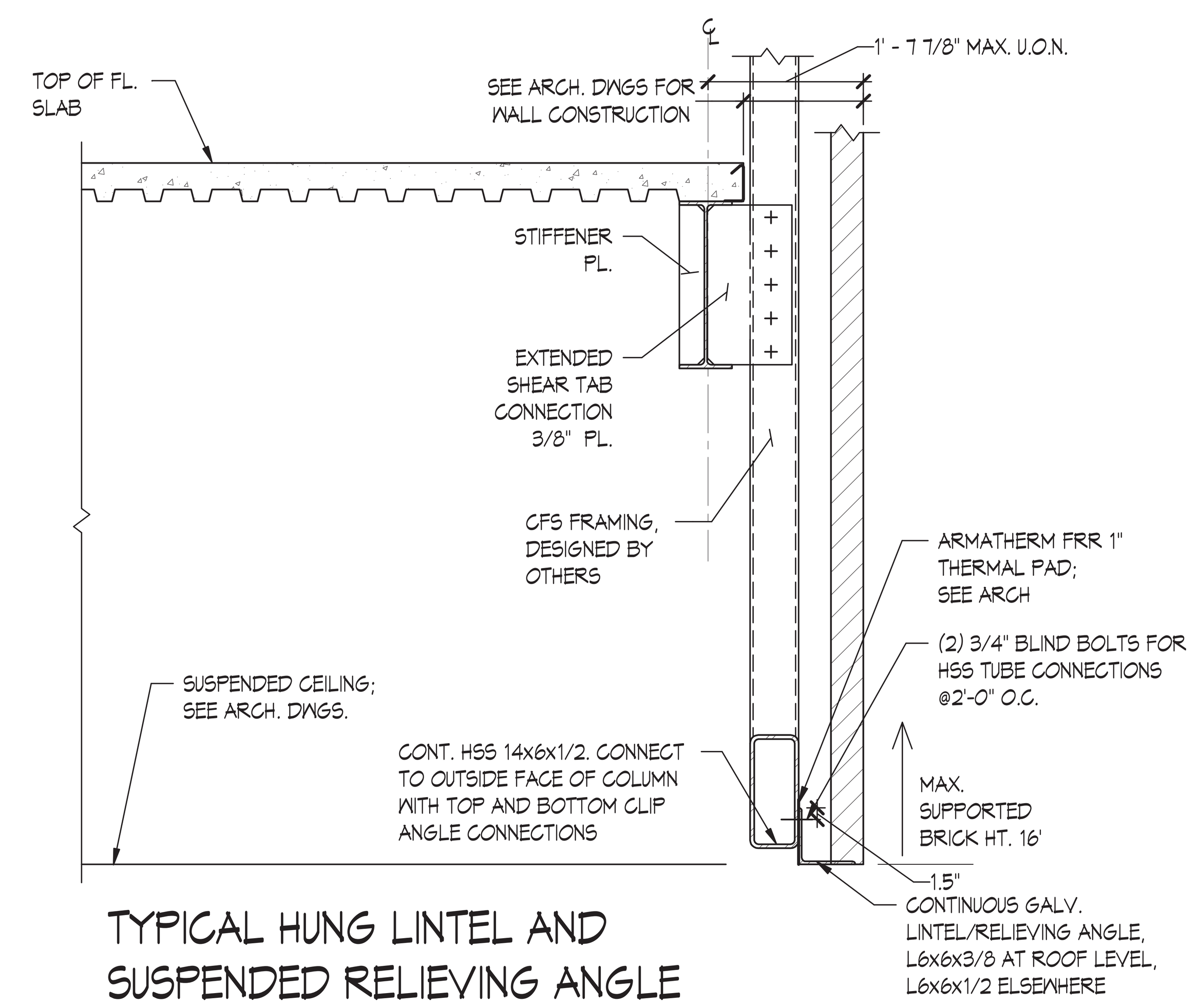
10 TYPICAL REINFORCING OVER GIRDERS OR AT CHANGE IN DECK DIRECTION
3/4" = 1'-0"
NOTE: FOR BALANCE OF INFORMATION SEE TYPICAL FLOOR CONSTRUCTION DETAILS.



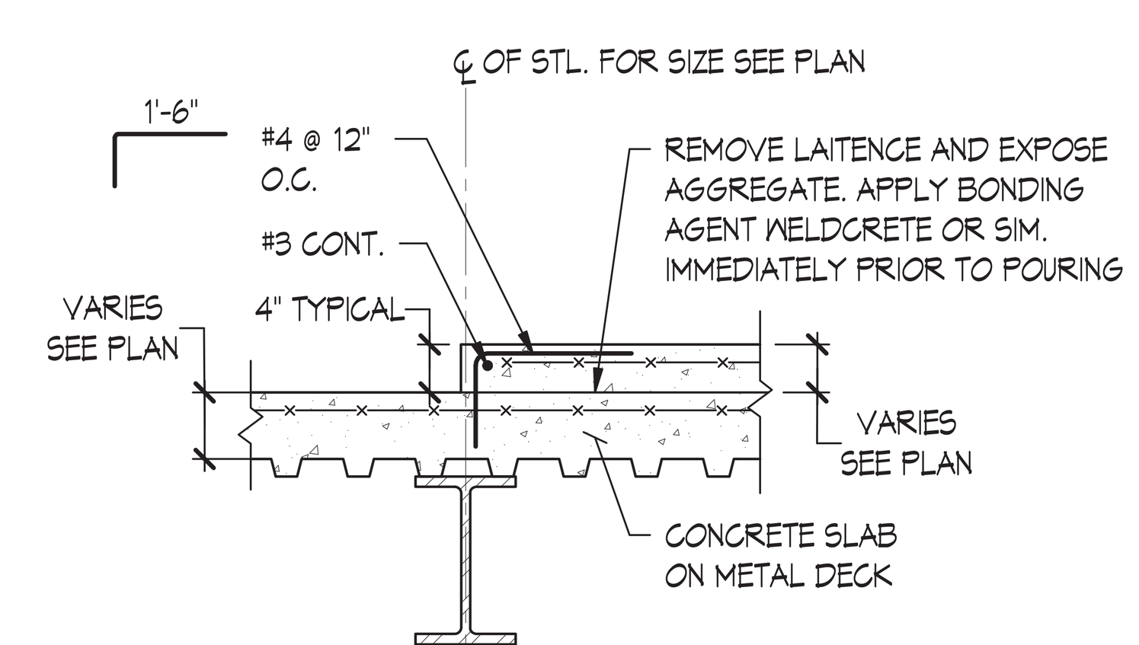
11 TYPICAL EDGE AT STAIRS, SHAFT AND ETC.
3/4" = 1'-0"
NOTE: FACE OF CLOSURE PLATE SHALL BE ALIGNED TO OBTAIN FINISHED SHAFT LOCATION. ALL CLOSURE PLATES SHALL BE 18 GA. MIN. AND SHALL BE DESIGNED, FURNISHED AND INSTALLED BY THE METAL DECK CONTRACTOR. "SHAFT" REFERS TO ALL ELEVATOR SHAFTS AS WELL AS ALL MECHANICAL, ELECTRICAL AND CONVEYOR SHAFTS.



12 TYPICAL HUNG LINTEL AND SUSPENDED RELIEVING ANGLE
3/4" = 1'-0"
NOTES:
1. THIS DETAIL SHALL BE USED AT EXTERIOR WINDOW/DOOR OPENINGS, AT LOW CONTINUOUS RELIEVING ANGLES, AND AT LOW FACADE TRANSITION SUPPORT ANGLES. COORD. WITH ARCH.
2. COORDINATE DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
3. FINAL SIZES AND DIMENSIONS PENDING FINAL ARCHITECTURAL LAYOUT AND DIMENSIONS.
4. RELIEVING ANGLE SUPPORT SYSTEMS ARE FOR GRAVITY LOADING ONLY. CFS BACK UP SYSTEM TO BE DESIGNED BY OTHERS FOR LATERAL LOADING DUE TO WIND. REFER TO ARCHITECTURAL DRAWINGS.
5. ALIGN HANGERS WITH COLUMNS AND WITH BEAMS PERPENDICULAR TO FACADE TO MINIMIZE LOAD ON SPANDREL BEAMS.
6. AT LOCATIONS WITH LINTEL ELEVATION LESS THAN 12' BELOW UNDERSIDE OF SPANDREL BEAM, ANGLE LATERAL BRACE SHALL BE CONNECTED TO BEAM WEB STIFFENER IN LIEU OF HANGER. ANGLE BRACE MAY BE PLACED AT SLOPE UP TO 2H:1V. ALIGN INTERIOR ANGLE-SUPPORT BEAM ACCORDINGLY. WHERE NO SPACE FOR LATERAL BRACE BELOW BEAM, CONNECT IT TO STIFFENER ON BACK SIDE OF SPANDREL BEAM.



13 TYPICAL HUNG LINTEL AND SUSPENDED RELIEVING ANGLE WHERE ANGLE BRACE IS NOT USABLE
3/4" = 1'-0"
NOTES:
1. THIS DETAIL SHALL BE USED AT EXTERIOR WINDOW/DOOR OPENINGS, AT LOW CONTINUOUS RELIEVING ANGLES, AND AT LOW FACADE TRANSITION SUPPORT ANGLES. COORD. WITH ARCH.
2. COORDINATE DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
3. FINAL SIZES AND DIMENSIONS PENDING FINAL ARCHITECTURAL LAYOUT AND DIMENSIONS.
4. RELIEVING ANGLE SUPPORT SYSTEMS ARE FOR GRAVITY LOADING ONLY. CFS BACK UP SYSTEM TO BE DESIGNED BY OTHERS FOR LATERAL LOADING DUE TO WIND. REFER TO ARCHITECTURAL DRAWINGS.



14 MECHANICAL PAD ON COMPOSITE DECK
3/4" = 1'-0"

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KEY PLAN

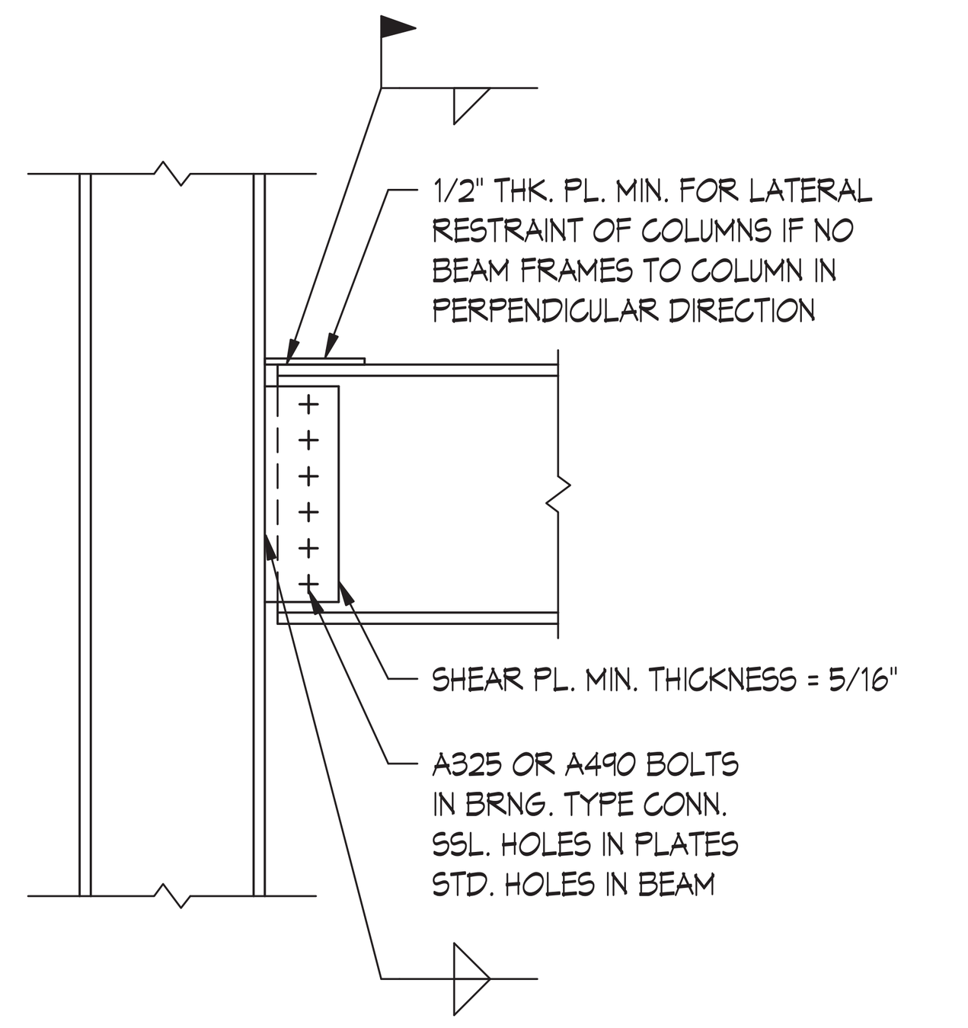
REVISIONS

No.	Description	Date

ISSUED: BID SET ISSUANCE
DATE: 06/30/2025
SCALE: As indicated
SHEET NAME:
TYPICAL DETAILS 3
SHEET NUMBER:
S-006
BID SET

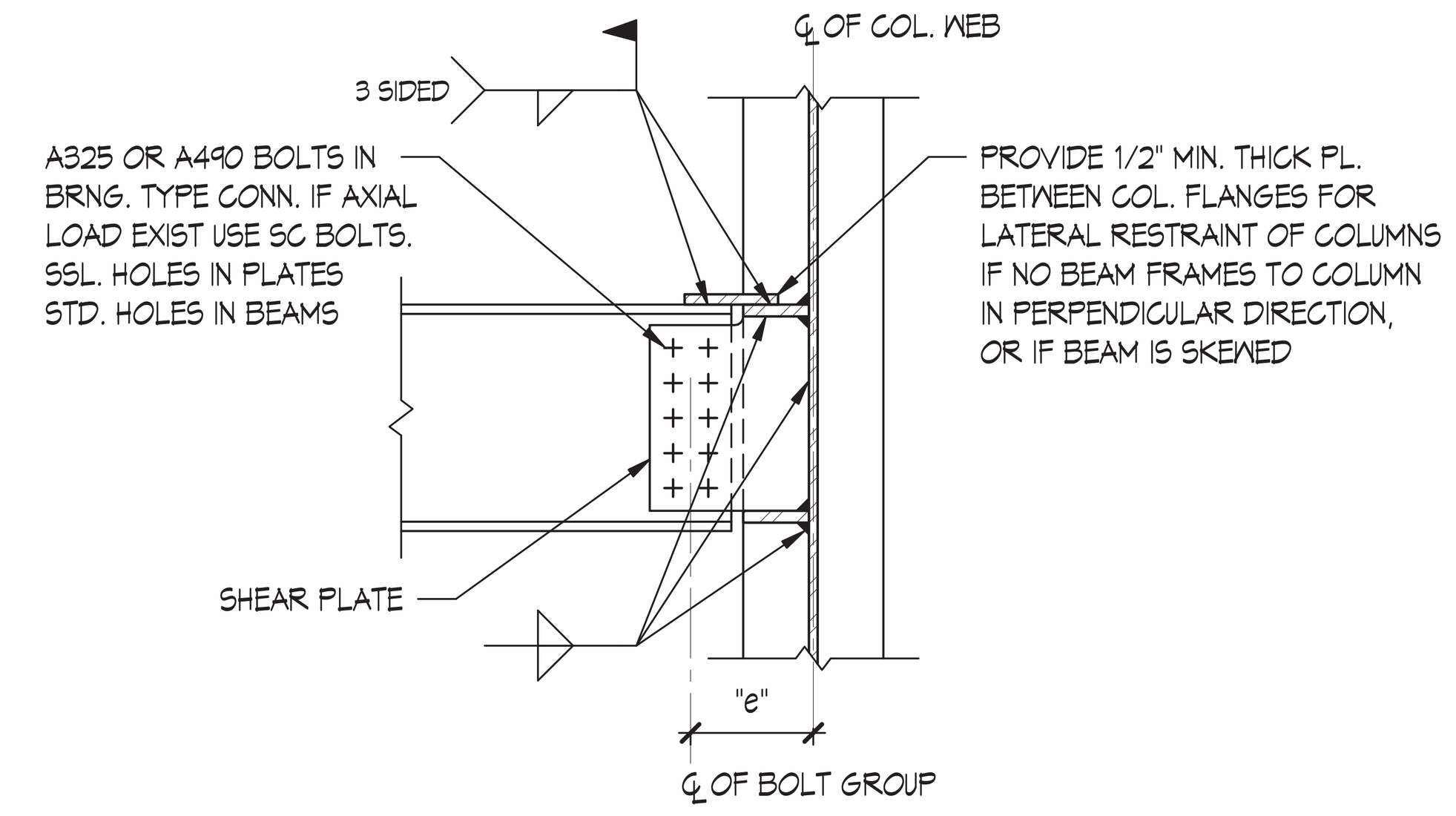
7/3/2025 11:58:53 AM

PROJECT NUMBER: C4040.00



TYPICAL BEAM TO COLUMN FLANGE SHEAR CONNECTION

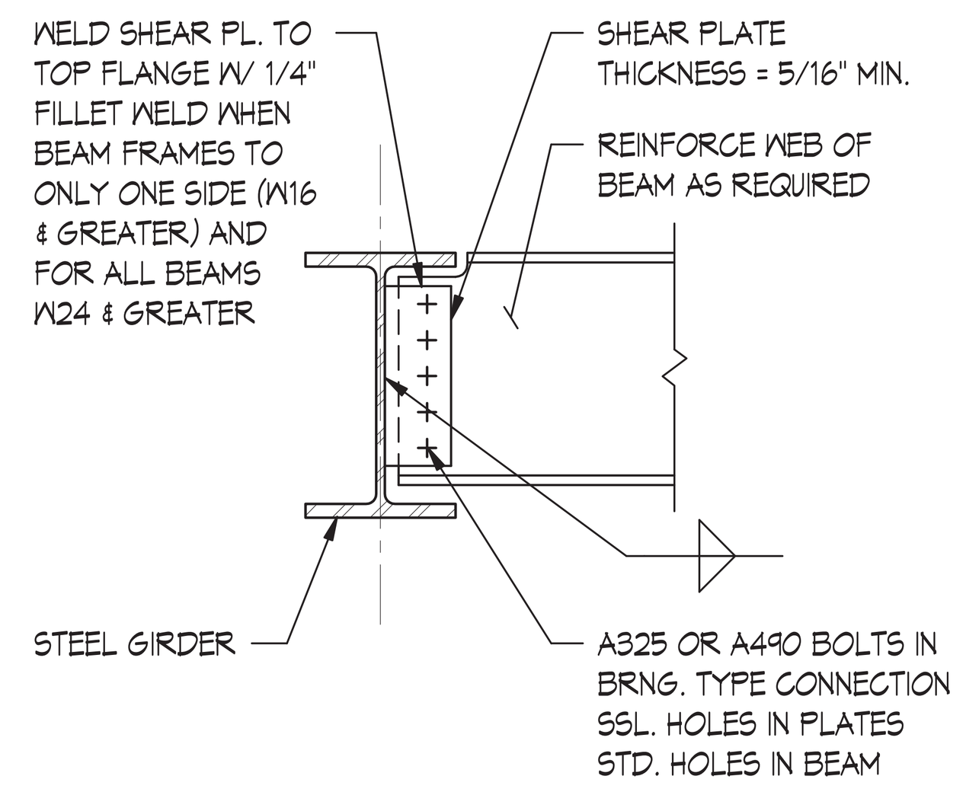
1 — 3/4" = 1'-0"



TYPICAL BEAM TO COLUMN WEB SHEAR CONNECTION

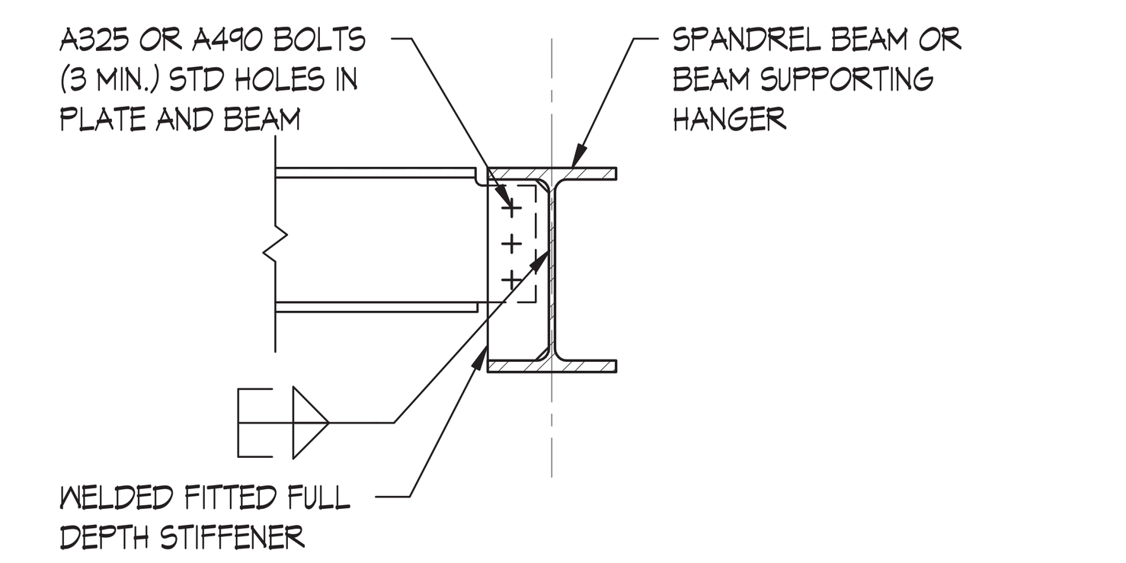
2 — 3/4" = 1'-0"

NOTE: DESIGN CONNECTION FOR ECCENTRICITY "e"



TYPICAL BEAM TO GIRDER CONNECTION

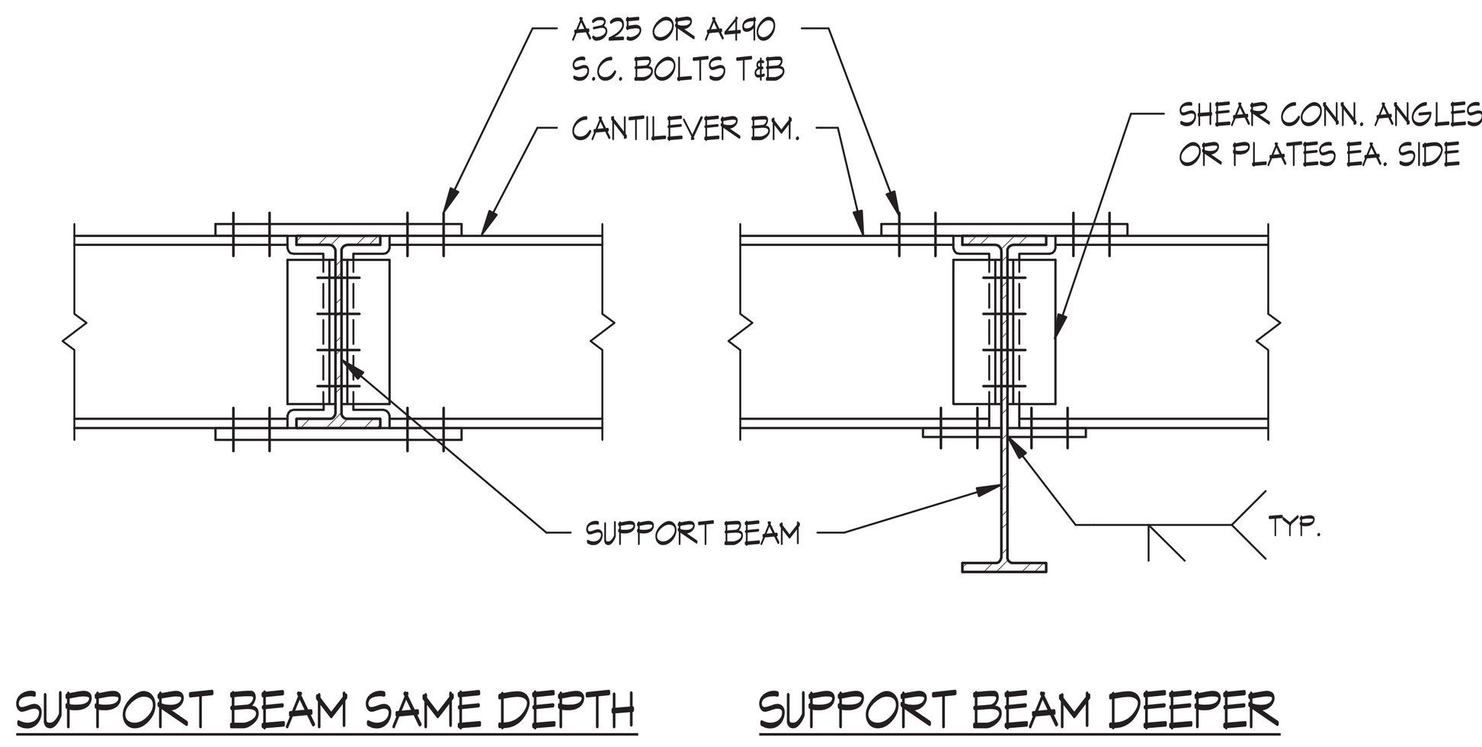
3 — 3/4" = 1'-0"



TYPICAL END CONNECTION TO SPANDREL BEAMS OR STAIR HANGERS

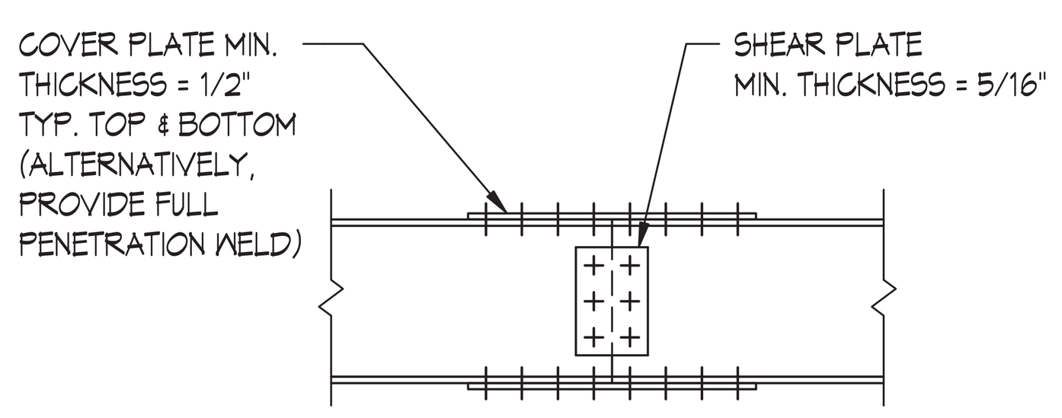
4 — 3/4" = 1'-0"

NOTE: SEE TYPICAL BEAM TO GIRDER CONNECTION FOR BALANCE OF INFORMATION.



TYPICAL CANTILEVER BEAM CONNECTION

5 — 3/4" = 1'-0"

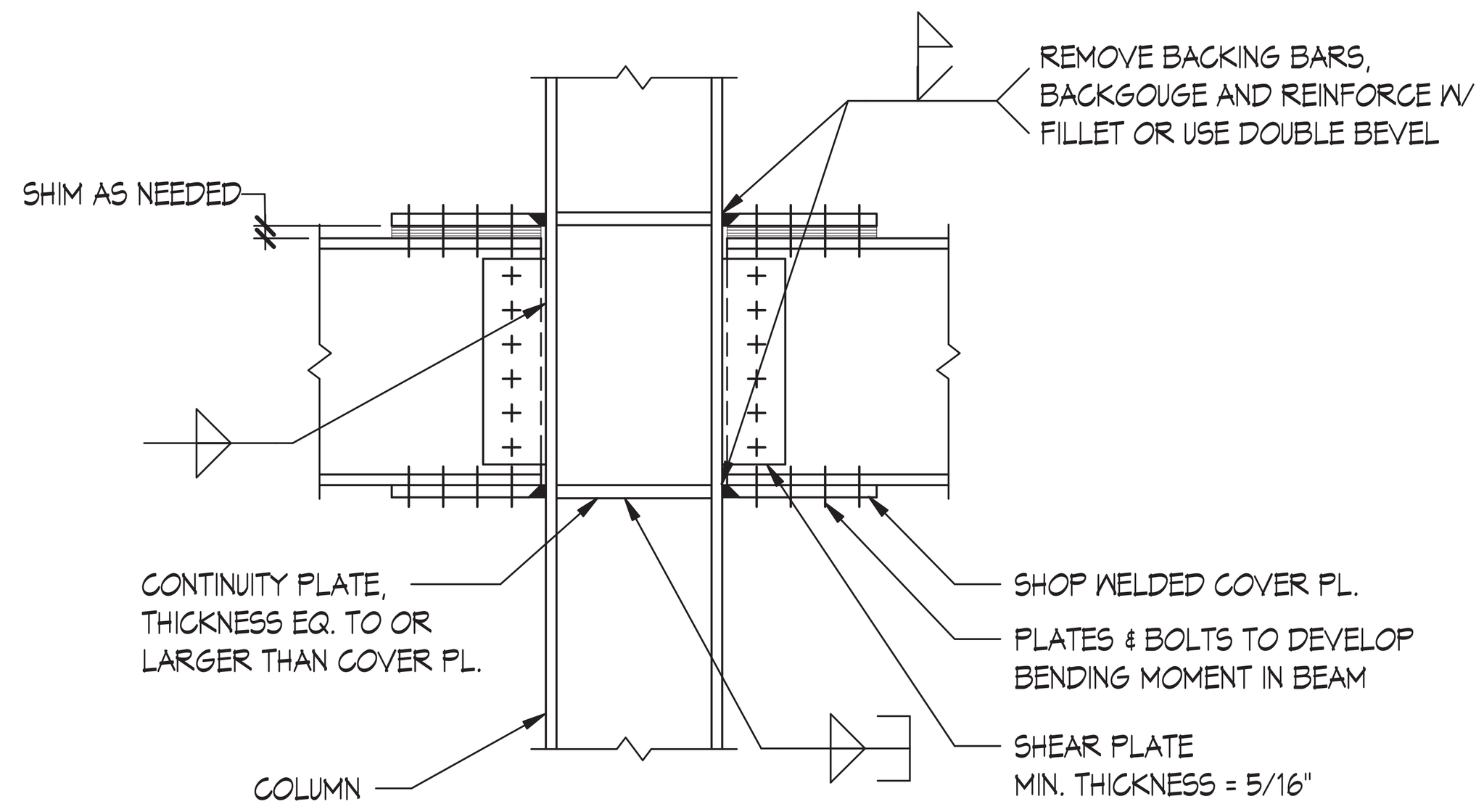


TYPICAL BEAM SPLICE

6 — 3/4" = 1'-0"

NOTES:

1. SPLICE CONNECTION SHALL DEVELOP FULL PLASTIC MOMENT CAPACITY OF BEAM.
2. ALL BOLTS TO BE SLIP CRITICAL.

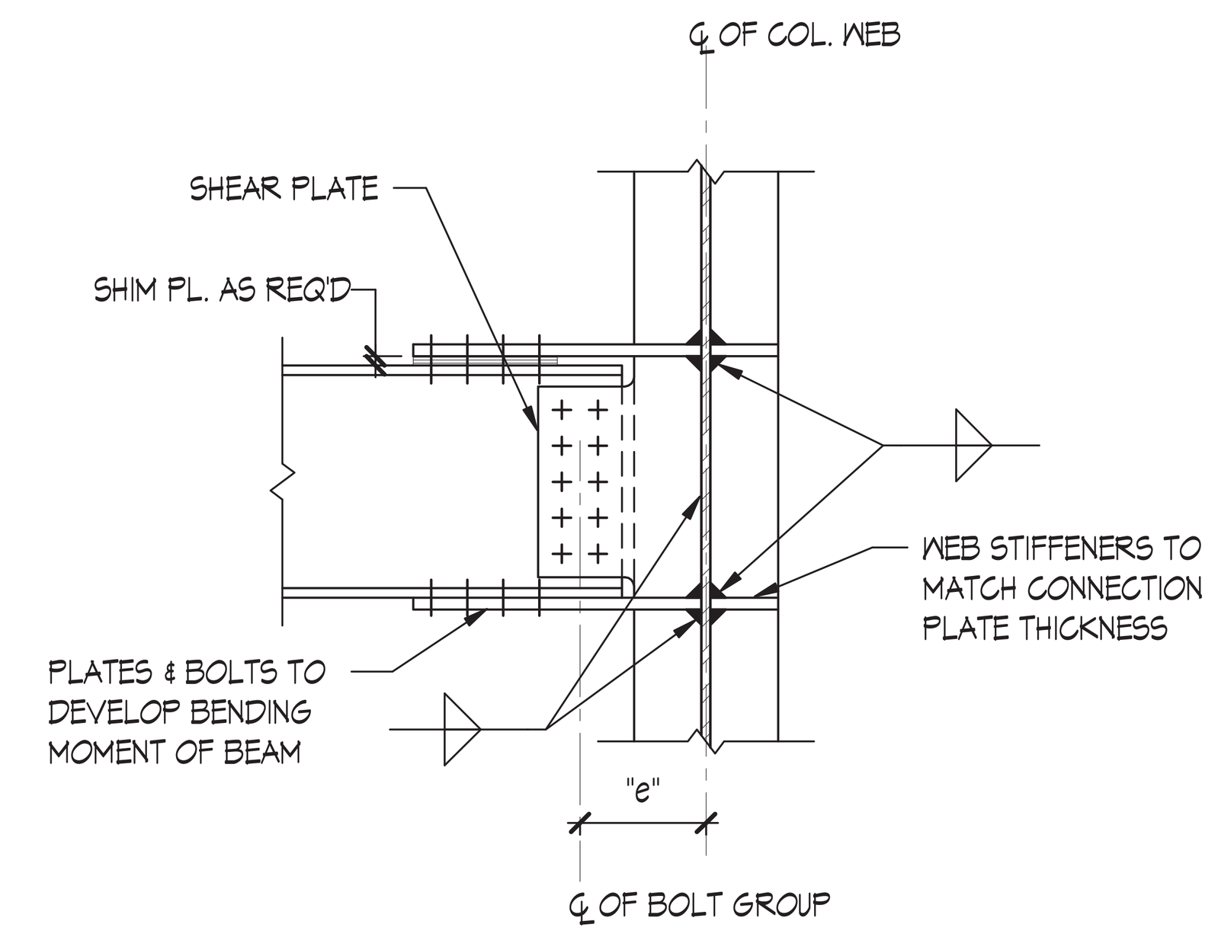


TYPICAL MOMMENT CONNECTION AT COLUMN FLANGE

7 — 3/4" = 1'-0"

NOTES:

1. MOMENT CONNECTIONS SHALL DEVELOP FULL PLASTIC MOMENT CAPACITY OF BEAM U.O.N.
2. ADDITIONAL CHANNEL SUPPORTS FOR FLOOR STRUCTURE SUPPORT NOT SHOWN FOR CLARITY.

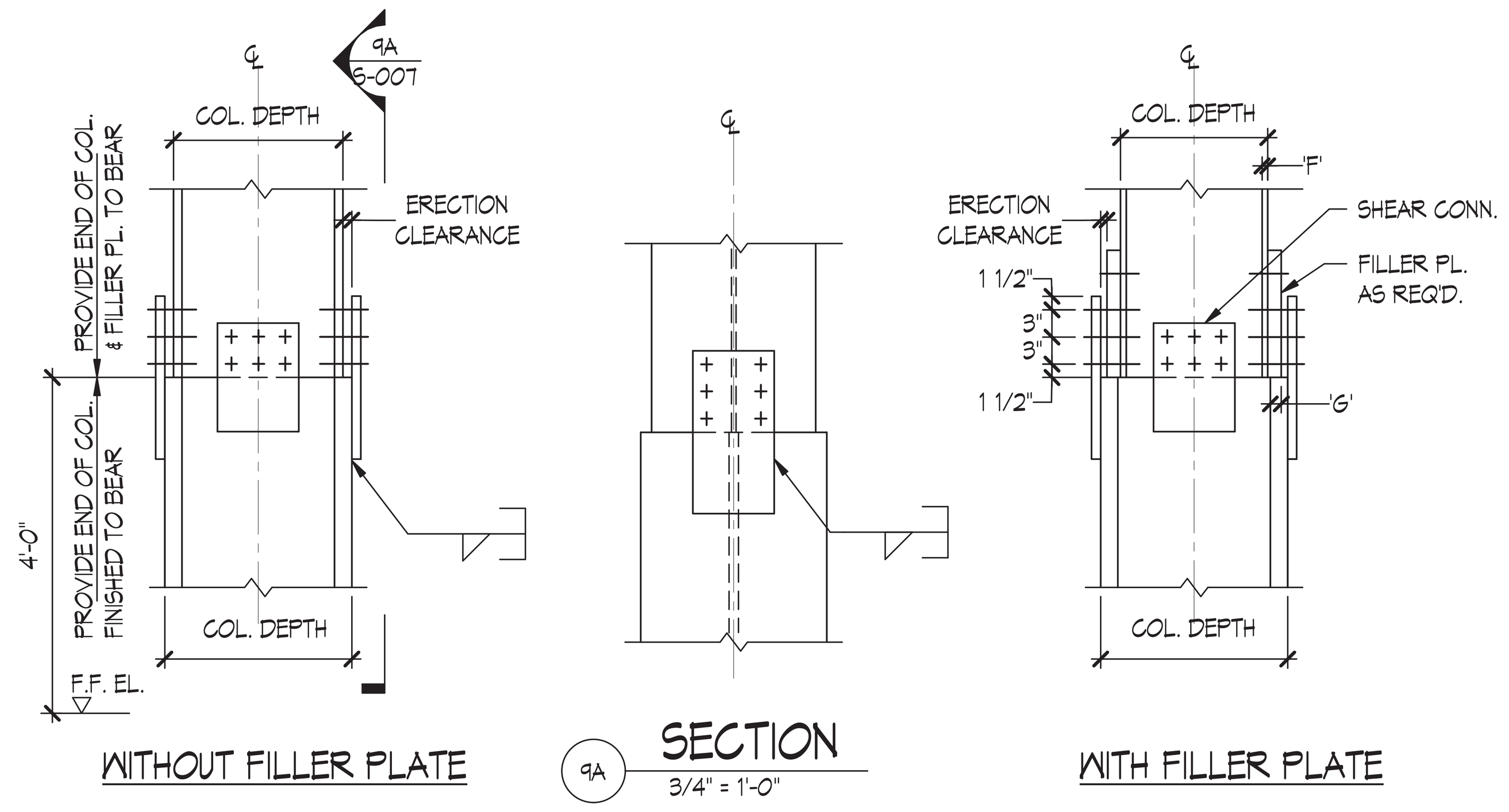


TYPICAL BEAM TO COLUMN WEB MOMENT CONNECTION

8 — 3/4" = 1'-0"

NOTES:

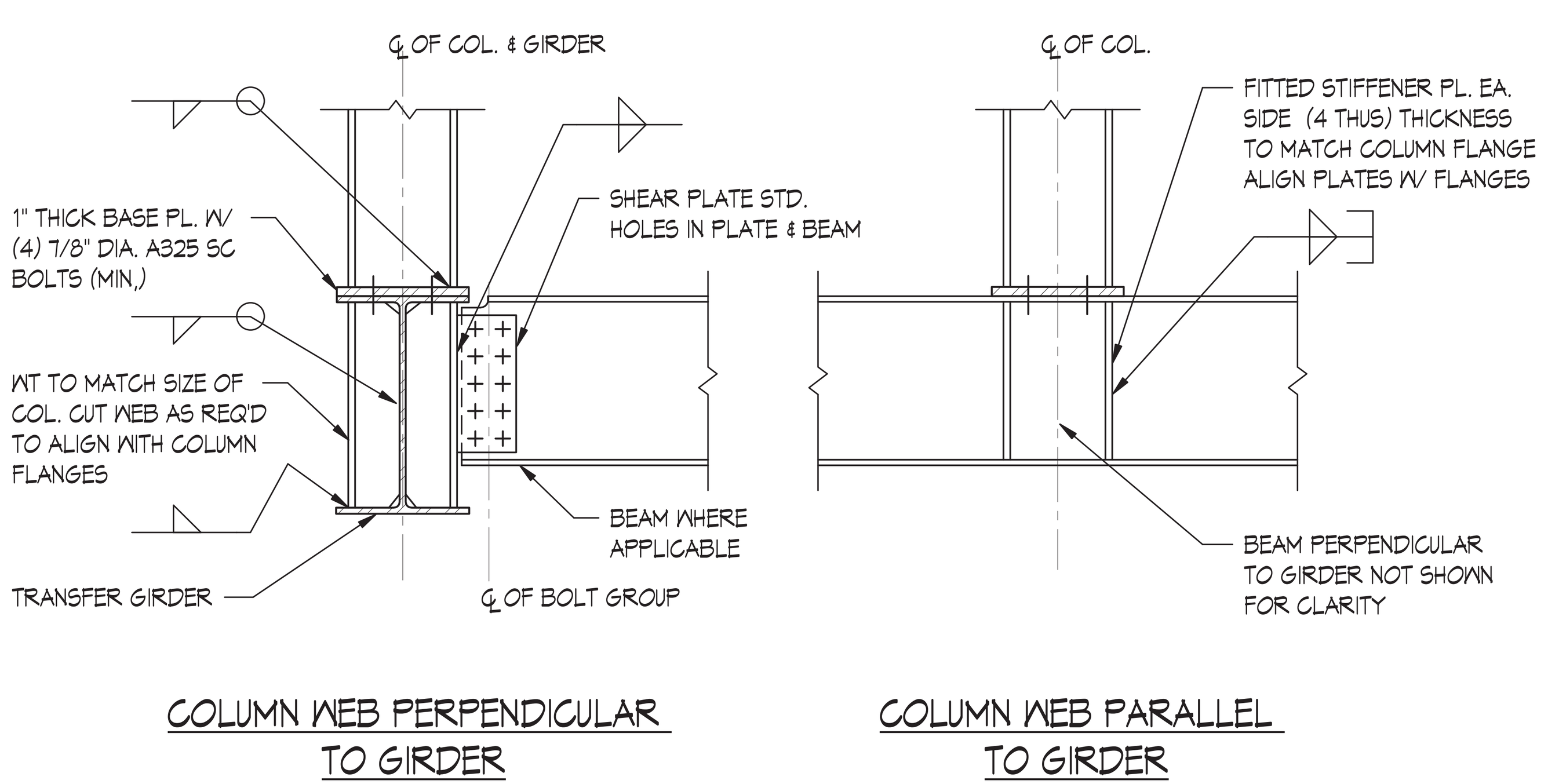
1. DESIGN SHEAR CONNECTION FOR ECCENTRICITY "e".
2. IF THERE IS ALSO A MOMENT CONNECTION TO FLANGE OF COLUMN, WELDS OF MOMENT CONNECTING PLATE TO COLUMN ARE TO BE PROPORTIONED TO TAKE FORCES FROM BOTH DIRECTIONS SIMULTANEOUSLY.



TYPICAL STEEL COLUMN SPLICE

9 — 3/4" = 1'-0"

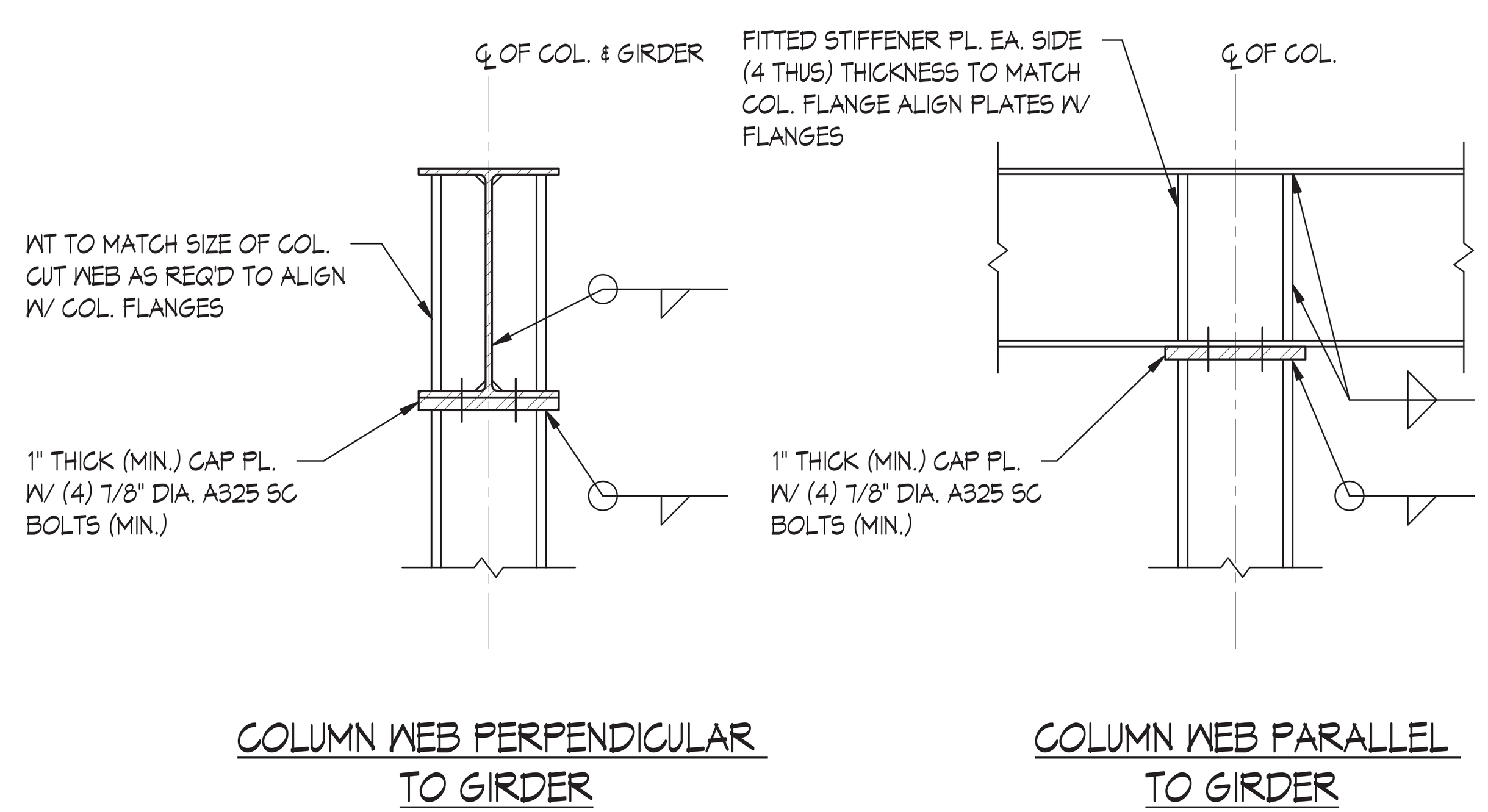
NOTE: BEARING DIMENSION 'G' SHALL BE EQUAL OR GREATER THAN 'F'.



TYPICAL COLUMN TRANSFER

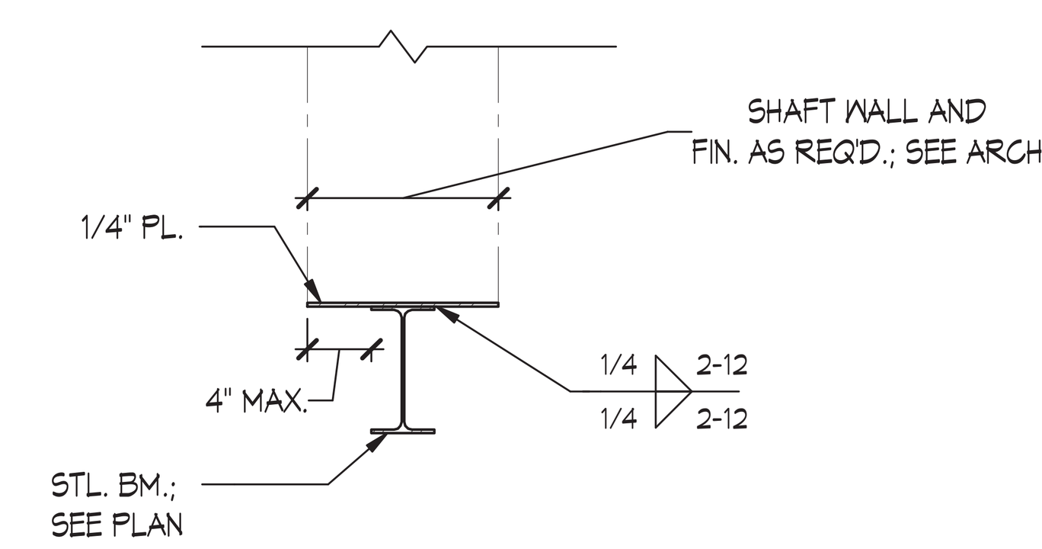
10 — 3/4" = 1'-0"

NOTE: DESIGN CONNECTION FOR ECCENTRICITY "e"



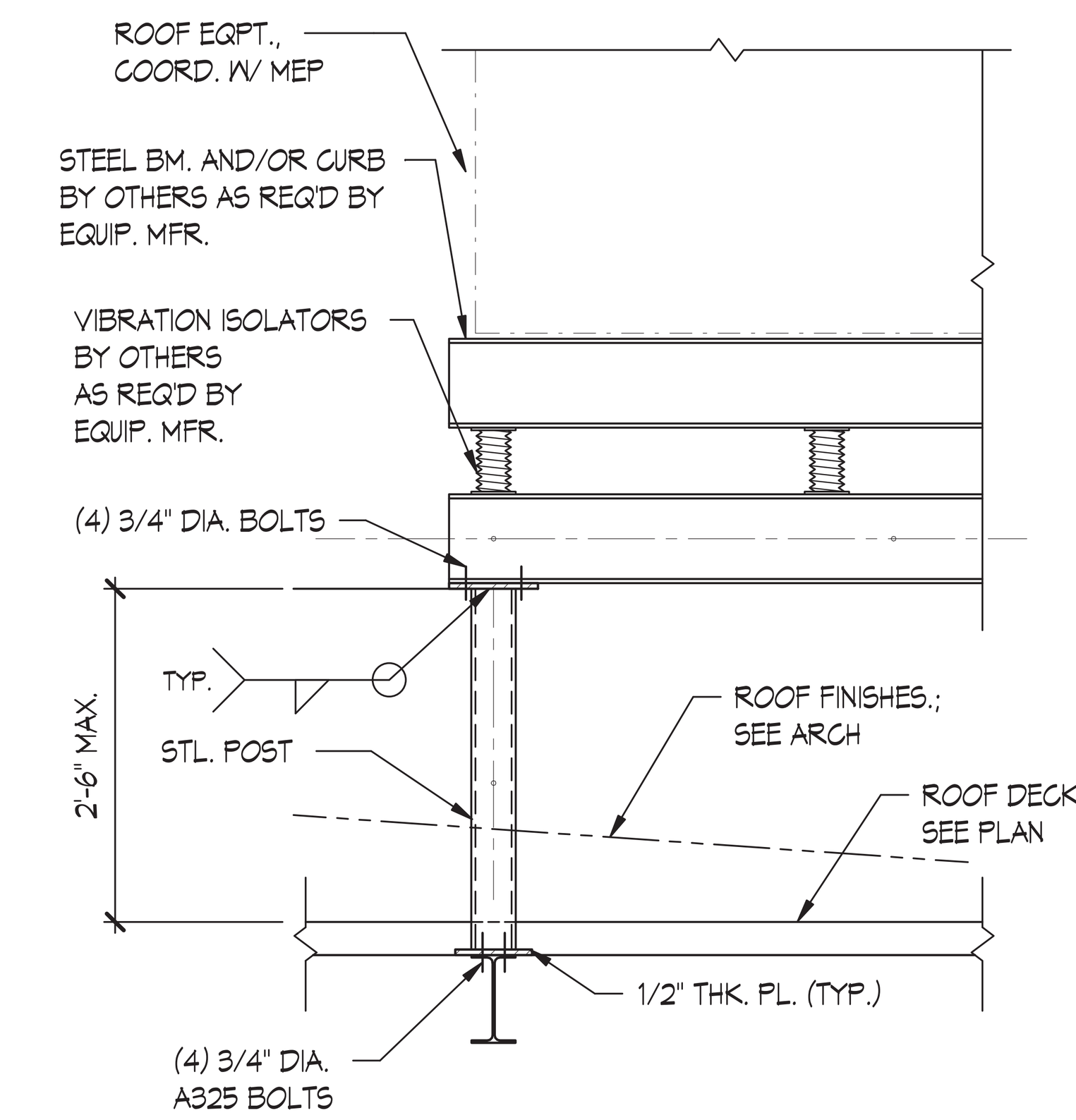
BEAM ON TOP OF COLUMN

11 — 3/4" = 1'-0"



TYPICAL STEEL BEAM SUPPORTING SHAFT WALL WITH NO METAL DECK

12 — 1" = 1'-0"



TYPICAL EQUIPMENT DUNNAGE

13 — 3/4" = 1'-0"

NOTE: ALL EXPOSED STEEL FRAMING SHALL BE HOT-DIP GALVANIZED.

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ROCKLAND BOCES — ROOTED IN THE COMMUNITY

ROCKLAND BOCES P-TECH C-TEC BUILDING

SED #: 50-90-00-00-0-044-001

65 Parrot Rd,
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KEY PLAN

REVISIONS

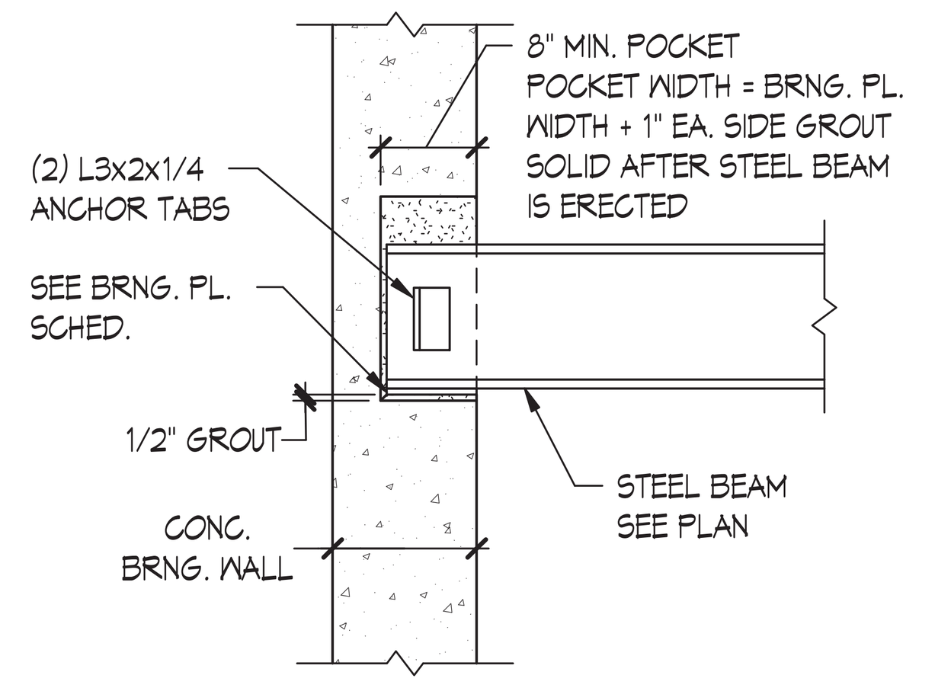
No.	Description	Date

ISSUED: BID SET ISSUANCE
DATE: 06/30/2025
SCALE: As indicated
SHEET NAME: TYPICAL DETAILS 4

SHEET NUMBER: S-007

BID SET

PROJECT NUMBER: C4040.00



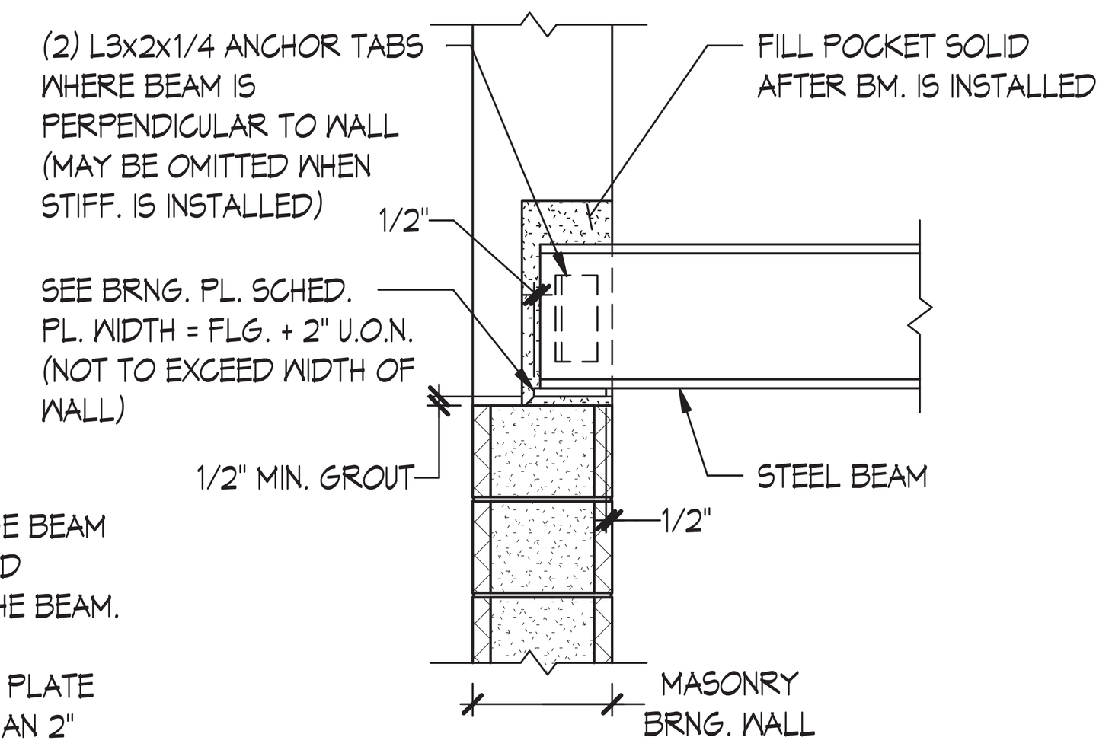
TYPICAL STEEL BEAM BEARING ON CONCRETE WALL

BEARING PLATE SCHEDULE

BEARING PLATE NO.	BEARING PLATE SIZE
BP-1	PL. 5/8"x7"x0'-8"
BP-2	PL. 5/8"x16"x0'-9 1/2"
BP-3	PL. 3/4"x24"x0'-9 1/2"
BP-4	PL. 5/8"x7"x0'-10"

NOTES:

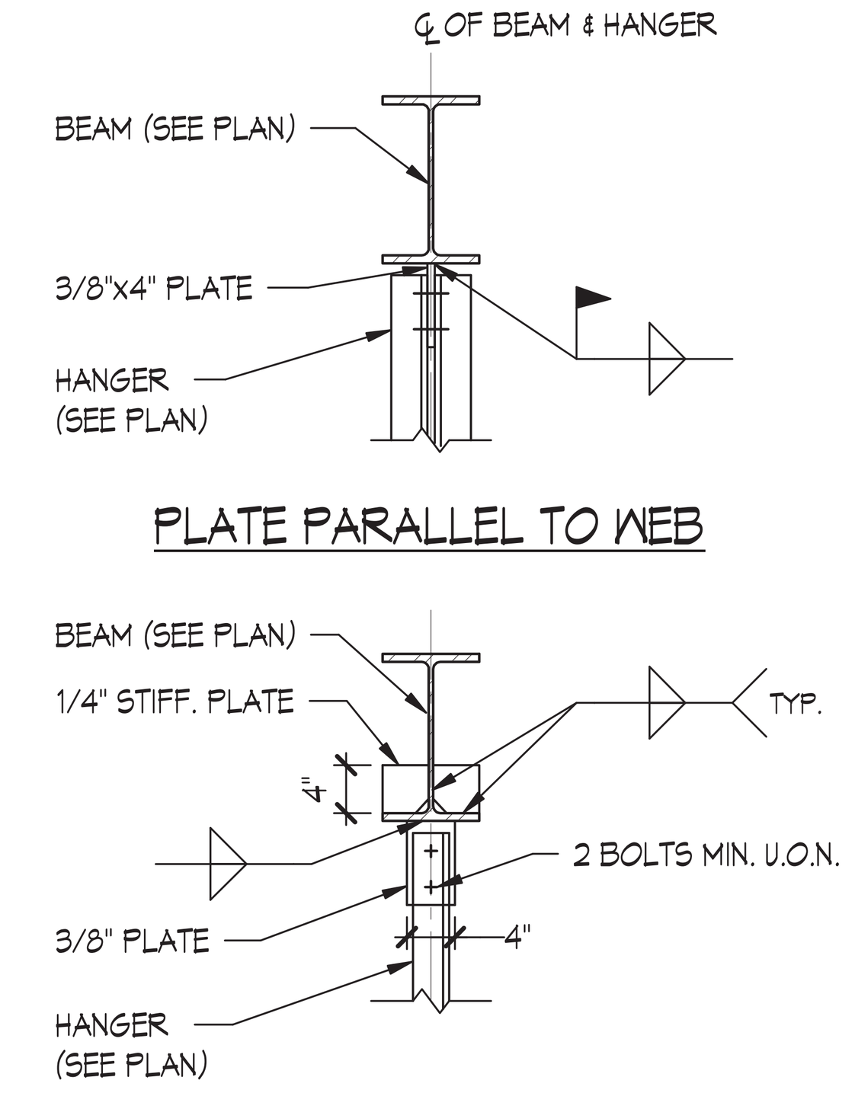
1. BEARING PLATES SHALL BE CENTERED ABOUT THE BEAM SUPPORTED, AND ORIENTED SUCH THAT THE THIRD DIMENSION IS PERPENDICULAR TO THE WEB OF THE BEAM.
2. BEAMS SHALL BE EXTENDED OVER THE BEARING PLATE SO THAT THE PLATE DOES NOT EXTEND MORE THAN 2" BEYOND THE END OF THE BEAM.



TYPICAL STEEL BEAM BEARING ON MASONRY WALL

1 TYPICAL STEEL BEAM BEARING ON CONCRETE AND MASONRY WALLS

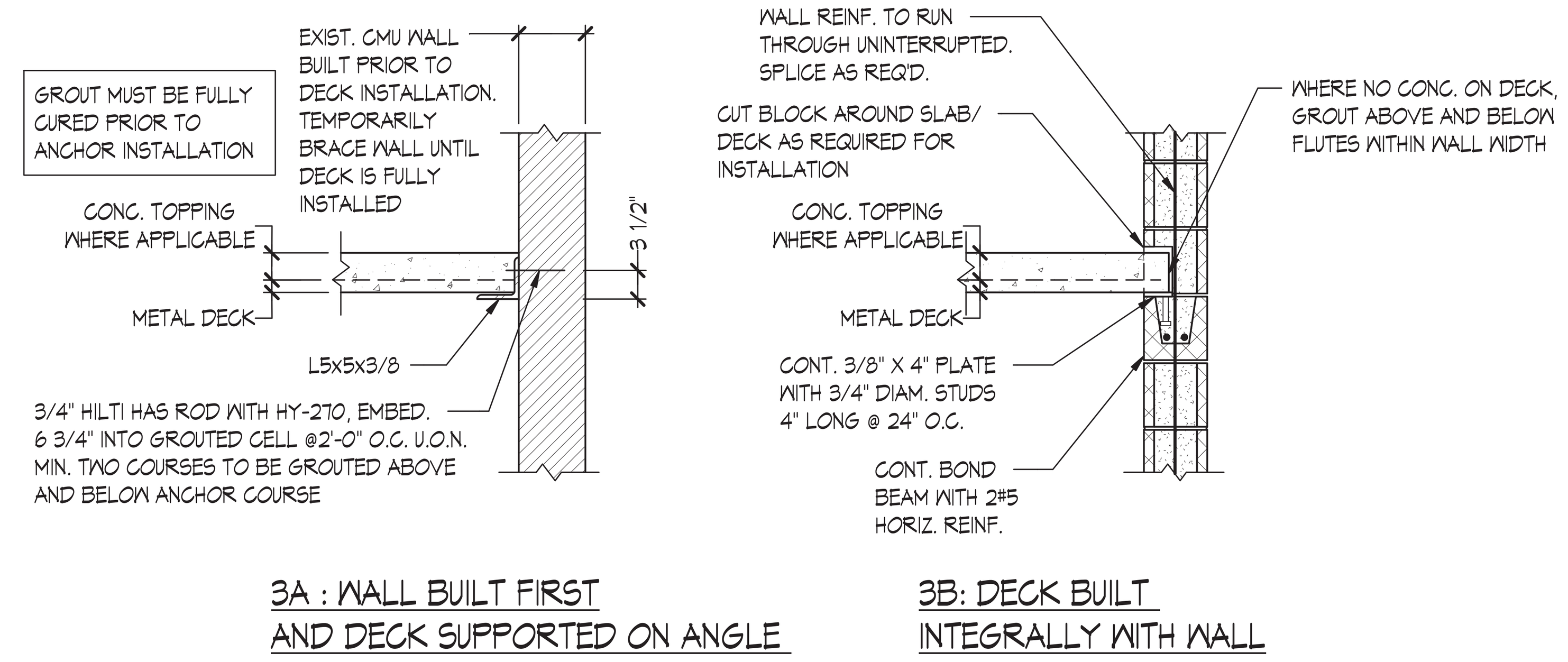
3/4" = 1'-0"



2 TYPICAL HANGER CONNECTION

3/4" = 1'-0"

NOTE: SIZE OF PLATES, WORKING WELDS AND NUMBER OF BOLTS SHALL BE DESIGNED INDIVIDUALLY IF HANGER LOAD IS IN EXCESS OF 10,000 LBS.

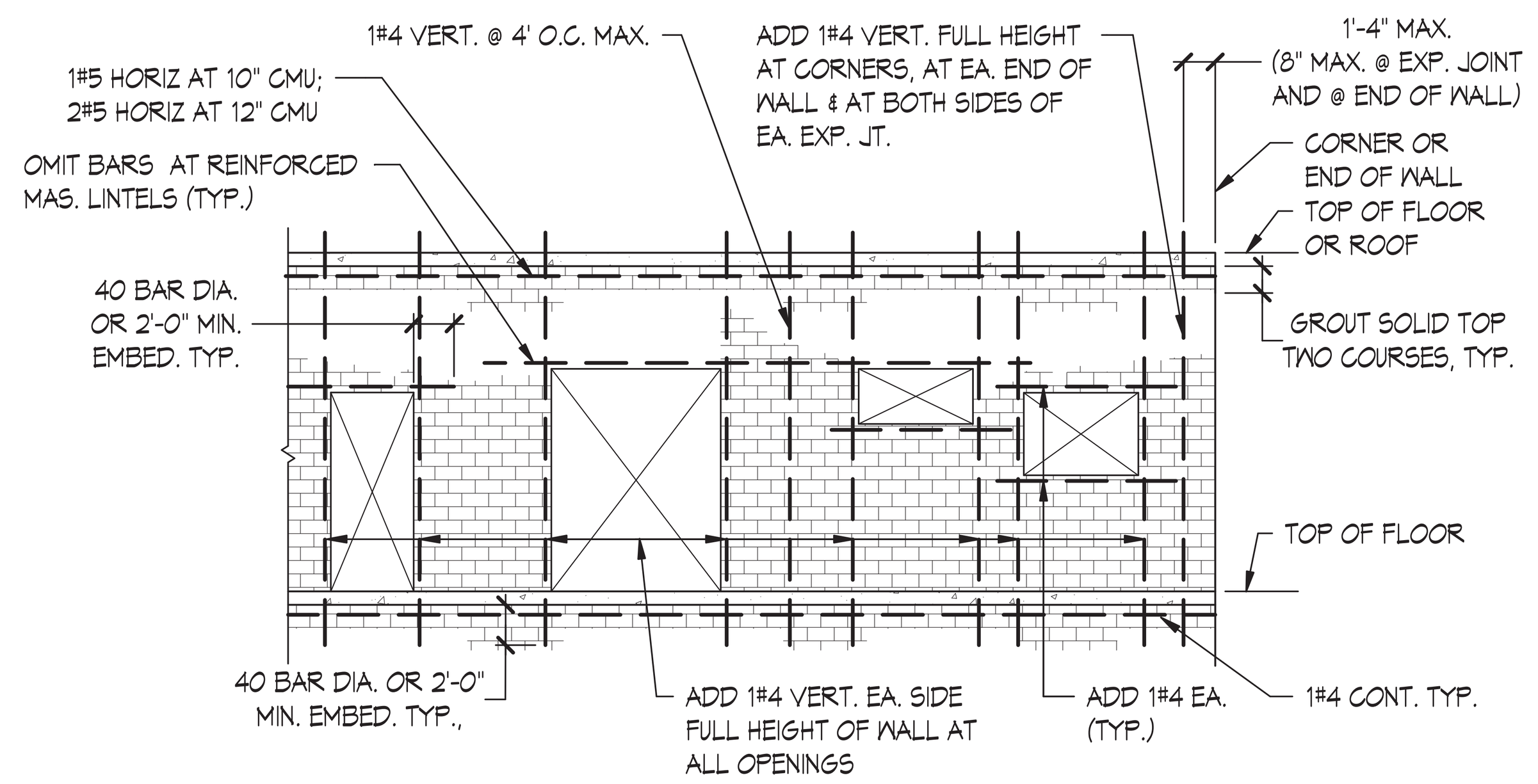


3 SUPPORT OF METAL DECK ON CMU BEARING WALL

3/4" = 1'-0"

NOTES:

1. METAL DECK SHALL BEAR ON ANGLE/PLATE 3" MINIMUM (END-BEARING AND SIDE LAP CONDITIONS).
2. WELD DECK TO ANGLE/PLATE PER TYPICAL METAL DECK NOTES ON S-002.
3. DETAIL 3A IS TYPICAL BASIS OF DESIGN, AS SHOWN ON PLAN. SEE PLAN FOR DETAIL 3B LOCATIONS.

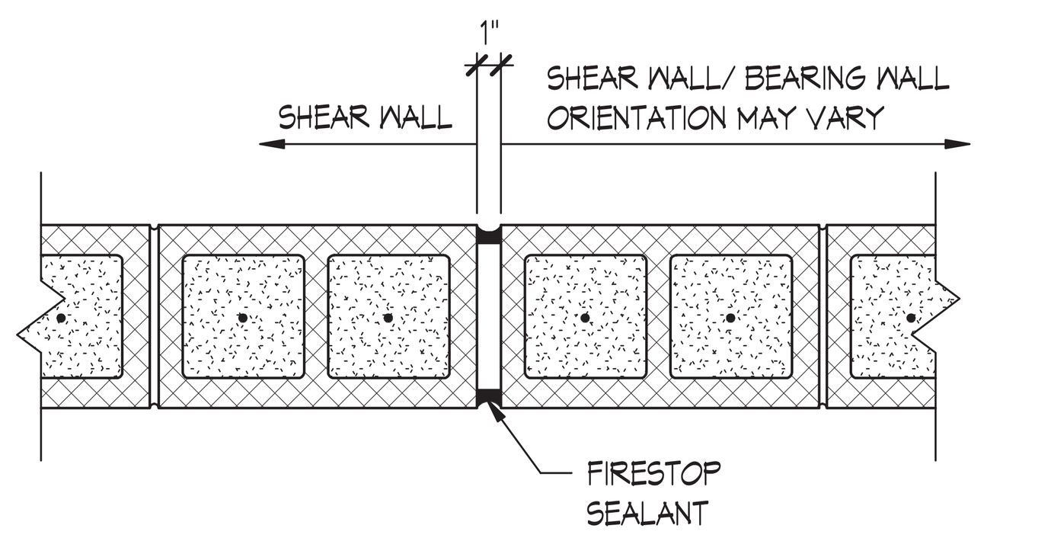


4 TYPICAL MINIMUM REINFORCING IN CMU STRUCTURAL WALLS

1/8" = 1'-0"

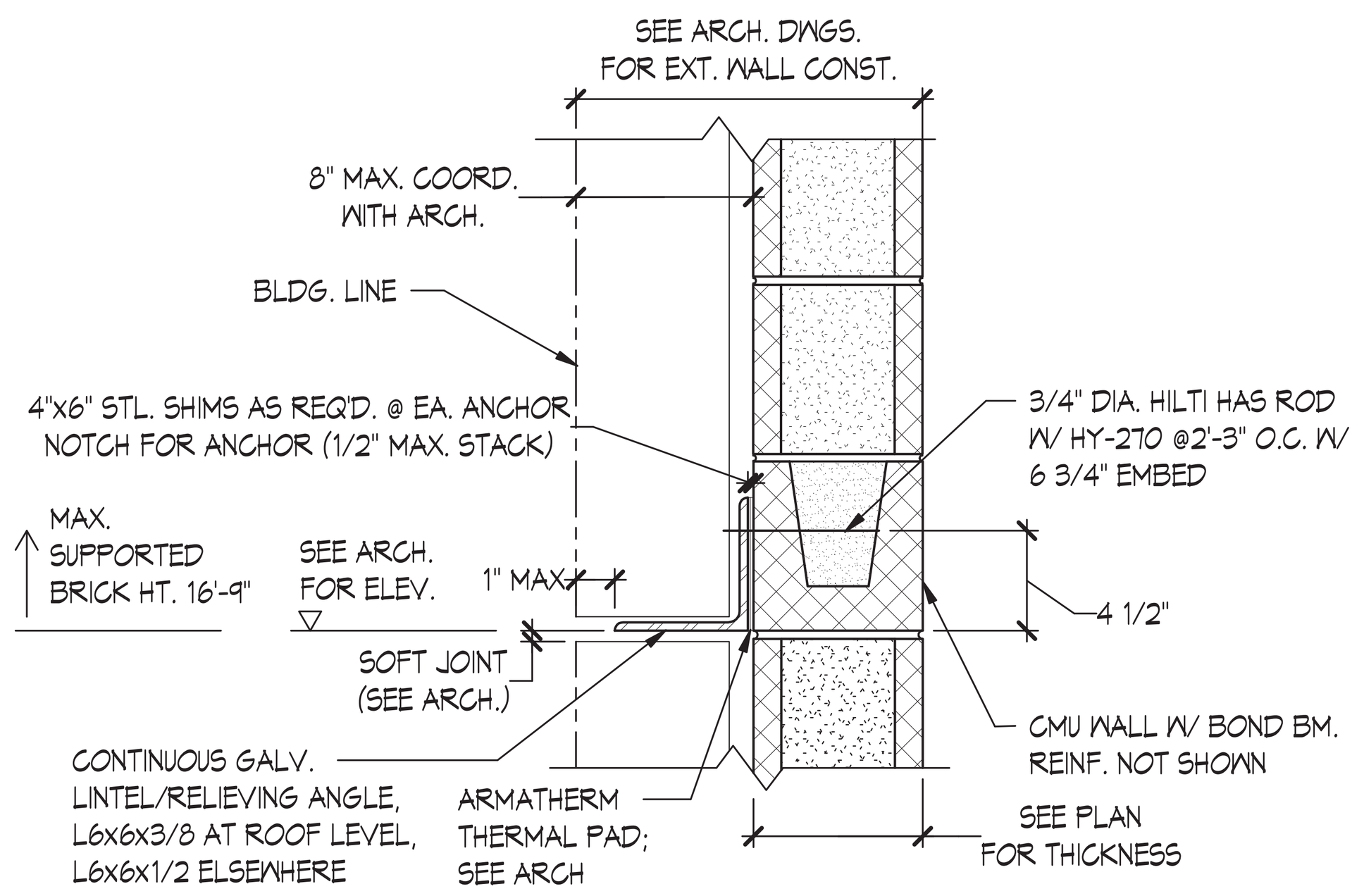
NOTES:

1. FOR TYPICAL JOINT REINFORCING SEE GENERAL NOTES AND SPECIFICATIONS.
2. SEE S-400 SERIES FOR BALANCE OF WALL REINFORCEMENT INFORMATION.
3. PROVIDE MINIMUM OF CONTINUOUS 5#4 VERTICAL IN ISOLATED PIERS OF LENGTH EQUAL TO OR LESS THAN 4'-0" FOR 8" CMU, 5'-0" FOR 10" CMU AND 6'-0" FOR 12" CMU.



5 TYPICAL CMU WALL JOINT

1 1/2" = 1'-0"

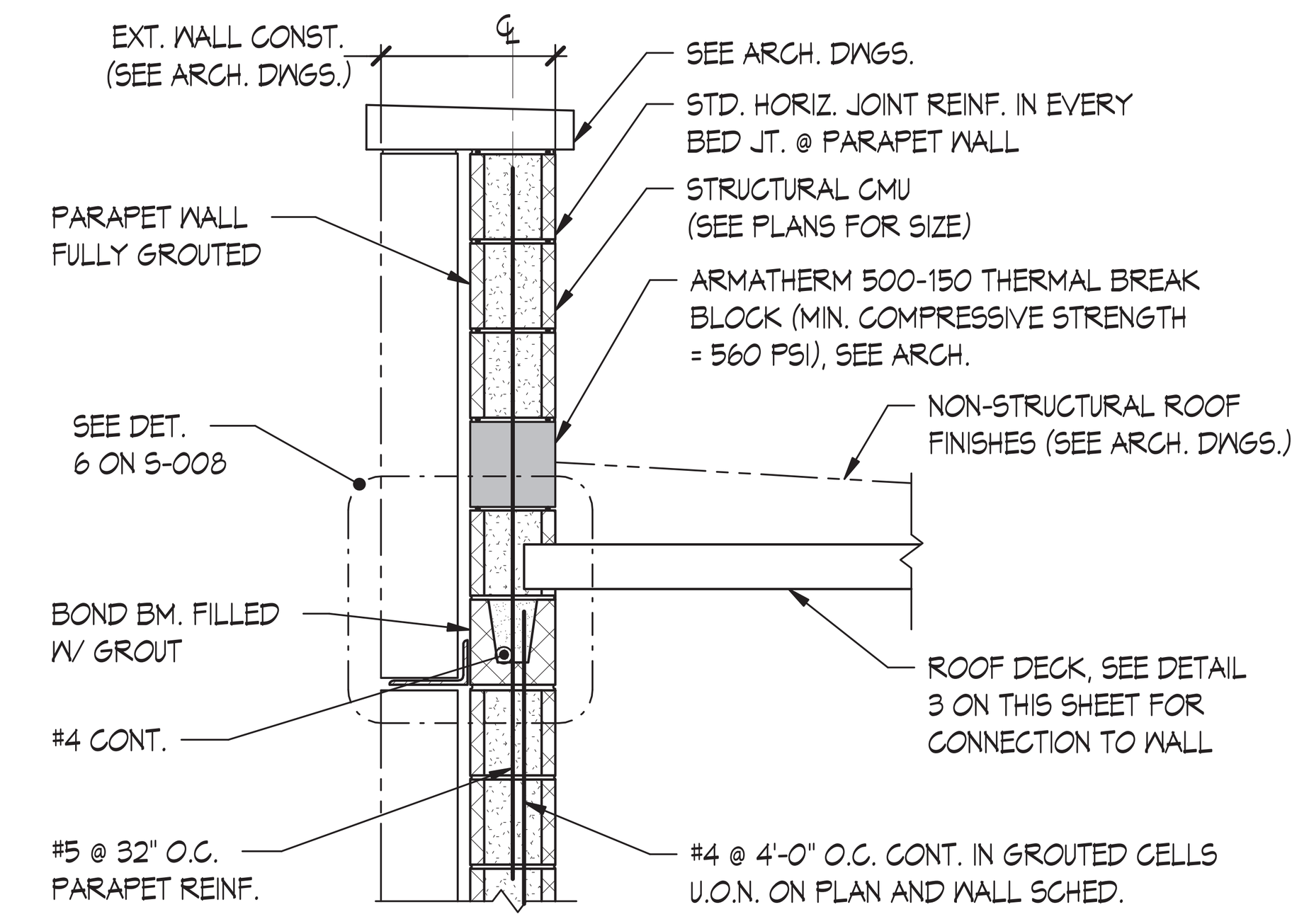


6 TYPICAL RELIEVING ANGLE AT CONTINUOUS CMU WALL

1 1/2" = 1'-0"

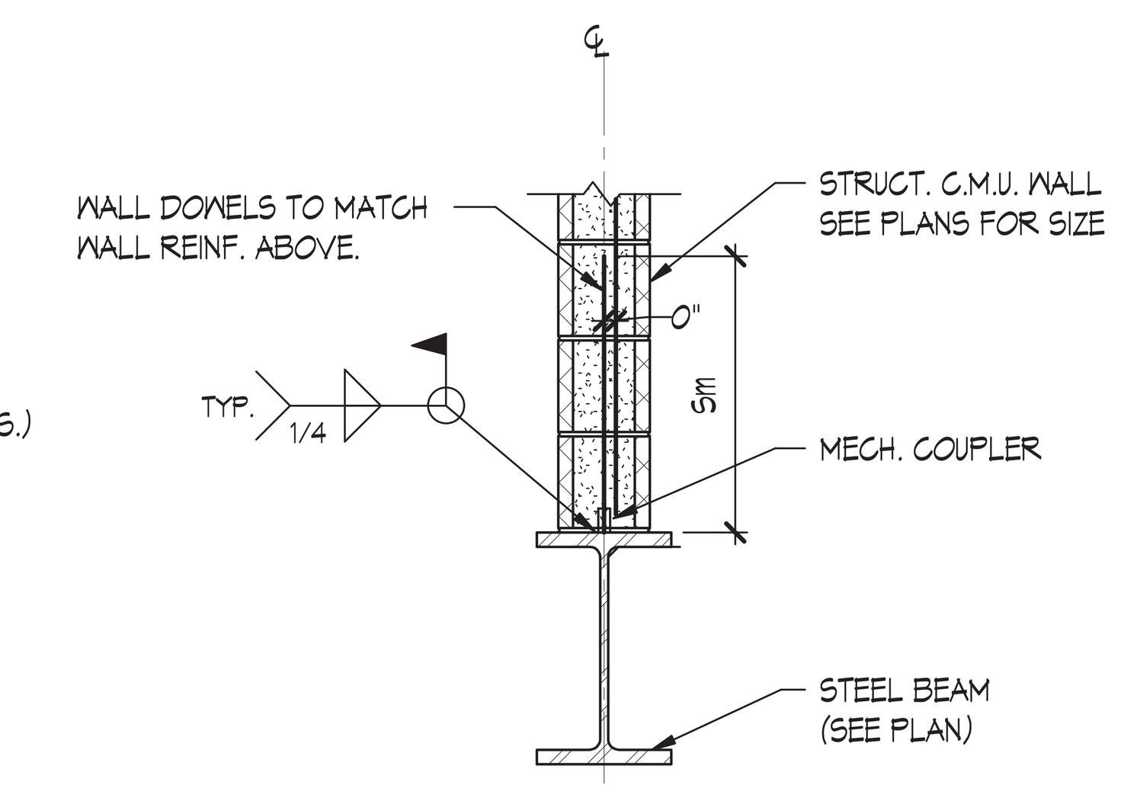
NOTES:

1. ANCHORS SHALL BE PLACED A MINIMUM OF 4 1/2" FROM EACH END OF BOND BEAM AND SHALL NOT BE PLACED MORE THAN 4" FROM EACH END OF RELIEVING ANGLE.
2. SEE SHELF ANGLE DETAIL FOR CONNECTION OF INTERIOR DECK TO CMU WALL.



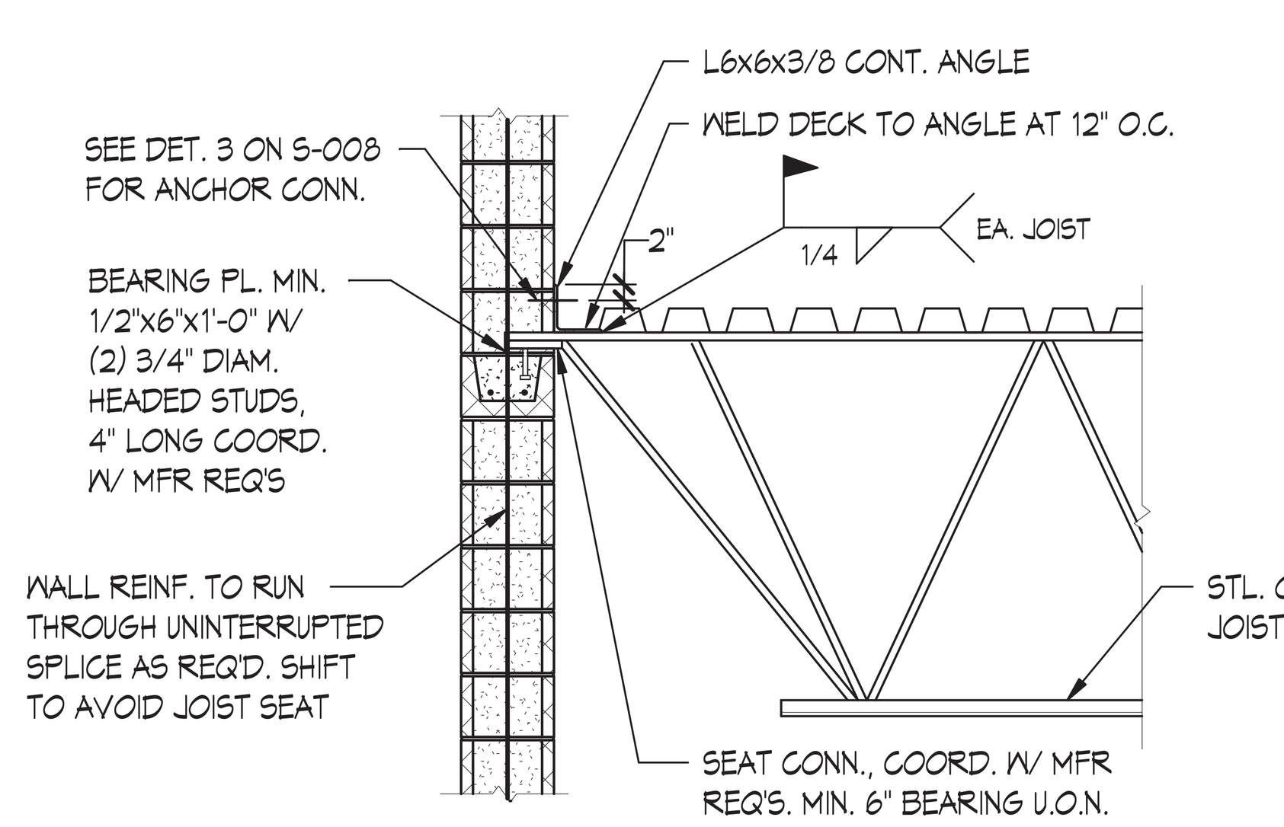
7 TYPICAL MASONRY PARAPET

3/4" = 1'-0"



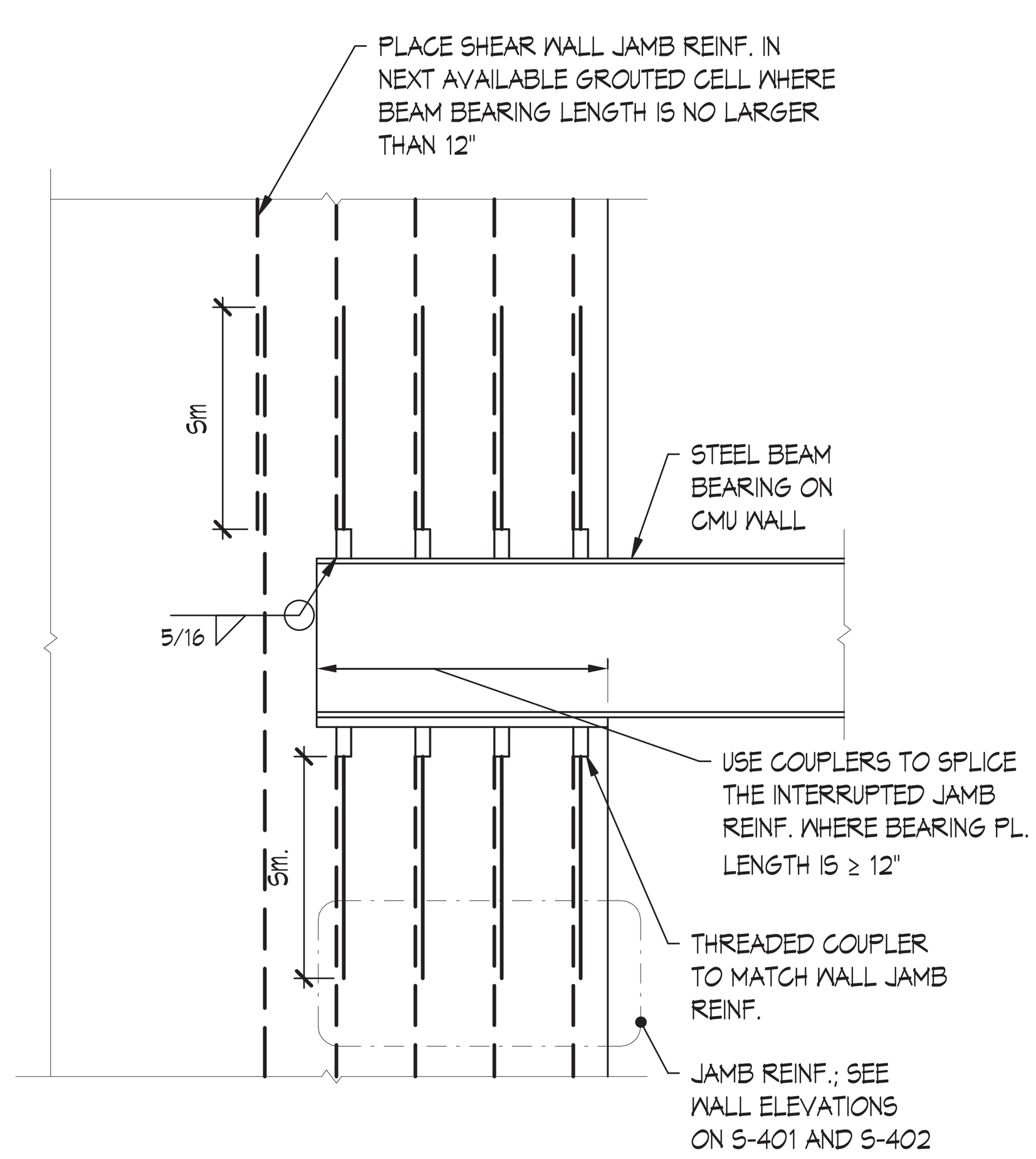
8 TYPICAL MASONRY WALL CONNECTION TO STEEL BEAM

3/4" = 1'-0"



9 TYPICAL OPEN WEB BAR JOIST TO CMU WALL CONNECTION

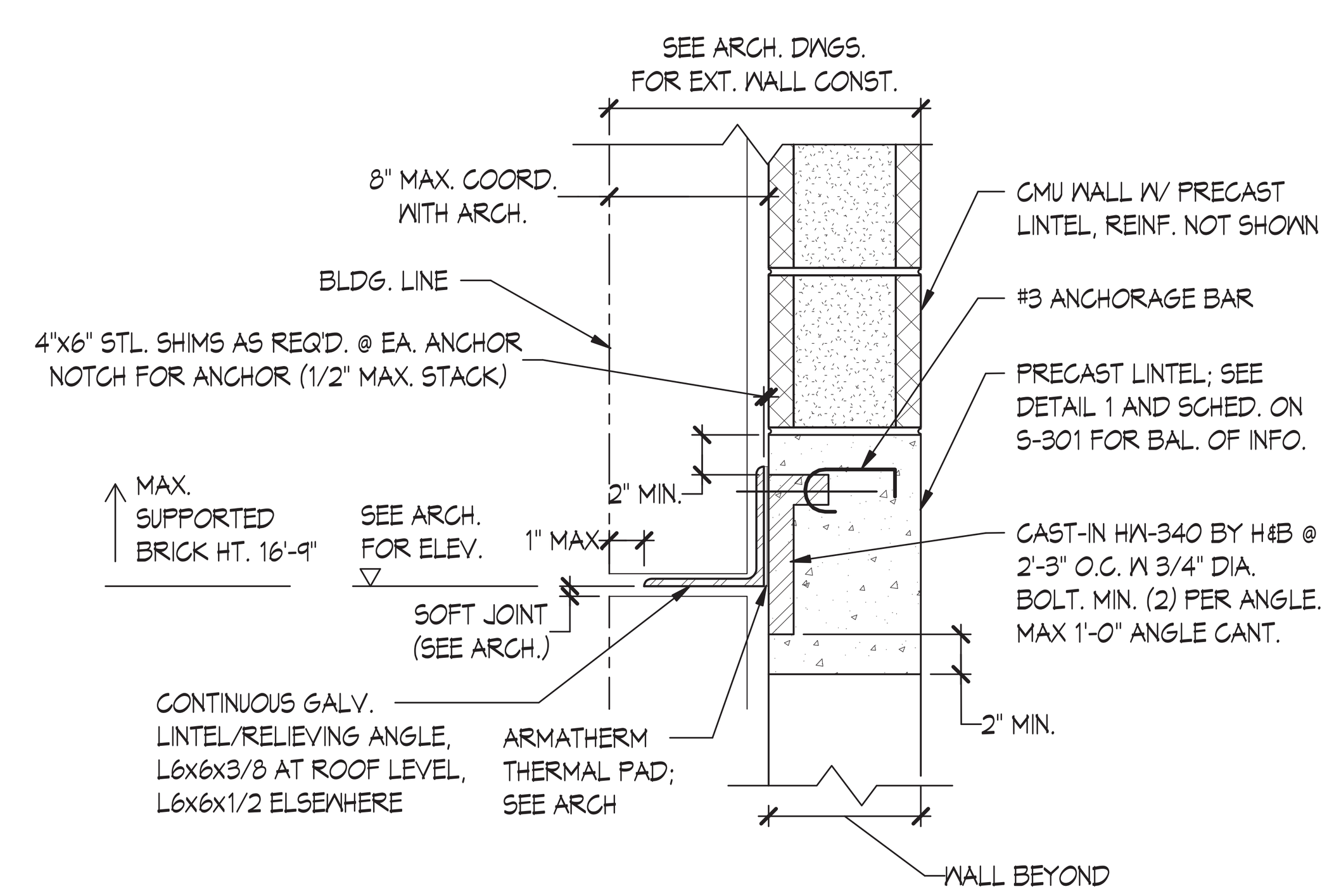
1/2" = 1'-0"



10 TYPICAL CMU WALL JAMB REINFORCEMENT PLACEMENT AT BEAM BEARING LOCATIONS

1/2" = 1'-0"

NOTE: DETAIL APPLIES AT BEAMS PERPENDICULAR AND/OR PARALLEL TO WALL.

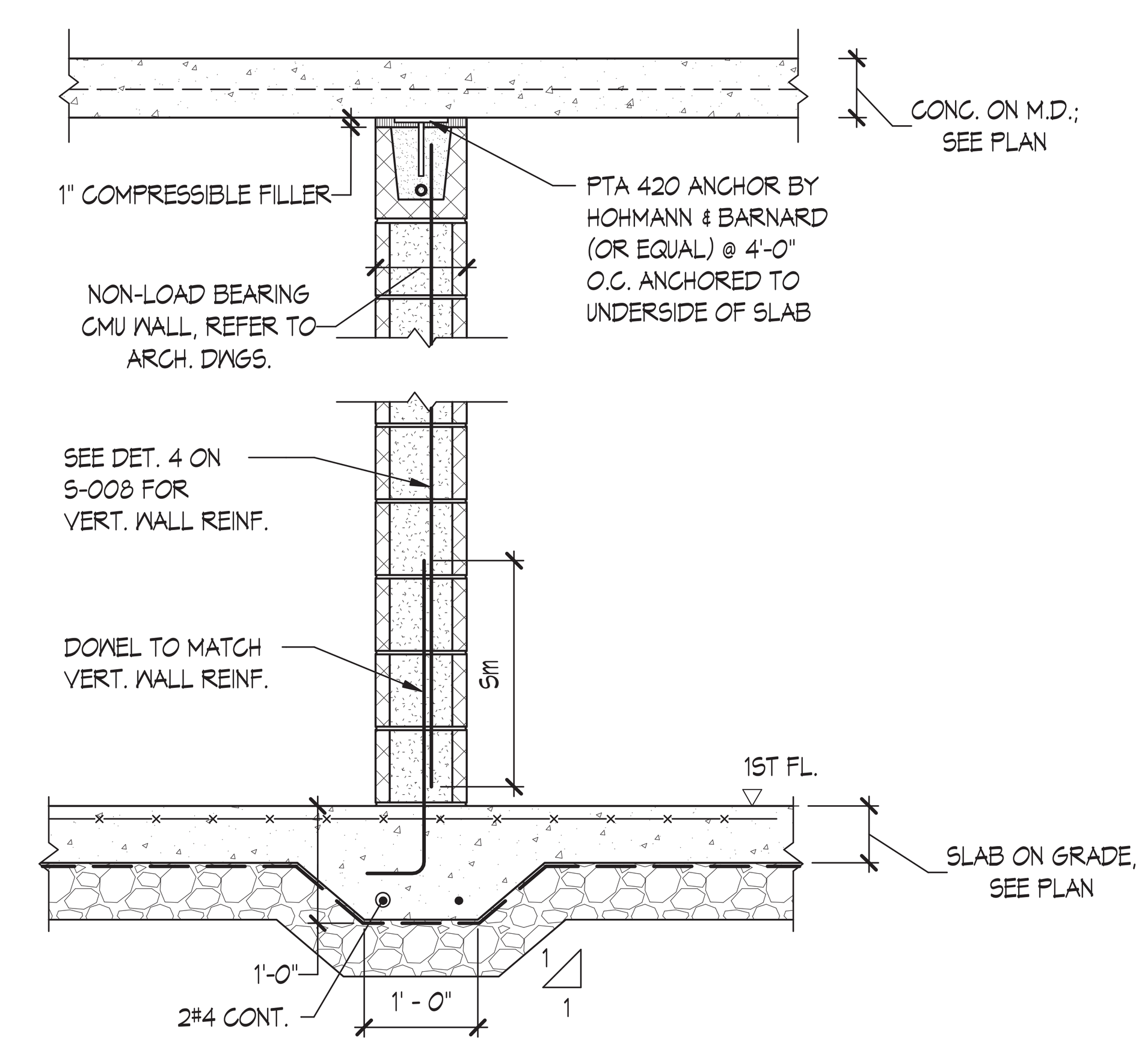


11 TYPICAL RELIEVING ANGLE AT PRECAST LINTEL

1 1/2" = 1'-0"

NOTES:

1. ANCHORS SHALL BE PLACED A MINIMUM OF 6" FROM EACH END OF PRECAST LINTEL, AND SHALL NOT BE PLACED MORE THAN 4" FROM EACH END OF RELIEVING ANGLE.
2. SEE SHELF ANGLE DETAIL FOR CONNECTION OF INTERIOR DECK TO CMU WALL.



12 TYPICAL NON-LOAD-BEARING CMU WALL ON SLAB ON GRADE

3/4" = 1'-0"

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR NON-LOAD BEARING WALL LOCATIONS.

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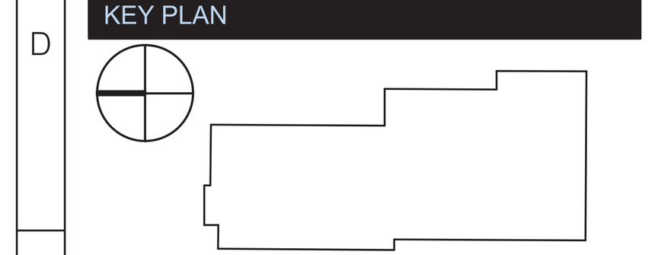


REVISIONS

No.	Description	Date

ISSUED: BID SET ISSUANCE

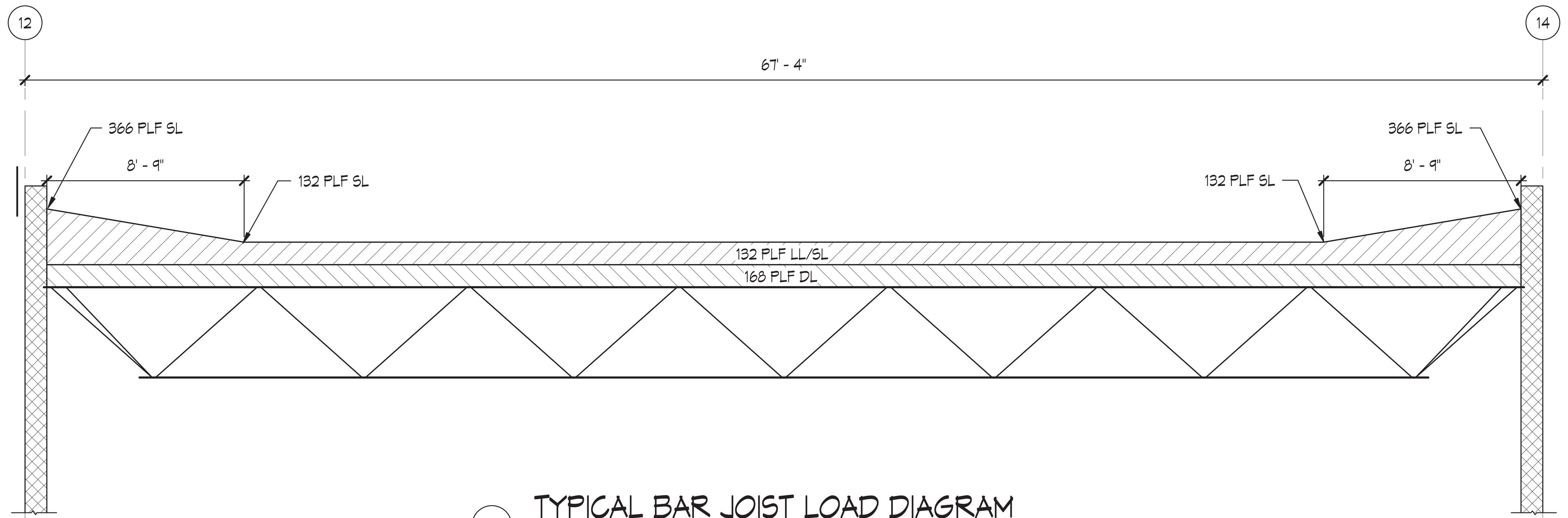
DATE: 06/30/2025

SCALE: As indicated

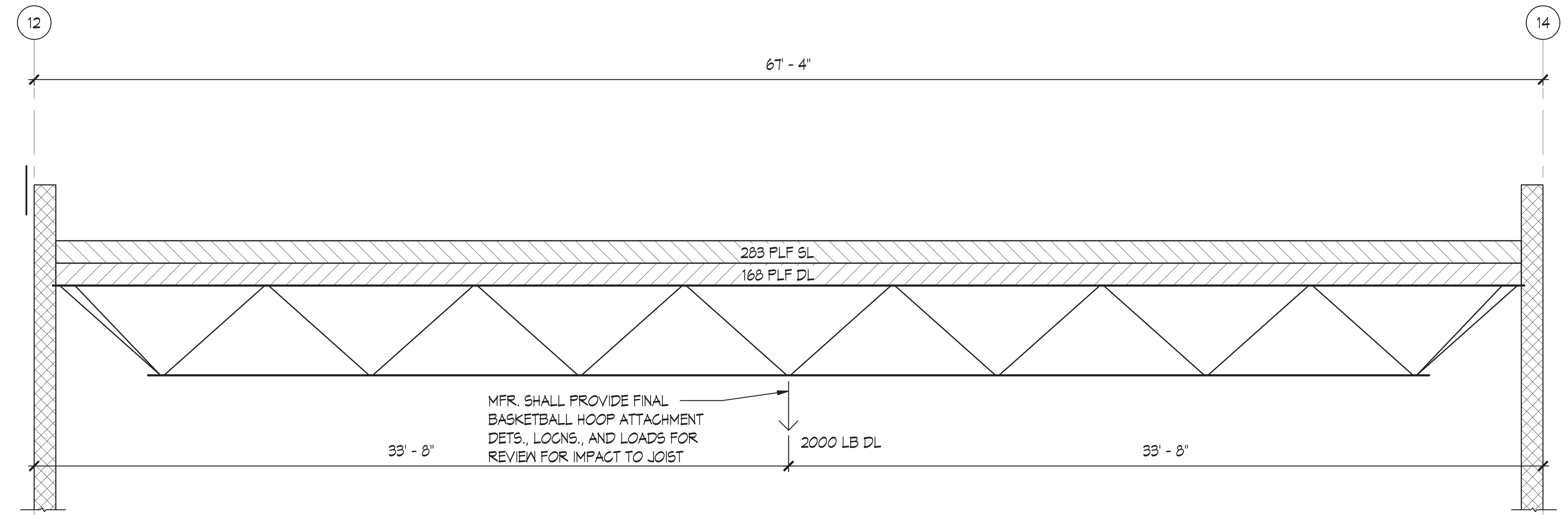
SHEET NAME:
TYPICAL DETAILS 5

SHEET NUMBER:
S-008

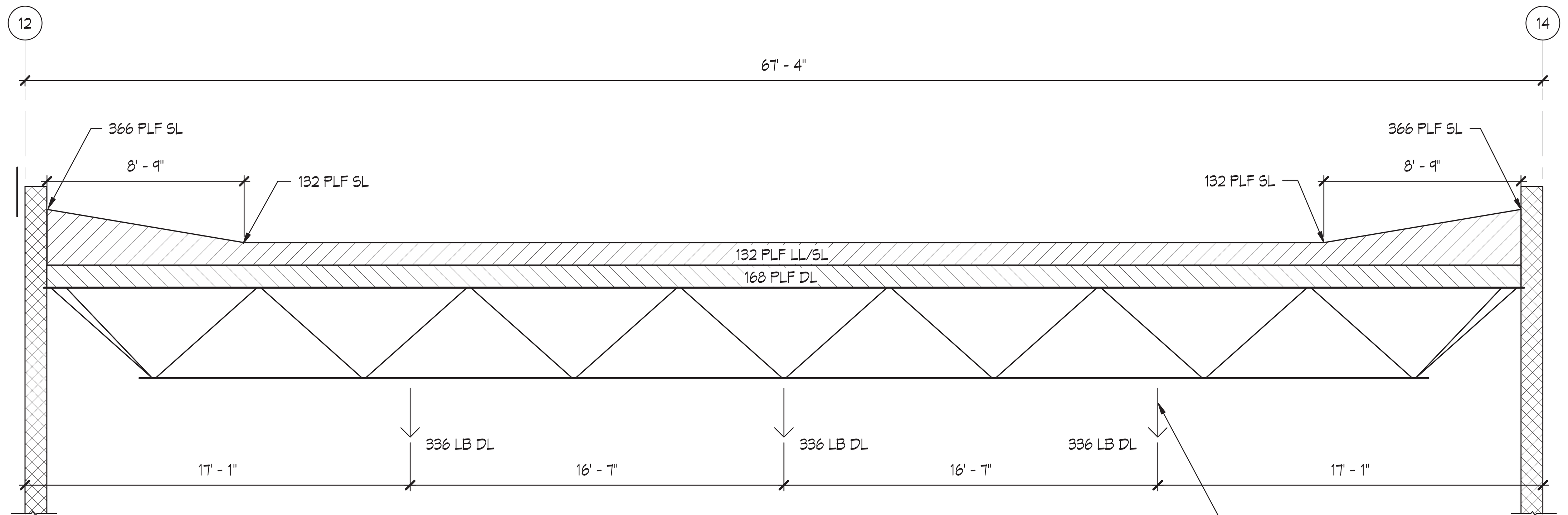
BID SET



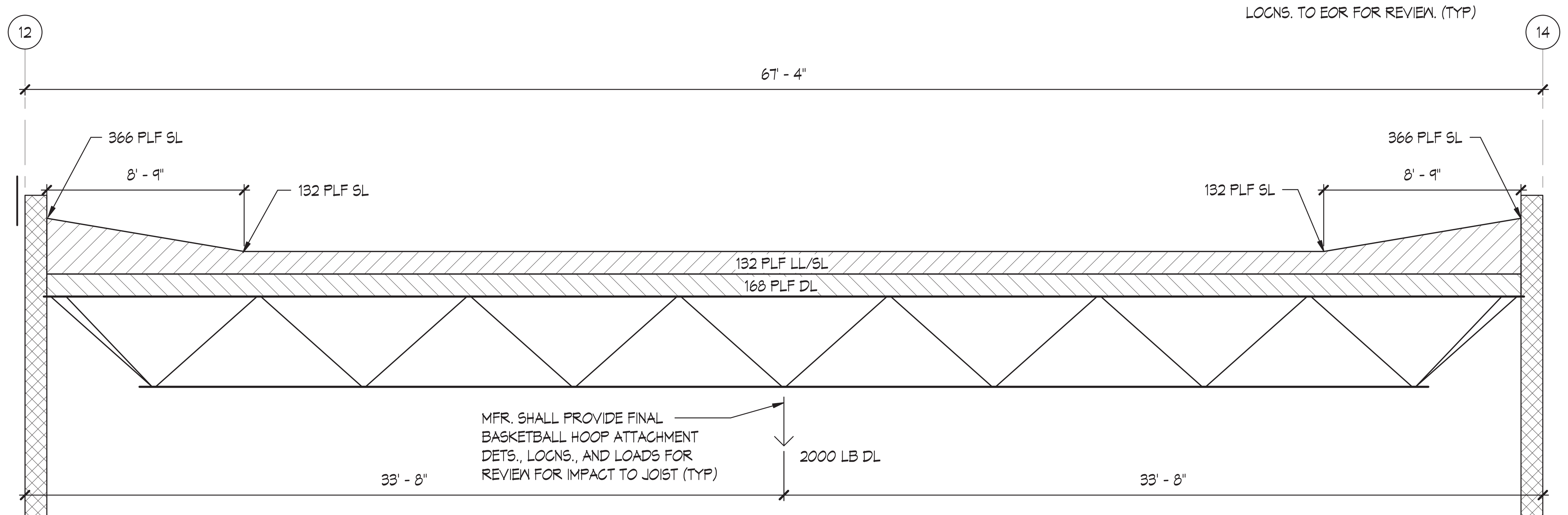
1 TYPICAL BAR JOIST LOAD DIAGRAM
1/4" = 1'-0"



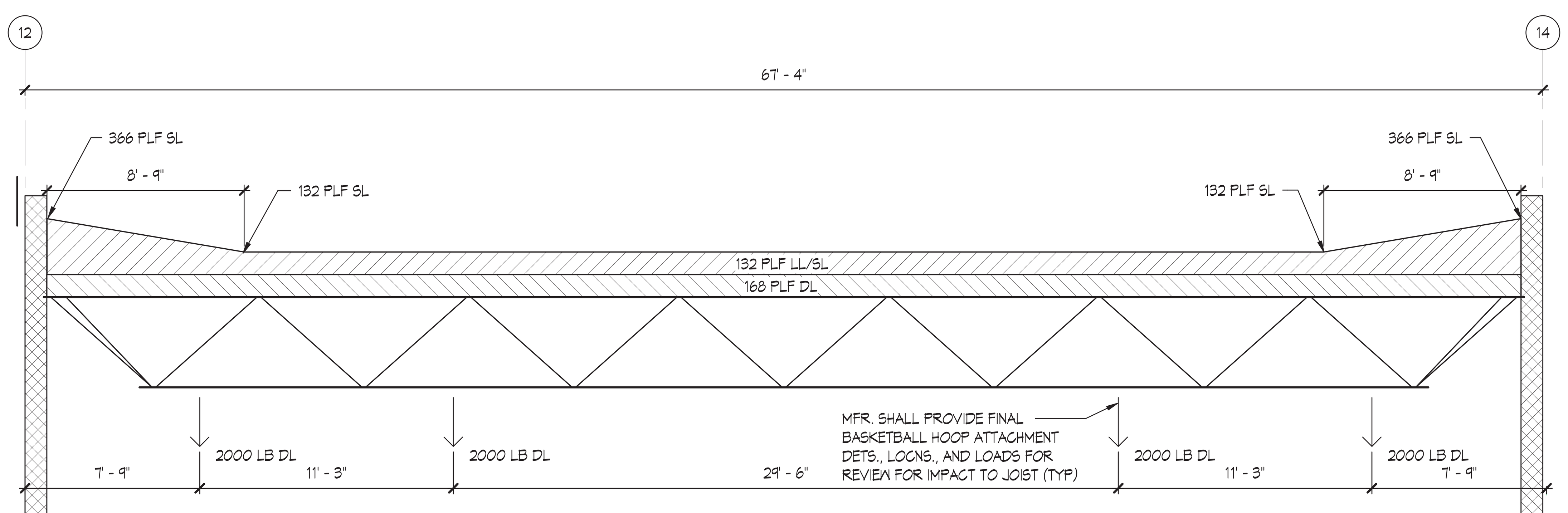
5 BAR JOIST LOAD DIAGRAM AT EAST SIDE OF GYM WITH SNOW DRIFT AND 1 TELESCOPING BASKETBALL HOOP ASSEMBLY
1/4" = 1'-0"



2 BAR JOIST LOAD DIAGRAM WITH MOTORIZED DIVIDER CURTAIN
1/4" = 1'-0"



3 BAR JOIST LOAD DIAGRAM WITH 1 TELESCOPING BASKETBALL HOOP ASSEMBLY
1/4" = 1'-0"



4 BAR JOIST LOAD DIAGRAM WITH 2 TELESCOPING BASKETBALL HOOP ASSEMBLIES
1/4" = 1'-0"

NOTES:

1. DL DENOTES SERVICE DEAD LOAD.
2. LL DENOTES SERVICE LIVE LOAD.
3. SL DENOTES SERVICE SNOW LOAD. SNOW DRIFT LOADS ARE INCLUSIVE OF 22 PSF UNIFORM SNOW LOAD.
4. JOIST DEFLECTION SHALL MEET A MINIMUM DEFLECTION CRITERIA OF L/360 WITH ALL LOADS.
5. POINT LOAD MAGNITUDES & LOCATIONS SHOWN ARE ESTIMATED, COORDINATE FINAL LAYOUT & LOADS W/ MFR.
6. COORDINATE DUCTWORK AND/OR PIPES HANGING FROM JOISTS W/ MEP.

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KEY PLAN

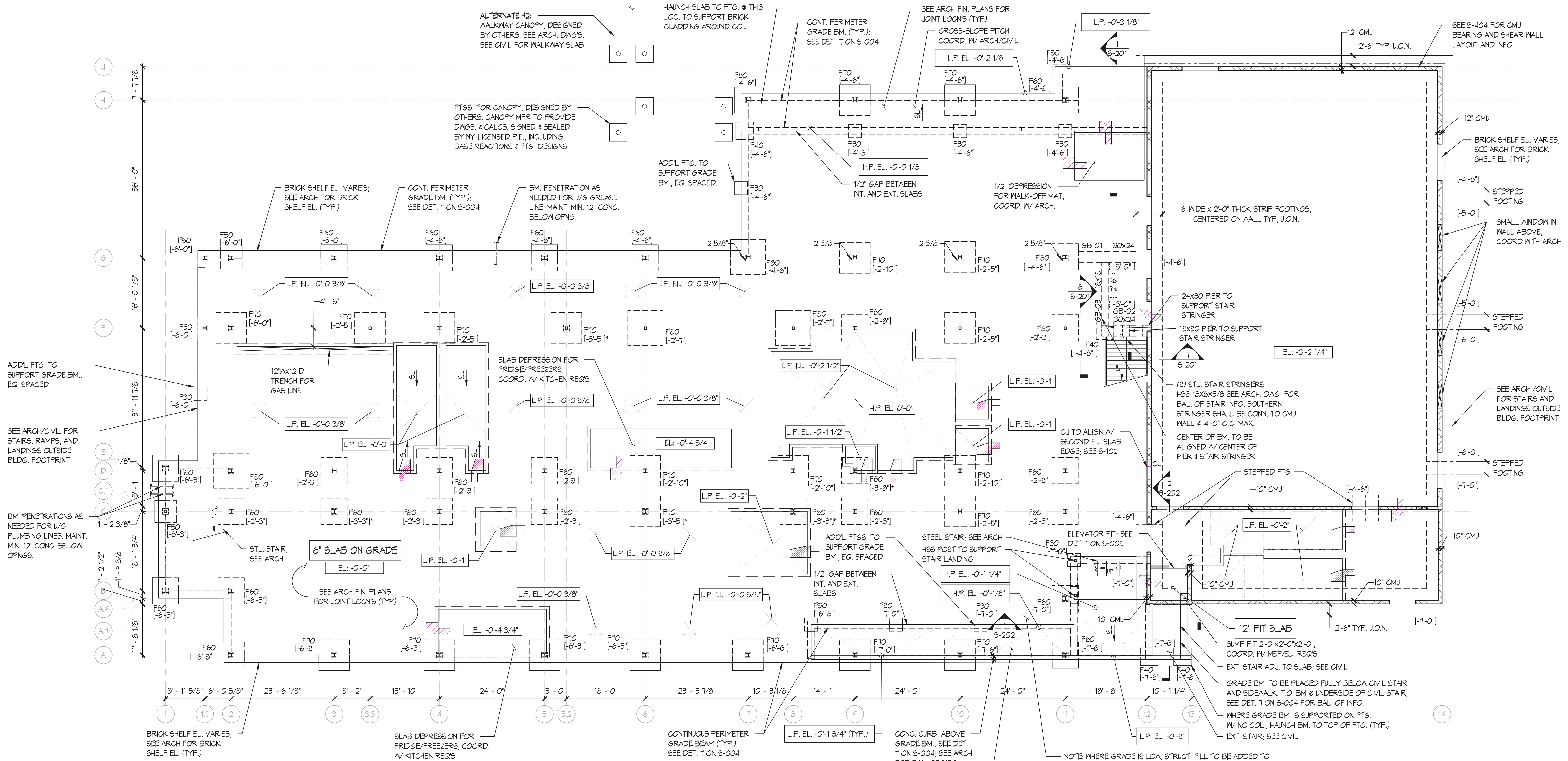
REVISIONS

No.	Description	Date

ISSUED: BID SET ISSUANCE
DATE: 06/30/2025
SCALE: As indicated
SHEET NAME: JOIST LOADING DIAGRAMS 1
SHEET NUMBER: S-009

BID SET

7/3/2025 11:09:19 AM



FOUNDATION AND FIRST FLOOR FRAMING PLAN

3/32" = 1'-0"

NOTES:

1. X" SLAB ON GRADE — DENOTES CONCRETE SLAB ON GRADE OF MINIMUM THICKNESS 'X'. SEE DETAIL 4 ON S-004 FOR REINFORCEMENT.
2. EL. XX'-XX" — DENOTES TOP OF SLAB ELEVATION WITH RESPECT TO PROJECT DATUM ELEVATION 0'-0" (EL. 204.00' NAVD88 DATUM).
3. FXX — DENOTES SPREAD FOOTING. FOR FOOTING SIZE & REINFORCEMENT, SEE SCHEDULE THIS SHEET.
4. [-X'-X"] — DENOTES BOTTOM OF FOOTING ELEVATION WITH RESPECT TO EL. 0'-0". IF PROPER BEARING MATERIAL IS NOT FOUND AT ELEVATION INDICATED, LOWER THE BOTTOM OF FOOTING AS NECESSARY. A 1H:1V INFLUENCE LINE SHALL BE MAINTAINED BETWEEN BOTTOM OF ADJACENT FOOTINGS.
5. FOOTINGS TO BE CENTERED ON COLUMNS AND WALLS ABOVE, UNLESS OTHERWISE NOTED.
6. GB-X DENOTES GRADE BEAM. SEE SCHEDULE ON S-301 FOR REINFORCEMENT. FOR TYPICAL PERIMETER GRADE BEAM REINFORCEMENT, SEE DETAIL 7 ON S-004.
7. BOTTOM OF GRADE BEAM ELEVATION DENOTED THUS {-X'-X"} WITH RESPECT TO EL. 0'-0". AT TYPICAL PERIMETER GRADE BEAMS, BOTTOM OF GRADE BEAM SHALL BE EMBEDDED BELOW GRADE PER DETAIL 7 ON S-004. ADJUST DEPTH AS REQUIRED PER FINAL BRICK SHELF ELEVATIONS. COORD. WITH CIVIL AND ARCHITECTURAL DRAWINGS.
8. CENTERLINE OF GRADE BEAMS TO ALIGN WITH CENTROID OF FOOTING & COLUMN, UNLESS OTHERWISE NOTED.
9. FOR STEEL COLUMN SIZES AND CONCRETE PIER AND BUTTRESS DIMENSIONS & REINFORCEMENT, SEE COLUMN SCHEDULE ON S-301.
10. SLAB OPENINGS, PITCH LINES, AND PENETRATIONS SHOWN SHALL BE COORDINATED WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING & SPRINKLER DRAWINGS. SEE ARCHITECTURAL SLAB EDGE DRAWING FOR BALANCE OF SLAB LAYOUT INFORMATION. INCLUDING JOINT LOCATIONS.
11. DENOTES LOAD BEARING C.M.U. WALL 12" THICK UNLESS OTHERWISE NOTED. SEE WALL DETAILS ON S-401 FOR WALL REINFORCEMENT. WALLS TO BE GROUTED SOLID U.O.N. SEE MASONRY GENERAL NOTES ON S-001 FOR BALANCE OF INFORMATION. PROVIDE MINIMUM REINFORCEMENT PER DETAIL 4 ON S-008 UNLESS OTHERWISE NOTED.
12. DENOTES NON-LOAD BEARING CMU PARTITION WALL, SEE ARCHITECTURAL DRAWINGS FOR BALANCE OF INFORMATION.
13. CJ — DENOTES CMU CONTROL JOINT. SEE DETAIL 5 ON S-008.
14. DENOTES PITCH LINE TO DRAIN. SEE ARCHITECTURAL SLAB EDGE DRAWINGS FOR BALANCE OF INFORMATION.
15. * — DENOTES FOOTING LOWERED TO ACCOMMODATE PIPING.
16. H.P. — DENOTES HIGH POINT FOR PITCH TO DRAIN. REFER TO ARCHITECTURAL SLAB EDGE DRAWINGS FOR BALANCE OF INFORMATION.
17. L.P. — DENOTES LOW POINT FOR PITCH TO DRAIN. REFER TO ARCHITECTURAL SLAB EDGE DRAWINGS FOR BALANCE OF INFORMATION.

FOOTING SCHEDULE (3 KSF)

MARK	WIDTH	LENGTH	THICKNESS	REINFORCING (EACH WAY)	MAX. SERVICE LOAD (KIPS)
F30	3' - 0"	3' - 0"	1' - 0"	4#4	25
F40	4' - 0"	4' - 0"	1' - 0"	4#4	45
F50	5' - 0"	5' - 0"	1' - 1"	5#5	70
F60	6' - 0"	6' - 0"	1' - 3"	6#5	100
F70	7' - 0"	7' - 0"	1' - 5"	8#5	135
F80	8' - 0"	8' - 0"	1' - 7"	8#6	175

10' 0' 10' 20'

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KEY PLAN

REVISIONS

No.	Description	Date

ISSUED: BID SET ISSUANCE

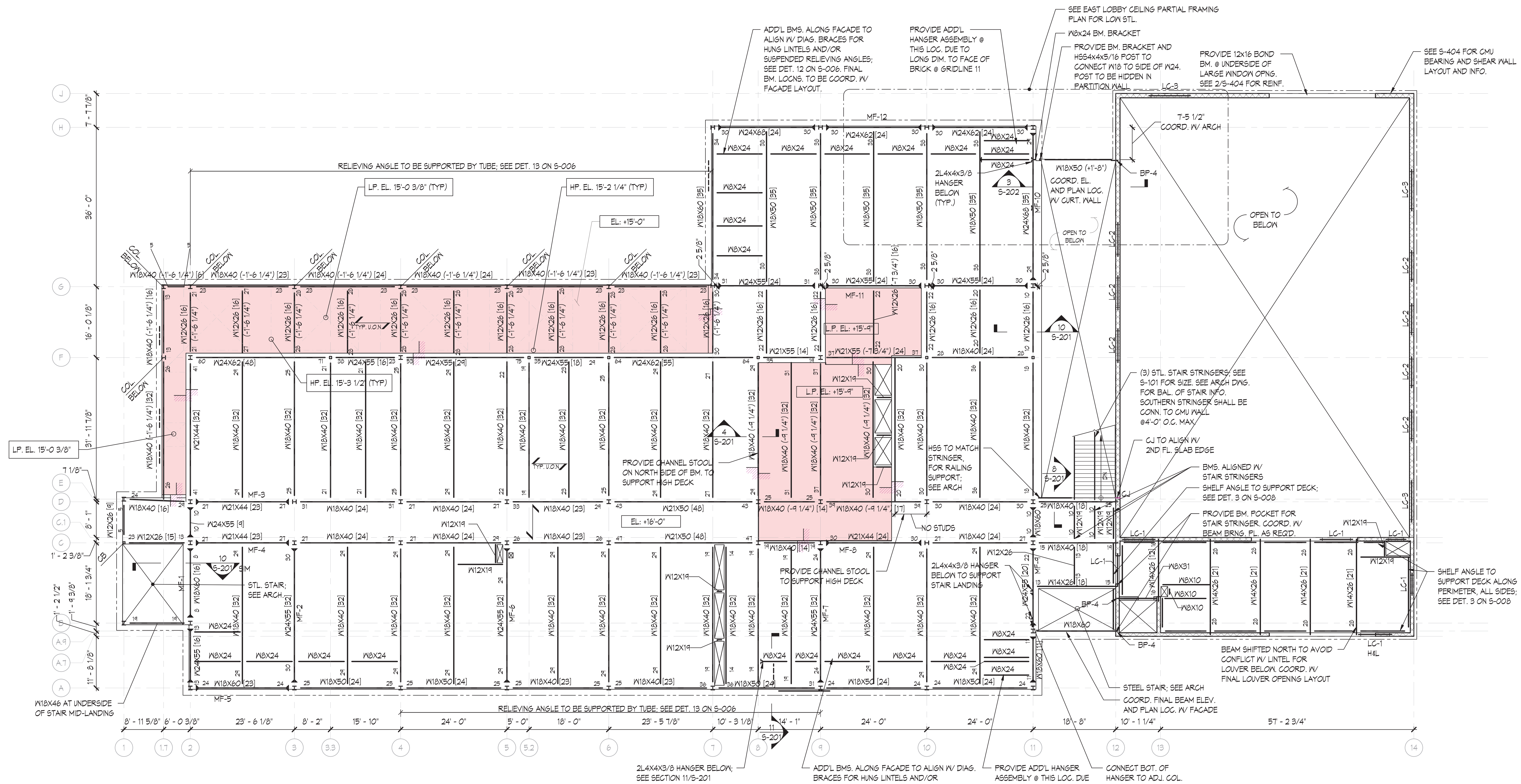
DATE: 06/30/2025

SCALE: As indicated

SHEET NAME: FOUNDATION AND FIRST FLOOR FRAMING PLAN

SHEET NUMBER: S-101

BID SET

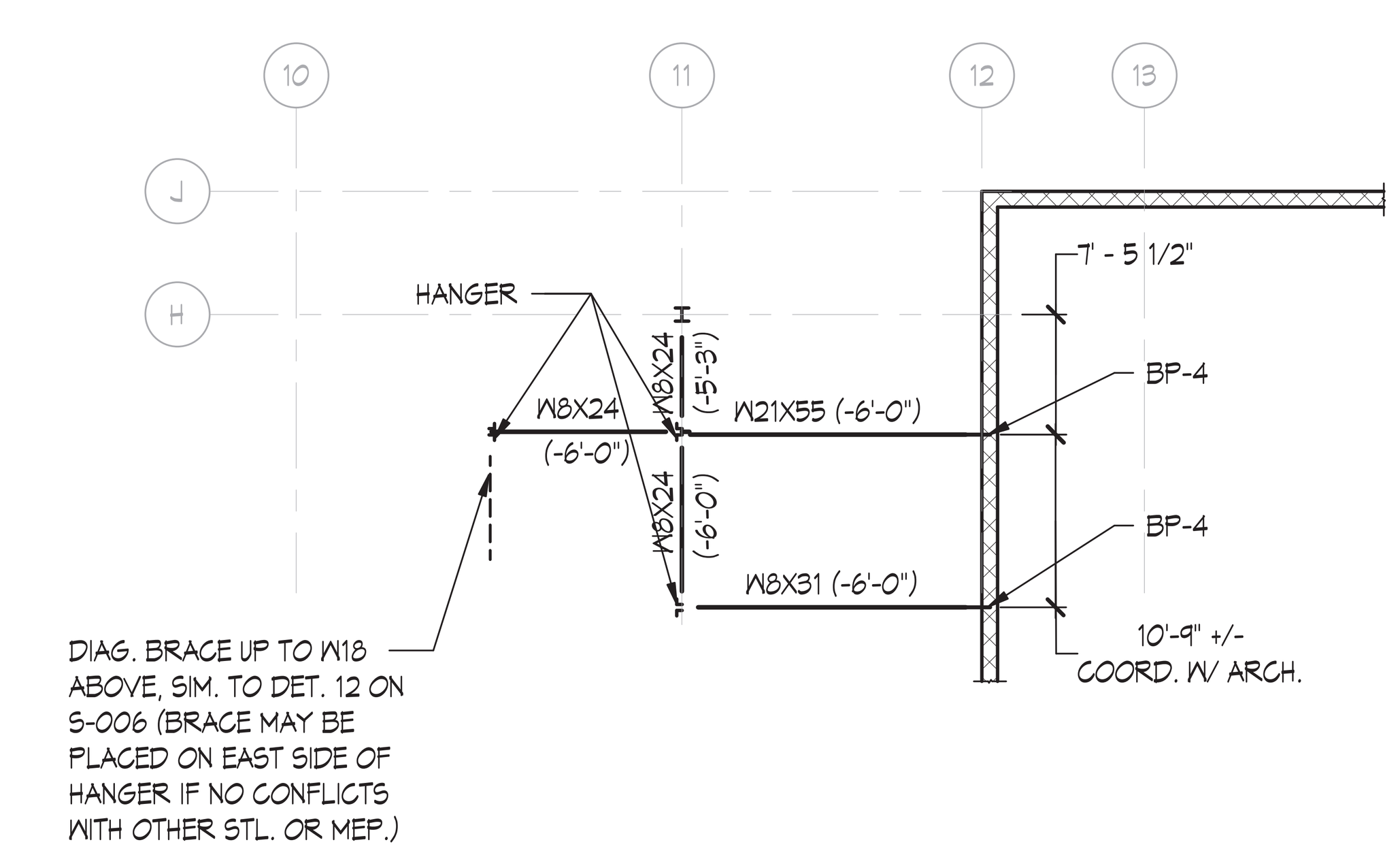


SECOND FLOOR FRAMING PLAN

3/32" = 1'-0"

NOTES:

1. EL. XX'-XX" DENOTES TOP OF SLAB ELEVATION WITH RESPECT TO PROJECT DATUM ELEVATION 0'-0" (EL. 204.00' NAVD88 DATUM).
2. TOP OF STEEL TO BE (-6 1/4") FROM TOP OF SLAB ELEVATION UNLESS OTHERWISE NOTED THUS (-X") FROM TYPICAL TOP OF SLAB ELEVATION.
3. DENOTES SPAN DIRECTION OF 18 GA. 3" COMPOSITE METAL DECK SUPPORTING 3 1/4" LIGHT WEIGHT CONCRETE (6 1/4" TOTAL DEPTH). SEE DETAIL 1 ON S-005. MAXIMUM SINGLE UNSHORED SPAN = 11'-0"; DOUBLE SPAN = 13'-0".
4. [XX] DENOTES TOTAL NUMBER OF EQUALLY-SPACED SHEAR STUDS. STUDS SHALL BE 3/4" DIAMETER x 5" LONG.
5. X X DENOTES BEAM ULTIMATE LOAD REACTION IN KIPS. PROVIDE MIN. 2 BOLTS IN W8 AND W10 BEAMS; MIN 3 BOLTS IN W12 AND W14 BEAMS.
6. DENOTES MOMENT CONNECTION. SEE TYPICAL STEEL DETAILS ON S-006 & S-007.
7. SLAB OPENINGS, PITCH LINES, AND PENETRATIONS SHOWN SHALL BE COORDINATED WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING & SPRINKLER DRAWINGS. SEE ARCHITECTURAL SLAB EDGE DRAWINGS FOR BALANCE OF SLAB LAYOUT INFORMATION. SEE DETAIL 4 ON S-006 FOR METAL DECK REINFORCEMENT FOR SMALL MEPS PENETRATIONS. IF LARGER OR GROUPED PENETRATIONS ARE REQUIRED BASED ON FINAL TRADE LAYOUT AND COORDINTATION, ADDITIONAL STEEL FRAMING WILL BE REQUIRED.
8. DENOTES LOAD BEARING C.M.U. 12" THICK UNLESS OTHERWISE NOTED. SEE WALL DETAILS ON S-401 FOR WALL REINFORCEMENT. WALLS TO BE GROUTED SOLID U.O.N. SEE MASONRY GENERAL NOTES ON S-001 FOR BALANCE OF INFORMATION. PROVIDE MINIMUM REINFORCEMENT PER DETAIL 4 ON S-008 UNLESS OTHERWISE NOTED.
9. DENOTES NON-LOAD BEARING CMU PARTITION WALL, SEE ARCHITECTURAL DRAWINGS FOR BALANCE OF INFORMATION.
10. (L) DENOTES LOW BEAM TO SUPPORT FACADE. COORDINATE WITH ARCHITECTURAL DRAWINGS AND FACADE REQUIREMENTS.
11. BP-X DENOTES STEEL BEARING PLATE FOR BEAM BEARING ON CMU WALL. WHERE PLATE NOT SHOWN, USE BP-1 TYPICAL. SEE DETAIL 1 ON S-008.
12. LC-X DENOTES PRECAST LINTEL. SEE SCHEDULE ON S-301.
13. DENOTES LIGHTWEIGHT CONCRETE INFILL SURROUNDING DEPRESSED AREAS. SEE DETAIL 2 ON S-005, SIMILAR. COORDINATE FINAL TOPPING ELEVATIONS WITH ARCHITECTURAL DRAWINGS.
14. CJ DENOTES CMU CONTROL JOINT. SEE DETAIL 5 ON S-008.
15. DENOTES PITCH LINE TO DRAIN. SEE ARCHITECTURAL SLAB EDGE DRAWINGS FOR BALANCE OF INFORMATION.
16. DENOTES MONOLITHIC CONCRETE POUR OF CONCRETE ON DECK WITH PITCH TO DRAINS. SEE ARCHITECTURAL SLAB EDGE PLAN FOR SLOPES AND AREAS OF INFILLS. DECK SHALL BE SHORED TO SUPPORT WET WEIGHT OF CONCRETE.
NOTE: IF CONCRETE PITCH IS NOT POURED MONOLITHICALLY WITH CONCRETE ON DECK AS SHOWN, ADDITIONAL CONCRETE WOULD LIKELY BE REQUIRED TO ACHIEVE PITCH TO DRAIN, WHICH WILL IMPACT STRUCTURE. PROPOSED CHANGES TO MONOLITHIC CONCRETE POUR SHALL BE SUBMITTED TO THE EOR AND ARCHITECT FOR REVIEW.
17. H.P. DENOTES HIGH POINT FOR PITCH TO DRAIN. REFER TO ARCHITECTURAL SLAB EDGE DRAWINGS FOR BALANCE OF INFORMATION.
18. L.P. DENOTES LOW POINT FOR PITCH TO DRAIN. REFER TO ARCHITECTURAL SLAB EDGE DRAWINGS FOR BALANCE OF INFORMATION.
19. MF-X DENOTES MOMENT FRAME. SEE S-401 - S-403 FOR MOMENT FRAME ELEVATION DIAGRAMS.
20. HANGER AND DIAGONAL BRACE FACADE SUPPORTS PER DETAIL 12 ON S-006 ARE ASSUMED TO BE USED AT ALL HUNG LINTEL/SUSPENDED RELIEVING ANGLE LOCATIONS EXCEPT WHERE TUBE SUPPORTS ARE INDICATED ON PLAN. COORDINATE WITH ARCHITECT FOR FINAL FACADE SUPPORTS ALONG BUILDING PERIMETER. PROPOSED CHANGES SHALL BE SUBMITTED TO THE EOR FOR REVIEW.
21. DENOTES LOOSE LINTEL FOR FACADE SUPPORT. COORDINATE FINAL LOCATIONS OF LOOSE LINTELS WITH ARCHITECT. PROPOSED CHANGES SHALL BE SUBMITTED TO THE EOR FOR REVIEW.



EAST LOBBY CEILING PARTIAL FRAMING PLAN

3/32" = 1'-0"

GRAPHIC SCALE

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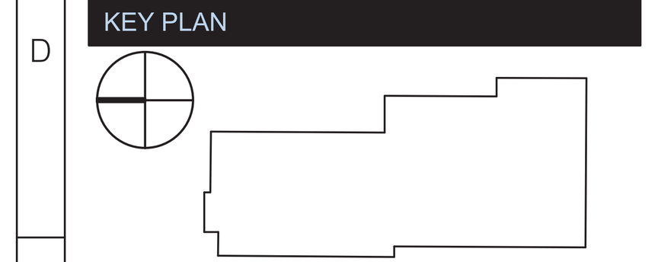
KEY PLAN

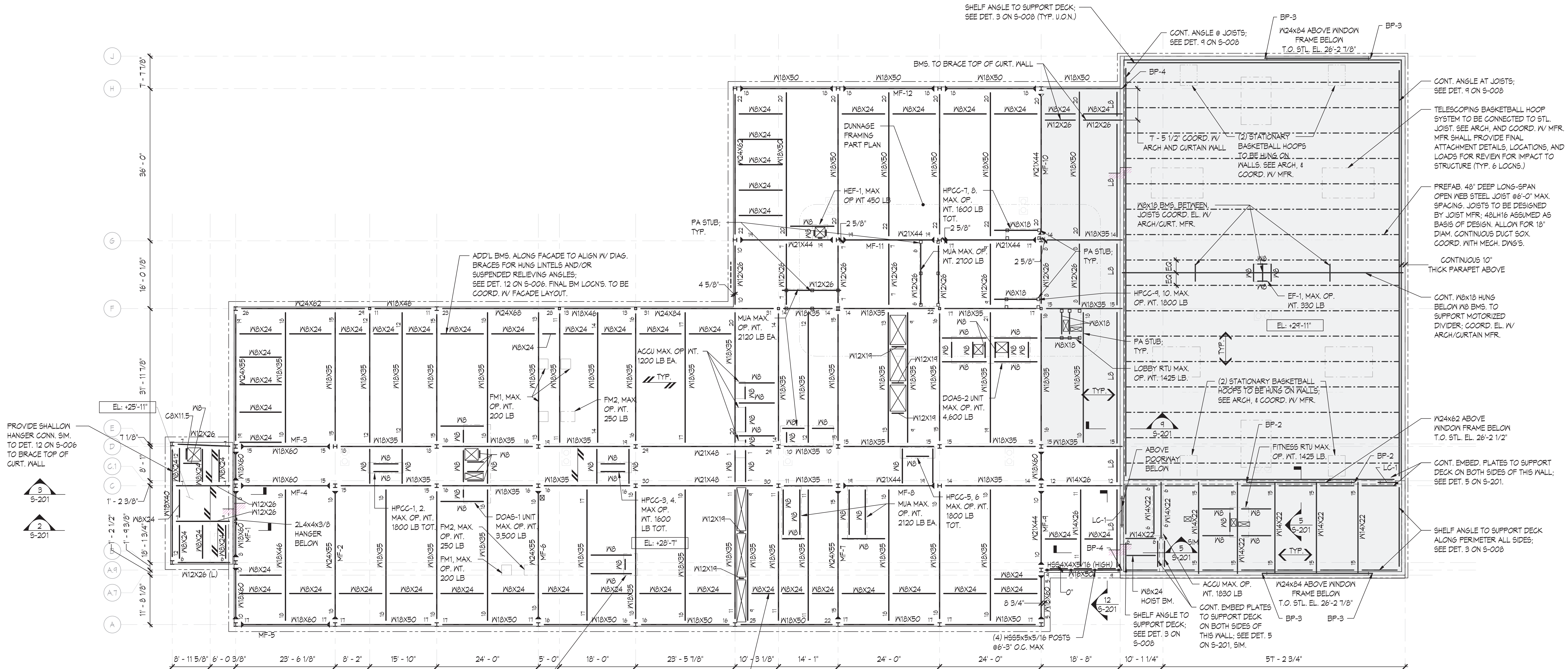


REVISIONS

No.	Description	Date

ISSUED: BID SET ISSUANCE
DATE: 06/30/2025
SCALE: As indicated
SHEET NAME: SECOND FLOOR FRAMING PLAN
SHEET NUMBER: S-102

BID SET



1 ROOF FRAMING PLAN
3/32" = 1'-0"

NOTES:

1. [EL. XX'-XX"] DENOTES TOP OF SLAB ELEVATION WITH RESPECT TO PROJECT DATUM ELEVATION 0'-0" (EL. 204.00' NAVD88 DATUM).

2. TOP OF STEEL TO BE (-3") FROM TOP OF RESPECTIVE SLAB ELEVATION UNLESS OTHERWISE NOTED THUS (-X") FROM RESPECTIVE TOP OF SLAB ELEVATION.

3. DENOTES SPAN DIRECTION OF 18 GA. 3" GALVANIZED ROOF DECK. SEE DETAIL 2 ON S-006. MAXIMUM SINGLE SPAN = 10'-6"; DOUBLE SPAN = 12'-6".

4. DENOTES SPAN DIRECTION OF 18 GA. 3" GALVANIZED ACOUSTIC ROOF DECK. SEE DETAIL 2 ON S-006. SEE ARCHITECTURAL DRAWINGS FOR BALANCE OF ACOUSTIC INFORMATION. MAXIMUM SINGLE SPAN = 10'-6"; DOUBLE SPAN = 12'-6".

5. x x DENOTES BEAM ULTIMATE LOAD REACTION IN KIPS. PROVIDE MIN. 2 BOLTS IN W8 AND W10 BEAMS; MIN 3 BOLTS IN W12 AND W14 BEAMS.

6. DENOTES MOMENT CONNECTION. SEE TYPICAL STEEL DETAILS ON S-006 AND S-007.

7. DENOTES PREFABRICATED LONG-SPAN OPEN WEB STEEL JOIST BY NEW MILLENIUM (OR APPROVED EQUAL). SEE DETAIL 3 ON S-006 AND 9 ON S-008. SEE S-009 FOR JOIST LOADING DIAGRAMS.

8. (L) DENOTES LOW BEAM TO SUPPORT FACADE. COORDINATE WITH ARCHITECTURAL DRAWINGS AND FACADE REQUIREMENTS.

9. SLAB OPENINGS AND PENETRATIONS SHOWN SHALL BE COORDINATED WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING & SPRINKLER DRAWINGS. SEE ARCHITECTURAL SLAB EDGE DRAWINGS FOR BALANCE OF SLAB LAYOUT INFORMATION. SEE DETAIL 4 ON S-006 FOR METAL DECK REINFORCEMENT FOR SMALL MEPS PENETRATIONS. IF LARGER OR GROUPED PENETRATIONS ARE REQUIRED BASED ON FINAL TRADE LAYOUT AND COORDINATION, ADDITIONAL STEEL FRAMING WILL BE REQUIRED.

10. BP-X DENOTES STEEL BEARING PLATE FOR BEAM BEARING ON CMU WALL. WHERE PLATE NOT SHOWN, USE BP-1 TYPICAL. SEE DETAIL 1 ON S-008.

11. LC-X DENOTES PRECAST LINTEL. SEE SCHEDULE ON S-301.

12. W8 DENOTES W8x10 STEEL BEAM. DESIGN BEAM CONNECTIONS FOR MINIMUM 5 KIP ULTIMATE REACTION. PROVIDE MINIMUM 2 BOLTS PER CONNECTION. LOCATIONS OF BEAMS SUPPORTING EQUIPMENT TO BE COORDINATED WITH FINAL EQUIPMENT/CURB SIZE AND LOCATIONS.

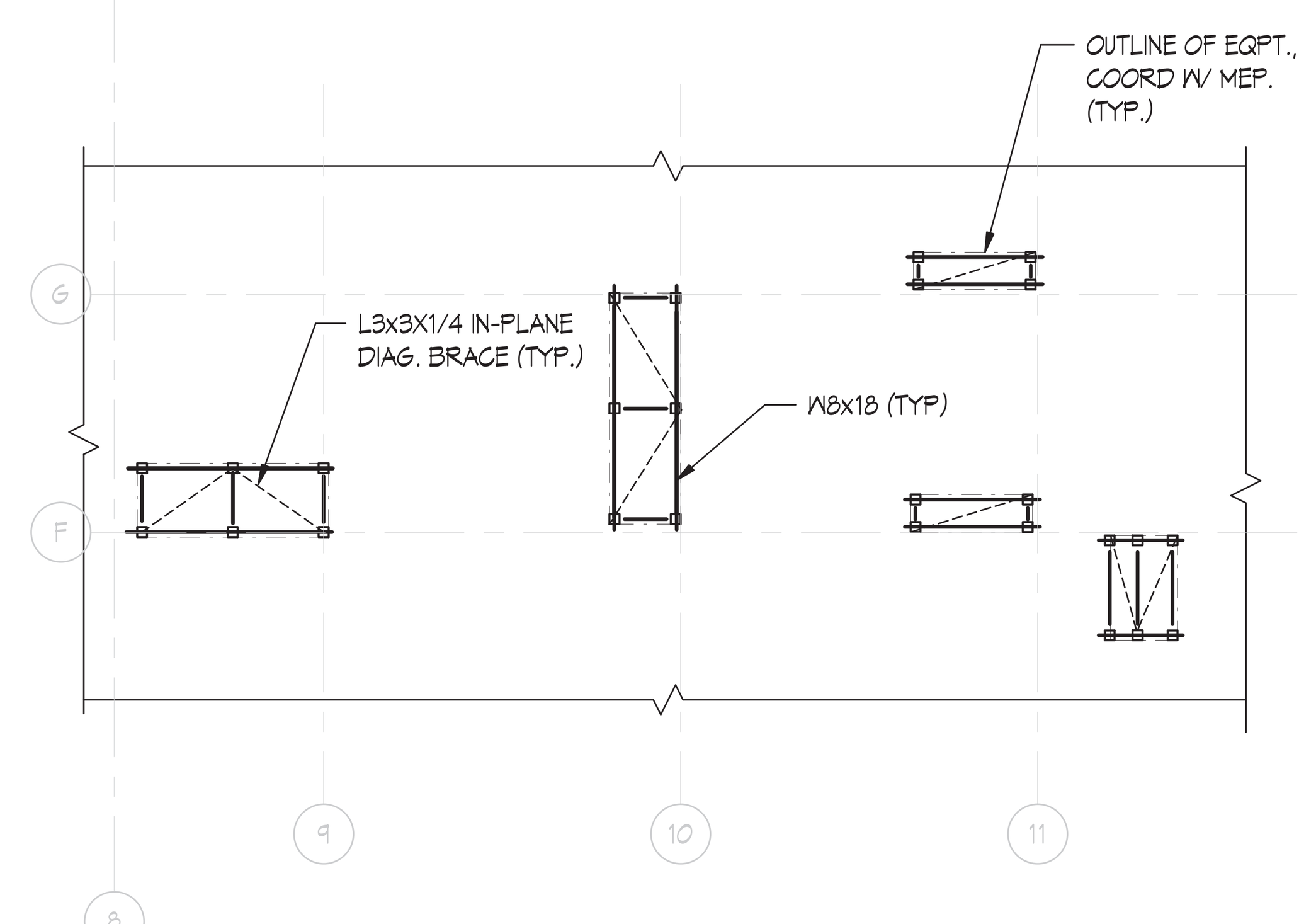
13. L8 DENOTES L8x6x7/16 LLH. SEE SECTION 9 ON S-201.

14. PA DENOTES HSS 4X4X1/4 DUNNAGE POST ABOVE TO ALLOW 12" MIN CLEAR FROM TOP OF ROOFING TO UNDERSIDE OF EQUIPMENT PER MEP REQ'S. SEE DETAIL 13 ON S-007. REFER TO DUNNAGE FRAMING PLAN ON S-103 FOR BALANCE OF INFO. POSTS SHALL BE CENTERED ON SUPPORTING BEAMS. COORDINATE WITH FINAL EQUIPMENT LOCATIONS.

15. MF-X DENOTES MOMENT FRAME. SEE S-401 - S-403 FOR MOMENT FRAME ELEVATION DIAGRAMS.

16. HANGER AND DIAGONAL BRACE FACADE SUPPORTS PER DETAIL 12 ON S-006 ARE ASSUMED TO BE USED AT ALL HUNG LINTEL/SUSPENDED RELIEVING ANGLE LOCATIONS EXCEPT WHERE TUBE SUPPORTS ARE INDICATED ON PLAN. COORDINATE WITH ARCHITECT FOR FINAL FACADE SUPPORTS ALONG BUILDING PERIMETER. PROPOSED CHANGES SHALL BE SUBMITTED TO THE EOR FOR REVIEW.

17. - - - - - - - DENOTES LOOSE LINTEL FOR FACADE SUPPORT. COORDINATE FINAL LOCATIONS OF LOOSE LINTELS WITH ARCHITECT. PROPOSED CHANGES SHALL BE SUBMITTED TO THE EOR FOR REVIEW.



2 DUNNAGE FRAMING PART PLAN
3/32" = 1'-0"

NOTES:

1. COORDINATE BEAM ELEVATIONS WITH ARCHITECTURAL AND MEP REQUIREMENTS. TOP OF STEEL 3'-2" ABOVE ROOF STRUCTURE U.O.N.

2. REFER TO TYPICAL DUNNAGE DETAIL 13 ON S-007 FOR BALANCE OF INFORMATION.

3. ALL EXPOSED STEEL FRAMING SHALL BE HOT-DIP GALVANIZED.

10' 0' 10' 20'
GRAPHIC SCALE

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ROCKLAND BOCES P-TECH C-TEC BUILDING

SED #: 50-90-00-00-0-044-001

65 Parrot Rd,
West Nyack, NY 10994

KEY PLAN

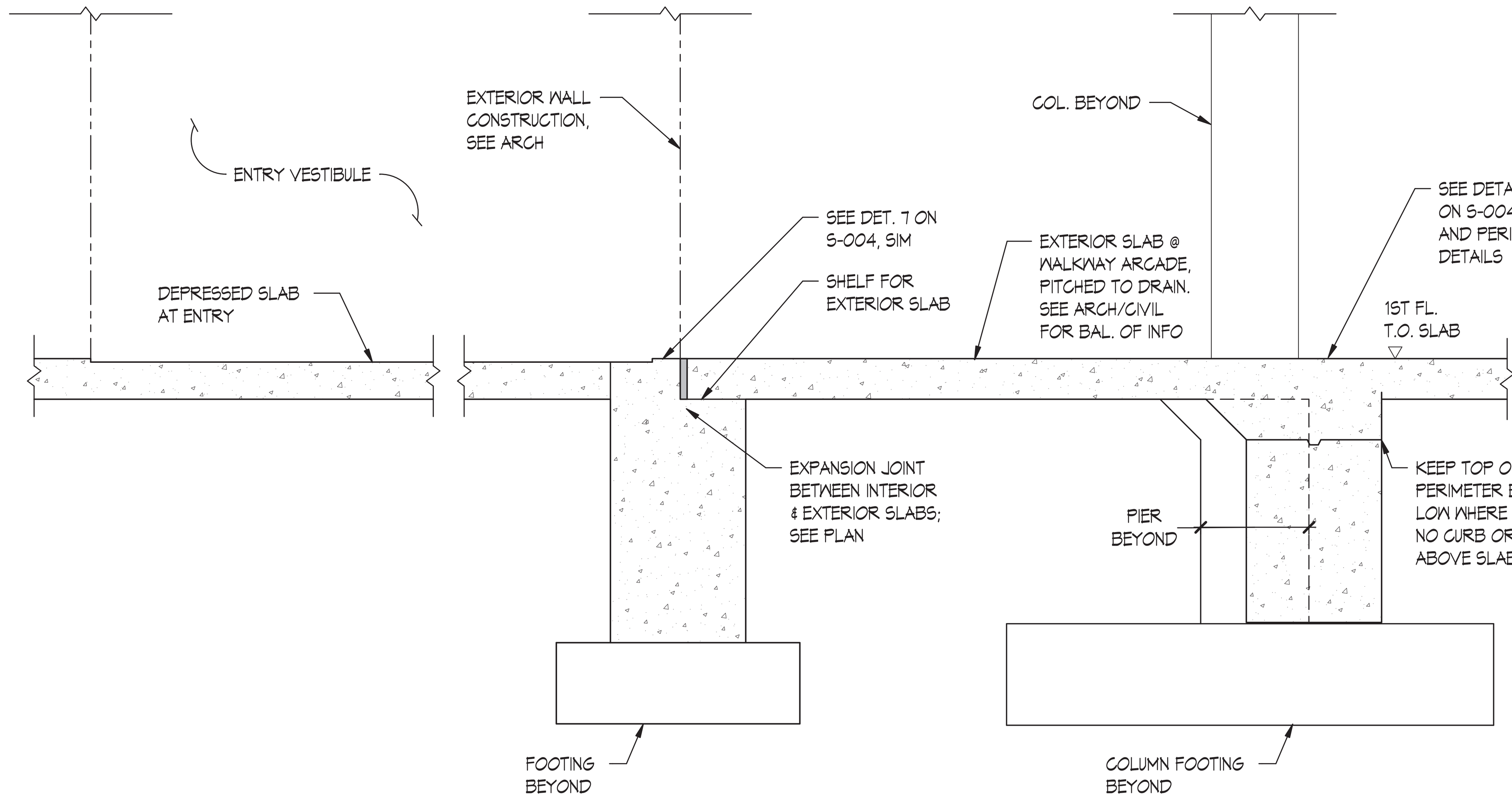
REVISIONS

No.	Description	Date

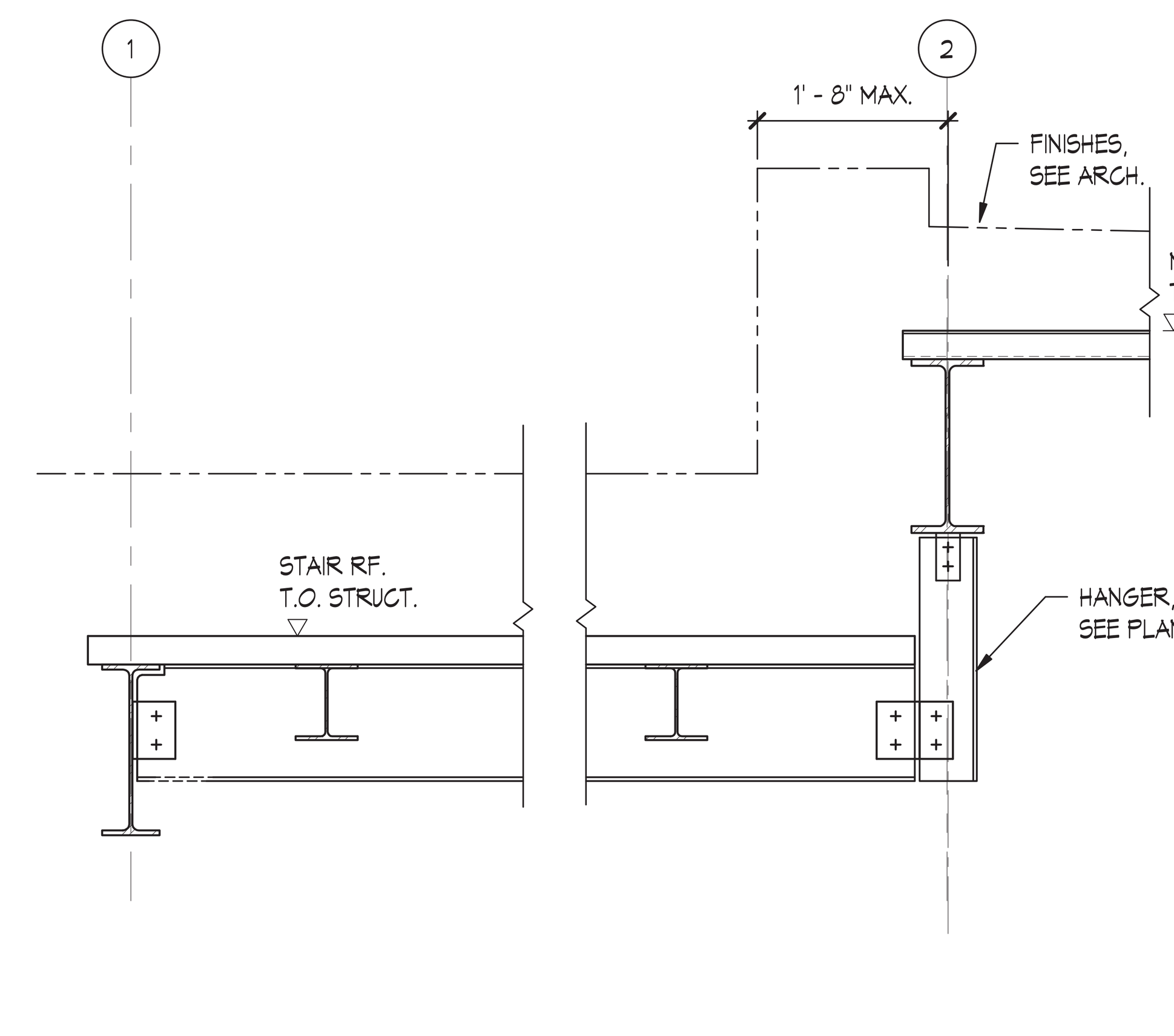
ISSUED: BID SET ISSUANCE
DATE: 06/30/2025
SCALE: As indicated
SHEET NAME: ROOF AND DUNNAGE FRAMING PLANS
SHEET NUMBER: S-103

BID SET

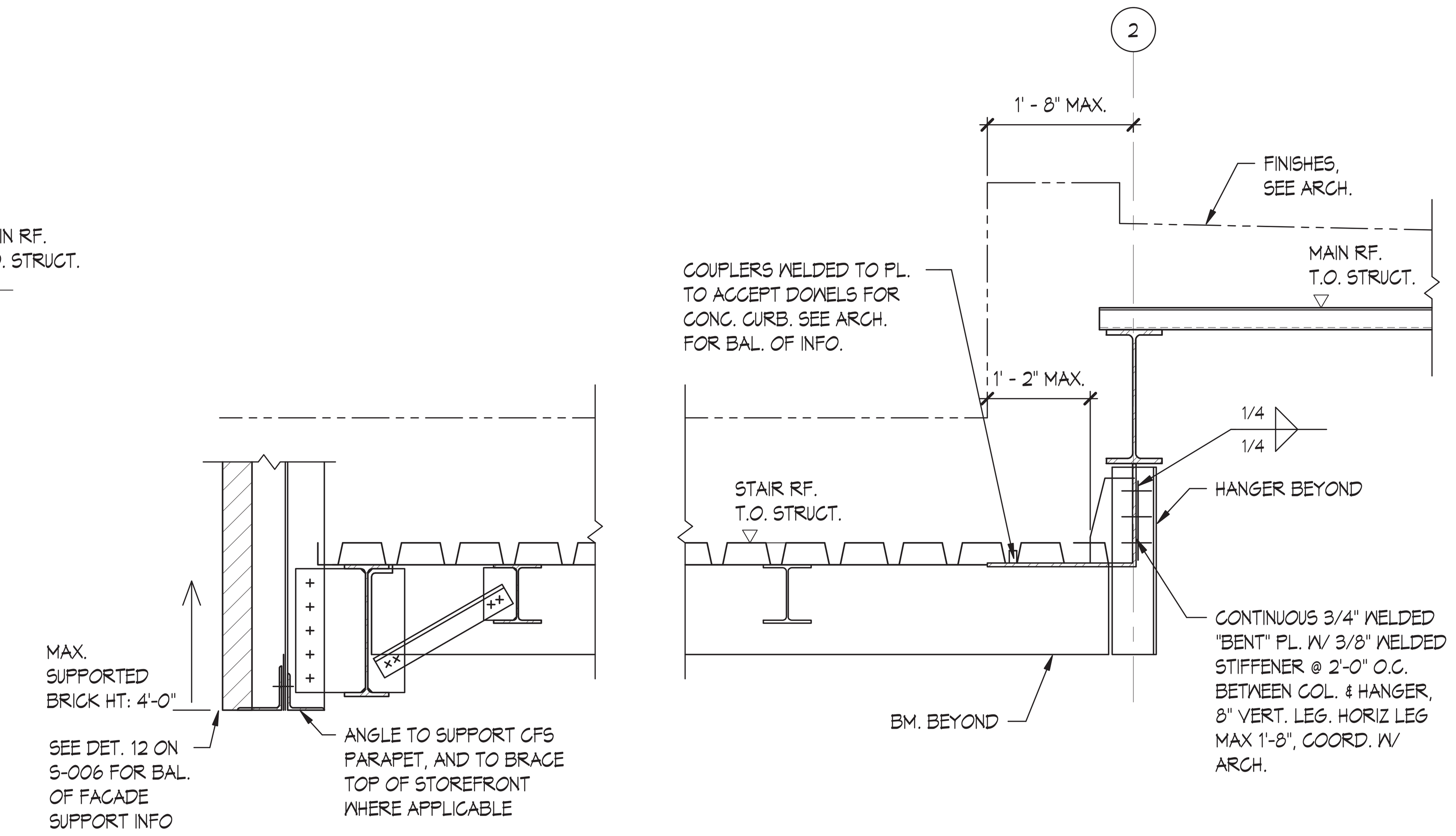
PROJECT NUMBER: C4040.00



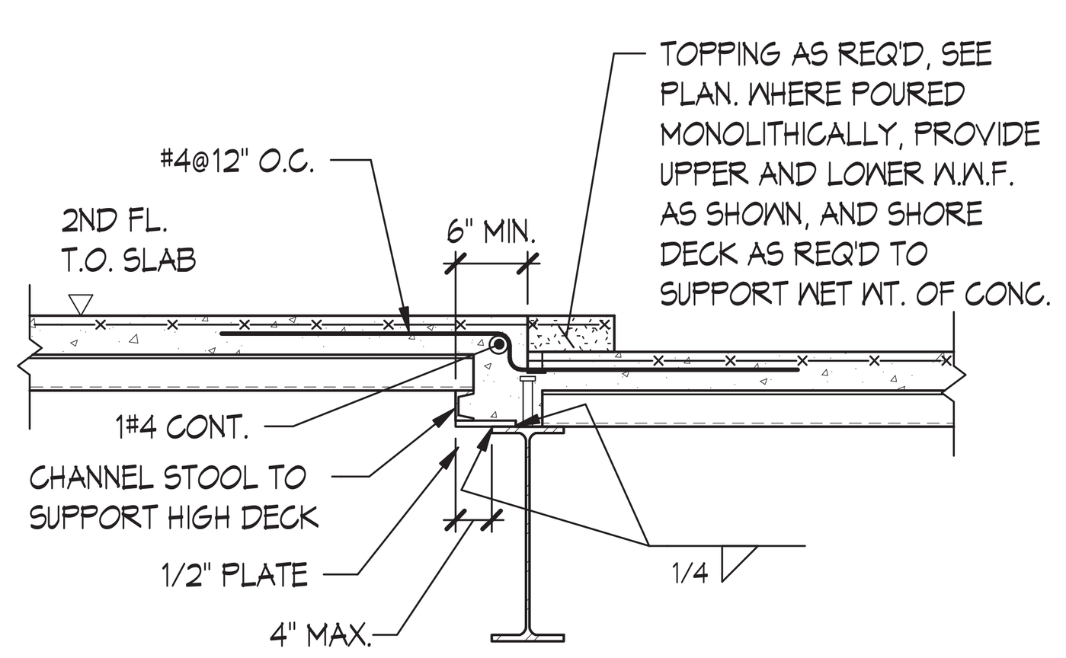
1 SECTION AT EAST LOBBY ENTRY
3/4" = 1'-0"
NOTE: REBAR OMITTED FOR CLARITY.



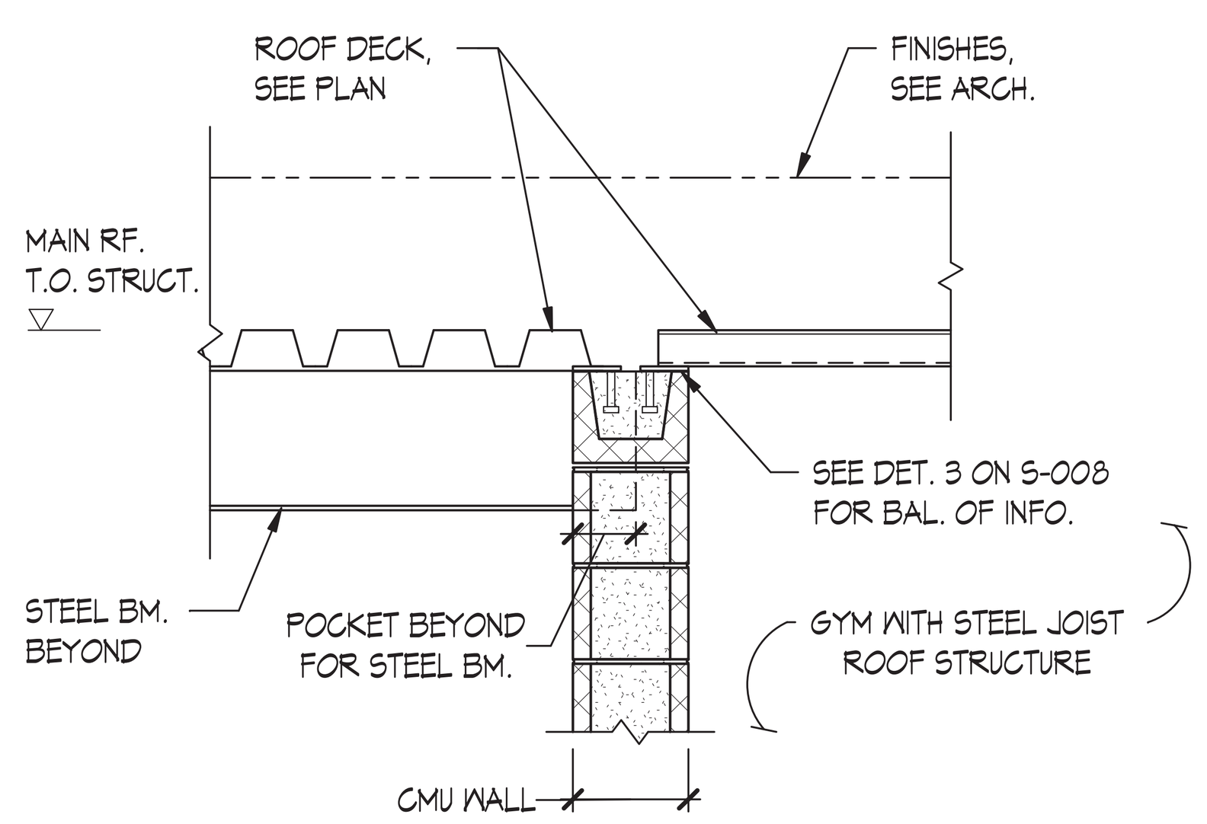
2 SECTION AT ROOF OVER NORTH STAIR
3/4" = 1'-0"



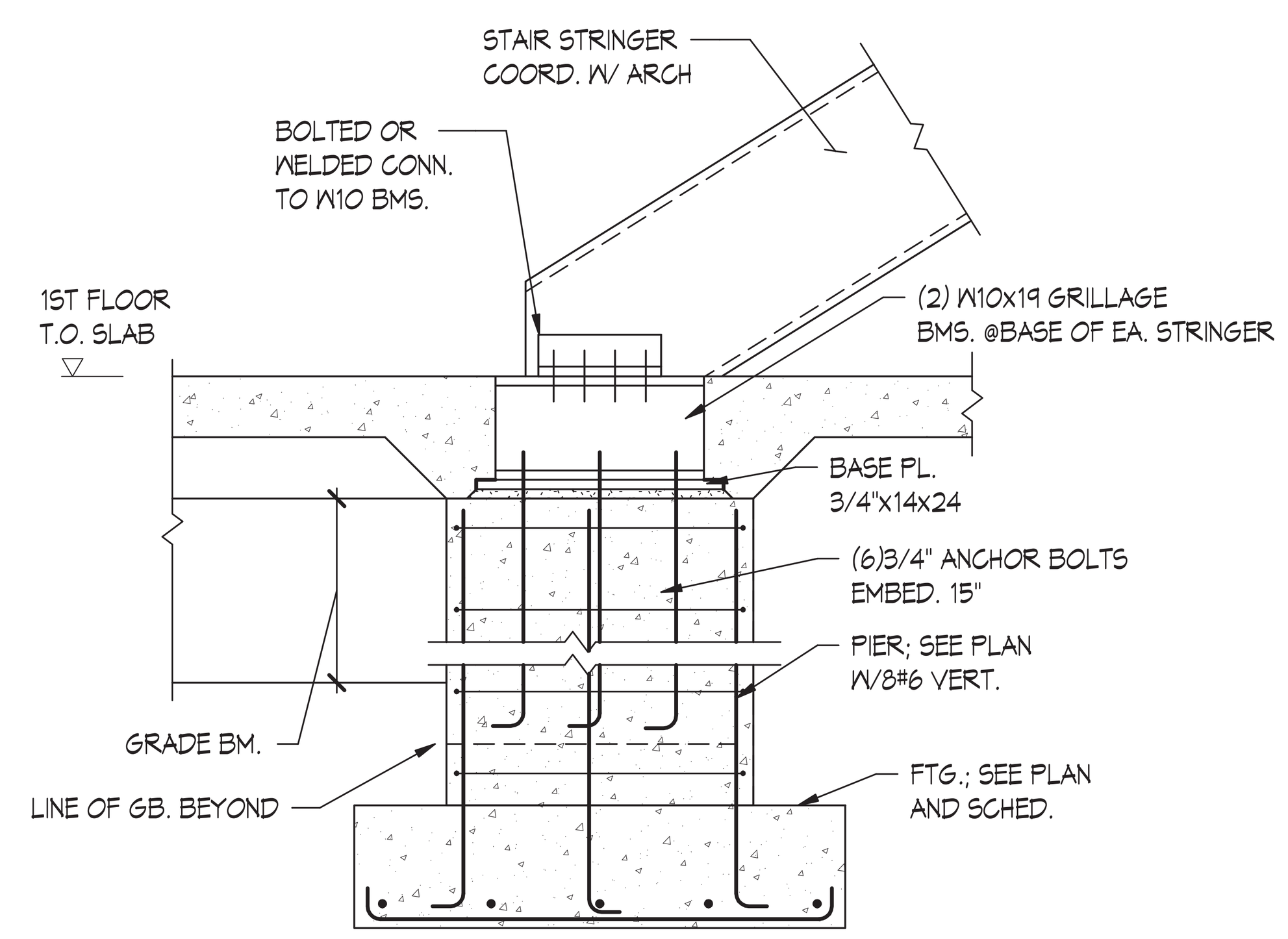
3 SECTION AT ROOF OVER NORTH STAIR BETWEEN COLUMNS AND HANGER
3/4" = 1'-0"



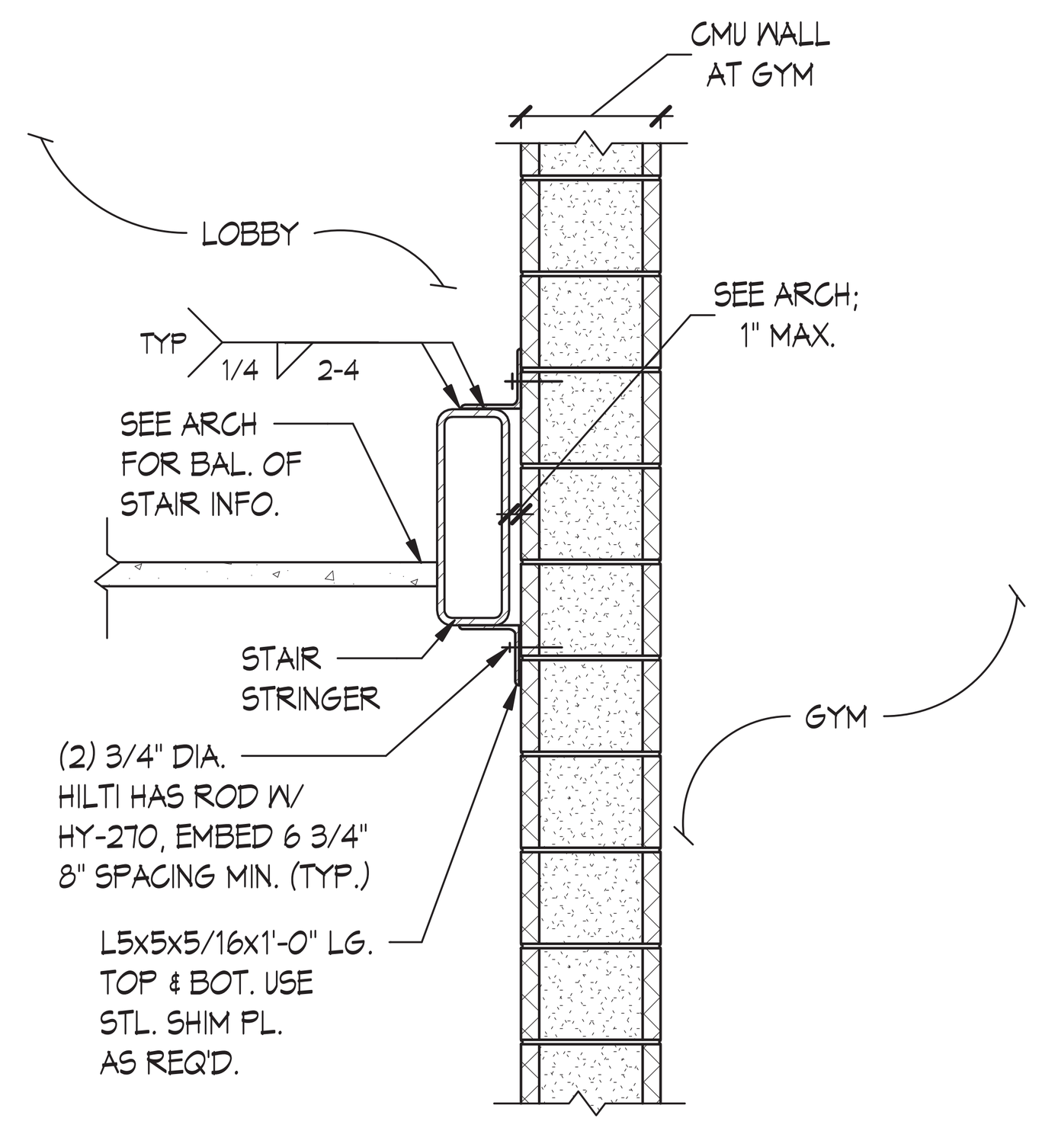
4 SECTION AT SLAB STEP AT BEAM CENTERLINE
3/4" = 1'-0"



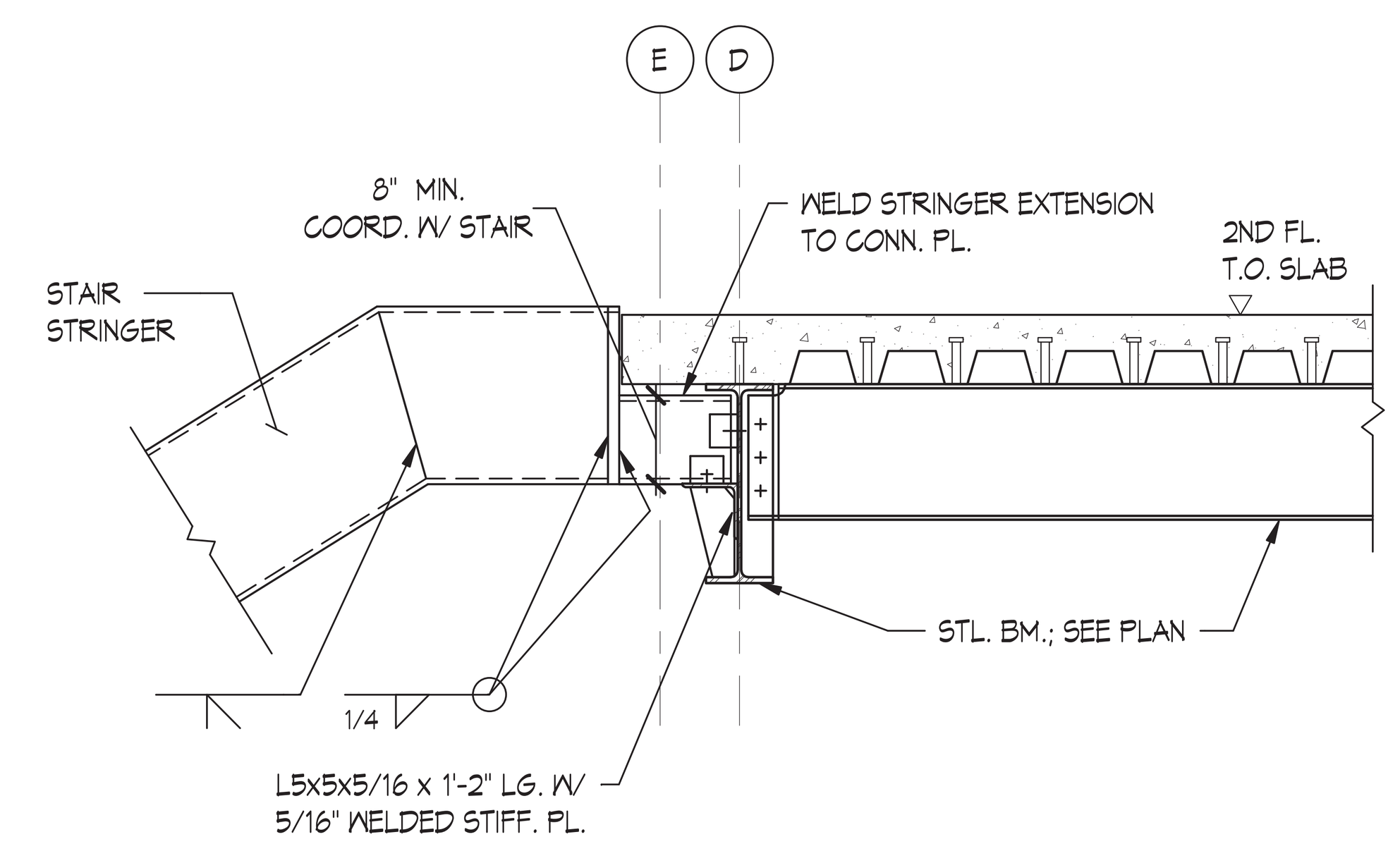
5 SECTION AT CMU WALL AT ROOF WITH NO PARAPET
3/4" = 1'-0"



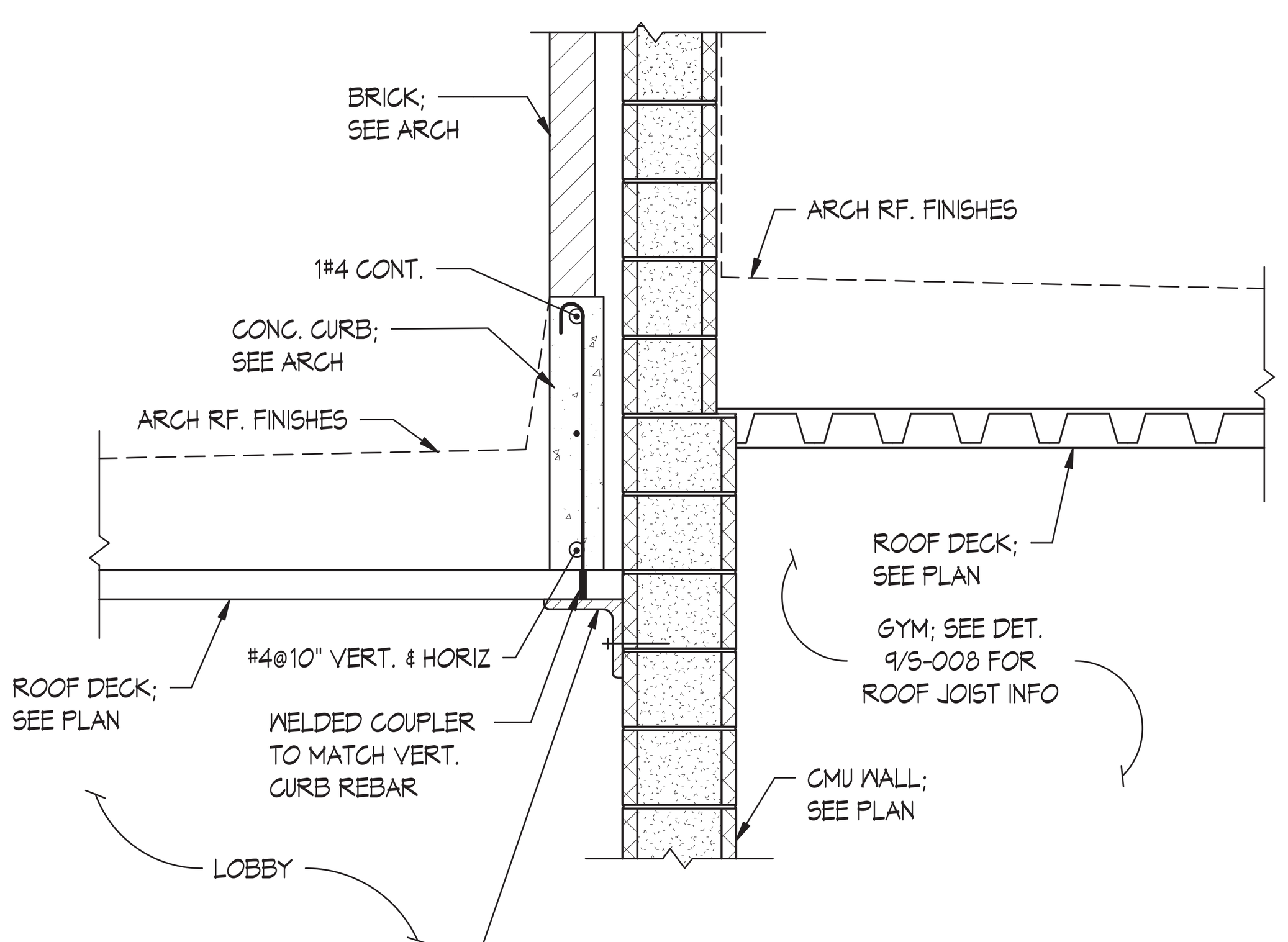
6 STAIR AT BASE OF LOBBY STAIR STRINGER
3/4" = 1'-0"
NOTE: SEE TYPICAL DETAILS FOR BALANCE OF INFORMATION.



7 SECTION AT LOBBY STAIR STRINGER CONNECTION TO CMU WALL
3/4" = 1'-0"

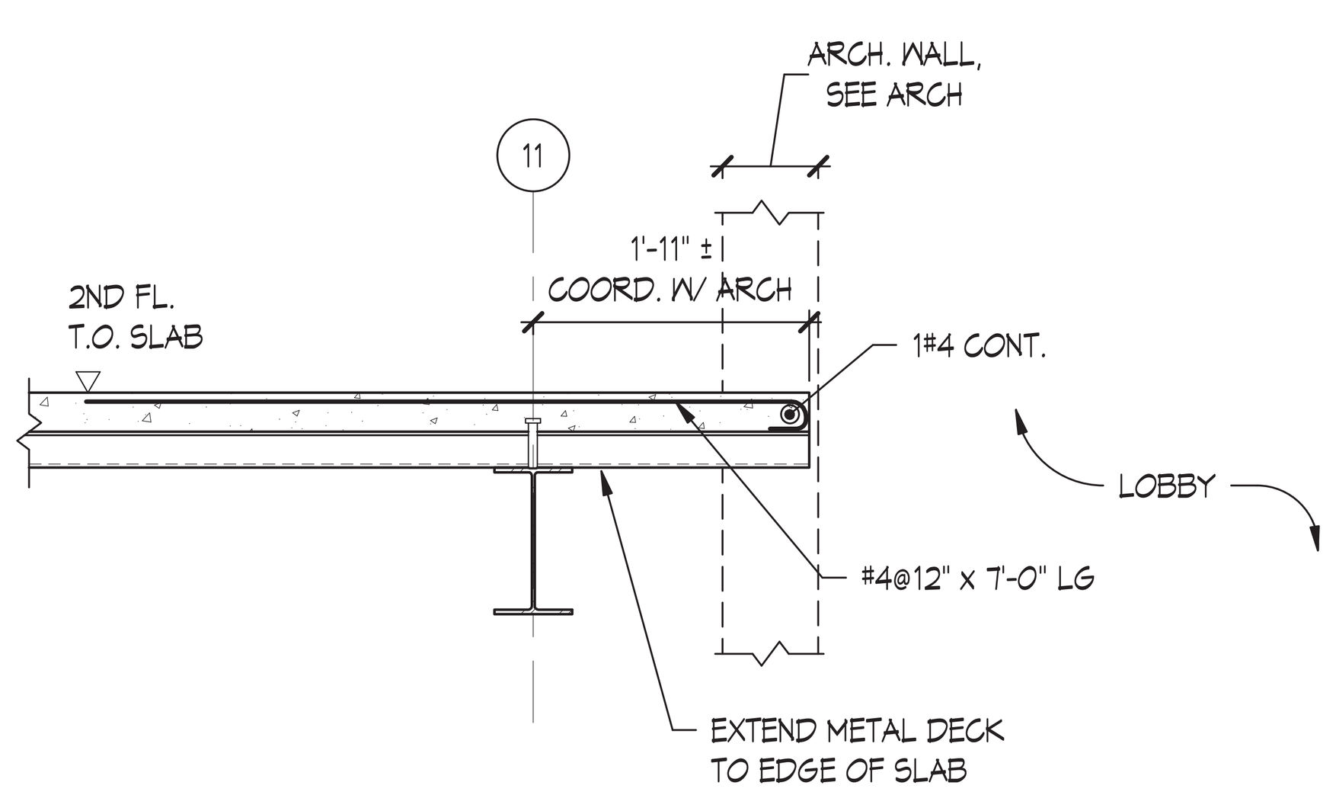


8 SECTION @ LOBBY STAIR CONNECTION TO SECOND FLOOR
3/4" = 1'-0"
NOTE: SEE TYPICAL STEEL AND SLAB DETAILS FOR BALANCE OF INFORMATION.

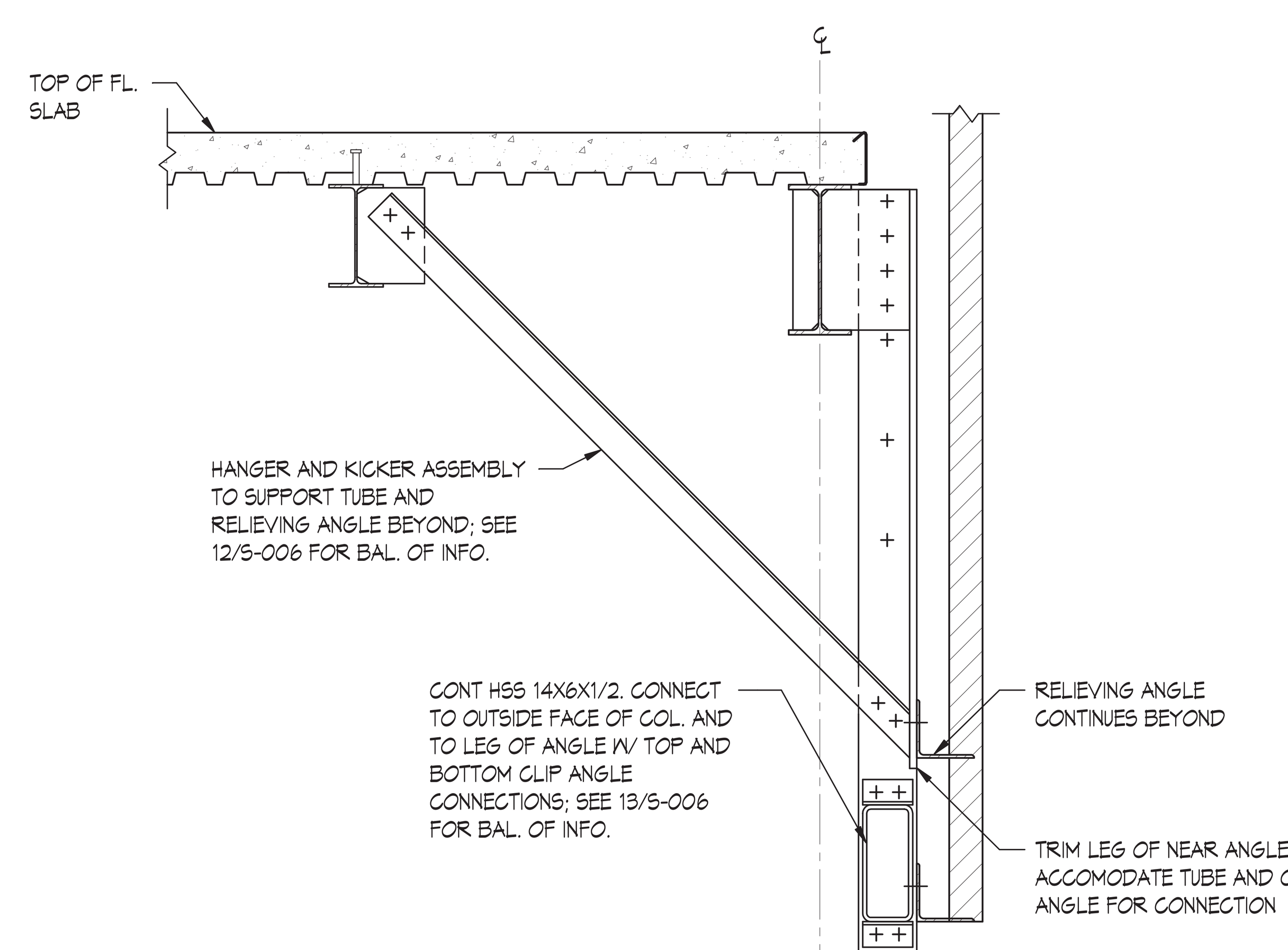


SUPPORT ANGLE; SEE PLAN + DET. 3 ON S-008, SIM.
IF DECK IS SUPPORTED ON ANGLE PER DET. 3A, ANCHOR SPACING AT THIS LOC. SHALL BE HALF OF ANCHOR SPACING SHOWN ON DET. 3A.

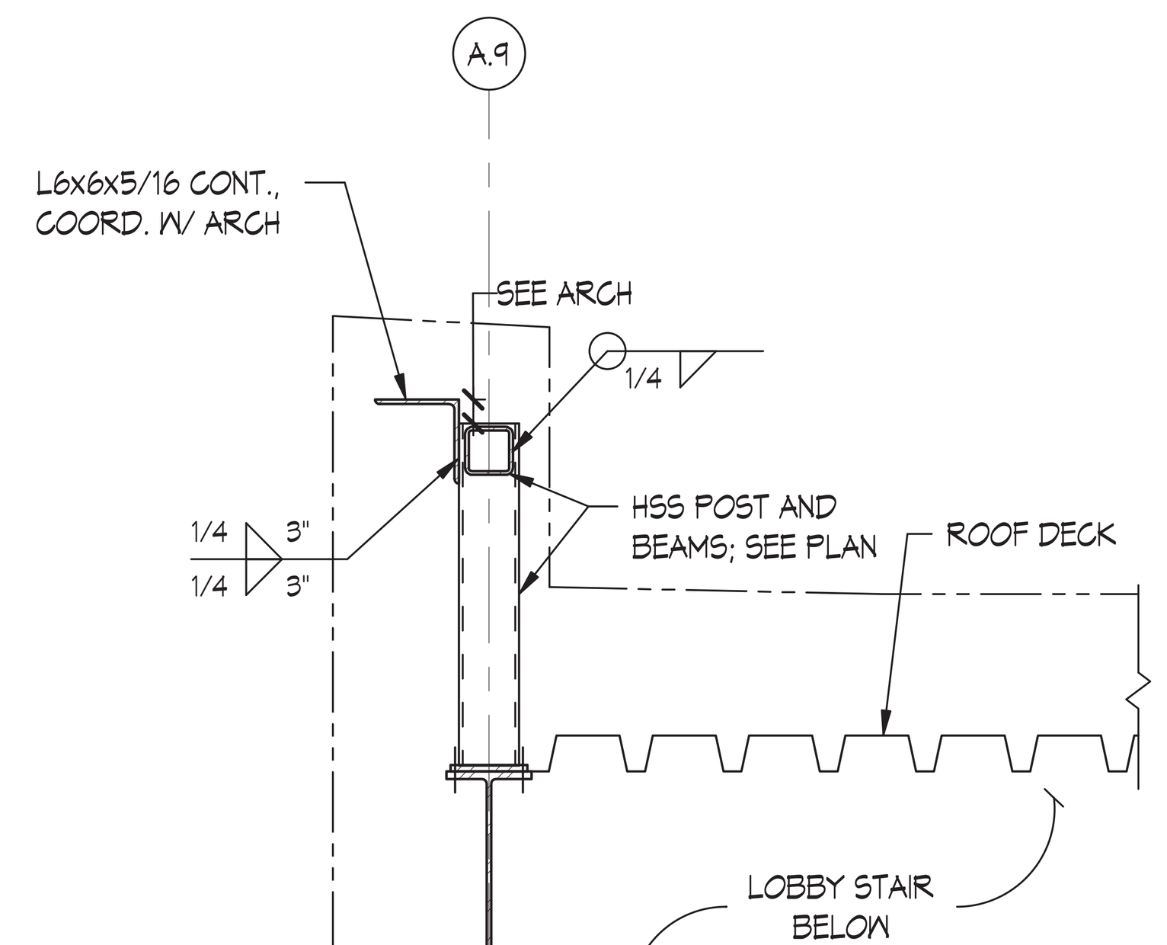
9 SECTION @ ROOF SLAB STEP BETWEEN GYM AND LOBBY
3/4" = 1'-0"



10 SECTION @ LOBBY
3/4" = 1'-0"



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



12 SECTION AT WEST LOBBY ROOF
3/4" = 1'-0"

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SED #: 50-90-00-00-0-044-001

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KEY PLAN

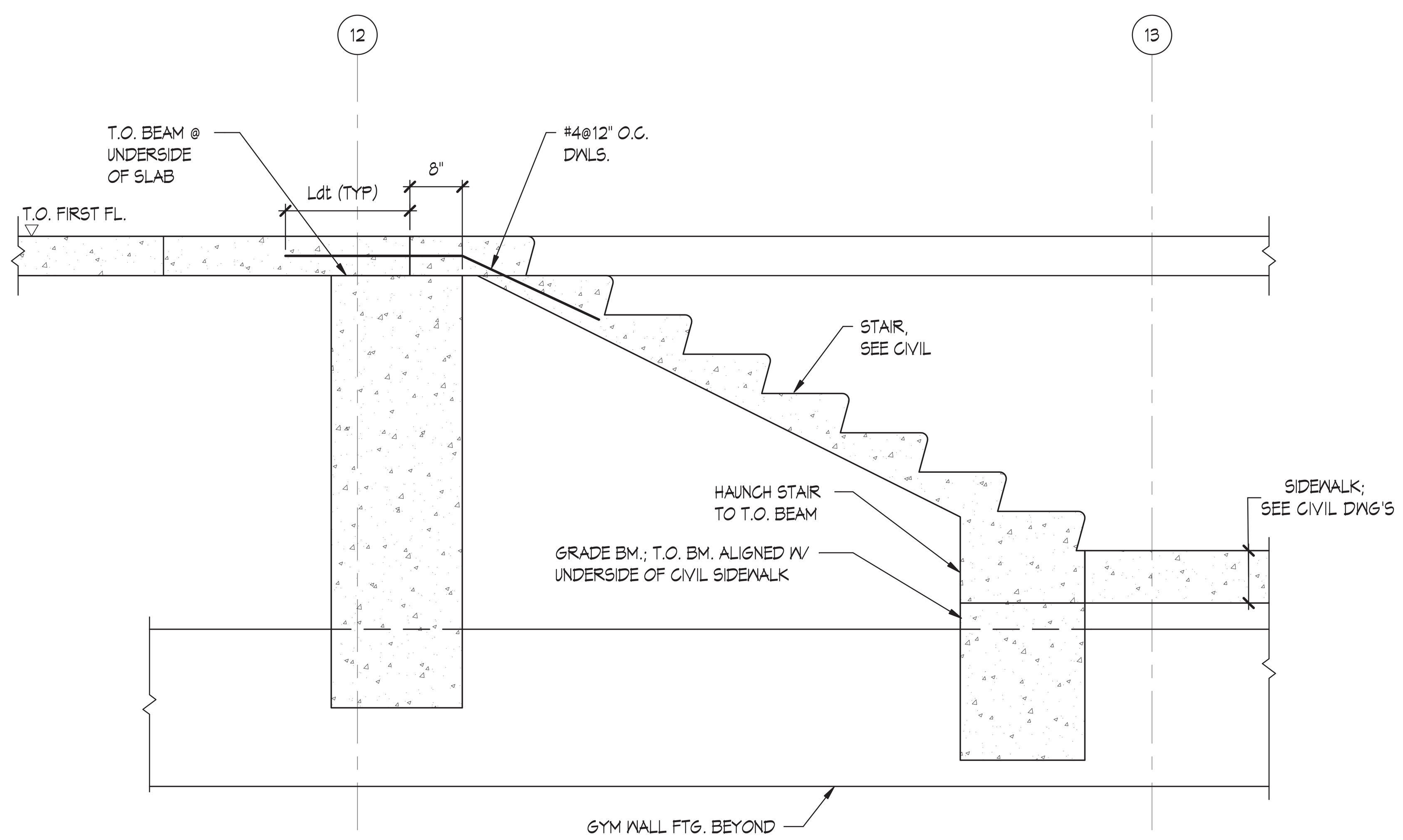
REVISIONS

No.	Description	Date

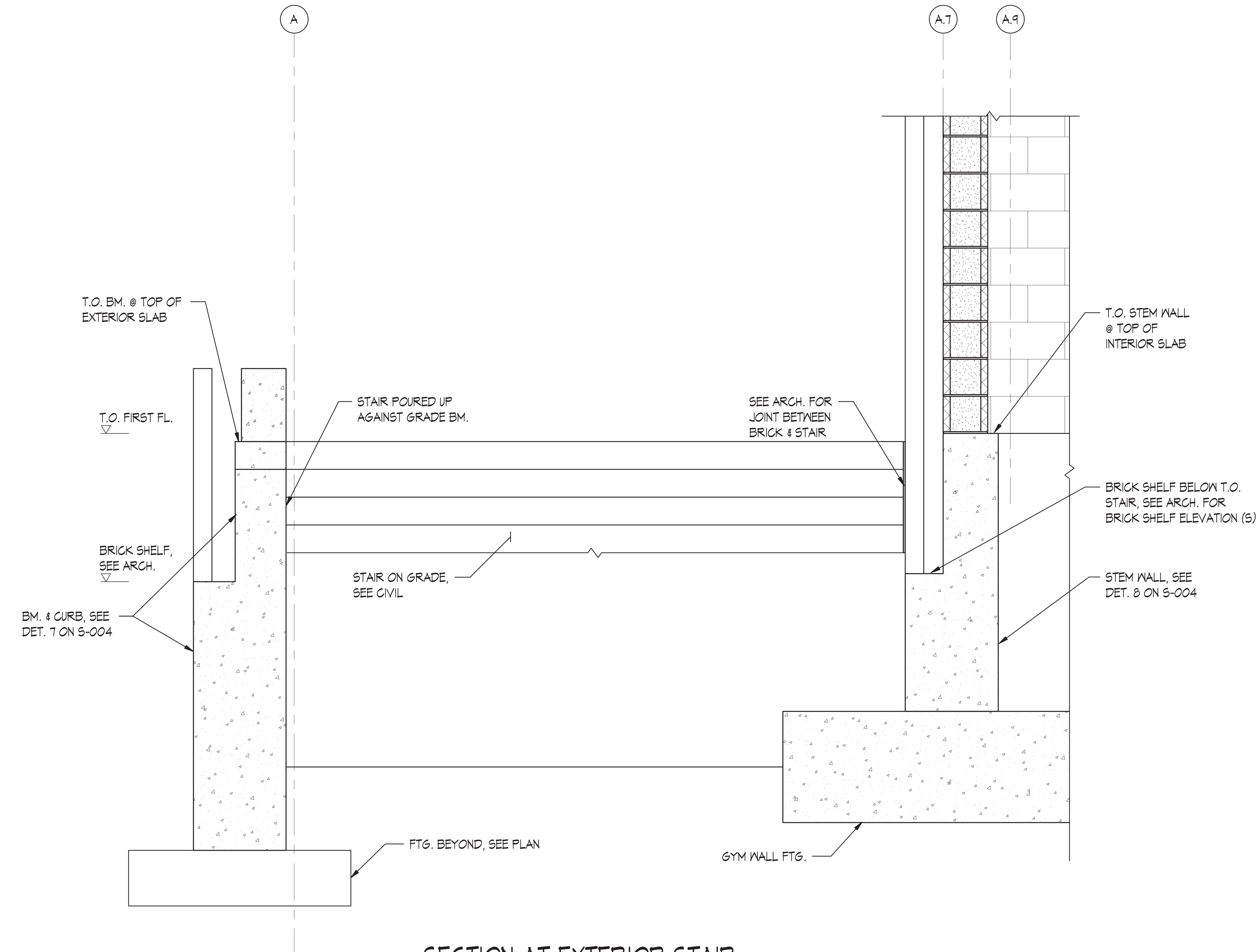
ISSUED: BID SET ISSUANCE
DATE: 06-30-2025
SCALE: 3/4" = 1'-0"
SHEET NAME: SECTIONS 1

SHEET NUMBER: S-201

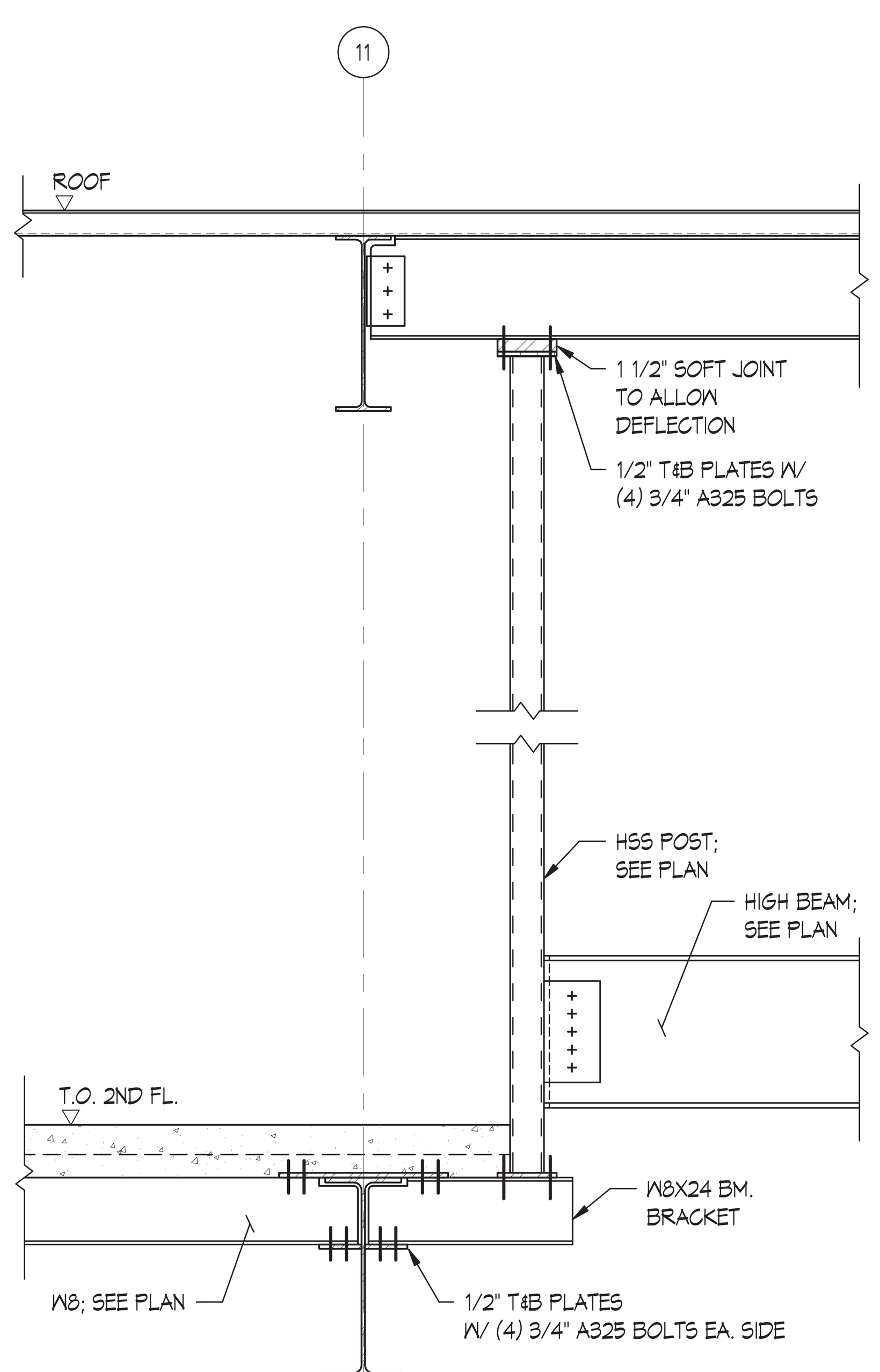
BID SET



1 **SECTION AT EXTERIOR STAIR**
3/4" = 1'-0"



2 **SECTION AT EXTERIOR STAIR**
3/4" = 1'-0"



3 **SECTION AT EAST LOBBY**
3/4" = 1'-0"

ARCHITECT

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SED #: 50-90-00-00-0-044-001

65 Parrot Rd,
West Nyack, NY 10994

KEY PLAN

REVISIONS

No.	Description	Date

ISSUED: BID SET ISSUANCE
DATE: 06-30-2025
SCALE: 3/4" = 1'-0"
SHEET NAME: SECTIONS 2
SHEET NUMBER: S-202

BID SET

CONCRETE GRADE BEAM SCHEDULE

BEAM NO.	SIZE (WIDTH x DEPTH)	REINFORCEMENT CL SUPPORTS	STIRRUPS TYPE	STIRRUPS SPACING FROM EACH END	REMARKS/ NOTES
GB-01	30x24	4#7 (top) / 4#7 (bottom)	2 LEGS	#3 @ 10" O.C.	2#7 SKIN REINF. EA SIDE
GB-02	30x24	4#7 (top) / 4#7 (bottom)	2 LEGS	#3 @ 7" O.C.	2#7 SKIN REINF. EA SIDE
GB-03	18x18	3#6 (top) / 3#6 (bottom)	2 LEGS	#3 @ 10" O.C.	1#6 SKIN REINF. EA SIDE

LOOSE LINTEL SCHEDULE FOR MASONRY WALLS

WALL THICKNESS	UNDER 4'-0" OPNG.	4'-0" TO 8'-0" OPNG.
4"	L1 (1L 4x3 1/2x5/16")	L2 (1L 4x3 1/2x3/8")
6"	L3 (* 1L 5x3 1/2x5/16")	L4 (1L 5x5x3/8")
8"	L6 (2Ls 4x3x5/16")	L7 (2Ls 4x3x3/8")
10"	2Ls 4x4x3/8"	2Ls 4x4x5/8"
12"	2Ls 5x5x3/8"	2Ls 5x5x5/8"

NOTES:

1. * PLACE LONG LEG HORIZONTAL.
2. ADD ANGLES AS REQUIRED FOR MASONRY BACK-UP WALL.
3. LOOSE LINTEL SCHEDULE TO BE USED ONLY WHERE NOT OTHER INDICATED.
4. FOR MASONRY OPENING GREATER THAN 6' FIRE PROOF LINTEL OR PROVIDE INTERMEDIATE SUPPORTS.

BOND BEAM SCHEDULE

MASONRY OPENING	REINFORCING As	STANDARD MASONRY BLOCK (bxh)
UP TO 4'	1#4	8x8, d = 4 3/4"
UP TO 6'	1#5	8x8, d = 4 3/4"
UP TO 8'	1#5	8x16, d = 12 3/8"

NOTES:

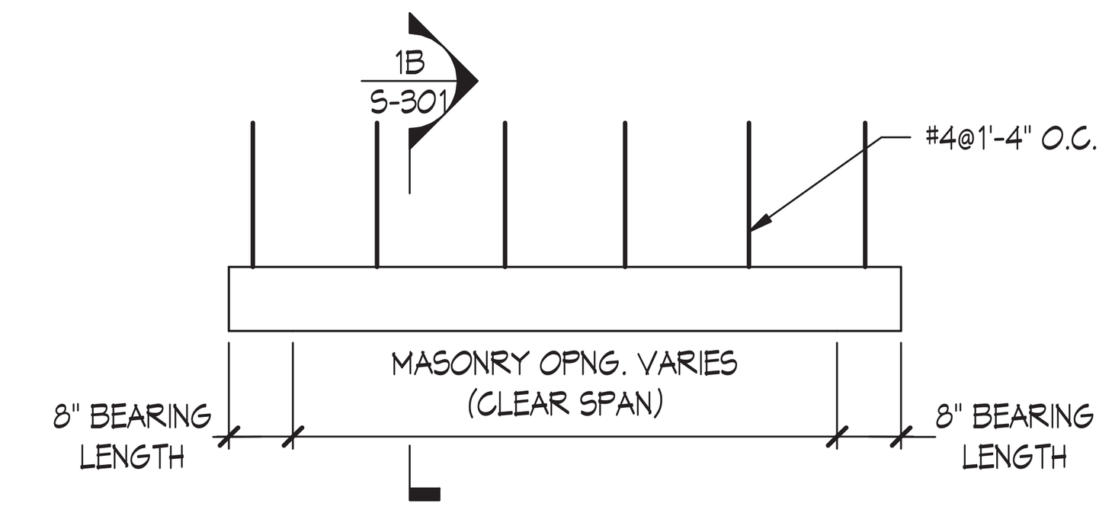
1. MINIMUM BEARING LENGTH SHALL BE 8".
2. THIS SCHEDULE IS VALID FOR 8" MASONRY WALL. FOR 12" WALL, USE 12" WIDE BLOCK AND DOUBLE THE REINFORCING.
3. BOND BEAMS ARE NOT DESIGNED TO TAKE ANY FLOOR LOAD.
4. BOND BEAM SHALL BE SHORED BEFORE IT REACHES FULL STRENGTH.
5. BLOCK DIMENSIONS ABOVE ARE NOMINAL.

PRECAST CONCRETE LINTEL SCHEDULE AT BEARING WALLS

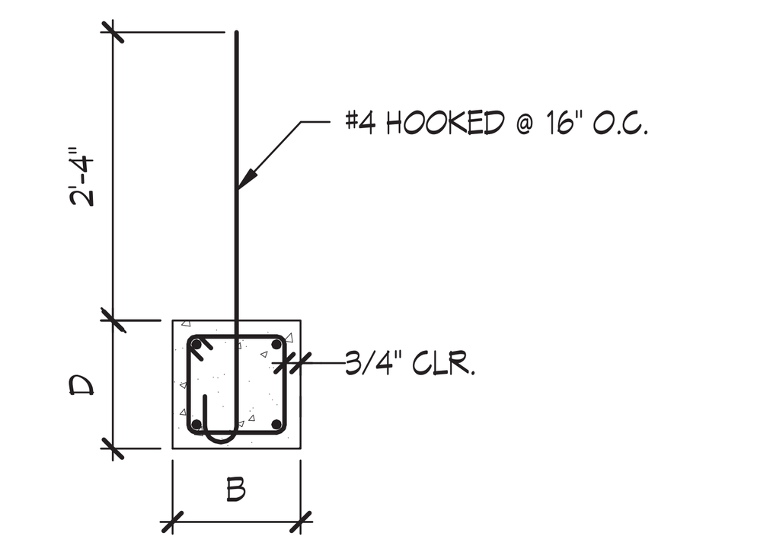
TYPE	DESCRIPTION	SIZE (IN.) BxD	TOP REINF.	BOTTOM REINF.	STIRRUP
LC-1	MAX. CLEAR SPAN 6'-6" (10" WALL)	10x12	2#6	2#6	#3@4 1/2"
LC-2	MAX. CLEAR SPAN 6'-8" (12" WALL)	12x12	2#6	2#6	#3@4 1/2"
LC-3	MAX. CLEAR SPAN 8'-4" (12" WALL)	12x16	3#6	3#6	#3@6"

NOTES:

1. PRECAST LINTEL CONCRETE SHALL BE 6,000 psi MIN.
2. PROVIDE 180 DEGREE HOOK AT EACH END OF #6 BARS AND SMALLER.
3. PROVIDE MINIMUM 8" BEARING AT EACH END OF LINTEL.



1A SECTION
N.T.S.



1B SECTION
N.T.S.

COLUMN SCHEDULE (1 OF 3)

FLOOR \ COLUMN	FLOOR HEIGHT	A/2	A/3	A/4	A/5	A/6	A/7	A/9	A/10	A/11
ROOF										
2ND	VARIES	7 / 5	17 / 12	17 / 12	17 / 12	18 / 12	18 / 12	18 / 12	23 / 12	10 / 4
1ST	16'-0"	31 / 10	64 / 22	65 / 22	63 / 22	64 / 22	67 / 21	67 / 22	71 / 22	32 / 9
COL. SIZE		W10x49	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49
PIER (P) OR BUTTRESS (B)		(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6
BASEPLATE (T x W x H)		3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"

FLOOR \ COLUMN	A1.7/11	B/1	B/2	C/1	C/2	C/3	C/4	C/5
ROOF								
2ND	10 / 7	6 / 4	8 / 6		13 / 10	21 / 15	23 / 16	21 / 15
1ST	35 / 16	14 / 10	28 / 16	12 / 9	36 / 21	64 / 30	66 / 30	64 / 29
COL. SIZE	W10x49	W10x49	W10x49	HSS6x6x3/8	W10x49	W10x49	W10x49	W10x49
PIER (P) OR BUTTRESS (B)	(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6		(P) 16"x16" 4#6		
BASEPLATE (T x W x H)	3/4"x12"x12"	1/2"x12"x12"	3/4"x12"x12"	1/2"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"

COLUMN SCHEDULE (2 OF 3)

FLOOR \ COLUMN	FLOOR HEIGHT	C/6	C/8	C/9	C/10	C/11	D/2	D/3	D/4	D/5	D/6
ROOF											
2ND	VARIES	27 / 18	25 / 16	19 / 12	33 / 16	21 / 12	13 / 9	21 / 15	23 / 16	22 / 15	27 / 18
1ST	16'-0"	79 / 35	69 / 30	54 / 25	76 / 30	52 / 27	70 / 29	64 / 30	67 / 30	65 / 29	79 / 34
COL. SIZE		W10x49	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49
PIER (P) OR BUTTRESS (B)		(P) 16"x16" 4#6	(P) 16"x16" 4#6				(P) 16"x16" 4#6				
BASEPLATE (T x W x H)		3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"

FLOOR \ COLUMN	D/8	D/9	D/10	D/11	E/1	F/1.7	F/2	F/3.3	F/4	F/5.2
ROOF										
2ND	25 / 15	19 / 12	24 / 16	20 / 15	6 / 4		13 / 8	17 / 12	17 / 11	17 / 12
1ST	69 / 32	55 / 29	68 / 34	48 / 31	26 / 9		76 / 36	84 / 40	83 / 40	83 / 39
COL. SIZE	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49	HSS6x6x1/2	W10x49	HSS6x6x1/2
PIER (P) OR BUTTRESS (B)		(P) 16"x16" 4#6			(B) 16"x16" 4#6	(B) 16"x16" 4#6	(P) 16"x16" 4#6			(P) 16"x16" 4#6
BASEPLATE (T x W x H)	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	1/2"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	1 1/4"x12"x12"	3/4"x12"x12"	1 1/4"x12"x12"

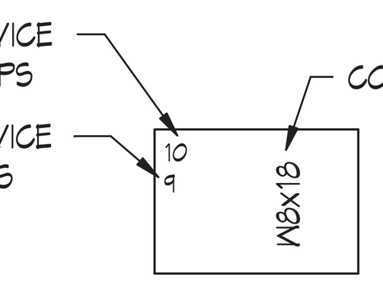
COLUMN SCHEDULE (3 OF 3)

FLOOR \ COLUMN	FLOOR HEIGHT	F/6	F/8	F/9	F/10	F/11	G/1.7	G/2	G/3	G/4	G/5
ROOF											
2ND	VARIES	20 / 14	23 / 16	22 / 15	28 / 18	26 / 18					
1ST	16'-0"	94 / 45	82 / 40	64 / 32	79 / 37	52 / 29	26 / 8	24 / 12	37 / 20	37 / 20	37 / 19
COL. SIZE		HSS6x6x1/2	HSS6x6x1/2	W10x49	HSS6x6x1/2	HSS6x6x3/8	W10x49	W10x49	W10x49	W10x49	W10x49
PIER (P) OR BUTTRESS (B)							(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6
BASEPLATE (T x W x H)		1 1/4"x12"x12"	1 1/4"x12"x12"	3/4"x12"x12"	1 1/4"x12"x12"	1 1/4"x12"x12"	1/2"x12"x12"	1/2"x12"x12"	1/2"x12"x12"	1/2"x12"x12"	1/2"x12"x12"

FLOOR \ COLUMN	G/6	G/7	G/9	G/10	G/11	H/7	H/9	H/10	H/11
ROOF									
2ND		14 / 10	28 / 19	29 / 19	23 / 18	10 / 7	18 / 13	18 / 13	16 / 13
1ST	36 / 19	74 / 34	81 / 42	82 / 41	51 / 31	47 / 17	70 / 29	69 / 29	49 / 23
COL. SIZE	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49	W10x49
PIER (P) OR BUTTRESS (B)	(B) 16"x16" 4#6	(B) 16"x16" 4#6			(P) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6	(B) 16"x16" 4#6
BASEPLATE (T x W x H)	1/2"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"	3/4"x12"x12"

NOTES:

1. COLUMN SCHEDULE KEY:



2. INDICATES COLUMN IS PART OF A LATERAL MOMENT FRAME. SEE MOMENT FRAME ELEVATIONS ON S-401 THROUGH S-403 FOR LATERAL COLUMN LOADS.

ARCHITECT

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SED #: 50-90-00-00-0-044-001

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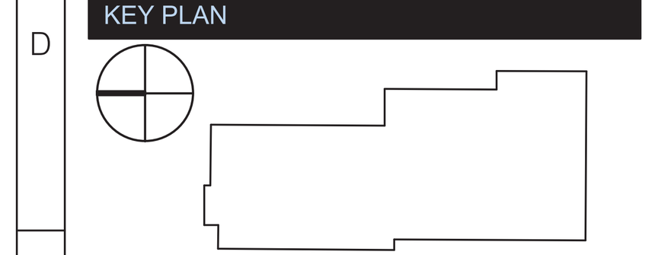
KEY PLAN

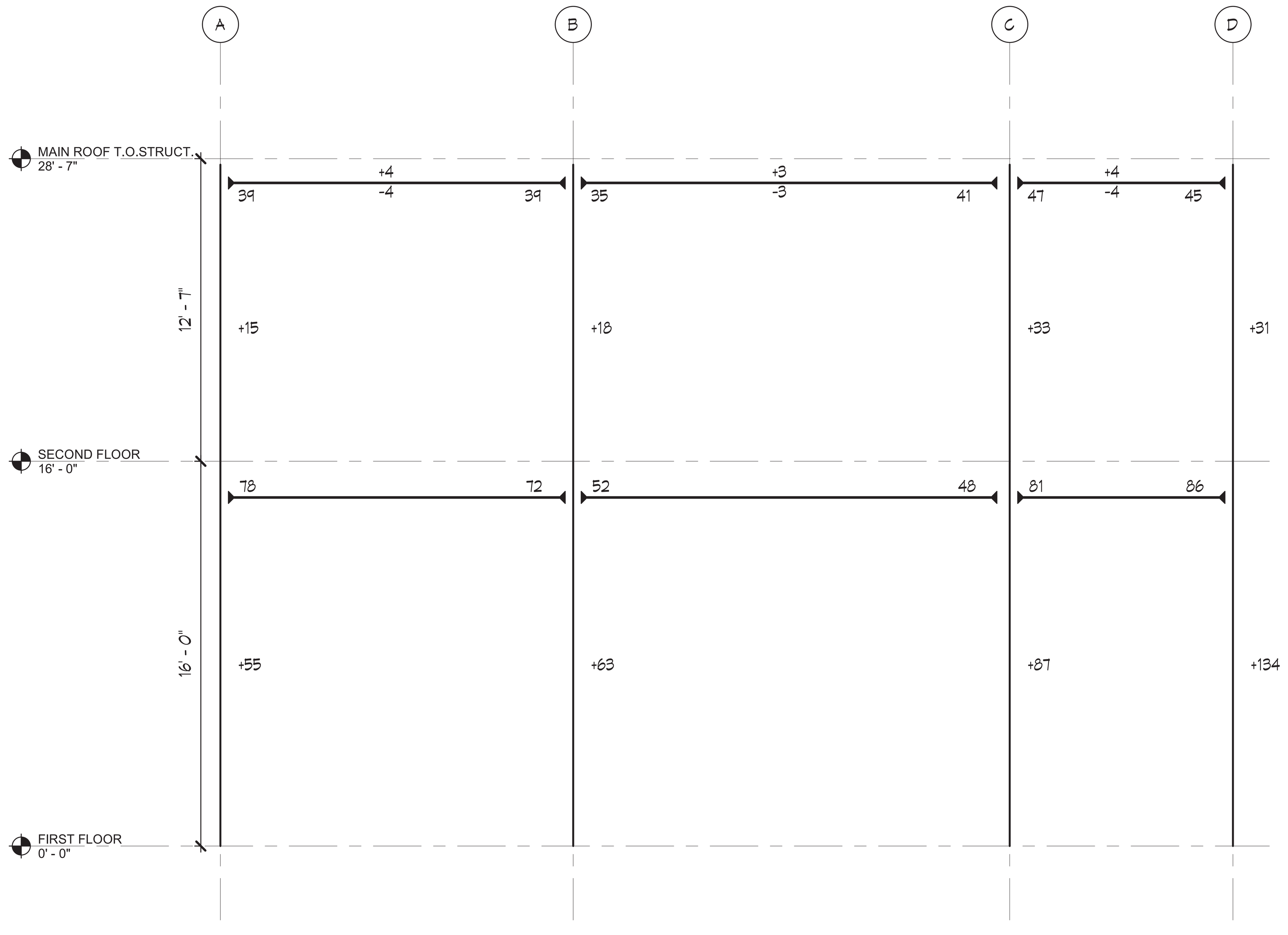


REVISIONS

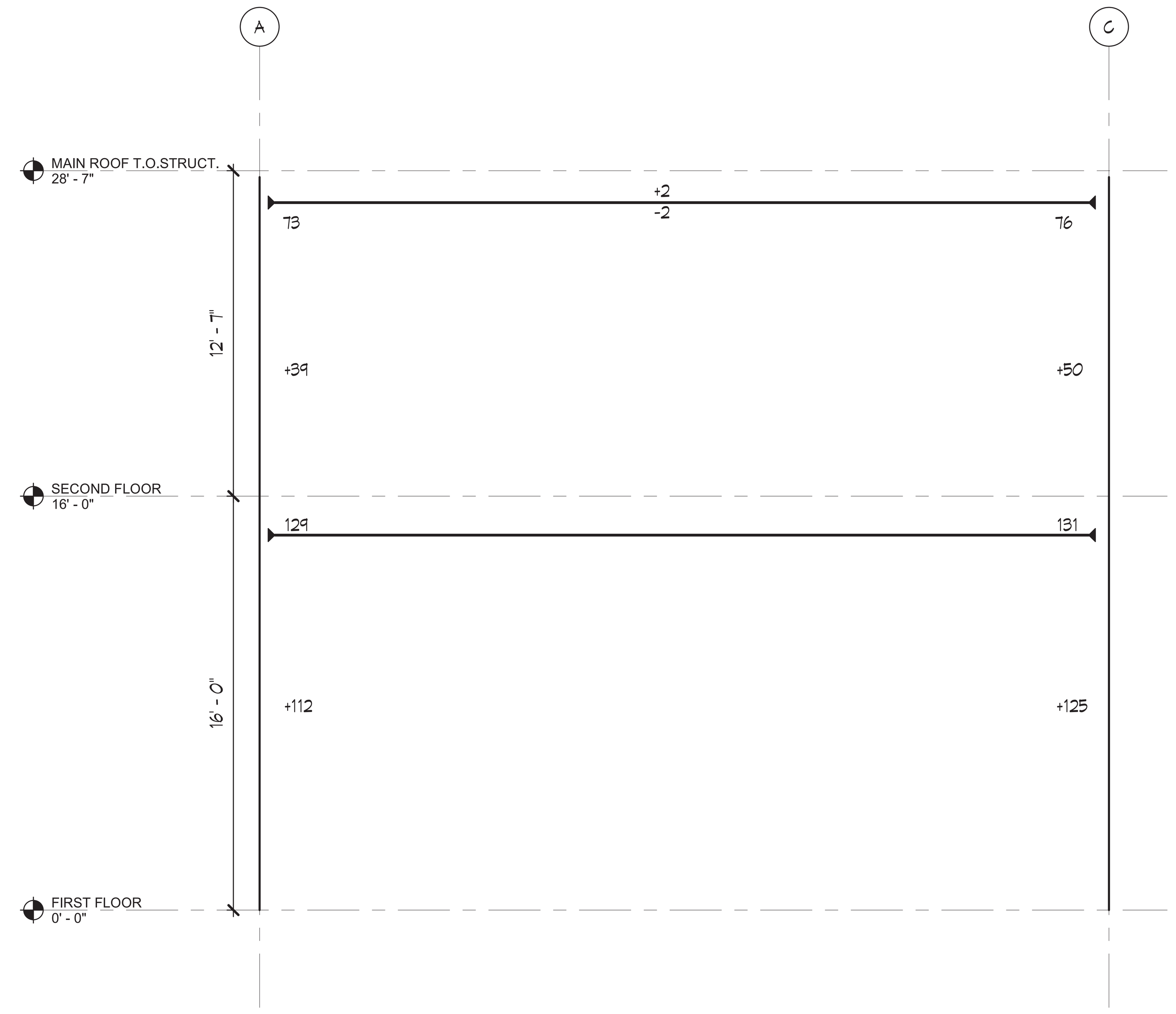
No.	Description	Date

ISSUED: BID SET ISSUANCE
DATE: 06/30/2025
SCALE: As indicated
SHEET NAME: SCHEDULES
SHEET NUMBER: S-301

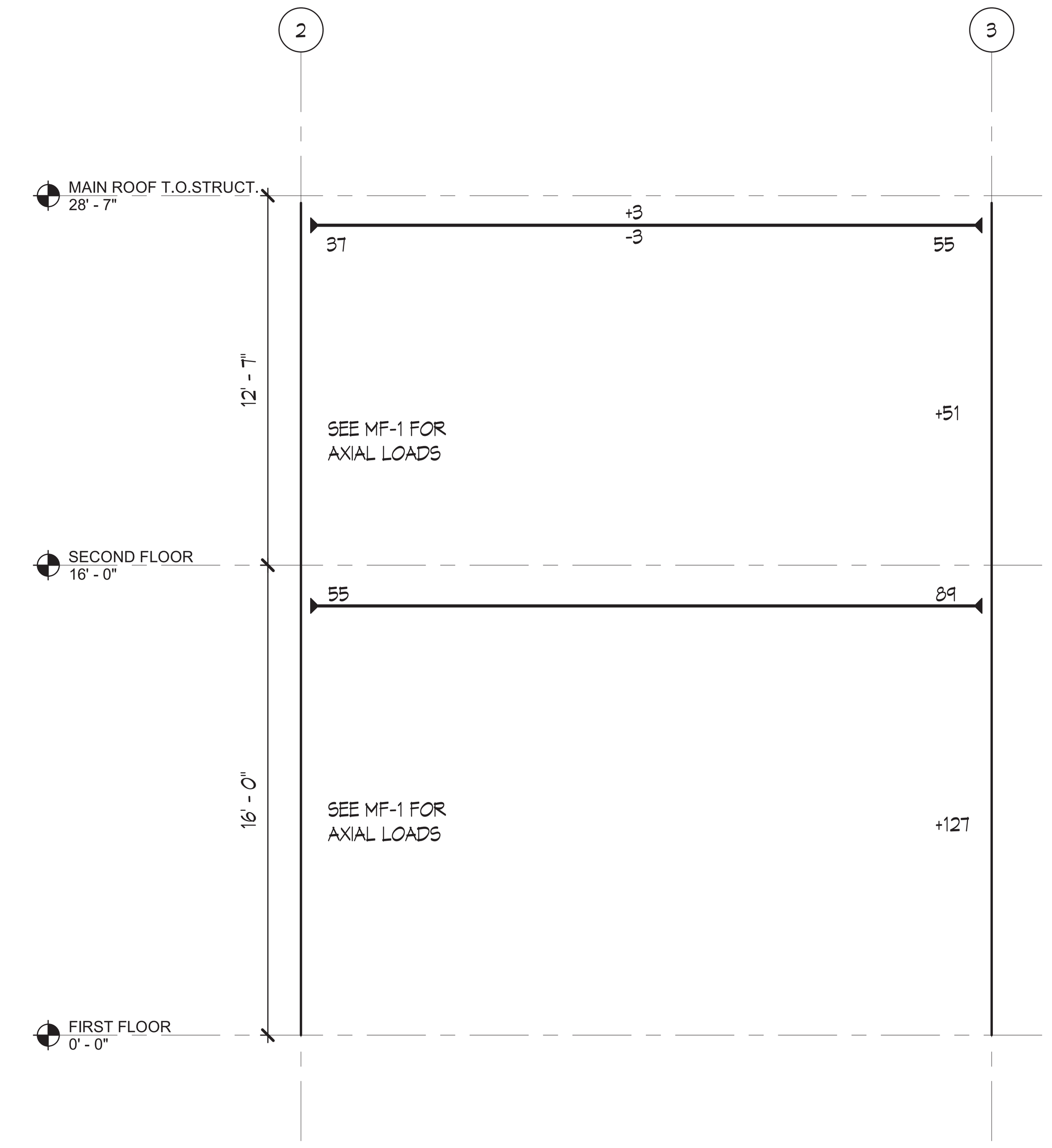
BID SET



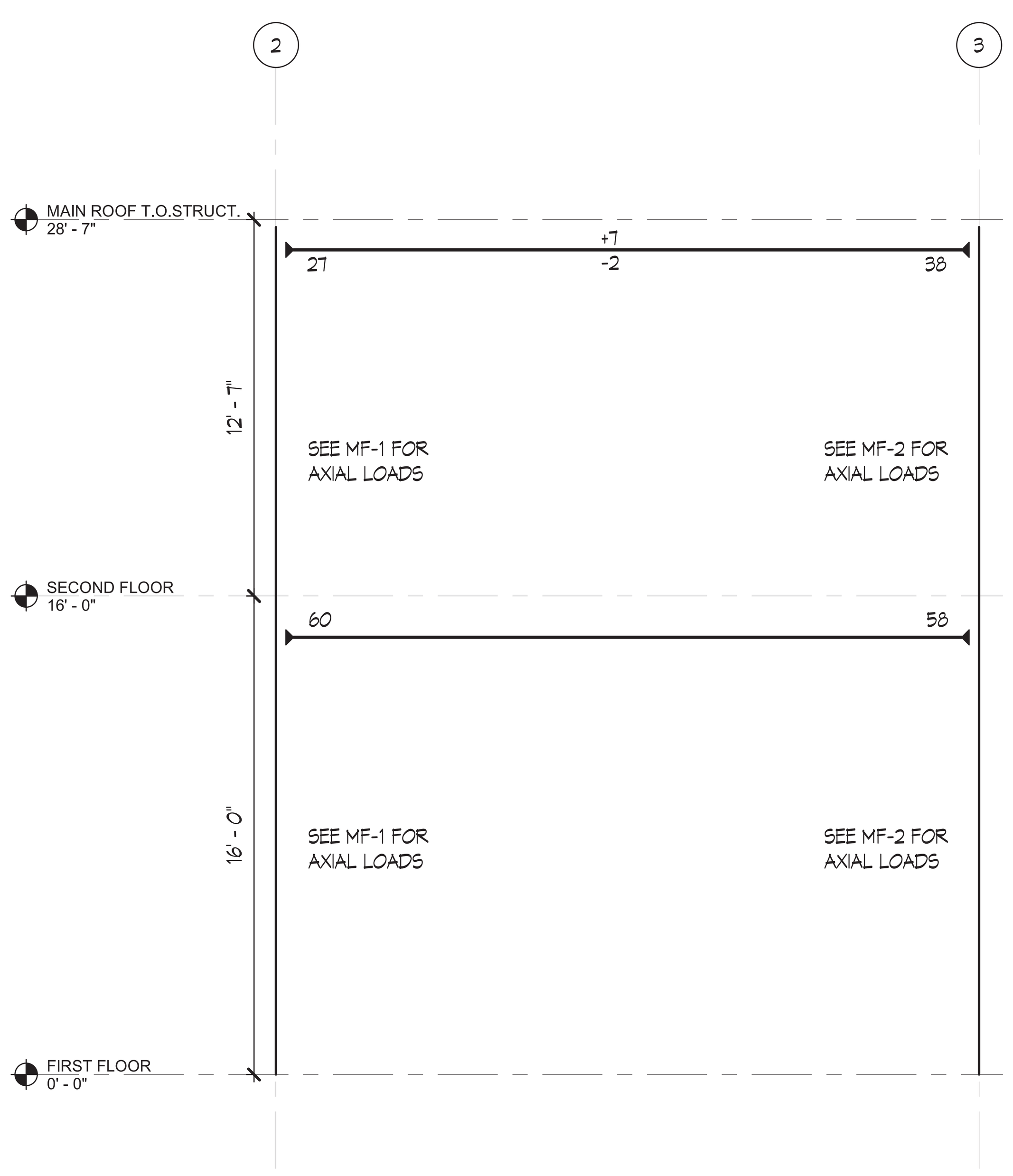
1 FRAME MF-1 ON GRID 2
1/4" = 1'-0"



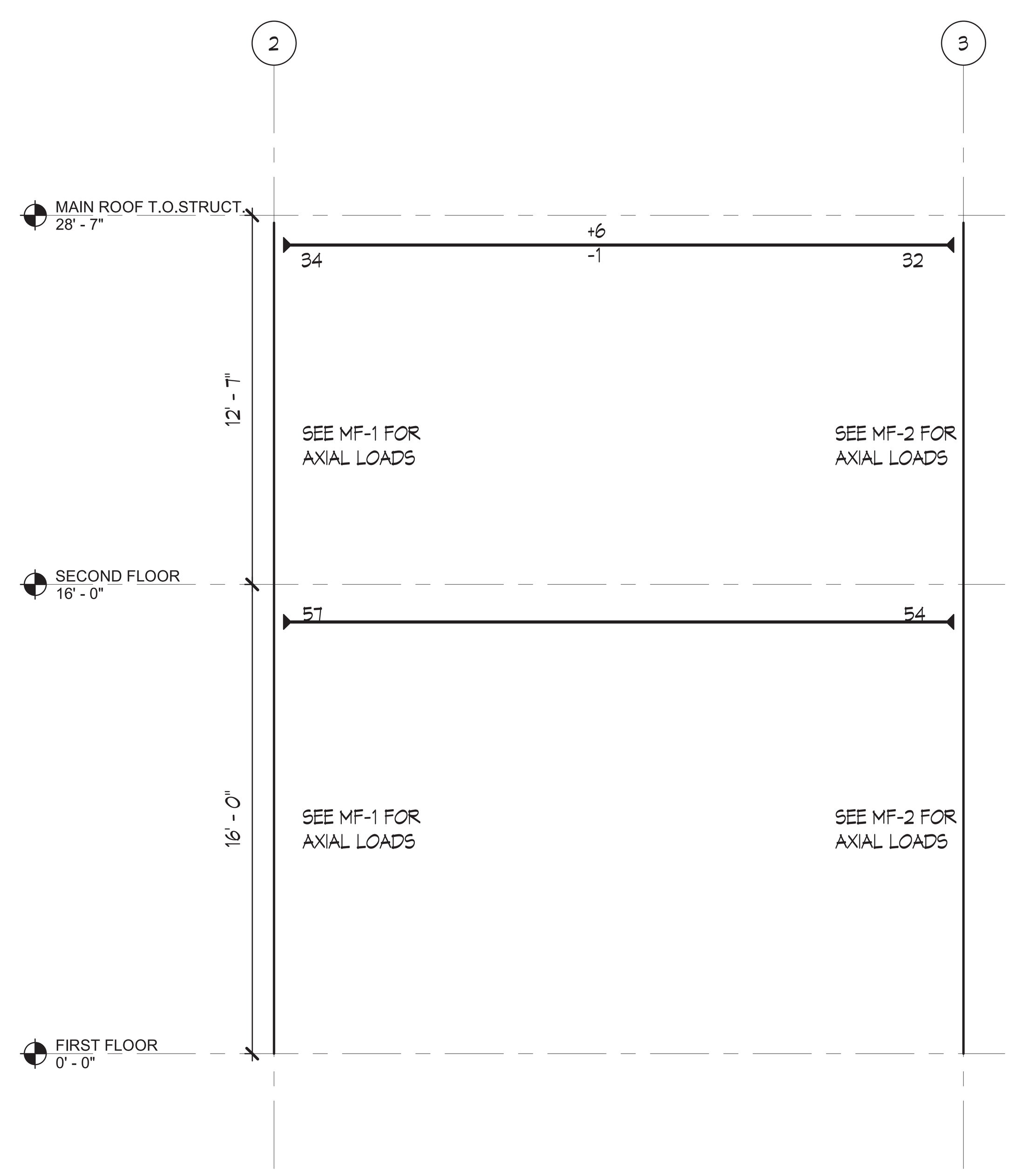
2 FRAME MF-2 ON GRID 3
1/4" = 1'-0"



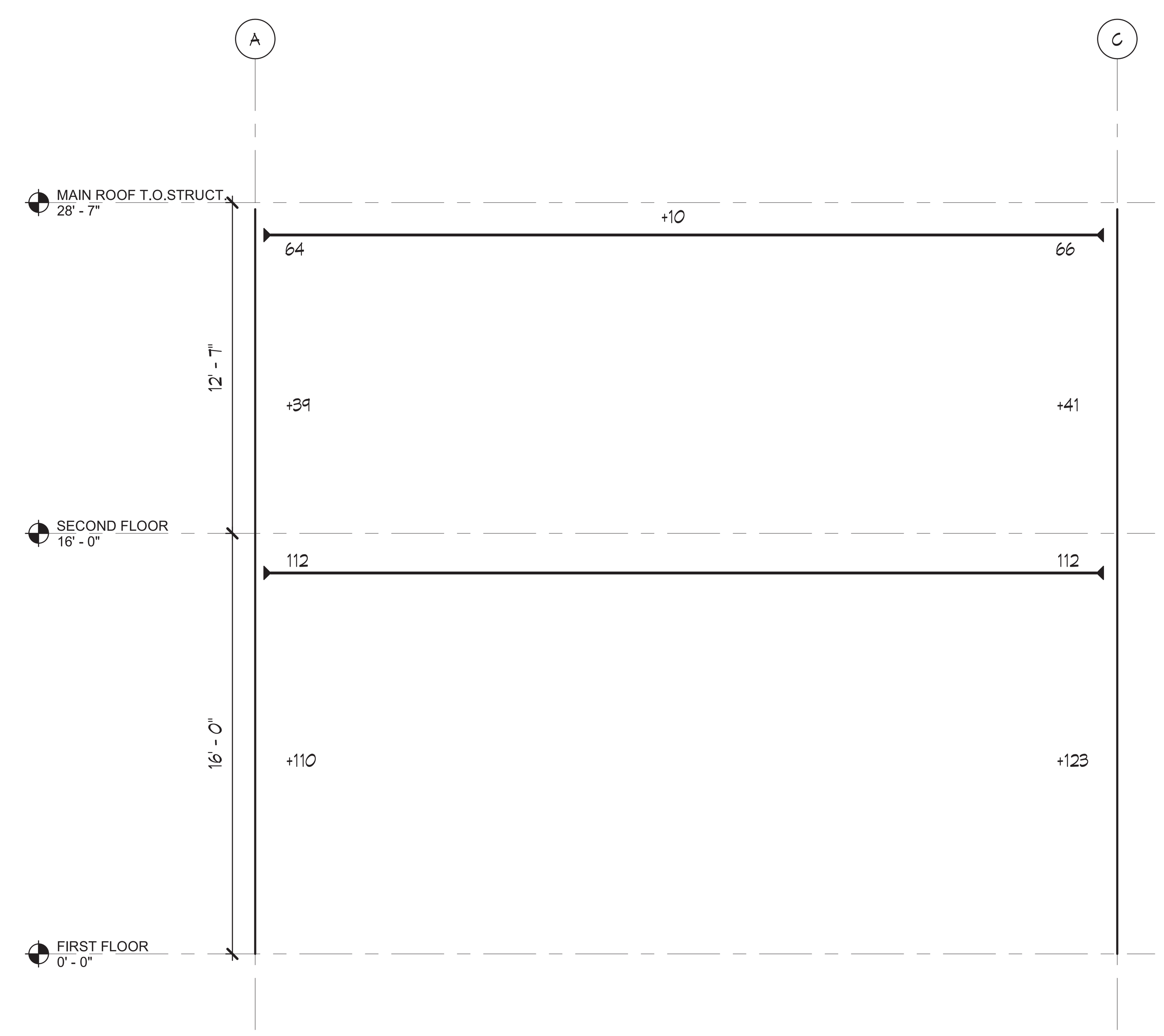
3 FRAME MF-3 ON GRID D
1/4" = 1'-0"



4 FRAME MF-4 ON GRID C
1/4" = 1'-0"



5 FRAME MF-5 ON GRID A
1/4" = 1'-0"



6 FRAME MF-6 ON GRID 5
1/4" = 1'-0"

NOTES:

1. MEMBER FORCES SHOWN ARE ULTIMATE AXIAL LOADS IN KIPS. AT MOMENT CONNECTION MEMBER FORCES SHOWN ARE ULTIMATE BEAM END MOMENTS IN KIP-FEET.
2. "+" DENOTES COMPRESSION FORCE.
   "-" DENOTES TENSION FORCE.
3. DESIGN BEAM CONNECTIONS AND COLUMN TENSION SPLICES FOR MEMBER FORCES SHOWN AND GRAVITY LOAD REACTION SHOWN ON PLAN.
4. DESIGN COLUMN COMPRESSION SPLICES FOR FULL COMPRESSION CAPACITY OF COLUMNS.
5. ALL MEMBER FORCES SHOWN REPRESENT THE MOST UNFAVORABLE LOADING CONDITION FOR A GIVEN MEMBER.
6. FLOOR -TO- FLOOR HEIGHTS SHOWN ARE TYPICAL AND MAY VARY AT SOME LOCATIONS. SEE PLANS FOR ACTUAL STEEL ELEVATIONS.
7. ⊢ DENOTES MOMENT CONNECTION.

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SED #: 50-90-00-00-0-044-001

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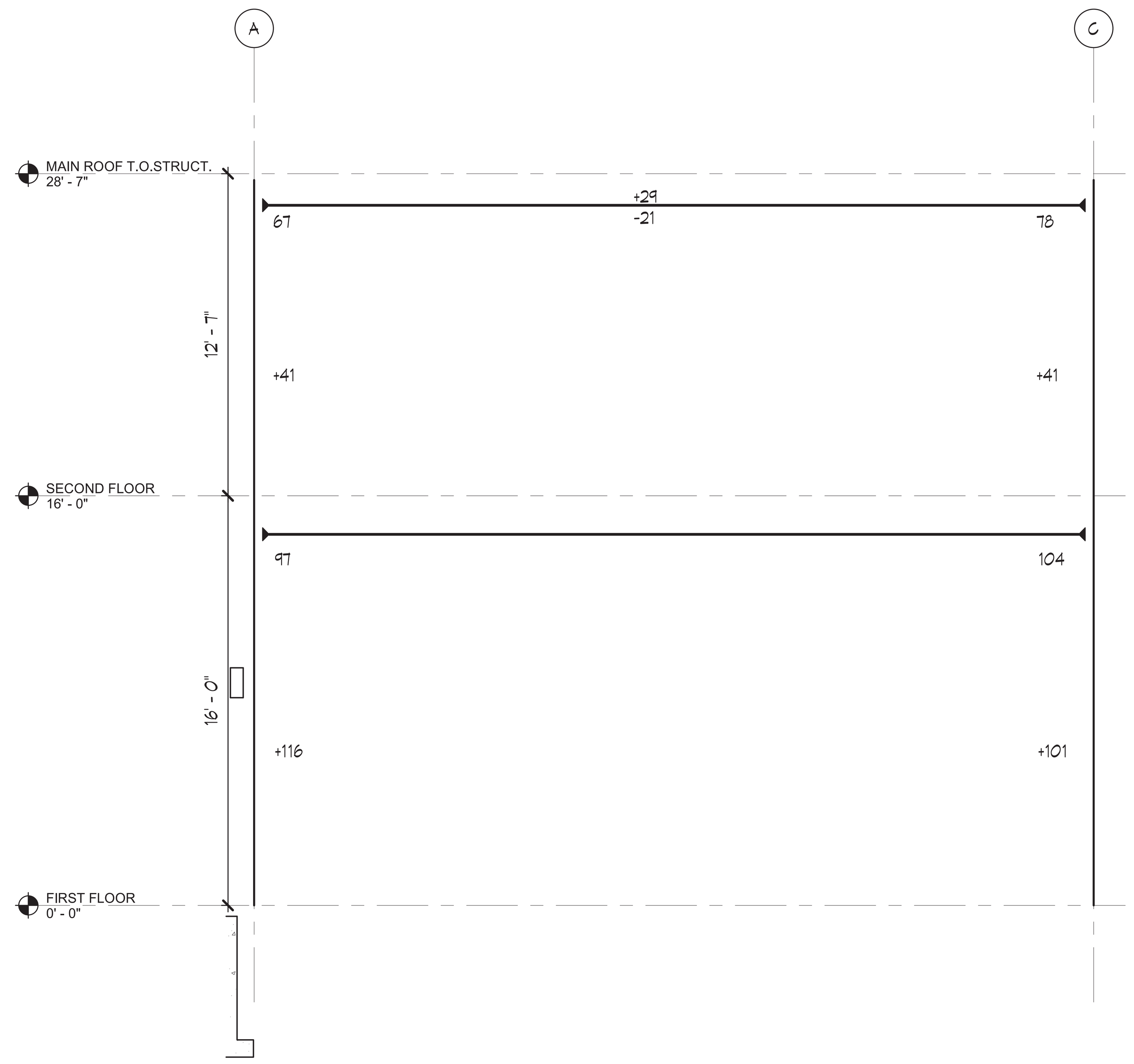
KEY PLAN

REVISIONS

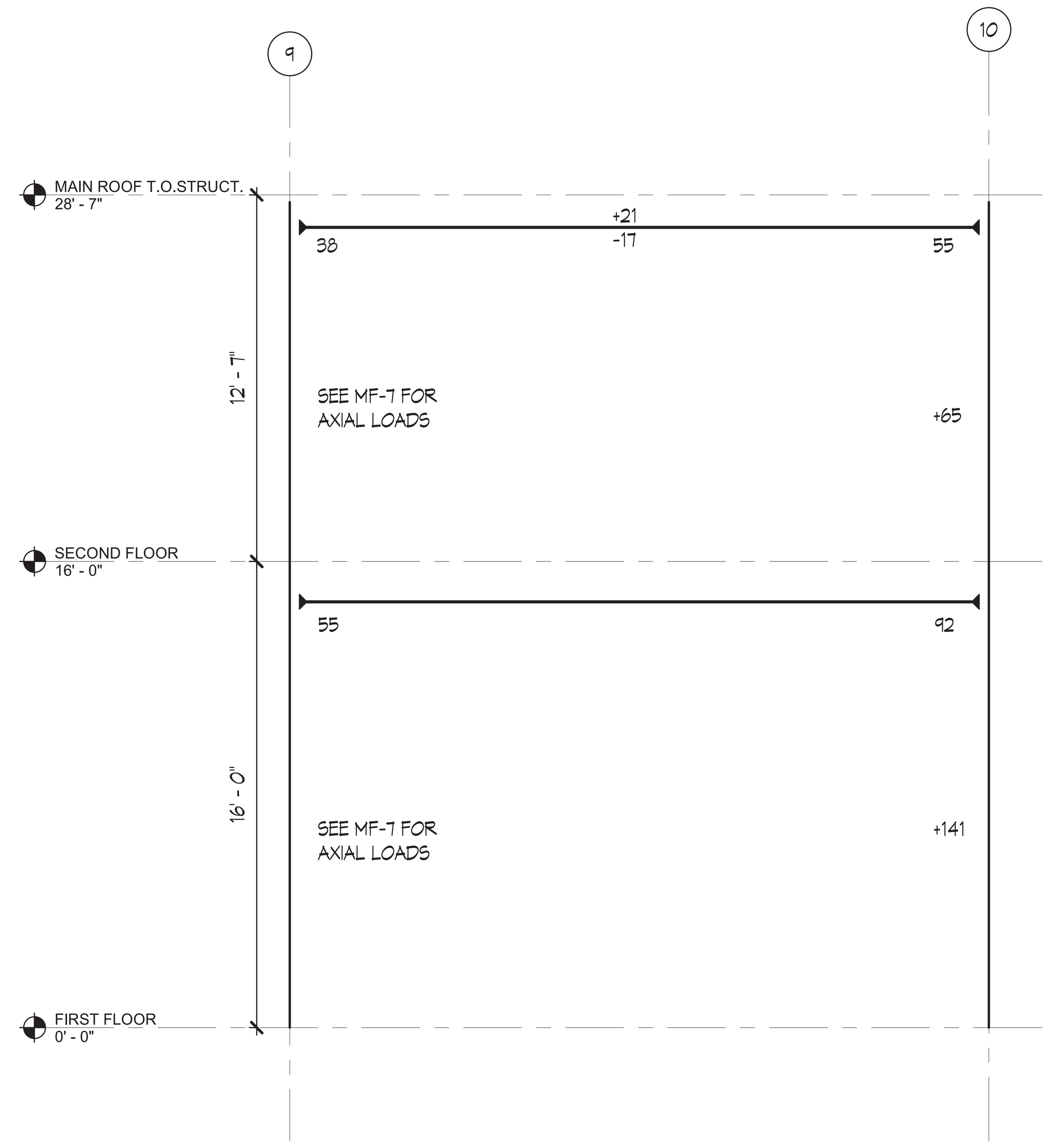
No.	Description	Date

ISSUED: BID SET ISSUANCE
DATE: 06/30/2025
SCALE: As indicated
SHEET NAME: MOMENT FRAME ELEVATIONS 1
SHEET NUMBER: S-401

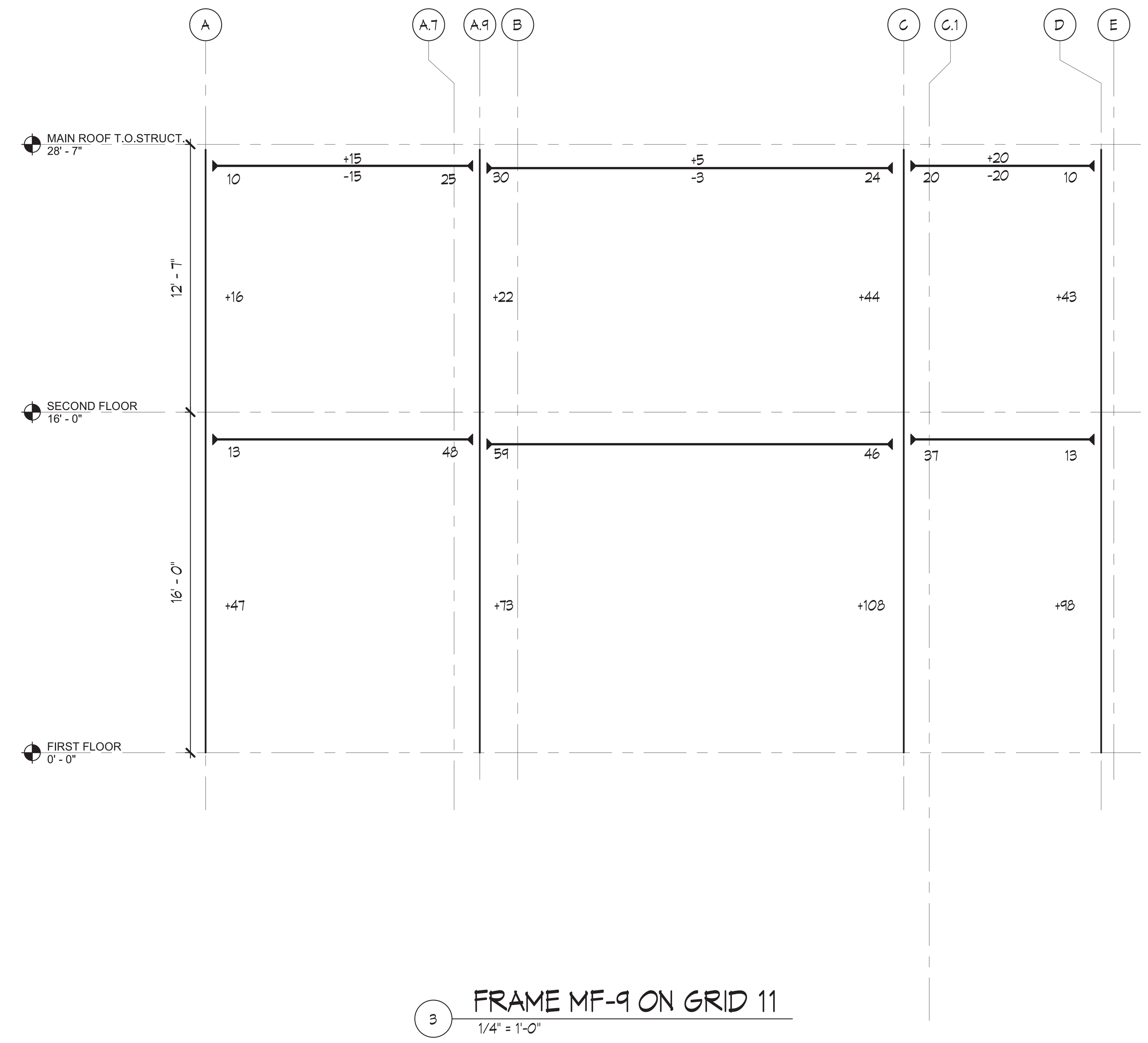
BID SET



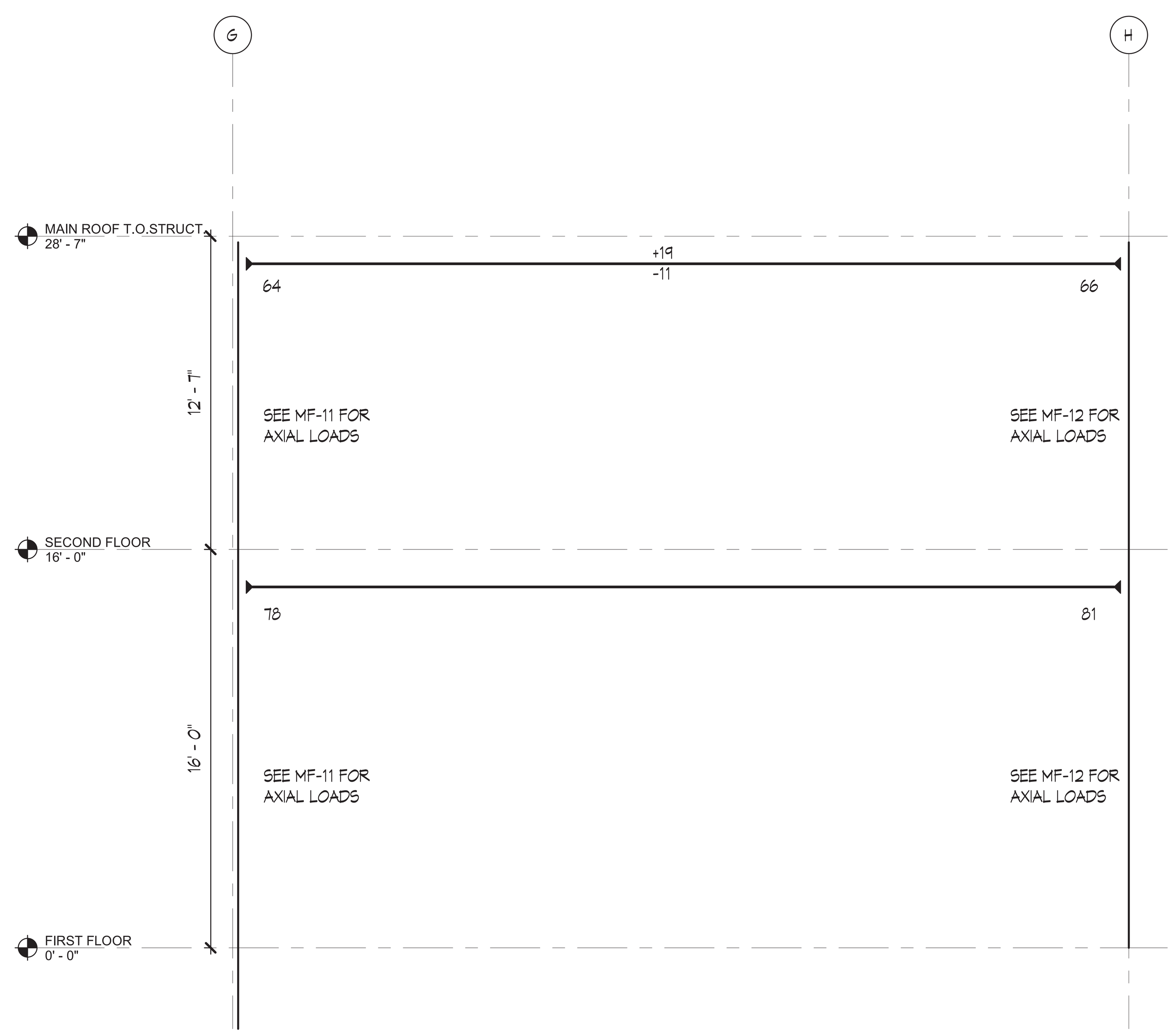
1 FRAME MF-7 ON GRID 9
1/4" = 1'-0"



2 FRAME MF-8 ON GRID C
1/4" = 1'-0"



3 FRAME MF-9 ON GRID 11
1/4" = 1'-0"



4 FRAME MF-10 ON GRID 11
1/4" = 1'-0"

NOTES:

1. MEMBER FORCES SHOWN ARE ULTIMATE AXIAL LOADS IN KIPS. AT MOMENT CONNECTION MEMBER FORCES SHOWN ARE ULTIMATE BEAM END MOMENTS IN KIP-FEET.

2. "+" DENOTES COMPRESSION FORCE.
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4. DESIGN COLUMN COMPRESSION SPLICES FOR FULL COMPRESSION CAPACITY OF COLUMNS.

5. ALL MEMBER FORCES SHOWN REPRESENT THE MOST UNFAVORABLE LOADING CONDITION FOR A GIVEN MEMBER.

6. FLOOR -TO- FLOOR HEIGHTS SHOWN ARE TYPICAL AND MAY VARY AT SOME LOCATIONS; SEE PLANS FOR ACTUAL STEEL ELEVATIONS.

7. ⊢ DENOTES MOMENT CONNECTION.

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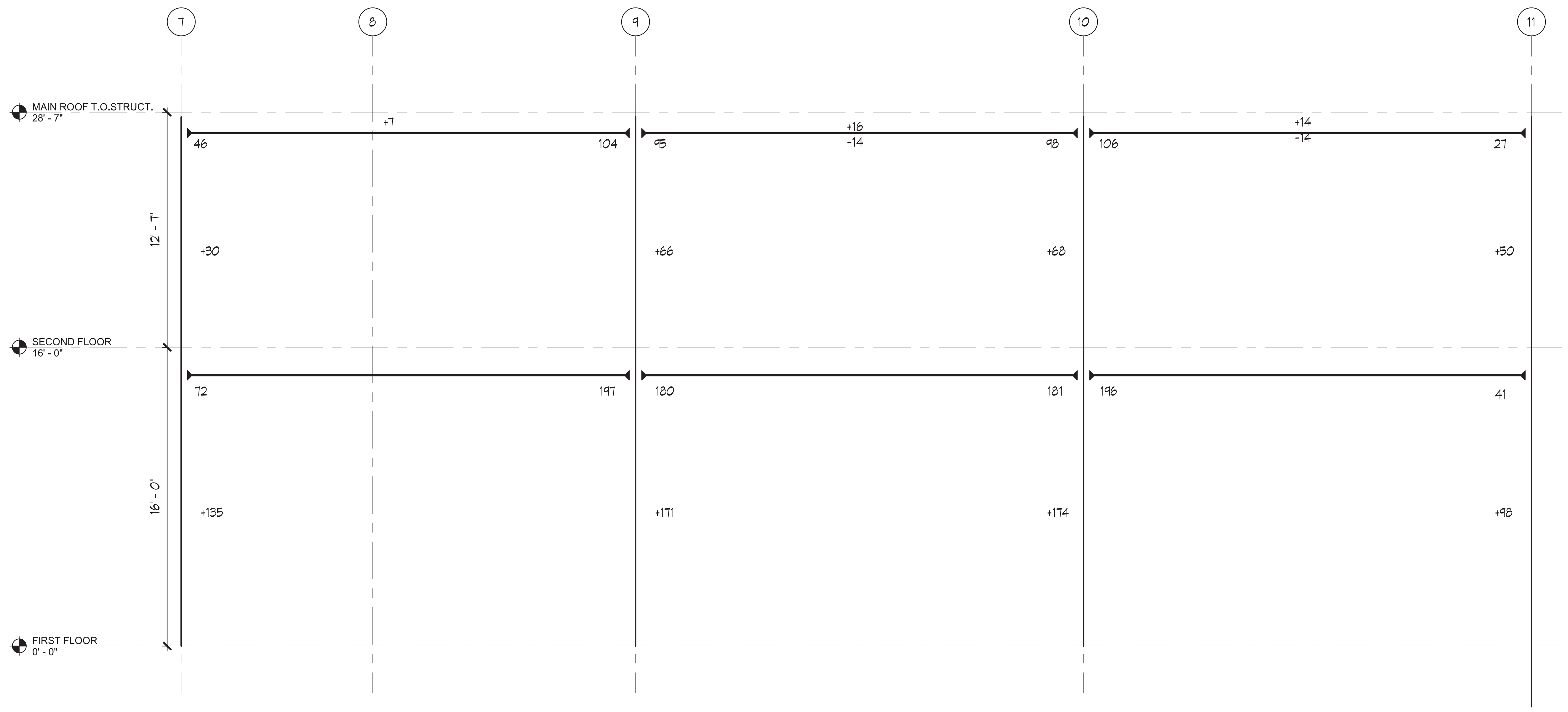
KEY PLAN

REVISIONS

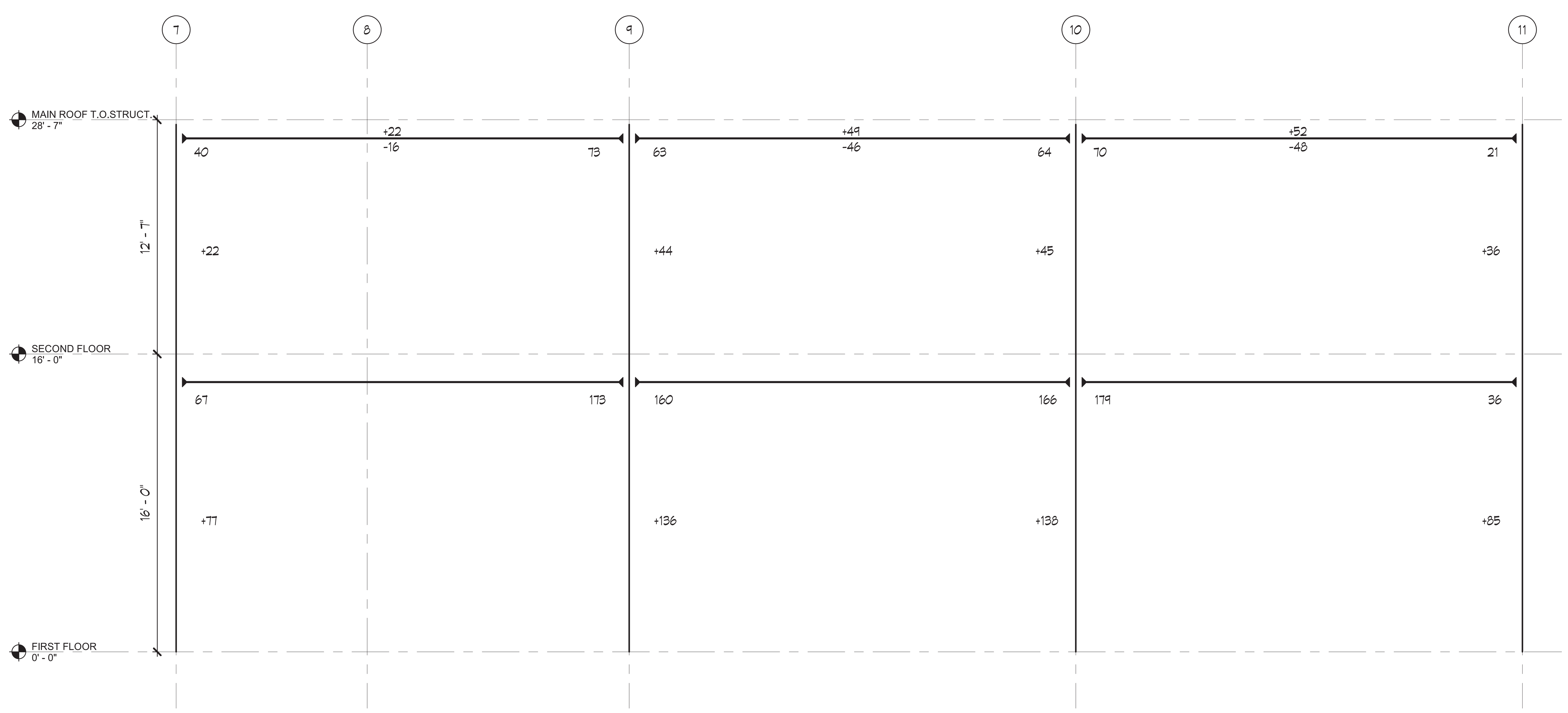
No.	Description	Date

ISSUED: BID SET ISSUANCE
DATE: 06/30/2025
SCALE: As indicated
SHEET NAME: MOMENT FRAME ELEVATIONS 2
SHEET NUMBER: S-402

BID SET



1 FRAME MF-11 ON GRID G
1/4" = 1'-0"



2 FRAME MF-12 ON GRID H
1/4" = 1'-0"

NOTES:

1. MEMBER FORCES SHOWN ARE ULTIMATE AXIAL LOADS IN KIPS. AT MOMENT CONNECTION MEMBER FORCES SHOWN ARE ULTIMATE BEAM END MOMENTS IN KIP-FEET.

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"-" DENOTES TENSION FORCE.

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5. ALL MEMBER FORCES SHOWN REPRESENT THE MOST UNFAVORABLE LOADING CONDITION FOR A GIVEN MEMBER.

6. FLOOR -TO- FLOOR HEIGHTS SHOWN ARE TYPICAL AND MAY VARY AT SOME LOCATIONS. SEE PLANS FOR ACTUAL STEEL ELEVATIONS.

7. ⊢ DENOTES MOMENT CONNECTION.

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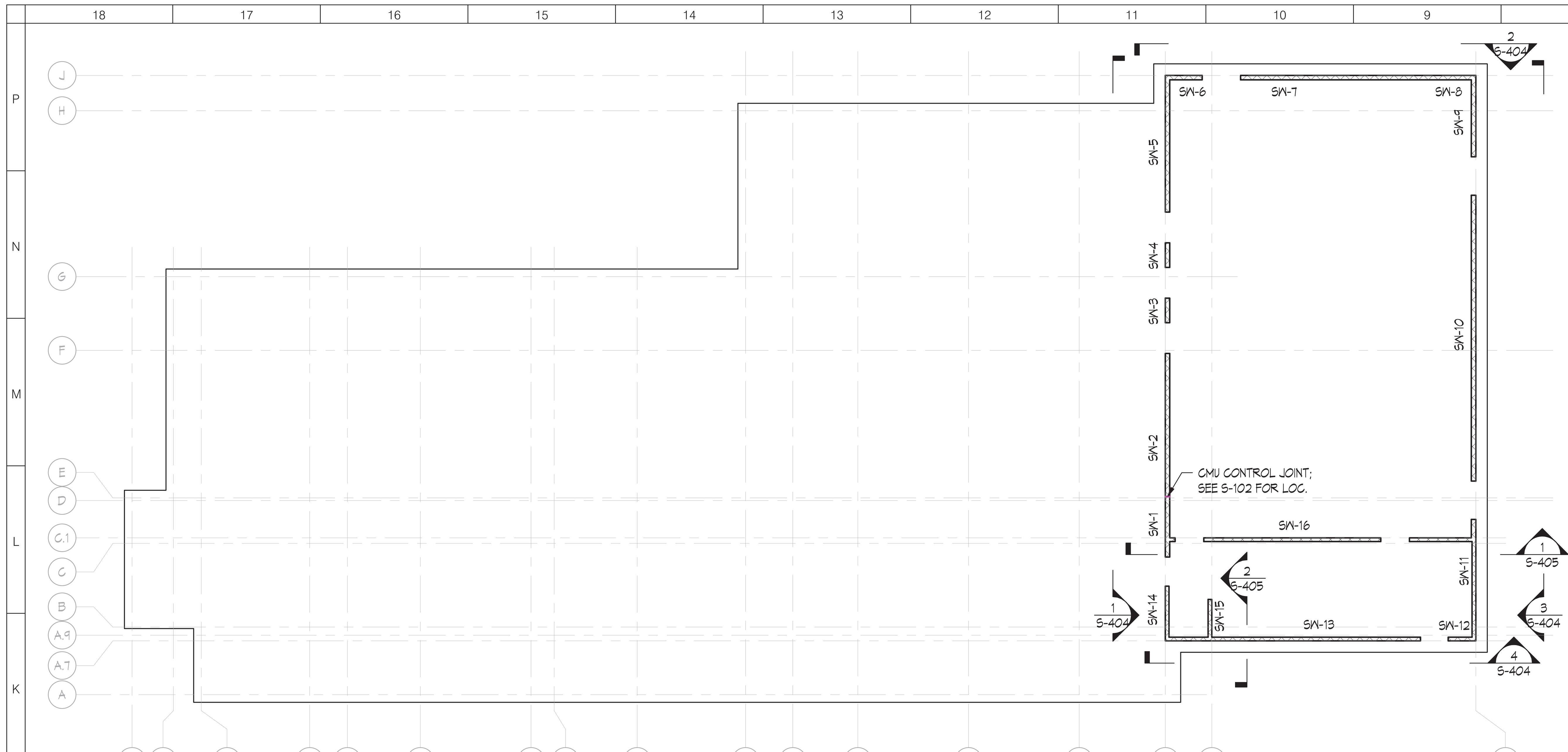
KEY PLAN

REVISIONS

No.	Description	Date

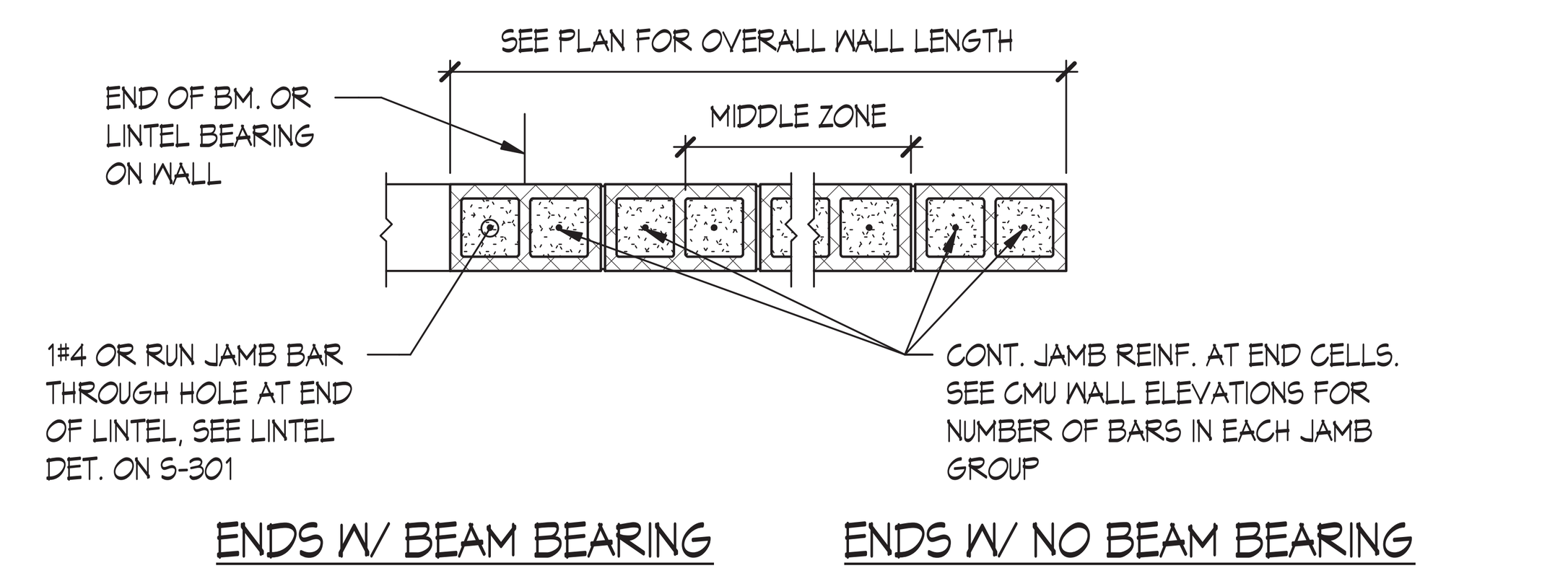
ISSUED: BID SET ISSUANCE
DATE: 06/30/2025
SCALE: As indicated
SHEET NAME: MOMENT FRAME ELEVATIONS 3
SHEET NUMBER: S-403

BID SET



MASONRY WALL KEY PLAN

1/16" = 1'-0"



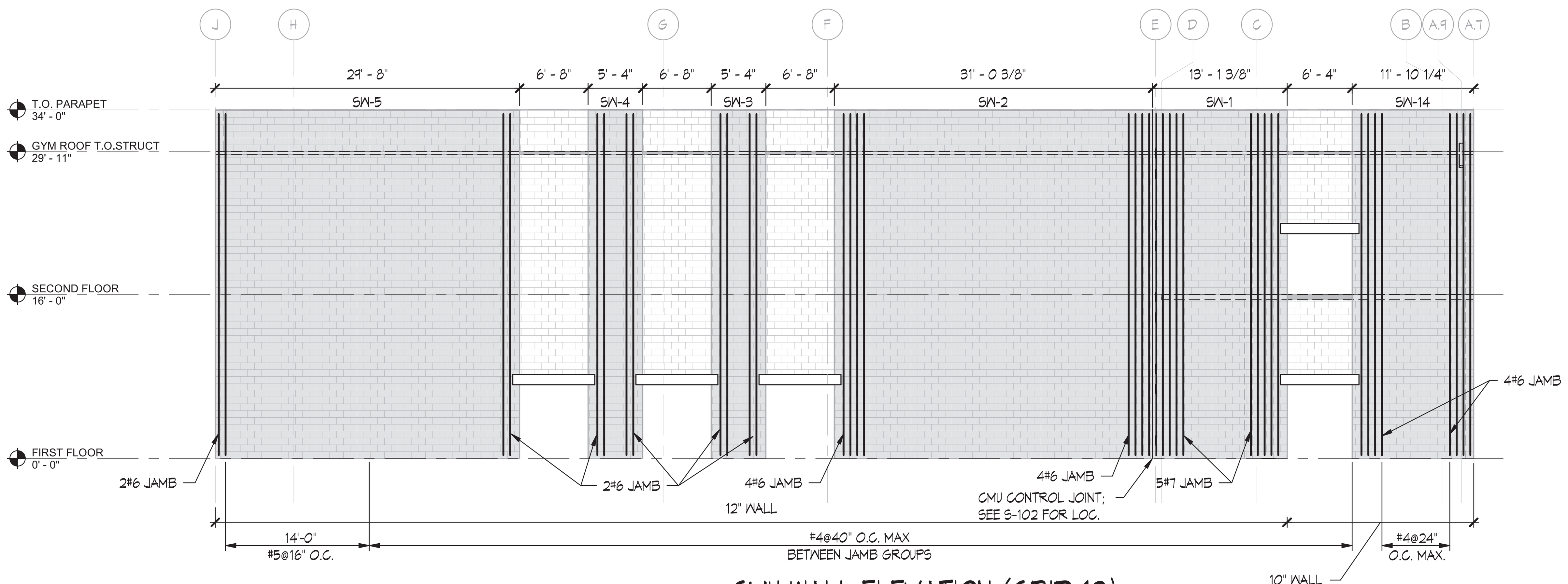
TYPICAL CMU SHEAR WALL REBAR LAYOUT

3/4" = 1'-0"

NOTE: SEE PLAN, TYPICAL DETAILS AND WALL ELEVATIONS FOR MIDDLE ZONE REINFORCEMENT AND GROUT SPACING.

CMU WALL ELEVATION NOTES:

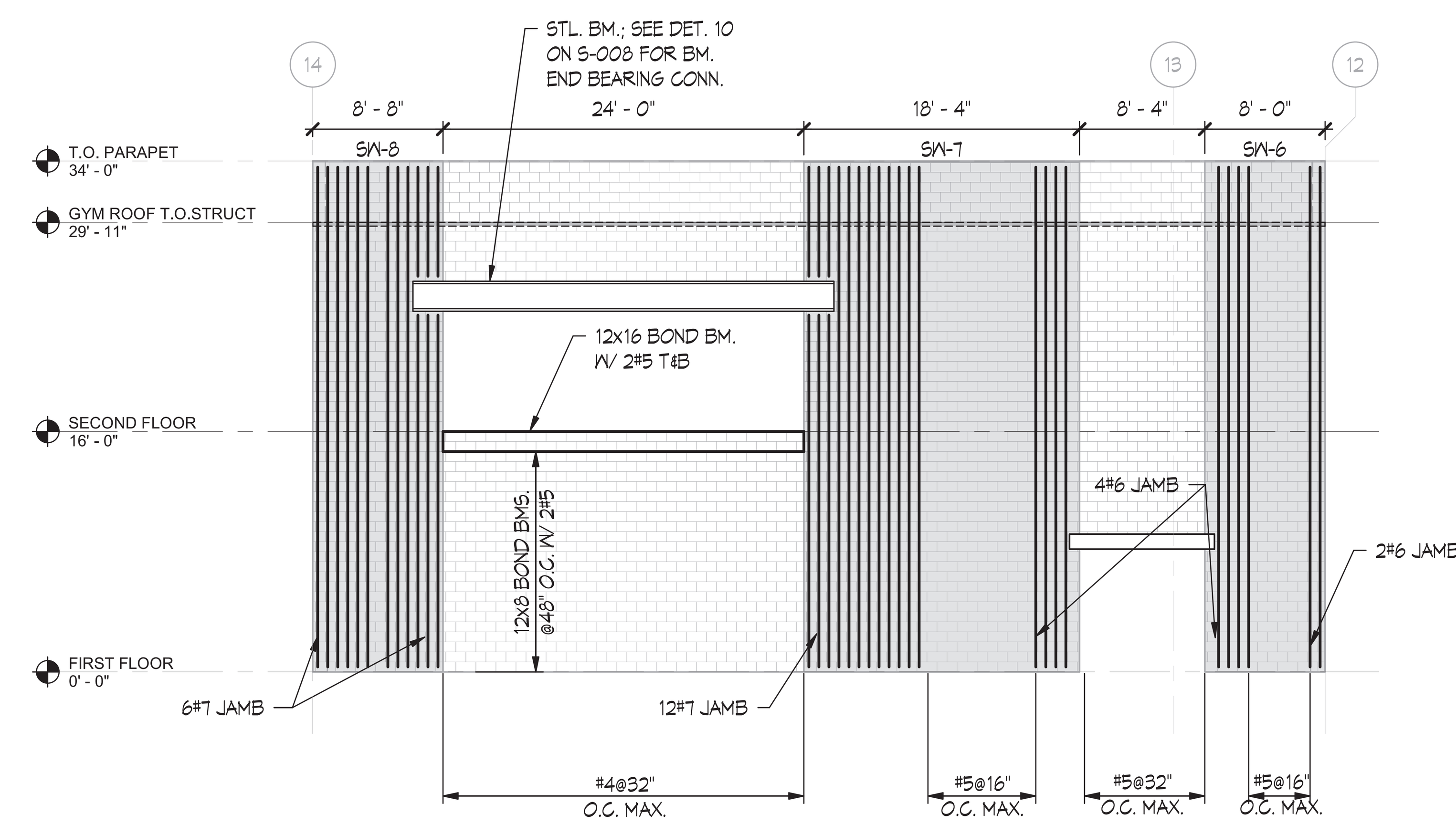
1. SW-XX DENOTES MASONRY SHEAR WALL.
2. X#X JAMB DENOTES NUMBER AND SIZE OF VERTICAL REINFORCEMENT IN JAMB GROUP AT END OF SHEAR WALL OR ADJACENT TO WALL OPENING. TYPICAL PLACEMENT OF JAMB REINFORCEMENT IS ONE REBAR PER FULLY-GROUTED CELL @8" O.C. START REINFORCEMENT IN THE FIRST FULL CELL. COORDINATE JAMB BAR PLACEMENT WITH LINTELS PER DET. 1 ON S-401.
3. TYPICAL WALL BOND BEAMS AND HORIZONTAL REINFORCEMENT NOT SHOWN. SEE MASONRY NOTES AND TYPICAL DETAILS FOR BALANCE OF WALL INFORMATION.
4. SEE SCHEDULE ON S-003 FOR MASONRY SPLICE LENGTHS.
5. WALL THICKNESS VARIES, SEE PLAN AND WALL ELEVATIONS.
6. COORDINATE FINAL MASONRY OPENING DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
7. ADDITIONAL OPENINGS IN MASONRY WALLS SHALL BE SUBMITTED TO EOR FOR REVIEW.



1 CMU WALL ELEVATION (GRID 12)

1/8" = 1'-0"

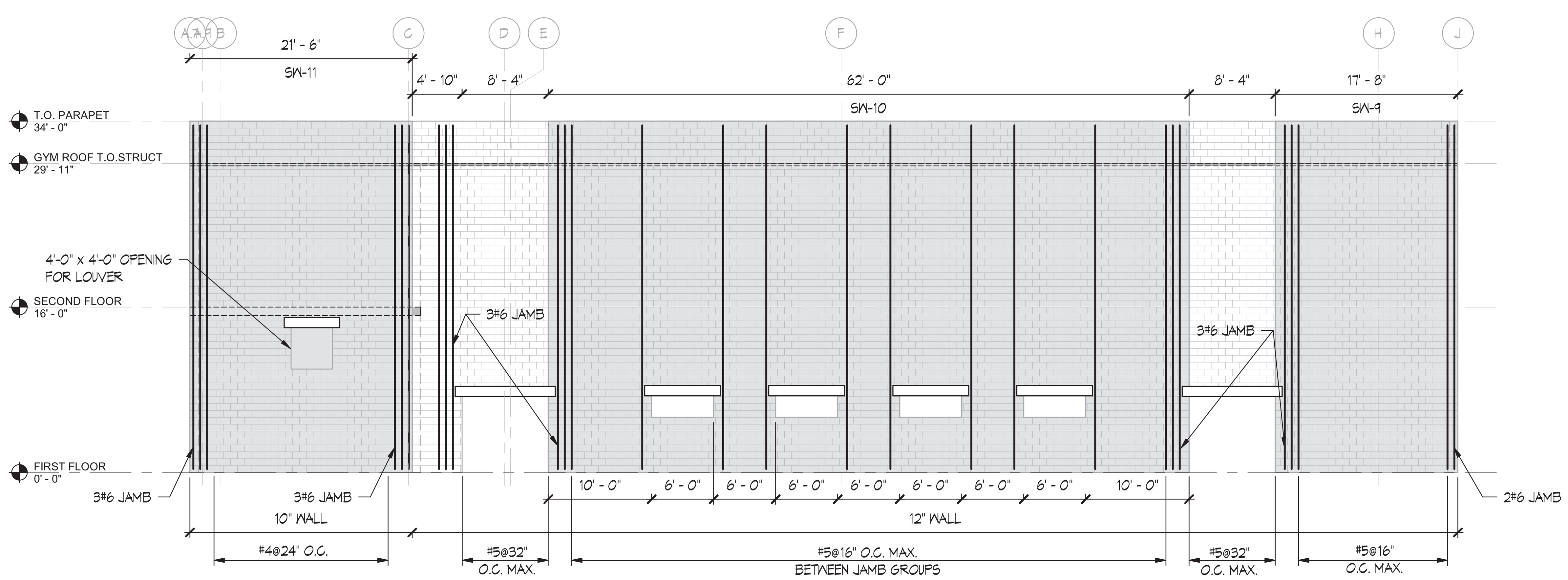
NOTES:
1. WALL THICKNESS VARIES, SEE PLAN AND WALL ELEVATION ABOVE.
2. SEE CMU WALL ELEVATION NOTES ON THIS SHEET FOR BALANCE OF INFORMATION.



2 CMU WALL ELEVATION (GRID J)

1/8" = 1'-0"

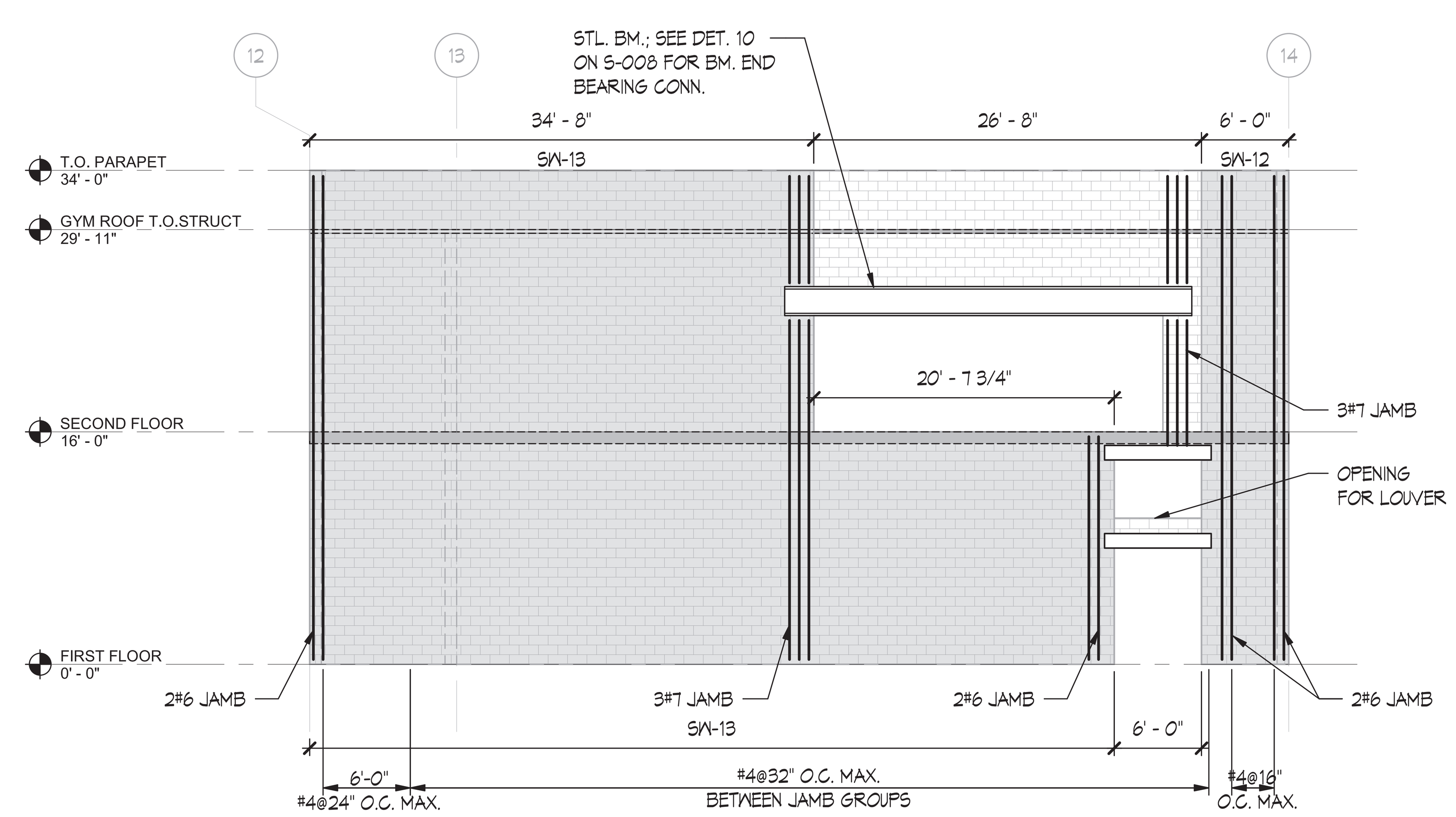
NOTES:
1. WALL THICKNESS IS 12", SEE PLAN.
2. SEE CMU WALL ELEVATION NOTES ON THIS SHEET FOR BALANCE OF INFORMATION.



3 CMU WALL ELEVATION (GRID 14)

1/8" = 1'-0"

NOTES:
1. WALL THICKNESS VARIES, SEE PLAN AND WALL ELEVATION ABOVE.
2. SEE CMU WALL ELEVATION NOTES ON THIS SHEET FOR BALANCE OF INFORMATION.



4 CMU WALL ELEVATION (GRID A.7)

1/8" = 1'-0"

NOTES:
1. WALL THICKNESS IS 10", SEE PLAN.
2. SEE CMU WALL ELEVATION NOTES ON THIS SHEET FOR BALANCE OF INFORMATION.

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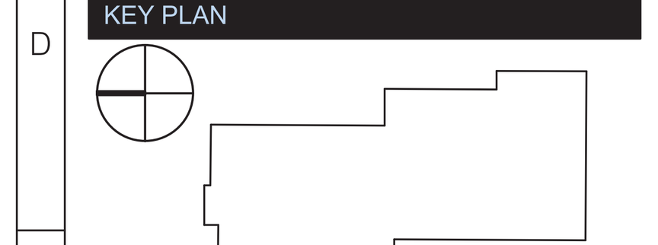
KEY PLAN



REVISIONS

No.	Description	Date

ISSUED: BID SET ISSUANCE

DATE: 06/30/2025

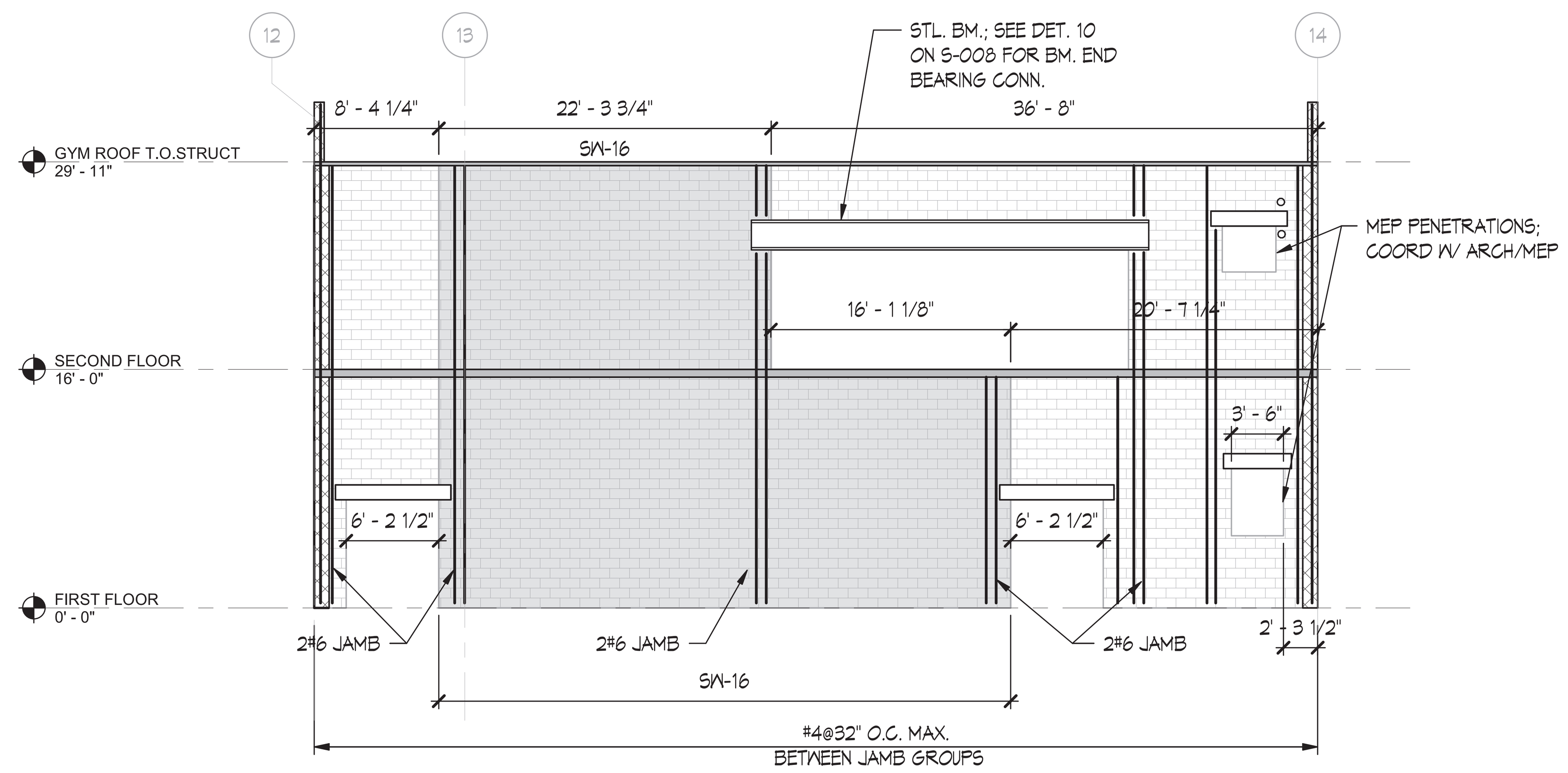
SCALE: As indicated

SHEET NAME: CMU WALL ELEVATIONS 1

SHEET NUMBER: S-404

BID SET

PROJECT NUMBER: C4040.00

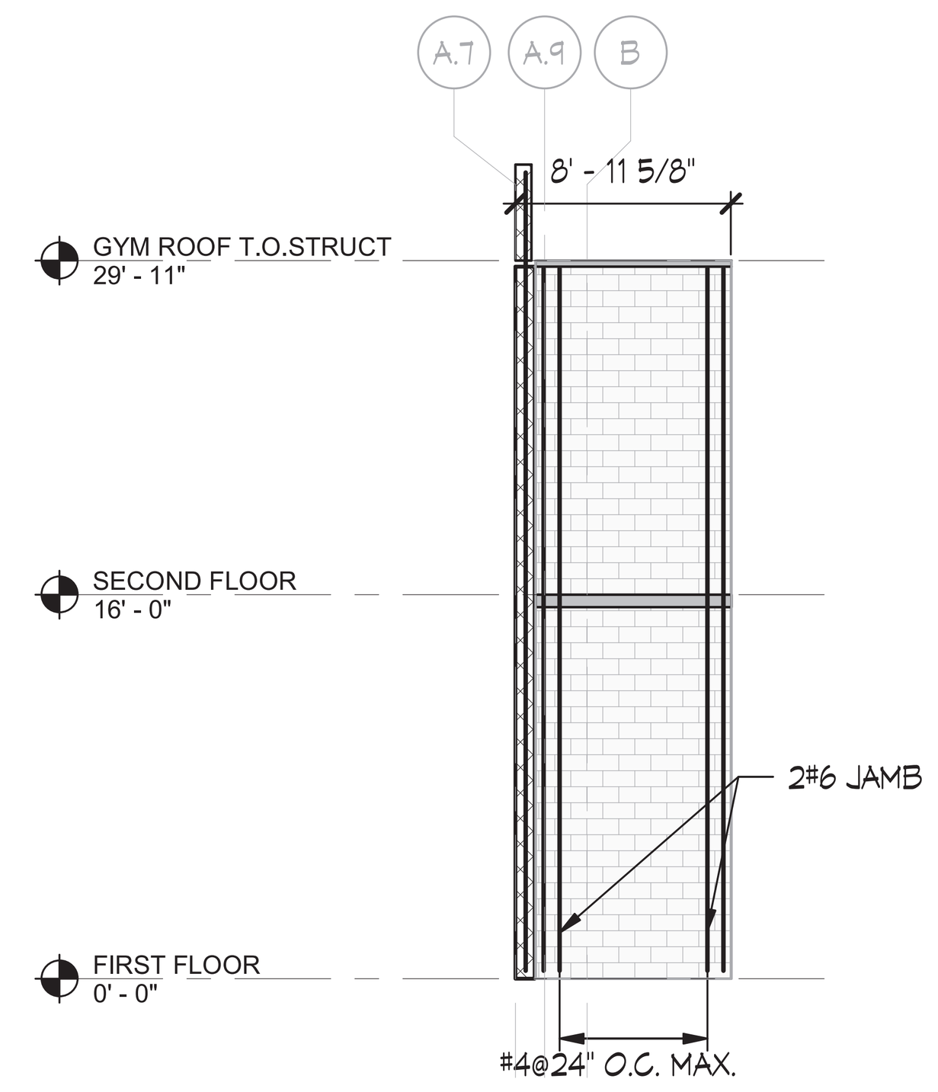


1 CMU WALL ELEVATION (GRID C)

1/8" = 1'-0"

NOTES:

1. WALL THICKNESS IS 10", SEE PLAN.
2. SEE CMU WALL ELEVATION NOTES ON S-404 FOR BALANCE OF INFORMATION.



2 CMU WALL ELEVATION (GRID 13)

1/8" = 1'-0"

NOTES:

1. WALL THICKNESS IS 10", SEE PLAN.
2. SEE CMU WALL ELEVATION NOTES ON S-404 FOR BALANCE OF INFORMATION.

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KEY PLAN

REVISIONS

No.	Description	Date

ISSUED: BID SET ISSUANCE

DATE: 06/30/2025

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

SHEET NAME: CMU WALL ELEVATIONS 2

SHEET NUMBER: S-405

BID SET